



**GENERAL STRUCTURAL NOTES**

SCOPE OF WORK: TWO NEW THREE STORY APARTMENT BUILDINGS WITH CROSS-LAMINATED TIMBER FLOORS AND ROOF PANELS OVER WOOD STICK FRAMED WALLS. THE LATERAL FORCE RESISTING SYSTEM CONSISTS OF CLT DIAPHRAGMS AND SHEATHED LIGHT FRAMED SHEAR WALLS. THE FOUNDATIONS CONSIST OF A MAT SLAB ON COMPACTED INSITU SOILS.

GOVERNING CODE: THE STRUCTURAL DESIGN OF BUILDING COMPONENTS DESCRIBED ON THESE DRAWINGS IS IN ACCORDANCE WITH THE 2019 CALIFORNIA BUILDING CODE

**LIMITATIONS:**

THE LATERAL FORCE RESISTING SYSTEM SHOWN ON THESE DRAWINGS IS DESIGNED TO ACHIEVE MINIMUM REQUIRED STANDARDS FOR STRUCTURAL SEISMIC RESISTANCE, AND IS INTENDED TO REDUCE THE RISK OF LIFE LOSS OR INJURY. THIS WORK WILL NOT NECESSARILY PREVENT LOSS OF LIFE OR INJURY, NOR PREVENT EARTHQUAKE DAMAGE TO NEW OR REHABILITATED BUILDINGS.

**1. GENERAL**

MATERIALS AND WORKMANSHIP TO CONFORM TO THE BUILDING CODE DEFINED ABOVE AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

- A. THESE NOTES APPLY TO ALL DRAWINGS AND GOVERN UNLESS OTHERWISE NOTED OR SPECIFIED. WHENEVER THERE APPEARS TO BE A CONFLICT BETWEEN THE NOTES, DRAWINGS, OR SPECIFICATIONS, CONTACT THE OWNER'S REPRESENTATIVE/ENGINEER FOR CLARIFICATION.
B. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND PROPOSED DIMENSIONS AT JOB SITE. COMPARE STRUCTURAL DRAWINGS WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS BEFORE COMMENCING WORK. NOTIFY OWNER'S REPRESENTATIVE/ENGINEER OF ANY DISCREPANCIES AND DO NOT PROCEED WITH AFFECTED WORK UNTIL THEY ARE RESOLVED. DO NOT SCALE DRAWINGS.
C. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, USE SIMILAR DETAILS OF CONSTRUCTION, SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.
D. DETAILS NOTED AS "TYPICAL" IN THEIR TITLE OR ON SHEETS TITLED "TYPICAL DETAILS" APPLY TO SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY REFERENCED. SUCH DETAILS ARE NOT NOTED AT EACH LOCATION THAT THEY OCCUR.
E. ALL ELEMENTS INDICATED ON THE DRAWINGS SHALL BE ASSUMED "NEW" UNLESS OTHERWISE NOTED.
F. SAFETY MEASURES: AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE INCLUDING, BUT NOT LIMITED TO:
a) SAFETY OF THE PERSONS AND PROPERTY,
b) MEANS AND METHODS OF CONSTRUCTION,
c) COMPLIANCE WITH APPLICABLE CAL/OSHA REQUIREMENTS AND GUIDELINES,
d) ALL NECESSARY INDEPENDENT ENGINEERING REVIEWS OF THESE CONDITIONS.

THE CONTRACTOR SHALL BRACE OR SHORE THE CONSTRUCTION AS REQUIRED TO PROVIDE A SAFE AND TRUE STRUCTURE. WHERE BRACING OR SHORING IS INDICATED IN THE DRAWINGS, IT IS DONE SO ONLY AS A COURTESY TO THE CONTRACTOR AND SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COORDINATE THE WORK WITH THE AFOREMENTIONED PROVISIONS. THE ARCHITECT'S OR ENGINEER'S JOB SITE REVIEW IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES.

**2. SUBMITTALS**

- A. SUBMIT (1) HARDCOPY OR ELECTRONIC PORTABLE DOCUMENT FORMAT (PDF) COPY OF REQUIRED SUBMITTALS TO OWNER'S REPRESENTATIVE FOR REVIEW. MULTIPLE COPIES OF THE SAME SUBMITTAL WILL NOT BE RETURNED. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR MAKING ANY ADDITIONAL COPIES OF REVIEWED SUBMITTALS, AS MAY BE REQUIRED. THE ENGINEER SHALL HAVE 15 WORKING DAYS FROM DATE OF RECEIPT TO COMPLETE AND RETURN THE SUBMITTAL REVIEW.
B. SUBSTITUTION REQUESTS SHALL DEMONSTRATE THE REQUESTED SUBSTITUTION'S ABILITY TO MEET OR EXCEED THE REQUIREMENTS OF THE ORIGINALLY SPECIFIED ITEM. THE REQUEST SHALL ALSO INCLUDE A ROUGH COST SAVINGS ESTIMATE TO THE OWNER, REFERENCES TO DETAILS WHERE SUBSTITUTION IS PROPOSED TO BE APPLIED, AND ALL SUPPORTING DOCUMENTATION REQUIRED FOR THE ITEM BY THIS SECTION OF THE NOTES.
C. SHOP DRAWINGS, MILL CERTIFICATES, AND/OR OTHER RELEVANT CERTIFICATIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BEFORE FABRICATION, FOR THE FOLLOWING ITEMS:

NOTE: SUBMITTING COPIES OF THE STRUCTURAL DRAWINGS IS UNACCEPTABLE AND WILL BE REJECTED FOR COMPLETE REVISION.

- 1) CROSS-LAMINATED TIMBER, GLUED LAMINATED BEAMS AND PREFABRICATED WOOD JOISTS/BEAMS
a. SHOP DRAWINGS INDICATING FRAMING SIZES AND SPACING OF MEMBERS, CAMBERS, CONNECTION INFORMATION, APPEARANCE CLASSIFICATION, ETC.
b. MATERIAL CERTIFICATES, INCLUDING GRADE, STRENGTH, AND STIFFNESS.
2) CAST-IN-PLACE CONCRETE AND SHOTCRETE
a. MIX DESIGNS FOR EACH TYPE OF CONCRETE ON THE PROJECT INCLUDING RESULTS OF SLUMP, COMPRESSION, AND SHRINKAGE TESTS AND OTHER PROJECT SPECIFIC CRITERIA
b. MATERIAL CERTIFICATES
c. PROPOSED CONSTRUCTION AND CONTROL JOINT LOCATIONS
d. CURING MATERIALS AND METHODS
e. PRODUCT DATA FOR NON-SHRINK GROUT
f. FORMWORK TYPE, FORMWORK, JOINT LOCATIONS, CHAIRS, FORM TIES, ETC.
g. PROPOSED ROUGHENING METHODS AND TECHNIQUES TO PREPARE EXISTING SURFACES TO RECEIVE NEW CONCRETE, IN ACCORDANCE WITH AMPLITUDE NOTED IN THE CONCRETE SECTION OF THESE NOTES.
3) UNIT MASONRY
a. MASONRY UNIT MANUFACTURERS MATERIAL CERTIFICATION
b. GROUT MIX DESIGN INCLUDING SLUMP AND COMPRESSION TESTS
c. PROPOSED CONSTRUCTION JOINT LOCATIONS
4) MECHANICAL ANCHORS AND EPOXY ANCHORS
a. PRODUCT DATA FOR EACH TYPE OF SYSTEM INCLUDING ANCHOR TESTING IN ACCORDANCE WITH ACI 308.2 FOR MECHANICAL ANCHORS AND ACI 308.4 FOR EPOXY ANCHORS
b. CERTIFICATION OF ANCHOR INSTALLERS PER ACI/CRSI WHERE ANCHORS ARE INSTALLED IN HORIZONTAL OR VERTICAL CONDITIONS WITH SUSTAINED TENSION.
5) UNDERSLAB VAPOR-BARRIER
6) DEFERRED DESIGN SUBMITTALS SHALL BE SUBMITTED TO THE ENGINEER AND ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO SUBMISSION TO THE AUTHORITY HAVING JURISDICTION FOR PLAN CHECK AND BUILDING PERMIT:
a. EXTERIOR CLADDING
b. TIE DOWN SYSTEM OF WOOD WALLS.
c. ROOF TIE-OFFS, WINDOW WASHING EQUIPMENT AND MECHANICAL UNIT SUPPORT
d. SKYLIGHT, ROOF, HATCHES & METAL LADDERS
e. STEEL STAIRS, INCLUDING SUPPORT CAGE, HANDRAILS AND GUARDRAILS
f. SUSPENDED CEILING

**3. SPECIAL INSPECTION REQUIREMENTS AND TESTING**

- A. PROVIDE SPECIAL INSPECTIONS AND TESTING FOR ALL ITEMS AS REQUIRED BY THE GOVERNING JURISDICTION. JURISDICTION SPECIFIC SPECIAL INSPECTION FORM SHALL SUPPLEMENT SPECIAL INSPECTION REQUIREMENTS NOTED IN THIS SECTION.
B. THE OWNER SHALL BE RESPONSIBLE FOR RETAINING AN INDEPENDENT, QUALIFIED INSPECTOR AND/OR TESTING LAB TO PERFORM ALL REQUIRED TESTING AND SPECIAL INSPECTIONS.
C. IF INITIAL TESTS OR INSPECTIONS MADE BY THE OWNER'S TESTING AGENCY REVEAL THAT ANY PORTION OF THE WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, ADDITIONAL TESTS, INSPECTIONS, AND NECESSARY REPAIRS WILL BE MADE AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND OWNER OF NON-COMFORMING WORK. THIS NOTIFICATION SHALL SPECIFICALLY ADDRESS THE NON-COMFORMING WORK AND SHALL BE SEPARATE FROM THE SPECIAL INSPECTION REPORTS.
D. SPECIAL INSPECTION REPORTS SHALL BE SENT TO THE ENGINEER AT THE TIME OF COMPLETION FOR REVIEW OF CONFORMANCE WITH THE REQUIREMENTS OF THE STRUCTURAL DRAWINGS.
E. THE CONTRACTOR SHALL NOTIFY THE TESTING LAB A MINIMUM OF 48 HOURS PRIOR TO TIME OF INSPECTION.
F. THE FOLLOWING SPECIFIC ITEMS SHALL BE INSPECTED AND/OR TESTED BY THE TESTING LAB:
1) CONCRETE:
a. SAMPLE AND TEST CONCRETE AS FOLLOWS:
1. FABRICATE SPECIMENS FOR STRENGTH TESTS PER ACI 318.
2. PERFORM SLUMP AND AIR CONTENT TESTS.
3. DETERMINE TEMPERATURE OF THE CONCRETE.
b. REINFORCING STEEL.
1. PLACEMENT (CONTINUOUS INSPECTION FOR SPECIAL MOMENT FRAMES)
2. OBTAIN AND REVIEW MILL TEST REPORTS.
3. WELDING.
c. CONCRETE PLACEMENT (CONTINUOUS INSPECTION).
d. CAST-IN-PLACE ANCHOR BOLTS.
e. CURING TEMPERATURE AND TECHNIQUES AND DURATION.
f. REVIEW MIX DESIGN FOR EACH CLASS OF CONCRETE.
g. REVIEW THE TICKET OF EACH BATCH OF CONCRETE DELIVERED.
h. FORMWORK (INCLUDING FORM REMOVAL AND RESHORES)
1. SHAPE
2. LOCATION
3. DIMENSIONS
2) NON-SHRINK GROUT
a. PLACEMENT
b. CAST AND TEST SPECIMENS FOR COMPRESSION STRENGTH
3) ALL STRUCTURAL WELDING INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
a. CONTINUOUS INSPECTION FOR ALL BUTT WELDS, COMPLETE AND PARTIAL PENETRATION WELDS, GROOVE WELDS AND PLUG WELDS, INCLUDING WELDING OF REINFORCEMENT.
b. CONTINUOUS INSPECTION OF ALL FILLET WELDS EXCEEDING 5/16".
c. PERIODIC VISUAL INSPECTION OF THE FOLLOWING ITEMS:
1. SINGLE-PASS FILLET WELDS NOT EXCEEDING 5/16".
2. WELDING OF STAIRS AND RAILING SYSTEMS.
4) POST INSTALLED ANCHORS. WHERE ANCHORS ARE LOADED IN SUSTAINED TENSION, INSPECTION SHALL BE CONTINUOUS. REFER TO THE DRAWINGS FOR LOCATIONS.
a. CONCRETE
1. EPOXY REBAR AND THREADED RODS
2. MECHANICAL ANCHORS
5) STRUCTURAL WOOD
a. PERIODIC SPECIAL INSPECTION FOR NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC FORCE RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS, WOOD DIAPHRAGMS DRAG STRUTS, CLT PLYWOOD SPLINES, STEEL STRAPS, BRACES, SHEAR PANELS AND HOLD-DOWNS.
6) ALL EXCAVATIONS AND EARTH FORMS SHALL BE INSPECTED BY THE LOCAL BUILDING INSPECTOR AND INSPECTED BY THE GEOTECHNICAL ENGINEER AND/OR ENGINEER PRIOR TO PLACING CONCRETE.

**4. STRUCTURAL OBSERVATIONS**

- A. STRUCTURAL OBSERVATIONS WILL BE UNDERTAKEN BY PERSONNEL UNDER THE SUPERVISION OF THE ENGINEER OF RECORD. STRUCTURAL OBSERVATIONS ARE SEPARATE FROM THE SPECIAL INSPECTION REQUIREMENTS OUTLINED ABOVE.
B. THE PURPOSE OF STRUCTURAL OBSERVATIONS IS TO REVIEW THE OVERALL PROGRESS OF CONSTRUCTION AND ASCERTAIN ITS GENERAL COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS, THESE GENERAL NOTES, AND OTHER SPECIFICATIONS, WHERE APPLICABLE. OBSERVATIONS WILL BE NOTED IN REGULAR SITE REPORTS ISSUED TO THE OWNER'S REPRESENTATIVE/OWNER.
C. UNLESS OTHERWISE AGREED UPON, THE ENGINEER OF RECORD SHALL BE ENGAGED TO PROVIDE, AT MINIMUM, A LEVEL OF CONSTRUCTION INVOLVEMENT NEEDED TO OBSERVE THE FOLLOWING AT SIGNIFICANT MILESTONES DURING THE CONSTRUCTION PROCESS:
1) FOUNDATION REINFORCEMENT AND CONSTRUCTION
2) STRUCTURAL STEEL FRAMING
3) LATERAL FORCE RESISTING ELEMENTS
4) WOOD FRAMING
ADDITIONAL ENGINEER INVOLVEMENT MAY BE DESIRED. ANY AGREEMENT TO THAT EFFECT SHALL BE MADE PRIOR TO THE START OF CONSTRUCTION.
D. THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 3 DAYS PRIOR TO TIME OF OBSERVATION AND PROVIDE ACCESS FOR THE OBSERVATIONS.
E. AN OWNER'S REPRESENTATIVE MAY BE DESIGNATED, BY THE OWNER'S SPECIFIC AUTHORIZATION PRIOR TO THE START OF CONSTRUCTION, WHO WILL HAVE THE AUTHORITY TO REQUEST ADDITIONAL ENGINEER INVOLVEMENT OUTSIDE OF THE NORMAL DUTIES ASSOCIATED WITH STRUCTURAL OBSERVATION.

**5. DESIGN BASIS**

- A. CONSTRUCT IN CONFORMANCE WITH THE BUILDING CODE NOTED ABOVE.
B. DESIGN LIVE LOADS (PSF):
ROOF 20
FLOOR 40
CORRIDOR 100
DECKS 60
C. DESIGN DEAD LOADS
1) SUPERIMPOSED DEAD LOADS NOTED ON PLANS
D. EARTHQUAKE DESIGN DATA
1) SEISMIC IMPORTANCE FACTOR, I: 1.0
2) RISK CATEGORY: II
3) USGS MCEER SPECTRAL RESPONSE ACCELERATIONS:
i. Ss = 0.58 g
ii. S1 = 1.256 g
4) SITE CLASS: D-STIFF SOIL
5) ASCE 7 DESIGN SPECTRAL RESPONSE ACCELERATIONS:
i. SDS = 0.517 g
ii. SD1 = 0.357 g
6) SEISMIC DESIGN CATEGORY:
7) BASIC SEISMIC-FORCE RESISTING SYSTEM:
8) RESPONSE MODIFICATION FACTOR, R:
9) SEISMIC RESPONSE COEFFICIENT, Cs (AT STRENGTH LEVEL):
10) DESIGN BASE SHEAR: 127 KIPS
11) ANALYSIS PROCEDURE USED:
D LIGHT-FRAME WOOD SHEAR WALLS
6.5
0.079g
EQUVALENT LATERAL FORCE 2.5%
E. WIND:
1) RISK CATEGORY: II
2) BASIC WIND SPEED: 110 MPH
3) WIND DIRECTIONALITY FACTOR, Kd: 0.85
4) EXPOSURE CATEGORY: B
5) TOPOGRAPHIC FACTOR, Kzt: 1.0
6) ENCLOSURE CLASSIFICATION: ENCLOSED BUILDING
F. FOUNDATIONS: MODIFY AS REQ'D
1) MAT SLAB: 1,500 PSF (1/3 INCREASE FOR SEISMIC LOADING)

**6. FOUNDATION, FILL, AND SITE WORK**

FOUNDATION DESIGN IS BASED ON A GEOTECHNICAL REPORT PREPARED BY: GEOCON DATED: AUGUST 2020

- A. EXCEPT WHERE OTHERWISE SHOWN, EXCAVATIONS SHALL BE MADE AS NEAR AS POSSIBLE TO THE NEAT LINES REQUIRED BY THE SIZE AND SHAPE OF THE STRUCTURE. ALL FOUNDATIONS SHALL BE POURED WITHOUT THE USE OF SIDE FORMS WHEREVER POSSIBLE. IF THE TRENCHES CANNOT STAND, FULLY FORM SIDES TO DIMENSIONS SHOWN.
B. DO NOT ALLOW WATER TO STAND IN TRENCHES. IF BOTTOMS OF TRENCHES BECOME SOFTENED DUE TO RAIN OR SLURRY OR OTHER WATER BEFORE CONCRETE IS CAST, EXCAVATE SOFTENED MATERIAL AND REPLACE WITH PROPERLY COMPACTED BACKFILL OR CONCRETE AT NO COST TO OWNER.
C. WHERE SITEWORK IS REQUIRED, COMPLY WITH THE FOLLOWING:
1) STRIP THE AREA TO BE BUILT OVER OF ALL ORGANIC MATERIAL AND TOP SOIL.
2) SCARIFY THE TOP 6 INCHES OF STRIPPED SURFACE. BRING TO CORRECT MOISTURE CONTENT, THEN RE-COMPACT TO AT LEAST 95% UNDER FOOTINGS AND 90% ELSEWHERE.
3) FILL MATERIAL TO BE PLACED IN 6 INCH LAYERS AND COMPACTED.
4) FILL MATERIAL SHALL BE FREE OF PLASTIC CLAYS, VEGETATION, AND OTHER DELETERIOUS MATERIAL; IT SHALL BE OF SUCH QUALITY THAT IT WILL COMPACT THOROUGHLY WHEN WATERED AND ROLLED. THE FILL SHALL NOT CONTAIN ROCKS OR LUMPS OVER 2 INCHES IN GREATEST DIMENSION.
D. PLACE BACKFILL BEHIND RETAINING WALLS AFTER CONCRETE HAS ATTAINED FULL DESIGN STRENGTH. BRACE BUILDING AND PIT WALLS BELOW GRADE FROM LATERAL LOADS UNTIL ATTACHED FLOORS AND SLABS ON GRADE HAVE ATTAINED FULL DESIGN STRENGTH.
E. FOR SHALLOW FOUNDATIONS, THE TOP SURFACE OF FOOTINGS SHALL BE LEVEL. THE BOTTOM SURFACE OF FOOTINGS SHALL BE PERMITTED TO HAVE A SLOPE NOT EXCEEDING ONE UNIT VERTICAL IN 10 UNITS HORIZONTAL (10-PERCENT SLOPE). FOOTINGS SHALL BE STEPPED WHERE IT IS NECESSARY TO CHANGE THE ELEVATION OF THE TOP SURFACE OF THE FOOTING OR WHERE THE SURFACE OF THE GROUND SLOPES MORE THAN ONE UNIT VERTICAL IN 10 UNITS HORIZONTAL.

**8. CONCRETE**

- A. EXCEPT WHERE NOTED OTHERWISE ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ACI 301 - SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS. UNLESS OTHERWISE NOTED, COMPLY WITH CONSTRUCTION TOLERANCES AS SPECIFIED IN ACI 117 "SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS".
B. REINFORCE ALL CONCRETE. INSTALL ALL INSERTS, BOLTS, ANCHORS, AND REINFORCING AND SECURELY TIE PRIOR TO PLACING CONCRETE.
C. PORTLAND CEMENT SHALL CONFORM TO ASTM C-150 TYPE I OR II. NOTE: UPDATE CEMENT TYPE BASED ON GEOTECHNICAL REQUIREMENTS/SOIL CORROSIIVITY.
D. CONCRETE SHALL BE HARDROCK CONCRETE AND CONFORM TO ALL REQUIREMENTS OF ASTM C-33, UNLESS OTHERWISE NOTED. WHERE LIGHTWEIGHT CONCRETE IS SPECIFIED, IT SHALL CONFORM TO ASTM C-330. FLY ASH SHALL COMPLY WITH ASTM C618; SLAG SHALL COMPLY WITH ASTM C989. PROPORTION CONCRETE IN ACCORDANCE WITH ACI 211.1, INCLUDING ANY REQUIRED ADMIXTURES. CONCRETE SHALL SATISFY THE FOLLOWING PROPERTIES:
ADMIXTURES WITH CHLORIDE IONS: NOT PERMITTED
MIN. FLY ASH OR SLAG REPLACEMENT: 20%
MAX. SHRINKAGE AT 28 DAYS: 0.040% PER ASTM C157 (SEAONC METHOD)

Table with 4 columns: LOCATION, MIN. STRENGTH @ 28 DAYS PSI, MAX. AGGREGATE SIZE - INCHES, MAX. SLUMP INCHES. Row: MAT FOUNDATION, 4000, 1-1/2", 4

- E. THE ACTUAL SLUMP AND TOLERANCE SHALL BE ESTABLISHED BY THE CONTRACTOR AND CONCRETE SUPPLIER, AS REQUIRED TO SATISFY THE CONTRACTOR'S MEANS AND METHODS FOR PLACEMENT, FIELD AND INSTALLATION CONDITIONS (INCLUDING REINFORCING CONGESTION), FINISH REQUIREMENTS, AND AS REQUIRED TO SATISFY THE PERFORMANCE CRITERIA SPECIFIED ABOVE.

- F. WHEN PLACING NEW CONCRETE AGAINST EXISTING CONCRETE, AND/OR CONCRETE MASONRY, ROUGHEN EXISTING MATERIAL TO 1/4" AMPLITUDE. REMOVE ALL LOOSE CEMENTITIOUS MATERIALS AND AGGREGATES. PRESSURE WASH SURFACE AND REMOVE STANDING WATER IMMEDIATELY PRIOR TO PLACING NEW CONCRETE.
G. CONTRACTOR SHALL CONSTRUCT CONCRETE FLOORS AND SLABS PER RECOMMENDATIONS OF ACI 302.1R. CONTRACTOR SHALL SUBMIT LOCATIONS OF PROPOSED CONSTRUCTION JOINTS FOR ENGINEERS REVIEW AND APPROVAL.

**9. FORMWORK**

- A. DESIGN AND CONSTRUCT FORMWORK IN ACCORDANCE WITH ACI 347 RECOMMENDED PRACTICE FOR CONCRETE FORMWORK AND ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE", UNLESS OTHERWISE NOTED.
B. AS REQUIRED, PROVIDE POUR POCKETS IN FORMS AND UNDER EXISTING MEMBERS TO PREVENT AIR POCKETS OR "HONEYCOMBS". CONCRETE CAST WITH AIR POCKETS OR HONEYCOMBS IS NOT ACCEPTABLE.
C. PROVIDE 3/4 INCH BY 3/4 INCH CHAMFER STRIPS ON ALL EXTERNAL CORNERS OF BEAMS, COLUMNS, AND WALLS, UNLESS OTHERWISE NOTED.
D. REMOVE FORMS AND SHORES IN ACCORDANCE WITH THE FOLLOWING:
1) FOOTINGS, PILE CAPS, AND GRADE BEAMS - REMOVE FORMS AND SHORES NO SOONER THAN 48 HOURS.
E. CONCRETE SHALL BE CONTINUOUSLY CURED FOR 10 DAYS AFTER PLACING IN ANY APPROVED MANNER IN ACCORDANCE WITH ACI 301, INCLUDING CURING COMPOUND, CURING PAPER, WATER SPRAY, FLOODING WITH WATER (FOR SLABS), ETC. PROVIDE CURING WHERE FORMS ARE REMOVED IN LESS THAN 7 DAYS.

**10. REINFORCING STEEL**

- A. ALL REINFORCING STEEL BARS, UNLESS OTHERWISE NOTED, SHALL CONFORM WITH THE LATEST STANDARD SPECIFICATIONS FOR DEFORMED BILLET STEEL FOR CONCRETE REINFORCEMENT, ASTM DESIGNATION A615 AND SHALL BE MINIMUM GRADE 60. HEADED SHEAR STUD REINFORCING SHALL COMPLY WITH ASTM A1044
B. SUITABLE DEVICES (DOBIES, CHAIRS, ETC.) OF SOME STANDARD MANUFACTURE SHALL BE USED TO HOLD REINFORCEMENTS IN ITS TRUE HORIZONTAL AND VERTICAL POSITIONS. THESE DEVICES SHALL BE SUFFICIENTLY RIGID AND NUMEROUS TO PREVENT DISPLACEMENT OF THE REINFORCING DURING PLACING OF CONCRETE. ALL SUCH DEVICES HAVE PRIOR APPROVAL FROM THE ARCHITECT AND ENGINEER.
C. LAP SPLICE ALL BARS IN CONCRETE PER STANDARD DETAILS SCHEDULE. USING LAP TYPE "TOP" UNLESS OTHERWISE NOTED. WHEN LAPPING BARS OF DIFFERENT SIZES, USE THE LAP LENGTH OF THE LARGER BAR.
D. UNLESS OTHERWISE DEMONSTRATED BY SUCCESSFUL PLACEMENT OF A REPRESENTATIVE TEST PANEL, LAP SPLICES FOR SHOTCRETE WALLS SHALL BE PER NON-CONTACT SPLICE METHOD. THE LAPPED BARS SHALL BE SPACED A MINIMUM OF 2 INCHES BETWEEN THEM AND THE LAP LENGTH SHALL BE PER THE SCHEDULE USING LAP CLASS B, "TOP".
E. DETAIL ACCORDING TO THE LATEST ACI STANDARD 315, MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES. PLACE REINFORCEMENT PER ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE", UNLESS OTHERWISE NOTED.
F. REBAR PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT.
G. REBAR SHALL ONLY BE BENT ONCE. REBAR SHALL NOT BE BENT AND STRAIGHTENED FOR CONSTRUCTION UNLESS EXPLICITLY NOTED ON THE CONSTRUCTION DOCUMENTS.
H. MAINTAIN COVERAGE TO FACE OF BARS, INCLUDING SLEEVES AND PENETRATIONS, AS FOLLOWS, UNLESS OTHERWISE NOTED:
1) CAST-IN-PLACE CONCRETE
a. 3 INCHES WHERE CONCRETE IS DEPOSITED AGAINST EARTH EXCEPT SLAB-ON-GRADE.
b. 2 INCHES FOR FORMED CONCRETE WHICH IS EXPOSED TO EARTH OR WEATHER FOR #6 BAR THROUGH #18 BAR. REDUCED TO 1-1/2 FOR #5 BAR, AND SMALLER.
c. 3/4 INCHES FOR INTERIOR SLABS
d. 1-1/2 INCHES FOR SLAB-ON-GRADE.

**11. FRAMING LUMBER**

- A. ALL FRAMING LUMBER SHALL BE GRADED PER WCLIB GRADING RULES NO. 17.
B. ALL FRAMING LUMBER SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 19% AT TIME OF INSTALLATION.
C. ALL POSTS AND BEAMS SHALL BE DOUGLAS FIR, #1.
D. ALL FLOOR AND ROOF JOISTS SHALL BE DOUGLAS FIR, #1.
E. ALL STUDS, PLATES, ETC., SHALL BE DOUGLAS FIR, #2.
F. ENGINEERED WOOD PRODUCTS MAY BE USED AS SUBSTITUTES FOR SAWN LUMBER UPON REQUEST BY THE CONTRACTOR AND APPROVAL FROM THE ARCHITECT AND ENGINEER OF RECORD. CONTRACTOR SHALL SUBMIT MANUFACTURER'S TESTING REPORTS FOR APPROVAL.

**12. ENGINEERED WOOD PRODUCTS (EWP)**

- A. ALL ENGINEERED WOOD PRODUCTS (EWP) SUPPLIED ON THIS PROJECT SHALL BE SUPPLIED BY ONE MANUFACTURER.
B. ALL MICROLAM LVL FRAMING MEMBERS SHALL BE FABRICATED BY TRUS JOIST WITH THE FOLLOWING ALLOWABLE STRESSES: Fb = 2600 PSI, Fv = 285 PSI, E = 2,000,000 PSI. MOISTURE CONTENT AT THE TIME OF FABRICATION SHALL NOT EXCEED 9%.
C. ALL PARALLAM PSL FRAMING MEMBERS SHALL BE FABRICATED BY TRUS JOIST WITH THE FOLLOWING ALLOWABLE STRESSES: Fb = 2900 PSI, Fv = 290 PSI, E = 2,000,000 PSI. MOISTURE CONTENT AT THE TIME OF FABRICATION SHALL NOT EXCEED 9%.
D. ALL TJI PREFABRICATED WOOD I-JOISTS SHALL BE FABRICATED BY TRUS JOIST.

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**REVISIONS**

Table with 3 columns: No., PLAN CHECK COMMENTS, 12/21/2020

**BLDG. DEPT. SUBMITTAL**

Table with 2 columns: JOB NO., DATE, SCALE, FILENAME. Values: 20149.10, 4/20/2021, N.T.S., www.williamspluspaddon.com

**S-001**  
GENERAL NOTES

All drawings and written notes shall be approved by the original author and stamped with the original author's name. Structural Engineer and may not be duplicated, used or disclosed without the consent of the Structural Engineer. C:\Users\erickmcdonnell\Documents\Projects\415\_F\_S\415\_F\_S\_PlanCheck\20210420\_Subs\03-General\_Notes\revision.docx 3/10/2021 10:48:44 AM S:\01 - GENERAL NOTES



**STATEMENT OF SPECIAL INSPECTIONS**

- SPECIAL INSPECTIONS AND TESTS SHALL BE PERFORMED BY AN INDEPENDENT QUALIFIED INSPECTION AND/OR TESTING AGENCY APPROVED BY THE JURISDICTION FOR SUCH WORK AND IN ACCORDANCE WITH CHAPTER 17 OF THE CODE. THESE SPECIAL INSPECTIONS AND TESTS ARE IN ADDITION TO THE INSPECTIONS PERFORMED BY THE BUILDING OFFICIAL.
- THE OWNER SHALL BE RESPONSIBLE FOR RETAINING THE SPECIAL INSPECTION AND/OR TESTING AGENCY.
- THE SPECIAL INSPECTION AND/OR TESTING AGENCY SHALL KEEP RECORDS AND SUBMIT SPECIAL INSPECTION AND TEST REPORTS TO THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER OF RECORD IN ACCORDANCE WITH SECTIONS 1704.2.4 AND 1704.5 OF THE CODE AND JURISDICTION-SPECIFIC REQUIREMENTS.
- THE CONTRACTOR SHALL NOTIFY THE TESTING LAB A MINIMUM OF 48 HOURS PRIOR TO TIME OF INSPECTION.
- THE CONSTRUCTION OR WORK FOR WHICH SPECIAL INSPECTION OR TESTING IS REQUIRED SHALL REMAIN ACCESSIBLE AND EXPOSED FOR SPECIAL INSPECTION OR TESTING PURPOSES UNTIL COMPLETION OF THE REQUIRED SPECIAL INSPECTIONS OR TESTS.
- IF INITIAL TESTS OR INSPECTIONS MADE BY THE OWNER'S TESTING OR INSPECTION AGENCY REVEAL THAT ANY PORTION OF THE WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, ADDITIONAL TESTS, INSPECTIONS, AND NECESSARY REPAIRS SHALL BE MADE AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER IMMEDIATELY OF NON-CONFORMING WORK. THIS NOTIFICATION SHALL SPECIFICALLY ADDRESS THE NON-CONFORMING WORK AND SHALL BE SEPARATE FROM THE SPECIAL INSPECTION REPORTS.
- SPECIAL INSPECTION REPORTS SHALL BE SENT TO THE ENGINEER AT THE TIME OF COMPLETION FOR REVIEW OF CONFORMANCE WITH THE REQUIREMENTS OF THE STRUCTURAL DRAWINGS.
- SPECIAL INSPECTIONS AND TESTS FOR SEISMIC RESISTANCE SHALL BE PERFORMED FOR THE DESIGNATED SEISMIC SYSTEM/SEISMIC FORCE RESISTING COMPONENT WHEN APPLICABLE AND AS PER SECTIONS 1705.12 & 1705.13 OF THE CODE.
  - DESIGNATED SEISMIC SYSTEM/SEISMIC FORCE RESISTING SYSTEM: WRITE IN APPLICABLE SYSTEM(S) OR "N/A". SEE THE ABOVE-REFERENCED CODE SECTIONS FOR ADDITIONAL SPECIAL INSPECTION AND TEST REQUIREMENTS FOR STRUCTURAL STEEL, STRUCTURAL WOOD, COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION, DESIGNATED SEISMIC SYSTEMS, ARCHITECTURAL COMPONENTS, MEIP COMPONENTS, STORAGE RACKS, SEISMIC ISOLATIONS SYSTEMS, AND COLD-FORMED STEEL SPECIAL BOLTED MOMENT FRAMES.
- EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND OR SEISMIC FORCE RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM, OR A WIND OR SEISMIC RESISTING COMPONENT LISTED ABOVE SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT SHALL CONTAIN ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THIS STATEMENT OF SPECIAL INSPECTIONS.
- STEEL CONSTRUCTION: SPECIAL INSPECTIONS FOR STEEL ELEMENTS OF BUILDINGS AND STRUCTURES SHALL BE AS REQUIRED BY SECTION 1705.2 OF THE CODE AND IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 300-10, INCLUDING THE SPECIAL INSPECTION TABLE SHOWN HEREIN. SEE ALSO REQUIREMENTS NOTED FOR SEISMIC AND WIND RESISTANCE OF INSPECTION NOTES #8 AND #9.
- CONCRETE CONSTRUCTION: SPECIAL INSPECTIONS AND VERIFICATIONS FOR CONCRETE CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.3 OF THE CODE, INCLUDING THE SPECIAL INSPECTION TABLE SHOWN HEREIN. CONCRETE SPECIAL INSPECTIONS AND TESTS ARE NOT REQUIRED FOR:
  - ISOLATED SPREAD FOOTINGS OF BUILDINGS 3 STORIES OR LESS ABOVE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK.
  - NONSTRUCTURAL CONCRETE SLABS SUPPORTED DIRECTLY ON THE GROUND, INCLUDING PRESTRESSED SLABS ON GRADE WHERE THE EFFECTIVE PRESTRESS IN THE CONCRETE IS LESS THAN 150 PSI.
  - CONCRETE PATIOS, DRIVEWAYS AND SIDEWALKS, ON GRADE.
- MASONRY CONSTRUCTION: SPECIAL INSPECTIONS AND VERIFICATIONS FOR MASONRY CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.4 OF THE CODE AND IN ACCORDANCE WITH TMS 402/ACI 530/ASCE 5 AND TMS 602/ACI 530.1/ASCE 6 QUALITY ASSURANCE REQUIREMENTS, INCLUDING THE SPECIAL INSPECTION TABLES SHOWN HEREIN.
- WOOD CONSTRUCTION: SPECIAL INSPECTIONS FOR WOOD CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.5 OF THE CODE. SEE ALSO REQUIREMENTS NOTED FOR SEISMIC AND WIND RESISTANCE OF INSPECTION NOTES #8 AND #9.
- SOILS: SPECIAL INSPECTIONS FOR EXISTING SOIL CONDITIONS, FILL PLACEMENT, AND LOAD BEARING REQUIREMENTS SHALL BE AS REQUIRED BY SECTIONS 1705.6 THROUGH 1705.9 OF THE CODE, INCLUDING THE SPECIAL INSPECTION TABLES SHOWN HEREIN.

**1 STATEMENT OF SPECIAL INSPECTIONS**

N.T.S.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION (2019 CBC TABLE 1705.3 AND ACI 318-14) <sup>a</sup>				
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	CBC REFERENCE
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT.	-	X	ACI 318: CH. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
2. REINFORCING BAR WELDING:				
a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706.	-	X	AWS D1.4 ACI 318: 26.6.4	-
b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16".	-	X		
c. INSPECT ALL OTHER WELDS.	X	-		
3. INSPECT ANCHORS CAST IN CONCRETE.	-	X	ACI 318: 17.8.2	-
4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS:				
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	-	ACI 318: 17.8.2.4	-
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a.	-	X	ACI 318: 17.8.2	-
5. VERIFY USE OF REQUIRED MIX DESIGN.	-	X	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-	ASTM C172, ASTM C31, ACI 318: 26.4.5, 26.12	1908.10
7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X	ACI 318: 26.5.3-26.5.5	1908.0
9. INSPECT PRESTRESSED CONCRETE FOR:				
a. APPLICATION OF PRESTRESSING FORCES.	X	-	ACI 318: 26.10	-
b. GROUTING OF BONDED PRESTRESSING TENDONS.	X	-	ACI 318: 26.10	-
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	-	X	ACI 318: 26.9	-
11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	-	X	ACI 318: 26.11.2	-
12. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	X	ACI 318: 26.11.1, 2(b)	-

a. WHERE APPLICABLE, SEE ALSO SECTION 1705.12 (SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE).  
b. SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH ACI 318-14 SECTION 17.8.2, OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF THE WORK. SPECIAL INSPECTIONS FOR EPOXY ADHESIVE ANCHORS SHALL BE CONTINUOUS UNLESS NOTED OTHERWISE.

**2 MINIMUM TEST AND SPECIAL INSPECTIONS OF CONCRETE CONSTRUCTION**

N.T.S.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS (2019 CBC TABLE 1705.6)		
TYPE	CONTINUOUS	PERIODIC
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	-	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	-
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	X

**3 MINIMUM TESTS AND SPECIAL INSPECTIONS OF SOILS**

N.T.S.

MINIMUM TESTS AND SPECIAL INSPECTION OF MASONRY CONSTRUCTION (2019 CBC SECTION 1705.4) LEVEL B TESTS AND SPECIAL INSPECTIONS FOR RISK CATEGORY I, II, AND III PER ACI 530.1-13 TABLE 4			
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD
1. TESTS: VERIFICATION OF SLUMP, FLOW AND VISUAL STABILITY INDEX (VSI) AS DELIVERED TO THE PROJECT SITE FOR SELF-CONSOLIDATING GROUT.	X	-	ACI 530.1 ART. 1.5B.1.b.3
2. TESTS: VERIFICATION OF $f_m$ AND $f_{AAC}$ PRIOR TO CONSTRUCTION EXCEPT WHERE SPECIFICALLY EXEMPTED BY THE CODE.	X	-	ACI 530.1 ART. 1.4B
3. VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS.	-	X	ACI 530.1 ART. 1.5
4. AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:			
a. PROPORTIONS OF SITE-PREPARED MORTAR.	-	X	ACI 530.1 ART. 2.1, 2.6A
b. CONSTRUCTION OF MORTAR JOINTS.	-	X	ACI 530.1 ART. 3.3B
c. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES.	-	X	ACI 530.1 ART. 2.4B, 2.4H
d. LOCATION OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES.	-	X	ACI 530.1 ART. 3.4, 3.6A
e. PRESTRESSING TECHNIQUE.	-	X	ACI 530.1 ART. 3.6B
f. PROPERTIES OF THIN-BED MORTAR FOR AAC MASONRY.	X <sup>(a)</sup>	X <sup>(b)</sup>	ACI 530.1 ART. 2.1C
5. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:			
a. GROUT SPACE.	-	X	ACI 530.1 ART. 3.2D, 3.2F
b. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ANCHORAGES.	-	X	ACI 530 SEC. 6.1; ACI 530.1 ART. 2.4, 3.4
c. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES.	-	X	ACI 530 SEC. 6.1, 6.2.1, 6.2.6, 6.2.7; ACI 530.1 ART. 3.2E, 3.4, 3.6A
d. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS.	-	X	ACI 530.1 ART. 2.6B, 2.4G.1.b
e. CONSTRUCTION OF MORTAR JOINTS.	-	X	ACI 530.1 ART. 3.3B
6. VERIFY DURING CONSTRUCTION:			
a. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.	-	X	ACI 530.1 ART. 3.3F
b. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION.	-	X	ACI 530 SEC. 1.2.1(e), 6.1.4.3, 6.2.1
c. WELDING OF REINFORCEMENT.	X	-	ACI 530 SEC. 8.1.6.7.2, 9.3.3.4(c) 11.3.3.4(b)
d. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F).	-	X	ACI 530.1 ART. 1.8C, 1.8D
e. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE.	X	-	ACI 530.1 ART. 3.6B
f. PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS IS IN COMPLIANCE.	X	-	ACI 530.1 ART. 3.5, 3.6C
g. PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS.	X <sup>(a)</sup>	X <sup>(b)</sup>	ACI 530.1 ART. 3.3B.9, 3.3F.1.b
7. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS.	-	X	ACI 530.1 ART. 1.4B.2.a.3, 1.4B.2.b.3, 1.4B.2.c.3, 1.4B.3, 1.4B.4

a. REQUIRED FOR THE FIRST 5,000 SQUARE FEET OF AAC MASONRY.  
b. REQUIRED AFTER THE FIRST 5,000 SQUARE FEET OF AAC MASONRY.

**4 MINIMUM TESTS AND SPECIAL INSPECTION OF MASONRY CONSTRUCTION**

N.T.S.

TESTING FOR SEISMIC RESISTANCE (2019 CBC SECTION 1705.13)	
TESTING	REFERENCED STANDARD
3. DESIGNATED SEISMIC SYSTEMS: REVIEW CERTIFICATE OF COMPLIANCE FOR ELEMENTS OF THE DESIGNATED SEISMIC SYSTEM (WHERE NOTED ON THESE DRAWINGS) FOR CONFORMANCE WITH ASCE 7-16 SECTION 13.2.2.	CBC SEC. 1705.13.3

**5 MINIMUM TEST FOR SEISMIC RESISTANCE**

N.T.S.

REQUIRED VERIFICATION AND INSPECTION FOR SEISMIC RESISTANCE (2019 CBC SECTION 1705.12)			
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC <sup>a</sup>	REFERENCED STANDARD
2. STRUCTURAL WOOD SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE:			CBC SEC. 1705.12.2
a. INSPECTION OF FIELD GLUING OPERATIONS OF ELEMENTS OF THE SEISMIC-FORCE RESISTING SYSTEM.	X	-	
b. INSPECTION OF NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC-FORCE RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS <sup>1</sup> , WOOD SHEAR PANELS <sup>2</sup> , WOOD DIAPHRAGMS <sup>3</sup> , DRAG STRUTS, AND HOLD-DOWNS.	-	X	<sup>1</sup> SPECIAL INSPECTIONS NOT REQUIRED WHERE FASTER SPACING OF SHEATHING IS MORE THAN 4" O.C.

<sup>a</sup> "O" INDICATES AN ACTIVITY THAT IS EITHER A ONE-TIME ACTIVITY OR ONE WHOSE FREQUENCY IS ON A RANDOM BASIS OR IS DEFINED IN SOME OTHER MANNER (SEE REFERENCED CODE SECTION).

**6 MINIMUM INSPECTION FOR SEISMIC RESISTANCE**

N.T.S.



02/24/2021  
DATE SIGNED



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**KIND PROJECT**

**THE KIND PROJECT INVESTORS, LP**

415 & 421 F STREET  
W. SACRAMENTO,  
CA 97605

REVISIONS

**BLDG. DEPT. SUBMITTAL**

JOB NO.	20149.10
DRAWN	CJ
DATE	4/20/2021
SCALE	N.T.S.
FILENAME	
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**S-003**

SPECIAL INSPECTIONS



02/24/2021  
DATE SIGNED

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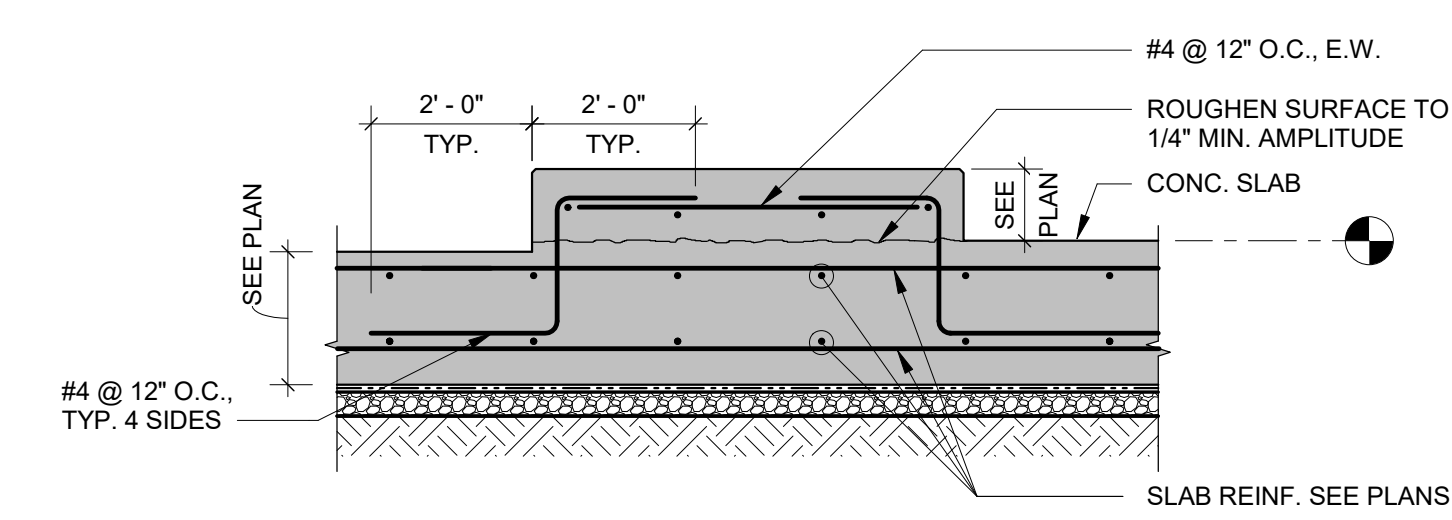
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**BLDG. DEPT. SUBMITTAL**

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DRAWN	CJ
DATE	4/20/2021
SCALE	As indicated
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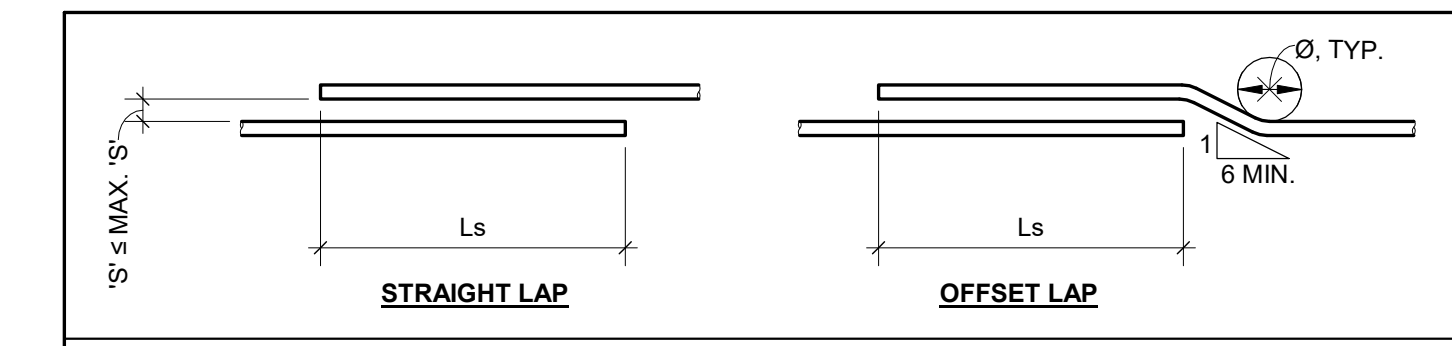
**S-011**

TYPICAL DETAILS



- NOTES:**
- SEE DRAWINGS BY OTHERS FOR HEIGHT, SIZE, CHAMFERS & LOCATION OF CONCRETE PADS.
  - COORDINATE REINF. LOCATIONS TO AVOID INTERFERENCE WITH INSTALLATION OF EXP. ANCHORS IF USED.

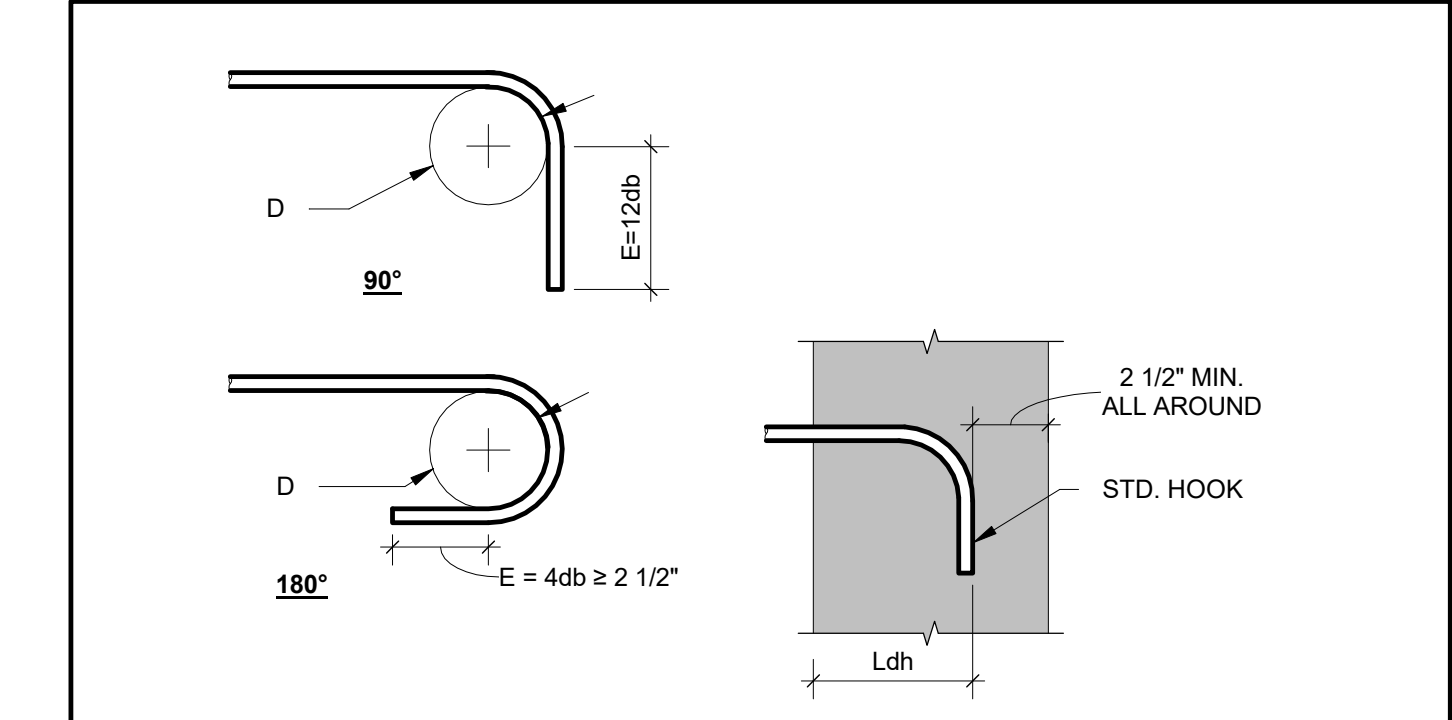
**4 SLAB HOUSEKEEPING PAD** N.T.S.



BAR SIZE	D (BEND Ø)	Ls = SPLICE LENGTH								
		f'c=3000 PSI			f'c=4000 PSI			f'c=5000 PSI		
		TOP	OTHER	MAX. 'S'	TOP	OTHER	MAX. 'S'	TOP	OTHER	MAX. 'S'
#3	2 1/4"	28"	22"	4"	25"	19"	3"	22"	17"	3"
#4	3"	38"	29"	5"	33"	25"	4"	29"	23"	4"
#5	3 3/4"	47"	36"	6"	41"	31"	6"	36"	28"	5"
#6	4 1/2"	56"	43"	6"	49"	37"	6"	44"	34"	6"
#7	5 1/4"	81"	63"	6"	71"	54"	6"	63"	49"	6"
#8	6"	93"	72"	6"	81"	62"	6"	72"	56"	6"
#9	9 1/2"	105"	81"	6"	91"	70"	6"	81"	63"	6"

- NOTES:**
- THIS TABLE CONTAINS MIN. LENGTHS FOR LAP SPLICES & BAR DEVELOPMENT NOT OTHERWISE SPECIFIED ON THESE DRAWINGS. THESE LENGTHS MAY BE REDUCED IN CERTAIN SITUATIONS, SUBJECT TO PRIOR REVIEW & APPROVAL OF THE ENGINEER.
  - SPLICE LENGTHS ARE FOR NORMAL WEIGHT CONC. W/ GRADE 60 REINF.
  - MULTIPLY SPLICE LENGTHS BY 1.33 FOR LIGHTWEIGHT CONC.
  - SPLICE LENGTHS ARE FOR UNCOATED BARS.
  - DIVIDE LENGTHS IN TABLE BY 1.3 TO OBTAIN SINGLE STRAIGHT BAR DEVELOPMENT LENGTHS IN CONCRETE.
  - USE "TOP" FOR WALL BOUNDARIES & WHEN MORE THAN 12" OF FRESH CONC. IS PLACED BELOW SPLICE.
  - "OTHER" FOR ALL OTHER SITUATIONS.
  - 'S' = SPACING.
  - PROVIDE MIN. COVER PER GENERAL NOTES, BUT NOT LESS THAN 1x BAR DIAMETER.

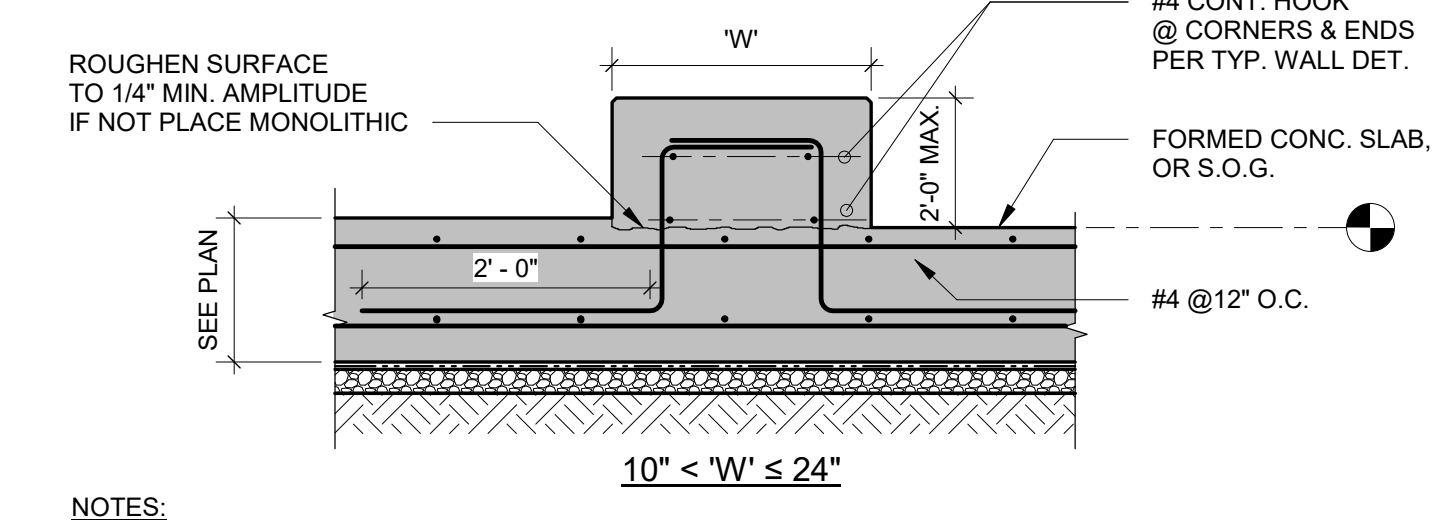
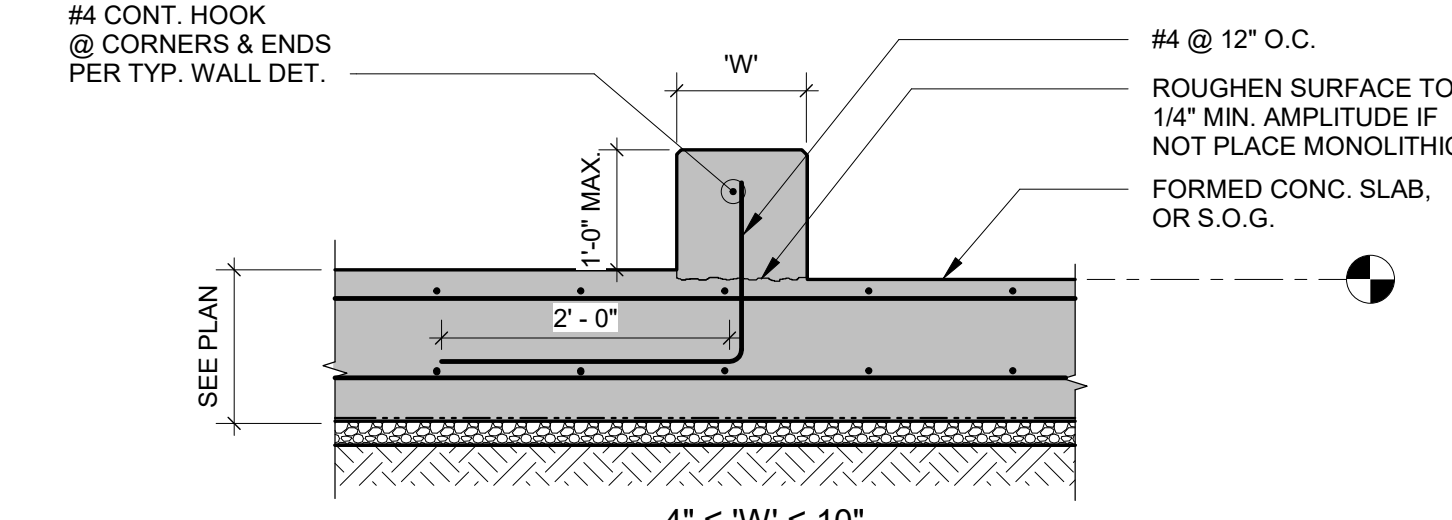
**3 LAP SPLICE / DEVELOPMENT SCHEDULE** NO SCALE



BAR SIZE	D (BEND Ø)	E (HOOK EXTENSION)		Ldh (HOOK DEVELOPMENT LENGTH)		
		90° BEND	180° BEND	f'c=3000psi	f'c=4000psi	f'c=5000psi
#3	2 1/4"	4 1/2"	2 1/2"	6"	6"	6"
#4	3"	6"	2 1/2"	8"	7"	6"
#5	3 3/4"	7 1/2"	2 1/2"	10"	9"	8"
#6	4 1/2"	9"	3"	12"	10"	9"
#7	5 1/4"	10 1/2"	3 1/2"	14"	12"	11"
#8	6"	12"	4"	16"	14"	12"
#9	9 1/2"	14"	5"	18"	15"	14"

- NOTES:**
- db = BAR DIAMETER.
  - UNCOATED BARS.
  - NORMAL WEIGHT CONCRETE.
  - MULTIPLY HOOK DEVELOPMENT LENGTH BY 1.33 FOR LIGHTWEIGHT CONCRETE.
  - DO NOT FIELD BEND REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE.

**1 STANDARD HOOK DIM. / DEVELOPMENT SCHED.** N.T.S.



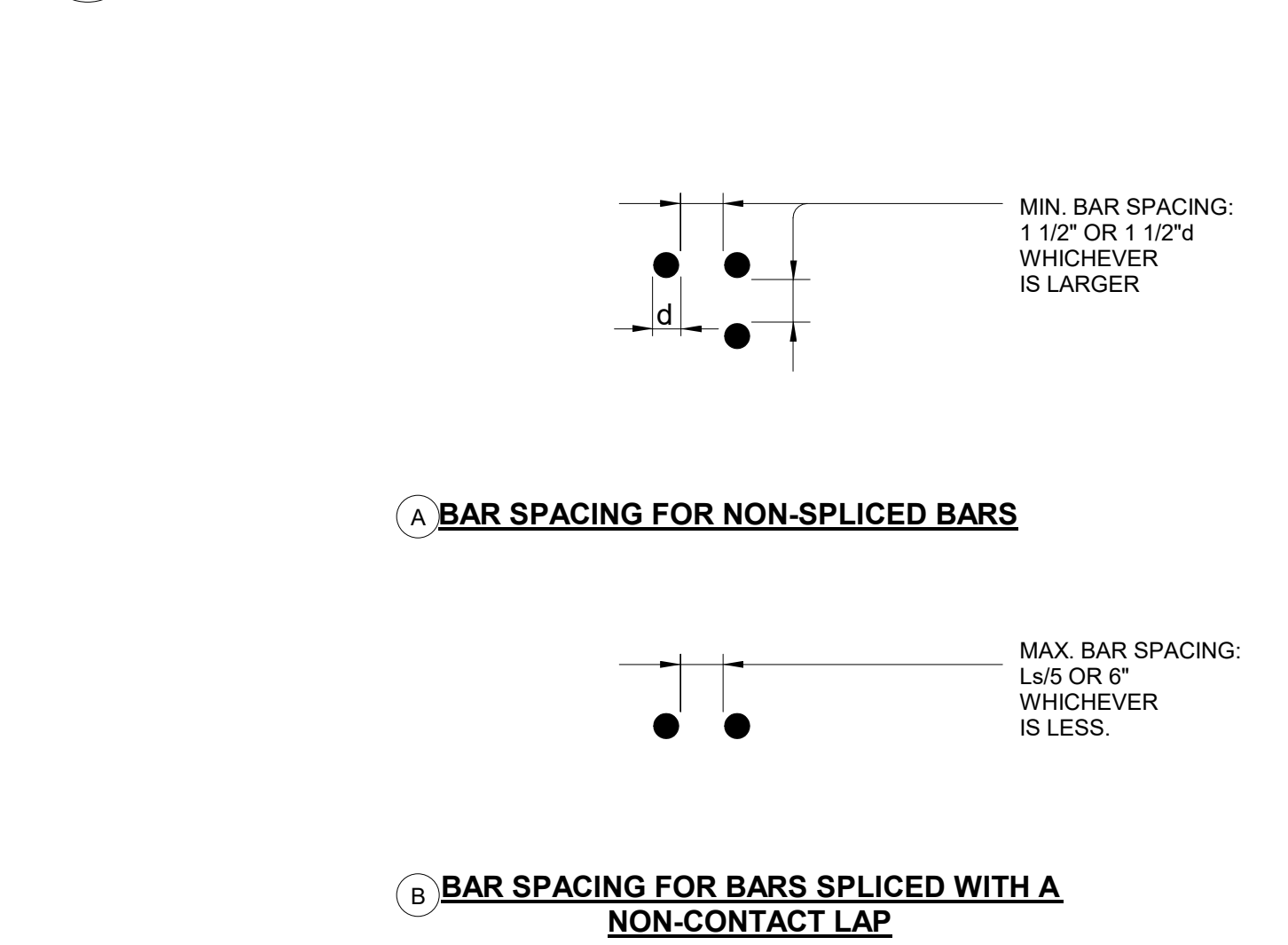
- NOTES:**
- SEE ARCH. & MECH. DWGS. FOR CURB LOCATIONS, DIMENSIONS, CHAMFERS, & INSERTS
  - AT MAT FOUNDATION, IT IS ACCEPTABLE TO PROVIDE EPOXY DOWELS FOR THE CURBS. EPOXY DOWELS TO MATCH SIZE AND SPACING ABOVE. PROVIDE 6" EMBED. INTO MAT SLAB

**7 CONC. CURB** N.T.S.

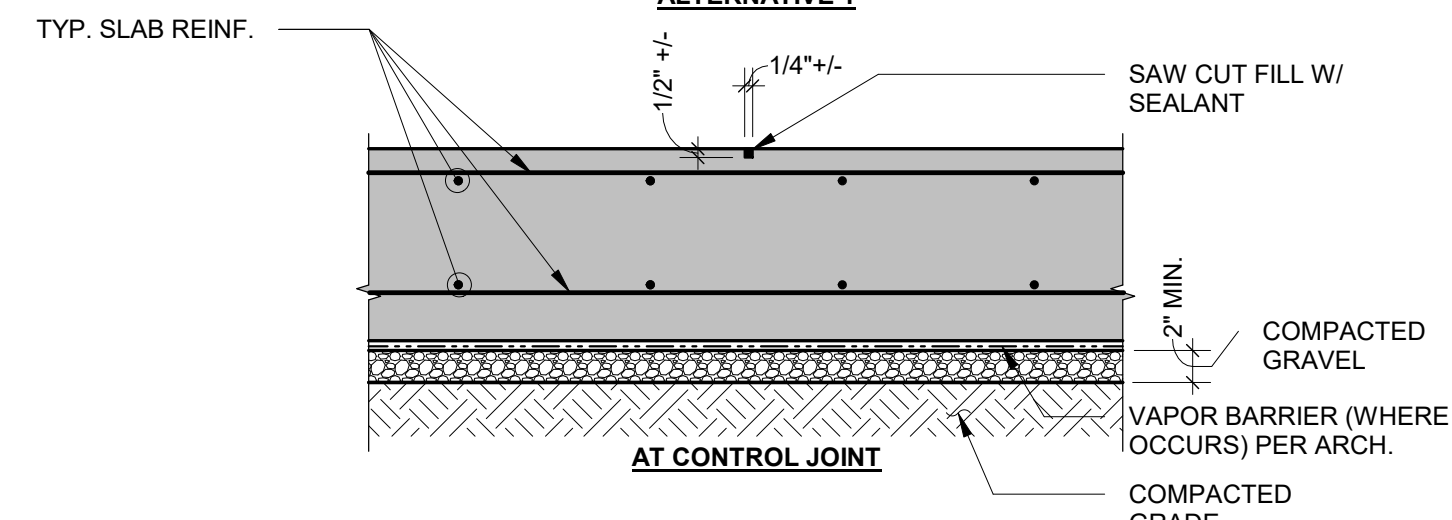
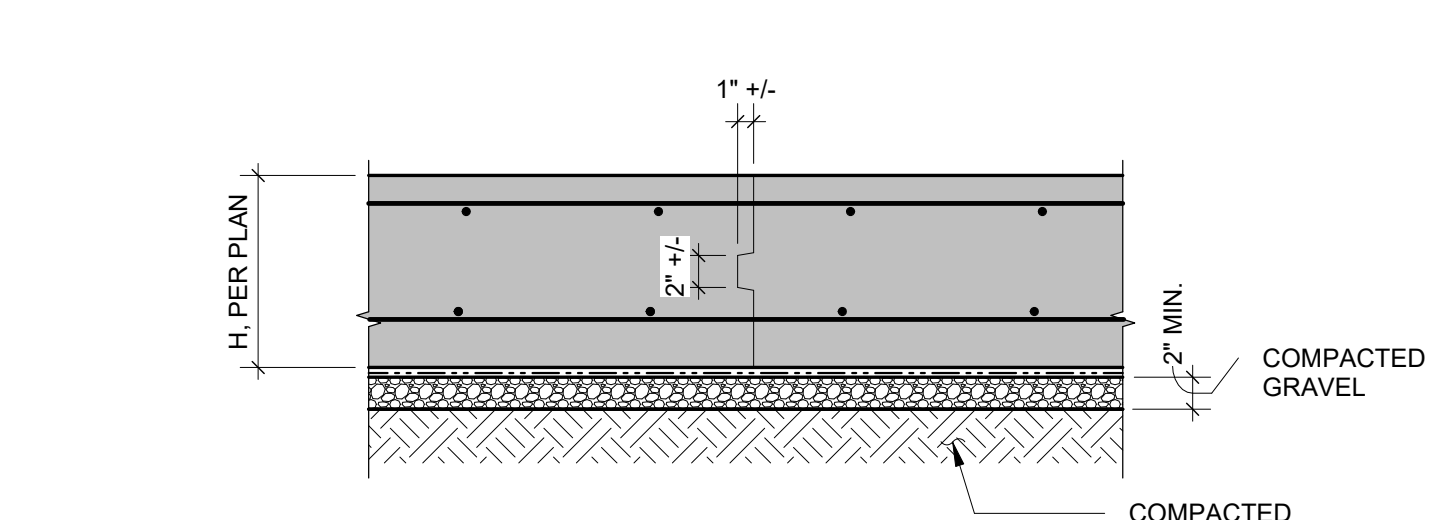
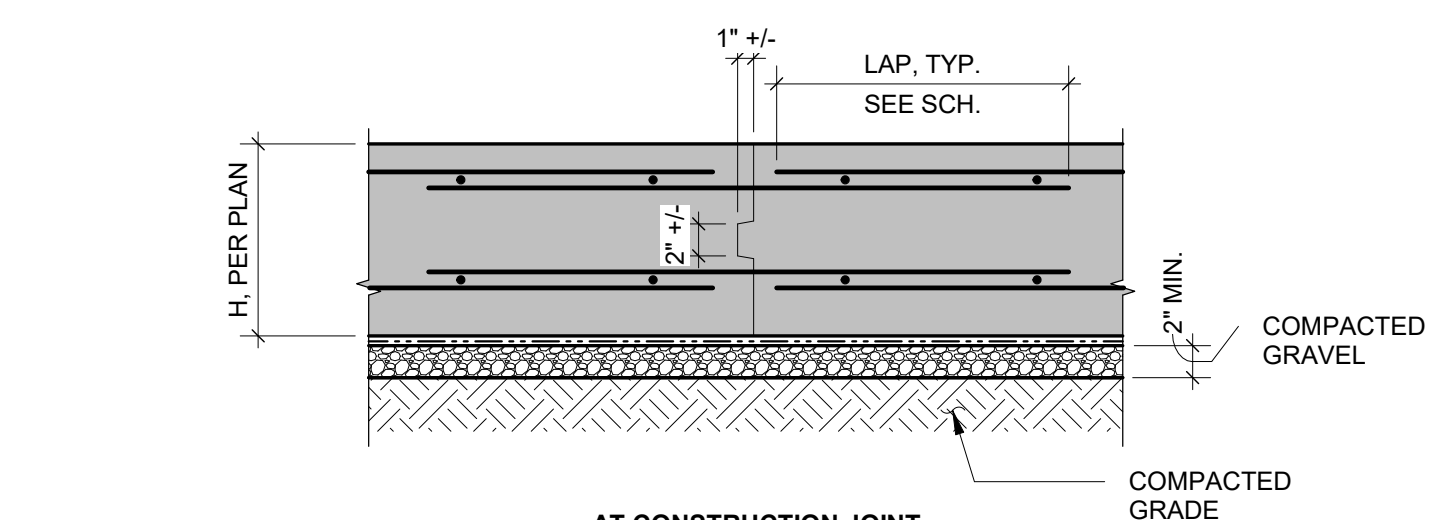
BAR SIZE	D (BEND Ø)	90° BEND	135° BEND
#3	1 1/2"	2 1/4"	3"
#4	2"	3"	3"
#5	2 1/2"	3 3/4"	3 3/4"
#6	4 1/2"	9"	4 1/2"
#7	5 1/4"	10 1/2"	5 1/4"
#8	6"	12"	6"

- NOTES:**
- db = BAR DIAMETER.
  - EITHER OPTION A OR OPTION B IS ACCEPTABLE FOR USE IN ALL COLS. & BMS.
  - THE CAP TIE IN OPTION B MUST HAVE THE 90° HOOK ALTERNATED IN ADJACENT TIES.

**6 SEISMIC STIRRUP / TIE SCHEDULE** N.T.S.

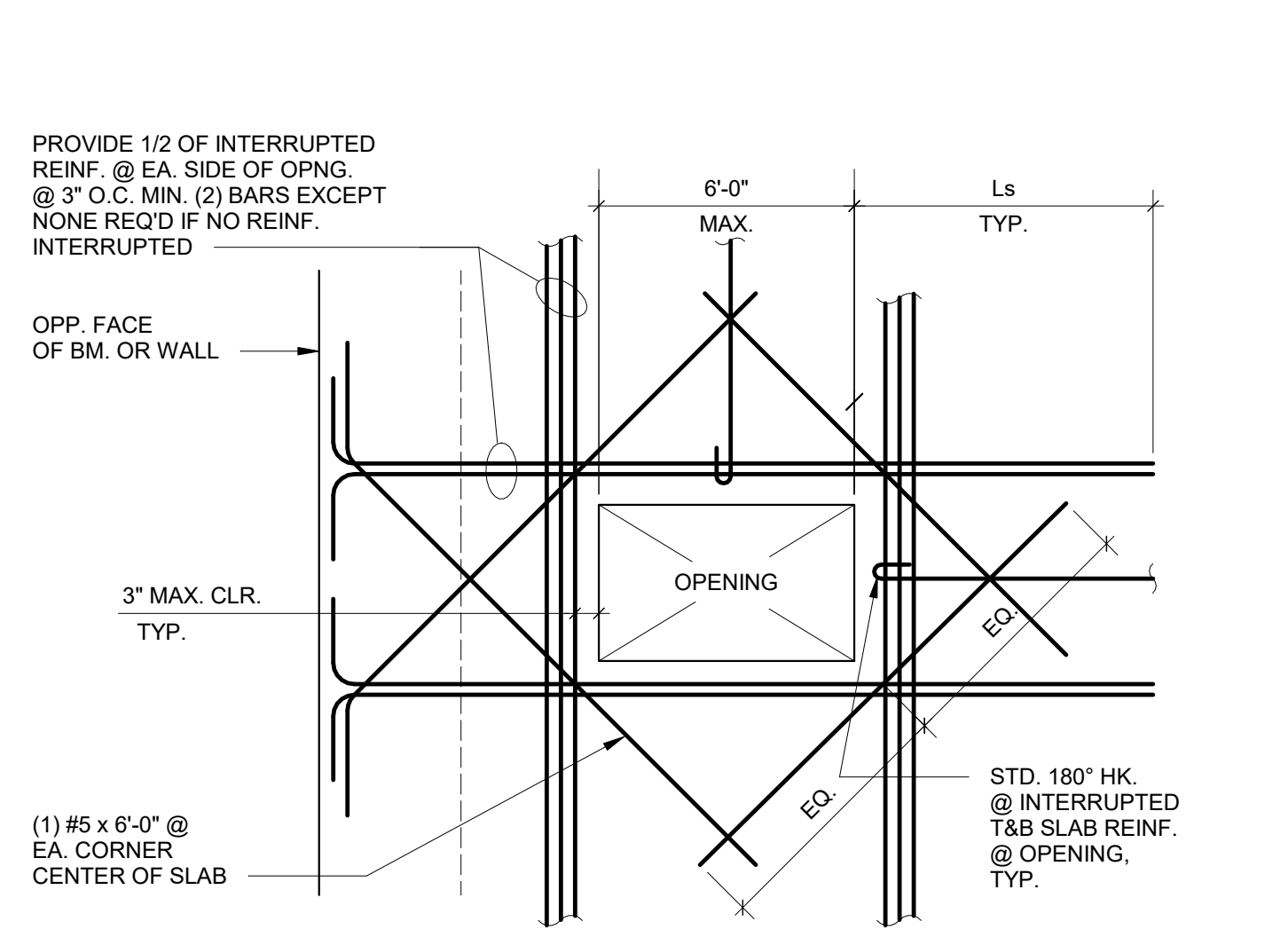


**5 BAR SPACING IN CONCRETE** 1" = 1'-0"



- NOTE:**  
FOR ADDITIONAL INFORMATION REFER TO THE GEOTECHNICAL REPORT

**11 TYPICAL SLAB ON GRADE** 1" = 1'-0"



- NOTES:**
- AT EDGE OF SLAB LOCATIONS, HOOK REINF. INTO OPPOSITE FACE OF WALL OR BEAM

**10 TYP. CONCRETE FLOOR OPENINGS** 1" = 1'-0"

**13 ADD. CONT. JOINT REINF. STEEL SCHEDULE** 1" = 1'-0"

WALL / SLAB THICKNESS	TYP. REINF. STEEL INFO			REQUIRED ADDN. REINF. @ CONT. JOINT		
	SIZE	SPACING (IN)	# OF CURTAINS	SIZE	SPACING (IN)	# OF CURTAINS
6"	#4	12	1	#4	12	1
8"	#5	12	1	#5	12	1
12"	#5	12	2	#5	10	1
12"	#8	12	2	#8	24	1
18"	#6	12	2	#6	8	1
18"	#8	12	2	#8	12	1
18"	#10	12	2	#10	12	1
18"	#11	12	2	#11	24	1
24"	#7	12	2	#7	8	1
24"	#8	12	3	#8	12	1
24"	#10	12	3	#10	12	1
36"	#10	12	3	#10	12	1

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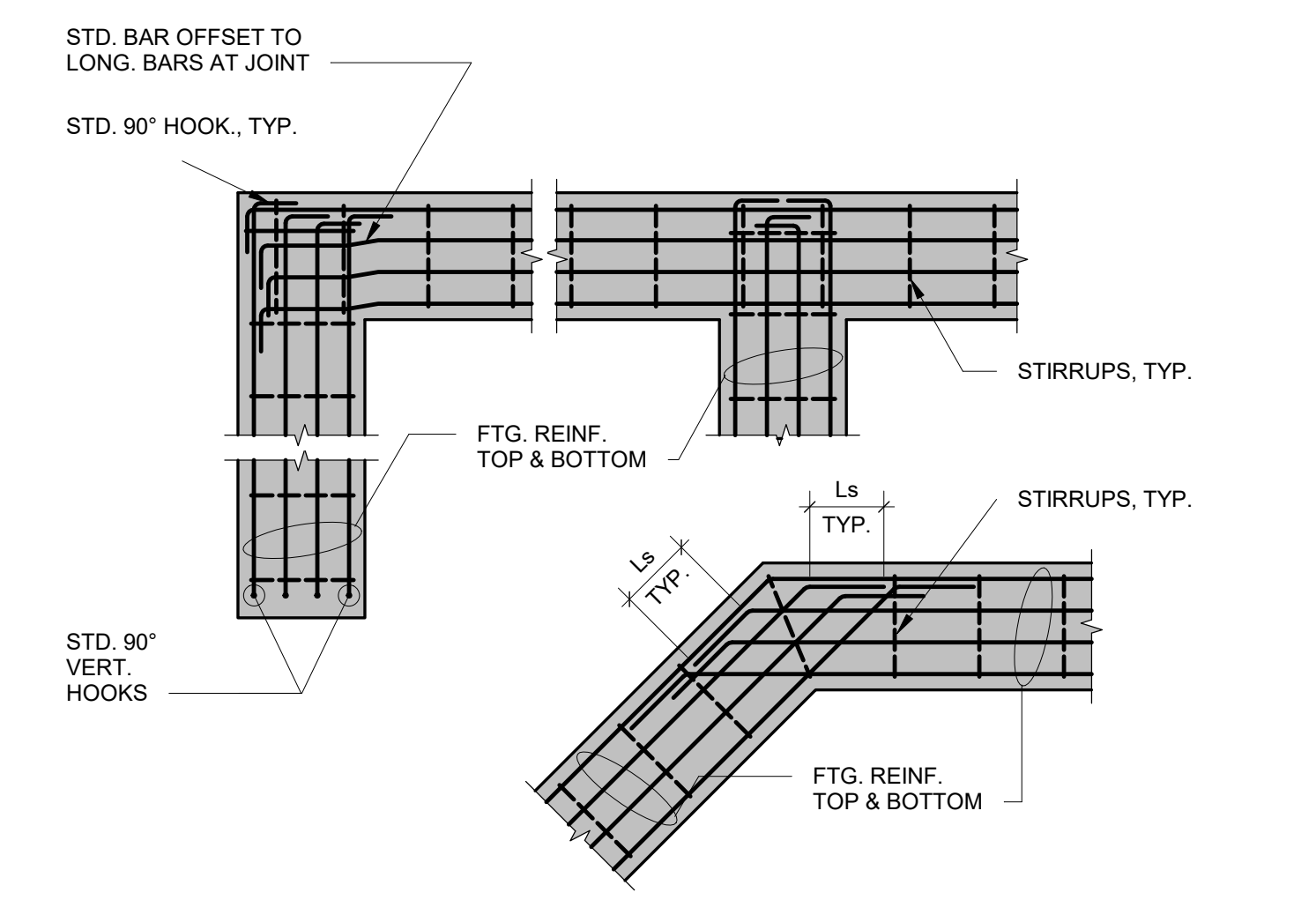
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415 493 1600  
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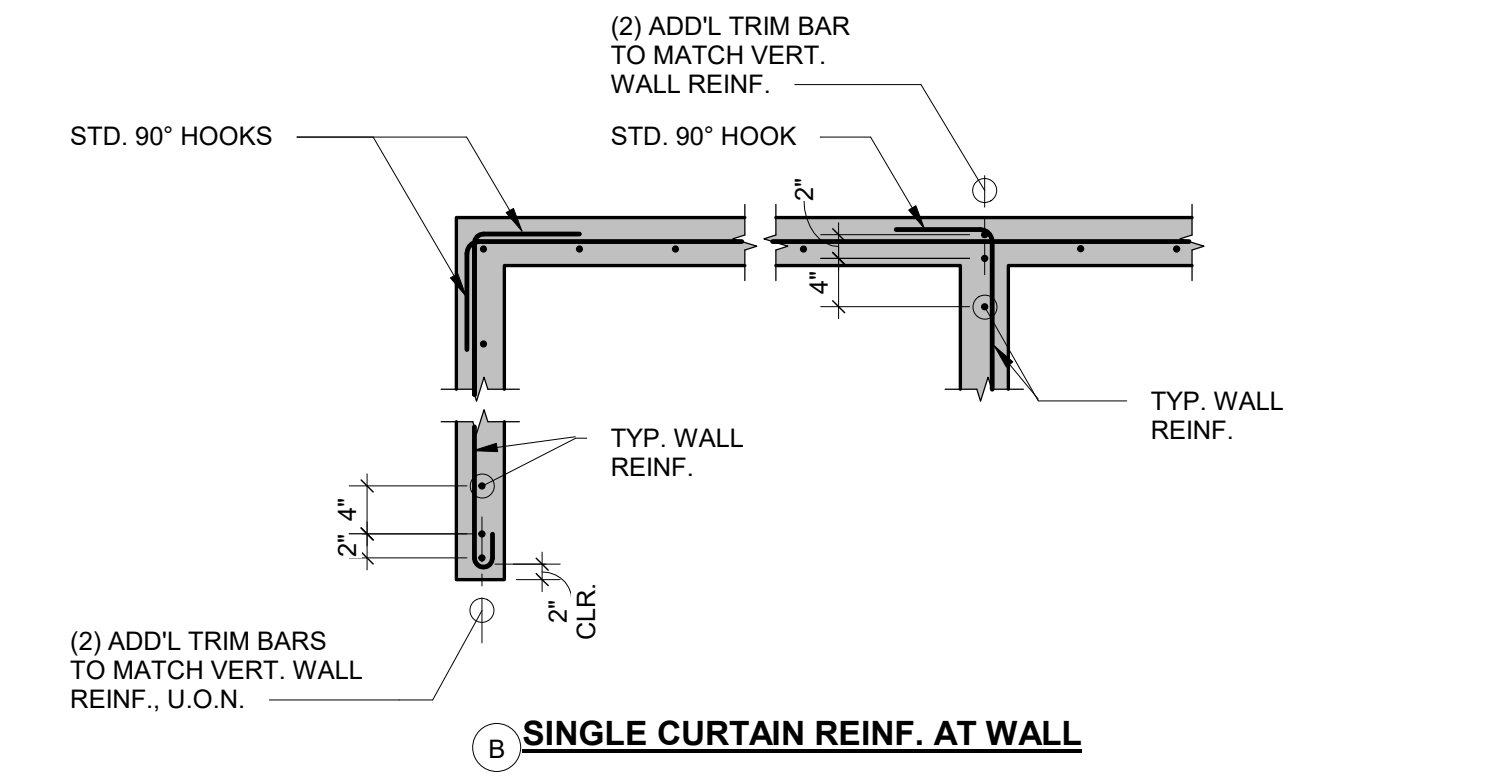
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CA 97605

REVISIONS



**2 FOOTING REINFORCING AT CORNER AND INTERSECTION** 3/8" = 1'-0"

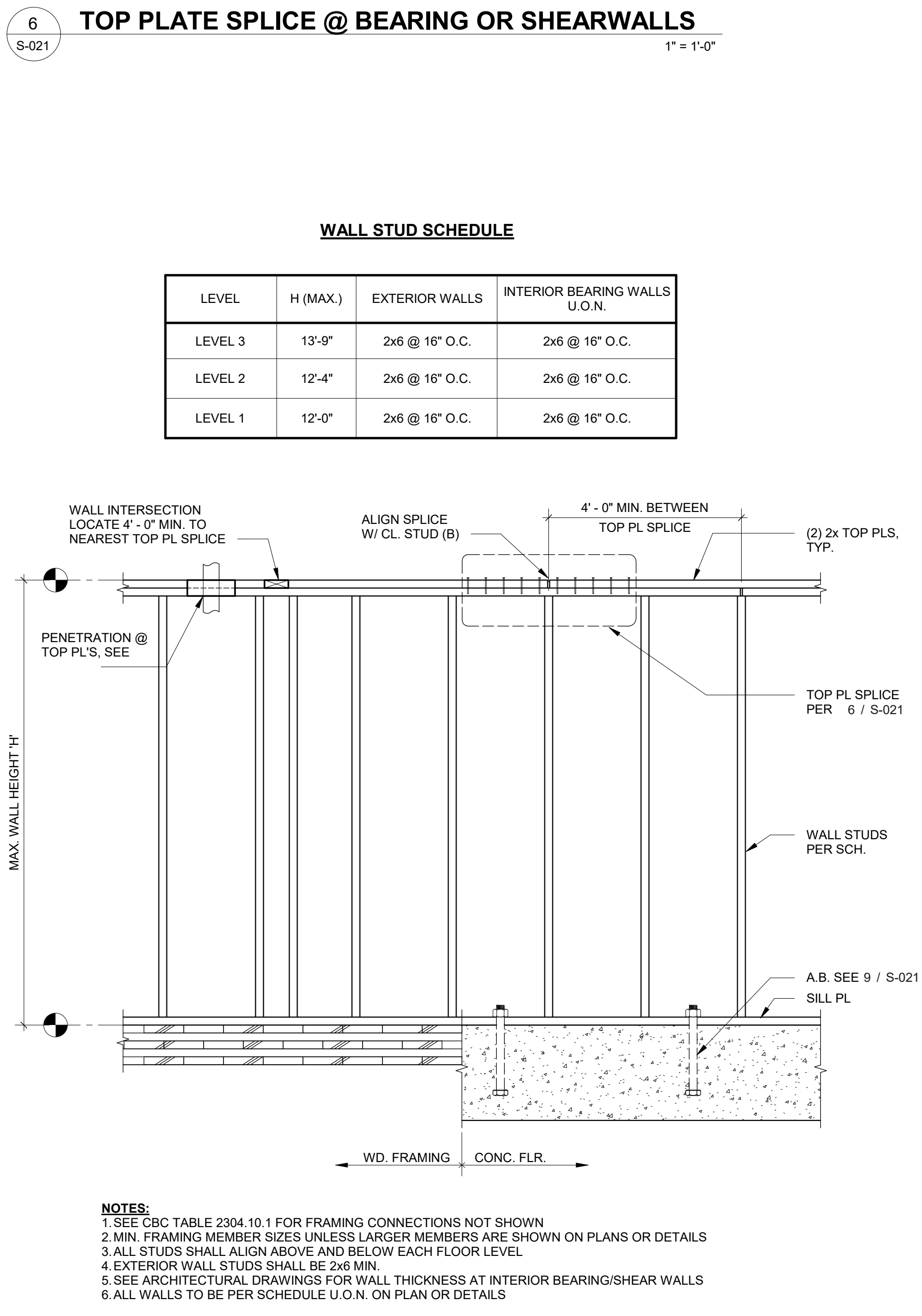
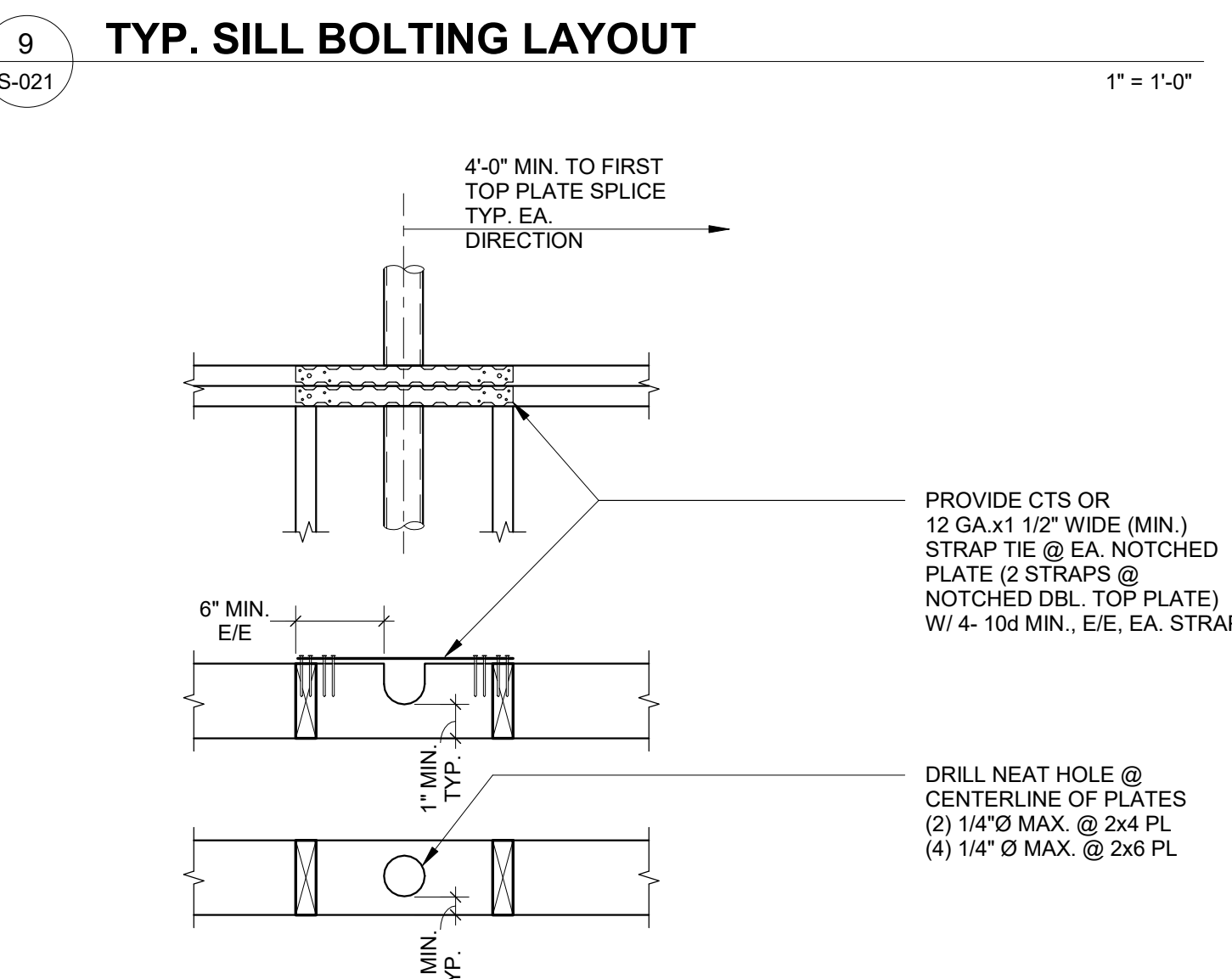
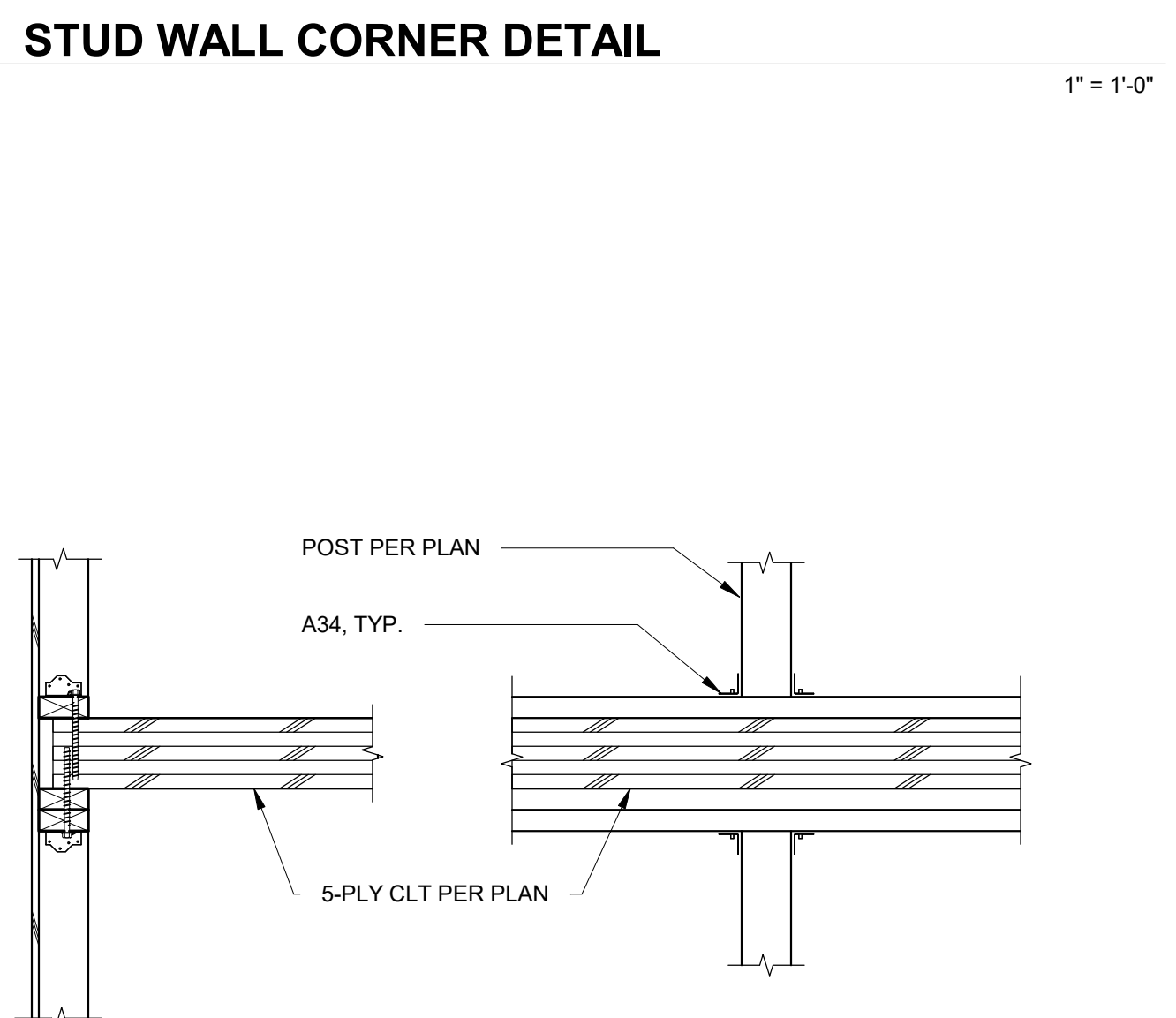
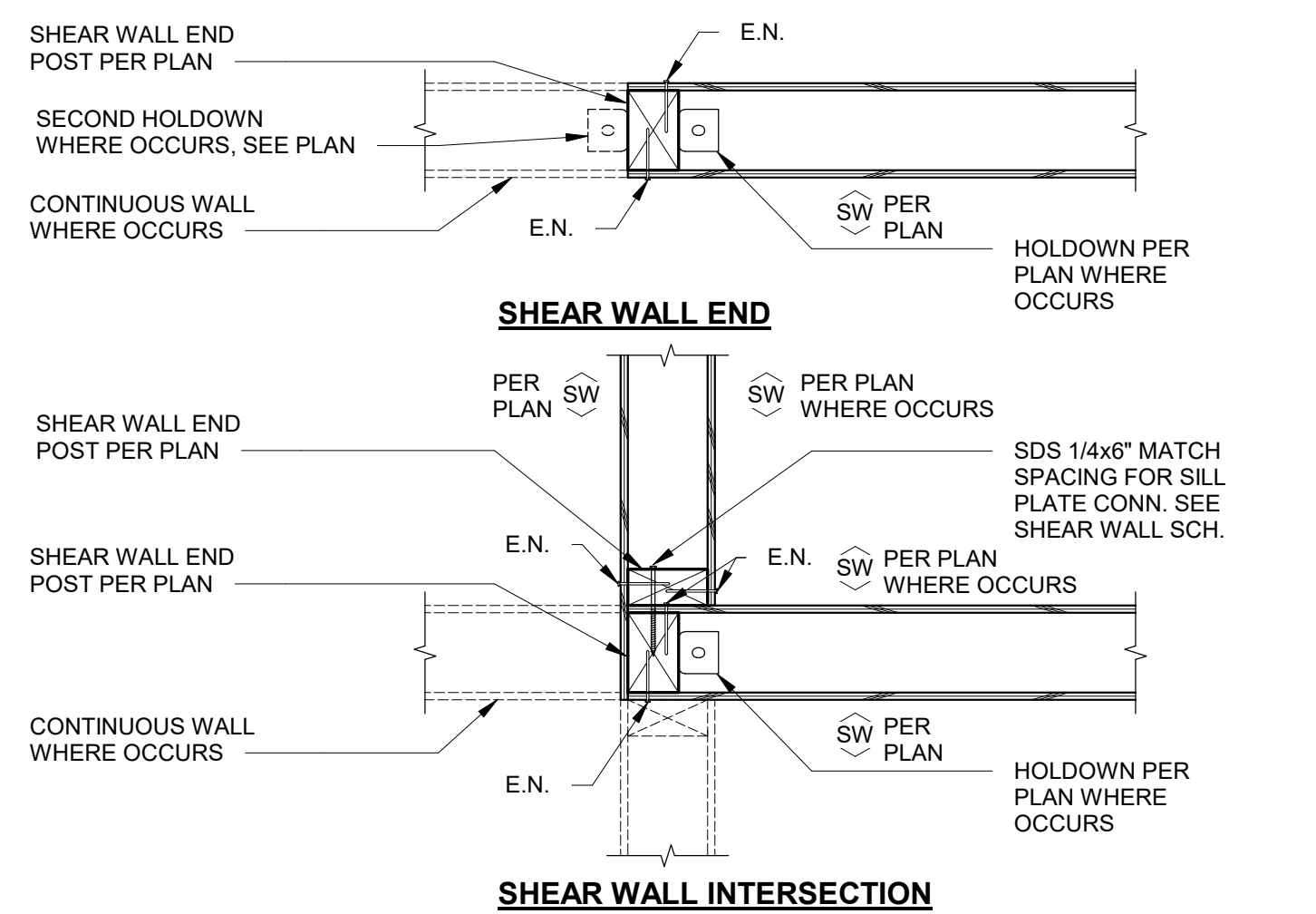
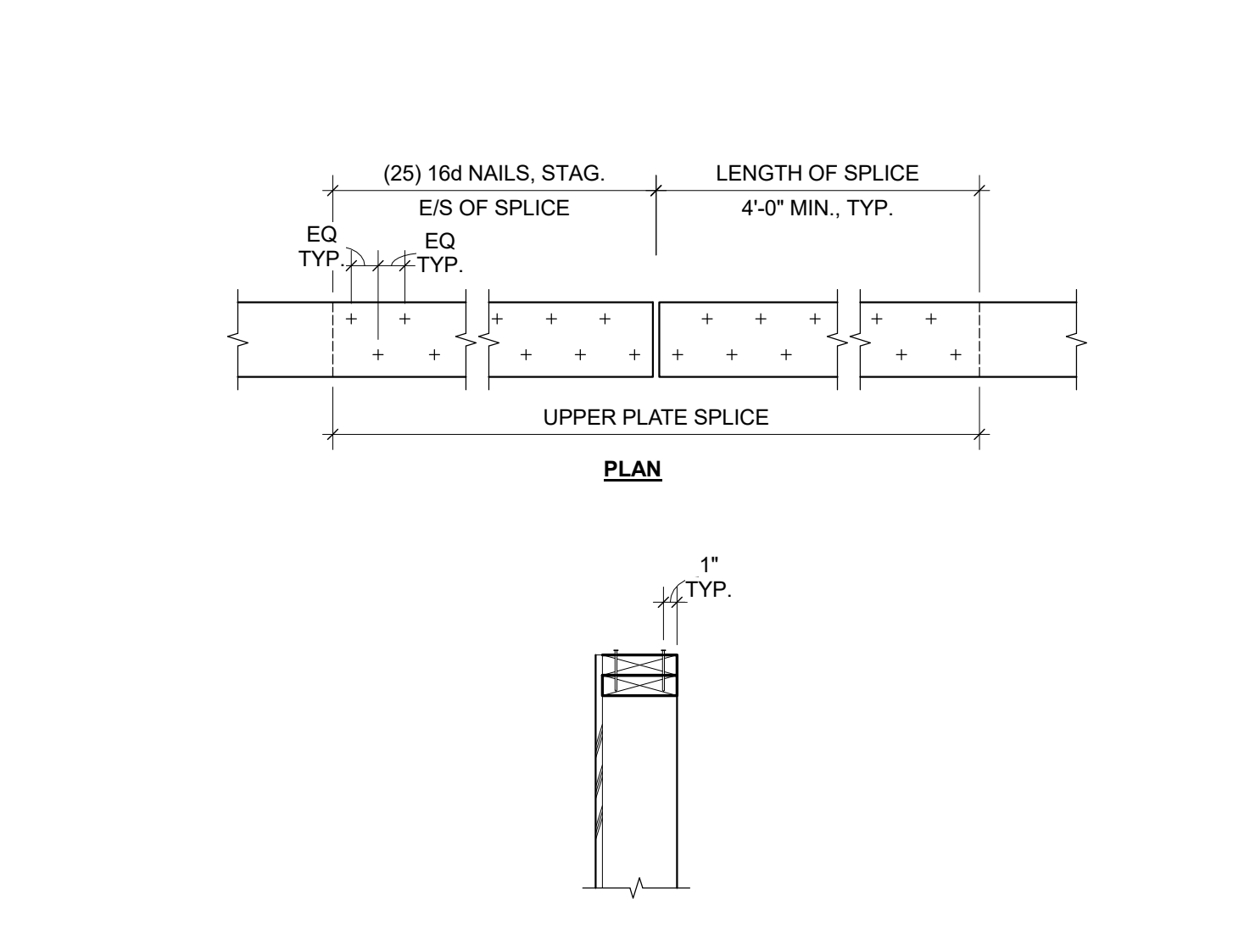
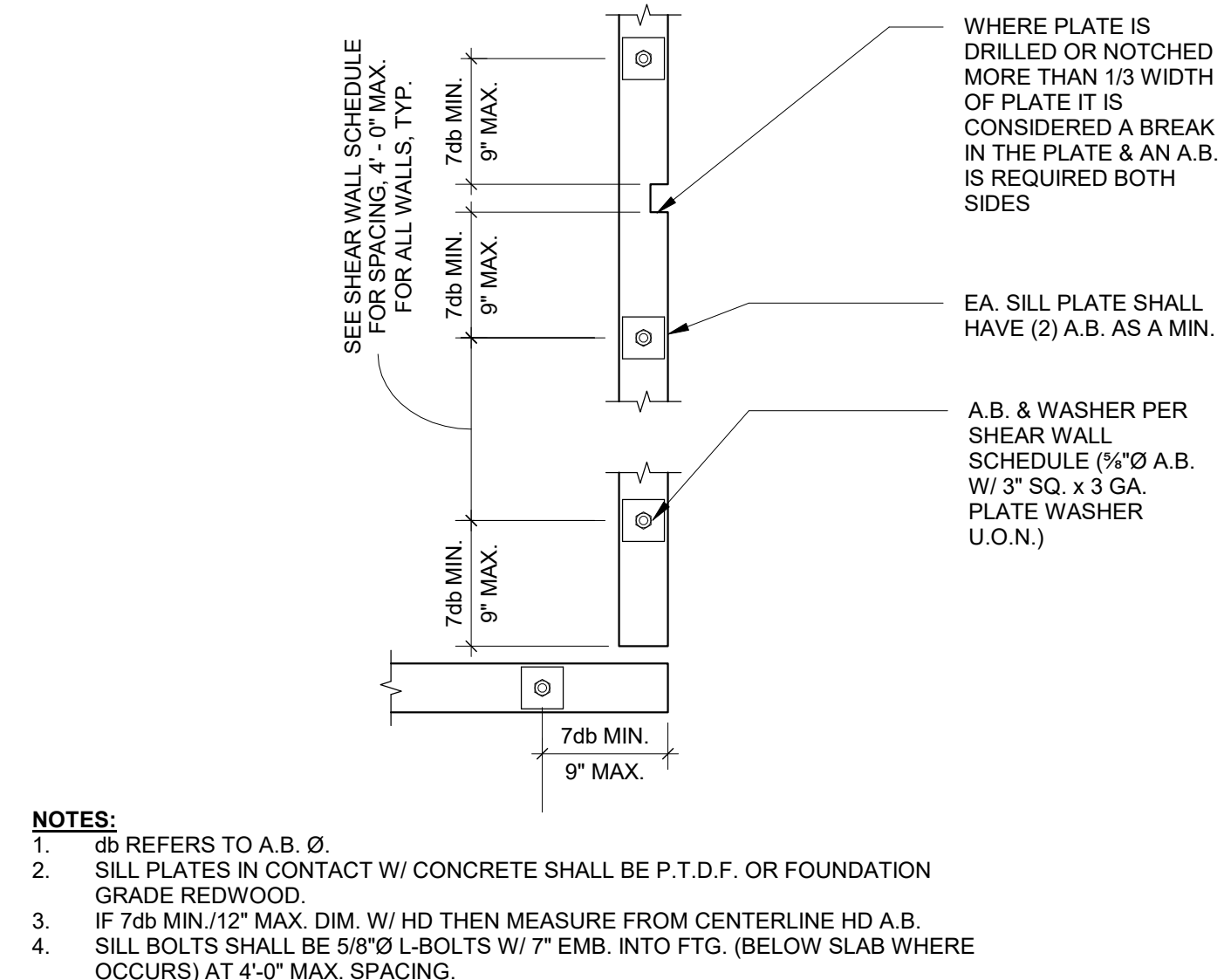
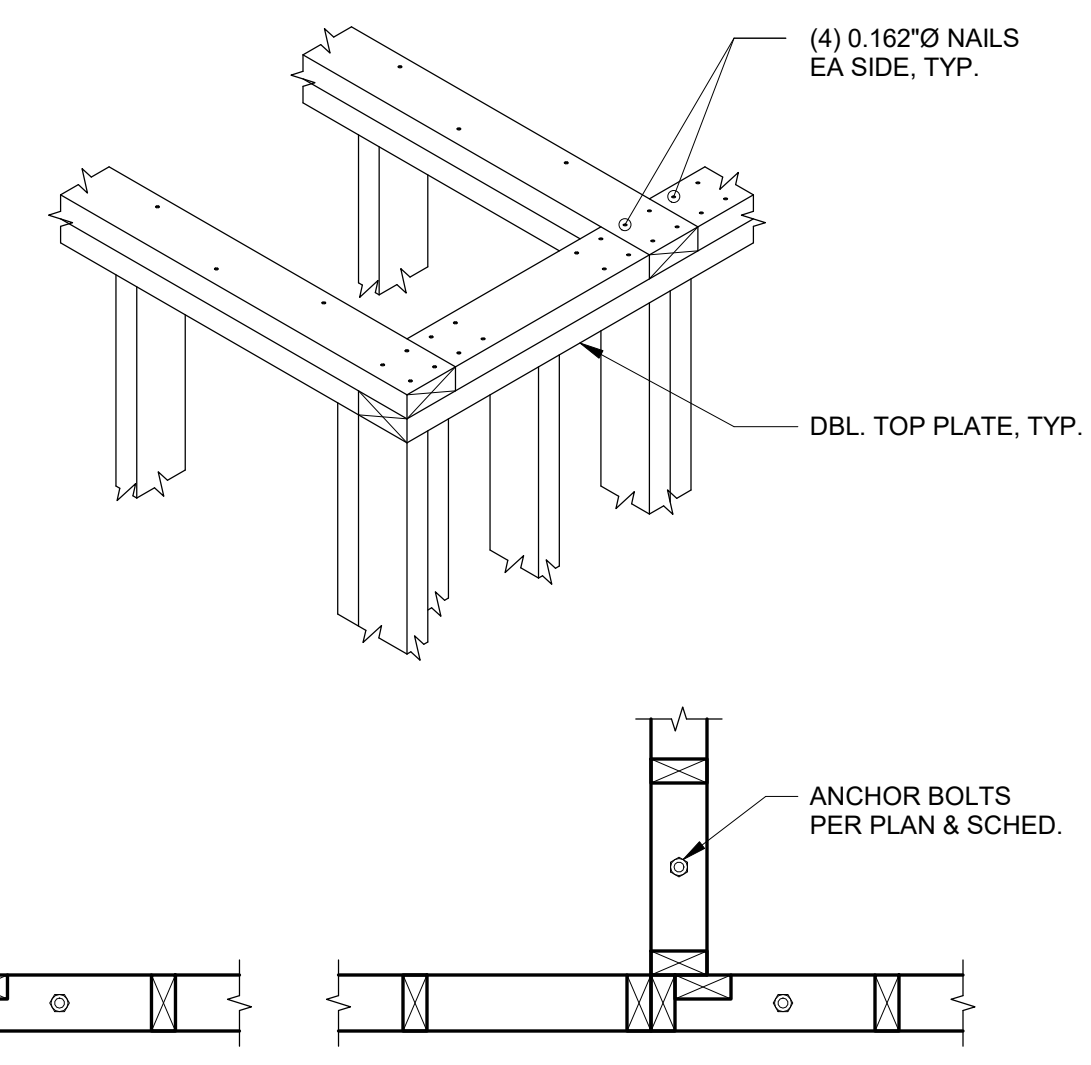
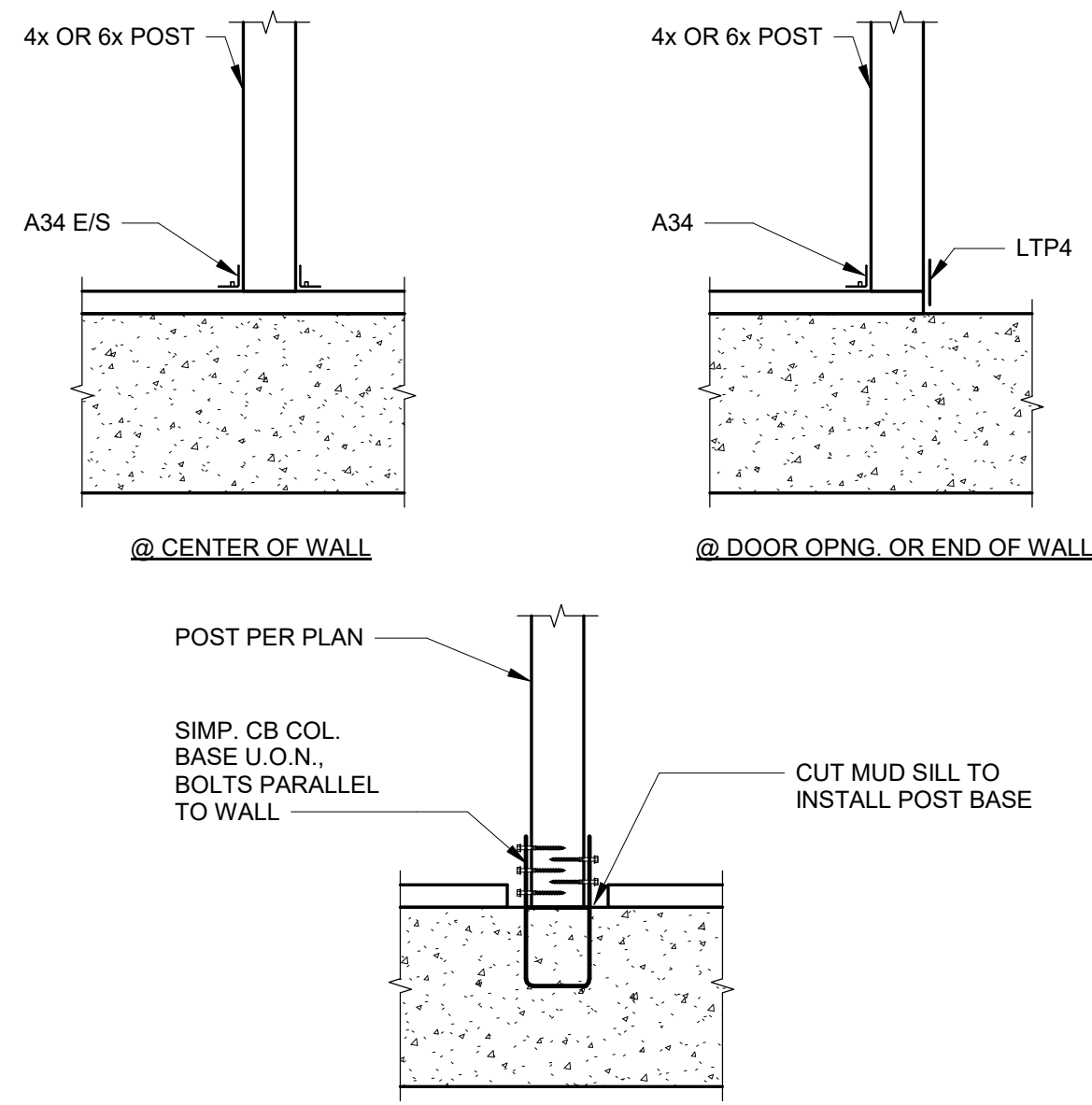


**1 WALL/CURB REINFORCING AT CORNERS AND INTERSECTIONS** N.T.S.

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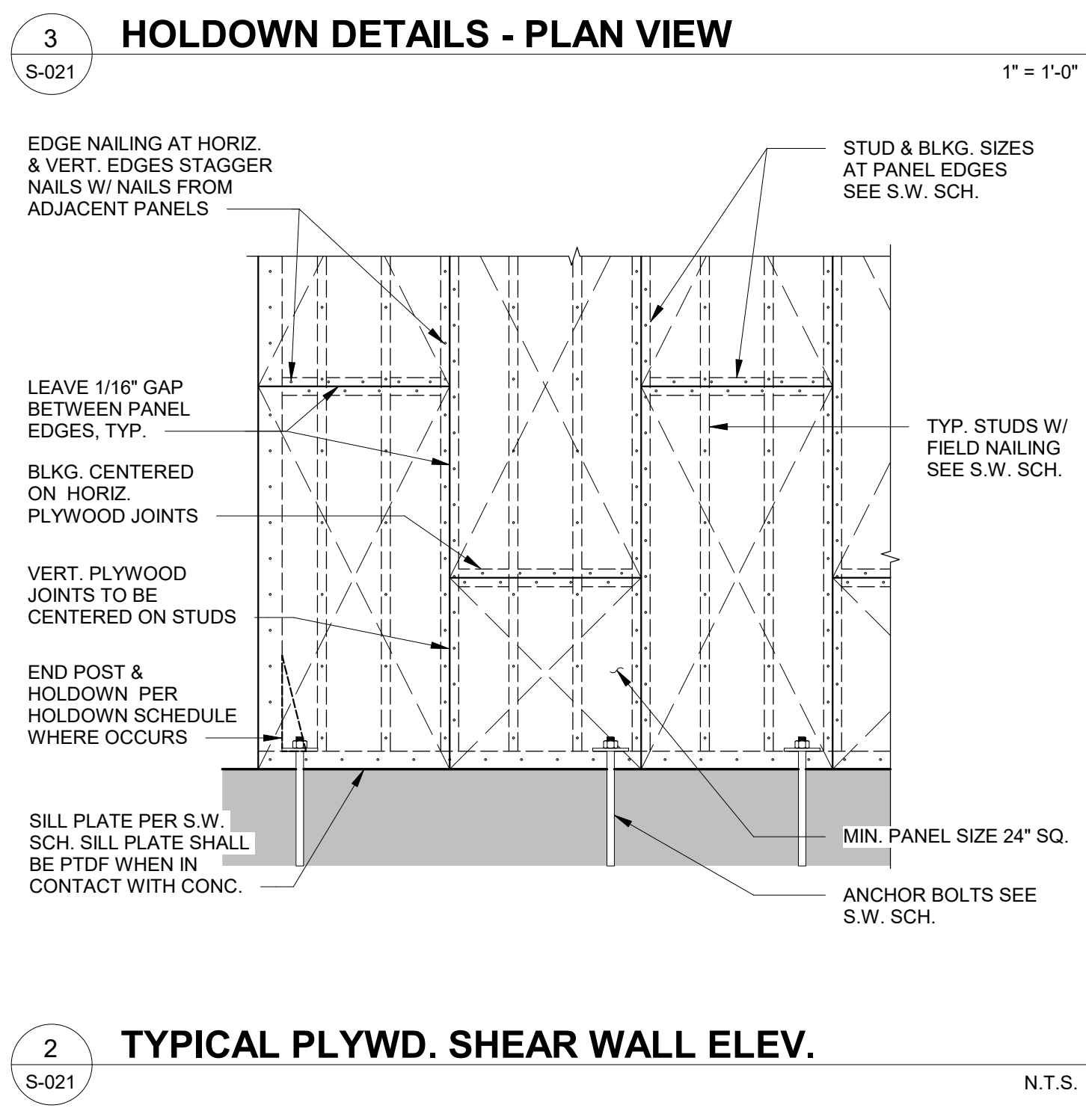
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**S-012**  
TYPICAL DETAILS

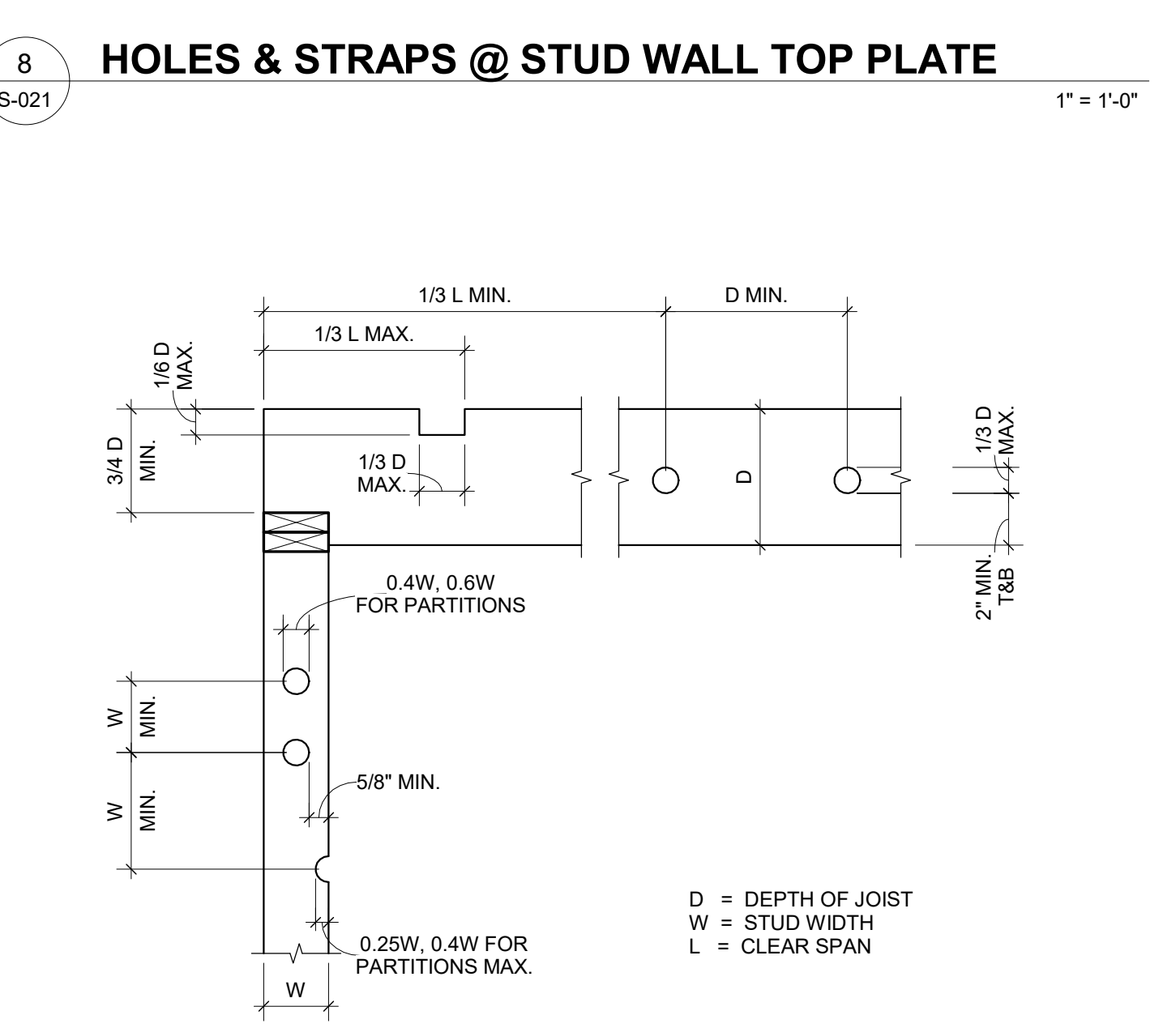
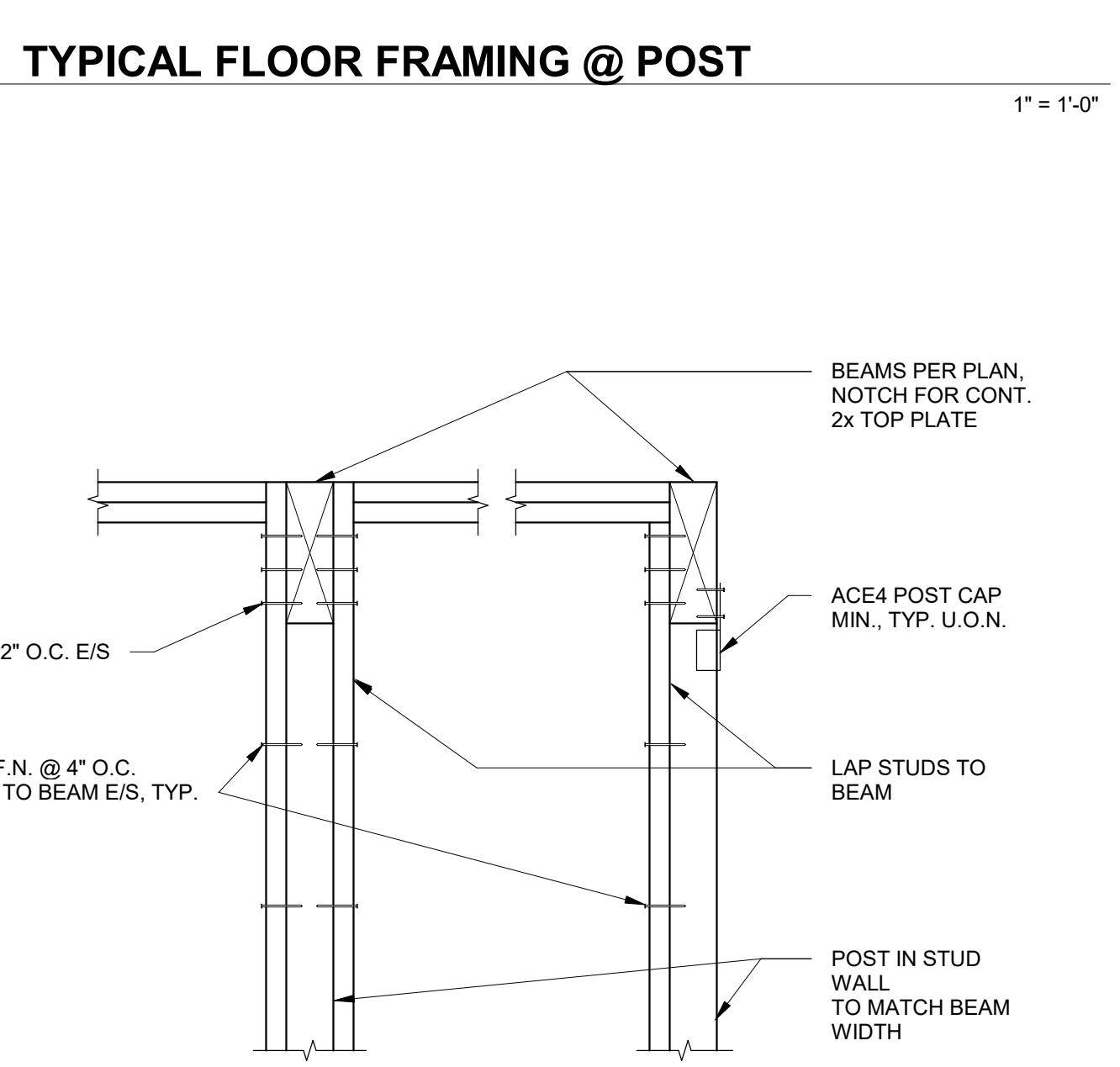
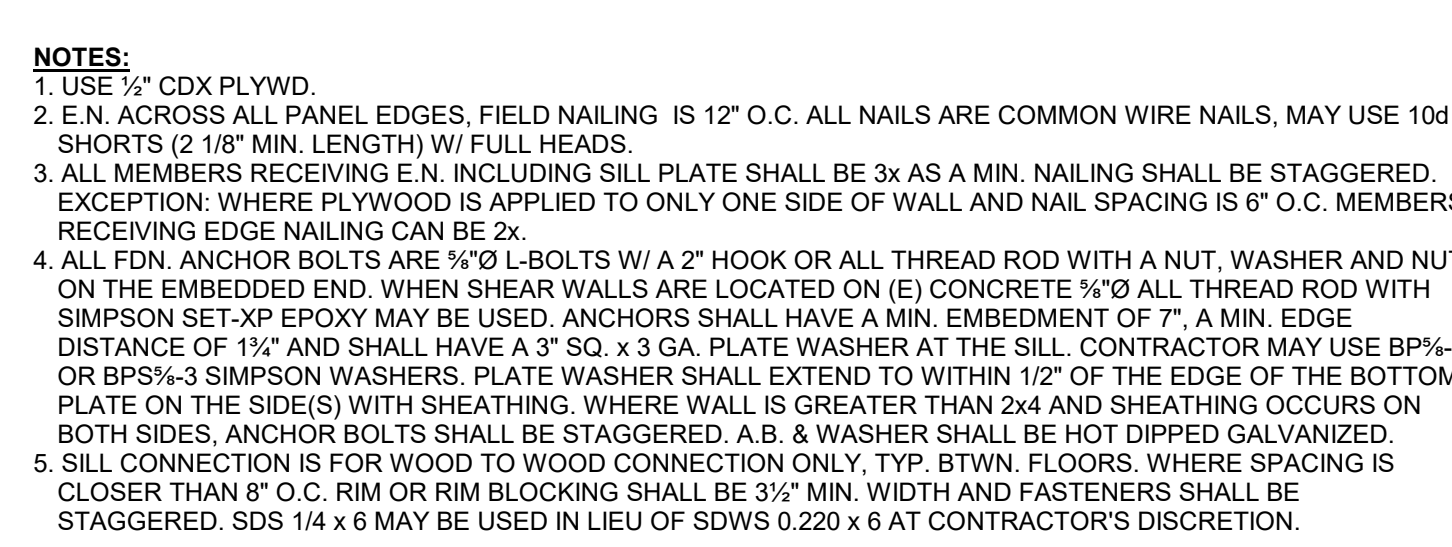


**WALL STUD SCHEDULE**

LEVEL	H (MAX.)	EXTERIOR WALLS	INTERIOR BEARING WALLS U.O.N.
LEVEL 3	13'-9"	2x6 @ 16" O.C.	2x6 @ 16" O.C.
LEVEL 2	12'-4"	2x6 @ 16" O.C.	2x6 @ 16" O.C.
LEVEL 1	12'-0"	2x6 @ 16" O.C.	2x6 @ 16" O.C.



MARK	EDGE NAILING (E.N.) SEE NOTE 2	CAPACITY (PLF)	SILL PL. CONN. SPACING (SIMP. SDWS 0.220 x 6) SEE NOTE 5	DBL. TOP PL. CONN. SPACING (SIMP. SDWS 0.220 x 6) SEE NOTE 5	FDN. ANCHOR SPACING, SEE NOTE 4
6	10d @ 6" O.C.	310	16" O.C.	16" O.C.	48" O.C.
4	10d @ 4" O.C.	460	12" O.C.	12" O.C.	48" O.C.
3	10d @ 3" O.C.	600	8" O.C.	8" O.C.	32" O.C.
2	10d @ 2" O.C.	770	8" O.C.	8" O.C.	24" O.C.



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**S-021**  
TYPICAL DETAILS

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**Holmes**

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KIND PROJECT

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INVESTORS, LP

415 & 421 F STREET  
W. SACRAMENTO,  
CA 97605

REVISIONS

3 PLAN CHECK COMMENTS 2/24/2021

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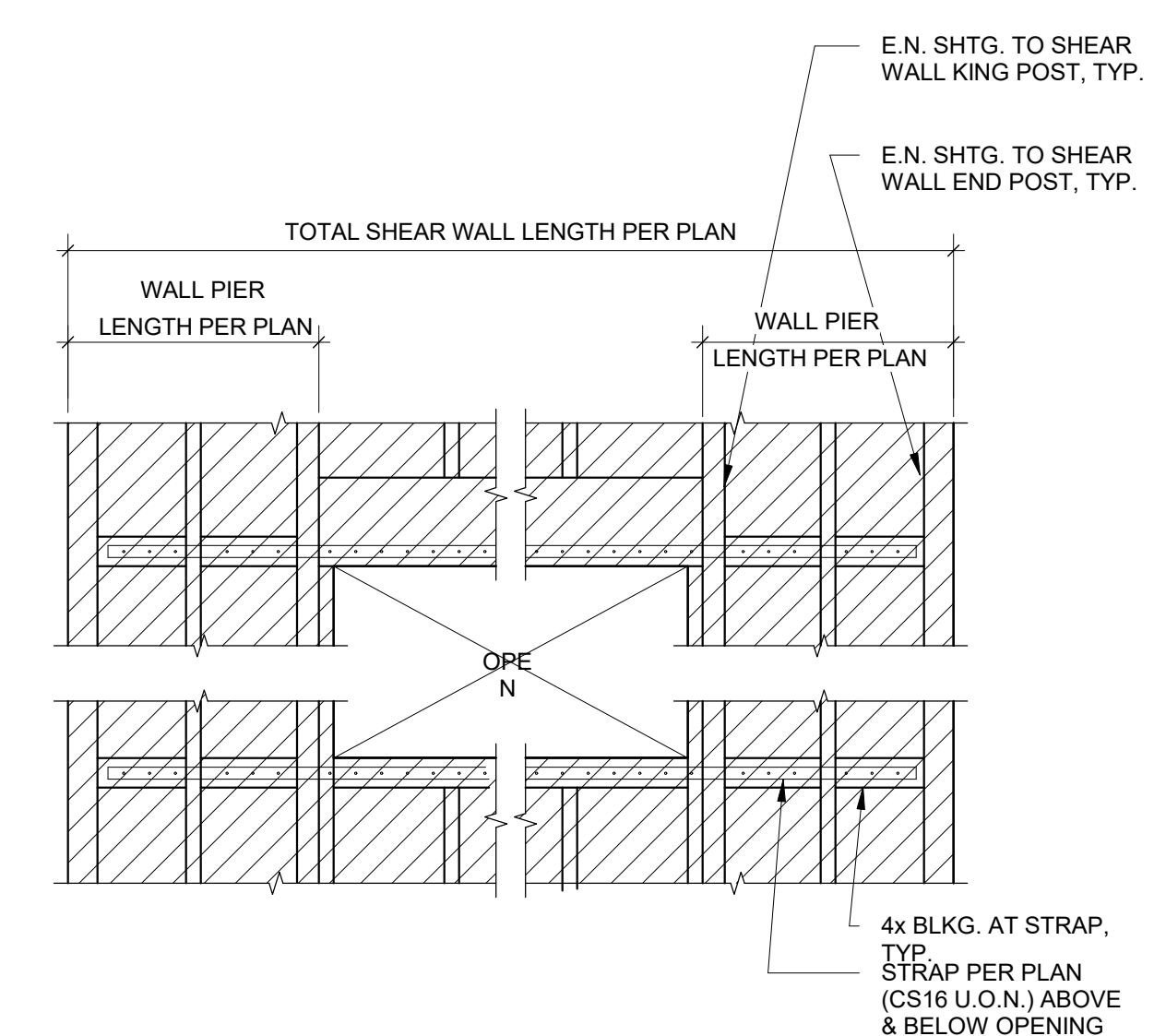
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DATE 4/20/2021  
SCALE N.T.S.  
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**S-022**

TYPICAL WOOD DETAILS

NAILING SCHEDULE	
CONNECTION	NAILING
1. JOIST TO SILL OR GIRDER, TOE NAIL	(3) 8d
2. BRIDGING TO JOIST, TOE NAIL E/E	(2) 8d
3. 1" x 6" SUBFLOOR OR LESS TO EA. JOIST, FACE NAIL	(2) 8d
4. WIDER THAN 1" x 6" SUBFLOOR TO EA. JOIST, FACE NAIL	(3) 8d
5. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND & FACE NAIL	(2) 16d
6. SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL SOLE PLATE TO JOIST, AT BRACED WALL PANELS	16d @ 16" O.C. (3) 16d @ 16" O.C.
7. TOP PLATE TO STUD, END NAIL	(2) 16d
8. STUD TO SOLE PLATE	(4) 8d TOE NAIL OR (2) 16d END NAIL
9. DOUBLE STUDS, FACE NAIL	16d @ 24" O.C.
10. DOUBLE TOP PLATES, FACE NAIL DOUBLE TOP PLATES, LAP SPLICE (PARTITION)	16d @ 16" O.C. (8) 16d
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL	(3) 8d
12. RIM JOIST TO TOP PLATE, TOE NAIL	8d @ 16" O.C.
13. TOP PLATES, LAP AND INTERSECTIONS, FACE NAIL	(2) 16d
14. CONTINUOUS HEADER, TWO PIECES	16d @ 16" O.C. ALONG EACH EDGE
15. CEILING JOISTS TO PLATE, TOE NAIL	(3) 8d
16. CONTINUOUS HEADER TO STUD, TOE NAIL	(4) 8d
17. CEILING JOISTS, LAP OVER PARTITIONS, FACE NAIL	(3) 16d
18. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	(3) 16d MIN. SEE 2010 CBC TABLE 2308.10.4.1
19. RAFTER TO PLATE, TOE NAIL	(3) 8d
20. 1" DIAGONAL BRACE TO EA. STUD & PLATE, FACE NAIL	(2) 8d
21. 1" x 8" SHEATHING OR LESS TO EA. BEARING, FACE NAIL	(2) 8d
22. WIDER THAN 1" x 8" SHEATHING TO EA. BEARING, FACE NAIL	(3) 8d
23. BUILT-UP CORNER STUDS	16d @ 24" O.C.
24. BUILT-UP GIRDER & BEAMS	20d @ 32" O.C. FACE NAIL & T&B STAGG. ON OPP. SIDES & (2) 20d FACE NAIL AT ENDS AND SPLICES
25. 2" PLANKS, FACE NAIL	16d @ EACH BEARING
26. COLLAR TIE TO RAFTER, FACE NAIL	(3) 10d
27. JACK RAFTER TO HIP	(3) 10d TOE NAIL (2) 16d FACE NAIL
28. ROOF RAFTER TO 2x RIDGE BEAM	(2) 16d TOE NAIL (2) 16d FACE NAIL
29. JOIST TO BAND JOIST, FACE NAIL	(3) 16d
30. LEDGER STRIP, FACE NAIL AT EACH JOIST	(3) 16d
31. WOOD STRUCTURAL PANELS SUBFLOOR, ROOF & WALL SHEATHING (TO FRAMING)	10d
32. PANEL SIDING (TO FRAMING)	8d
33. FIBERBOARD SHEATHING	8d
34. INTERIOR PANELING	6d

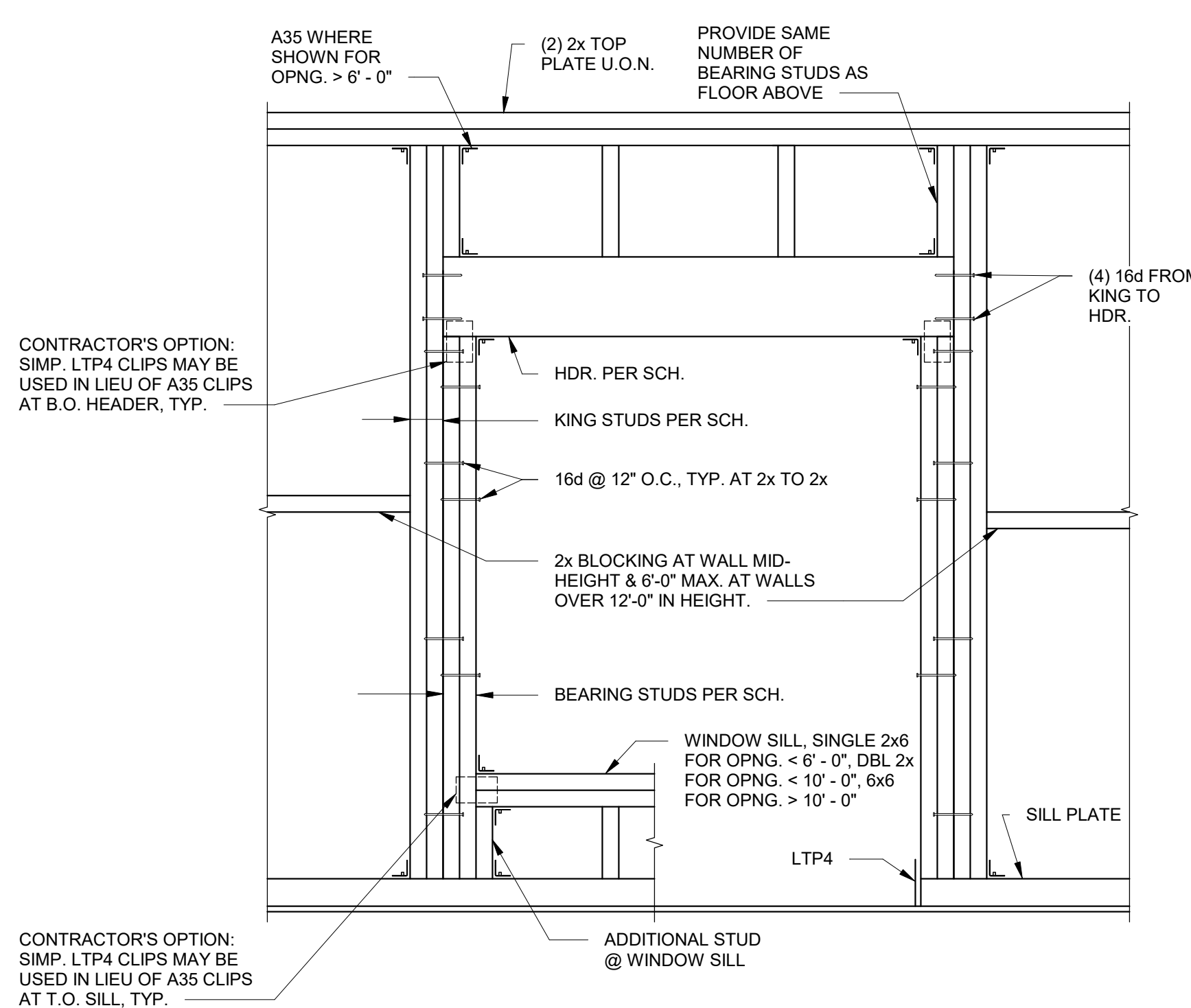
9 NAILING SCHEDULE N.T.S.



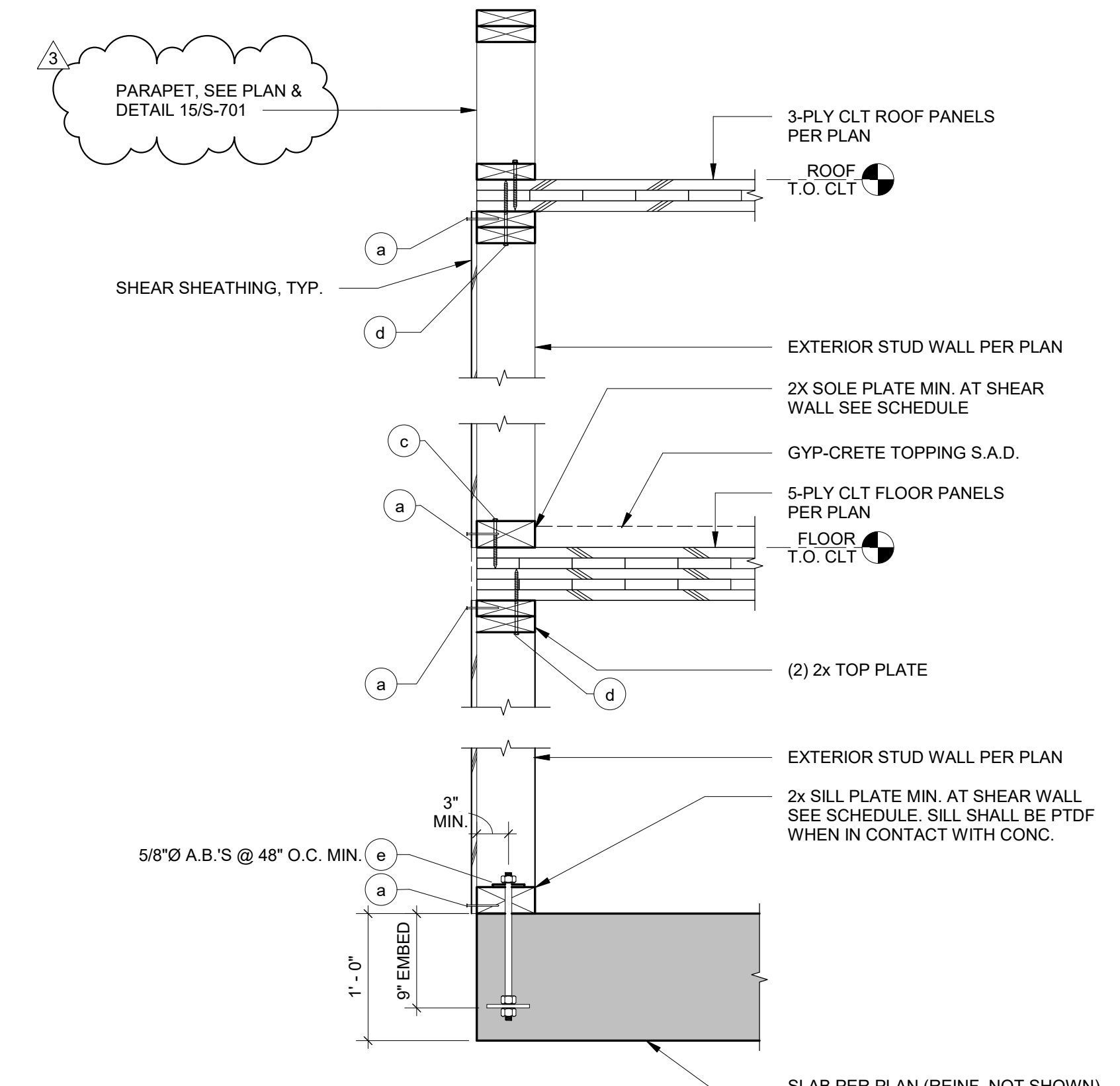
6 OPENING REINF. @ WOOD S.W. 1" = 1'-0"

EXTERIOR WALLS & INTERIOR BEARING WALLS

MAX. OPNG WIDTH	MIN. HDR. SIZE	SUPPORTING ROOF		SUPPORTING ROOF +1 FLR.		SUPPORTING ROOF +2 FLR.	
		BEARING STUD	KING STUD	BEARING STUD	KING STUD	BEARING STUD	KING STUD
3'-0"	6x6	2x6	2x6	2x6	2x6	2x6	2x6
5'-0"	6x8	2x6	2x6	2x6	2x6	2x6	2 - 2x6
7'-0"	6x10	2x6	2 - 2x6	2 - 2x6	2x6	2 - 2x6	2 - 2x6
9'-0"	6x12	2 - 2x6	2 - 2x6	2 - 2x6	2 - 2x6	2 - 2x6	2 - 2x6

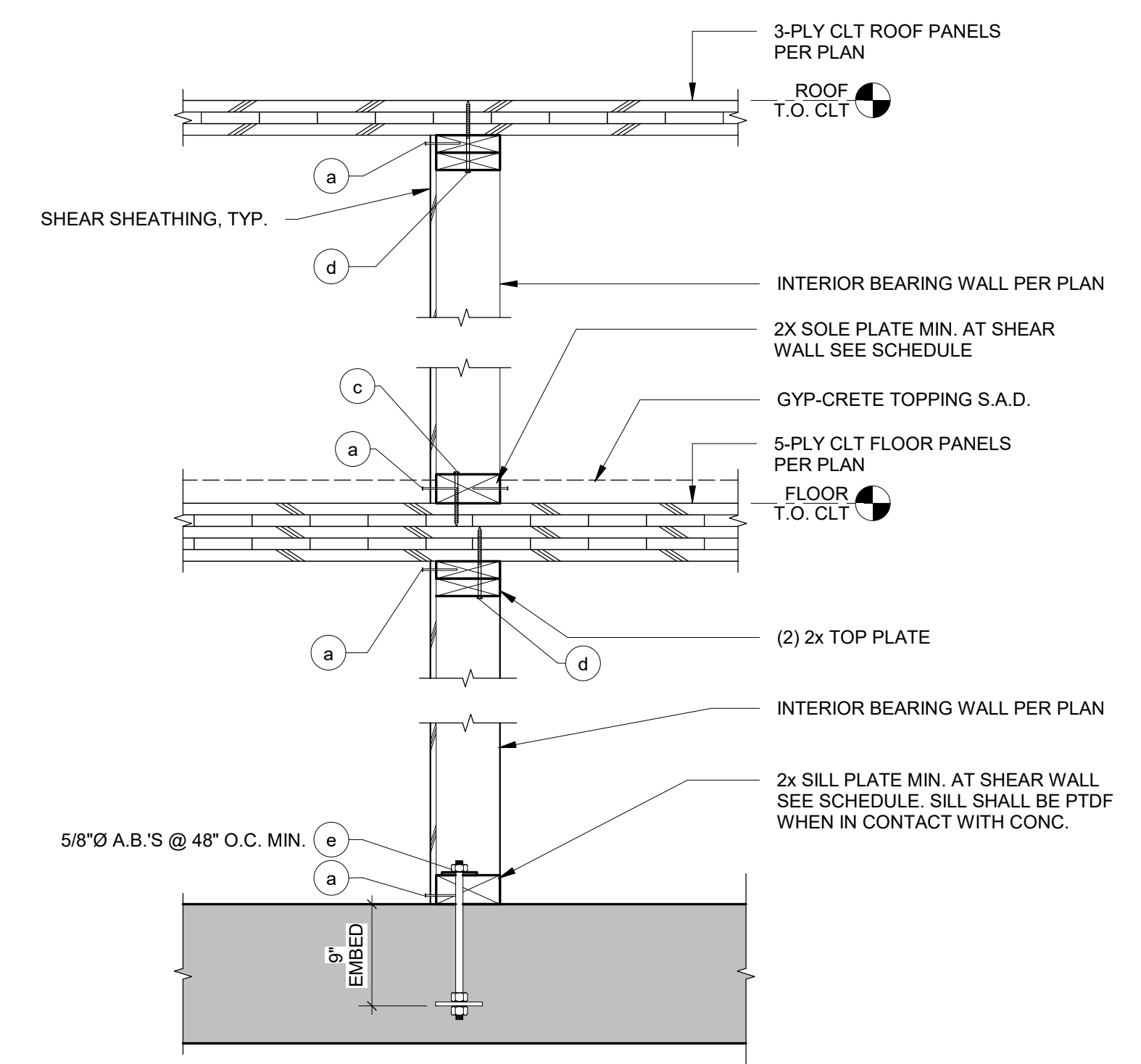


5 TYPICAL FRAMING @ DOOR & WINDOW OPNG. N.T.S.



NOTE:  
1. CONNECTIONS INDICATED WITH LETTERS ARE DEFINED IN SHEAR WALL SCHEDULE 1/S-021.  
2. PROVIDE F.T. LUMBER AND SHEATHING AT EXTERIOR FIRE RATED WALLS WHERE REQUIRED. SEE ARCHITECTURAL DRAWINGS.

3 TYPICAL EXTERIOR BEARING/ SHEAR WALL 1" = 1'-0"



NOTE:  
1. CONNECTIONS INDICATED W/ LETTERS ARE DEFINED IN S.W. SCHED. 1/S-021

1 TYPICAL INTERIOR BEARING / SHEAR WALL 1" = 1'-0"

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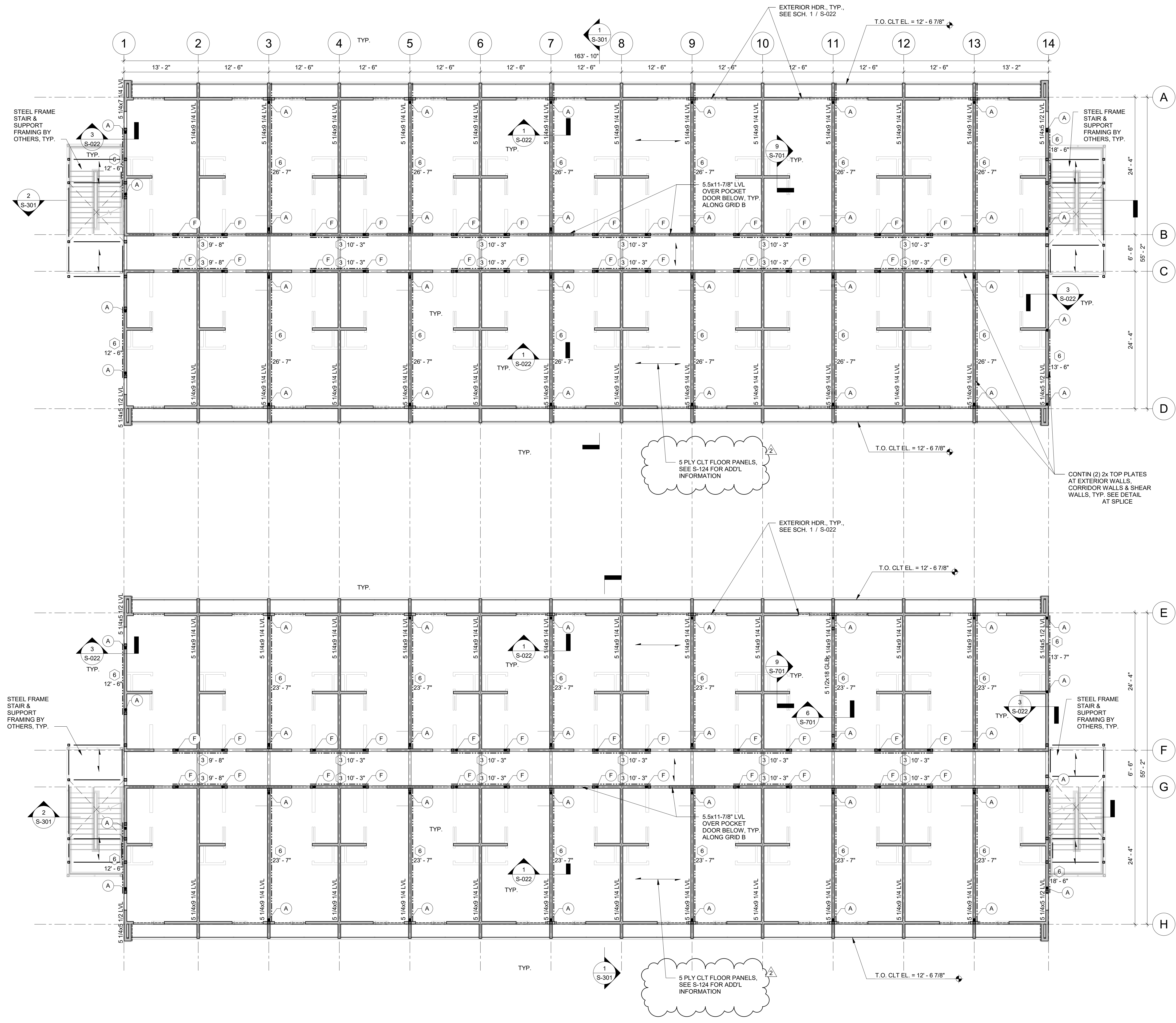
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CA 97605

REVISIONS  
2 PLAN CHECK COMMENTS 12/21/2020

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JOB NO.	20149.10
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**S-112**  
SECOND FLOOR FRAMING  
PLANS



**LEGEND:**

- STUD WALL
- STRUCTURAL WALL (B)
- NON-STRUCTURAL WALL
- NON-STRUCTURAL WALL (B)
- 6x6 WOOD POST
- WD. COLUMN (B)
- WD. OR STL. BEAM
- HDR. HEADER BELOW PER SCH. 5 / S-022
- SIMPSON STRAP, SEE SCH. 12 / S-701
- SHEAR WALL SHTG. S.W. MARK, SEE SCH. 1 / S-022 MIN. LENGTH
- OPNG.
- SIMP. 'HDU' HOLDOW, SEE 5 / S-501
- CLT MAJOR AXIS SPAN DIRECTION PANEL THICKNESS PER PLAN
- DEPRESSION / SLAB STEP
- EL. XX'-XX" TOP OF SLAB ELEVATION WHERE 0'-0" = USGS 20.31

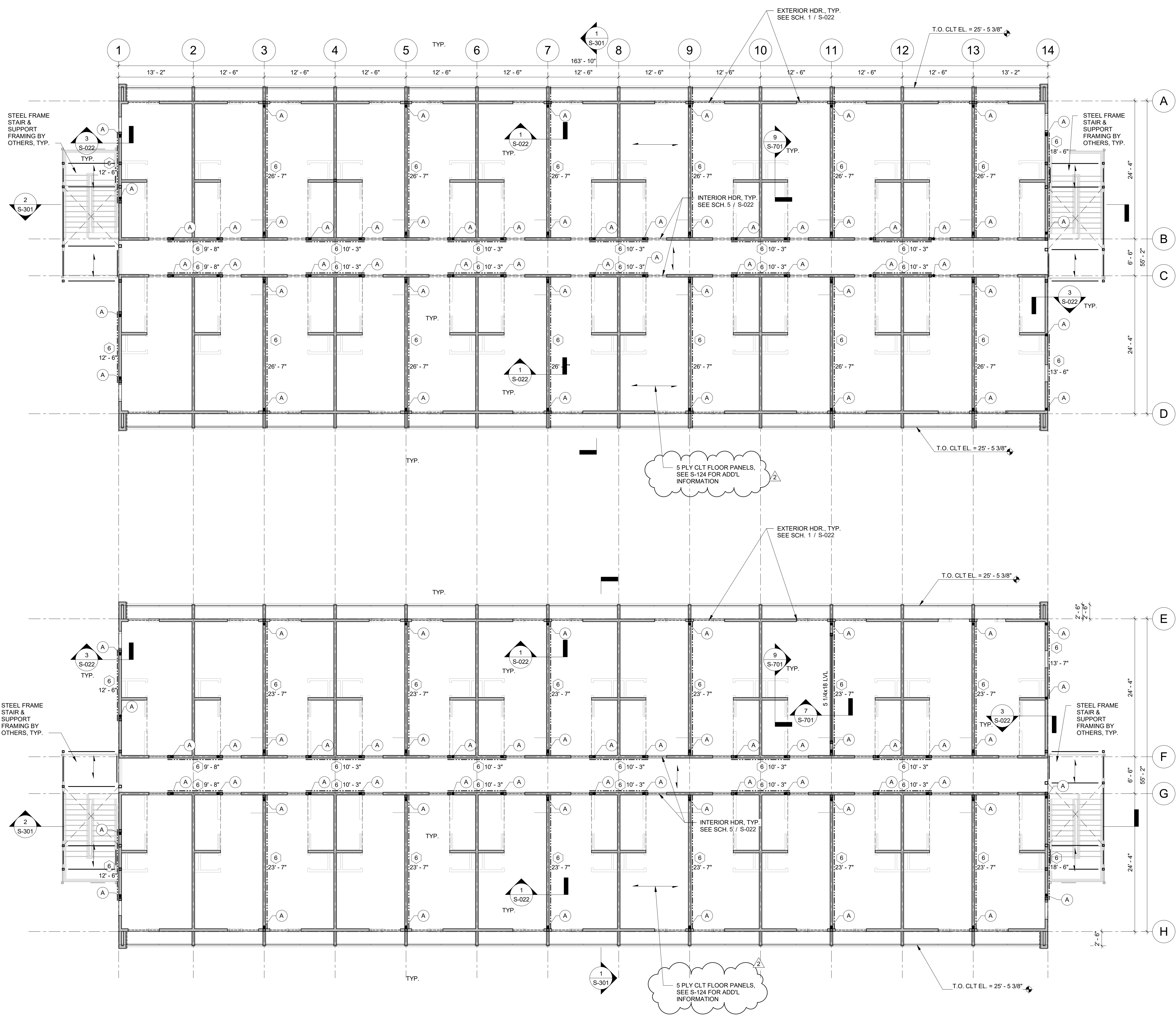
**SHEET NOTES:**

1. FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS SEE S-000 SERIES
2. FOR TYPICAL WOOD DETAILS, SEE S-02X SERIES, FOR ADDITIONAL WOOD DETAILS, SEE S-700 SERIES
3. VERIFY ALL DIMENSIONS, CURBS, ETC. WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION
4. REFER TO ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR SLEEVES, BLOCK OUTS, AND OTHER ITEMS TO BE COORDINATED WITH STRUCTURAL DRAWINGS
5. SPECIFICATIONS AND DETAILING OF ALL WATERPROOFING AND DRAINAGE ITEMS ALTHOUGH INDICATED ON THE STRUCTURAL DRAWINGS FOR INFORMATION PURPOSES ONLY, ARE THE DESIGN OF WATER PROOFING & DRAINAGE RESPONSIBILITY OF OTHERS
6. AT INTERIOR NON-BEARING WALLS, ASSUME 2x4 STUDS AT 24" O.C. PROVIDE ALLOWANCE FOR DEFLECTION CLIP AT NON-BEARING WALLS
7. PROVIDE HEADERS AT EXTERIOR WALLS, INTERIOR CORRIDOR WALLS AND OVER OPENINGS IN BEARING WALLS. REFER TO SCHEDULE 5 / S-022

**1 SECOND FLOOR FRAMING PLAN**

1/8" = 1'-0"

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1 THIRD FLOOR FRAMING PLAN  
1/8" = 1'-0"

**LEGEND:**

- STUD WALL
- STRUCTURAL WALL (B)
- NON-STRUCTURAL WALL
- NON-STRUCTURAL WALL (B)
- 6x6 WOOD POST
- WD COLUMN (B)
- WD OR STL BEAM
- HDR - HEADER BELOW PER SCH. 5 / S-022
- SIMPSON STRAP, SEE SCH. 12 / S-701
- SHEAR WALL SHTG. S.W. MARK, SEE SCH. 1 / S-022 MIN. LENGTH
- OPNG.
- SIMP. 'HDL' HOLDOWN, SEE 5 / S-501
- CLT MAJOR AXIS SPAN DIRECTION PANEL THICKNESS PER PLAN
- DEPRESSION / SLAB STEP
- EL. XX'-XX" TOP OF SLAB ELEVATION WHERE 0'-0" = USGS 20.31'

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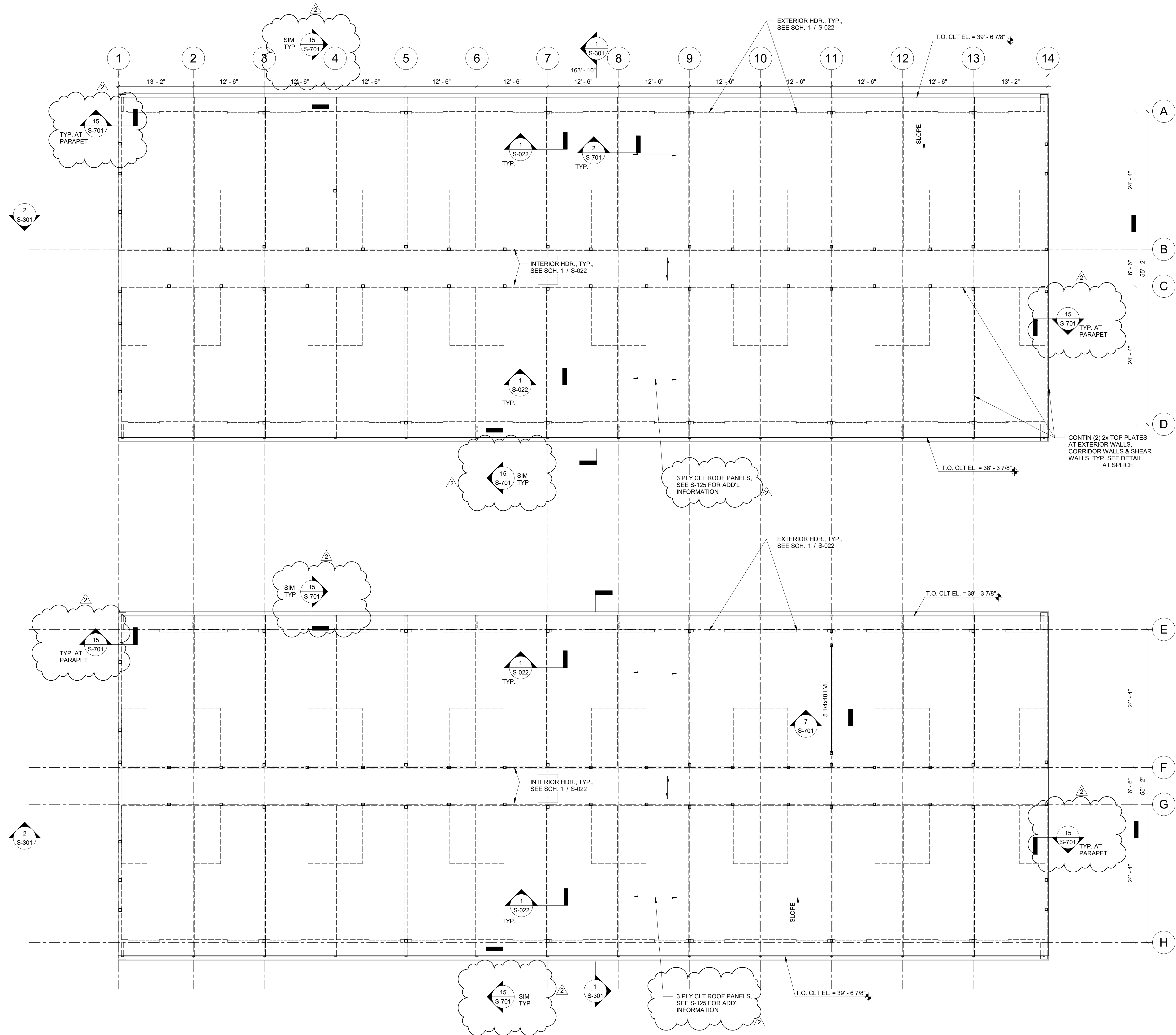
REVISIONS

2	PLAN CHECK COMMENTS	12/21/2020
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1 ROOF FRAMING PLAN  
 S-115 1/8" = 1'-0"

**LEGEND:**

- STUD WALL
- STRUCTURAL WALL (B)
- NON-STRUCTURAL WALL
- NON-STRUCTURAL WALL (B)
- 6x6 WOOD POST
- WD. COLUMN (B)
- WD. OR STL. BEAM
- HDR. HEADER BELOW PER SCH. 5 / S-022
- SIMPSON STRAP, SEE SCH. 12 / S-701
- SHEAR WALL SHTG. S.W. MARK, SEE SCH. 1 / S-022 MIN. LENGTH
- OPNG.
- SIMP. 'HDU' HOLDOW, SEE 5 / S-501
- CLT MAJOR AXIS SPAN DIRECTION PANEL THICKNESS PER PLAN
- DEPRESSION / SLAB STEP
- EL. XX'-XX" TOP OF SLAB ELEVATION WHERE 0'-0" = USGS 20.31'

**SHEET NOTES:**

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2. FOR TYPICAL WOOD DETAILS, SEE S-02X SERIES. FOR ADDITIONAL WOOD DETAILS, SEE S-700 SERIES
3. VERIFY ALL DIMENSIONS, CURBS, ETC. WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION
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7. PROVIDE HEADERS AT EXTERIOR WALLS, INTERIOR CORRIDOR WALLS AND OVER OPENINGS IN BEARING WALLS. REFER TO SCHEDULE 5 / S-022



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 holmesstructures.com

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 W. SACRAMENTO,  
 CA 97605

REVISIONS

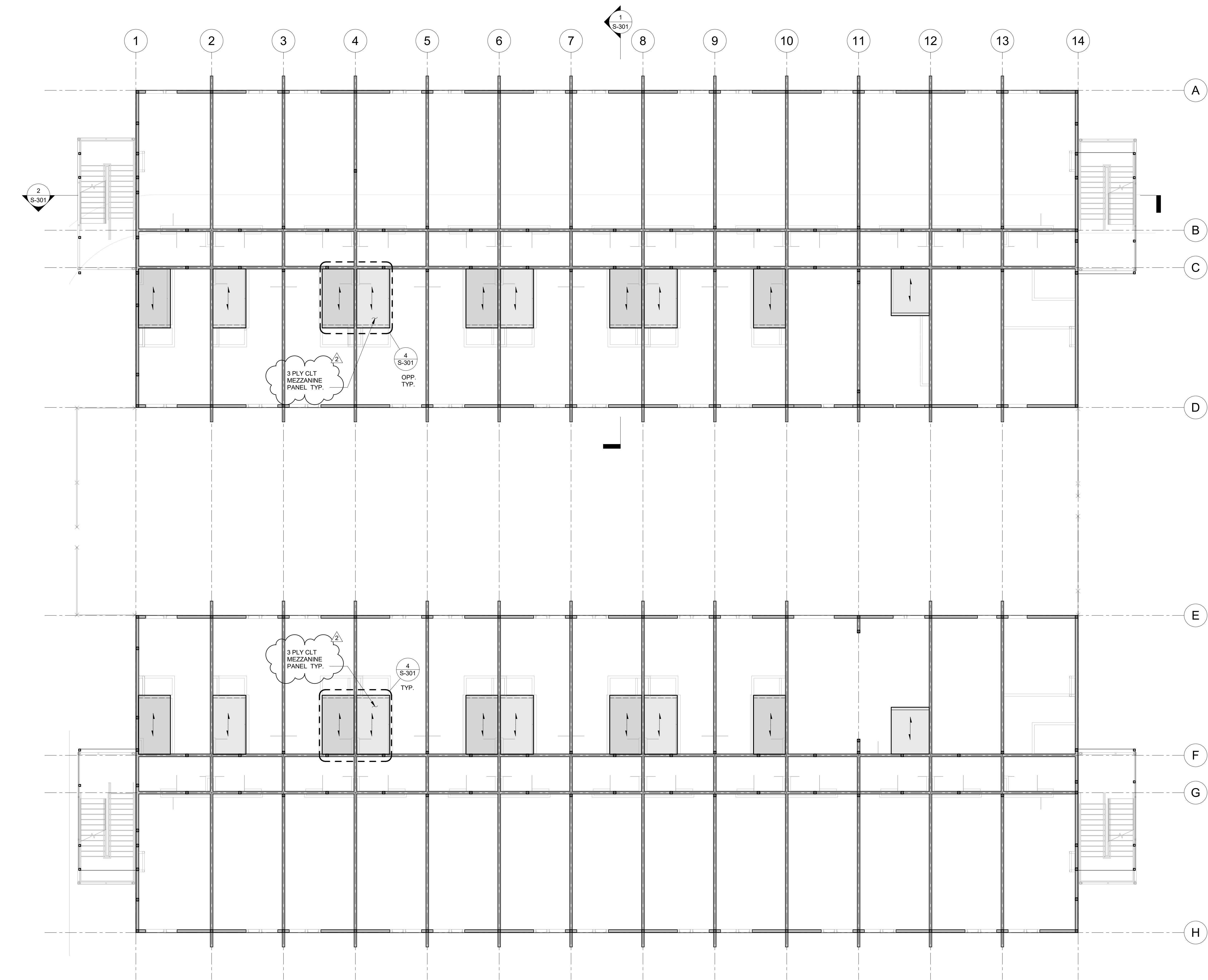
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 S-115 ROOF FRAMING PLAN





1 S-123 LEVEL 1 - CLT PANEL PLAN 1/8" = 1'-0"

**LEGEND:**

- STUD WALL
- STRUCTURAL WALL (B)
- NON-STRUCTURAL WALL
- NON-STRUCTURAL WALL (B)
- 6x6 WOOD POST
- WD. COLUMN (B)
- WD. OR STL. BEAM
- HEADER BELOW PER SCH. 5 / S-022
- SIMPSON STRAP, SEE SCH. 12 / S-701
- SHEAR WALL SHTG. S.W. MARK, SEE SCH. 1 / S-022
- MIN. LENGTH
- OPNG.
- SIMP. 'HDU' HOLDOW. SEE 5 / S-501
- CLT MAJOR AXIS SPAN DIRECTION (PANEL THICKNESS PER PLAN)
- DEPRESSION / SLAB STEP
- TOP OF SLAB ELEVATION WHERE 0'-0" = USGS 20.31'

**SHEET NOTES:**

1. FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS SEE S-000 SERIES
2. FOR TYPICAL WOOD DETAILS, SEE S-02X SERIES. FOR ADDITIONAL WOOD DETAILS, SEE S-700 SERIES
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**KIND PROJECT**

THE KIND PROJECT INVESTORS, LP

415 & 421 F STREET W. SACRAMENTO, CA 97605

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2	PLAN CHECK COMMENTS	12/21/2020
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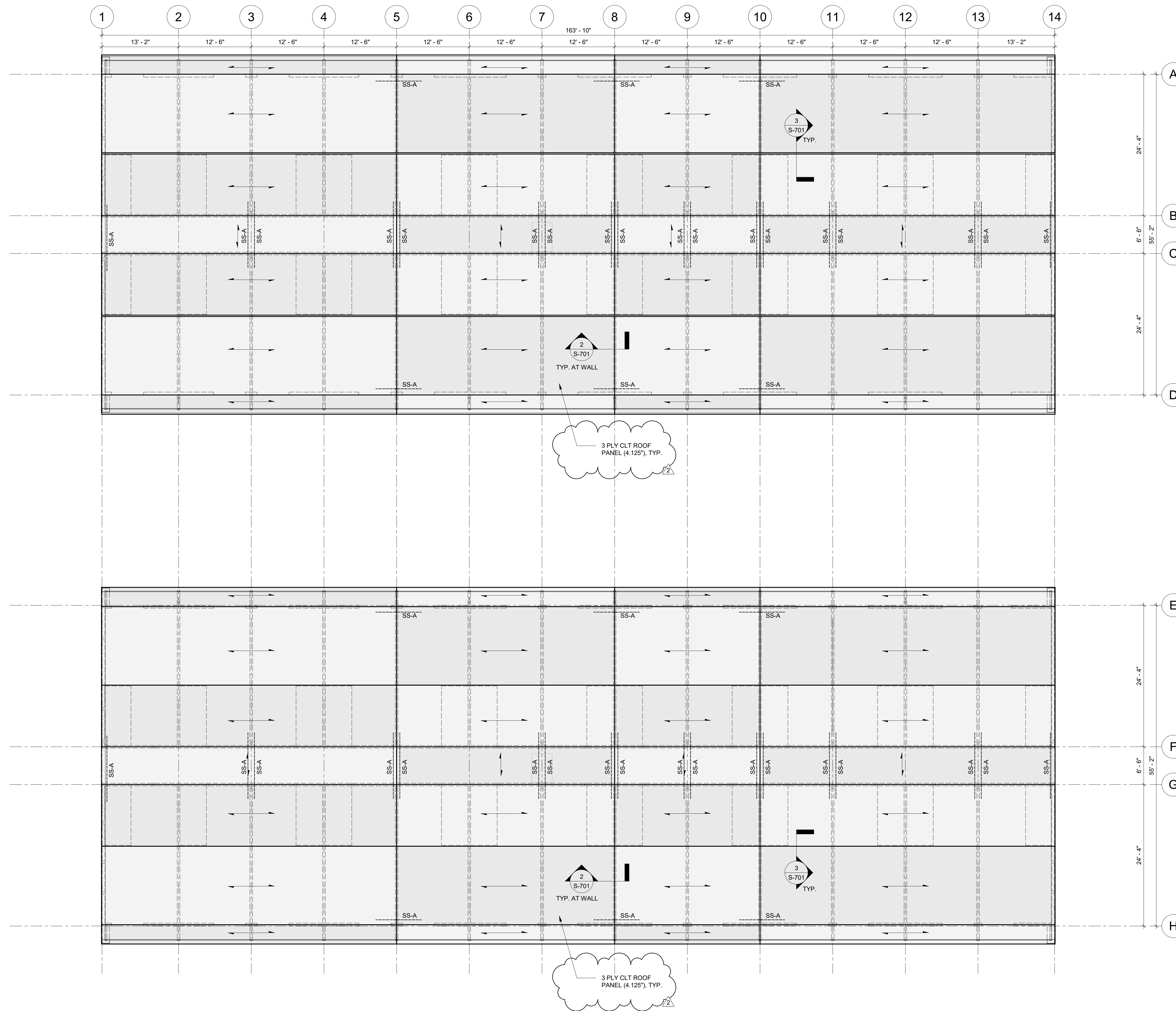
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DATE	4/20/2021
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1 **ROOF - CLT PANEL PLAN**  
 S-125 1/8" = 1'-0"

**LEGEND:**

- STUD WALL
- STRUCTURAL WALL (B)
- NON-STRUCTURAL WALL
- NON-STRUCTURAL WALL (B)
- 6x6 WOOD POST
- WD. COLUMN (B)
- WD. OR STL. BEAM
- HDR HEADER BELOW PER SCH. 5 / S-022
- SIMPSON STRAP, SEE SCH. 12 / S-701
- SHEAR WALL SHTG. S.W. MARK, SEE SCH. 1 / S-022 MIN. LENGTH
- OPNG.
- SUMP 'Hdu' HOLDOW, SEE 5 / S-501
- CLT MAJOR AXIS SPAN DIRECTION PANEL THICKNESS PER PLAN
- DEPRESSION / SLAB STEP
- EL. XX'-XX" TOP OF SLAB ELEVATION WHERE 0'-0" = USGS 20.31

**SHEET NOTES:**

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2. FOR TYPICAL WOOD DETAILS, SEE S-02X SERIES. FOR ADDITIONAL WOOD DETAILS, SEE S-700 SERIES
3. VERIFY ALL DIMENSIONS, CURBS, ETC. WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION
4. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR SLEEVES, BLOCK OUTS, AND OTHER ITEMS TO BE COORDINATED WITH STRUCTURAL DRAWINGS
5. SPECIFICATIONS AND DETAILING OF ALL WATERPROOFING AND DRAINAGE ITEMS ALTHOUGH INDICATED ON THE STRUCTURAL DRAWINGS FOR INFORMATION PURPOSES ONLY, ARE THE DESIGN OF WATER PROOFING & DRAINAGE RESPONSIBILITY OF OTHERS
6. AT INTERIOR NON-BEARING WALLS, ASSUME 2x4 STUDS AT 24" O.C. PROVIDE ALLOWANCE FOR DEFLECTION CLIP AT NON-BEARING WALLS
7. PROVIDE HEADERS AT EXTERIOR WALLS, INTERIOR CORRIDOR WALLS AND OVER OPENINGS IN BEARING WALLS. REFER TO SCHEDULE 5 / S-022



02/24/2021  
DATE SIGNED



**Holmes Structures**  
 235 Montgomery St. STE 1250  
 San Francisco, CA 94104 USA  
 415 693 1600  
 holmesstructures.com

**KIND PROJECT**

THE KIND PROJECT  
INVESTORS, LP

415 & 421 F STREET  
W. SACRAMENTO,  
CA 97605

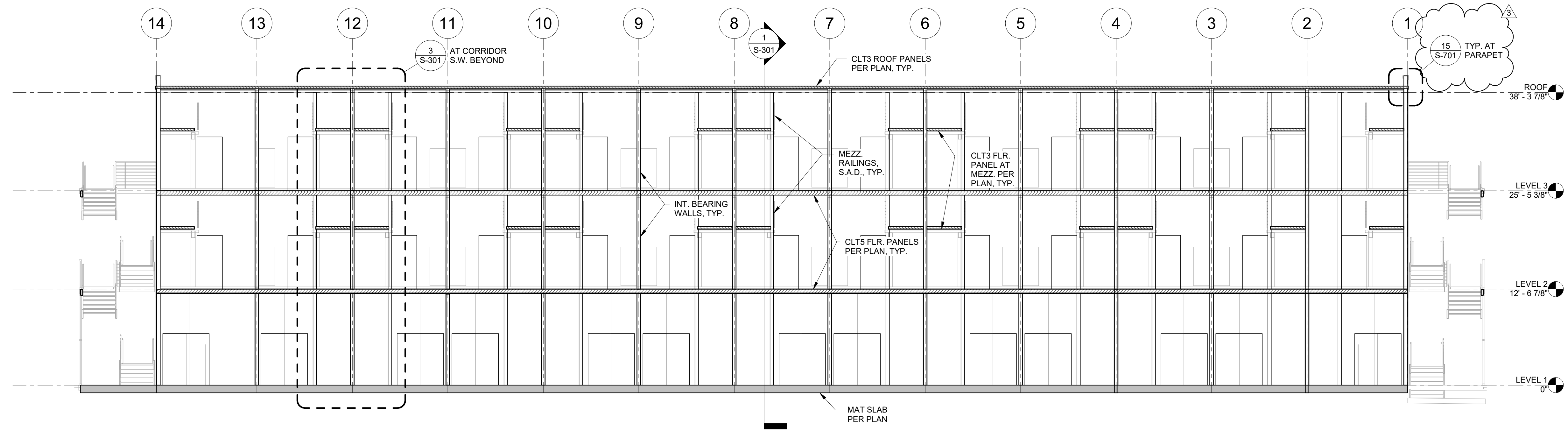
**REVISIONS**

NO.	PLAN CHECK COMMENTS	DATE
2	PLAN CHECK COMMENTS	12/21/2020

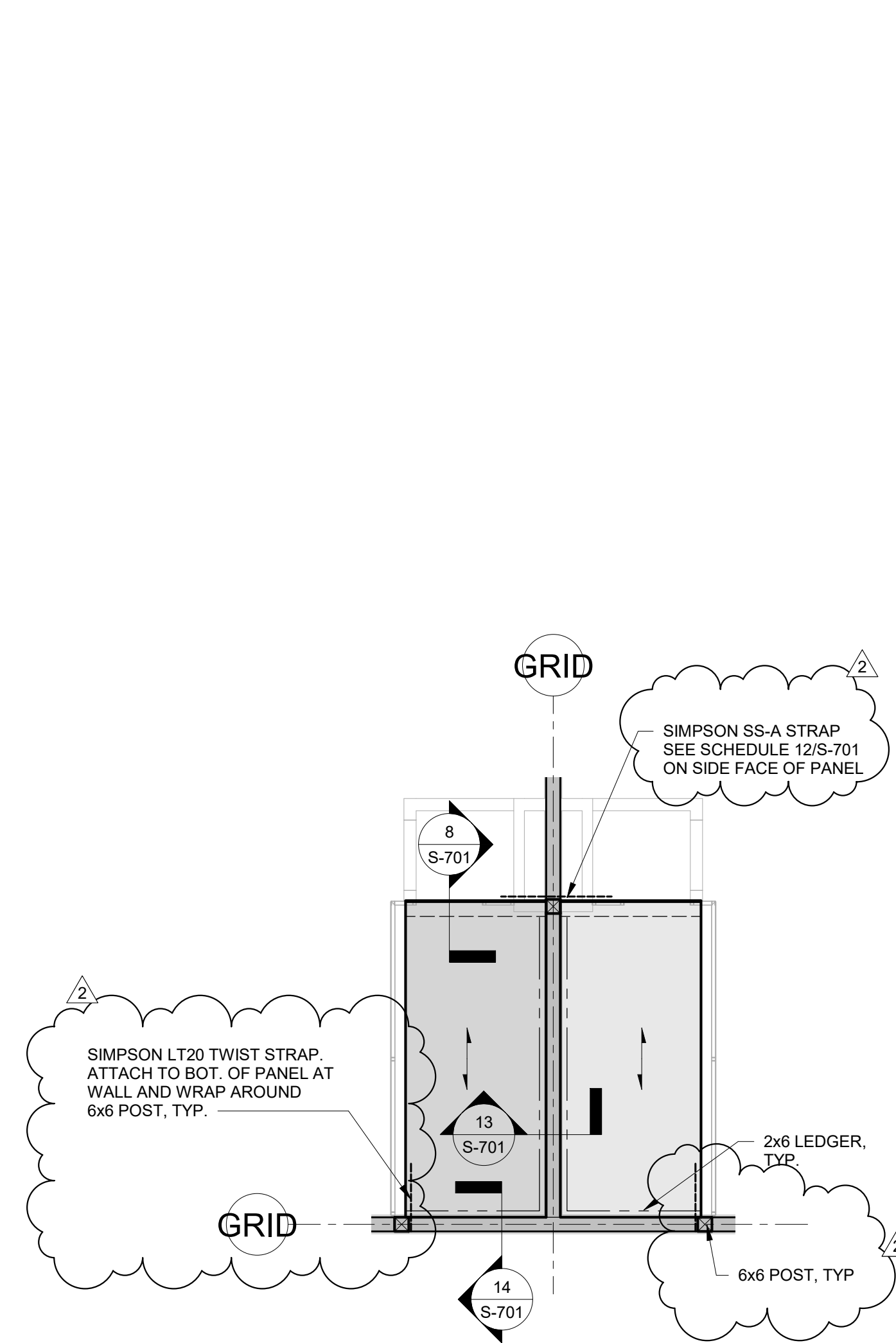
**BLDG. DEPT. SUBMITTAL**

JOB NO.	20149.10
DRAWN	CJ
DATE	4/20/2021
SCALE	1/8" = 1'-0"
FILENAME	
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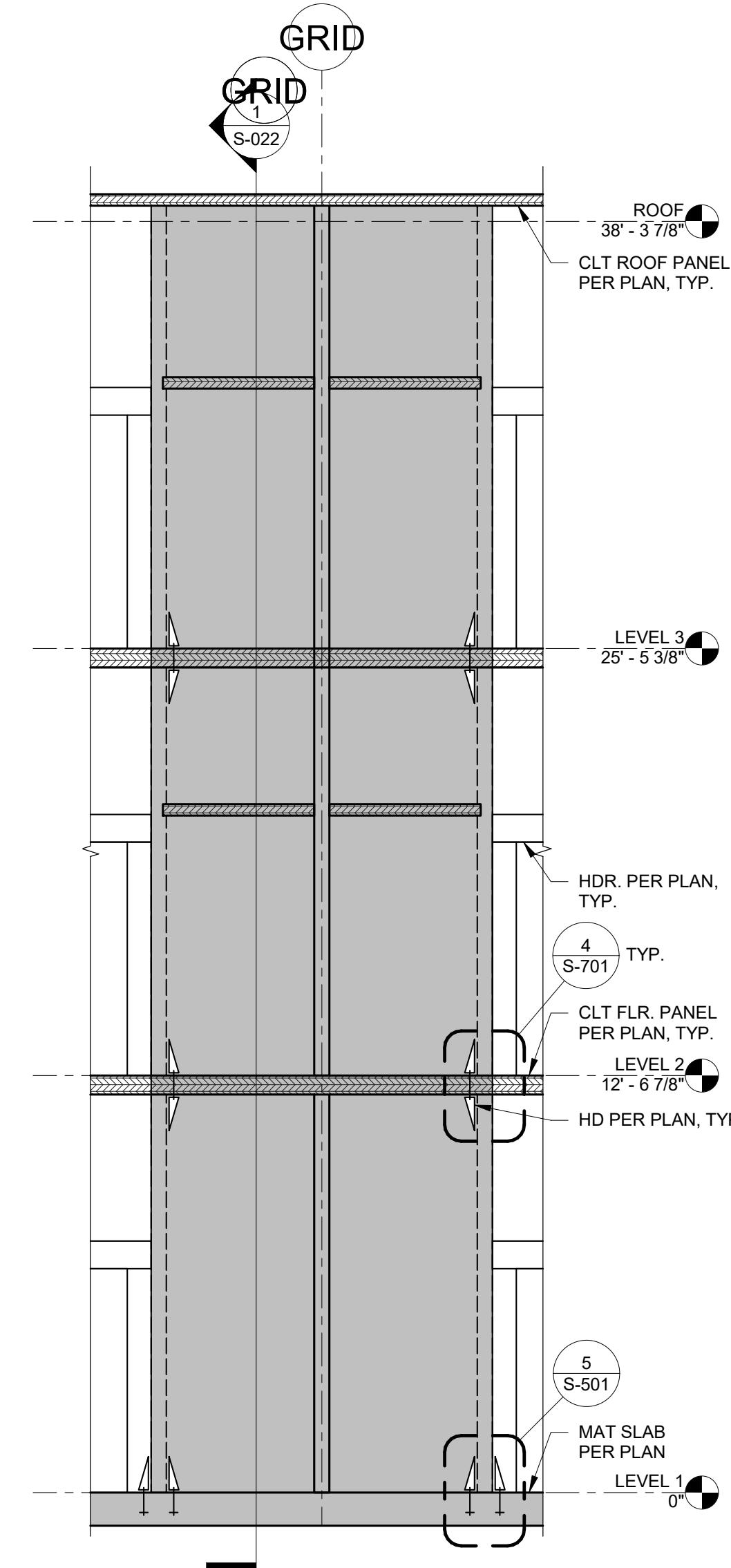




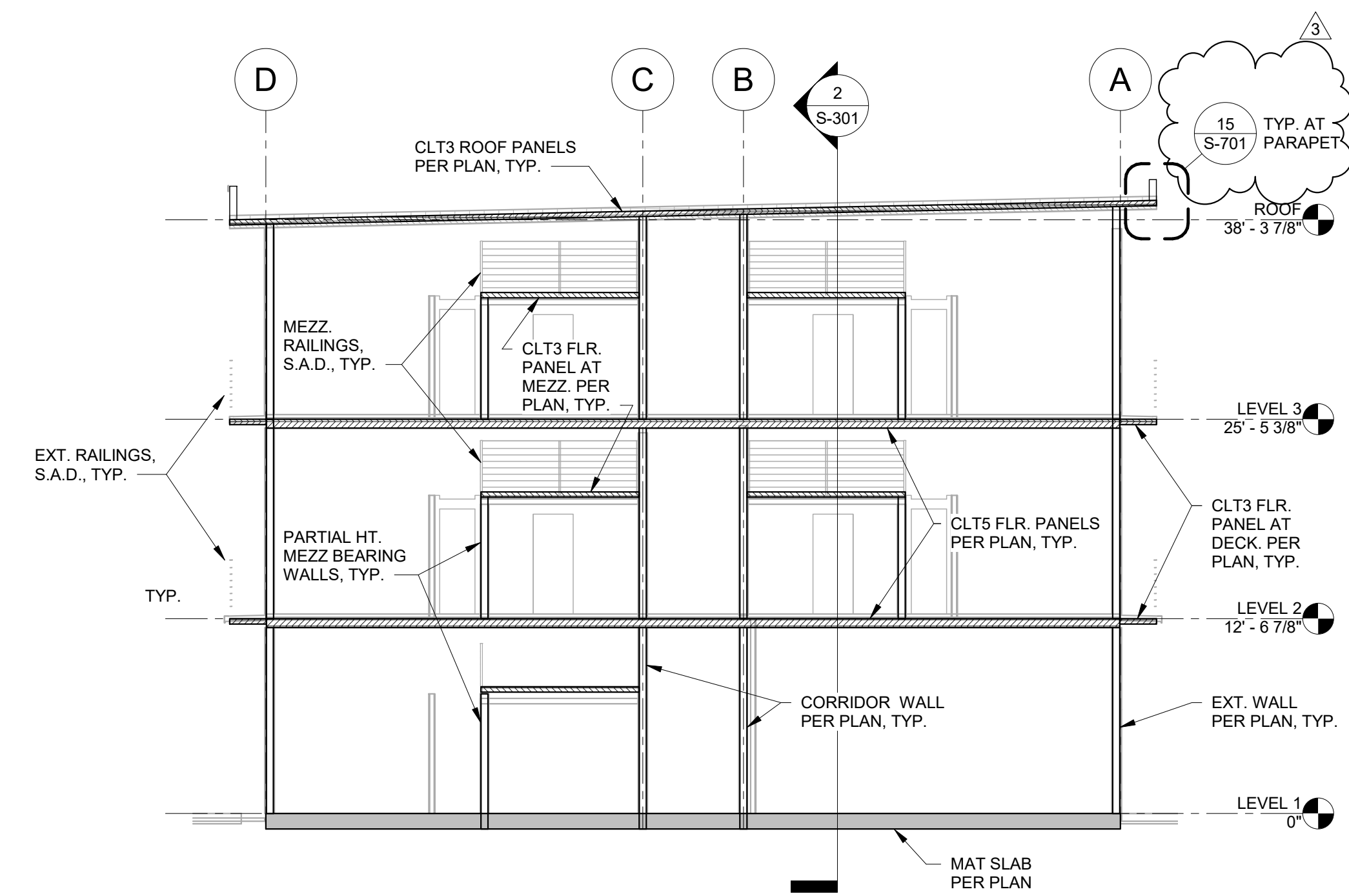
2 LONGITUDINAL BUILDING SECTION  
1/8" = 1'-0"



4 MEZZANINE FLOOR - PARTIAL PLAN  
1/4" = 1'-0"



3 SHEAR WALL AT CORRIDOR  
1/4" = 1'-0"



1 TRANSVERSE BUILDING SECTION  
1/8" = 1'-0"



02/24/2021  
DATE SIGNED

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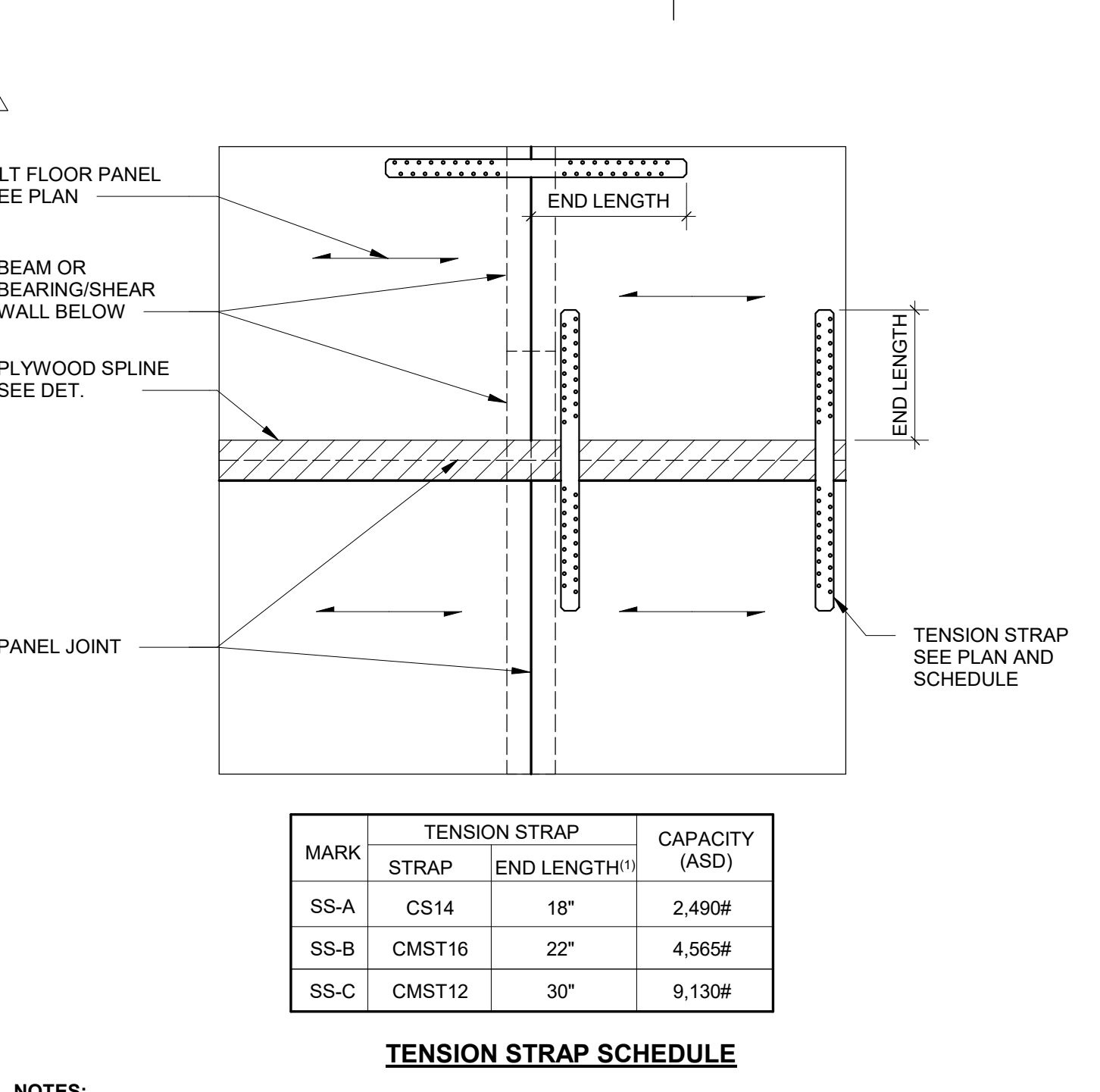
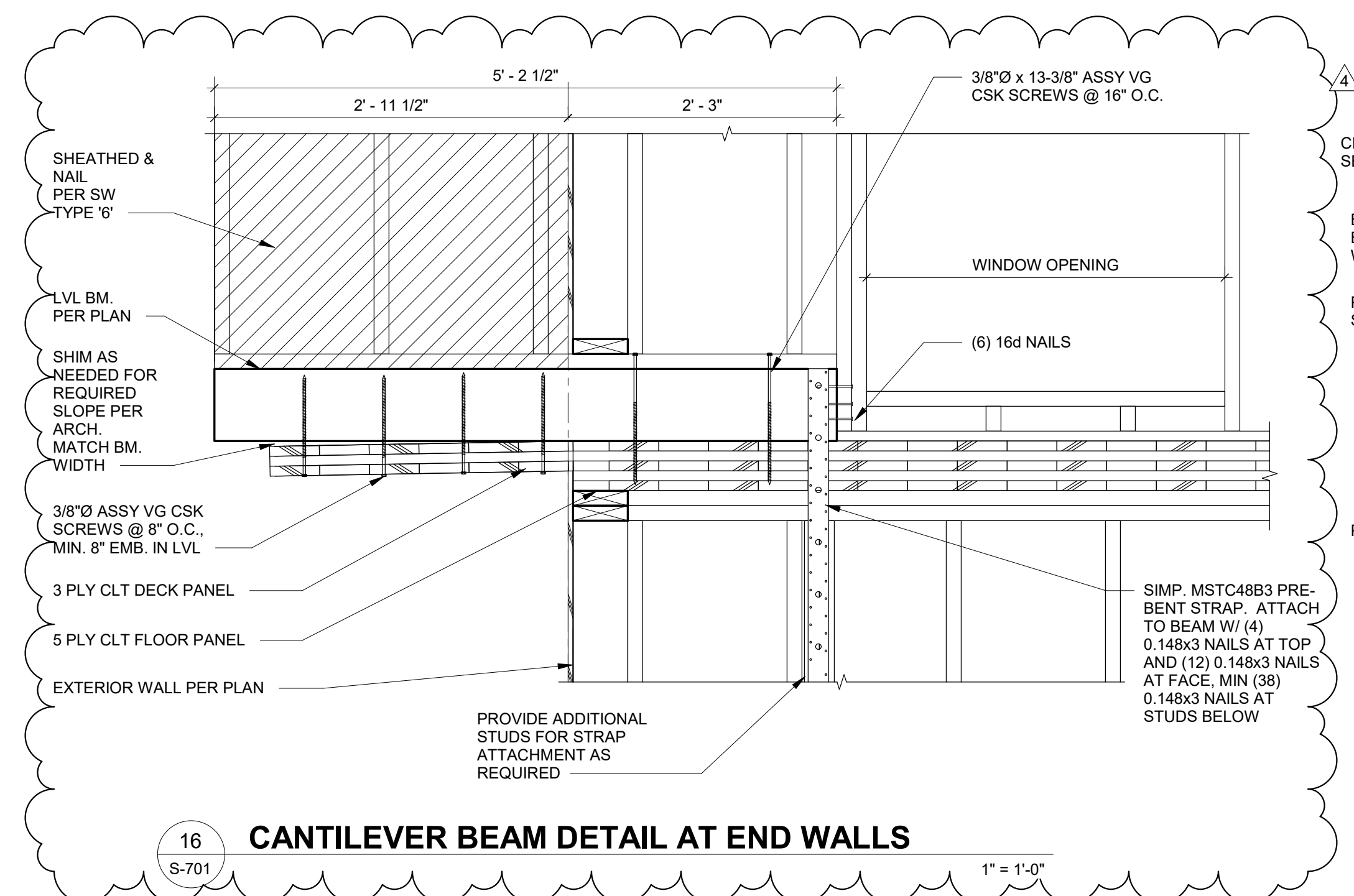
REVISIONS

2	PLAN CHECK COMMENTS	12/21/2020
3	PLAN CHECK COMMENTS	2/24/2021

BLDG. DEPT. SUBMITTAL

JOB NO.	20149.10
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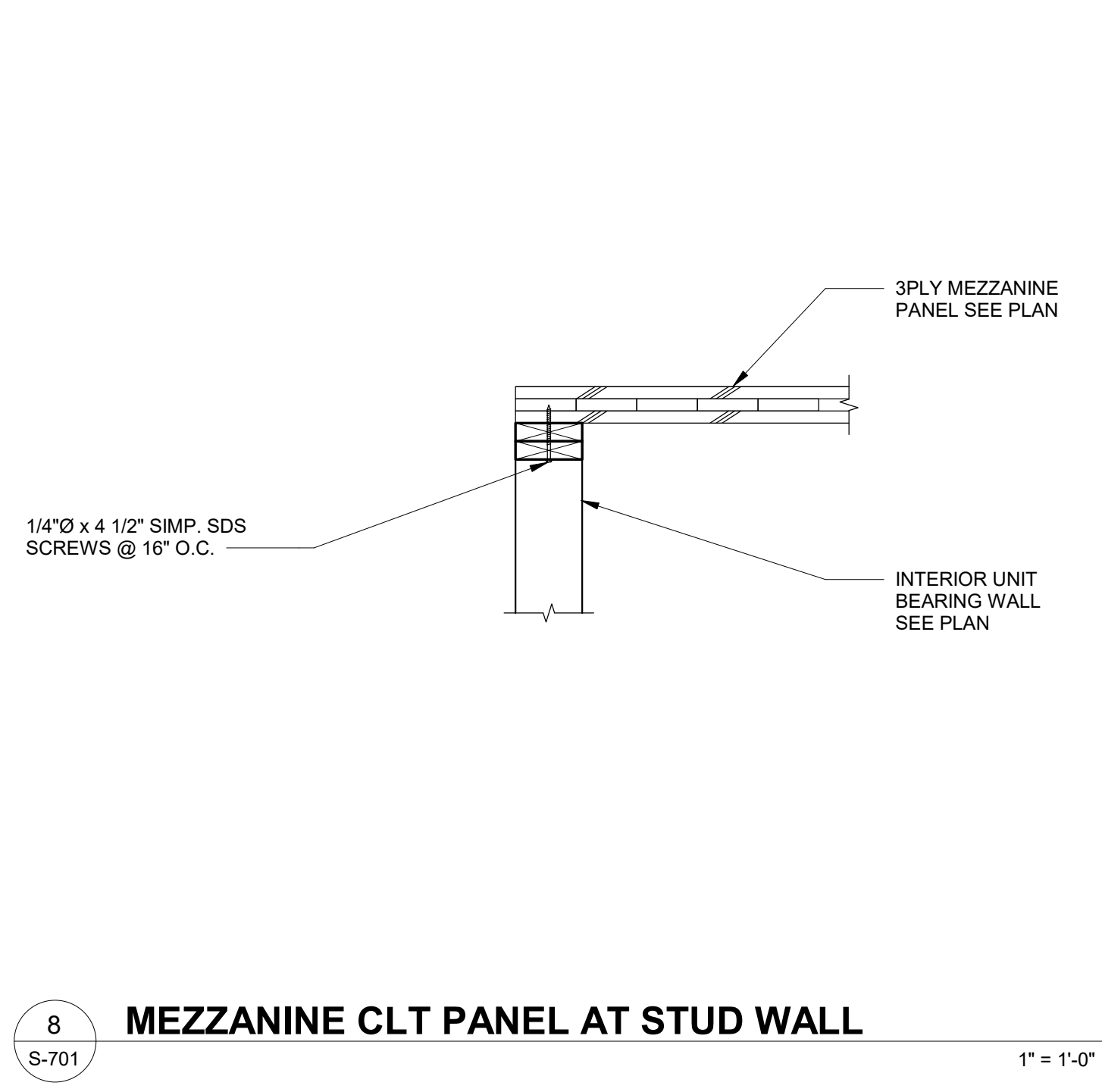




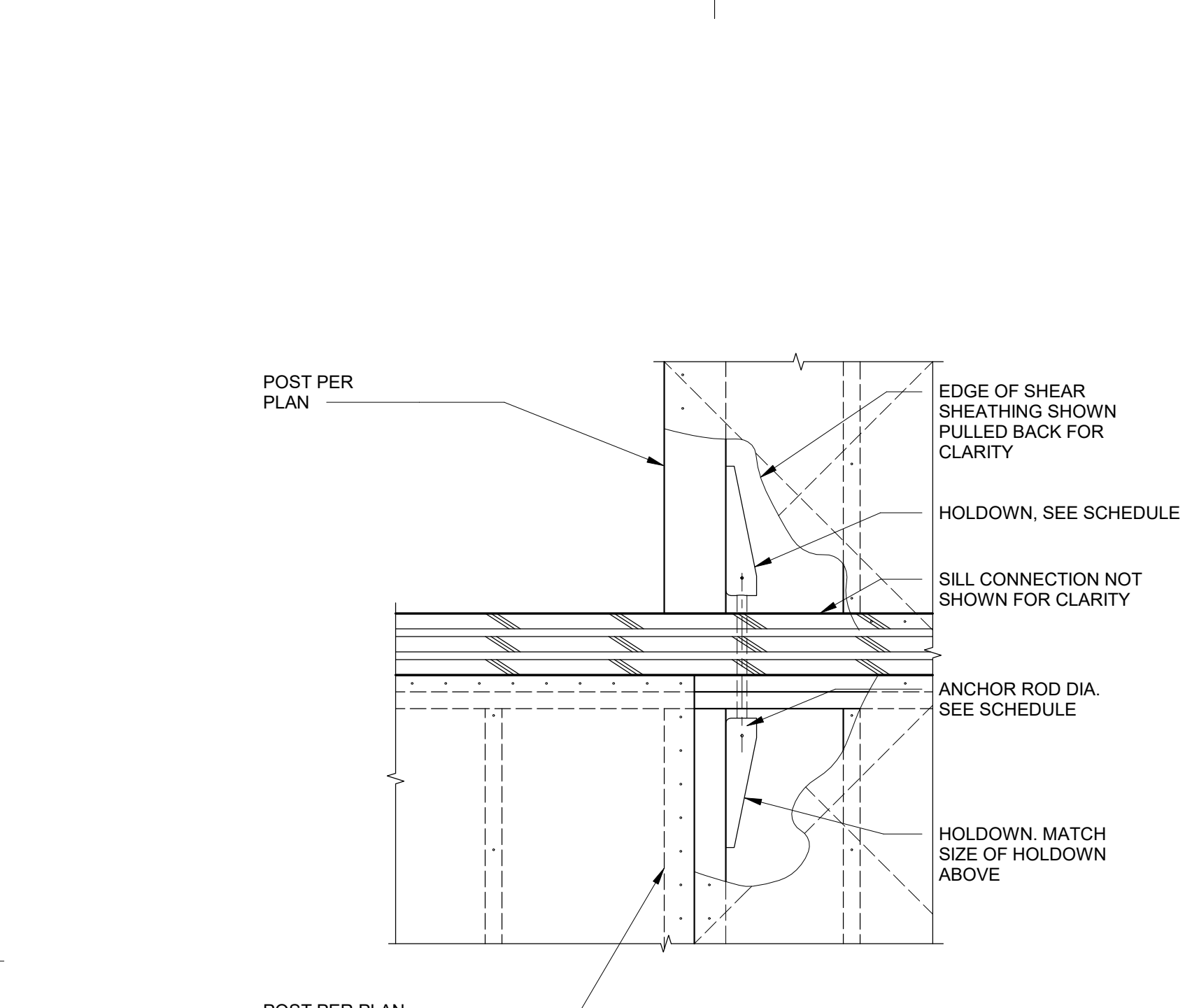
MARK	TENSION STRAP STRAP	END LENGTH <sup>(1)</sup>	CAPACITY (ASD)
SS-A	CS14	18"	2,490#
SS-B	CMST16	22"	4,565#
SS-C	CMST12	30"	9,130#

**TENSION STRAP SCHEDULE**

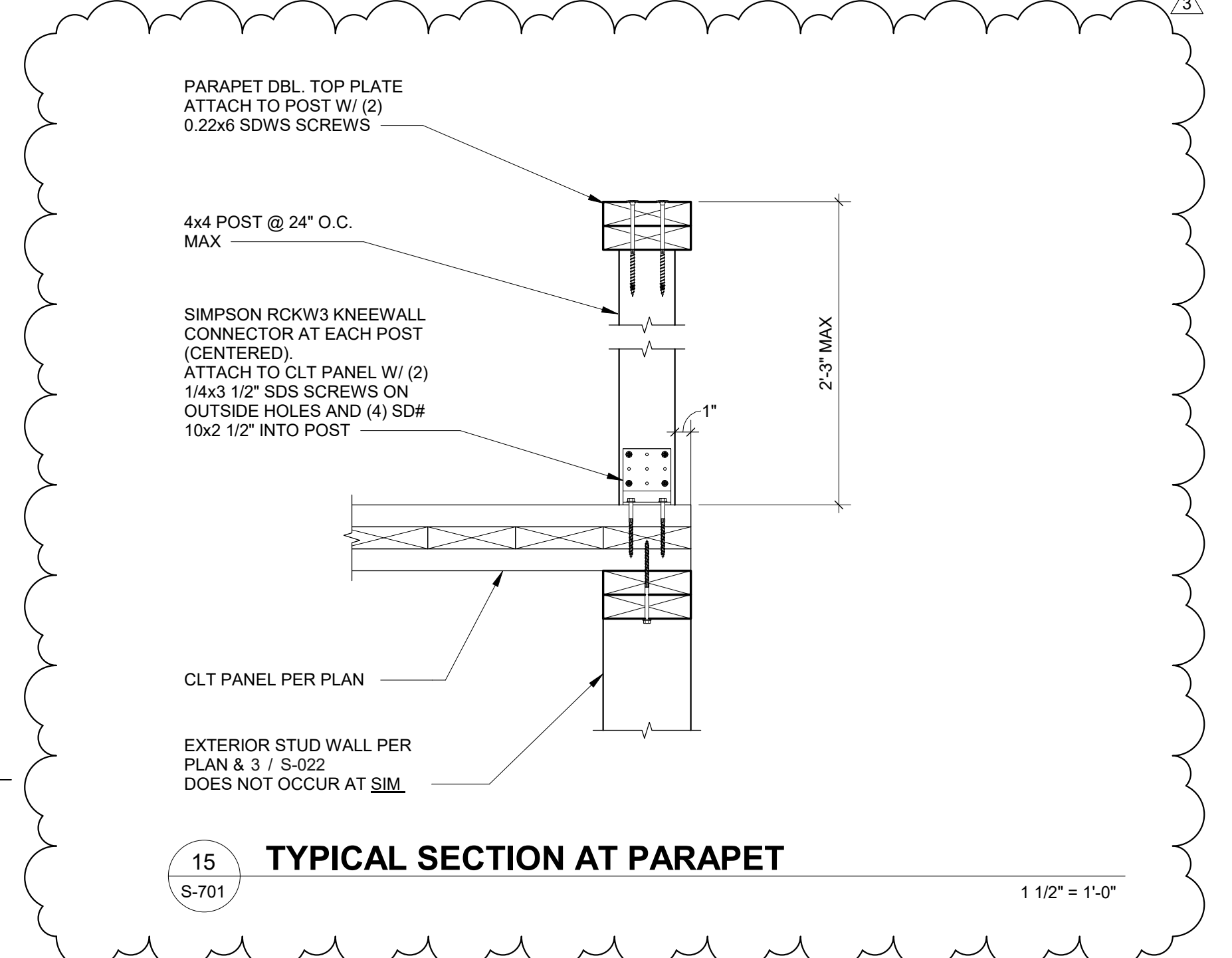
**NOTES:**  
 1. MINIMUM END LENGTH. SEE PLAN FOR ADDITIONAL INFORMATION  
 2. PROVIDE FASTENERS IN EVERY HOLE PER MANUFACTURE



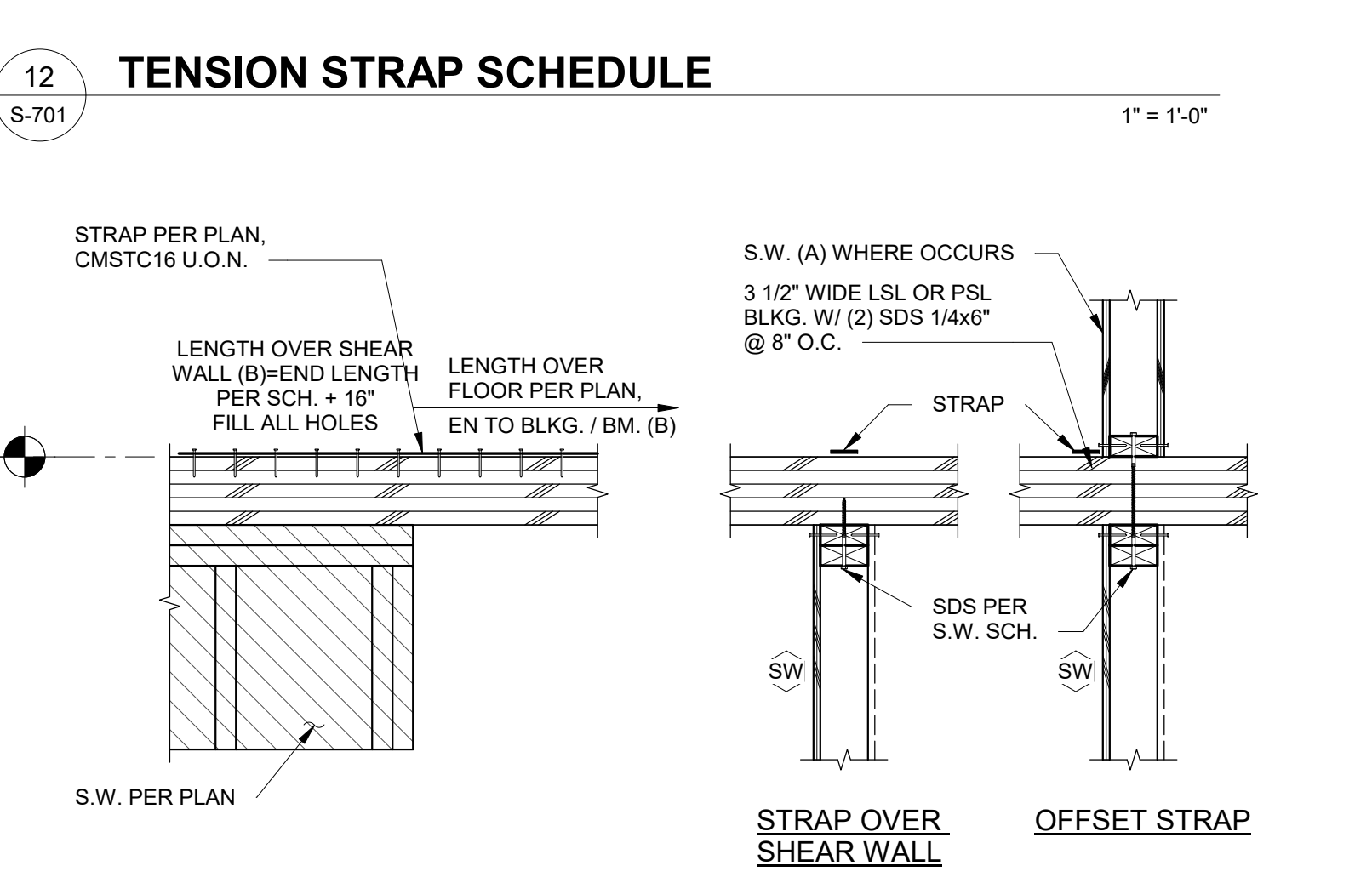
**7 LVL BEAM AT WALLS ABOVE LOUNGE**  
 1" = 1'-0"



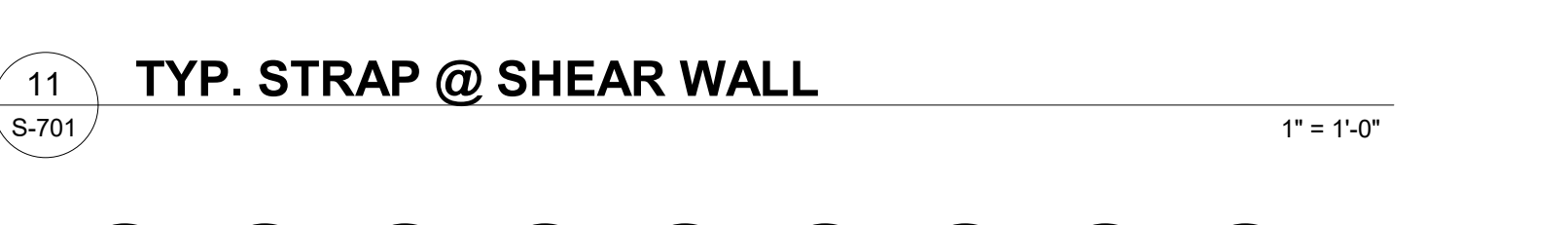
**4 HOLDOWN BETWEEN FLOORS**  
 1" = 1'-0"



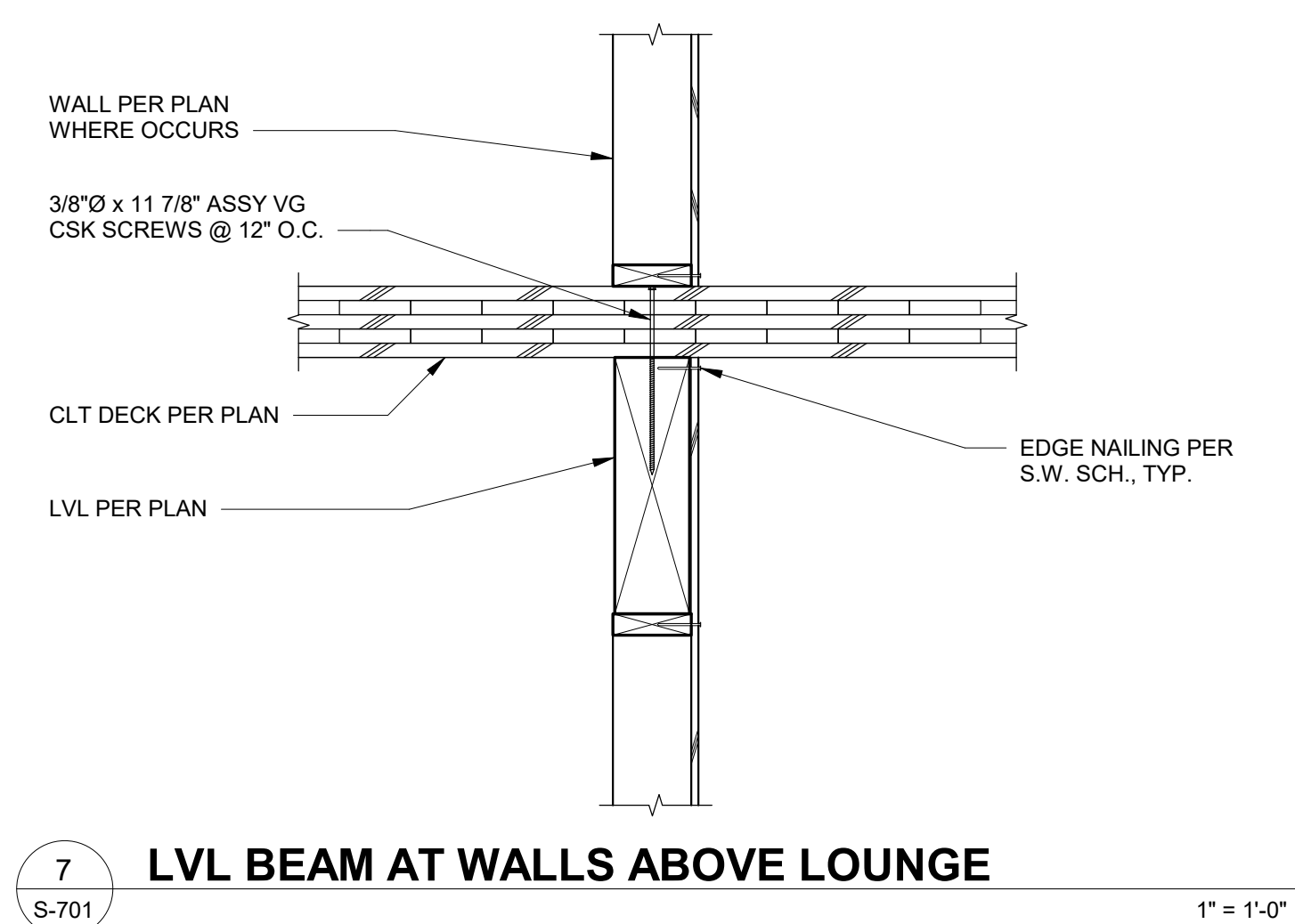
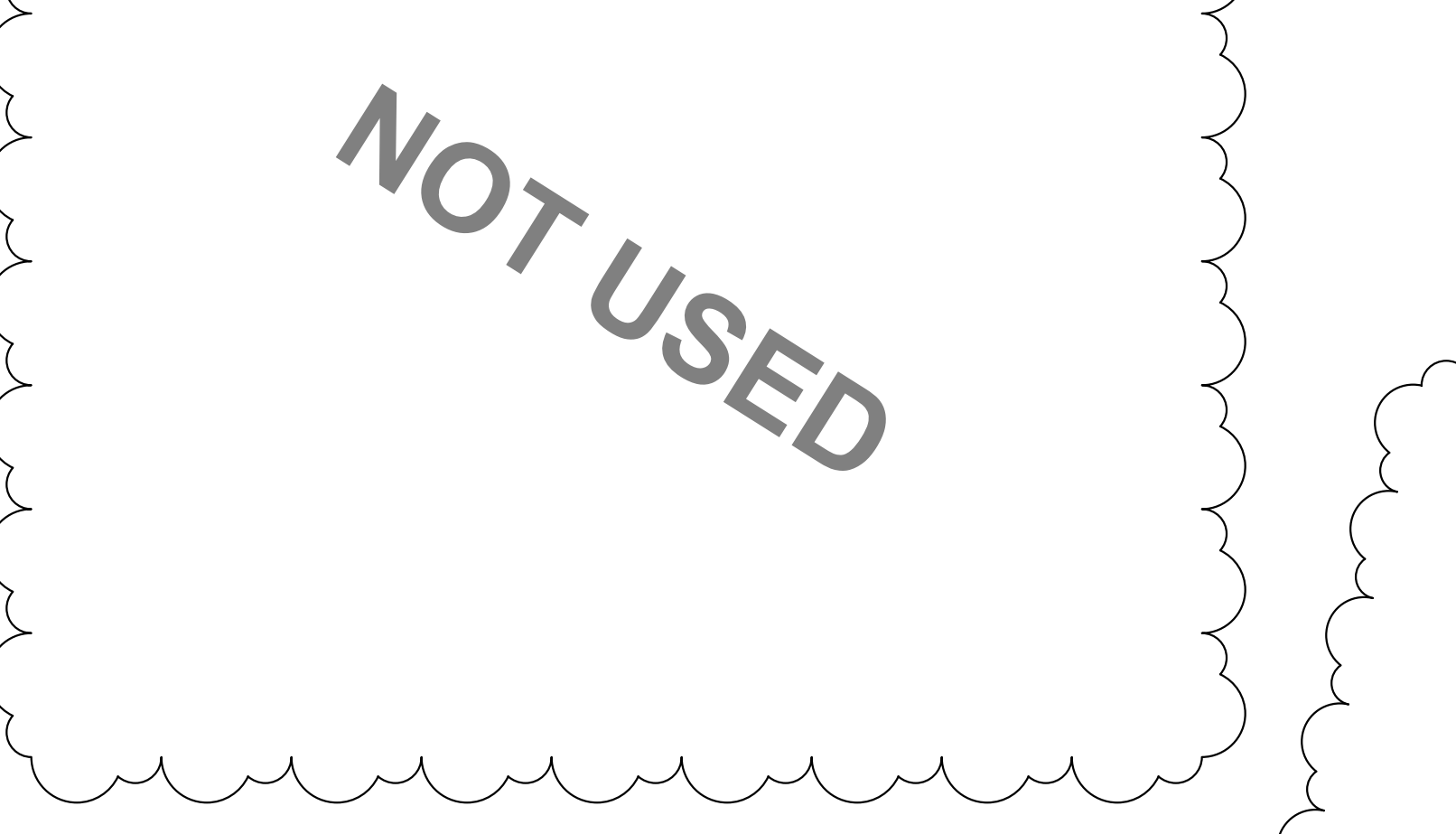
**15 TYPICAL SECTION AT PARAPET**  
 1 1/2" = 1'-0"



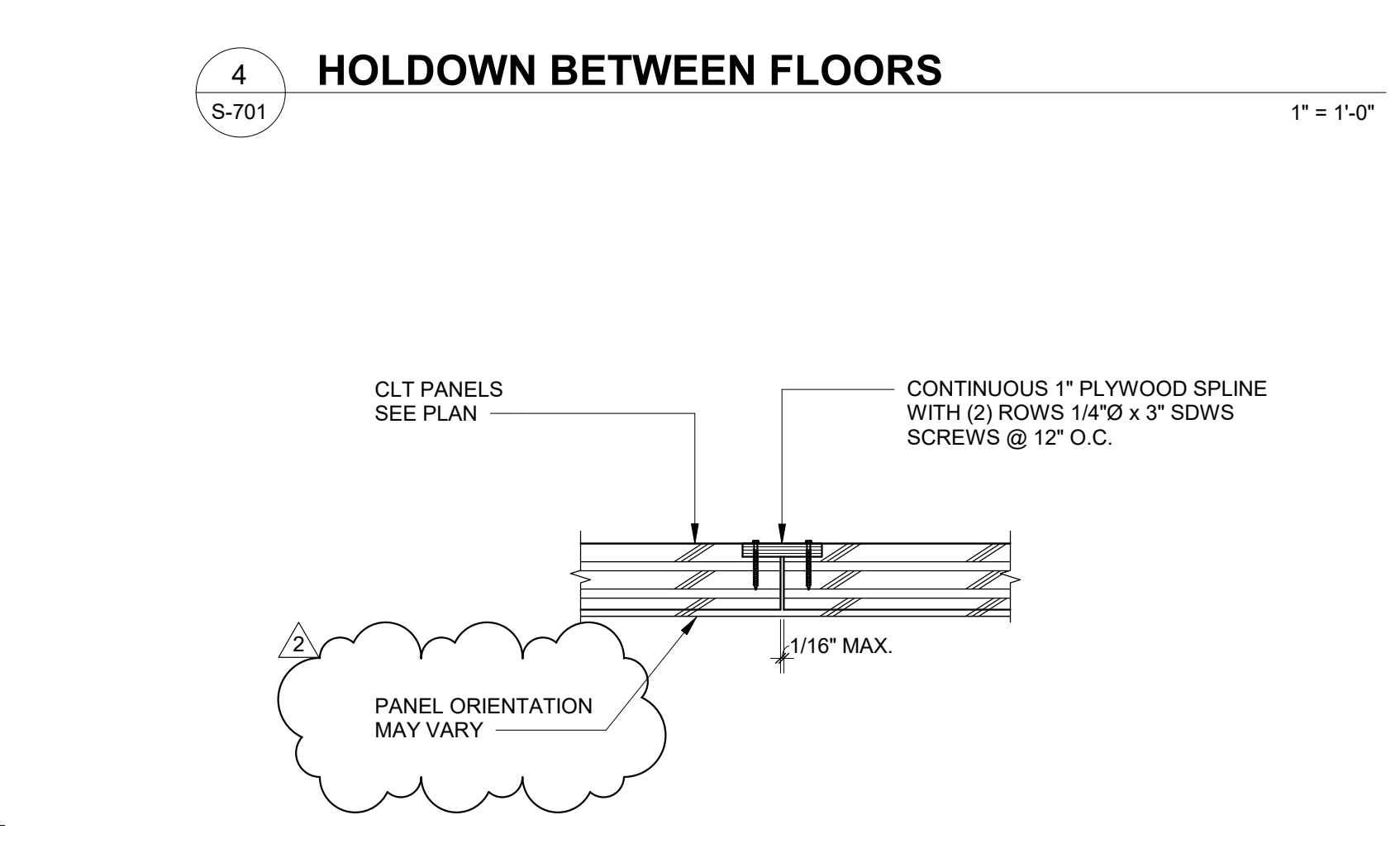
**12 TENSION STRAP SCHEDULE**  
 1" = 1'-0"



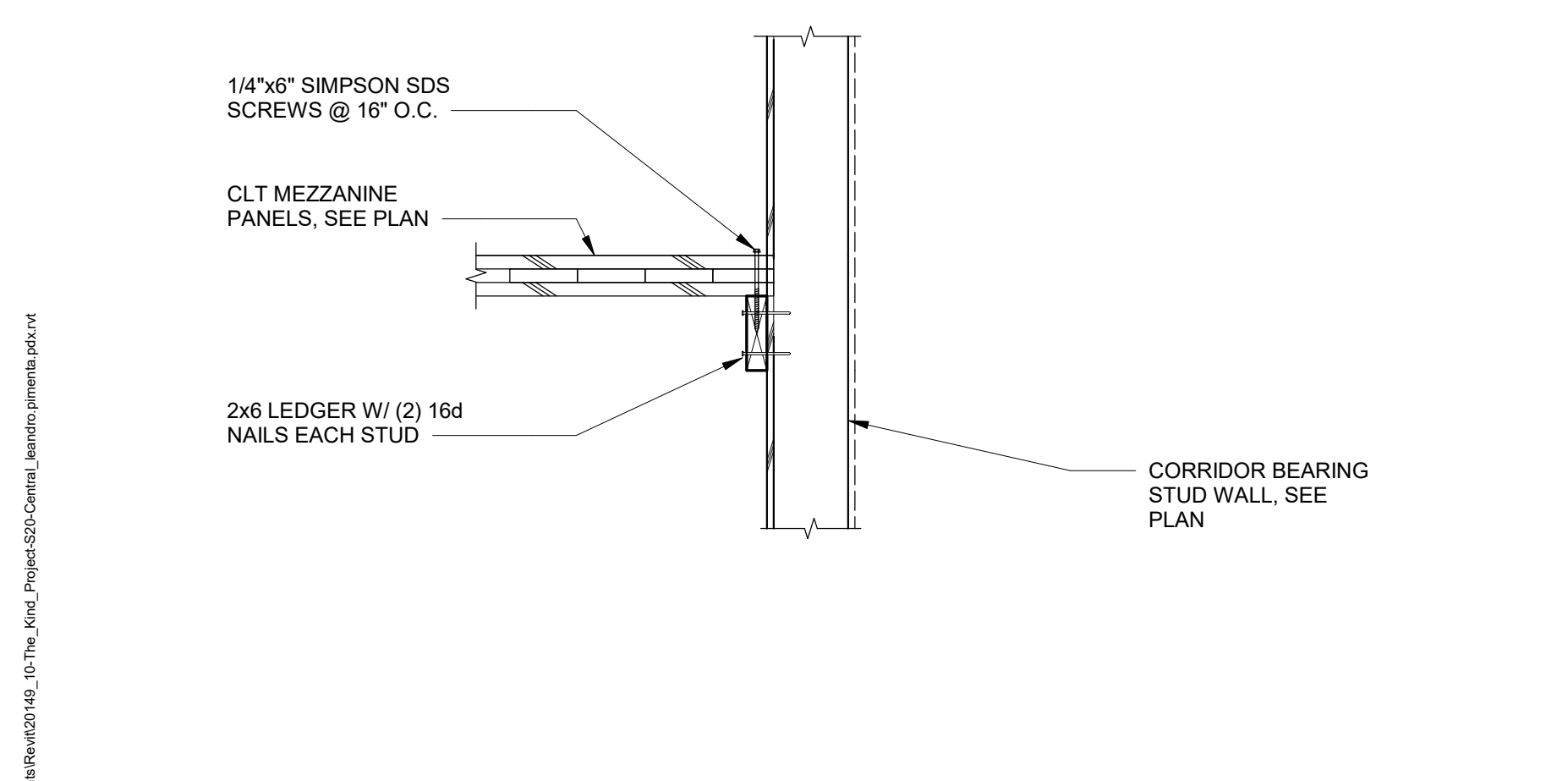
**11 TYP. STRAP @ SHEAR WALL**  
 1" = 1'-0"



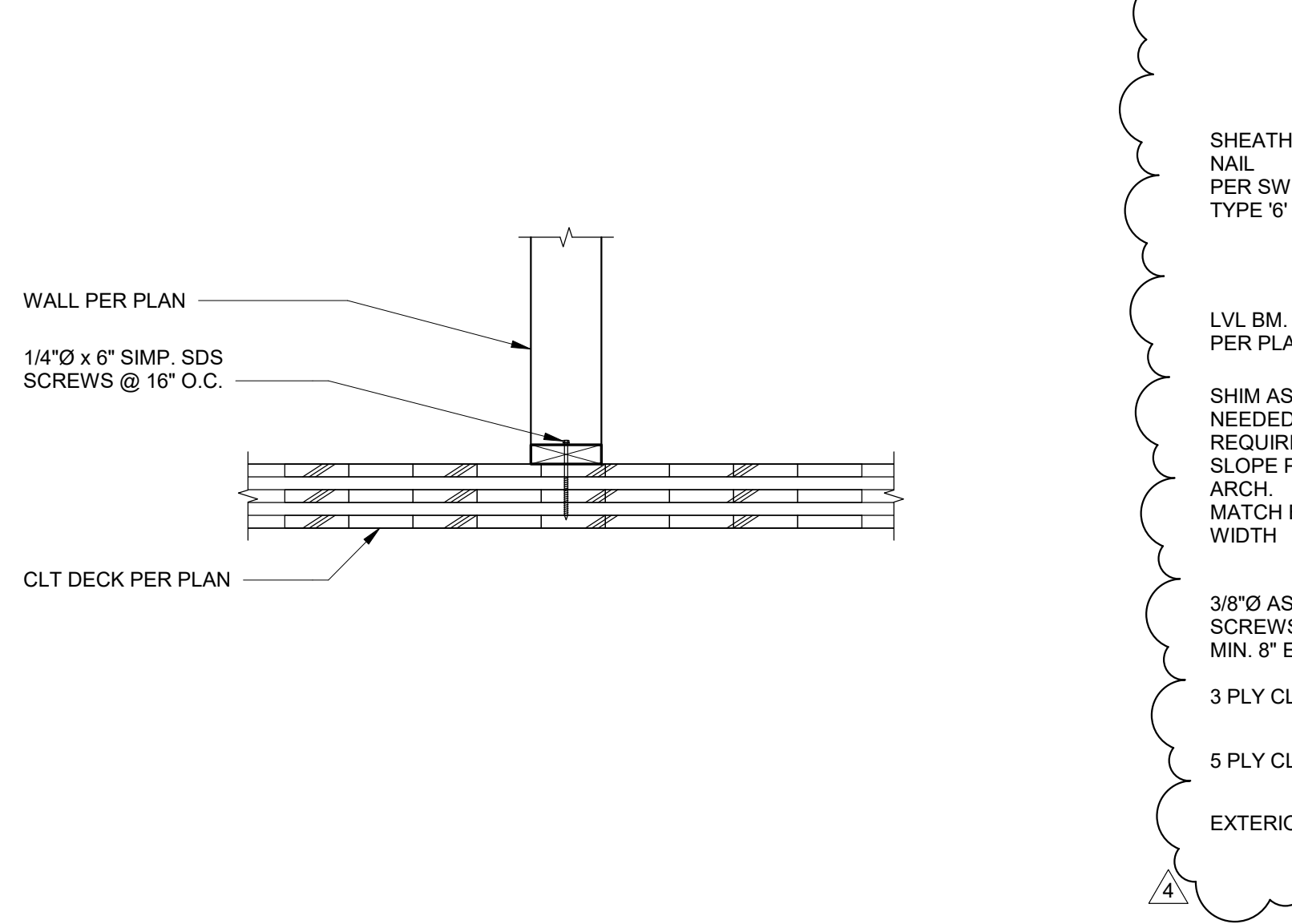
**6 GLULAM BEAM AT LOUNGE**  
 1" = 1'-0"



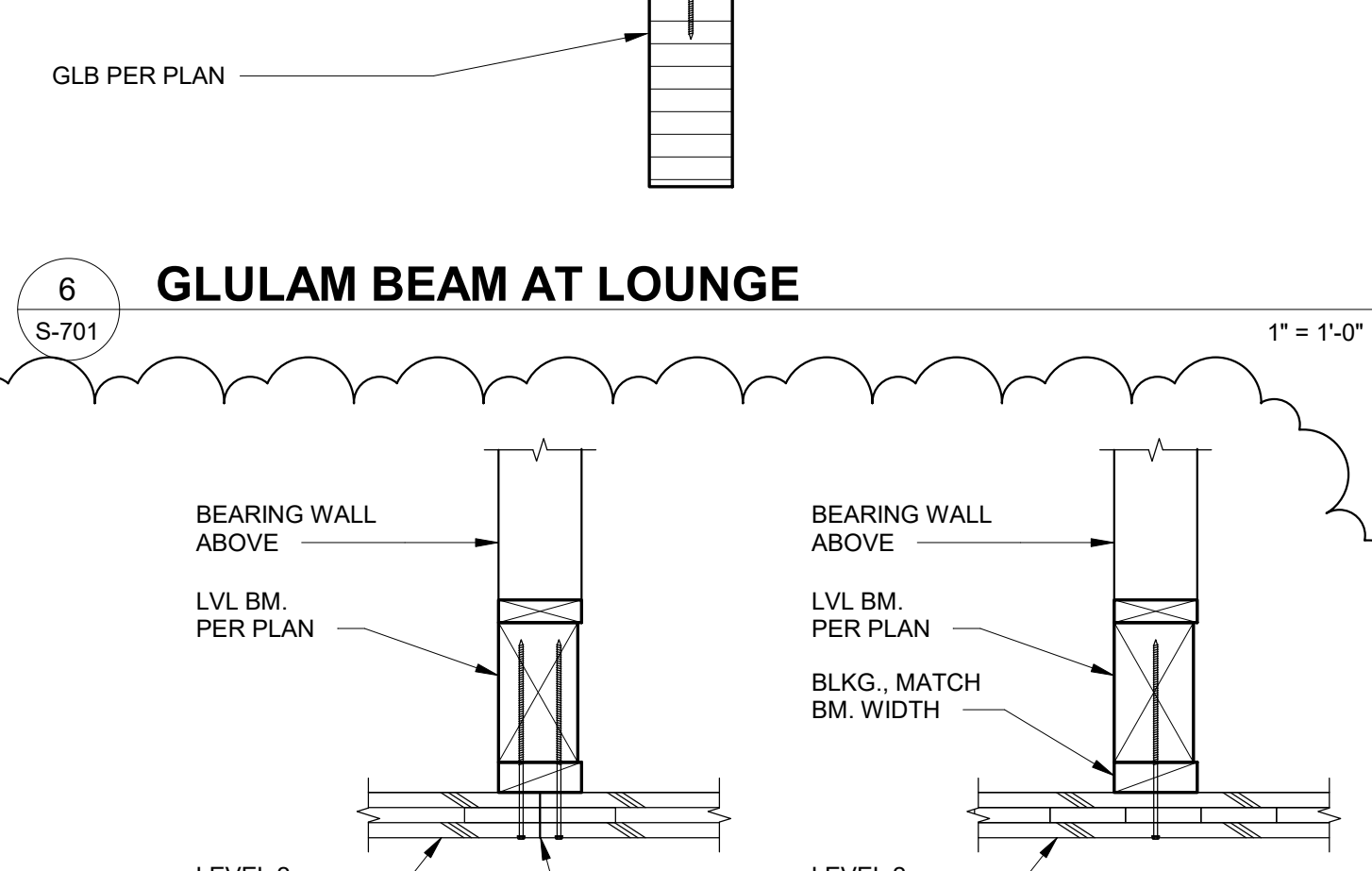
**3 PANEL SPLICE**  
 1" = 1'-0"



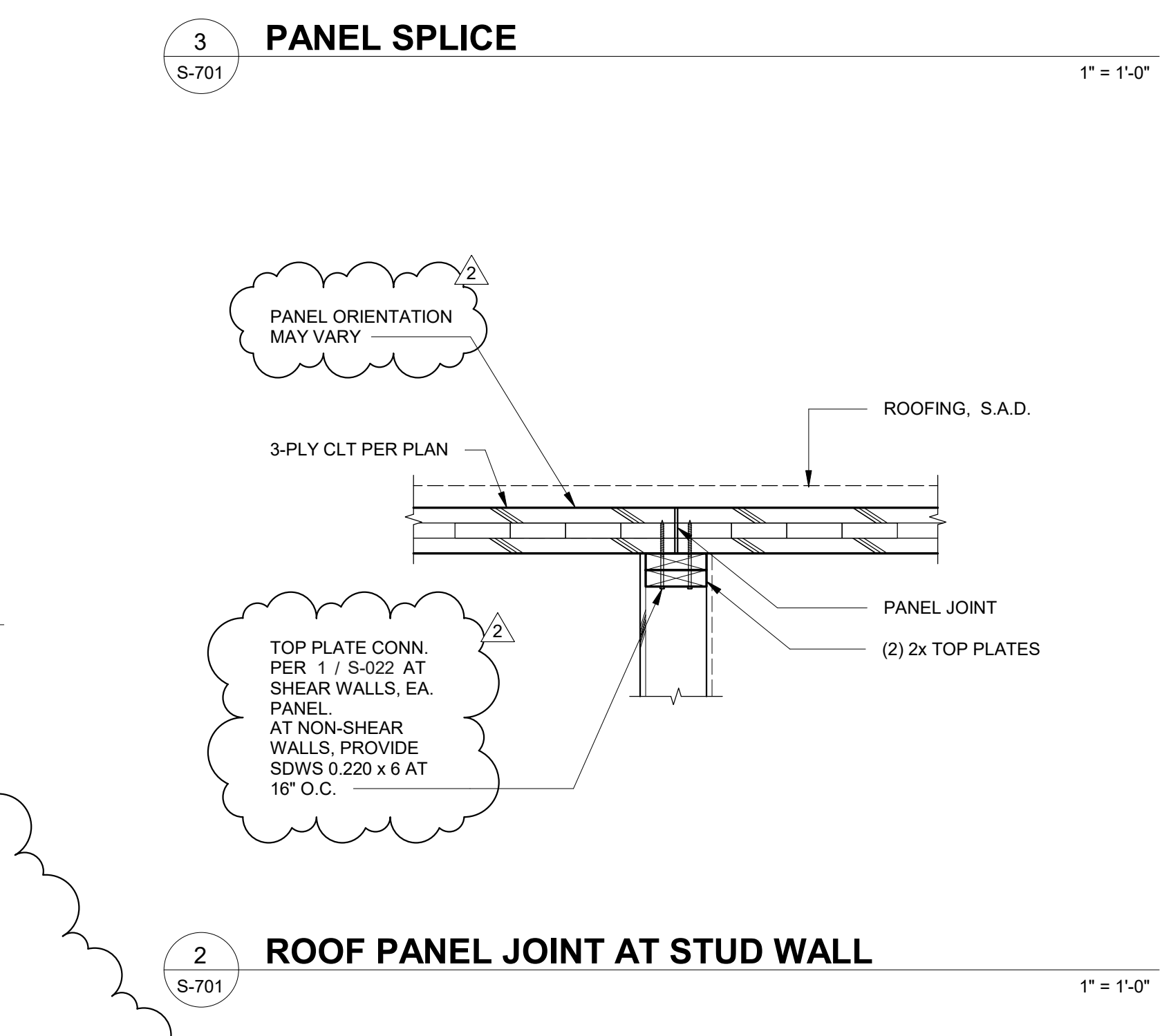
**14 SECTION AT MEZZANINE**  
 1" = 1'-0"



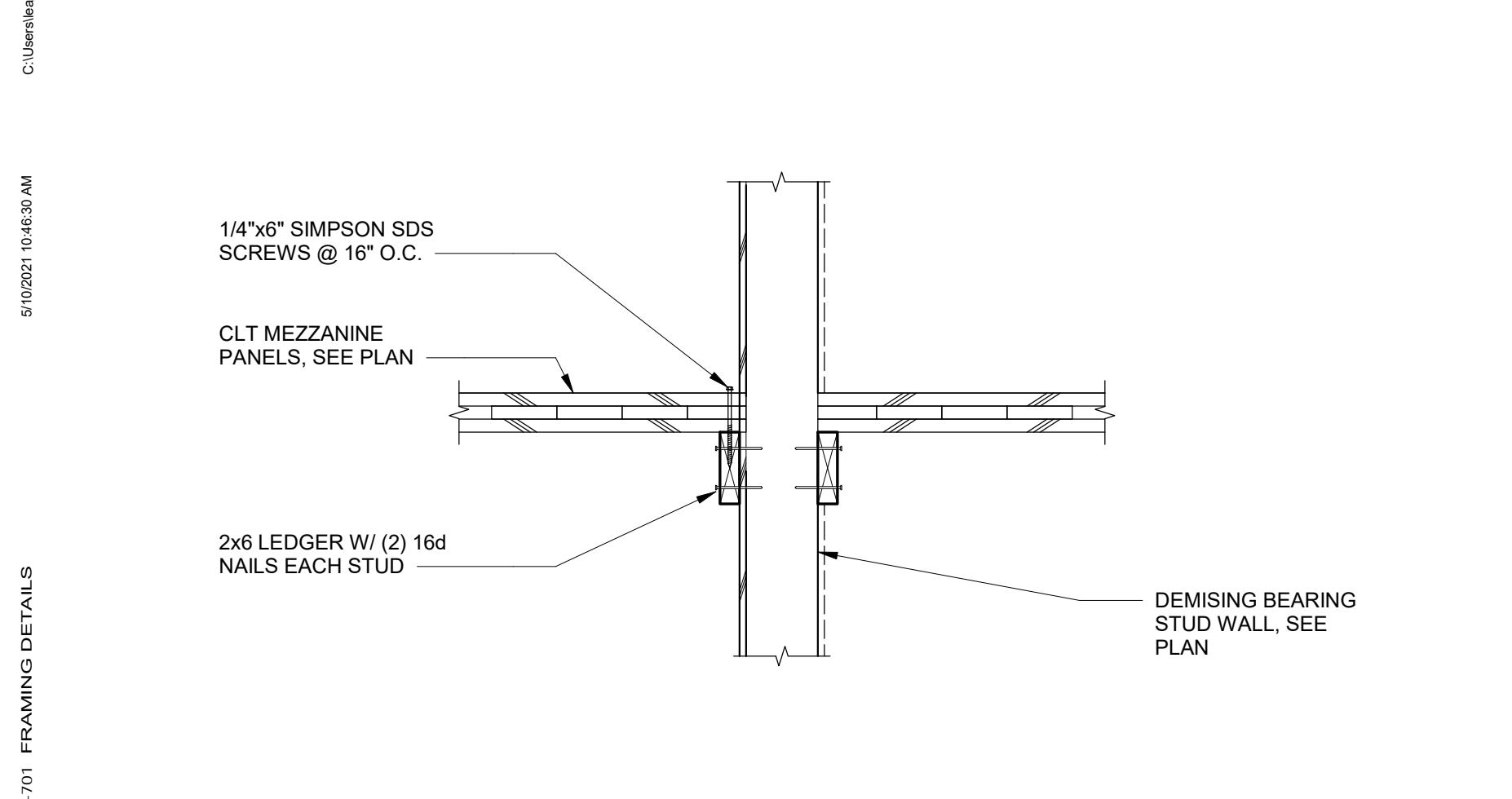
**9 MEZZANINE BEARING WALL AT CLT FLOOR**  
 1" = 1'-0"



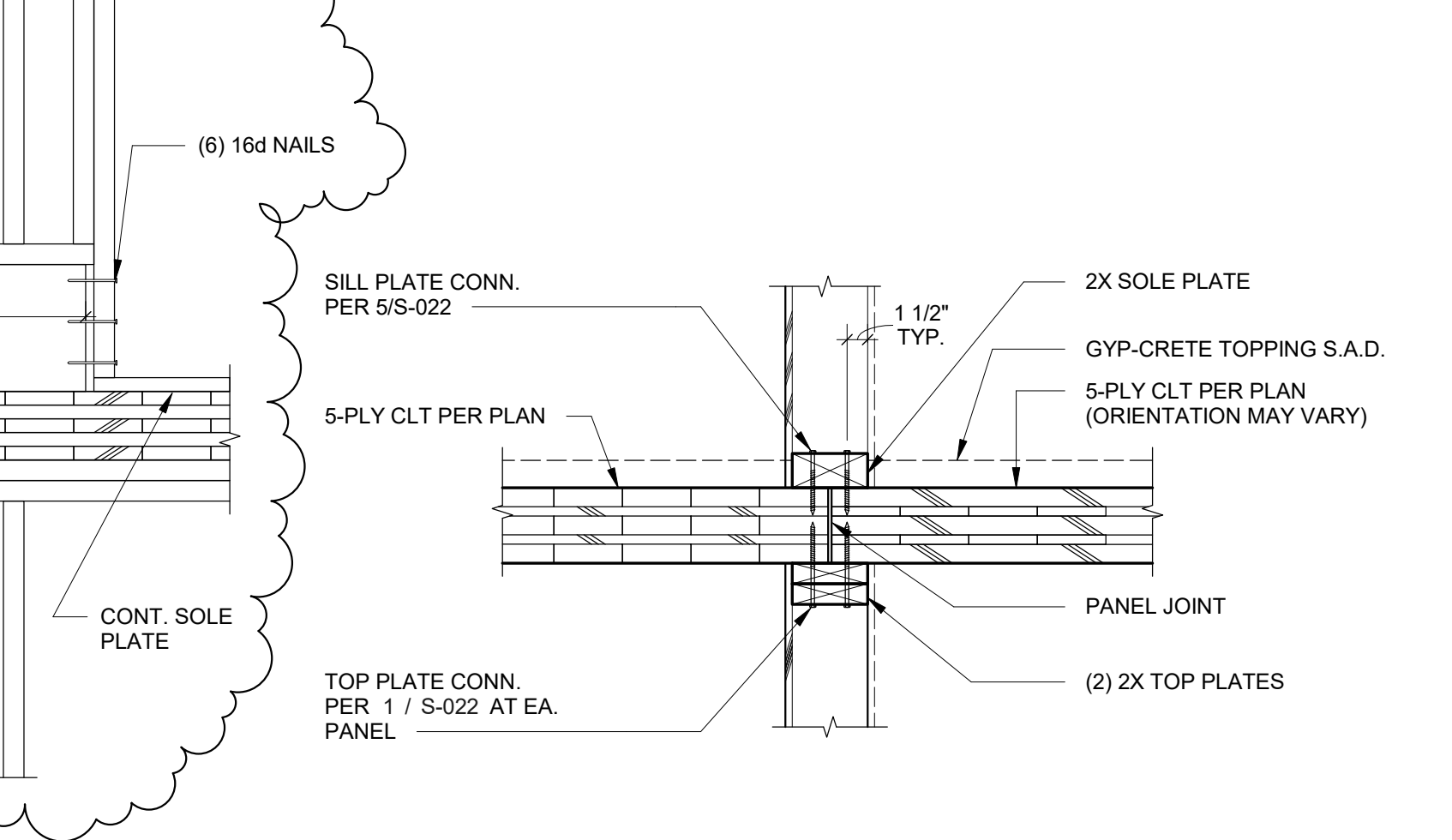
**5 TYP CANTILEVER BEAM DETAIL**  
 1" = 1'-0"



**2 ROOF PANEL JOINT AT STUD WALL**  
 1" = 1'-0"



**13 SECTION AT MEZZANINE**  
 1" = 1'-0"



**1 PANEL JOINT AT STUD WALL**  
 1" = 1'-0"



**REVISIONS**

2	PLAN CHECK COMMENTS	12/21/2020
3	PLAN CHECK COMMENTS	2/24/2021
4	SSK-3	4/20/2021

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