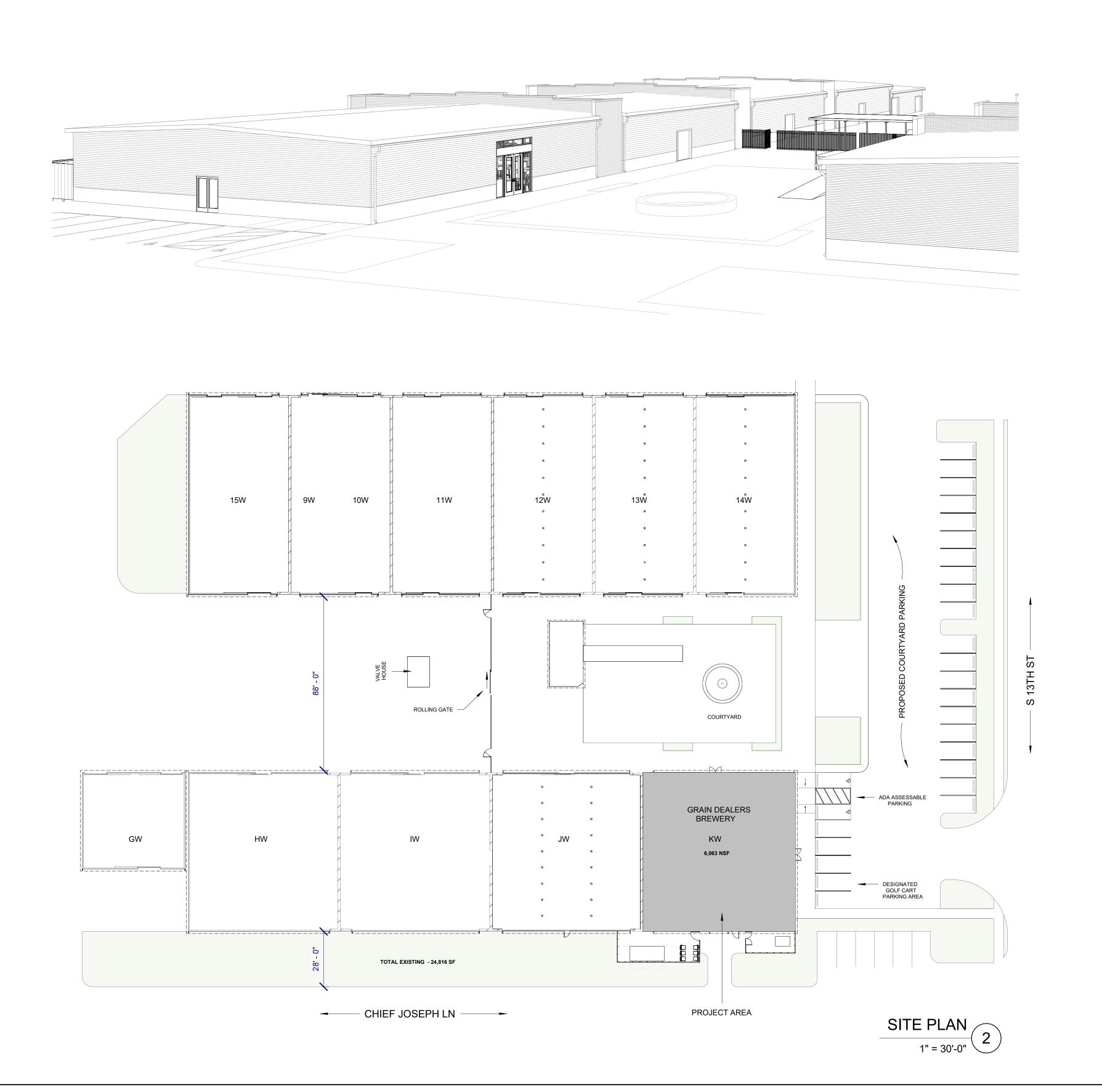


PROJECT

100 North 13th St, Bay K Erwin, NC



DRAWING INDEX CONTACTS COVER SHEET **OWNER** CODE SUMMARY ABBREVIATIONS

G001

G300

C000

L000 ARCHITECTURAL A101

A111

A112

A201

A406

A500

A902

A903

RUCTURAL

LUMBING

MECHANICAL

LECTRICAL

IRE ALARM

FA000 FIRE PROTECTION

STREET

LANDSCAPE

LIFE SAFETY

WALL TYPES

ITE PLAN - ENLARGED

REFLECTED CEILING PLAN

BREWERY ELEVATIONS

ENLARGED BAR ELEVATIONS ENLARGED BATHROOM PLANS

DOOR & WINDOW SCHEDULE

LUMBING SPECIFICATIONS

INTERIOR PERSPECTIVES

NLARGED BAR SECTION AND DETAILS

LEVATED PLATFORM FRAMING PLAN LEVATED PLATFORM SECTIONS & DETAILS MEZZANINE FRAMING PLAN & SECTIONS

INTERIOR ELEVATIONS

LOOR PLAN

FURNITURE PLAN FINISH PLAN

DEMO PLAN

ROOF PLAN

DETAILS

PERSPECTIVES

PERSPECTIVES

PERSPECTIVES

DWV PLAN WATER PLAN

HVAC SPECS HVAC PLAN

DWV/WATER RISERS NATURAL GAS PLAN

HVAC SPECs, DETAILS

WEST K STREET

ELECTRICAL SPECS

LIGHTING PLAN POWER PLAN PANEL SPECS

200 North 13 LLC 200 North 13 Street, Erwin, NC 28339-1700

Contact: Wesley Johnson E-Mail: info@graindealersbrewery.com Phone: (919) 756-0411

PME ENGINEER

Burke Design Group 3305 Durham Dr Suite 109 Raleigh, NC 27603 Contact: Ben Burke E-Mail: ben@bdg-nc.com Phone: 919-771-1916

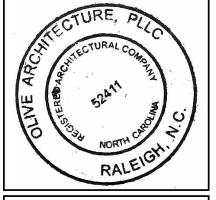
ARCHITECT

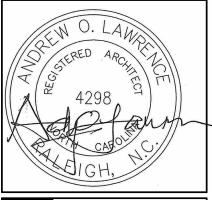
Olive Architecture 436 N. Harrington St. Suite 140 Raleigh, NC 27603 E-Mail: andy@Olive-Arch.com Phone: (919) 838-9934 Fax: (919) 838-9995

F.P ENGINEER

J & D SPRINKLER CO, INC 315 W. Main Street Clayton, NC 27520 Contact: Bob Weaver E-Mail: bob@jdsprinkler.com Phone: 919-553-2356







VICINITY MAP







NARRATIVE



THE PROJECT IS AN INTERIOR ALTERATION OF BAY K OF THE HISTORIC ERWIN

THE PROPOSED USE IS A NEW BREWERY AT THE BACK SIDE OF BAY K WITH A NEW SERVICE ENTRANCE.

ALSO INCLUDED IN THE SCOPE OF WORK ARE THE FOLLOWING:

· BAR SERVING BEER AND SOFT DRINKS

· STAFF OFFICE SPACE

· PRIVATE COMMUNITY MEETING ROOM

· POD CAST STUDIO

· TOILETS, STORAGE AND UTILITY SPACES.

· NEW HVAC, ELECTRICAL AND PLUMBING

MOST OF THE ORIGINAL HISTORIC CHARACTER WILL BE PRESERVED.

100 North Erwin, NC ISSUE NAME

1ST BID SET

1ST PERMIT SET revisions:

drawn by:

checked by:

project no: 23-117

COVER SHEET

2018 APPENDIX B

BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES) (Reproduce the following data on the building plans sheet 1 or 2)

Address: 100 North 13th	St, Bay K Erwin, NC		Zip Code <u>28339</u>
Owner/Authorized Agent	Andy Lawrence Phone # (_ 919	9) 838 - 9934	E-Mail andy@olive-arch.com
Owned By:	☐ City/County	Private	☐ State
Code Enforcement Jurisdi	ction: City	County Harnett	☐ State

DESIGNER	FIRM	NAME	LICENSE#	TELEPHONE #	E-MAIL
Architectural	Olive Architecture	Andy Lawrence	4298	(919) 838-9934	andy@olive-arch.com
Civil	Ac-		× =	_ (_)	á <u> </u>
Electrical	Burke Design Group	Ben Burke	22038	(919)771-1916	ben@bdg-nc.com
Fire Alarm	Burke Design Group	Ben Burke	22038	(919) 771-1916	ben@bdg-nc.com
Plumbing	Burke Design Group	Ben Burke	22038	(919) 771-1916	ben@bdg-nc.com
Mechanical	Burke Design Group	Ben Burke	22038	(919) 771-1916	ben@bdg-nc.com
Sprinkler-Stand	lpipe	23 F22 3	- A	_ (_)	4
Structural		- 14	× =	()	4
Retaining Walls	s>5' High	- 1 1-1-1 H		()	4
Other	A	8 12		()	

("Other" should include firms and individuals such as truss, pre-engineered, interior designers, etc.)

2018 NC BUILDING CODE: New Building Addition Renovation

OCCUPANCY CATEGORY (Table 1604.5): Current:
I I II III IV

☐ 1 st Time Interior Com	pletion
Shell/Core - Contact of procedures and require	the local inspection jurisdiction for possible additional ements
20 (10 C)	- Shell/Core- Contact the local inspection jurisdiction for ocedures and requirements
2018 NC EXISTING BUILDING CODE: EXISTING: Alteration:	☐ Prescriptive ☐ Repair ☐ Chapter 14 ☐ Level I ☐ Level III ☐ Level III ☐ Historic Property ☐ Change of Use
CONSTRUCTED: (date) 1905 CURR	ENT OCCUPANCY(S) (Ch. 3): S-2
RENOVATED: (date) 2024 PROP	OSED OCCUPANCY(S) (Ch. 3): A-2/B

Proposed: ☐ I ☐ II ■ III ☐ IV

Construction 7	Type:	☐ I-A	☐ II-A	A	☐ III-A	A	IV IV	□ V-A
(check all that a	ipply)	☐ I-B	☐ II-H	3	☐ III-E	3		□ V-B
Sprinklers:	☐ No	☐ Partial	Yes	■ NFP	PA 13	☐ NFP	A 13R	☐ NFPA 13D
Standpipes:	☐ No	☐ Yes	Class 🔲 I	\square II		☐ Wet	☐ Dry	
Fire District:	No	☐ Yes	Flood	Hazard A	rea:	□No	☐ Yes	

	Gro	ss Building Area Table	
FLOOR	EXISTING (SQ FT)	New (sqft)	SUB-TOTAL
8th Floor			
7th Floor			
6th Floor			
5th Floor			
4th Floor			
3rd Floor			
2nd Floor		_ _	
1st Floor	24,816 SF	N/A	24,816 SF
Basement			
TOTAL		***	24,816 SF

PROJECT AREA 6063 NSF

ALLOWABLE AREA

Primary Occupancy Classification(s): Select one Select one Select one Select one Select one
Assembly \square A-1 \blacksquare A-2 \square A-3 \square A-4 \square A-5
Business
Educational
Factory F-1 Moderate F-2 Low
Hazardous H-1 Detonate H-2 Deflagrate H-3 Combust H-4 Health H-5 HPM
Institutional
☐ I-2 Condition ☐ 1 ☐ 2
\square I-3 Condition \square 1 \square 2 \square 3 \square 4 \square 5
☐ I-4
Mercantile
Residential R-1 R-2 R-3 R-4
Storage S-1 Moderate S-2 Low High-piled
☐ Parking Garage ☐ Open ☐ Enclosed ☐ Repair Garage
Utility and Miscellaneous
Accessory Occupancy Classification(s):
Incidental Uses (Table 509):
Special Uses (Chapter 4 – List Code Sections):
Special Provisions: (Chapter 5 – List Code Sections):
Mixed Occupancy: No Yes Separation: 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.
☐ Separated Use (508.4) - See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 ⁴ AREA	(C) AREA FOR FRONTAGE INCREASE ^{1,5}	(D) ALLOWABLE AREA PER STORY OR UNLIMITED ² .

200								
¹ Frontage	area	increases	from	Section	506.2	are	computed	thu

- a. Perimeter which fronts a public way or open space having 20 feet minimum width = _____(F) b. Total Building Perimeter
- c. Ratio (F/P) = _____
- d. W = Minimum width of public way =
- e. Percent of frontage increase $I_f = 100[F/P 0.25] \times W/30 =$ _____(%) ² Unlimited area applicable under conditions of Section 507.
- ³ Maximum Building Area = total number of stories in the building x D (maximum3 stories) (506.2). ⁴ The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic
- control towers must comply with Table 412.3.1. ⁵ Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	75'-0"	20'-3"	TABLE 504.3
Building Height in Stories (Table 504.4)	3	1	TABLE 504.4

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE		RATING	DETAIL#	DESIGN#	SHEET # FOR	SHEET #
	SEPARATION DISTANCE (FEET)	REQ'D	PROVIDED (W/ * REDUCTION)	AND SHEET #	FOR RATED ASSEMBLY	RATED PENETRATION	FOR RATED JOINTS
Structural Frame,							
including columns, girders,							
trusses							
Bearing Walls							
Exterior							
North							
East			-				
West							
South							
Interior							
Nonbearing Walls and Partitions							
Exterior walls							
North							
East							
West							
South							
Interior walls and partitions	57						
Floor Construction							
Including supporting beams							
and joists		1					
Floor Ceiling Assembly			,				
Columns Supporting Floors			,				
Roof Construction, including	1						
supporting beams and joists							
Roof Ceiling Assembly							
Columns Supporting Roof							
Shaft Enclosures - Exit							
Shaft Enclosures - Other							
Corridor Separation							
Occupancy/Fire Barrier Separat	tion						
Party/Fire Wall Separation		3 HR	EXTG 3 HR	G300			
Smoke Barrier Separation	=======================================						
Smoke Partition			i i				E
Tenant/Dwelling Unit/ Sleeping Unit Separation	-	(
Incidental Use Separation							

PERCENTAGE OF WA	LL OPENING CALCUL	ATIONS
DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLAN (%)
	DEGREE OF OPENINGS PROTECTION	PROTECTION (%)

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting:	☐ No ■ Yes
Exit Signs:	☐ No ■ Yes
Fire Alarm:	☐ No ■ Yes
Smoke Detection Systems:	☐ No ■ Yes ☐ Partial
Panic Hardware:	☐ No ■ Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: G200

- 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
- Maximum calculated occupant 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 I-2 (407.5)
- Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE DWELLING UNITS

			(SEC	CTION 1107)		IN/A	
TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING	TOTAL # OF PA	RKING SPACES	# OF ACC	# OF ACCESSIBLE SPACES PROVIDED				
AREA	REQUIRED	PROVIDED	REGULAR WITH	VAN SPACES WITH		ACCESSIBLE		
			5' ACCESS AISLE	132" ACCESS AISLE	8' ACCESS AISLE	PROVIDED		
2		ō	-	S				
TOTAL				Ť		0		

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

τ	JSE	WATERCLOSETS			URINALS		LAVATORIE	S	SHOWERS	DRINKING	FOUNTAINS
		MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX	/TUBS	REGULAR	ACCESSIBLE
SPACE	EXIST'G	1	2	0	1	1	1	0	_	-	_
	NEW	2	4	1	2	2	2	1	-	-	_
	REQ'D	4	4	0		2	2	0	-	-	-

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)

ENERGY SUMMARY

ENERGY REQUIREMENTS:

The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the

Existing building envelope complies with code: No Yes (The remainder of this section is not applicable)

Exempt Building: No Yes (Provide code or statutory reference): Climate Zone: 3A 4A 5A

Method of Compliance: Energy Code Performance ASHRAE 90.1 Performance Prescriptive

(If "Other" specify source here)_

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly) Description of assembly: U-Value of total assembly: R-Value of insulation: Skylights in each assembly: U-Value of skylight: total square footage of skylights in each assembly:

Exterior Wall	s (each assembly)	nRK.
Descr	iption of assembly:	
U-Va	lue of total assembly:	CA
R-Va	ue of insulation:	10
Open	ings (windows budoors to LeValue of assembly	
_ 1	0 1 1 1	
	projection factor:	
SEE	Door R-Values:	*
Walls below g	rade (each assembly)	
Descr	iption of assembly:	
U-Va	lue of total assembly:	
R-Va	lue of insulation:	

Floors over unconditioned space (each assembly) Description of assembly: U-Value of total assembly:

R-Value of insulation: Floors slab on grade Description of assembly:

U-Value of total assembly: R-Value of insulation: Horizontal/vertical requirement: slab heated:

2018 APPENDIX B

BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

STRUCTURAL DESIGN (PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:	E ON THE STRUC	TURAL SHEETS IF A	FFLICABLE
Importance Factors:	Snow (I _S) Seismic (I _E)		JAG
Live Loads:	Roof Mezzanine Floor	psf psf psf	DRAWING

SEISMIC DESIGN CATEGORY: Provide the following Seismic Design Parameters: Risk Category (Table 1604.5) I II III IV Spectral Response Acceleration Site Classification (ASCE 7) \[\begin{array}{c|c} A & \extstyle B & \extstyle C & \extstyle D & \extstyle E & \extstyle F \] Data Source: Field Test Presumptive Historical Data Basic structural system ☐ Bearing Wall ☐ Dual w/Special Moment Frame ☐ Dual w/Intermediate R/C or Special Steel Building Frame

Moment Frame ☐ Inverted Pendulum ☐ Simplified ☐ Equivalent Lateral Force ☐ Dynamic Analysis Procedure: Architectural, Mechanical, Components anchored? Yes No

LATERAL DESIGN CONTROL: Earthquake Wind Wind

SOIL BEARING CAPACITIES: Field Test (provide copy of test report) Presumptive Bearing capacity Pile size, type, and capacity

2018 APPENDIX B

BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS MECHANICAL DESIGN (PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone winter dry bulb: summer dry bulb: Interior design conditions winter dry bulb: summer dry bulb: relative humidity: **Building heating load:**

Building cooling load:

Mechanical Spacing Conditioning System Unitary description of unit: heating efficiency: cooling efficiency: size category of unit: Size category. If oversized, state reason.: Chiller Size category. If oversized, state reason.:

List equipment efficiencies:

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

ELECTRICAL DESIGN (PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: Energy Code Performance ASHRAE 90.1 Performance Lighting schedule (each fixture type)

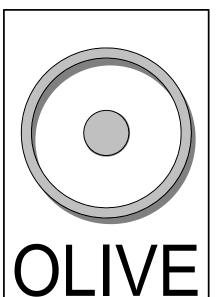
lamp type required in fixture number of lamps in fixture number of ballasts in fixture total wattage per fixture total interior wattage specifical as, allowed (whole building or space by space) total exterior wattage free fixed vs. allowed

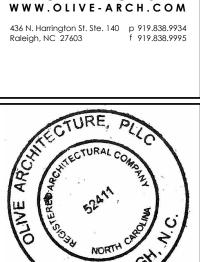
Additional Efficiency Package Options (When using the 2018 NCECC; not required for ASHRAE 90.1)

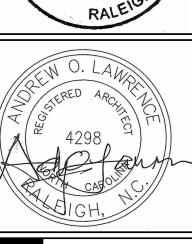
C406.2 More Efficient HVAC Equipment Performance C406.3 Reduced Lighting Power Density

C406.4 Enhanced Digital Lighting Controls C406.5 On-Site Renewable Energy

C406.6 Dedicated Outdoor Air System C406.7 Reduced Energy Use in Service Water Heating







RM BR **GRAIN DEAL** 100 North Erwin, NC

is	sue da	a t e:
ISSUE	NAME	DAT
1ST	BID SET	06/18/202
1ST	PERMIT SET	07/22/202

vision	Date	Description	

revisions:

drawn by:

checked by:

project no: 23-117

CODE SUMMARY

2. 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

3. THE WORK WILL CONFORM WITH THE REQUIREMENTS OF ALL AGENCIES HAVING

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

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

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

7. 'TYPICAL' MEANS IDENTICAL FOR CONDITIONS NOTED.

8. DO NOT SCALE DRAWINGS, DIMENSIONS GOVERN. VERIFY DIMENSIONS WITH FIELD CONDITIONS. IF DISCREPANCIES ARE DISCOVERED BETWEEN FIELD CONDITIONS AND DRAWINGS OR BETWEEN DRAWINGS, CONTACT ARCHITECT FOR RESOLUTION BEFORE PROCEEDING.

9. HORIZONTAL DIMENSIONS INDICATED ARE TO AND FROM FACE OF STUD/STRUCTURE, 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

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-

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

15. 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

16. 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.

17. 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.

18. 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.

19. 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.

20. 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.

21. 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 PUBLICATIONS OF THE FOLLOWING:

NATIONAL FIRE PROTECTION ASSOCIATION, AND AMERICAN NATIONAL STANDARDS INSTITUTE.

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;

NORTH CAROLINA BUILDING CODE 2018

AMERICAN WELDING SOCIETY - AWS; AMERICAN CONCRETE INSTITUTE - ACI;

AMERICAN NATIONAL STANDARDS INSTITUTE - ANSI; ARCHITECTURAL ALUMINUM MANUFACTURER'S ASSOCIATION - AAMA;

ALUMINUM ASSOCIATION, INC. - AA;

CONCRETE REINFORCING STEEL INSTITUTE - CRSI; NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS - NAAMM;

NATIONAL FIRE PROTECTION ASSOCIATION - NFPA; NATIONAL WOODWORK MANUFACTURER'S ASSOCIATION - NWMA; AND

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.

25. 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.

27. 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.

28. 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

29. MATERIALS AND WORKMANSHIP SPECIFIED BY REFERENCE TO NUMBER, SYMBOL, TITLE OF SPECIFICATION SUCH AS COMMERCIAL STANDARDS, FEDERAL SPECIFICATIONS TRADE ASSOCIATION STANDARD OR OTHER SIMILAR STANDARD, SHALL COMPLY WITH REQUIREMENTS IN 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.

30. 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.

31. 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 ARCHITECT IMMEDIATELY TO ALLOW ARCHITECT A REASONABLE AMOUNT OF TIME TO SELECT A SUITABLE SUBSTITUTION.

32. 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

33. 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 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:

MILLWORK, CASEWORK, AND HARDWARE FINISH CARPENTRY GLAZING

FLOOR FINISHES ACOUSTICAL CEILING TILE AND GRID WALL FINISHES

ALUMINUM FRAMES DOORS, DOOR HARDWARE AND

HOLLOW METAL FRAMES LIGHTING, EXIT SIGNAGE, AND EMERGENCY DEVICES

ELECTRICAL DEVICES

MECHANICAL EQUIPMENT

37. 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 ARCHITECT/OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.

38. WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH APPLICABLE FIRE. HEALTH, SAFETY AND BUILDING CODES OF THE LOCAL AND STATE 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.

41. 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 PROJECT.

45. ALL SURPLUS MATERIAL IS THE PROPERTY OF THE OWNER AND SHALL BE LABELED AND TURNED OVER TO MANAGEMENT.

46. 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.

47. ALL DRAWINGS INCLUDED IN THIS SET OF CONSTRUCTION DOCUMENTS SHALL BE CONSIDERED PART OF THE CONTRACT DOCUMENTS. ALL WORK INDICATED ON ALL SHEETS IS TO BE PERFORMED EVEN IF INDICATED ON ONLY ONE DRAWING.

48. THE EXIT AND EMERGENCY LIGHTS SHOWN ARE FOR GUIDANCE. THE CONTRACTOR SHALL COORDINATE WITH LOCAL INSPECTOR FOR EXACT QUANTITY AND LOCATIONS.

49. 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.

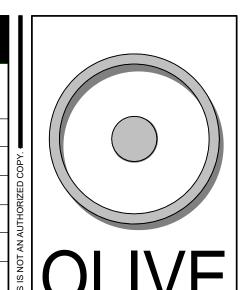
ALL WORK SHALL CONFORM TO ALL ADOPTED CODES THAT INCLUDE BUT ARE NOT LIMITED TO:

NORTH CAROLINA ACCESSIBILITY CODE -2018 NORTH CAROLINA BUILDING CODE -2018 ENERGY CONSERVATION CODE

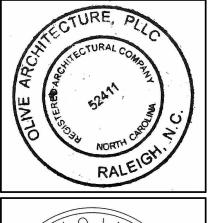
-2018 FIRE CODE -2018 FUEL GAS CODE -2018 MECHANICAL CODE

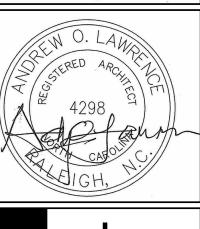
-2018 PLUMBING CODE -2018 ELECTRICAL CODE

	REVIATIONS						
	A		F		N		Т
AB	ANCHOR BOLT	FA	FIRE ALARM	N/A	NOT APPLICABLE	T&B	TOP AND BOTTOM
A/C	AIR CONDITIONING	FACP	FIRE ALARM CONTROL PANEL	NEC	NATIONAL ELECTRIC CODE	T.O.F.	TOP OF FOOTING
ACI	ALTERNATING CURRENT AMERICAN CONCRETE INSTITUTE	FCO FD	FLOOR CLEAN OUT FIRE DAMPER, FLOOR DRAIN	NEMA NF	NATIONAL ELEC.L MANUFACTURERS ASSOCIATION NEAR FACE	N THICK. T.O.J.	THICKNESS TOP OF JOIST
ADJ	ADJUSTABLE	FIN.	FINISH (ED)	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	T.O.S.	TOP OF JOIST TOP OF STEELTHRU THROUGH
\FF	ABOVE FINISHED FLOOR	FIXT.	FIXTURE	N.I.C	NOT IN CONTRACT	Т	THERMOSTAT
JM.	ALUMINUM	FDN	FOUNDATION	NL	NIGHT LIGHT	TYP	TYPICAL
MP.	AMPERE, AMPS	FLG	FLANGE	NO.	NUMBER	TS	TEMPERATURE SENSOR
ARCH. ASHRAE	ARCHITECT, ARCHITECTURAL AMERICAN SOCIETY OF HEATING,	FTG.	FOOTING FAR SIDE	NOM.	NOMINAL NOT TO SCALE	ТВ	THIN BRICK - INTERIOR FINISH
(O) II (V (L	REFRIGERATIONAND A/C ENGINEERS	F.F	FINISHED FLOOR	NIS	NOT TO SCALE		U
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS	FLUOR.	FLUORESCENT		O	UL	UNDERWRITERS LABORATORIES
AVG	AVERAGE	FT	FOOT, FEET	OA	OUTSIDE AIR	U.O.N.	UNLESS OTHERWISE NOTED
	В	FRTW	FIRE-RETARDANT-TREATED WOOD	ос	ON CENTER	UPS	UNINTERRUPTED POWER SUPPLY
3C	BUILDING CONTRACTOR		G	OF	OUTSIDE FACE		V
BLDG.	BUILDING	GALV/	GALVANIZED	OD	OUTSIDE DIAMETER	V	VOLT
М ОТ.	BEAM BOTTOM	GALV.	GALVANIZED GENERAL CONTRACTOR	OH OPNG	OPPOSITE HAND OPENING	VA VERT.	VOLT-AMPERE VERTICAL
BTU	BRITISH THERMAL UNIT	GB	GRADE BEAM	OSHA	OCCUPATIONAL SAFETY AND HEALTH	VGB	VINYL FACED GYPSUM BOARD
	С	GWB	GYPSUM WALL BOARD	ADMIN.	P	VTR	VENT THROUGH ROOF
F	CUBIC FEET	_	Н	PAR	PARALLEL		W
FM	CUBIC FEET PER MINUTE	HGT	HEIGHT	P/C	PRECAST CONCRETE	W/	₩₩
KT	CIRCUIT	HORIZ.	HORIZONTAL	PC	PIECE	W/O	WITHOUT
CL	CENTER LINE	HP	HORSEPOWER, HIGH POINT	PDU	POWER DISTRIBUTION UNIT	wco	WALL CLEANOUT
CLG	CEILING	HTR	HEATER	PER	PERPENDICULAR	W.C.	WATER CLOSET
CLR CMU	CLEAR, CLEARANCE CONCRETE MASONRY UNIT	HVAC	HEATING, VENTILATING AND AIR CONDITIONING	PH	PHASE	WS	WAINSCOT
CNTR.	COUNTER	HVU	HEATING AND VENTILATING UNIT HEAVY	PT PTD	PAINT PAINTED	WP W.O.	WEATHER PROOFING WALL OPENING
СО	CLEAN OUT	1101	I IIIAVI	PL	PLATE	WWF	WELDED WIRE FABRIC
COL.	COLUMN			PLBG	PLUMBING		V
CONC.	CONCRETE, CONCENTRIC	I.D.	INSIDE DIAMETER	PNL	PANEL		X
CONT. COORD.	CONTINUOUS, CONTINUATION COORDINATE	IE INT	INVERT ELEVATION INTERIOR	PIV	POST INDICATOR VALVE	XFMR	TRANSFORMER
CR	CONDENSATE RETURN	INTER.	INTERMEDIATE	PSF PVC	POUNDS PER SQUARE FOOT POLYVINYL CHLORIDE		V
CJ	CONSTRUCTION JOINT	IN	INCH (ES)	1 10			Y
CTR	CENTER	INSUL.	INSULATION		Q	YD	YARD
CM	CORRUGATED METAL	-	J	QTY.	QUANTITY		
CW	COLD WATER	J.B.	JUNCTION BOX		R		
DC	DIRECT CURRENT	JT	JOINT	RA	RETURN AIR		
DL	DEAD LOAD	-	K	RAD	RADIUS		
DP.	DEEP	К	KIPS (1000 LBS)	RCP	REFLECTED CEILING PLAN		
DEG	DEGREE (S)	KV	KILOVOLT	RD	ROOF DRAIN		
DTL	DETAIL	KVA	KILOVOLT-AMP	REF	REFERENCE, REFER		
DIA DIM	DIMENSION	KWH	KILOWATT KILOWATT-HOUR	REINF.	REINFORCING REQUIRED		
DN	DOWN			RM	ROOM		
DBL	DOUBLE		L	RPM	REVOLUTIONS PER MINUTE		
DS	DOWNSPOUT	LB	POUNDS	RTU	ROOFTOP UNIT		
DWG	DRAWING	L.F.	LINEAR FEET		S		
	E	LL	LIVE LOAD, LANDLORD	SC	SITE CONTRACTOR		
EA	EACH	LLV	LONG LEG HORIZONTAL LONG LEG VERTICAL	SCHED.	SCHEDULE (D)	ARCI	H. SYMBOLS
EC EF	ELECTRICAL CONTRACTOR EXHAUST FAN	LONG.	LONGITUDINAL	SCHR SD	SECONDARY CHILLED WATER RETURN SMOKE DAMPER, SMOKE DETECTOR	100	DOOR NUMBER
E.J.	EXPANSION JOINT	LT	LIGHT	SECT.	SECTION	ROOM 100	
EL	ELEVATION	L.P.	LOW POINT	S	SENSOR	(A)	WINDOW TYPES
ELEC.	ELECTRICAL	LTG	LIGHTING	S.F.	SQUARE FEET	A	REVISION
EMP.	EMPLOYEE	LWC	LIGHT WEIGHT CONCRETE	SHT	SHEET	8'-0"	
EMS ENCL.	ENERGY MANAGEMENT SYSTEM ENCLOSURE	LVL	LAMINATED VENEER LUMBER	SIM SHT. MTL.	SIMILAR SHEET METAL	SM01	
ENT.	ENTRY, ENTRANCE	MAX	MAXIMUM	SPEC.	SPECIFICATION		_
E.O.D.	EMERGENCY OVERFLOW DRAIN	MDP	MAIN DISTRIBUTION PANEL	SQ	SQUARE	1 A1.1	SECTION MARK
EQ	EQUAL	MECH	MECHANICAL	SS	STAINLESS STEEL, SANITARY SEWER	1 A1.1	ENLARGED PLAN/DETAIL
EW	EACH WAY	MANUF.	MANUFACTURER	STC	SOUND TRANSMISSION CLASS		REFERENCE
EXP	EXPANSION	MH	MANHOLE, METAL HALIDE	STD	STANDARD	_	
	EQUIPMENT ELECTRIC WATER COOLER	MIN MLO	MINIMUM MAIN LUGS ONLY	STL STIFF.	STEEL STIFFENER	1 A1.1	ELEVATION KEY
	LLLOTINO WATER OUULER	I WILO		SHEF.			COLUMN CENTERLINE
EWC	EXHAUST	MSB	MAIN SWITCHBOARD	STIR.	STIRRUPS	(1)—	
EWC EXH	EXHAUST EXISTING	MSB MTD	MAIN SWITCHBOARD MOUNTED	STIR. SUSP.	STIRRUPS SUSPENDED		S SHOWN ARE NOT NECESSARILY USED ON THE DWGS
EWC EXH EXIST.							
EQUIP. EWC EXH EXIST. EXT.	EXISTING	MTD	MOUNTED	SUSP.	SUSPENDED		









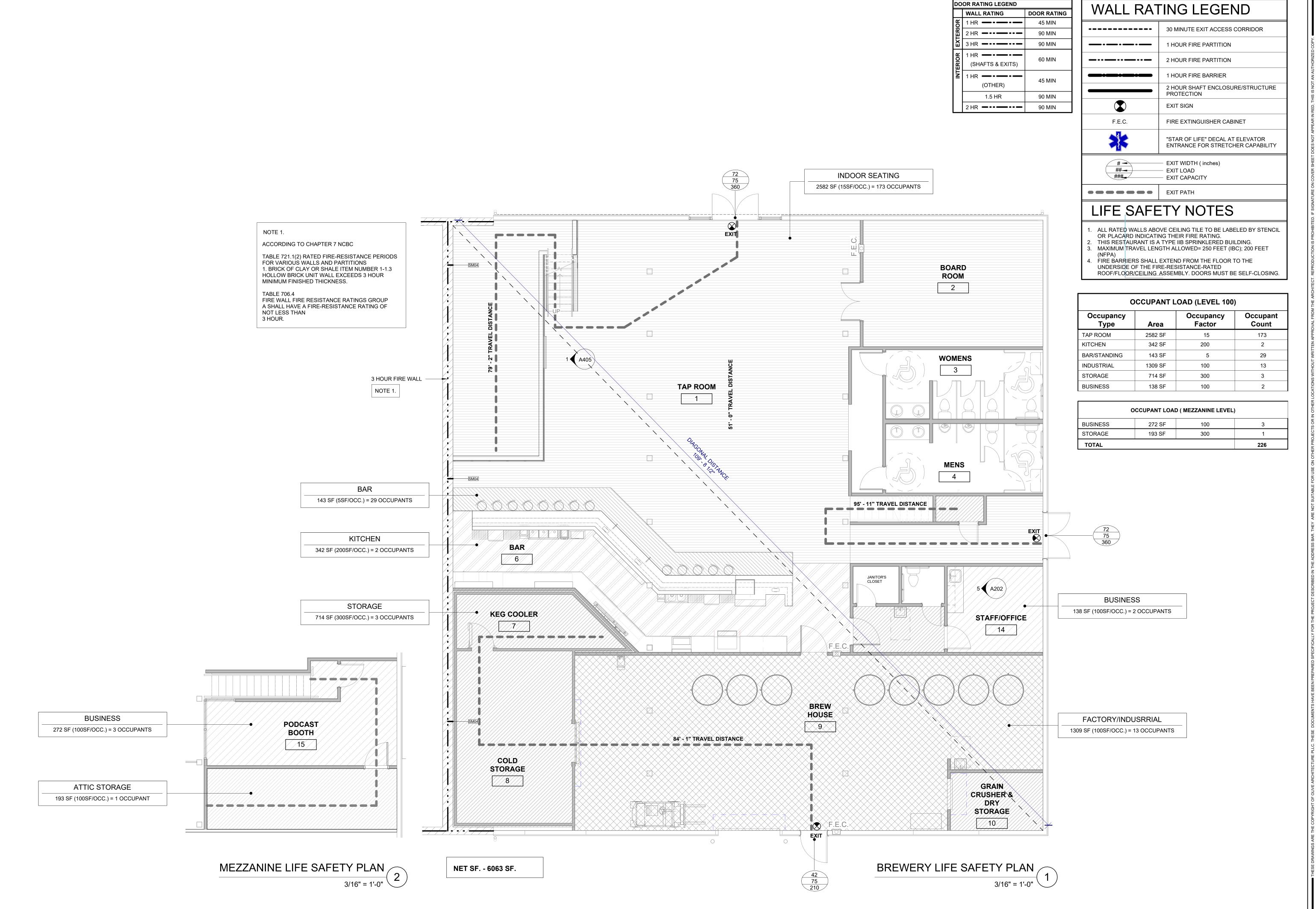
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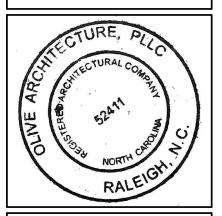
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ABBREVIATIONS









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GRAIN DEALERS BREWERY

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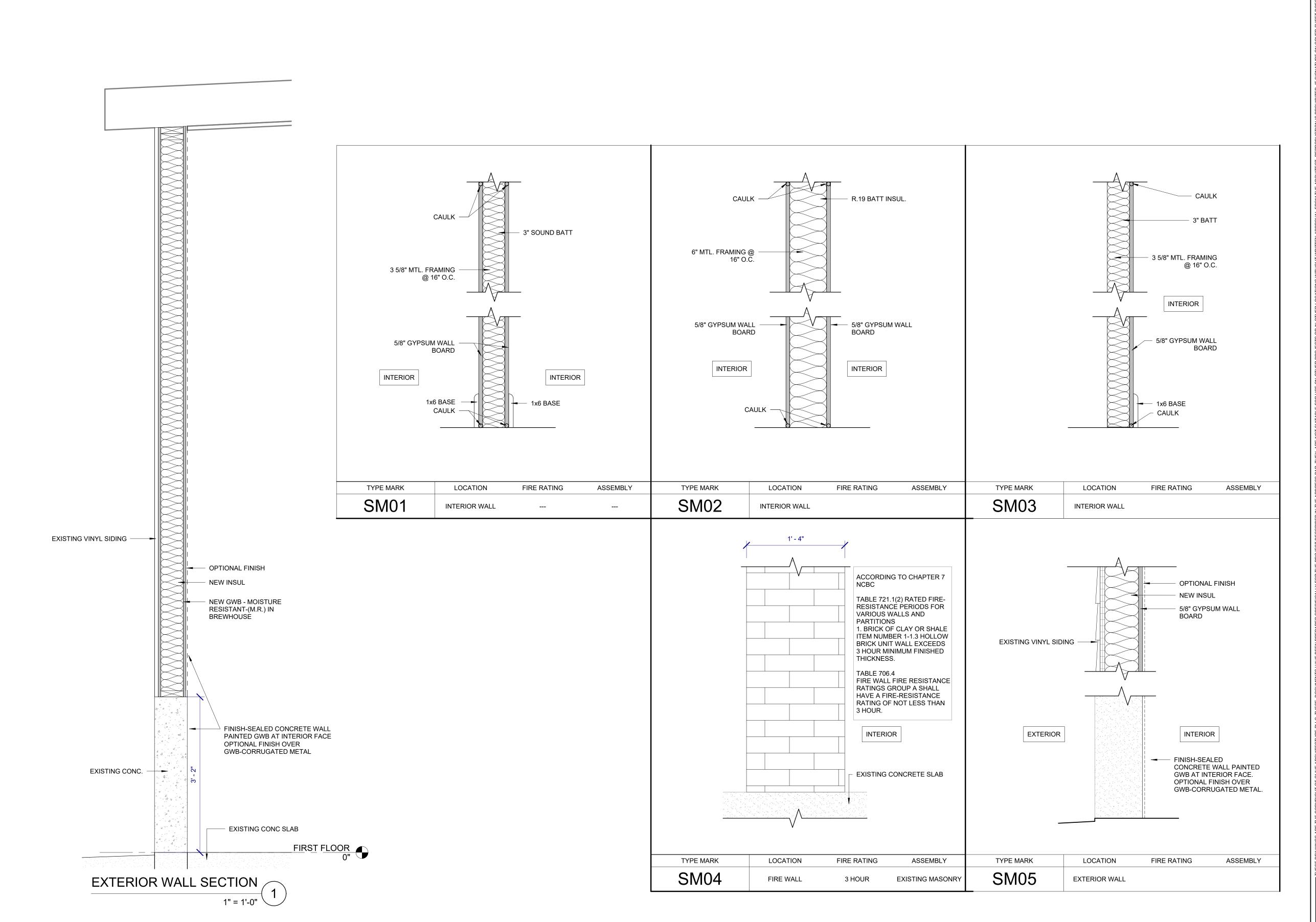
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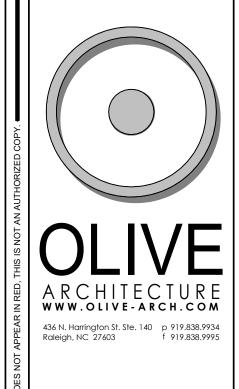
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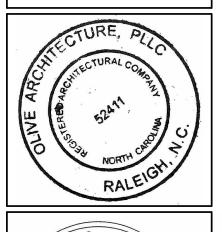
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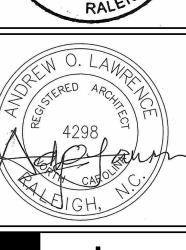
LIFE SAFETY

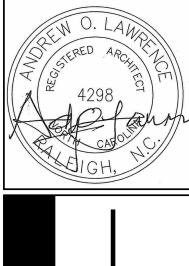
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ERS BRE, Bay K **GRAIN DEAL** 100 North Erwin, NC

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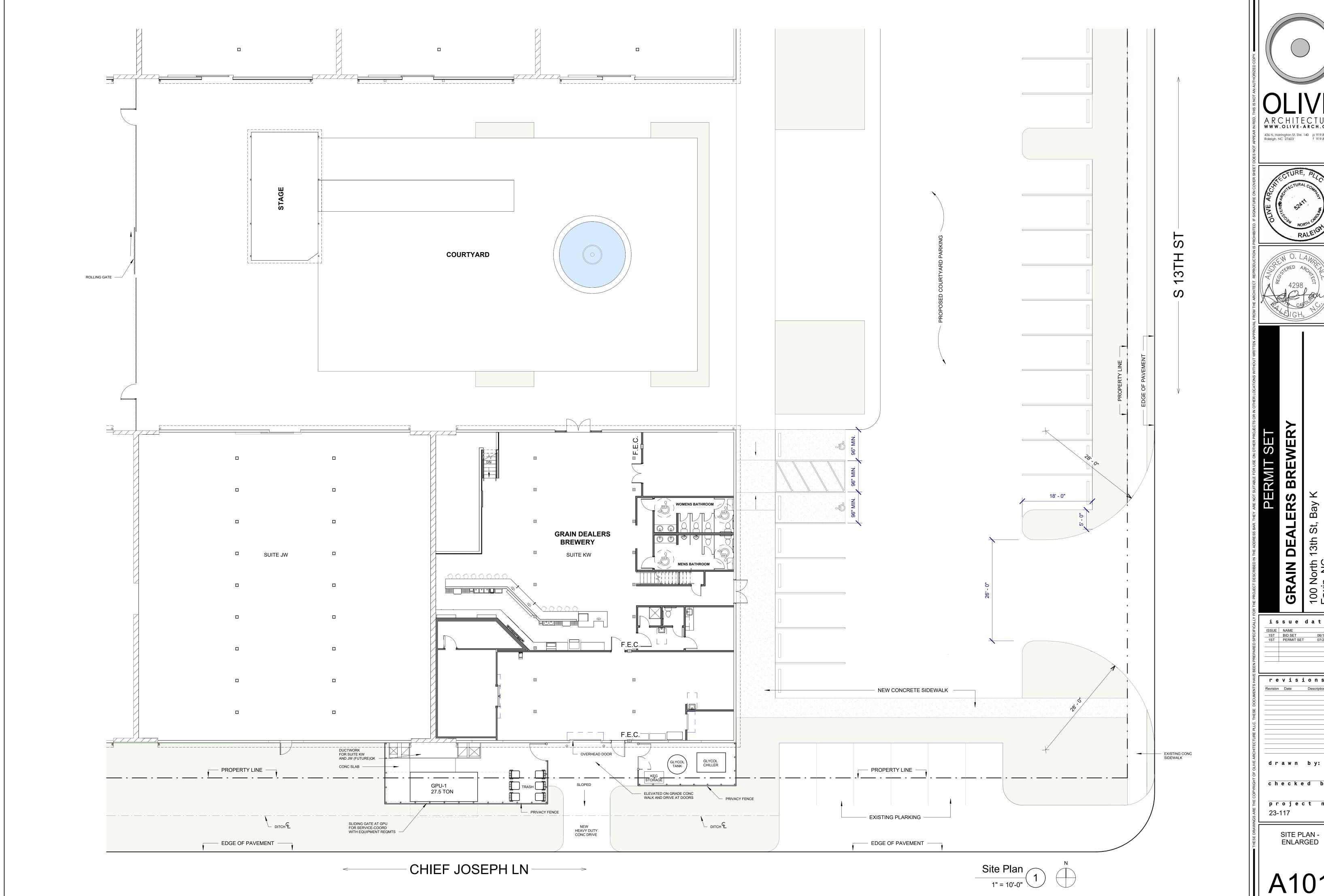
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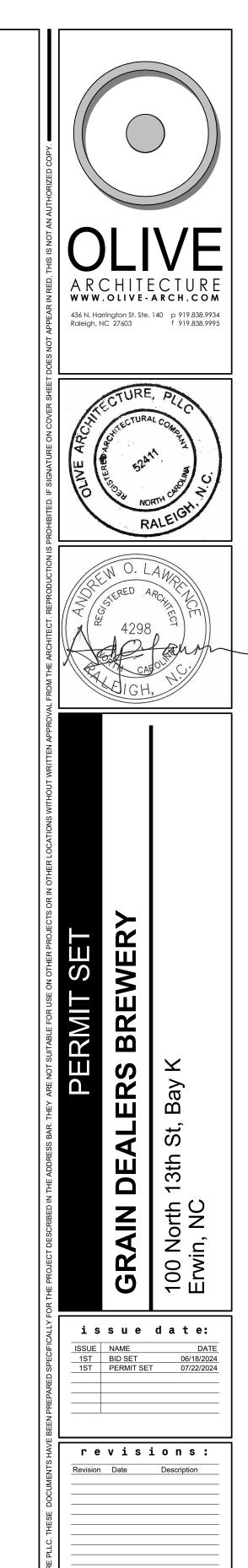
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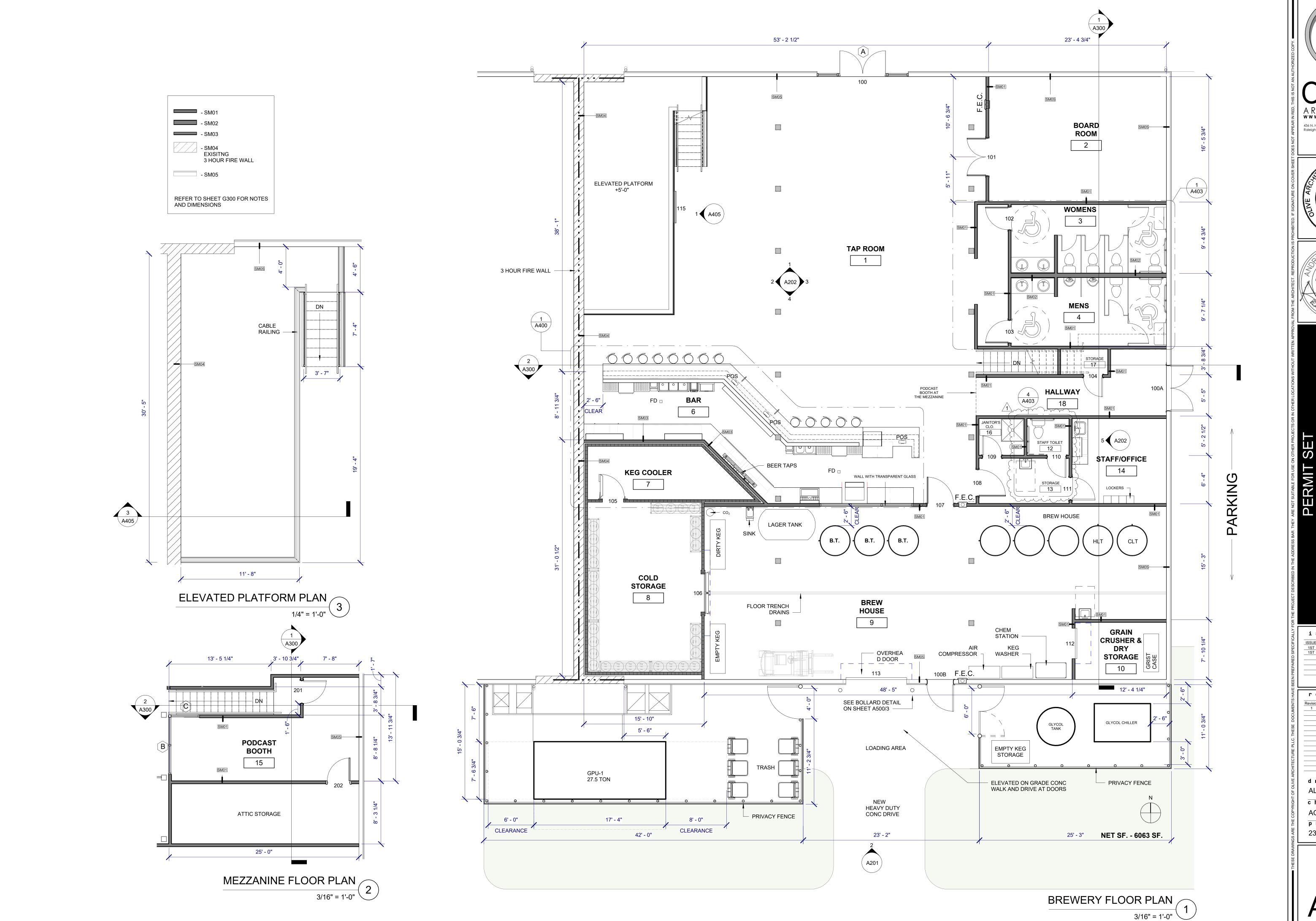
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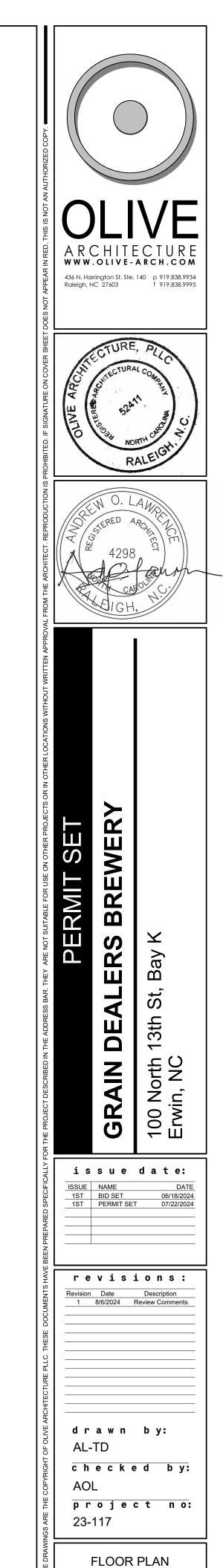
WALL TYPES

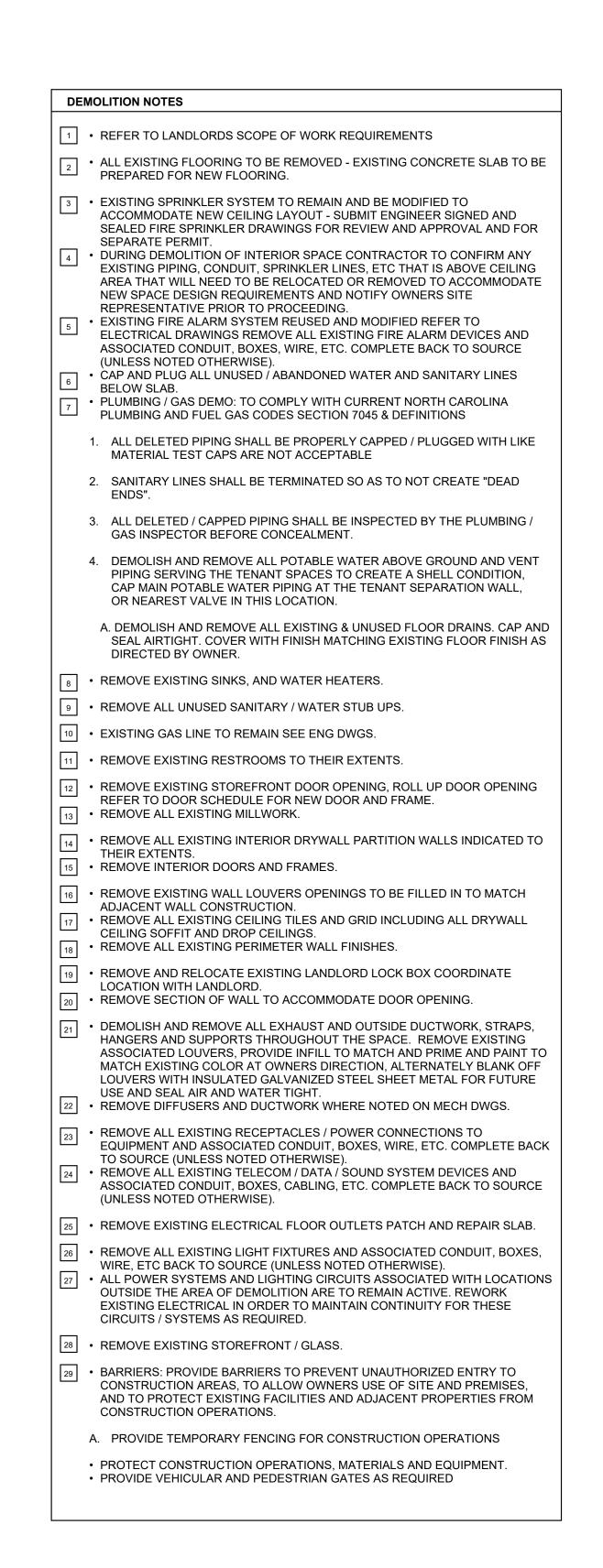


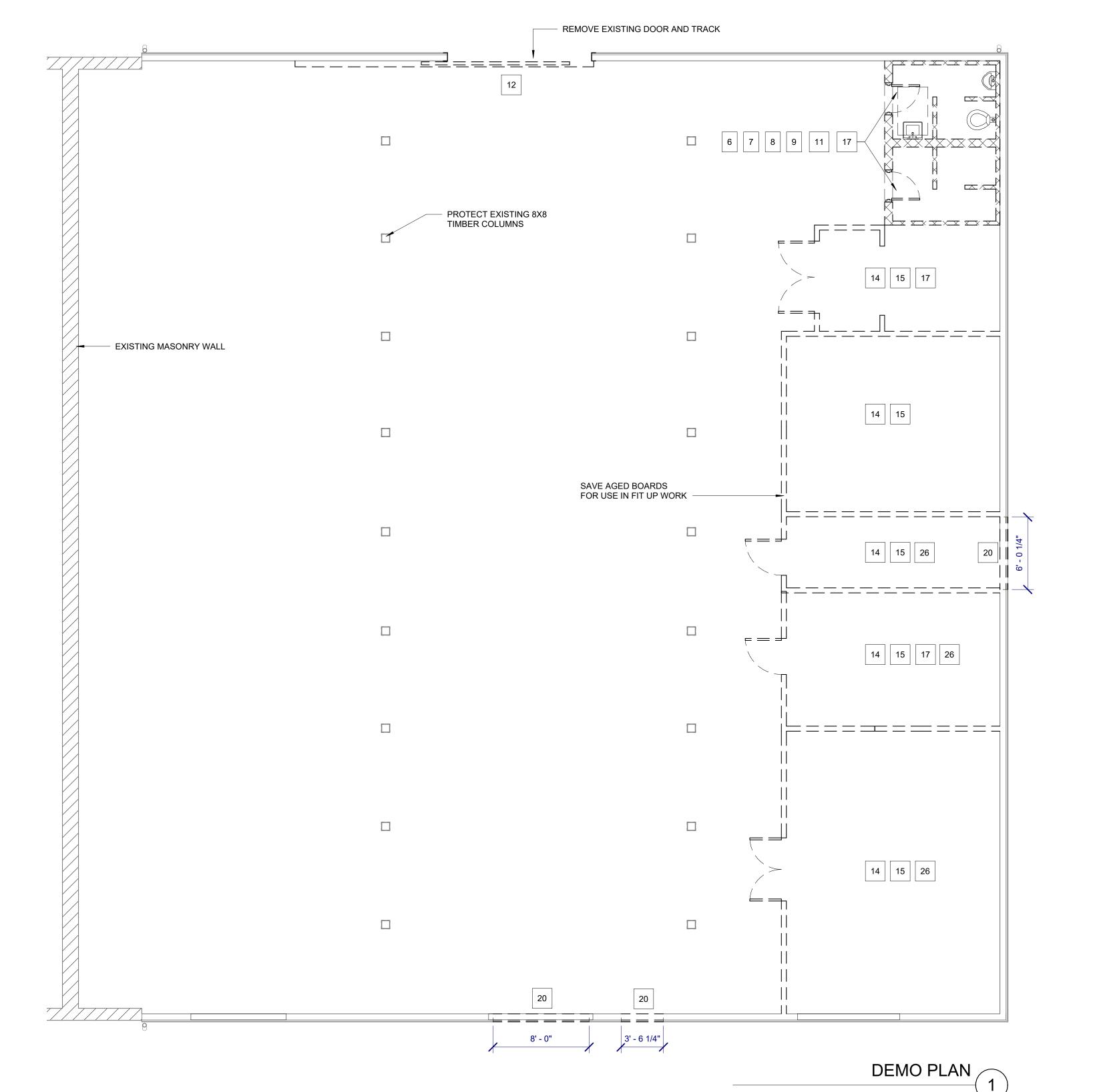


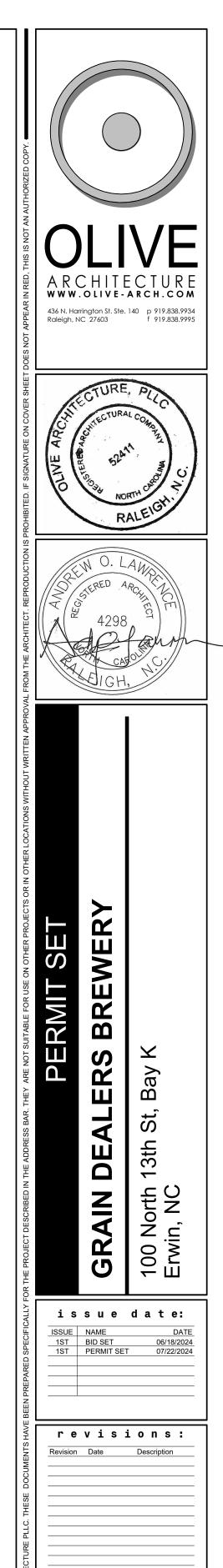
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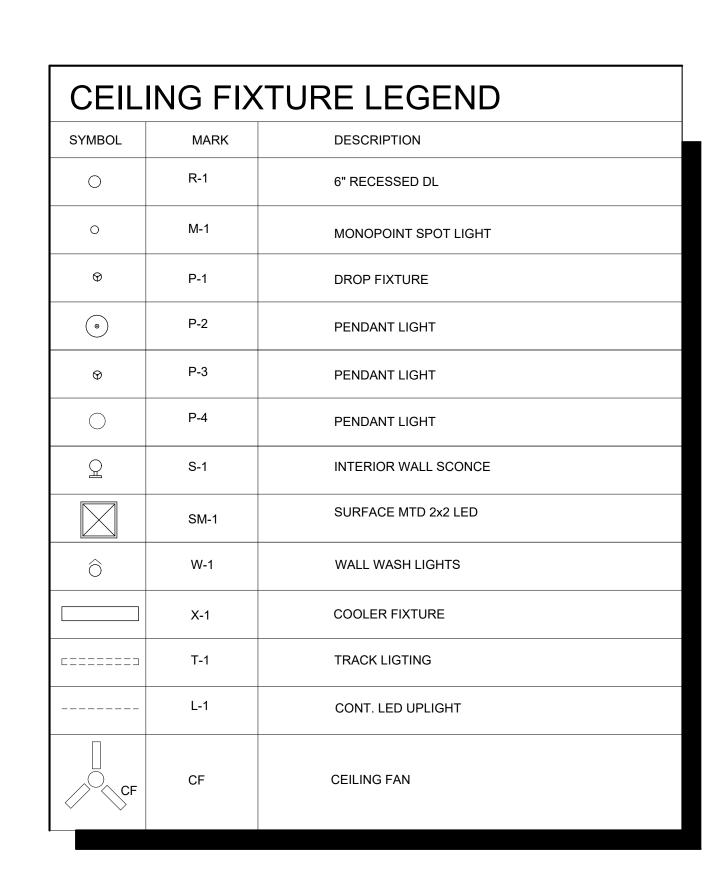
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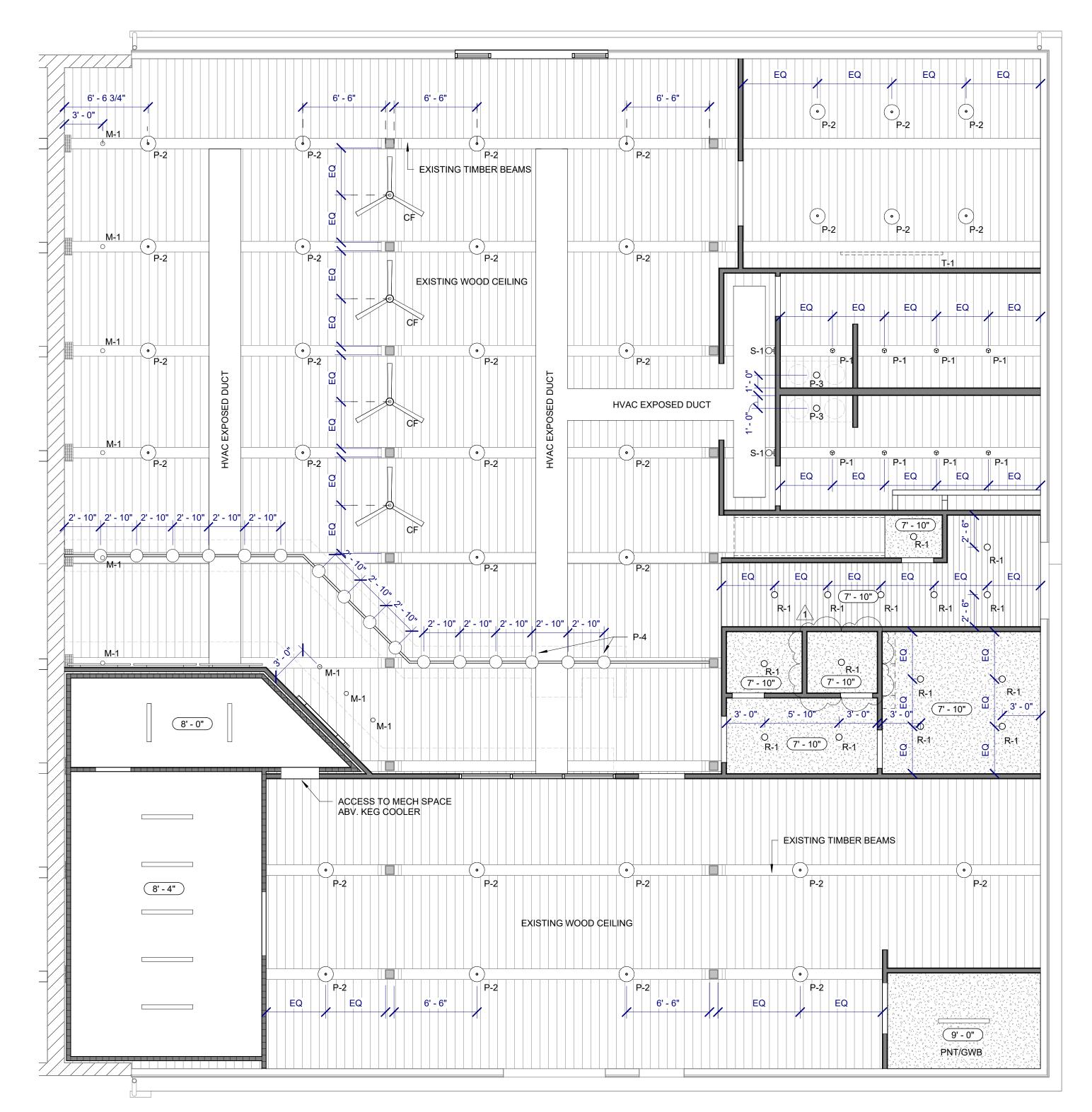
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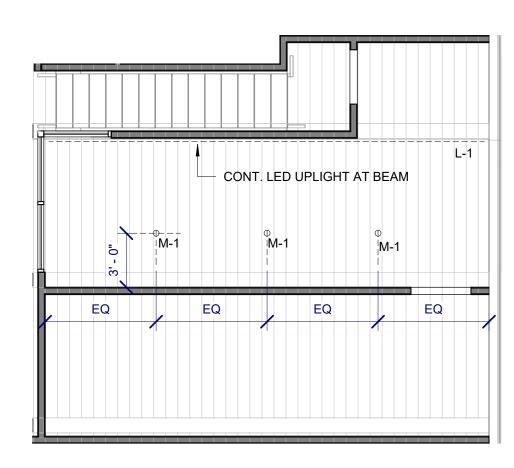
DEMO PLAN

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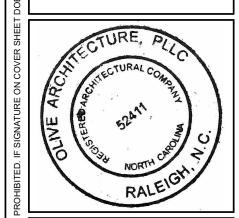






MEZZANINE RCP 3/16" = 1'-0"







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100 North 13th St, Bay K
Erwin, NC

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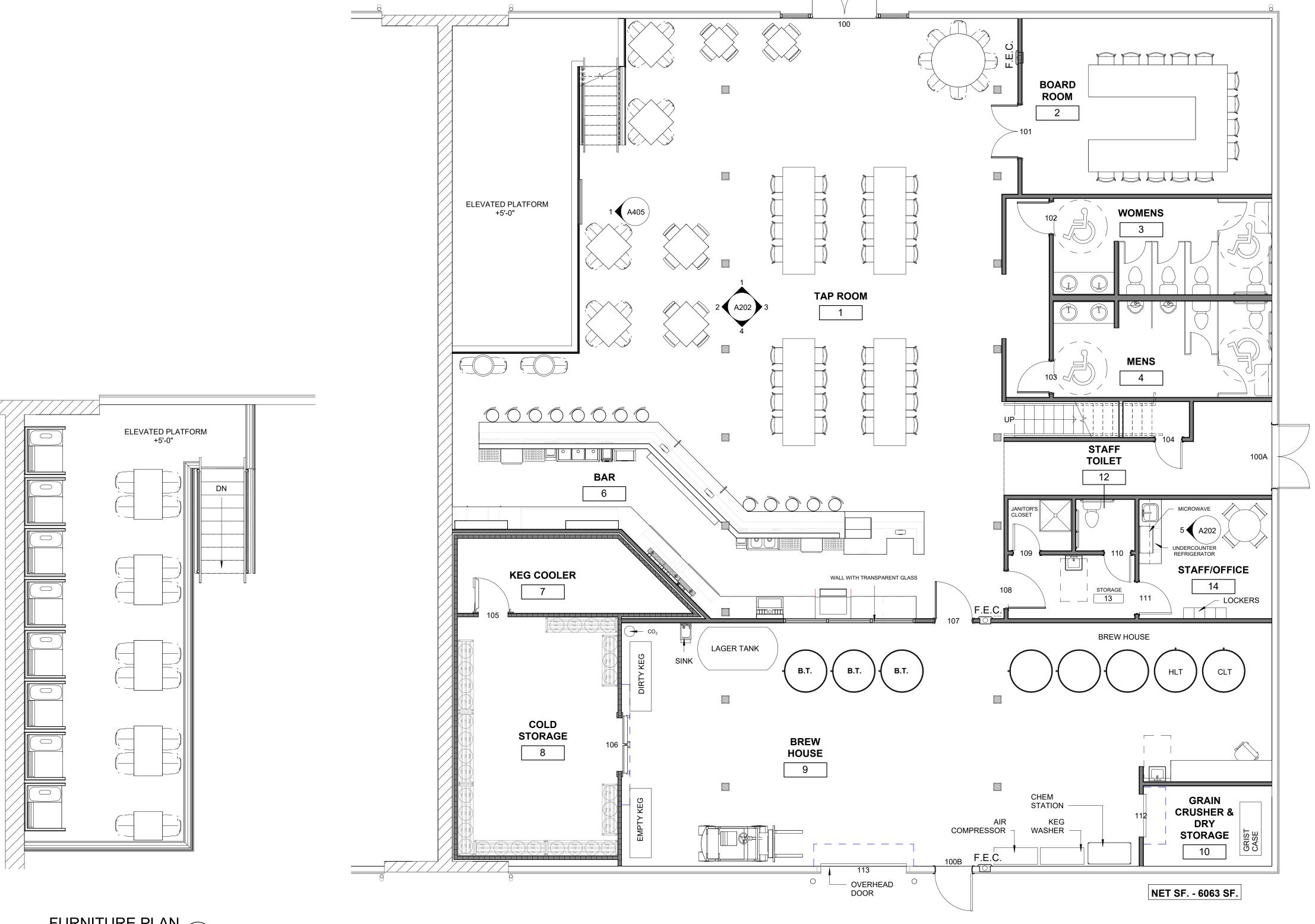
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 Description

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 8/6/2024
 Review Comments

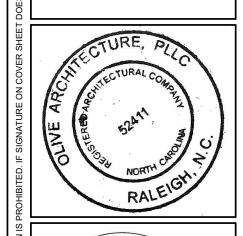
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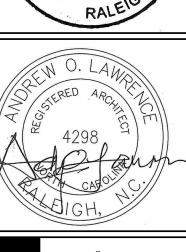
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REFLECTED CEILING PLAN









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FURNITURE PLAN

FURNITURE PLAN

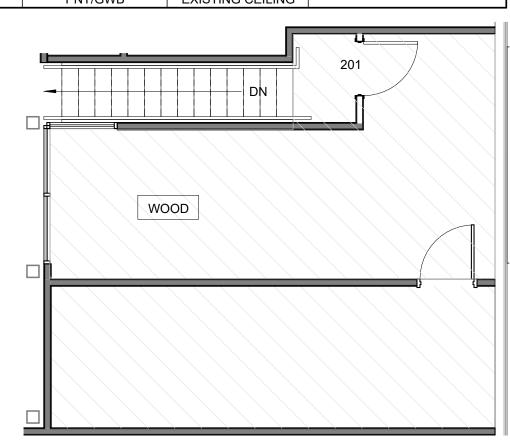
3/16" = 1'-0"

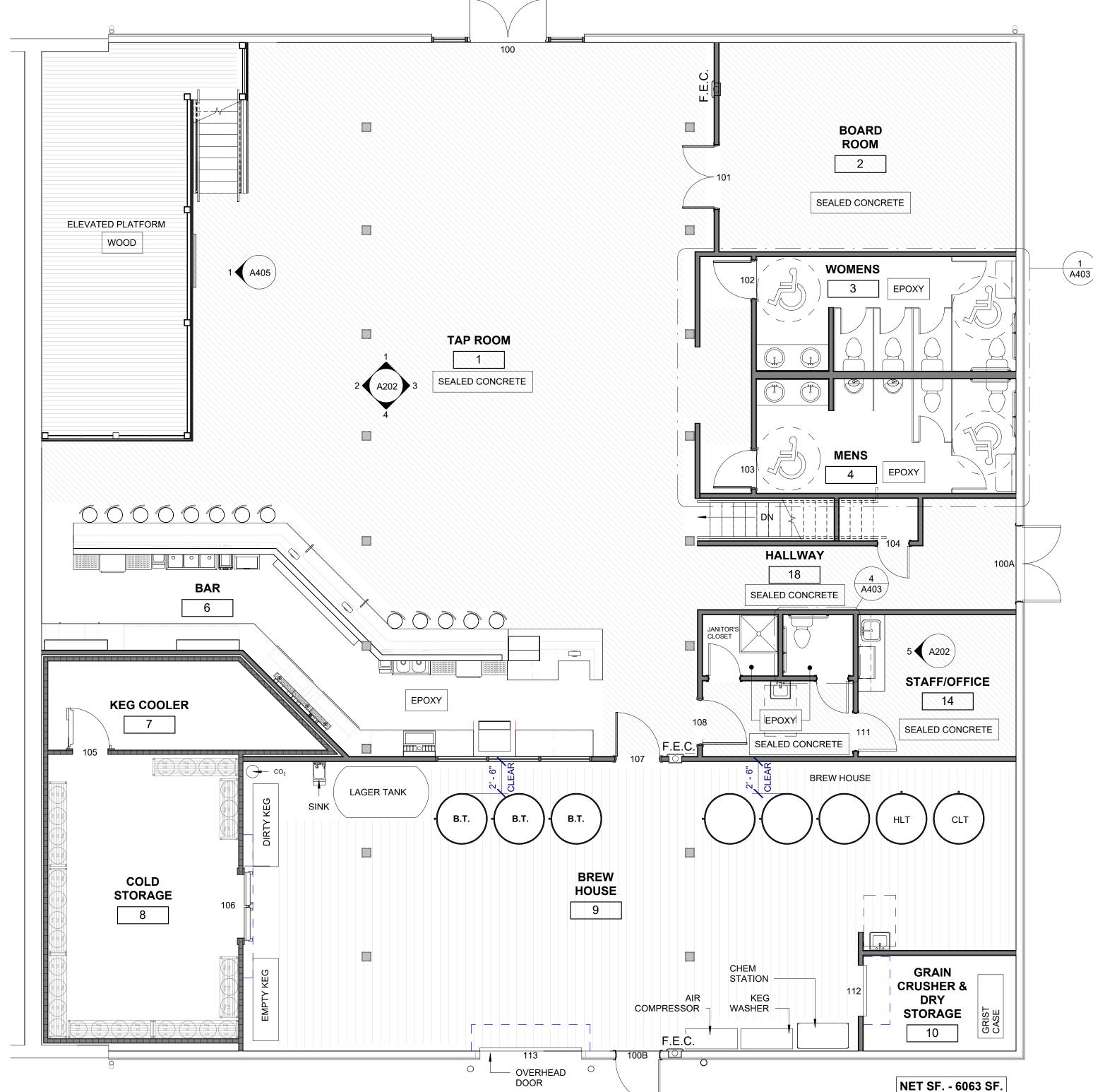
FURNITURE PLAN

1/4" = 1'-0"

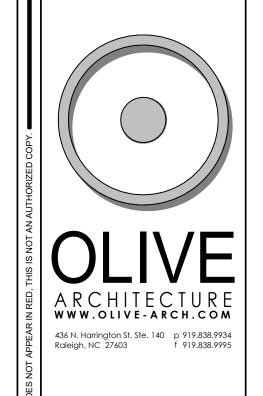


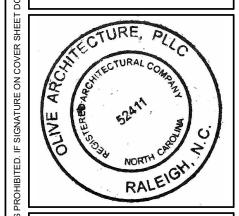
			Finish Schedule			
Number	Name	Floor Finish	Base Finish	Wall Finish	Ceiling Finish	Comments
FIRST FLOOR					1	
1	TAP ROOM	SEALED CONCRETE	WOOD BASE	BRICK & PNT/GWB	EXISTING CEILING	
2	BOARD ROOM	SEALED CONCRETE	WOOD BASE	PNT/GWB	EXISTING CEILING	
3	WOMENS	EPOXY	COVE METAL SCHLUTER	TILE	EXISTING CEILING	SCHLUTER TILE EDGING , 1/4TH INCH HIGH MAX.
4	MENS	EPOXY	COVE METAL SCHLUTER	TILE	EXISTING CEILING	SCHLUTER TILE EDGING , 1/4TH INCH HIGH MAX.
6	BAR	EPOXY	WOOD BASE	PNT/GWB	EXISTING CEILING	
7	KEG COOLER			MTL	MTL	
8	COLD STORAGE			MTL	MTL	
9	BREW HOUSE	SEALED CONCRETE	VINYL BASE	PNT/GWB	EXISTING CEILING	
10	GRAIN CRUSHER & DRY STORAGE	SEALED CONCRETE	WOOD BASE	PNT/GWB	PNT/GWB	
12	STAFF TOILET	EPOXY	COVE METAL SCHLUTER	TILE	PNT/GWB	SCHLUTER TILE EDGING, 1/4TH INCH HIGH MAX.
13	STORAGE	SEALED CONCRETE	WOOD BASE	PNT/GWB	PNT/GWB	
14	STAFF/OFFICE	SEALED CONCRETE	WOOD BASE	PNT/GWB	PNT/GWB	
16	JANITOR'S	EPOXY	COVE METAL SCHLUTER	PNT/GWB	PNT/GWB	
17	STORAGE	SEALED CONCRETE	WOOD BASE	PNT/GWB	PNT/GWB	
18	HALLWAY	SEALED CONCRETE	WOOD BASE	PNT/GWB	BOARD CEILING	
EVEL 101						
15	PODCAST BOOTH	WOOD	WOOD BASE	PNT/GWB	EXISTING CEILING	

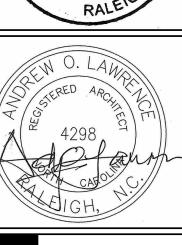












GRAIN DEALERS BAR. THEY ARE NOT SUITABLE FOR USF 100 North 13th St, Bay K Erwin, NC

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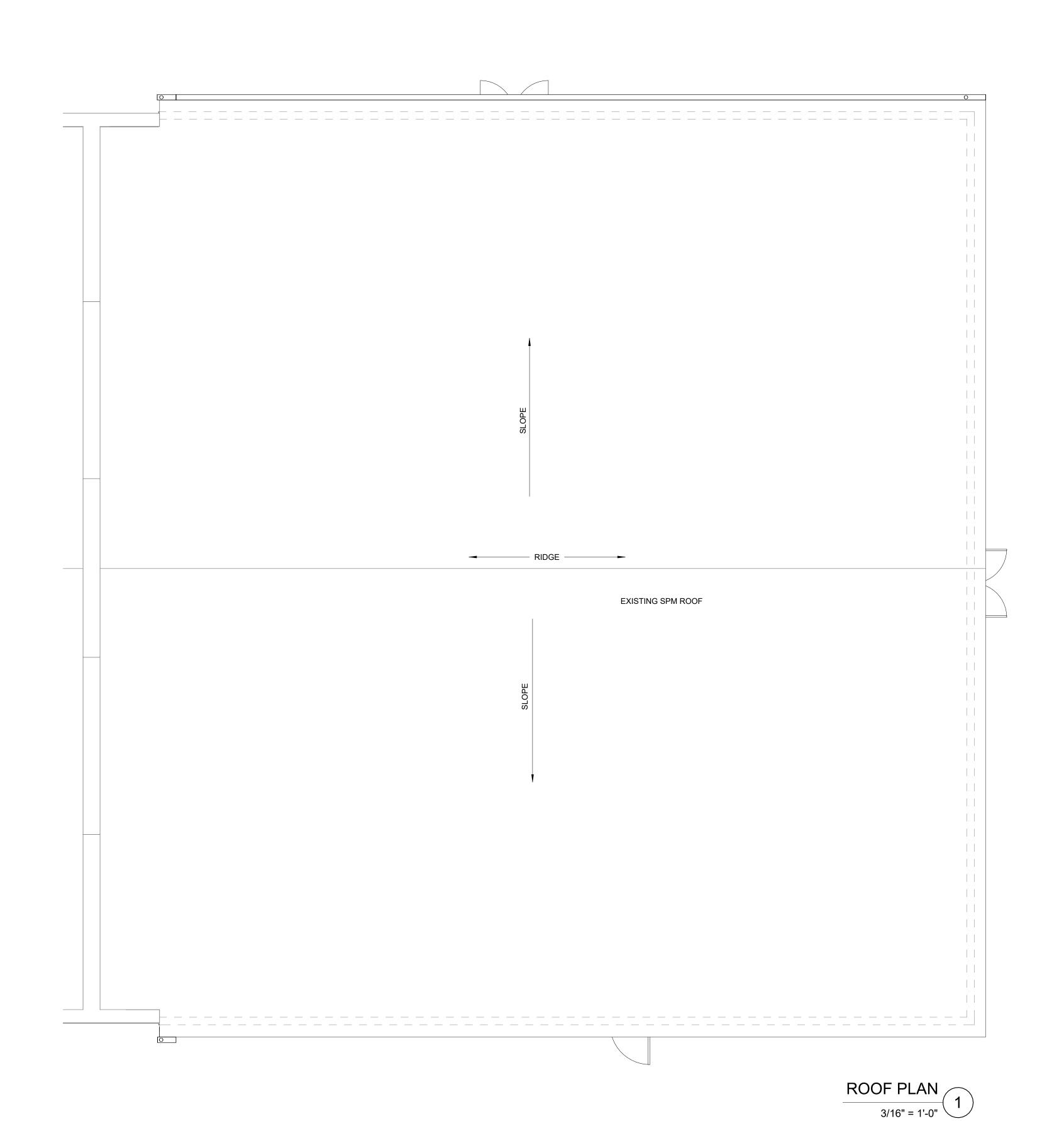
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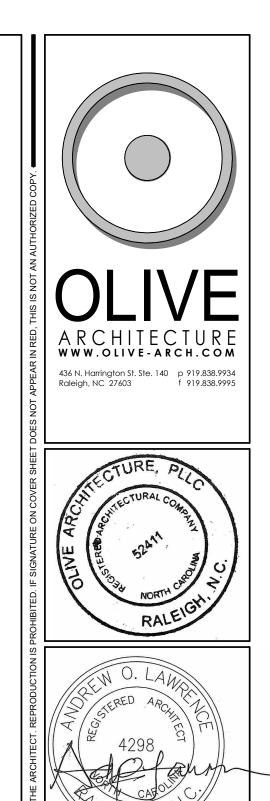
FINISH PLAN

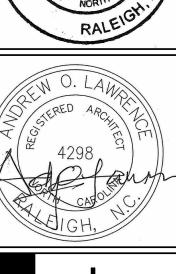
23-117

3/16" = 1'-0"

A115







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100 North 13th St, Bay K
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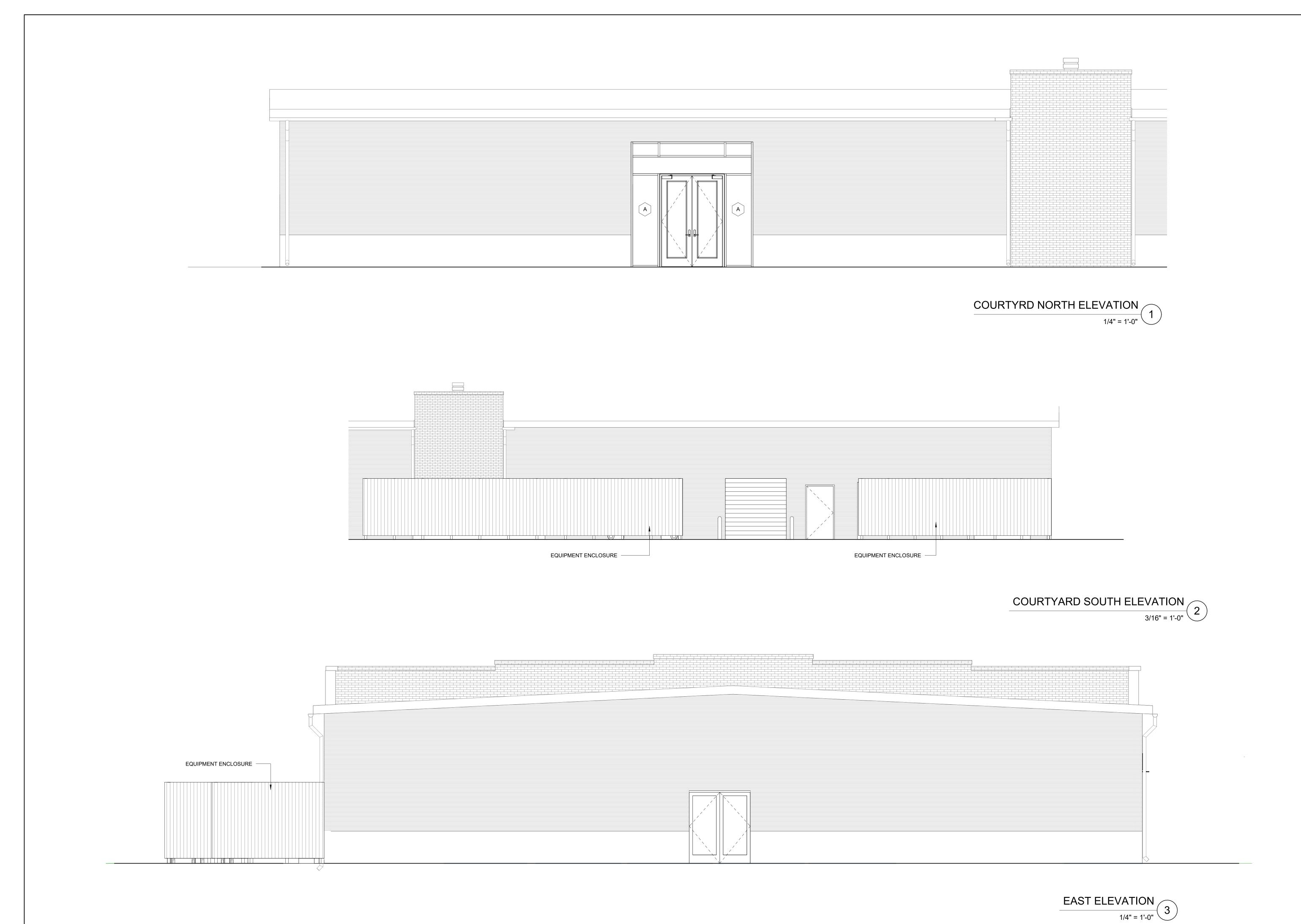
issue date:

revisions:

drawn by:

checked by: project no: 23-117

ROOF PLAN



436 N. Harrington St. Ste. 140 p 919.838.9934 Raleigh, NC 27603 f 919.838.9995 GRAIN DEALERS BRE
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Erwin, NC

issue date:
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 NAME
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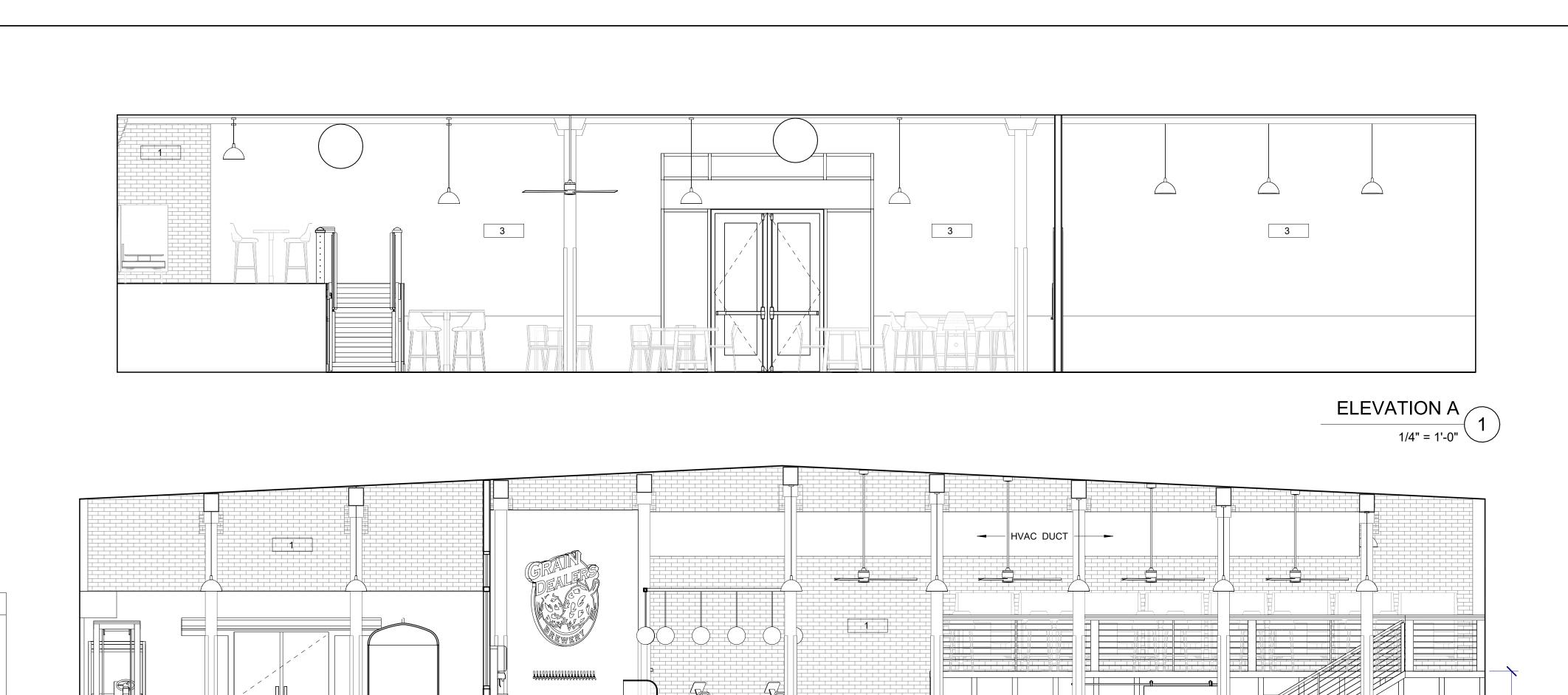
 1ST
 BID SET
 06/18/2024

 1ST
 PERMIT SET
 07/22/2024

revisions:

drawn by: checked by: project no: 23-117

BREWERY ELEVATIONS



	PAINT TYPE		
NUMBER NAME			
P.1	EGGSHELL PAINT		
P.2	SEMI-GLOSS PAINT		
P.3	FLAT/MATTE PAINT		

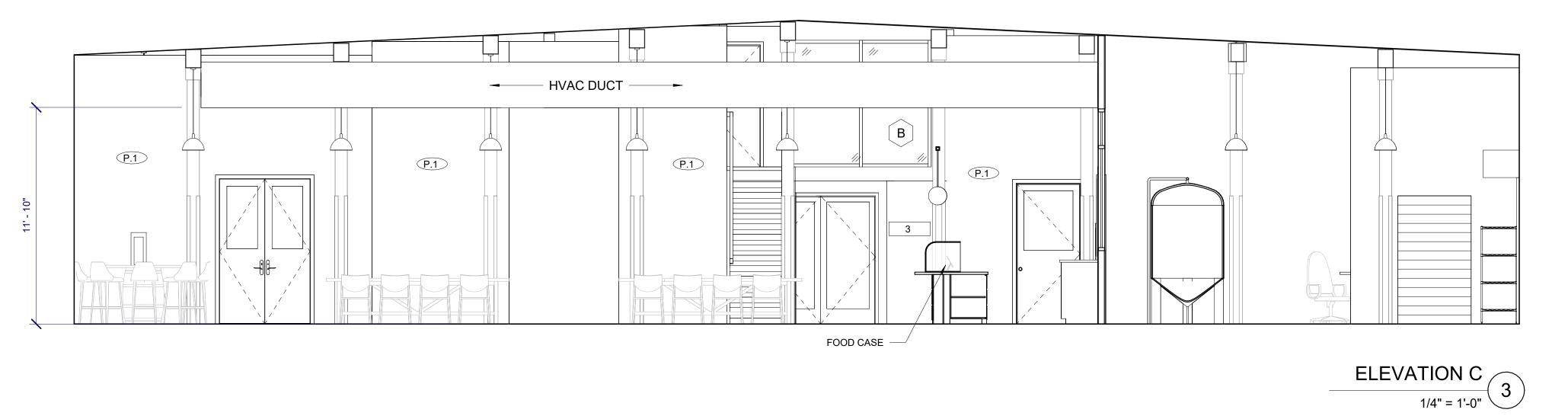
KEY NOTES

1 EXISTING BRICK WALL

3 FINISH-SEALED CONCRETE WALL PAINTED GWB AT INTERIOR FACE. OPTIONAL FINISH OVER GWB-CORRUGATED METAL.

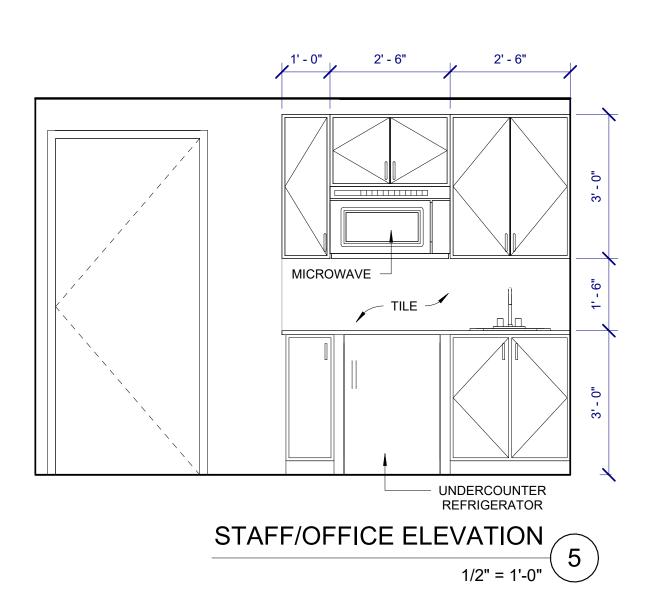
2 NEW GWB

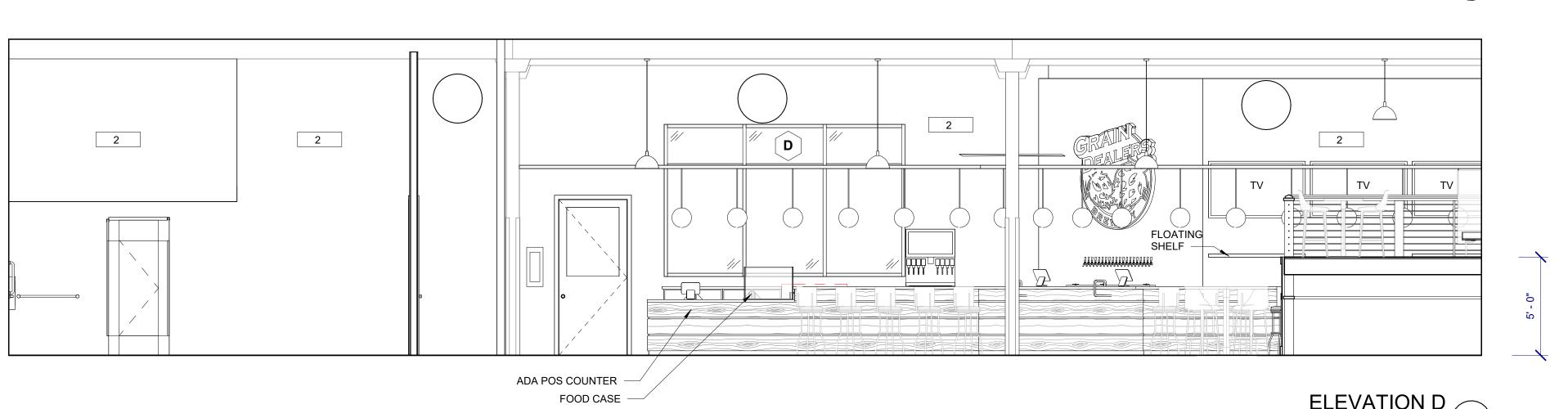
PAINT COLOR			
NUMBER	NAME		
1	TBD.		
2	TBD.		
(3)	TBD.		



ORDER&PICK UP STATION

ELEVATED PLATFORM





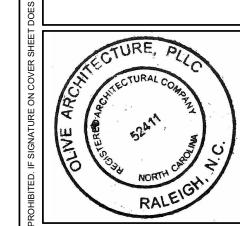
ELEVATION D

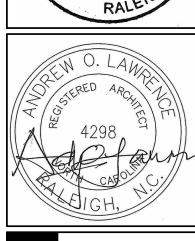
ELEVATION B

1/4" = 1'-0"

1/4" = 1'-0"

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GRAIN DEALERS BAR. THEY ARE NOT SUITABLE FOR USE 100 North 13th St, Bay K Erwin, NC

issue date:
 ISSUE
 NAME
 DATE

 1ST
 BID SET
 06/18/2024

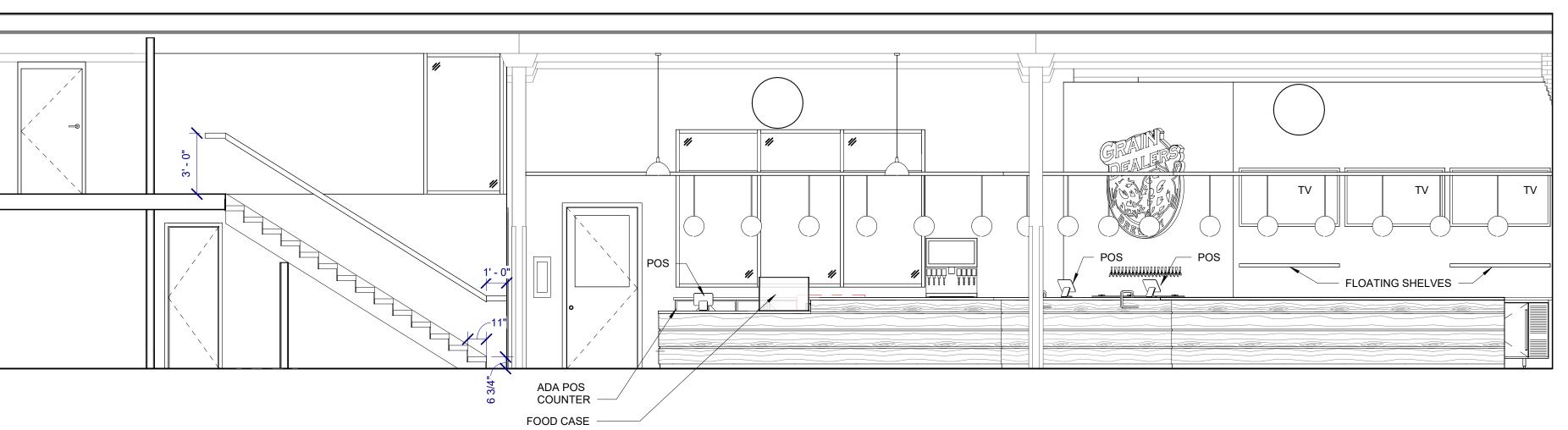
 1ST
 PERMIT SET
 07/22/2024

revisions:

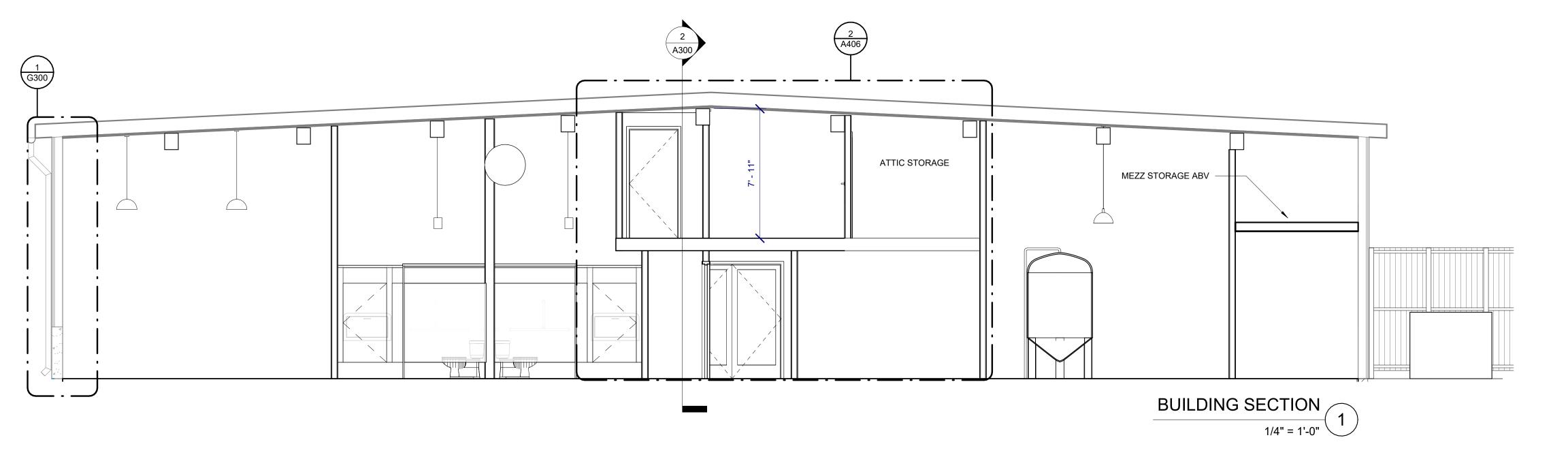
drawn by: checked by:

project no: 23-117

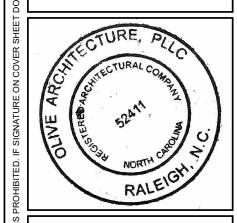
INTERIOR ELEVATIONS

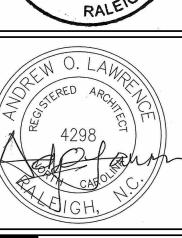












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100 North 13th St, Bay K
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revision Date Description

revision Date Description

drawn by:

project no: 23-117

BUILDING SECTIONS

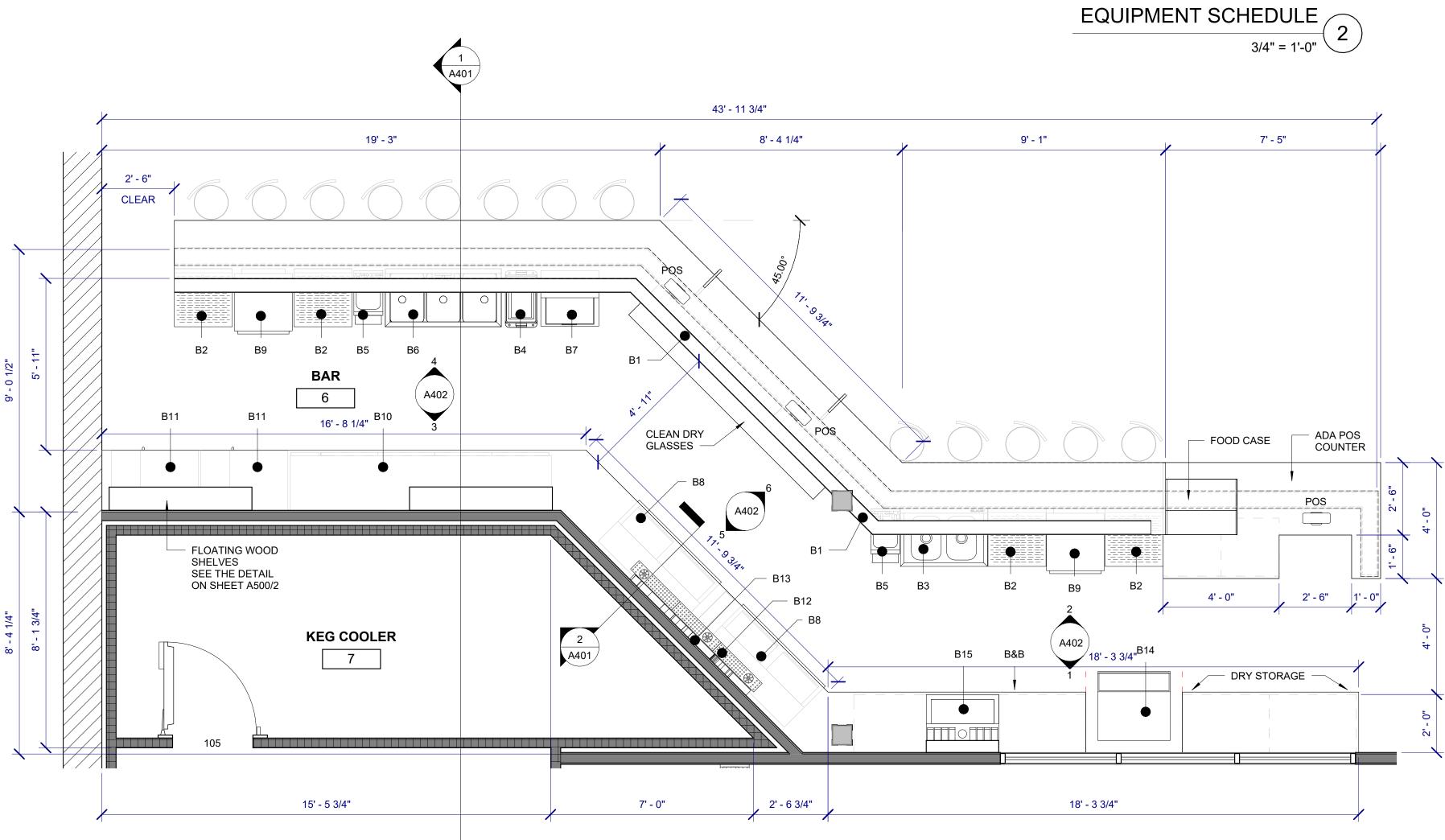
A300



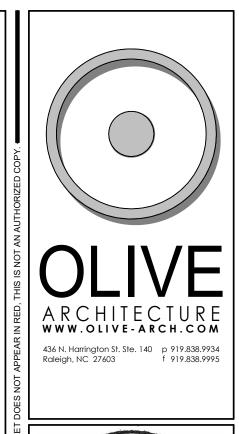
	EQUIPMENT SCHEDULE									
ITEM NO	QTY	EQUIPMENT CATEGORY	ITEM NO	QTY	EQUIPMENT CATEGORY					
B1	2	SPILL RAIL	B11	2	BACK BAR 1-DOOR REFRIGERATOR					
B2	4	UNDERBAR GLASS RACK	B12		DRIP TRAY					
В3	1	TWO COMPARTMENT SINK	B13	1	BEER TAPS					
B4	2	TRASH CAN	B14	1	UNDERCONTER ICE MACHINE					
B5	2	UNDERBAR HAND SINK	B15	1	BEVERAGE DISPENSER & DROP IN ICE CHEST					
В6	1	THREE COMPARTMENT SINK								
В7	1	ICE BIN								
В8	2	GLASS FROSTER								
В9	2	HIGH TEMP UNDERCOUNTER WAREWASHER								
B10	1	BACK BAR								

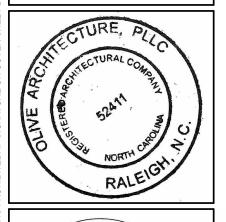


PERSPECTIVE VIEW 3



ENLARGED BAR PLAN 3/8" = 1'-0"







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 DATE

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 1ST
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 07/22/2024

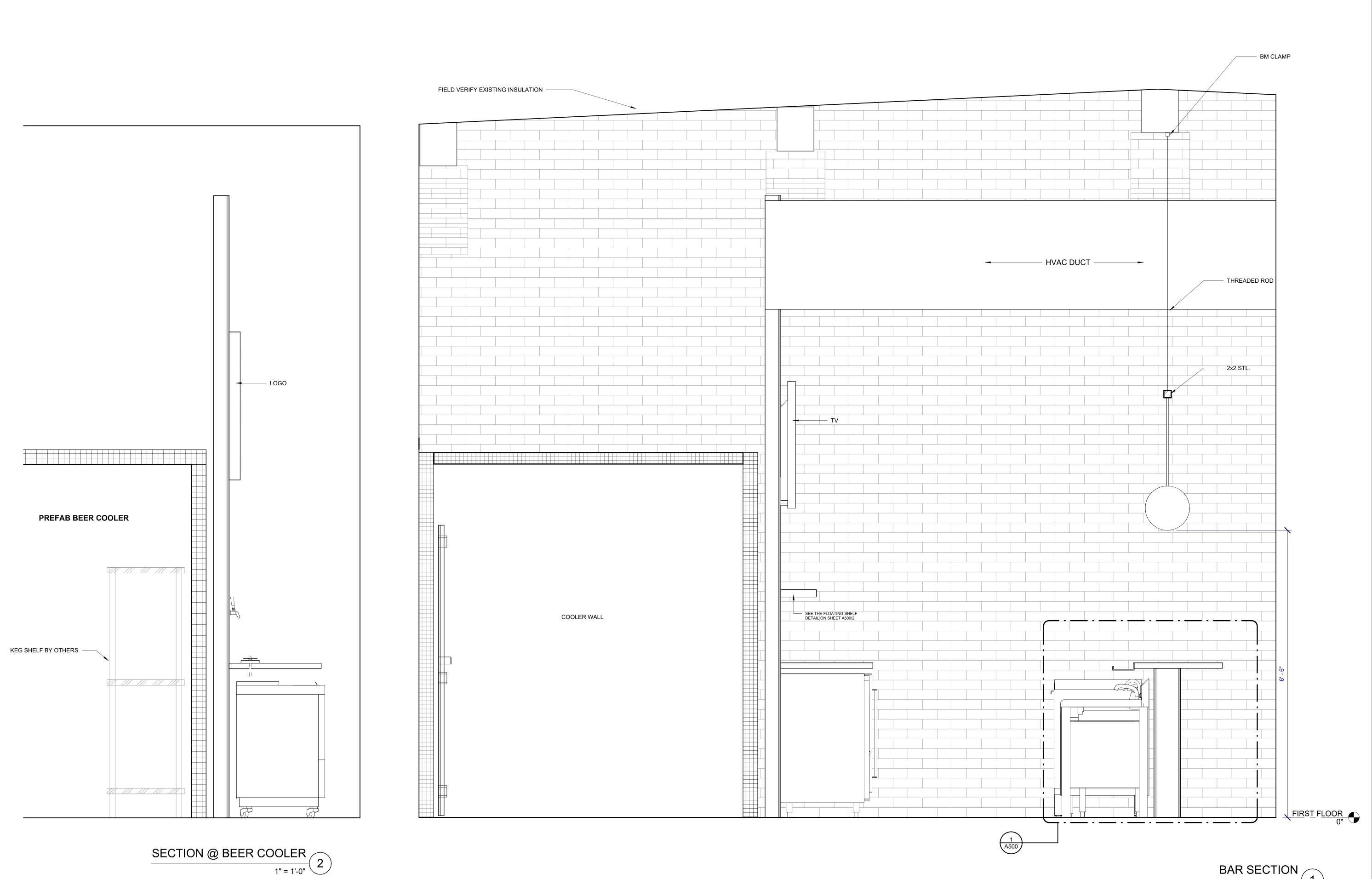
revisions:

drawn by:

checked by: project no:

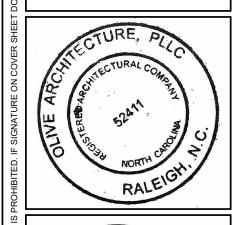
23-117

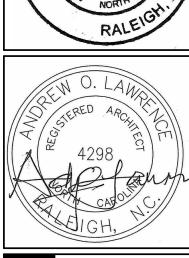
ENLARGED BAR PLAN

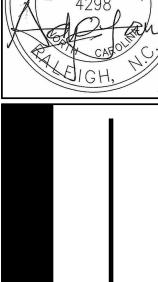


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| ISSUE NAME DATE |
| 1ST BID SET 06/18/2024 |
| 1ST PERMIT SET 07/22/2024 |

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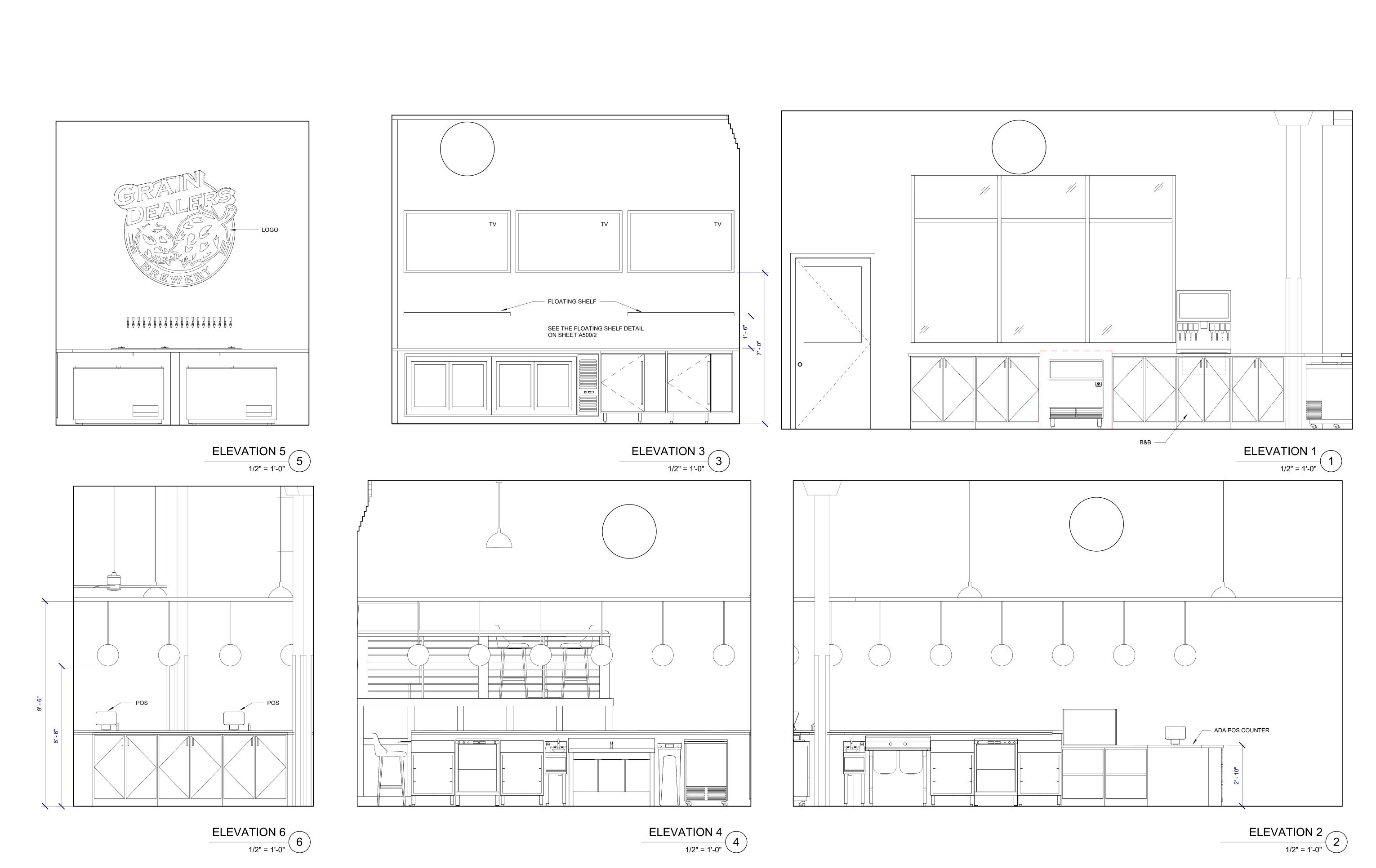
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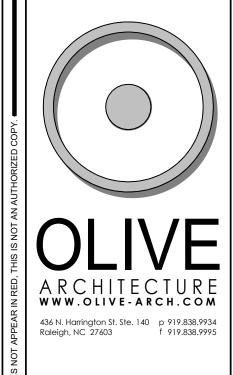
project no: 23-117

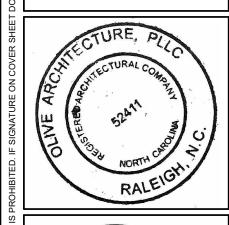
ENLARGED BAR SECTION AND DETAILS

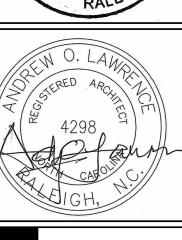
A401

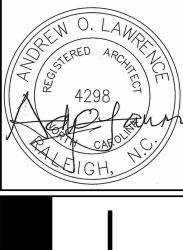
1" = 1'-0"











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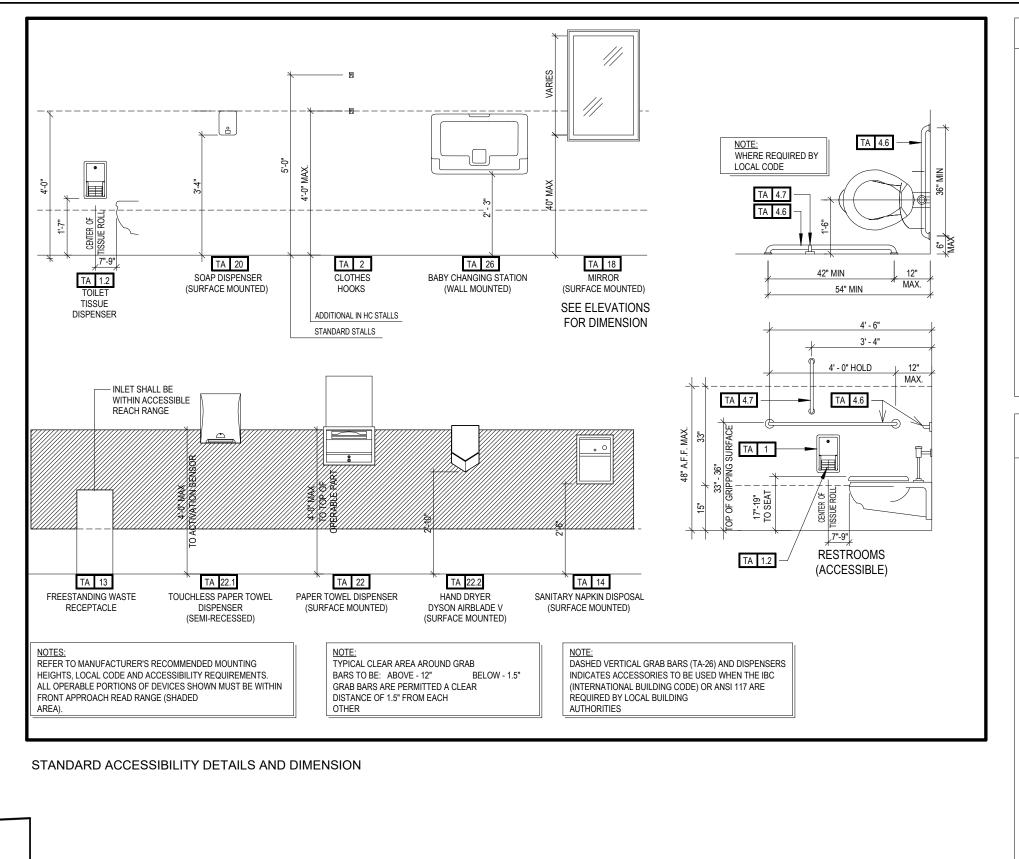
 1ST
 PERMIT SET
 07/22/2024

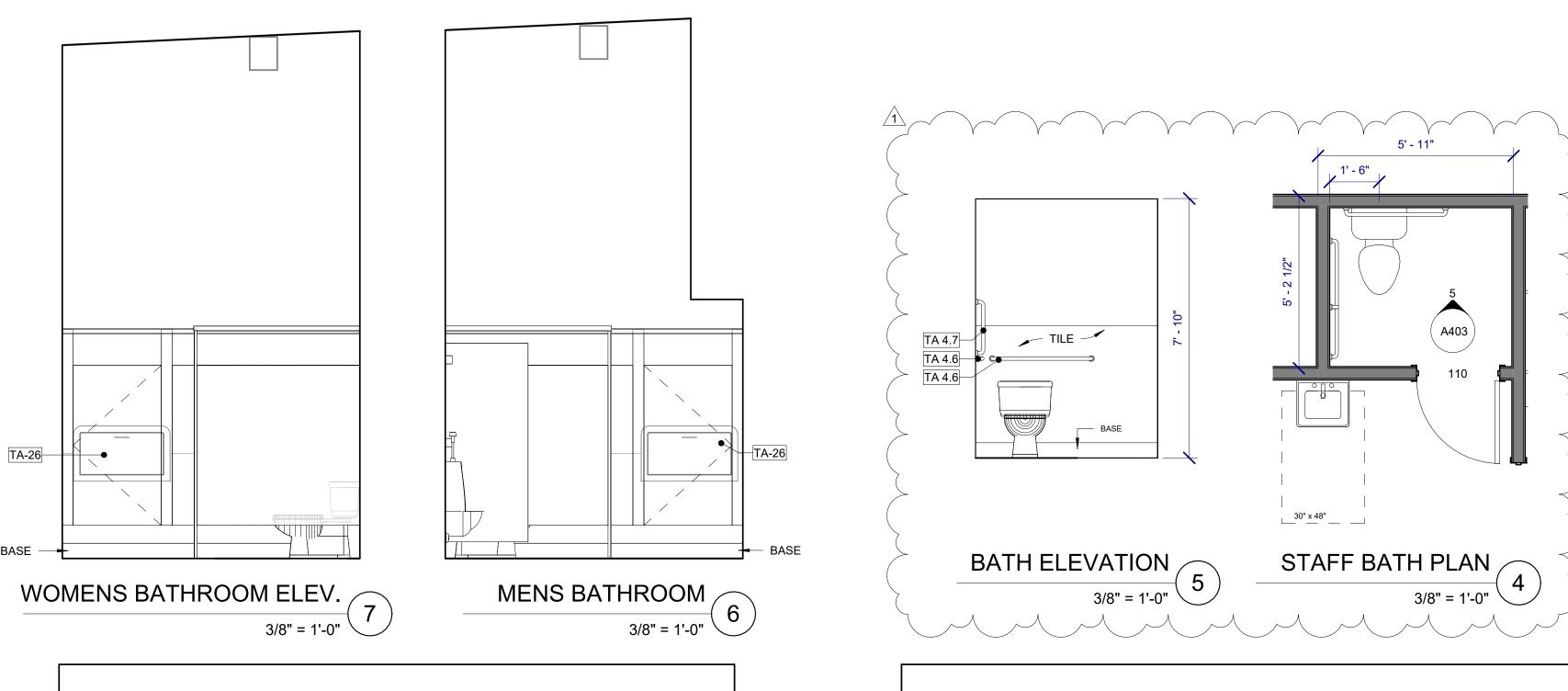
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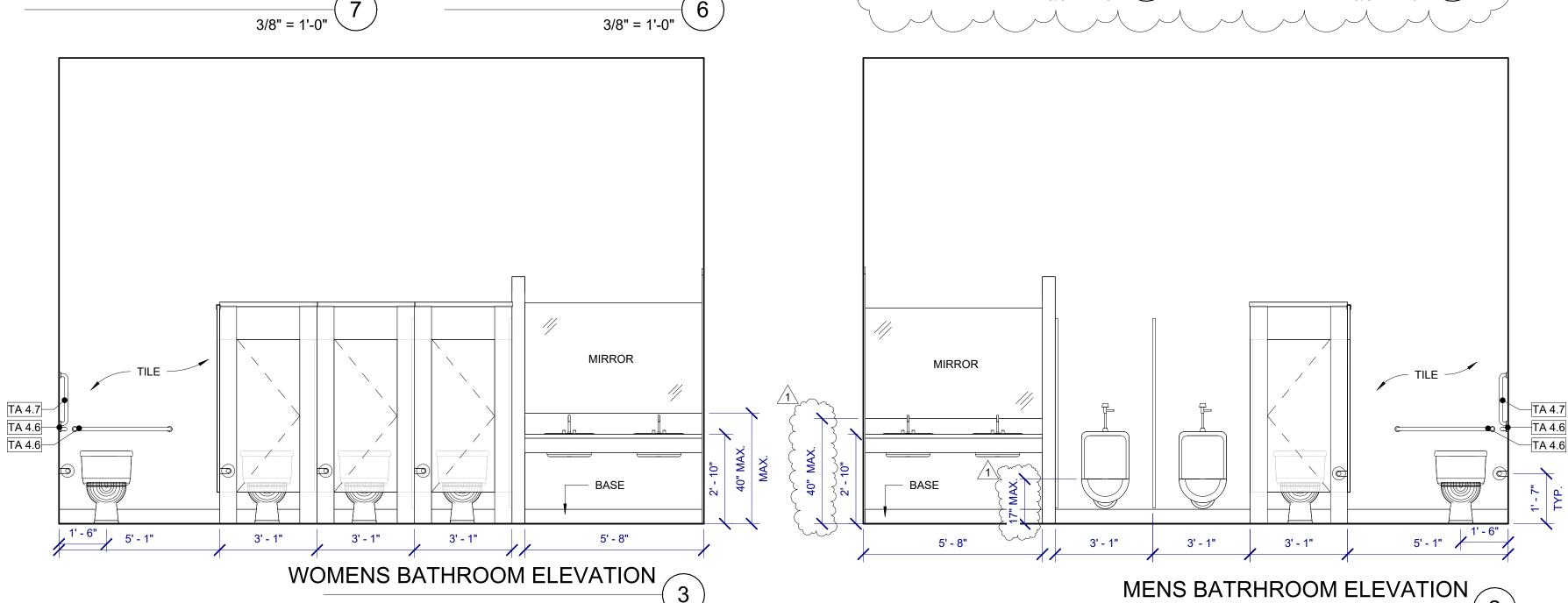
drawn by: checked by:

project no: 23-117

ENLARGED BAR ELEVATIONS







3/8" = 1'-0"

(TA) GENERAL NOTES

NTS

3/8" = 1'-0"

- 1. PROVIDE BLOCKING, OR DIRECT STUD SUPPORT, FOR ALL TOILET ACCESSORIES THIS LIST
- 2. APPROVED METAL FINISHES: POLISHED OR BRUSHED CHROME, BRUSHED NICKEL OR STAINLESS STEEL AND FYI PERFORMANCE STANDARDS
- 3. WALL MOUNTED EQUIPMENT, FIXTURE, ETC. BETWEEN 27" AND 80" A.F.F. SHALL NOT PROTRUDE FURTHER THAN 4" FROM WALL PER ACCESSIBILITY STANDARDS.
- 4. ALL CONTROLS MUST BE MOUNTED BETWEEN 15" AFF AND 48" AFF AND PROVIDE A 30"X48" CLEAR FLOOR AREA IN COMPLIANCE WITH ACCESSIBLE STANDARDS. OPERABLE CONTROLS LOCATED OVER AN OBSTRUCTION DEEPER THAN 10" MUST BE MOUNTED NO HIGHER THAN 46" AFF. ACCESSIBLE CONTROLS MUST NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST.
- 5. LIGHTS IN PUBLIC AREA MUST BE ON KEYED SWITCHES OR MOTION SENSORS. THE MOTION SENSOR MUST HAVE A DELAY OF THIRTY MINUTES FROM THE LAST DETECTION OF MOVEMENT IN THE DEFINED AREA PRIOR TO SHUT DOWN. ENTRY LIGHT IN PUBLIC RESTROOMS MUST REMAIN ON AT ALL TIMES IN MULTI-STALL RESTROOM.

NTS

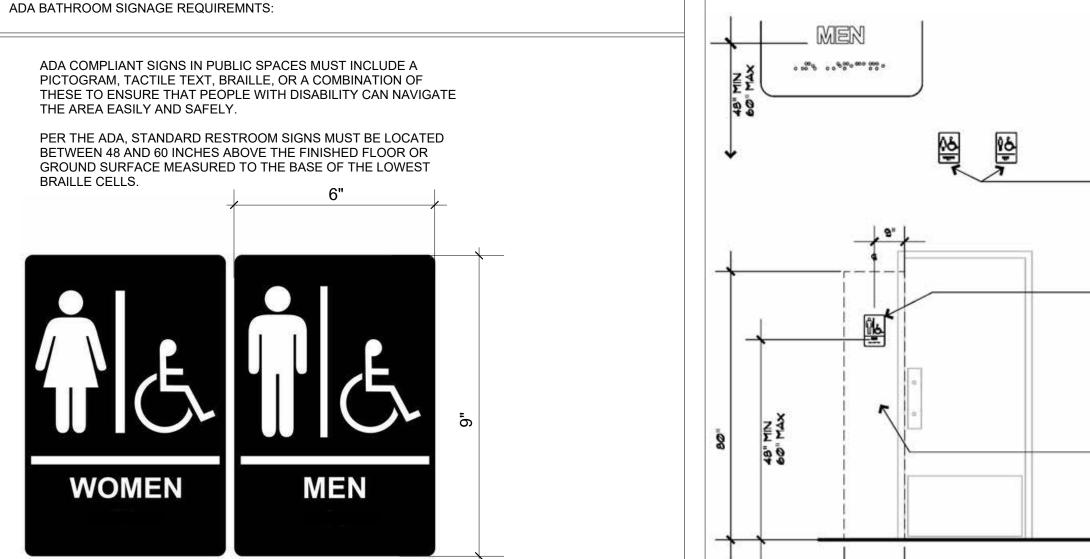
6. A GFCI/ELCB/RCCB OR EQUAL DUPLEX OUTLET MUST BE LOCATED ON A SIDEWALL OF THE WATER

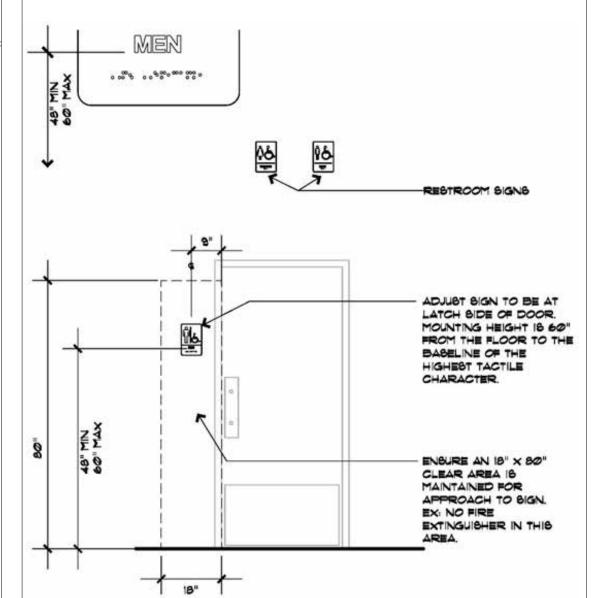
GENERAL NOTES

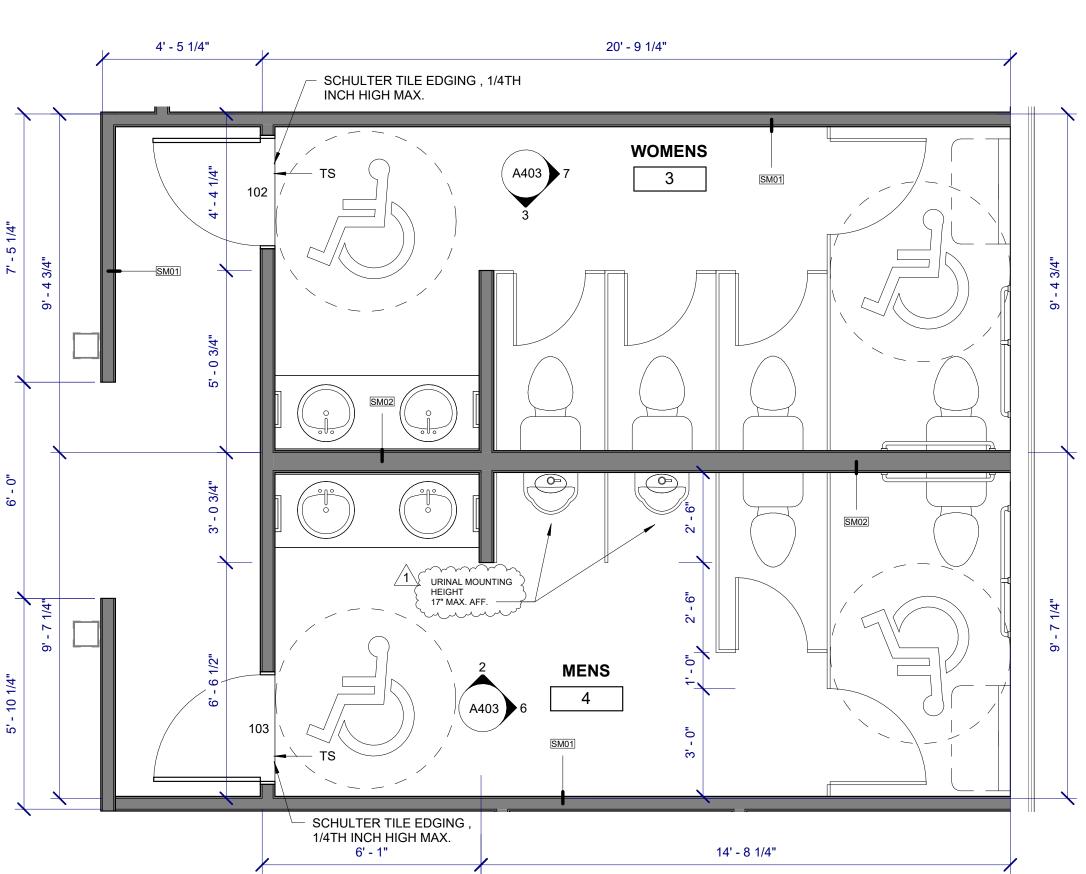
- 1. LIGHT SWITCH AND G.F.I. OUTLETS CAN BE MOUNTED IN A COMMON 4x4 BOX WITH COVER PLATE. COORDINATE CLEARANCES AS REQUIRED.
- 2. THE HEIGHT OF ALL SWITCHES, OUTLETS, ETC., TO MEET ACCESSIBILITY REQUIREMENTS AND/OR LOCAL CODES. WHICHEVER IS MORE STRINGENT.
- 3. SLOPE OR DISH FLOORS TO DRAIN, SLOPE NOT TO EXCEED 1:48 IN ANY DIRECTION.

SWITCHES ON LAMPS MUST BE TOGGLE TYPE, AS REQUIRED.

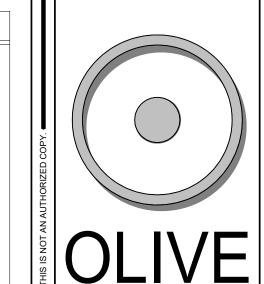
- 4. ANY LIGHT FIXTURES OVER WET AREAS TO BE DAMP LOCATION RATED W/ SHATTERPROOF LENS.
- 5. WALL MOUNTED EQUIPMENT, FIXTURES, ETC. BETWEEN 27" AND 80" A.F.F. SHALL NOT PROTRUDE FURTHER THAN 4" FROM THE WALL PER ACCESSIBILITY REQUIREMENTS.
- 6. ALL CONTROLS FOR USE BY GUESTS, MUST BE MOUNTED BETWEEN 15" AFF AND 48" AFF. ACCESSIBLE CONTROLS MUST NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST.
- 7. THE BOTTOM OF THE REFLECTIVE SURFACE OF MIRRORS IN ALL A.D.A. BATHROOMS MUST BE NO HIGHER THAN 40" A.F.F.

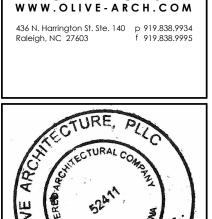


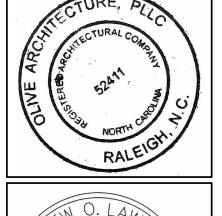


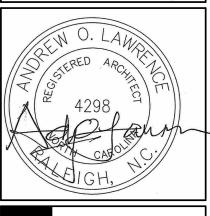


ENLARGED BATHROOMS 3/8" = 1'-0"









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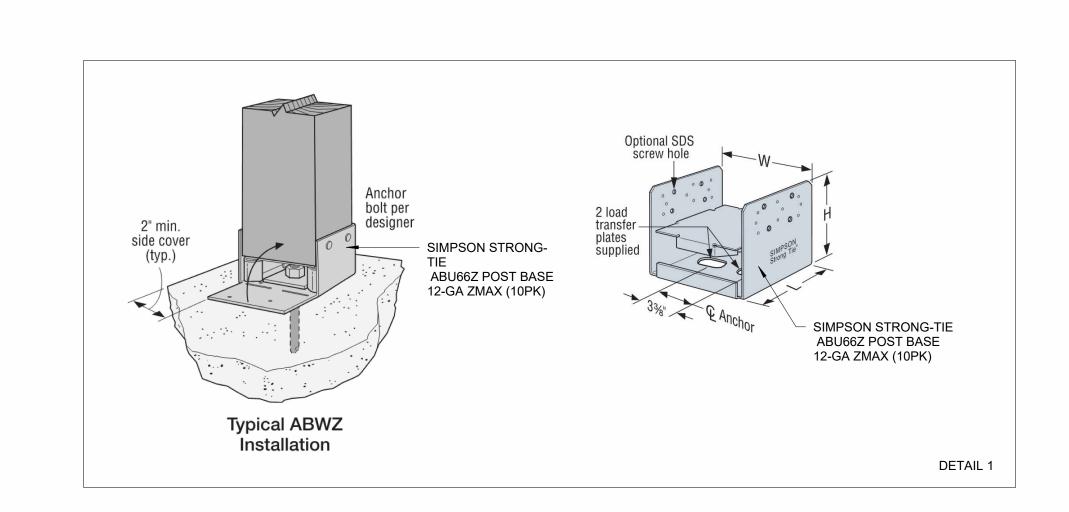
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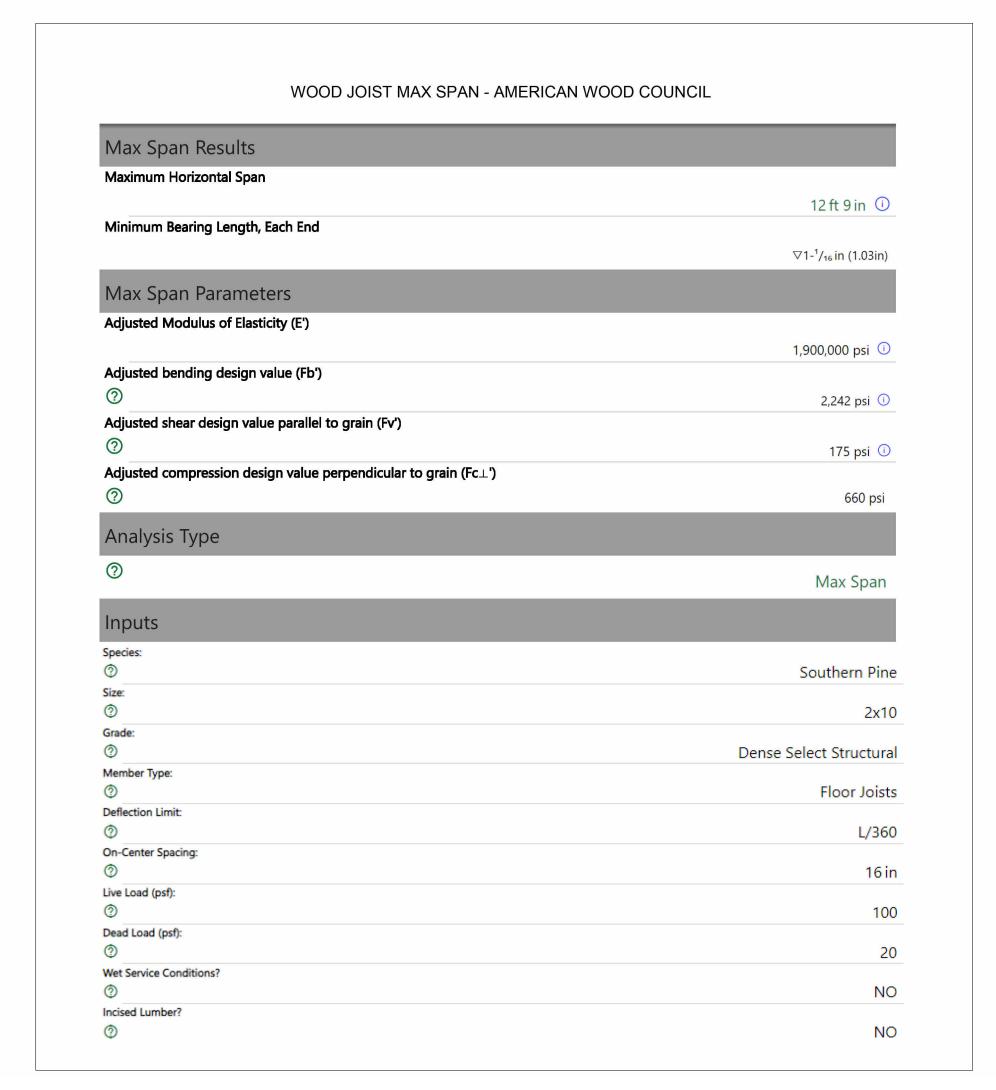
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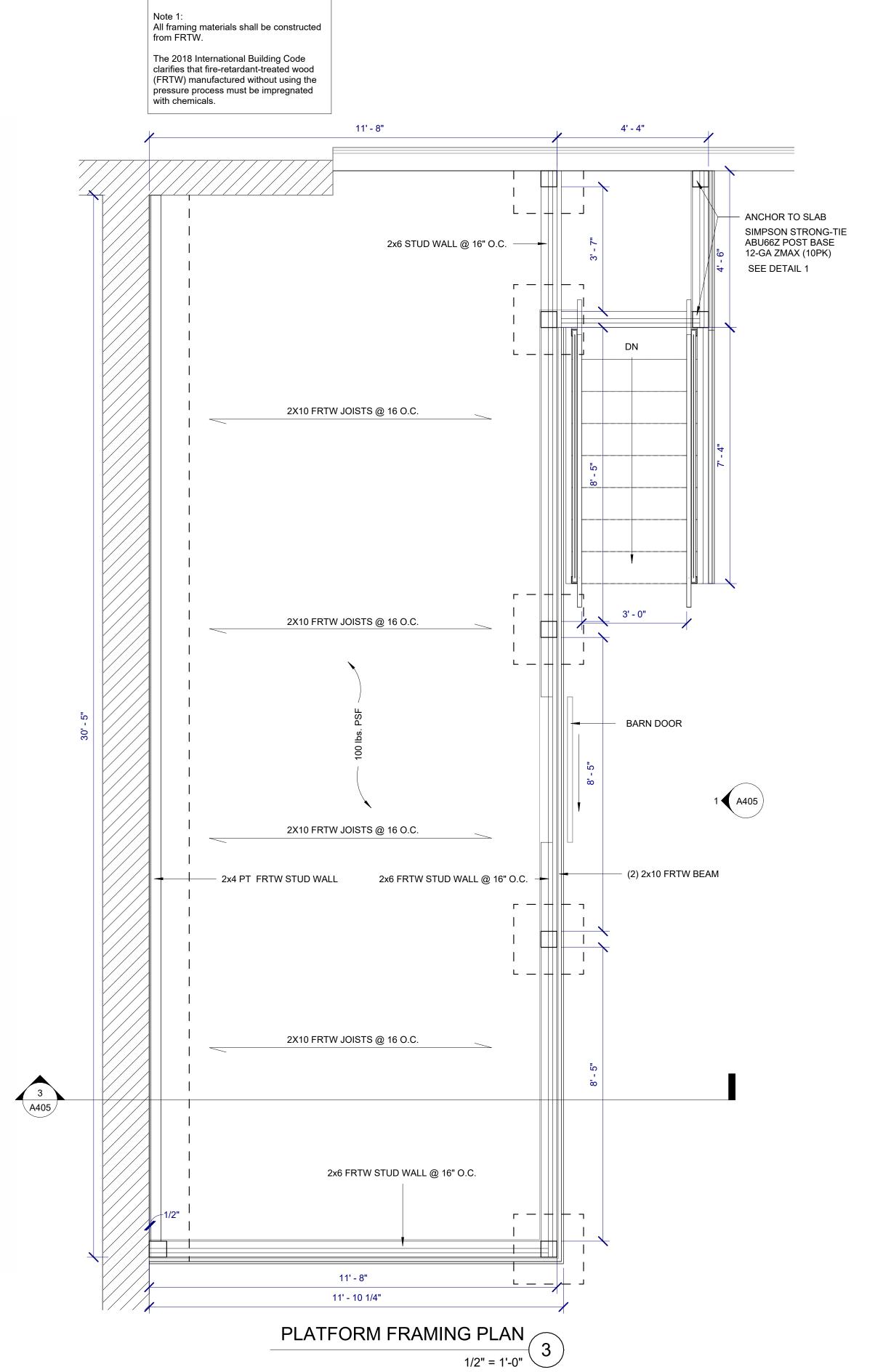
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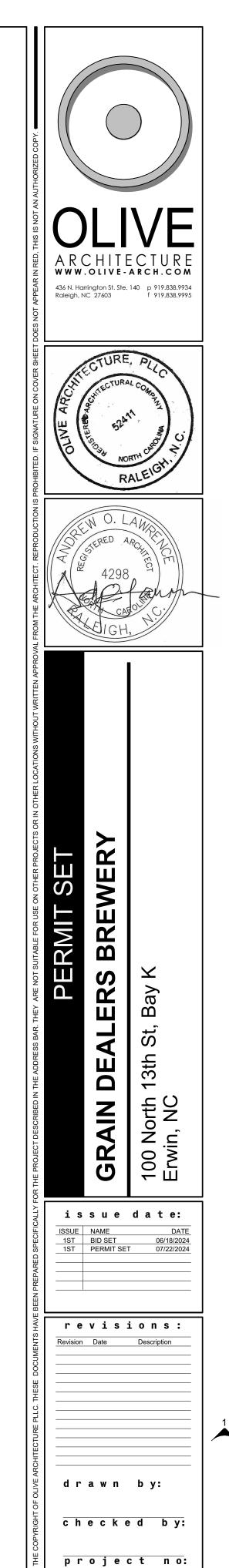
23-117

ENLARGED BATHROOM PLANS



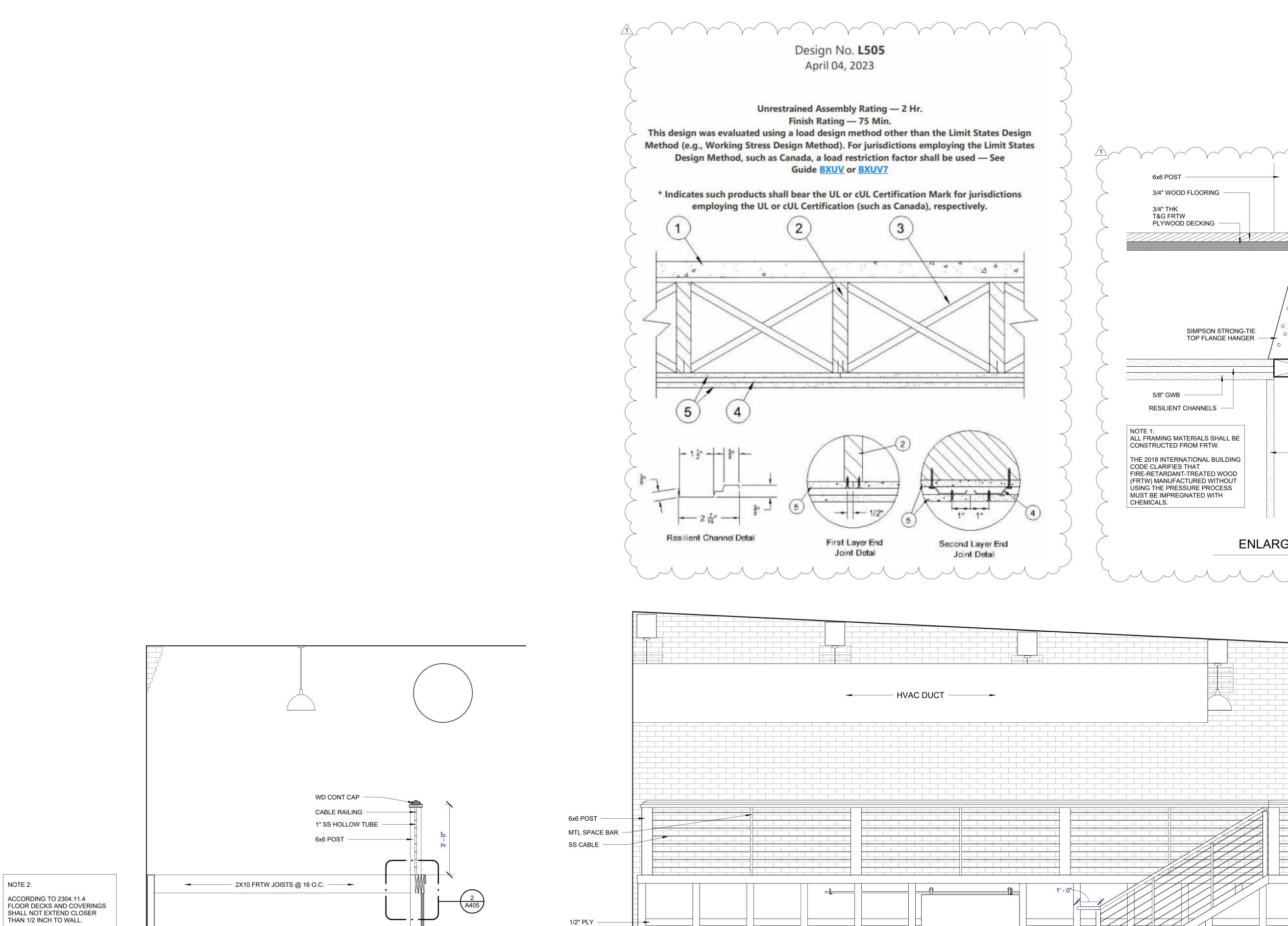






23-117

ELEVATED PLATFORM FRAMING PLAN



1/2" PLY

5/4" PT BASE

5/4" PT BASE

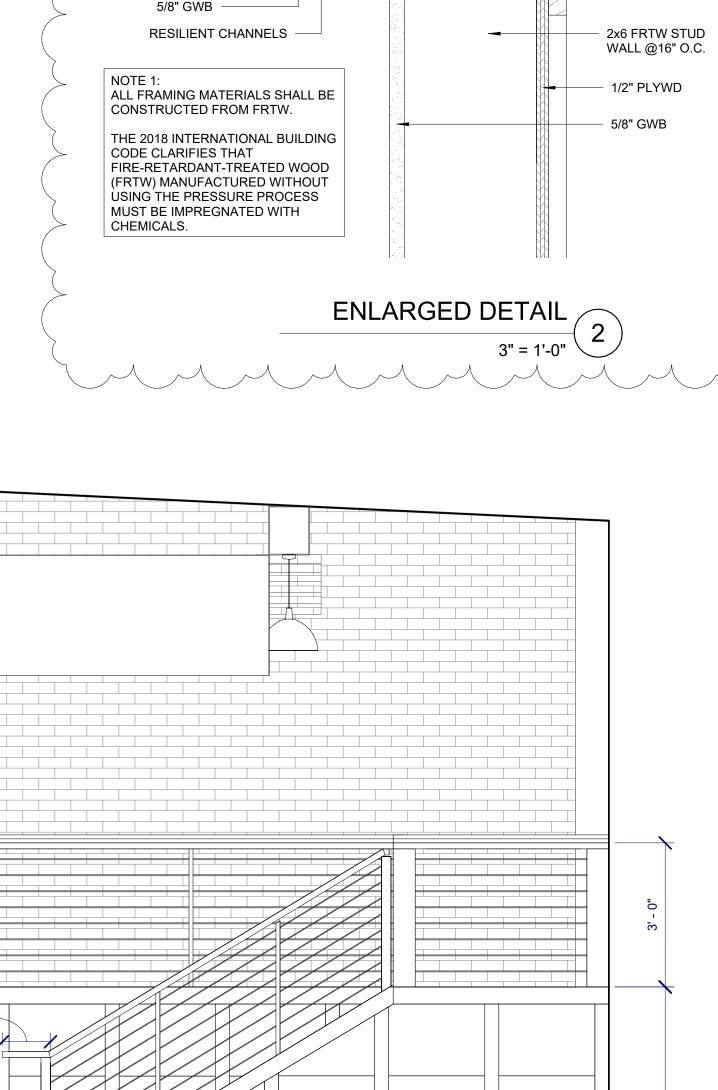
PLATFORM SECTION

1/2" = 1'-0"

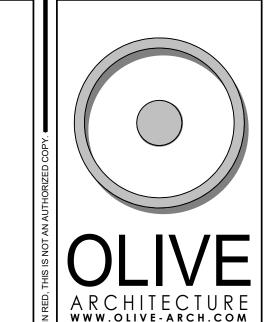
1/2" CLEAR SEE NOTE 2.

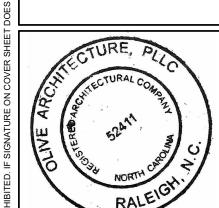
PT 2x4 FRTW STUD WALL —

FIELD VERIFY EXISTING FOOTING -





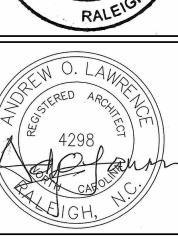




WOOD TRIM

- (3) 2x10 FRTW BEAM

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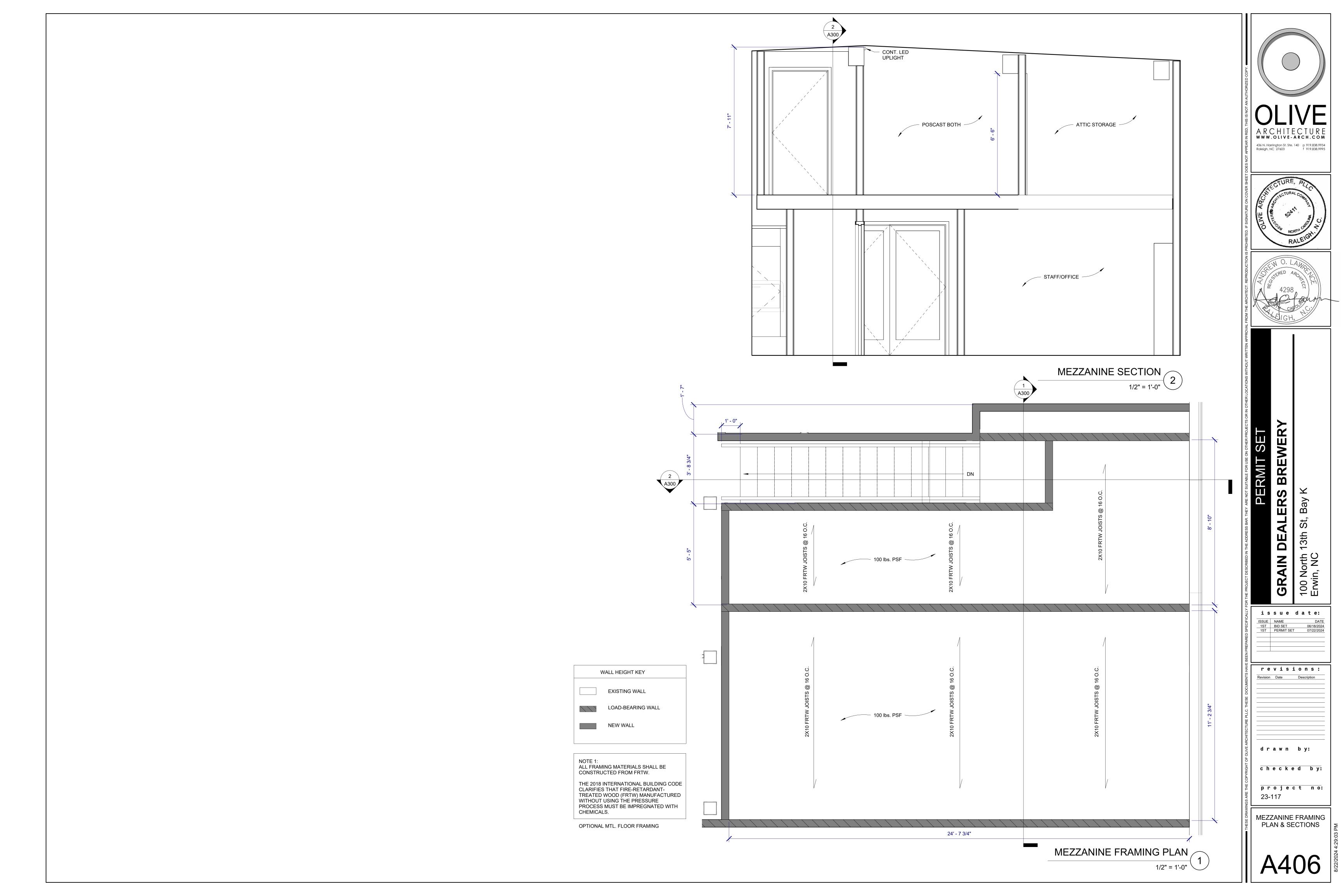
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-	BID SET	06/18/2024
	PERMIT SET	07/22/2024
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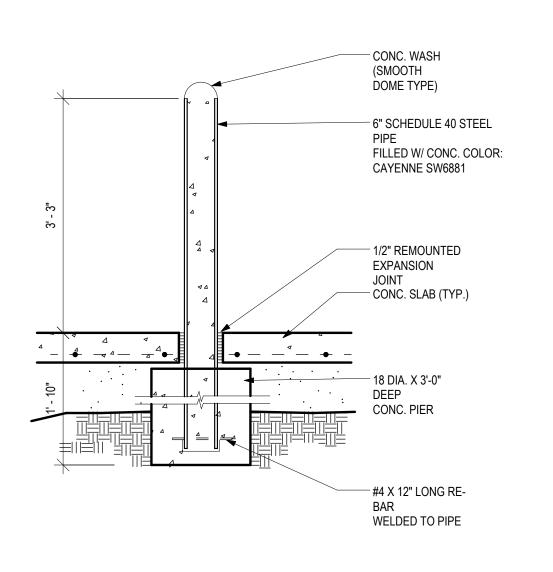
r e	V	i	s	i	0	n	s	:
vision	D	ate			De	scrip	tion	
1	8/6/	2024	1	Re	viev	<i>и</i> Со	mme	ents

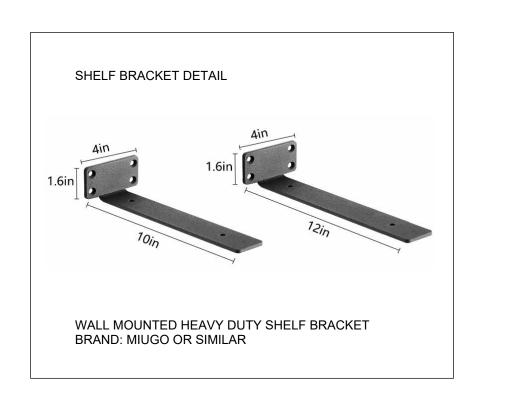
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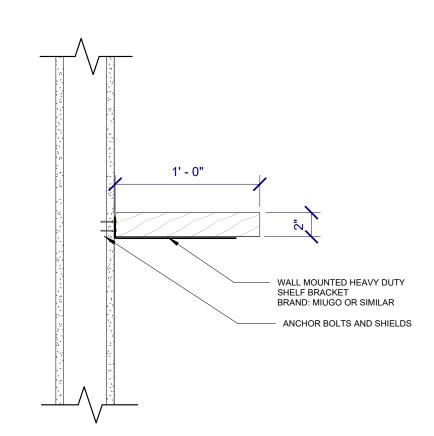
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р	r	0	j	е	С	t	n o:

ELEVATED PLATFORM SECTIONS & DETAILS





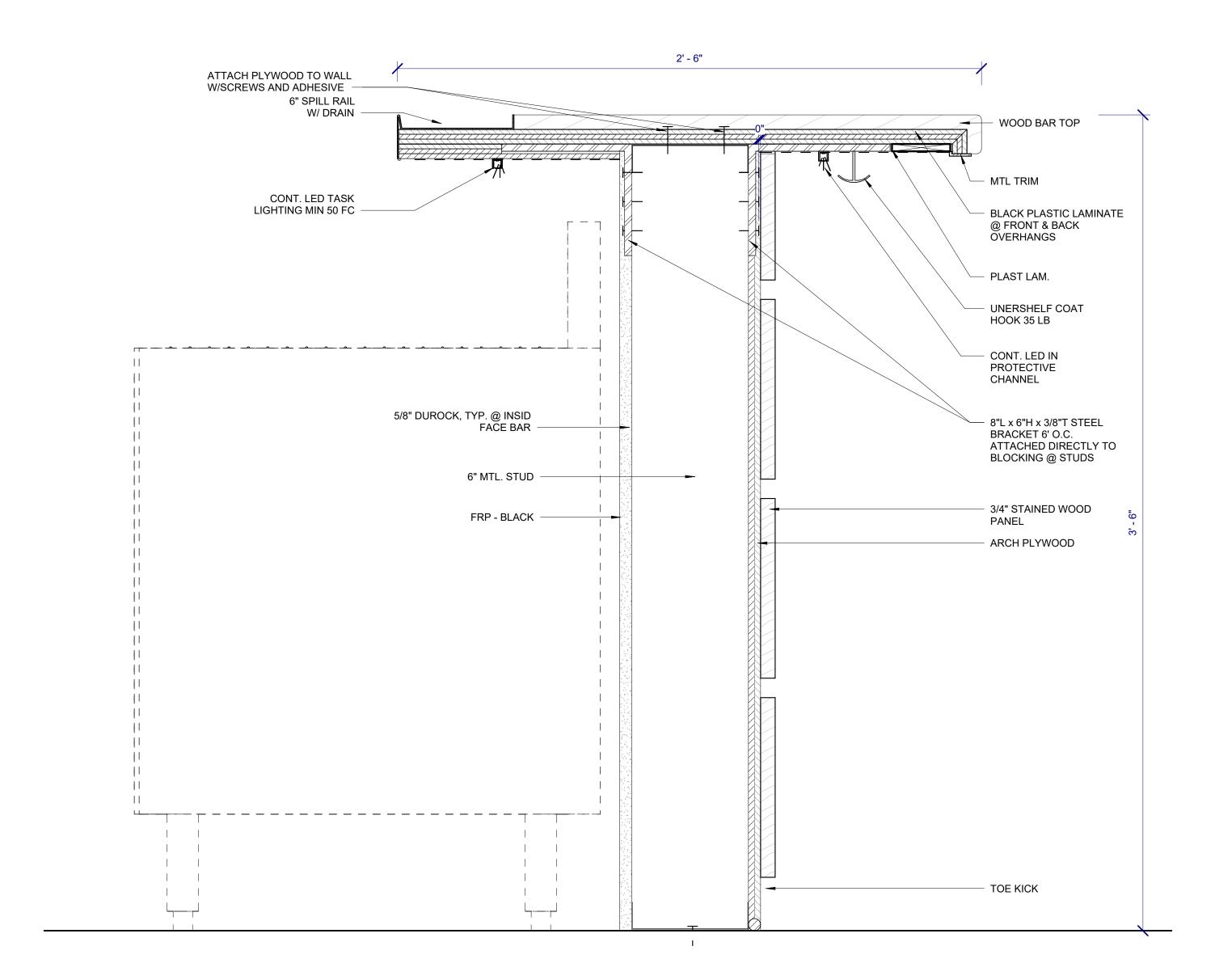




BOLLARD DETAIL

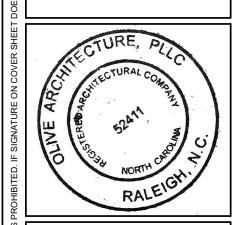
3/4" = 1'-0"

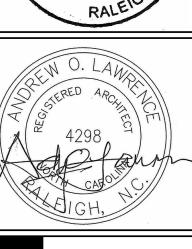










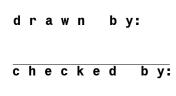


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ISSUE	NAME				DATE
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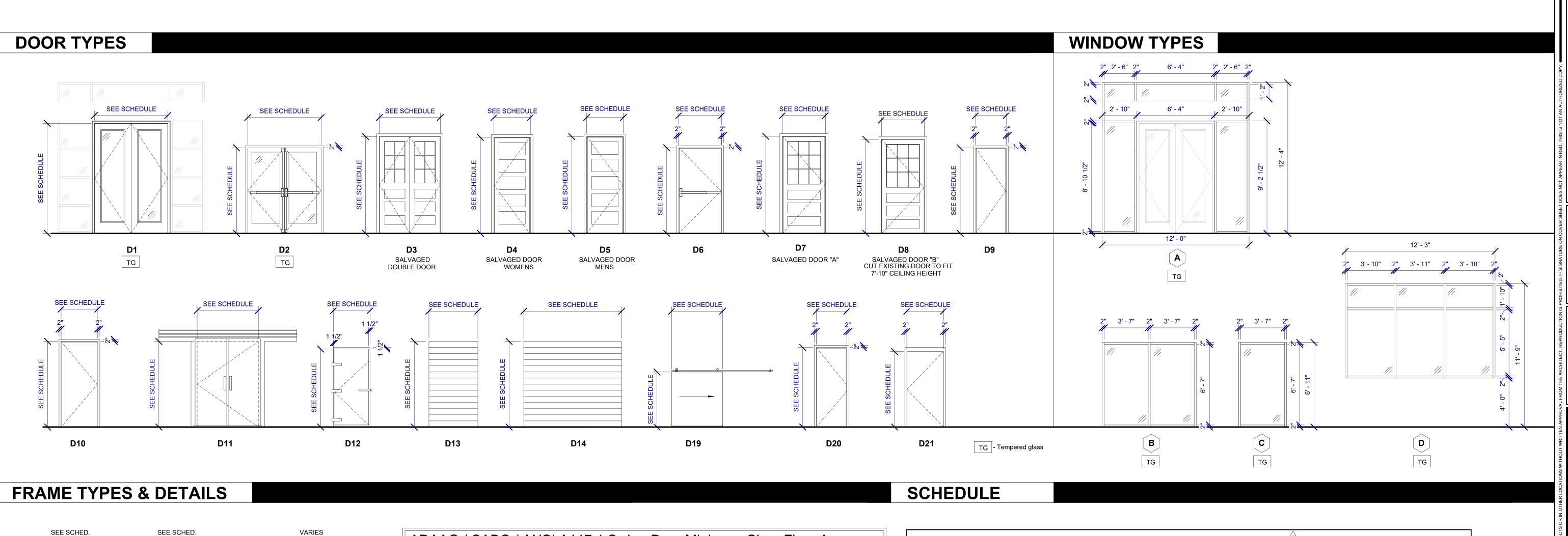
Revision	Date	Description
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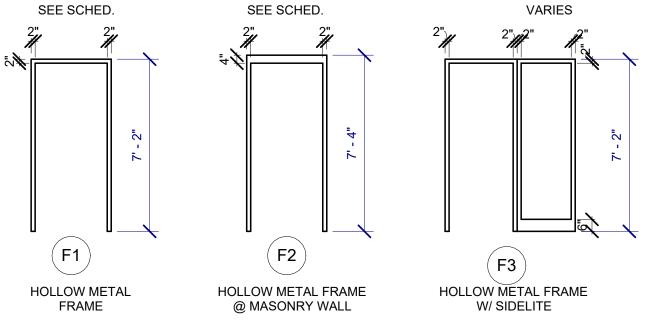


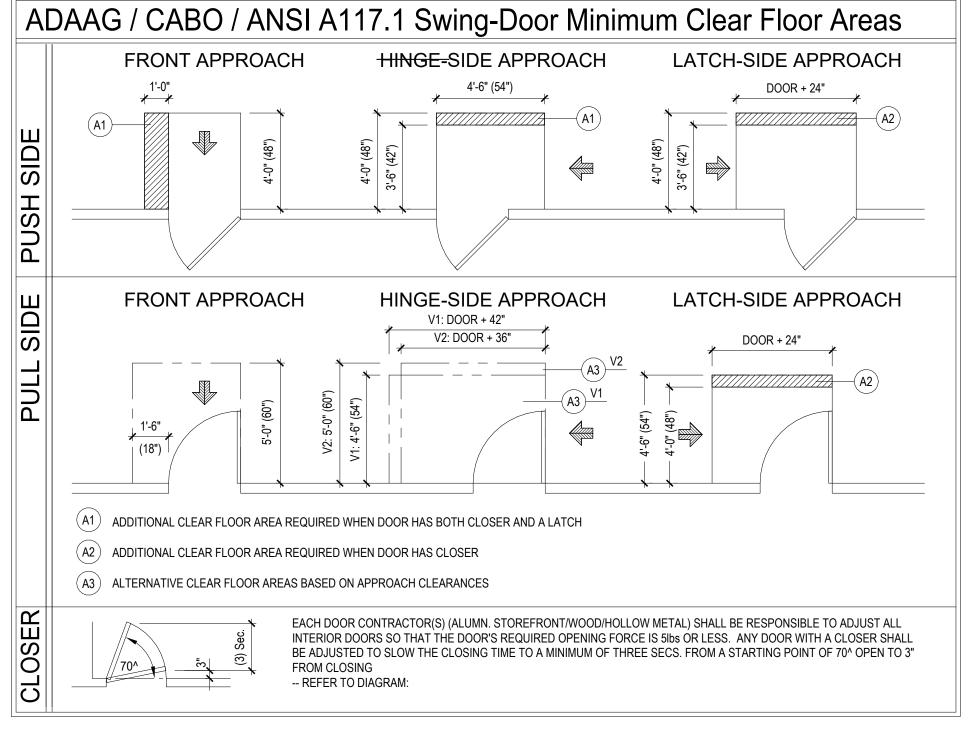
project no: 23-117

DETAILS

A500







						Door Sc	hedule	_	1	
		Туре				Door	Frame		Hardware	
Mark	To Room	Mark	Width	Height	Thk.	Material	Material	Fire Rating	Set 🗦	Comments
100	TAP ROOM	D1	6' - 0"	9' - 0"	4"	ALUM/GLASS	ALUM	60 Minutes	13, 14	SINGLE CYLINDER THUMBLATCH
100A	HALLWAY	D2	6' - 0"	7' - 0"	1 3/4"	ALUM/GLASS	ALUM		> 13, 14	SINGLE CYLINDER THUMBLATCH
100B	BREW HOUSE	D6	3' - 6"	7' - 0"	1 3/4"	HOLLOW MTL	HOLLOW MTL		13, 14	SINGLE CYLINDER THUMBLATCH
101	BOARD ROOM	D3	4' - 11 1/4"	7' - 11"	1 1/2"				9	SALVAGED DOOR
102	WOMENS	D4	2' - 11 3/4"	7' - 10 1/4"	1 1/2"				} 8, 15 _√	SALVAGED DOOR
103	MENS	D5	2' - 11 1/2"	7' - 10 3/4"	1 1/2"				8, 15	SALVAGED DOOR
104	STORAGE	D9	2' - 6"	7' - 0"	1 3/4"	SCW	HOLLOW MTL		<u> </u>	
105	KEG COOLER	D12	2' - 9 1/4"	6' - 6"	4"				BY MANIF.	
106	COLD STORAGE	D11	5' - 0"	7' - 0"	4"				BY MANIF. 🗔	
107	TAP ROOM	D7	3' - 5 1/2"	7' - 11"	1 1/2"			(9	SALVAGED DOOR
108	TAP ROOM	D8	3' - 5 3/4"	7' - 8"	1 1/2"				9	SALVAGED DOOR
109	JANITOR'S	D9	2' - 6"	7' - 0"	1 3/4"	SCW	HOLLOW MTL		<u></u>	
110	STAFF TOILET	D9	2' - 6"	7' - 0"	1 3/4"	SCW	HOLLOW MTL		<u>}</u> 8, 15 ⊰	
111	STAFF/OFFICE	D10	3' - 0"	7' - 0"	1 3/4"	SCW	HOLLOW MTL		8, 15	
112	GRAIN CRUSHER & DRY STORAGE	D13	4' - 0"	7' - 0"	3"					
113	BREW HOUSE	D14	8' - 0"	8' - 0"	3"				- 7	
115	TAP ROOM	D19	4' - 0"	4' - 2"	2"	SCW			<u>} - </u>	
201	PODCAST BOOTH	D20	3' - 0"	6' - 8"	1 3/4"	SCW	HOLLOW MTL		2, 8	
202	PODCAST BOOTH	D28	3' - 0"	6' - 2"	1 3/4"	SCW	HOLLOW MTL		1, 8	

	DOOR HARDWARE NOTES
HAF	RDWARE VENDOR TO COORDINATE WITH OWNER ONE MASTER KEY FOR ALL EXTERIOR
DO	ORS AND ONE MASTER KEY FOR ALL INTERIOR DOORS WITH OFFICE LOCKSET.
1.	LEVER W/ PASSAGE LOCKSET
2.	LEVER W/ OFFICE (KEYED) LOCKSET.
3.	LEVER W/ PRIVACY LOCKSET
4.	CLOSER W/ 90 DEGREE LIMITER
5.	SET OF DOOR SILENCERS
6.	SET OF FULL MORTISE HINGES
7.	ADA SIGNAGE, W/ BRAILLE & ADA SYMBOL
8.	FLOOR STOP
9.	EXISTING HARDWARE TO REMAIN
10.	HD OVERLAP SLIDING DOOR HARDWARE
11.	HD POCKET DOOR FRAME, TRACK & HARDWARE
12.	RECESSED MORTISED PULLS
40	DANUG HARRIMARE

14. PROVIDE SIGNAGE TO SAY "DOOR SHALL REMAIN UNLOCKED DURING BUSINESS HOURS"

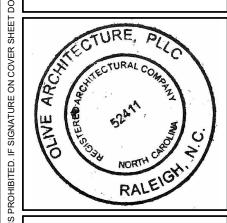
13. PANIC HARDWARE

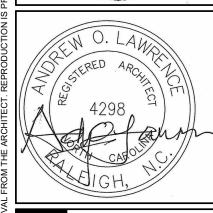
15. PUSH-PULL HARDWARE W/CLOSER }

DO	OR RATING LEGEND	
	WALL RATING	DOOR RATING
IOR	1 HR —•—•—	45 MIN
EXTERIOR	2 HR	90 MIN
EX.	3 HR	90 MIN
INTERIOR	1 HR ———————————————————————————————————	60 MIN
IN	1 HR (OTHER)	45 MIN
	1.5 HR	90 MIN
	2 HR	90 MIN

A R C H I T E C T U R E W W W . O L I V E - A R C H . C O M

436 N. Harrington St. Ste. 140 p 919.838.9934
Raleigh, NC 27603 f 919.838.9995





MIT SET

GRAIN DEALERS BRI 100 North 13th St, Bay K Erwin, NC

issue date:

| ISSUE NAME DATE | 1ST BID SET 06/18/2024 | 1ST PERMIT SET 07/22/2024 |

 r e v i s i o n s :

 Revision Date Description

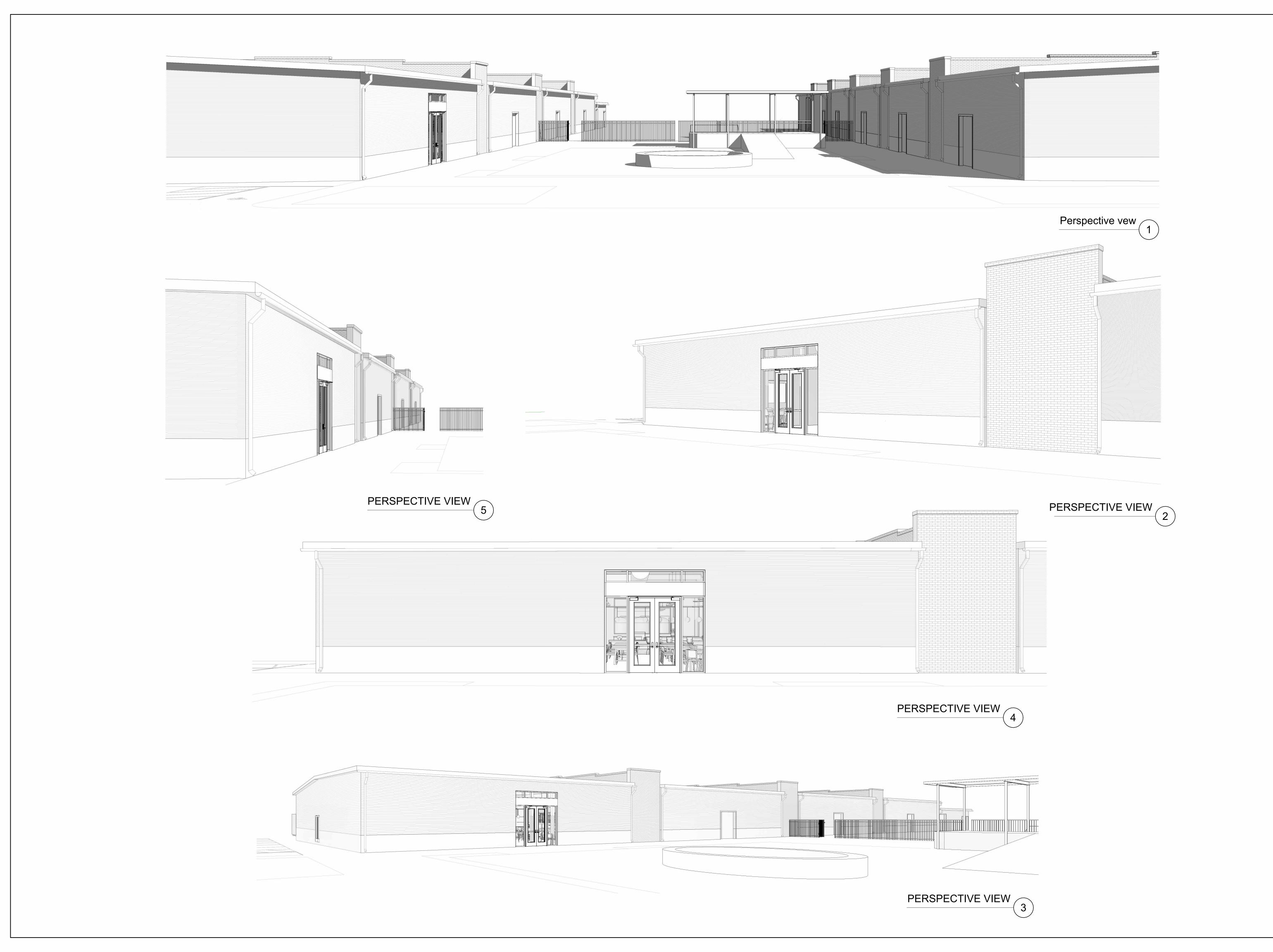
 1 8/6/2024 Review Comments

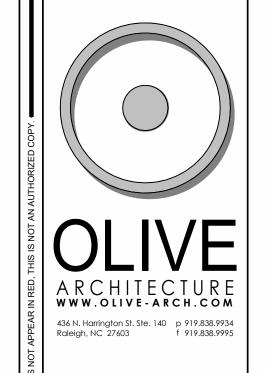
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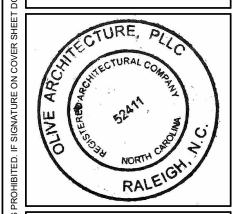
project no:

DOOR & WINDOW SCHEDULE

A C C C









GRAIN DEALERS BRE
100 North 13th St, Bay K
Erwin, NC

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s u e	date:
NAME	DATE
BID SET	06/18/2024
PERMIT SET	07/22/2024
	NAME BID SET

revisions:

drawn by: checked by:

project no: 23-117

PERSPECTIVES



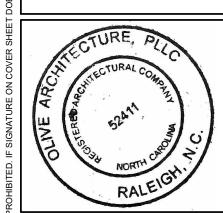


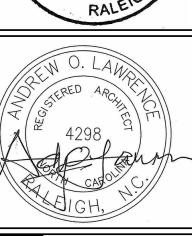


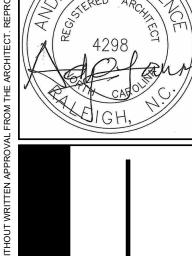












GRAIN DEALERS BRE
100 North 13th St, Bay K
Erwin, NC

issue date:
 ISSUE
 NAME
 DATE

 1ST
 BID SET
 06/18/2024

 1ST
 PERMIT SET
 07/22/2024
 revisions:

drawn by:

checked by: project no: 23-117

INTERIOR PERSPECTIVES

A901

DIVISION 15A - PLUMBING

- 1.1 DESCRIPTION OF THE WORK
- A. Work under this section includes, but is not necessarily limited to, furnishing and installing the following:
 1. Plumbing fixtures, water heaters, and any other equipment necessary.
- 2. Cold and hot water piping and insulation.
- 3. DWV piping.
- 4. Natural gas piping.
- Connection of all equipment; drain, vent, water, gas.
- B. All work under this contract shall be installed in compliance with the latest edition of the following codes and standards insofar as they apply.
- 1. The National Electrical Code.
- 2. 2018 N.C. Building Code: Plumbing, and all applicable category codes.
 3. American Society of Sanitary Engineering Standard 1010.
- 4. All local codes and ordinances.

 C. These codes are minimum standards. If codes require a more
- require, the codes shall govern.

 D. The Plumbing Contractor shall be licensed in the State of

stringent method of construction than the specifications

- North Carolina and have all local licenses required for the work.

 E. Obtain all permits, licenses, inspections, etc., required for the work,
- and pay for the same.
- A. The intent of these specifications and accompanying drawings is to convey as reasonably as possible the requirements for a complete job ready for the building to operate. The Plumbing Contractor shall take this into consideration and include in his base bid allowance for contingencies as will allow him to provide minor pieces of equipment and labor not specifically indicated but required for the job to operate properly, at no additional cost to the Owner. The PC shall determine and coordinate with existing conditions.
- 1.7 COORDINATION
- A. Coordinate work with other contractors. Notify Architect of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Architect for a decision before resuming operations.
- B. Locations shown are approximate. The Plumbing Contractor shall refer to the architectural drawings for placement of equipment, fixtures, etc. Where locations are not clear, the Contractor shall obtain the exact locations from the Architect.
- C. Coordinate all exterior piping connections w/Architect, site contractor/plans.

 Verify manhole elevations and provide backwater valves as required if flood level rims are below next upstream manhole cover elevation. Fixtures with flood level rims above upstream manhole shall not discharge thru bw valve. Notify engineer of backwater valve requirement, any issue prior to bid.
- SHOP DRAWINGS
 Shop drawings shall be submitted for plumbing fixtures and for pipe. These may consist of the manufacturer's standard catalog or tear sheets and shall have the exact items being offered clearly

PART 2 - PRODUCTS

- 2.1 FIXTURES
- A. Each fixture shall be properly supported from the building structure as required to the end effect that all fixtures and accessories will be held rigidly in place. Water pipes supplying the fixtures must also be held rigidly in place.
- B. Provide loose key angle stops and chrome plated supply pipe water supplies to fixtures.
- C. All exposed piping traps and accessories for fixtures shall be chrome plated. Provide chrome plated escutcheon plates where pipes enter walls.
- D. Provide shutoff valves for all sinks, water heaters, toilets, washing machines, refrigerator icemaker, exterior hose bibbs and all other plumbing fixtures.
- E. Provide trap primers for all floor drains in areas not served by hose bibbs.

2.2 PIPING

- A. Drain-Waste-Vent: All DWV piping shall be Schedule 40 PVC-DWV u.o.n., with the following exceptions: Use cast iron piping in all return air plenums, penetrations of rated walls/floors/ceilings, and in areas/walls adjacent to cooking equipment exhaust hoods. Review Arch. and Mech. drawings.

 ABS or cast iron piping shall be used for drainage/discharge with a
- temperature greater than 140 deg. F for a minimum distance of 10'-0".

 B. Hot and cold water piping above grade: Type "L" copper w/solder joints (ASTM-B88), hard drawn with wrought copper fittings (ANSI B16.22).

 PEX piping with copper fittings may be used with owner/tenant approval and as allowed per code. Copper piping shall be used in areas/walls adjacent to cooking equipment exhaust hoods. Review Arch. and Mech. drawings.
- C. Cold water piping below grade: Type "K" copper (ASTM-88A) soft drawn.
- D. Natural gas piping shall be black steel pipe with screwed or welded joints. Support all piping as required by code. Use commercial style hangers, pipe strapping will not be allowed. Provide dirtleg, union, shut—off valve and flexible connection to all equipment. Pressure test all piping prior to putting into use. Verify size requirements prior to installation. Coordinate requirements with local gas company prior to submitting bid. Provide all components necessary for a complete operation system. Label piping per code. Paint exterior and exposed gas lines per code and building owner.
- E. Hangers: Use pipe hangers where required on 8-foot centers with saddles to avoid crushing insulation.
- saddles to avoid crushing insulation.

 F. Solder: 95/5. Lead free.
- G. Unions: Provide unions where indicated on drawings, in long runs of piping (except drainage) and at equipment to provide convenient disassembly. Provide dielectric unions when connecting copper tubing to equipment and piping made of ferrous materials.
- 2.3 CLEANOUTS
- A. Hex plugs in rough areas: Recessed plugs with cover plates in exposed locations.
- 2.4 SHOCK ARRESTERS
- A. Provide shock arresters as required by codes, manufacturer's recommendations and accepted industry standards for qualify construction. Provide for all quick closing valves.

PART 3 - EXECUTION

- 3.1 CONNECTIONS
- A. This contract includes complete connection of cold water, hot water, drain, vent, and natural gas piping as required. All fittings, valves, accessories, cutoffs, drains, etc., required to complete such connections shall be included.
- B. The connection to water closets shall be made watertight with gasket and wax ring. Floor flanges shall be caulked into position. Plastic caps shall be provided on the tie down bolts, and shall be secured in place by screwing down on threaded brass washers.
- C. Where water pipes connect to exposed chrome plated trim, use proper chrome plated escutcheons.
- 3.2 SERVICE ACCESS
- A. All valves and accessories shall be insulated so that they can be properly serviced. In no case shall the Plumbing Contractor install equipment or other components in situations that do not meet code requirements or manufacturer's requirements.

Provide access doors as required to access valves, etc.

3.3 ROUTING OF PIPING

- A. Coordinate routing of piping with others, line up work true to or at right angle to adjacent surfaces and in a workmanlike manner. Support all interior piping from building structure by means of hanger or inserts to maintain pitch of lines, to prevent vibration, and to secure piping place.
- B. Space pipe hangers per NCSBC— Plumbing Sect. 308.5 and Fuel Gas Code Sect. 415.1.
- C. Pipe hangers for insulated lines shall have suitable saddles to protect insulation.

3.4 INSULATION

- A. All H/W and C/W piping shall be insulated with a min. of 1" inch elastomeric insulation (R-6.5 min.) in unconditioned areas. See NCSBC-Plumbing Sect. 305 for all protection requirements.

 All H/W piping of circulating systems shall be insulated with 1" insulation per Sect. C404.4 of the NCSBC 2018 Energy Conservation Code.
- B. Provide pre—fabricated insulation kits for all sink and lavatory exposed drain and supply piping.
- 3.5 INSPECTIONS AND TESTS
- A. Before being concealed, all water, soil and vent piping shall be tested to determine if they are water— and air—tight.
- B. Prior to placing into service, entire system shall be tested for leaks in strict accordance with state and local codes.
- 3.6 STERILIZATION OF PIPING
- A. Sterilize the new water piping thoroughly with a solution containing not less than 50 parts per million of available chlorine, using liquid chlorine, or sodium hydrochloride solution, introduced into the system in an approved manner. The sterilizing solution shall remain in the system in an approved manner. The sterilizing solution shall remain in the system for a period of 24 hours. After sterilization, flush the solution from the system with clean water until the residual chlorine content is not greater than 0.2 parts per million, unless otherwise directed.

3.7 SERVICE PRESSURE

A. Provide approved water—pressure reducing valve (PRV) if service pressure exceeds 80 psi to reduce pressure to 80 psi static or less and as required per NCSBC—Plumbing Sect. 604.8.

3.8 DRAINDOWN

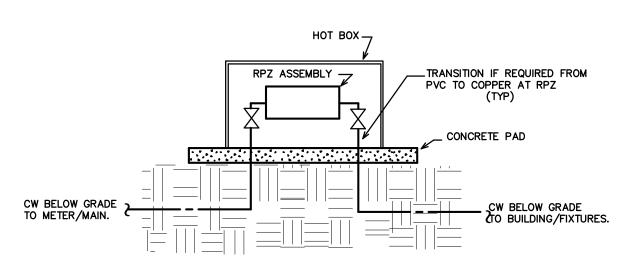
- A. Contractor to provide for complete plumbing system drain down.3.9 CLEAN UP
- A. During construction, keep the site clear of debris and upon completion, and before final inspection, clean up the premises to remove all evidence of his work. In addition, upon completion of construction, clean, wash, and/or polish all fixtures, equipment and exposed material and leave them bright and clean.

3.10 GUARAN

- A. Guarantee all materials and labor included in the plumbing work for a period of one year from date of final acceptance by the Owner.
- B. Any defects in the system which become evident during the guarantee period shall be corrected without cost to the Owner. This shall include the replacing of defective materials where required, and the repair of damage caused by leaking pipes, etc., and damage to building surfaces caused in making repairs.

GENERAL NOTES - PLUMBING

- 1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE CODE, ALL LOCAL AND OTHER APPLICABLE CODES.
- 2. ALL WORK SHALL BE PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMEN. THE PLUMBING CONTRACTOR (PC) SHALL COORDINATE ALL OF HIS WORK WITH THE GENERAL CONTRACTOR (GC).
- 3. THE PLUMBING PLANS AND SPECIFICATIONS SHALL BE THOROUGHLY REVIEWED PRIOR TO PURCHASING MATERIALS AND INSTALLATION AND ALL DISCREPANCIES OR INTERFERENCES BROUGHT TO THE ENGINEERS ATTENTION.
- 4. THESE PLANS ARE DIAGRAMMATIC AND MAY NOT SHOW MINOR DETAILS AND LOCATIONS. THE PC SHALL PROVIDE ALL MISC. ITEMS NEEDED FOR A COMPLETE SYSTEM REGARDLESS IF NOTED ON THE DRAWINGS OR NOT. REFER TO ARCHITECTURAL DRAWINGS FOR ALL FLOORPLAN LAYOUTS. DO NOT USE ENGINEERING DRAWINGS FOR ROUGH—INS.
- 5. THE GC SHALL PROVIDE ALL WALL, FLOOR AND ROOF OPENINGS OF THE SIZE AND LOCATION REQUIRED BY THE PC AND SHALL BE RESPONSIBLE FOR PAINTING AND FLOOR FINISHES. THE PC SHALL PROPERLY SEAL ALL PENETRATIONS AND PROVIDE ESCUTCHEON PLATES AT ALL FINISHED LOCATIONS
- ALL NEW WATER PIPING SHALL BE INSTALLED TIGHT TO STRUCTURE, ADEQUATELY SUPPORTED AND PROTECTED AND PROPERLY PITCHED TO ALLOW TOTAL DRAINAGE.
- 7. ALL WATER PIPING SHALL BE HYDROSTATICALLY TESTED FOR 2 HOURS AT 150 PSIG BEFORE COVERING AND ALL LEAKS CORRECTED. THE ENTIRE WATER DISTRIBUTION SYSTEM SHALL BE DISINFECTED PRIOR TO PLACING IN SERVICE.
- 8. PROVIDE MIN. 18" SHOCK ABSORBERS WITH STOPS ON ALL HOT AND COLD WATER FIXTURE RUNS AS REQUIRED BY CODE.
- 9. VENT LINES SHALL SLOPE UP TO ALL STACKS AND TERMINATE A MIN. OF 12" ABOVE ROOF LINE.
- 10. PROVIDE CUT SHEETS ON ALL PLUMBING FIXTURES FOR ARCHITECT AND OWNER APPROVAL PRIOR TO ORDERING ANY FIXTURES.
- 11. PROVIDE/VERIFY HIGH TEMPERATURE HOT WATER (HTHW) AT 140 DEGREES (MAX.) F, PROVIDE/VERIFY LOW TEMPERATURE HOT WATER (LTHW) AT 110 DEGREES (MAX.) F, VERIFY LTHW FROM ALL HAND/BAR SINK, RESTROOM LAVATORY FAUCETS. PROVIDE ASSE 1070 THERMOSTATIC MIXING VALVE (TMV) WHERE REQUIRED, AND PER CODE WHETHER OR NOT SHOWN ON PLANS.
- 12. PROVIDE CLEANOUTS AS REQUIRED BY CODE. NOT MORE THAN 100 FEET FOR 4" DRAIN.





GENERAL MOUNTING SHOWN.

VERIFY REQUIREMENTS WITH

FIXTURE SCHEDULE - PLUMBING

- CP * CIRCULATING PUMP
 - TACO MODEL 110, 115 VOLT, 1/12 HP. SECURELY SUPPORT FROM STRUCTURE. PROVIDE AQUASTAT, TIMER, CHECK VALVES AS REQUIRED.
- ET * EXPANSION TANK
- AMTROL MODEL ST-12, 4.4 GALLON, STEEL CONSTRUCTION, NON-ASME RATED.

 * FLOOR SINK #1
- WATTS PVC FLOOR SINK MODEL FS-500, 12" X 12", WITH 3" PIPE CONNECTION. VERIFY GRATE REQUIREMENTS.
- FS-2, FLOOR SINK #2, #3
 FS-3 WATTS CAST IRON FLOOR SINK W/CAST IRON GRATE, MODEL FS-733-22, 12" X 12",
- WITH 3" PIPE CONNECTION. VERIFY GRATE REQUIREMENTS.

 FS-4,*

 FLOOR SINK #4-6
 - WATTS PVC FLOOR SINK MODEL FS-500, 12" X 12", WITH 2" PIPE CONNECTION.
- FS-6 VERIFY GRATE REQUIREMENTS.
 - NATURAL GAS WATER HEATER
- GWH NATURAL GAS WATER HEATER

 AO SMITH MODEL BTX-100. DIRE
 - AO SMITH MODEL BTX-100, DIRECT VENT, 100,000 BTUH, 50 GALLON, 1" INLET AND OUTLET, 115 GPH RECOVERY AT 100 DEGREE RISE. PROVIDE PROPER EXHAUST AND INTAKE VENTS PER MANUFACTURERS RECOMMENDATION. VERIFY INSTALLATION CLEARANCES PRIOR TO ORDERING.
- S1 * BREAK ROOM SINK
 - ELKAY LR1517 SINGLE BASIN STAINLESS STEEL SINK (MODEL LRAD1517 IF ADA COMPLIANCE REQUIRED), 18 GA., SELF—RIMMING, FURNISHED WITH THREE FAUCET HOLES AND CENTER DRAIN. PROVIDE ELKAY FAUCET MODEL LK810AT08L2 WITH TWO LEVER HANDLES, CHROME PLATED BRASS P—TRAP AND SHUT—OFF VALVES. COORDINATE EXACT UNIT WITH OWNER AND GENERAL CONTRACTOR. COORDINATE SIZE WITH CABINETRY PRIOR TO ORDERING.
- S2 * WALL MOUNT HAND SINK
- EAGLE GROUP MODEL HSA-10-FAW, SINGLE BASIN, WALL MOUNT STAINLESS STEEL SINK, FURNISHED WITH GOOSENECK FAUCET W/BLADE HANDLES AND P-TRAP. PROVIDE PROPER SHUT-OFF VALVES. COORDINATE EXACT UNIT WITH OWNER AND GENERAL CONTRACTOR.
- L1 * LAVATORY (COUNTERTOP)
- KOHLER PENNINGTON SELF RIMMING COUNTERTOP LAVATORY, K-2196, WHITE COLOR, ADA COMPLIANT, PROVIDE SLOAN OPTIMA #EBF-187 BATTERY OPERATED SENSOR FAUCET. PROVIDE DRAIN WITH GRID STRAINER, P-TRAP AND SHUT-OFF VALVES.
- L2 * LAVATORY (WALL MOUNTED)
 - KOHLER CHESAPEAKE LAVATORY, K-1722, WHITE COLOR, ADA COMPLIANT. PROVIDE SLOAN OPTIMA #EBF-187 BATTERY OPERATED SENSOR FAUCET. PROVIDE DRAIN WITH GRID STRAINER, P-TRAP AND SHUT-OFF VALVES.

MS * MOP SINK BASIN WITH FAUCET

BASIN- FLORESTONE MODEL MSR-3636 MOLDED MOP RECEPTOR, 3" DRAIN SIZE.

INTEGRAL DRAIN REQUIRES MINIMUM 6" DIAMETER X 1 1/2" DEEP RECESS IN

SUBFLOOR. LEVEL AS NEEDED, USE WEDGE-LOCK SEAL PER MANUFACTURER'S

SPECIFICATIONS. USE WATER TO CHECK FOR PROPER DRAINAGE UPON ATTACHING

PROVIDE 5' HOSE W/HANGER BRACKET AND MOP HANGER.

RPZ-B* 1-1/2" REDUCED PRESSURE BACKFLOW PREVENTER (TO SERVE BREWERY EQUIPMENT)
WATTS MODEL #LF009M2QT, 1-1/2" REDUCED PRESSURE BACKFLOW PREVENTER,

FAUCET- SPEAKMAN MODEL MR-371 FAUCET WITH VACUUM BREAKER.

'LEAD FREE' CONSTRUCTION. VERIFY INSTALLATION LOCATION/CLEARANCES.

- RPZ * 2" REDUCED PRESSURE BACKFLOW PREVENTER W/HOT BOX
 - WATTS MODEL #LF009M2QT, 2" REDUCED PRESSURE BACKFLOW PREVENTER, 'LEAD FREE' CONSTRUCTION. PROVIDE WATTSBOX FIBERGLASS ENCLOSURE MODEL WB-2, WITH 90W HEAT CABLE. PROVIDE 3" POURED IN PLACE CONCRETE SLAB 2" LARGER ON EACH SIDE THAN HOT BOX. VERIFY WITH AHJ SPECIFICATIONS.

DRAIN PIPE AND PRIOR TO FINISHING WALLS. VERIFY SIZE PRIOR TO ORDERING.

- TD * TRENCH D
 - J. R. SMITH MODEL #9930 POLYPROPYLENE SLOPED TRENCH DRAIN SYSTEM, 4" OUTLET, 1 METER SECTIONS, STAINLESS STEEL GRATE 9870-450-SS OR PROVIDE 9870-447-SSADA MODEL GRATE IF ADA COMPLIANCE IS REQUIRED (VERIFY). PROVIDE REQUIRED NUMBER OF CHANNEL SECTIONS BY LENGTH NEEDED FOR EACH TRENCH DRAIN. FIELD TRIM AT SHALLOW END OF CHANNEL AS NEEDED. PROVIDE STRAINER OR SEDIMENT BASKET AT ALL LOCATIONS. INSTALL PER MFR'S SPECS. PROVIDE MITER/CUSTOM SECTIONS IF REQUIRED. VERIFY EXACT MODEL/GRATE WITH OWNER/ARCH.
 - URINAL
 KOHLER MODEL K-5016-ET, 3/4" TOP
- KOHLER MODEL K-5016-ET, 3/4" TOP SPUD, ADA COMPLIANT W/PROPER INSTALL, 0.5 GPF, 2" OUTLET DRAIN. PROVIDE SLOAN G2 #8186-0.5 BATTERY SENSOR FLUSH VALVE, 0.5 GPF. PROVIDE/VERIFY VALVE WITH OVERRIDE BUTTON.
- WC * WATER CLOSET (FLUSH TANK)
 - KOHLER HIGHLINE WATER CLOSET, K-3979, ADA COMPLIANT 1.6 GPF. PROVIDE WITH K-4731 ADA SEAT, K-7637 SUPPLY AND STOP, WAX SEAL, CLOSET BOLT KIT. PROVIDE MODEL WITH FLUSH CONTROL ON SIDE OPPOSITE GRAB BAR. KOHLER WELLWORTH #K-3978 MAY BE USED WHERE ADA COMPLIANCE MODEL NOT REQUIRED (VERIFY W/ARCH).

* OR APPROVED EQUAL. SUBMIT ALL ITEMS FOR APPROVAL BY OWNER AND ARCHITECT PRIOR TO ORDERING.
ALL OTHER PLUMBING FIXTURES SHOWN ARE PROVIDED BY THE OWNER AND INSTALLED BY THE PLUMBING CONTRACTOR. SEE PLANS FOR NUMBER AND LOCATION. COORDINATE ALL REQUIREMENTS WITH EQUIPMENT SERVED.

ARCH., COORDINATE WITH STRUCTURE/G.C. 3" PVC INTAKE AND EXHAUST VENT PIPE GOOSENECK PROVIDE CPCV FOR 1ST EXTEND VENT PIPING ABOVE 10 FT OF EXHAUST DUCT ._ ROOF AS REQUIRED TO MAINTAIN 10'-0" CLEARANCE INSTALL PER MANUFACTURER REQUIREMENTS. FROM ANY INTAKES. PROPERLY FLASH ROOF PENETRATIONS. VERIFY WITH BUILDING OWNER IF WALL OR ROOF PENETRATIONS ARE REQUIRED. PROVIDE FOR AUTOMATIC SHUT-OFF OF CIRC. PUMP VACUUM RELIEF WHEN HOT WATER SYSTEM IS NOT IN USE AS VALVE -REQUIRED PER SECT. C404.6 OF THE ENERGY CODE. PROPERLY SUPPORT FROM STRUCTURE. 4 GALLON - → H (CP) H W RETURN **EXPANSION** SUPPORT FROM STRUCTURE EXTEND VENT PIPING CONDENSATE DRAIN TO CAN WASH IF ALLOWED PER LOCAL CODE OR EXTEND TO STORM DRAIN/EXTERIOR, PROVIDE NEUTRALIZING KIT AS REQUIRED. ← T&P RELIEF VALVE PIPED GWH TO DRAIN PAN NATURAL GAS — SUPPLY WITH SHUT-OFF VALVE, DIRT LEG AND PROVIDE PLATFORM ABOVE CEILING TO SUPPORT GWH. COORDINATE WITH G.C. PROVIDE METAL DECKING SUPPORTED BY 18 GAUGE, 6" METAL STUDS AS MINIMUM. TO MOP SINK. FASTEN TWO STUDS TOGETHER BACK TO BACK (TYP) 6" O.C. TYP WATER HEATERS, PIPING, AND PIPING APPURTENANCES PROVIDED BY P.C. WATER HEATER SUPPORTS BY P.C.

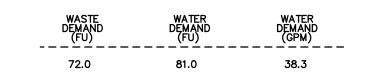
GWH DETAIL

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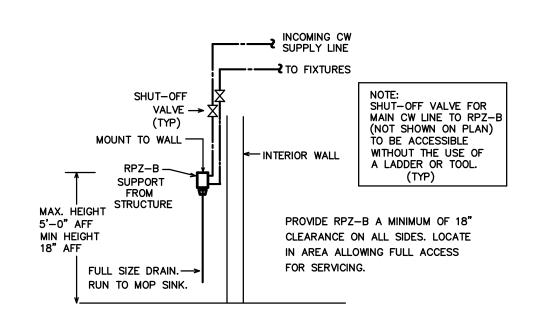
SYMBOL LEGEND - PLUMBING

SYMBOL	DESCRIPTION (U.O.N.)
	SANITARY WASTE PIPING (W)
	VENT PIPING (V)
	NATURAL GAS PIPING (G)
	COLD WATER PIPING (CW)
	HOT WATER PIPING (HW)
нтнw	HIGH TEMPERATURE HW PIPING (HTHW) 140 DEG. F
LTHW	LOW TEMPERATURE HW PIPING (LTHW) 110 DEG. F
HWR	HW RETURN PIPING (HWR)
\longrightarrow	CHECK VALVE
\longrightarrow	BALANCING VALVE
	CIRCULATION PUMP
───	SHUT-OFF VALVE
+ +	DIELECTRIC UNION
O COFF	CLEANOUT FINISH FLOOR
₹ wco/нco	WALL/HORIZONTAL CLEANOUT
COFG	CLEANOUT FINISH GRADE—PROVIDE FLUSH CONCRETE COLLAR AND BRONZE COVER
*	VENT THRU ROOF (VTR)
A.F.F.	ABOVE FINISHED FLOOR
A.A.V.	AIR ADMITTANCE VALVE
U.O.N.	UNLESS OTHERWISE NOTED

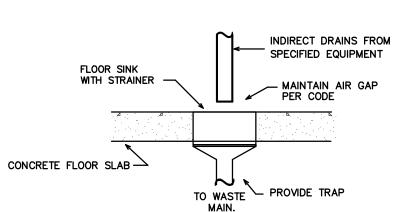
LOAD SUMMARY - PLUMBING



WATER HEATER SIZING					
AMOUNT	ITEM	GPH			
1	2 COMP BAR SINK	29.1			
1	3 COMP BAR SINK	43.6			
3	HAND/BAR SINK	15.0			
5	LAVATORY	25.0			
1	CAN WASH	5.0			
	TOTA 117.7 X 0.9	L 117.7 GPH 0 = 105.9 GPH			



2 RPZ-B MOUNTING DETAIL
SCALE: NOT TO SCALE

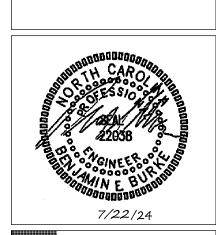


3 FLOOR SINK DETAIL
SCALE: NOT TO SCALE

BURIKE DESIGN GROUP, Paconsultring engineers

3305-109 Durham Drive
Raleigh, North Carolina 27603
919.771.1916 fax: 919.779.0826
email: ben@bdg-nc.com
Corp. License # C-2652





S BREWERY

issuedate:

ISSUE NAME DATE

1ST PERMIT SET 7/22/2024

revisions:

Revision Date Description

drawn by:

MRH

checked by:

BEB

project no:

23-117

PLUMBING SPECIFICATIONS

P1

126

ITEM QUAN

B13 1 BEER TAPS

B16 - NOT USED

B14 1 ICE MACHINE W/BIN

B15 1 BEVERAGE DISPENSER

PROVIDE BACKFLOW PREVENTER PER NOSBO-PLUMBING SECT. 608.3 (EX: ASSE 1024 (WATTS SERIES 7 OR EQUAL), ASSE 1022 (WATTS SERIES SD-3 OR EQUAL), ETC.), WHERE REQUIRED IF NOT AN INTEGRAL PART OF THE EQUIPMENT. THE EXISTING INFORMATION SHOWN ON THIS SHEET IS FROM FIELD INVESTIGATION. THE CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE AND FIELD VERIFYING ALL RELEVANT INFORMATION. THE SUBMISSION OF ANY DISCRETANCIES ACCEPTANCE OF EXISTING CONDITIONS. NOTIFY THE ENGINEER

REMOVE AND REPLACE ALL CONCRETE, ASPHALT, WALL MATERIAL, CEILINGS, ETC., AS REQUIRED TO LOCATE EXISTING LINES AND INSTALL NEW LINES.

IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO LOCATE ANY AND ALL EXISTING BUILDING SYSTEMS IN CONCRETE, FLOORS, WALLS, CEILINGS, ETC., PRIOR TO START OF WORK, THAT MAY BE ENCOUNTERED DURING CONSTRUCTION TO DETERMINE METHODS REQUIRED TO AVOID AND/OR MAINTAIN EXISTING SYSTEMS OPERATION. COORDINATE WITH BLDG. OWNER, ARCH., G.C. THE PLUMBING CONTRACTOR SHALL LOCATE, TRACE, AND INSPECT FOR PROPER DRAINAGE AND CONDITION, ANY/ALL EXISTING BUILDING DRAINAGE LINES AND SYSTEMS (SANITARY, GREASE, ETC.) THAT ARE TO BE UTILIZED BY THE OCCUPANT/NEW CONNECTIONS PER DESIGN DRAWINGS THROUGH USE OF CAMERA, DYES, AND/OR ANY MEANS NECESSARY— PRIOR TO THE START OF WORK. THE CONTRACTOR SHALL REMEDY ANY ISSUES IN ORDER TO ENSURE A PROPER FUNCTIONING, CODE COMPLIANT SYSTEM, WHICH INCLUDES BUT IS NOT LIMITED TO, JETTING OF LINES, REMOVAL OF DEBRIS, REPLACEMENT OF ANY IMPROPER OR DAMAGED PIPING. VERIFY AVAILABLE DEPTH/INVERT REQUIREMENTS, FLOW DIRECTION OF EXISTING LINES, PROVIDE DOCUMENTATION TO THE ENGINEER FOR REVIEW. THE EXISTING AND NEW DRAINAGE SYSTEMS/CONNECTIONS SHALL BE TESTED FOR PROPER OPERATION UPON COMPLETION OF WORK. ALL ISSUES AND SOLUTION OPTIONS ARE TO BE COORDINATED WITH THE DRAINAGE SYSTEM/BUILDING OWNER, G.C., ARCHITECT, AND ENGINEER. PROVIDE AS—BUILT DRAWINGS FOR ENGINEER REVIEW.

COORDINATE WORK WITH BUILDING OWNER SO AS NOT TO IMPACT OPERATION OF ANY ADJACENT SPACES/LEVELS. NIGHT AND WEEKEND WORK MAY BE REQUIRED.

KEY NOTES FOR SHEET P200

1 CONNECT TO EXISTING 4" (MIN.) SANITARY WASTE MAIN IN AREA. VERIFY LOCATION.

PROVIDE CAST IRON MODEL FS-2/3 AND CAST IRON OR ABS PIPING FOR MINIMUM 10'-0" IF WAREWASHER DISCHARGE TEMPERATURE IS TO BE ABOVE 140 DEG. (F). VERIFY WITH OWNER/EQUIPMENT.

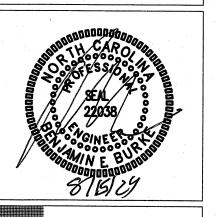
NOTE:
DWV PIPING SHALL NOT BE UNNECESSARILY
EXPOSED. EXPOSED LINES SHALL BE INSTALLED
SO THEY DO NOT OBSTRUCT OR PREVENT
CLEANING OF THE FLOORS, WALLS, OR CEILINGS.
EXPOSED HORIZONTAL LINES MAY NOT BE
INSTALLED ON THE FLOOR. PROVIDE ANY STAND— OFFS AS REQUIRED PER HEALTH DEPARTMENT.
RUN LINES TIGHT AND CONCEALED UNDER BAR/
EQUIPMENT, OR IN HALF WALL AS REQUIRED.
COORDINATE EXPOSED DWV LINES W/TENANT. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS. PROVIDE AIR INTAKE VENT/WALL GRILLE FOR AAV'S WHERE REQUIRED.

COORDINATE EXACT LOCATIONS OF FLOOR SINKS WITH TENANT/EQUIPMENT SERVED PRIOR TO ROUGH-IN. MINIMUM CLEARANCES FOR ALL EXPOSED INDIRECT DRAIN LINES ARE 4" A.F.F., 1" FROM WALL, 1" FROM OTHERS. ALL INDIRECT WASTE PIPING FROM EQUIPMENT EXCEEDING 30" IN DEVELOPED LENGTH HORIZONTALLY, OR 54" IN TOTAL DEVELOPED LENGTH, SHALL BE TRAPPED. PROVIDE DRAIN PIPING FOR SO THAT EACH WELL OF A MULTI— COMPARTMENT SINK DISCHARGES INDEPENDENTLY TO A WASTE RECEPTOR PER NCSBC-PLUMBING SECT. 802.1.1.

INDIRECT CONNECTION	SCHEDULE *
FLOOR SINK #1 (FS-1)	SIZE
(B1) SPILL RAIL (B5) HAND SINK (B6) 3 COMP. SINK ** (B7) ICE BIN	1/2" 1-1/2" 1-1/2" 1"
FLOOR SINK #2 (FS-2) (B2) GLASS RACK (QTY. OF 2) (B9) WAREWASHER	SIZE 1/2" 3/4"
FLOOR SINK #3 (FS-3) (B2) GLASS RACK (QTY. OF 2) (B9) WAREWASHER	SIZE 1/2" 3/4"
FLOOR SINK #4 (FS-4) (B1) SPILL RAIL (B3) 2 COMP. SINK ** (B5) HAND SINK	SIZE 1/2" 1-1/2" 1-1/2"
FLOOR SINK #5 (FS-5) (B14) ICE MACHINE (B15) BEVERAGE DISPENSER	SIZE 1" 1"
FLOOR SINK #6 (FS-6) (B12) DRIP TRAY	SIZE 1/4"
(MS) MOP SINK GWH RPZ	SIZE 1" 1"

* VERIFY ALL EQUIPMENT REQUIREMENTS

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WER BRE GRAIN DEALER

issue date: ISSUE NAME

1ST PERMIT SET

revisions: Revision Date Description AHJ COMMENTS 7/22/24

2 8/15/24 AHJ COMMENTS

drawn by:

checked by: project no: 23-117

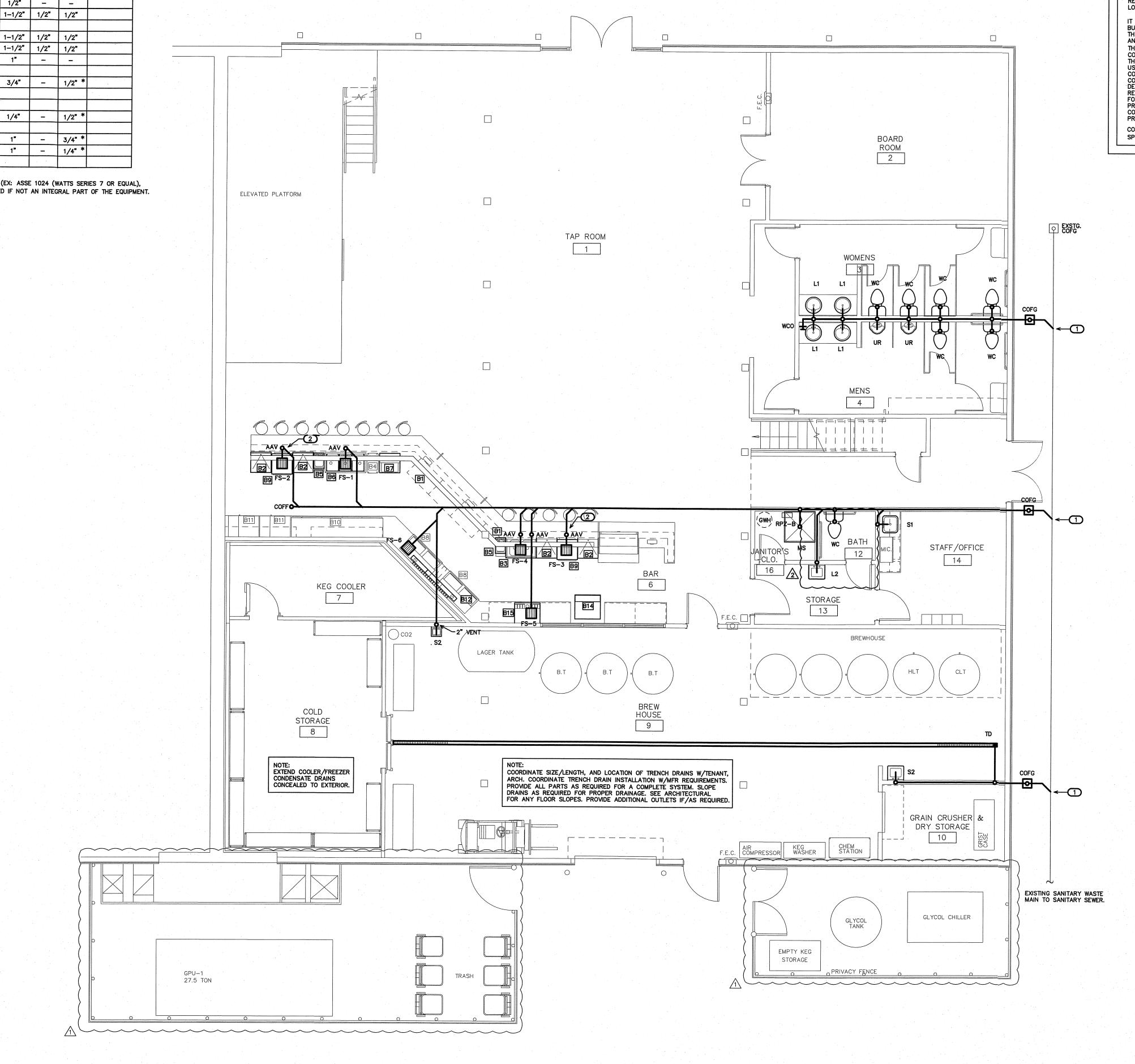
> DWV PLAN

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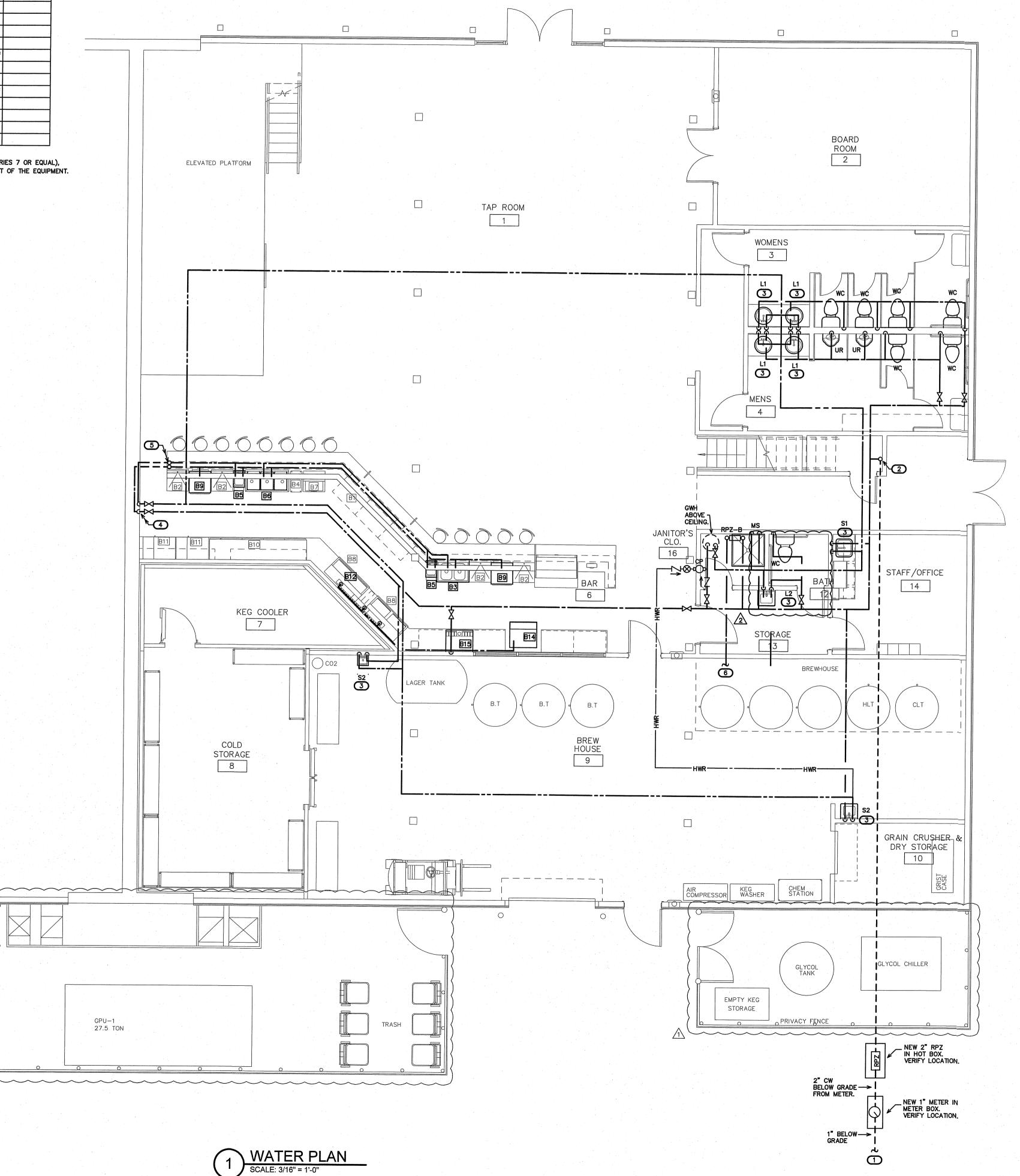
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PRIOR TO ROUGH-IN. PROVIDE SEPARATE DRAIN FROM EACH WELL BASIN OF MULTI-COMP SINK.

		(VERIFY ALL EQUIPMENT REQUIREMEN	ITS PRIOR TO	ROUGH	I-IN)	
		EQUIPMENT SCH	HEDULE	-		
ITEM	QUAN	DESCRIPTION:	UTILI	UTILITY CONNECTIONS		
1121	QOAIL	DESCRIPTION	WASTE	HW	CW	GAS (BTUH)
B1	2	SPILL RAIL	1/2"	_	- -	
B2	4	GLASS RACK	1/2"	_		
B3	1	TWO COMPARTMENT SHAR	1-1/2"	1/2"	1/2"	
В4	2	TRASH CAN				
B5	2	HAND SINK	1-1/2"	1/2"	1/2"	
В6	1	3 COMPARTMENT SINK	1-1/2"	1/2"	1/2"	
B7	1	ICE BIN	1"	_	_	
B8	2	GLASS FROSTER				
В9	2	WAREWASHER (HI-TEMP)	3/4"	_	1/2" *	
B10	1	BOTTLE REFRIGE				
B11	2	BACK BAR REFE				
B12	LOT	DRIP TRAY	1/4"	_	1/2" *	
B13	1	BEER TAPS				.,
B14	1	ICE MACHINE W/BIN	1"	-	3/4" *	
B15	1	BEVERAGE DISPENSER	1"		1/4" *	
B16	_	NOT USED			·	

PROVIDE BACKFLOW PREVENTER PER NOSBO-PLUMBING SECT. 608.3 (EX: ASSE 1024 (WATTS SERIES 7 OR EQUAL), ASSE 1022 (WATTS SERIES SD-3 OR EQUAL), ETC.), WHERE REQUIRED IF NOT AN INTEGRAL PART OF THE EQUIPMENT.



NOTE:
THE EXISTING INFORMATION SHOWN ON THIS SHEET IS FROM FIELD INVESTIGATION. THE CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE AND FIELD VERIFYING ALL RELEVANT INFORMATION. THE SUBMISSION OF A BID INDICATES ACCEPTANCE OF EXISTING CONDITIONS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES NOTED.

REMOVE AND REPLACE ALL CONCRETE, ASPHALT, WALL MATERIAL, CEILINGS, ETC., AS REQUIRED TO LOCATE EXISTING LINES AND INSTALL NEW LINES.

IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO LOCATE ANY AND ALL EXISTING BUILDING SYSTEMS IN CONCRETE, FLOORS, WALLS, CEILINGS, ETC., PRIOR TO START OF WORK, THAT MAY BE ENCOUNTERED DURING CONSTRUCTION TO DETERMINE METHODS REQUIRED TO AVOID AND/OR MAINTAIN EXISTING SYSTEMS OPERATION. COORDINATE WITH BLDG. OWNER, ARCH., G.C. PROVIDE AS-BUILT DRAWINGS FOR ENGINEER REVIEW.

COORDINATE WORK WITH BUILDING OWNER SO AS NOT TO IMPACT OPERATION OF ANY ADJACENT SPACES/LEVELS. NIGHT AND WEEKEND WORK MAY BE REQUIRED.

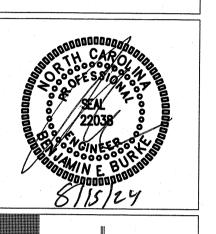
KEY NOTES FOR SHEET P300

PROVIDE NEW TENANT INCOMING 1" CW SERVICE LINE, BELOW GRADE, TO TAP SUPPLY MAIN. VERIFY LOCATION/COORDINATE W/SITE AND AHJ SPECIFICATIONS.

- RISE CW FROM BELOW GRADE TO MAIN SHUT-OFF VALVE A.F.F., RISE TO RUN CW MAIN ABOVE CEILING. VERIFY LOCATION, RISE IN WALL W/ACCESS DOOR IF REQUIRED.
- 3 PROVIDE TMV AT SINK/LAV FOR CW AND/ OR 110 DEG. F (MAX) LTHW TO FAUCET. LOCATE TMV (NOT SHOWN) IN A PROPER MAINTENANCE ACCESSIBLE AREA BELOW FIXTURE, OR AS REQUIRED.
- DROP WATER LINES TO RUN BELOW FLOOR TO BAR FIXTURES. VERIFY LOCATION.
- 5 RISE TO RUN CW/HW LINES CONCEALED IN BAR TO BAR FIXTURES. VERIFY LOCATION. PROVIDE TMV PER KEY NOTE #3 TO (B5) BAR HAND SINKS AS REQUIRED.
- 6 EXTEND CW TO BREWERY EQUIPMENT/ SYSTEMS AS REQUIRED. COORDINATE WITH SUPPLIER/EQUIPMENT. VERIFY ALL OPERATING PARAMETERS, PROVIDE ALL COMPONENTS AS REQUIRED PER SYSTEM SPECIFICATIONS.

ALL WATER LINES, RISE/DROP LOCATIONS SHOWN FOR CLARITY. VERIFY ROUTING OF ALL LINES— AVOID WINDOWS, ETC. COORDINATE WITH ARCHITECT, OWNER, G.C., EXISTING STRUCTURE, ETC. (TYP FOR NEW LINES)

NOTE:
WATER LINES MAY NOT BE UNNECESSARILY
EXPOSED. EXPOSED LINES SHALL BE INSTALLED
SO THEY DO NOT OBSTRUCT OR PREVENT THE
CLEANING OF THE FLOORS, WALLS, OR CEILINGS.
EXPOSED HORIZONTAL LINES MAY NOT BE
INSTALLED ON THE FLOOR. PROVIDE ANY STAND— OFFS AS REQUIRED PER HEALTH DEPARTMENT. RUN LINES TIGHT AND CONCEALED UNDER BAR/ EQUIPMENT, OR IN HALF WALL AS REQUIRED. VERIFY ROUTING OF NEW LINES W/TENANT, ARCH.
ALL LINES, VALVES, CP, ETC., ARE SHOWN FOR CLARITY. VERIFY LOCATIONS OF ALL COMPONENTS. ARCHITECTURE www.olive.arch.com 436 N. Harrington St. Ste. 140 p 919,838,9934 Raleigh, NC 27603 f 919,838,9995



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issue date:

revisions: Revision Date Description AHJ COMMENTS 7/22/24

2 8/15/24 AHJ COMMENTS

drawn by: checked by:

BEB project no: 23-117

WATER PLAN

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		EQUIPMENT SCHE	EDULE				
		DESCRIPTION	UTILITY CONNECTIONS				
EM	QUAN	DESCRIPTION		HW	cw	GAS (BTUH)	
31	2	SPILL RAIL	1/2"				
32	4	GLASS RACK	1/2"	-	-		
33	1	TWO COMPARTMENT SINK	1-1/2"	1/2"	1/2"		
34	2	TRASH CAN			Ė		
35	2	HAND SINK	1-1/2"	1/2"	1/2"		
6	1	3 COMPARTMENT SINK	1-1/2"	1/2"	1/2"		
37	1	ICE BIN	1"	_			
8	2	GLASS FROSTER					
9	2	WAREWASHER (HI-TEMP)	3/4"	_	1/2" *		
O.	1	BOTTLE REFRIGERATOR					
11	2	BACK BAR REFRIGERATOR					
12	LOT	DRIP TRAY	1/4"	_	1/2" *		
13	1	BEER TAPS					
14	1	ICE MACHINE W/BIN	1"	_	3/4" *		
15	1	BEVERAGE DISPENSER	1"	_	1/4" *		
16	_	NOT USED					

PROVIDE BACKFLOW PREVENTER PER NCSBC-PLUMBING SECT. 608.3 (EX: ASSE 1024 (WATTS SERIES 7 OR EQUAL), ASSE 1022 (WATTS SERIES SD-3 OR EQUAL), ETC.), WHERE REQUIRED IF NOT AN INTEGRAL PART OF THE EQUIPMENT.

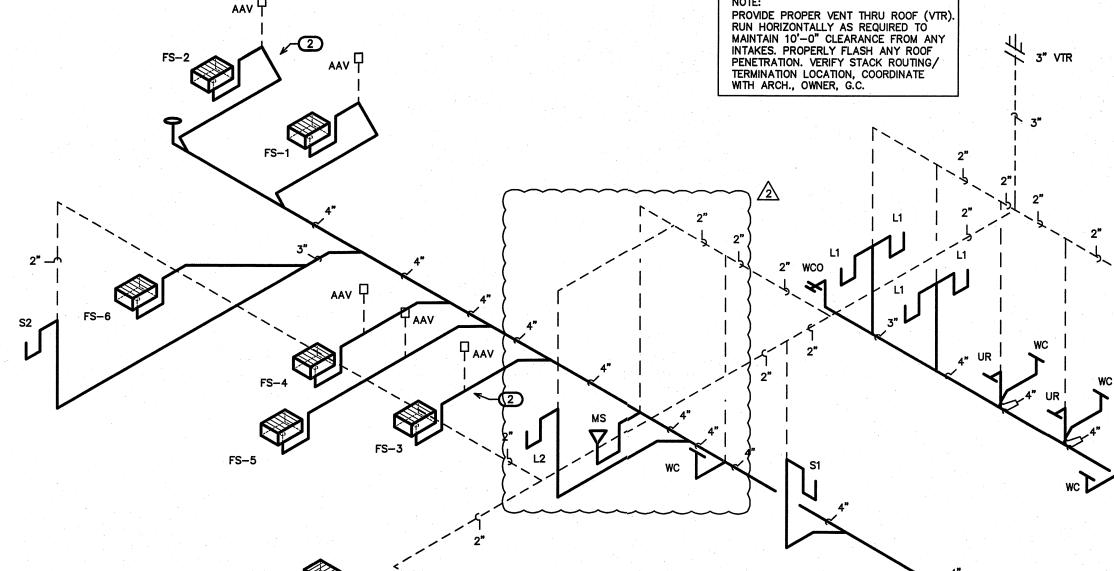
DWV/WATER RISER NOTES: REPRESENTATIVE SIZES ARE GIVEN FOR EACH TYPE OF FIXTURE. SEE EQUIPMENT OR PIPE SIZING SCHEDULE. MINIMUM 2" DRAIN LINE SIZE UNDER SLAB. MAINTAIN PIPE SIZES SHOWN UNTIL LARGER SIZE IS REACHED. PIPE SIZES ARE MINIMUMS FOR INDIVIDUAL FIXTURES U.O.N.

(VERIFY ALL EQUIPMENT REQUIREMENTS PRIOR TO ROUGH-IN)

PIPE SIZING SCHEDULE				
FIXTURE TYPE	DRAIN	VENT	CW	HW
(FS-1 THRU 3) FLOOR SINK #1-3	3"	1-1/2"	-	_
(FS-4 THRU 6) FLOOR SINK #4-6	2"	1-1/4"	_	-
(L1) LAVATORY (COUNTER TOP)	1-1/2"	1-1/4"	1/2"	1/2"
(L2) LAVATORY (WALL MOUNT)	1-1/2"	1-1/4"	1/2"	1/2"
(MS) MOP SINK	3"	1-1/2"	1/2"	1/2"
(S1) BREAK ROOM SINK	1-1/2"	1-1/4"	1/2"	1/2"
(S2) HAND SINK	1-1/2"	1-1/4"	1/2"	1/2"
(TD) TRENCH DRAIN	4"	3"	-	-
(UR) URINAL	2"	1-1/4"	3/4"	
(WC) FLUSH TANK WATER CLOSET	3"	1-1/2"	1/2"	_

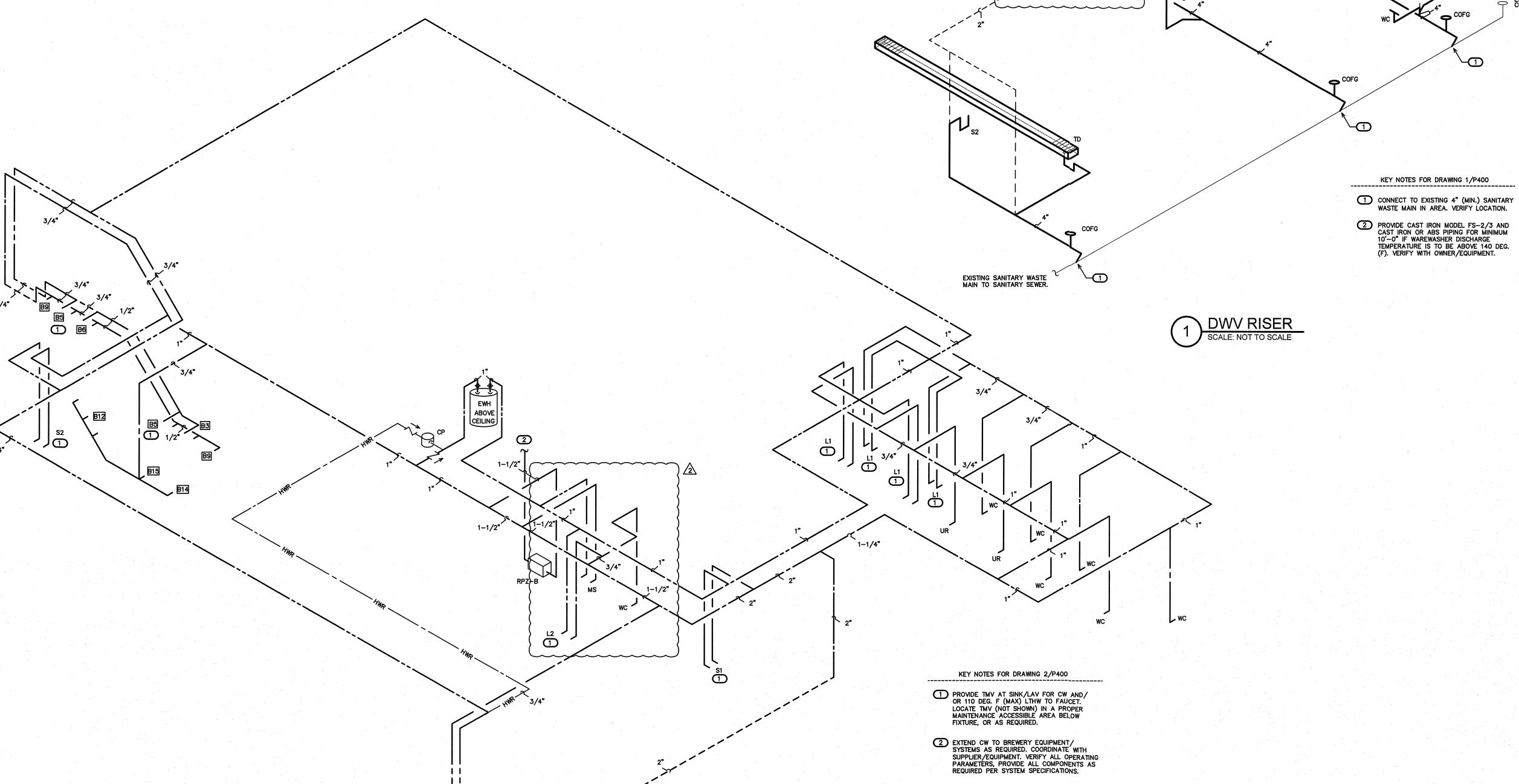
\$2 (1)

2" BELOW GRADE TO RPZ IN HOT BOX.



NOTE:
SEE PLAN FOR SHUT-OFF VALVE LOCATIONS.
COORDINATE LOCATION AND NUMBER
WITH LOCAL INSPECTIONS DEPARTMENT.

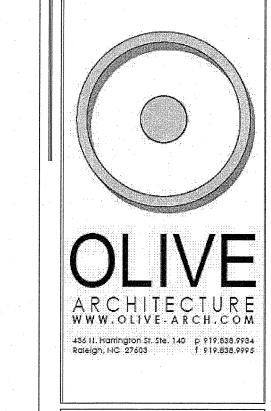
PROVIDE ACCESS DOORS IF REQUIRED.

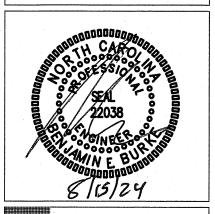


2 WATER RISER
SCALE: NOT TO SCALE

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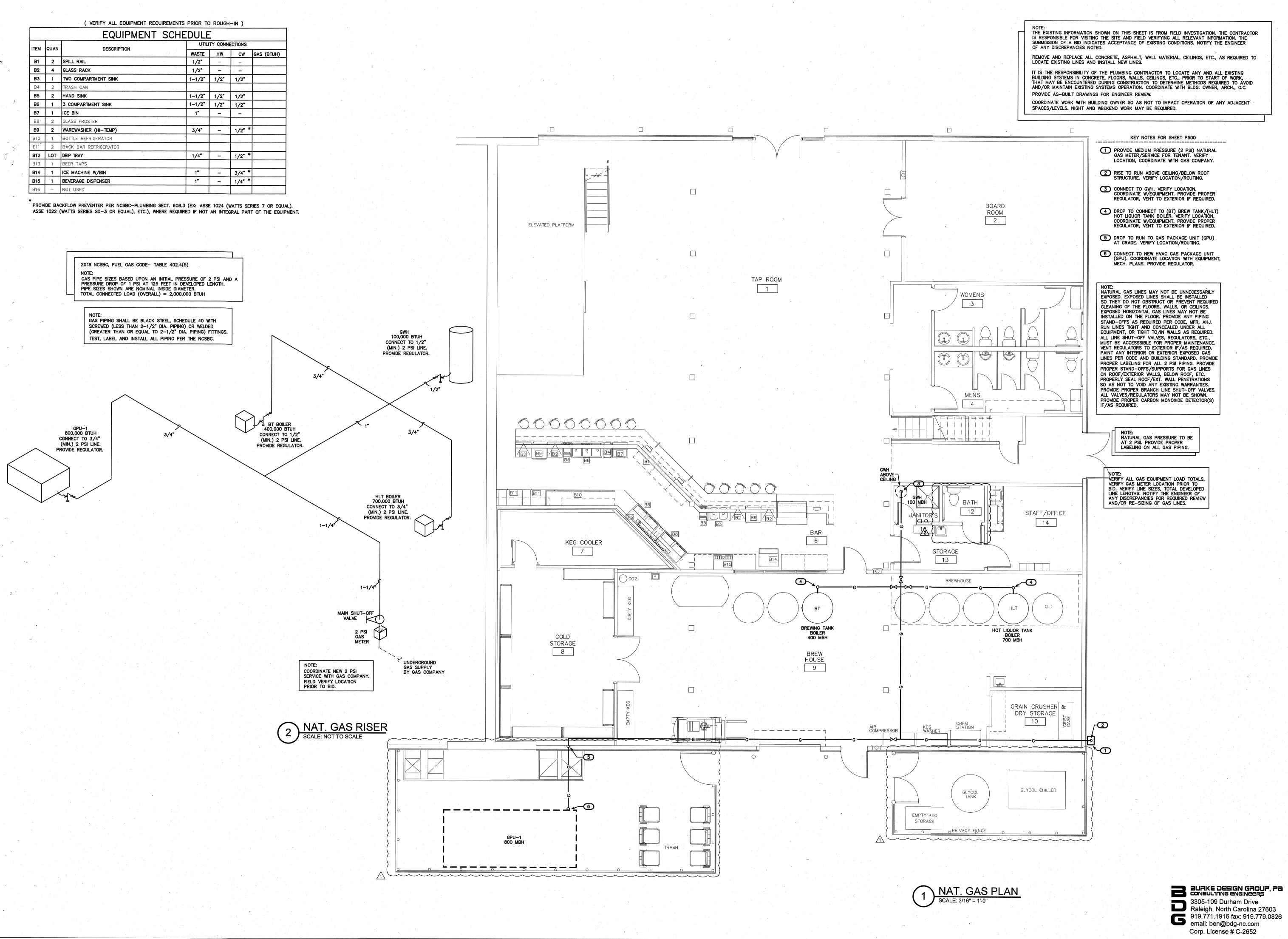
Revision Date Description 8/15/24 AHJ COMMENTS

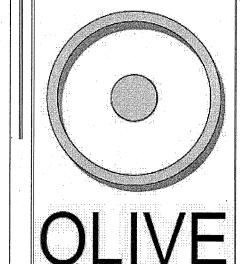
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project no: 23-117

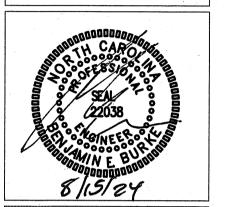
> DWV/WATER RISERS

> > P4





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GRAIN DEALERS BREWER
100 N 13TH ST, BAY K
ERWIN, NC

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revisions:

Revision Date Description

AHJ COMMENTS 7/22/24

8/15/24 AHJ COMMENTS

MRH
checked by:
BEB

drawn by:

project no: 23-117

> NATURAL GAS PLAN

> > P5

GAS PACK SCHEDULE GAS PACK UNIT #1 GPU #1 TRANE MODEL #YCH330R4HV1B1BC, GAS HEAT ELECTRIC COOLING SINGLE PACKAGE GAS HEAT ELECTRIC COOLING -- OWNER PROVIDED --SINGLE PACKAGE UNIT

A	AIR DISTRIBUTION SCHEDULE						
MARK	* MANUFACTURER	MODEL NO.	NECK SIZE	FACE SIZE	MATERIAL	SERVICE	NOTES
Α	CARNES	RTDBH	6" X 12"	8" X 14"	STEEL	SUPPLY	DUCT, SIDE WALL, OR CEILING MOUNTED
RB	CARNES	RSABH	48" X 36"	50" X 38"	STEEL	RETURN	WHITE, SIDEWALL MOUNTED

* OR APPROVED EQUAL

COORDINATE BORDER TYPE WITH THE CEILING TYPE. SEE ARCH SHEETS PROVIDE CUT SHEETS TO OWNER/ARCH. PRIOR TO ORDERING.

EXHAUST	EXHAUST FAN SCHEDULE						
EXHAUST FAN #1 & 2 (EF-1 & 2)	* CARNES MODEL# VCDD030C EXHAUST FAN, 303 CFM @ 1/4" SP, 905 RPM, 2.7 AMPS, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, 10" RIGID DUCT TO EXTERIOR, FLASHING AND ROOF CAP. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES.						
EXHAUST FAN #3 (EF-3)	* CARNES MODEL# VCDD010C EXHAUST FAN, 93 CFM @ 1/4" SP, 640 RPM, 1.1 AMPS, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, 6" RIGID DUCT TO WALL CAP. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES.						
EXHAUST FAN #4 (EF-4)	* CARNES MODEL# VCDD020C EXHAUST FAN, 196 CFM @ 1/4" SP, 740 RPM, 1.8 AMPS, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, 8" RIGID DUCT TO WALL CAP. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES.						

* OR APPROVED EQUAL

NOTE: RUN EXHAUST DUCTS HORIZONTALLY AS REQUIRED TO MAINTAIN 10'-0" MINIMUM SEPARATION FROM ANY INTAKES.

OA SCHEDUL	Ε ουπ	DOOR VENTILA	TION AIR PROV	NDED PER TAE	BLE 403.3 N	ICSBC ME	CHANICAL	CODE.					
APPLICATION	FLOW RATE FLOW				OCCUPANCY	AIR FLOW	PEOPLE OUTDOOR AIR FLOW (CFM)						
OFFICE	(SF) 243	0.06	(CFM/PERSON) 5	1000SF) 5	2	15	10	25					
CONFERENCE	383	0.06	5	50	14	23	70	93					
BAR / COCKTAIL LOUNGE	1989	0.18	7.5	100	110	358	825	1183					
CORRIDOR	705	0.06	_	_	_	42	_	42					
WAREHOUSE	1284	0.06	-	_	-	77	_	77					
STORAGE	90	0.12	_	_	_	11	-	11					
TOTAL REQUIRED								1431					
	OUT	DOOR AIR PRO	VIDED FROM EAC	H HVAC UNIT	**								
HVA	C UNIT			OUTD	OOR AIR (CFI	M)							
RTI	J-1			2750									
TOTAL	PROVIDED			2750									
APPLIC	ATION			CFM									
TOILET	S			70 CFM/FLUSHING FIXTURE									
	9 FLUSHING FIXTURE X 70 CFM = 630 CFM EXHAUST PROVIDED BY THREE EXHAUST FANS, MAKE UP AIR BY TRANSFER AIR												

*ACTUAL OCCUPANCY PER BUILDING TENANT AS ALLOWED BY 2018 NCSBC: MECHANICAL CODE, SECTION 403.3.1.1, EXCEPTION.

** SET OUTDOOR AIR DAMPER CONTROLS TO PROVIDE OUTDOOR AIR AS INDICATED IN THIS SCHEDULE.

FLEXIBLE DUCTWORK SIZES											
SIZES	SUPPLY	RETURN									
6"	100	100									
8"	175	175									
10"	250	250									
12"	400	350									
14"	550	500									
16"	NA	900									

(CHANGE OUT EXISTING FLEX DUCTS AND COLLARS AS REQUIRED TO GET NEW CFM'S SHOWN)

FLEXIBLE DUCTWORK NOTES

- 1) INSTALL FLEXIBLE DUCTWORK RUNS AS STRAIGHT AS POSSIBLE.
- 2) DO NOT ALLOW FLEXIBLE DUCT TO SAG BETWEEN SUPPORTS.
- 3) DO NOT STRETCH A SHORT SECTION TO FIT A SLIGHTLY LONGER SECTION. THIS DISTORTS THE DUCT SHAPE AND IMPEDES AIR FLOW.
- 4) DO NOT CRUSH DUCTWORK TO FIT IN A SPACE SMALLER THAN ITS ORIGINAL OUTSIDE DIAMETER. MAXIMUM ALLOWABLE DEFORMATION IS 15% OF ORIGINAL VOLUME.
- 5) USE RIGID 90 DEGREE ELBOWS AT ANY LOCATION WHERE THE DUCTWORK BECOMES DISTORTED.
- 6) EXTREME CARE SHALL BE TAKEN TO ELIMINATE ANY REDUCTION IN FLOW WITHIN THE FLEXIBLE DUCTS. THE MECH. CONTRACTOR WILL BE REQUIRED TO REPLACE THE FLEXIBLE DUCT WITH RIGID IF PROPER
- FLOW IS NOT OBTAINED.

1) SIZE ALL FLEXIBLE DUCT SO AS NOT TO EXCEED MAXIMUM CFM'S GIVEN IN TABLE.

GENERAL NOTES - MECHANICAL

- 1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE CODE AND ALL LOCAL AND OTHER APPLICABLE CODES.
- 2. ANY PERMITS AND INSPECTION FEES SHALL BE SECURED AND PAID FOR BY THE MECHANICAL CONTRACTOR (MC).
- ALL WORK SHALL BE PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMEN. THE MC SHALL COORDINATE ALL OF HIS WORK WITH THE GENERAL CONTRACTOR (GC) AND OTHER TRADES.
- 4. THE LOCATION OF ALL DUCT, PIPING AND EQUIPMENT SHALL BE ADJUSTED TO ACCOMMODATE ANTICIPATED OR ENCOUNTERED INTERFERENCES.
- 5. THESE PLANS ARE DIAGRAMMATIC AND MAY NOT SHOW MINOR DETAILS AND LOCATIONS. FOR DIMENSIONS REFER TO THE ARCHITECTURAL PLANS.
- 6. THE MC SHALL BE RESPONSIBLE FOR ALL ELECTRICAL STARTERS INTERLOCKS, CONTROL WIRING CONDUIT AND POWER WIRING FROM DISCONNECTS TO HIS EQUIPMENT, USING A LICENSED ELECTRICIAN.
- 7. THE MC SHALL USE FIRE DAMPERS FOR PROTECTION OF THE OPENING IN ACCORDANCE WITH STATE AND LOCAL CODES IN ALL LOCATIONS WHERE PENETRATIONS OF RATED WALLS AND FLOORS OCCUR. SEE ARCHITECTURAL PLANS FOR RATED WALL AND FLOOR LOCATIONS. PROVIDE ACCESS DOORS AT ALL DAMPER LOCATIONS. LOCATE DOORS FOR EASY ACCESS.
- INSTALL FLEXIBLE CONNECTORS ON SUPPLY AND RETURN DUCTWORK AHU. ALL MECHANICAL EQUIPMENT SHALL OPERATE FREE OF OBJECTIONAL NOISE AND VIBRATION.
- 9. INSTALL TURNING VANES IN SUPPLY DUCTS AT ALL ELBOWS AND SPLITTER DAMPERS. PROVIDE BALANCING DAMPERS IN ALL DUCTS WHERE SHOWN OR REQUIRED FOR SYSTEM BALANCING.
- 10. DUCT DIMENSIONS ARE SHOWN INSIDE CLEAR.
- 11. THE MC SHALL KEEP THE PREMISES CLEAR OF DEBRIS FROM HIS WORK DURING CONSTRUCTION AND LEAVE THE AREA AND BUILDING CLEAN AT THE COMPLETION OF HIS WORK. HE SHALL ALSO LEAVE CLEAN ALL EXPOSED EQUIPMENT IN HIS CONTRACT.
- 12. PROVIDE ALL REQUIRED ROOF PENETRATIONS FOR THE INSTALLATION OF THE NEW EQUIPMENT.
 ALL FLASHINGS ARE BY THE MECHANICAL CONTRACTOR. ALL ROOFING WORK SHALL BE DONE
 BY A LICENSED ROOFING CONTRACTOR SO AS TO MAINTAIN ORIGINAL WARRANTY.
- 13. THE M.C. SHALL COORDINATE WITH AND PROVIDE EQUIPMENT SPEC. SHEETS TO THE GENERAL AND ELECTRICAL CONTRACTORS FOR REVIEW PRIOR TO ORDERING EQUIPMENT.
- 14. PROPERLY SUPPORT ALL DUCT WORK, AND EQUIP FROM STRUCTURE. PROVIDE ALL STRUCTURAL SUPPORTS FOR THE LOADS AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.

LEGEND - MECHANICAL RECTANGULAR DUCTWORK. INSIDE CLEAR DIMENSION 12 X 8 INDICATED (WIDTH X HEIGHT) FLEXIBLE DUCTWORK 12" DIA. ROUND GALVANIZED STEEL DUCT INSIDE CLEAR DIMENSION INDICATED. DOUBLE WALLED GALVANIZED STEEL SPIRAL DUCT INSIDE CLEAR DIMENSION INDICATED. DUCT MOUNTED SUPPLY AIR DIFFUSER SUPPLY DIFFUSER RETURN GRILLE

WALL MOUNTED THERMOSTAT (UNIT SERVED IS INDICATED) XXX — MIN. CFM

1 HOUR FIRE BARRIER D CONDENSATE PIPING REFRIGERANT PIPING

7/22/24

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APPENDIX B

2018 BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

> MECHANICAL DESIGN
> (PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE) MECHANICAL SUMMARY

> > 93F

50%

MECHANICAL SYSTEMS, SERVICE SYSTEM AND EQUIPMENT

Thermal Zone

Interior Design Conditions winter dry bulb 75F summer dry bulb

winter dry bulb

summer dry bulb

relative humidity

122,500 BTU/hr **Building Heating Load** (Tenant space only)

157,600 BTU/hr **Building Cooling Load** (Tenant space only) Mechanical Spacing Conditioning System

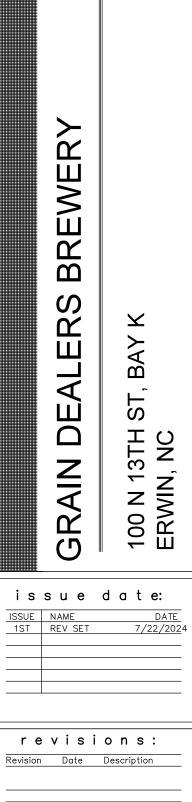
Unitary — The tenant space is served the following systems: (1) Owner provided 27.5 Ton roof top package unit

Boiler — Not applicable to this project. Chiller - Not applicable to this project. Equipment efficiencies

Efficiencies and outputs are listed on equipment schedules — See drawings.



Corp. License # C-2652



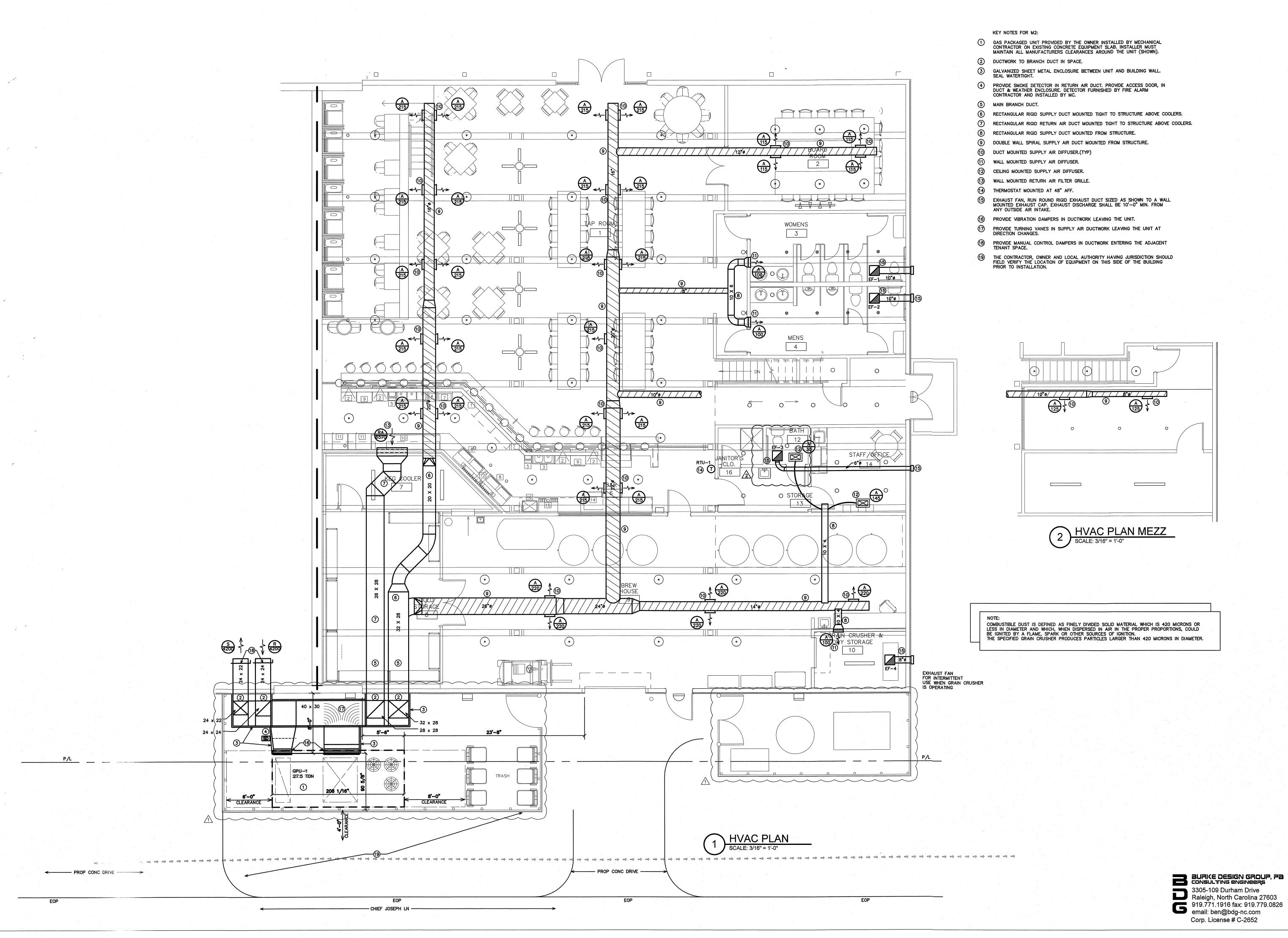
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checked by:

project no:

SPECS

23-117



ARCHITECTURE WWW.OLIVE-ARCH.COM 436 H. Harrington St. Ste. 140 p. 919.838.9934 Raleign, NC. 27603 f. 919.838.9995

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GRAIN DEALERS BREWERY

issuedate:

| SSUE NAME DATE | 1ST | PERMIT SET | 6/27/24 |

revisions:

Revision Date Description

AHJ COMMENTS 7/22/2

AHJ COMMENTS 7/22/24

2 8/15/24 AHJ COMMENTS

drawn by:
CLS
checked by:

BEB
project no:
23-117

HVAC PLAN

M2

DIVISION 15 B - HEATING, VENTILATING AND AIR CONDITIONING

- 1.1 DESCRIPTION OF THE WORK
- A. Work under this section includes, but is not necessarily limited to, furnishing and installing the following:
- 1. Heating, ventilation, and air conditioning equipment.
- 3. Grilles and diffusers.
- 4. Controls and control wiring. Condensate piping.
- B. All work under this contract shall be installed in compliance with the latest edition of the following codes and standards insofar as they apply:
- 1. ASHRAE Guide
- 2. National Electric Code. 3. 2018 NC State Building Code: Mech Code.
- 4. The Electrical Specifications for this project. 5. SMACNA HVAC Duct Construction Standards.
- 6. All local codes and ordinances. ARI rating.
- 8. 2018 NC State Building Code: Energy Conservation Code.
- C. These codes are minimum standards. If codes require a more stringent method of construction than the specifications require, the codes shall govern.
- D. The HVAC Contractor shall be licensed in North Carolina and have all local licenses required for the work.
- 1.2 INTENT
- A. The intent of these specification and the accompanying drawing is to convey as reasonably as possible the requirements for a complete job ready for the building to operate. The HVAC Contractor shall take this into consideration and include in his bid allowance for contingencies as will allow him to provide minor pieces of equipment and labor not specifically indicated but required for the job to operate properly, at no additional cost to the Owner.

1.3 COORDINATION

- A. Coordinate work with other contractors. Notify Owner of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Owner for a decision before resuming operations.
- B. Locations shown are approximate. The HVAC Contractor shall verify with owner, the placement of equipment, fixtures, outlets, etc. The drawings do not give exact details as to elevations and locations of various pipes, fittings, ducts, conduit, etc., and do not show all offsets and other installation details which may be required.
- C. Changes in duct or piping design caused by obstructions shall be submitted to Engineer in sketch form for study and comment prior to execution. Additional cost will not be allowed for this type of work.

1.4 SHOP DRAWINGS

- A. Shop drawings shall be submitted for all major items of equipment, These may consist of the manufacturer's standard catalog or tear sheets and shall have the exact items being offered clearly identified. Shop drawings shall include but are not limited to the following:
- 1. All equipment and accessories.
- 2. Grilles and diffusers. 3. Unit sizes and requirements

PART 2 -PRODUCTS

- 2.1 EQUIPMENT
- A. All air handling devices must have the manufacturer's recommended filter rack, for 1" thick filters.

2.2 PIPING

A. Condensate drain piping shall be PVC pipe. Provide tee and plug at changes in direction. Route pipe to proper termination point. All condensate piping shall be insulated with flexible elastomeric insulation. Provide copper piping in plenum areas.

2.3 DUCTWORK

- A. Ductwork shall be built in accordance with SMACNA HVAC Duct construction standards. Furnish and install all supply, return, and ventilation ductwork shown, together with splitters, deflectors, dampers, etc. This work shall be constructed of new galvanized prime grade steel sheets. The gauges of metal to be used and the construction and bracing of joints shall be in accordance with the SMACNA recommendations.
- B. Seal all sheet metal joints with fiber impregnated mastic. C. Support from building structure on strap hangers not over 8 feet apart.
- D. Use manufactured turning vanes in each elbow where required or where indicated on drawings.
- E. Flexible connectors shall be 3 inches wide, of fireproof material and used to isolate noise between equipment and ductwork on supply and return side of all units.
- F. Round runouts, where used, shall be built in accordance with the above standards, and each runout shall also have manufactured side take off, adjustable quadrant damper at all accessible locations and shall be of Owens Corning INL-25 flexible duct with UL label. Flex duct lengths allowed up to 14 feet. Duct must be supported with sufficient hangers in order to prevent sags. Serpentine routing will not be permitted. Quadrant damper to be 22 gauge easily adjustable manually with exterior handle (similar to H&C Kwik—set) and is not to be mounted in side take—off.

2.4 DUCT INSULATION (LOW PRESSURE)

- A. All insulation, linings, coverings and adhesives shall have a flame spread classification of 25 or less and a smoke developed rating of not more than 50, exposed exterior piping.
- B. All duct insulation shall comply with Section 604, of the N. C. Building Code: Mechanical Code
- C. All supply and return ductwork shall be completely insulated, either internally or externally.
- D. Rectangular ductwork shall be lined with two-inch thick, 1.5 lb. per cubic foot density, duct liner, Armstrong, CSG Ultraliner, Johns Manville or approved equal.
- E. As an alternative to duct liner rectangular duct may be wrapped with Class I -2", 3/4 lb. density (R-6.5) thick reinforced foil back fiberglass insulation. Owens-corning Series ED or equal. Tape shall be Kraft reinforced foil tape or equal.
- F. Exhaust air duct does not require insulation, unless otherwise noted on the plans.
- G. Insulation shall be held inplace with adhesive and welding pins 16" on center.
- H. Duct dimensions shown on the drawings are Net Inside Dimensions
- 2.5 THERMOSTATS
- A. Provide programmable electronic thermostats.
- B. Submit proposed thermostats for approval.
- 2.6 ROOF PENETRATIONS
- A. Provide pre-manufactured roof flashings compatible with equipment served. B. Coordinate roof work with roof system used. Provide proper flashing as required.
- C. Provide 1 year warranty on all roof work performed.

2.7 DUCT SMOKE DETECTORS

A. Duct detectors are not required since units air flows are 2000 cfm or less per NCSBC: Mechanical Code, Section 606.2.

PART 3 - EXECUTION

3.1 PIPING

- A. The HVAC Contractor shall coordinate such routing with others, to line his work true to adjacent spaces and in a workmanlike manner and to use only short radius 90 degree elbows. Where required, piping to be sturdily supported and separated in a manner satisfactory to the Engineer.
- B. The HVAC Contractor shall paint all exterior refrigerant piping. with UV resistant paint as recommended by the closed cell insulation
- C. Insulate all condensate lines for their entire length with 1/2" closed cell insulation. Install insulation per the manufacturers recommendations.

3.2 ELECTRICAL WORK

- A. The electrical contractor shall provide all switches, starters, wire conduit for the air conditioning, heating and ventilation equipment. Control wiring shall be by the heating and air conditioning contractor.
- B. HVAC Contractor is responsible for verifying that power terminals have been properly grounded prior to operating equipment and must find connections to all equipment including control wiring.
- C. All materials and workmanship shall be in accordance with the electrical specifications for the project. All wiring shall be color coded, and as—built wiring diagram prepared showing all connections and colors of wiring and delivered to the Owner.
- D. Furnish certification for acceptance of control wiring from local electrical inspector prior to acceptance.

3.3 CLEAN UP

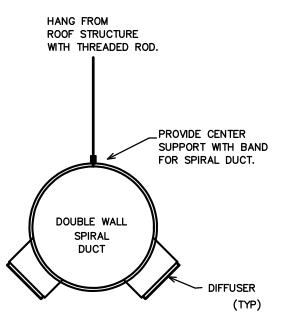
- A. During construction, keep the site clean of debris. Upon completion, and before final inspection, clean up the premises to remove all evidence of work. In addition upon completion of construction leave equipment clean.
- B. Furnish one box of clean filters, for each size required, at the time of final inspection to the owner.

3.4 OPERATOR'S MANUAL AND DIAGRAM

- A. The HVAC Contractor shall prepare in one copy a manual describing the proper maintenance and operation of the systems. This manual shall not consist of standard factory instructions (although these may be included) but shall be prepared to describe this particular job.
- B. The manual shall be bound, indexed, dated and signed by the HVAC Contractor.
- C. Qualified representative of the HVAC contractor shall meet with the designated representatives of the Owner and the Owner's representative shall be instructed in the proper operation and maintenance of the control system and other systems.

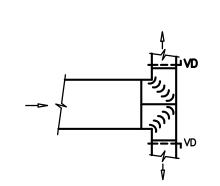
3.5 GUARANTEE

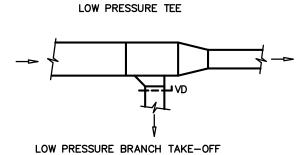
- A. Guarantee all materials and labor included in the HVAC work for a period of one year from date of final acceptance by the owner. In addition, motor compressors shall be a nonprorated five year warranty. Any part or parts of the work or equipment which prove to be defective during the guarantee period shall be replaced at no additional cost to the
- B. All air flows must be measured and balanced to within 10% of design airflows. All equipment used must have a current certification. Provide two copies of the balance report to the owner at closeout. The HVAC contractor shall return and re-balance to occupant comfort after 90 days from close-out Provide all balance dampers needed for satisfactory operation regardless if shown on the drawings or not, and shift location of thermostats themostats if required for occupancy comfort.

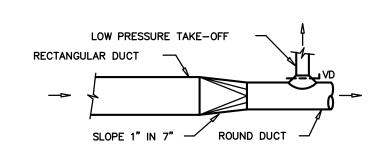


DUCT SHALL HAVE "PAINT-GRIP"
GALVANIZED FINISH. FINAL PAINTING BY GENERAL CONTRACTOR.

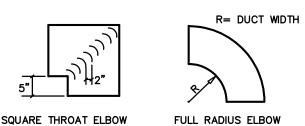
SPIRAL DUCT DETAIL





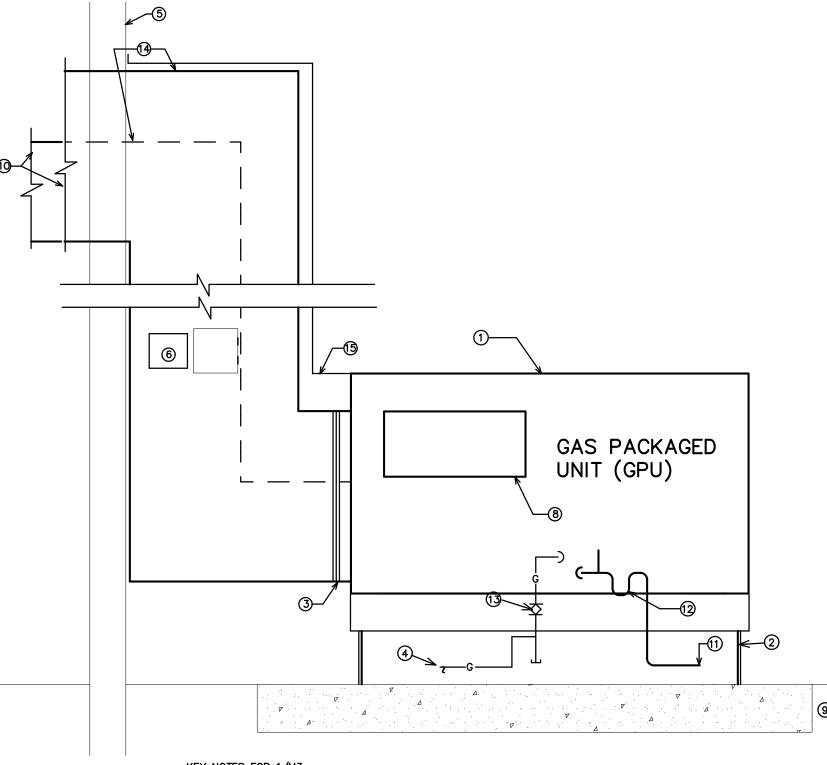


RECTANGULAR TO ROUND TRANSITION



LOW PRESSURE DUCT ELBOWS

DUCT CONSTRUCTION DETAIL SCALE: NOT TO SCALE

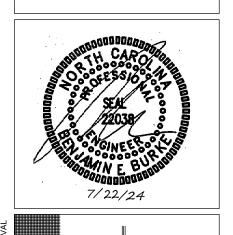


KEY NOTES FOR 1/M3

- ① GAS PACKAGED UNIT PROVIDED BY THE OWNER INSTALLED BY MECHANICAL CONTRACTOR.
- (2) EQIPMENT MOUNTING BASE.
- 3 FLEXIBLE CONNECTIONS
- (4) GAS LINE TO UNIT PROVIDED BY PLUMBING CONTRACTOR. FINAL CONNECTION AND START UP BY MECH. CONTRACTOR.
- (5) EXTERIOR WALL.
- (6) PROVIDE SMOKE DETECTOR IN RETURN AIR DUCT. PROVIDE ACCESS DOOR. IN DUCT. DETECTOR FURNISHED BY FIRE ALARM CONTRACTOR AND INSTALLED BY MECHANICAL
- CONTRACTOR. 7 6" DIRT LEG.
- (8) OUTSIDE AIR DAMPER AND HOOD. SET UNIT CONTROLS TO PROVIDE FOR SCHEDULED OUTDOOR AIR AS THE MINIMUM.
- (9) CONCRETE EQIPMENT BASE PAD.
- (10) DUCTWORK TO BRANCH DUCT IN SPACE.
- (1) CONDENSATE DRAIN. RUN TO ROOF DRAIN. (2) PROVIDE CONDENSATE DRAIN TRAP. SIZE PER MANUFACTURERS RECOMMENDATIONS.
- (3) GAS SHUT-OFF VALVE, UNION AND FLEXIBLE HOSE. (4) TRANSITION FROM UNIT CONNECTION SIZED TO DUCT SIZES ON PLAN.
- (5) GALVANIZED SHEET METAL ENCLOSURE BETWEEN UNIT AND BUILDING WALL. SEAL

TYPICAL HORIZONTAL ROOF-TOP GAS PACKAGE UNIT DETAIL

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100 N 13TH 8 ERWIN, NC **GRAIN** D issue date:

revisions:

Revision Date Description

drawn by:

checked by: project no:

23-117

HVAC SPECs, DETAILS

BURIKE DESIGN GROUP, Pa CONSULTING ENGINEERS 3305-109 Durham Drive Raleigh, North Carolina 27603 919.771.1916 fax: 919.779.0826 email: ben@bdg-nc.com Corp. License # C-2652

DIVISION 16 - ELECTRICAL

- PART 1 GENERAL 1.1 DESCRIPTION OF THE WORK
- A. Work under this section includes, but is not necessarily limited to, furnishing and installing the following:
- 1. Electrical service and service equipment.
- 2. Lighting and power distribution system. 3. Provide lighting fixtures selected by owner
- with lamps to match. 4. Wiring devices, boxes, cover plates, etc.
- 5. Source of power for all items of equipment. 6. Grounding.
- 7. Other requirements and/or systems where shown. B. All work shall be complete and items, equipment, etc.,

shall be electrically connected for proper and correct

- C. All work under this contract shall be installed in accordance
- with the latest edition of the following codes and standards insofar as they apply:
- 1. The 2020 National Electrical Code.
- 2. The National Electrical Safety Code. 3. Underwriter's Laboratories, Inc., Standards and
- approved listings.
- 4. Electrical Testing Labatories standards. 5. North Carolina Building Code, Latest Edition and Revisions.
- 6. All local codes and ordinances. D. The Electrical Contractor shall be licensed in the State of
- North Carolina and have all local licenses required for the work.
- E. Obtain all permits, licenses, inspections, etc., required for the work and pay for the same. Furnish final certificate of inspection and approval from the electrical inspector having jurisdiction prior to acceptance of the work.
- F. All work shall be done by skilled mechanics and shall present a neat, trim, workmanlike condition when complete.

1.2 INTENT

A. The intent of these specifications and the accompanying drawings is to convey as reasonably as possible the requirements for a complete job ready for the building to operate. The Electrical Contractor shall take this into consideration and include in his base bid allowance for contingencies as will allow him to provide minor pieces of equipment and labor not specifically indicated but required for the job to operate properly, at no additional cost to the Owner.

1.3 COORDINATION

- A. Coordinate work with other contractors. Notify Architect of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Architect for a decision before resuming
- B. Locations shown are approximate. The drawings do not give exact details as to elevations and locations of various pipes, fittings, ducts, conduit, etc., and do not show all offsets and other installation details which may be required. Coordinate all locations with architect before any

1.4 SHOP DRAWINGS

rough—in.

A. Shop drawings shall be submitted for panels and service equipment, lighting, wiring devices, and cover plates. These may consist of the manufacturer's standard catalog or tear sheets and shall have the exact items being offered clearly identified.

PART 2 - PRODUCTS AND MATERIALS

2.1 GENERAL

- A. All material shall be new and shall bear the manufacturer's name, trade name, and UL label where such standard has been established for the particular material. Materials shall be the standard products of manufacturer's regularly engaged in the manufacturer of the required type of equipment and the manufacturer's latest approved design.
- 1. Boxes installed in concealed locations shall be set flush with
- the finished surfaces 2. Provide rated boxes in all fire barriers & walls installed per code.

2.2 NOT USED

- 2.3 CONDUCTORS
- A. Conductors shall be color coded, sizes #8 and larger may be color taped on the job. Color coding shall be: Standard Practice.
- B. Conductors shall be manufactured by Dodge, Southwire or approved equal. Conductors shall meet the latest requirements of NEMA and IPCEA and shall be UL approved.
- C. Metallic sheathed "MC" cable may be used where allowed by N.E.C.
- D. Conductors shall be spliced and taped as follows:
- 1. Size #10 and #12, use Ideal "Wing Nuts" or T&B "Piggy" connectors. Connectors shall be rated for 150 degrees C for use in recessed lighting fixtures.
- 2. Size #8 and larger shall be solderless screw and screw-clamping type, smoothly covered and shaped with rubber gum type with final cover vinyl plastic electrical type. In lieu of rubber gum and vinyl plastic type, factory fabricated approved preformed insulating covers may be used. All connectors shall be UL approved.
- 3. No split-bolt type connectors may be used.
- E. All branch wire and connections shall be copper and sized per National Electric Code.
- F. All conductors shall be continuous without splice between junction, outlet, device boxes, etc. No splicing will be permitted in panelboard cabinets, safety switches, etc.
- G. All wiring in mechanical spaces shall be plenum rated.
- H. Provide GFI protection within 6'-0" of any sink.
- I. All multi-wire branch circuits shall comply with 2020 NEC, 210.4(B).
- J. All wiring at medical facilities shall comply with 2020 NEC, 517.1.

2.4 PANELBOARDS, SAFETY SWITCHES

- A. Panelboards shall comply with NEMA Standard PB 1 Latest Edition and as manufactured by Square D or ITE—Siemens.
- B. The contractor shall be responsible for correctly phasing the circuits in the panelboards. C. Safety switches shall be general duty type, size and rating as
- required for lead service. Safety switches shall be fused or unfused as shown and/or as required. Safety switches serving motor loads shall be horsepower rated for load served.

2.5 NOT USED

2.6 WIRING DEVICES

- A. Wiring devices shall be commercial grade by Bryant, Leviton, or approved equal. With matching cover. Color by Architect.
- B. Wiring devices installed under a Kitchen Hood shall have
- stainless steel covers. C. Wiring devices installed over counters shall comply with ANSI A117.1.
- 2.7 NOT USED
- 2.8 CONDUIT
- A. PVC conduit will be allowed where N.E.C. approved
- B. All service conduit shall be rigid where exposed below 8'-0" AFF or exposed to the elements or hazardous conditions.

PART 3 - EXECUTION

3.1 CIRCUIT GROUNDING

- A. All circuits shall contain an insulated, green, copper grounding conductor, sized in accordance with Table 250-95 of the NEC. Grounding conductors shall be connected to equipment grounding bus in panelboard and securely attached and grounded to the device or enclosure at the other end.
- 3.2 GROUNDING TYPE CONVENIENCE OUTLETS AND SWITCHES
- A. Outlets and switches shall be solidly grounded to equipment grounding system with a green colored insulated conductor. Electrical connections shall be continuous from equipment ground bus in panelboard to the hex nut on the convenience outlet or switch.
- A. All motors shall be connected to conduit system with short length (minimum length 24" and maximum length 36") of flexible liquidtight

3.4 NOT USED

3.5 EQUIPMENT LABELING

- A. Provide permanent name plates for all panelboards, safety switches, wiring troughs, etc., for identification of equipment controlled, services, etc. Nameplates shall be securely and permanently attached to equipment with stainless steel screws. Nameplates shall include the name of the equipment and where it is fed from.
- B. All switch plates, receptacle plates and outlet covers shall be labeled with machine printed vinyl labels identifying the circuit(s) within.
- C. All empty conduit runs shall be identified and indicated where they terminate.
- D. Provide typewritten directory in each panelboard to clearly identify each circuit, service, etc.
- 3.6 NOT USED
- 3.7 NOT USED 3.8 JUNCTION AND/OR PULL BOXES
- A. Boxes shall be installed where necessary to avoid excessive runs and/or too many bends between outlets.
- 3.9 PULL WIRE
- A. Leave pull wire in each empty conduit run.

3.10 NOT USED 3.11 GROUNDING

- A. All grounding shall be in accordance with Article 250 of the NEC.
- In addition, the following requirements shall be met: 1. Grounding conductors shall be installed as to permit the shortest and most direct path from equipment to ground. All connections to grounding conductors shall be accessible.
- 2. Equipment ground continuity shall be maintained through flexible metal conduit.
- 3. All wiring devices equipped with grounding connection shall be solidly grounded to ground system with grounding conductors.
- 4. The frame of all lighting fixtures shall be securely grounded to the equipment ground system with grounding conductors. 5. All equipment enclosures, and non-current-carrying metallic parts of electrical equipment, raceway systems, etc., shall be
- effectively and adequately bonded to ground. 6. All equipment enclosures, and non-current-carrying metallic parts of electrical equipment, raceway systems, etc., shall be effectively and adequately bonded to ground.
- 3.12 ELECTRICAL WORK IN CONNECTION WITH OTHER WORK
- A. PLUMBING WORK: The Electrical Contractor shall furnish and install switches and devices as shown and electrically connect electric water heaters, etc. All other electrical work required will be performed by the PLUMBING CONTRACTOR.
- B. HEATING AND AIR CONDITIONING WORK: The Electrical Contractor shall provide all disconnect switches, starters, and associated hardware for the equipment furnished including all line and load side wiring and conduit. Final connections to the equipment will be by the HVAC contractor. All control wiring will be accomplished by the HVAC contractor. Coordinate all work associated with the HVAC

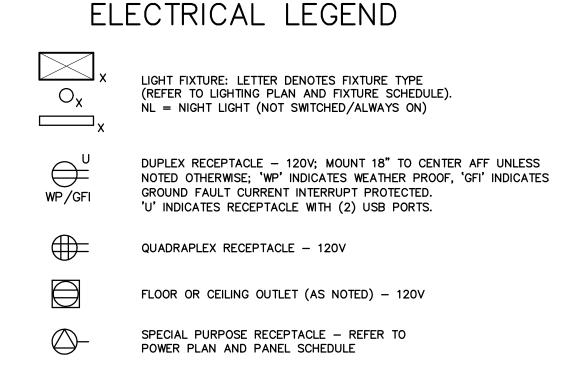
contractor. 3.13 CLEAN UP

A. During construction, keep the site clean of debris. Upon completion, and before final inspection, clean up the premises to remove all evidence of work. In addition upon completion of construction leave equipment clean.

A. Guarantee all materials and labor included in the electrical work for a period of one year from date of final acceptance by the Owner. Any part or parts of the work or equipment which prove to be defective during the guarantee period shall be replaced at no additional cost to the Owner.

GENERAL NOTES

- 1 ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES HAVING JURISDICTION.
- 2 ALL BRANCH CIRCUIT CONDUCTORS TO BE COPPER (SERVICE CONDUCTORS MAY BE ALUMINUM WITH SAME AMPACITY AS COPPER CONDUCTORS. RE-SIZE CONDUCTERS AND CONDUIT PER NEC.)
- 3 ALL CIRCUITS TO BE 2 #12, 1 #12 GND IN 1/2" EMT CONDUIT AS A MINIMUM. PROVIDE WIRING FOR LARGER CIRCUITS AS REQUIRED BY NEC. RIGID CONDUIT IS REQUIRED WHERE EXPOSED BELOW 8'-0" A.F.F.
- 4 ALL EMPTY CONDUIT RUNS IN EXCESS OF 10 FEET SHALL BE PROVIDED WITH A PULL WIRE OR FISH TAPE/CORD.
- 5 CONTRACTOR SHALL VERIFY THAT ALL DOOR SWINGS ARE CORRECT BEFORE INSTALLING LIGHT SWITCH OUTLETS.
- 6 ALL BRANCH CIRCUIT CONDUCTORS FROM THE PANEL TO THE FIRST OUTLET SHALL BE INCREASED TO THE NEXT LARGER SIZE WHERE THE LENGTH OF THE HOME RUN EXCEEDS 120 FEET ON 120V AND 208V CIRCUITS.
- 7 THE CORRECT NUMBER OF WIRES MAY NOT BE INDICATED FOR ALL CIRCUITS. ONLY THOSE WHERE CLARIFICATION IS NECESSARY. THE ELECTICAL CONTRACTOR SHALL PROVIDE ALL WIRES NECESSARY FOR THE PROPER FUNCTION OF THE SYSTEM WHETHER INDICATED ON DRAWINGS OR NOT.
- 8 THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANELBOARDS.
- 9 THE ELECTRICAL CONTRACTOR SHALL VERIFY THE TYPE OF CEILING SYSTEM WITH THE GENERAL CONTRACTOR TO INSURE THAT ALL LIGHTING FIXTURES ARE COMPATIBLE WITH THE CEILING SYSTEM BEING INSTALLED. LIGHTING FIXTURES SHOULD NOT BE ORDERED UNTIL TYPE OF CEILING HAS BEEN VERIFIED.
- 10 ELECTRICAL REQUIREMENTS INDICATED ON DRAWINGS MAY DIFFER FROM ACTUAL EQUIPMENT FURNISHED. IF FURNISHED EQUIPMENT DIFFERS FROM RATINGS ON DRAWINGS CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER FOR APPROPRIATE ACTION TO BE TAKEN.
- 11 IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE EXACT BREAKER REQUIREMENTS FOR ALL EQUIPMENT PRIOR TO ORDERING PANEL. ADJUST BREAKER AND WIRE SIZES AS REQUIRED.
- 12 PROVIDE BOXES, JACKS, WIRING AND CONDUIT FROM LOCATIONS SHOWN TO MTP LOCATION. VERIFY EXACT REQUIREMENTS WITH OWNER.
- 13 ELECTRICAL CONTRACTOR SHALL PROVIDE ALL DISCONNECTS FOR MECHANICAL & PLUMBING EQUIPMENT. DISCONNECTS SHALL BE PER MANUFACTURES RECOMMENDATIONS AND FUSED PER NAME PLATE. PROVIDE NEMA 3R ENCLOSURES ON EXTERIOR. COORDINATE FUSE SIZES.
- 14 THE EC SHALL MEET WITH THE ARCHITECT AND TENANT PRIOR TO INSTALLING OUTLET BOXES TO VERIFY LOCATIONS AND MOUNTING HEIGHTS OF RECEPTACLES AND TELEPHONE



SHUT-OFF WITH UP TO 2 HOUR ADJUSTABLE DELAY. DIMMABLE LIGHT SWITCH

MOTOR RATED SWITCH

JUNCTION BOX

LIGHT SWITCH

TELE/DATA OUTLET - PROVIDE JUNCTION BOX WITH CONDUIT BACK TO MTP. PROVIDE (1) TELEPHONE JACK AND (1) CAT 5 DATA JACK

SWITCH WITH INTEGRAL PIR/US MOTION SENSOR FOR AUTOMATIC

SINGLE-POLE HOMERUN TO PANELBOARD TWO-POLE OR 3-POLE HOMERUN TO PANELBOARD

EXIT EXIT LIGHT **EMERGENCY EGRESS FIXTURE**

PHOTOCELL (LED COMPLIANT)

---- SWITCH LEG

DISTRIBUTION PANELBOARD PANEL A

DISCONNECTING MEANS AS REQUIRED BY CODE

BRANCH CIRCUIT WIRING

GROUND CONNECTION

APPENDIX B

2018 BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

ELECTRICAL SUMMARY

ELECTRICAL DESIGN (PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance

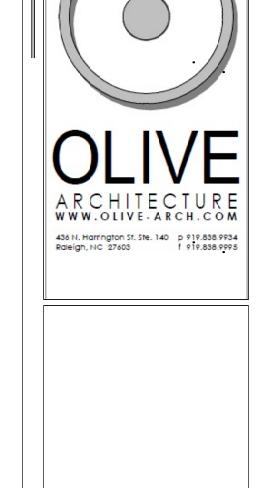
Lighting Schedule

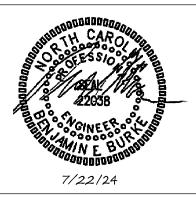
lamp type required in fixture number of lamps in fixture ballast type used in fixture number of ballasts in fixture total wattage in fixture total interior wattage specified vs. allowed total exterior wattage specified vs. allowed

Additional Prescriptive Compliance

506.2.1 More Efficient Mechanical Equipment 506.2.2 Reduced Lighting Power Density 506.2.3 Energy Recovery Ventlation Systems 506.2.4 Higher Efficiency Service Water Heater 506.2.5 On—Site Supply of Renewable Energy 506.2.6 automatic Daylighting Control System

BURIKE DESIGN GROUP, Pa CONSULTING ENGINEERS 3305-109 Durham Drive Raleigh, North Carolina 27603 919.771.1916 fax: 919.779.0826 email: ben@bdg-nc.com Corp. License # C-2652





 \mathbf{m} A STE NC GRAIN

revisions:

ISSUE NAME

1ST PERMIT SET

issue date:

Revision Date Description

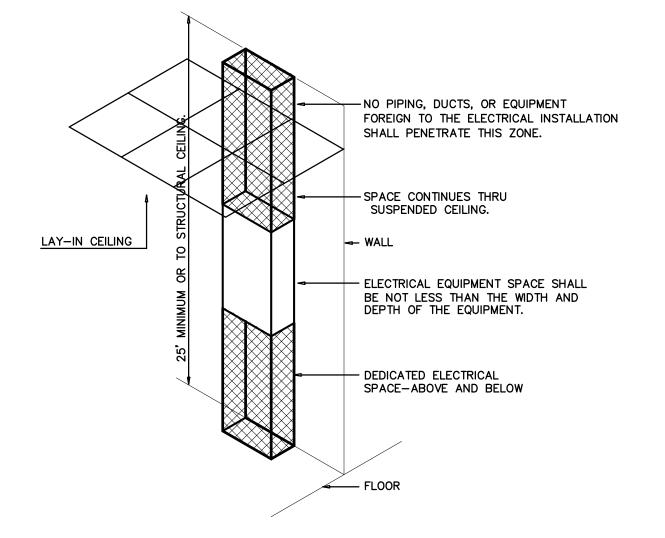
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ELECTRICAL

SPECS

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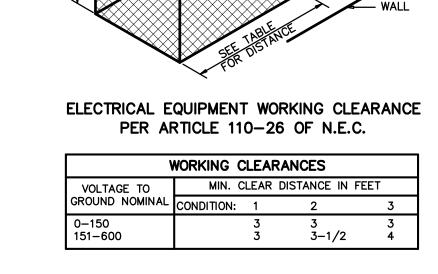
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PER ARTICLE 110.26.F.1 OF N.E.C.

ELECTRICAL EQUIPMENT DEDICATED SPACE



WHERE THE CONDITIONS ARE AS FOLLOWS: EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE

WITH THE OPERATOR BETWEEN.

OF THE N.E.C.

WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR INSULATED BUSBARS OPERATING AT NOT OVER 300V SHALL NOT BE CONSIDERED LIVE PARTS. 2 EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.

3 EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK

SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1)

THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF THE ELECTRICAL EQUIPMENT REQUIRED BY SECTION 110-16

ELECTRICAL CLEARANCES

- STRUCTURAL CEILING

- SUSPENDED CEILING

- ELECTRICAL EQUIPMENT

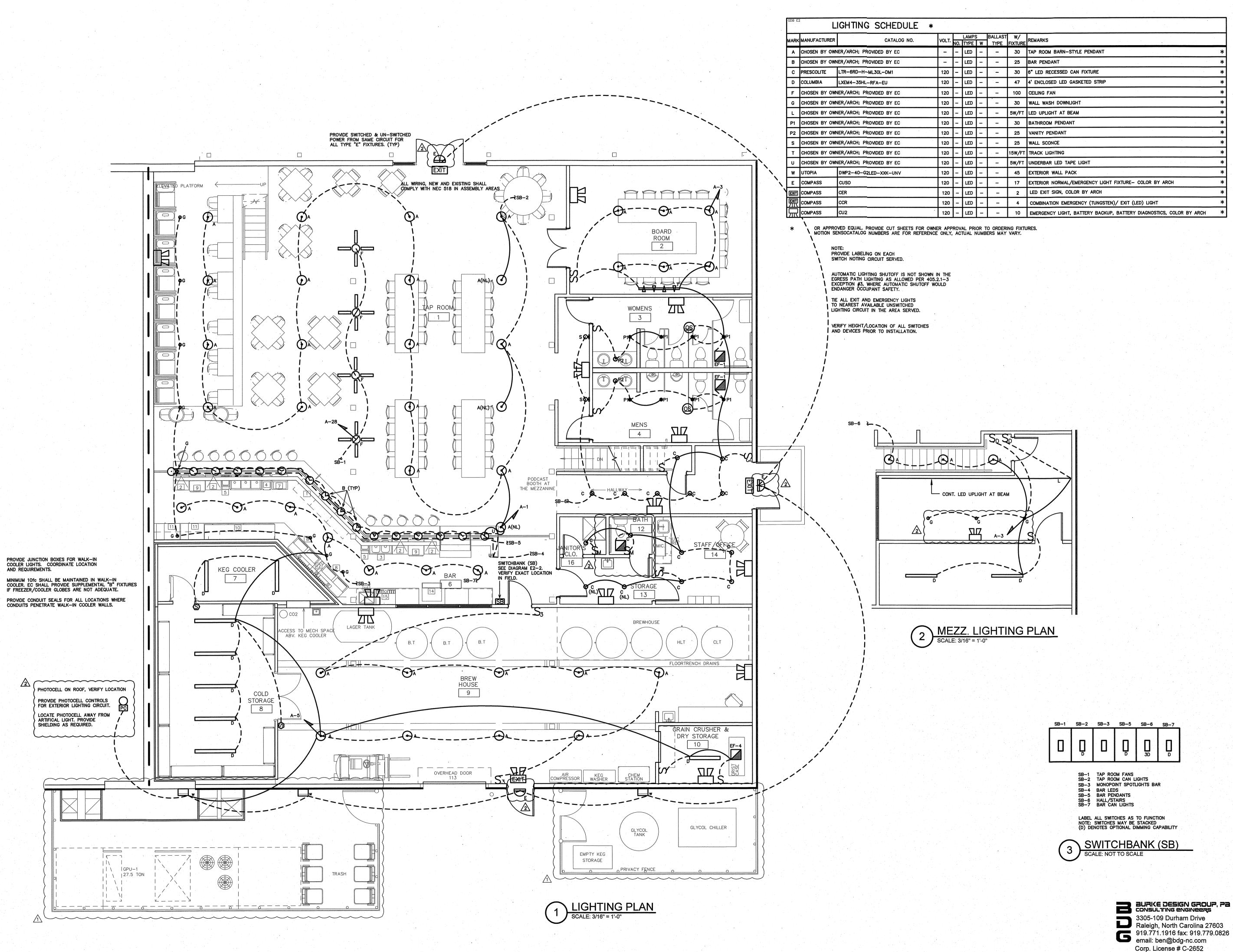
- EVEN WITH FRONT EDGE

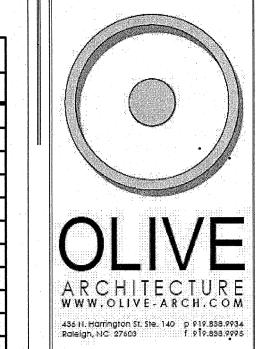
- DEDICATED ELECTRICAL

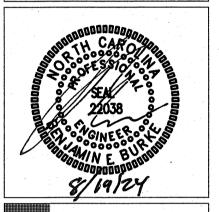
EQUIP. WORKING CLEARANCE

OF EQUIPMENT

30" MINIMUM OR WIDTH OF EQUIP.







GRAIN DEALERS BREWER

issue date:

| ISSUE NAME DATE | 1ST | PERMIT SET | 6/27/24

r e v i s i o n s:

Revision Date Description
7/22/24 AHJ COMMENTS

Pevision Date Description
7/22/24 AHJ COMMENTS
8/15/24 AHJ COMMENTS

drawn by:

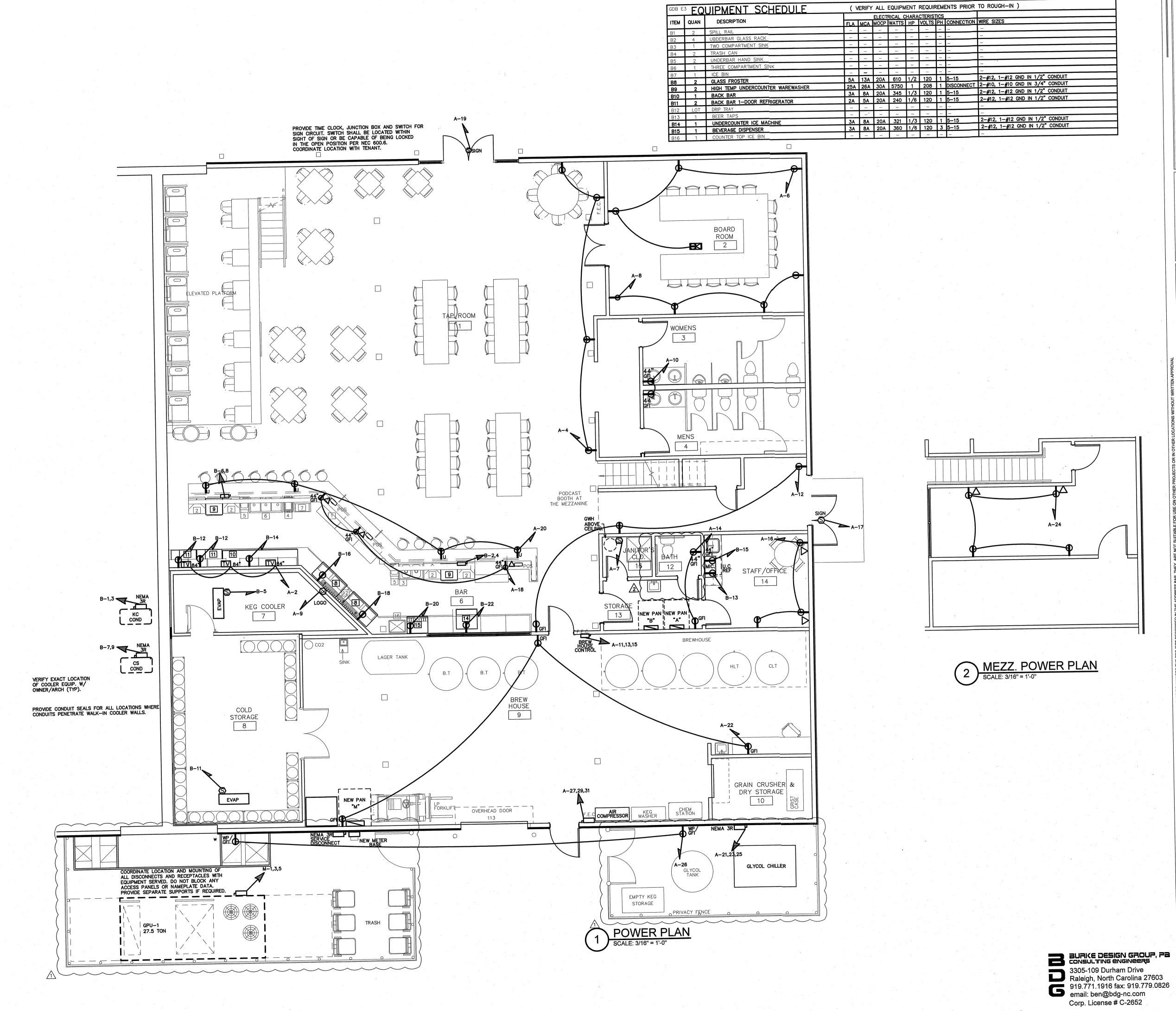
checked by:
BEB
project no:

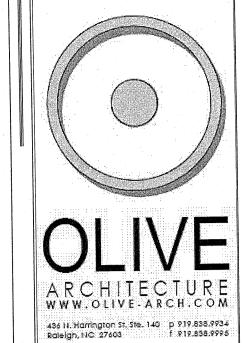
23-117

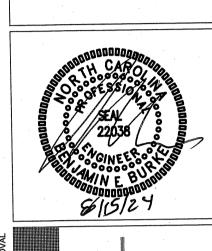
LIGHTING

PLAN

Ξ2







GRAIN DEALERS BREWERY
100 N 13TH ST, BAY K
ERWIN, NC

r e v i s i o n s :

Revision Date Description
AHJ COMMENTS 7/22/24

2 8/15/24 AHJ COMMENTS

drawn by: -

checked by:
BEB
project no:

project no: 23-117

> POWER PLAN

> > E3

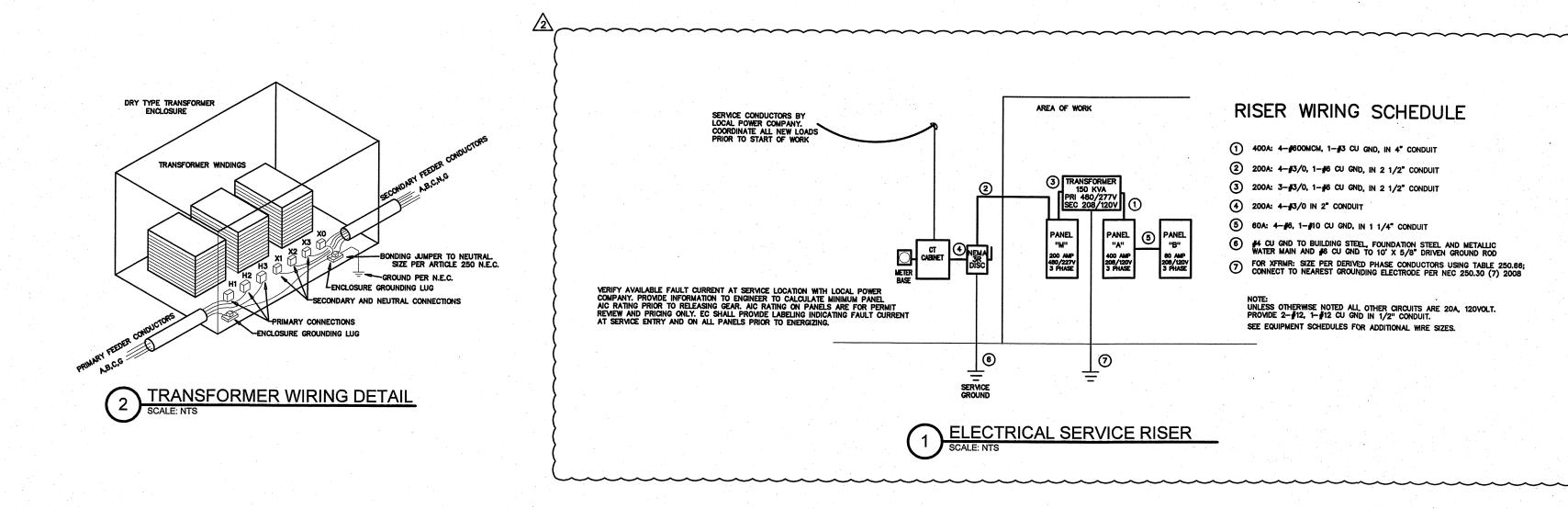
NEW PANEL- 'M'	MAKE: _ Type: _				480/277 G:_FLUSH		HAS	4 WRE		MLO MAIN CIRCUIT BREAKER						
		PROVED	EQUA			AIC: VE					EQUIPMENT GROUND BUSXYES □NO SERVICE ENTRY RATED□YES XXNO					
LOAD	СКТ	WATTS	PER F		СКТ	NEUTR/		КT	WATTS		PHASE	СКТ		LOAD	<u></u>	
SERVICE	BRKR	A	В	C	NO	ABC		/O	A	В	C	BRKR		SERVICE	<u>.</u>	
GPU-1		15512			1	\sim	\overline{A}	2	32995				X-FRMR TO			
•	A08		15512		3	$\overline{}$		4	1	29496		150A				
•				15512	5	\cap		6			28719	1	 .			
SPACE	20A				7	\sim	\sim	8				20A	SPACE		5 .	
SPACE	20A				9	\cap		10				20A	SPACE			
SPACE	20A				11	\cap	$\overline{}$	12				20A	SPACE			
SPACE	20A				13	\cap	\sim	14				20A	SPACE			
SPACE	20A				15	\triangle	abla	16				20A	SPACE			
SPACE	20A				17	\cap		18				20A	SPACE			
SPACE	20A				19	$\triangle + \Box$		20				20A	SPACE			
SPACE	20A				21	$\triangle \Box$		22				20A	SPACE			
SPACE	20A				23	$\triangle \Box$		24				20A	SPACE			
SPACE	20A				25	\triangle		26				20A	SPACE		1	
SPACE	20A				27	$\cap H$	\cap	28				20A	SPACE			
SPACE	20A				29	\cap		30				20A	SPACE			
SPACE	20A				31	\sim	\cap	32				20A	SPACE			
SPACE	20A				33	$\triangle \Box$		34				20A	SPACE			
SPACE	20A				35	\cap		36				20A	SPACE			
SPACE	20A				37	$\cap +$		38				20A	SPACE			
SPACE	20A				39	\sim	\triangle	40				20A	SPACE	-		
SPACE	20A				41		\triangle	42				20A	SPACE			
NOTES	SUB-TOTALS 'B'	15512	15512	15512	\bowtie	200A	BU	S	15512 1	15512	15512	SUB-	TOTALS 'A'			
						200A	LU	LUGS 3	32995 2	29496	6 28719	SUB-TOTALS 'E		TOTAL CONNEC	MARCIED IO	
						_200A	FE	D	48507 4	5008	44231	GRANI	TOTAL	IOIAL G	MARCILD LO	
						VERIFY	SIZ	Ε	175A	162A	160A	AMPS	/PHASE			
NEC ALLOWABLE D	EMAND FACTOR	7 S	DI	VERSI	FIED I	OAD SI	AMML	RY								
1 DEMAND FACTORS I	PER NEC 220			LOAD	TYPE		DEMA		Α	В	С	TOTAL	DIVERSIFIE	D LOAD		
2 LARGEST OF: NEC TABLE 220.12 OR			GEN	RAL L	CHTING	2				1663	1518	.0	4931			
CONNECTED LOAD				СК LIG			125									
DEC.				GENERAL USE RECEPTACLES				HOOK		2160	2520		7560			
(4) NEC 220.51 (5) NEC 220.43A, 200 VA/LINEAR FT				ORS AN	ID LA	NGEST	125	8		4654	4854		13962			
(B) NON-COINCIDENT LOADS, LARGEST				EQUIPMENT ALL OTHERS WATER HEATERS						3360	13360		40080			
OF THE TWO LOADS IS COUNTED					WIPMEN		125	8		8844	7986		27240			
					SPACE OW LICE		100									
SIGN					SIGN				1500		1500		3000			
			MISC			PHASE (100			9900 10581	9000 40538		27900			
			<u> </u>			rnose (TOTAL	AL		147A	146A	vot 1	124673 LT AMPS S X 1.732	= 150A	TOTAL AMPS	

NEW PANEL— 'A'	MAKE: _	EATON		R	ATING:_	208/	120	Y 3	PHAS	E 4 WF	₹E 4	N AOC	AIN CIR	CUIT BREA	KER	
NEW PANEL - A	TYPE: _ OR AF		D EQUA			UNTING: <u>Flush</u> IMUM AIC: <u>verify</u>							T GROUND BUS			
LOAD	CKT		S PER	PHASE	CKT	N	UTR	AL	CKT	WAT	is per	PHASE	СКТ		LOAD	
SERVICE	BRKR		B	C	NO		BC	;	NO	A	·B	C	BRKR		SERVICE	
LTS- TAP ROOM	20A	1400			1_	\Box		\subseteq	2	540	<u> </u>		20A	REC- TVS	<u> </u>	
LTS- SIDE ROOMS	20A	ļ	1330		3	\cap		\subseteq	4		720		20A	REC- TAP	PROOM	
LTS- BREW HOUSE	20A			1214	5	\cap		\subseteq	6			720	20A	REC- BOA	ARD ROOM	
GWH	20A	180			7	\sim		\subseteq	8	720			20A	REC- BOA	ARD ROOM	
LOGO	20A		500		9	\cap		\overline{C}	10		360		20A	REC- BAT	THROOM	
BREW HOUSE CONTROLS				9000	11	\Box		\mathcal{L}	12			540	20A	REC- HAL	LWAY	
•	100A	9000			13	\Box	Ш	\sim	14	360			20A	REC- STO	RAGE	
•			9000	<u> </u>	15	\sim	+	\sim	16		540		20A	REC- STA	FF	
SIGN	20A			1200	17	\sim	-	\sim	18			540	20A	REC- POS		
SIGN	20A	1200			19	\cap		$\overline{}$	20	720			20A	REC- BAR	USB	
GLYCOL CHILLER			7560		21	7	-	7	22		540		20A	REC- BRE	W HOUSE	
• •	90A			7560	23	\cap		5	24			720	20A	REC- POD	CAST BOOTH	
•		7580			25		H	\sim	26	360			20A	REC- EXT		
AIR COMPRESSOR			2500		27	\cap		$\overline{}$	28		400		20A	FANS		
•	30A			2500	29	\overline{A}		\sim	30				20A	SPARE	•	
•		2500			31	$\overline{}$	\Box		32				20A	SPARE		
SPARE	20A				33	$\overline{}$	$\exists \exists$	$\overline{\ }$	34				20A	SPARE		
SPARE	20A				35	\overline{a}	\dashv	\sim	36				20A	SPARE		
SPARE	20A				37	\overline{a}			38	8455				PANEL 'B'		
SPARE	20A				39	\overline{a}	\blacksquare	$\overline{\sim}$	40		6046		60A			
SPARE	20A				41		Щ	$\overline{\sim}$	42			4725	1	.		
NOTES SUB-T	OTALS 'B'	21840	20890	21474	$\times\!\!\times\!\!\times$		400A	E	BUS	11155	8606	7245	SUB-	TOTALS 'A'	1	
			1		IV V V		400A		UGS	21840	20890	21474		TOTALS 'B'	i i	
							400A		CCCD		32995	29496	28719		D TOTAL	TOTAL CONNECTE
							ERIF		SIZE	275A	246A	240A		/PHASE	1	
NEC ALLOWABLE DEMAND	FACTO	RS	Di	VERSI	FIED					2.0.1	210/1	210/1	Tim O	/ I TIAGE		
DEMAND FACTORS PER NEC				LOAD	TYP	E			MAND CTOR①	Α	В	С	TOTAL	. DIVERSIFIE	ED LOAD	
2 LARGEST OF: NEC TABLE 2 CONNECTED LOAD	20.12 OR			ERAL L			@		25%	1750	1663	1518		4931		
(3) NEC TABLE 220.56				ICK LIGH					25% VANDOX	2880	2160	2520	<u> </u>	7560		
(4) NEC 220.51			REC			>100	VARGOS									
(5) NEC 220.43A, 200 VA/LINE	AR FT		MO	RGEST L OTHER			25%	3125	3125	3125		9375				
(6) NON-COINCIDENT LOADS, LA	N-COINCIDENT LOADS, LARGEST WATER HEATERS						<u> </u>	12	25%							
OF THE TWO LOADS IS COU			KITCHEN EQUIPMEN				စ္ဘ		00%	10410	8844	7986		27240		
		FIX. ELEC. SPACE SHOW WINDOW LIGH					. <u> </u>		25%							
		SIGN						12	25%	1500		1500		3000		
			MIS	<u> </u>		PHA	E (T (V)	9000 28665	9900 25692	9000 25649		27900 80008		
								1	OTAL MPS	239A	215A	214A		S X 1.732	= 223A TOTAL	

EQUIF	MEN	IT V	VIRIN	IG	SCHEDULE	
QUIPMENT	MCA	МОСР	VOLTS PH		WRE SIZE	1
LYCOL CHILLER	70.1A	90A	208V	3	4-#3, 1-#8 GND IN 1 1/4" CONDUIT	1
R COMPRESSOR	(7.5KW)	30A	208V	3	4-#10, 1-#10 GND IN 3/4" CONDUIT	1
PU-1	72A	80A	480V	3	3-#3, 1-#8 GND IN 1 1/4" CONDUIT	1

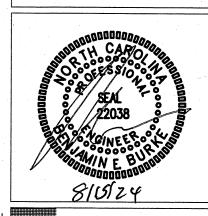
NOTE: THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL EQUIPMENT ELECTRICAL REQUIREMENTS PRIOR TO ROUGH—IN AND RELEASING GEAR. ADJUST BREAKER, WIRE SIZES, ETC. AS REQUIRED.

NEW PANEL- 'B'	MAKE: _					208/120V	3 PHAS	E <u>4</u> WF				UIT BREAK				
NEW PANEL D	TYPE: _	TYPE: PRL1a MOUNTING: FLUSH								EQUIPMENT GROUND BUS XYES □NO						
	OR AF	PROVE	D EQUA	L M	NIMUM	AIC: VER	IFY		_ SEF	NCE EI	NTRY R	ATED	□YES	⊠ N0		
LOAD	CKT	WATT	s per i	PHASE	CKT	NEUTRAL	. CKT	WAT	is per	PHASE	CKT		LOAD			
SERVICE	BRKR	A	В	C	NO	ABC	NO	Α	В	C	BRKR		SERVICE			
KEG COOLER COND.	20A	500			1	\cap +++ $'$	∩ 2	2875			30A	WAREWASH	ER (9)			
			500	<u> </u>	3	$ \cap + + $	1 4		2875		JUA					
KEG COOLER EVAP	20A		<u> </u>	500	5	\cap	<u>6</u>			2875	30A	WAREWASH	ER (9)			
COLD STORAGE COND.	20A	500			7		<u> </u>	2875			JUA					
			500		9		기 10		240	<u> </u>	20A	1-DR BAC	K BAR REF	(11)		
COLD STORAGE EVAP	20A			500	11	\cap	12			240	20A	1-DR BAC	K BAR REF	(11)		
STAFF MICROWAVE	20A	1000			13		14	345			20A	BACK BAR	(10)			
STAFF UC REF	20A		1000		15		16		610		20A	GLASS FRO	STER (8)			
SPARE	20A				17		18			610		GLASS FRO				
SPARE	20A				19		20	360			20A	BEV DISPE	NSER (15)			
SPARE	20A				21		22		321			UC ICE MA				
SPARE	20A				23	\cap	24				20A	SPARE				
SPARE	20A				25		26				20A	SPARE				
SPARE	20A				27	\cap	28				20A	SPARE				
SPARE	20A				29	$\Delta \Box \Box$	30					SPARE				
NOTES SUB-1	OTALS 'B'	2000	2000	1000	XXX	BOA	BUS	6455	4046	3725		TOTALS 'A'				
						60A	LUGS	2000	2000	1000		TOTALS 'B'				
						60A	FEED	8455	6046	4725		TOTAL	TOTAL CO	RECIED		
						VERIFY	SIZE	71A	51A	40A		/PHASE				
NEC ALLOWABLE DEMANI	FACTO	RS	Di	VERSI	FIED	LOAD SU	MARY	-								
			- -				DEMAND		r	-						
(1) DEMAND FACTORS PER NEC (2) LARGEST OF: NEC TABLE 2				LOAD			FACTOR(1)	A	В	С	TOTAL	. Diversifie	D LOAD			
CONNECTED LOAD	20.12 UK			ERAL LI CK LIGH		0	125%									
(3) NEC TABLE 220,56				ERAL U		 ,	125% 10KVA0100%									
(4) NEC 220.51				EPTACL			10KVA@50%									
~				ORS AN		RGEST	125%									
					EQUIPMENT ALL OTHERS 100%											
(8) NON-COINCIDENT LOADS, L. OF THE TWO LOADS IS COL				ER HEA HEN EC		T G	125% 65%	5496	3930	3072		12498	·			
OF THE TWO LUADS IS COL	INIED		FIX.	ELEC.	SPACE	HEAT.	100%					12480				
			SHC	W WND	OW LIG	HTS (6)	125%									
			SIG				125%									
			MIS			PHASE (T	100%	5408	3930	3072		12498				
						1.11.100 (I	7/V	UT50	2530	5072		14750				
				-			TOTAL	46A	33A	26A		LT AMPS	35A	TOTAL AMPS		









GRAIN DEALERS BREWERY

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OCCUMEN	revisions:	
T. THESE	<u>∕2</u> 8/15/24 AHJ COMME	NT
NCE-ARCHITECT. THESE DOCUMENTS HAVE BEEN PREPARED SPECIF		
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drawn by:

checked by:

project no:

23-117

PANEL SPECS

E4