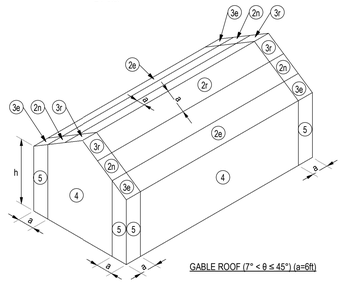
STRUCTURAL GENERAL NOTES

DESIGN LOADS:

1. DESIGN LOADS: 2021 INTERNATIONAL BUILDING CODE WITH ROUTT COUNTY AMENDMENTS, ASCE 7-16
2. RISK CATEGORY: II STANDARD
3. ROOFS:
    - A. ROOF DEAD LOAD 20 PSF (INCLUDES 3PSF PV LOAD)
    - B. ROOF LIVE LOAD 20 PSF, 300 LBS
    - C. GROUND SNOW LOAD, Pg 122 PSF
    - D. FLAT-ROOF SNOW LOAD, Pf 85 PSF (PLUS DRIFT)
    - E. SNOW EXPOSURE FACTOR, Ce 1.0
    - F. SNOW IMPORTANCE FACTOR, Is 1.0
    - G. THERMAL FACTOR, Ct 1.0
4. FLOOR LIVE LOADS:

OCCUPANCY OR USE	UNIFORMLY DISTRIBUTED (PSF)	CONCENTRATED LOAD (LBS)	LIVE LOAD REDUCTION
RESIDENTIAL	40	N/A	YES
FIRST FLOOR CORRIDORS	100	2,000 (1,000 SCHOOLS)	NO
CORRIDORS ABOVE FIRST FLOOR	80	2,000 (1,000 SCHOOLS)	YES
BALCONIES & DECKS	1.5 TIMES LL FOR THE OCCUPANCY SERVED (100 MAX)	N/A	NO

5. WIND:
    - A. ULTIMATE DESIGN WIND SPEED, V_{ULT}, (3-SECOND GUST) 115 MPH
    - B. NOMINAL DESIGN WIND SPEED, V_{ASD}, (3-SECOND GUST) 90 MPH
    - C. INTERNAL PRESSURE COEFFICIENT 0.18 (ENCLOSED)
    - D. WIND EXPOSURE C
    - E. GROUND ELEVATION FACTOR 0.78
    - F. COMPONENTS AND CLADDING ULTIMATE DESIGN WIND PRESSURES
        1. PRESSURES MAY BE REDUCED FOR EFFECTIVE WIND AREAS LARGER THAN 10 SQUARE FEET, BUT NOT BELOW 16 PSF.
        2. ALLOWABLE WIND PRESSURE (ASD) MAY BE DETERMINED BY MULTIPLYING THE ULTIMATE PRESSURE BY 0.6.



GABLE ROOF (7° < θ ≤ 45°) (a=6ft)

COMPONENT AND CLADDING ULTIMATE WIND PRESSURE - GABLE ROOF		
ROOF (EFFECTIVE WIND AREA)	ROOF SURFACE PRESSURE (psf)	
	10 sf	100 sf
Negative Zone 1, 2e	-53	-40
Negative Zone 2n, 2R & 3e	-85	-50
Negative Zone 3r	-99	-63
Positive All Zones	23	16
Overhang Zone 1, 2e	-63	-60
Overhang Zone 2n & 2r	-95	-73
Overhang Zone 3e	-114	-63
Overhang Zone 3r	-121	-73

6. SEISMIC:
    - A. SPECTRAL RESPONSE ACCELERATION PARAMETERS
        1. SHORT PERIOD
            - a. S_S 0.593g
            - b. S_{DS} 0.499g
        2. ONE SECOND
            - a. S_1 0.103g
            - b. S_{D1} 0.103g
    - B. SOILS SITE CLASS C
    - C. SEISMIC IMPORTANCE FACTOR 1.00
    - D. SEISMIC DESIGN CATEGORY C
    - E. BASIC SEISMIC-FORCE-RESISTING SYSTEM(S)
        - LIGHT-FRAME (WOOD) WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE
        - STEEL MOMENT FRAME SYSTEMS
        - ORDINARY REINFORCED CONCRETE SHEAR WALLS
    - F. DESIGN BASE SHEAR(S) 111 KIPS
    - G. SEISMIC RESPONSE COEFFICIENT(S), C_S 0.09
    - H. RESPONSE MODIFICATION COEFFICIENT(S), R 6.5 FOR WOOD WALLS, 3.0 FOR STEEL MOMENT FRAMES, 5.0 FOR ORIDINARY REINFORCED CONCRETE SHEAR WALLS
    - I. ANALYSIS PROCEDURE EQUIVALENT LATERAL FORCES
7. RAIN:
    - A. 100 YEAR HOURLY RAINFALL; i 1.88 INCHES/HOUR
    - B. 100 YEAR 15-MIN RAINFALL; i 5.28 INCHES/HOUR

FOUNDATION DESIGN:

1. REFER TO SOILS REPORT NO. 22-12805 BY NORTHWEST COLORADO CONSULTANTS, INC, DATED DECEMBER 22, 2022.
2. GEOTECHNICAL ENGINEER SHALL VERIFY SOIL CONDITIONS AND TYPES DURING EXCAVATION AND PRIOR TO PLACEMENT OF FORMWORK OR CONCRETE.
3. MINIMUM FROST DEPTH SHALL BE 4'-0 BELOW EXTERIOR GRADE.

DRILLED PIERS (CAST-IN-PLACE DEEP FOUNDATIONS):

1. STRAIGHT SHAFT DRILLED PIERS ARE DESIGNED FOR
    - A. MAXIMUM END BEARING PRESSURE 40,000 PSF
    - B. ALLOWABLE SIDE SHEAR 4,000 PSF
    - C. MINIMUM DEAD LOAD PRESSURE 12,000 PSF
    - D. UPLIFT SIDE SHEAR 2,000 PSF
    - E. MINIMUM PENETRATION INTO BEDROCK 6 FEET
    - F. MINIMUM TOTAL LENGTH 15 FEET
2. SEE PLANS FOR ADDITIONAL PENETRATION AND LENGTH REQUIREMENTS.
3. ASSUMED AVERAGE USGS TOP OF BEDROCK ELEVATION, FOR BIDDING PURPOSES ONLY, SHALL BE 5' BELOW EXISTING GRADE.
4. SEE BORING LOGS IN THE SOILS REPORT FOR INDICATED VARIATION IN BEDROCK SURFACE.
5. MUSHROOMING AT THE TOPS OF PIERS IS NOT PERMITTED.
6. PROVIDE FOR OVERRUN OR UNDERRUN IN DRILLING LENGTHS AND INSTALLED QUANTITIES OF CONCRETE AND REINFORCING.
7. PIER HOLES SHALL BE THOROUGHLY CLEANED AND DEWATERED AND SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO CONCRETE PLACEMENT. CASING OF DRILLED PIER HOLES MAY BE REQUIRED.
8. USE OF SLURRY DURING INSTALLATION OF DRILLED PIERS SHALL CONFORM TO REQUIREMENTS OF ACI 336. CONTRACTOR SHALL SUBMIT WRITTEN PROCEDURE FOR DESIGN TEAM AND GEOTECHNICAL ENGINEER REVIEW. IDENTIFY SLURRY COMPOSITION, MIXING, AND STORAGE; AUGER AND CASING SIZES FOR EACH SPECIFIED DRILLED PIER DIAMETER; METHOD OF CLEANING EXCAVATION; PROCEDURE FOR TEMPORARY CASING REMOVAL DURING CONCRETE PLACEMENT.

EARTH RETAINING STRUCTURES:

1. EARTH EQUIVALENT FLUID LATERAL PRESSURE:
    - A. WALLS RESTRAINED AT TOP (AT REST) 60 PCF
    - B. CANTILEVERED WALLS (ACTIVE) 50 PCF
    - C. PASSIVE RESISTING 250 PCF
    - D. UNIFORM LOAD BTWN PERM. SHORING WALL AND BLDG FDN WALL (FREE DRAINING GRAVEL/GEO FOAM) 25PSF
2. COEFFICIENT OF SLIDING FRICTION 0.4

REINFORCED CONCRETE:

1. DESIGN IS BASED ON ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE."
2. CONCRETE WORK SHALL CONFORM TO ACI 301 "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE."
3. STRUCTURAL CONCRETE SHALL HAVE THE FOLLOWING PROPERTIES:

INTENDED USE	EXPOSURE CLASS	f'c, PSI 28 DAYS	MAX W/CM RATIO	MAXIMUM AGGREGATE	SLUMP, INCHES (+/- 1")	AIR CONTENT PERCENT (+/- 1.5%)	CEMENT TYPE	ADMIXTURES / COMMENTS
DRILLED PIERS	F0-S0-W0-C1	4000	0.55	3/4" STONE	SEE TABLE BELOW	N/A	I/II or IL	
FOOTINGS	F0-S0-W0-C1	3000	0.52	3/4" STONE	N/A	N/A	I/II or IL	
STEM WALLS	F2-S0-W0-C1	4500	0.45	3/4" STONE	N/A	6%	I/II or IL	
GRADE BEAMS	F2-S0-W0-C1	4500	0.45	3/4" STONE	N/A	6%	I/II or IL	
WALLS	F0-S0-W0-C0	4000	0.45	3/4" STONE	N/A	3%	I/II or IL	
STRUCTURAL SLAB ON DECK	F0-S0-W0-C0	3500	0.50	3/4" STONE	N/A	N/P	I/II or IL	
FORMED STRUCTURAL SLAB	F0-S0-W0-C0	4000	0.45	3/4" STONE	N/A	N/P	I/II or IL	
INTERIOR SLAB ON GRADE	F0-S0-W0-C0	4000	0.45	3/4" STONE	N/A	N/P	I/II or IL	
EXTERIOR SLAB ON GRADE	F3-S0-W0-C2	5000	0.40	3/4" STONE	N/A	6%	I/II or IL	25% MAX FLY ASH

CONCRETE SLUMP REQUIREMENTS DURING PLACEMENT	
DRILL METHOD	SLUMP, INCHES
DRY, UNCASED, OR PERMANENT CASING	4 TO 6
TEMPORARY CASING	6 TO 8
SLURRY DISPLACEMENT	7 TO 9

4. CONCRETE MIX TABLE NOTES:
    - A. SLUMP VALUES INDICATED ARE SUGGESTED BASED ON USE AND TYPICAL PLACEMENT METHODS. CONTRACTOR MAY ADJUST SLUMP AS NECESSARY FOR FIELD CONDITIONS AND INSTALLATION METHOD USED PROVIDED REMAINING REQUIREMENTS ARE MET.
    - B. AIR CONTENT:
        - a. N/P: AIR ENTRAINING ADMIXTURES NOT PERMITTED, ENTRAPPED AIR ONLY
        - b. N/A: NOT APPLICABLE, NO STRUCTURAL AIR CONTENT REQUIREMENTS OR SLUMP REQUIREMENTS
    - C. SHRINKAGE STRAIN: MIXES NOTED AS "SHRINKAGE XX%" SHALL BE LIMITED TO A MAXIMUM DRYING SHRINKAGE (0.05% UNLESS NOTED OTHERWISE) AT 28 DAYS (500 MICROSTRAIN) AS MEASURED BY ASTM C157. SHRINKAGE TEST RESULTS TO BE INCLUDED WITH MIX DESIGN SUBMITTAL.
    - D. GENERAL CONTRACTOR TO COORDINATE CONCRETE MOISTURE LEVEL AND ANTICIPATED MOISTURE MITIGATION PROCEDURES WITH CONCRETE SUPPLIER/MIX DESIGNER AND OTHER AFFECTED SUBCONTRACTORS (INCLUDING BUT NOT LIMITED TO FLOORING) TO ADDRESS ALL POTENTIAL SCHEDULE AND INSTALLATION CONFLICTS.
5. DETAILING, FABRICATION, AND PLACEMENT OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT."
6. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064.
7. REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60, EXCEPT BARS SHOWN TO BE FIELD-BENT SHALL BE ASTM A706, GRADE 60.
8. BARS TO BE WELDED SHALL CONFORM TO ASTM A706.
9. UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS, LAP BARS PER THE CONCRETE LAP SPLICE SCHEDULE.
10. AT CORNERS AND INTERSECTIONS, MAKE HORIZONTAL BARS CONTINUOUS OR PROVIDE MATCHING CORNER BARS FOR EACH LAYER OF REINFORCEMENT.
11. TRIM OPENINGS IN WALLS AND SLABS WITH (2) #5 FOR EACH LAYER OF REINFORCEMENT, FULLY DEVELOPED BY EXTENSION OR HOOK.
12. IN CONTINUOUS MEMBERS, SPLICE TOP BARS AT MID-SPAN AND SPLICE BOTTOM BARS OVER SUPPORTS.
13. FORM INTERMITTENT SHEAR KEYS AT ALL CONSTRUCTION JOINTS AND AS SHOWN ON THE STRUCTURAL DRAWINGS.
14. EXCEPT AS NOTED ON THE DRAWINGS, CONCRETE PROTECTION FOR REINFORCEMENT IN CAST-IN-PLACE CONCRETE SHALL BE AS FOLLOWS:
    - A. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
    - B. EXPOSED TO EARTH OR WEATHER:
        1. #6 THROUGH #18 BARS 2"
        2. #5 BAR, W31 OR D31 WIRE, AND SMALLER 1-1/2"
    - C. NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
        1. SLABS, WALLS, JOISTS: #11 BARS AND SMALLER 3/4"
        2. BEAMS AND COLUMNS:
            - a. PRIMARY REINFORCEMENT 1-1/2"
            - b. STIRRUPS, TIES, SPIRALS 1-1/2"
15. FIBER ADMIXTURE SHALL BE 100% VIRGIN POLYPROPYLENE, FIBRILLATED FIBERS, TYPE III 4.1.3, PERFORMANCE LEVEL ONE, PER ASTM C1116.
16. ANCHOR BOLTS AND RODS FOR BEAM AND COLUMN-BEARING PLATES SHALL BE PLACED WITH SETTING TEMPLATES.

POST-INSTALLED ANCHORS

1. ALL CAST-IN-PLACE ANCHORS DESIGNED IN ACCORDANCE WITH ACI 318.
2. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER-OF-RECORD PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS.
3. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REBAR. EXISTING REINFORCING BARS SHALL NOT BE CUT UNLESS APPROVED BY THE EOR.
4. ALL ANCHORS MUST BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INFORMATION (MPII) IN CONJUNCTION WITH EDGE DISTANCE, SPACING, AND EMBEDMENT DEPTH AS INDICATED ON THE DRAWINGS. HOLES SHALL BE DRILLED AND CLEANED IN ACCORDANCE WITH THE MPII.
5. SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SPECIFIED, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER-OF-RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER; REGISTRATION MUST BE IN THE STATE IN WHICH THE PROJECT IS LOCATED. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
6. THE CONTRACTOR SHALL ARRANGE FOR A MANUFACTURER'S FIELD REPRESENTATIVE TO PROVIDE INSTALLATION TRAINING FOR ALL PRODUCTS TO BE USED, PRIOR TO THE ANCHOR INSTALLATION. A RECORD OF TRAINING SHALL BE KEPT ON SITE AND MADE AVAILABLE TO THE EOR/ SPECIAL INSPECTOR AS REQUESTED.
7. ADHESIVE ANCHORS INSTALLED IN HORIZONTAL TO VERTICALLY OVERHEAD ORIENTATION THAT SUPPORT SUSTAINED TENSION LOADS SHALL BE DONE BY A CERTIFIED ANCHOR INSTALLER (AAI) AS CERTIFIED THROUGH ACI/CRSI (ACI 318-11 D 9.2.2, ACI 318-14 17.8.2.2). PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE EOR FOR APPROVAL PRIOR TO COMMENCEMENT OF INSTALLATION.
8. ADHESIVE ANCHORS MUST BE INSTALLED IN CONCRETE AGED A MINIMUM OF 21 DAYS (ACI 318-11 D 2.2, ACI 318-14 17.1.2)
9. ALL POST-INSTALLED ANCHORS SHALL BE INSTALLED IN DRY HOLES THAT HAVE BEEN DRILLED, CLEANED, AND PREPARED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INFORMATION AND THE RESPECTIVE ICC-ES EVALUATION REPORTS.
10. PROVIDE SPECIAL INSPECTION FOR ALL MECHANICAL AND ADHESIVE ANCHORS PER THE APPLICABLE BUILDING CODE AND PER THE CURRENT ICC-ES REPORT (IBC TABLE 1705.3 NOTE B).

CONCRETE POST-INSTALLED ANCHORS			
ANCHOR TYPE	DEWALT	HILTI	SIMPSON
EXPANSION	POWER-STUD+ SD2 (ICC ESR-2502)	KWIK BOLT TZ2 (ICC ESR-4266)	STRONG-BOLT 2 (ICC ESR-3037)
SCREW	SCREW-BOLT+ (ICC ESR-3889)	KWIK HUS-EZ (ICC ESR-3027)	TITEN HD (ICC ESR-2713)
ADHESIVE	AC200+ (ICC ESR-4027)	HIT HY-200 V3 (ICC ESR-4868)	AT-XP (UES ER-263)

STRUCTURAL STEEL:

1. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (AISC 360) AND THE "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" (AISC 303) BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).
2. STRUCTURAL STEEL WIDE FLANGE BEAMS AND WTS SHALL CONFORM TO ASTM A992, 50 KSI YIELD.
3. ROLLED STEEL FLOOR PLATES SHALL CONFORM TO ASTM A786, COMMERCIAL GRADE.
4. OTHER ROLLED SHAPES, INCLUDING PLATES, CHANNELS, AND ANGLES SHALL CONFORM TO ASTM A36, 36 KSI YIELD.
5. HOLLOW STRUCTURAL SECTION (HSS) RECTANGULAR SHAPES SHALL CONFORM TO ASTM A500, GRADE C, 50 KSI YIELD.
6. HSS ROUND SHAPES SHALL CONFORM TO ASTM A500, GRADE C, 50 KSI YIELD.
7. PIPE SHAPES SHALL CONFORM TO ASTM A53, GRADE B, 35 KSI YIELD.
8. EXCEPT AS NOTED, FRAMED BEAM CONNECTIONS SHALL BE BEARING-TYPE WITH 3/4" DIAMETER, SNUG TIGHT, ASTM F3125 BOLTS, DETAILED IN CONFORMANCE WITH THE STRUCTURAL DRAWINGS AND THE "STEEL CONSTRUCTION MANUAL" BY THE AISC. INSTALL BOLTS IN ACCORDANCE WITH AISC'S "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS".
9. ALL BEAMS SHALL HAVE FULL DEPTH WEB STIFFENERS EACH SIDE OF WEBS ABOVE AND BELOW COLUMNS.
10. ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE (55 WITH WELDABILITY SUPPLEMENT S1, AND/OR 105) AS NOTED ON THE STRUCTURAL DRAWINGS.
11. HEADED ANCHOR STUDS (HAS) SHALL CONFORM TO ASTM A108 AND SHALL BE CONNECTED TO STRUCTURAL STEEL WITH EQUIPMENT APPROVED BY THE STUD MANUFACTURER ACCORDING TO THE STUD MANUFACTURER'S RECOMMENDATIONS.
12. WELDING SHALL BE DONE BY A CERTIFIED WELDER IN ACCORDANCE WITH THE AISC DOCUMENTS LISTED ABOVE, THE AMERICAN WELDING SOCIETY (AWS) D1.1: STRUCTURAL WELDING CODE, AND THE RECOMMENDATIONS FOR USE OF WELD E70 ELECTRODES. WHERE NOT SPECIFICALLY NOTED, MINIMUM WELD SHALL BE 3/16" FILLET BY LENGTH OF CONTACT EDGE.
13. GROUT BENEATH COLUMN BASE AND BEAM BEARING PLATES SHALL HAVE A MINIMUM 28-DAY, COMPRESSIVE STRENGTH OF 7,500 PSI AND SHALL BE NON-SHRINK, NON-METALLIC, AND TESTED IN ACCORDANCE WITH ASTM C1107.

STEEL STAIRS:

1. STAIRS SHALL BE DESIGNED, DETAILED, AND ERECTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THE "RECOMMENDED VOLUNTARY MINIMUM STANDARDS FOR FIXED METAL STAIRS" IN NAAMM AMP 510 - METAL STAIRS MANUAL. STAIRS SHALL BE DESIGNED BY, AND CALCULATIONS SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED. THE STAIR ENGINEER SHALL BE EMPLOYED BY THE STAIR SUPPLIER PER THE DEFERRED SUBMITTAL REQUIREMENTS.
2. STAIR SUPPLIER SHALL DESIGN STAIR ATTACHMENTS TO THE PRIMARY STRUCTURAL FRAME. ATTACHMENT TO THE PRIMARY STRUCTURAL FRAME SHALL BE MADE WITH PINNED CONNECTIONS. MOMENT CONNECTIONS AND CONNECTIONS WHICH INDUCE TORSION ON THE PRIMARY STRUCTURAL FRAME ARE NOT PERMITTED UNLESS SPECIFICALLY DETAILED OTHERWISE.
3. INTERIOR STAIRS SHALL BE "ARCHITECTURAL CLASS" AND SHALL BE PRE-ASSEMBLED STRUCTURAL STEEL WITH CONCRETE FILLED TREADS AND CLOSED RISERS SPANNING BETWEEN STRINGERS. DESIGN AND DETAILING OF STAIR COMPONENTS, INCLUDING STRINGERS, TREADS, RISERS, HEADERS, INTERMEDIATE LANDINGS, RAILINGS, CONNECTIONS, AND ALL VERTICAL SUPPORTING ELEMENTS WITHIN THE DESIGNATED STAIR SHAFT SHALL BE THE RESPONSIBILITY OF THE STAIR SUPPLIER.
4. EXTERIOR STAIRS SHALL BE "SERVICE CLASS" AND SHALL BE PRE-ASSEMBLED, GALVANIZED STRUCTURAL STEEL WITH OPEN GRATING STEEL TREADS, AND NO RISERS, SPANNING BETWEEN STRINGERS. DESIGN AND DETAILING OF STAIR COMPONENTS INCLUDING STRINGERS, TREADS AND RISERS, HEADERS, INTERMEDIATE LANDINGS, RAILINGS, CONNECTIONS, AND ALL VERTICAL SUPPORTING ELEMENTS SHALL BE THE RESPONSIBILITY OF THE STAIR SUPPLIER.
5. ANY REQUIRED FOUNDATION ELEMENTS (IF ANY) SHALL BE THE RESPONSIBILITY OF THE STAIR SUPPLIER. USE OF ANY EXISTING FOUNDATION ELEMENTS (INCLUDING FLOOR SLABS) SHALL BE SUBMITTED TO THE EOR FOR REVIEW AND APPROVAL.
6. STAIR SUPPLIER SHALL COORDINATE STAIR ASSEMBLIES AND DETAILS WITH ADJACENT FRAMING ELEMENTS SHOWN ON THE STRUCTURAL AND ARCHITECTURAL DRAWINGS.
7. REQUIRED STAIR AND RAILING DESIGN LOADS:
    - A. STAIRS MUST BE DESIGNED FOR THE FOLLOWING NON-CONCURRENT LIVE LOADS:
        1. 100 POUNDS PER SQUARE FOOT (PSF)
        2. 300 LB CONCENTRATED LOAD ON STAIR TREAD APPLIED ON AN AREA OF 2 INCHES X 2 INCHES
    - B. HANDRAIL AND GUARDRAILS:
        1. ALL HANDRAILS AND GUARDRAILS SHALL BE DESIGNED TO RESIST A SINGLE CONCENTRATED LOAD OF 200 LB APPLIED IN ANY DIRECTION AT ANY POINT ON THE HANDRAIL OR TOP RAIL AND TO TRANSFER THIS LOAD THROUGH THE SUPPORTS TO THE STRUCTURE TO PRODUCE THE MAXIMUM LOAD EFFECT ON THE ELEMENT BEING CONSIDERED.
        2. ALL HANDRAIL AND GUARDRAIL SYSTEMS SHALL BE DESIGNED TO RESIST A LOAD OF 50 POUNDS PER LINEAR FOOT (PLF) APPLIED IN ANY DIRECTION ALONG THE HANDRAIL OR TOP RAIL. THIS LOAD NEED NOT BE ASSUMED TO ACT CONCURRENTLY WITH THE 200 LB POINT LOAD.
        3. INTERMEDIATE RAILS (ALL THOSE EXCEPT THE HANDRAIL), AND PANEL FILLERS SHALL BE DESIGNED TO WITHSTAND A HORIZONTALLY APPLIED NORMAL LOAD OF 50 LB ON AN AREA NOT TO EXCEED 12 INCH X 12 INCH INCLUDING OPENINGS AND SPACE BETWEEN RAILS. THE 50 LB LOAD MUST BE APPLIED IN THE LOCATION TO PRODUCE THE MAXIMUM LOAD AFFECT.
    - C. STAMPED CALCULATIONS DEMONSTRATING THE REQUIRED CODE COMPLIANCE SHALL BE SUBMITTED BY THE STAIR SUPPLIER'S STRUCTURAL ENGINEER FOR REVIEW BY THE DESIGN TEAM.
8. THE ARCHITECT SHALL REVIEW ALL STAIR RISE AND RUN INFORMATION AS WELL AS LANDING AND RAILING CRITERIA.

CORROSION CONTROL:

1. ALL STEEL MEMBERS EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED PER ASTM A123.
2. FASTENERS AND HARDWARE SHALL BE HOT DIPPED GALVANIZED PER ASTM A153 OR ASTM B695 CLASS 50 (A490 BOLTS SHALL NOT BE HOT DIPPED GALVANIZED). STAINLESS STEEL FASTENERS AND HARDWARE MAY ALSO BE USED.
3. ALL FIELD CUT OR DAMAGED SURFACES, FIELD WELDED AREAS AND AUTHORIZED NON-GALVANIZED MEMBERS AS INDICATED ON THE STRUCTURAL DRAWINGS SHALL BE REPAIRED WITH (2) COATS OF A 95% ZINC RICH PAINT PER ASTM A780 (ZRC PREFERRED).

STRUCTURAL WOOD FRAMING:

1. IN-GRADE BASE VALUES HAVE BEEN USED FOR DESIGN.
2. DIMENSIONAL LUMBER FRAMING SHALL BE S4S HEM FIR NO. 2 AND BETTER UNO.
3. SOLID TIMBER BEAMS AND POSTS SHALL BE DOUGLAS FIR-LARCH NO. 1 AND BETTER UNO.
4. STUDS SHALL BE DOUG FIR-LARCH STUD GRADE AND BETTER UNO.
5. TOP AND BOTTOM PLATES SHALL BE DOUGLAS FIR-LARCH NO. 2 AND BETTER UNO.
6. ALL LUMBER SHALL BE 19% MAXIMUM MOISTURE CONTENT AT THE TIME OF INSTALLATION UNO.
7. ALL WOOD EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED DOUGLAS FIR-LARCH OR SOUTHERN YELLOW PINE. PRESERVATIVE-TREATED WOOD SHALL BE TREATED IN ACCORDANCE WITH AWPA STANDARDS U1 AND M4. TREATMENTS SHALL HAVE NO AMMONIA ADDED AND SHALL BE THE FOLLOWING USE CATEGORY:
    - A. UC2 AT INTERIOR
    - B. UC3B AT EXTERIOR WITH NO GROUND CONTACT
    - C. UC4B AT EXTERIOR WITH GROUND CONTACT
8. FASTENERS FOR USE WITH TREATED WOOD SHALL BE CORROSION RESISTANT IN ACCORDANCE WITH SECTION 2304.10.6 OF THE IBC.
9. ALL CONNECTORS USED WITH PRESSURE-TREATED MATERIAL SHALL BE STAINLESS STEEL ASTM 304 OR 316, OR HAVE A SIMPSON Z-MAX (G185) OR HDG COATING. STANDARD COATING (G90) IS ACCEPTABLE AT INTERIOR CONDITIONS WITH NON PRESSURE-TREATED LUMBER ONLY. CONNECTORS ARE TO BE IN ACCORDANCE WITH ASTM A653 OR ASTM 123.
10. ALL IRON AND STEEL PRODUCTS ATTACHED TO TREATED LUMBER SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123 OR SHALL BE TYPE 304 OR 316 STAINLESS STEEL.
11. STRUCTURAL MEMBERS SHALL NOT BE CUT FOR PIPES, ETC. UNLESS SPECIFICALLY NOTED OR DETAILED ON THE STRUCTURAL DRAWINGS.
12. ALL BOLTS SHALL BE RETIGHTENED PRIOR TO CLOSING IN OF WALLS, FLOORS, AND ROOFS.
13. ALL BOLTS BEARING ON WOOD SHALL HAVE STANDARD CUT WASHERS UNDER HEAD AND/OR NUT, UNO.
14. METAL FRAMING ANCHORS SHOWN OR REQUIRED, SHALL BE SIMPSON STRONG-TIE OR EQUAL CODE APPROVED CONNECTORS AND INSTALLED WITH ALL HOLES FILLED (ROUND AND TRIANGULAR) WITH THE MAXIMUM SIZE NAIL RECOMMENDED BY THE MANUFACTURER TO DEVELOP THE MAXIMUM RATED CAPACITY.
15. CONNECTOR BOLTS AND LAG SCREWS SHALL CONFORM TO ANSI/ASME B18.2.1 AND ASTM SAE J429 GRADE 1.
16. NAILS AND SPIKES SHALL CONFORM TO ASTM F1667.
17. WOOD SCREWS SHALL CONFORM TO ANSI/ASME B18.6.1.
18. LEAD HOLES FOR LAG SCREWS SHALL BE 40%-70% OF THE SHANK DIAMETER AT THE THREADED SECTION AND EQUAL TO THE SHANK DIAMETER AT THE UNTHREADED SECTION.
19. CONVENTIONAL LIGHT FRAMING SHALL COMPLY WITH IBC SECTION 2308.
20. COLUMNS / MULTIPLE STUDS IN BEARING WALLS SUPPORTING ALL BEAMS AND HEADERS SHALL OCCUR CONTINUOUSLY THROUGH EACH FLOOR LEVEL DOWN TO THE FOUNDATION OR ANOTHER SUPPORT BEAM. SOLID SQUASH BLOCKING EQUIVALENT IN AREA TO THE COLUMN/MULTIPLE STUDS ABOVE SHALL BE PROVIDED WITHIN THE JOIST SPACE BENEATH THE COLUMN/MULTIPLE STUDS.
21. ALL BEAMS AND TRUSSES SHALL BE BRACED AGAINST ROTATION AT POINTS OF BEARING.
22. 2X BLOCKING SHALL BE PLACED BETWEEN JOISTS OR RAFTERS AT ALL SUPPORTS, UNO.
23. CROSS-BRIDGING OR SOLID BLOCKING SHALL BE PROVIDED AT 8'-0" MAX. FOR ALL JOISTS AND RAFTERS MORE THAN 10" IN DEPTH, 2X3 OR APPROVED METAL TYPE BRIDGING MAY BE USED.
24. PROVIDE A MINIMUM OF (3) STUDS AT EACH CORNER, UNO.
25. ALL JOISTS AND BEAMS (EXCLUDING I-JOISTS) SHALL BE SEAT-CUT FOR FULL UNIFORM BEARING AT SUPPORTS, SEATS, CAPS, ETC.
26. VENTING IS REQUIRED IN ALL ENCLOSED ROOF AND CRAWL SPACE FRAMING CAVITIES, SEE ARCHITECTURAL DRAWINGS.
27. EXCEPT AS NOTED OTHERWISE, MINIMUM NAILING SHALL BE PROVIDED AS SPECIFIED IN TABLE 2304.10.2 "FASTENING SCHEDULE" OF THE IBC.
28. ALL MULTIPLE MEMBER BEAMS SHALL BE NAILED TOGETHER WITH MAX NUMBER OF 10D NAILS VERTICALLY @ 3" AND HORIZONTALLY @ 12" PER PLY.
29. TONGUE AND GROOVE DECKING SHALL BE INSTALLED IN ACCORDANCE WITH THE "STANDARD FOR TONGUE AND GROOVE HEAVY TIMBER ROOF DECKING", AITC 112. WHERE DECKING MUST BE NAILED FROM THE BOTTOM SIDE, USE (2) 16D GALVANIZED FINISH NAILS AT EACH SUPPORT, COUNTERSUNK AND FILLED.
30. ALL ROOF RAFTERS, JOISTS, TRUSSES, AND BEAMS SHALL BE ANCHORED TO SUPPORTS WITH H2.5A METAL FRAMING ANCHORS UNO. PROVIDE (2) WITHIN 4'-0" OF ALL CORNERS.

WOOD SHEATHING:

1. PLYWOOD AND ORIENTED STRAND BOARD (OSB) FLOOR AND ROOF SHEATHING SHALL BE APA RATED WITH STAMP INCLUDING APA TRADEMARK AND PANEL SPAN RATING.
    - A. MINIMUM FLOOR SHEATHING: 23/32" APA STURD-I-FLOOR RATED 24 INCH O.C. TONGUE & GROOVE, GLUED AND NAILED.
    - B. MINIMUM ROOF SHEATHING: 23/32" OSB OR CDX PLYWOOD, APA 48/24, NAILED.
    - C. MINIMUM WALL SHEATHING: 7/16" OSB OR CDX PLYWOOD, APA 24/16, BLOCKED AND NAILED.
2. NAIL WALL SHEATHING WITH MINIMUM 8D COMMON OR 10D BOX AT 6" AT PANEL EDGES, AND 12" AT INTERMEDIATE FRAMING EXCEPT AS NOTED. BLOCK AND NAIL ALL EDGES BETWEEN STUDS.
3. MINIMUM (3) 8D NAILS PER STUD. NAIL ALL PLATES USING EDGE NAIL SPACING INDICATED.
4. SHEATHE ALL EXTERIOR WALLS. SHEATHE INTERIOR WALLS AS DESIGNATED ON THE DRAWINGS.
5. SHEATHING SHALL BE CONTINUOUS FROM BOTTOM PLATE TO TOP PLATE. CUT IN "L" AND "T" SHAPES AROUND OPENINGS. LAP SHEATHING OVER SINGLE 2X PLATE MEMBER AT RIM JOIST. AT RIM JOIST PROVIDE A MINIMUM OF 3" BETWEEN SHEATHING EDGE AND TOP/BOTTOM EDGE OF RIM.
6. MINIMUM HEIGHT OF SHEATHING PANELS SHALL BE 16" TO ENSURE THAT PLATES ARE TIED TO STUDS.
7. ALL SHEATHING SHEETS SHALL HAVE 1/8" GAP AT ALL EDGES AND JOINTS.
8. FULLY NAIL FLOOR SHEATHING IMMEDIATELY AFTER GLUING (DO NOT SPOT NAIL).
9. PROVIDE (1) PANEL SHEATHING CLIP AT ALL UNSUPPORTED ROOF SHEATHING PANEL EDGES. WHERE SPANS ARE GREATER THAN 32" PROVIDE (2) CLIPS.

ENGINEERED LUMBER:

1. STRUCTURAL CAPACITIES OF STRUCTURAL COMPOSITE LUMBER SHALL BE IN CONFORMANCE WITH SECTION 2303.1.10 OF THE IBC.
2. MANUFACTURER OF STRUCTURAL COMPOSITE LUMBER PRODUCTS SHALL HAVE PROPER CODE EVALUATION REPORTS FOR ALL PRODUCTS AND SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.
3. THE CONTRACTOR SHALL NOT CUT, NOTCH, OR OTHERWISE ALTER STRUCTURAL COMPOSITE LUMBER MEMBERS WITHOUT WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER AND THE MANUFACTURER; HOWEVER, HOLES MAY BE CUT IN MEMBERS IN ACCORDANCE WITH THE MANUFACTURER'S ALLOWABLE HOLE CHART.
4. MEMBERS NOTED AS LVL (LAMINATED VENEER LUMBER) ON PLAN SHALL BE 1-3/4" WIDE X DEPTH INDICATED, PLANT-FABRICATED, AND HAVE THE FOLLOWING MINIMUM ALLOWABLE DESIGN VALUES:
    - A. F_b = 2600 PSI
    - B. F_v = 285 PSI
    - C. F_{cPAR} = 2460 PSI
    - D. F_{cPERP} = 750 PSI
    - E. E = 1900 KSI
5. MEMBERS NOTED AS PSL (PARALLEL STRAND LUMBER) ON PLAN SHALL BE PLANT-FABRICATED AND HAVE THE FOLLOWING MINIMUM ALLOWABLE DESIGN VALUES:
    - A. F_b = 2900 PSI
    - B. F_v = 290 PSI
    - C. F_{cPAR} = 2900 PSI
    - D. F_{cPERP} = 750 PSI
    - E. E = 2000 KSI
6. MEMBERS NOTED AS LSL (LAMINATED STRAND LUMBER) ON PLAN SHALL BE PLANT-FABRICATED AND HAVE THE FOLLOWING MINIMUM ALLOWABLE DESIGN VALUES:
    - A. F_b = 1700 PSI
    - B. F_v = 400 PSI
    - C. F_{cPAR} = 1400 PSI
    - D. F_{cPERP} = 680 PSI
    - E. E = 1300 KSI
7. BRIDGING AND BLOCKING SHALL BE INSTALLED ACCORDING TO THE FABRICATOR'S REQUIREMENTS.
8. WOOD I-JOISTS SHALL HAVE THE DEPTH, SPACING, SPAN, AND LAYOUT SHOWN ON THE DRAWINGS. MEMBERS SHALL BE FACTORY MANUFACTURED WITH ORIENTED STRAND BOARD (OSB) WEBS, LAMINATED VENEER LUMBER (LVL) OR MACHINE STRESS RATED (MSR) LUMBER FLANGES PER CODE APPROVAL BY ICB OR NER. STRUCTURAL WOOD FLANGES AND WEBS SHALL BE DESIGNED FOR STRUCTURAL CAPACITIES AND DESIGN PROVISIONS ACCORDING TO ASTM D 5055. SUBSTITUTION OF EQUIVALENT SERIES BY OTHERS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL.
9. JOISTS SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. HOLES IN WEBS SHALL NOT EXCEED MANUFACTURER'S PUBLISHED LIMIT CRITERIA.
10. OPEN WEB TRUSSES SHALL HAVE THE DEPTH, SPACING, SPAN, AND LAYOUT SHOWN ON THE DRAWINGS. MEMBERS SHALL BE FACTORY MANUFACTURED WITH TUBULAR STEEL WEBS, AND LAMINATED VENEER LUMBER (LVL) OR MACHINE STRESS RATED (MSR) LUMBER CHORDS PER CODE APPROVAL BY ICB OR NER.
11. OPEN WEB JOISTS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED TO CARRY THE LOADS INDICATED ON THE STRUCTURAL DRAWINGS.
12. MEMBER FORCES SHALL BE DETERMINED BY THE FABRICATOR. STRESSES SHALL NOT EXCEED THOSE ALLOWED BY THE IBC.
13. DEFLECTION LIMITS FOR WOOD I-JOISTS AND OPEN WEB JOISTS SHALL NOT EXCEED THE FOLLOWING DEFLECTION CRITERIA:
    - A. ROOF LIVE LOAD = L/360
    - B. ROOF TOTAL LOAD = L/240 (1" MAXIMUM)
    - C. FLOOR LIVE LOAD = L/480
    - D. FLOOR TOTAL LOAD = L/240 (1" MAXIMUM)

STRUCTURAL GLUED LAMINATED TIMBER:

1. MATERIALS, MANUFACTURE, AND QUALITY CONTROL SHALL BE IN CONFORMANCE WITH ANSI/AITC A 190.1 "STRUCTURAL GLUED LAMINATED TIMBER" AND AITC 117 "STANDARD SPECIFICATIONS FOR STRUCTURAL GLUED LAMINATED TIMBER OF SOFTWOOD SPECIES, DESIGN AND MANUFACTURING REQUIREMENTS."
2. GLUED LAMINATED ALASKAN YELLOW CEDAR BEAMS SHALL HAVE THE FOLLOWING MINIMUM ALLOWABLE DESIGN VALUES:
    - A. F_b = 2000 PSI
    - B. F_v = 265 PSI
    - C. F_{cPAR} = 1550 PSI
    - D. F_{cPERP} = 560 PSI
    - E. E = 1600 KSI
3. SIMPLE SPAN BEAMS SHALL BE COMBINATION SYMBOL 20F-V12 WITH NO CAMBER.
4. CONTINUOUS AND CANTILEVERED MEMBERS SHALL BE COMBINATION SYMBOL 20F-V13 WITH NO CAMBER.
5. COLUMNS SHALL BE COMBINATION #2 OR BETTER.
6. MEMBERS SHALL BE ARCHITECTURAL APPEARANCE GRADE.
7. ADHESIVES SHALL MEET THE REQUIREMENTS FOR WET CONDITIONS OF SERVICE.
8. SEAL CUT EDGES AND ENDS EXPOSED TO WEATHERING.
9. THE FABRICATOR SHALL FURNISH ALL ITEMS OF CONNECTION STEEL AND HARDWARE FOR JOINING TIMBER MEMBERS TO EACH OTHER AND TO THEIR SUPPORTS, EXCLUSIVE OF ANCHORAGE EMBEDDED IN MASONRY, SETTING PLATES, AND ITEMS FIELD-WELDED TO STRUCTURAL STEEL.

3-25-24
40236

REVIEWED FOR CODE COMPLIANCE
04/01/2025

STRUCTURAL DRAWING LIST				
SHEET NO	SHEET TITLE	DD 12/21/2023	90% PERMIT 2/9/2024	PERMIT 3/25/2024
S001	GENERAL NOTES	X	X	X
S002	GENERAL NOTES, ABBREVIATION, & SYMBOLS KEY	X	X	X
S003	3D SCHEMATIC VIEWS	X	X	X
S004	IBC STATEMENT OF SPECIAL INSPECTION	X	X	X
S005	SNOW LOAD ROOF PLAN		X	X
S006	UNBALANCED SNOW LOAD ROOF PLAN		X	X
S100P	DRILLED PIER PLAN		X	X
S100	FOUNDATION/ CRAWLSPACE PLAN		X	X
S101	LOWER LEVEL 1 FLOOR FRAMING PLAN	X	X	X
S102	LOWER LEVEL 2 FLOOR FRAMING PLAN	X	X	X
S103	MAIN LEVEL FRAMING PLAN	X	X	X
S104	UPPER LEVEL FRAMING PLAN	X	X	X
S105	ROOF FRAMING PLAN	X	X	X
S106	SHEAR WALL PLAN - LOWER LEVEL 1	X	X	X
S107	SHEAR WALL PLAN - LOWER LEVEL 2	X	X	X
S108	SHEAR WALL PLAN - MAIN LEVEL	X	X	X
S109	SHEAR WALL PLAN - UPPER LEVEL	X	X	X
S300	FULL HEIGHT SECTIONS	X	X	X
S301	FULL HEIGHT SECTIONS	X	X	X
S400	SHEAR WALL DETAILS & SCHEDULES	X	X	X
S401	SHEAR WALL ELEVATIONS	X	X	X
S402	SHEAR WALL ELEVATIONS	X	X	X
S403	SHEAR WALL ELEVATIONS	X	X	X
S404	SHEAR WALL ELEVATIONS	X	X	X
S405	LATERAL FRAME ELEVATIONS	X	X	X
S406	LATERAL FRAME ELEVATIONS	X	X	X
S500	TYPICAL CONCRETE & STEEL SCHEDULES	X	X	X
S501	TYPICAL CONCRETE & STEEL SCHEDULES	X	X	X
S502	TYPICAL CONCRETE DETAILS	X	X	X
S503	TYPICAL STEEL DETAILS	X	X	X
S504	TYPICAL WOOD SCHEDULES	X	X	X
S505	TYPICAL WOOD DETAILS	X	X	X
S507	TYPICAL WOOD DETAILS	X	X	X
S508	TYPICAL WOOD DETAILS	X	X	X
S509	TYPICAL WOOD DETAILS	X	X	X
S510	FOUNDATION SECTIONS		X	X
S511	FOUNDATION SECTIONS		X	X
S520	FOUNDATION & FLOOR SECTIONS		X	X
S521	FLOOR & ROOF SECTIONS		X	X
S522	FLOOR & ROOF SECTIONS		X	X

PERMIT SET NOT FOR CONSTRUCTION

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REVISIONS		
No.	Description	Date

EDGEMONT/SHERMAN FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
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Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

Project Phase
PERMIT

Sheet Title
GENERAL NOTES

Sheet Number
S001

3/25/2024 5:50:22 PM THE ASTRID CONDO B7 v22

CONTINUED GENERAL NOTES

LIGHT-METAL-PLATE-CONNECTED WOOD TRUSSES:

1. TRUSS MANUFACTURER SHALL COMPLY WITH ALL REQUIREMENTS AS STATED IN SECTION 2303.4 OF THE IBC.
2. ALL PRE-ENGINEERED GABLE END TRUSSES OR TRUSSES WITH INTEGRATED PARAPETS SHALL BE DESIGNED FOR WIND FORCES PERPENDICULAR TO THE TRUSS.
3. ALL PRE-ENGINEERED TRUSSES SHALL BE FABRICATED SUCH THAT THEY INCORPORATE ALL ROOF PLANES. AT CONTRACTOR'S OPTION, STANDARD SHAPE TRUSSES MAY BE USED IN CONJUNCTION WITH OVERFRAMING.
4. FULL HEIGHT BLOCKING SHALL BE PLACED BETWEEN TRUSSES AT ALL SUPPORTS.
5. CROSS BRIDGING DESIGN SHALL BE PROVIDED BY TRUSS MANUFACTURER AS REQUIRED FOR LATERAL EFFECTS.
6. TRUSS MEMBERS AND COMPONENTS SHALL NOT BE CUT, NOTCHED, DRILLED, SPLICED OR OTHERWISE ALTERED IN ANY WAY WITHOUT WRITTEN APPROVAL OF A REGISTERED DESIGN PROFESSIONAL.
7. MANUFACTURE AND INSTALLATION OF METAL PLATED WOOD TRUSSES SHALL COMPLY WITH ANSI/TPI 1 "NATIONAL DESIGN STANDARD FOR METAL-PLATE-CONNECTED WOOD TRUSS CONSTRUCTION," BCSI (BUILDING COMPONENT SAFETY INFORMATION) "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES," AND DSB-89 "RECOMMENDED DESIGN SPECIFICATION FOR TEMPORARY BRACING OF METAL PLATE CONNECTED WOOD TRUSSES."
8. PRE-ENGINEERED, PREFABRICATED TRUSSES SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE IN WHICH TO PROJECT IS LOCATED TO CARRY THE LOADS INDICATED ON THE STRUCTURAL DRAWINGS IN WHICH THE PROJECT IS LOCATED.
9. TRUSSES SHALL BE DESIGNED TO SUPPORT THE FULL DEAD LOADS AND THE SUPERIMPOSED DESIGN LOADS NOTED ABOVE OR ON THE DRAWINGS.
10. STRESSES SHALL NOT EXCEED THOSE LISTED IN THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (AF&PA NDS). <NO INCREASES IN STRESS ARE ALLOWED FOR DURATION OF LOAD.>
11. SCISSOR TYPE TRUSSES SHALL BE DESIGNED FOR A MAXIMUM OF 1/2" TOTAL HORIZONTAL DEFLECTION UNDER DEAD PLUS LIVE LOADS.
12. THE FABRICATOR SHALL DETERMINE TRUSS WEB ARRANGEMENTS AND MEMBER FORCES.
13. TRUSS TO TRUSS CONNECTIONS SPECIFIED SHALL BE BY TRUSS SUPPLIER, UNLESS SPECIFICALLY NOTED ON THE DRAWINGS.
14. TRUSSES SHALL BE DESIGNED IN BEARING TO NOT EXCEED THE PERPENDICULAR TO GRAIN BEARING VALUES FOR THE TOP PLATE GRADES INDICATED IN THE "STRUCTURAL WOOD FRAMING" GENERAL NOTES. WHERE TRUSS BEARING EXCEED THIS VALUE THE TRUSS MANUFACTURER SHALL PROVIDE BEARING ENHANCERS TO COMPENSATE FOR OVERSTRESSES. TRUSS MANUFACTURER SHALL SPECIFY SIZE, SPECIES, AND NAILING FOR BEARING BLOCKS.
15. TRUSS FABRICATOR SHALL SPECIFY ALL FLOOR AND ROOF TRUSS BRACING AND BRIDGING.
16. CALCULATIONS AND SHOP DRAWINGS, INCLUDING MEMBER SIZES, LUMBER SPECIES AND GRADES, AND SUBSTANTIATING DATA FOR CONNECTOR CAPACITIES, SHALL BE SUBMITTED TO THE ARCHITECT, GC, AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION.
17. TRUSS DESIGN SHALL INCLUDE A 250 LBS LOAD PER NFPA TO SUPPORT SPRINKLER LOADS LOCATED ANYWHERE ALONG THE BOTTOM CHORD OF THE TRUSS.
18. DEFLECTION LIMITS FOR TRUSSES SHALL NOT EXCEED THE FOLLOWING DEFLECTION CRITERIA:
    - A. ROOF LIVE LOAD = L/360
    - B. ROOF TOTAL LOAD = L/240 (1" MAXIMUM)
    - C. FLOOR LIVE LOAD = L/480
    - D. FLOOR TOTAL LOAD = L/240 (1" MAXIMUM)

SHOP DRAWINGS:

1. THE STRUCTURAL DRAWINGS ARE COPYRIGHTED AND SHALL NOT BE COPIED FOR USE AS ERECTION PLANS OR SHOP DETAILS. USE OF JVA'S ELECTRONIC FILES AS THE BASIS FOR SHOP DRAWINGS REQUIRES PRIOR APPROVAL BY JVA, A SIGNED RELEASE OF LIABILITY BY THE GENERAL CONTRACTOR AND/OR HIS SUBCONTRACTORS, AND DELETION OF JVA'S NAME AND LOGO FROM ALL SHEETS SO USED.
2. THE GENERAL CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO MODIFY THE STRUCTURAL DRAWINGS OR PROJECT SPECIFICATIONS.
3. ALL SHOP AND ERECTION DRAWINGS SHALL BE CHECKED AND STAMPED (AFTER HAVING BEEN CHECKED) BY THE GENERAL CONTRACTOR PRIOR TO SUBMISSION FOR STRUCTURAL ENGINEER'S REVIEW; SHOP DRAWING SUBMITTALS NOT CHECKED BY THE GENERAL CONTRACTOR PRIOR TO SUBMISSION TO THE STRUCTURAL ENGINEER WILL BE RETURNED WITHOUT REVIEW.
4. FURNISH ELECTRONIC VERSION (PDF) OF SHOP AND ERECTION DRAWINGS TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION FOR:
    - A. CONCRETE MIX DESIGNS
    - B. CONCRETE REINFORCING STEEL
    - C. CONCRETE SLAB ON GRADE CONTROL JOINT LAYOUT
    - D. STRUCTURAL STEEL
    - E. GLUED-LAMINATED TIMBER
    - F. PLANT FABRICATED WOOD JOISTS
    - G. PRE-ENGINEERED WOOD TRUSSES
    - H. FALL PROTECTION SYSTEM LAYOUT AND DESIGN
5. SUBMIT IN A TIMELY MANNER TO PERMIT 10 WORKING DAYS FOR REVIEW BY THE STRUCTURAL ENGINEER.
6. SHOP DRAWINGS SUBMITTED FOR REVIEW DO NOT CONSTITUTE "REQUEST FOR CHANGE IN WRITING" UNLESS SPECIFIC SUGGESTED CHANGES ARE CLEARLY MARKED. IN ANY EVENT, CHANGES MADE BY MEANS OF THE SHOP DRAWING SUBMITTAL PROCESS BECOME THE RESPONSIBILITY OF THE ONE INITIATING THE CHANGE.

STRUCTURAL ERECTION AND BRACING REQUIREMENTS:

1. THE STRUCTURAL DRAWINGS ILLUSTRATE AND DESCRIBE THE COMPLETED STRUCTURE WITH ELEMENTS IN THEIR FINAL POSITIONS, PROPERLY SUPPORTED, CONNECTED, AND/OR BRACED.
2. THE STRUCTURAL DRAWINGS ILLUSTRATE TYPICAL AND REPRESENTATIVE DETAILS TO ASSIST THE GENERAL CONTRACTOR. DETAILS SHOWN APPLY AT ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED. ALTHOUGH DUE DILIGENCE HAS BEEN APPLIED TO MAKE THE DRAWINGS AS COMPLETE AS POSSIBLE, NOT EVERY DETAIL IS ILLUSTRATED AND NOT EVERY EXCEPTIONAL CONDITION IS ADDRESSED.
3. ALL PROPRIETARY CONNECTIONS AND ELEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS.
4. ALL WORK SHALL BE ACCOMPLISHED IN A WORKMANLIKE MANNER AND IN ACCORDANCE WITH THE APPLICABLE CODES AND LOCAL ORDINANCES.
5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL WORK, INCLUDING LAYOUT AND DIMENSION VERIFICATION, MATERIALS COORDINATION, SHOP DRAWING REVIEW, AND THE WORK OF SUBCONTRACTORS. ANY DISCREPANCIES OR OMISSIONS DISCOVERED IN THE COURSE OF THE WORK SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR RESOLUTION.
6. CONTINUATION OF WORK WITHOUT NOTIFICATION OF DISCREPANCIES RELIEVES THE ARCHITECT AND STRUCTURAL ENGINEER FROM ALL CONSEQUENCES.
7. UNLESS OTHERWISE SPECIFICALLY INDICATED, THE STRUCTURAL DRAWINGS DO NOT DESCRIBE METHODS OF CONSTRUCTION.
8. VERIFY ALL OPENINGS THROUGH FLOORS, ROOFS AND WALLS WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL REQUIREMENTS. COORDINATE DIMENSIONS WITH SUPPLIERS PRIOR TO FABRICATION.
9. SIGNIFICANT PERMANENT EQUIPMENT SIZES, WEIGHTS AND LOCATIONS ARE INDICATED ON THE DRAWINGS AS PROVIDED TO THE ENGINEER DURING DESIGN. CHANGES IN SIZE, WEIGHT, OR LOCATION MUST BE SUBMITTED IN WRITING FOR REVIEW BY THE ENGINEER. REQUIRED CURBS, SUPPORTS, OR BRACES NOT SHOWN ON THE DRAWINGS ARE THE RESPONSIBILITY OF THE EQUIPMENT SUPPLIER.
10. THE GENERAL CONTRACTOR, IN THE PROPER SEQUENCE, SHALL PERFORM OR SUPERVISE ALL WORK NECESSARY TO ACHIEVE THE FINAL COMPLETED STRUCTURE, AND TO PROTECT THE STRUCTURE, WORKMEN, AND OTHERS DURING CONSTRUCTION. SUCH WORK SHALL INCLUDE, BUT NOT BE LIMITED TO TEMPORARY BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR EXCAVATION, FORMWORK, SCAFFOLDING, SAFETY DEVICES AND PROGRAMS OF ALL KINDS, SUPPORT AND BRACING FOR CRANES AND OTHER ERECTION EQUIPMENT.
11. DO NOT BACKFILL AGAINST BASEMENT OR RETAINING WALLS UNTIL SUPPORTING SLABS AND FLOOR FRAMING ARE IN PLACE AND SECURELY ANCHORED, UNLESS ADEQUATE TEMPORARY BRACING IS PROVIDED.
12. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND ANY OTHER SUPPORTING ELEMENTS ARE IN PLACE.
13. THE ARCHITECT AND STRUCTURAL ENGINEER BEAR NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND OBSERVATION VISITS TO THE SITE DO NOT IN ANY WAY INCLUDE INSPECTIONS OF THESE ITEMS.

PRECAUTIONARY NOTES ON STRUCTURAL BEHAVIOR:

1. INTERIOR ARCHITECTURAL FINISH DETAILING MUST ACCOMMODATE THE RELATIVE DIFFERENTIAL MOVEMENTS OF SUPPORTING STRUCTURAL ELEMENTS.
2. WHERE THE ROOF FRAMING ELEMENT SPANS ARE LONG, APPLIED LOADING WILL NATURALLY CAUSE SUBSTANTIAL DEFLECTION. INTERIOR ELEMENTS HUNG FROM THE ROOF STRUCTURE WILL DEFLECT WITH THE ROOF.
3. THE FLOOR IS A FLOATING CONCRETE SLAB-ON-GRADE AND MAY EXPERIENCE MOVEMENTS INDEPENDENT OF THE STRUCTURAL FOUNDATIONS. INTERIOR ELEMENTS SUPPORTED ON THE SLAB-ON-GRADE FLOOR WILL MOVE WITH THE FLOOR. INTERIOR ELEMENTS SUPPORTED ON FOUNDATIONS AND COLUMNS WILL NOT EXPERIENCE SIMILAR OR MEASURABLE MOVEMENTS.
4. EXTERIOR/PERIMETER WALL ASSEMBLIES HUNG FROM THE EDGE OF THE BUILDING STRUCTURE WILL BE DIRECTLY AFFECTED (TO SOME DEGREE) BY CHANGES IN EXTERNAL TEMPERATURE AND FLOOR DEFLECTION.
5. EXTERIOR/PERIMETER AND INTERIOR ARCHITECTURAL FINISH DETAILS SHOULD ALLOW FOR RELATIVE MOVEMENTS BETWEEN ELEMENTS WITH DIFFERENT SUPPORT CONDITIONS.

DEFERRED SUBMITTALS:

1. PORTIONS OF THE STRUCTURE HAVE ELEMENTS OF PROPRIETARY DESIGN AND FABRICATION, WHICH SHALL BE SUBMITTED BY THE SUPPLIER FOR APPROVAL AFTER AWARD OF CONTRACT.
2. THESE ITEMS SHALL CONFORM TO THE LOAD, CAPACITY, SIZE, GEOMETRY, CONNECTION, AND SUPPORT CRITERIA NOTED ON THE STRUCTURAL DRAWINGS.
3. SHOP DRAWINGS AND CALCULATIONS SHALL BE PREPARED BY AN ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED. FINAL SHOP DRAWING SUBMITTALS SHALL BE STAMPED AND SIGNED.
4. FURNISH DEFERRED SUBMITTALS FOR:
    - A. CANOPIES, SUNSCREENS, AND SUNSHADES
    - B. OPEN-WEB WOOD TRUSSES
    - C. STAIRS, HANDRAILS, AND GUARDRAILS
    - D. ANCHOR TENSION SYSTEM HOLD DOWNS (ATS)
    - E. STEEL JOISTS
    - F. STRUCTURAL STEEL CONNECTIONS
    - G. FALL PROTECTION SYSTEM LAYOUT AND DESIGN
5. DEFERRED SUBMITTALS WILL BE REVIEWED BY THE STRUCTURAL ENGINEER OF RECORD FOR COMPLIANCE WITH THE SPECIFIED DESIGN REQUIREMENTS, STAMPED AS "REVIEWED," AND RETURNED TO THE CONTRACTOR. THE GENERAL CONTRACTOR SHALL FORWARD THE REVIEWED DEFERRED SUBMITTALS TO THE LOCAL BUILDING AUTHORITY FOR REVIEW AND APPROVAL BEFORE INSTALLATION OF DEFERRED SUBMITTAL ITEMS.
6. FINAL ISSUE OF THE BUILDING PERMIT MAY, AT THE APPROVAL AUTHORITY'S OPTION, BE CONTINGENT ON ITS APPROVAL OF THE DEFERRED SUBMITTAL DOCUMENTS.
7. DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN CALCULATIONS AND DRAWINGS HAVE BEEN REVIEWED BY THE ARCHITECT, STRUCTURAL ENGINEER, AND/OR LOCAL BUILDING AUTHORITY AS REQUIRED.

LETTERS OF CONSTRUCTION COMPLIANCE:

1. THE GENERAL CONTRACTOR SHALL DETERMINE FROM THE LOCAL BUILDING AUTHORITY, AT THE TIME THE BUILDING PERMIT IS OBTAINED, WHETHER ANY LETTERS OF CONSTRUCTION COMPLIANCE WILL BE REQUESTED FROM THE STRUCTURAL ENGINEER.
2. THE CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER OF ALL SUCH REQUIREMENTS IN WRITING PRIOR TO THE START OF CONSTRUCTION.
3. TWO-DAY ADVANCE NOTICE SHALL BE GIVEN WHEN REQUESTING SITE VISITS NECESSARY AS THE BASIS FOR THE COMPLIANCE LETTER.
4. THE GENERAL CONTRACTOR SHALL PROVIDE COPIES OF ALL THIRD-PARTY TESTING AND INSPECTION REPORTS TO THE ARCHITECT AND STRUCTURAL ENGINEER A MINIMUM OF ONE WEEK PRIOR TO THE DATE THAT THE COMPLIANCE LETTER IS NEEDED.

SPECIAL INSPECTIONS - 2021:

1. THE FOLLOWING SPECIAL INSPECTIONS AND TESTING SHALL BE PERFORMED BY A QUALIFIED SPECIAL INSPECTOR, RETAINED BY THE OWNER, IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF IBC CHAPTER 17:
    - A. SECTION 1704 SPECIAL INSPECTIONS, CONTRACTOR RESPONSIBILITY, AND STRUCTURAL OBSERVATIONS AND THE FOLLOWING SUB-SECTIONS:
        1. 1704.2 SPECIAL INSPECTIONS AND TESTS
        2. 1704.3 STATEMENT OF SPECIAL INSPECTIONS
    - B. SECTION 1705 REQUIRED VERIFICATION AND INSPECTION AND THE FOLLOWING SUB-SECTIONS:
        1. 1705.1.1 SPECIAL CASES
        2. 1705.2 STEEL CONSTRUCTION
        3. 1705.3 CONCRETE CONSTRUCTION
        4. 1705.5 WOOD CONSTRUCTION
        5. 1705.6 SOILS
        6. 1705.8 CAST-IN-PLACE DEEP FOUNDATIONS
        7. SECTION 1705.12 SPECIAL INSPECTIONS FOR WIND RESISTANCE AND THE FOLLOWING SUB-SECTIONS:
            - a. 1705.12.1 STRUCTURAL WOOD
            - b. 1705.12.3 WIND-RESISTING COMPONENTS
        8. SECTION 1705.13 SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE AND THE FOLLOWING SUB-SECTIONS:
            - a. 1705.13.1 STRUCTURAL STEEL
            - b. 1705.13.2 STRUCTURAL WOOD
            - c. 1705.13.4 DESIGNATED SEISMIC SYSTEM
            - d. 1705.13.8 SEISMIC ISOLATION SYSTEM
        9. SECTION 1705.14 STRUCTURAL TESTING FOR SEISMIC RESISTANCE AND THE FOLLOWING SUB SECTIONS:
            - a. 1705.14.1 STRUCTURAL STEEL
            - b. 1705.14.3 DESIGNATED SEISMIC SYSTEMS (SDC C, D, E, OR F)
            - c. 1705.14.4 SEISMICALLY ISOLATED STRUCTURES
    - C. SECTION 1706 DESIGN STRENGTHS OF MATERIALS
    - D. SECTION 1707 ALTERNATIVE TEST PROCEDURES
    - E. SECTION 1708 IN-SITU LOAD TESTS
    - F. SECTION 1709 PRECONSTRUCTION LOAD TESTS
2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION. THE APPROVED INSPECTOR MUST BE INDEPENDENT FROM THE CONTRACTOR RESPONSIBLE FOR THE WORK BEING INSPECTED.
3. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO INSPECT AND/OR TEST THE WORK OUTLINED ABOVE AND WITHIN THE STATEMENT OF SPECIAL INSPECTIONS IN ACCORDANCE WITH CHAPTER 17 OF THE IBC FOR CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.
4. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
5. PER SECTION 1704.2.4 THE SPECIAL INSPECTOR SHALL FURNISH REGULAR REPORTS TO THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER. PROGRESS REPORTS FOR CONTINUOUS INSPECTION SHALL BE FURNISHED WEEKLY. INDIVIDUAL REPORTS OF PERIODIC INSPECTIONS SHALL BE FURNISHED WITHIN ONE WEEK OF INSPECTION DATES. THE REPORTS SHALL NOTE UNCORRECTED DEFICIENCIES, CORRECTION OF PREVIOUSLY REPORTED DEFICIENCIES, AND CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE STRUCTURAL ENGINEER OF RECORD.
6. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT WITHIN 10 DAYS OF THE FINAL SPECIAL INSPECTION STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC. WORK NOT IN COMPLIANCE SHALL BE NOTED IN THE REPORT.
7. THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON A MAIN WIND- OR SEISMIC-FORCE-RESISTING SYSTEM PER SECTION 1704.4. THE STATEMENT SHALL ACKNOWLEDGE THE AWARENESS OF THE SPECIAL LISTED REQUIREMENTS OF DESIGNATED SEISMIC SYSTEM OR A WIND- OR SEISMIC-RESISTING COMPONENT IN THE STATEMENT OF SPECIAL INSPECTIONS PER SECTION 1705.
8. EXCEPT AS NOTED, THE SPECIAL INSPECTIONS OUTLINED ABOVE ARE IN ADDITION TO, AND BEYOND THE SCOPE OF, PERIODIC STRUCTURAL OBSERVATIONS AS DEFINED IN SECTION 1704.6. STRUCTURAL OBSERVATIONS ARE INCLUDED IN THE STRUCTURAL ENGINEERING DESIGN AND CONSTRUCTION ADMINISTRATION SERVICES PROVIDED BY THE STRUCTURAL ENGINEER.

TYPICAL INTERIOR STAIR ASSEMBLY:
CONCRETE-FILLED STEEL PANS WITH CLOSED RISERS BETWEEN STRINGERS; DESIGN & DETAILING OF STRINGERS, HEADERS, INTERMEDIATE LANDINGS, & RAILINGS BY STAIR SUPPLIER; COORDINATE STAIR ASSEMBLIES & DETAILS WITH FRAMING ELEMENTS SHOWN ON THESE DRAWINGS AND ARCH DRAWINGS

TYPICAL STAIR ASSEMBLY (EXCEPT AS NOTED):

- CONCRETE-FILLED PANS WITH CLOSED RISERS AND STRINGERS PER ARCHITECTURAL DRAWINGS
- FRAME LANDINGS WITH CHANNELS OR ANGLES AS REQUIRED. SUPPORT LANDING WITH PIPE OR TUBE STEEL COLUMNS OR HANGERS FROM FOUNDATION OR BEAMS AS REQUIRED TO AVOID INTERFERENCE WITH STRUCTURAL/ARCHITECTURAL ELEMENTS. FRAMING SHOWN IS FOR SCHEMATIC PUROPOSES ONLY
- STAIR FABRICATOR SHALL DESIGN & DETAIL ALL MEMBERS, CONNECTIONS AND ASSEMBLIES REQIURED FOR FRAMING AND SUPPORT OF STAIRS WHERE NOT SHOWN
- CALCULATIONS, STAMPED AND SIGNED BY A REGISTERED COLORADO PROFESSIONAL ENGINEER, SHALL BE SUBMITTED WITH THE STAIR SHOP DRAWINGS
- COORDINATE ALL STAIR ASSEMBLIES AND DETAILS WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS.

ABBREVIATIONS KEY

@	ON CENTER SPACING	DWG	DRAWING	LGS	LIGHT GAGE STEEL		
(E)	EXISTING	DWL	DOWEL	LL	LIVE LOAD	REINF	REINFORCE, -ED, -ING
(N)	NEW	EA	EACH	LLH	LONG LEG HORIZONTAL	REQ	REQUIRED
(R)	REMOVE	ECC	ECCENTRIC	LLV	LONG LEG VERTICAL	REQMT	REQUIREMENT
AB	ANCHOR ROD (BOLT)	E-E	END TO END	LOC	LOCATION	RET	RETAINING
ADDL	ADDITIONAL	EF	EACH FACE	LP	LOW POINT	RM	ROOM
ADJ	ADJUSTABLE	EJ	EXPANSION JOINT	LSL	LAMINATED STRAND LUMBER (GENERIC TERM)	RMO	ROUGH MASONRY OPENING
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL	EL	ELEVATION	LT	LIGHT	RO	ROUGH OPENING
AFF	ABOVE FINISHED FLOOR	ELEC	ELECTRIC, ELECTRICAL	LVL	LAMINATED VENEER LUMBER (GENERIC TERM)	SC	SLIP-CRITICAL
ALT	ALTERNATE	EMBED	EMBEDMENT	MACH	MACHINE	SCH	SCHEDULE
AMT	AMOUNT	ENGR EOR	ENGINEER ENGINEER OF RECORD	MASY	MASONRY	SDST	SELF-DRILLING/ SELF-TAPPING
ANCH	ANCHOR, ANCHORAGE	EQ	EQUAL	MATL	MATERIAL	SECT	SECTION
APPROX	APPROXIMATE	EQUIP	EQUIPMENT	MAX	MAXIMUM	SF	SQUARE FEET, SUB-FLOOR
ARCH	ARCHITECT, -URAL	EQUIV	EQUIVALENT	MB	MACHINE BOLT	SHT	SHEET
ATR	ALL THREAD ROD	ES	EACH SIDE	MECH	MECHANICAL	SHTG	SHEATHING
AVG	AVERAGE	EST	ESTIMATE	MEZZ	MEZZANINE	SIM	SIMILAR
BC	BOTTOM OF CONCRETE	E-W	EAST TO WEST	MFR	MANUFACTURE, -ER, -ED	SLH	SHORT LEG HORIZONTAL
BL	BRICK LEDGE	EXC	EXCAVATE	MIN	MINIMUM	SLV	SHORT LEG VERTICAL
BLK	BLOCK	EXP	EXPANSION	ML	MICROLLAM (TRUS-JOIST BRAND LVL), MASONRY LINTEL	SOG	SLAB ON GRADE
BLKG	BLOCKING	EXT	EXTERIOR	MO	MASONRY OPENING	SP	SPACES, SPACED
BM	BEAM	FD	FLOOR DRAIN	MTL	METAL	SPEC	SPECIFICATIONS
BOT	BOTTOM	FDN	FOUNDATION	NF	NEAR FACE	SQ	SQUARE
BRG	BEARING	FF	FINISHED FLOOR, FAR FACE	NIC	NOT IN CONTRACT	SSR	SHEAR STUD RAIL
BW	BOTTOM OF WALL	F-F	FACE TO FACE	NS	NEAR SIDE	ST	SNUG-TIGHT
CB	COUNTERBORE	FIG	FIGURE	N-S	NORTH TO SOUTH	STD	STANDARD
CF	CUBIC FOOT	FL	FLUSH	NTS	NOT TO SCALE	STIFF	STIFFENER
CFS	COLD-FORMED STEEL	FLG	FLANGE	OCJ	OSHA COLUMN JOIST	STL	STEEL
CG	CENTER OF GRAVITY	FLR	FLOOR	OD	OUTSIDE DIAMETER	STRUCT	STRUCTURE, -AL
CIP	CAST-IN-PLACE	FO	FACE OF	OF	OUTSIDE FACE	SUPT	SUPPORT
CJ	CONSTRUCTION JOINT, CONTROL JOINT	FP	FULL PENETRATION	OH	OPPOSITE HAND	SY	SQUARE YARD
CJP	COMPLETE JOINT PENETRATION	FS	FOOTING STEP, FAR SIDE	OPNG	OPENING	SYM	SYMMETRICAL
CL	CENTER LINE	FTG	FOOTING	OPP	OPPOSITE	T&B	TOP AND BOTTOM
CLG	CEILING	GA	GAGE, GAUGE	OSB	ORIENTED STRAND BOARD	T&G	TONGUE AND GROOVE
CLR	CLEAR	GALV	GALVANIZED	PAF	POWDER ACTUATED FASTENER	TB	TOP OF BEAM
CM	CONSTRUCTION MANAGER, -MENT	GC	GENERAL CONTRACTOR	PC	PRECAST	TC	TOP OF CONCRETE
CMU	CONCRETE MASONRY UNIT	GEN	GENERAL	PCF	POUNDS PER CUBIC FOOT	TCA	TORQUE-CONTROLLED ANCHOR
COL	COLUMN	GL	GLUED LAMINATED, GLULAM	PE	PRE-ENGINEERED	TD	TOP OF DECK
COM	COMMON	GND	GROUND	PEN	PENETRATION	THD	THREAD
COMB	COMBINATION	GR	GRADE	PERP	PERPENDICULAR	THK	THICK, -NESS
CONC	CONCRETE	GT	GIRDER TRUSS	PJP	PARTIAL JOINT PENETRATION	TJ	TOP OF JOIST
CONN	CONNECTION	GYP BD	GYPSUM BOARD	PL	PLATE	TL	TOTAL LOAD
CONT	CONTINUOUS, CONTINUE	HAS	HEADED ANCHOR STUD	PLF	POUND PER LINEAR FOOT	TPG	TOPPING
COORD	COORDINATE, COORDINATION	HDG	HOT-DIP GALVANIZED	PNL	PANEL	TRANS	TRANSVERSE
CS	COUNTERSINK	HDR	HEADER	PP	PANEL POINT	TW	TOP OF WALL
CTR	CENTER	HORIZ	HORIZONTAL	PS	PRESTRESSED	TYP	TYPICAL
CY	CUBIC YARD	HP	HIGH POINT	PSF	POUNDS PER SQUARE FOOT	ULT	ULTIMATE
DAB	DEFORMED ANCHOR BAR	HT	HEIGHT	PSI	POUNDS PER SQUARE INCH	UNO	UNLESS NOTED OTHERWISE
DET	DETAIL	ID	INSIDE DIAMETER	PSL	PARALLEL STRAND LUMBER (GENERIC TERM)	VERT	VERTICAL
DEV	DEVELOP	IF	INSIDE FACE	PT	POST TENSIONED, PRESSURE TREATED	VIF	VERIFY IN FIELD
DIAG	DIAGONAL	INT	INTERIOR, INTERMEDIATE	PTN	PARTITION	WP	WORK POINT
DIM	DIMENSION	IT	INVERTED TEE	PWD	PLYWOOD	WT	WEIGHT
DL	DEAD LOAD	JB	JOIST BEARING	QTY	QUANTITY	WWF	WELDED WIRE FABRIC
DN	DOWN	JST	JOIST	R	RADIUS	XS	EXTRA STRONG
DP	DRILLED PIER	JT	JOINT	RE	REFERENCE, REFER TO	XSECT	CROSS SECTION
DT	DOUBLE TEE	K	KIP (1,000 LBS)	RECT	RECTANGLE	XXS	DOUBLE EXTRA STRONG

SYMBOLS KEY

	DIRECTION OF DECK SPAN
GRID	GRID DESIGNATION
X	REVISION
X / SX	INDICATES STRUCTURAL ELEVATION
SWx	SHEAR WALL
	SHORING
	STEP IN FLOOR ELEVATION
	CMU (CONCRETE MASONRY UNIT)
	BRICK
	CIP CONCRETE
	PRECAST CONCRETE
	EXISTING CONCRETE
	EARTH
FX.X	ISOLATED SPREAD FOOTING MARK
FXX	SPREAD FOOTING MARK
STEP	STEP IN BOTTOM OF WALL/GRADE BEAM
DP-XXM {Y} (XX'-X")	DRILLED PIER: XX = Ø, M = PIER MARK, {Y} = BEDROCK PENETRATION (XX'-X") = TOP OF PIER ELEVATION
XX:12	ROOF SLOPE
SLOPE	DIRECTION OF SLOPE (DOWN)
DN UP	STAIR OR RAMP DIRECTION
	STRESSING END ANCHOR
	DEAD END ANCHOR
	INTERMEDIATE ANCHOR
XXX'-X	TOP OF CONCRETE OR MASONRY ELEVATION
[XXX'-X]	TOP OF BEAM ELEVATION
JB XXX'-X	JOIST BEARING ELEVATION
BL XXX'-X	BRICK LEDGE ELEVATION
(XXX'-X)	TOP OF FOOTING ELEVATION
XXX'-X	TOP OF FLOOR ELEVATION
CONT C	COLUMN CONTINUOUS FROM LEVEL BELOW
CXX	COLUMN STARTING AT THIS LEVEL
B	COLUMN STOPPING BELOW THIS LEVEL, SEE FRAMING PLAN AT NEXT LOWER LEVEL
CXX STUB	COLUMN STARTING AND ENDING AT THIS LEVEL OF FRAMING
CXX HGR	COLUMN CONNECTING A LOWER BEAM TO A HIGHER BEAM AT THIS LEVEL OF FRAMING
B	INDICATES BRACED BAY MARK
X / SX	INDICATES BRACED BAY ELEVATION
	INDICATES BRACED MEMBER (ON PLAN)
	INDICATES CONFIGURATION OF INVERTED CHEVRON-TYPE BRACED BAY WITH HSS DIAGONAL BRACES
	INDICATES CONFIGURATION OF SINGLE DIAGONAL BRACED BAY WITH HSS DIAGONAL BRACE
RF	INDICATES RIGID (MOMENT) FRAME WITH FULL PENETRATION WELDED BEAM FLANGE TO COLUMN CONNECTIONS
X / SX	INDICATES RIGID (MOMENT) FRAME ELEVATION W/ FULL PENETRATION WELDED BEAM FLANGE TO COLUMN CONNECTIONS
	INDICATES BRACED BAY OR FRAMED BAY COLUMN BASE
	FULLY WELDED MOMENT FRAME CONNECTION
	CANTILEVER MOMENT CONNECTION
	LOCATION OF BEND IN BENT BEAM
<X>	NUMBER OF HEADED ANCHOR STUDS
	WOOD BEARING WALL
	WOOD SHEAR WALL
A	COLUMN ABOVE
B	COLUMN BELOW
Cxx	COLUMN OR OTHER ELEMENT BELOW SEE SCHEDULES & NOTES Cx = COLUMN BPx = BASE PLATE
CONT	COLUMN CONTINUOUS FROM LEVEL BELOW
XK / YT	"X" NUMBER OF KING STUDS BELOW "Y" NUMBER OF TRIMMER STUDS BELOW
WPXY	"WP" = WOOD POST "X" = NUMBER OF STUDS "Y" = NOMINAL STUD DIMENSION
LVLXY	"LVL" = LAMINATED VENEER LUMBER "X" = NUMBER OF PLY'S "Y" = WIDTH OF LVL
HDx	HOLDOWN
	WOOD HEADER
	WOOD JOIST OR BEAM SUPPORTED BY METAL HANGER
	WOOD JOIST CONTINUOUS OVER INTERMEDIATE SUPPORT
	WOOD JOIST BEARING ON TOP OF SUPPORT

COLORADO LICENSED PROFESSIONAL ENGINEER
MARK E. SORENSON
40336
3-25-24

REVIEWED FOR CODE COMPLIANCE
04/01/2025

PERMIT SET NOT FOR CONSTRUCTION

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NOTICE: DUTY OF COOPERATION

Release of these plans contemplates further cooperation among the owner, his contractor and the architect. Design and construction are complex. Although the architect and his consultants have performed their services with due care and diligence, they cannot guarantee perfection. Communication is imperfect and every contingency cannot be anticipated. Any ambiguity or discrepancy discovered by the use of these plans shall be reported immediately to the architect. Failure to notify the architect compounds misunderstanding and increases construction costs. A failure to cooperate by a simple notice to the architect shall relieve the architect from responsibility for the consequences. Changes made from the plans without consent of the architect are unauthorized and shall relieve the architect of responsibility for all consequences arriving out of such changes.

REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN
FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
(303) 442-5458, (303) 442-4745 FAX

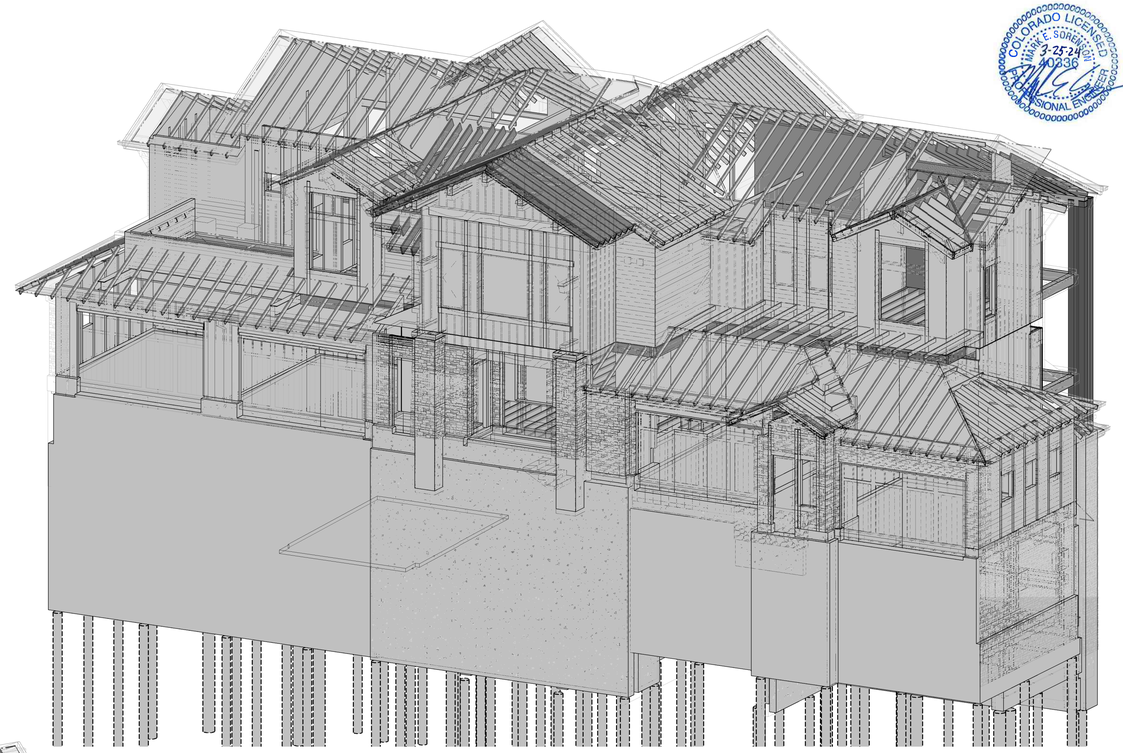
Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

Project Phase
PERMIT

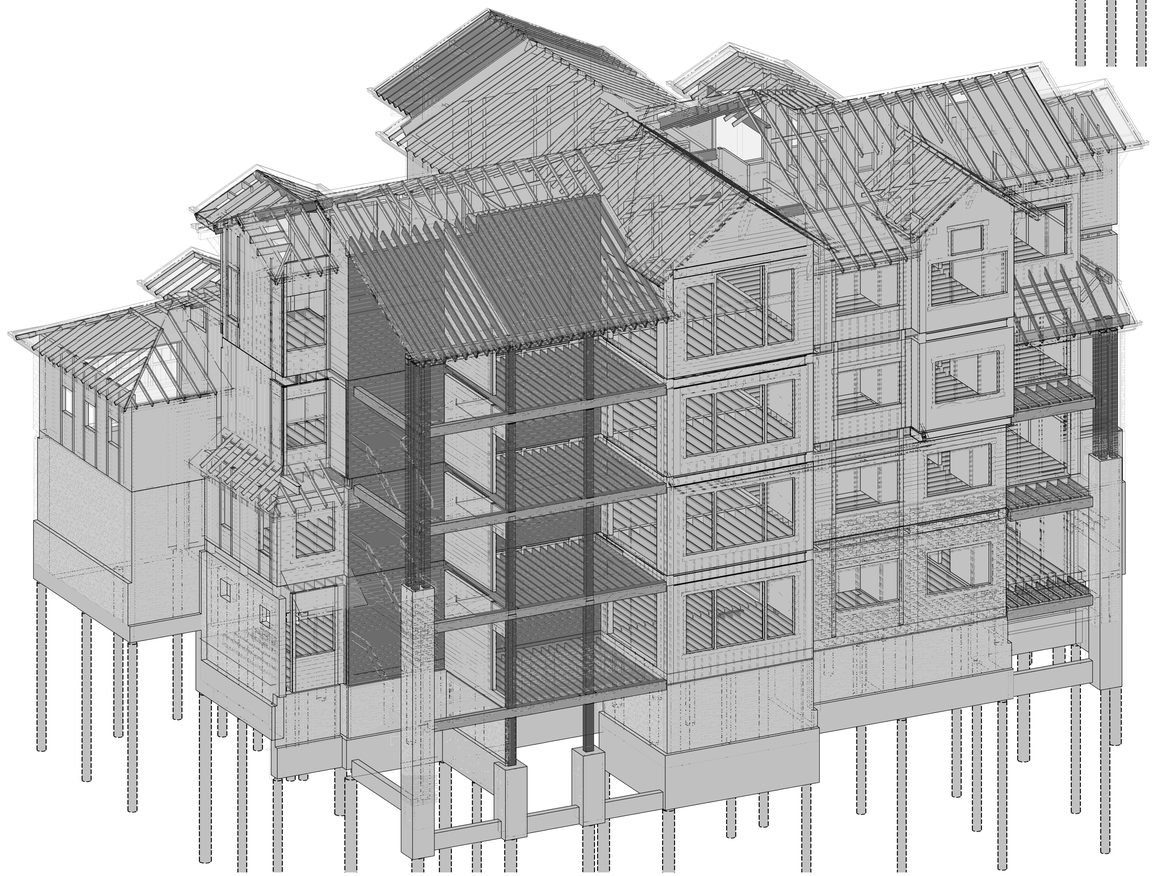
Sheet Title
GENERAL NOTES, ABBREVIATION, & SYMBOLS KEY

Sheet Number
S002

3/25/2024 5:50:24 PM THE ASTRID CONDO B7 v22



3D SCHEMATIC VIEW - FRONT



3D SCHEMATIC VIEW - BACK

PERMIT SET NOT FOR CONSTRUCTION

COLORADO LICENSED
ERIC M. SMITH
3-25-24
42936
PROFESSIONAL ENGINEER

REVIEWED FOR CODE COMPLIANCE
04/01/2025

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Project Phase
PERMIT

Sheet Title
3D SCHEMATIC VIEWS

Sheet Number
S003

SOIL SPECIAL INSPECTION (IBC 1705.6)

ITEM	REQUIRED QUALIFICATIONS	FREQUENCY	DETAILED INSTRUCTIONS	PERIODIC TEST OR INSPECTION FREQUENCY	SOIL Infrequent
CONTROLLED STRUCTURAL FILL			(IBC 1705.6)		
Excavations	PE/GE	Periodic	Verify excavations extend to proper depth and material prior to placement of compacted fill or concrete.		
Fill materials	PE/GE	Periodic	Perform classification and testing of compacted fill materials. Check for proper classifications and gradations at each lift and not less than once for each 10,000ft² of surface area.		
Placement and compaction		Continuous	Verify proper materials, densities and lift thicknesses during placement and compaction.		
Subgrade preparation	PE/GE	Periodic	Verify that subgrade has been appropriately prepared prior to placing compacted fill.		
Density		Continuous	Test density of each lift by nuclear methods (ASTM D2922).		
CAST-IN-PLACE DEEP FOUNDATIONS			(IBC 1705.8)		
Drilling operation	PE/GE	Continuous	Observe drilling operations and maintain complete and accurate records for each element.		
Drilling operation	PE/GE	Continuous	Verify placement locations & plumbness, confirm element diameters, lengths, embedment and adequate end-bearing capacity. Record concrete or grout volumes.		
Additional inspections	PE/GE	Continuous	Concrete per IBC 1705.3		

STEEL SPECIAL INSPECTION (IBC 1705.2, 1705.12.3 & 1705.13.1)

ITEM	REQUIRED QUALIFICATIONS	FREQUENCY	DETAILED INSTRUCTIONS	PERIODIC TEST OR INSPECTION FREQUENCY	Infrequent
FABRICATORS			(IBC 1704.2.5 & 1705.11)		
In-plant Inspection	AWS/AISC-SSI ICC-SWSI		Required unless Fabricator is approved and follows procedures of 1704.2.5.1		
PRIOR TO WELDING			(TABLE N5.4-1, AISC 360-16)		
Verify welding procedures (WPS) and consumable certificates	AWS-CWI ASNT	Continuous			
Material identification	AWS-CWI ASNT	Periodic	Verify type and grade of material.		
Welder identification	AWS-CWI ASNT	Periodic	A system shall be maintained by which a welder who has welded a joint or member can be identified.		
Fit-up groove welds	AWS-CWI ASNT	Periodic	Verify joint preparation, dimensions, cleanliness, tacking, and backing.		
Fit-up CJP groove welds of HSS joints without backing	AWS-CWI ASNT	Periodic	Verify joint preparation, dimensions, cleanliness, and tacking		
Access holes	AWS-CWI ASNT	Periodic	Verify configuration and finish.		
Fit-up of fillet welds	AWS-CWI ASNT	Periodic	Verify alignment, gaps at root, cleanliness of steel surfaces, and tack weld quality and location.		
DURING WELDING			(TABLE N5.4-2, AISC 360-16)		
Use of qualified welders	AWS-CWI ASNT	Periodic	Verify that welders are appropriately qualified.		
Control and handling of welding consumables	AWS-CWI ASNT	Periodic	Verify packaging and exposure control.		
Cracked tack welds	AWS-CWI ASNT	Periodic	Verify that welding does not occur over cracked tack welds.		
Environmental conditions	AWS-CWI ASNT	Periodic	Verify wind speed is within limits as well as precipitation and temperature.		
WPS followed	AWS-CWI ASNT	Periodic	Verify items such as settings on welding equipment, travel speed, welding materials, shielding gas type/flow rate, preheat applied, interpass temperature maintained, and proper position.		
Welding techniques	AWS-CWI ASNT	Periodic	Verify interpass and final cleaning, each pass is within profile limitations, and quality of each pass.		
AFTER WELDING			(TABLE N5.4-3, AISC 360-10)		
Welds cleaned	AWS-CWI ASNT	Periodic	Verify that welds have been properly cleaned.		
Size, length, and location of welds	AWS-CWI ASNT	Continuous			
Welds meet visual acceptance criteria	AWS-CWI ASNT	Continuous			
Arc strikes	AWS-CWI ASNT	Continuous			
Weld access holes in heavy shapes	AWS-CWI ASNT	Continuous			
Repair activities	AWS-CWI ASNT	Continuous			
Document acceptance or rejection of welded joint/member	AWS-CWI ASNT	Continuous			
NONDESTRUCTIVE TESTING			(SECTION N5.5, AISC 360-10)		
CJP welds (Risk Cat. II)	AWS-CWI ASNT	Periodic	Ultrasonic testing shall be performed on 100% of CJP groove welds in butt, T- and corner joints subject to transversely applied tension loading in materials 5/16-inch thick or greater. Testing rate must be increased if > 5% of welds tested have unacceptable defects.		
Access holes (flange > 2")	AWS-CWI ASNT	Continuous			Yes
Welded joints subject to fatigue	AWS-CWI ASNT	Continuous			
PRIOR TO BOLTING			(TABLE N5.6-1, AISC 360-10)		
- Not required if only snug-tight joints are specified per Section N5.6(1) of AISC 360-10.					
Certifications of fasteners	AWS/AISC-SSI ICC-SWSI	Continuous			
Fasteners marked	AWS/AISC-SSI ICC-SWSI	Periodic	Verify that fasteners have been marked in accordance with ASTM requirements.		
Proper fasteners for joint	AWS/AISC-SSI ICC-SWSI	Periodic	Verify grade, type, and bolt length if threads are excluded from the shear plane.		
Proper bolting procedure	AWS/AISC-SSI ICC-SWSI	Periodic	Verify proper procedure is used for the joint detail.		
Connecting elements	AWS/AISC-SSI ICC-SWSI	Periodic	Verify appropriate faying surface condition and hole preparation, if specified, meet requirements.		
Pre-installation verification testing	AWS/AISC-SSI ICC-SWSI	Periodic	Observe and document verification testing by installation personnel for fastener assemblies and methods used.		
Proper storage	AWS/AISC-SSI ICC-SWSI	Periodic	Verify proper storage of bolts, nuts, washers, and other fastener components.		
DURING BOLTING			(TABLE N5.6-2, AISC 360-16)		
- Not required if only snug-tight joints are specified per Section N5.6(1) of AISC 360-16.					
- Not required for pretensioned joints using turn-of-the-nut method with match-marking, direct-tension-indicators, or twist-off type tension control method per Section N5.6(2) of AISC 360-16.					
Fastener assemblies	AWS/AISC-SSI ICC-SWSI	Periodic	Verify that fastener assemblies are of suitable condition, paced in all holes, and washers are positioned as required.		
Snug-tight prior to pretensioning	AWS/AISC-SSI ICC-SWSI	Periodic	Verify that joints are brought to snug-tight condition prior to pretensioning operation.		
Fastener component	AWS/AISC-SSI ICC-SWSI	Periodic	Verify that fastener component is not turned by wrench prevented from rotating.		
Pretensioned fasteners	AWS/AISC-SSI ICC-SWSI	Periodic	Verify that fasteners are Pretensioned in accordance with RCSC Specification, progressing systematically from the most rigid point toward the free edges.		
AFTER BOLTING			(TABLE N5.6-3, AISC 360-16)		
Document acceptance or rejection of bolted connections	AWS/AISC-SSI ICC-SWSI	Continuous			
OTHER STEEL INSPECTIONS			(SECTION N5.7, AISC 360-16; Tables J8-1 & J10-1, AISC 341-16)		
Structural steel details	PE/SE	Periodic	All fabricated steel or steel frames shall be inspected to verify compliance with the details shown in the construction documents, such as braces, stiffeners, member locations, and proper application of joint details at each connection.		
Anchor rods and other embedments supporting structural steel	ACI-CCI	Periodic	Shall be on the premises during the placement of anchor rods and other embedments supporting structural steel for compliance with construction documents. Verify the diameter, grade, type, and length of the anchor rod or embedded item, and the extent or depth of embedment prior to placement of concrete.		

MASONRY SPECIAL INSPECTION (IBC 1705.4)

ITEM	REQUIRED QUALIFICATIONS	FREQUENCY	DETAILED INSTRUCTIONS	PERIODIC TEST OR INSPECTION FREQUENCY	MAS Infrequent
PRIOR TO CONSTRUCTION			(TABLE 3, TMS-602/ACI530.1-16)		
Review material certificates, mix designs, test results and construction procedures	PE	Periodic	Verify that materials conform to the requirements of the approved construction documents. Mix design, test results, material certificates, and construction procedures should be submitted for review. Mortar mix designs shall conform to ASTM C 270 while grout shall conform to ASTM C 476. Material certificates shall be provided for the following: reinforcement; anchors, ties, fasteners, and metal accessories; masonry units; mortar and grout materials. Construction procedures for cold-weather or hot-weather construction shall be reviewed.		
AS CONSTRUCTION BEGINS			(TABLE 4, TMS-602/ACI530-16)		
Proportions of site-prepared mortar	ICC-SMSI	Periodic	Verify that mortar is of the type and color specified on the construction documents, that it conforms to ASTM C 270, and that it is mixed in accordance with Article 2.6 A of TMS-602.		
Grade, type, and size of reinforcement connectors, anchor bolts, and prestressing tendons and anchorages	ICC-SMSI	Periodic	Verify that reinforcement is placed in accordance with Article 3.4 of TMS 602. Prestressing tendons shall be placed per Article 3.6 A.		
Sample panel construction	ICC-SMSI	Periodic	Construct sample panels of masonry walls that complies with Article 1.6D of TMS-602		
PRIOR TO GROUTING			(TABLE 4, TMS-602/ACI530-16)		
Grout space	ICC-SMSI	Periodic	Verify that grout space is free of mortar droppings, debris, loose aggregate, and other deleterious materials and that cleanouts are provided per Article 3.2 D and 3.2 F of TMS-602.		
Placement of reinforcement, connectors, and prestressing tendons and anchorages	ICC-SMSI	Periodic	Verify that reinforcement, joint reinforcement, wall ties, anchor bolts and veneer anchors are installed in accordance with the approved construction documents and Articles 3.2 E, 3.4, and 3.6 A of TMS 602.		
DURING MASONRY CONSTRUCTION			(TABLE 4, TMS-602/ACI530-16)		
Size and location of structural elements	ICC-SMSI	Periodic	Verify the locations of structural elements with respect to the approved plans and confirm that tolerances meet the requirements of Article 3.3 F of TMS 602.		
Materials and procedures with the approved submittals	ICC-SMSI	Periodic	Verify materials and construction procedures are in accordance with approved submittals per Article 1.5 of TMS-602		
Placement of masonry units and mortar joint construction	ICC-SMSI	Periodic	Verify placement of masonry units and mortar joints are in accordance with Article 3/3B of TMS-602		
Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction	ICC-SMSI	Periodic	Verify that correct anchorages and connections are provided per the approved plans and Sections 1.16.4.3 and 1.17.1 of TMS 402		
Welding of reinforcement	ICC-SMSI AWS-CWI	Continuous			
Preparation, construction, and protection of masonry during cold weather (<40°F) or hot weather (>90°F).	ICC-SMSI	Periodic	Verify that cold-weather construction is performed in accordance with Article 1.8 C of TMS 602 and hot weather construction per Article 1.8 D of TMS 602.		
Application and measurement of prestressing force	ICC-SMSI	Continuous			Yes
Placement of grout is in compliance	ICC-SMSI	Continuous	TMS 602 Article 3.5		
Construction of mortar joints	ICC-SMSI	Periodic	Verify that mortar joints are placed in accordance with Article 3.3 B of TMS 602.		No

CONCRETE SPECIAL INSPECTION (IBC 1705.3 & 1705.12.1)

ITEM	REQUIRED QUALIFICATIONS	FREQUENCY	DETAILED INSTRUCTIONS	PERIODIC TEST OR INSPECTION FREQUENCY	CONC Infrequent
Reinforcing steel	ACI-CCI ICC-RCSI	Periodic	Verify prior to placing concrete that reinforcing is of specified type, grade and size; that it is free of oil, dirt and rust; that it is located and spaced properly; that hooks, bends, ties, stirrups and supplemental reinforcement are placed correctly; that lap lengths, stagger and offsets are provided; and that all mechanical connections are installed per the manufacturer's instructions and/or evaluation report.		
Welding of reinforcing steel	AWS-CWI	Periodic	Visually inspect all welds and also verify weldability of reinforcing steel based upon carbon equivalent and in accordance with AWS D1.4.		
Cast-in bolts & embeds	ACI-CCI ICC-RCSI	Periodic	Inspection of anchors or embeds cast in concrete is required when allowable loads have been increased or where strength design is used.		
Post-installed anchors or dowels	ACI-CCI ICC-RCSI	Periodic	All post-installed anchors/dowels shall be specially inspected as required by the approved ICC-ES report. Horizontally or upwardly inclined anchors that resist sustained tension loads require continuous inspection and approved installers.		
Use of required mix design	ACI-CCI ICC-RCSI	Periodic	Verify that all mixes used comply with the approved construction documents; ACI 318: Ch. 19, 26.4.3, 26.4.4; and IBC 1904.1, 1904.2, 1908.2, 1908.3.		
Concrete sampling for strength tests, slump, air content, and temperature	ACI-CFTT ACI-SIT	Continuous			
Concrete & shotcrete placement	ACI-CCI ICC-RCSI	Continuous			No
Curing temperature and techniques	ACI-CCI ICC-RCSI	Periodic	Verify that the ambient temperature for concrete is kept at > 50°F for at least 7 days after placement. High-early-strength concrete shall be kept at > 50°F for at least 3 days. Accelerated curing methods may be used (see ACI 318: 26.4.7-26.4.9). The ambient temperature for shotcrete shall be > 40°F for the same period of time as noted for concrete. Shotcrete shall be kept continuously moist for at least 24 hours after shotcreting. All concrete materials, reinforcement, forms, fillers, and ground shall be free from frost. In hot weather conditions ensure that appropriate measures are taken to avoid plastic shrinkage cracking and that the specified water/cement ratio is not exceeded.		
Strength verification	ACI-SIT	Periodic	Verify that adequate strength has been achieved prior to the removal of shores and forms or the stressing of post-tensioned tendons.		
Formwork		Periodic	Verify that the forms are placed plumb and conform to the shapes, lines, and dimensions of the members as required by the approved construction documents.		

WOOD SPECIAL INSPECTION (IBC 1705.5)

ITEM	REQUIRED QUALIFICATIONS	FREQUENCY	DETAILED INSTRUCTIONS	PERIODIC TEST OR INSPECTION FREQUENCY	WOOD Infrequent
Fabricator Certification/Quality Control Procedures		Periodic	Inspect shop fabrication process and quality control procedures of wood structural elements and assemblies in accordance with Section 1704.2.5.		
Material Grading		Periodic	Verify grade or certificate of inspection of sawn lumber.		
Connections		Periodic	Inspection of wood / wood connection of elements.		
Lateral Connections		Continuous	Inspection of lateral connections (e.g. hold downs and straps).		
Framing Details		Continuous	Verify that framing details comply with construction documents or approved submittals.		
Roof and Floor Diaphragm Systems			(IBC 1705.12.1 & 1705.13.2)		Yes
Member Size and Connection		Periodic	Verify thickness and grade of sheathing, size of framing members at panel edges, nail/staple diameters and length, and the number of fastener lines and fastener spacing per approved plans.		No
Field Gluing		Continuous	Inspection during field gluing of elements of the main wind force resisting system.		Yes
Field Fastening		Periodic	Inspection during field nailing, bolting, anchoring and other fastening of wood diaphragms where sheathing fastener spacing is 4" or less.		Yes
Collectors, Drag Struts and Boundary Elements		Periodic	Inspection of collectors, drag struts and boundary elements.		Yes
Vertical Wind-Force-Resisting Systems, including Walls			(IBC 1705.12.1 & 1705.13.2)		Yes
Member Size and Connection		Periodic	Verify thickness and grade of sheathing, size of framing members at panel edges, nail/staple diameters and length, and the number of fastener lines and fastener spacing per approved plans.		No
Field Fastening		Periodic	Inspection during field nailing, bolting, anchoring and other fastening of wood shear walls where sheathing fastener spacing is 4" or less.		Yes
Hold-downs		Periodic	Inspection of nailing, bolting, anchoring and other fastening of hold-downs.		Yes

STATEMENT OF SPECIAL INSPECTIONS

This *Statement of Special Inspections* is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Special Inspection Coordinator and the identity of other approved agencies to be retained for conducting these inspections and tests. This *Statement of Special Inspections* encompass the following disciplines: Structural

The Special Inspection Coordinator shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Registered Design Professional in Responsible Charge. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

Interim reports shall be submitted to the Building Official and the Registered Design Professional in Responsible Charge. Interim Report Frequency: Within 48 hours of inspection, unless indicated otherwise.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided if requested.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the *Agency Number* on the Schedule.

PE/SE Structural Engineer – a licensed SE or PE specializing in the design of building structures
PE/GE Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations
EIT Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

American Concrete Institute (ACI) Certification
ACI-CFTT Concrete Field Testing Technician – Grade 1
ACI-CCI Concrete Construction Inspector
ACI-LTT Laboratory Testing Technician – Grade 1 & 2
ACI-STT Strength Testing Technician

American Welding Society (AWS) Certification
AWS-CWICertified Welding Inspector
AWS/AISC-SSICertified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification
ASNT Non-Destructive Testing Technician – Level II or III

International Code Council (ICC) Certification
ICC-SMSIStructural Masonry Special Inspector
ICC-SWSI Structural Steel and Welding Special Inspector
ICC-SFSI Spray-Applied Fireproofing Special Inspector
ICC-PCSI Prestressed Concrete Special Inspector
ICC-RCSI Reinforced Concrete Special Inspector

National Institute for Certification in Engineering Technologies (NICET)
NICET-CT Concrete Technician – Levels I, II, III & IV
NICET-ST Soils Technician - Levels I, II, III & IV
NICET-GET Geotechnical Engineering Technician - Levels I, II, III & IV

Exterior Design Institute (EDI) Certification
EDI-EIFS EIFS Third Party Inspector

Quality Assurance Plans

Quality Assurance for Seismic Resistance
Seismic Design Category: C
Quality Assurance Plan Required: Yes

Quality Assurance for Wind Requirements
Basic Wind Speed V_{asd} (3 second gust): 90 mph
Basic Wind Speed V_{ult} (3 second gust): 115 mph
Wind Exposure Category: C
Quality Assurance Plan Required: Yes

Description of wind force resisting system and designated wind resisting components:
- wall connections to roof and floor diaphragms and framing
- roof and floor diaphragm systems, including collectors, drag struts and boundary elements
- vertical wind-force-resisting systems, including braced frames, moment frames and shear walls
- wind-force-resisting system connections to the foundation.

Statement of Responsibility
Each contractor responsible for the construction or fabrication of a system or component designated above must submit a Statement of Responsibility.

Prepared by:

MARK E. SORENSON, P.E. _____
EOR NAME / Signature Date

Owner's Authorization:

_____ _____
Signature Date

Building Official's Acceptance:

_____ _____
Signature Date

SCHEDULE OF INSPECTION AND TESTING AGENCIES

SPECIAL INSPECTION AGENCIES	FIRM	ADDRESS, TELEPHONE, E-MAIL
Special Inspection Coordinator	TBD	
Inspector	TBD	
Inspector	TBD	
Testing Agency	TBD	
Testing Agency	TBD	
Continuous	TBD	
Other	TBD	

Structural Observations
The following structural observations will be made to visually observe representative locations of structural systems, details, and load paths for general conformance to the approved construction documents. The Contractor shall notify the Engineer a minimum of 5 working days before work is ready to be observed to allow scheduling of site visit.

1. FOUNDATIONS
   A. Drilled piers: Observation of reinforcement and concrete placement near the start of operation.
   B. Grade Beams: Observation of layout and reinforcement placement near the start of operation.
   C. Foundation Walls: Observation of layout and reinforcement placement near the start of operation.
2. CONCRETE
   A. Walls: Observation of reinforcement placement near the start of operation.
   B. Columns: Observation of reinforcement placement near the start of operation.
   C. Elevated Floors: Observation of layout and reinforcement placement prior to the first slab placement.
3. STEEL FRAMING
   A. Braced Frames: Observation of connections near midpoint of steel erection and prior to cover by finishes.
4. WOOD FRAMING
   A. Shear Walls: Observation of framing members, hold downs, straps, sheathing attachment, and connection details near the start of construction and prior to cover by finishes.
   B. Collector Elements: Drag and chord members designated on the drawings prior to cover by finishes.

COLORADO LICENSED STRUCTURAL ENGINEER 37936 3-25-24 PROFESSIONAL ENGINEER

REVIEWED FOR CODE COMPLIANCE 04/01/2025

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www.jvajva.com
Boulder ● Fort Collins ● Winter Park
Glenwood Springs ● Denver
JVA #22025

REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

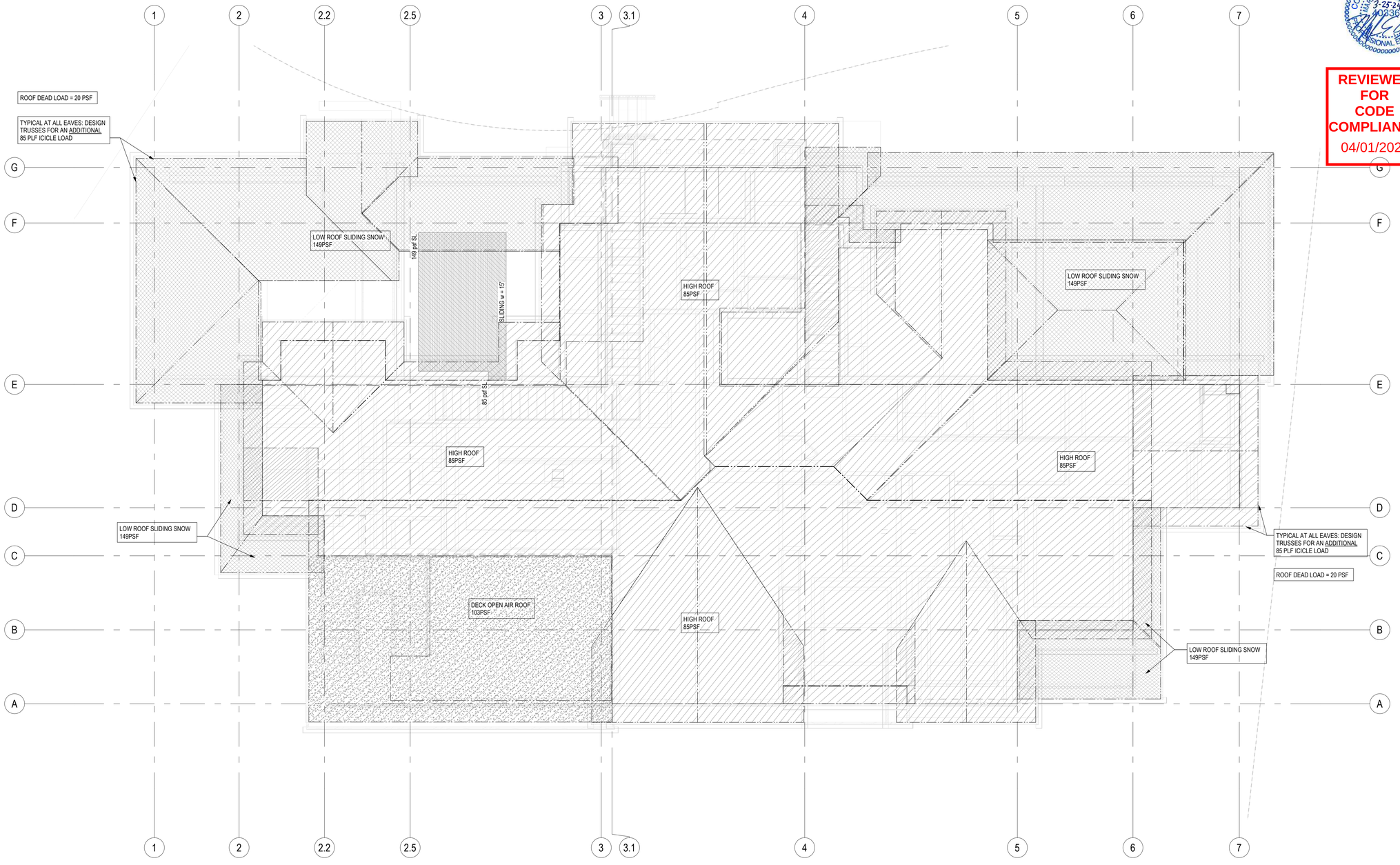
ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
(303) 442-5456, (303) 442-4745 FAX

Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

Project Phase
PERMIT

Sheet Title
IBC STATEMENT OF SPECIAL INSPECTION

Sheet Number
S004

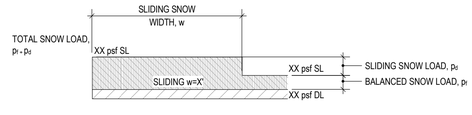


SNOW LOAD ROOF PLAN

NORTH

3/16" = 1'-0"

0 2' 4' 8' 12'



SLIDING SNOW KEY

COLORADO LICENSED
ERIC M. SMITH
3-25-24
40336
PROFESSIONAL ENGINEER

REVIEWED FOR CODE COMPLIANCE
04/01/2025

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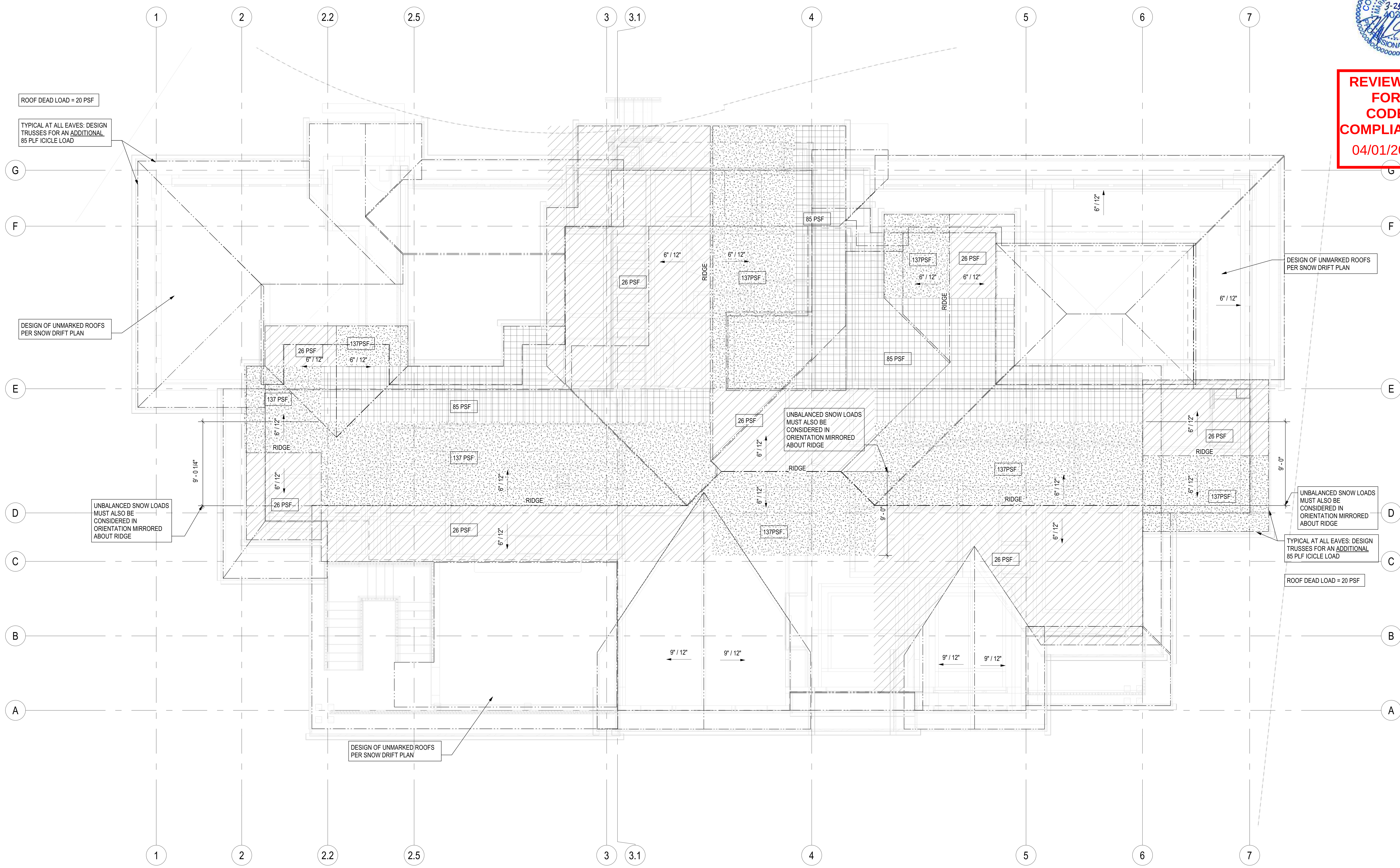
Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

Project Phase
PERMIT

Sheet Title
SNOW LOAD ROOF PLAN

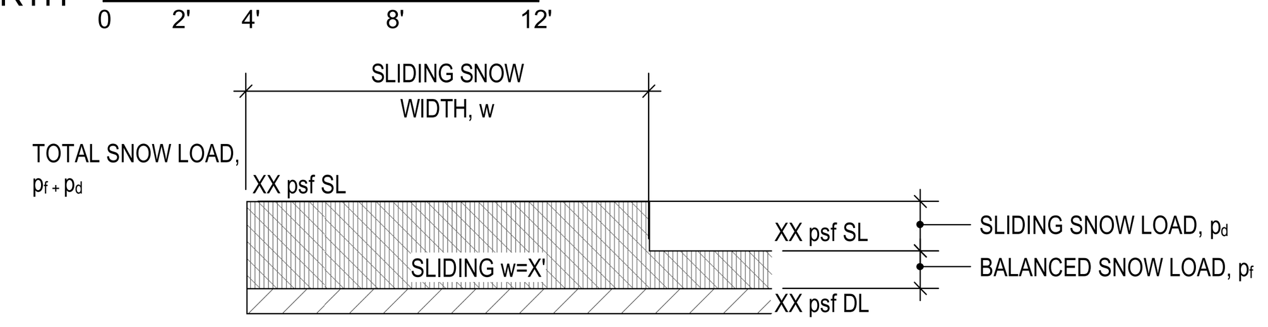
Sheet Number
S005



UNBALANCED SNOW LOAD ROOF PLAN

3/16" = 1'-0"

NORTH



SLIDING SNOW KEY

3/25/2024 5:50:41 PM THE ASTRID CONDO B7 v22

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04/01/2025

COLORADO LICENSED PROFESSIONAL ENGINEER — MARK E. SORENSON — 40236 — 3-25-24

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NOTICE: DUTY OF COOPERATION

Release of these plans contemplates further cooperation among the owner, his contractor and the architect. Design and construction are complex. Although the architect and his consultants have performed their services with due care and diligence, they cannot guarantee perfection. Communication is imperfect and every contingency cannot be anticipated. Any ambiguity or discrepancy discovered by the use of these plans shall be reported immediately to the architect. Failure to notify the architect compounds misunderstanding and increases construction costs. A failure to cooperate by a simple notice to the architect shall relieve the architect from responsibility for the consequences. Changes made from the plans without consent of the architect are unauthorized and shall relieve the architect of responsibility for all consequences arriving out of such changes.

REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

ERIC SMITH ASSOCIATES, P.C.
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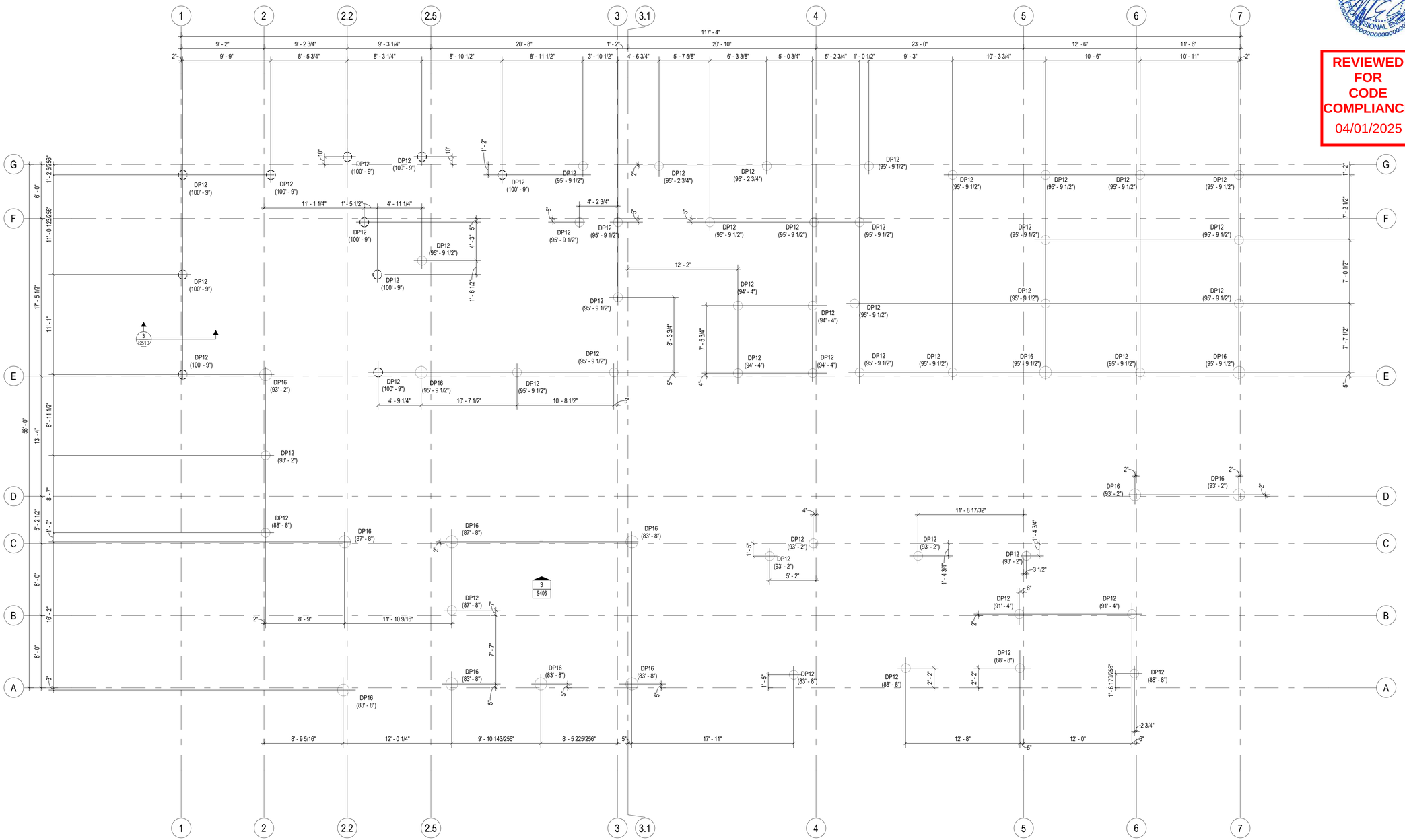
(303) 442-5458, (303) 442-4745 FAX

Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

Project Phase
PERMIT

Sheet Title
UNBALANCED SNOW LOAD ROOF PLAN

Sheet Number
S006



DRILLED PIER PLAN

3/16" = 1'-0"

NORTH

0 2' 4' 8' 12'

- USGS ELEVATION 7038.875' = 100'-0, TOP OF LOWER LEVEL SLAB NOTED THUS: XXX-X

DRILLED PIER NOTES:
12"Ø (DP12), AND 16"Ø (DP16) REINFORCED CONCRETE PIERS AS NOTED ON PLAN; SEE 4/S500 FOR REINFORCING, PIER LENGTH AND BEDROCK PENETRATION INFO; UNLESS NOTED OTHERWISE CENTER PIERS UNDER FOUNDATION WALLS, PILASTERS, PEDESTALS, WALL CORNERS AND BUILDING COLUMNS; TOP OF PIER ELEVATION = (XXX'-X) AT PERIMETER WALLS/PILASTERS AND (XXX'-X) AT ISOLATED COLUMNS UNLESS NOTED (XXX'-X) ON PLAN.

PIER SCHEDULE					
MARK	DIAMETER	PENETRATION INTO BEDROCK (MINIMUM)	MINIMUM PIER LENGTH	REINFORCING	TIES
DP12	1' - 0"	6' - 0"	15' - 0"	(3) #6	#4@12"
DP16	1' - 4"	6' - 0"	15' - 0"	(5) #6	#4@12"

COLORADO LICENSED
ELAINE S. SORENSEN
40336
3-25-24
PROFESSIONAL ENGINEER

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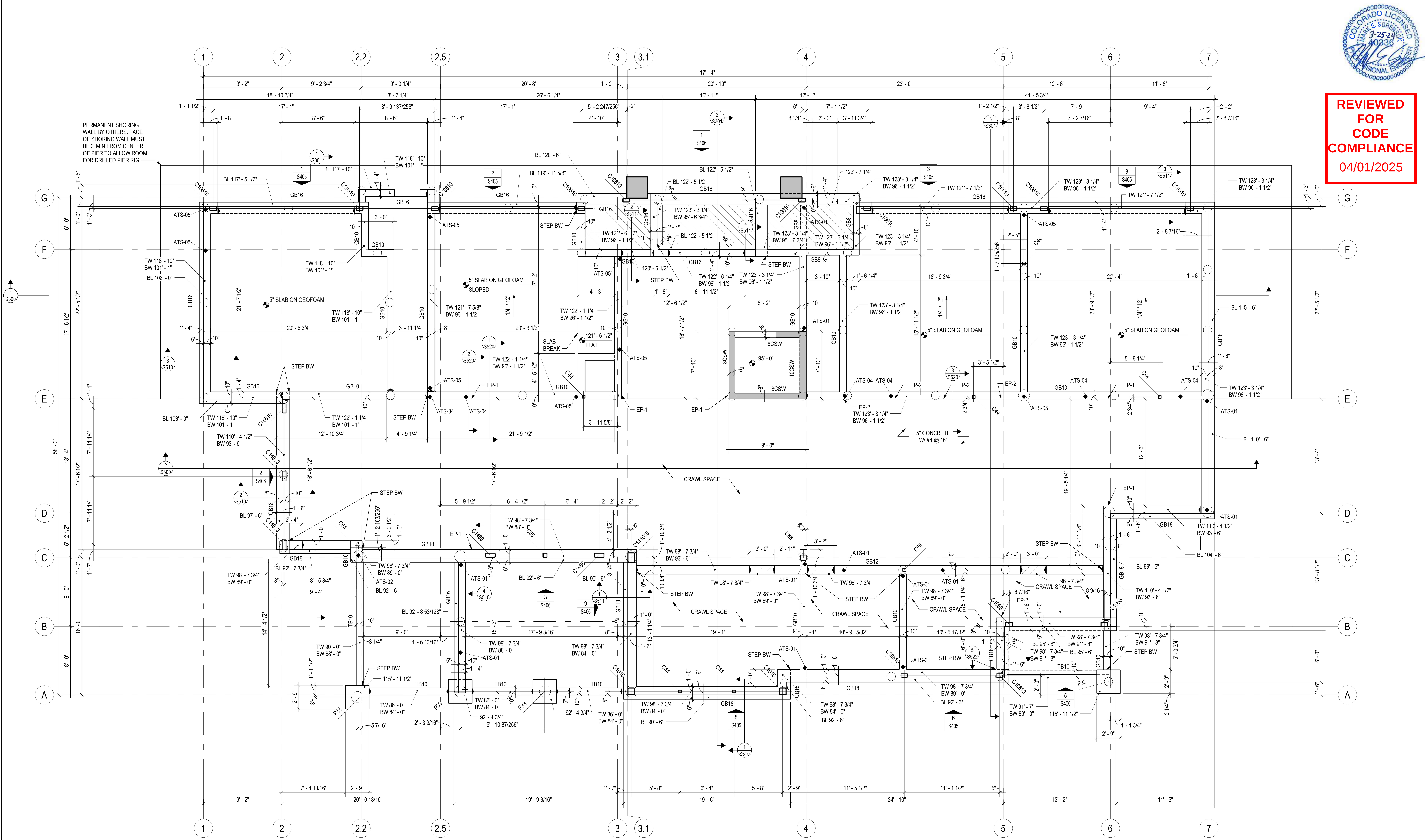
Project Phase
PERMIT

Sheet Title
DRILLED PIER PLAN

Sheet Number
S100P



PERMIT SET NOT FOR CONSTRUCTION

FOUNDATION/ CRAWLSPACE PLAN

3/16" = 1'-0"

NORTH

0 2' 4' 8' 12'

- USGS ELEVATION 7038.875' = 100'-0, TOP OF LOWER LEVEL SLAB NOTED THUS: XXX'-X
- TOP OF CONCRETE GRADE BEAM ELEVATION NOTED THUS: TW XXX'-X
- LOCATION OF STEP IN BOTTOM OF GRADE BEAM PER 8/S502 NOTED THUS: STEP BW
- CONCRETE TOP OF WALL STEP NOTED THUS: " ▶ "
- STEEL COLUMNS AT THIS LEVEL ARE ABOVE

TYPICAL INTERIOR SLAB ON GEOFOAM:
5" THICK (MIN) CONCRETE SLAB ON EPS-22 GEOFOAM FILL PER SOILS REPORT; REINFORCE SLAB W/ #4 @ 16", EA WAY, AT MID-DEPTH; ADD (2) #4 x 5'-0 DIAGONAL BARS AT MID-DEPTH OF SLAB AT ALL RE-ENTRANT CORNERS. PROVIDE SAWCUT OR FORMED CONTROL JOINTS, PER 3/S500, @ 12'-0± IN EACH DIRECTION. JOINTS SHALL BE CONTINUOUS, NOT STAGGERED OR OFFSET. ASPECT RATIO SHALL BE A MAXIMUM OF 1.5 TO 1.

INDICATES 6" CONCRETE STRUCTURAL SLAB ON 4" VOID W/ #5 @ 12" EACH WAY, CENTERED.

◆ INDICATES LOCATION OF HOLDOWNS, SEE SHEAR WALL PLANS & HOLDOWN SCHEDULE FOR MORE INFORMATION

FOUNDATION SCHEDULE

MARK	WIDTH	HORIZ REINF	VERT REINF	TOP BARS	BOTTOM BARS	REMARKS
	18"	#5 @ 12" EA FACE	#5 @ 18" EA FACE	(2) #5	(2) #5	
8CSW	8"	#5 @ 18"	#5 @ 18"	(2) #5	(2) #5	
10CSW	10"	#5 @ 16"	#5 @ 18"	(2) #5	(2) #5	
GB8	8"	#5 @ 18"	#5 @ 18"	(2) #5	(2) #5	
GB10	10"	#5 @ 16"	#5 @ 18"	(2) #5	(2) #5	
GB12	12"	#5 @ 18" EA FACE	#5 @ 18" EA FACE	(2) #5	(2) #5	
GB16	16"	#5 @ 12" EA FACE	#5 @ 18" EA FACE	(2) #5	(2) #5	GB10 ABOVE BRICK LEDGE
GB18	18"	#5 @ 12" EA FACE	#5 @ 18" EA FACE	(2) #5	(2) #5	GB12 ABOVE BRICK LEDGE
TB10	10"	N/A	N/A	(2) #5	(2) #5	TIE-BEAM

STEEL EMBED PLATE SCHEDULE

EMBED PLATE		HEADED ANCHOR STUDS			
TYPE	T x W x L	HAS	N ROWS	N COLS	BEAM SIZE UNO
EP-1	PL3/4"x1'-0"x1'-0"	(4) 3/4"Ø x 6"	2	2	W8, W10, W12
EP-2	PL3/4"x1'-0"x1'-6"	(6) 3/4"Ø x 6"	3	2	W14, W16, W18
EP-3	PL3/4"x1'-0"x1'-9"	(8) 3/4"Ø x 6"	4	2	W21
EP-4	PL3/4"x1'-0"x2'-0"	(10) 3/4"Ø x 6"	5	2	W24
EP-5	PL3/4"x1'-0"x2'-3"	(12) 3/4"Ø x 6"	6	2	W27
EP-6	PL3/4"x1'-0"x2'-6"	(14) 3/4"Ø x 6"	7	2	W30

SEE S101 & S102 FOR FOUNDATION EMBED PLATES ON FRAMING PLANS

PILASTER SCHEDULE

MARK	WIDTH	DEPTH	VERTICAL REINF	TIES	TIE TYPE
P30	2' - 6"	2' - 6"	(X) #X VERT	(3) #4 CLOSED TIES @ 3" TOP AND @ 12" BAL	SQUARE
P33	2' - 9"	2' - 9"	(X) #X VERT	(3) #4 CLOSED TIES @ 3" TOP AND @ 12" BAL	SQUARE

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REVISIONS

No.	Description	Date

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Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

Project Phase: PERMIT

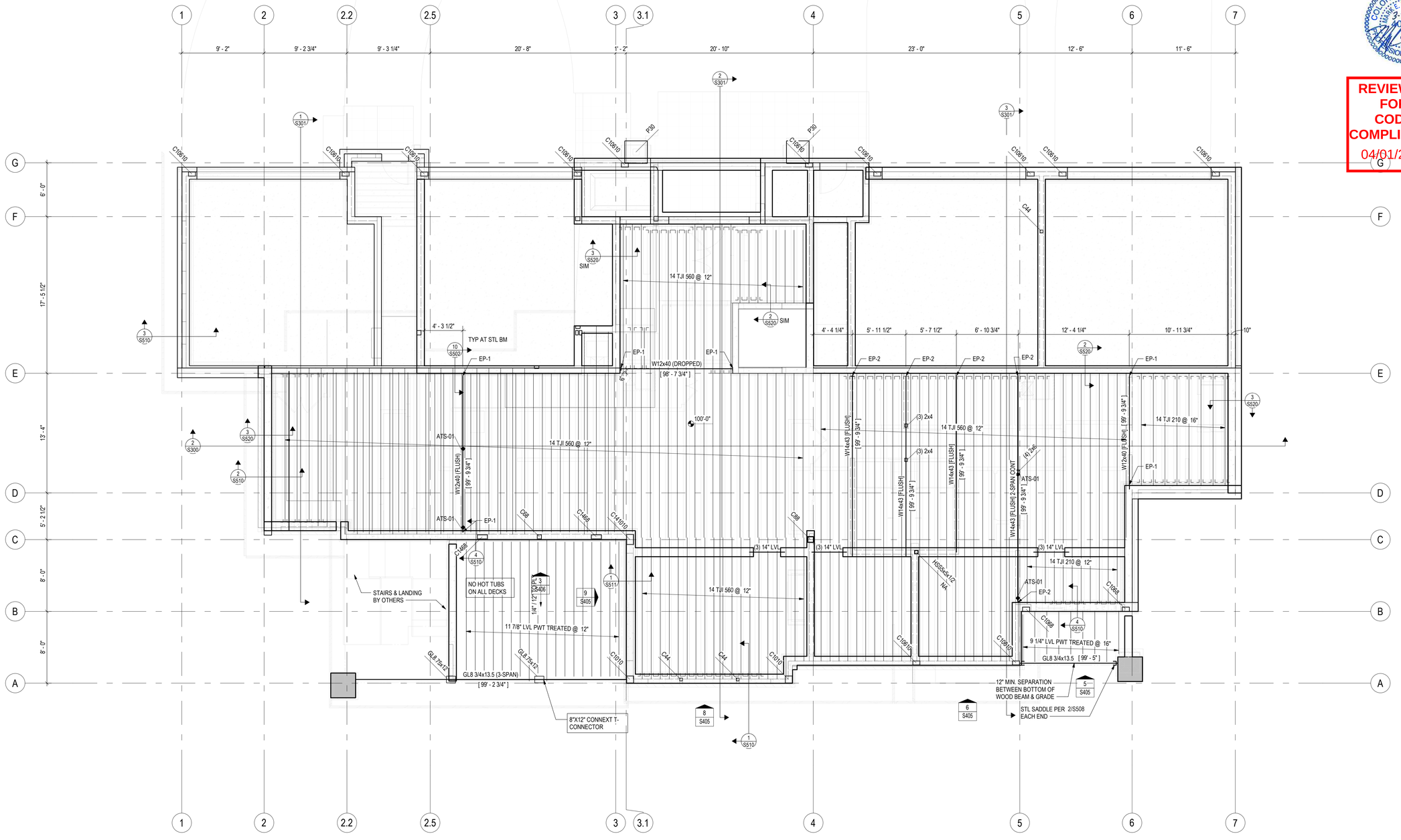
Sheet Title: FOUNDATION/ CRAWLSPACE PLAN

Sheet Number: S100

PERMIT SET NOT FOR CONSTRUCTION

REVIEWED FOR CODE COMPLIANCE
04/01/2025

3-25-24
40236



LOWER LEVEL 1 FLOOR FRAMING PLAN

NORTH
3/16" = 1'-0"
0 2' 4' 8' 12'

- USGS ELEVATION 7038.875' = 100'-0, TOP OF LOWER LEVEL 1 FLOOR SHEATHING
- TOP OF LOWER LEVEL 1 FLOOR SHEATHING = 100'-0 UNLESS NOTED THUS: XXX'-X
- TOP OF PLATE HEIGHT NOTED THUS: TOP PL EL = XXX'-X
- ALL BEAMS ARE FLUSH, UNLESS NOTED OTHERWISE ON PLAN
- ALL HEADERS ARE DROPPED, UNLESS NOTED OTHERWISE ON PLAN
- ALL COLUMNS ON THIS PLAN ARE ABOVE UNLESS MARKED THUS: B
- SEE SYMBOLS KEY ON SHEET S001 FOR BUILDING COLUMN DESIGNATIONS

TYPICAL FLOOR SHEATHING:
3/4" STURD-I-FLOOR, APA RATED 24" O.C. TONGUE & GROOVE SHEATHING GLUED AND NAILED WITH 8d NAILS (0.113"Ø x 2 3/8") @ 6" ALONG PANEL EDGES AND @ 12" ALONG INTERMEDIATE FRAMING MEMBERS. LAY PANELS PERPENDICULAR TO FRAMING MEMBERS AND STAGGER PANEL JOINTS.

TYPICAL EXTERIOR WOOD FRAMED WALLS (UNO):
2x6 STUDS @ 16" SHEATHED WITH 7/16" APA 24/16, EXPOSURE 1 ON EXTERIOR FACE; NAIL WALL SHEATHING WITH 8d (0.113"Ø x 2 3/8") @ 6" AT PANEL EDGES AND @ 12" IN FIELD OF PANEL; BLOCK AND NAIL ALL EDGES BETWEEN STUDS. IF GUN NAILS ARE USED FOR NAILING, NAILS MUST BE AT A MINIMUM THE DIAMETER AND LENGTH NOTED ABOVE.

STEEL EMBED PLATE SCHEDULE

EMBED PLATE		HEADED ANCHOR STUDS			
TYPE	T x W x L	HAS	N ROWS	N COLS	BEAM SIZE UNO
EP-1	PL3/4"x1'-0"x1'-0"	(4) 3/4"Ø x 6"	2	2	W8, W10, W12
EP-2	PL3/4"x1'-0"x1'-6"	(6) 3/4"Ø x 6"	3	2	W14, W16, W18
EP-3	PL3/4"x1'-0"x1'-9"	(8) 3/4"Ø x 6"	4	2	W21
EP-4	PL3/4"x1'-0"x2'-0"	(10) 3/4"Ø x 6"	5	2	W24
EP-5	PL3/4"x1'-0"x2'-3"	(12) 3/4"Ø x 6"	6	2	W27
EP-6	PL3/4"x1'-0"x2'-6"	(14) 3/4"Ø x 6"	7	2	W30

SEE S100 & S102 FOR FOUNDATION EMBED PLATES ON FRAMING PLANS

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NOTICE: DUTY OF COOPERATION

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REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN
FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

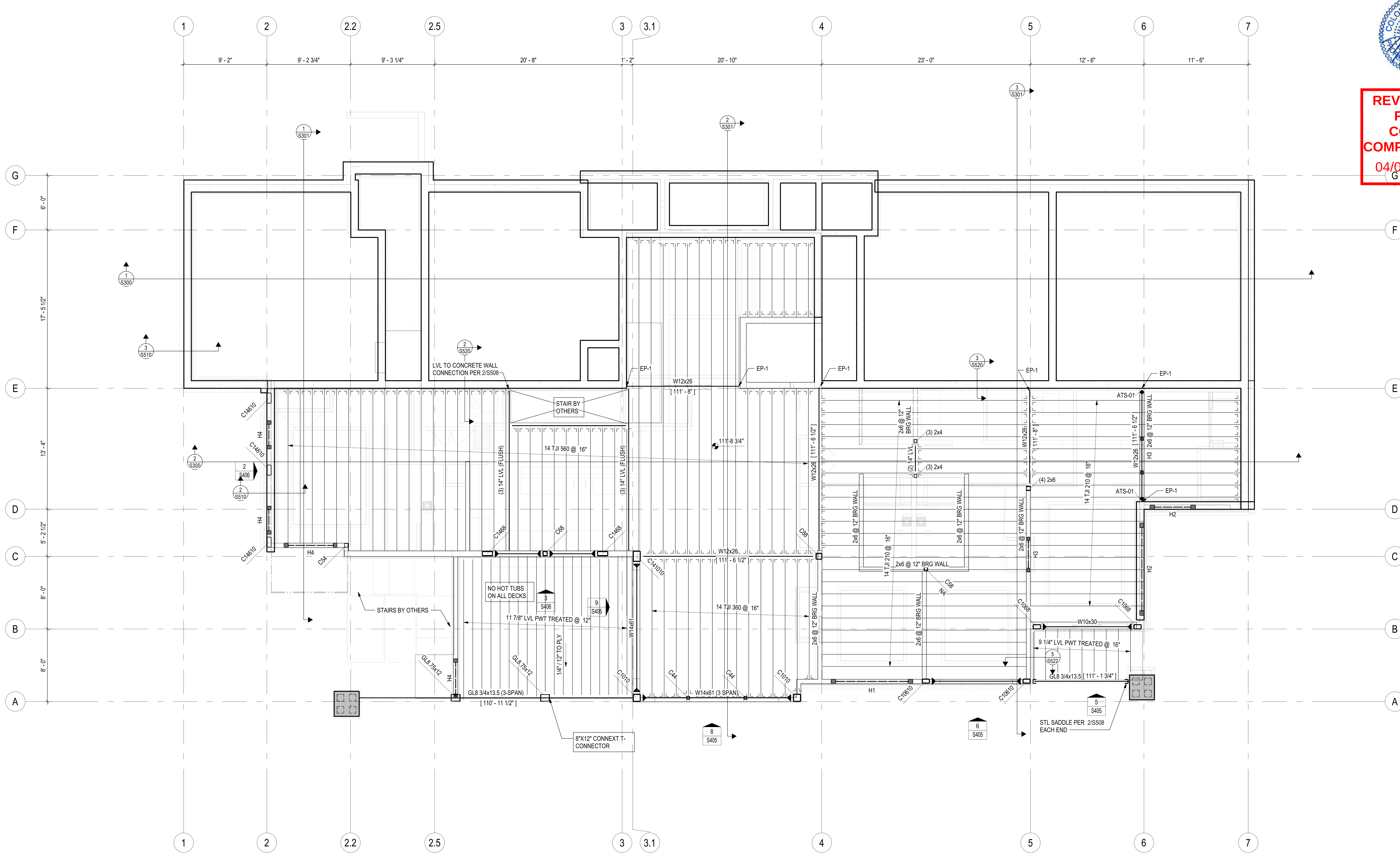
ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
(303) 442-5458, (303) 442-4745 FAX

Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

Project Phase
PERMIT

Sheet Title
LOWER LEVEL 1 FLOOR FRAMING PLAN

Sheet Number
S101



LOWER LEVEL 2 FLOOR FRAMING PLAN

3/16" = 1'-0"

NORTH

0 2' 4' 8' 12'

- USGS ELEVATION 7050.604' = 111'-8 3/4", TOP OF LOWER LEVEL 2 FLOOR SHEATING
- TOP OF LOWER LEVEL 2 FLOOR SHEATHING = 111'-8 3/4 UNLESS NOTED THUS: XXX'-X
- TOP OF PLATE HEIGHT NOTED THUS: TOP PL EL = XXX'-X
- ALL BEAMS ARE FLUSH, UNLESS NOTED OTHERWISE ON PLAN
- ALL HEADERS ARE DROPPED, UNLESS NOTED OTHERWISE ON PLAN
- ALL COLUMNS ON THIS PLAN ARE BELOW UNLESS MARKED THUS:
- SEE SYMBOLS KEY ON SHEET S001 FOR BUILDING COLUMN DESIGNATIONS

TYPICAL FLOOR SHEATHING:
3/4" STURD-I-FLOOR, APA RATED 24" O.C. TONGUE & GROOVE SHEATHING GLUED AND NAILED WITH 8d NAILS (0.113"Ø x 2 3/8") @ 6" ALONG PANEL EDGES AND @ 12" ALONG INTERMEDIATE FRAMING MEMBERS. LAY PANELS PERPENDICULAR TO FRAMING MEMBERS AND STAGGER PANEL JOINTS.

TYPICAL EXTERIOR WOOD FRAMED WALLS (UNO):
2x6 STUDS @ 16" SHEATHED WITH 7/16" APA 24/16, EXPOSURE 1 ON EXTERIOR FACE; NAIL WALL SHEATHING WITH 8d (0.113"Ø x 2 3/8") @ 6" AT PANEL EDGES AND @ 12" IN FIELD OF PANEL; BLOCK AND NAIL ALL EDGES BETWEEN STUDS. IF GUN NAILS ARE USED FOR NAILING, NAILS MUST BE AT A MINIMUM THE DIAMETER AND LENGTH NOTED ABOVE.

STEEL EMBED PLATE SCHEDULE

EMBED PLATE		HEADED ANCHOR STUDS			
TYPE	T x W x L	HAS	N ROWS	N COLS	BEAM SIZE UNO
EP-1	PL3/4"x1'-0"x1'-0"	(4) 3/4"Ø x 6"	2	2	W8, W10, W12
EP-2	PL3/4"x1'-0"x1'-6"	(6) 3/4"Ø x 6"	3	2	W14, W16, W18
EP-3	PL3/4"x1'-0"x1'-9"	(8) 3/4"Ø x 6"	4	2	W21
EP-4	PL3/4"x1'-0"x2'-0"	(10) 3/4"Ø x 6"	5	2	W24
EP-5	PL3/4"x1'-0"x2'-3"	(12) 3/4"Ø x 6"	6	2	W27
EP-6	PL3/4"x1'-0"x2'-6"	(14) 3/4"Ø x 6"	7	2	W30

SEE S100 & S101 FOR FOUNDATION EMBED PLATES ON FRAMING PLANS

HEADER SCHEDULE

MARK	TYPE	# OF KINGS	# OF TRIMS	REMARKS
H1	(3) 11 7/8" LVL	2	2	
H2	(3) 9 1/4" LVL	2	2	
H3	(3) 2x8	2	1	
H4	(3) 2x8	2	1	

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REVIEWED FOR CODE COMPLIANCE 04/01/2025

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JVA #22025

REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

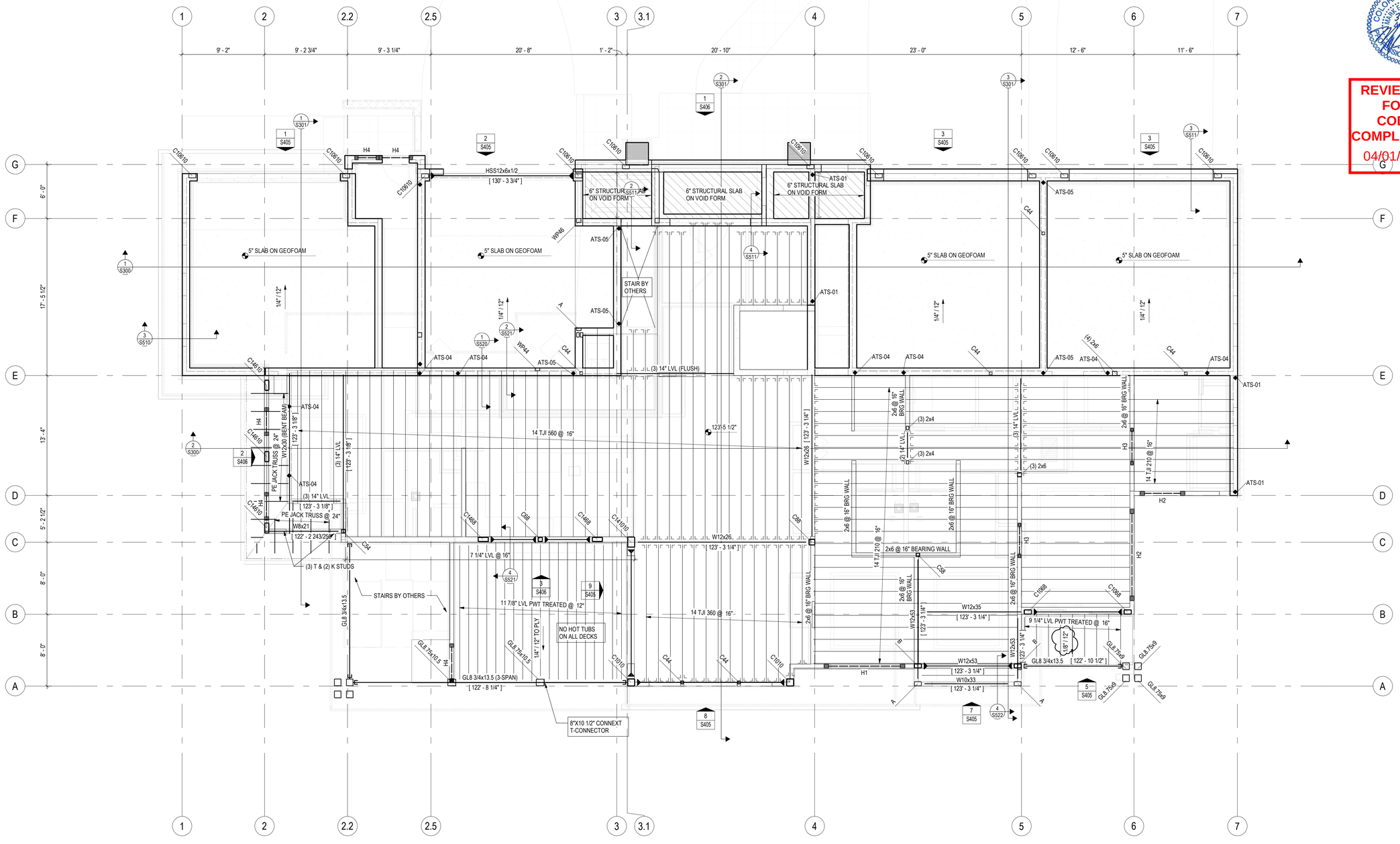
ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
(303) 442-5458, (303) 442-4745 FAX

Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

Project Phase
PERMIT

Sheet Title
LOWER LEVEL 2 FLOOR FRAMING PLAN

Sheet Number
S102



MAIN LEVEL FRAMING PLAN

NORTH

3/16" = 1'-0"

0 2' 4' 8' 12'

- USGS ELEVATION 7062.333' = 123'-5 1/2", TOP OF MAIN LEVEL FLOOR SHEATING
- TOP OF MAIN LEVEL FLOOR SHEATHING = 123'-5 1/2" UNLESS NOTED THUS: XXX'-X
- TOP OF PLATE HEIGHT NOTED THUS: TOP PL EL = XXX'-X
- ALL BEAMS ARE FLUSH, UNLESS NOTED OTHERWISE ON PLAN
- ALL HEADERS ARE DROPPED, UNLESS NOTED OTHERWISE ON PLAN
- ALL COLUMNS ON THIS PLAN ARE BELOW UNLESS MARKED THUS: A
- SEE SYMBOLS KEY ON SHEET S001 FOR BUILDING COLUMN DESIGNATIONS

TYPICAL INTERIOR SLAB ON GRADE:
5" THICK (MIN) CONCRETE SLAB ON EPS-22 GEOFOAM FILL PER SOILS REPORT; REINFORCE SLAB W/ #4 @ 16", EA WAY, AT MID-DEPTH; ADD (2) #4 x 5'-0 DIAGONAL BARS AT MID-DEPTH OF SLAB AT ALL RE-ENTRANT CORNERS. PROVIDE SAWCUT OR FORMED CONTROL JOINTS, PER 3/SS00 , @ 12'-0± IN EACH DIRECTION. JOINTS SHALL BE CONTINUOUS, NOT STAGGERED OR OFFSET. ASPECT RATIO SHALL BE A MAXIMUM OF 1.5 TO 1.

TYPICAL EXTERIOR SLAB ON GRADE:
6" THICK (MIN) CONCRETE SLAB ON UNDISTURBED OR COMPACTED STRUCTURAL FILL PER SOILS REPORT; REINFORCE SLAB W/ #4 @ 16", EA WAY, AT MID-DEPTH; ADD (2) #4 x 5'-0 DIAGONAL BARS AT MID-DEPTH OF SLAB AT ALL RE-ENTRANT CORNERS. PROVIDE SAWCUT OR FORMED CONTROL JOINTS, PER 3/SS00 , @ 12'-0± IN EACH DIRECTION. JOINTS SHALL BE CONTINUOUS, NOT STAGGERED OR OFFSET. ASPECT RATIO SHALL BE A MAXIMUM OF 1.5 TO 1.

TYPICAL FLOOR SHEATHING:
3/4" STURD-I-FLOOR, APA RATED 24" O.C. TONGUE & GROOVE SHEATHING GLUED AND NAILED WITH 8d NAILS (0.113"Ø x 2 3/8") @ 6" ALONG PANEL EDGES AND @ 12" ALONG INTERMEDIATE FRAMING MEMBERS. LAY PANELS PERPENDICULAR TO FRAMING MEMBERS AND STAGGER PANEL JOINTS.

TYPICAL EXTERIOR WOOD FRAMED WALLS (UNO):
2x6 STUDS @ 16" SHEATHED WITH 7/16" APA 24/16, EXPOSURE 1 ON EXTERIOR FACE; NAIL WALL SHEATHING WITH 8d (0.113"Ø x 2 3/8") @ 6" AT PANEL EDGES AND @ 12" IN FIELD OF PANEL; BLOCK AND NAIL ALL EDGES BETWEEN STUDS. IF GUN NAILS ARE USED FOR NAILING, NAILS MUST BE AT A MINIMUM THE DIAMETER AND LENGTH NOTED ABOVE.

TYPICAL ROOF SHEATHING:
23/32" APA 48/24 RATED SHEATHING FASTENED WITH 8d NAILS (0.113"Ø x 2 3/8") @ 6" ALONG PANEL EDGES AND @ 12" ALONG INTERMEDIATE FRAMING MEMBERS. LAY PANELS PERPENDICULAR TO FRAMING MEMBERS AND STAGGER PANEL JOINTS.

INDICATES 6" CONCRETE STRUCTURAL SLAB ON 4" VOID W/ #5 @ 12" EACH WAY, CENTERED.

HEADER SCHEDULE

MARK	TYPE	# OF KINGS	# OF TRIMS	REMARKS
H1	(3) 11 7/8" LVL	2	2	
H2	(3) 9 1/4" LVL	2	2	
H3	(3) 2x8	2	1	
H4	(3) 2x8	2	1	

REVIEWED FOR CODE COMPLIANCE 04/01/2025

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COLORADO LICENSED ERIC S. SMITH 40336 PROFESSIONAL ENGINEER 3-25-24

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JVA #22025

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REVISIONS

No.	Description	Date
1	Revision 1	Date 1

EDGEMONT/SHERMAN FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
(303) 442-5458, (303) 442-4745 FAX

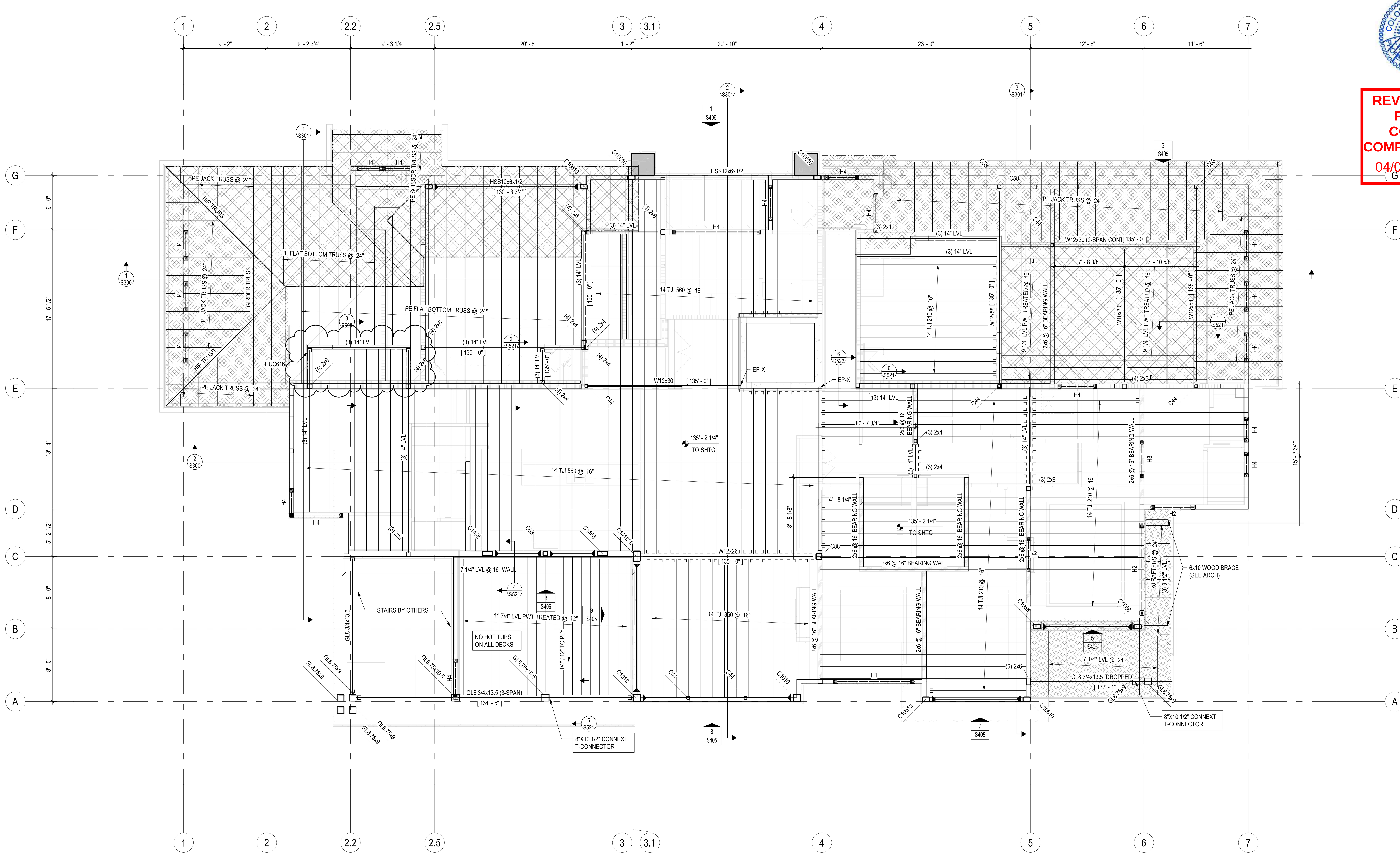
Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

Project Phase
PERMIT

Sheet Title
MAIN LEVEL FRAMING PLAN

Sheet Number
S103

3/25/2024 5:50:58 PM THE ASTRID CONDO BT \22



UPPER LEVEL FRAMING PLAN

3/16" = 1'-0"

NORTH

0 2' 4' 8' 12'

- USGS ELEVATION 7074.063' = 135'-2 1/4", TOP OF UPPER LEVEL FLOOR SHEATING
- TOP OF UPPER LEVEL FLOOR SHEATHING = 135'-2 1/4" UNLESS NOTED THUS: XXX'-X
- TOP OF PLATE HEIGHT NOTED THUS: TOP PL EL = XXX'-X
- ALL BEAMS ARE FLUSH, UNLESS NOTED OTHERWISE ON PLAN
- ALL HEADERS ARE DROPPED, UNLESS NOTED OTHERWISE ON PLAN
- ALL COLUMNS ON THIS PLAN ARE BELOW UNLESS MARKED THUS: A
- SEE SYMBOLS KEY ON SHEET S001 FOR BUILDING COLUMN DESIGNATIONS

TYPICAL FLOOR SHEATHING:
3/4" STURD-I-FLOOR, APA RATED 24" O.C. TONGUE & GROOVE SHEATHING GLUED AND NAILED WITH 8d NAILS (0.113"Ø x 2 3/8") @ 6" ALONG PANEL EDGES AND @ 12" ALONG INTERMEDIATE FRAMING MEMBERS. LAY PANELS PERPENDICULAR TO FRAMING MEMBERS AND STAGGER PANEL JOINTS.

TYPICAL EXTERIOR WOOD FRAMED WALLS (UNO):
2x6 STUDS @ 16" SHEATHED WITH 7/16" APA 24/16, EXPOSURE 1 ON EXTERIOR FACE; NAIL WALL SHEATHING WITH 8d (0.113"Ø x 2 3/8") @ 6" AT PANEL EDGES AND @ 12" IN FIELD OF PANEL; BLOCK AND NAIL ALL EDGES BETWEEN STUDS. IF GUN NAILS ARE USED FOR NAILING, NAILS MUST BE AT A MINIMUM THE DIAMETER AND LENGTH NOTED ABOVE.

TYPICAL ROOF SHEATHING:
23/32" APA 48/24 RATED SHEATHING FASTENED WITH 8d NAILS (0.113"Ø x 2 3/8") @ 6" ALONG PANEL EDGES AND @ 12" ALONG INTERMEDIATE FRAMING MEMBERS. LAY PANELS PERPENDICULAR TO FRAMING MEMBERS AND STAGGER PANEL JOINTS.

INDICATES ROOF OVERFRAMING ONTO PRIMARY ROOF SHEATHING. CONTRACTOR OPTIONS ARE AS FOLLOWS:
1. 2x10 @ 24" W/ 2x4 POST AT EACH INTERSECTING TRUSS.
2. TRUSS PROFILE TO MATCH ROOF.
3. PE TRUSS OVERFRAMING @ 24".

INDICATES LOW ROOF

ROOF TRUSS SUPPLIER NOTE:
DESIGN ALL ROOF TRUSSES TO CLEAR SPAN TO BEARING WALLS/ BEAMS INDICATED ON PLAN.
DESIGN LOADS ARE AS FOLLOWS:
DEAD LOAD BOTTOM CHORD = 10 PSF
DEAD LOAD TOP CHORD = 10 PSF
SNOW LOAD TOP CHORD = 85 PSF + DRIFT (SEE LOAD PLAN)
LIMIT DEFLECTION TO:
SPAN/360 FOR SNOW LOAD
SPAN/240 (LIMIT TO 1" MAXIMUM) FOR TOTAL LOAD

ALL TRUSS-TO-TRUSS CONNECTIONS TO BE DESIGNED AND SUPPLIED BY TRUSS MANUFACTURER. TRUSS FABRICATOR SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS STAMPED BY A COLORADO REGISTERED ENGINEER TO ARCHITECT FOR REVIEW BEFORE FABRICATION.

DO NOT ALTER TRUSS LAYOUT. BEARING DESIGN SHALL ASSUME DOUGLAS FIR WALL TOP PLATES (625 psi). USE MULTIPLE PLIES, BEARING BLOCKS, OR BEARING ENHANCERS TO ACCOMMODATE 5-1/2" BEARING LENGTHS PER PLAN. THE USE OF END GRAIN BEARING IS NOT ACCEPTABLE UNLESS SPECIFICALLY APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT.

HEADER SCHEDULE

MARK	TYPE	# OF KINGS	# OF TRIMS	REMARKS
H1	(3) 11 7/8" LVL	2	2	
H2	(3) 9 1/4" LVL	2	2	
H3	(3) 2x8	2	1	
H4	(3) 2x8	2	1	

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REVISIONS

No.	Description	Date
1	Revision 1	Date 1

EDGEMONT/SHERMAN FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

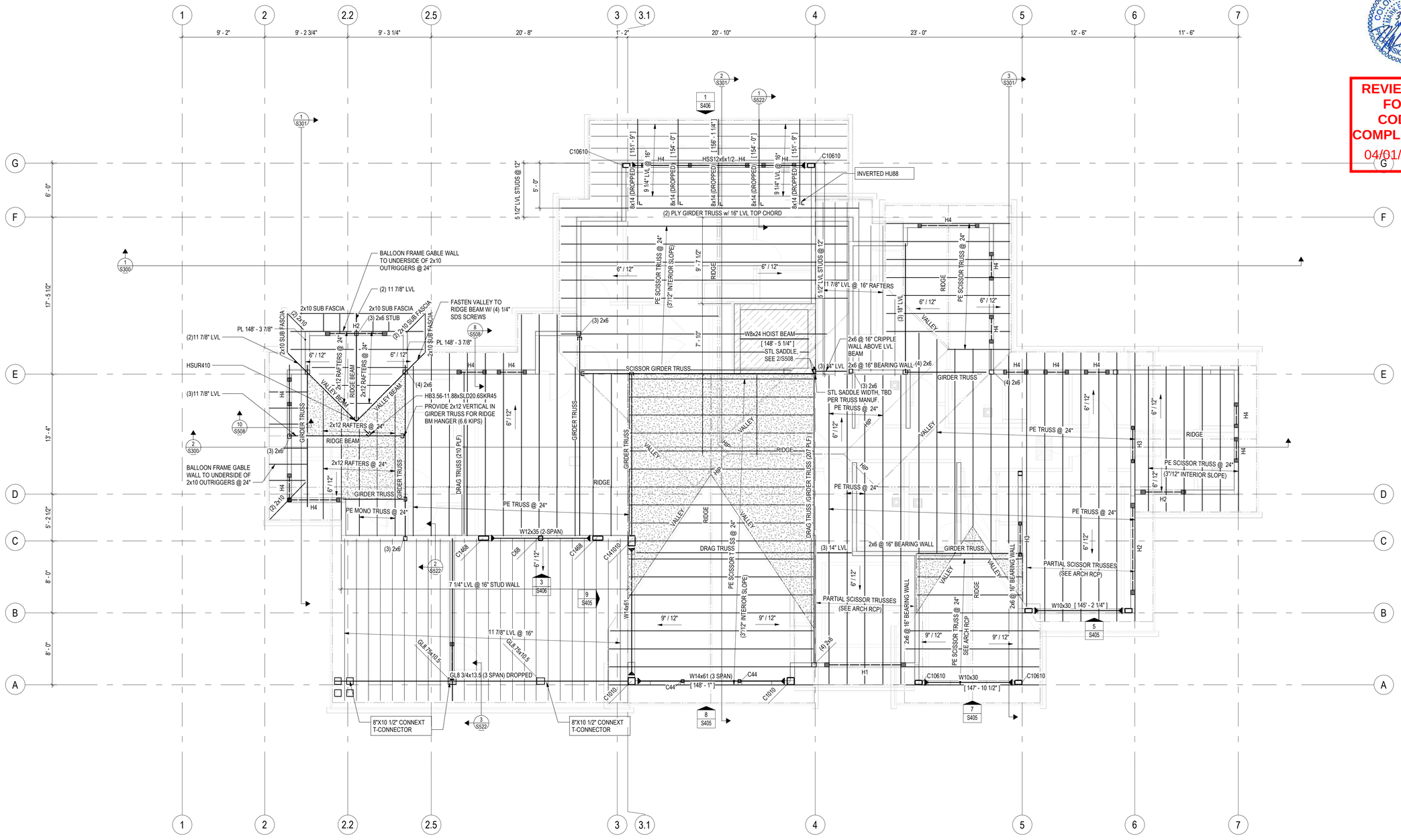
ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
(303) 442-5458, (303) 442-4745 FAX

Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

Project Phase
PERMIT

Sheet Title
UPPER LEVEL FRAMING PLAN

Sheet Number
S104



ROOF FRAMING PLAN

3/16" = 1'-0"

NORTH

0 2' 4' 8' 12'

- TOP OF PLATE HEIGHT NOTED THUS: TOP PL EL = XXX'-X"
- ALL BEAMS ARE FLUSH, UNLESS NOTED OTHERWISE ON PLAN
- ALL HEADERS ARE DROPPED, UNLESS NOTED OTHERWISE ON PLAN
- ALL COLUMNS ON THIS PLAN ARE BELOW UNLESS MARKED THUS:
- SEE SYMBOLS KEY ON SHEET S001 FOR BUILDING COLUMN DESIGNATIONS

TYPICAL ROOF SHEATHING:
23/32" APA 48/24 RATED SHEATHING FASTENED WITH 8d NAILS (0.113"Ø x 2 3/8") @ 6" ALONG PANEL EDGES AND @ 12" ALONG INTERMEDIATE FRAMING MEMBERS. LAY PANELS PERPENDICULAR TO FRAMING MEMBERS AND STAGGER PANEL JOINTS.

TYPICAL EXTERIOR WOOD FRAMED WALLS (UNO):
2x6 STUDS @ 16" SHEATHED WITH 7/16" APA 24/16, EXPOSURE 1 ON EXTERIOR FACE; NAIL WALL SHEATHING WITH 8d (0.113"Ø x 2 3/8") @ 6" AT PANEL EDGES AND @ 12" IN FIELD OF PANEL; BLOCK AND NAIL ALL EDGES BETWEEN STUDS. IF GUN NAILS ARE USED FOR NAILING, NAILS MUST BE AT A MINIMUM THE DIAMETER AND LENGTH NOTED ABOVE.

INDICATES ROOF OVERFRAMING ONTO PRIMARY ROOF SHEATHING. CONTRACTOR OPTIONS ARE AS FOLLOWS:
1. 2x10 @ 24" W/ 2x4 POST AT EACH INTERSECTING TRUSS.
2. TRUSS PROFILE TO MATCH ROOF.
3. PE TRUSS OVERFRAMING @ 24".

ROOF TRUSS SUPPLIER NOTE:
DESIGN ALL ROOF TRUSSES TO CLEAR SPAN TO BEARING WALLS/ BEAMS INDICATED ON PLAN.
DESIGN LOADS ARE AS FOLLOWS:
- DEAD LOAD BOTTOM CHORD = 10 PSF
- DEAD LOAD TOP CHORD = 10 PSF
- SNOW LOAD TOP CHORD = 85 PSF + DRIFT (SEE LOAD PLAN)

LIMIT DEFLECTION TO:
- SPAN/360 FOR SNOW LOAD
- SPAN/240 (LIMIT TO 1" MAXIMUM) FOR TOTAL LOAD

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HEADER SCHEDULE

MARK	TYPE	# OF KINGS	# OF TRIMS	REMARKS
H1	(3) 11 7/8" LVL	2	2	
H2	(3) 9 1/4" LVL	2	2	
H3	(3) 2x8	2	1	
H4	(3) 2x8	2	1	

TYPICAL NON-COMPOSITE FLOOR/ROOF CONSTRUCTION:
7" UNIFORM THICKNESS SLAB, REINFORCED WITH #4 @ 12" EACH WAY, ON 3" DEEP x 20 GAGE GALVANIZED STEEL DECK (VULCRAFT TYPE 3C-36) WITH 5/8" PUDDLE WELDS @ 12" (36/12) AT SUPPORTS & EDGES AND #10 SDST SCREWS @ 12" AT SIDELAP CONNECTIONS. PAINT SHALL BE UL APPROVED TO RECEIVE FIREPROOFING AS REQUIRED, SEE ARCH.

REVIEWED FOR CODE COMPLIANCE
04/01/2025

PERMIT SET NOT FOR CONSTRUCTION

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JVA #22025

REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN FOURPLEX BUILDING 7

STEAMBOAT SPRINGS COLORADO

ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
(303) 442-5456, (303) 442-4745 FAX

Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

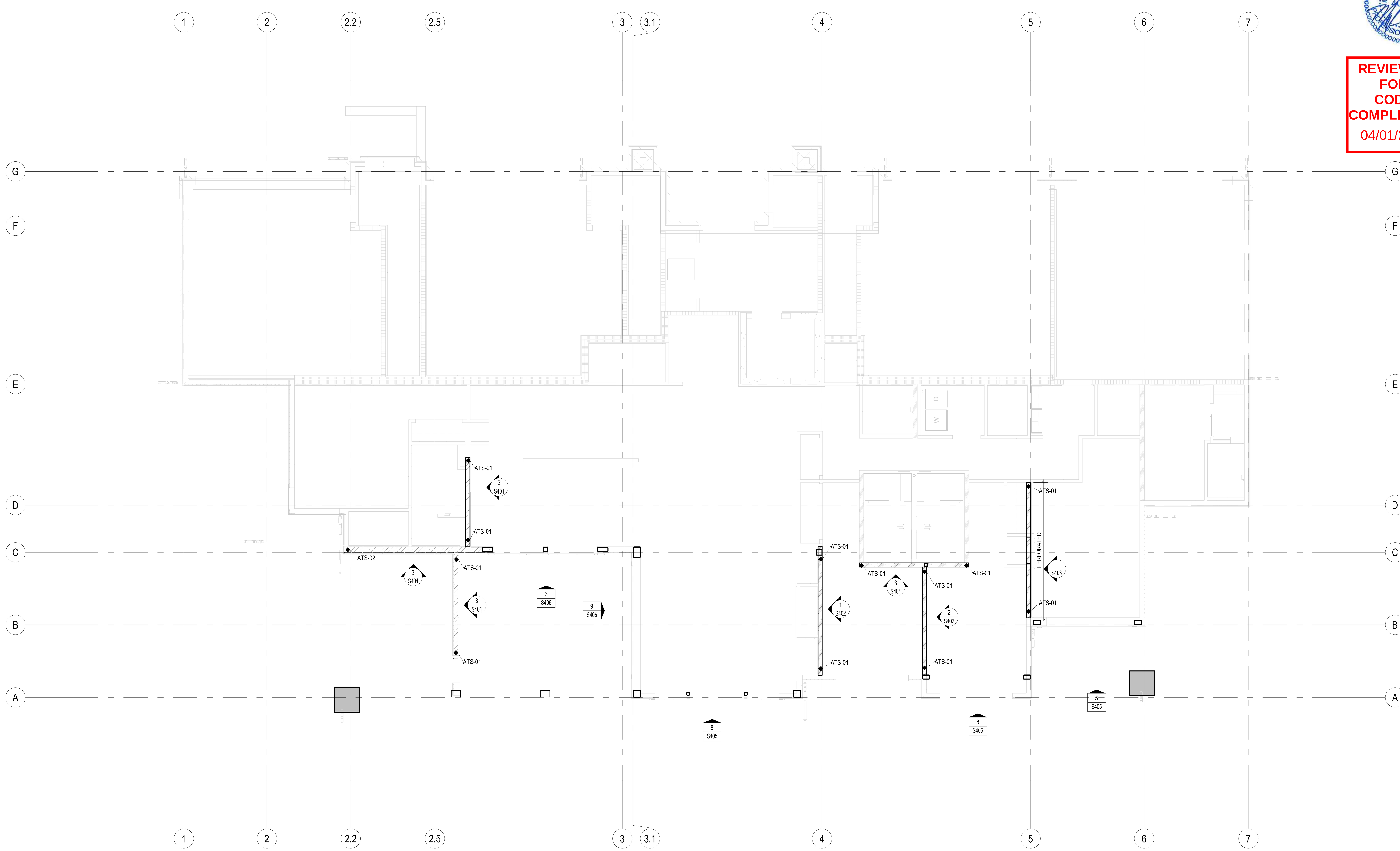
Project Phase
PERMIT

Sheet Title
ROOF FRAMING PLAN

Sheet Number
S105

PERMIT SET NOT FOR CONSTRUCTION

REVIEWED FOR CODE COMPLIANCE
04/01/2025



SHEAR WALL PLAN - LOWER LEVEL 1

3/16" = 1'-0"

NORTH

0 2' 4' 8' 12'

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REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
(303) 442-5458, (303) 442-4745 FAX

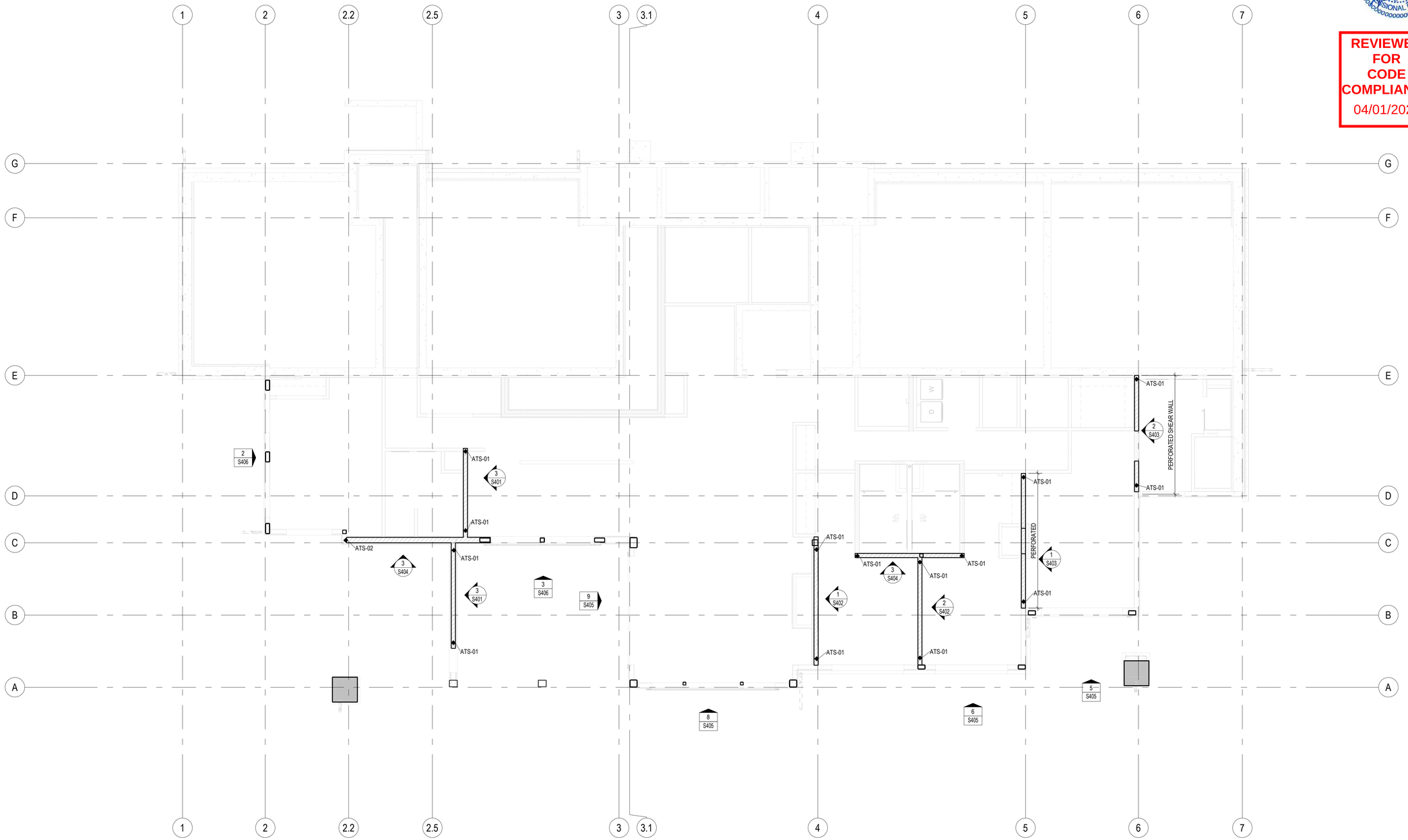
Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

Project Phase
PERMIT

Sheet Title
SHEAR WALL PLAN - LOWER LEVEL 1

Sheet Number
S106

3/25/2024 5:51:12 PM THE ASTRID CONDO B7 v22



SHEAR WALL PLAN - LOWER LEVEL 2

3/16" = 1'-0"

NORTH

0 2' 4' 8' 12'

REVIEWED FOR CODE COMPLIANCE
04/01/2025

PERMIT SET NOT FOR CONSTRUCTION

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ELAINE S. SORENSEN
3-25-25
40336
PROFESSIONAL ENGINEER

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REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN FOURPLEX BUILDING 7

STEAMBOAT SPRINGS COLORADO

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Job Number:	22025
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Checked By:	MES

Project Phase
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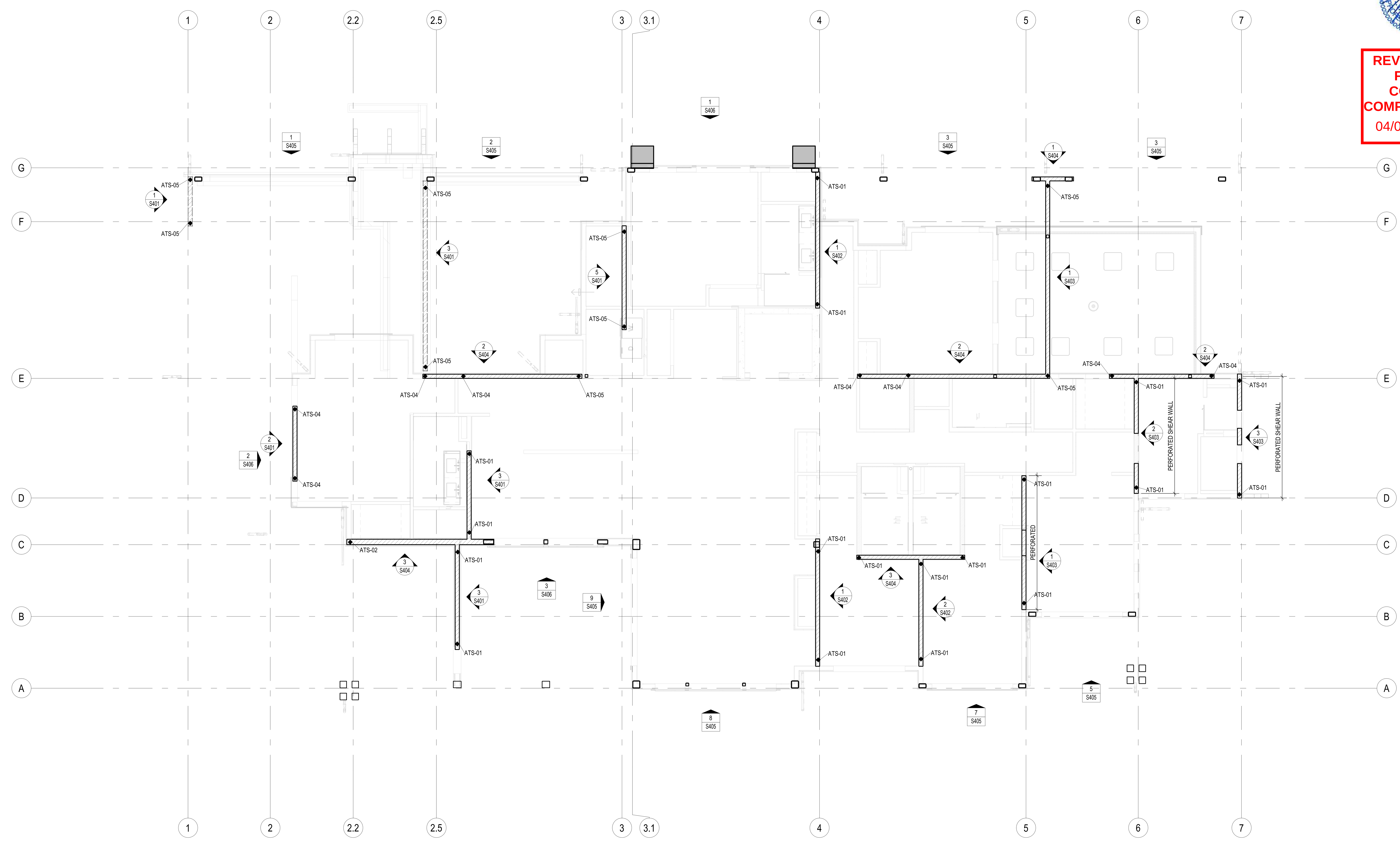
Sheet Title
SHEAR WALL PLAN - LOWER LEVEL 2

Sheet Number
S107



SHEAR WALL PLAN - MAIN LEVEL

3/16" = 1'-0"

NORTH

0 2' 4' 8' 12'

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REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
(303) 442-5458, (303) 442-4745 FAX

Job Number:	22025
Date:	03/25/24
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Sheet Title
SHEAR WALL PLAN - MAIN LEVEL

Sheet Number
S108

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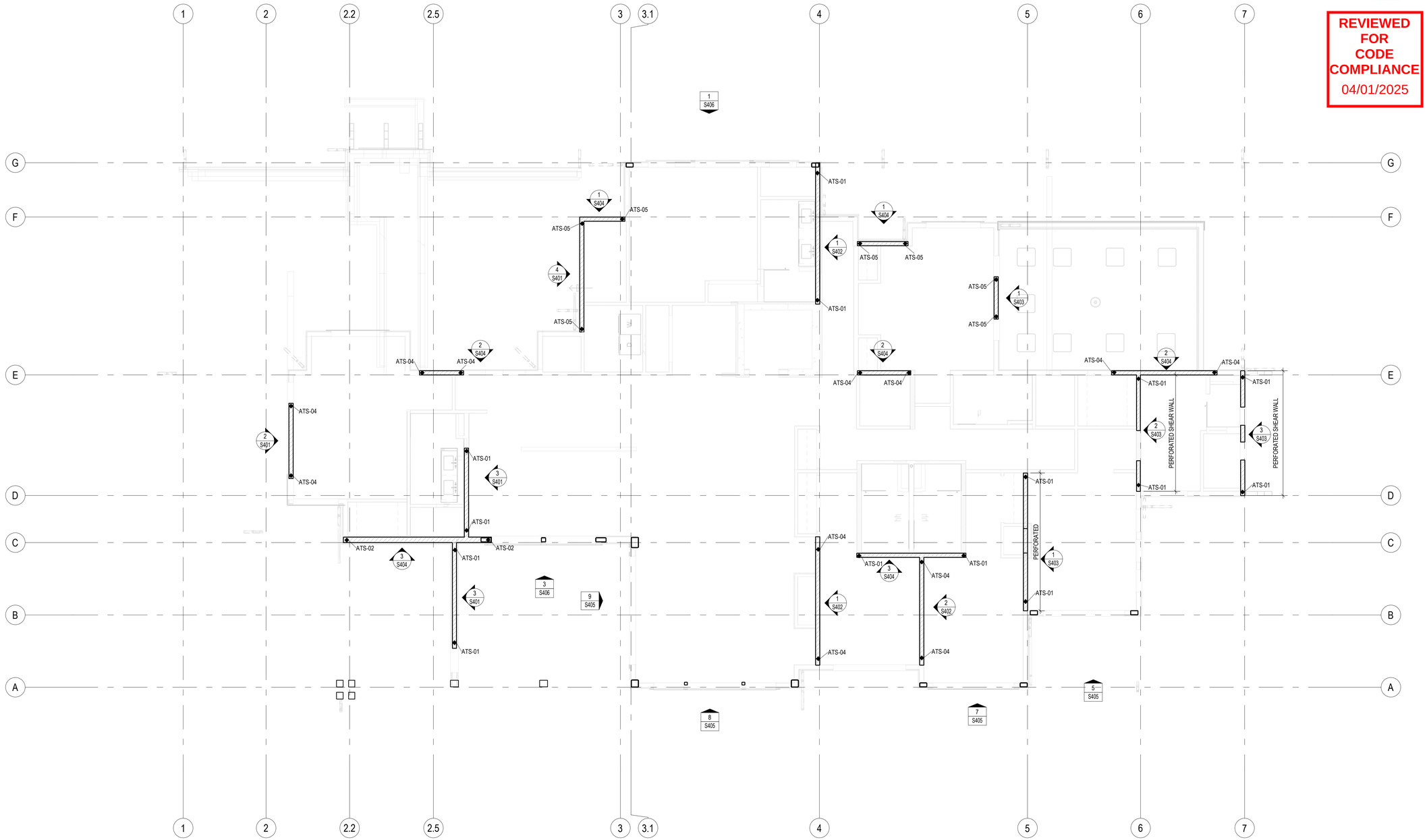

SHEAR WALL PLAN - UPPER LEVEL

NORTH

3/16" = 1'-0"

0 2' 4' 8' 12'

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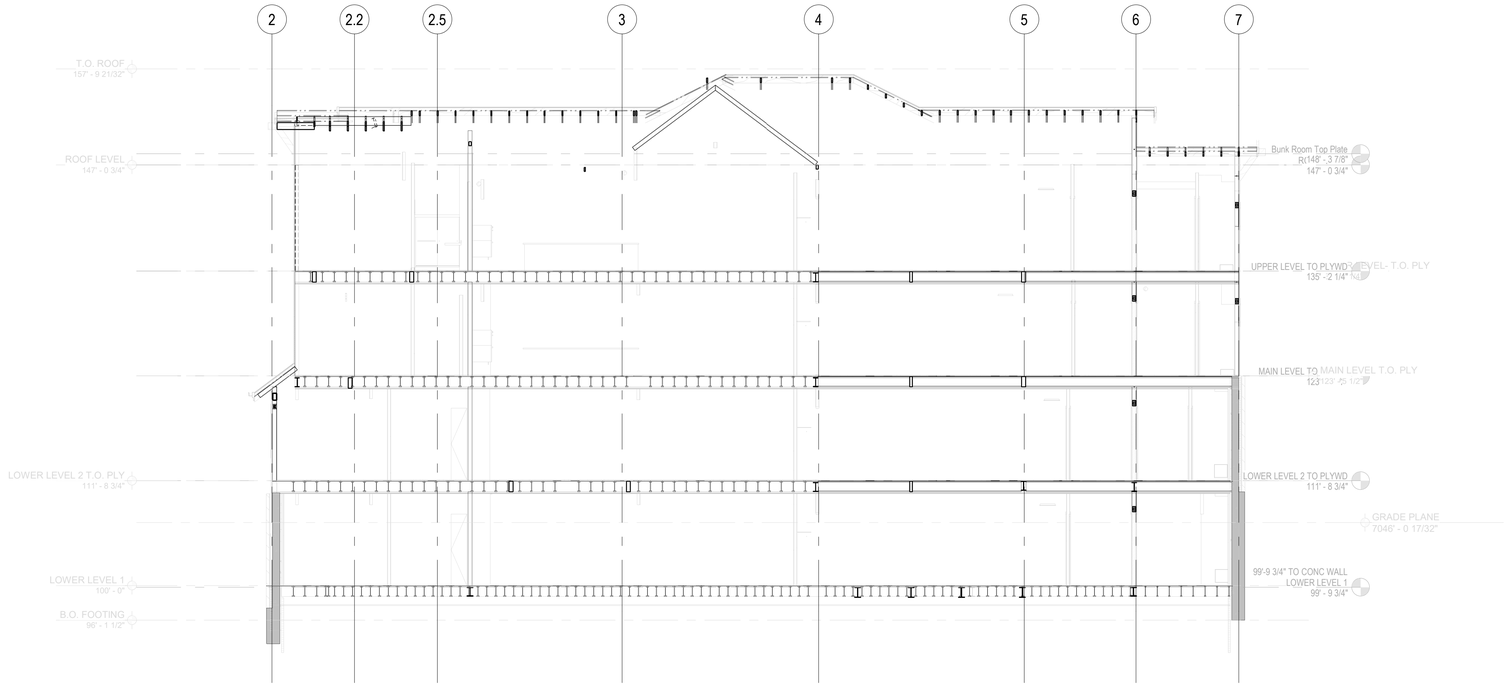
Sheet Title

SHEAR WALL PLAN - UPPER LEVEL

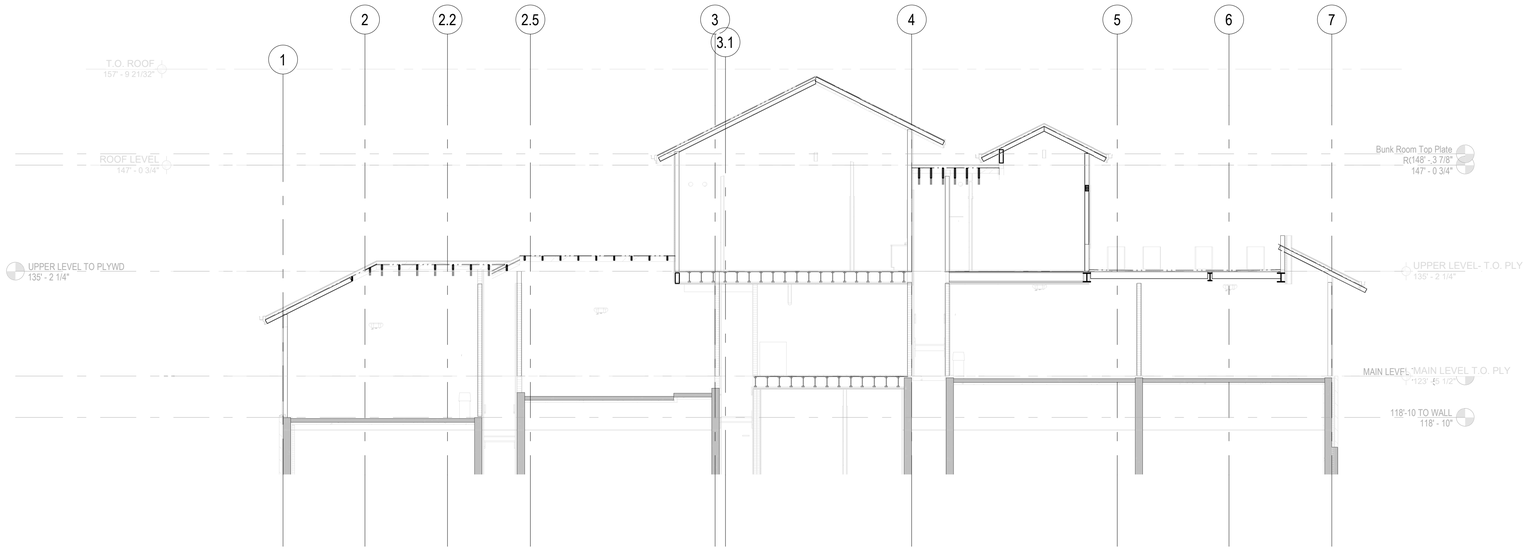
Sheet Number

S109



2 S300 FULL HEIGHT SECTIONS

1/8" = 1'-0"



1 S300 FULL HEIGHT SECTIONS

1/8" = 1'-0"

0 2' 4' 8' 16'

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Sheet Title
FULL HEIGHT SECTIONS

Sheet Number
S300

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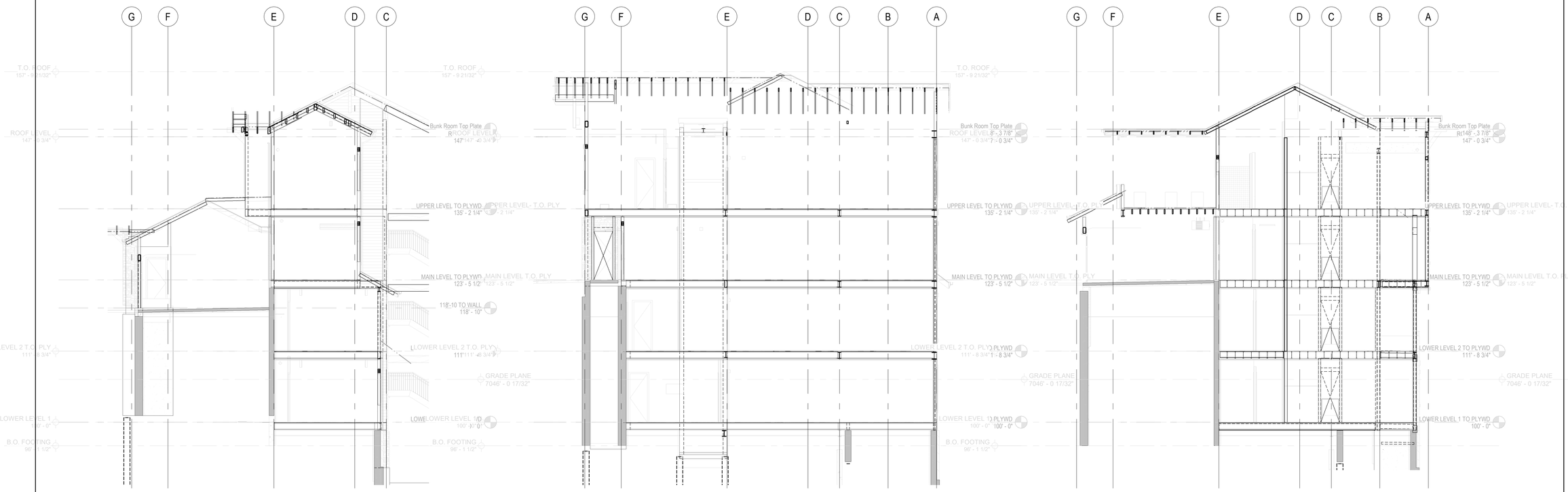

1 S301 FULL HEIGHT SECTION
1/8" = 1'-0"

2 S301 FULL HEIGHT SECTION
1/8" = 1'-0"

3 S301 FULL HEIGHT SECTION
1/8" = 1'-0"

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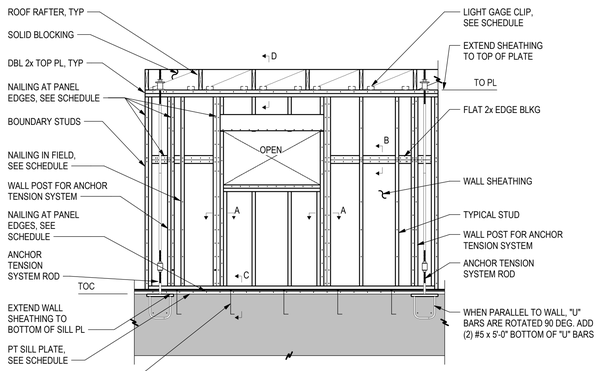
Sheet Title
FULL HEIGHT SECTIONS

Sheet Number
S301

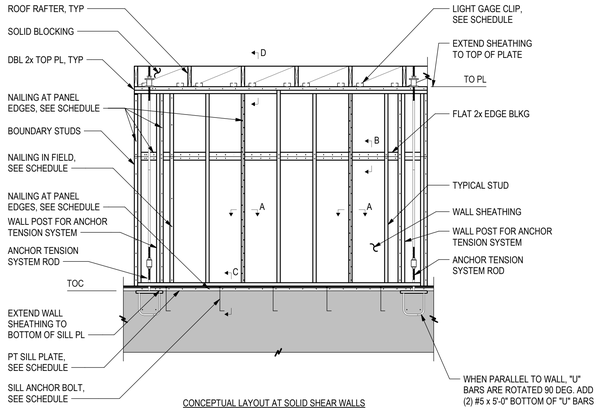
TENSION-ROD SYSTEM LOADING CRITERIA (ATS)				
MARK	LEVEL	POST EA SIDE ROD	TOTAL UPLIFT (LBS IN ASD)	COMMENTS
ATS - 01	4-R	(3) 2x6	2700	
	3-4	(3) 2X6	7800	
	2-3	(3) 2X6	14100	
	1-2	(3) 2X6	20900	
ATS - 02	4-R	(3) 2x8	2700	
	3-4	(3) 2x8	7800	
	2-3	(3) 2x8	14100	
	1-2	(3) 2x8	20900	
ATS - 03	4-R	(2) 2X6	2900	WHERE OCCURS
	3-4	(2) 2X6	10300	
	2-3	(2) 2X6	10300	WHERE OCCURS
ATS - 04	4-R	(2) 2X6	4600	
	3-4	(2) 2X6	13300	
ATS - 05	2-3	(2) 2X6	6800	ALT. HDU-8

ATS SHEAR WALL NOTES & SCHEDULE:

1. PROVIDE ANCHOR BOLTS PER THE SHEAR WALL SCHEDULE, A MAXIMUM OF 12" & 4 1/2" MIN FROM EACH END OF THE PLATE, AND A MINIMUM OF (2) ANCHOR BOLTS PER PLATE.
2. PROVIDE BPS PLATE WASHERS (PL0.229 x 3 x 0'-3" W/ DIAGONALLY SLOTTED HOLE) AT ALL ANCHOR BOLTS THAT EXTEND TO WITHIN ½" OF THE EDGE OF THE SOLE PLATE ON THE SIDE WITH THE SHEAR WALL SHEATHING. STAGGER PLATE WASHERS AT LOCATIONS WITH SHEATHING ON BOTH SIDES OF THE WALL.
3. PROVIDE 2x FRAMING OR BLOCKING AT ALL SHEAR WALL PANEL JOINTS UNLESS NOTED OTHERWISE. BLOCKING SHALL BE PLACED FLAT BETWEEN WALL STUDS, CENTERED AT PANEL JOINTS.
4. NAIL SPACING APPLIES TO ALL STUDS, TOP AND BOTTOM PLATES, AND BLOCKING.
5. NAIL HEADS SHALL BE FLUSH WITH THE SURFACE OF THE SHEATHING. AVOID OVER DRIVING NAILS.
6. NAIL PENETRATION INTO WOOD FRAMING MEMBERS SHALL BE 1 5/8" FOR 10d NAILS (0.148"Ø x3") AND 1 1/2" FOR 8d NAILS (0.131Ø x2 1/2").
7. EDGE NAILING AT SHEAR WALL PANEL JOINTS SHALL BE AT LEAST 3/8" FROM THE EDGE OF THE PANEL.
8. WHERE 10d NAILS ARE SPACED AT 3" OR LESS ON CENTER AND PENETRATE INTO THE FRAMING MORE THAN 1 5/8", NAILS ARE TO BE STAGGERED AND FRAMING AT PANEL EDGES SHALL BE A MINIMUM OF 3x OR (2)2x.
9. WHERE 8d NAILS ARE SPACED AT 2" OR LESS ON CENTER AND PENETRATE INTO THE FRAMING MORE THAN 1 1/2", NAILS ARE TO BE STAGGERED AND FRAMING AT PANEL EDGES SHALL BE A MINIMUM OF 3x OR (2)2x.
10. AT LOCATIONS WHERE THE SHEATHING IS REQUIRED ON BOTH SIDES OF THE WALL, STAGGER THE PANEL JOINTS ON THE WALL STUDS
11. PROVIDE A MINIMUM OF (2)2x POST EACH SIDE OF ATS ANCHORS AT THE ENDS OF ALL SHEAR WALLS U.N.O. PROVIDE PANEL EDGE NAILING TO POST AS INDICATED IN THE SHEAR WALL SCHEDULE AND PER
12. PROVIDE HOLDDOWNS AS INDICATED ON SHEAR WALL ELEVATIONS. HOLDDOWNS SHALL BE AT THE END OF THE WALLS AS PER DETAIL 7/S509 HOLDOWNS SHALL STACK VERTICALLY ON END WALL POST.
13. ALL PRODUCTS AND MATERIAL USED BY THE CONTRACTOR SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURE'S INSTRUCTIONS.
14. CONTRACTOR SHALL COORDINATE LOCATION OF HOLD DOWN ANCHOR BOLTS AND EMBEDS BETWEEN ACHITECTURAL AND STRUCTURAL DRAWINGS AS REQUIRED TO ENSURE ACCURATE LOCATION AND PLACEMENT. ALL ANCHOR BOLTS AND EMBEDS SHALL BE TIED INTO PLACE PRIOR TO POURING CONCRETE. WET SETTING OF ANCHOR BOLTS OR EMBEDS ARE NOT ALLOWED..
15. THE SHEAR WALL DESIGNATION APPLIES TO THE FULL EXTENT OF THE WALLS BETWEEN CORNERS OF WALLS U.N.O. SHEAR WALL SHEATHING SHALL RUN CONTINUOUS THROUGH BREAKS CAUSED BY INTERSECTING WALLS.
16. PLACE SHEATHING ON THE SAME SIDE OF THE WALL THAT THE ELEVATION TAG IS NOTED ON.
17. PROVIDE SHEAR WALL SHEATHING AND TYPE SW1 NAILING FOR ALL EXTERIOR WALLS U.N.O.
18. PANELS SHALL NOT BE LESS THAN 4'-0" x 8'-0" EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING WHERE MINIMUM PANEL DIMENSION SHALL BE 24".
19. SHEAR WALL NOTED THUS:

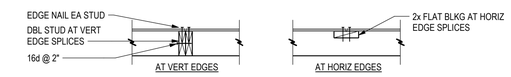


CONCEPTUAL LAYOUT AT PERFORATED SHEAR WALLS



CONCEPTUAL LAYOUT AT SOLID SHEAR WALLS

MARK	SHEATHING	EDGE	FIELD	ANCHOR BOLTS	BOTTOM PL NAILING	BOTTOM PL CLIPS	TOP PLATE CLIPS	WIND CAPACITY (DOUG FIR), PLF	SEISMIC CAPACITY (DOUG FIR), PLF	COMMENTS
SW6	7/16" APA 24/16 ONE SIDE	8d @ 6"	8d @ 12"	1/2" Ø @ 32"	12d @ 4"	N/A	A35 @ 24"	310	221	
SW4	7/16" APA 24/16 ONE SIDE	8d @ 4"	8d @ 12"	1/2" Ø @ 24"	12d @ 4"	A35 @ 48"	A35 @ 18"	453	323	
SW3	7/16" APA 24/16 ONE SIDE	8d @ 3"	8d @ 12"	5/8" Ø @ 24"	12d @ 4"	A35 @ 32"	A35 @ 12"	582	416	
SW2	7/16" APA 24/16 ONE SIDE	8d @ 2"	8d @ 12"	5/8" Ø @ 16"	12d @ 4"	A35 @ 16"	A35 @ 8"	761	543	
SW33	7/16" APA 24/16 BOTH SIDES	8d @ 3"	8d @ 12"	5/8" Ø @ 12"	12d @ 4"	A35 @ 8"	A35 @ 6"	1,165	832	

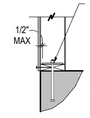


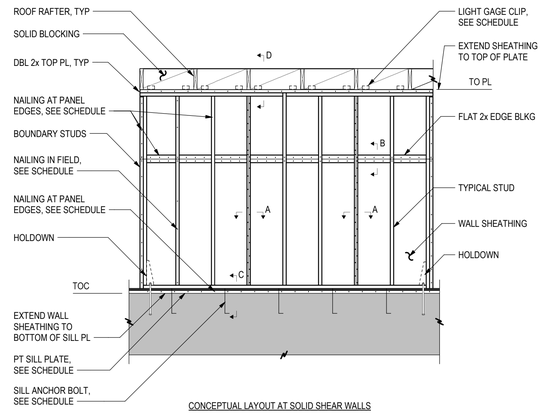
'SW2' PANEL EDGE NAILING DETAIL

TYPICAL FOR ALL SHEAR WALL NAILING:
PER IBC / AWC SDPWS, SHEATHING NAILS SHALL BE DRIVEN FLUSH BUT SHALL NOT FRACTURE THE SURFACE OF THE SHEATHING. SHEATHING PANEL NAILING NOT CONFORMING TO THIS SECTION WILL NOT BE ACCEPTABLE AND WILL HAVE TO BE REINSTALLED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE NAIL GUNS USED FOR FASTENING ARE SET AT THE PROPER DEPTH AND/OR AIR PRESSURE TO ACHIEVE THE REQUIRED PENETRATION

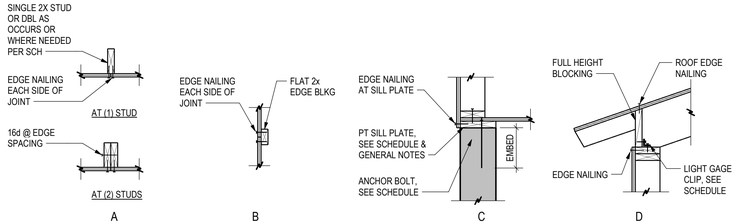
GENERAL NOTES:
1. VALUES ARE BASED ON DOUGLAS FIR-LARCH FRAMING, SEE GENERAL NOTES
2. SEE PLAN FOR HOLDOWN TYPE AND LOCATION
3. UNLESS NOTED OTHERWISE, NUMBER OF STUDS AT EACH END OF SHEAR WALLS IS CALLED OUT ON PLAN
4. NO PENETRATIONS GREATER THAN 12"x12" IN SHEAR WALLS, BLOCK AND NAIL ALL EDGES
5. NO MECHANICAL OR PLUMBING PENETRATIONS IN TOP AND BOTTOM PLATES
6. ALL EDGES SHALL BE BLOCKED WITH 2x MEMBERS AT PLYWOOD/OSB SHEATHED WALLS
7. ALL WALLS HAVE (2) 2x TOP PLATES AND (1) 2x BOTTOM PLATE EQUAL TO WIDTH OF STUD SIZE, TYP UNO
8. MINIMUM WIDTH OF SHEATHING PANELS AT ENDS OF SHEAR WALLS SHALL BE 4'-0 TO ENSURE END STUDS ARE ENGAGED
9. SEE DETAILS FOR ATTACHMENT OF DIAPHRAGMS TO SHEARWALL PLATES, TYPICAL
10. WHERE 10d NAILS ARE SPACED AT 3" OR LESS ON CENTER AND PENETRATE INTO THE FRAMING MORE THAN 1 5/8", NAILS ARE TO BE STAGGERED AND FRAMING AT PANEL EDGES SHALL BE A MINIMUM OF 3x OR (2)2x.
11. WHERE 8d NAILS ARE SPACED AT 2" OR LESS ON CENTER AND PENETRATE INTO THE FRAMING MORE THAN 1 1/2", NAILS ARE TO BE STAGGERED AND FRAMING AT PANEL EDGES SHALL BE A MINIMUM OF 3x OR (2)2x.

0.229"x3" PLATE WASHER DETAIL





CONCEPTUAL LAYOUT AT SOLID SHEAR WALLS



1 S400 SHEAR WALL ELEVATIONS WITH ATS HOLDDOWNS

3/8" = 1'-0"

0 1' 2' 4' 6'

2 S400 TYP WOOD SHEAR WALL NAILING & SCHEDULE

3/4" = 1'-0"

0 6" 1' 2' 3'

4 S400 SHEAR WALL ELEVATIONS WITH HDU HOLDDOWNS

3/8" = 1'-0"

3 S400 SHEAR WALL - SECTIONS

3/4" = 1'-0"

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STEAMBOAT SPRINGS COLORADO

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Sheet Title
SHEAR WALL DETAILS & SCHEDULES

Sheet Number
S400

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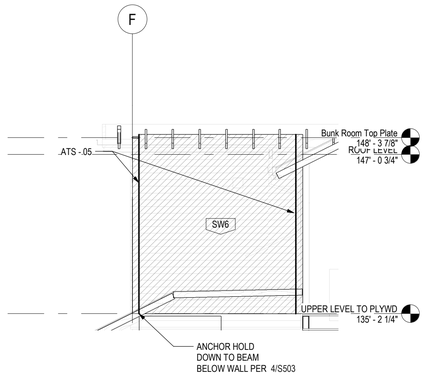
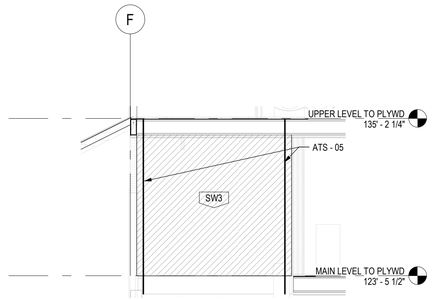
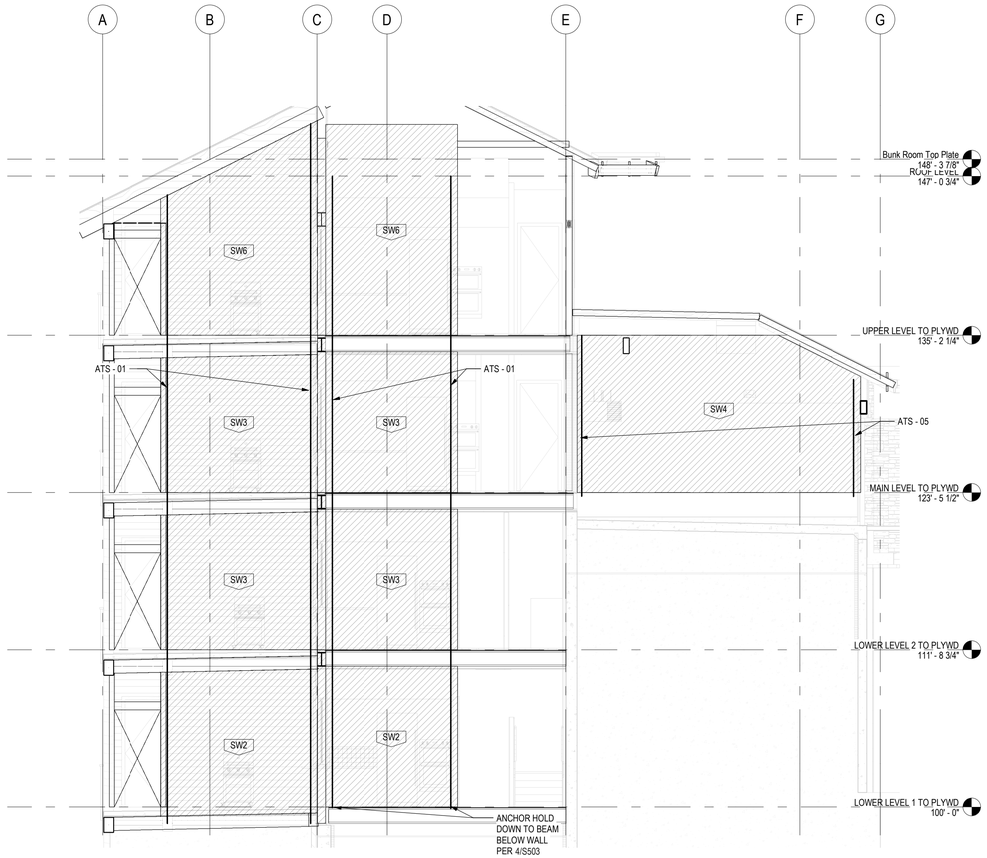


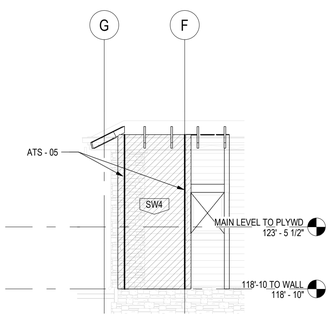
4 S401 GRIDE LINE 2.75 ELEVATION
3/16" = 1'-0"



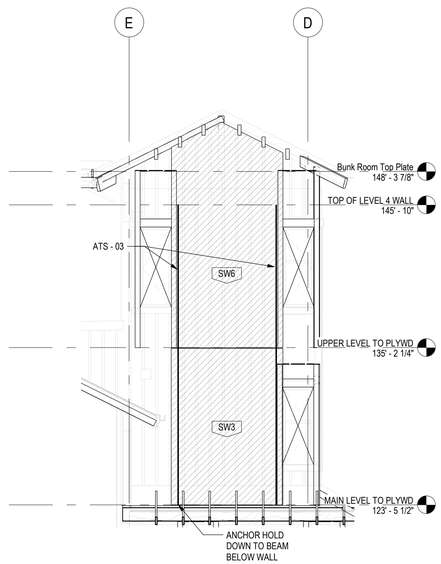
5 S401 GRIDE LINE 3 ELEVATION
3/16" = 1'-0"



3 S401 GRID LINE 2.5 ELEVATION
3/16" = 1'-0"



1 S401 GRID LINE 1 ELEVATION
3/16" = 1'-0"



2 S401 GRID LINE 2 ELEVATION
3/16" = 1'-0"

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SHEAR WALL ELEVATIONS

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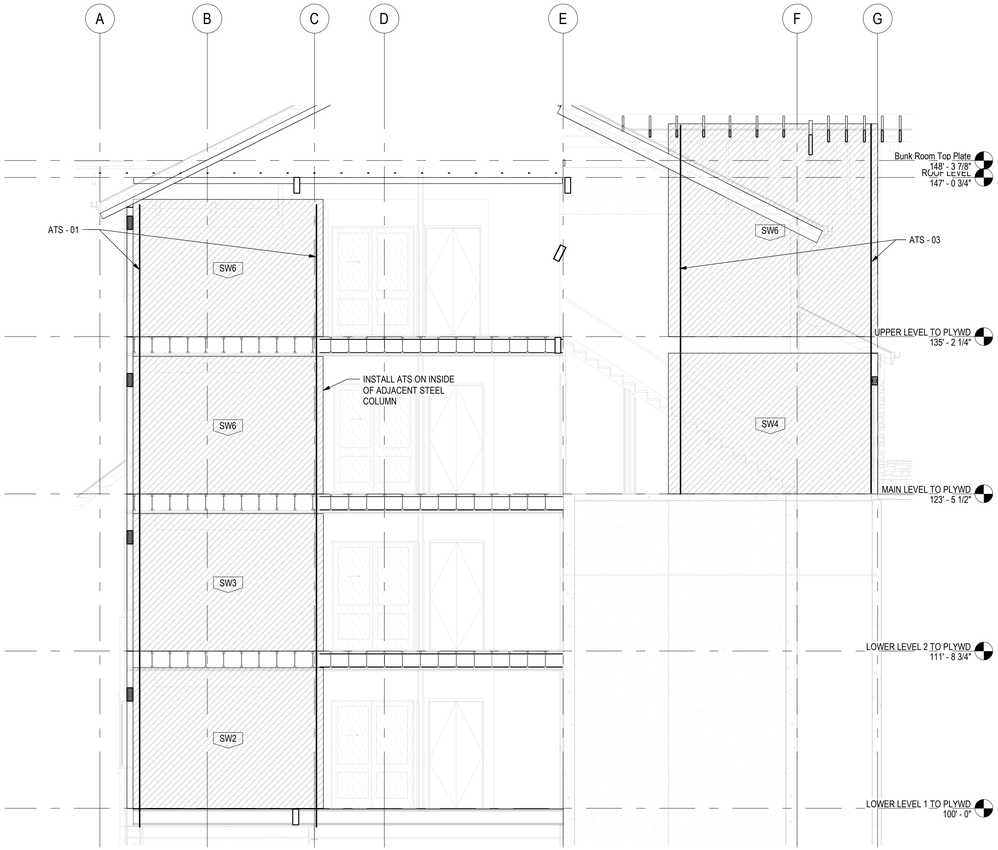
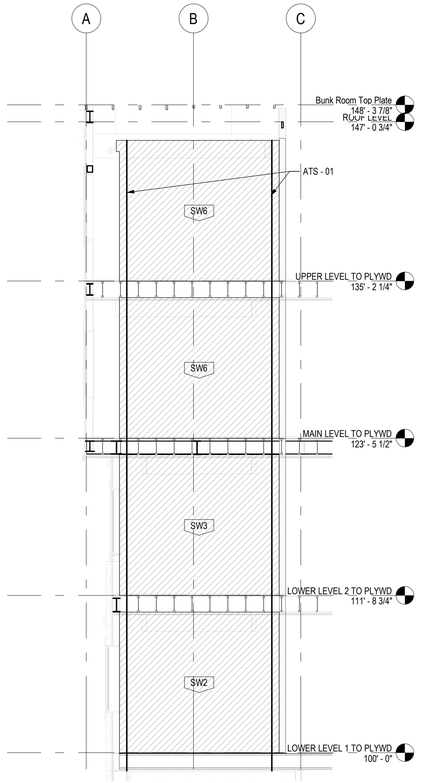


1 S402 GRID LINE 4 ELEVATION

3/16" = 1'-0"



2 S402 GRID LINE 4.5 ELEVATION

3/16" = 1'-0"

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Sheet Title
SHEAR WALL ELEVATIONS

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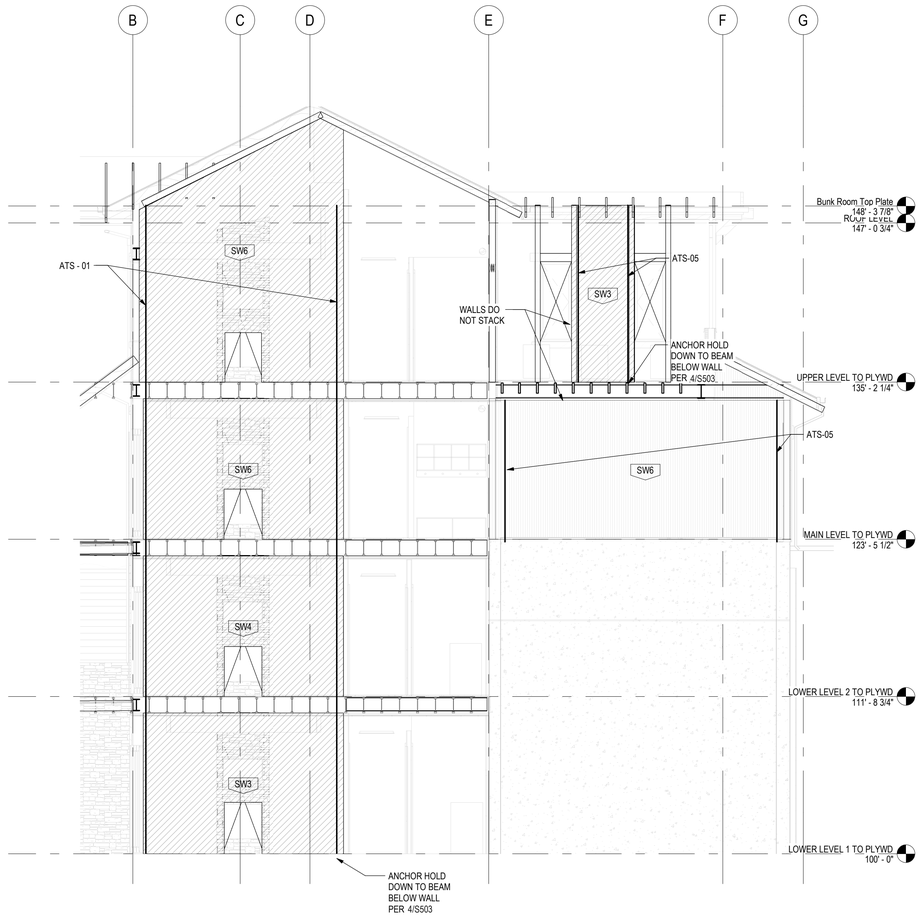
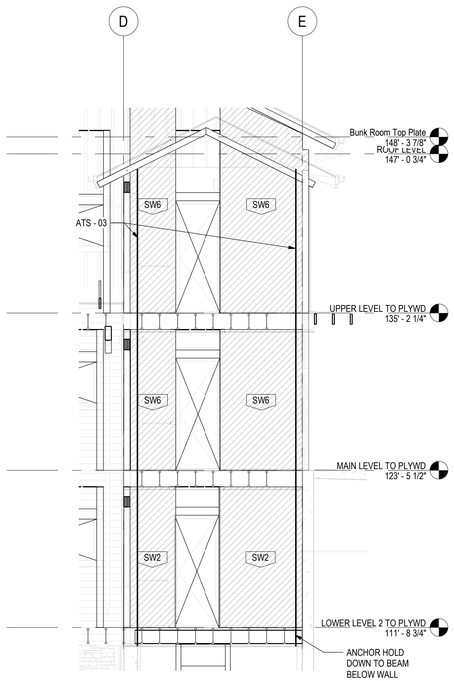
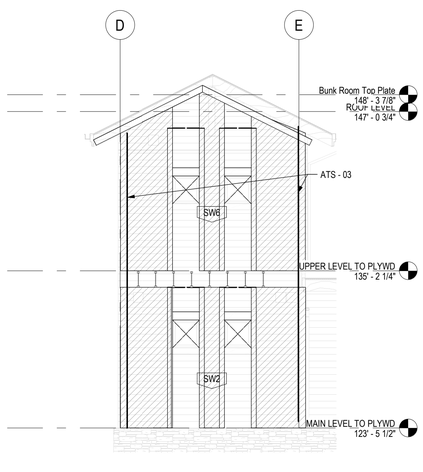
S402



1 S403 GRID LINE 5 ELEVATION
3/16" = 1'-0"



2 S403 GRID LINE 6 ELEVATION
3/16" = 1'-0"



3 S403 GRID LINE 7 ELEVATION
3/16" = 1'-0"

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3-25-24
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REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN FOURPLEX BUILDING 7

STEAMBOAT SPRINGS COLORADO

ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
(303) 442-3458, (303) 442-4745 FAX

Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

Project Phase
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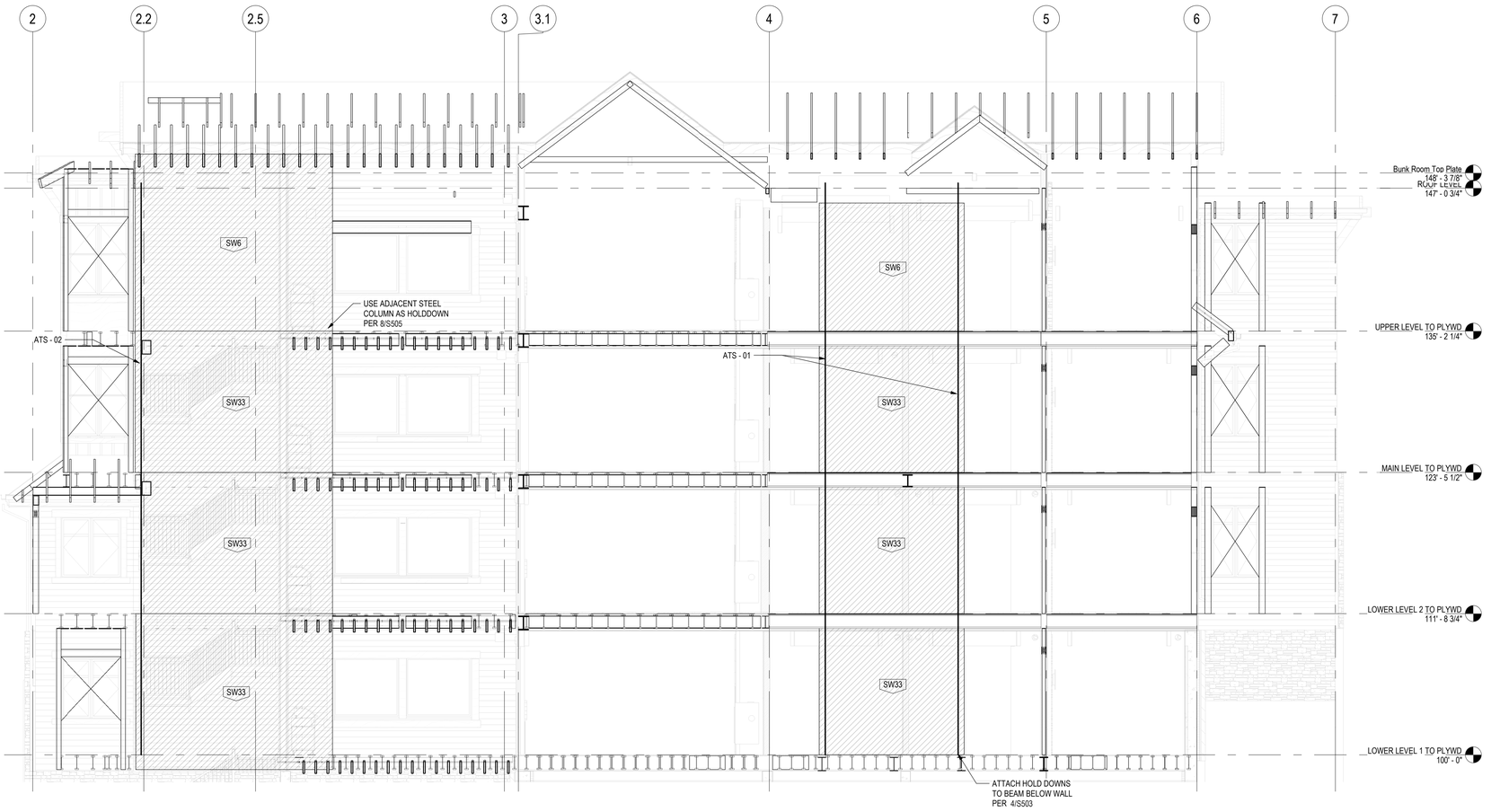
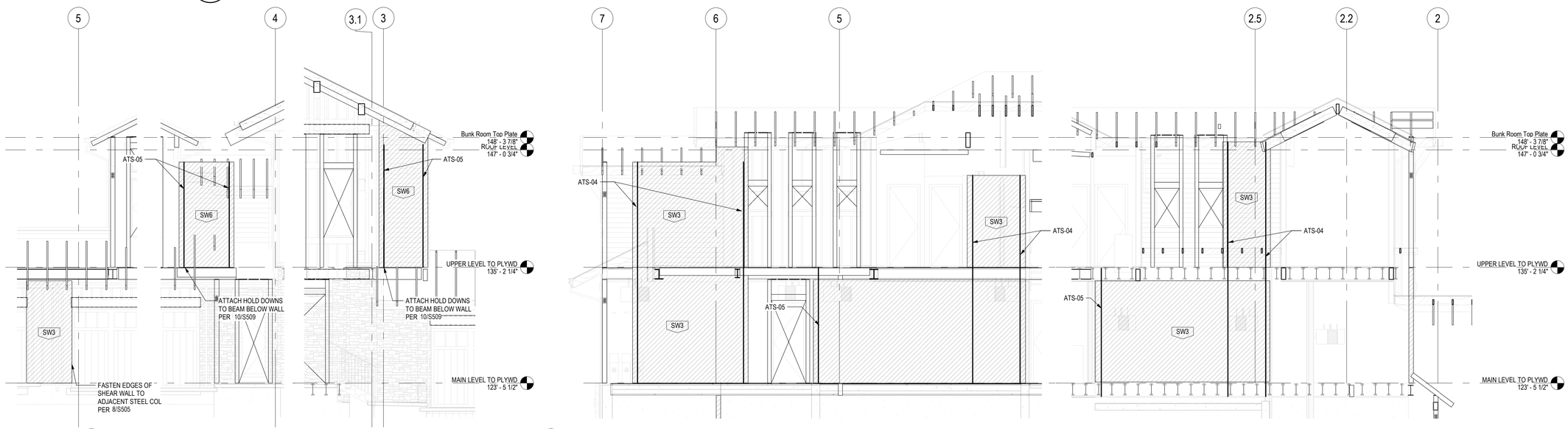
Sheet Title
SHEAR WALL ELEVATIONS

Sheet Number
S403

3/25/2024 5:52:14 PM THE ASTRID CONDO B7 v22



3 S404 SHEAR WALL GRID C
3/16" = 1'-0"



1 S404 SHEAR WALL GRID F
3/16" = 1'-0"

2 S404 SHEAR WALL GRID E
3/16" = 1'-0"

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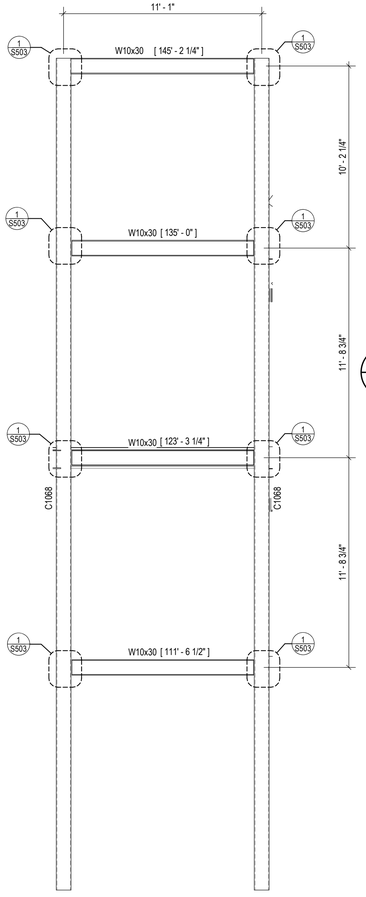
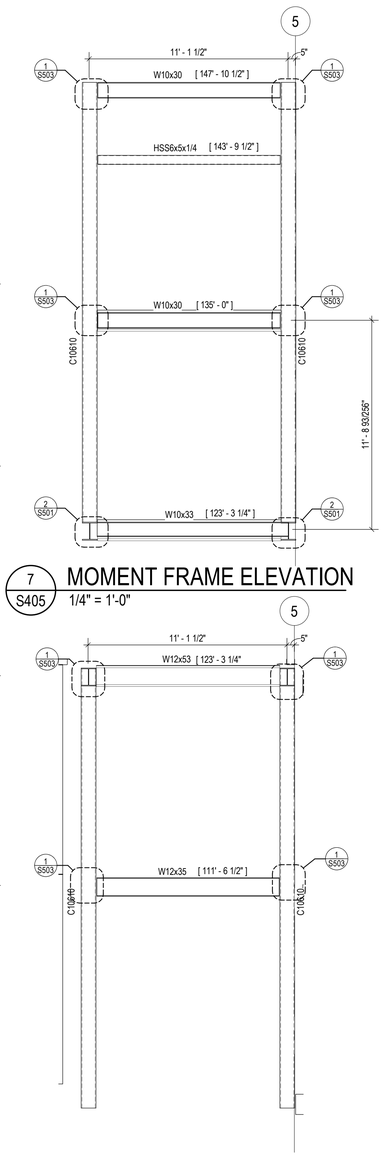
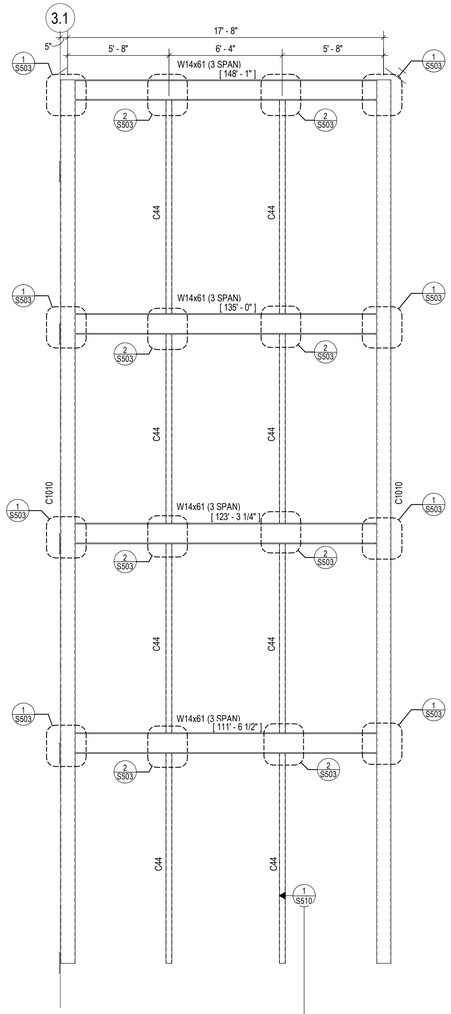


5 S405 MOMENT FRAME ELEVATION
1/4" = 1'-0"

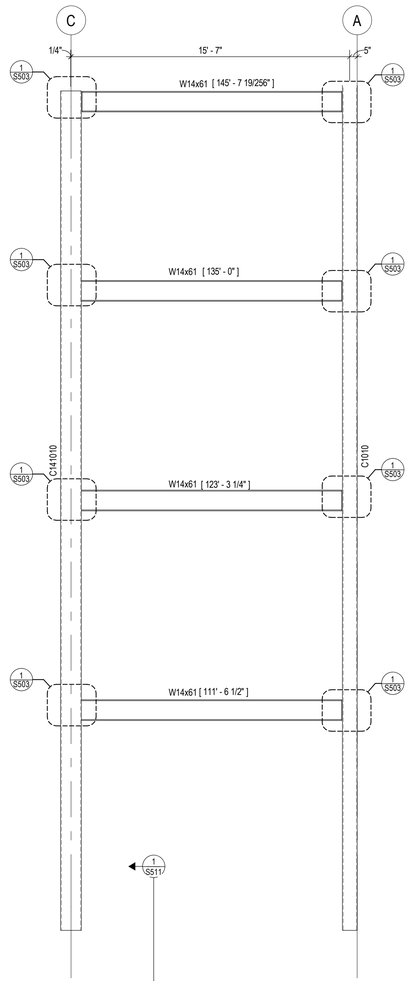


7 S405 MOMENT FRAME ELEVATION
1/4" = 1'-0"

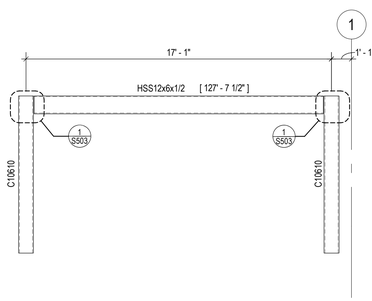
6 S405 MOMENT FRAME ELEVATION
1/4" = 1'-0"



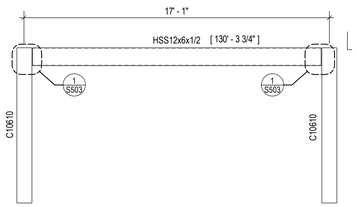
8 S405 MOMENT FRAME ELEVATION
1/4" = 1'-0"



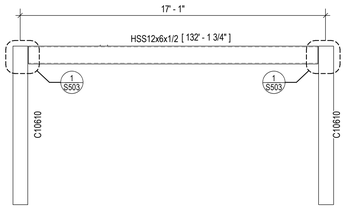
9 S405 MOMENT FRAME ELEVATION
1/4" = 1'-0"



1 S405 MOMENT FRAME ELEVATION
1/4" = 1'-0"



2 S405 MOMENT FRAME ELEVATION
1/4" = 1'-0"



3 S405 MOMENT FRAME ELEVATION
1/4" = 1'-0"

0 1" 2" 4" 8"

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ERIC SMITH ASSOCIATES, P.C.
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(303) 442-5458, (303) 442-4745 FAX

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Sheet Title
LATERAL FRAME ELEVATIONS

Sheet Number
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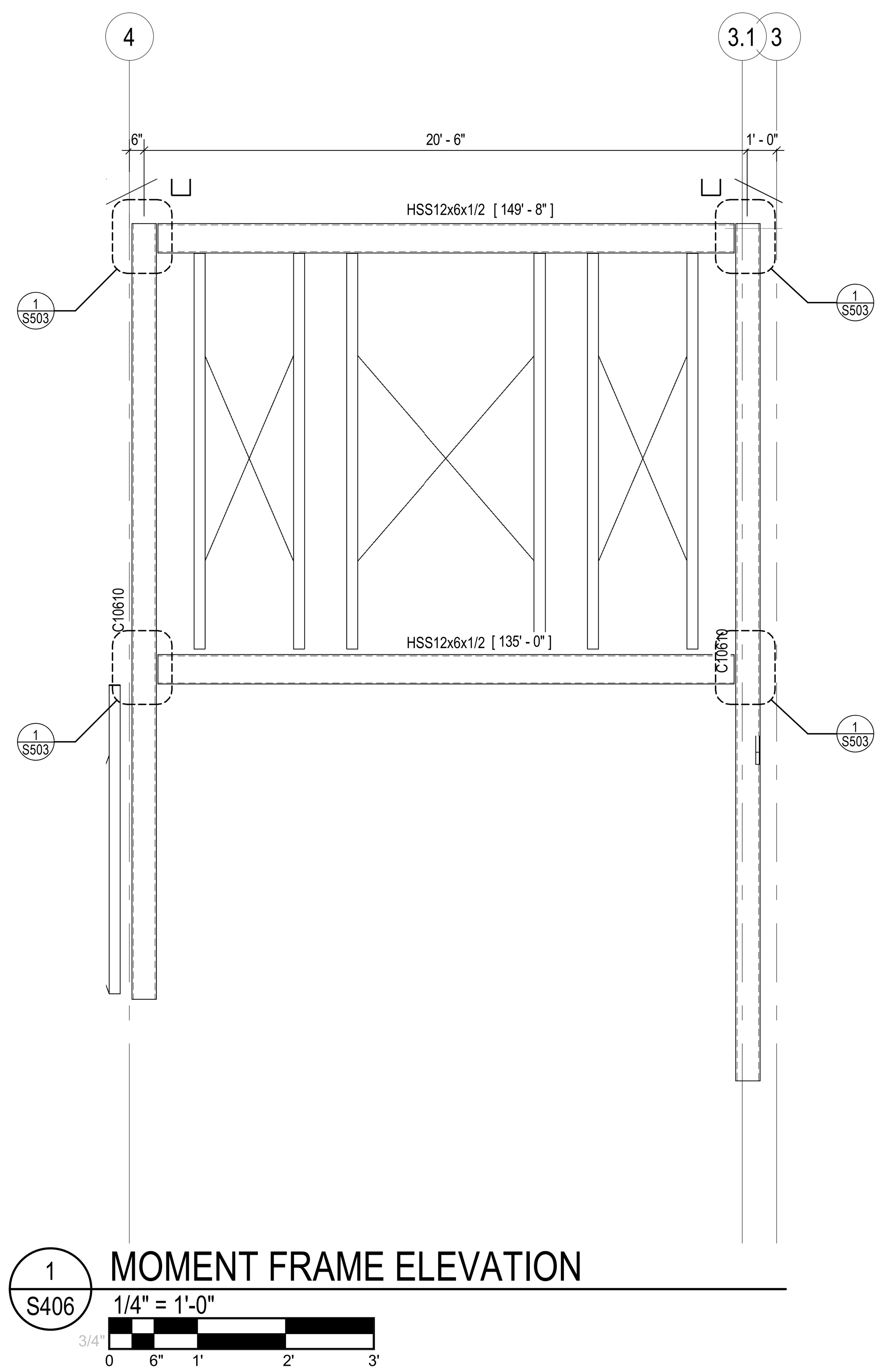
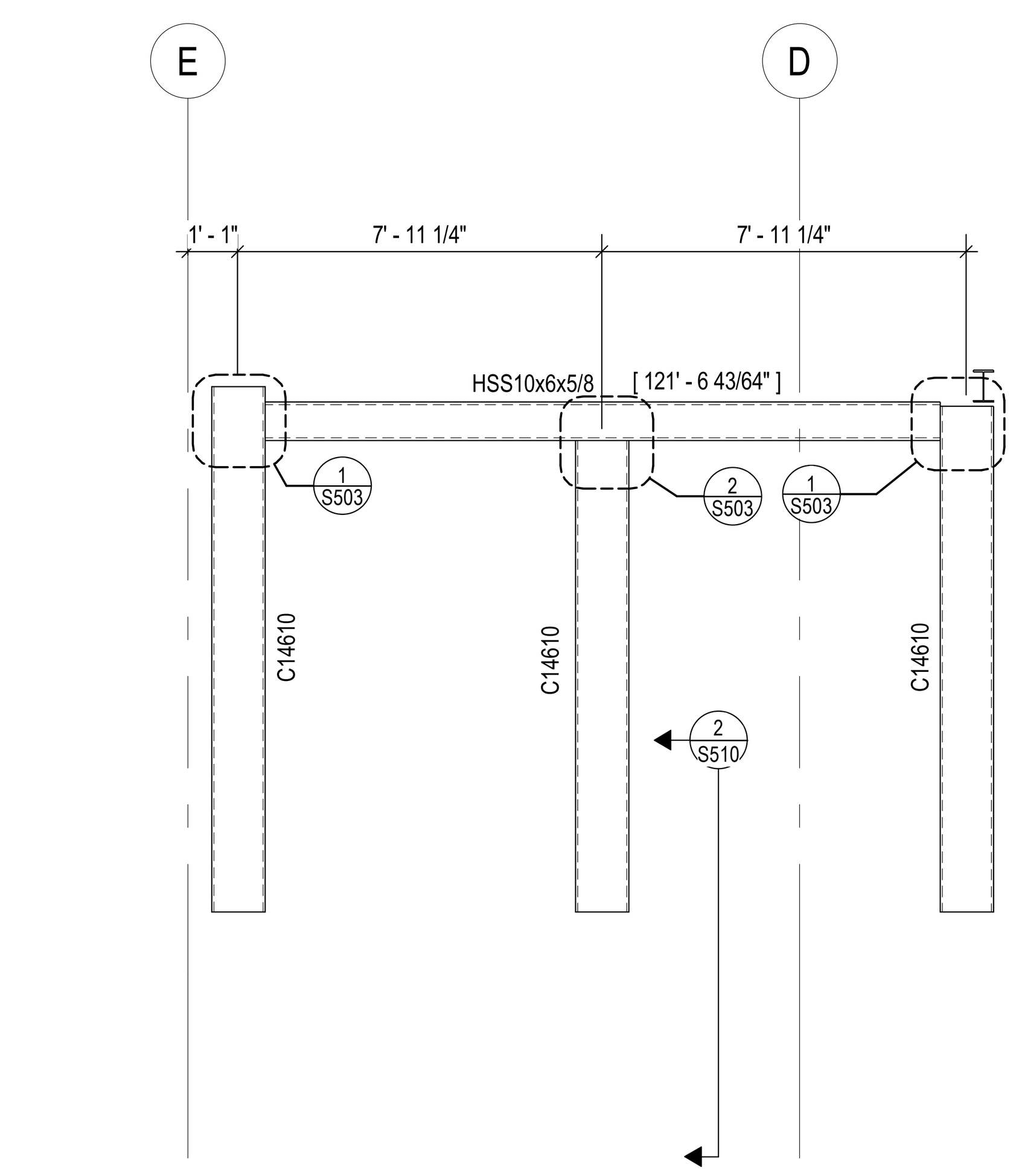
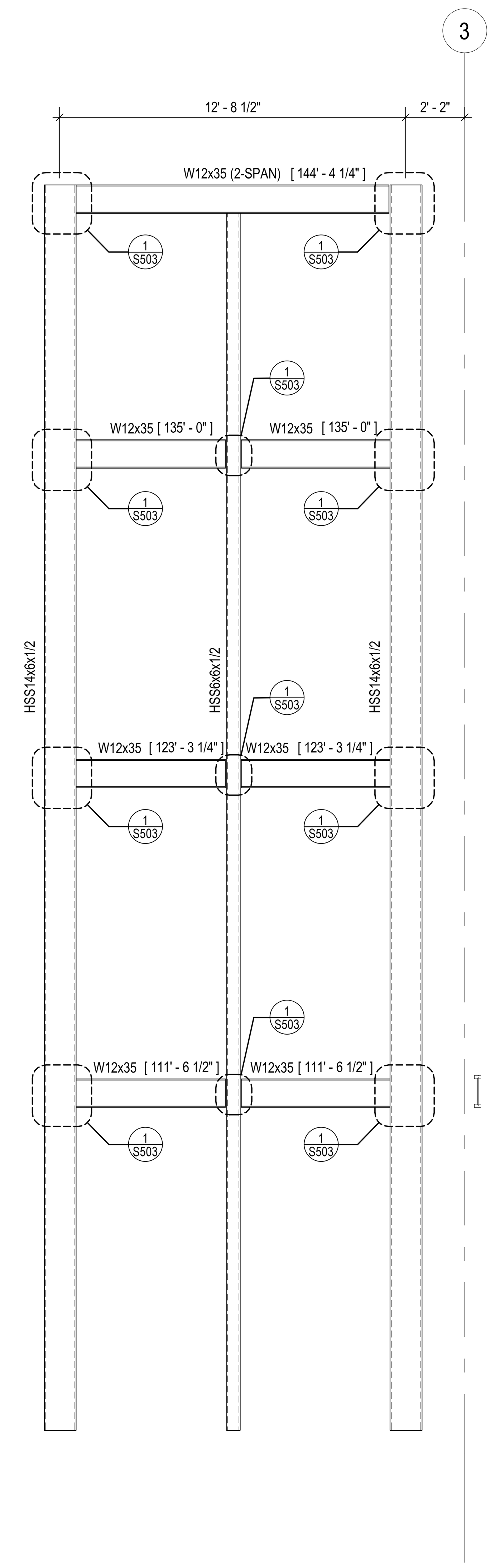


1 S406 MOMENT FRAME ELEVATION
1/4" = 1'-0"



2 S406 MOMENT FRAME ELEVATION
1/4" = 1'-0"



3 S406 MOMENT FRAME ELEVATION
1/4" = 1'-0"

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LATERAL FRAME ELEVATIONS

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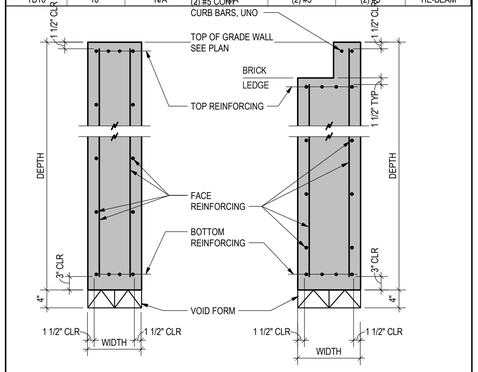
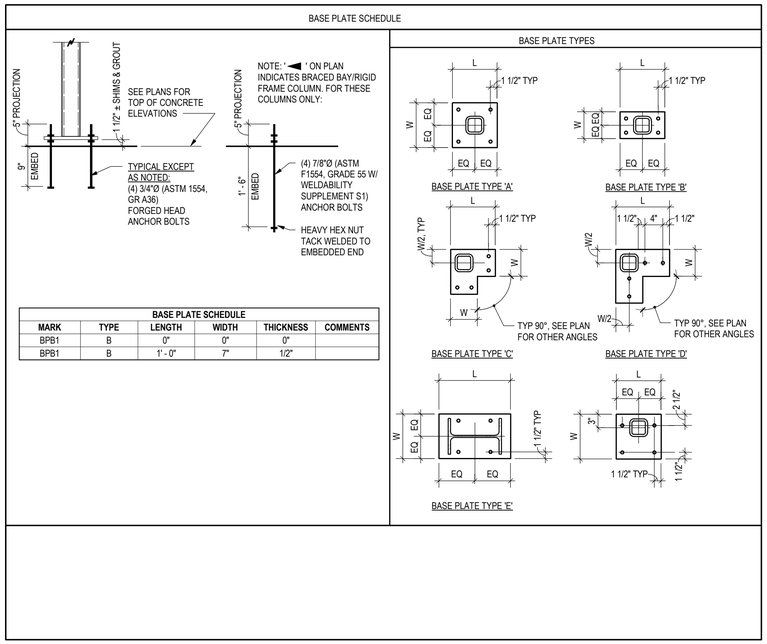
S406

FOUNDATION SCHEDULE						
MARK	WIDTH	HORIZ REINF	VERT REINF	TOP BARS	BOTTOM BARS	REMARKS
	18"	#5 @ 12" EA FACE	#5 @ 18" EA FACE	(2) #5	(2) #5	
8CSW	8"	#5 @ 18"	#5 @ 18"	(2) #5	(2) #5	
10CSW	10"	#5 @ 16"	#5 @ 18"	(2) #5	(2) #5	
GB8	8"	#5 @ 18"	#5 @ 18"	(2) #5	(2) #5	
GB10	10"	#5 @ 16"	#5 @ 18"	(2) #5	(2) #5	
GB12	12"	#5 @ 18" EA FACE	#5 @ 18" EA FACE	(2) #5	(2) #5	
GB16	16"	#5 @ 12" EA FACE	#5 @ 18" EA FACE	(2) #5	(2) #5	GB10 ABOVE BRICK LEDGE
GB18	18"	#5 @ 12" EA FACE	#5 @ 18" EA FACE	(2) #5	(2) #5	GB12 ABOVE BRICK LEDGE
TB10	10"	N/A	N/A	(2) #5 CONT	(2) #5	TIE-BEAM



6 S500 TYP CONC GRADE BEAM W/ REINF & SCHEDULE
3/4" = 1'-0"



BASE PLATE SCHEDULE					
MARK	TYPE	LENGTH	WIDTH	THICKNESS	COMMENTS
BPB1	B	0"	0"	0"	
BPB1	B	1' - 0"	7"	1/2"	

7 S500 BASE PLATE SCHEDULE
NO SCALE

COLUMN SCHEDULE

TYPICAL COLUMN MARKS:

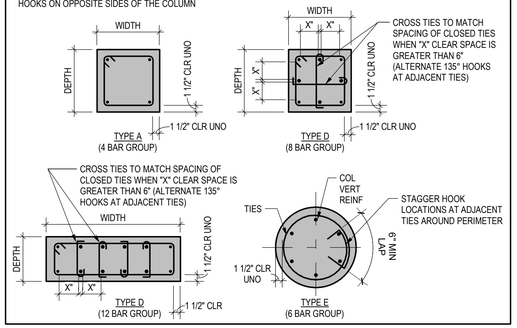
CXX OR CXXX
- HSS COLUMN WALL THICKNESS IN 16ths OF AN INCH (EXAMPLE: '5' INDICATES 5/16" WALL THICKNESS, '10' INDICATES 5/8", ETC...)
- SQUARE OR RECTANGULAR HSS COLUMN SIZE (EXAMPLE: '6' INDICATES HSS6x6, '75' INDICATES HSS7x5)

STEEL COLUMN SCHEDULE	
MARK	STEEL COLUMN SCHEDULE
C44	HSS4x4x1/4
C54	HSS5x5x1/4
C58	HSS5x5x1/2
C68	HSS6x6x1/2
C88	HSS8x8x1/2
C1010	HSS10x10x5/8
C1068	HSS10x6x1/2
C1468	HSS14x6x1/2
C10610	HSS10x6x5/8
C14610	HSS14x6x5/8
C141010	HSS14x10x5/8

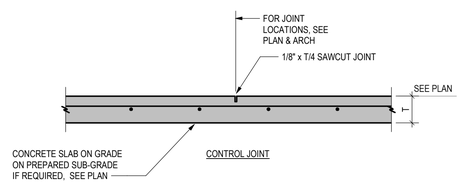
5 S500 SCHEDULE
NO SCALE

PILASTER SCHEDULE					
MARK	WIDTH	DEPTH	VERTICAL REINF	TIES	TIE TYPE
P30	2' - 6"	2' - 6"	(X) #X VERT	(3) #4 CLOSED TIES @ 3" TOP AND @ 12" BAL	SQUARE
P33	2' - 9"	2' - 9"	(X) #X VERT	(3) #4 CLOSED TIES @ 3" TOP AND @ 12" BAL	SQUARE

NOTES:
1. SEE PLANS AND DETAILS FOR TOP ELEVATIONS OF PIER CAPS, PILASTERS AND/OR FOOTINGS
2. COLUMN VERTICAL REINFORCEMENT, TIES, AND SPLICES SHALL BE DETAILED TO CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE ACI 318" AND ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT
3. UNLESS SHOWN OTHERWISE IN THE COLUMN SCHEDULE, SQUARE AND RECTANGULAR COLUMNS SHALL HAVE EQUAL NUMBER OF VERTICAL BARS ON EACH COLUMN FACE
4. SQUARE AND RECTANGULAR COLUMN LAP SPLICES SHALL BE NORMAL LAP SPLICES (UNLESS NOTED OTHERWISE IN THE COLUMN SCHEDULE) WITH BARS OFFSET BENT IN THE SHOP TOWARD THE INTERIOR OF THE COLUMN. SEE "TYPICAL DETAIL X/SXXX
5. CIRCULAR COLUMN LAP SPLICES SHALL BE TANGENTIAL LAP SPLICES (UNLESS NOTED OTHERWISE IN THE COLUMN SCHEDULE). SEE TYPICAL DETAIL X/XXX.
6. THE SLOPE OF THE INCLINED PORTION OF AN OFFSET BAR WITH THE AXIS OF THE COLUMN SHALL NOT EXCEED 1 IN 6. PORTIONS OF THE BAR ABOVE AND BELOW AN OFFSET SHALL BE PARALLEL TO THE AXIS OF THE COLUMN. OFFSET BARS SHALL BE BENT BEFORE PLACEMENT IN THE FORMS. WHERE A COLUMN FACE IS OFFSET 3 INCHES OR MORE, LONGITUDINAL BARS SHALL NOT BE OFFSET BENT. SEPARATE DOWELS, LAP SPLICED WITH THE LONGITUDINAL BARS ADJACENT TO THE OFFSET COLUMN FACES, SHALL BE PROVIDED. SEE COLUMN SPLICE DETAILS
7. THE FOLLOWING NOTATION IS USED IN THE COLUMN SCHEDULE AND ELSEWHERE ON THE DRAWINGS TO DENOTE REINFORCING STEEL EMBEDMENT LENGTHS AND SPLICE TYPE:
   - M - MECHANICAL SPLICE TO DEVELOP 125% OF YIELD CAPACITY
   - CS - COMPRESSION SPLICE, 30 BAR DIAMETERS
   - A - CLASS A TENSION LAP SPLICE
   - B - CLASS B TENSION LAP SPLICE
8. VERTICAL REINF AND TIES MUST CONFORM TO ASTM A706 OR MILL REPORTS MUST BE SUBMITTED PER GENERAL NOTES. CLOSED TIES MUST HAVE SEISMIC HOOKS EACH END. CROSSTIES MUST HAVE A SEISMIC HOOK ONE END WITH 90° HOOK AT THE OTHER END. CONSECUTIVE CROSSTIES ENGAGING THE SAME LONGITUDINAL BAR HAVE THEIR 90° HOOKS ON OPPOSITE SIDES OF THE COLUMN

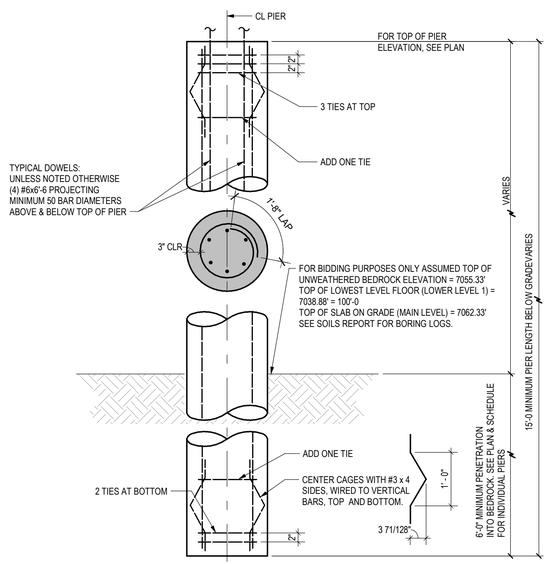


2 S500 SCHEDULE
NO SCALE



3 S500 TYP JOINTS AT INTERIOR SLAB ON GRADE
NO SCALE

PIER SCHEDULE					
MARK	DIAMETER	PENETRATION INTO BEDROCK (MINIMUM)	MINIMUM PIER LENGTH	REINFORCING	TIES
DP12	1' - 0"	6' - 0"	15' - 0"	(3) #6	#4@12"
DP16	1' - 4"	6' - 0"	15' - 0"	(5) #6	#4@12"



4 S500 SCHEDULE
NO SCALE

TYPICAL CONCRETE REINFORCING LAP & EMBEDMENT LENGTHS (UNO)							
		f'c = 3000 PSI		f'c = 4000 PSI		f'c = 5000 PSI	
BAR SIZE	TYPE	TOP BAR	OTHER BAR	TOP BAR	OTHER BAR	TOP BAR	OTHER BAR
#4	EMBED	29	22	25	19	22	17
	LAP	37	29	32	25	29	22
#5	EMBED	36	28	31	24	28	22
	LAP	47	36	40	31	36	28
#6	EMBED	43	33	37	29	33	26
	LAP	56	43	48	37	43	33
#7	EMBED	63	48	54	42	49	37
	LAP	81	63	70	54	63	49
#8	EMBED	72	55	62	48	55	43
	LAP	93	72	80	62	72	55
#9	EMBED	81	62	70	54	63	48
	LAP	105	81	91	70	81	63
#10	EMBED	91	70	79	61	70	54
	LAP	118	91	102	79	91	70
#11	EMBED	101	78	87	67	78	60
	LAP	131	101	113	87	101	78

NOTES:
1. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF FRESH CONCRETE CAST BELOW BAR
2. TABULATED VALUES ARE BASED ON GRADE 60 NON-EPOXY-COATED REINFORCING BARS AND NORMAL WEIGHT CONCRETE
3. VALUES ARE IN INCHES

1 S500 SCHEDULE
NO SCALE

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Sheet Title
TYPICAL CONCRETE & STEEL SCHEDULES

Sheet Number
S500

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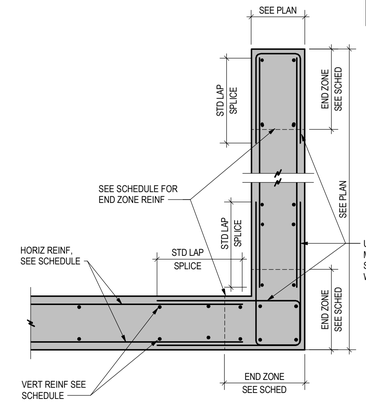
CONCRETE SHEAR WALL SCHEDULE

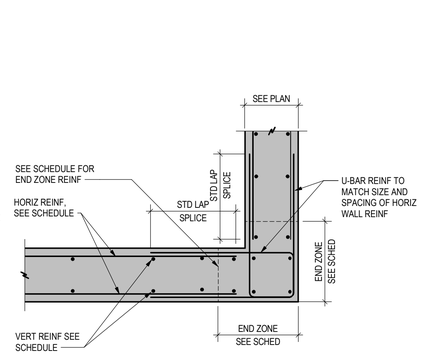
CONCRETE SHEAR WALL SCHEDULE

TYPE	WIDTH	HORIZ EXTERIOR REINF	VERT EXTERIOR RIENF	HORIZ INTERIOR REINF	VERT INTERIOR REINF	TOP REINF	BOTTOM REINF	STIRRUPS	END ZONE RIENF
8CSW	8"	#X @ XX	#X @ XX	#X @ XX	#X @ XX	(2) #5	(2) #5	(X) #X	(X) #X
10CSW	10"					(2) #5	(2) #5		

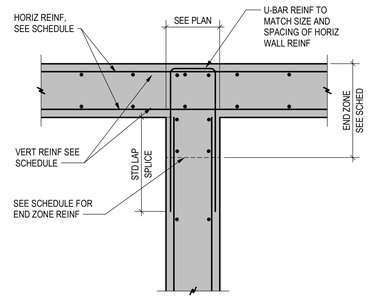
NOTES:
1. SEE PLAN FOR WALL AND OPENING DIMENSIONS
2. HORIZONTAL BARS SHALL BE PLACED CLOSER TO WALL SURFACE THAN VERTICAL BARS (BOTH FACES) AT ALL SHEAR WALLS
3. PROVIDE 2" CLEAR COVER AT ALL SHEAR WALLS
4. EACH LIFT OF WALL TO BE POURED TO UNDERSIDE OF SLAB, SEE PLAN FOR WALL/SLAB DETAILS
5. SEE X/SXXX FOR REINF AT MECHANICAL OPENINGS IN SHEAR WALLS. COORDINATE ALL MECHANICAL OPENINGS W/ MECH DRAWINGS & ARCH



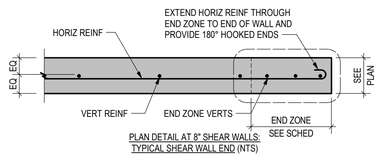
PLAN DETAIL AT 10" & THICKER SHEAR WALLS: TYPICAL SHEAR WALL CORNER NEAR OPENINGS (NTS)



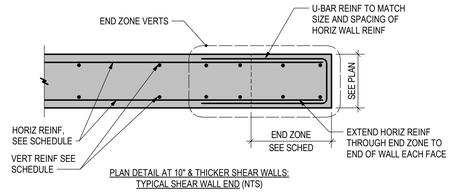
PLAN DETAIL AT 10" & THICKER SHEAR WALLS: TYPICAL SHEAR WALL CORNER (NTS)



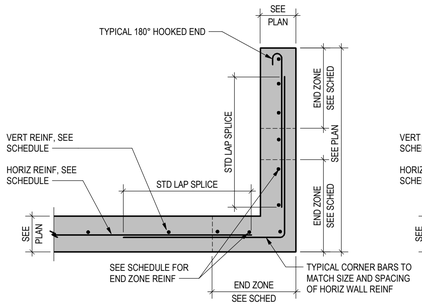
PLAN DETAIL AT 10" & THICKER SHEAR WALLS: TYPICAL SHEAR WALL INTERSECTION (NTS)



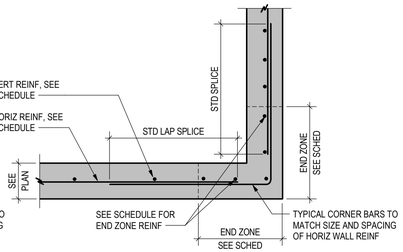
PLAN DETAIL AT 8" SHEAR WALLS: TYPICAL SHEAR WALL END (NTS)



PLAN DETAIL AT 10" & THICKER SHEAR WALLS: TYPICAL SHEAR WALL END (NTS)



PLAN DETAIL AT 8" SHEAR WALLS: TYPICAL SHEAR WALL CORNER NEAR OPENINGS (NTS)



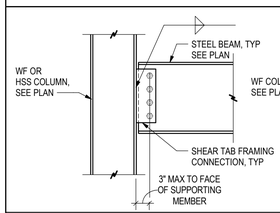
PLAN DETAIL AT 8" SHEAR WALLS: TYPICAL SHEAR WALL CORNER (NTS)

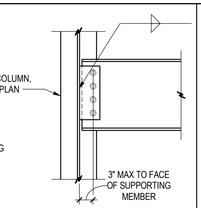
STEEL BEAM SHEAR TAB CONNECTION SCHEDULE - 3/4"Ø BOLTS (ASD)

BEAM SIZE	# OF 3/4"Ø BOLT ROWS	SHEAR TAB THICKNESS x LENGTH, SEE NOTE 14	FILLET WELD SIZE	CONNECTION CAPACITY -Rn/Ω (KIPS) UNCOPED	SINGLE COPE 1	SINGLE COPE 2	DOUBLE COPE	REMARKS
W8	2	3/8" x 6"	1/4"	16.5	8.5	N/A	4.7	
W10	2	3/8" x 6"	1/4"	16.5	13.4	N/A	5.3	
W12*	3	3/8" x 9"	1/4"	28.9	21.7	10.3	12.5	
W14	3	3/8" x 9"	1/4"	28.9	28.9	19.5	16.7	
W16**	4	3/8" x 12"	1/4"	41.7	41.7	28.9	27.7	
W18	4	3/8" x 12"	1/4"	41.7	41.7	41.7	41.7	
W21	5	3/8" x 15"	1/4"	54.2	54.2	54.2	54.2	
W24	6	3/8" x 18"	1/4"	66.7	66.7	66.7	66.7	
W27	7	3/8" x 21"	1/4"	78.7	78.7	78.7	78.7	
W30	8	3/8" x 24"	1/4"	91.3	91.3	91.3	91.3	
W33	9	3/8" x 27"	1/4"	103.3	103.3	103.3	103.3	
W36	10	3/8" x 30"	1/4"	115.3	115.3	115.3	115.3	
W40	11	3/8" x 33"	1/4"	126.7	126.7	126.7	126.7	

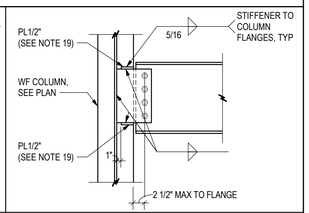
NOTES:
1. DESIGN IS BASED ON AISC 15TH EDITION (ASD).
2. MINIMUM YIELD STRESS FY: PLATES - 36 KSI, W-SHAPES - 50 KSI, HSS SHAPES - 50 KSI.
3. MINIMUM TENSILE STRESS FU: PLATES - 58 KSI, W-SHAPES - 65 KSI, HSS SHAPES - 62 KSI.
4. MINIMUM EDGE DISTANCES: VERTICAL EDGE DISTANCE, Lev = 1 1/2", HORIZONTAL EDGE DISTANCE, Leh = 1 1/2".
5. ALL WELDS ARE TO USE E70XX ELECTRODES.
6. ALL BOLTS ARE TO BE ASTM F3125 GRADE A325 OR GRADE F1852 IN SNUG-TIGHTENED BEARING TYPE JOINTS UNLESS NOTED OTHERWISE. THE TABULATED CAPACITIES ARE BASED ON THREAD CONDITION "N" (THREADS ARE NOT EXCLUDED FROM THE SHEAR PLANE). CONNECTIONS DESIGNATED AS 'SC' ON PLANS ARE TO BE CLASS 'A' SLIP-CRITICAL JOINTS WITH ASTM F3125 GRADE A325 OR GRADE F1825 BOLTS. (CAPACITY VALUES LISTED DO NOT APPLY TO THE SLIP-CRITICAL JOINT CONNECTIONS.)
7. STANDARD HOLES ARE TO BE PROVIDED IN SUPPORTED WEBS.
8. **STANDARD OR SHORT-SLOTTED HOLES TO BE PROVIDED IN SHEAR TAB PLATES FOR CONNECTIONS WITH FEWER THAN 6 BOLTS. SHORT-SLOTTED HOLES TO BE PROVIDED IN SHEAR TAB PLATES WITH 6 OR MORE BOLTS. (TABULATED VALUES ARE NOT VALID FOR STANDARD HOLES IN CONNECTIONS WITH MORE THAN 6 BOLTS.)**
9. BOLT SPACING = 3".
10. BEAM WEB DEPTH FOR DOUBLE COPE CONDITION MUST BE GREATER THAN OR EQUAL TO SHEAR TAB PLATE LENGTH. COPE BEAM ACCORDINGLY. (2" MAX. AT W8-W24 AND 3" MAX AT W27-W40). AT ALL COPE CONDITIONS, SHEAR TAB PLATES MUST NOT EXTEND ABOVE OR BELOW COPES.
11. DETAILER TO INFORM ENGINEER OF COPE CONDITIONS NOT COMPLYING WITH CONDITIONS SHOWN IN DETAILS BELOW.
12. FOR SKEWED SHEAR TAB PLATE CONNECTIONS, WELD DETAILS ARE TO FOLLOW TABLE 10-14C, AISC 15TH EDITION.
13. SEE DETAILS BELOW FOR ADDITIONAL DETAILING REQUIREMENTS. THE ENGINEER IS TO BE NOTIFIED OF ANY FRAMING CONDITION WHICH DOES NOT MEET THE CRITERIA PROVIDED IN THIS SCHEDULE.
14. * PROVIDE 2 BOLTS WITH 6" LONG SHEAR TAB PLATE FOR W12 BEAM AT "SINGLE COPE 2" CONDITION ONLY.
15. ** PROVIDE 3 BOLTS WITH 9" LONG SHEAR TAB PLATE FOR W16 BEAM AT "SINGLE COPE 2" CONDITION ONLY.
16. N/A INDICATES CONDITION WHERE CONNECTION FRAMING TYPES OUTLINED IN THIS SCHEDULE DO NOT APPLY.
17. FOR ANY COLUMN LARGER THAN A W18, THE ALTERNATE BEAM TO COLUMN WEB EXTENDED PLATE CONNECTION IS NOT APPLICABLE.
18. THE VALUES LISTED FOR THE UNCOPED CONNECTION CAPACITIES ARE NOT APPLICABLE TO THE ALTERNATE BEAM-TO-COLUMN WEB EXTENDED PLATE CONFIGURATION FOR COLUMN WEIGHTS SMALLER THAN THE FOLLOWING FOR EACH COLUMN DEPTH SERIES: W8X18, W10X33, W12X26, W14X43, W16X67, AND W18X76.
19. AT THE FOLLOWING COLUMNS PROVIDE 3/4" STIFFENER PLATES TOP AND BOTTOM AT THE ALTERNATE BEAM TO COLUMN WEB EXTENDED PLATE CONNECTION: W8X18, W8X21, W12X26, W12X30, W12X35, W14X43, W14X48, AND W14X53.

UNCOPED



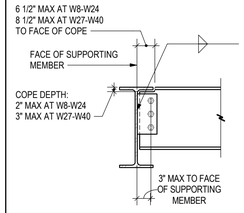


TYPICAL BEAM-TO-COLUMN CONNECTIONS

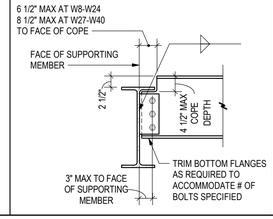


ALTERNATE BEAM-TO-COLUMN WEB EXTENDED PLATE CONNECTION (SEE NOTES 17-19)

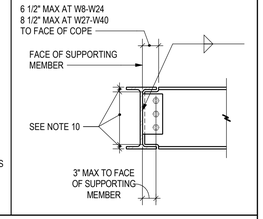
SINGLE COPE 1



SINGLE COPE 2



DOUBLE COPE



TYPICAL BEAM-TO-BEAM CONNECTIONS

ENGINEER NOTES:
1. REVIEW AND IMPLEMENT PRE-ESTABLISHED SUPPORTING CALCULATION PACKAGE VERIFYING CONNECTION CAPACITIES PRESENTED

1 S501 CONCRETE WALL SCHEDULE
3/4" = 1'-0"
0 6" 1' 2' 3'

2 S501 SCHEDULE
NO SCALE

COLORADO LICENSED ERIC M. SMITH 3-25-24 40336 PROFESSIONAL ENGINEER

REVIEWED FOR CODE COMPLIANCE 04/01/2025

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JVA #22025

NOTICE: DUTY OF COOPERATION

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REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN
FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
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(303) 442-5456, (303) 442-4745 FAX

Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

Project Phase
PERMIT

Sheet Title
TYPICAL CONCRETE & STEEL SCHEDULES

Sheet Number
S501

3/25/2024 5:52:49 PM THE ASTRID CONDO B7 v22

REVIEWED FOR CODE COMPLIANCE
04/01/2025

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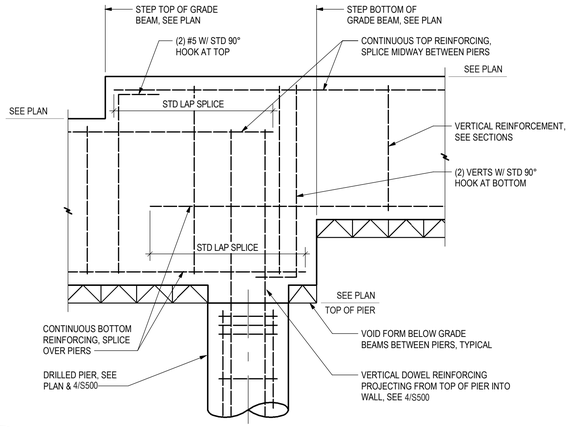
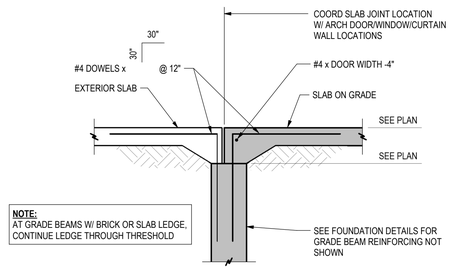
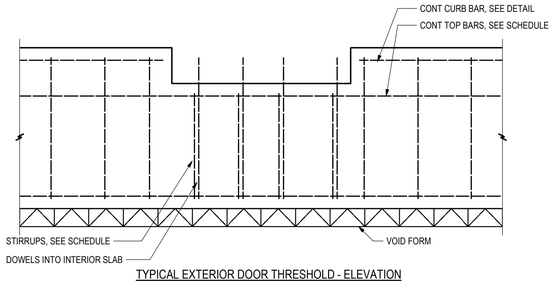


8 S502 TYP CONC STEP IN GRADE BEAM
3/4" = 1'-0"



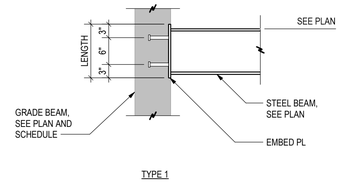
TYPICAL EXTERIOR DOOR THRESHOLD - SECTION



TYPICAL EXTERIOR DOOR THRESHOLD - ELEVATION

9 S502 TYP CONC GRADE BEAM EXTERIOR DOOR THRESHOLD
3/4" = 1'-0"

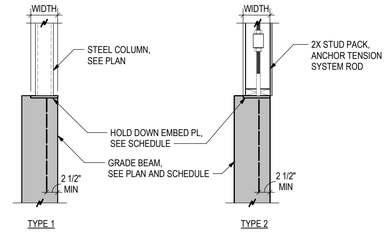
STEEL EMBED PLATE SCHEDULE				
EMBED PLATE		HEADED ANCHOR STUDS		
TYPE	T x W x L	HAS	N ROWS	N COLS	BEAM SIZE UNO
EP-1	PL3/4"x1'-0"x1'-0"	(4) 3/4"Ø x 6"	2	2	W8, W10, W12
EP-2	PL3/4"x1'-0"x1'-6"	(6) 3/4"Ø x 6"	3	2	W14, W16, W18
EP-3	PL3/4"x1'-0"x1'-9"	(8) 3/4"Ø x 6"	4	2	W21
EP-4	PL3/4"x1'-0"x2'-0"	(10) 3/4"Ø x 6"	5	2	W24
EP-5	PL3/4"x1'-0"x2'-3"	(12) 3/4"Ø x 6"	6	2	W27
EP-6	PL3/4"x1'-0"x2'-6"	(14) 3/4"Ø x 6"	7	2	W30



TYPE 1

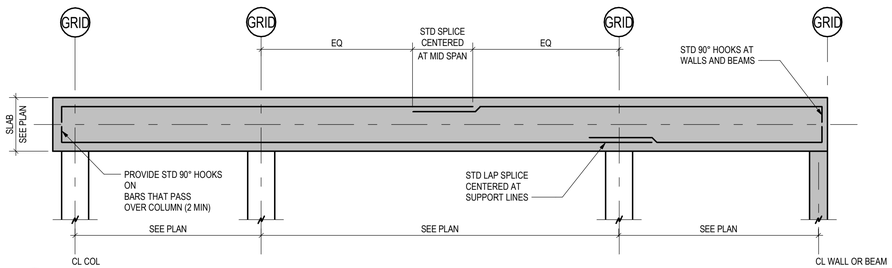
10 S502 TYP STL BEAM EMBED PLATE
3/4" = 1'-0"

HOLD DOWN EMBED PLATE				
TYPE	STRUCTURE	T x W x L	ANCHOR	COMMENTS
EPC-1	HSS4X4 & HSS5X5	PL3/4"x6"x6"	(2) #5 REBAR - 24" EMBED w/ 10" HOOK	
EPC-1A	HSS4X4 & HSS5X5	PL3/4"x6"x6"	(2) #5 REBAR - 24" EMBED w/ 10" HOOK	CORNER
EPC-2	HSS8x8	PL3/4"x10"x10"	(4) #5 REBAR - 24" EMBED w/ 10" HOOK	
EPC-3	HSS10x6	PL3/4"x8"x1'-0"	(4) #5 REBAR - 24" EMBED w/ 10" HOOK	
EPC-3A	HSS10x6	PL3/4"x8"x1'-0"	(4) #5 REBAR - 24" EMBED w/ 10" HOOK	CORNER
EPC-4	HSS10x10	PL3/4"x1'-0"x1'-0"	(4) #5 REBAR - 24" EMBED w/ 10" HOOK	CORNER
EPC-5	HSS14x6	PL3/4"x1'-0"x1'-0"	(4) #5 REBAR - 24" EMBED w/ 10" HOOK	CORNER
EPC-6	HSS14x10	PL3/4"x1'-0"x1'-0"	(4) #5 REBAR - 24" EMBED w/ 10" HOOK	CORNER
EPC-7	ATS-01 & ATS-02	PL3/4"x1'-0"x1'-0"	(6) #5 REBAR - 24" EMBED w/ 10" HOOK	
EPC-8	ATS-03 & ATS-04	PL3/4"x10"x1'-0"	(6) #5 REBAR - 24" EMBED w/ 10" HOOK	
EPC-9	ATS-05, ATS-06 & ATS-07	PL3/4"x10"x10"	(4) #5 REBAR - 24" EMBED w/ 10" HOOK	

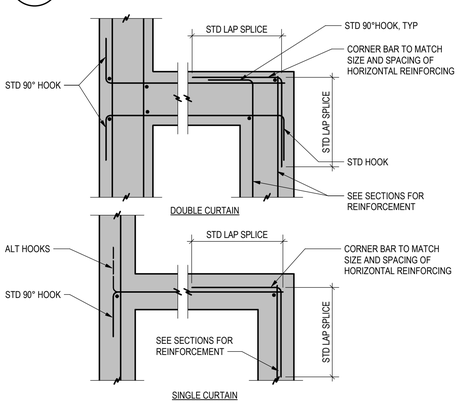


TYPE 1 TYPE 2

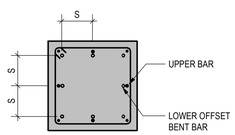
11 S502 HOLD DOWN EMBED PLATE
3/4" = 1'-0"



5 S502 TYP CONC SPLICE LOCATIONS ELEVATED SLAB REINF
3/4" = 1'-0"

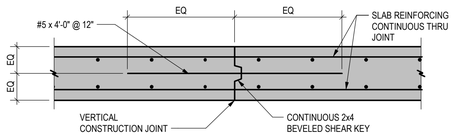


1 S502 TYP CONC WALL INTERSECTION
3/4" = 1'-0"



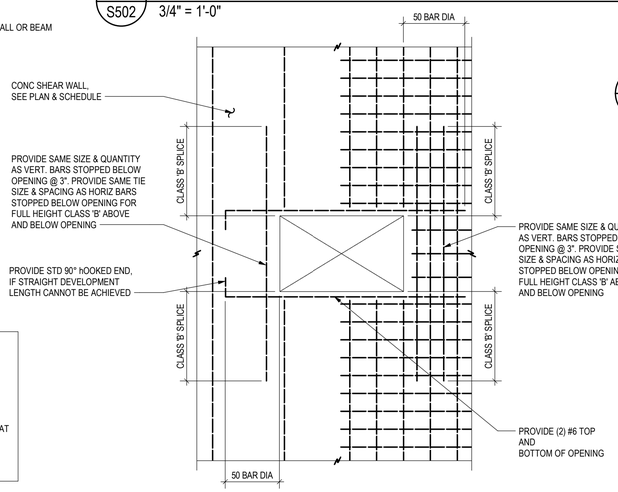
NOTES:
1. LOWER COLUMN VERTICAL BARS SHALL BE OFFSET BENT IN THE SHOP TOWARD THE INTERIOR OF THE COLUMN AS SHOWN
2. S = CLEAR BAR SPACING TO BE USED FOR DETERMINATION OF TENSION SPLICE LENGTH CATEGORY
3. WHEN CLEAR BAR SPACING IS NOT THE SAME AT DIFFERENT COLUMN FACES, SMALLER SPACING SHALL BE USED TO DETERMINE THE APPLICABLE SPLICE CATEGORY
4. WHEN CLEAR BAR SPACING BETWEEN BARS AT SPLICE IS EQUAL TO OR LESS THAN 2db, SPLICES SHALL BE STAGGERED SO THAT NO MORE THAN 50% OF THE BARS ARE SPLICED AT ANY GIVEN LOCATION
5. REFER TO DETAIL 'TYPICAL DETAIL, CLEAR SPACING OF TANGENTIAL LAP SPLICED BARS, STAGGERED SPLICES' FOR CRITERIA TO DETERMINE CLEAR SPACING FOR BARS AT STAGGERED SPLICES

2 S502 TYP CONC SQ/RECT COL LAP SPLICE
3/4" = 1'-0"

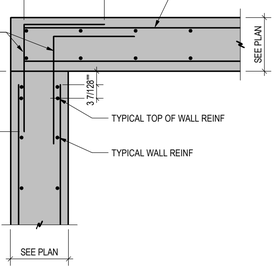


NOTES:
1. CONSTRUCTION JOINTS SHOULD BE LOCATED ON THE MIDDLE THIRD OF THE SLAB SPAN
2. CONCRETE SURFACE AT CONSTRUCTION JOINT SHALL BE CLEAN AND FREE OF LAITANCE

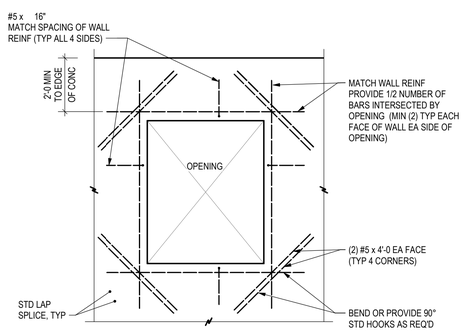
6 S502 TYP CONC ELEVATED SLAB CONSTRUCTION JOINT
3/4" = 1'-0"



3 S502 TYP CONC MECH OPENING THRU SHEAR WALL
3/4" = 1'-0"



7 S502 TYP CONC WALL TO CONVENTIONALLY REINF SLAB (CORNER)
3/4" = 1'-0"



4 S502 TYP CONC 1'-0 TO 6'-0 WALL OPENINGS
3/8" = 1'-0"

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PROFESSIONAL ENGINEER

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REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
(303) 442-5458, (303) 442-4745 FAX

Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

Project Phase
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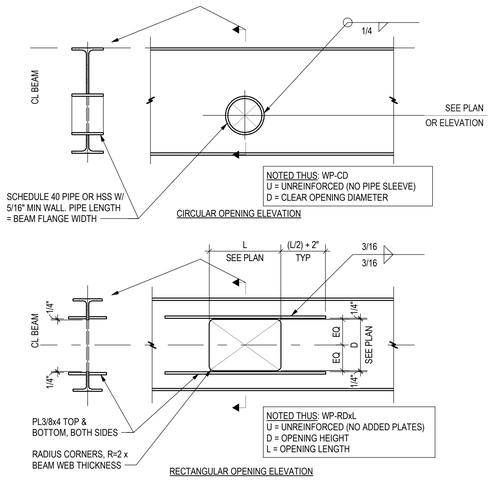
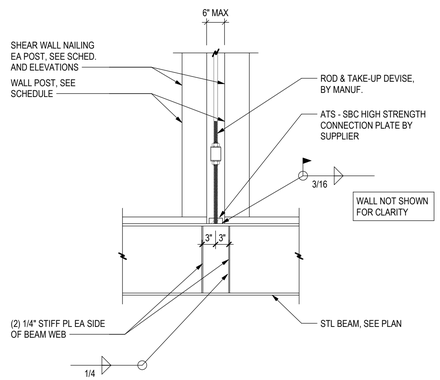
Sheet Title
TYPICAL CONCRETE DETAILS

Sheet Number
S502



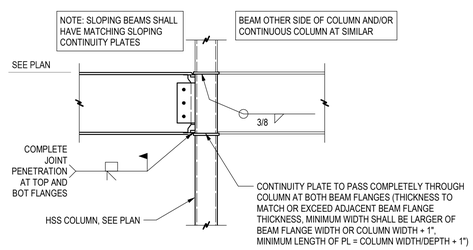
3 S503 **TYP STL BEAM WEB PENETRATION**

3/4" = 1'-0"



4 S503 **TYP TENSION ROD SYSTEM**

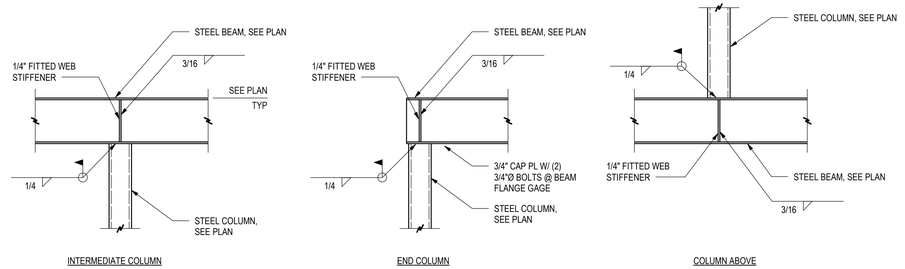
3/4" = 1'-0"



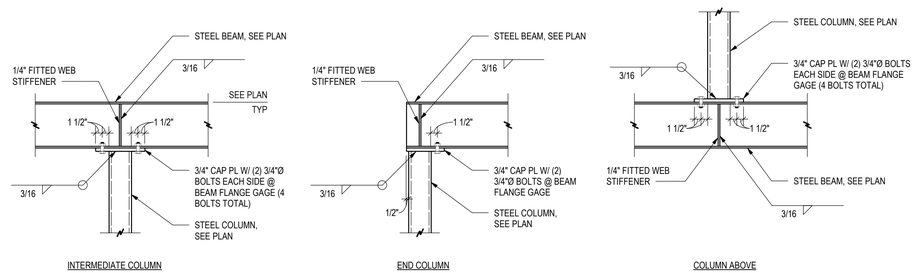
1 S503 **TYP STL RIGID FRAME BM TO HSS COL CONN**

3/4" = 1'-0"

3/4" 0 6" 1' 2' 3'



FIELD WELDED OPTION



BOLTED OPTION

2 S503 **STEEL BEAM TO COLUMN CONNECTIONS**

3/4" = 1'-0"

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Job Number:	22025
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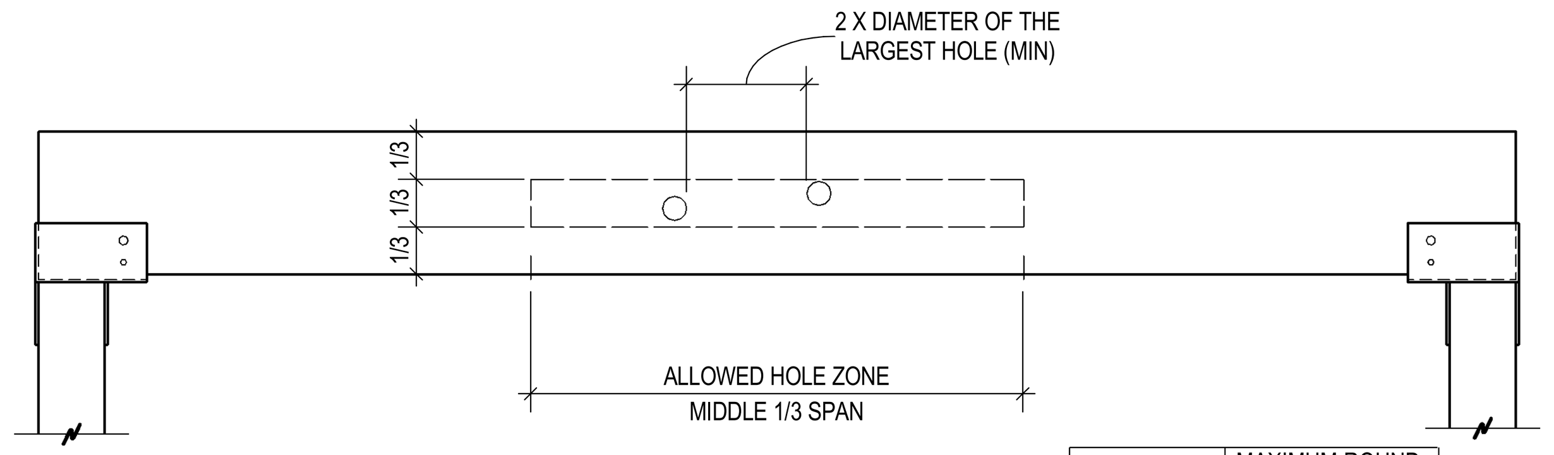
Drawn By:	BPK/LAB
Checked By:	MES

Project Phase
PERMIT

Sheet Title
TYPICAL STEEL DETAILS

Sheet Number
S503



GENERAL NOTES:
- ALLOWED HOLE ZONE SUITABLE FOR UNIFORMLY LOADED BEAMS AND HEADERS ONLY
- ROUND HOLES ONLY
- NO HOLES IN CANTILEVERS
- NO HOLES IN BEAMS OR HEADERS IN PLANK ORIENTATION

HEADER DEPTH	MAXIMUM ROUND HOLE SIZE
4 3/8"	1"
5 1/2"	1 3/4"
7 1/4" TO 20"	2"

5 HOLES IN LVL BEAMS
S504 NO SCALE

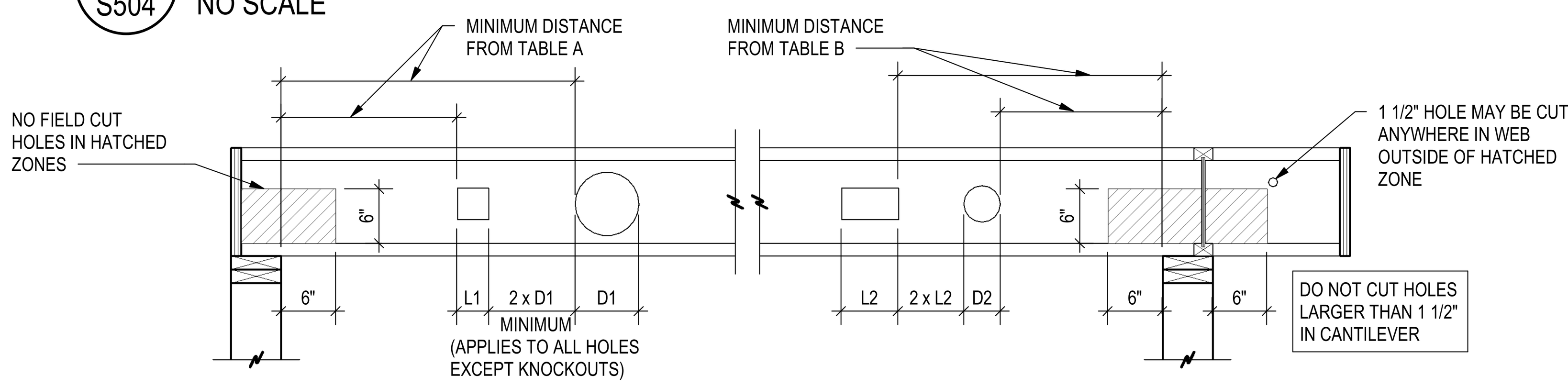


TABLE A - END SUPPORT: Minimum distance from edge of hole to inside face of nearest end support

DEPTH	TJI ®	D1 - ROUND HOLE SIZE									L1 - SQUARE OR RECTANGLE HOLE SIZE								
		2"	3"	4"	5"	6 1/2"	7"	8 7/8"	11"	13"	2"	3"	4"	5"	6 1/2"	7"	8 7/8"	11"	13"
9 1/2"	210	1'-0"	1'-6"	2'-6"	3'-0"	5'-6"					1'-0"	2'-0"	2'-6"	4'-0"	5'-0"				
11 7/8"	210	1'-0"	1'-6"	2'-0"	2'-0"	3'-0"	3'-6"	6'-0"			1'-0"	1'-6"	2'-6"	3'-0"	5'-0"	5'-6"	6'-6"		
	360	1'-6"	2'-0"	3'-0"	3'-6"	4'-6"	5'-0"	7'-0"			1'-0"	2'-6"	3'-6"	4'-6"	6'-6"	6'-6"	7'-6"		
	560	1'-6"	2'-6"	3'-0"	4'-0"	5'-6"	6'-0"	8'-0"			2'-6"	3'-6"	4'-6"	5'-6"	7'-0"	7'-6"	8'-0"		
14"	210	1'-0"	1'-0"	1'-0"	1'-6"	2'-0"	2'-6"	3'-6"	6'-0"		1'-0"	1'-0"	2'-0"	2'-6"	4'-0"	4'-6"	6'-6"	8'-6"	
	360	1'-0"	1'-0"	1'-0"	2'-6"	3'-6"	4'-0"	5'-6"	8'-0"		1'-0"	1'-6"	2'-6"	4'-0"	6'-0"	6'-6"	8'-0"	9'-6"	
	560	1'-0"	1'-0"	2'-0"	3'-0"	4'-6"	5'-0"	6'-6"	9'-0"		1'-0"	3'-0"	4'-0"	5'-0"	7'-0"	7'-6"	9'-0"	10'-0"	
16"	210	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-6"	3'-6"	6'-0"	1'-0"	1'-0"	1'-0"	2'-0"	3'-0"	3'-6"	6'-6"	8'-0"	11'-0"
	360	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	2'-6"	4'-6"	6'-6"	9'-0"	1'-0"	1'-0"	1'-6"	3'-0"	5'-0"	5'-6"	9'-0"	10'-0"	11'-6"
	560	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	3'-0"	5'-0"	7'-6"	10'-0"	1'-0"	2'-0"	3'-0"	4'-6"	6'-6"	7'-0"	10'-0"	11'-0"	12'-0"

TABLE B - INTERMEDIATE OR CANTILEVER SUPPORT: Minimum distance from edge of hole to inside face of nearest intermediate or cantilever support

DEPTH	TJI ®	D1 - ROUND HOLE SIZE									L1 - SQUARE OR RECTANGLE HOLE SIZE								
		2"	3"	4"	5"	6 1/2"	7"	8 7/8"	11"	13"	2"	3"	4"	5"	6 1/2"	7"	8 7/8"	11"	13"
9 1/2"	210	2'-0"	2'-6"	3'-6"	5'-0"	8'-0"					2'-0"	3'-0"	4'-0"	6'-6"	7'-6"				
11 7/8"	210	1'-0"	1'-0"	2'-0"	3'-0"	4'-6"	5'-0"	9'-0"			1'-0"	2'-0"	3'-0"	4'-6"	8'-0"	8'-0"	10'-0"		
	360	2'-0"	3'-0"	4'-0"	5'-6"	7'-0"	7'-6"	11'-0"			2'-0"	3'-6"	5'-0"	7'-0"	9'-6"	9'-6"	11'-0"		
	560	1'-6"	3'-0"	4'-6"	5'-6"	8'-0"	8'-6"	12'-0"			3'-0"	4'-6"	6'-0"	8'-0"	10'-6"	11'-0"	12'-0"		
14"	210	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	3'-0"	5'-6"	9'-6"		1'-0"	1'-0"	2'-0"	3'-6"	6'-0"	7'-0"	10'-0"	13'-0"	
	360	1'-0"	1'-0"	2'-0"	3'-6"	5'-6"	6'-0"	8'-6"	12'-6"		1'-0"	2'-0"	4'-0"	5'-6"	9'-0"	10'-0"	12'-0"	14'-0"	
	560	1'-0"	1'-0"	1'-6"	3'-6"	5'-6"	6'-6"	9'-6"	13'-6"		1'-0"	3'-0"	5'-0"	7'-0"	10'-0"	11'-0"	13'-6"	15'-0"	
16"	210	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	3'-6"	6'-0"	10'-0"	1'-0"	1'-0"	1'-0"	1'-6"	4'-6"	5'-6"	10'-0"	12'-6"	16'-0"
	360	1'-0"	1'-0"	1'-0"	1'-0"	3'-0"	4'-0"	6'-6"	10'-0"	13'-6"	1'-0"	1'-0"	2'-0"	4'-0"	7'-6"	8'-6"	13'-0"	14'-6"	17'-0"
	560	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	3'-6"	7'-0"	11'-0"	15'-0"	1'-0"	1'-0"	3'-6"	5'-6"	9'-0"	10'-0"	14'-6"	16'-0"	18'-0"

GENERAL NOTES:
- HOLES MAY BE LOCATED VERTICALLY ANYWHERE WITHIN THE WEB. LEAVE 1/8" OF WEB (MINIMUM) AT TOP AND BOTTOM OF HOLE.
- KNOCKOUTS ARE LOCATED IN WEB AT APPROXIMATELY 12" ON-CENTER, THEY DO NOT AFFECT HOLE PLACEMENT.
- FOR SIMPLE SPAN (5'-0 MIN) UNIFORMLY LOADED JOISTS MEETING THE REQUIREMENTS OF THIS GUIDE, ONE MAXIMUM SIZE ROUND HOLE MAY BE LOCATED AT THE CENTER OF THE JOIST SPAN **PROVIDED THAT NO OTHER HOLES OCCUR IN THE JOIST.**
- DISTANCES ARE BASED ON THE MAXIMUM UNIFORM LOADS SHOWN IN THIS GUIDE. FOR OTHER LOAD CONDITIONS OR HOLE CONFIGURATIONS, USE FORTE® SOFTWARE OR CONTACT YOUR WEYERHAEUSER REPRESENTATIVE.

4 TYP I-JOIST PENETRATION SCHEDULE
S504 NO SCALE

PENNYWEIGHT	TYPE	DIAMETER	LENGTH
8d	COMMON	0.131"	2-1/2"
8d	BOX	0.113"	2-1/2"
8d	SINKER	0.113"	2-3/8"
8d	GUN	0.113"	2-3/8"
10d	COMMON	0.148"	3"
10d	BOX	0.128"	3"
10d	SINKER	0.120"	2-7/8"
10d	GUN	0.131"	3"
12d	COMMON	0.148"	3-1/4"
12d	BOX	0.128"	3-1/4"
12d	SINKER	0.135"	3-1/8"
12d	GUN	0.131"	3-1/4"
16d	COMMON	0.162"	3-1/2"
16d	BOX	0.135"	3-1/2"
16d	SINKER	0.148"	3-1/4"

1 TYP WOOD NAILING SCHEDULE
S504 NO SCALE

WOOD FRAMING FASTENING SCHEDULE

CONNECTION	FASTENING	LOCATION
1. JOIST/RAFTER/BLOCKING TO BEARING SUPPORT	(3) 8d COMMON [OR] (3) 12d SINKER	TOENAIL
2. BRIDGING/BLOCKING TO JOIST	(2) 8d COMMON [OR] (2) 12d SINKER	TOENAIL, EACH END
6. SOLE PLATE TO JOIST OR BLOCKING	16d COMMON @ 16" [OR] 12d SINKER @ 8"	FACE NAIL
7. STUD TO TOP AND SOLE PLATE	(2) 16d COMMON [OR] (3) 12d SINKER	END NAIL
8. STUD TO SOLE PLATE	(4) 8d COMMON [OR] (4) 12d SINKER	TOENAIL
9. DOUBLE STUDS AND BUILT-UP CORNER STUDS	16d COMMON @ 24" [OR] 12d SINKER @ 8"	FACE NAIL, EACH STUD
10. DOUBLE TOP PLATES	16d COMMON @ 16" [OR] 12d SINKER @ 12"	TYPICAL FACE NAIL
	(8) 16d COMMON [OR] (12) 12d SINKER	LAP SPLICE FACE NAIL
12. RIM JOIST AND JOIST BLOCKING TO TOP PLATE	8d COMMON @ 6" [OR] 12d SINKER @ 6"	TOENAIL
13. TOP PLATE INTERSECTION	(2) 16d COMMON [OR] (3) 12d SINKER	FACE NAIL
14. BUILT UP HEADER	16d COMMON @ 16" [OR] 12d SINKER @ 12"	FACE NAIL ALONG EACH EDGE, EACH 2x
16. HEADER TO KING STUD	(4) 8d COMMON" [OR] (4) 12d SINKER	TOENAIL

GENERAL NOTES:
1. REFER TO IBC TABLE 2304.9.1 FOR MORE INFORMATION.
2. ALL FASTENINGS ARE TYPICAL UNLESS NOTED OTHERWISE.

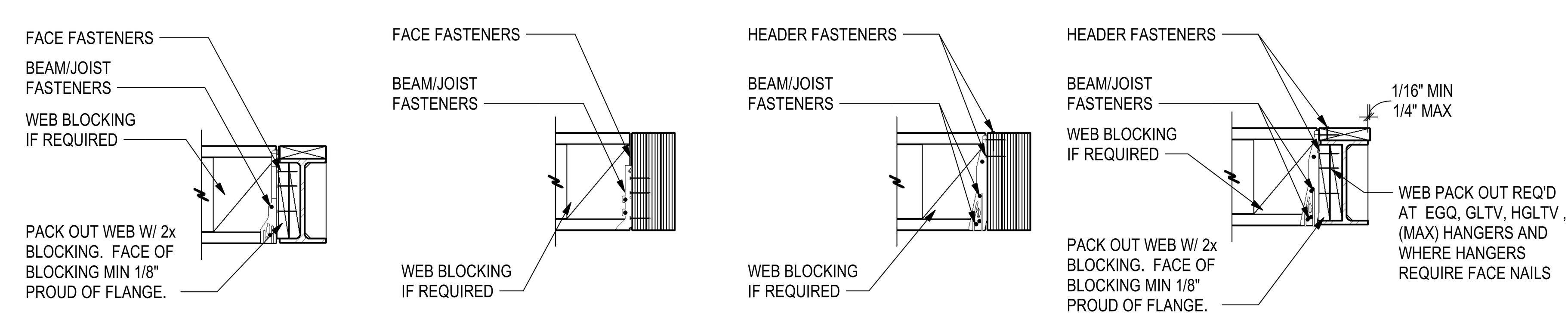
2 TYP WOOD FASTENING SCHEDULE
S504 NO SCALE

TYPICAL FRAMING HANGERS

BEAM/JOIST	Beam Type	FACE MOUNT HANGERS: MODEL	CAPACITY	FASTENERS: FACE	FASTENERS: BEAM/JOIST	TOP FLANGE HANGERS: MODEL	CAPACITY	FASTENERS: HEADER	FASTENERS: BEAM/JOIST
(3) 2x12	Wood Beam	LUS210-3	1245 lbs (UPLIFT) / 1575 lbs (DOWN)	(8) 0.162 x 3 1/2"	(6) 0.162 x 3 1/2"	HU212-3TF	1420 lbs (UPLIFT) / 4590 lbs (DOWN)	(16) 0.162 x 3 1/2"	(6) 0.162 x 3 1/2"
2x8 RAFTERS	Wood Beam	LUS28	1165 lbs (UPLIFT) / 1100 lbs (DOWN)	(6) 0.162 x 3"	(4) 0.162 x 3"	HU28TF	700 lbs (UPLIFT) / 2910 lbs (DOWN)	(10) 0.162 x 3 1/2"	(4) 0.148 x 1 1/2"
6x10	Wood Beam	HU610	1550 lbs (UPLIFT) / 2305 lbs (DOWN)	(18) 0.162 x 3 1/2"	(8) 0.162 x 3 1/2"	HGLT6 H= 9 1/8"	2450 lbs (UPLIFT) / 10720 lbs (DOWN)	(18) N54A	(6) N54A
8x14	Wood Beam	HU814	2325 lbs (UPLIFT) / 3075 lbs (DOWN)	(24) 0.162 x 3 1/2"	(12) 0.162 x 3 1/2"	HB7.50X H= 13 1/16"	2075 lbs (UPLIFT) / 5395 lbs (DOWN)	(22) 0.162 x 3 1/2"	(10) 0.162 x 3 1/2"
14 TJI 210	Wood Beam	IUS2.06/14	70 lbs (UPLIFT) / 1220 lbs (DOWN)	(12) 0.148 x 3"	N/A	ITS2.06/14	120 lbs (UPLIFT) / 1260 lbs (DOWN)	(6) 0.148 x 3"	N/A
14 TJI 360	Wood Beam	IUS2.37/14 (MAX)	70 lbs (UPLIFT) / 1220 lbs (DOWN)	(14) 0.148 x 3"	N/A	ITS2.37/14	120 lbs (UPLIFT) / 1260 lbs (DOWN)	(6) 0.148 x 3"	N/A
14 TJI 560	Wood Beam	IUS3.56/14 (MAX)	70 lbs (UPLIFT) / 1425 lbs (DOWN)	(14) 0.148 x 3"	N/A	ITS3.56/11.88	120 lbs (UPLIFT) / 1260 lbs (DOWN)	(6) 0.148 x 3"	N/A
(2) 14" LVL	Wood Beam	HUCQ412-SDS	2265 lbs (UPLIFT) / 5045 lbs (DOWN)	(14) 1/4 x 2 1/2" SDS	(6) 1/4" x 2 1/2" SDS	ITS3.56/14	120 lbs (UPLIFT) / 1550 lbs (DOWN)	(6) 0.148 x 3"	N/A
(3) 9 1/2" LVL	Wood Beam	HU610	1795 lbs (UPLIFT) / 2680 lbs (DOWN)	(18) 0.162 x 3 1/2"	(8) 0.162 x 3 1/2"	HB5.5/9.25	2075 lbs (UPLIFT) / 5815 lbs (DOWN)	(22) 0.162 x 3 1/2"	(10) 0.162 x 3 1/2"
(3) 14" LVL	Wood Beam	HGUS5.50/14	5360 lbs (UPLIFT) / 13735 lbs (DOWN)	(66) 0.162 x 3 1/2"	(22) 0.162 x 3 1/2"	HB5.50/14	2075 lbs (UPLIFT) /6595 (DOWN)	(22) 0.162 x 3 1/2"	(10) 0.162 x 3 1/2"
(3) 18" LVL	Wood Beam	HHUS5.50/10	3565 lbs (UPLIFT) / 5635 (DOWN)	(30) 0.162 x 3 1/2"	(10) 0.162 x 3 1/2"	HB5.50/18	2075 lbs (UPLIFT) / 5815 lbs (DOWN)	(22) 0.162 x 3 1/2"	(10) 0.162 x 3 1/2"
7 1/4" LVL	Wood Beam	HU7 (MAX)	1515 lbs (UPLIFT) /2380 lbs (DOWN)	(16) 0.162 x 3 1/2"	(6) 0.148 x1 1/2"	BA1.81/7.25 (MAX)	1215 lbs (UPLIFT) /4715 lbs (DOWN)	(16) 0.162 x 3 1/2"	(8) 0.148 x 1 1/2"
9 1/4" LVL	Wood Beam	HU7	1515 lbs (UPLIFT) /2380 lbs (DOWN)	(16) 0.162 x 3 1/2"	(6) 0.148 x1 1/2"	BA1.81/9.25 (MAX)	1250 lbs (UPLIFT) / 4715 lbs (DOWN)	(16) 0.162 x 3 1/2"	(8) 0.148 x1 1/2"
9 1/4" LVL PWT TREATED	Wood Beam	HU7	1515 lbs (UPLIFT) /2380 lbs (DOWN)	(16) 0.162 x 3 1/2"	(6) 0.148 x1 1/2"	BA1.81/9.25 (MAX)	1250 lbs (UPLIFT) / 4715 lbs (DOWN)	(16) 0.162 x 3 1/2"	(8) 0.148 x1 1/2"
11 7/8" LVL	Wood Beam	HU11	1795 lbs (UPLIFT) / 4465 lbs (DOWN)	(30) 0.162 x 3 1/2"	(10) 0.148 x 1 1/2"	ITS1.81/11.88	120 lbs (UPLIFT) / 1550 lbs (DOWN)	(6) 0.148 x 3"	N/A
11 7/8" LVL PWT TREATED	Wood Beam	HU11	1795 lbs (UPLIFT) / 4465 lbs (DOWN)	(30) 0.162 x 3 1/2"	(10) 0.148 x 1 1/2"	ITS1.81/11.88	120 lbs (UPLIFT) / 1550 lbs (DOWN)	(6) 0.148 x 3"	N/A
GL8 3/4x13.5	Wood Beam	xxxxxxx	XXXX lbs (UPLIFT) / 9335 (DOWN)	XXXXX	XXXXX	N/A	N/A	N/A	N/A

TYPICAL ROOF/EXTERIOR DECK FRAMING HANGERS

BEAM/JOIST	Beam Type	FACE MOUNT HANGERS: MODEL	CAPACITY	FASTENERS: FACE	FASTENERS: BEAM/JOIST	TOP FLANGE HANGERS: MODEL	CAPACITY	FASTENERS: HEADER	FASTENERS: BEAM/JOIST
(3) 2x12	Wood Beam	LUS210-3	1245 lbs (UPLIFT) / 1785 lbs (DOWN)	(8) 0.162 x 3 1/2"	(6) 0.162 x 3 1/2"	HU212-3TF	1420 lbs (UPLIFT) / 4590 lbs (DOWN)	(16) 0.162 x 3 1/2"	(6) 0.162 x 3 1/2"
2x8 RAFTERS	Wood Beam	LUS28	1165 lbs (UPLIFT) / 1260 lbs (DOWN)	(6) 0.162 x 3"	(4) 0.162 x 3"	HU28TF	700 lbs (UPLIFT) / 2970 lbs (DOWN)	(10) 0.162 x 3 1/2"	(4) 0.148 x 1 1/2"
6x10	Wood Beam	HU610	1550 lbs (UPLIFT) / 2605 lbs (DOWN)	(18) 0.162 x 3 1/2"	(8) 0.162 x 3 1/2"	HGLT6 H= 9 1/8"	2450 lbs (UPLIFT) / 10720 lbs (DOWN)	(18) N54A	(6) N54A
8x14	Wood Beam	HU814	2325 lbs (UPLIFT) / 3470 lbs (DOWN)	(24) 0.162 x 3 1/2"	(12) 0.162 x 3 1/2"	HB7.50X H= 13 1/16"	2075 lbs (UPLIFT) / 5395 lbs (DOWN)	(22) 0.162 x 3 1/2"	(10) 0.162 x 3 1/2"
14 TJI 210	Wood Beam	HU2.1/11	915 lbs (UPLIFT) / 2315 lbs (DOWN)	(16) 0.162 x 3 1/2"	(6) 0.148 x 1 1/2"	BA2.1/14 (MAX)	1250 lbs (UPLIFT) / 1495 lbs (DOWN)	(16) 0.162 x 3 1/2"	(8) 0.148 x 1 1/2"
14 TJI 360	Wood Beam	HU3514	1795 lbs (UPLIFT) / 3470 lbs (DOWN)	(24) 0.162 x 3 1/2"	(12) 0.148 x 1 1/2"	BA2.37/14 (MAX)	1250 lbs (UPLIFT) / 1495 lbs (DOWN)	(16) 0.162 x 3 1/2"	(8) 0.148 x 1 1/2"
14 TJI 560	Wood Beam	HU414	1795 lbs (UPLIFT) / 3470 lbs (DOWN)	(24) 0.162 x 3 1/2"	(12) 0.148 x 1 1/2"	BA3.56/14 (MAX)	1250 lbs (UPLIFT) / 1495 lbs (DOWN)	(16) 0.162 x 3 1/2"	(8) 0.148 x 1 1/2"
(2) 14" LVL	Wood Beam	HUCQ412-SDS	2265 lbs (UPLIFT) / 5045 lbs (DOWN)	(14) 1/4 x 2 1/2" SDS	(6) 1/4" x 2 1/2" SDS	BA3.56/14 (MAX)	1250 lbs (UPLIFT) / 4715 lbs (DOWN)	(16) 0.162 x 3 1/2"	(8) 0.148 x 1 1/2"
(3) 9 1/2" LVL	Wood Beam	HU610	1795 lbs (UPLIFT) / 3020 lbs (DOWN)	(18) 0.162 x 3 1/2"	(8) 0.162 x 3 1/2"	HB5.5/9.25	2075 lbs (UPLIFT) / 5815 lbs (DOWN)	(22) 0.162 x 3 1/2"	(10) 0.162 x 3 1/2"
(3) 14" LVL	Wood Beam	HGUS5.50/14	5360 lbs (UPLIFT) / 14360 lbs (DOWN)	(66) 0.162 x 3 1/2"	(22) 0.162 x 3 1/2"	EGQ5.37-SDS H=16	7670 lbs (UPLIFT) / 19800 lbs (DOWN)	(28) 1/4 x 3 SDS	(12) 1/4 x 3 SDS
(3) 18" LVL	Wood Beam	HHUS5.50/10	3565 lbs (UPLIFT) / 6380 (DOWN)	(30) 0.162 x 3 1/2"	(10) 0.162 x 3 1/2"	EGQ5.37-SDS H=18	7670 lbs (UPLIFT) / 19800 lbs (DOWN)	(28) 1/4 x 3 SDS	(12) 1/4 x 3 SDS
7 1/4" LVL	Wood Beam	HU7 (MAX)	1515 lbs (UPLIFT) /2380 lbs (DOWN)	(16) 0.162 x 3 1/2"	(6) 0.148 x1 1/2"	BA1.81/7.25 (MAX)	1250lbs (UPLIFT) / 1495 lbs (DOWN)	(16) 0.162 x 3 1/2"	(8) 0.148 x1 1/2"
9 1/4" LVL	Wood Beam	HU7	1515 lbs (UPLIFT) /2380 lbs (DOWN)	(16) 0.162 x 3 1/2"	(6) 0.148 x1 1/2"	BA1.81/9.25 (MAX)	1250 lbs (UPLIFT) / 4715 lbs (DOWN)	(16) 0.162 x 3 1/2"	(8) 0.148 x1 1/2"
9 1/4" LVL PWT TREATED	Wood Beam	HU7	1515 lbs (UPLIFT) /2380 lbs (DOWN)	(16) 0.162 x 3 1/2"	(6) 0.148 x1 1/2"	BA1.81/9.25 (MAX)	1250 lbs (UPLIFT) / 4715 lbs (DOWN)	(16) 0.162 x 3 1/2"	(8) 0.148 x1 1/2"
11 7/8" LVL	Wood Beam	HU11	1795 lbs (UPLIFT) / 4465 lbs (DOWN)	(30) 0.162 x 3 1/2"	(10) 0.148 x 1 1/2"	BA1.81/11.88 (MAX)	1250 lbs (UPLIFT) / 4714 lbs (DOWN)	(16) 0.162 x 3 1/2"	(8) 0.148 x 1 1/2"
11 7/8" LVL PWT TREATED	Wood Beam	HU11	1795 lbs (UPLIFT) / 4465 lbs (DOWN)	(30) 0.162 x 3 1/2"	(10) 0.148 x 1 1/2"	BA1.81/11.88 (MAX)	1250 lbs (UPLIFT) / 4714 lbs (DOWN)	(16) 0.162 x 3 1/2"	(8) 0.148 x 1 1/2"
GL8 3/4x13.5	Wood Beam	xxxxxxx	9460 lbs (UPLIFT) / 13160 (DOWN)	XXXXX	XXXXX	HGLT9	2450 lbs (UPLIFT) / 10720 lbs (DOWN)	(18) N54A	(6) N54A



NOTES:
1. ALL HANGERS SHALL HAVE ALL NAIL HOLES FILLED.
2. HANGERS ATTACHED TO TREATED LUMBER SHALL BE Z-MAX (G185).
3. ALL HANGERS IN SCHEDULE ARE TYPICAL UNLESS NOTED OTHERWISE ON PLAN OR IN SECTION.
4. SUBSTITUTIONS ARE ACCEPTABLE, HOWEVER CAPACITY MUST BE EQUAL TO OR GREATER THAN HANGER CAPACITY IN SCHEDULE.
5. CAPACITIES INDICATED DO NOT TAKE INTO ACCOUNT REDUCTIONS FOR SKEW, SLOPE, GUN/TICO NAILS, ETC.
6. CAPACITIES FOR COMMODITY LUMBER IS FOR DOUGLAS FIR LARCH.
7. AT FLUSH STEEL BEAMS ALL HANGER VALUES ARE BASED ON A SINGLE 2x DOUGLAS FIR LARCH NAILER PL.
8. EGQ, GLTV, & HGLTV, REQUIRE WEB BLOCKING AT STEEL BEAMS IN ORDER TO INSTALL FACE NAILS TO ACHIEVE UPLIFT NOTED CAPACITIES.
9. SOME FACE MOUNT AND TOP FLANGE HANGERS REQUIRE WEB BLOCKING FOR I-JOISTS, SEE MANUFACTURER INSTALLATION REQUIRMENTS.
10. ALL ROOF & EXTERIOR DECK I-JOIST HANGERS REQUIRE WEB BLOCKING TO ACHIEVE (MAX) UPLIFT CAPACITY.

3 TYP WOOD BEAM/JOIST HANGER SCHEDULE
S504 NO SCALE

COLORADO LICENSED PROFESSIONAL ENGINEER 3-25-24

REVIEWED FOR CODE COMPLIANCE 04/01/2025

PERMIT SET NOT FOR CONSTRUCTION

JVA CONSULTING ENGINEERS
JVA, Inc. 1319 Spruce Street
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REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
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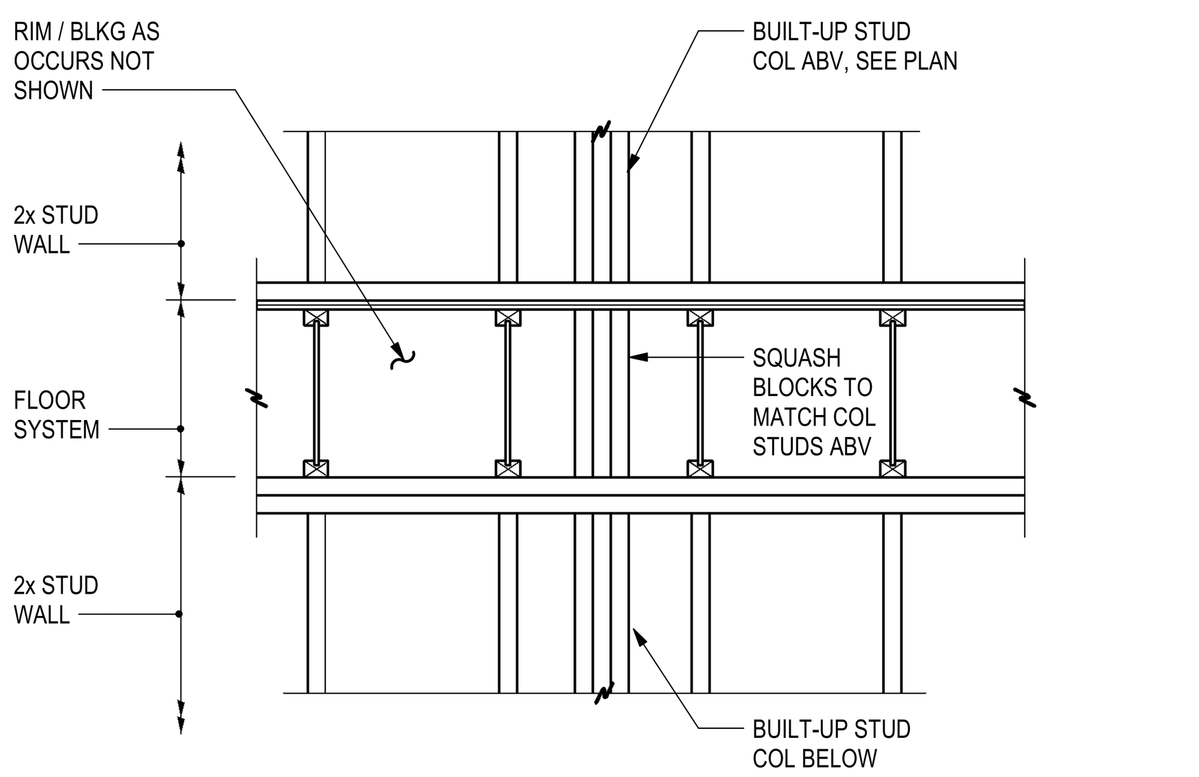
Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

Project Phase: PERMIT

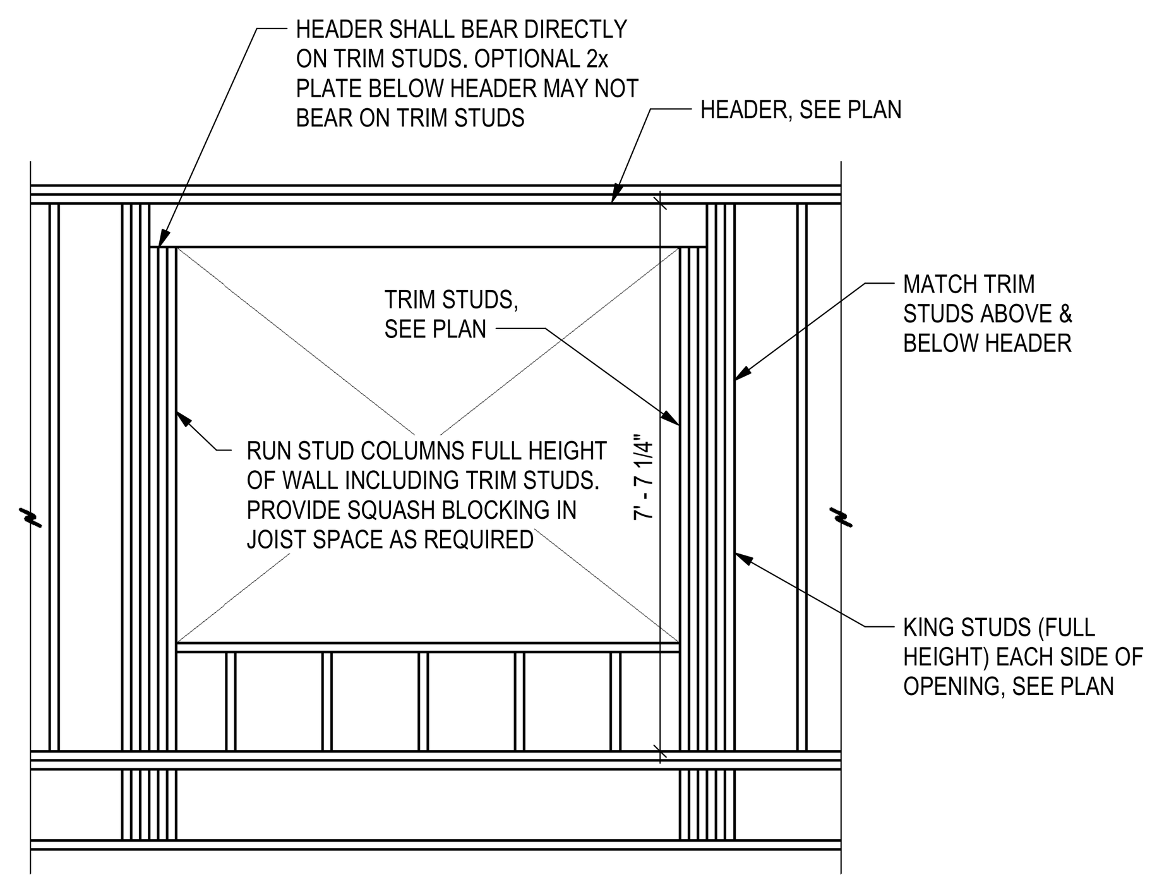
Sheet Title: TYPICAL WOOD SCHEDULES

Sheet Number: S504

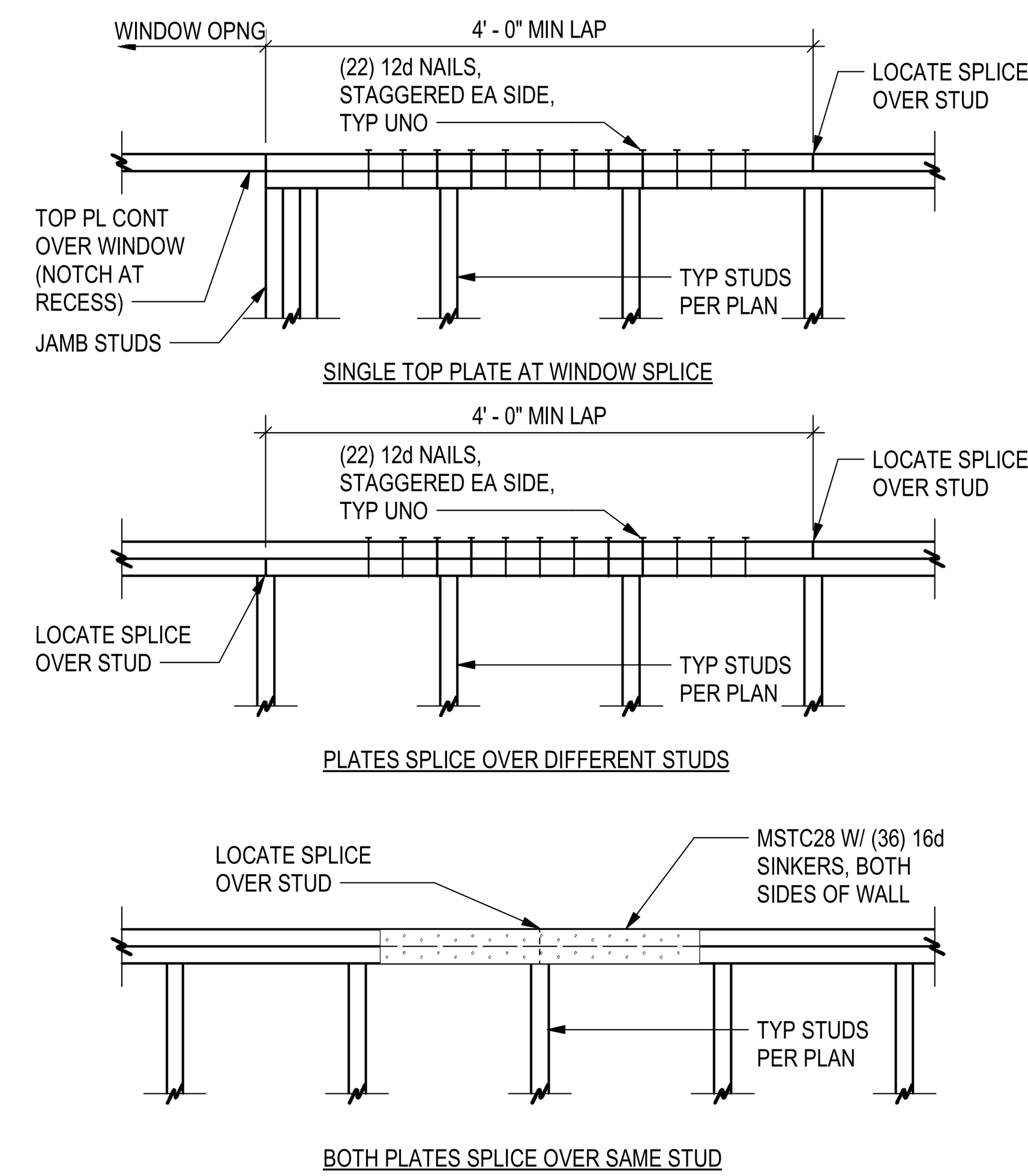
3/25/2024 5:53:17 PM THE ASTRID CONDO B7 v22



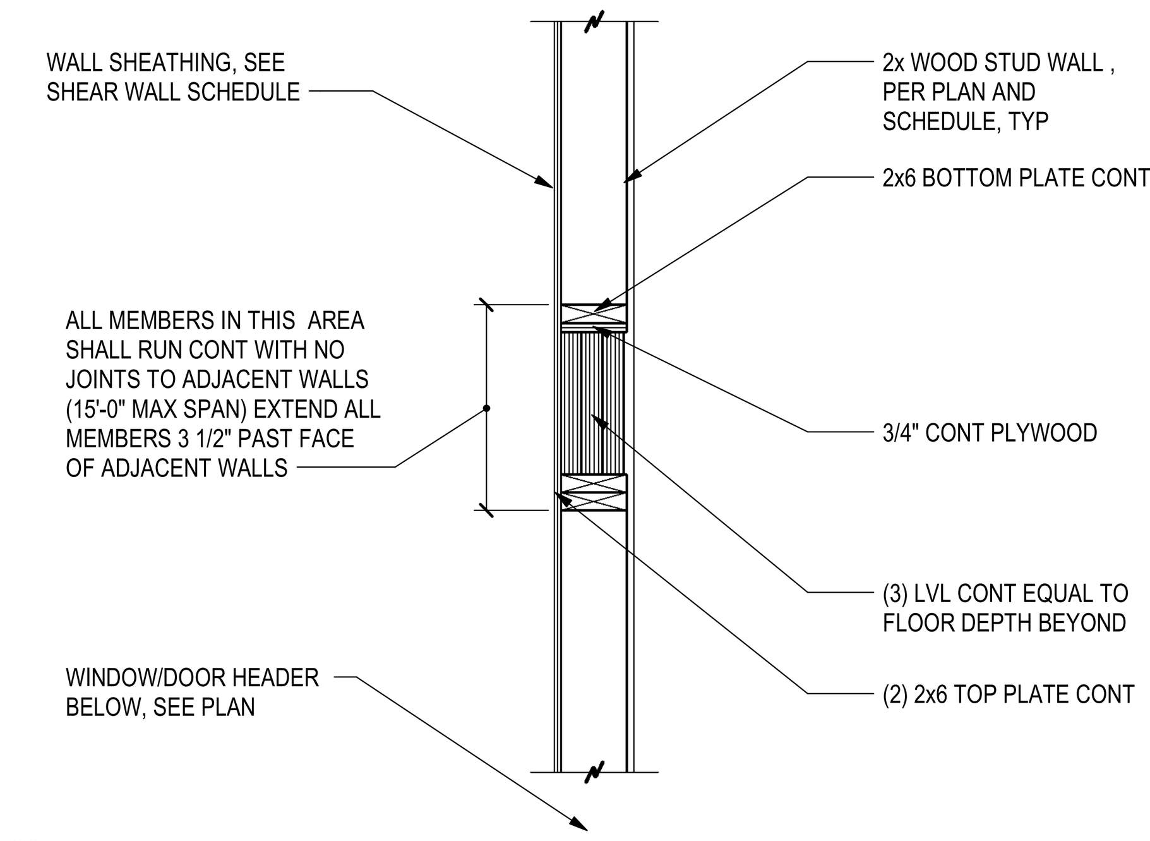
9 S505 TYP WOOD SQUASH BLOCKING
3/4" = 1'-0"



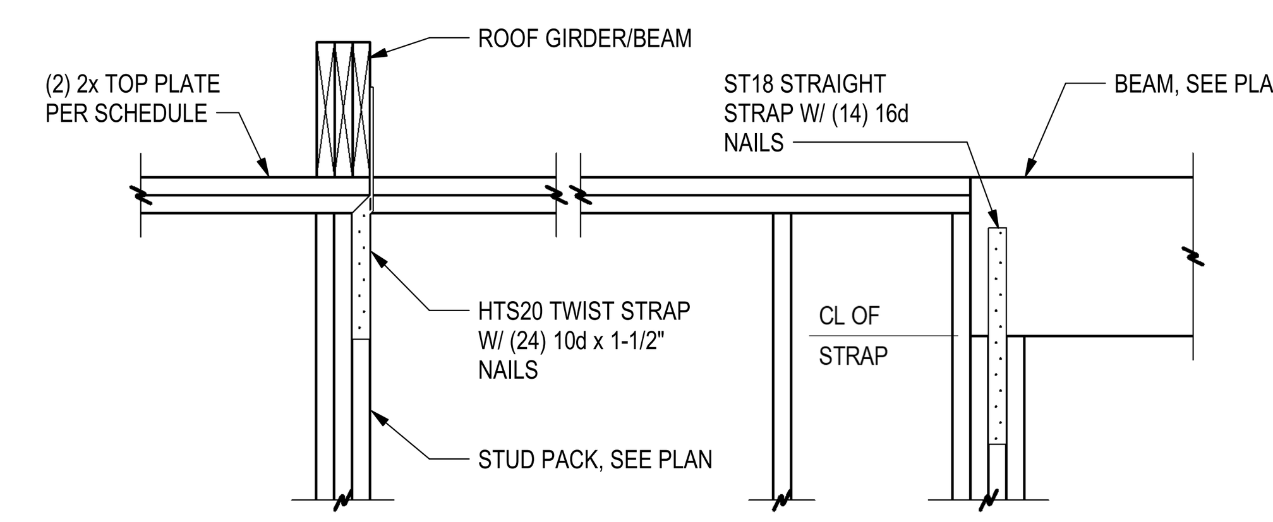
10 S505 TYP WOOD WALL OPENING
3/8" = 1'-0"



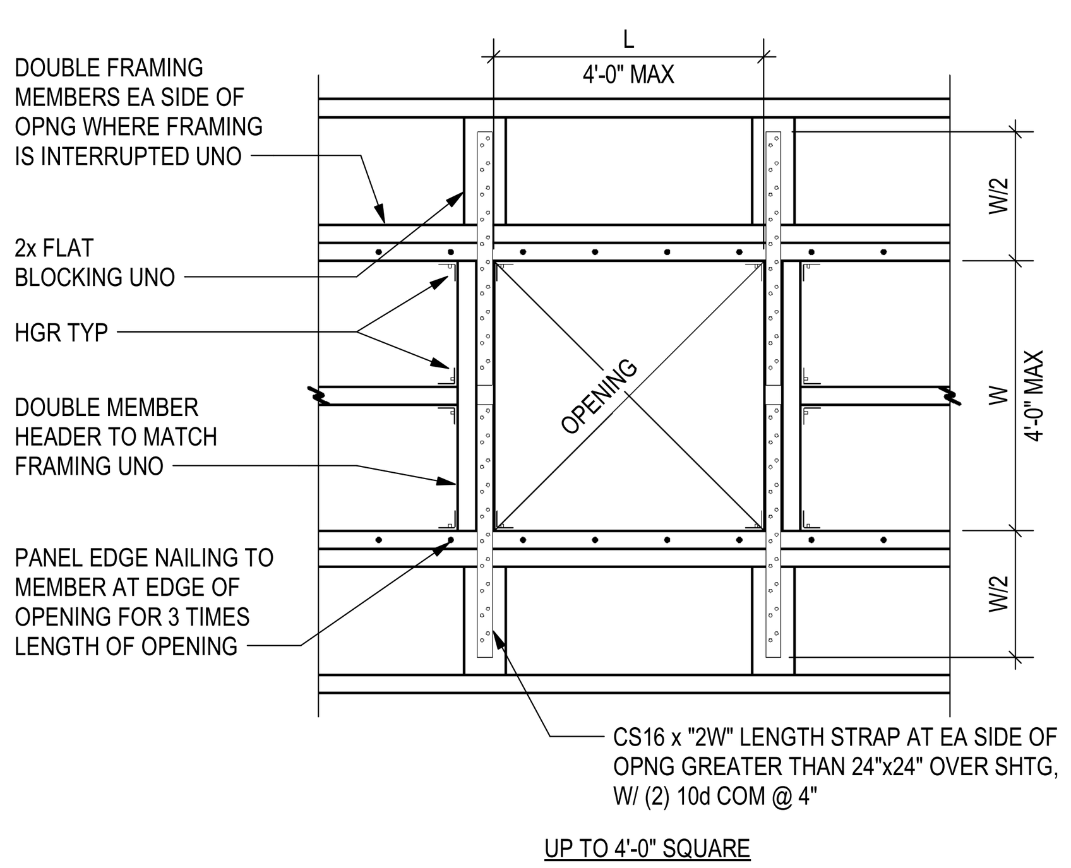
11 S505 TYP WOOD TOP PLT SPLICE
3/4" = 1'-0"



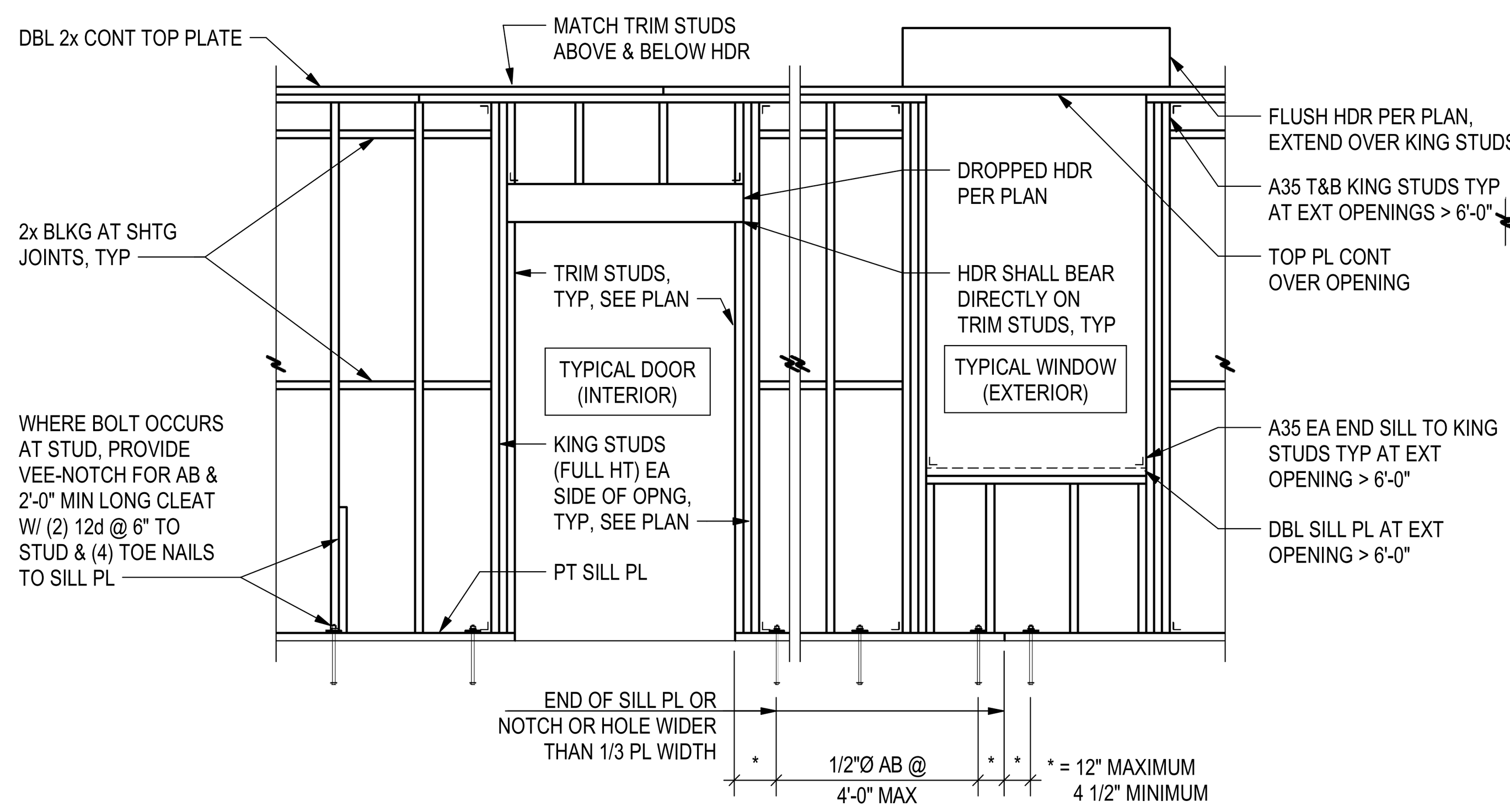
13 S505 TYP WOOD DETAIL
3/4" = 1'-0"



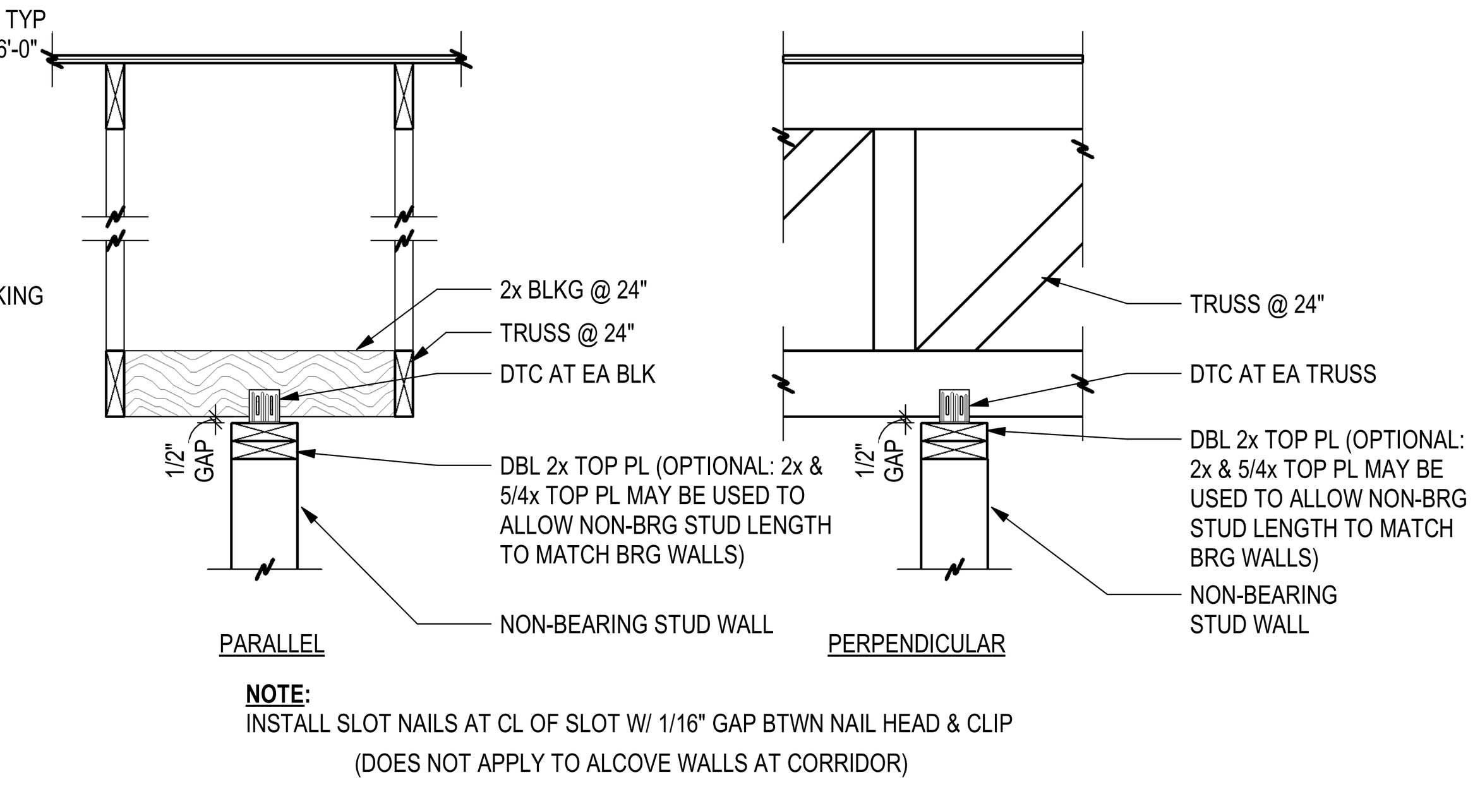
12 S505 TYP WOOD ROOF GIRDER/BM TIE-DOWN
3/4" = 1'-0"



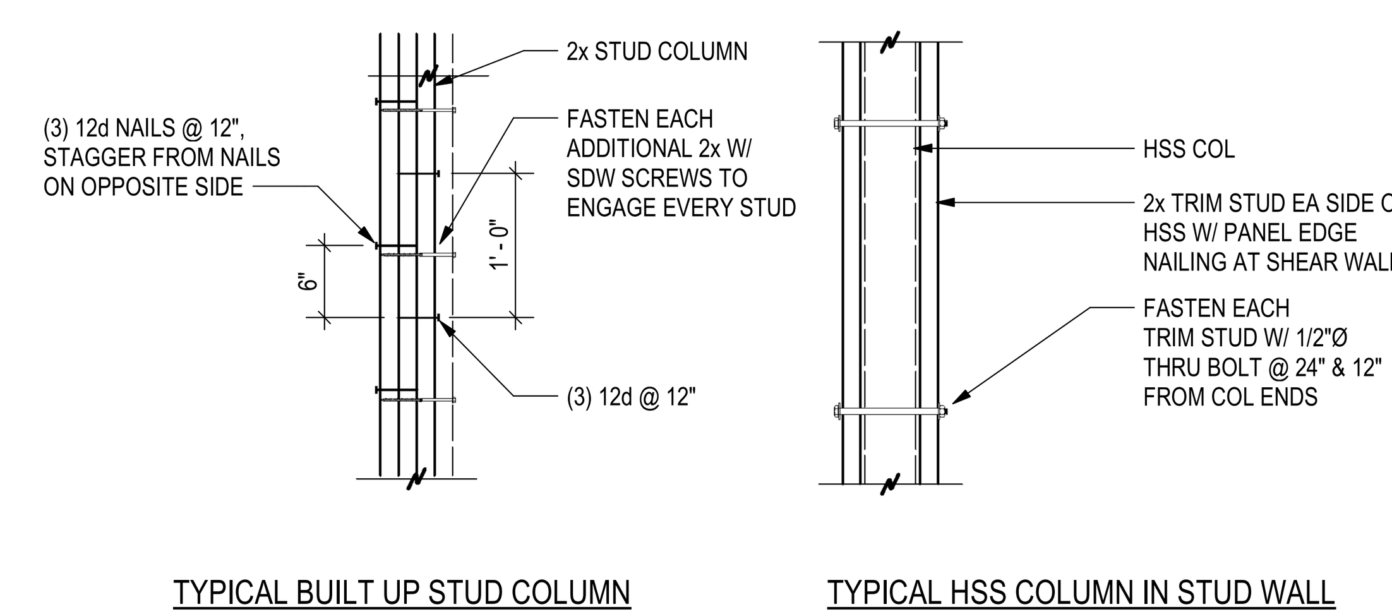
5 S505 TYP WOOD DIAPHRAGM OPENING DETAIL
3/4" = 1'-0"



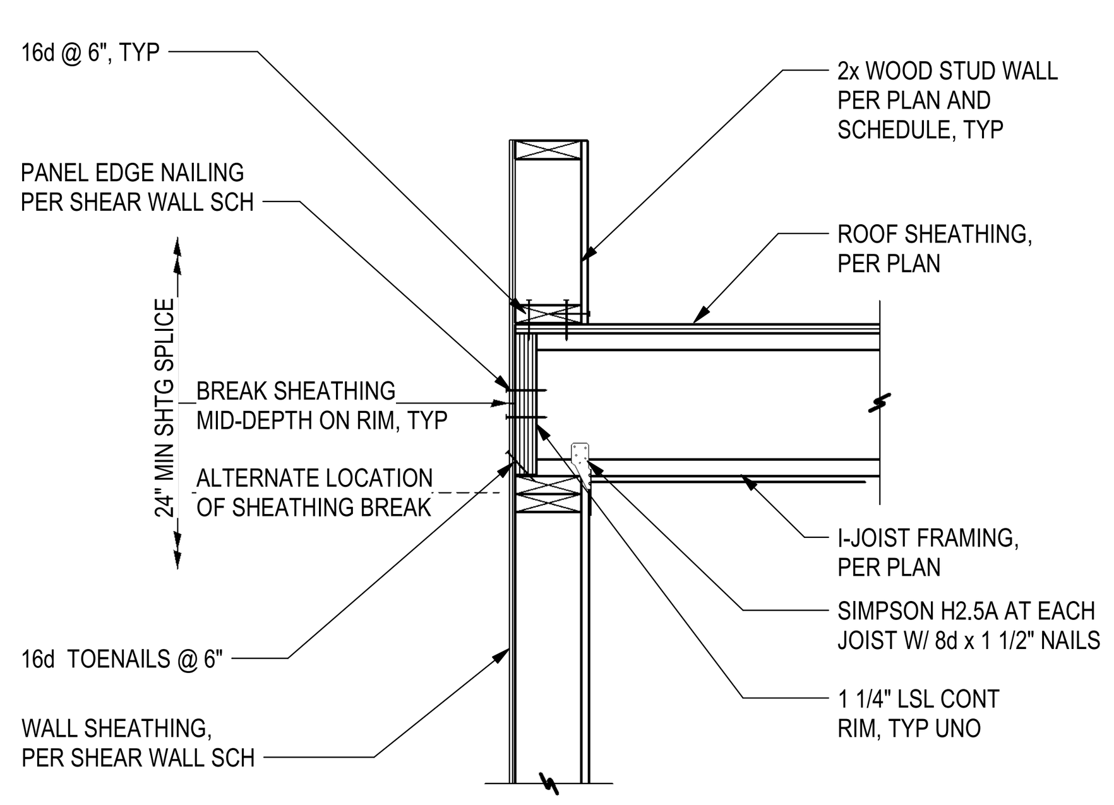
6 S505 TYP WOOD STUD WALL ELEVATION
3/8" = 1'-0"
3/8" 0 1' 2' 4' 6'



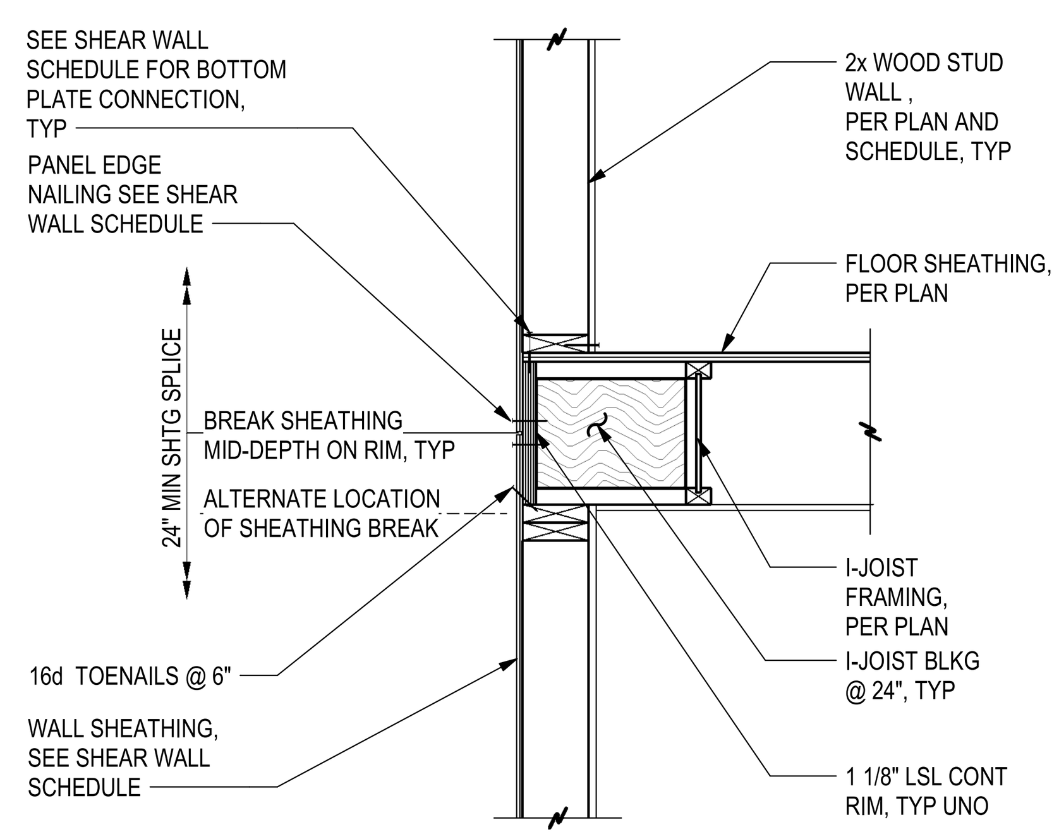
7 S505 TYP WOOD NON-STRUCT PART TO ROOF FRAMING
3/4" = 1'-0"



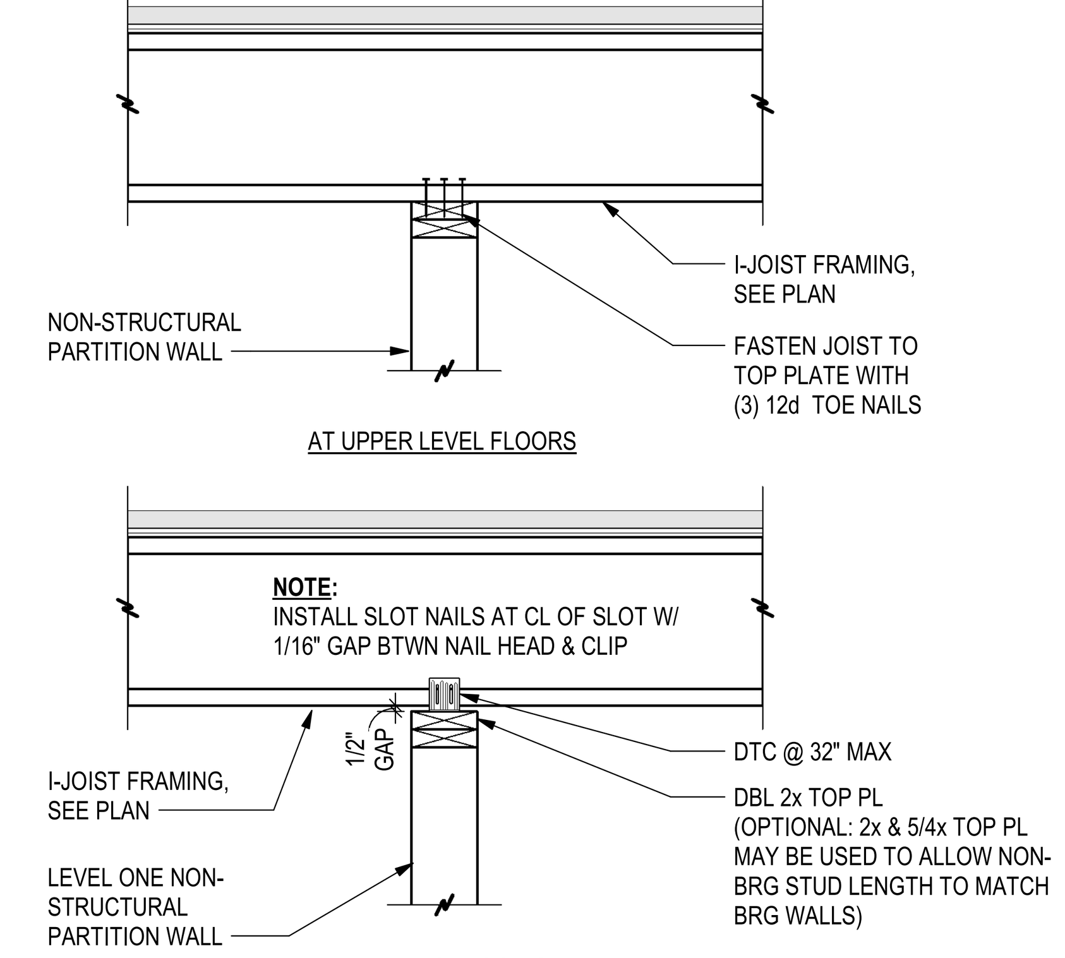
8 S505 DETAIL
3/4" = 1'-0"



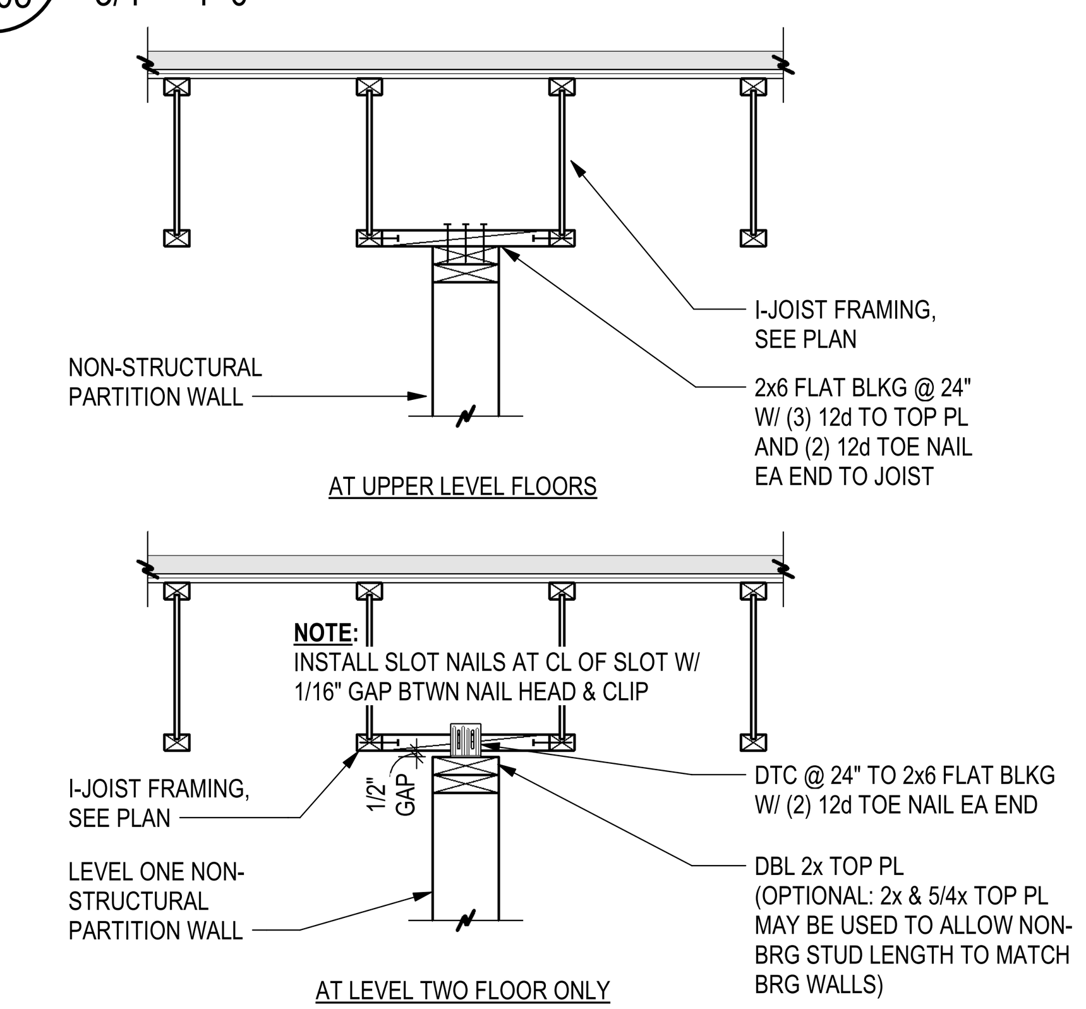
1 S505 TYP WOOD SHEAR WALL SHTG BREAK AT EXT WALL JST PERP TO WALL
3/4" = 1'-0"
3/4" 0 6" 1' 2' 3'



2 S505 TYP WOOD SHTG BREAK AT EXT WALLL JST PARA TO WALL
3/4" = 1'-0"



3 S505 TYP WOOD PARTITION WALL JST PERP TO WALL
3/4" = 1'-0"



4 S505 TYP WOOD PART WALL JST PARA TO WALL
3/4" = 1'-0"

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REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
(303) 442-5458, (303) 442-4745 FAX

Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

Project Phase
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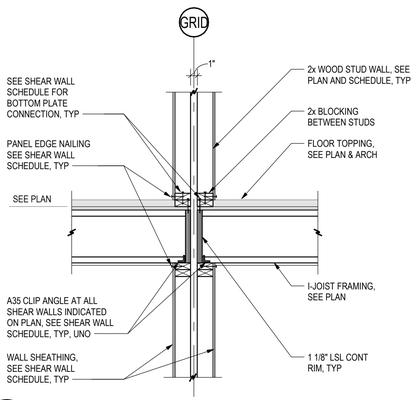
Sheet Title
TYPICAL WOOD DETAILS

Sheet Number
S505

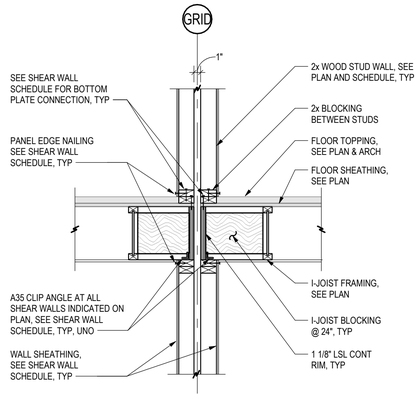
5 S507 TYP WOOD SHEAR/BRG WALL BRG ON BM PARA TO WALL

3/4" = 1'-0"



6 S507 TYP WOOD FLR W/ LSL CONT RIM

3/4" = 1'-0"

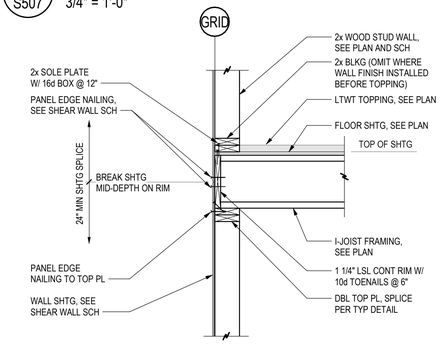


7 S507 TYP WOOD I-JST BLKG W/ LSL CONT RIM

3/4" = 1'-0"

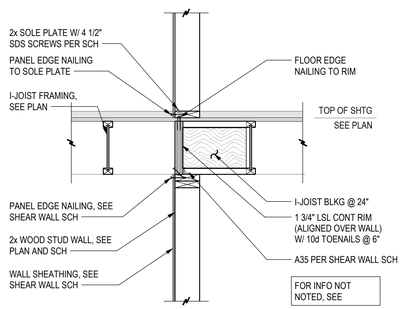
8 S507 SECTION

3/4" = 1'-0"



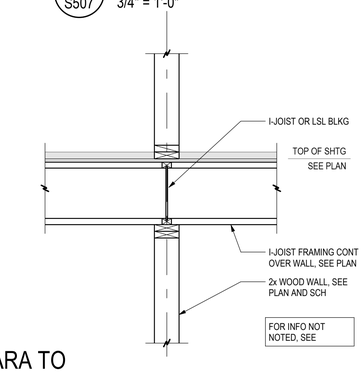
1 S507 TYP WOOD I-JST LTWL TOPPING

3/4" = 1'-0"



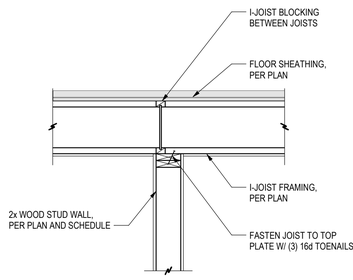
2 S507 TYP WOOD FLR OVER INT SHEAR WLAL JST PARA TO WALL

3/4" = 1'-0"



3 S507 TYP WOOD I-JST FRAMING CONT OVER WALL

3/4" = 1'-0"



4 S507 TYP WOOD FLR OVER INT BRG WALL JST PERP TO WALL

3/4" = 1'-0"

3/4" = 1'-0"

0 6" 1' 2' 3'

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COLORADO LICENSED ERIC M. SMITH 3-25-24 40336 PROFESSIONAL ENGINEER

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REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN FOURPLEX BUILDING 7

STEAMBOAT SPRINGS COLORADO

ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
(303) 442-5456, (303) 442-4745 FAX

Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
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Project Phase
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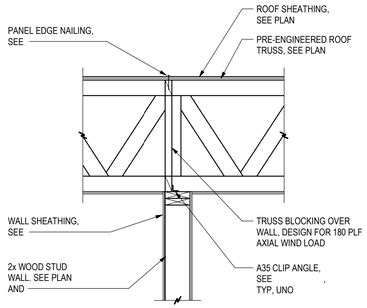
Sheet Title
TYPICAL WOOD DETAILS

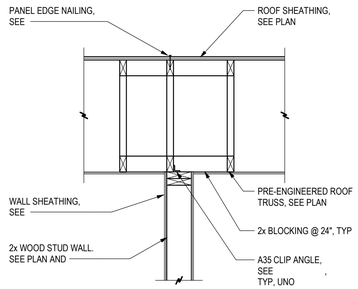
Sheet Number
S507

3/25/2024 5:53:26 PM THE ASTRID CONDO B7 v22



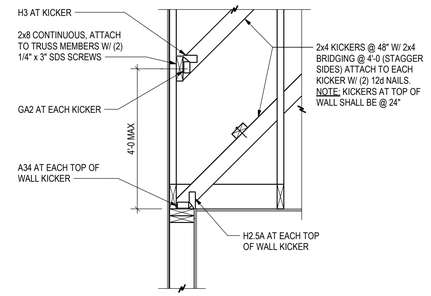
11 S508 TYP WOOD ROOF TRUSS OVER INT SHEAR WALL TRUSS PERP TO WALL

3/4" = 1'-0"



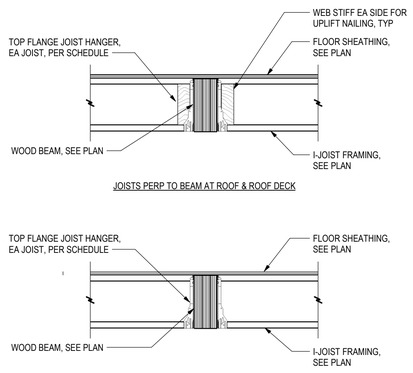
12 S508 TYP WOOD DRAG TRUSS OVER INT SHEAR WALL TRUSS PARA TO WALL

3/4" = 1'-0"



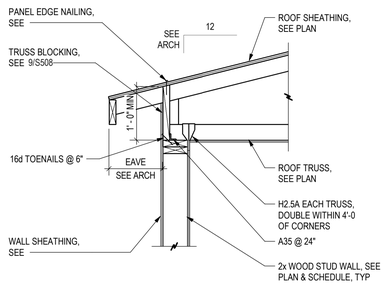
13 S508 TYP WOOD GABLE END TRUSS BRACING AT BASE OF TRUSS

3/4" = 1'-0"



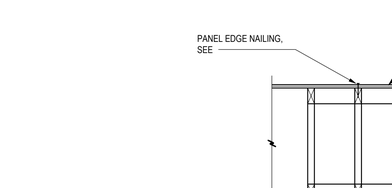
5 S508 TYP WOOD FLUSH WOOD BM

3/4" = 1'-0"



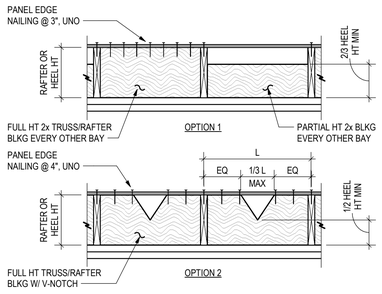
8 S508 TYP WOOD EXT WALL AT ROOF

3/4" = 1'-0"



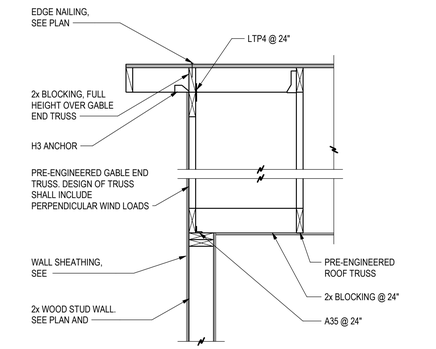
6 S508 TYP WOOD DROPPED STL BM JST PERP TO BM

3/4" = 1'-0"



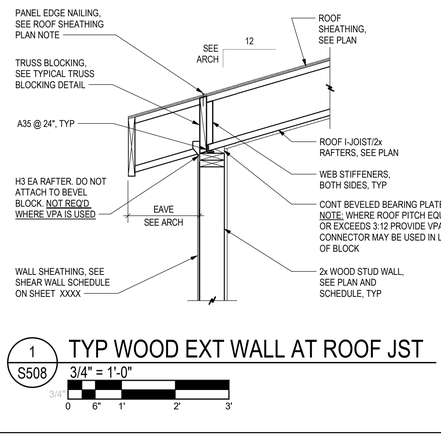
9 S508 TYP WOOD TRUSS/RAFTER BLKG AT HEEL

3/4" = 1'-0"



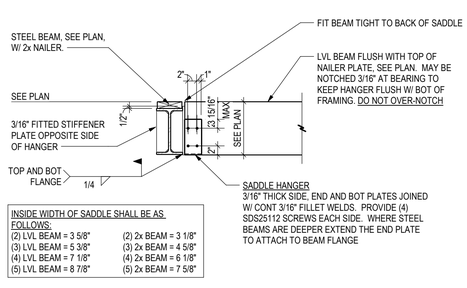
10 S508 TYP WOOD GABLE END SHEAR CONN

3/4" = 1'-0"



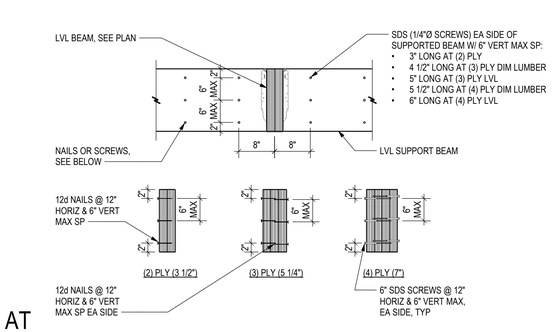
1 S508 TYP WOOD EXT WALL AT ROOF JST

3/4" = 1'-0"



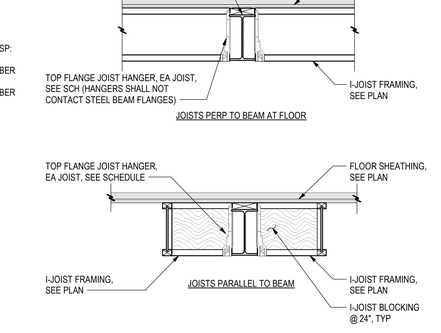
2 S508 TYP WOOD SADDLE HANGER TO SIDE OF STL BM AT FLUSH FLR BMS

3/4" = 1'-0"



3 S508 TYP WOOD BUILT UP BM

3/4" = 1'-0"



4 S508 TYP WOOD FLUSH STL BM

3/4" = 1'-0"

3/4" = 1'-0"

0 6" 1' 2' 3'

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REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN
FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
(303) 442-5456, (303) 442-4745 FAX

Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
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Project Phase
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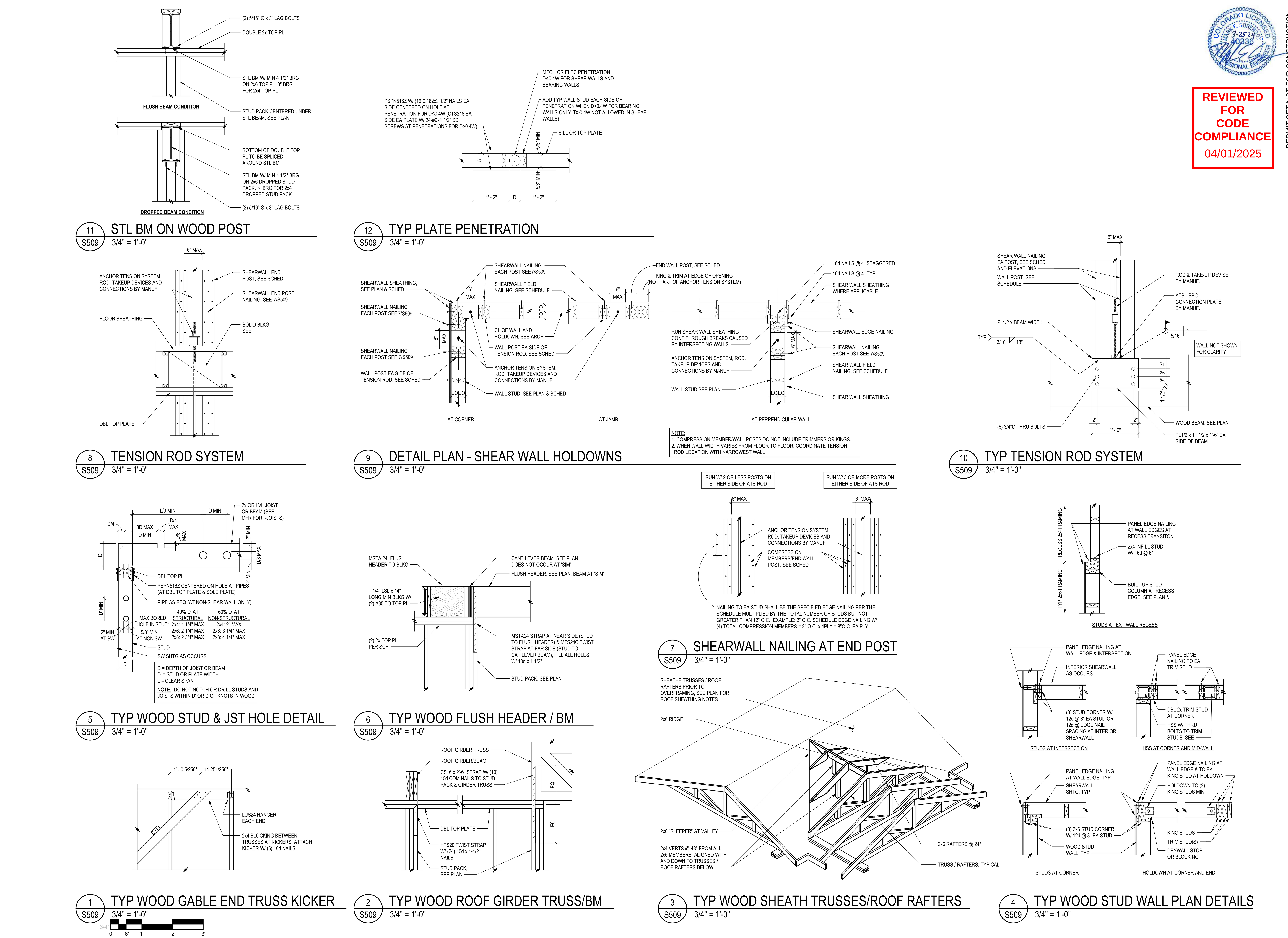
Sheet Title
TYPICAL WOOD DETAILS

Sheet Number
S508



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Release of these plans contemplates further cooperation among the owner, his contractor and the architect. Design and construction are complex. Although the architect and his consultants have performed their services with due care and diligence, they cannot guarantee perfection. Communication is imperfect and every contingency cannot be anticipated. Any ambiguity or discrepancy discovered by the use of these plans shall be reported immediately to the architect. Failure to notify the architect compounds misunderstanding and increases construction costs. A failure to cooperate by a simple notice to the architect shall relieve the architect from responsibility for the consequences. Changes made from the plans without consent of the architect are unauthorized and shall relieve the architect of responsibility for all consequences arriving out of such changes.

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No.	Description	Date

EDGEMONT/SHERMAN FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
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Project Phase
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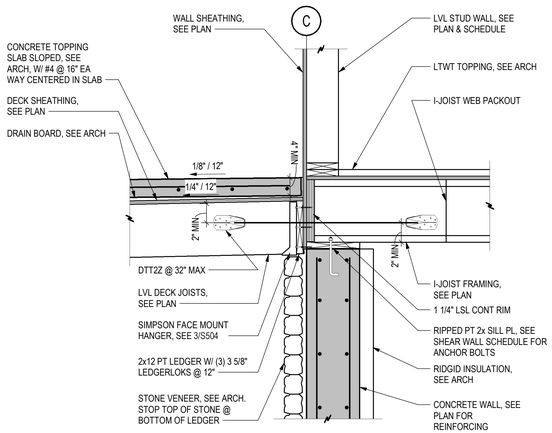
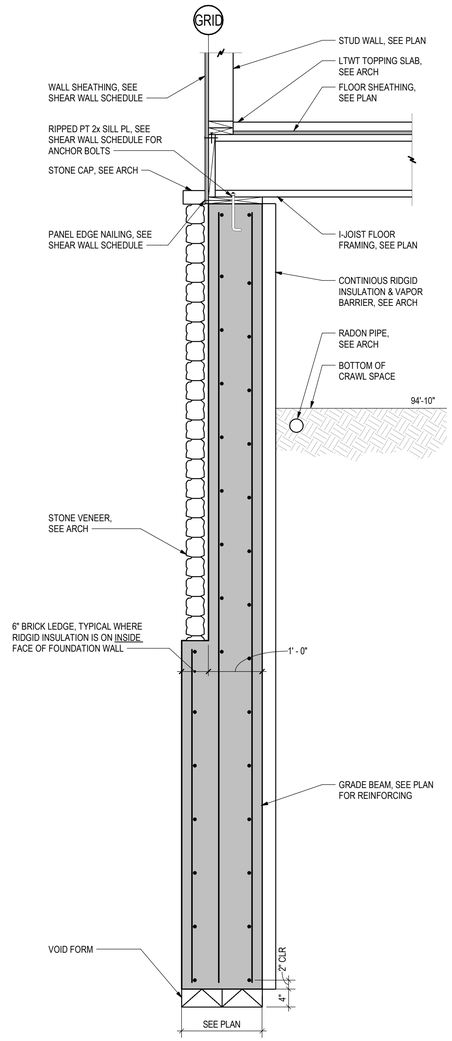
Sheet Title
TYPICAL WOOD DETAILS

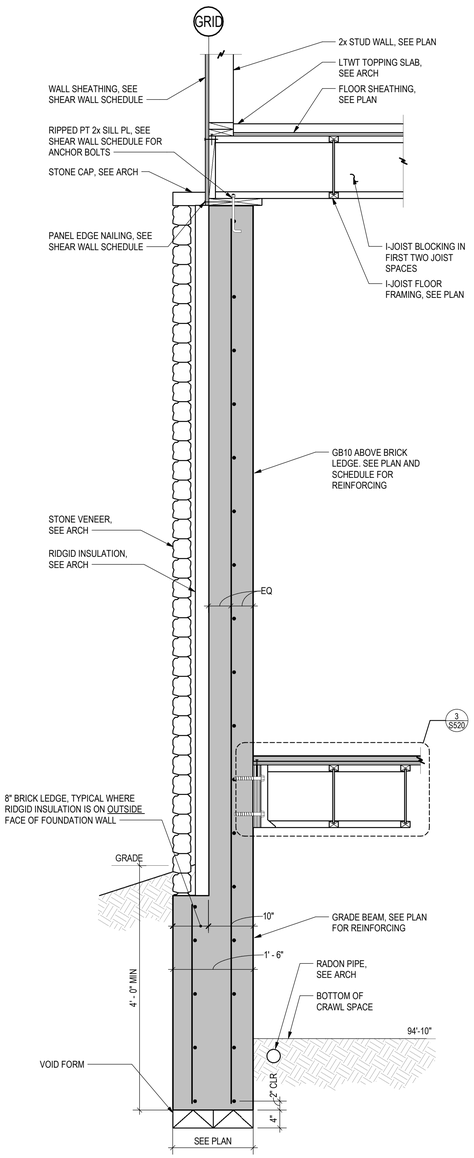
Sheet Number
S509



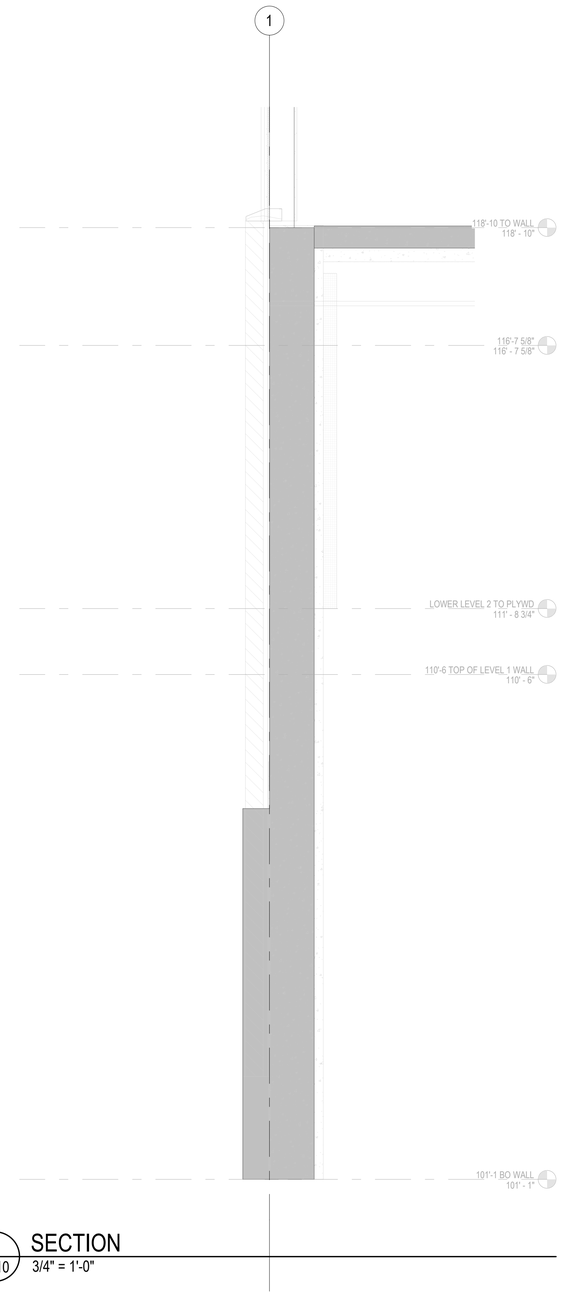
4 S510 **SECTION**
3/4" = 1'-0"



1 S510 **SECTION**
3/4" = 1'-0"



2 S510 **SECTION**
3/4" = 1'-0"



3 S510 **SECTION**
3/4" = 1'-0"

3/4" 0 6" 1' 2' 3'

3/25/2024 5:53:32 PM THE ASTRID CONDO B7 v22

COLORADO LICENSED MICHAEL E. SORENSEN 3-25-24 40336 PROFESSIONAL ENGINEER

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EDGEMONT/SHERMAN FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
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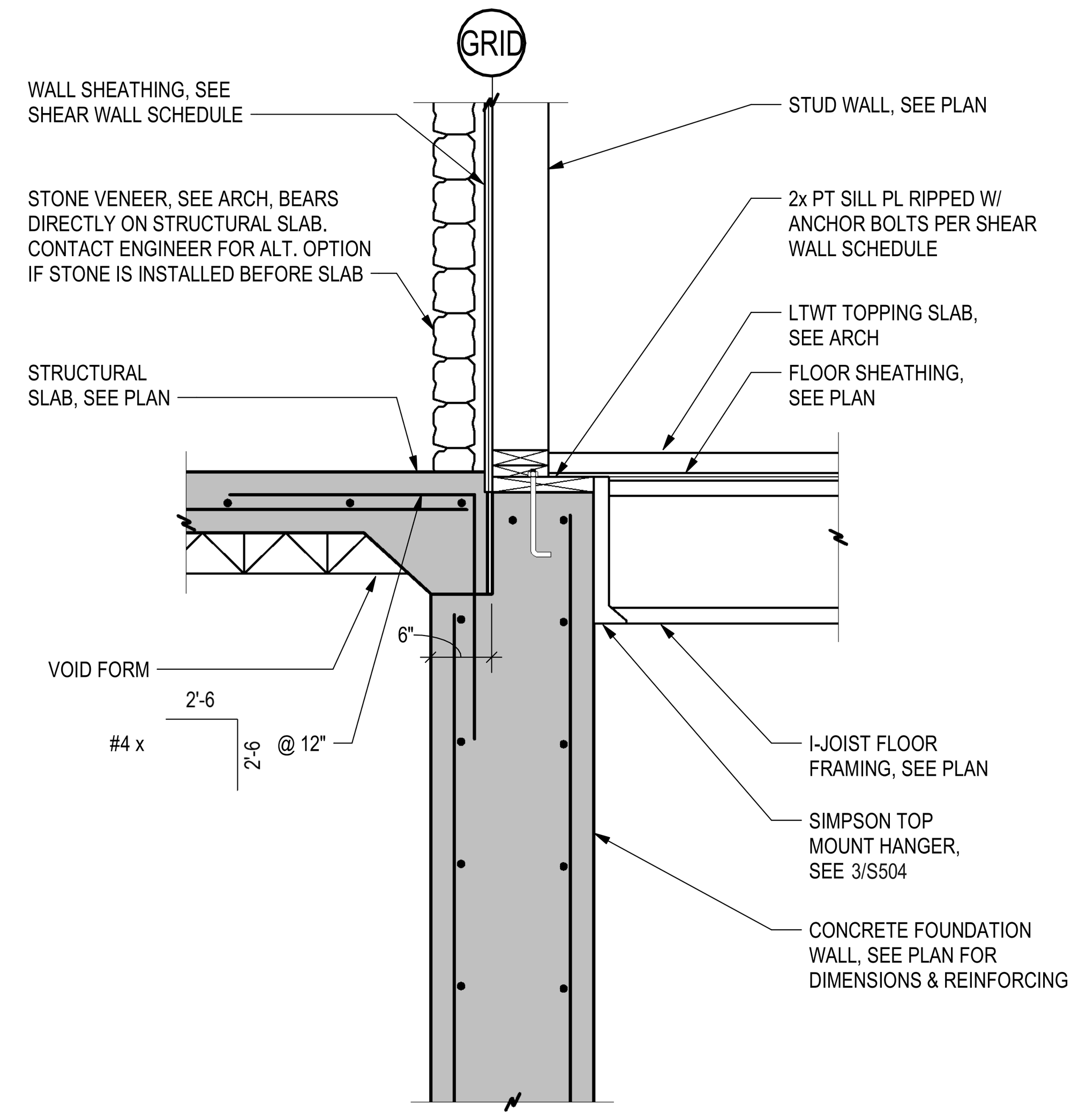
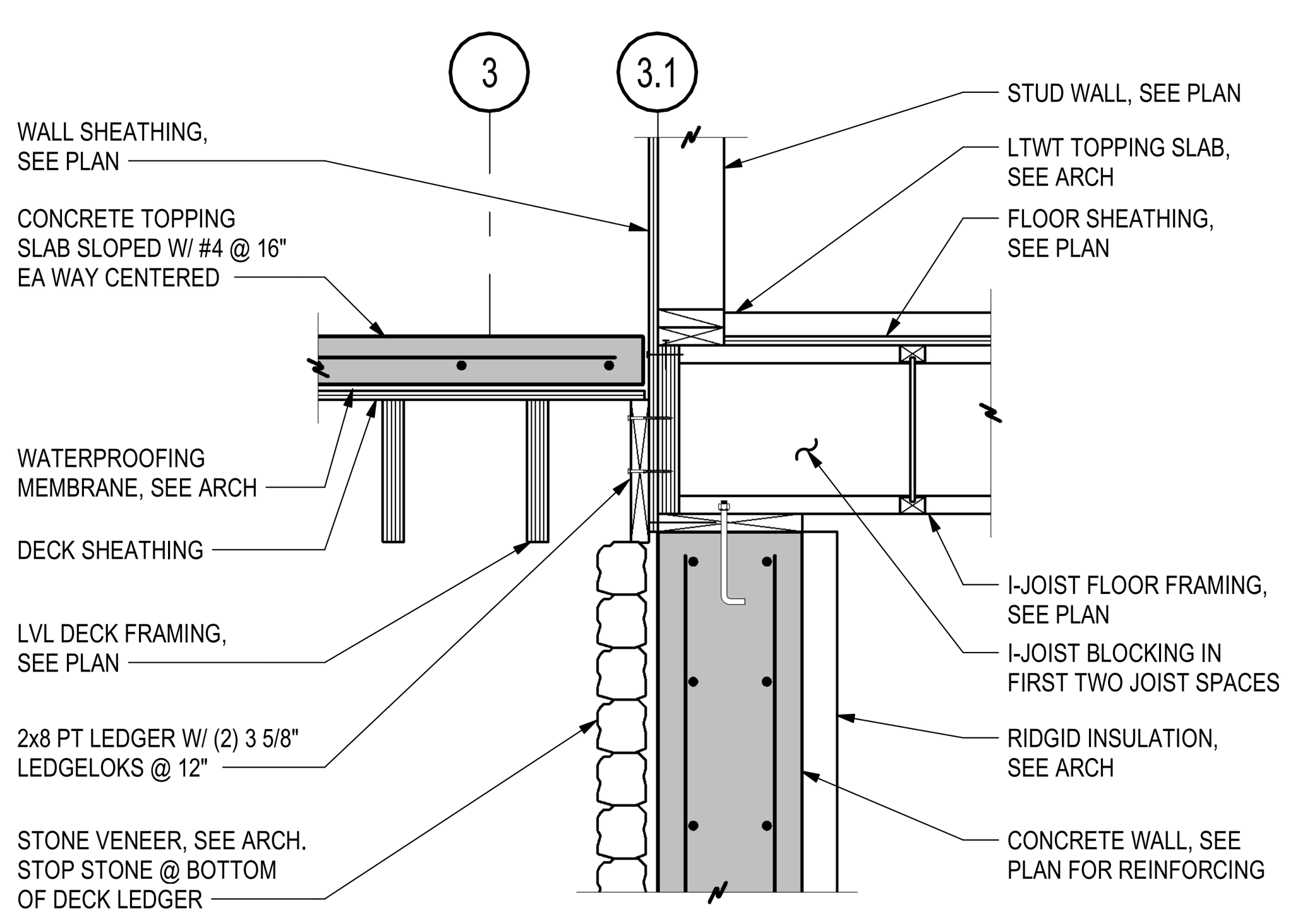
Sheet Title
FOUNDATION SECTIONS

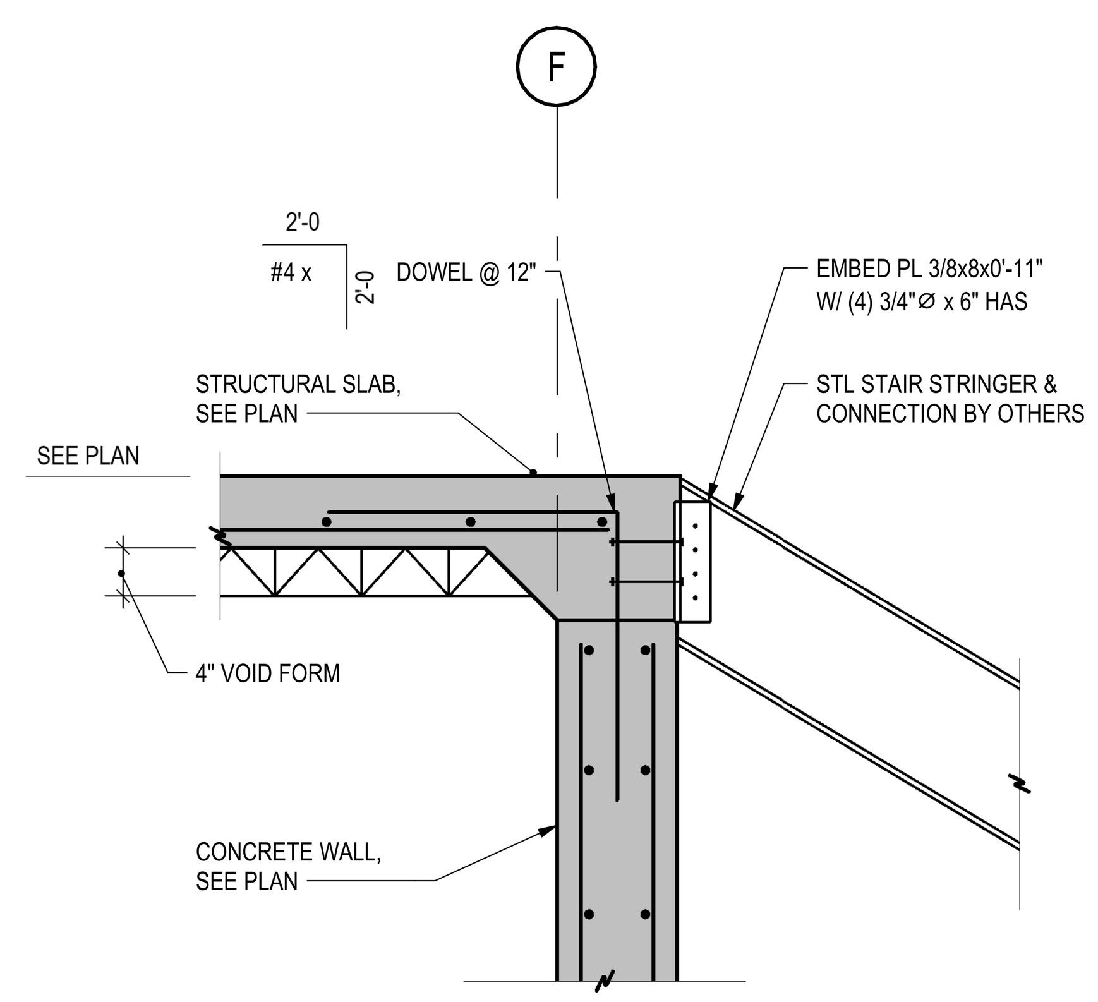
Sheet Number
S510



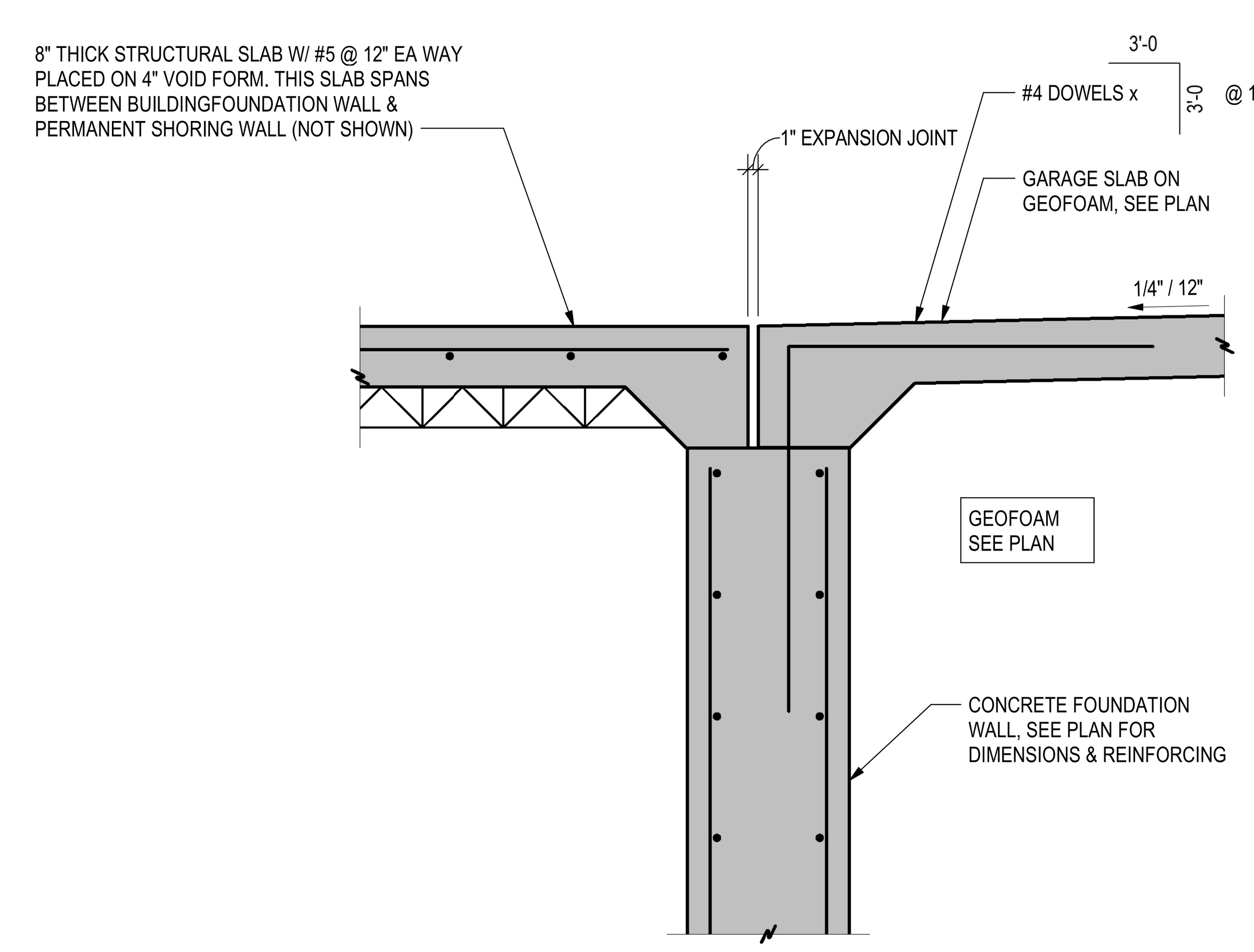
4 S511 **SECTION**
3/4" = 1'-0"



1 S511 **SECTION**
3/4" = 1'-0"
0 6" 1' 2' 3'



2 S511 **SECTION**
3/4" = 1'-0"



3 S511 **SECTION**
3/4" = 1'-0"

3/25/2024 5:53:34 PM THE ASTRID CONDO B7 v22

COLORADO LICENSED PROFESSIONAL ENGINEER MARK E. SORENSON 3-25-24 40236

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REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

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1919 SEVENTH STREET
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(303) 442-5458, (303) 442-4745 FAX

Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
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Sheet Title
FOUNDATION SECTIONS

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S511

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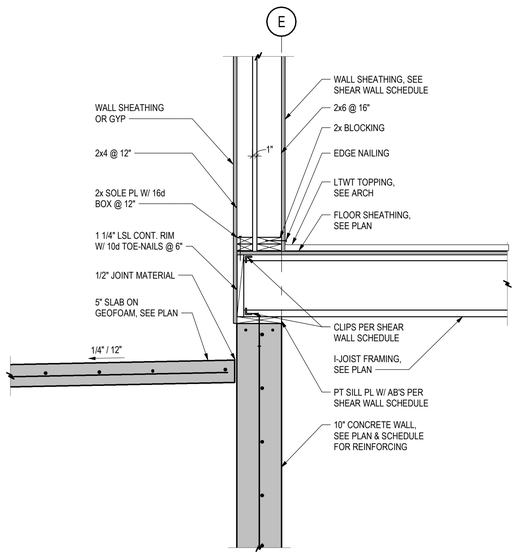
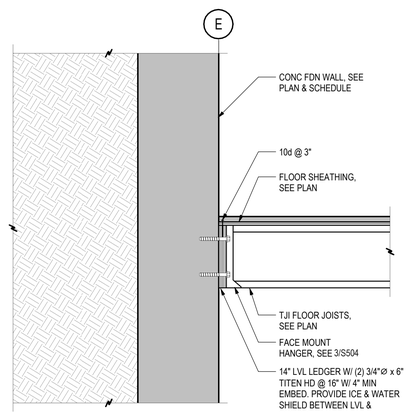
No.	Description	Date

EDGEMONT/SHERMAN FOURPLEX BUILDING 7

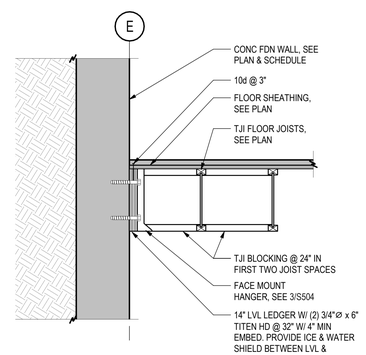
STEAMBOAT SPRINGS COLORADO



1 S520 SECTION
3/4" = 1'-0"
3/4" 0 6" 1' 2' 3'



2 S520 SECTION
3/4" = 1'-0"



3 S520 SECTION
3/4" = 1'-0"

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1919 SEVENTH STREET
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Checked By:	MES

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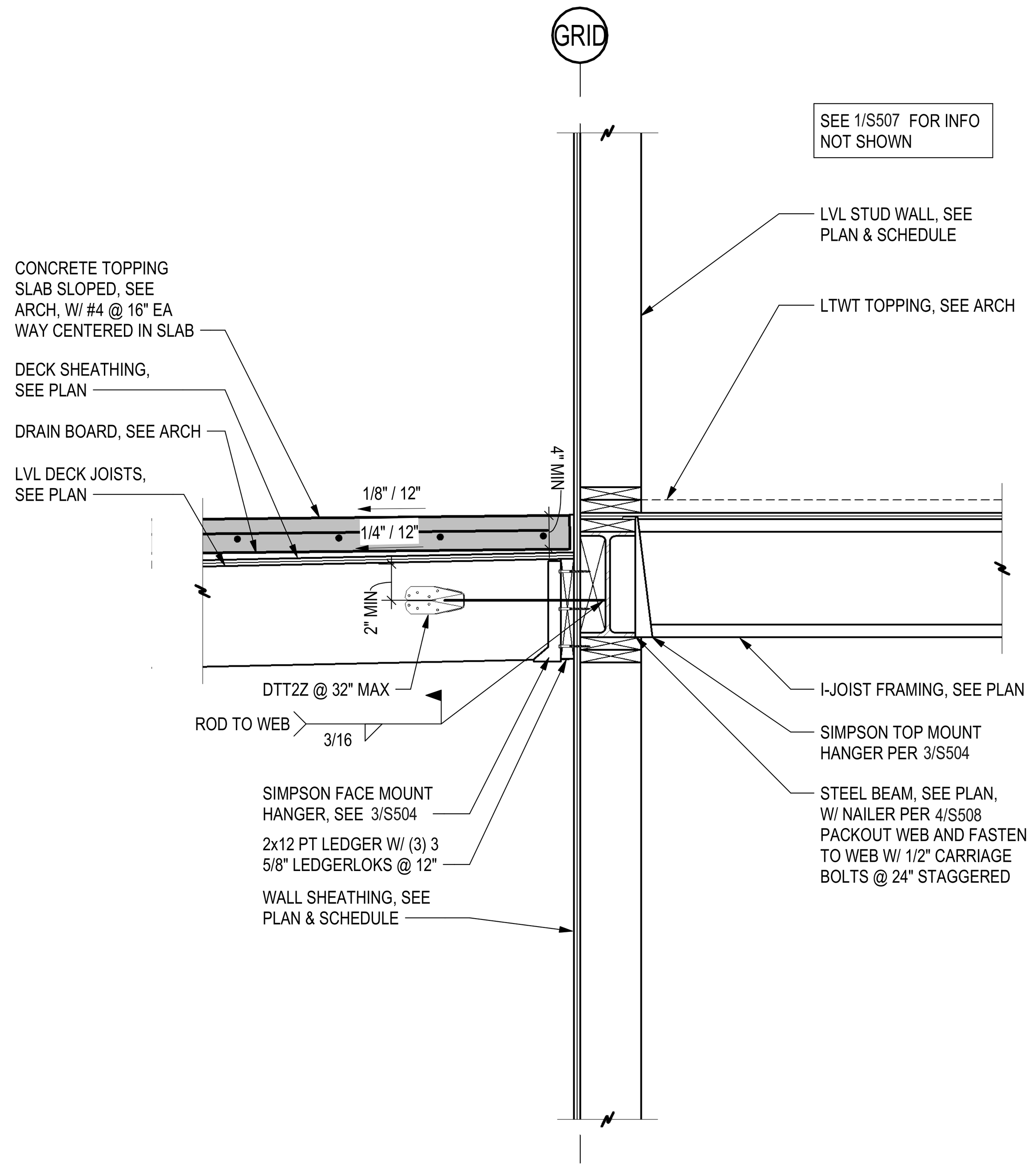
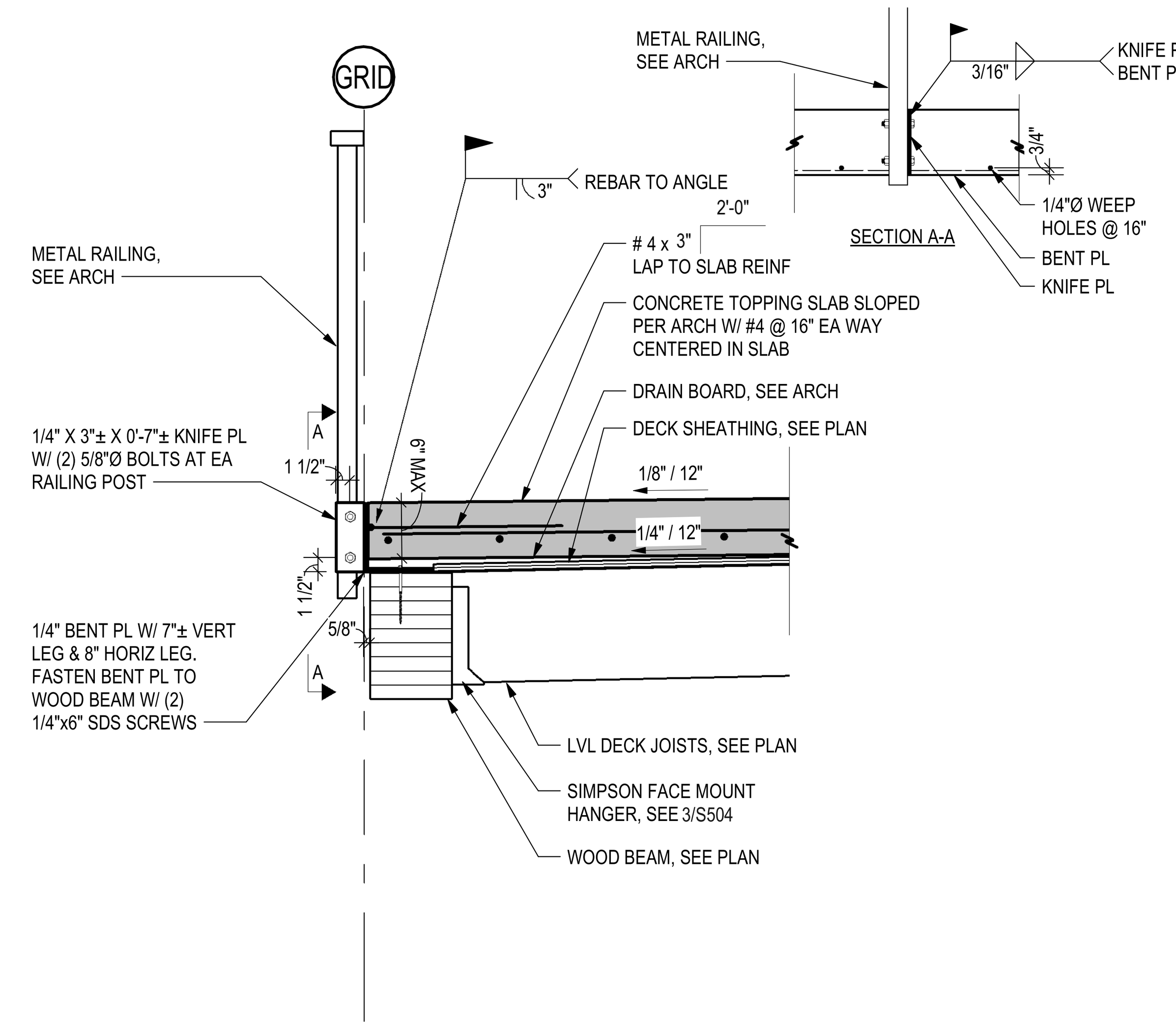
Sheet Title
FOUNDATION & FLOOR SECTIONS

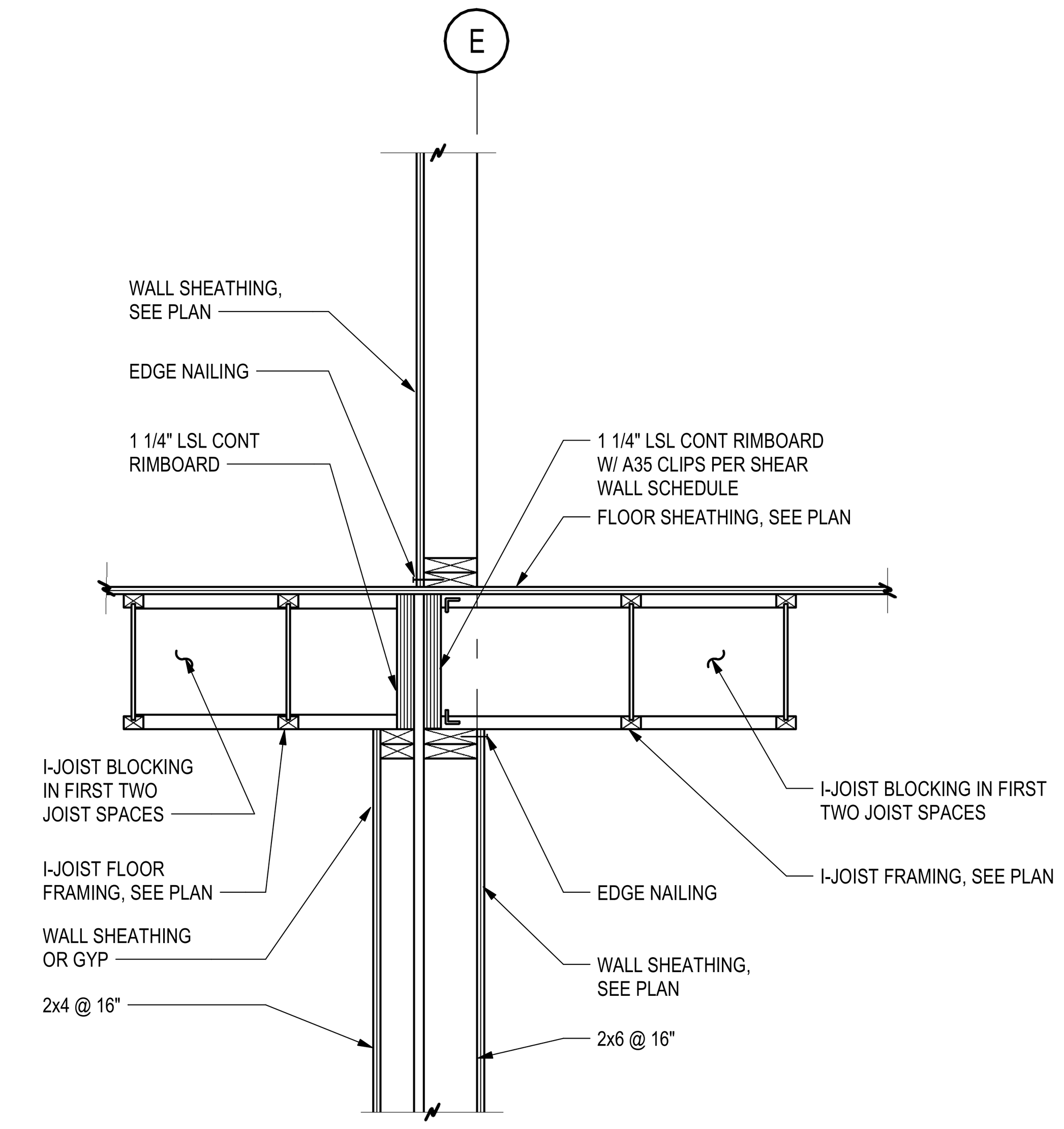
Sheet Number
S520



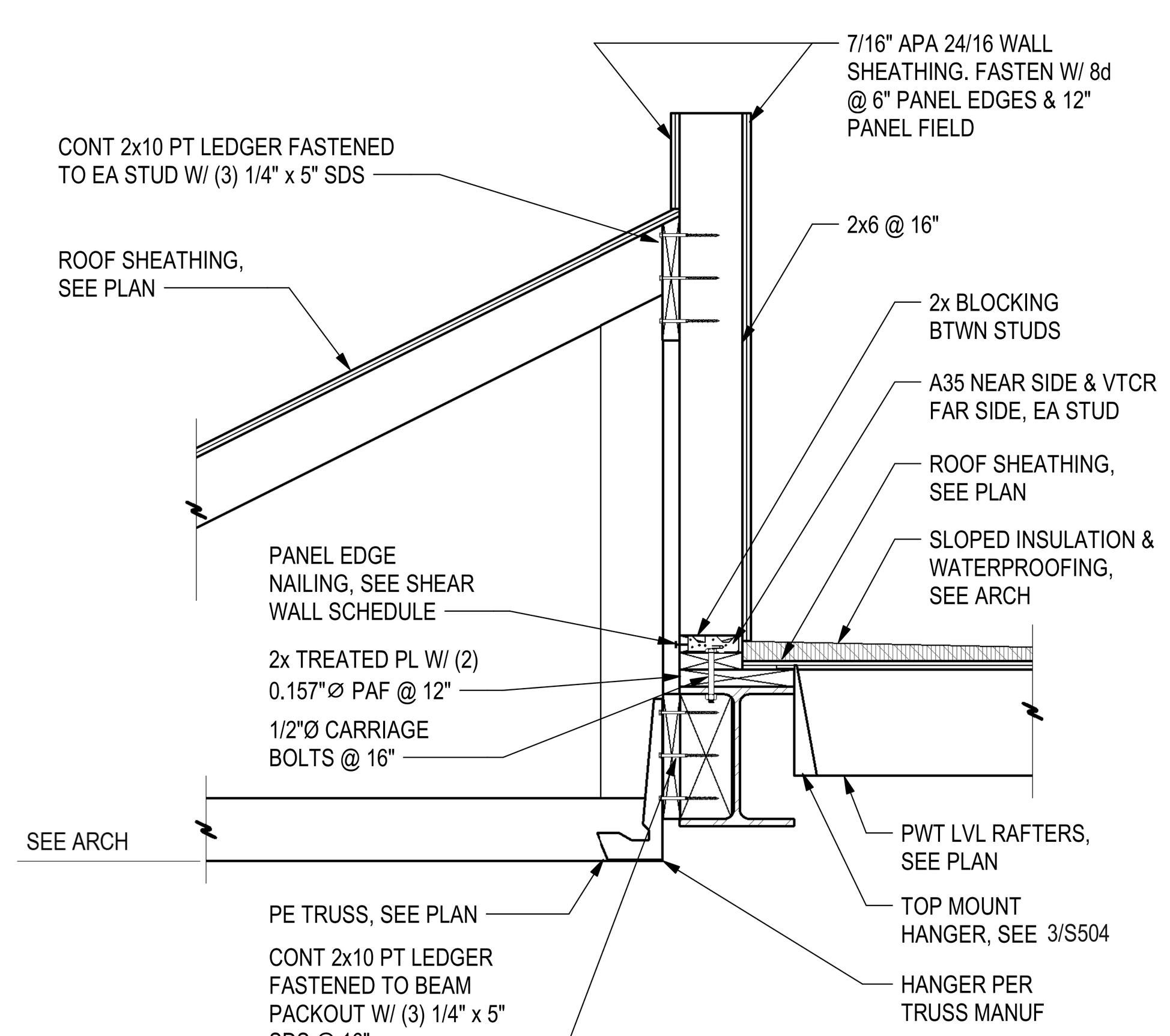
4 S521 **SECTION**
3/4" = 1'-0"



5 S521 **SECTION**
3/4" = 1'-0"

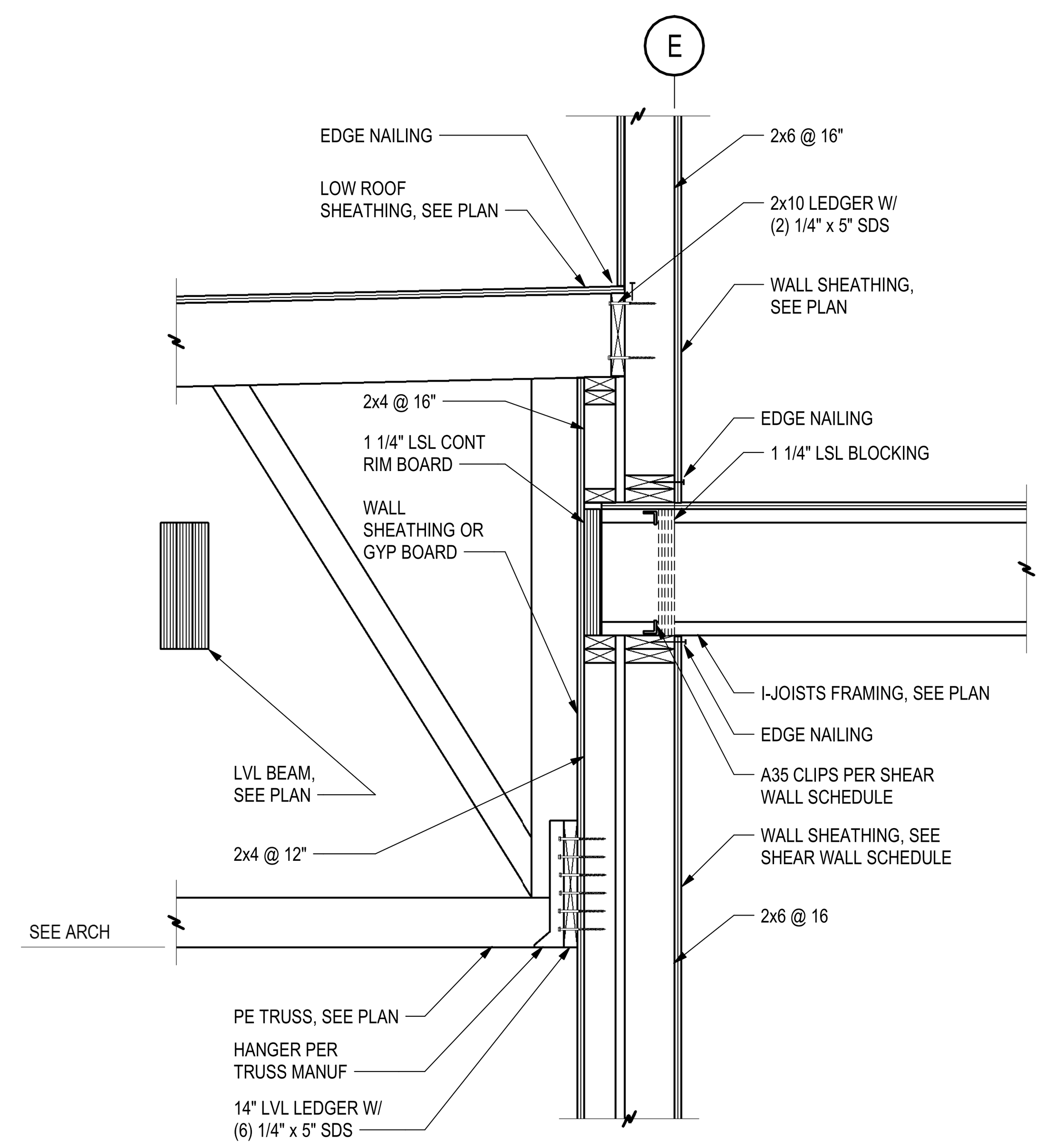


6 S521 **SECTION**
3/4" = 1'-0"

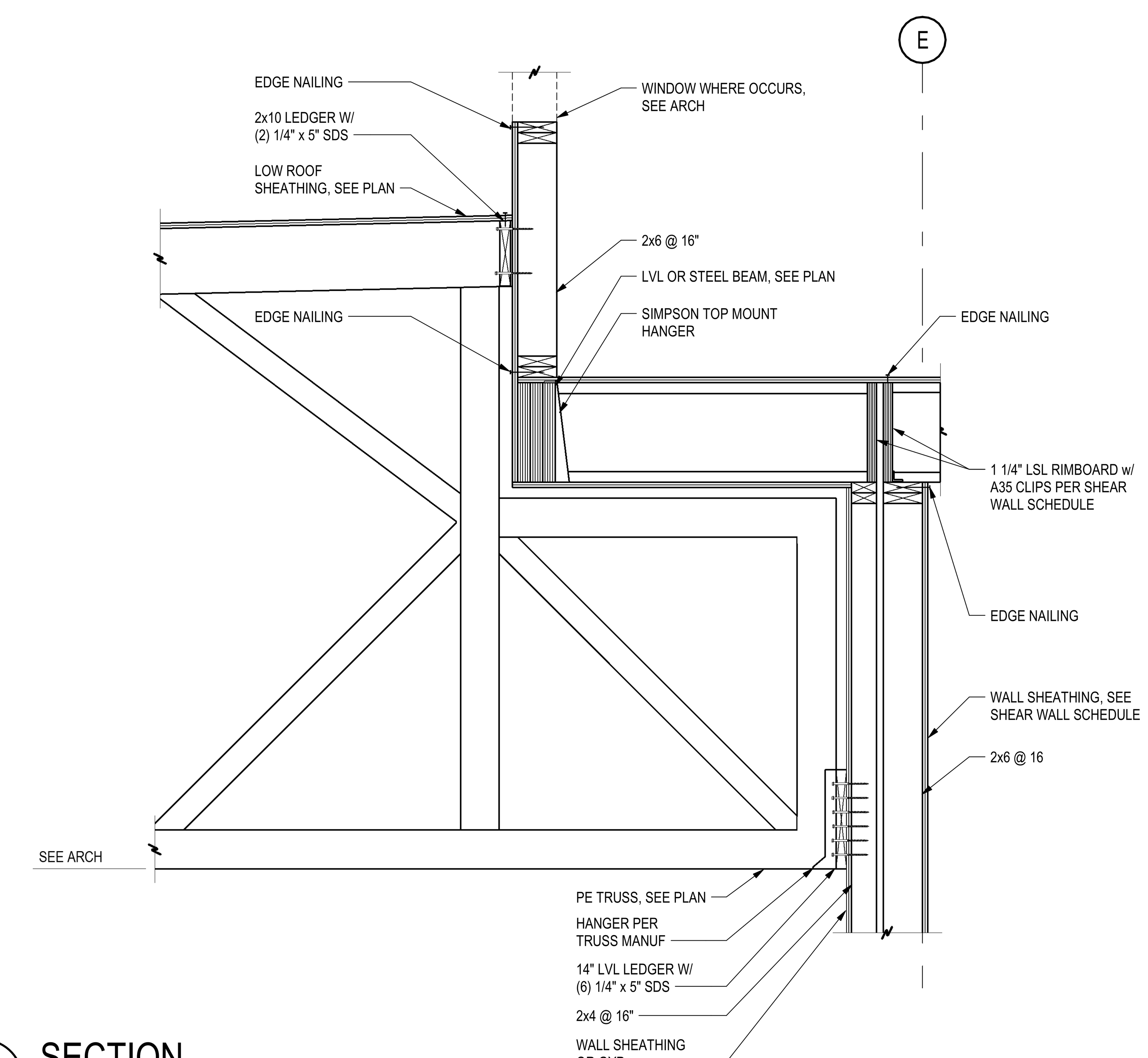


1 S521 **SECTION**
3/4" = 1'-0"

0 6" 1' 2' 3'



2 S521 **SECTION**
3/4" = 1'-0"



3 S521 **SECTION**
3/4" = 1'-0"

COLORADO LICENSED PROFESSIONAL ENGINEER MARK E. SORENSON 3-25-24 40236

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JVA #22025

REVISIONS

No.	Description	Date

EDGEMONT/SHERMAN FOURPLEX BUILDING 7
STEAMBOAT SPRINGS COLORADO

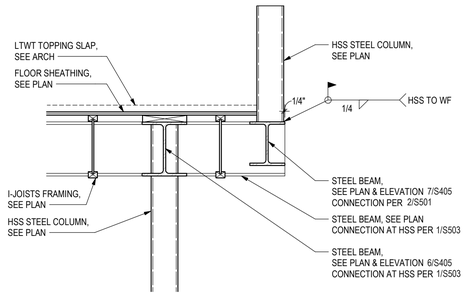
ERIC SMITH ASSOCIATES, P.C.
1919 SEVENTH STREET
BOULDER, COLORADO, 80302
(303) 442-5458, (303) 442-4745 FAX

Job Number:	22025
Date:	03/25/24
Drawn By:	BPK/LAB
Checked By:	MES

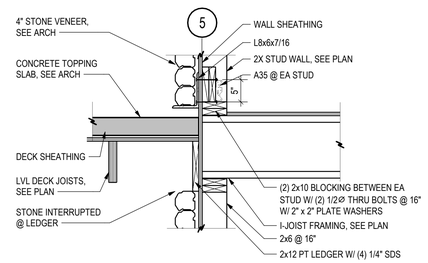
Project Phase
PERMIT

Sheet Title
FLOOR & ROOF SECTIONS

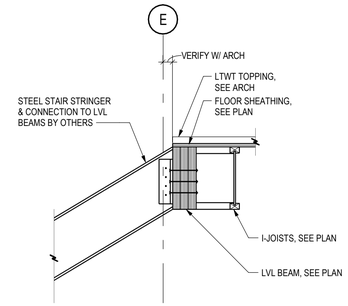
Sheet Number
S521



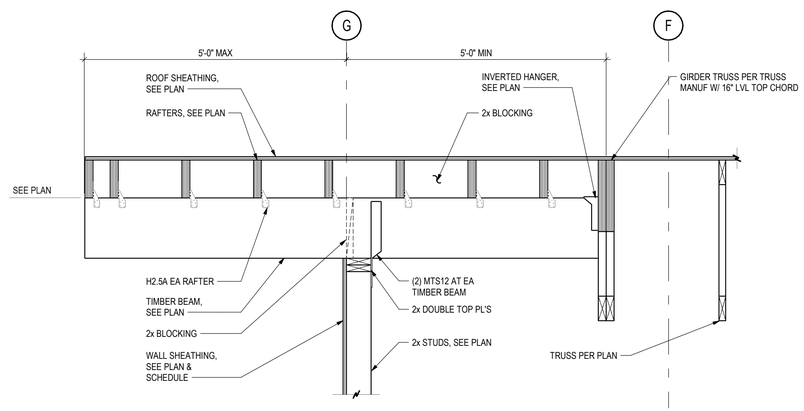
4 SECTION
S522 3/4" = 1'-0"



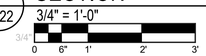
5 SECTION
S522 3/4" = 1'-0"

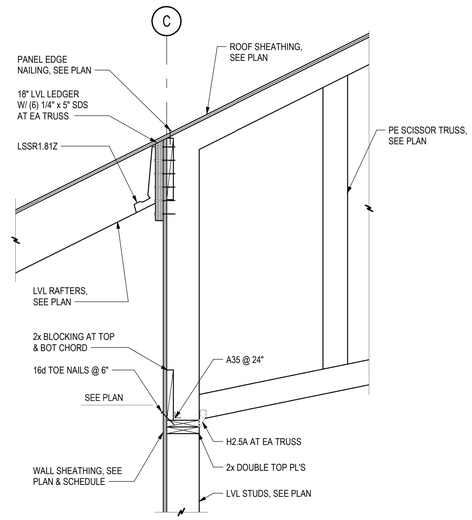


6 SECTION
S522 3/4" = 1'-0"

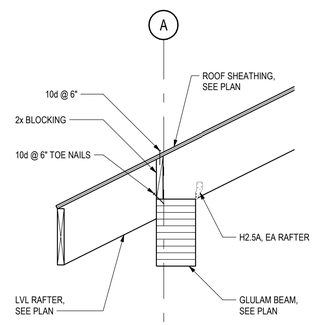


1 SECTION
S522 3/4" = 1'-0"





2 SECTION
S522 3/4" = 1'-0"



3 SECTION
S522 3/4" = 1'-0"

3/25/2024 5:53:39 PM THE ASTRID CONDO B7 v22

REVIEWED FOR CODE COMPLIANCE
04/01/2025

PERMIT SET NOT FOR CONSTRUCTION

JVA CONSULTING ENGINEERS
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Boulder ● Fort Collins ● Winter Park
Glenwood Springs ● Denver
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