

PROJECT GENERAL NOTES

- 1. THE CONTRACT DOCUMENTS INCLUDE THE WORKING DRAWINGS, ANY ADDENDA, MODIFICATIONS, THE CONDITIONS OF THE CONSTRUCTION CONTRACT...
2. THE CONTRACT DOCUMENTS ARE INSTRUMENTS OF SERVICE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT...
3. THE WORK WILL CONFORM WITH THE REQUIREMENTS OF ALL AGENCIES HAVING JURISDICTION...
4. FURNISH MEANS SUPPLY ONLY FOR OTHERS TO PUT IN PLACE...
5. PROVIDE MEANS FURNISH AND INSTALL, COMPLETE AND IN PLACE...
6. SIMILAR MEANS COMPATIBLE CHARACTERISTICS FOR CONDITIONS NOTED, CONTRACTOR TO VERIFY DIMENSIONS AND ORIENTATION...
7. TYPICAL MEANS IDENTICAL FOR CONDITIONS NOTED...
8. DO NOT SCALE DRAWINGS, DIMENSIONS GOVERN, VERIFY DIMENSIONS WITH FIELD CONDITIONS...
9. HORIZONTAL DIMENSIONS INDICATED ARE TO AND FROM FINISHED FACE OF CONSTRUCTION...
10. VERTICAL DIMENSIONS ARE FROM TOP OF FLOOR SLAB OR DECK...
11. DIMENSIONS ARE NOT ADJUSTABLE WITHOUT APPROVAL OF ARCHITECT UNLESS NOTED...
12. ALL WORK SHALL BE ERECTED AND INSTALLED PLUMB, LEVEL, SQUARE, AND TRUE AND IN PROPER ALIGNMENT...
13. COORDINATE AND PROVIDE BLOCKING/BACKING IN PARTITIONS BEHIND ALL WALL-MOUNTED ITEMS...
14. MAKE ALL NECESSARY PROVISIONS FOR ITEMS TO BE FURNISHED OR INSTALLED BY TENANT...
15. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING CONTRACT DOCUMENTS, FIELD CONDITIONS...
16. GENERAL CONTRACTOR SHALL VERIFY THAT NO CONFLICTS EXIST IN LOCATIONS OF ANY AND ALL MECHANICAL...
17. GENERAL CONTRACTOR AND SUB-CONTRACTORS SHALL COORDINATE THE LAYOUT AND EXACT LOCATION OF PARTITIONS...
18. GENERAL CONTRACTOR SHALL PROVIDE MANUFACTURER'S SPECIFICATIONS INSTALLATION INSTRUCTIONS...
19. EXERCISE EXTREME CARE AND PRECAUTION DURING CONSTRUCTION OF THE WORK TO MINIMIZE DISTURBANCES...
20. WITHIN FIVE (5) DAYS FROM CONTRACT DATE, PREPARE AND SUBMIT AN ESTIMATED PROGRESS SCHEDULE...
21. ALL WORK SHALL COMPLY WITH APPLICABLE CODES, AMENDMENTS, RULES, REGULATIONS, ORDINANCES...
22. ABBREVIATIONS USED IN REFERRING TO STANDARDS THAT APPLY TO THE WORK INCLUDE...
23. IN THE EVENT OF CONFLICTS BETWEEN DATA SHOWN ON DRAWINGS AND DATA SHOWN ON THE SPECIFICATIONS...
24. ONLY NEW ITEMS OF RECENT MANUFACTURE, OF STANDARD QUALITY, FREE FROM DEFECTS WILL BE PERMITTED...
25. THE FINISHED WORK SHALL BE FIRM, WELL ANCHORED, IN TRUE ALIGNMENT, PLUMB, LEVEL WITH SMOOTH...
26. ATTACHMENTS, CONNECTIONS, OR FASTENERS OF ANY NATURE ARE TO BE PROPERLY AND PERMANENTLY SECURED...
27. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE DIMENSIONS AND ELEVATIONS AT THE SITE...
28. NO WORK DEFECTIVE IN CONSTRUCTION OR QUALITY OR DEFICIENT IN ANY REQUIREMENTS OF DRAWINGS...
29. MATERIALS AND WORKMANSHIP SPECIFIED BY REFERENCE TO NUMBER, SYMBOL, TITLE OF SPECIFICATION...
30. CONTRACTOR SHALL WAIVE "COMMON PRACTICE" AND "COMMON USAGE" AS CONSTRUCTION CRITERIA...
31. CONTRACTOR SHALL ORDER AND SCHEDULE DELIVERY OF MATERIALS IN AMPLIFIED TIME TO AVOID DELAYS...
32. IF AT ANY TIME BEFORE COMMENCEMENT OF WORK OR DURING PROGRESS THEREOF...
33. WITH REFERENCE TO CEILINGS, CONTRACTOR SHALL COORDINATE WITH ALL TRADES INVOLVED...
34. REFERENCE TO MARKS, BRANDS, ETC., IS TO ESTABLISH TYPE AND QUALITY DESIRED...
35. CONTRACTOR SHALL APPLY FOR, PAY FOR, AND OBTAIN ALL REQUIRED PERMITS FOR CONSTRUCTION AND OCCUPANCY...
36. PROVIDE SHOP AND/OR SUBMITTALS FOR THE FOLLOWING ITEMS AT THE OWNERS REQUEST: MILLWORK, CASEWORK, AND HARDWARE...
37. PRIOR TO SUBMITTING A QUOTATION FOR THIS WORK, THE CONTRACTOR SHALL REVIEW THESE DRAWINGS...
38. WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH APPLICABLE FIRE, HEALTH, SAFETY AND BUILDING CODES...
39. ALL WORK SHALL BE FREE OF DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION...
40. THE CONTRACTOR SHALL PROVIDE ALL LABOR, GOODS AND SERVICES REQUIRED TO COMPLETE THE WORK...
41. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR DEBRIS REMOVAL, DO NOT ALLOW DEBRIS TO ACCUMULATE...
42. CONTRACTOR SHALL BE RESPONSIBLE FOR KEYING ALL REQUIRED LOCK SETS AND COORDINATING WITH OWNER...
43. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE FIRE EXTINGUISHERS IN HIS WORK SPACE...
44. THESE DRAWINGS ARE TO BE USED FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN...
45. FIELD INVESTIGATIONS SHALL BE MADE TO THE EXTENT NECESSARY TO INSURE NO BUILDING OR ADJACENT TENANT SERVICES...
46. THE EXIT AND EMERGENCY LIGHTS SHOWN ARE FOR GUIDANCE...
47. CONTRACTOR SHALL INSPECT ALL SUBSTRATES PRIOR TO INSTALLING FINISH MATERIALS...

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS (EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)

Name of Project: NC WAKE BOATS
Address: 143 HOLLY SPRINGS CHURCH ROAD
Proposed Use: SHOWROOM & WORKSHOP
Owner/Authorized Agent: DAVID TURNER
City/County: Moore County

2018 NC BUILDING CODE FOR: New Construction
2018 EXIST. BUILDING CODE FOR: Reconstruction
CONSTRUCTED (date):
RENOVATED (date):

BUILDING DATA:
Construction Type: I-A, I-B, II-A, II-B, III-A, III-B, IV, V-A, V-B
Sprinklers: No, Partial, Yes
Standpipes: No, Yes
Fire District: No, Yes
Building Height: 28'-0" Feet

ALLOWABLE AREA:
Primary Occupancy: Business, Educational, Mercantile, Storage
Mixed Occupancy: No, Yes
Actual Area of Occupancy A + Actual Area of Occupancy B <= 1
Allowable Area of Occupancy A = 11,962
Allowable Area of Occupancy B = 14,400

Table with 6 columns: STORY NO., DESCRIPTION AND USE, (A) BLDG AREA PER STORY, (B) TABLE 503.1 AREA, (C) AREA FOR FRONTAGE INCREASE, (D) AREA FOR SPRINKLER INCREASE, (E) ALLOWABLE AREA OR UNLIMITED, (F) MAXIMUM BLDG AREA

- 1. Frontage area increases from Section 506.2 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = 536' (F)
b. Total Building Perimeter = 536' (P)
c. Ratio (F/P) = 1 (F/P)
d. W = Minimum width of public way = 29.6' (W)
e. Percent of frontage increase I_f = 100 [(F/P) - 0.25] x W/30 = 74 (%)

ALLOWABLE HEIGHT table with columns: Building Height in Feet, Building Height in Stories, ALLOWABLE (TABLE 503), SHOWN ON PLANS, CODE REFERENCE

- 1. Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

FIRE PROTECTION REQUIREMENTS table with columns: BUILDING ELEMENT, FIRE SEPARATION DISTANCE (FEET), RATING REQ'D, PROVIDED (FW REDUCTIONS), DETAIL # AND SHEET #, DESIGN # FOR RATED ASSEMBLY, SHEET # FOR RATED PENETRATION, SHEET # FOR RATED JOINTS

LIFE SAFETY SYSTEM REQUIREMENTS

- Emergency Lighting: No, Yes
Exit Signs: No, Yes
Fire Alarm: No, Yes
Smoke Detection Systems: No, Yes
Carbon Monoxide Detection: No, Yes

LIFE SAFETY PLAN REQUIREMENTS

- Life Safety Plan Sheet #, if Provided: CS
Fire and/or smoke rated wall locations (Chapter 7)
Assumed and real property line locations (if not on the site plan)
Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
Exit access travel distances (1017)
Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
Dead end lengths (1020.4)
Clear exit widths for each exit door
Max. calculated egress load capacity each exit door can accommodate based on egress width (1005.3)
Actual occupant load for each exit door
Separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
Location of doors with panic hardware (1010.1.10)
Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
Location of doors with electromagnetic egress locks (1010.1.9.9)
Location of doors equipped with hold-open devices
Location of emergency escape windows (1030)
The square footage of each fire area (202)
The square footage of each smoke compartment for Occupancy Classification 1-2 (407.5)
Note any code exceptions or table notes that may have been utilized regarding the items above

EXIT REQUIREMENTS NUMBER AND ARRANGEMENT OF EXITS

Table with 5 columns: FLOOR, ROOM OR SPACE DESIGNATION, NUMBER OF EXITS REQUIRED, MINIMUM TRAVEL DISTANCE, TRAVEL DISTANCE, ARRANGEMENT MEANS OF EGRESS

- 1. Corridor dead ends (Section 1020.4)
2. Single exits (Table 1006.3.1). Spaces with one egress (Table 1006.2.1)
3. Common Path of Travel (Section 1006.2.1)

EXIT WIDTH table with columns: USE GROUP OR SPACE DESCRIPTION, (a) AREA, (b) CALCULATED OCCUPANT LOAD, (c) PER OCCUPANT, (d) REQUIRED WIDTH, (e) ACTUAL WIDTH

OCCUPANCY LOAD CALCULATION

Table with 4 columns: description, sf, net, IBC Occupancy, sf, net, code, occupant, occ.
Warehouses, Showrooms, Warehouse, Warehouse, Warehouse, Warehouse

plumbing facilities required

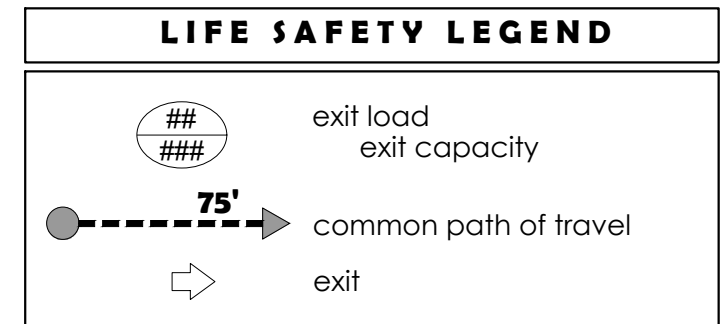
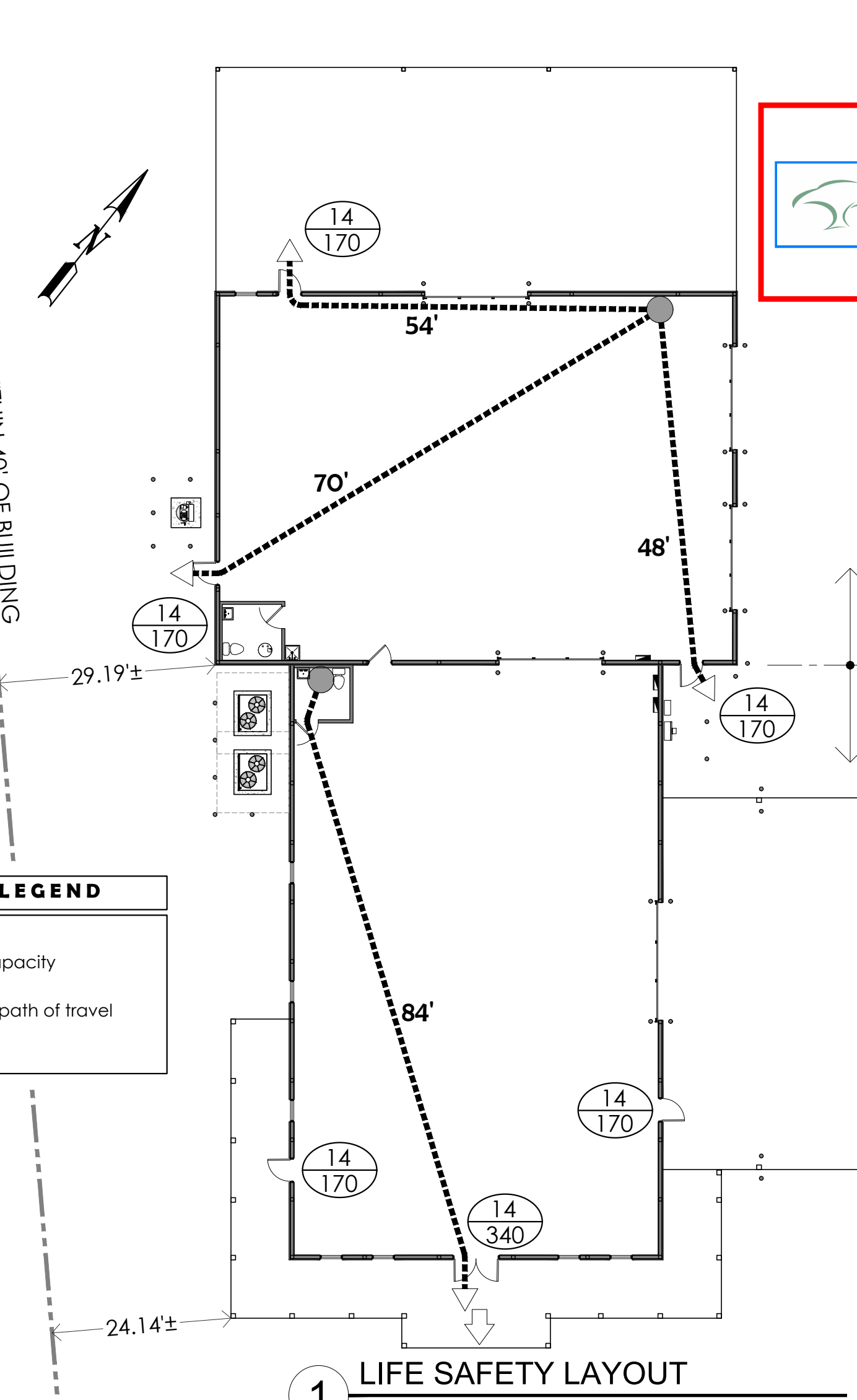
Table with 6 columns: use, total occ, per gender, W.C., lav., D.F., S.S., code references
Required: 1, 1, 1, 1, NA, NA, 403.2(2), 403.3.1

NC IECC Table C402.1.3

Table with 2 columns: location, required requirements, prescriptive
Roof: R-30ci, R-42
Walls: R-13 + R-3.8ci, R-20
Slab: R-15

BONDING OF METAL VENEERS

ELECTRICAL CONTRACTOR SHALL PROVIDE ADEQUATE BONDING OF THE INSTALLED METAL VENEER PANELS, PURSUANT TO SECTION 250 OF THE 2020 NFPA-70 (NEC) WITH NORTH CAROLINA AMENDMENTS AND TO THE SATISFACTION OF THE LOCAL ELECTRICAL CODE OFFICIAL/INSPECTOR HAVING AUTHORITY.



NC WakeBoats Broadway, NC

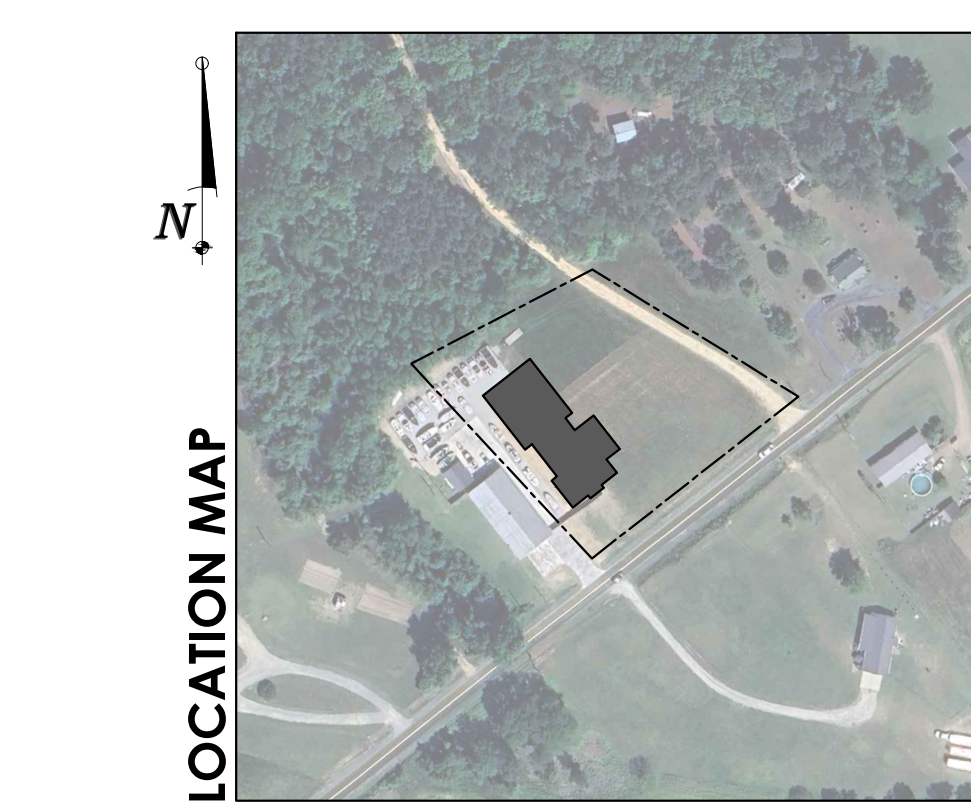
STRUCTURAL

Table with 4 columns: CODE, PROJECT DATA + LIFE SAFETY, RLP, and a grid of checkboxes for structural items like Foundations, Roof Framing, etc.

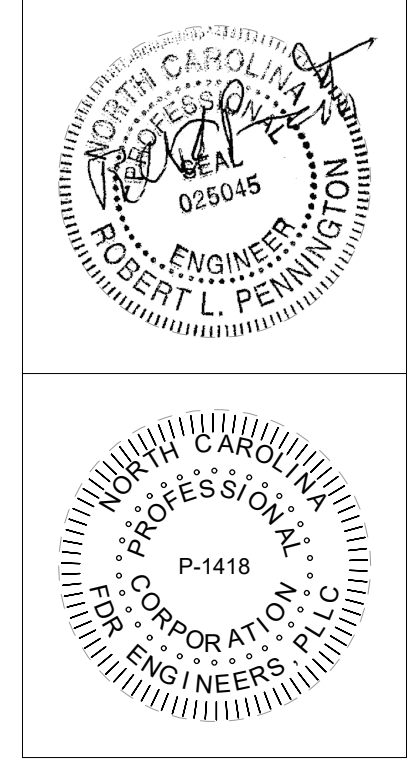
CONTACTS

- David Turner, OWNER, NC WakeBoats, 143 Holly Springs Church Road, 919) 928-1104
Heath M. Hendrick, STRUCTURAL ENGINEER, 13200 Strickland Road, 919) 427-0501
Robert L. Pennington, APPX B & MPE ENGINEER, 7429 Mallow Road, 910) 520-0278
Shawn Breen, APPX B & MPE PM, 860) 387-3017

Reviewed for Fire Code Compliance Roger Sullivan 12/12/2024 3:59:46 PM. Includes Harnett County logo.



FDR Engineers, PLLC logo and contact information: 13200 Strickland Road, Suite # 114, Raleigh, NC 27613. Website: www.fdr-eng.com, Phone: (919) 957-5100.



NC WakeBoats logo and address: 155 Holly Springs Church Road, Broadway, NC 27505. Includes project details: DESIGNED BY: SMB, DRAWN BY: SMB, APPROVED BY: RLP, PROJECT #: R2408270, DATE: 2024-10-23. Includes a revision table and a 'CS' logo.

Ownership of Instruments of Service: All reports, plans, specifications, computer files, field data, notes and instruments prepared by the design professional as instruments of service shall remain the property of the design professional. All common law, statutory and other reserved rights including the copyright, therefore.

STRUCTURAL NOTES**GENERAL NOTES:**

- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR SLEEVES, DEPRESSIONS AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
- ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD AND WITH ALL OTHER DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
- THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING (AND ACCOMPANYING FOOTINGS), GUY'S OR TIEDOWNS.
- ADDITIONAL OBSERVATIONS AS A RESULT OF REJECTION OF WORK COMPLETED AND/OR ADDITIONAL OBSERVATIONS DUE TO THE DEFICIENCIES IN WORK OBSERVED WILL BE AT THE EXPENSE OF THE CONTRACTOR.
- ALL STRUCTURAL SHOP DRAWINGS TO BE REVIEWED BY JOB SUPERINTENDENT IN ADDITION TO ALL PERSONNEL DEEMED NECESSARY BY CONTRACTOR PRIOR TO SUBMITTAL TO ENGINEER FOR APPROVAL.
- ALL SHOP DRAWING RESUBMITTALS SHALL INCLUDE A WRITTEN DETAILED LIST OF LOCATIONS AND DESCRIPTIONS OF ALL CHANGES MADE FROM PREVIOUS SUBMITTAL. LIST SHALL BE SPECIFIC AND GENERAL NOTES SUCH AS "DIMENSIONS CORRECTED" ARE NOT ACCEPTABLE.

DESIGN CODES:

2018 NORTH CAROLINA STATE BUILDING CODE.

ACI 318-19 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY.

2018 NATIONAL DESIGN SPECIFICATIONS (NDS) FOR WOOD CONSTRUCTION

AISC: SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, ALLOWABLE STRESS DESIGN.

DESIGN LOADS:

THE STRUCTURAL SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED WITH THE FOLLOWING SUPERIMPOSED LOADS:

ROOF:
GROUND SNOW LOAD, $P_g = 10$ psf
DESIGN ROOF SNOW LOAD, $P_f = 10$ psf
SNOW EXPOSURE FACTOR, $C_e = 0.9$
SNOW LOAD IMPORTANCE FACTOR, $I_s = 1.0$
THERMAL FACTOR, $C_t = 1.2$
ROOF LIVE LOAD, 20 psf

DESIGN LIVE LOADS:
FLOOR, 100 psf

WIND:
BASIC WIND SPEED (3 SEC GUST) 115 mph
EXPOSURE CATEGORY C
RISK CATEGORY II
WIND BASE SHEARS, $V_x = 17.9k$, $V_y = 46.3k$

COMPONENT & CLADDING:
ALL BUILDING COMPONENTS AND CLADDING ENGINEERED BY THE COMPONENT MANUFACTURER ARE TO BE DESIGNED BY THE MANUFACTURER'S ENGINEER FOR WIND LOADS DETERMINED PER THE NORTH CAROLINA STATE BUILDING CODE FOR THE BASIC DESIGN WIND VELOCITY, IMPORTANCE FACTOR AND EXPOSURE LISTED ABOVE.

SEISMIC:

IMPORTANCE FACTOR, $I_e = 1.0$
USE GROUP C
MAPPED SPECTRAL RESPONSE ACCELERATIONS, $S_s = 0.133g$, $S_1 = 0.067g$
SPECTRAL RESPONSE COEFF., $S_{DS} = 0.149g$, $S_{D1} = 0.108g$

SEISMIC RESISTING SYSTEM:
ORDINARY WOOD SHEATHED SHEAR WALLS

FOUNDATIONS:

FOUNDATIONS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 2,000 psf ON EXISTING SOILS. BEFORE CONSTRUCTION COMMENCES, SOIL BEARING CAPACITY SHALL BE VERIFIED BY A SUBSURFACE INVESTIGATION, A CERTIFIED TESTING LABORATORY, WHOSE REPORT SHALL INCLUDE ANALYSIS AND RECOMMENDATIONS FOR SITE PREPARATION IN ORDER TO BEAR THE FOUNDATION LOADS. ABOVE REPORT SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW BEFORE FOUNDATION CONSTRUCTION BEGINS.

PLUMBING SLEEVES:

MINIMUM SLEEVE SPACING SHALL BE TWO DIAMETERS CENTER TO CENTER TO THE LARGER SLEEVE OR 6" CLEAR BETWEEN SLEEVES, WHICHEVER IS GREATER. PRIOR TO CONSTRUCTION SLEEVE LOCATIONS AND SIZES SHALL BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.

CHEMICAL ANCHORS:

SHALL BE A POLYMER INJECTION SYSTEM SUCH AS RAMSET "EPCON", MOLLY "PARAMOUNT HVC", SIKA "SIKADUR INJECTION SEL", "HILTI-HIGH STRENGTH EPOXY", OR APPROVED EQUAL, INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. INSTALLERS SHALL BE TRAINED BY THE MANUFACTURER'S REPRESENTATIVE.

ANCHOR BOLTS:

SHALL BE A36 THREADED ROD. PROVIDE HOT DIP GALVANIZED FINISH ON ALL ANCHOR BOLTS PERMANENTLY EXPOSED TO EXTERIOR.

CONCRETE TESTING:

1. CONCRETE TESTING SHALL BE PAID FOR BY THE OWNER. TESTING LABORATORY SHALL PERFORM THE FOLLOWING TESTS ON CAST-IN-PLACE CONCRETE:

- ASTM C143 - "STANDARD TEST METHOD FOR SLUMP OF PORTLAND CEMENT CONCRETE"
- ASTM C39 - "STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS". A SEPARATE TEST SHALL BE CONDUCTED FOR EACH CLASS, FOR EVERY 50 CUBIC YARDS (OR FRACTION THEREOF), PLACED PER DAY. REQUIRED CYLINDER(S) QUANTITIES AND TEST AGE AS FOLLOWS:
1 AT 7 DAYS
2 AT 28 DAYS

PROVIDE ONE ADDITIONAL RESERVE CYLINDER TO BE TESTED UNDER THE DIRECTION OF THE ENGINEER, IF REQUIRED. IF 28 DAY STRENGTH IS ACHIEVED, THE ADDITIONAL CYLINDER(S) MAY BE DISCARDED.

PENETRATIONS:

NO PENETRATIONS SHALL BE MADE IN ANY STRUCTURAL MEMBERS OTHER THAN THOSE LOCATED ON THESE DRAWINGS WITHOUT PREVIOUS APPROVAL OF THE ENGINEER.

CONCRETE MIX DESIGN:

1. SHALL BE MIX DESIGNED BY A RECOGNIZED TESTING LABORATORY TO ACHIEVE A STRENGTH AT 28 DAYS AS LISTED BELOW WITH A PLASTIC AND WORKABLE MIX:

3,000 psi -	FOUNDATION WALLS AND FOOTINGS
INTERIOR SLABS ON-GRADE	
4,000 psi -	ALL OTHER CONCRETE

2. SUBMIT PROPOSED MIX DESIGN WITH RECENT FIELD CYLINDER OR LAB TESTS FOR REVIEW PRIOR TO USE. MIX SHALL BE UNIQUELY IDENTIFIED BY MIX NUMBER OR OTHER POSITIVE IDENTIFICATION. CONCRETE SHALL COMPLY WITH ALL THE REQUIREMENTS OF ASTM STANDARD C94 FOR MEASURING, MIXING, TRANSPORTING, ETC. CONCRETE TICKETS SHALL BE TIME STAMPED WHEN CONCRETE IS BATCHED. THE MAXIMUM TIME ALLOWED FROM THE TIME THE MIXING WATER IS ADDED UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED ONE AND ONE HALF (1-1/2) HOURS. IF FOR ANY REASON THERE IS A LONGER DELAY THAN STATED ABOVE, THE CONCRETE SHALL BE DISCARDED. IT SHALL BE THE RESPONSIBILITY OF THE TESTING LAB TO NOTIFY THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR OF ANY NONCOMPLIANCE WITH THE ABOVE. ALL SLABS SHALL BE CURED USING CURING COMPOUND MEETING ASTM STANDARD C309 TYPE I AND SHALL HAVE A FUGITIVE DYE. THE COMPOUND SHALL BE PLACED AS SOON AS THE FINISHING IS COMPLETED OR AS SOON AS THE WATER HAS LEFT THE UNFINISHED CONCRETE. ALL SCURED OR BROKEN AREAS IN THE CURING MEMBRANE SHALL BE RECOATED DAILY. CALCIUM CHLORIDES SHALL NOT BE UTILIZED; OTHER ADMIXTURES MAY BE USED ONLY WITH THE APPROVAL OF THE ENGINEER.

3. CONCRETE SHALL UTILIZE TYPE III CEMENT UNLESS OTHERWISE DIRECTED BY THE GEOTECHNICAL ENGINEER OR GEOTECHNICAL REPORT.

4. THE CONCRETE STRENGTHS SHOWN IN THE SECTION ABOVE AND IN THE SPECIFICATIONS ARE MINIMUM COMPRESSIVE STRENGTHS. THE ENGINEER SHALL DETERMINE IF THE CONCRETE IS ACCEPTABLE, OR TO BE REMOVED, OR TO RECEIVE SPECIAL CURING IF THE COMPRESSIVE STRENGTHS ARE LESS THAN SPECIFIED.

5. ALL CONCRETE EXPOSED TO WEATHER OR EARTH SHALL BE AIR ENTRAINED TO 5% TO 7%.

6. WATER REDUCING AGENTS MAY BE USED IN THE CONCRETE MIX. PLASTICIZERS AND SUPER-PLASTICIZERS MAY BE USED ONLY WHEN WRITTEN PERMISSION OF THE ENGINEER IS GIVEN.

7. NO SALTS OF ANY KIND MAY BE USED IN CONCRETE BEFORE OBTAINING THE ENGINEER'S WRITTEN PERMISSION FOR THEIR USE.

8. CONCRETE FOR TROWEL-FINISHED INTERIOR CONCRETE FLOORS SHALL NOT INCLUDE AN AIR-ENTRAINING ADMIXTURE. THE MAXIMUM AIR CONTENT IN THESE SLABS SHALL NOT EXCEED 3%.

CONCRETE AND REINFORCING PLACEMENT:

1. ALL CONCRETE SHALL BE PLACED IN ACCORDANCE WITH ACI 301 AND ACI 117 EXCEPT AS MODIFIED BELOW:

ACI 117 ITEM 4.3.1.1
ELEVATIONS OF SLABS-ON-GRADE TOP OF SLAB ELEVATION SHALL BE WITHIN A 3/8" ENVELOPE EITHER SIDE OF THE THEORETICAL DESIGN SURFACE.

ACI 117 ITEM 4.5.1.7
FLOOR FINISH TOLERANCES AS MEASURED BY PLACING A FREESTANDING (UNLEVELED) 10 FT. STRAIGHTEDGE ANYWHERE ON THE SLAB AND ALLOWING IT TO REST UPON TWO HIGH SPOTS WITHIN 28 DAYS AFTER SLAB CONCRETE PLACEMENT. THE GAP AT ANY POINT BETWEEN THE STRAIGHTEDGE AND THE FLOOR SHALL NOT EXCEED 1/4".

2. ALL REINFORCING STEEL TO BE ASTM A615, GRADE 60 (#4 AND LARGER), EXCEPT WHERE NOTED OTHERWISE. REINFORCING SHALL NOT BE WELDED.

3. WELDED WIRE FABRIC TO CONFORM TO ASTM A185 AND SHALL BE FREE FROM OIL, SCALE AND RUST. PLACE WWF IN ACCORDANCE WITH THE TYPICAL PLACING DETAILS OF ACI STANDARDS AND THE SPECIFICATIONS. MINIMUM LAPS SHALL BE ONE SPACE PLUS 2".

4. ALL REINFORCING STEEL BARS TO BE DETAILED AND PLACED IN ACCORDANCE WITH THE LATEST ACI MANUALS.

5. LAP ALL REINFORCING SPLICES IN CONCRETE A MINIMUM OF 48 BAR DIAMETERS OR 24 INCHES, WHICHEVER IS GREATER, UNLESS NOTE OTHERWISE ON DRAWINGS (CLASS B SPLICE).

6. PROVIDE CORNER BARS OF SAME BAR DIAMETER AS SPECIFIED FOR THE WALL, BEAM OR FOOTING. PROVIDE MINIMUM OF 40 BAR DIAMETER LAP FOR ALL CORNER BARS, UNLESS NOTED OTHERWISE.

7. PROVIDE FOUNDATION DOWELS AS SHOWN. MINIMUM SIZE DOWELS TO BE #4 UNLESS OTHERWISE NOTED. ALL VERTICAL REINFORCING STEEL IN COLUMNS AND PIERS, OR VERTICAL REINFORCING IN WALLS, SHALL BE DOWELED INTO THE FOOTINGS WITH SAME SIZE AND QUANTITY DOWEL AS THE VERTICAL REINFORCING.

8. WHERE SHOWN ON THE DRAWINGS, PROVIDE WELD PLATES, WELDMENTS, OR CONCRETE INSERTS FOR FASTENING AND SECURING OTHER COMPONENTS. CONCRETE INSERTS SHALL BE FURNISHED BY THE CONTRACTOR REQUIRING THEM AND INSTALLED BY THE CONTRACTOR CASTING THE CONCRETE AROUND THEM. CLIP ANGLES SHALL BE FURNISHED BY THE CONTRACTOR REQUIRING THEM.

9. REINFORCING STEEL SHALL RECEIVE CONCRETE COVER AS FOLLOWS:

DESCRIPTION	MINIMUM COVER
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
EXPOSED TO EARTH OR WEATHER #6 THROUGH #18 BARS	2"
#5 BARS OR SMALLER	1 1/2"
NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH THE GROUND, SLABS AND WALLS	
#11 BARS OR SMALLER	3/4"
#14 AND #18	1 1/2"
BEAMS AND COLUMNS	1 1/2"

10. PROVIDE TWO (2) #5'S, ONE AT EACH FACE, UNLESS NOTED OTHERWISE, AROUND ALL OPENINGS GREATER THAN 12"x12" IN CAST-IN-PLACE CONCRETE. EXTEND REINFORCING 2'-0" BEYOND OPENINGS IN BOTH DIRECTIONS. CONTACT ENGINEER FOR ALL OPENINGS GREATER THAN 12"x12" FOR DESIGN.

11. COLD WEATHER AND HOT WEATHER PROVISIONS OF ACI 308 AND 305 (CURRENT EDITIONS), RESPECTIVELY, SHALL BE MAINTAINED.

12. CONTRACTOR TO FURNISH AND INSTALL 500 LINEAR FT. EACH OF ADDITIONAL #4 & #5 REINFORCING STEEL TO BE USED AT ENGINEER'S DISCRETION.

FORMWORK AND SHORING:

NO STRUCTURAL CONCRETE SHALL BE STRIPPED UNTIL IT HAS REACHED AT LEAST TWO-THIRDS OF THE 28 DAY DESIGN STRENGTH. DESIGN ERECTION AND REMOVAL OF ALL FORMWORK, SHORES AND RESHORES SHALL MEET THE REQUIREMENTS SET FORTH IN ACI STANDARDS 301 AND 347.

WOOD:

1. STRUCTURAL & WOOD COMPONENTS HAVE BEEN DESIGNED AS SOUTHERN YELLOW PINE (SPY) OR HEM-FIR (HF) NO. 2 OR BETTER AND SHALL HAVE THE FOLLOWING MINIMUM ALLOWABLE FIBER STRESSES AND PROPERTIES:

MODULUS OF ELASTICITY (E)	1,300,000 PSI
BENDING (F _b)	850 PSI
SHEAR (F _v)	75 PSI

2. WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PROTECTED OR PRESERVED TREATED IN ACCORDANCE WITH AITC-109.

3. MEMBER SIZES SHOWN ARE NOMINAL UNLESS NOTED OTHERWISE.

4. BOLTS IN WOOD ARE MACHINE BOLTS, UNLESS OTHERWISE NOTED. MACHINE BOLTS SHALL HAVE A SHANK DIAMETER WITHIN 1/16" OF THAT SPECIFIED. BOLTS ARE ASTM 307 STEEL. BOLT HOLES IN WOOD SHALL BE 1/32" OVERSIZE. WHERE STEEL IS CONNECTED TO WOOD, HOLES IN STEEL SHALL BE 1/16" OVERSIZE. PROVIDE STANDARD CUT WASHERS UNDER HEAD AND NUT WHERE BEARING IS AGAINST WOOD. WHERE STEEL SIDE PLATES ARE USED FOR CONNECTION, THE PLATE SHALL BE USED AS A TEMPLATE.

5. ALL WOOD ELEMENTS SHALL BE ATTACHED PER THE FASTENING SCHEDULE OF THE 2012 NCSBC (TABLE 2304 9.1) UNLESS OTHERWISE NOTED.

6. SEE ARCHITECTURAL DRAWINGS FOR WEATHER PROTECTION OF ALL EXPOSED WOOD MEMBERS.

WOOD SHEATHING:

1. PLYWOOD ROOF, FLOOR AND WALL SHEATHING ARE DESIGNED AS DIAPHRAGMS AND SHALL COMPLY WITH APPLICABLE PROVISIONS OF CHAPTER 23 OF THE 2012 NCSBC.

2. SHEATHING SHALL BE FASTENED IN ACCORDANCE WITH PLANS SHOWN SPECIAL NAILING REQUIREMENTS AND WITH THE APPROPRIATE SCHEDULE IN CHAPTER 23, UNLESS NOTED OTHERWISE.

3. IN GENERAL, SHEETS SHALL BE 4'-0"x8'-0" AND SHALL BE LAID WITH FACE PLUS ACROSS FRAMING MEMBERS AND WITH END JOINTS STAGGERED 4'-0". NO PANEL SHALL BE USED WHICH IS LESS THAN 24" IN WIDTH ON FLOORS AND ROOFS. SHEATHING SHALL BE CONTINUOUS ACROSS 2 SPANS, MINIMUM.

PRE-ENGINEERED WOOD ROOF TRUSSES:

1. ENGINEERED WOOD TRUSS SYSTEMS SHALL BE DESIGNED BY SUPPLIER TO THE CONFIGURATION AND LOAD-CARRYING CAPACITY SHOWN ON THE DRAWINGS AND SPECIFICATIONS. TRUSSES SHALL BE DESIGNED TO SUSTAIN SELF WEIGHT OF THE TRUSSES AND UNIFORM LOADS AS INDICATED ON THIS SHEET AND AS FOLLOWS:

A) TOP CHORD: DEAD LOAD = 10 psf
LIVE LOAD = 20 psf
SNOW LOAD = 6.3 psf
WIND LOAD = SEE DESIGN LOADS

B) BOTTOM CHORD: DEAD LOAD = 10 psf
LIVE LOAD = 10 psf

2. WIND LOAD: WHEN CALCULATING NET UPLIFT REACTIONS, USE MAXIMUM RESISTING DEAD LOAD EQUAL TO 6 PSF ON THE TOP CHORD AND 0 PSF ON THE BOTTOM CHORD.

3. ROOF TRUSSES SHALL BE DESIGNED FOR A MAXIMUM VERTICAL DEFLECTION OF L/360 LIVE LOAD AND L/240 TOTAL LOAD.

4. ALTERNATE TRUSS LAYOUTS ARE ACCEPTABLE ONLY AS A CHANGE ORDER WHICH WILL INCLUDE ENGINEERING CHARGES TO THE CONTRACTOR FOR REDESIGN FOR REVIEW PRIOR TO FABRICATION.

5. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. SHOP DRAWINGS SHALL SHOW AND SPECIFY ALL CONNECTOR TYPES UTILIZED WITHIN TRUSSES, AS WELL AS CONNECTORS UTILIZED IN ALL OTHER CONNECTIONS AND ATTACHMENTS BETWEEN TRUSSES OR COMPONENTS SUPPLIED AS PART OF THE ENGINEERED TRUSS SYSTEM. AN ERECTION DRAWING SHALL BE INCLUDED, IDENTIFYING ALL TRUSS SYSTEM COMPONENTS, AS WELL AS ALL PERMANENT BRACING REQUIRED FOR TRUSS DESIGN. SHOP DRAWINGS SHALL BEAR THE SIGNATURE AND SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT LOCATION.

WOOD FRAMING CONNECTIONS:

1. CONNECTOR MODEL NUMBERS SHOWN ARE "Strong-Tie" CONNECTORS AS MANUFACTURED BY "SIMPSON Strong-Tie Co.", 1450 DOOLITTLE DR., PO BOX 1568, SAN LEANDRO, CA 94577. SUBSTITUTIONS ARE ACCEPTABLE ONLY WITH THE APPROVAL OF THE STRUCTURAL ENGINEER.

2. ALL CONNECTORS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM-A653. CONNECTORS IN CONTACT WITH PRESSURE TREATED MATERIALS SHALL HAVE G-185 COATING. CONNECTORS NOT IN CONTACT WITH TREATED MATERIALS SHALL HAVE STANDARD G-60 COATING.

STRUCTURAL STEEL:

1. STEEL SHALL CONFORM TO ASTM A992 (F_y=50 ksi) FOR ALL W-SHAPES, AND ASTM A588 (F_y=58 ksi) FOR ALL OTHER MISCELLANEOUS SHAPES AND PLATES. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B (F_y=46 ksi). STRUCTURAL PIPE SHALL CONFORM TO ASTM A53, GRADE B, TYPE "E" OR "S" (F_y=42 ksi).

2. STEEL SHALL CONFORM TO THE LATEST EDITION OF "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC (AISC).

3. ALL STRUCTURAL STEEL EXPOSED TO EXTERIOR SHALL BE HOT-DIPPED GALVANIZED.

4. ALL SHOP CONNECTIONS TO BE WELDED (UTILIZING E70XX ELECTRODES) AND FIELD CONNECTIONS TO BE BOLTED, UNLESS OTHERWISE NOTED. STEEL TO RECEIVE ONE SHOP COAT AND ONE FIELD TOUCH UP COAT OF APPROVED PAINT, EXCEPT WHERE GALVANIZED IS INDICATED ON THE DRAWINGS.

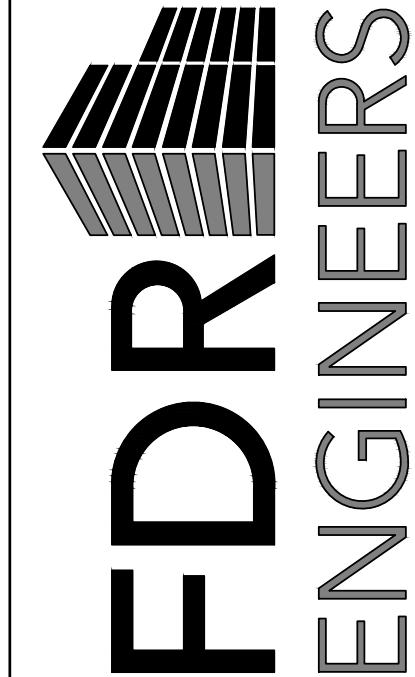
5. WELDS FOR ALL EXPOSED STRUCTURAL STEEL SHALL BE GROUND SMOOTH UNLESS NOTED OTHERWISE.

6. ALL BOLTED CONNECTIONS SHALL CONSIST OF 3/4" DIAMETER (MIN.) ASTM A325 HIGH STRENGTH BOLTS, UNLESS NOTED OTHERWISE. BEAM CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR TO SUPPORT AN END REACTION OF WELZ KIPS IN ACCORDANCE WITH PART 2 - "BEAM AND GIRDER DESIGN" OF THE MANUAL OF STEEL CONSTRUCTION (9th EDITION), BUT CONNECTIONS SHALL NOT HAVE LESS THAN 2 ROWS OF BOLTS. SEE ALSO DOUBLE ANGLE AND SHEAR TAB CONNECTION SCHEDULE(S) WHERE APPLICABLE.

7. CONTRACTOR TO FURNISH AND INSTALL 500 lbs. OF ADDITIONAL MISCELLANEOUS STEEL TO BE USED AT ENGINEER'S DISCRETION.

STRUCTURAL ABBREVIATIONS:

ABBREV.	DEFINITION
AB	ANCHOR BOLTS
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
ARCH	ARCHITECT
BCX	BOTTOM CHORD EXTENSION
BF	BELOW FINISHED FLOOR
BOT	BOTTOM
B.O.xx	BOTTOM OF xx
BOC	BOTTOM OF STEEL
BULD	BUILDING
BU	BEAM
BRG	BEARING
CANT	CANTILEVER
CH	CENTERLINE
CJ	CONTROL JOINT
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CP	COMPLETE PENETRATION
DBA	DOUBLE BAR ANCHOR
DBL	DEFORMED BAR ANCHOR
DEG	DEGREE
DET.DTL	DETAIL
DI	DIAMETER
DIAG	DIAGONAL
DM	DIMENSION
DK	DECK
DN	DOWN
DWGS	DRAWINGS
DWL	DOWEL
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
EL ELEV	ELEVATION
EMBED	EMBEDDED / EMBEDMENT
ENGR	ENGINEER
EQ	EDGE OF DECK
EOL	EDGE OF STEEL
EQAL	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FIN	FINISH
FLOOR	FLOOR
FLR	FLOOR DRAIN
FOU	FOUNDATION
FMS	FACE OF MASONRY
FOW	FACE OF WALL
FTG	FOOTING STEP
FV	FIELD VERIFY
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GH	HIGH
HORZ	HORIZONTAL
HSE	HIGH STRENGTH EPOXY
HSS	HOLLOW STRUCTURAL SECTION
INS	INSIDE FACE
INT	INTERIOR
JOINT	JOINT
K	KIPS = 1000 LBS
KB	KNEE BRACE
KB2	KIPS PER SQUARE INCH
KLF	KIPS PER LINEAR FOOT
LBS	POUNDS
LL	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LOW	LOW
LOC	LOCATIONS
LSL	LAMINATED STRAND LUMBER
LVL	LAMINATED VENEER LUMBER
LW	LONG WAY
LWC	LIGHT WEIGHT CONCRETE
MAS	MASONRY
MAX	MAXIMUM
MC	MOMENT CONNECTION
MECH	MECHANICAL
MFR	MANUFACTURER
MID	MIDDLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MP	MASONRY PILING
MTL	METAL
NO #	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
NWC	NORMAL WEIGHT CONCRETE
OC	ON CENTER
OF	OPPOSITE HAND
OPNG	OPENING
PAF	POWDER ACTUATED FASTENER
PC	PRECAST
PE	PER-ENGINEERED
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
P5I	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
PT	PRESSURE TREATED
R	RADIUS
REF	REFERENCE
REINF	REINFORCEMENT
REQD	REQUIRED
REV	REVISION
SCD	SLIP CRITICAL
SCHD	SCHEDULE
SIS	SELF DRILLING SCREW
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SL	SLAB
SOG	SLAB ON GRADE
SP	SPECIAL JOIST
SPEC	SPECIFICATION
SQ	SQUARE
STD	STANDARD
STL	STEEL
SW	SHORT WAY
SYM	SYMMETRICAL
TCX	TOP CHORD EXTENSION
TAB	TOP AND BOTTOM
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TOW	TOP OF WALL
T.O.xx	TOP OF xx
THK	THICKNESS
TJ	TIE JOIST
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VRT	VERTICAL
VIF	VERIFY IN FIELD
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH



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WAKEBOARD DEALERSHIP

SANFORD, NC

Project Name

GENERAL NOTES

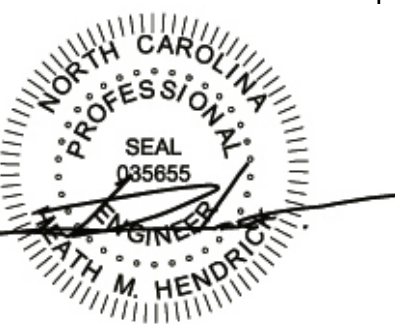
Sheet Title

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DRAWN BY:	AJI	
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Sheet

S1.1

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WAKEBOARD DEALERSHIP
SANFORD, NC

Project Name

FOUNDATION PLAN

Sheet Title

DESIGNED BY: AJI

DRAWN BY: AJI

APPROVED BY: HMH

PROJECT #: 24-067

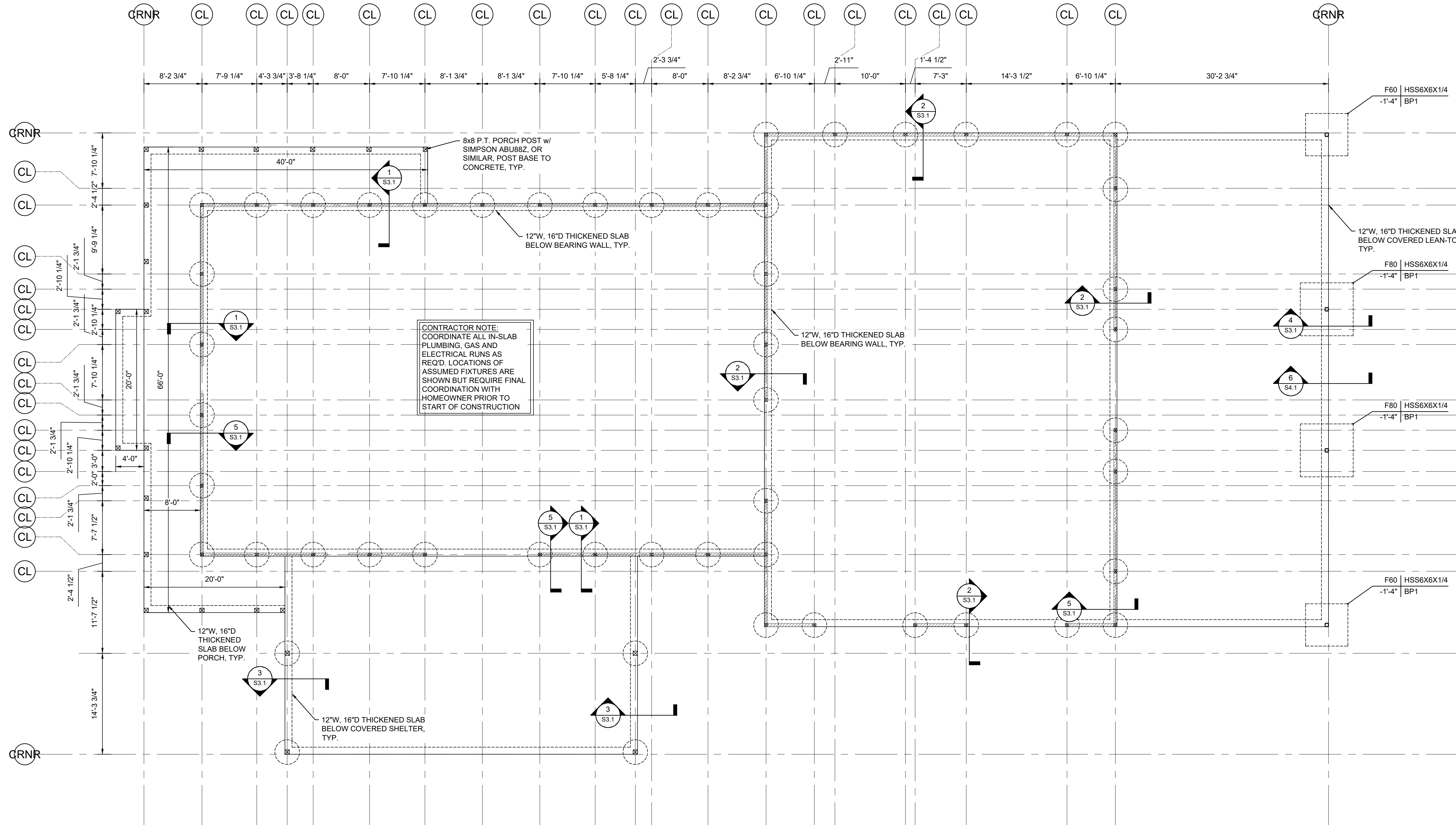
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S2.1

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CONTRACTOR NOTE:
COORDINATE ALL IN-SLAB
PLUMBING, GAS AND
ELECTRICAL RUNS AS
REQ'D. LOCATIONS OF
ASSUMED FIXTURES ARE
SHOWN BUT REQUIRE FINAL
COORDINATION WITH
HOMEOWNER PRIOR TO
START OF CONSTRUCTION

SPREAD FOOTING SCHEDULE		
MARK	SIZE	REINFORCING
F60	6'-0"x6'-0"x12"	(7)-#4 E.W. TOP & BOT
F80	8'-0"x8'-0"x12"	(9)-#4 E.W. TOP & BOT

1 FOUNDATION PLAN
Scale: 1/8" = 1'-0"

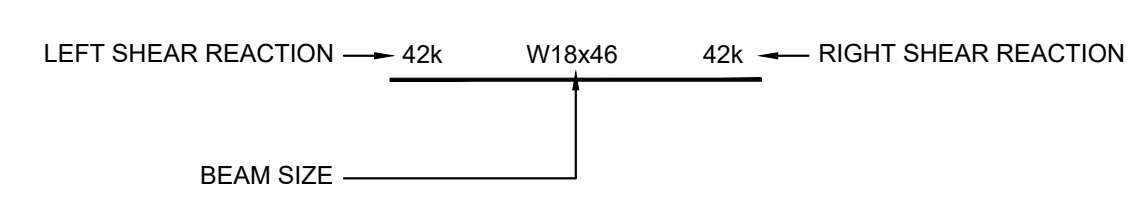
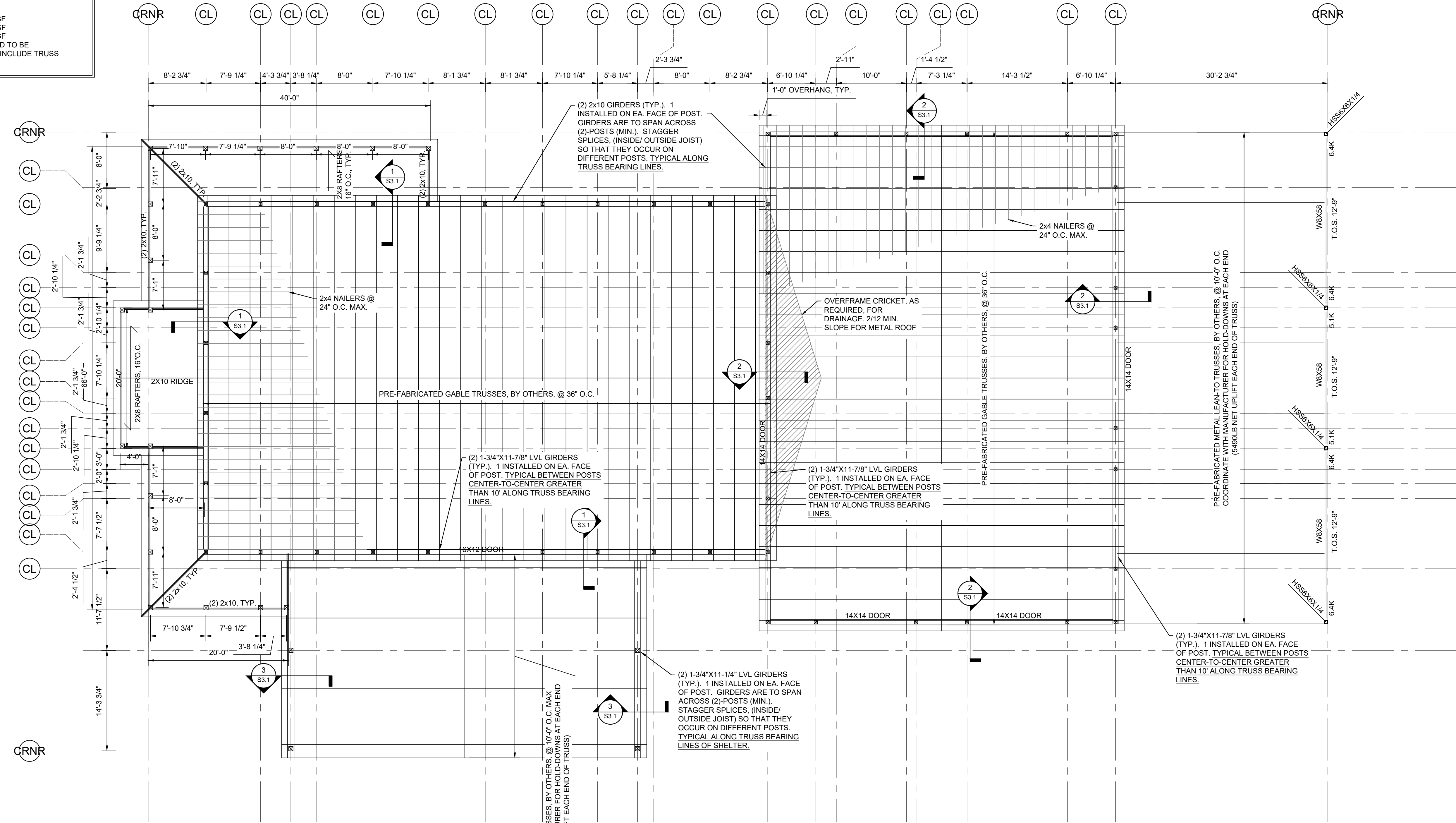
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TRUSS DESIGN NOTES:

1. TRUSS MANUFACTURER SHALL BE RESPONSIBLE FOR FINAL TRUSS DESIGN, TO INCLUDE CALCULATIONS, LAYOUT, AND ALL NECESSARY BRACING AND BRIDGING DETAILS AS REQD. FOR PERMANENT STABILITY OF TRUSS SYSTEM.
2. TRUSSES AND THEIR COMPONENTS ARE TO BE DESIGNED TO RESIST THE COMPONENT AND CLADDING WIND PRESSURES OUTLINED ON SHEET S1.0.
3. TRUSSES ARE TO BE DESIGNED TO SUPPORT THE FOLLOWING SUPERIMPOSED LOADING UNLESS NOTED OTHERWISE:

TOP CHORD LL: 20 PSF
TOP CHORD DL: 10 PSF*
BOTTOM CHORD DL: 5 PSF*

NET UPLIFT (MAIN): 21.3PSF
NET UPLIFT (SHELTER): 36.6PSF
NET UPLIFT (LEAN-TO): 36.6PSF
*DEAD LOADS ARE CONSIDERED TO BE SUPERIMPOSED, AND DO NOT INCLUDE TRUSS SELF-WEIGHT



*IF NO REACTIONS ARE PROVIDED, CONNECTIONS ARE TO BE DESIGNED FOR MINIMUM SHEAR REACTION OF 4k AND MINIMUM MOMENT REACTION OF 4k-ft

1 ROOF FRAMING PLAN
Scale: 1/8" = 1'-0"

FRAMING PLAN NOTES:

1. [Hatched area symbol] DENOTES LOAD BEARING WALL. ALL EXTERIOR WALLS SHALL BE SHEATHED WITH 7/16" APA 2448 SPAN RATED OSB SHEATHING WITH EDGE BLOCKING. NAIL SHEATHING WITH 8d NAILS @ 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.
2. ALL EXTERIOR WALL FRAMING TO BE 2x6. ALL INTERIOR FRAMING TO BE 2x4, UNLESS NOTED OTHERWISE.
3. ALL ROOF SHEATHING SHALL BE APA 32/16 SPAN RATED SHEATHING, 19/32" THICK (5/8" NOMINAL). PROVIDE H-CLIPS, U.N.O.
4. (#) INDICATES NUMBER OF STUDS IN POST SUPPORTING FRAMING MEMBER. STUD POSTS SHALL EXTEND FROM BEARING DOWN TO SOLID FOUNDATION AND SHALL INCLUDE SOLID BLOCKING THROUGH FLOOR STRUCTURE DEPTH WHERE APPLICABLE. PROVIDE A MINIMUM OF (3) STUDS AT ALL BEAM BEARINGS UNLESS OTHERWISE NOTED ON PLAN.
5. ALL EXTERIOR, AND INTERIOR LOAD-BEARING HEADERS TO BE CONSTRUCTED w/ MIN. (2)-2x10 AND SUPPORTED BY (2) JACK STUDS AND (2) KING STUD UNLESS NOTED OTHERWISE.
6. PROVIDE SIMPSON H10A CLIPS AT THE ENDS OF ALL ROOF FRAMING MEMBERS U.N.O.



WAKEBOARD DEALERSHIP
SANFORD, NC

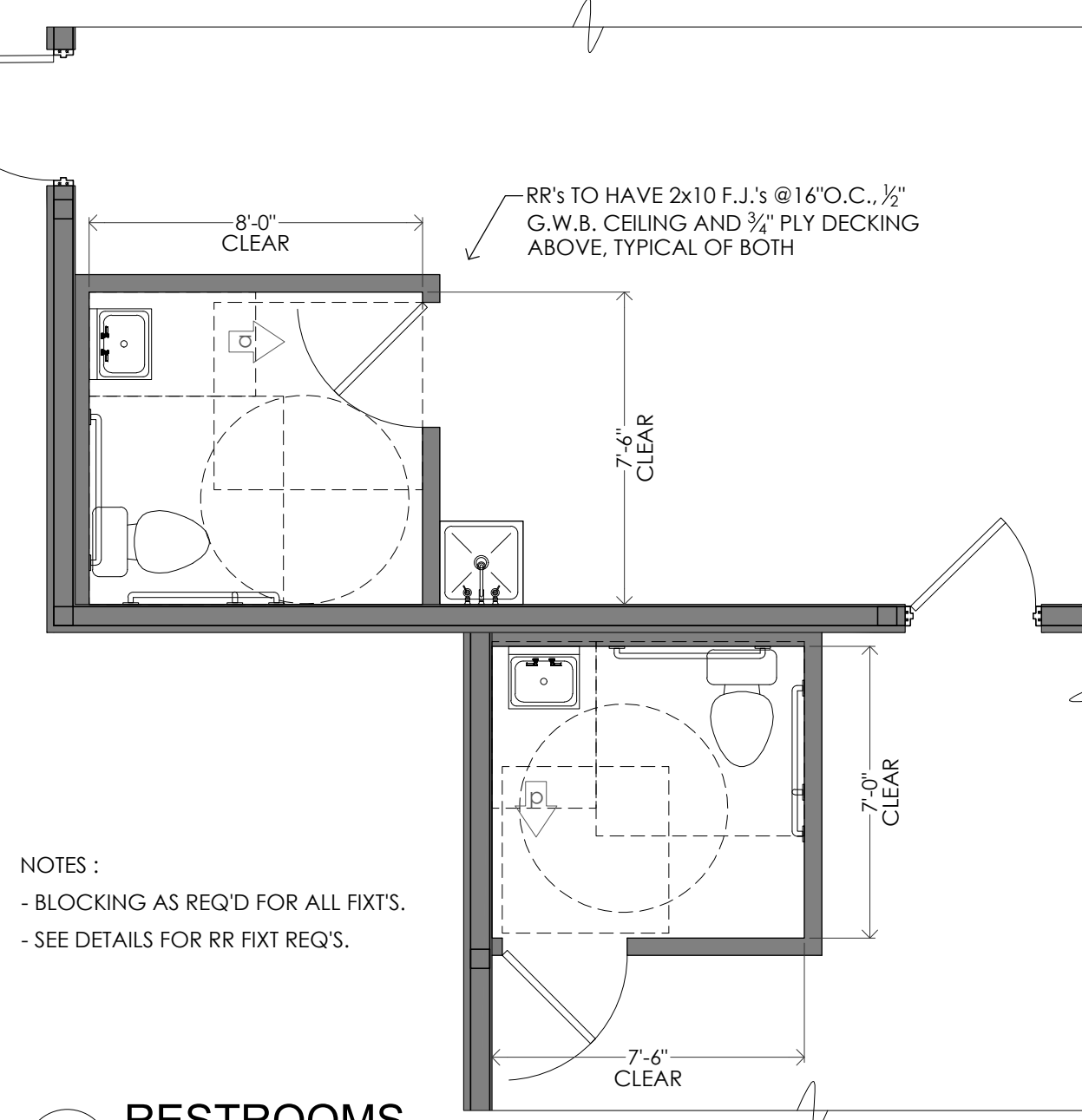
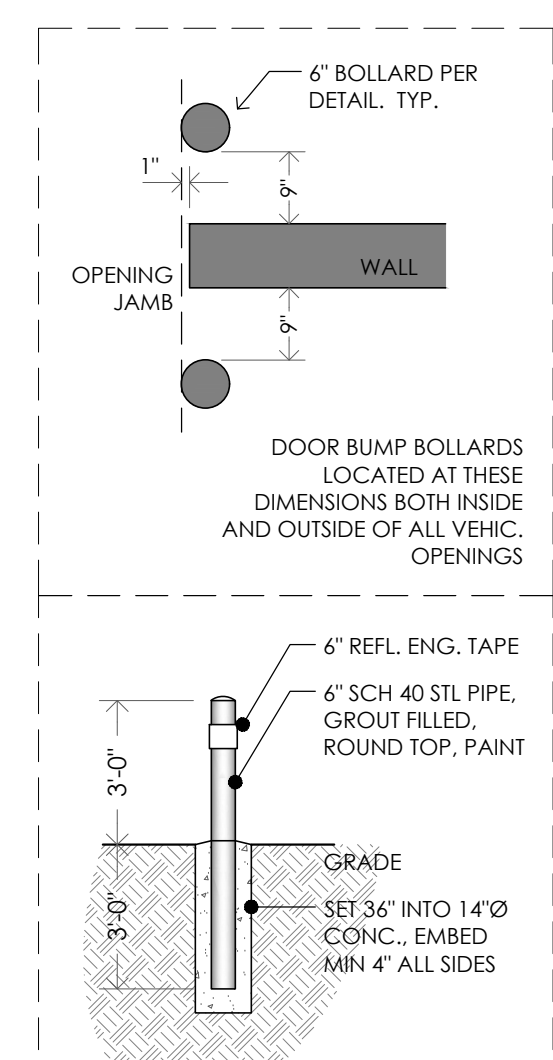
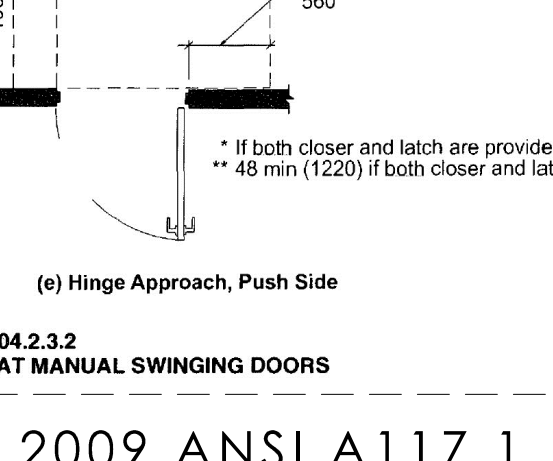
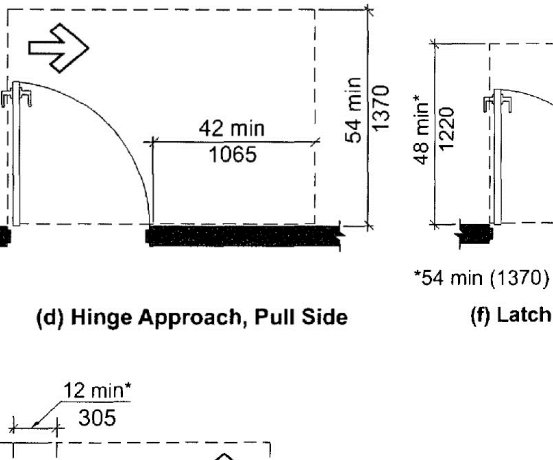
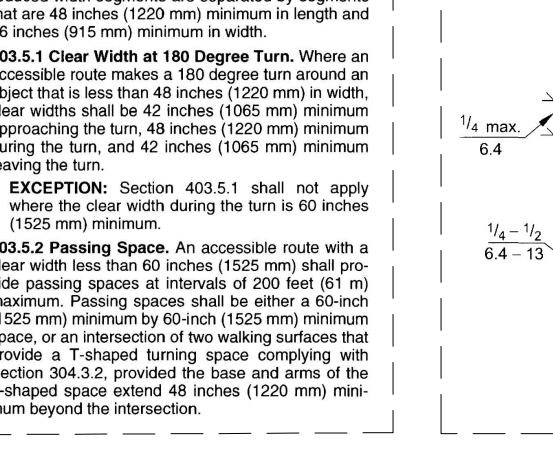
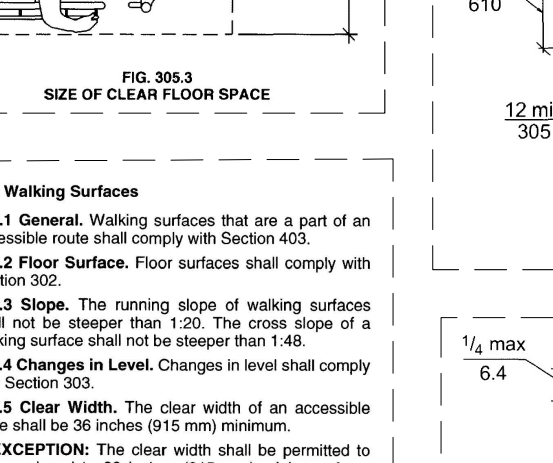
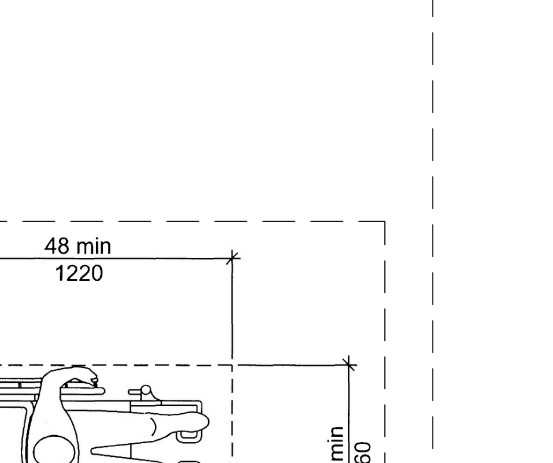
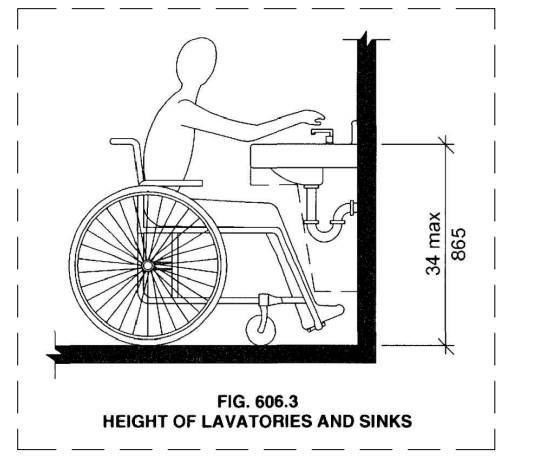
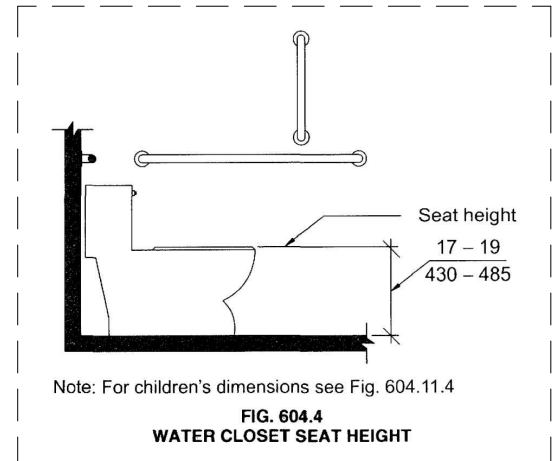
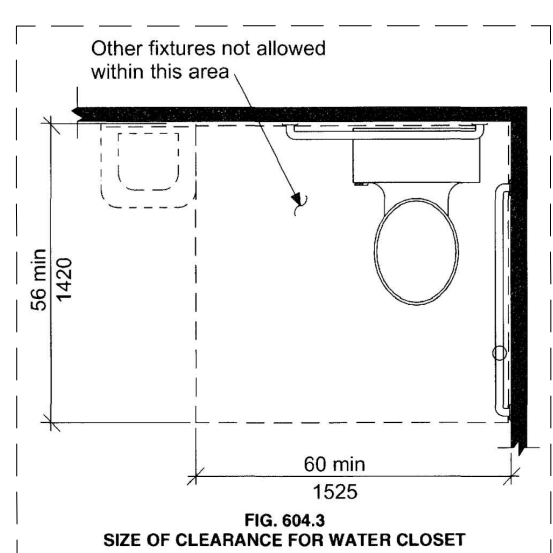
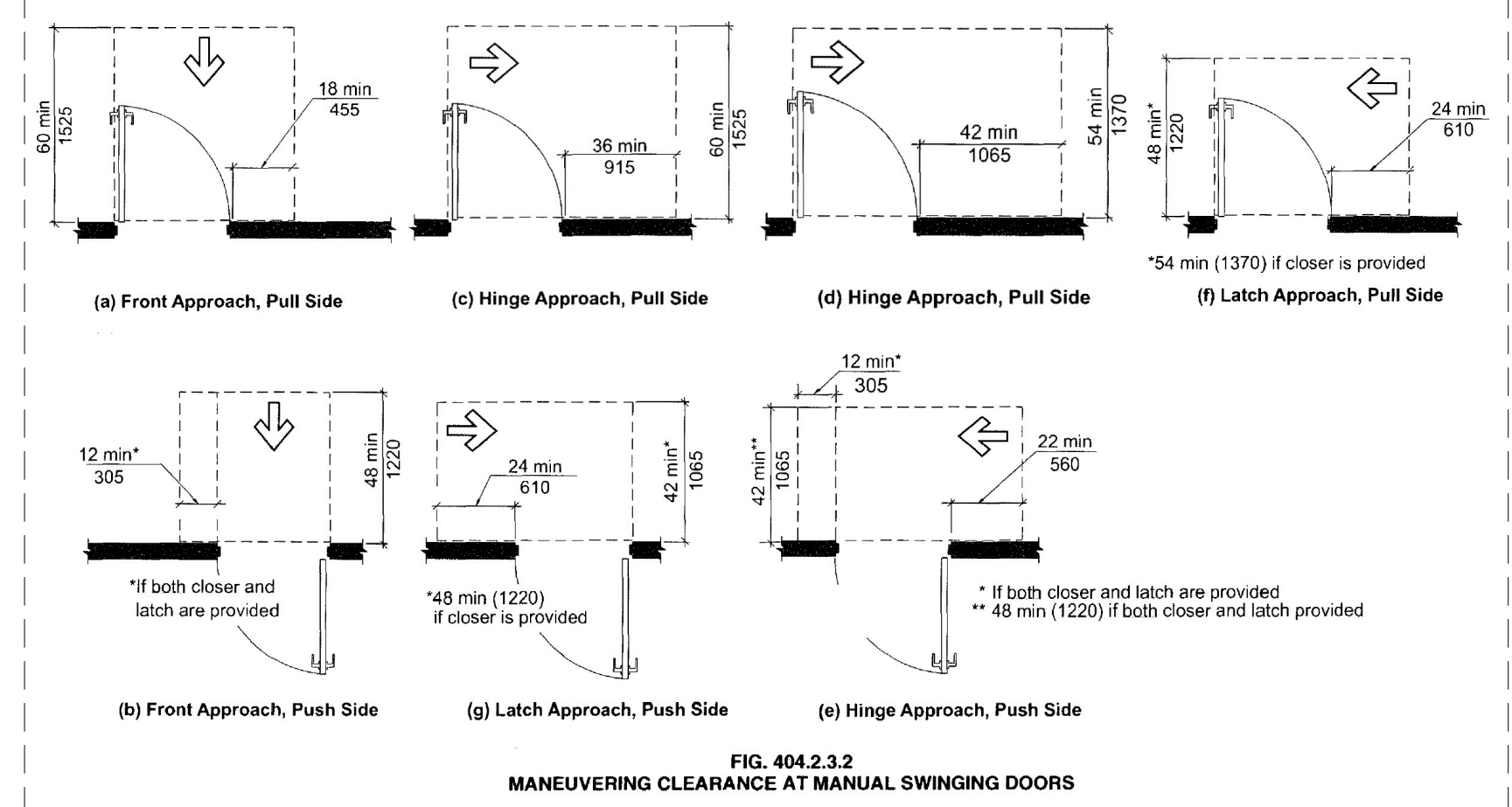
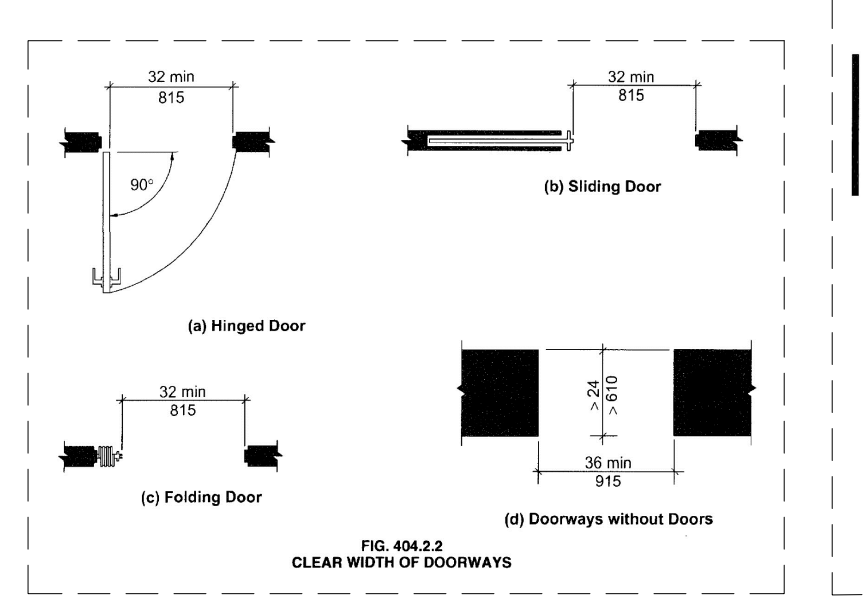
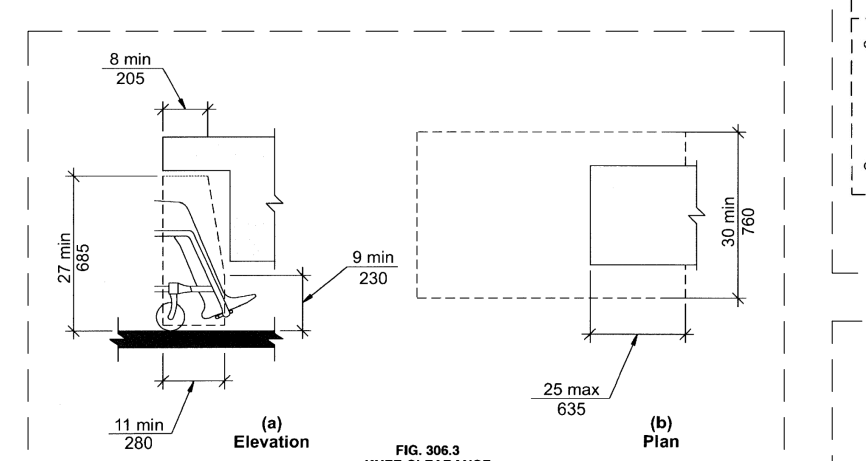
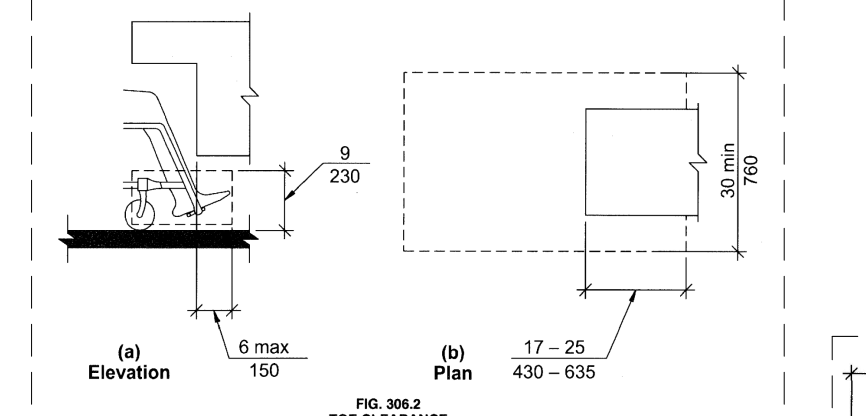
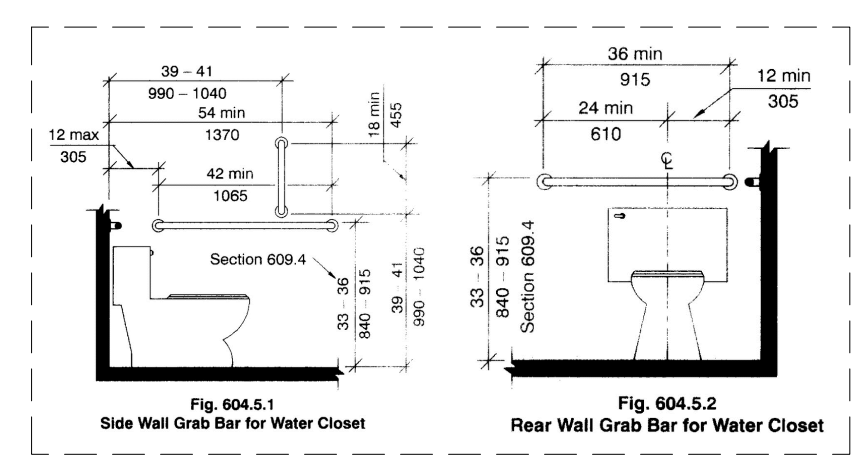
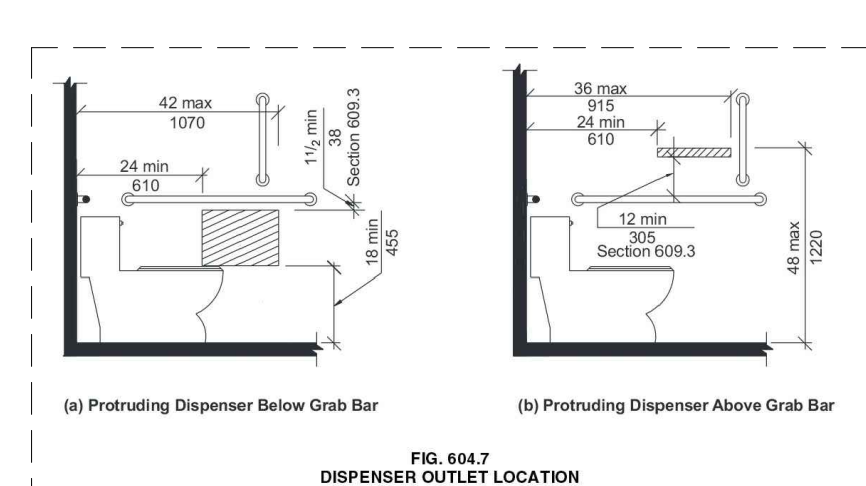
Project Name: **ROOF FRAMING PLAN**

Sheet Title: **S2.2**

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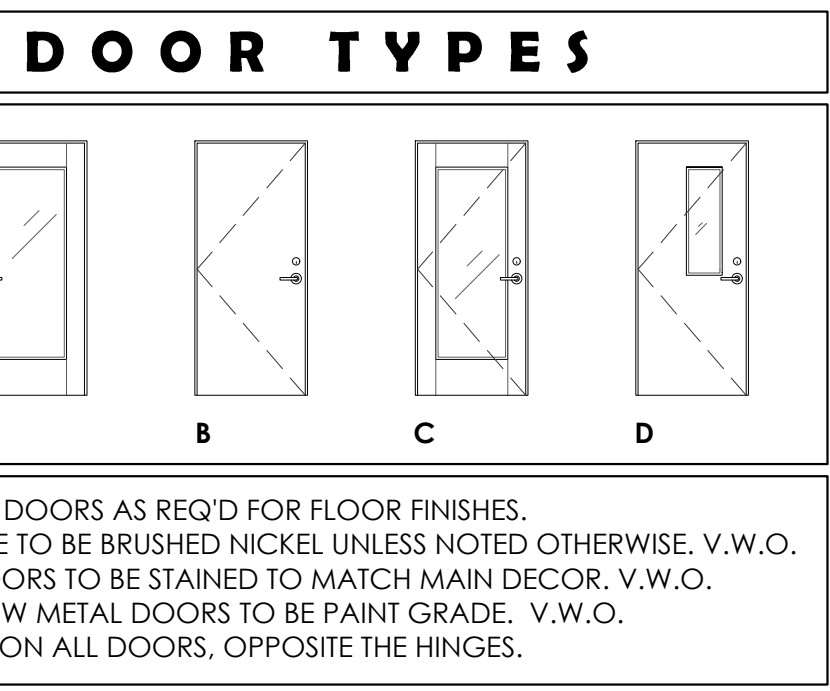
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WALL TYPES

Symbol	Description	Assembly
X	EXTERIOR	MIN. 26ga EXT. METAL SIDING PANEL 2x WOOD PURLINS PER FRAMING VAPOR PERMEABLE AIR & WATER BARRIER WOOD COLUMNS PER FRAMING 2x WOOD STUD INFL PER FRAMING MIN. R-20 F.G. BATT CAVITY INSULATION >OPTIONAL< SMART VAPOR BARRIER MIN. 1/2" G.W.B., PRIMED + PAINTED -OR- MIN. 26ga INT. METAL FINISH PANEL
P	RESTROOM PARTITION	MIN. 1/2" G.W.B., PRIMED + PAINTED 2x4 WOOD STUDS @ 16" O.C. BLOCKING @ 1/3'S AND FOR FIXTURES >OPTIONAL< SOUND BATT INSULATION MIN. 1/2" M.R.G.W.B., PRIMED + PAINTED
W	WET WALL	2x4 WOOD STUDS @ 16" O.C. BLOCKING @ 1/3'S AND FOR FIXTURES MIN. 1/2" M.R.G.W.B., PRIMED + PAINTED



DOOR SCHEDULE

MARK	QTY.	TYPE	LOCATION	HAND	NOM. OPENING	GLAZ.	FRAME MAT.	DOOR MAT.	NOTES
D1	1	A	MAIN ENTRANCE	2x	72" x 84"	Y	P.B.O.	P.B.O.	1 2 4 5 6
D2	2	B	SHOWROOM	LHR	36" x 84"	Y	P.B.O.	P.B.O.	1 2 4 5 6
D3	2	C	WORKSHOP	LHR	36" x 84"	N	P.B.O.	P.B.O.	1 2 4 5 6
D4	1	C	WORKSHOP	RHR	36" x 84"	N	P.B.O.	P.B.O.	1 2 4 5 6
D7	1	D	WORKSHOP	LH	36" x 84"	VVO	P.B.O.	P.B.O.	1 2 6 7 8
DB	1	C	RESTROOM	LHR	36" x 84"	N	P.B.O.	P.B.O.	2 6 9
DP	1	C	RESTROOM	RH	36" x 84"	N	P.B.O.	P.B.O.	2 6 9
OH1	1	-	CANOPY	OHD	14' x 12'	N	P.B.O.	P.B.O.	1 4 5 G I O P
OH2	2	-	WORKSHOP	OHD	14' x 14'	N	P.B.O.	P.B.O.	1 4 5 G I O P
OH3	1	-	WORKSHOP	OHD	14' x 12'	N	P.B.O.	P.B.O.	1 4 5 G I O P
OH4	1	-	INTERIOR	OHD	14' x 14'	N	P.B.O.	P.B.O.	1 4 5 G I O P

NOTES:

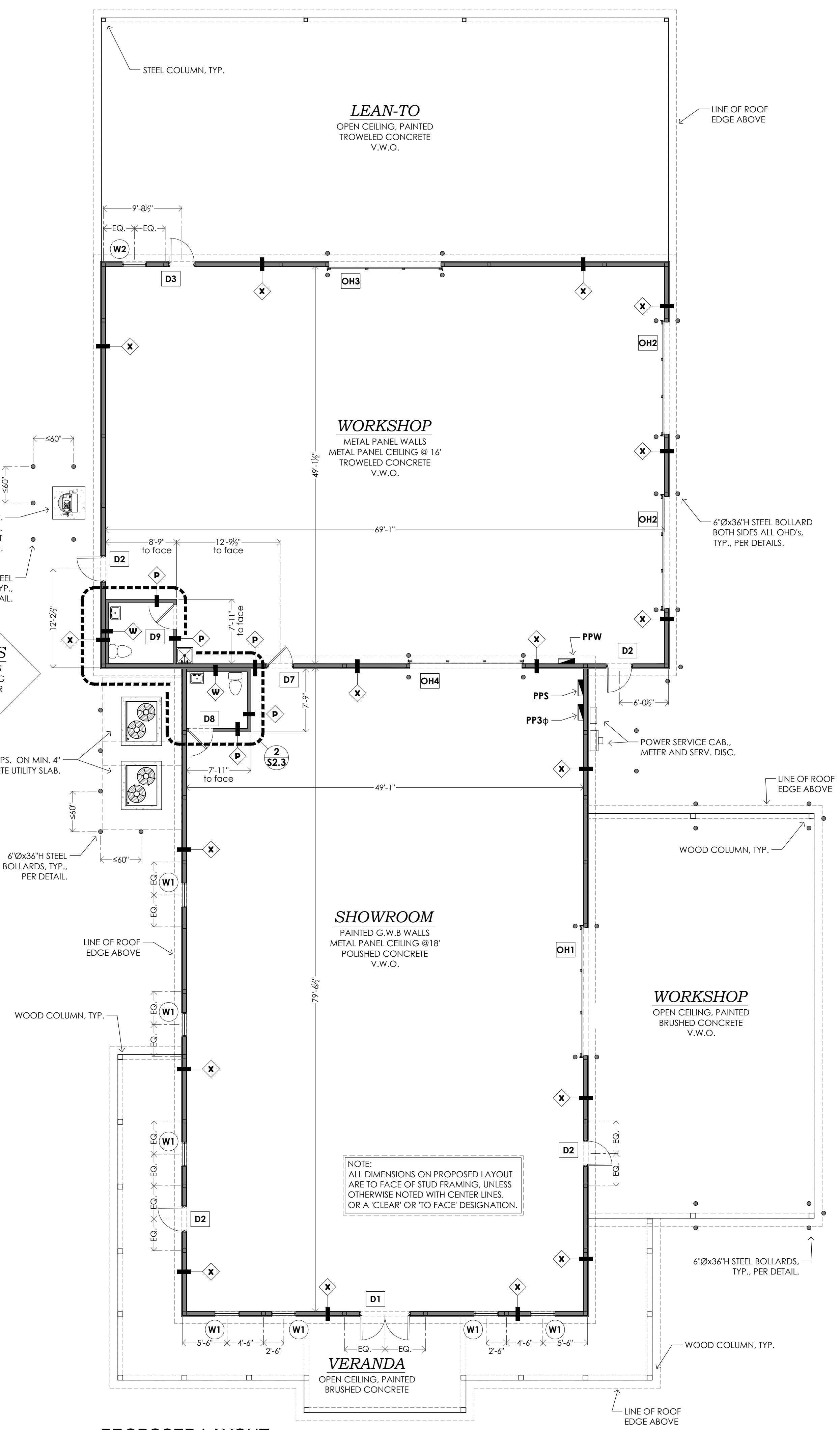
1 KEYED DEADBOLT LOCK	7 12" TOE KICK	1 INSULATED CORE CONSTR.
2 MONKEYTAIL HANDLE(S)	8 FLOOR STOP	2 MOTORIZED OPENER, VVO
3 CRASH BAR PANIC HDWR	9 PRIVACY LOCK	3 ENTRAPMENT PROTECTION
4 THRESHOLD & FLOOR SWEEP		4 MAG FLOOR STOP
5 PERIMETER GASKET	T TOP & BOTTOM TRACK	
6 CLOSER(S)	G 2x LOW-E GLAZING	

WINDOW SCHEDULE

MARK	QTY.	NOM. OPENING	SILL	HEAD	TYPE	GLAZING	OUTSIDE MAT.	INSIDE MAT.	FRAME	NOTES
W1	7	36" x 60"	24"	84"	FIXED	V.W.O.	P.B.O.	P.B.O.	ALUM	1 3
W2	14	36" x 36"	16 1/2"	19 1/2"	FIXED	V.W.O.	P.B.O.	P.B.O.	ALUM	1 3
W3	4	96" x 48"	13"	17"	FIXED	V.W.O.	P.B.O.	P.B.O.	ALUM	1 3
W4	1	96" x 24"	15"	17"	FIXED	V.W.O.	P.B.O.	P.B.O.	ALUM	1 3

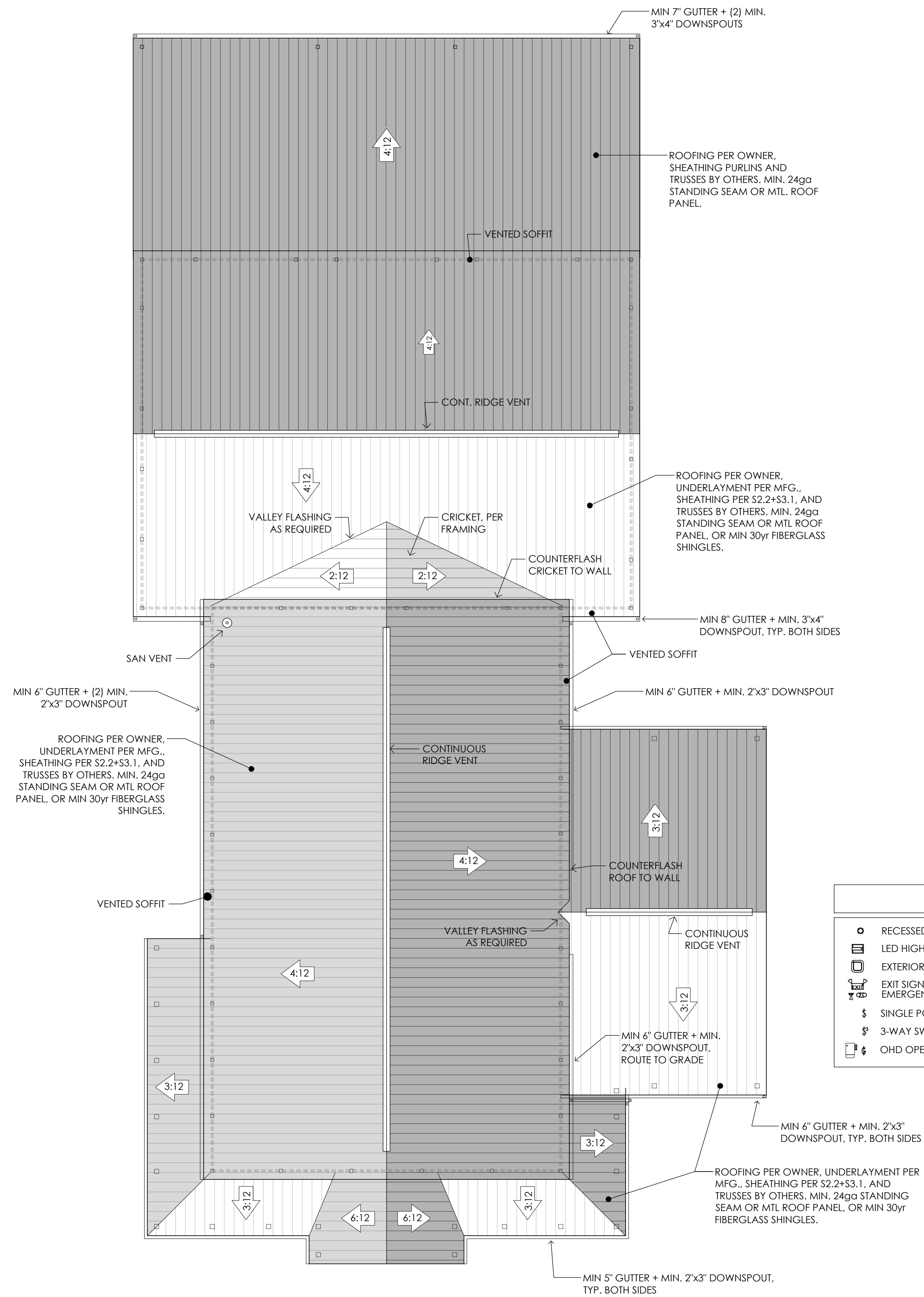
NOTES:

1. INSULATED CORE	3. LOW-E INSULATED	5. CERAMIC COATING
2. INSULATED GLAZING	4. COLOR TINT	6.

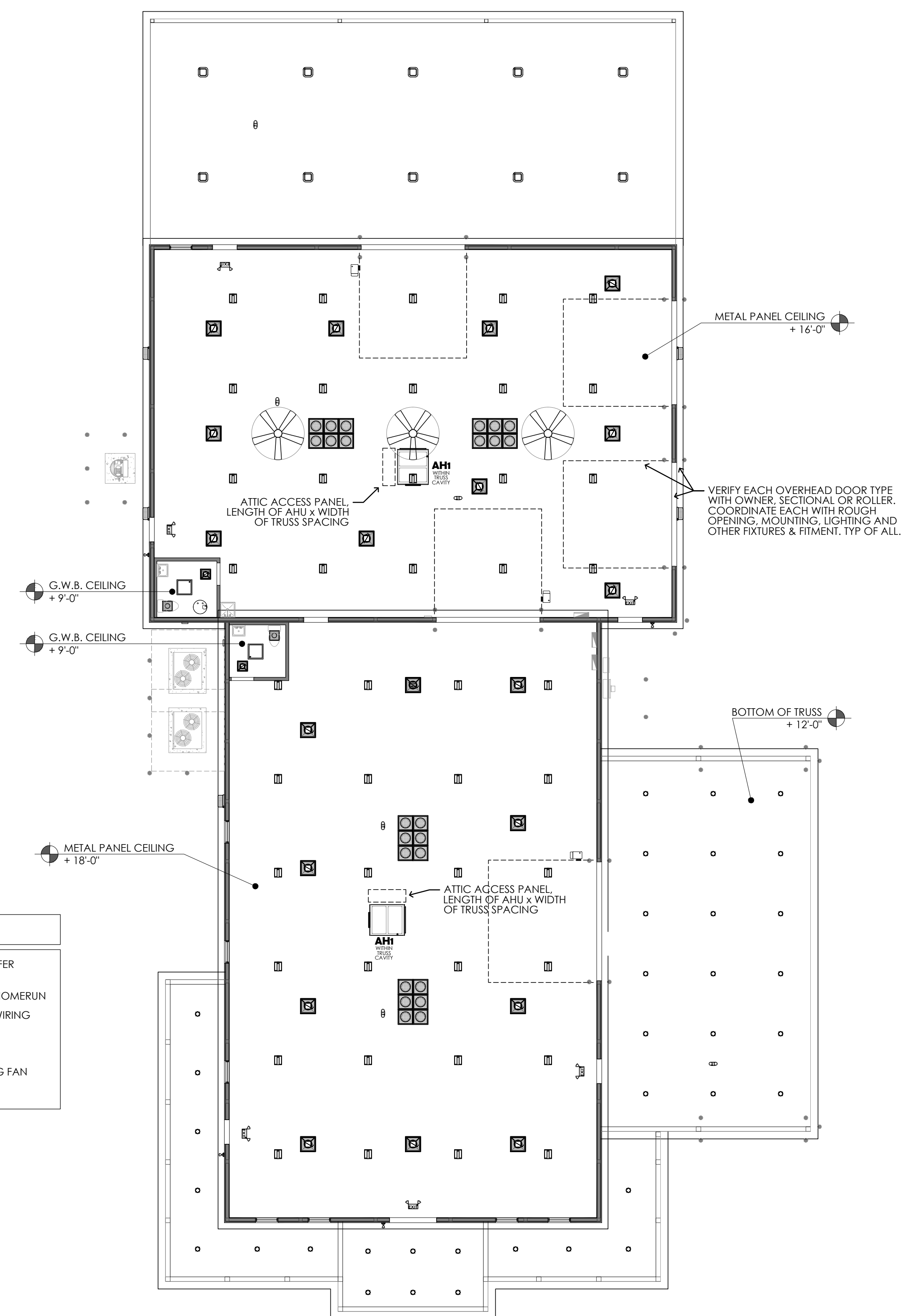


1 PROPOSED LAYOUT
scale : 1/8" = 1'-0"

ACCESSIBLE DETAILS PER 2009 ANSI A117.1



2 ROOF LAYOUT
scale : 3/32" = 1'-0"



1 REFLECTED CEILING LAYOUT
scale : 3/32" = 1'-0"

LIGHTING LEGEND

○	RECESSED DOWNLIGHT CAN	□	LED TROFFER FIXTURES
□	LED HIGH-BAY	—	CIRCUIT HOMERUN
□	EXTERIOR LED HIGH-BAY	PP-#	SWITCH WIRING
EXIT	EXIT SIGNAGE & EMERGENCY LIGHTING	⊙	CEILING FAN
⊙	SINGLE POLE SWITCH		
⊙	3-WAY SWITCH		
⊙	OHD OPENER & SWITCH		

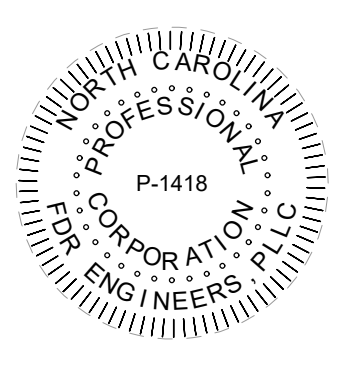
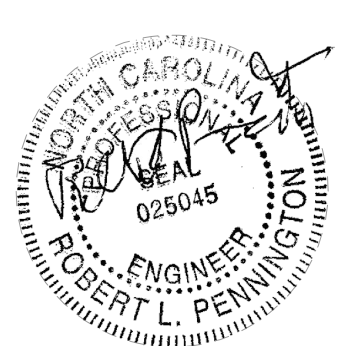
stormwater data per '18 NCPC Table 1106.1 100-year 1-hour rainfall 4 in/hr
per '18 NCPC Figure 1106.4 Vertical Walls 50%

by drainage areas	roof		volume			downspout			min. gutter W @ 0.8 W/H		
	area	adi. vert. wall length height	cu. ft.	cl. min.	g.p.m.	in. @	reqd.	prop.	size	in. @	
workshop N + lean-to	3,850	0 0	3,850 sf	1,283	21	160	3 x 4	2	2	1/8" (1%)	7"
workshop S	1,750	50 3	1,825 sf	608	10	76	2 x 3	2	2	1/8" (1%)	8"
showroom W	2,000	0 0	2,000 sf	667	11	83	2 x 3	2	2	1/8" (1%)	6"
showroom E	2,000	0 0	2,000 sf	667	11	83	2 x 3	2	2	1/8" (1%)	6"
side canopy N	725	25 3	763 sf	254	4	32	2 x 3	1	1	1/8" (1%)	5"
side canopy S	725	25 3	763 sf	254	4	32	2 x 3	1	1	1/8" (1%)	5"
veranda	1,092	96 3	1,236 sf	412	7	51	2 x 3	1	3	1/8" (1%)	5"

LIGHTING SCHEDULE

USE	TYPE	MANUF.	MODEL	LAMPS	Vg	V	DESCRIPTION
EXT. DOWNLIGHT	CAN	LITHONIA	LDN6 35/50 LD6AR	LED	35	120	NEW CONSTRUCTION 6" DOWNLIGHT CAN
WAREHOUSE	HIGH-BAY	LITHONIA	CPH6 1500LM SEF GCL	LED	96	120	HIGH BAY LED W MVOLT GANG TECHNOLOGY
EXT. CANOPY	HIGH-BAY	LITHONIA	SCNY LED ALO2 SW W 2 PFL	LED	S 130	120	HIGH BAY LED W MVOLT GANG TECHNOLOGY
2x2 TROFFER	CEILING	LITHONIA	2TL2 40L FW LP835	LED	40	120	2x2 LED TROFFER, 0.125" #12 ACRYLIC LENS, WHITE FINISH
EXTERIOR AREA	WALL	P.B.O.	P.B.O.	LED	S 90	120	ENCLOSED OR LIGHT SENS OR
EXIT + EM	STANDARD	LITHONIA	LHGM LED R HO	LED	10	120	EXIT + EMERG COMBO, WALL/CGL MTD, 90 MIN. BATT. BACK-UP, WHITE
EM	STANDARD	LITHONIA	ELMML	LED	8	120	HIGH BAY EXTER. WALL/CEILING MOUNTED, 90 MIN. BATTERY BACK-UP
EXT. EM	STANDARD	LITHONIA	ELA B T QWP LO30P	LED	28	120	EXTERIOR/WET RATED, 2 LAMPS, BLACK FINISH, 90 MIN. BATTERY BACK-UP.

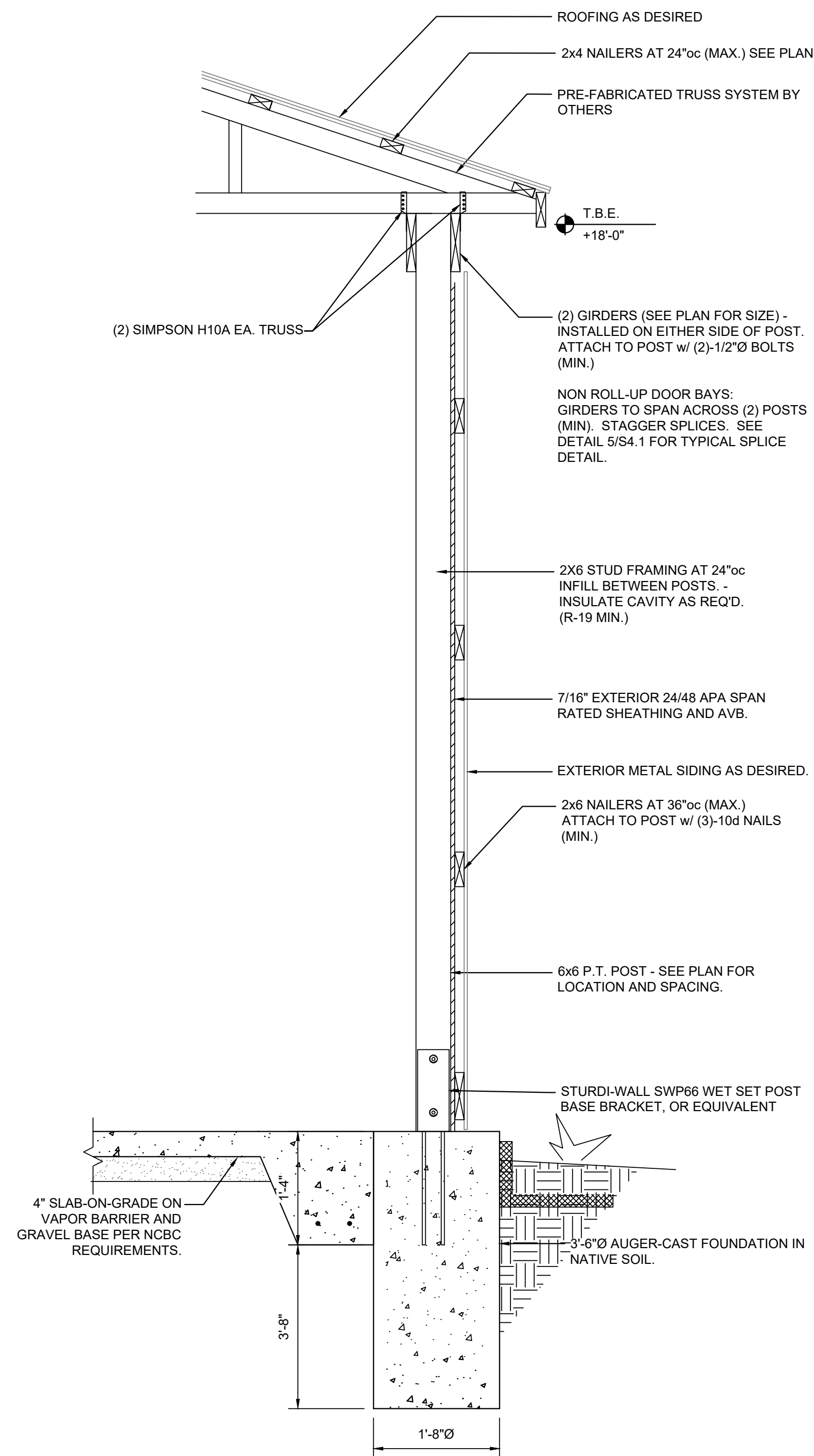
- LIGHT FIXTURE SUBSTITUTIONS ALLOWED WITH MATCHING PARAMETERS BY OWNER REQUEST, CODE COMPLIANCE AND AHJ APPROVAL.
- OFFICES, BREAK ROOMS, RESTROOMS AND OTHER BUSINESS AREAS TO BE MOTION ACTIVATED TO 50%, MANUAL ON TO 100%, 30min MOTION SHUTOFF, AND MANUAL OFF.
- TIME-SWITCH CONTROLS ARE PERMISSIBLE, PER OWNER, PROVIDED THAT PROGRAMMING IS 7-day CAPABLE AND NIGHT LIGHTING IS INCORPORATED.
- E.C. TO COORDINATE ALL EXIT SIGNAGE AND EGRESS LIGHTING LOCATIONS, SELECTIONS AND SPACING, PRIOR TO PLACING ORDER, WITH OWNER AND AHJ.



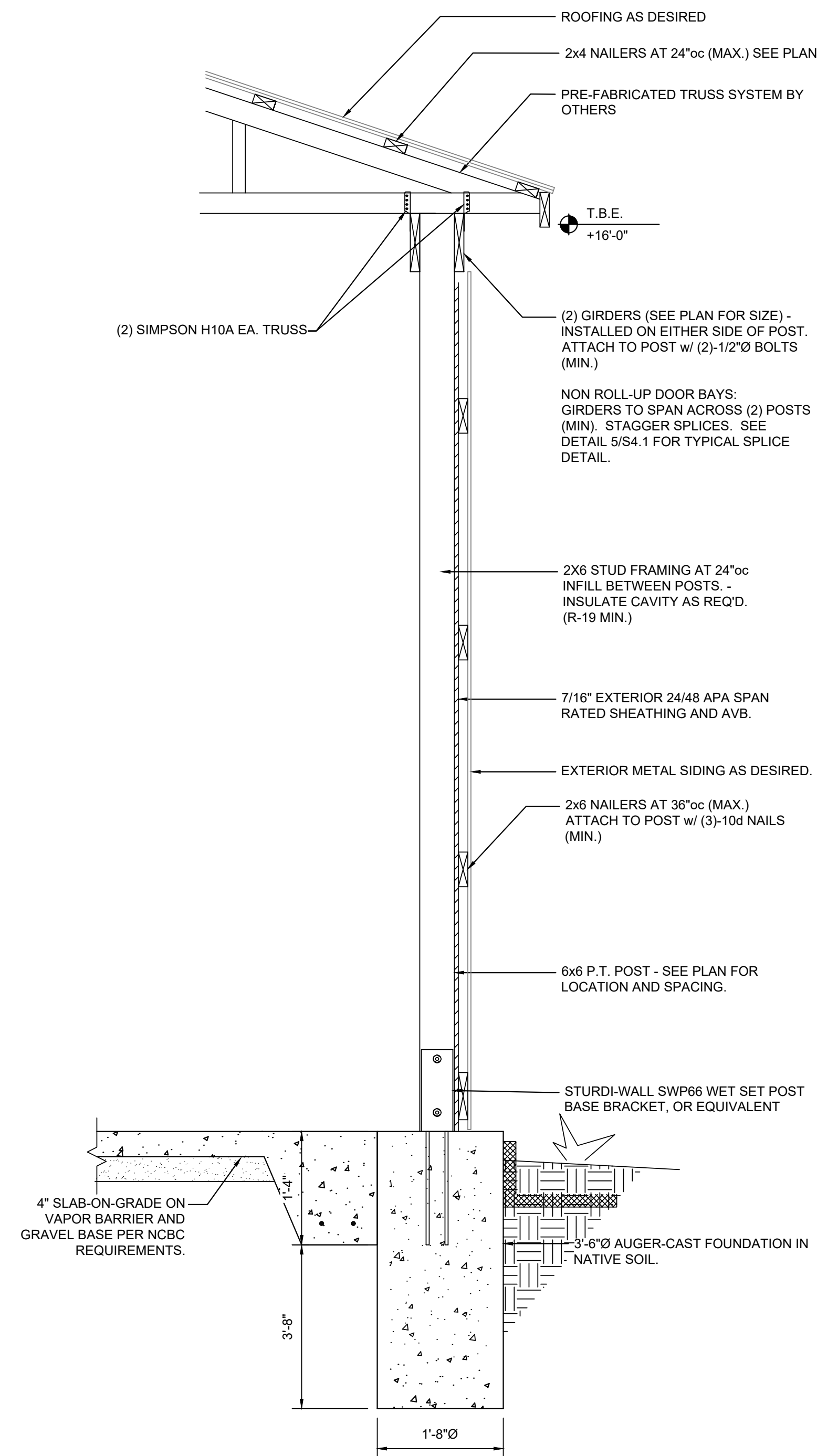
DESIGNED BY: SMB
DRAWN BY: SMB
APPROVED BY: RLP
PROJECT #: R2408270
DATE: 2024-10-23

#	Revision	Date
0	for permit	11/8/24

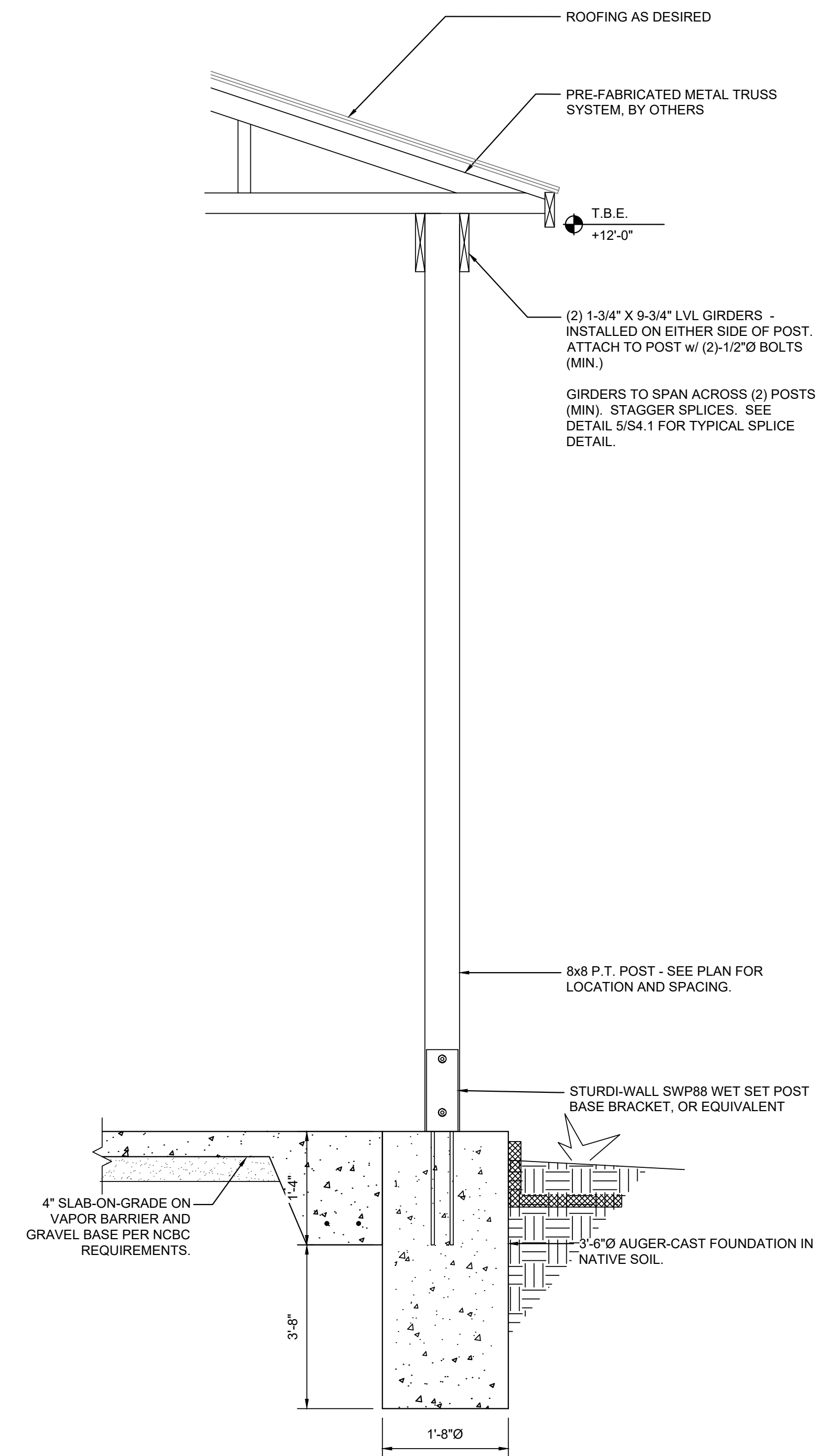
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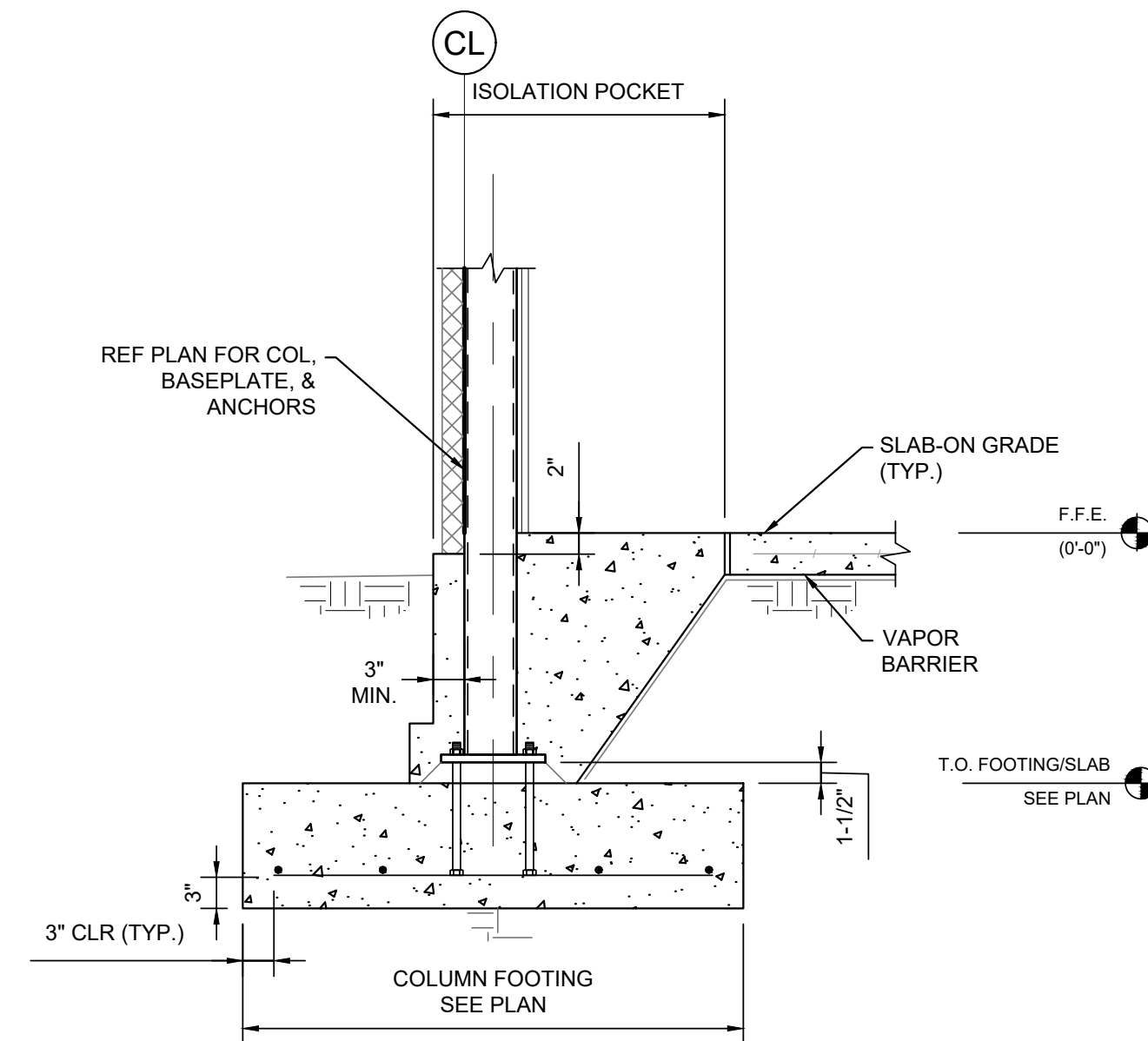
1 SECTION - POLE BARN WALL FRAMING
SCALE: 3/4" = 1'-0"



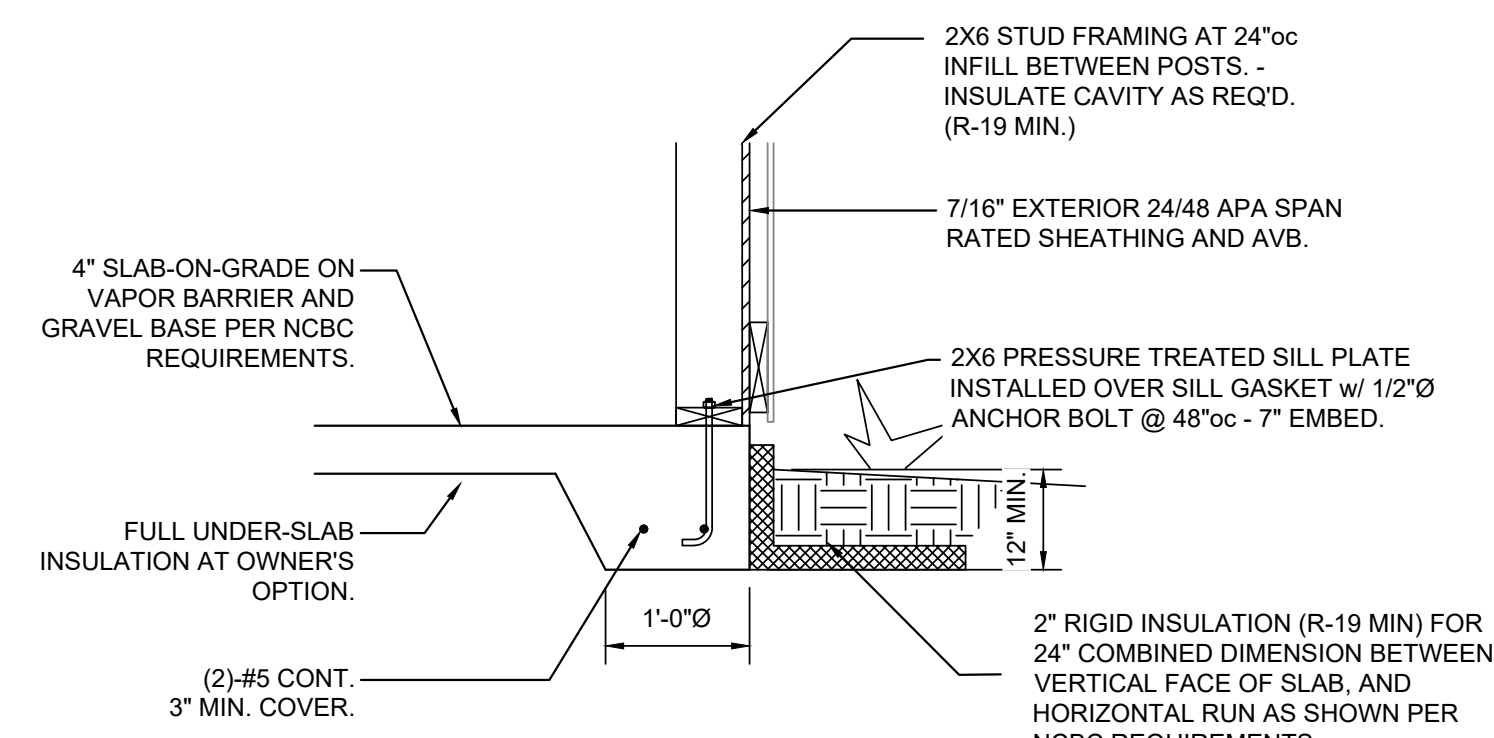
2 SECTION - POLE BARN WALL FRAMING
SCALE: 3/4" = 1'-0"



3 SHELTER - POLE BARN WALL FRAMING
SCALE: 3/4" = 1'-0"



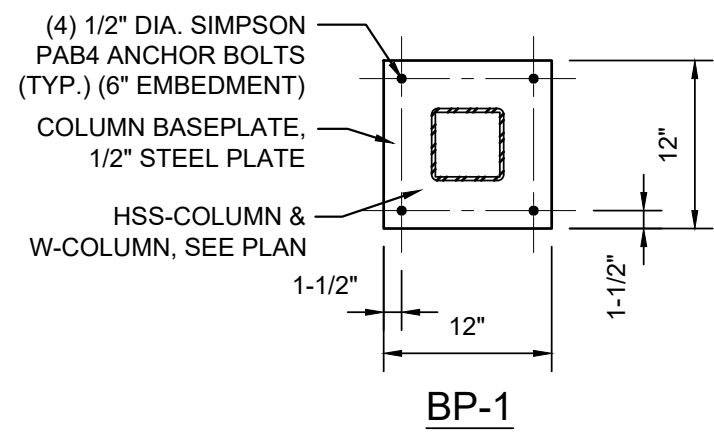
4 EXT. COLUMN FOOTING (TYP.)
SCALE: 3/4" = 1'-0"



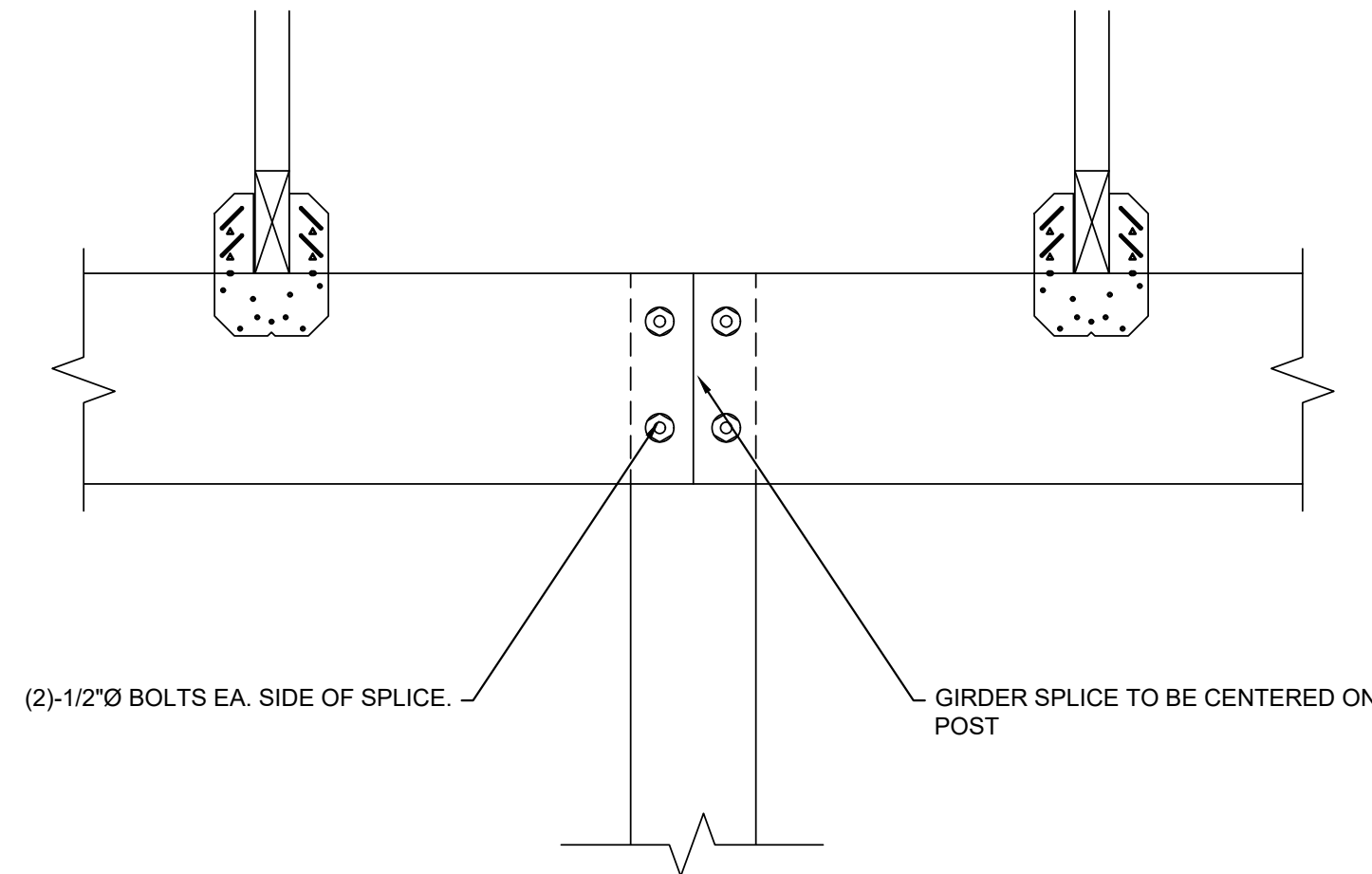
5 SECTION - PERIMETER SLAB ON GRADE
SCALE: 3/4" = 1'-0"

DESIGNED BY:	AJI	
DRAWN BY:	AJI	
APPROVED BY:	HMH	
PROJECT #:	24-067	
DATE:	11/27/2024	
No.	Revision	Date

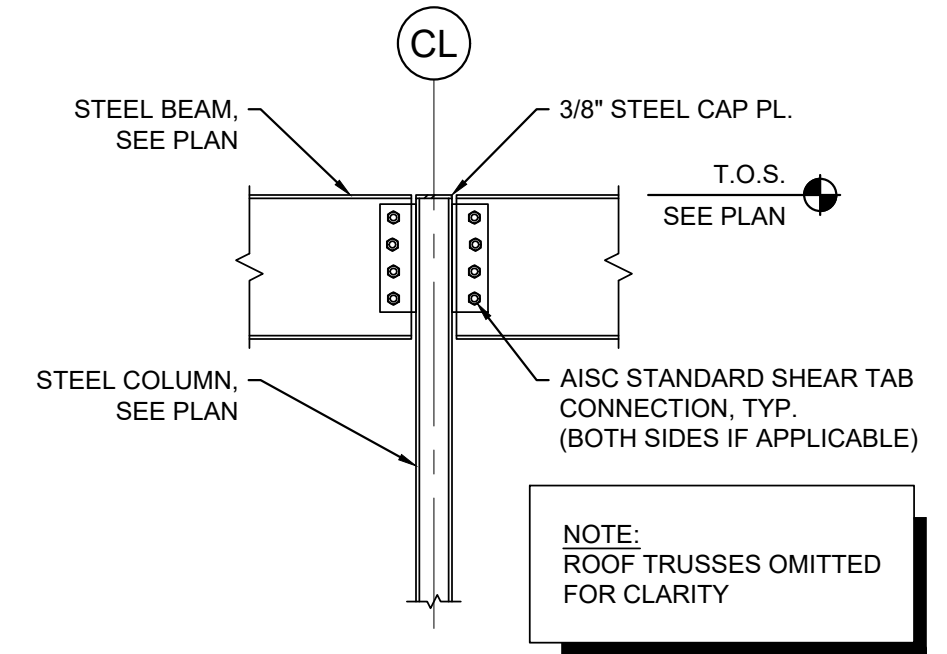
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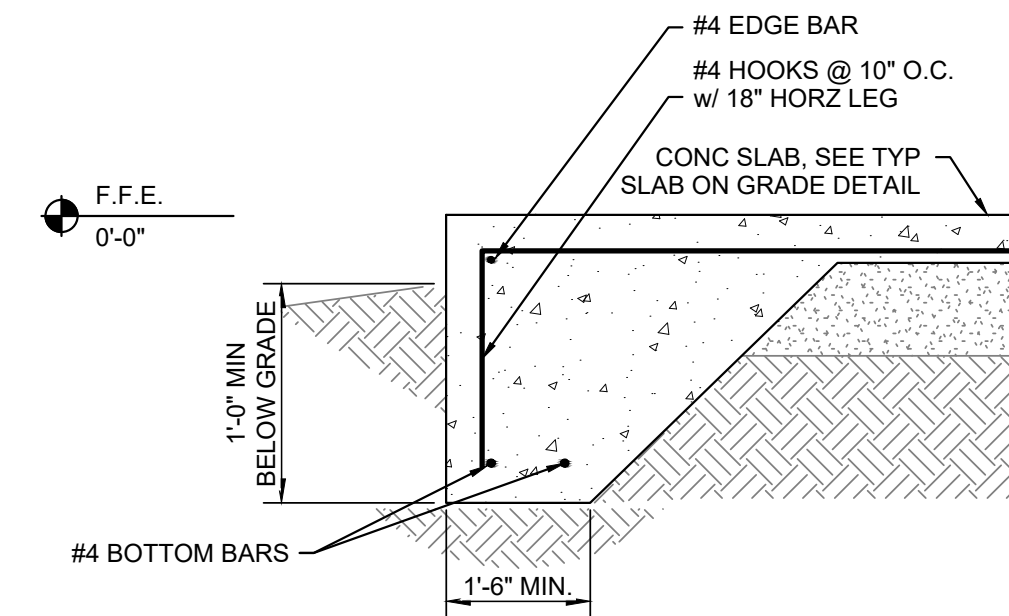
1 STEEL BASE PLATE DETAILS
SCALE: 3/4" = 1'-0"



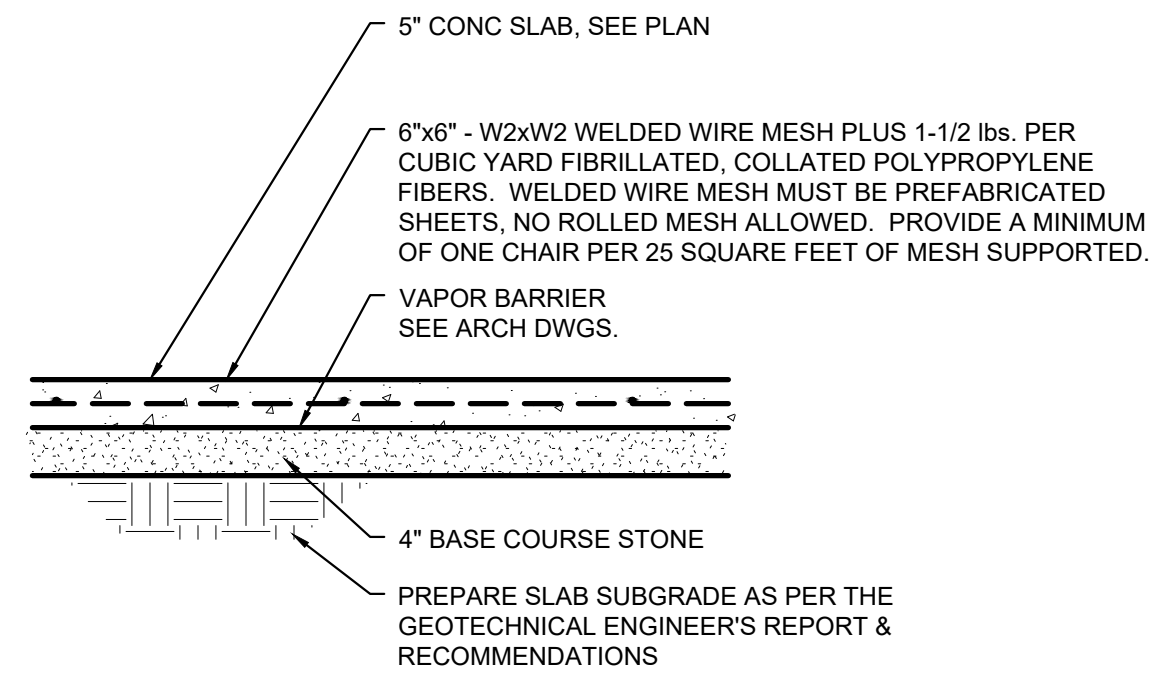
5 GIRDER SPLICE DETAIL
SCALE: 1-1/2" = 1'-0"



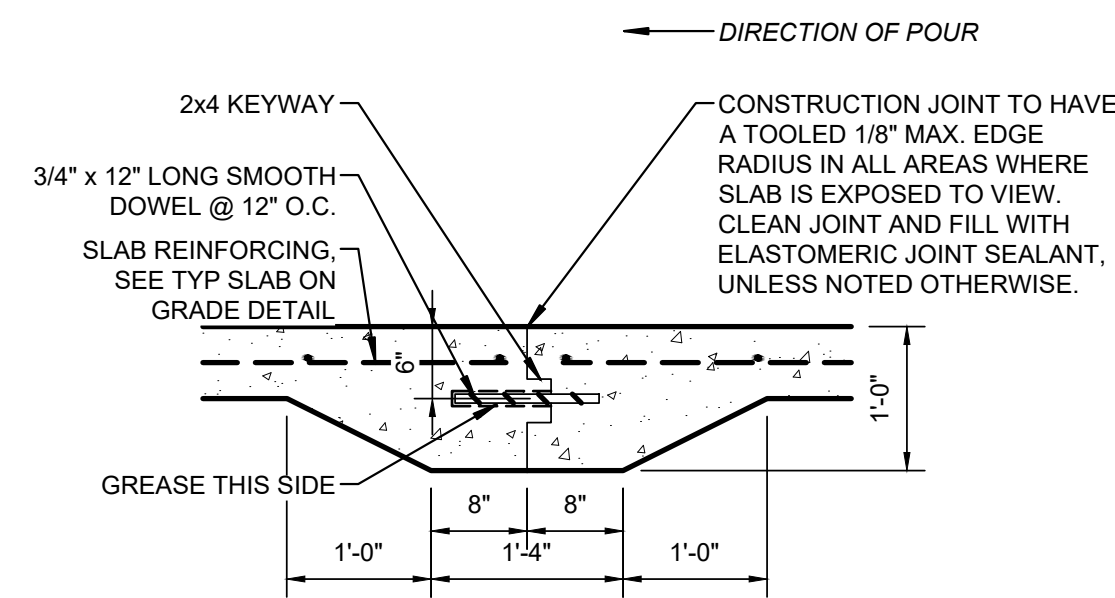
2 TYPICAL BEAM SHEAR CONNECTION
Scale: 3/4" = 1'-0"



6 PERIMETER FOUNDATION
SCALE: 3/4" = 1'-0"

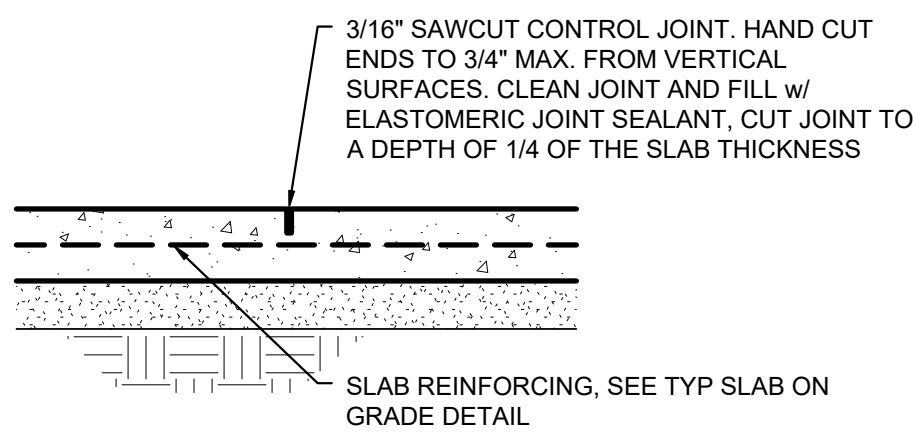


3 5" SLAB ON GRADE DETAIL
SCALE: 3/4" = 1'-0"



7 5" SLAB ON GRADE CONSTRUCTION JOINT
SCALE: 3/4" = 1'-0"

- NOTES:**
1. CONTRACTORS OPTION - USE REMOVABLE CONTROL JOINT MATERIAL SUCH AS "ZIP STRIP", "STRESSLOCK", OR APPROVED EQUAL.
 2. SLAB ON GRADE CONTROL JOINTS SHALL BE TOOLED OR SAWCUT. THE JOINT PATTERN SHALL BE APPROXIMATELY SQUARE AND LIMITED TO AN AREA NOT TO EXCEED 225 S.F. JOINTS SHALL BE CUT WITHIN 12 HOURS OF POURING SLAB. SEE PLAN FOR PROPOSED JOINT LAYOUT. FINAL JOINT LAYOUT TO BE DETERMINED BY THE GENERAL CONTRACTOR.

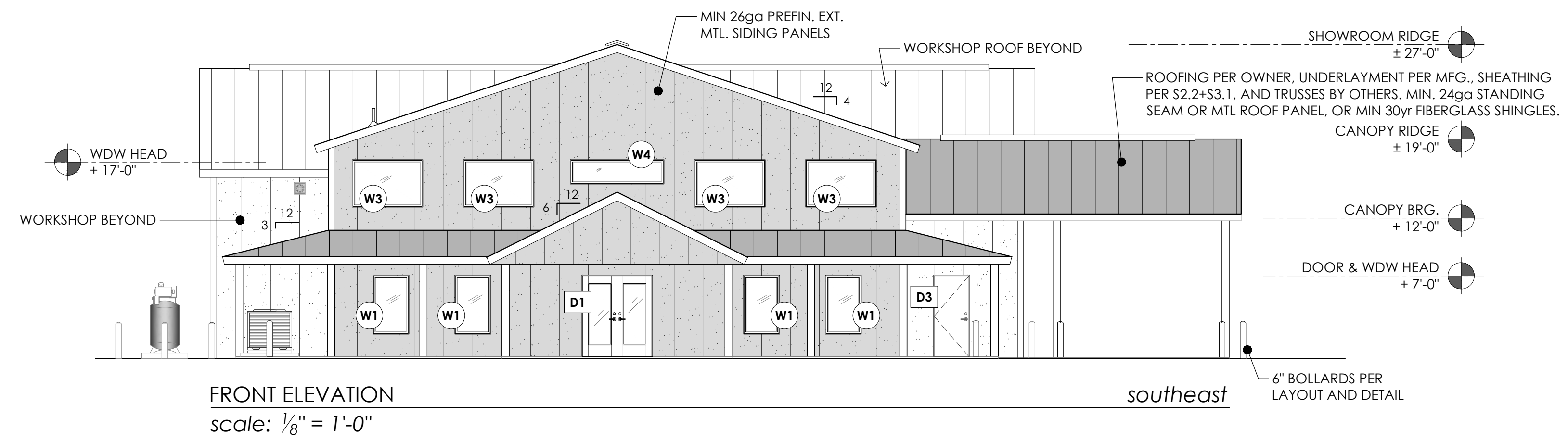


4 5" SLAB ON GRADE CONTROL JOINT
SCALE: 3/4" = 1'-0"

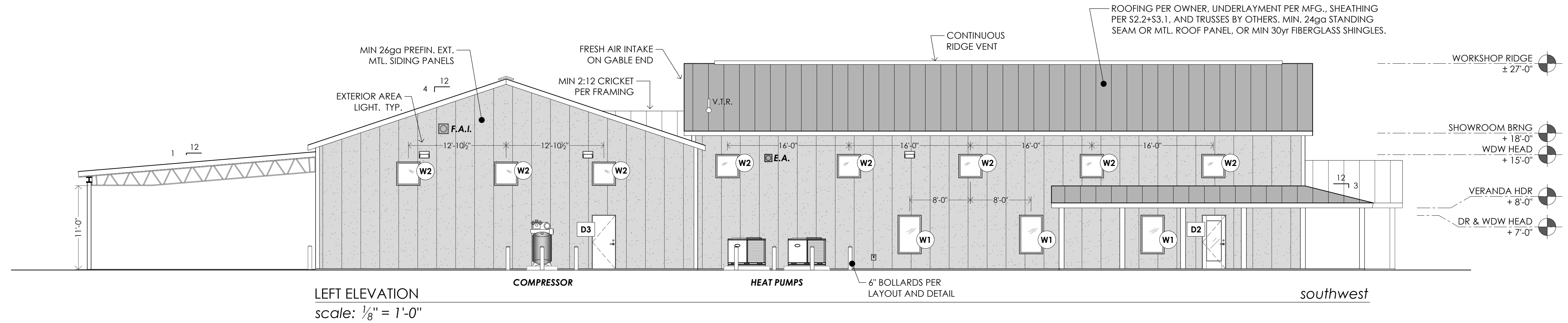


DOOR SCHEDULE										
MARK	QTY.	TYPE	LOCATION	HAND	NOM. OPENING		GLAZ.	FRAME MAT.	DOOR MAT.	NOTES
					W	H				
D1	1	A	MAIN ENTRANCE	2x	72"	84"	Y	P.B.O.	P.B.O.	1 2 4 5 6
D2	2	B	SHOWROOM	LHR	36"	84"	Y	P.B.O.	P.B.O.	1 2 4 5 6
D3	2	C	WORKSHOP	LHR	36"	84"	N	P.B.O.	P.B.O.	1 2 4 5 6
D4	1	C	WORKSHOP	RHR	36"	84"	N	P.B.O.	P.B.O.	1 2 4 5 6
D7	1	D	WORKSHOP	LH	36"	84"	VWO	P.B.O.	P.B.O.	1 2 6 7 8
D8	1	C	RESTROOM	LHR	36"	84"	N	P.B.O.	P.B.O.	2 6 9
D9	1	C	RESTROOM	RH	36"	84"	N	P.B.O.	P.B.O.	2 6 9
OH1	1	---	CANOPY	OHD	16'	12'	N	P.B.O.	P.B.O.	1 4 5 G I O P
OH2	2	---	WORKSHOP	OHD	14'	14'	N	P.B.O.	P.B.O.	1 4 5 G I O P
OH3	1	---	WORKSHOP	OHD	14'	12'	N	P.B.O.	P.B.O.	1 4 5 G I O P
OH4	1	---	INTERIOR	OHD	14'	14'	N	P.B.O.	P.B.O.	1 4 5 G I O P

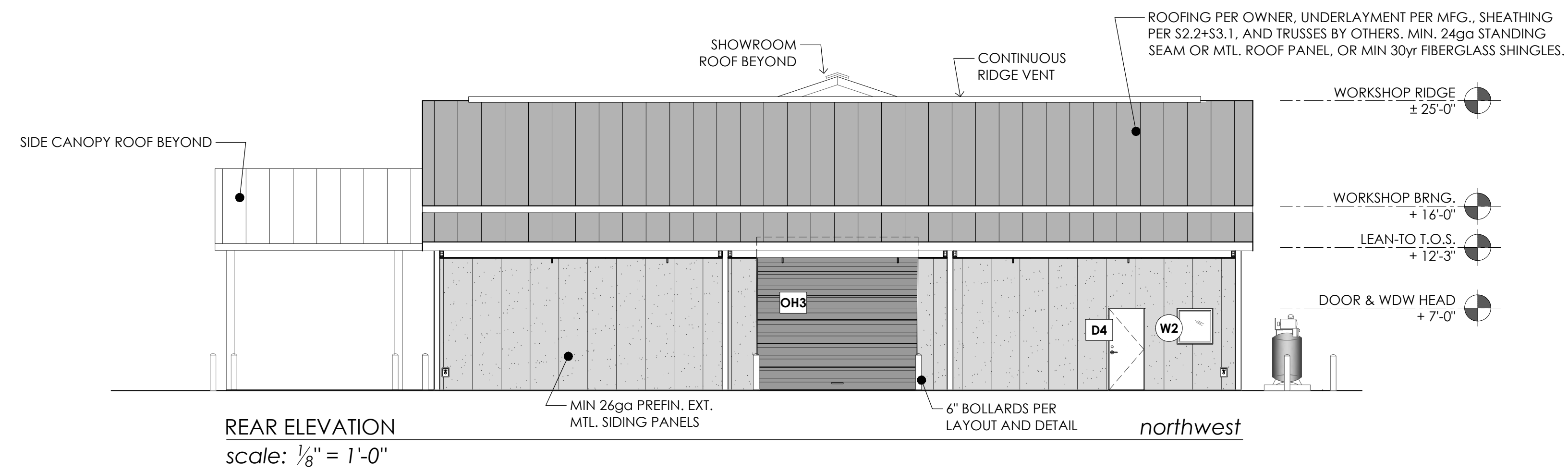
NOTES		
1 KEVED DEADBOLT LOCK	7 12' TOE KICK	1 INSULATED CORE CONSTR.
2 MONKEYTAIL HANDLE(S)	8 FLOOR STOP	O MOTORIZED OPENER, VWO
3 CRASH BAR PANIC HDWR	9 PRIVACY LOCK	P ENTRAPMENT PROTECTION
4 THRESHOLD & FLOOR SWEEP	T TOP & BOTTOM TRACK	M MAG FLOOR STOP
5 PERMIER GASKET	G 2x LOW-E GLAZING	
6 CLOSER(S)		



FRONT ELEVATION
scale: 1/8" = 1'-0"



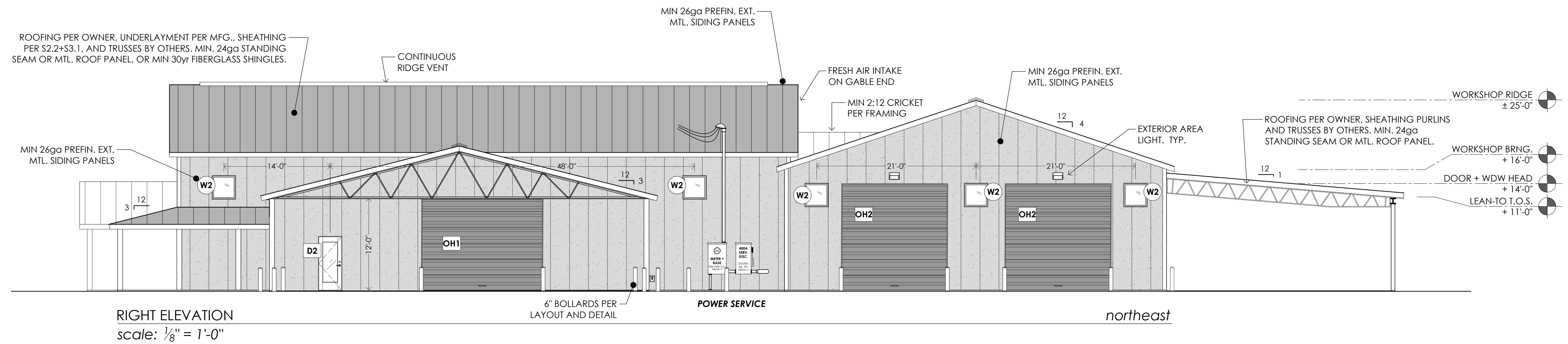
LEFT ELEVATION
scale: 1/8" = 1'-0"



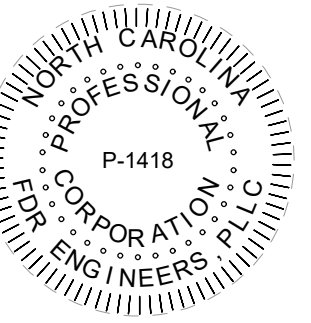
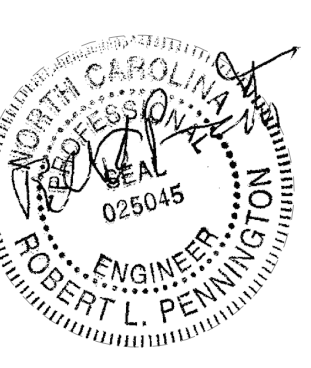
REAR ELEVATION
scale: 1/8" = 1'-0"

WINDOW SCHEDULE											
MARK	QTY.	NOM. OPENING		SEL	HEAD	TYPE	GLAZING	OUTSIDE MAT.	INSIDE MAT.	FRAME	NOTES
		W	H								
W1	7	36"	60"	24"	84"	FIXED	V.W.O.	P.B.O.	P.B.O.	ALUM	1 3
W2	14	36"	36"	16/12	19/15	FIXED	V.W.O.	P.B.O.	P.B.O.	ALUM	1 3
W3	4	96"	48"	13'	17'	FIXED	V.W.O.	P.B.O.	P.B.O.	ALUM	1 3
W4	1	96"	24"	15'	17'	FIXED	V.W.O.	P.B.O.	P.B.O.	ALUM	1 3

NOTES		
1. INSULATED CORE	3. LOW-E INSULATED	5. CERAMIC COATING
2. INSULATED GLAZING	4. COLOR TINT	6.



RIGHT ELEVATION
scale: 1/8" = 1'-0"



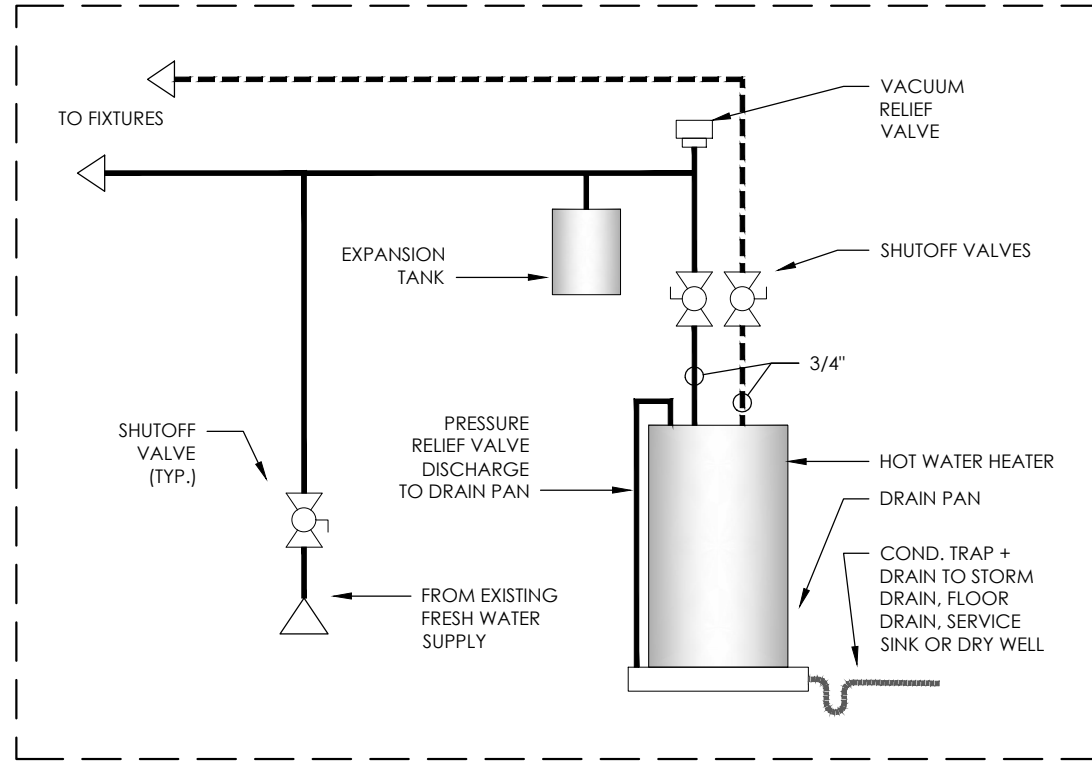
DESIGNED BY: SMB
DRAWN BY: SMB
APPROVED BY: RLP
PROJECT #: R2408270
DATE: 2024-10-23

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0	for permit	11/8/24

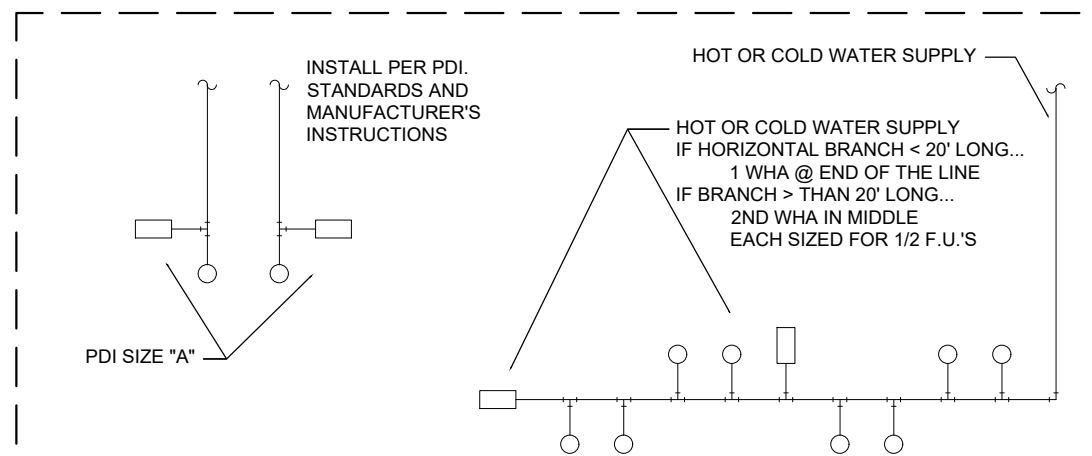
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PLUMBING NOTES

- ALL PLUMBING SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST ISSUE OF THE NATIONAL STANDARD PLUMBING CODE, THE NATIONAL FIRE CODE, AND ALL OTHER APPLICABLE CODES.
- ALL PLUMBING PIPING SHALL BE CLOSELY COORDINATED WITH STRUCTURAL SYSTEM, MECHANICAL SYSTEM AND ELECTRICAL SYSTEM TO INSURE PROPER COMPLIANCE WITH CODES AND INSURE THAT ALL TRADES WILL NOT CONFLICT WITH EACH OTHER.
- ALL SANITARY SEWER PIPING RUN BELOW GROUND OR FIRST FLOOR SLAB SHALL BE RUN AT 1/8" FT. PITCH UNLESS OTHERWISE REQUIRED BY CODE OR NOTED.
- ALL WATER PIPING SHALL BE PITCHED FOR DRAINAGE WITH DRAIN VALVES INSTALLED AT LOW POINT AND MANUAL AIR VALVES INSTALLED AT HIGH POINTS WHERE REQUIRED.
- PROVIDE ACCESS PANELS AS REQUIRED AT VALVE LOCATIONS TO PROVIDE ACCESS. COORDINATE TYPE AND LOCATION WITH GENERAL CONTRACTOR.
- ALL CLEANOUTS SHALL HAVE TOPS ESPECIALLY DESIGNED FOR PERTINENT FLOOR FINISHES SUCH AS CARPET, TILE, ETC. UNLESS OTHERWISE SPECIFIED.
- DO NOT SCALE DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DOORS, WINDOWS, WALLS, FIXTURES, ETC. AS REQUIRED.
- EXCEPT WHERE PIPE SPACE IS PROVIDED OR UNLESS OTHERWISE NOTED, ALL SUPPLY, WASTE AND VENT RISERS SHALL BE RUN IN WALLS AND PARTITIONS.
- VENTS WILL BE COLLECTED ABOVE THE CEILING AND EXTENDED THROUGH THE ROOF AS A SINGLE VENT AT THE POINTS INDICATED.
- P.C. SHALL PROVIDE A PRESSURE REDUCING VALVE WHERE WATER MAIN ENTERS BUILDING IF PRESSURE EXCEEDS 80 PSI.
- ALL MATERIALS AND THEIR INSTALLATIONS SHALL COMPLY WITH THE STATE AND LOCAL CODES, RULES, REGULATIONS, AND ORDINANCES.
- PIPING:
 - FURNISH AND INSTALL DIELECTRIC OR ISOLATION FITTINGS AT ALL POINTS WHERE COPPER PIPE CONNECTS TO WROUGHT IRON OR STEEL PIPE.
 - EXPOSED PIPE IN TOILET ROOMS: CHROME PLATED BRASS, AMERICAN BRASS COMPANY, OR EQUIVALENT. FURNISH AND INSTALL CHROME WALL PLATES.
 - PIPING UNDER FLOOR SLAB SHALL BE TYPE "K" SOFT TEMPER COPPER TUBING ASTM B-88 NO JOINTS SHALL BE PERMITTED UNDER FLOOR SLAB. ALL JOINTS UNDER GROUND SHALL BE MECHANICALLY CLEANED BEFORE BRAZING AND PASTE FLUX APPLIED.
 - PIPING ABOVE FLOOR SLAB SHALL BE TYPE "L" HARD DRAWN COPPER TUBING ASTM B-88 USE WROUGHT COPPER SWEAT FITTINGS. ALL JOINTS SHALL BE MADE WITH LEAD-FREE SOLDER AND PASTE FLUX AND MECHANICALLY CLEANED BEFORE SOLDERING.
 - PROVIDE PDI APPROVED WATER HAMMER ARRESTERS IN THE PIPING AS MAY BE REQUIRED TO ACCOMPLISH NOISELESS OPERATION OF THE SYSTEM UNDER ALL OPERATING CONDITIONS. PROVIDE ACCESS PANELS OF REQUIRED SIZES AND TYPES AS TO ACCESS ALL CLEANOUTS, VALVES, TRAPS, WATER HAMMER ARRESTERS, ETC. ACCESS PANELS AND COVERS SHALL BE APPROVED BY THE ARCHITECT OR OWNER.
 - SANITARY WASTE, AND VENT PIPING: PIPING SHALL BE SCHEDULE 40 PVC-DWV PIPE AND FITTINGS. PIPING IN EXPOSED AREAS SUCH AS LAVATORY P-TRAPS SHALL BE CHROME-PLATED BRASS. INTERIOR CONDENSATE DRAIN PIPING RUNNING HORIZONTAL SHALL BE INSULATED WITH 5/8" THICK ARMAFLEX. PLUMBING CONTRACTOR SHALL RUN ALL BUILDING CONDENSATE DRAINS.
- WATER SUPPLY AND WASTE WATER PIPING SHALL BE KEPT A MINIMUM OF TEN (10) FEET APART. WHEN PIPES CROSS OR COME CLOSER THAN TEN FEET FRESH WATER PIPING SHALL BE 16" ABOVE THE CROWN OF SANITARY PIPING.
- DRAWINGS AND RISERS ARE DIAGRAMMATICAL AND ARE NOT INTENDED TO SHOW REQUIRED FITTINGS AND OFFSETS REQUIRED FOR ACTUAL INSTALLATION.
- ALL HOSE BIBBS SHALL BE FREEZE PROOF AND PROVIDED WITH A NON-REMOVABLE VACUUM BREAKER.
- PIPE PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE IN METAL SLEEVES. ANNULAR SPACES BETWEEN SLEEVES AND PIPES SHALL BE SEALED AS REQUIRED BY THE LOCAL AUTHORITY.
- DIELECTRIC CONNECTIONS SHALL BE USED BETWEEN FERROUS AND NON-FERROUS PIPING.
- WATER HEATER SHALL BE FILLED WITH WATER AND PURGED AS SOON AS INSTALLED OR IN NO EXTENT LATER THAN GAS/ELECTRIC HOOK-UP. FURNISH A ONE YEAR MANUFACTURERS WARRANTY.
- CONTRACTOR SHALL FURNISH OWNER WITH SAMPLES OF FIXTURES FOR APPROVAL.
- SLIP JOINTS SHALL NOT BE USED FOR DRAIN CONNECTIONS IN CONCEALED LOCATIONS. USE SOLDERED OR SCREWED JOINTS ONLY.
- ALL FIXTURES SHALL BE COMPLETE AND INCLUDE ALL STOPS, VALVES, FAUCETS, DRAINS, TRAPS, TAIL PIECES, ESCUTCHEONS, AND SUPPLIES.
- PROVIDE CLEANOUTS AT THE BASE OF ALL WASTE STACKS, AT ALL CHANGES OF DIRECTION OF PIPING IN EXCESS OF 45° AND EVERY 50 FEET.
- ALL PIPING SHALL BE TESTED IN ACCORDANCE WITH INDUSTRY STANDARDS AND DOMESTIC WATER SHALL BE IN COMPLIANCE WITH CITY STANDARDS.
- ALL PIPING SHALL BE RUN IN AREAS NOT SUBJECT TO FREEZING TEMPERATURES. PIPING IN EXTERIOR WALLS SHALL BE INSULATED AND RUN ON THE CONDITIONED SIDE OF THE WALL INSULATION.
- PIPE PENETRATIONS OF RATED WALLS SHALL BE FIRE STOPPED AS NECESSARY TO MAINTAIN THE RATING OF THE WALL.
- VENT PIPES SHALL BE COMBINED SO THAT NO MORE THAN ONE ROOF PENETRATION PER UNIT STACK WILL BE REQUIRED, UNLESS APPROVED BY THE OWNER.
- BACKFLOW PREVENTERS SHALL BE INSTALLED IN EACH MAIN SUPPLY LINE TO BUILDINGS.



WATER HEATER TYPICAL INSTALLATION



SINGLE FIXTURE

PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
A	1/2"	1 - 11
B	3/4"	12 - 32
C	1"	33 - 60
D	1-1/4"	61 - 113
E	1-1/2"	114 - 154
F	2"	155 - 330

MULTIPLE FIXTURES

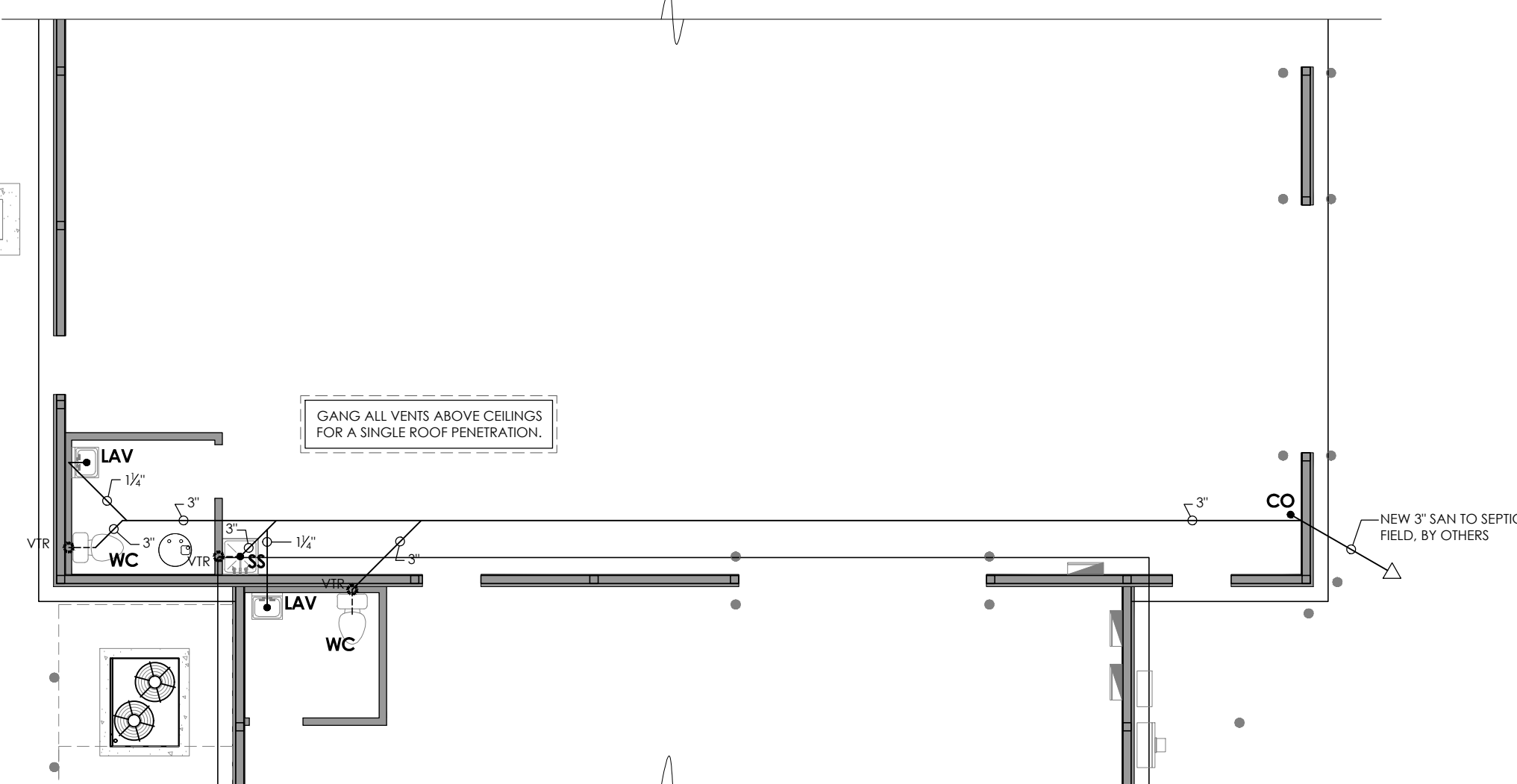
FIXTURE UNIT TABULATION		
FIXTURE	COLD	HOT
VALVE WATER CLOSET	10	--
URINAL	5	--
SERVICE SINK	2.25	2.25
3 COMP SINK	2	2.0
LAVATORY / SINK	1.5	1.5
DRINKING FOUNTAIN	0.25	--

PLUMBING CONTRACTOR TO PROVIDE AIR CHAMBERS OR WATER HAMMER ARRESTERS BY SLOUX CHIEF, PRECISION PLUMBING PRODUCTS, WATTS OR APPROVED EQUIVALENT WITH PISTON O-RING CONSTRUCTION, HAVING ASSE # 1010 AND ANSI #A12.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. SIZE THE UNITS AS SHOWN ON THE DRAWINGS AND / OR PER THE TABLES SHOWN ABOVE.

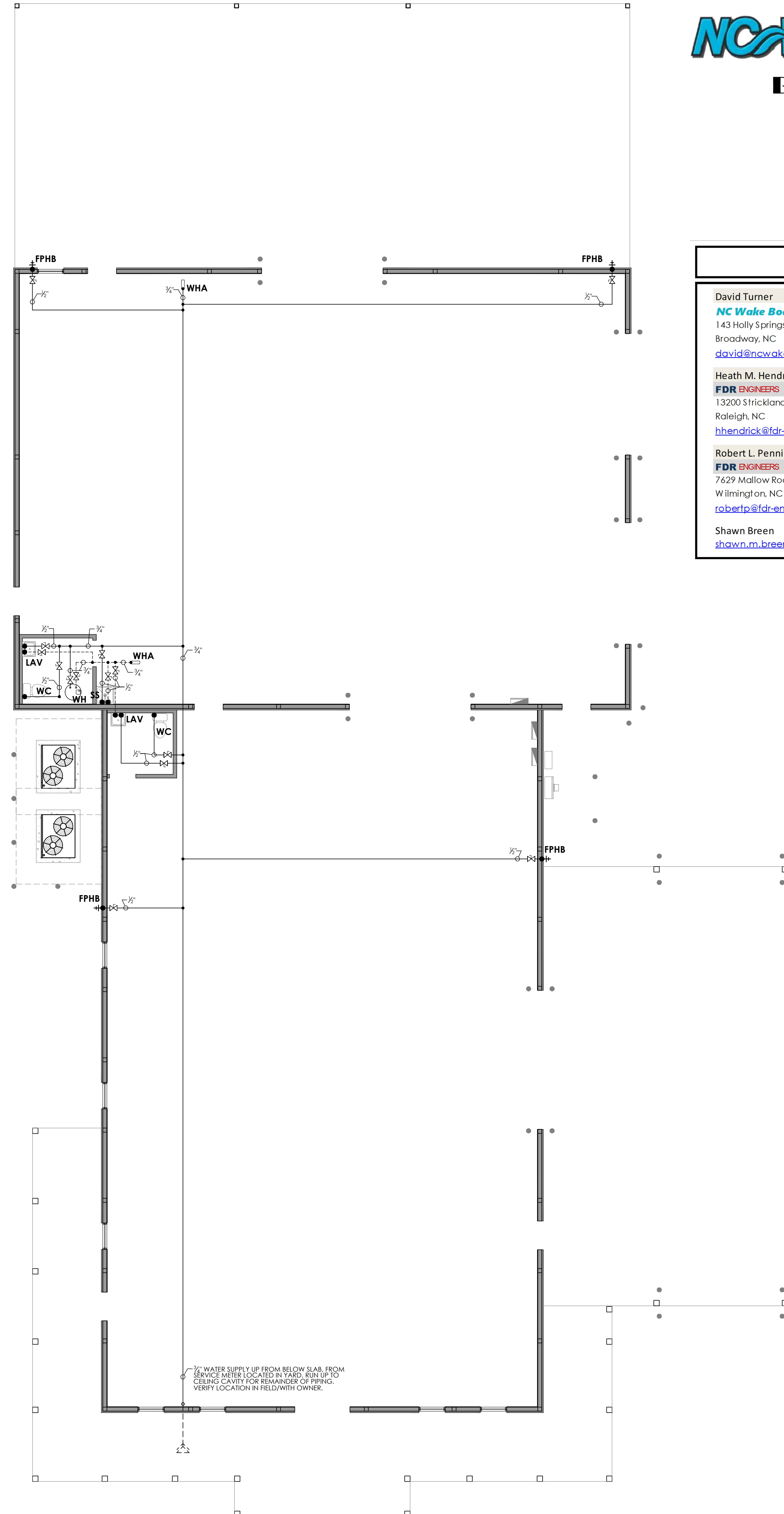
WATER HAMMER ARRESTOR SCHEDULE

DESIGN PARAMETERS NOTE :

- THE PLUMBING SUPPLY SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH **NSPC TABLE B.7.3.B TYPE K COPPER TUBING**. C.C. TO VERIFY ADEQUATE PRESSURE AND EXISTING CONDITIONS AND PROVIDE ANY ADDITIONAL APPURTANCES AS REQUIRED TO ACHIEVE A SATISFACTORY FUNCTIONING AND COMPLIANT SYSTEM.
- ALL RESTROOM LAVATORIES HAND SINKS TO RECEIVE 120° HOT WATER SUPPLIED BY ABOVE CEILING MIXING VALVE.
- INSTALL TRAP PRIMERS AS REQUIRED BY CURRENT **N.S.P.C.** AND ALL OTHER APPLICABLE CODES.
- ALL FIXTURE SUPPLY CONNECTIONS TO HAVE ACCESSIBLE MANUAL BALL TYPE SHUTOFF VALVES OR ACCESS PANEL TO SAME.
- REFER TO **N.S.P.C.** AND MANUF. SPECIFICATIONS FOR ALL SUPPLY, INLET, TRAP, AND DRAIN SIZES.
- ALL VENTING TO COMPLY WITH THE CURRENT **N.S.P.C.**



2 PARTIAL SANITARY LAYOUT
scale : 1/8" = 1'-0"



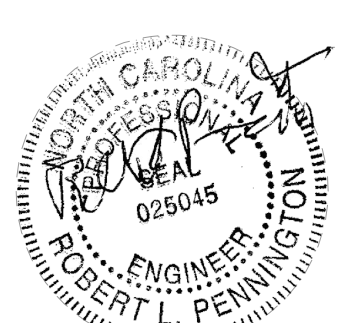
1 FW SUPPLY LAYOUT
scale : 1/8" = 1'-0"

NC WakeBoats
Broadway, NC

CONTACTS

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Shawn Breen	APPX B & MPE PM	(860) 387-3017

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13200 Strickland Road
Suite #111
Raleigh, NC 27613
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NC WakeBoats
155 Holly Springs Church Road
Broadway, NC 27505

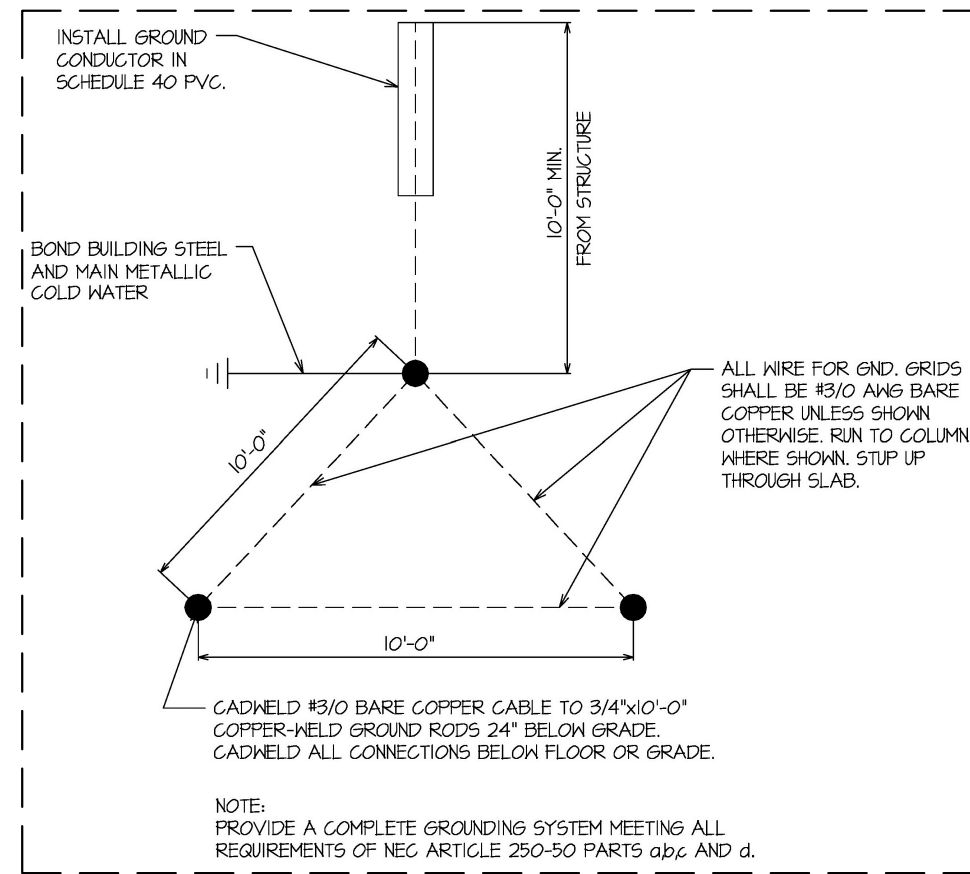
DESIGNED BY: SMB
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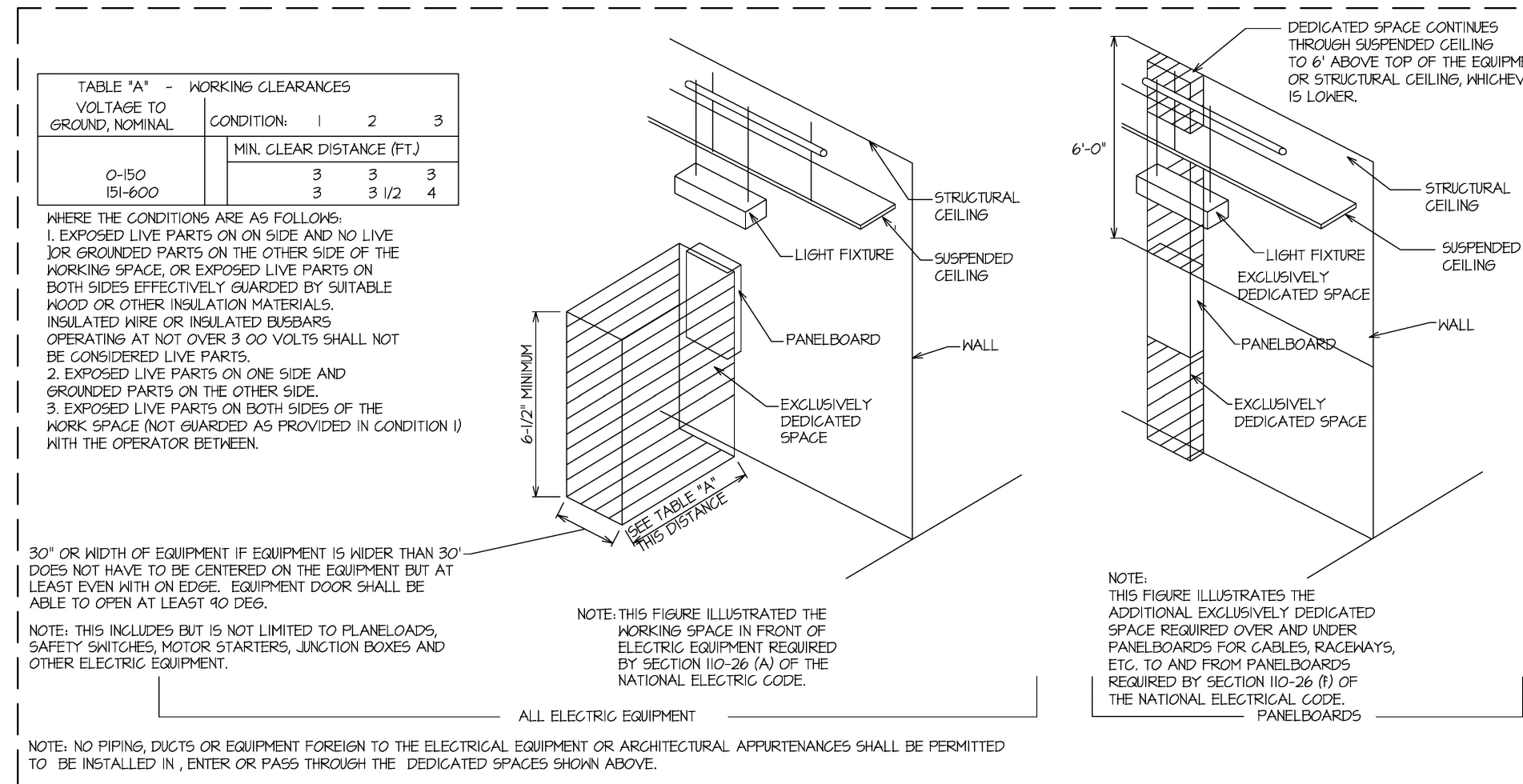
Sheet
P1.0

GENERAL ELECTRICAL NOTES

- 1. PERFORM ALL WORK IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND ALL OTHER APPLICABLE STATE AND LOCAL CODES.
2. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EXACT EQUIPMENT LOCATIONS.
3. FURNISH ALL LABOR, MATERIALS, SERVICES AND SKILLED SUPERVISION NECESSARY FOR THE INSTALLATION, TESTING, AND ADJUSTMENT OF ALL CIRCUITING AND ELECTRICAL EQUIPMENT SPECIFIED HEREIN, OR SHOWN OR NOTED ON THE DRAWINGS AND ITS DELIVERY TO THE BUILDING OWNER COMPLETE AND READY FOR USE. ALL ELECTRICAL WORK SHALL BE NEW EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.
4. THE CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE AND SHALL COMPARE THE DRAWINGS WITH THE EXISTING ELECTRICAL INSTALLATION AND SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS WITH THE SCOPE OF THIS PROJECT.
5. ARRANGE WORK SO THAT ELECTRICAL POWER AND COMMUNICATIONS ARE AVAILABLE TO EXISTING FACILITIES WITHIN THE BUILDING WHICH ARE TO REMAIN AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL SCHEDULE ALL INTERRUPTIONS AT THE CONVENIENCE OF THE BUILDING OWNER AND TENANT.
6. MATERIALS AND EQUIPMENT SHALL CONFORM TO AND BE IN ACCORDANCE WITH THE LATEST APPLICABLE STANDARDS OF THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) AND THE AMERICAN STANDARDS INSTITUTE (ANSI), WHERE STANDARDS HAVE BEEN ESTABLISHED FOR SPECIFIC ITEMS OF MATERIAL AND EQUIPMENT AND INSPECTION CATEGORIES HAVE BEEN ESTABLISHED BY THE UNDERWRITERS LABORATORY, THE MATERIALS AND EQUIPMENT SHALL BE LISTED AND BEAR THE UL LABEL.
7. ELECTRICAL EQUIPMENT AND FIXTURES SHALL BE CONNECTED TO PROVIDE CIRCUIT CONTINUITY IN ACCORDANCE WITH APPLICABLE CODES WHETHER OR NOT EACH PIECE OF CONDUCTOR, CONDUIT, OR PROTECTIVE DEVICES ARE SHOWN BETWEEN EQUIPMENT AND FIXTURES AND POINT OF CIRCUIT ORIGIN.
8. REMOVE ALL ELECTRICAL EQUIPMENT AND MATERIALS IN AREAS TO BE DEMOLISHED UNDER SCOPE OF WORK FOR THIS PROJECT. EXTEND, REVISE AND/OR CORRECT EXISTING CIRCUITING AFFECTED BY DEMOLITION WORK AS REQUIRED AND AS NOTED ON THE DRAWINGS. ALL EXISTING ELECTRICAL EQUIPMENT, FIXTURES, ETC., NOT SPECIFICALLY DESIGNATED FOR REMOVAL ON THE DRAWINGS SHALL REMAIN.
9. THE CONTRACTOR SHALL RELABEL ALL REVISED BRANCH CIRCUITS, PANEL BOARD DESIGNATIONS, ETC. BASED ON THE SCOPE OF WORK FOR THIS PROJECT AND SHALL UPDATE PANELBOARD DIRECTORIES ACCORDINGLY - FINAL DIRECTORIES TO BE TYPED.
10. THE CONTRACTOR SHALL COORDINATE THE MOUNTING HEIGHTS OF ALL WALL MOUNTED ELECTRICAL AND TELECOMMUNICATIONS DEVICES WITH ARCHITECTURAL DRAWINGS AND DETAILS PRIOR TO INSTALLATION.
11. THE CONTRACTOR SHALL VERIFY ALL DOOR SWINGS WITH ARCHITECTURAL DRAWINGS PRIOR TO INSTALLATION OF WALL SWITCHES. WALL SWITCHES SHALL BE LOCATED ON LOCK SIDE OF ALL DOORS UNLESS PHYSICALLY IMPOSSIBLE TO INSTALL IN THIS LOCATION OR INDICATED OTHERWISE ON DRAWINGS. VERIFY LOCATIONS OF WALL SWITCHES WITH ARCHITECT IN EVENT OF CONFLICTS/
12. MULTIPLE WALL SWITCHES SHOWN IN ONE LOCATION ON DRAWINGS SHALL BE GANGED UNDER A COMMON COVERPLATE UNLESS OTHERWISE NOTED ON DRAWINGS. GANGING OF SWITCHES SHALL MEET ALL REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC).
13. CEILING GRID LAYOUTS WHERE SHOWN ON ELECTRICAL DRAWINGS ARE FOR INFORMATION ONLY. CONTRACTOR SHALL COORDINATE THE PLACEMENT AND MOUNTING HARDWARE REQUIREMENTS OF ALL LIGHTING FIXTURES IN ACCORDANCE WITH ARCHITECTURAL REFLECTED CEILING PLANS AND MECHANICAL/PLUMBING PLANS PRIOR TO INSTALLATION OF DEVICES.
14. FURNITURE LAYOUTS WHERE SHOWN ON ELECTRICAL DRAWING ARE FOR INFORMATION ONLY. CONTRACTORS SHALL COORDINATE THE LOCATIONS OF ALL DEVICES WITH ARCHITECTURAL DRAWINGS AND DETAILS, AND ELECTRICAL DRAWINGS PRIOR TO INSTALLATION OF DEVICES.
15. ALL WORK ASSOCIATED WITH ADDITIONS OR REVISIONS TO BASE BUILDING FIRE ALARM SYSTEM SHALL BE COORDINATED WITH BUILDING OWNER PRIOR TO START OF CONSTRUCTION.
16. ALL AUDIO-VISUAL EQUIPMENT AND ASSOCIATED CABLING TO BE PROVIDED AND INSTALLED BY A/V EQUIPMENT SUPPLIER/INSTALLER. CONTRACTOR SHALL COORDINATE ALL A/V WORK WITH A/V CONSULTANT PRIOR TO START OF CONSTRUCTION.
17. ALL WORK ASSOCIATED WITH TELECOMMUNICATIONS OR COMPUTER EQUIPMENT SHALL BE COORDINATED WITH THE BUILDING OWNER AND THE TELECOMMUNICATIONS EQUIPMENT/CABLING INSTALLER PRIOR TO START OF CONSTRUCTION.



POWER SERVICE GROUNDING GRID



POWER EQUIPMENT SERVICE AREAS

ELECTRICAL SYSTEM AND INSTALLATION NOTES

- ALL WORK SHALL CONFORM TO STATE, LOCAL, AND FEDERAL CODES, INCLUDING THE LATEST EDITIONS OF THE NATIONAL ELECTRIC CODE AND THE INTERNATIONAL BUILDING CODE.
- MINIMUM WIRE SIZE SHALL BE 12AWG CU UNLESS OTHERWISE NOTED.
- HOMERUNS GREATER THAN 100 FEET SHALL BE 16AWG CU MINIMUM.
- ALL CIRCUITRY SHALL BE RUN IN EMT, IMC, OR RIGID CONDUIT.
- E.C. TO FURNISH AND INSTALL ALL NECESSARY MATERIALS AND LABOR TO ENSURE A COMPLETE AND OPERABLE SYSTEM.
- E.C. RESPONSIBLE FOR OBTAINING AND MAINTAINING ALL REQUIRED PERMITS, INSPECTIONS, LICENSES ETC., NECESSARY TO COMPLETE THIS PROJECT.
- PROVIDE RETURN DUCT MOUNTED SMOKE DETECTORS IN ALL CENTRAL AIR HANDLING UNITS, TO BE INTERLOCKED WITH FIRE ALARM PANEL (BY OTHERS).
- INSTALL NECESSARY CIRCUITS, WIRING, AND JUNCTION BOXES AS REQUIRED FOR COMPLETE SIGNAGE AND ACCENT ILLUMINATION. COORDINATE WITH INSTALLER.
- ALL LOW VOLTAGE WIRING TO BE RUN IN COLOR CODED SMURFF TUBES. BLUE FOR TV, RED FOR FIRE ALARM, AND YELLOW FOR TV/DATA.
- ALL CAN LIGHTS, RECEPTACLES, AND JUNCTION BOXES IN RATED ASSEMBLIES TO BE RATED WITH EITHER BOXES BUILT-UP TYPE-X CWB, 3M MPP+ UL RATED PUTTY, OR RATED FIXTURE(S).

Table titled 'ELECTRICAL FEEDS - 3ph' showing breaker/load, feeds, ground, E.M.T., and sets. It includes columns for 'THHN CU (194°F)' with sub-columns for 'SINGLE SET' and '2 SETS'. Rows list various breaker sizes (20A, 30A, 40A, 50A, 60A, 150A, 200A, 225A, 400A, 600A, 800A) and their corresponding wire sizes and E.M.T. diameters.

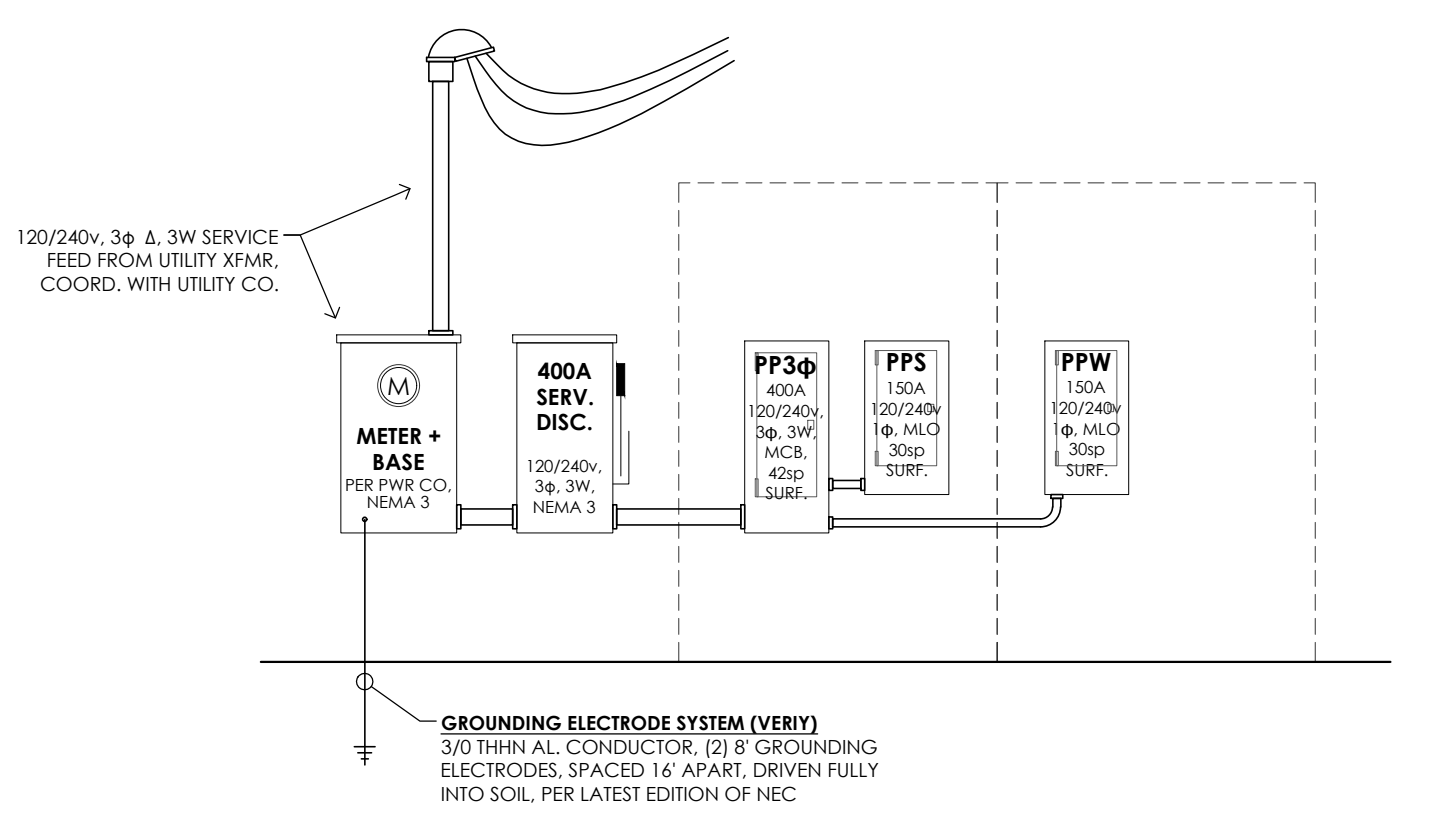
BONDING OF METAL VENEERS
ELECTRICAL CONTRACTOR SHALL PROVIDE ADEQUATE BONDING OF THE INSTALLED METAL VENEER PANELS, PURSUANT TO SECTION 250 OF THE 2020 NFPA-70 (NEC) WITH NORTH CAROLINA AMENDMENTS AND TO THE SATISFACTION OF THE LOCAL ELECTRICAL CODE OFFICIAL/INSPECTOR HAVING AUTHORITY.

LIGHTING SCHEDULE table with columns: USE, TYPE, MAKE/PR, MODEL, LAMPS, V_{FL}, V, and DESCRIPTION. It lists various lighting fixtures like 'EXT. DOWNLIGHT CAN', 'WAREHOUSE HIGH-BAY', 'EXT. CANOPY HIGH-BAY', '2X2 TROFFER', 'EXTERIOR AREA WALL', 'EXT. EM STANDARD', 'EM STANDARD', 'EXT. EM STANDARD', 'OFFICE BREAK ROOMS', 'RESTROOMS', and 'OTHER BUSINESS AREAS'.

Table showing electrical load calculations for a section of the building. It includes columns for 'Load Designation / Use', 'VA per phase', 'Breaker', 'Ground', 'Conduit', 'Raceway', 'L1 L3', 'Feeder', 'Conduit', 'Breaker', 'VA per phase', 'Load Designation / Use'. It also includes a summary table with 'Demand: 238.6 A' and 'Connected: 248.7 A'.

Table showing electrical load calculations for another section. It includes columns for 'Load Designation / Use', 'VA per phase', 'Breaker', 'Ground', 'Conduit', 'Raceway', 'L1 L3', 'Feeder', 'Conduit', 'Breaker', 'VA per phase', 'Load Designation / Use'. It also includes a summary table with 'Demand: 37.6 A' and 'Connected: 37.1 A'.

Table showing electrical load calculations for a third section. It includes columns for 'Load Designation / Use', 'VA per phase', 'Breaker', 'Ground', 'Conduit', 'Raceway', 'L1 L3', 'Feeder', 'Conduit', 'Breaker', 'VA per phase', 'Load Designation / Use'. It also includes a summary table with 'Demand: 44.1 A' and 'Connected: 44.2 A'.



SERVICE RISER DIAGRAM
scale : N.T.S.



INDEX table with columns: INDEX, NOTES, DETAILS, RISER + SCHEDULES, LAYOUTS, NOTES + SCHEDULES, and R/LP. It includes a date '11/23/2024' and a version 'E0.1'.

CONTACTS section listing David Turner (OWNER), Heath M. Hendrick (STRUCTURAL ENGINEER), Robert L. Pennington (APPX B & MPE ENGINEER), and Shawn Breen (APPX B & MPE PM) with their respective phone numbers and email addresses.

Vertical banner for FDR ENGINEERS, PLLC. It includes the company name in large letters, the address '13200 Strickland Road, Suite #111 Raleigh, NC 27613', the website 'www.fdr-eng.com', and the phone number '(919) 957-5100'. There is also a circular seal for Robert L. Pennington, a Professional Engineer, License No. P-1418.

Vertical banner for NC WakeBoats. It includes the company name in large letters, the address '155 Holly Springs Church Road, Broadway, NC 27505', and the project name 'Project'.

Table with columns: DESIGNED BY (SMB), DRAWN BY (SMB), APPROVED BY (RLP), PROJECT # (R2408270), DATE (2024-10-23), and a revision table with columns #, Revision, and Date.

Sheet E0.1

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