

# PROJECT GENERAL NOTES

- THE CONTRACT DOCUMENTS INCLUDE THE WORKING DRAWINGS, ANY ADDENDA, MODIFICATIONS, THE CONDITIONS OF THE CONSTRUCTION CONTRACT, AND SPECIFICATIONS AS NOTED ON THE DRAWINGS.
- THE CONTRACT DOCUMENTS ARE INSTRUMENTS OF SERVICE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT WHETHER THE PROJECT FOR WHICH THEY ARE PREPARED IS EXECUTED OR NOT. THE CONTRACT DOCUMENTS ARE NOT TO BE USED BY THE OWNER FOR OTHER PROJECTS OR EXTENSIONS TO THE PROJECT NOR ARE THEY TO BE MODIFIED IN ANY MANNER WHATSOEVER EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO THE ARCHITECT.
- THE WORK WILL CONFORM WITH THE REQUIREMENTS OF ALL AGENCIES HAVING JURISDICTION.
- FURNISH MEANS SUPPLY ONLY FOR OTHERS TO PUT IN PLACE.
- PROVIDE MEANS FURNISH AND INSTALL, COMPLETE AND IN PLACE.
- SIMILAR MEANS COMPATIBLE CHARACTERISTICS FOR CONDITIONS NOTED. CONTRACTOR TO VERIFY DIMENSIONS AND ORIENTATION.
- TYPICAL MEANS IDENTICAL FOR CONDITIONS NOTED.
- DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN. VERIFY DIMENSIONS WITH FIELD CONDITIONS. IF DISCREPANCIES ARE DISCOVERED BETWEEN FIELD CONDITIONS AND DRAWINGS OR BETWEEN DRAWINGS, CONTACT ARCHITECT FOR RESOLUTION BEFORE PROCEEDING.
- HORIZONTAL DIMENSIONS INDICATED ARE TO AND FROM FINISHED FACE OF CONSTRUCTION, EXCEPT AS NOTED.
- VERTICAL DIMENSIONS ARE FROM TOP OF FLOOR SLAB OR DECK, EXCEPT WHERE NOTED TO BE ABOVE FINISH FLOOR (A.F.F.).
- DIMENSIONS ARE NOT ADJUSTABLE WITHOUT APPROVAL OF ARCHITECT UNLESS NOTED.
- ALL WORK SHALL BE ERECTED AND INSTALLED PLUMB, LEVEL, SQUARE, AND TRUE AND IN PROPER ALIGNMENT.
- COORDINATE AND PROVIDE BLOCKING/BACKING IN PARTITIONS BEHIND ALL WALL-MOUNTED ITEMS. ALL CONCEALED WOOD TO BE FIRE TREATED.
- MAKE ALL NECESSARY PROVISIONS FOR ITEMS TO BE FURNISHED OR INSTALLED BY TENANT, PROVIDE PROTECTION FOR THESE PROVISIONS UNTIL COMPLETION OF THE PROJECT. GENERAL CONTRACTOR TO COORDINATE N.J.C. ITEMS WITH APPROPRIATE TRADES.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING CONTRACT DOCUMENTS, FIELD CONDITIONS, AND DIMENSIONS FOR ACCURACY AND CONFIRMING THAT WORK IS BUILDABLE AS SHOWN BEFORE PROCEEDING WITH CONSTRUCTION. CLARIFICATIONS REGARDING ANY CONFLICTS SHALL BE ACHIEVED BEFORE RELATED WORK IS STARTED.
- GENERAL CONTRACTOR SHALL VERIFY THAT NO CONFLICTS EXIST IN LOCATIONS OF ANY AND ALL MECHANICAL, TELEPHONE, ELECTRICAL, PLUMBING, AND SPRINKLING EQUIPMENT (TO INCLUDE ALL PIPING, DUCTWORK AND CONDUIT) AND THAT ALL REQUIRED CLEARANCES FOR INSTALLATION AND MAINTENANCE OF ABOVE EQUIPMENT ARE PROVIDED. ELEMENTS TO BE EXPOSED OR CONCEALED SHALL BE DETERMINED AND REVIEWED WITH ARCHITECT IN THE FIELD PRIOR TO CONSTRUCTION PROCEEDING.
- GENERAL CONTRACTOR AND SUB-CONTRACTORS SHALL COORDINATE THE LAYOUT AND EXACT LOCATION OF PARTITIONS, DOORS, ELECTRICAL/TELEPHONE OUTLETS AND LIGHT SWITCHES WITH ARCHITECT IN THE FIELD BEFORE PROCEEDING WITH CONSTRUCTION.
- GENERAL CONTRACTOR SHALL PROVIDE MANUFACTURER'S SPECIFICATIONS INSTALLATION INSTRUCTIONS, SHOP DRAWINGS AND SAMPLES FOR REVIEW AND APPROVAL OF ALL MATERIALS AND METHODS TO BE USED PRIOR TO ORDERING OR PROCEEDING WITH THE WORK.
- EXERCISE EXTREME CARE AND PRECAUTION DURING CONSTRUCTION OF THE WORK TO MINIMIZE DISTURBANCES TO ADJACENT STRUCTURES AND THEIR OCCUPANTS, PROPERTY, PUBLIC THROUGHFARES, ETC. CONTRACTOR SHALL TAKE PRECAUTIONS AND BE RESPONSIBLE FOR THE SAFETY OF ALL BUILDING OCCUPANTS FROM CONSTRUCTION PROCEDURES.
- WITHIN FIVE (5) DAYS FROM CONTRACT DATE, PREPARE AND SUBMIT AN ESTIMATED PROGRESS SCHEDULE FOR THE WORK, WITH SUB SCHEDULES OF RELATED ACTIVITIES SUCH AS DATA/TELEPHONE CABLING AND FURNITURE INSTALLATION.
- ALL WORK SHALL COMPLY WITH APPLICABLE CODES, AMENDMENTS, RULES, REGULATIONS, ORDINANCES, LAWS, ORDERS, APPROVALS, ETC. THAT ARE REQUIRED BY PUBLIC AUTHORITIES, IN THE EVENT OF CONFLICT, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN. REQUIREMENTS INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, THE CURRENT APPLICABLE EDITIONS OF THE NEW JERSEY STATE BUILDING AND CONSTRUCTION CODES WHICH ARE RECORDED ON THE COVER SHEET OF THIS SET, AS FOUND ON THE WEBSITE OF THE NJ DEPARTMENT OF COMMUNITY AFFAIRS AS OF THE DATE OF COMMENCEMENT FOR THIS PROJECT.
- ABBREVIATIONS USED IN REFERRING TO STANDARDS THAT APPLY TO THE WORK INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
 

AMERICAN SOCIETY OF TESTING MATERIALS - ASTM	AMERICAN INSTITUTE OF STEEL CONSTRUCTION - AISC
AMERICAN WELDING SOCIETY - AWS	AMERICAN CONCRETE INSTITUTE - ACI
AMERICAN NATIONAL STANDARDS INSTITUTE - ANSI	ARCHITECT, ALUMINUM MANUFACTURERS ASSOCIATION - AAMA
ALUMINUM ASSOCIATION, INC. - AA	CONCRETE REINFORCING STEEL INSTITUTE - CRSI
NATIONAL ASSOC. OF ARCHIT. METAL MANUF'S - NAAMM	NATIONAL FIRE PROTECTION ASSOCIATION - NFPA
NATIONAL WOODWORK MANUF'S ASSOCIATION - NWWA	AMERICAN WOODWORK INSTITUTE - AWI
- IN THE EVENT OF CONFLICTS BETWEEN DATA, SHOP DRAWINGS AND DATA SHOWN ON THE SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN. DIMENSIONS NOTED ON DRAWINGS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS. DETAIL DRAWINGS TAKE PRECEDENCE OVER DRAWINGS OF SMALLER SCALE. SHOULD THE CONTRACTOR AT ANY TIME DISCOVER AN ERROR IN A DRAWING OR SPECIFICATION, OR A DISCREPANCY OR VARIATION BETWEEN DIMENSIONS OR DRAWINGS, AND MEASUREMENTS AT SITE, OR LACK OF DIMENSIONS OR OTHER INFORMATION, HE SHALL NOT PROCEED WITH THE AFFECTED WORK UNTIL CLARIFICATION HAS BEEN MADE.
- ONLY NEW ITEMS OF RECENT MANUFACTURE, OF STANDARD QUALITY, FREE FROM DEFECTS WILL BE PERMITTED ON THE WORK. REJECTED ITEMS SHALL BE REMOVED IMMEDIATELY FROM THE WORK AND REPLACED WITH ITEMS OF THE QUALITY SPECIFIED. FAILURE TO REMOVE REJECTED ITEMS AND EQUIPMENT SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR QUALITY AND CHARACTER OF ITEMS USED NOR FROM ANY OTHER OBLIGATION IMPOSED ON HIM BY THE CONTRACT.
- THE FINISHED WORK SHALL BE FIRM, WELL ANCHORED, IN TRUE ALIGNMENT, PLUMB, LEVEL WITH SMOOTH, CLEAN, UNIFORM APPEARANCE; WITHOUT WAVES, DISTORTIONS, HOLES, MARKS, CRACKS, STAINS OR DISCOLOR. JOINTS SHALL BE CLOSE FITTING, NEAT AND WELL SCRIBED. THE FINISH WORK SHALL HAVE NO EXPOSED, UNSIGHTLY ANCHORS OR FASTENERS AND SHALL NOT PRESENT HAZARDOUS OR UNSAFE CORNERS. ALL WORK SHALL HAVE THE PROVISIONS FOR EXPANSION, CONTRACTION, AND SHRINKAGE AS NECESSARY TO PREVENT CRACKS, BUCKLING, AND WARPING DUE TO TEMPERATURE AND HUMIDITY CONDITIONS.
- ATTACHMENTS, CONNECTIONS, OR FASTENERS OF ANY NATURE ARE TO BE PROPERLY AND PERMANENTLY SECURED IN CONFORMANCE WITH BEST PRACTICE AND THE CONTRACTOR IS RESPONSIBLE FOR IMPROVING THEM ACCORDINGLY AND TO THESE CONDITIONS. THE DRAWINGS SHOW ONLY SPECIAL CONDITIONS TO ASSIST CONTRACTOR; THEY DO NOT ILLUSTRATE EVERY SUCH DETAIL.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE DIMENSIONS AND ELEVATIONS AT THE SITE, THE CONTRACTOR AND SUB-CONTRACTORS SHALL COORDINATE THE LAYOUT AND EXACT LOCATIONS OF ALL PARTITIONS, DOORS, ELECTRICAL/TELEPHONE OUTLETS, LIGHT SWITCHES AND THERMOSTATS WITH THE OWNER/AGENT IN THE FIELD BEFORE PROCEEDING WITH CONSTRUCTION.
- NO WORK DEFECTIVE IN CONSTRUCTION OR QUALITY OR DEFICIENT IN ANY REQUIREMENTS OF DRAWINGS AND SPECIFICATIONS WILL BE ACCEPTABLE IN CONSEQUENCE OF OWNER'S OR ARCHITECT'S FAILURE TO DISCOVER OR TO POINT OUT DEFECTS OR DEFICIENCIES DURING CONSTRUCTION; NOR WILL PRESENCE OF INSPECTORS ON WORK SITE RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR SECURING QUALITY AND PROGRESS OF WORK, AS REQUIRED BY CONTRACT. DEFECTIVE WORK REVEALED WITHIN REQUIRED TIME GUARANTEES SHALL BE REPLACED BY WORK CONFORMING WITH INTENT OF CONTRACT. NO PAYMENT, WHETHER PARTIAL OR FINAL, SHALL BE CONSTRUED AS AN ACCEPTANCE OF DEFECTIVE WORK OR IMPROPER MATERIALS.
- MATERIALS AND WORKMANSHIP SPECIFIED BY REFERENCE TO NUMBER, SYMBOL, TITLE OF SPECIFICATION SUCH AS COMMERCIAL STANDARDS, FEDERAL SPECIFICATIONS, TRADE ASSOCIATION STANDARD OR OTHER SIMILAR STANDARDS, SHALL COMPLY WITH REQUIREMENTS IN THE LATEST EDITION OR REVISION THEREOF AND WITH ANY AMENDMENT OR SUPPLEMENT THERETO IN EFFECT ON DATE OF ORIGIN OF THIS PROJECTS CONTRACT DOCUMENTS. SUCH STANDARDS, EXCEPT AS MODIFIED HEREIN, SHALL HAVE FULL FORCE EFFECTS AS THOUGH PRINTED IN CONTRACT DOCUMENTS.
- CONTRACTOR SHALL WAIVE "COMMON PRACTICE" AND "COMMON USAGE" AS CONSTRUCTION CRITERIA WHEREVER DETAILS AND CONTRACT DOCUMENTS OR GOVERNING CODES, ORDINANCES, ETC. REQUIRE GREATER QUANTITY OR BETTER QUALITY THAN COMMON PRACTICE OR COMMON USAGE.
- CONTRACTOR SHALL ORDER AND SCHEDULE DELIVERY OF MATERIALS IN AMPLIFIED TIME TO AVOID DELAYS IN CONSTRUCTION. IF AN ITEM IS FOUND TO BE UNAVAILABLE, CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY TO ALLOW THE OWNER A REASONABLE AMOUNT OF TIME TO SELECT A SUITABLE SUBSTITUTION.
- IF AT ANY TIME BEFORE COMMENCEMENT OF WORK, OR DURING PROGRESS THEREOF, CONTRACTOR'S METHODS, EQUIPMENT, OR APPLIANCES ARE INAPPROPRIATE FOR SECURING QUALITY OF WORK OR RATE OF PROGRESS INTENDED BY CONTRACT DOCUMENTS, OWNER MAY ORDER CONTRACTOR TO IMPROVE THEIR QUALITY OR INCREASE EFFICIENCY. THIS WILL NOT RELIEVE CONTRACTOR OF HIS SURETIES DO NOT OBLIGATIONS TO SECURE QUALITY OF WORK AND RATE OF PROGRESS SPECIFIED IN CONTRACT.
- WITH REFERENCE TO CEILINGS, CONTRACTOR SHALL COORDINATE WITH ALL TRADES INVOLVED TO INSURE THAT CONFLICTS DO NOT OCCUR BETWEEN LIGHT FIXTURES, DUCTWORK, DIFFUSERS, ETC., AND THAT THE CEILING HEIGHTS INDICATED ON DRAWINGS ARE ACHIEVED.
- REFERENCE TO MARKS, BRANDS, ETC., IS TO ESTABLISH TYPE AND QUALITY DESIRED; SUBSTITUTIONS OF ACCEPTABLE EQUALS WILL BE PERMITTED WITH OWNER'S APPROVAL UNLESS SPECIFICALLY NOTED OTHERWISE.
- CONTRACTOR SHALL APPLY FOR, PAY FOR, AND OBTAIN ALL REQUIRED PERMITS FOR CONSTRUCTION AND OCCUPANCY.
- PROVIDE SHOP AND/OR SUBMITTALS FOR THE FOLLOWING ITEMS AT THE OWNERS REQUEST:
 

MILLWORK, CASEWORK, AND HARDWARE	FINISH CARPENTRY	GLAZING
FLOOR FINISHES	ACOUSTICAL CEILING TILE AND GRID	WALL FINISHES
DOORS, DOOR HARDWARE + HOLLOW METAL FRAMES	ALUMINUM FRAMES	MECHANICAL EQUIPMENT
LIGHTING, EXIT SIGNAGE, AND EMERGENCY DEVICES	ELECTRICAL DEVICES	
- PRIOR TO SUBMITTING A QUOTATION FOR THIS WORK, THE CONTRACTOR SHALL REVIEW THESE DRAWINGS AND SPECIFICATIONS AND SHALL VISIT THE SITE TO FAMILIARIZE HIMSELF (THEMSELVES) WITH EXISTING CONDITIONS AND LIMITATIONS. THE CONTRACTOR SHALL NOTIFY THE OWNER AS SOON AS POSSIBLE OF ANY NOTABLE DISCREPANCIES.
- WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH APPLICABLE FIRE, HEALTH, SAFETY AND BUILDING CODES OF THE STATE AND LOCAL JURISDICTION IN WHICH THE PREMISES ARE SITUATED, WORKING CONDITIONS TO COMPLY WITH FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT GUIDELINES. CONTRACTORS SHALL REMOVE OR REPAIR ALL CONDITIONS NOT IN ACCORDANCE WITH STATE AND LOCAL CODES.
- ALL WORK SHALL BE FREE OF DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION. ALL SUCH DEFECTS SHALL BE CORRECTED BY THIS CONTRACTOR (S) AT NO EXPENSE TO THE OWNER.
- THE CONTRACTOR SHALL PROVIDE ALL LABOR, GOODS AND SERVICES REQUIRED TO COMPLETE THE WORK IN GOOD ORDER AND ON TIME, IN ACCORDANCE WITH THE CONSTRUCTION SCHEDULE SUBMITTED BEFORE COMMENCING WORK.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR DEBRIS REMOVAL. DO NOT ALLOW DEBRIS TO ACCUMULATE. PROVIDE ADEQUATE DUST AND NOISE BARRIERS. ALL AREAS SHALL BE LEFT BROOM CLEAN DAILY. WASH AND CLEAN ALL WORK AFFECTED BY CONSTRUCTION AT COMPLETION OF PROJECT. PROVIDE WEATHER BARRIERS AS REQUIRED. ALL COMPLETED OR ADJACENT WORK SHALL BE PROTECTED. ALL RUBBISH AND DEBRIS REMOVED ON A DAILY BASIS, AND THE PREMISES DELIVERED TO THE LANDLORD, READY FOR TENANT. CLEAN ALL EXPOSED SURFACES, INCLUDING GLAZING. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRASH REMOVAL. COORDINATE WITH LANDLORD FOR SOURCE OF WATER DURING CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR KEYING ALL REQUIRED LOCK SETS AND COORDINATING WITH OWNER TO ENSURE THAT CYLINDERS ARE KEED TO BUILDING MASTER KEY SYSTEM AND THAT SUFFICIENT NUMBER OF KEYS ARE SUPPLIED AT TIME OF SUBSTANTIAL COMPLETION.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE FIRE EXTINGUISHERS IN HIS WORK SPACE TO COMPLY WITH ALL FIRE REGULATIONS THROUGHOUT THE DURATION OF CONSTRUCTION. CONTRACTORS SHALL COMPLY WITH ALL FEDERAL AND LOCAL SAFETY REGULATIONS IN THE EXECUTION OF THEIR WORK.
- THESE DRAWINGS ARE TO BE USED FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN AND MAY NOT BE USED ON ANY OTHER PROJECT.
- FIELD INVESTIGATIONS SHALL BE MADE TO THE EXTENT NECESSARY TO INSURE NO BUILDING OR ADJACENT TENANT SERVICES ARE DISTURBED OR INTERRUPTED WITHOUT PRIOR PERMISSION OF THE OWNER.
- THE EXIT AND EMERGENCY LIGHTS SHOWN ARE FOR GUIDANCE. THE CONTRACTOR SHALL VERIFY/COORDINATE WITH LOCAL INSPECTOR FOR EXACT QUANTITY AND LOCATIONS.
- CONTRACTOR SHALL INSPECT ALL SUBSTRATES PRIOR TO INSTALLING FINISH MATERIALS. INSTALLATION OF FINISH MATERIALS BY SUBCONTRACTORS INDICATES ACCEPTANCE OF SUBSTRATE AND THAT THE SUBSTRATE IS ACCEPTABLE FOR THAT SPECIFIC FINISH.

## 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** Zip Code **27505**  
 Proposed Use : **SHOWROOM & WORKSHOP**  
 Owner/Authorized Agent: **DAVID TURNER** Phone # (910) 928-1104 Email **david@ncwakeboats.com**  
 Owned By:  City/County  Private  State  
 Code Enforcement Jurisdiction:  City  County **MOORE**  State

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LEAD DESIGN PROFESSIONAL **ROBERT PENNINGTON, ENGINEER**  
 DESIGNER FIRM NAME LICENSE # TELEPHONE #  
 Architectural **FDR ENGINEERS Robert Pennington 025045 (910) 520-0278**  
 Civil **Arnold Land Design James David Arnold 036865 (910) 430-2552**  
 Electrical **FDR ENGINEERS Robert Pennington 025045 (910) 520-0278**  
 Fire Alarm **BY OTHERS**  
 Plumbing **FDR ENGINEERS Robert Pennington 025045 (910) 520-0278**  
 Fire Alarm **FDR ENGINEERS Robert Pennington 025045 (910) 520-0278**  
 Mechanical **BY OTHERS**  
 Structural Foundation **FDR ENGINEERS Heath M Hendrick 035655 (910) 427-0501**  
 Retaining Walls-5' High  
 Other

2018 NC BUILDING CODE FOR:  New Construction  Addition  Upfit  
 2018 EXIST. BUILDING CODE FOR:  Reconstruction  Alteration  Repair  Renovation  
 CONSTRUCTED: (date) \_\_\_\_\_ CURRENT USE(S) (Ch. 3): \_\_\_\_\_  
 RENOVATED: (date) \_\_\_\_\_ PROPOSED USE(S) (Ch. 3): **B & S-1**

BUILDING DATA:

Construction Type:  I-A  II-A  III-A  IV  V-A  
 Mixed Construction  I-B  II-B  III-B  V-B  
 No  Partial  Yes  Types

Sprinklers:  No  Partial  Yes  NFPA 13  NFPA 13R  NFPA 13D  
 Standpipes:  No  Yes  Class  I  II  III  Wet  Dry  
 Fire District:  No  Yes  Flood Hazard Area:  No  Yes  
 Building Height: **28'-0"** Feet  Number of Stories **1**

Special Inspections: **none**

Gross Building Area:

FLOOR	EXIST. (GR SQ FT)	NEW (GR SQ FT)	SUB-TOTAL
1st Floor		11,962 sf	11,962 sf
<b>TOTAL</b>		<b>11,962 sf</b>	<b>11,962 sf</b>

ALLOWABLE AREA

Business  Educational  Mercantile   
 Storage  S-1 Moderate  S-2 Low  High-piled

Mixed Occupancy:  No  Yes Separation: **NA** Hr. Exception:  Non-Separated Use (506.3)

The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.

Actual Area of Occupancy A + Actual Area of Occupancy B ≤ 1  
 Allowable Area of Occupancy A Allowable Area of Occupancy B

11,962 = 0.831 ≤ 1.400

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 503.3 AREA	(C) AREA FOR FRONTAGE INCREASE 1	(D) AREA FOR SPRINKLER INCREASE 2	(E) ALLOWABLE AREA OR 3 UNLIMITED	(F) MAXIMUM BLDG AREA 4
1	B... SHOWROOM	6,362	9,000	+60%	NA	NA	14,400
1	S-1... WORKSHOP	5,600	9,000	+60%	NA	NA	14,400

- Frontage area increases from Section 506.2 are computed thus:
  - Perimeter which fronts a public way or open space having 20 feet minimum width = **536' (P)**
  - Total Building Perimeter = **536' (P)**
  - Ratio (P/P) = **1 (F/P)**
  - W = Minimum width of public way = **29.6' (W)**  

$$\frac{[(24 \times 30) + (29.6) \times (30 \times 499)]}{536} = 29.6'$$
  - Percent of frontage increase  $I_f = 100 [F/P - 0.25] \times W/30 = 74$  (%)  
 $100 [1 - 0.25] \times 29.6 / 30 = 74$

ALLOWABLE HEIGHT

Building Height in Feet	ALLOWABLE (TABLE 503)	SHOWN ON PLANS	CODE REFERENCE
40'		28'	
Building Height in Stories	(B) 2 (S-1) 1	1	

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

### FIRE PROTECTION REQUIREMENTS

Life Safety Plan Sheet #, if Provided **CS**

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
Structural frame, including columns, girders, and trusses		NA					
Bearing walls		NA					
Exterior		NA					
North		NA					
East		NA					
West (602, F.S.D.)	10'5x<30'	NA					
South		NA					
Interior		NA					
Nonbearing walls and partitions		NA					
Exterior Walls		NA					
North		NA					
East		NA					
West		NA					
South		NA					
Interior walls and partitions		NA					
Floor construction including supporting beams and joists		NA					
Floor-Ceiling Assembly		NA					
Columns Supporting Foor		NA					
Roof construction including supporting beams and joists		NA					
Roof-Ceiling Assembly		NA					
Columns Supporting Roof		NA					
Shaft Enclosures - Exit		NA					
Shaft Enclosures - Others		NA					
Corridor Separation		NA					
Occupancy Separation		NA					
Party/Fire Wall Separation		NA					
Smoke Barrier Separation		NA					
Tenant Separation		NA					
Incidental Use Separation		NA					

\* Indicate section number permitting reduction

## LIFE SAFETY SYSTEM REQUIREMENTS

- Emergency Lighting:  No  Yes  
 Exit Signs:  No  Yes  
 Fire Alarm:  No  Yes  
 Smoke Detection Systems:  No  Yes  Partial AHU RA Duct Detectors  
 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)
  - Exterior wall opening area with respect to distance to assumed property lines (705.8)
  - Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
  - Occupant loads for each area
  - 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 oec. load capacity each exit door can accommodate based on egress width (1005.3)
  - Actual occupant load for each exit door
  - A 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

FLOOR, ROOM OR SPACE DESIGNATION	MINIMUM # OF EXITS REQUIRED	TRAVEL DISTANCE ALLOWABLE TRAVEL DISTANCE (TABLE 1007.1)	ACTUAL TRAVEL DISTANCE BETWEEN EXIT DOORS	ARRANGEMENT MEANS OF EGRESS 2 (SECTION 1007.1)
SHOWROOM	1	3	200'	84' NA NA
WORKSHOP	1	3	200'	48' NA NA

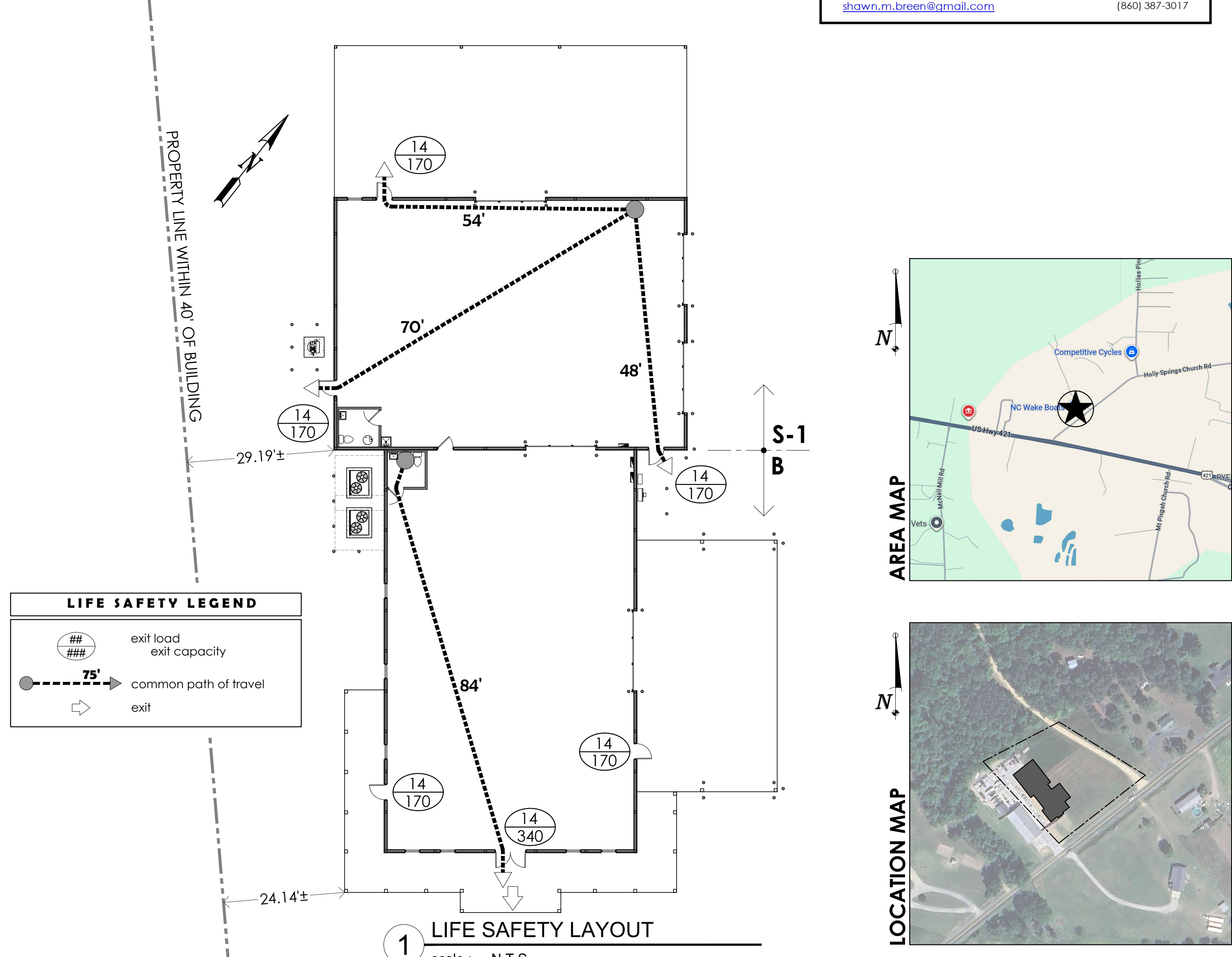
- Corridor dead ends (Section 1020.4)
- Single exits (Table 1006.3.1). Spaces with one egress (Table 1006.2.1)
- Common Path of Travel (Section 1006.2.1)

EXIT WIDTH

USE GROUP OR SPACE DESCRIPTION	(a) AREA 1 sq ft	(b) AREA 1 PER OCCUPANT (TABLE 1004.1.2)	(c) CALCULATED OCCUPANT LOAD	(d) PER OCCUPANT (SECTION 1006.3.1)	(e) EXISTING WIDTH (TABLE 1006.3.1)	(f) REQUIRED WIDTH (SECTION 1006.3.1)	(g) ACTUAL WIDTH SHOWN ON PLANS
SHOWROOM	REFER TO	14	0.3	0.2	NA	0.42'	NA 34'
WORKSHOP	SCHEDULE	14	0.3	0.2	NA	0.42'	NA 34'

## 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.



1 LIFE SAFETY LAYOUT  
 scale: N.T.S.

## OCCUPANCY LOAD CALCULATION

Description	A/E	net	IRC Occ. class	A/E	net	code	net/val	occ.
varianda	962		warehouses	500	gross	2		2
shop/worksm	4,000		warehouses	500	gross	8		8
outdoor showroom	2,000		warehouses	500	gross	4		4
								8 occupants: 14
shop	3,500		warehouses	500	gross	7		7
outdoor shop	2,100		warehouses	500	gross	4		4
								5-1 occupants: 14
								total occupants: 28

## plumbing facilities required

2018 NCPCC Table 403.1

use	total occ.	per gender	W.C.	F	lav.	F	D.F.	S.S.	code references
B	14		1/200		1/100				
required:			1	1	1	1	NA	NA	403.2(2)
provided:			1	1	1	1	NA	1	403.3.1

use	total occ.	per gender	W.C.	F	lav.	F	D.F.	S.S.	code references
S-1	14		1/1000		1/1000				
required:			1	1	1	1	NA	NA	403.2(2)
provided:			1	1	1	1	NA	1	403.3.1

NC IECC Table C402.1.3

OPaque THERMAL ENVELOPE INSULATION COMPONENT MINIMUM REQUIREMENTS

location	prescribed requirements	prescribed
ROOF:	<b>R-30c</b> insulation entirely above deck	R-13 FG BATT's in truss cavities and R-30 perpendicular atop
<b>or- R-42</b>	wood framed attic insulation	
WALLS:	<b>R-13 + R-3.8ci</b> BATT's in cavities + board/roll	R-21 FG BATT's between studs
<b>or- R-20</b>	BATT's in cavities	
SLAB:	<b>R-15</b> for 24" @ perimeter	24" of 2" polyiso rigid board

Climate Zone 4



## STRUCTURAL

CS	CODE, PROJECT DATA + LIFE SAFETY	RLP		
<b>\$1.1</b>	STRUCTURAL NOTES	HMH		
<b>\$2.1</b>	FOUNDATION	HMH		
<b>\$2.2</b>	ROOF FRAMING	HMH		
<b>\$2.3</b>	GRADE LAYOUT + SCHEDULES	RLP		
<b>\$2.4</b>	R.C.F. + ROOF LAYOUTS	RLP		
<b>\$4.1</b>				



No.	Revision	Date

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 therein.

**STRUCTURAL ABBREVIATIONS.**

ABBREV.	DEFINITION
AB	ANCHOR BOLTS
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
ARCH	ARCHITECT
BXC	BOTTOM CHORD EXTENSION
BF	BELOW FINISHED FLOOR
BOT	BOTTOM
B.O.xx	BOTTOM OF xx
BOC	BOTTOM OF STEEL
BLDG	BUILDING
BU	BEAM
BRG	BEARING
CANT	CANTILEVER
CL	CENTERLINE
CJ	CONTROL JOINT
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CP	COMPLETE PENETRATION
DBA	DOUBLE END
DBL	DEFORMED BAR ANCHOR
DEG	DEGREE
DET.DTL	DETAIL
DI	DIAMETER
DIAG	DIAGONAL
DM	DIMENSION
DK	DECK
DN	DOWN
DVSS	DRAWINGS
DWL	DOWEL
EA	EACH
EF	EACH FACE
E.F.	EXPANSION JOINT
EL ELEV	ELEVATION
EMBED	EMBEDDED / EMBEDMENT
ENGR	ENGINEER
EQ	EDGE OF DECK
EQ	EDGE OF STEEL
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FIN	FINISH
FL	FLOOR
FLR	FLOOR DRAIN
FND	FOUNDATION
FR	FACE OF MASONRY
FS	FACE OF WALL
FOW	FOOTING STEP
FTG	FIELD
FV	FIELD VERIFY
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GB	HIGH
HORIZ	HORIZONTAL
HSE	HIGH STRENGTH EPOXY
HSS	HOLLOW STRUCTURAL SECTION
IF	INSIDE FACE
INT	INTERIOR
JOINT	JOINT
K	KIPS = 1000 LBS
KB	KNEE BRACE
KSI	KIPS PER SQUARE INCH
KLF	KIPS PER LINEAR FOOT
LBS	POUNDS
L/L	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LOC	LOCATION
LW	LONG WAY
LWL	LIGHT WEIGHT CONCRETE
LSL	LAMINATED STRAND LUMBER
LVL	LUMBER 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 PILASTER
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
PFI	POUNDS PER SQUARE INCH
PSSL	PARRALEL 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
SPC	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
VERT	VERTICAL
VIF	VERIFY IN FIELD
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

**WOOD:**

- 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 (Fb) 850 PSI  
SHEAR (Fv) 75 PSI
- TREATED IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PROTECTED OR PRESURE TREATED IN ACCORDANCE WITH AITC-109.
- MEMBER SIZES SHOWN ARE NOMINAL UNLESS NOTED OTHERWISE.
- BOLTS IN WOOD ARE MACHINE BOLTS, UNLESS OTHERWISE NOTED. MACHINE BOLTS SHALL HAVE A SHANK DIAMETER WITHIN 1/64" 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.
- ALL WOOD ELEMENTS SHALL BE ATTACHED PER THE FASTENING SCHEDULE OF THE 2012 NCSBC (TABLE 2304.9.1) UNLESS OTHERWISE NOTED.
- SEE ARCHITECTURAL DRAWINGS FOR WEATHER PROTECTION OF ALL EXPOSED WOOD MEMBERS.

**WOOD SHEATHING:**

- PLYWOOD ROOF, FLOOR AND WALL SHEATHING ARE DESIGNED AS DIAPHRAGMS AND SHALL COMPLY WITH APPLICABLE PROVISIONS OF CHAPTER 23 OF THE 2012 NCSBC.
- SHEATHING SHALL BE FASTENED IN ACCORDANCE WITH PLANS SHOWN SPECIAL NAILING REQUIREMENTS AND WITH THE APPROPRIATE SCHEDULE IN CHAPTER 23, UNLESS NOTED OTHERWISE.
- IN GENERAL, SHEETS SHALL BE 4'-0"x8'-0" AND SHALL BE LAID WITH FACE PLIES 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:**

- 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:

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

- WIND LOAD: WHEN CALCULATING NET UPLIFT REACTIONS, USE MAXIMUM RESISTING DEAD LOAD EQUAL TO 8 PSF ON THE TOP CHORD AND 0 PSF ON THE BOTTOM CHORD.
- ROOF TRUSSES SHALL BE DESIGNED FOR A MAXIMUM VERTICAL DEFLECTION OF L/360 LIVE LOAD AND L/240 TOTAL LOAD.
- 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.
- 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:**

- 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.
- 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:**

- STEEL SHALL CONFORM TO ASTM A992 (Fy=50 ksi) FOR ALL W-SHAPES, AND ASTM A36 (Fy=36 ksi) FOR ALL OTHER MISCELLANEOUS SHAPES AND PLATES. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B (Fy=46 ksi). STRUCTURAL PIPE SHALL CONFORM TO ASTM A53, GRADE B, TYPE "E" OR "S" (Fy=42 ksi).
- 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).
- ALL STRUCTURAL STEEL EXPOSED TO EXTERIOR SHALL BE HOT-DIPPED GALVANIZED.
- 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.
- WELDS FOR ALL EXPOSED STRUCTURAL STEEL SHALL BE GROUND SMOOTH UNLESS NOTED OTHERWISE.
- 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.
- CONTRACTOR TO FURNISH AND INSTALL 500 lbs. OF ADDITIONAL MISCELLANEOUS STEEL TO BE USED AT ENGINEER'S DISCRETION.

**CONCRETE TESTING:**

- CONCRETE TESTING SHALL BE PAID FOR BY THE OWNER. TESTING LABORATORY SHALL PERFORM THE FOLLOWING TESTS ON CAST-IN-PLACE CONCRETE:  
A) ASTM C143 - "STANDARD TEST METHOD FOR SLUMP OF PORTLAND CEMENT CONCRETE"  
B) ASTM C231 - "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:**

- 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

- 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 1 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.

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

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

- 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.

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

- 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".

- ALL REINFORCING STEEL TO BE ASTM A615, GRADE 60 (#4 AND LARGER), EXCEPT WHERE NOTED OTHERWISE. REINFORCING SHALL NOT BE WELDED.
- 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".
- ALL REINFORCING STEEL BARS TO BE DETAILED AND PLACED IN ACCORDANCE WITH THE LATEST ACI MANUALS.
- 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).
- 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.
- 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.

- 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.

- 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 306 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.

**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), GUYS 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, DESIGN ROOF SNOW LOAD, SNOW EXPOSURE FACTOR, SNOW LOAD IMPORTANCE FACTOR, THERMAL FACTOR, ROOF LIVE LOAD

Pg =	10 psf
Pf =	10 psf
Ce =	0.9
Is =	1.0
Ci =	1.2
	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, Vx = 17.9k Vy = 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, ie = 1.0  
MAPPED SPECTRAL RESPONSE ACCELERATIONS, Sa = 0.139g S1 = 0.067g S0.1 = 0.149g Sd1 = 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 HV", SIKA "SIKADUR INJECTION SEL", "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.



WAKEBOARD DEALERSHIP  
SANFORD, NC

Project Name

FOUNDATION PLAN

Sheet Title

DESIGNED BY: AJI

DRAWN BY: AJI

APPROVED BY: HMM

PROJECT #: 24-067

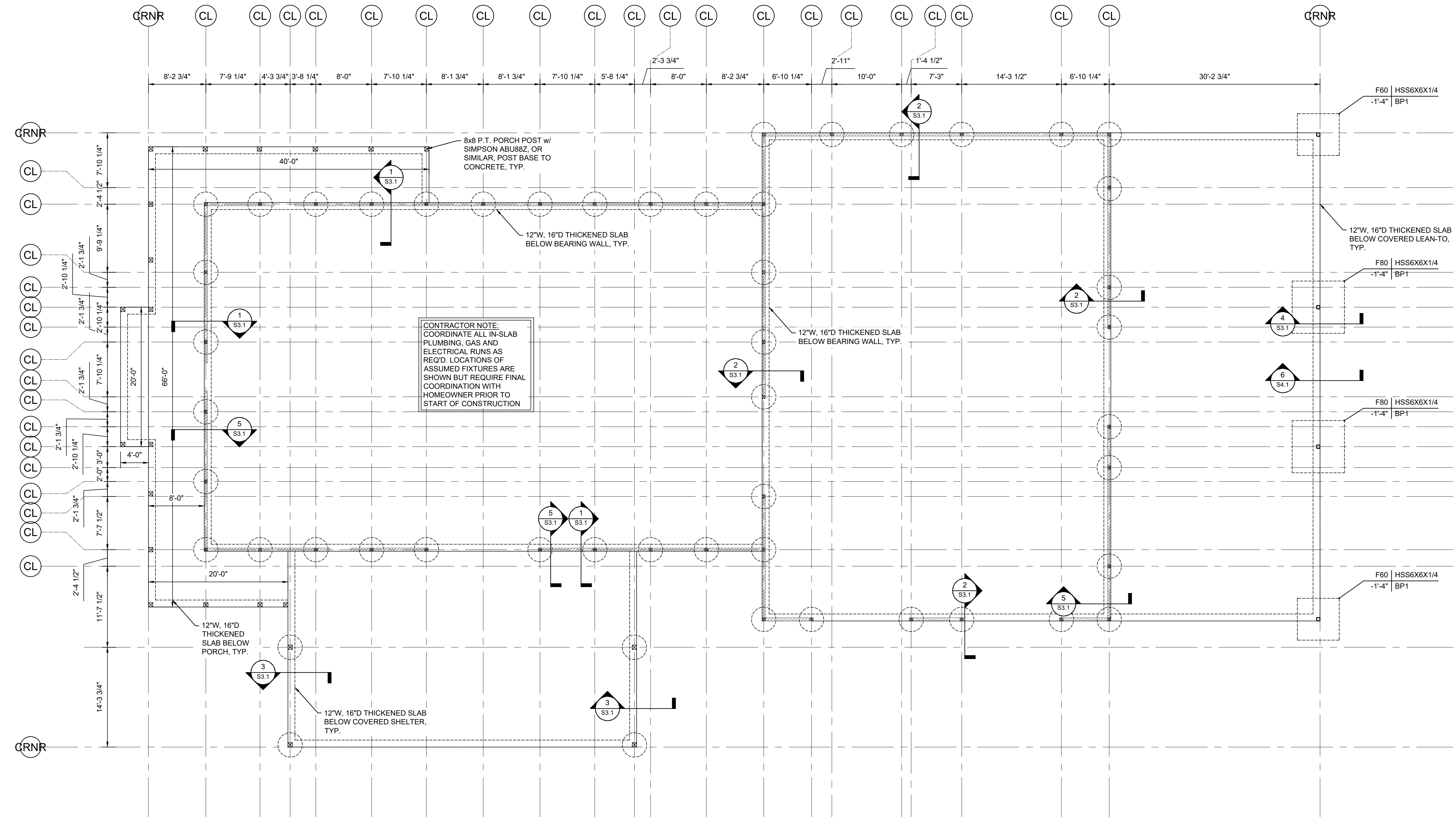
DATE: 11/27/2024

No.	Revision	Date

Sheet

S2.1

FOR PERMIT ONLY



**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

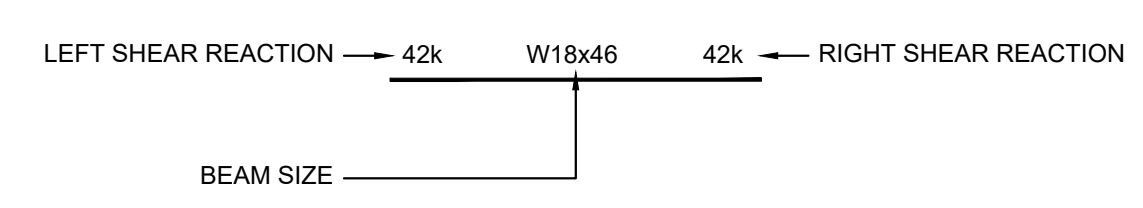
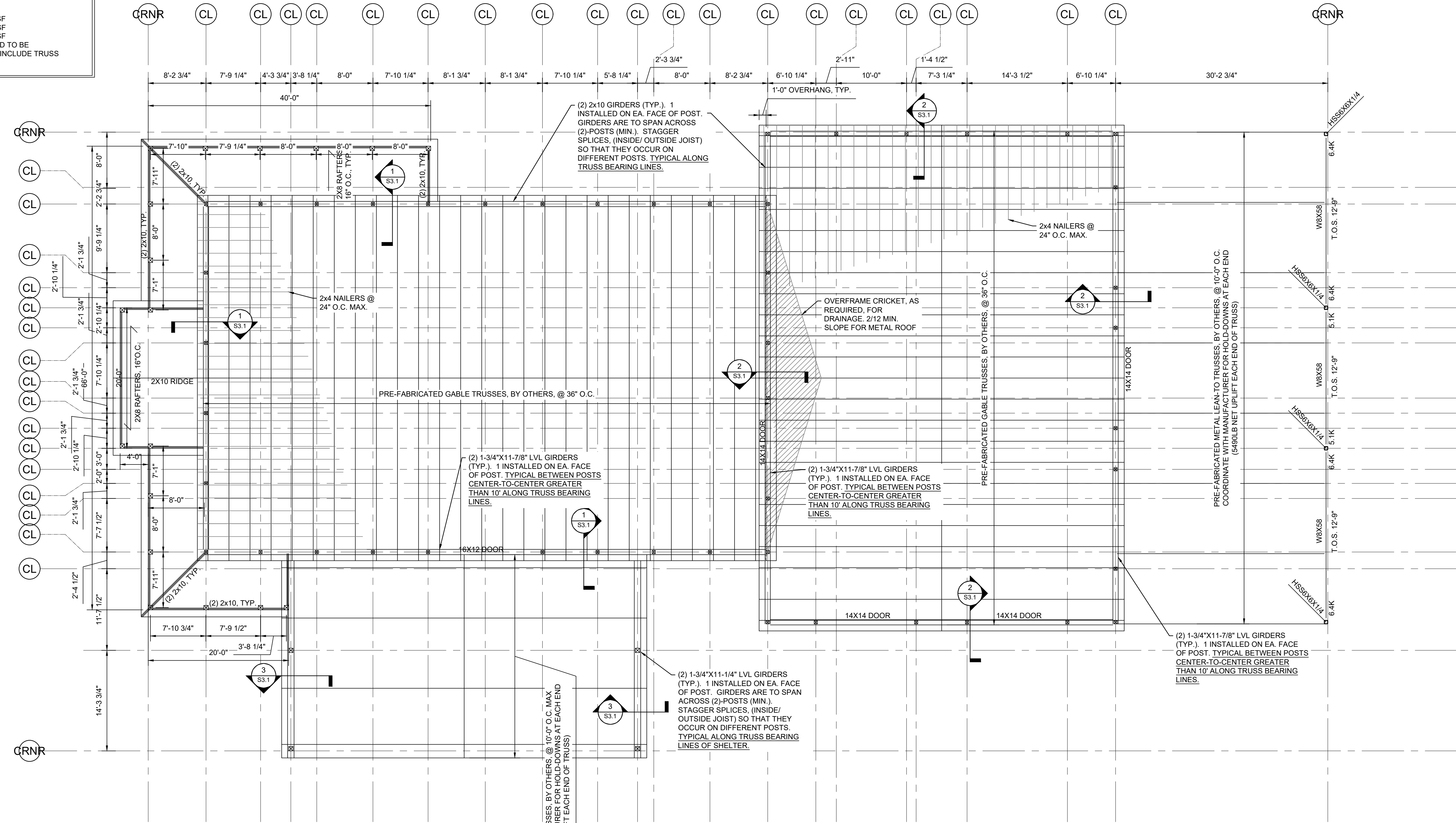
SPREAD FOOTING SCHEDULE		
MARK	SIZE	REINFORCING
F60	6'-0"x6'-0"x12"	(7)-#4 E.W. TOP & BOT
F80	8'-0"x8'-0"x12"	(9)-#4 E.W. TOP & BOT

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

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 therein.

**TRUSS DESIGN NOTES:**

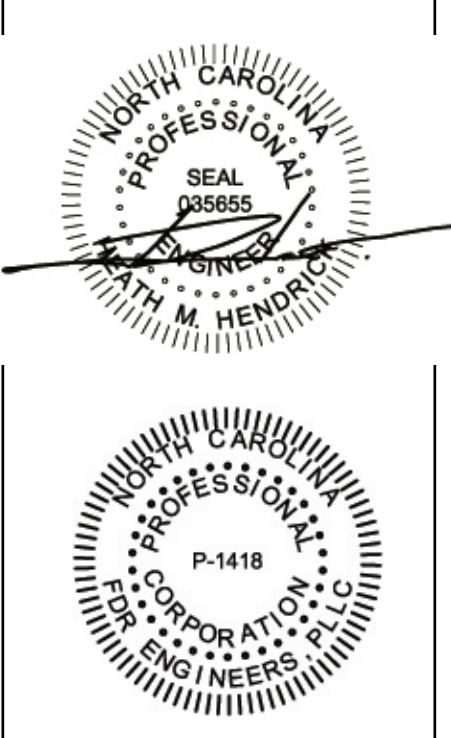
- TRUSS MANUFACTURER SHALL BE RESPONSIBLE FOR FINAL TRUSS DESIGN, TO INCLUDE CALCULATIONS, LAYOUT, AND ALL NECESSARY BRACING AND BRIDGING DETAILS AS REQD. FOR PERMANENT STABILITY OF TRUSS SYSTEM.
- TRUSSES AND THEIR COMPONENTS ARE TO BE DESIGNED TO RESIST THE COMPONENT AND CLADDING WIND PRESSURES OUTLINED ON SHEET S1.0.
- 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



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

**FRAMING PLAN NOTES:**

- /// 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.
- ALL EXTERIOR WALL FRAMING TO BE 2x6. ALL INTERIOR FRAMING TO BE 2x4, UNLESS NOTED OTHERWISE.
- ALL ROOF SHEATHING SHALL BE APA 32/16 SPAN RATED SHEATHING, 19/32" THICK (5/8" NOMINAL). PROVIDE H-CLIPS, U.N.O.
- (#) 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.
- 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.
- PROVIDE SIMPSON H10A CLIPS AT THE ENDS OF ALL ROOF FRAMING MEMBERS U.N.O.

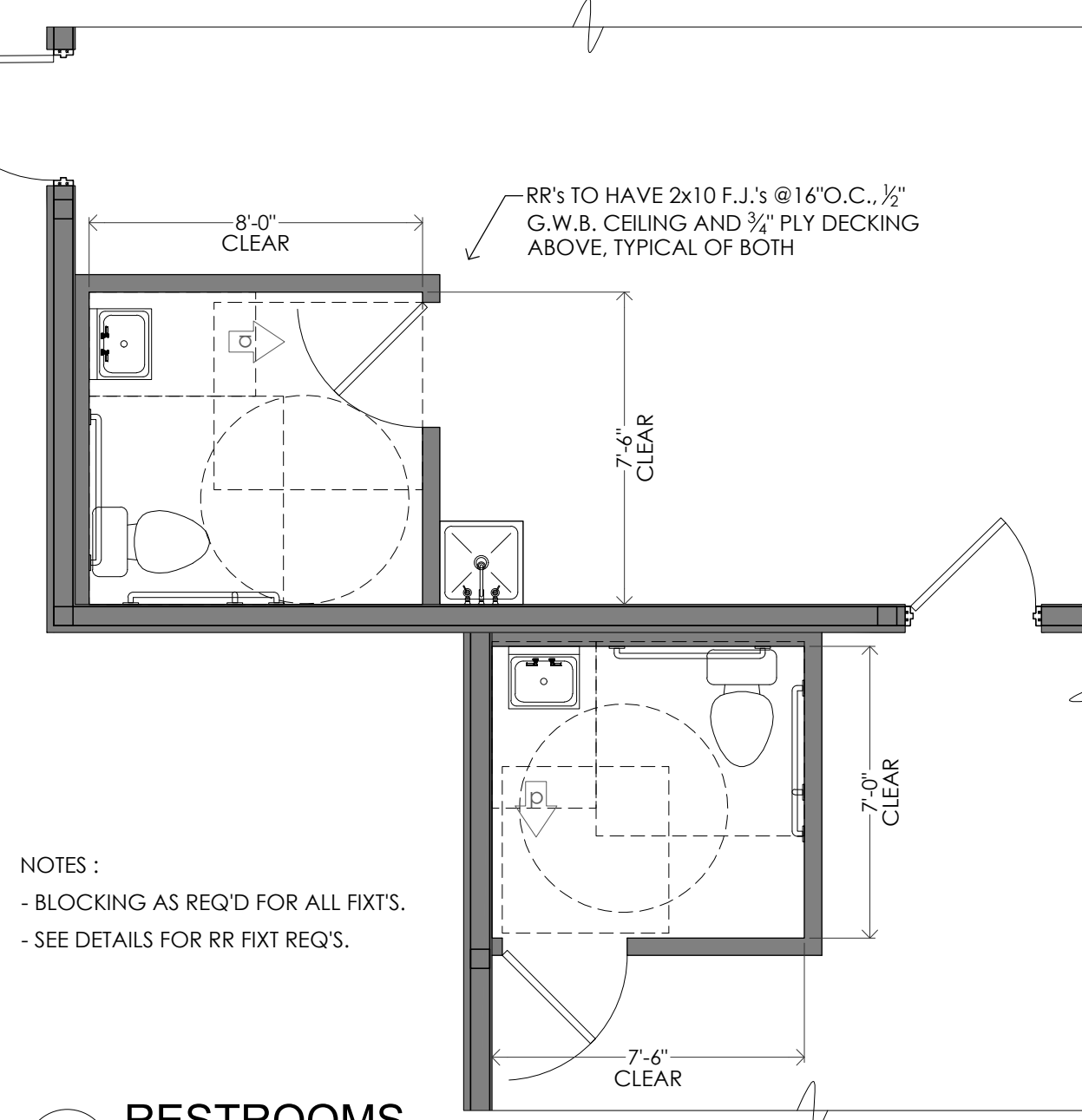
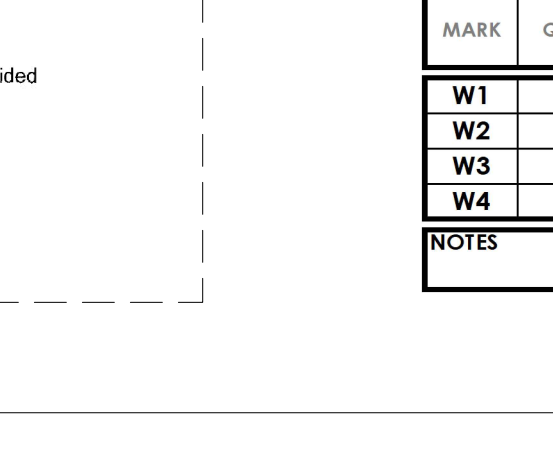
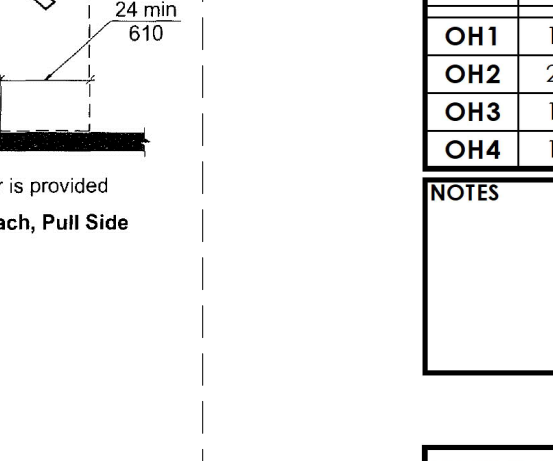
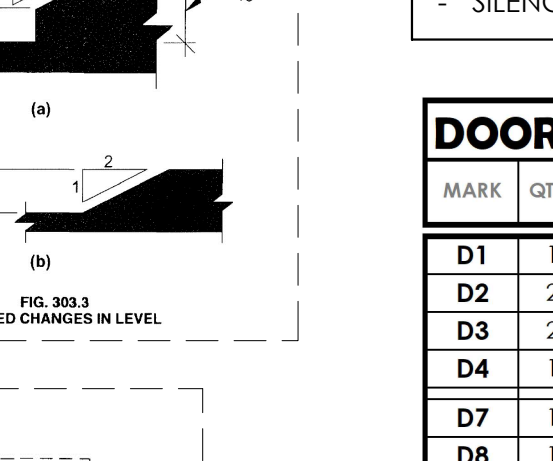
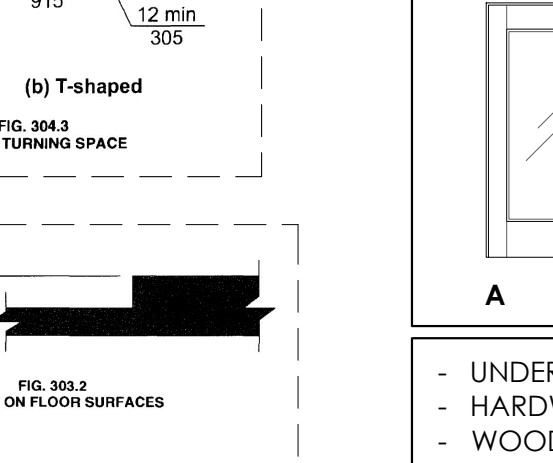
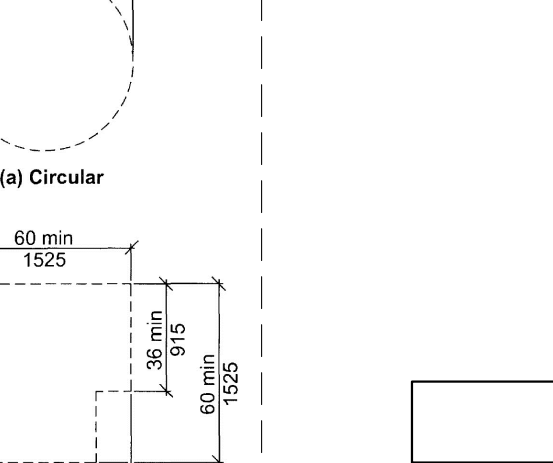
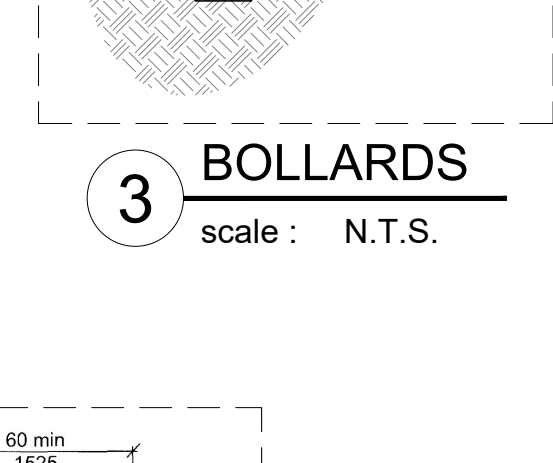
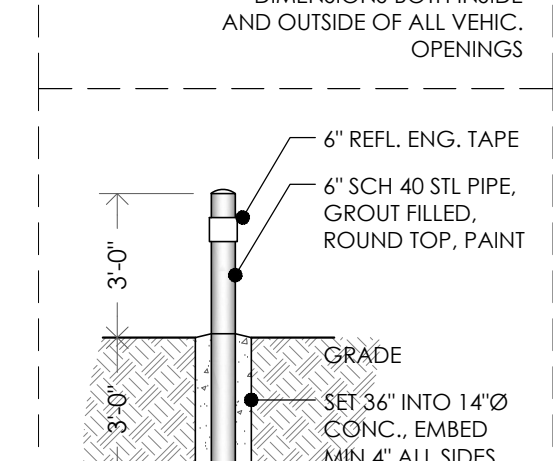
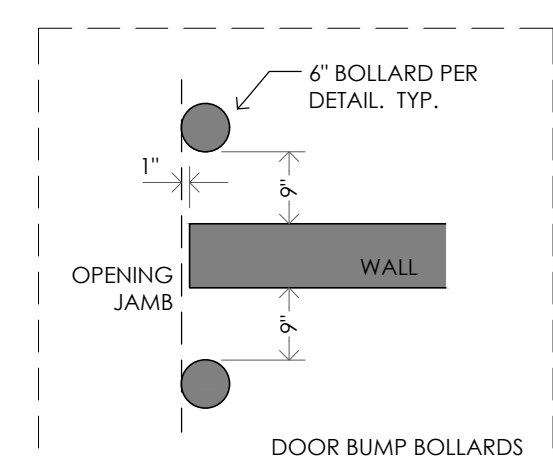
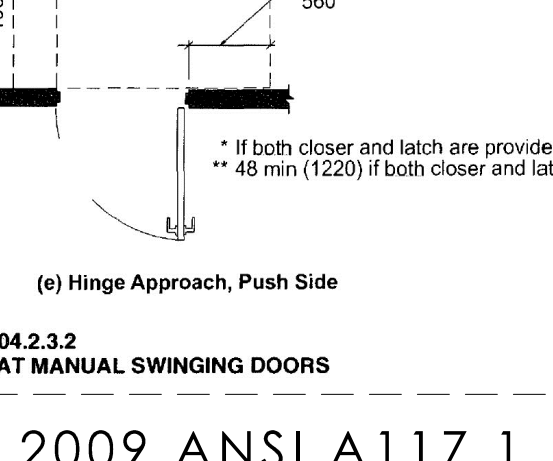
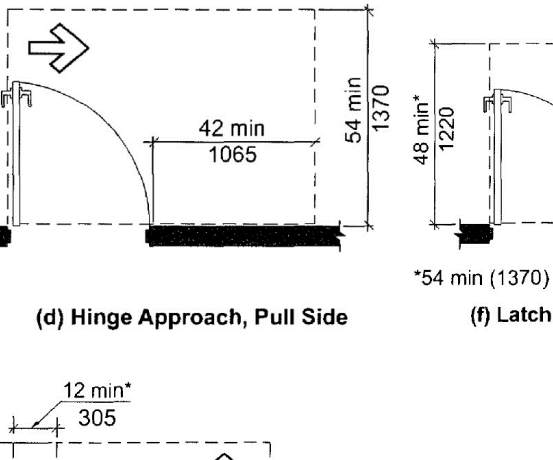
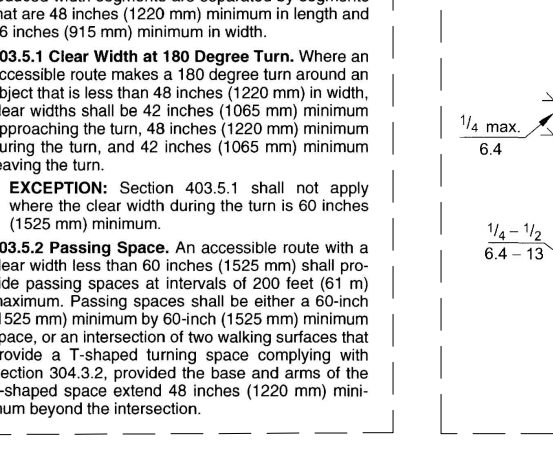
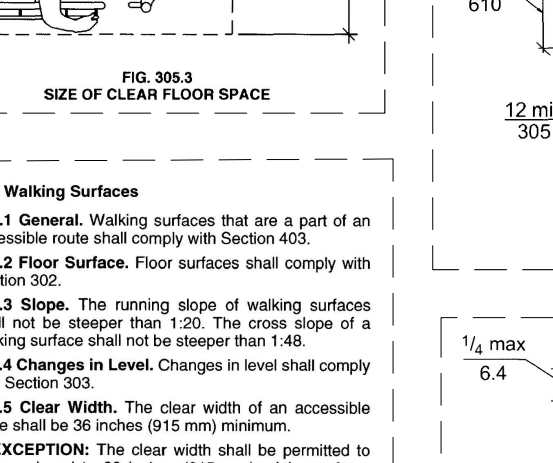
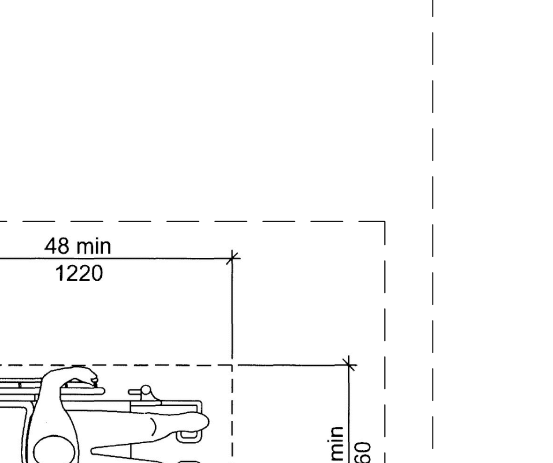
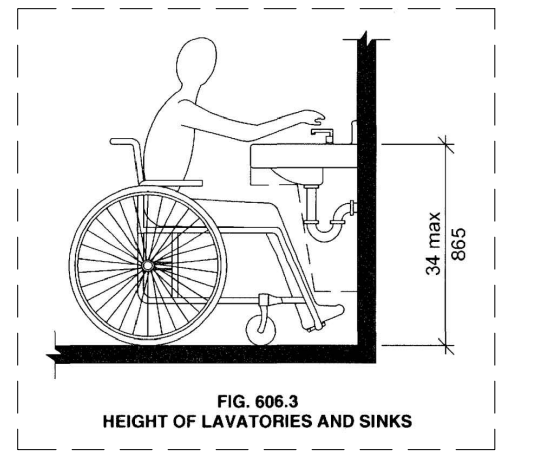
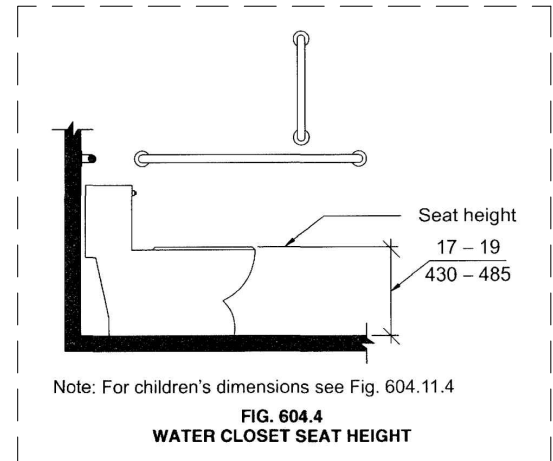
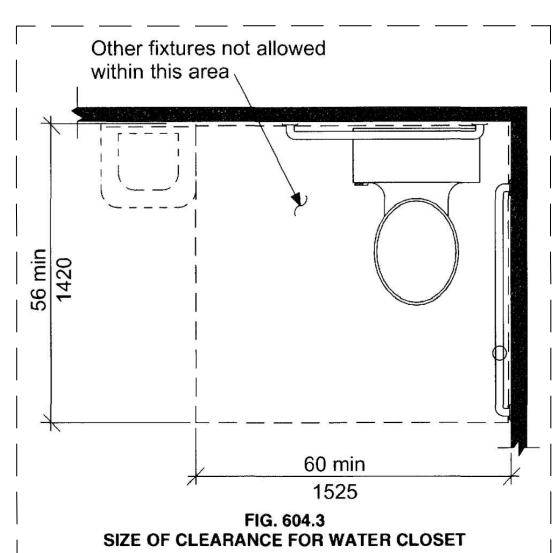
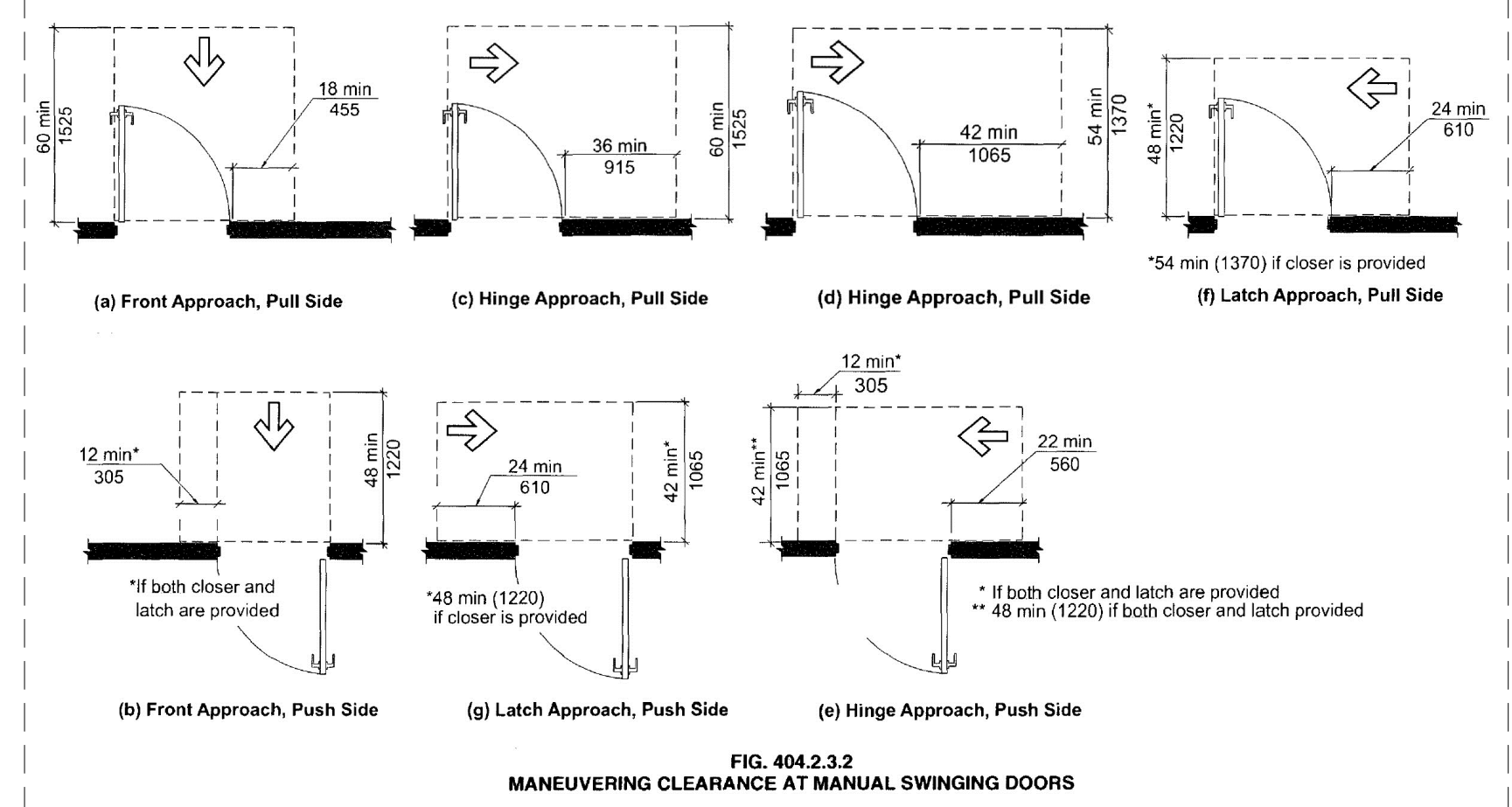
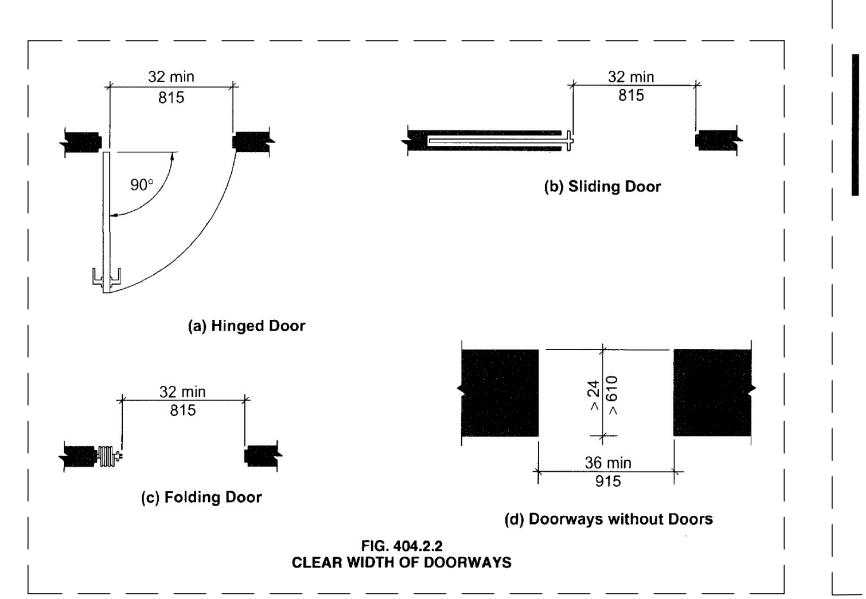
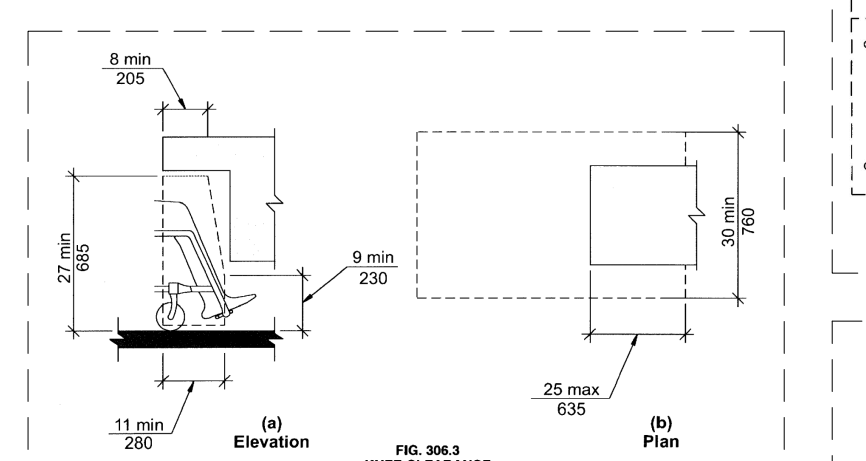
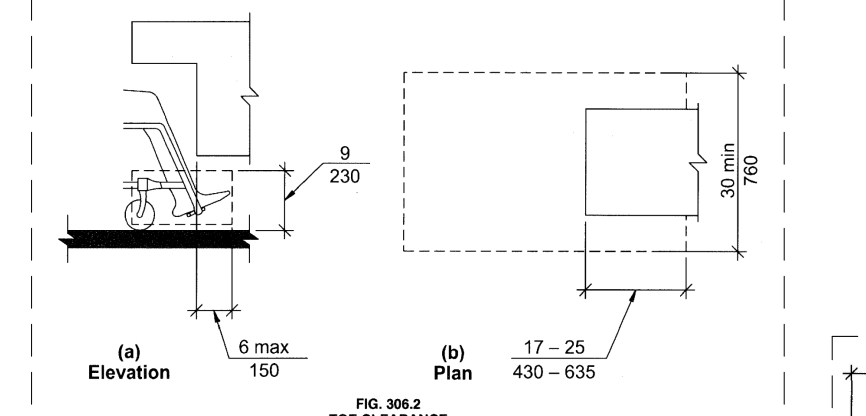
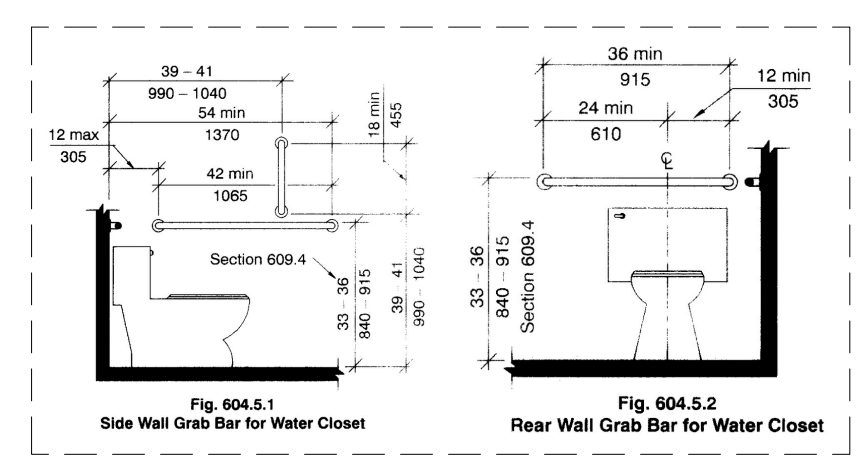
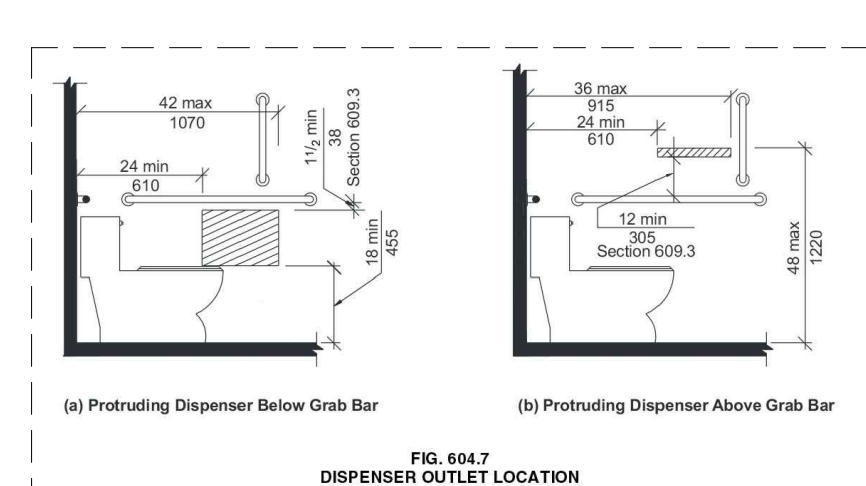


**WAKEBOARD DEALERSHIP**  
**ROOF FRAMING PLAN**  
**SANFORD, NC**

Project Name	WAKEBOARD DEALERSHIP	
Sheet Title	ROOF FRAMING PLAN	
DESIGNED BY:	AJI	
DRAWN BY:	AJI	
APPROVED BY:	HMH	
PROJECT #:	24-067	
DATE:	11/27/2024	
No.	Revision	Date
Sheet	<b>S2.2</b>	

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### 2 RESTROOMS

scale : 1/4" = 1'-0"

WALL TYPES	
<b>X EXTERIOR</b>	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
<b>P RESTROOM PARTITION</b>	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
<b>W WET WALL</b>	2x4 WOOD STUDS @ 16" O.C. BLOCKING @ 1/3'S AND FOR FIXTURES MIN. 1/2" M.R.G.W.B., PRIMED + PAINTED

DOOR TYPES	
A	Standard door with handle
B	Door with push button
C	Door with pull handle
D	Door with push button and handle

- UNDERCUT DOORS AS REQ'D FOR FLOOR FINISHES.
- HARDWARE TO BE BRUSHED NICKEL UNLESS NOTED OTHERWISE. V.W.O.
- WOOD DOORS TO BE STAINED TO MATCH MAIN DECOR. V.W.O.
- ALL HOLLOW METAL DOORS TO BE PAINT DECOR. V.W.O.
- SILENCERS ON ALL DOORS, OPPOSITE THE HINGES.

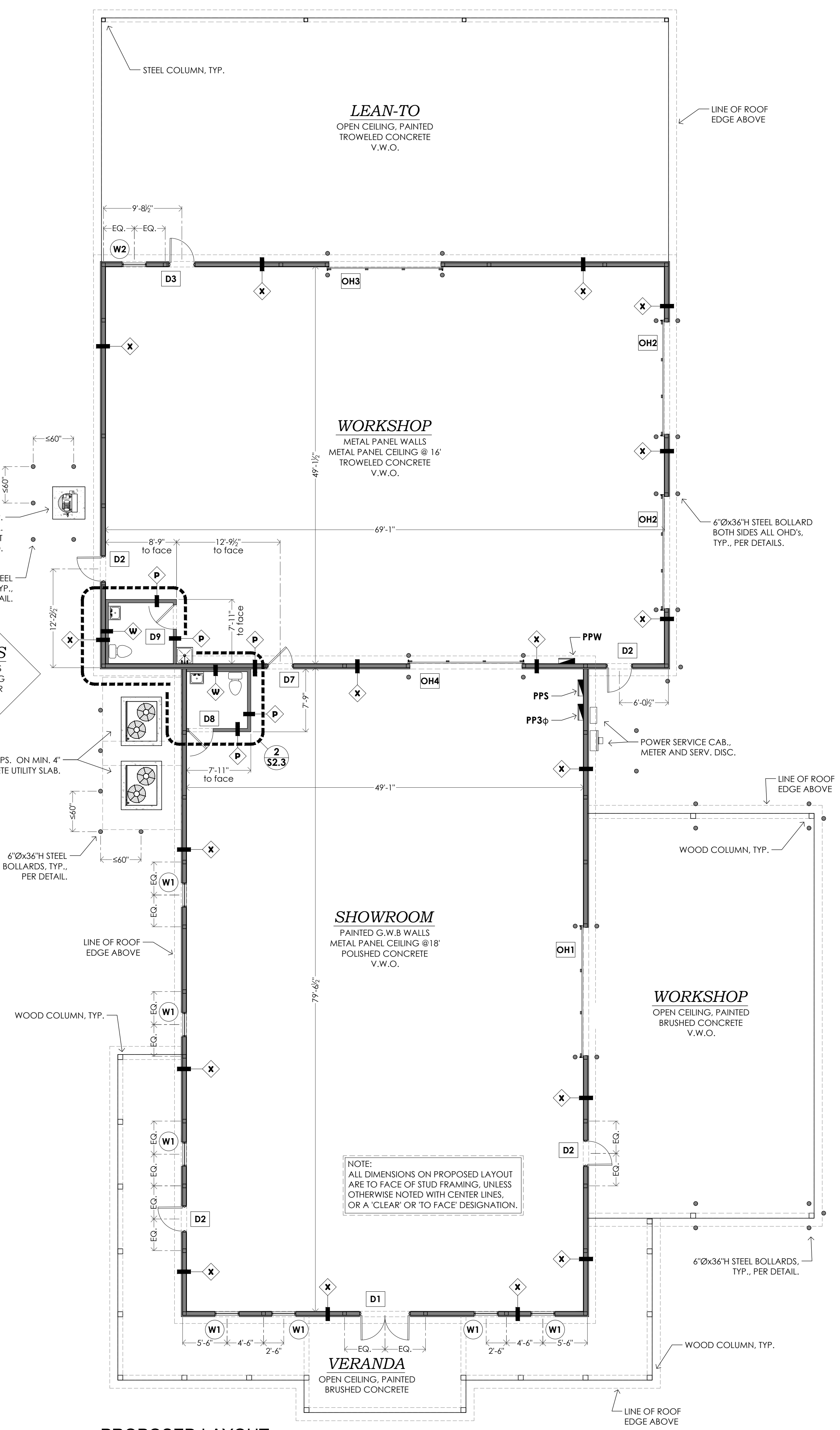
### DOOR SCHEDULE

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"	V.W.O.	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

### 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

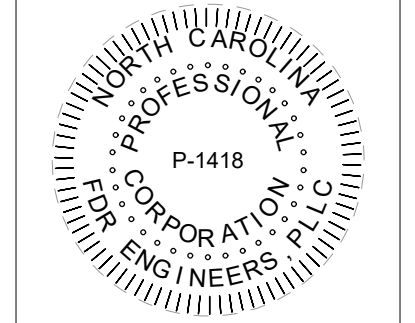
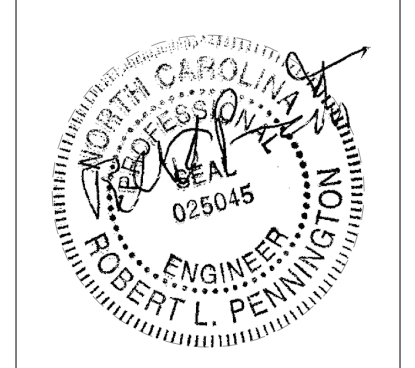
- NOTES:  
 1. INSULATED CORE  
 2. INSULATED GLAZING  
 3. LOW-E INSULATED  
 4. COLOR TINT  
 5. CERAMIC COATING  
 6.



### 1 PROPOSED LAYOUT

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

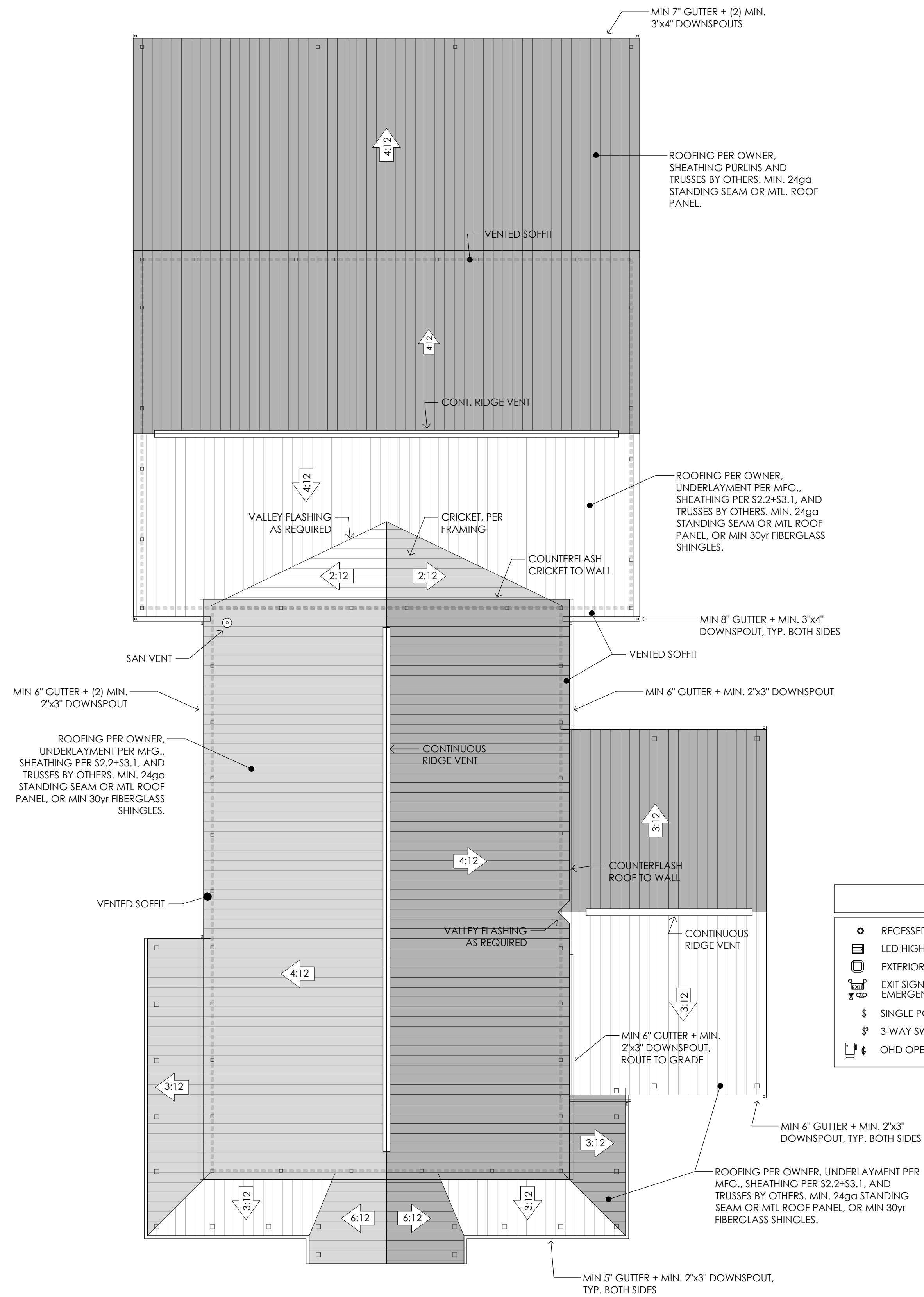
ACCESSIBLE DETAILS PER 2009 ANSI A117.1



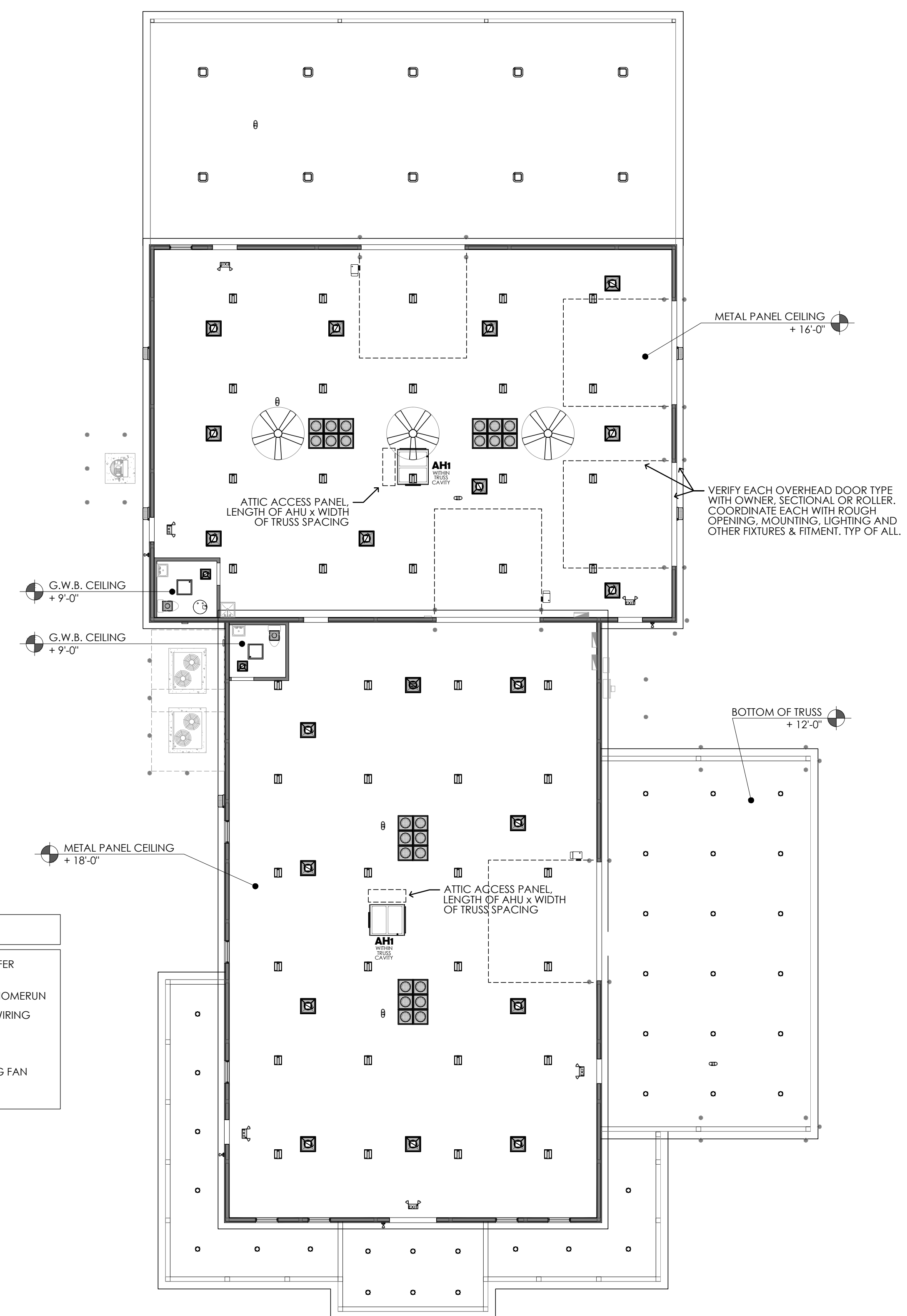
DESIGNED BY: SMB  
 DRAWN BY: SMB  
 APPROVED BY: RLP  
 PROJECT #: R2408270  
 DATE: 2024-10-23

#	Revision	Date
0	for permit	11/8/24

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**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	○ CIRCULUM HOMERUN SWITCH WIRING
□ EXTERIOR LED HIGH-BAY	○ CEILING FAN
⚡ EXIT SIGNAGE & EMERGENCY LIGHTING	
⚡ SINGLE POLE SWITCH	
⚡ 3-WAY SWITCH	
⚡ OHD OPENER & SWITCH	

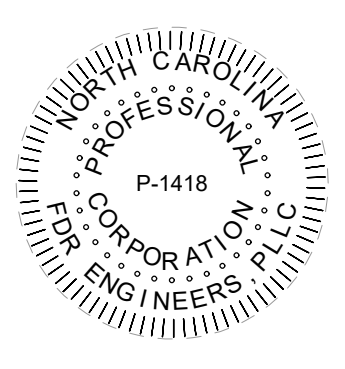
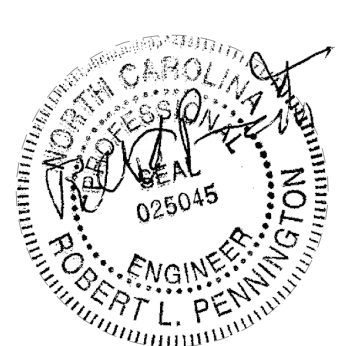
**stormwater data** per '18 NCPC Table 1106.1 100-year 1-hour rainfall  
per '18 NCPC Figure 1106.4 Vertical Walls

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	5 130	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	5	90	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.

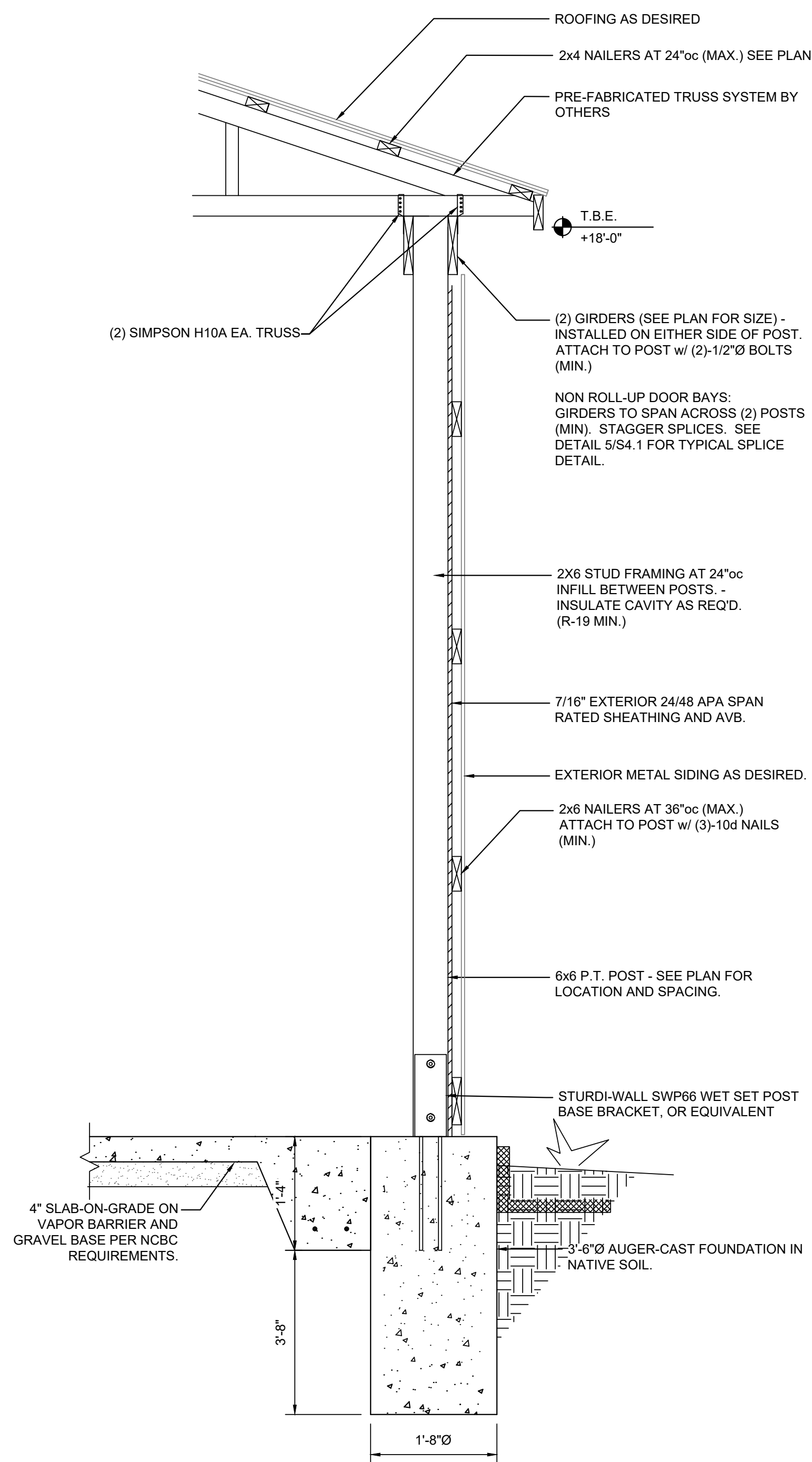
- LIGHT FIXTURE SUBSTITUTIONS ALLOWED WITH MATCHING PARAMETERS BY OWNER REQUEST, CODE COMPLIANCE AND AHJ APPROVAL.  
- OFFICES, BREAK ROOMS, RESTROOMS AND OTHER BUSINESS AREAS TO BE MOTION ACTIVATED TO 50%, MANUAL ON TO 100%, 30min MOTION SHUTOFF, AND MANUAL OFF.  
- TIME-SWITCH CONTROLS ARE PERMISSIBLE, 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.



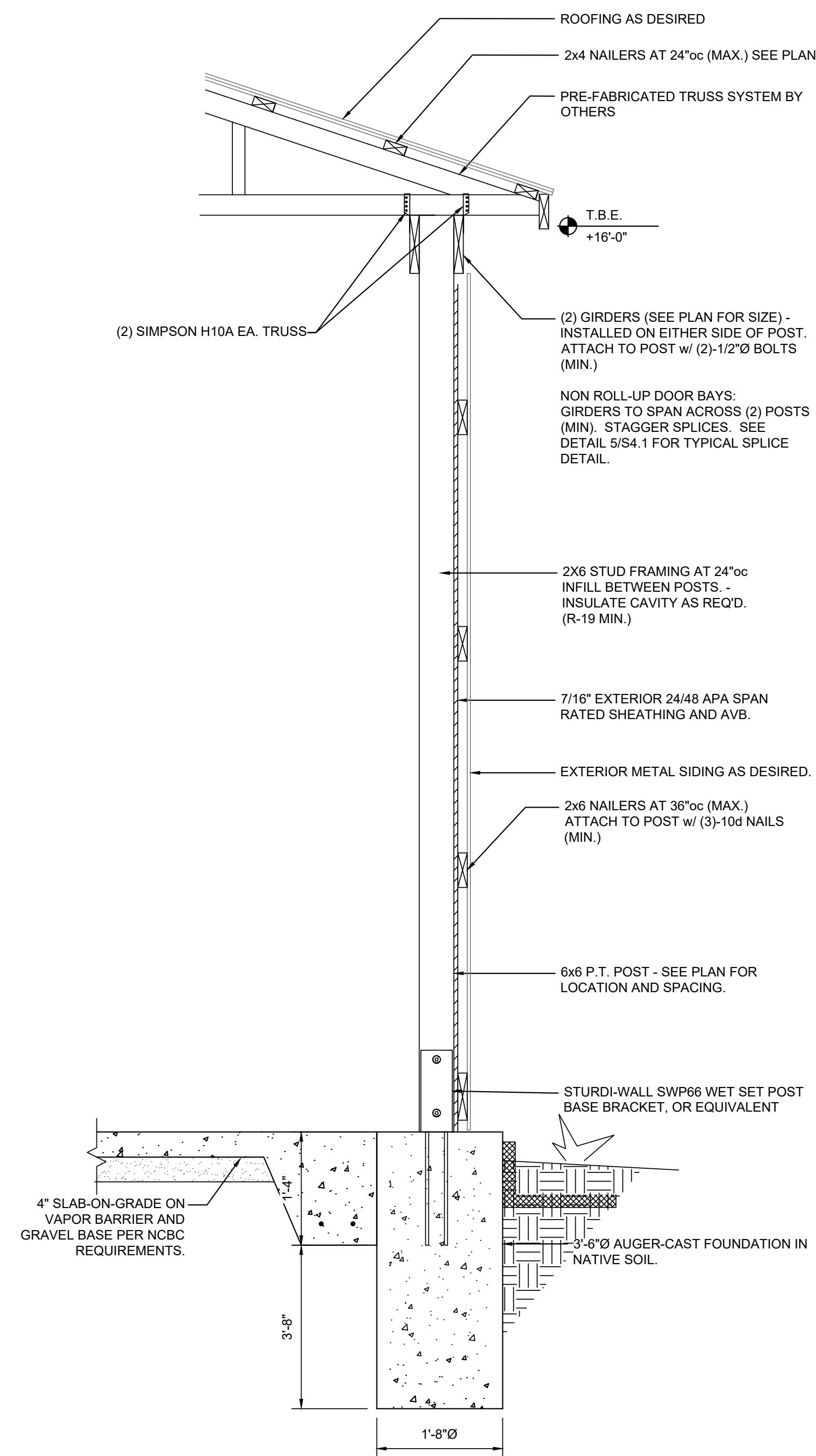
DESIGNED BY: SMB  
DRAWN BY: SMB  
APPROVED BY: RLP  
PROJECT #: R2408270  
DATE: 2024-10-23

#	Revision	Date
0	for permit	11/8/24

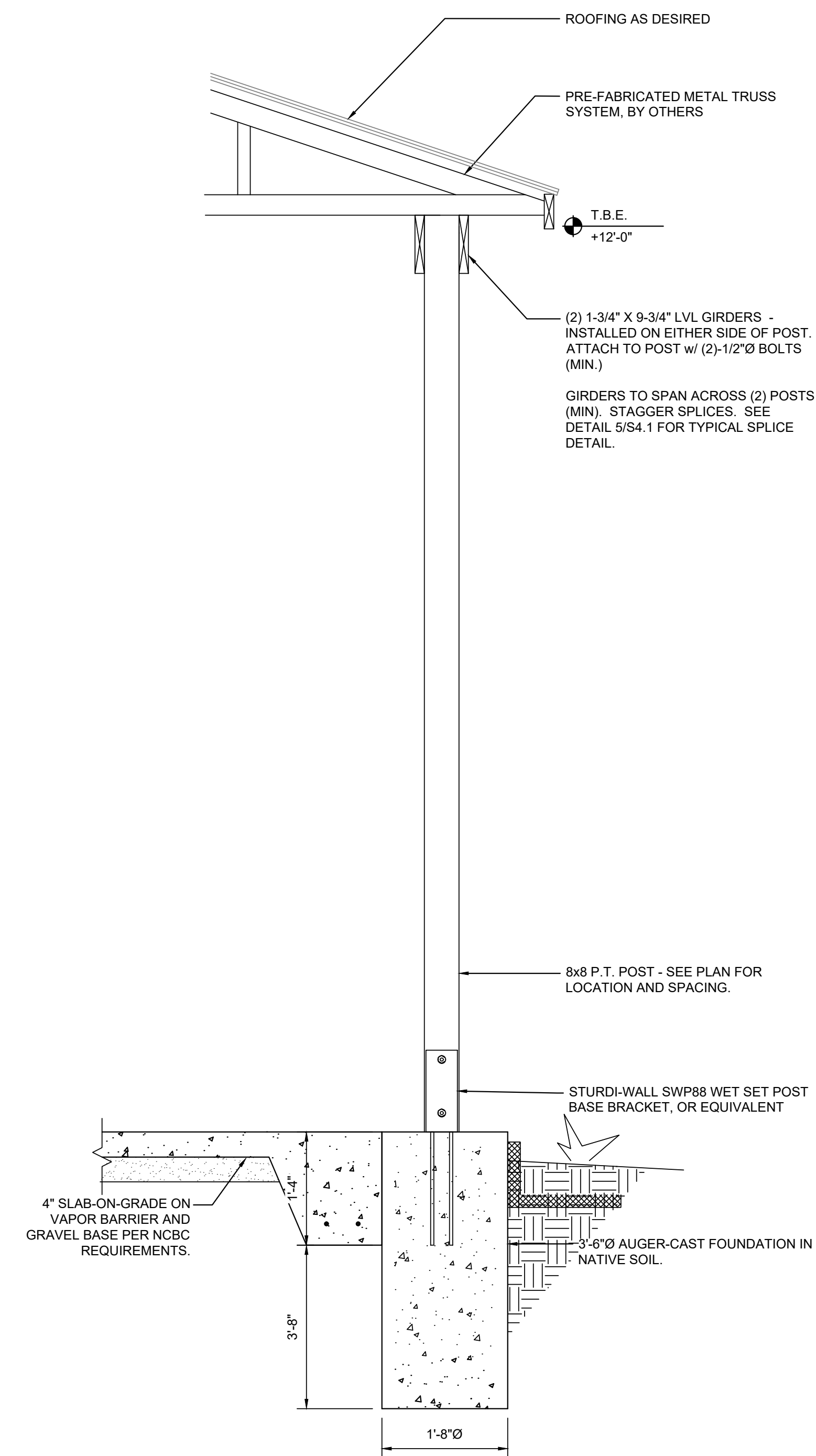
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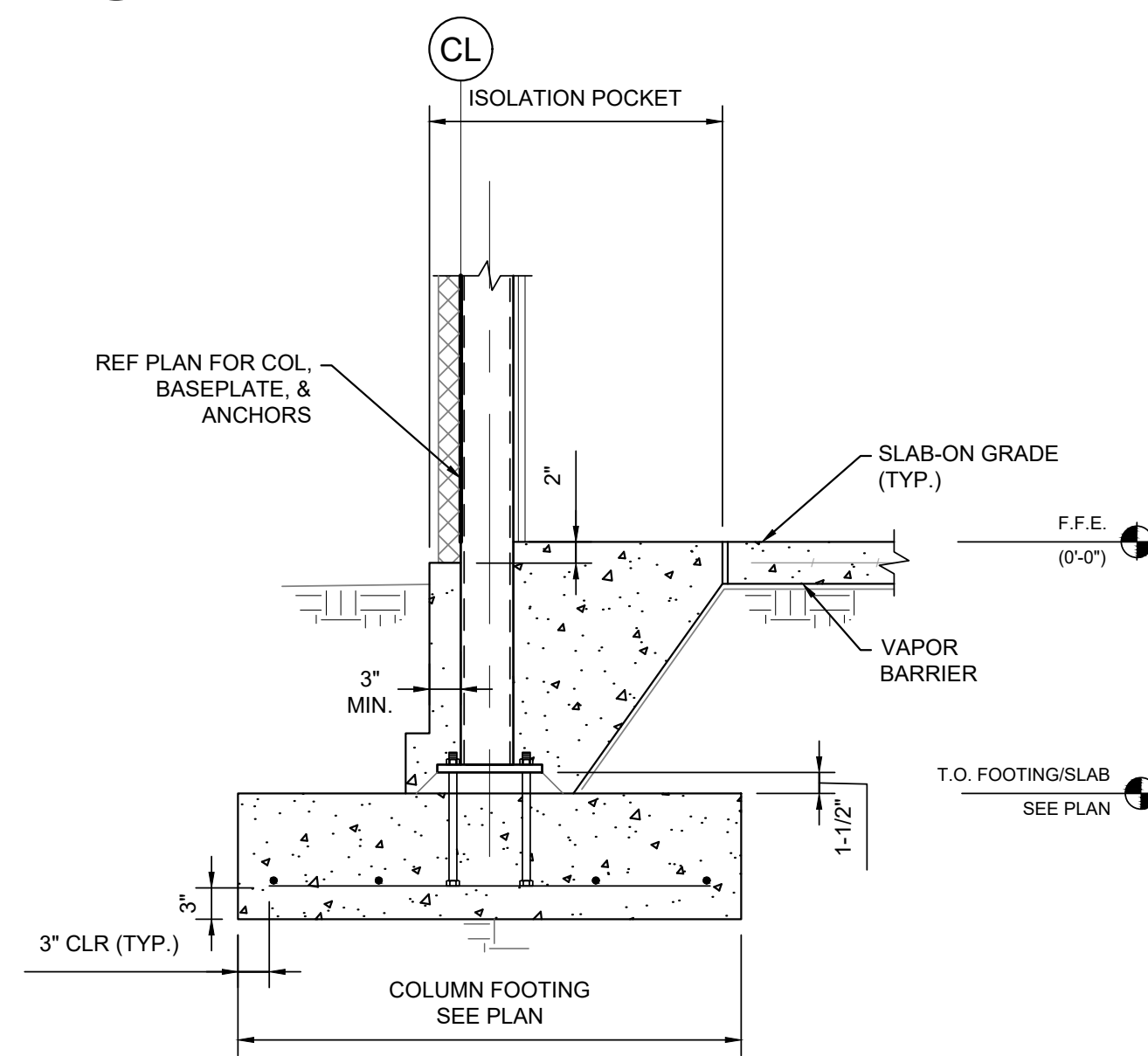
1 SECTION - POLE BARN WALL FRAMING  
SCALE: 3/4" = 1'-0"



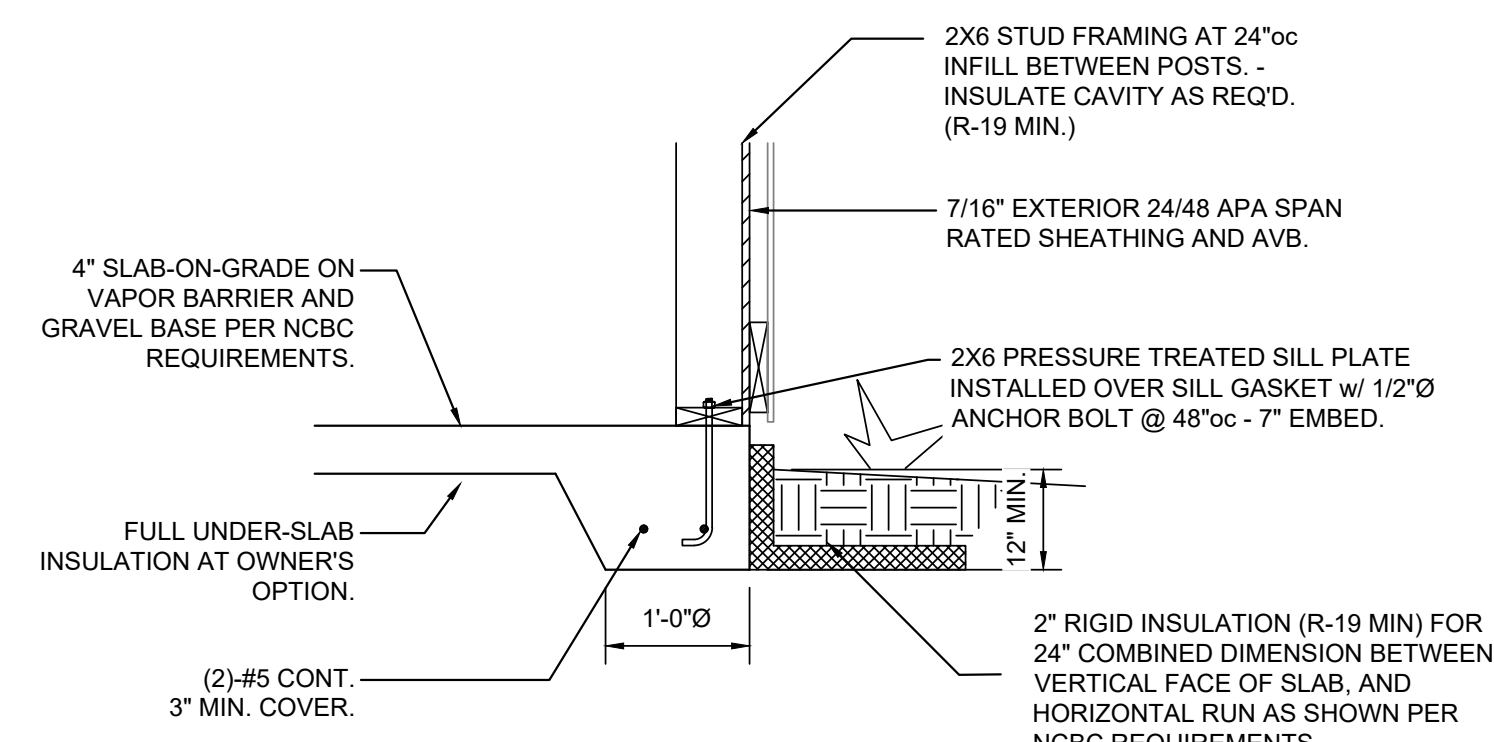
2 SECTION - POLE BARN WALL FRAMING  
SCALE: 3/4" = 1'-0"



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

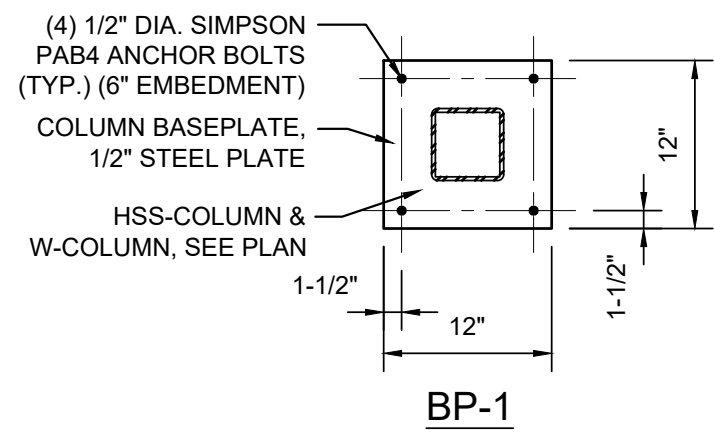


4 EXT. COLUMN FOOTING (TYP.)  
SCALE: 3/4" = 1'-0"

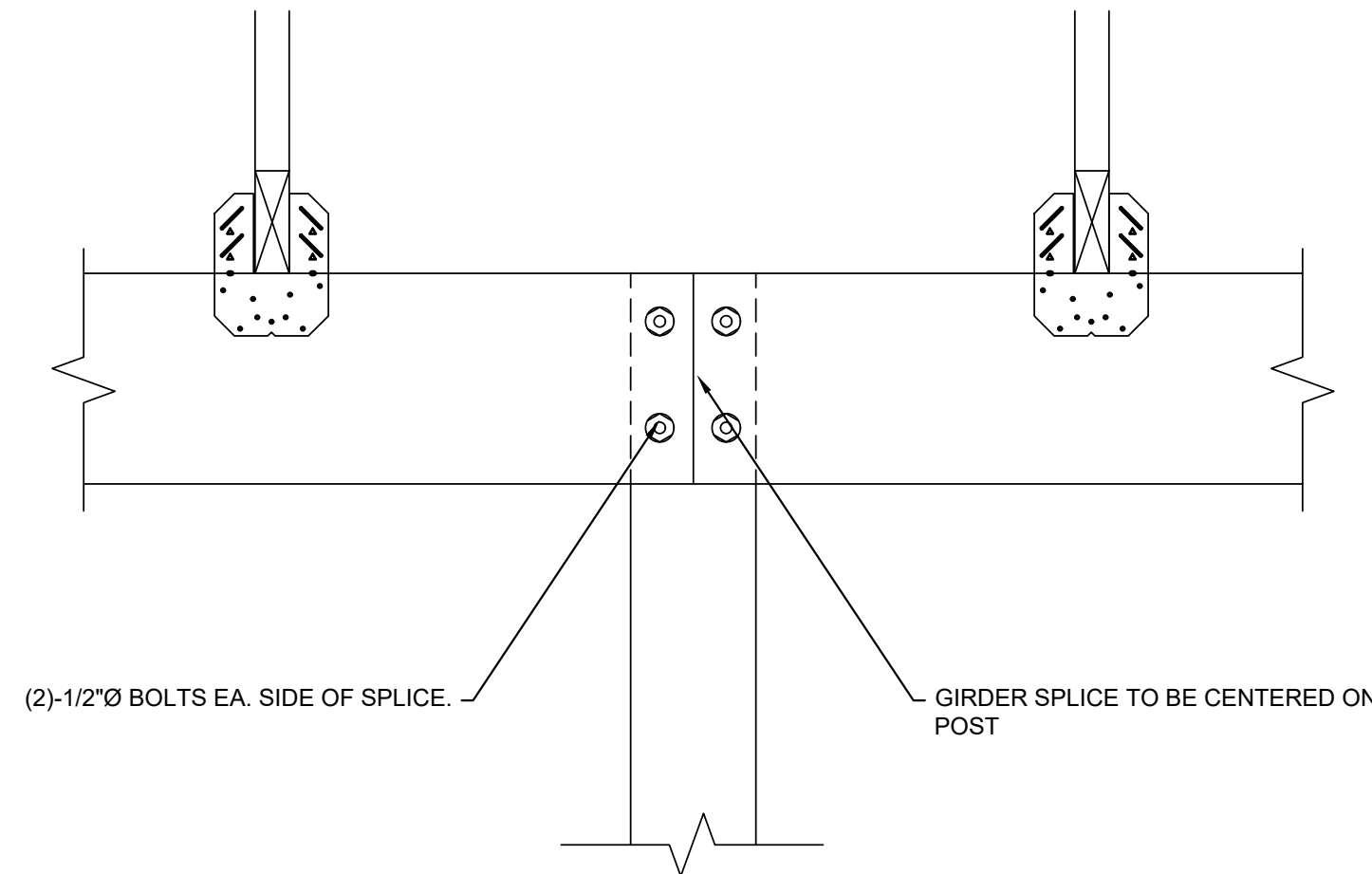


5 SECTION - PERIMETER SLAB ON GRADE  
SCALE: 3/4" = 1'-0"

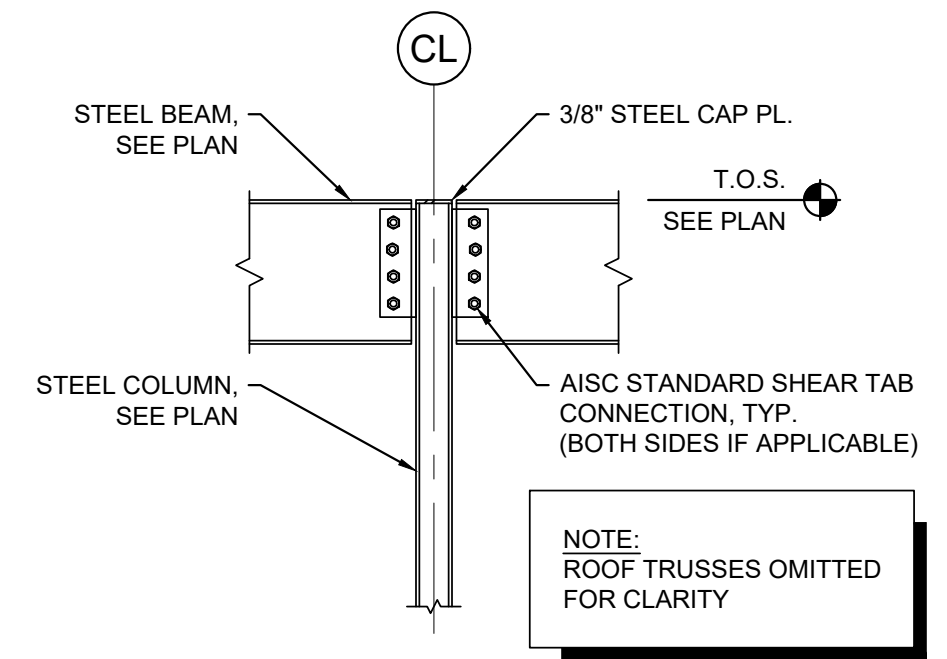
DESIGNED BY:	AJI	
DRAWN BY:	AJI	
APPROVED BY:	HMH	
PROJECT #:	24-067	
DATE:	11/27/2024	
No.	Revision	Date



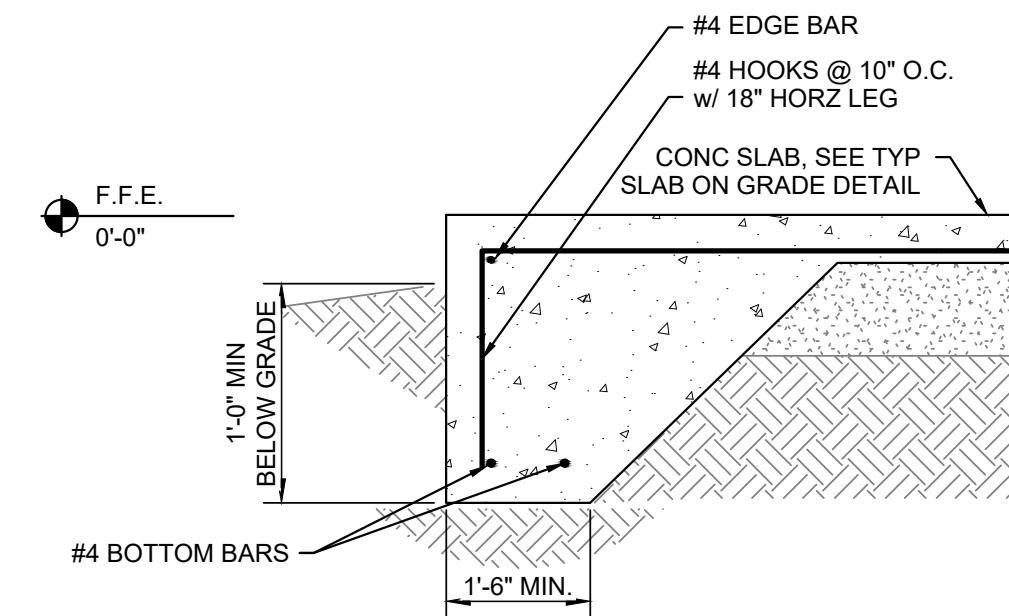
1 STEEL BASE PLATE DETAILS  
SCALE: 3/4" = 1'-0"



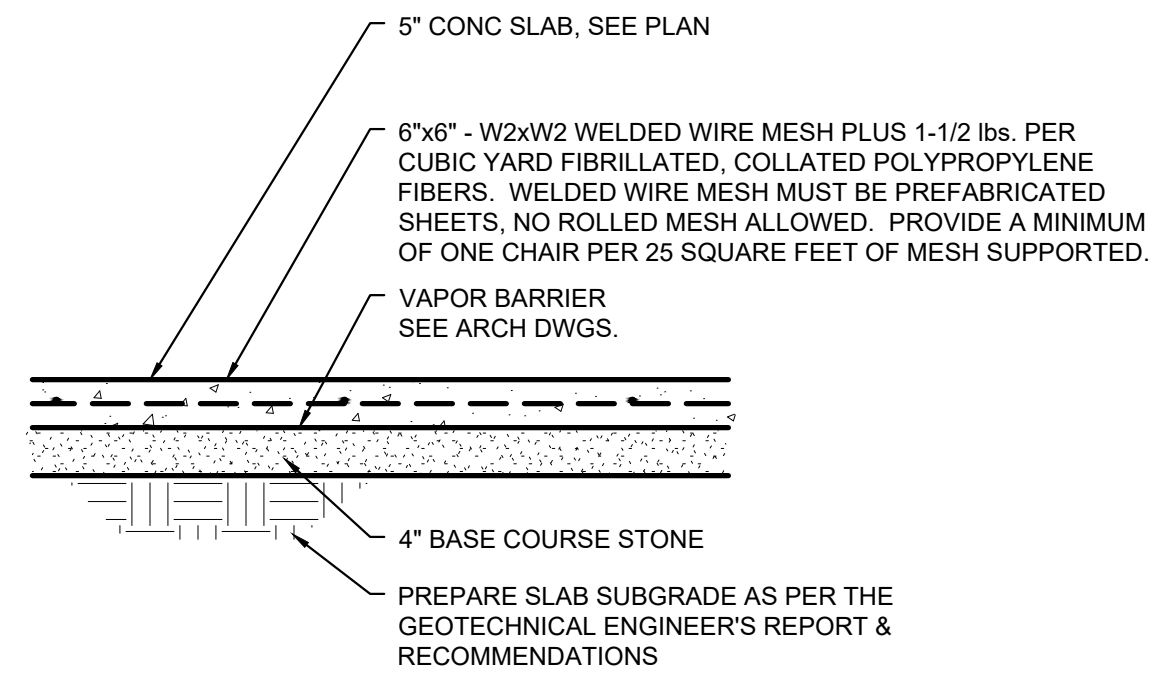
5 GIRDER SPLICE DETAIL  
SCALE: 1-1/2" = 1'-0"



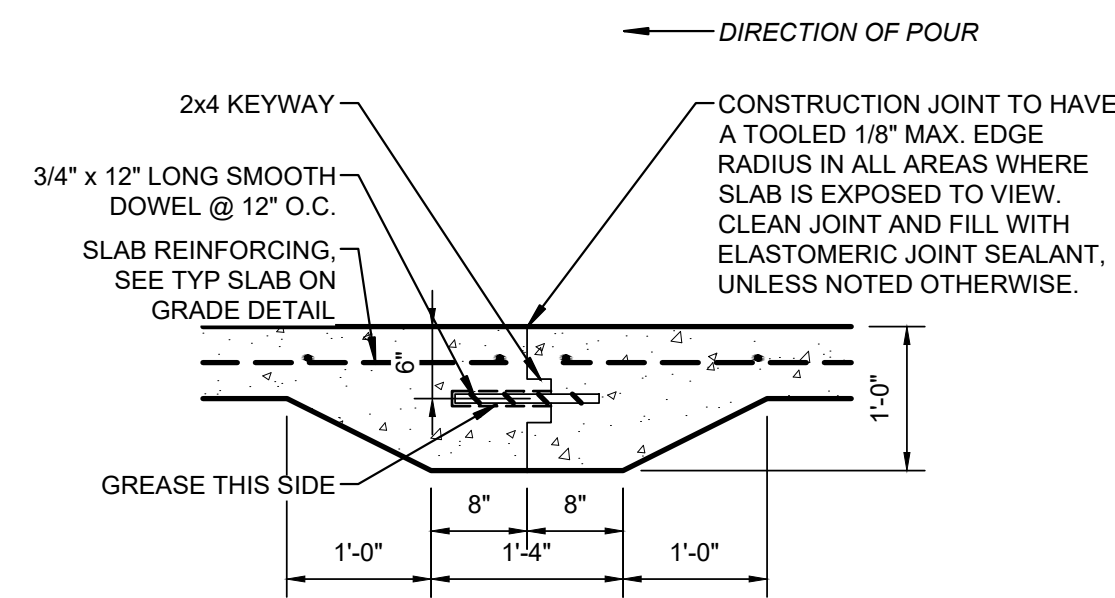
2 TYPICAL BEAM SHEAR CONNECTION  
Scale: 3/4" = 1'-0"



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

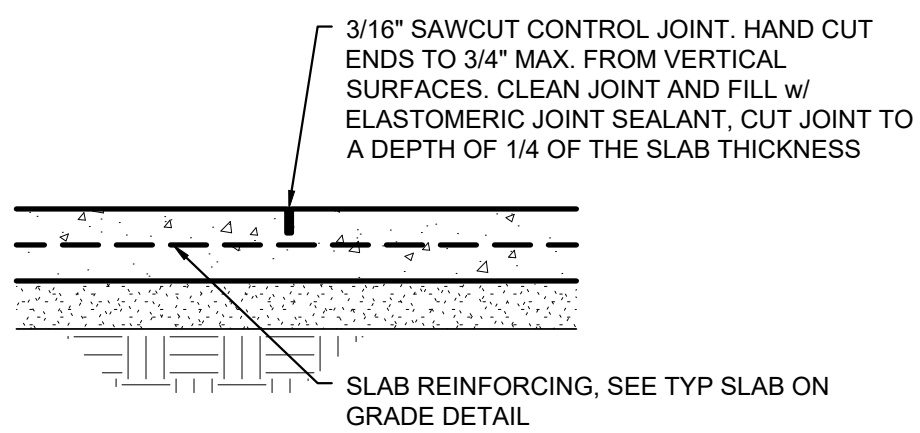


3 5" SLAB ON GRADE DETAIL  
SCALE: 3/4" = 1'-0"



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"



WAKEBOARD DEALERSHIP

SANFORD, NC

Project Name

TYPICAL DETAILS

Sheet Title

DESIGNED BY: AJI

DRAWN BY: AJI

APPROVED BY: HMH

PROJECT #: 24-067

DATE: 11/27/2024

No.	Revision	Date

Sheet

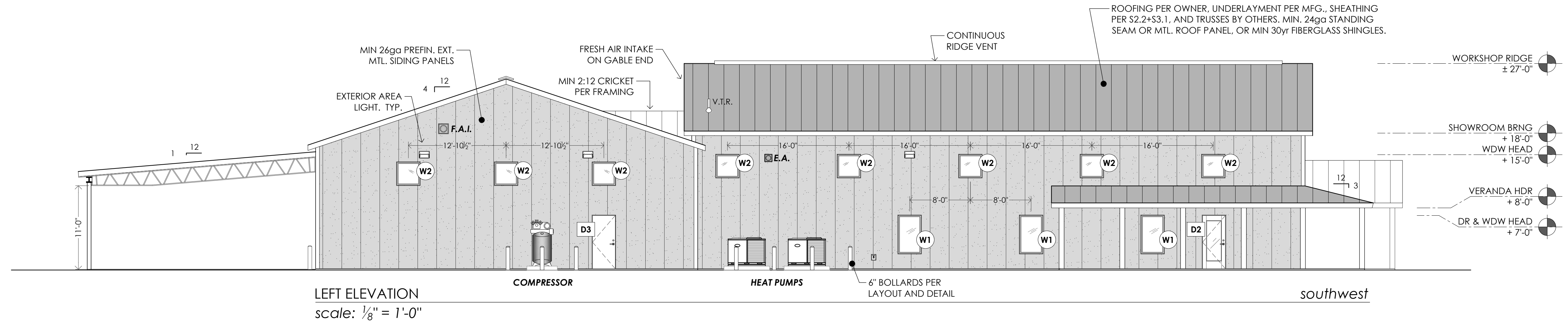
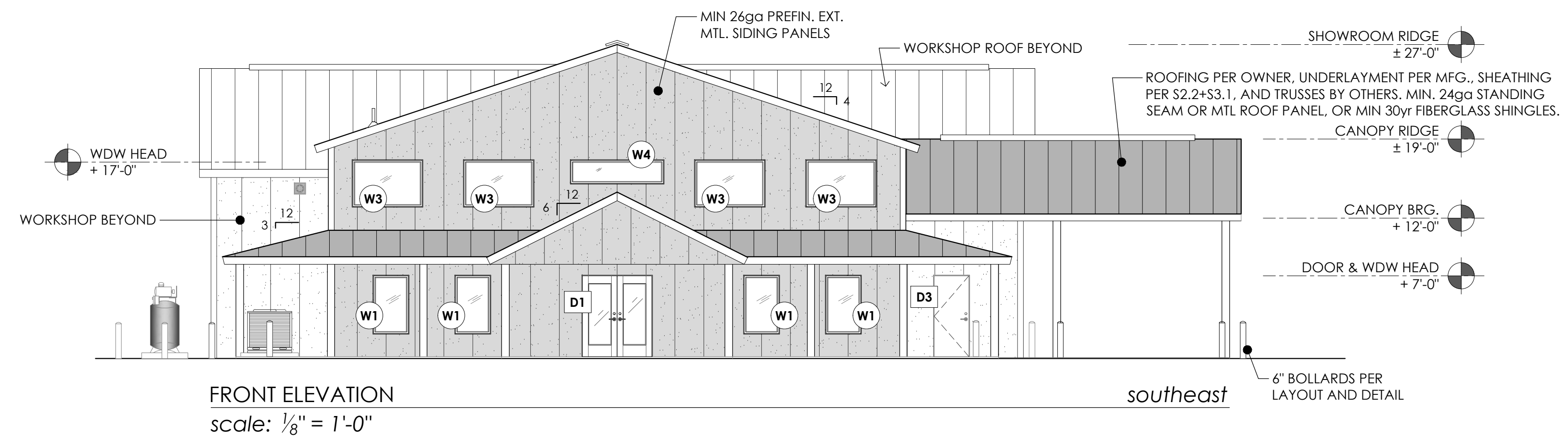
S4.1



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

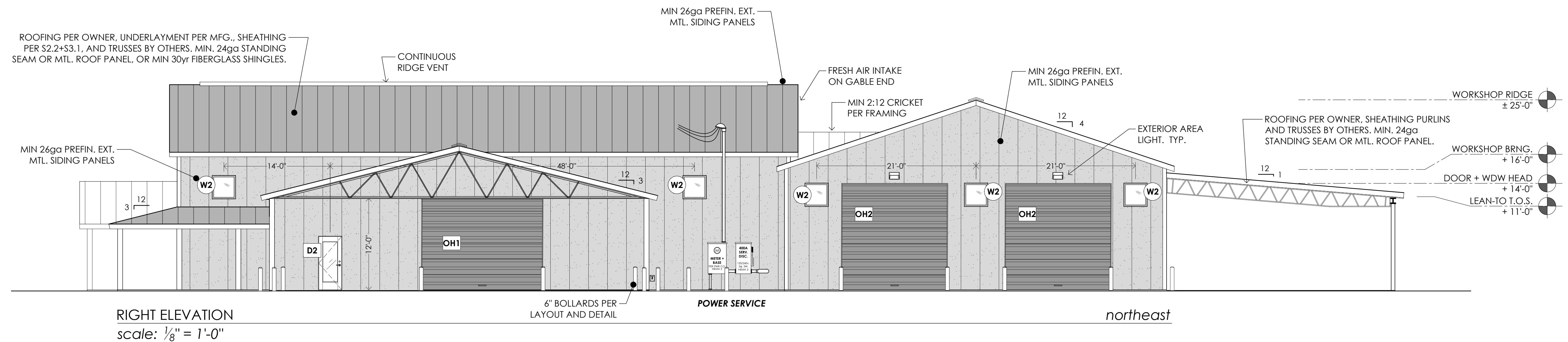
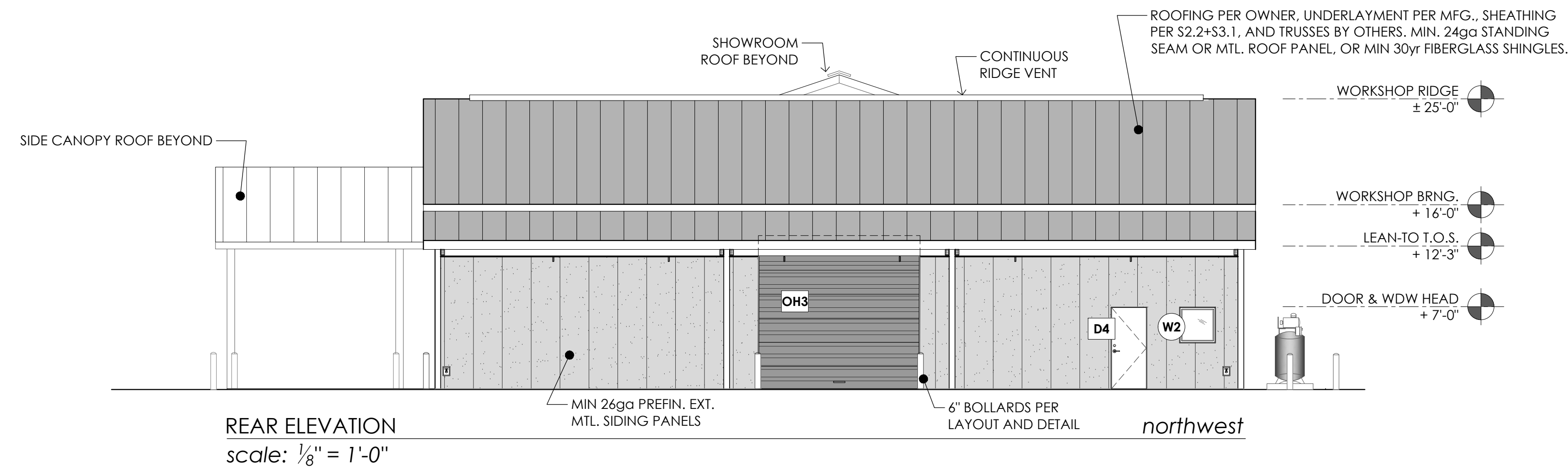
NOTES		
1 KEVED DEADBOLT LOCK	7 12' TOE KICK	1 INSULATED CORE CONSTR.
2 MONKEYTAIL HANDLE(S)	8 FLOOR STOP	O MOTORIZED OPENER, VWO
3 CRASH BAR PANIC HDWR	9 PRIVACY LOCK	P ENTRAPMENT PROTECTION
4 THRESHOLD & FLOOR SWEEP	T TOP & BOTTOM TRACK	M MAG FLOOR STOP
5 PERMIER GASKET	G 2x LOW-E GLAZING	
6 CLOSER(S)		



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

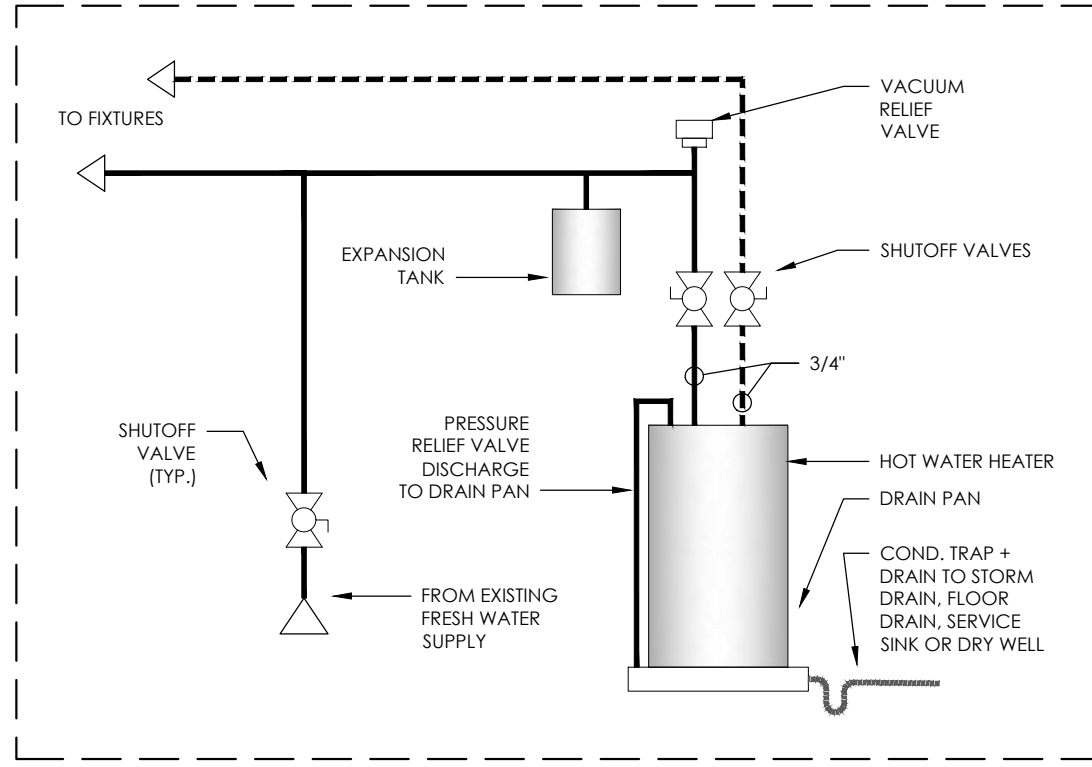
NOTES		
1. INSULATED CORE	3. LOW-E INSULATED	5. CERAMIC COATING
2. INSULATED GLAZING	4. COLOR TINT	6.



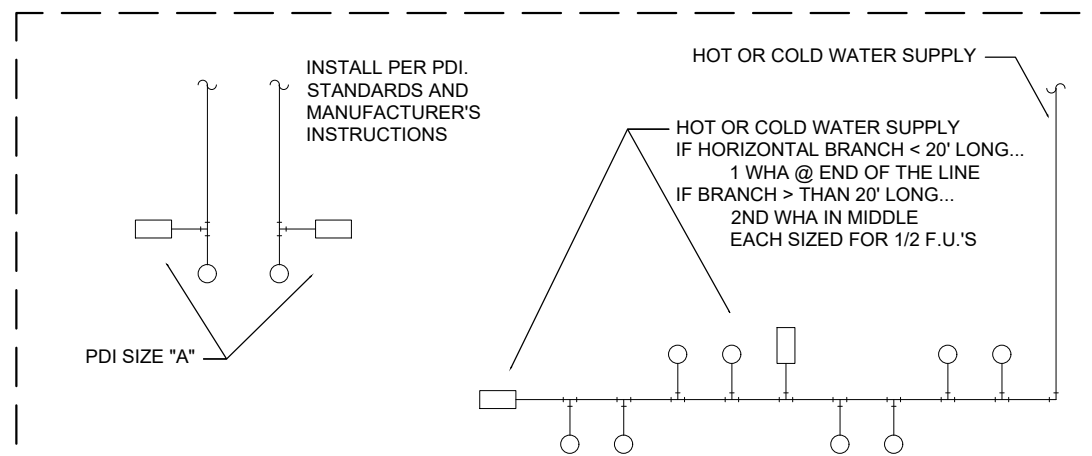


## PLUMBING NOTES

- 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

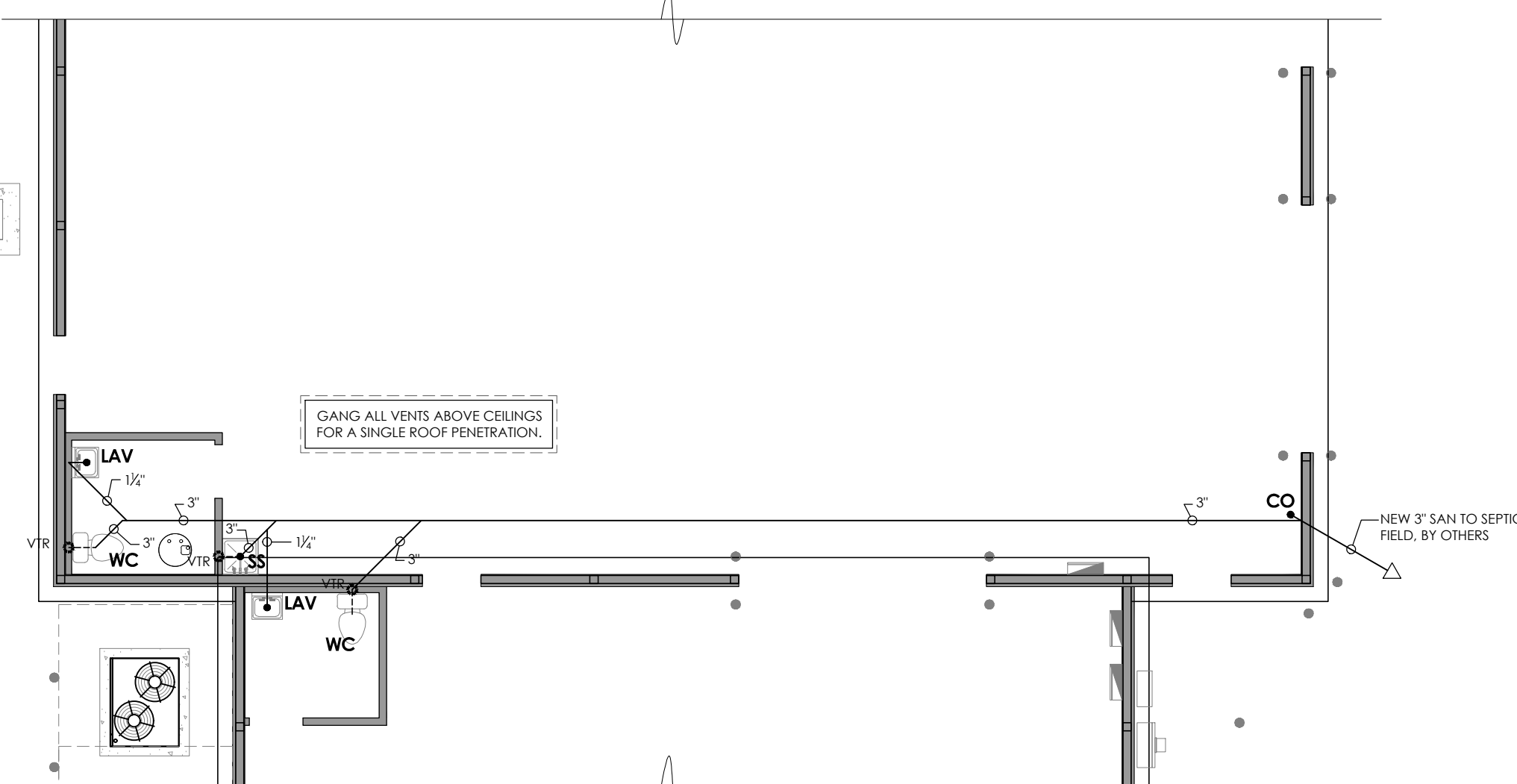
FIXTURE UNIT TABULATION		
FIXTURE	COLD	HOT
VALVE WATER CLOSET	10	--
URINAL	5	--
SERVICE SINK	2.25	2.25
3 COMP SINK	2	2.0
LAVATORY / SINK	1.5	1.5
DRINKING FOUNTAIN	0.25	--

PLUMBING CONTRACTOR TO PROVIDE AIR CHAMBERS OR WATER HAMMER ARRESTERS BY SIOUX CHIEF, PRECISION PLUMBING PRODUCTS, WATTS OR APPROVED EQUIVALENT WITH PISTON AND 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.

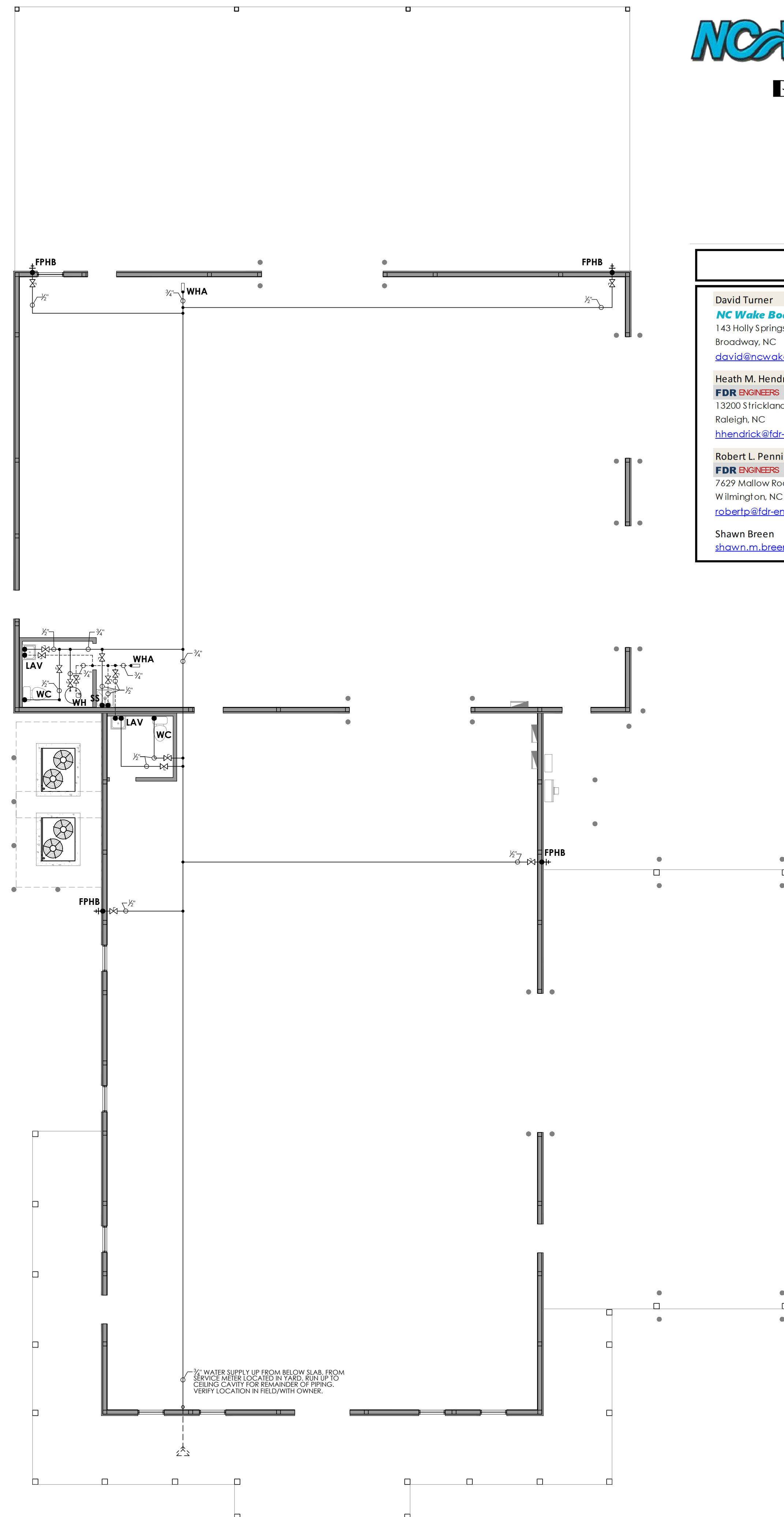
WATER HAMMER ARRESTOR SCHEDULE

### DESIGN PARAMETERS NOTE:

- THE PLUMBING SUPPLY SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH **NSPC TABLE B.7.3.B TYPE K COPPER TUBING**. G.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"



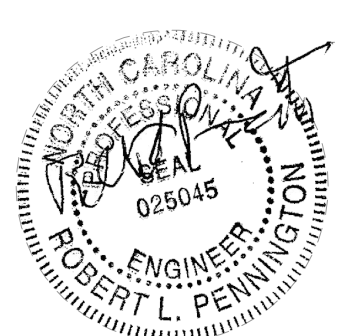
1 FW SUPPLY LAYOUT  
scale: 1/8" = 1'-0"

**NC WakeBoats**  
Broadway, NC

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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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