

ESD 112 - 2200 Building

Education Facility Renovation

2200 NE 65th Ave.

Vancouver, WA 98661

PERMIT SET

08.07.2026

ABBREVIATIONS:

&	AND
L or L	ANGLE
@	AT
CL or ☞	CENTERLINE
DIA or ∅	DIAMETER
#	NUMBER or POUND
or //	PARALLEL
⊥	PERPENDICULAR
PL or Ⓐ	PLATE (STEEL)

AB	ANCHOR BOLT
ADDL	ADDITIONAL
ADJ	ADJACENT
AGGR	AGGREGATE
ALT	ALTERNATE
APPROX	APPROXIMATE(LY)
ARCH	ARCHITECT(URAL)
ASTM	AMERICAN SOCIETY for TESTING and MATERIALS
BF	BRACED FRAME
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BO	BOTTOM OF
BOT	BOTTOM
BRB	BUCKLING RESTRAINED BRACE
BRG	BEARING
BTWN	BETWEEN

CJ	CONTROL JOINT
CLG	CEILING
CLR	CLEAR(ANCE)
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CP	COMPLETE PENETRATION
CSK	COUNTERSUNK
CTR	CENTER

DBL	DOUBLE
DF	DOUGLAS FIR
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIST	DISTANCE
DKG	DECK/DECKING
DN	DOWN
do	DITTO
DS	DRAW STRUT
DTL	DETAIL

DWG	DRAWING
DWL(S)	DOWEL(S)
EA	EACH
EE	EACH END
EF	EACH FACE
ELEV	ELEVATION
EMB	EMBEDMENT
EN	EDGE NAILING
EOR	ENGINEER OF RECORD
EQ	EQUAL
ES	EACH SIDE
EW	EACH WAY
EXIST or (E)	EXISTING
EXP	EXPANSION
EXT	EXTERIOR

FF	FINISH FLOOR
FIN	FINISH
FLR	FLOOR
FND	FOUNDATION
FOC	FACE OF CONCRETE
FOS	FACE OF STUDS
FRMG	FRAMING
FRT	FIRE RETARDANT TREATED
FS	FAR SIDE
FT	FEET (FOOT)
FTG	FOOTING

GA	GAUGE (GAGE)
GALV	GALVANIZED
GL	GLU-LAM
GLB	GLU-LAM BEAM
GN	GANG NAIL
GR	GRADE
GRND	GROUND
GT	GIRDER TRUSS

HD	HOLDOWN
HDG	HOT DIPPED GALVANIZED
HDR	HEADER
HK	HOOK
HORIZ	HORIZONTAL
HS	HEADED STUD
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT

IBC	INTERNATIONAL BUILDING CODE
ICC	INTERNATIONAL CODE COUNCIL
ID	INSIDE DIAMETER
IN	INCH(ES)
JST	JOIST

JT	JOINT
LAG	LAG BOLT
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LMPT	LIGHT METAL PLATE TRUSS
LONG	LONGITUDINAL

MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MF	MOMENT FRAME
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL

(N)	NEW
N	NORTH
No	NUMBER
NS	NEAR SIDE
N-S	NON-SHRINK
NTS	NOT TO SCALE

oc	ON CENTER
OD	OUTSIDE DIAMETER
OPNG	OPENING
OPP	OPPOSITE
OWSJ	OPEN WEB STEEL JOIST

PAF/PDF	POWDER ACTUATED / DRIVEN FASTENERS
PEN	PANEL EDGE NAILING
PERP	PERPENDICULAR

PLYWD or PLY	PLYWOOD
PNL	PANEL
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH

R	RADIUS
REF	REFERENCE
REINF	REINFORCE(D)(ING)
REQ or REQD	REQUIRED
REV	REVISE or REVISION
RTNS	RETURNS

SAD	SEE ARCHITECTURAL DRAWINGS
SCBF	SPECIAL CONCENTRIC BRACED FRAME
SCHED	SCHEDULE
SDSM	SELF DRILLING SHEET METAL
SECT	SECTION
SEOR	STRUCTURAL ENGINEER OR RECORD

SF	SQUARE FEET
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SIMP or (S)	SIMPSON
SMRF	SPECIAL MOMENT RESISTING FRAME
SMS	SHEET METAL SCREW
SN	SILL NAILING
SOG	SLAB ON GRADE
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STAG	STAGGER or STAGGERED
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STRUC	STRUCTURAL
SUSP	SUSPENDED
SYM	SYMMETRICAL

T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
THK	THICK(NESS)
THRD	THREADED
TN	TOE NAIL
TO	TOP OF
TRANS	TRANSVERSE
TSN	THE STEEL NETWORK
TYP	TYPICAL

UNO	UNLESS NOTED OTHERWISE
URM	UNREINFORCED MASONRY
VERT	VERTICAL
VIF	VERIFY IN FIELD

W/	WITH
W/O	WITHOUT
WD	WOOD
WF	WIDE FLANGE
WHS	WELDED HEADED STUD
WP	WATER PROOF or WORK POINT
WT	WEIGHT
WTR	WELDED THREADED ROD
WTS	WELDED THREADED STUD
WWF	WELDED WIRE FABRIC

X HVY	EXTRA HEAVY
X STR	EXTRA STRONG
XX HVY	DOUBLE EXTRA HEAVY
XX STR	DOUBLE EXTRA STRONG

DESIGN STANDARD

2021 INTERNATIONAL BUILDING CODE (IBC) WITH THE 2024 WASHINGTON STATE AMENDMENTS

DESIGN CRITERIA

- DESIGN ALL LOADS FOR NEW CONSTRUCTION, UNLESS NOTED OTHERWISE.
- LIVE LOADS
 - MEZZANINE FRAMING LIVE LOAD: 20 PSF
- WIND DESIGN DATA: INTERNATIONAL BUILDING CODE ASCE 7
 - ULTIMATE DESIGN WIND SPEED: $V_{ult} = 135$
 - NOMINAL DESIGN WIND SPEED: $V_{nd} = 95$
 - RISK CATEGORY: II
 - EXPOSURE: B
 - INTERNAL PRESSURE COEFFICIENT: $GC_{pi} = +/- 0.18$
 - EXTERIOR COMPONENT AND CLADDING DESIGN WIND PRESSURES:

COMPONENT AND CLADDING NET DESIGN PRESSURES	
WINDWARD WALLS	30 PSF (ULT), 21 PSF (ASD)
LEEWARD WALLS	-33 PSF (ULT), -23 PSF (ASD)

NOTES:

- POSITIVE SIGNS SIGNIFY PRESSURE ACTING TOWARD THE EXTERIOR SURFACE
 - NEGATIVE SIGNS SIGNIFY PRESSURES ACTING FROM THE EXTERIOR SURFACE
 - PRESSURES SHOWN ARE CALCULATED FOR A 10 SF EFFECTIVE AREA. PRESSURES MAY BE REDUCED FOR ELEMENTS WITH LARGER EFFECTIVE AREAS, PER ASCE 7.
- SEISMIC DESIGN DATA
 - RISK CATEGORY: II
 - SEISMIC IMPORTANCE FACTOR: $I_s = 1.0$
 - MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS: $S_S = 0.824$ $S_1 = 0.370$
 - SITE CLASSIFICATION: D
 - DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS: $S_{DS} = 0.643$ $S_{D1} = 0.409$
 - SEISMIC DESIGN CATEGORY: D
 - BASIC SEISMIC FORCE RESISTING SYSTEM: PC1 FOR EXISTING BUILDING - LIGHT FRAMED WALLS WITH GYPSUM BOARD SHEAR PANELS (NEW INTERIOR STRUCTURE)
 - SEISMIC BASE SHEAR: $V = 244$ KIPS (EXISTING BUILDING) $V = 36$ KIPS (NEW INTERIOR STRUCTURE)
 - SEISMIC RESPONSE COEFFICIENT: $C_s = 0.13$ (EXISTING BUILDING) $C_s = 0.32$ (NEW INTERIOR STRUCTURE)
 - RESPONSE MODIFICATION COEFFICIENT: $R = 5$ (EXISTING BUILDING) $R = 2$ (NEW INTERIOR STRUCTURE)
 - ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE ANALYSIS

GENERAL

- THESE STRUCTURAL NOTES ARE A SUPPLEMENT TO THE SPECIFICATIONS.
- SPECIFICATIONS AND CODES REFERENCED IN THESE NOTES ARE THE VERSIONS MOST RECENTLY ADOPTED BY THE PERMITTING AUTHORITY.
- VERIFY DIMENSIONS AND CONDITIONS WITH THE ARCHITECTURAL DRAWINGS. FIELD VERIFY DIMENSIONS AND ELEVATIONS RELATIVE TO THE EXISTING STRUCTURE PRIOR TO FABRICATION OF MATERIALS.
- FOR FEATURES OF CONSTRUCTION NOT FULLY SHOWN, PROVIDE THE SAME TYPE AND CHARACTER AS SHOWN FOR SIMILAR CONDITIONS, SUBJECT TO REVIEW BY THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD.
- APPLY, PLACE, ERECT OR INSTALL ALL PRODUCTS AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- ADEQUATELY BRACE STRUCTURE AND ALL STRUCTURAL COMPONENTS AGAINST WIND, LATERAL EARTH AND SEISMIC FORCES UNTIL THE PERMANENT LATERAL-FORCE RESISTING SYSTEMS HAVE BEEN INSTALLED.
- PROVIDE BLOCKING BETWEEN STUDS (OR OTHER MEANS OF BRACING) AT WOOD BEARING WALLS TO PREVENT STUD BUCKLING PRIOR TO INSTALLATION OF GYPSUM WALLBOARD.
- SUBMITTALS:
 - SUBMIT SHOP DRAWINGS FOR:
 - I-JOISTS
 - STRUCTURAL STEEL
 - REINFORCING BAR
 - CONCRETE MIX DESIGN
 - SUBMIT SHOP DRAWINGS STAMPED BY A REGISTERED STRUCTURAL ENGINEER LICENSED IN THE STATE OF WASHINGTON TO BE REVIEWED BY EOR PRIOR TO SUBMITTAL TO BUILDING DEPARTMENT FOR PERMIT, FOR:
 - BIDDER DESIGNED STRUCTURAL ITEMS.
 - SUBMIT SHOP DRAWINGS PRIOR TO FABRICATION OF MATERIAL.
 - WHERE SPECIAL INSPECTION OR TESTING IS REQUIRED BY IBC CHAPTER 17, THE REGISTERED STRUCTURAL ENGINEER(S) FOR EACH STAMPED SUBMITTAL ABOVE SHALL PREPARE A STATEMENT OF SPECIAL INSPECTIONS IN ACCORDANCE WITH IBC SECTION 1705 FOR SUBMITTAL BY THE PERMIT APPLICANT.

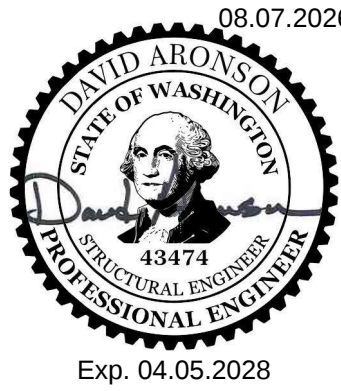
CONCRETE REINFORCING STEEL

- REINFORCING STEEL SHALL BE ASTM A 615, GRADE 60.
- DETAIL, FABRICATE AND PLACE REINFORCING ACCORDING TO ACI 315, DETAILS AND DETAILING OF CONCRETE REINFORCEMENT.
- DO NOT FIELD BEND, DISPLACE, WELD, HEAT OR CUT REINFORCING UNLESS INDICATED ON THE DRAWINGS, OR APPROVED BY STRUCTURAL ENGINEER OF RECORD.
- PLACE ELECTRICAL CONDUIT NEAR CENTER OF ELEVATED SLAB.
- MINIMUM COVER FROM CONCRETE SURFACES TO REINFORCING:
3" TO BOTTOM OF FOOTING
2" ± 1/4" TO EARTH FACE OF WALL
1" ± 1/4" TO INSIDE FACE OF WALL
2" ± 1/4" MAIN STEEL BEAMS AND COLUMNS
3/4" ± SLAB TO TOP AND BOTTOM SURFACES
CENTER OF SLABS-ON-GRADE
- REINFORCING LAP SPLICES (INCHES): CONFORM WITH ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", AS SHOWN BELOW, UNLESS NOTED OTHERWISE ON DRAWINGS:

BAR SIZE	4,500 PSI	
	TOP BARS	OTHER BARS
#3	24	19
#4	32	25
#5	40	31
#6	48	37
#7	70	54
#8	80	62
#9	91	70
#10	102	79
#11	113	87

LAP SPLICE NOTES:

- TOP BARS ARE DEFINED AS HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12" OF CONCRETE IS PLACED BELOW THE BARS.
- SPLICE LENGTH BASIS: CLASS B, CASE 1 SPLICE, WITH CENTER-TO-CENTER BAR SPACING OF GREATER THAN 3 BAR DIAMETERS.



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DATE: 08.07.2026
DRAWN BY: ATW
JOB NO: 26-004
REV NO:

SHEET INDEX	
SHT #	SHEET TITLE
S100	STRUCTURAL NOTES
S101	STRUCTURAL NOTES
S200	FOUNDATION PLAN
S201	MEZZANINE FRAMING PLAN
S202	ROOF FRMG PLAN
S301	FOUNDATION DETAILS
S401	FRAMING DETAILS
S501	STAIR FRAMING DETAILS

STRUCTURAL NOTES

S100

PERMIT SET

CAST-IN-PLACE CONCRETE

- ALL CONCRETE MATERIALS, FORM WORK, MIXING, PLACING AND CURING SHALL BE IN ACCORDANCE WITH:
 - ACI 301 "STANDARD SPECIFICATION FOR STRUCTURAL CONCRETE".
 - ACI 305 "RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING" AND
 - ACI 306 "RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING."
- CONCRETE MIX DESIGN:

UNLESS NOTED OTHERWISE, ALL CONCRETE STRENGTH SHALL BE:
4,500 PSI FOR: EXTERIOR SLABS-ON-GRADE AND EXTERIOR FOOTING, W/C RATIO = 0.45

NOTES:

 - UNLESS NOTED OTHERWISE, CONCRETE STRENGTH SHALL BE OBTAINED AT A MINIMUM OF 28 DAYS AFTER PLACING AS DETERMINED BY LABORATORY-CURED CONCRETE CYLINDER TESTS.
 - NO WATER SHALL BE ADDED TO THE CONCRETE OTHER THAN THAT REQUIRED BY THE MIX DESIGN APPROVED BY THE ENGINEER OF RECORD. WATER ADDED AFTER INITIAL CONCRETE BATCHING SHALL BE SPECIAL INSPECTED.
 - PREPARE MIX DESIGNS FOR EACH TYPE OF CONCRETE BY EITHER LABORATORY TRIAL BATCH OR FIELD EXPERIENCE METHODS AS SPECIFIED IN ACI 301.
 - USE PORTLAND CEMENT TYPE I OR II; CONFORM WITH ASTM C 150; SUPPLY FROM 1 SOURCE.
 - AGGREGATES SHALL CONFORM WITH ASTM C 33 AND BE THOROUGHLY CLEANED AND WASHED PRIOR TO USE.
 - REPLACE UP TO 20% OF CEMENT WITH FLY ASH. FLY ASH SHALL CONFORM WITH ASTM C 618, CLASS C OR F. CONCRETE MIX STRENGTH TEST DATA SHALL BE PROVIDED.
 - CONCRETE EXPOSED TO WEATHER SHALL HAVE 5% ± 1% ENTRAINED AIR, BY VOLUME, AND SHALL CONFORM WITH ASTM C 260.
 - SLABS-ON-GRADE SHALL UTILIZE SUPER PLASTICIZERS.
- CONCRETE MIX PROPORTIONS:
 - PROPORTION ACCORDING TO ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
 - SUBMIT MIX DESIGNS, WITH COMPLETE STATISTICAL BACKUP, FOR REVIEW.
- SAMPLING AND TESTING OF CONCRETE:
 - CONCRETE COMPRESSIVE STRENGTH OF LABORATORY CURED CYLINDERS SHALL BE TESTED AFTER THE SPECIFIED PERIOD AT 28 DAYS OR 56 DAYS AS NOTED.
 - SAMPLE, CURE AND TEST CONCRETE CYLINDERS ACCORDING TO APPLICABLE ASTM SPECIFICATIONS.
 - ACCEPTANCE OF COMPRESSIVE STRENGTH TEST RESULTS SHALL BE GOVERNED BY ACI 318, CHAPTER 5.
 - TEST A MINIMUM OF 3 CONCRETE TEST CYLINDERS FOR EACH 150 CU. YARDS OF CONCRETE, NOT LESS THAN ONE FOR EACH 5,000 SQUARE FEET OF SURFACE AREA FOR SLABS AND WALLS, OR EACH DAY OF POUR, FOR EACH CONCRETE STRENGTH. TEST 1 CYLINDER AT 7 DAYS AND 2 CYLINDERS AT 28 DAYS.
 - CAST 1 ADDITIONAL CYLINDER FOR STRENGTH VERIFICATION, IF PROBLEMS HAVE DEVELOPED FROM PREVIOUS 28 DAY BREAKS.
- CHAMFER EXPOSED CORNERS 3/4", UNLESS NOTED OTHERWISE.

POST-INSTALLED ANCHORS

- FOR ANCHORS ON THE CONSTRUCTION DOCUMENTS NOT NOTED WITH A SPECIFIC PRODUCT TYPE OR MANUFACTURER, THE CONTRACTOR SHALL USE APPROVED ANCHORS SPECIFIED IN THE TABLE BELOW.
- THE FOLLOWING PRODUCTS SHALL BE INSTALLED PER THE REQUIREMENTS OF THE REFERENCED PRODUCT APPROVALS SHOWN BELOW, UNLESS NOTED OTHERWISE.
 - NO SUBSTITUTIONS SHALL BE MADE FOR POST-INSTALLED ANCHORS SHOWN ON THE CONSTRUCTION DOCUMENTS WITHOUT PRIOR APPROVAL OF THE ENGINEER OF RECORD. SUBSTITUTION REQUESTS SHALL INCLUDE CALCULATIONS PREPARED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT OCCURS, DEMONSTRATING THAT THE PROPOSED ANCHORS HAVE PERFORMANCE VALUES EQUIVALENT TO OR HIGHER THAN THOSE SHOWN ON THE DRAWINGS.

ITEM	APPROVED PRODUCTS	ICC#
EXPANSION ANCHOR (CONCRETE)	HILTI KWIK BOLT TZ SIMPSON STRONG BOLT Z DEWALT POWER STUD + SD2	ESR-1917 ESR-3037 ESR-2502
ADHESIVE ANCHOR (CONCRETE)	HILTI HIT-HY 200 SIMPSON SET-XP DEWALT AC200+ DEWALT PURE110+ DEWALT AC100+ GOLD	ESR-3187 ESR-2508 ESR-4027 ESR-3598 ESR-2582
SCREW ANCHOR (CONCRETE)	HILTI HUS-EZ SIMPSON TITEN HD DEWALT SCREW-BOLT + DEWALT SNAKE +	ESR-3027 ESR-2713 ESR-3889 ESR-2272

FRAMING LUMBER

- LUMBER SPECIES: DOUGLAS FIR-LARCH GRADE LUMBER ACCORDING TO RULES OF WEST COAST LUMBER INSPECTION BUREAU (WCLIB).
- LUMBER GRADES:

SIZE CLASSIFICATION	GRADE
A. INTERIOR BEARING WALL STUDS	NO. 2
B. MEZZANINE JOISTS	NO. 1
C. BEAMS	NO. 1
D. POSTS	NO. 1
E. BLOCKING, PLATES, BRIDGING	NO. 2
- MAXIMUM MOISTURE CONTENT: 19% AT 3x OR LESS (LEAST DIMENSIONS) MEMBERS.
- PROVIDE SOLID BLOCKING (SAME DEPTH OF MEMBER) AT ALL POINTS OF BEARING (MAXIMUM SPACING OF 8'-0" O.C.) AT JOISTS WITH A 5:1 OR GREATER DEPTH-TO-THICKNESS RATIO OR WHERE 1 EDGE OF JOIST IS NOT ATTACHED TO SHEATHING, WALLBOARD, BRACING, ETC.
- PLATES AND LEDGERS
 - PLATES AND LEDGERS USED IN INTERIOR CONDITIONS (LUMBER AND FASTENERS ARE INSIDE OR CONCEALED BY MOISTURE BARRIER, ROOFING, ETC.) AND IN CONTACT WITH CONCRETE OR MASONRY ARE TO BE ZINC BORATE OR SBX/DOT PRESERVATIVE TREATED WOOD. FASTENERS, PLATES AND NUTS IN CONTACT WITH TREATED WOOD TO BE PLAIN CARBON.
 - PLATES AND LEDGERS USED FOR EXTERIOR CONDITIONS (EXPOSED TO EXTERIOR ENVIRONMENT IN ANY CIRCUMSTANCE) TO BE PRESSURE TREATED. FASTENERS, PLATES, NUTS, HANGER CLIPS, ETC. ARE TO BE HOT DIPPED GALVANIZED WITH A MINIMUM COATING WEIGHT OF 2.0 OZ PER SQUARE FOOT. NAILS ARE TO BE DOUBLE HOT DIPPED GALVANIZED.

WOOD STRUCTURAL PANELS

- PLYWOOD MATERIAL:
 - GRADE: C-D, UNLESS NOTED OTHERWISE.
 - SHALL BE MANUFACTURED WITH EXTERIOR GLUE ACCORDING TO UNITED STATES PRODUCT STANDARD PS1-09.
 - SHALL BEAR THE AMERICAN PLYWOOD ASSOCIATION (APA) TRADEMARK.
- NAILS IN CONTACT WITH PRESSURE-TREATED PANELS SHALL BE DOUBLE HOT DIPPED GALVANIZED, EXCEPT WHEN IN CONTACT WITH ZINC BORATE OR SBX/DOT TREATMENT.
- SHEATHING TYPES:
 - MEZZANINE SHEATHING 5/8" INDEX 40/20
- PANEL LAYOUT AND INSTALLATION:
 - LAY OUT PANELS WITH END JOINTS STAGGERED, UNLESS NOTED OTHERWISE.
 - LAY OUT PANELS TO ELIMINATE WIDTHS LESS THAN 1'-0" AT ROOFS, UNLESS ALL EDGES OF UNDERSIZED PIECES ARE SUPPORTED BY BLOCKING.
 - PROVIDE PANEL SPACING ACCORDING TO APA RECOMMENDATIONS.
 - NAIL ACCORDING TO SCHEDULE AND DRAWINGS.

ENGINEERED WOOD PRODUCTS

- CONFORM WITH ALL APPLICABLE PROVISIONS OF THE IBC.
- WOOD PRODUCT MANUFACTURER: ILEVEL BY WEYERHAEUSER.
 - TJI RESIDENTIAL JOISTS
 - FURNISH ALL END AND INTERMEDIATE STIFFENERS, BLOCKING AND/OR SHEAR PANELS, METAL BRIDGING ASSEMBLIES AND HANGERS, AS REQUIRED TO PROVIDE A COMPLETE FLOOR OR ROOF STRUCTURAL SYSTEM. TOP AND BOTTOM CHORDS OF JOISTS SHALL BE MANUFACTURED FROM LVL MATERIAL AND SHALL BE EQUAL TO OR GREATER THAN DIMENSION INDICATED ON THE DRAWINGS. DEPTHS OF JOISTS OR JOIST SPACINGS MAY NOT BE CHANGED WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
 - FURNISH COMPLETE ENGINEERING SHOP DRAWINGS.
 - DO NOT NOTCH OR DRILL STRUCTURAL MEMBERS, EXCEPT AS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO INSTALLATION.
- SPRINKLER LINE ATTACHMENTS:
 - CONFORM WITH NFPA PAMPHLET 13A AND ILEVEL BY WEYERHAEUSER PUBLICATION "GUIDELINES FOR SPRINKLER SYSTEM INSTALLATION WITH TRUS JOIST".
 - LOADS HUNG FROM JOISTS:
 - DO NOT EXCEED 30 POUNDS AT ANY 1 POINT.
 - DO NOT EXCEED A TOTAL LOAD (IN POUNDS) OF 6 TIMES THE SPAN LENGTH (IN FEET) ON ANY 1 JOIST, UNLESS NOTED OTHERWISE.
 - LOADS EXCEEDING 100 POUNDS: ATTACHMENT TO BE APPROVED PRIOR TO INSTALLATION.
- METAL CONNECTIONS IN CONTACT WITH PRESSURE TREATED LUMBER TO BE HOT DIPPED GALVANIZED, EXCEPT WHEN IN CONTACT WITH ZINC BORATE OR SBX/DOT PRESERVATIVE TREATMENT, INCLUDING, BUT NOT LIMITED TO: NAILS, SCREWS, LAG BOLTS, WASHERS, PLATES, BOLTS AND HANGERS, FOR SIMPSON STRONG-TIE CONNECTORS AND FASTENERS, OR APPROVED. SEE "OTHER WOOD CONNECTIONS" FOR FURTHER INFORMATION.

STRUCTURAL STEEL

- DETAIL, FABRICATE, ERECT, IDENTIFY AND PAINT STRUCTURAL STEEL ACCORDING TO AISC SPECIFICATIONS; EXCEPT CONTRACTOR SHALL USE THE ARCHITECTURAL DRAWINGS IN CONJUNCTION WITH THE STRUCTURAL DRAWINGS FOR DIMENSIONS AND STRUCTURAL STEEL NOT SHOWN ON THE STRUCTURAL DOCUMENTS.
- MATERIAL:
 - C AND L SHAPES: ASTM A36; F_y = 36 KSI.
 - STEEL PIPE: ASTM A53, GRADE B; F_y = 35 KSI
 - STEEL HOLLOW STRUCTURAL SECTIONS (HSS):
ASTM A500 (COLD ROLLED):
GRADE B:
F_y = 46 KSI (SQUARE, RECTANGULAR)
 - STEEL PLATES:
ASTM A36; F_y = 36 KSI
- CONNECT ALL MEMBERS WITH HOT-DIP GALVANIZED MACHINE BOLTS, ASTM A307, GRADE A, UNLESS NOTED OTHERWISE ON DRAWINGS.
- GALVANIZED ALL BOLTS, THREADED RODS, NUTS AND WASHERS: HOT-DIPPED GALVANIZED ACCORDING TO ASTM A153, CLASS C.
- ANCHOR RODS:
 - ASTM F1554,
GR. 36; F_y = 36 KSI
GR. 55; F_y = 55 KSI
GR. 105; F_y = 105 KSI
 - PROVIDE WITH STANDARD WASHERS AND NUTS.
 - GALVANIZE RODS ACCORDING TO ASTM A153, CLASS C. OVER-TAP NUTS TO CLASS 2A FIT BEFORE GALVANIZING, ACCORDING TO ASTM A563.
- WELDING:
 - CONFORM WITH AWS SPECIFICATIONS.
 - WELDERS TO BE QUALIFIED UNDER AWS AND WABO SPECIFICATIONS.
 - WELDS MATERIAL: 70 KSI FILLER METAL, UNLESS NOTED OTHERWISE.
 - WELDS TO METAL DECK, METAL STUDS OR OTHER COLD-FORMED METALS: CONFORM TO AWS D1.3.
 - WELDS TO GALVANIZED STEEL AND AREAS DAMAGED BY WELDING, FLAME CUTTING OR HANDLING: CLEAN, DRY AND REMOVE OIL, GREASE, SALT AND CORROSIVE PRODUCTS. APPLY ORGANIC COLD GALVANIZING COMPOUND WITH A MINIMUM OF 94% ZINC DUST IN THE DRY FILM. APPLY IN MULTIPLE COATS TO ACHIEVE AN 8 MIL THICKNESS.
- CONTRACTOR TO DESIGN AND PROVIDE ERECTION AIDS (BOLTS, CLIPS, SHIMS, SEATS, ETC.) REQUIRED TO FACILITATE CONSTRUCTION.
- EXTERIOR STEEL ASSEMBLIES: HOT-DIP GALVANIZE ACCORDING TO ASTM A123, WHERE NOTED ON DRAWINGS.

NAILING AND CONNECTION SCHEDULE

- MINIMUM NUMBER OF NAILS FOR WOOD MEMBERS, UNLESS NOTED OTHERWISE ON DRAWINGS.
- NAILS IN CONTACT WITH PRESSURE-TREATED LUMBER SHALL BE DOUBLE HOT DIPPED GALVANIZED EXCEPT WHEN IN CONTACT WITH ZINC BORATE OR SBX/DOT PRESERVATIVE TREATMENT.
- NAIL TYPE: BOX OR SINKER, UNLESS NOTED OTHERWISE ON DRAWINGS.

CONNECTION	NAILS
STUDS TO PLATES - END NAIL	(2) 16d COMMON OR (3) 10d
OR STUDS TO PLATES - TOE NAIL	(4) 10d
TOP PLATES & BOTTOM PLATES	
- SPIKE TOGETHER	10d AT 8" OC
- LAP AND INTERSECTIONS	(4) 10d EACH SIDE JOINT
MEZZANINE JOISTS	
- TO PLATES OR BEAMS - TOE NAIL	(2) 10d
BLOCKING TO PLATE - TOE NAIL	(2) 10d
BLOCKING TO JOISTS - EACH END	(2) 10d
CORNER STUDS	10d AT 12" OC
2x LAMINATED BEAMS	10d AT 12" 2 ROWS STAGGERED

PLYWOOD AND GYPSUM BOARD SHEATHING CONNECTIONS

- ALL NAILS SHALL BE COMMON, UNLESS NOTED OTHERWISE
- NAILS IN CONTACT WITH PRESSURE-TREATED PLYWOOD SHALL BE DOUBLE HOT DIPPED GALVANIZED, EXCEPT WHEN IN CONTACT WITH ZINC BORATE OR SBX/DOT PRESERVATIVE TREATMENT.
- MEZZANINE FRAMING SHEATHING 5/8" INDEX 40/20
 - NAILING:

AT EDGES OF EACH SHEET, BLOCKING & WALLS	10d AT 6" OC
AT INTERIOR OF SHEETS	10d AT 12" OC
AT BOUNDARIES OF ROOF	10d AT 6" OC
 - WALL SHEATHING 5/8" GYPSUM WALLBOARD
 - FASTENING: TYPE S OR W DRYWALL SCREWS

AT EDGES OF EACH SHEET TO STUDS & PLATES	NO. 6 X 1-1/4" LONG AT 8" OC
AT INTERIOR OF EACH SHEET	NO. 6 X 1-1/4" LONG AT 12" OC
AT BOUNDARIES OF WALL	NO. 6 X 1-1/4" LONG AT 8" OC

OTHER WOOD CONNECTIONS

- FRAMING CONNECTORS: SIMPSON STRONG-TIE OR APPROVED.
 - FILL ALL NAIL HOLES WITH NAILS AS SPECIFIED BY THE CONNECTOR MANUFACTURER, UNLESS NOTED OTHERWISE.
 - CONNECTORS IN CONTACT WITH PRESSURE-TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED (2.0 OZ / SQUARE FOOT COATING), EXCEPT WHEN IN CONTACT WITH ZINC BORATE OF SBX/DOT PRESERVATIVE TREATMENT.
 - HANGERS TO DEVELOP BENDING STRENGTH OF MEMBERS, UNLESS NOTED OTHERWISE ON DRAWINGS.
- ANCHOR BOLTS: ASTM A307 OR ASTM A36.
- ANCHOR BOLTS, LAG BOLTS, EXPANSION ANCHORS, PLATE WASHERS AND THREADED RODS IN CONTACT WITH PRESSURE-TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED (2.0 OZ / SQUARE FOOT COATING), EXCEPT WHEN IN CONTACT WITH ZINC BORATE OR SBX/DOT PRESERVATIVE TREATMENT.
- PROVIDE STANDARD PLATE WASHERS UNDER HEADS OR NUTS OF BOLTS BEARING ON WOOD. SEE SHEAR WALL SCHEDULE FOR SQUARE WASHER REQUIREMENTS AT SHEAR WALLS.
- ANCHOR ALL PLATES AND LEDGERS WITH A MINIMUM OF 3 ANCHORS PER PIECE.

SPECIAL INSPECTION PROGRAM

INSPECTION TASK / TYPE OF WORK		CONTINUOUS*	PERIODIC*	COMMENTS
SOILS				
	GRADING, EXCAVATION & FILL		X	REF. PROJECT SPECIFICATION
CONCRETE				
	PLACEMENT OF REINFORCING STEEL		X	
	BOLTS CAST IN CONCRETE	X		
	PLACING OF REINFORCED CONCRETE	X		
	TAKING OF TEST SPECIMENS	X		
STRUCTURAL WELDING				
	SINGLE PASS FILLET WELDS NOT EXCEEDING 5/16"		X	
	FILLET WELDS EXCEEDING 5/16"	X		
	GROOVE WELDS (FULL OR PARTIAL PENETRATION)	X		
	WELDED STAIR AND RAILING SYSTEMS		X	
OTHER				
	POST-INSTALLED ANCHORS IN CONCRETE			PER ICC/ICBO EVALUATION REPORTS

* FREQUENCY OF INSPECTION, WHICH MAY BE CONTINUOUS DURING THE TASK LISTED OR PERIODICALLY DURING THE TASK LISTED, AS DEFINED IN THE TABLE.

SPECIAL INSPECTION PROGRAM FOOTNOTES:

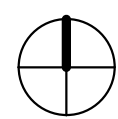
- PROVIDE SPECIAL INSPECTION, SPECIAL TESTING, REPORTING AND COMPLIANCE PROCEDURES ACCORDING TO CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE WITH THE OREGON STRUCTURAL SPECIALTY CODE INTERNATIONAL BUILDING CODE WITH THE WASHINGTON STATE AMENDMENTS.
- SPECIAL INSPECTOR QUALIFICATIONS: DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION IN QUESTION.
- PRIOR TO THE BEGINNING OF CONSTRUCTION, REVIEW THE SPECIAL INSPECTION REQUIREMENTS WITH THE ARCHITECT, ENGINEER, BUILDING OFFICIAL, GENERAL CONTRACTOR AND SPECIAL INSPECTORS.
- DUTIES OF THE SPECIAL INSPECTOR INCLUDE, BUT ARE NOT LIMITED TO:
 - OBSERVE THE WORK FOR CONFORMANCE WITH THE APPROVED PERMIT DRAWINGS AND SPECIFICATIONS. BRING DISCREPANCIES TO THE IMMEDIATE ATTENTION OF THE GENERAL CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE ENGINEER AND TO THE BUILDING OFFICIAL.
 - FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE BUILDING OFFICIAL, ARCHITECT, ENGINEER, GENERAL CONTRACTOR AND OWNER IN A TIMELY MANNER.
 - SUBMIT A FINAL REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS INSPECTED, AND WHETHER THE WORK IS IN CONFORMANCE WITH THE APPROVED PERMIT DRAWINGS AND SPECIFICATIONS.
- DUTIES OF THE GENERAL CONTRACTOR INCLUDE, BUT ARE NOT LIMITED TO:
 - NOTIFY SPECIAL INSPECTOR THAT WORK IS READY FOR INSPECTION AT LEAST 24 HOURS BEFORE INSPECTION IS REQUIRED.
 - MAINTAIN ACCESS TO WORK REQUIRING SPECIAL INSPECTION UNTIL IT HAS BEEN OBSERVED AND INDICATED TO BE IN CONFORMANCE BY THE SPECIAL INSPECTOR AND APPROVED BY THE BUILDING OFFICIAL.
 - PROVIDE THE SPECIAL INSPECTOR WITH ACCESS TO APPROVED PERMIT DRAWINGS AND SPECIFICATIONS AT THE JOB SITE.
 - MAINTAIN JOB-SITE COPIES OF ALL REPORTS SUBMITTED BY THE SPECIAL INSPECTOR.
- DEFINITIONS:
 - CONTINUOUS INSPECTION: THE SPECIAL INSPECTOR IS OBSERVING THE WORK REQUIRING SPECIAL INSPECTION AT ALL TIMES.
 - PERIODIC INSPECTION: THE SPECIAL INSPECTOR IS ON SITE AS REQUIRED TO CONFIRM THAT THE WORK REQUIRING SPECIAL INSPECTION IS IN CONFORMANCE.

SPECIAL TESTING REQUIREMENTS

- STRUCTURAL FILL OR BACK-FILL: VERIFY COMPACTION WITH RANDOM FIELD DENSITY TESTS.
- STRUCTURAL CONCRETE: SAMPLE AND TEST ACCORDING TO STRUCTURAL NOTES.

STRUCTURAL NOTES

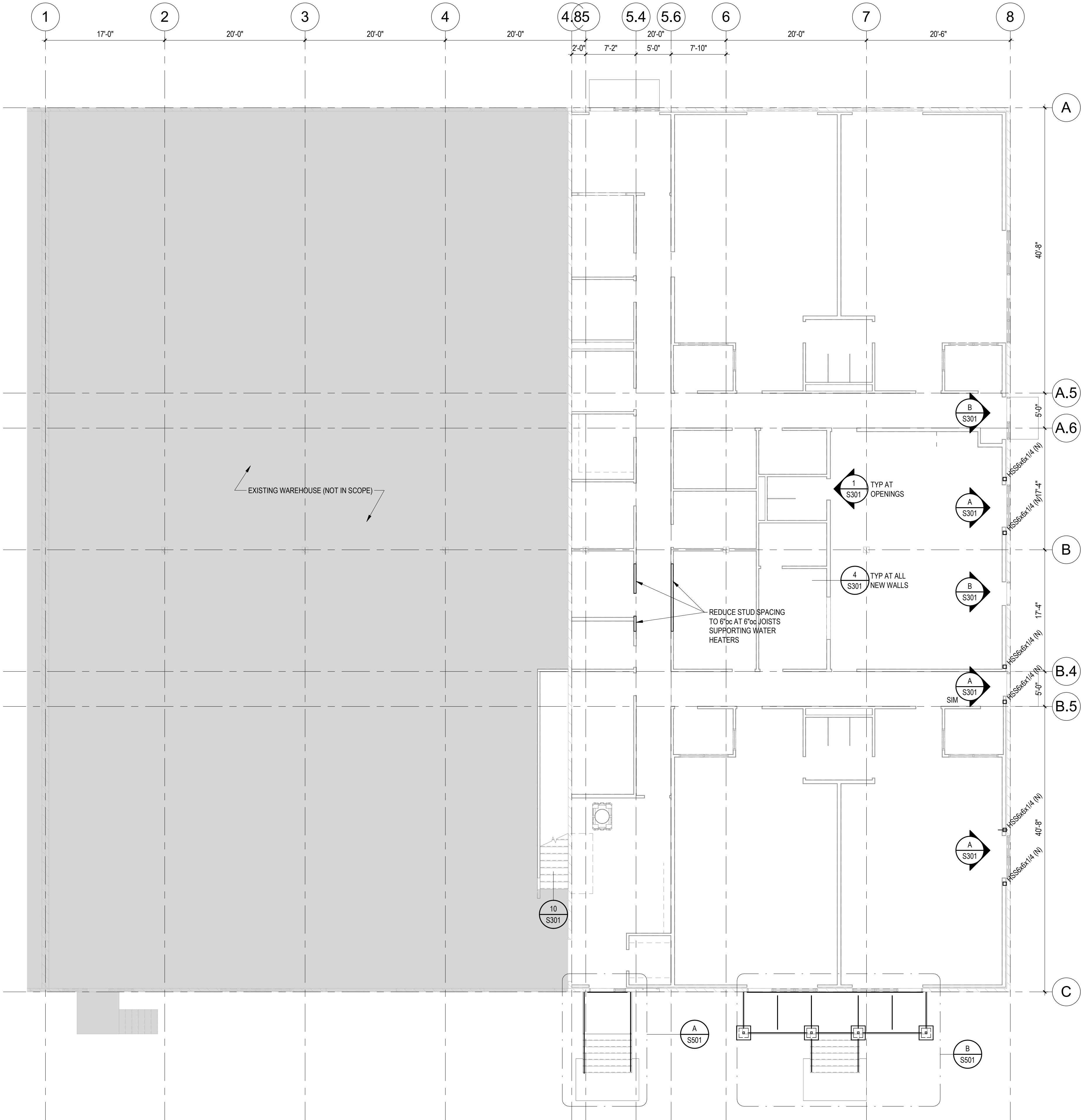
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A
S200

FOUNDATION PLAN

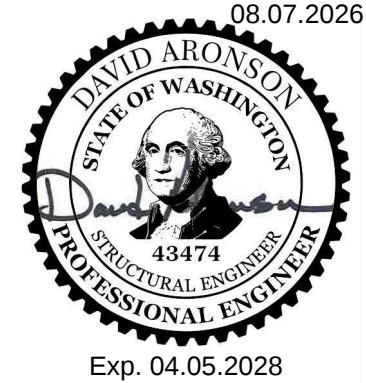
1/8" = 1'-0"



NOTES:

- ALL STUD WALLS TO BE 2x6 DF-L No.2 @ 24"oc OR 2x4 DF-L No.2 @ 16"oc UNO. REF ARCH DWGS FOR WALL TYP & SIZES.
- SEE SHEET S301 FOR TYPICAL FOUNDATION DETAILS.

/kōbiə/CREATIVE



KGA
Structural Engineers
**KRAMER
GEHLEN
ASSOCIATES**

ESD 112 - 2200 Building Education Facility Renovation

2200 NE 65th Ave.
Vancouver, WA 98661

DATE: 08.07.2026
DRAWN BY: ATW
JOB NO: 26-004
REV NO:

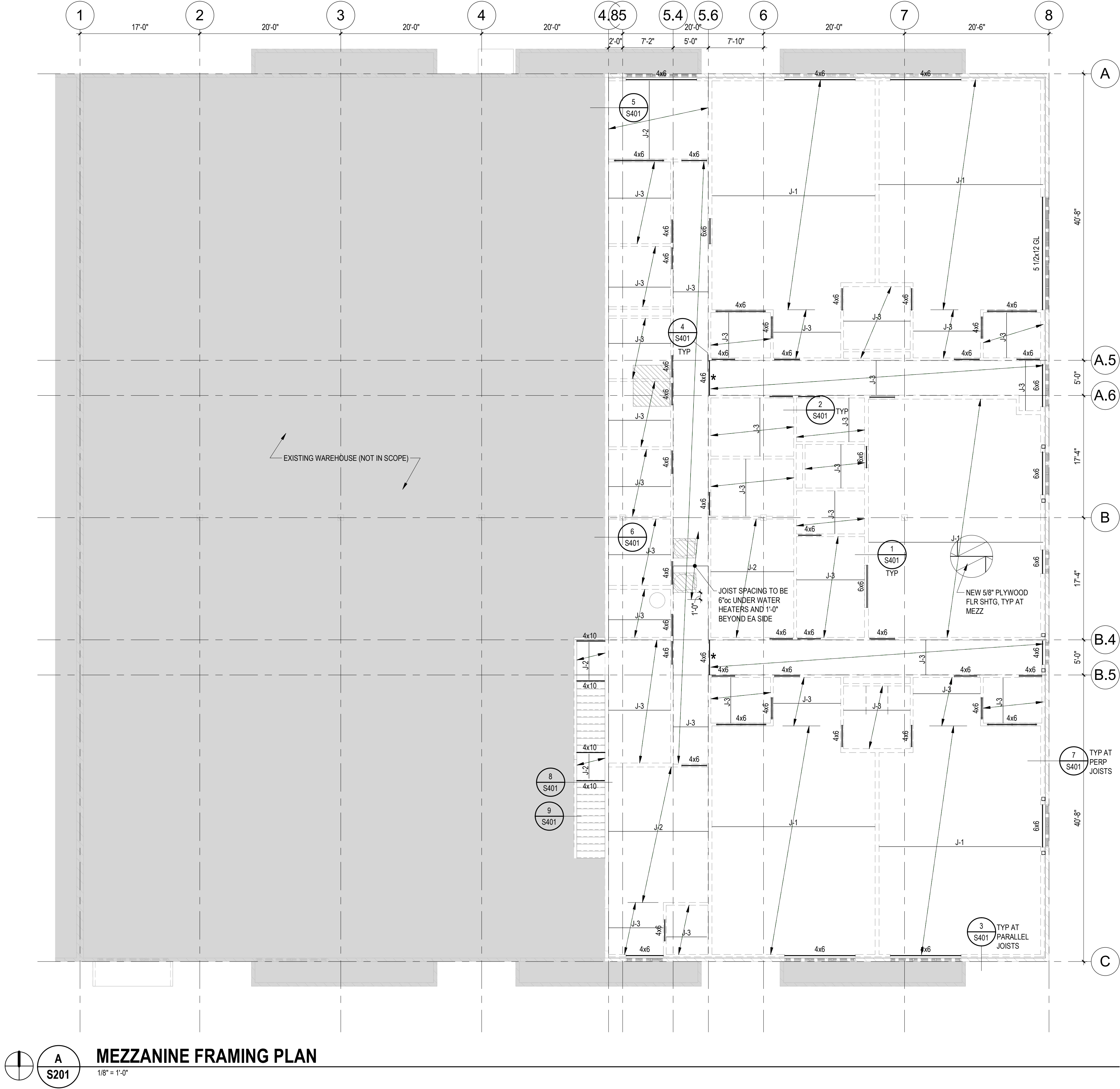
FOUNDATION PLAN

S200

PERMIT SET

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Koble Creative Architecture LLC
Portland, Oregon / koblecreative.com



ROOF FRAMING PLAN

$$1/8'' = 1'-0''$$

ROOF FRAMING NOTES:

1. _____ COORDINATE MECHANICAL UNIT LOCATIONS WITH MECHANICAL DRAWINGS.
2. _____ FIELD VERIFY LOCATION OF (E) STRUCTURE.

ESD 112 - 2200 Building
Education Facility Renovation

2200 NE 65th Ave.
Vancouver, WA 98661

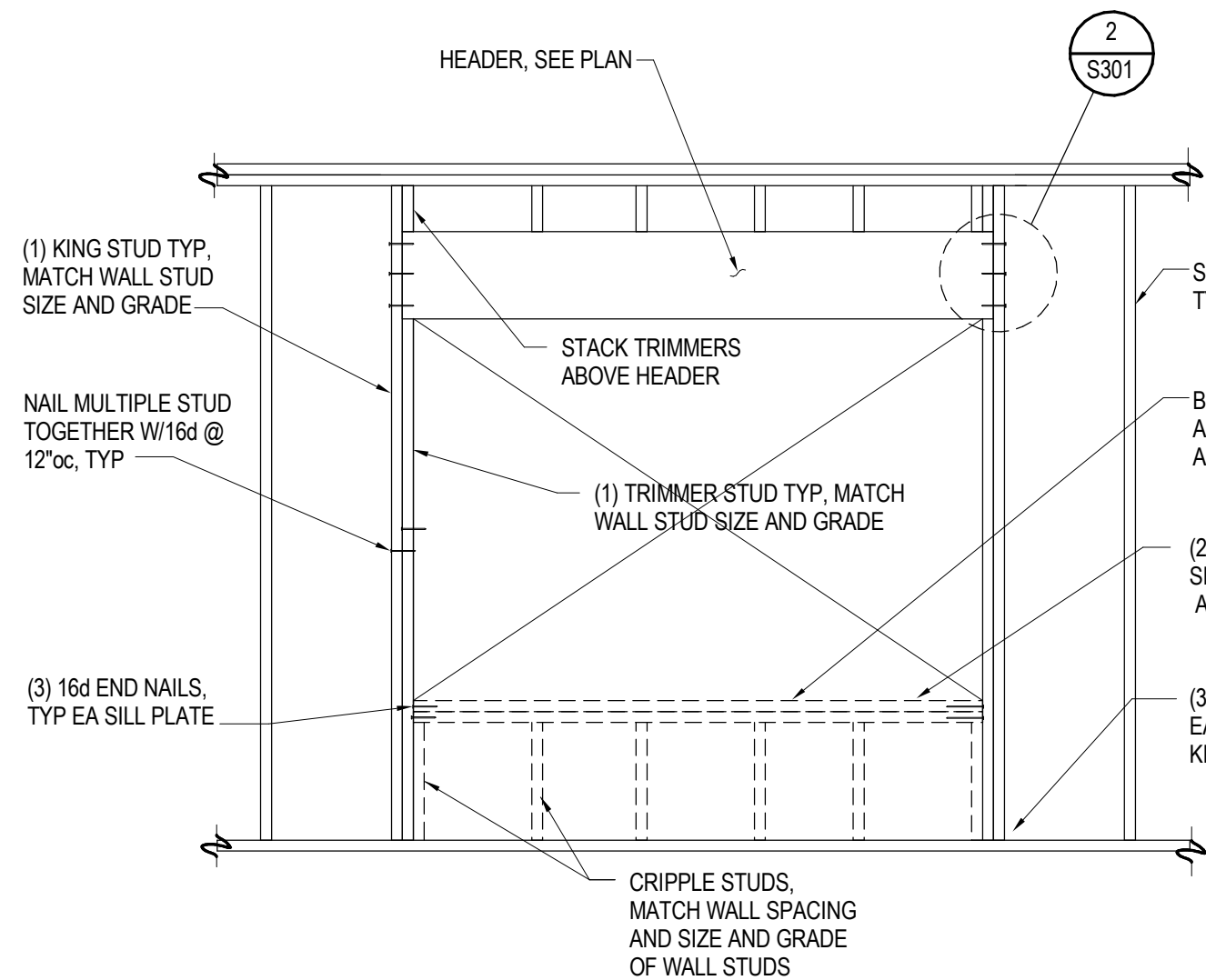
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ROOF FRMG PLAN

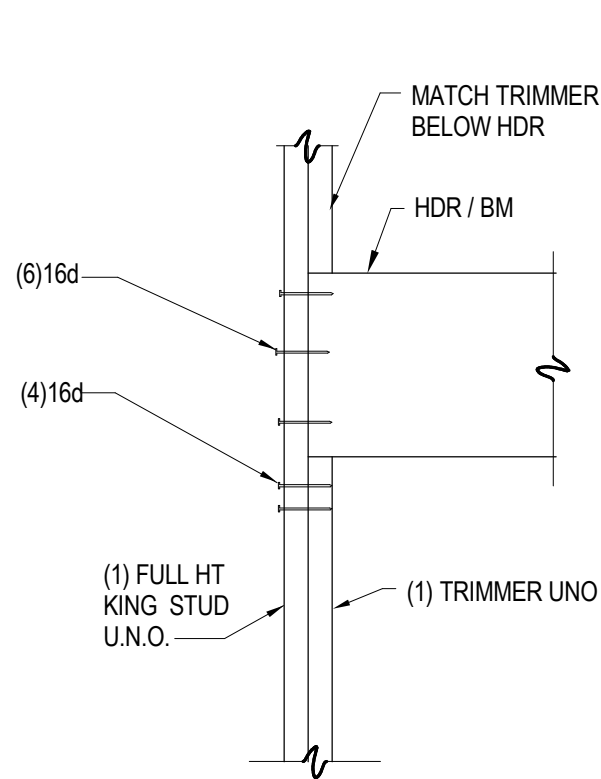
S202

PERMIT SET

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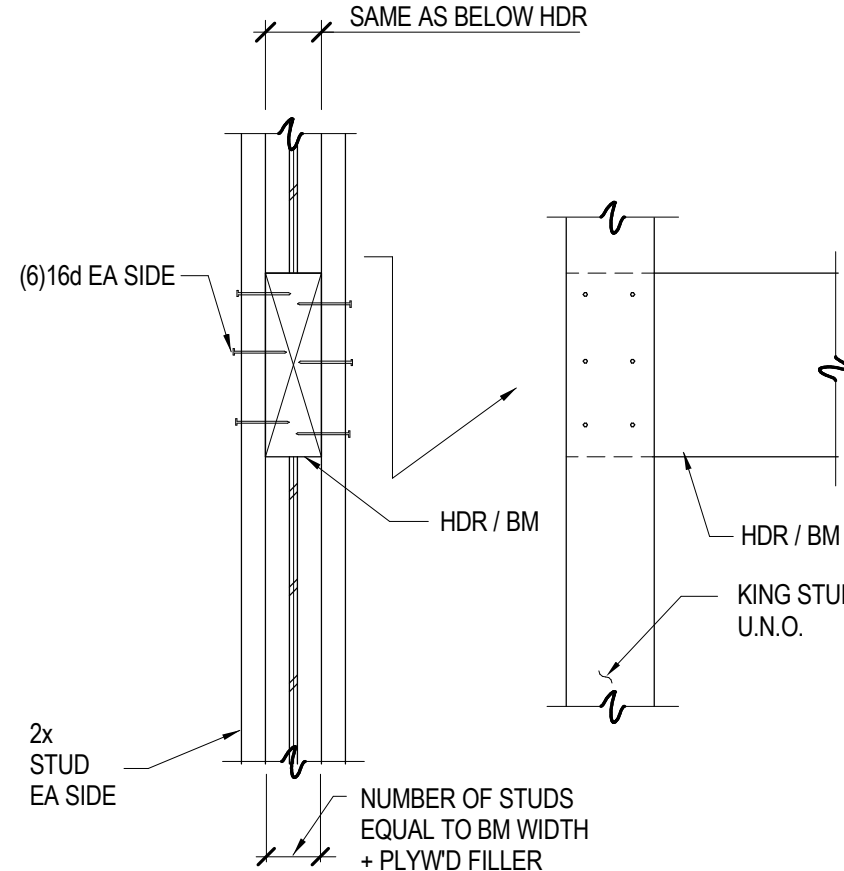


1
S301
1/2" = 1'-0"



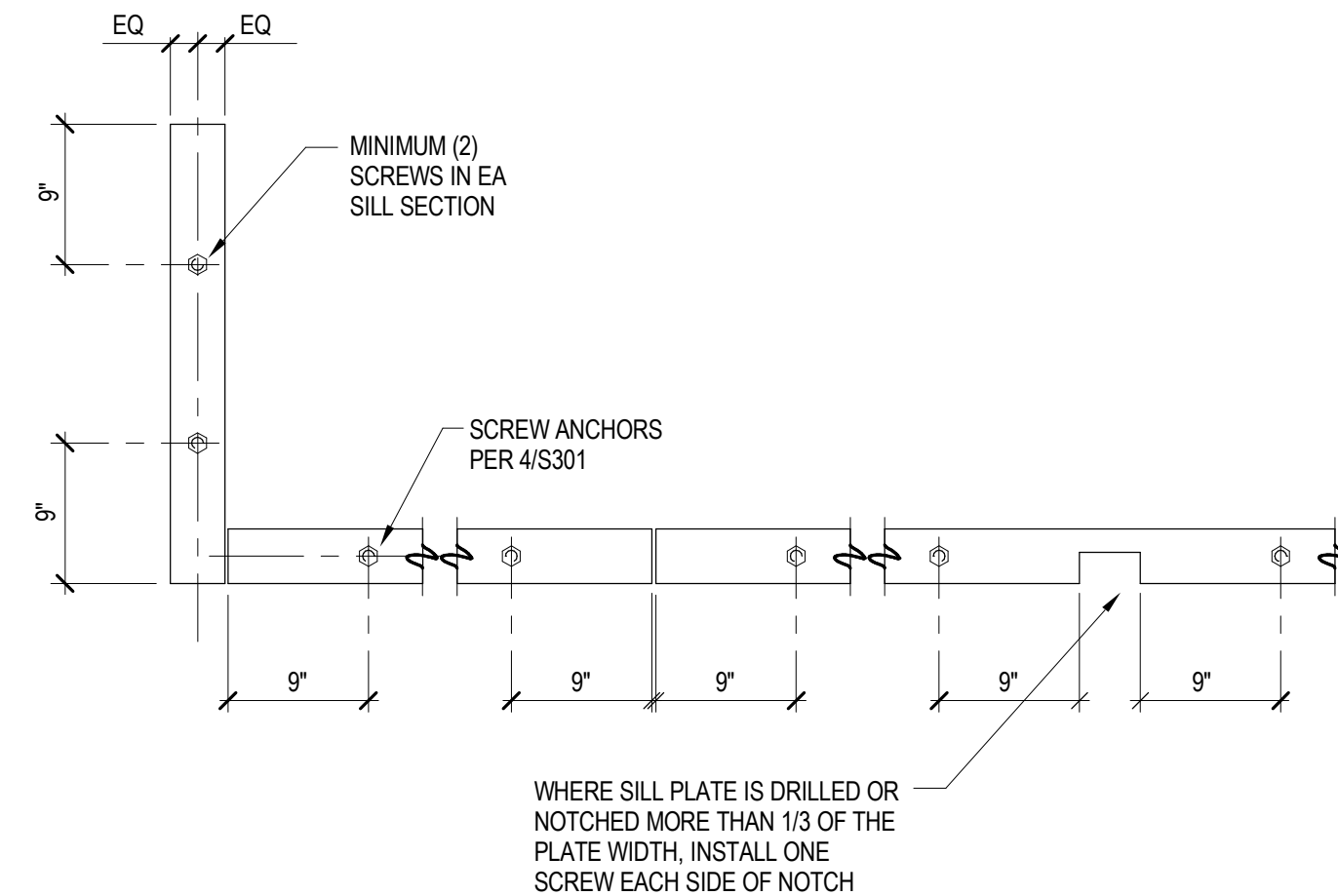
TYP. BM. TO COLUMN CONN.
PARALLEL TO WALL

2
S301
1" = 1'-0"

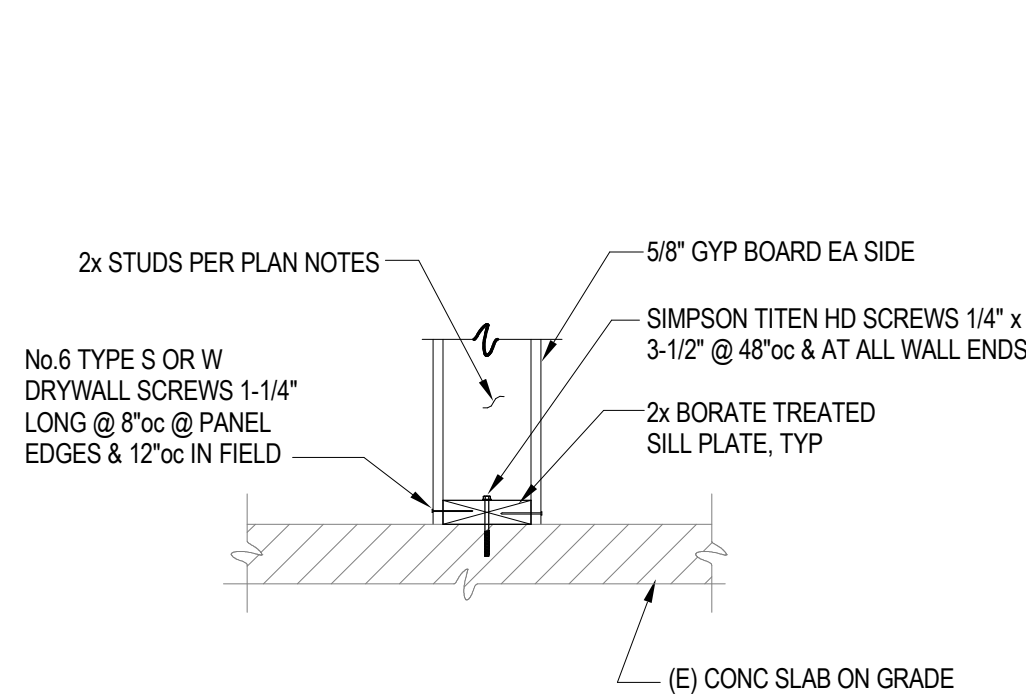


TYP. BM. TO COLUMN
CONN. PERP. TO WALL

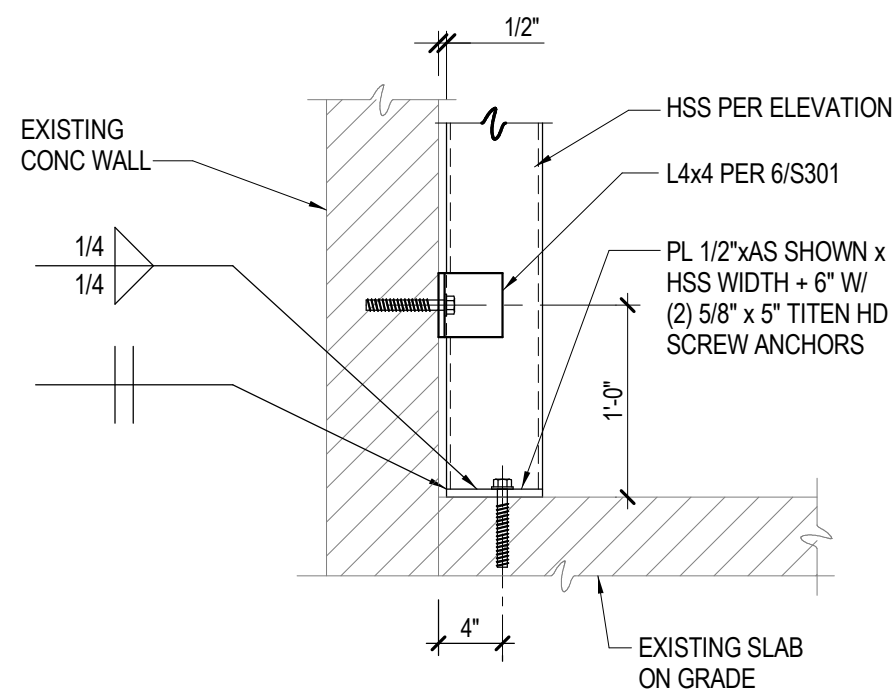
3
S301
1" = 1'-0"



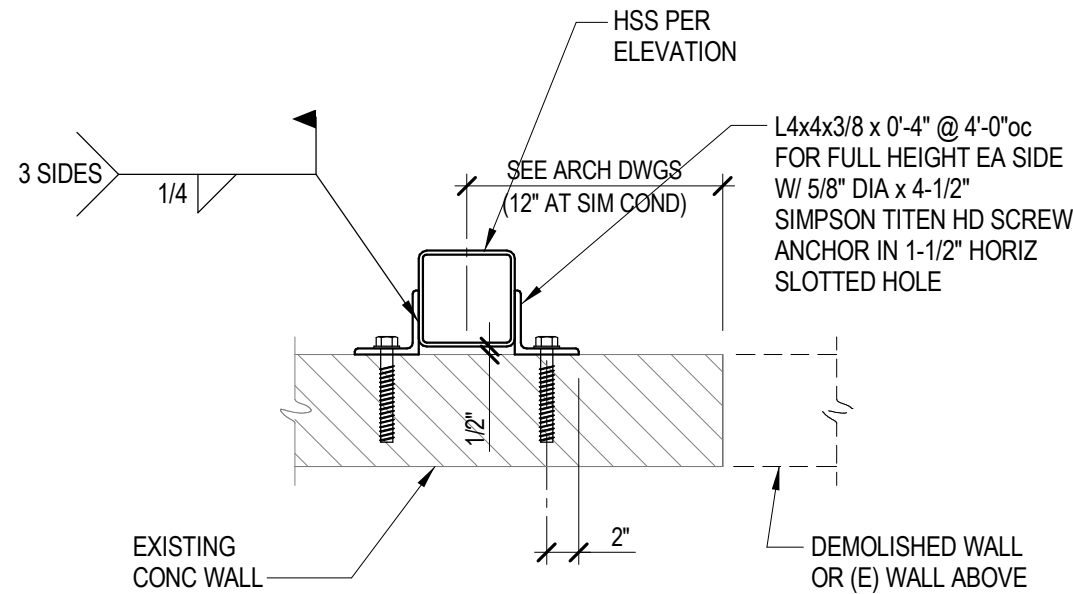
3
S301
1" = 1'-0"



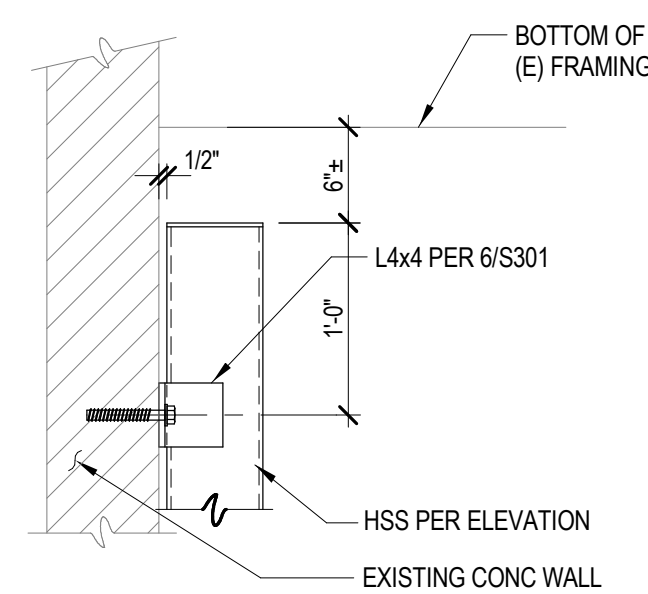
4
S301
1" = 1'-0"



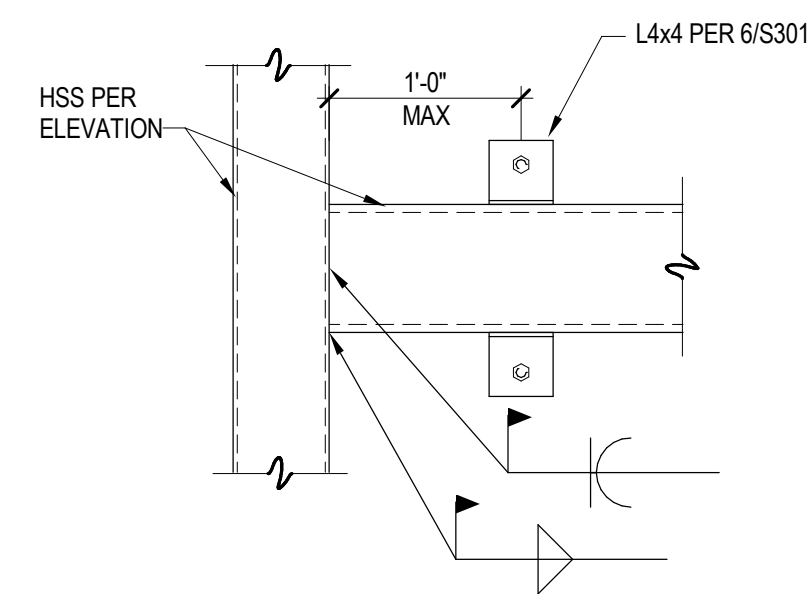
5
S301
1" = 1'-0"



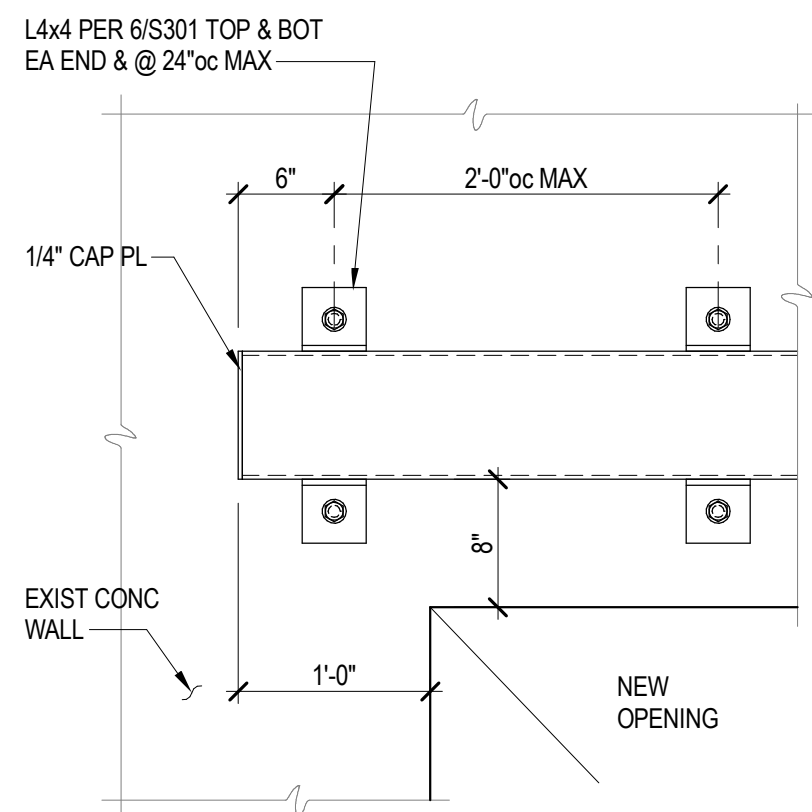
6
S301
1" = 1'-0"



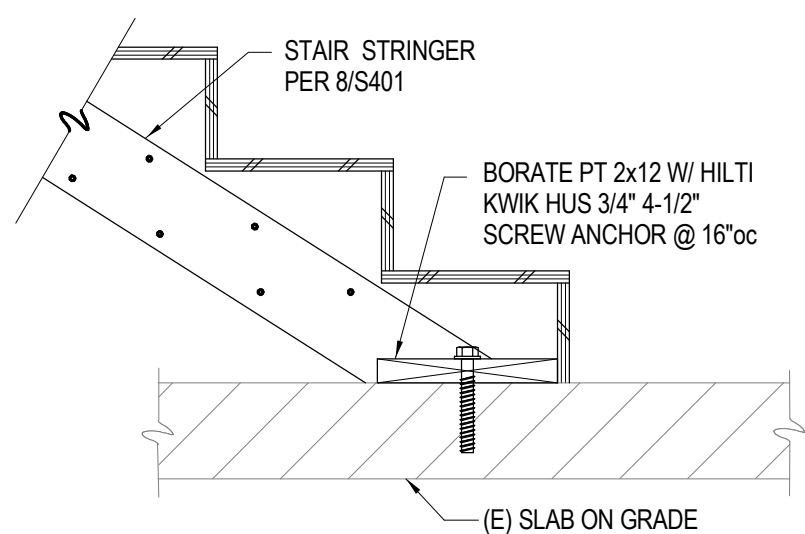
7
S301
1" = 1'-0"



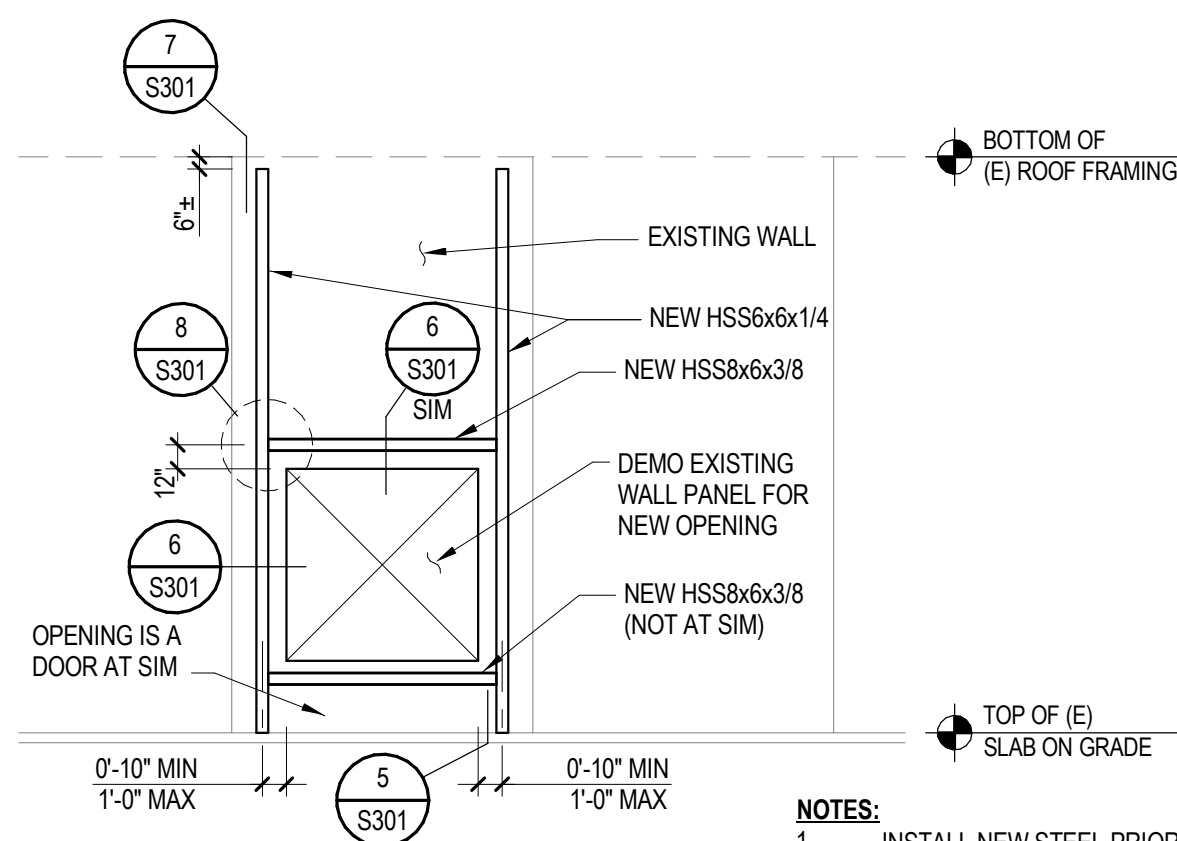
8
S301
1" = 1'-0"



9
S301
1" = 1'-0"

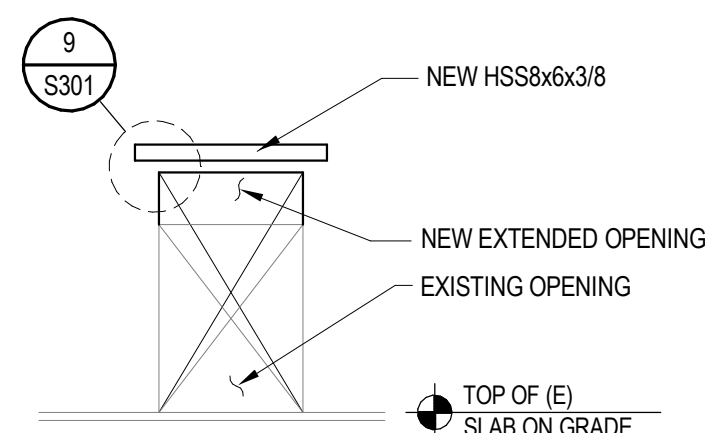


10
S301
1" = 1'-0"



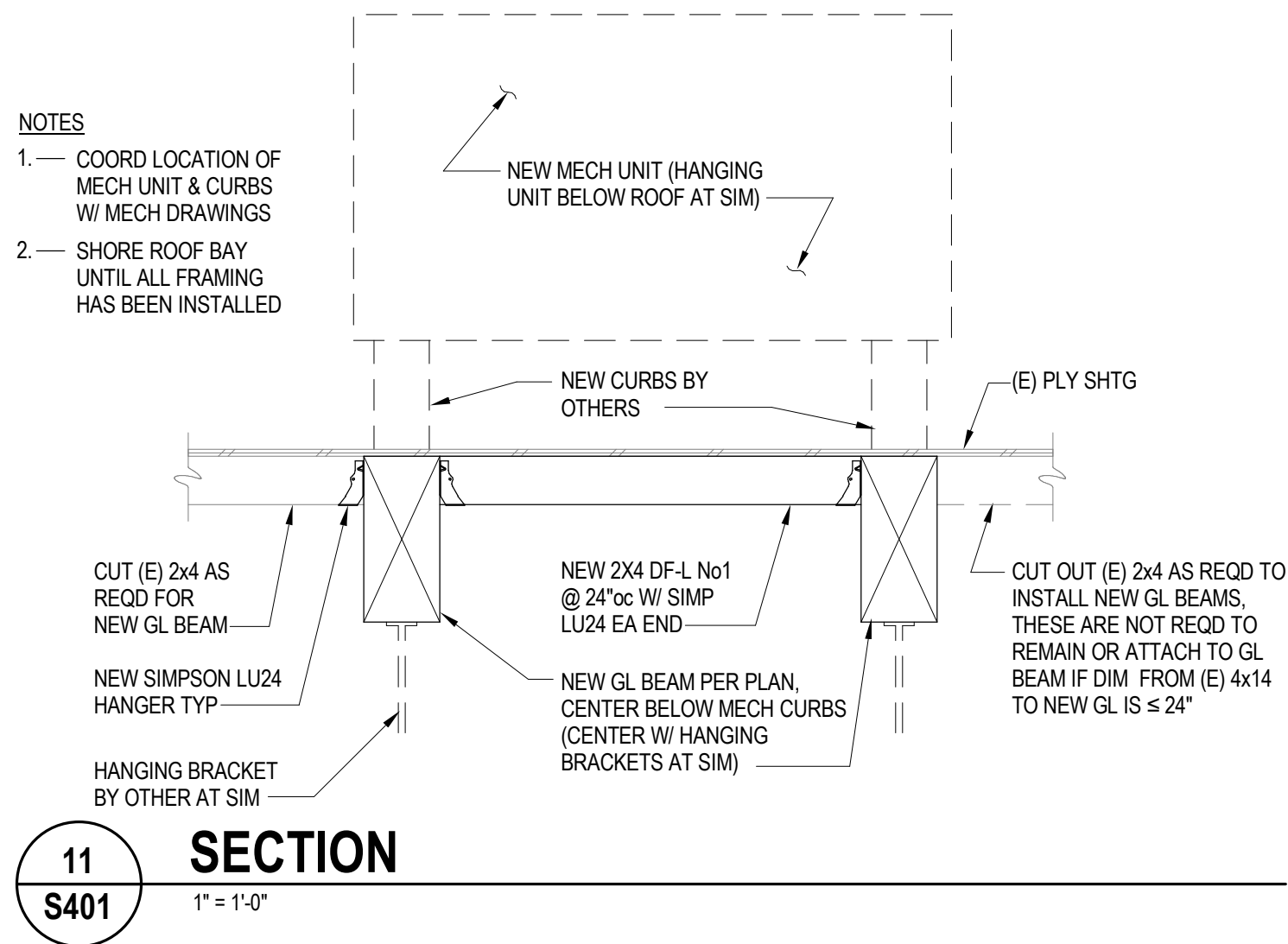
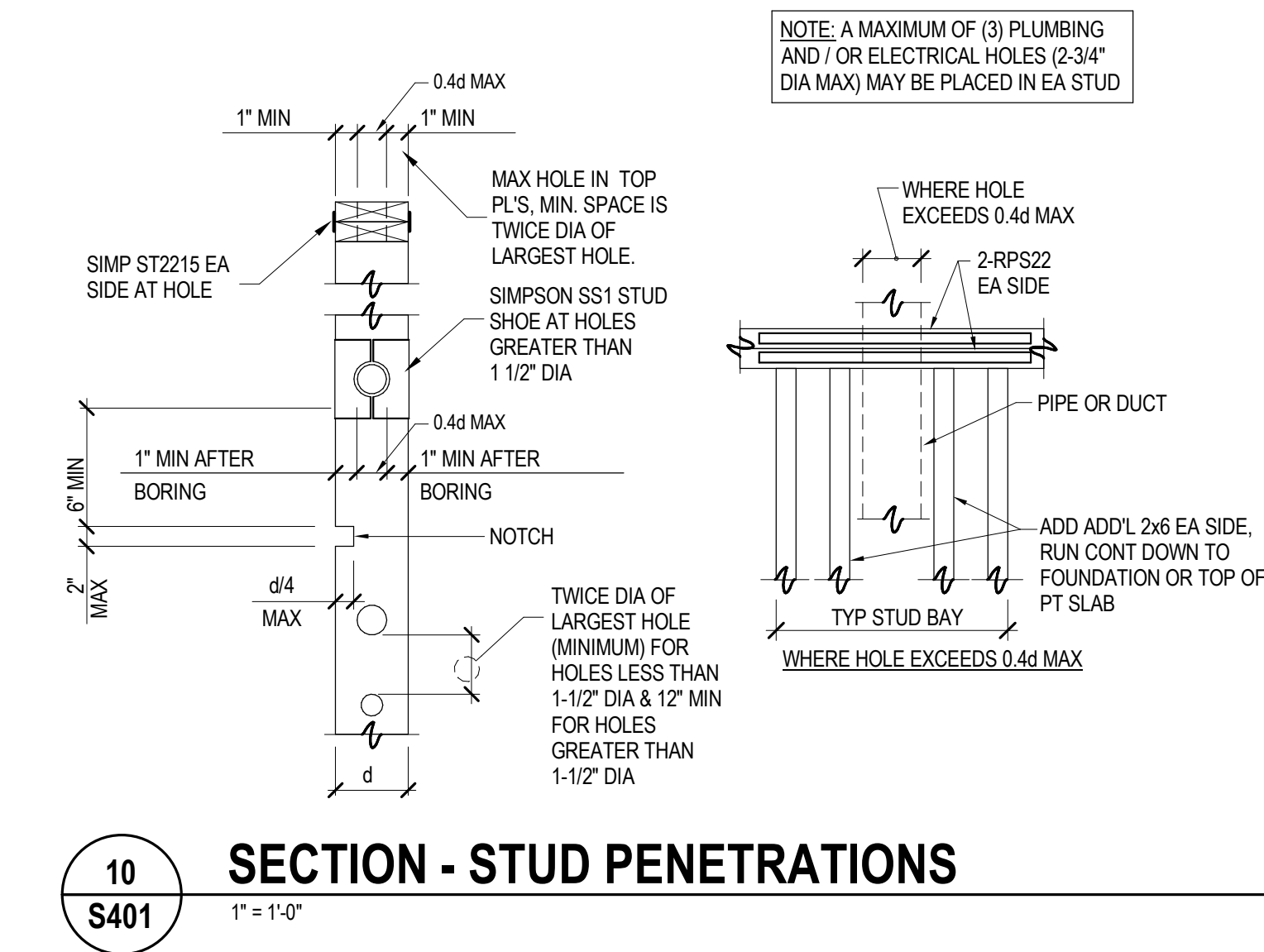
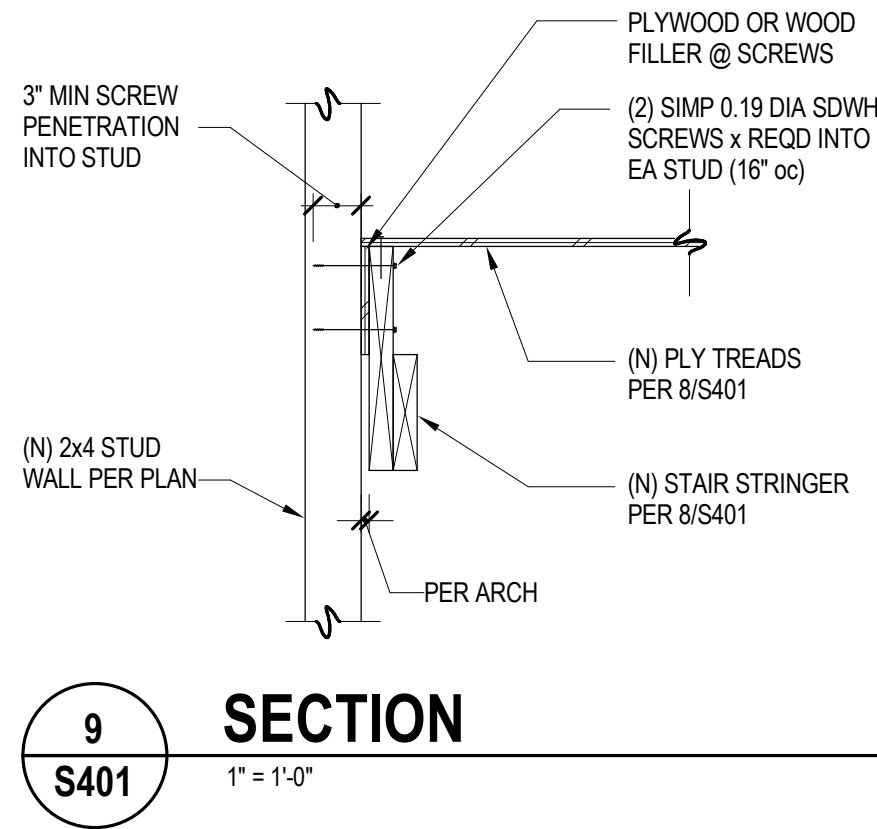
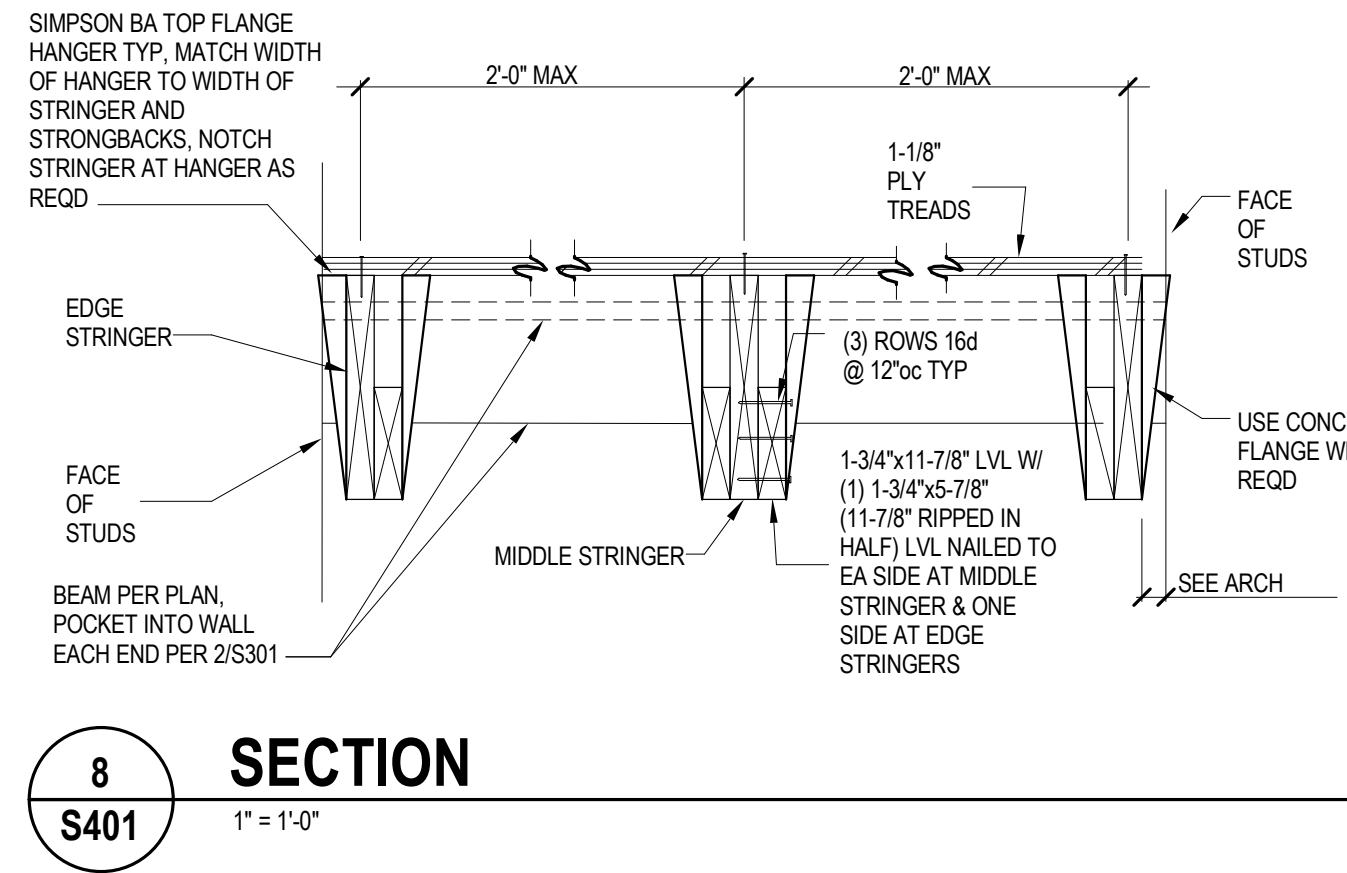
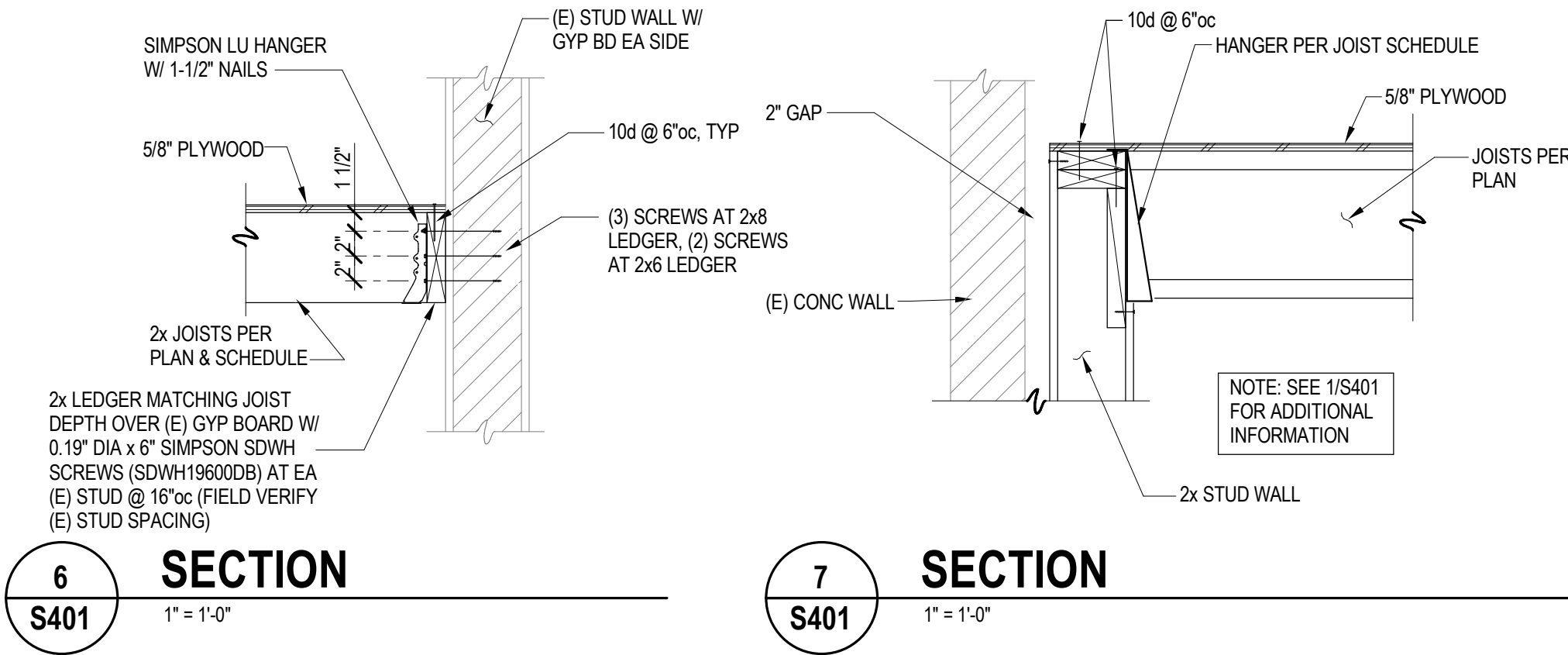
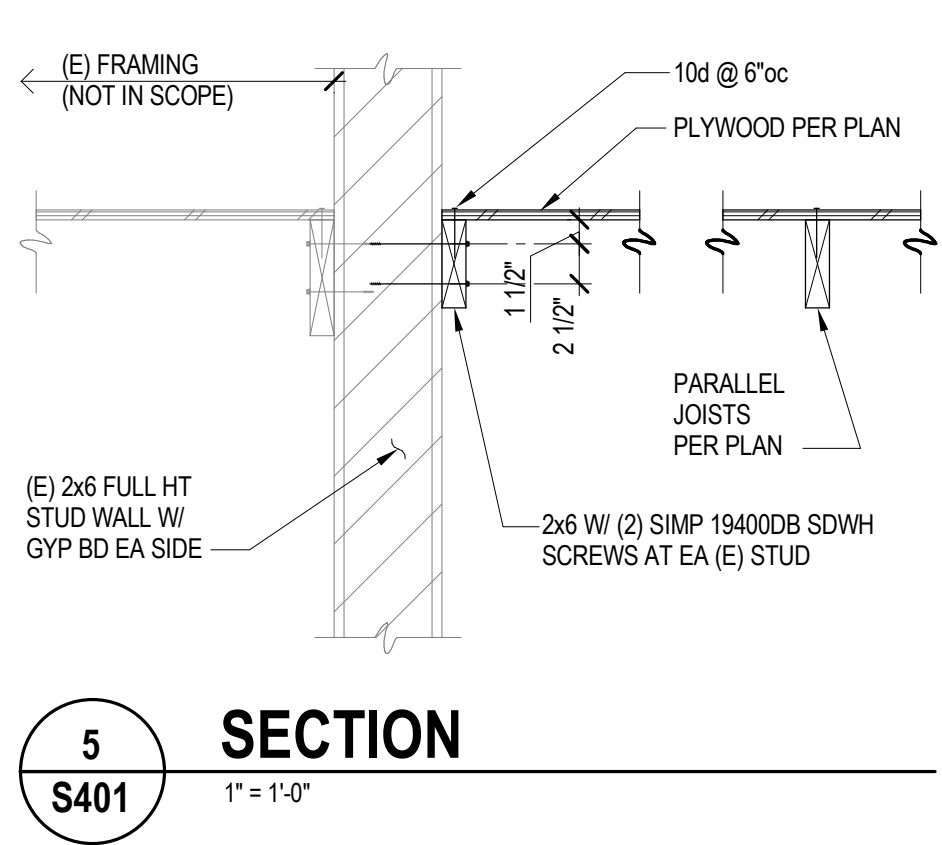
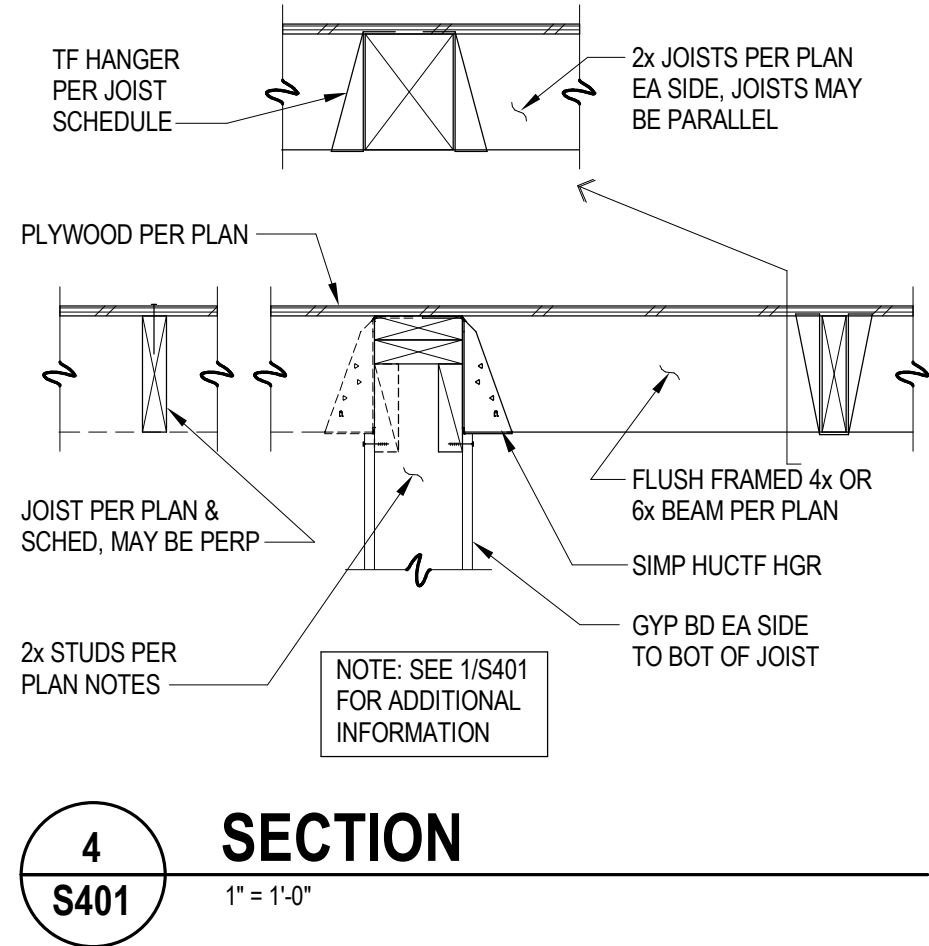
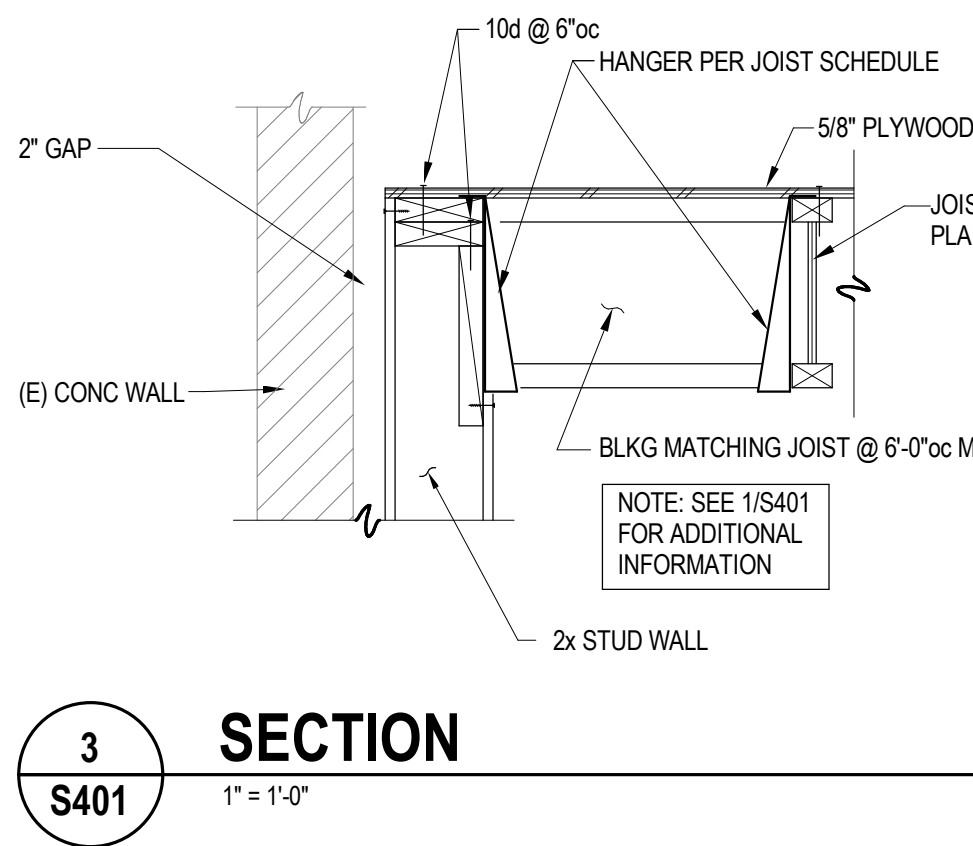
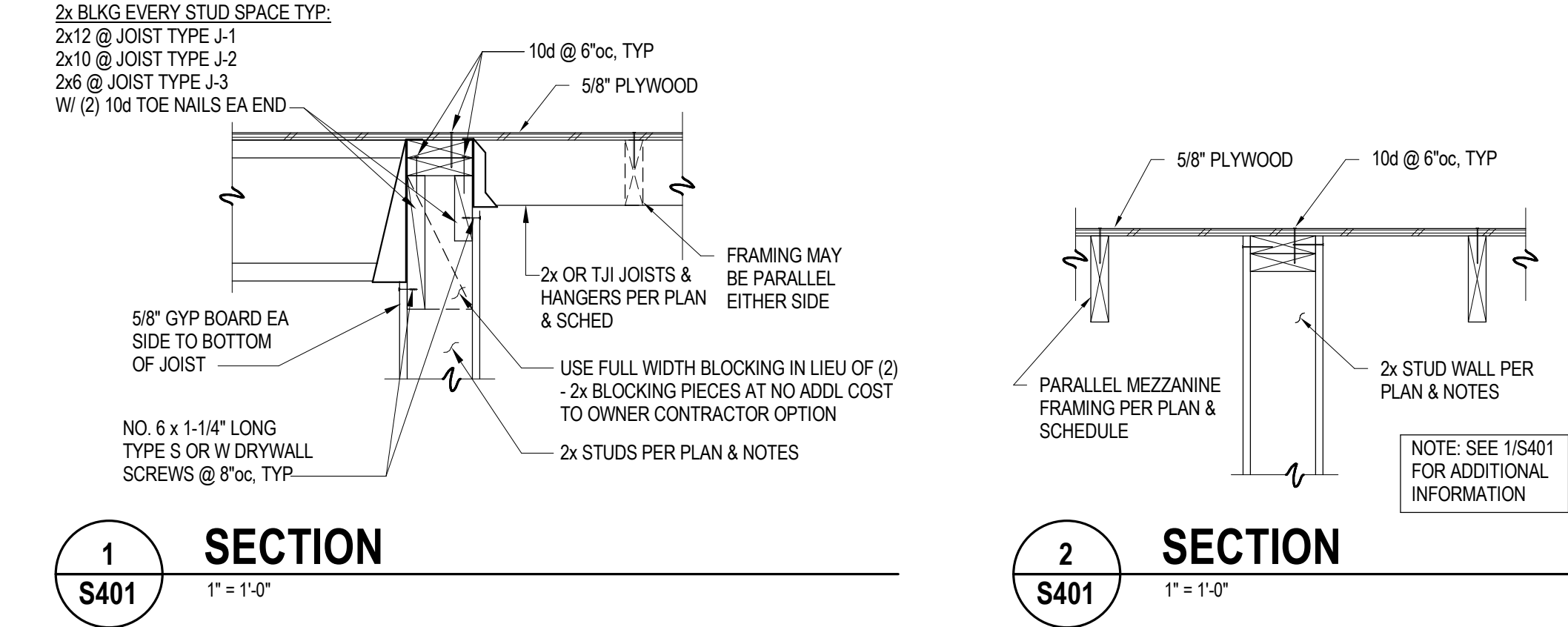
- NOTES:
- INSTALL NEW STEEL PRIOR TO DEMO OF (E) WALL PANEL
 - SEE ARCH DRAWINGS FOR SIZE & LOCATION OF NEW OPENING

A
S301
1/8" = 1'-0"

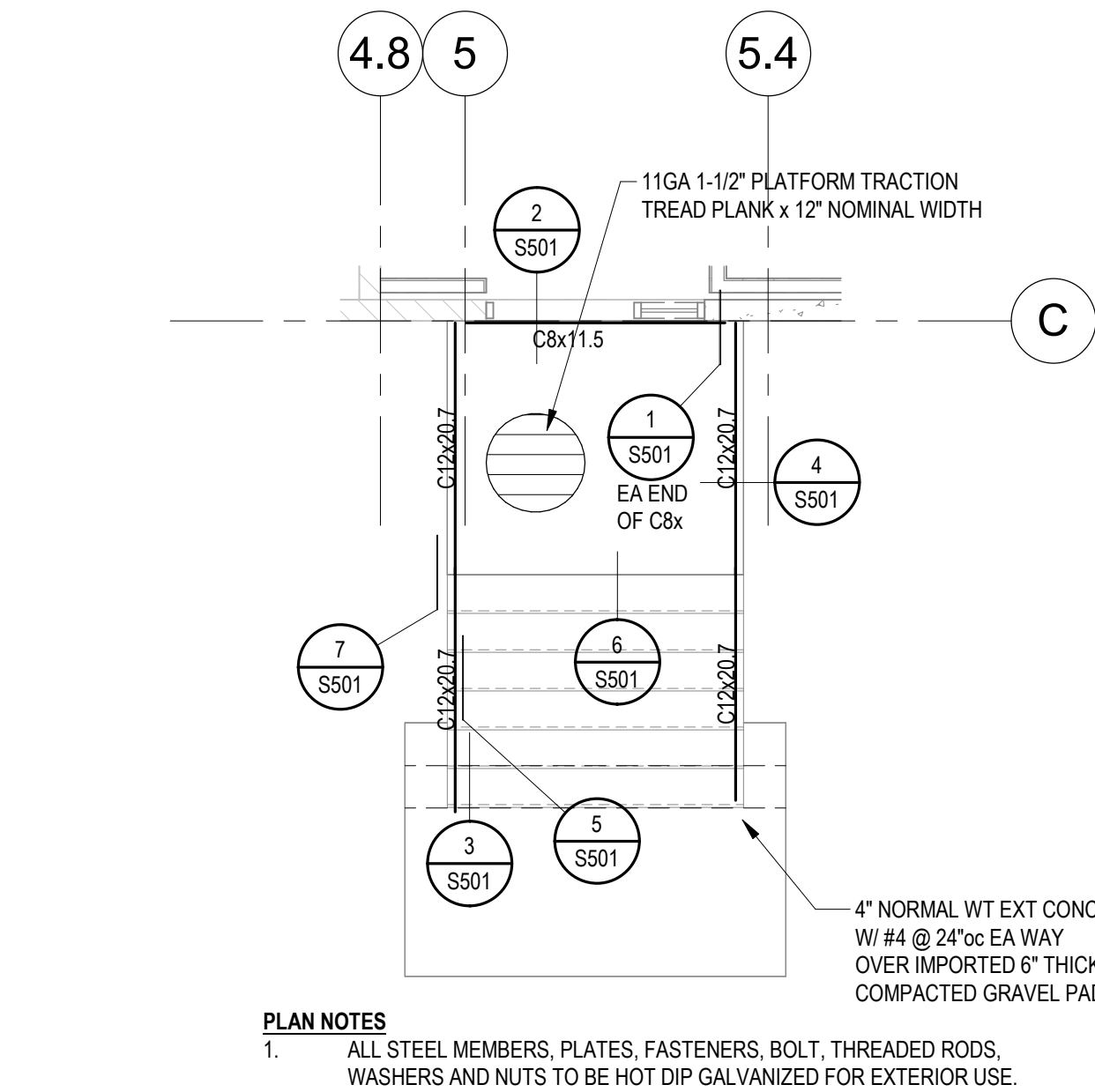


- NOTES:
- INSTALL NEW STEEL PRIOR TO DEMO OF (E) WALL PANEL
 - SEE ARCH DRAWINGS FOR SIZE & LOCATION OF NEW OPENING

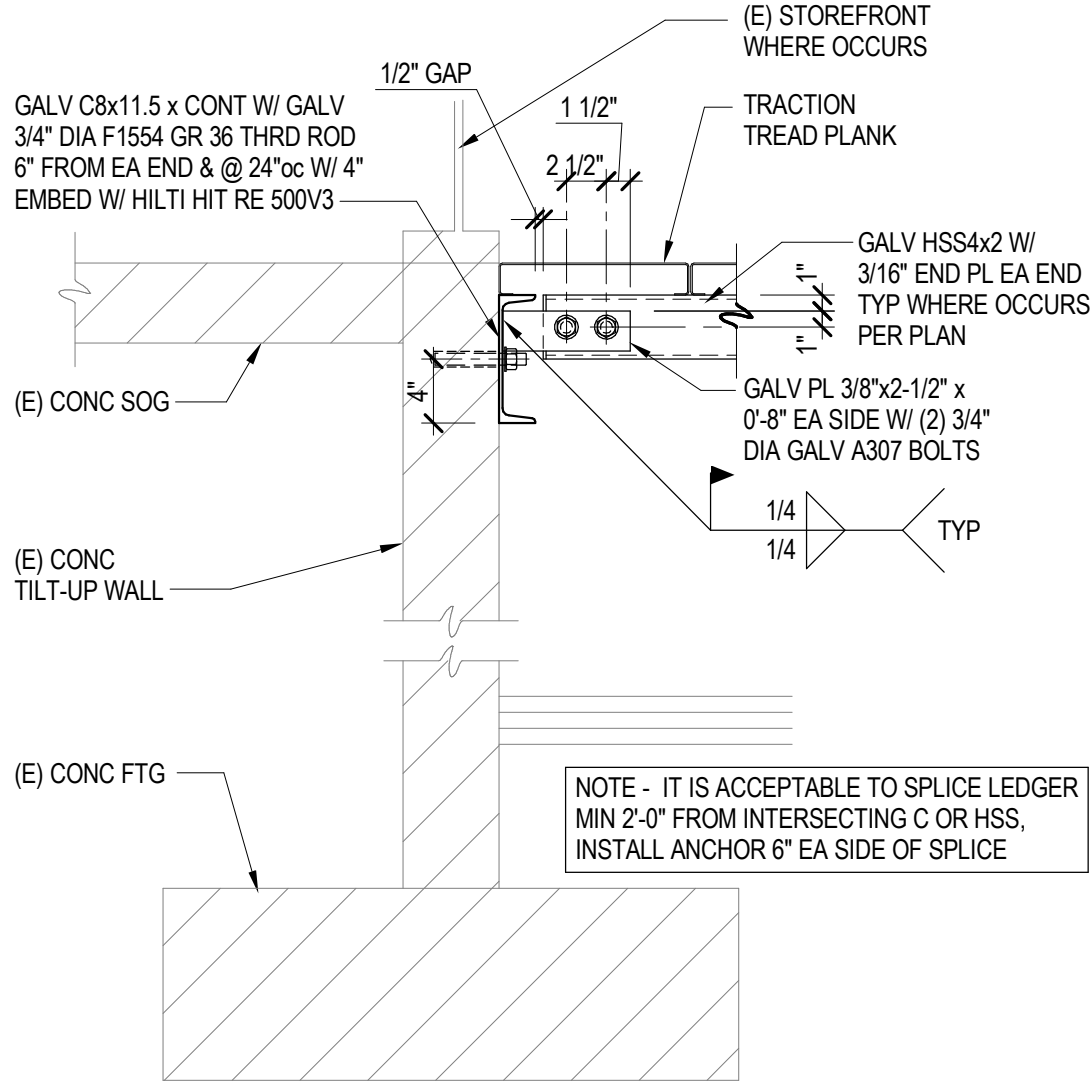
B
S301
1/8" = 1'-0"



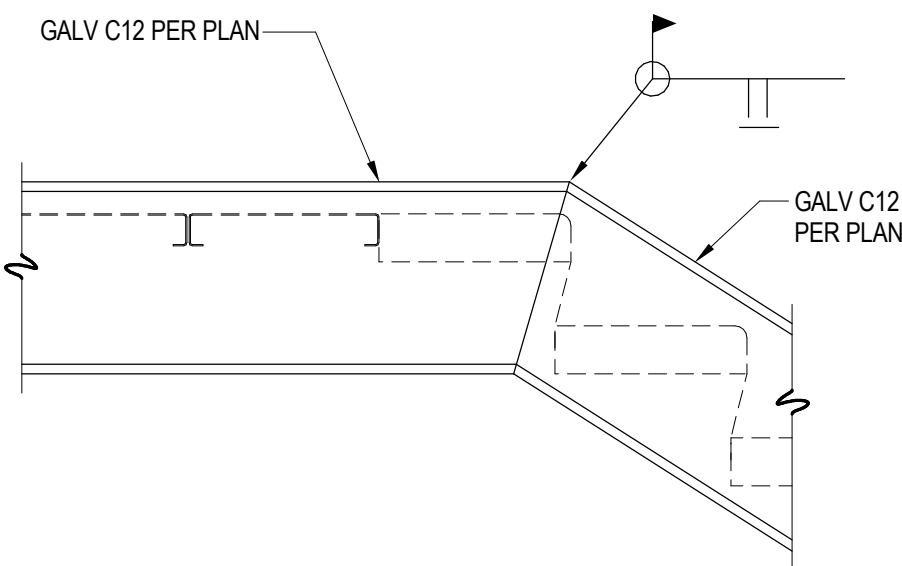
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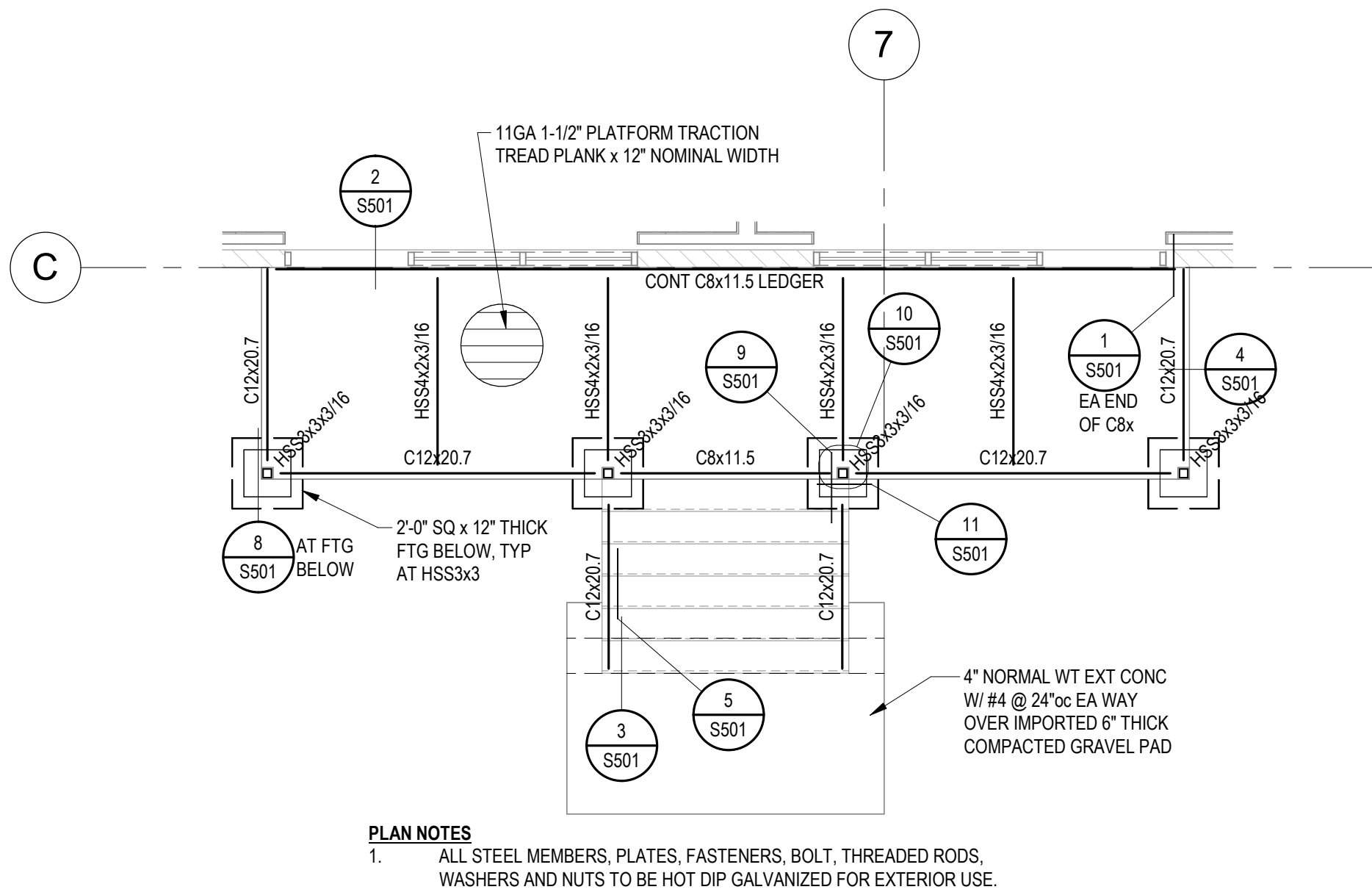
A
S501
ENLARGED STAIR FRMG PLAN - GRID 5
1/4" = 1'-0"



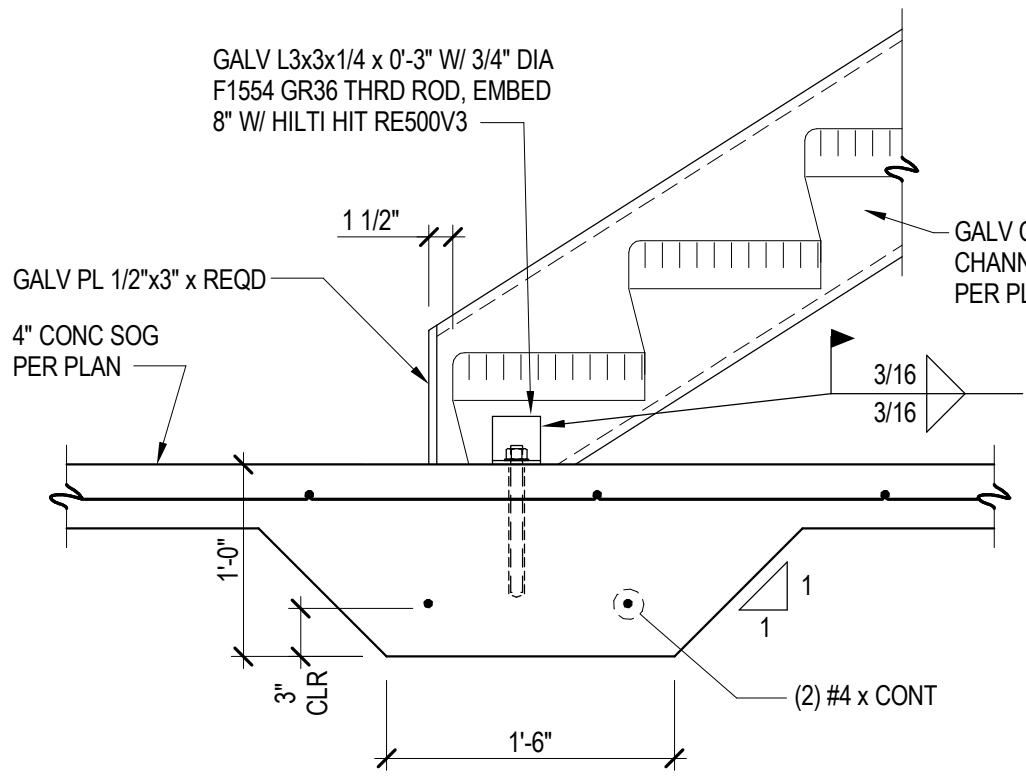
2
S501
SECTION
1" = 1'-0"



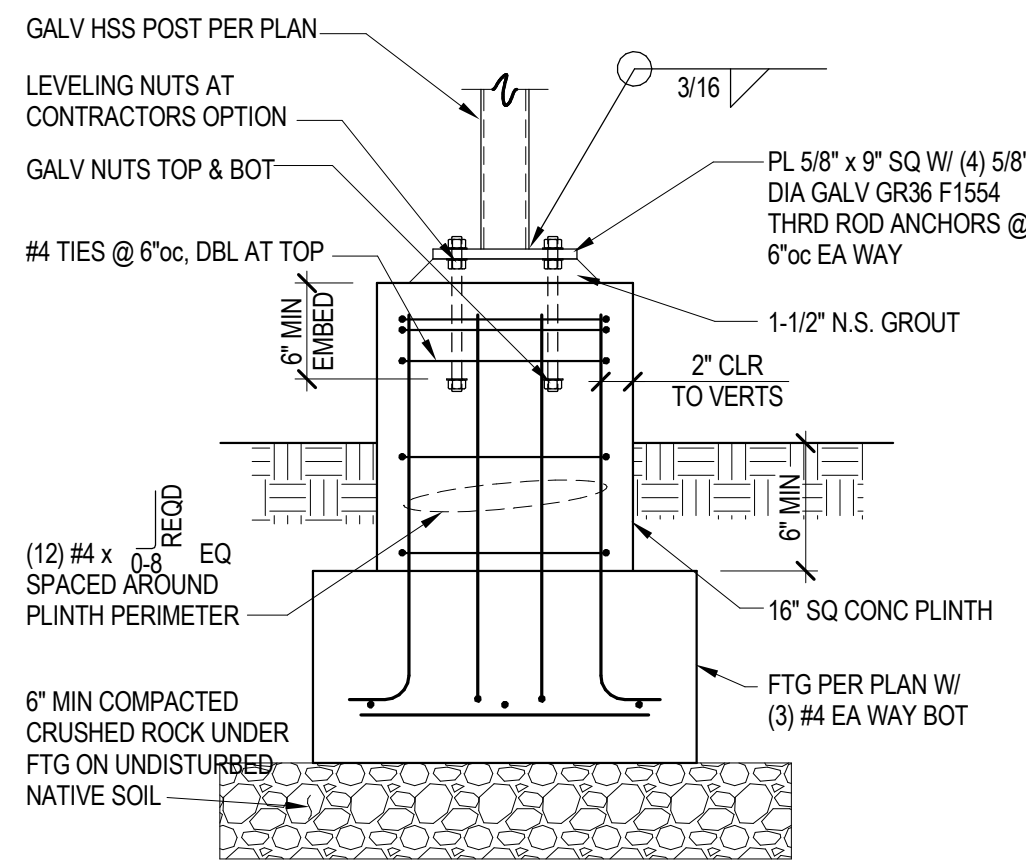
7
S501
SECTION
1" = 1'-0"



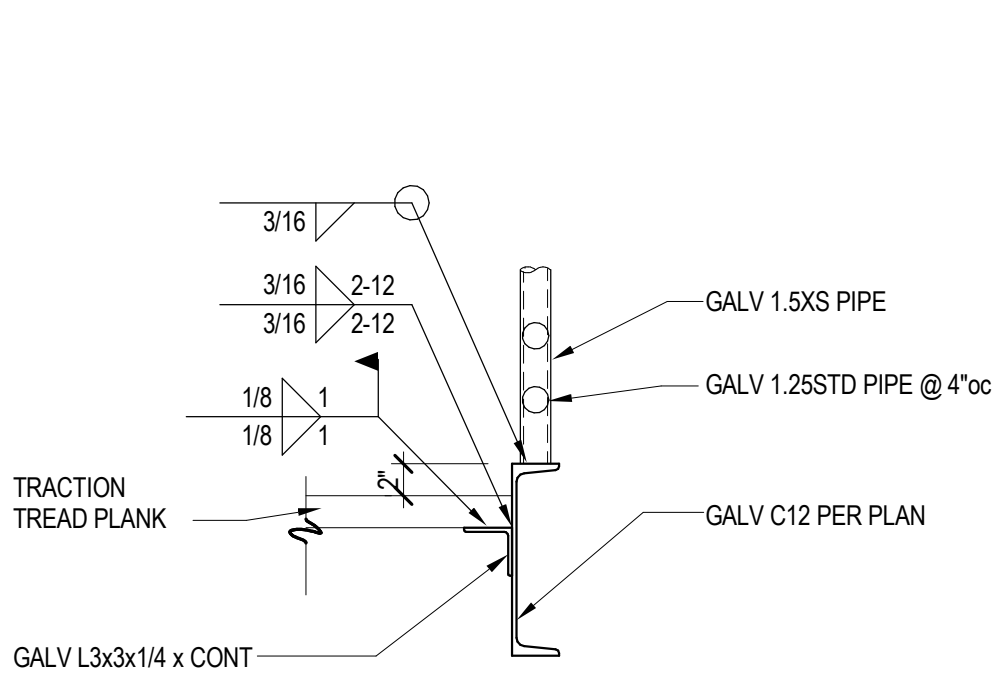
B
S501
ENLARGED STAIR FRMG PLAN - GRID 7
1/4" = 1'-0"



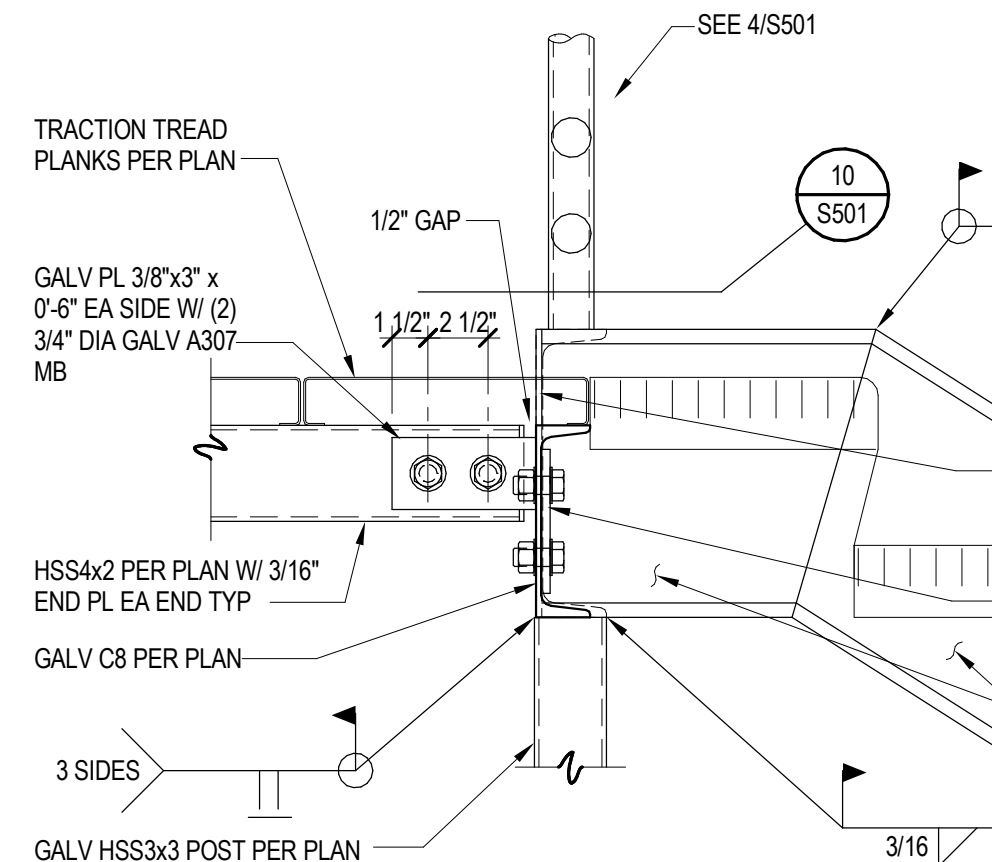
3
S501
SECTION
1" = 1'-0"



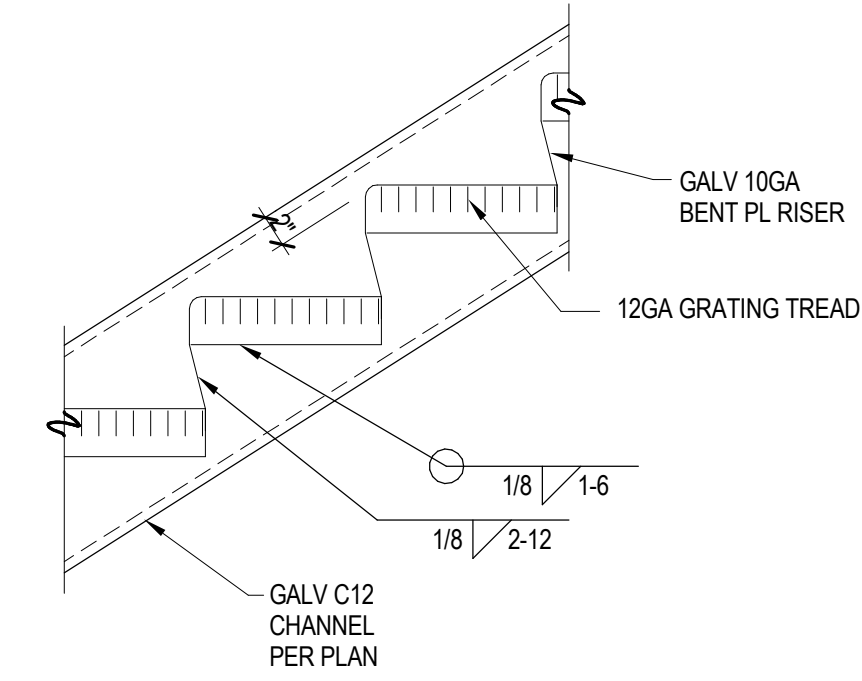
8
S501
SECTION
1" = 1'-0"



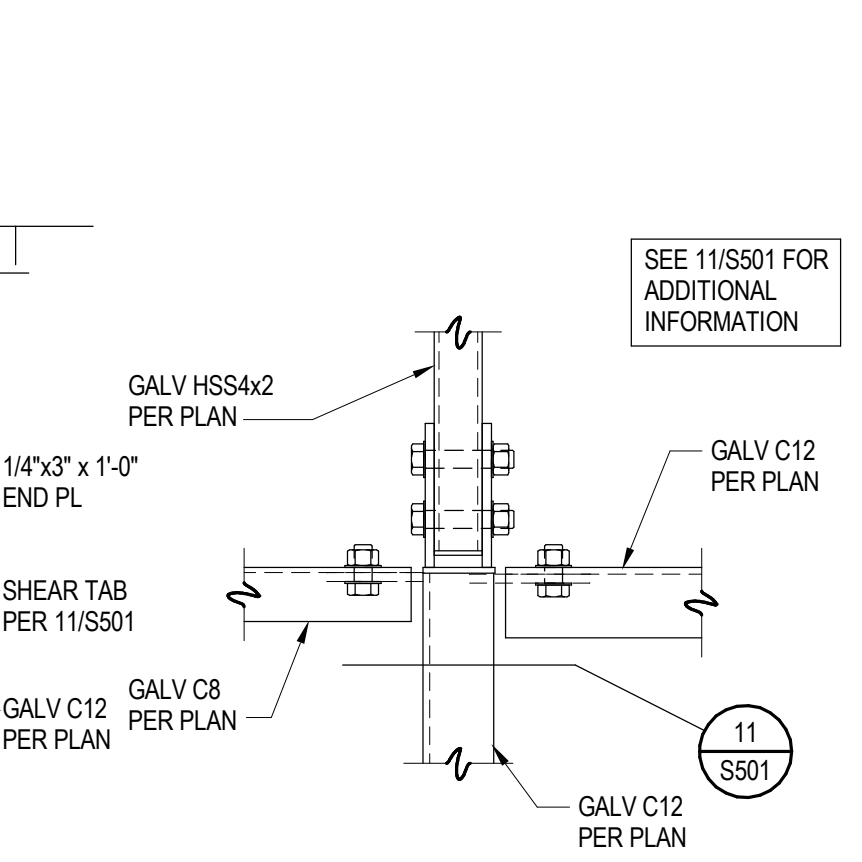
4
S501
SECTION
1" = 1'-0"



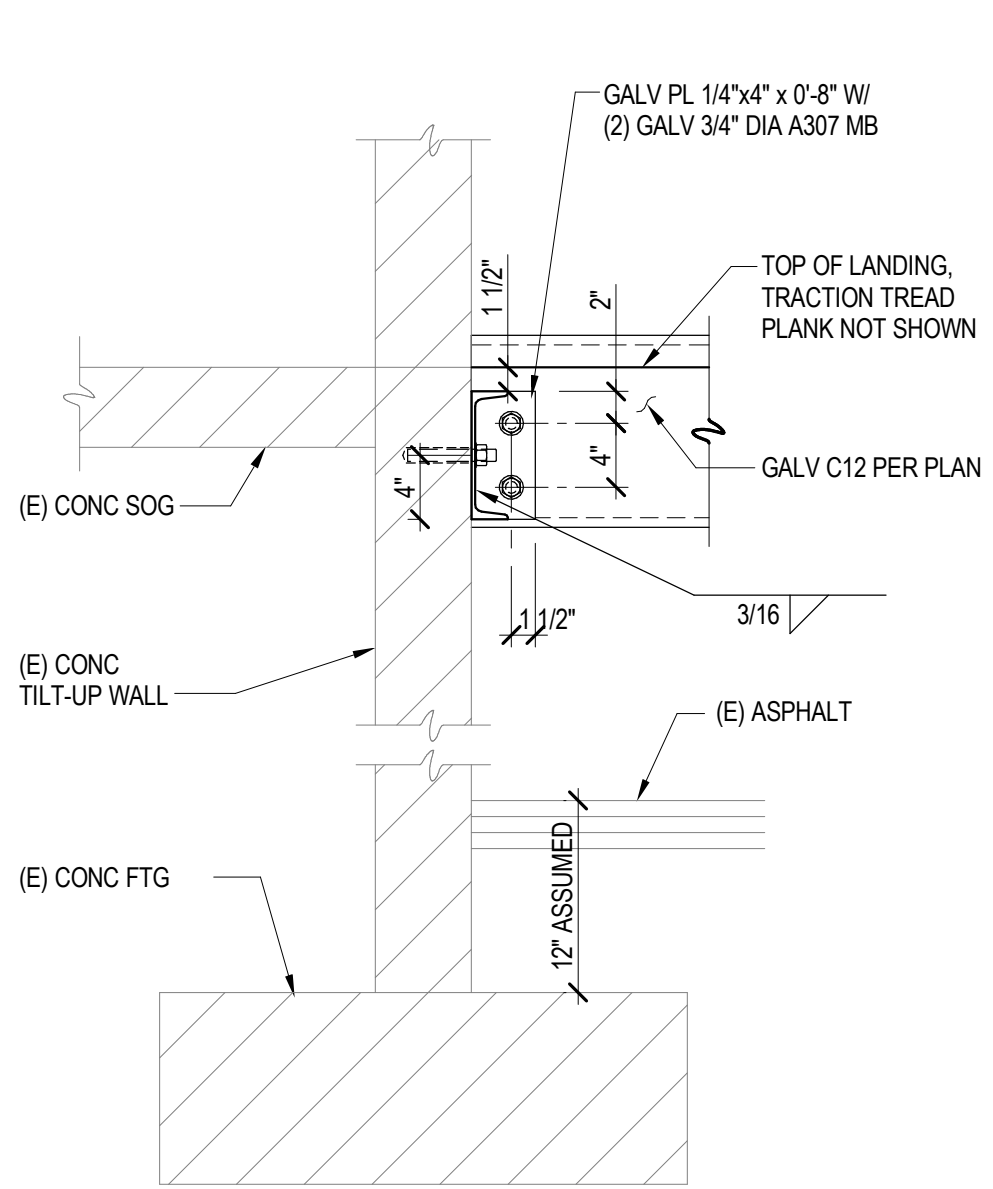
9
S501
SECTION
1 1/2" = 1'-0"



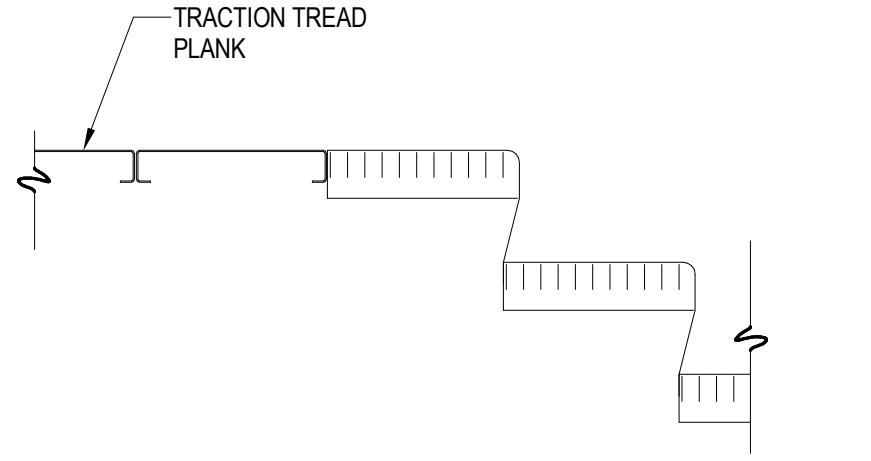
5
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SECTION
1" = 1'-0"



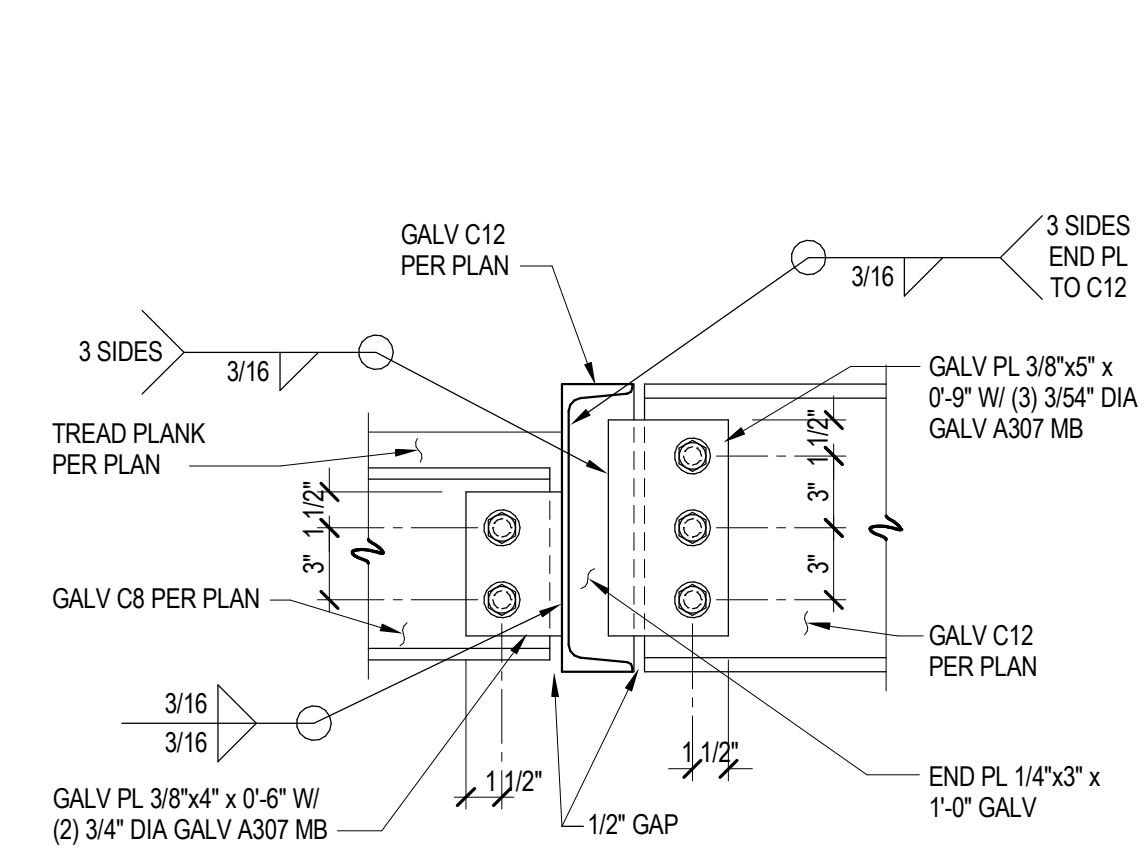
10
S501
PLAN SECTION
1 1/2" = 1'-0"



1
S501
SECTION
1" = 1'-0"



6
S501
SECTION
1" = 1'-0"



11
S501
SECTION
1 1/2" = 1'-0"