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.

4. 'FURNISH' MEANS SUPPLY ONLY FOR OTHERS TO PUT IN PLACE.

. 'PROVIDE' MEANS FURNISH AND INSTALL, COMPLETE AND IN PLACE.

6. 'SIMILAR' MEANS COMPATIBLE CHARACTERISTICS FOR CONDITIONS NOTED. CONTRACTOR TO VERIFY DIMENSIONS AND ORIENTATION.

'TYPICAL' MEANS IDENTICAL FOR CONDITIONS NOTED.

8. 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.

10. VERTICAL DIMENSIONS ARE FROM TOP OF FLOOR SLAB OR DECK, EXCEPT WHERE NOTED TO BE ABOVE FINISH FLOOR (A.F.F.).

11. DIMENSIONS ARE NOT ADJUSTABLE WITHOUT APPROVAL OF ARCHITECT UNLESS NOTED.

REGARDING ANY CONFLICTS SHALL BE ACHIEVED BEFORE RELATED WORK IS STARTED.

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. ALL CONCEALED WOOD TO BE FIRE

14. 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.I.C. ITEMS WITH APPROPRIATE TRADES.

5. 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

6. 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.

8. 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 TO ORDERING OR PROCEEDING WITH THE WORK.

9. EXERCISE EXTREME CARE AND PRECAUTION DURING CONSTRUCTION OF THE WORK TO MINIMIZE DISTURBANCES TO ADJACENT STRUCTURES AND THEIR OCCUPANTS, PROPERTY, PUBLIC THOROUGHFARES, 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.

1. 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.

22. 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 NATIONAL STANDARDS INSTITUTE - ANSI

AMERICAN CONCRETE INSTITUTE - ACI ARCHITECT. ALUMINUM MANUF'S ASSOCIATION - AAMA ALUMINUM ASSOCIATION, INC. - AA CONCRETE REINFORCING STEEL INSTITUTE - CRSI

NATIONAL ASSOC. OF ARCHIT. METAL MANUF'S - NAAMM NATIONAL WOODWORK MANUF'S ASOCIATION - NWMA

AMERICAN WOODWORK INSTITUTE - AWI. 23. IN THE EVENT OF CONFLICTS BETWEEN DATA SHOWN ON 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.

24. 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 BE 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.

5. 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.

26. 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 PARTITIONING, DOORS, ELECTRICAL/TELEPHONE OUTLETS, LIGHT SWITCHES AND THERMOSTATS WITH THE OWNER/AGENT IN THE FIELD BEFORE PROCEEDING WITH CONSTRUCTION

18. 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 PROJECT'S CONTRACT DOCUMENTS. SUCH STANDARDS, EXCEPT AS MODIFIED HEREIN, SHALL HAVE FULL FORCE EFFECTS AS THOUGH PRINTED IN CONTRACT DOCUMENTS.

10. 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.

1. CONTRACTOR SHALL ORDER AND SCHEDULE DELIVERY OF MATERIALS IN AMPLE 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. 2. 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 FROM THEIR

OBLIGATIONS TO SECURE QUALITY OF WORK AND RATE OF PROGRESS SPECIFIED IN CONTRACT. 3. 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.

34. REFERENCE TO MAKES, BRANDS, ETC. IS TO ESTABLISH TYPE AND QUALITY DESIRED; SUBSTITUTIONS OF ACCEPTABLE EQUALS WILL BE PERMITTED WITH OWNERS APPROVAL UNLESS SPECIFICALLY NOTED OTHERWISE WHEN MADE ACCORDING TO PROCEDURES FOR SUBSTITUTIONS.

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 FLOOR FINISHES DOORS, DOOR HARDWARE + HOLLOW METAL FRAMES

FINISH CARPENTRY ACOUSTICAL CEILING TILE AND GRID ALUMINUM FRAMES LIGHTING, EXIT SIGNAGE, AND EMERGENCY DEVICES **ELECTRICAL DEVICES**

GLAZING WALL FINISHES MECHANICAL EQUIPMENT 7. PRIOR TO SUBMITTING A QUOTATION FOR THIS WORK, THE CONTRACTOR SHALL REVIEW THESE DRAWINGS AND SPECIFICATIONS AND SHALL

NATIONAL FIRE PROTECTION ASSOCIATION - NFPA

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. 8. 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. 39. 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. 40. 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.

1. 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.

42. CONTRACTOR SHALL BE RESPONSIBLE FOR KEYING ALL REQUIRED LOCK SETS AND COORDINATING WITH OWNER TO ENSURE THAT CYLINDERS ARE KEYED TO BUILDING MASTER KEY SYSTEM AND THAT SUFFICIENT NUMBER OF KEYS ARE SUPPLIED AT TIME OF SUBSTANTIAL COMPLETION.

43. 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.

44. THESE DRAWINGS ARE TO BE USED FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN AND MAY NOT BE USED ON ANY OTHER

45. 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.

46. THE EXIT AND EMERGENCY LIGHTS SHOWN ARE FOR GUIDANCE. THE CONTRACTOR SHALL VERIFY/COORDINATE WITH LOCAL INSPECTOR FOR

EXACT QUANTITY AND LOCATIONS. 47. 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 143 HOLLY SPRINGS CHURCH ROAD Zip Code <u>27505</u> Address: SHOWROOM & WORKSHOP Proposed Use : _ Owner/Authorized Agent: DAVID TURNER Phone # (910) 928 -1104 Email_david@ncwakeboats.com Owned By: ☐ City / County Code Enforcement Jurisdiction :

City _ _ MOORE_ □ State

LEAD DESIGN PROFESSIONAL ROBERT PENNINGTON, ENGINEER DESIGNER NAME LICENSE # TELEPHONE # FDR ENGINEERS Robert Pennington 025045 (910) 520-0278 Architectural Arnold Land Design James David Arnold 036865 (910) 630-2552 Civil FDR ENGINEERS Robert Pennington 025045 (910) 520-0278 Electrical BY OTHERS Fire Alarm Robert Pennington 025045 (910) 520-0278 FDR ENGINEERS Plumbing FDR ENGINEERS Robert Pennington 025045 (910) 520-0278 Mechanical Sprinkler-Standpipe FDR ENGINEERS Heath M Hendrick 035655 (910) 427-0501 Structural Foundation Retaining Walls>5' High

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): <u>B & S-1</u>

BUILDING DATA: Construction Type:

I-A

□ II-A □ II-B \square IV □ III-B Mixed Construction:

✓ No ☐ 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 +/- Feet 1 Number of Stories

Special Inspections: none Gross Building Area: EXIST. (GR SO FT) NEW (GR SO FT)

FLOOR 1st Floor

11,962 sf 11,962 sf TOTAL 11,962 sf 11,962 sf ALLOWABLE AREA Primary Occupancy

Educational

Mercantile Storage

S-1 Moderate

□ S-2 Low

□ High-piled Mixed Occupancy: □ No ☑ Yes Separation: NA Hr. Exception:

> ■ Non-Separated Use (508.3) 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.

SUB-TOTAL

Actual Area of Occupancy A + Actual Area of Occupancy B Allowable Area of Occupancy A Allowable Area of Occupancy B 11,962 = 0.831 14,400

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 503 ⁵ AREA	(C) AREA FOR FRONTAGE INCREASE 1	(D) AREA FOR SPRINKLER INCREASE 2	(E) ALLOWABLE AREA OR 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

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)

[(24'x30')+(29'x8')+(30'x498')] / 536 = 29.6'

e. Percent of frontage increase $I_f = 100 [F/P - 0.25] \times W/30 = 74$ (%) 100 [F/P - 0.25] x w / 30

100 [(536/536) - 0.25] x 29.6 / 30 = 74.12%

ALLOWAB	LE HEIGH
	ATTOHUADIE

	ALLOWABLE	SHOWN ON	CODE
	(TABLE 503)	PLANS	REFERENCE
Building Height in Feet	40'	28'	
Building Height in Stories	(B) 2, (S-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							
	FIRE		R.	ATING	DETAIL#	DESIGN#	SHEET #	SHEET#
BUILDING ELEMENT	SEPARATION DISTANCE (FEET)	REC	Q'D	PROVIDED (W/* REDUCTION)	AND SHEET #	FOR RATED ASSEMBLY	FOR RATED PENETRATION	FOR RATED JOINTS
Structural frame, including columns, girders, and trusses		N	Ą					
Bearing walls		N	Ą					
Exterior		N	Ą					
North		N	Ą					
East		N,	Ą					
West (602. F.S.D.)	10'≤x<30'	0h	rs					
South		N	Ą					
Interior			\					
Nonbearing walls and partitions								
Exterior Walls								
North								
East								
West								
South								
Interior walls and partitions								
Floor construction Including supporting beams and joists		N	Α					
Floor~Ceiling Assembly								
Columns Supporting Foors								
Roof construction Including supporting beams and joists								
Roof~Ceiling Assembly								
Columns Supporting Roof								
Shaft Enclosures - Exit								
Shaft Enclosures - Others								
Corridor Separation								
Occupancy Separation								
Party/Fire Wall Separation								
Smoke Barrier Separation								
Tenant Separation								
Incidental Use Separation			/					
* Indicate section number permitting	reduction							

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: □ No ■ Yes Exit Signs: □ No Yes Fire Alarm: No □ Yes

□ No □ Yes ☑ Partial AHU RA Duct Detectors Smoke Detection Systems: No □ Yes Carbon Monoxide Detection:

LIFE SAFETY PLAN REQUIREMENTS

CS Life Safety Plan Sheet #:

☐ 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)

☑ Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))

 \square Dead end lengths (1020.4)

Max. calculated occ. load capacity each exit door can accommodate based on egress width (1005.3) Actual occupant load for each exit door

A seperate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy seperation

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 I-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		IMUM ² R OF EXITS	TRAVEL DIST	ΓANCE	ARRANGEMENT MEANS OF EGRESS ^{1,3} (SECTION 1007.1.1)		
SPACE DESIGNATION	REQUIRED	SHOWN ON PLANS	ALLOWABLE TRAVEL DISTANCE (TABLE 1017.2)	ACTUAL TRAVEL DISTANCE SHOWN ON PLANS	REQUIRED DISTANCE BETWEEN EXIT DOORS	ACTUAL DISTANCE SHOWN ON PLANS	
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

	(a)	(b)		((c)	EXIT V	VIDTH (in)	2,3,4,5	,6
USE GROUP OR SPACE DESCRIPTION	AREA 1 sq. ft.	AREA ¹ PER OCCUPANT (TABLE 1004.1.2)		EGRESS WIDTH PER OCCUPANT (TABLE 1005.3)		REQUIRED WIDTH (SECTION 1005.3) (a / b) x c		ACTUAL WIDTH SHOWN ON PLANS	
				STAIR	LEVEL	STAIR	LEVEL	STAIR	LEVEL
OOM	RE	FER TO	14	0.3	0.2	NA	0.42"	NA	34"
OP	SC	HEDULE	14	0.3	0.2	NA	0.42"	NA	34"
		•							

LIFE SAFETY LEGEND

5 common path of travel

exit

exit capacity

-24.14'±-

NO WOKE BOOKS

OCCUPANCY LOAD CALCULATION

warehouses

warehouses

OPAQUE THERMAL ENVELOPE INSULATION COMPONENT MINIMUM REQUIREMENTS

R-13 + R-3.8ci BATT's in cavities + board/roll

for 24" @ perimeter

4,000

olumbing facilities required

NC IECC Table C402.1.3

WALLS:

BONDING OF METAL VENEERS

ELECTRICAL CONTRACTOR SHALL PROVIDE ADEQUATE BONDING OF THE INSTALLED METAL VENEER

AMENDMENTS AND TO THE SATISFACTION OF THE LOCAL ELECTRICAL CODE OFFICIAL/INSPECTOR

PANELS, PURSUANT TO SECTION 250 OF THE 2020 NFPA-70 (NEC) WITH NORTH CAROLINA

500 gross 2

500 gross 8

500 gross

insulation entirely above deck R-13 FG BATT's in truss cavities

wood framed attic insulation and R-30 perpendicular atop

B occupants : 14

total occupants: 28

2018 NCPC table 403.

Climate Zone 4

R-21 FG BATT's between studs

24" of 2" polyiso rigid board

Broadway, NC

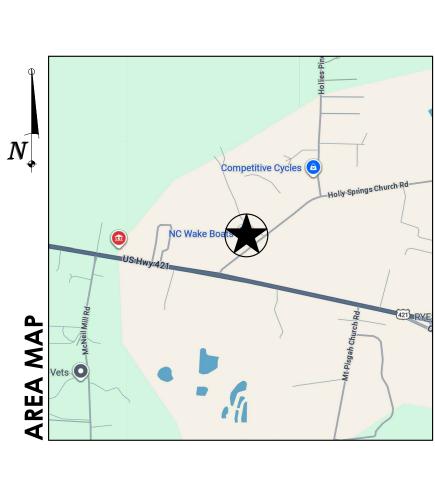
INDEX		deferred - D	4	024
1141	JEA	no changes - 0	3/6/2024	1/25/2024
		changes - ●	3/6/	11/2
STRUC	TURAL			
CS	CODE, PROJECT DATA + LIFE SAFETY	RLP		•
\$1.1	STRUCTURAL NOTES	HMH		•
\$2.1	FOUNDATION	HMH		•
\$2.2	ROOF FRAMING	HMH		•
\$2.3	GRADE LAYOUT + SCHEDULES	RLP		•
\$2.4	R.C.P. + ROOF LAYOUTS	RLP		•
\$3.1	SECTIONS	HMH	•	•
\$4.1	DETAILS	HMH		•
\$5.1	ELEVATIONS	RLP		•
TRUSS	TRUSSES	BY OTHERS		D
MECH	ANICAL			
M1.1	LAYOUT, NOTES, SCHEDULES + DETAILS	RLP		•
PLUM	BING			
P1.0	FW SUPPLY, SAN, NOTES, SCHEDULES + DETAILS	RLP		•
ELECT	RICAL			
E0.1	NOTES, DETAILS, RISER + SCHEDULES	RLP		•
			_	

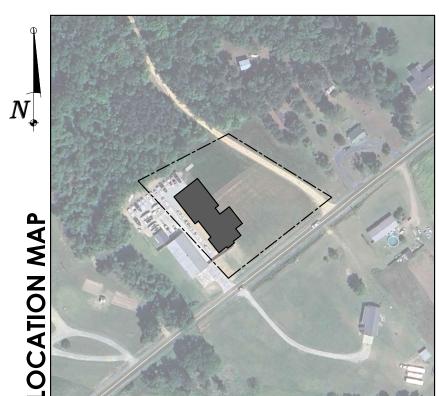
E1.1 LAYOUTS, NOTES + SCHEDULES

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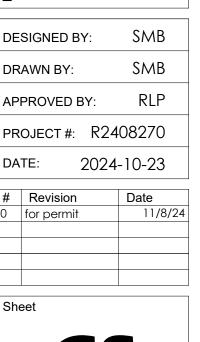
Reviewed for Fire Code Compliance

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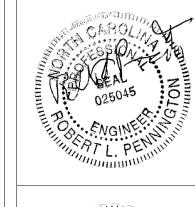


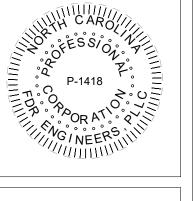


Engineer Strickland Road



RLP •





GENERAL NOTES:

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR ŚLEEVES, DEPŔESSIONS AND OTHER DETAILS NOT SHOWN ON STRUCTURAL

2. 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

3. 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.

4. 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.

5. 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

6. 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 LOADINGS:

ROOF: GROUND SNOW LOAD, DESIGN ROOF SNOW LOAD, SNOW EXPOSURE FACTOR, SNOW LOAD IMPORTANCE FACTOR, THERMAL FACTOR, ROOF LIVE LOAD	Pg = Pf = Ce = Is = Ct = 20 psf	10 psf 10 psf 0.9 1.0
DESIGN LIVE LOADS: FLOOR	100 psf	
WIND: BASIC WIND SPEED (3 SEC GUST) EXPOSURE CATEGORY RISK CATEGORY WIND BASE SHEARS,	115 mph C II Vx = Vv =	17.9k 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, USE GROUP	le =	1.0 I
MAPPED SPECTRAL RESPONSE ACCELERATIONS,	Ss = S1 =	0.139g 0.067g
SPECTRAL RESPONSE COEFF.,	Sds = Sd1 =	0.149g 0.108g
SEISMIC RESISTING SYSTEM: ORDINARY WOOD SHEATHED SHEAR WALLS		J

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 HE 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 MANUFACTURERS INSTRUCTIONS. INSTALLERS SHALL BE TRAINED BY THE MANUFACTURER'S REPRESENTATIVE.

ANCHOR BOLTS:

SHALL BE A36 THREADED ROD. PROVIDE HOT DIP GALVANIZE FINISH ON ALL ANCHOR BOLTS

CONCRETE TESTING:

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

A) ASTM C143 - "STANDARD TEST METHOD FOR SLUMP OF PORTLAND CEMENT CONCRETE B) 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

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:

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 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 SCUFFED 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 I/II 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

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:

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 4.5.7 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

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

9. REINFORCING STEEL SHALL RECEIVE CONCRETE COVER AS FOLLOWS:

DESCRIPTION CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	MINIMUM COVER 3"
EXPOSED TO EARTH OR WEATHER #6 THROUGH #18 BARS #5 BARS OR SMALLER	2" 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 BEAMS AND COLUMNS	1 1/2" 1 1/2"
0. PROVIDE TWO (2) #5'S, ONE AT EACH FACE, UNLESS AROUND ALL OPENINGS GREATER THAN 12"x12" IN CAST EXTEND REINFORCING 2'-0" BEYOND OPENING IN BOTH I	Γ-IN-PLACE CONCRETE.

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

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 2x WOOD COMPONENTS HAVE BEEN DESIGNED AS SOUTHERN ELLOW PINE (SYP) OR HEM-FIR (HF) NO. 2 OR BETTER AND SHALL HAVE THE FOLLOWING MINIMÚM ALLOWABLE FÍBER STRESSES AND PROPERTIES:

> MODULAS OF ELASTICITY (E) 1,300,000 PSI BENDING (Fb)

WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PROTECTED OR PRESSURE 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

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 SHEATHING:

PLYWOOD ROOF, FLOOR AND WALL SHEATHING ARE DESIGNED AS DIAPHRAGMS AND SHALL COMPLY WITH APPLICABLE PROVISIONS OF CHAPTER 23 OF

SHEATHING SHALL BE FASTENED IN ACCORDANCE WITH PLANS SHOWN SPECIAL NAILING REQUIREMENTS AND WITH THE APPROPRIATE SCHEDULE IN CHAPTER

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:

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

WIND LOAD = SEE DESIGN LOADS

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

DEAD LOAD = 10 psf

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 ENGINEERED REGISTERED IN THE STATE OF THE PROJECT LOCATION.

WOOD FRAMING CONNECTORS:

BOTTOM CHORD:

L/360 LIVE LOAD AND L/240 TOTAL LOAD.

CONNECTOR MODEL NUMBERS SHOWN ARE "Strong-Tie" CONNECTORS AS MANUFACTURERED BY "SIMPSON Strong-Tie Co.", 1450 DOOLÏTTLE 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

STRUCTURAL STEEL:

1. 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"

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

4. ALL SHOP CONNECTIONS TO BE WELDED (UTLIZING 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 BOTLTS, UNLESS NOTED OTHERWISE, BEAM CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR TO SUPPORT AN END REACTION OF Wc/2L 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

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

STRUCTURAL ABBREVIATIONS: ABBREV. DEFINITION ANCHOR BOLTS **ADJACENT** ABOVE FINISHED FLOOR ARCHITECT BOTTOM CHORD EXTENSION BELOW FINISHED FLOOR BOTTOM BOTTOM OF xx BOS **BOTTOM OF STEEL** BUILDING BEARING CANT CANTILEVER CENTERI INF CONTROL JOINT CONCRETE MASONRY UNIT COLUMN CONCRETE CONSTRUCTION CONTINUOUS COMPLETE PENETRATION NAIL PENNY WEIGHT DEFORMED BAR ANCHOR DOUBLE DEGREE DET,DTL DETAIL DIAMETER DIAGONAL DIMENSION DECK DOWN DRAWINGS DWGS DOWEL EACH FACE EXPANSION JOINT ELEVATION EMBEDDED / EMBEDMENT FNGR FNGINFFR EOD FDGF OF DECK FDGE OF STEE EQUIPMENT EACH WAY EXISTING **EXPANSION EXTERIOR** FINISH FLOOR FLOOR DRAIN **FOUNDATION** FACE OF MASONRY FACE OF WALL FOOTING STEP FOOTING FIELD VERIFY GAUGE GALVANIZED GRADE BEAM HORIZONTAL HIGH STRENGTH EPOXY HOLLOW STRUCTURAL SECTION INSIDE FACE INTERIOR JOINT KIPS = 1000 LBS KNEE BRACE KIPS PER SQUARE INCH KIPS PER LINEAR FOOT LONG LEG HORIZONTAL LONG LEG VERTICAL LOCATIONS LAMINATED STRAND LUMBER LAMINATED VENEER LUMBER LIGHT WEIGHT CONCRETE MAXIMUM MOMENT CONNECTION MECH MECHANICAL MANUFACTURER MIDDLE MINIMUM **MISCELLANEOUS** MASONRY PILASTER NUMBER NTS NOT TO SCALE NORMAL WEIGHT CONCRETE ON CENTER OUTSIDE FACE OPPOSITE HAND POWDER ACTUATED FASTENER PRECAST PRE-ENGINEERED POUNDS PER LINEAR FOOT POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH PARRALEL STRAND LUMBER PRESSURE TREATED RADIUS REFERENCE REINF REINFORCEMENT REQD REQUIRED REVISION SLIP CRITICAL SCHEDULE SELF DRILLING SCREW SECT SECTION SHEET SIM SIMII AR SI AB SOG SLAB ON GRADE SPECIAL JOIST SPEC **SPECIFICATION** STANDARD SHORT WAY SYM SYMMETRICAL TOP CHORD EXTENSION TOP AND BOTTOM TOP OF CONCRETE TOP OF STEEL TOP OF WALL T.O.xx TOP OF xx **THICKNESS** TIF JOIST TYPICAL UNLESS NOTED OTHERWISE UNO VERT VERTICAL

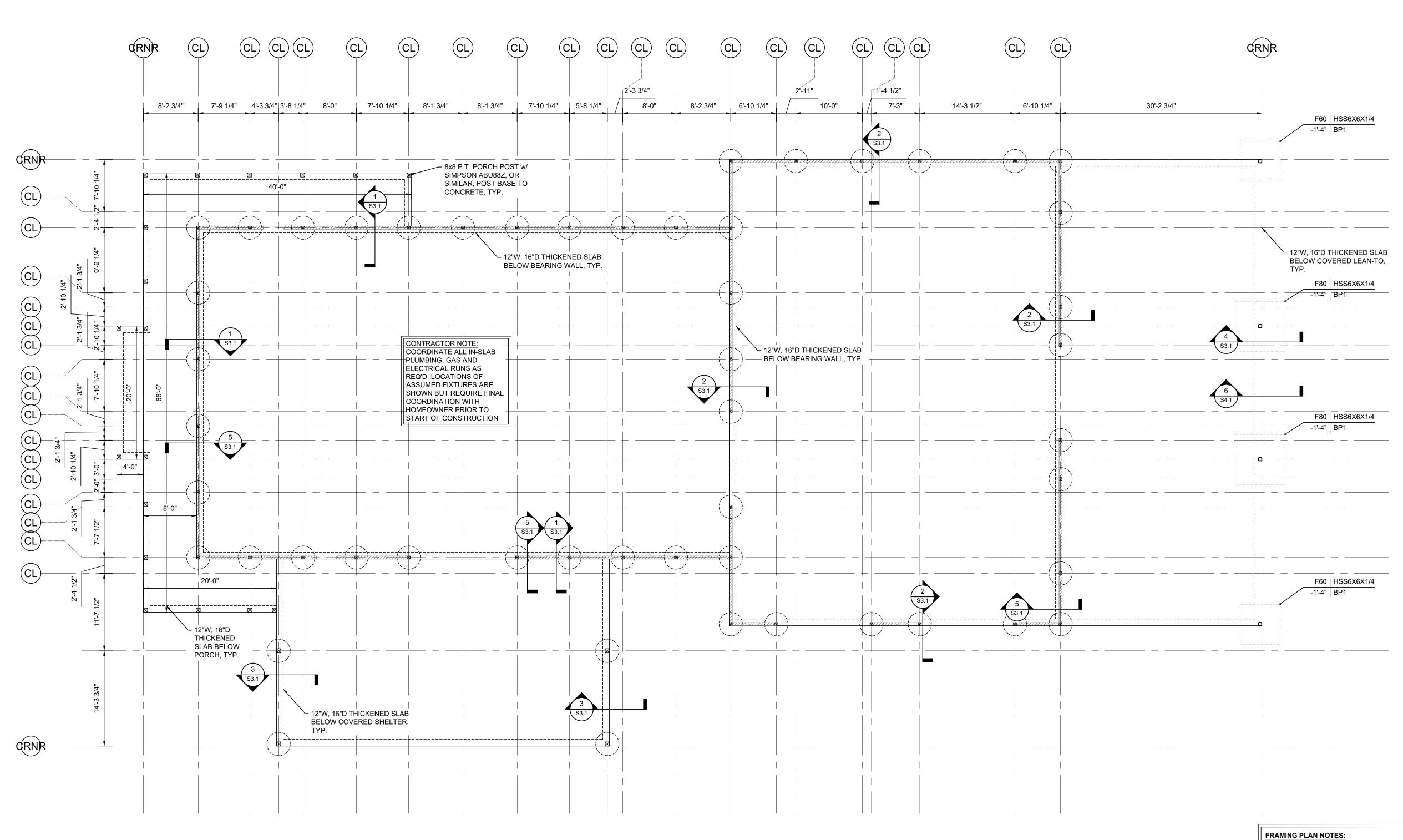
VERIFY IN FIELD WELDED WIRE FABRIC WELDED WIRE MESH

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DESIGNED BY: DRAWN BY: APPROVED BY: PROJECT #: 24-067 11/27/2024 Date Revision



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

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

DENOTES LOAD BEARING WALL. ALL EXTERIOR WALLS SHALL BE SHEATHED WITH 7/16" APA 24/48 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.

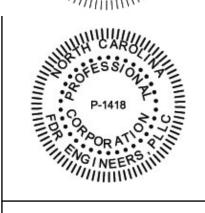
4. (#) INDICATES NUMBER OF STUDS IN POST SUPPORTING FRAMING MEMBER. STUD POSTS SHALL EXTEND FROM BEARING DOWN TO SOLID FOUNDATION AND SHALL INCLUDE SOLID BLOCKING THROUGH FLOOR STRUCTURE DEPTH WHERE APPLICABLE. PROVIDE A MINIMUM OF (3) STUDS AT ALL BEAM BEARINGS UNLESS OTHERWISE NOTED ON PLAN.

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 NOTÈD OTHERWISE.

6. PROVIDE SIMPSON H10A CLIPS AT THE ENDS OF ALL ROOF FRAMING MEMBERS

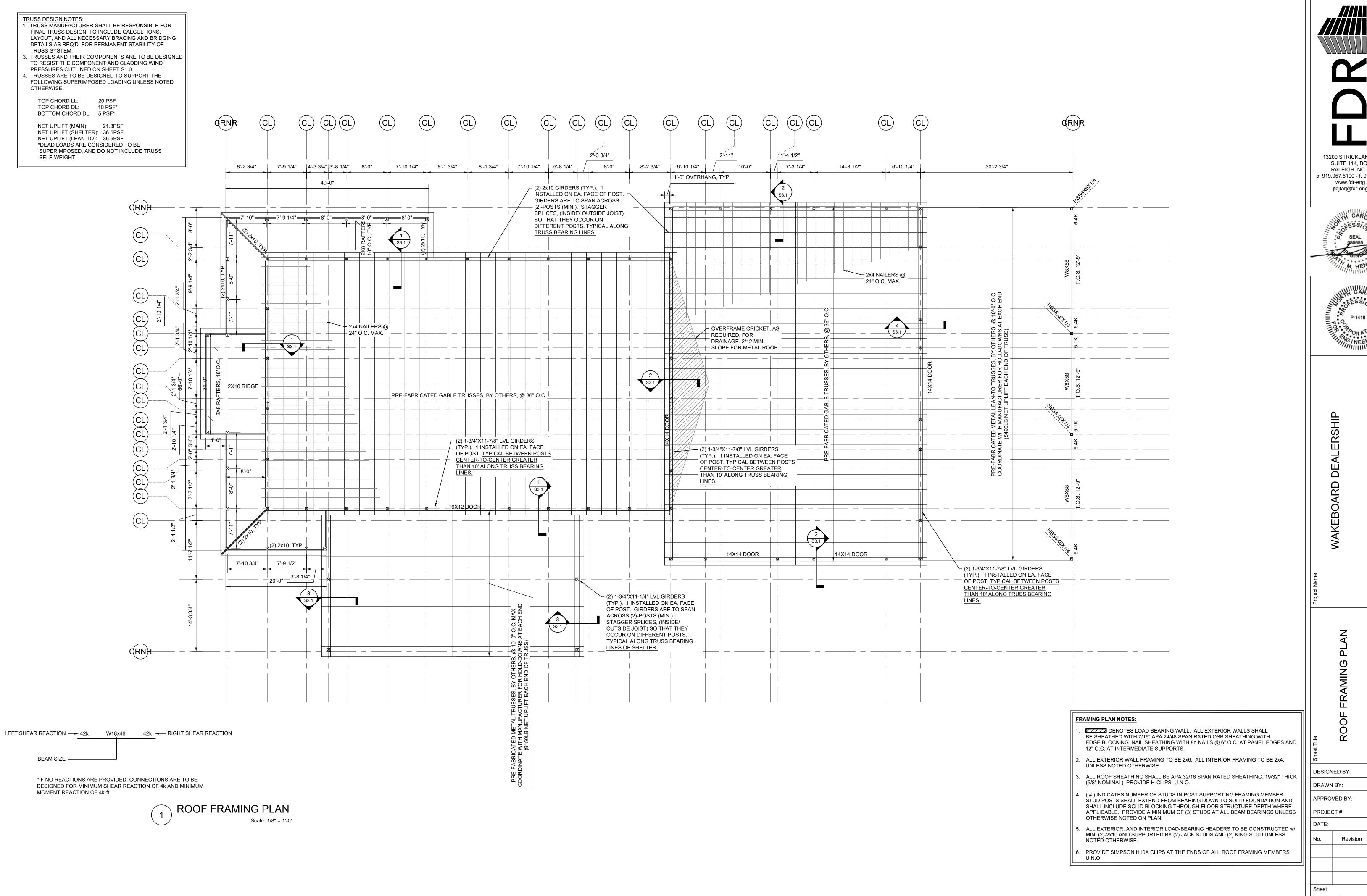
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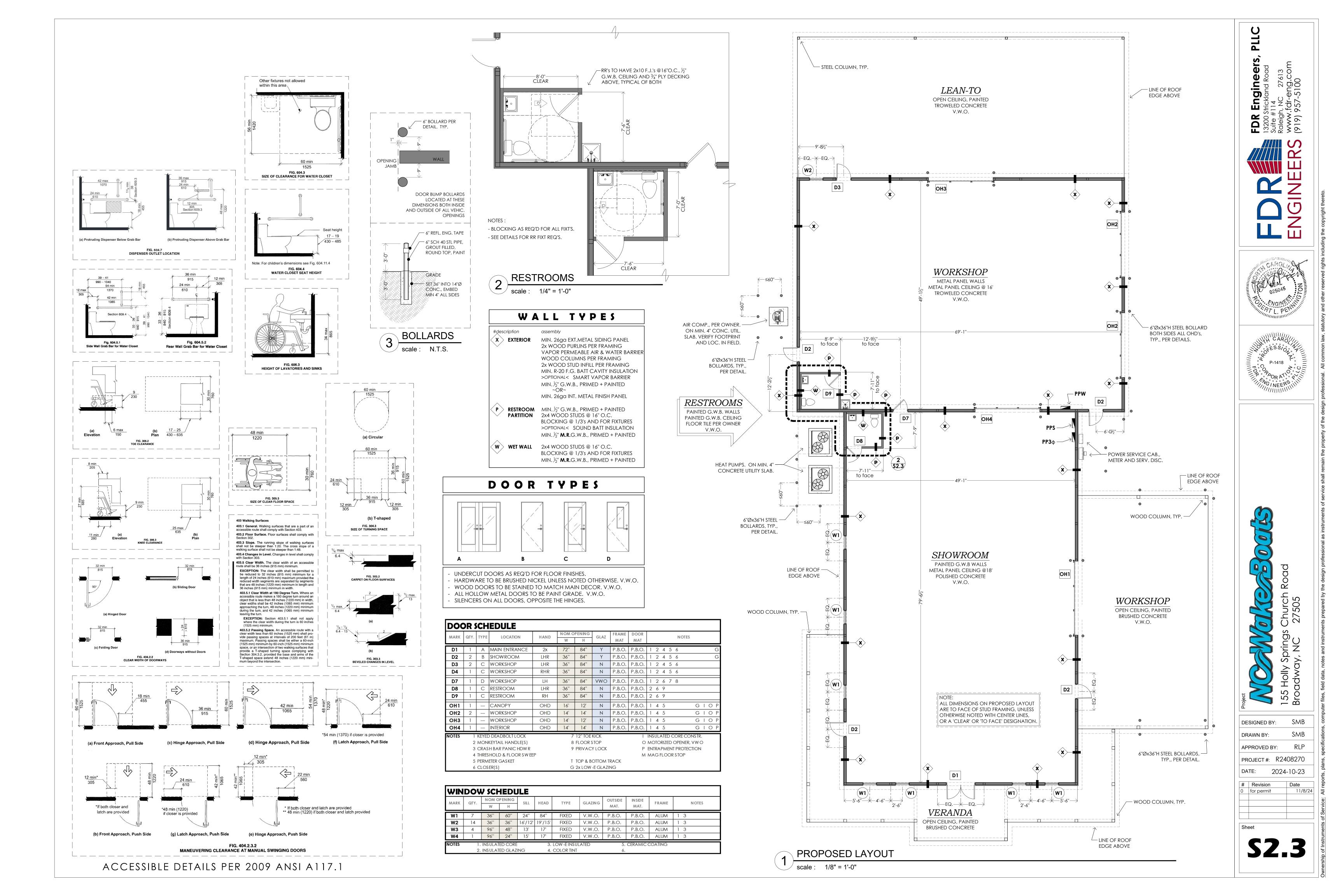


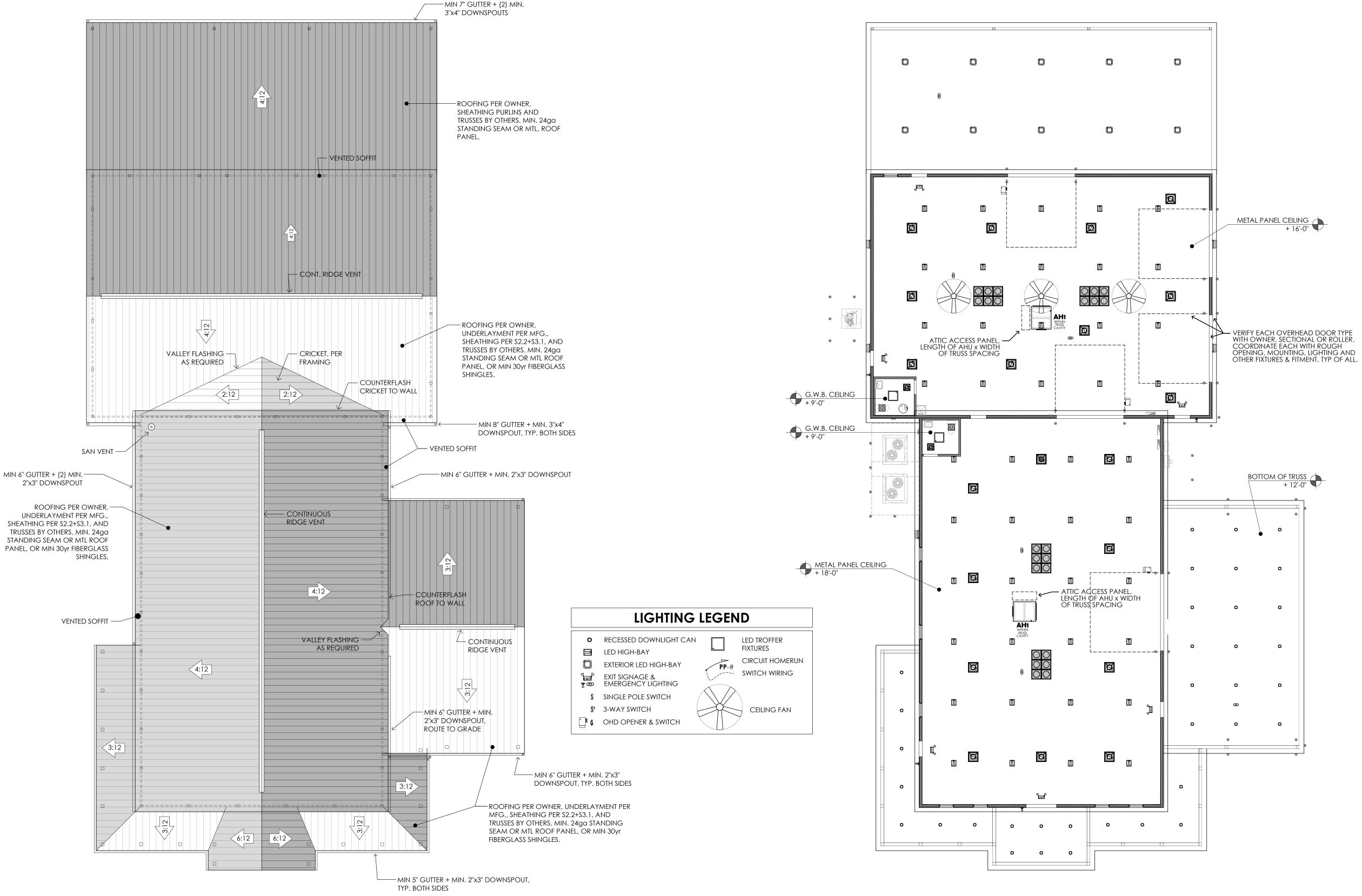
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FOR PERMIT ONLY



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stormwater data			per '18 NCP pe		4 in/hr 50%							
by drainage areas	roof	adj. vert	t. wall		volume			downspour			min. gutter W @	0.8 W:I
-	area	length h	eight		c.f./h.r. c.	f./min. g	g.p.m.	in. ø	reg'd.	prop.	slope	in. Ø
workshop N + lean-to	3,850	0	0	3,850 sf	1,283	21	160	3 × 4	2	2	1/8" (1%)	7"
workshop S	1,750	50	3	1,825 sf	608	10	76	2 × 3	2	2	1/8" (1%)	8"
showroom W	2,000	0	0	2,000 sf	667	11	83	2 × 3	2	2	1/8" (1%)	6"
showroom E	2,000	0	0	2,000 sf	667	11	83	2 × 3	2	2	1/8" (1%)	6"
side canopy N	725	25	3	763 sf	254	4	32	2 × 3	1	1	1/8" (1%)	5"
side canopy S	725	25	3	763 sf	254	4	32	2 × 3	1	1	1/8" (1%)	5"
veranda	1,092	96	3	1,236 sf	412	7	51	2 × 3	1	3	1/8" (1%)	5"

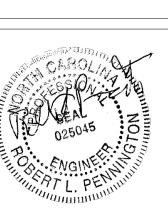
REFLECTED CEILING LAYOUT scale : 3/32" = 1'-0"

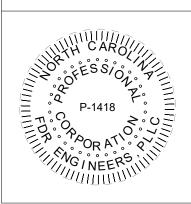
USE	TYPE	MANUF.	MODEL	LAMPS	Va	V	DESCRIPTION
XT. DOWNLIGHT	CAN	LITHONIA	LDN6 35/30 L06AR	LED	35	120	NEW CONSTRUCTION 6" DOWNLIGHT CAN
w arehouse	HIGH-BAY	LITHONIA	CPHB 15000LM SEF GCL	LED	96	120	HIGH BAY LED W MVOLT GANG TECHNOLOGY
EXT. CANOPY	HIGH-BAY	LITHONIA	SCNY LED ALO2 SWW2 PFL	LED	≤ 130	120	HIGH 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, W HITE FINISH
EXTERIOR AREA	WALL	P.B.O.	P.B.O.	LED	≤ 90	120	ENCLOSED, ON LIGHT SENSOR.
EXIT + EM	STANDARD	LITHONIA	LHQM LED R HO	LED	10	120	EXIT + EMERG COMBO. WALL/CLG MTD, 90 MIN. BATT. BACK-UP, WHITE
ΞM	STANDARD	LITHONIA	ELM4L	LED	8	120	HIGH BAY EMERG, WALL/CEILING MOUNTED, 90 MIN. BATTERY BACK-UP
EXT. EM	STANDARD	LITHONIA	ELA B T QW P LO309	LED	28	120	EXTERIOR/W ET RATED, 2 LAMPS , BLACK FINISH, 90 MIN. BATTERY BACK-UP.
LIGHT FIXTURE SUR	STITIITIONS ALLOWE	D WITH MATCHIN	NG PARAMETERS BY OWNER REQ	IIEST COL	DE COMPL	IANCE AN	D AH LAPPROVAL

Engineers, Strickland Road

FDR Engineer
13200 Strickland Road
Suite #114
Raleigh, NC 27613
www.fdr-eng.con
(919) 957-5100

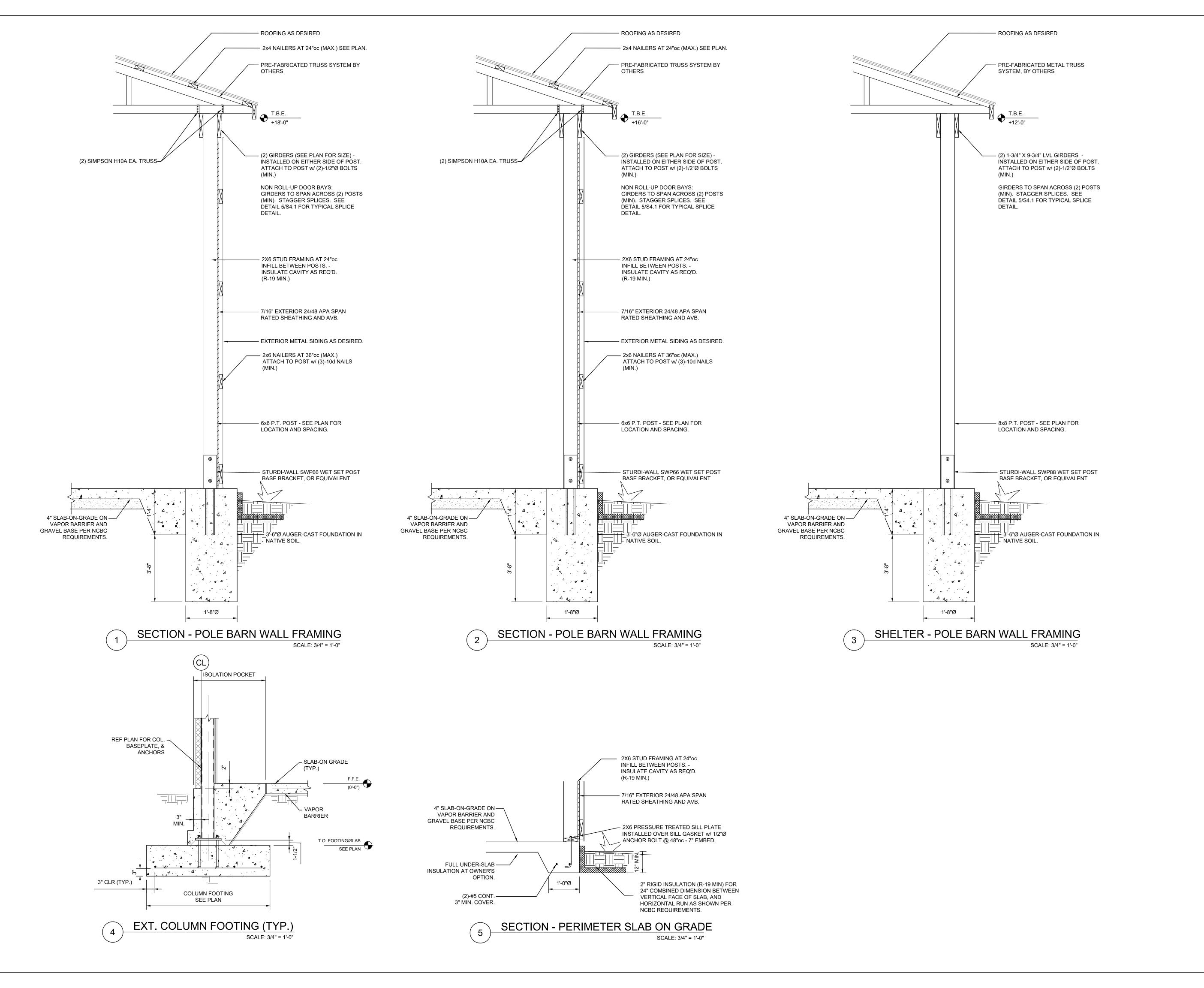


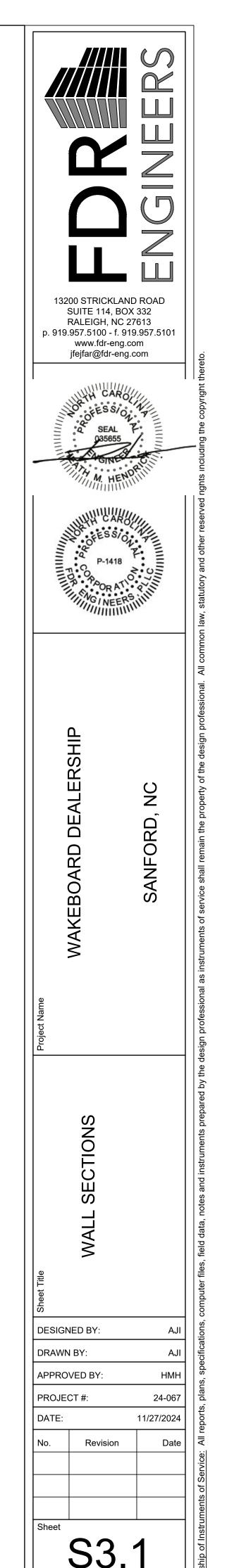


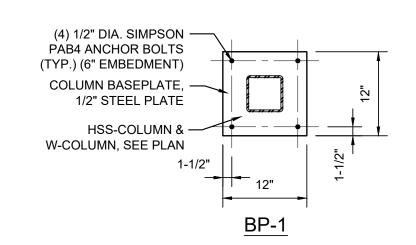




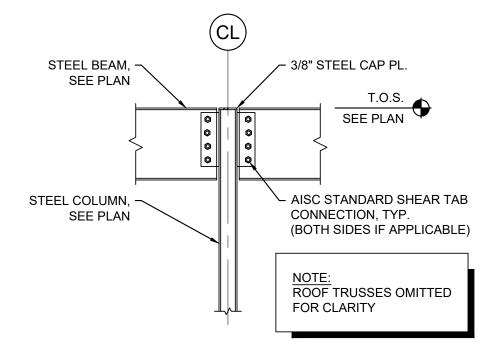
SMB DESIGNED BY: SMB DRAWN BY: APPROVED BY: PROJECT #: R2408270 2024-10-23 # Revision 11/8/24 0 for permit







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



TYPICAL BEAM SHEAR CONNECTION

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

/ 5" CONC SLAB, SEE PLAN ← 6"x6" - W2xW2 WELDED WIRE MESH PLUS 1-1/2 lbs. PER CUBIC YARD FIBRILLATED, COLLATED POLYPROPYLENE FIBERS. WELDED WIRE MESH MUST BE PREFABRICATED SHEETS, NO ROLLED MESH ALLOWED. PROVIDE A MINIMUM OF ONE CHAIR PER 25 SQUARE FEET OF MESH SUPPORTED. VAPOR BARRIER SEE ARCH DWGS.

─ 4" BASE COURSE STONE - PREPARE SLAB SUBGRADE AS PER THE GEOTECHNICAL ENGINEER'S REPORT & RECOMMENDATIONS

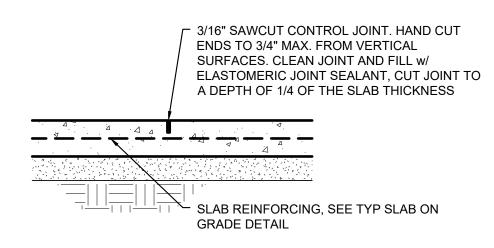
1. SEE ARCHITECTURAL DRAWINGS FOR SLOPES, DROPS, AND DRAIN LOCATIONS IN FLOOR SLABS.

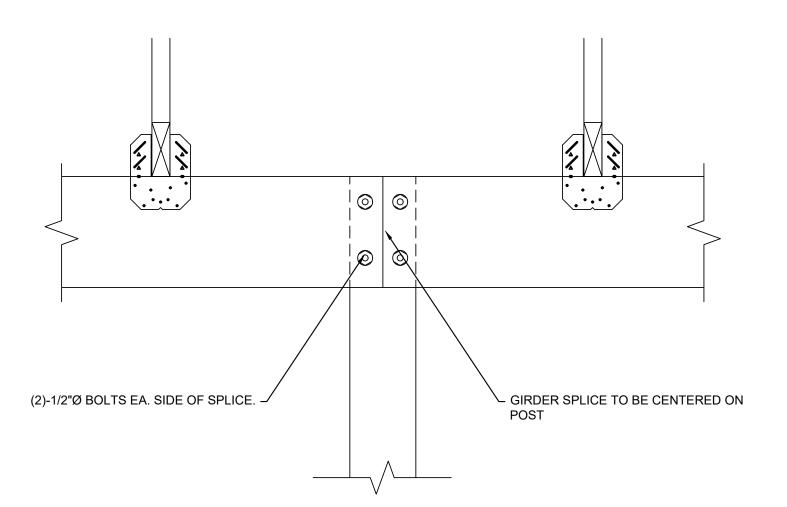
5" SLAB ON GRADE DETAIL SCALE: 3/4" = 1'-0"

NOTES:

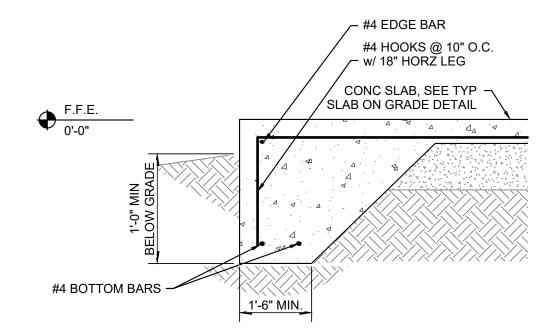
1. CONTRACTORS OPTION - USE REMOVABLE CONTROL JOINT MATERIAL

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.



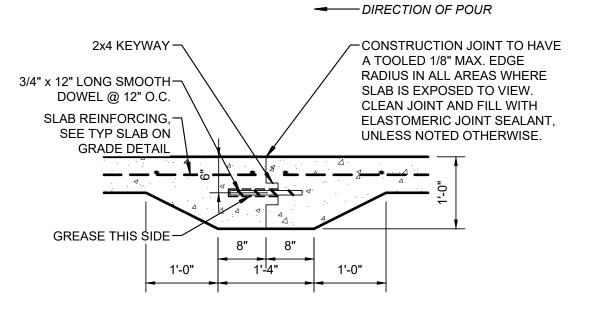


GIRDER SPLICE DETAIL SCALE: 1-1/2" = 1'-0"

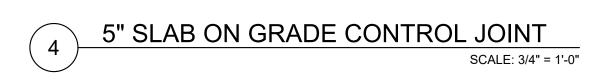


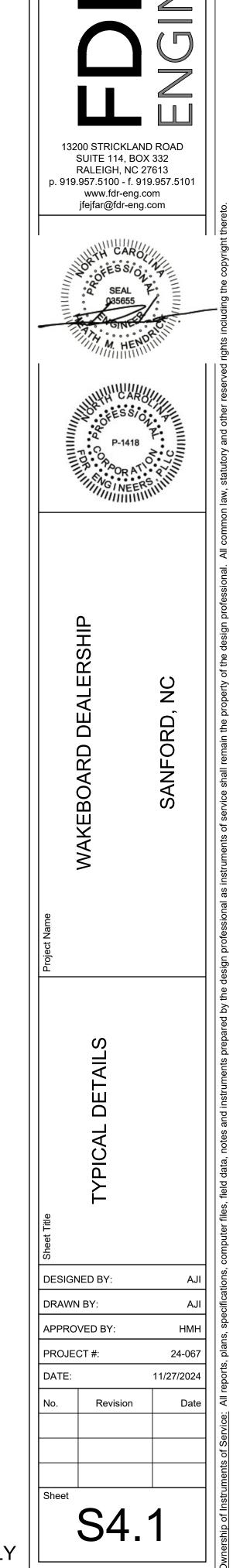
PERIMETER FOUNDATION

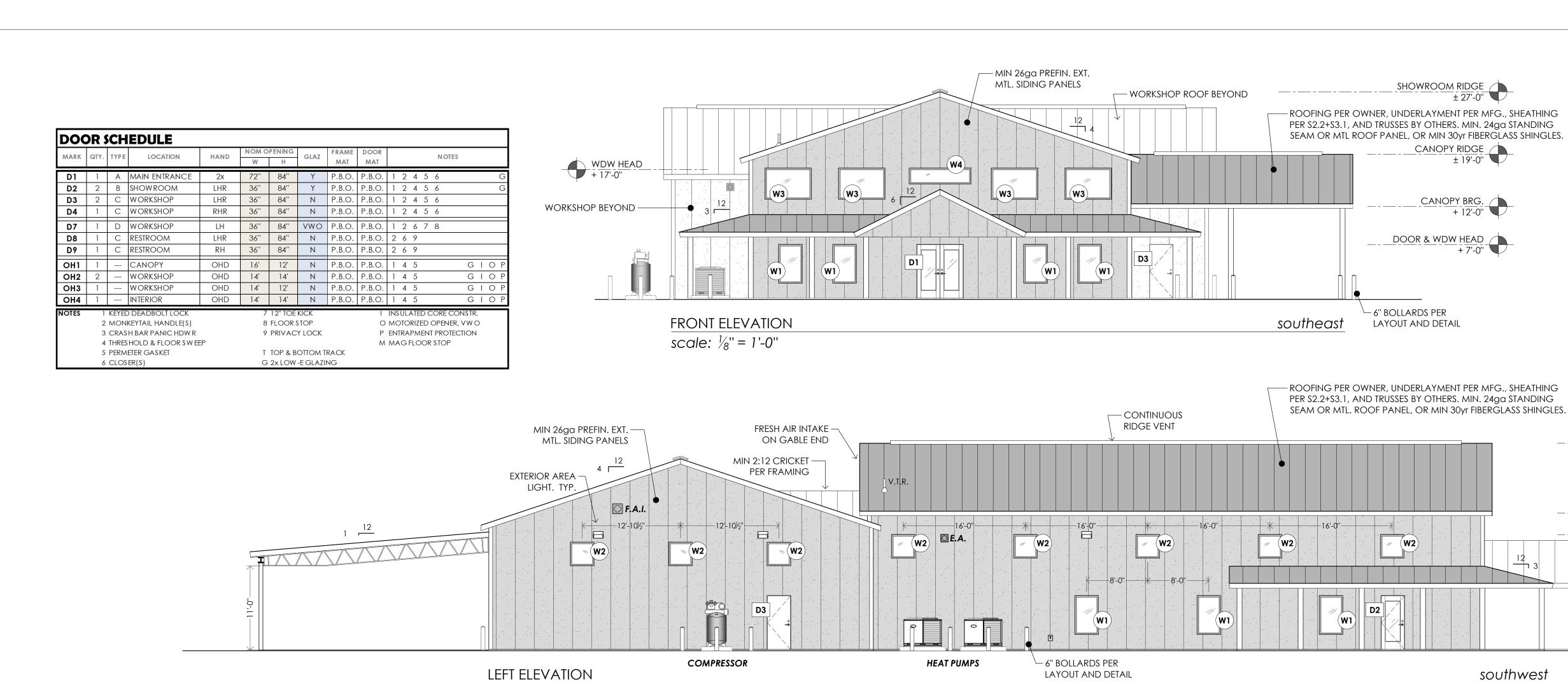
SCALE: 3/4" = 1'-0"



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

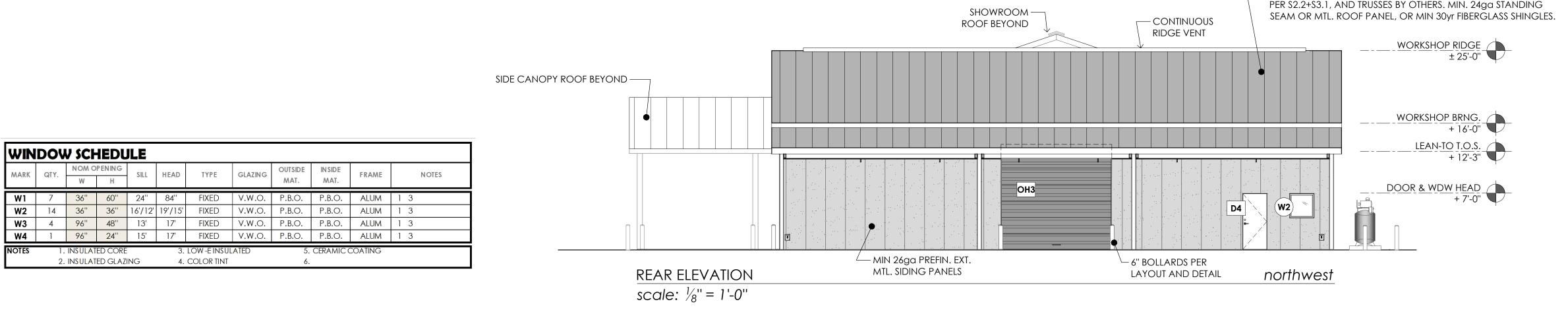


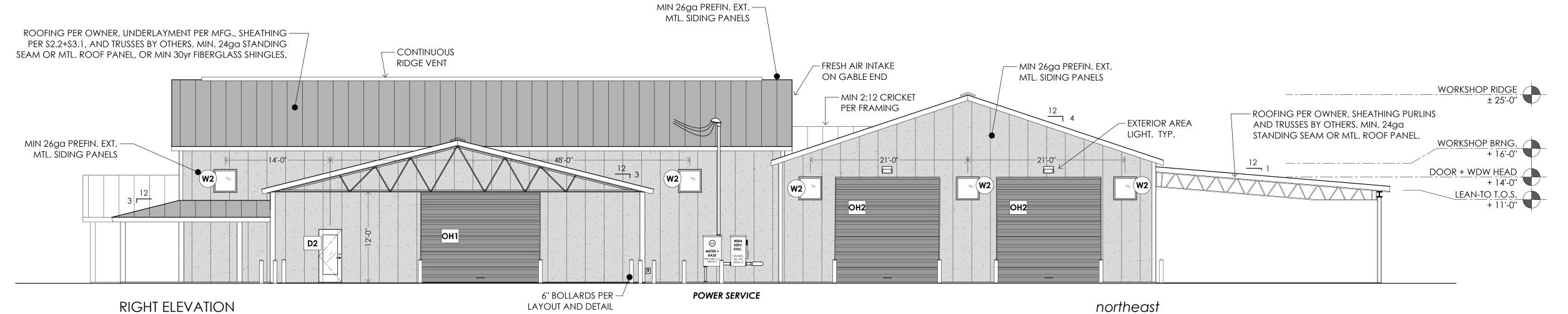




scale: $\frac{1}{8}$ " = 1'-0"

scale: $\frac{1}{8}$ " = 1'-0"





LAYOUT AND DETAIL

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FDR Engineer
13200 Strickland Road
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Raleigh, NC 27613
www.fdr-eng.com
(919) 957-5100





WORKSHOP RIDGE ± 27'-0"

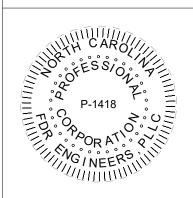
+ 18'-0"

WDW HEAD + 15'-0"

VERANDA HDR

DR & WDW HEAD + 7'-0"

ROOFING PER OWNER, UNDERLAYMENT PER MFG., SHEATHING





DE	SIGNED B	Y:	SMB
DR	AWN BY:		SMB
ΑP	PROVED E	BY:	RLP
PR	OJECT #:	R24	08270
DA	TE:	2024	-10-23
#	Revision for permit		Date 11/8/2
Sh	eet		

GENERAL MECHANICAL NOTES

GENERAL

- ALL WORK INDICATED ON DRAWINGS/SPECIFICATIONS SHALL BE INSTALLED WITH THE LATEST REQUIREMENTS OF THE CITY, COUNTY AND STATE BUILDING CODES AND THE AUTHORITY HAVING JURISDICTION.
- 2. BRANCH ROUND DUCTWORK LOCATED ABOVE INACCESSIBLE CEILING OR SERVING MORE THAN ONE DIFFUSER SHALL
- HAVE SCOOP OMITTED, AND FACE OPERATED DAMPER IN THE DIFFUSER UNLESS NOTED OTHERWISE. 3. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL CEILING MOUNTED EQUIPMENT. IF AN

ITEM IS NOT SHOWN ON THE R.C.P. PREPARE A DRAWING AND SUBMIT TO THE ARCHITECT FOR APPROVAL.

- 4. COORDINATE ALL ROOF AND SLAB PENETRATIONS WITH STRUCTURAL ENGINEER.
- 5. TRANSITION RECTANGULAR DUCTWORK ON THE BOTTOM AND THE SIDES. MAINTAIN DUCTWORK LEVEL AND AS HIGH AS
- 6. FLEXIBLE DUCT RUNOUTS TO DIFFUSERS SHALL BE INSTALLED FREE OF KINKS AND SAGS, ALL DIFFUSER RUNOUTS SHALL BE SIZED TO MATCH THE INLET OF THE DIFFUSER SERVED. NO FLEXIBLE DUCTS TO EXCEED 14 LINEAR FEET.
- 7. ALL DUCT CHANGES FROM SQUARE TO ROUND SHALL BE SMOOTH TRANSITIONS. SPIN-INS AT THE END OF CAPPED DUCTS
- ARE NOT ACCEPTABLE. 8. PORTIONS OF DUCTWORK OR PIPING VISIBLE THROUGH GRILLES AND REGISTERS IN FINISHED AREAS SHALL BE PAINTED FLAT
- 9. CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
- 10. MOUNT THERMOSTATS WHERE INDICATED ON PLANS 48" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE.
- 12. DUCT SIZES ARE SHOWN AS INSIDE CLEAR DIMENSIONS. WHERE INTERNAL LINING IS CALLED FOR, DIMENSIONS SHALL BE INCREASED BY THE THICKNESS OF THE LINING
- 13. EXTEND CONDENSATE DRAIN TO NEAREST FLOOR DRAIN.
- 14. ALL HOT WATER PIPING SHALL BE INSULATED. 15. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURES INSTRUCTIONS. (IE CONTROLS, REFRIGERANT SPECIALTIES
- ETC.)
- 16. MECHANICAL CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES AVOID CONFLICTS. 17. MECHANICAL CONTRACTOR SHALL COORDINATE DUCT ROUTING WITH STRUCTURAL BEAMS AND COLUMNS, ETC. SEE ARCHITECTURAL DRAWINGS FOR CEILING HEIGHTS DESIRED. CONTRACTOR SHALL FAMILIARIZE HIMSELF/HERSELF WITH
- PLANS AND PROVIDE A COMPLETE AND COORDINATED SYSTEM. 18. DO NOT SCALE PLANS. PLANS ARE DIAGRAMMATIC AND SHOW THE GENERAL LOCATION OF DEVICES, EQUIPMENT, PIPE ROUTING, ETC. THE PLANS SHOW GENERAL INTENT ONLY. DUE TO THE SMALL SCALE OF PLANS, NOT ALL OFFSETS, ETC ARE SHOWN, THIS SYSTEM. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, WALL SECTIONS, ETC.
- 19. MECHANICAL CONTRACTOR SHALL PROVIDE TURNING VANES IN ALL SUPPLY AIR ELBOWS AND TEES.
- 20. SUPPLY AND RETURN AIR DUCTS SHALL BE LINED 10'-0" OUT FROM THE AIR HANDLING UNIT IN BOTH DIRECTIONS. ALL OTHER DUCT SHALL BE WRAPPED. SEE SPECIFICATIONS FOR INFORMATION ON LINING AND DUCT WRAP.
- 21. DOORS TO ALL BATHROOMS SHALL BE UNDERCUT 3/4". 22. SUBMIT 4 COPIES OF PRODUCT AND CAPACITY DATA FOR SPECIFIED EQUIPMENT TO THE ARCHITECT/ENGINEER BEFORE ORDERING EQUIPMENT. IF CONTRACTOR ELECTS TO IGNORE REQUIREMENT FOR SUBMITTAL INFORMATION, OR IF SUBMITTAL IS RECEIVED AFTER INSTALLATION OF EQUIPMENT, THEN CONTRACTOR ASSUMES ALL COSTS ASSOCIATED WITH
- SUBSTITUTION AND RESPONSIBILITY FOR OPERATION, FUNCTION AND COORDINATION OF EQUIPMENT PURCHASED. 23. IF ALTERNATE EQUIPMENT IS USED OTHER THAN WHAT IS SPECIFIED ON THE DRAWINGS, THE CONTRACTOR SHALL COORDINATE THE REQUIREMENTS OF THAT EQUIPMENT WITH ALL OTHER TRADES. THE COORDINATION SHALL OCCUR PRIOR TO ROUGH-IN OF ANY TRADES EQUIPMENT. ALL REVISION WORK REQUIRED TO COORDINATE ANY EQUIPMENT SUBSTITUTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- 24. ALL PIPE PENETRATIONS THROUGH NON-RATED WALLS OR FLOORS SHALL BE SEALED WITH THE APPRORIATE WALL/FLOOR MATERIALS PER THE ARCHITECTURAL SPECIFICATIONS. ALL PIPE PENETRATIONS THROUGH EXTERIOR WALLS SHALL BE SEALED WITH MATERIALS PER THE ARCHITECTURAL SPECIFICATIONS AND WATERPROOFED TO PREVENT MOISTURE FROM ENTERING THE BUILDING. ALL ROOF PENETRATIONS SHALL BE FLASHED AND MADE WATERTIGHT IN A MANNER THAT IS CONSISTENT WITH THE ROOF CONSTRUCTION AND APPROVED BY THE ROOF MATERIAL MANUFACTURER SO AS NOT TO VOID THE ROOF WARRANTY. ALL WALL, FLOOR AND ROOF PENETRATIONS AND SEALING OF PENETRATIONS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR.
- 25. WHERE THE WORD "PROVIDE" IS USED, IT SHALL BE DEFINED TO MEAN THAT THE DEVICE/EQUIPMENT INDICATED SHALL BE 'FURNISHED AND INSTALLED' BY THE CONTRACTOR, UNLESS OTHERWISE NOTED.
- 26. ALL MANUFACTURER'S MINIMUM WORKING CLEARANCE RECOMMENDATIONS SHALL BE MAINTAINED ON ALL EQUIPMENT. 27. THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT/ENGINEER A COMPLETE SET OF AS-BUILT PLANS INDICATING ALL CHANGES ENCOUNTERED DURING CONSTRUCTION.
- 28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND SHALL NOTIFY LOCAL INSPECTION
- DEPARTMENTS AS WORK PROGRESSES.
- 29. MECHANICAL CONTRACTOR SHALL INSTAL 1" PHENOLIC ID TAGS WITH LETTERING ON ALL NEW EQUIPMENT. ID TAGS ARE TO BE READABLE FROM NORMAL PERSONNEL AREAS. 30. ALL NAMEPLATES AND OTHER ITEMS SHALL BE CONNECTED TO APPROPRIATE MOUNTING SURFACES SUCH THAT THEY SHALL
- NOT BE DETACHED DURING TRANSPORT OR OTHER OPERATING CONDITIONS. NO GLUE ON NAMEPLATES, ETC., ARE ALLOWED UNLESS APPROVED BY ENGINEER.

PRODUCT AND EXECUTION

- WHERE SEVERAL PIPES RUN IN PARALLEL AND IN THE SAME PLANE, PIPES 2.5" AND SMALLER MAY BE SUPPORTED ON GANG OR MULTIPLE HANGERS. PIPES 3" AND LARGER SHALL BE SUPPORTED INDEPENDENTLY.
- 2. COPPER PIPES SHALL BE SEPARATED FROM FERROUS SUPPORTS WITH COPPER-PLATED STEEL OR 4 psf SHEET LEAD. 3. SUPPORTS FOR ALL PIPES 1.5" AND LARGE SHALL NOT BE LOCATED MORE THAN 10'-0" APART. PIPES SMALLER THAN 1.5"
- Shall have Supported located not more than 15'-0" apart. All pvc pipes shall be supported at 48" on
- 4. SUPPORT ALL PIPES INDEPENDENT OF EQUIPMENT. ADJUST HANGERS AND SUPPORTS SO THAT LOADING IS UNIFORM. ALL HANGER RODS SHALL BE SUSPENDED FROM STRUCTURE. DO NOT SUSPEND FROM OTHER PIPING, EQUIPMENT OR
- 5. ALL DUCT HANGERS AND SUPPORTS SHALL BE IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE, 1995.

SLEEVES AND ESCUTCHEONS:

- . Provide sleeves where pipes pass thru walls, floors and roofs. All sleeves thru outside walls shall be
- 2. SLEEVES FOR INSULATED PIPES PENETRATING NON-RATED CONSTRICTION SHALL ALLOW FOR FULL THICKNESS OF PIPE AND INSULATION. THEY SHALL BE SIZES TO PROVIDE 3/4" CLEARANCE ON ALL SIDES OF PIPING, INCLUDING INSULATION TO ACCOMMODATE THERMAL MOVEMENT.
- 3. PROVIDE ESCUTCHEONS WHERE PIPES PASS THRU WALLS, FLOORS AND CEILINGS IN FINISHED AREAS.

- 1. ALL SHEET METAL DUCTWORK, EXCEPT WHERE SPECIFIED OTHERWISE, SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS FOR APPLICABLE PRESSURE AND CLASS. ENTIRE AIR SYSTEM INSTALLATION SHALL BE RIGID AND FREE FROM RATTLES AND AIR NOISES. INTERIOR OF DUCTS SHALL BE SMOOTH.
- 2. FLEXIBLE DUCT SHALL BE ALLOWED FOR CONSTRUCTION OF SUPPLY AIR DIFFUSERS TO MAIN DUCT SYSTEM. FLEXIBLE DUCT LENGTH SHALL BE LIMITED TO A MAXIMUM OF 10'-0". ALL FLEXIBLE DUCT SHALL BE UL LISTED, CLASS "1", FACTORY INSULATED WITH FIBERGLASS WITH A PROTECTIVE VAPOR BARRIER JACKET TO ACHIEVE A MINIMUM R-VALUE OF 5.0 HR-ST. FT.-DEG.

F/BTU AT 75 DEGREES F. FLEXIBLE DUCT SHALL CONNECT TO RIGID DUCT W/ SPIN-IN FITTING AND QUADRANT DAMPER.

- 3. PROVIDE DOUBLE THICKNESS TURNING VANES FOR ALL MITERED TURNS. PROVIDE TURNING VANES FOR ALL RADIUS ELBOWS LESS THAN 1.5R. VANES SHALL BE PARALLEL TO AIRFLOW AND SHALL BE BRACED AS REQUIRED TO ELIMINATE
- VIBRATION. PROVIDE TAPERED CONNECTIONS AT ALL BRANCH LOCATIONS.
- 4. CONTRACTOR SHALL PROVIDE ALL TRANSITIONS REQUIRED TO CONNECT DUCT TO EQUIPMENT OR COILS. TRANSITIONS MAY VARY FROM THOSE SHOWN ON DRAWINGS, DEPENDING ON EQUIPMENT PURCHASED.

MANUAL DAMPERS: MANUAL DAMPERS SHALL BE PROVIDED AT ALL MAJOR BRANCH TAKE-OFFS FROM THE MAIN DUCT AND SPECIFICALLY WHERE LOCATED ON DRAWINGS. ALL DAMPERS SHALL BE LOCATED SUCH THAT THEY CAN BE EASILY ACCESSED. DAMPERS SHALL BE SINGLE-BLADE UP TO 8" HIGH AND MULTI-BLADE OVER % FREE AREA WHEN IN OPEN POSITION. DAMPER BLADES SHALL BE MINIMUM OF 16 GA. STEEL AND QUADRANTS SHALL BE CADMIUM-PLATED STEEL WITH DAMPER POSITION INDICATOR. PROVIDE STANDOFF BRACKETS, SIZED TO CLEAR THE INSULATION THICKNESS, FOR QUADRANTS INSTALLED ON INSULATED DUCTWORK.

GRILLES, REGISTER AND DIFFUSERS SHALL BE PROVIDED WITH FRAMES, BORDERS AND MOUNTING ATTACHMENTS SUITABLE

- FOR INSTALLATION IN ACTUAL WALL, SOFFIT OR CEILING CONSTRUCTION IN WHICH THEY ARE INSTALLED. CONTRACTOR TO COORDINATE ACTUAL INSTALLATION WITH GENERAL CONTRACTOR AND/OR ARCHITECT PRIOR TO ORDERING DIFFUSERS. 2. DIFFUSERS SHALL HAVE ROUND NECKS OR SHALL BE PROVIDED WITH SQUARE-TO-ROUND COLLARS WHERE CONNECTED TO
- **DUCT INSULATION** 2. ALL INSULATION AND ACCESSORIES LOCATED IN A RETURN AIR PLENUM, UNLESS SPECIFICALLY EXCEPTED ON PLANS SHALL

ROUND OR FLEXIBLE DUCT.

HAVE A MAXIMUM COMPOSITE FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPED RATING OF 50. NO FUGITIVE OR CORROSIVE TREATMENTS SHALL BE EMPLOYED TO IMPART FLAME RESISTANCE.

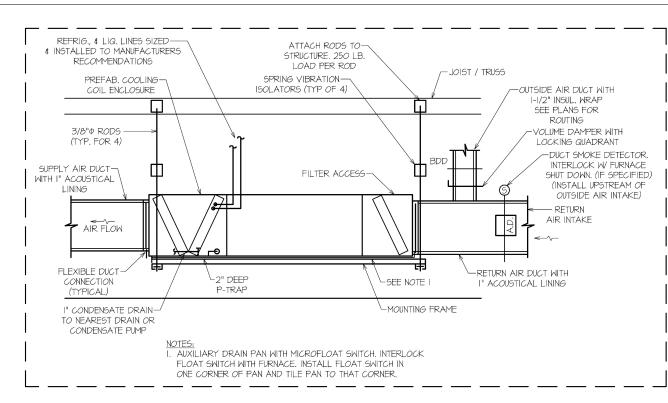
2. DUCT INSULATION FOR SUPPLY DUCTS AND OUTSIDE AIR DUCTS MUST BE CLOSED CELL ELASTOMERIC. FIBERGLASS DUCT LINER IS NOT PERMITTED.

1. GAS PIPING: SCHEDULE 40 ASTM A53 OR A120 OR A120T&C. INSTALL PER NFPA-54.

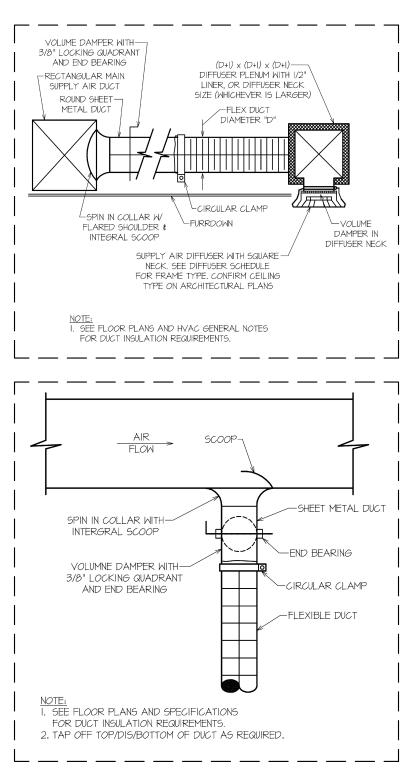
2. REFRIGERANT PIPE SHALL BE DEHYDRATED AND SEALED TYPE LACR COPPER TUBING WITH WROUGHT COPPER FITTINGS AND BRAZED OR SILVER SOLDERED JOINTS. BLEED DRY NITROGEN THROUGH TUBE WHILE SOLDERING. TEST PIPING AT 300 psig While inspecting for leaks. Size, install, evacuate, dehydrate and charge refrigerant piping per RECOMMENDATIONS OF AC EQUIPMENT MANUFACTURER. INSULATE SUCTION WITH 1/2" THICK INSULATION, CONFIRM REFRIGERANT PIPE SIZES WITH MANUFACTURER FOR LENGTH OF RUN PRIOR TO INSTALLATION.

DUCT SMOKE DETECTORS:

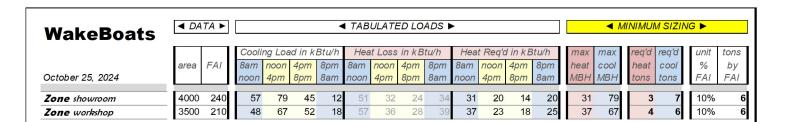
- . DUCT SMOKE DETECTORS SHALL BE PROVIDED ON ALL SYSTEMS CAPABLE OF SUPPLYING OVER 2000 CFM, IN ACCORDANCE WITH THE LATEST ADDITION OF THE BUILDING CODE, OR AS LOCATED ON PLANS.
- 2. IN BUILDINGS WITH A FIRE ALARM SYSTEM, DUCT SMOKE DETECTORS SHALL BE PROVIDED BY FIRE ALARM INSTALLER TO VERIFY THAT DETECTORS WILL FUNCTION WITH FIRE ALARM SYSTEM. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR FOR RESPONSIBILITY TO SUPPLY DETECTORS. DETECTORS SHALL BE INSTALLED BY MECHANICAL CONTRACTOR AND WIRED BY EITHER ELECTRICAL CONTRACTOR OR FIRE ALARM CONTRACTOR. DETECTORS SHALL BE WIRED THRU FIRE ALARM SYSTEM TO SHUT HVAC UNITS DOWN IN EVENT OF SMOKE DETECTION.



HORIZONTAL UNIT SUPPORT



ROUND DUCT TAKEOFF



HOWROOM									FAI +	EXHA	JST AIR	TABULA	TIO
	area	description	s.f.	net	density	calc.	actual	occ.	area rate	occ. rate	EA rate	FAI	EA
Warehouses		showroom	4,000		~	~		~	0.06	~	~	240	~
Toilet rooms	- public	restroom	64		~	~	1	1	~	~	50	~	50
					1	otalre	equired fre	esh air	intake + ext	naust air		240	Į
WAREHOUSE/WOR	KSHOP								FAI +	EXHA	JST AIR	TABULA	TIC
		description	s.f.	net	density	calc.	actual	occ.	area rate	occ. rate	EA rate	FAI	EA
,	area	a co ci i pi i ci i							0.07			010	
Warehouses		warehouse/workshop	3,500		~	~		~	0.06	~	~	210	~
•			3,500 64		~ ~	~ ~	1	~ 1	~	~	~ 50	210	50

KEY	MAKE	MODEL	NOM	COOL	HEAT	FAN	ELEC	TRICAL	DATA	NOTES		
KET	MAKE	CFA		NET	NET HP		MCA MOCP Voltage		Voltage			
AH1	CARRIER	40RFQA12A2A5	4,000	112	106	2.4	8	15	230-3	1 2 3 4 5 6		
NOTES: 1. ELECTRONIC SEVEN (7) DAY PROG. T-STAT 2. ALL UNITS SHALL BE AGA CERT, AND U.L. LABELED 3. ION TYPE DETECTOR IN RETURN, SIGNAL SHUTDOWN 4. 2" MERV-11, FULL SYNTHETIC MEDIA W SUPPORT, U.N.O.					6. 7.	VARIABL HIGH ST	E SPEED ATIC MO	G, AS AN SUPPLY F TOR, AS A	AN MOTO			

I/FI/	A4 A 1/5	440051	NOM.	COO	LING	HEA	TING	FAN		ELECTRIC		NOTES
KEY	MAKE	MODEL	TONS	NET	IEER	NET	COP	HP	MCA	MOCP	V	NOTES
HP1	CARRIER	38AUQD12	10	112	15.3	106	3.4	(2)1/4	39	50	230-3	1 2 3
NOTES:		PER ARI STANDARD 210	•							MP., AND N	iom. Air c	QUANTITY LISTED



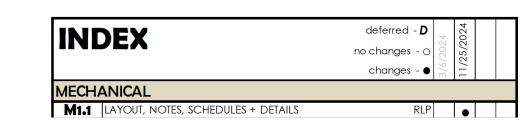
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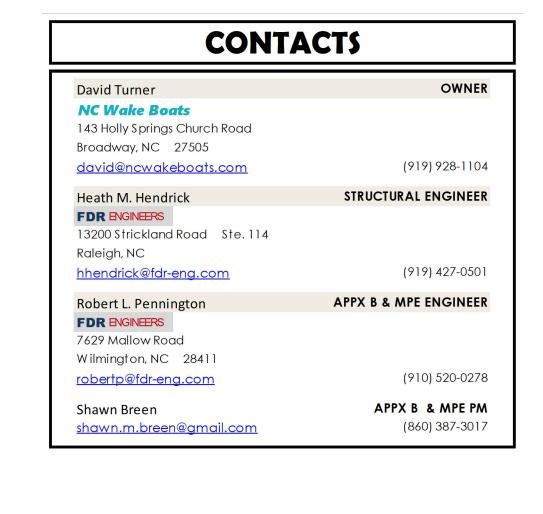
- LARGE OVERHEAD

FAN, PER OWNER,

TYP OF 3.

Broadway, NC





VERIFY EACH OVERHEAD

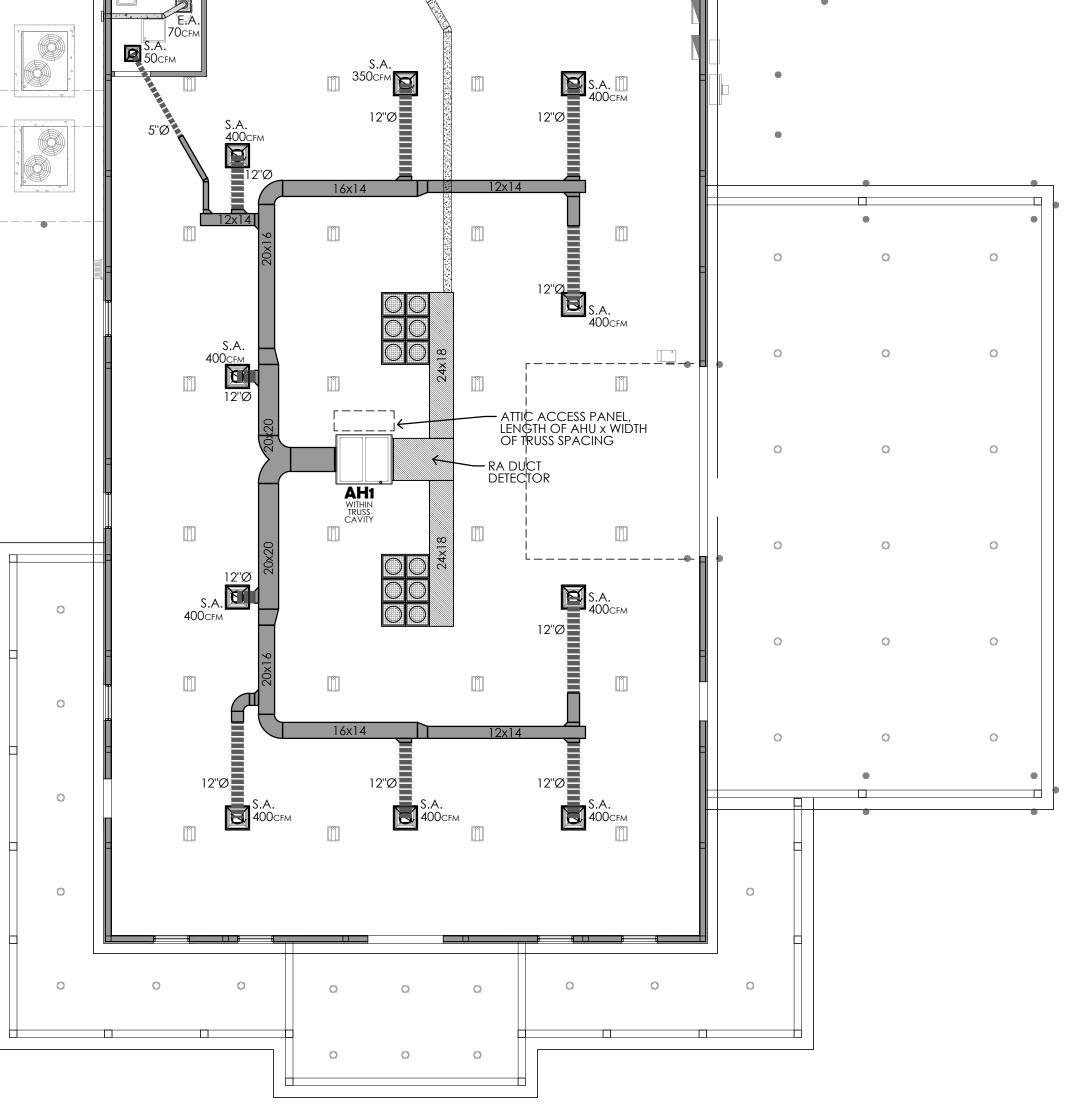
DOOR TYPE WITH OWNER,

ECTIONAL OR ROLLER. COORDINATE EACH WITH

MOUNTING, LIGHTING AND

OTHER FIXTURES & FITMENT.

ROUGH OPENING,





ATTIC ACCE\$S

PANFL LENGTH OF

F.A.I.

≤210сғм

AHLI x WIDTH OF

TRUSS SPACING

7 20x20 \

F.A.I. 1

≤240cfm <

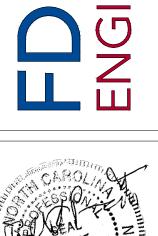
RA DUCT

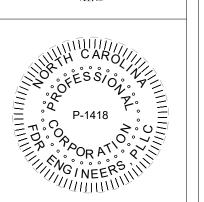
DETECTOR

24x18

Engineers, strickland Road 2761: eng.cc -5100





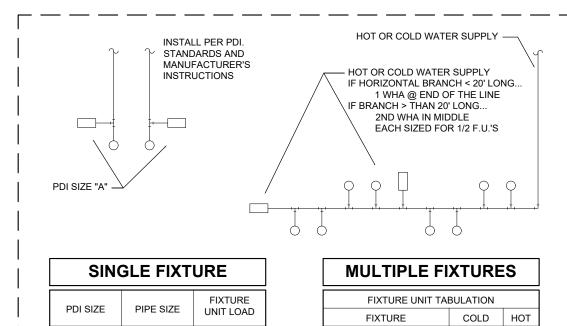




DESIGNED BY: DRAWN BY: APPROVED BY: PROJECT #: R2408270 2024-10-23

11/8/24

PLUMBING NOTES <-----VACUUM VALVE 1. 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. 2. 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. EXPANSION - SHUTOFF VALVES 3. 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. 4. 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. 5. PROVIDE ACCESS PANELS AS REQUIRED AT VALVE LOCATIONS TO PROVIDE ACCESS. COORDINATE TYPE AND LOCATION WITH GENERAL CONTRACTOR. RELIEF VALVE VALVE (TYP.) HOT WATER HEATER 6. ALL CLEANOUTS SHALL HAVE TOPS ESPECIALLY DESIGNED FOR PERTINENT FLOOR FINISHES SUCH AS CARPET, TILE, ETC. UNLESS OTHERWISE TO DRAIN PAN SPECIFIED. — DRAIN PAN 7. DO NOT SCALE DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DOORS, WINDOWS, WALLS, FIXTURES, ETC. AS - COND. TRAP + REQUIRED. DRAIN TO STORM FROM EXISTING DRAIN, FLOOR 8. EXCEPT WHERE PIPE SPACE IS PROVIDED OR UNLESS OTHERWISE NOTED, ALL SUPPLY, WASTE AND VENT RISERS SHALL BE RUN IN WALLS FRESH WATER DRAIN, SERVICE AND PARTITIONS. SINK OR DRY WELL 9. VENTS WILL BE COLLECTED ABOVE THE CEILING AND EXTENDED THROUGH THE ROOF AS A SINGLE VENT AT THE POINTS INDICATED. 10. P.C. SHALL PROVIDE A PRESSURE REDUCING VALVE WHERE WATER MAIN ENTERS BUILDING IF PRESSURE EXCEEDS 80 PSI. 11. ALL MATERIALS AND THEIR INSTALLATIONS SHALL COMPLY WITH THE STATE AND LOCAL CODES, RULES, REGULATIONS, AND ORDINANCES. 12. PIPING: WATER HEATER TYPICAL INSTALLATION A. FURNISH AND INSTALL DIELECTRIC OR ISOLATION FITTINGS AT ALL POINTS WHERE COPPER PIPE CONNECTS TO WROUGHT IRON OR B. EXPOSED PIPE IN TOILET ROOMS: CHROME PLATED BRASS, AMERICAN BRASS COMPANY, OR EQUIVALENT. FURNISH AND INSTALL CHROME WALL PLATES. C. PIPING UNDER FLOOR SLAB SHALL BE TYPE "K" SOFT TEMPER COPPER TUBING ASTM B-88 NO JOINTS SHALL BE PERMITTED UNDER INSTALL PER PDI. FLOOR SLAB. ALL JOINTS UNDER GROUND SHALL BE MECHANICALLY CLEANED BEFORE BRAZING AND PASTE FLUX APPLIED. STANDARDS AND MANUFACTURER'S D. PIPING ABOVE FLOOR SLAB SHALL BE TYPE "L" HARD DRAWN COPPER TUBING ASTM B-88 USE WROUGHT COPPER SWEAT FITTINGS. INSTRUCTIONS ALL JOINTS SHALL BE MADE WITH LEAD-FREE SOLDER AND PASTE FLUX AND MECHANICALLY CLEANED BEFORE SOLDERING. E. 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



]			
DI SIZE	PIPE SIZE	FIXTURE	Ì	FIXTURE UNIT TAI	BULATION	
JI SIZE	PIPE SIZE	UNIT LOAD		FIXTURE	COLD	НОТ
Α	1/2"	1 - 11		VALVE WATER CLOSET	10	
В	3/4"	12 - 32		URINAL	5	
С	1"	33 - 60		SERVICE SINK	2.25	2.25
D	1-1/4"	61 - 113		3 COMP SINK	2	2.0
E	1-1/2"	114 - 154		LAVATORY / SINK	1.5	1.5
F	2"	155 - 330		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 #A112.26.1M 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

—NEW 3" SAN TO SEPTIC FIELD, BY OTHERS

DESIGN PARAMETERS NOTE:

APPROVED BY THE ARCHITECT OR OWNER.

BE SEALED AS REQUIRED BY THE LOCAL AUTHORITY.

ON THE CONDITIONED SIDE OF THE WALL INSULATION.

HOOK-UP. FURNISH A ONE YEAR MANUFACTURERS WARRANTY.

ACTUAL INSTALLATION.

STANDARDS.

APPROVED BY THE OWNER.

THAN TEN FEET, FRESH WATER PIPING SHALL BE 16" ABOVE THE CROWN OF SANITARY PIPING.

17. DIELECTRIC CONNECTIONS SHALL BE USED BETWEEN FERROUS AND NON-FERROUS PIPING.

19. CONTRACTOR SHALL FURNISH OWNER WITH SAMPLES OF FIXTURES FOR APPROVAL.

27. BACKFLOW PREVENTERS SHALL BE INSTALLED IN EACH MAIN SUPPLY LINE TO BUILDINGS.

15. ALL HOSE BIBBS SHALL BE FREEZE PROOF AND PROVIDED WITH A NON-REMOVABLE VACUUM BREAKER.

- 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 SATISFACTORILY FUNCTIONING AND COMPLIANT SYSTEM.

F. SANITARY WASTE, AND VENT PIPING: PIPING SHALL BE SCHEDULE 40 PVC-DWV PIPE AND FITTINGS. PIPING IN EXPOSED AREAS

13. WATER SUPPLY AND WASTE WATER PIPING SHALL BE KEPT A MINIMUM OF TEN (10) FEET APART. WHEN PIPES CROSS OR COME CLOSER

14. DRAWINGS AND RISERS ARE DIAGRAMMATICAL AND ARE NOT INTENDED TO SHOW REQUIRED FITTINGS AND OFFSETS REQUIRED FOR

18. WATER HEATER SHALL BE FILLED WITH WATER AND PURGED AS SOON AS INSTALLED OR IN NO EXTENT LATER THAN GAS/ELECTRIC

20. SLIP JOINTS SHALL NOT BE USED FOR DRAIN CONNECTIONS IN CONCEALED LOCATIONS. USE SOLDERED OR SCREWED JOINTS ONLY. 21. ALL FIXTURES SHALL BE COMPLETE AND INCLUDE ALL STOPS, VALVES, FAUCETS, DRAINS, TRAPS, TAIL PIECES, ESCUTCHEONS, AND SUPPLIES. 22. PROVIDE CLEANOUTS AT THE BASE OF ALL WASTE STACKS, AT ALL CHANGES OF DIRECTION OF PIPING IN EXCESS OF 45° AND EVERY 50

23. ALL PIPING SHALL BE TESTED IN ACCORDANCE WITH INDUSTRY STANDARDS AND DOMESTIC WATER SHALL BE IN COMPLIANCE WITH CITY

24. ALL PIPING SHALL BE RUN IN AREAS NOT SUBJECT TO FREEZING TEMPERATURES. PIPING IN EXTERIOR WALLS SHALL BE INSULATED AND RUN

25. PIPE PENETRATIONS OF RATED WALLS SHALL BE FIRE STOPPED AS NECESSARY TO MAINTAIN THE RATING OF THE WALL.

26. VENT PIPES SHALL BE COMBINED SO THAT NO MORE THAN ONE ROOF PENETRATION PER UNIT STACK WILL BE REQUIRED, UNLESS

16. PIPE PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE IN METAL SLEEVES. ANNULAR SPACES BETWEEN SLEEVES AND PIPES SHALL

SUCH AS LAVATORY P-TRAPS SHALL BE CHROME-PLATED BRASS. INTERIOR CONDENSATE DRAIN PIPING RUNNING HORIZONTAL

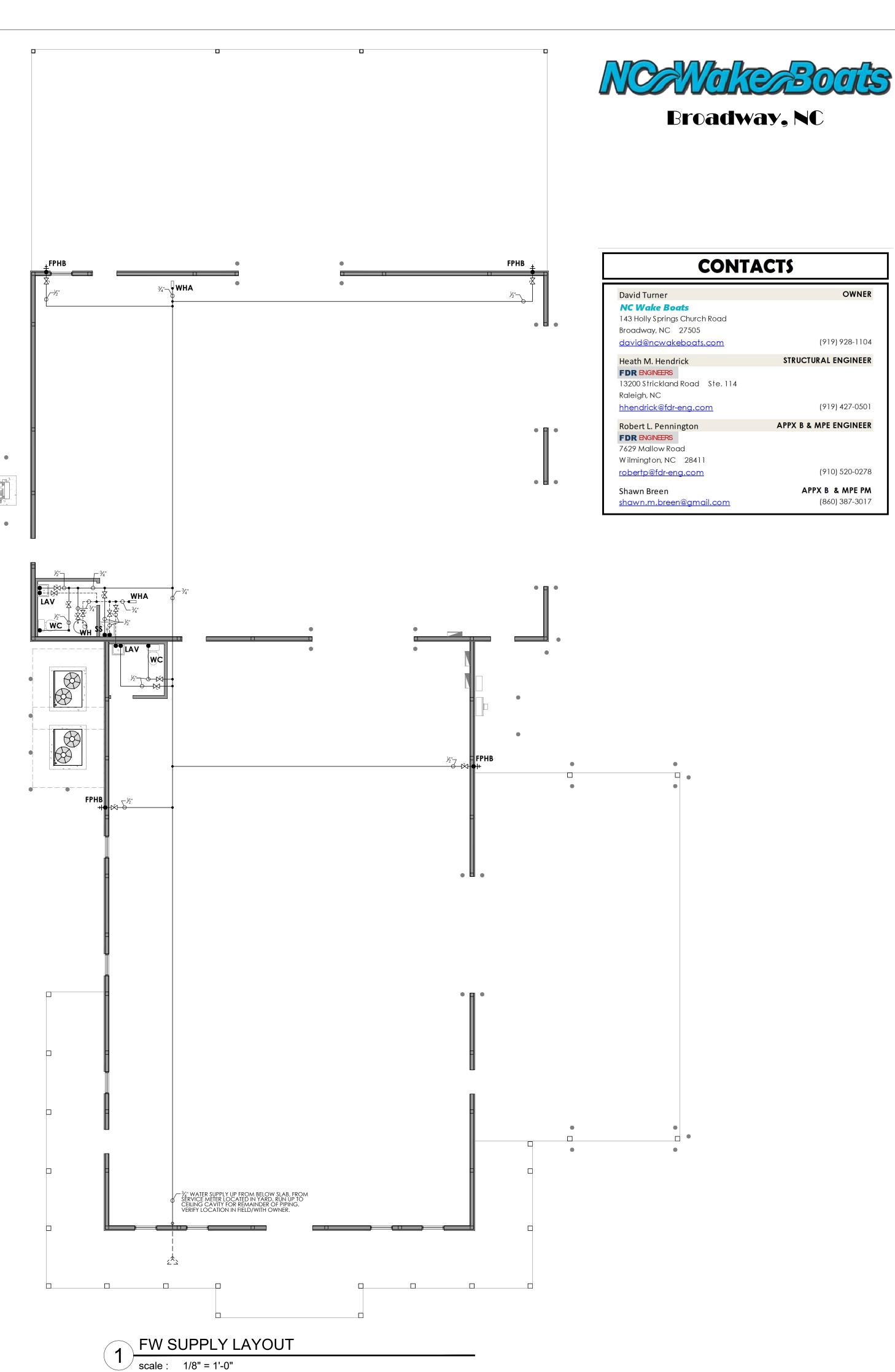
SHALL BE INSULATED WITH 5/8" THICK ARMAFLEX. PLUMBING CONTRACTOR SHALL RUN ALL BUILDING CONDENSATE DRAINS.

- 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.

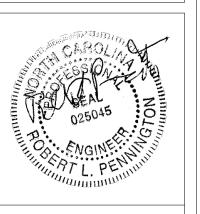
- REFER TO N.S.P.C. AND MANUF. SPECIFICATIONS FOR ALL SUPPLY, INLET, TRAP, AND DRAIN SIZES. - ALL VENTING TO COMPLY WITH THE CURRENT N.S.P.C.

GANG ALL VENTS ABOVE CEILINGS FOR A SINGLE ROOF PENETRATION



Engineers Strickland Road









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GENERAL ELECTRICAL NOTES

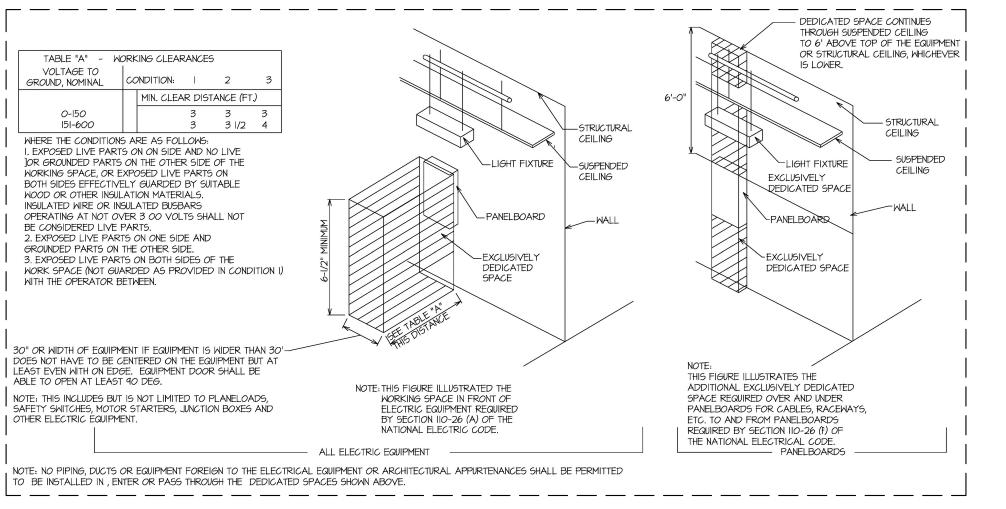
- 1. PERFORM ALL WORK IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND ALL OTHER APPLICABLE SATE AND LOCAL CODES.
- 2. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC ONLY, REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EXACT EQUIPMENT LOCATIONS.
- S. 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.
- 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.
- 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 RECONNECT 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
- 12. MULTIPLE WALL SWITCHES SHOWN IN ONE LOCATION ON DRAWINGS SHALL BE GANGED UNDER A 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 SHALLBE COORDINATED WITH THE BUILDING OWNER AND THE TELECOMMUNICATIONS EQUIPMENT/CABLING INSTALLER PRIOR TO START OF CONSTRUCTION.

CONDUCTOR IN AND MAIN METALLIC ALL WIRE FOR GND. GRIDS SHALL BE #3/0 AWG BARF COPPER UNLESS SHOWN OTHERWISE. RUN TO COLUMN WHERE SHOWN. STUP UP COPPER-WELD GROUND RODS 24" BELOW GRADE. CADWELD ALL CONNECTIONS BELOW FLOOR OR GRADE. PROVIDE A COMPLETE GROUNDING SYSTEM MEETING ALL REQUIREMENTS OF NEC ARTICLE 250-50 PARTS abo AND d.

INSTALL GROUND -

POWER SERVICE GROUNDING GRID





POWER EQUIPMENT SERVICE AREAS

HAVING AUTHORITY

Load Designation SIDE CANOPY -SIGNAGE (FU Lighting General Loads 125 A 1 phase, 3 wire 120/240 v 22k AIC Mechanical Equipment M.L.O. 37.6 A Total Connected: 37.1 A

Connected: 248.7 A

240v RECEPTA

PANEL PPW

WATER HEAT

РР3ф

400 A

3 phase, 3 wire 120/240 v 10k AIC M.C.B.

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		neral Loads	332		1.00		332.00									125 A		
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\neg	\neg		VA por	phace	Broaker	Ground	Feeder			-	Foodor	Ground	Broaker	vA per	nhasa			T

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



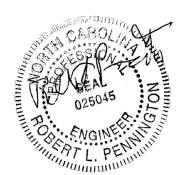
Broadway, NC

INI	DEX	deferred - D no changes - O changes - •	3/6/2024	11/25/2024	
E0.1	notes, details, riser + schedules	RLP		•	
E1.1	LAYOUTS, NOTES + SCHEDULES	RLP		•	

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Engineers Strickland Road





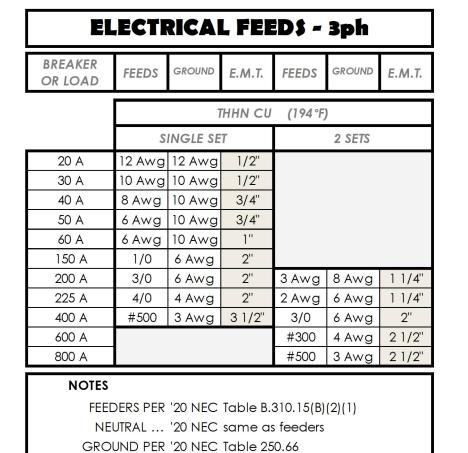


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DESIGNED B	Y:	SMB	
DRAWN BY:		SMB	
APPROVED B	Y:	RLP	
PROJECT #:	R240	8270	
DATE:	2024-1	0-23	

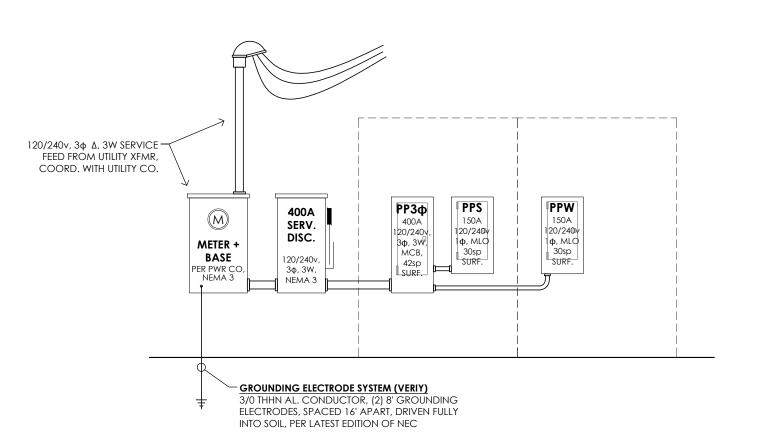
2024-10-23 11/8/24) | for permit

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 10AWG 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 COMLPETE 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 GWB, 3M MPP+ UL RATED PUTTY, OR RATED FIXTURE(S).



EMT CONDUIT PER '20 NEC Table C.1



SERVICE RISER DIAGRAM

Lighting General Loads Mechanical Equipment

Largest Load

38,710.32 21,910.44 15,536.50

238.6 A

