I. GENERAL

1. THESE GENERAL NOTES APPLY, UNLESS SPECIFICALLY NOTED OTHERWISE.
2. ALL CONSTRUCTION, TESTING AND INSPECTING SHALL CONFORM TO THE BUILDING CODE REFERENCED UNDER THE HEADING "DESIGN CRITERIA".
3. STANDARDS REFERENCED IN THESE NOTES SHALL BE THE LATEST EDITION, UNLESS OTHERWISE NOTED.
4. THE NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER THE GENERAL NOTES AND TYPICAL DETAILS.
5. DETAILS SHALL BE APPLIED TO EVERY LIKE CONDITION WHETHER OR NOT THEY ARE REFERENCED IN EVERY INSTANCE. FOR CONDITIONS NOT SPECIFICALLY SHOWN, PROVIDE DETAILS SIMILAR TO THOSE SHOWN.
6. THE GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING FEATURES AND CONDITIONS (DIMENSIONS, ELEVATIONS, ETC.) UPON WHICH THESE DRAWINGS RELY.
7. OMISSIONS OR DISCREPANCIES BETWEEN THE VARIOUS ELEMENTS OF THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR STRUCTURAL ENGINEER BEFORE PROCEEDING WITH THE WORK.
8. REFER TO ARCHITECTURAL PLANS FOR FINISH FLOOR ELEVATIONS, FLOOR DEPRESSIONS, OPENINGS, SLOPES, DRAINS, CURBS, PADS, EMBEDDED ITEMS, NON-BEARING PARTITIONS, STAIR HANGERS, ETC. REFER TO MECHANICAL AND ELECTRICAL PLANS FOR SLEEVES, OPENINGS, AND HANGERS FOR PIPES, DUCTS, AND EQUIPMENT. COORDINATE THESE ITEMS WITH STRUCTURAL WORK.
9. DO NOT SCALE DRAWINGS. COORDINATE DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
10. DURING THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF PERSONNEL AND PROPERTY ON AND AROUND THE JOBSITE. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING, BRACING, GUYS, ETC. IN ACCORDANCE WITH ALL NATIONAL, STATE, AND LOCAL SAFETY ORDINANCES.
11. THE STRUCTURAL DRAWINGS AND PROJECT SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THE METHODS, PROCEDURES, AND SEQUENCE OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.

II. DESIGN CRITERIA

1. BUILDING CODE: CALIFORNIA BUILDING CODE (CBC) 2016 EDITION
2. RISK CATEGORY: II
3. DEAD LOADS
   - A. TYPICAL ROOF: 20 PSF (INCLUDES 5 PSF FOR SOLAR PANELS)
   - B. PUBLIC ROOF DECK: 45 PSF
   - C. TYPICAL WOOD FLOOR: 38 PSF (INCLUDES 1-1/2 INCH LW CONCRETE TOPPING)
   - D. RESIDENTIAL BALCONY: 35 PSF
   - E. CONCRETE STRUCTURE (GROUND LEVEL, SECOND LEVEL)
     SEE LOADING DIAGRAMS ON S1.01C.
   - F. ALLOWANCES
     1.) SPRINKLERS = 1.0 PSF
     2.) MECHANICAL EQUIPMENT = 50 PSF
     3.) ETC = # PSF
4. LIVE LOADS:
   - A: FLOOR LIVE LOAD:
     1.) RESIDENTIAL: 40 PSF (INCLUDING RESIDENTIAL BALCONIES)
     2.) PARTITION: 10 PSF.
     3.) STAIRS, LOBBIES AND FIRST FLOOR CORRIDORS: 100 PSF.
     4.) CORRIDORS ABOVE FIRST FLOOR: 80 PSF
     6.) PARKING:
       a. UNIFORM: 40 PSF.
       b. WHEEL: 3000 POUNDS.
   - B. ROOF LIVE LOAD:
     1.) TYPICAL: 20 PSF
     2.) AT PUBLIC ROOF DECK: 100 PSF
5. WIND DESIGN DATA:
   WIND IMPORTANCE FACTOR: I = 1.0
   WIND EXPOSURE CATEGORY: B
   BASIC WIND SPEED: V = 110 3 SECOND GUST.
6. EARTHQUAKE DESIGN DATA:
   SEISMIC IMPORTANCE FACTOR: I = 1.0
   SEISMIC DESIGN CATEGORY: E
   SITE CLASS: D
   BASIC SEISMIC RESISTING SYSTEM UNDER PODIUM: SPECIAL CONCRETE SHEAR WALL
   RESPONSE MODIFICATION FACTOR: R = 5
   SYSTEM OVERSTRENGTH FACTOR: Ωo = 2.5
   DEFLECTION AMPLIFICATION FACTOR Cd = 5
   BASIC SEISMIC RESISTING SYSTEM ABOVE PODIUM: WOOD SHEATHED SHEAR WALLS
   RESPONSE MODIFICATION FACTOR: R = 6.5
   SYSTEM OVERSTRENGTH FACTOR: Ωo = 3
   DEFLECTION AMPLIFICATION FACTOR Cd = 4
   SPECTRAL RESPONSE ACCELERATION:
   1.) SHORT PERIOD: Ss = 1.962
   2.) 1 SECOND PERIOD: S1 = 0.796
   DESIGN SPECTRAL RESPONSE ACCELERATION:
   1.) SHORT PERIOD: Sds = 1.308
   2.) 1 SECOND PERIOD: Sd1 = 0.796
   SEISMIC RESPONSE COEFFICIENT: Cs = 0.262 FOR CONCRETE SHEAR WALL
   Cs = 0.201 FOR WOOD SHEAR WALL
   DESIGN BASE SHEAR: V = Cs TIMES W (W=BUILDING SEISMIC DEAD LOAD).
   ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE

III. FOUNDATION

1. FOUNDATION DESIGN IS BASED ON SOILS REPORTS BY ROCKRIDGE GEOTECHNICAL DATED: JUNE 19, 2017, PROJECT # 17-1344
2. FOUNDATION TYPE: MAT FOUNDATION
3. DESIGN ALLOWABLES:
   - A. SOIL BEARING: 3000 PSF (DL+LL), 4000 PSF (DL+LL+WIND/EQ).
   - B. MODULUS OF SUBGRADE REACTIONS: 25 PCI.
   - C. FRICTION FACTOR: 0.30 WITHOUT VAPOR RETARDER BELOW MAT, 0.20 WITH VAPOR RETARDER.
   - D. PASSIVE PRESSURE: 270 PCF FOR SUSTAINED LOADING, 1500 PSF FOR TRANSIENT LOADING.
   - E. LATERAL SOIL PRESSRE: STATIC: 60 PCF. ACTIVE: 40 PCF PLUS 30 PCF SEISMIC (TRIANGULAR)
4. FOLLOW RECOMMENDATIONS IN SOIL REPORT FOR ALL FOUNDATION WORK.
5. THE SOILS ENGINEER SHALL VERIFY CONDITION AND/OR ADEQUACY OF ALL EXCAVATIONS, SUB GRADES, FILLS AND BACK FILLS. NO REINFORCEMENT OR CONCRETE SHALL BE PLACED IN ANY EXCAVATION OR ON ANY SUBGRADE OR FILL UNTIL THAT WORK HAS BEEN REVIEWED AND APPROVED IN WRITING BY THE SOILS ENGINEER.
6. ALL FOOTINGS SHALL BEAR ON FIRM UNDISTRUBED SOIL OR COMPACTED STRUCTURAL FILL. THE TOP OF FOOTING ELEVATIONS ARE SHOWN ON THE PLANS. WHERE SOFT OR LOOSE MATERIAL IS FOUND AT BOTTOM OF FOOTING ELEVATIONS, THE SOFT OR LOOSE MATERIAL SHALL BE REMOVED AND REPLACED WITH COMPACTED STRUCTURAL FILL AS DIRECTED BY THE SOILS ENGINEER.
7. THE SIDES OF FOUNDATIONS SHOWN STRAIGHT ARE FORMED. FOUNDATIONS POURED AGAINST THE EARTH AT CONTRACTOR'S OPTION REQUIRE THE FOLLOWING PRECAUTIONS:
   - A. SIDES OF EXCAVATION MUST BE VERTICAL (OVER POURING AND MUSHROOMING NOT ALLOWED).
   - B. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN UP OF SOIL SLOUGHING BEFORE, DURING, AND AFTER POUR.
8. CONTRACTOR TO PROVIDE FOR DE-WATERING OF EXCAVATION FOR EITHER SURFACE WATER, GROUND WATER OR SEEPAGE IF REQUIRED.
9. BACK FILL OVER EXCAVATED FOOTINGS WITH CONCRETE OF SAME DESIGN STRENGTH AS FOOTING CONCRETE OR COMPACTED STRUCTURAL FILL, AS DIRECTED OTHERWISE BY THE SOILS ENGINEER.
10. STEP CONTINUOUS FOOTINGS AT VARYING ELEVATIONS PER TYPICAL DETAIL. SLOPING OF FOOTINGS IS PROHIBITED.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES, EXISTING STRUCTURES, ETC., WHETHER INDICATED OR NOT, WHICH MAY BE AFFECTED BY THE CONSTRUCTION PROCESS.
12. UTILITY LINES SHALL NOT BE PLACED THROUGH OR BELOW FOUNDATIONS WITHOUT THE STRUCTURAL ENGINEER'S APPROVAL.
13. SLABS ON GRADE SHALL BE SUPPORTED ON NATURAL GRADE OR COMPACTED STRUCTURAL FILL ACCORDING TO THE RECOMMENDATIONS OF THE SOILS REPORT.
14. THE SLOPE BETWEEN THE LOWER EDGES OF ADJACENT FOUNDATIONS SHALL NOT EXCEED 45 DEGREES WITH THE HORIZONTAL, UNLESS INDICATED OTHERWISE IN THE DRAWINGS. MAINTAIN A 1:1 SLOPE FROM BOTTOM EDGE OF ANY EXCAVATION.
15. DURING BACKFILLING OPERATIONS, FOUNDATION WALL BACKFILL SHALL NOT BE UNBALANCED BY MORE THAN TWO FEET ON EITHER SIDE AT ANY TIME.
16. BASEMENT WALLS SHALL NOT BE BACKFILLED UNTIL THE BASEMENT LEVEL SLAB ON GRADE IS PLACED AND CURED A MINIMUM OF FOUR DAYS. DO NOT BACKFILL MORE THAN [4] FEET BEHIND THE BASEMENT WALLS UNTIL THE UPPER LEVEL FRAMING SUPPORTING THE TOP OF WALL IS COMPLETE.
17. THE CONTRACTOR SHALL PROVIDE FOR THE DESIGN AND INSTALLATION OF ALL CRIBBING, SHEETING AND SHORING ETC. REQUIRED FOR CONSTRUCTION OF THE PROJECT AND SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES.

IV. CONCRETE

1. ALL CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH ACI 318, USE MIXES WITH A MAXIMUM AGGREGATE SIZE APPROPRIATE FOR FORM AND REBAR CLEARANCES TO BE ENCOUNTERED IN ACCORDANCE WITH ACI RECOMMENDATIONS.
2. THE PROPOSED MATERIALS AND MIX DESIGN SHALL BE FULLY DOCUMENTED AND REVIEWED BY THE OWNERS TESTING LABORATORY. RESPONSIBILITY FOR OBTAINING THE REQUIRED DESIGN STRENGTH IS THE CONTRACTOR'S. SUBMIT TEST DATA ON EACH PROPOSED MIX FOR REVIEW IN ACCORDANCE WITH IBC SECTION 1903 AND 1904. MIX DESIGNS SUBMITTED WITHOUT THE REQUIRED TEST DATA WILL BE RETURNED WITHOUT REVIEW.
3. PORTLAND CEMENT SHALL CONFORM TO ASTM C 150 TYPE I OR II [TYPE V (REGIONS WITH HIGH SULFIDES)].
4. AGGREGATE FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ALL REQUIREMENTS AND TESTS OF ASTM C 33 AND PROJECT SPECIFICATIONS.
5. AGGREGATE FOR LIGHTWEIGHT CONCRETE SHALL CONFORM TO ASTM C 330.
6. CONCRETE SHALL HAVE THE FOLLOWING 28 DAY STRENGTHS, F'c: (ALL CONCRETE SHALL BE NORMAL WEIGHT, EXCEPT AS NOTED)
   - A. FOOGTINGS & MAT FOUNDATION: 4000 PSI 56 DAY STRENGTH, 3000 PSI MINIMUM AT TIME OF CONCRETE PODIUM POUR
   - B. NON-STRUCTURAL SLABS ON GRADE: 3000 PSI
   - C. BASEMENT WALLS: 4000 PSI
   - D. SHEARWALLS: 4000 PSI, UNO
   - E. COLUMNS: 5000 PSI
   - F. POST TENSIONED SLABS: 5000 PSI
   - G. SHOTCRETE: 4000 PSI
   - H. ALL OTHER CONCRETE: 3000 PSI
7. SCHEDULING OF WORK MAY REQUIRE ACHIEVEMENT OF DESIGN STRENGTH IN A SHORTER PERIOD OF TIME.
8. CONSTRUCTION JOINTS SHALL BE THOROUGHLY ROUGHENED (1/4" AMPLITUDE) BY SAND BLASTING OR MECHANICAL MEANS. CLEAN BEFORE POUR. LOCATION TO BE APPROVED BY THE STRUCTURAL ENGINEER. SUBMIT LOCATION PLAN OR ALL PROPOSED JOINTS NOT INDICATED ON DRAWINGS FOR APPROVAL PRIOR TO BEGINNING WORK.
9. ALL CONCRETE TO BE REINFORCED, UNLESS SPECIFICALLY NOTED "NOT REINFORCED".
10. CONDUIT OR PIPE SIZE (O.D.) SHALL NOT EXCEED 30% OF SLAB THICKNESS, AND SHALL BE PLACED FOUR DIAMETERS MINIMUM APART, UNLESS SPECIFICALLY DETAILED OTHERWISE.
11. PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN CONCRETE PRIOR TO POURING CONCRETE. DO NOT CUT REINFORCING.
12. CORING OF CONCRETE IS NOT PERMITTED UNLESS REVIEWED BY THE STRUCTURAL ENGINEER.
13. EXPOSED PROJECTING CORNERS OF BEAMS, WALLS, COLUMNS, ETC., SHALL BE FORMED WITH A 3/4" CHAMFER, UNLESS OTHERWISE NOTED ON ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
14. PRIOR TO PLACING CONCRETE, THE CONTRACTOR SHALL ENSURE THAT ALL REINFORCING AND EMBEDMENTS, INCLUDING COLUMN ANCHOR BOLTS, ARE PROPERLY LOCATED AND SECURELY TIED IN PLACE.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING CURING CONCRETE FROM FREEZING AND HOT WEATHER PER ACI 306.1 AND ACI 305 RESPECTIVELY.
16. NO LOADS SHALL BE PLACED ON STRUCTURAL CONCRETE SLABS WITHIN 7 DAYS AFTER CONCRETE IS PLACED. AFTER CONCRETE IS PLACED, IN NO CASE SHALL THE SUPERIMPOSED CONSTRUCTION LOADS BE GREATER THAN SPECIFIED DESIGN LIVE LOADS, UNLESS THE WORK IS SHORED.
17. CONTRACTOR SHALL SURVEY ALL CONCRETE WORK WITHIN 48 HOURS OF PLACING CONCRETE TO ENSURE THAT PLACEMENT IS IN ACCORDANCE WITH PROJECT REQUIREMENTS.
18. PROVIDE LIGHTWEIGHT SELF-LEVELING MATERIAL AT ELEVATED CONCRETE SLABS AND CONCRETE FILL OVER METAL DECK AS REQUIRED TO MEET FLOOR FLATNESS AND LEVELNESS REQUIREMENTS.

V. REINFORCING STEEL

1. ALL REINFORCING STEEL FOR CONCRETE AND/OR MASONRY CONSTRUCTION SHALL BE PLACED IN CONFORMANCE WITH "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", ACI 318; "BUILDING CODE REQUIREMENTS FOR MASONRY CONSTRUCTION", ACI 530; "SPECIFICATIONS FOR MASONRY STRUCTURES", ACI 530.1; AND THE "ACI DETAILING MANUAL" AS MODIFIED BY THEPROJECT DRAWINGS AND SPECIFICATIONS.
2. REINFORCING STEEL:
   - A. DEFORMED BARS, ASTM A 615 GRADE 60.
   - B. WELDED WIRE FABRIC, ASTM A 185.
   - C. SHEAR WALL BOUNDARY ELEMENTS, LATERAL LOAD RESISTING FRAME ELEMENTS, AND AT WELDED REINFORCING, ASTM A706.
3. REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE COVER, UNLESS OTHERWISE NOTED:
   - A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3".
   - B. CONCRETE FORMED AND EXPOSED TO EARTH OR WEATHER:
     1.) #6 THROUGH #11 BARS: 2".
     2.) #5, W31 OR D31 WIRE, AND SMALLER: 1 1/2".
   - C. CONCRETE NOT EXPOSED TO WEATHER OR NOT IN CONTACT WITH THE GROUND:
     1.) SLABS, WALLS: 3/4".
     2.) BEAMS AND COLUMNS PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS: 1 1/2"
4. ALL LAP SPLICES SHALL BE CLASS B SPLICE AND 2'-0" MINIMUM, UNLESS OTHERWISE NOTED.
5. PROVIDE FOUNDATION DOWELS TO MATCH SIZE AND SPACING OF WALL OR COLUMN REINFORCEMENT. EXTEND DOWELS A LAP SPLICE LENGTH INTO WALL OR COLUMN AND TERMINATE WITH STANDARD HOOK 3" ABOVE BOTTOM OF FOOTING, UNLESS OTHERWISE NOTED.
6. ALL REINFORCING STEEL AND EMBEDMENTS TO BE HELD SECURELY IN PLACE PRIOR TO PLACING CONCRETE. PROVIDE SUFFICIENT SUPPORTS TO ALLOW WALKING ON REINFORCEMENT.
7. WELDING OF REINFORCING IS PROHIBITED, UNLESS APPROVED BY STRUCTURAL ENGINEER.
8. REINFORCEMENT SHALL BE PLACED IN RELATIVE POSITION SHOWN ON THE DRAWINGS. NO SPLICES IN REINFORCING WILL BE PERMITTED, UNLESS SHOWN IN THE STRUCTURAL DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.
9. STAGGER LAP SPLICES OF ADJACENT BARS IN CONTINUOUS FOUNDATION MEMBERS 5'-0" MIN.
10. UNLESS DETAILED OTHERWISE, REINFORCING STEEL IN CONTINUOUS BEAMS AND SPANDRELS SHALL HAVE THE TOP STEEL SPLICED AT MID-SPAN AND THE BOTTOM STEEL SPLICED OVER SUPPORTS (30 DIA. MIN.) AT DISCONTINUOUS ENDS, THE TOP STEEL SHALL BE BENT DOWN 12 DIA. OR 12" MIN., WHICHEVER IS GREATER. SEE DETAILS OR SCHEDULE.

POST-TENSIONING

1. POST-TENSIONING STEEL FOR CONCRETE CONSTRUCTION SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", ACI 318 AND THE RECOMMENDATIONS CONTAINED IN THE "POST TENSIONING MANUL", PTI.
2. POST-TENSIONING REINFORCING SUPPLIER TO PROVIDE LAYOUT DRAWINGS, DETAILS AND CALCULATIONS STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROJECT STATE, FOR REVIEW AND APPROVAL BY THE LOCAL BUILDING DEPARTMENT WHERE REQUIRED.
3. THE FIELD STRENGTH OF CONCRETE AT TRANSFER OF PRESTRESS SHALL BE A MINIMUM OF 0.75 x F'c.
4. PRESTRESSED REINFORCING SHALL BE STRESS-RELIEVED AND MADE FROM LOW RELAXATION STRANDS CONFORMING TO THE FOLLOWING:
   - A. ASTM A 416.
   - B. NOMINAL DIAMETER: 1/2".
   - C. AREA: 0.153 SQUARE INCHES.
   - D. ULTIMATE STRENGTH: 270 KSI.
   - E. TEMPORARY STRESS TO OVERCOME FRICTION: 216 KSI.
   - F. BEFORE ANCHOR STRESS: 189 KSI.
   - G. EFFECTIVE STRESS: 175 KSI.
5. SUPPLIER SHALL SUBMIT CALCULATIONS FOR SPECIFIED STRESSING LENGTHS TO ENSURE MINIMUM THAT THE FINAL EFFECTIVE PRESTRESS FORCES ARE MAINTAINED.
   - A. SUPPLIER SHALL SUBMIT CALCULATIONS FOR ALL LOSSES FOR SPECIFIED STRESSING LENGTHS TO INSURE THAT THE MINIMUM FINAL EFFECTIVE FORCES ARE MAINTAINED.
   - B. POST TENSIONING FORCES SPECIFIED ON THE DRAWING ARE REQUIRED EFFECTIVE FORCES AFTER APPROPRIATE LOSSES ARE ACCOUNTED FOR. CALCULATIONS SUBMITTED WITH THE POST TENSIONING MATERIAL SHOP DRAWINGS SHALL INDICATE THE VALUES FOR ALL LOSSES APPROPRIATE TO THIS PROJECT FOR THE MATERIALS PROPOSED. CERTIFIED TEST DATA SUBSTANTIATING LOSS PROPERTY ASSUMPTIONS SHALL ALSO BE SUBMITTED.
6. DRAPES SHALL CONFORM TO CONTROLLING POINTS SHOWN ON DRAWINGS AND SHALL BE IN AN APPROXIMATE PARABOLIC DRAPE BETWEEN SUPPORTS UNLESS NOTED OTHERWISE. DIMENSIONS LOCATE THE CENTER OF GRAVITY OF THE TENDON OR GROUP OF TENDONS FROM THE BOTTOM OF SLAB, UNLESS OTHERWISE NOTED. LOW POINTS ARE AT MID SPAN UNLESS OTHERWISE SHOWN OR NOTED.
7. SPECIAL INSPECTION IS REQUIRED FOR ALL POST-TENSIONED WORK.
   - A. CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR CONCRETE PLACEMENT.
   - B. FIELD TEST SHALL BE MADE WITH JACKS OR OTHER INSTRUMENTS ON TENDONS WHILE JACKING TO DETERMINE BEHAVIOR OF THE TENDONS. FIELD READINGS OF THE ELONGATION'S AND/OR STRESSING FORCES SHALL NOT VARY MORE THAN 5% FROM CALCULATED REQUIRED VALUES.
   - C. RECORDS OF ALL JACKING FORCES AND ELONGATIONS SHALL BE KEPT BY A CERTIFIED PRESTRESSED INSPECTOR AND SHALL PROMPTLY BE SUBMITTED TO THE STRUCTURAL ENGINEER.
8. ONE SAMPLE OF EACH REEL OR HEAT SHALL BE TESTED BY AN APPROVED LABORATORY. TEST RESULTS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER AND BUILDING DEPARTMENT BEFORE STRESSING (MILL CERTIFICATES ARE ACCEPTABLE).
9. TWISTING OR ENTWINING OF INDIVIDUAL WIRES OR STRANDS WITHIN A BUNDLE OR A BEAM IS NOT PERMITTED.
10. ALL ANCHORAGES, COUPLERS AND MISCELLANEOUS HARDWARE SHALL BE STANDARD AND APPROVED BY GOVERNING AGENCIES AND THE STRUCTURAL ENGINEER.
11. TENDONS SHALL BE SECURED TO A SUFFICIENT NUMBER OF POSITIONING DEVICES TO INSURE CORRECT LOCATION DURING AND AFTER PLACEMENT OF CONCRETE, BUT SHALL BE SUPPORTED AT A MAXIMUM OF 4'-0" OC TYPICAL.
12. UNIFORM TENDONS SHALL BE STRESSED BEFORE BANDED AND BEAM TENDONS.
13. ALL INSERTS AND SLEEVES SHALL BE CAST IN PLACE WHENEVER FEASIBLE. DRILLED OR POWER DRIVEN FASTENERS WILL BE PERMITTED WHEN IT CAN BE SHOWN THAT THE INSERTS WILL NOT SPALL THE CONCRETE AND ARE LOCATED SO AS TO AVOID THE TENDONS AND ANCHORAGES.
14. SLAB OR BEAM SHORING MAY BE REMOVED WHEN ALL TENDONS HAVE BEEN STRESSED, UNLESS SHORING IS REQUIRED TO CARRY FLOORS ABOVE.

SHOTCRETE

1. THE TERM SHOTCRETE IS DEFINED AS THE PROCESS WHERE CONCRETE IS PNEUMATICALLY PROJECTED AT HIGH VELOCITY ONTO A SURFACE.
2. ALL CONCRETE NOTES APPLY TO SHOTCRETE, EXCEPT AS NOTED.
3. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE IBC SECTION 1913 AND TO ACI STANDARD ACI 506R, "GUIDE TO SHOTCRETE".
4. PRECONSTRUCTION TEST PANELS: A TEST PANEL SHALL BE SHOT, CURED, CORED OR SAWN, EXAMINED AND TESTED PRIOR TO COMMENCEMENT OF THE PROJECT. THE SAMPLE PANEL SHALL BE REPRESENTATIVE OF THE PROJECT AND SIMULATE JOB CONDITIONS AS CLOSELY AS POSSIBLE. THE PANEL THICKNESS AND REINFORCING SHALL REPRODUCE THE THICKEST AND MOST CONJESTED AREA SPECIFIED IN THE STRUCTURE. IT SHALL BE SHOT AT THE SAME ANGLE, USING THE SAME NOZZLEMAN AND WITH THE SAME CONCRETE MIX DESIGN THAT WILL BE USED ON THE PROJECT.
5. MAXIMUM BAR SIZE OF REINFORCEMENT SHALL BE NO. 5 BARS UNLESS IT CAN BE DEMONSTRATED BY PRE-CONSTRUCTION TESTS THAT ADEQUATE ENCASEMENT OF LARGER BARS CAN BE ACHIEVED.
6. MINIMUM CLEARANCE BETWEEN PARALLEL BARS:
   - A. NO. 5 BARS AND SMALLER----------2 ½"
   - B. WHEN BARS LARGER THAN NO. 5 ARE PERMITTED:------6-BAR DIAMETERS
7. WHEN TWO CURTAINS OF STEEL ARE SPECIFIED, THE CURTAIN NEAREST THE NOZZLE SHALL HAVE A MINIMUM SPACING EQUAL TO 12 BAR DIAMETERS AND THE REMAINING CURTAIN SHALL HAVE A MINIMUM OF 6 BAR DIAMETERS, UNLESS IT CAN BE DEMONSTRATED BY PRE-CONSTRUCTION TESTS THAT ADEQUATE ENCASEMENT MAY BE ACHIEVED.
8. LAP SPLICES
   - A. LAP SPLICES FOR REINFORCING BARS SHALL BE BY THE NON-CONTACT LAP SPLICE METHOD WITH AT LEAST TWO INCHES CLEARANCE BETWEEN BARS.
   - B. CONTACT LAP SPLICES MAY BE USED IN SHOTCRETE WALLS PROVIDED ALL OF THE FOLLOWING CONDITIONS ARE MET:
     1.) BUILDING OFFICIAL APPROVES THEIR USE.
     2.) PRE-CONSTRUCTION TEST PANEL DEMONSTRATES ADEQUATE ENCASEMENT OF THE BARS AT THE SPLICE CAN BE ACHIEVED.
     3.) THE SPLICES ARE PLACED SO THAT A LINE THROUGH THE CENTER OF THE SPLICED BARS IS PERPENDICULAR TO THE SURFACE OF THE SHOTCRETE WORK.
   - C. IF THESE CONDITIONS CANNOT BE MET, REINFORCING COUPLERS SHALL BE REQUIRED. CONTRACTOR TO SUBMIT COUPLERS FOR APPROVAL. COUPLERS SHALL MEET TYPE 2 MECHANICAL REQUIREMENTS OF ACI 318, 21.2.6
10. SHOTCRETE SHALL NOT BE APPLIED TO COLUMNS.
11. REBOUND SHALL NOT BE REUSED AS AGGREGATE.
12. FINISH: AS DETERMINED AND APPROVED BY ARCHITECT.
13. THE SURFACE TO RECEIVE SHOTCRETE SHALL BE THOROUGHLY CLEANED BY SANDBLASTING, REMOVING ALL LOOSE MATERIALS AND SHALL BE WETTED, IMMEDIATELY PRIOR TO APPLYING SHOTCRETE.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL TO BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS.
2. ALL WELDING SHALL CONFORM TO CURRENT AMERICAN WELDING SOCIETY STANDARDS AND TO BE PERFORMED BY CERTIFIED WELDERS.
3. STEEL GRADES:
   - A. PLATES, OTHER SHAPES AND RODS: ASTM A 36
   - B. W SHAPES: ASTM A 992
   - C. HOLLOW STRUCTURAL SECTIONS (HSS): ASTM A 500, GRADE B
   - D. PIPE: ASTM A 53, GRADE B
   - E. BOLTS:
     1.) ASTM A 325N FOR STEEL TO STEEL-STEEL CONNECTIONS, UNO
     2.) ASTM A 307 FOR WOOD CONNECTIONS, A STANDARD WASHER IS REQUIRED UNDER BOLT HEAD OR NUT BEARING ON WOOD,
   - F. ANCHOR BOLTS: ASTM F 1554, GRADE 36.
     ANCHOR BOLTS SHALL HAVE STANDARD BOLT HEAD, EXCEPT AS NOTED

DIAMETER	LEDGER, ETC	SILL PLATES & COLUMN TOPS
1/2"	4"	6"
5/8"	5"	7"
3/4"	5"	7"
7/8"	6"	8"
1"	7"	9"

   - G. BASE PLATES: ASTM A36
4. ALL WELDING ELECTRODES SHALL BE E70XX, UNLESS OTHERWISE NOTED.
   - A. ALL GROOVE WELDS SHALL BE COMPLETE PENETRATION, UNO.
   - B. ALL FILLET WELDS SHALL BE PER AISC. MINIMUM SIZES ARE BASED ON THICKNESS OF MATERIALS JOINED, UNO.
5. HEADED STUD ANCHORS (HSA) / WELDED STUDS (WS): ASTM A108. WELDED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND PROCEDURES. REFER TO DETAILS FOR STUD DIAMETER AND LENGTH.
6. DEFORMED BAR ANCHORS (DBA): ASTM A496. WELDED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND PROCEDURES. REFER TO DETAILS FOR BAR DIAMETER AND LENGTH.
7. STEEL BEAMS ARE EQUALLY SPACED BETWEEN DIMENSION POINTS OR GRID LINES, UNO
8. ALL DETAILS ARE TYPICAL. FOR CONDITIONS NOT SPECIFICALLY SHOWN, CONTRACTOR SHALL APPLY SIMILAR CONCEPT OR INTENT TO DETAIL THOSE CONDITIONS AND SUBMIT FOR REVIEW AND APPROVAL.
9. BOLT HOLES SHALL BE NO MORE THAN 1/16" OVERSIZE, UNLESS OTHERWISE NOTED. WHERE OVERSIZED HOLE IS REQUIRED AT BASE PLATES, PROVIDE 5/16"x3"x3" PLATE WASHER WELDED TO THE BASE PLATE, WITH 1/4" FILLET WELD x 2 1/2" ON THREE SIDES.
10. ALL STEEL EXPOSED TO THE WEATHER SHALL BE GALVANIZED, UNLESS OTHERWISE NOTED.
11. BEAMS SHALL BE CAMBERED AS NOTED ON DRAWINGS. CAMBER SHALL APPROXIMATE A CIRCULAR ARC. CAMBER ACCOMPLISHED BY INSTALLING A SINGLE KINK AT MID SPAN OF BEAMS IS NOT ACCEPTABLE.
12. GAS CUTTING TORCHES SHALL NOT BE USED TO CORRECT FABRICATION ERRORS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
13. NON-SHRINK GROUT IS REQUIRED UNDER ALL BASE PLATES. GROUT SHALL COMPLY WITH ASTM C 1107 GRADE A AND ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 7000 PSI AT 28 DAYS.
14. STEEL MEMBERS CONNECTING TO OR SUPPORTING WOOD FRAMING SHALL HAVE 1/2" DIAMETER THREADED STUDS AT 24" OC, TYPICAL UNO

STRUCTURAL DRAWING INDEX

ISSUED FOR: 12/05/2017 - ISSUE FOR PERMIT	DRAWING LIST	
X	S1.01	GENERAL NOTES
X	S1.01A	GENERAL NOTES
X	S1.01B	GENERAL NOTES
X	S1.01C	LOADING DIAGRAMS
X	S1.02	TYPICAL CONCRETE DETAILS
X	S1.02A	TYPICAL CONCRETE DETAILS
X	S1.02B	TYPICAL CONCRETE DETAILS
X	S1.02C	TYPICAL CONCRETE DETAILS
X	S1.03	TYPICAL POST-TENSIONED CONCRETE DETAILS
X	S1.03A	TYPICAL POST-TENSIONED CONCRETE DETAILS
X	S1.03B	TYPICAL POST-TENSIONED CONCRETE DETAILS
X	S1.04	TYPICAL WOOD DETAILS
X	S1.04A	TYPICAL WOOD DETAILS
X	S1.04B	TYPICAL WOOD DETAILS
X	S1.04C	TYPICAL WOOD DETAILS
X	S1.04D	TYPICAL WOOD DETAILS
X	S1.04E	TYPICAL WOOD DETAILS
X	S1.04F	TYPICAL WOOD DETAILS
X	S1.04G	TYPICAL WOOD DETAILS
X	S1.04H	TYPICAL WOOD DETAILS
X	S1.05	ATS TYPICAL DETAILS
X	S1.05A	ATS TYPICAL DETAILS
X	S2.00	GARAGE PIT FOUNDATION PLAN
X	S2.01	GROUND FLOOR FND PLAN
X	S2.02.MS	SECOND FLOOR CONCRETE PLAN (MILD STEEL)
X	S2.02.PT	SECOND FLOOR CONCRETE PLAN (PT)
X	S2.02.W	SECOND FLOOR FRAMING PLAN (WOOD)
X	S2.03	THIRD FLOOR FRAMING PLAN
X	S2.04	FOURTH FLOOR FRAMING PLAN
X	S2.05	FIFTH FLOOR FRAMING PLAN
X	S2.06	ROOF FRAMING PLAN
X	S2.07	PENTHOUSE FRAMING PLAN
X	S3.01	CONCRETE COLUMN SCHEDULE AND DETAILS
X	S3.01A	CONCRETE COLUMN SCHEDULE AND DETAILS
X	S3.02	CONCRETE DETAILS
X	S3.03	CONCRETE DETAILS
X	S6.01	WOOD FRAMING DETAILS
X	S6.02	WOOD FRAMING DETAILS
X	SH-1	EARTHBOUND ANCHOR TIE-DOWN SYSTEM
X	SH-2	EARTHBOUND ANCHOR TIE-DOWN SYSTEM

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STATE OF CALIFORNIA — LICENSED PROFESSIONAL ENGINEER — LEONARD NISHKIAN — No. 18649 — Exp. 3/31/2019 — C

SHEAR CONNECTORS

1. SHEAR STUD CONNECTORS (WS): ASTM A 108. WELDED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND PROCEDURES.
2. PROVIDE A MINIMUM OF ONE SHEAR CONNECTOR @12" OC ON ALL BEAMS WHERE STEEL DECK IS TO RECEIVE CONCRETE FILL.
3. EXCEPT AS NOTED ON PLANS, LAY OUT SHEAR CONNECTORS BEGINNING WITH FIRST AVAILABLE FLUTE AT EACH END OF BEAM AND WORKING TOWARD MID SPAN (EQUAL NUMBER EACH SIDE OF CENTERLINE OF BEAM SPAN):
   A. EVERY LOW FLUTE.
   B. IF CONNECTORS REMAIN, EVERY UNFILLED LOW FLUTE.
   C. IF CONNECTORS REMAIN, EVERY FLUTE (TWO STUD PATTERN).
   D. ALTERNATE LAYOUT REQUIRES APPROVAL BY STRUCTURAL ENGINEER.
4. ALL SHEAR CONNECTORS ARE TO BE 3/4" IN DIAMETER BY DECK HEIGHT +1 1/2" AFTER WELDING, UNO.
5. MINIMUM LATERAL CONCRETE COVER FOR SHEAR CONNECTORS TO BE 2".

POST-INSTALLED CONCRETE AND MASONRY ANCHORS

1. INSTALLATION HOLES FOR POST-INSTALLED ANCHORS SHALL BE DRILLED WITH A ROTARY HAMMER OR OTHER SUITABLE METHODS TO ENSURE THAT EXISTING REINFORCING IS NOT DAMAGED. ALL MISDRILLED OR UNACCEPTABLE HOLES SHALL NOT BE USED AND GROUTED SOLID.
2. SPECIAL INSPECTION AND ANCHOR TESTING:
   A. SPECIAL INSPECTION IS REQUIRED UNLESS NOTED OTHERWISE.
      1) DRILL-BIT COMPLIANCE WITH ANSI B94 12-1977.
      2) CHECK HOLE DEPTH & CLEANLINESS, PRODUCT DESCRIPTION INCLUDING PRODUCT NAME, ROD DIAMETER AND LENGTH.
      3) VERIFY EPOXY/ADHESIVE EXPIRATION DATE.
      4) VERIFY INSTALLATION AND IN-SERVICE TEMPERATURE REQUIREMENTS MEET MANUFACTURER'S CURRENT ICC REPORT REQUIREMENTS.
      5) CHECK ANCHOR INSTALLATION METHOD REQUIREMENTS WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS AND THE CURRENT ICC REPORT.
   B. PERFORM PULL-OUT OR TORQUE TEST WHERE SPECIFICALLY NOTED IN DRAWINGS.
3. ADHESIVE ANCHORS & REINFORCING STEEL DOWELS: INSTALLATION SHALL BE IN ACCORDANCE WITH CURRENT PRODUCT ICC REPORT.
   THE FOLLOWING EPOXIES ARE APPROVED:
   A. CONCRETE: DIAMETER AS NOTED IN DETAILS. MINIMUM EMBEDMENT = 8 DIAMETERS.
      1) SET-XP EPOXY ADHESIVE AS MANUFACTURED BY SIMPSON STRONGTIE, ICC-ES ESR 2508
   B. SOLID GROUTED MASONRY: DIAMETER AS NOTED IN DETAILS. MINIMUM EMBEDMENT = 8 DIAMETERS.
      1) SET-HIGH STRENGTH EPOXY AS MANUFACTURED BY SIMPSON STRONGTIE, ICC-ES ESR1772
4. ADHESIVE ANCHORS INTO EXISTING UNGROUTED MASONRY CELLS:
   USE HILTI 1/2" DIAMETER HIT-A THREADED ROD, HIT-HY150 ADHESIVE, AND HILTI HIT-S-16/2 SCREEN.
   INSTALL ANCHORS INTO FACE SHELL OF EXISTING UNGROUTED MASONRY. LOCATION AND SPACING AS INDICATED IN STRUCTURAL DRAWINGS. INSTALL ANCHORS PER MANUFACTURERS INSTRUCTIONS.
5. EXPANSION ANCHORS: INSTALLATION SHALL BE IN ACCORDANCE WITH PRODUCT ICC REPORT.
   THE FOLLOWING ANCHORS ARE APPROVED:
   A. CONCRETE: DIAMETER AS NOTED IN DETAILS. MINIMUM EMBEDMENT = 8 DIAMETERS.
      1) STRONG-BOLT AS MANUFACTURED BY SIMPSON STRONG-TIE, ICC-ES ESR 1771.
   B. SOLID GROUTED MASONRY: DIAMETER AS NOTED IN DETAILS. MINIMUM EMBEDMENT = 8 DIAMETERS.
      1) SIMPSON STRONGTIE WEDGE ALL, ICC ESR 1396
6. SCREW ANCHORS: INSTALLATION SHALL BE IN ACCORDANCE WITH CURRENT PRODUCT ICC REPORT. DIAMETER AS NOTED IN DETAILS. MINIMUM EMBEDMENT = 8 DIAMETERS UNLESS NOTED OTHERWISE.
   1) TITEN HD ANCHOR AS MANUFACTURED BY SIMPSON STRONGTIE, ICC-ES ESR-2713.
7. WHERE ANCHORS ARE INSTALLED IN CONTACT WITH WOOD FRAMING AN OVERSIZE WASHER IS REQUIRED IN ORDER TO ACHIEVE TORQUE REQUIRED BY THE ICC REPORT. THE WASHER SHALL BE OF SUFFICIENT SIZE TO PREVENT NOTICEABLE DEFORMATION OF WOOD FIBERS ON FACE OF MEMBER DUE TO TIGHTENING OF NUT. USE MINIMUM WASHER SIZE 1/4"X3" SQUARE. VERIFY REQUIRED WASHER SIZE PRIOR TO INSTALLATION.
8. POWDER ACTUATED FASTENERS (PAF): INSTALLATION SHALL BE IN ACCORDANCE WITH PRODUCT ICC REPORT. APPROVED ARE MANUFACTURED BY HILTI --- ICC-ER ESR 1663, ANCHOR TYPE TO BE SELECTED PER MAUNFACTURERS PUBLISHED INSTRUCTIONS.
   A. WOOD OR LIGHT GAGE STEEL TO STEEL CONNECTIONS: 0.145" DIAMETER, MAXIMUM SPACING = 24". REFER TO MANUFACTURE'S SPECIFICATIONS AND ICC REPORT FOR PROPER FASTENER EMBEDMENT INTO STEEL.
   B. WOOD OR LIGHT GAGE STEEL TO CONCRETE CONNECTIONS: 0.145" DIAMETER, MAXIMUM SPACING = 24", CONCRETE EMBEDMENT = 1 1/2".

FRAMING LUMBER

1. FRAMING LUMBER GRADES: WWPA GRADING RULES. STRESS VALUES SHOWN ARE BASE MEMBER VALUES:
   A. 2x4 STUDS (NON BEARING PARTITIONS) CONST. GRADE, D.FIR/LARCH, S.DRY
   B. STRUCTURAL LIGHT FRAMING: No. 1, D.FIR/LARCH, S.DRY
   C. STRUCTURAL JOISTS & PLANKS (INCLUDES 2x6 & 2x8 STUDS): No. 1, D.FIR/LARCH, S.DRY
   D. 3x & 4x MEMBERS: No. 1, D.FIR/LARCH, S.DRY
   E. POSTS & TIMBERS: No. 1, D.FIR/LARCH, S.DRY
2. TREATED LUMBER: ALL WOOD MEMBERS IN CONTACT WITH CONCRETE OR MASONRY OR EXPOSED TO WEATHER AND SUBJECT TO DECAY SHALL BE PRESSURE TREATED DOUGLAS FIR-LARCH. TREATMENT PER THE CURRENT AMERICAN WOOD PRESERVERS ASSOCIATION STANDARDS. ALL FASTENERS AND CONNECTORS CONNECTING TREATED LUMBER SHALL BE HOT-DIPPED GALVANIZED OR STAINLESS STEEL.
3. GLUE LAMINATED MEMBERS:
   A. BEAMS: SPECIES = DOUGLAS FIR-LARCH Fb = 2400 PSI ,COMB 24F-V8 CAMBER = SPAN/400, EXCEPT AS NOTED. NO CAMBER IS REQUIRED IN BEAMS WITH SPAN LESS WITH THAN 20'-0"
   B. COLUMNS: Fc = 2300 PSI, Fb = 2000 PSI, COMB 3.
   C. MEMBERS SHALL BE FABRICATED WITH WATERPROOF ADHESIVE.
   D. MEMBERS SHALL BE MANUFACTURED PER ANSI A190.1-CURRENT EDITION.
4. WOOD I-JOISTS AND ENGINEERED COMPOSITE LUMBER:
   A. WOOD I-JOISTS:
      1.) SIZES SHOWN ARE AS MANUFACTURED BY TRUS JOIST. MATERIALS, FABRICATION, HANDLING AND INSTALLATION SHALL BE PER ICC ESR 2994 AND MANUFACTURER'S WRITTEN RECOMMENDATIONS.
      2.) JOISTS BY OTHER MANUFACTURERS MAY BE USED PROVIDED THEY HAVE THE SAME DEPTH AND EQUIVALENT ICC APPROVED LOAD CAPACITIES AND STIFFNESS.
      3.) FLANGES OF I-JOIST SHALL BE MANUFACTURED FROM LVL LUMBER.
   B. LAMINATED VENEER LUMBER (LVL):
      1.) SIZES SHOWN ARE AS MANUFACTURED BY TRUS JOIST. MATERIALS, FABRICATION, HANDLING AND INSTALLATION SHALL BE PER ICC ESR 2993 AND MANUFACTURER'S WRITTEN RECOMMENDATIONS.
      2.) MODULUS OF ELASTICITY: E = 1900 KSI.
      3.) BENDING STRENGTH: Fb = 2600 PSI.
      4.) SHEAR STRENGTH: Fv = 285 PSI.
   C. LAMINATED STRAND LUMBER (LSL):
      1.) MANUFACTURED IN ACCORDANCE WITH ICC ESR 1387.
      2.) MODULUS OF ELASTICITY: E = 1500 KSI
      3.) BENDING STRENGTH: Fb = 2250 PSI
      4.) SHEAR STRENGTH: Fv = 400 PSI
      5.) AXIAL STRENGTH: Fc = 1950 PSI
   D. PARALLEL STRAND LUMBER (PSL):
      1.) MANUFACTURED IN ACCORDANCE WITH ICC ESR 1387.
      2.) MODULUS OF ELASTICITY: E = 2000 KSI
      3.) BENDING STRENGTH: Fb = 2900 PSI
      4.) SHEAR STRENGTH: Fv = 290 PSI
      5.) AXIAL STRENGTH: Fc = 2900 PSI.
   E. HOLES AND NOTCHES IN I-JOISTS AND ENGINEERED COMPOSITE LUMBER SHALL BE COORDINATED WITH THE MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS.
5. STRUCTURAL SHEATHING:
   A. ALL PANELS TO BE OSB OR PLYWOOD OF MINIMUM 5-PLY CONSTRUCTION. EACH PANEL SHALL BEAR THE QUALITY TRADEMARK STAMP OF THE "AMERICAN PLYWOOD ASSOCIATION". ALL PANELS SHALL BE APA RATED GROUP 1. SEE BELOW FOR ADDITIONAL REQUIREMENTS BASED ON USAGE.
   B. FLOOR & ROOF SHEATHING:
      1.) FLOOR SHEATHING SHALL BE T&G PLYWOOD OR OSB, APA RATED EXP 1, NAILED AND GLUED PER APA GLUE FLOOR SYSTEM REQUIREMENTS. THE GLUE SHALL CONFORM TO PERFORMANCE SPECIFICATION AFG-01. FOLLOW MANUFACTURER'S SPECIFIC APPLICATION RECOMMENDATION. SEE PLANS FOR SHEATHING THICKNESS.
      2.) ROOF SHEATHING SHALL BE T&G PLYWOOD OR OSB, APA RATED EXTERIOR. SEE PLANS FOR SHEATHING THICKNESS.
      3.) FLOOR SHEATHING AT EXTERIOR DECKS AND BALCONIES SHALL BE T&G PLYWOOD OR OSB, APA RATED EXTERIOR. SEE PLANS FOR SHEATHING THICKNESS.
   C. WALL SHEATHING:
      1.) EXTERIOR WALL SHEATHING SHALL BE 1/2" (MIN) PLYWOOD OR OSB, APA RATED EXP 1.
      2.) INTERIOR WALL SHEATHING SHALL BE 1/2" (MIN) PLYWOOD OR OSB, APA RATED EXP 1.
      3.) SHEATHING AT ALL SHEAR WALLS SHALL BE STRUCTURAL 1.
   D. MINIMUM NAILING REQUIREMENTS:
      1.) NAIL SIZE: a.) NAIL SIZE AT 3/4" T&G AND THINNER SHEATHING: 0.148 INCH DIAMETER x 2 1/4 INCH GUN NAIL.
      b.) NAIL SIZE AT SHEATHING THICKER THAN 3/4": 0.148 INCH DIAMETER x 3 INCH GUN NAIL.
      c.) AT STEEL STUD CONSTRUCTION: No. 8 FLAT HEAD SELF-DILLING TAPPING SCREW WITH A MINIMUM HEAD DIAMETER OF 0.285" OR No. 10 FLAT HEAD SELF-DRILLING TAPPING SCREW WITH A MINIMUM HEAD DIAMETER OF 0.333 INCHES.
      2.) SPACING: SEE DRAWINGS FOR SPECIAL NAILING REQUIREMENTS.
      a) PANEL EDGES: 6 INCHES O/C
      b) INTERIOR BEARING SUPPORTS: 12 INCHES O/C
      c) GLULAM BEAMS AND SHEAR COLLECTORS: 6 INCHES O/C
      3.) PROVIDE 2x SOLID BLOCKING AT PANEL EDGES OF WALL SHEATHING.
      4.) SHEATHING FASTENERS SHALL BE DRIVEN FLUSH BUT SHALL NOT FRACTURE THE FACE PLY.
      5.) HOT-DIP GALVANIZED OR STAINLESS STEEL NAILS, FASTENERS AND CONNECTORS SHALL BE USED WHEN CONNECTING TO PRESSURE TREATED MEMBERS AND FIRE RETARDANT TREATED MEMBERS.
   E. PANEL LAYOUT:
      1.) LONG DIMENSION OF PANEL TO BE PERPENDICULAR TO FRAMING MEMBERS, EXCEPT PANELS AT WALLS MAY BE INSTALLED WITH LONG DIMENSION PARALLEL TO STUDS.
      2.) END JOINTS IN ADJACENT RUNS SHALL BE STAGGERED 4 FEET.
      3.) MINIMUM PANEL WIDTH SHALL BE 12 INCHES.
      4.) EDGES OF ALL PANELS LESS THAN 24 INCHES WIDE SHALL BE BACKED BY BLOCKING (2x4 MIN BLOCKING SIZE).
      5.) PROVIDE 1/8" GAP AT ALL SHEATHING JOINTS FOR FLOORS AND WALLS UNLESS SHOWN OTHERWISE ON DETAILS OR NOTES.
8. JOIST HANGERS AND FRAMING CONNECTORS:
   A. DETAILS ARE SHOWN WITH SIMPSON "STRONG-TIE" CONNECTORS. NAILING SHALL BE PER ICC RESEARCH RECOMMENDATIONS TO ACHIEVE FULL ICC APPROVED LOADS. THE MAXIMUM GAP BETWEEN END OF JOIST AND FACE OF SUPPORTING MEMBER SHALL BE 1/8". WHERE CONNECTION IS NOT DETAILED, PROVIDE APPROPRIATE CONNECTOR PER MANUFACTURER'S RECOMMENDATION. BOLTS FASTENING WOOD MEMBERS SHALL BE FITTED WITH STANDARD CUT WASHERS AGAINST NUT AND BOLT HEAD. HOLES FOR BOLTS SHALL BE BORED 1/32" MAXIMUM OVERSIZE. RETIGHTEN ALL BOLTS BEFORE CLOSING IN.
   B. USE TOP FLANGE JOIST HANGERS WHERE A MEMBER FRAMES INTO THE SIDE OF ANOTHER FRAMING MEMBER, UNLESS OTHERWISE NOTED.
   C. TOP FLANGE HANGERS AT I-JOISTS TO BE INSTALLED WITH 2 1/2" WIDE WEB STIFFENERS AND WITH A MINIMUM OF (4) SIMPSON "N10" NAILS INSTALLED AT I-JOIST AND (4) "N10" NAILS INSTALLED TO FACE OF SUPPORTING MEMBER
   D. ALL HANGERS TO BE SELECTED TO MATCH SIZE OF SUPPORTED MEMBER AND SHALL HAVE FULL NAILING AS SHOWN THE ICC REPORT
   E. PROVIDE SLOPED SEATS HANGERS FOR SLOPING I JOIST INSTALLATIONS
   F. SUBSTITUTIONS MUST BE APPROVED BY THE ARCHITECT AND HAVE ICC APPROVED LOAD CAPACITIES EQUAL TO OR GREATER THAN THE SIMPSON "STRONG-TIE" CONNECTORS
   G. HD GALVANIZED NAILS SHALL BE USED WHEN NAILING TO PRESSURE TREATED MEMBERS
   H. SIMPSON HANGERS AT PRESSURE TREATED MEMBERS SHALL HAVE ZMAX COATING
9. SILL PLATES AND ANCHOR BOLTS:
   A. SILL PLATES SHALL BE DOUGLAS FIR/LARCH NO.2 AND PRESSURE TREATED.
   B. SILL PLATES ARE TO BEAR FULLY ON THE TOPS OF THE FOUNDATION WALLS AND/OR SLABS. THE TOPS OF ALL FOUNDATION WALLS/SLABS SHALL BE SMOOTH AND LEVEL. THE TOPS OF FOUNDATION WALLS/SLABS SHALL BE CONSIDERED LEVEL WHEN THE MAXIMUM DEVIATION FROM GRADE IS +/-1/8 INCH AND THE DEPRESSION BETWEEN HIGH SPOTS IS NOT GREATER THAN 1/8 INCH ALONG A 10 FOOT STRAIGHT EDGE.
   C. ANCHOR BOLTS TO BE GALVANIZED OR STAINLESS STEEL ASTM F 1554, GRADE 36 WITH STANDARD BOLT HEAD OR EQUAL DEFORMATION IN THE EMBEDDED PORTION. CUT THREADS ARE REQUIRED AT ALL ANCHOR BOLTS.
   D. THE SPACING AND SIZE OF ANCHOR BOLTS SHALL BE AS SHOWN IN DETAILS.
   E. LOCATE AN ANCHOR BOLT AT 6" MINIMUM TO 12" MAXIMUM FROM ENDS OF EACH PIECE. EACH LENGTH OF PLATE TO HAVE A MINIMUM OF TWO ANCHOR BOLTS.
   F. INSTALL EXTRA ANCHOR BOLTS AS REQUIRED, WHERE PLATE IS CUT OR NOTCHED.
   G. SILL PLATES SHALL NOT BE DAPPED AT BOLT HEADS.
   H. PROVIDE 3x3x1/4 MINIMUM GALVANIZED OR STAINLESS STEEL PLATE WASHERS AT ALL ANCHOR BOLTS. PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF WALL SHTG. IF PLATE WASHER IS DIAGONALLY SLOTTED, PROVIDE STANDARD CUT WASHER UNDER NUT.
10. FABRICATION OF TIMBER CONNECTORS:
   A. FABRICATION SHALL BE IN ACCORDANCE WITH 2005 EDITION "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION".
      1.) A WASHER OR METAL PLATE SHALL BE PROVIDED BETWEEN THE WOOD AND THE BOLT HEAD AND/OR NUT. RETIGHTEN BOLTS BEFORE CLOSING IN.
      2.) BOLT HOLES SHALL BE 1/16" MAXIMUM OVERSIZE.
      3.) LAG BOLTS:
         a. LEAD HOLES SHALL BE DRILLED FOR LAG BOLTS; SHANK PORTION = SHANK DIAMETER. THREADED PORTION = 70% OF SHANK DIAMETER.
         b. LAGS BOLTS SHALL BE INSTALLED USING A PROPER WRENCH.
11. BLOCKING / BRIDGING:
   A. PROVIDE FULL DEPTH SOLID BLOCKING BETWEEN JOISTS AND RAFTERS OVER SUPPORTS.
   B. PROVIDE 2x SOLID BLOCKING BETWEEN STUDS AT MID HEIGHT IN WALLS OVER 8'-0" TALL.
12. NOTCHING AND DRILLING FRAMING MEMBERS:
   A. THE CONTRACTOR IS CAUTIONED ABOUT THE DRILLING AND NOTCHING OF STUDS, PLATES, JOISTS, BEAMS, COLUMNS,AND OTHER FRAMING MEMBERS.
   B. THE CONTRACTOR SHALL CONSULT WITH THE STRUCTURAL ENGINEER BEFORE NOTCHING OR DRILLING ANY FRAMING MEMBERS WHERE NOT SPECIFICALLY DETAILED IN STRUCTURAL DRAWINGS.
13. NAILING SCHEDULE:

CONNECTION	NAILING
JOIST TO SUPPORT - TOE NAIL	3 - 8d
BRIDGING TO JOIST - TOE NAIL EACH END	2 - 8d
BLOCKING TO JOIST - TOE NAIL EACH END	3 - 8d
BLOCKING TO PLATE OR BEAM - TOE NAIL	3 - 12d
2" DECKING TO SUPPORT - BLIND & FACE NAIL	2 - 16d
STUD TO PLATE - TOE NAIL	4 - 8d
OR - END NAIL 2X6 & 2X4 STUDS	3 - 16d
AND - END NAIL 2X8 STUDS	4 - 16d
MULTIPLE STUDS OR LAMINATED COLUMNS - FACE NAIL	16d @ 12" OC
TOP PLATES - FACE NAIL	16d @ 12" OC
TOP PLATES - JOINTS & INTERSECTIONS - FACE NAIL	4 - 16d EACH END
LAMINATED HEADER - FACE NAIL ALONG EACH EDGE	16d @ 12" OC
JOISTS, LAPS OVER SUPPORTS - FACE NAIL	4 - 16d
BUILT-UP CORNER STUDS	16d @ 12" OC

   A. NAILING SCHEDULE AND THE STRUCTURAL DETAILS ARE BASED ON THE USAGE OF "COMMON" WIRE NAILS, EXCEPT THAT 16d "SINKER" NAILS (0.148" DIA x 3-1/4") MAY BE USED WHERE 16d IS SPECIFIED. IF "GUN" NAILS ARE USED, THE CONTRACTOR SHALL SUBMIT NAIL DATA FOR REVIEW PRIOR TO BEGINNING CONSTRUCTION.
   B. HD GALVANIZED OR STAINLESS STEEL NAILS SHALL BE USED WHEN NAILING TO PRESSURE TREATED MEMBERS

HANGING OF SPRINKLER LINES AND OTHER EQUIPMENT

1. SPACING OF SUPPORTS FOR THE SPRINKLER LINES AND OTHER EQUIPMENT SHALL BE SUCH THAT THE MAXIMUM HANGER LOAD AT JOISTS OR PURLINS IS LIMITED TO 150 POUNDS. HANGERS FOR THE SPRINKLER LINES SHALL NOT BE LOCATED AT THE SAME MEMBER AS HANGERS FOR OTHER ITEMS. DISTRIBUTE THE HANGER LOADS FROM THE VARIOUS TRADES UNIFORMLY THROUGHOUT THE ENTIRE FRAMING SYSTEM.
2. WHERE SPRINKLER LINES OR EQUIPMENT ARE PARALLEL TO THE JOISTS OR PURLINS, DISTRIBUTE WEIGHT OF PIPE AS FOLLOWS:

PIPE WEIGHT (INCLUDES WEIGHT OF WATER)	MINIMUM SUPPORT
LESS THAN 7.9 POUNDS PER FOOT	ONE MEMBER
BETWEEN 7.9 AND 16.4 POUNDS PER FOOT	TWO MEMBERS
OVER 16.4 POUNDS PER FOOT	APPROVAL OF STRUCTURAL ENGINEER

TESTING AND INSPECTION

1. SPECIAL INSPECTION IN ACCORDANCE WITH SECTION 1701 OF CBC REQUIRED FOR BUT NOT LIMITED TO:

   A. FOOTING EXCAVATIONS AND COMPACTION - PERIODIC
   B. PLACEMENT OF CONCRETE - CONTINUOUS
   C. PLACEMENT OF REINFORCING STEEL - PERIODIC
   D. ANCHOR BOLTS SET IN CONCRETE - PERIODIC
   E. CONCRETE / GROUT STRENGTH TESTING - CONTINUOUS
   F. EPOXY ANCHOR, EPOXY DOWEL - PERIODIC
   G. STRUCTURAL WELDING (SHOP AND FIELD) - CONTINUOUS AT COMPLETE, PARTIAL, AND FILLET WELDS > 5/16", OTHERWISE PERIODIC
   H. SHEAR CONNECTOR (WELD STUD) - PERIODIC
   I. HIGH STRENGTH BOLTING - PERIODIC
   J. SPRAYED FIRE-PROOFING APPLICATION - PERIODIC
   K. DIAPHRAGM AND SHEARWALL NAILING - PERIODIC

2. THE FOLLOWING ADDITIONAL SYSTEMS AND COMPONENTS IN STRUCTURES ARE SUBJECT TO PERIODIC SPECIAL INSPECTIONS:

   A. ANCHORAGE OF ELECTRICAL EQUIPMENT USED FOR EMERGENCY OR STANDBY POWER SYSTEMS
   B. EXTERIOR WALL PANELS AND THEIR ANCHORAGE.
   C. SUSPENDED CEILING SYSTEMS AND THEIR ANCHORAGE
   D. ACCESS FLOORS AND THEIR ANCHORAGE
   E. STEEL STORAGE RACKS AND THEIR ANCHORAGE, WHERE THE IMPORTANCE FACTOR IS EQUAL TO 1.5 IN ACCORDANCE WITH SECTION 15.5.3 OF ASCE 7.

3. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND OR SEISMIC FORCE RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM OR A WIND OR SEISMIC RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS SHALL SUBMIT A WRITTEN STATEMENT OFRESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN THE FOLLOWING:

   A. ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS
   B. ACKNOWLEDGEMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL.
   C. PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND THE DISTRIBUTION OF THE REPORTS.
   D. IDENTIFICATION AND QUALIFICATION OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITIONS(S) IN THE ORGANIZATION.

STRUCTURAL OBSERVATION

1. THE OWNER SHALL EMPLOY THE ENGINEER RESPONSIBLE FOR THE STRUCTURAL DESIGN TO PERFORM STRUCTURAL OBSERVATION AS DEFINED IN IBC SECTION 1704. OBSERVED DEFICIENCIES SHALL BE REPORTED IN WRITING TO THE OWNER'S REPRESENTATIVE, SPECIAL INSPECTOR, CONTRACTOR AND THE BUILDING OFFICIAL THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT THAT THE SITE VISITS HAVE BEEN MADE AND IDENTIFYING ANY REPORTED DEFICIENCIES WHICH, TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.

2. STRUCTURAL OBSERVATION SHALL BE PERFORMED FOR THE FOLLOWING CONSTRUCTION STAGES:
   A. PRIOR TO CONCRETE POUR(S)
   B. PRIOR TO COVER OF:
      1) WALL FRAMING SYSTEMS
      2) FLOOR FRAMING SYSTEMS
      3) ROOF FRAMING SYSTEMS

DESIGN-BUILD SUBMITTAL ITEMS

1. DESIGN, FABRICATION AND INSTALLATION OF DESIGN-BUILD SUBMITTAL ITEMS SHALL CONFORM TO ALL PROJECT REQUIREMENTS. SUPPLIER SHALL SUBMIT COMPLETE DRAWINGS AND CALCULATIONS SIGNED BY AN ENGINEER, REGISTERED IN THE STATE OF THE PROJECT,TO THE GOVERNING AGENCY FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.

2. DEFERRED SUBMITTAL ITEMS INCLUDE:
   A. ANCHOR TIEDOWN SYSTEM (ATS)
   B. EXTERIOR WALL SYSTEMS
   C. METAL STUD FRAMING
   D. SUPPORT AND ANCHORAGE FOR MECHANICAL EQUIPMENT
   E. SUPPORT AND ANCHORAGE FOR ELECTRICAL EQUIPMENT
   F. SUPPORT AND ANCHORAGE FOR FIRE PROTECTION SYSTEMS
   G. STEEL STAIRS
   H. STEEL HANDRAIL & GUARDRAIL.

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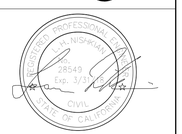

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GENERAL NOTES

S1.01A

SHEET NO.

CONCRETE/FOUNDATION LEGEND

XX'-XX" — INDICATES TO SLAB ELEVATION.

X" THICK CONCRETE SLAB W/ #X@X"OC EW T&B — INDICATES CONCRETE SLAB AND SPAN DIRECTION

C# — INDICATES CONCRETE COLUMN MARK. SEE SCHEDULE ON SHEET S3.01A

CB# — INDICATES CONCRETE BEAM DESIGNATION.

F# — INDICATES FOOTING MARK.

PW# — INDICATES NON-BEARING CONCRETE WALL. SEE SCHEDULE ON SHEET S2.01 FOR THICKNESS AND REINFORCING.

WL# — INDICATES CONCRETE SHEARWALL. SEE SCHEDULE ON SHEET S2.01 FOR THICKNESS AND REINFORCING.

INDICATES CONCRETE WALL ON CONTINUOUS FOOTING.

INDICATES CONCRETE COLUMN ON SPREAD FOOTING.

INDICATES STEP IN SLAB/FRAMING.

INDICATES CHANGE IN SLOPE.

INDICATES SLOPING FLOOR TO DRAIN.

CJ — INDICATES SLAB CONTROL JOINTS.

LP -2.70 — TO SLAB ELEVATION AT LOW POINT (LP)

1 — INDICATES DROP PANEL MARK.

INDICATES PARTIAL HEIGHT CONCRETE WALL.

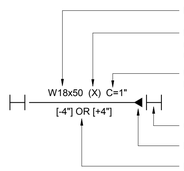
T# — INDICATES TOP ADDED SLAB REINFORCING. SEE SCHEDULE ON PLANS.

B# — INDICATES BOTTOM ADDED SLAB REINFORCING. SEE SCHEDULE ON PLANS.

INDICATES ADDITIONAL REINFORCING AROUND OPENINGS. SEE PLANS AND 6/S1.02C.

A — INDICATES STUDRAIL MARK. SEE SHEET 10/S3.01 FOR SCHEDULE.

STEEL LEGEND



BEAM SIZE

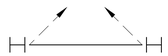
NUMBER OF 3/4"Ø SHEAR CONNECTORS (X) EVENLY SPACED ALONG BEAM LENGTH (X-X-X) STUDS BETWEEN SUPPORTED BEAMS

UPWARD CAMBER IN INCHES, AT MID-SPAN IF OCCURS

COLUMN

MOMENT CONNECTION

INDICATES TOP OF STEEL ELEVATION RELATIVE TO TYPICAL TOP OF STEEL ELEVATION.



INDICATES BRACED FRAME. ARROWS INDICATE BRACE DIRECTION UP. SEE FRAME ELEVATION DRAWINGS.

INDICATES START OF STEEL WF COLUMN AT FLOOR PLAN LEVEL.FOR COLUMN SIZE

INDICATES START OF STEEL HSS COLUMN AT FLOOR PLAN LEVEL. FOR COLUMN SIZE

INDICATES START OF STEEL PIPE COLUMN AT FLOOR PLAN LEVEL.FOR COLUMN SIZE

INDICATES TOP OF STEEL ELEVATION

INDICATES STEEL JOIST HORIZONTAL/DIAGONAL BRIDGING LINES, TO BE DESIGNED/SPACED PER MANUFACTURER'S SPECIFICATIONS.

PT CONCRETE LEGEND

INDICATES STRESS END WITH REQUIRED FINAL EFFECTIVE POST-TENSIONING FORCE (KIPS). CG (CENTER OF GRAVITY) OF TENDON SHALL BE LOCATED AT CENTER OF SLAB EDGE, TYP

INDICATES DEAD END -- CG OF TENDONS SHALL BE LOCATED AT CENTER OF SLAB EDGE, TYP

6.5 — INDICATES DISTANCE FROM SOFFIT OF SLAB TO CL OF TENDONS. SEE SHEET S2.02.PT FOR NOTES.

9.5" — INDICATES DISTANCE FROM LOWER SOFFIT WHERE THICKENED SLAB OR BEAM OCCURS.

(9.5) — INDICATES DISTANCE FROM UPPER SOFFIT WHERE THICKENED SLAB OR BEAM OCCURS.

TX — INDICATES TOP ADDED REINFORCING AT MILD STEEL SLAB. SEE SCHEDULE ON SHEET S2.02.MS

BX — INDICATES BOTTOM ADDED REINFORCING AT MILD STEEL SLAB. SEE SCHEDULE ON SHEET S2.02.MS

WOOD LEGEND

INDICATES WOOD COLUMN THIS LEVEL. SEE PLAN FOR SIZE.

INDICATES WOOD COLUMN AT LEVEL BELOW

INDICATES BEARING WALL ABOVE

INDICATES BEARING WALL BELOW. SEE SHEET S1.04G FOR WALL STUDS AND S1.04D FOR WALL HEADERS UNO

INDICATES SHEATHING REQUIRED WITH PANEL EDGE NAILING AS NOTED IN INCHES, SEE SHEARWALL SCHEDULE SHEET S1.04E.

REQUIRED LENGTH OF WALL PANEL REQUIRING SHEATHING. ALL PANELS REQUIRE SHEATHING ALONG ENTIRE WALL LINE IF NO LENGTH IS PROVIDED

SHEATHING (BOTH SIDES WHERE OCCURS) AS INDICATED IN THE SHEARWALL SCHEDULE, 4/S1.04E

ASTERISK INDICATES WINDOW OPENING ALLOWED IN SHEAR WALL. SEE 6/S1.04E

INDICATES COLLECTOR STRAP. SEE SCHEDULE ON 11/S1.04D

INDICATES SHEARWALL HOLDOWN.

INDICATES HOLDOWN STRAP.

INDICATES SIMPSON ANCHOR TIEDOWN SYSTEM. SEE S1.05 AND S1.05A FOR TYPICAL DETAILS.

DENOTES ROOF BEAM WITH HANGERS/POSTS @ ENDS. SEE SCHEDULE ON ROOF PLANS UNO.

DENOTES ROOF JOIST. SEE SCHEDULE ON ROOF PLANS, UNO.

DENOTES FLOOR BEAM WITH HANGERS/POSTS @ ENDS. SEE SCHEDULE ON FLOOR PLANS UNO.

DENOTES FLOOR JOIST. SEE SCHEDULE ON FLOOR PLANS, UNO

INDICATES FRAMING EXTENTS

INDICATES TOP OF ROOF DECK ELEVATION

INDICATES PLYWOOD/SHEATHING

ABBREVIATIONS

AB	ANCHOR BOLT
ABV	ABOVE
ADDM	ADDENDUM
ALT	ALTERNATE
ALUM	ALUMINUM
AN	ANCHOR
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
AVG	AVERAGE
B	BOTTOM (REINF)
BF	BRACED FRAME
BLDG	BUILDING
BLKG	BLOCKING
BLW	BELOW
BM	BEAM
BO	BOTTOM OF
BOC	BOTTOM OF CONCRETE
BOD	BOTTOM OF DECK
BOF	BOTTOM OF FRAMING
BOS	BOTTOM OF STEEL
BOT	BOTTOM
BRG	BEARING
BRK	BRICK
BTWN	BETWEEN
BZ	BOUNDARY ZONE
CBC	CALIFORNIA BUILDING CODE
CIP	CAST IN PLACE
CJ	CONTROL JOINT
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
COORD	COORDINATE
CP	COMPLETE PENETRATION
CSJ	CONSTRUCTION JOINT
CSK	COUNTER SINK
CTR	CENTER
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DEMO	DEMOLISH
DF-L	DOUGLAS FIR / LARCH
D, DIA	DIAMETER
DIAG	DIAGONAL
DIAPH	DIAPHRAGM
DIM	DIMENSION
DJ	DOUBLE JOIST
DL	DEAD LOAD
DN	DOWN
DO	DITTO (SAME)
DP	DEEP
DTL	DETAIL
DWG	DRAWING
EA	EACH
EB	EXPANSION BOLT
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEV	ELEVATOR
EN	EDGE NAILING
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
EW	EACH WAY
(E), EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FDN	FOUNDATION
FIN	FINISH
FLR	FLOOR (ING)
FO	FACE OF
FOB	FACE OF BRICK
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOSH	FACE OF SHEATHING
FOS	FACE OF STUD
FOFW	FACE OF FOUNDATION WALL
FOW	FACE OF WALL
FT	FEET
FS	FAR SIDE
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GL	GLU-LAM
GYP	GYPSUM
GWB	GYPSUM WALL BOARD
HD	HOLD DOWN
HDG	HOT-DIP GALVANIZED
HDR	HEADER
HORIZ	HORIZONTAL
HSA	HEADED STUD ANCHOR
HSB	HIGH STRENGTH BOLTS
HSS	HOLLOW STRUCTURAL STEEL
HT	HEIGHT
HVAC	HEATING VENTILATING & AC
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCHES
INFO	INFORMATION
INT	INTERIOR
JST	JOIST
JT	JOINT
K	KIP(S), 1000 POUNDS
LBS	POUNDS
LH	LEFT HAND
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LOC(S)	LOCATION(S)
LSL	LAMINATED STRAND LUMBER
LVL	LAMINATED VENEER LUMBER
LV	LENGTH VARIES
MAX	MAXIMUM
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR/MFG	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MS	METAL STUD
MTL	METAL
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
No	NUMBER
NOM	NOMINAL
NS	NEAR SIDE
NTS	NOT TO SCALE
(N)	NEW
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
PAF	POWDER ACTUATED FASTENERS
PJ	PANEL JOINT
PL	PLATE
PLWD	PLYWOOD
PNL	PANEL
PP	PARTIAL PENETRATION
PSF	POUNDS PER SQUARE FOOT
PSL	PARALLEL STRAND LUMBER
PT	POST TENSIONED/ PRESSURE TREATED
R, RAD	RADIUS
REF	REFERENCE
REINF	REINFORCEMENT
REQD	REQUIRED
REV	REVISION
RH	RIGHT HAND
RO	ROUGH OPENING
SAD	SEE ARCHITECTURAL DRAWINGS
SCD	SEE CIVIL DRAWINGS
SCH	SCHEDULE
SECT	SECTION
SF	SQUARE FEET
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SL	SNOW LOAD
SMD	SEE MECHANICAL DRAWINGS
SOG	SLAB ON GRADE
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STGD	STAGGERED
STL	STEEL
STIFF	STIFFENER
STRUCT	STRUCTURAL
SYMM	SYMMETRICAL
T	TOP (REINF)
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TEMP	TEMPERATURE
THK	THICK (NESS)
TN	TOE NAIL
TO	TOP OF
TOC	TOP OF CONCRETE
TOD	TOP OF DECK (ING)
TOF	TOP OF FRAMING FOOTING
TOM	TOP OF MASONRY
TOPL	TOP OF PLATE
TOS	TOP OF STEEL
TOW	TOP OF WALL
TSA	THREADED STUD ANCHOR
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VIF	VERIFY IN FIELD
W/	WITH
W/O	WITHOUT
WD	WOOD
WP	WORK POINT
WS	WELDED STUD
WT	WEIGHT
WWF	WELDED WIRE FABRIC
YD	YARD
#	POUND, SCREW SIZE, REBAR SIZE

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GENERAL NOTES

S1.01B

SHEET NO.

CASE 1

REINFORCING BAR SPLICE AND STRAIGHT DEVELOPMENT LENGTHS SCHEDULE

(SEE NOTES BELOW) (NORMAL WEIGHT CONCRETE)

TENSION SPLICE	f'c PSI	BAR SIZE GRADE 80	#3	#4	#5	#6	#7	#8	#9	#10	#11
CLASS A & STRAIGHT DEVELOPMENT LENGTHS, Ld (IN)	3000	TOP	29"	38"	48"	57"	84"	95"	108"	121"	134"
		OTHER	22"	30"	37"	44"	64"	74"	83"	93"	103"
	4000	TOP	25"	33"	42"	50"	72"	83"	93"	105"	116"
		OTHER	19"	26"	32"	38"	56"	64"	72"	81"	90"
	5000	TOP	23"	30"	37"	45"	65"	74"	83"	94"	104"
		OTHER	17"	23"	29"	34"	50"	57"	64"	72"	80"
	≥6000	TOP	21"	27"	34"	41"	59"	68"	76"	86"	95"
		OTHER	16"	21"	26"	31"	46"	52"	59"	66"	73"
CLASS B	3000	TOP	38"	50"	62"	75"	108"	124"	140"	157"	175"
		OTHER	29"	38"	48"	57"	84"	95"	108"	121"	134"
	4000	TOP	33"	43"	54"	65"	94"	107"	121"	136"	151"
		OTHER	25"	33"	42"	50"	72"	83"	93"	105"	116"
	5000	TOP	29"	39"	48"	58"	84"	96"	108"	122"	135"
		OTHER	23"	30"	37"	45"	65"	74"	83"	94"	104"
	≥6000	TOP	27"	35"	44"	53"	77"	88"	99"	111"	124"
		OTHER	21"	27"	34"	41"	59"	68"	76"	86"	95"

CASE 2

REINFORCING BAR SPLICE AND STRAIGHT DEVELOPMENT LENGTHS SCHEDULE

(SEE NOTES BELOW) (NORMAL WEIGHT CONCRETE)

TENSION SPLICE	f'c PSI	BAR SIZE GRADE 80	#3	#4	#5	#6	#7	#8	#9	#10	#11
CLASS A & STRAIGHT DEVELOPMENT LENGTHS, Ld (IN)	3000	TOP	43"	57"	72"	86"	125"	143"	161"	181"	201"
		OTHER	33"	44"	55"	66"	96"	110"	124"	140"	155"
	4000	TOP	37"	50"	62"	74"	108"	124"	140"	157"	174"
		OTHER	29"	38"	48"	57"	84"	95"	108"	121"	134"
	5000	TOP	34"	45"	56"	67"	97"	111"	125"	141"	156"
		OTHER	26"	34"	43"	51"	75"	85"	96"	108"	120"
	≥6000	TOP	31"	41"	51"	61"	89"	101"	114"	128"	142"
		OTHER	24"	31"	39"	47"	68"	78"	88"	99"	110"
CLASS B	3000	TOP	56"	75"	93"	112"	162"	186"	209"	236"	262"
		OTHER	43"	57"	72"	86"	125"	143"	161"	181"	201"
	4000	TOP	49"	65"	81"	97"	141"	161"	181"	204"	227"
		OTHER	37"	50"	62"	74"	108"	124"	140"	157"	174"
	5000	TOP	44"	58"	72"	87"	126"	144"	162"	183"	203"
		OTHER	34"	45"	56"	67"	97"	111"	125"	141"	156"
	≥6000	TOP	40"	53"	66"	79"	115"	131"	148"	167"	185"
		OTHER	31"	41"	51"	61"	89"	101"	114"	128"	142"

NOTES:

1. TABULATED VALUES ARE BASED ON ACI 318-05 CHAPTER 12, GRADE 80 REINFORCING BARS AND NORMAL WEIGHT CONCRETE. THIS CHART TO BE USED FOR ANY GRADE OF REINFORCING GREATER THAN GRADE 60 TO GRADE 80.
2. CASES 1 AND 2, WHICH DEPEND ON THE TYPE OF STRUCTURAL ELEMENT, CONCRETE COVER, AND THE CENTER-TO-CENTER SPACING OF THE BARS, ARE DEFINED AS:

   BEAMS AND COLUMNS: CASE 1: CONCRETE COVER ≥ 1.0 db AND CTR-CTR SPACING ≥ 2.0 db AND WITH STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN THE CODE MINIMUM.

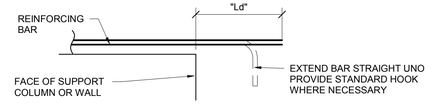
   CASE 2: CONCRETE COVER < 1.0 db AND CTR-CTR SPACING < 2.0 db.

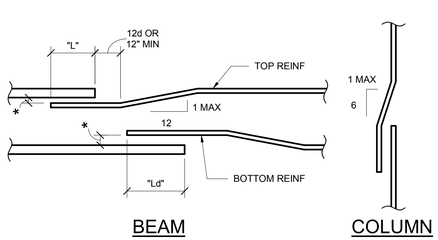
   ALL OTHER ELEMENTS: CASE 1: CONCRETE COVER ≥ 1.0 db AND CTR-CTR SPACING ≥ 3.0 db.

   CASE 2: CONCRETE COVER < 1.0 db AND CTR-CTR SPACING < 3.0 db.
3. LAP SPLICES OF DEFORMED BARS AND DEFORMED WIRE IN TENSION SHALL BE CLASS B SPLICES EXCEPT THAT CLASS A SPLICES ARE ALLOWED WHEN ONE-HALF OR LESS OF THE TOTAL REINFORCEMENT IS SPLICED WITHIN THE REQUIRED LAP LENGTH.
4. FOR LIGHTWEIGHT AGGREGATE CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3.
5. FOR EPOXY-COATED BARS, MULTIPLY THE TABULATED VALUES BY ONE OF THE FOLLOWING FACTORS:

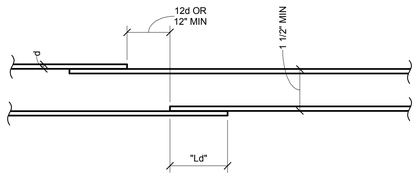
CONCRETE COVER AND SPACING	TOP BARS	OTHER BARS
COVER < 3.0 db OR CTR-CTR SPACING < 7.0 db	1.50	1.50
COVER ≥ 3.0 db OR CTR-CTR SPACING ≥ 7.0 db	1.20	1.20

6. db = NOMINAL DIAMETER OF A BAR.
7. TOP BARS ARE HORIZONTAL REINFORCING WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BAR.
8. OTHER BARS ARE ALL VERTICAL REINFORCING, ALL HORIZONTAL WALL REINFORCING, AND HORIZONTAL REINFORCING WITH LESS THAN 12" OF CONCRETE BELOW BAR.
9. SMALLER BAR LAP LENGTH MAY BE USED WHEN SPLICING DIFFERENT SIZE BARS.
10. LAP SPLICES ARE NOT PERMITTED IF MECHANICAL SPLICES ARE SHOWN.
11. NON-CONTACT LAP SPLICED BARS SHALL NOT BE SPACED TRANSVERSELY FUTHER APART THAN ONE -FIFTH OF THE REQUIRED LAP SPLICE LENGTH NOR 6 INCHES.
12. LAP TOP BARS AT MIDSPAN AND BOTTOM BARS AT SUPPORTS UNLESS OTHERWISE SHOWN.
13. BUNDLED BAR SPLICES:
    A. INDIVIDUAL BAR SPLICES WITHIN THE BUNDLE SHALL NOT OVERLAP EACH OTHER.
    B. INCREASE LAP LENGTH 20% AT THREE BARS. INCREASE LAP LENGTH 33% AT FOUR BARS.





A BOUNDARY, COLUMN AND BEAM REINFORCING SPLICE DETAIL



B WALL OR SLAB REINFORCING SPLICE DETAIL

10 REINFORCING BAR SPLICE SCHEDULE AND NOTES (GRADE 75)

NTS

CASE 1

REINFORCING BAR SPLICE AND STRAIGHT DEVELOPMENT LENGTHS SCHEDULE

(SEE NOTES BELOW) (NORMAL WEIGHT CONCRETE)

TENSION SPLICE	f'c PSI	BAR SIZE GRADE 60	#3	#4	#5	#6	#7	#8	#9	#10	#11
CLASS A & STRAIGHT DEVELOPMENT LENGTHS, Ld (IN)	3000	TOP	22"	29"	36"	43"	63"	72"	81"	91"	101"
		OTHER	17"	22"	28"	33"	48"	55"	62"	70"	78"
	4000	TOP	19"	25"	31"	37"	54"	62"	70"	79"	87"
		OTHER	15"	19"	24"	29"	42"	48"	54"	61"	67"
	5000	TOP	17"	22"	28"	33"	49"	55"	63"	70"	78"
		OTHER	13"	17"	22"	26"	37"	43"	48"	54"	60"
	≥6000	TOP	15"	20"	25"	30"	44"	50"	57"	64"	71"
		OTHER	12"	16"	20"	23"	34"	39"	44"	49"	35"
CLASS B	3000	TOP	28"	37"	47"	56"	81"	93"	105"	118"	131"
		OTHER	22"	29"	36"	43"	63"	72"	81"	91"	101"
	4000	TOP	24"	32"	40"	48"	70"	80"	91"	102"	113"
		OTHER	19"	25"	31"	37"	54"	62"	70"	79"	87"
	5000	TOP	22"	29"	36"	43"	63"	72"	81"	91"	101"
		OTHER	17"	22"	28"	33"	49"	55"	63"	70"	78"
	≥6000	TOP	20"	26"	33"	40"	58"	66"	74"	83"	93"
		OTHER	15"	20"	25"	30"	44"	51"	57"	64"	71"

CASE 2

REINFORCING BAR SPLICE AND STRAIGHT DEVELOPMENT LENGTHS SCHEDULE

(SEE NOTES BELOW) (NORMAL WEIGHT CONCRETE)

TENSION SPLICE	f'c PSI	BAR SIZE GRADE 60	#3	#4	#5	#6	#7	#8	#9	#10	#11
CLASS A & STRAIGHT DEVELOPMENT LENGTHS, Ld (IN)	3000	TOP	32"	43"	54"	64"	94"	107"	121"	136"	151"
		OTHER	25"	33"	41"	50"	72"	82"	93"	105"	116"
	4000	TOP	28"	37"	47"	56"	81"	93"	105"	118"	131"
		OTHER	22"	29"	36"	43"	63"	71"	81"	91"	101"
	5000	TOP	25"	33"	42"	50"	73"	83"	94"	105"	117"
		OTHER	19"	26"	32"	38"	56"	64"	72"	81"	90"
	≥6000	TOP	23"	30"	38"	46"	66"	76"	85"	96"	107"
		OTHER	18"	23"	29"	35"	51"	58"	66"	74"	82"
CLASS B	3000	TOP	42"	56"	70"	84"	122"	139"	157"	177"	195"
		OTHER	32"	43"	54"	64"	94"	107"	121"	136"	151"
	4000	TOP	36"	48"	60"	72"	106"	121"	136"	153"	170"
		OTHER	28"	37"	47"	56"	81"	93"	105"	118"	131"
	5000	TOP	33"	43"	54"	65"	94"	108"	122"	137"	152"
		OTHER	25"	33"	42"	50"	73"	83"	94"	105"	117"
	≥6000	TOP	30"	40"	49"	59"	86"	98"	111"	125"	139"
		OTHER	23"	30"	38"	46"	66"	76"	85"	96"	107"

NOTES:

1. TABULATED VALUES ARE BASED ON ACI 318-05 CHAPTER 12, GRADE 60 REINFORCING BARS AND NORMAL WEIGHT CONCRETE.
2. CASES 1 AND 2, WHICH DEPEND ON THE TYPE OF STRUCTURAL ELEMENT, CONCRETE COVER, AND THE CENTER-TO-CENTER SPACING OF THE BARS, ARE DEFINED AS:

   BEAMS AND COLUMNS: CASE 1: CONCRETE COVER ≥ 1.0 db AND CTR-CTR SPACING ≥ 2.0 db AND WITH STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN THE CODE MINIMUM.

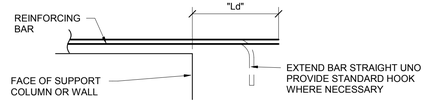
   CASE 2: CONCRETE COVER < 1.0 db AND CTR-CTR SPACING < 2.0 db.

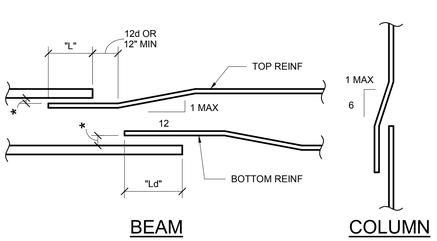
   ALL OTHER ELEMENTS: CASE 1: CONCRETE COVER ≥ 1.0 db AND CTR-CTR SPACING ≥ 3.0 db.

   CASE 2: CONCRETE COVER < 1.0 db AND CTR-CTR SPACING < 3.0 db.
3. LAP SPLICES OF DEFORMED BARS AND DEFORMED WIRE IN TENSION SHALL BE CLASS B SPLICES EXCEPT THAT CLASS A SPLICES ARE ALLOWED WHEN ONE-HALF OR LESS OF THE TOTAL REINFORCEMENT IS SPLICED WITHIN THE REQUIRED LAP LENGTH.
4. FOR LIGHTWEIGHT AGGREGATE CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3.
5. FOR EPOXY-COATED BARS, MULTIPLY THE TABULATED VALUES BY ONE OF THE FOLLOWING FACTORS:

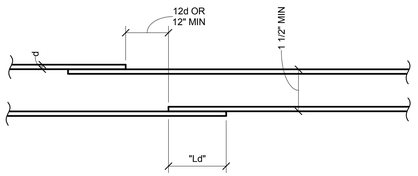
CONCRETE COVER AND SPACING	TOP BARS	OTHER BARS
COVER < 3.0 db OR CTR-CTR SPACING < 7.0 db	1.50	1.50
COVER ≥ 3.0 db OR CTR-CTR SPACING ≥ 7.0 db	1.20	1.20

6. db = NOMINAL DIAMETER OF A BAR.
7. TOP BARS ARE HORIZONTAL REINFORCING WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BAR.
8. OTHER BARS ARE ALL VERTICAL REINFORCING, ALL HORIZONTAL WALL REINFORCING, AND HORIZONTAL REINFORCING WITH LESS THAN 12" OF CONCRETE BELOW BAR.
9. SMALLER BAR LAP LENGTH MAY BE USED WHEN SPLICING DIFFERENT SIZE BARS.
10. LAP SPLICES ARE NOT PERMITTED IF MECHANICAL SPLICES ARE SHOWN.
11. NON-CONTACT LAP SPLICED BARS SHALL NOT BE SPACED TRANSVERSELY FUTHER APART THAN ONE -FIFTH OF THE REQUIRED LAP SPLICE LENGTH NOR 6 INCHES.
12. LAP TOP BARS AT MIDSPAN AND BOTTOM BARS AT SUPPORTS UNLESS OTHERWISE SHOWN.
13. BUNDLED BAR SPLICES:
    A. INDIVIDUAL BAR SPLICES WITHIN THE BUNDLE SHALL NOT OVERLAP EACH OTHER.
    B. INCREASE LAP LENGTH 20% AT THREE BARS. INCREASE LAP LENGTH 33% AT FOUR BARS.





A BOUNDARY, COLUMN AND BEAM REINFORCING SPLICE DETAIL



B WALL OR SLAB REINFORCING SPLICE DETAIL

4 REINFORCING BAR SPLICE SCHEDULE AND NOTES (GRADE 60)

NTS

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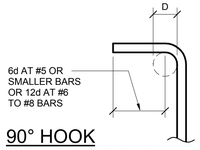
TYPICAL CONCRETE DETAILS

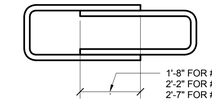
S1.02

SHEET NO.

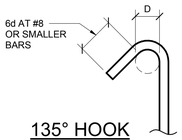


90° HOOK
TIE OR STIRRUP

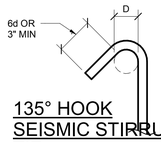
TIES AND STIRRUPS ONLY:
#3 : D = 1 1/2"
#4 : D = 2"
#5 : D = 2 1/2"
#6 : D = 4 1/2"



TIE LAP AT FRAME COL. AND GIRDERS



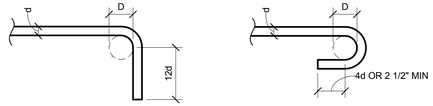
135° HOOK
TIE OR STIRRUP



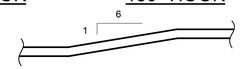
135° HOOK
SEISMIC STIRRUP / TIE

NOTES:
1. ALL BENDS SHALL BE MADE COLD.
2. #14 AND #18 BARS SHALL BE BEND-TESTED AND APPROVED PRIOR TO BENDING.

D = 6d FOR #3 THRU #8
D = 8d FOR #9 THRU #11
D = 10d FOR #14 THRU #18



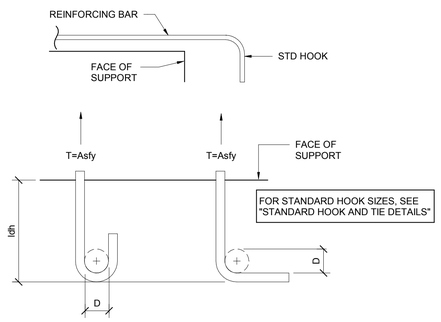
90° HOOK 180° HOOK



MAX OFFSET BEND
PRINCIPAL REINFORCING

6 STANDARD HOOK AND TIE DETAILS

NTS



180° HOOK 90° HOOK

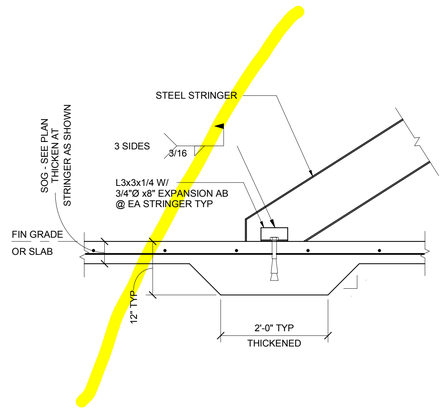
MINIMUM TENSION EMBEDMENT LENGTHS, (ldh), FOR STANDARD END HOOKS ON GRADE 75 BARS
GENERAL USE (NON-SEISMIC)

BAR SIZE	NORMAL WEIGHT CONCRETE, f'c (psi)					
	3,000	4,000	5,000	6,000	7,000	8,000
#3	8"	7"	6"	6"	6"	6"
#4	10"	9"	8"	7"	7"	6"
#5	12"	11"	10"	9"	8"	8"
#6	15"	13"	12"	11"	10"	9"
#7	17"	15"	13"	12"	11"	11"
#8	20"	17"	15"	14"	13"	12"
#9	22"	19"	17"	16"	15"	14"
#10	25"	22"	19"	18"	16"	15"
#11	27"	24"	21"	20"	18"	17"
#14	47"	41"	36"	33"	31"	29"
#18	62"	54"	48"	44"	41"	38"

NOTES:
1. SIDE COVER ≥2 1/2 INCHES.
2. END COVER (90° HOOKS) ≥ 2 INCHES.
3. FOR SIDE COVER < 2 1/2 INCHES AND END COVER < 2 INCHES, MULTIPLY THE TABULATED VALUES BY 1.43.
4. FOR LIGHT WEIGHT AGGREGATE CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3.
5. FOR EPOXY-COATED BARS, MULTIPLY THE TABULATED VALUES BY 1.2

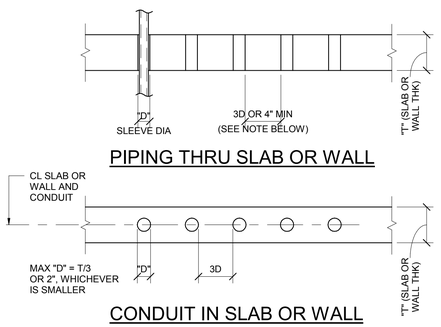
10 EMBEDMENT LENGTHS FOR HOOKED BARS (GR 75)

NTS



8 STEEL STAIR ON GRADE

NTS



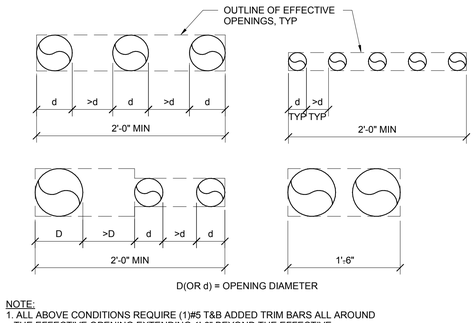
PIPING THRU SLAB OR WALL

CONDUIT IN SLAB OR WALL

NOTE:
WHERE CLEAR DISTANCE BETWEEN SLEEVES IS IMPOSSIBLE, THIS AREA SHALL BE TREATED AS AN OPENING PER "REINFORCING AT STRUCTURAL CONCRETE SLAB OPENINGS" DETAIL.

7 PIPE AND CONDUIT IN OR THRU SLAB OR WALL

NTS

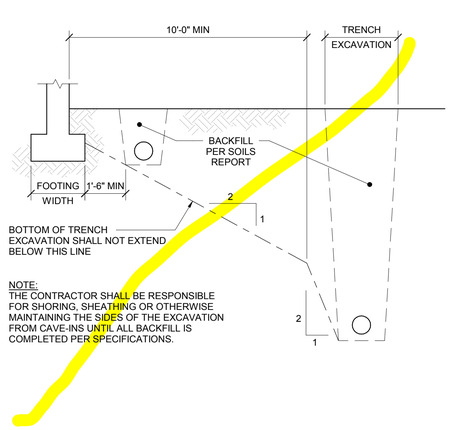


NOTE:
1. ALL ABOVE CONDITIONS REQUIRE (1)#5 T&B ADDED TRIM BARS ALL AROUND THE EFFECTIVE OPENING EXTENDING 1'-6" BEYOND THE EFFECTIVE OPENING EACH SIDE, TYP (DIAGONAL BARS ARE NOT REQUIRED)

WHERE SPACING OF OPENINGS IS < 3D

5 MULTIPLE OPENINGS IN CONCRETE SLAB

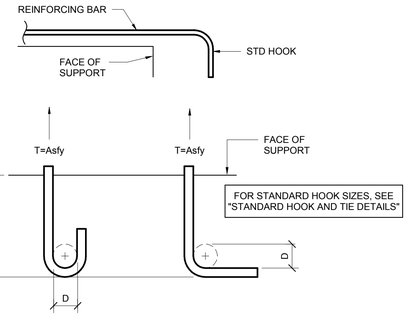
NTS



NOTE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING, SHEATHING OR OTHERWISE MAINTAINING THE SIDES OF THE EXCAVATION FROM CAVE-INS UNTIL ALL BACKFILL IS COMPLETED PER SPECIFICATIONS.

4 EXCAVATION PARALLEL TO FOOTING

NTS



180° HOOK 90° HOOK

MINIMUM TENSION EMBEDMENT LENGTHS, (ldh), FOR STANDARD END HOOKS ON GRADE 60 BARS
GENERAL USE (NON-SEISMIC)

BAR SIZE	NORMAL WEIGHT CONCRETE, f'c (psi)					
	3,000	4,000	5,000	6,000	7,000	8,000
#3	6"	6"	6"	6"	6"	6"
#4	8"	7"	6"	6"	6"	6"
#5	10"	9"	8"	7"	7"	6"
#6	12"	10"	9"	8"	8"	7"
#7	14"	12"	11"	10"	9"	9"
#8	16"	14"	12"	11"	10"	10"
#9	18"	15"	14"	13"	12"	11"
#10	20"	17"	15"	14"	13"	12"
#11	22"	19"	17"	16"	14"	14"
#14	37"	32"	29"	27"	25"	23"
#18	50"	43"	39"	35"	33"	31"

NOTES:
1. SIDE COVER ≥2 1/2 INCHES.
2. END COVER (90° HOOKS) ≥ 2 INCHES.
3. FOR SIDE COVER < 2 1/2 INCHES AND END COVER < 2 INCHES, MULTIPLY THE TABULATED VALUES BY 1.43.
4. FOR LIGHT WEIGHT AGGREGATE CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3.
5. FOR EPOXY-COATED BARS, MULTIPLY THE TABULATED VALUES BY 1.2

1 EMBEDMENT LENGTHS FOR HOOKED BARS (GR 60)

NTS

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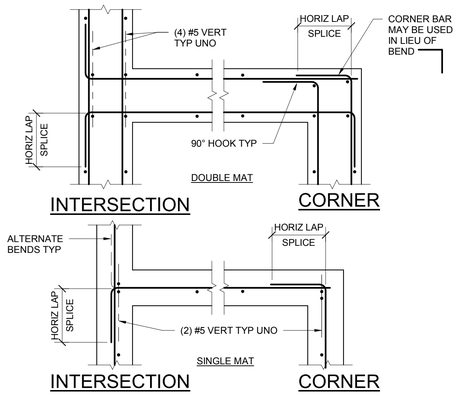
TYPICAL CONCRETE DETAILS

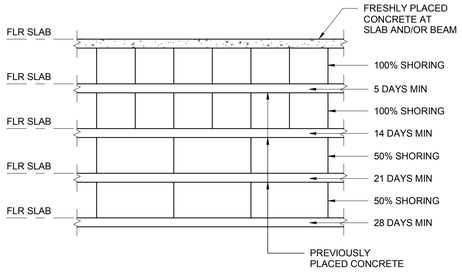
S1.02A

SHEET NO.



12 REINFORCING AT CONCRETE WALL INTERSECTIONS

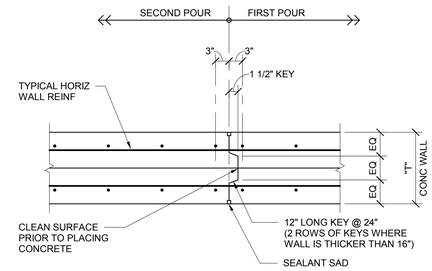
NTS



NOTE:
ALL SHORING AND RE-SHORING MUST BE DONE IN ACCORDANCE WITH ACI STANDARD RECOMMENDED PRACTICE FOR CONCRETE FORMWORK (ACI347) - SHORES SHALL NOT BE REMOVED IF CONCRETE STRENGTH DOES NOT MEET SPECIFIED STRENGTH AT 28 DAYS.

9 MINIMUM SHORING REQUIRED AT POURED CONCRETE

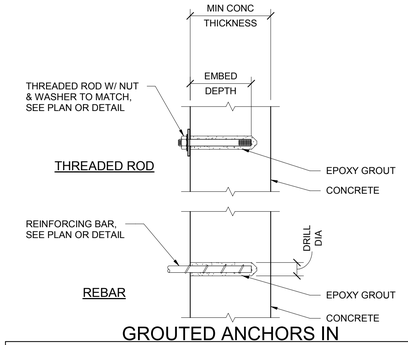
NTS



PLAN

3 VERTICAL WALL JOINT

NTS



GROUTED ANCHORS IN CONCRETE

ROD SIZE	ASTM MATERIAL STANDARD	MIN EMBED (IN)	MIN CONCRETE THICKNESS (IN)	REMARKS
1/2"	A36/A307	4-1/4	6-3/8	
5/8"	A36/A307	5	7-1/2	
3/4"	A36/A307	6-3/4	10-1/8	
7/8"	A36/A307	7-3/4	11-5/8	
1"	A36/A307	9	13-1/2	
#4	A615/A706	4-1/4	6-3/8	
#5	A615/A706	5-1/4	7-7/8	
#6	A615/A706	6-3/4	10-1/8	
#7	A615/A706	7-3/4	11-5/8	
#8	A615/A706	9	13-1/2	
#9	A615/A706	10	15	
#10	A615/A706	12	18	
#11	A615/A706	13-1/2	20-1/4	

NOTES:

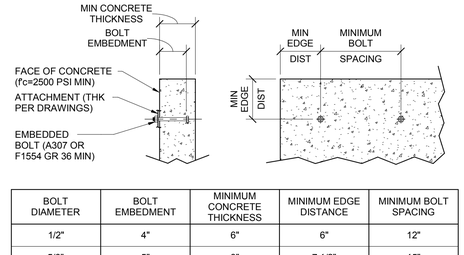
1. INSTALL IN STRICT CONFORMANCE WITH MANUFACTURERS RECOMMENDATIONS. GROUTED EPOXY ANCHORS SHALL BE:
   (A) SIMPSON SET-XP EPOXY-TIE, MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. (ICC ESR 2508)

   ALTERNATE:
   (B) HILTI RE-500, MANUFACTURED BY HILTI, INC, (ICBO REPORT No ER-2322)

2. SPECIAL INSPECTION SHALL BE PROVIDED FOR ANCHOR INSTALLATION.

10 GROUTED ANCHORS EMBED SCHEDULE IN CONCRETE

NTS



BOLT DIAMETER	BOLT EMBEDMENT	MINIMUM CONCRETE THICKNESS	MINIMUM EDGE DISTANCE	MINIMUM BOLT SPACING
1/2"	4"	6"	6"	12"
5/8"	5"	8"	7 1/2"	15"
3/4"	6"	8"	9"	18"
7/8"	7"	10"	10 1/2"	21"
1"	8"	12"	12"	24"

MINIMUM EDGE DISTANCE AND MINIMUM BOLT SPACING TO BE USED WHEN LOCATING EMBEDDED BOLTS WHICH ARE NOT SPECIFICALLY OTHERWISE DETAILED.

8 BOLT EMBEDMENT SCHEDULE

NTS

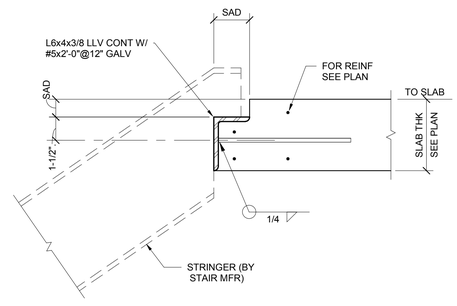
MINIMUM CONCRETE WALL REINFORCING SCHEDULE

WALL THICKNESS	BAR SIZE AND SPACING EACH MAT (fy=60 KSI)		REMARKS
	HORIZ	VERT	
4" TO 5-1/2"	#4@18" OC	#4@18" OC	SINGLE MAT
6" TO 7-1/2"	#4@12" OC	#4@18" OC	SINGLE MAT
8" TO 9-1/2"	#5@16" OC	#4@16" OC	SINGLE MAT
10" TO 11-1/2"	#4@16" OC	#4@18" OC	DOUBLE MAT
12" TO 13-1/2"	#4@12" OC	#4@18" OC	DOUBLE MAT
14" TO 15-1/2"	#4@12" OC	#4@18" OC	DOUBLE MAT
16" TO 17-1/2"	#5@16" OC	#4@18" OC	DOUBLE MAT

APPLY SCHED WHERE REINFORCING IS NOT DENOTED ON PLANS OR DETAILS

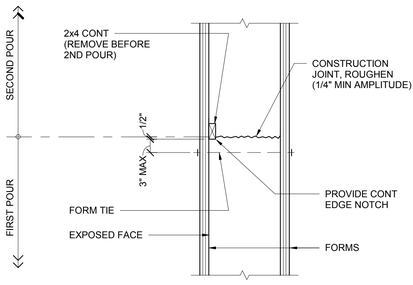
7 MINIMUM CONCRETE WALL REINFORCING SCHEDULE

NTS



5 STAIR STRINGER CONNECTION

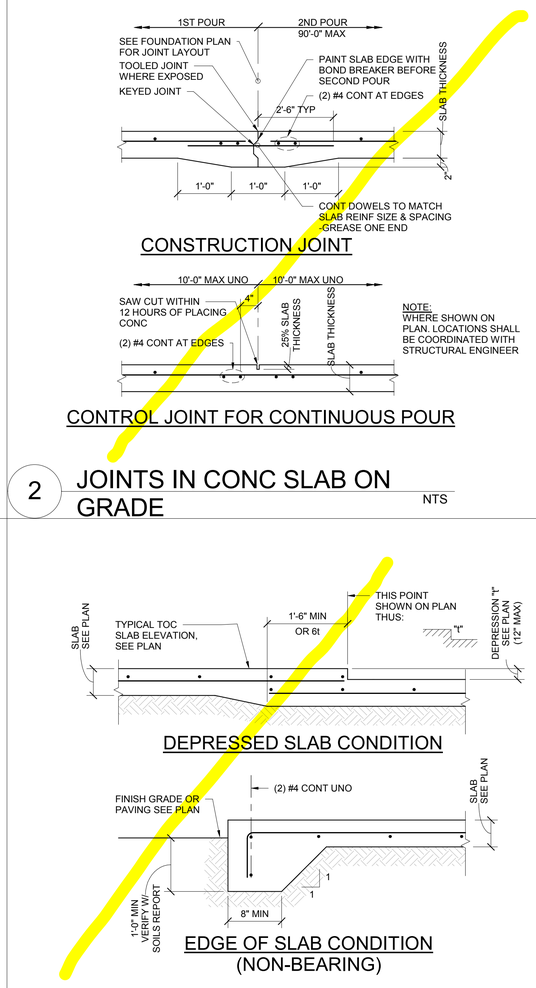
NTS



NOTE:
PROVIDE 2x4 CONT ON BOTH FACES WHEN BOTH FACES ARE EXPOSED. REMOVE 2x4 AND TIGHTEN FORM TIE BEFORE PLACING 2ND. POUR REINF CONT THRU JOINT (REBAR NOT SHOWN)

4 HORIZONTAL WALL JOINT

NTS



CONSTRUCTION JOINT

CONTROL JOINT FOR CONTINUOUS POUR

DEPRESSED SLAB CONDITION

EDGE OF SLAB CONDITION (NON-BEARING)

2 JOINTS IN CONC SLAB ON GRADE

NTS

1 SLAB ON GRADE DETAIL

NTS

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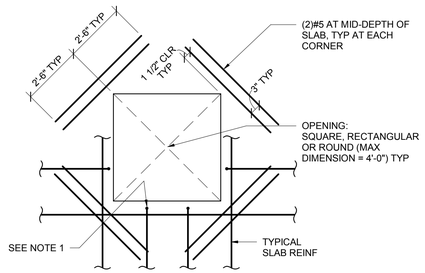
TYPICAL CONCRETE DETAILS

S1.02B

SHEET NO.



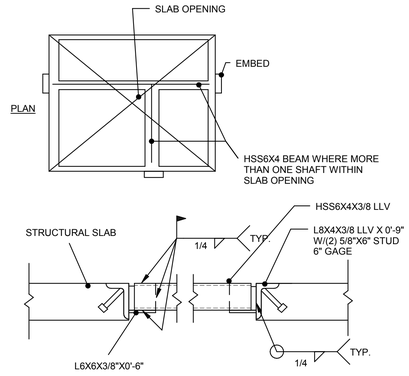
PLAN

NOTES:

1. ALL TOP AND BOTTOM SLAB BARS INTERRUPTED BY OPENING SHALL BE REPLACED BY ADDITIONAL REINFORCING EQUAL TO THAT INTERRUPTED. PLACE HALF OF THE ADDITIONAL REINFORCING ON EACH SIDE OF THE OPENING AND EXTEND TO LENGTH REQUIRED TO ACHIEVE CLASS "B" LAP SPLICE (BEYOND OPENING) PER BAR SIZE.
2. BOXED-OUT OPENINGS, BOXED RECESSES AND PIPE SLEEVE CLUSTERS SHALL BE TREATED AS FRAMED SLAB OPENINGS.

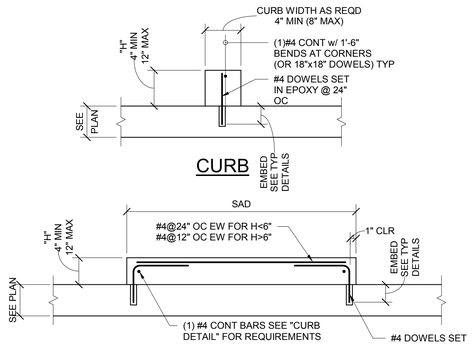
6 REINFORCING AT STRUCTURAL CONC SLAB OPENINGS

NTS



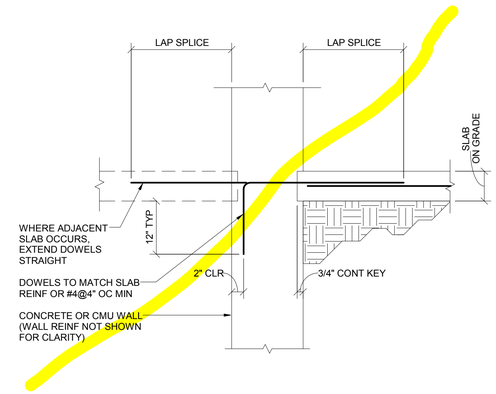
3 SEPARATOR BEAM AT STAIRS AND MECHANICAL SHAFT

NTS



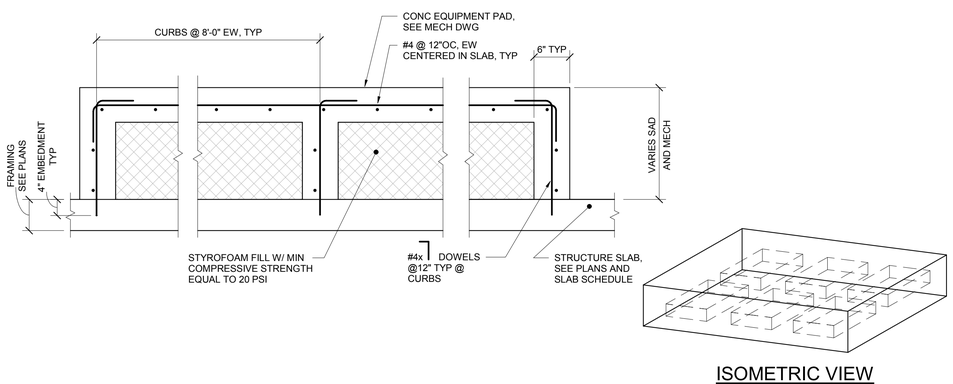
5 CONCRETE CURBS AND ISLANDS

NTS



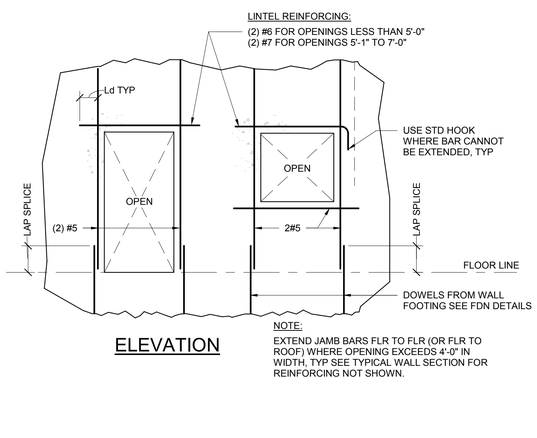
2 DOWELS FOR CONCRETE SLAB ON GRADE

NTS



10 TYPICAL RAISED EQUIPMENT PAD

NTS



4 MINIMUM REINFORCING AT CONCRETE WALL OPENINGS LESS THAN 7'-0"

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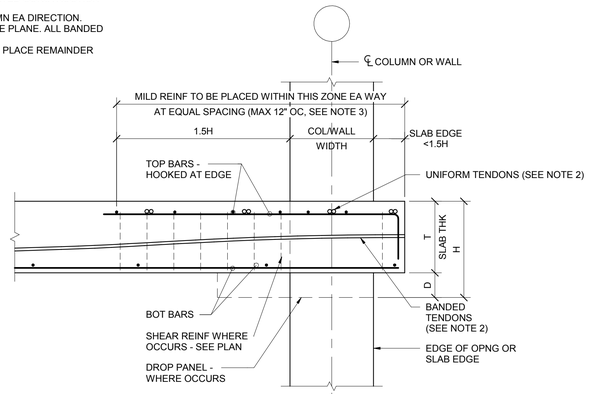
TYPICAL CONCRETE DETAILS

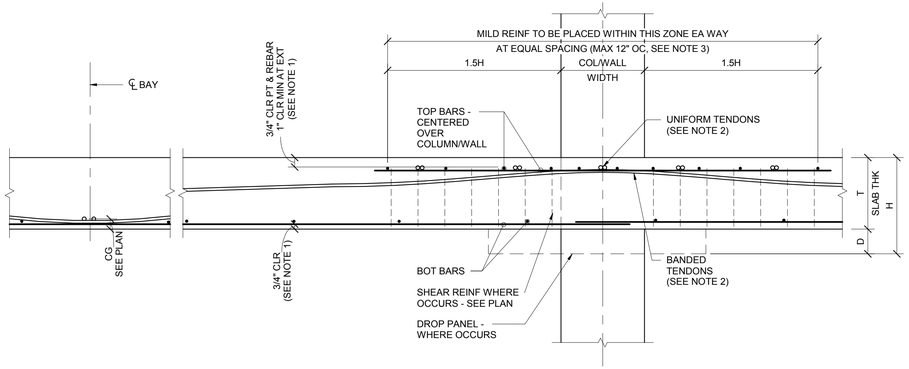
S1.02C

SHEET NO.

NOTES:
1. PROVIDE ADDITIONAL COVER FOR 2-HR OR MORE FIRE RATED CONSTRUCTION WHERE APPLIES (IBC 720.1(1)).
2. TWO STRANDS MINIMUM TO PASS DIRECTLY OVER COLUMN EA DIRECTION. BANDED TENDONS & TOP REINFORCEMENT TO BE IN SAME PLANE. ALL BANDED TENDONS RECEIVE PLACEMENT PRIORITY.
3. REBAR SHALL NOT BE PLACED LESS THAN 4"OC SPACING. PLACE REMAINDER OUTSIDE DIMENSION LINES @8"OC MAX AS REQUIRED.



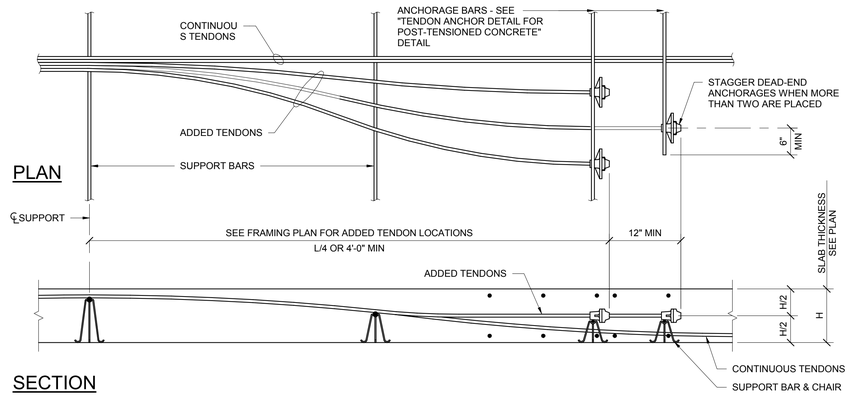
AT SLAB EDGE /OPNG



INTERIOR

11 TYPICAL PT SLAB TENDON / REBAR LAYOUT AT COLUMNS

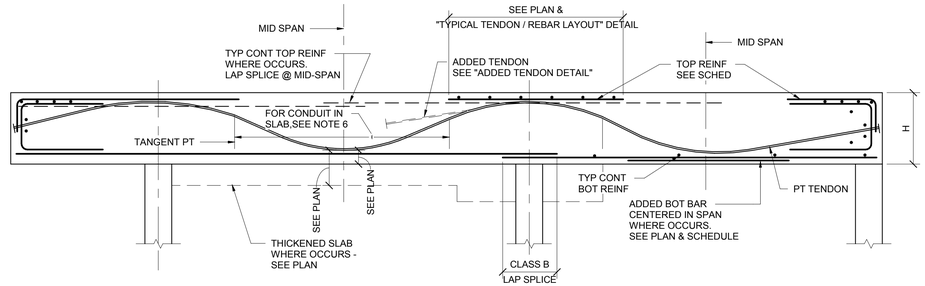
NTS



6 ADDED TENDON DETAIL

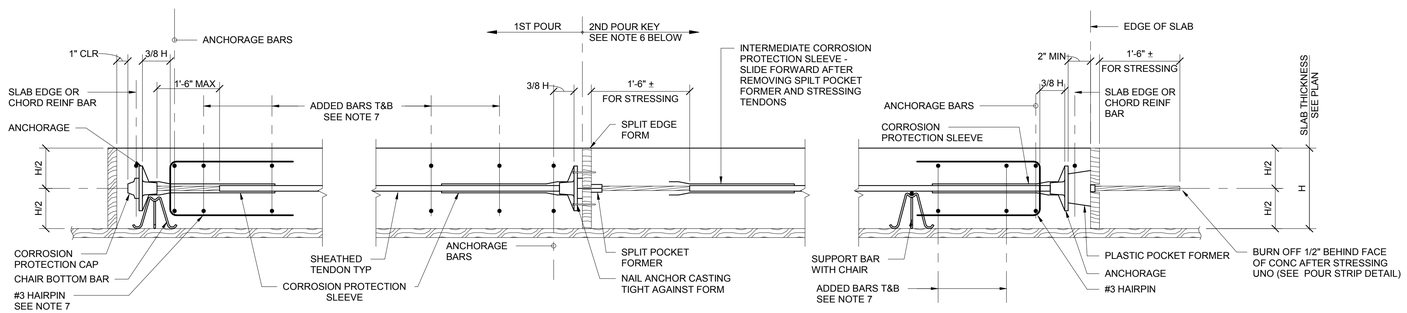
NTS

NOTES:
1. ALL TENDONS SHALL BE 1/2" Ø WITH PLASTIC SHEATHS.
2. TENDONS SHALL FORM A SMOOTH PARABOLIC CURVE BETWEEN CONTROL POINTS INDICATED (ON PLAN), AFTER PLACING HIGH AND LOW POINTS, SUPPORTS AND CHAIRS SHALL BE ADEQUATE TO MAINTAIN TENDON PROFILE.
3. ADDED TENDONS SHALL MAINTAIN THE SAME PROFILE AS THROUGH TENDONS.
4. SEE "TENDON ANCHOR DETAIL FOR POST-TENSIONED CONCRETE" DETAIL FOR ANCHOR REQUIREMENTS.
5. MAX TENDON SPACING SHALL NOT EXCEED 8 TIMES THE SLAB THICKNESS OR 42"OC MAX. ADD TENDON AS REQUIRED WHERE NOT SHOWN ON PLAN
6. CONDUIT IN SLAB ALLOWED IF LESS THAN 1/5 SLAB THICKNESS AND PLACED IN MIDDLE 1/3 OF SPAN, AND 3" CLEAR OF TENDONS. SPACE PARALLEL CONDUIT 3x DIAMETER.
7. WHERE CJ IS REQUIRED, LOCATE JOINT WHERE TENDON PROFILE IS AT MID-DEPTH. SUBMIT LOCATIONS FOR ENGINEER'S APPROVAL. SEE " TYPICAL CONSTRUCTION JOINT" DETAIL.



5 TYPICAL PT SLAB REINFORCING - LAYOUT

NTS



DEAD-END ANCHORAGE

INTERMEDIATE STRESSING ANCHORAGE
(ANCHOR AT CONSTRUCTION JOINT)

STRESSING ANCHORAGE

NOTES:
1. ALL ANCHORS SHALL BE INSTALLED IN THE CENTER OF SLAB, UNO.
2. SEE TYPICAL PT SLAB REINFORCING DETAIL AND PLANS FOR TENDON LOCATION AND REQUIREMENTS.
3. AFTER STRESSING, TENDON HARDWARE SHALL BE COATED WITH A RUST PREVENTIVE MASTIC BEFORE CONCRETING OR DRYPACKING.
4. A MAXIMUM OF 18" OF EXPOSED TENDON (WITHOUT PLASTIC SHEATH) IS PERMITTED AT DEAD-END ANCHORAGE ONLY.
5. ANCHORS MUST BE OF A TYPE APPROVED BY THE ICC AND THE GOVERNING AGENCY.
6. SEE "TYPICAL CONSTRUCTION JOINT IN PT SLAB" DETAIL FOR KEY AT ALL CONSTRUCTION JOINTS.
7. SEE "TYPICAL REINFORCING AT PT SLAB EDGE" FOR SIZE & NUMBER OF REINF BARS AS NOTED.

7 TENDON ANCHOR DETAIL FOR POST-TENSIONED CONCRETE

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TYPICAL POST-TENSIONED CONCRETE DETAILS

S1.03

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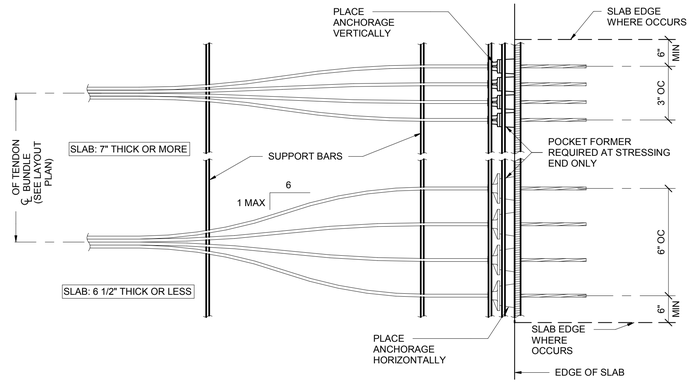
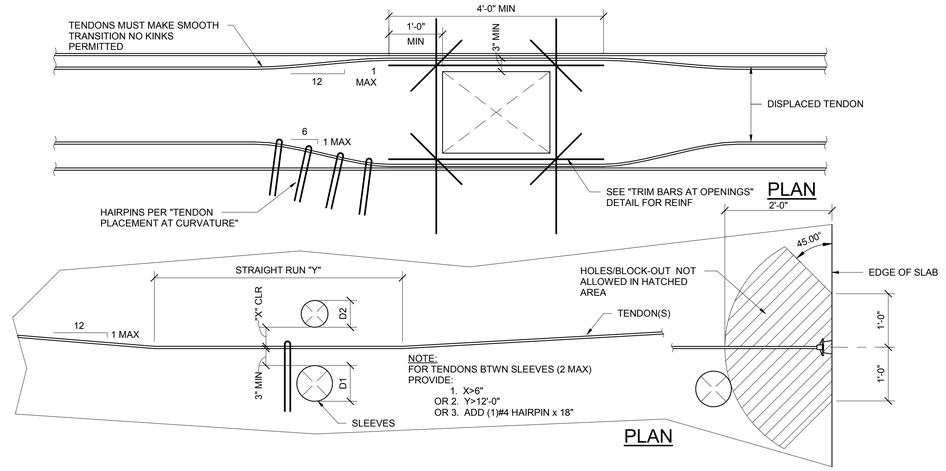


12 TENDON ANCHOR DETAIL

NTS



6 TENDON DISPLACEMENT AT PT SLAB OPENINGS

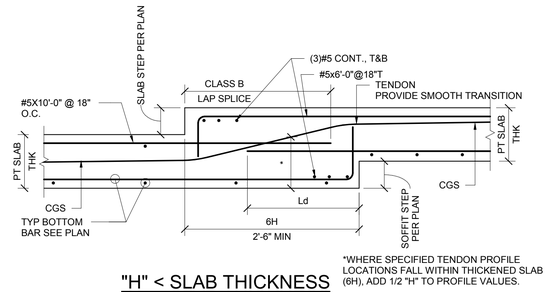
NTS

EDGE CONDITION

INTERIOR CONDITION

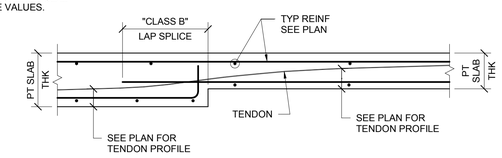
10 CONCRETE WALL TO PT SLAB CONNECTION

NTS



"H" < SLAB THICKNESS

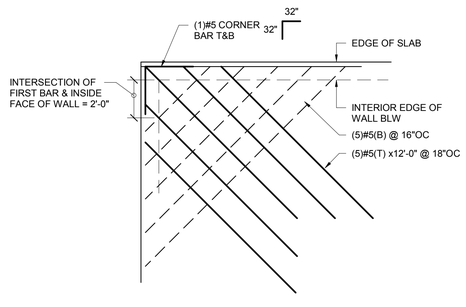
*WHERE SPECIFIED TENDON PROFILE LOCATIONS FALL WITHIN THICKENED SLAB (6H), ADD 1/2 "H" TO PROFILE VALUES.



STEP AT SOFFIT

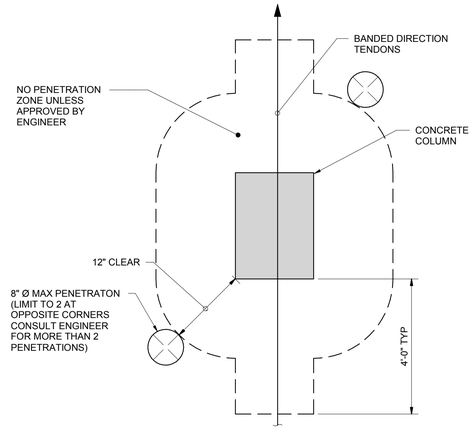
8 PT TRANSITION AT STEP

NTS



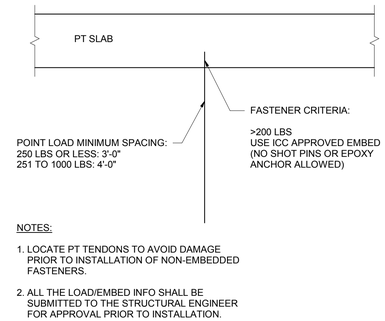
7 TRIM BARS AT WALL SUPPORTED SLAB EDGES

NTS



4 SLEEVE PENETRATION RESTRICTION AT COL

NTS



NOTES:

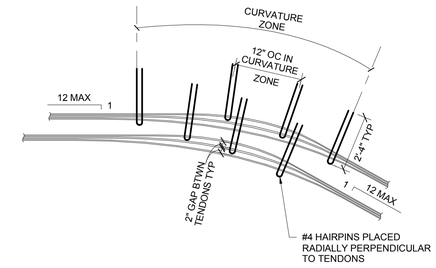
1. LOCATE PT TENDONS TO AVOID DAMAGE PRIOR TO INSTALLATION OF NON-EMBEDDED FASTENERS.
2. ALL THE LOAD/EMBED INFO SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.

2 TYPICAL HANGING LOAD CRITERIA

NTS

NOTES:

1. PROVIDE INDEPENDENT HAIRPINS AT EACH GROUP OF TENDONS
2. STAGGER HAIRPINS AS SHOWN
3. PROVIDE HAIRPINS AT ALL LOCATIONS WHERE MAX SWEEP IS GREATER THAN 1:12



1 TENDON PLACEMENT AT CURVATURE

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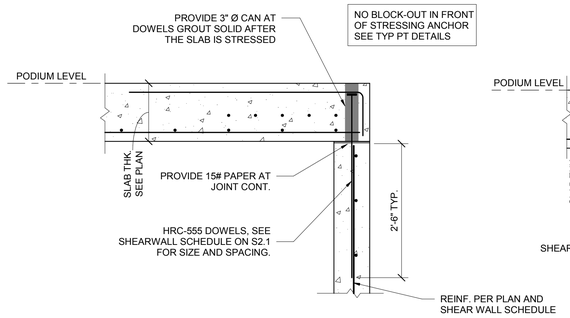
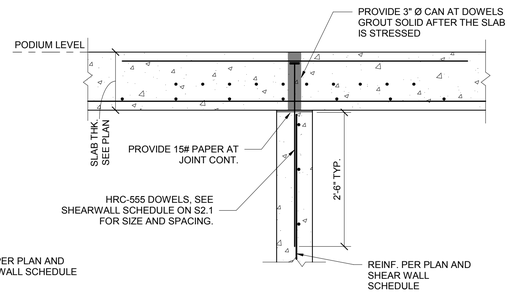
TYPICAL POST-TENSIONED CONCRETE DETAILS

S1.03A

SHEET NO.



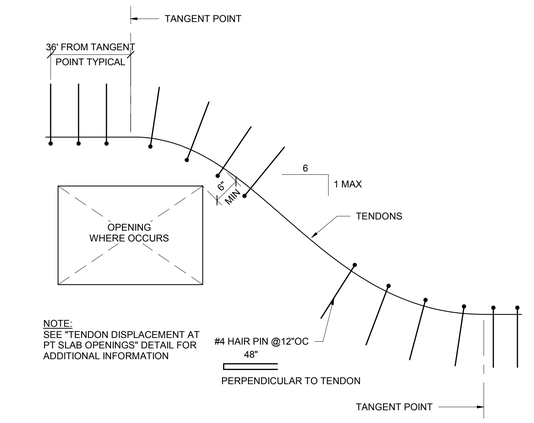
AT TOP LEVEL
EDGE CONDITION



AT TOP LEVEL
INTERIOR CONDITION

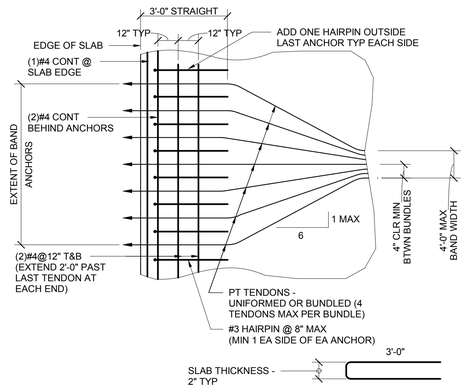
6 CONCRETE WALL TO PT SLAB SLIP JOINT CONNECTION

NTS

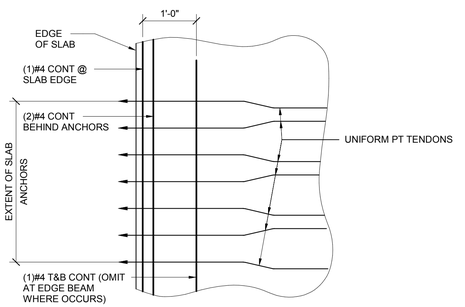


2 TYPICAL TENDON AT OPENING (PLAN VIEW)

NTS



PLAN AT BANDED TENDONS



PLAN AT UNIFORM TENDONS

4 TYPICAL REINFORCING AT PT SLAB EDGE (STRESSING, INTERMEDIATE OR DEAD END)

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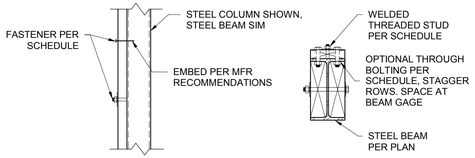
TYPICAL
POST-TENSIONED
CONCRETE DETAILS

S1.03B

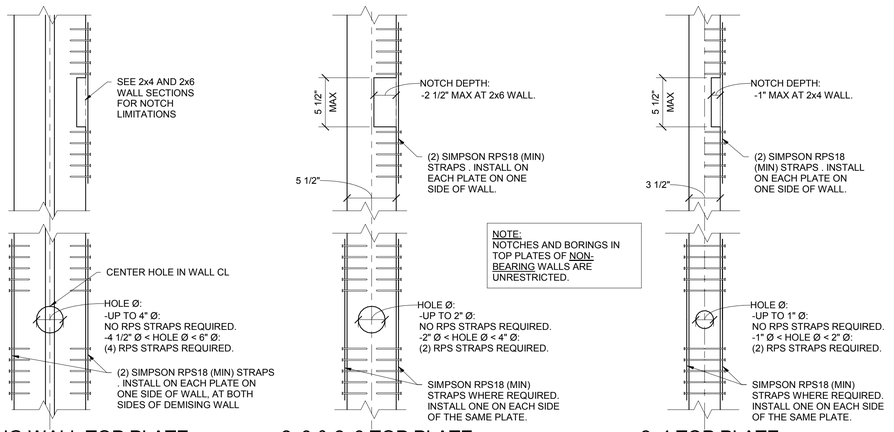
SHEET NO.



	FASTENER SPACING	
FASTENER TYPE	TYPICAL (UNO)	@ WOOD SHEAR WALL END (NOTE 1) & AT STEEL BEAM SUPPORTING SHEAR WALL
0.145"Ø PAF	24" O/C	NOT ALLOWED, USE WELDED STUDS OR THROUGH BOLTS
5/8"Ø WELDED THREADED STUDS	48" O/C	6 x TYP EDGE NAIL SPACING, 24" MAX
5/8"Ø THROUGH BOLTS IN STAGGERED ROWS	48" O/C	6 x TYP EDGE NAIL SPACING, 24" MAX

NOTES:
1. WHERE SEPARATE WOOD POST AND HOLDOWN ARE INDICATED ON PLANS, THIS DETAIL SHALL NOT APPLY.
2. ONE ADDITIONAL FASTENER SHALL BE PROVIDED 6" FROM EACH END OF STUD/NAILER.
3. PROVIDE MIN 2x WOOD NAILER ON ALL SIDES OF STL COL ADJOINING WOOD FRAMING, UNLESS NOTED OTHERWISE.

9 TYP WOOD NAILER TO STEEL BEAM / COLUMN
NTS

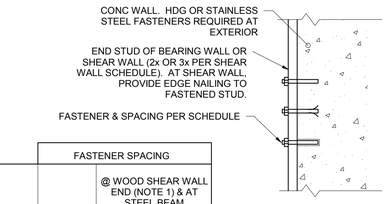


DEMISING WALL TOP PLATE (PLAN VIEW)

2x6 & 2x8 TOP PLATE (PLAN VIEW)

2x4 TOP PLATE (PLAN VIEW)

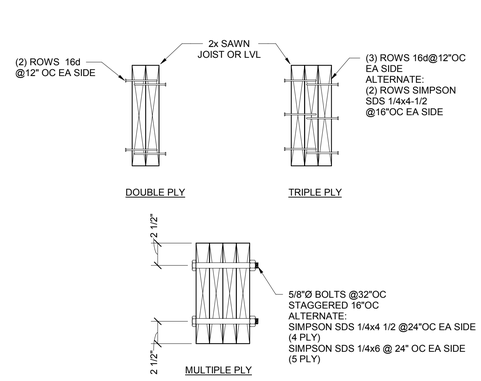
6 LIMITS ON NOTCH AND BORING IN TOP PLATES
NTS



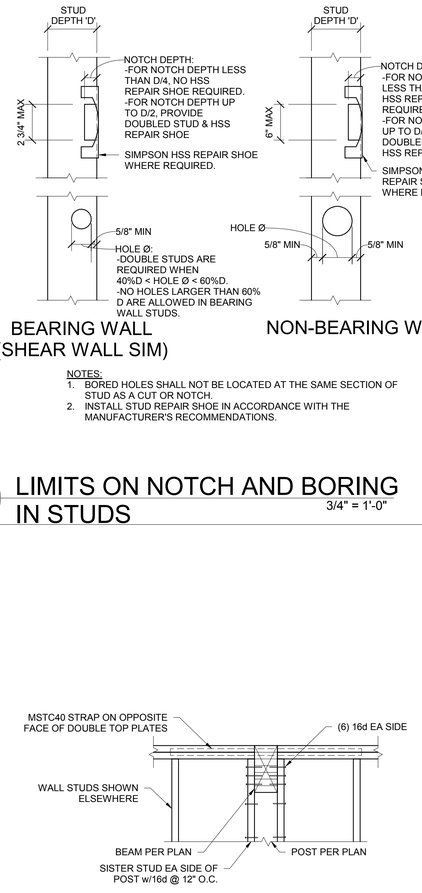
	FASTENER SPACING	
FASTENER TYPE	TYPICAL (UNO)	@ WOOD SHEAR WALL END (NOTE 1) & AT STEEL BEAM SUPPORTING SHEAR WALL
5/8"Ø SIMPSON TITEN HD SCREW WITH 4 1/2" MIN EMBED	48" O/C	6 x TYP EDGE NAIL SPACING, 24" MAX
5/8"Ø SIMPSON STRONG BOLT-2 W/ 4" MIN EMBED	48" O/C	6 x TYP EDGE NAIL SPACING, 24" MAX
5/8" Ø EPOXY ANCHOR	48" O/C	6 x TYP EDGE NAIL SPACING, 24" MAX

NOTES:
1. WHERE SEPARATE WOOD POST AND HOLDOWN ARE INDICATED ON PLANS, THIS DETAIL SHALL NOT APPLY.
2. ONE ADDITIONAL FASTENER SHALL BE PROVIDED 6" FROM EACH END OF STUD/NAILER.
3. THIS DETAIL DOES NOT APPLY AT SILL PLATES. SEE 3/S1.04C & THE STRUCTURAL NOTES.

11 TYP WOOD NAILER TO CONC ELEMENT
NTS

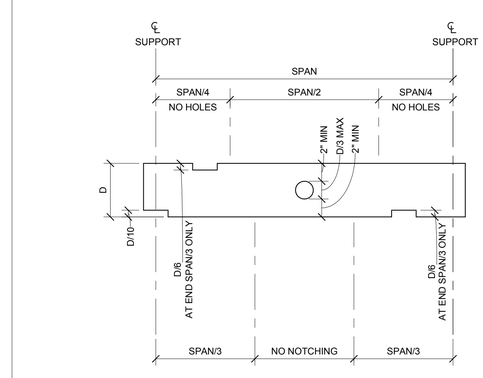


8 MULTIPLE SAWN JOIST / LVL CONNECTIONS
NTS



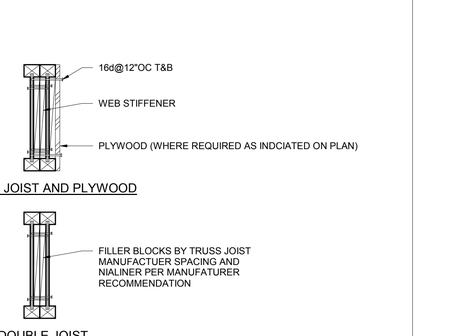
NOTES:
1. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A CUT OR NOTCH.
2. INSTALL STUD REPAIR SHOE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

5 LIMITS ON NOTCH AND BORING IN STUDS
3/4" = 1'-0"

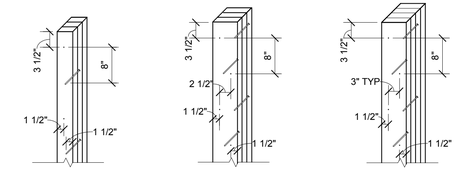


NOTE:
1. CENTER PENETRATION SHALL BE LOCATED AT MID-DEPTH OF BEAM
2. ONLY ONE JOIST NOTCH ALLOWED PER BEAM
3. NOTIFY ENGINEER FOR REVIEW FOR ANY PENETRATION THAT DOES NOT MEET THE REQUIREMENTS NOTED ABOVE.

2 WOOD JOIST & BEAM NOTCH & HOLE DIAGRAM
NTS



10 MULTIPLE I-JOIST CONNECTIONS
NTS



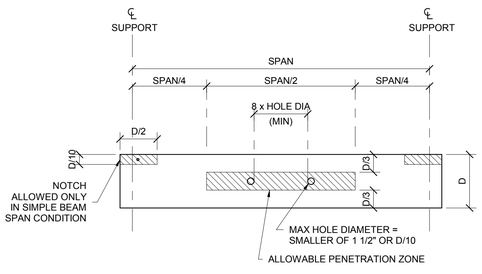
NOTES:

1. ALL NAILS MUST PENETRATE AT LEAST 3/4 OF THE THICKNESS OF THE LAST LAMINATION.
2. ADJACENT NAILS ARE DRIVEN FROM OPPOSITE SIDE OF THE COLUMN.
3. REFER TO NDS 2015 FOR ALL OTHER REQUIREMENTS.
4. SIZES NOT SHOWN MUST USE SOLID POSTS OR EQUIVALENT LAMINATED POST.

LAMINATED POST SCHEDULE			
POST SIZE	POST ALT	FASTNERS [1]	DRAWING [2]
4X4	(3)-2x4	30d	TYPE A
4X6 IN 4" WALL	(4)-2x4	60d	TYPE C
4X6 IN 6" WALL	(3)-2x6	30d	TYPE B
6x6	(4)-2x6	60d	TYPE B

7 TYP NAILING SCHEDULE FOR LAMINATED POST ALTERNATIVES
NTS

4 TYPICAL BEAM POCKET IN WALL
3/4" = 1'-0"



NOTE:
1. PENETRATIONS SHALL BE LOCATED AT MID-DEPTH OF BEAM, IN THE MIDDLE HALF OF THE SPAN
2. ONLY ONE JOIST NOTCH ALLOWED PER BEAM
3. NOTIFY ENGINEER FOR REVIEW FOR ANY PENETRATION THAT DOES NOT MEET THE REQUIREMENTS NOTED ABOVE.
4. MAXIMUM NUMBER OF HOLES = SPAN/5

1 GLULAM BEAM NOTCH & HOLE DIAGRAM
NTS

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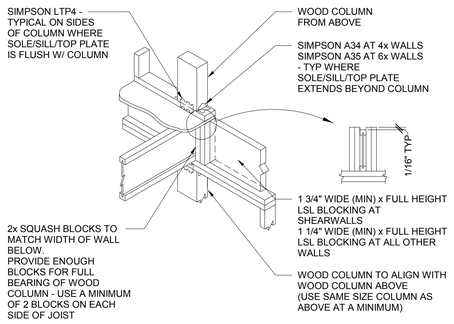
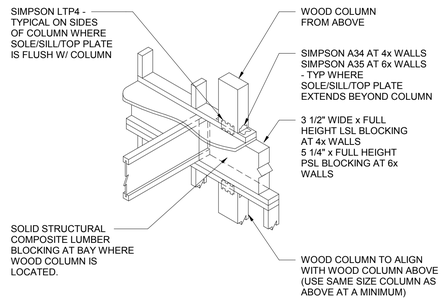
TYPICAL WOOD DETAILS

S1.04

SHEET NO.



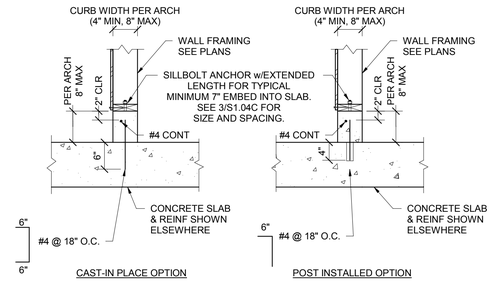
WOOD COLUMN LANDING ON FLOOR JOIST



WOOD COLUMN LANDING BETWEEN FLOOR JOISTS

12 COLUMN BLOCKING AT TJI FLOOR FRAMING

NTS

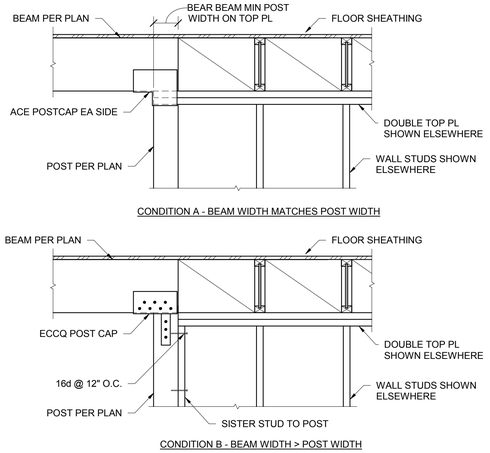


CAST-IN PLACE OPTION

POST INSTALLED OPTION

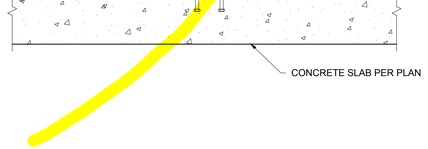
6 TYPICAL CURB ON CONCRETE SLAB

NTS



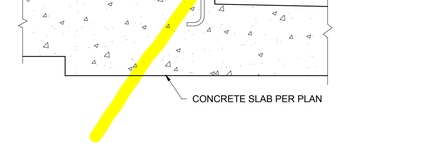
3 TYP POST UNDER BEAM AT END OF WALL

NTS



11 TYP INT PARTY/BEARING WALL AT CONC SLAB

NTS



8 TYP EXT BEARING WALL AT CONC SLAB

NTS

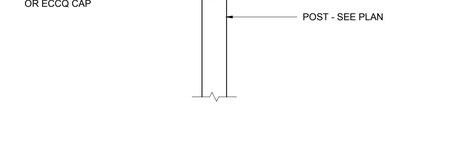
END OF BEAM

AT SPLICE/CONT BEAM

NOTE:
1. ACE TYPE POST CAP INSTALLED IN PAIRS PER SIMPSON.
2. ECCQ/CCQ CAP IS INDICATED ON PLAN AT THE SUPPORTED BEAM.

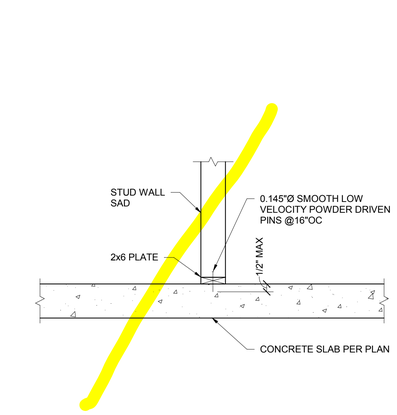
5 TYP BEAM TO POST DETAILS

NTS



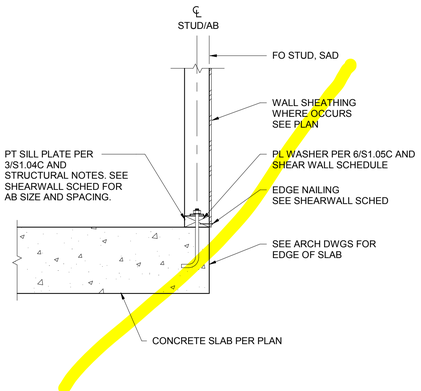
2 TYP POST TO BEAM PARALLEL TO JOISTS

NTS



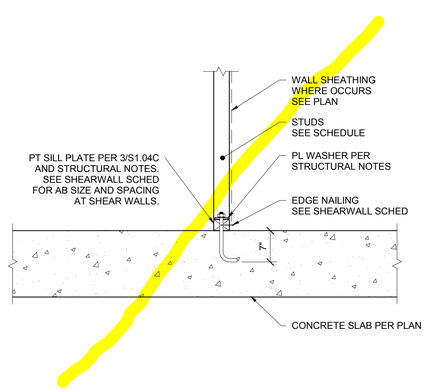
10 TYP INT (NON-BEARING) WALL TO CONC SLAB CONN DETAIL

NTS



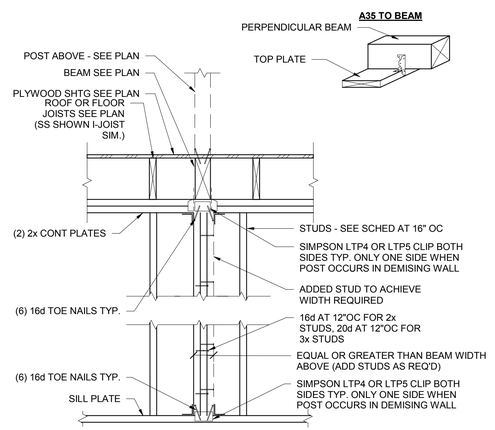
7 TYP BEARING WALL AT CONCRETE SLAB EDGE

NTS



4 TYP INT BEARING WALL AT CONC SLAB

NTS



1 TYP POST IN STUD WALL AT BEAM

NTS

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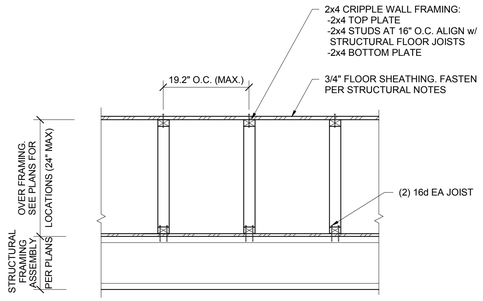
TYPICAL WOOD DETAILS

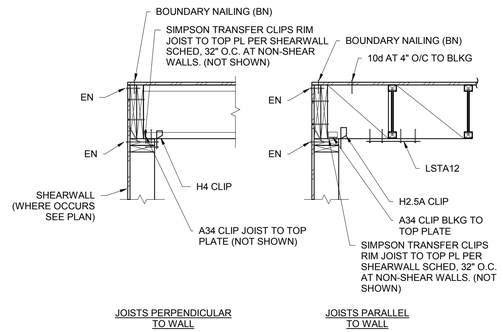
S1.04A

SHEET NO.



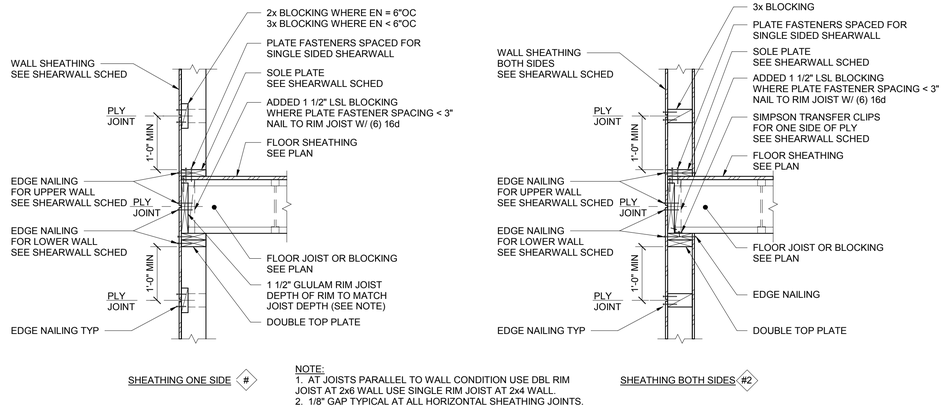
12 TYPICAL FLOOR OVERFRAMING

NTS



9 ROOF SECTION W/O PARAPET

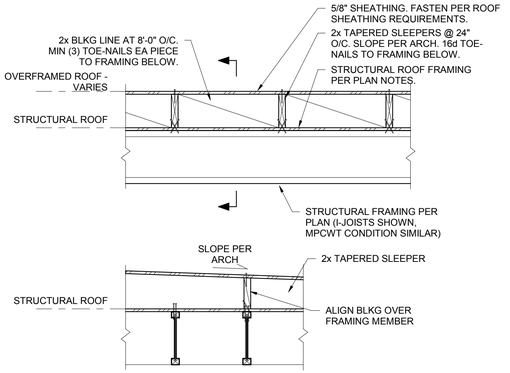
NTS



NOTE:
1. AT JOISTS PARALLEL TO WALL CONDITION USE DBL RIM JOIST AT 2x6 WALL USE SINGLE RIM JOIST AT 2x4 WALL.
2. 1/8" GAP TYPICAL AT ALL HORIZONTAL SHEATHING JOINTS.

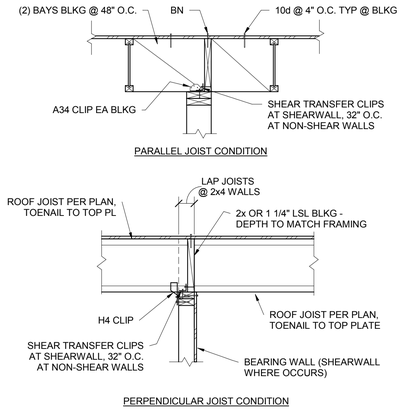
6 ALTERNATE FLOOR CONNECTION DETAIL AT SHEARWALL

NTS



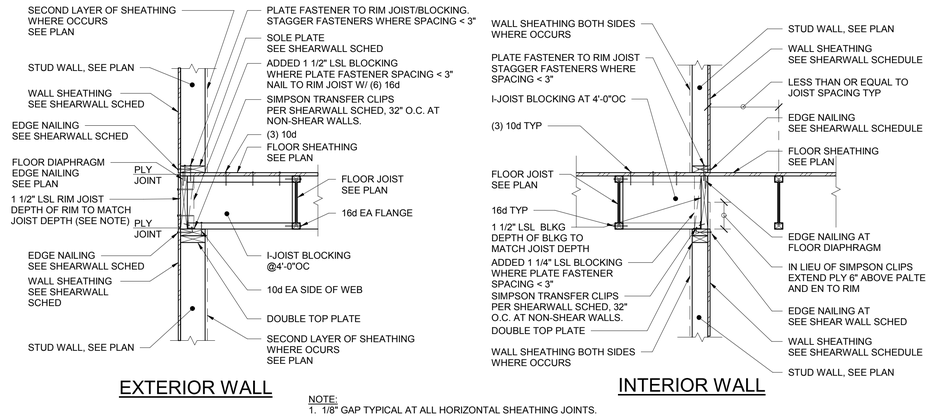
11 TYP ROOF OVERFRAMING

NTS



8 TYPICAL ROOF JOIST TO INTERIOR BEARING WALL

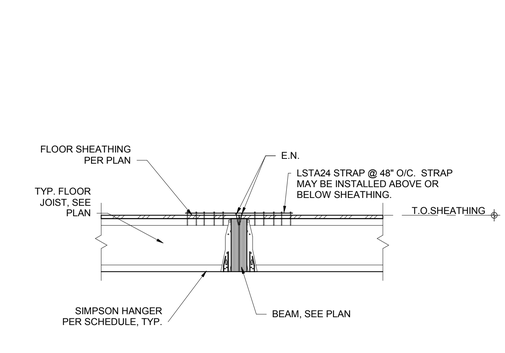
NTS



NOTE:
1. 1/8" GAP TYPICAL AT ALL HORIZONTAL SHEATHING JOINTS.

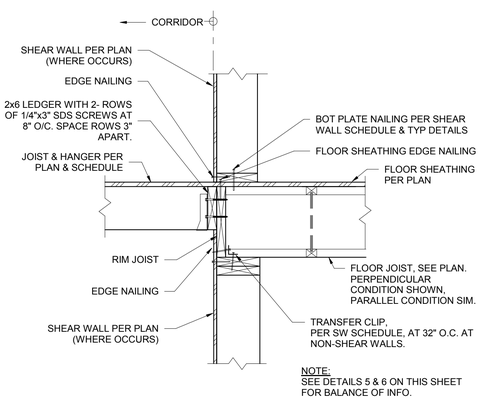
5 TYP FLOOR JOIST PARALLEL TO STRUCTURAL WALL

NTS



10 TYP FLUSH FRAMED BEAM

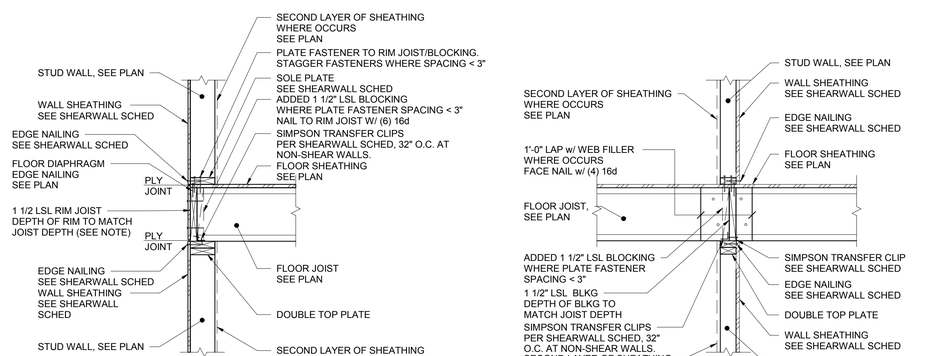
NTS



NOTE:
SEE DETAILS 5 & 6 ON THIS SHEET FOR BALANCE OF INFO.

7 TYPICAL FLOOR SECTION AT CORRIDOR

NTS



NOTE:
1. USE DBL RIM JOIST AT 2x6 WALL ABOVE USE SINGLE RIM JOIST AT 2x4 WALL ABOVE.
2. 1/8" GAP TYPICAL AT ALL HORIZONTAL SHEATHING JOINTS.

4 TYP FLOOR JOIST PERPENDICULAR TO STRUCTURAL WALL

NTS

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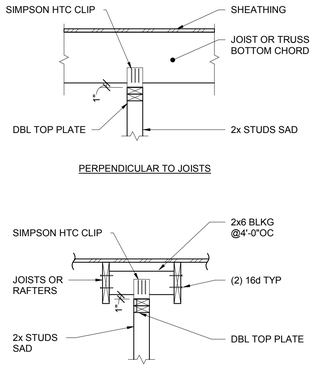
TYPICAL WOOD DETAILS

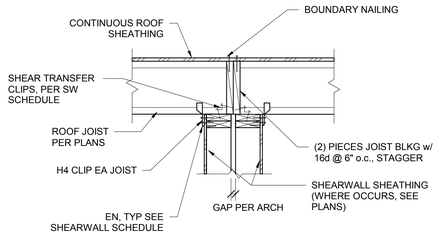
S1.04B

SHEET NO.



12 NON BRG WALL CONNECTION AT FLOOR FRAMING

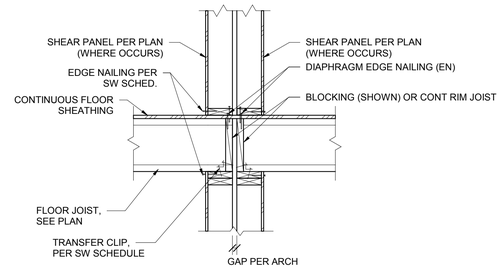
NTS



NOTE: REF DETAILS 4 & 5/S1.04B FOR ADDITIONAL INFO.

9 TYPICAL PARTY WALL SECTION AT ROOF

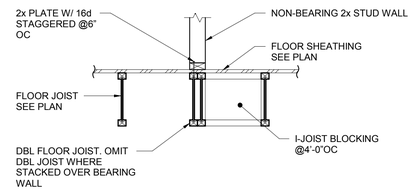
3/4" = 1'-0"



NOTE: REF DETAILS 4 & 5/S1.04B FOR ADDITIONAL INFO.

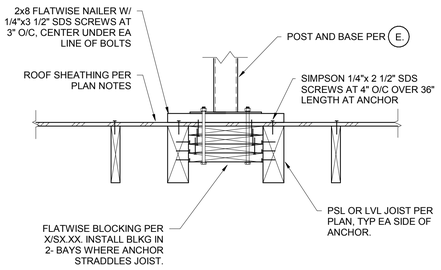
6 TYPICAL PARTY WALL SECTION AT FLOOR

3/4" = 1'-0"

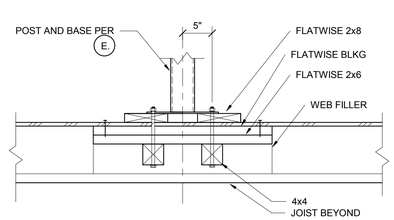


3 TYP JOIST PARALLEL TO NON-BRG WALL ABOVE

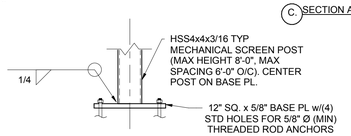
NTS



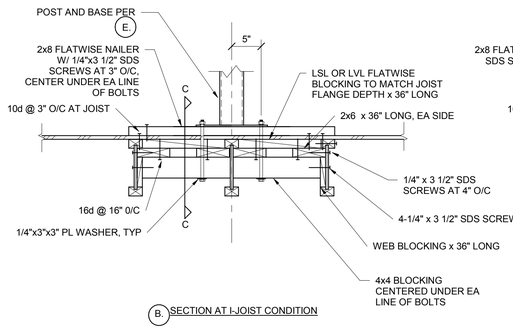
A. ANCHOR LOCATED ON PSL OR LVL JOIST (SEE I-JOIST CONDITION FOR ADD'L INFO)



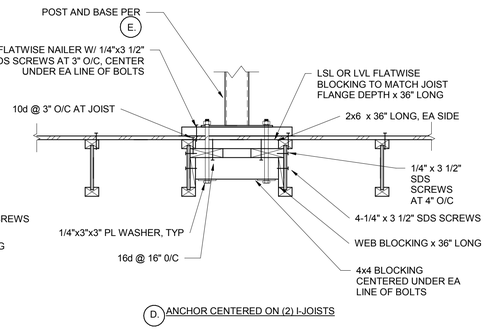
C. SECTION AT I-JOIST CONDITION



E. POST & ANCHOR PLATE



B. SECTION AT I-JOIST CONDITION

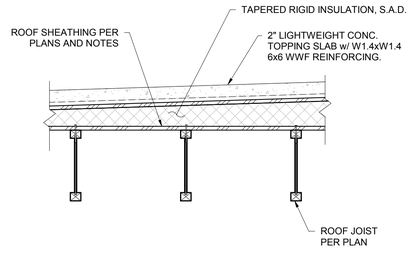


D. ANCHOR CENTERED ON (2) I-JOISTS

NOTE: SEE ARCH ROOF PLANS FOR MECHANICAL SCREEN LOCATIONS

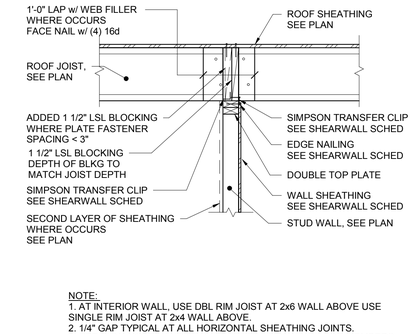
10 TYPICAL ROOF MOUNTED SCREEN POST AND ANCHORAGE

NTS



5 2" CONC. SLAB AT BBQ

1" = 1'-0"



NOTE:
1. AT INTERIOR WALL, USE DBL RIM JOIST AT 2x6 WALL ABOVE USE SINGLE RIM JOIST AT 2x4 WALL ABOVE.
2. 1/4" GAP TYPICAL AT ALL HORIZONTAL SHEATHING JOINTS.
3. SEE PLAN NOTES AND ARCHITECTURAL DRAWINGS FOR MEMBERS REQUIRED TO BE FIRE-RETARDANT TREATED.

2 ROOF TERRACE FRAMING @ INTERIOR BEARING WALL

3/4" = 1'-0"

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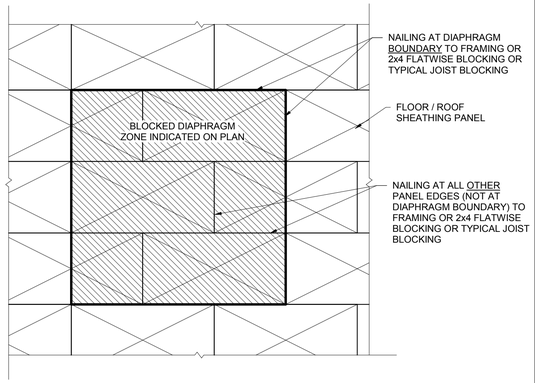
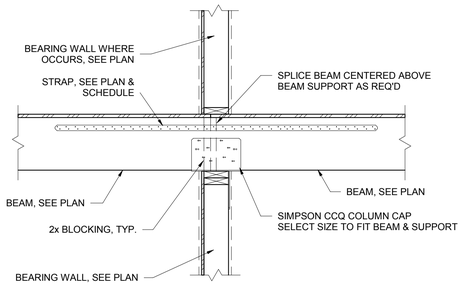
TYPICAL WOOD DETAILS

S1.04C

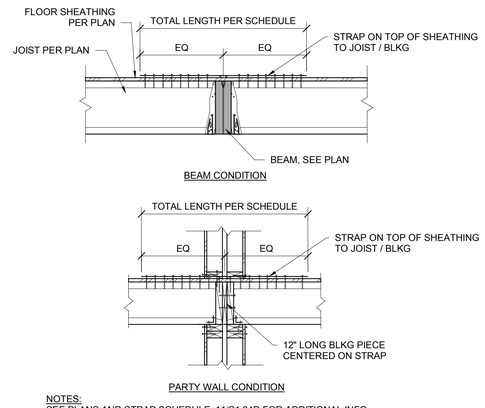
SHEET NO.



12 TYP FLOOR / ROOF DIAPHRAGM BLOCKING & NAILING — NTS

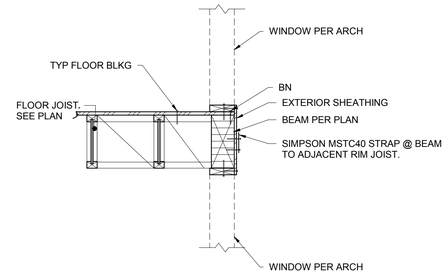


9 COLLECTOR DETAIL B — NTS



NOTES:
SEE PLANS AND STRAP SCHEDULE 11/S1.04D FOR ADDITIONAL INFO.

6 TYP STRAP ACROSS BEAM & PARTY WALL — 3/4" = 1'-0"



3 TYP FLOOR SECTION AT FULL-HEIGHT WINDOWS — 3/4" = 1'-0"

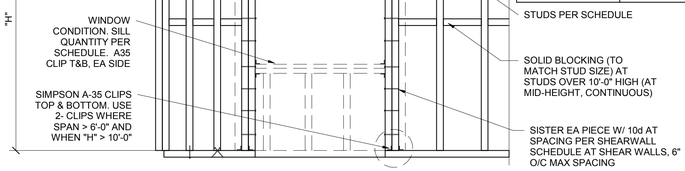
STRAP SCHEDULE

TYPE	DIMENSION "A"	DIMENSION "B"	SIMPSON MODEL No.	STRAP LENGTH (NOTE 3)	NAIL	NAIL SPACING
1	4'-0"	4'-0"	CMST12	8'-0"	10d	PER MANUF RECOMMENDATIONS
2	4'-0" (U.N.O. ON PLAN)	PER PLAN	CMST12	PER PLAN	10d	
3	3'-0"	3'-0"	CMST14	6'-0"	10d	
4	3'-0" (U.N.O. ON PLAN)	PER PLAN	CMST14	PER PLAN	10d	
5	2'-0"	2'-0"	CS14	4'-0"	10d	
6	2'-0" (U.N.O. ON PLAN)	PER PLAN	CS14	PER PLAN	10d	
7	2'-0"	2'-0"	CS16	4'-0"	10d	
8	2'-0" (U.N.O. ON PLAN)	PER PLAN	CS16	PER PLAN	10d	

NOTES:

1. STRAP SHOWN ON PLAN AS: (#) TOTAL LENGTH
2. WIDTH OF JOIST/BLOCKING BELOW STRAP MUST MATCH WIDTH OF SIMPSON STRAP REQUIRED. ADDITIONAL JOIST/BLOCKING/TRUSS PLYS MAY BE REQUIRED.
3. REFERENCE TYPICAL STRAP DETAILS 6, 9, 10/S1.04D.

11 STRAP SCHEDULE — NTS

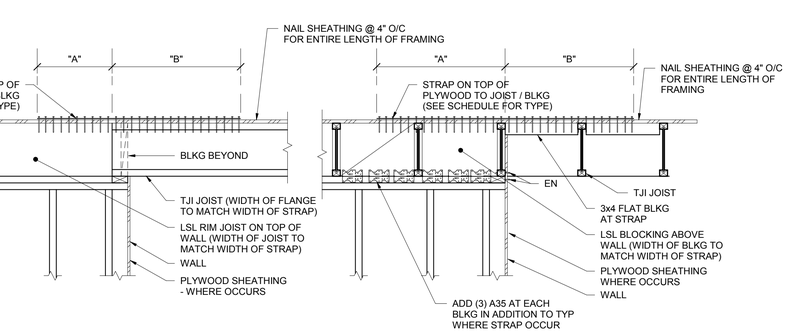


EXT WALL HEADER SCHEDULE

"W" WIDTH OF OPENING	HEADER (UON)	CRIPPLES	JAMBS* SEE NOTE	SILLS
3'-6" MAX	(3)2x6	1	1	1
3'-6" TO 6'-0" MAX	6x8	1	1	1
6'-0" TO 9'-0" MAX	5 1/8 x 9 GL	2	2	2
9'-0" TO 12'-0" MAX	SEE PLANS	2	2	2

NOTE:
* PROVIDE 1 ADDITIONAL JAMB STUD EA SIDE OF HEADER WHERE HEADER SUPPORTS 4 OR MORE LEVELS.

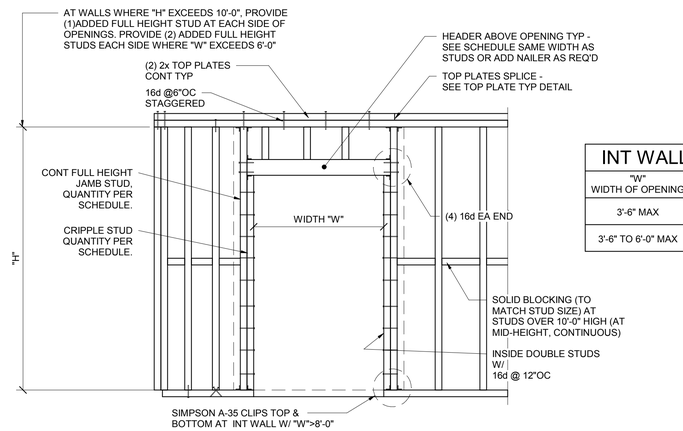
5 TYPICAL EXTERIOR STUD WALL HEADER — NTS



STRAP PARALLEL TO JOIST

STRAP PERPENDICULAR TO JOIST (SEE LEFT FOR PARALLEL RIM JOIST CONDITION)

10 TYP FLOOR STRAPPING — NTS



INT WALL HEADER SCHEDULE

"W" WIDTH OF OPENING	HEADER (UNO)	CRIPPLES	JAMBS
3'-6" MAX	4 x 8 DF1	1	1
3'-6" TO 6'-0" MAX	4 x 10 DF1	2	1

4 TYPICAL INTERIOR STUD WALL HEADER — NTS

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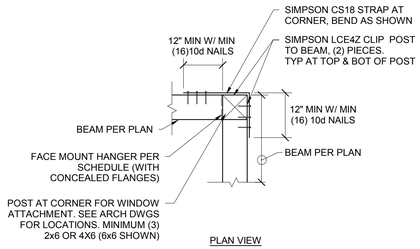
TYPICAL WOOD DETAILS

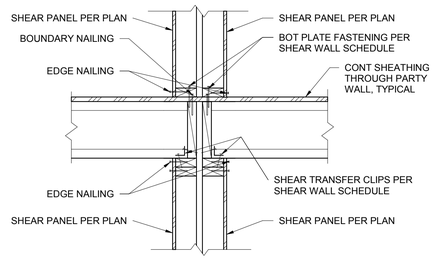
S1.04D

SHEET NO.



12 CORNER POST DETAIL

3/4" = 1'-0"



NOTE:
SEE DETAILS 18 & 19/S6.02 FOR BALANCE OF INFO.

9 SHEAR WALL AT PARTY WALL

1" = 1'-0"

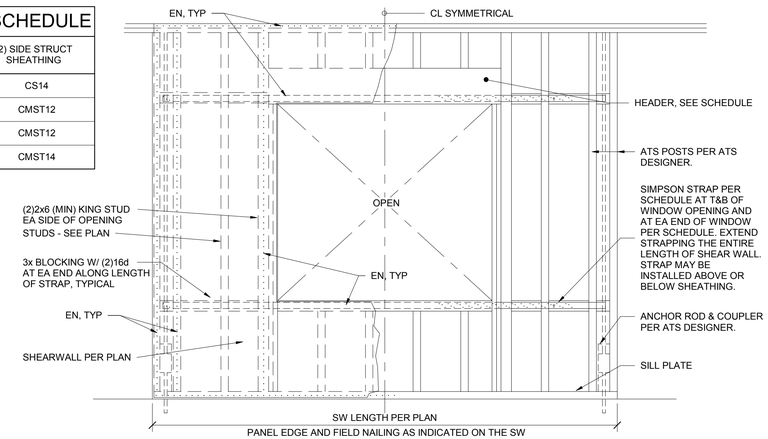
SHEARWALL STRAP SCHEDULE		
FLOOR LEVEL	(1) SIDE STRUCT SHEATHING	(2) SIDE STRUCT SHEATHING
4TH	CS14	CS14
3RD	CMST12	CMST12
2ND	CMST12	CMST12
PODIUM	CMST14	CMST14

NOTES:
1. SEE 4/S1.04F FOR EXTENT OF STRUCTURAL SHEATHING.
2. INSTALL STRAPS ON EACH SIDE OF WALL AT 2- SIDED SHEAR WALLS.

LEGEND

ASTERISK INDICATES SHEAR WALL WITH OPENING.

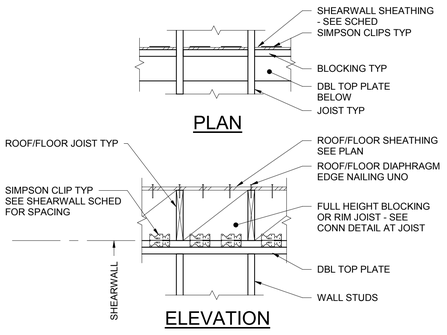
X* XX'-XX"



PANEL EDGE AND FIELD NAILING AS INDICATED ON THE SW SCHEDULE APPLIES FOR ALL PANELS, INCLUDING PANELS ABOVE & BELOW WINDOW OPENINGS.

6 SHEARWALL W/ OPENING DETAIL

NTS



PLAN

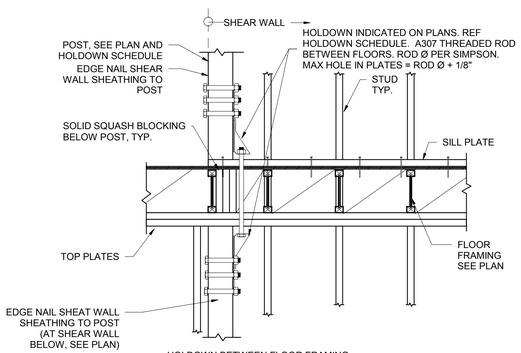
ELEVATION

11 TYP SHEARWALL BLOCKING DETAIL

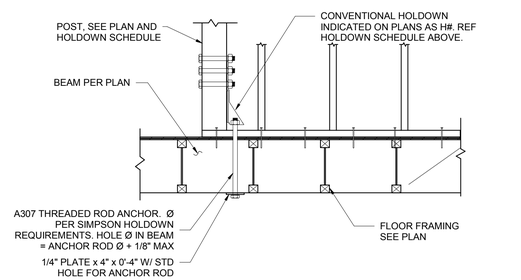
3/4" = 1'-0"

CONVENTIONAL HOLDOWN SCHEDULE (NON-ATS)[1,2,3,4]				
NOTED ON PLAN AS: H#				
HD MARK (SEE PLAN)	CONVENTIONAL SIMPSON HD's			
	MODEL	ANCHOR SIZE	POST IN 4x WALL	POST IN 6x WALL
H5	HDU5-SDS2.5	5/8" ø	4x6	6x6
H11	HDU11-SDS2.5	1" ø	4x6	6x6
H14	HDU14-SDS2.5	1" ø THREAD ROD	4x8	6x6

HOLDOWN SCHEDULE NOTES:
1. TYPICAL POST SIZE SHOWN IN SCHEDULE, UNLESS NOTED OTHERWISE ON PLAN.
2. WHEN USING STRUCTURAL COMPOSITE LUMBER POSTS, SCREWS MUST BE APPLIED TO WIDE FACE.
3. NOTCHES ARE NOT ALLOWED IN SHEAR WALL END POSTS.



HOLDOWN BETWEEN FLOOR FRAMING

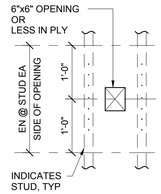


HOLDOWN AT BEAM BELOW SHEAR WALL

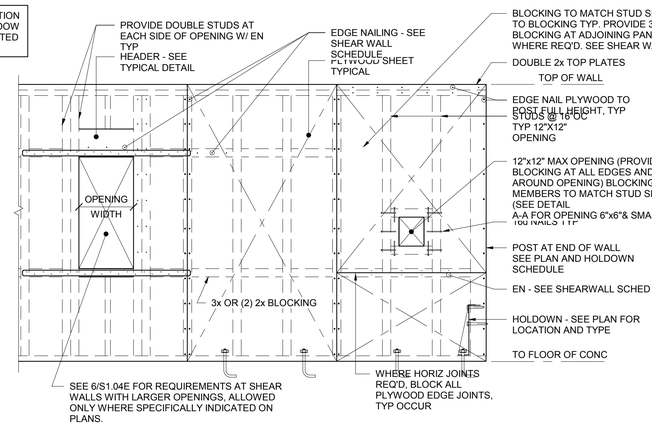
7 CONVENTIONAL SIMPSON HOLDOWN DETAILS (NON-ATS)

NTS

SEE TYPICAL STUD WALL DETAIL FOR INFORMATION NOT NOTED. OPENINGS DO NOT APPLY TO WINDOW OR DOOR OPENINGS UNLESS SPECIFICALLY NOTED ON PLAN OR DETAILS.

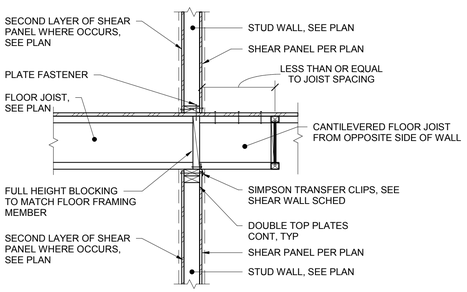


DETAIL A-A



5 TYP WOOD SHEARWALL ELEVATION

NTS



10 INT WALL FRAMING @ SHEAR WALL JOIST PER/PARA TO WALL

NTS

SHEAR WALL SCHEDULE									
MARK	SHEATHING (NOMINAL THK)[1]	SIDES	PLYWOOD NAILING		3x SILL W/ 3/4"Ø SILL PLATE ANCHOR BOLT	2X BOTTOM PLATE W/ 16d PLATE FASTENER (UON)	TRANSFER CLIPS: A35 OR LTP4	CAPACITY	REMARKS
			EDGE (EN)	FIELD (FN)					
6	1/2"	ONE	10d@6"oc	10d@12"oc	@48"oc	@8"oc	@20"oc	340 PLF	SEE NOTE 3 3X BLKG OR DBL BLOCK 3X SILL @ CONC
4	1/2"	ONE	10d@4"oc	10d@12"oc	@48"oc	@6"oc	@16"oc	510 PLF	
3	1/2"	ONE	10d@3"oc	10d@12"oc	@24"oc	@4"oc	@12"oc	665 PLF	
2	1/2"	ONE	10d@2"oc	10d@12"oc	@36"oc	@2"oc	@8"oc	870 PLF	
42	1/2"	TWO	10d@4"oc	10d@12"oc	@32"oc	1/4" SIMPSON SDS SCREW X 4 1/2" @4"oc	@8"oc	1020 PLF	
32	1/2"	TWO	10d@3"oc	10d@12"oc	@24"oc	1/4" SIMPSON SDS SCREW X 4 1/2" @3"oc	@6"oc	1330 PLF	
22	1/2"	TWO	10d@2"oc	10d@12"oc	@16"oc	1/4" SIMPSON SDS SCREW X 4 1/2" @2.5"oc	@4"oc	1740 PLF	

NOTES:
1. APA RATED, STRUCTURAL I SHEATHING, 15/32 MIN. SEE GENERAL NOTES FOR ADDITIONAL SHEATHING INFO. SHEAR WALLS WITH SHEATHING ON BOTH SIDES SHALL BE CONSTRUCTED WITH OSB SHEATHING.
2. ALL NAILS SHALL BE COMMON WIRE NAILS WITH 1 1/4" MIN PENETRATION INTO FRAMING.
3. FOR TRANSER NAILING PREDRILL HOLES FOR NAILS WHERE NAILS TEND TO SPLIT WOOD.
4. PROVIDE 3x STUDS OR 3x BLKG AT ADJOINING PANEL EDGES WHERE NAILS ARE SPACED 4" OR LESS. (ALT USE TWO 2x STUDS OR BLKG FASTENED TOGETHER W/ 16d NAILS SPACED AT REQUIRED EDGE NAILING OF SUBJECT SHEARWALL).
5. PROVIDE BLOCKING IN SHEAR WALL PER TYPICAL SHEARWALL ELEVATION DETAIL.
6. STAGGER VERTICAL JOINTS IN PLYWOOD SHEETS WHERE SHEAR WALLS ARE SHEATHED ON BOTH SIDES.
7. WHERE ROOF JOISTS ARE PERPENDICULAR TO SHEAR WALL, PROVIDE SIMPSON H1 CLIP FROM ROOF JOIST TO DBL PLATE IN ADDITION TO CLIP SHOWN ON SHEAR WALL SCHEDULE.
8. PLATE WASHERS AT SILL ANCHOR BOLTS IN SHEAR WALLS SHALL EXTEND TO WITHIN 1/2 INCH OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE(S) WITH SHEATHING. (USE SIMPSON BPS3/4-6 OR EQUAL AT 6 INCH NOMINAL WALLS). REFERENCE DETAIL 3/S1.04C FOR ADDTIONAL SILL BOLTING REQUIREMENTS.

4 SHEAR WALL SCHEDULE

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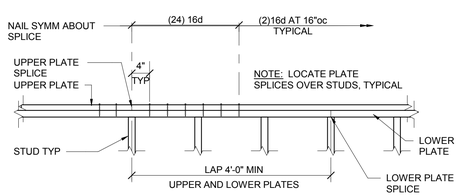
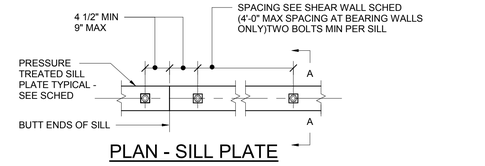
TYPICAL WOOD DETAILS

S1.04E

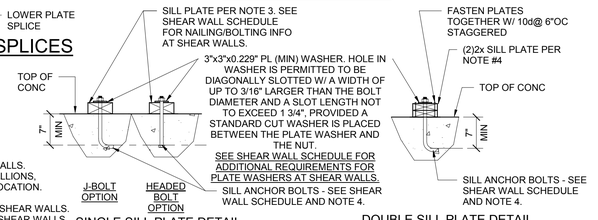
SHEET NO.



ELEVATION - STUD WALL TOP PLATE SPLICES



PLAN - SILL PLATE



SINGLE SILL PLATE DETAIL

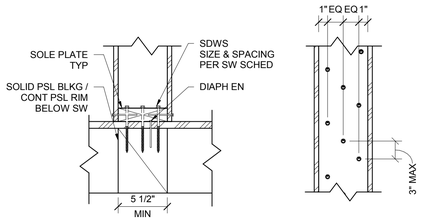
DOUBLE SILL PLATE DETAIL

SECTION A-A

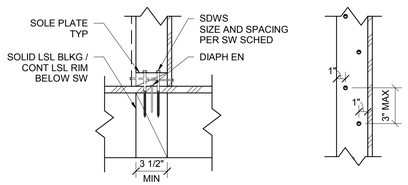
NOTES:
1. APPLY DETAIL TO WOOD PLATES OF ALL STRUCTURAL STUD WALLS.
2. BEFORE PLACING BOLTS, CHECK LOCATIONS OF ALL POST, MULLIONS, STUDS, ETC. TO INSURE THAT SUCH WILL NOT FALL AT BOLT LOCATION.
3. 3x SILL IS REQUIRED AT SHEAR WALL. USE 3x or (2)2x SILL AT CONTRACTOR'S OPTION. 2x SILL PLATE MAY BE USED AT NON-SHEAR WALLS.
4. SEE SHEAR WALL SCHEDULE FOR ANCHOR BOLT SPACING AT SHEAR WALLS. INSTALL 3/4"Ø A.B. @ 48" O/C (MAX SPACING) AT ALL OTHER BEARING WALLS. ANCHOR BOLTS MAY BE J-BOLT TYPE OR HEADED BOLT TYPE.

6 TOP AND BOTTOM PLATES OF STUD WALL

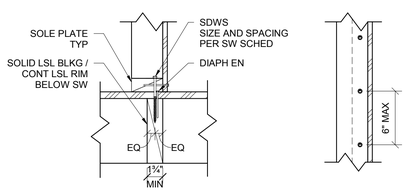
NTS



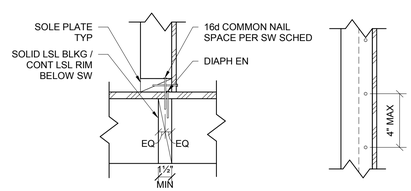
SCREWS SPACED LESS THAN 3" OC



SCREWS SPACED 3" OC TO 6" OC
& 16d NAILS SPACED LESS THAN 4" OC



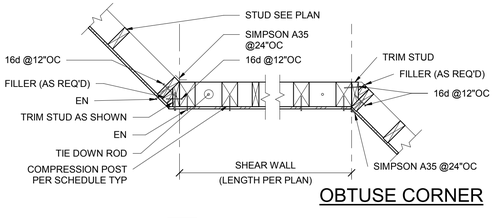
SCREWS SPACED 6" OC OR MORE



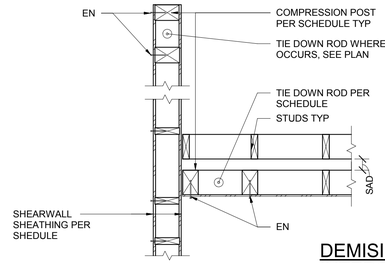
16d NAILS SPACED 4" OC OR MORE

10 SOLE PLATE CONNECTION AT SHEARWALL

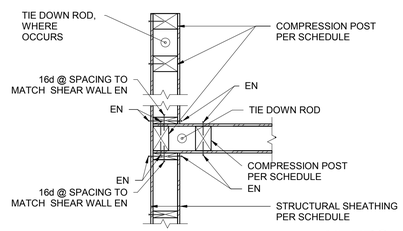
NTS



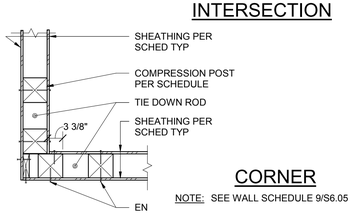
OBTUSE CORNER



DEMISING WALL INTERSECTION



INTERSECTION

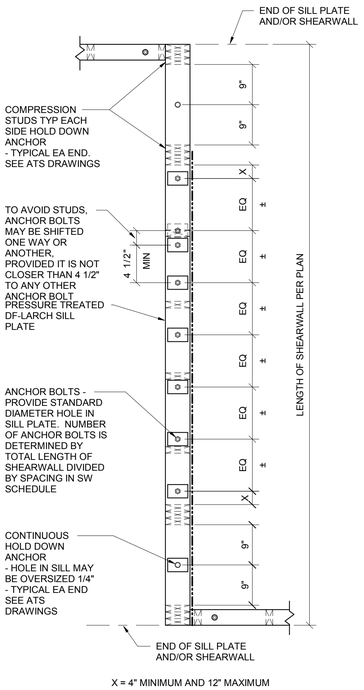


CORNER

NOTE: SEE WALL SCHEDULE 9/S6.05

7 WOOD STUD WALL CORNER DETAILS

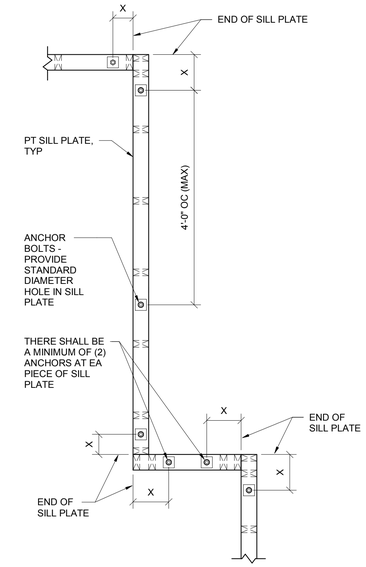
NTS



X = 4" MINIMUM AND 12" MAXIMUM

4 ANCHOR BOLT PLACEMENT FOR SHEARWALLS

NTS



X = 4" MINIMUM AND 12" MAXIMUM

1 ANCHOR BOLT PLACEMENT FOR EXT & BEARING WALLS

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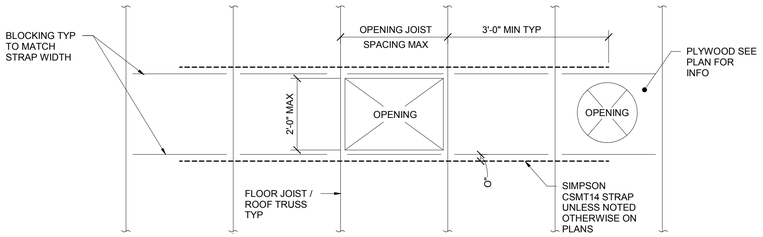
TYPICAL WOOD DETAILS

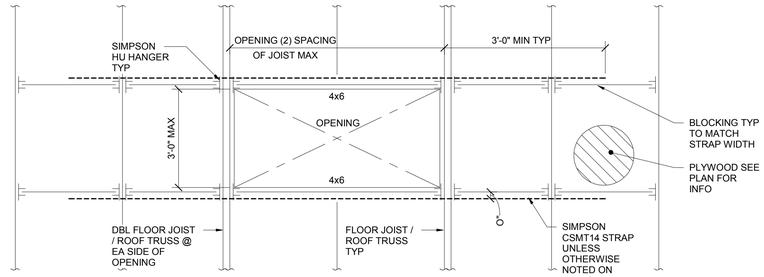
S1.04F

SHEET NO.



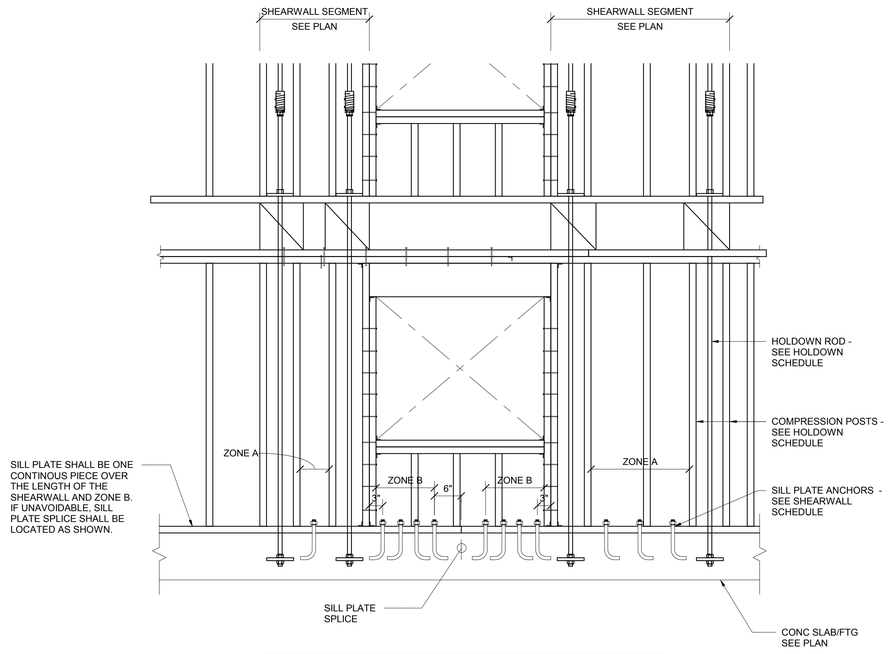
12 TYPICAL SMALL OPENING AT PLYWOOD DIAPHRAGM

NTS



6 TYPICAL LARGE OPENING AT PLYWOOD DIAPHRAGM

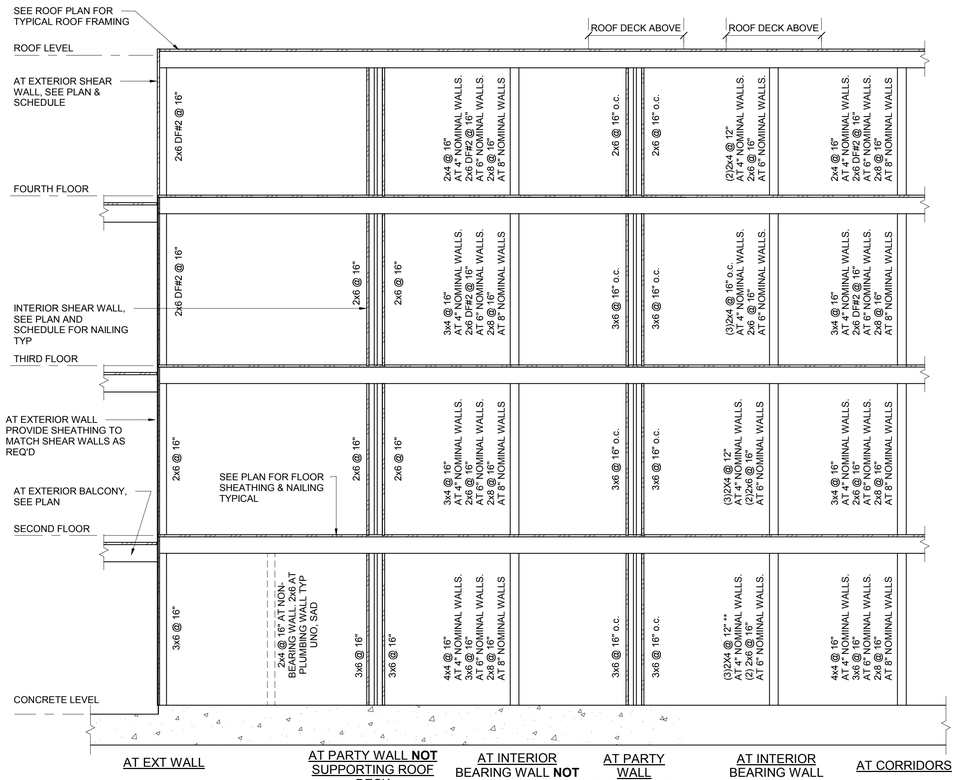
NTS



SHEARWALL LENGTH	TOTAL NUMBER OF ANCHORS	NUMBER OF ANCHORS		BOLT SPACING	
		ZONE A	ZONE B	ZONE A	ZONE B
3'-6" TO 4'-6"	AS REQUIRED	1	REMAINING ANCHORS	8"	6"
5'-0"	AS REQUIRED	3	REMAINING ANCHORS	8"	6"
5'-6"	AS REQUIRED	4	REMAINING ANCHORS	8"	8"

10 SILL PLATE ANCHOR LAYOUT AT SHORT (LESS THAN 6'-0") SHEARWALL SEGMENT

NTS



FOUR STORIES

NOTES:
1. ALL STRUCTURAL PANELS SHALL BE MANUFACTURED PER STRUCTURAL NOTES.
2. FOR SHEAR WALL NAILING, SEE PLAN AND SCHEDULE ON S6.04.
3. SEE PLAN FOR ROOF AND FLOOR FRAMING SIZES & SPACING.
4. WHERE SHEARWALL IS NOT NOTED ON PLAN, PROVIDE PLYWOOD OR SPACER TO MATCH ADJACENT SHEAR WALL THICKNESS.
5. BRACE ALL WALL STUDS WITH DIRECTLY APPLIED GYPSUM WALL BOARD OR 2x BLOCKING AT MID-HEIGHT OF STUD PRIOR TO CONSTRUCTION OF LEVEL ABOVE.
6. ** INDICATES MID-HEIGHT 2x BLOCKING IS REQUIRED.

4 TYPICAL STUD AND SHEATHING SCHEDULE/DIAGRAMS

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TYPICAL WOOD DETAILS

S1.04G

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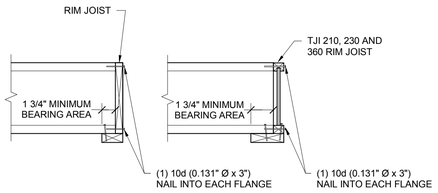
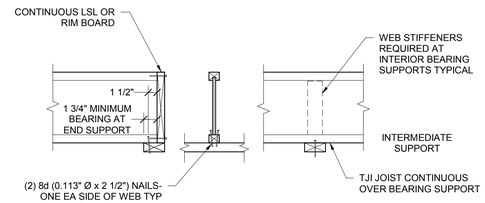


12 RIM TO TJI JOIST

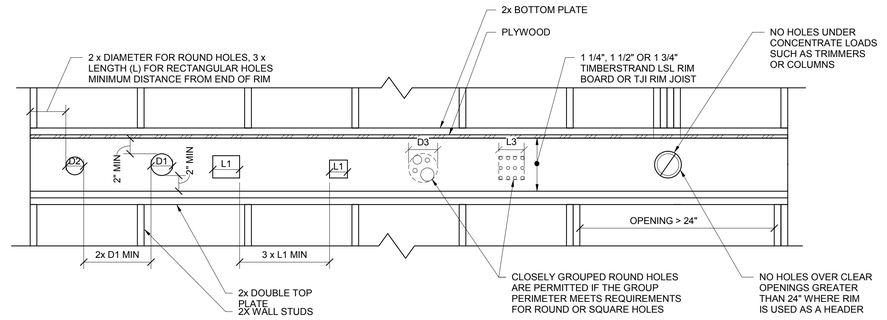
NTS



NOTE: IF BEAM OCCURS ABOVE PLATE AND 1 3/4" MINIMUM BEARING IS NOT ATTAINED EACH TJI JOIST SHALL SIT IN SIMPSON HANGER- TYPICAL

9 TJI JOIST TO BEARING PLATE

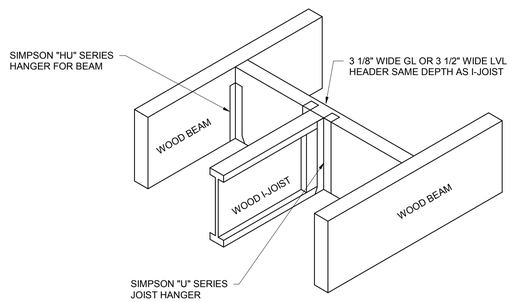
NTS



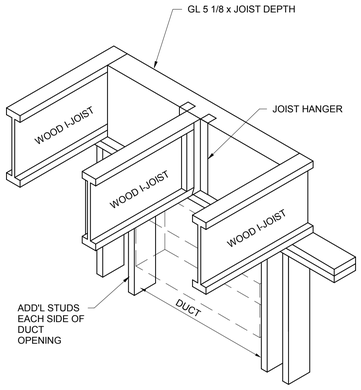
NOTES:
1. LEAVE 1/8" WEB (MINIMUM) AT TOP AND BOTTOM OF HOLE. DO NOT CUT JOIST FLANGES.
2. TABLES ARE BASED ON UNIFORMLY LOADED JOISTS (IE. NO POINT LOADS SUCH AS WALLS OR COLUMNS OUT IN THE SPAN). IF SUCH LOADS EXIST,CONTACT ENGINEER OR APPROVAL OR PROPOSED HOLE LAYOUT.

6 ALLOWABLE HOLES - RIM JOIST

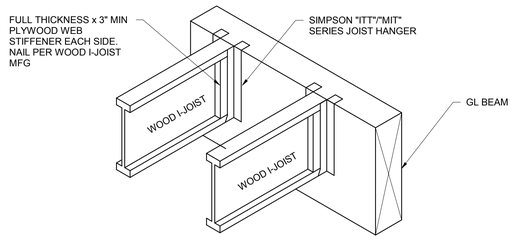
NTS



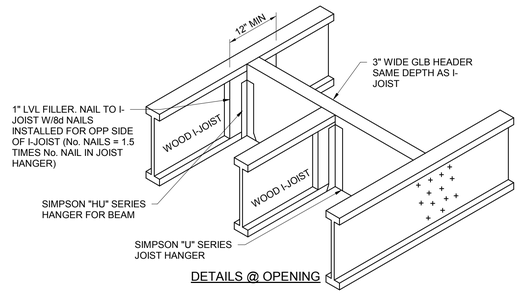
DETAILS AT OPENING



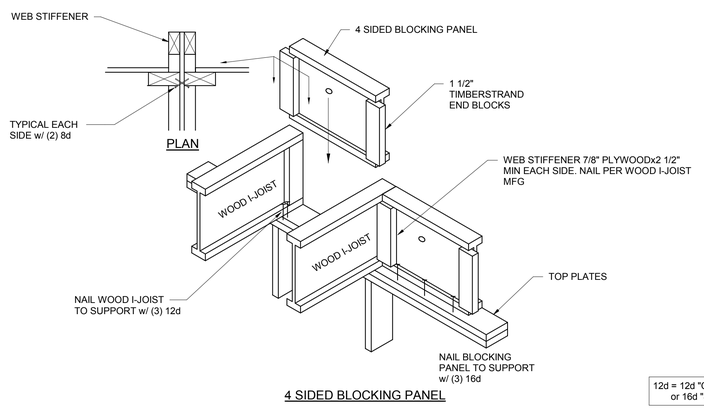
DETAILS AT DUCTS



DETAILS AT GL BEAM

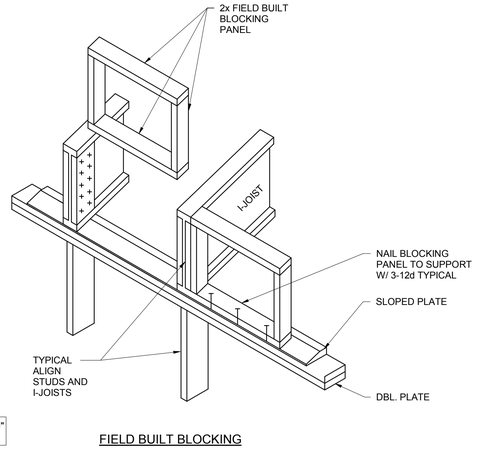


DETAILS @ OPENING

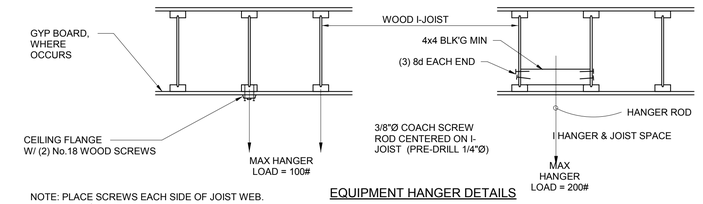


4 SIDED BLOCKING PANEL

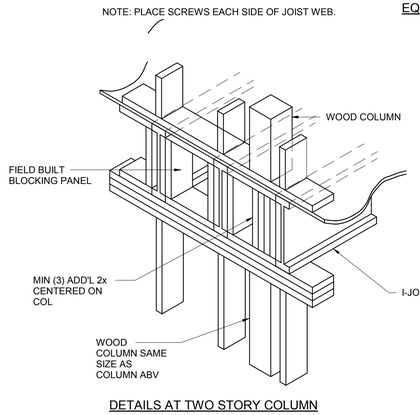
12d = 12d "COMMON" or 16d "SINKER"



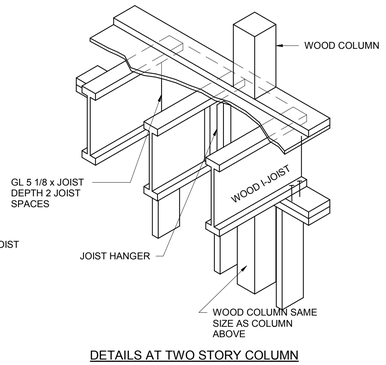
FIELD BUILT BLOCKING



EQUIPMENT HANGER DETAILS



DETAILS AT TWO STORY COLUMN



DETAILS AT TWO STORY COLUMN

10 TYPICAL I-JOIST DETAILS

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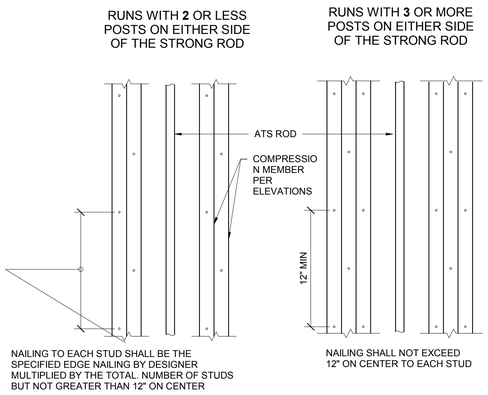
TYPICAL WOOD DETAILS

S1.04H

SHEET NO.

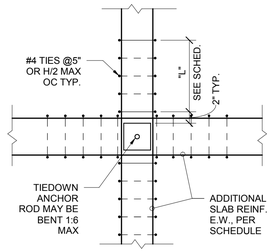


20 SHEARWALL EDGE NAILING DETAIL (ATS)

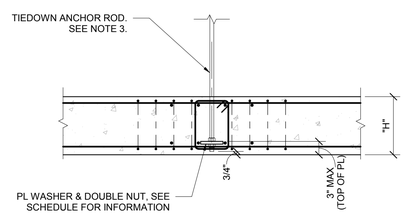
3/4" = 1'-0"

TIEDOWN ROD ANCHORAGE SCHEDULE					
TIEDOWN FORCE (INDICATED ON PLANS)*	ADDITIONAL SLAB REINF. TOP & BOTT	"L"	NUMBER OF LEGS*	PLATE WASHER	REMARKS
< 30K	(2) #5 BAR x 8'-0" AT 6" O/C	16"	2	1/2"x6"x6" OR 3/4"x10"x4" AT EDGE	
30K - 60K	(2) #6 BAR x 8'-0" AT 6" O/C	26"	2	1/2"x6"x6" OR 3/4"x14"x4" AT EDGE	CONDITION "C" NOT ALLOWED
-	-	-	-	-	-
-	-	-	-	-	-

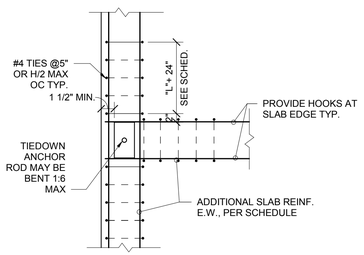
*NUMBER OF LEGS IS DEFINED AS THE NUMBER OF VERTICAL BARS IN A TIE



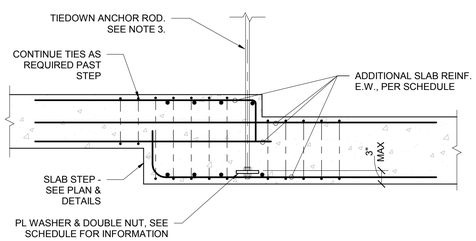
A INT. SLAB CONDITION SECTION



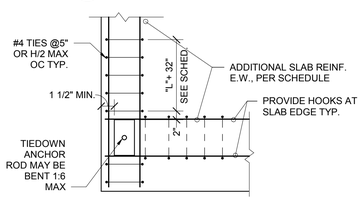
TYPICAL SLAB SECTION



B SLAB EDGE CONDITION PLAN



STEPPED SLAB CONDITION SECTION

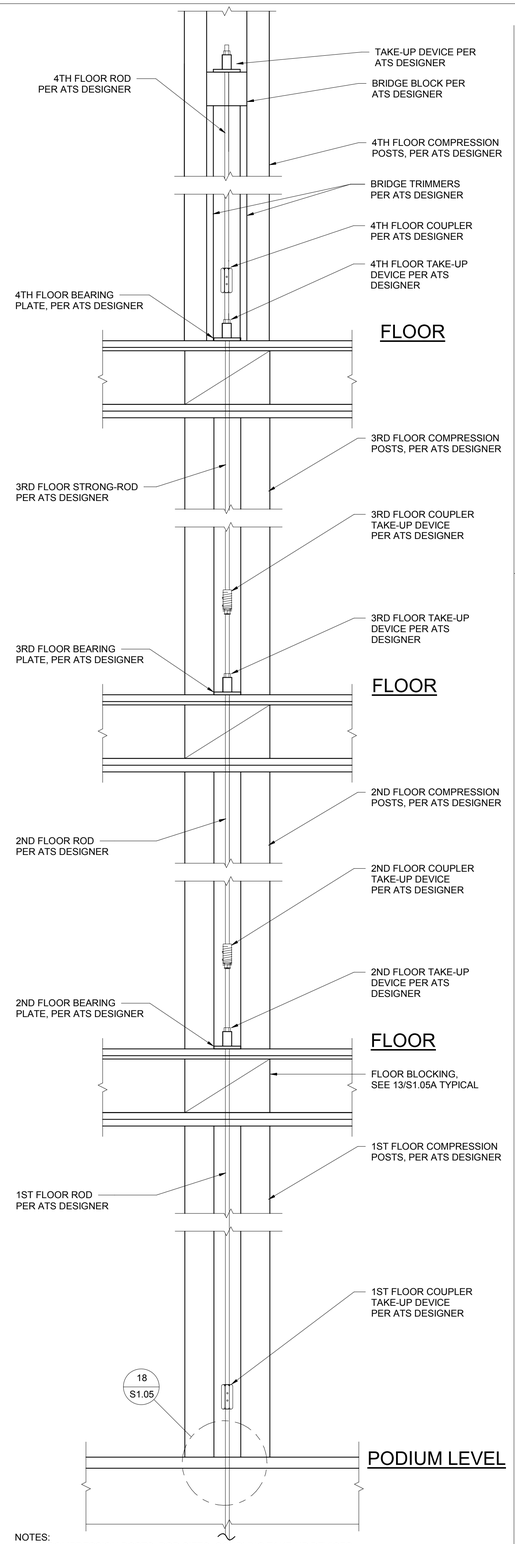


C SLAB CORNER CONDITION PLAN

NOTE:
1. TYPICAL SLAB/WALL/BEAM REINFORCING NOT SHOWN FOR CLARITY.
2. SEE PLAN FOR TIEDOWN LOCATIONS ON CONC SLAB.
3. TIEDOWN ANCHOR ROD DIAMETER, FINISH AND MATERIAL PER ATS MANUFACTURER. REFERENCE SEISMIC HOLDOWN SYSTEM INSTALLATION DRAWINGS. CONTRACTOR IS REQUIRED TO SUPPLY AND INSTALL THE TIEDOWN ANCHOR ROD EMBEDDED IN CONCRETE.
4. WHERE TWO HOLDOWNS ARE TAGGED THE SAME AND ARE ADJACENT TO ONE ANOTHER, THE STIRRUP LAYOUT IS TO BE THE SUM OF TWO RUNS.

18 TYP TIE-DOWN ROD ANCHORAGE

NTS



NOTES:
1. ALL COMPRESSION POSTS, ROD SIZES, COUPLING TAKE-UP DEVICES, AND BEARING PLATES TO BE DESIGNED BY OTHERS.
2. SEE DETAIL 1/S1.05 FOR ANCHOR TIE-DOWN SYSTEM TENSION/COMPRESSION DESIGN FORCES
3. **THIS IS A SCHEMATIC DETAIL. ACTUAL INSTALLATION DETAILS SHALL BE PROVIDED IN THE SHOP DRAWING SUBMITTAL BY THE ATS DESIGNER/MANUFACTURER.**

5 4-STORY ANCHOR TIEDOWN SYSTEM

NTS

TIE-DOWN SYSTEM DESIGN REQUIREMENTS

RUN DESIGNATION (SHOWN AS ●— X ON PLAN)	FLOOR LEVEL (2)	ALLOWABLE STRESS DESIGN FORCES (KIPS)		MAXIMUM TOTAL ELONGATION (INCHES)(3)	RUN START
		TENSION	COMPRESSION		
A	5th	5.6	5.6	0.101	CONCRETE
	4th	19.2	19.2	0.157	
	3rd	36.0	36.0	0.167	
	2nd	55.5	55.5	0.178	
B	5th	2.3	2.3	0.071	CONCRETE
	4th	9.0	9.0	0.151	
	3rd	14.0	14.0	0.152	
	2nd	22.0	22.0	0.157	

NOTES:
1. ALL COMPRESSION POSTS, ROD SIZES, COUPLING TAKE-UP DEVICES, AND BEARING PLATES TO BE DESIGNED BY OTHERS.
2. 1st LEVEL CORRESPONDS TO THE FIRST LEVEL THAT THE SYSTEM IS PLACED ON AND DOES NOT NECESSARILY CORRESPOND TO THE FIRST LEVEL OF PLANS.
3. TOTAL ELONGATION OF SYSTEM TO INCLUDE DEFORMATION FROM ROD ELONGATION, BEARING PLATE-GRAIN, AND DEFORMATION FROM SHRINKAGE COMPENSATING DEVICES.
4. ALL FORCES SHOWN ARE ALLOWABLE STRESS LEVEL (ASD).

ATS INDICATED ON PLAN A —●—

SIMPSON HOLDOWN INDICATED ON PLAN H# —●—
SEE 7/S1.04E

1 TIE-DOWN SYSTEM DESIGN FORCE SCHEDULE

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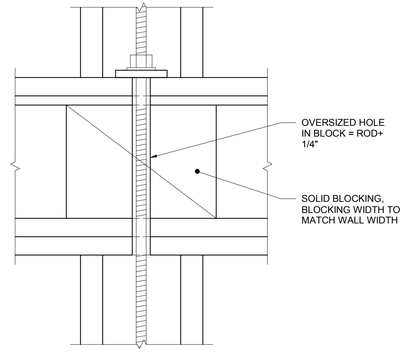
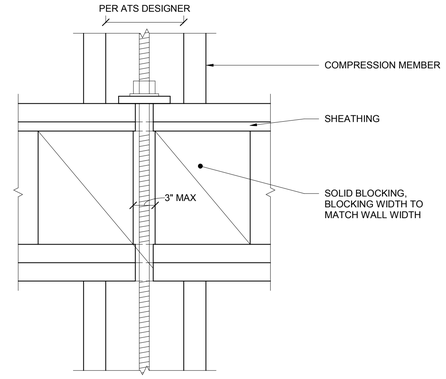
ATS TYPICAL DETAILS

S1.05

SHEET NO.



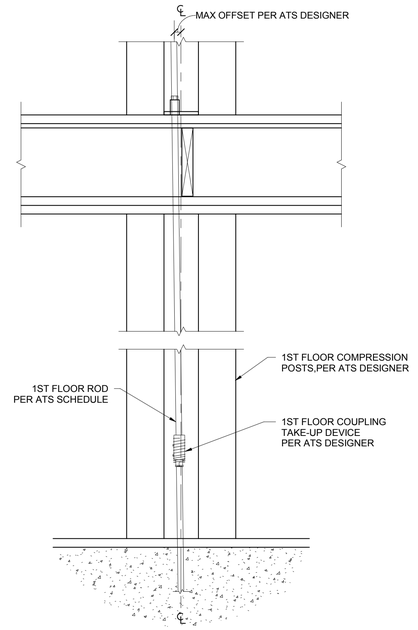
BLOCKING DETAIL



ALTERNATE BLOCKING DETAIL

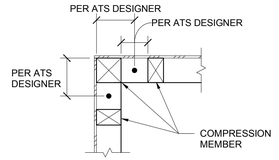
6 ATS FLOOR SYSTEM BLOCKING DETAILS

NTS

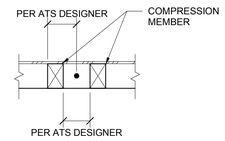


4 ALLOWABLE ROD OFFSET DETAIL (ATS)

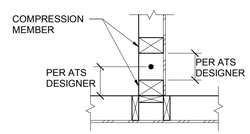
NTS



CORNER INSTALLATION



MID-WALL INSTALLATION



PERPENDICULAR TO WALL INSTALLATION

NOTES:

1. COMPRESSION MEMBERS DO NOT INCLUDE TRIMMERS.
2. WHEN WALL WIDTHS VARY FROM FLOOR TO FLOOR, COORDINATE ANCHOR BOLT LOCATION WITH NARROWEST WALL.

1 ANCHOR BOLT LAYOUT DETAIL

NTS

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ATS TYPICAL DETAILS

S1.05A

SHEET NO.

MAT SLAB NOTES:

1. TOP OF SLAB = PER PLAN
2. PROVIDE CONTINUOUS MAT OF REINFORCING AS NOTED ON PLANS. LAP SPLICES TO BE CLASS B.
3. SEE SHEET S1.01 TO S1.01B FOR STRUCTURAL NOTES SEE SHEET S1.02 TO S1.02C FOR TYPICAL CONCRETE DETAILS.
4. S.A.D FOR DIMENSIONS, ELEVATIONS, SLOPES,CURBS, STEPS, AND PADS NOTED ON PLAN.
5. COORDINATE LOCATION OF SLAB STEPS AND RECESSED AREAS WITH ARCHITECTURAL DRAWINGS.
6. ALL FOUNDATION EXCAVATIONS MUST BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL.
7. PRIOR TO THE CONTRACTOR REQUESTING A BUILDING DEPARTMENT INSPECTION, THE SOILS ENGINEER SHALL ADVISE THE BUILDING OFFICIAL IN WRITING THAT:
   A. THE BUILDING PAD WAS PREPARED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
   B. THE UTILITY TRENCHES HAVE BEEN PROPERLY BACKFILLED AND COMPACTED.
   C. THE FOUNDATION EXCAVATIONS COMPLY WITH THE INTENT OF THE GEOTECHNICAL REPORT.

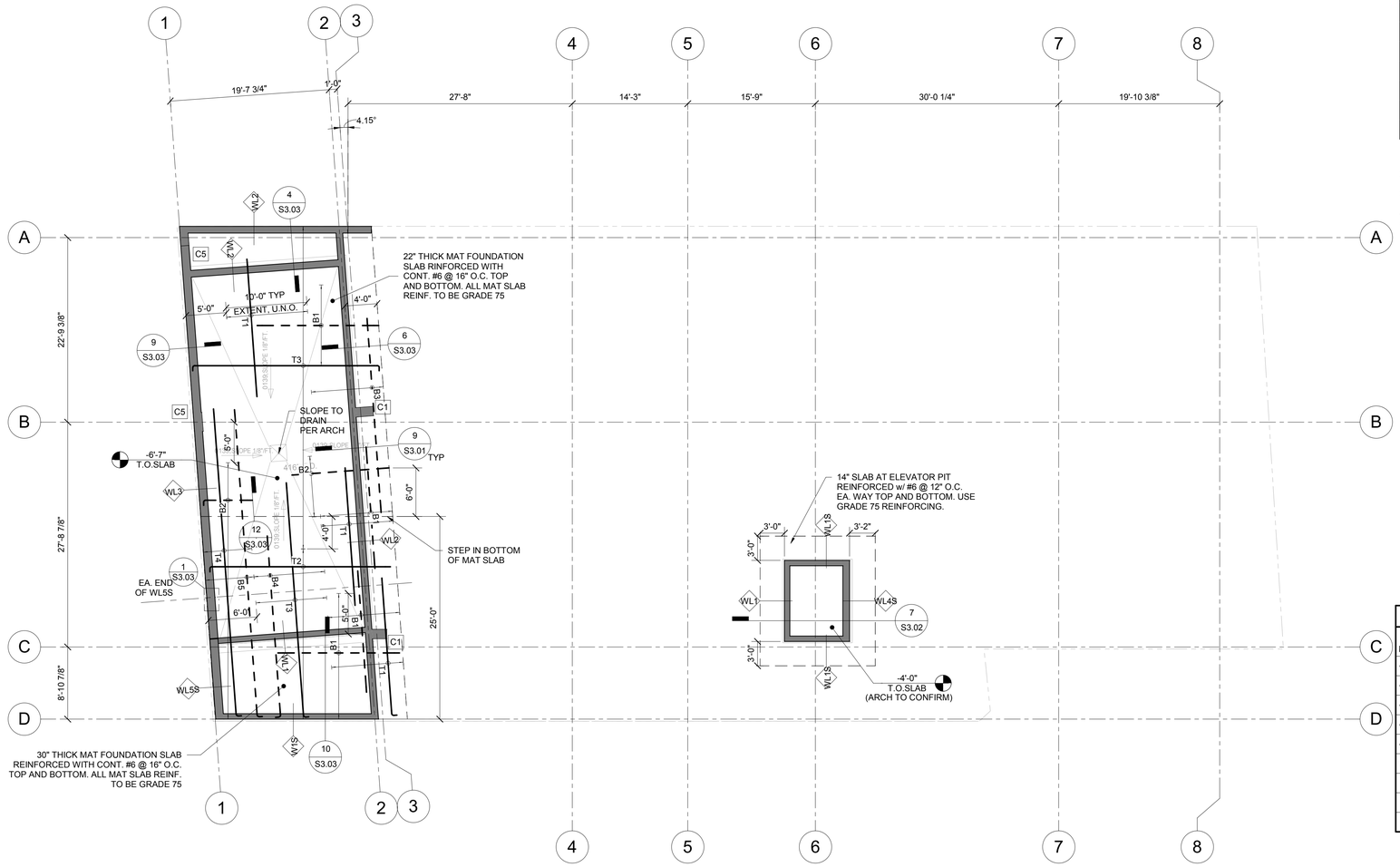
CONCRETE SLAB ADDED REINF SCHEDULE

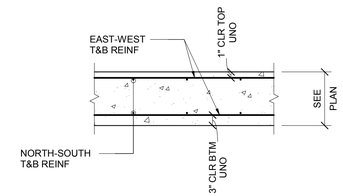
MARK	ADDED TOP REINFORCING	REMARKS
T1	#4 x 17'-0" @ 16" O.C.	
T2	#4 x 23'-0" @ 8" O.C.	HOOK AT SLAB EDGE
T3	#6 x 29'-0" @ 8" O.C.	HOOK BOTH ENDS AT SLAB EDGE IN E-W DIRECTION
T4	#5 x 38'-0" @ 4"O.C.	HOOK AT SLAB EDGE

CONCRETE SLAB ADDED REINF SCHEDULE

MARK	ADDED BOTTOM REINFORCING	REMARKS
B1	#4 x 15'-0" @ 16" O.C.	
B2	#4 x 12'-0" @ 8" O.C.	
B3	#5 x 24'-0" @ 16" O.C.	
B4	#6 x 22'-0" @ 8" O.C.	HOOK AT SLAB EDGE
B5	#6 x 38'-0" @ 4" O.C.	HOOK AT SLAB EDGE

REINFORCING SCHEDULE NOTES:
1. BAR LENGTHS SHOWN DO NOT INCLUDE LENGTH OF HOOK.
2. ALL SCHEDULED REINFORCING IS IN ADDITION TO CONTINUOUS TOP AND BOTTOM MAT REINFORCING SPECIFIED ON PLAN.
3. HOOK ALL ADDED REINF. INTERRUPTED AT STEP AND PLACE EQUIVALENT REINF BELOW STEP TO ACHIEVE SPECIFIED REBAR EXTENTS.
4. SEE DETAIL 1/S3.01 FOR DEFINITION OF STAGGERED BAR LAYOUT.
5. ALL REINF. INTERRUPTTED BY OPENING AND AT SLAB EDGES IS TO BE HOOKED.





MAT SLAB REINFORCING LAYERING

REINFORCING LAYERING NOTES:

1. SEE FRAMING PLAN FOR TYPICAL REINFORCING
2. SEE ARCHITECTURAL DRAWINGS FOR SLOPES, DEPRESSIONS, CURBS AND TRENCH DRAINS.

CONCRETE SHEAR WALL SCHEDULE

MARK	WIDTH	6/S1.03B, DOWELS INTO PT SLAB	REINFORCEMENT	REMARK
WL1S	8"	#5 @ 12" O.C.	#5 @ 12" O.C. EACH WAY	
WL2S	8"	#6 @ 12" O.C.	#7 @8" O.C. VERT; #5 @ 12" O.C. HORIZ.	
WL3S	10"	(2) ROWS #7 @ 12" O.C.	#5 @ 12" O.C. EACH FACE; EACH WAY	
WL4S	10"	(2) ROWS #6 @ 12" O.C.	#6 @ 10" O.C. EA. FACE VERT; #5 @ 12" O.C. EA. FACE HORIZ.	SEE NOTE 3
WL5S	12"	(2) ROWS #6 @ 12" O.C.	#6 @ 10" O.C. EA. FACE VERT; #5 @ 12" O.C. EA. FACE HORIZ.	SEE NOTE 3
WL6S	14"	(2) ROWS #7 @ 12" O.C.	#5 @ 12" O.C. EACH FACE; EACH WAY	
WL1	8"	- - -	#5 @ 12" O.C. EACH WAY	
WL2	10"	- - -	#5 @ 12" O.C. EACH FACE; EACH WAY	
WL3	12"	- - -	#5 @ 10" O.C. EACH FACE VERT #5 @ 12" O.C. EA FACE HORIZ.	

NOTE:
1. WL#S DENOTES CONCRETE SHEAR WALL.
2. SHEAR WALL DOWELS AT FOUNDATION TO BE DEVELOPED INTO VERTICAL WALL REINFORCING WITH 1.25"CLASS 'B' LAP SPLICE.
3. BOUNDARY ZONE REINF PER DETAIL 1/S3.03 REQUIRED IN WALL AS NOTED IN SCHEDULE.

1 GARAGE PIT FOUNDATION PLAN

1/8" = 1'-0"

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GARAGE PIT FOUNDATION PLAN

S2.00

SHEET NO.

MAT SLAB NOTES:

1. TOP OF SLAB = 0.0', UNLESS NOTED OTHERWISE
2. PROVIDE CONTINUOUS MAT OF REINFORCING AS NOTED ON PLANS. LAP SPLICES TO BE CLASS B.
3. SEE SHEET S1.01 TO S1.01B FOR STRUCTURAL NOTES SEE SHEET S1.02 TO S1.02C FOR TYPICAL CONCRETE DETAILS.
4. S.A.D. FOR DIMENSIONS, ELEVATIONS, SLOPES,CURBS, STEPS, AND PADS NOTED ON PLAN.
5. COORDINATE LOCATION OF SLAB STEPS AND RECESSED AREAS WITH ARCHITECTURAL DRAWINGS.
6. ALL FOUNDATION EXCAVATIONS MUST BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL.
7. PRIOR TO THE CONTRACTOR REQUESTING A BUILDING DEPARTMENT INSPECTION, THE SOILS ENGINEER SHALL ADVISE THE BUILDING OFFICIAL IN WRITING THAT:
   A. THE BUILDING PAD WAS PREPARED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
   B. THE UTILITY TRENCHES HAVE BEEN PROPERLY BACKFILLED AND COMPACTED.
   C. THE FOUNDATION EXCAVATIONS COMPLY WITH THE INTENT OF THE GEOTECHNICAL REPORT.
8. SLOPE MAT FOUNDATION AS REQUIRED. S.A.D. FOR ALL SLOPES AND DRAIN LOCATIONS. MAT FOUNDATION TO MAINTAIN MINIMUM THICKNESS AS NOTED ON PLANS.

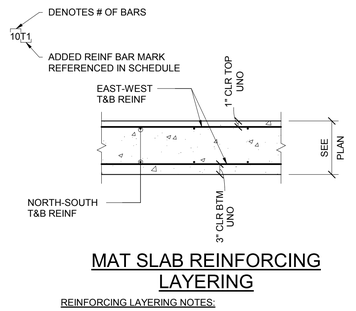
CONCRETE SLAB ADDED REINF SCHEDULE

MARK	ADDED TOP REINFORCING	REMARKS
T1	#4 x 15'-0" @ 16" O.C.	
T2	#4 x 20'-0" @ 16" O.C.	
T3	#6 x 27'-0" @ 16" O.C.	
T4	#5 x 50'-0" @ 16"O.C.	
T5	#5 x 28'-6" @ 8" O.C.	12'-0" LONG HOOKED BAR AT SLAB EDGE
T6	#6 x 28'-6" @ 8" O.C.	
T7	#7 x 34'-0" @ 8" O.C.	
T8	#8 x 57'-0" @ 8" O.C.	

CONCRETE SLAB ADDED REINF SCHEDULE

MARK	ADDED BOTTOM REINFORCING	REMARKS
B1	#5 x 8'-0" @ 16" O.C.	HOOKED END
B2	#4 x 15'-0" @ 16" O.C.	
B3	#6 x 20'-0" @ 16" O.C.	
B4	#5 x 20'-0" @ 8" O.C.	
B5	#6 x 20'-0" @ 8" O.C.	
B6	#5 x 25'-0" @ 4" O.C.	
B7	#7 x 53'-0" @ 4" O.C.	
B8	#4 x 24'-0" @ 16" O.C.	

REINFORCING SCHEDULE NOTES:
1. BAR LENGTHS SHOWN DO NOT INCLUDE LENGTH OF HOOK.
2. ALL SCHEDULED REINFORCING IS IN ADDITION TO CONTINUOUS TOP AND BOTTOM MAT REINFORCING SPECIFIED ON PLAN.
3. HOOK ALL ADDED REINF. INTERRUPTED AT STEP AND PLACE EQUIVALENT REINF BELOW STEP TO ACHIEVE SPECIFIED REBAR EXTENTS.
4. SEE DETAIL 1/S3.01 FOR DEFINITION OF STAGGERED BAR LAYOUT.
5. ALL REINF. INTERRUPTTED BY OPENING AND AT SLAB EDGES IS TO BE HOOKED.



MAT SLAB REINFORCING LAYERING

REINFORCING LAYERING NOTES:

1. SEE FRAMING PLAN FOR TYPICAL REINFORCING
2. SEE ARCHITECTURAL DRAWINGS FOR SLOPES, DEPRESSIONS, CURBS AND TRENCH DRAINS.

CONCRETE SHEAR WALL SCHEDULE

MARK	WIDTH	6/S1.03B, DOWELS INTO PT SLAB	REINFORCEMENT	REMARK
WL1S	8"		#5 @ 12" O.C. EACH WAY	
WL2S	8"		#6 @ 12" O.C.	#7 @8" O.C. VERT; #5 @ 12" O.C. HORIZ.
WL3S	10"	(2) ROWS #7 @ 12" O.C.	#5 @ 12" O.C. EACH FACE; EACH WAY	
WL4S	10"	(2) ROWS #6 @ 12" O.C.	#6 @ 10" O.C. EA. FACE VERT; #5 @ 12" O.C. EA. FACE HORIZ.	SEE NOTE 3
WL5S	12"	(2) ROWS #6 @ 12" O.C.	#6 @ 10" O.C. EA. FACE VERT; #5 @ 12" O.C. EA. FACE HORIZ.	SEE NOTE 3
WL6S	14"	(2) ROWS #7 @ 12" O.C.	#5 @ 12" O.C. EACH FACE; EACH WAY	
WL1	8"	- - -	#5 @ 12" O.C. EACH WAY	
WL2	10"	- - -	#5 @ 12" O.C. EACH FACE; EACH WAY	
WL3	12"	- - -	#5 @ 10" O.C. EACH FACE VERT #5 @ 12" O.C. EA FACE HORIZ.	

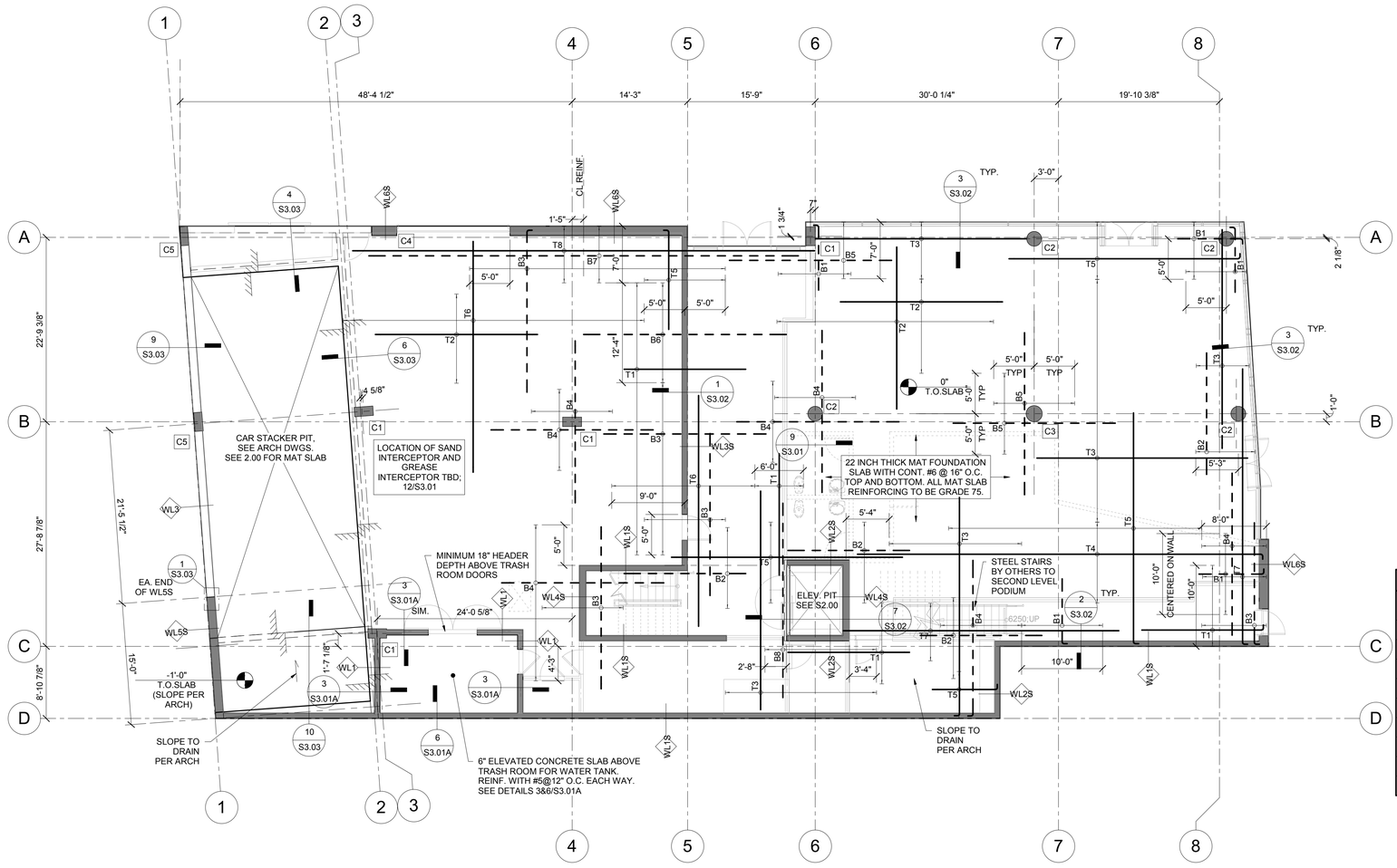
NOTE:
1. WL#S DENOTES CONCRETE SHEAR WALL.
2. SHEAR WALL DOWELS AT FOUNDATION TO BE DEVELOPED INTO VERTICAL WALL REINFORCING WITH 1.25*CLASS 'B' LAP SPLICE.
3. BOUNDARY ZONE REINF PER DETAIL 1/S3.03 REQUIRED IN WALL AS NOTED IN SCHEDULE.

CONCRETE PARTITION WALL SCHEDULE

MARK	WIDTH	REINFORCEMENT
PW1	6"	#4 @ 18" O.C. VERT, #4 @12" O.C. HORZ.
PW2	8"	#4 @ 16" O.C. VERT, #5 @ 16 O.C. HORZ.

PARTITION WALL SCHEDULE NOTES:

1. PARTITION WALLS ARE NON-LOAD BEARING WALLS TO BE INSTALLED AFTER PODIUM SLAB HAS BEEN PLACED
2. SEE DETAILS 6/S3.02 AND 9/S3.02 FOR CONNECTION OF PARTITION WALL AT PODIUM SLAB



1 GROUND FLOOR FOUNDATION PLAN

1/8" = 1'-0"

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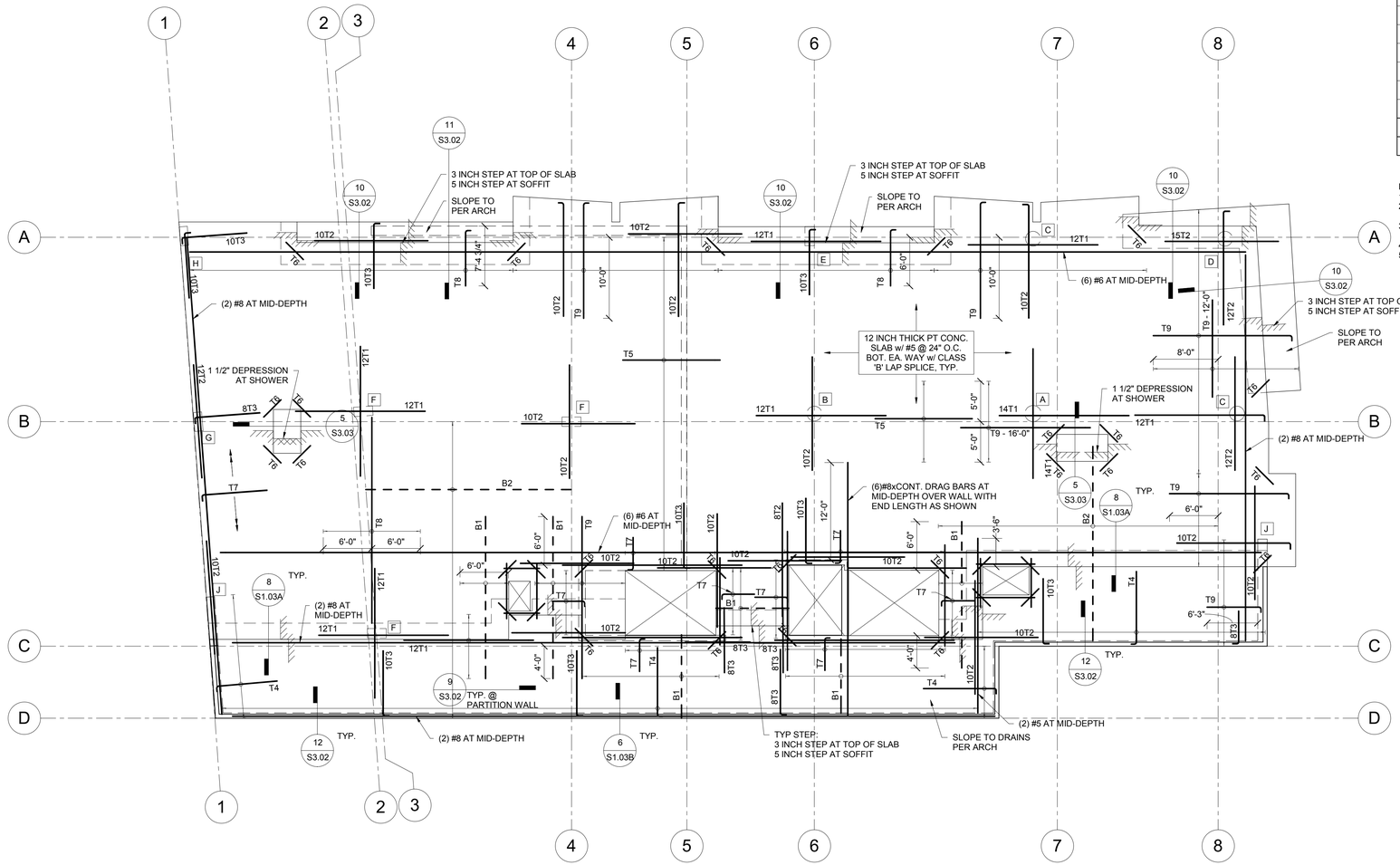
GROUND FLOOR FND PLAN

S2.01

SHEET NO.



1 SECOND FLOOR CONCRETE PLAN (MILD STEEL)

1/8" = 1'-0"

CONCRETE SLAB ADDED REINF SCHEDULE

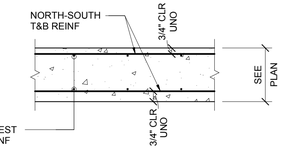
MARK	ADDED TOP REINFORCING	REMARKS
T1	#5 x 16'-0"	
T2	#5 x 14'-0"	HOOK AT SLAB EDGE
T3	#5 x 8'-0"	HOOK AT SLAB EDGE
T4	#5 x 7'-6" @ 12"O.C.	
T5	#5 x 12'-0" @ 12" O.C.	
T6	(2) #5 x 5'-0"	PLACE BARS TOP AND BOTTOM (4 TOTAL)
T7	#5 x 4'-0" @ 12" O.C.	HOOK AT SLAB EDGE
T8	#5 @ 12" O.C.	LENGTH PER PLAN
T9	#6 @ 9" O.C.	LENGTH PER PLAN

CONCRETE SLAB ADDED REINF SCHEDULE

MARK	ADDED BOTTOM REINFORCING	REMARKS
B1	#5 @ 12" O.C.	LENGTH PER PLAN
B2	#5 @ 18" O.C.	LENGTH PER PLAN

REINFORCING SCHEDULE NOTES:
1. BAR LENGTHS SHOWN DO NOT INCLUDE LENGTH OF HOOK.
2. ALL SCHEDULED REINFORCING IS IN ADDITION TO CONTINUOUS TOP AND BOTTOM MAT REINFORCING SPECIFIED ON PLAN.
3. HOOK ALL ADDED REINF. INTERRUPTED AT STEP AND PLACE EQUIVALENT REINF BELOW STEP TO ACHIEVE SPECIFIED REBAR EXTENTS.
4. SEE DETAIL 1/S3.01 FOR DEFINITION OF STAGGERED BAR LAYOUT.
5. ALL REINF. INTERRUPTTED BY OPENING AND AT SLAB EDGES IS TO BE HOOKED.

DENOTES # OF BARS
10T1
ADDED REINF BAR MARK
REFERENCED IN SCHEDULE



REINFORCING LAYERING

NOTES:

1. SEE FRAMING PLAN FOR TYPICAL REINFORCING
2. SEE ARCHITECTURAL DRAWINGS FOR SLOPES, DEPRESSIONS AND CURBS.

SECOND FLOOR SLAB NOTES:

1. TOP OF SLAB = 0'-0", UNLESS NOTED OTHERWISE
2. SLAB THICKNESS = 12", U.N.O.
3. PROVIDE CONTINUOUS BOTTOM MAT OF REINFORCING AS NOTED ON PLANS. LAP SPLICES TO BE CLASS B. BOTTOM BAR SPLICES TO OCCUR AT SUPPORT LINES.
4. SEE DETAIL THIS SHEET FOR PLACING SEQUENCE OF REBAR.
5. SEE SHEET S1.01A TO 1.01B FOR STRUCTURAL NOTES SEE SHEET S1.02 TO S1.02A FOR TYPICAL CONCRETE DETAILS. SEE SHEET S1.03 TO S1.03B FOR TYPICAL PT CONCRETE DETAILS.
6. S.A.D FOR DIMENSIONS, ELEVATIONS, SLOPES,CURBS, STEPS, AND PADS NOTED ON PLAN.
7. COORDINATE LOCATION OF SLAB STEPS AND RECESSED AREAS WITH ARCHITECTURAL DRAWINGS.
8. PROVIDE #5x4'-0" T&B DIAGONAL REINFORCING AT ALL CORNERS OF OPENINGS U.N.O.
9. SEE MECHANICAL & PLUMBING DRAWINGS FOR ADDITIONAL OPENINGS TYPICAL. OPENINGS SMALLER THAN 12"x12" ARE NOT SHOWN ON PLAN. CORDINATE SIZE AND LOCATION OF ALL OPENINGS AND SLEEVES WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS. SEE DETAIL 3/S3.01 FOR SLAB REINF. AT LARGE OPENINGS AND DETAIL 5/S1.02A FOR SLAB REINF. AT SMALL OPENINGS.

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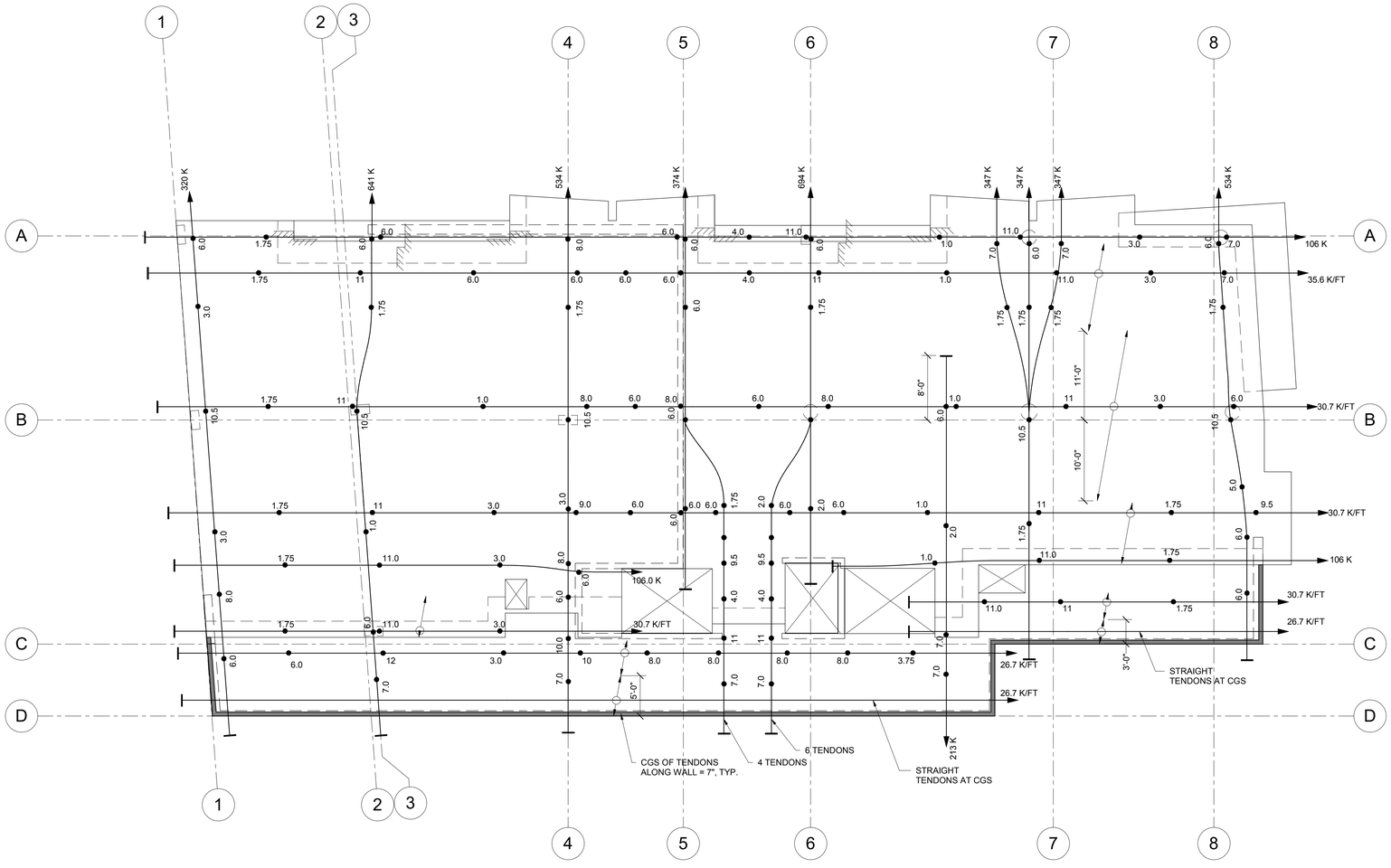
SECOND FLOOR CONCRETE PLAN (MILD STEEL)

S2.02.MS

SHEET NO.



1 SECOND FLOOR CONCRETE POST TENSIONING PLAN

1/8" = 1'-0"

CONCRETE PT PLAN NOTES

1. SEE GENERAL NOTES, SPECIFICATION AND TYPICAL POST-TENSIONED CONCRETE DETAILS.
1. SEE SHEET S1.01A FOR SYMBOL LEGEND.
3. SEE PLAN FOR TYPICAL CG OF TENDON PROFILE. TYPICAL - UNLESS MARKED ON PLAN - HIGH POINT (HP) AT COLUMN/WALL SUPPORT, LOW POINT AT MID-BAY AND MID-DEPTH AT SLAB EDGE. BANDED TENDON PROFILE TAKES PREFERENCE OVER REBAR OR UNIFORM TENDONS, TYPICAL
2. SEE S1.03 TO S1.03B FOR TYPICAL POST TENSIONED CONCRETE DETAILS.
3. TENDON SPACING SHALL NOT EXCEED 42" AT UNIFORM DIRECTION. ADD EXTRA TENDONS AS REQUIRED.
4. PROVIDE SMOOTH PARABOLIC TRANSITION BETWEEN CONTROL POINTS WHERE CG IS NOT NOTED.
6. PROVIDE MIN 2 TENDONS OVER SUPPORTING COLUMN, EACH DIRECTION. SEE "TYPICAL PT SLAB TENDON / REBAR LAYOUT AT COLUMNS" DETAIL INFORMATION.
5. DEAD ENDS AND STRESS ENDS MAY BE REVERSED AT CONTRACTOR'S OPTION. PROVIDE STRESSING POCKET AS REQUIRED WHEN STRESSING AT EDGE OF SLAB IS NOT AVAILABLE.
6. ADD EXTRA TENDONS TO COMPENSATE FRICTION LOSS WHERE STRESSING AT BOTH ENDS IS NOT PERMITTED.
7. SLAB SHALL BE RESHORED AFTER POST-TENSION. THE SPACING OF SHORING SHALL NOT EXCEED 10 FEET ON CENTER AT EACH DIRECTION. RESHORING SHALL REMAIN FOR A MINIMUM OF 3 FLOORS BELOW THE CONSTRUCTING SLAB.
8. DESIGN SLAB DEFLECTION IS IN ACCORDANCE WITH CODE ALLOWED L/360. THE DRY WALL CONTRACTOR SHALL COMPENSATE THE DEFLECTION ACCORDINGLY.
9. SEE CURTAIN WALL SHOP DRAWINGS FOR EMBED LAYOUT. ADDITIONAL REINFORCING AROUND THE EMBED SHALL BE PLACED PER SHOP DRAWING OR ENGINEERS OF RECORD'S INSTRUCTION.
7. SEE FRAMING PLANS FOR TYPICAL MAT OF BOTTOM REINFORCING. ALL REINFORCING SHOWN ON PLAN & IN SCHEDULE ARE ADDITIONAL TO TYPICAL.
8. SEE DETAIL "TYPICAL PT SLAB TENDON / REBAR LAYOUT AT COLUMNS" & "TYPICAL PT SLAB REINFORCING LAYTOU"FOR TOP MILD STEEL PLACEMENT.
9. BAR LENGTHS SHOWN DO NOT INCLUDE LENGTH OF HOOK. HOOK BAR WHERE SHOWN ON PLAN AND IN DETAILS
10. SEE SECTIONS AND DETAILS FOR ANY ADDITIONAL REINFORCING.
11. SEE SHEET "TENDON ANCHOR DETAIL FOR POST-TENSIONED CONCRETE" FOR TYPICAL PT SLAB EDGE & ANCHORAGE REINFORCING
12. REFER TO "SLEEVE PENETRATION RESTRICTION AT COLUMN" FOR RESTRICTION OF PT SLAB PENETRATION AT COLUMN.

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LICENSED PROFESSIONAL ENGINEER
LEON NISHKIAN
18649
Exp. 3/31/19
CIVIL
STATE OF CALIFORNIA

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SECOND FLOOR CONCRETE PLAN (PT)

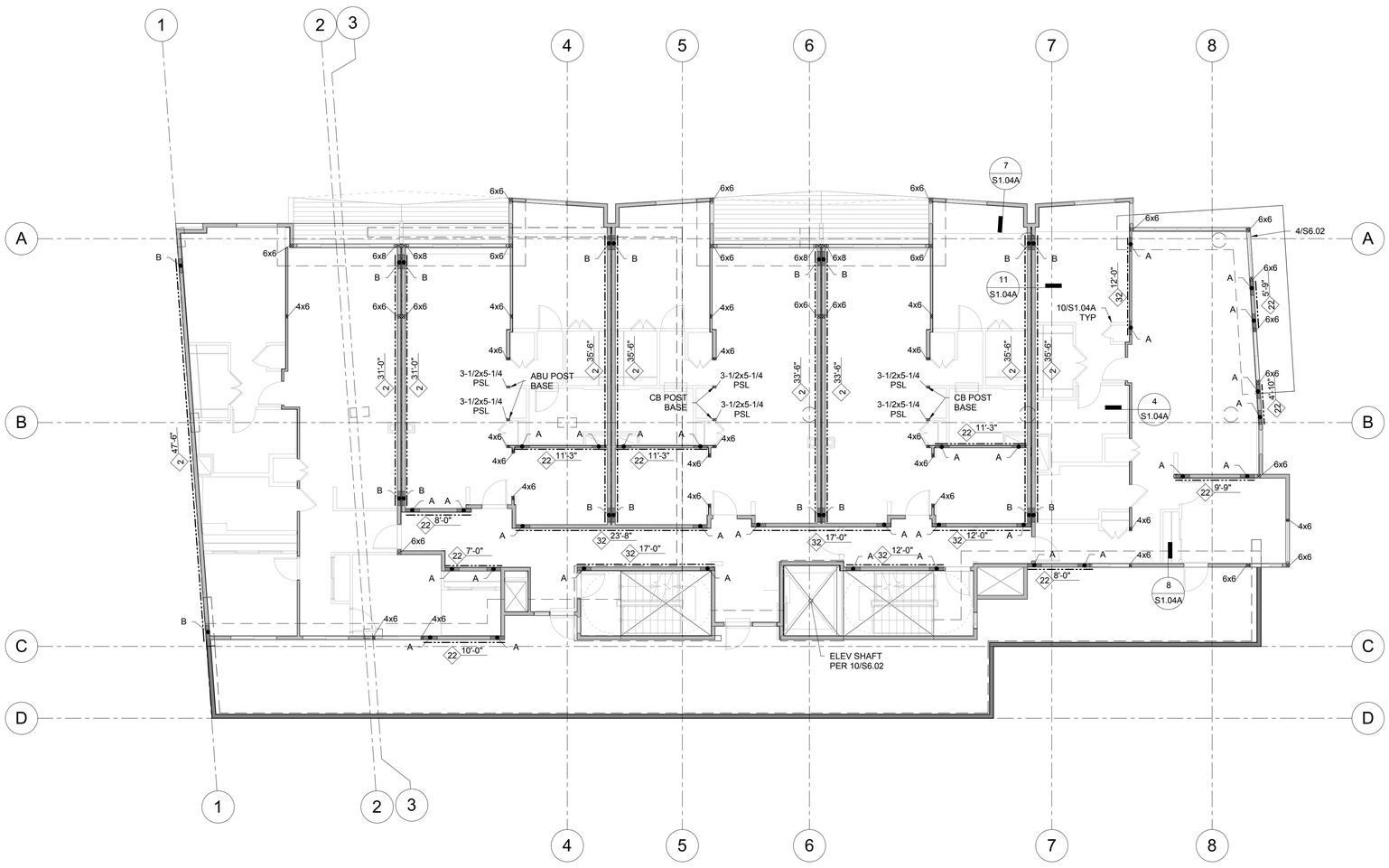
S2.02.PT

SHEET NO.

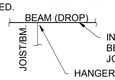
WOOD FLOOR / ROOF JOIST & HANGER SCHEDULE			
MARK	SIZE	SPACING	SIMPSON HANGER (UNO)
J1	11 7/8" TJI 110 I-JOIST	16" O.C.	IUS1.81/11.88 ITS1.81/11.88
J2	11 7/8" TJI 210 I-JOIST	16" O.C.	IUS2.06/11.88 ITS2.06/11.88
J3	11 7/8" TJI 360 I-JOIST	16" O.C.	IUS2.37/11.88 ITS2.37/11.88
J4	2x8	16" O.C.	HU28 AT INTERIOR LUS28Z AT EXTERIOR
J5	(2) 2x8	16" O.C.	HU28-2
J6	2x6	16" O.C.	LUS26
J7	(2) 2x6	16" O.C.	LUS26-2
J8	2x10	16" O.C.	LUS210
J9	11 7/8" TJI 110 I-JOIST	24" O.C.	IUS1.81/11.88 ITS1.81/11.88
J10	1-3/4"x11-7/8" LVL	16" O.C.	HU11
J11	11 7/8" TJI 230 I-JOIST	16" O.C.	
J12	2x8	12" O.C.	HU28 AT INTERIOR LUS28Z AT EXTERIOR

NOTE: ALL HANGERS BY SIMPSON OR APPROVED EQUAL. ALL FRAMING LUMBER AT EXTERIOR BALCONIES SHALL BE PRESERVATIVE TREATED.

WOOD BEAM AND HANGER SCHEDULE		
MARK	SIZE	TYPICAL SIMPSON HANGER OR EQUAL (U.O.N. ON PLANS)
B28	(2) 2x8	
B37G	3 1/8 x 7 1/2 GL	
B39G	3 1/8 x 9 GL	HU210-2 (MAX)
B312G	3 1/8 x 11 7/8 GL	HU3.25/12
B48	4x8	HU48 (MAX)
B410	4x10	HU410 (MAX)
B57G	5 1/2 x 7 1/2 GL	HU68 (MAX)
B510G	5 1/8 x 10 1/2 GL	HU5.125/12
B512G	5 1/8 x 11 7/8 GL	HU5.125/12
B512P	5 1/4 x 11 7/8 PSL	AS NOTED ON PLANS
B67G	6 3/4 x 7 1/2 GL	HU88 (MAX)[5]
B68	6x8	HU68 (MAX)
B69G	6 3/4 x 9 GL	HU88 (MAX)[5]
B612G	6 3/4 x 11 7/8 GL	AS NOTED ON PLANS
B712P	7 x 11 7/8 PSL	AS NOTED ON PLANS



NOTES:
1. PROVIDE SKEWED HANGER WHERE REQUIRED.
2. SEE PLAN WHERE NOTED FOR HANGERS AT OTHER SPECIAL CONDITIONS.
3. WHERE VARIABLE HEIGHT HANGER IS INDICATED, HANGER HEIGHT SHALL BE BEAM DEPTH MINUS 2 INCHES, U.O.N.
4. ALL 'HU' TYPE HANGERS MAY HAVE CONCEALED FLANGES AS OPTIONAL CONFIGURATION.
5. INSTALL 3/8" PLYWOOD SHIM EA SIDE OF BEAM AT BEAM HANGER SEAT.
6. ALL BEAMS ARE FLUSH WITH FLOOR/ROOF FRAMING UNLESS OTHERWISE NOTED.



WOOD FLOOR PLAN NOTES:

1. SEE S1.04 THROUGH S1.04H FOR TYPICAL WOOD FRAMING DETAILS & SCHEDULES.
2. -SHEAR WALL SCHEDULE: 4/S1.043
   -EARTHBOUND HOLDOWN SYSTEM: S1.05, S1.05A &SHEETS SH-1 TO SH-2
   -INTERERIOR & EXTERIOR WALL HEADER SCHEDULES: S1.04D
   -HOLDOWN ROD TO CONCRETE: 18/S1.05.
3. SEE ARCH DRAWINGS FOR DIMENSIONS FROM GRIDS TO FACE OR CENTERLINE OF STUD FRAMING.
4. SEE ARCHITECTURAL DRAWINGS FOR ALL TOP OF FINISH FLOOR ELEVATIONS.
5. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
6. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
7. WHERE NOT INDICATED ON PLAN, USE MINIMUM POST SIZE OF 4x4 AT 4" NOMINAL WALL FRAMING, 4x6 POST AT 6" NOMINAL WALL FRAMING.
8. ALL WOOD EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED U.N.O.

1 SECOND FLOOR FRAMING PLAN (WOOD)

1/8" = 1'-0"

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REGISTERED PROFESSIONAL ENGINEER LEON NISHKIAN No. 18949 Exp. 3/31/19 CIVIL STATE OF CALIFORNIA

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SECOND FLOOR FRAMING PLAN (WOOD)

S2.02.W

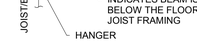
SHEET NO.

WOOD FLOOR / ROOF JOIST & HANGER SCHEDULE			
MARK	SIZE	SPACING	SIMPSON HANGER (UNO)
J1	11 7/8" TJI 110 I-JOIST	16" O.C.	IUS1.81/11.88 ITS1.81/11.88
J2	11 7/8" TJI 210 I-JOIST	16" O.C.	IUS2.06/11.88 ITS2.06/11.88
J3	11 7/8" TJI 360 I-JOIST	16" O.C.	IUS2.37/11.88 ITS2.37/11.88
J4	2x8	16" O.C.	HU28 AT INTERIOR LUS28Z AT EXTERIOR
J5	(2) 2x8	16" O.C.	HU28-2
J6	2x6	16" O.C.	LUS26
J7	(2) 2x6	16" O.C.	LUS26-2
J8	2x10	16" O.C.	LUS210
J9	11 7/8" TJI 110 I-JOIST	24" O.C.	IUS1.81/11.88 ITS1.81/11.88
J10	1-3/4"x11-7/8" LVL	16" O.C.	HU11
J11	11 7/8" TJI 230 I-JOIST	16" O.C.	
J12	2x8	12" O.C.	HU28 AT INTERIOR LUS28Z AT EXTERIOR

NOTE: ALL HANGERS BY SIMPSON OR APPROVED EQUAL. ALL FRAMING LUMBER AT EXTERIOR BALCONIES SHALL BE PRESERVATIVE TREATED.

WOOD BEAM AND HANGER SCHEDULE		
MARK	SIZE	TYPICAL SIMPSON HANGER OR EQUAL (U.O.N. ON PLANS)
B28	(2) 2x8	
B37G	3 1/8 x 7 1/2 GL	
B39G	3 1/8 x 9 GL	HU210-2 (MAX)
B312G	3 1/8 x 11 7/8 GL	HU3.25/12
B48	4x8	HU48 (MAX)
B410	4x10	HU410 (MAX)
B57G	5 1/2 x 7 1/2 GL	HU68 (MAX)
B510G	5 1/8 x 10 1/2 GL	HU5.125/12
B512G	5 1/8 x 11 7/8 GL	HU5.125/12
B512P	5 1/4 x 11 7/8 PSL	AS NOTED ON PLANS
B67G	6 3/4 x 7 1/2 GL	HU88 (MAX)[5]
B68	6x8	HU68 (MAX)
B69G	6 3/4 x 9 GL	HU88 (MAX)[5]
B612G	6 3/4 x 11 7/8 GL	AS NOTED ON PLANS
B712P	7 x 11 7/8 PSL	AS NOTED ON PLANS

NOTES:
1. PROVIDE SKEWED HANGER WHERE REQUIRED.
2. SEE PLAN WHERE NOTED FOR HANGERS AT OTHER SPECIAL CONDITIONS.
3. WHERE VARIABLE HEIGHT HANGER IS INDICATED, HANGER HEIGHT SHALL BE BEAM DEPTH MINUS 2 INCHES, U.O.N.
4. ALL 'HU' TYPE HANGERS MAY HAVE CONCEALED FLANGES AS OPTIONAL CONFIGURATION.
5. INSTALL 3/8" PLYWOOD SHIM EA SIDE OF BEAM AT BEAM HANGER SEAT.
6. ALL BEAMS ARE FLUSH WITH FLOOR/ROOF FRAMING UNLESS OTHERWISE NOTED.

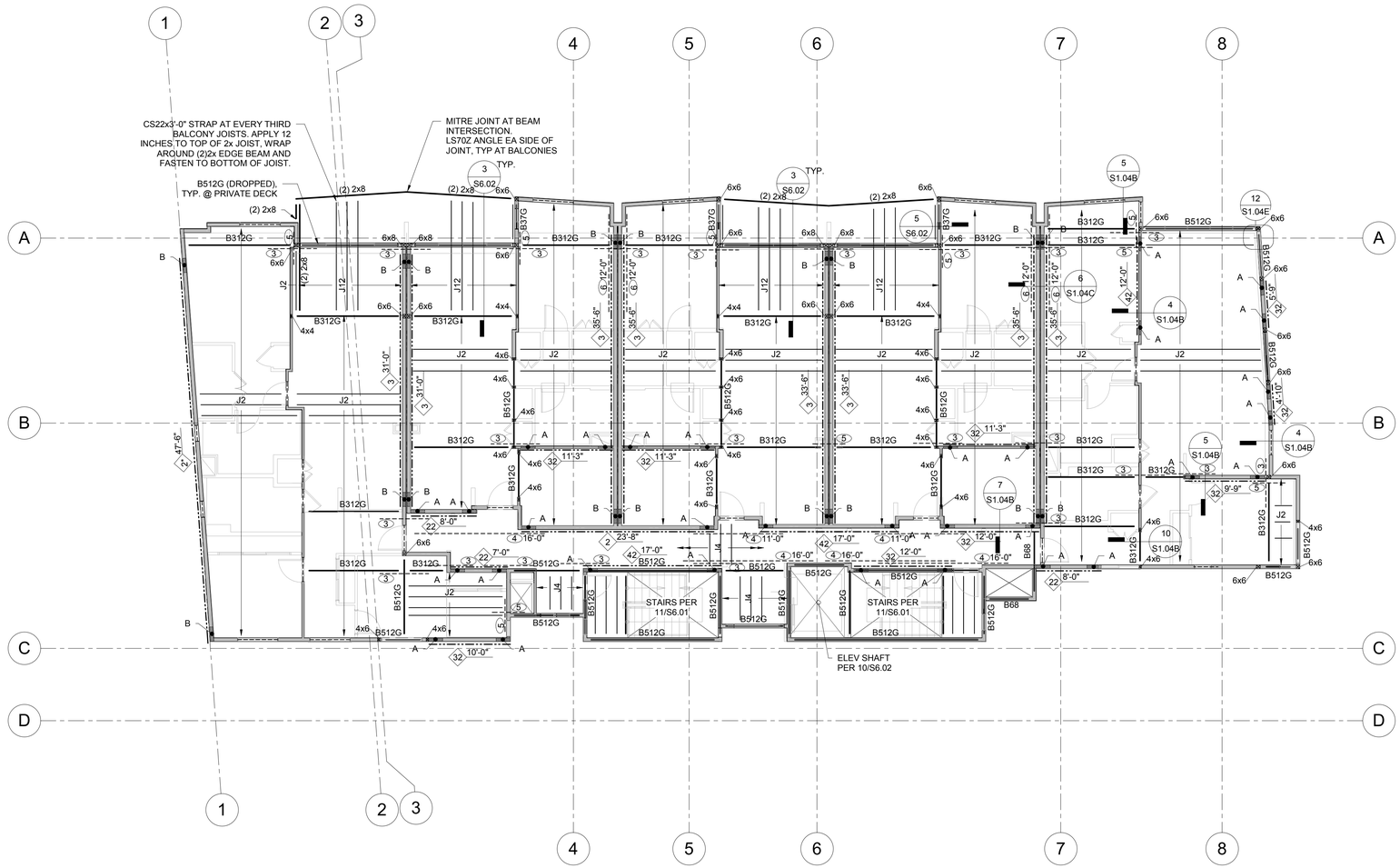


WOOD FLOOR PLAN NOTES:

1. SEE S1.04 THROUGH S1.04H FOR TYPICAL WOOD FRAMING DETAILS & SCHEDULES.
2. -SHEAR WALL SCHEDULE: 4/S1.04E
   -EARTHBOUND HOLDOWN SYSTEM: S1.05, S1.05A & SHEETS SH-1 TO SH-2
   -INTERIOR & EXTERIOR WALL HEADER SCHEDULES: S1.04D
   -HOLDOWN ROD TO CONCRETE: 18/S1.05.
   -TYPICAL FLOOR STRAPPING: S1.04D
3. SEE ARCH DRAWINGS FOR DIMENSIONS FROM GRID TO FACE OR CENTERLINE OF WALL STUDS.
4. SEE ARCHITECTURAL DRAWINGS FOR ALL TOP OF FINISH FLOOR ELEVATIONS.
5. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
6. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
7. WHERE NOT INDICATED ON PLAN, USE MINIMUM POST SIZE OF 4x4 AT 4" NOMINAL WALL FRAMING, 4x6 POST AT 6" NOMINAL WALL FRAMING.
8. ALL WOOD EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED U.N.O.
9. TYPICAL FLOOR FRAMING: 1-1/2" (MAX) GYPCRETE FLOOR TOPPING OVER 3/4" FLOOR SHEATHING (PER STRUCTURAL NOTES), GLUED AND NAILED W/ 10d @ 4" O/C EN AND 10d@ 12" O/C FN, U.N.O. BLOCKING IS REQUIRED AT ALL PANEL EDGES.

   TYPICAL BALCONY/TERRRACE FRAMING: SLOPED OVERFRAMING OVER FLAT STRUCTURAL FRAMING: 1-1/8" FLOOR SHEATHING, GLUED AND NAILED W/ 10d @ 6" O/C EN AND 10d@ 12" O/C FN, U.N.O.
10. TYPICAL ROOF FRAMING WITHOUT ROOF DECK:
    5/8" ROOF SHEATHING W/ 10d@4" O/C EN AND 10d@12" O/C FN OVER JOISTS INDICATED ON PLANS, U.N.O. BLOCKING IS REQUIRED AT ALL PANEL EDGES.

    TYPICAL ROOF FRAMING AT ROOF DECK:
    3/4" ROOF SHEATHING W/ 10d@4" O/C EN AND 10d@12" O/C FN OVER JOISTS INDICATED ON PLANS, U.N.O. BLOCKING IS REQUIRED AT ALL PANEL EDGES.



1 THIRD FLOOR FRAMING PLAN

1/8" = 1'-0"

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THIRD FLOOR FRAMING PLAN

S2.03

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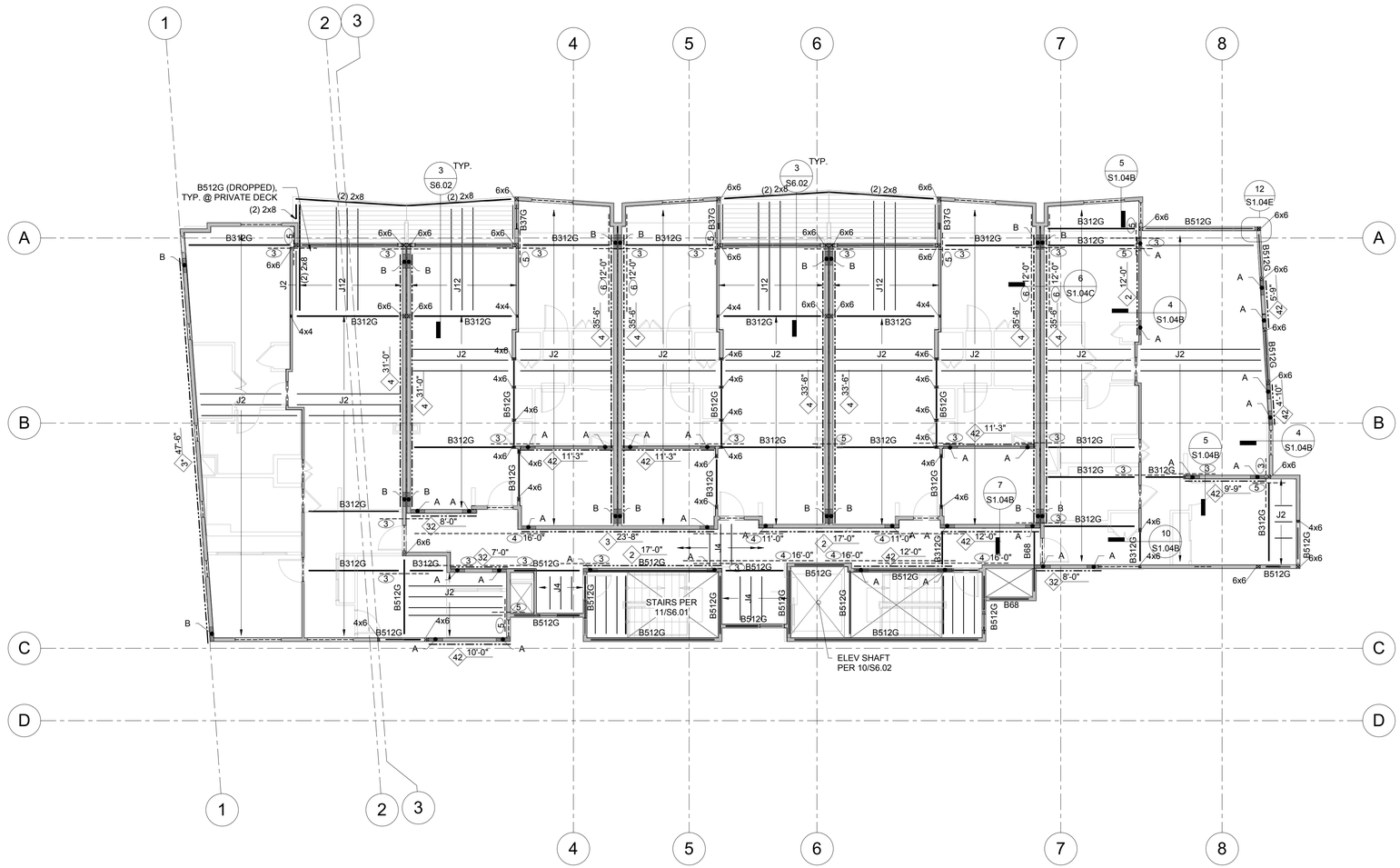

1 FOURTH FLOOR FRAMING PLAN

1/8" = 1'-0"

WOOD FLOOR / ROOF JOIST & HANGER SCHEDULE			
MARK	SIZE	SPACING	SIMPSON HANGER (UNO)
J1	11 7/8" TJI 110 I-JOIST	16" O.C.	IUS1.81/11.88 ITS1.81/11.88
J2	11 7/8" TJI 210 I-JOIST	16" O.C.	IUS2.06/11.88 ITS2.06/11.88
J3	11 7/8" TJI 360 I-JOIST	16" O.C.	IUS2.37/11.88 ITS2.37/11.88
J4	2x8	16" O.C.	HU28 AT INTERIOR LUS28Z AT EXTERIOR
J5	(2) 2x8	16" O.C.	HU28-2
J6	2x6	16" O.C.	LUS26
J7	(2) 2x6	16" O.C.	LUS26-2
J8	2x10	16" O.C.	LUS210
J9	11 7/8" TJI 110 I-JOIST	24" O.C.	IUS1.81/11.88 ITS1.81/11.88
J10	1-3/4"x11-7/8" LVL	16" O.C.	HU11
J11	11 7/8" TJI 230 I-JOIST	16" O.C.	
J12	2x8	12" O.C.	HU28 AT INTERIOR LUS28Z AT EXTERIOR

NOTE: ALL HANGERS BY SIMPSON OR APPROVED EQUAL. ALL FRAMING LUMBER AT EXTERIOR BALCONIES SHALL BE PRESERVATIVE TREATED.

WOOD BEAM AND HANGER SCHEDULE		
MARK	SIZE	TYPICAL SIMPSON HANGER OR EQUAL (U.O.N. ON PLANS)
B28	(2) 2x8	
B37G	3 1/8 x 7 1/2 GL	
B39G	3 1/8 x 9 GL	HU210-2 (MAX)
B312G	3 1/8 x 11 7/8 GL	HU3.25/12
B48	4x8	HU48 (MAX)
B410	4x10	HU410 (MAX)
B57G	5 1/2 x 7 1/2 GL	HU68 (MAX)
B510G	5 1/8 x 10 1/2 GL	HU5.125/12
B512G	5 1/8 x 11 7/8 GL	HU5.125/12
B512P	5 1/4 x 11 7/8 PSL	AS NOTED ON PLANS
B67G	6 3/4 x 7 1/2 GL	HU88 (MAX)[5]
B68	6x8	HU68 (MAX)
B69G	6 3/4 x 9 GL	HU88 (MAX)[5]
B612G	6 3/4 x 11 7/8 GL	AS NOTED ON PLANS
B712P	7 x 11 7/8 PSL	AS NOTED ON PLANS

NOTES:
1. PROVIDE SKEWED HANGER WHERE REQUIRED.
2. SEE PLAN WHERE NOTED FOR HANGERS AT OTHER SPECIAL CONDITIONS.
3. WHERE VARIABLE HEIGHT HANGER IS INDICATED, HANGER HEIGHT SHALL BE BEAM DEPTH MINUS 2 INCHES, U.O.N.
4. ALL 'HU' TYPE HANGERS MAY HAVE CONCEALED FLANGES AS OPTIONAL CONFIGURATION.
5. INSTALL 3/8" PLYWOOD SHIM EA SIDE OF BEAM AT BEAM HANGER SEAT.
6. ALL BEAMS ARE FLUSH WITH FLOOR/ROOF FRAMING UNLESS OTHERWISE NOTED.

BEAM (DROP)
JOIST/BM
INDICATES BEAM IS LOCATED BELOW THE FLOOR/ROOF JOIST FRAMING
HANGER

WOOD FLOOR PLAN NOTES:

1. SEE S1.04 THROUGH S1.04H FOR TYPICAL WOOD FRAMING DETAILS & SCHEDULES.
2. -SHEAR WALL SCHEDULE: 4/S1.04E
   -EARTHBOUND HOLDOWN SYSTEM: S1.05, S1.05A & SHEETS SH-1 TO SH-2
   -INTERIOR & EXTERIOR WALL HEADER SCHEDULES: S1.04D
   -HOLDOWN ROD TO CONCRETE: 18/S1.05.
   -TYPICAL FLOOR STRAPPING: S1.04D
3. SEE ARCH DRAWINGS FOR DIMENSIONS FROM GRID TO FACE OR CENTERLINE OF WALL STUDS.
4. SEE ARCHITECTURAL DRAWINGS FOR ALL TOP OF FINISH FLOOR ELEVATIONS.
5. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
6. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
7. WHERE NOT INDICATED ON PLAN, USE MINIMUM POST SIZE OF 4x4 AT 4" NOMINAL WALL FRAMING, 4x6 POST AT 6" NOMINAL WALL FRAMING.
8. ALL WOOD EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED U.N.O.
9. TYPICAL FLOOR FRAMING: 1-1/2" (MAX) GYPCRETE FLOOR TOPPING OVER 3/4" FLOOR SHEATHING (PER STRUCTURAL NOTES), GLUED AND NAILED W/ 10d @ 4" O/C EN AND 10d@ 12" O/C FN, U.N.O. BLOCKING IS REQUIRED AT ALL PANEL EDGES.

   TYPICAL BALCONY/TERRRACE FRAMING: SLOPED OVERFRAMING OVER FLAT STRUCTURAL FRAMING: 1-1/8" FLOOR SHEATHING, GLUED AND NAILED W/ 10d @ 6" O/C EN AND 10d@ 12" O/C FN, U.N.O.
10. TYPICAL ROOF FRAMING WITHOUT ROOF DECK:
    5/8" ROOF SHEATHING W/ 10d@4" O/C EN AND 10d@12" O/C FN OVER JOISTS INDICATED ON PLANS, U.N.O. BLOCKING IS REQUIRED AT ALL PANEL EDGES.

    TYPICAL ROOF FRAMING AT ROOF DECK:
    3/4" ROOF SHEATHING W/ 10d@4" O/C EN AND 10d@12" O/C FN OVER JOISTS INDICATED ON PLANS, U.N.O. BLOCKING IS REQUIRED AT ALL PANEL EDGES.

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FOURTH FLOOR FRAMING PLAN

S2.04

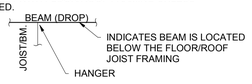
SHEET NO.

WOOD FLOOR / ROOF JOIST & HANGER SCHEDULE			
MARK	SIZE	SPACING	SIMPSON HANGER (UNO)
J1	11 7/8" TJI 110 I-JOIST	16" O.C.	IUS1.81/11.88 ITS1.81/11.88
J2	11 7/8" TJI 210 I-JOIST	16" O.C.	IUS2.06/11.88 ITS2.06/11.88
J3	11 7/8" TJI 360 I-JOIST	16" O.C.	IUS2.37/11.88 ITS2.37/11.88
J4	2x8	16" O.C.	HU28 AT INTERIOR LUS28Z AT EXTERIOR
J5	(2) 2x8	16" O.C.	HU28-2
J6	2x6	16" O.C.	LUS26
J7	(2) 2x6	16" O.C.	LUS26-2
J8	2x10	16" O.C.	LUS210
J9	11 7/8" TJI 110 I-JOIST	24" O.C.	IUS1.81/11.88 ITS1.81/11.88
J10	1-3/4"x11-7/8" LVL	16" O.C.	HU11
J11	11 7/8" TJI 230 I-JOIST	16" O.C.	
J12	2x8	12" O.C.	HU28 AT INTERIOR LUS28Z AT EXTERIOR

NOTE: ALL HANGERS BY SIMPSON OR APPROVED EQUAL. ALL FRAMING LUMBER AT EXTERIOR BALCONIES SHALL BE PRESERVATIVE TREATED.

WOOD BEAM AND HANGER SCHEDULE		
MARK	SIZE	TYPICAL SIMPSON HANGER OR EQUAL (U.O.N. ON PLANS)
B28	(2) 2x8	
B37G	3 1/8 x 7 1/2 GL	
B39G	3 1/8 x 9 GL	HU210-2 (MAX)
B312G	3 1/8 x 11 7/8 GL	HU3.25/12
B48	4x8	HU48 (MAX)
B410	4x10	HU410 (MAX)
B57G	5 1/2 x 7 1/2 GL	HU68 (MAX)
B510G	5 1/8 x 10 1/2 GL	HU5.125/12
B512G	5 1/8 x 11 7/8 GL	HU5.125/12
B512P	5 1/4 x 11 7/8 PSL	AS NOTED ON PLANS
B67G	6 3/4 x 7 1/2 GL	HU88 (MAX)[5]
B68	6x8	HU68 (MAX)
B69G	6 3/4 x 9 GL	HU88 (MAX)[5]
B612G	6 3/4 x 11 7/8 GL	AS NOTED ON PLANS
B712P	7 x 11 7/8 PSL	AS NOTED ON PLANS

NOTES:
1. PROVIDE SKEWED HANGER WHERE REQUIRED.
2. SEE PLAN WHERE NOTED FOR HANGERS AT OTHER SPECIAL CONDITIONS.
3. WHERE VARIABLE HEIGHT HANGER IS INDICATED, HANGER HEIGHT SHALL BE BEAM DEPTH MINUS 2 INCHES, U.O.N.
4. ALL 'HU' TYPE HANGERS MAY HAVE CONCEALED FLANGES AS OPTIONAL CONFIGURATION.
5. INSTALL 3/8" PLYWOOD SHIM EA SIDE OF BEAM AT BEAM HANGER SEAT.
6. ALL BEAMS ARE FLUSH WITH FLOOR/ROOF FRAMING UNLESS OTHERWISE NOTED.

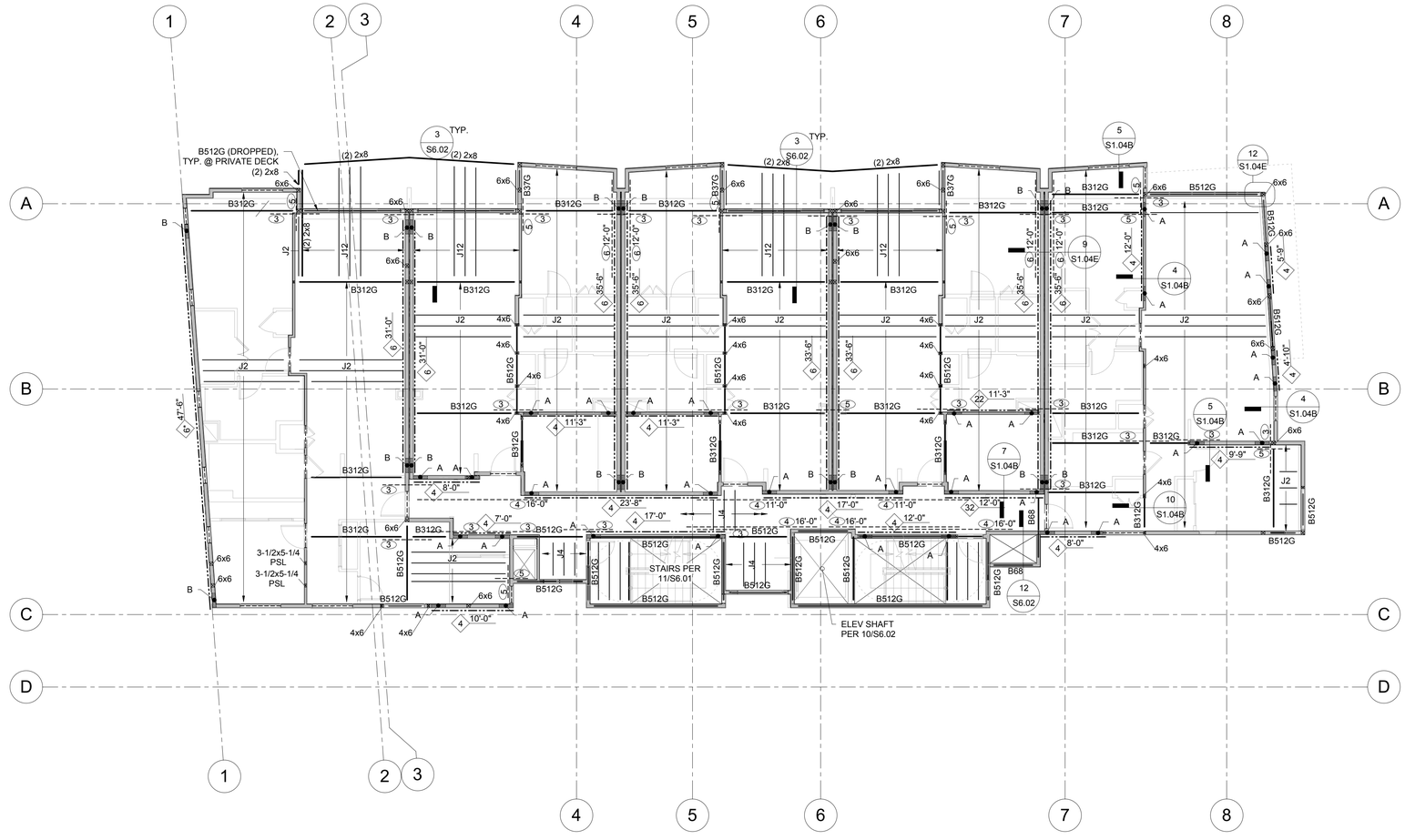


WOOD FLOOR PLAN NOTES:

1. SEE S1.04 THROUGH S1.04H FOR TYPICAL WOOD FRAMING DETAILS & SCHEDULES.
2. -SHEAR WALL SCHEDULE: 4/S1.04E
   -EARTHBOUND HOLDDOWN SYSTEM: S1.05, S1.05A & SHEETS SH-1 TO SH-2
   -INTERIOR & EXTERIOR WALL HEADER SCHEDULES: S1.04D
   -HOLDOWN ROD TO CONCRETE: 18/S1.05.
   -TYPICAL FLOOR STRAPPING: S1.04D
3. SEE ARCH DRAWINGS FOR DIMENSIONS FROM GRID TO FACE OR CENTERLINE OF WALL STUDS.
4. SEE ARCHITECTURAL DRAWINGS FOR ALL TOP OF FINISH FLOOR ELEVATIONS.
5. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
6. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
7. WHERE NOT INDICATED ON PLAN, USE MINIMUM POST SIZE OF 4x4 AT 4" NOMINAL WALL FRAMING, 4x6 POST AT 6" NOMINAL WALL FRAMING.
8. ALL WOOD EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED U.N.O.
9. TYPICAL FLOOR FRAMING: 1-1/2" (MAX) GYPCRETE FLOOR TOPPING OVER 3/4" FLOOR SHEATHING (PER STRUCTURAL NOTES), GLUED AND NAILED W/ 10d @ 4" O/C EN AND 10d@ 12" O/C FN, U.N.O. BLOCKING IS REQUIRED AT ALL PANEL EDGES.

   TYPICAL BALCONY/TERRRACE FRAMING: SLOPED OVERFRAMING OVER FLAT STRUCTURAL FRAMING: 1-1/8" FLOOR SHEATHING, GLUED AND NAILED W/ 10d @ 6" O/C EN AND 10d@ 12" O/C FN, U.N.O.
10. TYPICAL ROOF FRAMING WITHOUT ROOF DECK:
    5/8" ROOF SHEATHING W/ 10d@4" O/C EN AND 10d@12" O/C FN OVER JOISTS INDICATED ON PLANS, U.N.O. BLOCKING IS REQUIRED AT ALL PANEL EDGES.

    TYPICAL ROOF FRAMING AT ROOF DECK:
    3/4" ROOF SHEATHING W/ 10d@4" O/C EN AND 10d@12" O/C FN OVER JOISTS INDICATED ON PLANS, U.N.O. BLOCKING IS REQUIRED AT ALL PANEL EDGES.



1 FIFTH FLOOR FRAMING PLAN

1/8" = 1'-0"

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FIFTH FLOOR FRAMING PLAN

S2.05

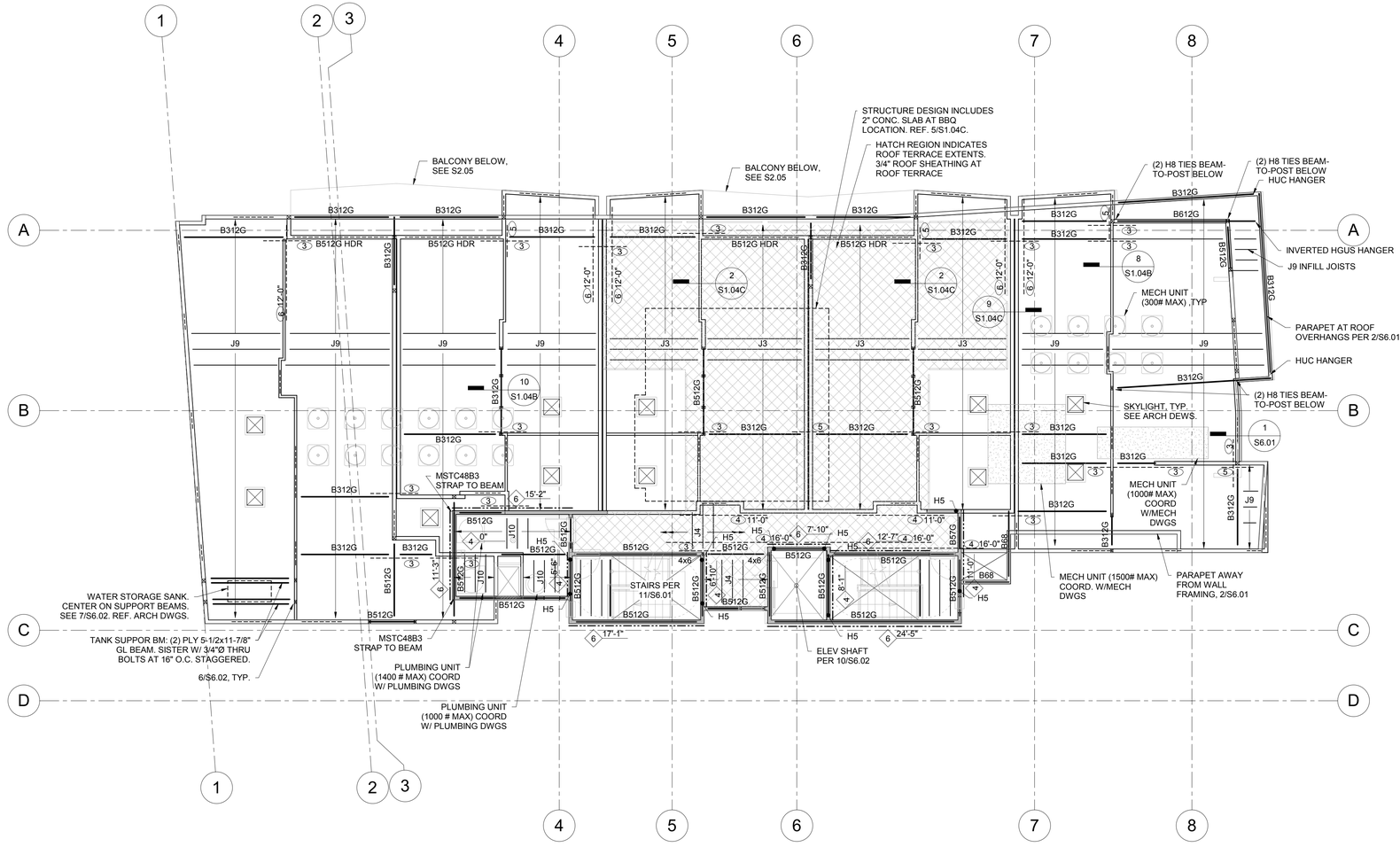
SHEET NO.

WOOD FLOOR / ROOF JOIST & HANGER SCHEDULE			
MARK	SIZE	SPACING	SIMPSON HANGER (UNO)
J1	11 7/8" TJI 110 I-JOIST	16" O.C.	IUS1.81/11.88 ITS1.81/11.88
J2	11 7/8" TJI 210 I-JOIST	16" O.C.	IUS2.06/11.88 ITS2.06/11.88
J3	11 7/8" TJI 360 I-JOIST	16" O.C.	IUS2.37/11.88 ITS2.37/11.88
J4	2x8	16" O.C.	HU28 AT INTERIOR LUS28Z AT EXTERIOR
J5	(2) 2x8	16" O.C.	HU28-2
J6	2x6	16" O.C.	LUS26
J7	(2) 2x6	16" O.C.	LUS26-2
J8	2x10	16" O.C.	LUS210
J9	11 7/8" TJI 110 I-JOIST	24" O.C.	IUS1.81/11.88 ITS1.81/11.88
J10	1-3/4"x11-7/8" LVL	16" O.C.	HU11
J11	11 7/8" TJI 230 I-JOIST	16" O.C.	
J12	2x8	12" O.C.	HU28 AT INTERIOR LUS28Z AT EXTERIOR

NOTE: ALL HANGERS BY SIMPSON OR APPROVED EQUAL. ALL FRAMING LUMBER AT EXTERIOR BALCONIES SHALL BE PRESERVATIVE TREATED.

WOOD BEAM AND HANGER SCHEDULE		
MARK	SIZE	TYPICAL SIMPSON HANGER OR EQUAL (U.O.N. ON PLANS)
B28	(2) 2x8	
B37G	3 1/8 x 7 1/2 GL	
B39G	3 1/8 x 9 GL	HU210-2 (MAX)
B312G	3 1/8 x 11 7/8 GL	HU3.25/12
B48	4x8	HU48 (MAX)
B410	4x10	HU410 (MAX)
B57G	5 1/2 x 7 1/2 GL	HU68 (MAX)
B510G	5 1/8 x 10 1/2 GL	HU5.125/12
B512G	5 1/8 x 11 7/8 GL	HU5.125/12
B512P	5 1/4 x 11 7/8 PSL	AS NOTED ON PLANS
B67G	6 3/4 x 7 1/2 GL	HU88 (MAX)[5]
B68	6x8	HU68 (MAX)
B69G	6 3/4 x 9 GL	HU88 (MAX)[5]
B612G	6 3/4 x 11 7/8 GL	AS NOTED ON PLANS
B712P	7 x 11 7/8 PSL	AS NOTED ON PLANS

NOTES:
1. PROVIDE SKEWED HANGER WHERE REQUIRED.
2. SEE PLAN WHERE NOTED FOR HANGERS AT OTHER SPECIAL CONDITIONS.
3. WHERE VARIABLE HEIGHT HANGER IS INDICATED, HANGER HEIGHT SHALL BE BEAM DEPTH MINUS 2 INCHES, U.O.N.
4. ALL 'HU' TYPE HANGERS MAY HAVE CONCEALED FLANGES AS OPTIONAL CONFIGURATION.
5. INSTALL 3/8" PLYWOOD SHIM EA SIDE OF BEAM AT BEAM HANGER SEAT.
6. ALL BEAMS ARE FLUSH WITH FLOOR/ROOF FRAMING UNLESS OTHERWISE NOTED.



WOOD ROOF PLAN NOTES:

1. SEE ARCHITECTURAL DRAWING FOR PARAPET LOCATIONS AND HEIGHTS.
2. SEE S1.04 THROUGH S1.04H FOR TYPICAL WOOD FRAMING DETAILS & SCHEDULES.
3. PARAPET FRAMING: S6.01
4. DIMENSIONS AND GRIDS TO FACE OR CENTERLINE OF STUDS. U.N.O.
5. SEE ARCHITECTURAL DRAWINGS FOR ALL TOP OF FINISH FLOOR ELEVATIONS.
6. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
7. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
8. WHERE NOT INDICATED ON PLAN, USE MINIMUM POST SIZE OF 4x4 AT 4" NOMINAL WALL FRAMING, 4x6 POST AT 6" NOMINAL WALL FRAMING.
9. ALL WOOD EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED U.N.O.
10. TYPICAL ROOF FRAMING WITHOUT ROOF DECK: 5/8" ROOF SHEATHING W/ 10d@4" O/C EN AND 10d@12" O/C FN OVER JOISTS INDICATED ON PLANS, U.N.O. BLOCKING IS REQUIRED AT ALL PANEL EDGES.

    TYPICAL ROOF FRAMING AT ROOF DECK AND MECHANICAL ROOM: 3/4" ROOF SHEATHING W/ 10d@4" O/C EN AND 10d@12" O/C FN OVER JOISTS INDICATED ON PLANS, U.N.O. BLOCKING IS REQUIRED AT ALL PANEL EDGES.

1 ROOF FRAMING PLAN

1/8" = 1'-0"

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ROOF FRAMING PLAN

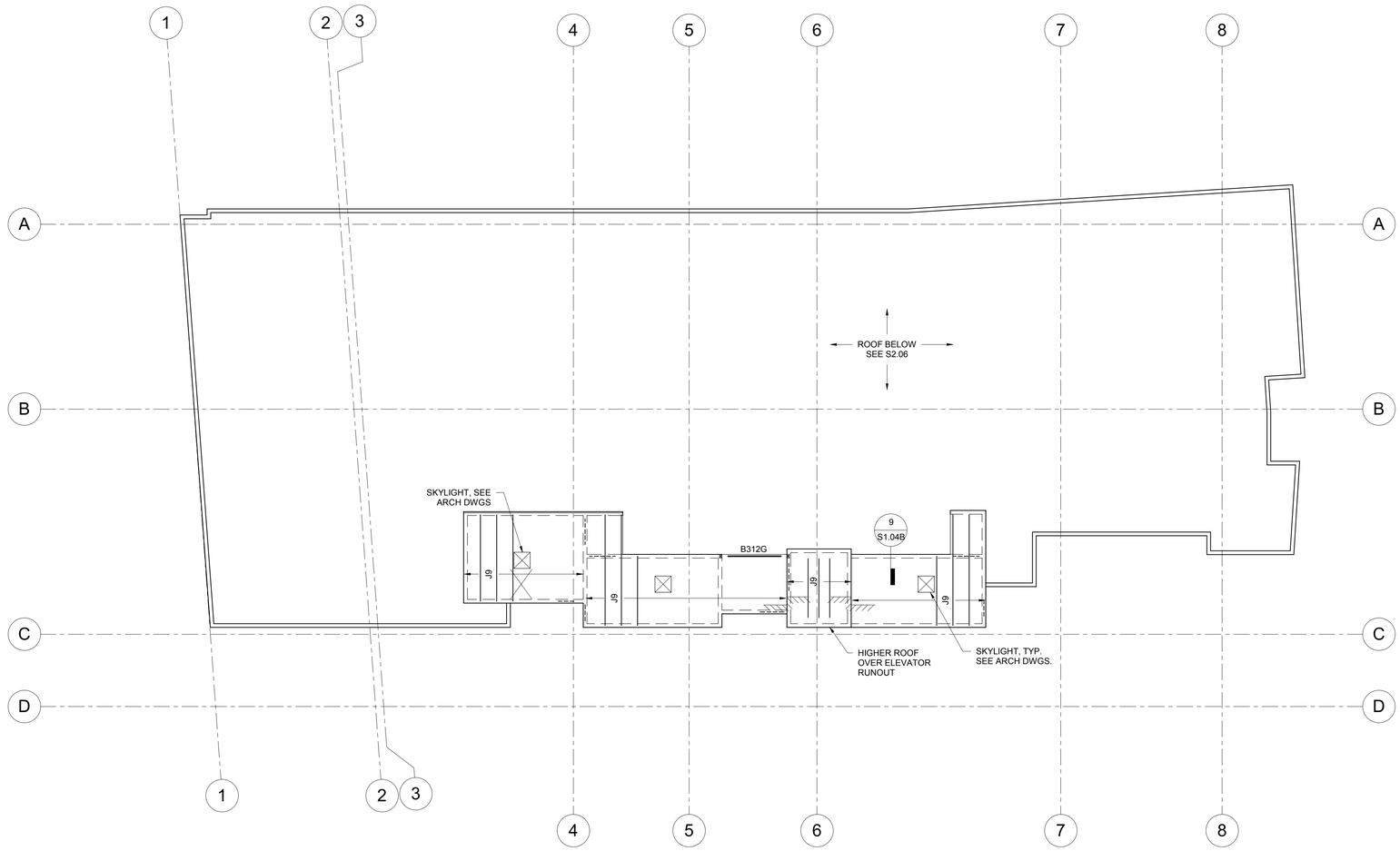
S2.06

SHEET NO.

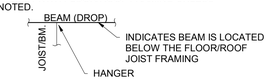
WOOD FLOOR / ROOF JOIST & HANGER SCHEDULE			
MARK	SIZE	SPACING	SIMPSON HANGER (UNO)
J1	11 7/8" TJI 110 I-JOIST	16" O.C.	IUS1.81/11.88 ITS1.81/11.88
J2	11 7/8" TJI 210 I-JOIST	16" O.C.	IUS2.06/11.88 ITS2.06/11.88
J3	11 7/8" TJI 360 I-JOIST	16" O.C.	IUS2.37/11.88 ITS2.37/11.88
J4	2x8	16" O.C.	HU28 AT INTERIOR LUS28Z AT EXTERIOR
J5	(2) 2x8	16" O.C.	HU28-2
J6	2x6	16" O.C.	LUS26
J7	(2) 2x6	16" O.C.	LUS26-2
J8	2x10	16" O.C.	LUS210
J9	11 7/8" TJI 110 I-JOIST	24" O.C.	IUS1.81/11.88 ITS1.81/11.88
J10	1-3/4"x11-7/8" LVL	16" O.C.	HU11
J11	11 7/8" TJI 230 I-JOIST	16" O.C.	
J12	2x8	12" O.C.	HU28 AT INTERIOR LUS28Z AT EXTERIOR

NOTE: ALL HANGERS BY SIMPSON OR APPROVED EQUAL. ALL FRAMING LUMBER AT EXTERIOR BALCONIES SHALL BE PRESERVATIVE TREATED.

WOOD BEAM AND HANGER SCHEDULE		
MARK	SIZE	TYPICAL SIMPSON HANGER OR EQUAL (U.O.N. ON PLANS)
B28	(2) 2x8	
B37G	3 1/8 x 7 1/2 GL	
B39G	3 1/8 x 9 GL	HU210-2 (MAX)
B312G	3 1/8 x 11 7/8 GL	HU3.25/12
B48	4x8	HU48 (MAX)
B410	4x10	HU410 (MAX)
B57G	5 1/2 x 7 1/2 GL	HU68 (MAX)
B510G	5 1/8 x 10 1/2 GL	HU5.125/12
B512G	5 1/8 x 11 7/8 GL	HU5.125/12
B512P	5 1/4 x 11 7/8 PSL	AS NOTED ON PLANS
B67G	6 3/4 x 7 1/2 GL	HU88 (MAX[5])
B68	6x8	HU68 (MAX)
B69G	6 3/4 x 9 GL	HU88 (MAX[5])
B612G	6 3/4 x 11 7/8 GL	AS NOTED ON PLANS
B712P	7 x 11 7/8 PSL	AS NOTED ON PLANS



NOTES:
1. PROVIDE SKEWED HANGER WHERE REQUIRED.
2. SEE PLAN WHERE NOTED FOR HANGERS AT OTHER SPECIAL CONDITIONS.
3. WHERE VARIABLE HEIGHT HANGER IS INDICATED, HANGER HEIGHT SHALL BE BEAM DEPTH MINUS 2 INCHES, U.O.N.
4. ALL 'HU' TYPE HANGERS MAY HAVE CONCEALED FLANGES AS OPTIONAL CONFIGURATION.
5. INSTALL 3/8" PLYWOOD SHIM EA SIDE OF BEAM AT BEAM HANGER SEAT.
6. ALL BEAMS ARE FLUSH WITH FLOOR/ROOF FRAMING UNLESS OTHERWISE NOTED.



WOOD ROOF PLAN NOTES:

1. SEE ARCHITECTURAL DRAWING FOR PARAPET LOCATIONS AND HEIGHTS.
2. SEE S1.04 THROUGH S1.04H FOR TYPICAL WOOD FRAMING DETAILS & SCHEDULES.
3. PARAPET FRAMING: S6.01
4. DIMENSIONS AND GRIDS TO FACE OR CENTERLINE OF STUDS. U.N.O.
5. SEE ARCHITECTURAL DRAWINGS FOR ALL TOP OF FINISH FLOOR ELEVATIONS.
6. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
7. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
8. WHERE NOT INDICATED ON PLAN, USE MINIMUM POST SIZE OF 4x4 AT 4" NOMINAL WALL FRAMING, 4x6 POST AT 6" NOMINAL WALL FRAMING.
9. ALL WOOD EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED U.N.O.
10. TYPICAL ROOF FRAMING WITHOUT ROOF DECK: 5/8" ROOF SHEATHING W/ 10d@4" O/C EN AND 10d@12" O/C FN OVER JOISTS INDICATED ON PLANS, U.N.O. BLOCKING IS REQUIRED AT ALL PANEL EDGES.

    TYPICAL ROOF FRAMING AT ROOF DECK AND MECHANICAL ROOM: 3/4" ROOF SHEATHING W/ 10d@4" O/C EN AND 10d@12" O/C FN OVER JOISTS INDICATED ON PLANS, U.N.O. BLOCKING IS REQUIRED AT ALL PANEL EDGES.

1 UPPER ROOF FRAMING PLAN

1/8" = 1'-0"

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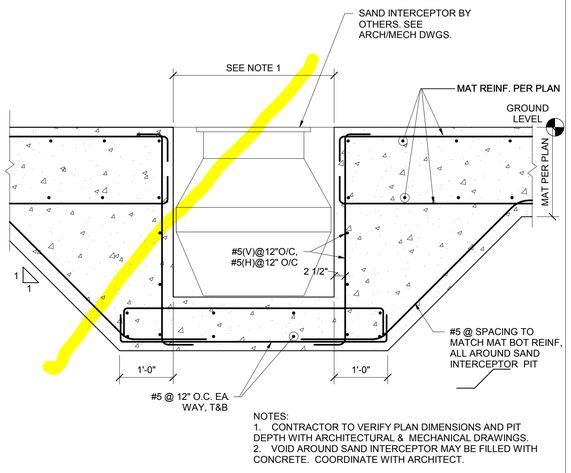
PENTHOUSE
FRAMING PLAN

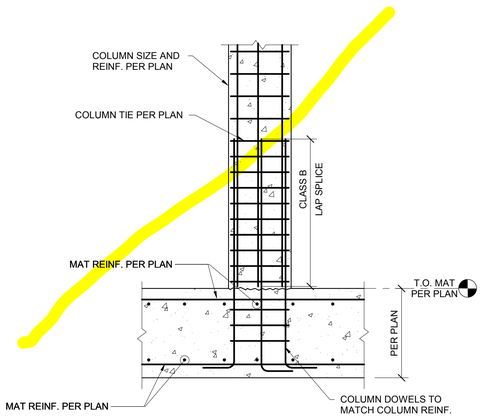
S2.07

SHEET NO.

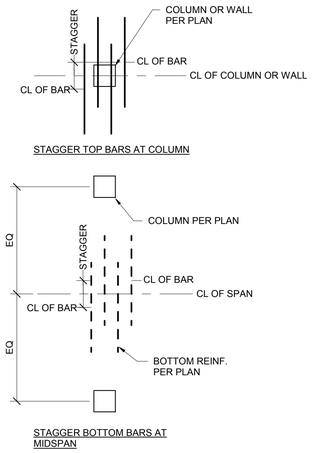


NOTES:
1. CONTRACTOR TO VERIFY PLAN DIMENSIONS AND PIT DEPTH WITH ARCHITECTURAL & MECHANICAL DRAWINGS.
2. VOID AROUND SAND INTERCEPTOR MAY BE FILLED WITH CONCRETE. COORDINATE WITH ARCHITECT.

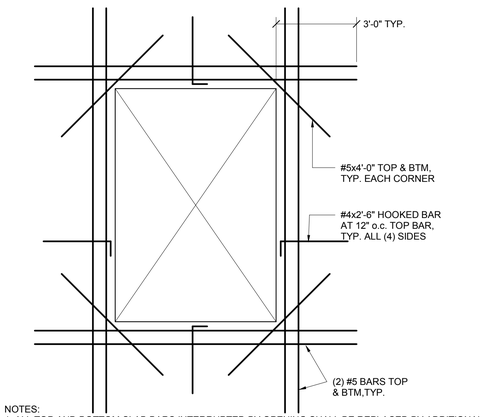
12 SAND INTERCEPTOR PIT DETAIL
3/4" = 1'-0"



9 COLUMN AT MAT FOUNDATION
3/4" = 1'-0"



6 REBAR STAGGER DETAIL
3/4" = 1'-0"



NOTES:
1. ALL TOP AND BOTTOM SLAB BARS INTERRUPTED BY OPENING SHALL BE REPLACED BY ADDITIONAL REINFORCING EQUAL TO THAT INTERRUPTED. PLACE HALF OF THE ADDITIONAL REINFORCING ON EACH SIDE OF THE OPENING AND EXTEND TO LENGTH REQUIRED TO ACHIEVE CLASS "B" LAP SPLICE (BEYOND OPENING) PER BAR SIZE.

3 TYPICAL LARGE OPENING
3/4" = 1'-0"

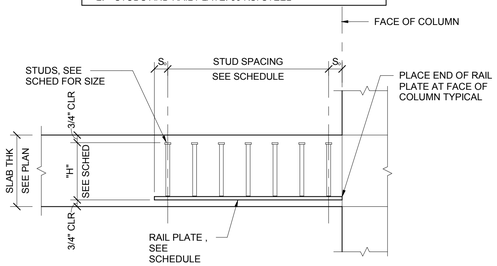
STUDRAIL SCHEDULE

MARK	REF DETAIL	RAIL PLATE SIZE THICKNESS, "T"	RAIL PLATE SIZE WIDTH, "W"	RAIL PLATE No OF RAILS PER COLUMN	STUDS SIZE Ø	STUDS No OF STUDS PER RAIL	STUDS SPACING
A	C	1/4"	1-1/4"	8	5/8"	18	3-1/4"
B	C	1/4"	1-1/4"	8	5/8"	8	6-1/2"
C	D	1/4"	1-1/4"	6	3/4"	30	5-1/4"
D	D	1/4"	1-1/4"	6	5/8"	10	7-1/4"
E	B	1/4"	1-1/4"	8	5/8"	12	7-1/2"
F	A	1/4"	1-1/4"	10	5/8"	10	6"
G	E	1/4"	1-1/4"	7	5/8"	12	6-1/2"
H	F	1/4"	1-1/4"	5	5/8"	12	4-3/4"
J	G	1/4"	1-1/4"	6	5/8"	12	6"

STUD HEIGHT - TOTAL SLAB THICKNESS MINUS 1-1/2" (3/4" COVER TOP & BOTTOM)

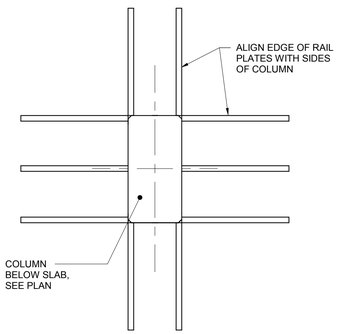
NOTE: AT THINNER SLAB OR STEP TRANSITION, PROVIDE SHORTER STUD AS REQUIRED FOR MIN 3/4" CONCRETE COVER

NOTES:
1. "STUDRAILS" MANUFACTURER BY DECON OR ENGINEER APPROVED EQUAL
2. STUDS AND RAIL PLATE: 50 KSI STEEL

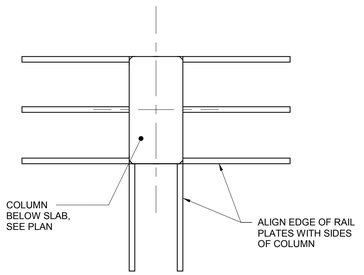


NOTES:
1. "STUDRAILS" MANUFACTURER BY DECON OR ENGINEER APPROVED EQUAL
2. STUDS AND RAIL PLATE: 50 KSI STEEL
3. S = 4" @12" THICK SLAB

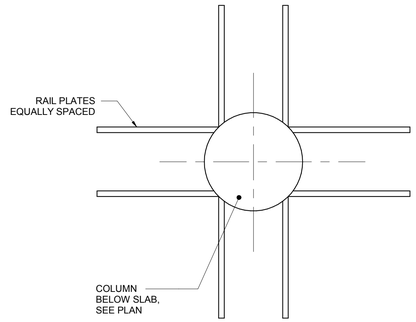
TYPICAL STUDRAIL DETAIL A-A



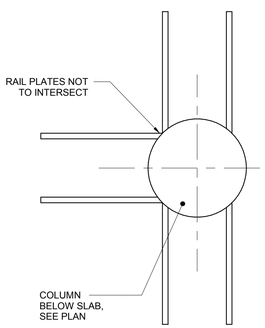
A PLAN - STUDRAIL LAYOUT AT INTERIOR RECTANGULAR COLUMN



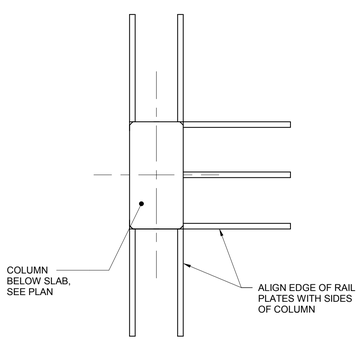
B PLAN - STUDRAIL LAYOUT AT EXTERIOR RECTANGULAR COLUMN



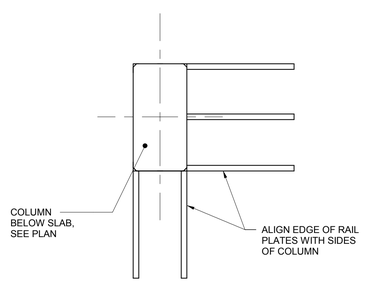
C PLAN - STUDRAIL LAYOUT AT INTERIOR ROUND COLUMN



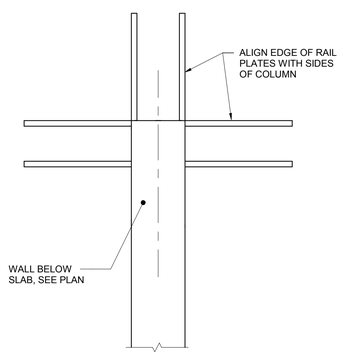
D PLAN - STUDRAIL LAYOUT AT EXTERIOR ROUND COLUMN



E PLAN - STUDRAIL LAYOUT AT EXTERIOR RECTANGULAR COLUMN



F PLAN - STUDRAIL LAYOUT AT CORNER RECTANGULAR COLUMN



G PLAN - STUDRAIL LAYOUT AT END OF WALL

10 TYPICAL STUDRAILS IN SLAB AT CONCRETE COLUMNS
3/4" = 1'-0"

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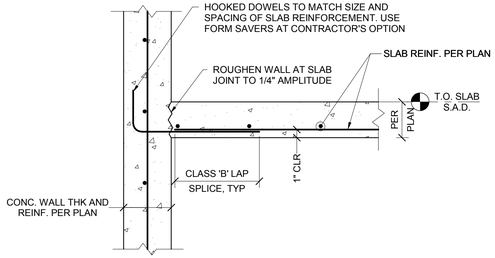
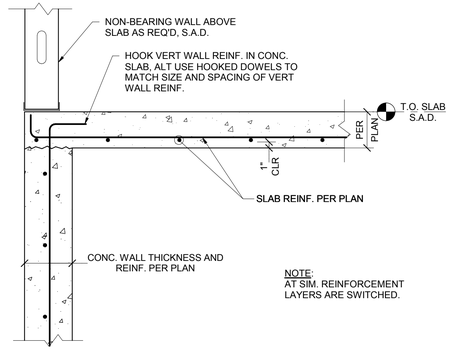
CONCRETE COLUMN SCHEDULE AND DETAILS

S3.01

SHEET NO.



6 CONC. SLAB AT TRASH ROOM CEILING - EXT WALL 1" = 1'-0"



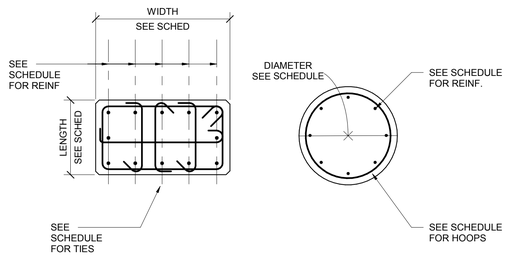
3 CONC. SLAB AT TRASH ROOM CEILING 1" = 1'-0"

NON-FRAME CONCRETE COLUMN SCHEDULE

MARK / LEVELS	C1	C2	C3	C4	
SECOND FLOOR (PODIUM)					
FIRST FLOOR	(12) #6	(8) #6	(8) #7	(12) #6	
BOTT OF MAT	(12) #6	(8) #6	(8) #7	(12) #6	
COLUMN SIZE (INCHES) WIDTH x LENGTH	14"x28"	22" Ø	24" Ø	14"x36"	
#4 COLUMN TIE SPACING — ZONE A	3 1/2" o.c.	3" PITCH	3" PITCH	3½" O.C	
#4 COLUMN TIE SPACING — ZONE B	5" o.c.	3" PITCH	3" PITCH	5" O.C.	
COLUMN TYPE	(A)	(B)	(B)	(A)	

NOTES:

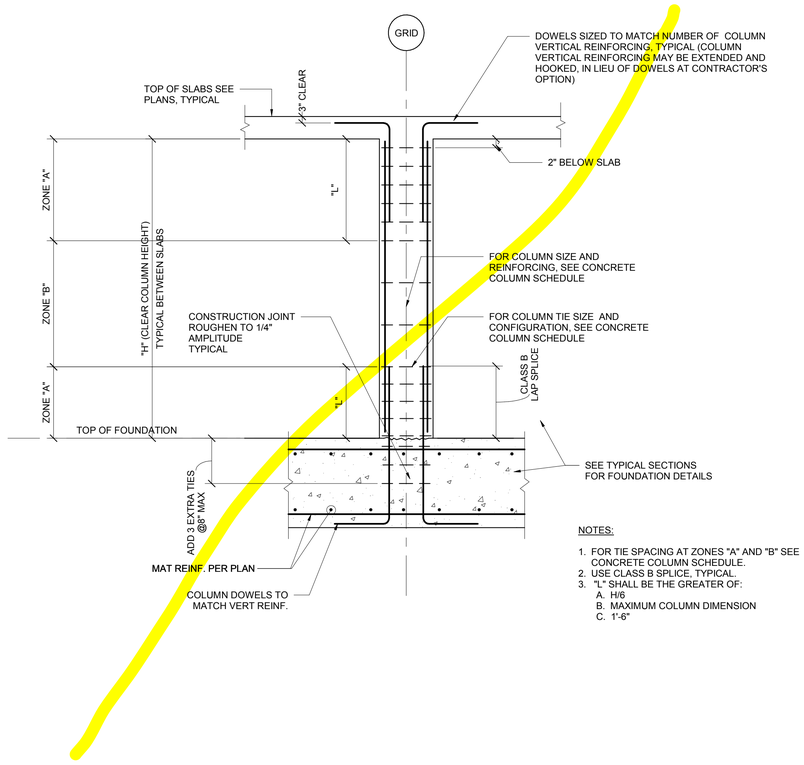
1. ENGAGE WALL HORIZ REINF WHERE OCCURS.
2. NO CONDUIT OR JUNCTION BOX ALLOWED INSIDE COLUMN.
3. ALL COLUMNS ARE CONCENTRIC ABOUT GRIDS EXCEPT AS NOTED.
4. COLUMN STRENGTH PER STRUCTURAL NOTES.



A 12 BARS

B 8 BARS

7 NON-FRAME CONCRETE COLUMN TYPES NTS



NOTES:

1. FOR TIE SPACING AT ZONES "A" AND "B" SEE CONCRETE COLUMN SCHEDULE.
2. USE CLASS B SPLICE, TYPICAL.
3. "L" SHALL BE THE GREATER OF:
   A. H/6
   B. MAXIMUM COLUMN DIMENSION
   C. 1'-6"

4 TYPICAL NON-FRAME CONCRETE COLUMN NTS

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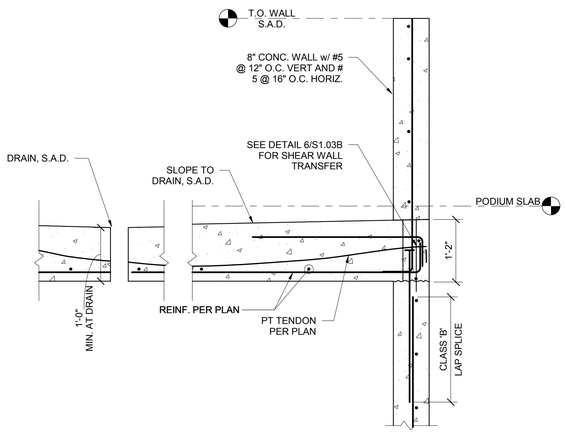
CONCRETE COLUMN SCHEDULE AND DETAILS

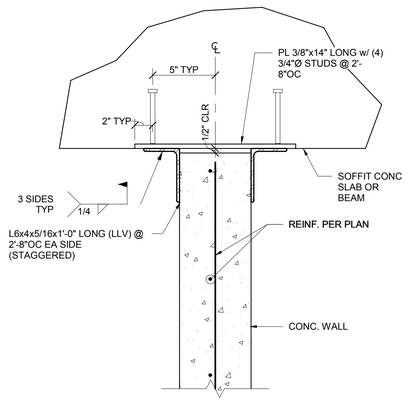
S3.01A

SHEET NO.



12 SLAB DETAIL

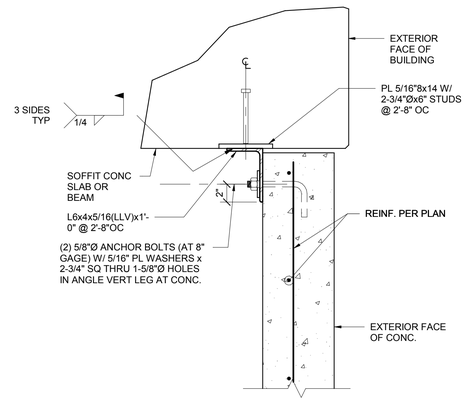
3/4" = 1'-0"



AT INTERIOR WALL CONDITION

9 CONN AT TOP OF NON-BEARING CONCRETE WALL (INT)

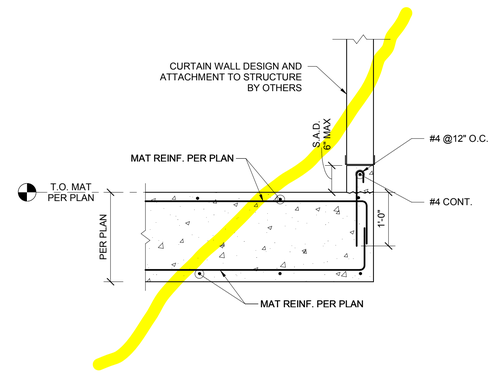
1 1/2" = 1'-0"



AT EXTERIOR WALL CONDITION

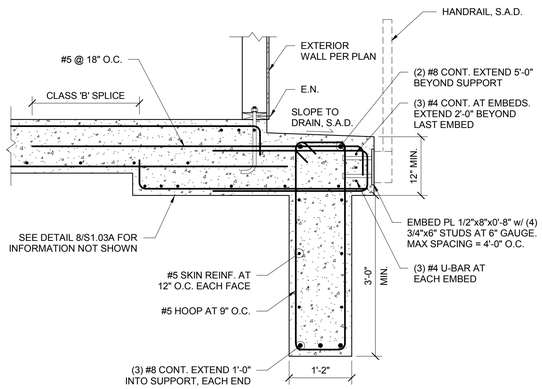
6 CONN AT TOP OF NON-BEARING CONCRETE WALL(EXT)

1 1/2" = 1'-0"



3 CURB AT CURTAIN WALL

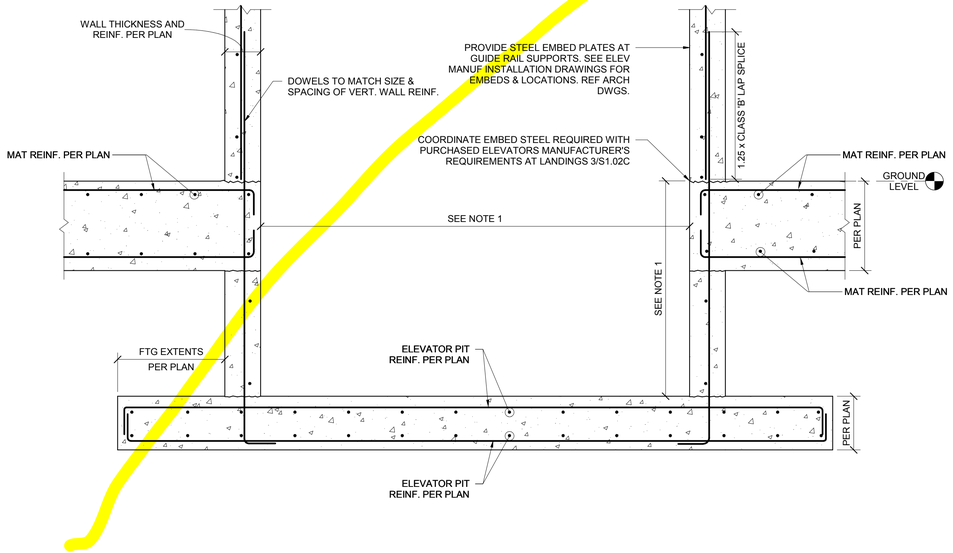
3/4" = 1'-0"



NOTES:
1. PT NOT SHOWN FOR CLARITY

11 DETAIL AT PODIUM BEAM

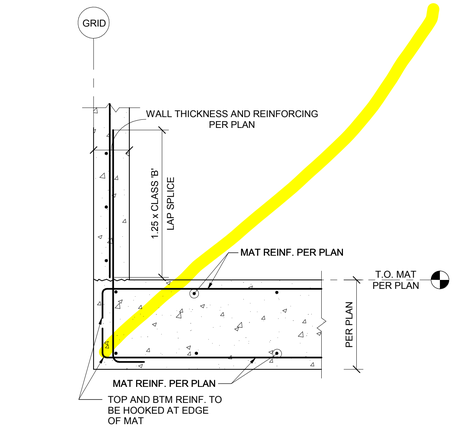
3/4" = 1'-0"



NOTES:
1. CONTRACTOR TO VERIFY PLAN DIMENSIONS AND PIT DEPTH WITH ARCHITECTURAL DRAWINGS AND PURCHASED ELEVATOR MANUFACTURER'S REQUIREMENTS

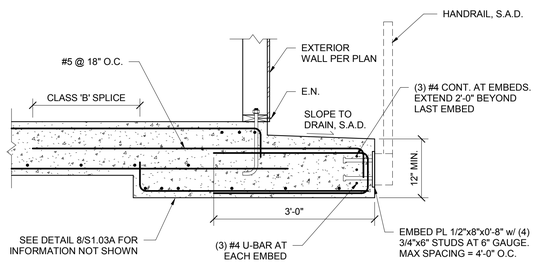
7 ELEVATOR PIT DETAIL

3/4" = 1'-0"



2 TYPICAL WALL FOOTING

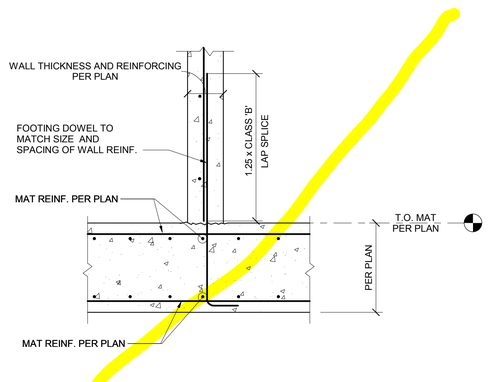
3/4" = 1'-0"



NOTES:
1. PT NOT SHOWN FOR CLARITY

10 DETAIL AT DECK

3/4" = 1'-0"



1 TYPICAL WALL FOOTING

3/4" = 1'-0"

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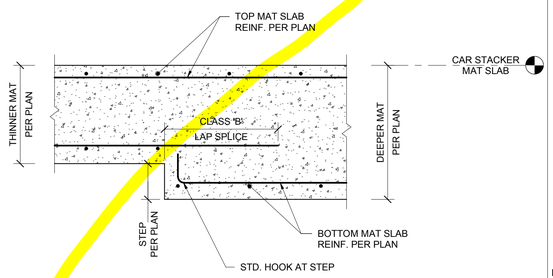
CONCRETE DETAILS

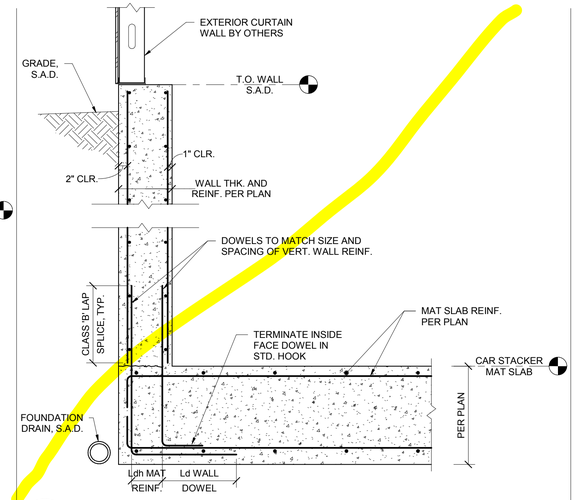
S3.02

SHEET NO.



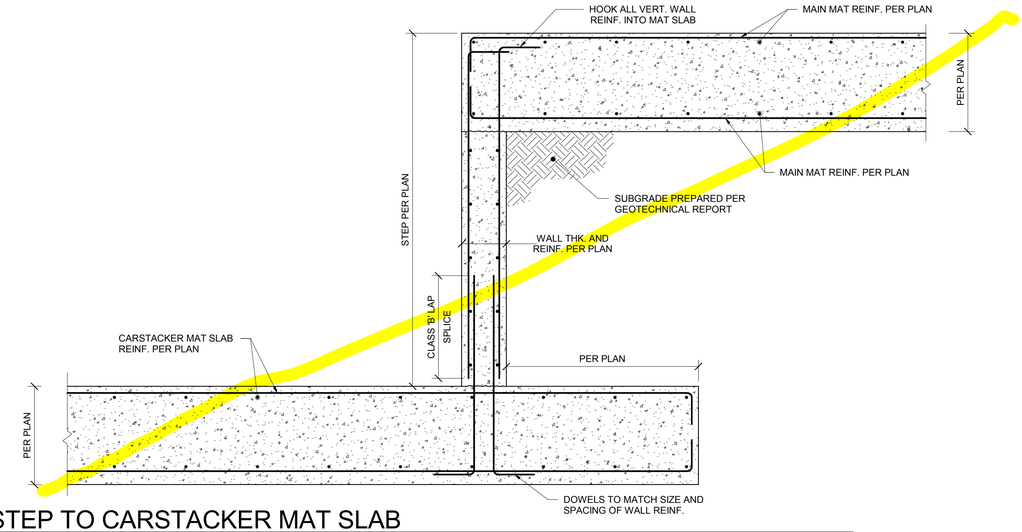
12 STEP AT MAT SLAB

3/4" = 1'-0"



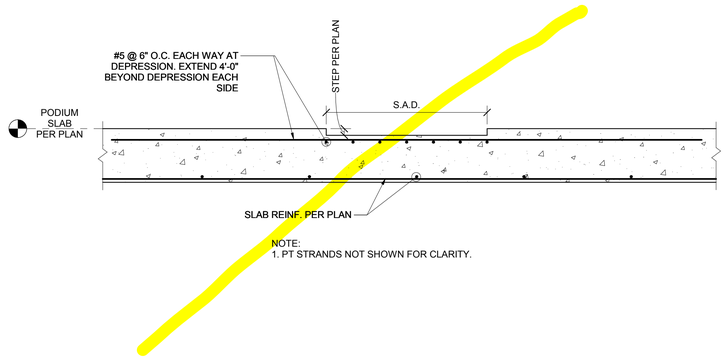
9 CANTILEVER RETAINING WALL

3/4" = 1'-0"



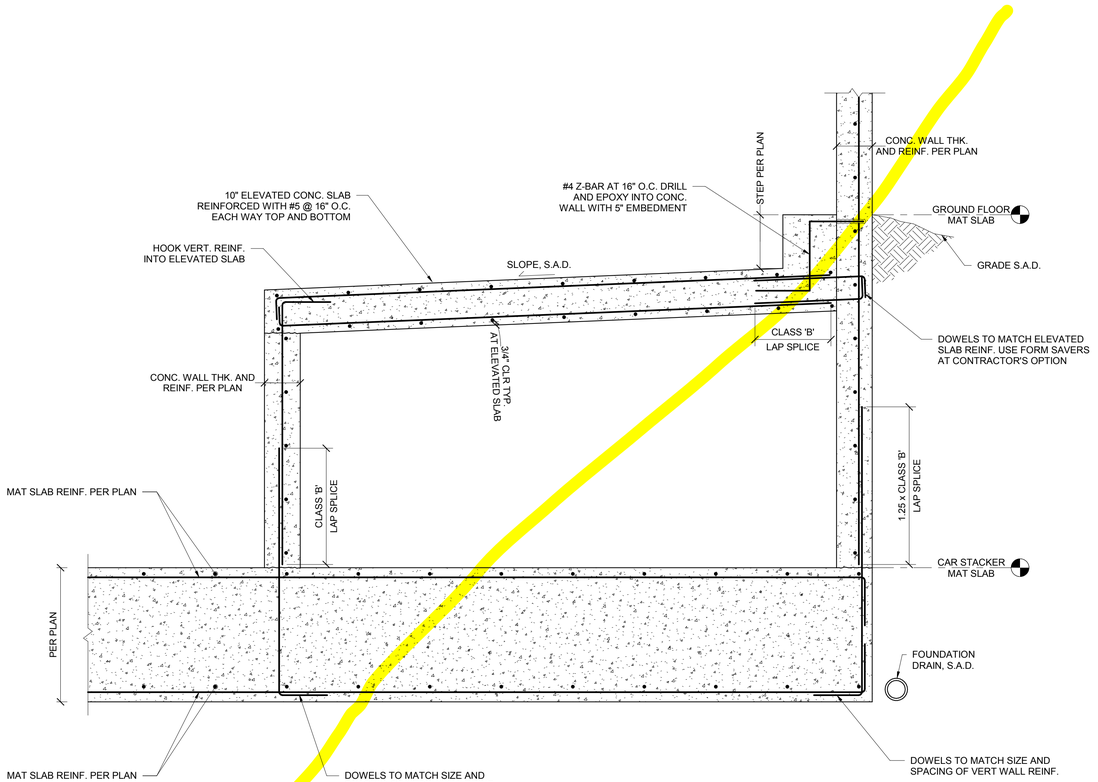
6 STEP TO CARSTACKER MAT SLAB

3/4" = 1'-0"



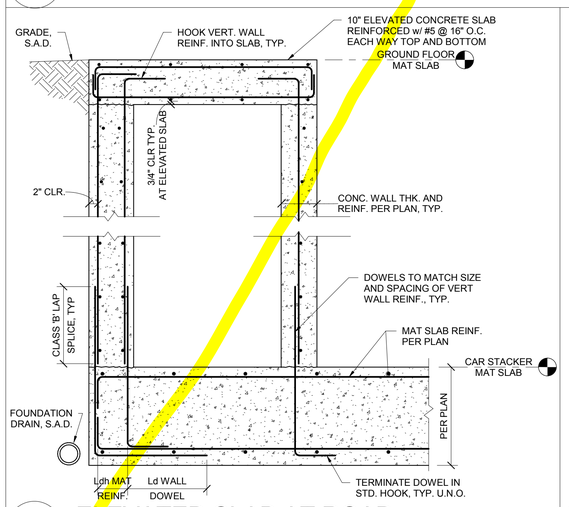
5 SHOWER DEPRESSION DETAIL

3/4" = 1'-0"



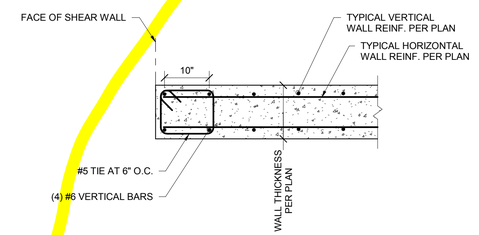
10 ELEVATED SLAB AT CARSTACKER

3/4" = 1'-0"



4 ELEVATED SLAB AT ROAD

3/4" = 1'-0"



1 SHEAR WALL BOUNDARY ZONE REINF.

3/4" = 1'-0"

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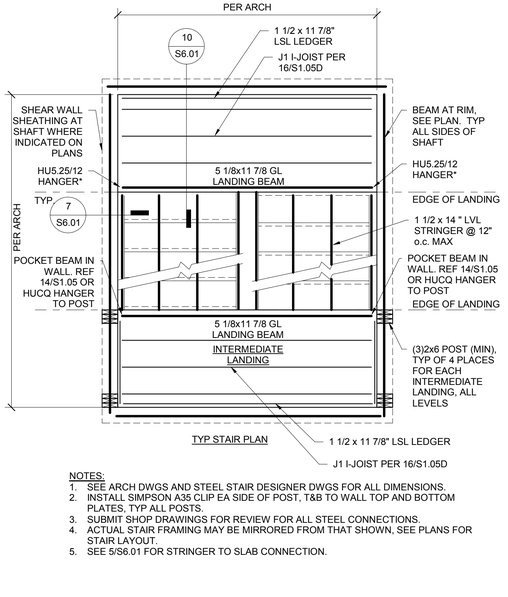
CONCRETE DETAILS

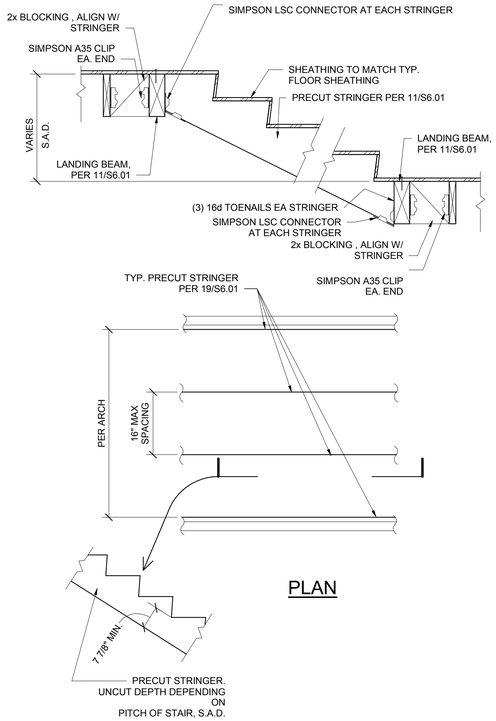
S3.03

SHEET NO.

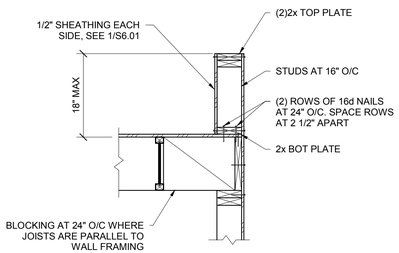


NOTES:
1. SEE ARCH DWGS AND STEEL STAIR DESIGNER DWGS FOR ALL DIMENSIONS.
2. INSTALL SIMPSON A35 CLIP EA SIDE OF POST, T&B TO WALL TOP AND BOTTOM PLATES, TYP ALL POSTS.
3. SUBMIT SHOP DRAWINGS FOR REVIEW FOR ALL STEEL CONNECTIONS.
4. ACTUAL STAIR FRAMING MAY BE MIRRORED FROM THAT SHOWN, SEE PLANS FOR STAIR LAYOUT.
5. SEE 5/S6.01 FOR STRINGER TO SLAB CONNECTION.

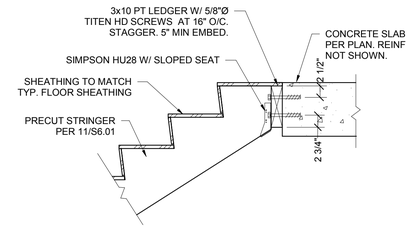
11 TYP STAIR SHAFT FRAMING
NTS



8 TYPICAL WOOD STAIR STRINGER ATTACHMENT
3/4" = 1'-0"

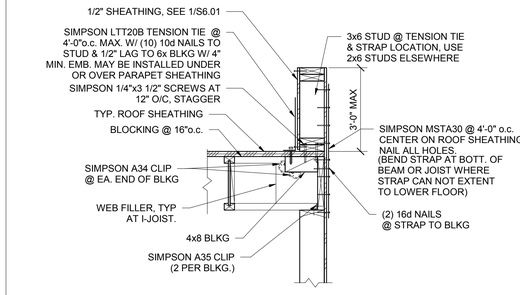


6 ALTERNATE PARAPET DETAIL (HEIGHT = 18" OR LESS)
3/4" = 1'-0"



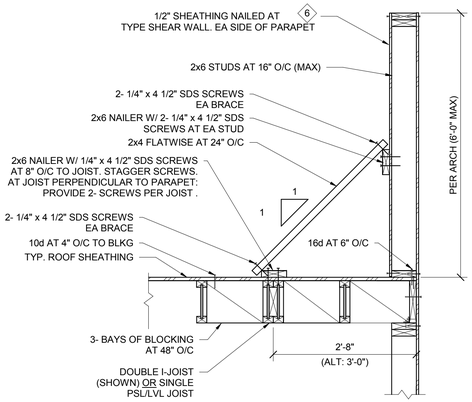
NOTE: SEE 11/S6.01 FOR ADDITIONAL INFO.

5 WOOD STAIR STRINGER AT CONCRETE SLAB
3/4" = 1'-0"

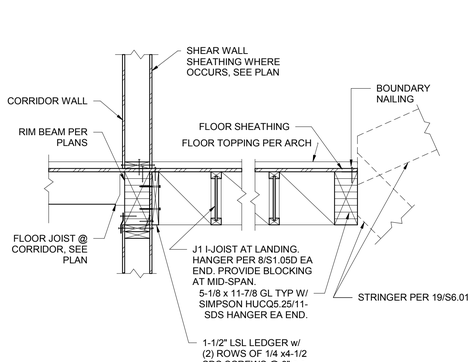


NOTE: ROOF JOISTS SHOWN PARALLELT TO WALL. SIM CONDITION AT ROOF JOIST PERPENDICULAR TO WALL.

3 TYPICAL PARAPET DETAIL (HEIGHT = 3'-0" OR LESS)
3/4" = 1'-0"

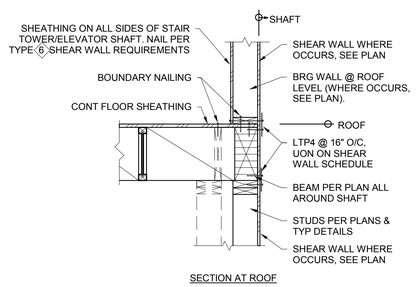


2 TYPICAL PARAPET DETAIL (HEIGHT = 6'-0" OR LESS)
3/4" = 1'-0"

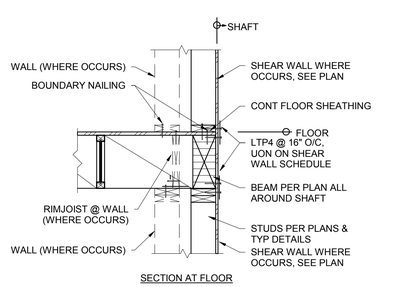


NOTE: REF 19/S6.01

10 TYPICAL STAIR LANDING SECTION
3/4" = 1'-0"



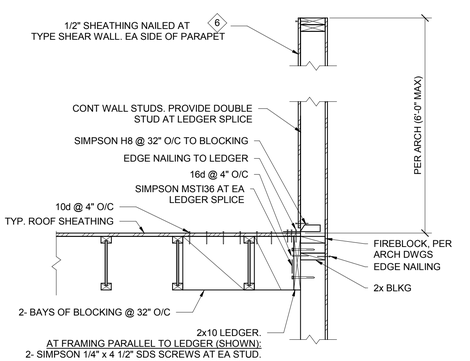
SECTION AT ROOF



SECTION AT FLOOR

NOTE:
SEE DETAILS 19 & 20 ON SHEET S1.05A FOR BALANCE OF INFO

7 FLOOR / ROOF FRAMING @ SHAFT WALL
3/4" = 1'-0"



1 TYPICAL BALLOON FRAMED PARAPET (HEIGHT=6'-0" OR LESS)
3/4" = 1'-0"

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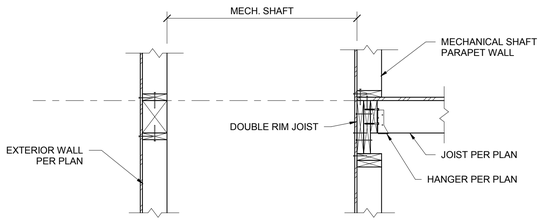
WOOD FRAMING DETAILS

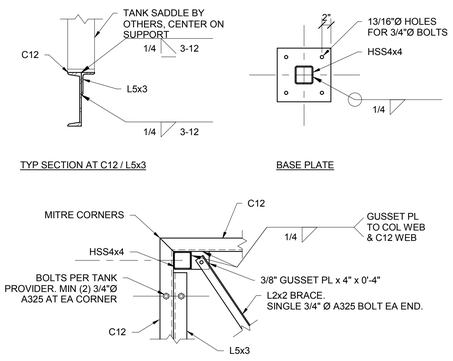
S6.01

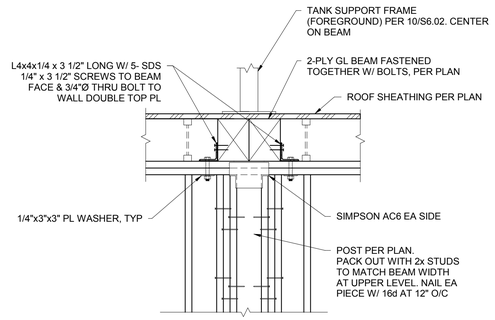
SHEET NO.



12 SECTION AT MECHANICAL SHAFT

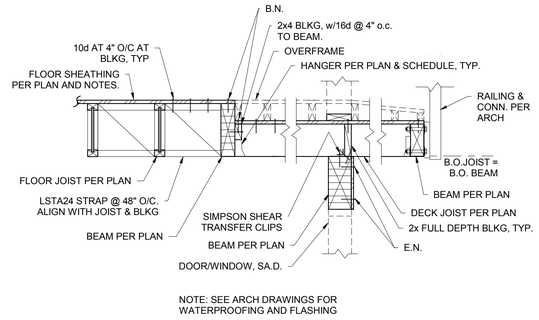
3/4" = 1'-0"





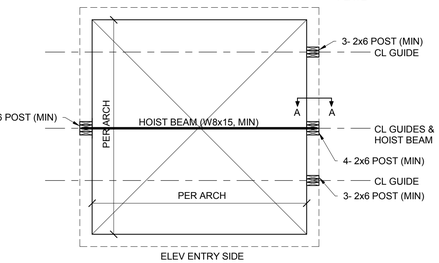
6 TANK SUPPORT BEAM TO WALL

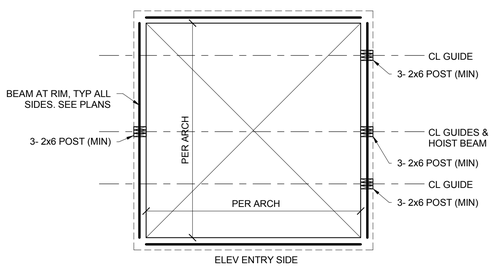
3/4" = 1'-0"



3 SECTION AT BALCONY

3/4" = 1'-0"

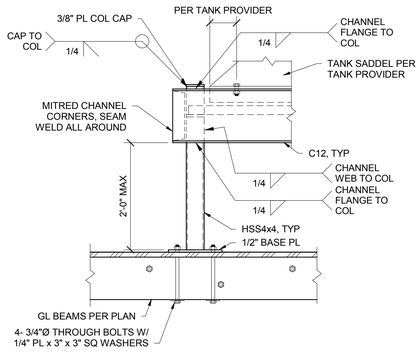


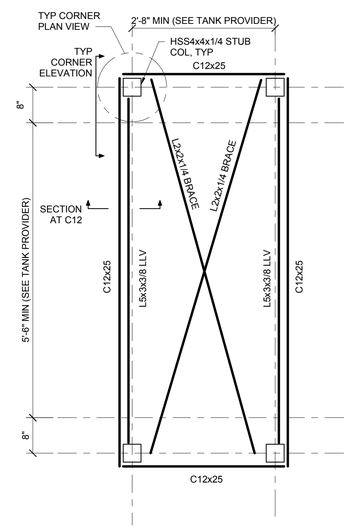


NOTES:
1. SEE ARCH DWGS AND ELEVATOR MANUF DRWS FOR ALL DIMENSIONS.
2. INSTALL SIMPSON A35 CLIP EA SIDE OF POST, T&B TO WALL TOP AND BOTTOM PLATES, TYP ALL POSTS.
3. GUIDE RAIL SUPPORT BRACKETS BY ELEVATOR MANUFACTURER. THROUGH BOLT BRACKETS TO RIM BEAMS.

10 TYP ELEVATOR SHAFT FRAMING

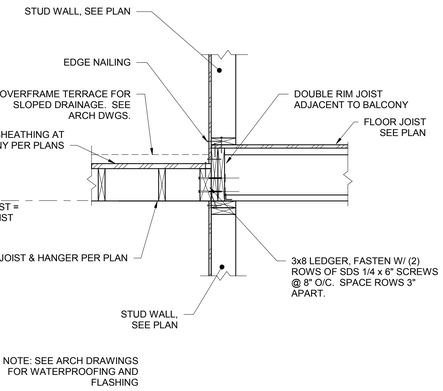
NTS





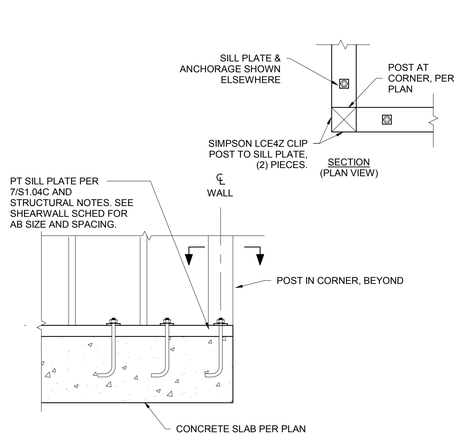
7 SOLAR WATER TANK SUPPORT FRAME

3/4" = 1'-0"



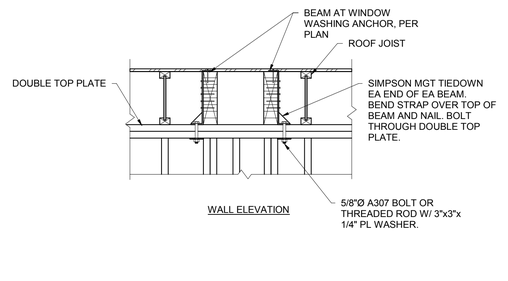
5 TYPICAL SECTION AT BALCONY LEDGER

3/4" = 1'-0"



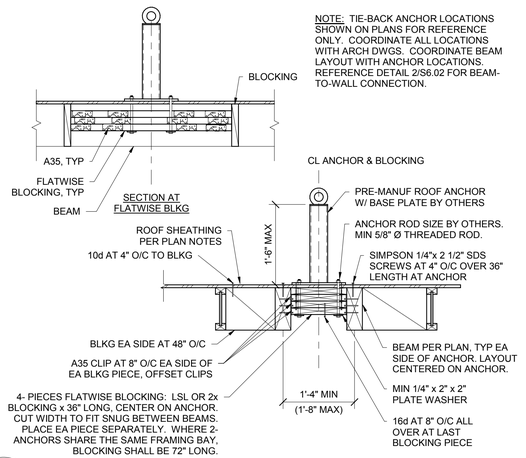
4 CORNER POST AT FULL-HEIGHT WINDOW

3/4" = 1'-0"



2 TYP BEAM-TO-WALL CONNECTION AT WINDOW WASHING ANCHOR

3/4" = 1'-0"



1 TYP WINDOW WASHING TIE-BACK ANCHOR ATTACHMENT TO ROOF

3/4" = 1'-0"

NISHKIAN MENNINGER
CONSULTING AND STRUCTURAL ENGINEERS SINCE 1919
600 Harrison St. Suite 110, San Francisco, CA 94107

NM JOB #: 7602.00

411 MACARTHUR BLVD.
411 W. MACARTHUR BLVD.
OAKLAND, CA 94609

REV	DATE	DESCRIPTION
-	12/05/2017	ISSUE FOR PERMIT

DATE:	12/05/2017
CHECK:	L NISHKIAN
DRAWN BY:	M CLONINGER
JOB #:	7602.00

WOOD FRAMING DETAILS

S6.02

SHEET NO.

GENERAL NOTES

1. THE SLACKJACK™ DEVICE COMPONENTS INCLUDE:
   A. SJA INNER AND OUTER SLEEVE CYLINDERS
   B. PRE-COMPRESSED COMPRESSION SPRING
   C. NUT: ALL NUTS TO CONFORM TO ASTM A563 GRADE "A" FOR 60 KSI AND GRADE "C" FOR 120 KSI TENSILE STRENGTH THREADED RODS.
   D. SWIVEL WASHER
2. ALL THREADED RODS SHALL CONFORM TO THE FOLLOWING SHOP DRAWING MARKS:
   1. Rx = ASTM A36 OR A307, fu = 60 ksi.
   2. RxM = ASTM F1554 GRADE 55, fu = 75 ksi.
   3. RxHS = ASTM A449 (fu = 105KSI UP 1". Fu = 92 ksi 1-1/8" THRU 2-1/2") or ASTM A193B7 (fu = 125 ksi).

   NOTES:
   a. x = ROD DIAMETER IN EIGHTS OF AN INCH. (ie. R7M = 7/8" ASTM F1554 GRADE 55)
   b. A36/A307 IS ZINC PLATED FINISH ONLY IF "M" AND "HS" ROD ARE USED ON SAME PROJECT, OTHERWISE PLAIN FINISH.
   c. "M" AND "HS" ROD ARE ALWAYS PLAIN FINISH.
3. **STANDARD RODS ARE ZINC PLATED, HIGH STRENGTH (HS) RODS ARE BLACK STEEL.**
4. ALL BEARING PLATES ARE FABRICATED FROM ASTM A36 STEEL.
5. ALL STEEL BEARING PLATES SHALL HAVE FULL BEARING CONTACT AREA ON WOOD MEMBERS.
6. COUPLING NUT CONNECTION: CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT AT CONNECTIONS WITH THE SAME SIZE ROD THAT EACH ROD IS THREADED HALF WAY INTO COUPLER FROM EACH SIDE. HIGH STRENGTH (HS) COUPLERS SHALL BE USED WITH HIGH STRENGTH (HS) RODS UNLESS NOTED OTHERWISE. STANDARD STRENGTH COUPLERS ARE ZINC PLATED. HIGH STRENGTH (HS) ARE NOT PLATED. WHERE REDUCING COUPLERS ARE USED, COUPLER SHALL BE FULLY SEATED ON THE LARGER DIAMETER ROD BEFORE ENGAGING THE SMALLER DIAMETER ROD. **SIGHT HOLES ARE PROVED ON STRAIGHT COUPLERS ONLY, NO SIGHT HOLES ON REDUCING COUPLERS.**
7. COLORS REFERENCED ON THIS DRAWING ARE PROVIDED FOR CONVENIENCE TO THE INSTALLER AND FOR INSPECTION PURPOSES.
8. SILICONE OR CAULKING SHALL NOT BE PLACED INTO THE SLACKJACK DEVICE OR ANY DRILLED HOLE FOR RODS AT ANY TIME. CONTRACTOR SHALL USE FIRE RATED ROCKWOOL OR NON-HARDENING FIRESTOP. (PROVIDED BY OTHERS).
9. ANCHOR BOLT ASSEMBLIES AND EMBEDMENT DEPTHS ARE PROVIDED BY OTHERS. ANCHOR BOLTS ARE SHOWN FOR CONVENIENCE TO THE INSTALLER.
10. HOLDOWN RUN ELEVATION VIEWS ARE DIAGRAMS AND MAY NOT DEPICT THE CORRECT NUMBER OF COLLECTOR STUDS REQUIRED. REFER TO COLLECTOR STUD PLAN DIAGRAMS FOR REQUIRED AMOUNT OF ADDITIONAL STUDS DEPENDING ON SHEAR WALL FRAMING TYPE. ADDITIONAL COMPRESSION STUDS OR POSTS MAY BE REQUIRED BY THE STRUCTURAL PLANS FOR DEAD AND LIVE LOADS.
11. THIS DRAWING WILL BE REVIEWED BY THE ENGINEER OF RECORD. UPON APPROVAL, U.N.O. THIS DRAWING REPLACES THE HOLDOWN SYSTEM PER THE STRUCTURAL PLANS.
12. ENGINEER OF RECORD SHALL VERIFY COMPLETE LOAD TRANSFER TO FOUNDATION LEVEL INCLUDING ALL CODE REQUIRED LOAD FACTORS.
13. WOOD FLOOR LEVELS SHOWN ARE RELATIVE TO THE CONCRETE FOUNDATION AND MAY NOT REFLECT THOSE SHOWN IN THE PLANS.
14. CONTRACTOR MAY SUBSTITUTE POSTS WITH 2x MEMBERS OR VICE VERSA ONLY IF TOTAL BEARING PLATE AREA ON BOTTOM PLATE IS EQUAL.
15. REFER TO THE COLLECTOR STUD SCHEDULE FOR WOOD STUD AND FLOOR PLATE MATERIALS USED IN LOAD CALCULATION ASSUMPTIONS. THE MATERIALS SHALL MATCH STRUCTURAL DRAWING REQUIREMENTS UNLESS NOTED OTHERWISE.
16. FULL HEIGHT COLLECTOR STUD REQUIREMENTS (NOT AT BRIDGE LEVEL – SEE 17A):
   A. FULL HEIGHT BUNDLED 2x, 3x COLLECTOR/COMPRESSION STUDS IMMEDIATELY ADJACENT ON EACH SIDE OF THE THREADED ROD SHALL RECEIVE STAGGERED AND DISPERSED EDGE NAILING PER THE SHEAR WALL SCHEDULE OF THE STRUCTURAL PLANS. ANY REMAINING 2x, 3x STUDS SHOWN CAN BE FIELD SPACING NAILING.
   B. FULL HEIGHT 4x COLLECTOR/COMPRESSION POSTS IMMEDIATELY ADJACENT ON EACH SIDE OF THE THREADED ROD SHALL RECEIVE ONE (1) ROW OF EDGE NAILING PER THE SHEAR WALL SCHEDULE OF THE STRUCTURAL PLANS. ANY REMAINING 2x, 3x, 4x POSTS SHOWN CAN BE FIELD SPACING NAILING.
   C. FULL HEIGHT 6x AND LARGER COLLECTOR/COMPRESSION POSTS IMMEDIATELY ADJACENT ON EACH SIDE OF THE THREADED ROD SHALL RECEIVE TWO (2) ROWS OF EDGE NAILING PER THE SHEAR WALL SCHEDULE OF THE STRUCTURAL PLANS. ANY REMAINING POSTS SHOWN CAN BE FIELD SPACING NAILING.
   D. WINDOW AND DOOR TRIMMERS MAY BE USED AS HOLDOWN COLLECTOR STUDS IF THE FOLLOWING CONDITIONS ARE MET:
      – A CONTINUOUS VERTICAL LOAD PATH SHALL EXIST FROM WALL TOP PLTS. TO WALL BOTTOM PLTS.
      – ALL WOOD MEMBERS IN THE CONTINUOUS VERTICAL LOAD PATH SHALL BE NAILED ACCORDING TO THE EARTHBOUND SYSTEM REQUIREMENTS.
      – THE SHEAR PANEL MUST EXTEND TO INCLUDE THE TRIMMERS USED.
   E. COMPRESSION STUDS/POSTS SHALL BE INSTALLED SYMMETRICALLY ABOUT ROD. WHERE QUANTITY OF STUDS IS GREATER THAN THE SPACE BETWEEN ROD OR BEARING PLATE AND THE END OF SHEAR WALL THE ADDITIONAL REQUIRED STUDS SHALL BE ADDED TO THE OPPOSITE SIDE OF ROD (ASYMMETRICALLY).
   F. COLLECTOR STUDS DO NOT NEED TO BE STITCH NAILED.
17. COMPRESSION BRIDGE REQUIREMENTS:
   A. ALL FULL HEIGHT 2x AND 3x MEMBERS ON EITHER END OF THE BRIDGE SHALL RECEIVE EDGE NAILING PER THE SHEAR WALL SCHEDULE OF THE STRUCTURAL PLANS.
   B. ALL FULL HEIGHT 4x COLLECTOR/COMPRESSION POSTS ON EITHER SIDE OF THE BRIDGE SHALL RECEIVE ONE (1) ROW OF EDGE NAILING PER THE SHEAR WALL SCHEDULE OF THE STRUCTURAL PLANS.
   C. ALL FULL HEIGHT 6x AND LARGER COLLECTOR/COMPRESSION POSTS ON EITHER SIDE OF THE BRIDGE SHALL RECEIVE TWO (2) ROWS OF EDGE NAILING PER THE SHEAR WALL SCHEDULE OF THE STRUCTURAL PLANS.
   D. ALL BRIDGE TRIMMERS SHALL BE 2x MEMBERS ONLY (U.N.O.) AND SHALL BE INSTALLED SYMMETRICALLY AS SHOWN (U.N.O.).
   E. ALL BRIDGE TRIMMERS SHALL RECEIVE EDGE NAILING PER THE SHEAR WALL SCHEDULE OF THE STRUCTURAL PLANS (U.N.O.).
   F. THE BRIDGE TRIMMERS ADJACENT TO THE FULL HEIGHT STUDS (ONE EACH SIDE) SHALL RECEIVE FACE (STITCH) NAILING TWO (2) ROWS AT 4" O.C. STAGGERED ROWS ARE ACCEPTABLE BUT NOT REQUIRED. TRIMMERS IN ADDITION TO ONE EACH SIDE DO NOT REQUIRE FACE (STITCH) NAILING. FACE NAILS MAY BE NAILED FROM THE OPPOSITE DIRECTION THAN THAT SHOWN IN THE DETAIL.
   G. FACE NAILS SHALL BE 10d MINIMUM. USE 16d NAILS MINIMUM WHEN NAILING THROUGH 3x STUDS INTO 2x BRIDGE TRIMMERS.
   H. IF MULTIPLE BRIDGE TRIMMERS ON EACH SIDE ARE REQUIRED, DO NOT INSTALL THE TRIMMERS IN ADDITION TO ONE EACH SIDE UNTIL THE FACE NAILING HAS BEEN INSPECTED AND APPROVED.
   I. BRIDGE BLOCK SHALL BE 4x6 OF IN 4x WALLS, 6x6 OF IN 6x WALLS (U.N.O.). BRIDGE BLOCK SHALL ALWAYS BE 5-1/2" TALL MINIMUM. NAILING OF BRIDGE BLOCK IS PROHIBITED.
   J. BRIDGE BLOCK SHALL BE DOUGLAS FIR CONSTRUCTION GRADE WITH MINIMUM 800 PSI ALLOWABLE BENDING STRESS. TIMBERSTRAND LSL BEAM MATERIAL OF EQUAL OR GREATER DIMENSION IS AN ACCEPTABLE ALTERNATE (U.N.O.).
   K. BRIDGE HEIGHTS SHOWN ARE THE MINIMUM HEIGHT FROM SUBFLOOR TO BOTTOM OF BRIDGE MEMBER.
   L. **ONLY COMMON NAILS SHALL BE USED.**
18. DRILLED OR BORED HOLES: DRILLED HOLES THROUGH VERTICAL COMPRESSION MEMBERS SHALL NOT EXCEED 25% OF THE STUD OR POST WIDTH, FOR EXAMPLE: 7/8" DIA. HOLE IS MAXIMUM ALLOWED IN 3 1/2" WIDE STUD OR POST UNLESS APPROVED BY EOR. THE BORED HOLE SHALL BE AT LEAST 5/8" AWAY FROM EDGE OF STUD.
19. CUTTING AND NOTCHING: WOOD VERTICAL COMPRESSION MEMBERS ARE PERMITTED TO BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25% OF IT'S WIDTH PER 2308.9.10 PER IBC 2009/2012.
20. STUD/POST/TRIMMER NOTCHING AT CONFLICTING BEARING PLATES INTERFERENCE.
   A. THE MEMBER SHALL BE NOTCHED TO THE EXACT THICKNESS AND AREA OF THE STEEL PLATE TO MAINTAIN THE FULL BEARING AREA OF THE NOTCHED COMPRESSION MEMBER.
   B. IF THE REQUIREMENTS OF ITEM "A" ABOVE ARE NOT MET, THEN ADDITIONAL COMPRESSION MEMBERS SHALL BE ADDED TO ACHIEVE THE REQUIRED TOTAL BEARING AREA. ADDITIONAL COMPRESSION MEMBERS SHALL RECEIVE SHEAR PANEL NAILING PER THE REQUIREMENTS OF THE EARTHBOUND SHOP DRAWINGS.
   C. PLYWOOD SHIMS MATCHING THE EXACT THICKNESS OF THE STEEL BEARING PLATE MAY BE USED IN LIEU OF NOTCHING. ALL ADDITIONAL REQUIREMENTS ABOVE SHALL BE MET.
21. MINIMUM REQUIREMENTS FOR BLOCKING IN THE JOIST SPACE AT HOLDOWN LOCATIONS ARE:
   A. BLOCKING SHALL SPAN THE FULL WIDTH OF THE SHEAR WALL TOP PLATE OF THE FLOOR LEVEL BELOW THE JOIST SPACE.
   B. BLOCKING SHALL EQUAL THE OUTERMOST DIMENSIONS OF THE "FOOTPRINT" OF THE TOTAL HOLDOWN WOOD COMPRESSION MEMBERS OF THE FLOOR LEVELS BELOW AND ABOVE THE JOIST SPACE.
   C. THE SPACE BETWEEN BLOCKING WHERE THE ROD IS LOCATED SHALL NOT EXCEED 3" FOR DOUBLE PLATES OR 1.5" FOR SINGLE PLATE CONSTRUCTION.
   D. COMPRESSION CAPACITIES OF BLOCKING MATERIALS SHALL BE EQUAL TO OR GREATER THAN THE RELATED JOISTS. THE VERTICAL DIMENSIONS SHALL BE EQUAL. SEE NOTE "E" FOR EXCEPTION.
   E. VERTICAL GRAIN BLOCKING SHALL BE TRIMMED TO ACCOUNT FOR POSSIBLE SHRINKAGE OF THE JOISTS. CONTACT JOIST MANUFACTURER FOR SHRINKAGE INFORMATION.
   F. FLOOR JOISTS SHALL NOT BE REMOVED TO ALLOW FOR THE INSTALLATION OF BLOCKING. BLOCKING IS IN ADDITION TO THE EXISTING JOISTS.
   G. WEB STIFFENERS SHALL BE ADDED TO ENGINEERED LUMBER "I" JOISTS AND "I" JOIST MATERIAL USED AS BLOCKING. SEE NOTE "B" ABOVE.

JOB SPECIFIC NOTES:

ABBREVIATIONS

AB	ANCHOR BOLT PER ROD COMPONENT SCHEDULE
BLKG	BLOCKING
COUPLER	
FND	FOUNDATION
G	HOT DIPPED GALVANIZED ROD OR GALV. TAPPED COMPONENT
GG	COUPLER GALV. TAPPED ON BOTH ENDS
GS	COUPLER GALV. TAPPED ON SMALL END.
CB	CORROSION BARRIER
HS	HIGH STRENGTH
SJA 4XY	SLACKJACK™ COMPONENT (X) = SLACKJACK DEVICE SERIES TRAVEL 1=1 INCH (RED), 2=2 INCHES (GREEN) (Y) = ROD SIZE
JST	JOIST
MIN.	MINIMUM
O.C.	ON CENTER
P	PLATE
PG	PERPENDICULAR TO GRAIN
R	ROD
UNO	UNLESS NOTED OTHERWISE

SHOP DRAWING DISCLAIMER

THESE SHOP DRAWINGS ILLUSTRATE THE DETAILS OF THE EARTHBOUND SEISMIC HOLDOWN SYSTEM. THEY WERE PREPARED IN CONFORMANCE WITH THE STRUCTURAL DESIGN PROVIDED TO EARTHBOUND CORPORATION ("EB CORP.") BY THE PROJECT OWNER OR ITS REPRESENTATIVE.

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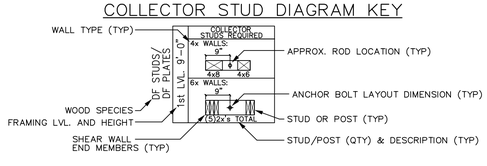
NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE ADEQUACY OF THE STRUCTURAL DESIGN IS MADE BY ANY SUCH STAMP OR SEAL.

COLLECTOR STUD DIAGRAM KEY



1. * (ASTERISK) INDICATES 1/2 HEIGHT TRIMMER (UNLESS NOTED OTHERWISE) FOR COMPRESSION BRIDGE.
2. COLLECTOR STUDS SHOWN ARE THE MINIMUM REQUIREMENT TO EQUAL THE UPLIFT TENSION FORCES CALLED OUT BY THE STRUCTURAL DWGS. ADDITIONAL COMPRESSION STUDS OR POSTS MAY BE REQUIRED BY STRUCTURAL ENGINEER OF RECORD. APPLIES TO ALL HOLDOWN RUNS.

COMPONENT SELECTION SCHEDULES

EARTHBOUND THREADED ROD CAPACITIES (IBC 2012)

ROD SIZE	ROD SIZE (INCHES)	ALLOWABLE TENSION LOAD IBC 2009/2012	ROD REMARKS	SLACKJACK SIZE
R4	1/2" DIA.	4,470 LBS	ASTM A 36 (UNC)	MJ100, MJ200
R5	5/8" DIA.	7,120 LBS	ASTM A 36 (UNC)	SJA 215, 225, 415, 425
R6	3/4" DIA.	10,540 LBS	ASTM A 36 (UNC)	SJA 216, 226, 416, 426
R7	7/8" DIA.	14,540 LBS	ASTM A 36 (UNC)	SJA 217, 227, 417, 427
R8	1" DIA.	19,080 LBS	ASTM A 36 (UNC)	SJA 218, 228, 418, 428
R9	1 1/8" DIA.	24,040 LBS	ASTM A 36 (UNC)	SJA 219, 229, 419, 429
R10	1 1/4" DIA.	30,530 LBS	ASTM A 36 (UNC)	SJA 2110, 2210, 4110, 4210, SJS 4110, 4210
R12	1 1/2" DIA.	44,270 LBS	ASTM A 36 (UNC)	SJS 4112, 4212
R14	1 3/4" DIA.	59,830 LBS	ASTM A 36 (UNC)	-----
R6M	3/4" DIA.	13,170 LBS	ASTM F1554 GR55 (UNC)	SJA 216, 226, 416, 426
R7M	7/8" DIA.	18,180 LBS	ASTM F1554 GR55 (UNC)	SJA 217, 227, 417, 427
R8M	1" DIA.	23,850 LBS	ASTM F1554 GR55 (UNC)	SJA 218, 228, 418, 428
R9M	1 1/8" DIA.	30,050 LBS	ASTM F1554 GR55 (UNC)	SJA 219, 229, 419, 429
R10M	1 1/4" DIA.	38,160 LBS	ASTM F1554 GR55 (UNC)	SJA 2110, 2210, 4110, 4210, SJS 4110, 4210
R12M	1 1/2" DIA.	55,330 LBS	ASTM F1554 GR55 (UNC)	SJS 4112, 4212
R14M	1 3/4" DIA.	74,790 LBS	ASTM F1554 GR55 (UNC)	-----
R6HS	3/4" DIA.	21,950 LBS	ASTM A193 B7 (UNC)	SJA 216, 226, 416, 426
R7HS	7/8" DIA.	30,300 LBS	ASTM A193 B7 (UNC)	SJA 217, 227, 417, 427
R8HS	1" DIA.	39,750 LBS	ASTM A193 B7 (UNC)	SJA 218, 228, 418, 428
R9HS	1 1/8" DIA.	50,090 LBS	ASTM A193 B7 (UNC)	SJA 219, 229, 419, 429
R10HS	1 1/4" DIA.	63,600 LBS	ASTM A193 B7 (UNC)	SJA 2110, 2210, 4110, 4210, SJS 4110, 4210
R12HS	1 1/2" DIA.	92,220 LBS	ASTM A193 B7 (UNC)	SJS 4112, 4212
R14HS	1 3/4" DIA.	124,650 LBS	ASTM A193 B7 (UNC)	-----

EARTHBOUND BEARING PLATE CAPACITIES (DF)

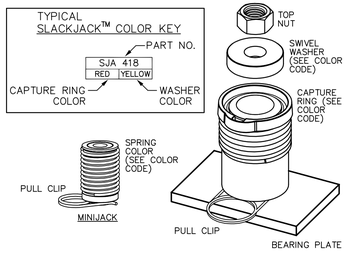
PLATE SIZE	DIFFERENTIAL LOAD	COLOR CODE	PLATE DIMENSIONS (INCHES) WIDTH	LENGTH	THICK.
P6	6,630 LBS	GREEN	3"	3.5"	1/4"
P8	8,470 LBS	BLACK	3-1/4"	4.25"	1/4"
P10	10,510 LBS	BLUE	3-1/4"	5"	3/8"
P12	12,270 LBS	GRAY	3-1/4"	6"	5/8"
P14	14,460 LBS	RED	3-1/4"	7"	3/4"
P16	16,650 LBS	TAN	3-1/4"	8"	3/4"
P18	18,840 LBS	YELLOW	3-1/2"	9"	1"
P20	21,020 LBS	BROWN	3-1/2"	10"	1"
P22	23,210 LBS	WHITE	3-1/2"	11"	1 1/4"
P24	24,310 LBS	GOLD	3-1/2"	11.5"	1 1/4"
P26	26,490 LBS	ORANGE	3-1/2"	12.5"	1 1/2"
P32	32,000 LBS	PURPLE	3-1/2"	15"	1 3/4"
P34	34,000 LBS	PINK	3-1/2"	16"	1 3/4"

SJA ROD SIZE CODES

PART NO.	ROD DIAMETER	ROD SIZE	WASHER COLOR
MJ100 or MJ200	1/2"	R4	PURPLE
SJA 2x5 or 4x5	5/8"	R5	BLACK
SJA 2x6 or 4x6	3/4"	R6 or R6HS	GRAY
SJA 2x7 or 4x7	7/8"	R7 or R7HS	BLUE
SJA 2x8 or 4x8	1"	R8 or R8HS	YELLOW
SJA 2x9 or 4x9	1 1/8"	R9 or R9HS	WHITE
SJA 2x10, 4x10, SJS 4x10	1 1/4"	R10 or R10HS	GREEN
SJS 4x12	1 1/2"	R12 or R12HS	RED

"x" = SLACKJACK TRAVEL IN "INCHES"

NOTES:
1. TENSION LOAD WAS CALCULATED FROM THE FOLLOWING EQUATION:
   A. ASTM A 307 Threaded Rod Capacities are F'u = 60,000 psi. UNC thread pitch
   M Rods are based on ASTM A15540R25, F'u = 75 ksi.
   HS Rods are based on ASTM A193 B7, F'u = 125 ksi
   B. The IBC 2012 column is calculated in accordance to Section 1909 and ASCE 7-10.
2. PLATE STEEL SHALL BE ASTM A36: F'u = 60,000 PSI.
3. SUBSTITUTIONS OF DESIGNATED BEARING PLATE SHALL NOT BE PERMITTED, OBTAIN WRITTEN APPROVAL FROM THE ENGINEER.
4. SLACKJACK SELECTION NOTES: THE SIZES SHOWN ABOVE ARE FOR BOTH ONE AND TWO INCH TRAVEL ("SJA 4xy") (x = TRAVEL HEIGHT IN INCHES, y = ROD SIZE). TWO INCH TRAVEL SLACKJACKS ARE REQUIRED ON FOURTH WOOD FRAME LEVELS AND HIGHER.
5. THIS TABLE IS FOR REFERENCE OF FULL PRODUCT LINE, SOME ROD AND PLATE SIZES MAY NOT BE IN USE. THE ENGINEER OF RECORD SHALL REVIEW AND APPROVE CAPACITIES.



SLACKJACK – IAPMO ER-0429 & LA RR 25404 LISTED CAPACITIES
COLOR CODE AND MODEL/SERIES TO PART NUMBER CROSS REFERENCE

IAPMO ER-0429/ LA RR 25404 MODEL/SERIES	SLACKJACK PART NO. ON DWGS	THREADED ROD DIAMETER	COMPRESSION CAPACITY	TRAVEL COMPENSATION AMOUNT	CAPTURE RING COLOR	SWIVEL WASHER COLOR
M 100	MJ 100	1/2"	5,000 LBS	1-INCH	N/A	RED
A 210	SJA 214	1/2"	7,360 LBS	1-INCH	BLUE	PURPLE
A 210	SJA 215	5/8"	7,360 LBS	1-INCH	BLUE	BLACK
A 210	SJA 216	3/4"	7,360 LBS	1-INCH	BLUE	GRAY
A 210	SJA 217	7/8"	7,360 LBS	1-INCH	BLUE	BLUE
A 210	SJA 218	1"	7,360 LBS	1-INCH	BLUE	YELLOW
A 210	SJA 219	1 1/8"	7,360 LBS	1-INCH	BLUE	WHITE
A 210	SJA 2110	1 1/4"	7,360 LBS	1-INCH	BLUE	GREEN
A 410	SJA 414	1/2"	14,000 LBS	1-INCH	RED	PURPLE
A 410	SJA 415	5/8"	14,000 LBS	1-INCH	RED	BLACK
A 410	SJA 416	3/4"	14,000 LBS	1-INCH	RED	GRAY
A 410	SJA 417	7/8"	14,000 LBS	1-INCH	RED	BLUE
A 410	SJA 418	1"	14,000 LBS	1-INCH	RED	YELLOW
A 410	SJA 419	1 1/8"	14,000 LBS	1-INCH	RED	WHITE
A 410	SJA 4110	1 1/4"	14,000 LBS	1-INCH	RED	GREEN
T 410	SJT 414	1/2"	9,000 LBS	1-INCH	ORANGE	PURPLE
T 410	SJT 415	5/8"	9,000 LBS	1-INCH	ORANGE	BLACK
T 410	SJT 416	3/4"	9,000 LBS	1-INCH	ORANGE	GRAY
T 410	SJT 417	7/8"	9,000 LBS	1-INCH	ORANGE	BLUE
T 410	SJT 418	1"	9,000 LBS	1-INCH	ORANGE	YELLOW
T 410	SJT 419	1 1/8"	9,000 LBS	1-INCH	ORANGE	WHITE
T 410	SJT 4110	1 1/4"	9,000 LBS	1-INCH	ORANGE	GREEN
T 610	SJT 618	1"	15,000 LBS	1-INCH	GRAY	YELLOW
T 610	SJT 619	1 1/8"	15,000 LBS	1-INCH	GRAY	WHITE
T 610	SJT 6110	1 1/4"	15,000 LBS	1-INCH	GRAY	GREEN
T 620	SJT 628	1"	15,000 LBS	2-INCH	PURPLE	YELLOW
T 620	SJT 629	1 1/8"	15,000 LBS	2-INCH	PURPLE	WHITE
T 620	SJT 6210	1 1/4"	15,000 LBS	2-INCH	PURPLE	GREEN
S 410	SJS 419	1 1/8"	22,000 LBS	1-INCH	BLUE	WHITE
S 410	SJS 4110	1 1/4"	22,000 LBS	1-INCH	BLUE	GREEN
S 410	SJS 4112	1 1/2"	22,000 LBS	1-INCH	BLUE	RED
	*SJST4210	1 1/4"	22,000 LBS	1 1/2-INCH	BLACK	GREEN
	*SJST4110	1 1/4"	22,000 LBS	1-INCH	RED	GREEN
	*SJST4112	1 1/2"	22,000 LBS	1-INCH	RED	RED

* SLACKJACK TAKE UP DEVICE WITH ΔR = 0.003 IN. NOT SHOWN IN ER-0429.

IAPMO ER-0429/ LA RR 25404 MODEL/SERIES	SLACKJACK PART NO. ON DWGS	THREADED ROD DIAMETER	COMPRESSION CAPACITY	TRAVEL COMPENSATION AMOUNT	CAPTURE RING COLOR	SWIVEL WASHER COLOR
M 200	MJ 200	1/2"	4,900 LBS	2-INCH	N/A	ORANGE
A 220	SJA 224	1/2"	7,730 LBS	2-INCH	YELLOW	PURPLE
A 220	SJA 225	5/8"	7,730 LBS	2-INCH	YELLOW	BLACK
A 220	SJA 226	3/4"	7,730 LBS	2-INCH	YELLOW	GRAY
A 220	SJA 227	7/8"	7,730 LBS	2-INCH	YELLOW	BLUE
A 220	SJA 228	1"	7,730 LBS	2-INCH	YELLOW	YELLOW
A 220	SJA 229	1 1/8"	7,730 LBS	2-INCH	YELLOW	WHITE
A 220	SJA 2210	1 1/4"	7,730 LBS	2-INCH	YELLOW	GREEN
A 420	SJA 424	1/2"	14,000 LBS	2-INCH	GREEN	PURPLE
A 420	SJA 425	5/8"	14,000 LBS	2-INCH	GREEN	BLACK
A 420	SJA 426	3/4"	14,000 LBS	2-INCH	GREEN	GRAY
A 420	SJA 427	7/8"	14,000 LBS	2-INCH	GREEN	BLUE
A 420	SJA 428	1"	14,000 LBS	2-INCH	GREEN	YELLOW
A 420	SJA 429	1 1/8"	14,000 LBS	2-INCH	GREEN	WHITE
A 420	SJA 4210	1 1/4"	14,000 LBS	2-INCH	GREEN	GREEN
A 610	SJA 614	1/2"	20,340 LBS	1-INCH	TAN	PURPLE
A 610	SJA 615	5/8"	20,340 LBS	1-INCH	TAN	BLACK
A 610	SJA 616	3/4"	20,340 LBS	1-INCH	TAN	GRAY
A 610	SJA 617	7/8"	20,340 LBS	1-INCH	TAN	BLUE
A 610	SJA 618	1"	20,340 LBS	1-INCH	TAN	YELLOW
A 610	SJA 619	1 1/8"	20,340 LBS	1-INCH	TAN	WHITE
A 610	SJA 6110	1 1/4"	20,340 LBS	1-INCH	TAN	GREEN
A 620	SJA 627	7/8"	20,100 LBS	2-INCH	WHITE	BLUE
A 620	SJA 628	1"	20,100 LBS	2-INCH	WHITE	YELLOW
A 620	SJA 629	1 1/8"	20,100 LBS	2-INCH	WHITE	WHITE
A 620	SJA 6210	1 1/4"	20,100 LBS	2-INCH	WHITE	GREEN
S 420	SJS 429	1 1/8"	22,000 LBS	2-INCH	YELLOW	WHITE
S 420	SJS 4210	1 1/4"	22,000 LBS	2-INCH	YELLOW	GREEN
S 420	SJS 4212	1 1/2"	22,000 LBS	2-INCH	YELLOW	RED
X 410	SJX 419	1 1/8"	34,220 LBS	1-INCH	GOLD	WHITE
X 410	SJX 4110	1 1/4"	34,220 LBS	1-INCH	GOLD	GREEN
X 410	SJX 4112	1 1/2"	34,220 LBS	1-INCH	GOLD	RED

SLACKJACK COLOR CODE TABLE

TRAVEL HEIGHT AND ROD SIZE COORDINATION

SJA 428

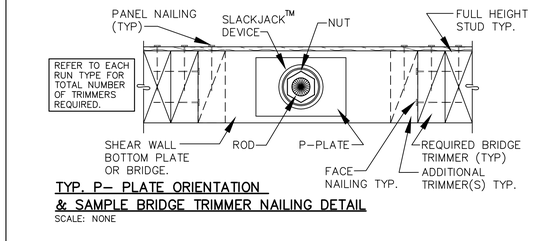
MODEL: SLACKJACK
MODEL TYPE: A=ALUM, S=STEEL
ROD DIA IN EIGHTH INCH
TRAVEL IN INCHES
SERIES TYPE (# RINGS)

COLLECTOR STUD CAPACITY SCHEDULES

COLLECTOR STUD CAPACITIES FOR DOUG FIR STUDS ON DOUG FIR PLATES

TOTAL STUDS REQUIRED QTY.	PLAN VIEW	9'-0" CAPACITY ** 2x4 STUDS	2x6 STUDS	3x4 STUDS	4x4 POSTS	4x6 POSTS	4x8 POSTS	4'-6"/6'-0" CAPACITY BRIDGE TRIMMERS ONLY NO. OF BRIDGE TRIMMERS	2x4s	2x6s
SINGLE	CAPACITY:	2,918#	5,156#	4,863#	6,808#	10,670#	14,025#		3,281#	5,156#
2		5,835#	10,313#	9,725#	13,616#	21,341#	28,050#	2*	6,563#	10,313#
3		8,753#	15,469#	14,588#	20,423#	32,011#	42,075#			
4		11,671#	20,625#	19,451#	27,231#	42,681#	56,100#	4*	13,125#	20,625#
5		14,588#	25,781#	24,314#	34,039#	53,351#	70,125#			
6		17,506#	30,938#	29,176#	40,847#	64,022#	84,150#	6*	19,688#	30,938#
7		20,423#	36,094#	34,039#	47,655#	74,692#	98,174#			
8		23,341#	41,250#	38,902#	54,462#	85,362#	112,199#	8*	26,250#	41,250#
9		26,259#	46,406#	43,765#	61,270#	96,032#	126,224#			
10		29,176#	51,563#	48,627#	68,078#	106,703#	140,249#			

NOTES:
1) STUDS SHOWN ARE THE MINIMUM COMPRESSION MEMBERS REQUIRED FOR THE EARTHBOUND SYSTEM.
2) DOUG FIR CALCULATION NOTES: (BASED ON 2012 NDS)
   2x4s, 2x6s, 3x4s, 4x4s, AND LARGER (NO. 1 GRADE): F'c PARALLEL = 1500 PSI
   F'c PERPENDICULAR = 625 PSI FOR DOUG FIR PLATES.
3) * DENOTES NO. OF BRIDGE TRIMMERS UNDER COMPRESSION BRIDGE.
4) ** DENOTES THAT FINAL POST HEIGHT SUBTRACTS 4 1/2" FOR 2x TOP PLATES AND 2x BOTTOM PLATE.



TYP. P- PLATE ORIENTATION & SAMPLE BRIDGE TRIMMER NAILING DETAIL
SCALE: NONE

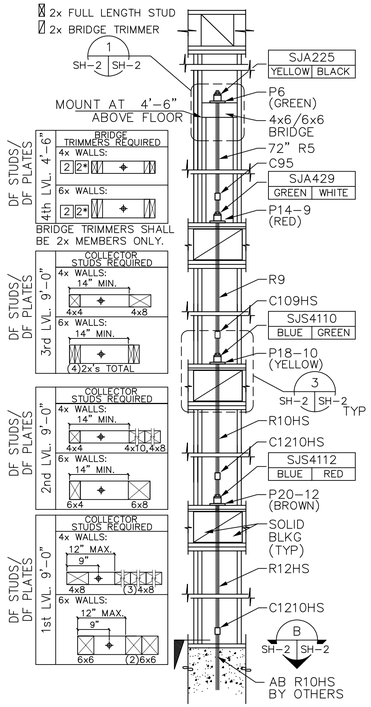
ROD HOLE SCHEDULE THROUGH TOP/BOTTOM PLATES AND BRIDGES

ROD SIZE		MIN HOLE SIZE	MAX HOLE SIZE
R4	1/2"ø	1"ø	1-1/8"ø
R5	5/8"ø	1"ø	1-1/8"ø
R6

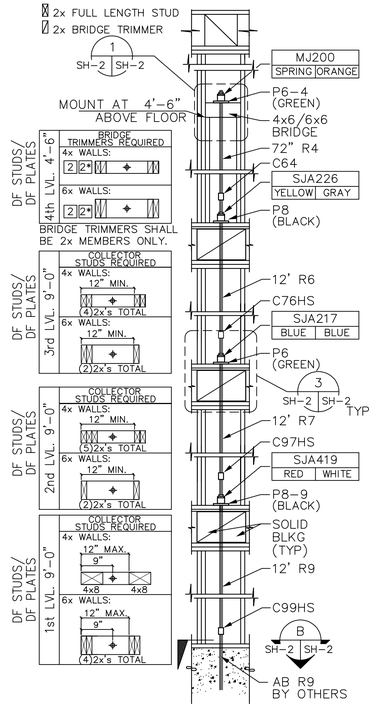
HOLDOWN RUN DETAILS

RUN TYPE A				
WOOD FLOOR LEVEL	**UPLIFT TENSION LOADS**	**CALCULATED DIFFERENTIAL LOADS**	**COLLECTED DIFFERENTIAL LOADS**	**WOOD COMPRESSION DOWNLOAD**
5th	———	———	———	———
4th	5,600 LBS	5,600 LBS	5,600 LBS	5,600 LBS
3rd	19,200 LBS	13,600 LBS	13,600 LBS	19,200 LBS
2nd	36,000 LBS	16,800 LBS	16,800 LBS	36,000 LBS
1st	55,500 LBS	19,500 LBS	19,500 LBS	55,500 LBS

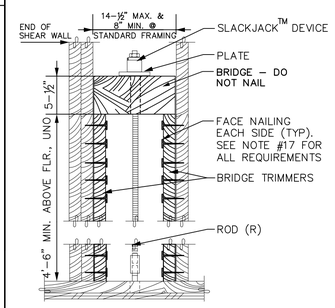
RUN TYPE B				
WOOD FLOOR LEVEL	**UPLIFT TENSION LOADS**	**CALCULATED DIFFERENTIAL LOADS**	**COLLECTED DIFFERENTIAL LOADS**	**WOOD COMPRESSION DOWNLOAD**
5th	———	———	———	———
4th	2,300 LBS	2,300 LBS	2,300 LBS	2,300 LBS
3rd	9,000 LBS	6,700 LBS	6,700 LBS	9,000 LBS
2nd	14,000 LBS	5,000 LBS	5,000 LBS	14,000 LBS
1st	22,000 LBS	8,000 LBS	8,000 LBS	22,000 LBS



A

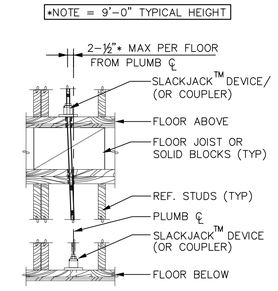


B



TYP. BRIDGE INSTALLATION DETAIL

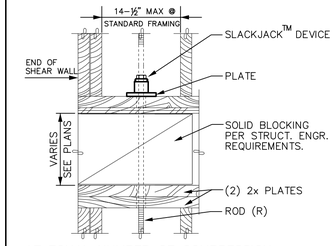
SCALE: NONE — 1 SH-2 SH-2



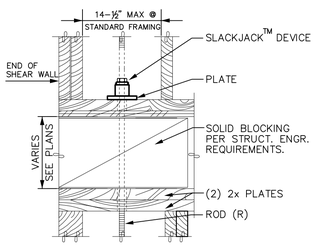
ALLOWABLE ROD OFFSET DETAIL

SCALE: NONE — 2 SH-2 SH-2

NOTE: SOLID BLOCKING, PROVIDE ENOUGH SOLID BLOCKING IN JOIST SPACE TO MATCH WIDTH OF ALL COMPRESSION STUDS OR POSTS OF THE WALL BELOW.



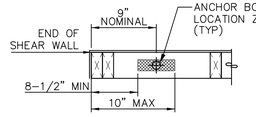
AT EQUAL NUMBER OF COMPRESSION STUDS FROM LEVEL BELOW & ABOVE



AT GREATER NUMBER OF COMPRESSION STUDS FROM LEVEL BELOW

TYP. SLACKJACK™ INSTALLATION DETAIL

SCALE: NONE — 3 SH-2 SH-2



TYP. ANCHOR BOLT PLAN DETAIL

SCALE: NONE — B SH-2 SH-2

ANCHOR BOLT NOTES:
1. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WALL TYPE AND FRAMING LAYOUT BEFORE LOCATING ANCHOR BOLTS IN CONCRETE.
2. ALL DIMENSIONS ARE TYPICAL U.N.O.

NO.	DATE	DESCRIPTION
		REVISIONS

DRAWN: KT | DESIGNED: KT | CHECKED: KT | APPROVED: WMN

REGISTERED PROFESSIONAL ENGINEER — WILLIAM M. NELSON — No. 3417 — Exp. 9-30-18 — STRUCTURAL — STATE OF CALIFORNIA

PROJECT:
411 MACARTHUR
411 W. MACARTHUR BLVD., OAKLAND, CA 94609

EB CORP JOB NO:
17333

SHEET TITLE:
EARTHBOUND SEISMIC HOLDOWN SYSTEM INSTALLATION DRAWINGS
IAPMO ER-0429

DATE:
06/21/17

SHEET NO.
SH-2

EARTHBOUND CORPORATION
17361 Tye Street SE
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411 MACARTHUR_2.DWG
June 21, 2017 at 2:58 PM