

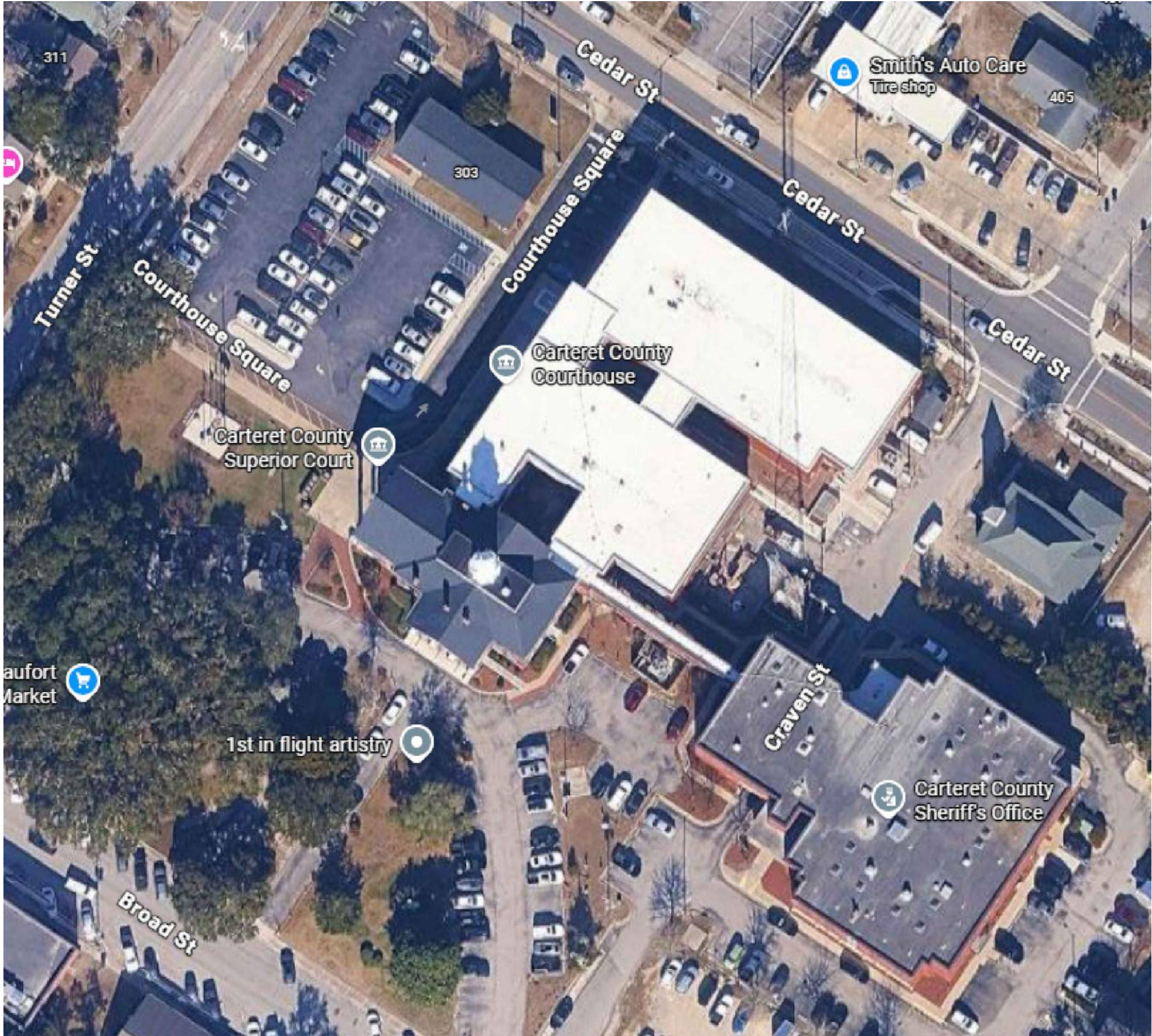
CARTERET COUNTY COURTHOUSE SUPERIOR COURT HVAC AND ROOF INSULATION REPAIRS

CONSTURCTION DOCUMENTS

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E-2 ELECTRICAL PLAN ALTERNATE BID
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SITE PLAN



CONTRACTOR RESPONSIBILITIES

- Contractor MUST visit job sites prior to submitting a bid. Bids submitted shall be considered verification of the contractor's knowledge of project conditions. The intent of the project as described herein (plans and/or specifications) is for the Contractor to provide the Owner with safe, code conforming, fully operational, and properly functioning equipment, systems and/or new construction as required to perform Owner's/User's task.
- Contractor shall be responsible for the means, methods, techniques, sequences, procedures and material supply for construction and installation; verification of dimensions at the site, the verification of existence and location of utility services (underground and above ground), and the verification of quantities.
- The Contractor shall be responsible for scheduling all trades work in complete coordination with the owner. Contractor shall meet with the owner to discuss scheduling prior to construction. Contractor shall make accommodations to minimize disruption to activities.
- Contractor shall, wherever possible, adhere to the drawings and specifications. Any variation from the drawings and specifications shall be approved in writing by the Engineer before Contractor proceeds with work. In an emergency, oral approval from the Engineer is sufficient but this must be followed with written approval. No claim for adjustment to the contract price shall be valid unless the procedure is followed.
- Contractor shall, under no circumstance, make any alteration to the existing building structure or utilities that will in any way jeopardize the structural stability or interrupt the building's operation without prior written permission from the Engineer.
- Successful bidder on the project (prior to construction) shall submit cut sheets/shop drawings for approval by the designer, detailing the devices and equipment he proposes to use.
- Contractor shall be responsible for removal of all debris and waste materials of construction off site unless specifically directed otherwise on the drawing or by the Engineer.
- Contractor shall be responsible for the acceptable closure and repair of all areas disturbed during construction, including, but not limited to, wall, floor, and ceiling penetrations, disturbed ceiling(s) and floor(s), fastening of supports, etc. Repair work shall utilize like materials where possible or materials compatible to the existing construction and shall restore the disturbed surface to original condition. Unless required otherwise, all repaired areas shall be finished to match adjacent existing surfaces, and exposed piping, duct work, conduit, and hanger assemblies shall be painted to match the existing features.
- Contractor shall consult with the Engineer prior to making any penetration or alteration of roof deck or existing roofing application, and shall obtain concurrence prior to, during, and upon completion of the work. All roof work must be performed by a licensed roof contractor and approved in writing by the Engineer. All damage to roof structure and waterproof membrane resulting from Contractor's activity shall be repaired (during the period of this contract, and as soon as possible) by the Contractor, at the expense of the Contractor, in a manner to meet any and all warranty that may be in effect.
- Building Utility Shutdown - The contractor shall notify the owner 10 working days before any unavoidable utility shutdown is to occur. ULOCO requires 48 hours notice. These include but not limited to such utilities as electrical, domestic, water, sewer, HVAC system, etc. Contractor shall keep down time to an absolute minimum.
- Contractor shall notify the Engineer immediately upon encountering any suspected asbestos product. Any removal must be coordinated through the Engineer's Office by approved contractors. The owner is not responsible for compensation due to delays for asbestos removal.
- Contractor shall be responsible for the restoration of all landscape areas damaged during construction, including but not limited to, lawn areas, plant beds, trees and shrubs, sidewalks, patios and courtyards. Damaged plant material shall be replaced in kind. Any desire by contractor for pruning, removal of plant material, changes in tree protection, etc., not described in the drawings must be approved by the Engineer prior to any such actions. The Contractor shall be responsible for the actions of his subcontractors with regard to protection of the landscape.
- Contractor shall be responsible for keeping all construction activity within the project limits and staging areas. Any changes in staging areas or site access must have prior approval by the Engineer. Parking is allowed in approved spaces ONLY. No parking is allowed on lawn areas, sidewalks, or courtyards.
- Contractor shall bridge all access and staging areas including but not limited to brick paving, planting beds, grass areas, sidewalks, curbs, etc. Contractor will provide bridging materials, min. 3/4"x 4"x 8" sheet plywood for up to 9,000 lbs. and loads over 9,000 lbs. two layers of 3/4" sheet are required. An inspection of existing conditions will be made prior to installation and documented. It shall be the contractor's responsibility to return all damaged areas to preconstruction conditions at the completion of the project.
- Contractor is responsible for obtaining all permits and inspections and associated fees.
- Contractor to provide proposed work schedule including numbers of personnel and expected hours of construction for each day of construction. Schedule to be reviewed at pre-construction conference.
- All employees and sub-contractors shall wear a picture identification stating company name, employee name, and company phone number.
- CONTRACTOR TO PROVIDE 24 HOUR CONTACT TO RESPONSIBLE PROJECT MANAGER DURING ENTIRE CONSTRUCTION PERIOD AND THROUGHOUT 1-YEAR WARRANTY PERIOD.

PROJECT SCOPE

- WORK WILL CONSIST OF REMOVAL AND REPLACEMENT OF EXISTING HVAC EQUIPMENT SERVING THE SUPERIOR COURT ROOM. WORK IS AS FOLLOWS:
- REMOVE EXISTING WSH-P'S ON MECHANICAL PLATFORM.
 - CLEAN EXISTING DUCTWORK.
 - INSTALL NEW WSH-P'S ON EXISTING PLATFORM AND CONNECT TO EXISTING POWER, DUCT AND WATER PIPING.
 - PROVIDE TEST AND BALANCE REPORT.
 - REPLACE EXISTING FLYWOOD ON ATTIC PLATFORM.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING OF EXISTING SHEET ROCK CEILINGS FOR INSTALLATION OF NEW WORK. REPAIRS SHALL BE MADE SO THAT OWNER ONLY NEEDS TO PAINT. DAMAGE TO EXISTING CEILINGS BEYOND LIMITS OF CONSTRUCTION BY THIS CONTRACTOR WILL BE REPLACED AT THE COUNTY'S DISCRETION.

BID BOND SHALL INCLUDE BASE BID, ALTERNATE #1, #2 AND #3.

ALTERNATES

ALTERNATE #1:
THE CONTRACTOR SHALL PROVIDE ALTERNATE PRICE TO REPLACE WSH-P'S WITH NEW SPLIT SYSTEM HEAT PUMPS AND DEHUMIDIFIERS AS SHOWN ON PLANS. THIS WORK INCLUDES POWER SUPPLY TO NEW EQUIPMENT INCLUDING NEW PANELS, TRANSFORMER AND WIRING. REMOVE EXISTING SUPPLY AND RETURN DUCTWORK AND AIR DISTRIBUTION. PROVIDE TEST AND BALANCE REPORT. REPLACE EXISTING FLYWOOD ON ATTIC PLATFORM.

ALTERNATE #2:
PROVIDE NEW SPRAY FOAM INSULATION ON ROOF STRUCTURE AND BATT INSULATION ON PORCH CEILINGS AS SHOWN ON SHEET A1. PROVIDE ACCESS DOORS AS REQUIRED FOR APPLICATION.

ALTERNATE #3:
REMOVE AND REINSTALL LAY-IN CEILINGS (GRID AND TILE) TO FACILITATE ALTERNATE #1 OR #2. SUSPEND LIGHTS AS REQUIRED.

ALTERNATE #4:
PROVIDE NEW 6" BATT, R-30 INSULATION ON TOP OF ALL SECOND FLOOR CEILINGS.

ALTERNATE #5:
CLEAN EXISTING DUCTWORK TO BE REUSED IN BASE BID. CLEAN EXISTING SUPPLY AND RETURN GRILLES.

ALTERNATE #6:
CONTROLS BY ENVIROCON TO INTERFACE WITH EXISTING CONTROLS.

SERVICE INTERRUPTIONS

ALL WORK THAT INTERRUPTS POWER, WATER OR AIR CONDITIONING TO THE REST OF THE FACILITY SHALL TAKE PLACE AFTER HOURS AS DEFINED AS:

- FROM 6 PM TO 6 AM TUESDAY EVENING THRU FRIDAY MORNING
- AFTER 6 PM ON FRIDAY TO 6 AM ON MONDAY OR HOLIDAYS.

WORK ON MONDAY EVENINGS IS ALLOWED AT THE COUNTY'S DISCRETION.

WORK OUTSIDE AND IN THE SECOND FLOOR SHALL TAKE PLACE DURING NORMAL OPERATING HOURS. CONTRACTOR SHALL PROVIDE EQUIPMENT FOR FUME REMOVAL IF FOUND TO BE OBJECTIONABLE BY THE OCCUPANTS.

EXCESSIVE NOISE SHALL ALSO BE GROUNDS FOR HALTING CONSTRUCTION ACTIVITIES.

CONTRACTOR TO PROVIDE TWO-WEEK LOOK-AHEAD SCHEDULE OF CONSTRUCTION ACTIVITIES FOR COORDINATION WITH OWNER.

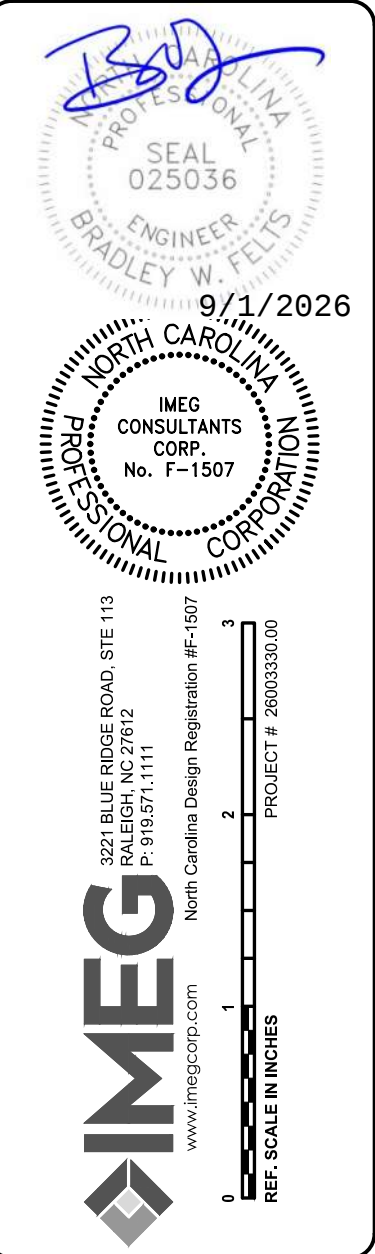
BASE BID - WORK TO BE COMPLETED OVER THREE CONSECUTIVE WEEKENDS.
ALTERNATE #1, NEW HVAC - WORK TO BE COMPLETED OVER SIX CONSECUTIVE WEEKS.
ALTERNATE #2, NEW SPRAY FOAM INSULATION - WORK TO BE COMPLETE IN THREE WEEKS.
ALTERNATE #3, REMOVE/REINSTALL LAY-IN CEILINGS - ONE ADDITIONAL WEEK WILL BE ALLOWED FOR THIS ALTERNATE.
ALTERNATE #4, NEW BATT INSULATION ON CEILINGS - WORK TO BE COMPLETE IN ONE WEEK.
ALTERNATE #5, CLEAN EXISTING DUCTWORK - ONE ADDITIONAL WEEKEND TO BASE BID.
ALTERNATE #6, PREFERRED CONTROL VENDOR - NO ADDITIONAL TIME ALLOWED IF ACCEPTED.

CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTING AND MAINTAINING DUST/ODOR CONTROL FOR ALL ALTERNATE AND BASE BID WORK. CONTRACTOR SHALL MAINTAIN MATERIAL AND VENTILATION TO MAINTAIN THE WORK AREA UNDER NEGATIVE PRESSURE WITH RELATION TO THE REST OF THE BUILDING.

DEBRIS REMOVAL FROM THE SECOND FLOOR SHALL OCCUR AFTER 5:00 PM DAILY OR ON WEEKENDS. LOCATION OF DUMPSTER TO BE COORDINATED WITH COUNTY AT PRE-CONSTRUCTION. CONTRACTOR CAN ASSUME IT WILL BE LOCATED CLOSE ENOUGH TO USE A SECOND FLOOR WINDOW AND CHUTE.

CONTRACTOR SHALL BE RESPONSIBLE FOR MOVING FURNITURE REQUIRED TO PERFORM WORK. THE OWNER WILL REMOVE COMPUTERS AND AV EQUIPMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF FINISHES. CONTRACTOR SHALL Wipe DOWN ALL SURFACES IN THE WORK AREA AND VACUUM FLOORS AT COMPLETION OF WORK.

REVISIONS	



PREPARED FOR:
**COUNTY OF
CARTERET**

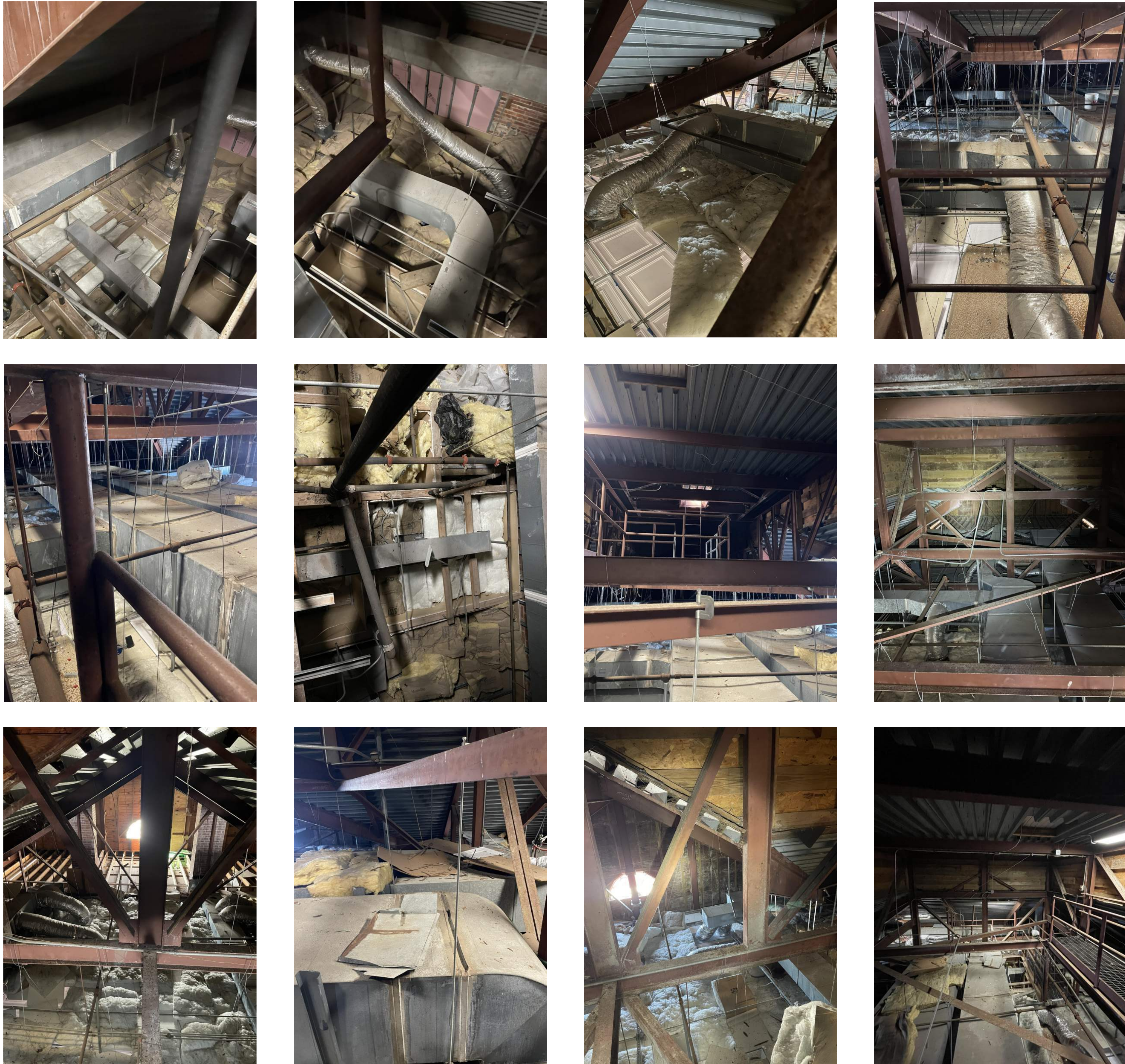
**CARTERET COUNTY COURTHOUSE
300 COURT HOUSE SQUARE
BEAUFORT, NC 28516
HVAC + ROOF INSULATION REPAIRS**

CONTENTS:
**TITLE
SHEET**

DATE:
SEPTEMBER 1, 2026

DESIGNER: **BWF**
ENGINEER: **BWF**

SHEET NO.
T-1



2
A1.1
EXISTING CONDITIONS
N.T.S.

○ PLAN KEYNOTES

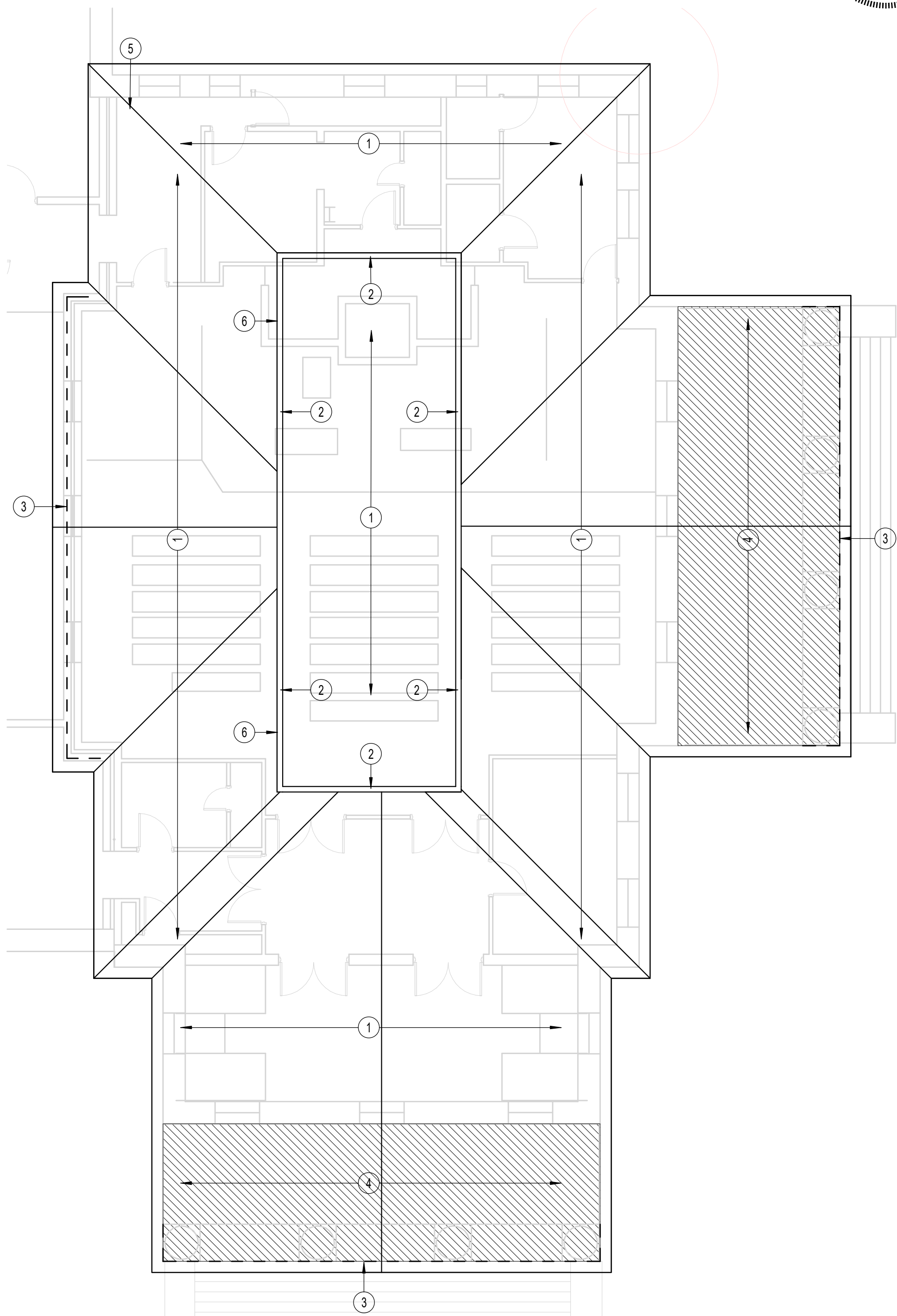
1. INSTALL CLOSED CELL SPRAY FOAM INSULATION ON UNDERSIDE OF THE EXISTING ROOF DECK, STRUCTURAL MEMBERS, AND VERTICAL WALLS THAT ARE OF NON-COMBUSTIBLE MATERIALS AS REQUIRED TO COMPLETELY SEAL THE ATTIC SPACE. INSTALL SPRAY SYSTEM AS REQUIRED PER MANUFACTURERS SPECIFICATIONS AND MEET ALL APPLICABLE BUILDING CODES. REMOVE ALL EXISTING BATT INSULATION ON CEILINGS AND WALLS WITH THIS SCOPE OF WORK.
2. INSTALL OPEN CELL SPRAY FOAM INSULATION ON VERTICAL WALLS THAT ARE OF COMBUSTIBLE MATERIALS AS REQUIRED TO COMPLETELY SEAL THE ATTIC SPACE. INSTALL SPRAY SYSTEM AS REQUIRED PER MANUFACTURERS SPECIFICATIONS AND MEET ALL APPLICABLE BUILDING CODES.
3. INSTALL SPRAY FOAM INSULATION ON THE GABLE END WALLS OVER PORCH AREA. SEAL INSULATION TO EDGE OF EXISTING WINDOWS.
4. INSTALL NEW BATT INSULATION OVER EXISTING PORCH CEILING IN THIS AREA.
5. NEW PIPE CHASE IN CORNER OF FIRST FLOOR AREA. FINISHES TO MATCH ADJACT MATEREIALS IN STYLE AND COLOR.
6. CUT NEW OPENING IN THE EXISTING HARDIBOARD SIDING AND SHEATHING FOR NEW LOUVER. SEE MECHINAL PLANS. FLASH NEW OPENING AS REQUIRED TO INSURE WEATHER TIGHT INSTALLALATION. PROVIDE ROUGH FRAMING AND TRIM FOR NEW OPENING AS REQUIRED.

GENERAL INSULATION NOTES

1. SPRAY FOAM INSULATION ON ALL SURFACES IN THE ATTIC AREA TO COMPLETELY ENCLOSE THE ATTIC CAVITY.
2. SEAL ALL OPENINGS, SOFFIT VENTS, VOIDS IN METAL DECKS, AND ANY OTHER CAVITIES AS REQUIRED TO SEAL THE ATTIC AREA.
3. REMOVE ALL EXISTING BATT INSULATION ON EXISTING CEILINGS AND WALLS.
4. CLEAN AND PREPARE ON SUBSTRATES AS REQUIRED TO INSURE INSULATION BONDS. FOLLOW ALL MANUFACTURES SPECIFICATIONS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR CEILING ACCESS AND INSTALLATION MEANS TO WORK SAFELY IN ATTICE SPACE.

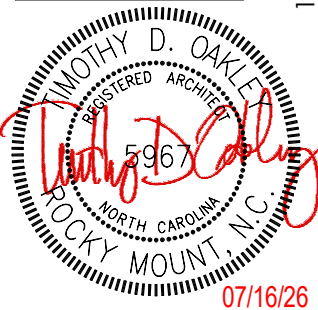
EXISTING PLAN NOTES

1. THIS PLAN IS PROVIDED FOR REFERENCE AND HAS NOT BEEN DIMENSIONALLY VERIFIED. CONTRACTOR MUST VISIT THE SITE TO CONFIRM AND ASSESS ACTUAL EXISTING CONDITIONS.



1
A1.1
ATTIC PLAN
1/8" = 1'-0"

OAKLEY
COLLIER
ARCHITECTS
OCA



109 Candlewood Road, Rocky Mount, NC 27804 (P) 252.937.2500
203 W. Martin Street, Raleigh, NC 27601

PREPARED FOR:
COUNTY OF
CARTERET

CARTERET COUNTY COURTHOUSE
300 COURT HOUSE SQUARE
BEAUFORT, NC 28516
HVAC & ROOF INSULATION REPAIRS

CONTENTS:

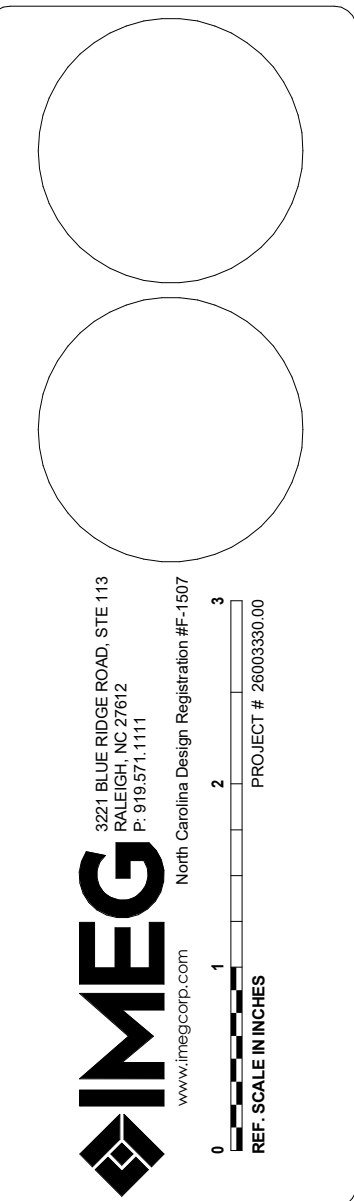
DATE:
SEPTEMBER 1, 2026

DESIGNER:
ENGINEER:

SHEET
NO.

A1

REVISIONS



BASE BID

BASE BID

WATER SOURCE HEAT PUMP SCHEDULE

MARK	BASIS OF DESIGN	FAN			O/A CFM	CAPACITY		WATER		ELECTRICAL		EFFICIENCY		WEIGHT	NOTES	
		CFM	SP.	HP		COOLING	HEATING	FLOW(GPM)	POW(TW)	POWER(MCA)	MOOP	COOLING	HEATING			
HP-5A	TRANE GS-K204	4000	10"	5.0	500	12.9 MEH	144.8 MEH	30	13.7	480/3	22.5	25	14.3 EER	4.8 COP	830 LBS	I-7
HP-5B	TRANE GS-K204	4000	10"	5.0	500	12.9 MEH	144.8 MEH	30	13.7	480/3	22.5	25	14.3 EER	4.8 COP	830 LBS	I-7

NOTES:

1. PROVIDE WITH HEAVY DUTY FUSIBLE DISCONNECT SWITCH.
2. PROVIDE WITH 2" MERV 13 FILTERS.
3. PROVIDE WITH WITH BAGNET COMMUNICATION CARD AND INTERFACE WITH EXISTING SYSETM. PROVIDE SPACE SENSOR WITH SETPOINT ADJUSTMENT AND OVERRIDE BUTTON.
4. PROVIDE WITH HOT GAS RE-HEAT COIL.
5. PROVIDE WITH CARBON DIOXIDE MONITORING SYSTEM CONTROLS FOR DEMAND CONTROL VENTILATION.
6. EQUIPMENT UTILIZES 454B REFRIGERANT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION, COSTS, AND LABOR FOR ALL REFRIGERANT MONITORING AND SAFETY EQUIPMENT REQUIRED PER MANUFACTURE'S INSTALLATION INSTRUCTIONS AND ASHRAE 6 STANDARDS.
7. ROUTE CONDENSATE DOWN ????

ALTERNATE BID

ALTERNATE BID

SPLIT-SYSTEM HEAT PUMP SCHEDULE

INSIDE UNIT							OUTSIDE UNIT									
MARK	BASIS OF DESIGN	FAN			SUPP. HEAT	ELECTRICAL	MARK	BASIS OF DESIGN	CAPACITY		HEATING		ELECTRICAL		EFFICIENCY	
		CFM	SP	HP		POWER(FLA)			TOTAL	SENSIBLE	CAPACITY	POWER	FLA	MOOP	COOLING	HEATING
AHU-5A	TRANE STW4M007	2000	0.5	1	10.8 KW	208/3	36	45	HP-5A	TRANE STW4M060	57J MEH	425 MEH	34.8 MEH	208/3	18.8	35
AHU-5B	TRANE STW4M007	2000	0.5	1	10.8 KW	208/3	36	45	HP-5B	TRANE STW4M060	57J MEH	425 MEH	34.8 MEH	208/3	18.8	35
AHU-5C	TRANE STW4M007	2000	0.5	1	10.8 KW	208/3	36	45	HP-5C	TRANE STW4M060	57J MEH	425 MEH	34.8 MEH	208/3	18.8	35
AHU-5D	TRANE STW4M007	2000	0.5	1	10.8 KW	208/3	36	45	HP-5D	TRANE STW4M060	57J MEH	425 MEH	34.8 MEH	208/3	18.8	35

NOTES:

1. PROVIDE WITH FUSIBLE DISCONNECT ON INDOOR AND OUTDOOR UNITS.
2. PROVIDE WITH SEPARATE ELECTRICAL CONNECTION FOR 480V 3 DUCT HEATER WITH HEAVY DUTY FUSIBLE DISCONNECT.
3. CONTROL VIA EXISTING BAS. PROVIDE COMMUNICATING BAGNET THERMOSTATS.
4. SEE OUTSIDE AIR SUMMARY FOR OUTSIDE AIR INTAKE FLOW SETTINGS.
5. ROUTE CONDENSATE TO EXTERIOR SPLASH BLOCK. PROVIDE WITH CONDENSATE PUMP.
6. PROVIDE WITH 2" FLEATED FILTER RACK MERV 13 AND FILTER AT UNIT.
7. EQUIPMENT UTILIZES 454B REFRIGERANT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION, COSTS, AND LABOR FOR ALL REFRIGERANT MONITORING AND SAFETY EQUIPMENT REQUIRED PER MANUFACTURE'S INSTALLATION INSTRUCTIONS AND ASHRAE 6 STANDARDS.

DEHUMIDIFIER SCHEDULE

MARK	BASIS OF DESIGN	FAN	SP	WATTS	PINTS/DAY	ELECTRICAL	NOTES
DH-1	ULTRA-AIRE V125	300	0.4"	800	125	120/1 10.2	5 I-3

NOTES:

1. PROVIDE WITH 8" POWER CORD.
2. CONTROL VIA WALL MOUNTED HUMIDISTAT.
3. PROVIDE CONDENSATE TRAP AND ROUTE TO EXTERIOR SPLASH BLOCK.

GRILLE & DIFFUSER SCHEDULE

MARK	BASIS OF DESIGN	SERVICE	TYPE	MAX. CFM	FACE SIZE	NECK SIZE	NOTES
A	PRICE AMDA	SUPPLY	LOUVERED LAY-IN	400	24X24	12"	I-3
B	PRICE AMDA	SUPPLY	LOUVERED SURFACE	200	24X24	8"	I-3,4
C	PRICE AMDA	SUPPLY	LOUVERED SURFACE	400	24X24	12"	I-3,4
D	PRICE A620	SUPPLY	DBL DEFLECTION	150	10X4	8"	I-3
E	PRICE A620	SUPPLY	DBL DEFLECTION	50	6X4	6"	I-3
F	PRICE A620	SUPPLY	DBL DEFLECTION	200	10X8		5
RA	PRICE 630	RETURN	LOUVERED SURFACE	800	20X20	14"	I-3,4
RB	PRICE 630	RETURN	LOUVERED LAY-IN	1000	24X24	14"	I-3

NOTES:

1. PROVIDE WITH WHITE FINISH.
2. GRILLE TO HAVE ADJUSTABLE VANES. SET FOR VERTICAL THROW.
3. PROVIDE WITH INSULATED SHEET METAL PLENUM.
4. PROVIDE WITH PLASTER FRAME FOR SURFACE MOUNTING.
5. PROVIDE WITH OPPOSED BLADE DAMPER AND FRAME FOR DUCT MOUNTING.

SYMBOL LEGEND

SYMBOL	DESCRIPTION
	SHEET METAL DUCT
	EXISTING SHEET METAL DUCT
	REMOVE EXISTING DUCT
	EXISTING FLEXIBLE DUCT
	FLEXIBLE DUCT
	SUPPLY DIFFUSER - LETTER & NUMBER INDICATES TYPE & CFM
	RETURN GRILLE - LETTER & NUMBER INDICATES TYPE & CFM
	EXHAUST GRILLE - LETTER & NUMBER INDICATES TYPE & CFM
	EXISTING SUPPLY DIFFUSER
	EXISTING RETURN GRILLE
	BALANCING DAMPER
	ELBOW WITH TURNING VANES
	DUCT-MOUNTED SMOKE DETECTOR - PROVIDED BY E.C. & INSTALLED BY THE MECHANICAL CONTRACTOR - WIRE TO SHUT-DOWN UNIT
	HUMIDISTAT - MOUNTED 48" ABOVE FINISHED FLOOR
	TEMPERATURE SENSOR - MOUNTED 48" ABOVE FINISHED FLOOR
	DUCT MOUNTED CARBON DIOXIDE SENSOR
	DUCT MOUNTED HUMIDITY SENSOR
	CHILLED WATER SUPPLY
	CHILLED WATER RETURN
	BALL VALVE
	GATE VALVE
	H-R RATED WALL
	CONNECT TO EXISTING
	POINT OF TERMINATION

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT METHOD OF COMPLIANCE

PREScriptive ☒ ENERGY COST BUDGET ☐

THERMAL ZONE 4A

EXTERIOR DESIGN CONDITIONS

winter dry bulb: 16°F
summer dry bulb: 93°F
relative humidity: 46%

INTERIOR DESIGN CONDITIONS

winter dry bulb: 70°F
summer dry bulb: 74°F
relative humidity: 50%

BUILDING HEATING LOAD: BLOCK LOAD - EXISTING

BUILDING COOLING LOAD: BLOCK LOAD - EXISTING

MECHANICAL SPACING CONDITIONING SYSTEM

Unitary:

description of unit:
heating efficiency:
cooling efficiency:
heat output of unit:
cooling output of unit:

SEE SCHEDULES ON SHEET(S) THIS SHEET

Boiler: NA

total boiler capacity. If oversized state reason.

Chiller: NA

total chiller capacity. If oversized state reason.

LIST EQUIPMENT EFFICIENCIES: SEE SCHEDULES ON SHEET(S) THIS SHEET

EQUIPMENT SCHEDULES WITH MOTORS (MECHANICAL SYSTEMS)

motor horsepower:
number of phases:
minimum efficiency:
motor type:
of poles:

SEE SCHEDULES ON SHEET(S) THIS SHEET

DESIGNER STATEMENT

To the best of my knowledge and belief, the design of this building complies with the mechanical systems, service systems and equipment requirements of the North Carolina State Energy Code.

SIGNED:

NAME: Bradley W. Felts, PE

TITLE: Professional Engineer

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE CODE, ALL LOCAL AND OTHER APPLICABLE CODES.
2. ANY PERMITS AND INSPECTION FEES SHALL BE SECURED AND PAID FOR BY THE MECHANICAL CONTRACTOR (M/C).
3. ALL WORK SHALL BE PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMAN. THE M/C SHALL COORDINATE ALL OF THEIR WORK WITH ALL OTHER CONTRACTORS.
4. THE MECHANICAL PLANS AND SPECIFICATIONS SHALL BE THOROUGHLY REVIEWED PRIOR TO PURCHASING MATERIALS AND INSTALLATION. ALL DISCREPANCIES OR INTERFERENCES SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION.
5. THESE PLANS ARE DIAGRAMMATIC AND MAY NOT SHOW MINOR DETAILS AND LOCATIONS. FOR DIMENSIONS, REFER TO THE ARCHITECTURAL PLANS.
6. THE M/C SHALL BE RESPONSIBLE FOR ALL ELECTRICAL STARTERS, INTERLOCKS, CONTROL WIRING. THE ELECTRICAL CONTRACTOR SHALL PROVIDE POWER WIRING, CONDUIT FROM THE DISCONNECT TO M/C EQUIPMENT. THE M/C SHALL BE RESPONSIBLE FOR ALL FINAL CONNECTION TO THEIR EQUIPMENT.
7. INSTALL FLEXIBLE CONNECTORS ON SUPPLY AND RETURN DUCTWORK AT ALL AIR HANDLING UNITS.
8. INSTALL TURNING VANES IN ALL DUCTS AT ELBOWS. PROVIDE BALANCING AND SPLITTER DAMPERS WHERE SHOWN AND AS REQUIRED FOR SYSTEM BALANCING.
9. ALL THERMOSTATS, WIRING AND CONDUIT ARE TO BE FURNISHED BY THE M/C. MOUNT THERMOSTATS 4'-0" ABOVE THE FLOOR, UNLESS OTHERWISE NOTED.
10. THE M/C SHALL INSURE THAT ALL MECHANICAL EQUIPMENT INSTALLED UNDER THEIR CONTRACT SHALL OPERATE FREE OF OBJECTIONABLE NOISE AND VIBRATION.
11. THE M/C SHALL KEEP THE PREMISES CLEAR OF DEBRIS FROM THEIR WORK DURING CONSTRUCTION AND LEAVE THE AREA AND BUILDING CLEAN AT THE COMPLETION OF THEIR WORK. THEY SHALL ALSO LEAVE CLEAN ALL EXPOSED EQUIPMENT IN THEIR CONTRACT.
12. FLEXIBLE DUCT RUNOUTS SHALL BE A MAXIMUM OF 14'-0".
13. ALL FLEXIBLE DUCT RUNOUTS SHALL INCLUDE INSULATED DAMPERED BOOTS AT THE POINT OF CONNECTION WITH RECTANGULAR DUCT. PROVIDE ALL FLEXIBLE DUCTWORK WITH FOIL-BACKED, EXTERNALLY WRAPPED INSULATION FOR A MINIMUM OF R-8.
14. ALL DUCTWORK SIZES SHOWN ARE ACTUAL SHEET METAL DIMENSIONS. EXTERNALLY WRAP ALL DUCT WITH 3" FOIL-BACKED INSULATION FOR A MINIMUM OF R-8.
15. ALL GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL INSTALLED IN ACCORDANCE WITH ALL CODES. THE M/C SHALL COORDINATE GAS PIPE CONNECTION SIZE WITH EQUIPMENT.
16. MECHANICAL CONTRACTOR SHALL WORK WITH TEST AND BALANCE CONTRACTOR TO REMEDY ANY DIFFERENCES TO INCLUDE FAN DRIVE CHANGES, INSTALLATION OF DAMPERS OR OTHER MINOR DUCT MODIFICATIONS TO PROVIDE AIRFLOW TO WITHIN +/- 10% OF THE DESIGN VALUES LISTED ON THESE PLANS.
17. INSTALL A RETURN AIR DUCTWORK MOUNTED SMOKE DETECTOR IN EACH UNIT. SMOKE DETECTOR PROVIDED BY ELECTRICAL CONTRACTOR AND INSTALLED BY MECHANICAL CONTRACTOR. WIRE TO SHUT-DOWN UNIT. PROVIDE AUXILIARY CONTACTS ON EACH DUCT DETECTOR FOR ALARM AND TROUBLE CONDITIONS. ALDIBLE AND VISUAL SIGNAL PROVIDE THROUGH FIRE ALARM CONTROL PANEL.
18. CONDENSER WATER PIPING SHALL BE SCHEDULE 40 BLACK STEEL WITH MALLEABLE IRON THREADED FITTINGS.
19. THE AIR HANDLING UNIT SHALL OPERATE AT ALL TIMES DURING OCCUPIED HOURS.
20. THE MECHANICAL CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A SET OF AS-BUILT DRAWINGS UPON COMPLETION OF JOB.
21. THE MECHANICAL CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A BALANCE REPORT BY A CERTIFIED TEST AND BALANCE COMPANY.
22. PROVIDE PERMIT LABEL ENGRAVED PLASTIC LAMINATE MECHANICALLY FASTENED TO OUTDOOR UNITS.
23. LABEL CEILING GRID WHERE EQUIPMENT IS LOCATED ABOVE LAY-IN CEILING. WITH EQUIPMENT IDENTIFIER. ALSO LABEL ALL TEMPERATURE SENSORS AND THERMOSTATS WITH EQUIPMENT IDENTIFIER.

OUTSIDE AIR SUMMARY

REQUIRED:

CIRCULATION: 150 SQFT X 0.06 CFM/SQFT = 91 CFM

COURTROOMS: 2260 SQFT X 0.06 CFM/SQFT + 125 PERSONS X 5 CFM/PERSON = 760 CFM

CONFERENCE ROOMS: 365 X 0.06 CFM/SQFT + 12 PERSONS X 5 CFM/PERSON = 82 CFM

TOTAL REQUIRED: 993 CFM

PROVIDED:

BASE BID:

WSP-5A = 500 CFM

WSP-5B = 500 CFM

ALTERNATE BID:

AHU-5A = 250 CFM

AHU-5B = 250 CFM

AHU-5C = 250 CFM

AHU-5D = 250 CFM

TOTAL PROVIDED: 1000 CFM

CONTENTS:

MECHANICAL
NOTES, LEGEND
AND SCHEDULES

DATE:

SEPTEMBER 1, 2026

DESIGNER:

BWF

ENGINEER:

BWF

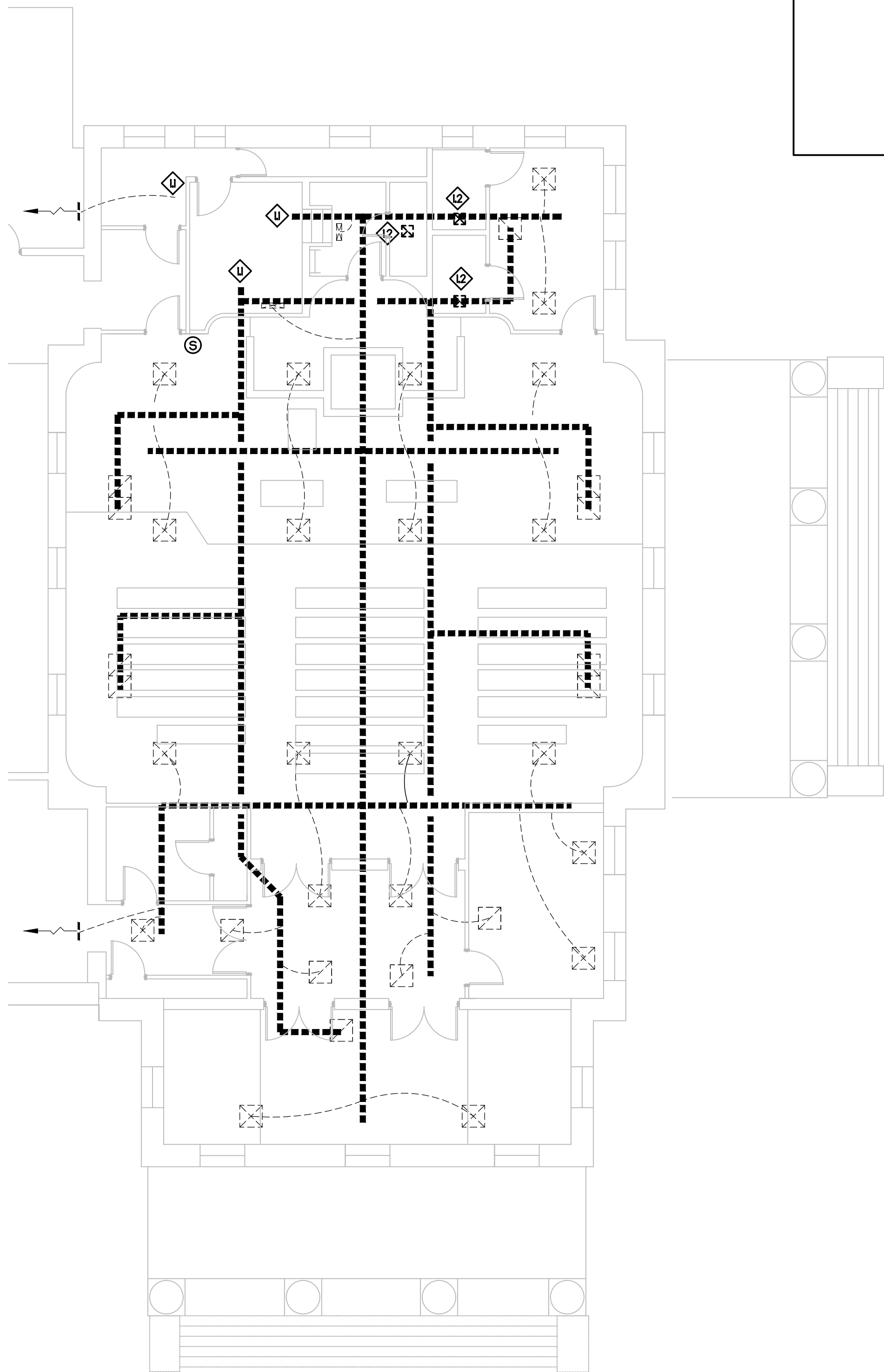
SHEET NO.

M-0

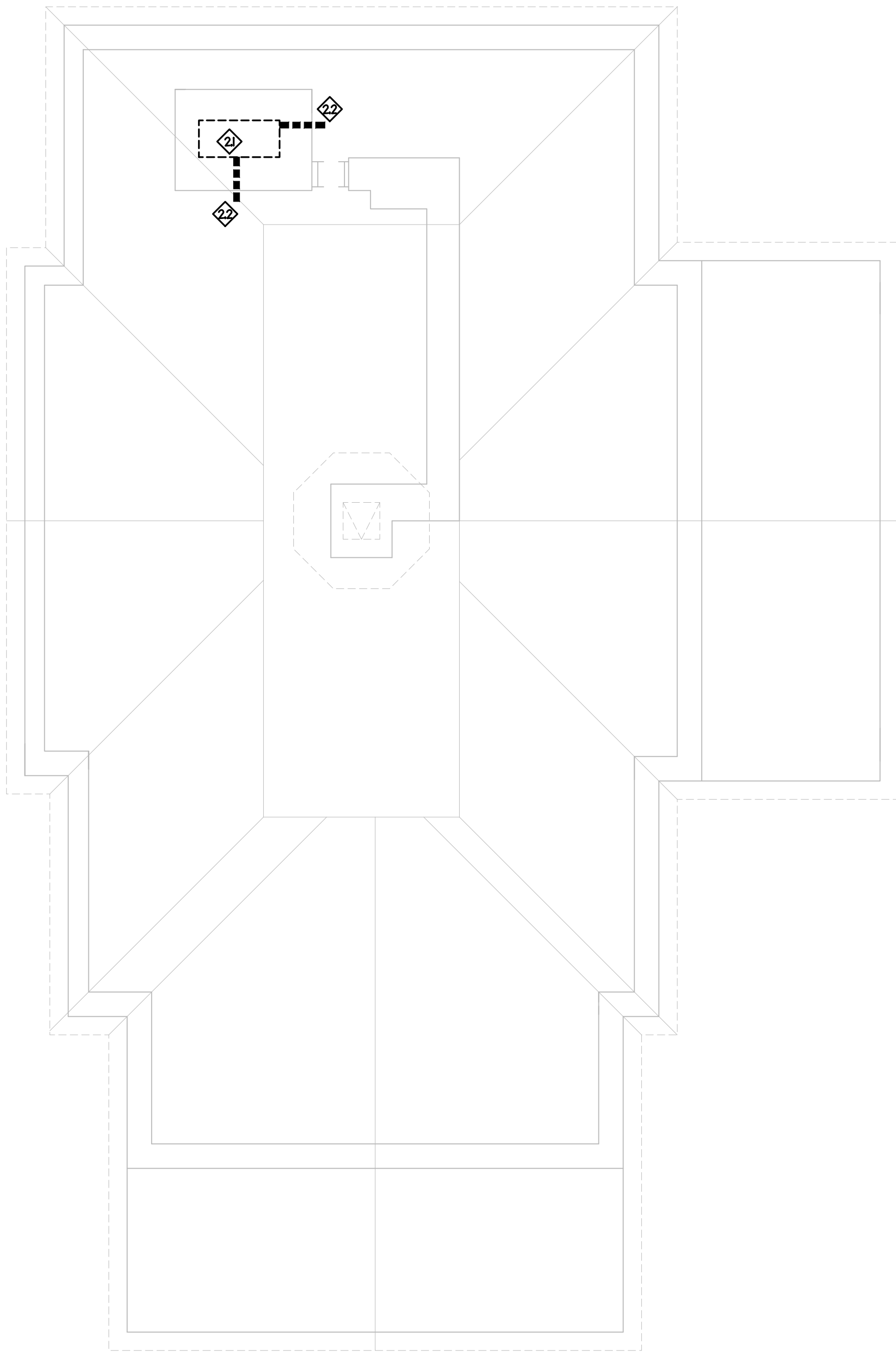
MECHANICAL KEY NOTES

- ① SEE DETAIL 2 THIS SHEET FOR CONTINUATION.
- ② EXISTING EXHAUST FAN TO REMAIN.
- ③ -
- ④ REMOVE EXISTING NOMINAL 10-TON WATER SOURCE HEAT PUMPS (TOTAL OF 2) STACKED ON ON THE TOP OF THE OTHER.
- ⑤ REMOVE DUCT CONNECTIONS AND SEE M-2 FOR NEW CONNECTIONS TO EXISTING DUCTWORK.

CONTRACTOR TO COVER ALL SMOKE AND HEAT DETECTORS IN THE ATTIC DURING CONSTRUCTION.



1 MECHANICAL DEMOLITION PLAN - SECOND FLOOR
1/8" = 1'-0"



2 MECHANICAL DEMOLITION PLAN - ATTIC
1/8" = 1'-0"

REVISIONS					

Professional Engineer Seal for Bradley W. Feltz, State of North Carolina, License No. 025036, dated 9/1/2026.

IMEG CONSULTANTS CORP. No. F-1507

300 BLUE RIDGE ROAD, STE. 110
RALEIGH, NC 27612
P: 919.271.1111
www.imegcorp.com
North Carolina Design Registration #F-1507
PROJECT # 2000330.00

REF. SCALE IN INCHES: 0 1 2 3

PREPARED FOR:
COUNTY OF
CARTERET

CARTERET COUNTY COURTHOUSE
300 COURT HOUSE SQUARE
BEAUFORT, NC 28516
HVAC + ROOF INSULATION REPAIRS

CONTENTS:
MECHANICAL
DEMOLITION
BASE BID

DATE:
SEPTEMBER 1, 2026

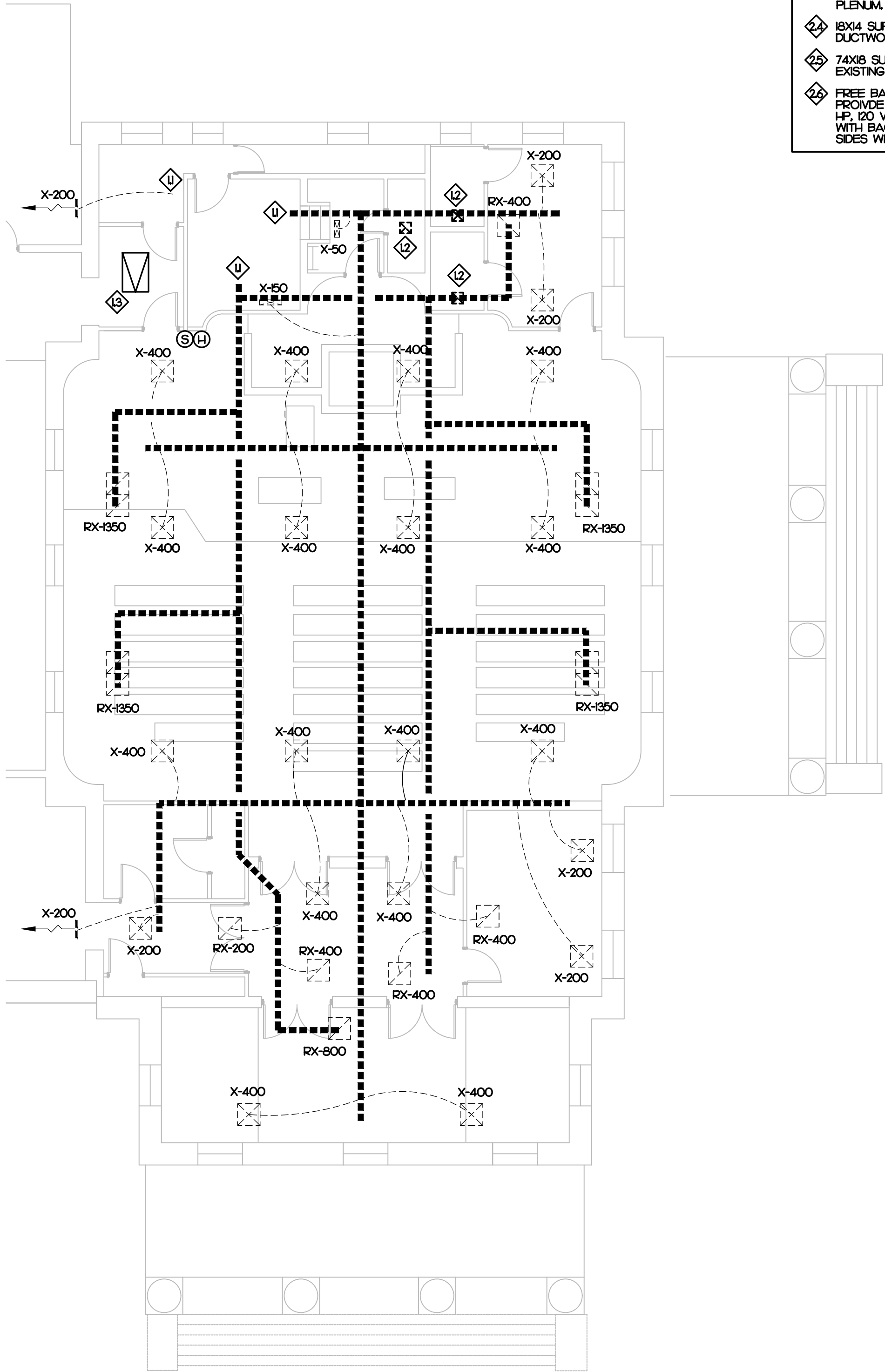
DESIGNER: BWF
ENGINEER: BWF

SHEET NO.
M-1

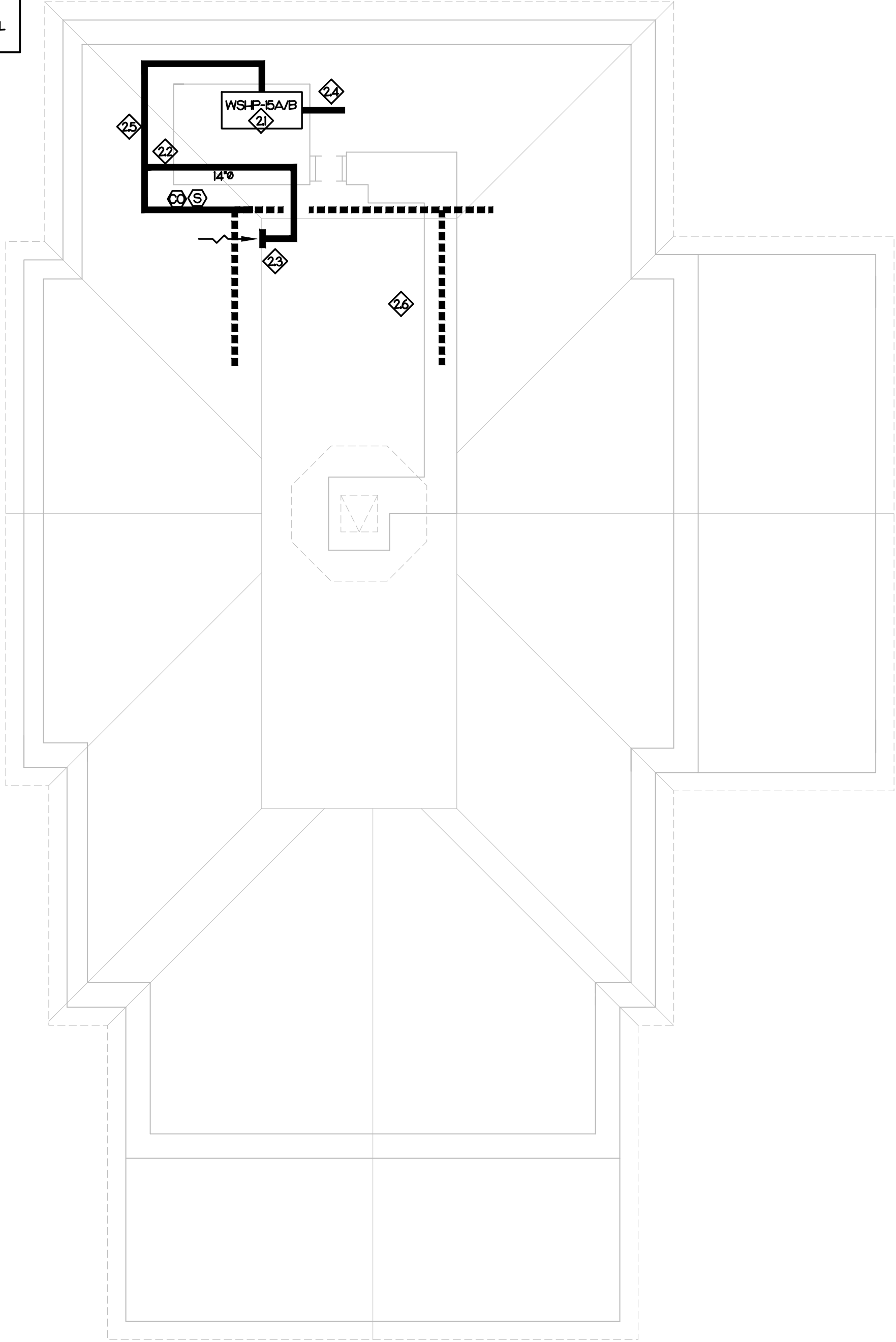
MECHANICAL KEY NOTES

- 1 SEE DETAIL 2 THIS SHEET FOR CONTINUATION.
- 2 EXISTING EXHAUST FAN TO REMAIN.
- 3 PROVIDE 42X28 ACCESS DOOR IN CEILING FOR INSTALLATION OF NEW EQUIPMENT. LOCATE CLOSE PLATFORM AND COORDINATE WITH EXISTING SPRINKLER HEADS. RELOCATE HEAD AND LIGHTS AS REQUIRED FOR ACCESS DOOR.
- 4 NEW NOMINAL 10-TON WATER SOURCE HEAT PUMP (TOTAL OF 2 STACKED). SUPPORT ONE FROM EXISNG PLATFORM AND HANG TOP UNIT FROM STRUCTURE ABOVE. CONNECT TO EXISTING WATER PIPING AND DUCTWORK AS SHOWN.
- 5 CONNECT NEW OUTSIDE AIR DUCT TO NEW RETURN AIR PLENUM.
- 6 PROVIDE GREENHECK MODEL ESD-635D INTAKE LOUVER FOR 1000 CFM. 18X24 AND 1/2" SOFT, OF FREE AREA. PROVIDE WITH BIRD SCREEN AND KYNAR FINISH. PROVIDE WITH INSULATED SHEET METAL PLENUM.
- 7 18X14 SUPPLY AIR CONNECTION FOR EACH UNIT TRANSITION INTO 48X22 CONNECTION TO EXISTING DUCTWORK. FIELD VERIFY SIZE.
- 8 74X16 SUPPLY AIR CONNECTION FOR EACH UNIT TRANSITION INTO 20X40 RETURN TO CONNECT TO EXISTING 22X60 EXISTING DUCTWORK. FIELD VERIFY SIZE.
- 9 FREE BACKDRAFT DAMPER ON EXISTING EXHAUST FAN IN BASE BID. AS PART OF ALTERNATE #4, PROVIDE NEW FAN FOR NEW ROOF MOUNTED EXHAUST FAN FOR 6000 CFM AT 0.25" WITH 1/2" HP, 120 VOLT MOTOR. SET ON EXISTING CURB AND CONTROL VIA NEW THERMOSTAT IN ATTIC. PROVIDE WITH BACKDRAFT DAMPER AND CURB ADAPTER AS REQUIRED. SECURE FAN TO CURB/ADAPTER ON ALL SIDES WITH MECHANICAL FASTENERS EVERY 6".

1. CONTRACTOR SHALL CLEAN AND REUSE EXISTING DUCTWORK, SUPPLY DIFFUSERS, RETURN GRILLES.
2. THE MECHANICAL CONTRACTOR MUST VERIFY ALL EXISTING CONDITIONS AND SERVICES AT THE JOB SITE.
3. CONTRACTOR SHALL BALANCE ALL GRILLES TO VALUES SHOWN ON PLANS. ADD BALANCING DAMPERS AT TAKE-OFFS AS REQUIRED.



1 MECHANICAL RENOVATION PLAN - SECOND FLOOR
1/8" = 1'-0"



2 MECHANICAL RENOVATION PLAN - ATTIC
1/8" = 1'-0"

REVISIONS					

Professional Engineer Seal: SEAL 025036, ENGINEER BRADLEY W. FELTS, 9/1/2026.

IMEG CONSULTANTS CORP. No. F-1507, PROJECT # 2600330.00.

300 BLUE RIDGE ROAD, STE 111, RALEIGH, NC 27612, P: 919.271.1111, www.imegcorp.com, North Carolina Design Registration #F-1507, PROJECT # 2600330.00.

PREPARED FOR:
COUNTY OF
CARTERET

CARTERET COUNTY COURTHOUSE
300 COURT HOUSE SQUARE
BEAUFORT, NC 28516
HVAC + ROOF INSULATION REPAIRS

CONTENTS:
MECHANICAL
RENOVATION PLAN
BASE BID

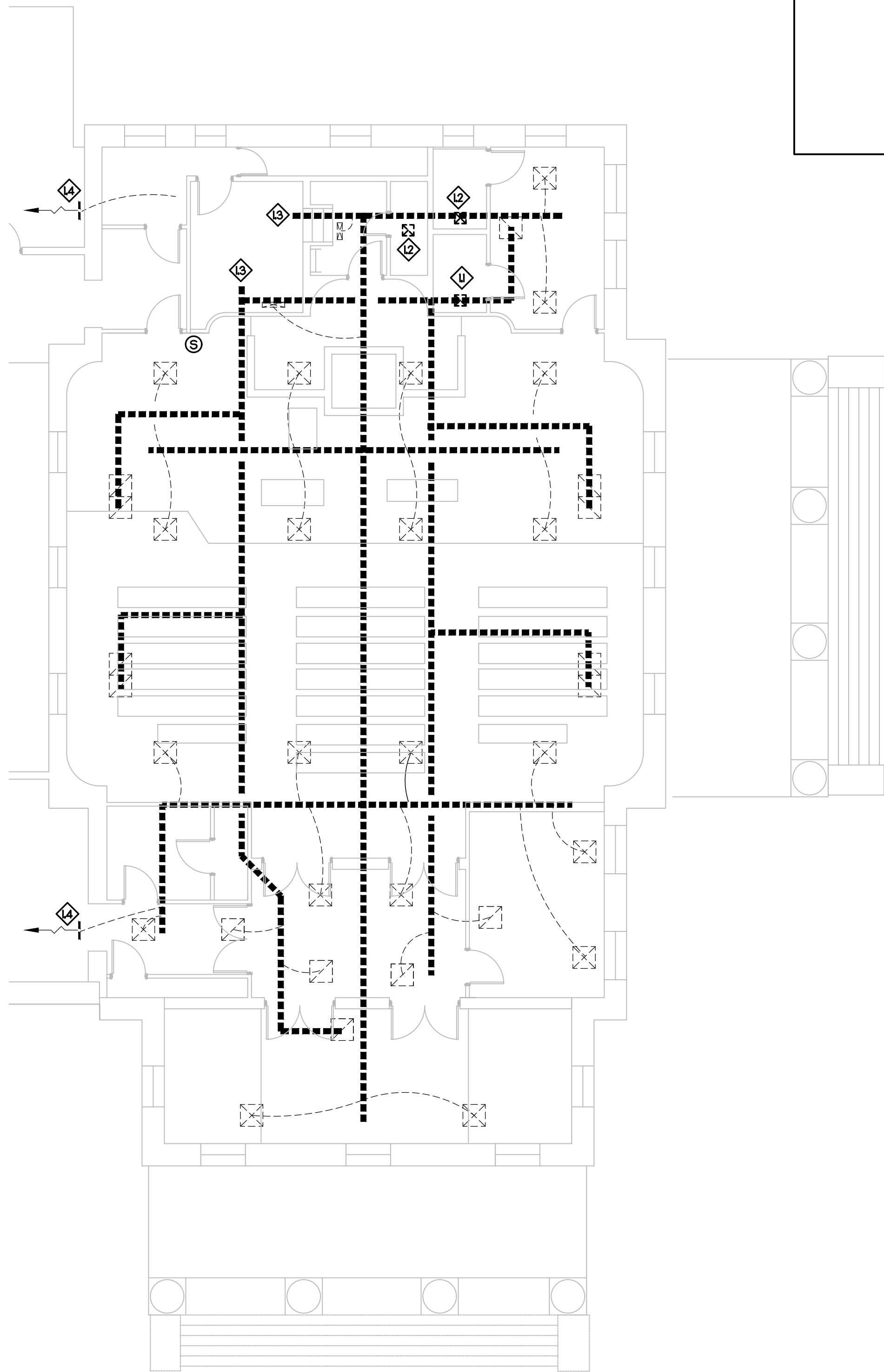
DATE:
SEPTEMBER 1, 2026

DESIGNER: BWF
ENGINEER: BWF

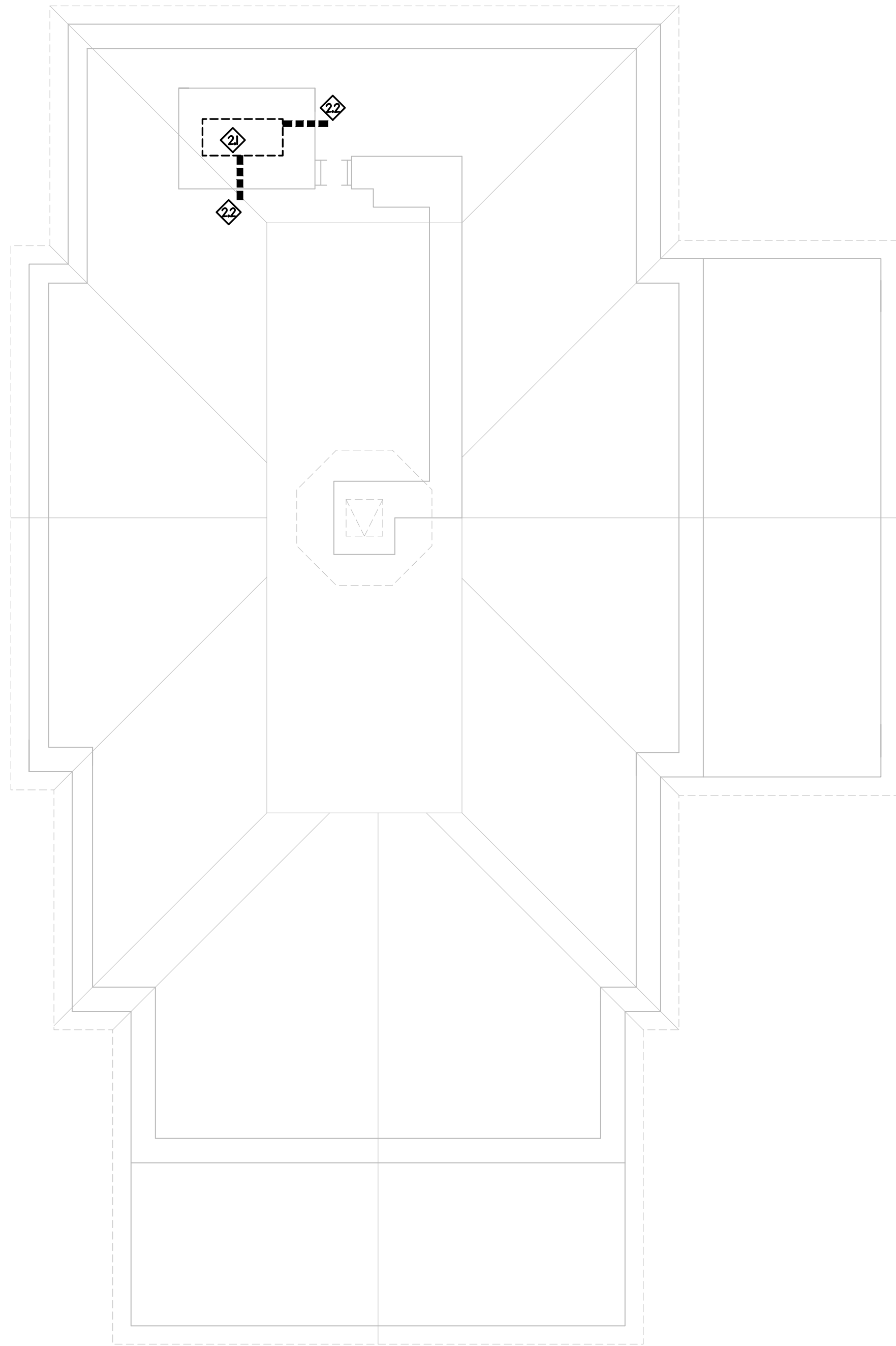
SHEET NO.
M-2

MECHANICAL KEY NOTES

- ① REMOVE EXISTING EXHAUST FAN, WATER CLOSET AND LAVATORY. CAP WASTE AND WATER PIPING AS REQUIRED.
EXISTING EXHAUST FAN TO REMAIN.
② REMOVE EXISTING SUPPLY AND RETURN DUCT AND ALL GRILLES.
③ EXISTING SUPPLY GRILLE TO REMAIN. CLEAN AND STRAIGHTEN BLADES.
④ REMOVE EXISTING NOMINAL 10-TON WATER SOURCE HEAT PUMPS (TOTAL OF 2) STACKED ON ON THE TOP OF THE OTHER.
⑤ REMOVE EXISTING DUCTWORK AND CAP WATER PIPING.



1 MECHANICAL DEMOLITION PLAN - SECOND FLOOR
1/8" = 1'-0"



2 MECHANICAL DEMOLITION PLAN - ATTIC
1/8" = 1'-0"

REVISIONS					

PROFESSIONAL SEAL
025036
ENGINEER
BRADLEY W. FELIS
9/1/2026
NORTH CAROLINA
IMEG CONSULTANTS
CORP.
No. F-1507
300 BLUE RIDGE ROAD, STE. 111
RALEIGH, NC 27612
P: 919.271.1111
www.imegcorp.com
North Carolina Design Registration WF-1507
PROJECT # 20020302.00
REF. SCALE IN INCHES
0 1 2 3

PREPARED FOR:
COUNTY OF
CARTERET

CARTERET COUNTY COURTHOUSE
300 COURT HOUSE SQUARE
BEAUFORT, NC 28516
HVAC + ROOF INSULATION REPAIRS

CONTENTS:
MECHANICAL
DEMOLITION PLANS
ALTERNATE BID

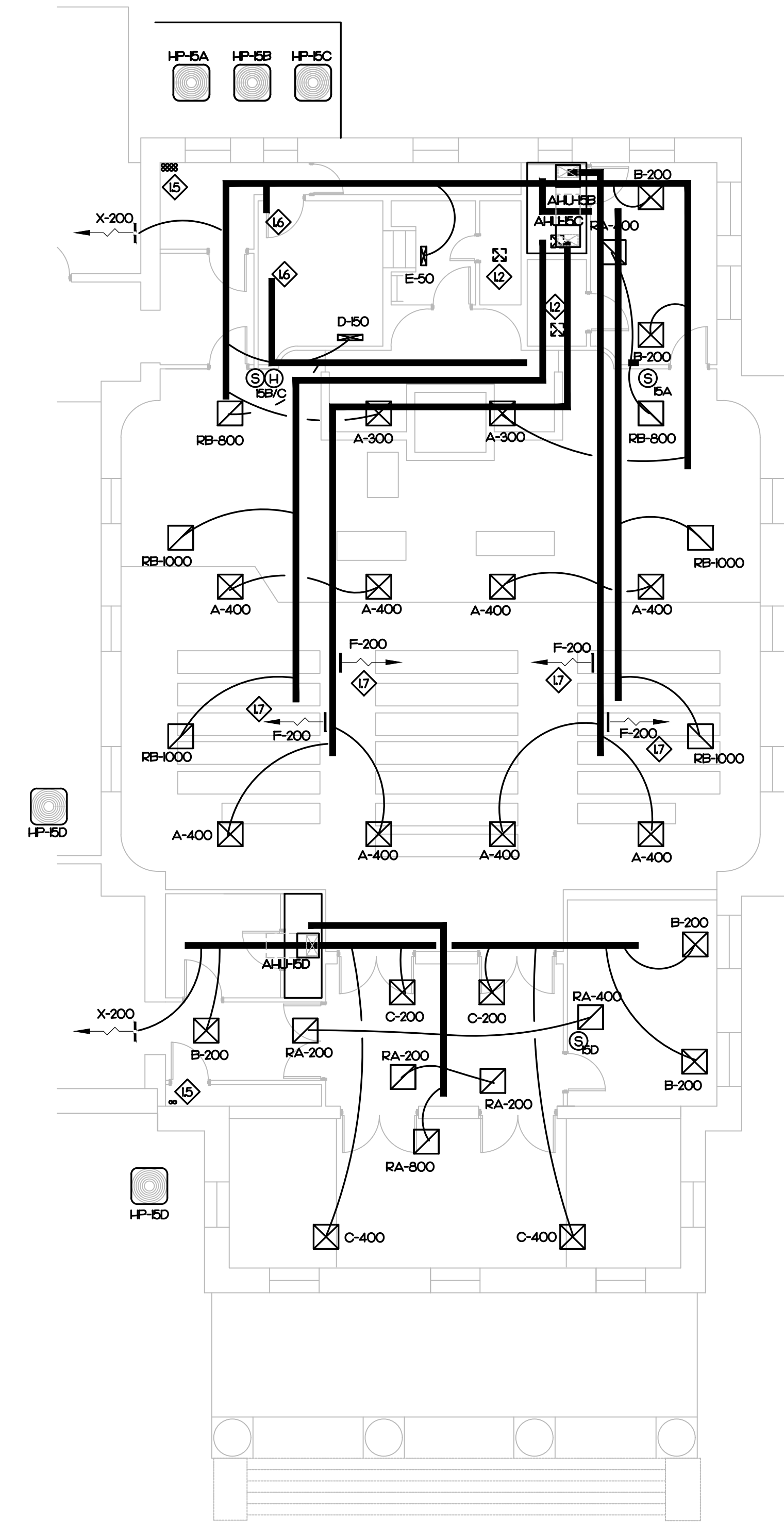
DATE:
SEPTEMBER 1, 2026

DESIGNER: BWF
ENGINEER: BWF

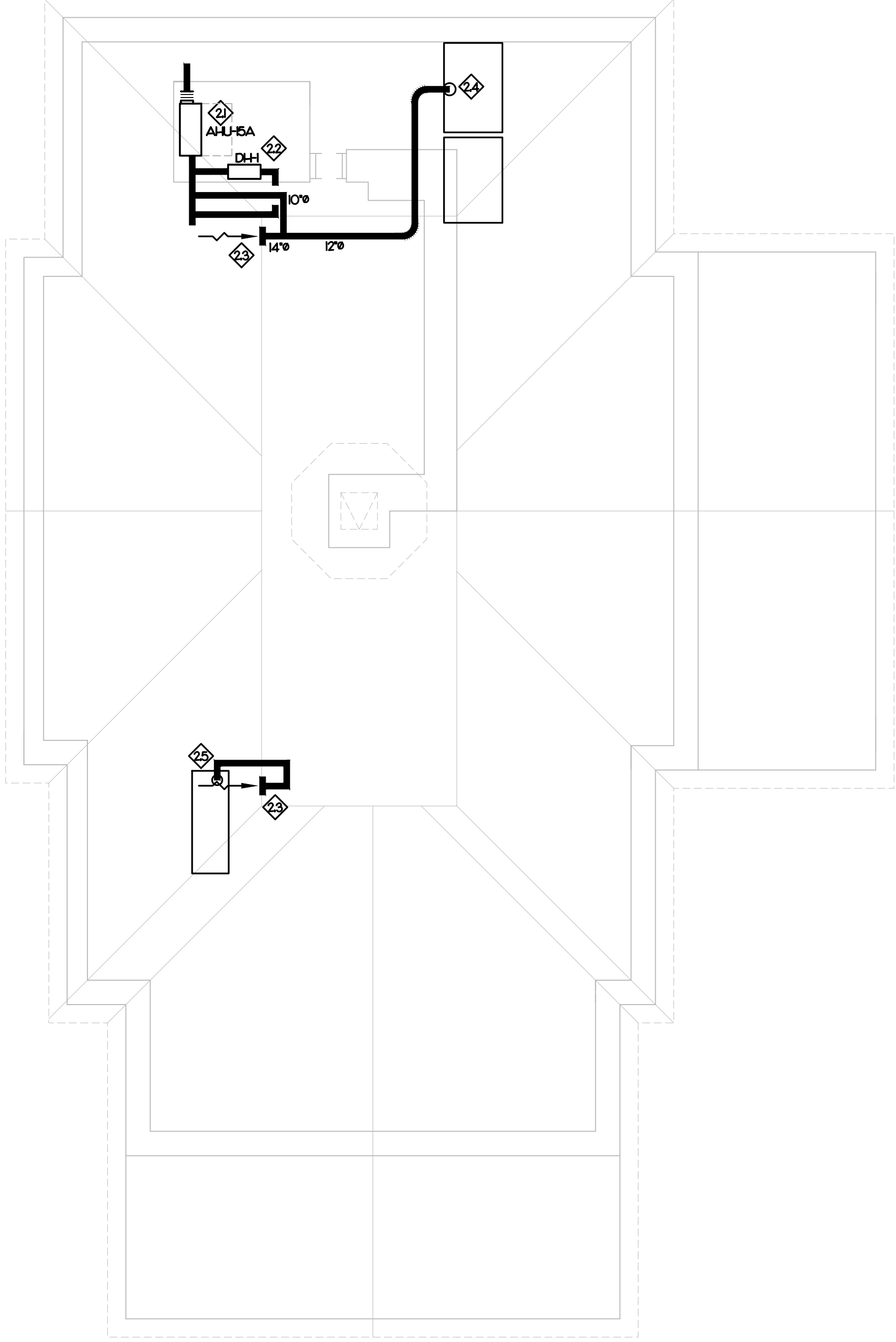
SHEET NO.
M-3

MECHANICAL KEY NOTES

- 1 REMOVE EXISTING EXHAUST FAN, WATER CLOSET AND LAVATORY. CAP WASTE AND WATER PIPING AS REQUIRED.
2 EXISTING EXHAUST FAN TO REMAIN.
3 REMOVE EXISTING SUPPLY AND RETURN DUCT AND ALL GRILLES.
4 EXISTING SUPPLY GRILLE TO REMAIN. CLEAN AND STRAIGHTEN BLADES.
5 NEED TO DETERMINE PATH UP THROUGH FIRST FLOOR FINISHED SPACES TO ATTIC AND OVER TO AHU'S.
6 SEE DETAIL 2, THIS SHEET FOR CONTINUATION.
7 GRILLE ABOVE CEILING TO SEM-CONDITION ATTIC.
8 NEW NOMINAL 5-TON AHU ON PLATFORM.
9 NEW DEHUMIDIFIER. CONNECT TO RETURN OF AHU-5A.
10 PROVIDE GREENHECK MODEL ESD-635D INTAKE LOUVER FOR 1000 CFM, 18X24 AND 127 SQFT. OF FREE AREA. PROVIDE WITH BRD SCREEN AND KYNAR FINISH. PROVIDE WITH INSULATED SHEET METAL PLENUM. MOUNT IN FRAMED WALL ABOVE SLOPING ROOF.
11 DROP 12" OUTSIDE DUCT DOWN INTO NEW MECHANICAL ROOM AND CONNECT TO AHU-EB/C.
12 DROP 10" OUTSIDE DUCT DOWN INTO NEW MECHANICAL ROOM AND CONNECT TO AHU-EB.



1 MECHANICAL RENOVATION PLAN - SECOND FLOOR
1/8" = 1'-0"



2 MECHANICAL RENOVATION PLAN - ATTIC
1/8" = 1'-0"

REVISIONS	

Professional Engineer Seal for Bradley W. Felis, State of North Carolina, License No. 025036, dated 9/1/2026.

IMEG CONSULTANTS CORP. No. F-1507

300 BLUE RIDGE ROAD, STE. 111, RALEIGH, NC 27612, P: 919.271.1111, www.imegcorp.com

North Carolina Design Registration (F-1507)

PROJECT # 2002030200

REF. SCALE IN INCHES

PREPARED FOR:
COUNTY OF
CARTERET

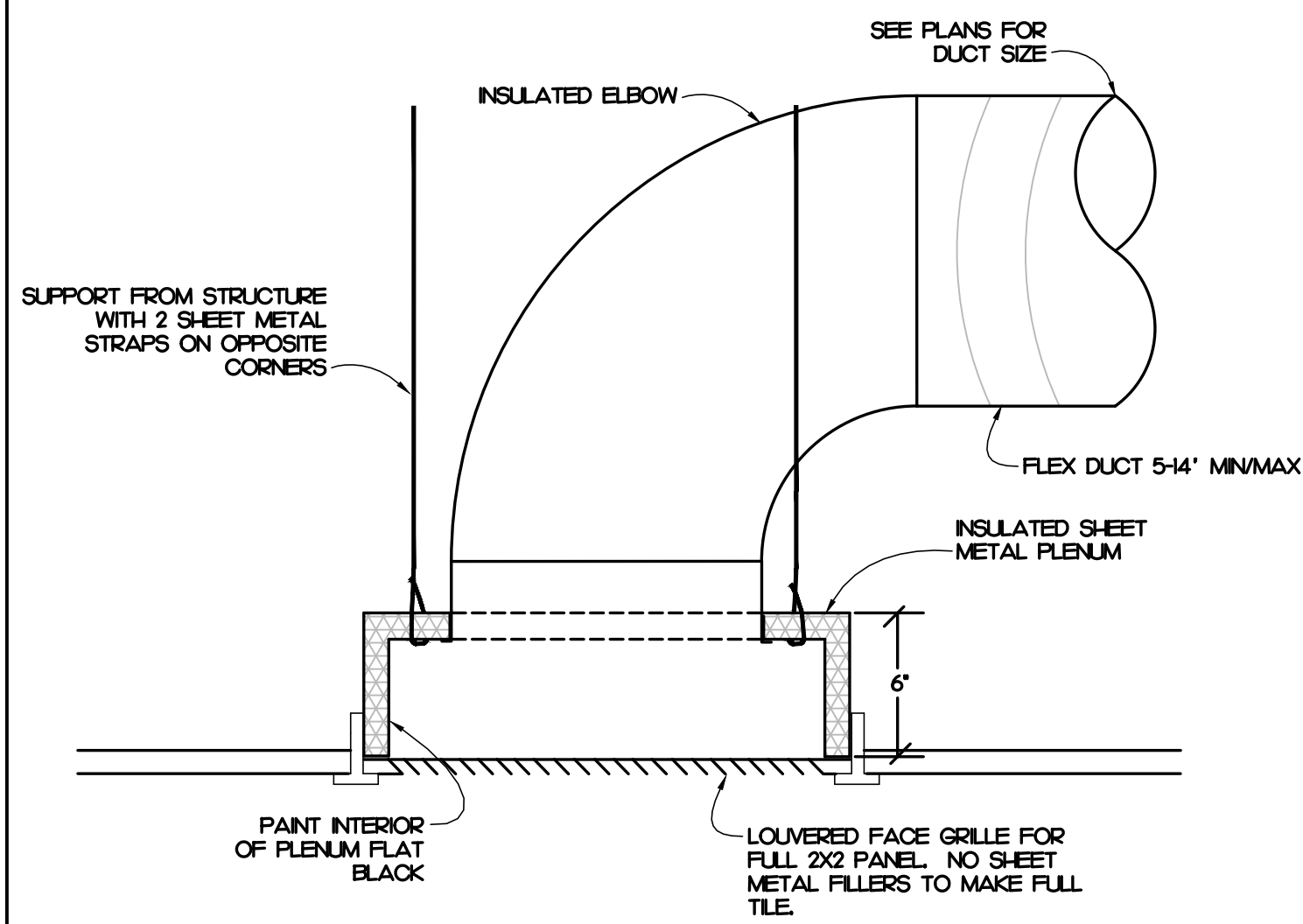
CARTERET COUNTY COURTHOUSE
300 COURT HOUSE SQUARE
BEAUFORT, NC 28516
HVAC + ROOF INSULATION REPAIRS

CONTENTS:
MECHANICAL
RENOVATION PLANS
ALTERNATE BID

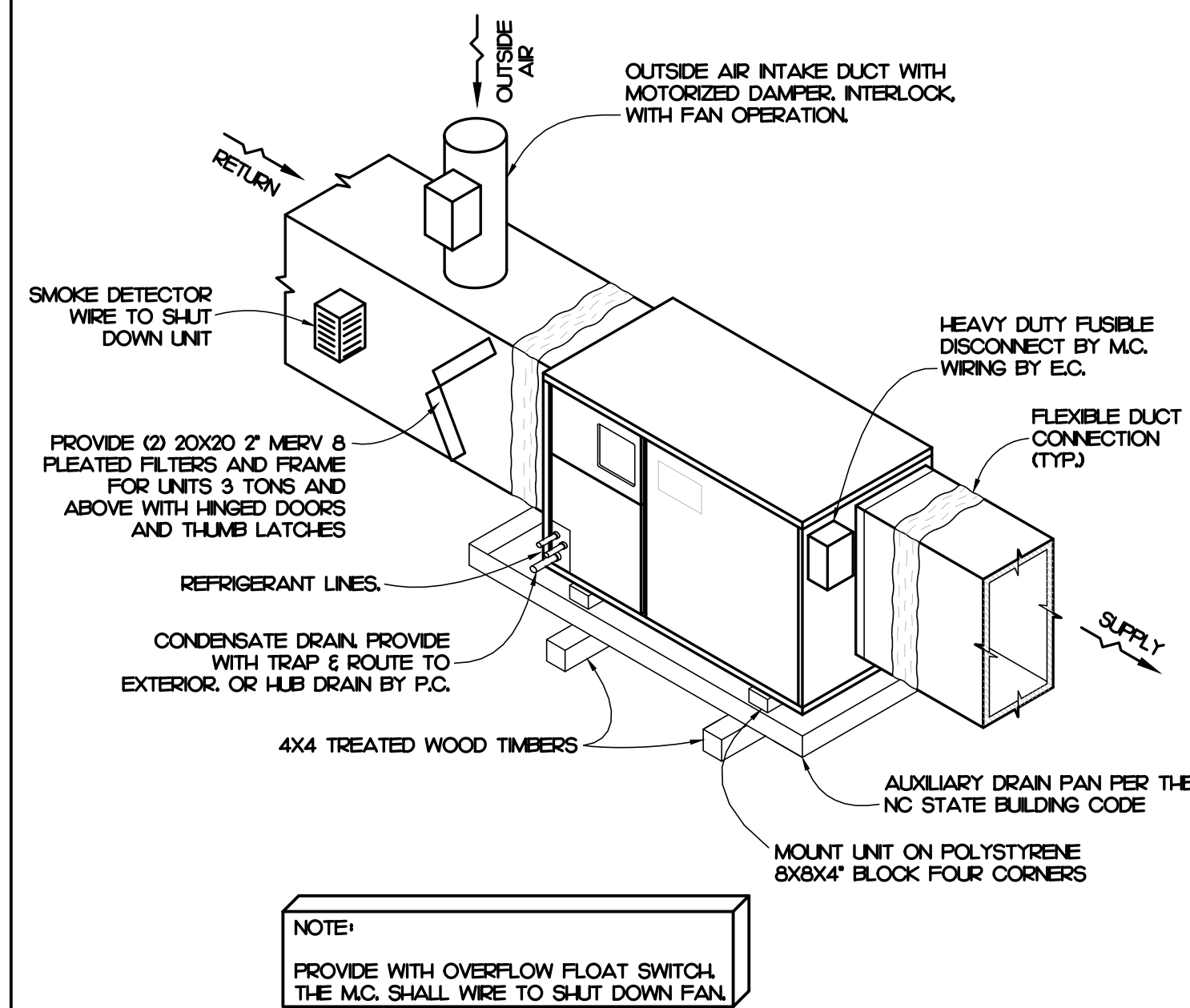
DATE:
SEPTEMBER 1, 2026

DESIGNER: BWF
ENGINEER: BWF

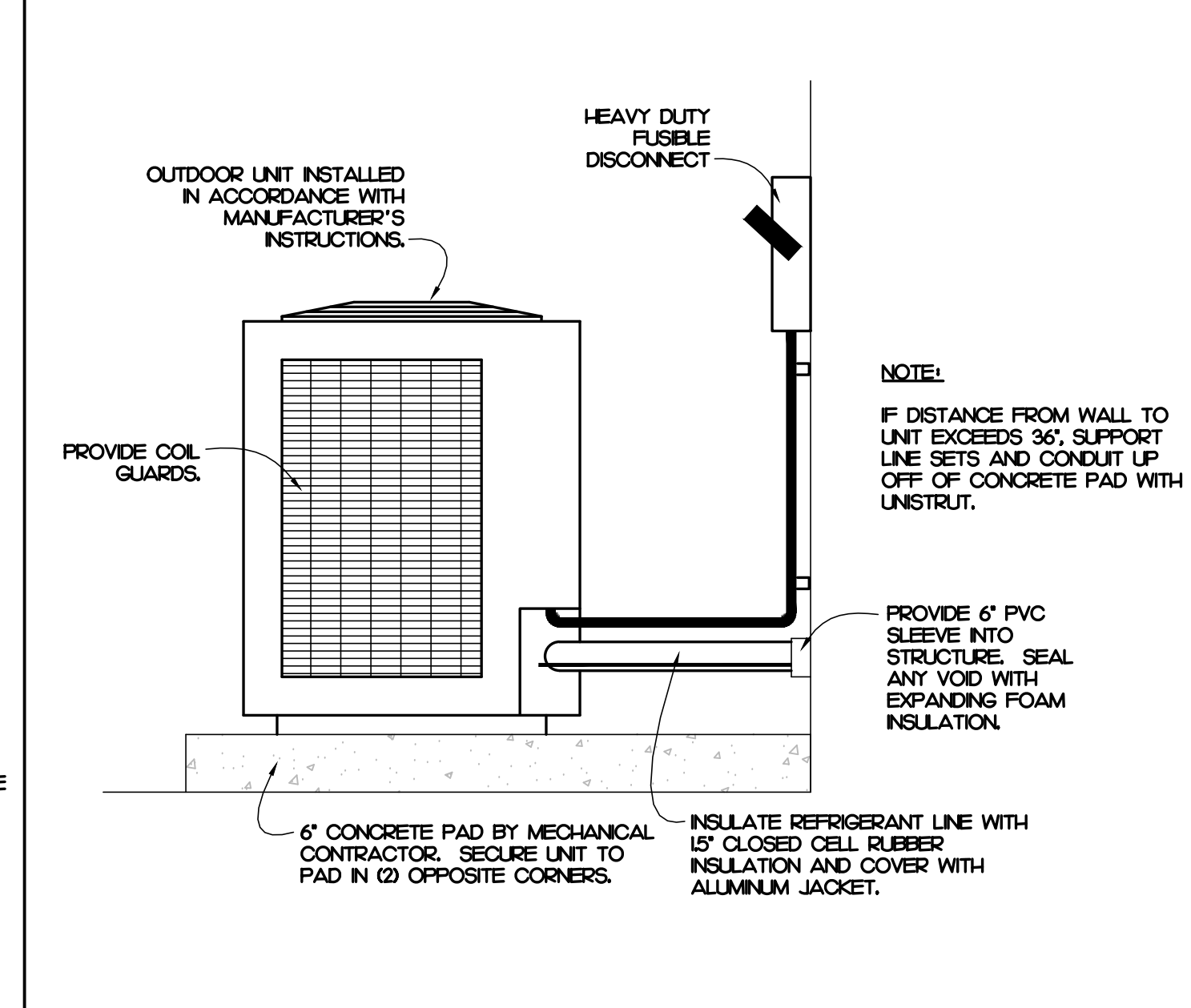
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M-4



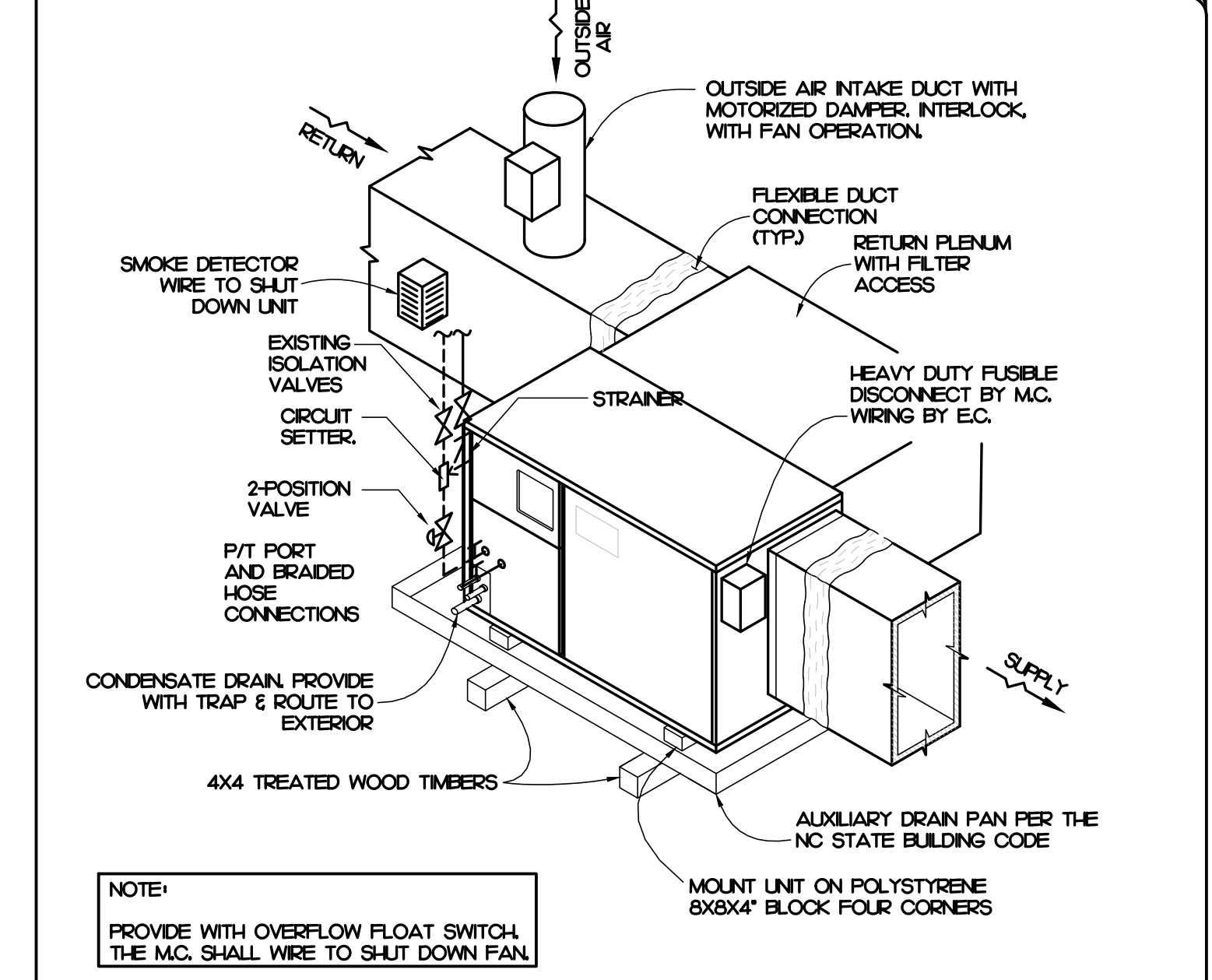
10 RETURN GRILLE DETAIL
NOT TO SCALE



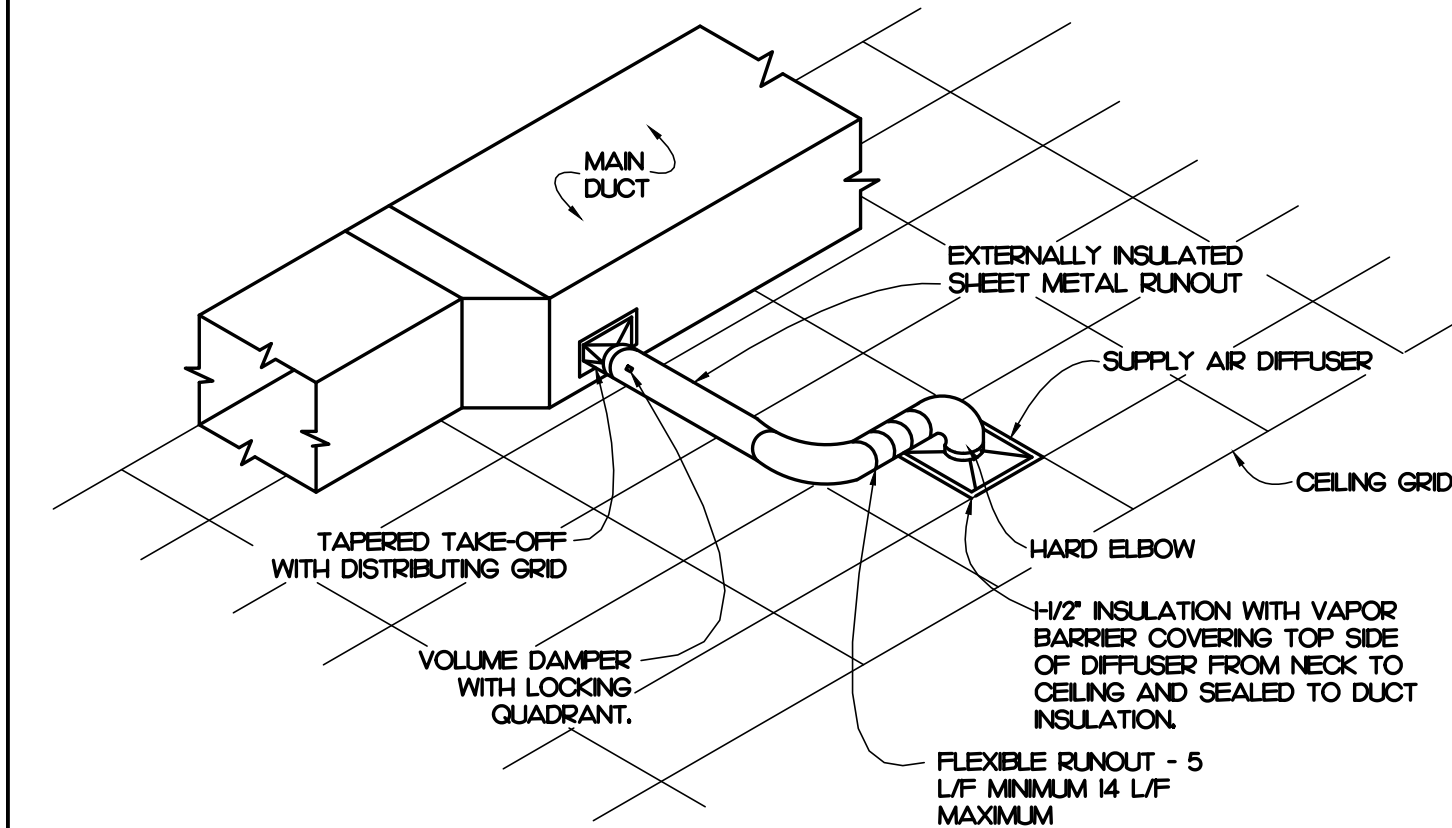
7 AHU FLOOR MOUNTED DETAIL
NOT TO SCALE



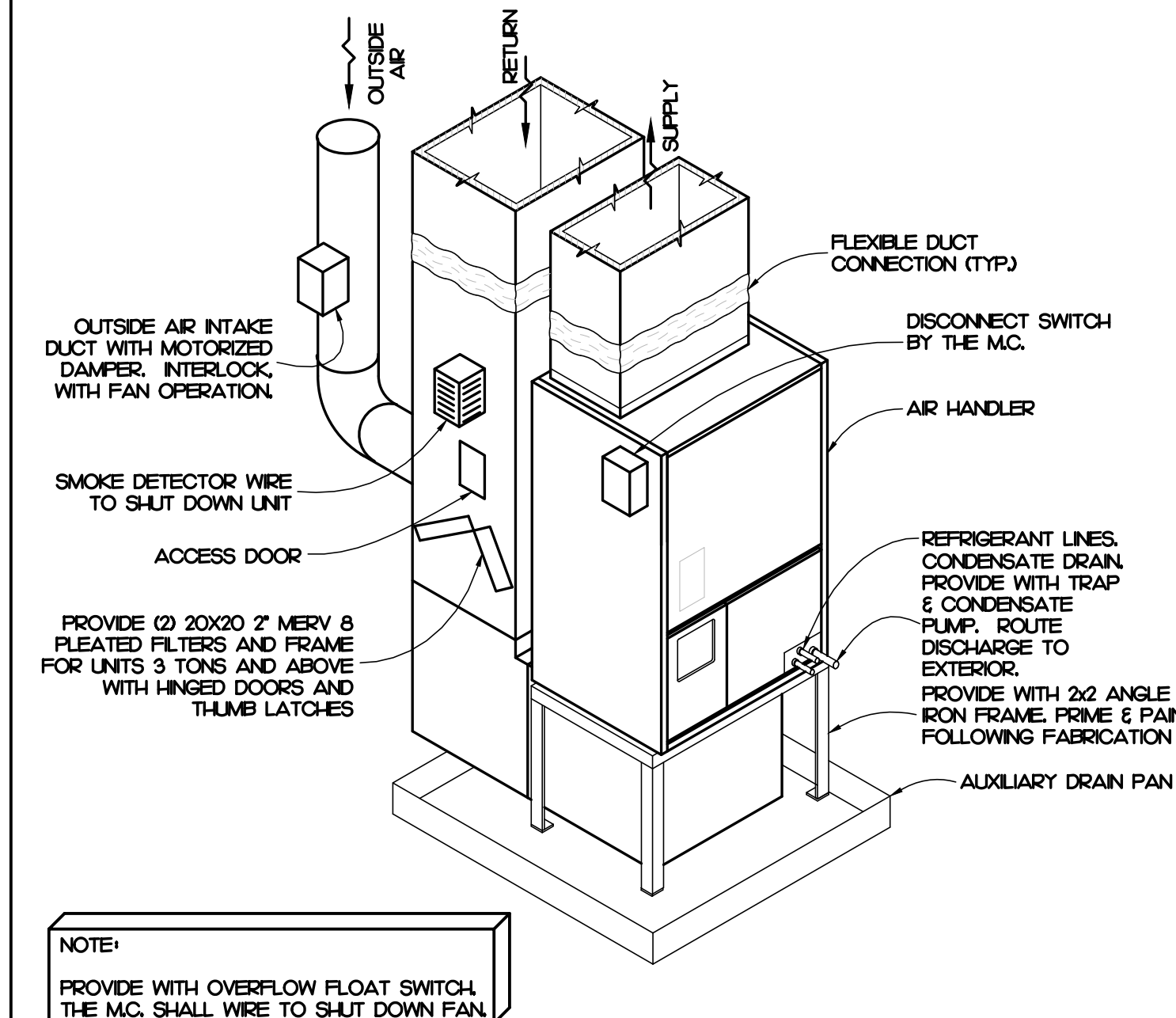
4 OUTDOOR UNIT DETAIL
NOT TO SCALE



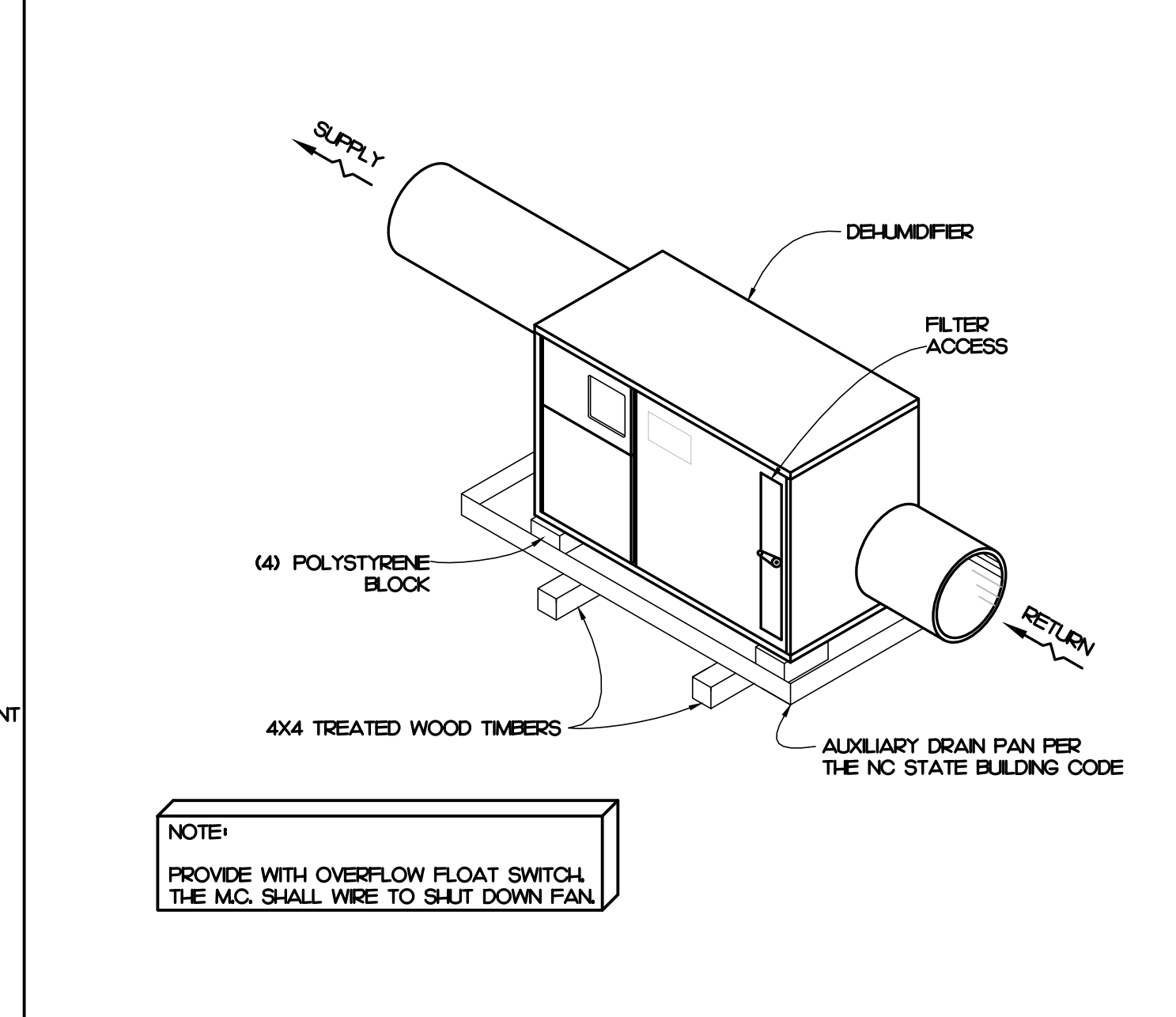
1 WSHP FLOOR MOUNTED DETAIL
NOT TO SCALE



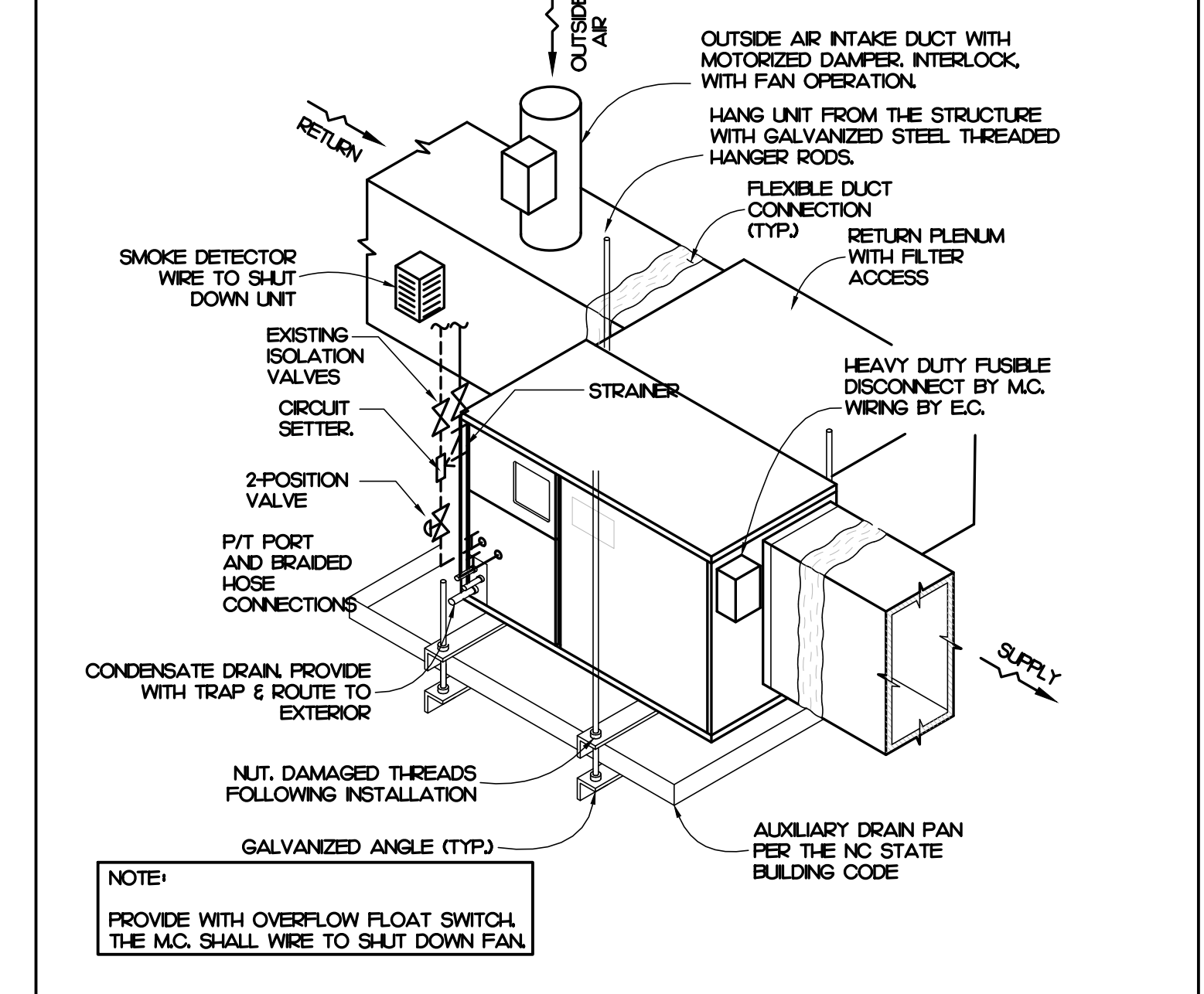
11 SUPPLY GRILLE DETAIL - LAY-IN
NOT TO SCALE



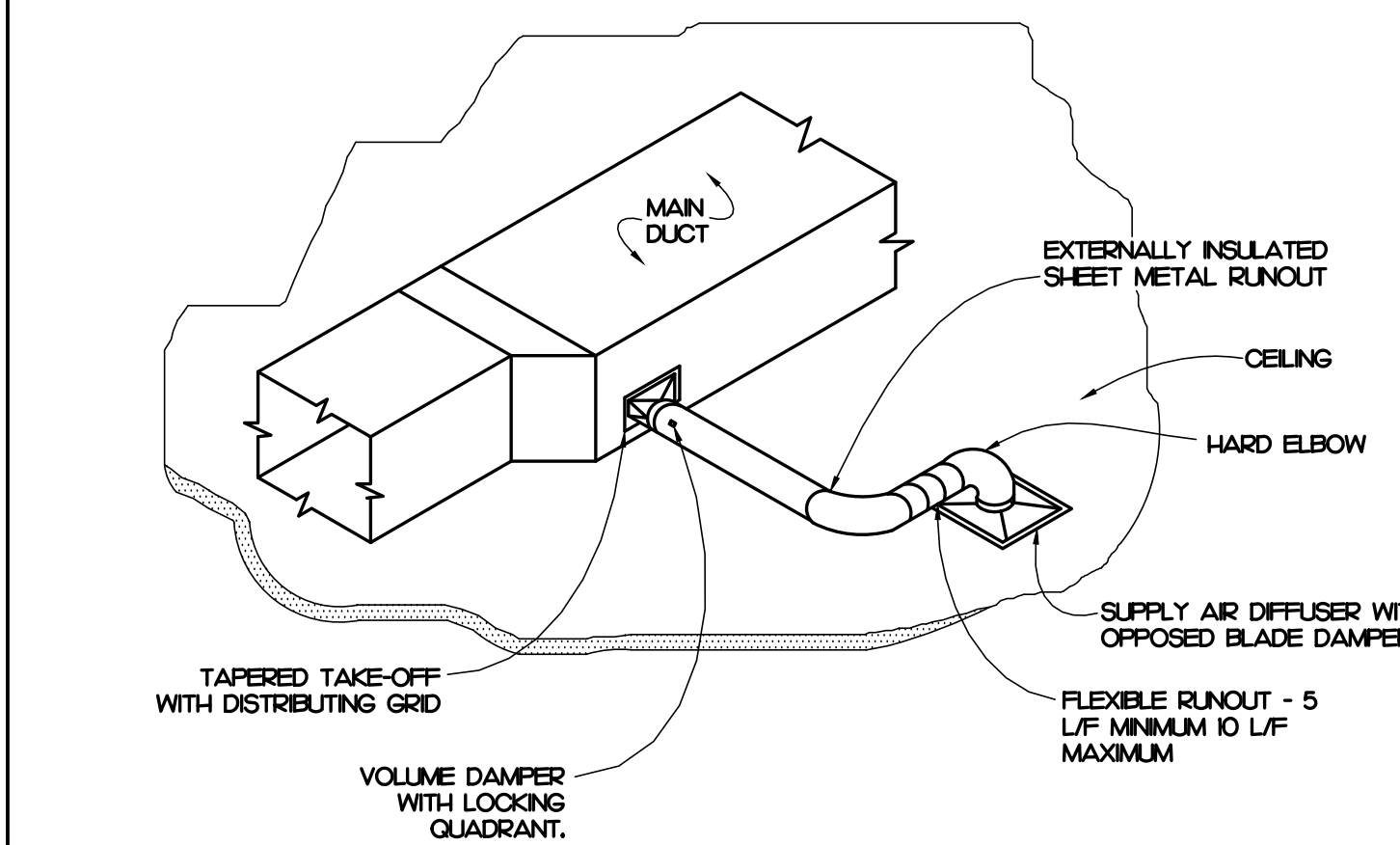
8 AHU VERTICAL DETAIL
NOT TO SCALE



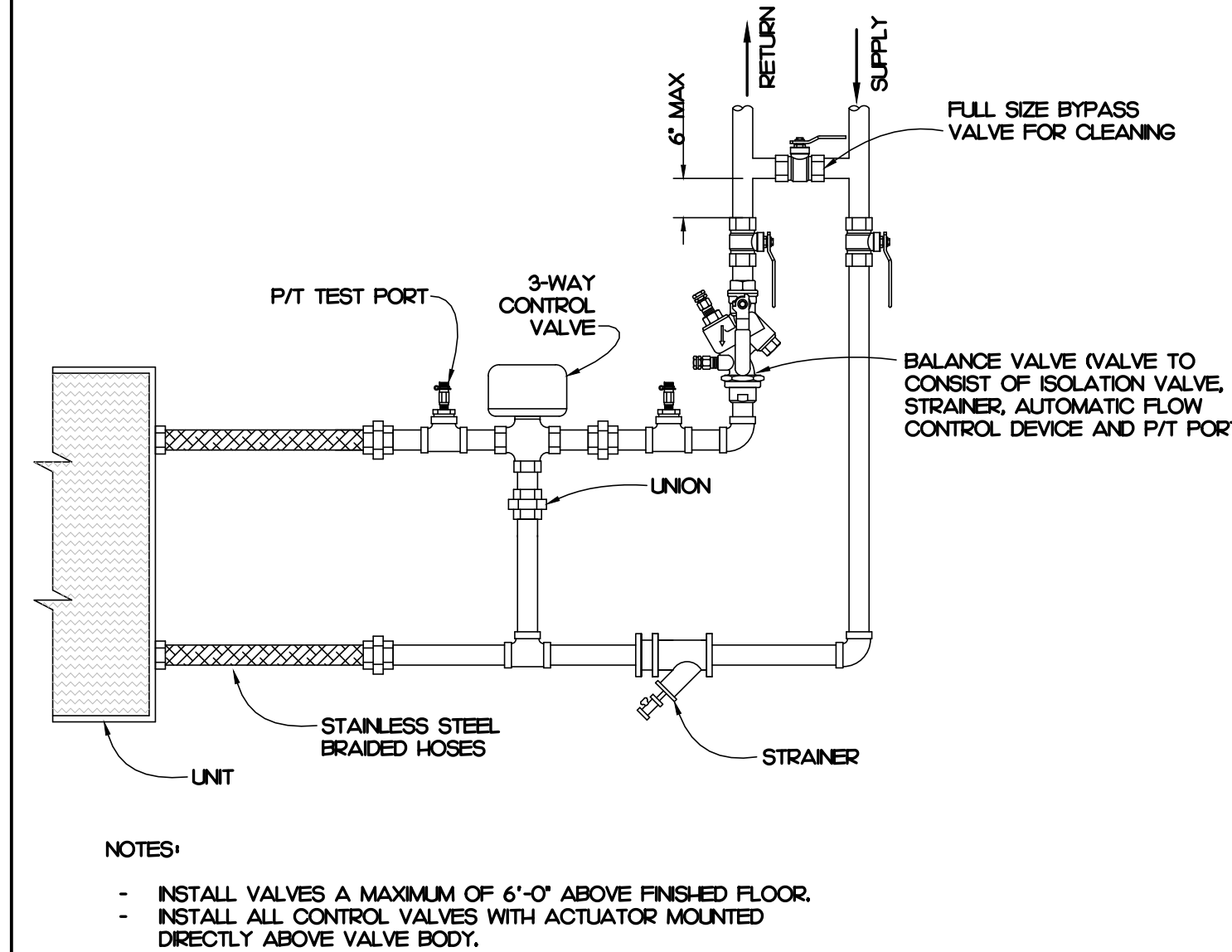
5 DEHUMIDIFIER DETAIL
NOT TO SCALE



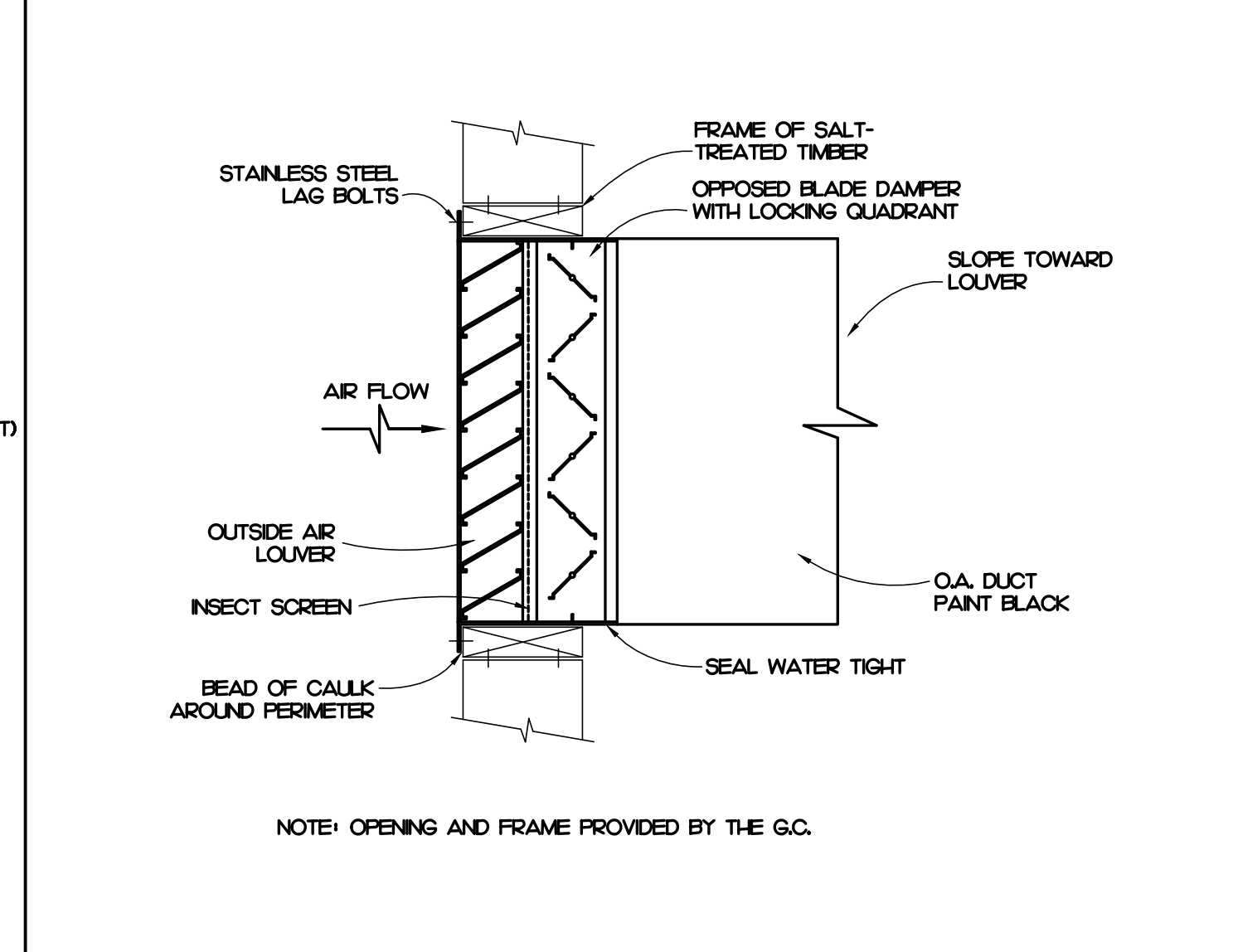
2 WSHP HANGING DETAIL
NOT TO SCALE



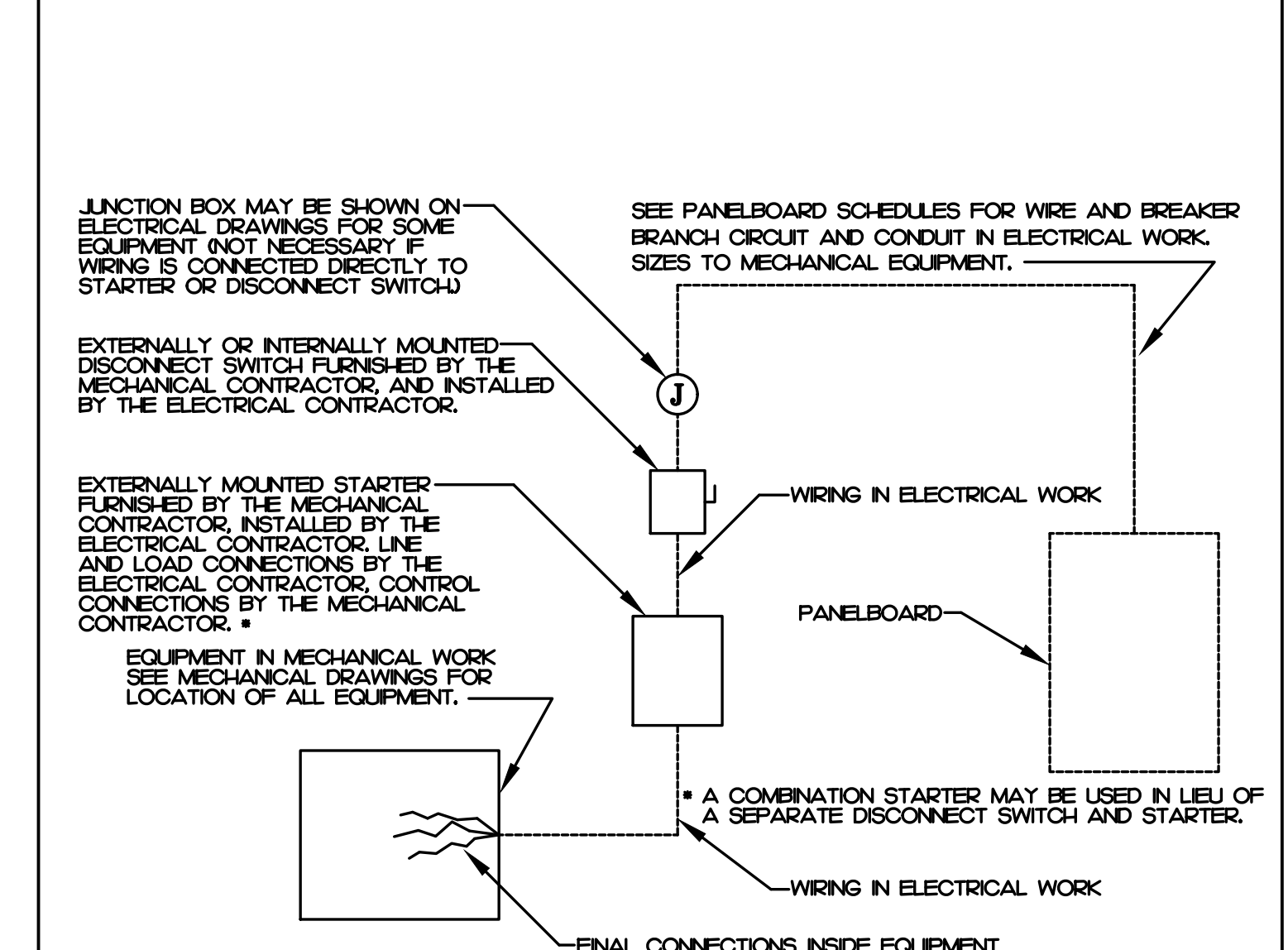
12 SUPPLY GRILLE DETAIL - GYP CLG
NOT TO SCALE



9 WSHP PIPING CONNECTION DETAIL
NOT TO SCALE



6 LOUVER DETAIL
NOT TO SCALE



3 WIRING DETAIL
NOT TO SCALE

REVISIONS					

9/1/2026

IMEG CONSULTANTS CORP. No. F-1507

300 BLUE RIDGE ROAD, STE. 111

 RALEIGH, NC 27601

 P 919.271.1111

 www.imegcorp.com

North Carolina Design Registration WF-1501

 PROJECT # 260036000

PREPARED FOR:
COUNTY OF CARTERET

CARTERET COUNTY COURTHOUSE
300 COURT HOUSE SQUARE
BEAUFORT, NC 28516
HVAC + ROOF INSULATION REPAIRS

CONTENTS:
MECHANICAL DETAILS

DATE:
SEPTEMBER 1, 2026

DESIGNER: **BWF**
 ENGINEER: **BWF**

SHEET NO.

M-5

260036000

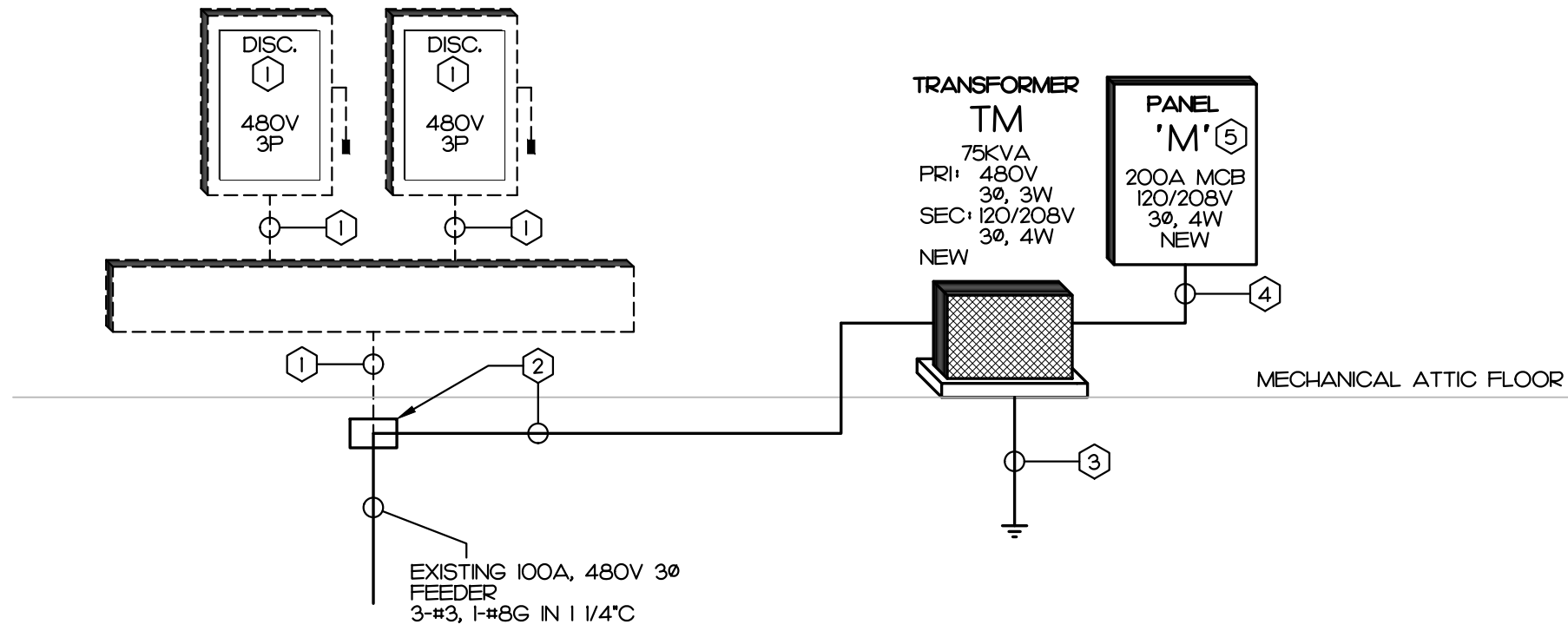
SYMBOL LEGEND

SYMBOL	DESCRIPTION	REMARKS
	EXISTING: DISCONNECT SWITCH TO BE REMOVED. SEE NOTE ON PLAN.	EXISTING
	LINEAR LED STRIP LIGHT FIXTURE	SEE NOTE ON PLAN
	BATTERY BACKUP EMERGENCY LIGHT - CONNECT UNSWITCHED	LITHONIA: EL2L-M2 OR EQUAL
	SINGLE POLE TOGGLE SWITCH. MOUNT 42" AFF. UNLESS NOTED OTHERWISE.	HUBBELL I221-11 WITH NPJ COVER PLATE
	0-60 INTERVAL TIMER SWITCH. 120-277V, 800W • 120V, 1200W • 277V MOUNT 42" AFF. UNLESS NOTED OTHERWISE.	SENSORWORK: SWX-843-60M-WH NPJ26 COVER PLATE
	SPECIFICATION GRADE DUPLEX TAMPER RESISTANT RECEPTACLE. MOUNT 16" AFF. UNLESS OTHERWISE NOTED.	HUBBELL HBL5362-11-TR WITH NPJ26 COVER PLATE
	SPECIFICATION GRADE TAMPER RESISTANT GFCI RECEPTACLE. MOUNT 16" AFF. UNLESS NOTED OTHERWISE.	HUBBELL GFT1RST20-11 WITH NPJ26 COVER PLATE
	SPECIFICATION GRADE DUPLEX TAMPER RESISTANT, WEATHER RESISTANT AND GFCI DUPLEX RECEPTACLE WITH INUSE WEATHER PROOF COVER. MOUNT 16" AFF. UNLESS OTHERWISE NOTED.	HUBBELL GFTWRST20-11 WITH WP26M COVER PLATE
	JUNCTION BOX SIZED PER NEC.	
	EXISTING/NEW: DISCONNECT SWITCH SEE PLANS FOR SIZE AND TYPE. SEE NOTE ON PLAN.	NEW: SQUARE D HEAVY DUTY OR EQUAL
	NEW CONCEALED WIRING	PER NEC.
	UNSWITCHED LIGHTING CONDUCTOR	PER NEC.
	HOME RUN TO PANEL BOARD. NUMBERS OF ARROW INDICATE CIRCUITS	PER NEC.
	EXISTING/NEW: 120/208V 3Ø, 4W PANEL BOARD - SEE PANEL SCHEDULES. SEE NOTE ON PLAN.	NEW: SQUARE D NQ OR EQUAL
	NEW: DRY TYPE DISTRIBUTION TRANSFORMER. SEE POWER RISER	SQUARE D OR EQUAL
AFF.	ABOVE FINISHED FLOOR - NOTE ALL MOUNTING DIMENSIONS GIVEN ARE TO THE BOTTOM OF THE OUTLET BOX	
B.F.G.	BELOW FINISHED GRADE	

NOTE:
1. E.C. SHALL SUBMIT CATALOG SHEETS FOR COLOR AND MATERIAL APPROVAL OF ALL SWITCH, RECEPTACLE AND WALL PLATE TO ARCHITECT PRIOR PURCHASING ANY.

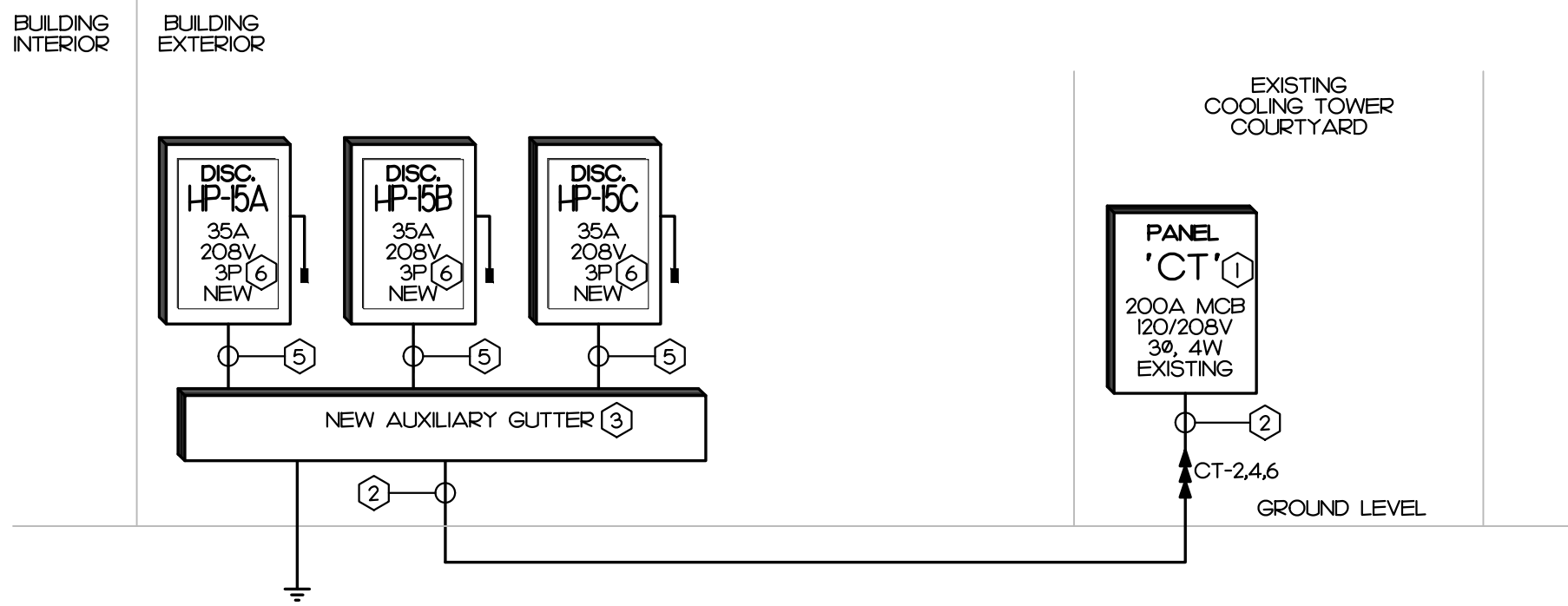
GENERAL NOTES

- THE CONTRACTOR SHALL FIELD VERIFY DIMENSION AT SITE. DO NOT SCALE THESE DRAWINGS.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE ANY AND ALL WORK WITH OTHER TRADES INVOLVED IN THE PROJECT, PRIOR TO THE INSTALLATION OF HIS EQUIPMENT SO AS TO AVOID CONFLICTS DURING CONSTRUCTION AND TO ALLOW FOR OPTIMUM MAINTENANCE AND WORKING SPACE.
- USE OF THE CONDUIT SYSTEM FOR EQUIPMENT GROUNDING SHALL NOT BE ACCEPTABLE. A SEPARATE GREEN GROUND WIRE SHALL BE RUN WITH THE CIRCUIT CONDUCTORS IN EACH CONDUIT.
- ALL BREAKER SIZES, SHOWN FOR MECHANICAL EQUIPMENT, SHALL BE VERIFIED BEFORE THE PURCHASE OR INSTALLATION OF SAID EQUIPMENT, WITH THE EQUIPMENT SUPPLIER AND THE MECHANICAL CONTRACTOR.
- ALL WORK AND MATERIAL SHALL BE PROVIDED IN ACCORDANCE WITH THE STATE, LOCAL AND NATIONAL CODES, ORDINANCES AND 2020 NATIONAL ELECTRICAL CODE (NFPA 70).
- EACH CONTRACTOR SHALL PROVIDE HIS OWN SUPPORT OF ALL DEVICES AND EQUIPMENT PROVIDED BY HIM AND SHALL SUPPORT SUCH EQUIPMENT PER APPROVED GOVERNING CODES OR PER APPROVAL OF THE ENGINEER. UNACCEPTABLE WORKMANSHIP OR MATERIALS SHALL BE REPLACED AT THE REQUEST OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- THE MOUNTING HEIGHTS AND LOCATIONS OF ALL WALL MOUNTED OUTLETS AND JUNCTION BOXES SHALL BE REVIEWED AND COORDINATED WITH THE ENGINEER, PRIOR TO INSTALLATION FOR USE WITH THE ACTUAL EQUIPMENT, CASEWORK, AND MILLWORK TO BE FURNISHED.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY DISCONNECTS, SWITCHES, AND RECEPTACLES UNDER THE ELECTRICAL BID AND SHALL INCLUDE ALL NECESSARY CIRCUITS TO AND FINAL CONNECTIONS TO THE EQUIPMENT PROVIDED BY ALL SUPPLIERS.
- PENETRATION:
 - WHERE ELECTRICAL EQUIPMENT PENETRATES RATED WALLS AND CEILINGS, EXTERIOR WALLS, THEY SHALL BE PROPERLY SEALED PER APPROVED UL METHODS.
 - WHERE ELECTRICAL EQUIPMENT PENETRATES EXTERIOR WALLS, THEY SHALL BE PROPERLY SEALED WITH METHODS APPROVED BY THE ENGINEER. SUBMIT DETAIL OF PROPOSED SEALING METHODS.
- ALL PERMITS AND INSPECTION FEES SHALL BE SECURED AND PAID BY THE ELECTRICAL CONTRACTOR.
- ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE COMPLETE UPDATED TYPEWRITTEN PANEL SCHEDULES FOR ALL PANELBOARDS.
- AS BUILT DRAWINGS SHALL BE GIVEN TO THE OWNER AT THE COMPLETION OF THE PROJECT.
- ALL WIRE SIZES INDICATED ON THE PANEL SCHEDULES ARE BASED ON 75 DEGREE COPPER THINWALL WIRE. ALL WIRE TERMINALS AND EQUIPMENT SHALL BE LISTED AND APPROVED FOR 75°C. ONLY THINWALL WIRE SHALL BE INSTALLED IN WET AND EXTERIOR LOCATION.
- MINIMUM CONDUIT SIZE SHALL BE 1/2" FOR INTERIOR AND 3/4" FOR EXTERIOR.
- MINIMUM WIRE SIZE SHALL BE #12 AWG.
- ARMORED CABLE (TYPE AC) AND METAL-CLAD CABLE (TYPE MC) ARE ACCEPTABLE WIRING METHODS SUBJECT TO THE FOLLOWING RESTRICTIONS:
 - SEE NEC 220 AND 330 FOR RESTRICTION.
 - PENETRATIONS OF RATED WALLS SHALL BE IN ACCORDANCE WITH APPROVED UL PENETRATION METHODS.
 - CABLE SHALL NOT BE USED FOR HOME RUN TO PANEL BOARD.
 - CABLE SHALL ONLY BE INSTALLED IN CONCEALED SPACE AND FURRED AREAS. MAX. LENGTH OF EACH SECTION IN ACCESSIBLE CONCEALED CEILING SPACES SHALL NOT EXCEED 10 FT.
- THE MAXIMUM NUMBER OF HOMERUNS IN A CONDUIT SHALL NOT EXCEED THREE (3). FEEDING CIRCUITS WITH SHARED NEUTRAL SHALL BE SWITCHED TOGETHER.
- WHERE OUTLETS ARE SHOWN BACK TO BACK ON RATED WALLS, STAGGER OUTLETS SO THAT THEY ARE SEPARATED BY A MINIMUM OF 24".
- ALL DISCONNECTS SHALL HAVE SEPARATE NEUTRAL AND GROUND BARS.
- ALL PANELS SHALL BE THREE PHASE, FOUR WIRE UNLESS OTHERWISE NOTED.
- BOXES AND CONDUITS SHALL NOT BE INSTALLED RECESSED IN A 3-HOUR OR HIGHER RATED WALL, WHEN OUTLETS ARE INDICATED ON THESE WALLS, FIELD COORDINATE CONDUIT AND BOX INSTALLATION.
- FOR ALL RECEPTACLES LOCATED ABOVE COUNTER TOP, MOUNTING HEIGHT SHALL COMPLY WITH ANSI M17L SECTION 308. E.G. SHALL FIELD VERIFY CASEWORK DETAIL WITH ARCHITECT PRIOR TO PROUGH-IN.
- ELECTRICAL IDENTIFICATION:
 - FURNISH AND INSTALL ENGRAVED LAMINATED PHENOLIC NAMEPLATES FOR ALL SAFETY SWITCHES, PANEL BOARDS, TRANSFORMERS, SWITCH-BOARDS, MOTOR CONTROL CENTERS AND OTHER ELECTRICAL EQUIPMENT SUPPLIED FOR THE PROJECT FOR IDENTIFICATION.
 - FURNISH AND INSTALL SELF-ADHESIVE PLASTIC TAPE FOR ALL RECEPTACLE AND WALL SWITCH COVER PLATES INDICATING CIRCUIT NUMBERS.



ALTERNATE BID BUILDING PARTIAL POWER RISER IDIAGRAM

NO SCALE



KEY NOTES

- EXISTING COOLING TOWER PANEL BOARD. SEE PANEL SCHEDULE FOR DETAIL.
- NEW FEEDER:
 - 3-#3, 1-HBG IN 1 1/4" C.
 - CONDUIT RUN UNDERGROUND FROM COOLING TOWER COURTYARD TO THE NEW AUXILIARY GUTTER.
 - SEE NOTE ON PLAN FOR INSTALLATION REQUIREMENTS.
- NEMA 3R AUXILIARY GUTTER. MOUNT ON BUILDING EXTERIOR.
 - SIZE PER NEC.
 - TAP ALL CONDUCTORS WITH TERMINAL TYPE PER APPROVED METHODS.
- GROUNDING ELECTRODE CONDUCTORS PER NEC 250.
 - 1-HBG CU TO 2 DRIVEN RODS. CONNECT TO GROUND WIRE FROM PANEL CT.
- TAP CONDUCTORS.
 - 3-#3, 1-HBG IN 1 C.
- 60A, 240VAC, 3P NEMA 3R FUSEBLE DISCONNECT. PROVIDE 35A FUSES TO MATCH EQUIPMENT MOCP.
 - PROVIDE 3-#3, 1-HBG IN 3/4" FROM DISCONNECT LOAD SIDE TO THE MECHANICAL EQUIPMENT AS REQUIRED.

ALTERNATE BID COOLING TOWER PARTIAL POWER RISER IDIAGRAM

NO SCALE

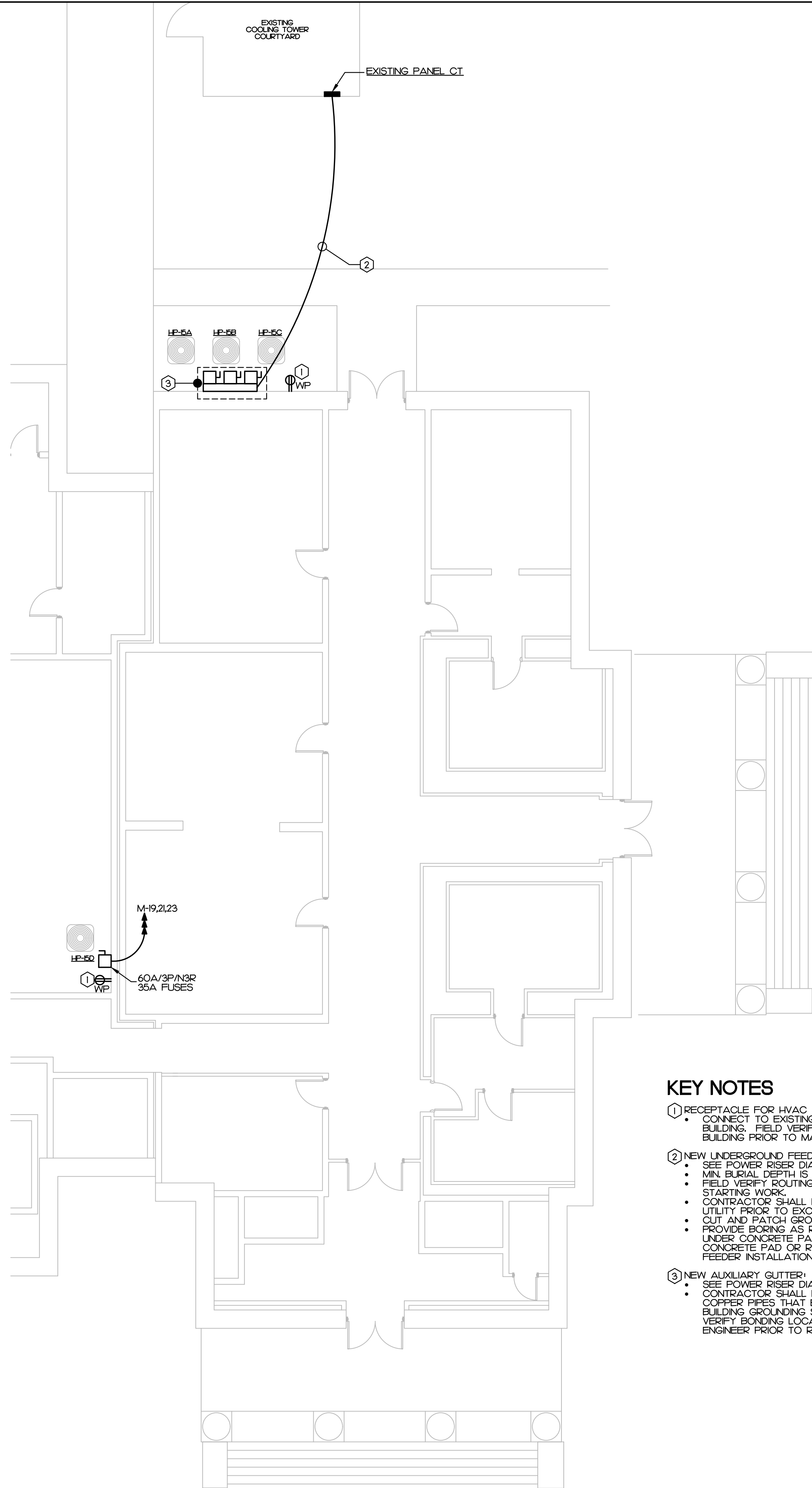
PANEL M														120/208V, 3 PHASE, 4 WIRE													
CKT	DESCRIPTION		KVA	C	G	W	CB	CKT	CKT	CB	W	G	C	KVA	DESCRIPTION		CKT										
1	AHU-HB	2ND FLOOR	4.3	3/4	10	8	45	1	2	45	8	10	3/4	4.3	ATTIC	AHU-HA	2										
3			4.3	--	--	8	3P	3	4	3P	8	--	--	4.3			4										
5			3.6	--	--	8	--	5	6	--	8	--	--	3.6			6										
7	AHU-HC	2ND FLOOR	4.3	3/4	10	8	45	7	8	20	12	12	1/2	12	ATTIC		DH-H	8									
9			4.3	--	--	8	3P	9	10	20	--	--	--	0.0		SPARE	10										
11			3.6	--	--	8	--	11	12	20	--	--	--	0.0		SPARE	12										
13	AHU-HD	2ND FLOOR	4.3	3/4	10	8	45	13	14	20	--	--	--	0.0		SPARE	14										
15			4.3	--	--	8	3P	15	16	--	--	--	--	0.0		SPACE ONLY	16										
17			3.6	--	--	8	--	17	18	--	--	--	--	0.0		SPACE ONLY	18										
19	H-P-5D	EXTERIOR	2.3	3/4	10	8	35	19	20	--	--	--	--	0.0		SPACE ONLY	20										
21			2.3	--	--	8	3P	21	22	--	--	--	--	0.0		SPACE ONLY	22										
23			2.3	--	--	8	--	23	24	--	--	--	--	0.0		SPACE ONLY	24										
25	SPACE ONLY		0.0	--	--	--	--	25	26	--	--	--	--	0.0		SPACE ONLY	26										
27	SPACE ONLY		0.0	--	--	--	--	27	28	--	--	--	--	0.0		SPACE ONLY	28										
29	SPACE ONLY		0.0	--	--	--	--	29	30	--	--	--	--	0.0		SPACE ONLY	30										
DESCRIPTION		CONNECTED KVA	DEMAND FACTOR	DEMAND KVA	200 A MINIMUM BUS SIZE 200 A MAIN CIRCUIT BREAKER 10 K MINIMUM AIC RATING				SURFACE MOUNTING NEMA 1 ENCLOSURE GROUND BAR																		
CONT. LOAD		0.00	100%	0.00																							
RECEPTACLE		0.00	100%/50%	0.00																							
MTRS/COOLS		5.76	100%	5.76																							
HEATS		49.97	100%	49.97																							
WATER HEATER		0.00	100%	0.00																							
EQUIPMENT		1.22	100%	1.22	1. SQUARE D: NO OR EQUAL								CONNECTED LOADS														
KITCHEN EQUIP.		0.00	65%	0.00									PHASE A: 20.8 KVA														
SPECIAL EQ.		0.00	100%	0.00									PHASE B: 19.5 KVA														
25% OF LARGEST HVAC/MOTOR		0.00		0.00									PHASE C: 16.7 KVA														
TOTAL DEMAND				56.95									TOTAL: 57 KVA														
													DEMAND 158 AMP														

26003330.00

1

ALTERNATE BID ELECTRICAL RENOVATION PLAN - FIRST FLOOR

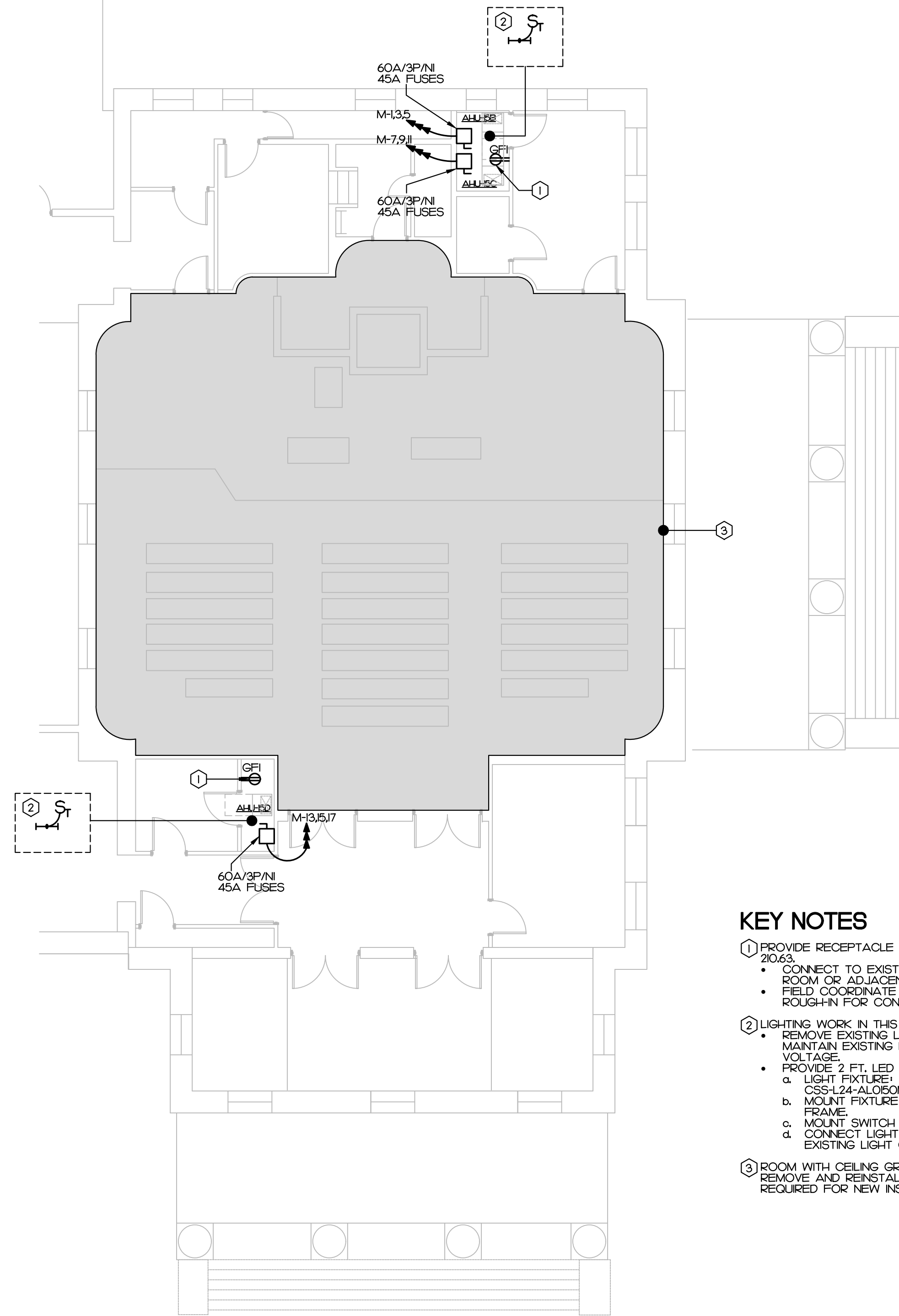
1/8" = 1'-0"



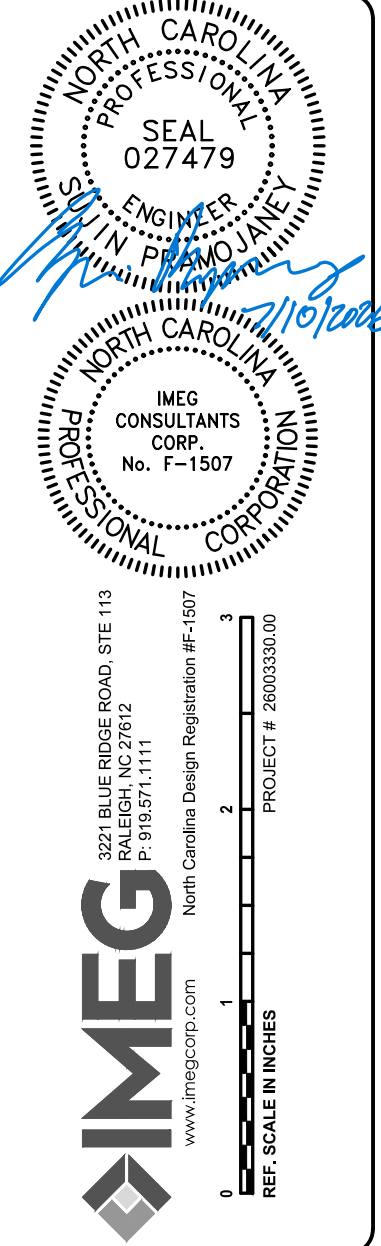
2

ALTERNATE BID ELECTRICAL RENOVATION PLAN - SECOND FLOOR

1/8" = 1'-0"



REVISIONS



PREPARED FOR:
COUNTY OF
CARTERET

CARTERET COUNTY COURTHOUSE
300 COURT HOUSE SQUARE
BEAUFORT, NC 28516
HVAC + ROOF INSULATION REPAIRS

CONTENTS:
ELECTRICAL PLANS
FIRST AND SECOND FL.
ALTERNATE BID

DATE:
SEPTEMBER 1, 2026

DESIGNER: SP
ENGINEER: SP

SHEET NO.

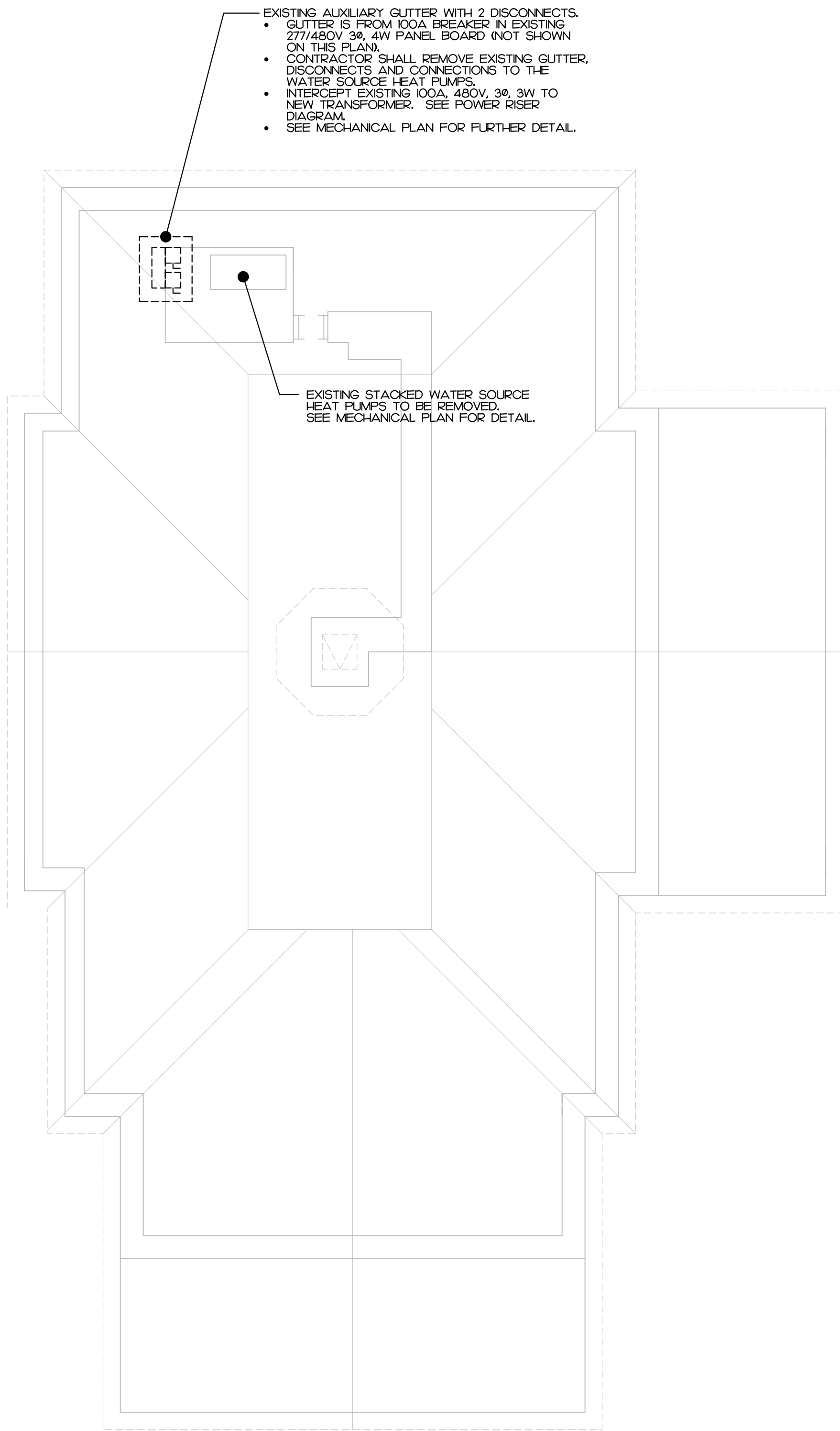
E-2

26003330.00

1

ALTERNATE BID
ELECTRICAL DEMOLITION PLAN - ATTIC

1/8" = 1'-0"



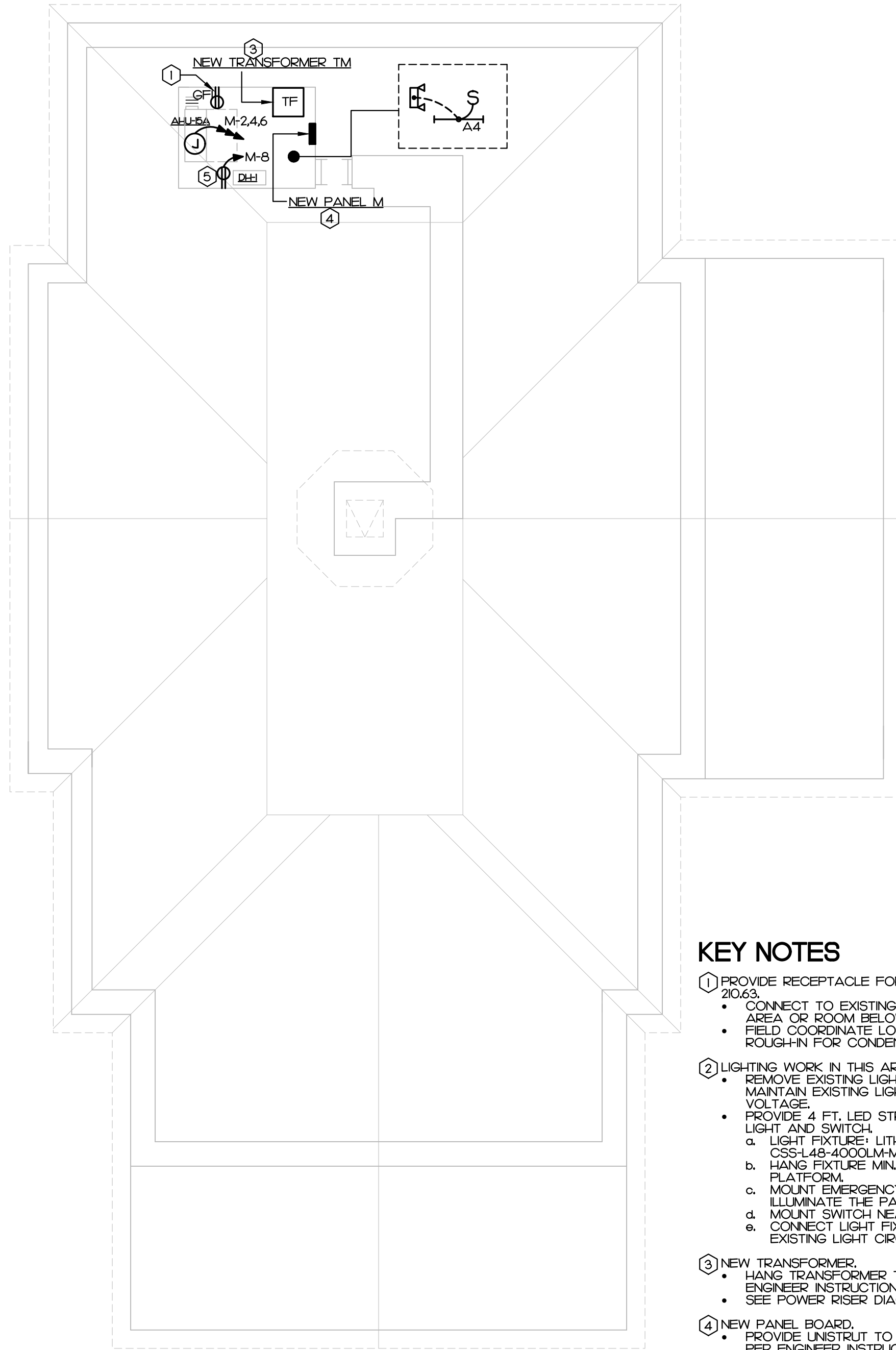
- EXISTING AUXILIARY GUTTER WITH 2 DISCONNECTS.
- GUTTER IS FROM 100A BREAKER IN EXISTING 277/480V 3Ø, 4W PANEL BOARD (NOT SHOWN ON THIS PLAN).
 - CONTRACTOR SHALL REMOVE EXISTING GUTTER, DISCONNECTS AND CONNECTIONS TO THE WATER SOURCE HEAT PUMPS.
 - INTERCEPT EXISTING 100A, 480V, 3Ø, 3W TO NEW TRANSFORMER. SEE POWER RISER DIAGRAM.
 - SEE MECHANICAL PLAN FOR FURTHER DETAIL.

EXISTING STACKED WATER SOURCE
HEAT PUMPS TO BE REMOVED.
SEE MECHANICAL PLAN FOR DETAIL.

2

ALTERNATE BID
ELECTRICAL RENOVATION PLAN - ATTIC

1/8" = 1'-0"



KEY NOTES

- PROVIDE RECEPTACLE FOR HVAC SERVICE PER NEC 210.63.
 - CONNECT TO EXISTING RECEPTACLE CIRCUIT IN THIS AREA OR ROOM BELOW. FIELD VERIFY CIRCUIT.
 - FIELD COORDINATE LOCATION WITH MC, PRIOR TO ROUGH-IN FOR CONDENSATE PUMP TO PLUG-IN.
- LIGHTING WORK IN THIS AREA.
 - REMOVE EXISTING LIGHT FIXTURE AND SWITCH. MAINTAIN EXISTING LIGHT CIRCUIT. FIELD VERIFY VOLTAGE.
 - PROVIDE 4 FT. LED STRIP LIGHT FIXTURE, EMERGENCY LIGHT AND SWITCH.
 - LIGHT FIXTURE: LITHONIA CSS148-4000LMH-VOLT-40K-80CRI OR EQUAL.
 - HANG FIXTURE MIN. 8 FT. AFF. ABOVE THE PLATFORM.
 - MOUNT EMERGENCY LIGHT SUCH THAT IT WILL ILLUMINATE THE PANEL BOARD.
 - MOUNT SWITCH NEAR ATTIC ACCESS.
 - CONNECT LIGHT FIXTURES AND SWITCH TO EXISTING LIGHT CIRCUIT.
- NEW TRANSFORMER.
 - HANG TRANSFORMER TO STRUCTURE ABOVE PER ENGINEER INSTRUCTION.
 - SEE POWER RISER DIAGRAM.
- NEW PANEL BOARD.
 - PROVIDE UNISTRUT TO MOUNT PANEL AS REQUIRED PER ENGINEER INSTRUCTION.
 - ALL CLEARANCE SHALL BE PER NEC.
 - SEE POWER RISER DIAGRAM.
- RECEPTACLE FOR DH-1.
 - FIELD VERIFY LOCATION WITH MC, PRIOR TO ROUGH-IN.

CARTERET COUNTY COURTHOUSE
300 COURT HOUSE SQUARE
BEAUFORT, NC 28516
HVAC + ROOF INSULATION REPAIRS

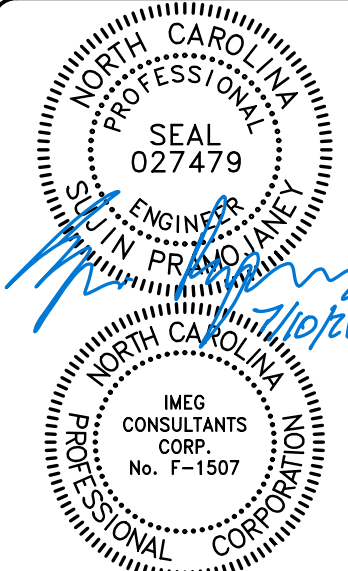
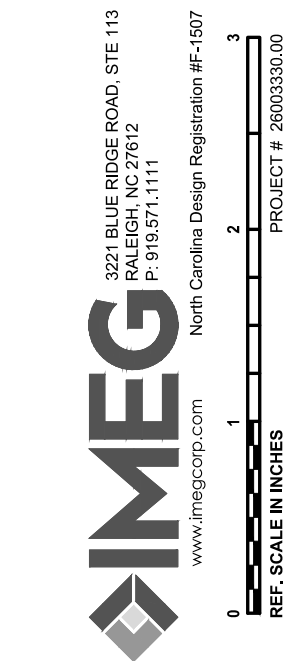
CONTENTS:
ELECTRICAL PLANS
ATTIC
ALTERNATE BID

DATE:
SEPTEMBER 1, 2026

DESIGNER: SP
ENGINEER: SP

SHEET NO.
E-3

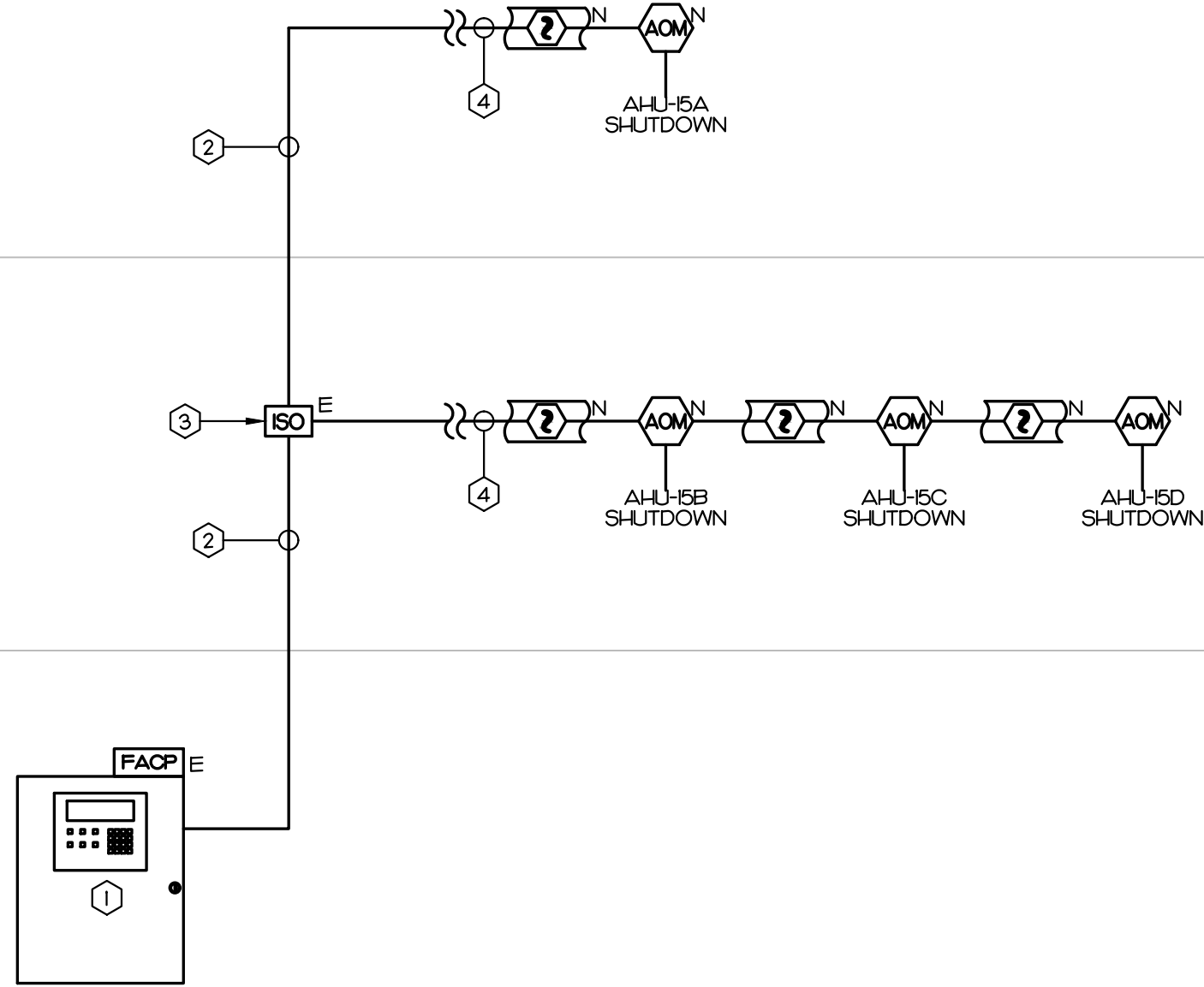
PREPARED FOR:
COUNTY OF
CARTERET



REVISIONS

SYMBOL LEGEND

SYMBOL	DESCRIPTION	REMARKS
 E	EXISTING: FIRE ALARM CONTROL PANEL, SURFACE MOUNTED, ADDRESSABLE. LOCATION IS NOT SHOWN IN THIS PLAN. FIELD VERIFY LOCATION AT SITE WITH OWNER.	EST1: EST2
 E	EXISTING: DUCT SMOKE DETECTOR, PHOTOELECTRIC WITH SAMPLING TUBE AND REMOTE TEST SWITCH. ADDRESSABLE. BASE BID: TO REMAIN. SEE NOTE ON PLAN.	EXISTING EST
 E	EXISTING: RELAY CONTROL MODULE ADDRESSABLE. BASE BID: TO REMAIN. SEE NOTE ON PLAN.	EXISTING EST
 E	EXISTING: DUCT SMOKE DETECTOR, PHOTOELECTRIC WITH SAMPLING TUBE AND REMOTE TEST SWITCH. ADDRESSABLE. ALTERNATE BID: TO BE REMOVED. SEE NOTE ON PLAN.	EXISTING EST
 E	EXISTING: RELAY CONTROL MODULE ADDRESSABLE. ALTERNATE BID: TO BE REMOVED. SEE NOTE ON PLAN.	EXISTING EST
 N	NEW: DUCT SMOKE DETECTOR, PHOTOELECTRIC WITH SAMPLING TUBE AND REMOTE TEST SWITCH. ADDRESSABLE. ALTERNATE BID.	EST1: TO MATCH EXISTING EST2: FACP
 N	NEW: RELAY CONTROL MODULE ADDRESSABLE. ALTERNATE BID.	EST1: TO MATCH EXISTING EST2: FACP



KEY NOTES

- EXISTING ADDRESSABLE FACP (EST2). FIELD VERIFY LOCATION AT SITE.
- EXISTING ADDRESSABLE CIRCUIT.
- EXISTING ISOLATOR MODULE, SHOWN FOR REFERENCE AND ADDRESSABLE BRANCHING TO SERVE DIFFERENCE FLOORS PER NFPA 72.
- EXISTING ADDRESSABLE CIRCUIT IN THE PROJECT AREA.
 - CONNECT TO NEW DEVICES AS SHOWN.
 - CONTRACTOR SHALL FIELD VERIFY EXISTING.
 - IF THERE IS NO ADDRESSABLE CIRCUIT IN THE PROJECT AREA, CONTRACTOR SHALL INCLUDE NEW ADDRESSABLE CIRCUIT INSTALLATION IN THE PROJECT COST (ANY LENGTH). NO CHANGE ORDER ALLOWED.

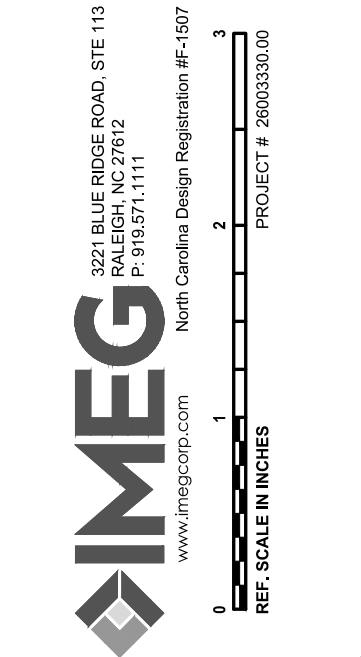
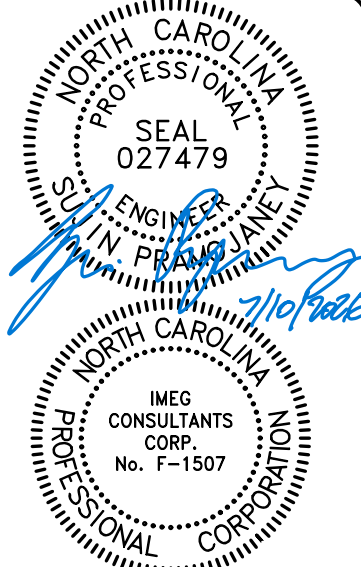
FIRE ALARM NOTES

- SEE PLANS FOR QUANTITY AND LOCATION OF ALL EQUIPMENT.
 - THIS PLAN SHOWS ONLY ADDITIONAL EQUIPMENT TO EXISTING FIRE ALARM SYSTEM.
 - E.C. SHALL VERIFY CAPACITY OF EXISTING SYSTEM PRIOR DO ANY MODIFICATION.
 - ALL MODIFICATION SHALL NOT VOID EXISTING SYSTEM CURRENT WARRANTY OR SERVICE CONTRACT.
 - REPROGRAM EXISTING PANEL AS REQUIRED BY E.C.
- CONTRACTOR SHALL PROVIDE COMPLETE DOCUMENT PER 2018 FIRE CODE SECTION 907J.1 AND 907J.2 TO TO ENGINEER FOR APPROVAL PRIOR TO SUBMIT TO AND TESTING BY LOCAL FIRE MARSHAL'S OFFICE.
- PLACARD THE ENTIRE FIRE ALARM SYSTEM. PROVIDE PANEL AND CIRCUIT NUMBERS ON A NAME PLATE AFFIXED TO THE FACE OF THE FIRE ALARM CONTROL PANEL.
- CONTRACTOR SHALL PROVIDE ZONE MAPS COMPLETE WITH ADDRESSES FOR EACH FIRE ALARM DEVICE IN WOODEN FRAME ADJACENT TO THE EXISTING FIRE ALARM CONTROL PANEL.
- ELECTRICAL CONTRACTOR SHALL PROVIDE BATTERY CALCULATIONS AND CUT SHEETS FOR FIRE ALARM SYSTEM TO ENGINEER FOR APPROVAL.
- ALL WIRING SHALL BE SUPERVISED.
- ALL WIRING SHALL BE PER MANUFACTURER'S SPECIFICATIONS.
- ALL WIRING IN WALLS OR FURRED SPACES SHALL BE IN CONDUIT.
- WHERE PERMITTED BY CODE, WIRING ABOVE ACCESSIBLE CEILINGS MAY BE RUN EXPOSED AND THE FOLLOWING REQUIREMENTS SHALL BE MET:
 - WIRING SHALL BE PLENUM RATED WHERE APPLICABLE.
 - PROVIDE BRIDLE RINGS FOR INDEPENDENT FIRE ALARM CABLE SUPPORT UNLESS SPECIFICALLY NOTED OTHERWISE. ANALOG LOOP WIRING INCOMING AND OUTGOING SHALL NOT BE SUPPORTED IN THE SAME BRIDLE RING.
- ADDRESSABLE SLC CIRCUIT REQUIREMENTS:
 - WIRING CLASS SHALL BE PER EXISTING. FIELD VERIFY.
- FOR ALL AHU UNITS WITH REQUIRED DUCT DETECTOR PER MECHANICAL PLAN:
 - THE FIRE ALARM CONTRACTOR SHALL PROVIDE DUCT MOUNTED SMOKE DETECTORS FOR INSTALLATION BY THE MECHANICAL CONTRACTOR WITHIN THE DUCT.
 - ANY ALARM SHALL SHUT DOWN ALL AIR HANDLING UNITS.
 - SHUT DOWN SHALL BE ACHIEVED VIA FACP CONTROLLED RELAY (WITHIN FACP OR ADDRESSABLE RELAY). SHUT DOWN VIA THE DUCT SMOKE DETECTOR CONTROLLED RELAY IS NOT ACCEPTABLE.
 - FIRE ALARM CONTRACTOR SHALL PROVIDE WIRING AND RELAYS AS REQUIRED FOR AIR HANDLING SHUTDOWN. FIELD COORDINATE AIR HANDLING UNIT SHUTDOWN WITH MECHANICAL CONTROL SYSTEM. FINAL CONNECTIONS OF WIRING FOR HVAC SYSTEM SHALL BE BY THE ELECTRICAL CONTRACTOR.
 - CONTRACTOR SHALL PROVIDE A SMOKE MACHINE TO TEST THE DUCT DETECTION PORTION OF THE FIRE ALARM SYSTEM. SMOKE BOMBS AND/OR MAGNETS FOR TESTING OF THE DUCT DETECTION SYSTEM IS PROHIBITED.

ALTERNATE BID
PARTIAL FIRE ALARM RISER AND NOTES

1
NO SCALE

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CARTERET COUNTY COURTHOUSE
300 COURT HOUSE SQUARE
BEAUFORT, NC 28516
HVAC + ROOF INSULATION REPAIRS

CONTENTS:
FIRE ALARM LEGEND
ALTERNATE BID
RISER AND NOTES

DATE:
SEPTEMBER 1, 2026

DESIGNER: SP
ENGINEER: SP

SHEET NO.

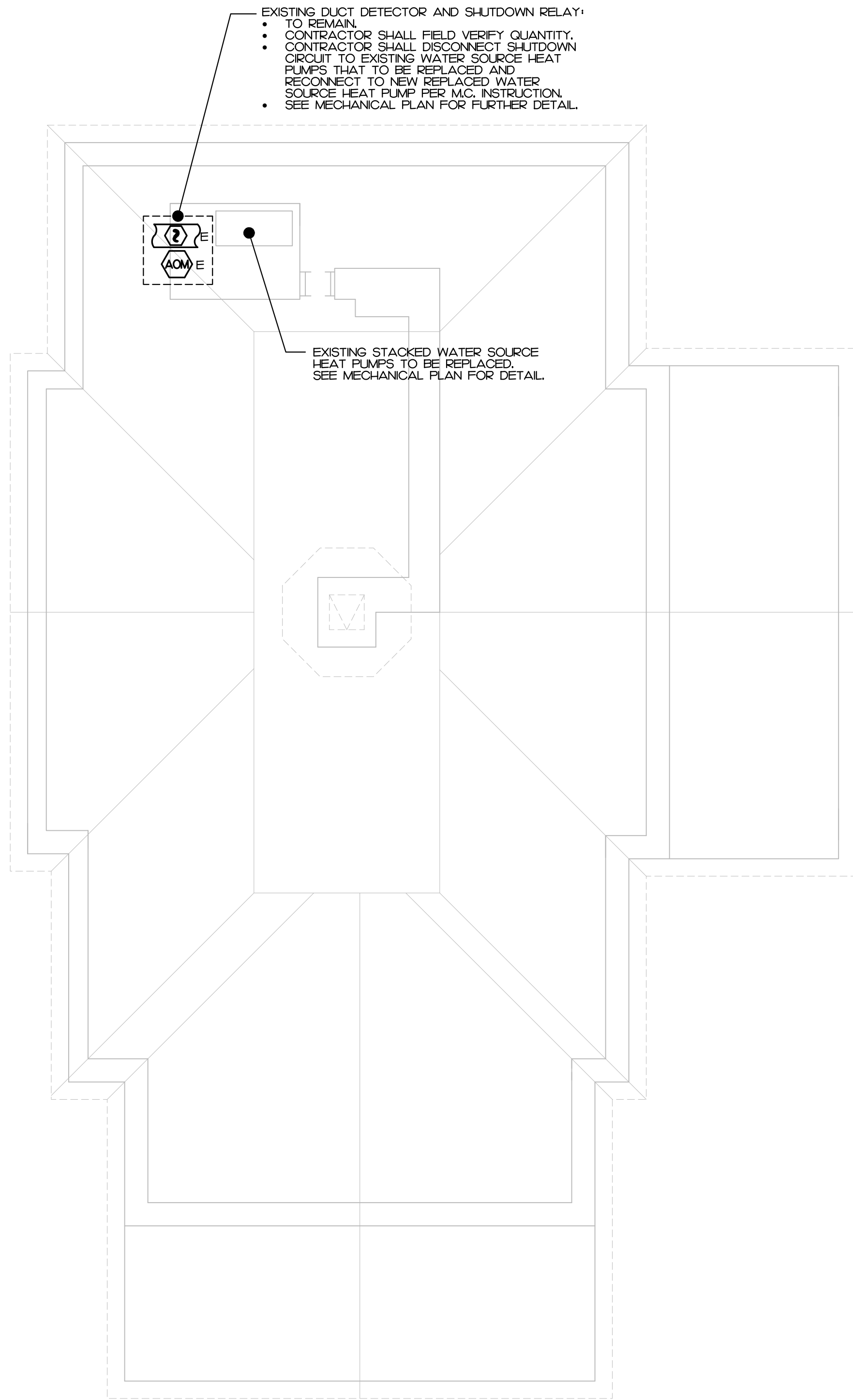
FA-0

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1

BASE BID
FIRE ALARM DEMOLITION PLAN - ATTIC

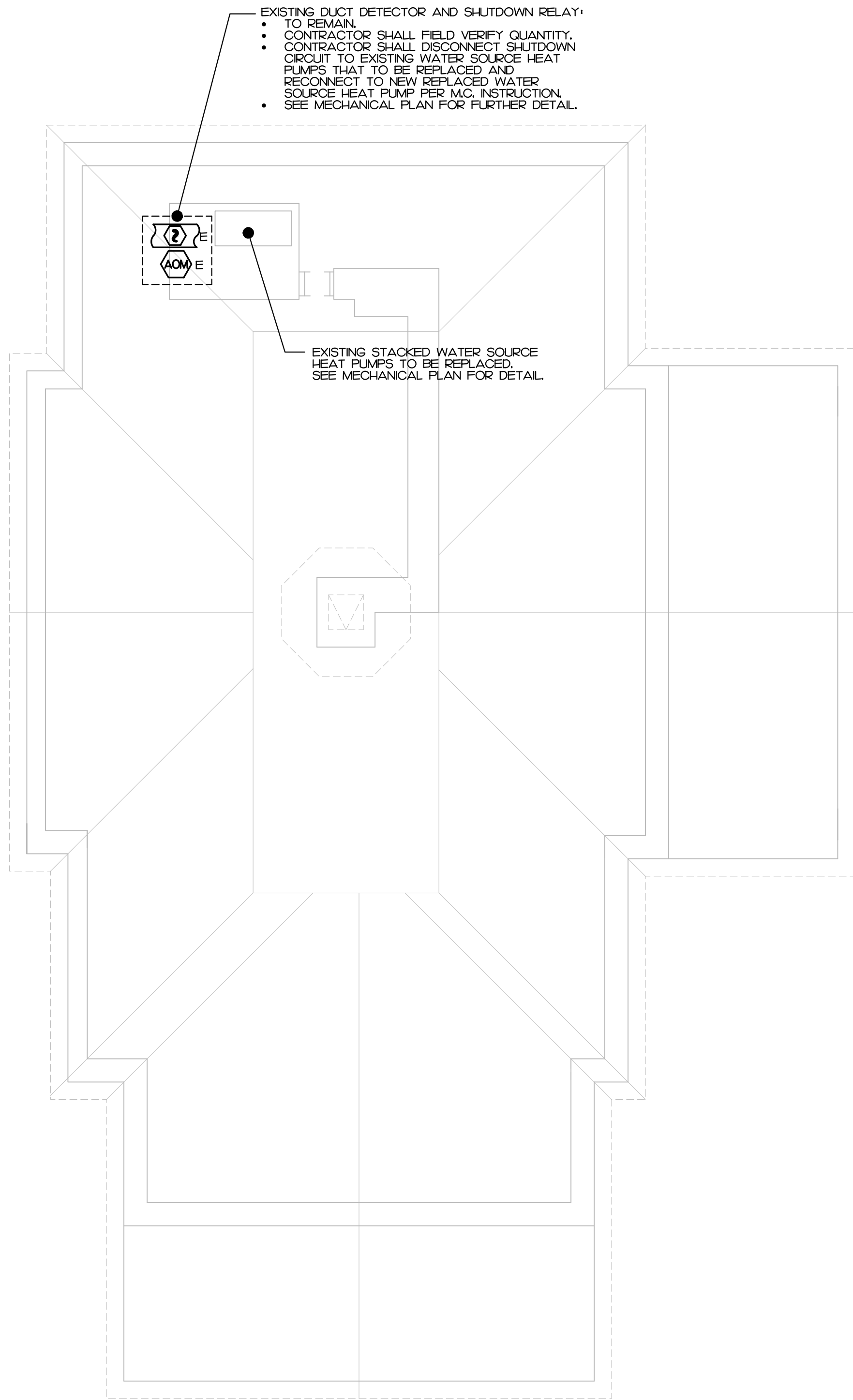
1/8" = 1'-0"



2

BASE BID
FIRE ALARM RENOVATION PLAN - ATTIC

1/8" = 1'-0"



CARTERET COUNTY COURTHOUSE
300 COURT HOUSE SQUARE
BEAUFORT, NC 28516
HVAC + ROOF INSULATION REPAIRS

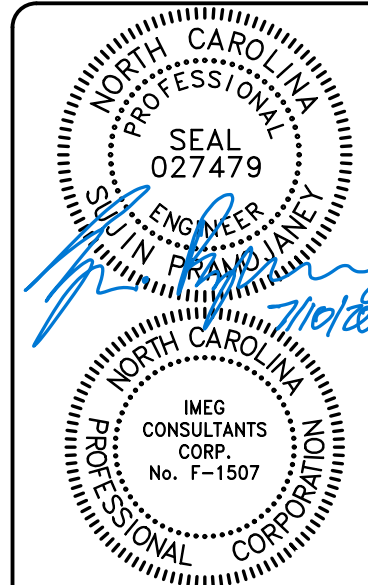
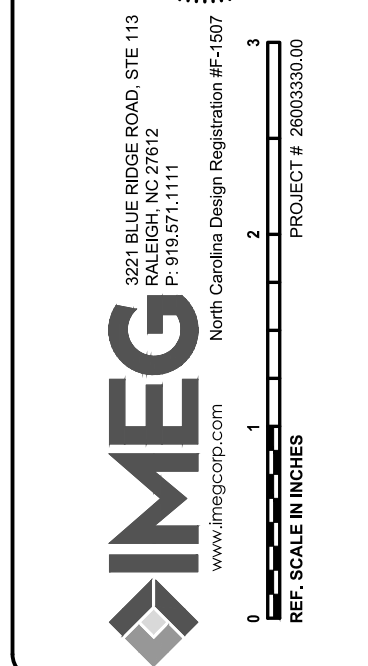
CONTENTS:
FIRE ALARM PLANS
ATTIC
BASE BID

DATE:
SEPTEMBER 1, 2026

DESIGNER: SP
ENGINEER: SP

SHEET NO.
FA-1

PREPARED FOR:
COUNTY OF
CARTERET



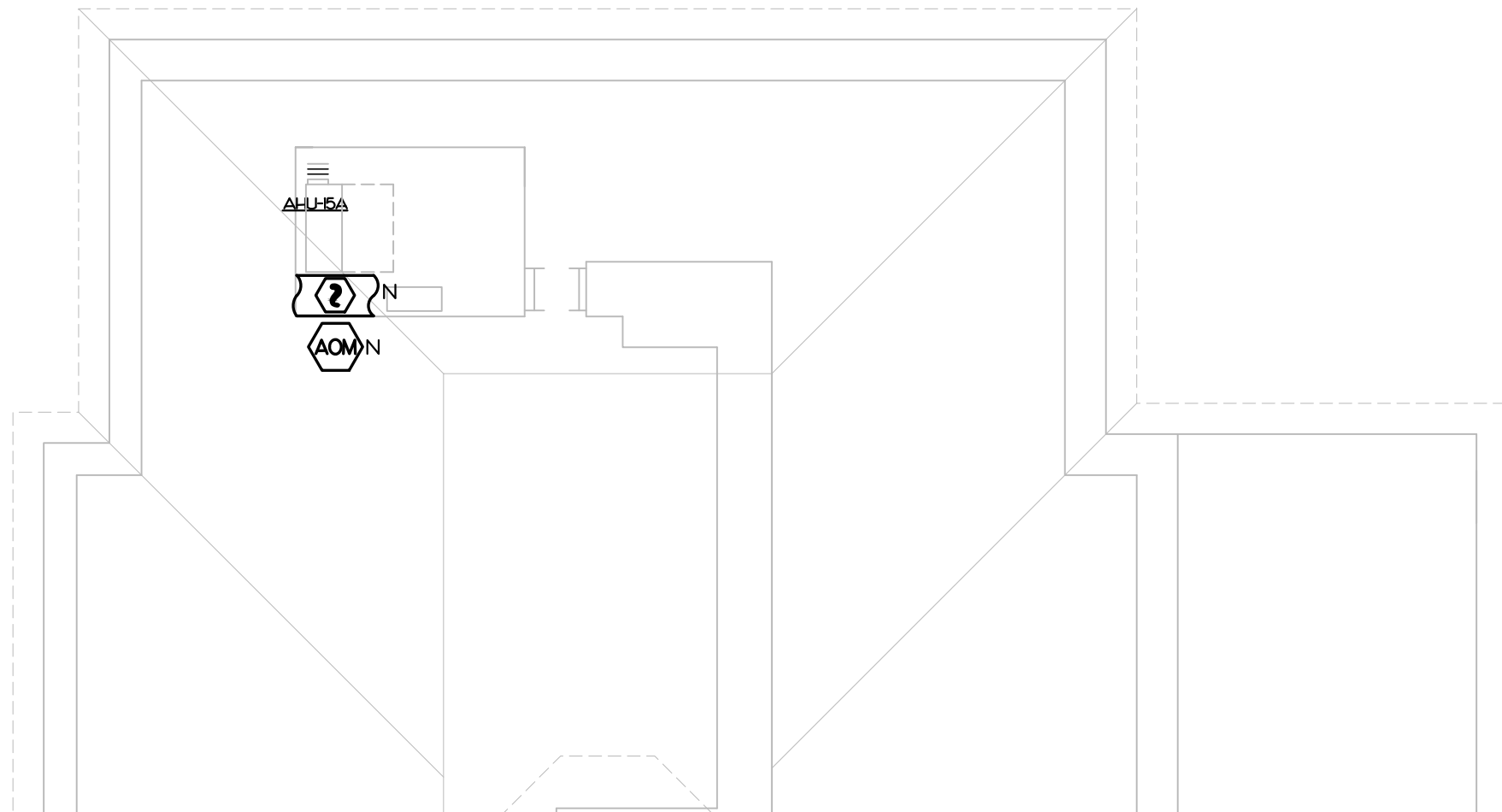
REVISIONS				

26003330.00

2

ALTERNATE BID
FIRE ALARM RENOVATION PLAN - ATTIC

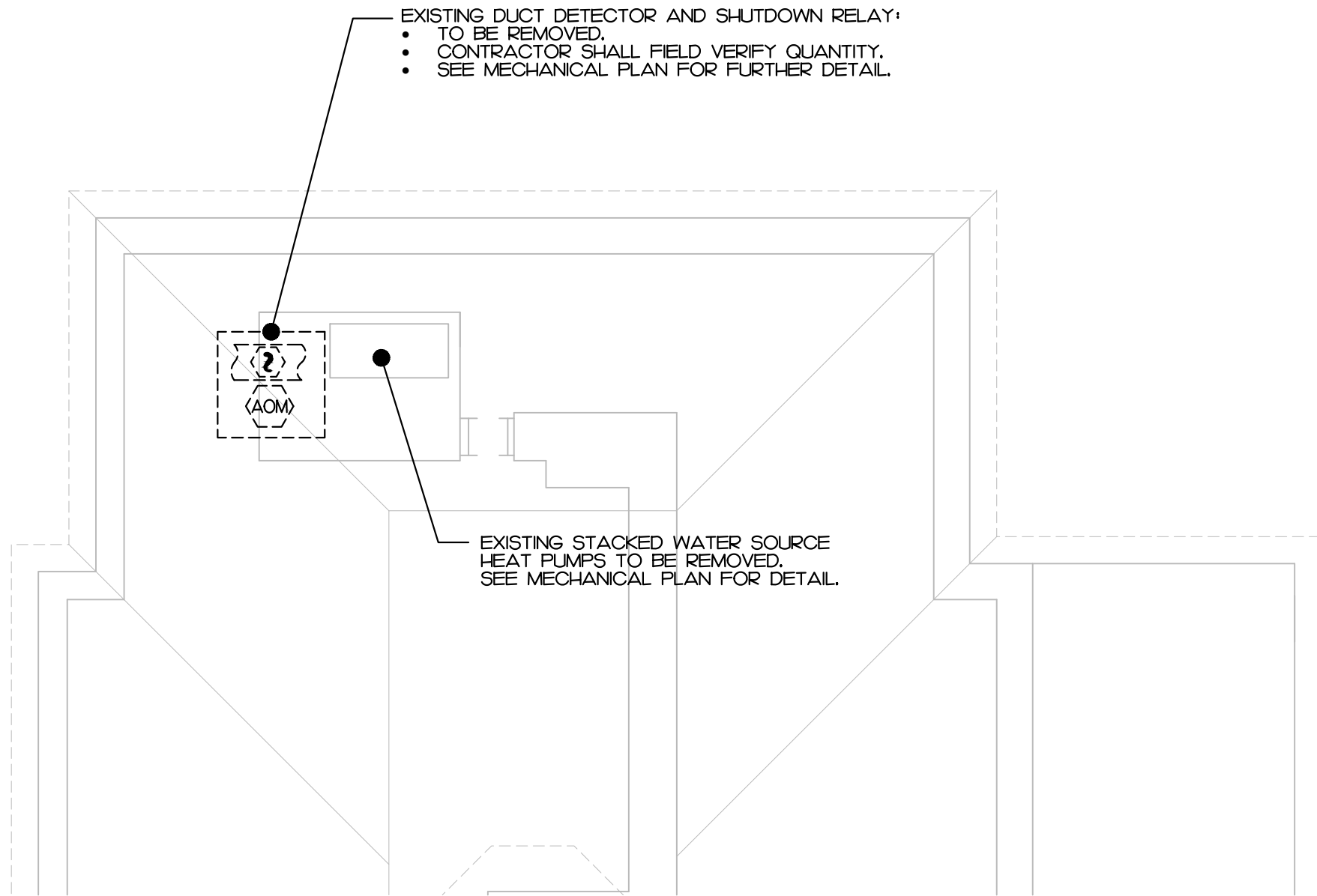
1/8" = 1'-0"



1

ALTERNATE BID
FIRE ALARM DEMOLITION PLAN - ATTIC

1/8" = 1'-0"



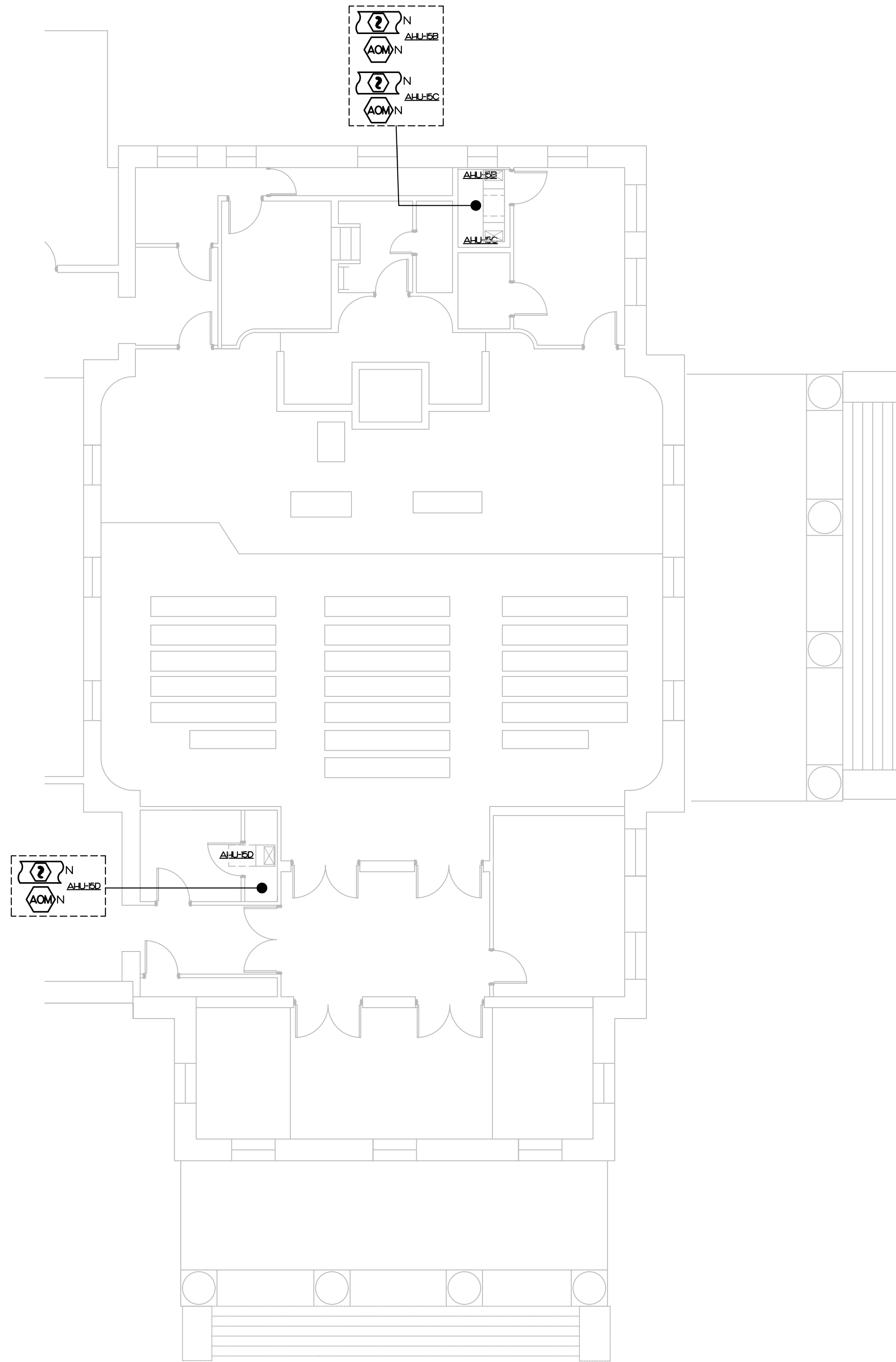
EXISTING DUCT DETECTOR AND SHUTDOWN RELAY:
• TO BE REMOVED.
• CONTRACTOR SHALL FIELD VERIFY QUANTITY.
• SEE MECHANICAL PLAN FOR FURTHER DETAIL.

EXISTING STACKED WATER SOURCE
HEAT PUMPS TO BE REMOVED.
SEE MECHANICAL PLAN FOR DETAIL.

3

ALTERNATE BID
FIRE ALARM RENOVATION PLAN - SEOND FLOOR

1/8" = 1'-0"



SHEET NO.
FA-2

DESIGNER: **SP**
ENGINEER: **SP**

DATE:
SEPTEMBER 1, 2026

CONTENTS:
**FIRE ALARM PLANS
ATTIC, SECOND FL.
ALTERNATE BID**

PREPARED FOR:
**COUNTY OF
CARTERET**

IMEG
CONSULTANTS
CORP.
No. F-1507
North Carolina Design Registration #F-1507
www.imegcorp.com
PROJECT # 26003330.00

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