

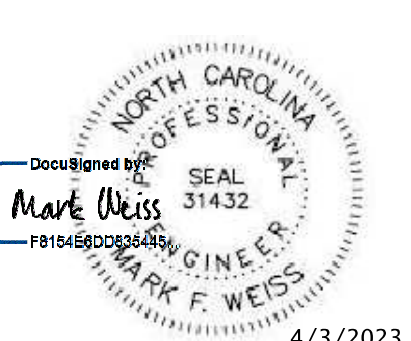


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# ARDURRA

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**New Hanover County  
Board of Elections**  
230 Government Center Drive  
Wilmington, NC 28403

S2B PBO IECT: 7702 100910

[illegible]

SHEET NAME:  
GENERAL NOTES

ORIG 2023.04.0  
SUBMISSION:

SHEET: **S-001**

PERMIT SET

## STRUCTURAL NOTES

GENERAL:

- |    |  |                      |
|----|--|----------------------|
| 1. | THIS STRUCTURE(S) HAS BEEN DESIGNED IN ACCORDANCE WITH THE PROVISION OF THE 2018 NC STATE BUILDING CODE. |                      |
| 2. | DESIGN GRAVITY LOADS:  |                      |
|    | <u>MAIN ROOF:</u>  |                      |
|    | DEAD LOADS:  |                      |
|    | 3", 22 GA. GALV. METAL ROOF DECK   | 2.0 PSF              |
|    | ROOF SYSTEM (60 MIL PVC, 1/2" SHEATHING, 12" POLYISO INSULATION)   | 5.0 PSF              |
|    | SUSPENDED CEILING  | 3.5 PSF              |
|    | SPRINKLERS/MECHANICAL/ELECTRICAL   | 4.0 PSF              |
|    | MISC.  | 0.5 PSF              |
|    | FRAMING  | (ACTUAL)             |
|    | RTU UNITS  | 15.0 PSF             |
|    |  | 3000 LBS (ESTIMATED) |
|    | <u>FRONT CANOPY ROOF:</u>  |                      |
|    | DEAD LOADS:  |                      |
|    | 1 1/2", 22 GA. GALV. METAL ROOF DECK   | 2.0 PSF              |
|    | ROOF SYSTEM (60 MIL PVC, 1/2" SHEATHING, 5" POLYISO INSULATION)  | 3.5 PSF              |
|    | SOFFIT SYSTEM (I.T. GA. FRAMING, 5/8" SHEATHING, PANELS)   | 6.0 PSF              |
|    | MISC.  | 0.5 PSF              |
|    | FRAMING  | (ACTUAL)             |
|    |  | 12.0 PSF             |
|    | LIVE LOADS:  | 20 PSF               |

## 3. WIND VELOCITY (ASCE/SEI 7-10)

- A. DESIGN WIND SPEED ( $V_{A,1}$ ): 146 MPH, ( $V_{A,50}$ ): 113 MPH  
 B. RISK CATEGORY: II  
 C. EXPOSURE CATEGORY: B  
 D. INTERNAL PRESSURE COEFFICIENT: +/-0.16 (ENCLOSED BUILDINGS)  
 E. DIRECTIONALITY FACTOR (K<sub>d</sub>): 0.85  
 F. DESIGN BASE SHEAR (ULTIMATE):  $V_p = 96$  KIPS;  $V_e = 108$  KIPS
4. SNOW DESIGN (ASCE/SEI 7-10):  
 A. GROUND SNOW LOAD:  $P_g = 10.0$  PSF  
 B. IMPORTANCE FACTOR:  $I_s = 1.0$   
 C. EXPOSURE FACTOR:  $C_e = 0.9$   
 D. THERMAL FACTOR:  $C_t = 1.0$   
 E. BALANCED SNOW LOAD: 6.6 PSF  
 F. FLAT ROOF SNOW LOAD:  
      $P_f (0 < 15^\circ) = 7.6$  PSF  
      $P_f (0 < 15^\circ) = 11.0$  PSF  
 G. DESIGN UNIFORM SNOW LOAD:  
      $P_u (0 < 15^\circ) = 6.6$  PSF  
      $P_u (0 < 15^\circ) = 11.0$  PSF
5. SEISMIC DESIGN (ASCE/SEI 7-10):  
 A. OCCUPANCY CATEGORY: II  
 B. SITE CLASSIFICATION: D  
 C. SEISMIC IMPORTANCE FACTOR:  $I_p = 1.0$   
 D. SEISMIC DESIGN CATEGORY: C  
 E. MAPPED SPECTRAL RESPONSE ACCELERATIONS:  $S_s = 21.2\%$ ;  $S_1 = 0.9\%$   
 F. SPECTRAL RESPONSE COEFFICIENT:  $C_s = 0.47$ ;  $C_d = 0.47$   
 G. BASIC STRUCTURAL SYSTEM: STRUCTURAL STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE.  
 H. SEISMIC RESISTING SYSTEM: STRUCTURAL STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE (R=3).  
 I.  $C_u = 0.038$   
 J. EQUIVALENT LATERAL FORCE PROCEDURE.  
 K. NONSTRUCTURAL COMPONENT ANCHORAGE - ALL ARCHITECTURAL, ELECTRICAL, MECHANICAL, PLUMBING COMPONENTS ARE TO BE ATTACHED AS REQUIRED BY ASCE 7 CHAPTER 13, "SEISMIC DESIGN REQUIREMENTS FOR NONSTRUCTURAL COMPONENTS". EACH INDIVIDUAL CONTRACTOR RESPONSIBLE FOR THE COMPONENT MUST PROVIDE PROJECT SPECIFIC DESIGN AND DOCUMENTATION PREPARED BY AN ENGINEER LICENSED IN THE STATE OF NORTH CAROLINA. CHAPTER 13 DETERMINE THE FORCE REQUIRED TO SUPPORT THE COMPONENT FOR THE ANCHORAGE AND BRACING. THE COST OF PREPARING THIS INFORMATION AND DESIGN SHALL BE INCLUDED IN EACH CONTRACTOR'S BID THAT IS PROVIDING THE COMPONENT.
- L. DESIGN BASE SHEAR:  $V_p = 96$  KIPS

6. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL,

- 1 ELECTRICAL, AND SHOP DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR SHALL VERIFY THE  
2 REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, INSERTS, ANCHORS, HOLES AND  
3 ADDITIONAL ITEMS TO BE CUT, NOTCHED OR OTHERWISE REDUCED IN STRENGTH WITHIN THE  
4 DIMENSIONS NOT SHOWN ON THE DRAWINGS, REFER TO THE ARCHITECTURAL DRAWINGS, SEE  
5 ARCHITECTURAL FOR VERIFICATION OF ALL WALL LOCATIONS AND DIMENSIONS.  
6 STRUCTURAL FRAMING SHALL BE CONSTRUCTED TO BE BRACED AGAINST WIND, CONSTRUCTION LOADS, AND OTHER TEMP. FORCES UNTIL ERECTION IS  
7 COMPLETE.  
8 BRACING SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE  
9 ARCHITECT.  
10 NO CHANGES IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN  
11 APPROVAL OF THE ARCHITECT.  
12 OPENINGS 1/4" AND LESS ON A SIDE ARE GENERALLY NOT SHOWN ON THE STRUCTURAL DRAWINGS, REFER  
13 TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SUCH OPENINGS.  
14 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE STRUCTURE LOAD IMPOSED UPON  
15 STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE AT THE  
16 TIME THE LOADS ARE IMPOSED.  
17 WALLS OR LOADS (EVEN NON-LOAD BEARING) ARE TO BE BRACED UNTIL ERECTION IS COMPLETE,  
18 CONTRACTOR SHALL PROVIDE ALL LAYOUT REQUIRED TO CONSTRUCT HIS WORK.  
19 UNLESS OTHERWISE NOTED, FIRE PROOFING METHODS AND MATERIALS FOR STRUCTURAL MEMBERS ARE  
20 AS SHOWN ON STRUCTURAL DRAWINGS, REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR  
21 FIRE RATING REQUIREMENTS, FIRE PROOFING METHODS AND MATERIALS.  
22 DO NOT SCALE THESE DRAWINGS, USE DIMENSIONS.  
23 CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL SAFETY PRECAUTIONS AND REGULATIONS  
24 DURING THE WORK. THE ENGINEER WILL NOT ADVISE ON, OR ISSUE DIRECTION AS TO SAFETY  
25 PRECAUTIONS AND PROGRAMS.  
26 CONTRACTOR SHALL THEREIN REPRESENT THE FINISHED STRUCTURE, CONTRACTOR SHALL PROVIDE  
27 ALL TEMPORARY GUYING AND BRACING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER  
28 ALIGNMENT UNTIL ALL STRUCTURAL WORK AND CONNECTIONS HAVE BEEN COMPLETED. THE  
29 INVESTIGATION, DESIGN, CONSTRUCTION, AND MAINTENANCE OF ALL TEMPORARY BRACING, GUYING,  
30 TEMPORARY SUPPORTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.  
31 FUTURE LOADS, UNLESS SPECIFICALLY NOTED, THERE ARE NO PROVISIONS MADE FOR FUTURE FLOOR,  
32 ROOF, OR OTHER LOADS TO BE APPLIED TO BUILDING.  
33 ALL SHOP DRAWINGS AND OTHER ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL  
34 PRIOR TO FABRICATION. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR BEFORE  
35 SUBMITTAL. THE ENGINEER'S REVIEW IS TO BE FOR CONFORMANCE WITH THE DESIGN CONCEPT AND  
36 GENERAL COMPLIANCE WITH RELEVANT CODES AND DOCUMENTS. THE ENGINEER'S REVIEW DOES NOT  
37 TRANSFER TO THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK AND COORDINATE THE SHOP  
38 DRAWINGS PRIOR TO SUBMISSION. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND  
39 OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER  
40 SIZES, DETAILS, DIMENSIONS, ETC.  
41 NO STRUCTURAL MEMBER MAY BE CUT, NOTCHES OR OTHERWISE REDUCED IN STRENGTH WITHOUT  
42 THE WRITTEN DIRECTION OF THE ENGINEER.  
43 WHEN MODIFICATIONS ARE PROPOSED TO STRUCTURAL ELEMENTS UNDER THE DESIGN AND CERTIFICATION  
44 OF A SPECIALTY ENGINEER, WRITTEN AUTHORIZATION BY THE SPECIALTY ENGINEER MUST BE OBTAINED AND  
45 SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW, PRIOR TO PERFORMING THE PROPOSED  
46 MODIFICATION.

CONCRETE

1. CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS: 4000 PSI NORMAL WT.
2. FOUNDATIONS & SLAB-ON-GRADE: 4000 PSI NORMAL WT.
3. REINFORCING STEEL: ASTM A616, GRADE 60.
4. WELDED WIRE REINFORCEMENT: ASTM A1064 (FLAT SHEETS).
5. MINIMUM CLEAR CONCRETE COVER ON REINFORCEMENT: 3 INCHES (U.N.O.)
6. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3 INCHES (U.N.O.)
7. CONCRETE EXPOSED TO EARTH OR WEATHER: 3 INCHES (U.N.O.)
8. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: 1-1/2 INCHES (U.N.O.)
9. SLABS, WALLS, JOISTS: BEAMS, COLUMNS: 3/4 INCH (U.N.O.)
10. DOWELS AND CONTINUOUS REINFORCING: SHALL HAVE A MINIMUM LAP OF 42 BAR DIAMETERS, BUT SHALL NOT BE LESS THAN 24 INCHES.
11. PROVIDE AIR ENTRAINMENT OF 4 TO 6 PERCENT
12. CONCRETE FINISH: TOP OF SLAB: TROTTER WALLS - WOOD FLOAT; SEE SPECIFICATIONS.
13. CURING COMPOUND: SEE SPECIFICATIONS.
14. EXPANSION JOINT: FILLER BOARD BREAKER: SEE SPECIFICATIONS.
15. SHEET PILE WALL: SEE SPECIFICATIONS.
16. WATER SHOULD NOT BE ADDED TO CONCRETE AT THE JOB SITE BEYOND THE MIX DESIGN AMOUNT.
17. HIGH RANGE WATER REDUCER (SUPERPLASTICIZER) FOR MORE WORKABLE CONCRETE. REQUEST CONTRACTOR SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF ACI 305 HOT WEATHER CONSTRUCTION AND STRUCTURAL CONCRETE REPAIRS FOR CONCRETE PROTECTION SPECIFIED.
18. UNLESS OTHERWISE NOTED, ALL DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL CONFORM TO THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 318).
19. ALL SPLICES SHALL BE CLASS "B" TENSION LAP SPLICES UNLESS OTHERWISE NOTED.
20. WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A1064, LATEST REVISION. FURNISH IN FLAT SHEETS OR WATERSHED BARS. SPLICES SHALL NOT BE ALLOWED.
21. WELDED WIRE REINFORCING SHALL LAP 2 FULL MESHES AND BE SECURELY WIRED AT EACH SIDE AND END.
22. REINFORCING BARS AND WELDED WIRE REINFORCEMENT SHALL BE SUPPORTED WITH STANDARD BAR CHAIRS OR CHAIRS OF EQUAL OR GREATER STRENGTH TO MAIN REINFORCEMENT SPECIFIED.
23. UNLESS OTHERWISE NOTED, CHAMFER ALL EXPOSED CONCRETE CORNERS WITH A 3/4" x 45 DEGREE CHAMFER.
24. REFER TO DRAWINGS OF OTHER TRADES AND VENDOR DRAWINGS FOR PENETRATIONS IN SLABS REQUIRING SLEEVES, EMBEDMENTS, AND RECESSED ITEMS NOT SHOWN.
25. ALL WALLS SHALL BE FINISHED TO MATCH EXISTING LOGS AND ALL MECHANICAL AND ELECTRICAL OPENINGS AND EQUIPMENT PADS WITH MECHANICAL AND ELECTRICAL EQUIPMENT DETAILS AND SHOP DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL OPENINGS AND SLEEVES FOR PROPER DISTRIBUTION OF ALL UTILITIES THROUGH THE BUILDING.
26. UNLESS NOTED OTHERWISE, SLABS SHALL BE FINISHED TO THE TOLERANCES IN ACCORDANCE WITH ASTM E1155 AS SHOWN IN THE SPECIFICATIONS.
27. ALL EMBEDDED STEEL SHALL CONFORM TO ASTM A36.
28. ADHESIVE ANCHORING SYSTEM:
29. A. MASORNY (HOLLOW & SOLID GROUT) ANCHORS INTO MASORNY SHALL BE THE HLH HTI HYDRO-INJECTION SYSTEM OR APPROVED EQUIVALENT USING GALVANIZED HILTI HAS RODS OR CARBON STEEL GALVANIZED THREADED RODS (ASTM F1554, 55 KSI) WITH SCREWS. CONCRETE ANCHORING SHALL BE THE HLH HTI HYDRO-INJECTION SYSTEM OR APPROVED EQUIVALENT USING GALVANIZED HILTI HAS RODS OR CARBON STEEL GALVANIZED THREADED RODS (ASTM F1554, 55 KSI).
30. C. ALL ADHESIVE ANCHORING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
31. PROVIDE 2 - #4 BARS 3'-0" LONG DIAGONAL IN THE TOP FACE OF LAB ON GRADE AT RE-ENTRANT CORNERS. PLACE 1" CLEAR OF CORNER.
32. EXTEND REINFORCING IN TOP OF WALL RE-ENTRANT CORNERS A MINIMUM OF TENSION DEVELOPMENT LENGTH (L<sub>d</sub>).
33. PROVIDE 2 - #4 BARS IN TOP OF WALL FOOTINGS SUPPORTING MASORNY WALLS WHERE OPENINGS OF DOORS OCCUR. EXTEND AND BEND EDGES OF OPENINGS.
34. SAW CUT ALL SLABS ON GRADE AS SOON AS POSSIBLE AFTER FINISHING OPERATIONS HAVE BEEN COMPLETED WITHOUT DISLODGING AGGREGATES. CONSTRUCTION JOINTS MAY BE SUBSTITUTED FOR SAW CUT JOINTS.
35. LOCALLY DEPRESS BOTTOM OF FOOTINGS AS REQUIRED AT ANCHOR BOLTS TO PROVIDE 3 INCH MINIMUM COVER AT ANCHOR BOLTS.
36. PROVIDE DETAILING DRAWINGS FOR GROUNDING DETAILS.

## FOUNDATION

1. FOUNDATION, SLAB-ON-GRADE, AND SEISMIC DESIGN BASED ON RECOMMENDATIONS IN REPORT OF  
GEOLOGICAL EXPLORATION BY ECS SOUTHEAST LLP (ECS PROJ. NO. 22-29394), DATED SEP 3, 2020.  
A. ALLOWABLE SOIL BEARING PRESSURE: 3,000 PSF  
B. SOIL SUBGRADE MODULUS: 175 PSI  
C. SITE CLASS D
2. UNSUITABLE MATERIALS UNDER ALL FLOOR SLABS, FOOTINGS AND 10'-0" BEYOND BUILDING WALLS. BACKFILL  
IS REQUIRED WITH COMPACTED FILL, COMPACTED IN LIFTS TO 16-INCH LIFTS TO A MINIMUM OF  
PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT IN ALL  
LAYERS UP TO THE UPPER ONE FOOT. FILL TO BE PLACED WITHIN 12 INCHES OF THE DESIGN SUBGRADE.  
WATER IS TO BE KEPT OUT OF THE FILL. THE FILL SHALL BE PLACED TO THE DESIGN DRY DENSITY AT  
OPTIMUM MOISTURE CONTENT. COMPACT UPPER 8-INCH TO 12-INCH OF EXISTING SUBGRADE TO 95 PERCENT.
3. AFTER STRIPPING, DENSIFY EXPOSED SANDS BY PROOFLOADING WITH A FULLY-LOADED TANDEM-AXLE  
DUMP TRUCK OR SIMILAR EQUIPMENT ANY SOFT OR UNSUITABLE SURFACE CONDITIONS, WHICH PUMPS OR  
BUTTS EXPOSED. EXPOSED SANDS SHALL BE PROOFLoadED WITH THE TIRE TREADS OF THE TRUCK.  
UNDESIRABLE SURFACES SHALL BE UNDERCUT & REPLACED WITH GRANULAR BACKFILL, SUCH AS #57 STONE.  
CLEAN SELECT SAND FILL SHALL MEET UNIFIED SOIL CLASSIFICATION OF SP, SP-SM OR SP-SG AND SHALL  
BE PLACED TO THE DESIGN DRY DENSITY AT OPTIMUM MOISTURE CONTENT.
4. CONTRACTOR SHALL NOTIFY ARCHITECT FOR GEOTECHNICAL INSPECTION OF SUBGRADE PRIOR TO POURING  
ANY CONCRETE.
5. BEARING CAPACITY SHALL BE VERIFIED BY A REGISTERED GEOTECHNICAL ENGINEER PRIOR TO PLACING  
CONCRETE. WRITTEN REPORTS OF FINDINGS SHALL BE SUBMITTED TO THE ARCHITECT.
6. CONTRACTOR SHALL DEWATER AS NECESSARY PRIOR TO EXCAVATING. SEE GEOTECHNICAL REPORT FOR  
FURTHER RECOMMENDATIONS IN MAINTAINING WATER LEVEL BELOW EXCAVATION.
7. EXCAVATION SHALL BE PROTECTED FROM FLOODING AND WEATHER INCORPORATION DUE TO EXPOSURE  
TO MOISTURE UNTIL FOUNDATIONS AND BACK FILLING HAVE BEEN COMPLETED.

## STRUCTURAL STEEL

- |    |   |
|----|---|
| 1  | ALL DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE ALLOWABLE  |
| 2  | STRESS PROVISIONS OF THE AISC 360-10 "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS"  |
| 3  | STRUCTURAL STEEL SHALL CONFORM TO THE ALLOWABLE STRESS PROVISIONS OF THE AISC STEEL   |
| 4  | CONSTRUCTION MANUAL, FOURTEENTH EDITION.  |
| 5  | STRUCTURAL STEEL: BEAMS/COLUMNS - A572 OR A992 GR. 50; HSS SECTIONS - A500, GR. B (46 ksi MIN.); PIPE                             |
| 6  | ASME TYPE S, GR. B (65 ksi MIN.) TUBES, CHANNELS & ANGLES - A36.  |
| 7  | BOLTS: A325-A 3/4" DIAMETER H.S. BOLTS, UN.   |
| 8  | ANCHOR RODS: A1554, GRADE 55, UN. WELDABLE STRAIGHT W/ A563 HEAVY HEX NUTS, F436 WASHERS, H.D.                                    |
| 9  | COR.  |
| 10 | WELDING ELECTRODES: E-70XX SERIES   |
| 11 | STRUCTURAL STEEL CLEANING: STEEL STRUCTURES PAINTING COUNCIL, SP-3 -LATEST EDITION (POWER   |
| 12 | TOOL)   |
| 13 | OIL OR GREASE REMOVAL: SSPC-SP16-LATEST EDITION   |
| 14 | SHOOTING NOT ALLOWED WITHIN 3 MILES OF FIELD WEEDS.   |
| 15 | ALL ERECTION WORK FOR STRUCTURAL STEEL SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH LATEST                                      |
| 16 | OSHA REQUIREMENTS.  |
| 17 | CONNECTIONS: AISC CODE OF STANDARD PRACTICE - OPTION 3  |
| 18 | A. DESIGN CONNECTIONS FOR UNFACTORED REACTIONS AS SHOWN ON FRAMING PLANS. (MIN. OF  |
| 19 | 6 KIPS)   |
| 20 | B. WHERE REACTIONS ARE NOT SHOWN, CONNECTION SHALL SUPPORT HALF OF TOTAL UNIFORM  |
| 21 | LOAD. CAPACITY PLUS EFFECT OF ANY CONCENTRATED LOADS.   |
| 22 | C. FIELD CONNECTIONS SHALL BE BOLTED UNLESS WELDED CONNECTIONS ARE SPECIFIED ON   |
| 23 | THE DRAWINGS. SHALL UTILIZE DOUBLE-ANGLED, SEATED OR SINGLE SHEAR PLATE STEEL   |
| 24 | CONNECTIONS.  |
| 25 | D. HOWEVER, IN NO CASE SHALL THE LENGTH OF THE SHEAR CONNECTION BE LESS THAN ONE-<br>HALF THE DEPTH OF THE MEMBER.                |
| 26 | E. SHOP CONNECTIONS MAY BE BOLTED OR WELDED.  |
| 27 | F. ALL CONNECTIONS SHALL BE AISC TYPE 2 "STANDARD FRAMED BEAM CONNECTIONS".   |
| 28 | WHERE USED ON DRAWINGS, THE CONNECTIONS SHALL BE SHOWN WITH THE DESIGN MOMENT   |
| 29 | CONNECTIONS FOR THE VALUES PROVIDED. FURTHER, FABRICATOR SHALL SUBMIT THE PROPOSED  |
| 30 | CONNECTION TYPE FOR EACH CONDITION TO THE ENGINEER FOR APPROVAL OF SAID TYPE.   |
| 31 | PRIOR TO THE START OF FABRICATION AND DETAILING. THE ENGINEER SHALL RESERVE THE RIGHT TO REQUEST AN ALTERNATIVE CONNECTION TYPE). |
| 32 | USE SNUG-TIGHT CONNECTIONS UNO, USING THE TURN-OF-THE-NUT METHOD OR TWIST-OFF   |
| 33 | TYPE CONNECTIONS.   |
| 34 | PAINT ALL STRUCTURAL STEEL AND MISCELLANEOUS STEEL WHICH IS NOT GALVANIZED, CLEAN & PRIME WITH                                    |
| 35 | ZINC. PRIMER PRIMER AS SPECIFIED IN PAINTING SPECIFICATIONS. TOUCH UP AS REQ'D IN FIELD AFTER                                     |
| 36 | ERECTION.   |
| 37 | STEEL SCHEDULED TO RECEIVE SPAYED-ON FIREPROOFING SHALL NOT BE PRIME PAINTED.   |
| 38 | THE CONTRACTOR SHALL SUBMIT DRAWINGS WITH AWS D1.1, LATEST EDITION.   |
| 39 | CONTRACTOR SHALL RETAIN A FABRICATOR WHO UTILIZES A QUALIFIED PROFESSIONAL ENGINEER DULY  |
| 40 | REGISTERED IN THE STATE OF NORTH CAROLINA TO PREPARE SHOP DRAWINGS, CALCULATIONS, AND OTHER                                       |
| 41 | STRUCTURAL DATA. THE FABRICATOR SHALL SUBMIT THE DRAWINGS AND CALCULATIONS SHALL AFFIX HIS SEAL                                   |
| 42 | TO THE DRAWINGS AND CALCULATIONS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS.   |
| 43 | THE FABRICATOR SHALL BE RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL CONNECTIONS NOT FULLY                                     |
| 44 | DETAILED ON THE CONTRACT DRAWINGS. TYPICAL CONNECTION DETAILS ARE INDICATED ON THE  |
| 45 | DRAWINGS FOR DESIGN INTENT ONLY.  |
| 46 | GUSSET PLATES SHALL BE 3/8" MINIMUM.  |
| 47 | UNLESS OTHERWISE NOTED, ALL CONNECTIONS, ALL BRACING CONNECTIONS SHALL BE DESIGNED &  |
| 48 | DETAILED SO THAT ALL FORCE COMPONENTS CAN BE DELIVERED DIRECTLY TO THE CENTERLINE OF  |
| 49 | INTERSECTING MEMBERS. WHERE THIS IS NOT DONE, CONNECTIONS SHALL BE DESIGNED FOR RESULTING   |
| 50 | ECCENTRICITIES.   |
| 51 | (+) INDICATES TENSION IN MEMBER; (-) INDICATES COMPRESSION IN MEMBER; FORCES SHOWN ON THE DESIGN                                  |
| 52 | DRAWINGS SHALL NOT BE REDUCED.  |
| 53 | THE CONTRACTOR SHALL TAKE PRECAUTIONS NECESSARY TO PREVENT ACCIDENTAL FIRE DURING ALL   |
| 54 | FIELD WELDING. PRECAUTIONS MAY INCLUDE, BUT NOT BE LIMITED TO: POSTING A FIRE WATCH WITH A FIRE                                   |
| 55 | EXTINGUISHER, THE USE OF PROTECTIVE WELDING BLANKETS, OR ANY OTHER METHOD OR COMBINATION OF                                       |
| 56 | METHODS.  |
| 57 | UNLESS OTHERWISE NOTED, ALL COLUMN ANCHOR BOLT HOLES SHALL BE OVERSIZED IN ACCORDANCE WITH  |
| 58 | THE RECOMMENDATIONS OF ACPA "GUIDELINES FOR DETAILING OF STEEL CONSTRUCTED TO BE WELDED   |
| 59 | AT THE END OF ALL HSS AND PIPE. CAPS SHALL BE WELDED WITH A (W) OR (M) PLATE SEAL   |
| 60 | WELDED ALL AROUND (UNO).  |
| 61 | UNLESS NOTED OTHERWISE, PROVIDE 1/4" BENT PLATE FLOORPOST AT ALL FLOOR OPENINGS AND EDGES.  |
| 62 | UNLESS NOTED OTHERWISE, ALL HSS BEAM SECTIONS SHALL BE ORIENTED LONG SIDE VERTICAL (LV).  |

## COLD-FORMED STEEL STUD NOTES (LIGHT GAGE FRAMING)

1. COLD FORM STEEL (LIGHT GAUGE FRAMING) SHALL BE A DELEGATED DESIGN, CONTRACTOR SHALL RETAIN A PROFESSIONAL ENGINEER LICENSED IN NORTH CAROLINA TO DESIGN, DETAIL, THE COLD FORM STEEL ELEMENTS, INCLUDING BUT NOT LIMITED TO: WALLS, CEILING, FLOOR, EXIST WALLS, PARAPET, SOFFIT AND ALL RELATED CONNECTIONS. STUD SIZES AND CONNECTION ARE TO BE FOR SCHEMATIC AND BIDDING PURPOSES ONLY.
2. DESIGNATION:
  - 800 S - 200 - 68 MILS (50 ksi)
  - STEEL GRADE
  - STEEL THICKNESS - MILS.
  - FLANGE WIDTH (INCHES)
  - MEMBER TYPE: S - STUD; T - TRACK;
  - U - CHANNEL; F - FURRING CHANNEL
  - MEMBER DEPTH x 100 (INCHES)
3. COLD-FORMED METAL FRAMING MEMBERS SHALL BE FORMED OF CORROSION-RESISTANT STEEL CONFORMING TO ASTM A1003. STRUCTURAL GRADE, TYPE H STEEL WITH A MINIMUM YIELD STRENGTH OF 36 KSI. FLOOR AND THIRDFLOOR WALL MEMBERS AND CSI FOR ALL THICKER ML MEMBERS, STUDS SHALL BE FINISHED WITH G90 COATING.
4. DEFLECTION ROLING: 1/40 OF 4'-0" ON CENTER AT ALL WALLS.
5. DEFLECTION CLIPS SHALL BE ASTM A653, GRADE 50 WITH G90 COATING AND SHALL BE PROVIDED WITH STEEL BUSHINGS AND SCREWS WITH EACH CLIP.
6. DESIGN OF ALL SECONDARY METAL FRAMING IN ACCORDANCE WITH THE AMERICAN RON AND STEEL INSTITUTE (AISI) "COLD-FORMED STEEL DESIGN MANUAL" - LATEST EDITION.
7. UTILIZE STIFF CLIPS AT BUTT-UP JAMB STUD LOCATIONS.
8. DESIGN OF ALL SCREW NAILS, MARKS, ETC. ON ALL STUDS WITH ZINC RICH PAINT.
9. ALL COLD FORMED HEADERS SHALL BE CONSTRUCTED OF UNPUNCHED SECTIONS.
10. PERFORM ALL SCREW NAILS IN THE WEB OF VERTICAL WALL STUDS AT A MIN. END DISTANCE OF 1'-0" AND A MIN. SPACING OF 4'-0" ON CENTER IN ACCORDANCE WITH AISI "COLD-FORMED STEEL DESIGN MANUAL" - LATEST EDITION.
11. SPACING OF VERTICAL WALL STUDS IS NOT ALLOWED.
12. SCREW PENETRATIONS THRU JOINED MATERIAL SHALL HAVE AT LEAST THREE EXPOSED THREADS.
13. DESIGN SECONDARY FRAMING OPENINGS IN WALLS FOR WIND LOADS RESULTING FROM WINDOWS AND DOORS.

STRUCTURAL ABBREVIATIONS:

@	AT	L	LENGTH
>	GREATER THAN	LBS	POUNDS
<	LESS THAN	LF	LINEAR FEET
=	EQUALS	LL	LIVE LOAD
+/-	PLUS OR MINUS	LLH	LONG LEG HORIZONTAL
		LLV	LONG LEG VERTICAL
AB	ANCHOR BOLT	LNLT	LNTEL
ADDL	ADDITIONAL	LONG	LONGITUDINAL
ALT	ALTERNATE	LP	LOW POINT
ALUM	ALUMINUM	LWT	LIGHTWEIGHT
APPD	APPROVED		
APPROX	APPROXIMATE	MAS	MASONRY
ARCH	ARCHITECTURAL	MAX	MAXIMUM
		MB	MACHINE BOLTS
BF	BOTTOM FACE	MECH	MECHANICAL
BLDG	BUILDING	MFR	MANUFACTURER
BM	BEAM	MIN	MINIMUM
B.O.	BOTTOM OF	MISC	MISCELLANEOUS
BOS	BOTTOM OF STEEL	mm	MILLIMETER(S)
B.O.S.	BOTTOM OF STEEL DECK	MTL	METAL
BOT	BOTTOM	MWFRS	MAIN WIND FORCE RESISTING SYSTEM
BP	BASE PLATE		
BRG	BRACING	N/A	NOT APPLICABLE
BRDG	BRIDGING	NO.	NUMBER
BRG	BEARING	NS	NEAR SIDE
		NTS	NOT TO SCALE
C TO C	CENTER TO CENTER		
CG	CENTER OF GRAVITY		
CIP	CAST-IN-PLACE	OC	ON CENTER
CTLJ	CONTROL JOINT / CONTRACTION JOINT	OD	OUTSIDE DIAMETER
CJP	COMPLETE JOINT PENETRATION	O.F.	OUTSIDE FACE
CL	CENTER LINE	OH	OPPOSITE HAND
CLG	CEILING	OPNG	OPENING
CLR	CLEAR	OPP	OPPOSITE
CMU	CONCRETE MASONRY UNIT	OSL	OUTSTANDING LEG
C.O.	CONTRACTING OFFICER		
COL	COLUMN	PAF	POWDER ACTUATED FASTENER
CONC	CONCRETE	PC	PRECAST
CONN	CONNECTION	PCF	POUNDS PER CUBIC FOOT
CONST	CONSTRUCTION	PJF	PREMOLDED JOINT FILLER
CONT	CONTINUOUS	PL	PLATE
CTR	CENTER	PLF	POUNDS PER LINEAR FOOT
		PROJ	PROJECTION
D	DEPTH	PSF	POUNDS PER SQUARE FOOT
DBA	DEFORMED BAR ANCHOR	PSI	POUNDS PER SQUARE INCH
DBL	DOUBLE		
DIA	DIAMETER	QTY	QUANTITY
DIAG	DIAGONAL		
DIM	DIMENSION	R	RISER
DL	DEAD LOAD	RAD	RADIUS
DN	DOWN	RC	REINFORCED CONCRETE
DWG	DRAWING	RD	ROOF DRAIN
DWL	DOWEL	RDA	REBAR DOWEL ADHESIVE ANCHOR
		RECT	RECTANGULAR
EA	EACH	REF	REFER TO
EF	EACH FACE	REINF	REINFORCEMENT
EJ	EXPANSION JOINT	REQD	REQUIRED
EL	ELEVATION		
ELEC	ELECTRICAL	SC	SLIP-CRITICAL
EMBED	EMBEDMENT	SCHED	SCHEDULE
EOD	EDGE OF DECK	SECT	SECTION
EOS	EDGE OF SLAB	SHT	SHEET
EQ	EQUAL	SIM	SIMILAR
EGL SP	EQUALLY SPACED	SOG	SLAB ON GRADE
EQUIP	EQUIPMENT	SPA	SPACING
EW	EACH WAY	SPEC	SPECIFICATION
EXIST	EXISTING	SQ	SQUARE
EXT	EXTERIOR	STD	STANDARD
		STGR	STRINGER
FD	FLOOR DRAIN	STIF	STIFFENER
FDN	FOUNDATION	STR	STRUT
FF	FINISHED FLOOR	STL	STEEL
FG	FINISHED GRADE	STRUCT	STRUCTURAL
FL	FLOOR	SYM	SYMMETRICAL
FLG	FLANGE		
FS	FAR SIDE	T	TREAD
FT	FEET	T&B	TOP AND BOTTOM
FTG	FOOTING	TEMP	TEMPERATURE
		TF	TOP FACE
GA	GAGE or GAUGE	THK	THICKNESS
GALV	GALVANIZED	T.O.	TOP OF
GB	GRADE BEAM	TOC	TOP OF CONCRETE
GDRL	GUARDRAIL	TOT	TOP OF FOOTING
GR	GRADE	TOS	TOP OF STEEL
GRTG	GRATING	TOW	TOP OF WALL
		TRANS	TRANSVERSE
HAS	HEADED ANCHOR STUD	TYP	TYPICAL
HDRL	HANDRAIL		
HK	HOOK	UNO	UNLESS NOTED OTHERWISE
HORIZ	HORIZONTAL		
HP	HIGH POINT	VERT	VERTICAL
HSS	HOLLOW STRUCTURAL SECTION		
HT	HEIGHT	W/	WITH
		WO	WITHOUT
I.D.	INSIDE DIAMETER	W/L	WIND LOAD
I.F.	INSIDE FACE	WP	WORK POINT
IN	INCH	WT	WEIGHT
INFO	INFORMATION	WWF	WELDED WIRE FABRIC
INT	INTERIOR		
JST	JOIST		
JT	JOINT		
K	KIPS		
KSF	KIPS PER SQUARE FOOT		
KSJ	KIPS PER SQUARE INCH		



### SCHEDULE OF SPECIAL INSPECTIONS

PROJECT NAME: NEW HANOVER COUNTY BOARD OF ELECTIONS

DATE: 10/20/22

REVISÉ DATE:

PROJECT LOCATION: WILMINGTON, NC

THE SPECIAL INSPECTIONS REQUIRED FOR THIS PROJECT ARE LISTED BELOW, DIVIDED BY CONSTRUCTION TYPE.

## STATEMENT OF SPECIAL INSPECTIONS

STATEMENT DATE: 10/20/2022

PROJECT NAME: NEW HANOVER COUNTY BOARD OF ELECTIONS

REVISÉ DATE:

PROJECT LOCATION: WILMINGTON, NC

STRUCTURAL ENGINEER OF RECORD (SEOR): MARK F. WEISS, PE

THE FOLLOWING INFORMATION IS BEING SUBMITTED IN ACCORDANCE WITH THE SPECIAL INSPECTIONS PROVISIONS OF THE 2018 NORTH CAROLINA STATE BUILDING CODE (2015 IBC). ATTACHED IS THE SCHEDULE OF SPECIAL INSPECTIONS REQUIRED FOR THE PROJECT.

THE SPECIAL INSPECTION PROGRAM OUTLINED HEREIN DOES NOT RELIEVE THE CONTRACTOR OR ANY OTHER ENTITY OF CONTRACTUAL DUTIES, INCLUDING QUALITY CONTROL, QUALITY ASSURANCE, OR SAFETY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, AND JOB SITE SAFETY.

RESPECTFULLY SUBMITTED,  
THE STRUCTURAL ENGINEER OF RECORD

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

LICENSED PROFESSIONAL SEAL

## SPECIAL INSPECTION OF SOILS

CHECK IF REQ'D	VERIFICATION AND INSPECTION	INSPECTION		NOTES / COMMENTS
		CONTINUOUS	PERIODIC	
<input checked="" type="checkbox"/>	1. VERIFY MATERIALS BELOW SHALL FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACH PROPER MATERIALS.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	4. VERIFY USE OF PROPER MATERIALS DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

## SPECIAL INSPECTION OF CONCRETE

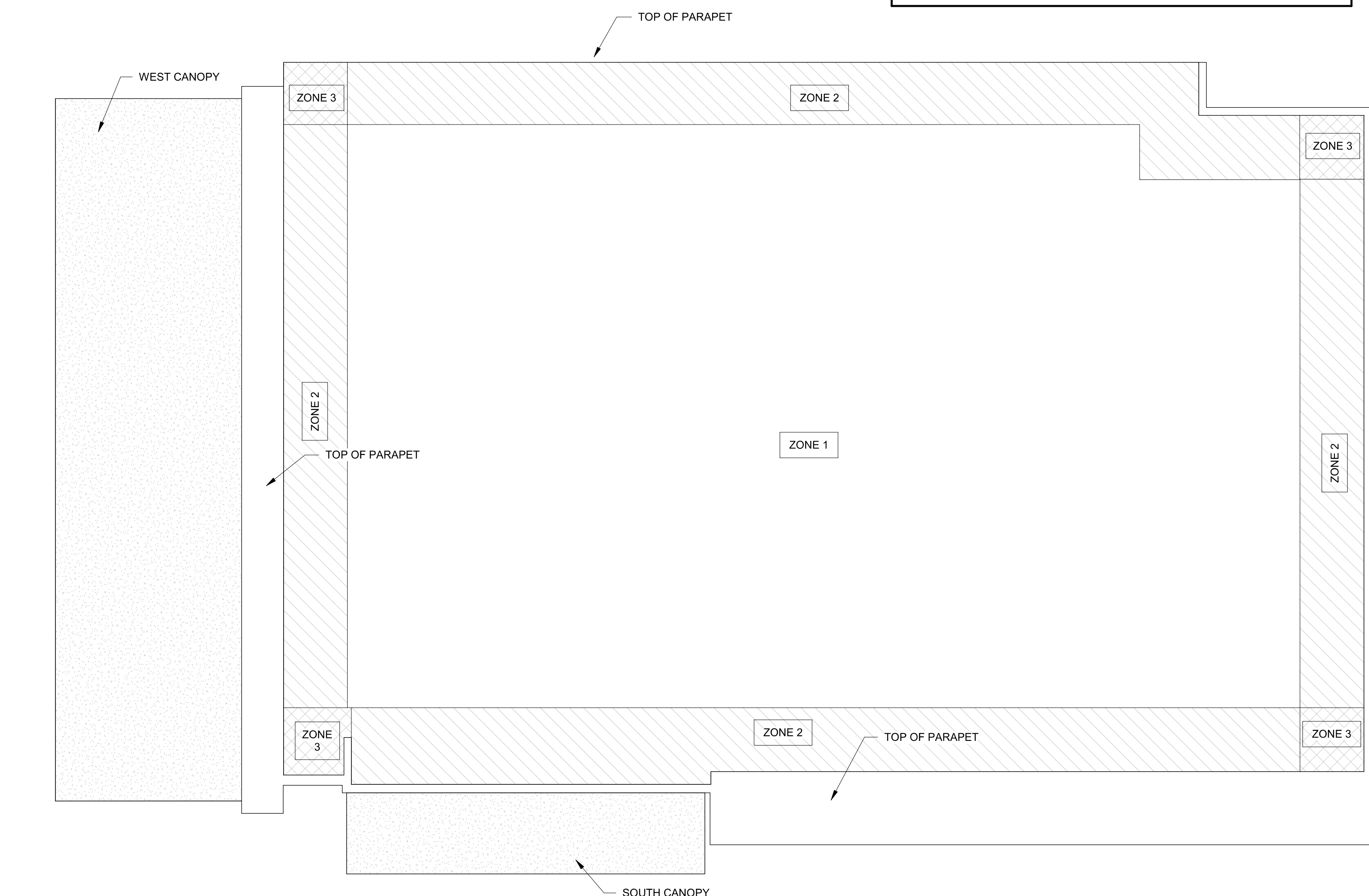
CHECK IF REQ'D	VERIFICATION AND INSPECTION	INSPECTION		REFERENCED STANDARD	NOT COMPL
		CONTINUOUS	PERIODIC		
✓	1. INSPECTION OF REINFORCING STEEL INCLUDING PRESTRESSED TENDONS, AND PLACEMENT.		✓	ACI 318: 3.5.7, 17.7, IBC 1913.4	
□	2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1704.3, ITEM 5b.	□	□	AWS D1.4, ACI 318: 3.5.2	
□	3. INSPECTION OF BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.	✓	□	ACI 318: 8.1.3, 21.2.8, IBC 1911.5, 1912.1	
✓	4. INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE.	□	✓	ACI 318: 3.8.6, 8.1.3, 21.2.8, IBC 1912.1	
✓	5. VERIFYING USE OF REQUIRED DESIGN MIX.	□	✓	ACI 318: CH.4, 5.2-5.4, IBC 1904.3, 1913.2, 1913.3	
✓	6. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	✓	□	ASTM C 172, ASTM C 31, ACI 318: 5.6, 5.8, IBC 1913.10	
□	7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	✓	□	ACI 318: 5.9, 5.10, IBC 1913.6, 1913.7, 1913.8	
✓	8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	□	✓	ACI 318: 5.11-5.13, IBC 1913.9	
□	9. INSPECTION OF PRESTRESSED CONCRETE:				
□	a. APPLICATION OF PRESTRESSING FORCES.	✓	□	ACI 318: 18.20	
□	b. GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC-FORCE-RESISTING SYSTEM.	✓	□	ACI 318: 18.18.4	
□	10. ERECTION OF PRECAST CONCRETE MEMBERS.	□	✓	ACI 318: CH. 16	
□	11. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	□	✓	ACI 318: 6.2	
✓	12. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBERS TO BE FORMED.	□	✓	ACI 318: 6.1.1	

## SPECIAL INSPECTION OF STRUCTURAL STEEL

CHECK IF REQ'D	VERIFICATION AND INSPECTION	INSPECTION		REFERENCED STANDARD	NOTES / COMMENTS
		CONTINUOUS	PERIODIC		
	1. MATERIAL VERIFICATIONS OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS:				
✓	a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	<input type="checkbox"/>	✓	AISC 360, SECTION A3.3 & APPLICABLE ASTM MATERIAL STANDARDS	
✓	b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	<input type="checkbox"/>	✓		
✓	2. INSPECTION OF HIGH-STRENGTH BOLTING:				
	a. SNUG-GUST JOINTS.	<input type="checkbox"/>	✓		
<input type="checkbox"/>	b. PRETENSIONED AND SLIP- CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION.	<input type="checkbox"/>	✓	AISC 360, SECTION M2.5, IBC 1704.3.3	
<input type="checkbox"/>	c. PRETENSIONED AND SLIP- CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION.	✓	<input type="checkbox"/>		
	3. MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:				
<input type="checkbox"/>	a. FOR STRUCTURAL STEEL IDENTIFICATION MARKINGS TO CONFORM TO AISC 360.	<input type="checkbox"/>	✓	AISC 360, SECTION M5.5	
<input type="checkbox"/>	b. FOR OTHER STEEL IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	<input type="checkbox"/>	✓	APPLICABLE ASTM MATERIAL STANDARDS	
<input type="checkbox"/>	c. MANUFACTURER'S CERTIFIED TEST REPORTS.	<input type="checkbox"/>	✓		
	4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:				
✓	a. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	<input type="checkbox"/>	✓	AISC 360, SECT. A3.5 & APPLICABLE AWS AS DOCUMENTS	
✓	b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	<input type="checkbox"/>	✓		

## SPECIAL INSPECTION OF STRUCTURAL STEEL (CONTINUED)

CHECK IF REQ'D	VERIFICATION AND INSPECTION	INSPECTION		REFERENCED STANDARD	NOTES / COMMENTS
		CONTINUOUS	PERIODIC		
5.	INSPECTION OF WELDING:				
	a. STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:				
<input checked="" type="checkbox"/>	1) COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	AWS D1.1, IBC 1704.3.1	
<input checked="" type="checkbox"/>	2) MULTIPASS FILLET WELDS.	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	3) SINGLE-PASS FILLET WELDS > 5/16".	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/>	4) PLUG AND SLOT WELDS.	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/>	5) SINGLE-PASS FILLET WELDS < 5/16".	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	3) FLOOR AND ROOF DECK WELDS.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWS D1.3	
	a. REINFORCING STEEL:				
<input type="checkbox"/>	1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A706.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AISC 360, SECTION M2.5, IBC 1704.3.3	
<input type="checkbox"/>	2) REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCEMENT.	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	4) SHEAR REINFORCEMENT.	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	5) OTHER REINFORCING STEEL.	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
5. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE:					
<input type="checkbox"/>	a. DETAILS SUCH AS BRACING AND STIFFENING.	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	b. MEMBER LOCATIONS.	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	c. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	<input type="checkbox"/>	<input checked="" type="checkbox"/>		



1 C&C WIND PRESSURES DIAGRAM  
Scale: 1/8" = 1'-0"

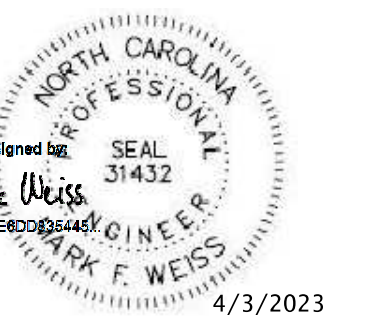


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**New Hanover County  
Board of Elections**  
2330 Government Center Drive  
Wilmington, NC 28403

LEAF PROJECT: 7702-130810

[illegible]

SHEET NAME:  
SPECIAL  
INSPECTIONS &  
C&C PRESSURES

ORIG 2023.04.03  
SUBMISSION:

SHEET: **S-002**

**PERMIT SET**





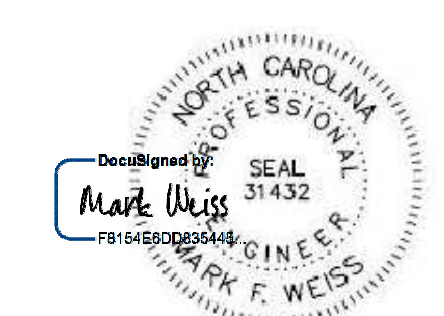
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4/3/2023

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# New Hanover County Board of Elections

2330 Government Center Drive  
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S3P PROJECT: 7702-190810

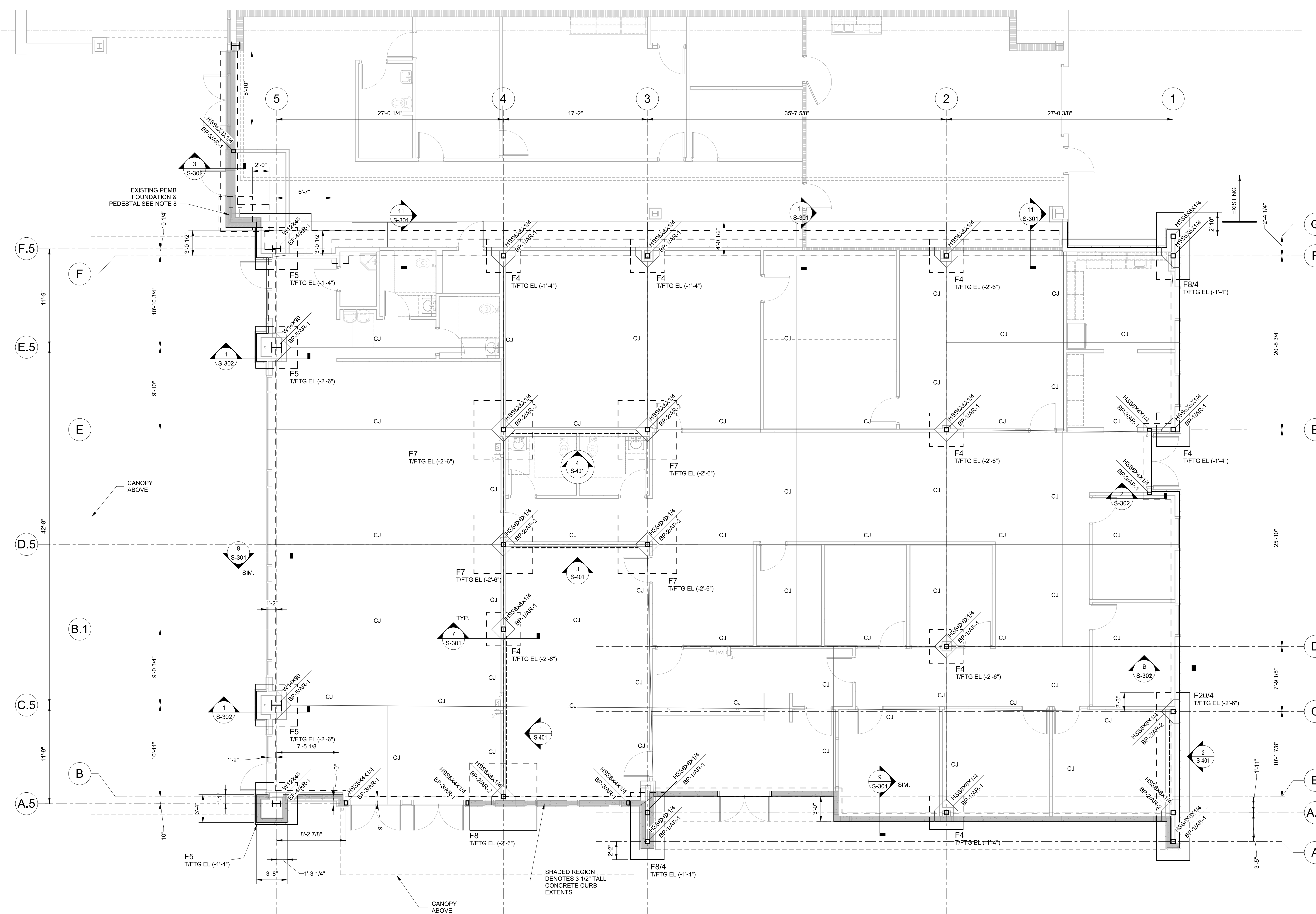
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SHEET NAME:  
FOUNDATION PLAN

ORIG 10.14.2022  
SUBMISSION:

SHEET: **S-101**

PERMIT SET



1 FOUNDATION AND SLAB PLAN  
Scale: 3/16" = 1'-0"

- FOUNDATION PLAN NOTES**
1. TYPICAL SLAB-ON-GRADE SHALL BE: 4" 4000 PSI CONCRETE REINFORCED W/ 6x6x2x2x8 WVR ON VAPOR RETARDER (1" POROUS STONE FILL) COMPACTED SUBGRADE U/L
2. F<sub>1</sub> INDICATES FOOTING MARK - SEE FOOTING SCHEDULE.
3. F<sub>2</sub> INDICATES FOOTING MARK - SEE FOOTING SCHEDULE.
4. C<sub>1</sub> INDICATES CONCRESSION BRACING, SEE 3-401 FOR BRACE FRAME ELEVATIONS & DETAILS.
5. C<sub>2</sub> INDICATES CONCRESSION BRACING, SEE 3-401 FOR BRACE FRAME ELEVATIONS & DETAILS.
6. C<sub>3</sub> INDICATES CONTROL JOINT SEE 1/5301
7. FINISH FLOOR ELEVATION - SEE ARCH DRAWING
8. TOP OF FOOTING DEPTH AT +1'-01" BELOW FINISHED GRADE, U.N.O.
9. TOP OF FOOTING SHALL BE AT LEAST 4" BELOW FINISHED GRADE (S.J.) OR KEYED JOINTS (K.J.) AS REQUIRED BY CONCRETE PLACEMENT. DETAILS 17-401. BUT SHALL NOT BE LOCATED MORE THAN 15" BELOW AND SHALL HAVE A MINIMUM LINK TO A MAXIMUM LENGTH-TO-WIDTH RATIO OF 1.5 OR LESS, U.N.O. FOR S.S.S. SAWCUT PER SPECIFICATION.

STRUCTURAL FOUNDATION SCHEDULE					
FOOTING MARK	FOOTING SIZE			REINFORCEMENT	REMARKS
	LENGTH	WIDTH	THICKNESS		
F4	4'-0"	4'-0"	1'- 0"	(6) #5 E.W. BOTT	
F5	5'-0"	5'-0"	1'- 0"	(7) #5 E.W. BOTT	
F7	7'-0"	7'-0"	1'- 6"	(9) #6 E.W. T&B	
F8	8'-0"	8'-0"	1'- 6"	(12) #6 E.W. T&B	
F8/4	8'-0"	4'-0"	1'- 0"	(4) #4 LONG. T&B, (8) #4 TRANS. T&B	
F20/4	20'-0"	4'-0"	1'- 6"	(4) #4 LONG. T&B, (20) #4 TRANS. T&B	





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# New Hanover County Board of Elections

230 Government Center Drive  
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**-S3P PROJECT: 7702-190810**

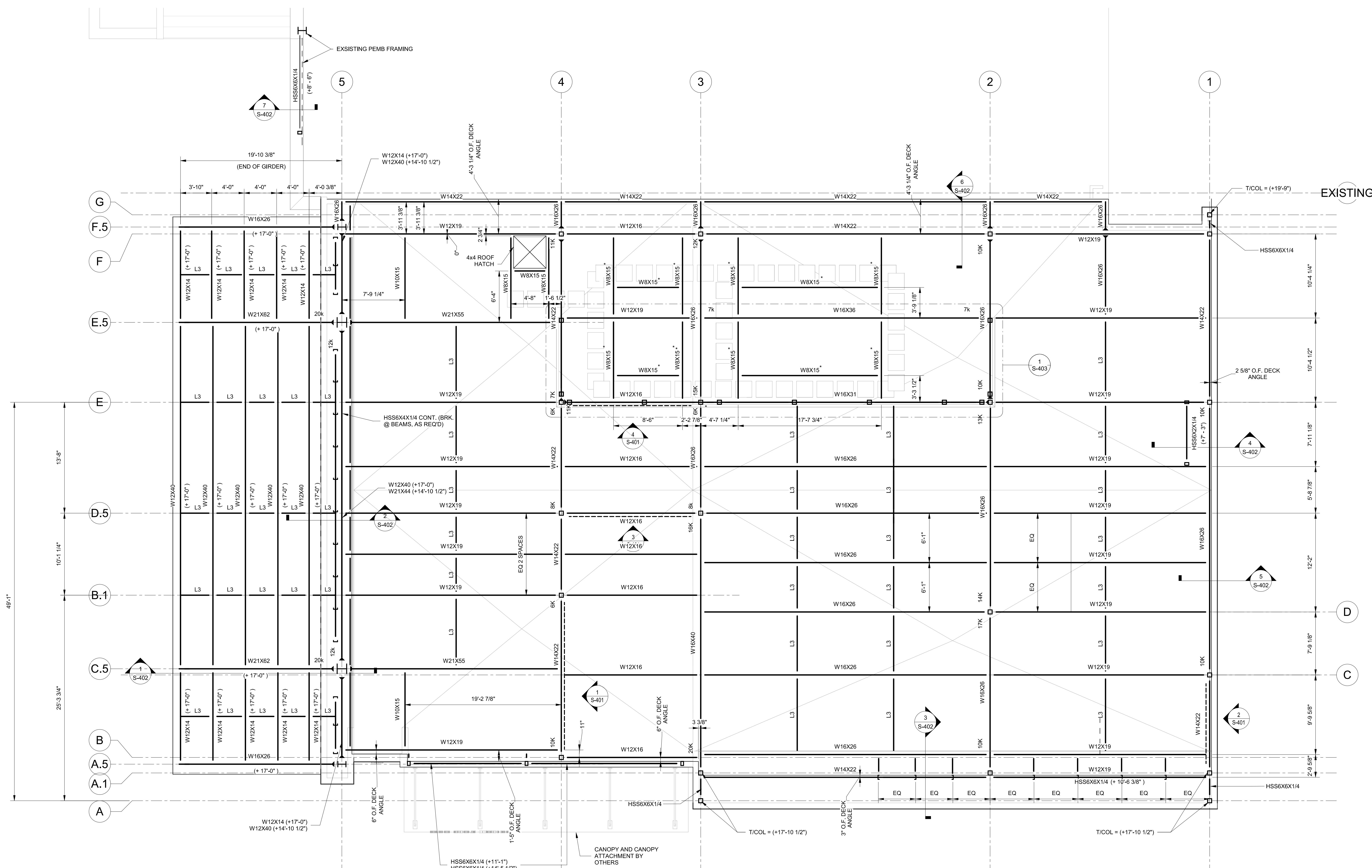
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SHEET NAME:  
ROOF FRAMING  
PLAN

ORIG 2023.04.03  
SUBMISSION:

SHEET: **S-201**

PERMIT SET



1 ROOF FRAMING PLAN  
Scale: 3/16" = 1'-0"

Scale:  $3/16" = 1'-0"$

ROOF PLAN NOTE

- ROOF PLAN NOTES:**
1. SEE ARCHITECTURAL DRAWINGS TO VERIFY ALL DIMENSIONS.
  2. THE ENTIRE MAIN ROOF SHALL RECEIVE 3", 3N-24, 22 GA. 690 GALV. ZPFL ROOF DECK. GRADE 40. MINIMUM SECTION PROPERTIES:  $I_{xx}=0.714 \text{ in}^4$ ,  $I_{yy}=0.889 \text{ in}^4$ ,  $S_{xx}=0.308 \text{ in}^3$ ,  $S_{yy}=0.386 \text{ in}^3$ . PROVIDE 2-SPAN CONDITION. MIN. FASTEN ROOF DECK TO FRAMING MEMBERS WITH HILTI X-HSN 24 PAFs AT A 24B PATTERN, OR 8" O.C. ALONG MEMBERS PARALLEL TO FLUTES. CONNECT NESTED STEEL JOISTS @ 36" O.C. W/ HILTI S-S-LG 1/2" MHHW SIDELAP SCREWS. PUDDLE WELDS ARE NOT PERMITTED. SEE SPECIFICATIONS FOR FURTHER INFORMATION.
  3. THE ENTIRE FRONT CANOPY SHALL RECEIVE 1"12", 1.5B-36, 22 GA. 690 GALV. TYPE "B" ROOF DECK GRADE 50. MINIMUM SECTION PROPERTIES:  $I_{xx}=0.155 \text{ in}^4$ ,  $I_{yy}=0.178 \text{ in}^4$ ,  $S_{xx}=0.169 \text{ in}^3$ ,  $S_{yy}=0.175 \text{ in}^3$ . PROVIDE 2-SPAN CONDITION. MIN. FASTEN ROOF DECK TO FRAMING MEMBERS WITH HILTI X-HSN 24 PAFs AT A 36A PATTERN, OR 6" O.C. ALONG MEMBERS PARALLEL TO FLUTES. NO SIDELAP ATTACHMENT REQUIRED. PUDDLE WELDS ARE NOT PERMITTED. SEE SPECIFICATIONS FOR FURTHER INFORMATION.
  4. T/S/L BEARING = AS NOTED A.F.F. TOP OF STEEL SHOWN (+14'-10"12") IS ABOVE REFERENCED FINISHED FLOOR.
    - DENOTES STEEL BRACING. SEE S-.
    - FOR METAL STUD INFORMATION, SEE STUD NOTES ON SHEET SEE-S-001.
    - FOR COLUMN INFORMATION, SEE FOUNDATIONS/LAB PLAN AND COLUMN SCHEDULE ON SHEET S-.
    - DENOTES BEAM CONDITION. MIN. FAN ROOF ROOF DECK.
    - COORDINATE ALL ROOF OPENINGS WITH ARCHITECTURAL & MECHANICAL DRAWINGS FOR SIZE & LOCATION.
  5. SIGNALLING CONNECTIONS FOR MAXIMUM SERVICE (ASD) REACTIONS SHOWN ON PLANS, U.N.O. SEE STRUCTURAL STEEL NOTES ON S-001. BEAMS WITHOUT A REACTION SHOWN SHALL HAVE CONNECTIONS SIZED FOR A MINIMUM OF 6K.
  6. - DENOTES MOMENT CONNECTIONS TO S- FOR DETAILS.
  7. SUSPENDED LOADS SHALL NOT BE HUNG FROM METAL ROOF DECK. SUSPEND LOADS FROM STRUCTURAL STEEL FRAMING OR FROM UNISTRUT ATTACHED TO STRUCTURAL STEEL FRAMING. OTHERS ARE SIMILAR.
  8. BEAM ANNOTATION: 15k W/14X22 (C = 1/2") 15k
    - END REACTION (ASD), 6K MIN.
    - CAMBER (IF NOT SHOWN, PROVIDE STD. AISI)
    - BEAM SIZE
    - END REACTION (ASD), 6K MIN.
  9. \* DENOTES VERITY RTU SUPPORT FRAMING WITH MECH UNITS
  10. L3 DENOTES L3XX317/ UPLIFT BRACES SEE 11/5401

- END REACTION (ASD), 6k MIN.
- CAMBER (IF NOT SHOWN, PRO
- BEAM SIZE
- END REACTION (ASD), 6k MIN.

1

---

2

3

4

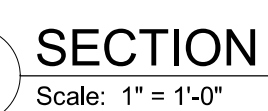
5

**F**





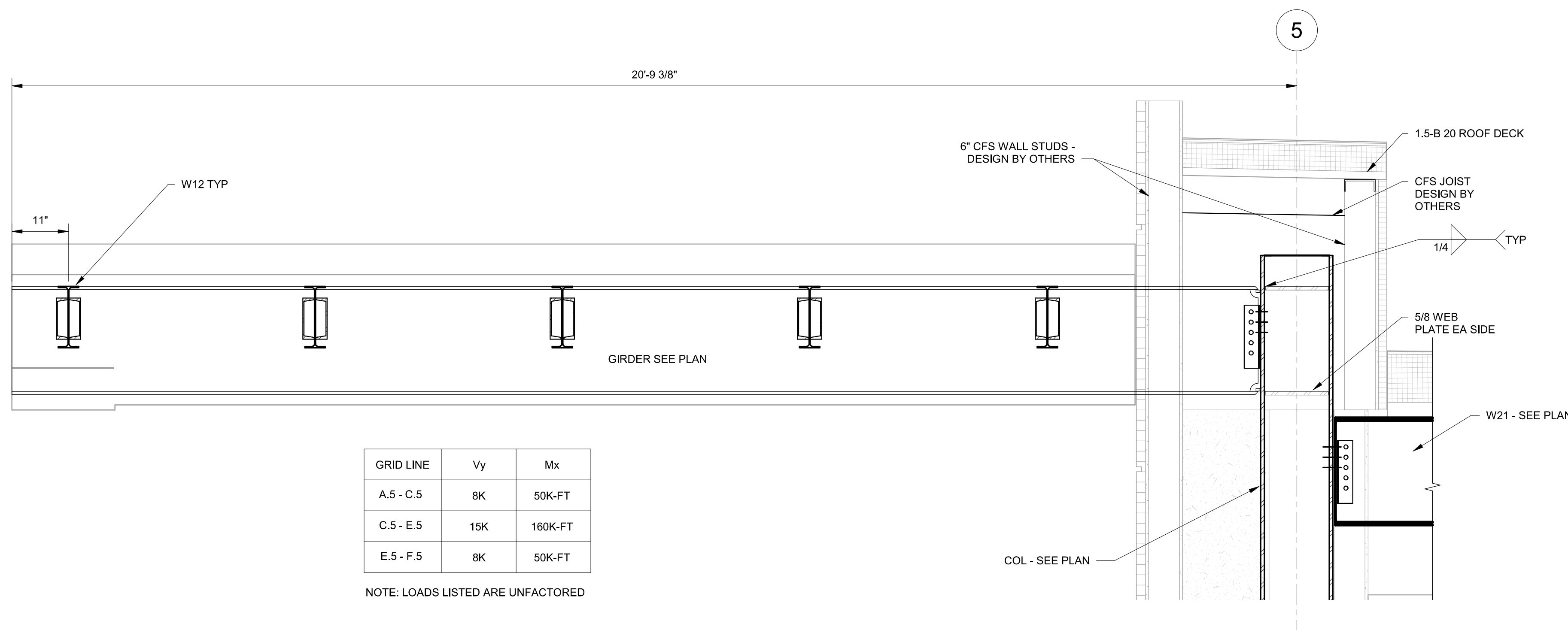




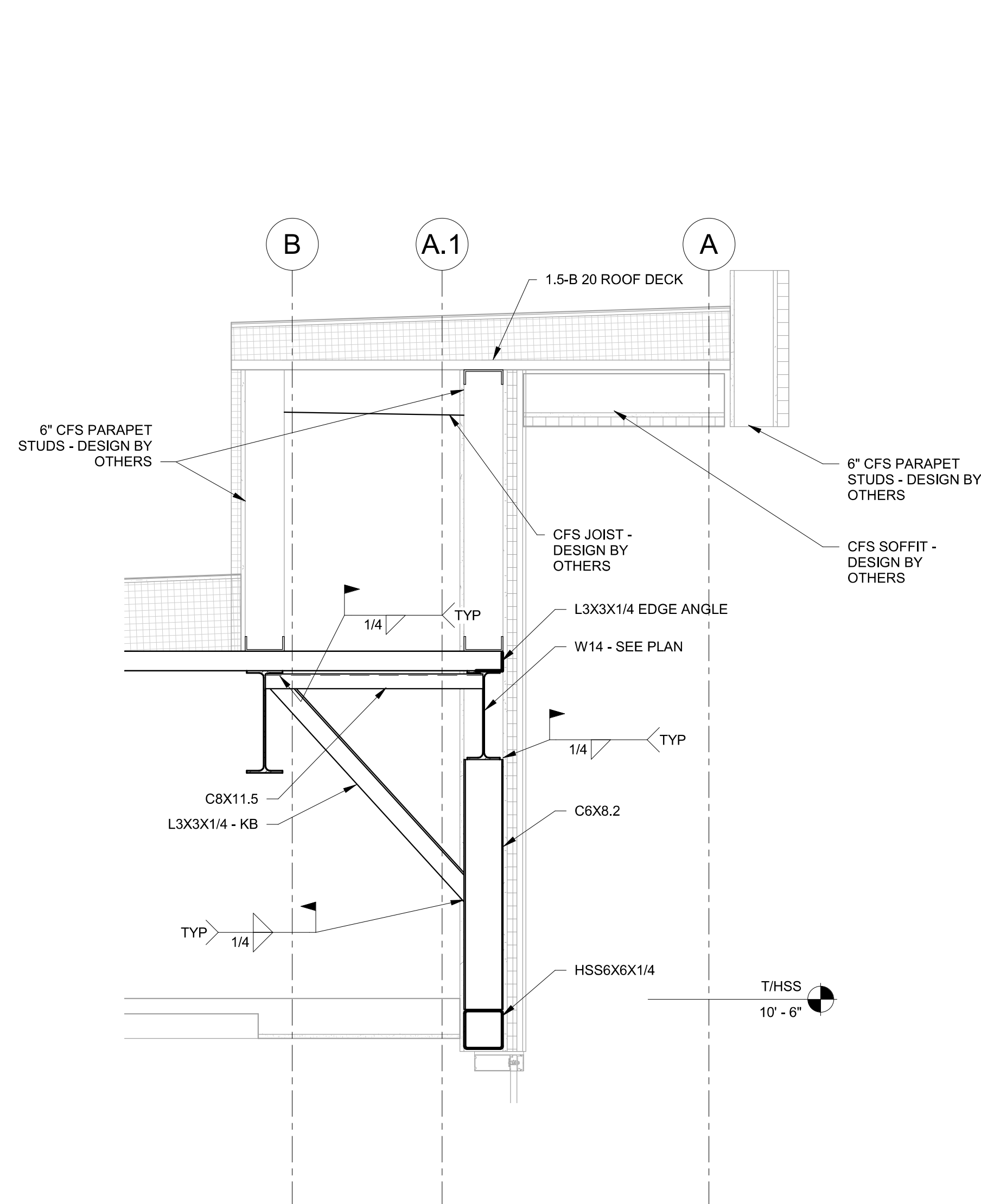




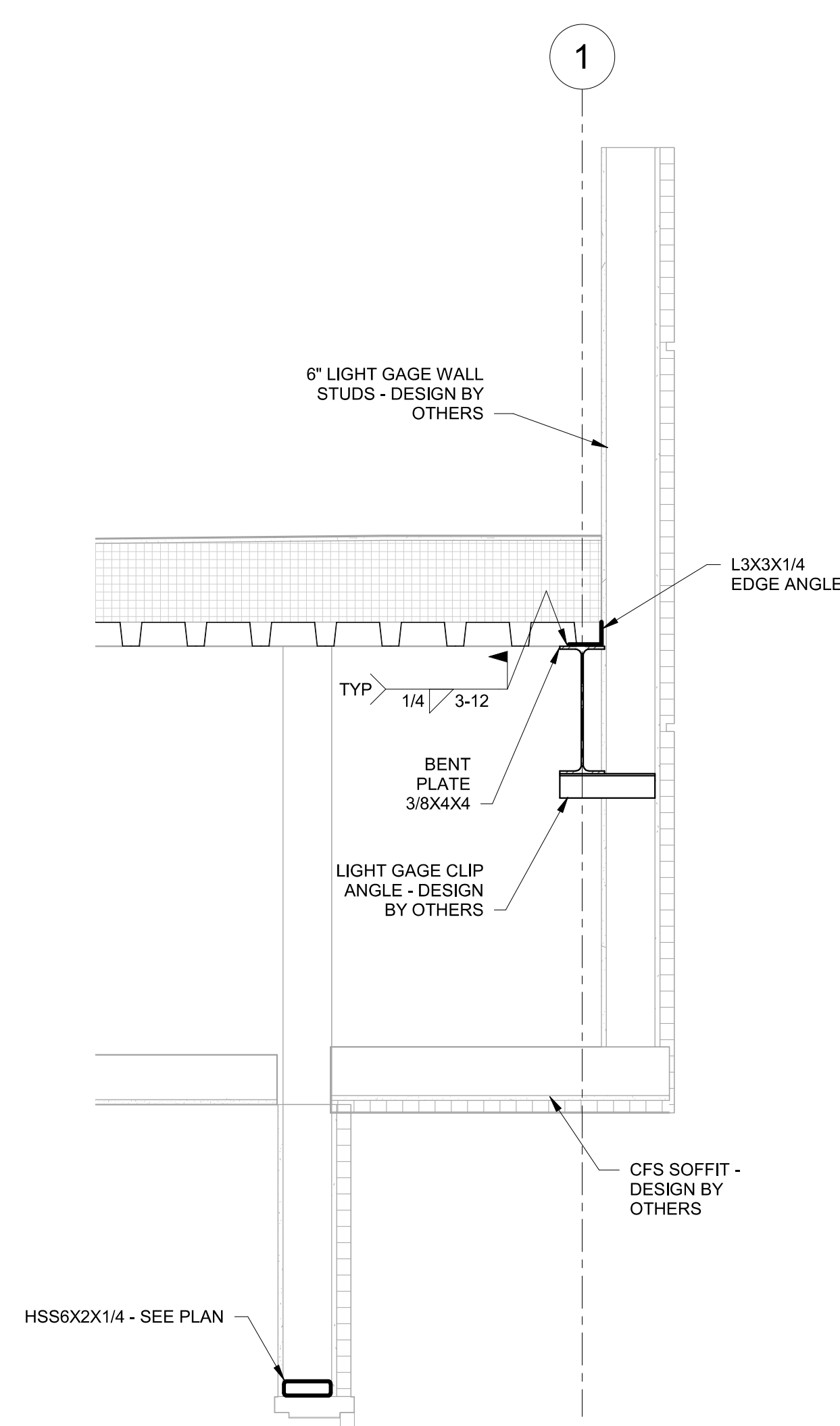




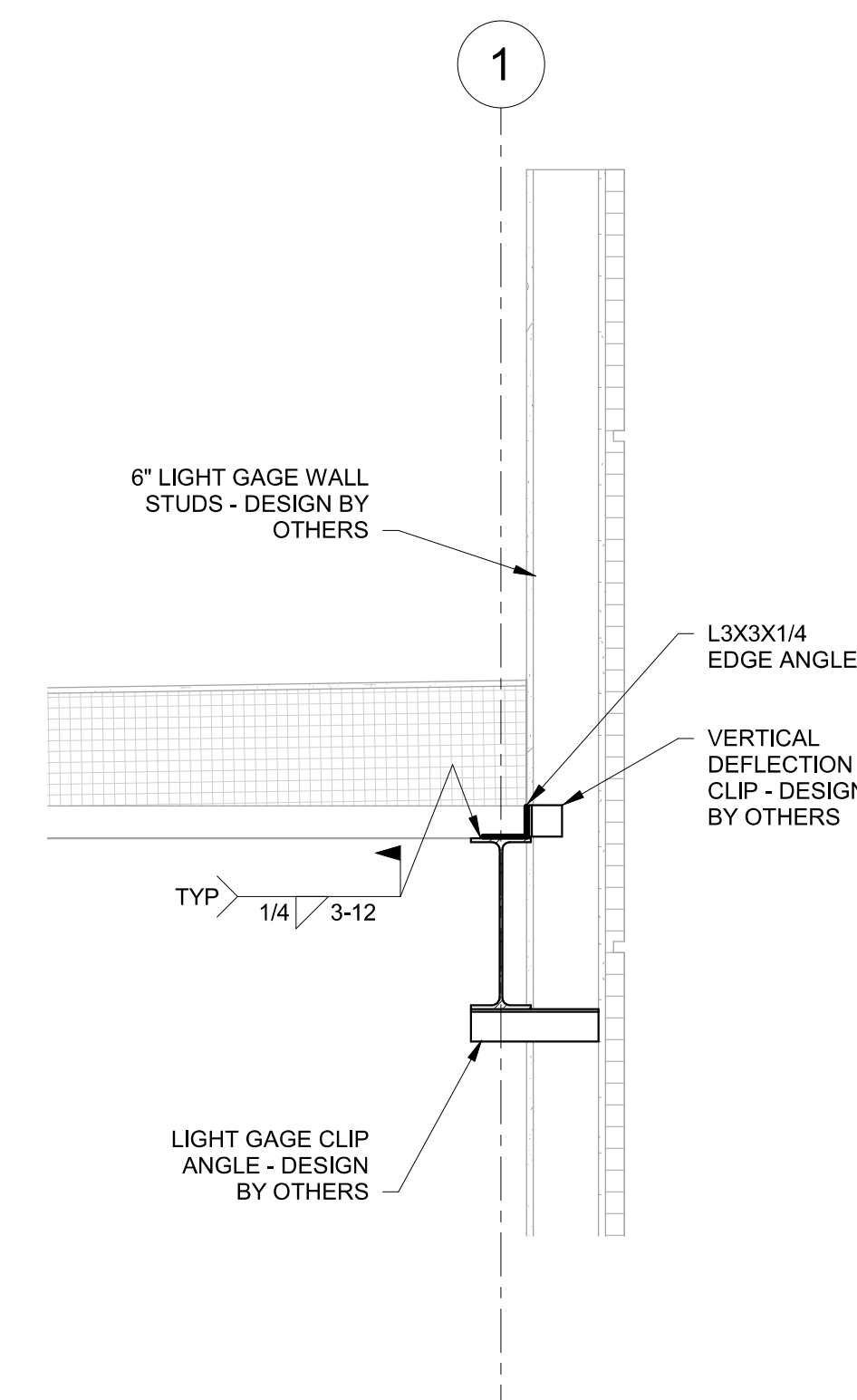
1 FRONT CANOPY @ CANTILEVER BEAM  
Scale: 3/4" = 1'-0"



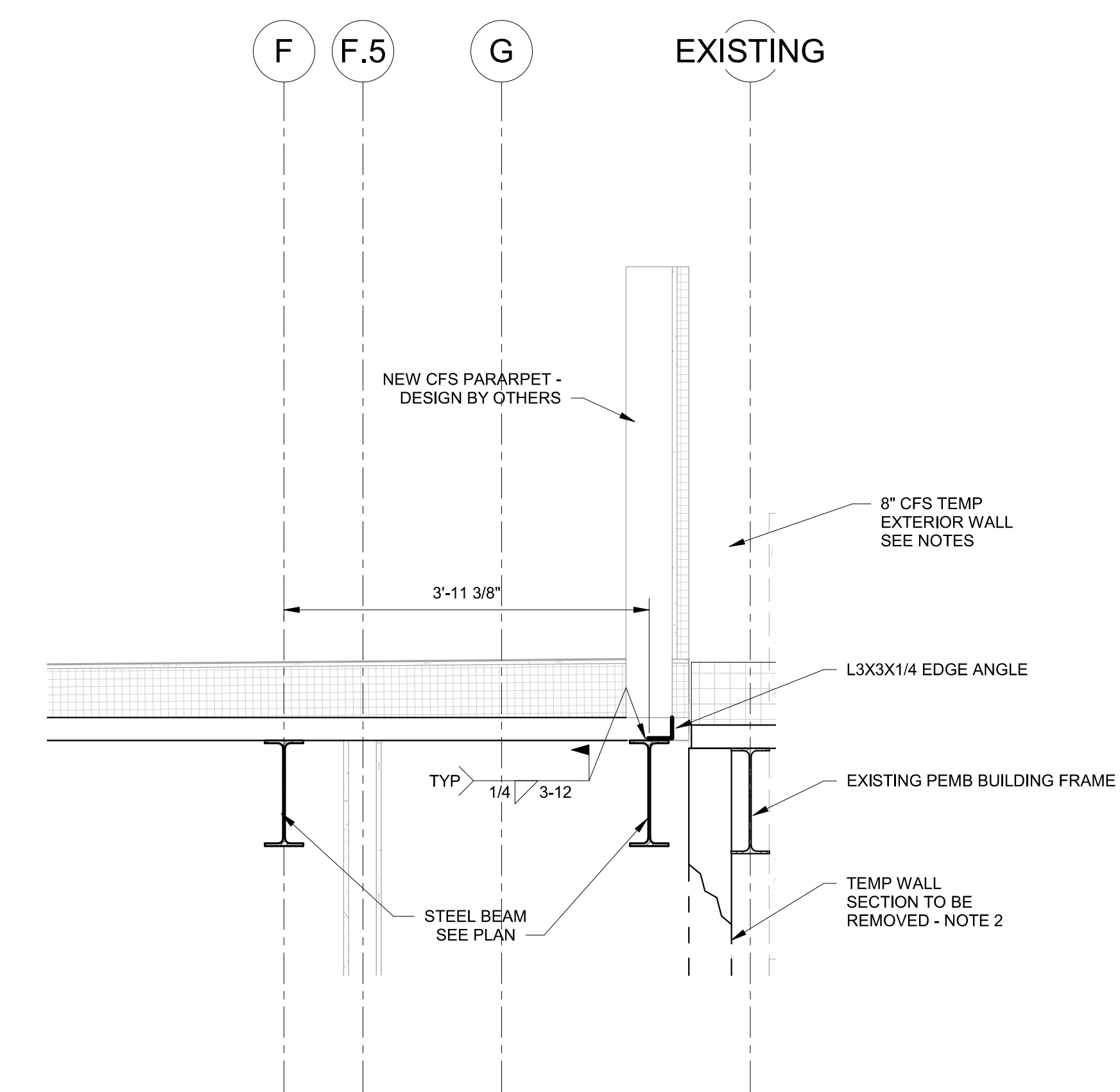
**3 SECTION**  
Scale: 3/4" = 1'-0"



4 SECTION  
Scale: 3/4" = 1'-0"



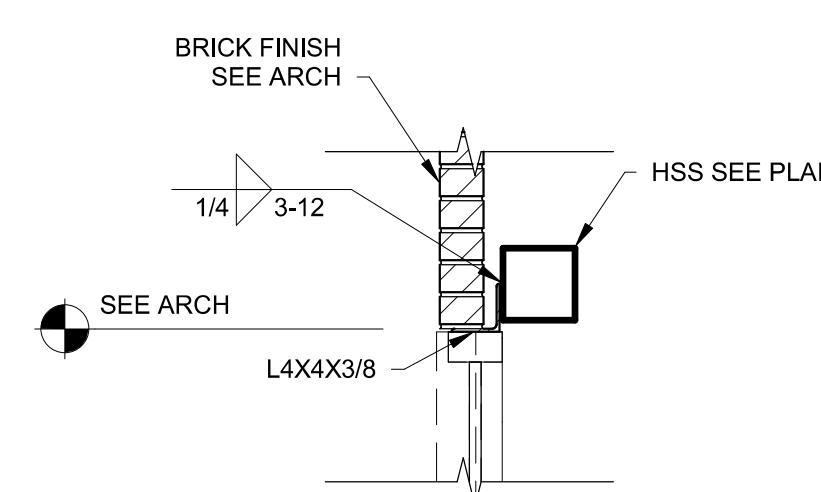
5 SECTION  
Scale: 3/4" = 1'-0"



6 SECTION  
Scale: 3/4" = 1'-0"

NOTES: 1. SEE TEMP EXT WALL PROJECT, PROJECT NUMBER 2022-1516 BY ARDURRA GROUP NORTH AROLINA. SEALED BY JASON TUCKER, PE FOR TEMP EXT WALL FRAMING.

2. REMOVE TEMP EXT WALL AFTER NEW BOE BUILDING HAS BEEN DRIED IN OR AS DIRECTED BY OWNER.



**7** **Section 33**  
Scale: 3/4" = 1'-0"

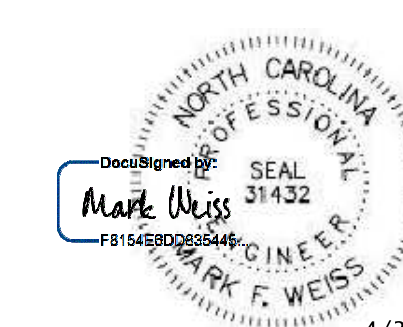


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NC FIRM LICENSE NO F-0113



4/3/2023

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# New Hanover County Board of Elections

230 Government Center Drive  
Wilmington, NC 24803

**-S3P PROJECT: 7702-190810**

[illegible]

**SHEET NAME:**  
**FRAMING DETAILS**

ORIG SUBMISSION: 2023.04.03

**SHEET:**

**S-402**

PERMIT SET