

CROWN COLISEUM AGRICULTURAL BUILDING

FAYETTEVILLE, NORTH CAROLINA

BOILER ADDITION

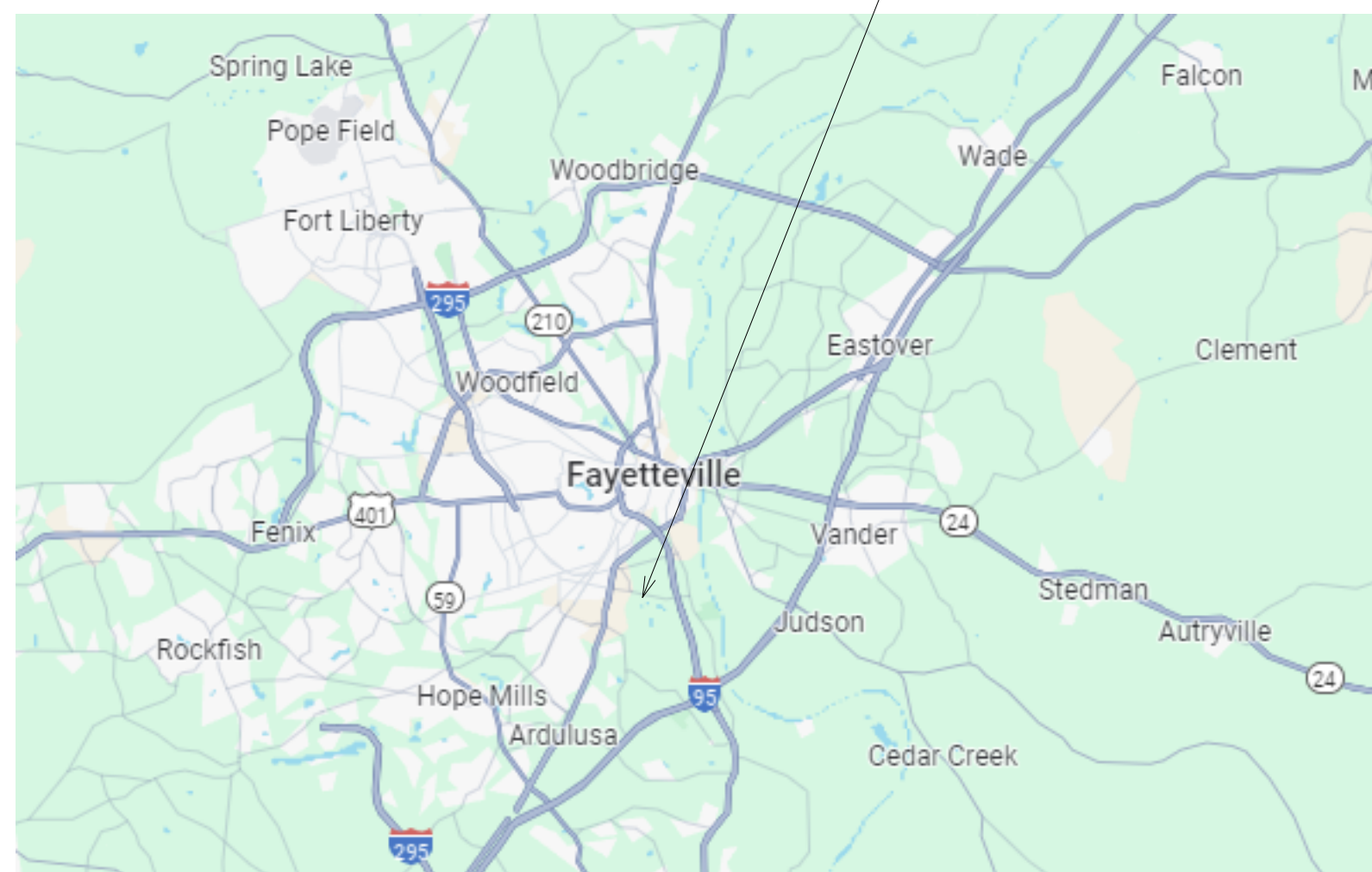
TWC # - 2788-R

MAY 2026



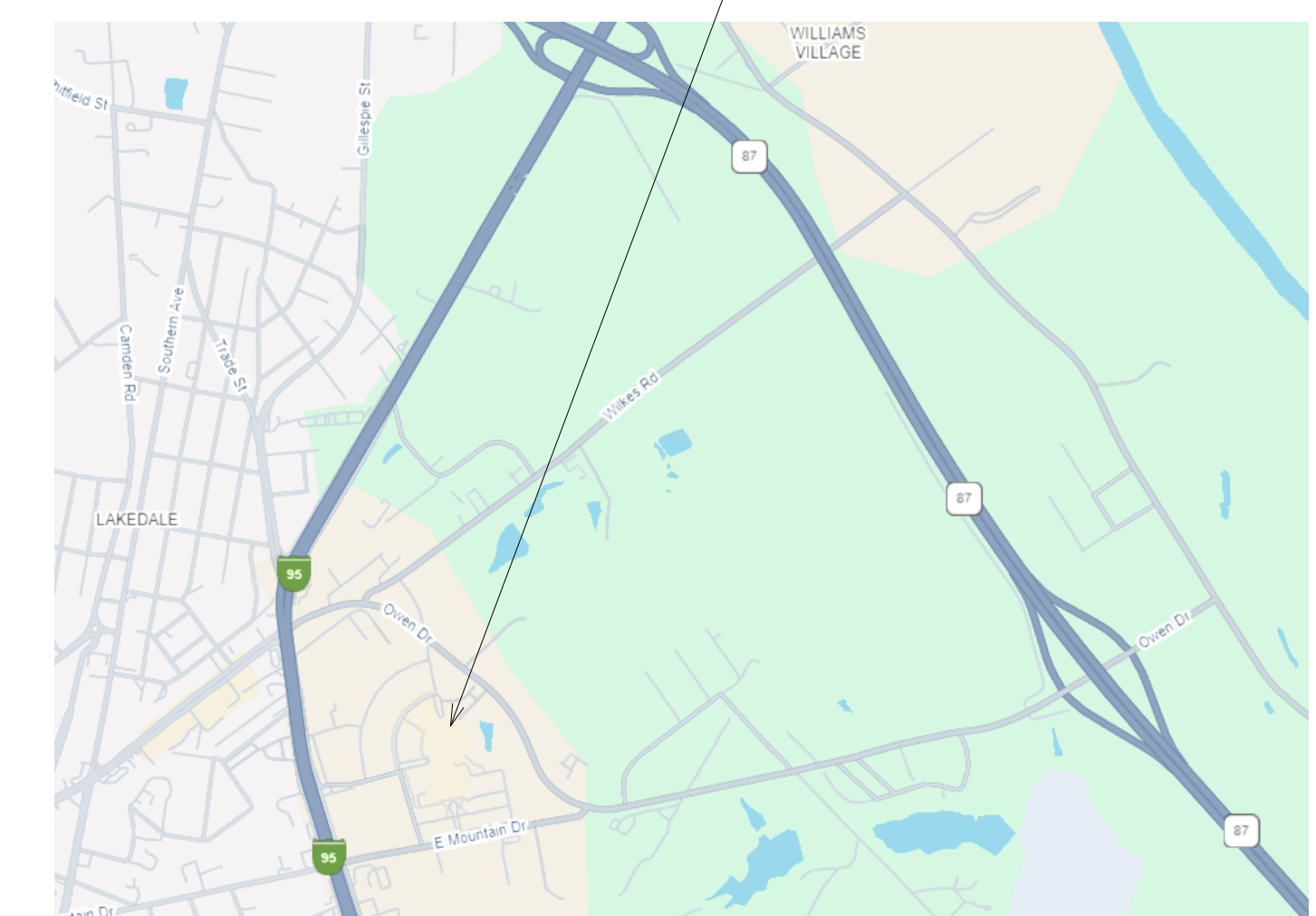
120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3559
License Number: F-0115

PROJECT LOCATION



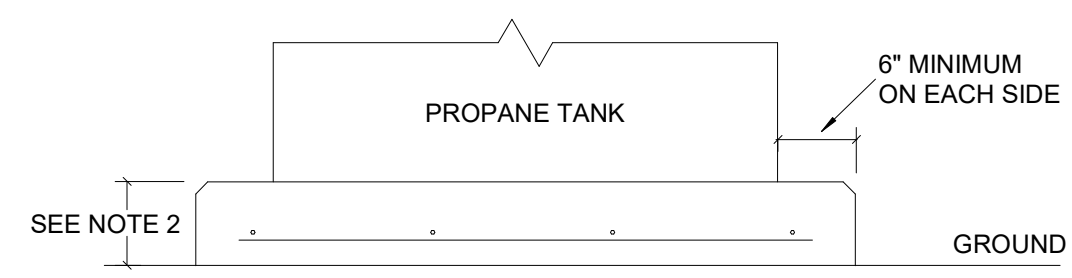
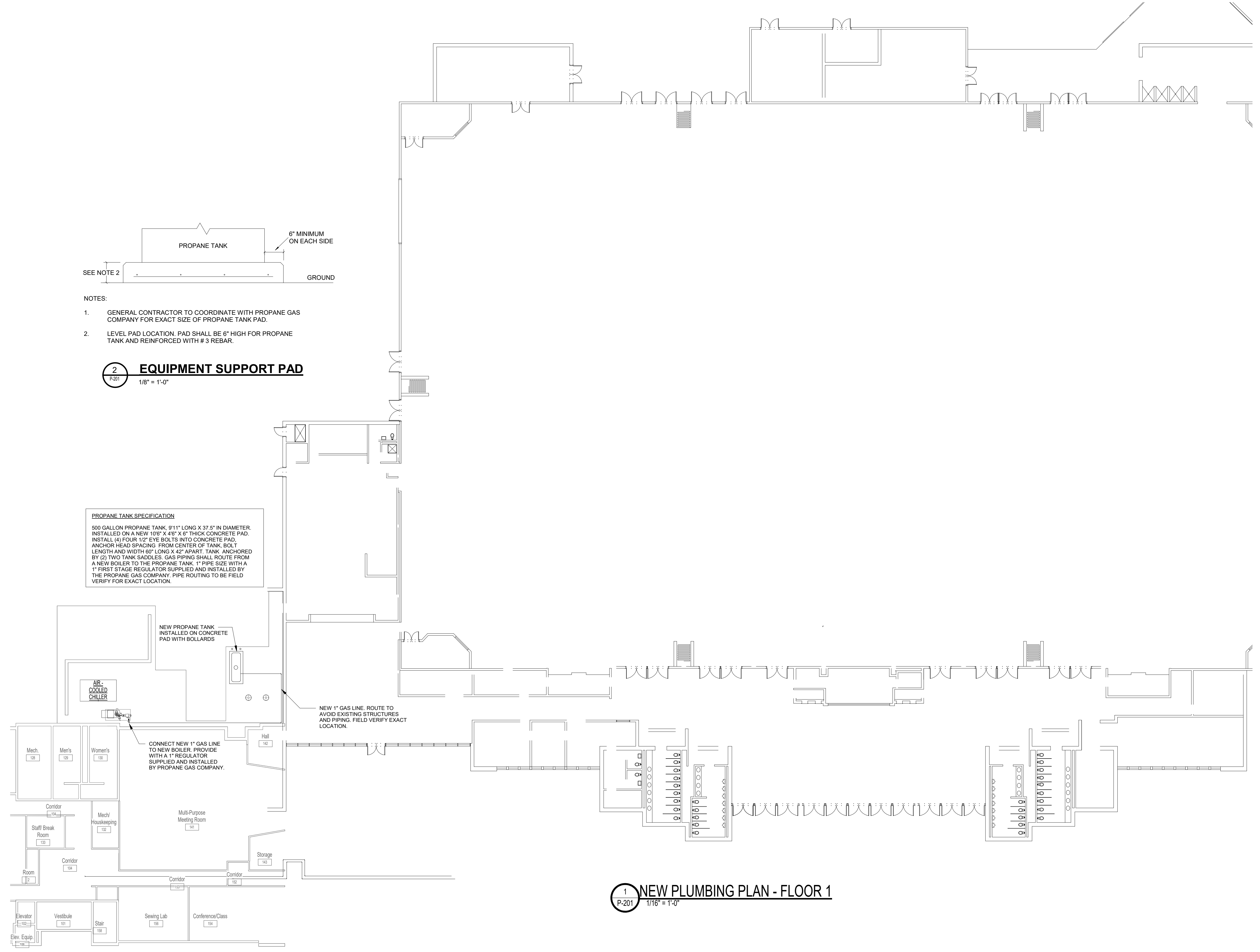
FULL SHEET INDEX			
	Sheet Name	Current Revision	Current Revision Date
CS-001	CS-001		
P-201	NEW PIPE PLAN - FLOOR 1		
M-001	LEAD SHEET		
M-201	EXISTING PIPE PLANS - FLOOR 1		
M-202	EXISTING PIPE PLANS - FLOOR 2		
M-203	NEW WORK PLANS		
M-501	SCHEDULES, CONTROL DIAGRAMS, AND DETAILS		
E-001	COVER SHEET		
E-100	POWER PLAN		
E-600	DETAILS		
E-700	PANEL SCHEDULES		

CHARLIE ROSE CENTER
CUMBERLAND COUNTY CROWN COMPLEX
1960 COLISEUM DRIVE
FAYETTEVILLE, NORTH CAROLINA 28306



FINAL DRAWINGS
NOT FOR CONSTRUCTION

Autodesk Docs://2877-S Cumberland County AgriExpo Boiler Addition/2877-S_JCEP_Rvt 5/1/2026 12:20:15 PM



- NOTES:
1. GENERAL CONTRACTOR TO COORDINATE WITH PROPANE GAS COMPANY FOR EXACT SIZE OF PROPANE TANK PAD.
 2. LEVEL PAD LOCATION. PAD SHALL BE 6" HIGH FOR PROPANE TANK AND REINFORCED WITH # 3 REBAR.

2 EQUIPMENT SUPPORT PAD
1/8" = 1'-0"

PROPANE TANK SPECIFICATION
500 GALLON PROPANE TANK, 9'11" LONG X 37.5" IN DIAMETER, INSTALLED ON A NEW 10'6" X 4'6" X 6" THICK CONCRETE PAD. INSTALL (4) FOUR 1/2" EYE BOLTS INTO CONCRETE PAD, ANCHOR HEAD SPACING FROM CENTER OF TANK, BOLT LENGTH AND WIDTH 60" LONG X 4/2" APART. TANK ANCHORED BY (2) TWO TANK SADDLES. GAS PIPING SHALL ROUTE FROM A NEW BOILER TO THE PROPANE TANK, 1" PIPE SIZE WITH A 1" FIRST STAGE REGULATOR SUPPLIED AND INSTALLED BY THE PROPANE GAS COMPANY. PIPE ROUTING TO BE FIELD VERIFY FOR EXACT LOCATION.

NEW PROPANE TANK INSTALLED ON CONCRETE PAD WITH BOLLARDS

NEW 1" GAS LINE, ROUTE TO AVOID EXISTING STRUCTURES AND PIPING. FIELD VERIFY EXACT LOCATION.

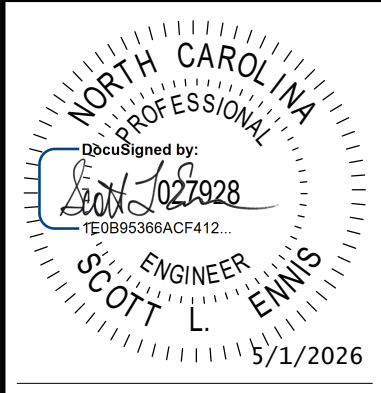
CONNECT NEW 1" GAS LINE TO NEW BOILER. PROVIDE WITH A 1" REGULATOR SUPPLIED AND INSTALLED BY PROPANE GAS COMPANY.

1 NEW PLUMBING PLAN - FLOOR 1
1/16" = 1'-0"

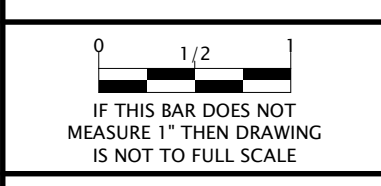
REVISIONS

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License Number: F-0115

CUMBERLAND COUNTY
NORTH CAROLINA
CUMBERLAND COUNTY AGRICULTURAL EXPOSITION ADDITION
2877-S
NEW PIPE PLAN - FLOOR 1



DESIGNED BY: JC
DRAWN BY: JC
CHECKED BY: SLE
PROJECT NO.: 2877-S
DATE: 05/01/2026
SCALE:



P-201

FINAL DRAWING
NOT FOR CONSTRUCTION

ENERGY CODE COMPLIANCE STATEMENT

MECHANICAL SYSTEM, SERVICE SYSTEMS, AND EQUIPMENT METHOD OF COMPLIANCE

PRESCRIPTIVE ENERGY COST BUDGET

THERMAL ZONE: 3A
EXTERIOR DESIGN CONDITIONS:
WINTER DRY BULB: 22.2°F
SUMMER DRY BULB: 96.4°F

INTERIOR DESIGN CONDITIONS:
WINTER DRY BULB: 67°F
SUMMER DRY BULB: 75°F
RELATIVE HUMIDITY: 50%

BUILDING HEATING LOAD: EXISTING
BUILDING COOLING LOAD: EXISTING

MECHANICAL SPACING CONDITIONING SYSTEM:
UNITARY - SEE SCHEDULES ON THIS DRAWING
BOILER - SEE SCHEDULES
CHILLERS - SEE SCHEDULES

EQUIPMENT EFFICIENCIES:
SEE SCHEDULES

EQUIPMENT SCHEDULES WITH MOTORS:
SEE SCHEDULES

DESIGNER STATEMENT:
TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE MECHANICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE 2012 INTERNATIONAL MECHANICAL CODE.
SCOTT LAWRENCE ENNIS, P.E.

AN ONSITE SYSTEM INSTALLATION COMPLIANCE REVIEW ALL BE CONDUCTED BY A DESIGN PROFESSIONAL PRIOR TO FINAL INSPECTION AND ISSUANCE OF CERTIFICATION OR OCCUPANCY. THE MECHANICAL CONTRACTOR SHALL MAKE APPROPRIATE PERSONNEL AVAILABLE DURING DESIGN PROFESSIONAL'S ONSITE INSPECTION TO ASSIST WITH REVIEW AND ADDITIONAL EQUIPMENT AND CONTROLS TESTING. CONTRACTOR SHALL SCHEDULE ONSITE INSPECTION WITH DESIGN PROFESSIONAL A MINIMUM ONE WEEK PRIOR TO VISIT. AT THE TIME OF THE VISIT THE MECHANICAL CONTRACTOR SHALL PROVIDE THE FOLLOWING FOR REVIEW BY THE LOCAL AHJ AND DESIGN PROFESSIONAL:

- A COMPLETED TEST AND BALANCE REPORT
- A COPY OF ALL OPERATION AND MAINTENANCE MANUALS
- DOCUMENTATION THAT EQUIPMENT INSTALLER HAS FOLLOWED THE MANUFACTURER'S RECOMMENDATIONS FOR STARTUP AND TESTING OF ALL EQUIPMENT.

MECHANICAL SYMBOL LEGEND

Table with 2 columns: Symbol and Description. Includes entries for HHWS (Heating Water Supply Piping), HHWR (Heating Water Return Piping), CHWS (Chilled Water Supply Piping), CHWR (Chilled Water Return Piping), D (Condensate Drain Piping), CWS (Condenser Water Supply), CWR (Condenser Water Return), and various valves, dampers, and sensors.

GENERAL NOTES:

- 1. THE CONTRACTOR SHALL COORDINATE WORK WITH THAT OF THE OTHER TRADES PRIOR TO INSTALLATION OF ANY DUCTWORK AND EQUIPMENT.
2. THE CONTRACTOR SHALL MAKE A COMPLETE REVIEW OF THE MECHANICAL PLANS, SCHEDULES, AND DETAILS PRIOR TO INSTALLATION OF THE MECHANICAL SYSTEMS AND REVIEW ANY CONFLICTS THAT ARE NOTED WITH THE ENGINEER.
3. THE MECHANICAL CONTRACTOR SHALL ENSURE THAT ITEMS TO BE FURNISHED UNDER THE CONTRACT WILL FIT THE SPACE AVAILABLE. THE CONTRACTOR SHALL MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS, AND SHALL FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT AS NECESSARY.
4. ALL EQUIPMENT SHALL BE LOCATED AND INSTALLED TO PROVIDE MAXIMUM SPACE FOR PROPER MAINTENANCE AND SERVICE.
5. ALL POWER WIRING AND ASSOCIATED CONDUIT SHALL BE PROVIDED TO HVAC EQUIPMENT BY THE ELECTRICAL CONTRACTOR. THE HVAC CONTRACTOR SHALL FURNISH ALL MOTOR STARTERS, DISCONNECT SWITCHES, AND COMBINATION STARTERS FOR HVAC EQUIPMENT AND TURN THEM OVER TO THE ELECTRICAL CONTRACTOR FOR INSTALLATION. ALL FINAL POWER WIRING CONNECTIONS TO HVAC EQUIPMENT SHALL BE MADE BY THE HVAC CONTRACTOR FROM SLACK WIRE LEFT BY THE ELECTRICAL CONTRACTOR. REFER TO STANDARD ELECTRICAL CONNECTION DETAIL FOR DIVISION RESPONSIBILITY REGARDING ELECTRICAL REQUIREMENTS. MECHANICAL CONTRACTOR SHALL PROVIDE ALL CONTROL WIRING, IN CONDUIT, REQUIRED TO SATISFACTORILY CONTROL ALL EQUIPMENT INCLUDED IN THIS SECTION. FURNISH AND WIRE ALL CONTROL DEVICES SUCH AS THERMOSTATS, SWITCHES, RELAYS AND ANY OTHER DEVICES NECESSARY TO CONTROL THE EQUIPMENT FURNISHED IN THIS SECTION UNLESS NOTED OTHERWISE.
6. THE MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL HIS OWN SUPPORT DEVICES. ALL LOCATIONS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND OTHER PRIME CONTRACTORS PRIOR TO INSTALLATION.
7. THE MECHANICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS. DO NOT SCALE THESE DRAWINGS.
8. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PENETRATIONS (PERTAINING TO HVAC WORK) THROUGH THE ROOF. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ROOFING CONTRACTOR FOR WATER PROOFING AROUND THESE OPENINGS. ROOF CURBS FOR HVAC EQUIPMENT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ROOFING CONTRACTOR.
9. THE MECHANICAL CONTRACTOR SHALL COORDINATE SIZE AND LOCATION OF ALL PENETRATIONS THROUGH THE ROOF WITH THE GENERAL CONTRACTOR AND ROOFING SUB-CONTRACTOR.
10. ALL FIRE WALL DUCT PENETRATIONS SHALL BE FIRE SEALED IN ACCORDANCE WITH THE LATEST UL STANDARDS.
11. PROVIDE SHEET METAL COLLARS AT ALL LOCATIONS WHERE CUTS PENETRATE WALLS. COLLARS SHALL BE 1/4 GAUGE MINIMUM OR EQUIVALENT TO THE DUCTWORK IF DUCTWORK IS OF A HEAVIER GAUGE METAL.
12. INSTALL BALANCING DAMPERS IN ALL DUCTS SO AS THE LOCATION IS VISIBLE FROM THE FLOOR.
13. ALL ELBOWS IN DUCTWORK SHALL BE RADIUS ELBOWS, UNLESS OTHERWISE NOTED.
14. INSTALL TEMPERATURE SENSORS AND THERMOSTATS 48" ABOVE FINISHED FLOOR. COORDINATE WITH INSTALLATION OF LIGHT SWITCHES.
15. ALL DUCTWORK, PIPING, AND EQUIPMENT LAYOUTS AND LOCATIONS SHOWN ARE DIAGRAMMATIC. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE PROJECT AND COORDINATE THE DUCT LAYOUT WITH ALL CONTRACTORS PRIOR TO INSTALLATION. THIS CONTRACTOR SHALL PROVIDE, AT NO ADDITIONAL COST TO THE OWNER, ALL DUCT OFFSETS REQUIRED FOR THE SYSTEMS TO FIT THE SPACE PROVIDED WHETHER OR NOT THOSE OFFSETS ARE INDICATED ON THE PLANS.
16. ALL DUCTWORK AND EQUIPMENT SHALL BE SUPPORTED FROM THE BUILDING SUPPORT STRUCTURE AND NOT STRUCTURAL BRIDGING OR THE ROOF DECK. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE ROUGH-IN OF DUCTWORK WITH THE GENERAL CONTRACTOR. ALL DUCT PENETRATIONS SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR.
17. ALL HYDRONIC PIPING SHALL BE PERMANENTLY IDENTIFIED BY THEIR CONTENT, FUNCTION, AND DIRECTION OF FLOW. ALL IDENTIFICATION MARKERS SHALL BE PERMANENTLY STENCILED ON THE PIPING IN A LEGIBLE MANNER AT NO GREATER DISTANCE THAN 10'-0" ON CENTER. ALL PIPING IN THE MECHANICAL ROOMS AND FINISHED AREAS ARE TO BE PAINTED AS FOLLOWS: CHILLED WATER- BLUE, HOT HEATING WATER- RED, DHW MAKEUP- GREEN.
18. A MANUAL AIR VENT SHALL BE INSTALLED AT EVERY HIGH POINT OF THE ENTIRE HYDRONIC PIPING SYSTEM.
19. DO NOT INSTALL HYDRONIC PIPING OR DUCTWORK OVER AND ELECTRICAL SWITCHGEAR OR PANEL BOARDS.
20. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL ACCESS DOORS AS REQUIRED FOR CODE COMPLIANCE AND TO ACCESS ANY INSTALLATION OF HIS WORK THAT WILL REQUIRE FUTURE MAINTENANCE. THESE DOORS SHALL BE 2'X20". THE DRYWALL CONTRACTOR WILL PROVIDE THE REQUIRED FRAMED OPENINGS AND INSTALL THE ACCESS DOORS. DOORS SHALL MATCH CEILING RATINGS.
21. FLEXIBLE PIPE CONNECTIONS SHALL BE PROVIDED AT ALL HYDRONIC PIPING CONNECTIONS AT CHILLERS.
22. ALL BELT DRIVEN EQUIPMENT SHALL BE PROVIDED WITH A NEW BELT AT FINAL COMPLETION AND A NEW SPARE BELT SHALL BE TURNED OVER TO MAINTENANCE STAFF.
23. PIPING SHALL BE COLOR CODED AS FOLLOWS WITH FLOW ARROWS AND LABELS AT 10 FOOT INTERVALS AND AT ALL TURNS AND EACH FLOOR AND WALL PENETRATIONS. SEE SPECIFICATIONS FOR COLORS.
24. ALL DETAILS CONTAINED IN SECTION 600 ARE APPLICABLE TO THE INSTALLATION OF THE MECHANICAL SYSTEMS ON THIS PROJECT

ABBREVIATIONS

Table with 2 columns: Abbreviation and Full Name. Includes entries for AD (Area Drain), ADJ (Adjustable), AFF (Above Finished Floor), AFG (Above Finished Grade), AGGR (Aggregate), AL (Aluminum), AP (Access Panel), APPD (Approved), APPROX (Approximate), ARCH (Architect), BAS (Building Automation System), BLDG (Building), BLK (Block), BLKG (Blocking), BM (Beam), BOT (Bottom), BRK (Brick), BRKT (Bracket), BTU (British Thermal Unit), CB (Catch Basin), CFM (Cubic Feet Per Minute), CHWS (Chilled Water Supply), CHWR (Chilled Water Return), CI (Cast Iron), CKT (Circuit), CL (Centerline), CLG (Ceiling), CLGG (Chaulking), CLR (Clear), CMU (Concrete Masonry Unit), CO (Clean Out), COL (Column), COM (Common), CONC (Concrete), CONN (Connection), CONST (Construction), CONT (Continuous), CONTR (Contractor), CTR (Center), CTRL (Control), CU FT (Cubic Foot), CW (Cold Water), D (Depth), DRAIN (Drain), DB (Dry Bulb), DBL (Double), DDC (Direct Digital Control), DIA (Detail), DIAM (Diameter), DIAG (Diagonal), DIM (Dimension), DIST (Distance), DIV (Division), DN (Down), DITTO (Ditto), DWG (Drawing), E (East), EA (Each), EXHA (Exhaust Air), ENT (Entering Air Temperature), ELEC (Electrical), ELEV (Elevation), ENCL (Enclosure), EP (Electrical Panelboard), EQ (Equipment), EQUIP (Equipment), EWC (Electric Water Cooler), EXIST (Existing), EXP (Expansion), EXT (Exterior), F (Fairweather), FA (Fire Alarm), FAN COIL (Fan Coil Unit), FD (Fire Damper, Floor Drain), FE (Fire Extinguisher), FE (Fire Extinguisher Cabinet), FF (Finish Floor), FHC (Fire House Cabinet), FIG (Figure), FIN (Finish), FIX (Fixture), FL (Floor), FLAS (Flashing), FLUOR (Fluorescent), FOC (Face of Concrete), FOF (Face of Finish), FOS (Face of Stud), FRR (Fireproof), FPS (Fire Pull Station), FT (Foot, Feet), FTG (Footing), FURR (Furring), GA (Gauge), GAL (Gallon), GC (General Contractor), GND (Ground), GPM (Gallons Per Minute), GR (Grade), GWB (Gypsum Wall Board), H (High), H2O (Water), HB (Hose Bibb), HGT (Height), HORIZ (Horizontal), HP (High Point), HR (Hour), HVAC (Heating, Ventilation and Air Conditioning), HW (Hot Water), HWS (Hot Water Supply), HWR (Hot Water Return), ID (Inside Diameter), IN (Inch), INCL (Include), INFO (Information), INSUL (Insulation), INT (Interior), INV (Invert), JAN (Janitor), KIT (Kitchen), L (Length/Long), LAB (Laboratory), LAU (Laundry), LAT (Leaving Air Temperature), LAV (Lavatory), LEV (Level), LF (Linear Foot), LH (Left Hand), LKR RM (Locker Room), LOUV (Louver), LP (Low Point), LT (Light), LTG (Lighting), LVT (Line Voltage Thermostat), MACH (Machine), MAS (Masonry), MATL (Material), MAX (Maximum), MECH (Mechanical), MET (Metal), MFR (Manufacturer), MH (Manhole), MIN (Minimum), MISC (Miscellaneous), MO (Masonry Opening), MTD (Mounted), MU (Make Up), N (North), NC (Normally Closed), NCG (Natural Gas), NIC (Not in Contact), NO (Number, Normally Open), NOM (Nominal), NTS (Not to Scale), O (Outside Air), OCC (On Center), ODD (Outside Diameter), OFF (Office), OPNG (Opening), OPP (Opposite), OVHD (Overhead), PART (Partial, Partition), PDP (Pressure Drop), PERP (Perpendicular), PLUMB (Plumbing), PNL (Panel), POS (Position), PREFAB (Prefabricated), P S (Pipe Saddle), PT (Paint), PVC (Polyvinyl Chloride), QTY (Quantity), R (Radius), RA (Return Air), ROD (Rod), REC (Recessed), RECP (Receptacle), RECT (Rectangle), REF (Reference), REG (Register), REINF (Reinforced), REQD (Required), REV (Revised), RH (Right Hand), RM (Room), ROOF (Roof Opening), RWC (Rain Water Conductor), S (South), SA (Supply Air), SB (Smoke Barrier), SCHED (Schedule), SCUP (Squpper), SD (Smoke Damper, Smoke Detector), SEC (Second), SECT (Section), SHWR (Shower), SHT (Sheet), SIM (Similar), SP (Sump Pump), SPEC (Specification), SQ (Square), SQ FT (Square Feet), SS (Stainless Steel), ST (Street), STA (Station), STD (Standard), STL (Steel), STRUCT (Structural), SUB (Substitute), SUSP (Suspend), SYM (Symmetrical), TC (Top of Curb), TEL (Telephone), TEMP (Temperature), THK (Thick), TOS (Top of Steel), TP (Top of Pavement), TV (Television), TW (Top of Wall), TYP (Typical), UNF (Unfinished), UNO (Unless Noted Otherwise), VAR (Vares, Variable), VERT (Vertical), VOL (Volume), VTR (Vent Thru Roof), W (West, Width, Wide), WI (With), W/O (Without), WC (Water Closet), WB (Wet Bulb), WGT (Weight), WL (Waterline), WP (Waterproof), YD (Yard), YR (Year).

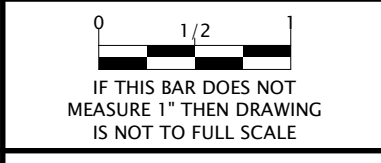
REVISIONS table with columns for revision number, description, and date.

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CUMBERLAND COUNTY NORTH CAROLINA CUMBERLAND COUNTY AGRICULTURAL EXPOSITION ADDITION 2877-S LEAD SHEET

Professional Engineer Seal for Scott L. Ennis, No. 42928, State of North Carolina, expires 4/30/2026.

DESIGNED BY: JHF
DRAWN BY: JHF
CHECKED BY: SLE
PROJECT NO.: 2877-S
DATE: JAN. 10, 2025
SCALE:

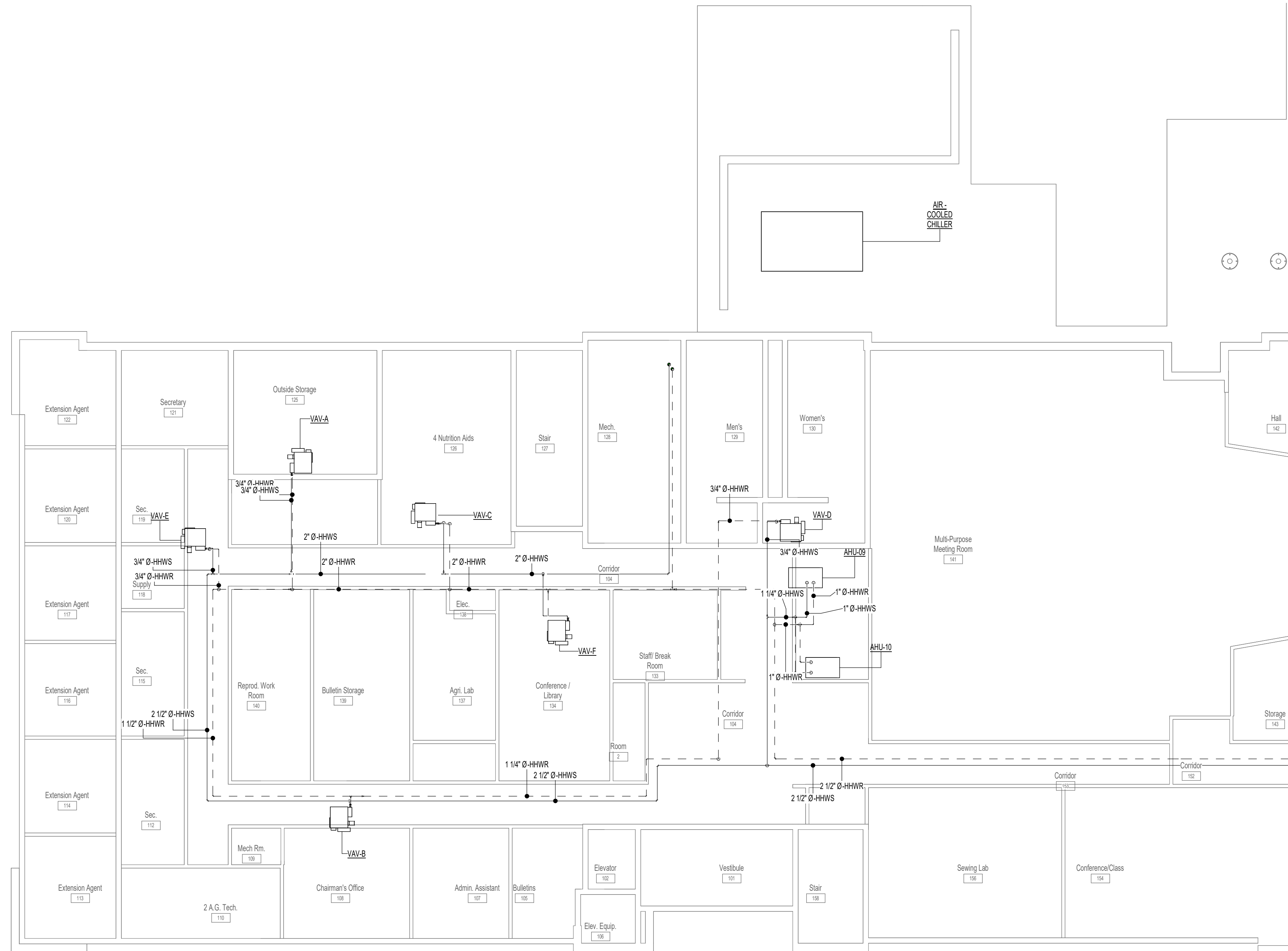


IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

FINAL DRAWING NOT FOR CONSTRUCTION

M-001

Autodesk Docs://2877-S/Cumberland County AgriExpo Boiler Addition/2877-S/JHP_Rvt 4/30/2026 4:10:50 PM



KEY NOTES

1. PROVIDE A PRE-TAB ON VAV BOXES AND AHUS CONNECTED TO HOT WATER SYSTEM SHOWN ON THESE DRAWINGS PRIOR TO ANY NEW WORK BEING STARTED

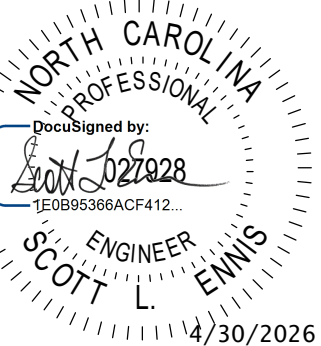
1 EXISTING PIPE PLAN - FLOOR 1
 1/8" = 1'-0"

REVISIONS

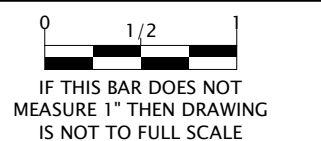
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CUMBERLAND COUNTY
 NORTH CAROLINA
 CUMBERLAND COUNTY AGRICULTURAL EXPOSITION ADDITION
 2877-S

EXISTING PIPE PLANS - FLOOR 1



DESIGNED BY: JHF
 DRAWN BY: JHF
 CHECKED BY: SLE
 PROJECT NO.: 2877-S
 DATE: JAN. 10, 2025
 SCALE:

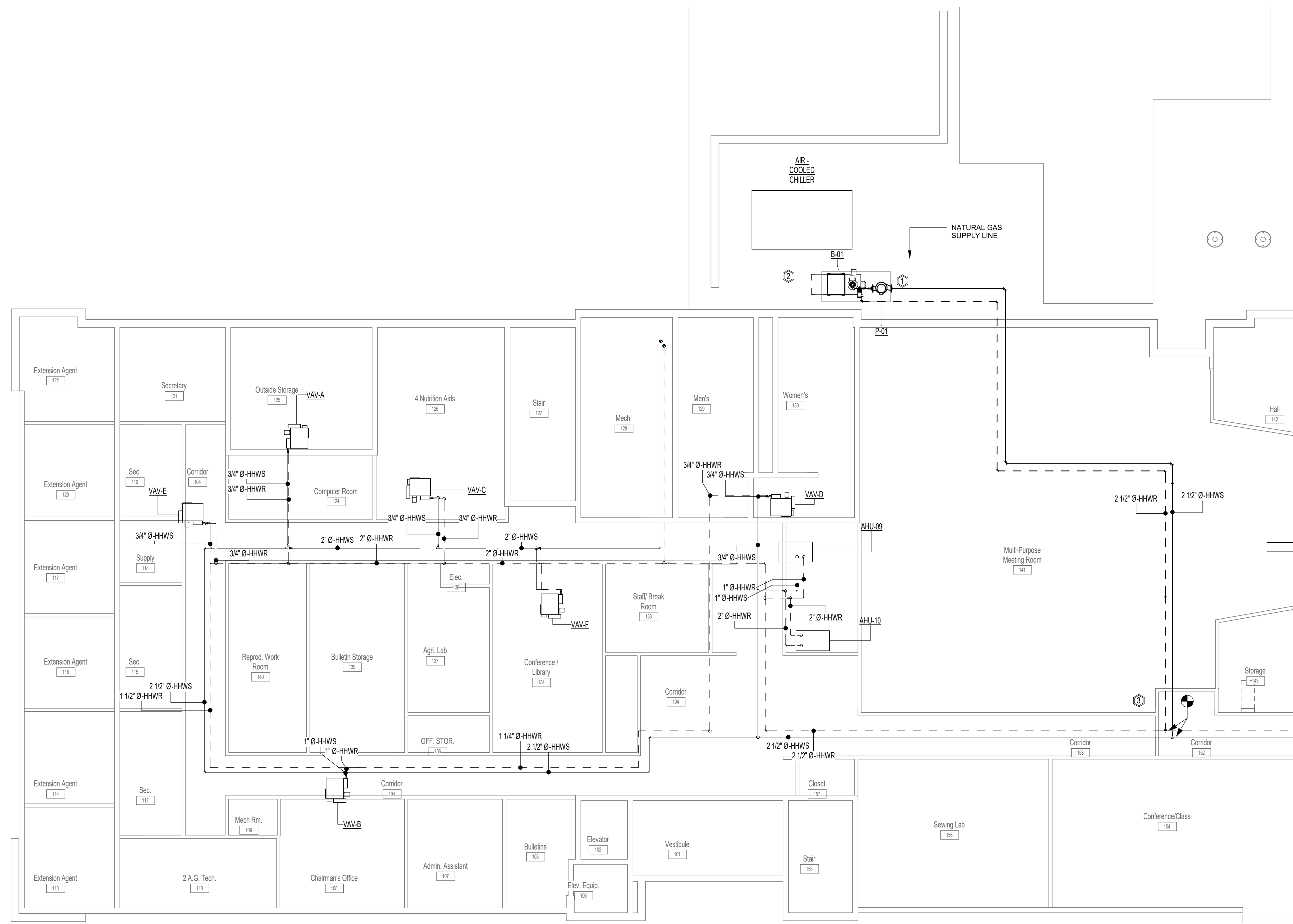


IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

FINAL DRAWING
NOT FOR CONSTRUCTION

M-201

Autodesk Docs://2877-S Cumberland County AgriExpo Boiler Addition/2877-S JHP - Rvt 4/30/2026 4:10:52 PM



KEY NOTES

1. BOILER TO BE INSTALLED UPON A 4" THICK CONCRETE PAD, AND ROUTED APPROPRIATELY.
2. NEW INLINE PUMP TO BE CONNECTED INTO SYSTEM.
3. NEW MECHANICAL PIPING TO BE ROUTED INTO MECHANICAL PIPING SYSTEM AND CONNECTED RESPECTIVELY.

1 NEW PIPE PLAN - FLOOR 1
 M-203 1/8" = 1'-0"

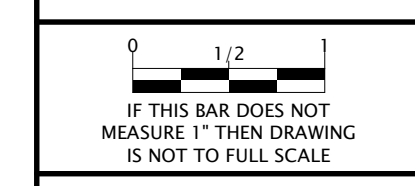
NO.	DESCRIPTION	DATE

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CUMBERLAND COUNTY NORTH CAROLINA
 CUMBERLAND COUNTY AGRICULTURAL EXPOSITION ADDITION
 2877-S
 NEW WORK PLANS

North Carolina Professional Engineer
 Scott L. Emwig
 License No. 027928
 1E0943366ACF412
 4/30/2026

DESIGNED BY:	JHF
DRAWN BY:	JHF
CHECKED BY:	SLE
PROJECT NO.:	2877-S
DATE:	JAN. 10, 2025
SCALE:	



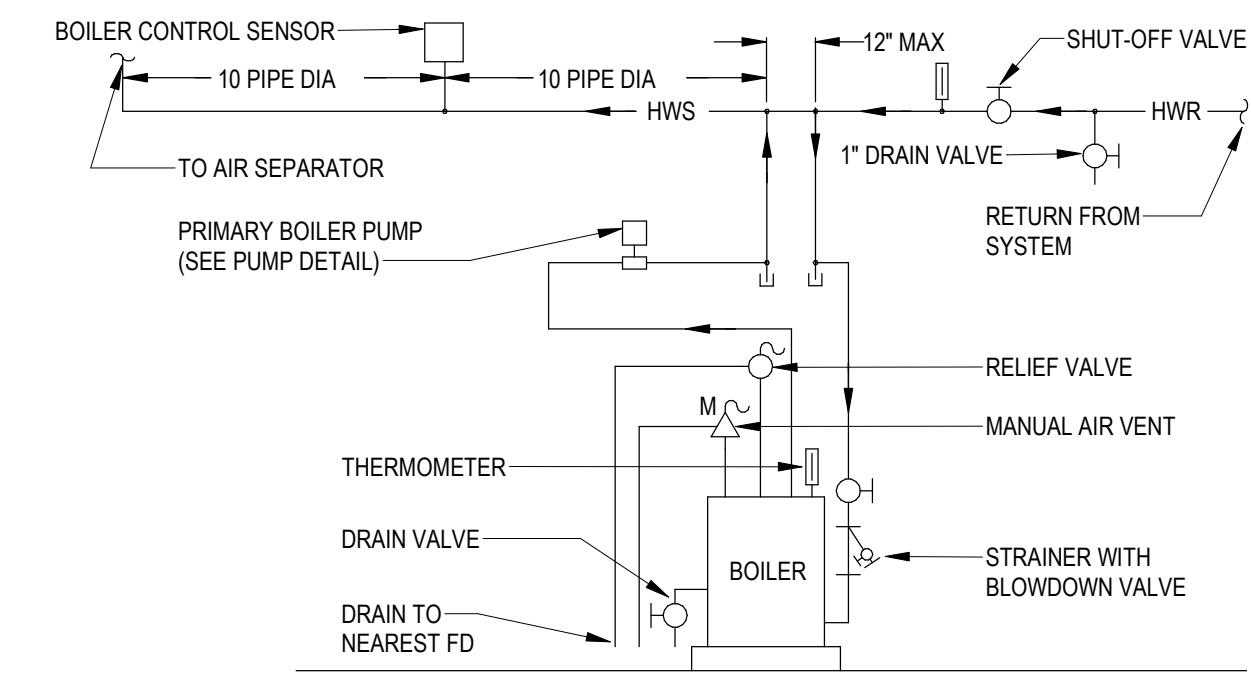
Autodesk Docs://2877-S Cumberland County AgriExpo Boiler Addition/2877-S JHP_Rvt 4/30/2026 4:10:53 PM

HOT WATER BOILER SCHEDULE													
MARK	MANUFACTURER	CAPACITY (MBH)	EFF (%)	FUEL TYPE	WATER SIDE					ELECTRICAL		WEIGHT (LBS)	REMARKS
					MIN GPM	GPM	EWI (°F)	LWT (°F)	WPD FT	V	PH		
B-01	RAYPAK	500	86.2	PROPANE	25	44	175	195	2.8	120	1	600	

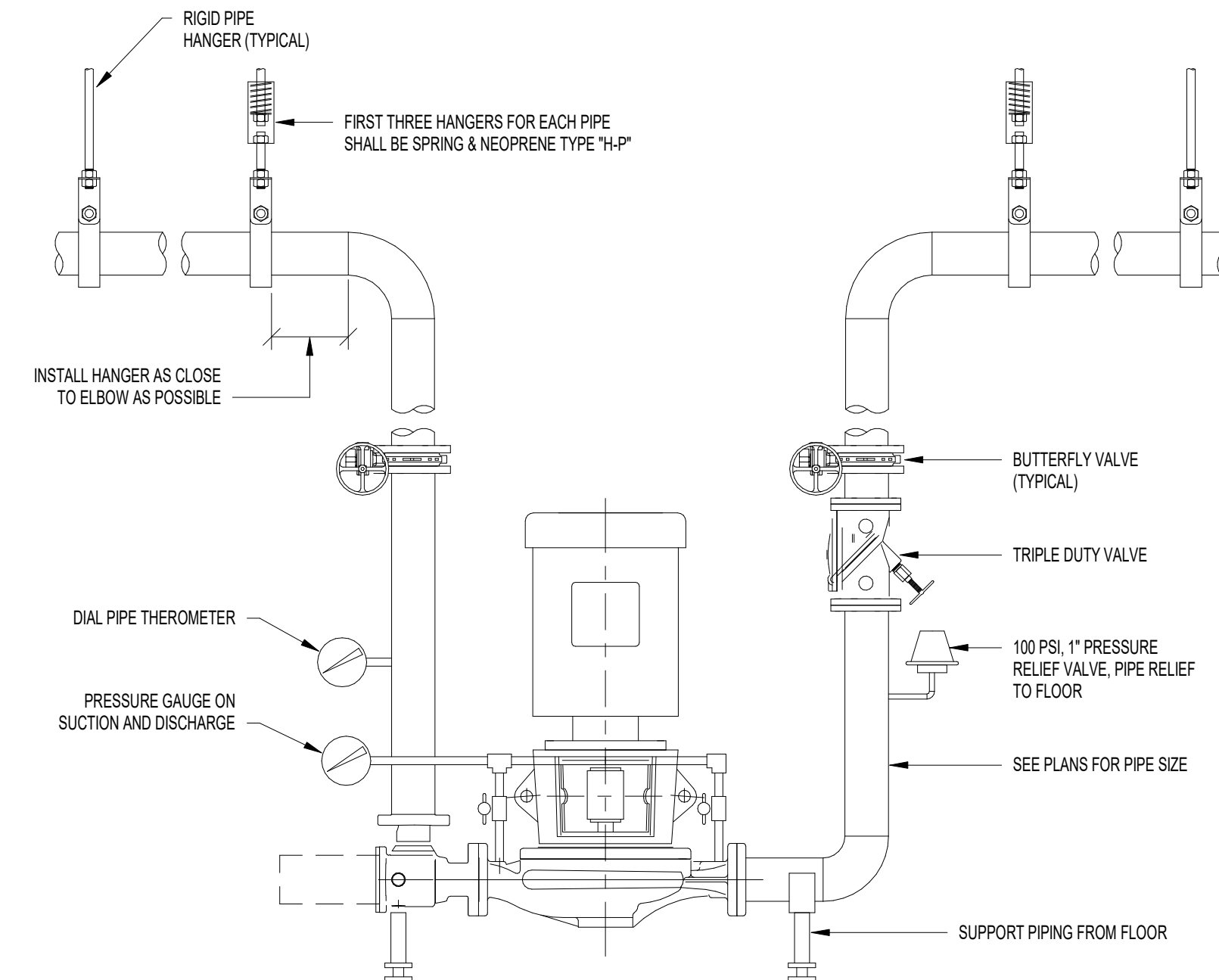
HOT WATER BOILER SCHEDULE

RAYPAK BOILER, 503A, MODULATING CONDENSING LOW NOX <30 PPM ALL FIRING RATES TYPE, 44 GPM AT 20 DEG DELTA T, 500 MBH INPUT, 431 MBH OUTPUT, PROVIDE 7:1 MODULATING FIRING INPUT, FM CONTROLS AND ALARM CONTACTS. PROVIDE 100 PSI RELIEF VALVE, NATURAL GAS FIRED, 120V/1PH, 6 AMP FLA, 30"W X 32"D X 43"H, 670 LBS. SUPPLY WATER TEMPERATURE 195°F, RETURN TEMPERATURE 175°F. PROVIDE SINGLE POINT POWER CONNECTION, COORDINATE FINAL SIZE, VOLTAGE AND PHASE OF THE ELECTRICAL REQUIREMENTS OF THE BOILER WITH THE ELECTRICIAN. PROVIDE FINAL GAS PRESSURE REGULATOR FOR BOILER TO PROVIDE 4" WC, MIN. @ FULL INPUT LOAD, 2 PSI MAXIMUM. EACH BOILER SHALL CONTROL ITS RESPECTIVE PRIMARY PUMP BY MODULATING SPEED TO MAINTAIN DELTA T.

PUMP SCHEDULE												
MARK	MANUFACTURER	SERIES	MODEL	GPM	HEAD (FT)	EFF (%)	HP	IMP (IN)	RPM	V	PH	REMARKS
P-01	TACO HYDRONICS	1600	1619	44	45	52	1.5	7.05	1750	230	3	



1
M-501
HOT WATER BOILER PIPING DETAIL - SINGLE
1/8" = 1'-0"

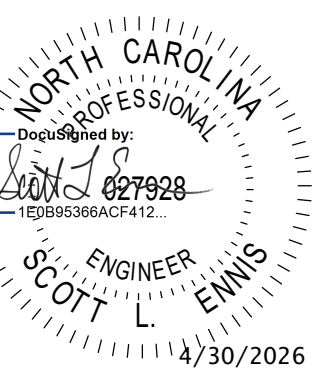


2
M-501
INLINE CONSTANT VOLUME PUMP DETAIL
1" = 1'-0"

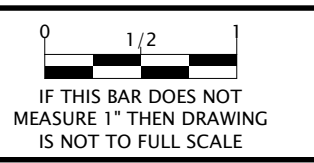
REVISIONS

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NORTH CAROLINA
CUMBERLAND COUNTY AGRICULTURAL EXPOSITION ADDITION
2877-S
CUMBERLAND COUNTY
SCHEDULES, CONTROL DIAGRAMS, AND DETAILS



DESIGNED BY: JHF
DRAWN BY: JHF
CHECKED BY: SLE
PROJECT NO.: 2877-S
DATE: JAN. 10, 2025
SCALE:



FINAL DRAWING
NOT FOR CONSTRUCTION

M-501

DEMOLITION GENERAL NOTES:

GENERAL NOTES

SYMBOL LEGEND (CONTINUED)

SYMBOL LEGEND

ABBREVIATIONS

- A. NOTIFY THE OWNER, IN WRITING, AT LEAST 7 DAYS IN ADVANCE OF ALL REQUIRED SHUTDOWNS ELECTRICAL UTILITIES. UPON WRITTEN RECEIPT OF APPROVAL FROM OWNER, SHUTDOWNS SHALL BE PERFORMED AS DIRECTED BY THE OWNER AND SHALL BE CONDUCTED AT NO ADDITIONAL CONTRACT COST. AT THE COMPLETION OF EACH SHUT DOWN, ALL SERVICES SHALL BE RESTORED SO THAT NORMAL OPERATION OF ALL UTILITIES CAN RESUME.
- B. WHEN WORKING IN AND AROUND THE EXISTING BUILDING, EXTREME CARE SHALL BE EXERCISED IN REGARDS TO PROTECTION OF THE EXISTING STRUCTURE, MECHANICAL AND ELECTRICAL SERVICES WHICH WILL REMAIN. REPAIR, REPLACE OR RESTORE TO THE SATISFACTION OF THE OWNER/ARCHITECT/ENGINEER ALL EXISTING WORK DAMAGED IN THE PERFORMANCE OF DEMOLITION AND/OR NEW WORK.
- C. ALL EXISTING WIRING, EQUIPMENT, CONDUITS AND MATERIALS NOT REQUIRED FOR RE-USE OR RE-INSTALLATION (SHOWN OR OTHERWISE) SHALL BE REMOVED. ALL EXISTING MATERIALS AND EQUIPMENT WHICH ARE REMOVED AND DESIRED BY THE OWNER, OR ARE INDICATED TO REMAIN AS THE PROPERTY OF THE OWNER, SHALL BE DELIVERED TO THE OWNER ON THE PREMISES BY THE CONTRACTOR WHERE DIRECTED BY THE ARCHITECT. ALL OTHER MATERIALS AND EQUIPMENT WHICH ARE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED BY THE CONTRACTOR FROM THE PREMISES.
- D. EXISTING CONDITIONS (PRESENCE AND LOCATION OF PANELBOARDS, LIGHTING FIXTURES, RECEPTACLES, EQUIPMENT, MATERIALS AND CIRCUITING) INDICATED ARE BASED ON INFORMATION OBTAINED FROM AVAILABLE RECORD DRAWINGS AND FIELD SURVEYS AND ARE NOT WARRANTED TO BE COMPLETE OR CORRECT. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF ALL CONDUITS, EQUIPMENT AND MATERIALS IN THE FIELD PRIOR TO STARTING ALL WORK.
- E. EXISTING EQUIPMENT SIZES NOTED ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND ARE NOT WARRANTED TO BE CORRECT. CONTRACTOR SHALL VERIFY ALL SIZES IN THE FIELD IF EQUIPMENT IS IN PROJECT SCOPE.
- F. WHEN EXISTING MECHANICAL AND ELECTRICAL WORK IS REMOVED, ALL CONDUITS, WIRING AND MATERIALS SHALL BE REMOVED TO A POINT BELOW FINISHED FLOORS OR BEHIND FINISHED WALLS AND CAPPED. SUCH POINTS SHALL BE FAR ENOUGH BEHIND FINISHED SURFACES TO ALLOW FOR THE INSTALLATION OF THE NORMAL THICKNESS OF FINISHED MATERIAL.
- G. EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT, CONDUIT, WIRING, DEVICES, AND MATERIALS AFFECTED BY DEMOLITION OR NEW WORK INSTALLATION AND REQUIRED TO REMAIN IN SERVICE SHALL BE REINSTALLED OR SUPPORTED AS REQUIRED IN ACCORDANCE WITH NEW WORK SPECIFICATIONS. ALL WORK SHALL BE COMPLETED TO THE SATISFACTION OF THE OWNER.
- H. IN GENERAL ALL EQUIPMENT AND MATERIALS SHOWN "LIGHT" IS EXISTING TO REMAIN AND ALL EQUIPMENT AND MATERIALS SHOWN AS "HEAVY AND DASHED" IS EXISTING AND SHALL BE DEMOLISHED.
- I. ENSURE THAT ALL ELECTRICAL WORK IS DONE DE-ENERGIZED. SPECIFICALLY WHERE ELECTRICAL EQUIPMENT IS OPENED EXPOSING LIVE PARTS, BREAKERS ARE REMOVED OR INSTALLED OR WHERE ELECTRICAL CONNECTIONS ARE MODIFIED, ALL POWER AT THE PANEL OR ENCLOSURE SHALL BE DE-ENERGIZED AT ITS SOURCE, PRIOR TO WORK BEING DONE.
- J. ALL TESTING, TROUBLESHOOTING AND VERIFICATION OF DEENERGIZATION IS TO BE DONE IN ACCORDANCE WITH NFPA 70E INCLUDING ESTABLISHING, ISOLATING IF REQUIRED, SHOCK PROTECTIVE AND ARC FLASH PROTECTIVE APPROACH BOUNDARIES AND WEARING PERSONAL PROTECTIVE EQUIPMENT APPROPRIATE FOR THE HAZARD.
- K. PRIOR TO THE REMOVAL OF A CIRCUIT FROM A PANELBOARD, THE CONTRACTOR SHALL VERIFY THAT NO EXISTING LOADS REMAIN ON THAT CIRCUIT. IF UNEXPECTED LOADS REMAIN ON THE CIRCUIT, NOTIFY EOR FOR DIRECTIONS TO PROCEED. ONCE CIRCUITS HAVE BEEN VERIFIED TO BE UNDER NO LOAD, BREAKERS IN THE CORRESPONDING PANELBOARD SHALL BE FLIPPED TO THE "OFF" POSITION AND MARKED AS SPARE AND READY FOR FUTURE WORK. ALL CONDUIT AND WIRING SHALL BE REMOVED BACK TO SOURCE.
- L. UPDATE PANEL SCHEDULES TO REFLECT NEW AND CHANGED LOAD. ALL PANEL SCHEDULES SHALL BE COMPUTER GENERATED.
- M. EXISTING FIRE ALARM SYSTEM SHALL BE MAINTAINED AND OPERABLE DURING DEMOLITION. CONTRACTOR SHALL TEMP EXISTING DEVICES TO ALLOW DEMOLITION OF EXISTING CONDUIT AND WIRING.

- 1. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS. DO NOT SCALE FROM THESE DRAWINGS.
- 2. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ANY AND ALL WORK WITH ALL OTHER TRADES INVOLVED IN THE PROJECT PRIOR TO THE INSTALLATION OF HIS EQUIPMENT TO AVOID CONFLICTS DURING CONSTRUCTION AND ALLOW FOR OPTIMUM MAINTENANCE AND WORKING SPACE.
- 3. ALL LIGHT FIXTURES SHALL BE SUPPORTED FROM BUILDING STRUCTURE AND IS NOT ALLOWED TO BE ANCHORED OR SUPPORTED BY ANY PART OF THE SUSPENDED CEILING SYSTEM. REFER TO SPECIFICATIONS FOR MORE DETAILED INFORMATION.
- 4. THE USE OF THE CONDUIT SYSTEM FOR EQUIPMENT GROUNDING SHALL NOT BE ACCEPTABLE. A SEPARATE INSULATED, GREEN COLORED COPPER WIRE SHALL RUN WITH THE CIRCUIT CONDUCTORS IN EACH CIRCUIT CONDUIT.
- 5. IN ALL AREAS WHERE FIRE RATED WALLS, FLOORS AND CEILINGS ARE INSTALLED, ALL PENETRATIONS OF ELECTRICAL CONDUITS OR OTHER RELATED ELECTRICAL MATERIAL SHALL BE PROPERLY SEALED WITH APPROVED FIRE RATED MATERIALS TO MAINTAIN THE RATINGS OF THE BUILDING CONSTRUCTION.
- 6. ALL FUSES, DISCONNECT SWITCHES AND BREAKER SIZES SHOWN FOR MECHANICAL/PLUMBING/FIRE PROTECTION EQUIPMENT SHALL BE VERIFIED PRIOR TO THE PURCHASE OR INSTALLATION OF SAID EQUIPMENT, WITH THE EQUIPMENT SUPPLIER AND MECHANICAL/PLUMBING CONTRACTOR.
- 7. ALL WORK AND MATERIAL SHALL BE PROVIDED IN ACCORDANCE WITH STATE, LOCAL AND NATIONAL CODES AND ORDINANCES.
- 8. EACH CONTRACTOR SHALL PROVIDE THEIR OWN SUPPORTS FOR ALL DEVICES AND EQUIPMENT PROVIDED BY THE CONTRACTOR AND SHALL SUPPORT SUCH EQUIPMENT PER APPROVED GOVERNING CODES OR PER APPROVAL OF THE ENGINEER. UNACCEPTABLE WORKMANSHIP OF MATERIALS SHALL BE REPLACED AT THE REQUEST OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- 9. ALL JUNCTION BOXES AND CONDUIT RUNS (WITH OR WITHOUT WIRES) SHALL BE COLOR CODED WITH PAINT IN ACCORDANCE WITH ELECTRICAL GENERAL PROVISIONS.
- 10. THE MOUNTING HEIGHTS AND LOCATIONS OF ALL WALL MOUNTED OUTLETS AND JUNCTION BOXES SHALL BE REVIEWED AND COORDINATED WITH THE ARCHITECT AND OWNER PRIOR TO INSTALLATION.
- 11. ALL WIRE AND CONDUIT SIZES ARE BASED ON 75 DEGREE CELSIUS THHN OR THWN WIRE UNLESS OTHERWISE NOTED.
- 12. THE NEW FIRE ALARM EQUIPMENT SHOWN SHALL BE PROVIDED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS, PROVIDE ALL WIRING AS REQUIRED FOR A COMPLETE SYSTEM.
- 13. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL CEILING TYPES AND FINISHES BEFORE PURCHASING ANY LIGHT FIXTURES SO THAT THE PROPER TRIM WILL BE PROVIDED FOR THE CEILING TO BE INSTALLED. ANY CHANGES REQUIRED DUE TO INCORRECT LIGHTING FIXTURE MOUNTING HARDWARE SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- 14. ALL BRANCH BREAKERS SERVING EMERGENCY LIGHTS SHALL BE PROVIDED WITH COVERS TO PREVENT BREAKERS FROM BEING TURNED OFF ACCIDENTALLY.
- 15. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE UTILITY POWER COMPANY FOR THE WORK REQUIRED FOR THE CONNECTION OF THE UTILITY'S NEW TRANSFORMER METERING, ETC. THE ELECTRICAL CONTRACTOR SHALL PAY ALL NECESSARY CHARGES FOR THE INSTALLATION OF THE UNDERGROUND ELECTRICAL SERVICE AS SHOWN ON THE PLANS.
- 16. WHERE MULTIPLE SWITCHES ARE SHOWN IN THE SAME LOCATION, THEY SHALL BE GANGED TOGETHER IN ONE MULTIPLE GANG BOX WITH MATCHING COVER AND PARTITION (IF REQUIRED), THE ELECTRICAL CONTRACTOR SHALL LOOK AT BOTH POWER AND LIGHTING PLAN TO DETERMINE WHICH SWITCH IS APPLICABLE.
- 17. WHERE ELECTRICAL EQUIPMENT PENETRATES EXTERIOR WALLS OR THE ROOF, THEY SHALL BE PROPERLY SEALED WITH METHODS APPROVED BY THE ENGINEER. SUBMIT DETAIL OF PROPOSED SEALING METHODS.
- 18. ALL EXTERIOR BUILDING LIGHTS AND EMERGENCY LIGHTING SHALL BE WIRED WITH A MINIMUM #10 AWG OR AS NOTED OTHERWISE.
- 19. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL CHAIN HUNG FIXTURES LOCATED IN MECHANICAL OR OTHER SPACES WITH OTHER TRADES, SO AS NOT TO CONFLICT WITH OTHER EQUIPMENT.
- 20. ALL EMERGENCY LIGHTING, EXIT SIGNS AND NIGHT LIGHTS SHALL BE WIRED AHEAD OF ANY SWITCH AND/OR BUILDING AUTOMATION SYSTEM.
- 21. WHERE CONDUIT OR OUTLET BOXES CANNOT BE INSTALLED IN EXISTING WALLS FOR NEW DEVICES, NOTIFY EOR/ARCHITECT FOR AN ACCEPTABLE INSTALLATION SOLUTION PRIOR TO PROCEEDING.
- 22. OUTLET BOXES ON OPPOSITE SIDES OF A FIRE RESISTANT WALL OR SHAFT ENCLOSURE RATED TWO (2) HOURS OR LESS SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF NOT LESS THAN 24" AS REQUIRED BY NCSBC VOL 1 PARAGRAPH 705.4.3.
- 23. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL ACCESS PANELS AS REQUIRED FOR ELECTRICAL CODE COMPLIANCE AND TO ACCESS ANY INSTALLATION THAT WILL REQUIRE FUTURE MAINTENANCE. THESE DOORS SHALL BE 20"x20". EACH ROOM WITH A DRYWALL CEILING SHALL HAVE A MINIMUM OF ONE ACCESS DOOR PROVIDED BY THE ELECTRICAL CONTRACTOR. THE DRYWALL SUBCONTRACTOR WILL PROVIDE THE REQUIRED FRAMED OPENING AND INSTALL THE ACCESS DOORS.
- 24. ALL UNDERGROUND CONDUITS SHALL BE IDENTIFIED ON ASBUILT PLANS WITH DIMENSIONS LOCATING THE CONDUITS AND THEIR RESPECTIVE BURIAL DEPTHS.
- 25. REFER TO FIRE ALARM PLANS FOR: FIRE ALARM WORK.
- 26. REFER TO SPECIAL SYSTEMS PLANS FOR: SECURITY/COMMUNICATIONS/CONDUIT SLEEVES.
- 27. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CONDUIT AND RACEWAY REQUIRED FOR AV AND THEATRICAL LIGHTING SYSTEMS. ADDITIONALLY ALL 120V AND GREATER BRANCH CIRCUITS SHALL BE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. AV BACK BOXES SHALL BE FURNISHED BY AV CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. REFER TO AND CLOSELY REVIEW AV DRAWINGS.
- 28. CONDUCTORS FOR BRANCH CIRCUITS SHALL BE SIZED TO PREVENT VOLTAGE DROP EXCEEDING 3% AT THE FARTHEST OUTLET OF POWER, HEATING AND LIGHTING LOADS OR ANY COMBINATION OF SUCH LOADS. THE MAXIMUM TOTAL VOLTAGE DROP ON BOTH FEEDER AND BRANCH CIRCUITS TO THE FARTHEST CONNECTION SHALL NOT EXCEED 5%.
 - A. WHERE THE CONDUCTOR LENGTH FROM THE PANEL TO THE FIRST OUTLET ON A 120V CIRCUIT EXCEEDS 50'-0", THE BRANCH CIRCUIT CONDUCTORS FROM THE PANEL TO THE FIRST OUTLET SHALL NOT BE SMALL THAN #10 AWG. INCREASE THE BRANCH CIRCUIT CONDUCTOR SIZE AN ADDITIONAL WIRE SIZE FOR EACH ADDITIONAL 125' FOR THE ENTIRE CIRCUIT. THE GROUND CONDUCTOR SIZE SHALL BE INCREASE PROPORTIONALLY TO THE INCREASED PHASE CONDUCTORS AS PER NEC 2020 250.122(B).

SYMBOL	DESCRIPTION	REMARKS
	MANHOLE - REFER TO SITE PLAN.	
	MOTORIZED DAMPER - INSTALLED BY MECHANICAL CONTRACTOR AND WIRED BY THE ELECTRICAL CONTRACTOR.	
	4' X 4' X 3/4" FIRE RETARDANT PLYWOOD EQUIPMENT BACKBOARD COORDINATE LOCATION, PLACEMENT WITH OWNER.	
	CONDUIT UP OR DOWN AS INDICATED ON PLANS	
	RECESS ACTIVATED FIRE RATED POKE-THROUGH FLOOR BOX	
	OVERHEAD PROJECTOR	
	PROJECTION SCREEN SWITCH FURNISHED BY SCREEN PROVIDER AND INSTALLED BY ELECTRICAL CONTRACTOR	
	DISHWASHER TOGGLE ON/OFF SWITCH MOUNTED AT +42" AFF.	
	REMOTE STATION FOR ELEVATOR EMERGENCY TWO-WAY COMMUNICATION SYSTEM	
	MAIN STATION FOR ELEVATOR EMERGENCY TWO-WAY COMMUNICATION SYSTEM	
	BACK-UP BATTERY FOR ELEVATOR EMERGENCY TWO-WAY COMMUNICATION SYSTEM	
	FACELESS GFI FOR UNDERCOUNTER REFRIGERATOR - MOUNT AT +42" AFF.	
	DIGITAL DIRECT CONTROLS FOR HVAC BY HVAC CONTRACTOR	
	SIMPLEX RECEPTACLE FOR SUMP PUMP	
	AUDIO/VISUAL OUTLET BOX AT PROJECTION SCREEN	
	AUDIO/VISUAL OUTLET BOX AT INSTRUCTOR LOCATION	
	GENERATOR ANNUNCIATOR PANEL	
	SCIENCE ROOM EMERGENCY SHUT-OFF MUSHROOM HEAD KEYED PUSH BUTTON WITH LEXAN COVER - REFER TO DETAILS E005-4 & E005-5	
	VARIABLE FREQUENCY DRIVE FOR HVAC EQUIPMENT FURNISHED BY MECHANICAL CONTRACTOR AND WIRED BY THE ELECTRICAL CONTRACTOR.	
	CONDUIT SLEEVES - SIZE AND QUANTITY AS SHOWN ON PLANS	
	JUNCTION BOX WITH REMOVABLE COVER - SIZE PER NATIONAL ELECTRICAL CODE	
	FIRE ALARM TEMPERATURE SENSOR FOR FIRELINE BACK FLOW PREVENTER	
	VIDEO SURVEILLANCE CAMERA	
	MDF ROOM MAIN GROUND BAR. REFER TO SPECIFICATIONS AND REFER TO DETAILS.	
	IDF ROOM GROUND BAR. REFER TO SPECIFICATIONS AND REFER TO DETAILS.	
	MAIN GROUND BAR. REFER TO SPECIFICATIONS AND REFER TO DETAILS.	
	NUMERICAL REMOTE SECURITY KEYPAD. LOCATE AT 60" AFF.	
	SECURITY CARD READER. LOCATE +48" TO TOP OF OUTLET.	
	277/480 VOLT SWITCHBOARD WITH MAIN BREAKER, NEUTRAL, AND GROUND BUS BAR ACCESSORIES.	
	120/208 VOLT PANELBOARD WITH NEUTRAL AND GROUND BUS ACCESSORIES.	
	277/480 VOLT PANELBOARD WITH NEUTRAL, AND GROUND BUS ACCESSORIES.	
	SURGE PROTECTIVE DEVICE	
	DRY TYPE STEP DOWN TRANSFORMER 480-120/208 3 PHASE.	
	DISCONNECT SWITCH, HEAVY DUTY	
	WIRING AND CONDUIT INSTALLED CONCEALED IN WALL SPACE OR ABOVE FINISHED CEILING	
	UNSWITCHED WIRING AND CONDUIT LEG ON LIGHTING PLANS. UNDER FLOOR WIRING AND CONDUIT ON POWER PLANS. UNDER GROUND WIRING AND CONDUIT ON SITE PLANS.	
	HOME RUN CIRCUIT TO PANELBOARD	

SYMBOL	DESCRIPTION	REMARKS
	LUMINAIRE - LETTER DESIGNATES TYPE	
	NIGHT LIGHT / EMERGENCY LIGHT FIXTURE - LETTER DESIGNATES TYPE	
	LIGHT FIXTURE - LETTER DESIGNATES TYPE	
	EMERGENCY LIGHT FIXTURE - LETTER DESIGNATES TYPE	
	BATTERY POWERED EMERGENCY FIXTURE - WALL MOUNTED	
	EXIT LIGHT - ARROW INDICATES DIRECTION & SHADING INDICATES ILLUMINATED FACE(S).	
	MECHANICALLY HELD LIGHTING CONTACTOR. # INDICATES CONTACTOR NUMBER. PROVIDE NUMBER OF CONTACTS AS REQUIRED. PROVIDE HAND OFF AUTO SWITCH FOR EACH LIGHTING CONTACTOR.	
	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR WITH ISOLATED RELAY AND WIDE ANGLE LENS. TIME DELAYS OF NO LESS THAN 15 MINUTES. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.	
	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR WITH ISOLATED RELAY AND WIDE ANGLE LENS. TIME DELAYS OF NO LESS THAN 15 MINUTES. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.	
	CEILING MOUNTED ULTRASONIC OCCUPANCY SENSOR WITH 1100 SQ. FT., 360°, TWO SIDED COVERAGE. IN GANG TOILETS, MOUNT CENTRAL TO THE STALL AREA WITH RECEIVER AIMED TOWARD THE ENTRANCE. TIME DELAYS OF NO LESS THAN 15 MINUTES. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.	
	DUAL TECHNOLOGY WALL SWITCH SENSOR - COVERAGE: MAJOR MOTION 35x30" MINOR MOTION 20x15". TIME DELAYS OF NO LESS THAN 15 MINUTES. MOUNT AT +48" TO TOP OF OUTLET BOX. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.	
	SINGLE POLE TOGGLE SWITCH - 48" ABOVE FINISHED FLOOR TO TOP OF OUTLET, UNLESS OTHERWISE NOTED.	
	3-WAY SWITCH - INSTALL AT 48" ABOVE FINISHED FLOOR TO TOP OF OUTLET. SWITCH COLOR SELECTED BY ARCHITECT.	
	4-WAY SWITCH - INSTALL AT 48" ABOVE FINISHED FLOOR TO TOP OF OUTLET SWITCH COLOR SELECTED BY ARCHITECT.	
	SLIDE TYPE DIMMER SWITCH FOR 0-10V LED AS NEEDED. VERIFY WITH FIXTURE PROVIDER FOR COMPATIBLE SWITCH TYPES.	
	LOW VOLTAGE LIGHTING OVERRIDE SWITCH. INTEGRATED WITH BAS SYSTEM. SWITCH PROVIDED BY BAS CONTRACTOR.	
	DIGITAL TIMER SWITCH WITH AUDIO/VISUAL CAPABILITY TO MEET 2018 NCSBC ENERGY CODE	
	120 VOLT MOTOR RATED TOGGLE DISCONNECT SWITCH WITH JUNCTION BOX. WP INDICATES TO PROVIDE NEMA-3R SWITCH.	
	DUPLEX GROUNDING TYPE RECEPTACLE - AT 16" ABOVE FINISHED FLOOR TO BOTTOM OF OUTLET, UNLESS OTHERWISE NOTED	
	DUPLEX RECEPTACLE - GROUND FAULT INTERRUPTION TYPE - INSTALL AT 16" ABOVE FINISHED FLOOR TO BOTTOM OF OUTLET, UNLESS OTHERWISE NOTED.	
	WEATHERPROOF DUPLEX GROUNDING TYPE RECEPTACLE - +16" ABOVE GRADE TO BOTTOM OF OUTLET BOX, UNLESS OTHERWISE NOTED.	
	QUADRUPLEX GROUNDING TYPE RECEPTACLES IN A DOUBLE GANG BOX. MOUNT AT 16" AFF TO BOTTOM OF OUTLET UNLESS OTHERWISE NOTED.	
	SPECIAL PURPOSE RECEPTACLE - SIZE TO MATCH EQUIPMENT FURNISHED - NEMA CONFIGURATION TO MATCH EQUIPMENT FURNISHED - REFER TO PLANS - VERIFY WITH EQUIPMENT MANUFACTURER. MOUNT AT 16" ABOVE FINISHED FLOOR TO BOTTOM OF OUTLET UNLESS OTHERWISE NOTED.	
	TELEVISION OUTLET AND DUPLEX RECEPTACLE - REFER TO DETAIL E003-07. CONFIRM LOCATION AND MOUNTING HEIGHT WITH OWNER AND ARCHITECT PRIOR TO ROUGH-IN.	
	DATA OUTLET - TWO GANG OUTLET WITH SINGLE GANG PLASTER FLANGE WITH 1 1/4" CONDUIT TO ABOVE ACCESSIBLE CEILING.	
	EIGHT GANG RECESS ACTICATED FLOOR BOX WITH (8) DUPLEX OUTLETS AS PER PLANS. PROVIDE CARPET FLANGES AND ROUND COVERS. ARCHITECT TO SELECT COLOR AND STYLE OF COVERS.	
	SIX GANG RECESS ACTICATED FLOOR BOX WITH THREE DUPLEX OUTLETS AND DATA OUTLETS AS PER PLANS. PROVIDE CARPET FLANGES AND ROUND COVERS. ARCHITECT TO SELECT COLOR AND STYLE OF COVERS.	
	EIGHT GANG RECESS ACTICATED FLOOR BOX WITH TWO DUPLEX RECEPTACLES AND TWO DATA OUTLETS AS PER PLANS. PROVIDE CARPET FLANGES AND ROUND COVERS. ARCHITECT TO SELECT COLOR AND STYLE OF COVERS.	
	FIRE ALARM RELAY FOR HVAC EQUIPMENT SHUTDOWN	
	WALL MOUNTED FIRE ALARM HORN/STROBE - #CD INDICATES CANDELA RATING OF STROBE	
	CEILING MOUNTED FIRE ALARM HORN/STROBE - #CD INDICATES CANDELA RATING OF STROBE	
	WALL MOUNTED FIRE ALARM PULL STATION - MOUNT AT +4'-0" TO TOP OF OUTLET BOX. PROVIDE LEXAN STOPPER II COVER.	
	FIRE ALARM RELAY MODULE	
	FIRE ALARM MONITOR MODULE	
	CEILING MOUNTED FIRE ALARM STROBE ONLY - #CD INDICATES CANDELA RATING OF STROBE	
	WALL MOUNTED FIRE ALARM STROBE ONLY - #CD INDICATES CANDELA RATING OF STROBE	
	CEILING MOUNTED FIRE ALARM SMOKE DETECTOR	
	FIRE ALARM DUCT SMOKE DETECTOR AND SAMPLING TUBE	
	CEILING MOUNTED FIRE ALARM HEAT DETECTOR	
	CARBON MONOXIDE DETECTOR	
	FIRE ALARM CONTROL PANEL	
	REMOTE FIRE ALARM CONTROL PANEL	
	FIRE ALARM NAC PANEL	
	REMOTE ALARM INDICATOR - MOUNT 88" AFF.	
	FIRE ALARM TAMPER SWITCH	
	FIRE ALARM WATER FLOW SWITCH	
	DATA RACK PROVIDED AND INSTALLED BY OWNER/OTHERS	

ABBREV.	DEFINITION
A	AMPS, AMPERE, AMPERAGE
AC	ABOVE COUNTER
AC	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPTING CURRENT
AL	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARD INSTITUTE
ATSC	AUTOMATIC TRANSFER SWITCH CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIO/VISUAL
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BFC	BELOW FINISHED CEILING
CB	CONDUIT
C	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
CU	COPPER
DD	DIMMING OR DIMMER
DB	DISTRIBUTION BOARD
DL	DIRECT CURRENT
DC	DAY-LIGHTING
DISC	DISCONNECT SWITCH
E	EMERGENCY
ECB	ENCLOSED CIRCUIT BREAKER
ENG	ENGINEER OF RECORD
EW	ELECTRIC WATER COOLER
EX	EXISTING
FUT	FUTURE
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINAL CABINET
FDR	FEEDER
FPMR	FUSE PER MANUFACTURER RECOMMENDATIONS
GAA	GENERATOR ALARM ANNUNCIATOR
GAP	GENERATOR ALARM PANEL
GEN	GENERATOR
GEC	GROUNDING ELECTRODE CONDUCTOR
GFI	GROUND FAULT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFEP	GROUND FAULT EQUIPMENT PROTECTION
GFP	GROUND FAULT PROTECTION
GND	GROUND
GRS	GALVANIZED RIGID STEEL
HH	HAND HOLE
HOA	HAND-OFF AUTOMATIC
HP	HORSEPOWER
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IG	ISOLATED GROUND
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPS
KW	KILOWATT
KWH	KILOWATT HOURS
LC	LIGHTING CONTACTOR
LS	LOUD SPEAKER
LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS AND GROUND FAULT PROTECTION
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MIN	MINIMUM
MH	MAIN HOLE
MLO	MAIN LUGS ONLY
MTS	MANUAL TRANSFER SWITCH
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
N or NEUT	NEUTRAL
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
O/H	OVER HEAD
P	POLE
PA	PUBLIC ADDRESS
PB	PULL BOX
PC	PHOTOCELL
PH	PHASE POTENTIAL TRANSFORMER
PT	POTENTIAL TRANSFORMER
RC	RECEPTACLE CONTACTOR
RSC	RIGID STEEL CONDUIT
SEC	SECURITY
SPD	SURGE PROTECTIVE DEVICE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TC	TIME CLOCK
TEMP	TEMPORARY
TGB	TECHNOLOGY GROUND BAR
TGMB	TECHNOLOGY MAIN GROUND BAR
TV	TELEVISION
TYP.	TYPICAL
U/C	UNDER COUNTER
U/G	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UL	UNDERWRITERS' LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTABLE POWER SUPPLY
V	VOLTS, VOLTAGE
VFD	VARIABLE FREQUENCY DRIVE
WG	WIRE GUARD
WP	WEATHERPROOF
XFER	TRANSFER
XFMR	TRANSFORMER

REVISIONS

CUMBERLAND COUNTY

NORTH CAROLINA

CUMBERLAND COUNTY AGRICULTURAL EXPOSITION ADDITION
2877-5

COVER SHEET

DESIGNED BY: **AJC**

DRAWN BY: **AJC**

CHECKED BY: **REE**

PROJECT NO.: **2877-5**

DATE: **05/01/2026**

SCALE:

0 1/2 1
IF THIS BAR DOES NOT
MEASURE 1" THEN DRAWING
IS NOT TO FULL SCALE

FINAL DRAWING
NOT FOR CONSTRUCTION

E-001

Autodesk Docs://2877-S Cumberland County AgriExpo Boiler Addition/2877-S_AJC_Rvt 5/1/2026 11:27:26 AM



1
E-100
ELECTRICAL PLAN NEW WORK
1/8" = 1'-0"

REVISIONS

Wooten
120 North Boylan Avenue • Raleigh, NC 27603-1423
(819) 828-0531 • thewootencompany.com
License Number: F-0115

CUMBERLAND COUNTY
NORTH CAROLINA
CUMBERLAND COUNTY AGRICULTURAL EXPOSITION ADDITION
2877-S

POWER PLAN

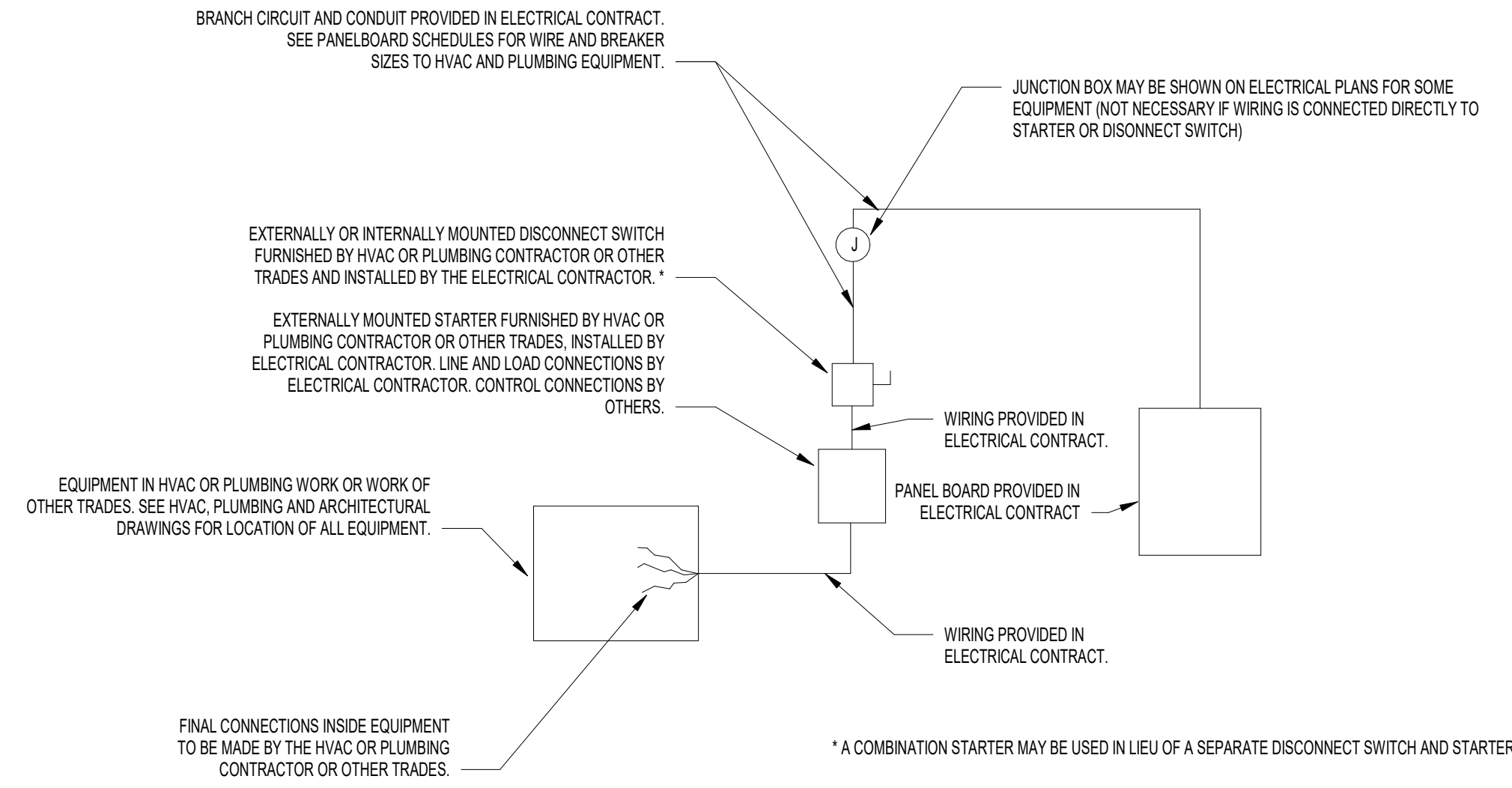
NORTH CAROLINA
PROFESSIONAL
16765
SIGNED BY:
ROBERT E. GAN
5/1/2026

DESIGNED BY: **AJG**
DRAWN BY: **AJG**
CHECKED BY: **REE**
PROJECT NO.: **2877-S**
DATE: **05/01/2026**
SCALE:

0 1/2 1
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FINAL DRAWING
NOT FOR CONSTRUCTION

E-100

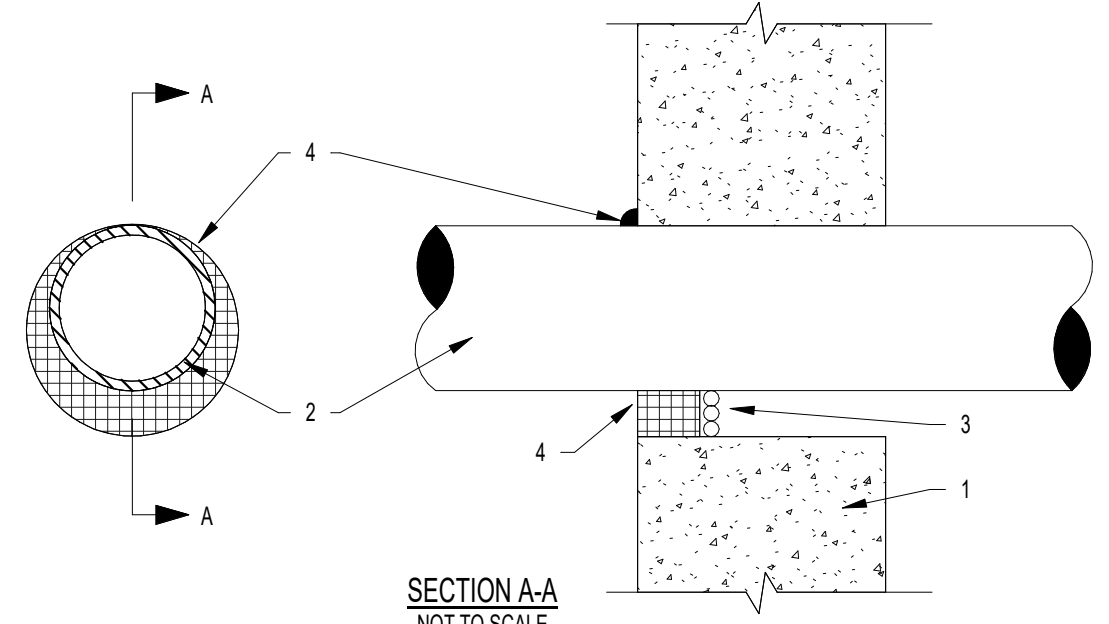


1 STANDARD ELECTRICAL CONNECTIONS FOR HVAC, PLUMBING AND EQUIPMENT OF OTHER TRADES

1
E-600

SYSTEM NO. CAJ1044

F RATINGS - 2.3 AND 4 HR (SEE ITEMS 2A AND 4)
T RATING - 0 HR
L RATING AT AMBIENT - 2 CFMSQ FT
L RATING AT 400 F - LESS THAN 1 CFMSQ FT



1. FLOOR OR WALL ASSEMBLY - LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE, EXCEPT AS NOTED IN TABLE UNDER ITEM 4. MIN. THICKNESS OF SOLID CONCRETE FLOOR OR WALL ASSEMBLY IS 4 1/2 INCHES. FLOOR MAY ALSO BE CONSTRUCTED OF ANY MIN. 6 INCH THICK, UL CLASSIFIED HOLLOW-CORE PRECAST CONCRETE UNITS. WHEN FLOOR IS CONSTRUCTED OF HOLLOW-CORE PRECAST CONCRETE UNITS, PACKING MATERIAL (ITEM 3) AND CAULK FILL MATERIAL (ITEM 4) TO BE INSTALLED SYMMETRICALLY ON BOTH SIDES OF FLOOR, FLUSH WITH FLOOR SURFACE. WALL ASSEMBLY MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAXIMUM DIAMETER OF OPENING IS 32 INCHES. SEE CONCRETE BLOCKS (CAZT) AND PRECAST CONCRETE UNITS (CFTV) CATEGORIES IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.

1A. STEEL SLEEVE - (OPTIONAL, NOT SHOWN) - MAX. 15 INCHES ID (OR SMALLER) (SCHEDULE 10 (OR HEAVIER) STEEL SLEEVE CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY. SLEEVE MAY EXTEND A MAXIMUM OF 2" ABOVE TOP OF FLOOR OR BEYOND EITHER SURFACE OF WALL. MAX. 16 INCH ID (OR SMALLER) MINIMUM 0.028 WALL THICKNESS (OR HEAVIER) GALVANIZED STEEL SLEEVE CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY. SLEEVE MAY EXTEND A MAXIMUM OF 1/2 INCHES BEYOND EITHER SURFACE OF FLOOR OR WALL.

2. THROUGH PENETRATE - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITH THE FIRESTOP SYSTEM. MAXIMUM ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND EDGE OF THROUGH OPENING OR SLEEVE IS DEPENDENT ON THE PARAMETERS SHOWN IN ITEM 4. MINIMUM ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND EDGE OF THROUGH OPENING IS ZERO INCHES. (POINT CONTACT). PIPE CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:

- A. STEEL PIPE - NOM. 30 IN. DIA. (OR SMALLER) SCH 10 (OR HEAVIER) STEEL PIPE.
- B. IRON PIPE - NOM. 30 IN. DIA. (OR SMALLER) CAST OR DUCTILE IRON PIPE.
- C. CONDUIT - NOM. 6 IN. DIA. (OR SMALLER) RIGID STEEL CONDUIT.
- D. CONDUIT - NOM. 4 IN. DIA. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING.
- E. COPPER TUBING - NOM. 6 IN. DIA. (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBE.
- F. COPPER PIPE - NOM. 6 IN. DIA. (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

3. PACKING MATERIAL - POLYETHYLENE BACKER ROD OR NOMINAL 1 INCH THICK TIGHTLY PACKED MINERAL WOOL BATT OR GLASS FIBER INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRE TO ACCOMMODATE THE REQUIRED THICKNESS OF CAULK FILL MATERIAL (ITEM 4).

4. FILL VOID OR CAVITY MATERIAL - CAULK - APPLIED TO FILL THE ANNULAR SPACE FLUSH WITH TOP SURFACE OF FLOOR. IN WALL ASSEMBLIES, REQUIRED CAULK THICKNESS TO BE INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL. FLUSH WITH WALL SURFACE. THE HOURLY F RATINGS AND THE MINIMUM REQUIRED CAULK THICKNESSES ARE DEPENDENT UPON A NUMBER OF PARAMETERS, AS SHOWN IN THE FOLLOWING TABLE:

MIN FLOOR OR WALL THKNS, IN	NOM PIPE TUBE OR CONDUIT DIAM., IN	MAX ANNULAR SPACE, IN	MIN CAULK THKNS, IN	F RATING, HOUR
2-1/2	1/2-1/2	1-3/8	1/2	2
2-1/2	1/2-1/2	3-1/4	1	2
4-1/2	1/2-6	1-3/8	1/4(a)	2
4-1/2	1/2-1/2	1-1/4	1/2	3
4-1/2	1/2-20	2	1	3
4-1/2	1/2-20	2	1	3
4-1/2	1/2-1/2	3-1/4	1	3
5-1/2	1/2-6	1-3/8	1(b)	4

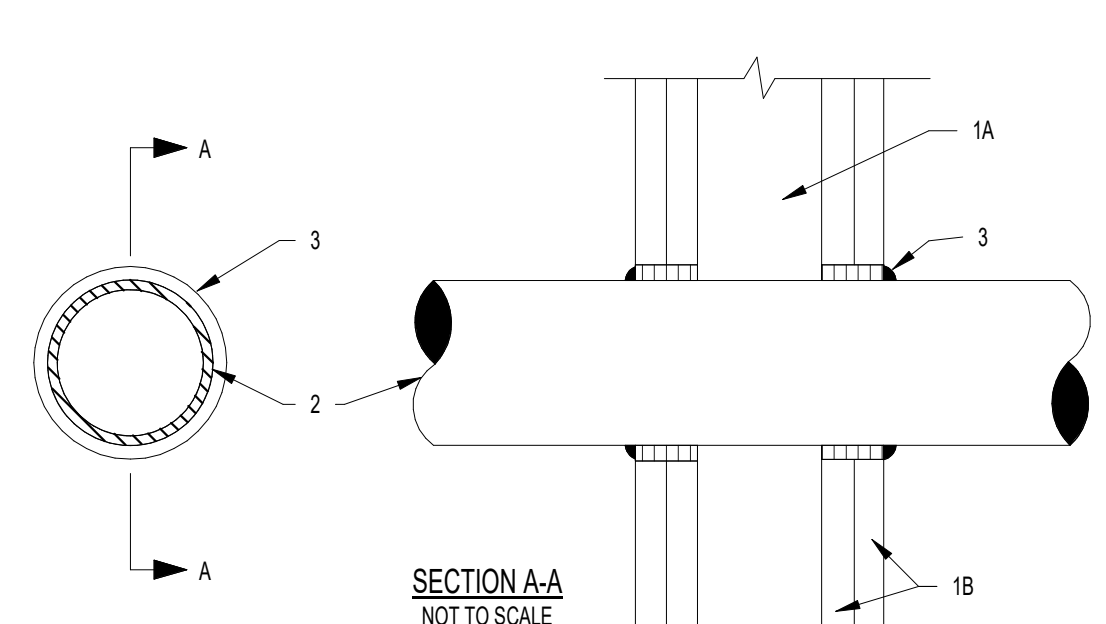
(a) MIN 2 INCH THICKNESS OF MINERAL WOOL BATT INSULATION REQUIRED IN ANNULAR SPACE.
(b) MIN 1 INCH THICKNESS OF MINERAL WOOL BATT INSULATION REQUIRED IN ANNULAR SPACE ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. MINIMUM 1 INCH THICKNESS OF CAULK TO BE INSTALLED FLUSH WITH EACH SURFACE OF FLOOR OR WALL ASSEMBLY.

MINNESOTA MINING & MFG. CO. - CP 25WB+.
*BEARING THE UL CLASSIFICATION MARKING.

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SYSTEM NO. WL1001

F RATINGS - 1.2, 3 AND 4 HR (SEE ITEMS 1 AND 2)
T RATINGS - 0, 1, 2, 3 AND 4 HR (SEE ITEM 3)
L RATING AT AMBIENT - LESS THAN 1 CFMSQ FT
L RATING AT 400 F - LESS THAN 1 CFMSQ FT



1. WALL ASSEMBLY - THE 1.2, 3, OR 4 HOUR FIRE RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2HR FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOMINAL 2 x 4 INCH LUMBER SPACED 16 INCHES O.C. WITH NOMINAL 2 x 4 INCH LUMBER END PLATES AND CROSS BRACES. STEEL STUDS MAY BE MIN. 3-5/8 INCH WIDE BY 1-3/8 INCH DEEP CHANNELS SPACED MAXIMUM 24 INCHES O.C.
B. WALLBOARD, GYPSUM - NOMINAL 1/2 OR 5/8 INCH THICK, 4FT WIDE WITH SQUARE OF TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAXIMUM DIAMETER OF OPENING IS 13-1/2 INCHES.

2. PIPE OR CONDUIT - NOMINAL 12 INCH DIAMETER (OR SMALLER) (SCHEDULE 10 (OR HEAVIER) STEEL PIPE, NOMINAL 12 INCH DIAMETER (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOMINAL 12 INCH DIAMETER (OR SMALLER) CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPE, NOMINAL 6 INCH DIAMETER (OR SMALLER) STEEL CONDUIT, NOMINAL 4 INCH DIAMETER (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING, NOMINAL 6" DIAMETER (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING OR NOMINAL 1 INCH DIAMETER (OR SMALLER) FLEXIBLE STEEL CONDUIT. WHEN COPPER PIPE IS USED, MAX F RATING OF FIRESTOP SYSTEM (ITEM 3) IS 2H. STEEL PIPES OR CONDUITS LARGER THAN NOMINAL 4" DIAMETER MAY ONLY BE USED IN WALLS CONSTRUCTED USING STEEL CHANNEL STUDS. A MAX OF ONE PIPE OR CONDUIT IS PERMITTED IN THE FIRESTOP SYSTEM. PIPE OR CONDUIT TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.

3. FILL VOID OR CAVITY MATERIAL - CAULK - CAULK FILL MATERIAL INSTALLED TO COMPLETELY FILL ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND GYPSUM WALLBOARD AND WITH A MINIMUM 1/4 INCH DIAMETER BEAD OF CAULK APPLIED TO PERIMETER OF PIPE OR CONDUIT AT ITS EGRESS FROM THE WALL. CAULK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY F RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED. AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE HOURLY F RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW.

MAX PIPE OR CONDUIT DIAM, INCHES	ANNULAR SPACE, INCHES	F RATING, HR	T RATING, HR
1	0 TO 3/16	1 OR 2	0, 1 OR 2
1	1/4 TO 1/2	3 OR 4	3 OR 4
4	0 TO 1/4	1 OR 2	0
4	0 TO 1-1/2"	1 OR 2	0
6	1/4 TO 1/2	3 OR 4	0
12	3/16 TO 3/8	1 OR 2	0

*WHEN COPPER PIPE IS USED, T RATING IS 0 H.
#0 TO 1-1/2 IN. ANNULAR SPACE APPLIES ONLY WHEN TYPE CP-25 WB + CAULK IS USED AND ONLY WHEN THE MIN. THICKNESS OF THE GYPSUM WALLBOARD IS 5/8 IN. FOR 1 HR RATED WALLS AND 1-1/4 IN. FOR 2 HR RATED WALLS.

MINNESOTA MINING & MFG. CO. - CP 25WB+.
*BEARING THE UL CLASSIFICATION MARKING.

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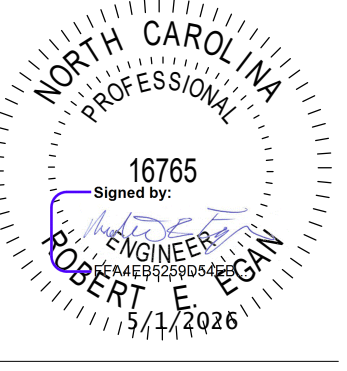
2 RATED WALL PENETRATION DETAILS

2
E-600

REVISIONS

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CUMBERLAND COUNTY
NORTH CAROLINA
CUMBERLAND COUNTY AGRICULTURAL EXPOSITION ADDITION
2877-S
DETAILS



DESIGNED BY: **AJG**
DRAWN BY: **AJG**
CHECKED BY: **REE**
PROJECT NO.: **2877-S**
DATE: **05/01/2026**
SCALE:

