

**2018 APPENDIX B
BUILDING CODE SUMMARY
FOR ALL COMMERCIAL PROJECTS**
(Includes : New Construction, Lifts, Renovations, Additions)
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)

PROJECT INFORMATION - (REQUIRED INFORMATION FOR ALL PROJECTS)

NAME OF PROJECT: PIFFY BOUTIQUE
 ADDRESS: 200 S. MAIN, KANNAPOLIS, NC 28081, SUITE 108
 PROPOSED USE: OFFICE BUILDING
 OWNER/OWNER'S AGENT: PETER ELZETT - LANSING MELBOURNE GROUP PHONE # 351.302.2900 EMAIL pe@lmg.com
 DESIGNED BY: CITY/COUNTY PRIVATE STATE
 CODE ENFORCEMENT JURISDICTION: CITY CHARLOTTE COUNTY MECKLENBURG STATE

CONTACT: AMANDA MEHM | amehm@smithharris.com

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE # (INCLUDE EXT.)	EMAIL
ARCHITECTURAL	STUDIO Z ARCHITECTURE	BILL ZEHRLING	11149	800.229.0544	bill@studioz-architecture.com
CIVIL					
ELECTRICAL	WILDE ENGINEERING	MATTHEW LEWIS	040228	704.438.7038	mlewis@wildeengineering.com
FIRE ALARM	WILDE ENGINEERING	MATTHEW LEWIS	040228	704.438.7038	mlewis@wildeengineering.com
PLUMBING	WILDE ENGINEERING	MATTHEW LEWIS	040228	704.438.7038	mlewis@wildeengineering.com
MECHANICAL	WILDE ENGINEERING	MATTHEW LEWIS	040228	704.438.7038	mlewis@wildeengineering.com
SPRINKLERS/STAMPING	WILDE ENGINEERING	MATTHEW LEWIS	040228	704.438.7038	mlewis@wildeengineering.com
STRUCTURAL	WALKER ENGINEERING	DAVID WALKER	14588	704.366.5554	dwalker@walkereng.com
RETAINING WALLS & HIGH OTHER	SMITH HARRIS DESIGN ASSOCIATES	AMANDA MEHM		704.344.0017	amehm@smithharris.com

2018 NC BUILDING CODE (NCBC);
 2024 NC BUILDING CODE (NCBC);

CHECK ALL THAT APPLY:

NEW CONSTRUCTION SHELLCORE - CONTACT THE LOCAL INSPECTION JURISDICTION FOR POSSIBLE ADDITIONAL PROCEDURES AND REQUIREMENTS
 FIRST TIME INTERIOR COMPLETION (LIFT) PHASED CONSTRUCTION - SHELLCORE - CONTACT THE LOCAL INSPECTION JURISDICTION FOR POSSIBLE ADDITIONAL PROCEDURES AND REQUIREMENTS
 ADDITION RENOVATION

CODE DATA - NC EXISTING BUILDING CODE

2018 NC EXISTING BUILDING CODE (NCBC);
 2024 NC EXISTING BUILDING CODE (NCBC);

CHECK ALL THAT APPLY:

PRESCRIPTIVE (CHAP 4) REPAIR PERFORMANCE (CHAP 14)
 ALTERATION LEVEL 1 ALTERATION LEVEL 2 ALTERATION LEVEL 3
 HISTORIC PROPERTY CHANGE OF USE

EXISTING BUILDING DATA: (FOR NC EXISTING BUILDING CODE)

CONSTRUCTED: 2024 CURRENT OCCUPANCY(S) (CH 3): N/A
 RENOVATED: 2024 PROPOSED OCCUPANCY(S) (CH 3): MERCANTILE

RISK CATEGORY (TABLE 1604.5):
 CURRENT: I II III IV
 PROPOSED: I II III IV

BASIC BUILDING DATA:

CONSTRUCTION TYPE (TABLE 601) (CHECK ALL THAT APPLY):
 I-A I-A I-A I-A I-A
 I-B I-B I-B I-B I-B

SPRINKLERS (SECTION 903):
 NO PARTIAL YES NFPA-13 NFPA-13R NFPA-130

STANDPIPES (SECTION 905):
 NO YES CLASS: I II III WET DRY

PRIMARY FIRE DISTRICT:
 NO YES

FLOOD HAZARD AREA:
 NO YES

SPECIAL INSPECTIONS REQUIRED:
 NO YES (CONTACT THE LOCAL INSPECTION JURISDICTION FOR ADDITIONAL PROCEDURES AND REQUIREMENTS)

GROSS BUILDING AREA:

FLOOR	EXISTING (SQ. FT.)	NEW (SQ. FT.)	ALTER	SUB-TOTAL
4TH FLOOR				
5TH FLOOR				
4TH FLOOR				
3RD FLOOR				
2ND FLOOR				
MEZZANINE				
1ST FLOOR	1,477		1,477	
BASEMENT				
TOTAL GROSS AREA:	1,477 (TOTAL TENANT)		50 FT.	
	1,997 (TOTAL FLOOR)		50 FT.	
	51,156 (TOTAL BUILDING)		50 FT.	

ALLOWABLE AREA

PRIMARY OCCUPANCY CLASSIFICATION(S):

ASSEMBLY (203) A-1 A-2 A-3 A-4 A-5
 BUSINESS (204) B
 EDUCATIONAL (205) E
 FACTORY (206) F-1 MODERATE F-2 LOW H-3 COMBUST H-4 HEALTH H-5 HIGH
 HAZARDOUS (207) H-1 DETONATE H-2 EXPLODATE
 INSTITUTIONAL (208) I-1 I-2 I-3 CONDITION 1 I-4 I-5 CONDITION 2
 MERCANTILE (209) M
 RESIDENTIAL (210) R-1 R-2 R-3 R-4
 STORAGE (211) S-1 S-1 HIGH-PILED S-2 S-2 HIGH-PILED
 UTILITY AND MISCELLANEOUS (212) U V

ACCESSORY OCCUPANCY CLASSIFICATION (Table 208): N/A
 INCIDENTAL USES (Table 209): N/A
 SPECIAL USES (CHAPTER 4 - LIST CODE SECTIONS): RESIDENTIAL SECTION 420 (R-2)
 SPECIAL PROVISIONS (CHAPTER 5 - LIST CODE SECTIONS): 510.2 - HORIZONTAL BUILDING SEPARATION ALLOWANCE 510.5 - GROUP R-1 & R-2

MIXED OCCUPANCY USE (208.5) NO YES SEPARATION: 2 HR. EXCEPTION:

NON-SEPARATED USE (208.3)
 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 (208.4) - 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. IF APPLICABLE TO THIS PROJECT PLEASE PROVIDE A KEY PLAN WITH ALL OCCUPANCIES IDENTIFIED WITH SQUARE FOOTAGE.

ACTUAL AREA OF OCCUPANCY A	ALLOWABLE AREA OF OCCUPANCY A	ACTUAL AREA OF OCCUPANCY B	ALLOWABLE AREA OF OCCUPANCY B	≤ 1.00
				≤ 1.00

STORY NO. **DESCRIPTION AND USE** **(A) BLDG AREA PER STORY (ACTUAL)** **(B) TABLE 504.2¹ ALLOWABLE AREA INCREASES** **(C) AREA FOR PROPOSED INCREASES** **(D) ALLOWABLE AREA PER STORY (UNLIMITED 2.3)** **TOTAL OF ACCESSIBLE PROVIDED**

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 504.2 ¹ ALLOWABLE AREA INCREASES	(C) AREA FOR PROPOSED INCREASES	(D) ALLOWABLE AREA PER STORY (UNLIMITED 2.3)	TOTAL OF ACCESSIBLE PROVIDED
1	MIXED	12,997	UNLIMITED	N/A	UNLIMITED	

¹ FRONTAGE AREA INCREASES FROM SECTION 506.3 ARE COMPUTED THIS:
 A. PERIMETER WHICH FRONTS A PUBLIC WAY OR OPEN SPACE HAVING 20 FEET MINIMUM WIDTH = (P)
 B. TOTAL BUILDING PERIMETER = (P)
 C. RATIO (P/P) = (P/P)
 D. W = MINIMUM WIDTH OF PUBLIC WAY = (W)
 E. PERCENT OF FRONTAGE INCREASE = 1 + 100(P/P - 0.25) X W (W) (%)
² UNLIMITED AREA APPLICABLE UNDER CONDITIONS OF SECTION 507.
³ MAXIMUM BUILDING AREA = TOTAL NUMBER OF STORIES IN THE BUILDING X D (MAXIMUM 3 STORIES) (206.2)
⁴ THE MAXIMUM AREA OF A OPEN PARKING GARAGES MUST COMPLY WITH TABLE 406.4.4. 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 (CHAPTER 5) - (Required for Additions, New Construction)

BUILDING HEIGHT IN FEET (TABLE 504.3) ¹	ALLOWABLE HEIGHT (TABLE 503)		CODE REFERENCE ¹
	SHOWN ON PLANS	UNLIMITED	
BUILDING HEIGHT IN FEET (TABLE 504.3) ¹	UNLIMITED	24'-0"	N/A
BUILDING HEIGHT IN STORIES (TABLE 504.4) ¹	UNLIMITED	2	

¹ PROVIDE CODE REFERENCE IF THE "SHOWN ON PLANS" QUANTITY IS NOT BASED ON TABLE 504.3 OR 504.4
² THE MAXIMUM HEIGHT OF AIR TRAFFIC CONTROL TOWERS MUST COMPLY WITH TABLE 412.3.1
³ THE MAXIMUM HEIGHT OF OPEN PARKING GARAGES MUST COMPLY WITH TABLE 406.4.4

SPECIAL APPROVALS (IF APPLICABLE TO YOUR PROJECT)

SPECIAL APPROVAL: LOCAL JURISDICTION, DEPARTMENT OF INSURANCE, OGC, OPL, DHS, ICC, ETC. DESCRIBE BELOW:

FIRE PROTECTION REQUIREMENTS (CHAPTER 7) - (REQUIRED INFORMATION FOR ALL PROJECTS)

PLEASE CHECK OUR PLAN SUBMITTAL GUIDELINES IF A LIFE SAFETY PLAN IS REQUIRED FOR YOUR PROJECT
 http://damack.org/development/USIA/Code/for/amen/Tools/Publications/Document.aspx.pdf

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING**		DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
		REDD	PROVIDED (W/ REDUCTION)				
STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, TRUSSES		3 HR	3 HR		NCBC 721.1	UL 1479	UL-723 & UL-2079
BEARING WALLS							
EXTERIOR							
NORTH	30	3 HR	3 HR				
EAST	30	3 HR	3 HR				
WEST	5-30	3 HR	3 HR				
SOUTH	30	3 HR	3 HR				
INTERIOR		3 HR	3 HR				
NON-BEARING WALLS & PARTITIONS							
EXTERIOR WALLS							
NORTH	30	N/A	N/A				
EAST	30	N/A	N/A				
WEST	5-30	1 HR	1 HR & 3 HR				
SOUTH	30	N/A	N/A				
INTERIOR WALLS AND PARTITIONS							
FLOOR CONSTRUCTION *** INCLUDING SUPPORTING BEAMS AND JOISTS		3 HR	3 HR				
FLOOR CEILING ASSEMBLY		2 HR	2 HR				
COLUMNS SUPPORTING FLOORS		2 HR	2 HR				
ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS							
ROOF CEILING ASSEMBLY		1.5 HR	1.5 HR				
COLUMNS SUPPORTING ROOF		1.5 HR	1.5 HR				
SHAFT ENCLOSURES - EXT		2 HR	2 HR				
SHAFT ENCLOSURES - OTHER		2 HR	2 HR				
CORRIDOR SEPARATION		1 HR	1 HR				
OCCUPANCY/FIRE BARRIER SEPARATION		1 HR	1 HR				
PARTYFIRE WALL SEPARATION (706.4)		3 HR	3 HR				
SMOKE BARRIER SEPARATION		N/A	N/A				
SMOKE PARTITION		N/A	N/A				
TENANT/DWELLING UNIT SLEEPING UNIT SEPARATION		1 HR	1 HR				
INCIDENTAL USE SEPARATION		1 HR	1 HR				

* INDICATE SECTION NUMBER PERMITTING REDUCTION
 ** CEILING TILE AND GRID IS NOT PART OF THE FLOOR/CEILING ASSEMBLY

PERCENTAGE OF WALL OPENING CALCULATIONS
 (TABLE 705.8)

ALLOWABLE OPENINGS PER STORY: 10% 15% 20% 25% 30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95% 100%

EXISTING BUILDING NOT APPLICABLE

LIFE SAFETY SYSTEM REQUIREMENTS (EXISTING OF NEW SYSTEMS) - (REQUIRED FOR ALL PROJECTS)

EMERGENCY LIGHTING (1006): NO YES
 EXIT SIGNS (1011): NO YES
 FIRE ALARM (907, MFP 72-2013): NO YES
 SMOKE DETECTION SYSTEMS (907): NO YES PARTIAL
 CARBON MONOXIDE DETECTION(907): NO YES

LIFE SAFETY PLAN CHECKLIST FOR COMPLIANCE - (REQUIRED FOR ALL PROJECTS)

LIFE SAFETY PLAN SHEET # 2
 CHECK ITEMS THAT ARE APPLICABLE TO YOUR PROJECT

YES FIRE AND/OR SMOKE RATED WALL LOCATIONS (CHAPTER 7)
 YES ASSUMED AND REAL PROPERTY LINE LOCATIONS (IF NOT ON THE SITE PLAN)
 YES EXTERIOR WALL OPENING AREA WITH RESPECT TO DISTANCE TO ASSUMED PROPERTY LINES (105.8)
 YES OCCUPANCY USE FOR EACH AREA AS IT RELATES TO OCCUPANT LOAD CALCULATION (TABLE 1004.1.2)
 YES OCCUPANT LOADS FOR EACH AREA
 YES EXIT SIGN LOCATIONS (1013)
 YES EXIT ACCESS TRAVEL DISTANCES (1017)
 YES COMMON PATH OF TRAVEL DISTANCES (1006.2.1 & 1006.3.2(1))
 YES DEAD END LENGTHS (1008.4)
 YES CLEAR EXIT WIDTHS FOR EACH EXIT DOOR - SEE CHART BELOW
 YES MAXIMUM CALCULATED OCCUPANT LOAD CAPACITY EACH EXIT DOOR CAN ACCOMMODATE BASED ON EGRESS WIDTH (1005.3) - SEE CHART BELOW
 YES ACTUAL OCCUPANT LOAD FOR EACH EXIT DOOR - SEE CHART BELOW
 YES A SEPARATE SCHEMATIC PLAN INDICATING WHERE FIRE RATED FLOOR/CEILING AND/OR STRUCTURE IS PROVIDED FOR PURPOSES OF OCCUPANCY SEPARATION
 YES LOCATION OF DOORS WITH PANIC HARDWARE (1015.1.10)
 YES LOCATION OF DOORS WITH DELAYED EGRESS LOCKS AND THE AMOUNT OF DELAY (1010.1.9.7)
 YES LOCATION OF DOORS WITH ELECTROMAGNETIC EGRESS LOCKS (1010.1.9.9)
 YES LOCATION OF DOORS EQUIPPED WITH HOLD-OPEN DEVICES
 YES LOCATION OF EMERGENCY ESCAPE WINDOWS (1030)
 YES THE SQUARE FOOTAGE OF EACH FIRE AREA (202)
 YES THE SQUARE FOOTAGE OF EACH SMOKE COMPARTMENT FOR OCCUPANCY CLASSIFICATION I2 (407.5)
 YES NOTE ANY CODE EXCEPTIONS OR TABLE NOTES THAT MAY HAVE BEEN UTILIZED REGARDING THE ITEMS ABOVE

ACCESSIBLE DWELLING UNITS - (SECTION 1107)

TOTAL UNITS	REQUIRED	PROVIDED	REQUIREMENTS MET	132' ACCESSIBLE	IF ACCESSIBLE	TOTAL ACCESSIBLE UNITS PROVIDED

NOT APPLICABLE

ACCESSIBLE PARKING - (SECTION 1106)

LOT OR PAV. AREA	REQUIRED	PROVIDED	REQUIREMENTS MET	132' ACCESSIBLE	IF ACCESSIBLE	TOTAL OF ACCESSIBLE PROVIDED
TOTAL						

EXISTING BUILDING NOT APPLICABLE

PLUMBING FIXTURE REQUIREMENTS (TABLE 2002.1)

OCCUPANCY USE GROUP AND/OR SPACE DESIGNATION	WATERCLOSETS		URINALS		LAVATOIRES		SHOWER/TUBS	DRINKING FOUNTAINS
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE		

REFER TO SHEET 12

SPECIAL APPROVALS (IF APPLICABLE TO YOUR PROJECT)

SPECIAL APPROVAL: LOCAL JURISDICTION, DEPARTMENT OF INSURANCE, OGC, OPL, DHS, ICC, 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 COST FOR THE PROPOSED DESIGN.

EXISTING BUILDING ENVELOPE COMPLIES WITH CODE: NO YES THE REMAINDER OF THIS SECTION IS NOT APPLICABLE EXISTING BUILDING - NOT APPLICABLE

EXEMPT BUILDING: PROVIDE CODE OR STATUTORY REFERENCE: NO YES

CLIMATE ZONE: 3A 4A 5A

METHOD OF COMPLIANCE:
 ENERGY CODE - PRESCRIPTIVE
 ENERGY CODE - PERFORMANCE
 PRESCRIPTIVE (ASHRAE 90.1)
 PERFORMANCE (ASHRAE 90.1)
 OTHER - PERFORMANCE (IF "OTHER" SPECIFY SOURCE HERE)

TERMINAL 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 (EACH ASSEMBLY):
 DESCRIPTION OF ASSEMBLY: _____
 U-VALUE OF TOTAL ASSEMBLY: _____
 R-VALUE OF INSULATION: _____
 OPENINGS (WINDOWS OR DOORS WITH GLAZING):
 U-VALUE OF ASSEMBLY: _____
 SOLAR HEAT GAIN COEFFICIENT: _____
 PROJECTION FACTOR: _____
 DOOR R-VALUES: _____
 WALL BELOW GRADE (EACH ASSEMBLY):
 DESCRIPTION OF ASSEMBLY: _____
 U-VALUE OF TOTAL ASSEMBLY: _____
 ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS:
 R-VALUE 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: _____

STRUCTURAL DESIGN

IF ADDING DEAD LOADS OR LIVE LOADS TO THE BUILDING STRUCTURAL SYSTEM INFORMATION IN ANY PROJECT SHALL BE REQUIRED. THIS INFORMATION MAY BE LOCATED ON THE STRUCTURAL SHEETS. THE STRUCTURAL SHEETS MUST BE IN THE SAME FORMAT AS NOTED IN THIS SECTION. IF IT IS ON THE STRUCTURAL SHEETS, PLEASE INDICATE HERE. LOCATED ON STRUCTURAL SHEET NUMBER: _____ YES NO

DESIGN LOADS:
 IMPORTANCE FACTORS (ASCE/SEI 7-05-11.5): _____
 WIND (W): _____
 SNOW (S): _____
 SEISMIC (W): _____
 FLOOR MEZZANINE: _____
 FLOOR: _____
 GROUND SNOW LOAD: _____
 WIND LOAD: _____
 BASIC WIND SPEED: _____
 EXPOSURE CATEGORY: _____
 SEISMIC DESIGN CATEGORY: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:
 OCCUPANCY CATEGORY (TABLE 1604.5): _____
 SPECTRAL RESPONSE ACCELERATION: _____
 SITE CLASSIFICATION (ASCE 7): _____
 DETERMINED BY: _____
 FIELD TEST PRESUMPTIVE HISTORICAL DATA

BASIC STRUCTURAL SYSTEM CHECKLIST:
 WIND RESISTANT DUAL W/ SPECIAL MOMENT FRAME DUAL W/ SPECIAL R/C OR SPECIAL STEEL
 MOMENT RESISTANT DUAL W/ INTERMEDIATE R/C OR SPECIAL STEEL
 INVERTED PENDULUM
 SEISMIC BASE SHEAR: _____
 ANALYSIS PROCEDURE: SIMPLIFIED EQUIVALENT LATERAL FORCE DYNAMIC
 ARCHITECTURAL, MECHANICAL, COMPONENTS ANCHORED? YES NO
 LATERAL DESIGN CONTROL: EARTHQUAKE WIND
 SOIL BEARING CAPACITIES:
 FIELD TEST (PROVIDE COPY OF TEST REPORT AS A REFERENCE DOCUMENT): _____ P.S.F.
 PRESUMPTIVE BEARING CAPACITY: _____ P.S.F.
 FILL SIZE, TYPE, AND CAPACITY: _____

MECHANICAL SUMMARY

THIS INFORMATION MAY BE LOCATED ON THE MECHANICAL SHEETS. THE MECHANICAL SHEET MUST BE IN THE SAME FORMAT AS NOTED IN THIS SECTION. IF IT IS ON THE MECHANICAL SHEETS, PLEASE INDICATE HERE. LOCATED ON MECHANICAL SHEET NUMBER: _____

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

TERMINAL ZONE:
 WINTER DRY BULB: _____
 SUMMER WET BULB: _____
 INTERIOR DESIGN TEMPERATURE: _____
 WINTER DESIGN RELATIVE HUMIDITY: _____
 SUMMER DESIGN RELATIVE HUMIDITY: _____
 RELATIVE HUMIDITY: _____

BUILDING HEATING LOAD: _____
 BUILDING COOLING LOAD: _____

MECHANICAL SPACING/CONDITIONING SYSTEM:
 UNITARY: _____
 DESCRIPTION OF UNIT: _____
 HEATING EFFICIENCY: _____
 COOLING EFFICIENCY: _____
 TOTAL INTERIOR WATTAGE SPECIFIED: _____
 SIZE CATEGORY OF UNIT: _____
 BOILER: _____
 CHILLER: _____
 SIZE CATEGORY, IF OVERSIZED, STATE REASON: _____
 SIZE CATEGORY, IF OVERSIZED, STATE REASON: _____

LIST EQUIPMENT EFFICIENCIES: _____

ELECTRICAL SUMMARY

THIS INFORMATION MAY BE LOCATED ON THE ELECTRICAL SHEETS. THE ELECTRICAL SHEET MUST BE IN THE SAME FORMAT AS NOTED IN THIS SECTION. IF IT IS ON THE ELECTRICAL SHEETS, PLEASE INDICATE HERE. LOCATED ON ELECTRICAL SHEET NUMBER: _____ YES NO

ELECTRICAL SYSTEM AND EQUIPMENT

METHOD OF COMPLIANCE:
 ENERGY CODE ASHRAE 90.1 PRESCRIPTIVE PERFORMANCE
 PRESCRIPTIVE (ASHRAE 90.1)
 PERFORMANCE (ASHRAE 90.1)
 OTHER - PERFORMANCE (IF "OTHER" SPECIFY SOURCE HERE)

LIGHTING SCHEDULE (EFFECTIVE DATE): _____
 LAMP TYPE: _____
 NUMBER OF BALLASTS IN FUTURE: _____
 BALLAST TYPE USED IN FUTURE: _____
 NUMBER OF BALLASTS IN FUTURE: _____
 TOTAL INTERIOR WATTAGE SPECIFIED: _____
 TOTAL WATTAGE OF FIXTURE: _____
 TOTAL EXTERIOR WATTAGE SPECIFIED: _____
 TOTAL WATTAGE OF FIXTURE: _____

ADDITIONAL EFFICIENCY / PACKAGE OPTIONS:
 C406.2 MORE EFFICIENT HVAC EQUIPMENT PERFORMANCE
 C406.3 REDUCED LIGHTING POWER DENSITY
 C406.4 ENHANCED DIGITAL LIGHTING CONTROL 3.0
 C406.5 ON-SITE SUPPLY OF RENEWABLE ENERGY
 C406.6 DEDICATED OUTDOOR AIR SYSTEM
 C406.7 REDUCED ENERGY USE IN SERVICE WATER HEATING

ADDITIONAL PROJECT INFORMATION

PROJECT SUMMARY:

BUILDING DESCRIPTION:
 EXISTING SEVEN-STORY SPRINKLERED BUILDING

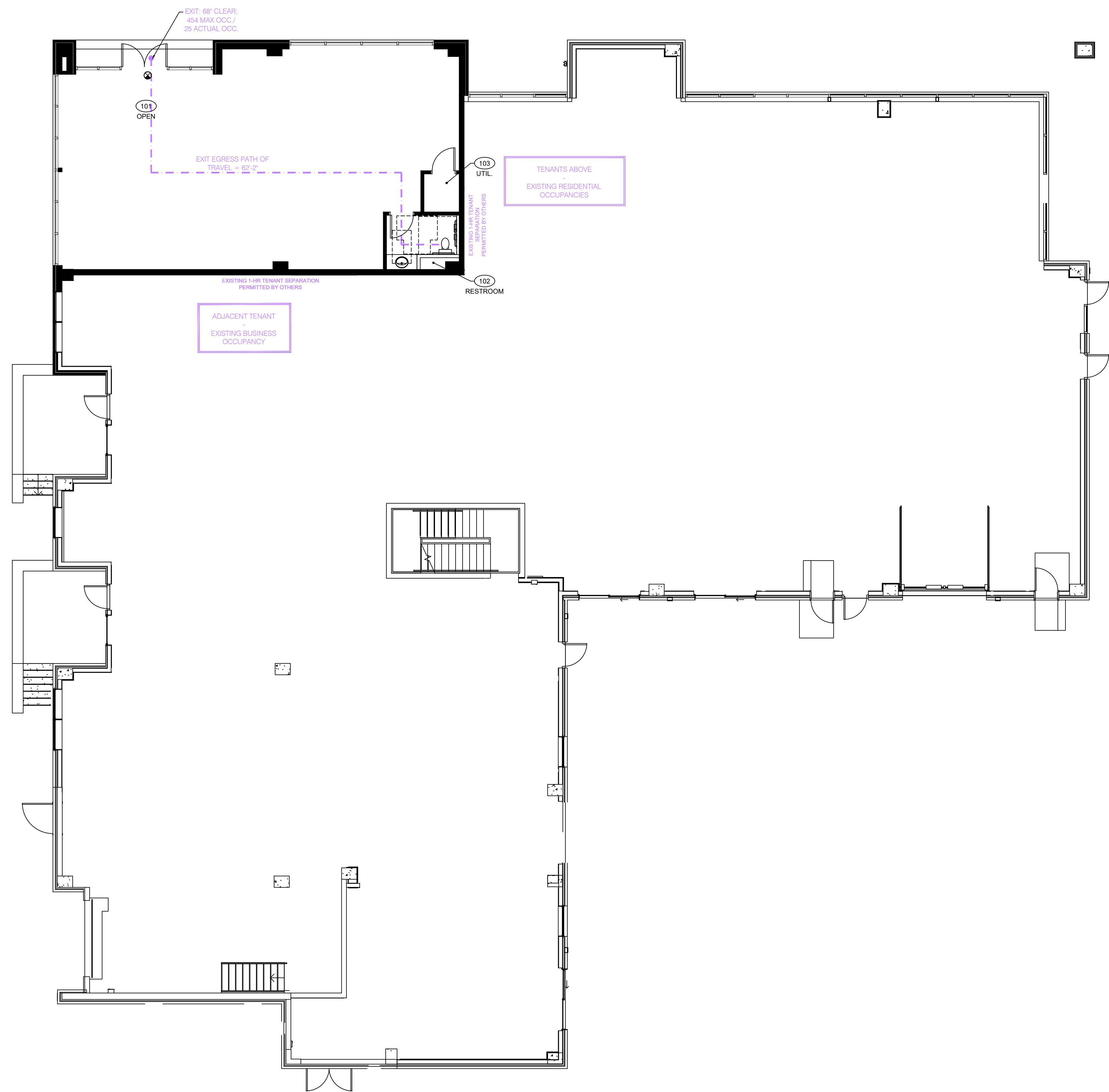
SCOPE OF WORK DETAILS (IF PHASED CONSTRUCTION, PLEASE SEE PLAN SUBMITTAL GUIDELINES FOR SUBMITTAL REQUIREMENTS):
 CONSTRUCTION OF TENANT SUITE TO INCLUDE SINGLE RESTROOM. SCOPE OF WORK TO INCLUDE ARCHITECTURAL, STRUCTURAL, ELECTRICAL, MECHANICAL, PLUMBING AND FIRE PROTECTION AS REQUIRED BY LAYOUT.

EXIT REQUIREMENTS

NUMBER AND ARRANGEMENT OF EXITS (TABLE 1006.3.1)

FLOOR, ROOM OR SPACE DESIGNATION	MINIMUM NUMBER OF EXITS ¹		TRAVEL DISTANCE				ARRANGEMENT MEANS OF EGRESS ^{1,2} (SECTION 1007.1.1)	
	REQUIRED (TABLE 1006.3.1) (SINGLE EXIT 1006.3.2)	SHOWN ON PLANS	ALLOWABLE TRAVEL DISTANCE (TABLE 1017.2)	ACTUAL TRAVEL DISTANCE SHOWN ON PLANS	ALLOWABLE COMMON PATH OF TRAVEL (TABLE 1006.2)	ACTUAL COMMON PATH OF TRAVEL	REQUIRED DISTANCE BETWEEN EXIT DOORS	ACTUAL DISTANCE SHOWN ON PLANS

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PLUMBING CALCULATIONS FOR "M" (MERCANTILE) OCCUPANCY AREA

WATER CLOSETS
1 per 500

1,477 total square feet of Mercantile Area
= 25 total occ.

25 total occupants
13 (men) = 0.026 required
13 (women) = 0.026 required
= 0.052 total required

LAVATORIES
1 per 750

25 total occupants
13 (men) = 0.017 required
13 (women) = 0.017 required
= 0.035 total required

EGRESS OCCUPANCY CALCULATIONS

	SQUARE FOOTAGE	LOAD	# OF PEOPLE
MERCANTILE	1,477	60	24.6
TOTAL NUMBER OF OCCUPANTS			24.6

MAINTAIN EGRESS DURING CONSTRUCTION

CONTRACTOR SHALL EMPLOY SAFEGUARDS DURING CONSTRUCTION IN ACCORDANCE WITH NCBC CHAPTER 33. ALL LIFE SAFETY SYSTEMS (IE SPRINKLER, FIRE ALARMS, EGRESS, LIGHTING, AND EXIT SIGNS) SHALL BE MAINTAINED DURING CONSTRUCTION.

SUMMARY OF REQUIRED PLUMBING FIXTURES

WATER CLOSETS	LAVATORIES	DRINKING FOUNTAIN	SERVICE SINK
UNISEX	UNISEX		
1	1	0	0

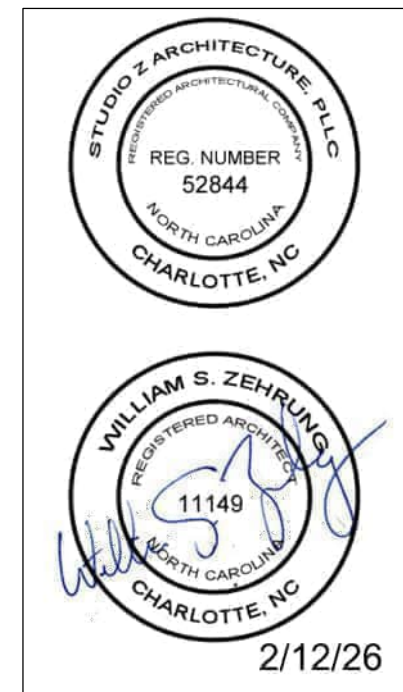
SUMMARY OF PROVIDED FIXTURES

WATER CLOSETS	LAVATORIES	DRINKING FOUNTAIN	SERVICE SINK
UNISEX	UNISEX		
1	1	0	0

*SEPARATE FACILITIES SHALL NOT BE REQUIRED IN TENANT SPACES WITH A TOTAL OCCUPANT LOAD, INCLUDING BOTH EMPLOYEES AND CUSTOMERS, OF 30 OR FEWER (NCPG 403.2 - 2018 AMENDMENTS)



SMITH HARRIS DESIGN
1000 Abbotts Lane 104
Charlotte, NC 28203
www.smithharris.com
Tel: 704-344-9017
Fax: 704-344-9857



PROJECT NAME



Piffy Boutique

200 S. Main,
Kannapolis, NC
28081

ISSUE STATUS AND DATE
ISSUED FOR CONSTRUCTION
02/20/2026

REVISIONS

#	REVISION	DATE

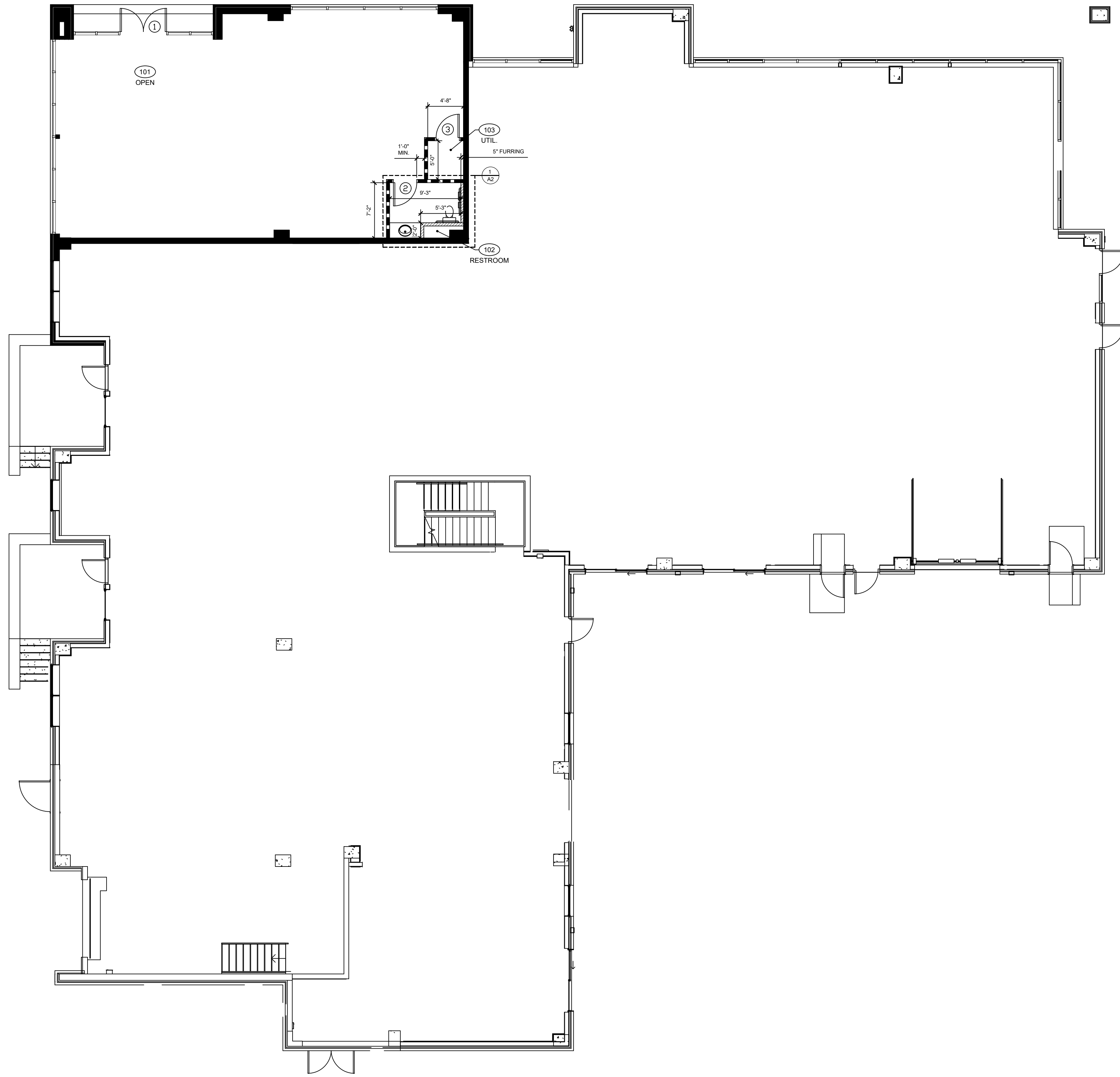
SHEET DATA
PROJECT #: 23991
DRAWN BY: AM
CHECKED BY: WSZ

SHEET NAME

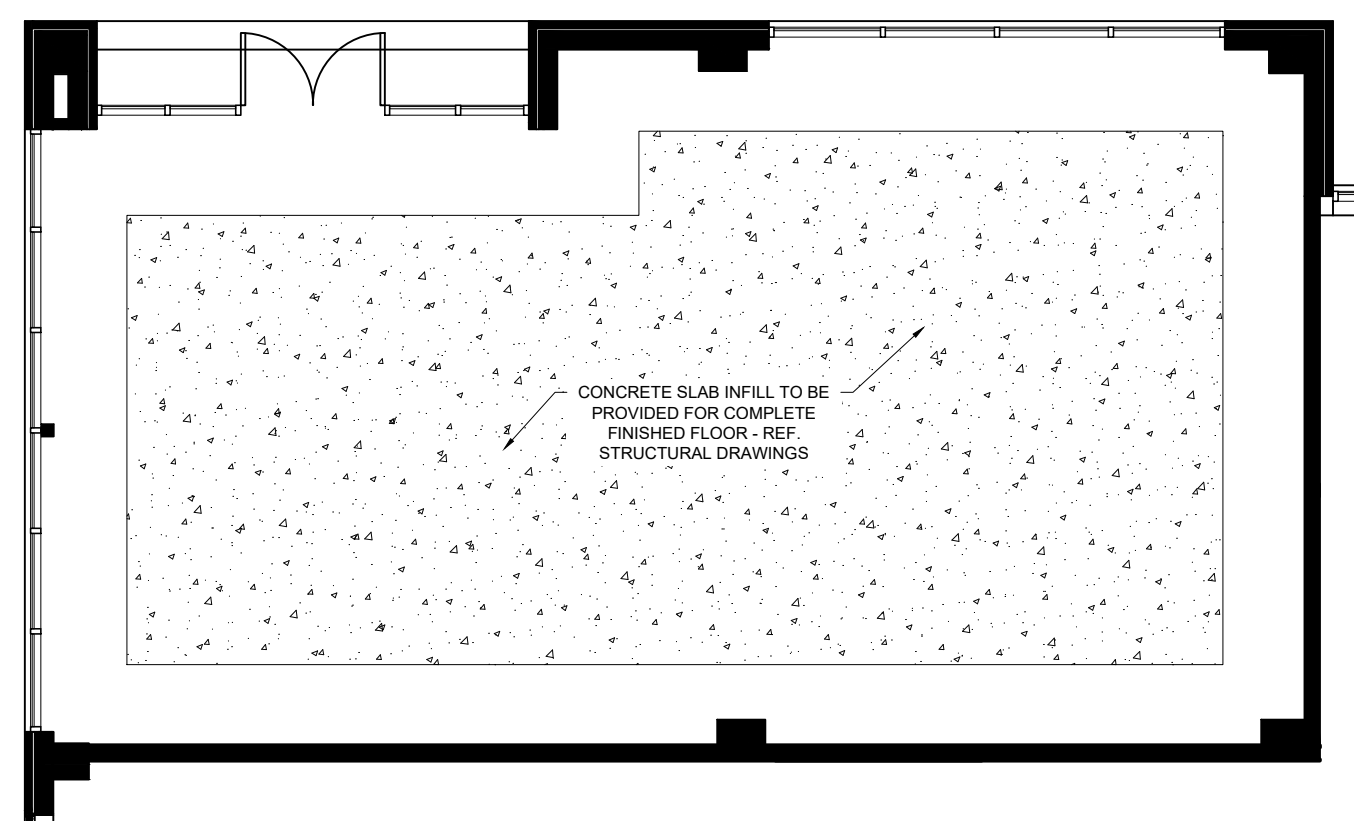
LIFE SAFETY PLAN

SHEET NUMBER
12

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1 ARCHITECTURAL PLAN
A1 1/8" = 1'-0"



2 SLAB INFILL PLAN
A1 1/8" = 1'-0"

- GENERAL NOTES**
1. MAINTAIN EXISTING RATINGS AS REQUIRED BY CODE. REFER TO WALL TYPES FOR RATINGS FOR ALL NEW CONSTRUCTION.
 2. CONTRACTOR TO BE RESPONSIBLE FOR FIELD DIMENSIONING OF ALL MILLWORK, GLASS, DOOR OPENINGS, ETC.
 3. CONTRACTOR SHALL PROVIDE NECESSARY BACKING, FIRE RETARDANT TREATED BLOCKING, AND FRAMING FOR LIGHT FIXTURES, ELECTRICAL FIXTURES, CASEWORK AND OTHER ITEMS REQUIRING SAME. COMBUSTIBLE MATERIALS SHALL BE IN ACCORDANCE WITH NCBC 603.
 4. PROVIDE WALL MOUNTED FIRE EXTINGUISHERS AS REQUIRED BY LOCAL FIRE CODE.
 5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL WORK AND MATERIALS IN ACCORDANCE WITH THE LATEST LOCAL BUILDING CODES AND ORDINANCES.
 6. CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS AND CONDITIONS AND SHALL REPORT ANY CONFLICTS OR QUESTIONS FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK. DO NOT SCALE FROM THE DRAWINGS.
 7. THE USE OF THE WORD "PROVIDE" SHALL ALWAYS MEAN FURNISH AND INSTALL, CONNECT OR SECURE AS REQUIRED.
 8. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND TRADE ASSOCIATION'S ACCEPTED STANDARDS.
 9. ALL MATERIALS TO BE NEW, UNLESS NOTED OTHERWISE.
 10. ASSUME NORTH AT TOP OF DRAWING.
 11. PROVIDE FINAL LAYER OF GYPSUM BOARD WHERE REQUIRED (TYPICAL).
 12. GC TO VERIFY EXISTING DEMISING PARTITIONS ARE DECK HIGH/INSULATED/1 HOUR RATED; RETROFIT TO DECK HIGH/INSULATED/1 HOUR RATED IF NOT EXISTING. (FOR PROTECTED BUILDINGS: IF STRUCTURE IS FIRE PROTECTED WITH SPRAY-APPLIED FIRE PROTECTION, REPAIR DAMAGED SPRAY-APPLIED FIRE PROTECTION WITH LIKE MATERIAL AND THICKNESS TO MAINTAIN CONTINUITY OF FIRE RATING PROTECTION.)
 13. PROVIDE STENCILING ABOVE LAY-IN CEILING USING THE FOLLOWING WORDING: "FIRE AND SMOKE BARRIERS - PROTECT ALL OPENINGS". STENCILS SHALL BE LOCATED ON BOTH SIDES OF RATED PARTITIONS AND PLACED EVERY 6'-0" ON CENTER.
 14. CONTRACTOR SHALL PROVIDE "UNISEX" SIGNAGE ON RESTROOMS DOOR. SIGNAGE MUST COMPLY WITH CURRENT STANDARD BUILDING CODE, ADA CODE, OSHA CODE & A117.1-2009.
 15. CONTRACTOR SHALL CLEAN THE PREMISES IMMEDIATELY PRIOR TO OCCUPANCY OF THE SPACE BY THE TENANT. THIS INCLUDES VACUUMING, MOPPING, CLEANING OF THE WINDOWS AND BLINDS, CLEANING OF THE LIGHT FIXTURE LENSES, CLEANING OF THE HVAC RETURNS AND DIFFUSERS, POLISHING OF ALL METAL, WAXING AND BUFFING OF TILE FLOORING (AS APPLICABLE), REMOVAL OF ALL CONSTRUCTION DEBRIS, ETC.

DOOR SCHEDULE - PIFFY BOUTIQUE

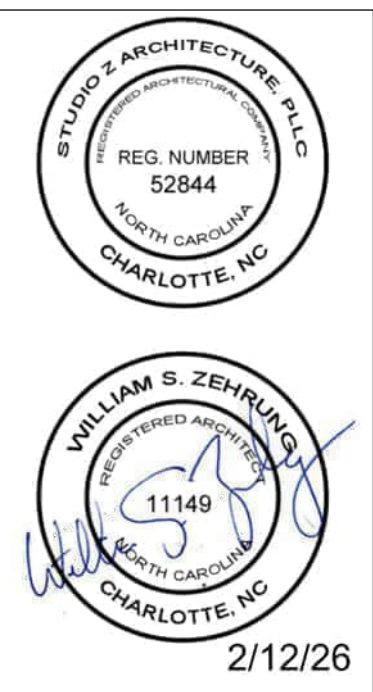
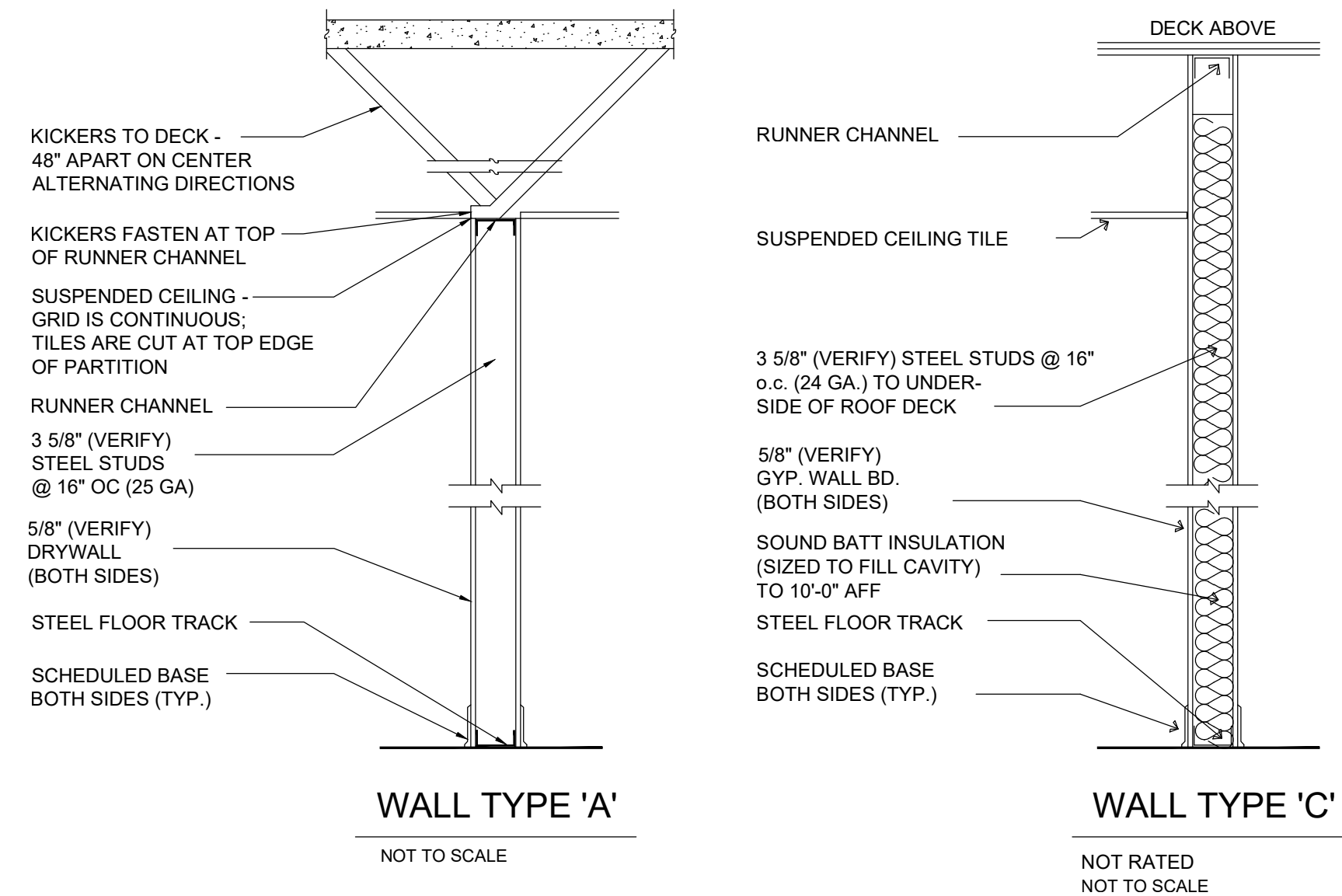
DOOR NUMBER	SIZE	DOOR FINISH	HARDWARE	SECURITY	RATING	CLOSER	FRAME	REMARKS
1	6'-0" X 8'-0" X 1 3/4" (PR)	ALUM WITH GLASS	LOCKSET	-	-	CLOSER	ALUM	EXISTING
2	3'-0" X 8'-0" X 1 3/4"	STAIN	PRIVACY WITH OCCUPANCY SENSOR	-	-	CLOSER	HM	NEW
3	3'-0" X 8'-0" X 1 3/4"	STAIN	PASSAGE	-	-	-	HM	NEW

- DOOR NOTES**
1. NEW DOOR, STAIN, FRAME AND HARDWARE TO MATCH BUILDING STANDARD UNLESS NOTED OTHERWISE.
 2. HARDWARE AND LOCKS TO COMPLY WITH SECTIONS 1010.1.9.2 AND 1010.1.9.3 THE NORTH CAROLINA STATE BUILDING CODE AND ICC A117.1 ACCESSIBILITY CODE (404.2.6 AND 404.2.7).
 3. DOOR STOP SHALL BE PROVIDED WHERE UNCONTROLLABLE DOOR SWINGS INTERSECT ADJACENT WALLS OR OTHER PERMANENT OBJECTS. DOOR STOPS SHALL MATCH BUILDING STANDARD.
 4. DOOR CLOSER SHALL BE EITHER NORTON 8300 SERIES #8301BF (BARRIER FREE TO MEET ADA REQUIREMENTS) OR YALE 3500 SERIES #3501BF (BARRIER FREE TO MEET ADA REQUIREMENTS).
 5. CONTRACTOR RESPONSIBLE FOR FINAL RE-KEY OF ALL NEW LOCKSETS.

WALL LEGEND

	EXISTING DEMISING PARTITION (RATINGS VARY)
	NEW DECK HIGH PARTITION (NOT RATED) WALL TYPE "C"
	NEW CEILING HIGH PARTITION WALL TYPE "A"
	DOOR

PROVIDE MOISTURE RESISTANCE GYPSUM BOARD AT RESTROOMS PER 2509 OF NCBC. GYPSUM BOARD IN WALL CONSTRUCTION THAT IS EXPOSED TO WETNESS OR HIGH HUMIDITY SHALL BE WATER RESISTANT.



PROJECT NAME



Piffy Boutique

200 S. Main,
Kannapolis, NC
28081

ISSUE STATUS AND DATE

ISSUED FOR CONSTRUCTION	DATE
02/20/2026	

REVISIONS

#	REVISION	DATE

SHEET DATA

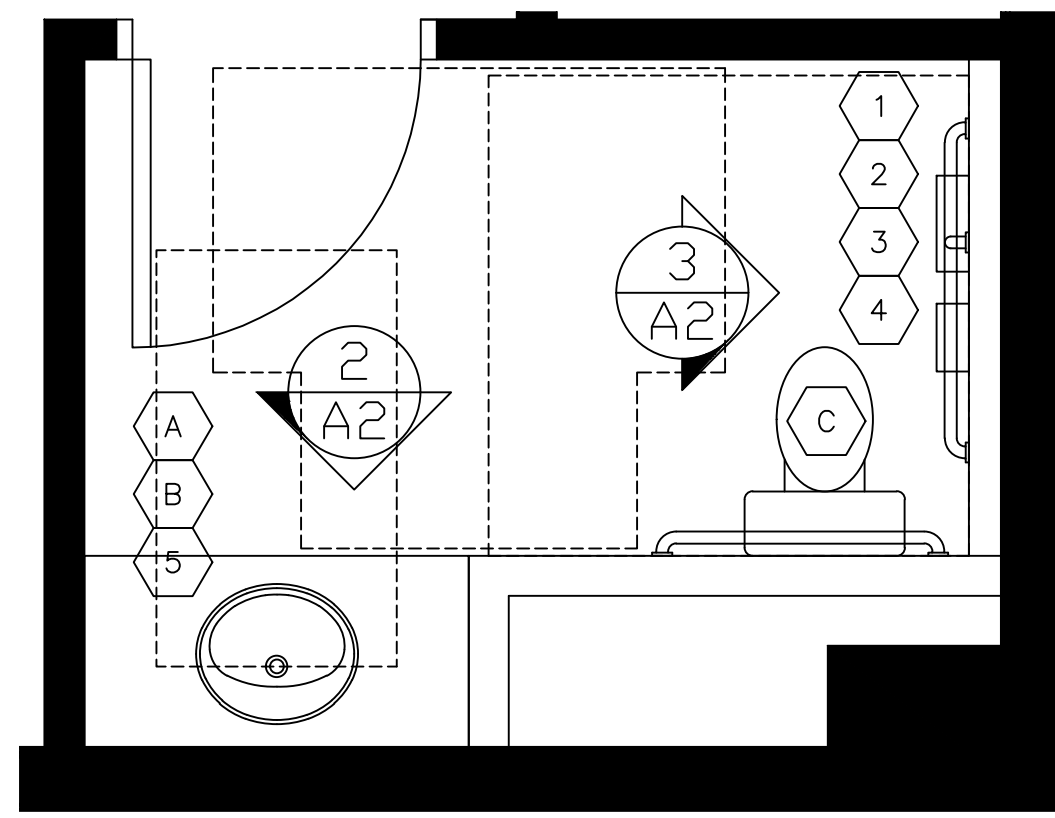
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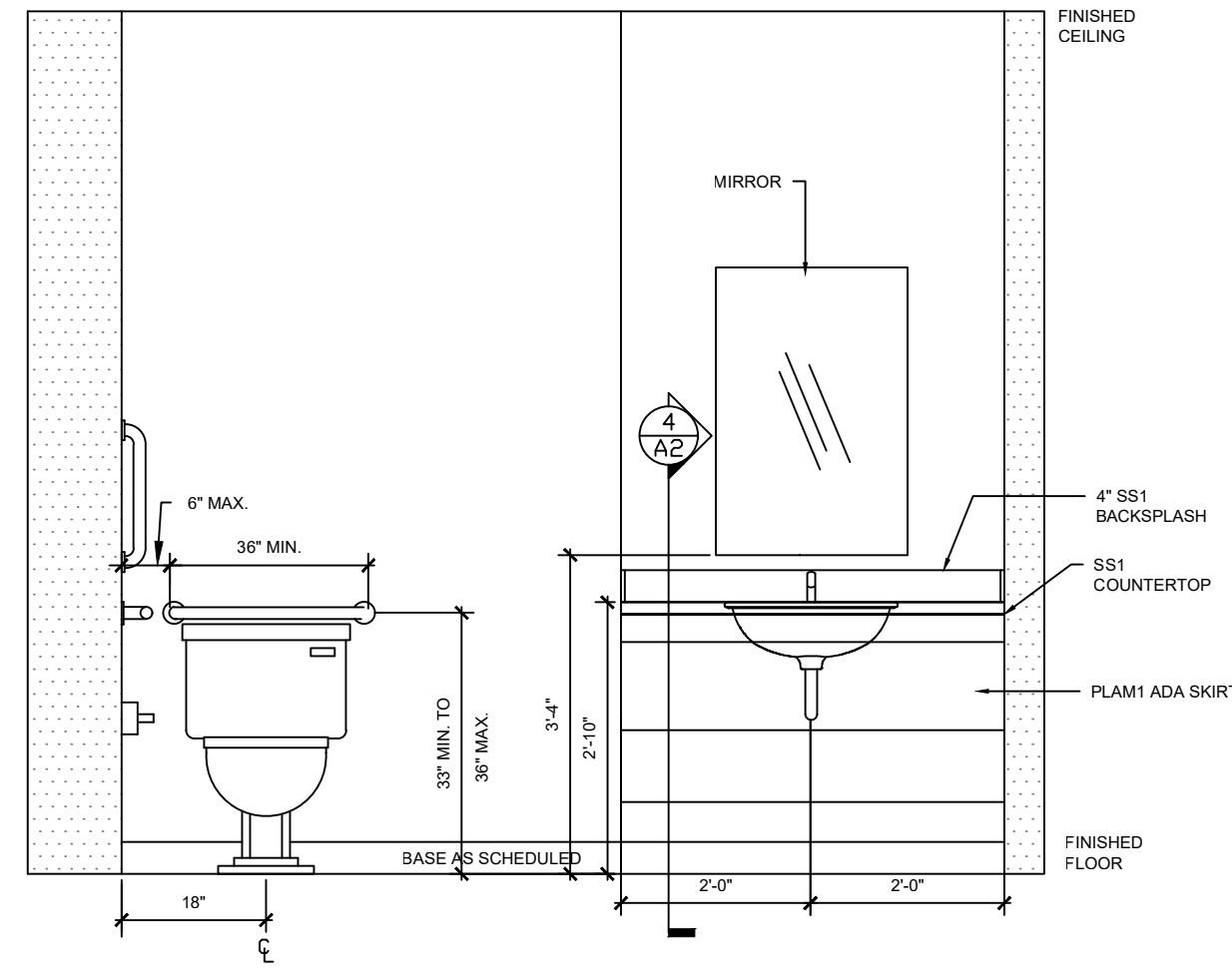
ARCHITECTURAL PLAN

SHEET NUMBER

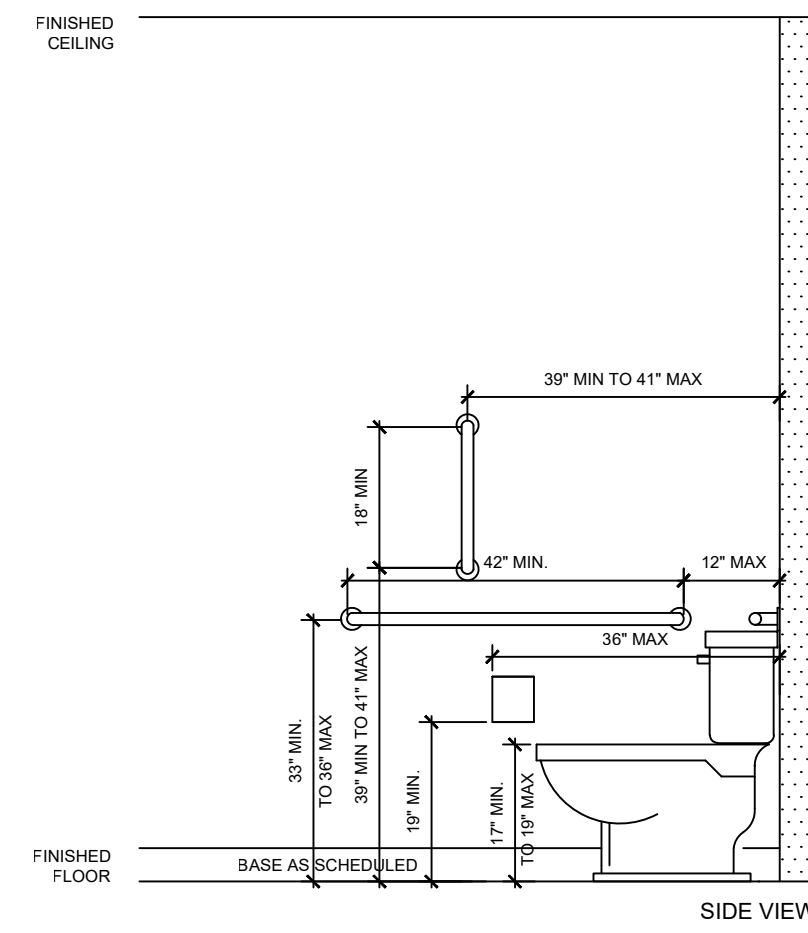
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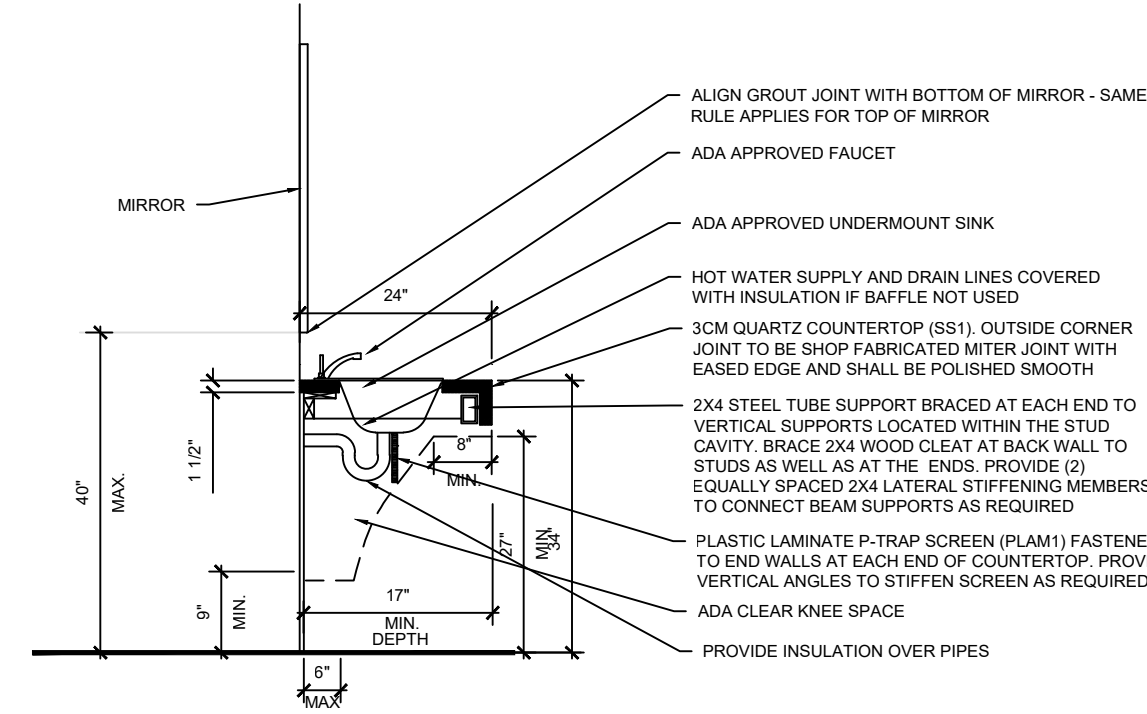
1 ENLARGED RESTROOM PLAN
A2 1/2" = 1'-0"



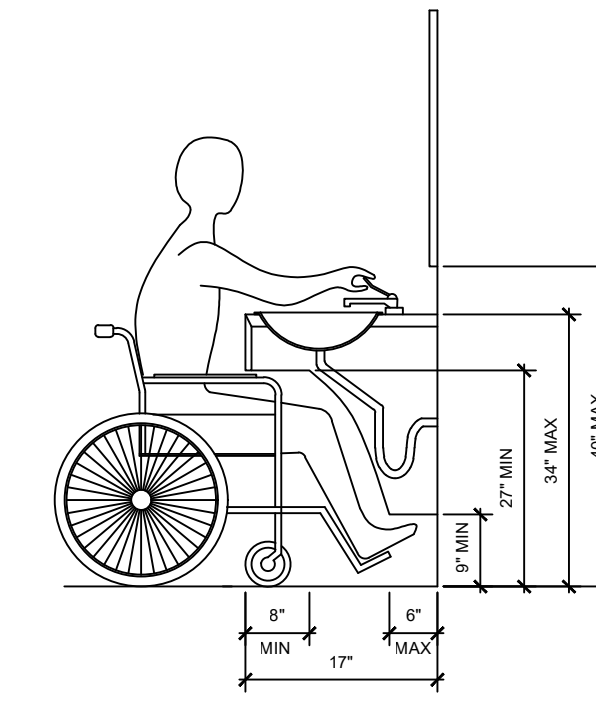
2 ELEVATION AT RESTROOM
A2 1/2" = 1'-0"



3 ELEVATION AT RESTROOM
A2 1/2" = 1'-0"



4 DETAIL AT RESTROOM SINK
A2 1/2" = 1'-0"

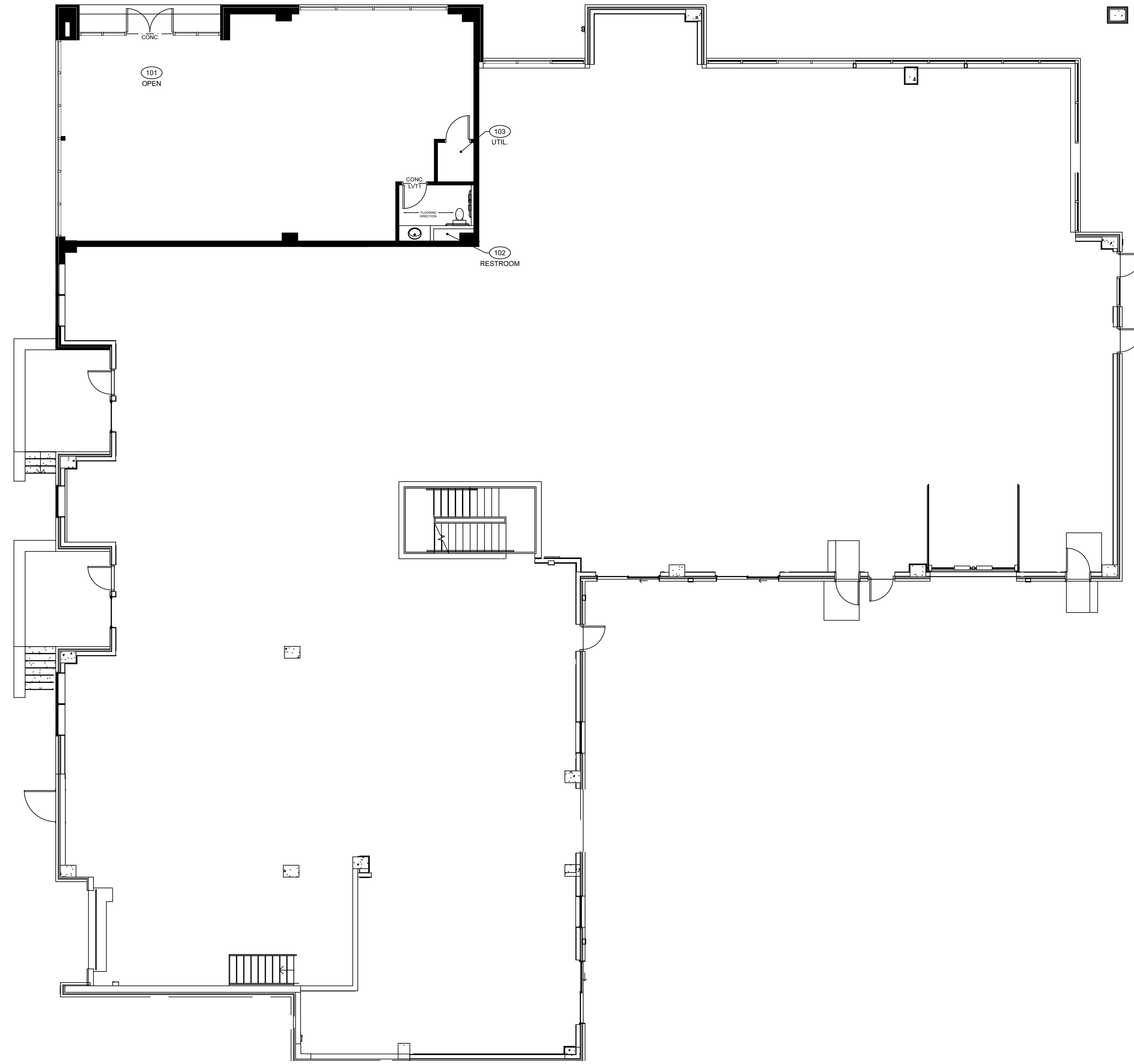


5 DETAIL AT RESTROOM SINK
A2 1/2" = 1'-0"

RESTROOM PLUMBING EQUIPMENT SCHEDULE			
TAG #	DESCRIPTION	SPECIFICATION	NOTES
A	ADA DEPTH SINGLE COMPARTMENT SINK - UNDERMOUNT	KOHLER - CAXTON - 21-1/4" OVAL UNDERMOUNT RESTROOM SINK - MODEL #K-2211-0	(1) FAUCET HOLE
B	FAUCET	KOHLER - TAUT - SINGLE HOLE COMMERCIAL FAUCET - MODEL #K-46028-4-CP	POLISHED CHROME
C	WATER CLOSET	KOHLER - SPACITY - K-28020-0 (OR APPROVED EQ.)	REFER TO ENGINEERED PLANS

RESTROOM ACCESSORY SCHEDULE		
TAG #	DESCRIPTION	SPECIFICATION
1	18"W VERTICAL GRAB BAR	BOBRICK B-5806 X 18
2	36"W HORIZONTAL GRAB BAR	BOBRICK B-5806 X 36
3	42"W HORIZONTAL GRAB BAR	BOBRICK B-5806 X 42
4	TOILET PAPER DISPENSER	BOBRICK - CLASSIC SERIES - B2888 - SURFACE MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER
5	MIRROR	BOBRICK - B290 SERIES - WELDED FRAME MIRROR - 24"x36"

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FINISH SCHEDULE - PIFFY BOUTIQUE

ROOM NAME	ROOM NUMBER	FLOOR	BASE	WALLS				REMARKS
				N	S	E	W	
OPEN	101	CONC.	RB1	P1	P1	P1	P1	
UNISEX	102	LVT1	RB1	P3	P3	P3	P3	
UTIL.	103	CONC.	RB1	P1	P1	P1	P1	

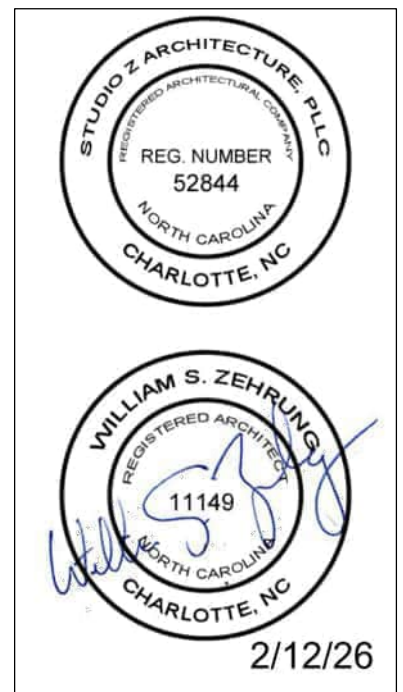
Raw slab

FINISH SPECIFICATIONS

ABBR.	PRODUCT TYPE	MFR.	PRODUCT INFORMATION	NOTES
CONC.	POLISHED CONCRETE		SPECIFICATION TO BE DETERMINED	
LVT1	LUXURY VINYL TILE		\$7.00 SQ/FT MATERIAL ALLOWANCE - SPECIFICATION TO BE DETERMINED	STAGGERED INSTALLATION
RB1	RUBBER BASE		4" RUBBER COVE BASE - SPECIFICATION TO BE DETERMINED	PROVIDE ROLLED GOODS ONLY
P1	PAINT	SHERWIN WILLIAMS	LATEX PAINT - EGG SHELL FINISH - COLOR TO BE DETERMINED	TYPICAL
P2	PAINT	SHERWIN WILLIAMS	LATEX PAINT - EGG SHELL FINISH - COLOR TO BE DETERMINED	ACCENT PAINT
P3	PAINT	SHERWIN WILLIAMS	EPOXY PAINT - EGG SHELL FINISH - COLOR TO BE DETERMINED	RESTROOM
PLAM1	PLASTIC LAMINATE	WILSONART	SPECIFICATION TO BE DETERMINED	RESTROOM VERTICAL SURFACE
SS1	SOLID SURFACE		CAMBRIA - BRITANNICA - 3CM - EASED EDGE PROFILE FOR PRICING PURPOSES	RESTROOM COUNTERTOP
STAIN	--	--	--	

FINISH NOTES

- ALL FINISHES ARE TO MEET NCSBC 803 & 804 AND IFC 803.3. ALL EXPOSED EDGES OF CARPET SHALL COMPLY WITH ICC A117 SECTION 302.2. RESTROOM FINISHES TO COMPLY WITH NCSBC 1210.1 & 1210.2.
- PROVIDE LOW-VOC PAINT (LESS THAN 50 G/L - MEET OR EXCEED GS-11 STANDARDS - SHERWIN WILLIAMS PROGREEN 200 OR EQUAL).
- PAINT TO BE APPLIED WITH PRIMER COAT AND A MINIMUM OF TWO (2) FINISH COATS. PROVIDE ADDITIONAL FINISH COATS AS REQUIRED TO ACHIEVE APPROPRIATE CONSISTENCY OF COVERAGE AND EVEN COLOR OVER SURFACE. ALL SURFACES TO BE SANDED AND PREPPED BEFORE PAINTING TO PROVIDE "AS NEW" APPEARANCE.
- CONTRACTOR RESPONSIBLE FOR RESTORING ANY AND ALL COMMON AREAS IMPACTED BY SCOPE OF WORK. FINISHES TO MATCH EXISTING.
- PROVIDE METAL SCHLUTER STYLE TRANSITIONS AT ALL FLOORING TRANSITIONS.
- CONTRACTOR TO USE MANUFACTURER'S RECOMMENDED ADHESIVES FOR ALL APPLICABLE PRODUCTS.



PROJECT NAME



Piffy Boutique

200 S. Main,
Kannapolis, NC
28081

ISSUE STATUS AND DATE

ISSUED FOR CONSTRUCTION
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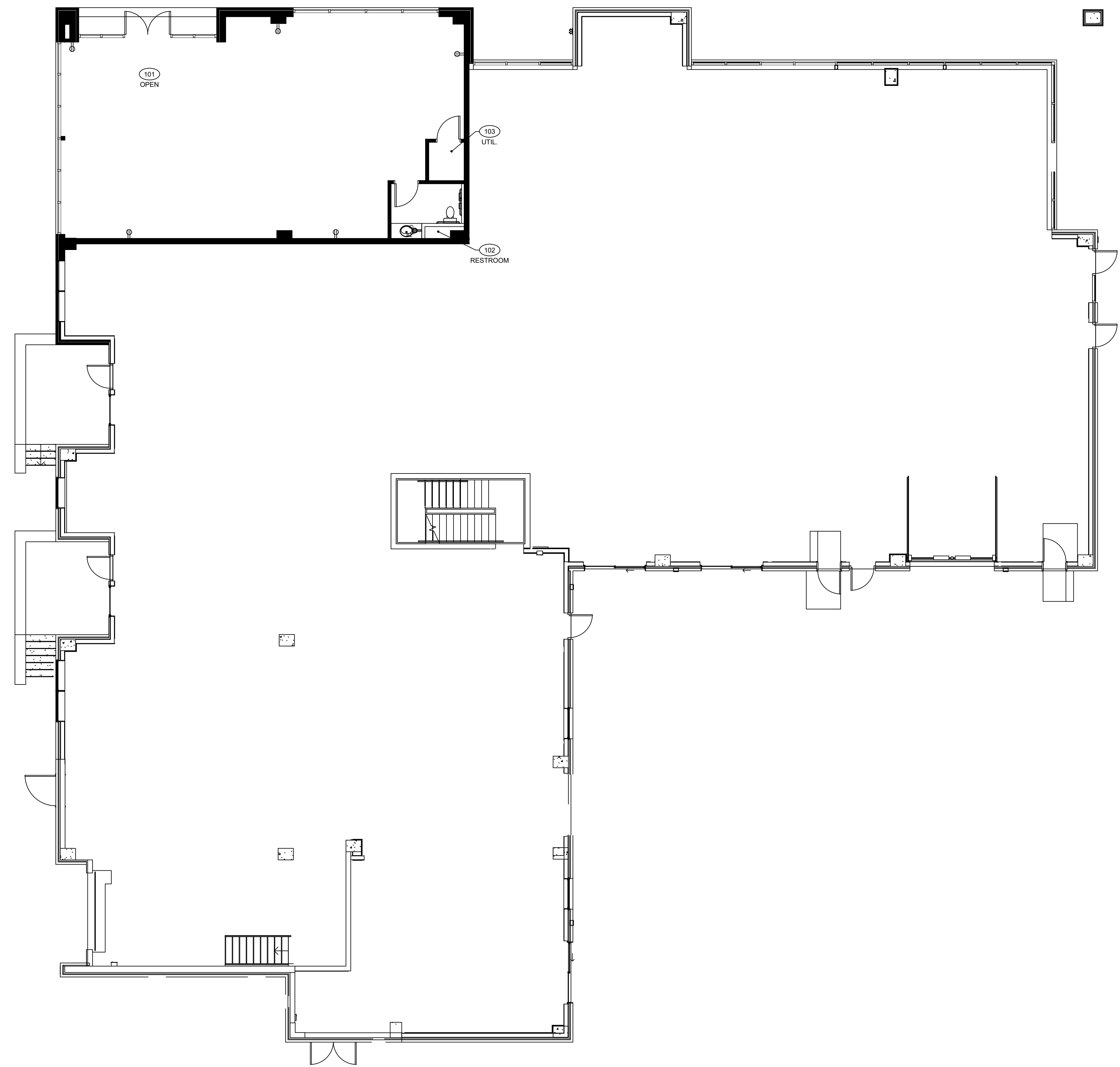
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FINISH PLAN

SHEET NUMBER
AF1

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ELECTRICAL LEGEND	
⊖	DUPLEX RECEPTACLE
⊖	DEDICATED DUPLEX RECEPTACLE
#"	DENOTES HEIGHT ABOVE FINISHED FLOOR CENTERLINE OF THE ITEM IS TO BE INSTALLED
NOTE: ALL ELECTRICAL SHOWN IS NEW	

- ELECTRICAL NOTES**
- ELECTRICAL CIRCUITS TO BE WIRED INTO EXISTING PANELS AT BASE BUILDING ELECTRICAL ROOM. ALL NEW CIRCUITS SHALL BE PROPERLY LABELED IN THE PANEL.
 - ALL WIRING TO BE IN AC OR MC CABLE OR EMT WITH MINIMUM OF 12 GA COPPER THHN/TW/NN WIRE.
 - ELECTRICIAN NOT TO EXCEED 8 GENERAL USE RECEPTACLES PER 20 AMP CIRCUIT.
 - DEVICES AND FACEPLATES TO BE WHITE.
 - DEDICATED RECEPTACLES TO RECEIVE VISUAL DESIGNATION.
 - OUTLET BOXES SHALL NOT BE MOUNTED BACK TO BACK.
 - DUPLEX RECEPTACLE DEVICES ON A DEDICATED CIRCUIT SHALL BE 20 AMP.
 - FIRESTOP ALL PENETRATIONS AT RATED ASSEMBLIES.
 - LOCATIONS NOTED TO CENTER OF RECEPTACLE, UNLESS NOTED OTHERWISE.
 - RECEPTACLES AT WET LOCATIONS SHALL BE GFI.
 - FIRE ALARMS AND SMOKE DETECTORS (WHEN APPLICABLE) TO BE PROVIDED TO SUIT NEW WALL LAYOUT, IN ACCORDANCE WITH LOCAL CODE. DEVICES TO BE CEILING MOUNTED, UNLESS NOTED OTHERWISE.
 - ALL EQUIPMENT TO BE USED IN SUITE IS TO BE UL-LISTED OR APPROVED BY ANOTHER RATINGS AGENCY ACCEPTED BY CARBARRUS COUNTY. TENANT IS RESPONSIBLE FOR VERIFYING, OBTAINING AND/OR PROVIDING PROOF OF RATINGS AS REQUIRED.
 - ALL MEMBRANE PENETRATIONS OF RATED WALLS SHALL COMPLY WITH NCBC SECTION 713.3.2. (FOR OUTLETS ALONG RATED WALLS AND STAIRWELLS)
 - ALL PENETRATIONS OF RATED ASSEMBLIES SHALL COMPLY WITH NCBC SECTION 713.4.1.1. SEE ALSO PENETRATION DETAILS ON ENGINEERS DRAWINGS. (FOR PENETRATIONS THROUGH RATED ASSEMBLIES SUCH AS FLOOR JUNCTION BOXES).

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SMITH HARRIS DESIGN
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 REG. NUMBER
 52844
 NORTH CAROLINA
 CHARLOTTE, NC

WILLIAM S. ZEPHRO
 11149
 NORTH CAROLINA
 CHARLOTTE, NC
 2/12/26

PROJECT NAME

LMG | Lansing Melbourne Group

Piffy Boutique

200 S. Main,
 Kannapolis, NC
 28081

ISSUE STATUS AND DATE

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 02/20/2026

REVISIONS	
#	DATE

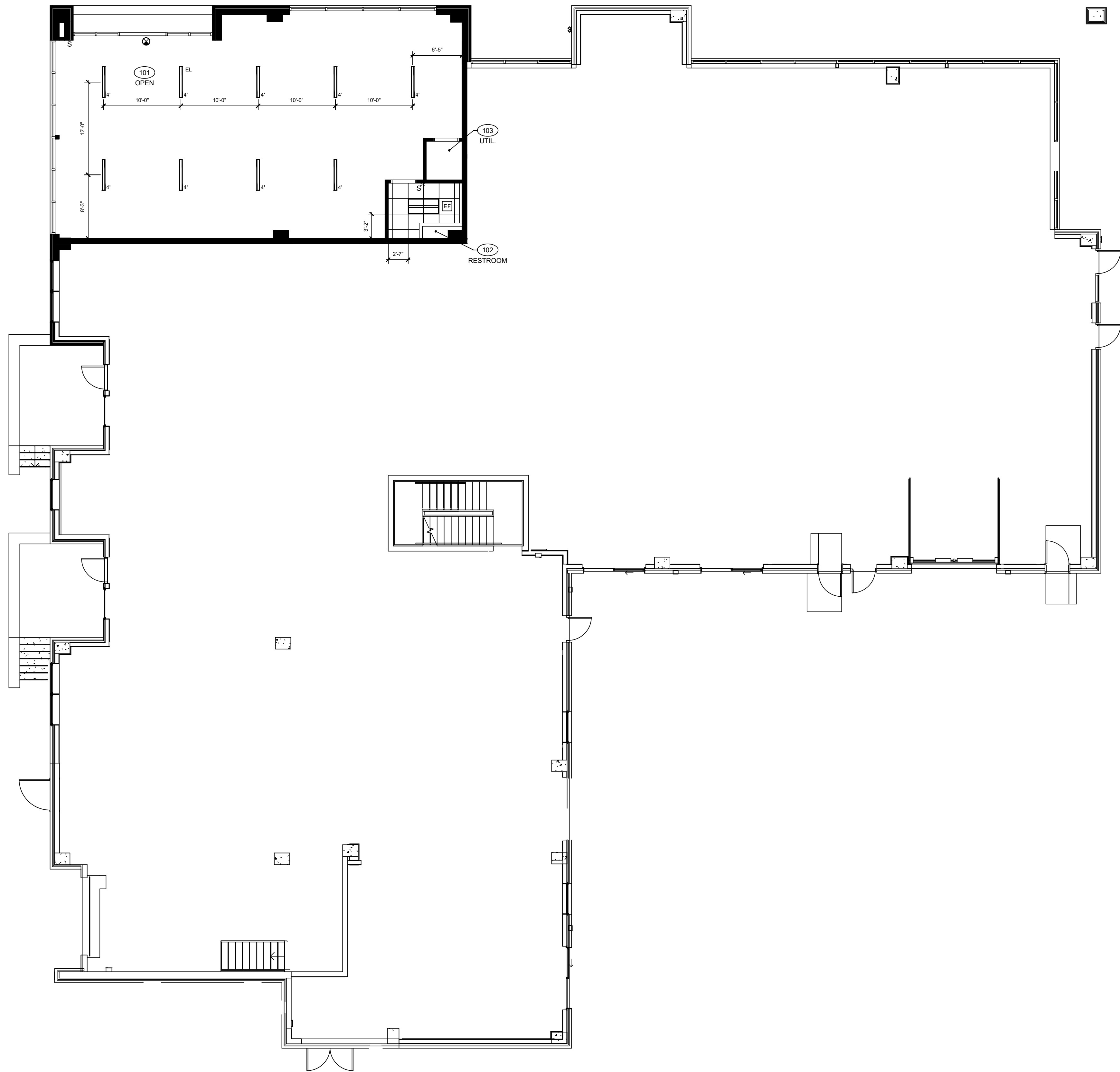
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ELECTRICAL PLAN

SHEET NUMBER
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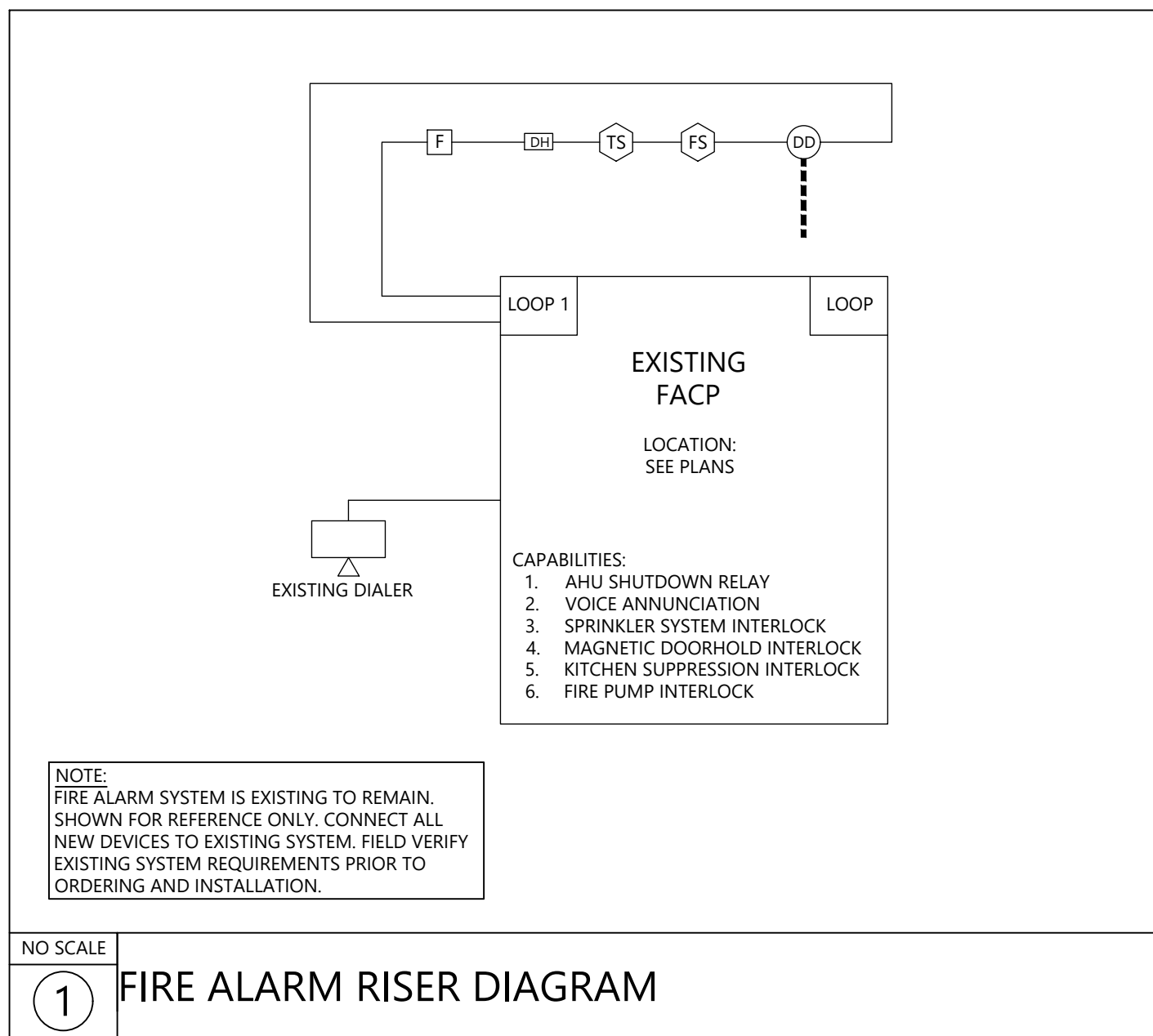
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LIGHTING LEGEND	
	LINEAR LIGHT FIXTURE - COOPER LIGHTING - NEORAY - LINEAR CONVERGE LED - REF. PLAN FOR LENGTH - 3500K - MOUNT AS HIGH AS POSSIBLE.
EL	EMERGENCY LIGHT
S	SINGLE POLE SWITCH
OS	OCCUPANCY SENSOR SWITCH
	EXHAUST FAN - TIE INTO LIGHT SWITCH
	EXIT LIGHT - BEGHELLI - EDGE-LIT EXIT SIGN - OL2
	NEW ACOUSTICAL CEILING TILE - ARMSTRONG - DUNE TEGULAR TILE WITH 1/2" PRELUDE XL GRID AT 9'-0" AFF. (OR MOUNTED AS HIGH AS POSSIBLE)
NOTE:	ALL LIGHTING FIXTURES SHOWN ARE NEW
LIGHTING NOTES	
1. EMERGENCY LIGHTING SHALL BE 90 MINUTE BATTERY PACK WITH CHARGING CIRCUITS TO BE INSTALLED BY CONTRACTOR.	
2. LIGHTING CIRCUITS TO BE WIRED INTO BASE BUILDING ELECTRICAL ROOM.	
3. DEVICES AND SWITCH PLATES TO BE WHITE.	
4. CEILING TILE AND GRID IS NOT PART OF THE FLOOR/CEILING ASSEMBLY.	
5. GC TO SUPPLY AND INSTALL 2 X 2 CEILING GRID AND TILE. TO BE MOUNTED AS HIGH AS POSSIBLE. CAULK/PUTTY ANY VISIBLE HOLES.	
6. UNLESS NOTED OTHERWISE, CEILING GRID/TILE AND LIGHTS SHOULD BE CENTERED AS INDICATED ON PLAN IN ROOMS WITH DECK HIGH OR STUBBED PARTITIONS.	
7. CENTER EXIT LIGHTS IN CEILING TILE, UNLESS NOTED OTHERWISE.	
8. ALL LIGHT SWITCHES TO BE MOUNTED AT A MAXIMUM OF 48" AFF.	
MECHANICAL NOTES	
1. THERE WILL BE NO LEAD ACID BATTERIES EXCEEDING A TOTAL ELECTROLYTE CAPACITY OF 60 GALLONS FOR FLOODED LEAD ACID, NICKEL CADMIUM (NiCd) AND VALVE-REGULATED LEAD ACID (VRLA) OR 1,000 POUNDS FOR LITHIUM-ION, IN ACCORDANCE WITH NFPA SECTION 608. IF THESE VALUES ARE EXCEEDED, MECHANICAL EXHAUST WILL BE REQUIRED IN ACCORDANCE WITH NCMC 502.4 AND/OR 502.5.	
2. PROVIDE TEST AND BALANCE OF ALL HVAC SYSTEM EQUIPMENT IN SCOPE OF WORK AREA.	
3. PROVIDE HVAC SUPPLIES, RETURNS AND THERMOSTATS WITH NEW TO MATCH EXISTING IN SCOPE OF WORK; REPLACE ANY SOILED OR DAMAGED.	
4. INSTALL CONSTRUCTION FILTERS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND REMOVE UPON COMPLETION.	
5. INCLUDE UPDATING GRAPHICS ON BUILDING MANAGEMENT CONTROL SYSTEM. COORDINATE WITH BUILDING OWNER FOR SPECIFIC REQUIREMENTS. GRAPHICS SHOULD BE UPDATED PRIOR TO CERTIFICATE OF OCCUPANCY OR TENANT MOVE IN.	
SPRINKLER NOTES	
1. PROVIDE / RELOCATE SPRINKLER HEADS TO SUIT NEW WALL LAYOUT.	

ABBREVIATIONS	
+42"	DIMENSION INDICATES HEIGHT ABOVE FINISHED FLOOR AT WHICH CENTER OF DEVICE IS TO MOUNTED. SEE PLANS.
JR	NEMA 3R
AF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLER UNIT
C.B.	CIRCUIT BREAKER
EC	EMPTY CONDUIT WITH PULL CORD
E.C.	ELECTRICAL CONTRACTOR
EW	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
FACP	FIRE ALARM CONTROL PANEL
FPN	FUSE PER NAMEPLATE
LC	LIGHTING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
U.G.	UNDERGROUND
WP	WEATHERPROOF
S.E.	SERVICE ENTRANCE
EM	EMERGENCY FUTURE WITH BATTERY OR GEN. BACK-UP
ER	EXISTING ITEM RELOCATED TO THIS LOCATION.
RL	EXISTING ITEM TO BE RELOCATED.
RM	EXISTING ITEM TO REMAIN.
RP	EXISTING ITEM TO BE REPLACED.
RV	EXISTING ITEM TO BE REMOVED.
he	RMS SYMMETRICAL SHORT CIRCUIT CURRENT
AIC	AMPERE INTERRUPTING CAPACITY (EQUIPMENT RATING)

FIRE ALARM SYSTEM MATRIX	BUILDING SYSTEM OUTPUTS										CENTRAL COMM
	ACTIVE COMMON ALARM SIGNAL	ACTIVE COMMON ALARM SIGNAL	ACTIVE COMMON ALARM SIGNAL	ACTIVE COMMON ALARM SIGNAL	ACTIVE COMMON ALARM SIGNAL	ACTIVE COMMON ALARM SIGNAL	ACTIVE COMMON ALARM SIGNAL	ACTIVE COMMON ALARM SIGNAL	ACTIVE COMMON ALARM SIGNAL	ACTIVE COMMON ALARM SIGNAL	
MANUAL FIRE ALARM PULL BOXES	●	●	●	●	●	●	●	●	●	●	●
BUILDING SMOKE DETECTOR	●	●	●	●	●	●	●	●	●	●	●
DUCT SMOKE DETECTOR	●	●	●	●	●	●	●	●	●	●	●
SPRINKLER WATER FLOW	●	●	●	●	●	●	●	●	●	●	●
SPRINKLER TAMPER	●	●	●	●	●	●	●	●	●	●	●
ELEV. EQ. ROOM SMOKE DETECTOR	●	●	●	●	●	●	●	●	●	●	●
ELEV. EQ. ROOM HEAT DETECTOR	●	●	●	●	●	●	●	●	●	●	●
ELEV. SHAFT HEAT DETECTOR	●	●	●	●	●	●	●	●	●	●	●
1ST FLOOR ELEV. LOBBY SMOKE DET.	●	●	●	●	●	●	●	●	●	●	●
UPPER FLOOR ELEV. LOBBY SMOKE DET.	●	●	●	●	●	●	●	●	●	●	●
HOOD SUPPRESSION SYSTEM	●	●	●	●	●	●	●	●	●	●	●
NOTIFICATION DEVICE SHORT CIRCUIT	●	●	●	●	●	●	●	●	●	●	●
OPEN CIRCUIT	●	●	●	●	●	●	●	●	●	●	●
GROUND FAULT	●	●	●	●	●	●	●	●	●	●	●
FIRE ALARM A.C. POWER FAILURE	●	●	●	●	●	●	●	●	●	●	●
FIRE ALARM SYSTEM LOW BATTERY	●	●	●	●	●	●	●	●	●	●	●
GENERATOR NFPA 110 ALARM ACTIVE	●	●	●	●	●	●	●	●	●	●	●
GENERATOR FUEL LEVEL	●	●	●	●	●	●	●	●	●	●	●
FIRE PUMP RUNNING	●	●	●	●	●	●	●	●	●	●	●
FIRE PUMP COMMON TROUBLE	●	●	●	●	●	●	●	●	●	●	●
FIRE PUMP POWER FAILURE/PHASE REVER.	●	●	●	●	●	●	●	●	●	●	●



- FACP SHALL BE FULLY ANALOG ADDRESSABLE.
- FACP IS CONNECTED TO A UL APPROVED CENTRAL STATION.
- ZONE PER NFPA 72, 2013 AND MANUFACTURER'S RECOMMENDATIONS WITH NO ONE ZONE EXCEEDING 15,000 S.F. PER FLOOR.
- COORDINATE QUANTITY AND LOCATIONS OF DEVICES WITH CONTRACT DRAWINGS.
- LOCATE FIRE ALARM PULL STATION WITHIN 5' OF THE EXIT DOOR.
- LOCATE SMOKE/HEAT DETECTOR WITHIN 5' OF THE FA EQUIPMENT (FACP, FATC).
- LOCATION OF CEILING MOUNTED SMOKE/HEAT DETECTOR SHALL BE FIELD COORDINATED PRIOR TO ROUGH-IN. THE DETECTOR SHALL BE A MINIMUM OF 2' AWAY FROM LIGHT FIXTURE AND A MINIMUM OF 3' AWAY FROM AIR DISTRIBUTION DEVICES.
- ACTIVATION OF AN ALARM ZONE SHALL CAUSE ALL AIR HANDLING EQUIPMENT TO SHUT DOWN (ALL DAMPERS, AIR HANDLERS AND EXHAUST FANS MUST STOP).
- ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF ALL FLOW, PRESSURE, & TAMPER SWITCHES WITH FIRE PROTECTION CONTRACTOR PRIOR TO INSTALLATION.
- ALL VISUAL DEVICES WITHIN THE SAME AREA SHALL BE SYNCHRONIZED. IT SHALL BE A THREE BEAT TEMPORAL PATTERN.
- FIRE ALARM CABLING SHALL BE PLENUM RATED.
- PROVIDE MULTI-TEMPORAL SOUNDING CAPABILITY AT ALL AUDIO DEVICES FOR EMERGENCY NOTIFICATION FOR NON-VOICE SYSTEMS COMPONENTS OR ALL NOTIFICATION DEVICES SHALL BE SPEAKER TYPE AND VOICE CAPABLE. FACP SHALL BE VOICE CAPABLE.
- THE FIRE ALARM SYSTEM MANUFACTURER SHALL PROVIDE NOTIFICATION APPLIANCE CIRCUIT (NAC) POWER EXTENSIBLES AS REQUIRED.
- THE CIRCUIT FEEDING THE FIRE ALARM PANEL IS DEDICATED FOR THE FIRE ALARM ONLY. BREAKER SHALL BE PROVIDED WITH A LABEL "FIRE ALARM CIRCUIT" AND SHALL BE RED.
- CONTRACTOR SHALL INCLUDE IN BID LABOR AND MATERIAL FOR UP TO (2) DUCT DETECTORS, (5) ANNUNCIATION DEVICES, (2) SMOKE DETECTORS AND (2) PULL STATIONS 100' FROM LOCAL PANEL (IN WALL) AS REQUIRED BY LOCAL AHJ/ENGINEER.
- CONTRACTOR RESPONSIBLE FOR SHOP DRAWINGS AS REQUIRED BY LOCAL AHJ.
- THIS SYSTEM SHALL EMPLOY A SINGLE TELEPHONE LINE (NUMBER) AS WELL AS AN ADDITIONAL TELEPHONE LINE (NUMBER) THAT IS CAPABLE OF THE FOLLOWING:
 - THE DACT IS PROGRAMMED TO CALL A SECOND DACT LINE (NUMBER) WHEN THE SIGNAL TRANSMISSION SEQUENCE TO THE FIRST CALLED LINE (NUMBER) IS UNSUCCESSFUL.
 - THE DACT IS CAPABLE OF SELECTING THE OPERABLE MEANS OF TRANSMISSION IN THE EVENT OF FAILURE OF THE OTHER MEANS.
 - EACH TELEPHONE LINE IS TESTED IN ACCORDANCE WITH 26.6.4.14(B) OR AT ALTERNATING 6-HOUR INTERVALS.

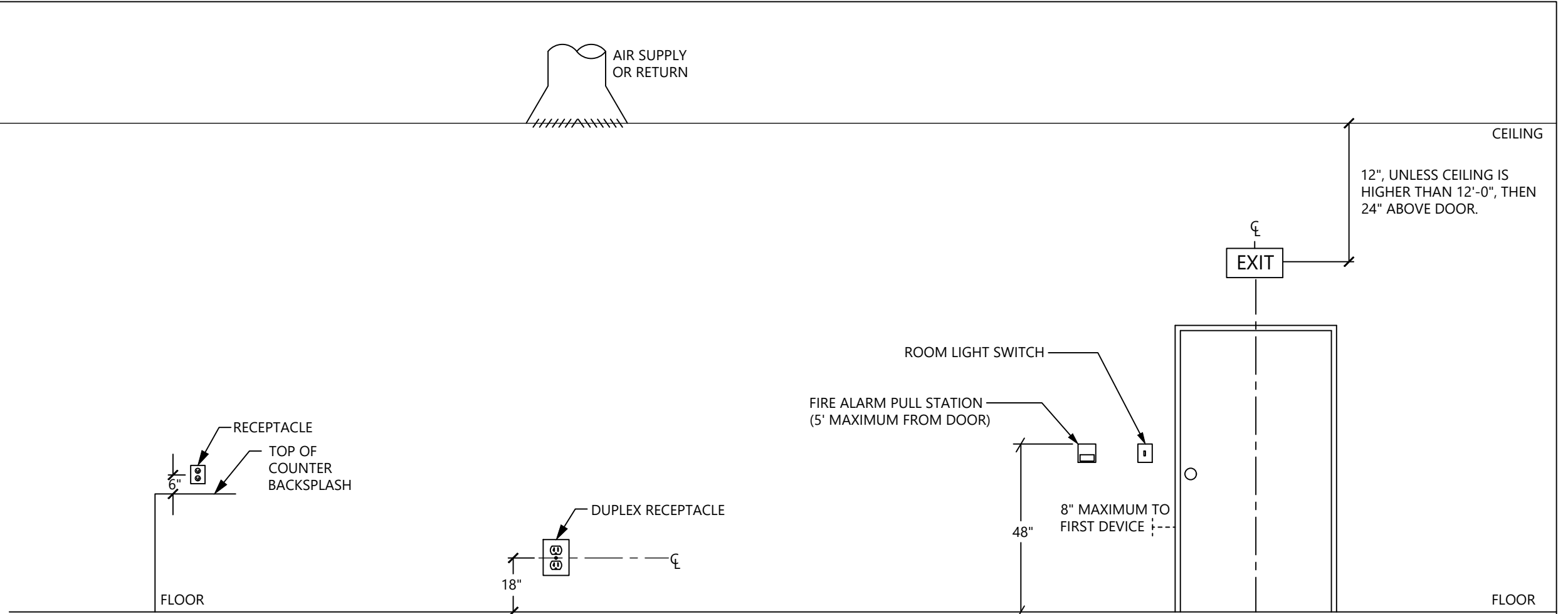
NO SCALE
① FIRE ALARM RISER DIAGRAM

DEVICES AND PATHWAYS	
	CONDUIT AND/OR WIRING SYSTEM CONCEALED BEHIND WALL OR ABOVE CEILING.
	CONDUIT AND/OR WIRING SYSTEM CONCEALED IN SLAB, UNDER SLAB, OR UNDERGROUND.
	CIRCUIT HOMERUN TO PANEL CALLED OUT ON PLANS. EACH ARROWHEAD REPRESENTS (1) CIRCUIT.
	DUPLEX RECEPTACLE MOUNTED 18" AFF UNLESS NOTED OTHERWISE. SEE SPECIFICATIONS FOR TYPE AND EQUALS.
	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE, NEMA 5-20R.
	WEATHERPROOF AND GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE. COVER BASED ON INTERMATIC #WP1200 (CLAR).
	MOTOR DAMPER (DAMPER BY M.C.); POWER VIA CIRCUIT CALLED OUT ON PLANS. IF NOT CIRCUIT GIVEN, POWER VIA LOCAL RECEPTACLE CIRCUIT.

LIGHTING	
	LED LIGHTING FIXTURE. SEE FIXTURE SCHEDULE. SUSPEND FOUR CORNERS WITH WIRE TO STRUCTURE. DO NOT ALLOW GRID ALONE TO SUPPORT FIXTURE.
	LED STRIP FIXTURE.
	LED LIGHTING FIXTURE.
	WALL MOUNTED LED LIGHTING FIXTURE.
	LED FIXTURE WITH EMERGENCY BATTERY DRIVER. PROVIDE 1100 LUMEN INVERTER RATED FOR 90 MINUTE OPERATION. SEE FIXTURE SCHEDULE FOR FIXTURE TYPE.
	LED DOWNLIGHT WITH AN EMERGENCY BATTERY DRIVER. BASED ON 1100 LUMEN INVERTER (SEE SCHEDULE FOR FIXTURE LUMEN MAXIMUM.)
	EXIT LIGHT WITH ARROWS AND NUMBERS OF FACES AS INDICATED ON PLANS. 90 MIN BATTERY BACKUP. SEE LIGHTING FIXTURE SCHEDULE.
	SINGLE POLE SWITCH, 20 AMP, 120/277 VOLT, COOPER, OR EQUAL BY HUBBELL, LEVITON, AND PASS & SEYMOUR.
	WALLBOX OCCUPANCY SWITCH, PIR TECHNOLOGY, AUTO-ON, 120/277V RATED, COOPER, OR EQUAL BY HUBBELL, LEVITON, AND PASS & SEYMOUR.
	OCCUPANCY/VACANCY SENSOR POWER PACK, COOPER, OR EQUAL BY HUBBELL, LEVITON, AND WATSTOPPER.
	CEILING MOUNTED OCCUPANCY SENSOR, AUTO-ON, DUAL TECHNOLOGY, COOPER, OR EQUAL BY HUBBELL, LEVITON, AND WATSTOPPER.

FIRE ALARM	
	FIRE ALARM CONTROL PANEL.
	FIRE ALARM MANUAL STATION. PROVIDE PROTECTION DEVICE.
	DUCT MOUNTED SMOKE DETECTOR. FURNISHED AND CONNECTED BY ELECTRICAL CONTRACTOR. INSTALLED BY MECHANICAL CONTRACTOR. CUTTING OF DUCT, INSTALLATION OF DETECTOR, AND DETERMINATION OF SAMPLING TUBE LENGTH SHALL BE THE MECHANICAL CONTRACTOR. PROVIDE REMOTE INDICATING LIGHT WITH EACH DETECTOR.
	ADA COMPLIANT CEILING MOUNTED FIRE ALARM HORN STROBE LIGHT, 15cd, UNLESS OTHERWISE NOTED. WHITE FINISH WITH RED LETTERING.
	ADA COMPLIANT CEILING MOUNTED FIRE ALARM STROBE LIGHT, 15cd, UNLESS OTHERWISE NOTED. WHITE FINISH WITH RED LETTERING.

ELECTRICAL EQUIPMENT	
	FUSED HEAVY DUTY DISCONNECT SWITCH. NUMERALS INDICATE SWITCH RATING/FUSE SIZE. NEMA 1 ENCLOSURE, UNLESS OTHERWISE NOTED.
	PANELBOARD. REFER TO POWER RISER DIAGRAM AND PANEL SCHEDULES FOR DETAILS. TOP OF PANEL AT F-0' AFF.
	MOTOR RATED SWITCH WITH OVERLOAD PROTECTION.



NO SCALE
② MOUNTING HEIGHTS OF DEVICES - ELEVATION

2018 NORTH CAROLINA ENERGY CONSERVATION CODE	
COMMERCIAL ENERGY EFFICIENCY - ELECTRICAL SUMMARY	
C401 METHOD OF COMPLIANCE	<input type="checkbox"/> 2018 NCECC CHAPTER 4 <input type="checkbox"/> NC SPECIFIC COMCHECK PROVIDED <input type="checkbox"/> N/A BASED ON PROJECT SCOPE <input type="checkbox"/> ASHRAE 90.1-2013
C406 ADDITIONAL EFFICIENCY PACKAGE OPTIONS	<input type="checkbox"/> C406.1.1 EFFICIENT MECH EQUIPMENT <input type="checkbox"/> C406.1.4 ON-SITE RENEWABLE ENERGY <input type="checkbox"/> C406.1.2 REDUCED LTG DENSITY <input type="checkbox"/> C406.1.5 DEDICATED OA SYSTEM <input type="checkbox"/> C406.1.3 ENHANCED DIGITAL LTG CNTLS <input type="checkbox"/> C406.1.6 HI-EFF SERVICE WTR HTG <input type="checkbox"/> NOT APPLICABLE BASED ON PROJECT SCOPE
C408 - SYSTEM COMMISSIONING:	<input type="checkbox"/> BUILDING IS LESS THAN 10,000 SQUARE FEET AND IS EXEMPT FROM THE SYSTEM COMMISSIONING REQUIREMENTS OF SECTION C408. <input type="checkbox"/> BUILDING IS GREATER THAN 10,000 SQUARE FEET AND REQUIRES SYSTEM COMMISSIONING PER SECTION C408.
C405.2 - LIGHTING CONTROLS (MANDATORY REQUIREMENTS):	<input type="checkbox"/> LIGHTING SYSTEMS ARE PROVIDED WITH CONTROLS AS REQUIRED PER SECTION C405.2, EXCEPT WHERE EXEMPT. <input type="checkbox"/> NOT APPLICABLE
C405.3 - EXIT SIGNS (MANDATORY REQUIREMENTS):	<input type="checkbox"/> INTERNALLY ILLUMINATED EXIT SIGNS DO NOT EXCEED 5 WATTS PER SIDE. <input type="checkbox"/> NOT APPLICABLE
C405.4 - INTERIOR LIGHTING POWER REQUIREMENTS (PRESCRIPTIVE) (NON-EXEMPT):	<input type="checkbox"/> NOT APPLICABLE PER 2018 NCECC C503.1, EXCEPTION 2.G. C405.4.1 - TOTAL CONNECTED INTERIOR LIGHTING POWER: 656 WATTS SPECIFIED 63 % REDUCTION OF SPECIFIED VS. ALLOWED (APPLICABLE IF C406.1.2 IS SELECTED) C405.4.2 - TOTAL ALLOWABLE INTERIOR LIGHTING POWER: METHOD OF COMPLIANCE: <input type="checkbox"/> BUILDING AREA METHOD <input type="checkbox"/> SPACE-BY-SPACE METHOD 1,764 WATTS ALLOWED
C405.5.1 - EXTERIOR BUILDING LIGHTING POWER (NON-EXEMPT):	<input type="checkbox"/> NOT APPLICABLE TOTAL CONNECTED EXTERIOR LIGHTING POWER: N/A WATTS SPECIFIED TOTAL ALLOWABLE EXTERIOR LIGHTING POWER: N/A WATTS ALLOWED
C405.6 - ELECTRICAL ENERGY CONSUMPTION (DWELLING UNITS):	<input type="checkbox"/> SEPARATE ELECTRICAL METERING HAS BEEN PROVIDED FOR EACH DWELLING UNIT IN GROUP R-2 BUILDINGS. <input type="checkbox"/> NOT APPLICABLE
C405.7 - ELECTRICAL TRANSFORMERS (MANDATORY REQUIREMENTS):	<input type="checkbox"/> ELECTRICAL TRANSFORMERS HAVE BEEN SPECIFIED TO MEET MINIMUM EFFICIENCY REQUIREMENTS PER C405.7, EXCEPT WHERE EXEMPT. <input type="checkbox"/> NOT APPLICABLE
C405.8 - ELECTRICAL MOTORS (MANDATORY REQUIREMENTS):	<input type="checkbox"/> ELECTRICAL MOTORS HAVE BEEN SPECIFIED TO MEET MINIMUM EFFICIENCY REQUIREMENTS PER C405.8, EXCEPT WHERE EXEMPT. <input type="checkbox"/> NOT APPLICABLE



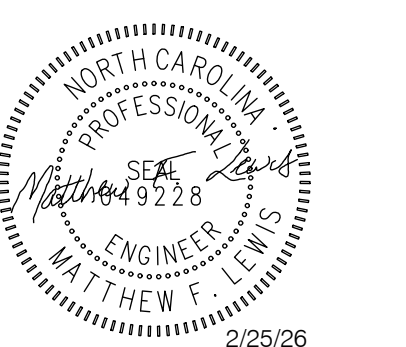
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Piffy Boutique

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SUITE:	108
USP:	1,477
RSF:	1,477
SCALE:	As Indicated
DRAWN BY:	
DATE:	02/25/2026
TENANT:	Piffy Boutique
FILE NAME:	
SHEET:	ELECTRICAL COVER SHEET

E1



1. **GENERAL:**

A. THE WORK COVERED BY THESE SPECIFICATIONS CONSISTS OF FURNISHING ALL LABOR, EQUIPMENT, MATERIALS AND SUPPLIES AS NECESSARY FOR THE COMPLETE AND SATISFACTORY OPERATING ELECTRICAL SYSTEM ON THE ABOVE PLANS.

B. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2020 NATIONAL ELECTRICAL CODE, NFPA, STATE BUILDING CODE, AND ANY OTHER LOCAL REQUIREMENTS THAT MAY APPLY.

C. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL ELECTRICAL PERMITS AND INSPECTION FEES.

D. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE LISTED BY THE UNDERWRITER'S LABORATORIES, INC. OR BY A STATE APPROVED THIRD PARTY TESTING AGENCY FOR THE USE INTENDED WHERE A STANDARD FOR SUCH MATERIALS AND USE EXISTS. ALL ITEMS OF THE SAME TYPE AND RATING SHALL BE IDENTICAL AND OF THE SAME MANUFACTURER.

E. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CATALOG DATA IN ELECTRONIC FORMAT (PDF) FOR ALL ELECTRICAL ITEMS IN THE SCOPE OF WORK, INCLUDING, BUT NOT LIMITED TO: RACEWAYS, BOXES, FITTINGS, TERMINALS, LAMPS, BALLASTS, WIRING DEVICES, SAFETY SWITCHES, DISCONNECTS, TRANSFORMERS, PANELBOARDS, FIRE ALARM, TELECOMMUNICATIONS, ETC. FOR APPROVAL AS APPLICABLE FOR THE PROJECT. ONE COMPLETE SET OF APPROVED SUBMITTALS SHALL BE MAINTAINED AT THE JOB SITE.

F. ALL COST ASSOCIATED WITH SUBSTITUTED EQUIPMENT TO COMPLY WITH THE BASIS OF DESIGN, INCLUDING PROVIDING MAINTENANCE ACCESS, CLEARANCE, CONDUIT, WIRING, REPLACEMENT OF OTHER SYSTEM COMPONENTS, BUILDING ALTERATIONS, METHODS, ETC. SHALL BE INCLUDED IN THE ORIGINAL BASE BID. NO ADDITIONAL COSTS ASSOCIATED WITH SUBSTITUTED EQUIPMENT WILL BE APPROVED AFTER BIDS HAVE BEEN ACCEPTED AND ALL COSTS WILL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. CREDITS SHALL BE GIVEN TO THE OWNER WHERE SUCH EQUIPMENT AND METHODS RESULT IN LESS EXPENSE TO THE CONTRACTOR.

G. ONE COMPLETE SET OF THE LATEST CONSTRUCTION PLANS OF ALL TRADES SHALL BE MAINTAINED AT THE JOB SITE. IN ADDITION, ALL ADDENDUMS, BULLETINS, AND/OR SKETCHES SHALL BE INCORPORATED INTO THE ON-SITE CONSTRUCTION PLANS AS THE JOB PROGRESSES.

H. COMPLETELY ADEQUATE HOUSING SHALL BE PROVIDED FOR ALL MATERIALS STORED ON JOB SITE. ONLY CONDUIT MAY BE STORED OUTSIDE, BUT NOT IN CONTACT WITH THE GROUND.

I. THE CONDUIT AND NEUTRAL GROUND SHALL BE GROUNDED AT THE MAIN SERVICE EQUIPMENT. GROUNDING ELECTRODE SYSTEM SHALL BE INSTALLED PER NEC 250.

J. PROVIDE AN INTERSYSTEM BONDING TERMINATION DEVICE AT THE MAIN ELECTRICAL SERVICE PER NEC 250.94.

K. WIRING SHALL BE TESTED FOR CONTINUITY AND GROUNDS BEFORE BEING ENERGIZED. FAULTY WIRING SHALL BE REPLACED AT NO ADDITIONAL EXPENSE TO THE OWNER.

L. PROVIDE ALL CUTTING AND PATCHING FOR INSTALLATION OF WORK AND REPAIR ANY DAMAGE DONE.

M. THE ELECTRICAL CONTRACTOR SHALL CONNECT ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS (UNLESS OTHERWISE NOTED), EXCEPT FOR CONTROL WIRING FOR EQUIPMENT NOT PROVIDED BY THE ELECTRICAL CONTRACTOR. CONTROL WIRING FOR SUCH EQUIPMENT SHALL BE PROVIDED BY THE RESPECTIVE DISCIPLINE.

N. ALL ELECTRICAL JUNCTION BOXES, SWITCHGEAR, CABLING, VOICE/DATA OUTLETS, LOW VOLTAGE CABINETS, EMERGENCY RECEPTACLES, ETC. SHALL BE LABELED ACCORDING TO PANEL/RACK AND CIRCUIT NUMBER.

O. UPON COMPLETION OF WORK, CONTRACTOR SHALL PRESENT ENGINEER WITH CERTIFICATE OF APPROVAL FROM LOCAL INSPECTOR AND/OR AUTHORITY HAVING JURISDICTION BEFORE WORK WILL BE APPROVED FOR FINAL PAYMENT.

P. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE YEAR EFFECTIVE THE DATE THE PROJECT IS ACCEPTED BY THE OWNER. ANY IMPERFECT MATERIALS OR WORKMANSHIP SHALL BE REPLACED WITHOUT ADDED COST TO THE PROJECT.

Q. IT SHALL NOT BE THE INTENT OF ISSUED PLANS AND/OR SPECIFICATIONS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE ELECTRICAL CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL NECESSARY ITEMS FOR A COMPLETE AND OPERATING SYSTEM.

R. THE WORD "PROVIDE" MEANS THAT THIS CONTRACTOR SHALL FURNISH, FABRICATE, ERECT, CONNECT, AND COMPLETELY INSTALL SYSTEMS IN PROPER OPERATING CONDITION. ALL LABOR, PRODUCT OPTIONS, ACCESSORIES AND INCIDENTAL MATERIALS REQUIRED SHALL BE INCLUDED AS PART OF THIS WORK TO COMPLETE THE INSTALLATION.

S. THE WORD "CONNECT" MEANS THAT THIS CONTRACTOR SHALL PROVIDE (SEE DEFINITION ABOVE) ALL DISCONNECTING MEANS, OVERCURRENT PROTECTION AND WIRING REQUIRED TO PLACE THE EQUIPMENT AND SYSTEMS IN PROPER OPERATING CONDITION AND TO COMPLY WITH CODE REQUIREMENTS.

T. CONTRACTOR SHALL COORDINATE THE ROUGH-IN OF ALL OUTLET LOCATIONS WITH ARCHITECTURAL FLOOR PLANS, ELEVATIONS, AND MILLWORK SHOP DRAWINGS PRIOR TO ROUGH-IN.

U. ELECTRICAL CONTRACTOR SHALL NOT SCALE PLANS. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT, UNLESS OTHERWISE NOTED.

V. CONTRACTOR SHALL TEST ALL "LIFE SAFETY" EQUIPMENT AND SYSTEMS FOR PROPER FUNCTION AND OPERATION. SUCCESSFUL COMPLETION OF TESTS, CONFIRMATION SHALL BE SENT TO THE ENGINEER OF RECORD IN THE FORM OF A LETTER STATING THE TESTS PERFORMED, THE RESULTS, AND THE DATE TESTS WERE SUCCESSFULLY COMPLETE. "LIFE SAFETY" EQUIPMENT AND SYSTEMS CONSIST OF THOSE AS SPECIFIED IN THE STATE BUILDING CODE, THE NATIONAL ELECTRICAL CODE (NEC), NFPA 70, AND ANY OTHER LOCAL REQUIREMENTS THAT MAY APPLY.

W. IF DURING THE COURSE OF WORK, THE CONTRACTOR DISCOVERS A PROBLEM WITH THE PERFORMANCE OF THE INSTALLATION RELATIVE TO THE PLANS AND SPECIFICATIONS, THE NEC, OR OTHER CODES OR REQUIREMENTS, THE CONTRACTOR SHALL IMMEDIATELY BRING THE PROBLEM TO THE ATTENTION OF THE ARCHITECT AND/OR ENGINEER FOR RESOLUTION PRIOR TO THE EXECUTION OF THE WORK.

X. WHERE THERE ARE CONFLICTS BETWEEN THE PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL BRING THE ISSUE TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO THE EXECUTION OF THE WORK OR ORDERING ANY MATERIALS. NO ADDITIONAL COSTS SHALL BE WARRANTED WITHOUT A CHANGE TO THE PROJECT SCOPE.

Y. EACH BIDDER SHALL VISIT THE JOB SITE PRIOR TO FAMILIARIZING THEMSELVES WITH EXISTING CONDITIONS AND TO ASCERTAIN THE EXTENT OF WORK REQUIRED. FAILURE TO VISIT SITE SHALL NOT EXCUSE CONTRACTOR FROM PERFORMING REQUIRED WORK NOR SHALL IT BE AN ACCEPTABLE REASON FOR REQUESTING ADDITIONS TO THE CONTRACT.

2. **RACEWAY:**

A. CONDUIT SHALL BE MANUFACTURED BY ALLED, WHEATLAND, REPUBLIC CONDUIT, WESTERN TUBE, OR APPROVED EQUIVALENT.

B. FOR INTERIOR WORK, CONDUIT SHALL BE ZINC COATED EMT EXCEPT WHERE NOT PERMITTED BY CODE. USE SCHEDULE 40 PVC BELOW CONCRETE SLAB, IN DUCTBANKS, AND FOR EXTERIOR WORK WHERE NOT SUBJECT TO DAMAGE. USE IMC WHERE SUBJECT TO PHYSICAL DAMAGE.

C. EMT FITTINGS SHALL BE COMPRESSION GLAND TYPE, OF MALLEABLE STEEL. CONNECTORS SHALL HAVE INSULATED THROATS, CAST SET SCREWS, OR INTERFERE TYPE FITTINGS ARE NOT ACCEPTABLE. ALL FITTINGS FOR EMT SHALL BE MADE OF STEEL.

D. ALL RACEWAY SHALL BE RUN CONCEALED, UNLESS OTHERWISE NOTED. FISH ALL NEW OUTLETS IN EXISTING WALLS, WHERE PRACTICABLE. ALL RUNS SHALL BE NEAT AND SQUARE.

E. LOW VOLTAGE CABLING NOT SPECIFIED TO BE INSTALLED IN CONDUIT, SHALL BE INSTALLED IN A CABLE TRAY SYSTEM OR J-HOOK SYSTEM CONSISTING OF MINIMUM 2" DIAMETER HOOKS LOCATED ON 3'-0" CENTERS IN ALL ACCESSIBLE CEILINGS. WHERE THERE ARE INACCESSIBLE CEILINGS, PROVIDE CONDUIT FOR ENTIRE LENGTH OF INACCESSIBILITY.

F. RACEWAYS USED FOR LOW VOLTAGE SYSTEMS SUCH AS TELECOMMUNICATIONS, FIRE ALARM, SECURITY, CCTV, CONTROLS, AND SIMILAR CONDUITS ABOVE THE CEILING AND BACKBOARDS(S) SHALL BE PROVIDED WITH INSULATED THROAT BUSHINGS AT EACH CONDUIT TERMINATION. THESE BUSHINGS SHALL BE INSTALLED PRIOR TO PULLING LOW-VOLTAGE CABLES.

G. RACEWAY PENETRATIONS THROUGH FLOOR SLABS AND FIRE-RATED WALLS SHALL BE FILLED WITH IMPERVIOUS, NON-SHRINK GROUT SUFFICIENTLY TIGHT TO PREVENT THE TRANSFER OF SMOKE, WATER, AND DUST. ROOF PENETRATIONS SHALL BE WITHIN THE EQUIPMENT ROOF CURB.

H. SUPPORT ALL CONDUIT WITH STRAPS AND CLAMPS.

I. ALL CONDUIT SHALL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES, WHETHER SUPPORTED OR NOT AND SUPPORTED FROM STRUCTURE AND PROPERLY SECURED.

J. WHERE CONDUITS PASS THROUGH A BUILDING EXPANSION JOINT, PROVIDE GALVANIZED EXPANSION FITTINGS WITH BONDING JUMPERS.

K. MINIMUM CONDUIT SIZE SHALL BE 3/4" FOR INTERIOR WORK, 1" FOR EXTERIOR WORK.

L. PROVIDE MINIMUM 210# TEST NYLON PULL CORD AND NYLON BUSHINGS IN ALL EMPT RACEWAYS.

M. LIQUID-TIGHT METAL CONDUIT SHALL ONLY BE USED FOR FINAL CONNECTIONS TO EQUIPMENT AND ALL OTHER ROTATING AND VIBRATING EQUIPMENT, MAXIMUM LENGTH OF 3'-0".

N. FLEXIBLE METAL CONDUIT, MINIMUM SIZE 3/8", SHALL ONLY BE USED FOR FINAL CONNECTION TO LIGHTING FIXTURES, MAXIMUM LENGTH OF 6'-0".

O. PROVIDE PULL BOXES, SUCH THAT NO SINGLE CONDUIT RUN HAS BENDS IN EXCESS OF 360°. PULL BOXES SHALL BE SUITABLE AND APPROVED FOR THE INTENDED USE. WHERE CONDUITS PASS UNDER PAVED AREAS, THEY SHALL BE RGS.

P. ALL CONDUIT BENDS/ELBOWS EMERGING FROM UNDERGROUND SHALL BE IMC AND SHALL EXTEND A MINIMUM OF 18" BELOW GRADE.

Q. ALL UNDERGROUND RACEWAYS SHALL BE THOROUGHLY COATED WITH TWO COATS OF ASPHALTUM BITUMASTIC.

R. ALL CONDUITS INSTALLED UNDERGROUND OR IN CONCRETE SHALL HAVE JOINTS MADE WATERTIGHT BY USE OF POLYETHYLENE FLUOROPOLYETHYLENE TAPE.

S. THE USE OF AC OR NM CABLE IS NOT PERMITTED.

3. **OUTLET BOXES:**

A. JUNCTION AND PULL BOXES SHALL BE CODE GAUGE GALVANIZED STEEL. ACCEPTED MANUFACTURERS SHALL BE STEEL CITY (THOMAS & BETTS), RACO, CROUSE-HINDS, APPLETON (EMERSON), APPROVED EQUIVALENTS, AND ANY OTHER LOCAL REQUIREMENTS THAT MAY APPLY.

B. OUTLET BOXES SHALL NOT BE MOUNTED BACK TO BACK IN COMMON WALLS.

C. ATTACH EMT WITH CONNECTORS HAVING INSULATED THROAT.

D. ATTACH BOXES TO STUD WORK USING CADDY BAR STRAPS THAT CONNECT TO TWO ADJACENT STUDS TO PREVENT TWISTING OF BOX IN WALL.

E. ALL OUTLET BOXES (INCLUDING TELEPHONE, CABLE TV, AND COMPUTER) SHALL HAVE COVER PLATES, BLANK IF NOT USED.

F. ALL EXTERIOR BOXES SHALL BE WATER-TIGHT.

4. **CONDUCTORS:**

A. CONDUCTORS SHALL BE MANUFACTURED BY SOUTHWIRE (SIMPULL), ENCORE (SUPERSLICK), UNITED COPPER (SLK), CERRO (SLP), OR APPROVED EQUAL, "PRE-LUBRICATED" BY THE MANUFACTURER.

B. ALL CONDUCTORS SHALL BE COPPER, RATED 75° C WET/DRY EXCEPT WHERE OTHERWISE NOTED OR REQUIRED BY UL OR OTHER CODES.

C. ALL CONDUCTORS SHALL BE SINGLE INSULATED CONDUCTOR, THHN/THWN-2. SIZES #10 AWG AND SMALLER SHALL BE SOLID. SIZES #8 AWG AND LARGER SHALL BE STRANDED.

D. BRANCH CIRCUITS SHALL NOT BE SMALLER THAN #12 AWG. CONTROL WIRING MAY BE #14 AWG.

E. CONDUCTORS SHALL BE COLOR CODED BLACK/RED/BLUE FOR 120/208 VOLT SYSTEMS AND BROWN/ORANGE/YELLOW FOR 277/480 VOLT SYSTEMS FOR A, B, AND C PHASES, RESPECTIVELY.

F. INSULATION SHALL BE EQUAL RATED TYPE THHN/THWN-2 FOR FEEDERS AND BRANCH CIRCUITS. FIXTURE TAPS SHALL BE #12 THHN/THWN-2 IN FLEX WITH GREEN #12 AWG GROUNDING CONDUCTOR.

G. ALL CONDUCTORS SHALL BE IN CONDUIT.

H. WIRING TO LIGHTING FIXTURES SHALL BE AS REQUIRED BY UL LABEL.

I. MULTI-WIRE BRANCH CIRCUITS SHALL NOT BE ALLOWED, UNLESS EXPLICITLY INDICATED ON THE DRAWINGS. WHERE EXPLICITLY INDICATED ON THE DRAWINGS:

- 1) ALL 20A MULTI-WIRE RECEPTACLE CIRCUITS SHALL UTILIZE A #10 AWG NEUTRAL CONDUCTOR.
 - OR
 - 2) ONLY WHERE PERMITTED UNDER "RACEWAYS", MC CABLE ASSEMBLIES CAN BE AFC "SUPER NEUTRAL" OR EQUAL, UNLESS OTHERWISE INDICATED ON THE DRAWINGS. WHERE MULTI-WIRE BRANCH CIRCUITS ARE EXPLICITLY INDICATED ON THE DRAWINGS, THEY SHALL BE INSTALLED PER NEC 210.4. MEANS SHALL BE PROVIDED TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES IN ADDITION TO OTHER REQUIREMENTS PER NEC 210.4.
- J. JOINTS IN #10 AWG AND SMALLER SHALL BE MADE UP WITH CRAMPED CONNECTORS WITH INSULATING CAPS (NO TAPES OR WIRENUTS) (MAXIMUM OF 3 CONDUCTORS UNDER ANY CONNECTOR OR WIRENUT). LARGER WIRE SHALL USE SPLIT BOLTS OR BOLTED CLAMPS.
- K. ALL WIRING LUGS THROUGHOUT THE PROJECT, INCLUDING, BUT NOT LIMITED TO, BREAKERS, PANELBOARD/SWITCHBOARD LUGS, SAFETY SWITCH LUGS, MOTOR STARTER LUGS, TRANSFORMERS LUGS, WIRING DEVICE TERMINALS, AND ALL EQUIPMENT LUGS/TERMINALS SHALL BE RATED FOR USE WITH 75 DEGREE INSULATED CONDUCTORS AT THEIR 75 DEGREE AMPACITY AND SHALL BE SIZED AND SELECTED TO MATCH THE CONDUCTOR SIZE AND MATERIAL.
- L. CIRCUIT JOINTS SHALL NOT BE MADE ON DEVICE TERMINALS.
- M. WIRE WITHIN PANELBOARDS SHALL BE NEATLY TRAINED, SQUARED, BUNCHED, AND TAGGED. NO SYSTEM FURNITURE SHALL BE OVER THE BRANCH CIRCUIT AND ACHIEVE A MAXIMUM OF 5% VOLTAGE DROP ACROSS THE ENTIRE BRANCH CIRCUIT.
- N. THE ELECTRICAL CONTRACTOR SHALL FOLLOW AND APPLY THE TABLE BELOW, REGARDLESS WHAT THE PANEL SCHEDULE INDICATES, FOR SIZING ALL 120V & 277V, 20 AMP BRANCH CIRCUITS (COOPER CONDUCTORS) TO ALLOW A MAXIMUM OF 3% VOLTAGE DROP FROM THE CIRCUIT BREAKER TO THE DEVICE ON THE BRANCH CIRCUIT AND ACHIEVE A MAXIMUM OF 5% VOLTAGE DROP ACROSS THE ENTIRE BRANCH CIRCUIT:

VOLTAGE	CONDUCTOR LENGTH *	BRANCH CIRCUIT
120	0' - 50'	#12
120	51' - 90'	#10
120	91' - 140'	#8
120	141' - 225'	#6

* - THE LENGTH IS MEASURED FROM THE CIRCUIT BREAKER TO THE FIRST DEVICE WHICH THE BRANCH CIRCUIT SERVES. WHERE THE DISTANCE EXCEEDS ABOVE, CONSULT WITH THE ENGINEER.

5. **WIRING DEVICES:**

A. WIRING DEVICES SHALL BE SPECIFICATION GRADE, MINIMUM, EQUAL TO COOPER QUALITY INDICATED PER NEC 300-19.

B. ALL BUSSING, INCLUDING NEUTRAL AND GROUND, SHALL BE COPPER.

C. ALL BREAKERS SHALL BE AUTOMATIC THERMAL-MAGNETIC TYPE MOLDED CASE BOLT-ON TYPE, CALIBRATED FOR 40 DEGREE C, OR AMBIENT COMPENSATION, UNLESS OTHERWISE NOTED.

D. PANELS SHALL BE FULLY RATED (AC), NO SERIES AC RATINGS ARE ALLOWED.

E. PANELS SHALL HAVE FULL SIZE EQUIPMENT GROUNDING BARS AND NEUTRAL BARS, EXCEPT WHERE INDICATED TO BE 200%.

F. PANELBOARD AND BREAKER LUGS SHALL BE SIZED AND RATED PER THE CONDUCTOR SIZE AND MATERIAL.

G. LIGHTING AND APPLIANCE PANELS (100A-600A) SHALL HAVE FRONT ACCESSIBLE HINGED DOOR-IN-DOOR COVERS WITH DEAD FRONT, SHALL BE 20" WIDE MINIMUM WITH MINIMUM 4" WIDE WIRING GUTTERS.

H. DISTRIBUTION PANELS (600A-1200A) SHALL HAVE FRONT ACCESSIBLE DEAD FRONT COVER.

I. PROVIDE HANDLE LOCK-ON DEVICES FOR ALL CIRCUIT BREAKERS CONNECTED TO EMERGENCY, EXIT, NIGHT LIGHTING, FIRE ALARM, TELEPHONE BOARDS, AND SECURITY SYSTEMS.

J. BREAKERS USED FOR SWITCHING SHALL BE SWITCHING DUTY (SWD) RATED.

K. BREAKERS USED FOR HEATING, AIR-CONDITIONING AND/OR REFRIGERATION SHALL BE HACR RATED.

L. GROUND-FAULT CIRCUIT-INTERRUPTER (GFCI) PROTECTION FOR PERSONNEL SHALL BE PROVIDED FOR ALL LOCATIONS PER NEC 210.8, INSTALLED IN A READILY ACCESSIBLE LOCATION. WHERE A DEVICE LOCATION IS NOT ACCESSIBLE, THE GFCI PROTECTION SHALL BE PROVIDED WITH THE BREAKER SERVING THE DEVICE.

M. ARC-FAULT CIRCUIT-INTERRUPTER (AFCI) PROTECTION SHALL BE PROVIDED FOR ALL LOCATIONS PER NEC 210.12, INSTALLED IN A READILY ACCESSIBLE LOCATION. THIS INCLUDES ALL 120V, 15A AND 20A BRANCH CIRCUITS IN DWELLING UNITS, DORMITORY/STUDENT HOUSING UNITS AND HOTEL/MOTEL GUEST ROOMS/SUITES AS DEFINED BY THE NEC.

N. ALL OVERCURRENT DEVICES WHICH COMPRISE THE EMERGENCY SYSTEM OR LEGALLY REQUIRED STANDBY SYSTEM SHALL BE SELECTIVELY COORDINATED. THE ELECTRICAL CONTRACTOR SHALL PROVIDE MANUFACTURER DOCUMENTATION INDICATING COMPLIANCE WITH THE SELECTIVE COORDINATION REQUIREMENTS PER THE NEC.

O. ALL PANELBOARDS SHALL HAVE METAL DIRECTORY FRAME. FOR EACH PANELBOARD, PROVIDE TYPED CIRCUIT DIRECTORY PER NEC 408.4. SPARE CIRCUIT BREAKERS SHALL BE LABELED SPARE AND IN THE OFF POSITION.

SWITCHES (120/277V) SHALL BE AS FOLLOWS:

SINGLE-POLE 20 AMP	COOPER AH1221
DOUBLE-POLE 20 AMP	COOPER AH1222

DUPLEX RECEPTACLES SHALL HAVE A NYLON FACE AND SHALL BE AS FOLLOWS:

15 AMP DUPLEX	COOPER 5252
20 AMP DUPLEX	COOPER 5352
15 AMP DUPLEX GFCI	COOPER 5G15F
20 AMP DUPLEX GFCI	COOPER 5G20F

THE PART NUMBERS ABOVE ARE FOR WIRING DEVICE TYPE ONLY. SEE BELOW FOR WIRING DEVICE COLOR AND PLATE MATERIAL/COLOR.

- B. SEE MOUNTING HEIGHT ELEVATION DETAIL FOR STANDARD MOUNTING HEIGHTS OF ALL DEVICES, UNLESS OTHERWISE NOTED.
- C. THE COLOR OF ALL WIRING DEVICES (SWITCHES AND RECEPTACLES) SHALL BE AS DIRECTED BY THE ARCHITECT, UNLESS OTHERWISE NOTED. ALL COVER PLATES SHALL BE 302 STAINLESS STEEL. COVER PLATES IN MASONRY WALLS SHALL BE JUMBO SIZE.
- D. EACH DUPLEX RECEPTACLE INDICATED TO BE ON A DEDICATED CIRCUIT SHALL BE 20 AMP TYPE.
- E. ADJACENT DEVICES SHALL HAVE A COMMON WALL PLATE.
- F. WEATHERPROOF COVERS SHALL BE "WHILE-IN-USE" SO PLUGS MAY BE INSTALLED WITHOUT COMPROMISING THE WP FUNCTION. COOPER #WU1-C DOUBLE-GANG WITH CLEAR COVER OR APPROVED EQUAL.
- G. A MAXIMUM OF 10 GENERAL PURPOSE RECEPTACLES SHALL BE ON EACH BRANCH CIRCUIT.
- H. INITIATING DEVICES SHALL BE LINEAR SLIDE, PRESENT ON/OFF, SQUARE LAW DIMMING, W/RFI FILTERING AND VOLTAGE COMPENSATION CIRCUITING.
- I. ALL WALL MOUNTED OCCUPANCY/VACANCY SENSORS/SWITCHES SHALL BE INSTALLED WITH AN EQUIPMENT GROUNDING CONDUCTOR.
- J. GROUND-FAULT CIRCUIT-INTERRUPTER (GFCI) PROTECTION FOR PERSONNEL SHALL BE PROVIDED FOR ALL LOCATIONS PER NEC 210.8, INSTALLED IN A READILY ACCESSIBLE LOCATION, WHERE A DEVICE LOCATION IS NOT ACCESSIBLE, THE GFCI PROTECTION SHALL BE PROVIDED WITH THE BREAKER SERVING THE DEVICE.
- K. ALL GFCI RECEPTACLES SHALL HAVE AUTO-MONITORING / SELF-TEST FUNCTION AND REVERSE LINE-LOAD MISFIRE FUNCTION AND MEET ALL REQUIREMENTS OF UL 943 (LATEST EDITION).

6. **SUPPORTS:**

A. ALL EQUIPMENT SHALL BE ADEQUATELY SUPPORTED FROM STRUCTURE.

B. INSERTS IN MASONRY SHALL BE LEAD OR FIBER IN DRILLED HOLES, OR CAST IN PLACE.

C. NAILS OR POWDER ACTUATED FASTENERS SHALL NOT BE USED.

D. EMT/IMC/RGS SUPPORTS SHALL BE A MAXIMUM OF 8'-0" APART AND A MAXIMUM OF 3'-0" FROM BOXES.

E. LIGHTING FIXTURES MOUNTED IN OR ON CEILING SHALL BE SUPPORTED FROM STRUCTURE VIA 1/2 GAUGE STEEL WIRE. PROVIDE A MINIMUM OF FOUR WIRES, ONE ATTACHED TO EACH CORNER OF LAY-IN FIXTURES. RECESSED DOWNLIGHT FIXTURES SHALL BE SUPPORTED THE SAME. DO NOT SUPPORT RACEWAY OR FIXTURES FROM CEILING GRID OR DUCT WORK. USE UL LISTED GRID CLIPS ON ALL LAY-IN FIXTURES.

7. **PAINTING:**

A. SUITABLE PRIME COAT SHALL BE PROVIDED FOR ALL EQUIPMENT. PANEL TUBES, COVERS, ETC. SHALL BE FINISHED AND ENAMELED TO BLEND WITH ADJACENT SURFACES, OR SHALL BE MANUFACTURER'S STANDARD COLOR BAKED ENAMEL FINISH, OR AS DIRECTED BY THE ARCHITECT.

8. **LIGHTING FIXTURES:**

A. TYPES AND MANUFACTURERS ARE SCHEDULED ON THE PLANS. EQUIVALENT FIXTURES BY OTHERS MAY BE SUBMITTED ONLY AS INDICATED ON THE PLANS AND ARE SUBJECT TO THE APPROVAL OF THE OWNER AND ENGINEER.

B. ALL FIXTURES SHALL BE UL LISTED AND LABELED.

C. LAMPS SHALL BE GENERAL ELECTRIC, PHILIPS, OR OSRAM/SYLVANIA EXCEPT WHERE OTHERWISE NOTED IN THE LIGHTING FIXTURE SCHEDULE OR OTHERWISE NOTED. ALL FIXTURES SHALL BE EQUIPPED WITH LAMPS.

D. BALLASTS SHALL BE AS INDICATED IN THE LIGHTING FIXTURE SCHEDULE OR AS OTHERWISE NOTED.

E. ALL FIXTURES SHALL BE PROVIDED FOR PROPER VOLTAGE BASED ON THE CIRCUIT ASSIGNMENT INDICATED ON THE PLANS.

F. CATALOG NUMBERS ARE FOR GENERAL IDENTIFICATION OF FIXTURES ONLY. ALL RELATED PARTS, SUCH AS PLASTER RINGS, JUNCTION BOXES, LOUVERS, SHIELDS, MOUNTING STEMS, CANOPIES, CONNETS, STRAPS, COLES, HARDWARE, ACCESSORIES, ETC. TO FIT THEM PROPERLY TO THE CONSTRUCTION, SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR. CONTRACTOR SHALL PROVIDE SUITABLE TRIM AND APPURTENANCES TO MOUNT FIXTURES IN TYPE OF CEILING OR WALL, AS SPECIFIED IN ARCHITECTURAL FINISH SCHEDULES REGARDLESS OF CATALOG NUMBER GIVEN.

G. ALL FIXTURES SHALL BE GROUNDED PER THE NEC.

H. FIXTURES, CONNECTED WITH FLEX TO THE RIGID RACEWAY PORTION OF THE WIRING SYSTEM SHALL CARRY A GREEN JUMPER WITHIN THE FLEX. THE JUMPER SHALL BE FASTENED TO BOTH THE FIXTURE AND THE RACEWAY SYSTEM WITH A STEEL CITY "C" CLIP OR APPROVED EQUIVALENT. PHASE AND GROUND CONDUCTORS RUN IN FLEX SHALL BE #12 AWG MINIMUM. MAXIMUM FLEX LENGTH SHALL BE 6'-0".

I. MOUNT ALL FIXTURES PLUMB AND SQUARE WITH ROWS ALIGNED.

J. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF FIXTURES.

K. CONTRACTOR SHALL COORDINATE FIXTURE TYPE AND TRIM WITH CEILING CONSTRUCTION AND ADJUST ACCORDINGLY WITHOUT ADDITIONAL EXPENSE.

L. ALL LIGHTING FIXTURES SHALL BE THERMALLY PROTECTED PER THE NEC.

M. FOR RECESSED LIGHTING FIXTURES IN FIRE RATED CEILINGS, PROVIDE A MANUFACTURER APPROVED AND LISTED FIRE RATED COVER/ASSEMBLY OVER THE FIXTURE TO MAINTAIN THE INTEGRITY OF THE CEILING FIRE RATING. ANY LIGHTING FIXTURES INSTALLED UNDER THE FIRE RATED CAP SHALL BE SUITABLE FOR THE INSTALLATION.

9. **EQUIPMENT IDENTIFICATION:**

- A. PROVIDE ENGRAVED PHENOLIC NAMEPLATES FOR ALL ELECTRICAL EQUIPMENT SUPPLIED FOR THE PROJECT, INCLUDING BUT NOT LIMITED TO, WIRING TROUBLES, SAFETY SWITCHES, DISCONNECTS, TRANSFORMERS, PANELBOARDS, ETC. NAMEPLATE SHALL INDICATE THE DEVICE NAME, SYSTEM VOLTAGE (VOLTAGE/PHASE WIRE) AND UPSTREAM DEVICE AND CIRCUIT. PROVIDE NAMEPLATES FOR CIRCUIT BREAKERS IN SWITCHGEARS, SWITCHBOARDS AND DISTRIBUTION PANELS.
- B. NAMEPLATE COLORS SHALL BE AS FOLLOWS:
- | | |
|--------------------|------------------------------------|
| 200V/0V EQUIPMENT | BLUE SURFACE WITH WHITE CORE |
| 277/480V EQUIPMENT | BLACK SURFACE WITH WHITE CORE |
| EMERGENCY SYSTEMS | GREEN SURFACE WITH WHITE CORE |
| FIRE ALARM SYSTEM | BRIGHT RED SURFACE WITH WHITE CORE |
| SECURITY SYSTEMS | BURGUNDY SURFACE WITH WHITE CORE |
| TELEPHONE SYSTEMS | ORANGE SURFACE WITH WHITE CORE |
| DATA SYSTEMS | BROWN SURFACE WITH WHITE CORE |
| TV SYSTEMS | PURPLE SURFACE WITH WHITE CORE |
| PAGING SYSTEMS | WHITE SURFACE WITH BLACK CORE |
- C. NAMEPLATES UP TO 8 SQUARE INCHES SHALL NOT BE LESS THAN 1/16" THICK. NAMEPLATES LARGER THAN 8 SQUARE INCHES SHALL NOT BE LESS THAN 1/8" THICK.
- D. LETTERING HEIGHT SHALL BE 1/2" MINIMUM.
- E. NAMEPLATES SHALL BE ATTACHED WITH SELF-DRILLING/SELF-TAPPING SCREWS, EXCEPT RIVETS WHICH SHALL BE USED WHERE END OF SCREW IS NOT PROTECTED. QUANTITY AS FOLLOWS:
- | | |
|------------------------|----------|
| UP TO 5 SQUARE INCHES | 2 SCREWS |
| 5 TO 12 SQUARE INCHES | 4 SCREWS |
| ABOVE 12 SQUARE INCHES | 6 SCREWS |

10. **DISCONNECTS:**

A. DISCONNECT SWITCHES SHALL BE HEAVY-DUTY TYPE IN NEMA 1 ENCLOSURES, UNLESS OTHERWISE NOTED, FUSED OR NON-FUSED AS INDICATED. SWITCHES SHALL HAVE REACTION-TYPE FUSE CLIPS. SWITCHES SHALL BE BY EATON, SQUARE-D, GENERAL ELECTRIC, OR APPROVED EQUAL. WHERE FEED FROM A LOAD CENTER, GENERAL-DUTY SWITCHES SHALL BE PERMITTED.

B. FUSES LESS THAN 60A SHALL BE CLASS RRS, DUAL-ELEMENT, TIME-DELAY WITH INDICATION. FUSES GREATER THAN 60A SHALL BE CLASS J, DUAL-ELEMENT, TIME-DELAY WITH INDICATION.

C. A SET OF 3 SPARE FUSES OF EACH SIZE AND TYPE SHALL BE TYPED WITH THE OWNER.

11. **PANELBOARDS:**

A. PANELBOARD SHALL BE PROVIDED AS MANUFACTURED BY EATON, SQUARE-D, GENERAL ELECTRIC, OR APPROVED EQUAL. ALL NEW EQUIPMENT FOR THE PROJECT SHALL BE BY THE SAME MANUFACTURER. LOAD CENTER TYPE PANELBOARDS SHALL BE USED WHERE THE PANELBOARD SERVES A DWELLING UNIT.

B. ALL BUSSING, INCLUDING NEUTRAL AND GROUND, SHALL BE COPPER.

C. ALL BREAKERS SHALL BE AUTOMATIC THERMAL-MAGNETIC TYPE MOLDED CASE BOLT-ON TYPE, CALIBRATED FOR 40 DEGREE C, OR AMBIENT COMPENSATION, UNLESS OTHERWISE NOTED.

D. PANELS SHALL BE FULLY RATED (AC), NO SERIES AC RATINGS ARE ALLOWED.

E. PANELS SHALL HAVE FULL SIZE EQUIPMENT GROUNDING BARS AND NEUTRAL BARS, EXCEPT WHERE INDICATED TO BE 200%.

F. ALL PANELBOARD AND BREAKER LUGS SHALL BE SIZED AND RATED PER THE CONDUCTOR SIZE AND MATERIAL.

G. LIGHTING AND APPLIANCE PANELS (100A-600A) SHALL HAVE FRONT ACCESSIBLE HINGED DOOR-IN-DOOR COVERS WITH DEAD FRONT, SHALL BE 20" WIDE MINIMUM WITH MINIMUM 4" WIDE WIRING GUTTERS.

H. DISTRIBUTION PANELS (600A-1200A) SHALL HAVE FRONT ACCESSIBLE DEAD FRONT COVER.

I. PROVIDE HANDLE LOCK-ON DEVICES FOR ALL CIRCUIT BREAKERS CONNECTED TO EMERGENCY, EXIT, NIGHT LIGHTING, FIRE ALARM, TELEPHONE BOARDS, AND SECURITY SYSTEMS.

J. BREAKERS USED FOR SWITCHING SHALL BE SWITCHING DUTY (SWD) RATED.

K. BREAKERS USED FOR HEATING, AIR-CONDITIONING AND/OR REFRIGERATION SHALL BE HACR RATED.

L. GROUND-FAULT CIRCUIT-INTERRUPTER (GFCI) PROTECTION FOR PERSONNEL SHALL BE PROVIDED FOR ALL LOCATIONS PER NEC 210.8, INSTALLED IN A READILY ACCESSIBLE LOCATION. WHERE A DEVICE LOCATION IS NOT ACCESSIBLE, THE GFCI PROTECTION SHALL BE PROVIDED WITH THE BREAKER SERVING THE DEVICE.

M. ARC-FAULT CIRCUIT-INTERRUPTER (AFCI) PROTECTION SHALL BE PROVIDED FOR ALL LOCATIONS PER NEC 210.12, INSTALLED IN A READILY ACCESSIBLE LOCATION. THIS INCLUDES ALL 120V, 15A AND 20A BRANCH CIRCUITS IN DWELLING UNITS, DORMITORY/STUDENT HOUSING UNITS AND HOTEL/MOTEL GUEST ROOMS/SUITES AS DEFINED BY THE NEC.

N. ALL OVERCURRENT DEVICES WHICH COMPRISE THE EMERGENCY SYSTEM OR LEGALLY REQUIRED STANDBY SYSTEM SHALL BE SELECTIVELY COORDINATED. THE ELECTRICAL CONTRACTOR SHALL PROVIDE MANUFACTURER DOCUMENTATION INDICATING COMPLIANCE WITH THE SELECTIVE COORDINATION REQUIREMENTS PER THE NEC.

O. ALL PANELBOARDS SHALL HAVE METAL DIRECTORY FRAME. FOR EACH PANELBOARD, PROVIDE TYPED CIRCUIT DIRECTORY PER NEC 408.4. SPARE CIRCUIT BREAKERS SHALL BE LABELED SPARE AND IN THE OFF POSITION.

12. **FIRE ALARM SYSTEM:**

- A. NEW DEVICES SHALL BE CONNECTED TO THE EXISTING FIRE ALARM SYSTEM IN COMPLIANCE WITH ALL APPLICABLE NFPA 72 AND OTHER STANDARDS AS WELL AS THE AMERICAN WITH DISABILITIES ACT (ADA). ALL FINAL CONNECTIONS, TESTING AND ADJUSTMENTS SHALL BE PERFORMED BY OR UNDER DIRECT SUPERVISION OF AN AUTHORIZED FACTORY REPRESENTATIVE. NEW DEVICES SHALL BE COMPATIBLE WITH THE EXISTING FIRE ALARM SYSTEM. THE CONTRACTOR SHALL FIELD VERIFY EXACT SYSTEM MANUFACTURER AND TYPE AND CAPABILITY TO MEET THE INTENT INDICATED ON THE DRAWINGS.
- B. INITIATING DEVICES SHALL BE LINEAR SLIDE, PRESENT ON/OFF, SQUARE LAW DIMMING, ALL AIR HANDLING UNITS SHALL BE STOPPED UPON ANY ALARM INPUT. EACH AIR HANDLER UNIT SHALL BE PROVIDED WITH A SYSTEM CONTROLLED RELAY TO EFFECT SHUT/DOWN. ALL ALARM DEVICES AND LAMPS SHALL CONTINUE TO OPERATE UNTIL THE INITIATING DEVICE IS RESET. SUBSEQUENT ALARMS SHALL REBOUND THE SYSTEM. AN AUDIBLE AND VISUAL SIGNAL SHALL INDICATE SYSTEM TROUBLE. THE CONTROL PANEL SHALL PROVIDE FOR ACTIVATING A UL LISTED CENTRAL STATION SIGNAL FOR NOTIFYING THE FIRE DEPARTMENT.
- C. MANUAL STATIONS SHALL BE NOT CODED, WITH DUAL-ACTION PULL AND KEY TYPE RESET, SEMI-FLUSH MOUNTED. COMBINATION LIGHT AND HORN SIGNALS SHALL BE FLUSH MOUNTED. WIRING SHALL BE IN CONDUIT AS PREVIOUSLY SPECIFIED. #14 AWG MINIMUM, THHN. ALL J-BOXES USED FOR THE FIRE ALARM SYSTEM SHALL BE PAINTED RED.
- D. CONDUCTORS SHALL BE PLENUM-RATED AND INSTALLED IN CONDUIT AND INSTALLED IN COMPLIANCE WITH NFPA 70, ARTICLE 760, IN ADDITION TO WIRING METHODS 300.4.
- E. ALL FIRE ALARM WIRING SHALL BE CLASS B.
- F. PROVIDE ALL REQUIRED MODULES, POWER EXTENDERS, PROGRAMMING, ETC. FOR A COMPLETE AND OPERATIONAL SYSTEM.
- G. SUBMIT FIRE ALARM SHOP DRAWINGS CONSISTING OF PRODUCT DATA, TO THE ENGINEER AND FOR APPROVAL.
- H. FILL OUT NFPA 72 CERTIFICATION REPORT AND SUBMIT TO ENGINEER AND AUTHORITY HAVING JURISDICTION.
- I. WARRANTY - ALL WORK PERFORMED AND ALL MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE FREE FROM DEFECTS AND SHALL REMAIN SO FOR A PERIOD OF AT LEAST TWO (2) YEARS FROM THE DATE OF ACCEPTANCE BY THE PROFESSIONAL ENGINEER AND/OR OWNER. THE FULL COST OF MAINTENANCE, LABOR, AND MATERIALS REQUIRED TO CORRECT ANY DEFECT DURING THIS TWO YEAR PERIOD SHALL BE IMMEDIATELY CORRECTED AT NO ADDITIONAL COST TO THE OWNER. ANY DEFECTS THAT RENDER THE SYSTEM INOPERATIVE SHALL BE REPAIRED WITHIN 24 HOURS OF THE OWNER NOTIFYING THE CONTRACTOR. OTHER DEFECTS SHALL BE REPAIRED WITHIN 48 HOURS OF THE OWNER NOTIFYING THE CONTRACTOR.

13. **FIRE STOPPING:**

A. ALL PENETRATIONS OR RATED ASSEMBLIES SHALL BE SEALED WITH RATED MATERIALS MEETING ASTM E-814.

B. PROVIDE FIRESTOPPING DEVICES (OR SYSTEMS) WHICH HAVE BEEN TESTED AND LISTED AS COMPLYING WITH ASTM E-814. INSTALL THE DEVICES (OR SYSTEMS) IN ACCORDANCE WITH THE CONDITIONS OF THEIR LISTING. PROVIDE THE APPROPRIATE DEVICES (OR SYSTEMS) WITH AN "F" RATING EQUAL TO THE RATING OF THE ASSEMBLY BEING PENETRATED.

C. DEVICES (AND/OR SYSTEMS) SHALL BE BY HMT, 3M OR EQUIVALENT.

14. **SEISMIC:**

A. THE ELECTRICAL CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR PROVIDING SEISMIC SUPPORT AND BRACING OF ELECTRICAL COMPONENTS TO RESIST THE EFFECTS OF EARTHQUAKES ON THE ELECTRICAL SYSTEM AS WELL AS ANY REQUIRED SPECIAL INSPECTIONS BASED ON THE SPECIFIC GEOGRAPHIC LOCATION AS REQUIRED. THE SEISMIC RESTRAINTS AND SPECIAL INSPECTIONS SHALL MEET ALL APPLICABLE STATE AND LOCAL BUILDING CODE REQUIREMENTS AS WELL AS ASCE-7 REQUIREMENTS.

15. **ELECTRICAL COORDINATION WITH OTHER TRADES:**

A. THE ELECTRICAL CONTRACTOR SHALL CONNECT AND/OR PROVIDE FINAL CONNECTIONS TO ALL EQUIPMENT SUPPLIED BY OTHERS APPLICABLE TO THE PROJECT, INCLUDING BUT NOT LIMITED TO, MECHANICAL, PLUMBING, FIRE PROTECTION AND SUPPRESSION, OWNER FURNISHED, KITCHEN, LABORATORY, ETC. UNLESS OTHERWISE NOTED.

B. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL CONNECTIONS PRIOR TO ROUGH-IN USING APPROVED CATALOG SHEETS AND SHOP DRAWINGS.

C. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANUAL MOTOR STARTER SWITCHES, DISCONNECT SWITCHES, RECEPTACLES, ETC. TO MECHANICAL AND PLUMBING EQUIPMENT. ALL STARTERS, OTHER THAN MANUAL, STARTER SWITCHES, SHALL BE PROVIDED BY OTHERS, BUT INSTALLED BY THE ELECTRICAL CONTRACTOR.

D. ALL DISCONNECT SWITCHES AND FUSE SIZES SHALL BE COORDINATED WITH SHOP DRAWINGS PRIOR TO INSTALLATION OR INSTALLING. ANY DEVICES INSTALLED INCORRECTLY BECAUSE OF LACK OF COORDINATION WILL BE REMOVED AND INSTALLED CORRECTLY AT THE EXPENSE OF THE ELECTRICAL CONTRACTOR.

E. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL CONDUIT RUNS AND LIGHT FIXTURE LOCATIONS ABOVE THE CEILING WITH OTHER TRADES PRIOR TO INSTALLATION.

F. ALL DUCT SMOKE DETECTORS SHALL BE PROVIDED AND CONNECTED BY THE ELECTRICAL CONTRACTOR, BUT INSTALLED BY THE MECHANICAL CONTRACTOR.

G. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY OUTLETS FOR HEAT TAPE CONNECTIONS FOR MECHANICAL SYSTEMS. PROVIDE CLASS B (30ma) GFCI PROTECTION ON THE BREAKER SUPPLYING THE HEAT TAPE.

H. THE ELECTRICAL CONTRACTOR SHALL PROVIDE 120V POWER AT EACH HVAC UNIT HAVING A CONTROLS POWER SUPPLY. CIRCUITS SHALL BE DEDICATED 20A SERVING A MAXIMUM OF 10 HVAC UNITS PER CIRCUIT. COORDINATE ALL LOCATIONS WITH THE MECHANICAL CONTRACTOR.

16. **DEMOLITION NOTES:**

A. PARTIAL AND TOTAL DEMOLITION OF PORTIONS SHALL BE PERFORMED ALONG WITH ALL NECESSARY MODIFICATIONS TO THAT PORTION OF THE EXISTING BUILDINGS WHICH SHALL REMAIN SO THAT IT CONTINUES TO FUNCTION UNAFFECTED BY THE DEMOLITION AND ASSOCIATED NEW CONSTRUCTION.

B. WHERE INCLUDED AS PART OF THE CONTRACT DOCUMENTS, THE DRAWINGS INDICATE THE GENERAL AREAS OF WORK INVOLVED. HOWEVER, THE ELECTRICAL CONTRACTOR SHALL PERFORM WORK OUTSIDE THOSE AREAS SHOWN AS IS NECESSARY TO COMPLY WITH THE INTENT OF THIS SECTION.

C. THE ELECTRICAL CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE EXISTING BUILDING AND WITH THE WORK OF ALL OTHER TRADES AND INCLUDE ALL WORK NECESSARY TO COMPLY WITH THE INTENT OF THE DEMOLITION.

D. IT SHALL BE UNDERSTOOD THAT FIELD CONDITIONS MAY BE ENCOUNTERED DURING THE EXECUTION OF THIS CONTRACT WHICH WILL REQUIRE EXTENSION OR RELOCATION OF EXISTING SYSTEMS OR EQUIPMENT WHICH ARE NOT SPECIFICALLY SHOWN ON THE DRAWINGS. BUT WHICH ARE REQUIRED TO MEET THE STATED INTENT THAT THE BUILDING CONTINUE TO FUNCTION UNAFFECTED BY THE DEMOLITION AND ASSOCIATED NEW CONSTRUCTION. THE ELECTRICAL CONTRACTOR SHALL INCLUDE SUCH WORK AS WOULD NORMALLY BE EXPECTED IN AN EXISTING BUILDING OF THIS AGE AND TYPE.

E. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL TOOLS, EQUIPMENT, LABOR, ETC. IN ORDER TO ACCOMPLISH THE DEMOLITION PORTION OF THE PROJECT.

F. THE DEMOLITION OF CERTAIN AREAS OF THE EXISTING BUILDING SHALL BE PERFORMED BY THE GENERAL CONTRACTOR. IT SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE GENERAL CONTRACTOR TO DIFFERENTIATE THE SCOPE OF WORK WITH THE INTENT OF THE DEMOLITION.

G. THE ELECTRICAL CONTRACTOR SHALL INCLUDE COORDINATION WITH THE GENERAL CONTRACTOR AND SUCH DEMOLITION OF THE EXISTING ELECTRICAL SYSTEMS AS IS NECESSARY SO THAT THE DEMOLITION WORK OF THE GENERAL CONTRACTOR SHALL NOT DAMAGE THOSE PORTIONS OF THE ELECTRICAL SYSTEMS WHICH ARE TO REMAIN IN SERVICE. ARE TO BE REUSED, OR ARE TO BECOME THE PROPERTY OF THE OWNER.

H. TURN OVER TO OWNER, UPON REQUEST OR AS NOTED, ITEMS SHOWN AS BEING REMOVED AND NOT REINSTALLED. ITEMS NOT DIRECTED OR REQUESTED TO BE TURNED OVER TO THE OWNER SHALL BE DISPOSED OF BY THE ELECTRICAL CONTRACTOR.

I. EQUIPMENT OR MATERIALS WHICH ARE TO BE REUSED OR TURNED OVER TO THE OWNER SHALL BE CAREFULLY REMOVED, CLEANED, AND STORED IN A CLEAN AND DRY AREA. SHOULD THE ELECTRICAL CONTRACTOR ENCOUNTER SUCH EQUIPMENT WHICH IS NOT IN SATISFACTORY CONDITION FOR REUSE AND NOT IN WORKING ORDER, THE ELECTRICAL CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY.

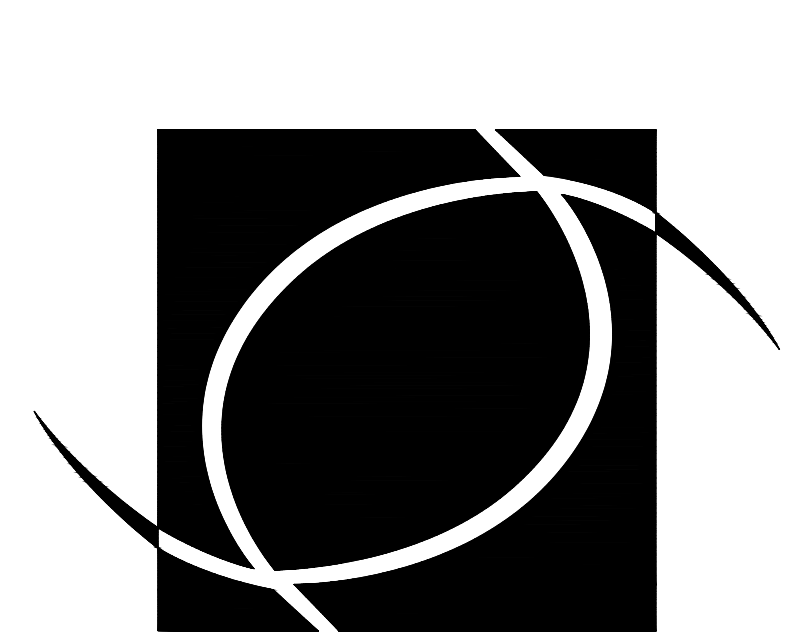
J. DISCONNECT ELECTRICAL SERVICES TO ALL EQUIPMENT REQUIRING REMOVAL. CONDUIT SHALL BE REMOVED BACK TO THE POINT WHERE IT WILL BE CONCEALED AT THE COMPLETION OF THIS CONTRACT. WIRE AND CABLE SHALL BE REMOVED BACK TO THE FIRST OUTLET BOX, CABINET, OR TERMINATION POINT WHICH IS TO REMAIN. CIRCUITS WHICH ARE NOT REUSED SHALL BE REMOVED BACK TO THE SOURCE IN THEIR ENTIRETY.

K. REMOVE AND REINSTALL CEILINGS IN THE EXISTING BUILDING AS REQUIRED FOR THE WORK. COORDINATE WITH THE GENERAL CONTRACTOR. IN SUCH AREAS, REMOVE AND REINSTALL ALL DISTRIBUTION DEVICES WHICH ARE TO REMAIN IN OR ON THE CEILING.

L. WHERE NEW CEILINGS CONFLICT WITH EXISTING ELECTRICAL WORK WHICH IS TO REMAIN, RELOCATE THE ELECTRICAL WORK INVOLVED TO CLEAR THE NEW CONSTRUCTION.

M. WHERE NEW WALL OR FLOOR FINISHES CONFLICT WITH EXISTING ELECTRICAL WORK WHICH IS TO REMAIN, RELOCATE THE ELECTRICAL WORK INVOLVED OR PROVIDE BOX EXTENSIONS OR SIMILAR DEVICES AND REINSTALL ON THE NEW FINISH.

N. WHERE EXISTING BRANCH CIRCUITS AND SYSTEMS ARE INTERRUPTED BY NEW WORK OR SYSTEMS (ELECTRICAL, MECHANICAL, PLUMBING, FIRE PROTECTION, ETC.) EXTEND AND RECONNECT THOSE CIRCUITS AND SYSTEMS. WHERE THOSE CIRCUITS OR SYSTEMS REMAIN IN SERVICE DURING THE EXECUTION OF THIS CONTRACT, PROVIDE TEMPORARY CONNECTIONS UNTIL FINAL CONNECTIONS ARE COMPLETE.



SMITH HARRIS
DESIGN
associates

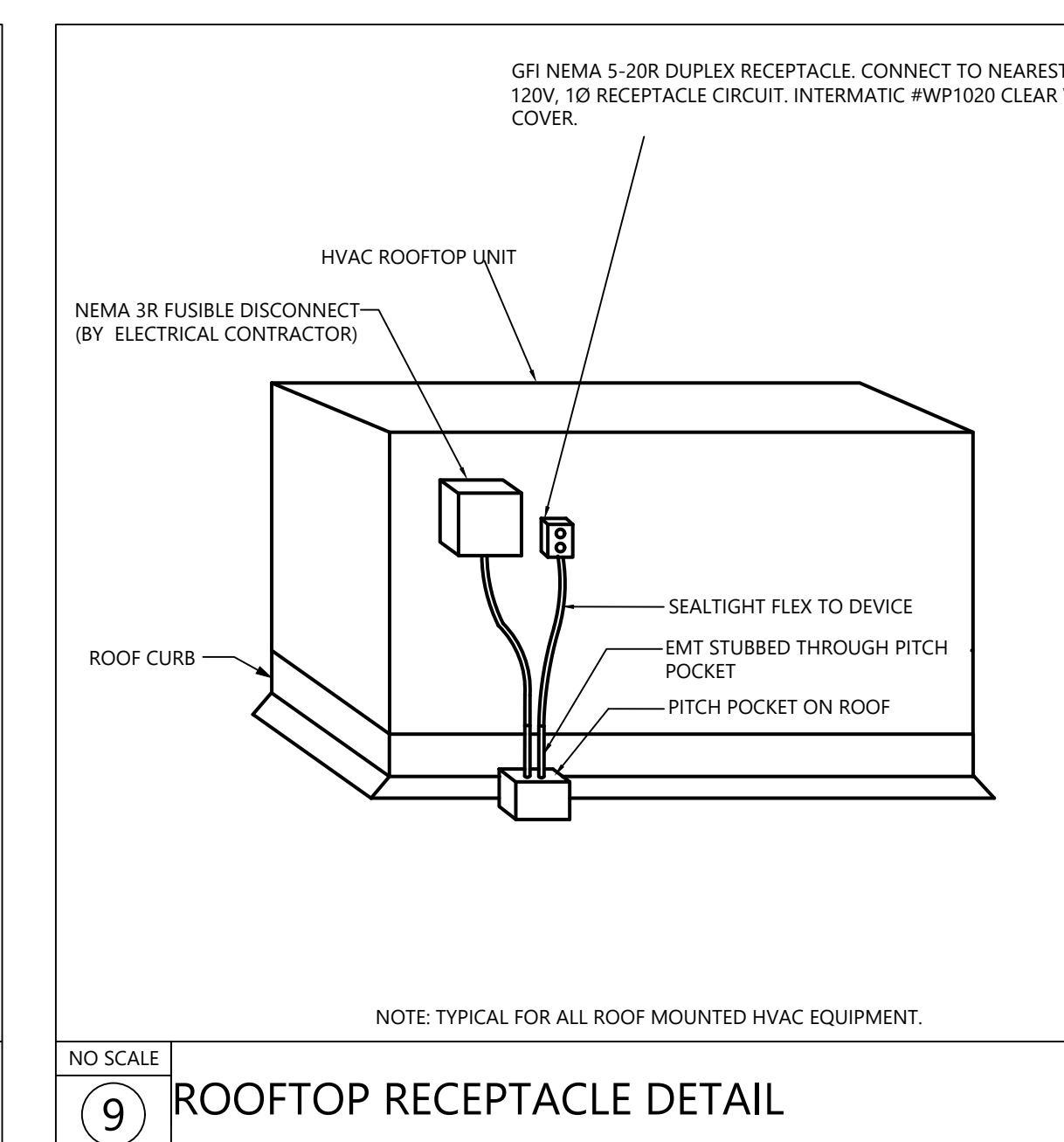
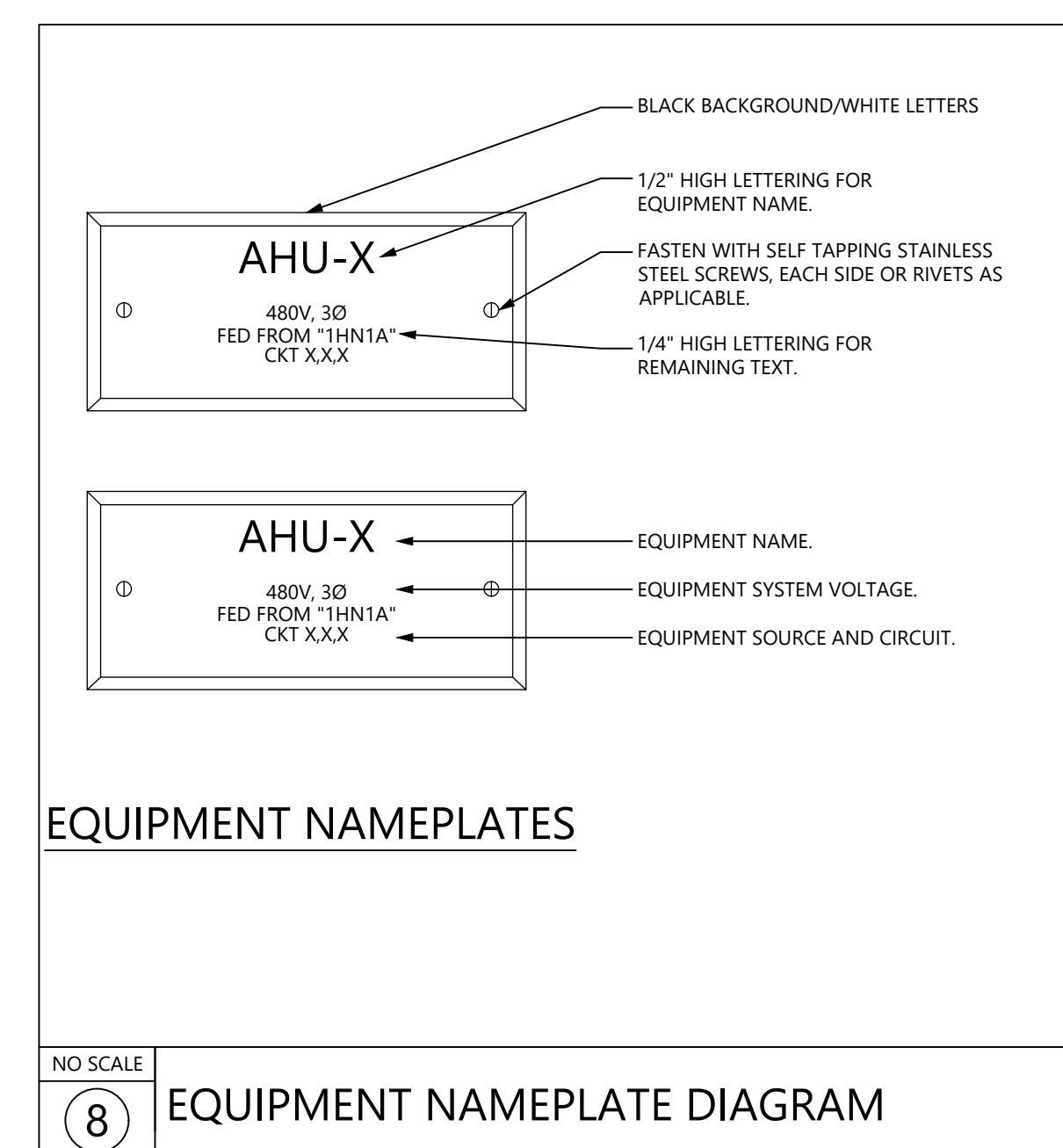
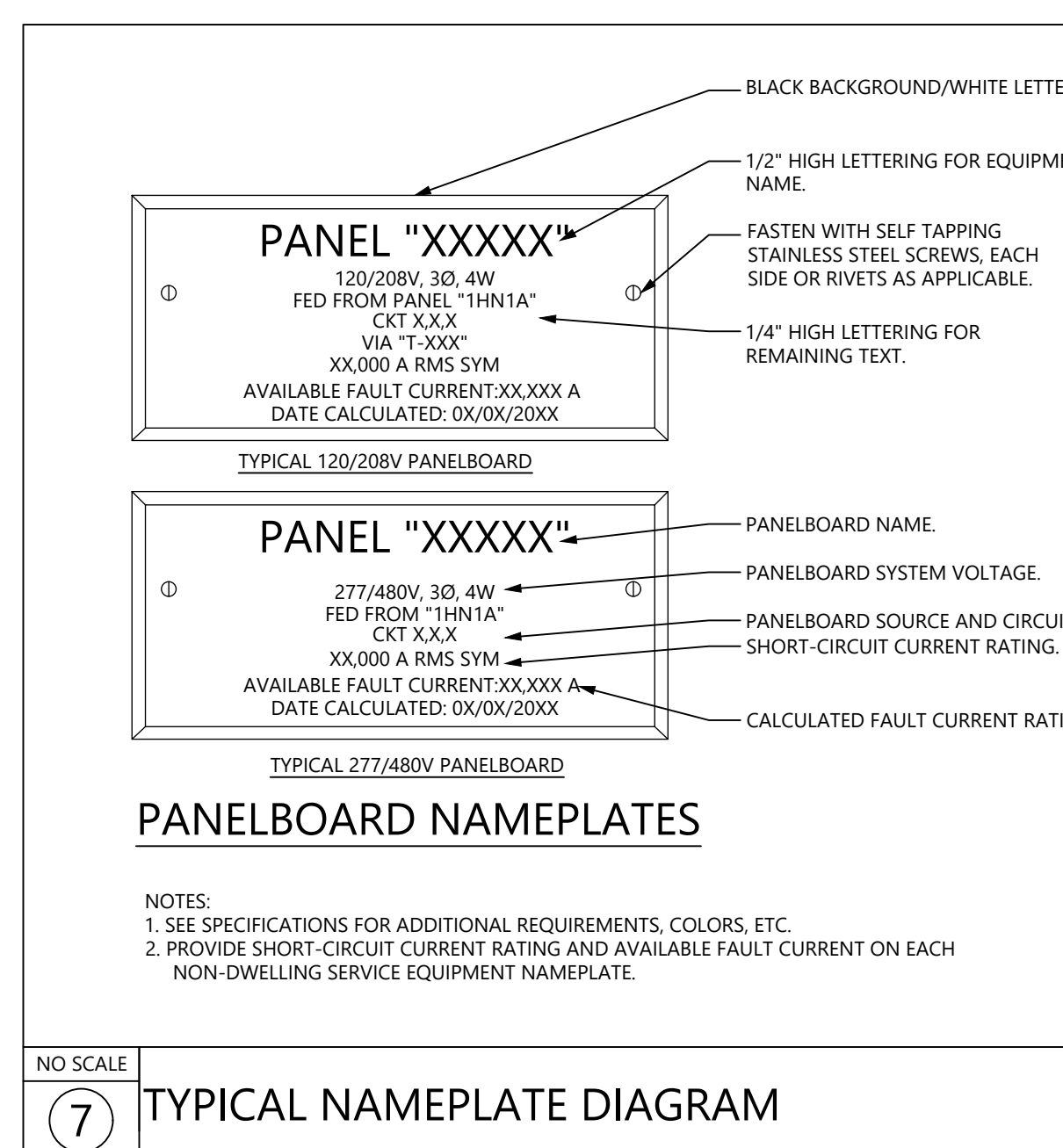
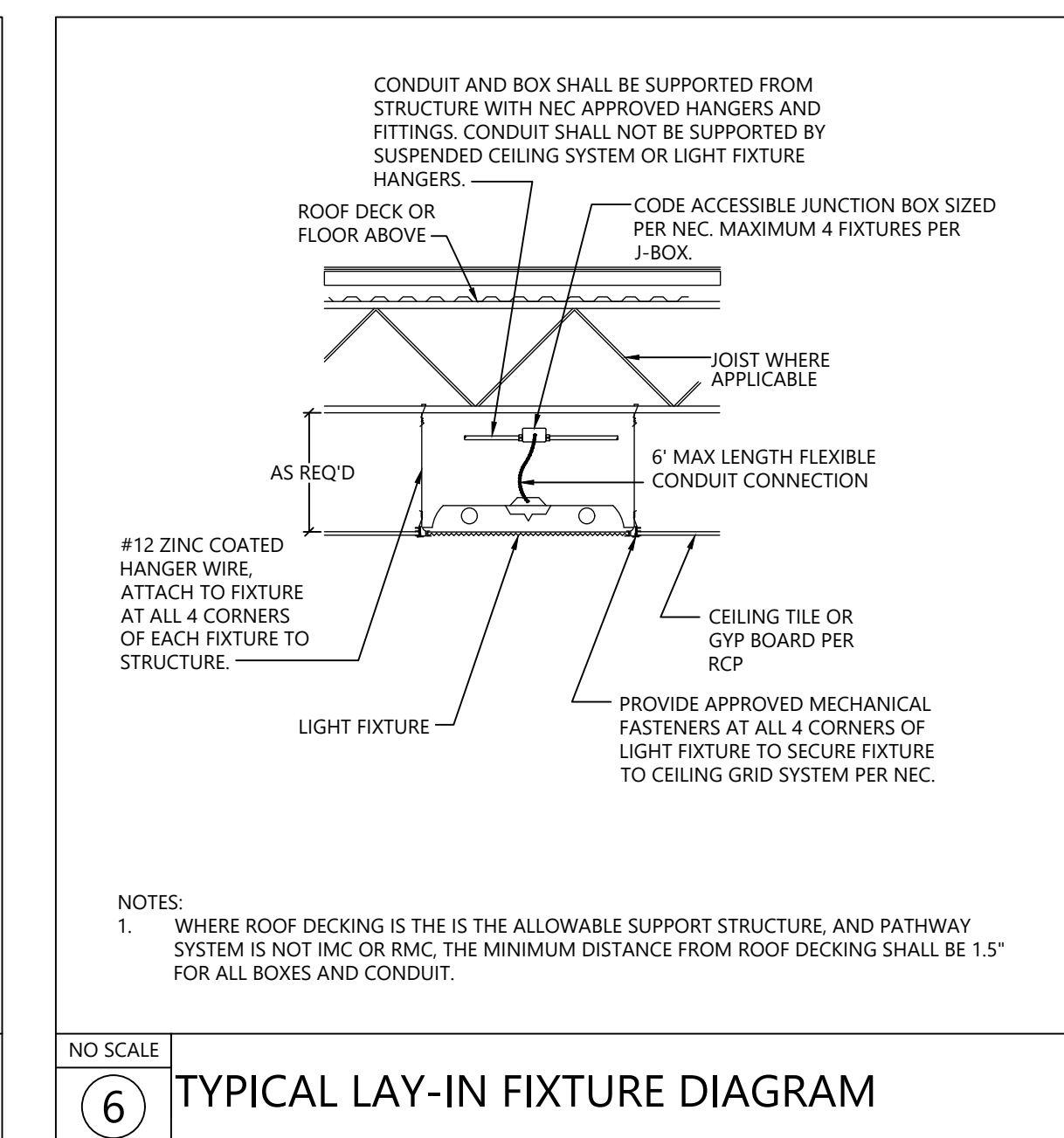
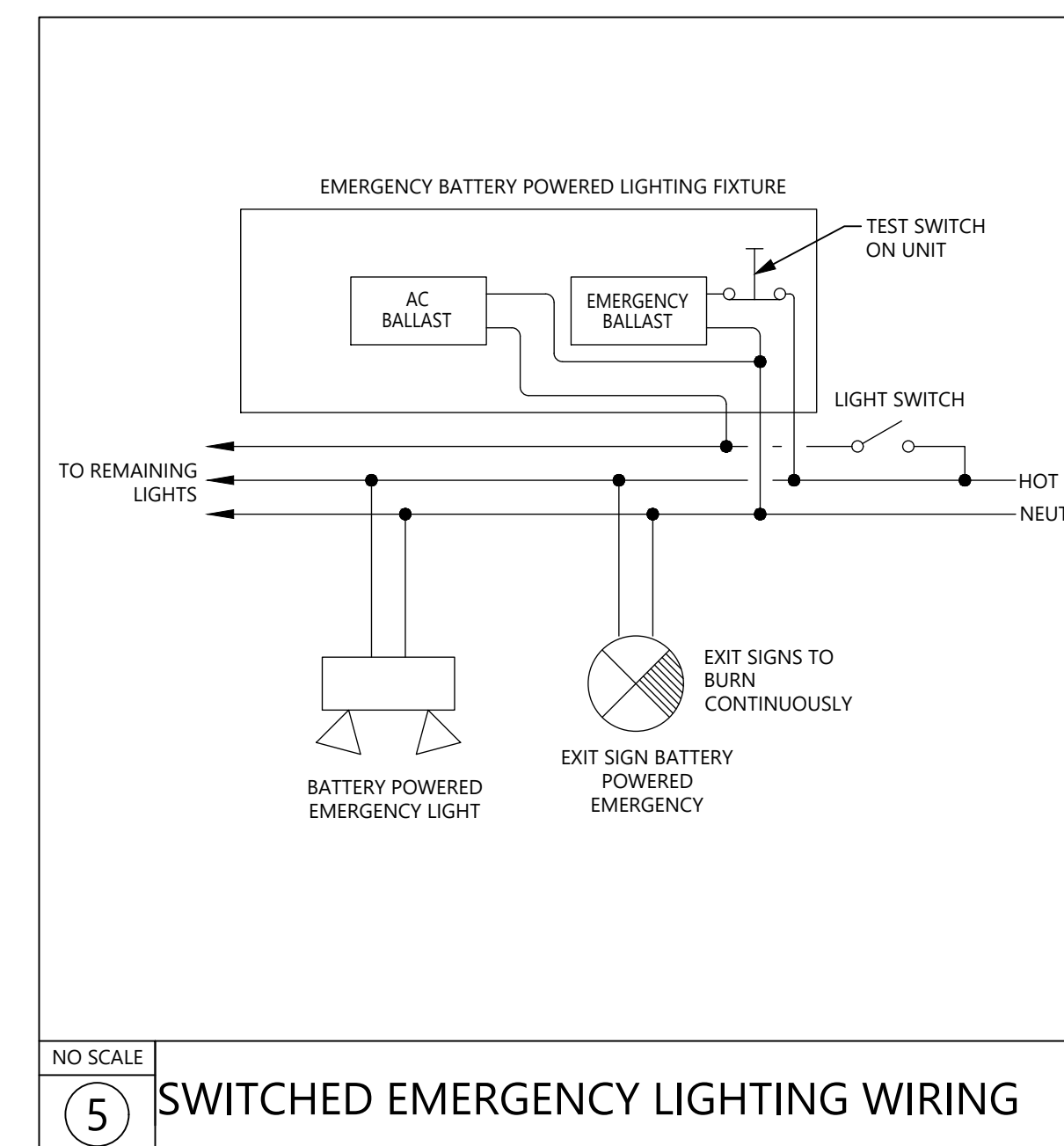
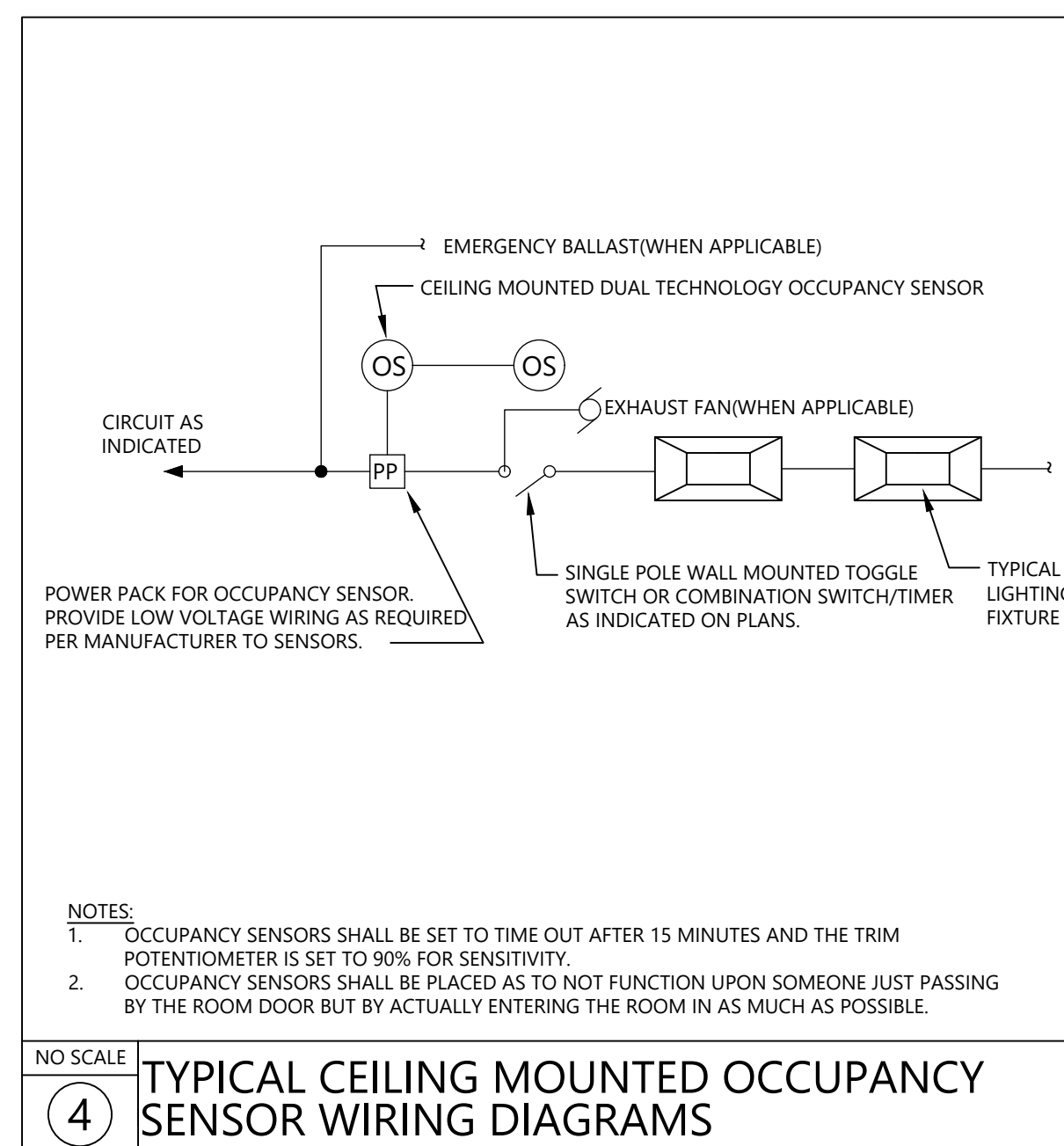
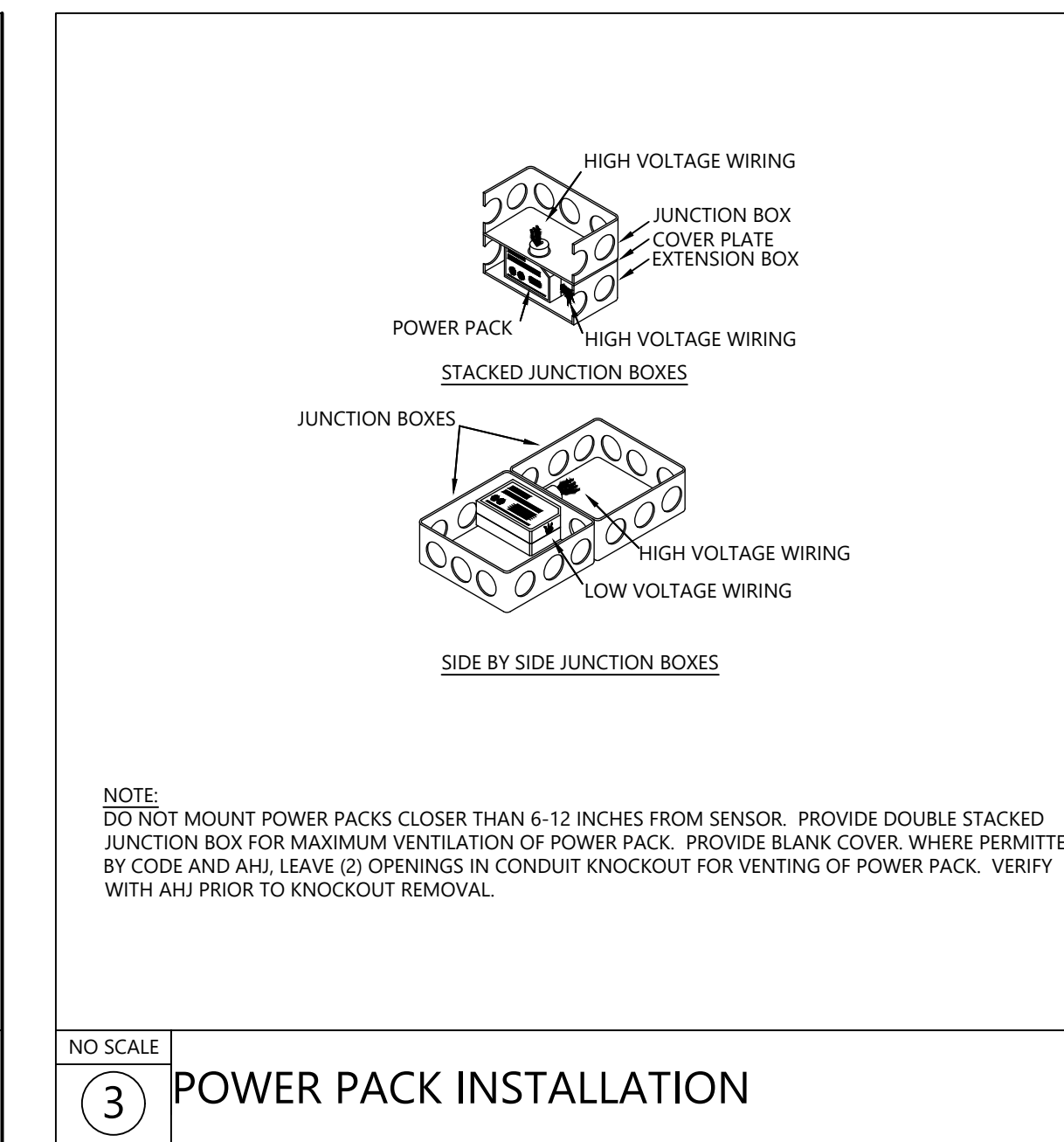
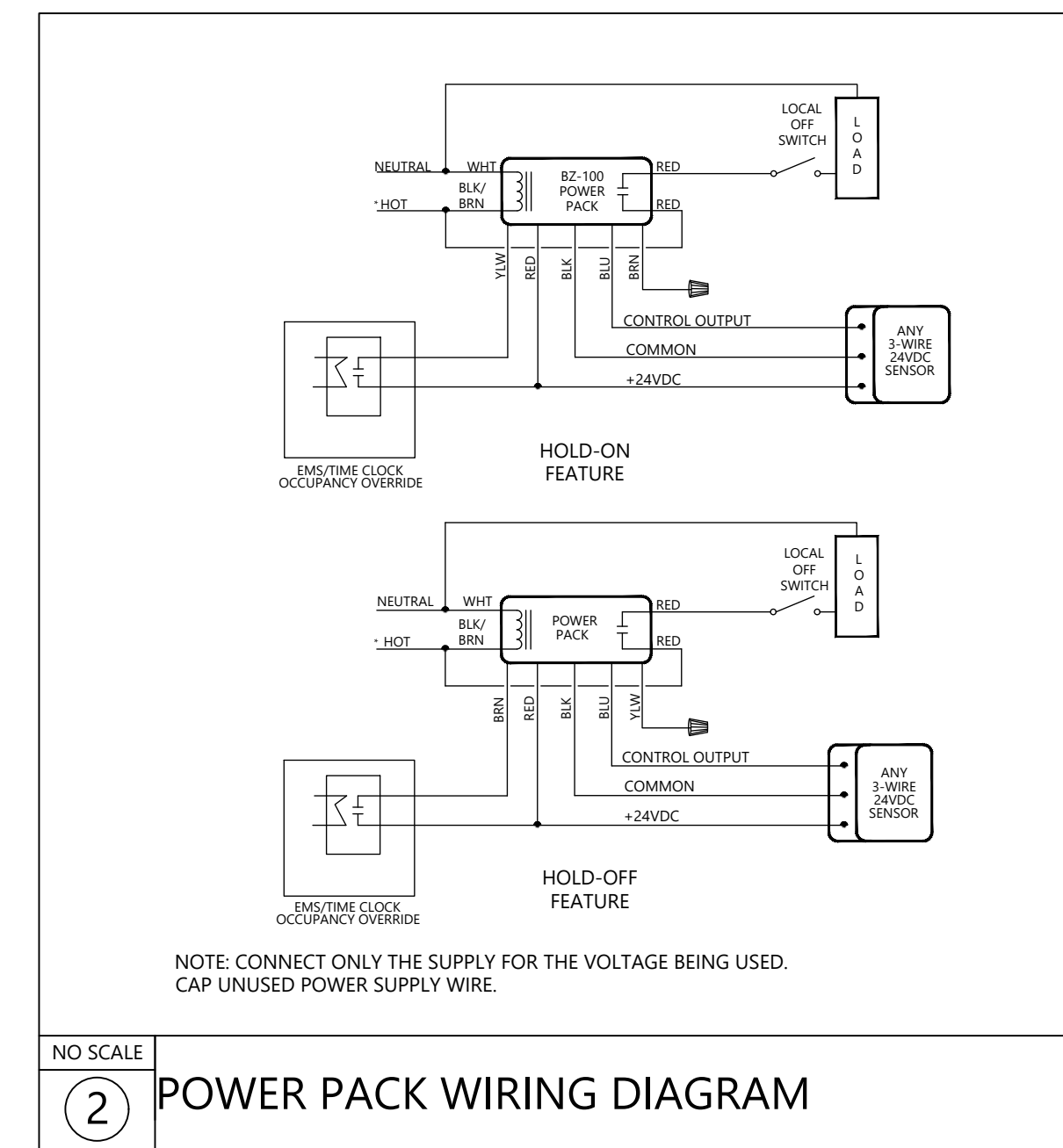
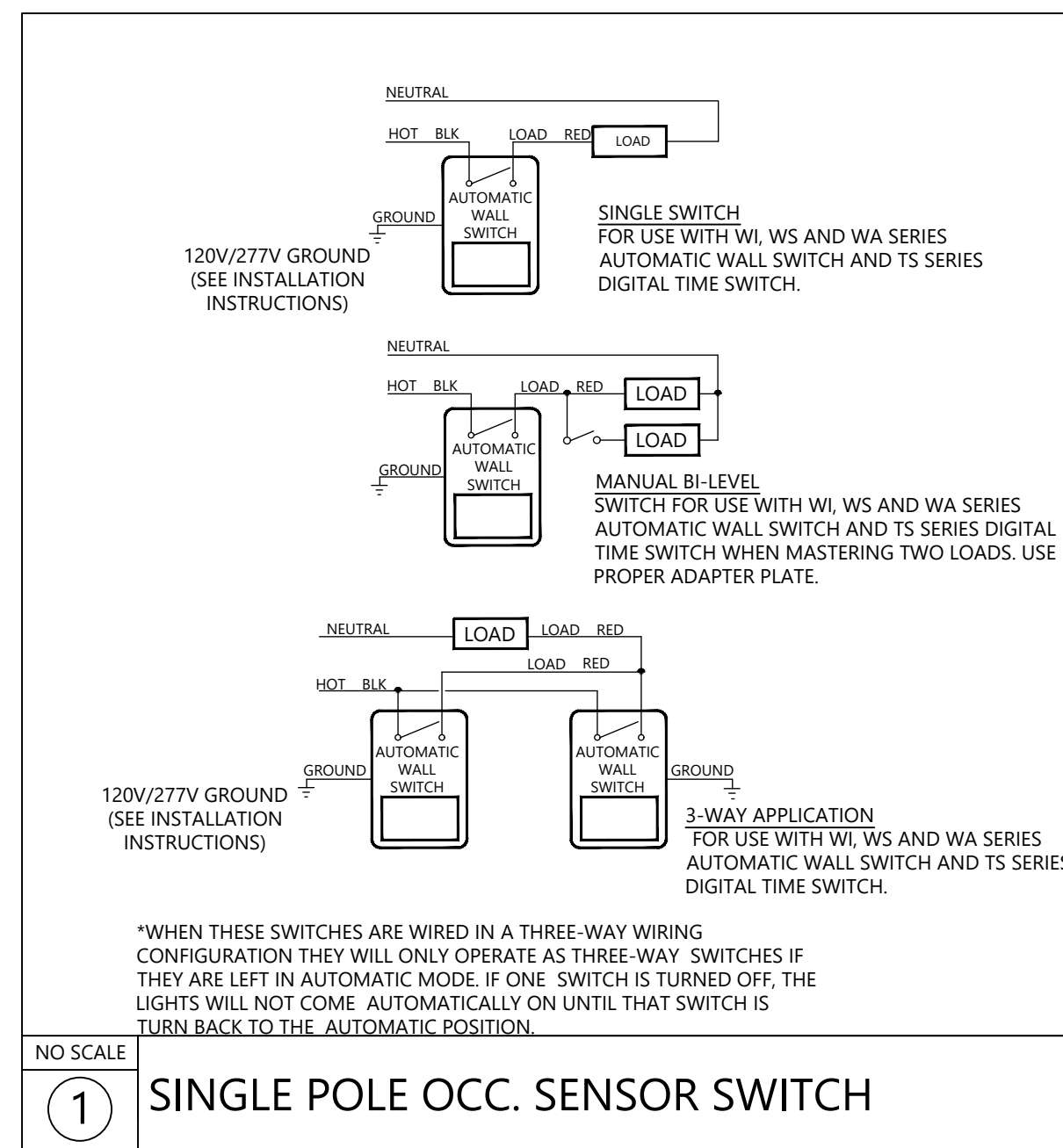
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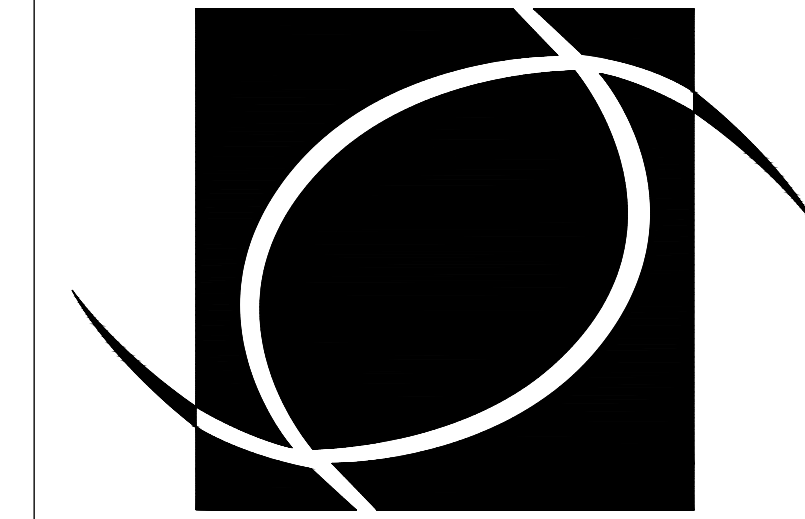
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28081

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Melbourne
Group



ROOF SUPPORT SPECIFICATIONS

PROVIDE CARLISLE SYNTHETIC PIPE SUPPORT OR APPROVED EQUAL. CONDUIT DIAMETERS 2" TO 5" - 10' SPACING MAXIMUM. CONDUIT DIAMETERS 1 1/2" - 8" SPACING MAXIMUM. CONDUIT DIAMETERS SMALLER THAN 1 1/2" - 8' SPACING MAXIMUM. ALL UNIONS SHALL BE PROVIDED WITH AN ADDITIONAL SUPPORT.



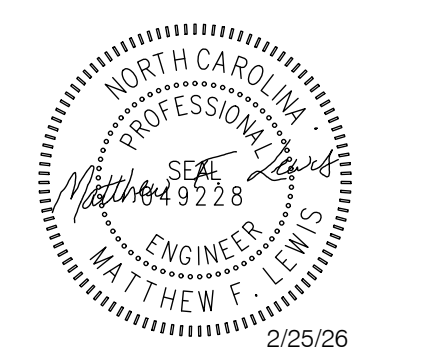
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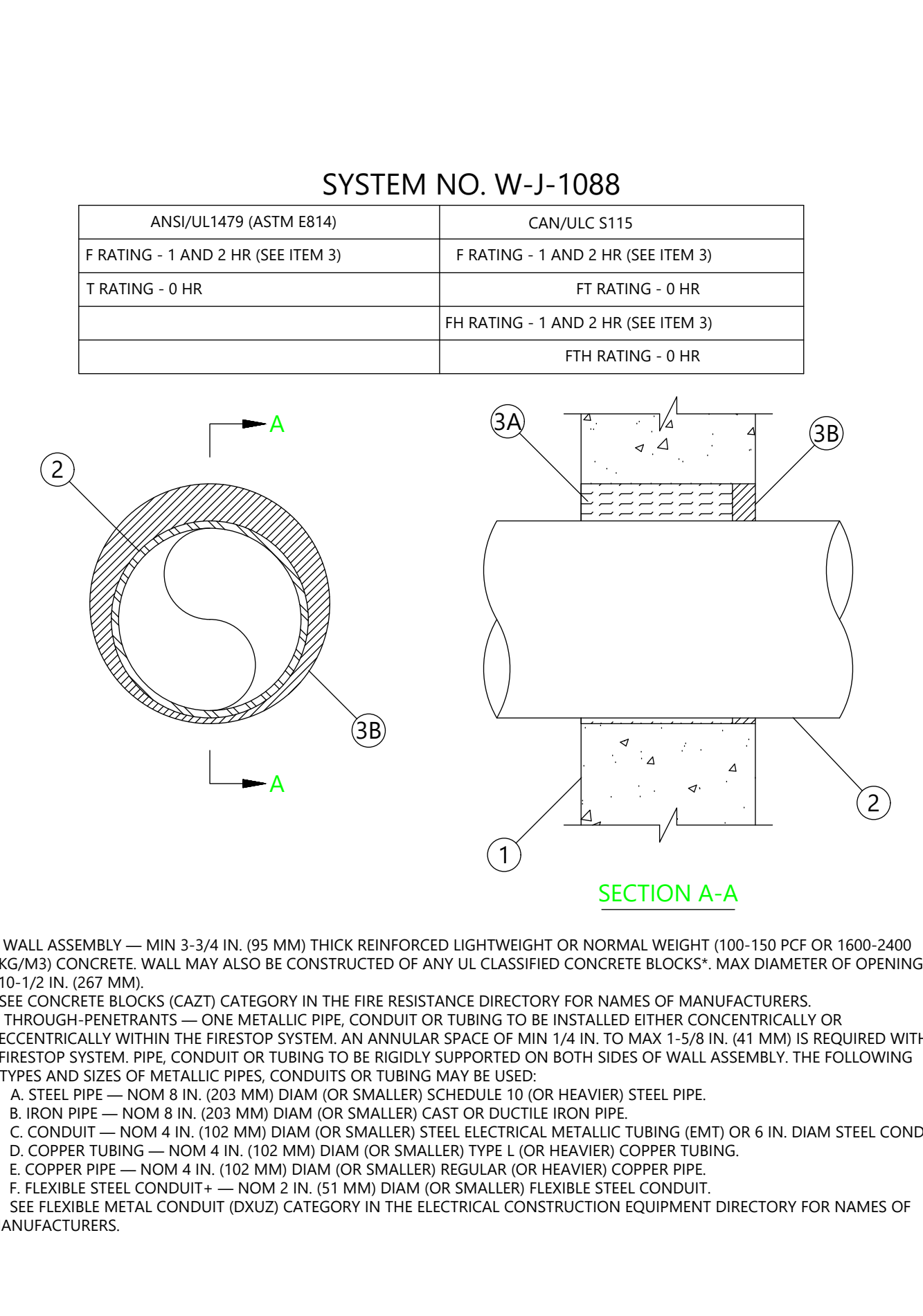
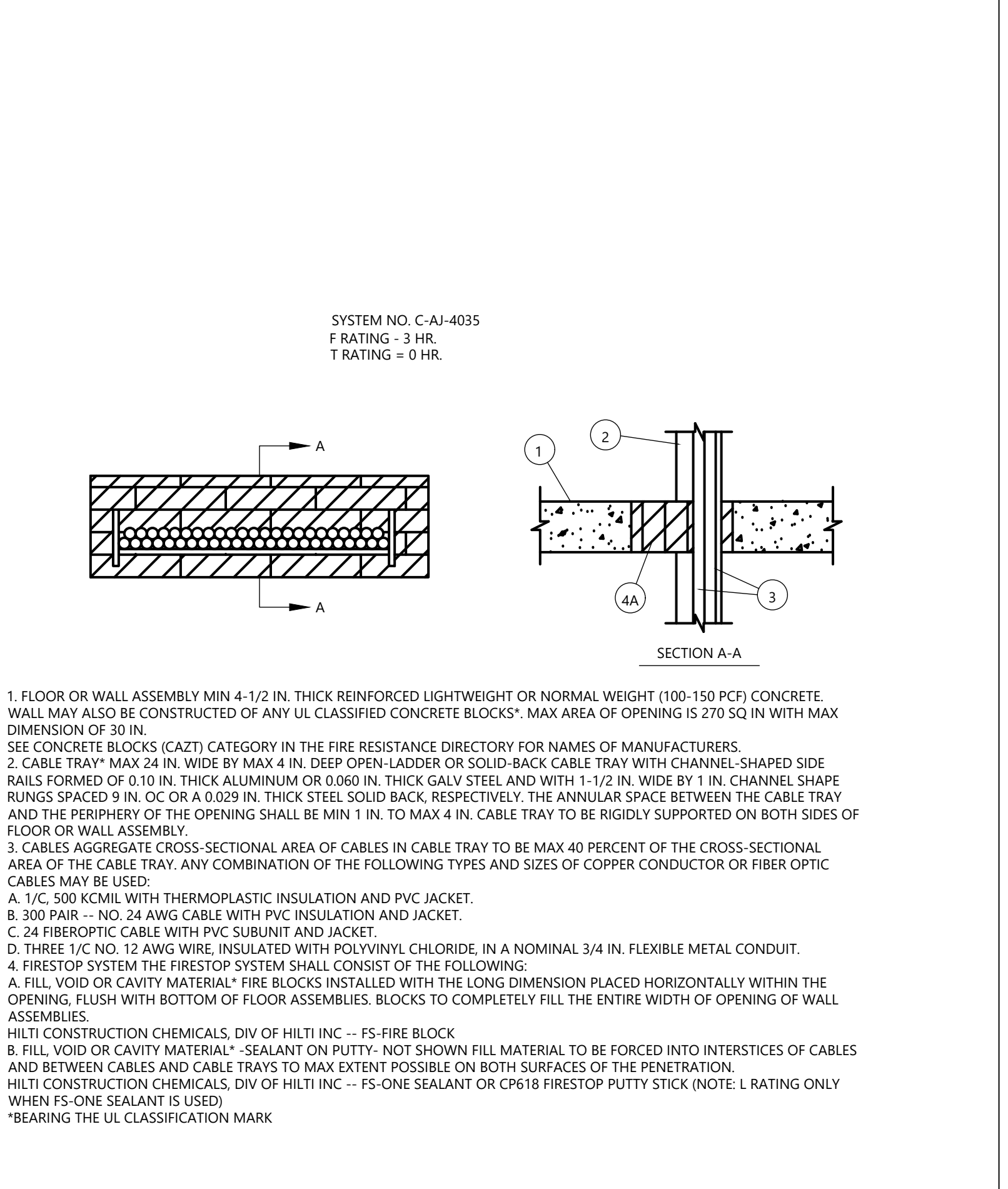
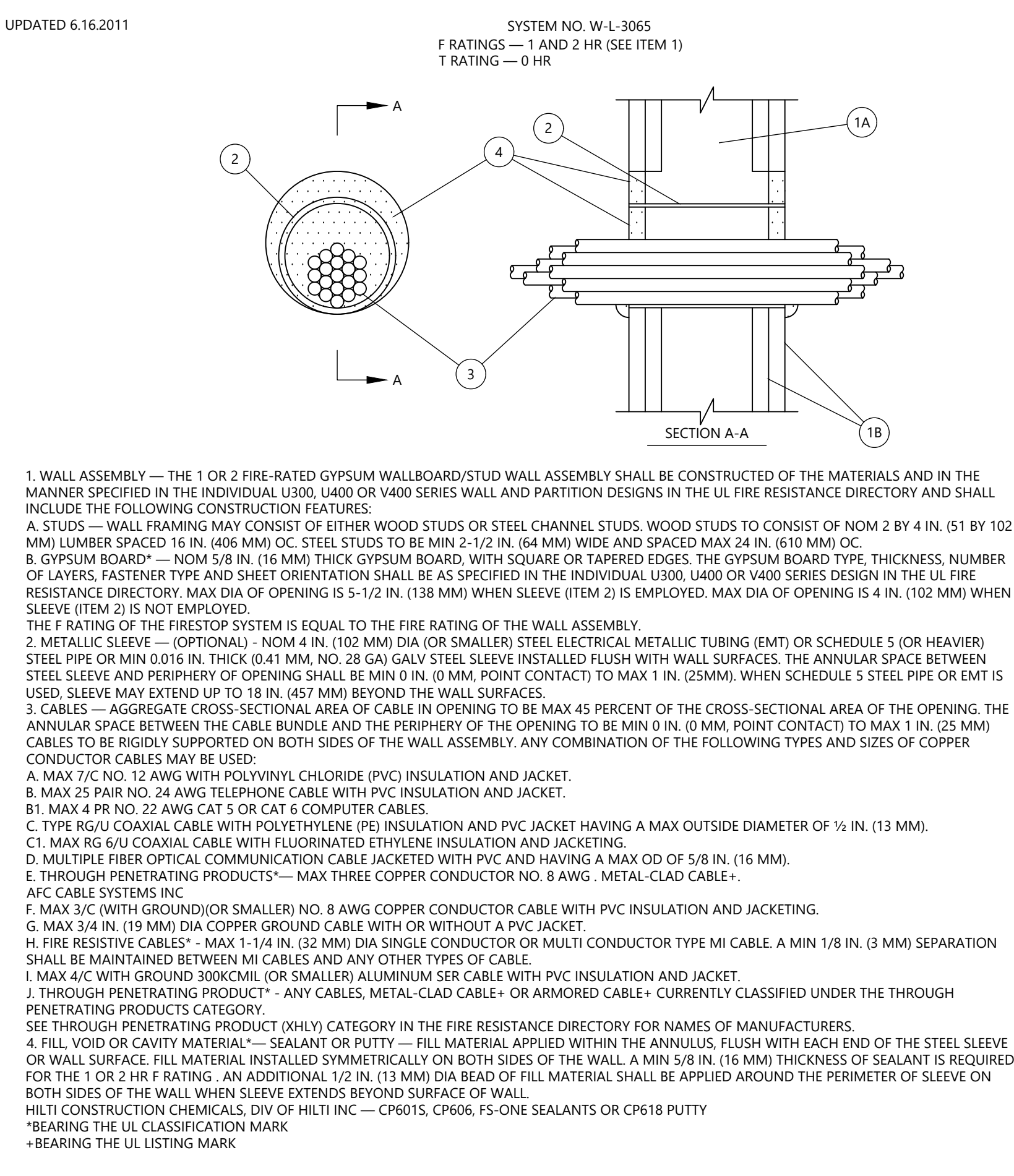
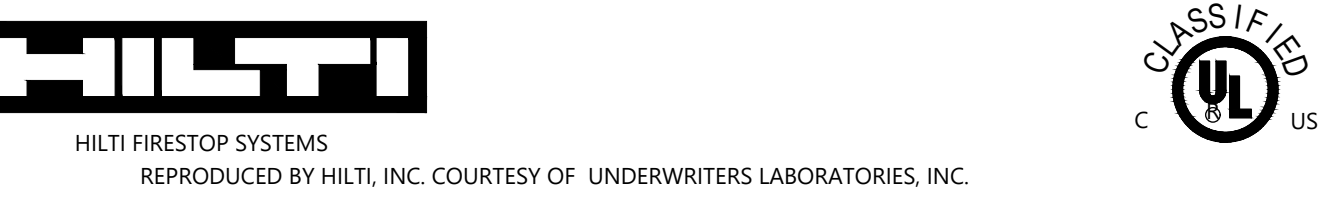
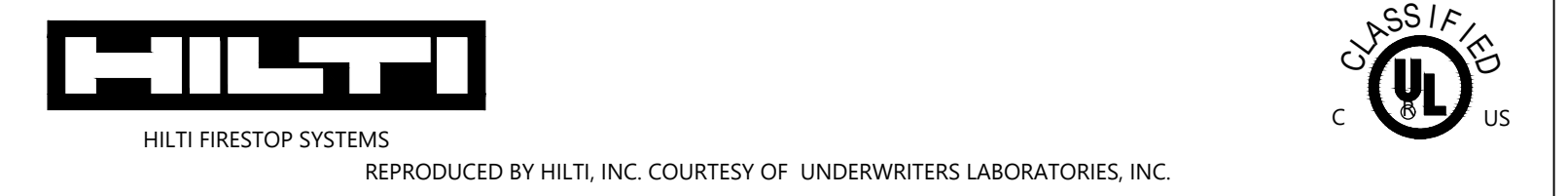
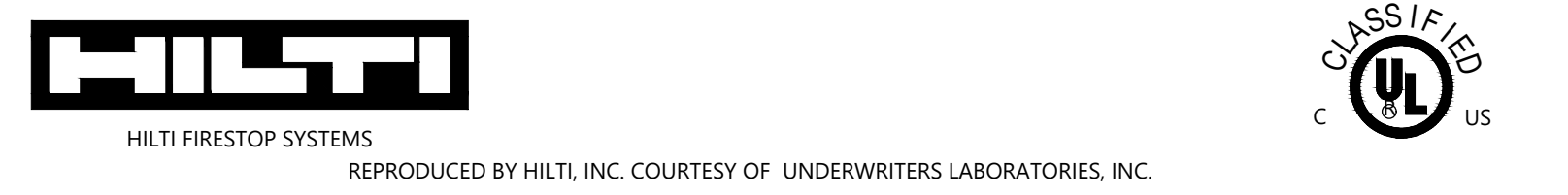
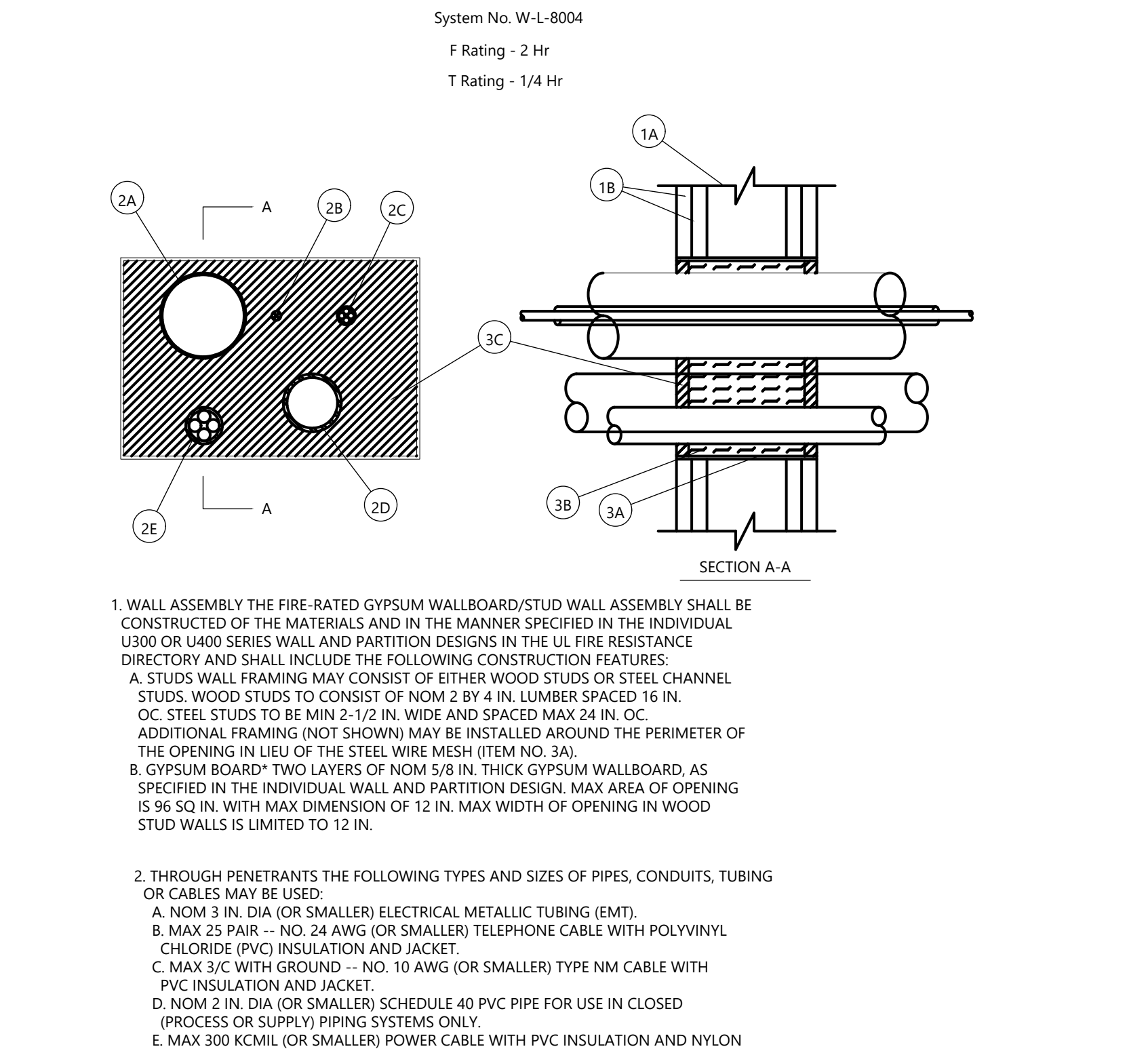
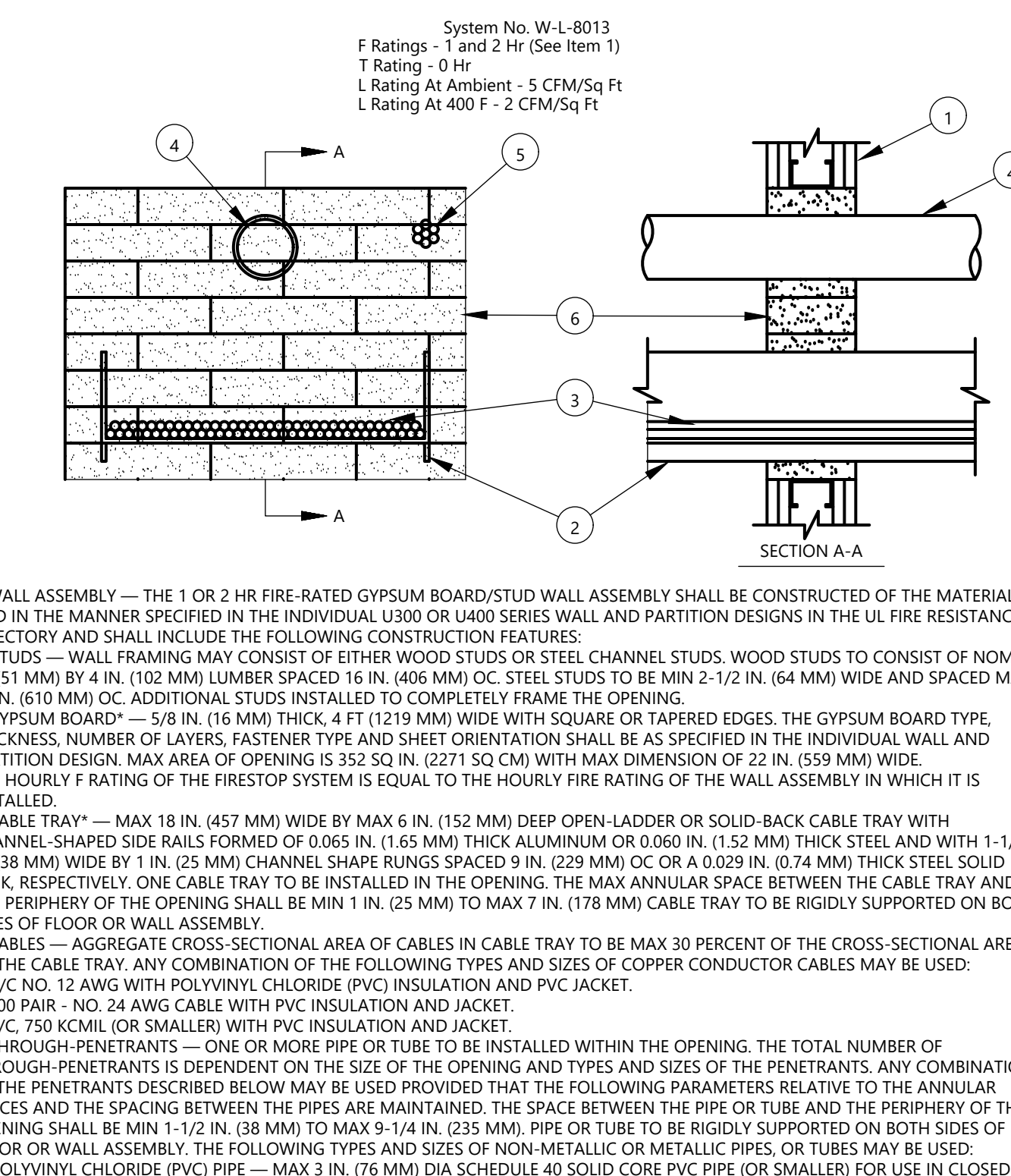
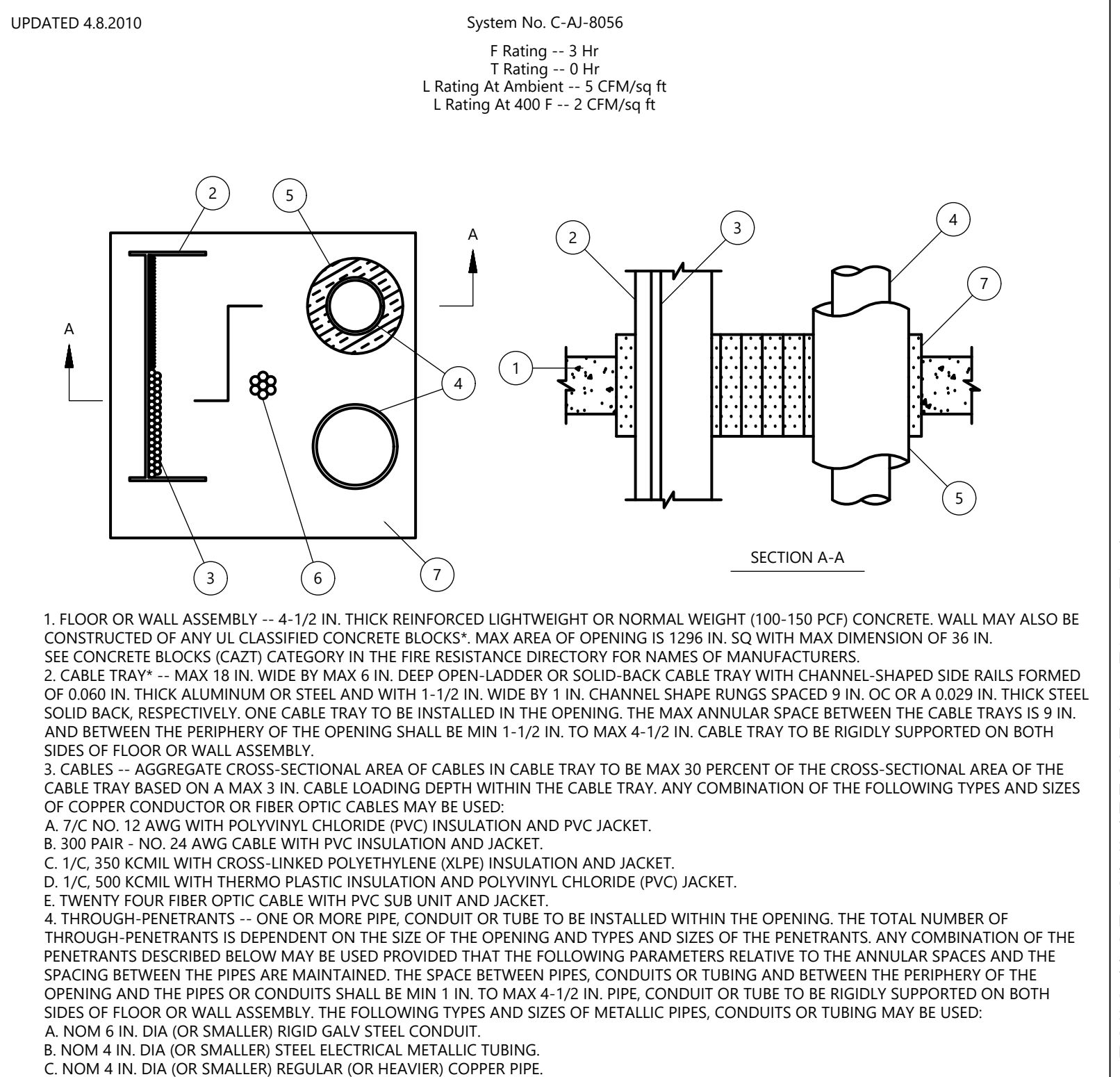
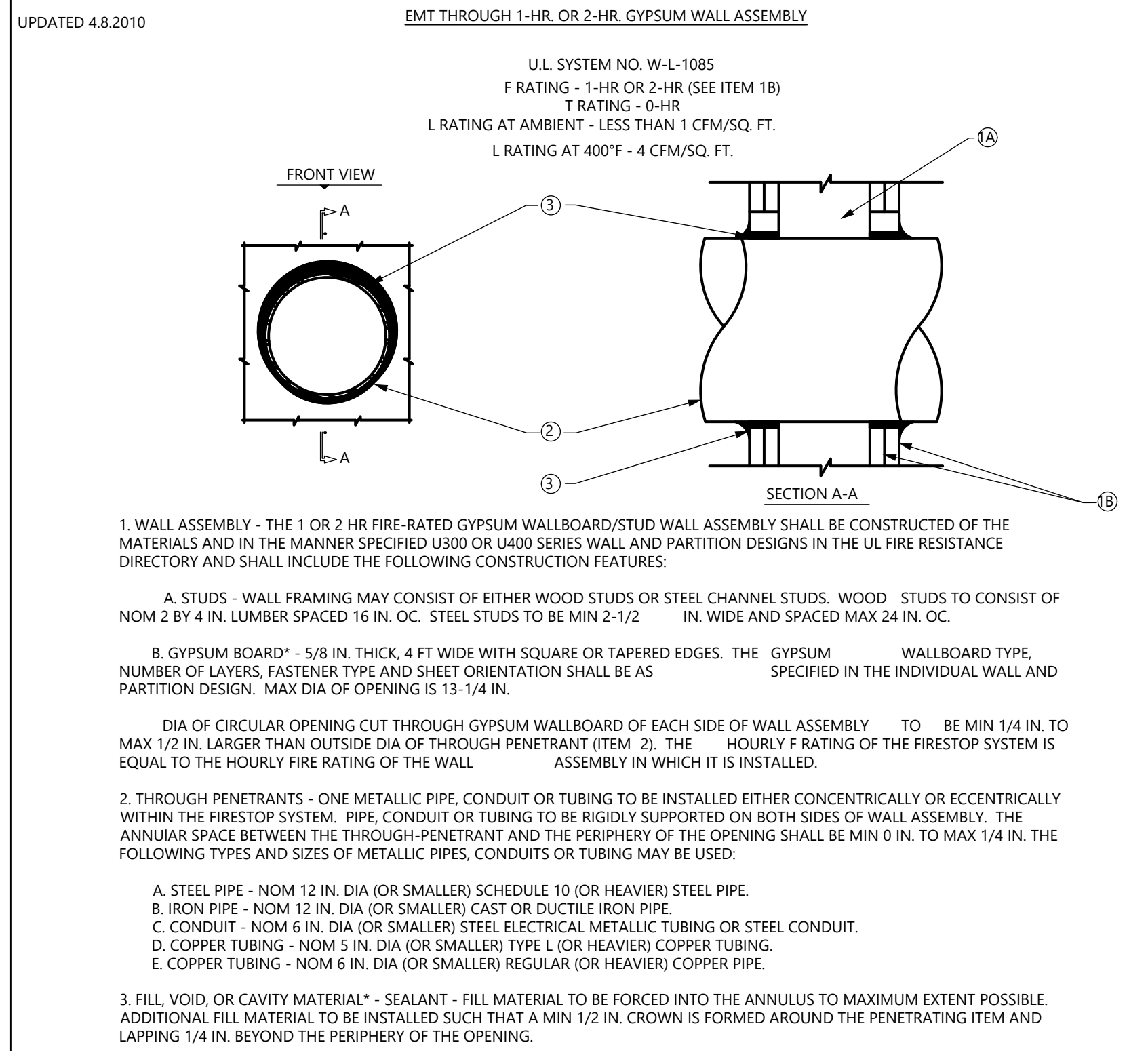
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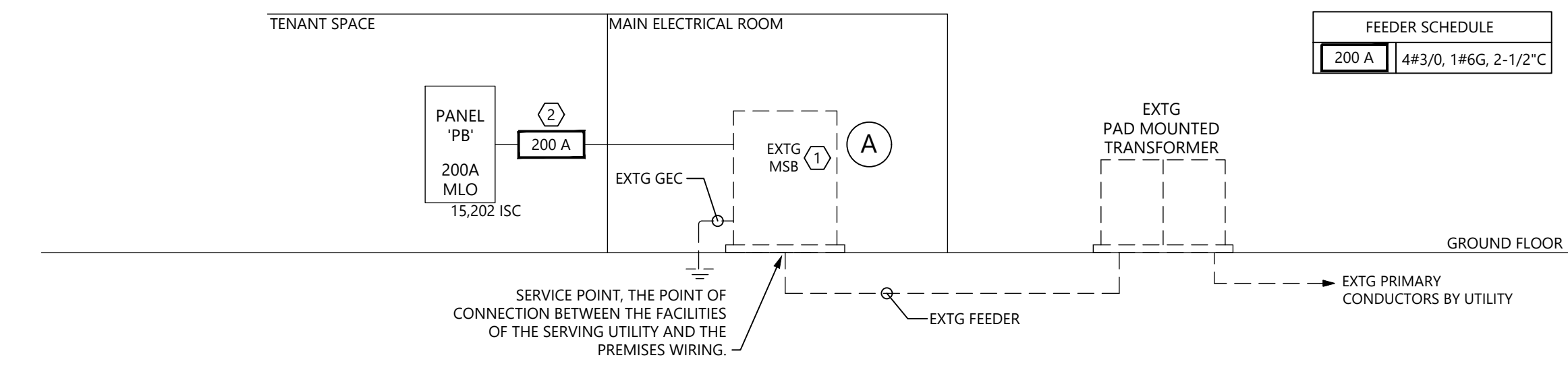
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SCALE:	As Indicated
DRAWN BY:	
DATE:	02/25/2026
TENANT:	Piffy Boutique
FILE NAME:	
SHEET:	ELECTRICAL DETAILS
E3	







1 POWER RISER DIAGRAM

NOT TO SCALE

POWER RISER GENERAL NOTES:

- A. DASHED ITEMS ARE EXISTING AND SHALL REMAIN. SOLID LINES INDICATE SCOPE OF WORK. E.C. TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK. RISER DIAGRAM CONSTRUCTED PER EXISTING DRAWINGS DATED 04/27/2022.
- B. LAYOUT SHOWN IN RISER DIAGRAM IS DIAGRAMMATIC IN NATURE ONLY AND DOES NOT REPRESENT ACTUAL IN FIELD CONDITIONS.

POWER RISER KEYED NOTES:

- PROVIDE SUBMETERING FOR NEW TENANT AS REQUIRED. E.C. TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING WORK. COORDINATE ALL SUBMETERING REQUIREMENTS WITH LANDLORD.
- INSTALL NEW FEEDERS TO TENANT SPACE IN EXISTING CONDUIT WHERE SUITABLE. E.C. TO FIELD VERIFY CONDUIT SIZE, CONDITION, ETC. PRIOR TO INSTALLATION.

SERVICE LOADS	
PANEL NAME	MSB
VOLTAGE	208/120V
AMPERAGE	4000A
DESIGNED LOAD CAP (KVA)	1,150 KVA
EXISTING LOAD (KVA)	722 KVA**
ADDED/REMOVED LOAD (KVA)	+72 KVA
NEW TOTAL LOAD (KVA)	729.2 KVA

**EXISTING LOAD PER DUKE ENERGY PEAK 15-MONTH DEMAND

EXISTING PANEL: MSB												
VOLTAGE: 120/ 208						MOUNTING: SURFACE						
PHASE / WIRE: 3φ / 4W						MAIN: CIRCUIT BREAKER						
AMPS: 4,000												
LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #	PHASE			CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA
					A	B	C					
0.00	EXTG			1				2				0.00
0.00	EXTG	400EX	EXTG MC#1	3				4	EXTG MC#5	800EX	EXTG	0.00
0.00	EXTG			5				6				0.00
0.00	EXTG	800EX	EXTG MC#2	7				8				0.00
0.00	EXTG			9				10	EXTG MC#6	800EX	EXTG	0.00
0.00	EXTG			11				12				0.00
0.00	EXTG			13				14				0.00
0.00	EXTG	800EX	EXTG MC#3	15				16	EXTG MC#7	800EX	EXTG	0.00
0.00	EXTG			17				18				0.00
0.00	EXTG	800EX	EXTG MC#4	19				20				0.00
0.00	EXTG			21				22	EXTG PANEL 'MDP'	800EX	EXTG	0.00
0.00	EXTG			23				24				0.00
7.25	SR			25				26				0.00
0.72	SR	200	NEW PANEL 'PB' (NOTE 4)	27				28	FUTURE RETAIL	400EX	EXTG	0.00
2.73	SR			29				30				0.00
			EXTG SPACE	31				32				0.00
				33				34	EXTG SPACE			0.00
				35				36				0.00
				37				38	EXTG SPACE			0.00
				39				40				0.00
				41				42	EXTG SPACE			0.00
SUB TOTALS												
LOAD (kVA)			Conn.	D.F.	Dmd.	TOTAL LOAD PER PHASE						
LIGHTS			0.7	1.25	0.8	CONNECTED						
HEATING			0.0	1.00	0.0	A=	7.3 kVA	60.4 AMPS				
COOLING			5.1	1.00	5.1	B=	0.7 kVA	6.0 AMPS				
VENTILATION			0.0	1.00	0.0	C=	2.7 kVA	22.7 AMPS				
MOTORS			0.0	1.00	0.0	DEMAND						
KITCHEN			0.0	0.65	0.0	A=	7.4 kVA	61.7 AMPS				
REC. (84 10KVA)			1.4	1.00	1.4	B=	0.7 kVA	6.0 AMPS				
REC. (5 10KVA)			0.0	0.50	0.0	C=	2.7 kVA	22.7 AMPS				
WATER HEATER			3.5	1.00	3.5	DEMAND AT 125%						
MISC.			0.0	1.00	0.0	A=	9.3 kVA	77.2 AMPS				
SPARE			0.0	1.00	0.0	B=	0.9 kVA	7.5 AMPS				
						C=	3.4 kVA	28.4 AMPS				

- NOTES:**
- PANEL IS EXISTING AND SHALL REMAIN. E.C. TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK.
 - EXISTING LOAD KVA NOT SHOWN. LOAD TOTALS INCLUDE NEW LOADS ONLY. REFER TO POWER RISER DIAGRAM FOR LOAD CALCULATIONS.
 - INFORMATION SHOWN BASED ON NON-INVASIVE SITE SURVEY. E.C. TO INCLUDE IN BID FULL CIRCUIT TRACE OF ALL CIRCUITS SHOWN WITHIN THIS PANEL SCHEDULE TO ENSURE BREAKERS SHOWN FOR RENOVATION ARE NOT IN USE BY LOADS THAT ARE REQUIRED TO REMAIN.
 - PROVIDE AND INSTALL NEW 200A/3P BREAKER IN EXISTING SPACE.

SR = SEE POWER RISER DIAGRAM FOR MORE DETAILS.

NEW PANEL: PB												
VOLTAGE: 120/ 208						MOUNTING: SURFACE						
PHASE / WIRE: 3φ / 4W						MAIN: LUGS ONLY						
AMPS: 200												
AIC: 22,000												
LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #	PHASE			CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA
					A	B	C					
0.66	12	20	LTG - PIFFY BOUTIQUE	1				2	REC - OFFICE	20	12	0.54
0.18	12	20	REC - RESTROOM	3				4	REC - OFFICE	20	12	0.54
2.55	SM	40	HP-1	5				6	REC - MAINTENANCE	20	10	0.18
2.55	SM	40	HP-1	7				8	WH-1	45	SM	3.50
0.00		20	SPARE	9				10	SPARE	20		0.00
0.00		20	SPARE	11				12	SPARE	20		0.00
0.00		20	SPARE	13				14	SPARE	20		0.00
0.00		20	SPARE	15				16	SPARE	20		0.00
0.00		20	SPARE	17				18	SPARE	20		0.00
0.00		20	SPARE	19				20	SPARE	20		0.00
0.00		20	SPARE	21				22	SPARE	20		0.00
0.00		20	SPARE	23				24	SPARE	20		0.00
0.00		20	SPARE	25				26	SPARE	20		0.00
0.00		20	SPARE	27				28	SPARE	20		0.00
0.00		20	SPARE	29				30	SPARE	20		0.00
0.00		20	SPARE	31				32	SPARE	20		0.00
0.00		20	SPARE	33				34	SPARE	20		0.00
0.00			SPACE	35				36	SPACE			0.00
0.00			SPACE	37				38	SPACE			0.00
0.00			SPACE	39				40	SPACE			0.00
0.00			SPACE	41				42	SPACE			0.00
SUB TOTALS												
LOAD (kVA)			Conn.	D.F.	Dmd.	TOTAL LOAD PER PHASE						
LIGHTS			0.7	1.25	0.8	CONNECTED						
HEATING			0.0	1.00	0.0	A=	7.3 kVA	60.4 AMPS				
COOLING			5.1	1.00	5.1	B=	0.7 kVA	6.0 AMPS				
VENTILATION			0.0	1.00	0.0	C=	2.7 kVA	22.7 AMPS				
MOTORS			0.0	1.00	0.0	DEMAND						
KITCHEN			0.0	0.65	0.0	A=	7.4 kVA	61.7 AMPS				
REC. (84 10KVA)			1.4	1.00	1.4	B=	0.7 kVA	6.0 AMPS				
REC. (5 10KVA)			0.0	0.50	0.0	C=	2.7 kVA	22.7 AMPS				
WATER HEATER			3.5	1.00	3.5	DEMAND AT 125%						
MISC.			0.0	1.00	0.0	A=	9.3 kVA	77.2 AMPS				
SPARE			0.0	1.00	0.0	B=	0.9 kVA	7.5 AMPS				
						C=	3.4 kVA	28.4 AMPS				

- NOTES:**
- BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.
 - SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.
 - ALL BUSSING, INCL GND AND NEUTRAL, SHALL BE COPPER.
 - ALL INCOMING PANEL AND BRKR LUGS SHALL MATCH FEEDERS.
 - PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.
 - PROVIDE METAL DIRECTORY FRAME.

SM = REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE FOR FEEDER SIZES.



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FILE NAME:	
SHEET:	POWER RISER DIAGRAM AND SCHEDULES

E5



Wilde Engineering
MECHANICAL, ELECTRICAL, & PLUMBING
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16905 Northcross Drive
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Huntersville, NC 28078

MECHANICAL EQUIPMENT CONNECTION SCHEDULE													
TAG	EQUIPMENT DESCRIPTION	EQUIPMENT CHARACTERISTICS			FLA	MCA	MOCF	FEEDER	DISCONNECT SWITCH				NOTES
		VOLTAGE	PHASE	KW					SIZE	POLE	FUSE	NEMA	
AHU-1	AIR HANDLING UNIT	208	1	-	-	-	2#12, 1#12G, 3/4"C	30	2	15	1	1,3	
EF-1	EXHAUST FAN	120	1	0.18	1.52	1.9	2#12, 1#12G, 3/4"C	MMS				1,2	
HP-1	HEAT PUMP	208	1	5.11	25	30.7	40	2#8, 1#10G, 3/4"C	60	2	40	3R	1
WH-1	WATER HEATER	120	1	3.50	29	35	45	2#6, 1#10G, 1"C	60	1	45	1	1

NOTES:

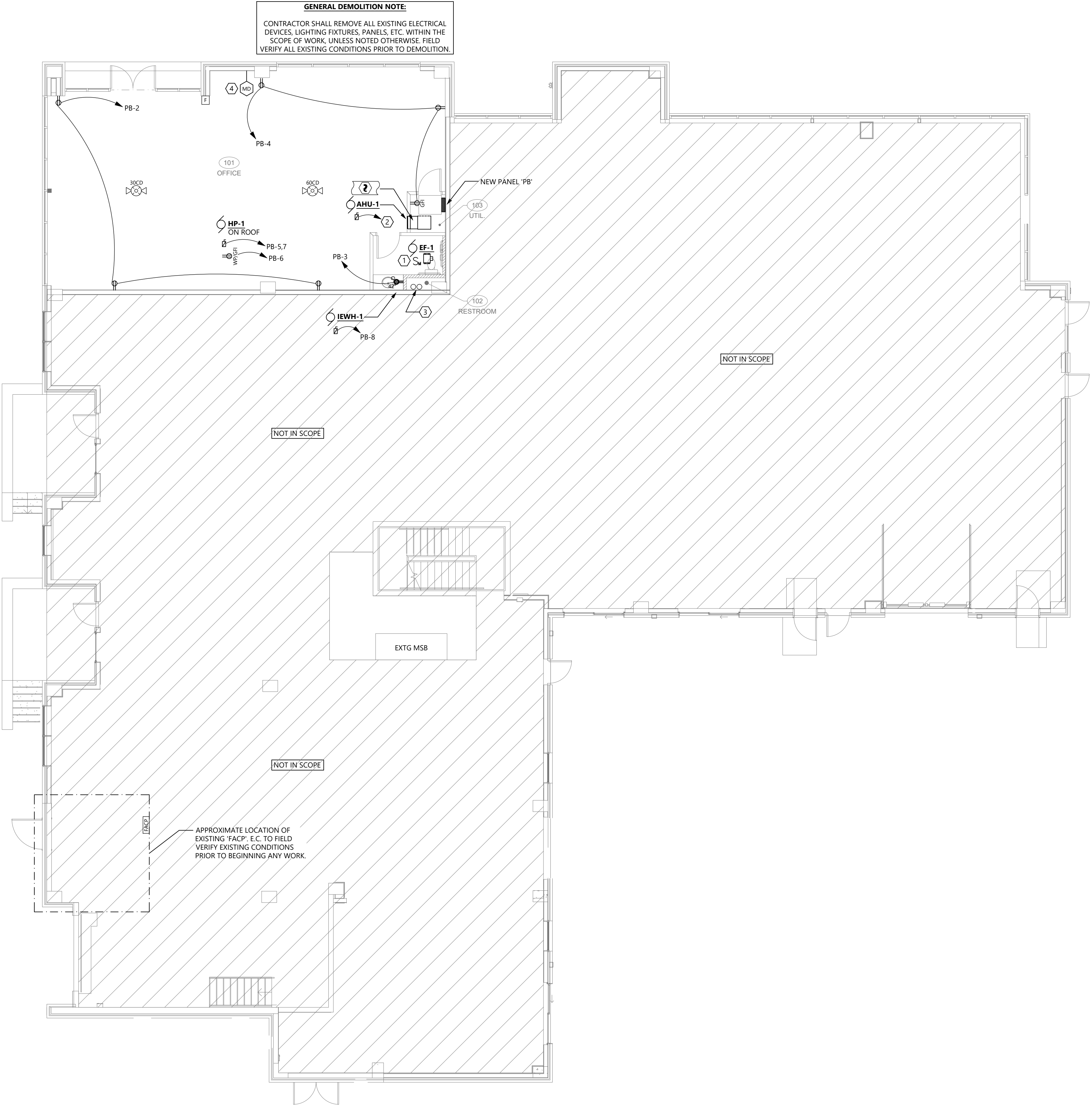
- COORDINATE ALL ROUGH-IN LOCATIONS, CONNECTION TYPES, BREAKER SIZES, ETC. WITH APPROVED MECHANICAL EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN AND INSTALLATION. ALL ROUGH-INS SHALL BE REVIEWED AND APPROVED BY MECHANICAL CONTRACTOR.
- INTERLOCK FAN WITH LOCAL ROOM LIGHTING CONTROLS. POWER VIA LOCAL LIGHTING CIRCUIT.
- AHU-1 TO BE FED VIA HP-1. PROVIDE 2#12, 1#12G, 3/4"C TO OUTDOOR UNIT.

ABBREVIATIONS:

MMS = MANUAL MOTOR STARTER WITH INTEGRAL OVERLOAD PROTECTION
 FPN = FUSED PER EQUIPMENT NAMEPLATE

POWER LEGEND	
⊕	DUPLEX RECEPTACLE
⊕	DEDICATED DUPLEX RECEPTACLE
#"	DENOTES HEIGHT ABOVE FINISHED FLOOR CENTERLINE OF THE ITEM IS TO BE INSTALLED

- POWER NOTES**
- ELECTRICAL CIRCUITS TO BE WIRED INTO EXISTING PANELS AT BASE BUILDING ELECTRICAL ROOM. ALL NEW CIRCUITS SHALL BE PROPERLY LABELED IN THE PANEL.
 - ALL WIRING TO BE IN AC OR MC CABLE OR EMT WITH MINIMUM OF 12 GA COPPER THHN/TWNN WIRE.
 - ELECTRICIAN NOT TO EXCEED 8 GENERAL USE RECEPTACLES PER 20 AMP CIRCUIT.
 - DEDICATED RECEPTACLES TO RECEIVE VISUAL DESIGNATION.
 - OUTLET BOXES SHALL NOT BE MOUNTED BACK TO BACK.
 - DUPLEX RECEPTACLE DEVICES ON A DEDICATED CIRCUIT SHALL BE 20 AMP.
 - FIRESTOP ALL PENETRATIONS AT RATED ASSEMBLIES.
 - LOCATIONS NOTED TO CENTER OF RECEPTACLE, UNLESS NOTED OTHERWISE.
 - RECEPTACLES AT WET LOCATIONS SHALL BE GFI.
 - FIRE ALARMS AND SMOKE DETECTORS (WHEN APPLICABLE) TO BE PROVIDED TO SUIT NEW WALL LAYOUT, IN ACCORDANCE WITH LOCAL CODE. DEVICES TO BE CEILING MOUNTED, UNLESS NOTED OTHERWISE.
 - ALL EQUIPMENT TO BE USED IN SUITE IS TO BE UL LISTED OR APPROVED BY ANOTHER RATINGS AGENCY ACCEPTED BY CARBARRUS COUNTY. TENANT IS RESPONSIBLE FOR VERIFYING, OBTAINING AND/OR PROVIDING PROOF OF RATINGS AS REQUIRED.
 - ALL MEMBRANE PENETRATIONS OF RATED WALLS SHALL COMPLY WITH NCBC SECTION 713.3.2. (FOR OUTLETS ALONG RATED WALLS AND STAIRWELLS)
 - ALL PENETRATIONS OF RATED ASSEMBLIES SHALL COMPLY WITH NCBC SECTION 713.4.1.1. SEE ALSO PENETRATION DETAILS ON ENGINEERS DRAWINGS. (FOR PENETRATIONS THROUGH RATED ASSEMBLIES SUCH AS FLOOR JUNCTION BOXES).
- POWER KEY NOTES**
- CONNECT NEW EXHAUST FAN TO LOCAL BATHROOM LIGHTING CIRCUIT AND CONTROL WITH LOCAL BATHROOM SWITCH. FAN TO OPERATE WHEN LIGHTS ARE ON.
 - AHU UNIT POWERED VIA HP UNIT. PROVIDE 2#12, 1#12G, 3/4"C TO OUTDOOR UNIT. PROVIDE 30/15/7/2/1 DISCONNECT FOR INDOOR UNIT.
 - EXISTING CONDUIT FOR TELECOM AND POWER. E.C. TO VERIFY EXISTING CONDITIONS AND UTILIZE WHERE SUITABLE.
 - MOTORIZED DAMPER TO BE POWERED VIA GENERAL RECEPTACLE CIRCUIT.



1 POWER PLAN
 1/8"=1'-0"



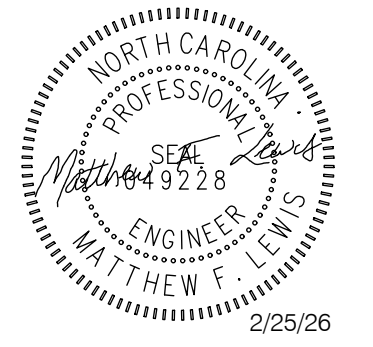
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 SHEET: ELECTRICAL POWER PLAN

E6



LIGHT FIXTURE SCHEDULE									
TYPE	DESCRIPTION	LUMENS	CCT	WATTS	DRIVER	VOLTAGE	MANUFACTURER	MODEL	REMARKS
EX1	EDGE-LIT EXIT SIGN			2W	INTEGRAL LED DRIVER	UNIV	BEGHELLI	OL2	
L1	4' LINEAR LED	6,500	3500K	68W	0-10V DIMMING	UNIV	COOPER	S920DIP-W535	
L1E	4' LINEAR LED	6,500	3500K	68W	0-10V DIMMING	UNIV	COOPER	S920DIP-W535	PROVIDE WITH 90 MINUTE BATTERY BACKUP
L2E	2X4 LAY-IN LED	3,000	3500K	24W	0-10V DIMMING	UNIV	LITHONIA	STAK-2X4-3000LM-35K	PROVIDE WITH 90 MINUTE BATTERY BACKUP
L3E	4 FT. LED STRIP	3,000	3500K	20W	0-10V DIMMING	UNIV	COOPER	SNX	SURFACE MOUNTED LENSED DLC LISTED PROVIDE WITH 90 MINUTE BATTERY BACKUP

NOTES:

- ALL FIXTURES SHALL BE LED UNLESS OTHERWISE SPECIFIED. COLOR TEMPERATURE SHALL BE 3500K UNLESS OTHERWISE NOTED.
- LED DRIVERS SHALL BE PROVIDED AS PER MANUFACTURER RECOMMENDATIONS.
- COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT FIXTURE LOCATIONS.
- FIXTURES IN FIRE RATED CEILING SHALL BE PROVIDED WITH FIRE RATED TENTS AS REQUIRED.
- SUSPEND ALL FOUR CORNERS WITH WIRE TO STRUCTURE. DO NOT ALLOW GRID ALONE TO SUPPORT FIXTURE.
- FIXTURES WITH EMERGENCY BATTERY PACKS SHALL BE SUPPLIED WITH 1100 LUMEN INVERTERS.
- PROVIDE INTEGRAL SURGE PROTECTION ON ALL EXTERIOR LED DRIVER FIXTURE TYPES.
- DIMMING OF FIXTURES SHALL BE WITH A SWITCH AS RECOMMENDED BY THE DRIVER MANUFACTURER. COORDINATE COMPATIBILITY OF ALL SWITCHES WITH APPROVED FIXTURES PRIOR TO ORDERING.
- THE CONTRACTOR SHALL VERIFY THE LEAD TIME OF ALL PRODUCTS SPECIFIED IN THIS SCHEDULE AT THE TIME OF PACKAGE QUOTE.
- DURING THE BID PROCESS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DELIVERY/SCHEDULING ISSUES.
- NO SUBSTITUTIONS WILL BE ALLOWED DUE TO LACK OF COORDINATION OF DELIVERY DATES AND CONSTRUCTION SCHEDULE AFTER BID.
- ALL EXPEDITED EXPENSES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- FIXTURES TO BE INSTALLED IN CEILINGS, INDICATED ON ARCHITECTURAL PLANS AS HAVING INSULATION IN CONTACT WITH CEILING SURFACE, SHALL BE IC RATED BY MANUFACTURER.
- LED DRIVERS LOCATED IN UNCONDITIONED SPACES SHALL BE RATED FOR 90 DEGREES F.
- PROVIDE 90 MINUTE EMERGENCY BATTERY BACK UP. EMERGENCY BACK UP SHALL BE BASED ON TYPE OF FIXTURE, LED DRIVER, BALLAST, ETC. EMERGENCY BACKUP SHALL BE DUAL INPUT FOR BOTH SWITCHING AND CHARGING. PROVIDE UNSWITCHED "HOT" FROM LOCAL CIRCUIT UNLESS OTHERWISE INDICATED ON PLANS. PROVIDE WITH INDICATOR LIGHT. INSTALL LED INDICATOR ON LIGHT FIXTURE UNLESS DECORATIVE. DECORATIVE FIXTURES SHALL HAVE INDICATOR PLACED AT LOCAL CEILING. BODINE, PHILLIPS, POWER SENTRY OR EQUAL.
-

LIGHTING LEGEND

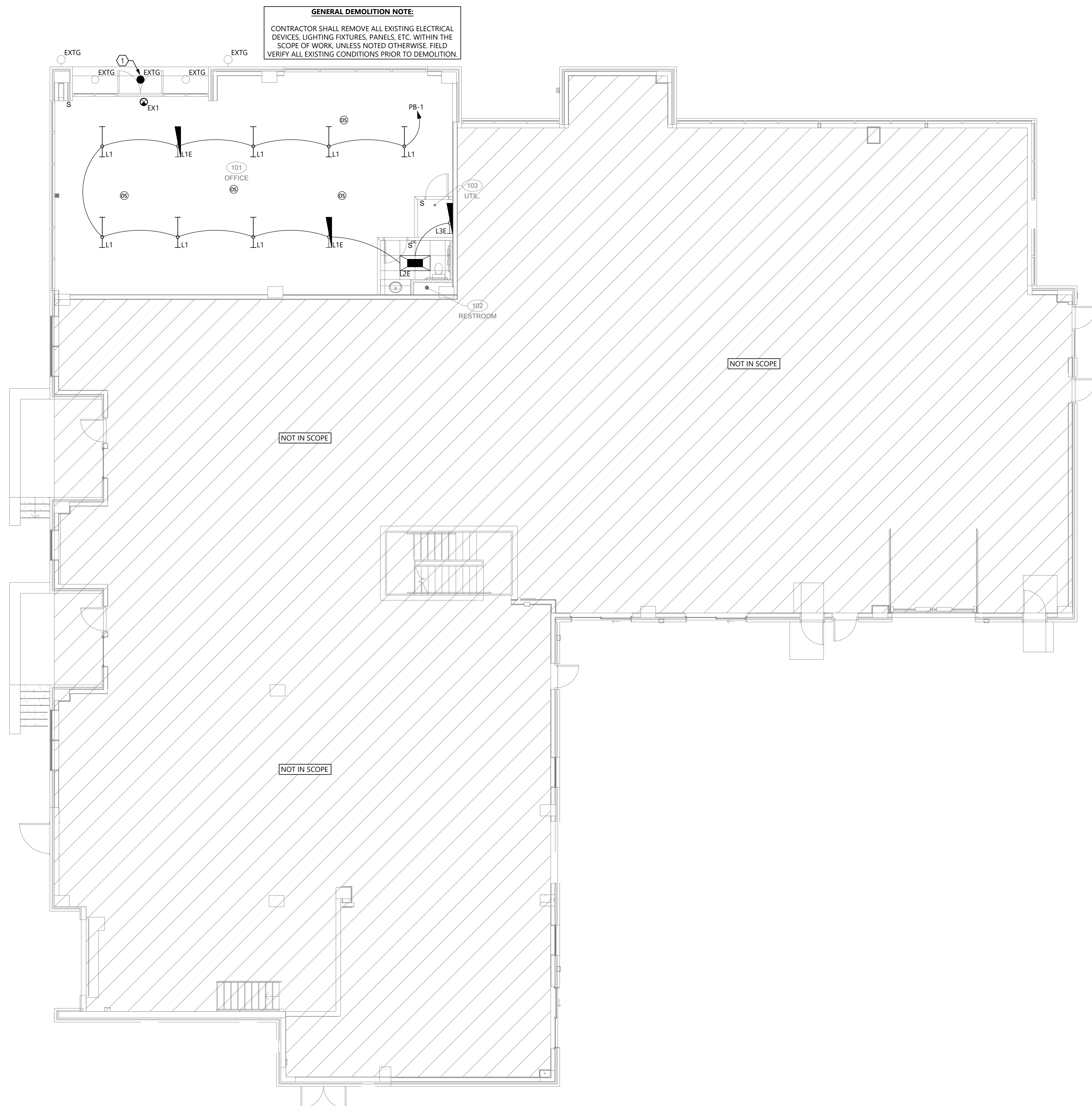
	LINEAR LIGHT FIXTURE - COOPER LIGHTING - NEORAY - LINEAR CONVERGE LED - REF. PLAN FOR LENGTH - 3500K - MOUNT AS HIGH AS POSSIBLE.
	SINGLE POLE SWITCH
	OCCUPANCY SENSOR SWITCH
	EXIT LIGHT - BEGHELLI - EDGE-LIT EXIT SIGN - OL2

LIGHTING NOTES

- EMERGENCY LIGHTING SHALL BE 90 MINUTE BATTERY PACK WITH CHARGING CIRCUITS TO BE INSTALLED BY CONTRACTOR.
- LIGHTING CIRCUITS TO BE WIRED INTO BASE BUILDING ELECTRICAL ROOM.
- CEILING TILE AND GRID IS NOT PART OF THE FLOOR/CEILING ASSEMBLY.
- GC TO SUPPLY AND INSTALL 2 X 2 CEILING GRID AND TILE. TO BE MOUNTED AS HIGH AS POSSIBLE. CAULK/PUTTY ANY VISIBLE HOLES.
- UNLESS NOTED OTHERWISE, CEILING GRID/TILE AND LIGHTS SHOULD BE CENTERED AS INDICATED ON PLAN IN ROOMS WITH DECK HIGH OR STUBBED PARTITIONS.
- CENTER EXIT LIGHTS IN CEILING TILE, UNLESS NOTED OTHERWISE.
- ALL LIGHT SWITCHES TO BE MOUNTED AT A MAXIMUM OF 48" AFF.

LIGHTING KEYED NOTES

- CONTRACTOR TO FIELD VERIFY FIXTURE IS EQUIPPED WITH 90 MIN BATTERY BACKUP AND REPLACE AS NECESSARY.



1 LIGHTING PLAN
1/8"=1'-0"



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E7



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FILE NAME:	
SHEET:	MECHANICAL COVER SHEET
M1	

MECHANICAL GENERAL NOTES

- COMPLY WITH ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS.
- DO NOT INSTALL EQUIPMENT, PIPING OR DUCTWORK OVER ANY ELECTRICAL EQUIPMENT OR COMMUNICATION ROOMS UNLESS SPECIFICALLY DEDICATED TO SERVE THE ROOM.
- INSTALL MECHANICAL EQUIPMENT TO FACILITATE MAINTENANCE OF EQUIPMENT WHILE MINIMIZING INTERFERENCE WITH OTHER NEARBY INSTALLATIONS.
- ALL ISOLATION VALVES, EQUIPMENT, CONTROLS, ETC. REQUIRING ACCESS/SERVICE SHALL BE INSTALLED WITHIN 18" OF THE CEILING FOR EASY ACCESSIBILITY. LOCATIONS SHALL BE INDICATED ON THE CEILING GRID PER THE SPECIFICATIONS.
- ANY DEVICE REQUIRING A THERMOSTAT FOR CONTROL SHALL BE FURNISHED WITH A THERMOSTAT WHETHER INDICATED ON THE DRAWINGS OR NOT.
- COORDINATE EXACT THERMOSTAT LOCATION WITH OWNER PRIOR TO INSTALLATION. STANDARD DEFAULT: INSTALL THE TOP OF ALL THERMOSTATS, SENSORS, AND SWITCHES AT 4'-0" ABOVE FINISHED FLOOR. DEVICES ON A PERIMETER WALL SHALL BE MOUNTED ON A FOAM-FILLED ELECTRICAL BOX WITH ALL GAPS BETWEEN BOX AND WALL SEALED TO PREVENT INFILTRATION.
- INSTALL SMOKE DETECTORS IN DUCTWORK AS SHOWN ON THE DRAWINGS/SCHEDULES IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.
- COORDINATE ANY REQUIRED SHUTDOWN OF SERVICES OR EQUIPMENT WITH OWNER'S REPRESENTATIVE OR CONSTRUCTION MANAGER. MINIMIZE INTERRUPTION OF EXISTING SERVICES. PROVIDE ALL MISCELLANEOUS STEEL AND ITEMS REQUIRED FOR THE PROPER INSTALLATION OF ALL PIPE, SHEET METAL AND EQUIPMENT.
- COORDINATE FLOOR, WALL & ROOF PENETRATIONS ETC. WITH ARCHITECTURAL/STRUCTURAL TRADES. FIRESTOP SHALL BE PROVIDED IN HOLES AND PENETRATIONS IN RATED ASSEMBLIES. ALL PIPING, DUCTS, VENTS, ETC. EXTENDING THROUGH WALLS AND ROOF SHALL BE FLASHED.
- EQUIPMENT OPERATED DURING CONSTRUCTION SHALL USE FILTERED MEDIA TO PREVENT CONSTRUCTION DEBRIS FROM ENTERING COILS, DUCTWORK SYSTEMS, AIR TERMINALS ETC. AT COMPLETION OF CONSTRUCTION, MECHANICAL CONTRACTOR SHALL CLEAN ALL SYSTEMS WITH ALL CONTROL DEVICES WIDE OPEN AND REMOVE ANY REMAINING DEBRIS PRIOR TO TEST AND BALANCING. MECHANICAL CONTRACTOR SHALL REPLACE ALL FILTRATION WITH NEW FILTERS AT COMPLETION OF CONSTRUCTION. ANY DUCTWORK, AIR TERMINALS AND/OR OTHER EQUIPMENT UPSTREAM OF FILTRATION SHALL BE CLEANED THOROUGHLY OF CONSTRUCTION DEBRIS BEFORE HANDING OVER TO OWNER.
- ALL MECHANICAL EQUIPMENT SHALL BE UL LISTED AND LABELED AS A COMPLETE PACKAGE, NOT THROUGH INDIVIDUAL COMPONENTS OR PARTS. PROVIDE REQUIRED 3RD PARTY FIELD UL LISTING SERVICES AS REQUIRED TO COMPLY.
- UPON PROJECT COMPLETION, THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER INSTALLATION INFORMATION INCLUDING RECORD SUBMITTALS (WITH ANY SUBMITTAL REVIEW COMMENTS ADDRESSED) AND O&M MANUALS FOR EACH PIECE OF EQUIPMENT INCLUDING ALL SELECTED OPTIONS, THE NAME AND ADDRESS OF AT LEAST ONE SERVICE AGENCY, FULL CONTROL SYSTEM O&M AND CALIBRATION INFORMATION INCLUDING WIRING DIAGRAMS, SCHEMATICS, FULL SEQUENCE OF OPERATION, AND PROGRAMMED SETPOINTS. IN ADDITION THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO HIRE A REGISTERED DESIGN PROFESSIONAL TO COMMISSION THE INSTALLED SYSTEM AND PROVIDE THE OWNER AND CODE REVIEW A SEALED STATEMENT OF SYSTEM COMMISSIONING.
- PROVIDE A ONE YEAR WARRANTY FOR ALL WORK PERFORMED BEGINNING ON THE DAY THE SYSTEM IS COMPLETELY OPERATIONAL AND ACCEPTABLE BY THE OWNER.
- EACH BIDDER SHALL VISIT THE JOB SITE PRIOR TO BIDDING TO FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND TO ASCERTAIN THE EXTENT OF WORK REQUIRED. FAILURE TO VISIT SITE SHALL NOT EXCLUDE CONTRACTOR FROM PERFORMING REQUIRED WORK NOR SHALL IT BE AN ACCEPTABLE REASON FOR REQUESTING ADDITIONS TO THE CONTRACT.

SHEET METAL GENERAL NOTES

- STANDARD DUCTWORK SHALL BE GALVANIZED OR ALUMINUM SHEET METAL CONSTRUCTED IN ACCORDANCE WITH THE LATEST SMCMA STANDARDS. ALL CONCEALED SUPPLY, RETURN AND OUTSIDE AIR DUCTWORK SHALL BE WRAPPED WITH 2" THICK DUCT WRAP WITH VAPOR BARRIER INSULATION (INCLUDING FLEXIBLE DUCT INSULATION) SHALL HAVE A MINIMUM INSTALLED R-VALUE OF 6.0.
- ALL DUCTWORK SHALL BE SEALED PER THE REQUIREMENTS OF THE STATE MECHANICAL CODE. SEAL LOW PRESSURE SUPPLY, RETURN, OUTSIDE AIR, AND EXHAUST DUCTWORK FOR POSITIVE/NEGATIVE 2" PRESSURE CLASS. SMOKE SEAL CLASS A, SMOKE LEAKAGE CLASS 4.
- NOT ALL REQUIRED OFFSETS AND FITTINGS ARE INDICATED ON DRAWINGS, BUT SHALL BE PROVIDED. REFER TO MECHANICAL AND STRUCTURAL PLANS FOR CLEARANCES. SIGNIFICANT ALTERATIONS TO DUCT ROUTING SHALL BE APPROVED BY ARCHITECT/ENGINEER BEFORE PROCEEDING IN ORDER TO ENSURE ADEQUATE STATIC PRESSURE IS AVAILABLE.
- DUCTWORK LAYOUT HAS BEEN DESIGNED TO MINIMIZE SOUND TRANSMISSION. ALL FITTINGS SHALL BE PROVIDED AS INDICATED.
- WATER/TIGHT CONCRETE CURBS SHALL BE PROVIDED AROUND ELEVATED FLOOR SLAB PENETRATIONS UNLESS OTHERWISE NOTED. ALL DUCTWORK ABOVE CEILING OR EXPOSED IS COVERED AND AS HIGH AS POSSIBLE TO THE UNDERSIDE OF THE STRUCTURE, WITH SPACE FOR INSULATION WHERE REQUIRED. DUCTWORK AND ASSOCIATED COMPONENTS SHALL CLEAR DOORS AND WINDOWS.
- PROVIDE FLEXIBLE CONNECTIONS IN ALL DUCTWORK SYSTEMS CONNECTED TO MECHANICAL EQUIPMENT THAT REQUIRE FLEXIBLE INSULATION. FLEXIBLE CONNECTIONS SHALL BE PROVIDED AT THE POINT OF CONNECTION TO THE EQUIPMENT UNLESS OTHERWISE NOTED.
- RADIUS ELBOWS SHALL HAVE CENTERLINE RADIUS OF CURVATURE 1.5 TIMES THE DUCT DIAMETER OR WIDTH IN THE PLANE OF TURN, WHERE SQUARE (MITERED) ELBOWS ARE SHOWN, INSTALLED TURNING VANES.
- DUCTWORK SIZES ARE INDICATED CLEAR DIMENSIONS. DUCTS CONNECTED TO EQUIPMENT SHALL EQUAL EQUIPMENT CONNECTION SIZE UNLESS NOTED OTHERWISE.
- MAXIMUM LENGTH ON FLEXIBLE DUCT SHALL BE 5'-0", UNLESS OTHERWISE NOTED ON DETAILS OR SPECIFICATIONS.
- THE MECHANICAL CONTRACTOR SHALL BALANCE ALL MECHANICAL SYSTEMS TO THE PERFORMANCE SPECIFICATIONS INDICATED ON PLANS AND PROVIDE THE ENGINEER WITH THREE COPIES OF A COMPLETE TEST AND BALANCE REPORT. THE REPORT IS TO BE ISSUED A MINIMUM OF TWO WEEKS PRIOR TO PROJECT COMPLETION. THE TEST AND BALANCE REPORT WILL BE SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER. ANY ADDITIONAL TESTING, ADJUSTING AND BALANCING REQUIRED (AT ENGINEER'S REQUEST) AFTER REVIEW OF THE INITIAL REPORT SHALL BE PROVIDED AT NO ADDITIONAL COST. TESTING AND BALANCING CONTRACTOR TO CONFIRM FILTERS ARE CLEAN, AND FREE OF DEBRIS PRIOR TO BEGINNING WORK. THE MECHANICAL CONTRACTOR SHALL REPLACE ANY DIRTY FILTERS, AS NEEDED. TEST AND BALANCE REPORT TO BE COMPLETED BY AN INDEPENDENT, CERTIFIED TEST AND BALANCE CONTRACTOR.

HVAC PIPING GENERAL NOTES

- CONDENSATE DRAIN PIPING SHALL BE SCHEDULE 40 PVC PIPE (OR TYPE 1 HARD DRAWN COPPER WHEN IN PLENUM) AND FITTINGS. DRAINS FROM AIR HANDLING UNITS SHALL BE TRAPPED. CONDENSATE DRAINS SHALL BE INSULATED WITH 1/2" THICK ARMAFLEX INSULATION. MINIMUM DRAIN SIZE SHALL BE 3/4". CONDENSATE LINE SHALL BE SLOPED AS REQUIRED BY CODE.
- ALL REFRIGERANT PIPE SHALL BE NITROGENATED ACR COPPER TUBE. SIZE, INSULATE, AND INSTALL REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATIONS. REFRIGERANT PIPING INSULATION EXPOSED OUTDOORS SHALL BE COVERED WITH AN OUTER ALUMINUM JACKET.
- PROVIDE UNIONS, FLANGES OR COUPLINGS AT CONNECTION TO ALL VALVES AND EQUIPMENT. DO NOT USE DIRECT WELDED OR THREADED CONNECTIONS TO VALVES, EQUIPMENT OR OTHER APPARATUS.
- PROVIDE NON-CONDUCTING DIELECTRIC UNIONS WHENEVER CONNECTING DISSIMILAR METALS.
- MECHANICAL CONTRACTOR SHALL PROVIDE PRE-PRINTED COLOR-CODED PIPE LABELS WITH 1-1/2" HIGH LETTING INDICATING SERVICE AND FLOW DIRECTION. ALL PIPING TO MATCH EXISTING VALVES STANDARD IF APPLICABLE. OTHERWISE, PIPE LABELS SHALL MATCH THE FOLLOWING: REFRIGERANT PIPING: YELLOW BACKGROUND, BLACK LETTERING. NATURAL GAS PIPING: YELLOW BACKGROUND, BLACK LETTERING.

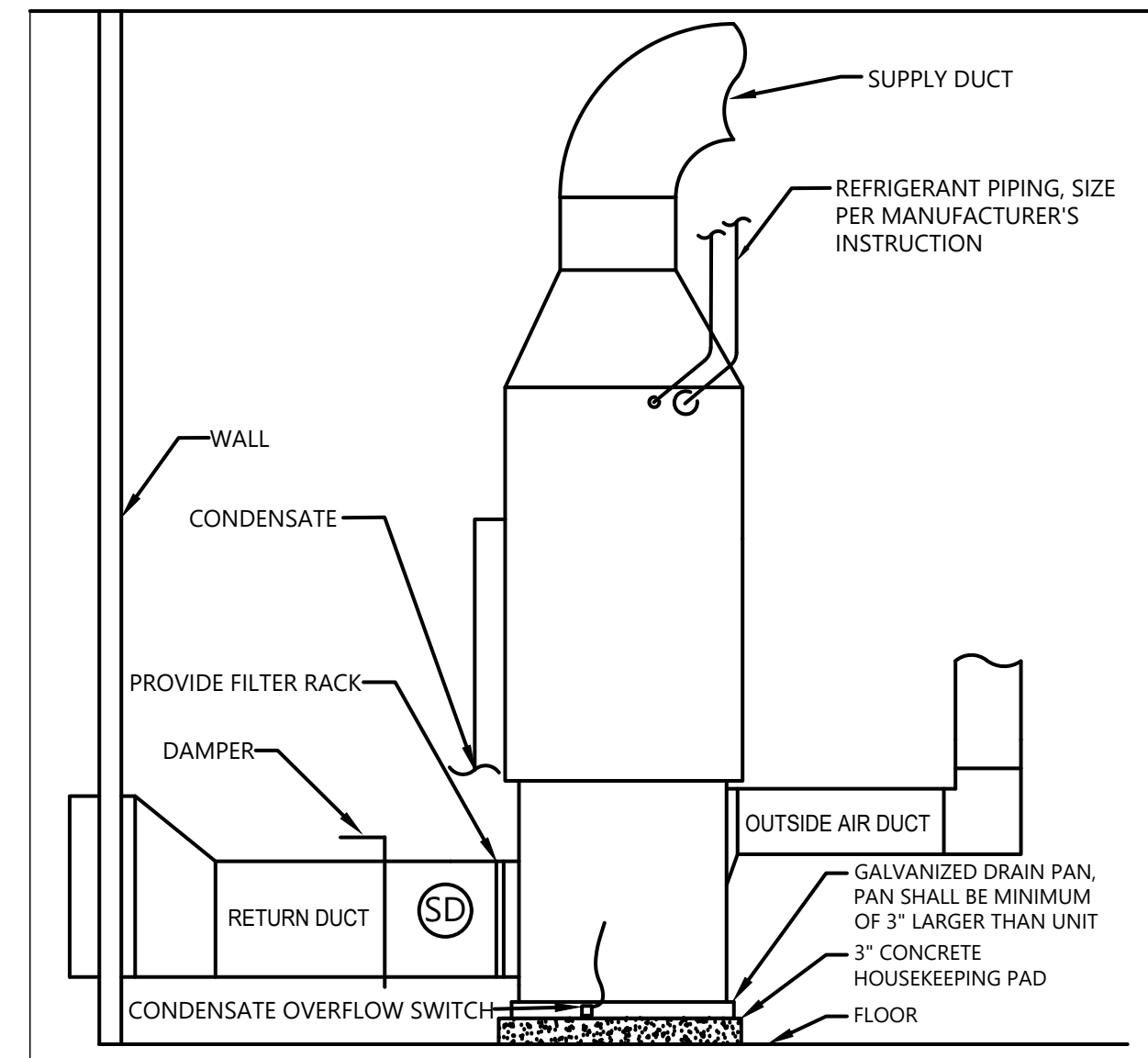
MECHANICAL LEGEND

SYMBOL	DESCRIPTION
	THERMOSTAT (4'-0" AFF TO TOP)
	SUPPLY GRILLE (SPIRAL DUCT GRILLE)
	20"x14" RECTANGULAR DUCT
	GRILLE/REGISTER/DIFFUSER TAG WITH MARK, NECK, AND CFM
	DUCT MOUNTED SMOKE DETECTOR. PROVIDED BY E.C. INSTALLED BY M.C.
	DOOR UNDERCUT, 1" UNLESS OTHERWISE NOTED.
	BALANCING DAMPER

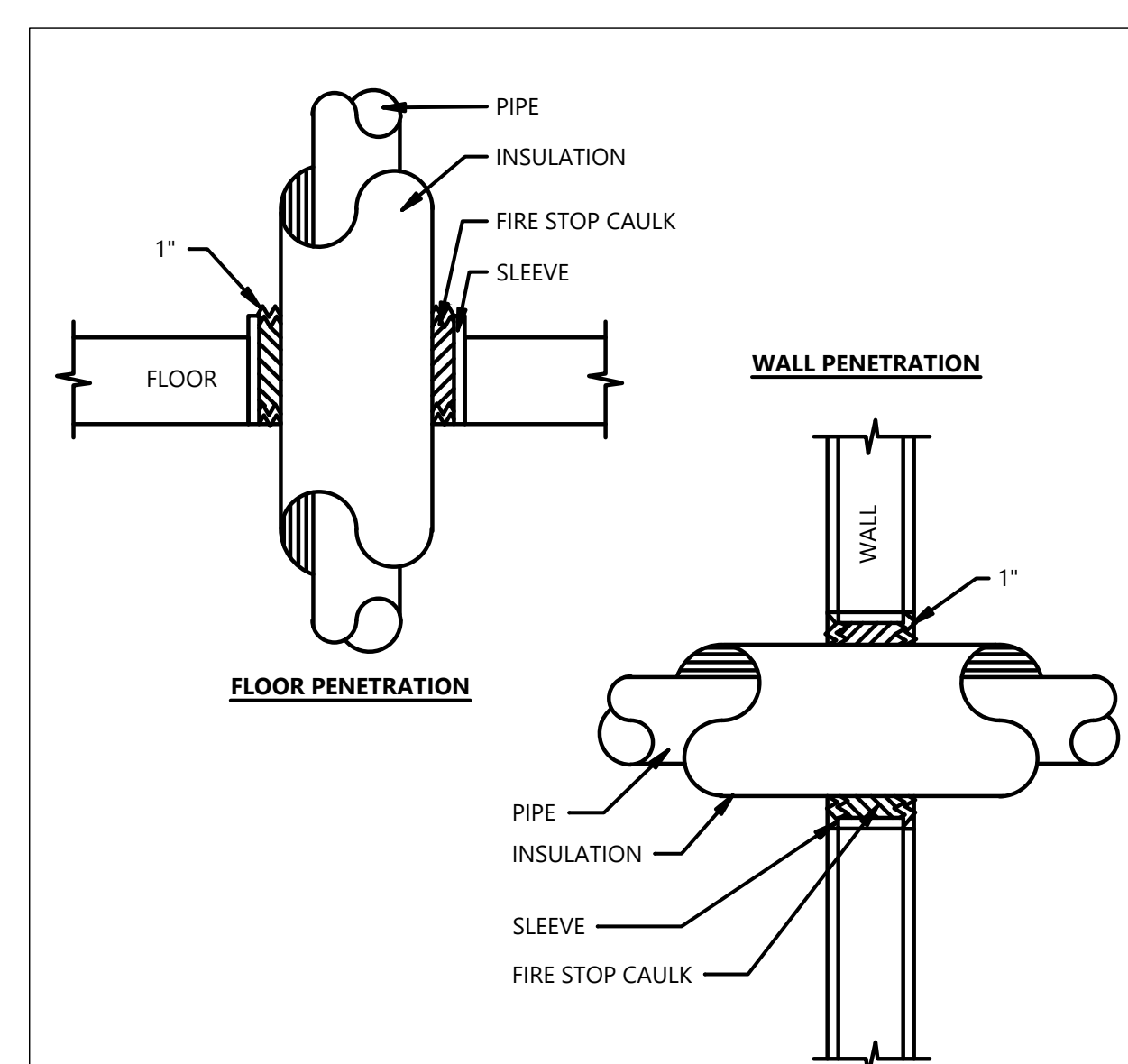
HVAC SEQUENCE OF OPERATION

Split Systems Units (AHU-1/HP-1)
With the thermostat set to cooling, upon a rise in space temperature above the thermostat setpoint, the thermostat will energize the compressor contactor. Once the space temperature reaches the desired setpoint, the thermostat will de-energize the compressor contactor. The thermostat will then enter a period of delay (5 minutes) in which the compressor will not operate. In heating mode upon a drop in space temperature below the thermostat setpoint, the thermostat will energize the compressor contactor. Once the space temperature reaches the desired setpoint, the thermostat will de-energize the compressor contactor. The thermostat will then enter a period of delay (5 minutes) in which the compressor will not operate.

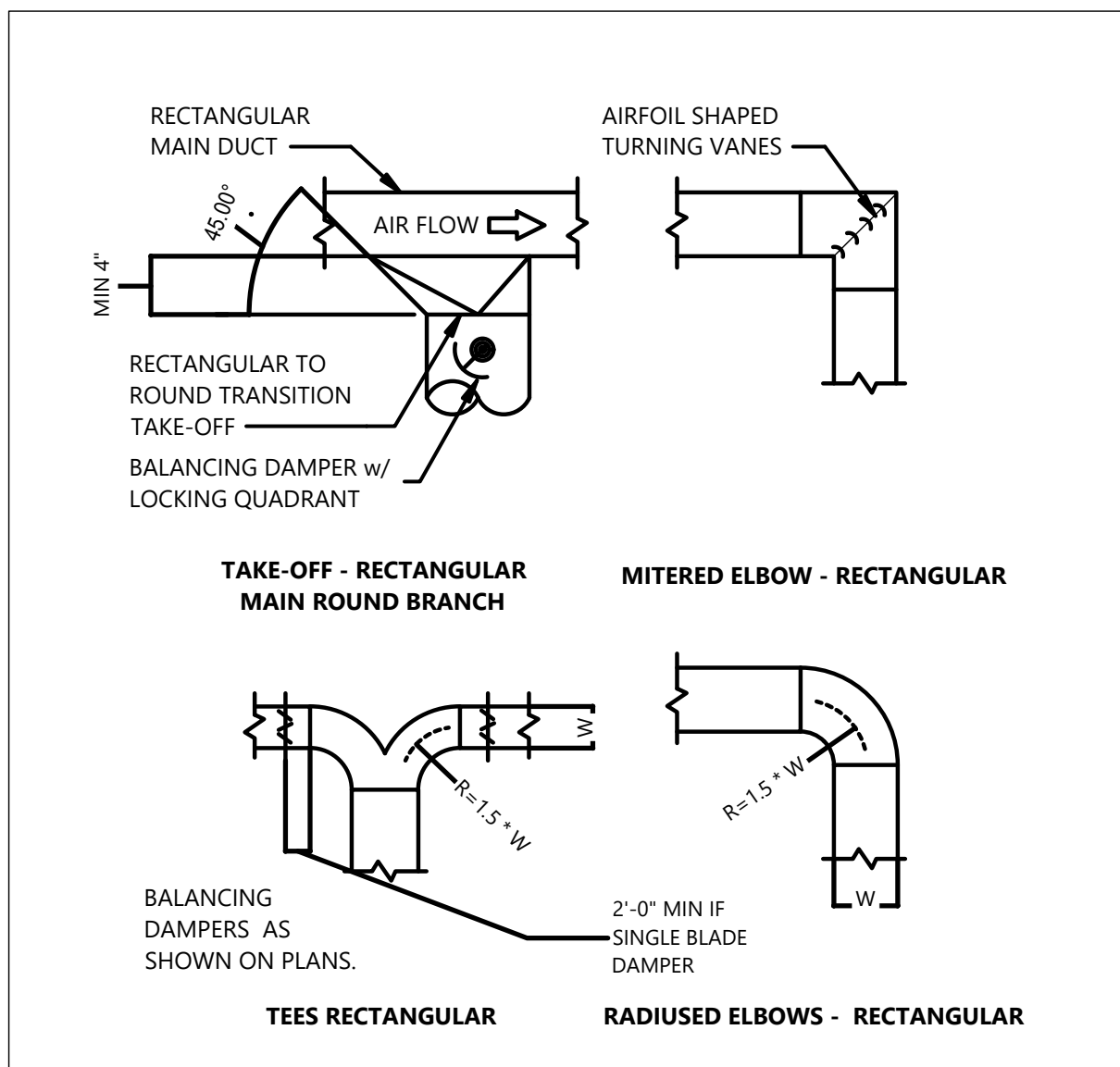
EX-1
Exhaust Fan shall be interlocked with zone occupancy sensor. One sensor shall be provided by electrical contractor per fan. Upon zone occupancy the exhaust fan serving that zone shall be energized.



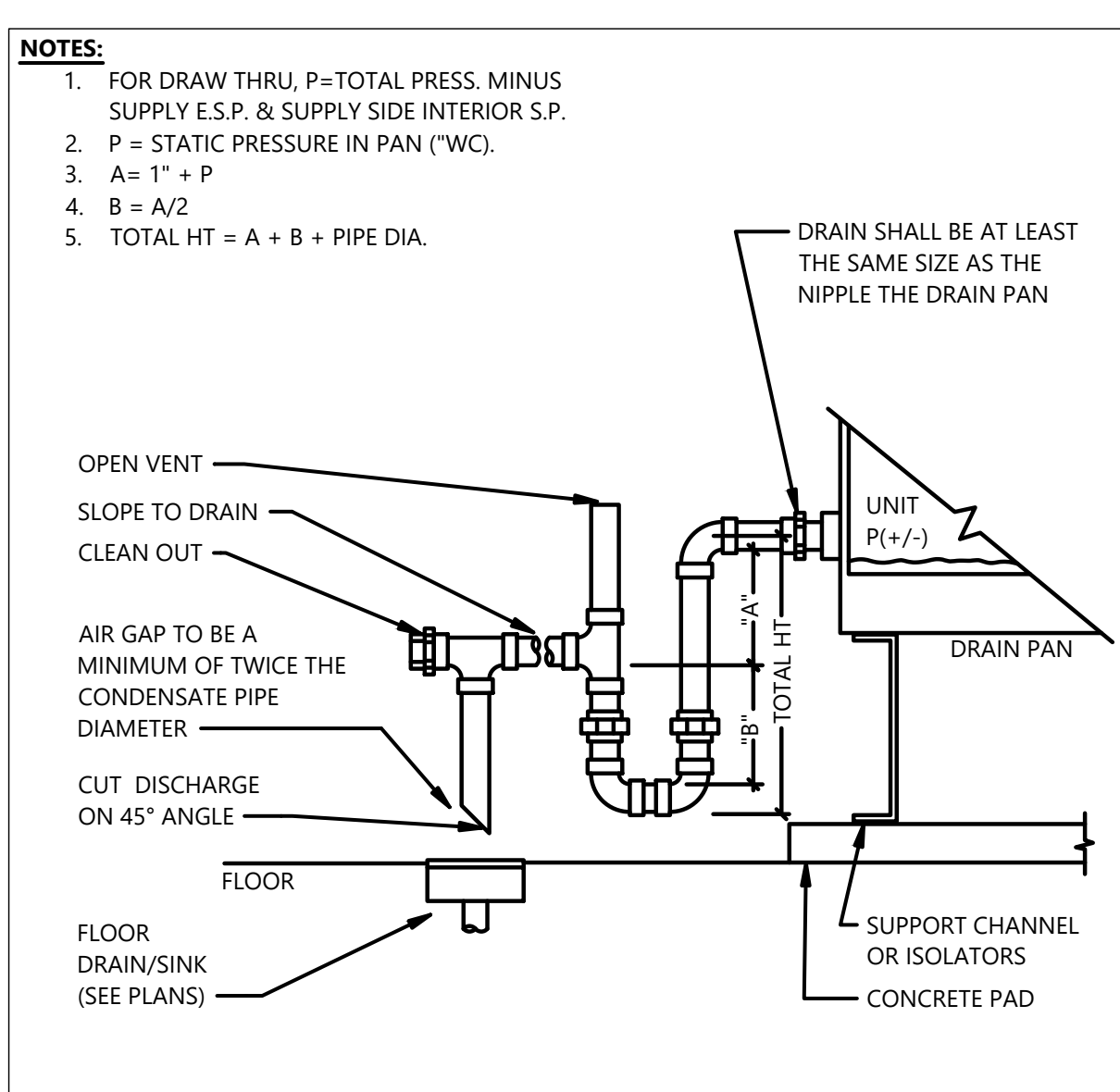
4 VERTICAL AIR HANDLING UNIT DETAIL



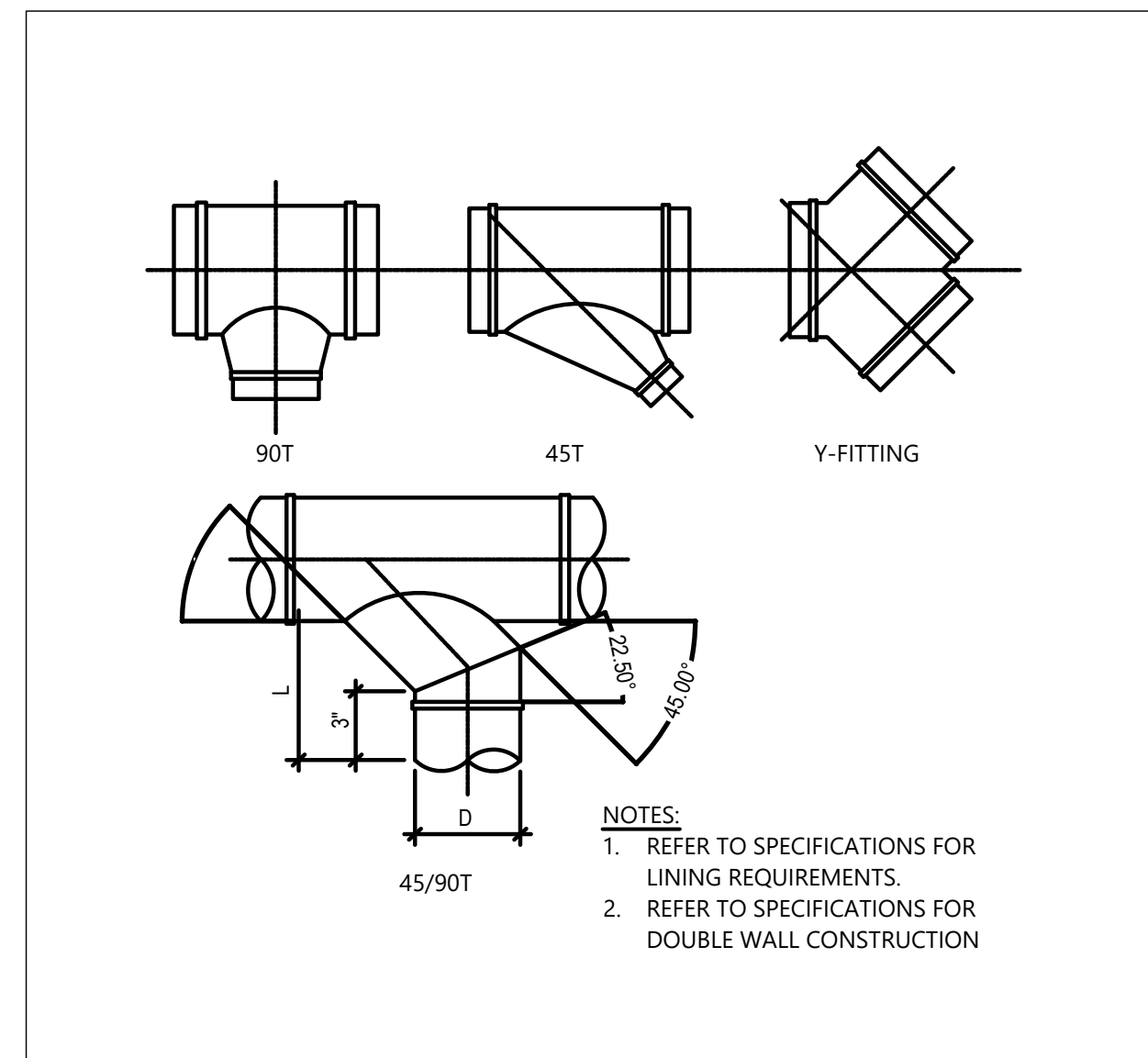
6 PIPE PENETRATION DETAILS



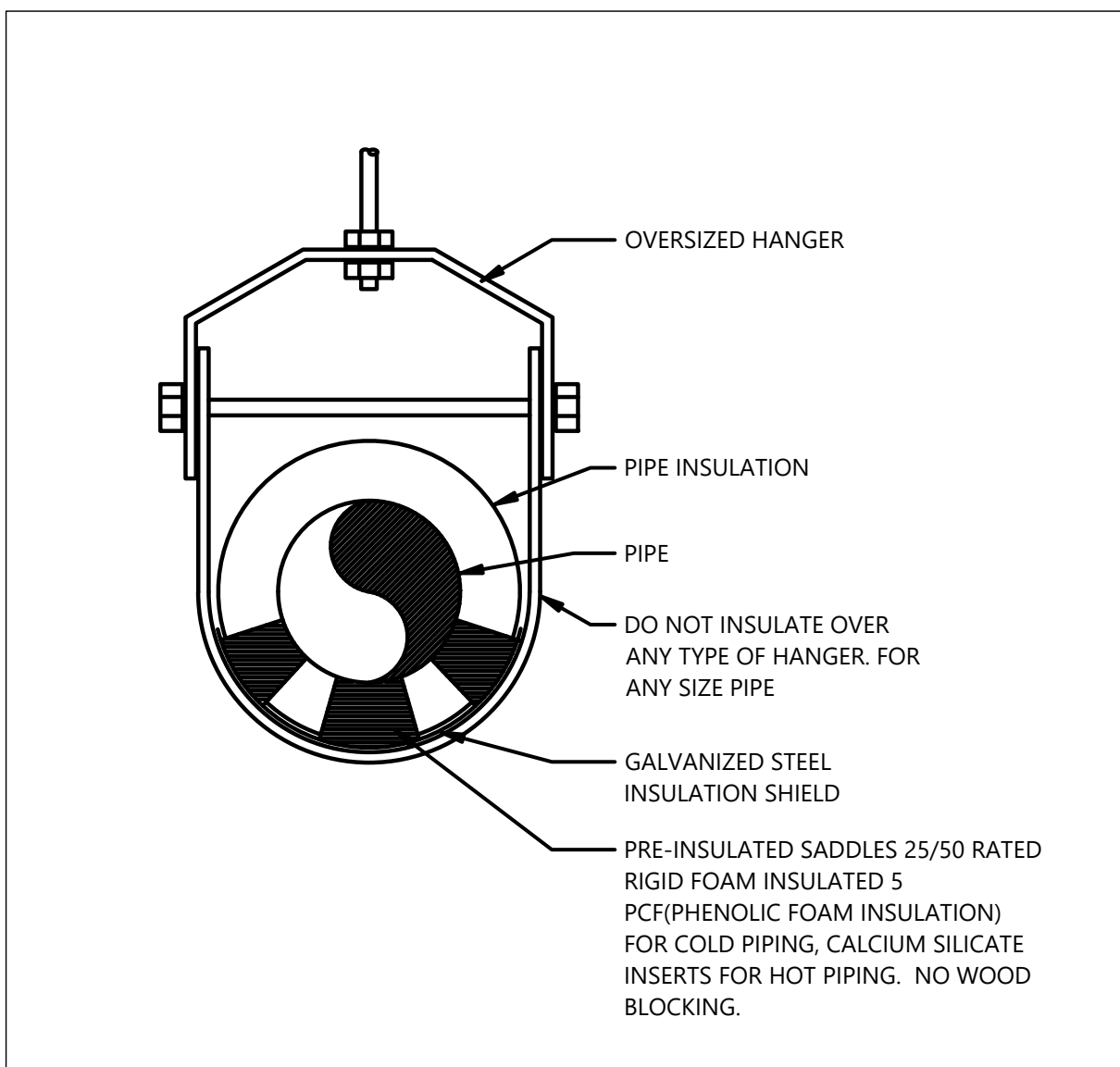
3 RECTANGULAR DUCT FITTINGS DETAIL



5 COOLING COIL CONDENSATE DRAIN DETAIL



2 ROUND DUCT FITTINGS DETAIL



1 TYPICAL PIPE HANGER DETAIL

Building Code - 2018 North Carolina NCBC

Prescriptive	Energy Cost Budget	2018 NCECC
Thermal Zone	winter dry bulb summer dry bulb interior design conditions	3A 18.6°F 93.1°F
	winter dry bulb summer dry bulb relative humidity	70°F 75°F 50%RH
Building heating load		40.7 MBH
Building cooling load		56.9 MBH
Mechanical Space Conditioning System	Unitary description of unit heating efficiency (HSPF2) cooling efficiency (EER2) heat output of unit cooling output of unit	8.5 10 57 MBH TOTAL 5 TONS TOTAL
Equipment schedules with motors (mechanical systems)	motor horsepower number of phases minimum efficiency motor type # of poles	N/A SEE EQUIPMENT SCHEDULES SEE EQUIPMENT SCHEDULES SEE EQUIPMENT SCHEDULES SEE EQUIPMENT SCHEDULES

North Carolina Mechanical Ventilation For Acceptable Indoor Air Quality

Unit Tag	Zone	Unit Supply CFM	Unit Outside Air CFM	Table 403.3.1.2 Air Distribution Configuration	Ceiling supply of warm air and floor return	20						
Room Number	Room Name	SPACE TYPE	Rp = CFM/Person	PEOPLE/1000 SF*	Pz = Zone Population	Ra = Area Outdoor Rate (CFM/SF)	Az = Floor Area (SF)	Bz = Breathing Zone Outdoor Airflow (CFM)	Ez = Zone Air Distribution Effectiveness	Voz = Zone Outdoor Airflow Rate (CFM REQ'D)	Vpz = Design Minimum Primary Air (CFM)	Iz = Voz/Vpz Primary Outdoor Air Fraction
	OPEN AREA	Sales	7.5	15	20	0.12	1385	316.2	1	316.20	2000	0.16
TOTALS					20	-	1385	316.2	-	316.2	2000	-

SPLIT AIR HANDLING UNIT SCHEDULE (HEAT PUMP W/ AUX ELECTRIC HEAT)

MARK	NOTES	MANUF.	MODEL NO.	INDOOR UNIT DATA										OUTDOOR UNIT DATA																							
				SUPPLY AIR FAN			HEAT PUMP COIL (COOLING)			HEAT PUMP COIL (HEATING)				AUX. ELEC HEAT				APPROX. LINESET LENGTHS				ELECTRICAL DATA				WEIGHT (UNIT ONLY)				OUTDOOR UNIT DATA				ELECTRICAL DATA			
SA (CFM)	OA (CFM)	TSP (IN. W.C.)	TOT. CAP. (TONS)	EAT DB (°F)	EAT WB (°F)	TOT. CAP. (MBH)	EAT DB (°F)	CAP. (KW)	VOLT/PH	MCA	MOCP	NO. STAGES	HORIZONTAL (FT)	VERTICAL (FT)	VOLT/PH	MCA	MOCP	(LBS)	UNIT MARK	MANUF.	MODEL NO.	REFRIG. TYPE	EER2 (SEER2)	HSPF2	VOLT/PH	MCA	MOCP	(LBS)									
AHU-1	1-13	LG	KNSLE602A	2000	350	0.5	5	78.2	64.4	57	62.7	8.7	208/1	52.3	60	1	40	75	NOTE 3	162	HP-1	LG	KUSXE601A	R32	10 (16)	8.5	208/1	30.7	40	215							

- NOTES:**
- EC TO PROVIDE DISCONNECT FOR OUTDOOR UNIT
 - STANDALONE FACTORY CONTROLS - 7-DAY PROGRAMMABLE CONTROLS W/ STANDARD WALL THERMOSTAT
 - INDOOR UNIT RECEIVES POWER FROM OUTDOOR UNIT THROUGH FIELD SUPPLIED WIRING
 - ELECTRIC HEAT KIT. ADDITIONAL POWER CIRCUIT REQUIRED FOR AUX ELECTRIC HEAT COIL, SEPARATE FROM AHU/HP.
 - PROVIDE 4" FILTER RACK WITH MERV-8 PRIMARY FILTERS - THROW-AWAY TYPE
 - RA DUCT SMOKE DETECTOR - PROVIDED BY EC. INSTALLATION IN ACCESSIBLE LOCATION & UNIT SHUTDOWN INTERLOCK BY MC
 - VARIABLE SPEED ECM BLOWER FAN MOTOR
 - LONG REFRIGERANT LINESET - SIZE & ROUTE PIPING PER MANUFACTURER INSTRUCTIONS. SEE SCHEDULES FOR HORIZONTAL AND VERTICAL LENGTHS. FIELD COORDINATE EXACT LINESET LENGTHS AS REQUIRED.
 - REFRIGERANT LEAK DETECTION SYSTEM AND MITIGATION CONTROLS
 - MOTORIZED BALANCING DAMPER - PROVIDE FOR OUTSIDE AIR INTAKE
 - MOUNT ROOFTOP HEAT PUMP ON RAILS
 - SECONDARY CONDENSATE OVERFLOW DRAIN PAN WITH UL 508 WATER LEVEL DETECTION DEVICE (EC TO PROVIDE SEPARATE CIRCUIT) TO SHUTOFF EQUIPMENT UPON ACTIVATION
 - MULTI-SPEED, VARIABLE CAPACITY SCROLL COMPRESSOR WITH INVERTER

AIR TERMINAL SCHEDULE (GRILLES, REGISTERS AND DIFFUSERS)

MARK	NOTES	MANUFACTURER	MODEL NO.	AIR TERMINAL TYPE	NECK SIZE	FACE SIZE	MATERIAL	MAX APD (IN. W.C.)	MAX NC
S-1	1-4	PRICE	SDG	SPIRAL DUCT GRILLE	SEE PLANS	NECK +2"	STEEL	0.10	25
R-1	3,4		530	LOUVERED GRILLE	SEE PLANS	NECK +2"	STEEL		

- NOTES:**
- BALANCING DAMPER PLACEMENT ON PLANS IS COORDINATED WITH CEILING TYPES FOR ACCESSIBILITY AS PERMITTED BY THE DUCT LAYOUT.
 - PROVIDE AIR SCOOP TYPE BALANCING DAMPER FOR SDGS
 - COLOR: SELECTION BY ARCHITECT FROM MANUFACTURER STANDARD OFFERING (DEFAULT: WHITE)
 - MOUNTING: REFER TO ARCHITECTURAL REFLECTED CEILING PLAN TO COORDINATE MOUNTING TYPES

LOUVER SCHEDULE

MARK	NOTES	MANUF.	MODEL NO.	AIRFLOW DIRECTION	LOUVER SIZE		FREE AREA (SQ. FT.)	MAX VELOCITY (FPM)	AIRFLOW (CFM)	MAX APD (IN. W.C.)	MATERIAL
H (IN.)	W (IN.)										
L-1	1-3	GREENHECK	ESD-635-14x20	INTAKE	14	20	0.7	483	350	0.03	ALUMINUM
L-2	1-2	GREENHECK	ESD-635-12x12	EXHAUST	12	12	0.2	496	70	0.03	ALUMINUM

- NOTES:**
- COLOR: SELECTION BY ARCHITECT FROM MANUFACTURER STANDARD OFFERING (DEFAULT: MATCH ADJACENT BUILDING COLOR)
 - BIRD SCREEN
 - MOTORIZED DAMPER INTERLOCKED WITH AHU

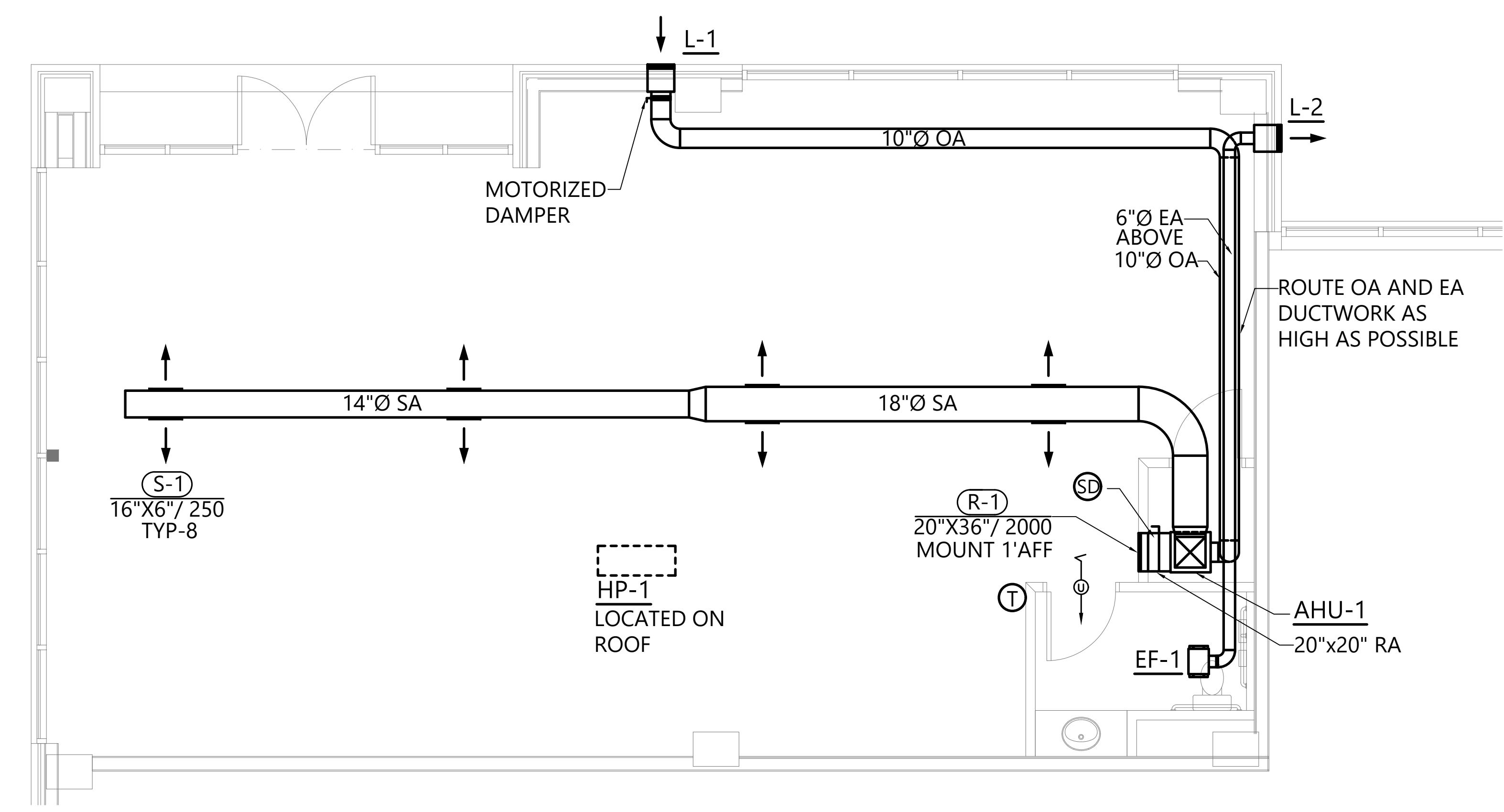
FAN SCHEDULE

MARK	NOTES	MANUFACTURER	MODEL NO.	LOCATION	FAN DATA				ELECTRICAL DATA			WEIGHT (UNIT ONLY) (LBS)
					TYPE	AIRFLOW (CFM)	ESP (IN. W.C.)	MOTOR DATA (HP)	VOLT/PH	MCA	MOCP	
EF-1	1-2	GREENHECK	SP-A390-VG	RESTROOM	DIRECT	70	0.3	0.02	115/1	1.9	15	24

- NOTES:**
- FACTORY MOUNTED DISCONNECT
 - INTERLOCK FAN WITH ROOM LIGHTING CONTROLS

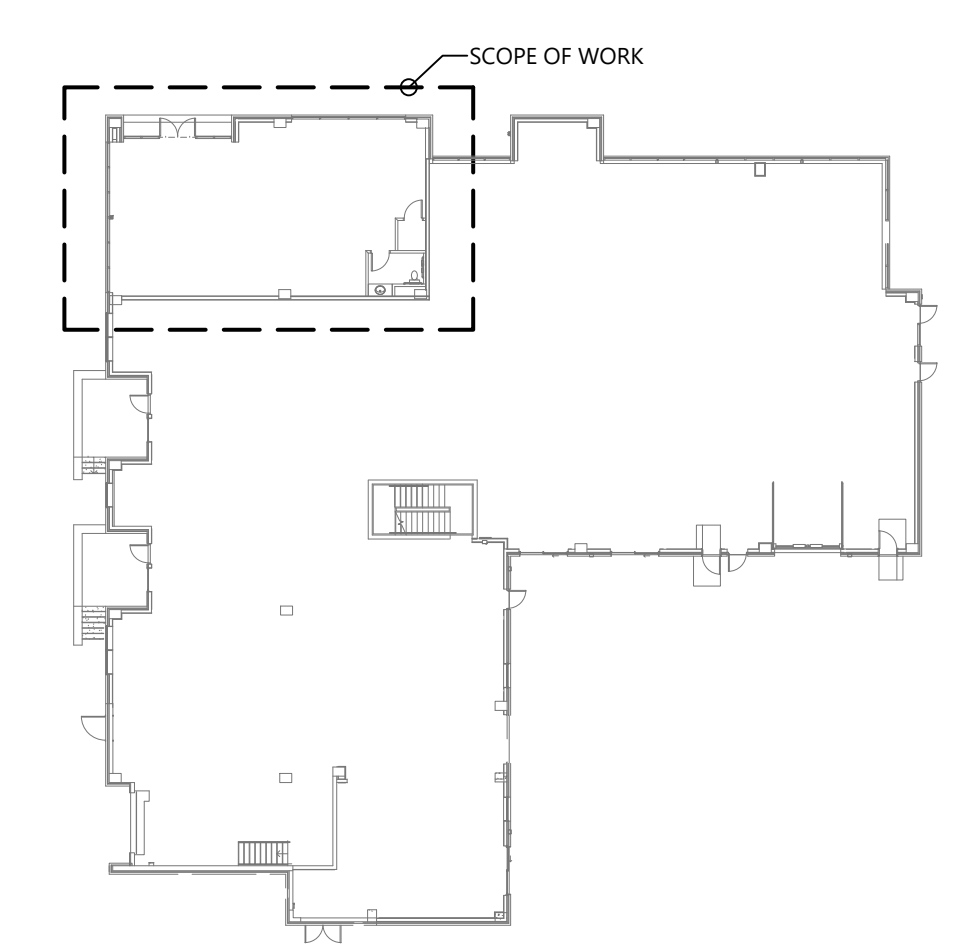


- GENERAL NOTES:
1. ALL EXPOSED SPIRAL DUCTWORK SHALL BE DUAL-WALLED WITH INTERNAL INSULATION. DIMENSIONS SHOWN ARE INTERNAL FREE AREA. APPLY PAINT GRIP. COORDINATE PAINT COLOR WITH ARCHITECT.
 2. TERMINATE AHU-1 CONDENSATE TO NEARBY FLOOR DRAIN



1 MECHANICAL PLAN
1/4"=1'-0"

KEY PLAN



**SMITH
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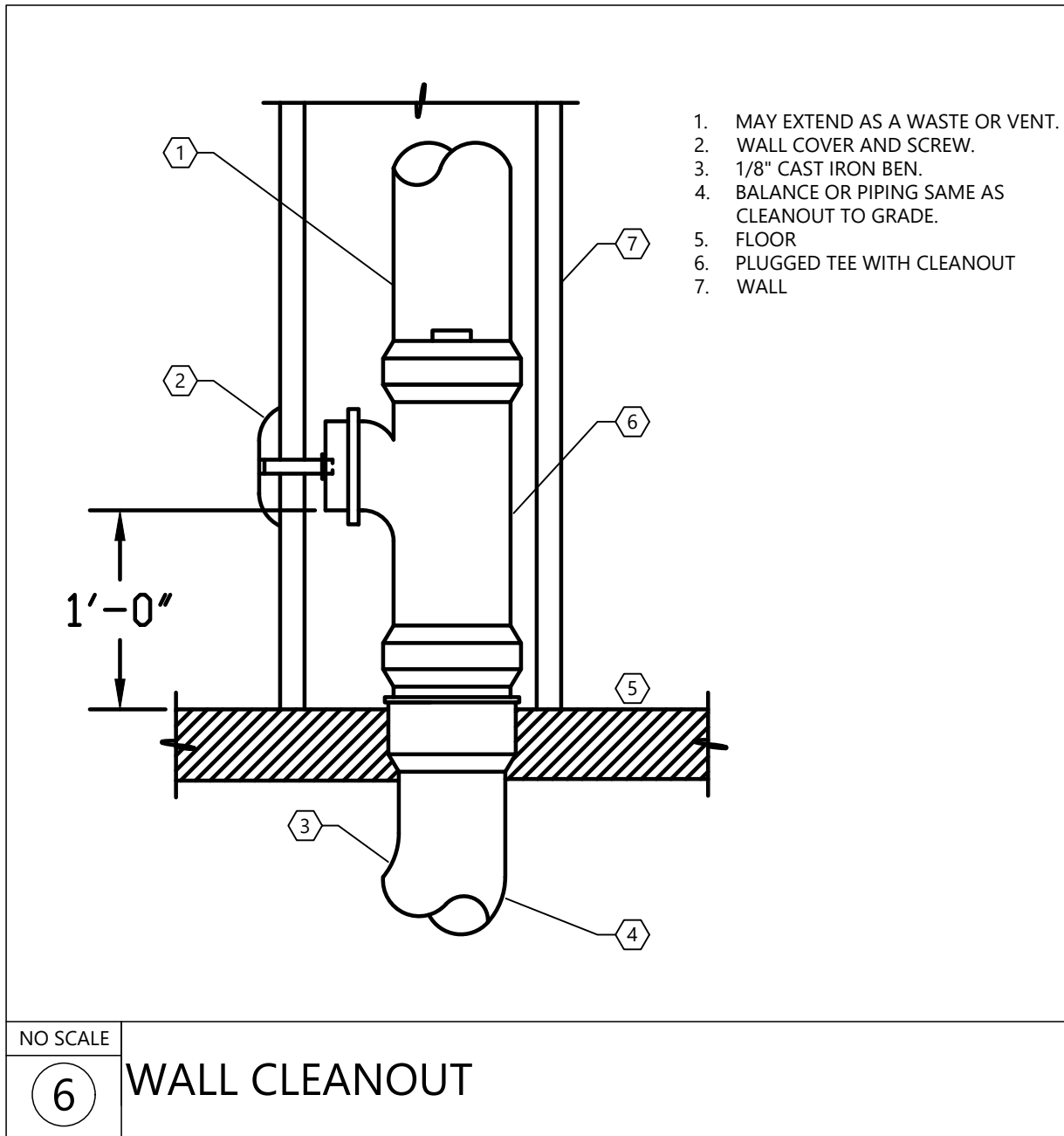
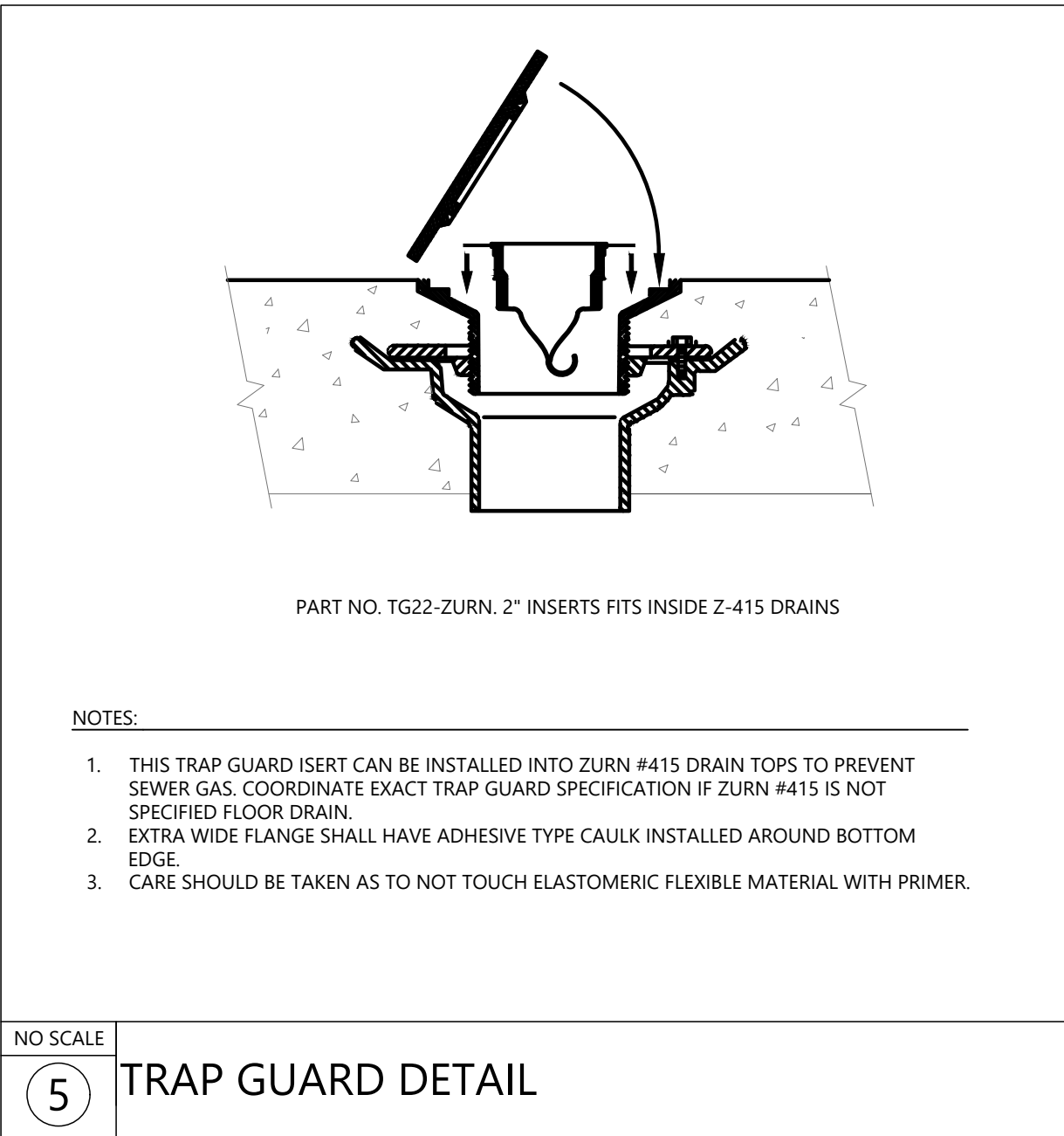
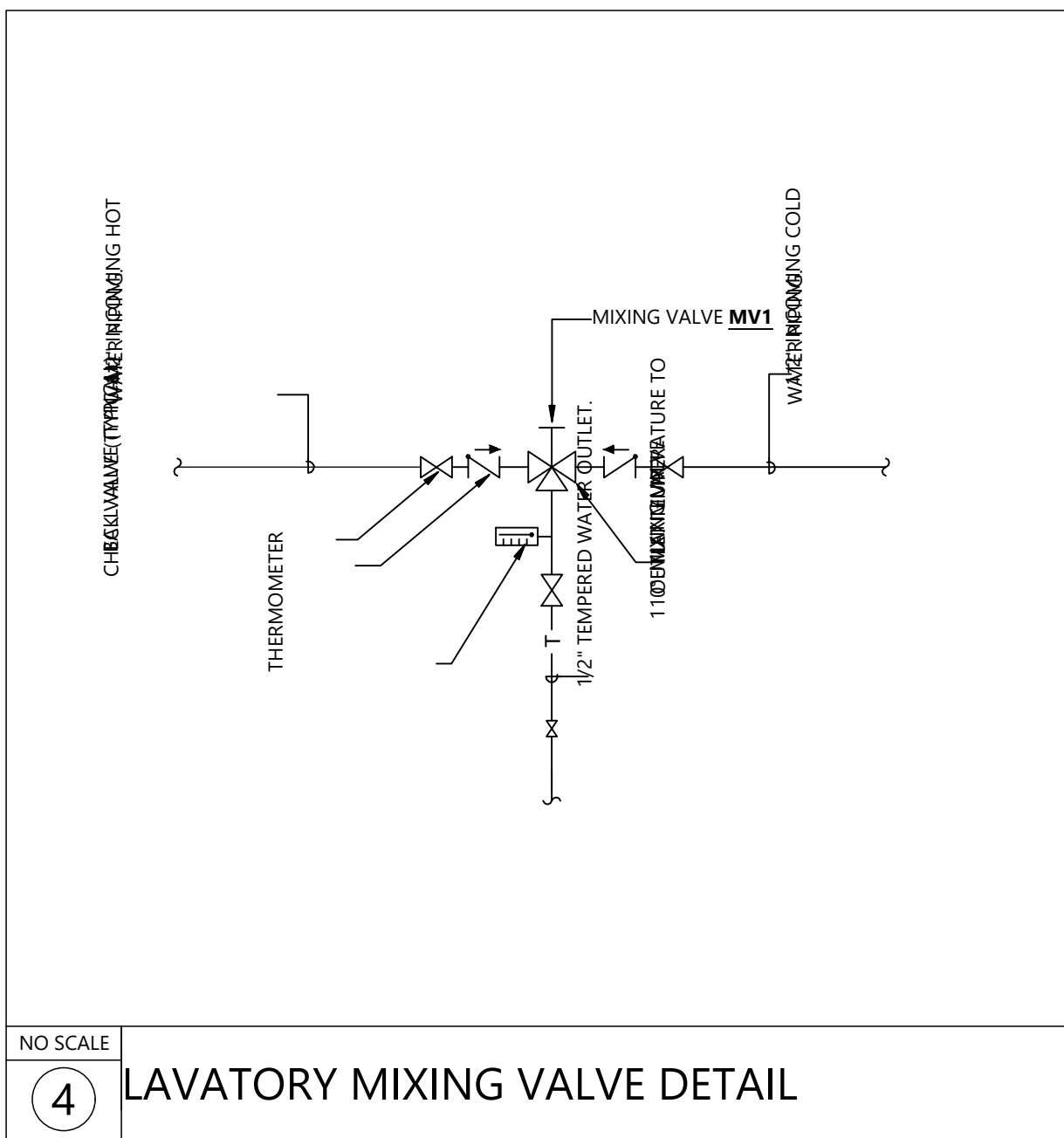
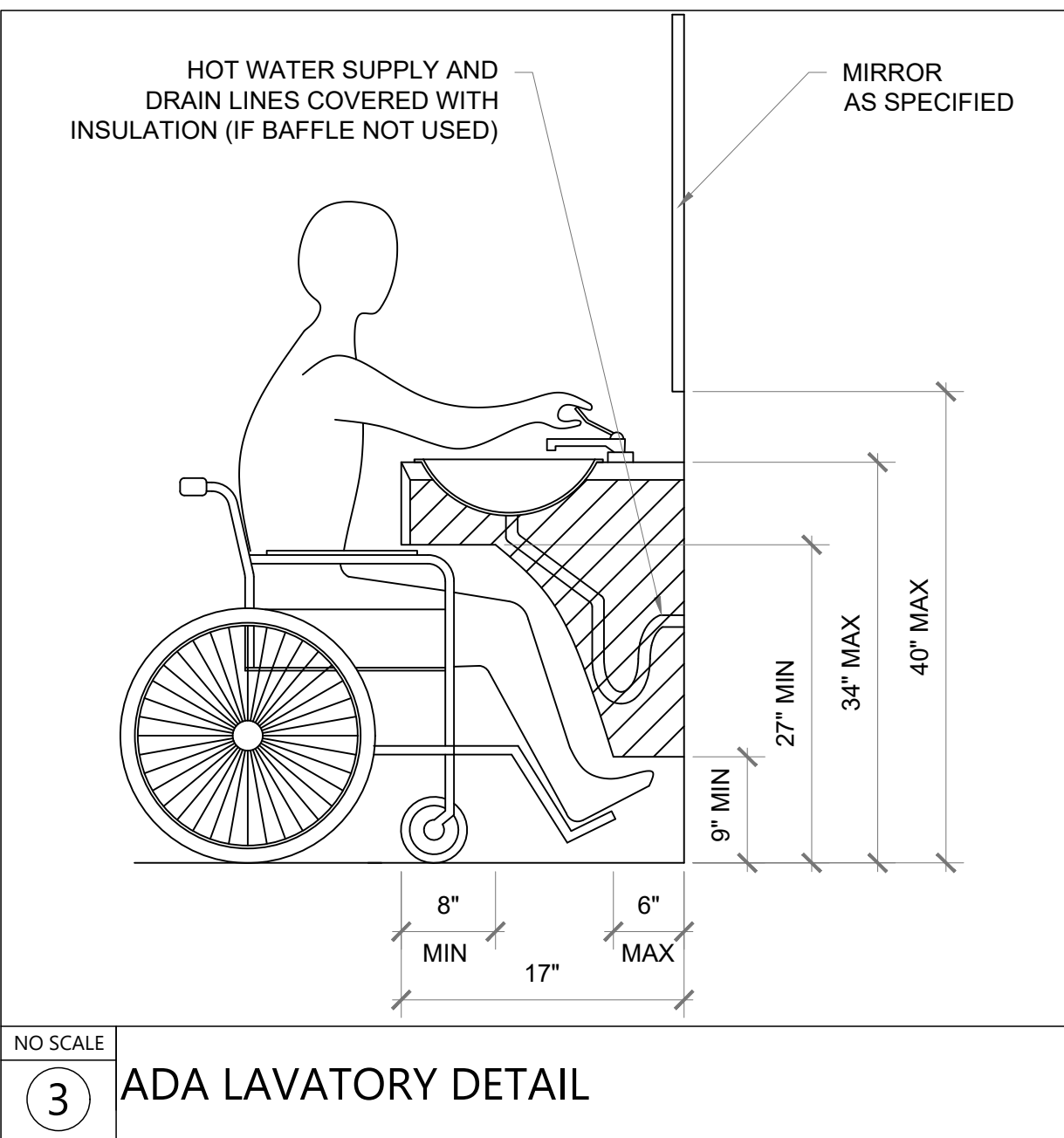
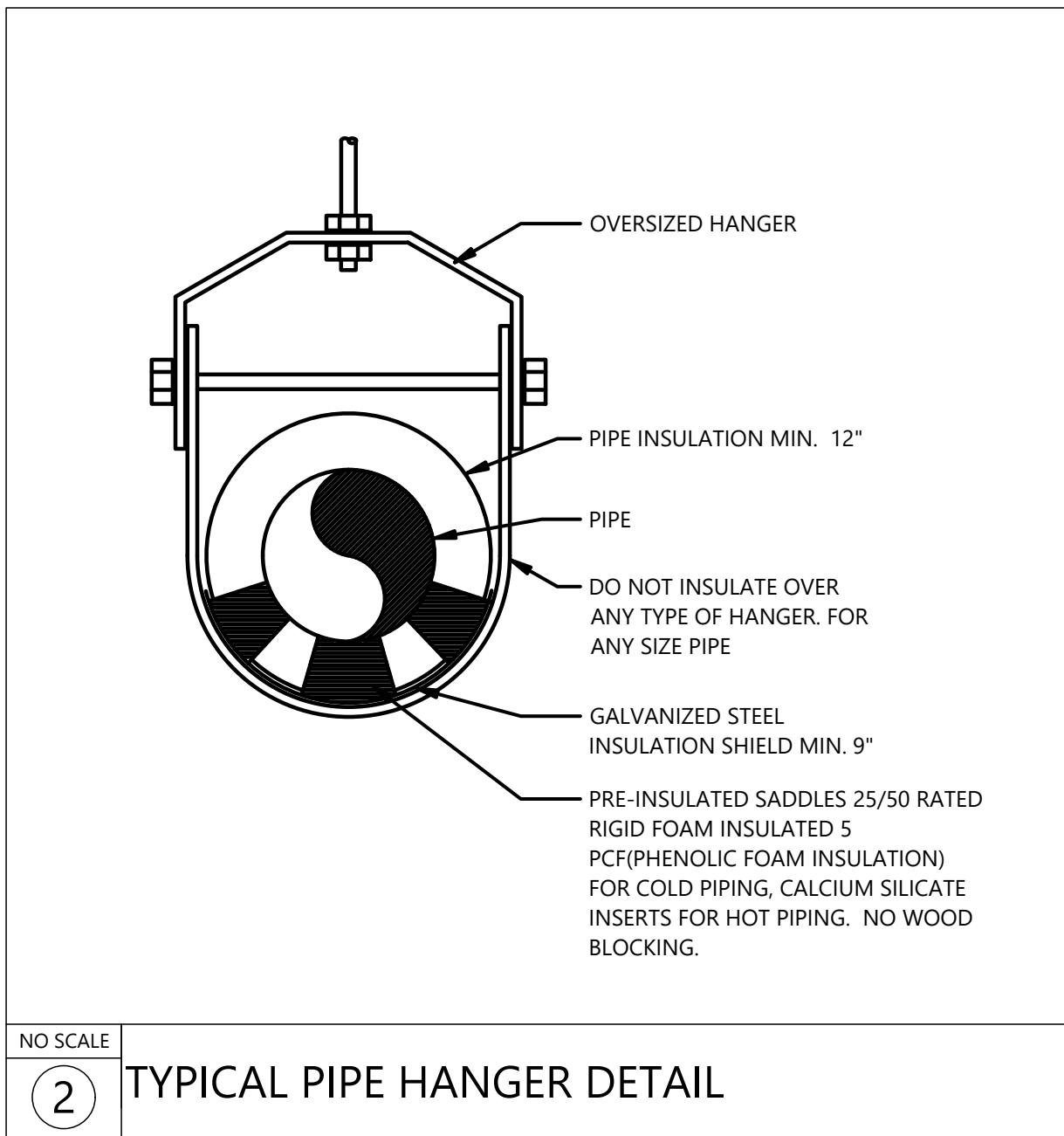
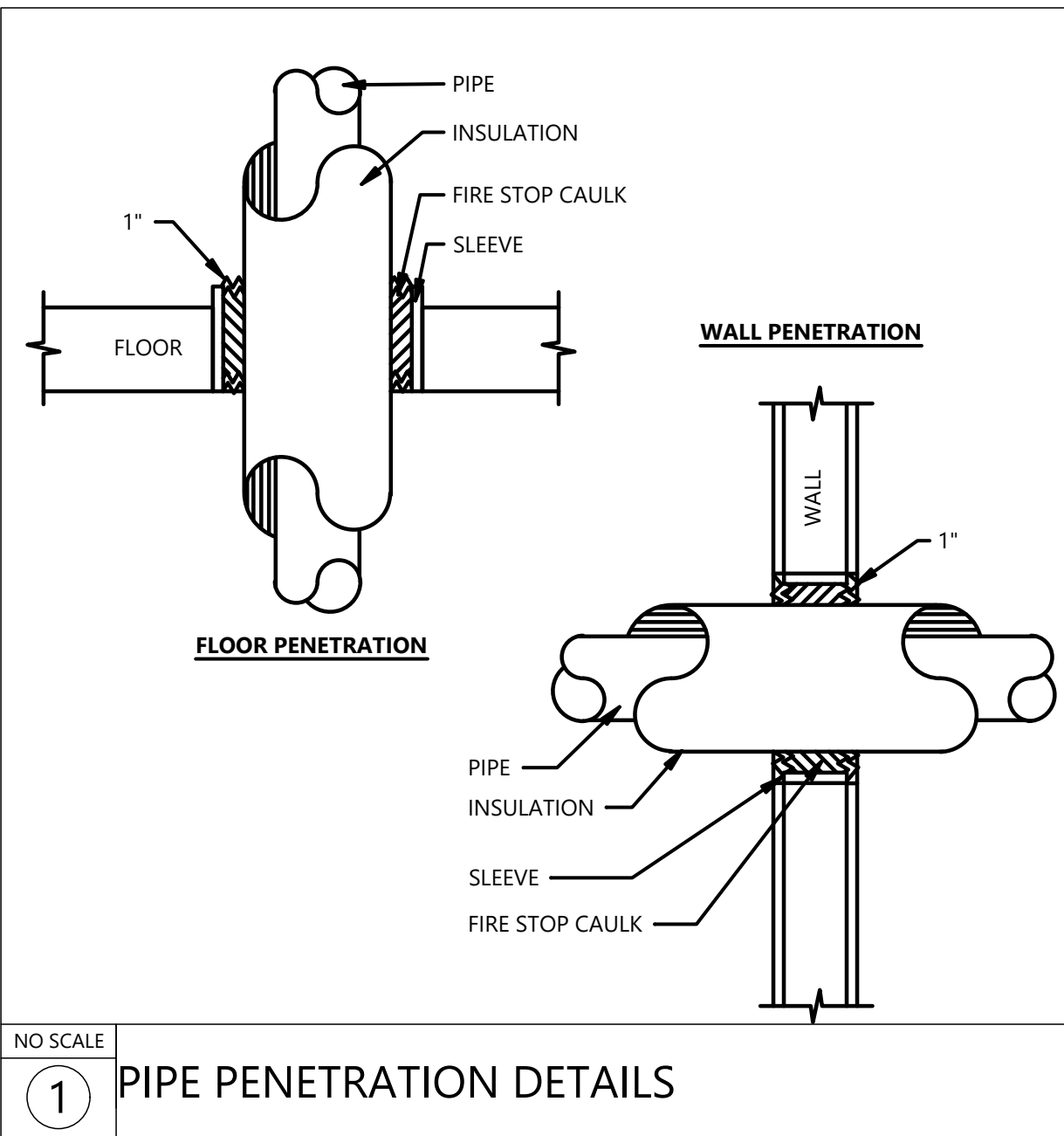
200 S. Main
Kannapolis, NC
28081



SUITE:	108
USF:	1,477
RSF:	1,477
SCALE:	As Indicated
DRAWN BY:	
DATE:	02/25/2026
TENANT:	Piffy Boutique
FILE NAME:	
SHEET:	MECHANICAL PLAN

M2





PLUMBING MATERIALS AND NOTES

DOMESTIC WATER PIPING:

- DOMESTIC WATER PIPING AND JOINTS ABOVE GRADE: PROVIDE TYPE 1 HARD DRAWN SEAMLESS COPPER TUBING (ASTM B 88) AND CAST COPPER ALLOY FITTINGS (ASME B 16.10, JOINTS 2" AND SMALLER SHALL BE LEAD FREE 95-5 TIN/SILVER SOLDER JOINTS (ASTM B 32)).
- STERILIZE THE DOMESTIC WATER SYSTEM IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION'S SPECIFICATIONS AND LOCAL HEALTH DEPARTMENT REGULATIONS.
- INSULATE DOMESTIC WATER PIPING ABOVE GRADE (EXCEPT EXPOSED CONNECTIONS TO PLUMBING FIXTURES) WITH GLASS FIBER INSULATION HAVING A VAPOR BARRIER AND JACKET. PIPE INSULATION SHALL HAVE A CONDUCTIVITY NOT EXCEEDING 0.27 BTU/H SQ. FT. FOLLOW SCHEDULE BELOW.

DOMESTIC HOT WATER & CIRCULATION	PIPE SIZES	INSULATION THICKNESS
DOMESTIC HOT WATER & CIRCULATION	1/2" - 1-1/2"	1"
DOMESTIC HOT WATER & CIRCULATION	1-1/2" - 4"	1-1/2"
DOMESTIC COLD WATER	1-1/2" - 4"	1"

- DOMESTIC WATER PIPING INSULATION, JACKETS, COVERINGS, SEALERS, MASTICS AND ADHESIVES ARE REQUIRED TO MEET A FLAME-SPREAD RATING OF 25 OR LESS AND A SMOKE-DEVELOPED RATING OF 50 OR LESS, AS TESTED BY ASTM E84 (NFPA 253) METHOD AND SHALL BE PLENUM RATED. PROVIDE PVC JACKET FOR EXPOSED PIPING IN MECHANICAL ROOMS. INSULATION SHALL BE CONTINUOUS AT ALL HANGERS. PROVIDE GALVANIZED STEEL SHIELD BETWEEN PIPE HANGER AND INSULATION.
- PROTECT COPPER PIPING AGAINST CONTACT WITH DISSIMILAR METALS. ALL HANGERS, SUPPORTS, ANCHORS AND CLIPS SHALL BE COPPER OR COPPER PLATED. WHERE COPPER PIPING IS TRAPEZE HANGERS WITH OTHER PIPING, PROVIDE A PERMANENT ELECTROLYTIC ISOLATION MATERIAL TO PREVENT CONTACT WITH DISSIMILAR OTHER METALS.
- PROTECT COPPER PIPING AGAINST CONTACT WITH ALL MASONRY WHERE COPPER IS SLEEVED THROUGH MASONRY. PROVIDE COPPER OR RED BRASS SLEEVES. WHERE COPPER PIPING IS CONCEALED IN OR AGAINST MASONRY PARTITIONS, PROVIDE A HEAVY COATING OF ASPHALTIC ENAMEL ON THE COPPER PIPING AND 15# ASPHALT SATURATED FELT BETWEEN THE PIPING AND THE MASONRY PARTITION.
- DOMESTIC WATER SUPPLY PIPING SHALL BE TESTED AND PROVED WATERTIGHT UNDER A WATER PRESSURE OF NO LESS THAN THE WORKING PRESSURE OF THE SYSTEM, OR AN AIR TEST OF NO LESS THAN ONE HUNDRED (100) PSI. THIS PRESSURE SHALL BE HELD FOR AT LEAST FIFTEEN (15) MINUTES. WATER USED IN TESTING SHALL BE OBTAINED FROM A POTABLE SOURCE OF SUPPLY.

SANITARY WASTE / VENT PIPING:

- SANITARY WASTE BELOW GRADE: PROVIDE SCHEDULE 40 PVC PIPE AND SOCKET FITTINGS (ASTM D 2665) WITH SOLVENT WELD JOINTS (ASTM D885). FOAM CORE PVC PIPE IS NOT APPROVED.
- SANITARY WASTE/VENT ABOVE GRADE: PROVIDE SERVICE WEIGHT CAST IRON NO-HUB PIPE AND FITTINGS (CISPI 301) WITH NEOPRENE GASKET AND STAINLESS STEEL CLAMP JOINTS (CISPI 310).
- SLOPE SANITARY WASTE PIPING AT 1/4" PER FOOT MINIMUM FOR PIPING 2-1/2" AND SMALLER AND 1/8" PER FOOT MINIMUM FOR PIPING 3" AND LARGER UNLESS NOTED OTHERWISE.
- WHERE WASTE PIPING IS EXPOSED IN REST ROOM AREAS, PROVIDE CHROME PLATED BRASS PIPING, REMOVABLE P-TRAPS, MATCHING STOPS AND ESCUTCHEONS FOR ALL LAVATORIES.
- SANITARY WASTE AND VENT SYSTEMS SHALL BE TESTED AND PROVED WATER TIGHT UNDER A HEAD PRESSURE OF NO LESS THAN 10 FT. THIS PRESSURE SHALL BE HELD FOR A PERIOD OF NO LESS THAN 15 MINUTES.
- INSULATE MECHANICAL ROOM FLOOR DRAIN BODIES, P-TRAP AND HORIZONTAL DRAIN PIPING ABOVE GRADE WITH 1" THICK GLASS FIBER INSULATION WITH VAPOR BARRIER AND JACKET.
- INSULATE ROOF DRAIN BODIES AND HORIZONTAL PRIMARY AND SECONDARY STORM DRAIN PIPING ABOVE GRADE WITH 1" THICK GLASS FIBER INSULATION WITH VAPOR BARRIER AND JACKET.
- PIPING INSULATION, JACKETS, COVERINGS, SEALERS, MASTICS AND ADHESIVES ARE REQUIRED TO MEET A FLAME-SPREAD RATING OF 25 OR LESS AND A SMOKE-DEVELOPED RATING OF 50 OR LESS, AS TESTED BY ASTM E84 (NFPA 253) METHOD. INSULATION SHALL BE CONTINUOUS AT ALL HANGERS. PROVIDE GALVANIZED STEEL SHIELD BETWEEN PIPE HANGER AND INSULATION.

PLUMBING GENERAL NOTES

GENERAL REQUIREMENTS:

- PLUMBING WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE 2018 NORTH CAROLINA STATE PLUMBING CODE AND WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.
- SCOPE: PROVIDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED FOR THE COMPLETION AND OPERATION OF ALL PLUMBING SYSTEMS IN ACCORDANCE WITH ALL APPLICABLE CODES.
- PERMITS: APPLY AND PAY FOR ALL NECESSARY PERMITS, FEES AND INSPECTIONS REQUIRED BY ANY PUBLIC AUTHORITY HAVING JURISDICTION. ACREAGE CHARGES, FACILITIES CHARGES AND BOND PROPERTY ASSESSMENTS ARE NOT TO BE CONSTRUED TO BE A PART OF THIS CONTRACT.
- WARRANTY: PROVIDE A ONE YEAR WARRANTY, FROM THE DATE OF ACCEPTANCE OF WORK BY THE OWNER, FOR ALL PLUMBING MATERIALS AND EQUIPMENT.
- COORDINATE ALL PLUMBING PIPING LOCATIONS, ROUGH-IN LOCATIONS AND EQUIPMENT LOCATIONS WITH OTHER TRADES TO AVOID CONFLICTS AND INTERFERENCES. FINAL PIPING AND EQUIPMENT LOCATIONS SHALL BE A CODE COMPLIANT INSTALLATION FOR ALL TRADES.
- FIELD VERIFY PROPER OPERATION OF EXISTING SYSTEMS BEFORE STARTING CONSTRUCTION. NOTIFY THE ARCHITECT / ENGINEER OF RECORD OF ANY PROBLEMS OR DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND EXISTING CONDITIONS AND/OR ANY POTENTIAL PROBLEMS OBSERVED BEFORE CONTINUING WORK IN THE EFFECTED AREAS.
- WHERE DISCREPANCIES ARE FOUND IN THE DRAWINGS AND SPECIFICATIONS THE MORE STRINGENT SHALL APPLY. CONTACT ENGINEER FOR CLARIFICATION.
- ALL PIPING SHALL BE MANUFACTURED IN THE UNITED STATES OF AMERICA.
- ALL VALVES, BACKFLOW PREVENTERS, BOOSTER PUMPS, ETC. SERVING THE DOMESTIC WATER SYSTEM SHALL MEET LEAD FREE STANDARDS PER ANS/NSF 372 AND NSF 61, ANNEX G.
- CUT WALLS, FLOORS AND CEILINGS AS REQUIRED FOR INSTALLATION OF PLUMBING WORK. ALL CUTTING SHALL BE HELD TO A MINIMUM. PATCH AND FINISH SURFACES TO MATCH ADJOINING SURFACES.
- PLUMBING PLANS SHALL NOT BE SCALED. REFERENCE THE ARCHITECTURAL PLANS FOR ALL LOCATIONS OF PLUMBING FIXTURES, WALLS, DOORS, WINDOWS, ETC.
- PLUMBING PIPING AND SPECIALTIES SHALL BE LOCATED CONCEALED IN WALLS, PARTITIONS OR ABOVE CEILINGS UNLESS NOTED OTHERWISE. PLUMBING PIPING IN EXPOSED AREAS SHALL BE RUN TIGHT TO UNDERSIDE OF STRUCTURE. PROVIDE ACCESS DOORS FOR CONCEALED SPECIALTIES.
- DO NOT INSTALL PLUMBING PIPING IN AREAS SUBJECT TO FREEZING TEMPERATURES. INSTALL PLUMBING PIPING SHOWN IN EXTERIOR WALLS ON THE CONDITIONED SIDE OF THE WALL INSULATION.
- PROVIDE NON-CONDUCTING DIELECTRIC UNIONS WHENEVER CONNECTING DISSIMILAR METALS.
- ATTACH HANGERS TO STRUCTURE. HANGERS SHALL NOT ATTACH TO THE DECK.
- PROVIDE ACCESS DOORS FOR VALVES, WATER HAMMER ARRESTORS, TRAP PRIMERS, ETC. CONCEALED IN MASONRY WALLS, GYPSUM WALLS AND/OR CEILINGS THAT WILL REQUIRE MAINTENANCE ACCESS.
- CORE DRILL THROUGH MASONRY (CMU) BLOCK WALLS FOR ALL PIPE PENETRATIONS. WHEN DRILLING OPENINGS FOR INSULATED PIPES THE OPENING'S DIAMETER SHALL BE LARGE ENOUGH FOR PIPE INSULATION TO REMAIN CONTINUOUS PASSING THROUGH THE OPENING. SEAL WATER TIGHT. PROVIDE ESCUTCHEONS IN EXPOSED FINISHED AREAS.
- PLUMBING SYSTEMS INCLUDE, BUT ARE NOT LIMITED TO: PLUMBING FIXTURES, DOMESTIC WATER SYSTEM, SANITARY WASTE AND VENT SYSTEM, NATURAL GAS SYSTEM.
- THE PLUMBING CONTRACTOR SHALL INCLUDE IN THE PROJECT BID A FULL SCOPE OF EXISTING SANITARY LINES INCLUDING LOCATION, SLOPE, INVERT, ETC. THIS WORK SHALL BE PERFORMED BEFORE ANY WORK ASSOCIATED WITH THE PROJECT IS STARTED. FAILURE TO PERFORM PRE-CONSTRUCTION SCOPE TO VERIFY EXISTING CONDITIONS SHALL NOT BE AN ACCEPTABLE REASON TO REQUEST ADDITIONAL CONTRACT FEES.

PLUMBING FIXTURES AND EQUIPMENT:

- PROVIDE COMPLETE PLUMBING FIXTURES AND EQUIPMENT. INCLUDE SUPPLIES, STOPS, VALVES, FAUCETS, DRAINS, TRAPS, TAIL PIECES, ESCUTCHEONS, ETC.
- PLUMBING FIXTURES AND EQUIPMENT SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS.
- NO PRIVATE LABELED MATERIALS WILL BE ACCEPTED AS EQUALS TO PRODUCTS SPECIFIED HEREIN.
- THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SUBSTITUTIONS TO SPECIFIED PLUMBING FIXTURES AND EQUIPMENT INCLUDING BUT NOT LIMITED TO: PROVIDING MAINTENANCE ACCESS CLEARANCE, PIPING, ELECTRICAL, REPLACEMENT OF OTHER SYSTEM COMPONENTS, BUILDING ALTERATIONS, ETC. AND ANY MODIFICATIONS TO ASSOCIATED MECHANICAL, ELECTRICAL OR PLUMBING SYSTEMS REQUIRED BY THE EQUIPMENT'S INSTALLATION INSTRUCTIONS. ALL COSTS ASSOCIATED WITH SUBSTITUTIONS SHALL BE INCLUDED IN THE ORIGINAL BASE BID.

WATER HAMMER ARRESTOR REQUIREMENTS

- PROVIDE WATER HAMMER ARRESTORS CONFORMING TO PDI-WH201 OR ASSE 1010, INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- INSTALL WHERE QUICK CLOSING VALVES ARE UTILIZED.
- PROVIDE WATER HAMMER ARRESTOR ON ALL SUPPLY PIPES SERVING LAVATORIES WITH SENSOR OPERATED VALVES.
- AT A MINIMUM, PROVIDE ONE WATER HAMMER ARRESTOR FOR EACH BRANCH LINE TO EACH TOILET ROOM, LOCATED BETWEEN LAST TWO FIXTURES SERVED.
- INSTALL ADDITIONAL SHOCK ARRESTORS IF BRANCH PIPING SERVING WATER CLOSETS IS 20'-0" IN LENGTH OR LONGER. SEE MANUFACTURER'S INSTRUCTIONS FOR DETAILED INSTALLATION INFORMATION.

PLUMBING LEGEND

EXISTING PIPING	NEW PIPING	ABBL.	DESCRIPTION
(E)	---	CW	COLD WATER PIPING
(E)	---	HW	HOT WATER PIPING
(E)	---	HWR	HOT WATER RETURN PIPING
(E)	---	SWR	SANITARY WASTE PIPING
(E)	---	V	SANITARY VENT PIPING
(E)	---	D	DRAIN
(E)	---	D	DRAIN
(E)	---	-	EXISTING PIPING TO BE REMOVED
(E)	---	G	NATURAL GAS PIPING
(E)	---	CA	COMPRESSED AIR
(E)	---	-	ELBOW DOWN
(E)	---	-	ELBOW UP
(E)	---	-	PIPE CONTINUOUS
(E)	---	-	PIPE CAP
(E)	---	-	BALL VALVE
(E)	---	-	CHECK VALVE
(E)	---	-	DIRECTION OF FLOW
(E)	---	-	PIPE REDUCER
(E)	---	FCO	FLOOR CLEAN OUT
(E)	---	WCO	WALL CLEAN OUT
(E)	---	CO	END OF LINE CLEAN OUT
(E)	---	YCO	YARD CLEAN OUT
(E)	---	FD	FLOOR DRAIN
(E)	---	FS	FLOOR SINK
(E)	---	RD	ROOF DRAIN
(E)	---	RD	ROOF DRAIN
(E)	---	HB	HOSE BIB/WALL HYDRANT
(E)	---	SA	SHOCK ARRESTOR - SUFFIX INDICATES PDI SIZE
(E)	---	-	THERMOMETER
(E)	---	-	PRESSURE GAUGE
(E)	---	TP	TRAP PRIMER
(E)	---	CTE	CONNECT TO EXISTING
(E)	---	-	POINT OF DEMOLITION

ADDITIONAL ABBREVIATIONS

ABV	ABOVE FINISHED FLOOR	KW	KILOWATT
AFB	ABOVE FINISHED GRADE	LAV	LAVATORY
BAS	BUILDING AUTOMATION SYSTEM	MBH	1,000 BTUH
BEL	BELOW	MFG	MANUFACTURER
BFF	BELOW FINISHED FLOOR	MH	MOUNTING HEIGHT
BTUH	BRITISH THERMAL UNIT / HOUR	PH	PHASE
CFH	CUBIC FEET PER HOUR	PSI	POUNDS PER SQUARE INCH
CLG	CEILING	SF	SQUARE FEET
CONT	CONTINUATION	SFU	SUPPLY FIXTURE UNITS
DRU	DRAINAGE FIXTURE UNIT (WASTE)	T&P	TEMPERATURE AND PRESSURE
DN	DOWN	TYP	TYPICAL
EX	EXISTING	UR	URINAL
EX	EXISTING	VB	VACUUM BREAKER
EX	EXISTING	VLV	VALVE
FIN	FINISH	VTR	VENT THRU ROOF
FL	FLOOR	WC	WATER COLUMN
FR	FROM	EC	ELECTRICAL CONTRACTOR
FU	FIXTURE UNITS	GC	GENERAL CONTRACTOR
GPC	GALLONS PER CYCLE (METERING)	MC	MECHANICAL CONTRACTOR
GPM	GALLONS PER MINUTE	PC	PLUMBING CONTRACTOR
HP	HORSE POWER		
INV	INVERT ELEVATION		

RESTROOM PLUMBING EQUIPMENT SCHEDULE

TAG #	DESCRIPTION	SPECIFICATION	NOTES
A	ADA DEPTH SINGLE COMPARTMENT SINK - UNDERMOUNT	KOHLER - CAXTON - 21-1/4" OVAL UNDERMOUNT RESTROOM SINK - MODEL #K-2211-D, 1/2"CW, 1/2"HW, 3"W, 1-1/2"V, ADA P-TRAP INSULATION GUARD WHERE EXPOSED.	(1) FAUCET HOLE
B	FAUCET	KOHLER - TAUT - SINGLE HOLE COMMERCIAL FAUCET - MODEL #K-48028-4-CP, 1/2"CW, 1/2"HW, 3"W, 1-1/2"V, PROVIDE ASSE 1070 THERMOSTATIC MIXING VALVE	POLISHED CHROME
C	WATER CLOSET	KOHLER - SPACITY - K-29020-0 (OR APPROVED EQ.), 1/2"CW, 4"W, 2"V, SEAT: BEMIS 1955CT	

PLUMBING SPECIALTIES SCHEDULE

TAG	MANUFACTURER	MODEL	WATER CONSUMPTION	FINISH	ADA	MOUNTING	CONNECTION	OPERATION	ACCESSORIES / REMARKS	RUNOUT PIPE SIZE			
										CW	HW	V	
FLOOR DRAIN	FD	ZURN	Z415B	ROUND, NICKEL BRONZE	-	FLOOR	P-TRAP W/ SEAL	-	SEDIMENT BUCKET, UNDER DECK CLAMP WHERE APPLICABLE	-	-	3"	1-1/2"

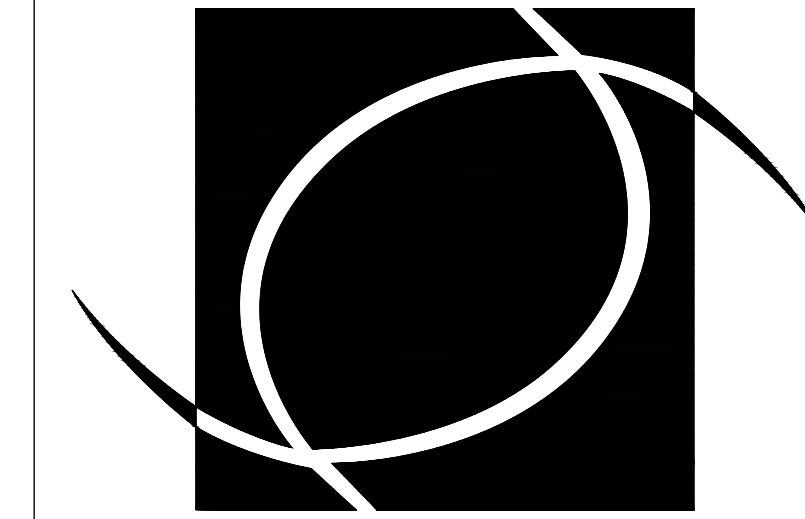
NOTE: RUNOUT PIPE SIZES AS SCHEDULED. EXCEPTIONS: 1. WHERE SPECIFICALLY LABELED OTHERWISE. 2. MINIMUM UNDOG. SAN. PIPE SIZE = 2". 3. WHERE WET VENTING METHOD REQUIRES INCREASED SAN.

ELECTRIC WATER HEATER SCHEDULE - TANKLESS TYPE

MARK	NOTES	MANUFACTURER	MODEL NO.	SERVICE	LOCATION	TURN-ON FLOW (GPM)	HEATING CAPACITY				ELECTRICAL DATA				WEIGHT (LBS)	
							CAPACITY (KW)	RECOVERY RATE	VOLTS	PHASE	MCA	MOCP				
							ΔT (°F)	EWT (°F)	LWT (°F)	GPM						
JEW-1	X X	EEMAX	SPEX3512	LAV	BELOW R.R. LAV	0.3	3.5	50	57	104.7	0.5	120	1	-	-	3

NOTES:

- DISCONNECT BY ELECTRICAL CONTRACTOR.
- MAXIMUM LWT SETPOINT OF 105°F FOR HANDWASHING LAVATORY.
- MAXIMUM LWT SETPOINT OF 115°F FOR BREAKROOM SINK.



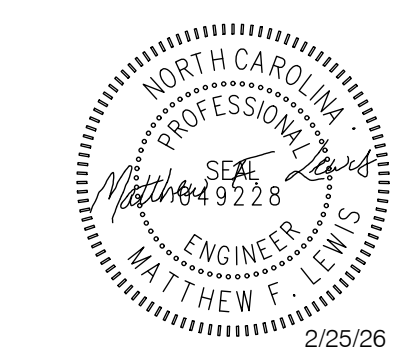
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Piffy Boutique

200 S. Main
Level One

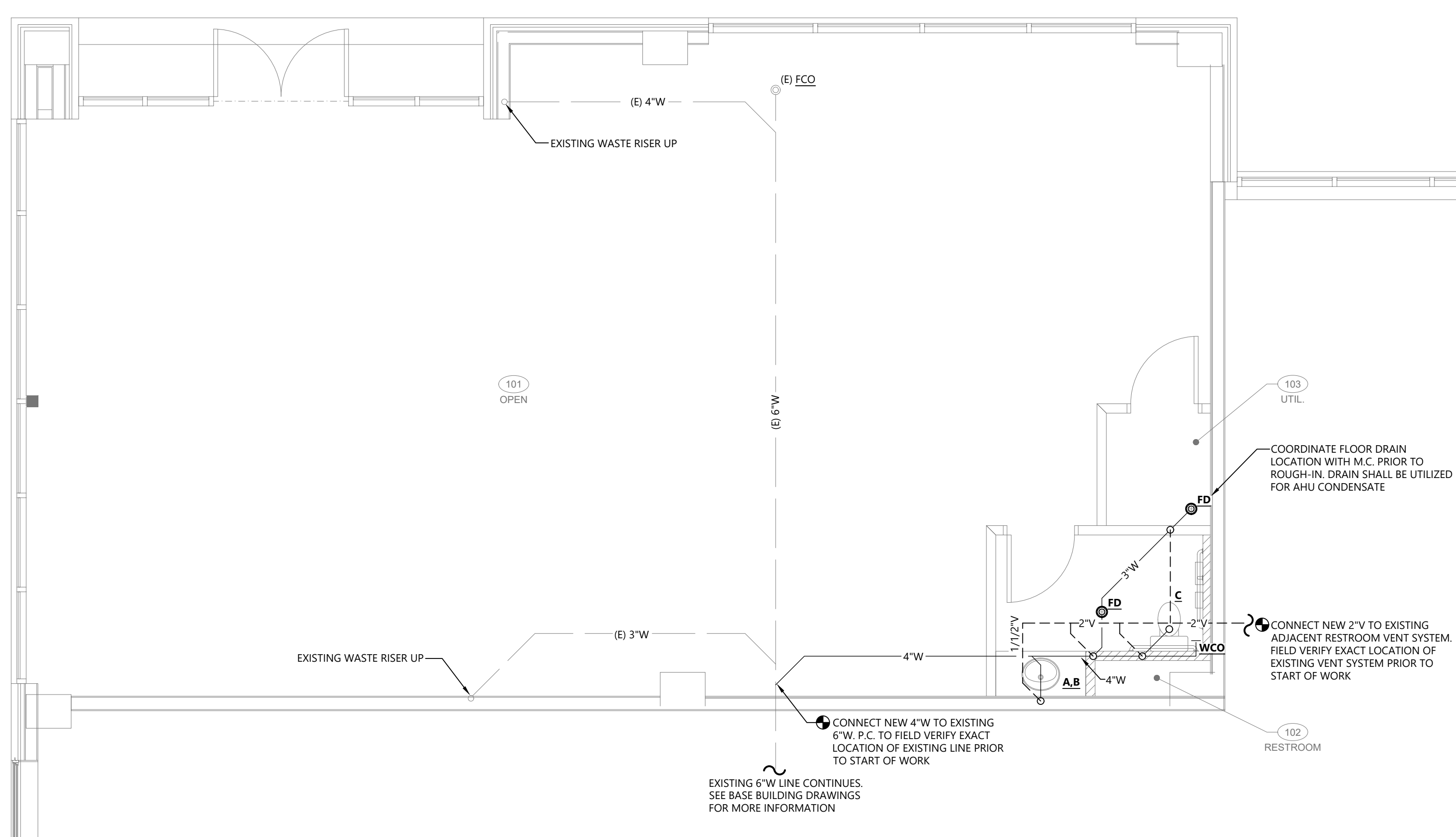
200 S. Main
Kannapolis, NC
28081



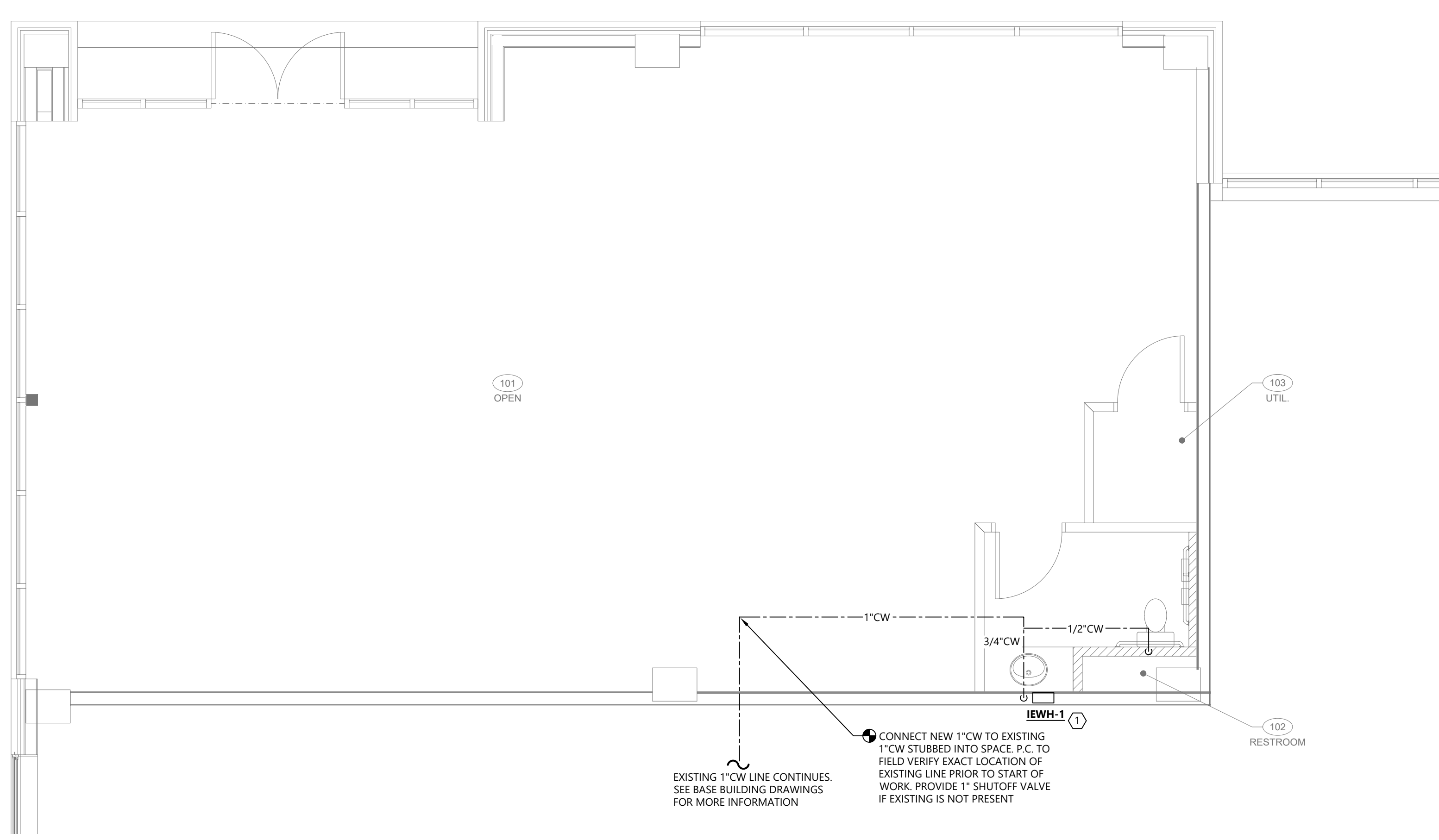
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DATE:	02/25/2026
TENANT:	Piffy Boutique
FILE NAME:	
SHEET:	PLUMBING COVER SHEET
P1	



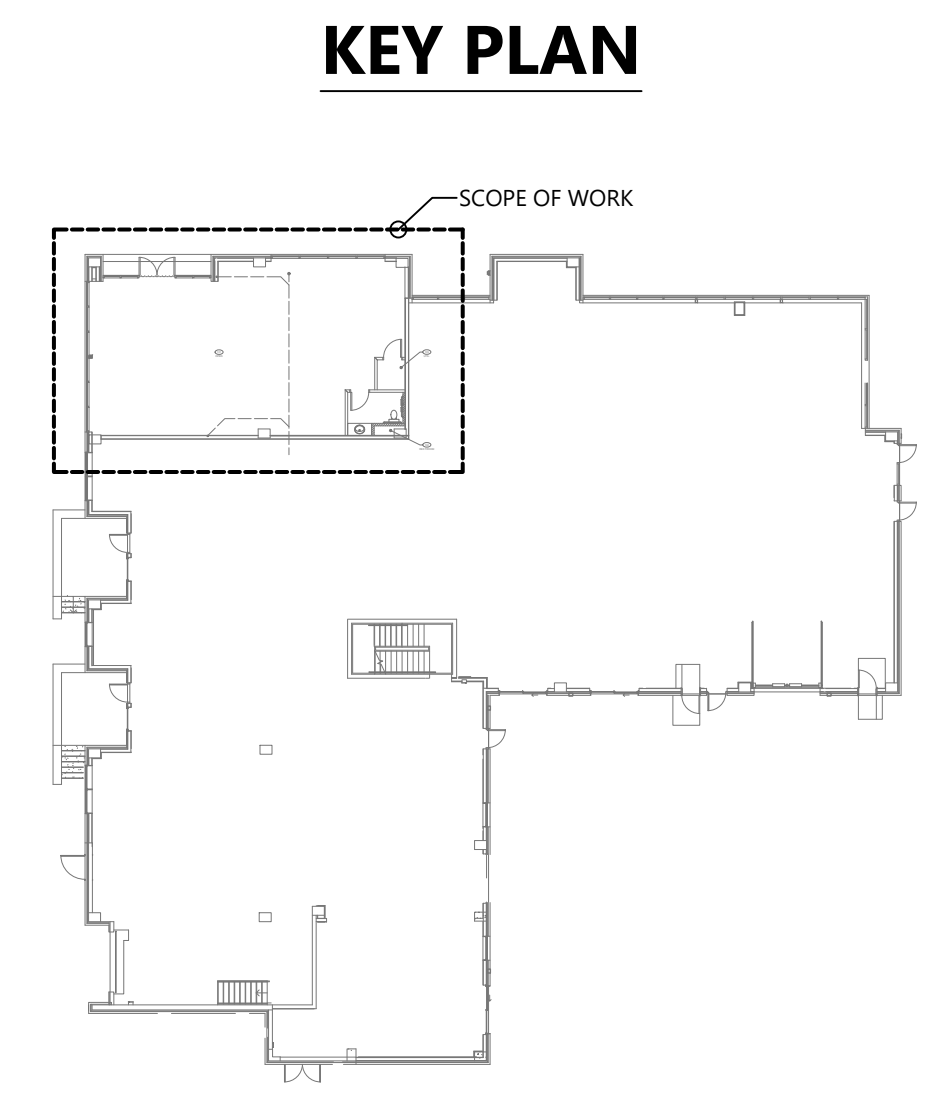
PLUMBING GENERAL NOTES	
1.	FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING PLUMBING INCLUDING INVERTS. REPORT ANY DISCREPANCIES TO THE ENGINEER.
2.	REFER TO ARCHITECTURAL DOCUMENTS FOR ALL MILLWORK AND PLUMBING FIXTURE HEIGHTS.
3.	COORDINATE LOCATIONS OF ALL SHUT OFF VALVES. ALL VALVES SHALL BE ACCESSIBLE.
4.	ROUTE NEW LINES TO EXISTING PLUMBING. FIELD VERIFY EXACT LOCATION.
5.	PROVIDE SURGE ARRESTOR, SA, ABOVE LAVATORIES AND KITCHEN SINK ON COLD WATER LINES.
KEYED NOTES	
1.	3/4" CW DOWN FOR LAVATORY AND INSTANT WATER HEATER. ROUTE 1/2" TO LAVATORY AND 3/4" CW FOR INLET OF WATER HEATER. CONFIRM INLET SIZE OF WATER HEATER WITH MANUFACTURER PRIOR TO ROUGH-IN.



1 DWV PIPING PLAN
1/4" = 1'-0"



2 SUPPLY PIPING PLAN
1/4" = 1'-0"



KEY PLAN



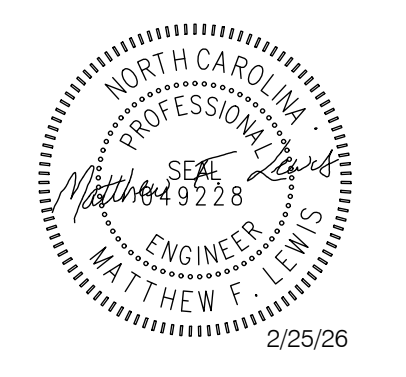
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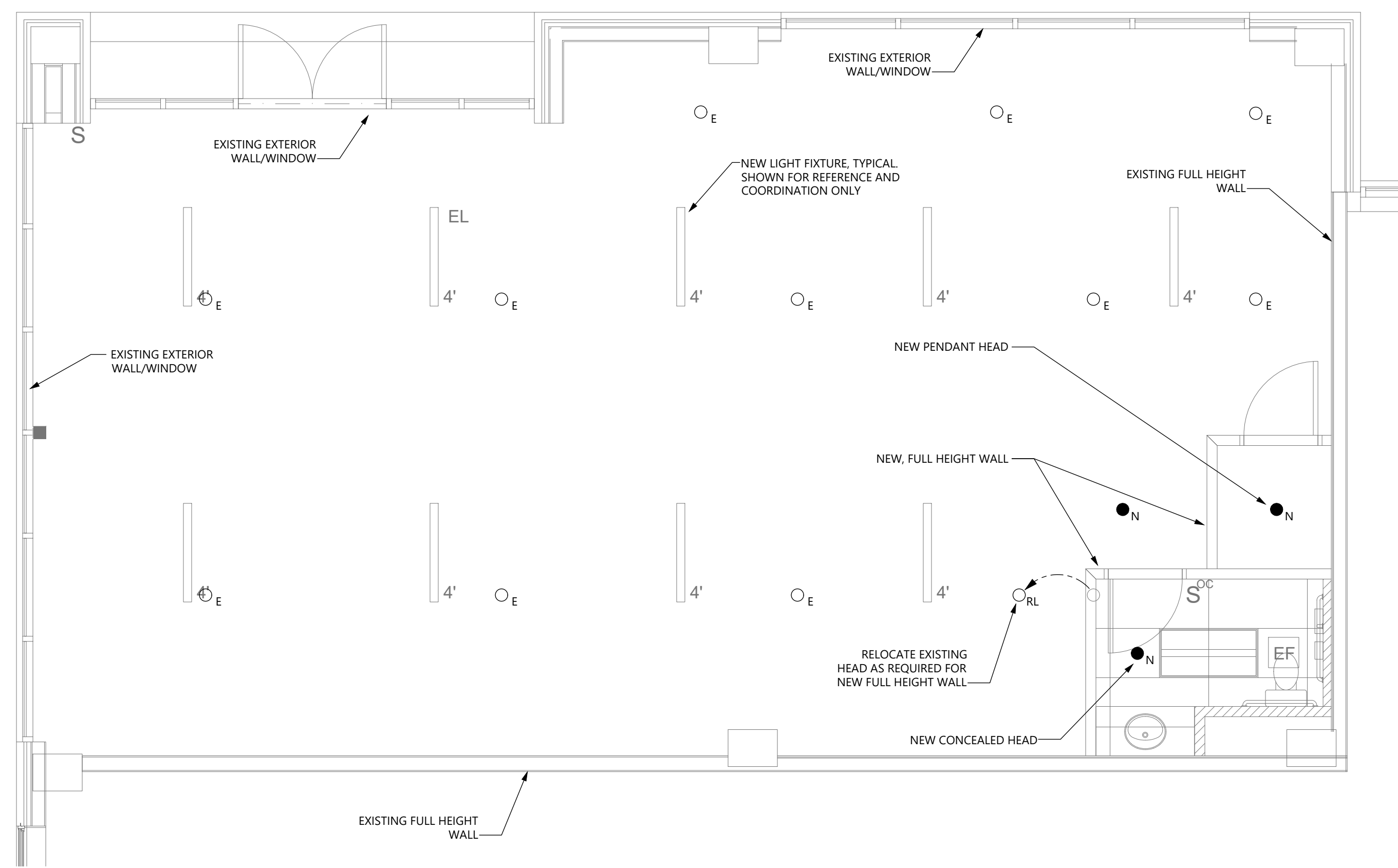


SUITE:	108
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SCALE:	As Indicated
DRAWN BY:	
DATE:	02/25/2026
TENANT:	Piffy Boutique
FILE NAME:	
SHEET:	PLUMBING PLANS

P2



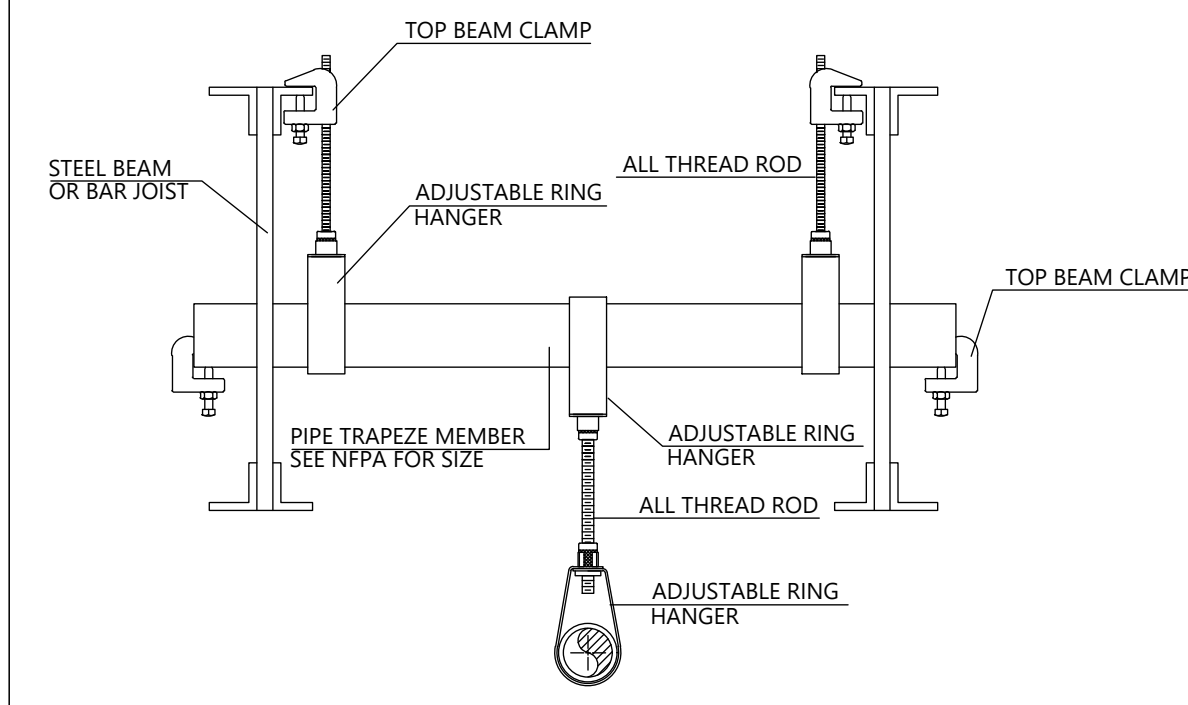
EXISTING CONDITIONS NOTE
ALL LOCATIONS OF EXISTING HEADS SHALL BE FIELD VERIFIED PRIOR TO START OF WORK. RELOCATE EXISTING HEADS AS REQUIRED FOR NEW, FULL HEIGHT WALLS



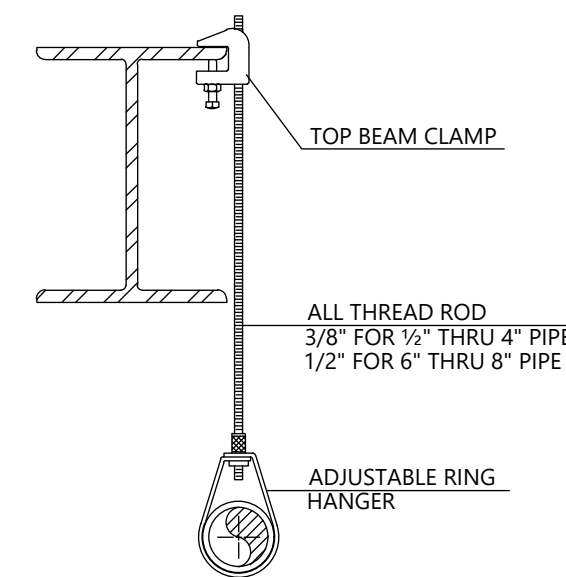
1 FIRE PROTECTION PLAN
1/4" = 1'-0"

DEFERRED SUBMISSION

THE FIRE PROTECTION DRAWINGS AND SPECIFICATIONS WITHIN THE WILDE ENGINEERING DOCUMENT SET ARE PERFORMANCE BASED AND INTENDED TO CONVEY SCOPE OF THE WORK. THE FIRE PROTECTION CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL AS A DEFERRED SUBMITTAL TO THE LOCAL AHJ SHOP DRAWINGS AND HYDRAULIC CALCULATIONS INDICATING THE SPRINKLER SYSTEM LAYOUT, INCLUDING FINAL HEAD LOCATIONS AND MAIN/LEADER PIPING SIZING. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE THESE DOCUMENTS SEALED BY A LICENSED FIRE PROTECTION ENGINEER.



NO SCALE
1 TYPICAL TRAPEZE HANGER DETAIL



NO SCALE
2 TYPICAL HANGER DETAIL

FIRE PROTECTION SPECIFICATIONS

GENERAL NOTES:

- ALL GROOVED PIPE IS BLACK DYNAFLOW (SCH 40) OR SCH 10 WITH GROOVED FITTINGS. ALL THREADED PIPE IS TO BE BLACK SCH. 40 WITH DUCTILE OR CAST IRON THREADED FITTINGS.
- ALL PIPING MATERIAL DESIGN AND SHALL COMPLY WITH THE OWNER NFPA 13, 2013 EDITION AND GOVERNING CITY AND COUNTY CODES.
- CONSTRUCTION TYPE, CONCRETE FLOORS WITH METAL DECKING, STEEL JOIST / I-BEAM.
- ALL PENETRATIONS THROUGH CONCRETE ARE TO BE CORE DRILLED.
- A CLEARANCE OF 36" MUST BE MAINTAINED BETWEEN THE TOP OF STORAGE AND ANY ESFR SPRINKLER DEFLECTOR.
- ITEMS NOT PROVIDED BY FIRE PROTECTION: MONITORING, ANY ELECTRICAL WIRING, BACKFLOW PREVENTION, PAINTING OF PIPE, AND/OR ANY UNDERGROUND PIPING.
- SHOULD THIS BUILDING HAVE ROLL BACK DOORS, SIDEWALL SPRINKLERS TO BE INSTALLED UNDER EACH ONE.
- THERE ARE NO CANOPIES MORE THAN 4' DEEP MADE OF COMBUSTIBLE MATERIAL.
- WARRANT THE SYSTEM LABOR, MATERIALS, AND EQUIPMENT FOR ONE YEAR AFTER COMPLETION AND ACCEPTANCE. REPLACE OR REPAIR ALL DEFECTIVE WORKMANSHIP, EQUIPMENT AND MATERIALS AT NO ADDITIONAL COST TO THE OWNER.
- THE INFORMATION GIVEN HEREIN AND ON THE DRAWINGS IS AS EXACT AS COULD BE SECURED FOR BIDDING PURPOSES AND ITS ACCURACY IS NOT GUARANTEED.
- INCLUDE ALL NECESSARY PERMITS, FEES, AND CHARGES IN THE BID.

DESIGN NOTES:

- THE SPRINKLER SYSTEMS SHALL BE DESIGNED AND HYDRAULICALLY CALCULATED UTILIZING THE INFORMATION INCLUDED HEREIN AND MEET ALL NFPA STANDARDS WHETHER OR NOT INDICATED WITHIN THESE DOCUMENTS.
- THE DESIGN, INCLUDING HYDRAULIC CALCULATIONS, MATERIALS, AND LAYOUT, SHALL BE BY A SPECIALTY DESIGNER WHO IS A NICET LEVEL 3 OR HIGHER, AS REQUIRED BY STATE LAW, AND LICENSED FOR FIRE PROTECTION DESIGN.
- PRIOR TO PERFORMING HYDRAULIC CALCULATIONS, OBTAIN APPROVED FIRE FLOW DATA (FLOW AND PRESSURE) FROM THE NEAREST WATER SUPPLY.
- THE SPRINKLER SYSTEM SHALL BE ZONED AT A MINIMUM BY 40,000 SQ. FT.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SHOP DRAWINGS INCLUDING, BUT NOT LIMITED TO, ALL ITEMS WHICH APPLY AS OUTLINED IN NFPA 13, CHAPTER 23, "PLANS AND CALCULATIONS".
- PROVIDE ALL NECESSARY OFFSETS, RISES, OR DROPS IN THE PIPING AND AUXILIARY DRAINS AS REQUIRED BY BUILDING CODES.
- SEE SPRINKLER DESIGN CRITERIA CHARTS BELOW ON THIS SHEET.

NOTICE:

IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER/ MANAGER TO PROVIDE THE REQUIRED MAINTENANCE AND UPKEEP OF THIS FIRE PROTECTION SYSTEM AND RELATED EQUIPMENT ACCORDING TO THE LATEST EDITION OF NFPA 25 AND ALL GOVERNING CODES AND ORDINANCES.

HANGER NOTES

- ALL HANGER MATERIAL IS TO BE ZINC COATED AND WILL FOLLOW NFPA 13, 2013 CHAPTER 9 GUIDELINES.
- REFER TO STRUCTURAL DRAWINGS TO DETERMINE SEISMIC DESIGN CATEGORY FOR THIS BUILDING. SHOULD BUILDING REQUIRE SEISMIC BRACING, INSTALL PER NFPA 13, 2013 CHAPTER 9 GUIDELINES.

FIRE PROTECTION SPECIFICATIONS:

- INSTALLATION** - THE SPRINKLER SYSTEMS SHALL BE OF WET PIPE DESIGN. INSTALLATION AND DESIGN SHALL BE IN ACCORDANCE WITH ALL CODES AND STANDARDS INCLUDING BUT NOT LIMITED TO NFPA 13 AND THE STANDARD FIRE PREVENTION CODE. IT IS ASSUMED THAT THE LOCAL WATER SYSTEM CAN PROVIDE WATER PRESSURE AND FLOW REQUIRED. FIRE PROTECTION CONTRACTOR SELECTED FOR THIS PROJECT WILL BE RESPONSIBLE FOR OBTAINING A FLOW TEST TO DETERMINE IF WATER SUPPLY IS SUFFICIENT WITHOUT THE NEED FOR A WATER STORAGE TANK.
- POINT OF SERVICE AND CONNECTION** - POINT OF SERVICE IS AT THE DISCHARGE GATE VALVE OF THE BACKFLOW PREVENTER. SPRINKLER CONTRACTOR POINT OF CONNECTION IS THE FIRE LINE RISERS AT 12' A.F.F. IN THE BUILDING.
- PIPING MATERIALS** - ALL PIPING MATERIALS SHALL BE APPROVED WHERE APPLICABLE BY THE NFPA (NATIONAL FIRE PROTECTION ASSOCIATION), UL (UNDERWRITERS LABORATORIES), AND AMERICAN WATER WORKS ASSOCIATION.
- FLOW TEST DATA** - FIRE PROTECTION CONTRACTOR TO OBTAIN A FLOW TEST FOR THIS BUILDING. FLOW TEST TO BE WITHIN (1) CALENDAR YEAR OF SUBMITTAL TO AHJ.
- VALVING AND ALARM REQUIREMENTS** - THE FIRE SPRINKLER RISERS FOR THIS BUILDING SHALL HAVE WATER FLOW SWITCHES WITH A LOCAL AUDIBLE ALARM AND OFF-SITE MONITORING. THE RISER CONTROL VALVES ARE TO HAVE TAMPER SWITCHES AND OFF-SITE MONITORING (PROVIDED BY OTHERS).
- MICROBIAL INDUCED CORROSION** - IT IS NOT KNOWN IF MICROBIAL INDUCED CORROSION (MIC) HAS BEEN FOUND IN ANY OF THE CITY WATER SUPPLIES.
- FIRE PUMP** - A 1500 GPM ELECTRIC FIRE PUMP IS REQUIRED FOR THIS PROJECT. TO BE LOCATED IN THE FIRE PUMP ROOM. RECOMMENDED SPECS INCLUDING BUT NOT LIMITED TO: PATTERSON PUMPS 400, 3 PHASE AND 60 CYCLE. THE FIRE PUMP SHALL MEET 150% OF MAX CAPACITY PERFORMANCE RATE. FINAL SPECIFICATIONS TO BE PROVIDED BY TEAM ENGINEER OR NICET LV III OR HIGHER DESIGNER AND WILL BE COORDINATED WITH THE GENERAL CONTRACTOR AND ELECTRICAL CONTRACTOR PRIOR TO INSTALLATION. FIRE PUMP SHALL COMPLY WITH NFPA 20, 2013 EDITION. FINAL PUMP SPECS TO BE DETERMINED BY FIRE PROTECTION CONTRACTOR.
- WATER STORAGE TANK** - ACQUIRE A FLOW TEST FROM MECKLENBURG COUNTY TO DETERMINE IF A WATER STORAGE TANK IS NEEDED.
- BACKFLOW PREVENTER** - A NEW BACKFLOW PREVENTER IS TO BE INSTALLED IN COMPLIANCE WITH LOCAL FIRE DEPARTMENT REQUIREMENTS. THE SITE UTILITY CONTRACTOR SHALL PROVIDE THE BACKFLOW AND FP CONTRACTOR SHALL ACCOUNT FOR IN THE HYDRAULIC CALCULATIONS.
- FIRE DEPARTMENT CONNECTION** - PROVIDE A FIRE DEPARTMENT CONNECTION IN COMPLIANCE WITH LOCAL FIRE DEPARTMENT REQUIREMENTS. IF NOT PROVIDED BY THE SITE UTILITY CONTRACTOR, FIRE DEPARTMENT CONNECTION SHALL BE FED INTO THE DISCHARGE SIDE OF THE FIRE PUMP.

SPRINKLER HEADS

- FINAL SPRINKLER HEAD LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR BASED ON HYDRAULIC CALCULATIONS AND NFPA 13, 2013 EDITION REQUIREMENTS.
- SPRINKLERS IN OFFICE AREAS WITHOUT CEILING SHALL BE BRASS UPRIGHT TYPE. AREAS WITH CEILING SHALL BE RECESSED PENDENT TYPE WITH ESCUTCHEONS, CHROME PLATED OR WHITE FACTORY FINISH TO BE SPECIFIED BY CUSTOMER.
- SPRINKLERS IN WAREHOUSE AREAS WITHOUT CEILING SHALL BE BRASS ESFR PENDENTS.

APPROVALS

- THE DESIGN SHALL BE SUBMITTED TO AND APPROVED BY THE AUTHORITY HAVING JURISDICTION, AND THE OWNER'S INSURANCE COMPANY (IF REQUIRED), PRIOR TO FABRICATION OR INSTALLATION.
- BEFORE STARTING INSTALLATION OF THE WORK, THE CONTRACTOR SHALL SUBMIT EQUIPMENT DATA, PIPING DRAWINGS, AND HYDRAULIC CALCULATIONS OF THE PROPOSED LAYOUT TO THE ARCHITECT FOR REVIEW. NUMBER OF COPIES AS SPECIFIED BY THE ARCHITECT.
- FINAL DESIGN AND APPROVALS TO BE BY AWARDED SPRINKLER CONTRACTOR.

INSTALLATION

- SPRINKLER SYSTEMS SHALL BE INSTALLED BY PERSONNEL WHO HAVE FACILITIES AND EXPERIENCE IN SUCH WORK, AND WHO ARE REGULARLY EMPLOYED TO DO SUCH WORK. COORDINATE THE LOCATION OF ALL INSPECTOR'S TEST VALVES AND ROUTE TO EXTERIOR. PROVIDE AND INSTALL ACCESS PANELS AS REQUIRED.
- IN ROOMS WITH 2'x2" LAY-IN TILE CEILING, SPRINKLER HEADS SHALL BE LOCATED IN THE CENTER OF CEILING TILES. IN ROOMS WITH GYPSUM BOARD CEILING, SPRINKLER HEADS SHALL BE LOCATED SYMMETRICALLY WITH RESPECT TO OTHER ELEMENTS IN THE CEILING (LIGHTS, GRILLES, ETC.).
- PROVIDE ALL REQUIRED DRAINS, TEST STATIONS, VALVES, TAMPER SWITCHES, FLOW SWITCHES, ETC. FOR A COMPLETE SPRINKLER SYSTEM. PROVIDE ALL REQUIRED DEVICES AND COMPONENTS FOR INTER-LOCK WIRING WITH THE BUILDING FIRE ALARM WIRING TO BE PERFORMED BY EITHER THE ELECTRIC OR FIRE ALARM CONTRACTOR.
- COORDINATE ROUTING OF PIPING WITH DUCTWORK, PIPING, CONDUIT, ETC. INSTALLED BY OTHER TRADES. DO NOT INSTALL PIPING BENEATH AIR HANDLING BOXES OR WITHIN CLEARANCES REQUIRED FOR MAINTENANCE.
- REFER TO THE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL SMOKE AND FIRE WALLS. PIPING WHICH PENETRATES SMOKE OR FIRE WALLS SHALL BE SEALED IN AN APPROVED MANNER. PROVIDE SLEEVES OR OTHER APPROVED MEANS AND SEAL OPENINGS IN WALLS, FLOORS, AND CEILING IN SUCH A MANNER AS TO MAINTAIN THE SMOKE AND FIRE RATING.

TESTING

- ALL PIPING AND ALL ATTACHED APPURTENANCES SHALL BE HYDROSTATICALLY TESTED AT 225 PSI AND SHALL MAINTAIN THAT PRESSURE WITHOUT LOSS FOR TWO HOURS.

SPRINKLER DESIGN CRITERIA

OCCUPANCY	HAZARD	REMOTE AREA	HOSE STREAM	MAX HEAD COVERAGE	REMARKS
LIGHT HAZARD	0.10 GPM/SF	1500 SF	100 GPM	225 SF/HD	QR TYPE, STANDARD COVERAGE, K5.6

- SPRINKLER CONTRACTOR SHALL VERIFY FINISH OF ESCUTCHEON/FACELATE WITH ARCHITECT/OWNER.
- SPRINKLER HEADS SHALL MATCH OWNER STANDARDS.
- ESCUTCHEONS SHALL BE COMPATIBLE WITH MAKE AND MODEL OF HEAD TYPES.
- ESCUTCHEONS SHALL BE INSTALLED TO ACCOUNT/ADJUST FOR CEILING TILE DEFLECTION.

GENERAL PROJECT NOTES:

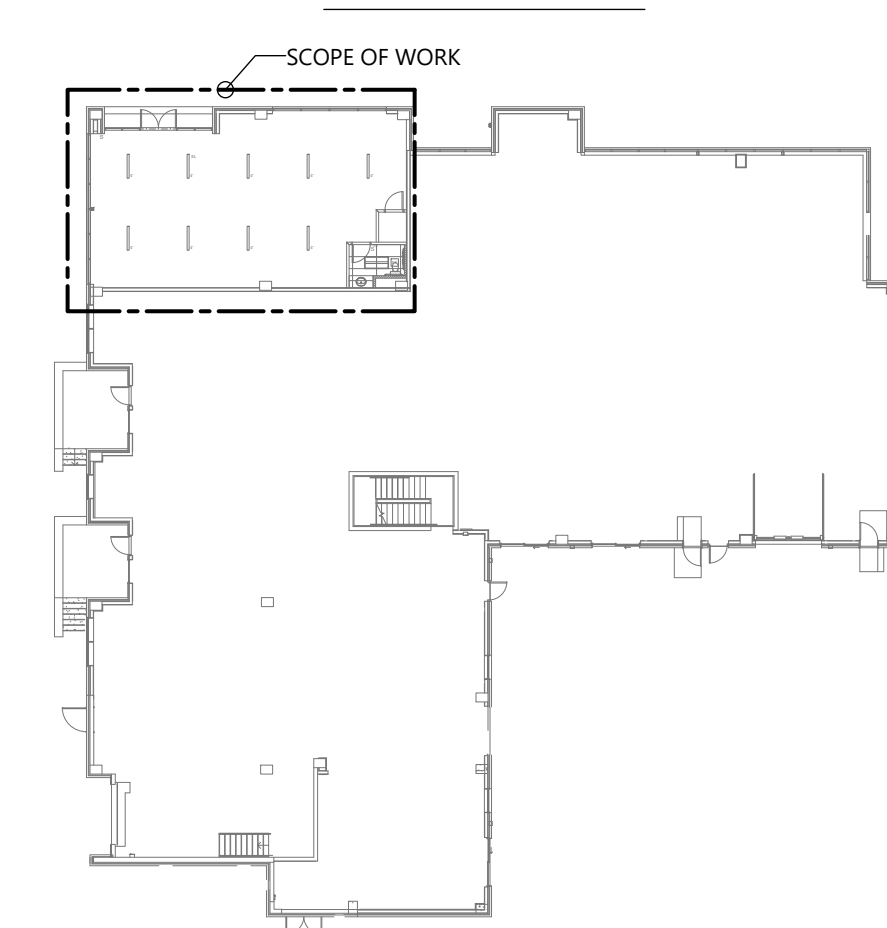
- SPRINKLER SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH NFPA 13-2013.
- SPRINKLER SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH NFPA 24-2013.
- SPRINKLER SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH NFPA 72-2013.
- INSTALL SPRINKLERS WITHIN CENTER OF A.C.T.
- SPRINKLERS SHALL BE A MINIMUM 4" FROM WALLS/OBSTRUCTION.
- SPRINKLERS SHALL BE INSTALLED A MINIMUM OF 6'-0" APART.
- SOFFITS ARE TO BE SPRINKLED, UNLESS APPLICABLE TO EXEMPTION PER NFPA 8.6.5.1.2.
- PROVIDE ADDITIONAL FIRE SPRINKLERS AS MAY BE DIRECTED BY FIRE MARSHALL AT NO ADDITIONAL COST TO OWNER.
- PROVIDE UPRIGHT HEADS WITHIN OPEN CEILING.
- PROVIDE SEMI RECESSED HEADS WITHIN A.C.T. CEILING.
- PROVIDE CONCEALED HEADS WITHIN GYPSUM CEILING.
- COORDINATE SPRINKLERS WITH LIGHTING/GRP, MECHANICAL, AND ALL OTHERS TRADES WITHIN PLANE OF CEILING.

SPRINKLER LEGEND

SYMBOL	DESCRIPTION
○ E	EXISTING STANDARD COVERAGE QUICK RESPONSE HEAD TO REMAIN
● N	NEW STANDARD COVERAGE QUICK RESPONSE SPRINKLER HEAD. SEE PLANS FOR HEAD TYPE

- NOTES:
- ANY NEW REQUIRED SPRINKLER HEADS SHALL MATCH BUILDING STANDARDS.
 - 3 NEW HEADS ADDED TO SYSTEM

KEY PLAN



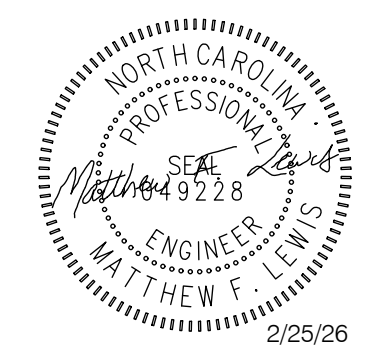
SMITH HARRIS DESIGN
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Piffy Boutique

200 S. Main
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28081

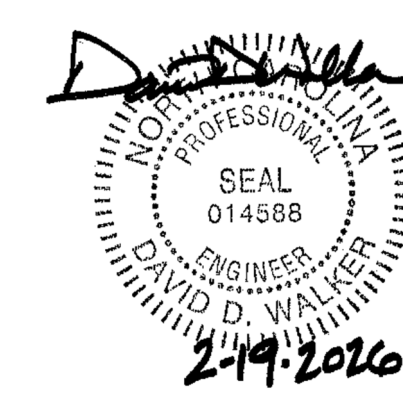


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RSF: 1,477
SCALE: As Indicated
DRAWN BY:
DATE: 02/25/2026

TENANT: Piffy Boutique
FILE NAME:
SHEET: FIRE PROTECTION NOTES, LEGEND & PLANS

FP1





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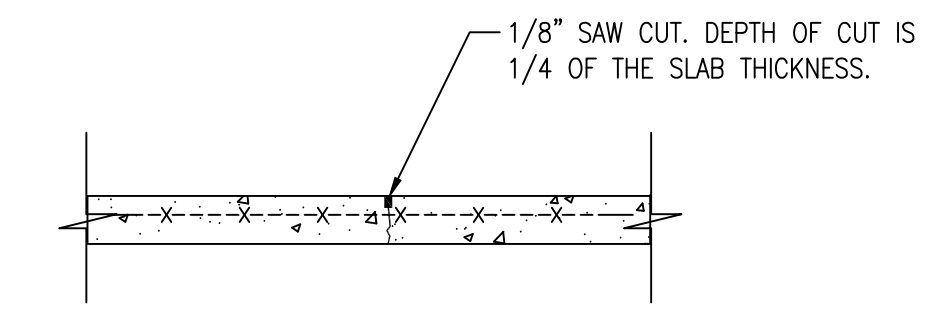
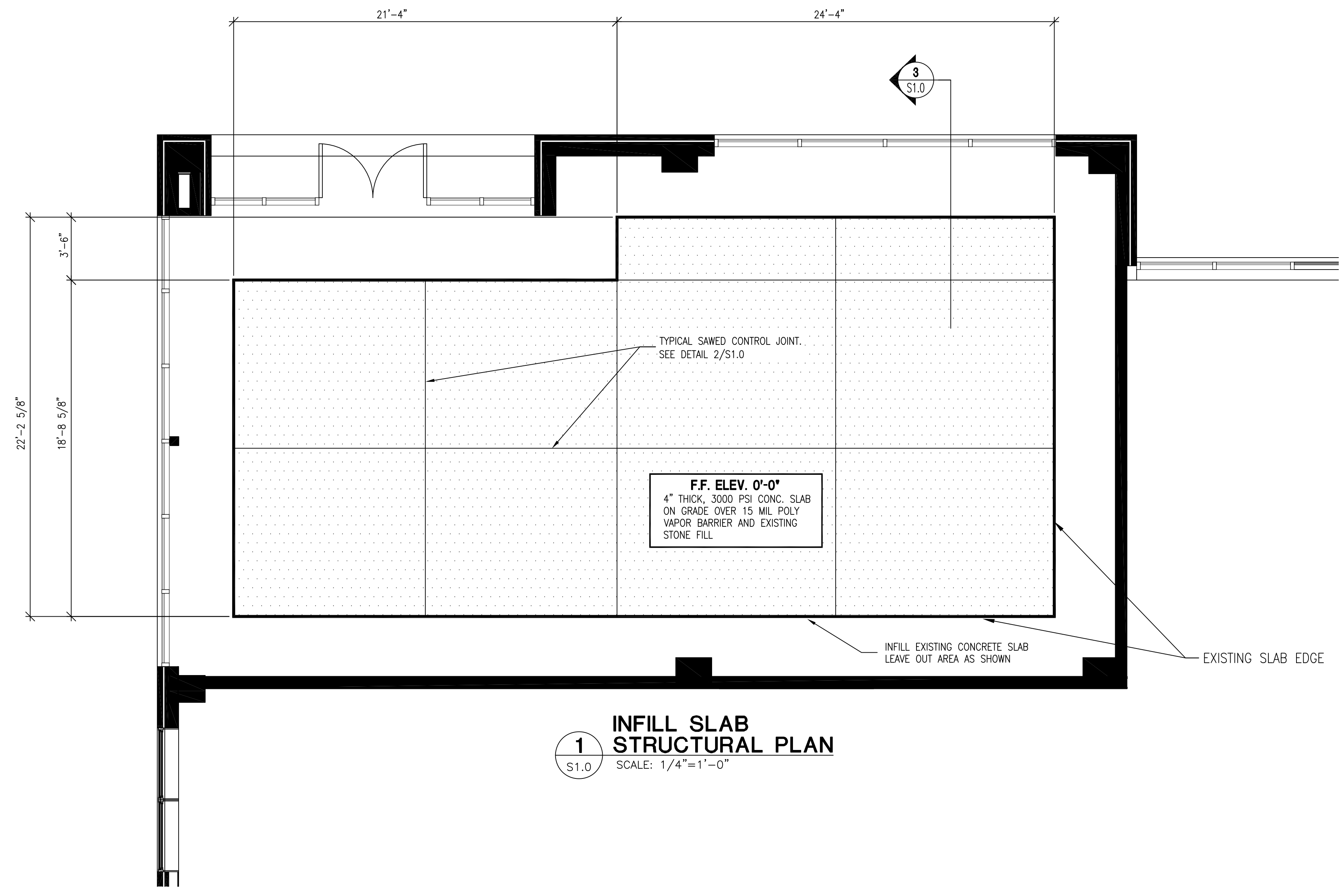
200 S. Main
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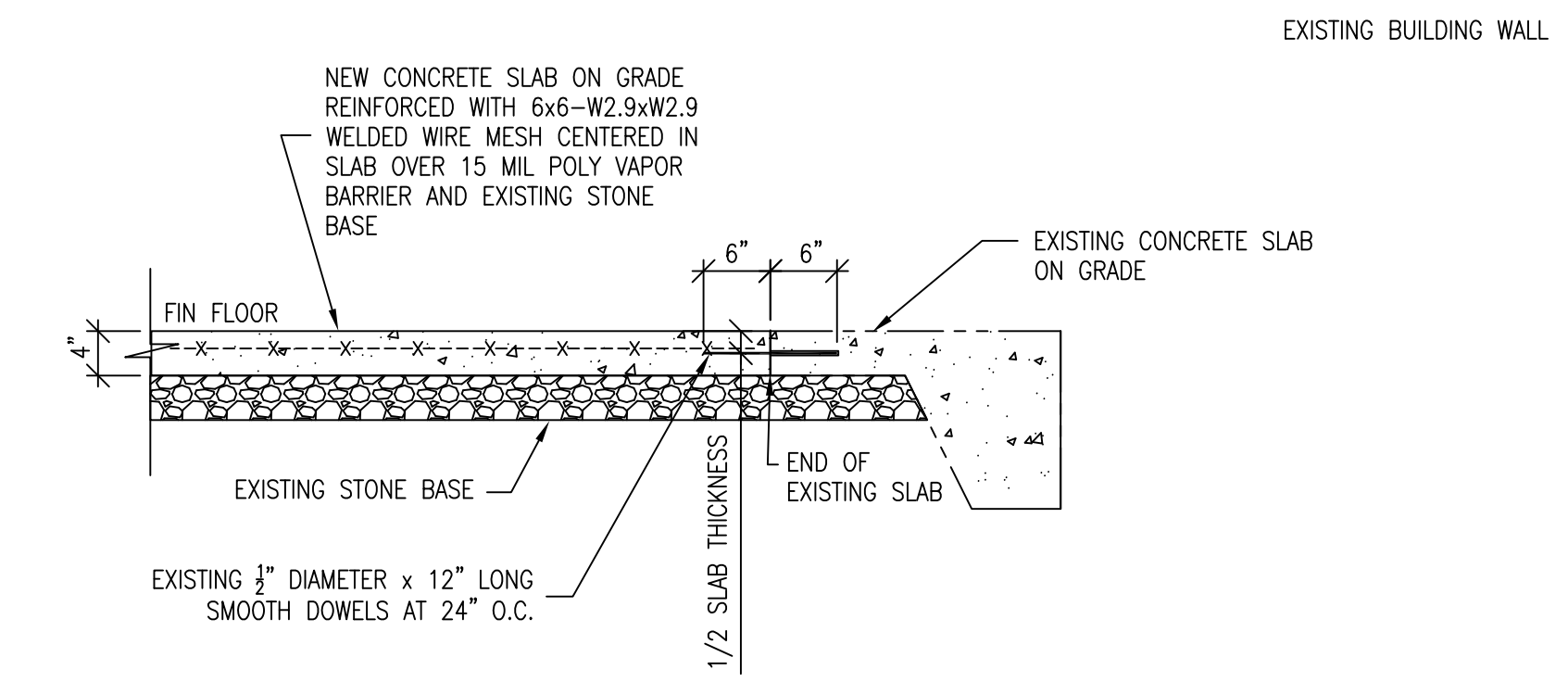


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USP: 50.700
RSP:
SCALE:
DRAWN BY: DDW
DATE:
TENANT: PIFFY BOUTIQUE
FILE NAME: 25991 - 2026-30-s1.0
SHEET: FLOOR SLAB INFILL PLAN AND DETAILS

S1.0



2 SECTION AT CONTROL JOINT
 S1.0 SCALE: 3/4"=1'-0"



3 SECTION
 S1.0 SCALE: 3/4"=1'-0"

CONCRETE NOTES:

- A. CONCRETE:
- ALL CONCRETE DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 'SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS', (A.C.I. 301-05) AND 'BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE', (A.C.I. 318-05).
 - ALL CONCRETE SHALL BE READY-MIXED MEETING THE REQUIREMENTS OF ASTM C-94, 'SPECIFICATION FOR READY-MIXED CONCRETE'.
 - CONCRETE IS TO BE NORMAL WEIGHT AND MADE WITH TYPE 1 PORTLAND CEMENT CONFORMING TO ASTM C150 SPECIFICATION, 'STANDARD SPECIFICATION FOR PORTLAND CEMENT'.
 - CONCRETE AGGREGATE GRADATION SHALL BE IN ACCORDANCE WITH ASTM C33 SPECIFICATION, 'SPECIFICATION FOR CONCRETE AGGREGATE'. FINE AGGREGATE SHALL CONSIST OF NATURAL SAND OR A COMBINATION THEREOF, WITH A FINENESS MODULUS BETWEEN 2.3 AND 3.1. COURSE AGGREGATE GRADATION SHALL HAVE A MINIMUM SIZE #57 STONE MIX PER ASTM C33.
 - CONCRETE SHALL MEET THE FOLLOWING PROPORTIONS AND HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3,000 PSI AT 28 DAYS.
 - FORMWORK SHALL BE DESIGNED AND CONSTRUCTED/INSTALLED IN ACCORDANCE WITH ACI 347, 'GUIDE TO FORMWORK FOR CONCRETE'
 - ALL EXTERIOR CONCRETE IS TO HAVE 5 PERCENT AIR ENTRAINMENT IN ACCORDANCE WITH ASTM C260.
 - ALL CONCRETE DEFECTS, INCLUDING JOINT DAMAGE, HONEYCOMBS, TIE HOLES, SPALLS, AND OTHER DEFECTS SHALL BE PROPERLY REPAIRED IMMEDIATELY IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF CHAPTER 9 OF ACI 301.
- B. REINFORCEMENT:
- REINFORCING STEEL SHALL BE HIGH STRENGTH DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60.
 - WELDED WIRE MESH SHALL CONFORM TO ASTM A185 AND SHALL BE LAPPED ONE FULL MESH AT END SPLICES AND BE WIRED TOGETHER.
 - REINFORCING STEEL DESIGN, DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO C.R.S.I. 'MANUAL OF STANDARD PRACTICE', 1990 EDITION, A.C.I. 318-89 'BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE', AND ACI 315-80, 'DETAILS AND DETAILING OF CONCRETE REINFORCING' REVISED 1986.
 - REINFORCEMENT PROTECTION SHALL BE:
 CONCRETE POURED AGAINST EARTH-----3"
 CONCRETE POURED IN FORMS EXPOSED TO WEATHER OR EARTH-----2"
 COLUMNS AND BEAMS (TIE BARS)-----1 1/2"
 SLABS AND WALLS NOT EXPOSED TO WEATHER-----3/4"
- C. SLAB ON GRADE:
- FLOOR SLABS ARE TO BE PLACED OVER COMPACTED EARTH OR STONE BASE. FILL MATERIAL SHALL BE COMPACTED IN THIN LIFTS TO AT LEAST 95 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D 698). SUB-GRADE SHALL HAVE A MAXIMUM ELEVATION DIFFERENCE OF PLUS OR MINUS 1/10 OF A FOOT.
 - CONCRETE IS TO BE FINISHED TO MEET A TOLERANCE OF FF = 35 MINIMUM. (ASTM E 1155, 'FACE METHOD') AND HAVE A STEEL TROWEL FINISH. EXTERIOR CONCRETE TO HAVE LIGHT BROOM NON-SKID FINISH.
 - SLAB IS TO HAVE SAWED CONTROL JOINTS WITH A MAXIMUM SPACING OF 13'-4". SAW CUTS ARE TO BE 1/8" WIDE AND 1/4" SLAB THICKNESS IN DEPTH.
 - SLAB IS TO BE SEALED USING (1) COAT OF CURING AND SEALING COMPOUND, SONNEBORN KURE-N-SEAL 30 (30% SOLIDS BY WEIGHT) OR EQUAL, CONFORMING TO ASTM C309. APPLICATION TO CONFORM TO MANUFACTURER'S SPECIFICATIONS.