

GENERAL STRUCTURAL NOTES

GENERAL REQUIREMENTS:

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER PROJECT DRAWINGS BY OTHER DISCIPLINES. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CODES LISTED BELOW.
2. THE GENERAL CONTRACTOR SHALL COMPARE AND COORDINATE THE CONSTRUCTION DOCUMENTS OF ALL DISCIPLINES PRIOR TO SUBMITTAL OF SHOP DRAWINGS OR BEGINNING CONSTRUCTION IN THE AFFECTED AREAS. THIS COMPARISON/COORDINATION SHALL INCLUDE, BUT NOT BE LIMITED TO, DIMENSIONS, EVALUATIONS, EMBEDDED ITEMS, ANCHORED OR OTHERWISE SUPPORTED ITEMS, FLOOR, ROOF, AND WALL OPENINGS, ETC. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES ALONG WITH THE APPLICABLE DOCUMENT REFERENCES.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS RELATING TO EXISTING CONDITIONS BY MAKING FIELD SURVEYS AND MEASUREMENTS PRIOR TO COMMENCING FABRICATION OR CONSTRUCTION.
4. THE GENERAL CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION METHODS USED WILL NOT CAUSE DAMAGE TO ADJACENT BUILDINGS, UTILITIES, OR OTHER PROPERTY. THIS REQUIREMENT IS PARTICULARLY IMPORTANT DURING FOUNDATION INSTALLATION.
5. THE GENERAL CONTRACTOR IS ADVISED TO CONSIDER PERFORMING PHOTOGRAPHIC SURVEYS AND OTHER DOCUMENTATION OF THE CONDITION OF ADJACENT BUILDINGS AND OTHER STRUCTURES BEFORE THE START OF CONSTRUCTION.
6. THE GENERAL CONTRACTOR SHALL OBTAIN COPIES OF THE LATEST CONTRACT DOCUMENTS, INCLUDING ALL ADDENDA, AND PROVIDE THE RELEVANT PORTIONS TO ALL SUB-CONTRACTORS AND SUPPLIERS PRIOR TO PREPARATION AND SUBMITTAL OF SHOP DRAWINGS AND FABRICATION AND ERECTION OF STRUCTURAL MEMBERS.
7. PARTIAL PLANS, ELEVATIONS, SECTIONS, DETAILS, AND SCHEDULES LABELED "TYPICAL" SHALL APPLY TO ALL SITUATIONS THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SEE DETAIL TITLES FOR APPLICABILITY OF A PARTICULAR PARTIAL PLAN, ELEVATION, SECTION OR DETAIL. TYPICAL DETAILS SHALL APPLY WHETHER OR NOT THEY ARE SPECIFICALLY REFERENCED AT EACH LOCATION. THE STRUCTURAL ENGINEER OF RECORD SHALL HAVE FINAL AUTHORITY TO DETERMINE APPLICABILITY OF TYPICAL DETAILS.
8. WHERE CONFLICTS EXIST BETWEEN STRUCTURAL DOCUMENTS THE STRICTEST REQUIREMENTS, AS INDICATED BY THE STRUCTURAL ENGINEER, SHALL GOVERN.
9. DELEGATED ENGINEER REQUIREMENTS: THE FLORIDA BOARD OF PROFESSIONAL ENGINEERS HAS ISSUED STATEMENTS ON RESPONSIBILITIES OF PROFESSIONAL ENGINEERS, PURSUANT TO CHAPTERS 61G15-30 AND 61G15-31 OF THE FLORIDA ADMINISTRATIVE CODE. CERTAIN COMPONENTS OF THE STRUCTURE REQUIRE THE WORK OF DELEGATED ENGINEERS FOR THE DESIGN OF THOSE COMPONENTS. ALL RELEVANT PROCEDURES PRESENTED IN THE FLORIDA ADMINISTRATIVE CODE SHALL APPLY TO THIS PROJECT.
10. DESIGN OF CURTAIN WALL OR WINDOW WALL SYSTEMS, COLD FORMED STEEL FRAMING (CFS), STEEL BAR JOISTS, PRECAST CONCRETE OR OTHER SPECIALITY ENGINEERED ITEMS NOT FULLY DETAILED OR PROVIDED FOR IN THE CONSTRUCTION DOCUMENTS SHALL BE DESIGNED, DETAILED, FURNISHED AND INSTALLED WITH ALL THE PROVISIONS OF THE CONSTRUCTION DOCUMENTS SPECIFIED HERE AND ELSEWHERE.
11. THE STRUCTURAL ENGINEER OF RECORD (SER) SHALL REVIEW AND RESPOND TO STRUCTURAL REQUESTS FOR INFORMATION (RFIS) AS REQUIRED DURING THE COURSE OF THE PROJECT. ANY RESPONSE BY THE SER SHALL NOT BE AN AUTHORIZATION TO PROCEED IF THE RESPONSE REQUIRES ADDITIONAL COST OR TIME. PROCEEDING WITH THE WORK IS ACKNOWLEDGEMENT THERE WILL BE NO CHANGE IN COST OR TIME. IF ANY RFI RESPONSE REQUIRES A CHANGE IN COST OR TIME, THE CONTRACTOR SHALL NOT PROCEED WITH THE WORK UNTIL SUCH TIME AS THE CHANGE IS DOCUMENTED AND APPROVED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS.
12. NO STRUCTURAL MEMBER SHALL BE CUT OR NOTCHED OR OTHERWISE REDUCED IN STRENGTH UNLESS APPROVED BY THE STRUCTURAL ENGINEER.

CONSTRUCTION RESPONSIBILITY:

1. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE COMPLETED STRUCTURE, AND ARE NOT INTENDED TO INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, SEQUENCES, AND FOR JOB SAFETY.
2. THE ENGINEER DOES NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. PERIODIC SITE OBSERVATION VISITS MAY BE PROVIDED BY THE STRUCTURAL ENGINEER. THE SOLE PURPOSE OF THESE OBSERVATIONS IS TO REVIEW THE GENERAL CONFORMANCE OF THE CONSTRUCTION WITH THE STRUCTURAL CONTRACT DOCUMENTS. THESE LIMITED OBSERVATIONS SHOULD NOT BE CONSTRUED AS CONTINUOUS OR EXHAUSTIVE TO VERIFY THAT ALL CONSTRUCTION IS IN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL WORK IN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.

PRIMARY CODES AND SPECIFICATIONS:

- (1) GENERAL BUILDING CODE:
A. FLORIDA BUILDING CODE - BUILDING, SEVENTH EDITION, 2020.
2. DESIGN LOADS:
A. ASCE 7-16 MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES.
3. CONCRETE CODES:
A. ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
B. ACI 301-16 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.
C. CRSI MANUAL OF STANDARD PRACTICE.
4. MASONRY CONSTRUCTION:
A. TMS 402-16 BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.
B. TMS 602-16 SPECIFICATIONS FOR MASONRY STRUCTURES.
5. STRUCTURAL STEEL CODES:
A. AISC 360-16 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS.
B. AISC 303-16 CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
6. OPEN WEB STEEL JOISTS:
A. SJI 100-15 STANDARD SPECIFICATION FOR K-SERIES, LH SERIES, AND DLH SERIES OPEN WEB STEEL JOISTS AND JOIST GIRDERS.
B. SJI COSP-2015 CODE OF STANDARD PRACTICE FOR STEEL JOISTS AND JOIST GIRDERS.
7. STEEL DECK:
A. AISI S100-16 NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS.
B. SDI DDM-04 SDI DIAPHRAGM DESIGN MANUAL.
C. SDI RDDM2 SDI ROOF DECK DESIGN MANUAL.
D. SDIANSI RD 2017 STANDARD FOR STEEL ROOF DECK.
E. SJI COSP 2017 CODE OF STANDARD PRACTICE.
F. SDIANSI QA/QC 2017 STANDARD FOR QUALITY CONTROL AND QUALITY ASSURANCE FOR INSTALLATION OF STEEL DECK.

DESIGN LOADS:

1. SUPERIMPOSED DEAD LOADS:
A. ROOFS:
MAXIMUM ALLOWANCE 25 PSF.
DRIVE UP ROOF CANOPY 30 PSF
SEE ROOF PLANS FOR OTHER CONCENTRATED EQUIPMENT LOADS
2. LIVE LOADS:
A. ROOF LIVE LOADS:
UNIFORMLY DISTRIBUTED LIVE LOAD ON HORIZONTAL PROJECTION 20 PSF
- B. UNIFORMLY DISTRIBUTED FLOOR LIVE LOADS:
SLAB ON GRADE 100 PSF
3. WIND LOADS:
A. ULTIMATE DESIGN WIND SPEED, 3 SECOND GUST, V_{ult} 120 MPH
NOMINAL DESIGN WIND SPEED, 3 SECOND GUST, V_{nom} 93 MPH
HURRICANE PRONE REGION YES
WINDBORNE DEBRIS REGION NO
BUILDING RISK CATEGORY II
WIND EXPOSURE CATEGORY C
WIND TOPOGRAPHIC FACTOR (K_{zt}) 1.0
ENCLOSURE CATEGORY ENCLOSED (BLDG)
ENCLOSURE CATEGORY OPEN (CANOPY)
INTERNAL PRESSURE COEFFICIENT +/- 0.18 (BLDG)
INTERNAL PRESSURE COEFFICIENT +/- 0.00 (CANOPY)
MEAN ROOF HEIGHT 15 FEET
WIND DIRECTIONALITY FACTOR, K_d 0.85
VELOCITY PRESSURE COEFFICIENT (K_{zt}) 0.85
ULTIMATE VELOCITY PRESSURE (q_{ult}) 28 PSF
NOMINAL VELOCITY PRESSURE (q_{nom}) 17 PSF
- B. SEE LOADING NOTES, TABLES AND DIAGRAM FOR DESIGN FORCES FOR COMPONENTS DESIGNED BY DELEGATED ENGINEERS.
4. SEISMIC: EXEMPT PER EXCEPTION 2 OF FLORIDA BUILDING CODE SECTION 101.2.
5. GROUND SNOW LOADS: EXEMPT PER EXCEPTION 2 OF FLORIDA BUILDING CODE SECTION 101.2.
6. RAIN LOADS:
RAIN LOAD 35 PSF MAIN ROOF
28 PSF CANOPY DRIVE UP ROOF
RAIN INTENSITY 4.04 INCHES / HOUR
RAIN RAIN INTENSITY 5.24 INCHES / 15 MINUTES
ASSUMED SCUPPER SIZE: 12" WIDE X 8" HIGH
ASSUMED OVERFLOW SCUPPER SIZE: 12" WIDE X 8" HIGH OFFSET 4" FROM MAIN SCUPPER
ASSUMED ROOF DRAIN LEADER SIZE: 4" DIAMETER
ASSUMED DRAIN HEIGHT TO DRAIN, 2"
ASSUMED OVERFLOW DRAIN OFFSET 4" ABOVE MAIN DRAIN.

LATERAL LOAD RESISTING SYSTEM:

1. HORIZONTAL LATERAL LOAD SYSTEM OF COMPLETED STRUCTURE:
A. ROOF LEVELS:
STEEL ROOF DECK SERVES AS A FLEXIBLE DIAPHRAGM THAT DISTRIBUTES THE HORIZONTAL LATERAL LOADS TO THE VERTICAL LATERAL LOAD SYSTEM.
2. VERTICAL LATERAL LOAD SYSTEM OF THE COMPLETED STRUCTURE:
A. THE HORIZONTAL LATERAL LOAD RESISTING SYSTEM IS:
CONCRETE MASONRY SHEAR WALLS.
- FUTURE BUILDING GROWTH:**
1. THE BUILDING HAS NOT BEEN DESIGNED FOR ANY FUTURE VERTICAL OR HORIZONTAL GROWTH
- FOUNDATIONS:**
1. FOUNDATION DESIGN IS BASED ON THE FOLLOWING GEOTECHNICAL REPORT:
NUMBER: 19-03047
BY: ECS FLORIDA, LLC
AND DATED: JUNE 24, 2022.
THE GENERAL CONTRACTOR MAY REVIEW A COPY OF THE GEOTECHNICAL REPORT AT THE OFFICE OF THE ARCHITECT.
2. ALL VEGETATION, TOPSOILS, ROOTS AND ORGANIC ZONES SHALL BE STRIPPED AND REMOVED FROM THE CONSTRUCTION AREA FOR A DISTANCE OF AT LEAST 5 FEET BEYOND THE EXTERIOR OF BUILDING FOUNDATION LIMITS. THE DEPTH OF STRIPPING SHALL BE THAT REQUIRED TO REMOVE SIGNIFICANT ROOT ZONES, SMALL TREE STUMPS AND OTHER UNACCEPTABLE MATERIALS, BUT IN NO CASE LESS THAN 6 INCHES.
3. EXCAVATIONS FOR LARGE STUMPS, ABANDONED UTILITIES, UNDERGROUND TANKS, ETC. SHALL BE BACKFILLED IN LAYERS WITH COMPACTION AND TESTING OF EACH LAYER AS DESCRIBED FOR PLACEMENT AND COMPACTION OF FILL MATERIAL. USE LOOSE BACKFILL LAYER THICKNESS APPROPRIATE FOR THE SIZE OF COMPACTOR BEING USED.
4. AFTER THE SITE HAS BEEN CLEARED, THE SITE SHALL BE PROOF-ROLLED UNDER THE DIRECT OBSERVATION OF THE PROJECT GEOTECHNICAL REPRESENTATIVE. PROVIDE A MINIMUM OF 8 OVERLAPPING COVERAGES IN EACH DIRECTION (16 TOTAL) WITH A MINIMUM OF 30% OVERLAP. REMOVE AND REPLACE ALL UNSUITABLE MATERIALS TO A DEPTH OF AT LEAST 4'-0" BELOW THE BOTTOM OF THE FOUNDATIONS AND THE SLAB-ON-GRADE AND AS OTHERWISE DIRECTED BY THE PROJECT GEOTECHNICAL REPRESENTATIVE.
5. AFTER THE SITE HAS BEEN CLEARED AND PROOF-ROLLED, THE EXPOSED SOILS AT THE STRIPPED SURFACE WITHIN AND TO A POINT 5 FEET OUTSIDE THE BUILDING CONSTRUCTION AREA SHALL BE COMPACTED WITH OVERLAPPING PASSES WITH A VIBRATORY DRUM ROLLER HAVING A TOTAL OPERATING STATIC WEIGHT OF AT LEAST 4 TO 6 TONS. DENSITIES OF AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557) SHALL BE UNIFORMLY OBTAINED TO A DEPTH OF AT LEAST 12 INCHES BELOW THE COMPACTED SURFACE. REGARDLESS OF THE DEGREE OF COMPACTION ACHIEVED, A MINIMUM OF EIGHT COMPLETE COVERAGES SHALL BE MADE WITHIN THE BUILDING AREA. THE ROLLER COVERAGES SHALL BE DIVIDED EVENLY INTO TWO PERPENDICULAR DIRECTIONS. THE CONTRACTOR IS ADVISED NOT TO USE THE VIBRATORY MODE OF COMPACTORS IN CLOSE PROXIMITY TO EXISTING STRUCTURES. THE CONTRACTOR SHALL COORDINATE COMPACTION EFFORTS AND FOUNDATION INSTALLATIONS TO INSURE THAT NO DAMAGE OCCURS TO ADJACENT STRUCTURES.
6. AFTER COMPLETION OF DENSIFICATION OF EXISTING SOILS, STRUCTURAL FILL SHALL THEN BE PLACED IN 12 INCHES OR LOOSE THICKNESS LIFTS. EACH LIFT SHALL BE THOROUGHLY COMPACTED WITH THE ROLLER PREVIOUSLY DESCRIBED. EACH LIFT SHALL BE THOROUGHLY COMPACTED WITH THE VIBRATORY ROLLER UNTIL DENSITIES EQUIVALENT TO AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY ARE UNIFORMLY OBTAINED. STRUCTURAL FILL SHALL CONSIST OF AN INORGANIC, NON-PLASTIC, GRANULAR SOIL CONTAINING LESS THAN 10 PERCENT MATERIAL PASSING THE NO. 200 MESH SIEVE, A RELATIVELY CLEAN SAND WITH A UNIFIED SOIL CLASSIFICATION OF SP OR SP-SM.
7. FOOTINGS HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 2500 PSF. THE UPPER 12 INCHES OF SANDY BEARING SOILS IN THE FOOTING EXCAVATION BOTTOMS SHALL BE COMPACTED TO DENSITIES EQUIVALENT TO 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY. COMPACTION, OR RECOMPACTION OF THE FOOTING EXCAVATION BEARING LEVEL SOILS LOOSENED BY THE EXCAVATION PROCESS, SHALL BE ACHIEVED BY MAKING SEVERAL PASSES WITH A RELATIVELY LIGHTWEIGHT, WALK-BEHIND VIBRATORY SLED OR ROLLER COMPACTOR.
8. UNLESS NOTED, ALL FOOTINGS SHALL BE CENTERED UNDER COLUMNS, PIERS AND WALLS.
9. SLAB-ON-GRADE CONSTRUCTION SHALL BE SUPPORTED ON SUBGRADE COMPACTED TO A DENSITY OF NO LESS THAN 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557) TO A DEPTH OF AT LEAST 12 INCHES. INTERIOR SLABS-ON-GRADE SHALL BE CAST OVER A VAPOR RETARDER. SEE SPECIFICATIONS.

10. SEE SPECIFICATIONS FOR SURFACE AND GROUND WATER CONTROL WHICH MAY BE REQUIRED.
- CAST-IN-PLACE CONCRETE:**
1. THE LATEST EDITION OF THE FOLLOWING ACI STANDARDS APPLY:
ACI 306 (PLACING)
ACI 315 (DETAILING)
ACI 347 (FORMWORK)
ACI 301 (SPECIFICATIONS)
ACI 306 (WINTER CONCRETING)
ACI 305 (HOT WEATHER CONCRETING)
ACI 211.1 (MIX PROPORTIONING)
2. ALL CONCRETE SHALL BE NORMAL WEIGHT (145 PCF), WITH MIXES DESIGNED TO MEET THE FOLLOWING CRITERIA FOR USE IN VARIOUS ELEMENTS OF THE STRUCTURE AS FOLLOWS:
- | STRUCTURAL ELEMENT | 28-DAY COMPRESSIVE STRENGTH (PSI) | MAX. SIZE AGGREGATE | MAX. W/C RATIO | SLUMP RANGE (IN) |
|--------------------------------|-----------------------------------|---------------------|----------------|------------------|
| A. FOOTINGS & FOUNDATION WALLS | 3000 | 1" | 0.55 | 3-6 |
| B. SLAB-ON-GRADE | 3500 | 3/4" | 0.50 | 2-5 |
| C. COLUMNS, WALLS & BEAMS | 4000 | 3/4" | 0.50 | 3-5 |
3. CONCRETE SLUMP IS TAKEN AT POINT OF PLACEMENT INTO STRUCTURE.
4. WATER REDUCING AND AIR ENTRAINING AGENTS SHALL BE INCLUDED IN DESIGN MIXES. SUPERPLASTICIZERS MAY BE USED AT THE CONTRACTOR'S OPTION.
5. A CONCRETE MIX DESIGN FOR EACH UNIQUE COMBINATION OF STRENGTH, COARSE AGGREGATE GRADATION AND WATER CEMENT RATIO SPECIFIED SHALL BE PREPARED BY THE SUPPLIER OR AN INDEPENDENT TESTING LABORATORY AND BE SUBMITTED FOR REVIEW PRIOR TO CASTING ANY CONCRETE. MIXES THAT WILL BE TRANSPORTED AT THE PROJECT SITE BY PUMPING SHALL BE SPECIFICALLY DESIGNED FOR PUMPING.
6. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
7. SLABS ON GRADE: UNLESS NOTED OTHERWISE, CONCRETE SLABS ON GRADE SHALL BE A MINIMUM OF 4" THICK, REINFORCED WITH #6 W/ 4W/14 W/14 IN. CLEAR FROM THE TOP OF THE SLAB. SLABS SHALL BE PLACED OVER PROPERLY COMPACTED EARTH.
8. CONCRETE TIE BEAMS: UNLESS NOTED OTHERWISE, CONCRETE TIE BEAMS SHALL BE A MINIMUM OF 16" DEEP BY THE SUPPORTING WALL WIDTH, REINFORCED WITH 2 #5 CONTINUOUS TOP AND BOTTOM AND #3 TIES AT 24" O.C.

REINFORCING STEEL:

1. REINFORCING STEEL: ASTM A615, GRADE 60.
2. REINFORCING STEEL TO BE WELDED: ASTM A706 (DBAs, EMBEDS)
3. WELDED WIRE FABRIC: ASTM A1064, FLAT SHEETS.
4. MINIMUM REINFORCING STEEL CLEAR COVER (R.U.N.O.):
A. CONCRETE CAST DIRECTLY AGAINST EARTH 3"
B. BEAMS AND COLUMNS 1-1/2" TO STIRRUPS OR TIES
C. SLABS ON GRADE 1-1/2" FROM TOP
5. WHERE REINFORCING BARS ARE NOTED AS CONTINUOUS, THE FOLLOWING SHALL BE COMPLIED WITH:
A. THE TERMINATION OF ALL CONTINUOUS REINFORCING BAR ROWS SHALL BE A STANDARD HOOK UNLESS NOTED OTHERWISE.
B. SPLICES IN CONTINUOUS TOP BARS, IF REQUIRED, SHALL OCCUR OVER PARALLEL WALLS OR AT THE CENTER OF THE OPENING SPAN.
C. SPLICES IN CONTINUOUS BOTTOM BARS, IF REQUIRED, SHALL OCCUR OVER WALLS OR CENTERED OVER COLUMNS.
6. WHERE SPLICE LENGTHS ARE NOT SPECIFIED, USE 48 BAR DIAMETERS.
7. REINFORCING STEEL SHALL NOT BE TACK WELDED FOR ANY REASON.
8. LAP ALL WELDED WIRE FABRIC A MINIMUM OF ONE CROSS WIRE SPACING PLUS 2 INCHES.
9. ALL REINFORCING STEEL SHALL BE SUPPORTED ON STANDARD ACCESSORIES, HELD RIGIDLY AND ACCURATELY IN PLACE, AND PROTECTED AGAINST DISPLACEMENT BEFORE AND DURING PLACEMENT OF CONCRETE. SUPPORTING ACCESSORY LESS THAT REST ON CONCRETE SURFACES THAT WILL BE EXPOSED IN THE FINISHED STRUCTURE SHALL BE FABRICATED OF STAINLESS STEEL.
10. DOWELS AND OTHER MISCELLANEOUS STEEL EMBEDDED ITEMS SHALL BE LOCATED AND HELD IN SPECIFIED POSITION PRIOR TO PLACEMENT OF CONCRETE AND SHALL NOT BE PUSHED INTO CONCRETE FOLLOWING CONCRETE PLACEMENT.
11. FOUNDATION, GRADE BEAM AND SLAB ON GRADE REINFORCING SHALL BE SUPPORTED ON PRECAST BLOCKS OR 3000 PSI CONCRETE BRICK OF THE PROPER THICKNESS.
12. SOFT METRIC BAR SIZES VS. INCH POUND BAR SIZES:

METRIC	INCH-POUND
#10.....	#3
#13.....	#4
#16.....	#5
#19.....	#6
#22.....	#7
#25.....	#8

CONCRETE FORMWORK:

1. SEE NOTES ON PRIMARY CODES AND SPECIFICATIONS.
2. ALL FORMWORK SHALL BE DESIGNED, ERECTED, SUPPORTED, BRACED, AND MAINTAINED ACCORDING TO ACI 347, RECOMMENDED STANDARD PRACTICE FOR CONCRETE FORMWORK.
3. RESPONSIBILITY: THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ALL FORMS, SHORES, BACKSHORES, FALSEWORK, BRACING, AND OTHER TEMPORARY SUPPORTS SHALL BE ENGINEERED TO SUPPORT ALL LOADS IMPOSED INCLUDING THE WET WEIGHT OF CONCRETE, CONSTRUCTION EQUIPMENT, LIVE LOADS, LATERAL LOADS FROM WIND AND WET CONCRETE IMBALANCE. SEE SPECIFICATIONS FOR DETAILED REQUIREMENTS.
4. TOLERANCES: UNLESS SPECIFIED OTHERWISE, ALL TOLERANCES FOR CONCRETE FORMWORK SHALL CONFORM TO ACI STANDARD 117, STANDARD TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS. THE CONTRACTOR SHALL ENGAGE A LICENSED SURVEYOR TO VERIFY THAT WORK IS WITHIN SPECIFIED TOLERANCES UNLESS WRITTEN AUTHORIZATION IS OBTAINED FROM THE ARCHITECT TO PROVIDE TOLERANCE CONTROL USING THE CONTRACTOR'S OWN FORCES PRIOR TO BEGINNING WORK.
5. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED WHERE SHOWN ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS.
6. PLUMBING SLEEVE SPACING SHALL BE THE LARGER OF THREE (3) DIAMETERS CENTER TO CENTER OF THE LARGER SLEEVE, OR 6" CLEAR BETWEEN SLEEVES. SUBMIT SLEEVE LOCATIONS AND SIZES TO ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.
7. PENETRATIONS SHALL NOT BE PERMITTED IN ANY STRUCTURAL MEMBERS OTHER THAN THOSE SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS WITHOUT THE WRITTEN REVIEW OF THE STRUCTURAL ENGINEER OF RECORD. THE CONTRACTOR SHALL SUBMIT DRAWINGS TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW INDICATING ANY CONCENTRATION OF PIPES, OPENINGS OR PENETRATIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS PRIOR TO CONCRETE PLACEMENT.

CONCRETE MASONRY:

1. SEE NOTES ON PRIMARY CODES AND SPECIFICATIONS.
2. CONCRETE MASONRY UNITS SHALL BE LOAD BEARING TYPE CONFORMING TO ASTM C-90 HAVING A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI (NET AREA).
3. MORTAR SHALL CONFORM TO ASTM C-270 TYPE S.
4. PLAIN END TWO CELLED UNITS SHALL BE USED FOR BLOCKS THAT ARE TO HAVE CELLS REINFORCED AND FILLED. WEB SHELLS ADJACENT TO CELLS THAT ARE TO BE FILLED ARE TO BE BEDDED IN MORTAR.
5. FILL CELLS AS NOTED ON DRAWINGS WITH 3000 PSI GROUT, OR GROUT CONFORMING TO ASTM C-476, SPECIFICALLY DESIGNED FOR FILLING OF CELLS.
6. IN SPLICING VERTICAL BARS, LAP ENDS, PLACE IN CONTACT AND WIRE-TIE TOGETHER OR USE BAR POSITIONERS. LAP BARS SIDE BY SIDE IN THE PLANE OF THE WALL TO MAINTAIN PROPER COVER.
7. SEE PRIMARY CODES, SPECIFICATIONS AND DRAWINGS FOR GROUTING PROCEDURES.
8. INSTALLATION OF CONCRETE MASONRY SHALL BE COMPATIBLE WITH ALL APPLIED FINISHES SUCH AS STUCCO OR PAINT. DO NOT SPONGE WALLS WITHOUT PROPER CLEANING COMPATIBLE WITH FINISHES.
9. PROVIDE GALVANIZED WIRE TYPE HORIZONTAL JOINT REINFORCING AT 16" O.C. (MAX) AND AS INDICATED ON ARCHITECTURAL DRAWINGS. PROVIDE HOT DIP GALVANIZED HUR ON ALL EXTERIOR WALLS. IN ADDITION TO SCHEDULED OR DETAILED LINTEL AND SILL REINFORCING, PROVIDE TWO LAYERS OF HUR AT 8 INCHES ON CENTER ABOVE AND BELOW ALL LINTELS AND SILLS WHICH SPAN MORE THAN 12 INCHES. EXTEND ABOVE HUR 24 INCHES BEYOND THE OPENING JAMBS EXCEPT AT WCJ.
10. MASONRY BOND BEAMS AND CONCRETE TIE BEAMS CAST ON MASONRY WALLS SHALL BE CONSTRUCTED SO AS TO KEY AND BOND INTO BLOCK CELLS. THE USE OF BUILDING PAPER OR SHEET PLASTIC TO CLOSE VOIDS BELOW BEAMS IS NOT ALLOWED DUE TO BREAKAGE OF MORTAR BOND.
11. SEE ARCHITECT'S DRAWINGS FOR THE EXTENT AND EXACT LOCATION OF MASONRY WALLS.
12. WALL CONTROL JOINTS (WCJ):
A. WALL CONTROL JOINTS SHALL BE PROVIDED IN ALL CONCRETE MASONRY CONSTRUCTION AT LOCATIONS INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS BUT UNLESS NOTED OTHERWISE AT A SPACING NOT GREATER THAN 24' O.C.
B. HORIZONTAL JOINT REINFORCING SHALL BE INTERRUPTED EACH SIDE OF WALL CONTROL JOINTS.
C. WALL CONTROL JOINTS SHALL NOT BE PLACED OVER OPENINGS OR WITHIN AN OPENING JAMB WIDTH. SEE PLANS AND/OR JAMB REINFORCING SCHEDULE FOR MINIMUM JAMB WIDTHS.
D. SEE ARCHITECTURAL DRAWINGS FOR SEALANT REQUIREMENTS AT WALL CONTROL JOINTS.
E. SEE THESE DRAWINGS FOR ADDITIONAL REQUIREMENTS.
13. MASONRY WALLS SHALL BE BRACED EITHER BY OTHER INTERSECTING WALLS OR BY ANCHORAGE OR BRACING TO THE STRUCTURE ABOVE, OR TO ADJACENT WALLS, AS DETAILED ON THE STRUCTURAL DRAWINGS.
14. BLOCK LINTELS SHALL BE SPECIFICALLY FORMED U-SHAPED LINTEL OR LOW WEB LINTEL UNITS WITH REINFORCING BARS, OR PRECAST UNITS DESIGNED FOR THE WEIGHT OF MASONRY ABOVE AND OTHER APPLIED LOADS.
15. ALL MASONRY WALLS SHOWN ON THE STRUCTURAL DRAWINGS HAVE BEEN DESIGNED TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES IN THE FINAL CONSTRUCTED CONFIGURATION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADEQUATELY BRACE THE WALLS FOR VERTICAL AND LATERAL LOADS THAT COULD POSSIBLY BE APPLIED PRIOR TO COMPLETION OF LATERAL SUPPORT BY CONNECTIONS AT FLOORS OR ROOF FRAMING LEVELS.
16. QUALITY ASSURANCE: ALL REINFORCED MASONRY SHALL BE TESTED/INSPECTED IN CONFORMANCE WITH THE REFERENCED ACI 530/ASCE 5/TMS 402 CODES AND THE PROJECT SPECIFICATIONS. QUALITY ASSURANCES SHALL MEET THE REQUIREMENTS OF SECTION 1.6, TABLE 4 LEVEL B, UNLESS MORE RESTRICTIVE REQUIREMENTS ARE SPECIFIED ELSEWHERE IN THESE DOCUMENTS.
17. TYPICAL SCHEDULED VERTICAL WALL REINFORCING SIZE AND SPACING SHALL ALSO BE CONTINUED ABOVE AND BELOW ALL OPENINGS.

STEEL JOISTS:

1. SEE NOTES ON PRIMARY CODES AND SPECIFICATIONS.
2. THE MANUFACTURER OF THE JOISTS SHALL BE A MEMBER OF THE STEEL JOIST INSTITUTE.
3. PROVIDE ONE SHOP COAT OF PRIMER (TT-P-636) EXCEPT ITEMS TO RECEIVE SPRAY FIREPROOFING.
4. SEE GENERAL NOTES FOR SPRINKLER PIPE SUPPORT.
5. REFER TO DETAILS FOR SPECIAL TREATMENT OF:
SLOPED JOIST SEATS
NON STANDARD DEPTH JOIST SEATS
JOISTS SUPPORTING CONCENTRATED LOADS
6. JOISTS SHALL BE DESIGNED FOR THE ULTIMATE COMPONENT & CLADDING WIND LOADS SHOWN IN THE WIND LOAD SCHEDULE AND USING A MAXIMUM SUSTAINED UNFACTORED DEAD LOAD OF 15 PSF TO BE USED IN NET WIND LOAD UPLIFT COMBINATIONS (0.9+DL).
7. CONNECT JOIST BEARING PLATES TO JOIST TOP CHORD FOR 6000 LB ULTIMATE LOAD, UNO.
8. JOISTS AT OR NEAR COLUMNS AND JOISTS SPANNING OVER 40 FT MUST BE BOLTED TO THE SUPPORT (PER OSHA).
9. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
10. SUBMIT FOR REVIEW SHOP DRAWINGS OF JOIST DETAILS FOR FABRICATION AND ERECTION PRIOR TO FABRICATING JOISTS.
11. SUPPLIER SHALL VERIFY THAT JOIST SIZES INDICATED ON FRAMING PLANS WHERE JOISTS ARE FRAMED ON A SLOPE WILL CARRY A DEAD LOAD OF 25 PSF, A LIVE LOAD OF 20 PSF AND A RAIN LOAD OF 30 PSF.
12. PROVIDE HORIZONTAL OR DIAGONAL TIE BRIDGING FOR ALL JOISTS AS REQUIRED BY SJI SPECIFICATION AND AS INDICATED ON THE DRAWINGS. THE END OF ALL BRIDGING LINES TERMINATING AT BEAMS SHALL BE ANCHORED THERETO AT TOP AND BOTTOM CHORDS. PROVIDE ALL REQUIRED BRIDGING ANCHORS.
13. ALL JOISTS SHALL BE DESIGNED FOR A SINGLE CONCENTRATED TRAVELING PROVISIONAL NOMINAL LIVE LOAD OF 300 POUNDS ALONG THE TOP CHORD AND 100 POUNDS ALONG THE BOTTOM CHORD APPLIED BETWEEN PANEL POINTS.
14. JOIST DIAGONAL MEMBERS LOCATED IN THE MIDDLE QUARTER OF THE SPAN SHALL BE DESIGNED FOR A MINIMUM SHEAR, IN COMPRESSION, OF 15 PERCENT OF THE END REACTION. THIS MINIMUM DESIGN LOAD SHALL BE TO ACCOUNT FOR THE POSSIBILITY OF SHEAR REVERSAL DUE TO UNBALANCED LOADING.
15. JOIST SEATS SHALL HAVE THE CAPACITY TO RESIST A LATERAL LOAD APPLIED TO THE TOP CHORD, PERPENDICULAR TO THE SPAN (ROLLOVER). PROVIDE A MINIMUM ULTIMATE ROLLOVER FORCE OF 3,000 POUNDS FOR SEATS UP TO 3 1/2 INCHES DEEP AND 1,800 POUNDS FOR SEAT OVER 3 1/2 INCHES DEEP.

STRUCTURAL STEEL:

1. SEE NOTES ON PRIMARY CODES AND SPECIFICATIONS.
2. MATERIALS:
W-SHAPES & WT-SHAPES ASTM A992
C-SHAPES & MC-SHAPES ASTM A36
ANGLES & PLATES ASTM A36
STEEL PIPE ASTM A53, GRADE B
HSS SHAPES ASTM A1085, GRADE A OR ASTM A500, GRADE C
HIGH STRENGTH BOLTS GROUP A - ASTM F1554, GRADE A308 OR F1552, UNO
ANCHOR RODS ASTM F1554, GRADE 55 TYPE S1(UNO)
MACHINE BOLTS ASTM A307, GRADE A
WELDED HEADED STUDS ASTM A1085
DEFORMED BAR ANCHORS ASTM A496
WELDING ELECTRODES AWS D1.1, E70 SERIES
3. SUBMIT FOR REVIEW SHOP DRAWINGS OF STEEL DETAILS PRIOR TO FABRICATING STRUCTURAL STEEL.
4. THE DESIGN OF ALL STEEL FRAMING AND CONNECTIONS IS TO BE BASED ON FACTORED LOADS WITH THE USE OF LRFD METHOD. END REACTIONS ARE SHOWN ON THE CONSTRUCTION DOCUMENTS. CONNECTIONS ARE DETAILED ON THE STRUCTURAL DOCUMENTS. ANY REVISIONS SHALL BE PER BELOW:
A. CONNECTIONS ARE TO BE DESIGNED AND DETAILED BY THE FABRICATOR'S DELEGATED DESIGN PROFESSIONAL. ALL DELEGATED DESIGN CONNECTIONS SHALL HAVE CLEARLY ORGANIZED SIGNED & SEALED DESIGN CALCULATIONS AND DETAILS PREPARED BY THE SUPPLIER'S DELEGATED DESIGN PROFESSIONAL, SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. PRIOR TO THE SUBMITTAL OF THE PROJECT CALCULATIONS, THE FABRICATOR SHALL SUBMIT IN WRITING SAMPLES OF REQUIRED SUBSTANTIATING CONNECTION INFORMATION TO THE SER FOR REVIEW AND ACCEPTANCE. CONNECTION TYPES REQUIRING DELEGATED DESIGN ARE INDICATED ON THE CONSTRUCTION DOCUMENTS.
5. NON-SHRINK, NON-METALLIC GROUT WITH A MINIMUM 28 DAY STRENGTH OF 5000 PSI SHALL BE USED UNDER BASE PLATES AND SHALL CONFORM TO CORPS OF ENGINEERS CRD-C621, FACTORY PREMIX GROUT. SEE SPECIFICATIONS FOR TESTING REQUIREMENTS.
6. ENGINEER SHALL BE CONTACTED FOR APPROVAL OF ANY FIELD MODIFICATIONS OF ANCHOR BOLTS OR RODS AND COLUMN BASE PLATES (PER OSHA).
7. TEMPORARY BRACING OF STRUCTURAL STEEL ELEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR. STRUCTURAL STABILITY SHALL BE MAINTAINED AT ALL TIMES DURING THE ERECTION PROCESS.
- CONTRACTOR MUST PROVIDE NOTIFICATION TO THE ERECTOR THAT, BY TESTING, THE FOUNDATION AND SUPPORTING WALLS HAVE ATTAINED SUFFICIENT STRENGTH TO SUPPORT THE STEEL TO BE ERECTED BEFORE ERECTING STRUCTURAL STEEL.
8. PROVIDE ONE SHOP COAT OF PRIMER (TT-P-636) ON ALL STEEL EXCEPT FOR ITEMS TO BE HOT DIPPED GALVANIZED OR SPRAY FIREPROOFED. DO NOT PAINT PORTIONS EMBEDDED IN CONCRETE.
9. ALL WELD OPERATORS SHALL BE CURRENTLY AWS QUALIFIED.
10. DURING THE ERECTION OF STEEL BEAMS AND DIAGONAL BRACING, ALL BOLTING AND FIELD WELDING SHALL BE COMPLETE BEFORE RELEASING HOISTING CABLES.
11. THE SHOP PLACEMENT OF SHEAR CONNECTORS, WELDABLE REINFORCING BARS, DEFORMED ANCHORS, OR THREADED STUDS IS PROHIBITED WHERE THEY WOULD OBSTRUCT THE WALKING SURFACE OF THE BEAMS OR JOISTS.
12. STEEL COLUMNS, BASE PLATES AND ALL STEEL BELOW GRADE SHALL HAVE A MINIMUM 3" CONCRETE COVER PROTECTION.
13. MEMBERS NOTED AS "CONTINUOUS" SHALL BE FULLY WELDED AT ALL BUTT SPLICES OR CONNECTIONS SHALL BE DETAILED TO PROVIDE CONTINUITY.
14. ALL BRICK SHELF ANGLES SHALL BE HOT DIPPED GALVANIZED.
15. ALL EXTERIOR ELEMENTS AND THOSE ELEMENTS NOTED TO BE GALVANIZED SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123 AFTER SANDBLAST CLEANING PER SSPC-SP10. USE ASTM A325 BOLTS HOT DIPPED GALVANIZED WITH GALVANIZED HARDENED WASHERS AND GALVANIZED HEAVY HEX NUTS FOR BOLTING OF GALVANIZED ITEMS.

STEEL ROOF DECK:

1. ROOF DECK SHALL BE 1-1/2" DEEP, WIDE-RIB IN ACCORDANCE WITH SDI SPECIFICATIONS. SEE ROOF PLAN OR SCHEDULE FOR SPECIFIC GAGE AND PROFILE DESIGNATION.
2. STEEL ROOF DECK SHALL CONFORM TO ASTM A653 SO GRADE 33 (Fy = 33,000 PSI) AND SHALL BE GALVANIZED WITH A PROTECTIVE ZINC COATING DESIGNATION G90 CONFORMING TO ASTM A924.
3. ROOF DECK SHALL BE PLACED SO AS TO COVER AT LEAST TWO SPANS. NO SINGLE SPAN CONDITIONS SHALL BE USED.
4. PROVIDE A MINIMUM END BEARING OF 2" OVER SUPPORTS. END LAPS OF SHEETS SHALL BE A MINIMUM OF TWO INCHES AND SHALL OCCUR OVER SUPPORTS.
5. ROOF DECK SHALL BE FABRICATED SO THAT DECK RUNS CONTINUOUSLY OVER OPENINGS. THE OPENINGS IN THE DECK SHALL NOT BE CUT UNTIL THE OPENING IS NEEDED (PER OSHA).
6. THE CONTRACTOR SHALL COORDINATE ALL TRADE REQUIREMENTS AND CONFIRM THE SIZE AND LOCATION OF ALL OPENINGS. OPENINGS LARGER THAN 12" AND AS DETAILED, SHALL HAVE STEEL FRAMING SUPPORTING ALL EDGES. SEE TYPICAL OPENING FRAMING DETAILS.
7. NO HANGING LOADS SHALL BE APPLIED OR SUPPORTED BY ROOF DECK.
8. SEE ROOF PLAN AND DETAILS FOR ROOF DECK ATTACHMENT AND FORCES IMPOSED DUE TO UPLIFT AND DIAPHRAGM SHEAR UNDER WIND LOADING. SEE SPECIFICATIONS FOR INSPECTION AND REPORTING REQUIRED ON ROOF DECK ATTACHMENT.
9. STEEL MEMBERS SUPPORTING STEEL DECK AT THE PERIMETER OF THE BUILDING SHALL BE CONTINUOUS, BUTT WELD PIECES WHERE SPLICES OCCUR.

STRUCTURAL DRAWING INDEX

DRAWING NUMBER	DRAWING DESCRIPTION
S001	GENERAL STRUCTURAL NOTES & STRUCTURAL DRAWING INDEX
S002	GENERAL STRUCTURAL NOTES & WIND LOAD INFORMATION
S003	ABBREVIATIONS, SYMBOL, LEGEND AND WIND LOAD INFORMATION
S101	FOUNDATION & GROUND FLOOR PLAN
S102	LOW ROOF FRAMING PLAN
S103	HIGH ROOF FRAMING PLAN
S201	BUILDING SECTIONS
S301	FOUNDATION SECTIONS AND DETAILS
S302	SECTIONS AND DETAILS
S303	SECTIONS AND DETAILS
S501	ROOF SECTIONS AND DETAILS
S502	ROOF SECTIONS AND DETAILS

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SUBMITTAL:		ISSUE DATE:
CONSTRUCTION DOCUMENTS		03/01/2023
REVISION	DESCRIPTION	DATE

1659 W US HIGHWAY 90
LAKE CITY, FL 32055

KEY PLAN

DRAWING TITLE:
GENERAL STRUCTURAL NOTES & STRUCTURAL DRAWING INDEX
PROJECT NO.: WA20056 DRAWN BY: MAM
CHECKED BY: MAM

GENERAL STRUCTURAL NOTES - CONTINUED

CURTAIN WALL AND STOREFRONT WINDOW SYSTEMS:

1. REFER TO ARCHITECT'S DRAWINGS AND SPECIFICATIONS FOR ALL REQUIREMENTS FOR THE DESIGN, DETAILING, FABRICATION AND ERECTION OF THE CURTAIN WALL AND STOREFRONT WINDOW SYSTEMS.
2. STRUCTURAL DESIGN:
- A. THE STRUCTURAL DESIGN OF THE WINDOW WALL SYSTEM SHALL BE PERFORMED BY OR UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA. DESIGN CALCULATIONS SEALED BY THE REGISTERED ENGINEER SHALL BE SUBMITTED FOR INFORMATION AND RECORD ONLY.
- B. THE CURTAIN WALL SUPPLIER IS RESPONSIBLE FOR THE DESIGN OF GLASS CURTAIN WALLS. SHOP DRAWINGS SHOWING PLANS, ELEVATIONS, SECTIONS, FRAMING AND CONNECTION DETAILS SHALL BE SUBMITTED WITH DESIGN CALCULATIONS SIGNED AND SEALED BY A LICENSED ENGINEER IN THE STATE OF FLORIDA.
- C. THE DESIGN CALCULATIONS SHALL CLEARLY INCLUDE DESIGN DEAD LOADS OF THE FRAMING SYSTEM, ANTICIPATED THERMAL LOADS, AND DESIGN WIND LOADS. THE DESIGN WIND LOADS SHALL INCLUDE AND BE CONSISTENT WITH THE DESIGN WIND LOAD CRITERIA SPECIFIED FOR THE BUILDING IN THE STRUCTURAL GENERAL NOTES. INDIVIDUAL COMPONENT AND CONNECTION DESIGN CALCULATIONS SHALL INCLUDE DESIGN SECTION PROPERTY COMPUTATIONS AND ANALYSIS FOR THE MINIMUM DESIGN LOADING. DESIGN CALCULATIONS SHALL BE PROVIDED FOR ALL COMPONENT MEMBER CONNECTIONS AND CONNECTIONS TO THE STRUCTURAL FRAME.
3. CONNECTIONS TO THE STRUCTURAL FRAME:
- A. MATERIALS (MINIMUM):
1. STEEL PLATES ASTM A36
2. STRUCTURAL STEEL SHAPES ASTM A6
3. CONNECTIONS:
- ANCHOR RODS ASTM F1554, GRADE 36
- WELDED HEADED STUDS ASTM A108
- DEFORMED BAR ANCHORS ASTM A498
- HIGH STRENGTH BOLTS GROUP A - ASTM F3125, GRADE A325, UNO
- DUCTILE IRON INSERTS ASTM A536
- B. THE CURTAIN WALL SUPPLIER SHALL PROVIDE AND DESIGN ALL CONNECTION MATERIAL REQUIRED FOR ATTACHMENT OF THE FRAMING TO THE STRUCTURE.
- C. THE CURTAIN WALL SUPPLIER SHALL PROVIDE DETAILS ILLUSTRATING CURTAIN WALL FRAMING COMPONENTS AND CONNECTIONS TO THE STRUCTURE COMPLETE WITH CONNECTION LOADS, LOAD DIRECTION AND LOCATE ALL NECESSARY STRUCTURAL ATTACHMENTS AND/OR SUPPORTS TO THE BUILDING STRUCTURE.
- D. GRAVITY SUPPORT OF THE CURTAIN WALL MAY BE CONNECTED TO CONCRETE SLABS, WALLS, CONCRETE BEAMS, STRUCTURAL STEEL BEAMS, OR COLUMNS AS INDICATED ON THE STRUCTURAL DRAWINGS.
- E. TYPICAL LATERAL SUPPORT OF CURTAIN WALL CONNECTIONS TO THE STRUCTURE SHALL CONNECT TO SLAB EDGES, EDGE ANGLES OR PLATES, OR TOP FLANGES OF BEAMS SUPPORTING HORIZONTAL DIAPHRAGM ELEMENTS AS DEFINED IN THE LATERAL LOAD RESISTING SYSTEM OF THE COMPLETED STRUCTURE. SHOULD LATERAL CONNECTIONS REQUIRE SUPPORT FROM THE BOTTOM FLANGES OF STRUCTURAL BEAMS, THEN THE CURTAIN WALL SUPPLIER SHALL NOTIFY THE SER OF ALL LOCATIONS PRIOR TO FABRICATION.
- F. UNLESS APPROVED OTHERWISE, THE BRACING DETAILS PROVIDED ON THE STRUCTURAL DRAWINGS SHALL BE USED TO SUPPLEMENT THE TRANSMISSION OF CURTAIN WALL LOADS TO THE PRIMARY STRUCTURAL BUILDING FRAME. THE CONTRACTOR SHALL COORDINATE ALL SUPPLEMENTAL STEEL BRACING, STUB CANTILEVERS, AND/OR EMBED PLATE LOCATIONS REQUIRED BY THE STRUCTURAL CONSTRUCTION DOCUMENTS AND/OR CURTAIN WALL SUPPLIER WITH THE STRUCTURAL STEEL FABRICATOR AND ERECTOR.
- G. DO NOT CUT OR OTHERWISE DAMAGE STRUCTURAL ELEMENTS COMPRISING THE STRUCTURAL BUILDING FRAME DURING INSTALLATION OF CURTAIN WALL COMPONENTS AND/OR CONNECTIONS.
- H. CORROSION PROTECTION (MINIMUM REQUIRED, UNLESS NOTED OTHERWISE BY ARCHITECT):
1. EMBEDDED PLATES AND ANCHORS SHALL BE SHOP PRIMED WITH A ZINC RICH PAINT. EXPOSED SURFACES OF ALL PLATES EMBEDDED IN CONCRETE SHALL BE PAINTED WITH ZRC COLD GALVANIZING COMPOUND AFTER THE CONNECTION IS COMPLETED.
2. BASE PLATES, ANCHOR BOLTS, NUTS, AND WASHERS NOT COVERED BY A MINIMUM OF 2 INCHES OF CONCRETE SHALL BE PAINTED WITH ZRC COLD GALVANIZING COMPOUND AFTER THE CONNECTION IS COMPLETED.
3. EXPOSED STEEL PLATES, SHAPES, AND ANCHORS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION. BOLTS, NUTS, AND WASHERS FOR SUCH CONNECTIONS SHALL ALL BE GALVANIZED. ALL WELDS FOR EXPOSED CONNECTIONS SHALL BE PAINTED WITH ZRC COLD GALVANIZING COMPOUND AFTER WELDING.
- I. ALL SHOP AND FIELD WELDING OF CONNECTIONS SHALL BE PERFORMED BY CERTIFIED WELDERS FOR THE TYPE OF WELDING PERFORMED.

POST-INSTALLED ANCHORS:

1. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS. CONTRACTOR SHALL OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD (SER) PRIOR TO USING POST-INSTALLED ANCHORS OR ADHESIVE ANCHORING SYSTEM FOR MISSING OR MISPLACED CAST-IN-PLACE ANCHORS AND/OR REINFORCING DOOWELS.
2. ALL POST-INSTALLED ANCHOR INSTALLATION SHALL BE BY A QUALIFIED PERSONNEL IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).
3. POST-INSTALLED ANCHOR CAPACITY IS DEPENDANT UPON THE SPECIFIED EMBEDMENT, SPACING BETWEEN ADJACENT ANCHORS, AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AT NOT LESS THAN MINIMUM EDGE DISTANCES AND/OR SPACINGS INDICATED IN THE MANUFACTURER'S LITERATURE OR ON THE STRUCTURAL DRAWINGS. EMBEDMENT SHALL BE THE MINIMUM SPECIFIED ON THE STRUCTURAL DRAWINGS. HOLES SHALL BE DRILLED AND CLEANED PER THE MANUFACTURER'S INSTRUCTIONS.
4. SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE LISTED BELOW, SHALL BE SUBMITTED TO THE SER WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A STATE OF FLORIDA REGISTERED PROFESSIONAL ENGINEER SHOWING THAT THE SUBSTITUTED PRODUCT WILL ACHIEVE AN EQUIVALENT CAPACITY USING THE APPROPRIATE DESIGN PROCEDURE REQUIRED BY THE BUILDING CODE. PRODUCT ICC-ES CODE REPORTS SHALL BE INCLUDED WITH SUBMITTAL PACKAGE. THE ACCEPTANCE OF THE PRODUCT WILL BE AT THE SER'S DISCRETION.
5. MINIMUM REQUIREMENTS FOR POST-INSTALLED ANCHORS AT TIME OF INSTALLATION:
- A. MINIMUM COMPRESSIVE STRENGTH OF BASE MATERIAL:
- GROUTED MASONRY 1500 PSI
- NORMAL-WEIGHT CONCRETE 2500 PSI
6. ANCHOR PRODUCTS APPROVED FOR USE ON THIS PROJECT ARE LISTED BELOW (UNO):
- A. MECHANICAL ANCHORS INTO CONCRETE SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 308.2 AND ICC-ES AC308 FOR CRACKED CONCRETE.
1. THE FOLLOWING ANCHORS ARE ACCEPTABLE FOR USE WITH THE REQUIRED EMBEDMENT SPECIFIED ON THE CONSTRUCTION DOCUMENTS OR BY THE SER:
- A. HILTI "KWIK BOLT 2" EXPANSION ANCHOR (ICC-ES ESR-1917)
- B. HILTI "HUS EZ" SCREW ANCHOR (ICC-ES ESR-3027)
- C. SIMPSON STRONG-TIE "STRONG-BOLT 2" WEDGE ANCHOR (ICC-ES ESR-3037)
- D. SIMPSON STRONG-TIE "TITEN-HD" (ICC-ES ESR-2713)
- B. MECHANICAL ANCHORS INTO GROUT FILLED MASONRY UNTELS OR GROUT FILLED CELLS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC201 OR ICC-ES AC108.
1. THE FOLLOWING ANCHORS ARE ACCEPTABLE FOR USE WITH THE REQUIRED EMBEDMENT SPECIFIED ON THE CONSTRUCTION DOCUMENTS OR BY THE SER:
- A. HILTI "KWIK BOLT 3" EXPANSION ANCHOR (ICC-ES ESR-1385)
- B. SIMPSON STRONG-TIE "STRONG-BOLT 2" WEDGE ANCHOR (APMO-ES ER240)
- C. SIMPSON STRONG-TIE "TITEN HD" (ICC-ES ESR-1056)
- C. ADHESIVE ANCHORS INTO CONCRETE SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 308.4 AND ICC-ES AC308 FOR CRACKED CONCRETE.
1. THE FOLLOWING ANCHORS ARE ACCEPTABLE FOR USE WITH THE REQUIRED EMBEDMENT SPECIFIED ON THE CONSTRUCTION DOCUMENTS OR BY THE SER:
- A. HILTI "HIT-HY 200" ADHESIVE WITH HILTI HIT-Z OR HAS-E STEEL ROD (ICC-ES ESR-3187)
- B. HILTI "HIT-RE 500 V3" ADHESIVE WITH HILTI HAS-E STEEL THREADED ROD (ICC-ES ESR-3814)
- C. SIMPSON STRONG-TIE "SET-XP" EPOXY ADHESIVE WITH ASTM A193 Gr B7 STEEL THREADED ROD, UNO (ICC-ES ESR-2508)
- D. SIMPSON STRONG-TIE "SET-3G" EPOXY ADHESIVE ASTM A193 Gr B7 STEEL THREADED ROD, UNO (ICC-ES ESR-4057)
- D. ADHESIVE ANCHORS INTO MASONRY UNTELS OR GROUT FILLED CELLS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC108.
1. THE FOLLOWING ANCHORS ARE ACCEPTABLE FOR USE WITH THE REQUIRED EMBEDMENT SPECIFIED ON THE CONSTRUCTION DOCUMENTS OR BY THE SER:
- A. HILTI HIT-HY 270 MASONRY ADHESIVE HILTI WITH HAS-E STEEL THREADED ROD (ICC-ES ESR-4143)
- B. HILTI HIT-HY 200 ADHESIVE WITH HILTI WITH HAS-E STEEL THREADED ROD (ICC-ES ESR-3693)
- C. SIMPSON STRONG-TIE "SET" WITH ASTM A193 Gr B7 STEEL THREADED ROD, UNO (ICC-ES ESR-1772)
- D. SIMPSON STRONG TIE "SET-XP" WITH ASTM A193 Gr B7 STEEL THREADED ROD, UNO (APMO UES ER-265)
- E. STEEL REINFORCING BARS ANCHORED INTO CONCRETE WITH ADHESIVE ANCHORING SYSTEM SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 305.4 AND ICC-ES AC308 FOR CRACKED CONCRETE.
1. THE FOLLOWING ADHESIVE ANCHORING SYSTEMS ARE ACCEPTABLE FOR USE ONLY WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS OR APPROVED BY THE SER:
- A. HILTI "HIT-HY 200" ADHESIVE (ICC-ES ESR-3187)
- B. HILTI "HIT-RE 500 V3" ADHESIVE (ICC-ES ESR-3814)
- C. SIMPSON STRONG-TIE "SET-XP" EPOXY ADHESIVE (ICC-ES ESR-2508)
- D. SIMPSON STRONG-TIE "SET-3G" EPOXY ADHESIVE (ICC-ES ESR-4057)

BUILDING DEFLECTIONS:

1. THE BUILDING HAS BEEN DESIGNED TO COMPLY WITH APPLICABLE BUILDING CODES AND VERTICAL DEFLECTION ALLOWANCES. THE CONTRACTOR SHOULD ANTICIPATE AND CONSIDER SOME VERTICAL MOVEMENT DURING PERFORMANCE OF HIS WORK.
2. ROOF BEAMS SHALL BE ASSUMED TO DEFLECT AN AMOUNT EQUAL TO THE SPAN LENGTH IN INCHES DIVIDED BY 360 (L/360), BUT NOT LESS THAN 3/8" AFTER SUPERIMPOSED LOADS ARE APPLIED.

BUILDING MAINTENANCE:

1. THE BUILDING OWNER SHALL BE AWARE THAT ALL BUILDINGS AND STRUCTURES REQUIRE ROUTINE AND PERIODIC MAINTENANCE. THIS MAINTENANCE IS ESPECIALLY IMPORTANT FOR ALL ELEMENTS EXPOSED TO THE ATMOSPHERE, SALT ENVIRONMENTS OR HARSH CHEMICALS. THE OWNER SHALL ESTABLISH A MAINTENANCE PROGRAM IN ORDER TO PREVENT DAMAGE TO THE STRUCTURE WHICH WILL SHORTEN THE LIFESPAN. ROUTINE MAINTENANCE ITEMS WOULD INCLUDE CLEANING, PAINTING, PRESSURE WASHING, SEALANT REPLACEMENT AND REPAIR OF ANY CRACKED OR SPALLED CONCRETE.

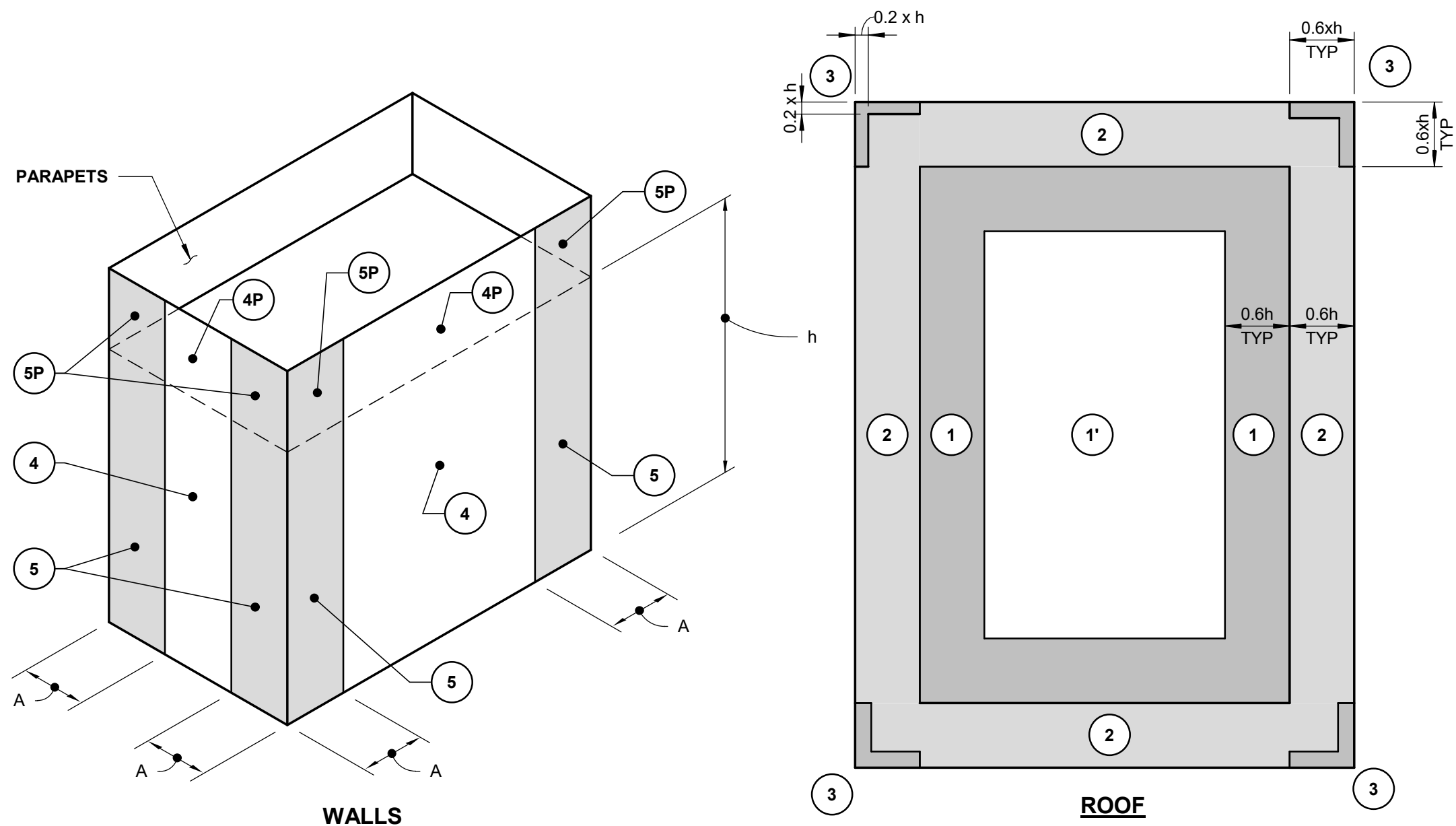
SUBMITTALS:

1. ALL SHOP DRAWINGS MUST BE REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL. SUBMITTAL WITHOUT CONTRACTOR REVIEW WILL RESULT IN DELAYS. THE CONTRACTOR SHALL CONFIRM THAT SHOP DRAWINGS HAVE BEEN COMPLETED AND CHECKED BY THE SUPPLIER PRIOR TO SUBMISSION.
2. CONTRACTOR IS TO PROVIDE ELECTRONIC COPIES (PDF) OF CONTRACTOR REVIEWED AND STAMPED SHOP DRAWINGS FOR A/E REVIEW AND PROCESSING.
3. SHOP DRAWING SUBMITTAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE STRUCTURAL SPECIFICATIONS. CHANGES OR ADDITIONS MADE ON RESUBMITTED SHOP DRAWINGS SHALL BE CLEARLY INDICATED, AND THE PURPOSE OF THE RESUBMITTAL SHALL BE NOTED ON THE TRANSMITTAL. REVIEW OF RESUBMITTED SHOP DRAWINGS SHALL BE LIMITED SPECIFICALLY TO THE ITEMS NOTED FOR CORRECTION ON THE PREVIOUS SUBMITTAL.
4. THE GENERAL CONTRACTOR SHALL SUBMIT FOR STRUCTURAL ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:
- CONCRETE MIX DESIGNS
- CURTAIN WALL (a, b)
- REINFORCING STEEL
- STEEL JOISTS (a)
- STEEL ROOF DECK
- STRUCTURAL STEEL

THE NOTATIONS FOLLOWING SUBMITTAL ITEMS INDICATE THE FOLLOWING:

- (a) INCLUDE A CERTIFICATE OF COMPLIANCE WITH CONTRACT DOCUMENTS SIGNED AND SEALED BY THE PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA RESPONSIBLE FOR THE DESIGN.
- (b) SUBMIT ONE COPY FOR INFORMATION AND RECORD ONLY.
5. MANUFACTURER'S LITERATURE: SUBMIT TWO COPIES OF MANUFACTURER'S LITERATURE FOR ALL MATERIALS AND PRODUCTS USED IN CONSTRUCTION ON THE PROJECT.
6. THE ENGINEER'S REVIEW OF SHOP DRAWINGS IS FOR GENERAL CONFORMANCE OF THE DESIGN CONCEPT. CONTRACTOR SHALL SUBMIT A SCHEDULE OF SHOP DRAWING SUBMITTALS THAT IS ACCEPTABLE TO BOTH CONTRACTOR AND ENGINEER. AFTER THE CONTRACTOR HAS REVIEWED THE SHOP DRAWINGS, PROMPT REVIEW BY THE ENGINEER WILL BE MADE OF ALL SUBMITTALS. FOR LARGE SUBMITTALS, REASONABLE REVIEW TIME SHALL BE ALLOWED AND MAY EXCEED TWO WEEKS. THE CONCURRENT SUBMITTAL OF MULTIPLE SHOP DRAWINGS ("DUMPING") WILL FURTHER EXTEND THE REVIEW PROCESS AND TIME FRAME NECESSARY TO PROPERLY REVIEW EACH SUBMITTAL.
7. REPRODUCTION OF THESE CONTRACT DOCUMENTS BY ANYONE FOR USE IN SHOP DRAWINGS SHALL SIGNIFY THEIR ACCEPTANCE OF ALL INFORMATION SHOWN AS BEING CORRECT. MILLER ENGINEERING, LLC SHALL BE INDEMNIFIED AND HELD HARMLESS FROM ALL CLAIMS, DAMAGES, LOSSES, EXPENSES OR LIABILITIES OF ANY KIND, INCLUDING ATTORNEYS' FEES. THE CONTRACTOR IS RESPONSIBLE FOR PROPER CHECKING AND COORDINATING OF DETAILS, DIMENSIONS, SIZES AND QUANTITIES AS REQUIRED TO FACILITATE COMPLETE AND ACCURATE FABRICATION AND ERECTION.

COMPONENT & CLADDING DESIGN WIND LOAD INFORMATION FOR MAIN BUILDING



WIND PRESSURE DIAGRAMS

COMPONENTS & CLADDING WIND LOAD PRESSURE SCHEDULE				
COMPONENT	ZONE	EFFECTIVE WIND AREA (SF)	ULTIMATE (FACTORED) DESIGN PRESSURE (PSF)	
			POSITIVE	NEGATIVE
ROOF ELEMENTS	1	10	+16.0	-50.0
		20	+16.0	-46.7
		50	+16.0	-42.4
	1'	> 100	+16.0	-39.1
		10	+16.0	-28.7
		20	+16.0	-28.7
	2	50	+16.0	-28.7
		> 100	+16.0	-28.1
		10	+28.7	-46.0
	3	20	+27.5	-61.7
		50	+25.8	-56.1
		> 100	+24.5	-51.9
EXTERIOR WALL ELEMENTS, WINDOWS, DOORS AND CURTAIN WALLS	4	10	+28.7	-31.1
		20	+27.5	-29.9
		50	+25.8	-28.2
	4P	100	+24.5	-26.9
		> 500	+21.6	-23.9
	5	10	+86.3	-51.0
		20	+80.7	-48.4
		50	+73.3	-45.0
	5P	100	+67.7	-42.1
		> 500	+54.7	-36.4
	5P	10	+28.7	-38.3
		20	+27.5	-35.8
		50	+25.8	-32.4
	5P	100	+24.5	-29.9
		> 500	+21.6	-23.9
	5P	10	+86.3	-58.2
		20	+80.7	-54.4
		50	+73.3	-49.3
	5P	100	+67.7	-45.4
		> 500	+54.7	-36.4

NOTES:

1. DESIGN WIND PRESSURES SHALL BE USED IN THE DESIGN OF ALL COMPONENTS AND CLADDING ELEMENTS COMPRISING THE BUILDING ENVELOPE.

2. REFER TO THE WIND PRESSURE DIAGRAM FOR ZONE LOCATIONS AND EXTENTS.

3. POSITIVE PRESSURES ACT TOWARD COMPONENT SURFACES AND NEGATIVE PRESSURES ACT AWAY FROM EACH COMPONENT SURFACE.

4. LINEAR INTERPOLATION BETWEEN EFFECTIVE WIND AREAS MAY BE USED TO OBTAIN THE REQUIRED COMPONENT AND CLADDING DESIGN WIND PRESSURE.

5. DIMENSION A = 4'-0".

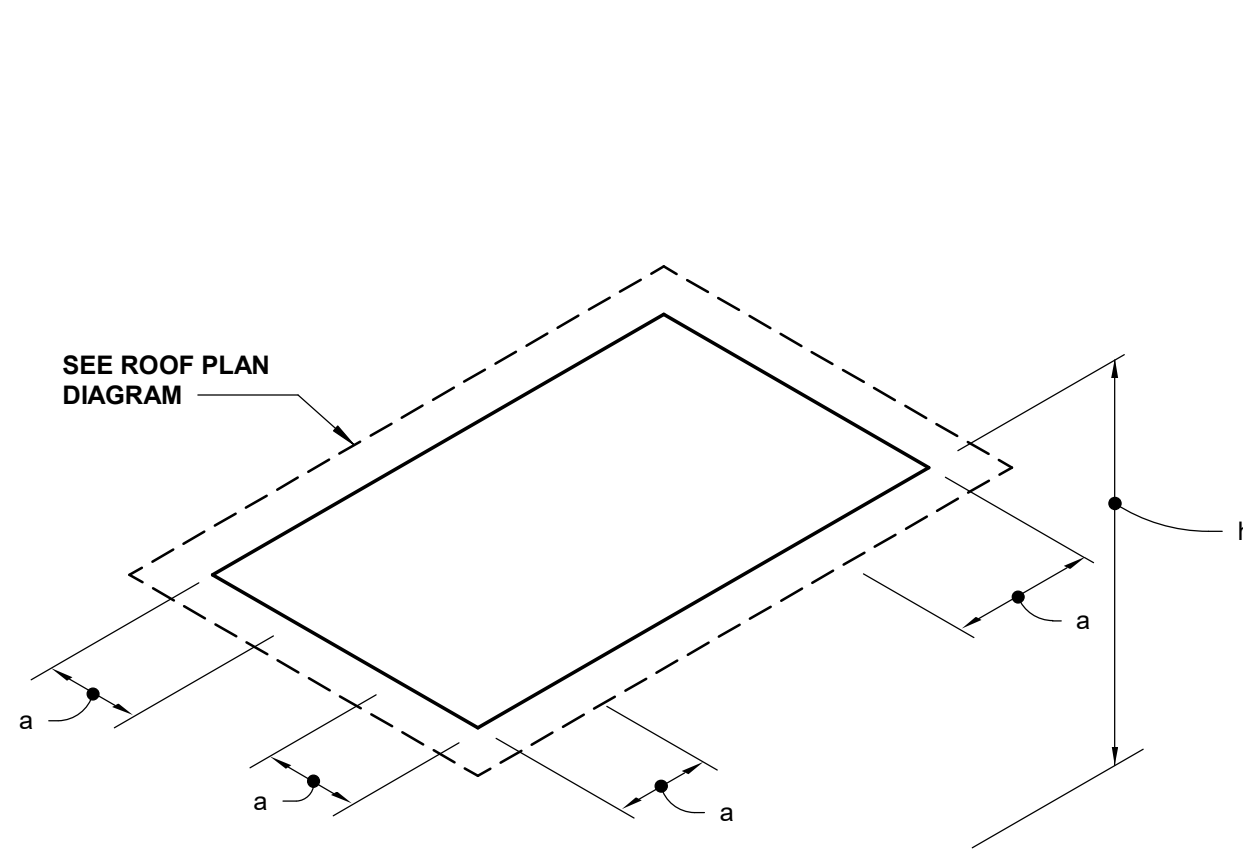
6. DIMENSION 0.6h = 7'-3".

7. MULTIPLY TABULAR 'ULTIMATE' PRESSURES BY 0.60 TO OBTAIN 'NOMINAL' PRESSURES.

ABBREVIATIONS

A/E - ARCHITECT AND/OR ENGINEER AB - ANCHOR BOLT ACI - AMERICAN CONCRETE INSTITUTE AFF - ABOVE FINISHED FLOOR AHU - AIR HANDLING UNIT AISC - AMERICAN INSTITUTE OF STEEL CONSTRUCTION AISI - AMERICAN IRON AND STEEL INSTITUTE AISC - AMERICAN INSTITUTE FOR TIMBER CONSTRUCTION ALT - ALTERNATE ALUM - ALUMINUM ANCH - ANCHOR, ANCHORAGE ANSI - AMERICAN NATIONAL STANDARDS INSTITUTE APPROX - APPROXIMATE ARCH - "ARCHITECT, ARCHITECTURAL" ASCE - AMERICAN SOCIETY OF CIVIL ENGINEERS ASD - ALLOWABLE STRESS DESIGN ASTM - AMERICAN SOCIETY OF TESTING & MATERIALS AVG - AVERAGE AWS - AMERICAN WELDING SOCIETY BLDG - BUILDING BLK - BLOCK BLKG - BLOCKING BM - BEAM BOTT - BOTTOM BRG - BEARING CANT - CANTILEVER CAP - CAPACITY CB - CORNER BAR CC - CENTER TO CENTER CF - "CUBIC FEET, COLUMN FOOTING" CFS - COLD FORMED STEEL CIP - CAST-IN-PLACE CJ - CONSTRUCTION JOINT CLG - CENTERLINE CL - CEILING CLR - "CLEARANCE, CLEAR" CM - CONSTRUCTION MANAGER CMU - CONCRETE MASONRY UNIT COL - COLUMN COMP - "COMPOSITE, COMPRESSOR, COMPRESSIVE" CONC - CONCRETE CONN - "CONNECTION, CONNECT" CONSTR - CONSTRUCTION CONT - CONTINUOUS CONTR - CONTRACTOR CRSI - CONCRETE REINFORCING STEEL INSTITUTE CSK - COUNTERSINK CTR - CENTER CTRD - CENTERED CY - CUBIC YARD DBA - DEFORMED BAR ANCHOR DBL - DOUBLE DEMO - DEMOLITION DET - DETAIL DIA - DIAMETER DIAG - DIAGONAL DIM - DIMENSION	DL - DEAD LOAD DN - DOWN DWG - DRAWING DWL - DOWEL EA - EACH EE - EACH END EF - EACH FACE EJ - EXPANSION JOINT EL - ELEVATION ENGR - ENGINEER EOD - EDGE OF DECK EOR - ENGINEER OF RECORD EOS - EDGE OF SLAB EQ - EQUAL EQPT - EQUIPMENT ES - EACH SIDE EW - EACH WAY EXIST - EXISTING EXP - EXPANSION JOINT EXT - EXTERIOR FC - MINIMUM 28-DAY CONCRETE STRENGTH FM - SPECIFIED MASONRY STRENGTH FBC - FLORIDA BUILDING CODE FD - FLOOR DRAIN FDM - FOUNDATION FF - FINISHED FLOOR FIN - "FINISH, FINISHED" FLR - FLOOR FOS - FACE OF STUD FRT - FIRE RETARDANT FS - PAR SIDE FT - "FOOT, FEET" FTG - FOOTING FY - YIELD STRENGTH OF MATERIAL GA - GAGE GALV - GALVANIZED GC - GENERAL CONTRACTOR GEN - GENERAL GR - GRADE GRND - GROUND GWB - GYPSUM WALLBOARD GY - GYPSUM HC - HOLLOW CORE HCA - HEADED CONCRETE ANCHOR HDG - HOT DIPPED GALVANIZED HGR - HANGER HGT - HEIGHT HJR - HORIZONTAL JOINT REINFORCING HK - HOOK HORIZ - HORIZONTAL HS - HIGH STRENGTH HSK - HOUSEKEEPING HSS - HOLLOW STRUCTURAL SECTION IN - INCHES INSUL - INSULATION INT - INTERIOR	JST - JOIST JT - JOINT K - KIPS (1000 LBS.) KB - KNEE BRACE KSF - KIPS PER SQUARE FOOT KSI - KIPS PER SQUARE INCH LBS - POUNDS LF - LINEAL FEET LL - LIVE LOAD LBB - LONG LEG BACK TO BACK LLH - LONG LEG HORIZONTAL LLV - LONG LEG VERTICAL LRFD - LOAD AND RESISTANCE FACTOR DESIGN LSH - LONG SIDE HORIZONTAL LSL - LONG SLOTTED LSV - LONG SIDE VERTICAL LT - LIGHT LW - "LIGHTWEIGHT, LONG WAY" MATL - MATERIAL MAX - MAXIMUM MBR - MEMBER MECH - MECHANICAL MFR - MANUFACTURER MID - MIDDLE MIN - MINIMUM MISC - MISCELLANEOUS MTL - "METAL, MATERIAL" NIC - NOT IN CONTRACT NTS - NOT TO SCALE OA - OVERALL OC - ON CENTER OPNG - OPENING OPP - OPPOSITE OVS - OVERSIZED PAF - POWDER ACTUATED FASTENER PCF - POUNDS PER CUBIC FOOT PE - PROFESSIONAL ENGINEER PEMB - PRE-ENGINEERED METAL BUILDING PERP - PERPENDICULAR PL - PLATE PLF - POUNDS PER LINEAL FOOT PSF - POUNDS PER SQUARE FOOT PREFAB - PREFABRICATED PRELIM - PRELIMINARY R - "RISER, REACTION, RADIUS" RD - "ROOF DECK MARK, ROOF DRAIN" REF - REFERENCE REIN - "REINFORCED, REINFORCING" REM - REMAINDER REQD - REQUIRED RET - RETURN REV - REVISION RTU - ROOF TOP UNIT	SCHED - SCHEDULE SDI - STEEL DECK INSTITUTE SE - STRUCTURAL ENGINEER SECT - SECTION SER - STRUCTURAL ENGINEER OF RECORD SF - SQUARE FEET SHT - SHEET SIM - SIMILAR SJ - SAWED CONTROL JOINT SJI - STEEL JOIST INSTITUTE SOS - SLAB ON GRADE SPA - "SPACING, SPACING, SPACES" SPEC - SPECIFICATION SQ - SQUARE SSL - STAINLESS STEEL SSL - SHORT SLOTTED STD - STANDARD STIFF - STIFFENER STL - STEEL STRUCT - STRUCTURAL SW - "SHORT WAY, SHEAR WALL" SYM - SYMMETRICAL SYP - SOUTHERN YELLOW PINE SYS - SYSTEM T&B - TOP & BOTTOM T&G - TONGUE & GROOVE TB - TIE BEAM TEMP - TEMPORARY, TEMPERATURE" THRD - THREADED TOC - TOP OF CONCRETE TOF - TOP OF FOOTING TOJ - TOP OF JOIST TOM - TOP OF MASONRY TOPL - TOP OF PLATE TOS - TOP OF STEEL TOSL - TOP OF SLAB TOW - TOP OF WALL TYP - TYPICAL UNO - UNLESS NOTED OTHERWISE VERT - VERTICAL VOL - VOLUME W - "STEEL WIDE FLANGE SHAPE, WEST" WL - WITH WO - WITHOUT WC - WALL COLUMN WCL - WALL CONTROL JOINT WD - WOOD WF - WALL FOOTING WGT - WEIGHT WL - WIND LOAD WP - "WORKING POINT, WATERPROOF" WWF - WELDED WIRE FABRIC XS - EXTRA STRONG XXS - DOUBLE EXTRA STRONG YD - YARD
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COMPONENT & CLADDING DESIGN WIND LOAD INFORMATION FOR CANOPY



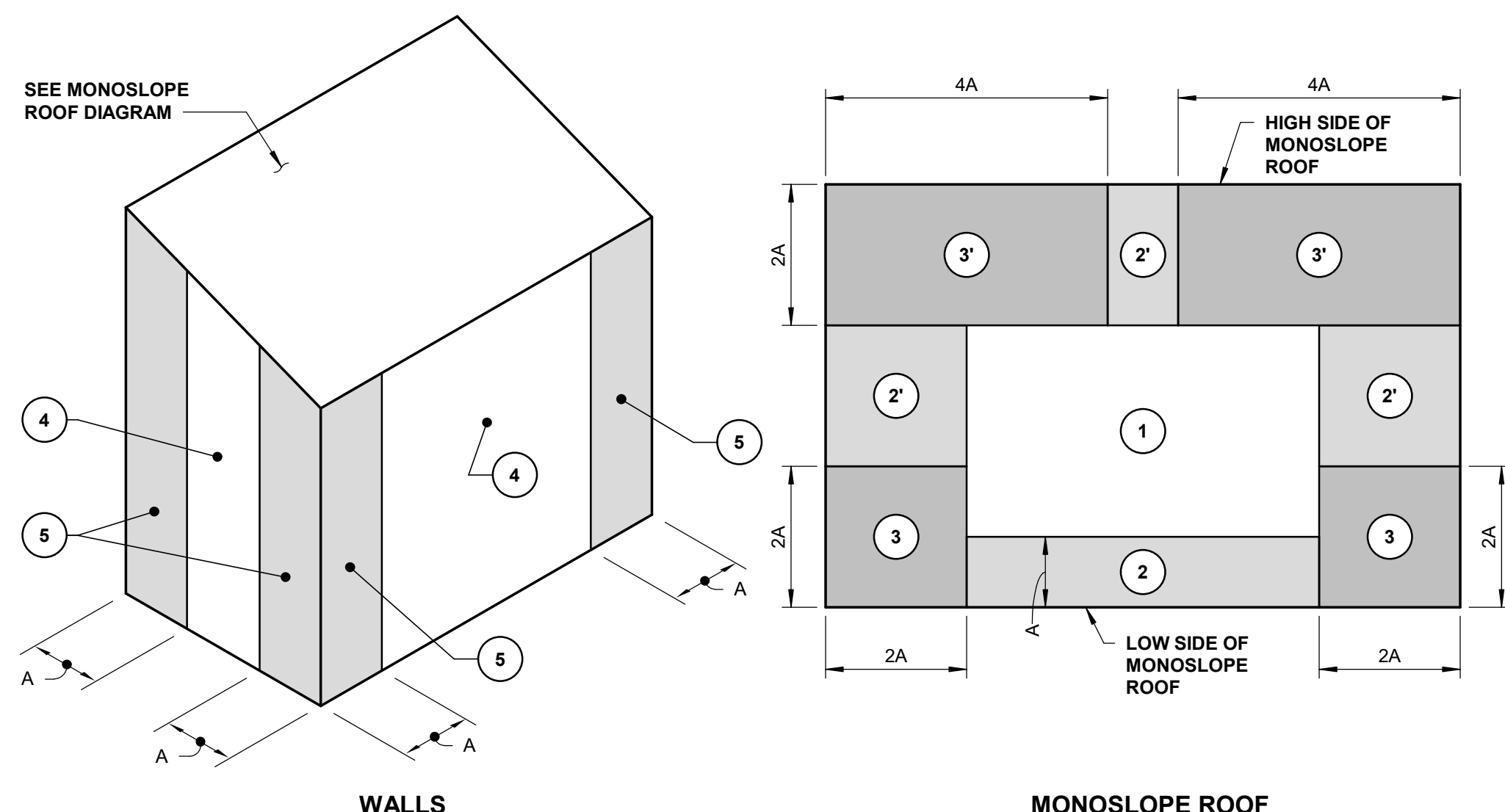
ROOF (0 TO 10°)

WIND PRESSURE DIAGRAMS

COMPONENTS & CLADDING WIND LOAD PRESSURE SCHEDULE				
COMPONENT	ZONE	EFFECTIVE WIND AREA (SF)	ULTIMATE (FACTORED) DESIGN PRESSURE (PSF)	
			POSITIVE	NEGATIVE
ROOF ELEMENTS	1	<9	+28.6	-26.0
		9 - 36	+28.6	-26.0
		> 36	+28.6	-26.0
	2	<9	+42.9	-39.9
		9 - 36	+42.9	-39.9
		> 36	+28.6	-26.0
	3	<9	+57.2	-77.9
		9 - 36	+42.9	-39.9
		> 36	+28.6	-26.0

NOTES:
1. DESIGN WIND PRESSURES SHALL BE USED IN THE DESIGN OF ALL COMPONENTS AND CLADDING ELEMENTS COMPRISING THE BUILDING ENVELOPE.
2. REFER TO THE WIND PRESSURE DIAGRAM FOR ZONE LOCATIONS AND EXTENTS.
3. POSITIVE PRESSURES ACT TOWARD COMPONENT SURFACES AND NEGATIVE PRESSURES ACT AWAY FROM EACH COMPONENT SURFACE.
4. LINEAR INTERPOLATION BETWEEN EFFECTIVE WIND AREAS MAY BE USED TO OBTAIN THE REQUIRED COMPONENT AND CLADDING DESIGN WIND PRESSURE.
5. DIMENSION a = 3'-0".
6. MULTIPLY TABULAR 'ULTIMATE' PRESSURES BY 0.60 TO OBTAIN 'NOMINAL' PRESSURES.

COMPONENT & CLADDING DESIGN WIND LOAD INFORMATION FOR HIGH ROOF



WALLS

MONOSLOPE ROOF

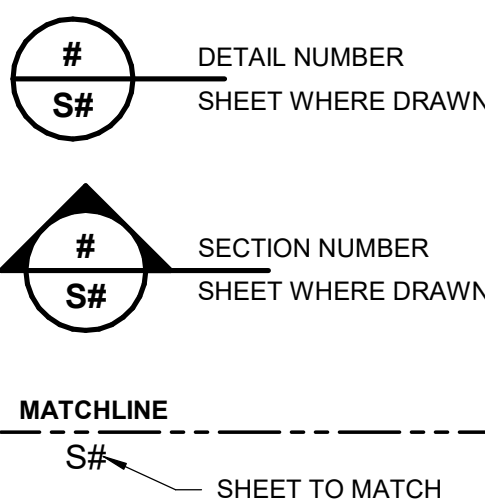
WIND PRESSURE DIAGRAMS

COMPONENTS & CLADDING WIND LOAD PRESSURE SCHEDULE				
COMPONENT	ZONE	EFFECTIVE WIND AREA (SF)	ULTIMATE (FACTORED) DESIGN PRESSURE (PSF)	
			POSITIVE	NEGATIVE
ROOF ELEMENTS	1	10	+16.0	-36.2
		20	+16.0	-36.2
		50	+16.0	-36.2
		> 100	+16.0	-36.2
		10	+16.0	-41.8
	2	20	+16.0	-41.0
		50	+16.0	-39.9
		> 100	+16.0	-39.0
		10	+16.0	-50.3
		20	+16.0	-49.5
	3	50	+16.0	-48.3
		> 100	+16.0	-47.5
		10	+16.0	-66.0
		20	+16.0	-60.9
		50	+16.0	-44.1
EXTERIOR WALL ELEMENTS, WINDOWS, DOORS AND CURTAIN WALLS	4	> 100	+16.0	-39.0
		50	+16.0	-48.3
		> 100	+16.0	-47.5
		10	+16.0	-66.0
		20	+16.0	-60.9
	5	50	+16.0	-44.1
		> 100	+16.0	-39.0
		10	+16.0	-78.6
		20	+16.0	-70.1
		50	+16.0	-68.8
	6	> 100	+16.0	-50.3
		10	+30.5	-33.1
		20	+29.2	-31.7
		50	+27.4	-29.9
		100	+26.0	-28.6

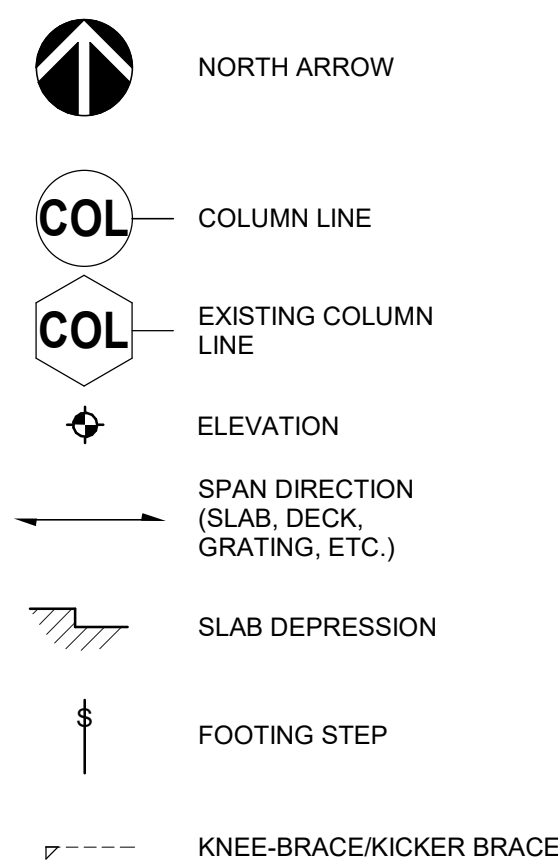
NOTES:
1. DESIGN WIND PRESSURES SHALL BE USED IN THE DESIGN OF ALL COMPONENTS AND CLADDING ELEMENTS COMPRISING THE BUILDING ENVELOPE.
2. REFER TO THE WIND PRESSURE DIAGRAM FOR ZONE LOCATIONS AND EXTENTS.
3. POSITIVE PRESSURES ACT TOWARD COMPONENT SURFACES AND NEGATIVE PRESSURES ACT AWAY FROM EACH COMPONENT SURFACE.
4. LINEAR INTERPOLATION BETWEEN EFFECTIVE WIND AREAS MAY BE USED TO OBTAIN THE REQUIRED COMPONENT AND CLADDING DESIGN WIND PRESSURE.
5. DIMENSION a = 3'-0", 2a = 6'-0" & 4a = 12'-0".
6. MULTIPLY TABULAR 'ULTIMATE' PRESSURES BY 0.60 TO OBTAIN 'NOMINAL' PRESSURES.

SYMBOL LEGEND

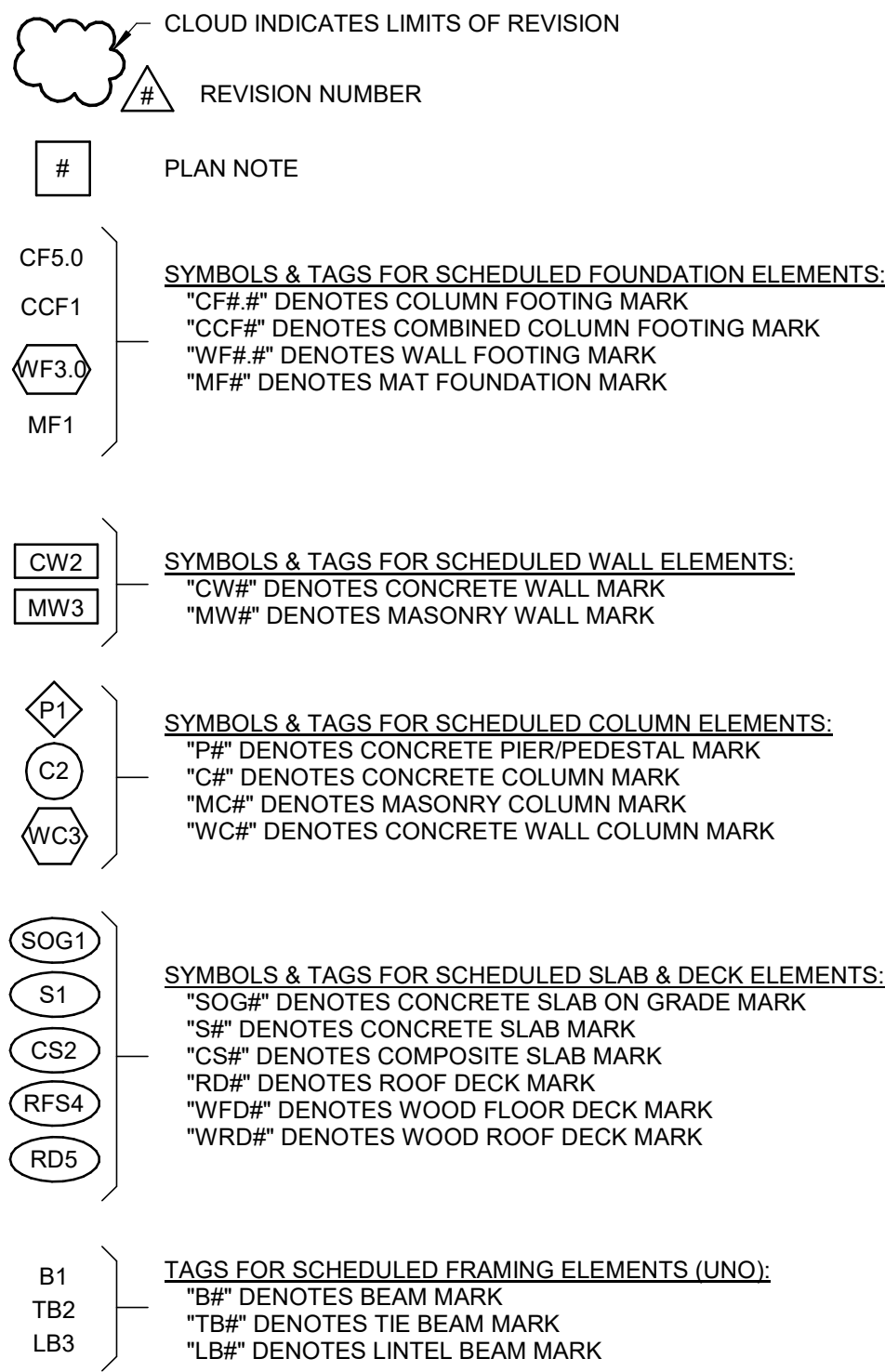
VIEW REFERENCES



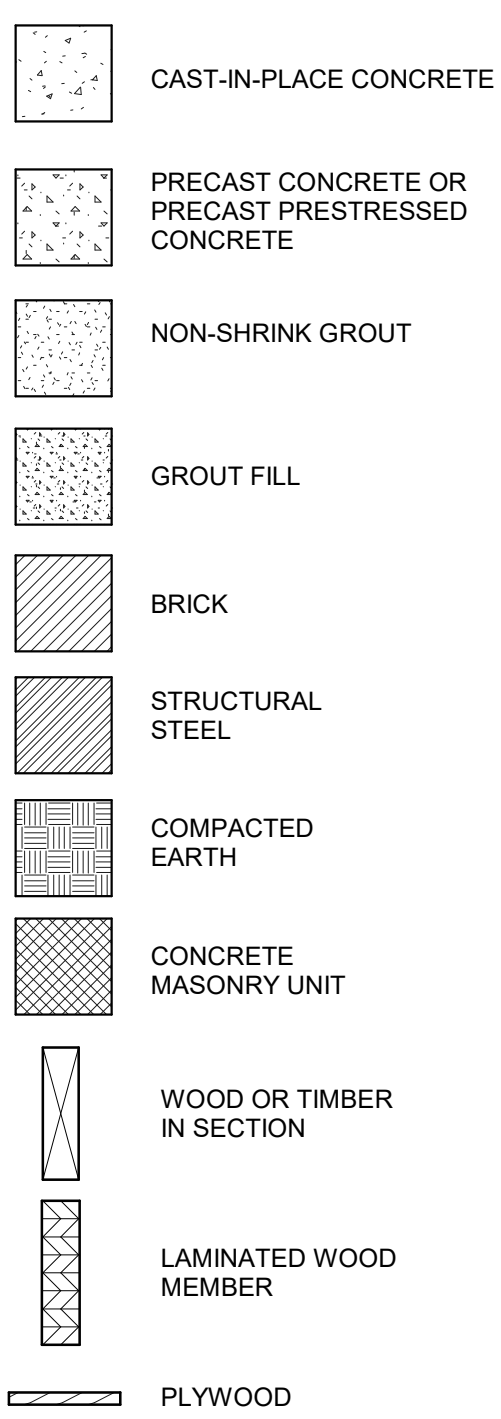
PLAN SYMBOLS



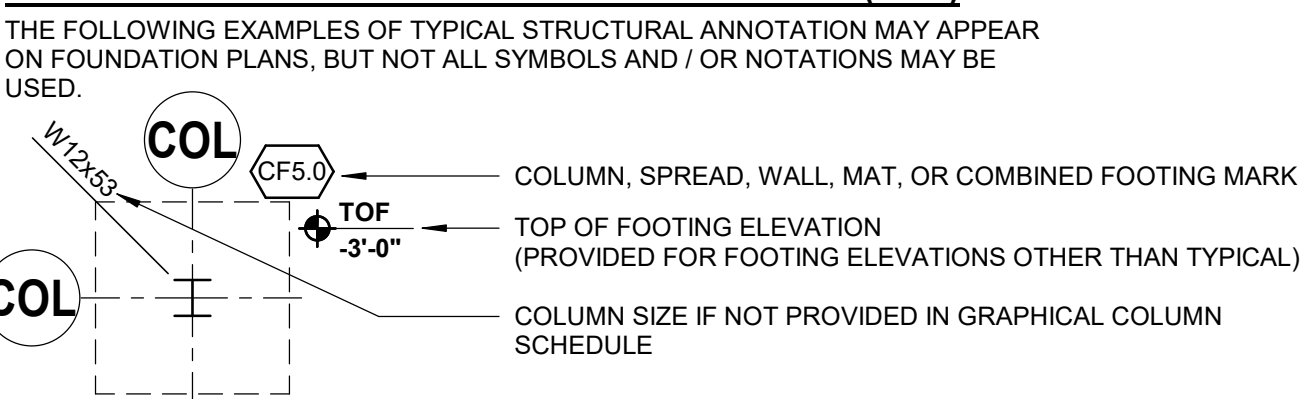
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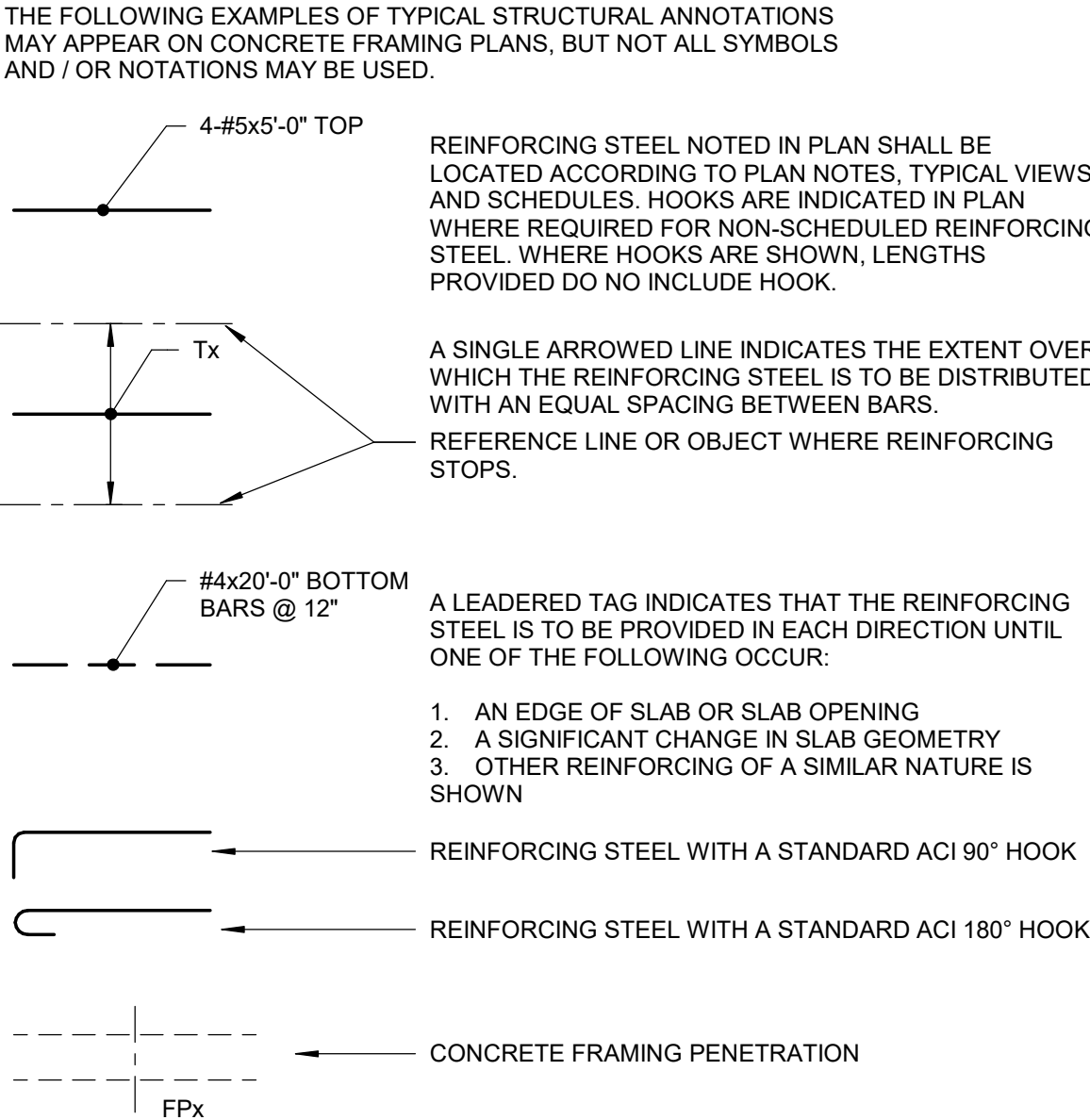
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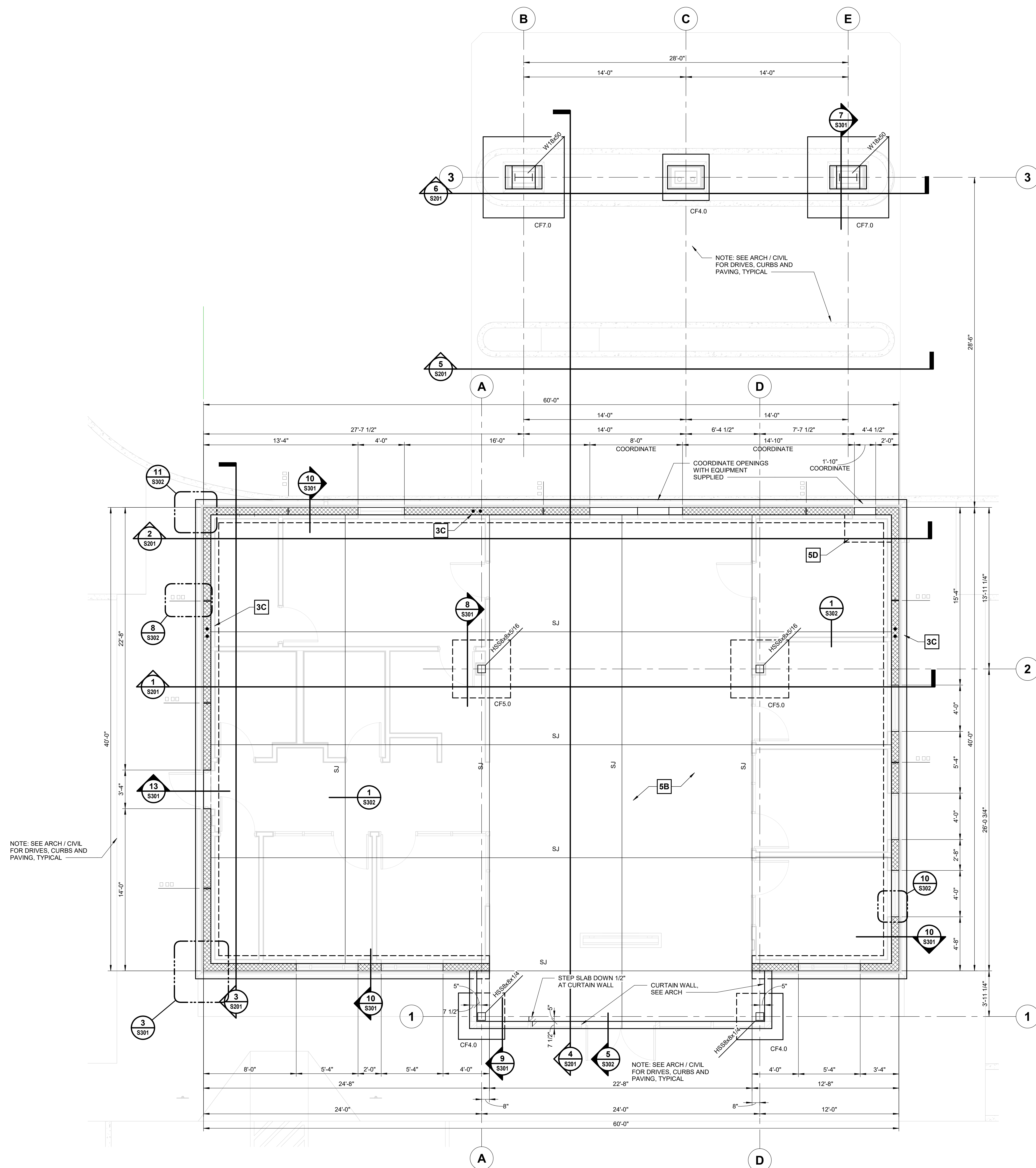


TYPICAL FOUNDATION PLAN ANNOTATION STYLES: (UNO)



TYPICAL CONCRETE PLAN ANNOTATION STYLES: (UNO)





FOUNDATION & GROUND FLOOR PLAN

 $1/4" = 1'-0"$


FOUNDATION & GROUND FLOOR PLAN NOTES

PLAN NOTES ARE TYPICAL FOR THIS DRAWING UNLESS SPECIFICALLY DESIGNATED OTHERWISE

GENERAL INFORMATION:

- | | |
|-----------|--|
| 1A | REFER TO DRAWING S001 FOR GENERAL STRUCTURAL NOTES AND STRUCTURAL DRAWING INDEX. |
| 1B | ALL LEVELS AND ELEVATIONS ARE REFERENCED TO THE GROUND FLOOR POT OF SLAB (TOSL) Φ 0'-0" (DAUM - SEE CIVIL DWGS). |
| 1C | CONTRACTOR SHALL REVIEW AND COORDINATE ALL DIMENSIONS AND LOCATIONS OF ALL EQUIPMENT BASED ON ACTUAL EQUIPMENT CUT SHEETS. |
| 1D | REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS, DETAILS AND LOCATIONS OF INTERIOR PARTITIONS, DOORS AND WINDOWS, AND TO VERIFY DEPTH AND EXTENT OF SUB DEPRESSION. |
| 1E | VERIFY AND COORDINATE EDGE OF STRUCTURE WITH ARCHITECTURAL DRAWINGS TO SUIT EACH TYPE OF ARCHITECTURAL FINISH. |

TYPICAL FOUNDATION CONSTRUCTION (UNO):

- | | |
|-----------|---|
| 2A | TYPICAL TOP OF FOOTING (TOP) IS  -1'-4" UNO. |
| 2B | <p>CONCRETE FOUNDATIONS ARE DENOTED AND SCHEDULED BY MARK. REFER TO FOUNDATION SCHEDULES AND DETAILS FOR SPECIFIC SIZE AND REINFORCING.</p> <p>1. TYPICAL COLUMN FOUNDATIONS SHALL BE CF7.0 UNO.
 2. TYPICAL WALL FOUNDATIONS SHALL BE WF2.0 UNO.</p> |
| 2C | REFER TO FOUNDATION DETAILS: FOR FOUNDATION STEPS, TYPICAL, VERIFY AND COORDINATE STEP LOCATION AND ELEVATION WITH C/A/M/E/P DRAWINGS. |

TYPICAL WALL CONSTRUCTION (UNO):

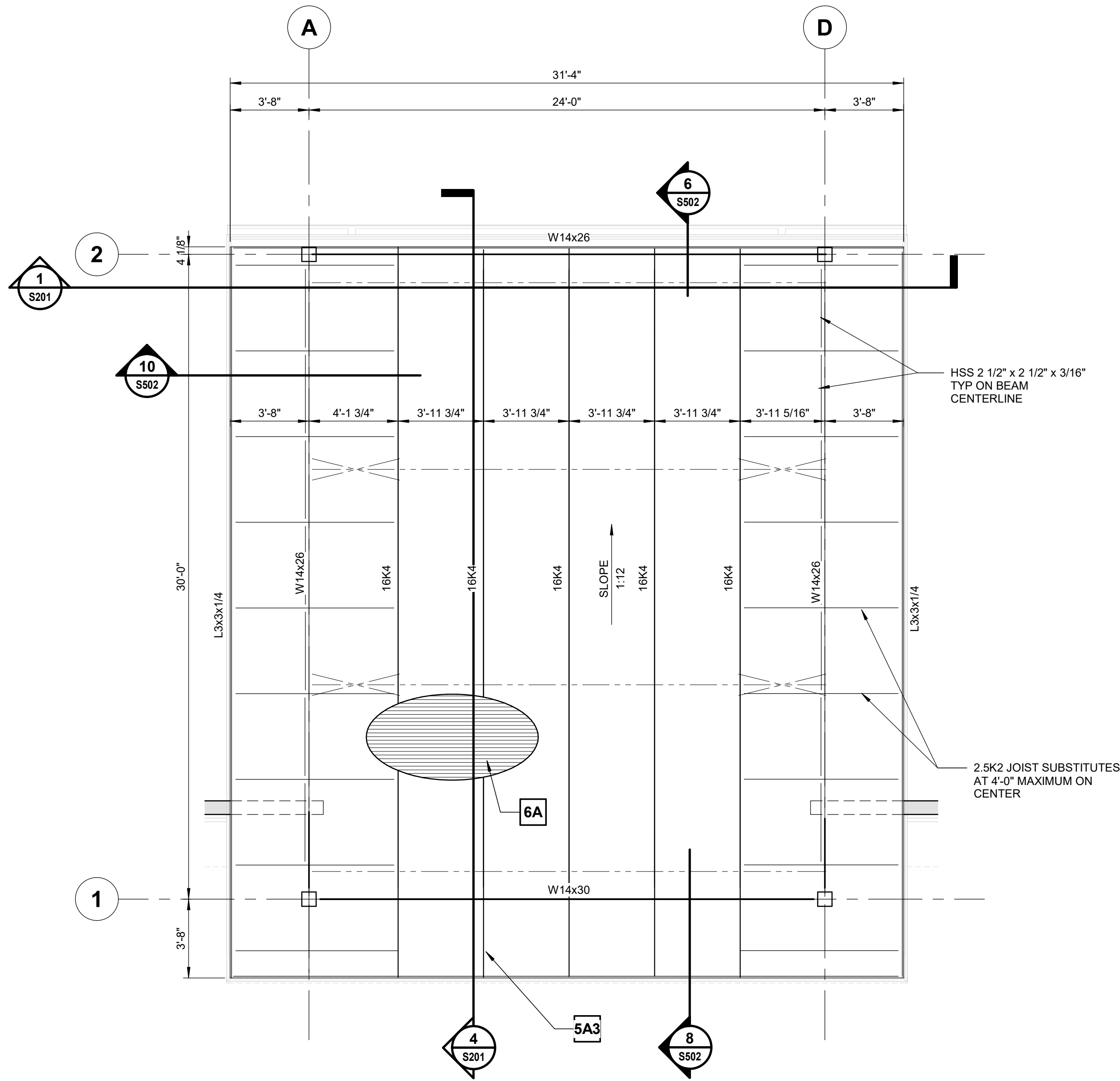
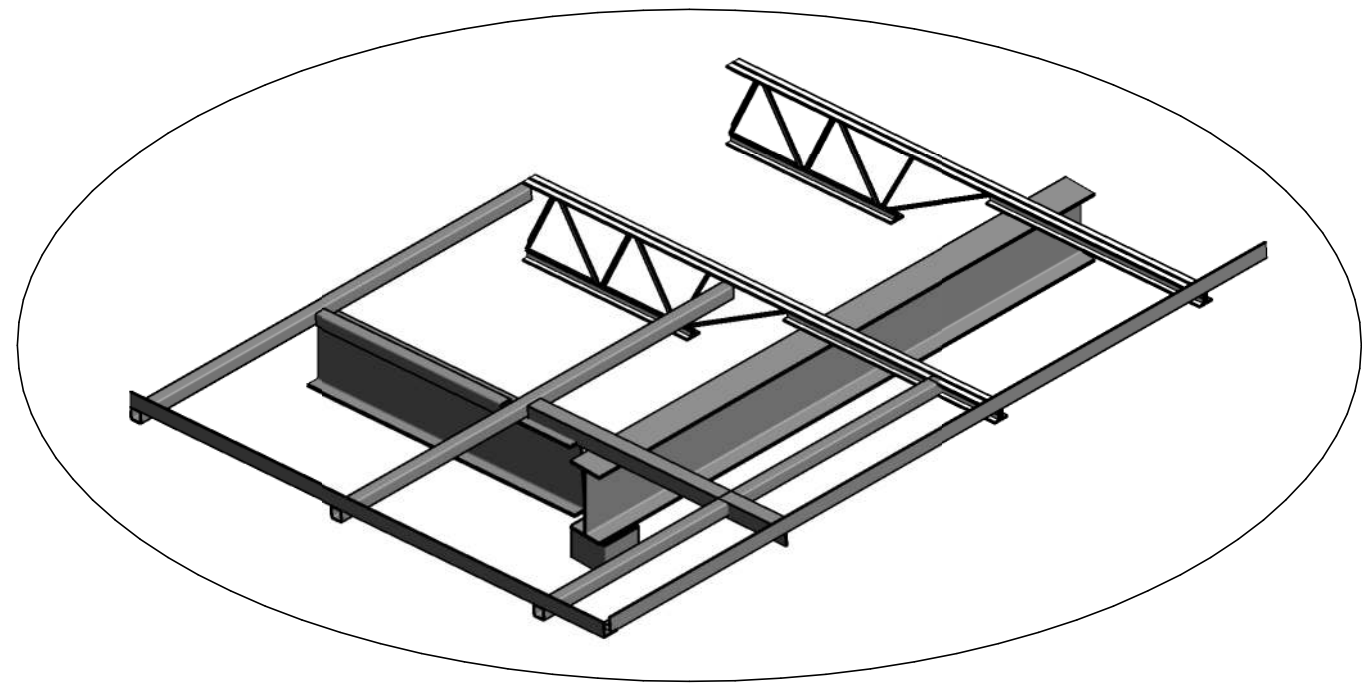
- 3A** WALLS ARE DEFINED AND SCHEDULED BY MARK. REFER TO WALL SCHEDULES AND DETAILS FOR SPECIFIC SIZE AND REINFORCING. WALL TYPES CONTINUE FROM FLOOR PLAN BELOW. UNO.
1. TYPICAL 8" MASONRY WALLS SHALL BE MW1. UNO.
- 3B** ARCHITECTURAL CURTAIN WALL AND/OR STOREFRONT GLAZING ASSEMBLY. SEE GENERAL NOTES FOR DELEGATED DESIGN REQUIREMENTS. REFER TO DETAILS FOR CONNECTION REQUIREMENTS TO THE SUPPORTING STRUCTURAL BUILDING FRAME.
- 3C** ADD 2#5 VERTICAL AND GROUT CELLS UNDER ALL BEAMS / EMBED PLATES ABOVE.

TYPICAL COLUMN CONSTRUCTION (UNO):

- 4A** COLUMNS ARE DENOTED ON PLANS.

TYPICAL FLOOR SLAB CONSTRUCTION (UNO):

- | | |
|-----------|---|
| 5A | TYPICAL TOP OF SLAB (TOSL) IS \ominus 0'-0", UNO. |
| 5B | 4" CONCRETE SLAB OVER VAPOR RETARDER AND COMPACTED EARTH; REINFORCE W/ 6x6-W/14W/1.4 WWF, 1 1/2" CLEAR FROM TOP OF SLAB. ELEVATION TOP OF SLAB \ominus 0'-0". |
| 5C | ADD 2.44x4' @ 3" OC AT DISCONTINUOUS SLAB JOINTS AND AT ALL RE-ENTRANT CORNERS (TYP). 2" CLR FROM TOP OF SLAB AND 1 1/2" CLR FROM CORNER. DO NOT CROSS CJs OR EJ.s. SEE SLAB DETAILS. |
| 5D | 6" CONCRETE SLAB OVER VAPOR RETARDER AND COMPACTED EARTH; REINFORCE W/ 6x6-2.44x2.9 WWF, 1 1/2" CLEAR FROM TOP OF SLAB. ELEVATION TOP OF SLAB \ominus 0'-0". |



HIGH ROOF FRAMING PLAN

1/4" = 1'-0"

HIGH ROOF FRAMING PLAN NOTES

PLAN NOTES ARE TYPICAL FOR THIS DRAWING UNLESS SPECIFICALLY DESIGNATED OTHERWISE.

GENERAL INFORMATION:

- 1A** REFER TO DRAWING S001 FOR GENERAL STRUCTURAL NOTES AND STRUCTURAL DRAWING INDEX.
- 1B** ALL LEVELS AND ELEVATIONS ARE REFERENCED TO THE GROUND FLOOR TOP OF SLAB (TOSL) ϕ 0'-0" (DATUM - SEE CIVIL DWGS).
- 1C** VERIFY AND COORDINATE EDGE OF STRUCTURE WITH ARCHITECTURAL DRAWINGS TO SUIT EACH TYPE OF ARCHITECTURAL FINISH.

TYPICAL WALL CONSTRUCTION (UNO):

- 2A** EXTERIOR COLD-FORMED STEEL (CFS) WALLS 600S162-43 (19 GA MIN) AT 16" OC (MAX). SEE GENERAL NOTES FOR DELEGATED DESIGN REQUIREMENTS. REFER TO DETAILS FOR CONNECTION REQUIREMENTS TO THE SUPPORTING STRUCTURAL BUILDING FRAME.
- 2B** ARCHITECTURAL CURTAIN WALL AND/OR STOREFRONT GLAZING ASSEMBLY. SEE GENERAL NOTES FOR DELEGATED DESIGN REQUIREMENTS. REFER TO DETAILS FOR CONNECTION REQUIREMENTS TO THE SUPPORTING STRUCTURAL BUILDING FRAME.

TYPICAL COLUMN CONSTRUCTION (UNO):

- 3A** COLUMNS ARE DENOTED ON FOUNDATION PLAN.

TYPICAL STEEL FRAMING CONSTRUCTION (UNO):

- 4A** TYPICAL REFERENCE ELEVATION TO TOP OF STEEL (TOS) FRAMING VARIES. SEE SECTIONS AND DETAILS.
- 4B** TYPICAL REFERENCE ELEVATION TO TOP OF STEEL JOISTS (TOJ) VARIES. WHERE STEEL BEAMS ARE USED PARALLEL TO AND IN PLACE OF JOISTS, THE STEEL BEAM TOS ELEVATION IS THE SAME AS JOISTS UNLESS NOTED OTHERWISE THUS (-2 1/2").

TYPICAL STEEL JOIST FRAMING CONSTRUCTION (UNO):

- 5A** TYPICAL STEEL JOIST FRAMING SHALL BE K-SERIES JOIST FRAMING CONFORMING TO SJI SPECIFICATIONS.
- 5A1** PROVIDE AND INSTALL STANDARD SJI CONTINUOUS TOP AND BOTTOM CHORD BRIDGING CONNECTED TO EACH STEEL JOIST AT THE BRIDGING LINES INDICATED ON PLAN AND WHERE REQUIRED TO COMPLY WITH SJI SPECIFICATIONS. FOR ROOF JOISTS, PROVIDE AN ADDITIONAL SINGLE LINE OF BOTTOM CHORD BRIDGING NEAR THE FIRST BOTTOM CHORD PANEL POINT AT EACH END OF ALL STEEL ROOF JOISTS. ADD CONTINUOUS BOLTED 'X' BRIDGING WHERE INDICATED AND AS OTHERWISE REQUIRED TO COMPLY WITH SJI SPECIFICATIONS.
- 5A2** REFER TO STEEL CONSTRUCTION DETAILS ON DRAWINGS FOR JOIST REINFORCING REQUIREMENTS AT CONCENTRATED LOADS SUPPORTED OR HUNG FROM JOISTS.
- 5A3** TYPE R6 TOP CHORD EXTENSION. SEE DETAILS FOR EXTENSION LENGTH IN RELATION TO EDGE OF STRUCTURAL DECK.

TYPICAL ROOF CONSTRUCTION:

- 6A** ROOF DECK SHALL BE GALVANIZED 1.5B22 STEEL ROOF DECK OR APPROVED EQUAL, CONFORMING TO SDI SPECIFICATIONS. REFER TO ROOF DECK DETAILS FOR ATTACHMENT PATTERN.

B
3

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CONSTRUCTION DOCUMENTS		03/01/2023
REVISION	DESCRIPTION	DATE

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LAKE CITY, FL 32055

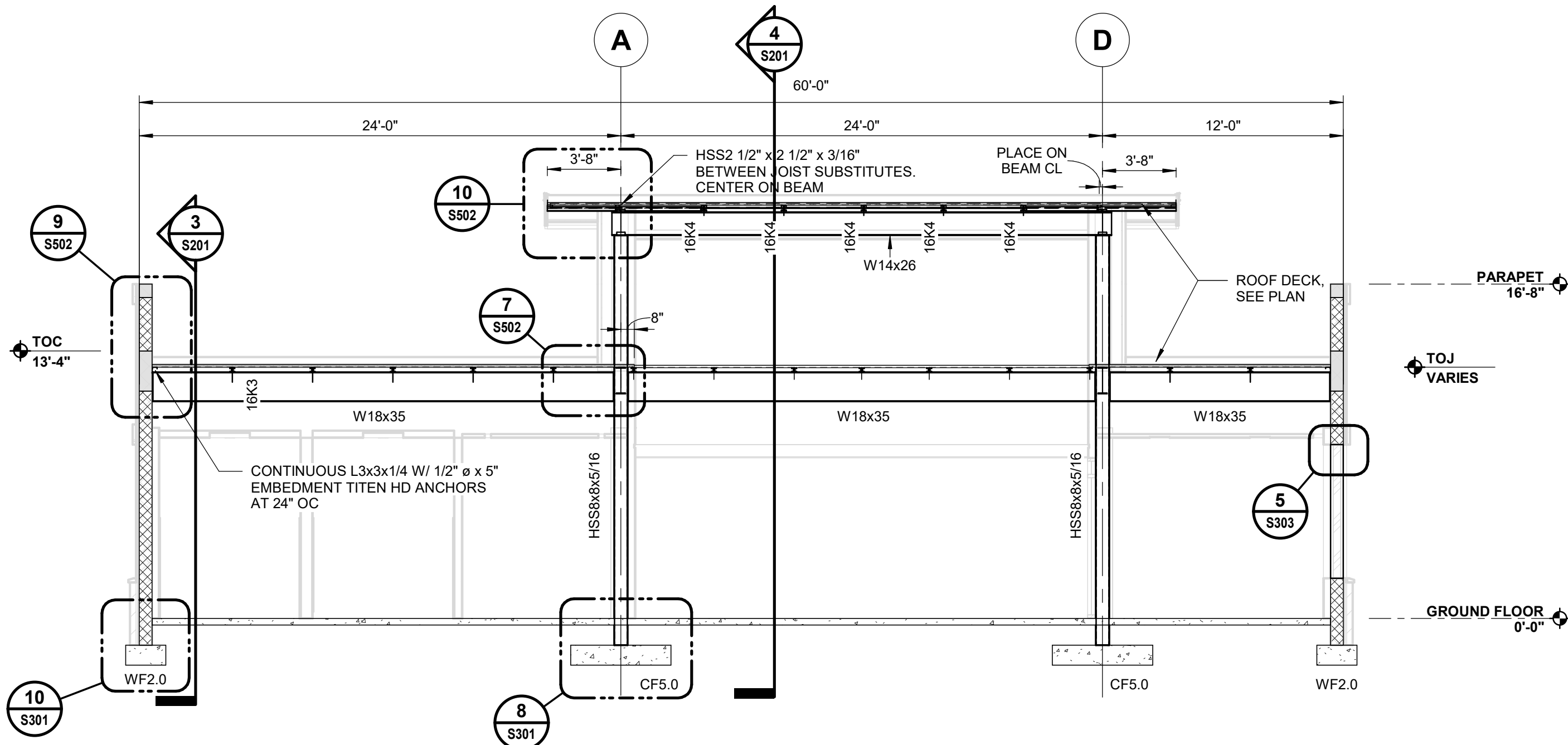
KEY PLAN

DRAWING TITLE:

HIGH ROOF FRAMING
PLAN

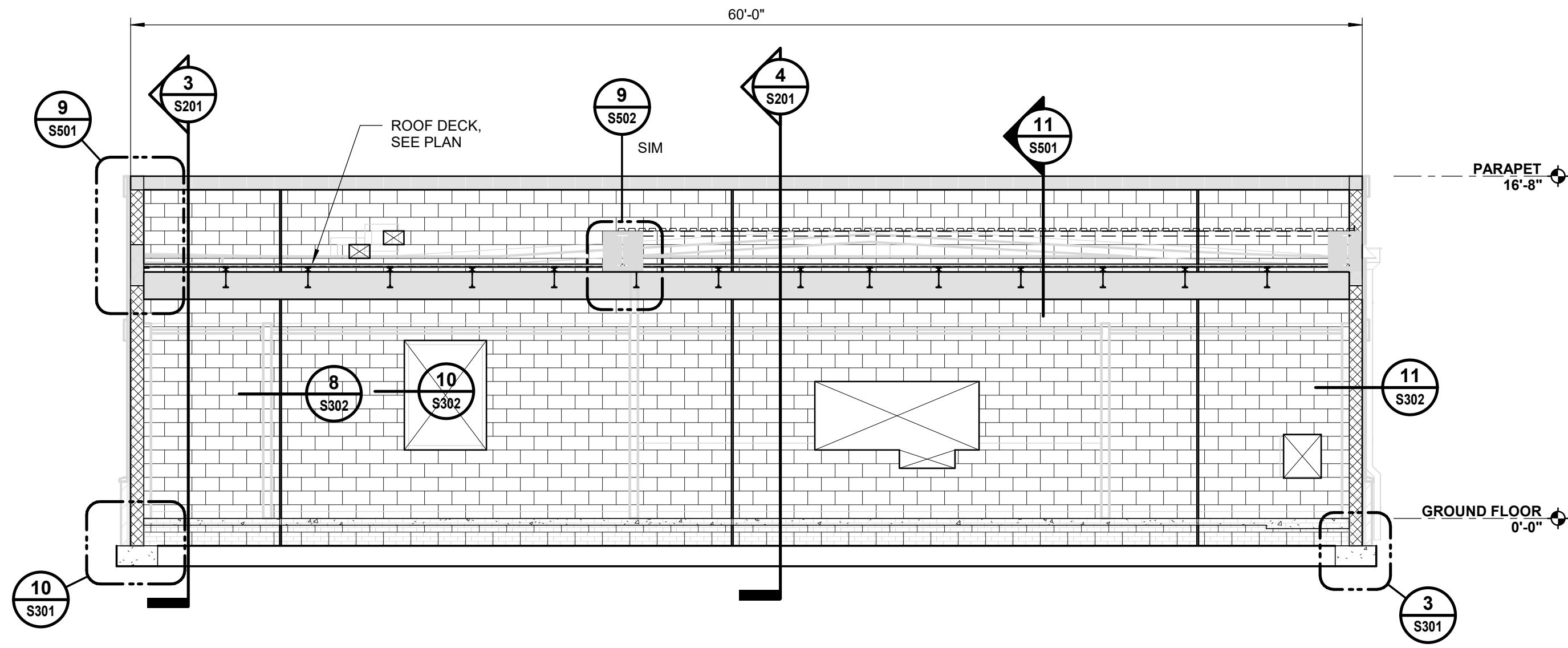
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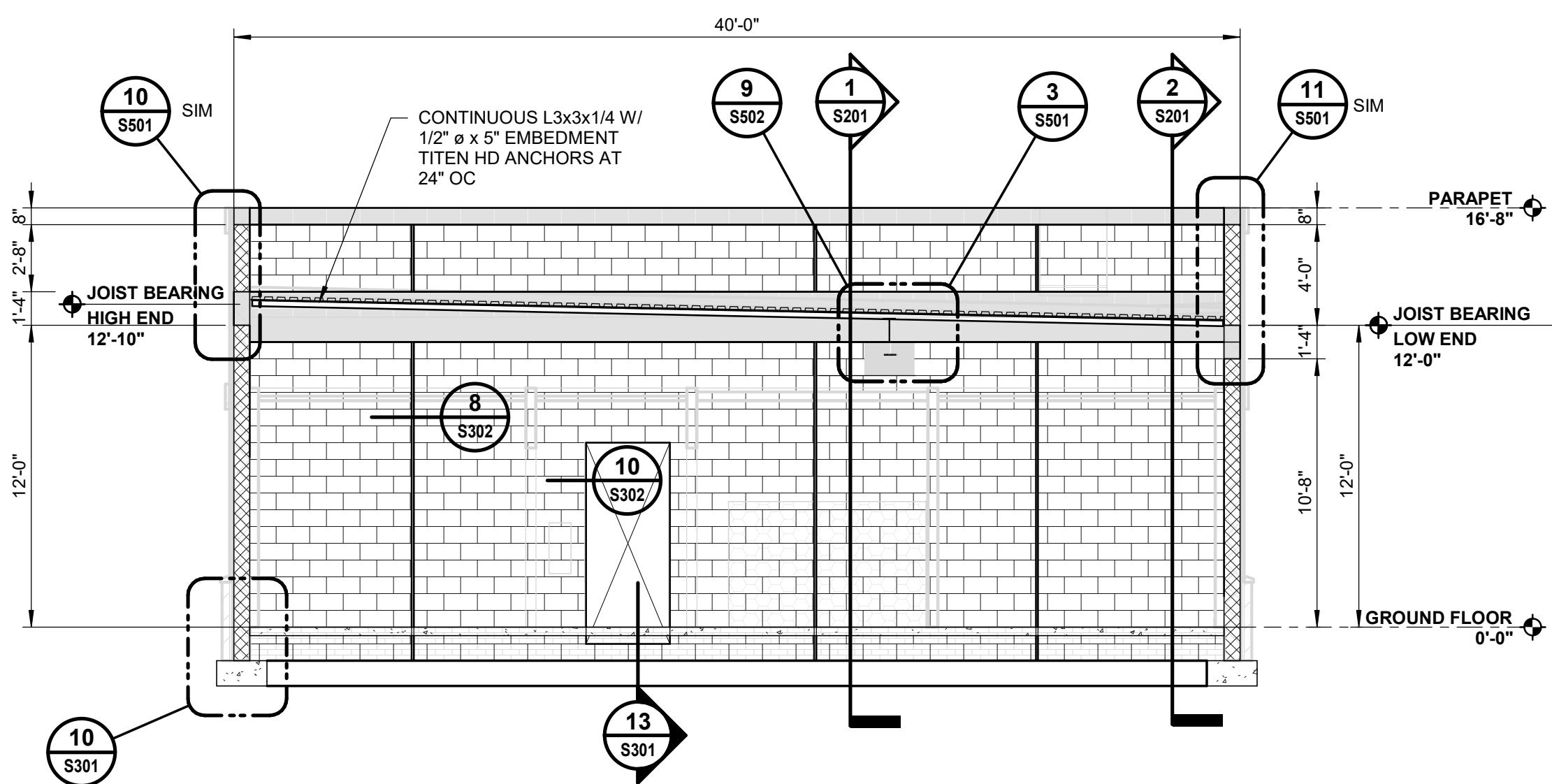
BUILDING SECTION

S201 3/16" = 1'-0"



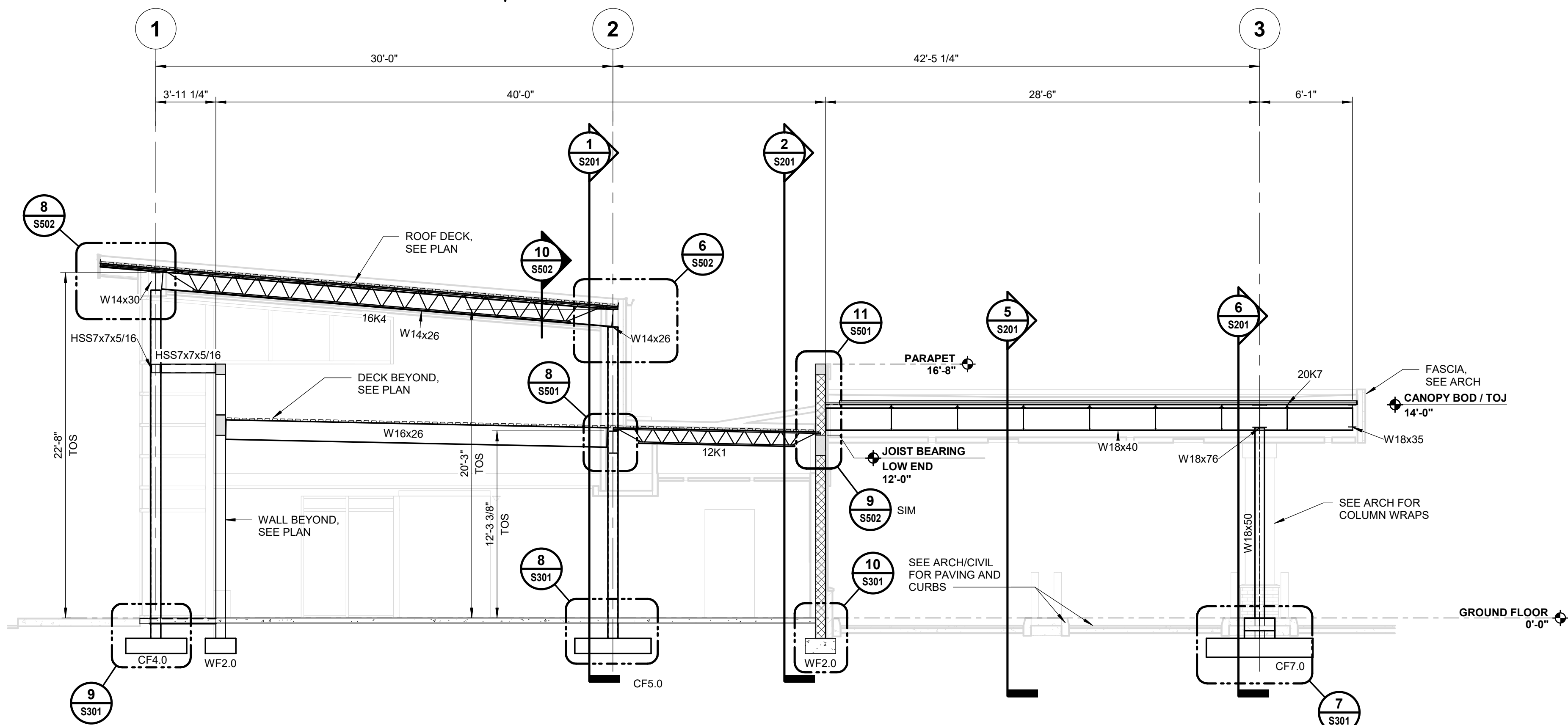
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S201 3/16" = 1'-0"



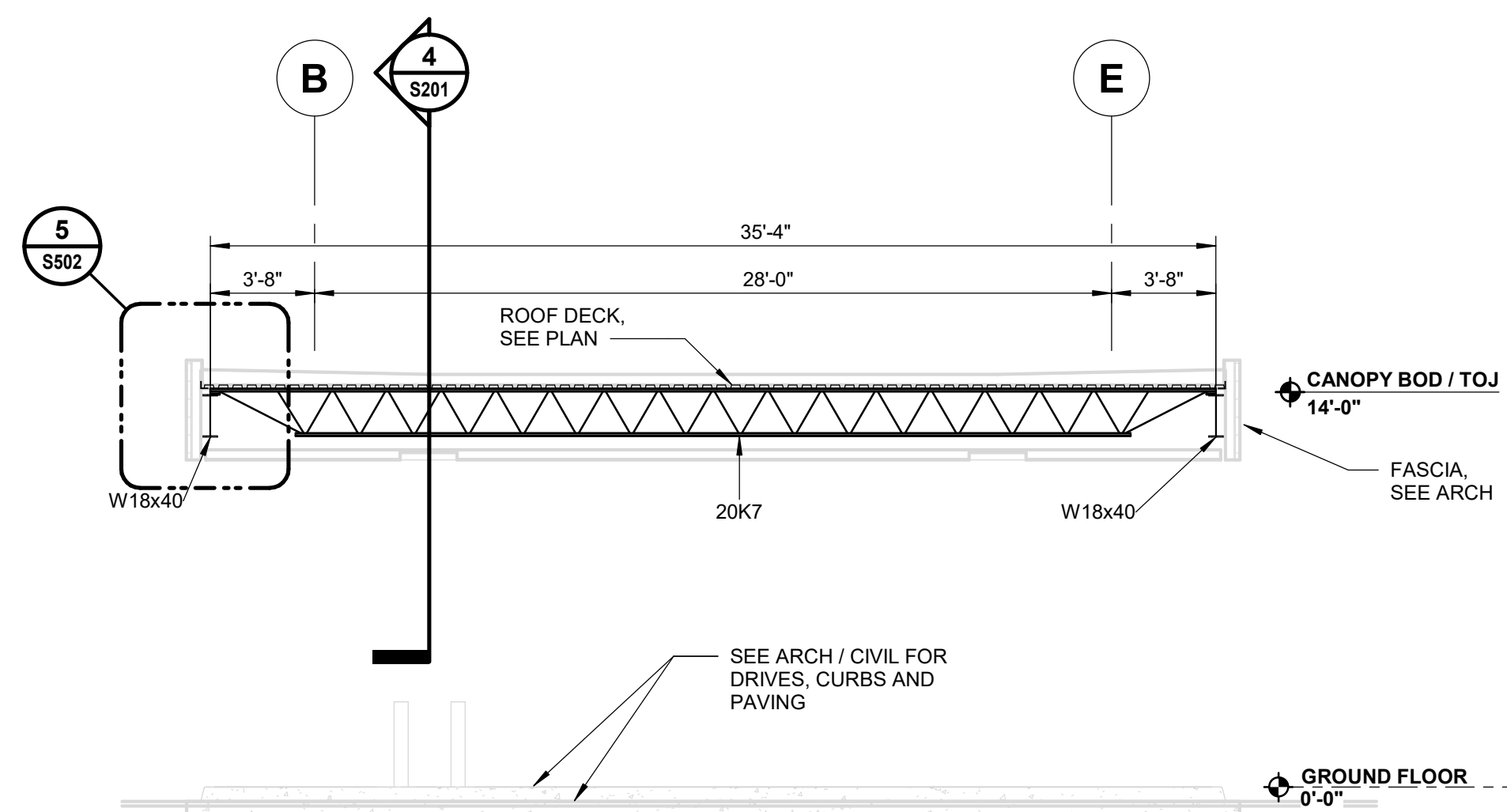
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S201 3/16" = 1'-0"



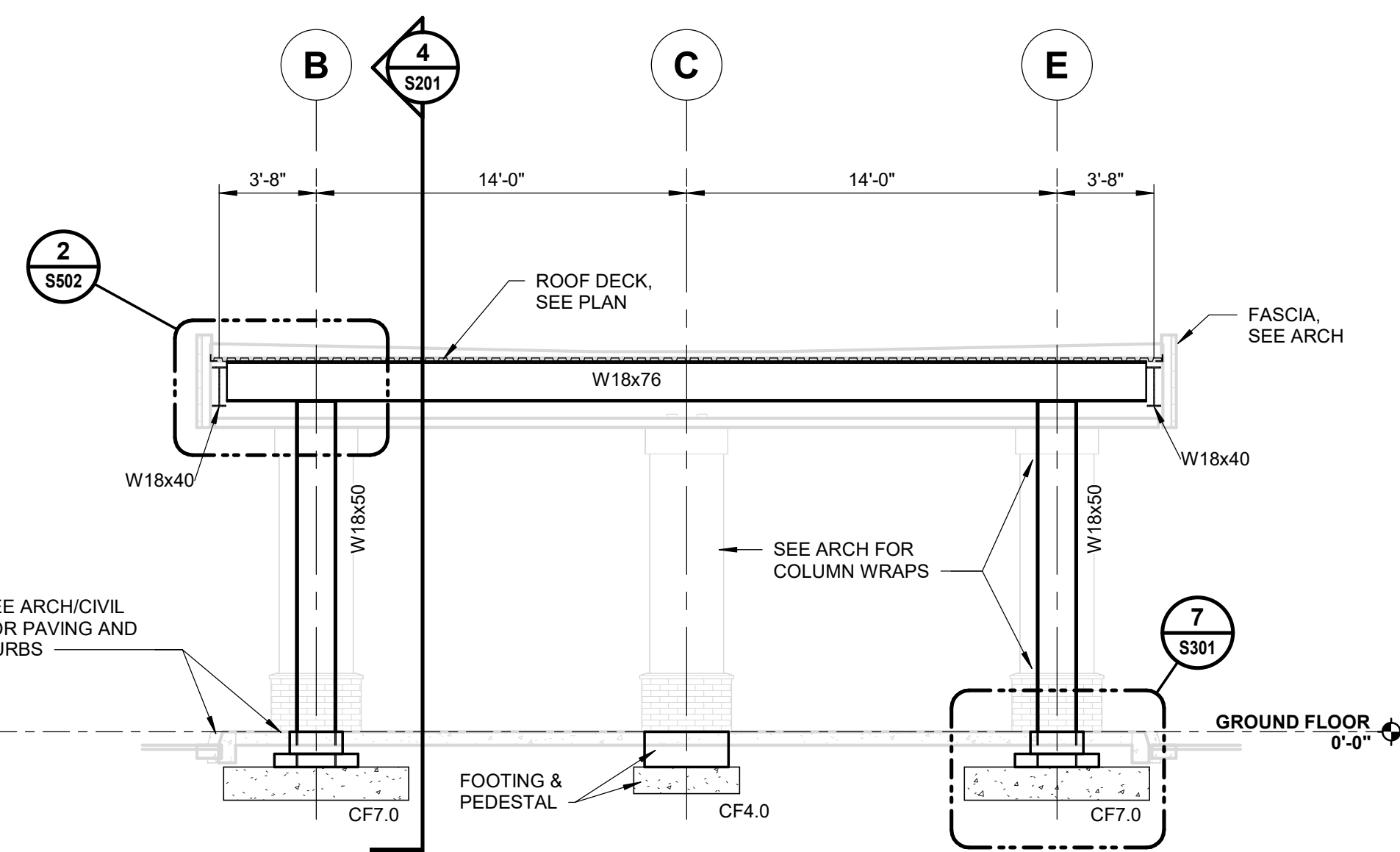
BUILDING SECTION AT HIGH ROOF & DRIVE UP

S201 3/16" = 1'-0"



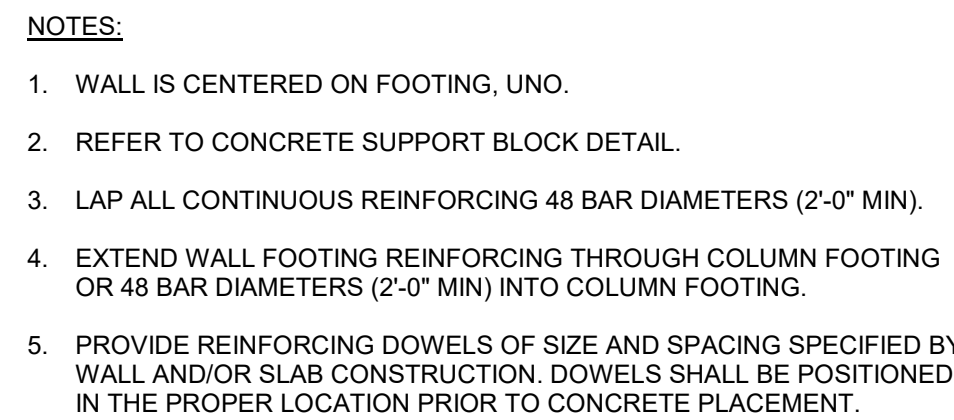
DRIVE UP CANOPY SECTION

S201 NO SCALE

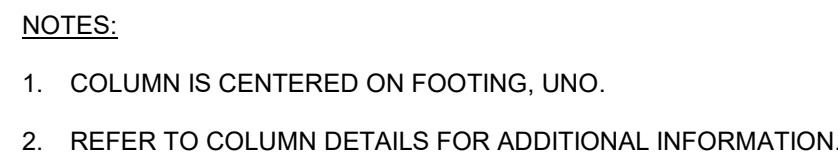


DRIVE UP CANOPY SECTION

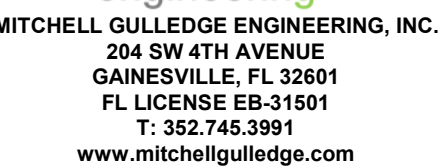
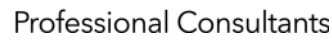
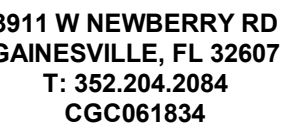
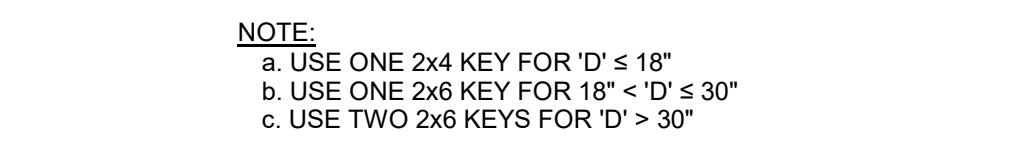
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WALL FOOTING SCHEDULE & DETAIL



COLUMN FOOTING SCHEDULE & DETAIL	
NO SCALE	



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LAKE CITY, FL 32055

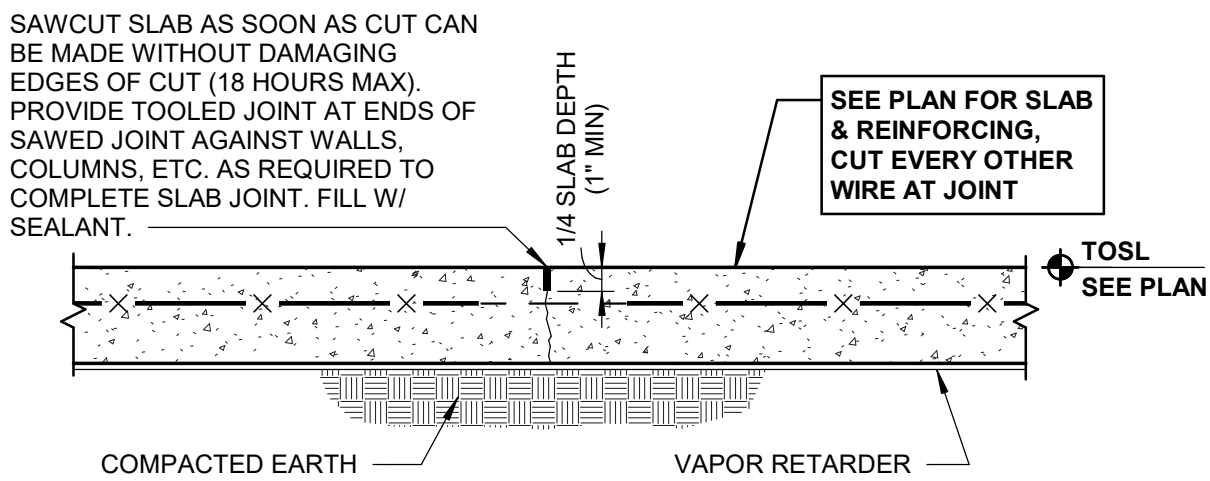
KEY PLAN

DRAWING TITLE:

FOUNDATION SECTIONS AND DETAILS

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		CHECKED BY:	MAM

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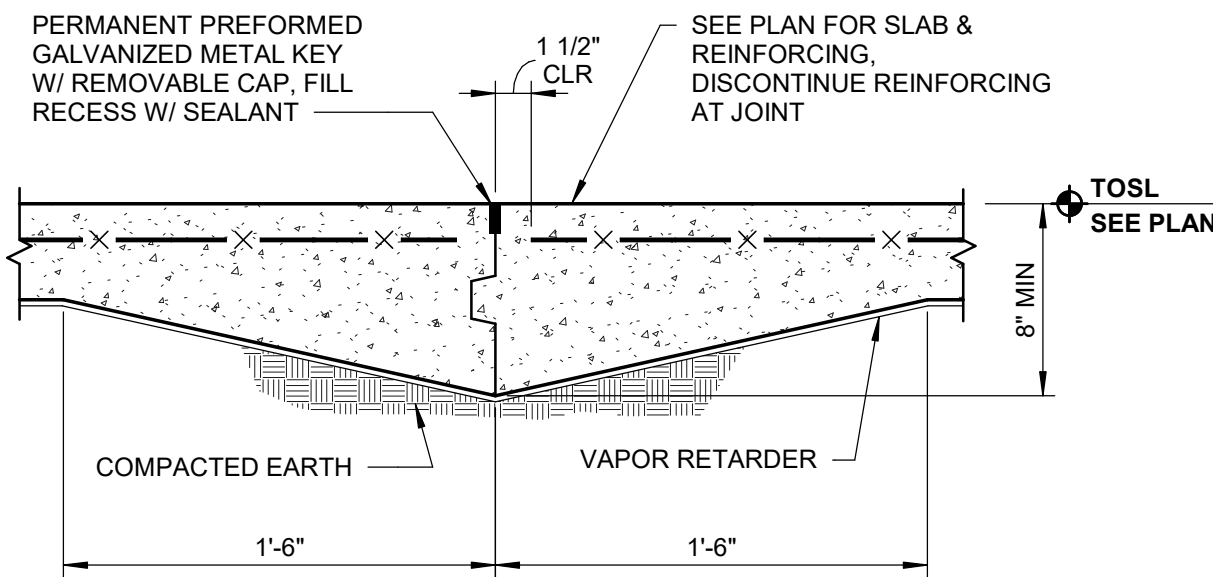


- NOTES:
- WHERE POSSIBLE, PLACE SAWED CONTROL JOINT (SJ) AT COLUMN CENTERLINES, UNO.
 - REFER TO ARCHITECTURAL/CIVIL SPECIFICATIONS FOR ALL EXTERIOR SLABS, ETC.
 - COORDINATE LOCATIONS W/ ARCHITECTURAL REQUIREMENTS.
 - MAXIMUM SPACING - 20'-0" OC, UNO.

NOTED AS 'SJ'

TYPICAL SLAB SAWED CONTROL JOINT DETAIL

S302 NO SCALE

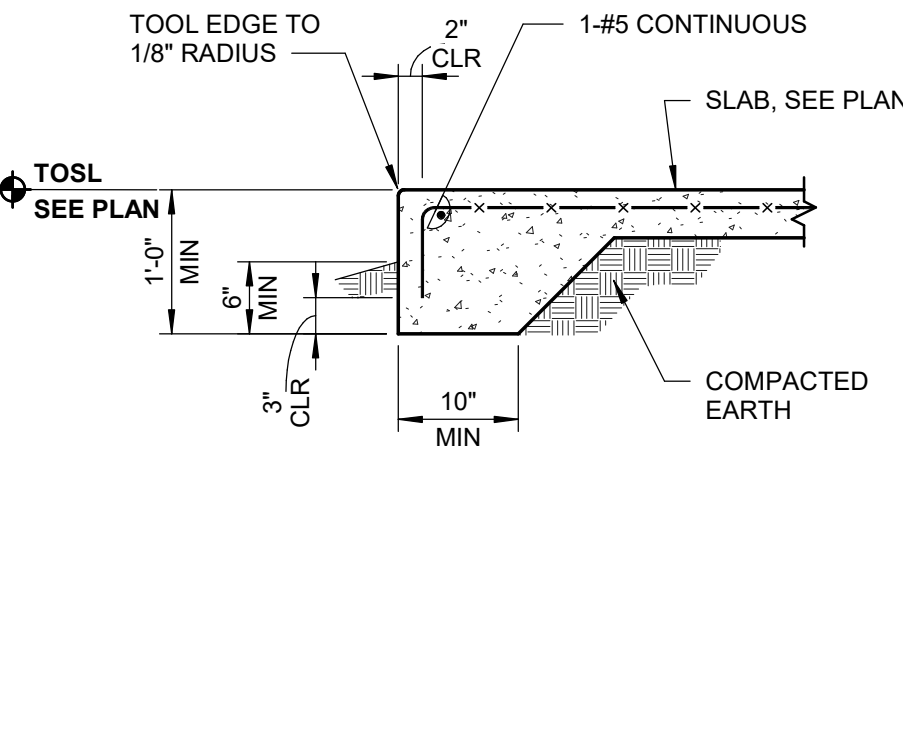


NOTE: SPACING OF CONSTRUCTION JOINTS (CJ) SHOULD BE 100'-0", MAX UNLESS ALTERNATE LOCATIONS ARE APPROVED BY THE ENGINEER.

NOTED AS 'CJ'

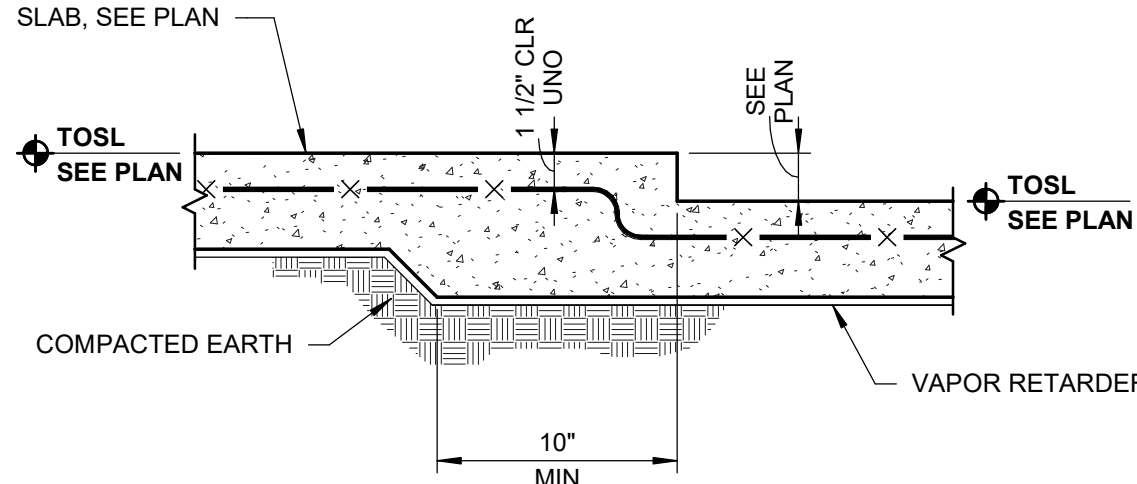
TYPICAL SLAB CONSTRUCTION JOINT DETAIL

S302 NO SCALE



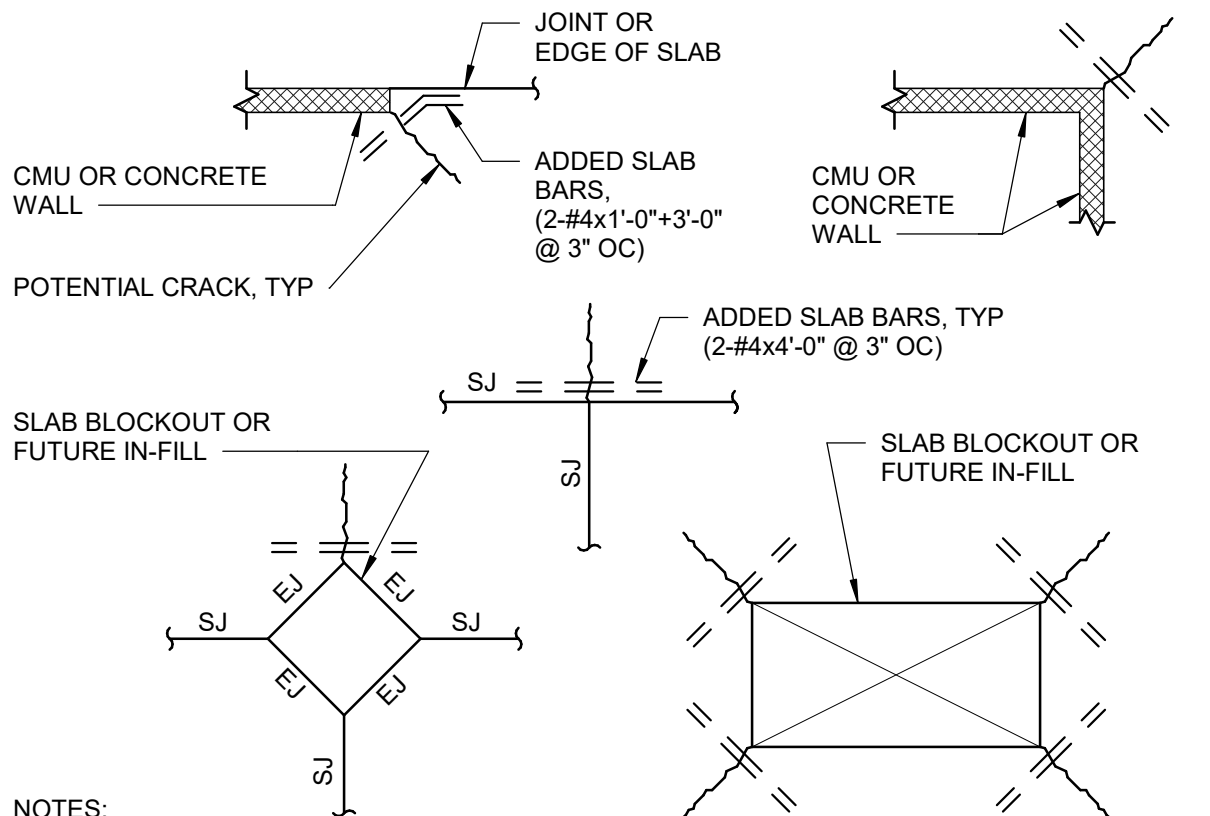
TYPICAL EXTERIOR SLAB EDGE DETAIL

S302 NO SCALE



TYPICAL SLAB STEP DETAIL

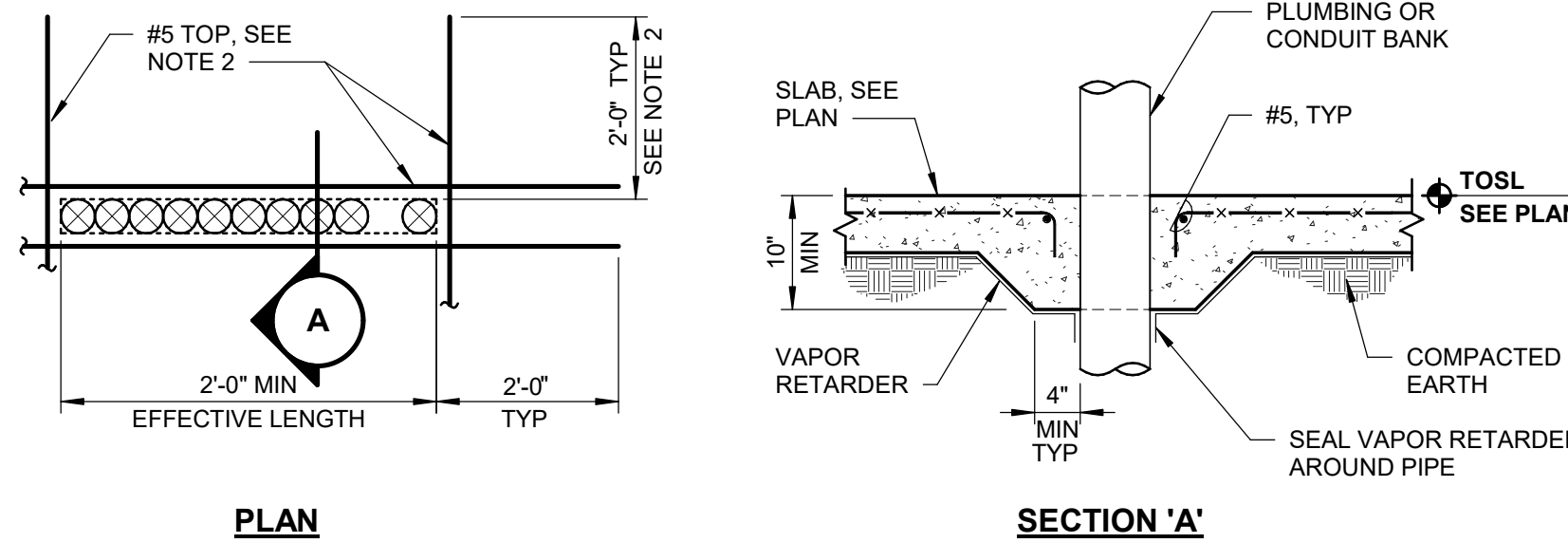
S302 NO SCALE



- NOTES:
- A RE-ENTRANT CORNER IS ANY SLAB CORNER WHICH MIGHT INDUCE A CRACK IN THE SLAB.
 - ADDED SLAB BAR REINFORCING IS REQUIRED AT ALL RE-ENTRANT CORNER LOCATIONS.
 - NOT ALL LOCATIONS ARE SHOWN ON PLANS.
 - PLACE ADDED SLAB BARS BENEATH AND TIED TO WWF, 2" FROM TOP OF SLAB, MAX & 1 1/2" FROM CORNERS.

TYPICAL SLAB RE-ENTRANT CORNER

S302 NO SCALE



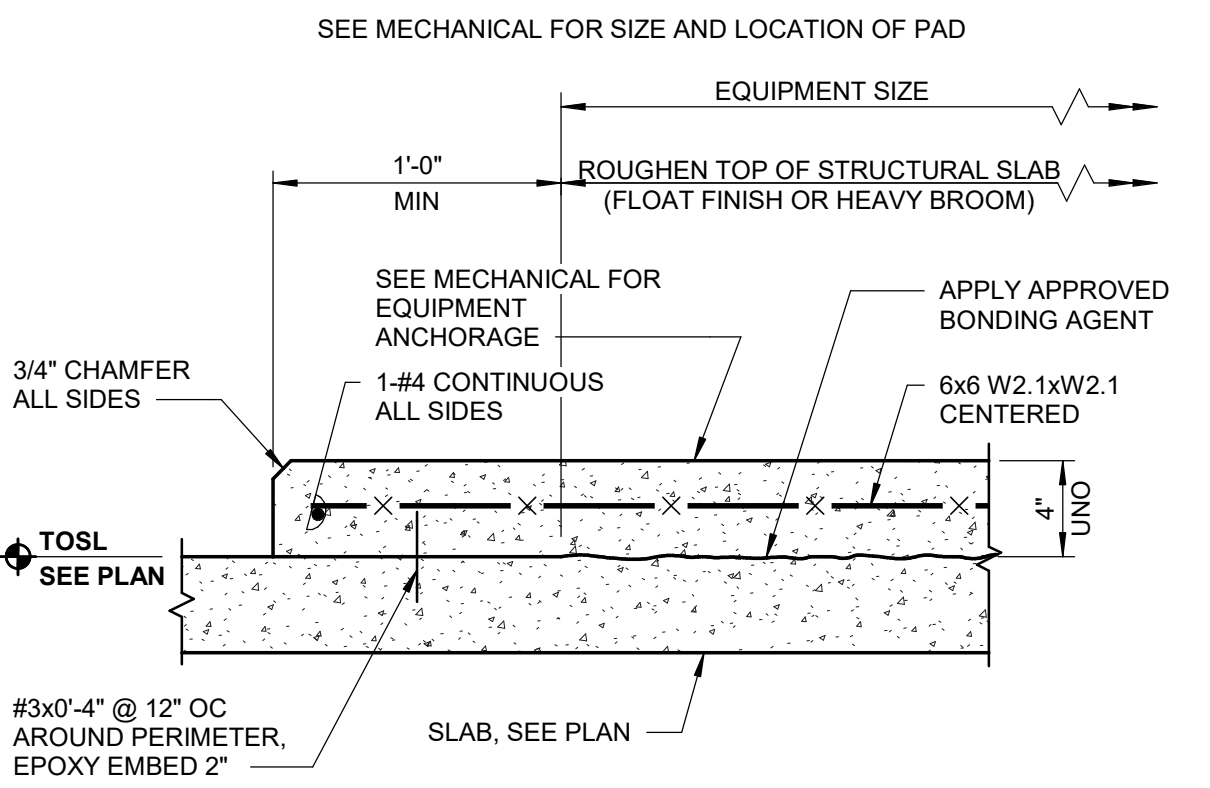
PLAN

NOTES:

- IF THE EFFECTIVE LENGTH OF AN OPENING IS GREATER THAN 2'-0", 10" MINIMUM THICKENED SLAB WITH ADDED REINFORCING IS REQUIRED.
- THESE CONDITIONS REQUIRE #5 TOP AROUND EFFECTIVE OPENING WITH 2'-0" EMBEDMENT PAST THE OPENING EDGE, OR PROVIDE STANDARD 90 ACI HOOK WHERE ADJACENT SLAB EDGES OCCUR.

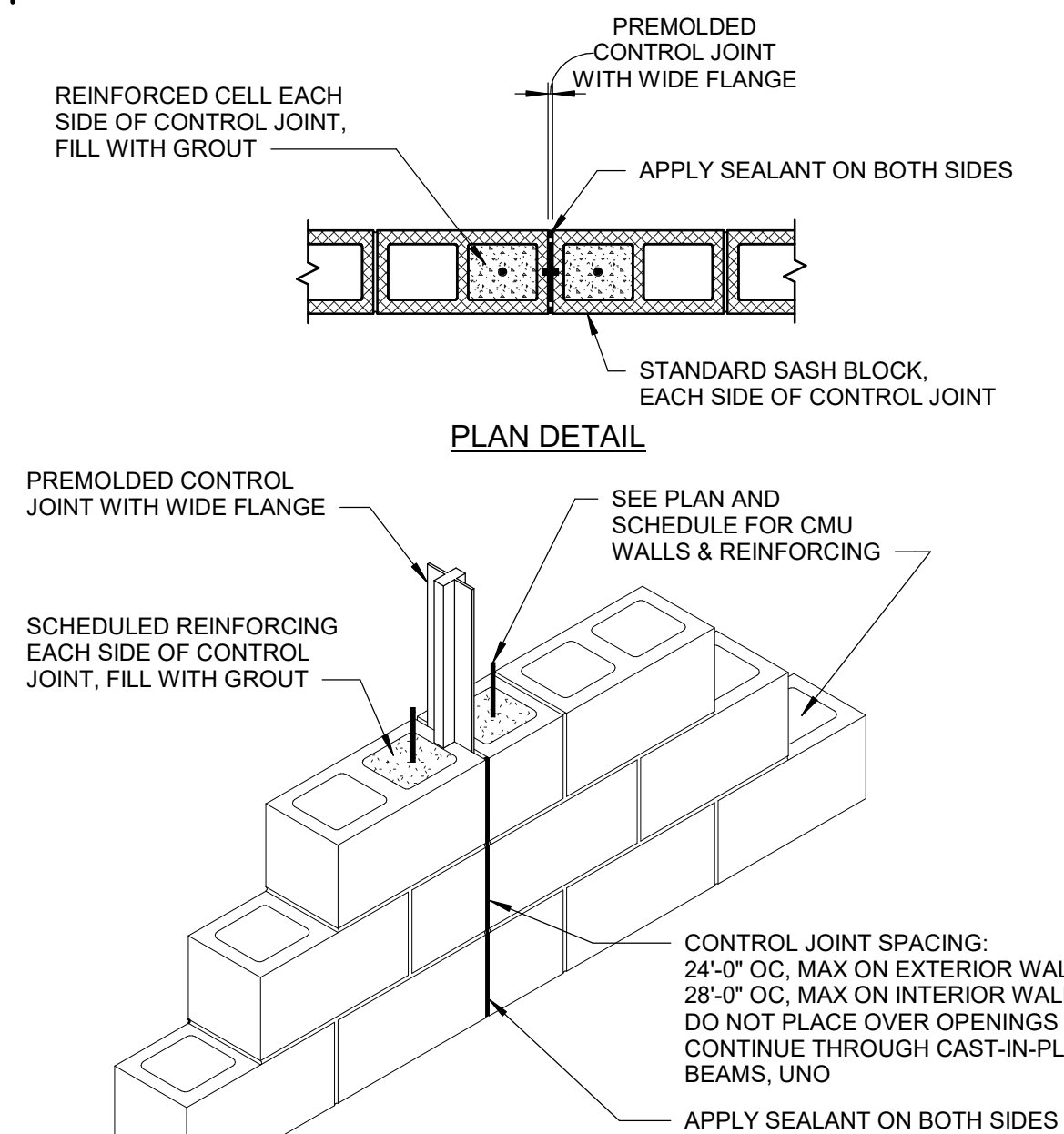
TYPICAL SLAB PENETRATION DETAIL

S302 NO SCALE



TYPICAL EQUIPMENT PAD DETAIL

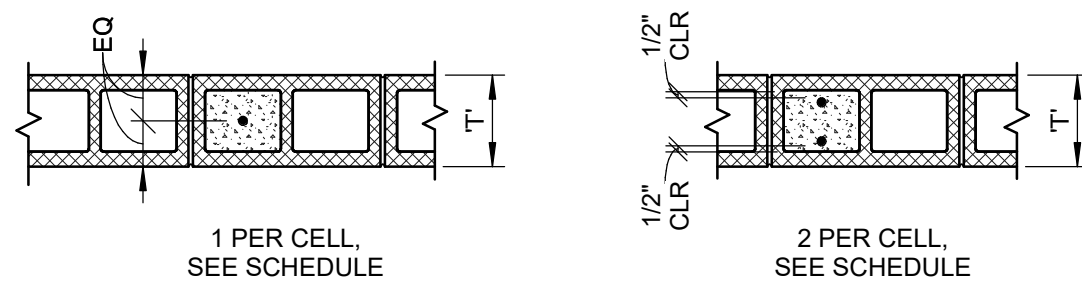
S302 NO SCALE



- NOTES:
- SEE PLAN FOR LOCATIONS. NOTE MAXIMUM SPACING LISTED ABOVE.
 - INTERRUPT HORIZONTAL JOINT REINFORCING & CMU BOND BEAM REINFORCING AT CONTROL JOINT SPACING.

WALL CONTROL JOINT (WCJ)

S302 NO SCALE



PLAN VIEW

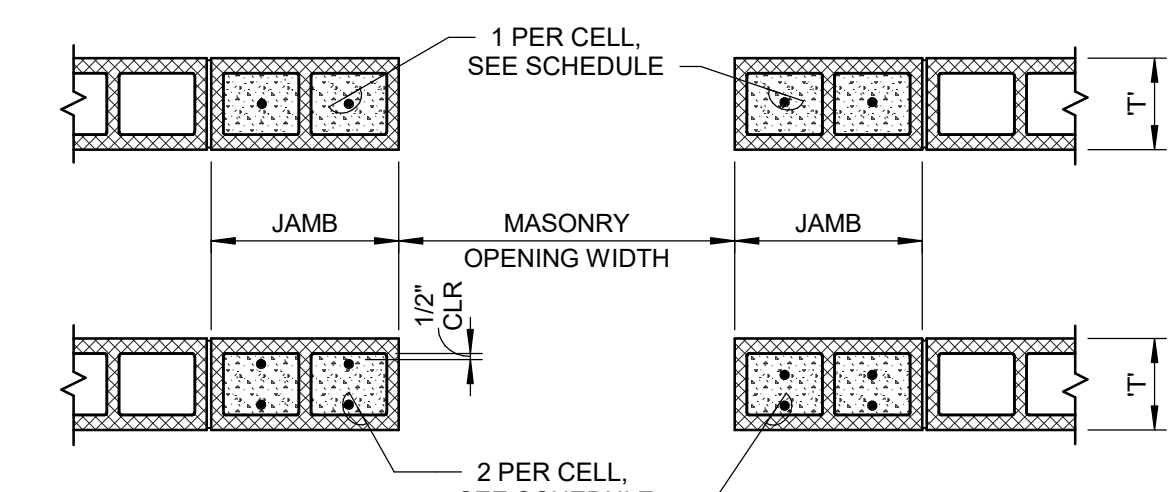
- NOTES:
- VERTICAL REINFORCING SHALL RUN FROM FOOTING TO 4" CLEAR FROM TOP OF UPPERMOST SUPPORTED BEAM (ROOF BEAM OR OPENING LINTEL). VERTICALS MAY BE LAP SPICED AS REQUIRED FOR EASE OF BLOCK INSTALLATION. PROVIDE HOOKED DOWEL FROM FOOTING OR SUPPORT BEAM AT EACH FILLED BLOCK CELL. PROVIDE HOOK AT TOP OF VERTICAL. EACH POUR OF GROUT SHALL BE STOPPED AT LEAST 1 1/2" BELOW THE TOP OF THE LAST COURSE OF BLOCK LAID (EXCEPT AT PRECAST LINTELS).
 - SEE TYPICAL DETAILS AND CODE REQUIREMENTS FOR CLEAN-OUTS.
 - SEE SEPARATE DETAILS / SCHEDULES FOR JAMB AND PIER REINFORCING.
 - SEE DIAGRAMMATIC MASONRY WALL ELEVATIONS FOR ADDITIONAL INFORMATION.

WALL REINFORCING SCHEDULE					
WALL TYPE	WALL THICKNESS "T"	REINFORCING	MAXIMUM SPACING OC	SPLICE LENGTH	REMARKS
MW1	8"	1-#5	48"	30"	TYP EXTERIOR UNO

TYPICAL WALL REINFORCING
WITH 1 BAR OR 2 BARS PER FILLED CELL

MASONRY WALL REINFORCING SCHEDULE & DETAILS

S302 NO SCALE



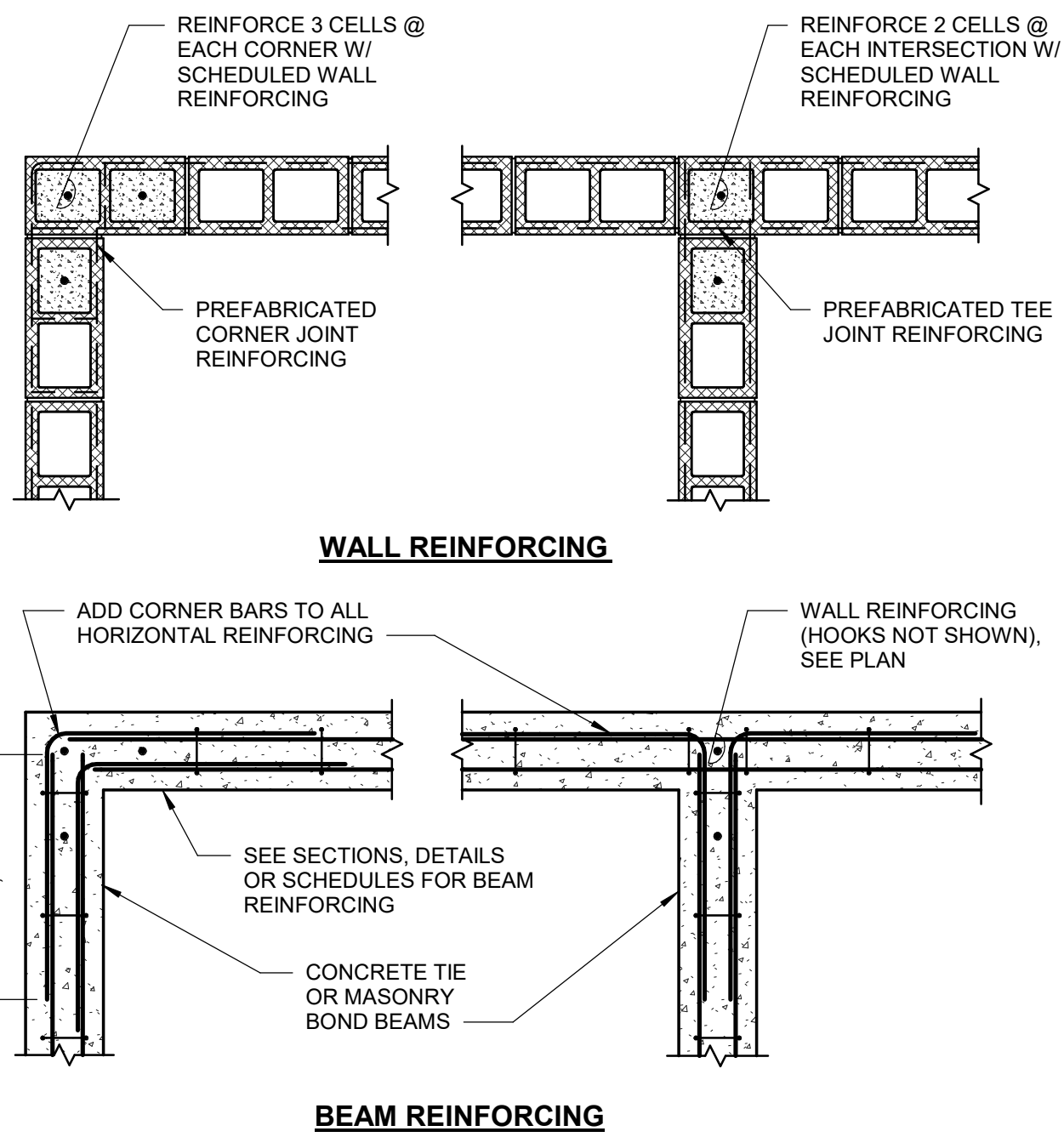
PLAN VIEW

JAMB REINFORCING SCHEDULE			
MASONRY OPENING WIDTH	NUMBER OF REINFORCED CELLS PER JAMB		SPLICE LENGTH
	WALL THICKNESS "T"	OPENING IN EXTERIOR WALL	
UP TO 3'-4"	8"	1-#5 PER CELL IN 1 CELLS	30"
UP TO 5'-4"	8"	1-#5 PER CELL IN 2 CELLS	30"
UP TO 8'-0"	8"	1-#5 PER CELL IN 2 CELLS	30"

JAMB REINFORCING SCHEDULE & DETAIL

JAMB REINFORCING SCHEDULE & DETAIL

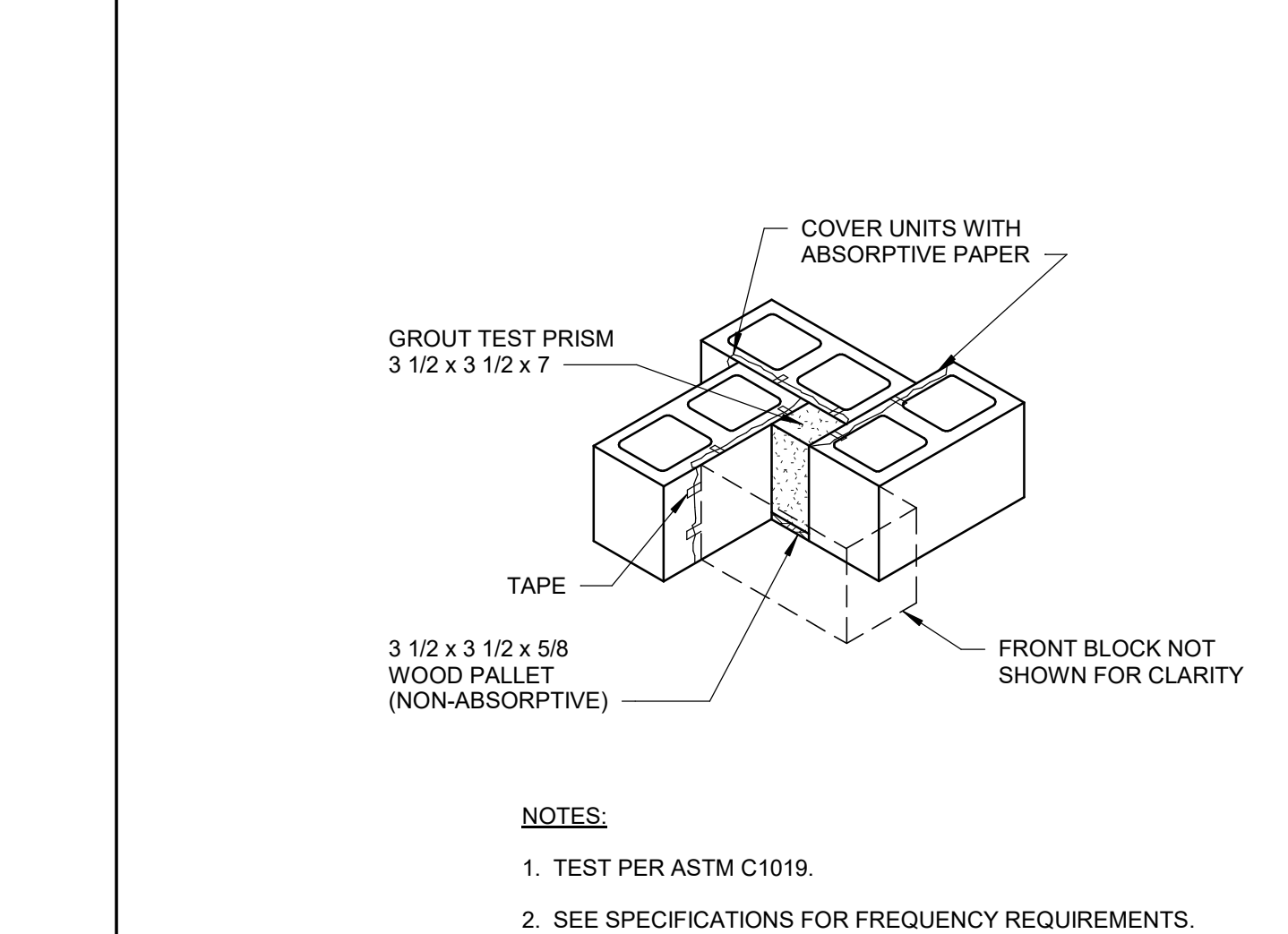
S302 NO SCALE



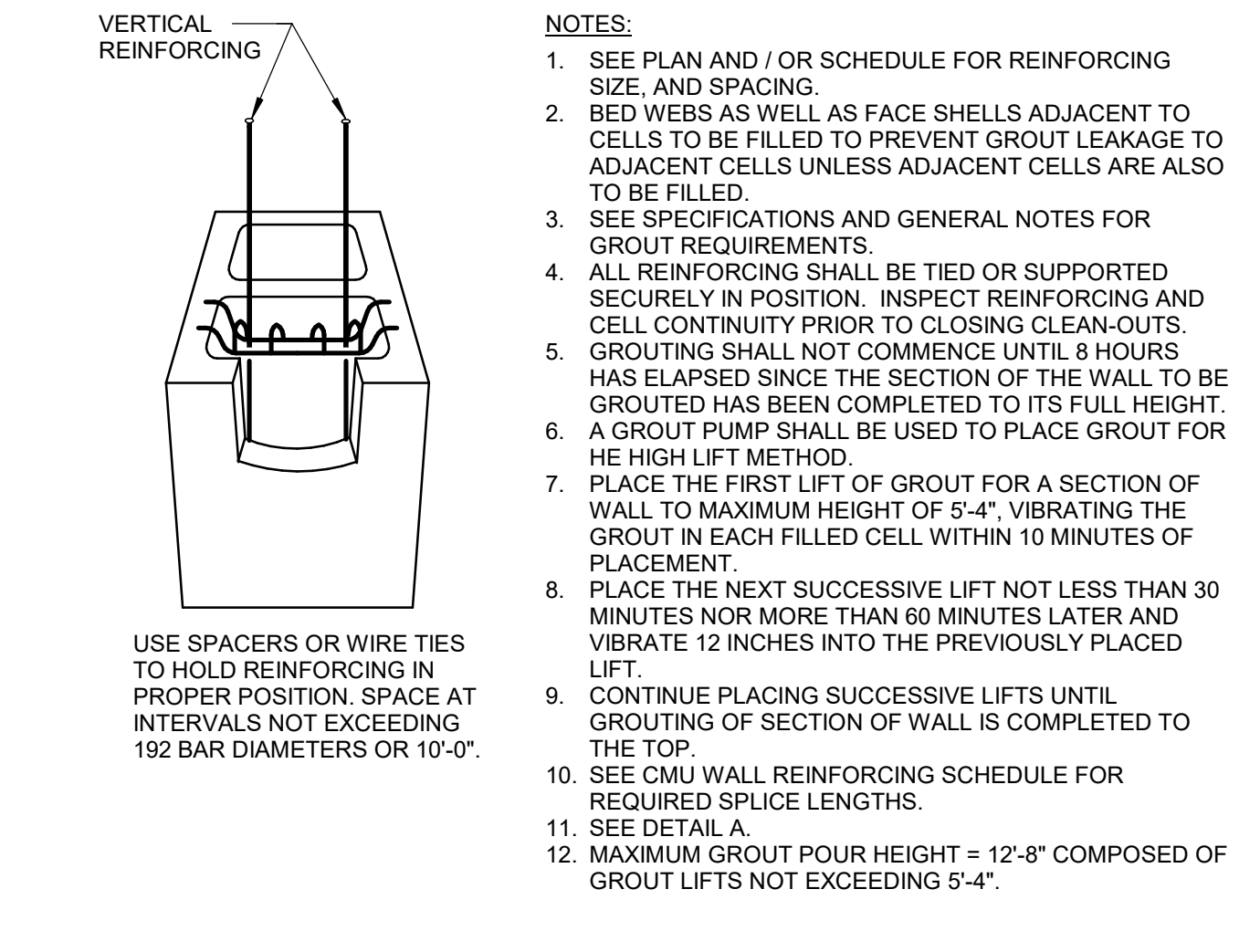
CORNER INTERSECTION PLAN DETAILS

S302 NO SCALE

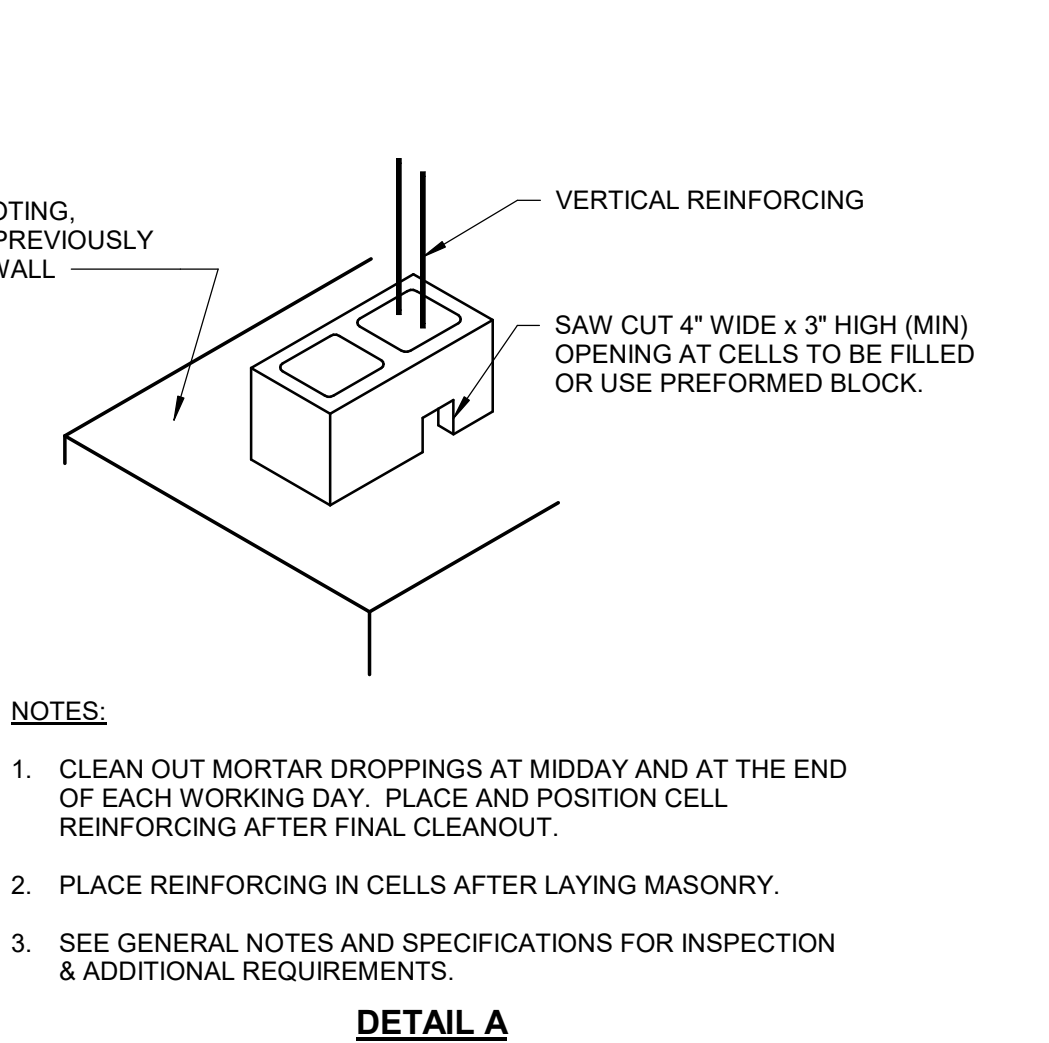
CASTING OF GROUT TESTING PRISMS



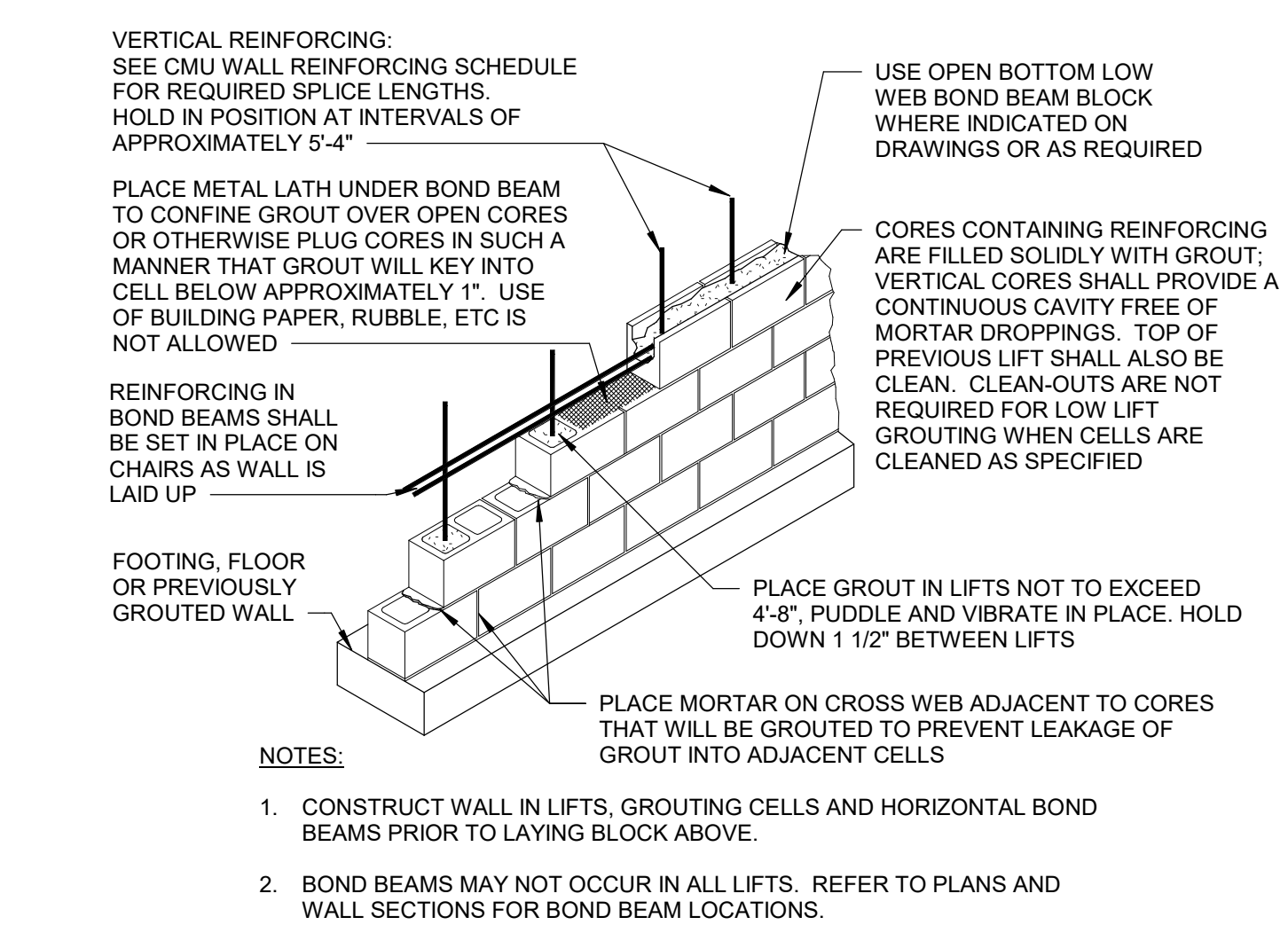
HIGH LIFT GROUTING PROCEDURES AND DETAILS



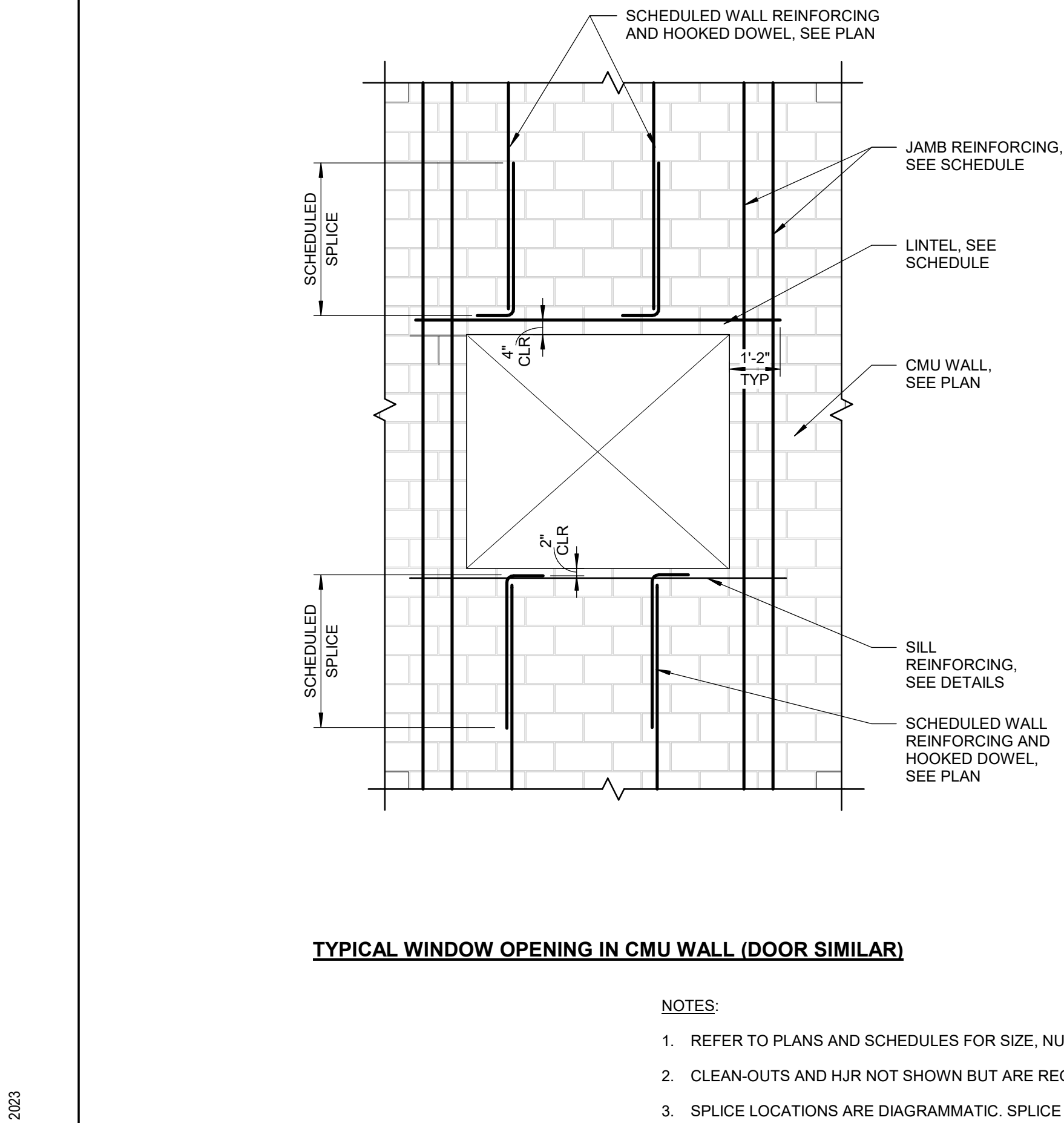
DETAIL A



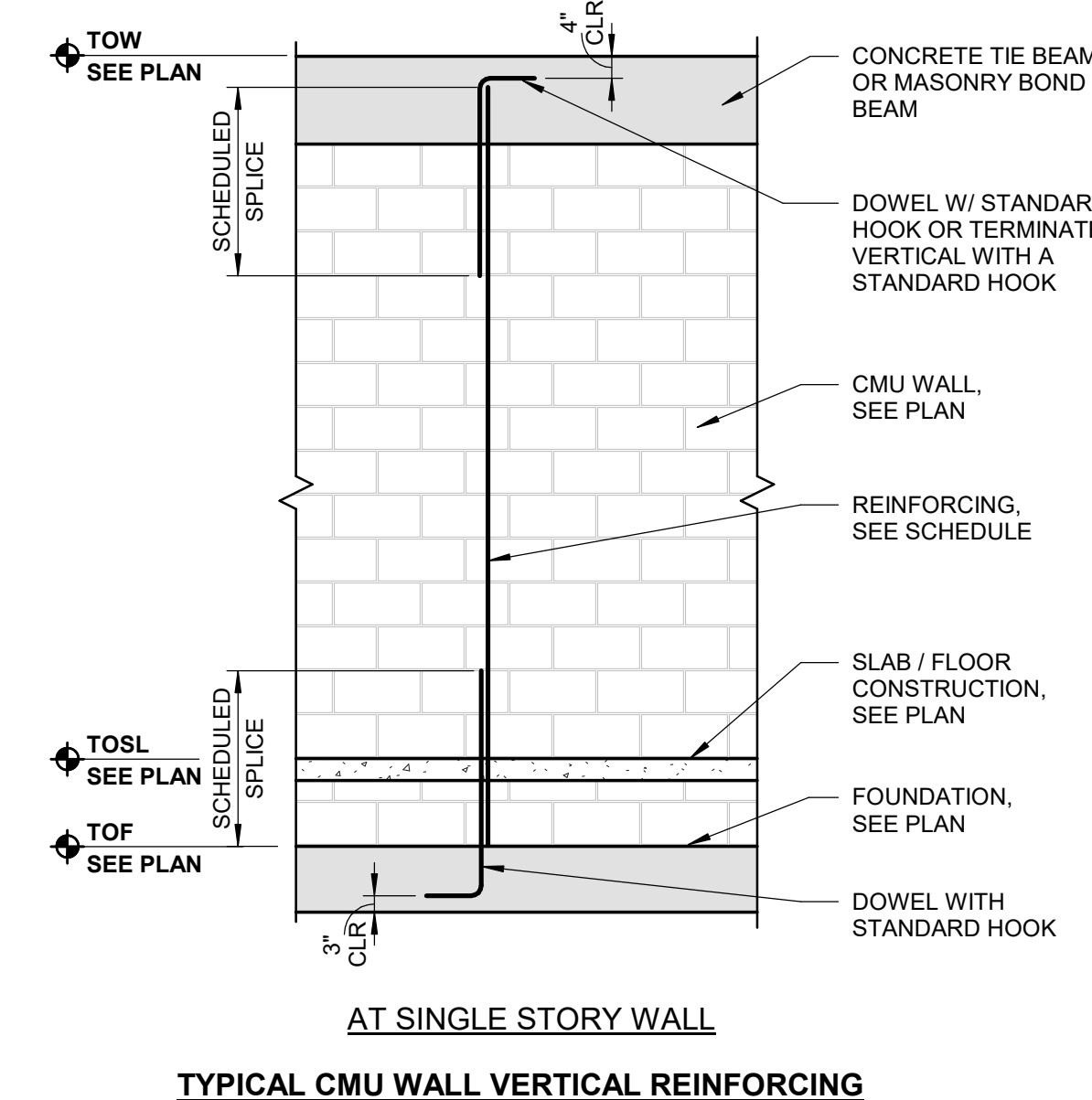
LOW LIFT GROUTING PROCEDURES (5'-4" MAX LIFT)



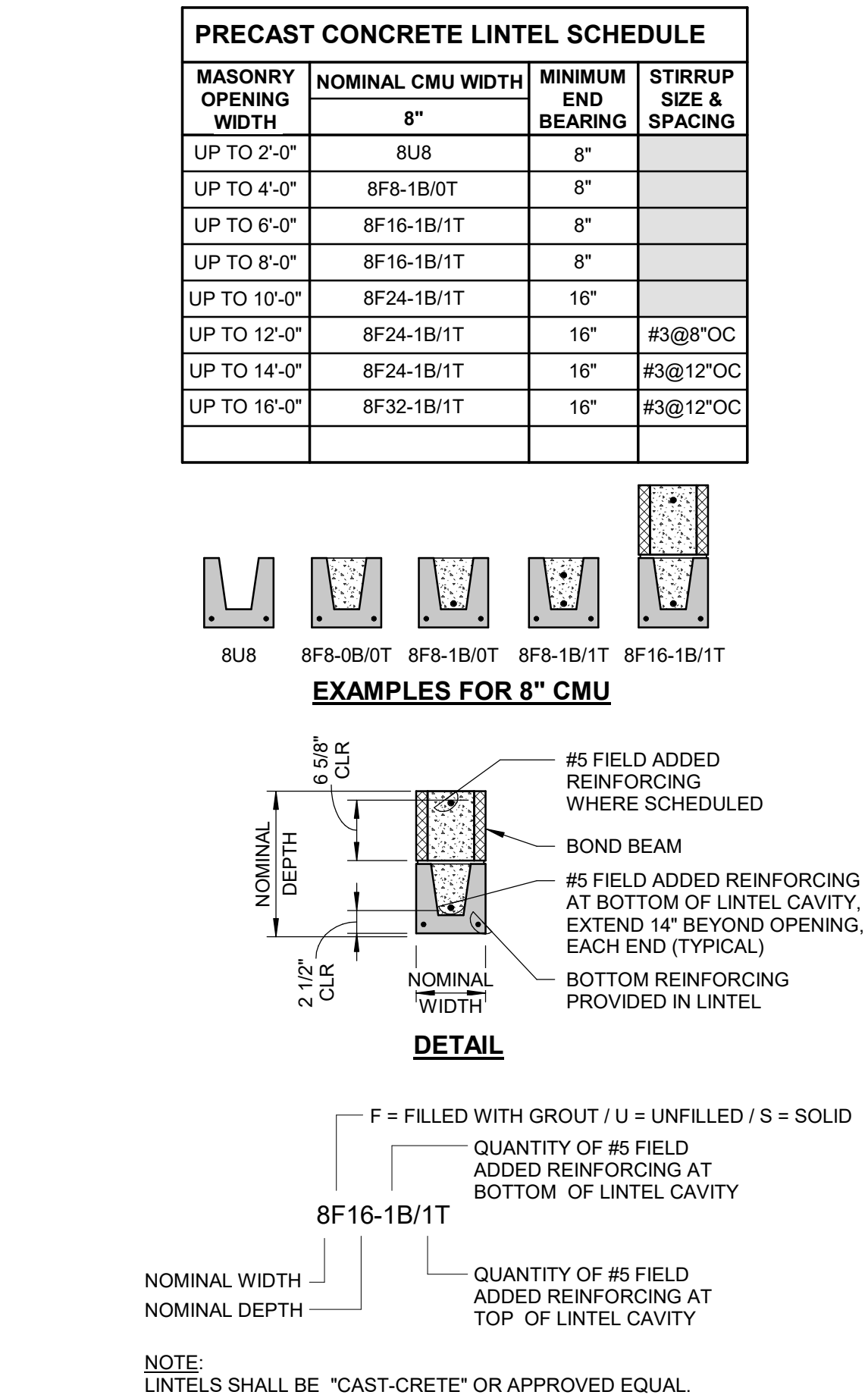
DIAGRAMMATIC MASONRY WALL CONSTRUCTION ELEVATIONS



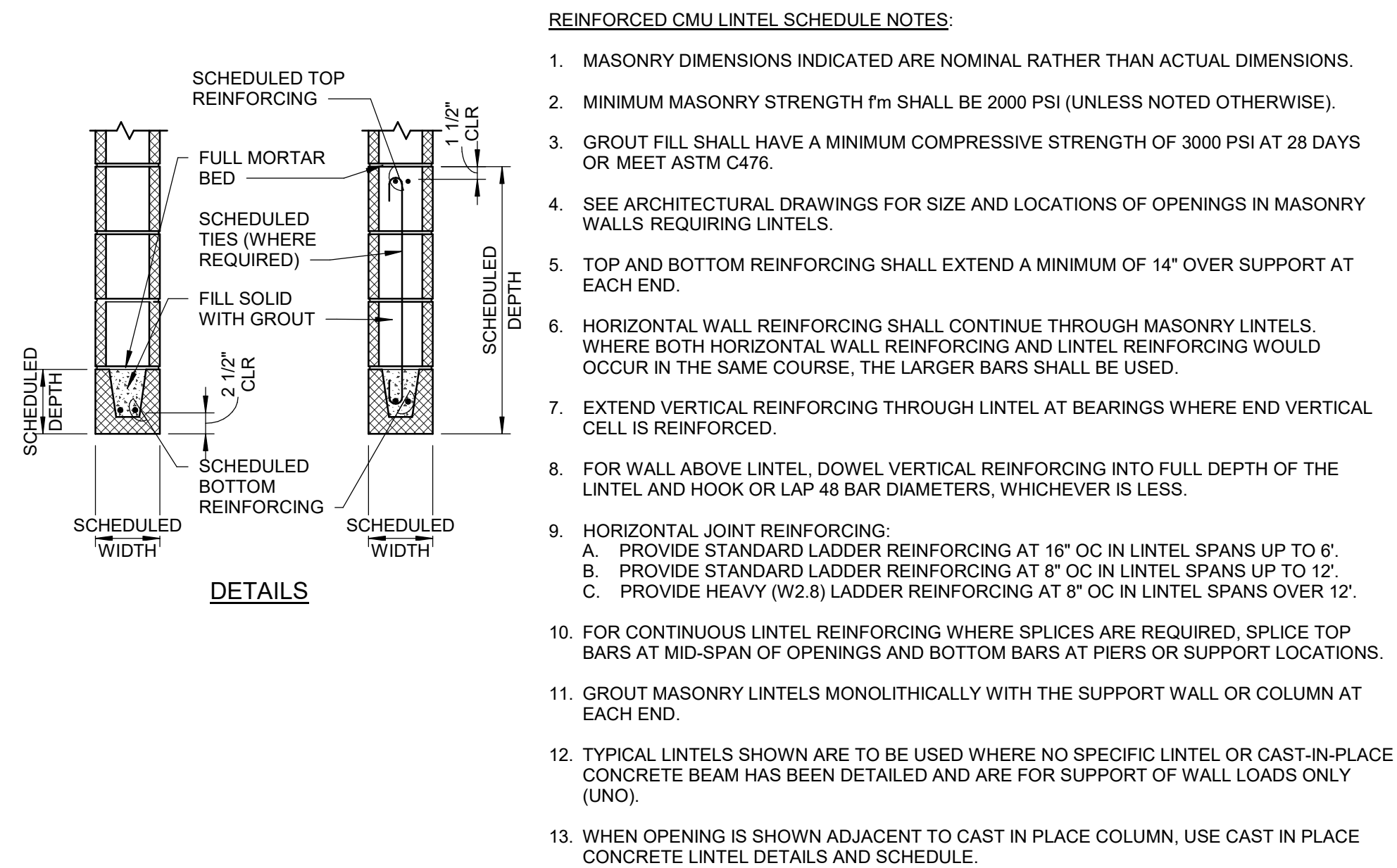
TYPICAL CMU WALL VERTICAL REINFORCING



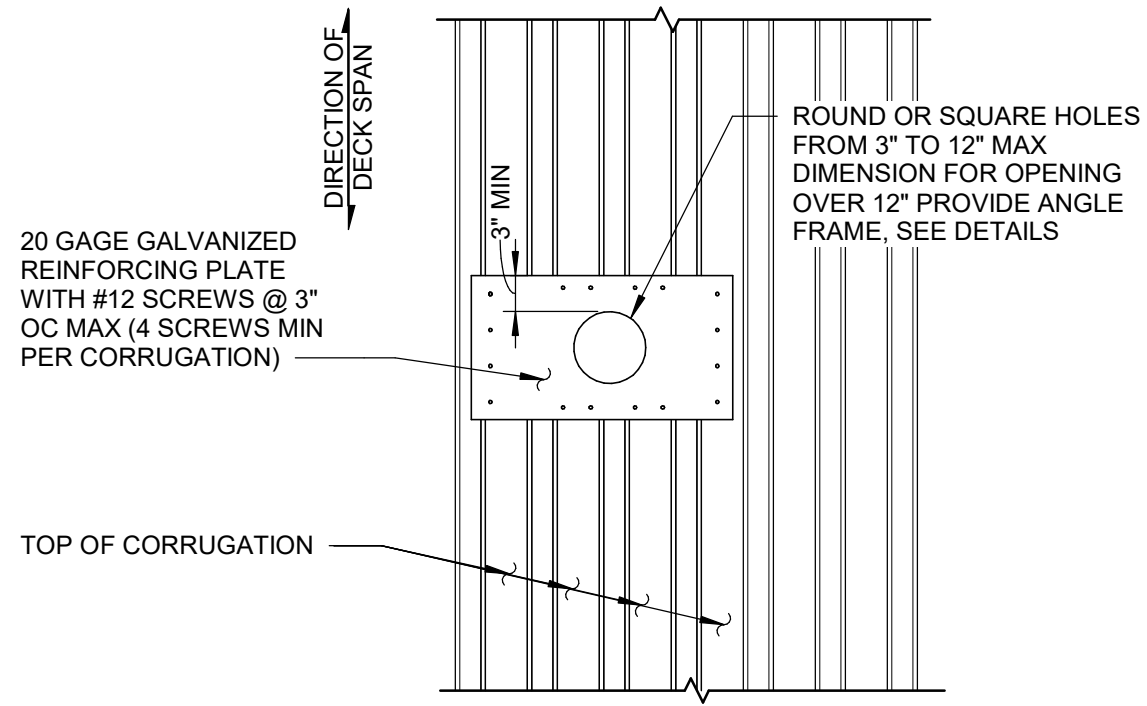
LINTEL DETAILS & SCHEDULES



REINFORCED CONCRETE MASONRY UNIT (CMU) LINTELS



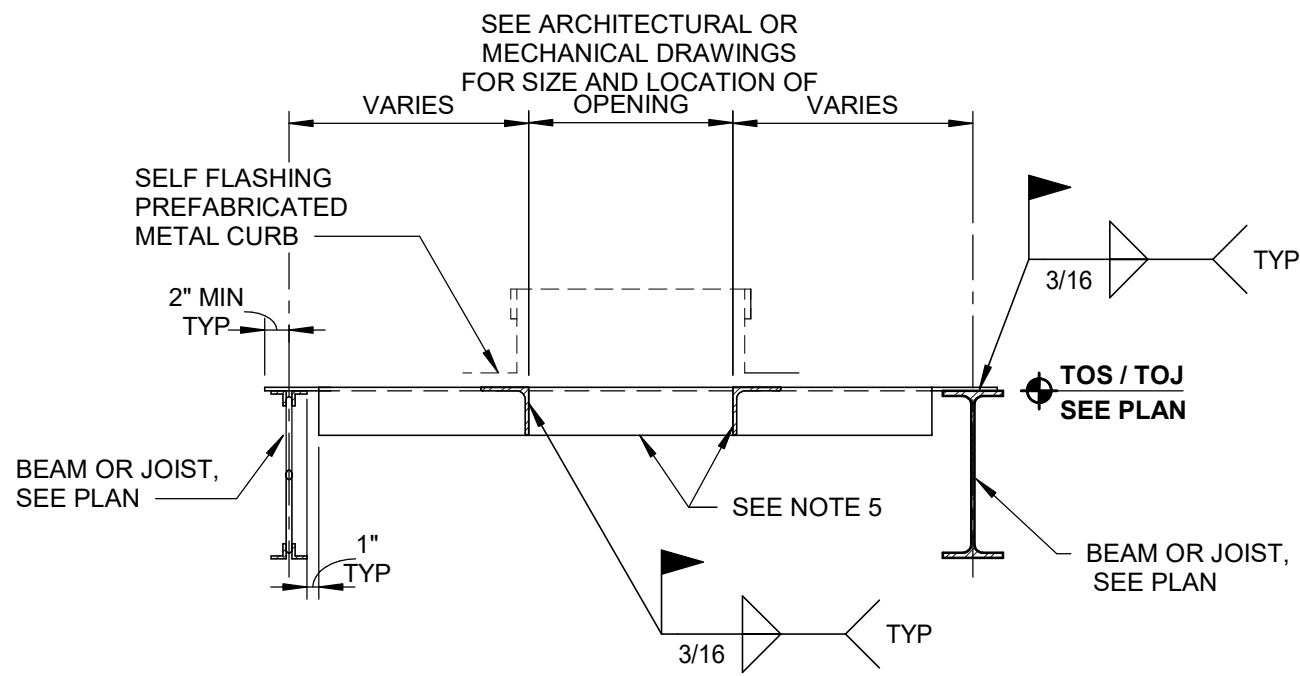
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NOTE:
DECK OPENINGS ARE TO BE FABRICATED SO THAT DECKING RUNS CONTINUOUSLY OVER OPENING. THE OPENINGS IN THE DECK ARE NOT TO BE CUT UNTIL OPENING IS NEEDED (PER OSHA) AND REINFORCING PLATE HAS BEEN INSTALLED.

REINFORCEMENT AT SMALL OPENINGS IN DECK

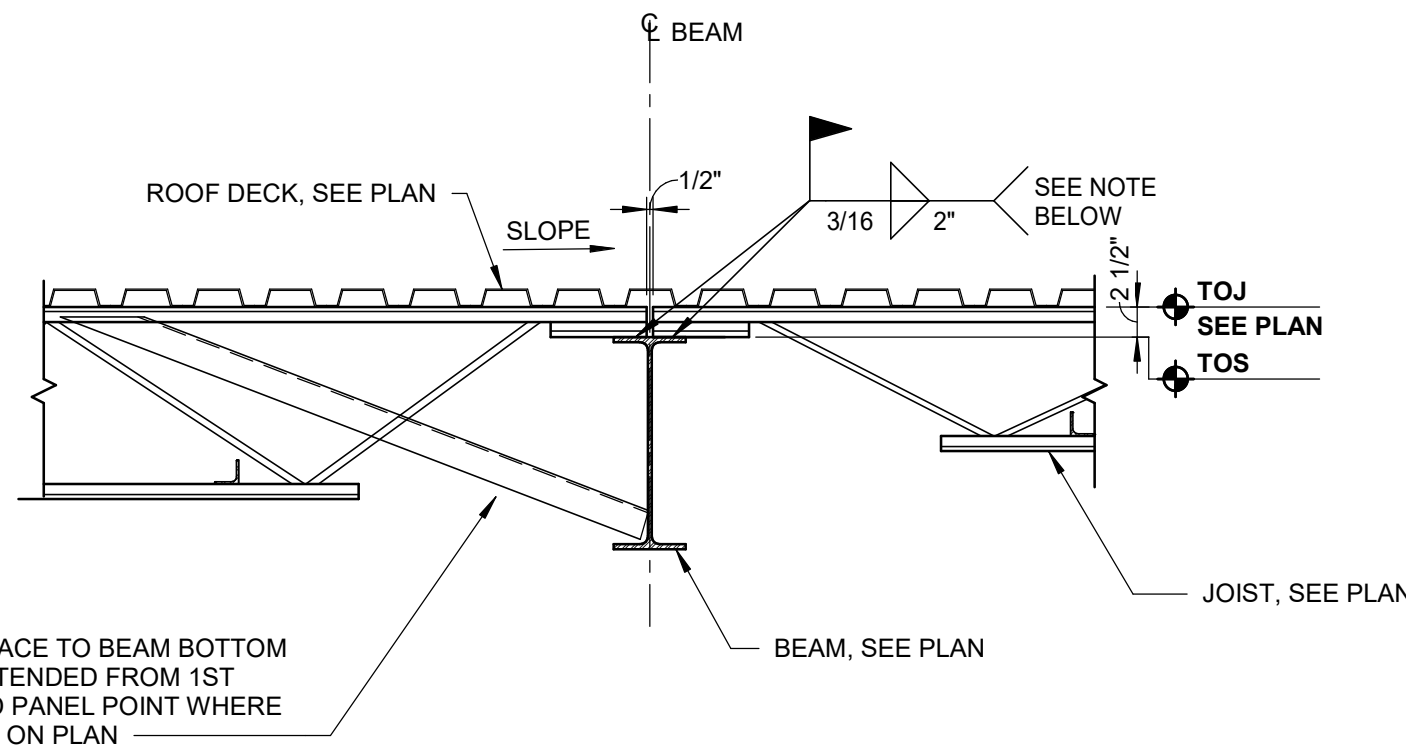
S501 NO SCALE



- NOTES:
- DECK OPENINGS ARE TO BE FABRICATED SO THAT DECKING RUNS CONTINUOUSLY OVER OPENINGS. THE OPENINGS ARE NOT TO BE CUT UNTIL OPENING IS NEEDED (PER OSHA).
 - SEE PLAN FOR ROOF DECK. WELD ROOF DECK TO SUPPORT FRAME WITH 5/8\"/>
 - PROVIDE JOIST TOP CHORD SUPPORT FOR LOADS BETWEEN JOIST PANEL POINTS. SEE DETAILS.
 - ATTACH SELF-FLASHING PRE-FABRICATED METAL CURB TO SUPPORT FRAME WITH 5/8\"/>
 - L4x4x5/16 FRAME AT OPENINGS UP TO 5'-0\"/>

TYPICAL ROOF OPENING FRAME DETAIL

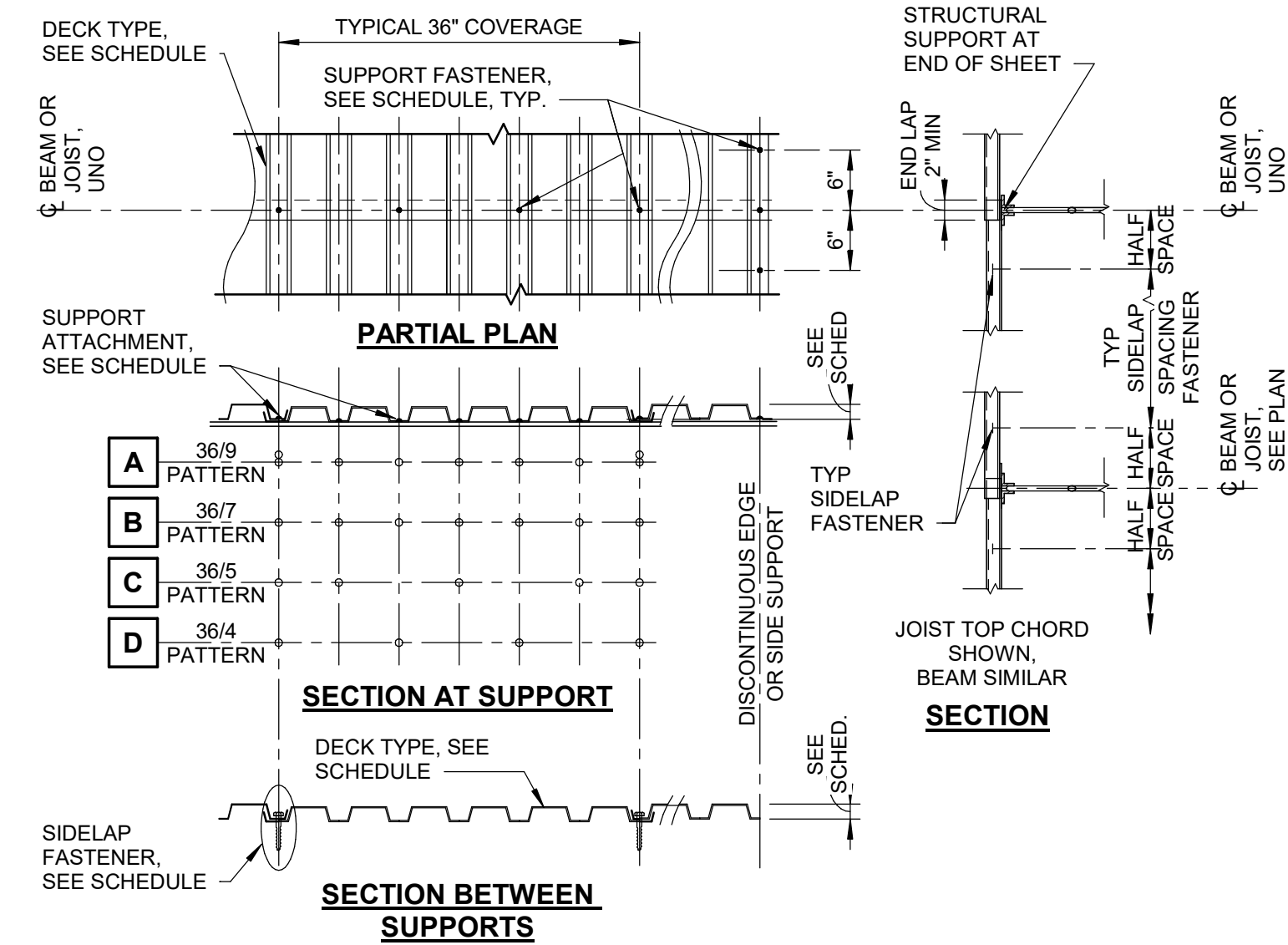
S501 NO SCALE



NOTE:
JOISTS SUPPORTED ON OR NEAREST TO COLUMNS AND JOISTS SPANNING OVER 40'-0\"/>

JOISTS ON BEAM

S501 NO SCALE

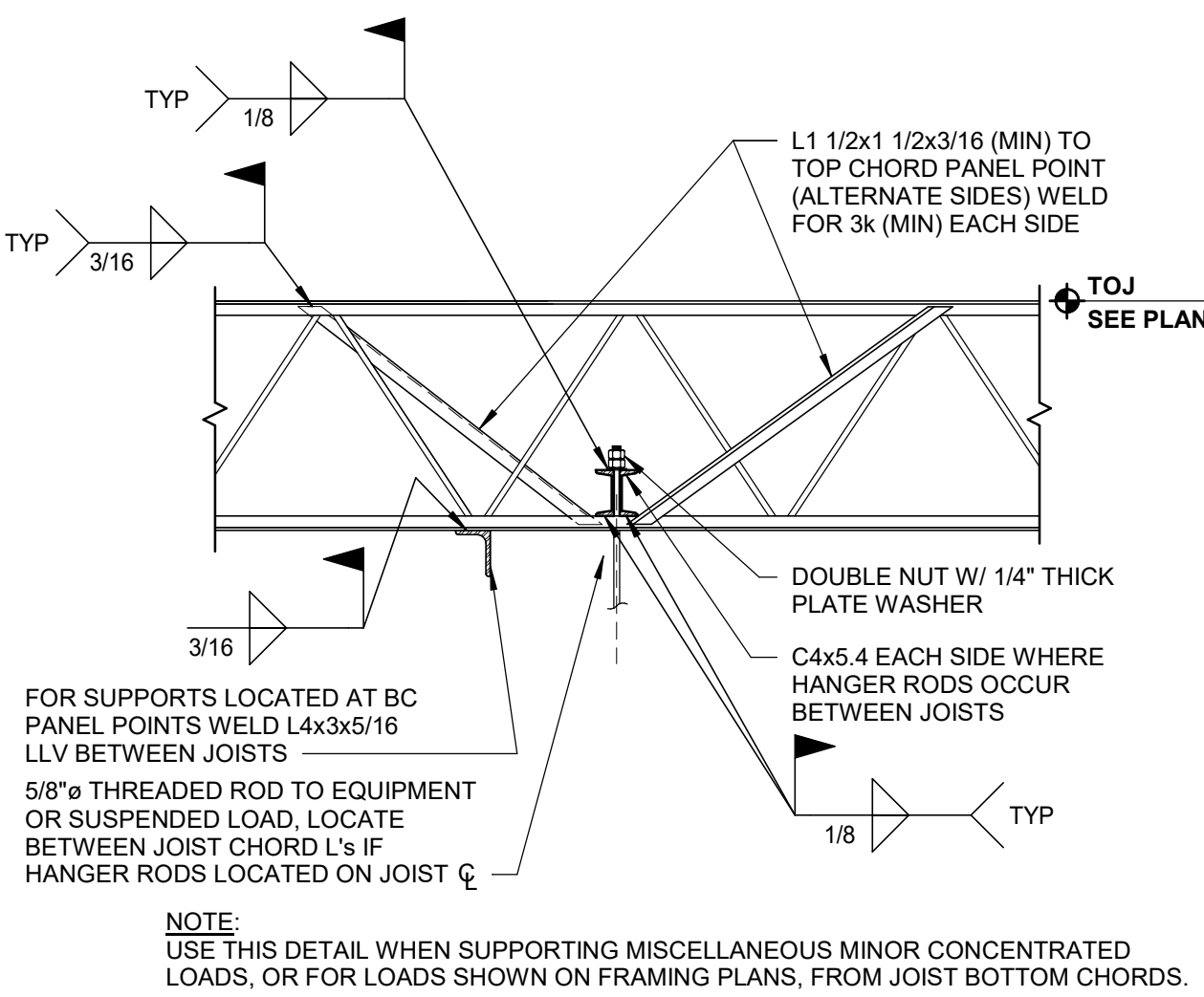


ROOF DECK NOTES:

- SEE PLAN FOR SCHEDULED ROOF DECK MARKS. ROOF DECK SHALL BE GALVANIZED STEEL CONFORMING TO SDI SPECIFICATIONS.
- ROOF DECK LAYOUT SHALL BE CONFIGURED SUCH THAT TWO OR THREE DECK SPAN FRAMING CONDITIONS ARE ACHIEVED. SINGLE SPAN DECK CONFIGURATIONS SHALL BE CLEARLY SHOWN ON THE SHOP SUBMITTALS.
- FASTEN DECK TO ALL SUPPORTS, SIDE LAP SUPPORTS, AND INTERMEDIATE RIBS WITH THE SCHEDULED FASTENER TYPE AT THE SCHEDULED ATTACHMENT PATTERN OR SPACING SHOWN.
- PROVIDE SCHEDULED FASTENERS AT 6\"/>
- CONNECT SIDE LAPS BETWEEN SUPPORTS WITH THE SCHEDULED SELF-DRILLING, SELF-TAPPING (SDS) HEX HEAD SCREWS AT THE SCHEDULED SPACING.
- INTERLOCKED STANDING SIDE LAPS ARE NOT ACCEPTABLE.
- AT CONTRACTOR'S OPTION, POWDER ACTUATED DECK FASTENERS BY HILTI MAY BE USED IN LIEU OF WELDS FOR DECK ATTACHMENT. SUBMIT AS A SHOP DRAWING THE FASTENING SYSTEM AND DESIGN OF EQUAL OR GREATER CAPACITY OF SPECIFIED PROJECT FASTENER SYSTEM FOR REVIEW.
- IF ROOF DECKS ARE SCHEDULED TO BE VENTED, COORDINATE VENTED AREA (NOT TO EXCEED 1.5%) WITH ARCHITECTURAL REQUIREMENTS.
- USE PUDDLE WELDS TO ATTACH TO STRUCTURAL STEEL AND #12 TEK SDS SCREWS TO ATTACH TO COLD-FORMED STEEL FRAMING.

ROOF DECK SCHEDULE AND DETAIL

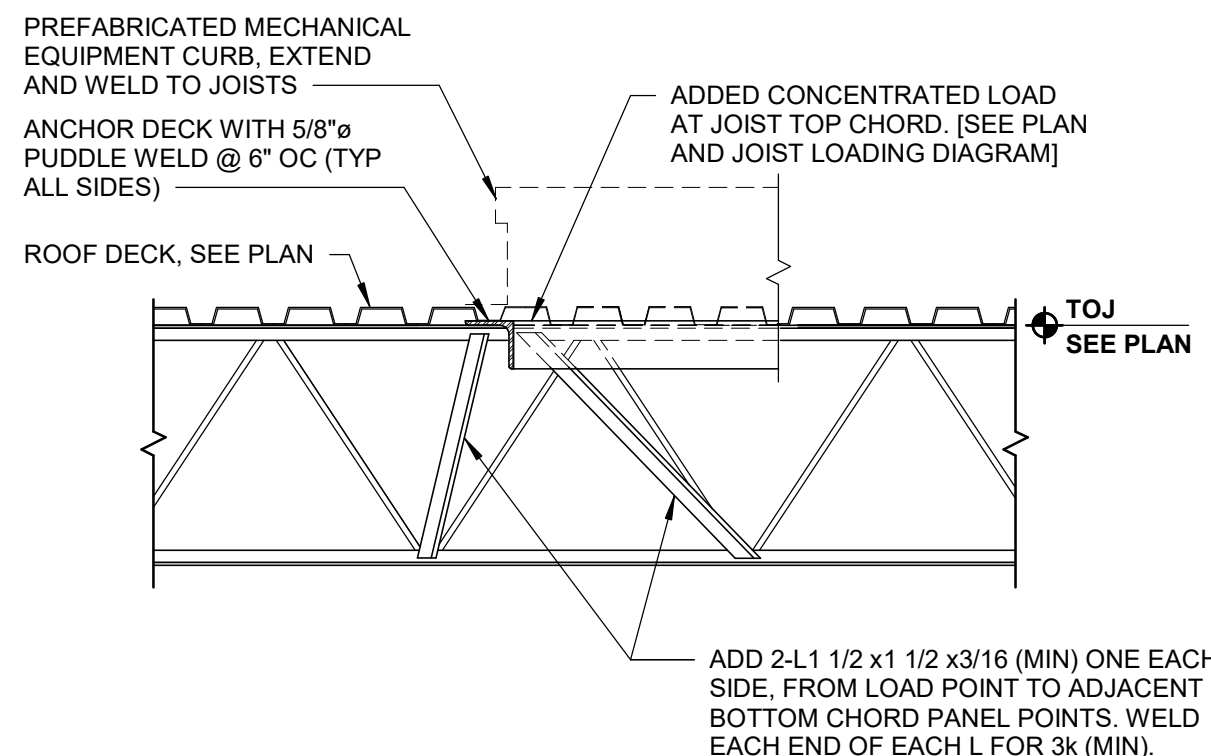
S501 NO SCALE



NOTE:
USE THIS DETAIL WHEN SUPPORTING MISCELLANEOUS MINOR CONCENTRATED LOADS, OR FOR LOADS SHOWN ON FRAMING PLANS, FROM JOIST BOTTOM CHORDS.

JOIST BOTTOM CHORD REINFORCEMENT

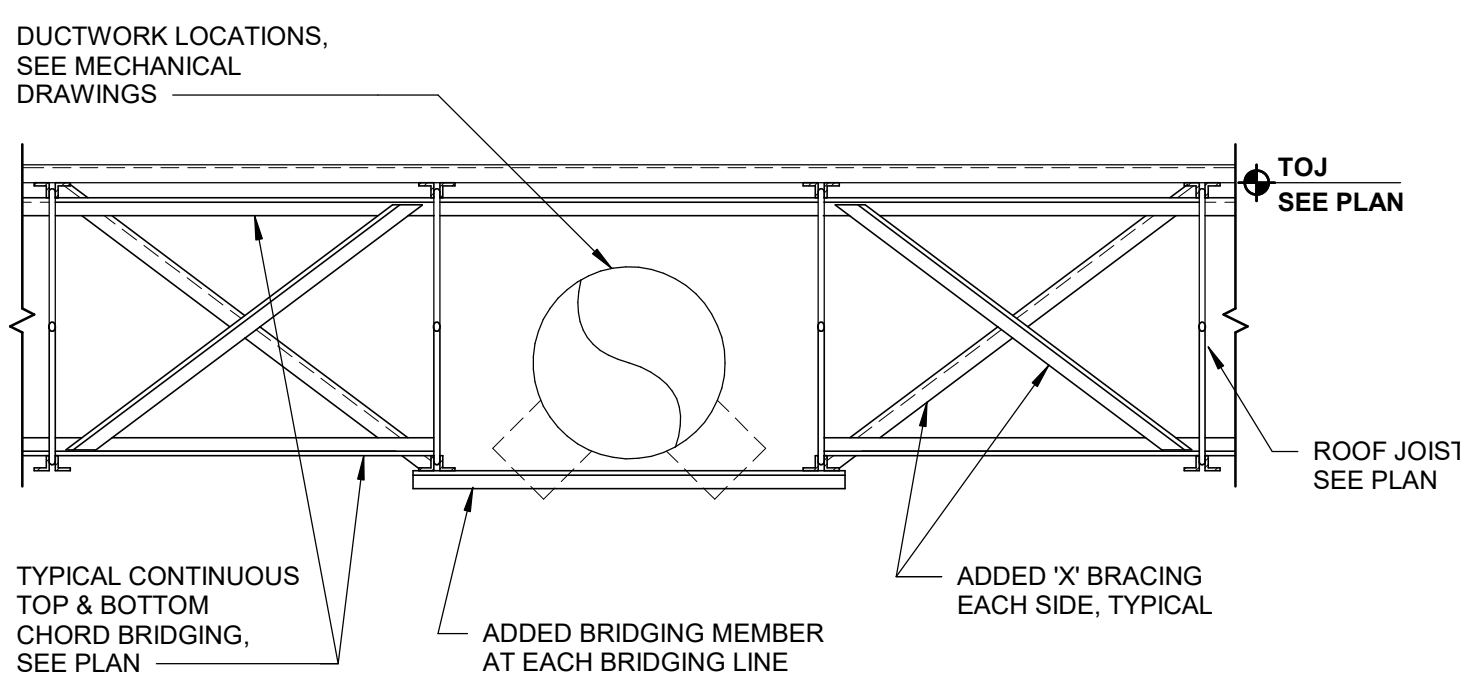
S501 NO SCALE



- NOTES:
- SEE MECHANICAL DRAWINGS FOR EQUIPMENT OPENING SIZE AND LOCATION.
 - USE THIS DETAIL WHEN SUPPORTING MECHANICAL EQUIPMENT LOADS FROM JOIST TOP CHORD BETWEEN PANEL POINTS.
 - OPENINGS ARE TO BE FABRICATED SO THAT DECKING RUNS CONTINUOUSLY OVER OPENINGS. THE OPENINGS IN THE DECK ARE NOT TO BE CUT UNTIL OPENING IS NEEDED (PER OSHA).

JOIST TOP CHORD REINFORCEMENT

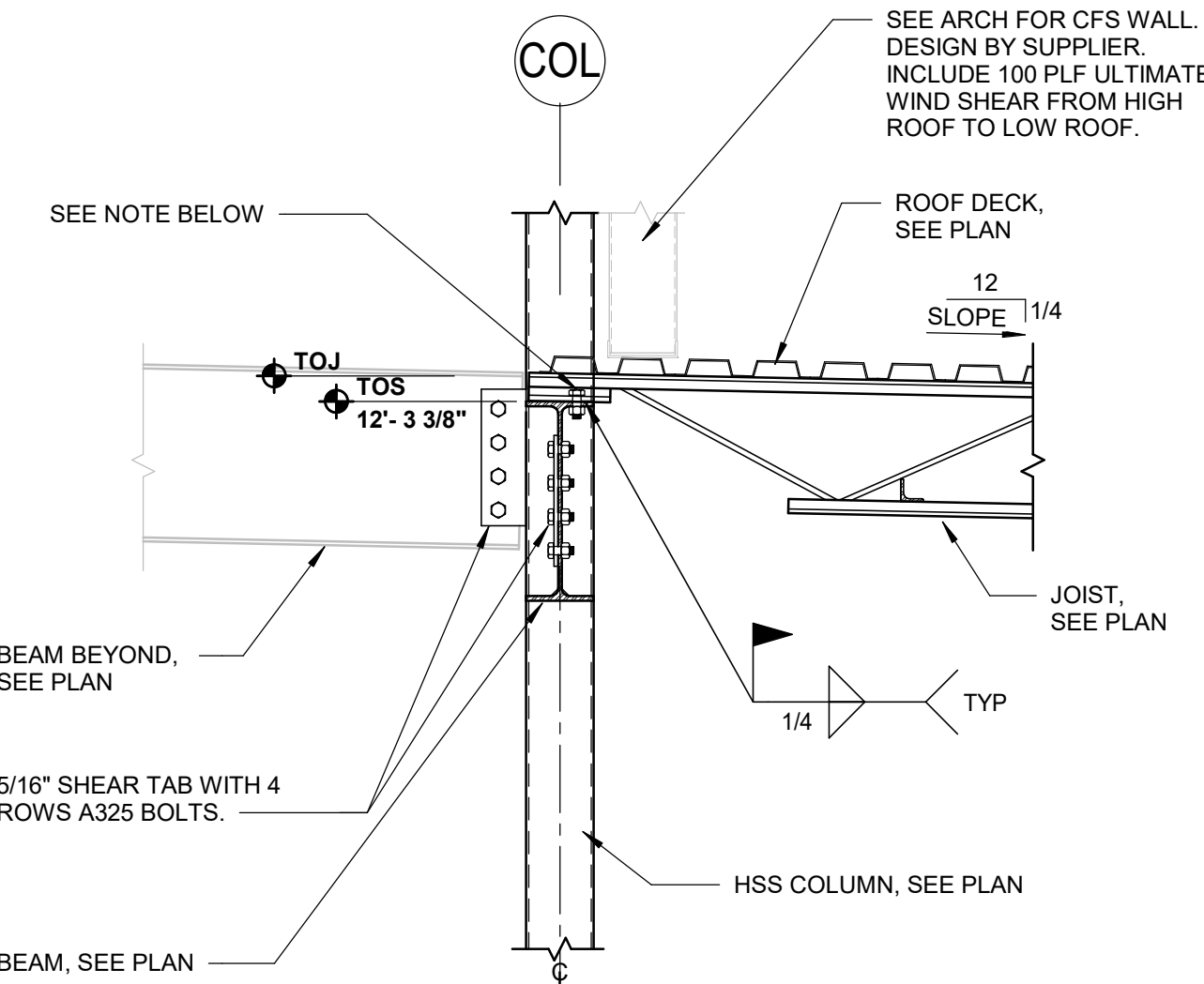
S501 NO SCALE



NOTE:
USE THIS DETAIL WHEN SUPPORTING MINOR CONCENTRATED LOADS FROM JOIST TOP CHORD BETWEEN PANEL POINTS.

INTERRUPTED JOIST BRIDGING DETAIL

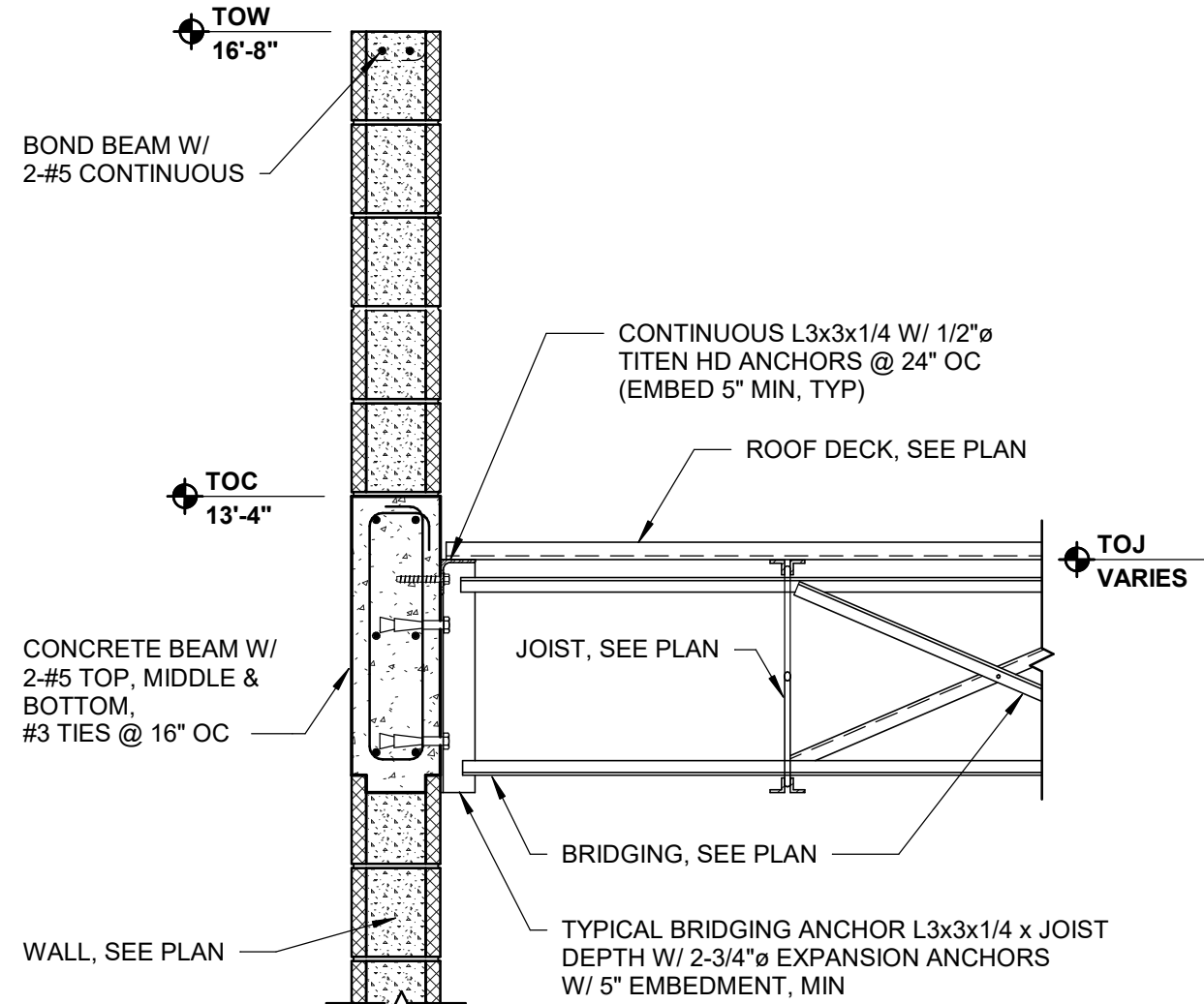
S501 NO SCALE



NOTE:
JOISTS SUPPORTED ON OR NEAREST TO COLUMNS MUST BE BOLTED TO THE SUPPORT. STABILIZER PLATE MUST BE 6\"/>

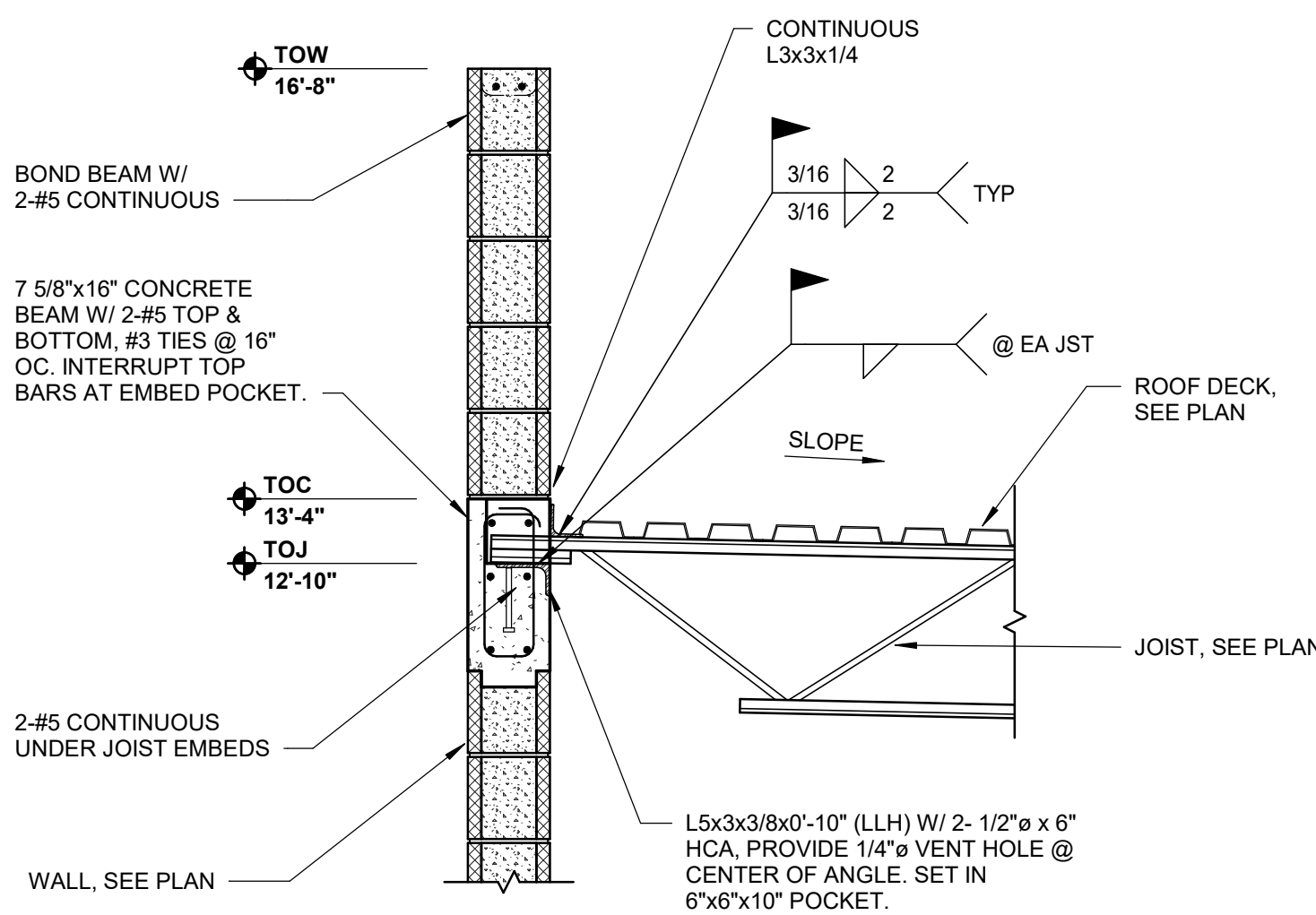
SECTION @ LOW ROOF CLERESTORY

S501 NO SCALE



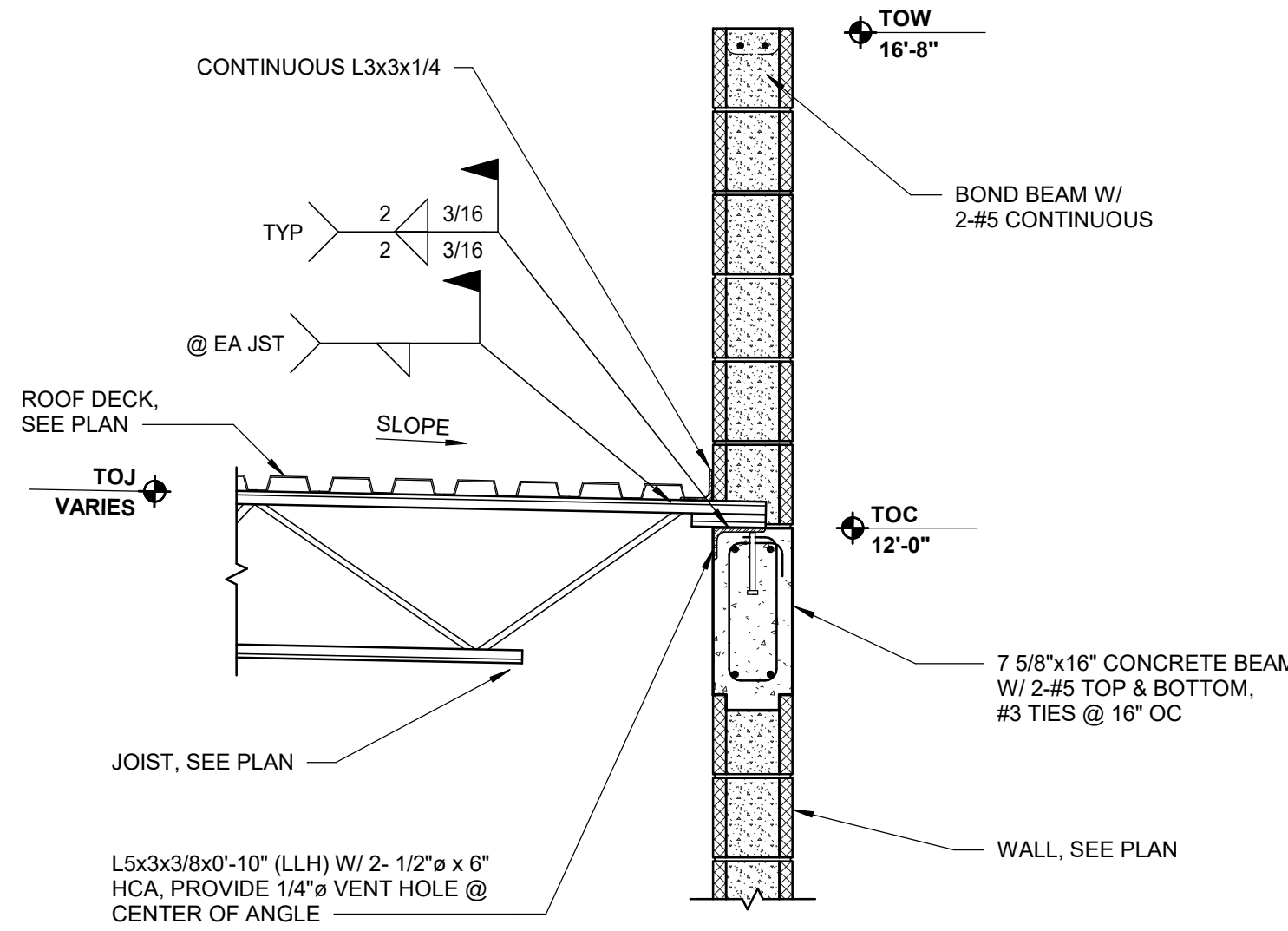
SECTION AT CMU WALL

S501 NO SCALE



SECTION @ HIGH SIDE

S501 NO SCALE



SECTION @ LOW SIDE

S501 NO SCALE

SUBMITTAL:	ISSUE DATE:
CONSTRUCTION DOCUMENTS	03/01/2023
REVISION	DESCRIPTION
	DATE

1659 W US HIGHWAY 90
LAKE CITY, FL 32055

KEY PLAN

DRAWING TITLE:

ROOF SECTIONS AND
DETAILS

PROJECT NO.: WA20056 DRAWN BY: MAM
CHECKED BY: MAM

