

CITY OF ROCKY MOUNT ANIMAL SERVICES

HVAC SYSTEM RENOVATION

CONSTRUCTION DOCUMENTS

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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 Contractor shall meet with the owner coordination 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.
- 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.
- 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

BASE BID:
THE SCOPE OF THIS PROJECT IS TO REPLACE THE EXISTING MECHANICAL SPLIT SYSTEM SERVING THE KENNELS WITH A NEW 100% OUTSIDE AIR SYSTEM. THE EXISTING ELECTRICAL INFRASTRUCTURE WILL BE UPGRADED WITH A NEW 200A, 120/240V, 1Ø, 3W SERVICE TO HANDLE THE ADDITIONAL LOAD OF THE MECHANICAL EQUIPMENT.

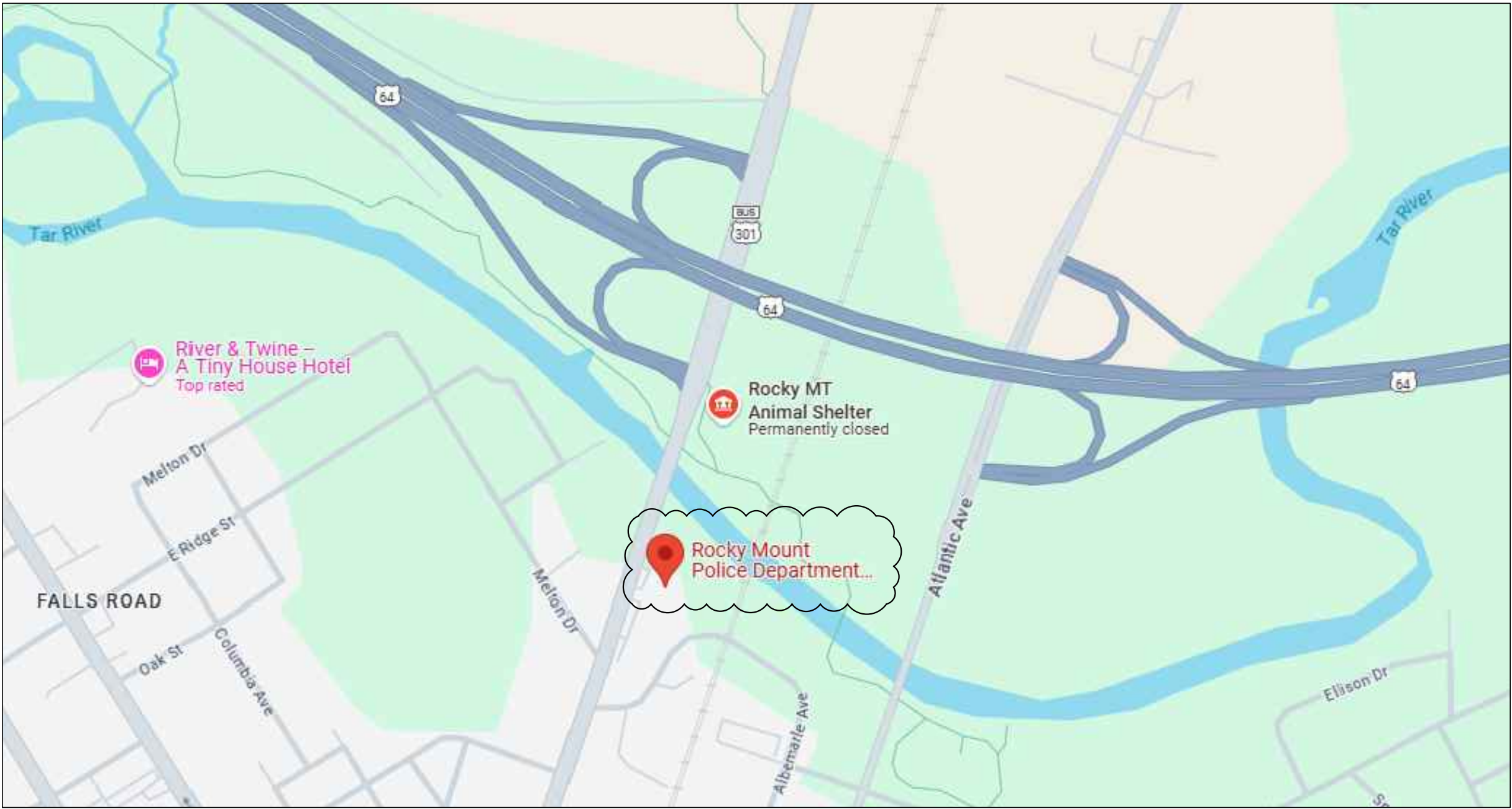
DESIGN TEAM

OWNER:
CITY OF ROCKY MOUNT
1017 N CHURCH STREET
ROCKY MOUNT, NC 27804
CONTACT: BRAD LEWIS
brad.lewis@rockymountnc.gov
252-972-1264

MECHANICAL:
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matthew.c.briley@imegcorp.com
919-855-2022

VICINITY MAP



REVISIONS	DATE	DESCRIPTION



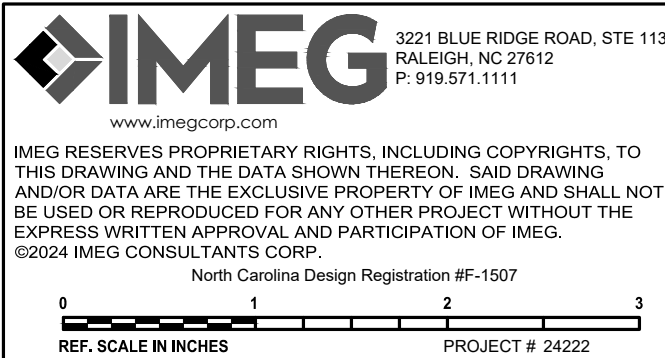
PREPARED FOR:
CITY OF ROCKY MOUNT

CITY OF ROCKY MOUNT - ANIMAL
SHELTER - HVAC RENOVATION
1017 N CHURCH STREET
ROCKY MOUNT
NORTH CAROLINA

CONTENTS:
COVER SHEET

DATE:
MARCH 6, 2025
DESIGNER: MCB
ENGINEER: MCB

SHEET NO.
G1
OF 1



SPLIT-SYSTEM DOAS SCHEDULE

INSIDE UNIT							OUTSIDE UNIT											
MARK	BASIS OF DESIGN	FAN		ELECTRICAL			MARK	BASIS OF DESIGN	CAPACITY		HEATING CAPACITY		ELECTRICAL		EFFICIENCY		NOTES	
		CFM	SP. HP	POWER	FLA	MOCP			TOTAL	SENSIBLE	POWER	MCA	MOCP	COOLING	HEATING			
DOAS-1	TRAINE BO-EO36	1000	0.5	1/2	230/1	3.7	I-5	I-P-1	TRAINE STWR5060	561 MBH	424 MBH	35.8 MBH	230/1	33.0	50	14.3 SEER2	7.5 HSPF2	I-6

- NOTES:
1. PROVIDE WITH HEAVY DUTY FUSIBLE DISCONNECT ON INDOOR AND OUTDOOR UNITS.
 2. PROVIDE WITH SINGLE POINT ELECTRICAL CONNECTION.
 3. PROVIDE WITH PROGRAMMABLE THERMOSTAT WITH 10 HR BATTERY BACKUP, AUTO CHANGEOVER AND 2 HOUR OVERRIDE.
 4. ROUTE CONDENSATE TO EXTERIOR SPLASH BLOCK.
 5. PROVIDE WITH 2 PLEATED FILTER RACK AND FILTER AT UNIT.
 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.

ELECTRIC DUCT HEATER SCHEDULE

MARK	BASIS OF DESIGN	CFM	CAPACITY (MBH)	ELECTRICAL (KW)			MOCP	POWER	NOTES
ED-H	TUTORCO E SERIES	1000	512	15.0	62.5	80	240/1		I-5

- NOTES:
1. PROVIDE WITH HEAVY DUTY FUSIBLE DISCONNECT.
 2. PROVIDE WITH HIGH LIMIT AND AIRFLOW SWITCH.
 3. PROVIDE WITH DUCT MOUNTED TEMPERATURE SENSOR.
 4. PROVIDE WITH CONTROL TRANSFORMER OF ADEQUATE SIZE.
 5. PROVIDE WITH 2 STAGES OF HEAT.

EXHAUST FAN SCHEDULE

MARK	BASIS OF DESIGN	SERVICE	TYPE	CFM	RPM	HP/AMPS	SP.	POWER	NOTES
EF-1	COOK 120 ACWB	VENTILATION	SIDEWALL, BELT	1000	1151	1/6 HP	0.25"	120/1	I-4

- NOTES:
1. PROVIDE WITH DISCONNECT SWITCH.
 2. PROVIDE WITH BACKDRAFT DAMPER.
 3. CONTROL VIA WALL SWITCH BY E.C.
 4. PROVIDE WITH ACCESSORIES FOR SIDEWALL APPLICATION.

GRILLE & DIFFUSER SCHEDULE

MARK	BASIS OF DESIGN	SERVICE	TYPE	MAX. CFM	FACE SIZE	NECK SIZE	NOTES
SD-A	PRICE 510	SUPPLY	DUCT MOUNTED	200	16X4	16X4	I-2

- NOTES:
1. PROVIDE WITH BARE STEEL FINISH.
 2. PROVIDE WITH EXTRACTOR AND FRAME FOR DUCT MOUNTING.

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 = 47.3 MBH (3.9 TONS)
BUILDING COOLING LOAD: BLOCK LOAD = 83.8 MBH

MECHANICAL SPACING CONDITIONING SYSTEM

Unitary:

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

} SEE SCHEDULES ON 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 THIS SHEET

EQUIPMENT SCHEDULES WITH MOTORS (MECHANICAL SYSTEMS)

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

} SEE SCHEDULES ON 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 (MCA).
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 ENGINEERS' 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. ALL THERMOSTATS, WIRING AND CONDUIT ARE TO BE FURNISHED BY THE M.C. MOUNT THERMOSTATS 4'-0" ABOVE THE FLOOR, UNLESS OTHERWISE NOTED.
9. THE M.C. SHALL INSURE THAT ALL MECHANICAL EQUIPMENT INSTALLED UNDER THEIR CONTRACT SHALL OPERATE FREE OF OBJECTIONABLE NOISE AND VIBRATION.
10. 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.
11. ALL DUCTWORK SIZES SHOWN ARE ACTUAL SHEET METAL DIMENSIONS. EXTERNALLY WRAP ALL DUCT WITH 3" FOIL-BACKED INSULATION FOR A MINIMUM OF R-8.
12. 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.
13. THE AIR HANDLING UNIT SHALL OPERATE AT ALL TIMES.
14. THE MECHANICAL CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A SET OF AS-BUILT DRAWINGS UPON COMPLETION OF JOB.
15. THE MECHANICAL CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A SET OF DUCT SHOP DRAWINGS FOR APPROVAL.
16. THE MECHANICAL CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A BALANCE REPORT BY A CERTIFIED TEST AND BALANCE COMPANY.
17. PROVIDE PERMIT LABEL ENGRAVED PLASTIC LAMINATE MECHANICALLY FASTENED TO OUTDOOR UNITS.

SYMBOL LEGEND

SYMBOL	DESCRIPTION
	SHEET METAL DUCT
	REMOVE EXISTING DUCT
	SIDEWALL SUPPLY GRILLE - LETTER & NUMBER INDICATES TYPE & CFM
	SIDEWALL RETURN GRILLE - LETTER & NUMBER INDICATES TYPE & CFM
	THERMOSTAT - MOUNTED 48" ABOVE FINISHED FLOOR
	CONDENSATE DRAIN
	REFRIGERANT LINESET PATH

OUTSIDE AIR SUMMARY

REQUIRED:
KINKELS = 1002 SQFT = 0.9 CFM/SQFT = 992 CFM
PROVIDED:
DOAS-1 = 1000 CFM



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REF. SCALE IN INCHES

PROJECT # 24222

REVISIONS					



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ENGINEERS, P.A.
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3221 BLUE RIDGE ROAD, SUITE 113
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24222

PREPARED FOR:
CITY OF ROCKY MOUNT

CITY OF ROCKY MOUNT - ANIMAL SHELTER - HVAC RENOVATION
1017 N CHURCH STREET
ROCKY MOUNT
NORTH CAROLINA

CONTENTS:
MECHANICAL NOTES,
LEGEND, SCHEDULES

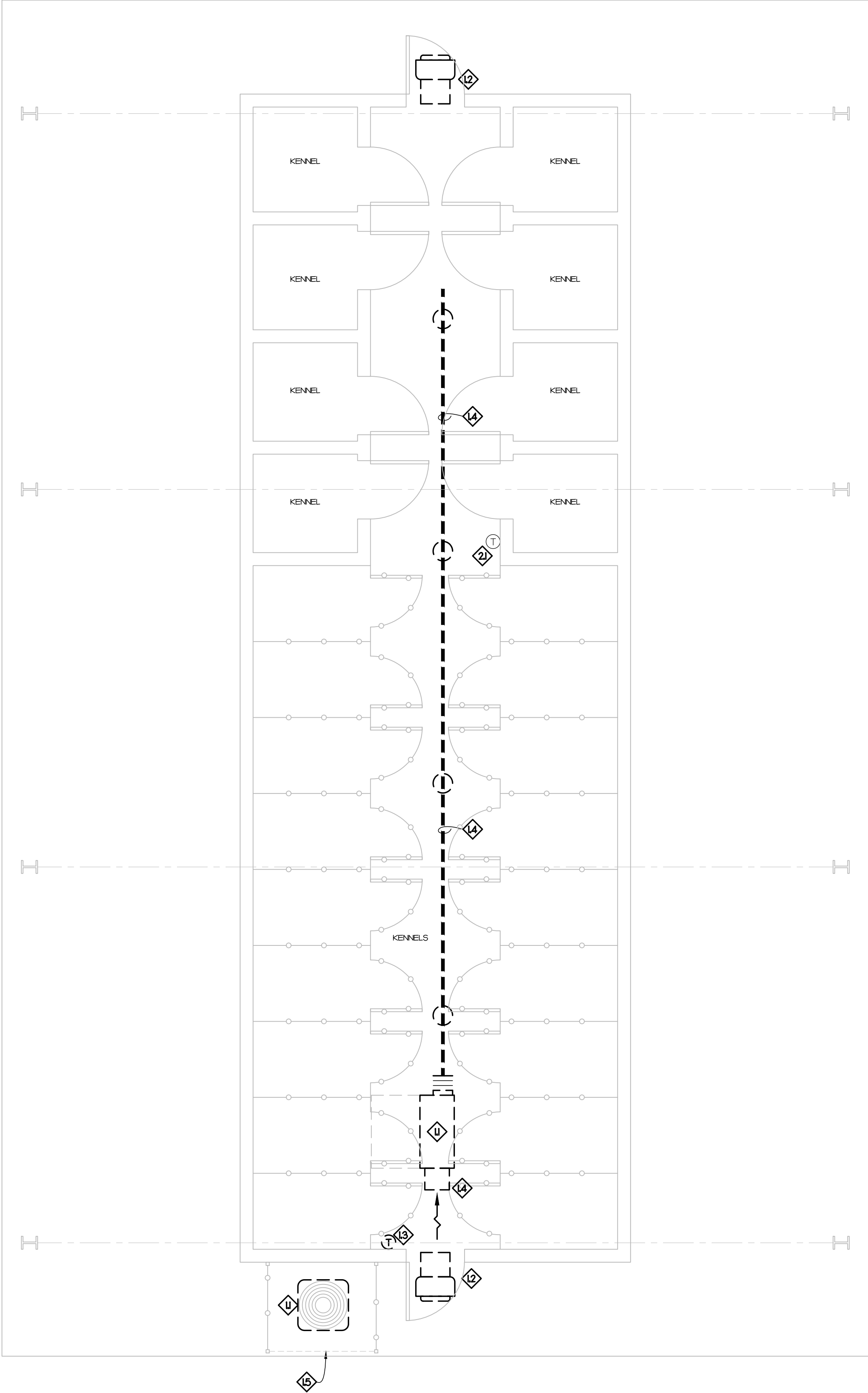
DATE:
MARCH 6, 2025

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

SHEET NO.
MO
OF 3

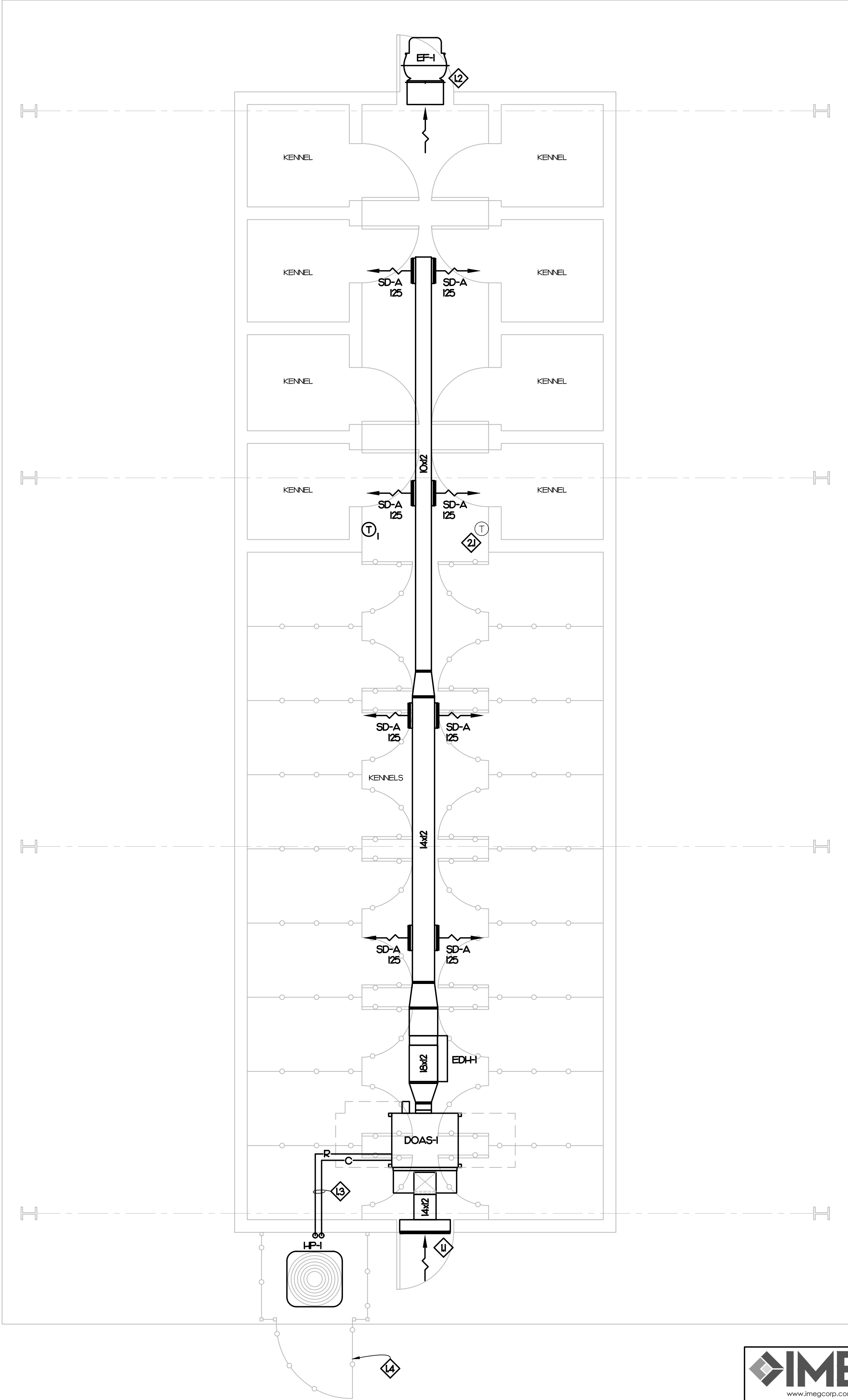
DEMOLITION KEY NOTES

- 1 REMOVE EXISTING 2-TON SPLIT SYSTEM HEAT PUMP/AIR HANDLER AND ALL ASSOCIATED APPURTENANCES.
- 2 REMOVE EXISTING SIDEWALL EXHAUST FAN AND ASSOCIATED CONTROLS. EXISTING BUILDING PENETRATION TO REMAIN FOR REUSE.
- 3 REMOVE EXISTING THERMOSTAT.
- 4 REMOVE EXISTING DUCTWORK AND AIR DISTRIBUTION.
- 5 REMOVE EXISTING FENCING AS SHOWN. SEE RENOVATION PLAN FOR NEW FENCE AND GATE.
- 6 EXISTING THERMOSTAT FOR EXISTING RADIANT UNDERSLAB HEATING SYSTEM TO REMAIN.



RENOVATION KEY NOTES

- 1 PROVIDE 32x6 LOUVER FOR 1000 CFM AND 13 SQFT OF FREE AREA. PROVIDE WITH BIRD SCREEN AND WHITE KYNAR FINISH. ENLARGE EXISTING OPENING AS REQUIRED. SEE DETAIL 4/M2.
- 2 EXHAUST FAN MOUNTED ABOVE DOOR. ENLARGE EXISTING OPENING AS REQUIRED. SEE DETAIL 5/M2.
- 3 ROUTING PATH FOR LINESETS AND CONDENSATE. REUSE EXISTING BUILDING PENETRATION.
- 4 PROVIDE NEW FENCE AND GATE TO PROVIDE SERVICE CLEARANCE FOR OUTDOOR UNIT AS SHOWN. NEW FENCING, HARDWARE, ETC. SHALL MATCH EXISTING CONDITIONS.
- 5 EXISTING THERMOSTAT FOR EXISTING RADIANT UNDERSLAB HEATING SYSTEM TO REMAIN.



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REF. SCALE IN INCHES PROJECT # 24222

2 MECHANICAL RENOVATION PLAN
M1 SCALE: 1/4" = 1'-0"

1 MECHANICAL DEMOLITION PLAN
M1 SCALE: 1/4" = 1'-0"

REVISIONS

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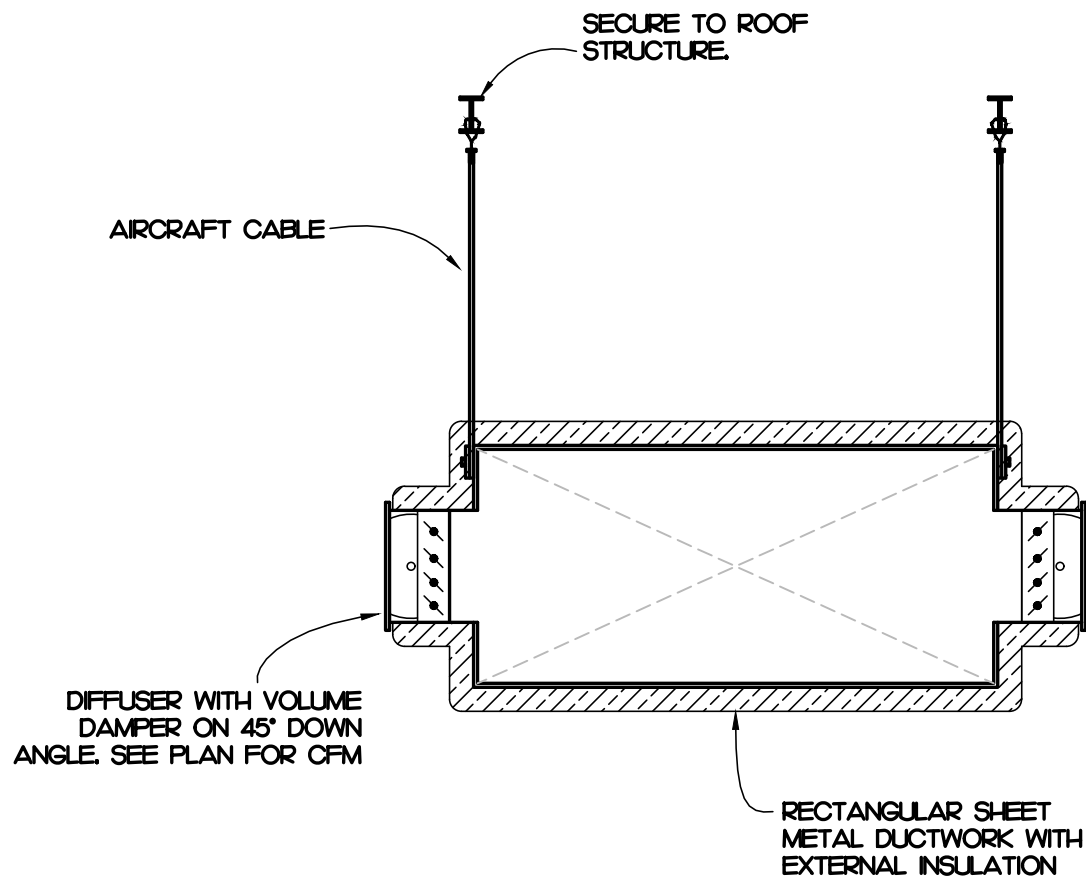
PREPARED FOR:
CITY OF ROCKY MOUNT

CITY OF ROCKY MOUNT - ANIMAL SHELTER - HVAC RENOVATION
1017 N CHURCH STREET
ROCKY MOUNT
NORTH CAROLINA

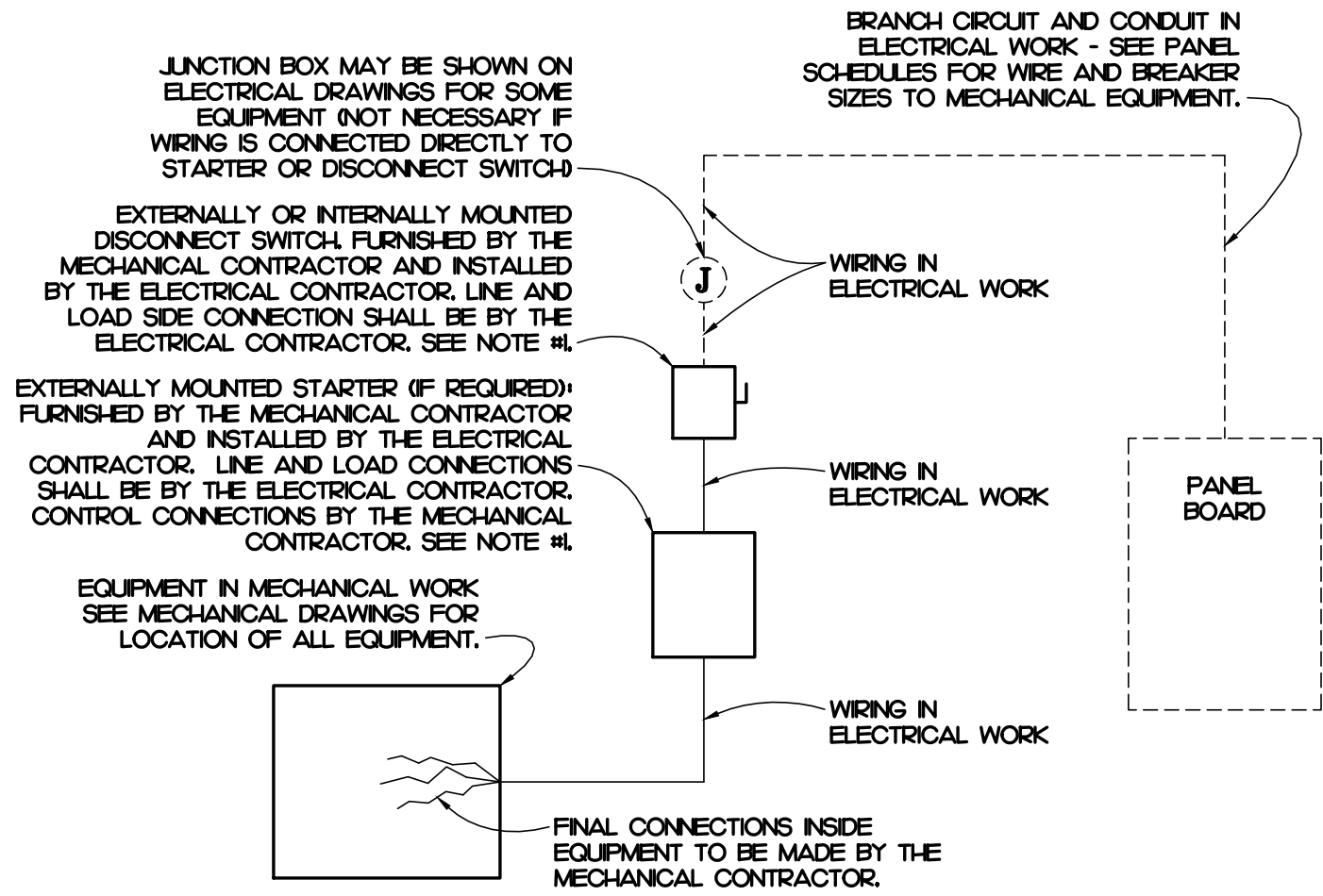
CONTENTS:
MECHANICAL PLAN

DATE:
MARCH 6, 2025
DESIGNER: NGB
ENGINEER: BWF

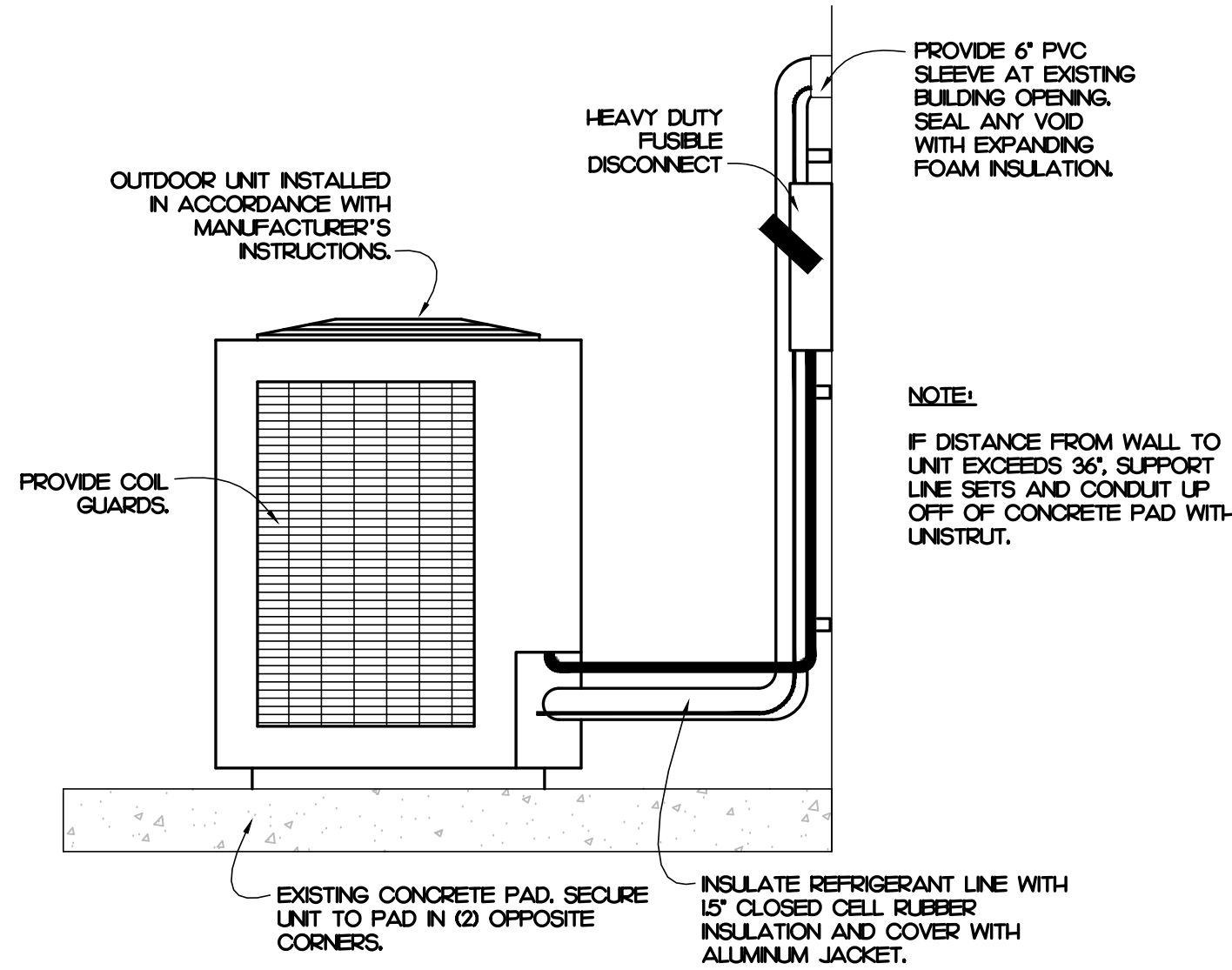
SHEET NO.
M1
OF 3



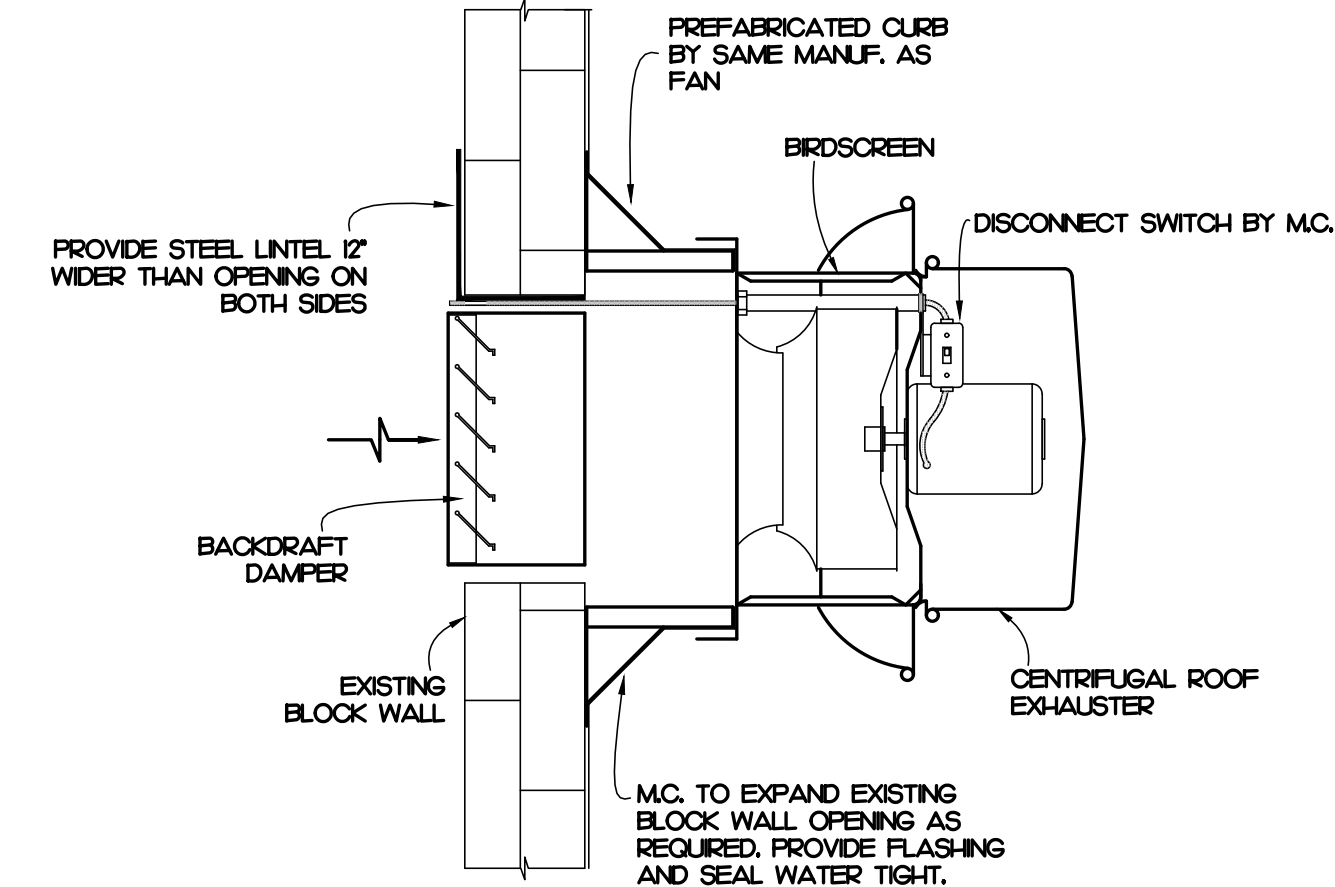
3 EXPOSED DUCTWORK DETAIL
M2 NOT TO SCALE



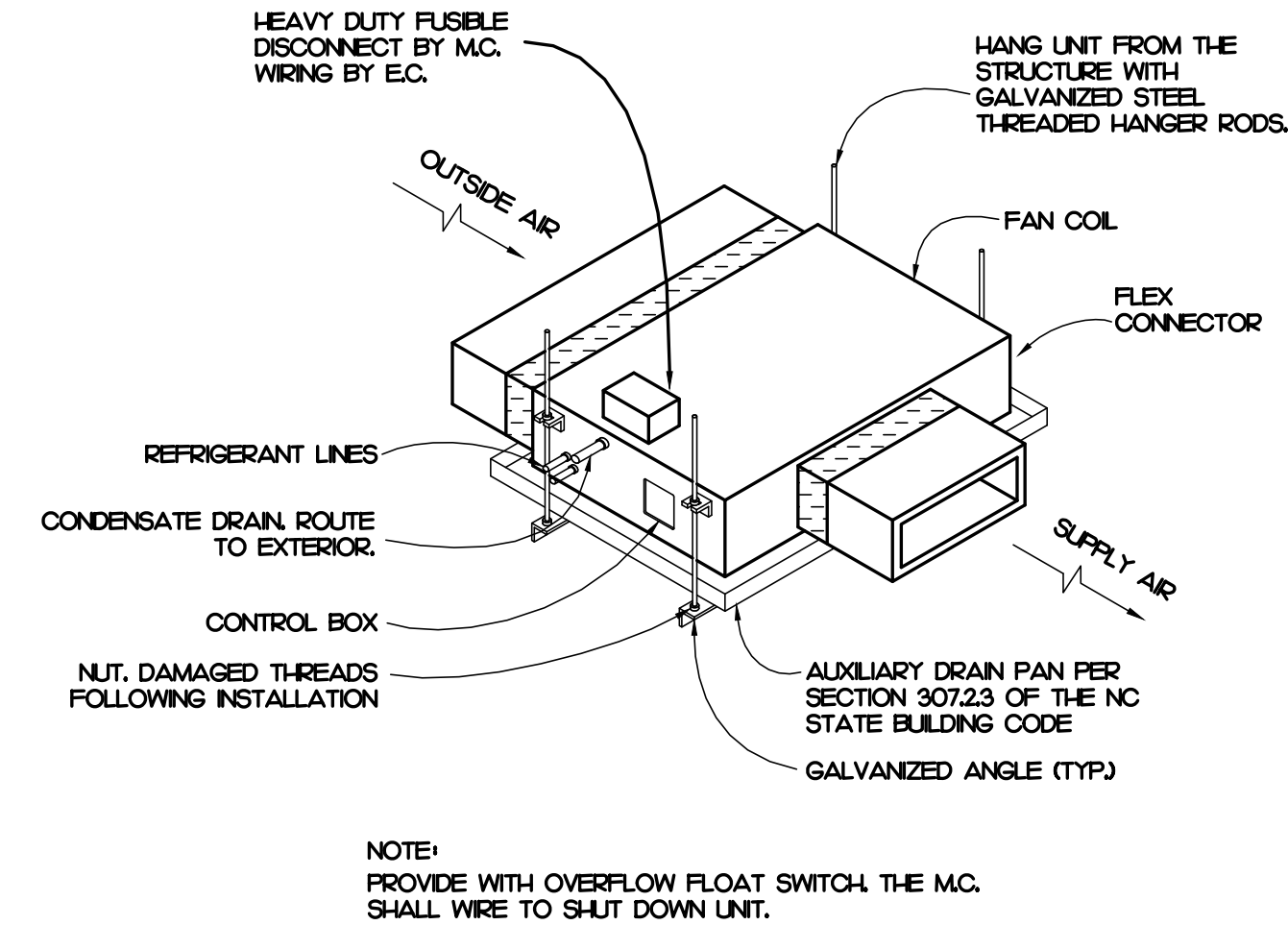
6 TYPICAL WIRING DETAIL
M2 NOT TO SCALE



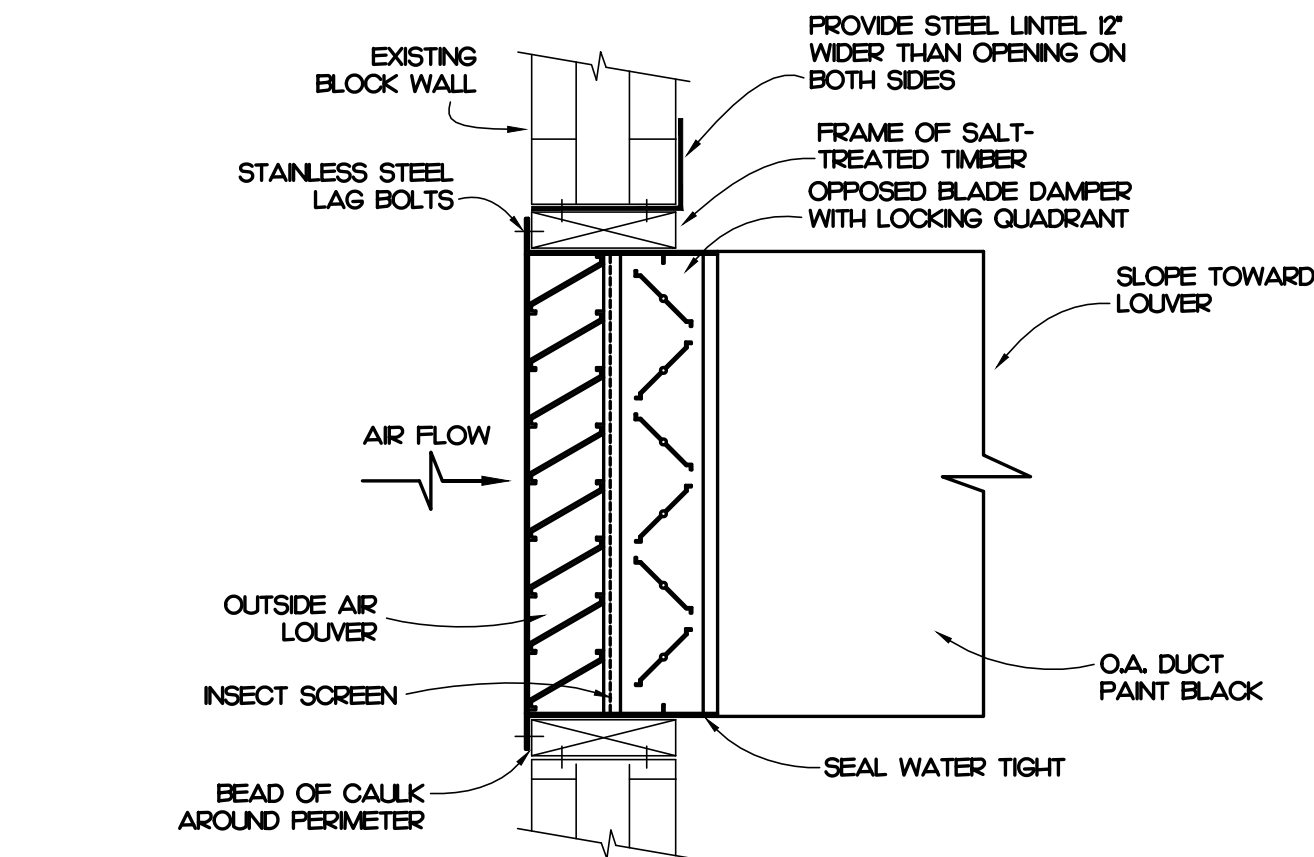
2 OUTDOOR UNIT DETAIL
M2 NOT TO SCALE



5 EXHAUST FAN DETAIL
M2 NOT TO SCALE



1 DOAS DETAIL
M2 NOT TO SCALE



4 INTAKE LOUVER DETAIL
M2 NOT TO SCALE

REVISIONS	

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24222

PROGRESS DRAWING
NOT RELEASED FOR CONSTRUCTION

PREPARED FOR:
CITY OF ROCKY MOUNT
NORTH CAROLINA

CITY OF ROCKY MOUNT - ANIMAL SHELTER - HVAC RENOVATION
107 N CHURCH STREET
ROCKY MOUNT
NORTH CAROLINA

CONTENTS:
MECHANICAL DETAILS

DATE:
MARCH 6, 2025

DESIGNER: NGB
ENGINEER: BWF

SHEET NO.

M2

OF 3

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PROJECT # 24222

NOTES:

1. SEE DETAIL 1/E2 (DEMOLITION POWER RISER) FOR DEMOLITION SCOPE. ALL EXISTING BRANCH CIRCUITS ARE EXISTING TO REMAIN UNLESS SPECIFICALLY NOTED ON THIS PLAN.

KEY NOTES:

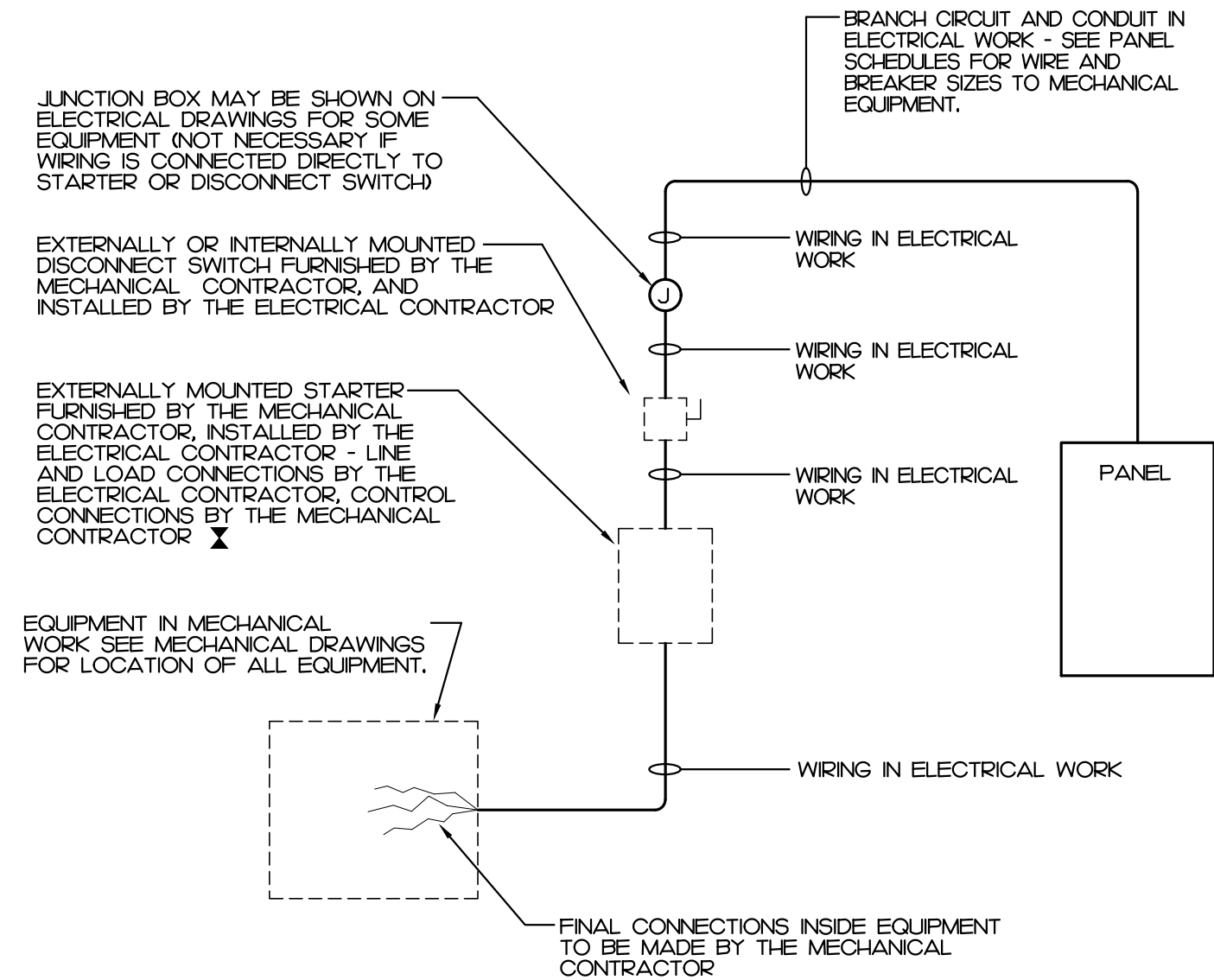
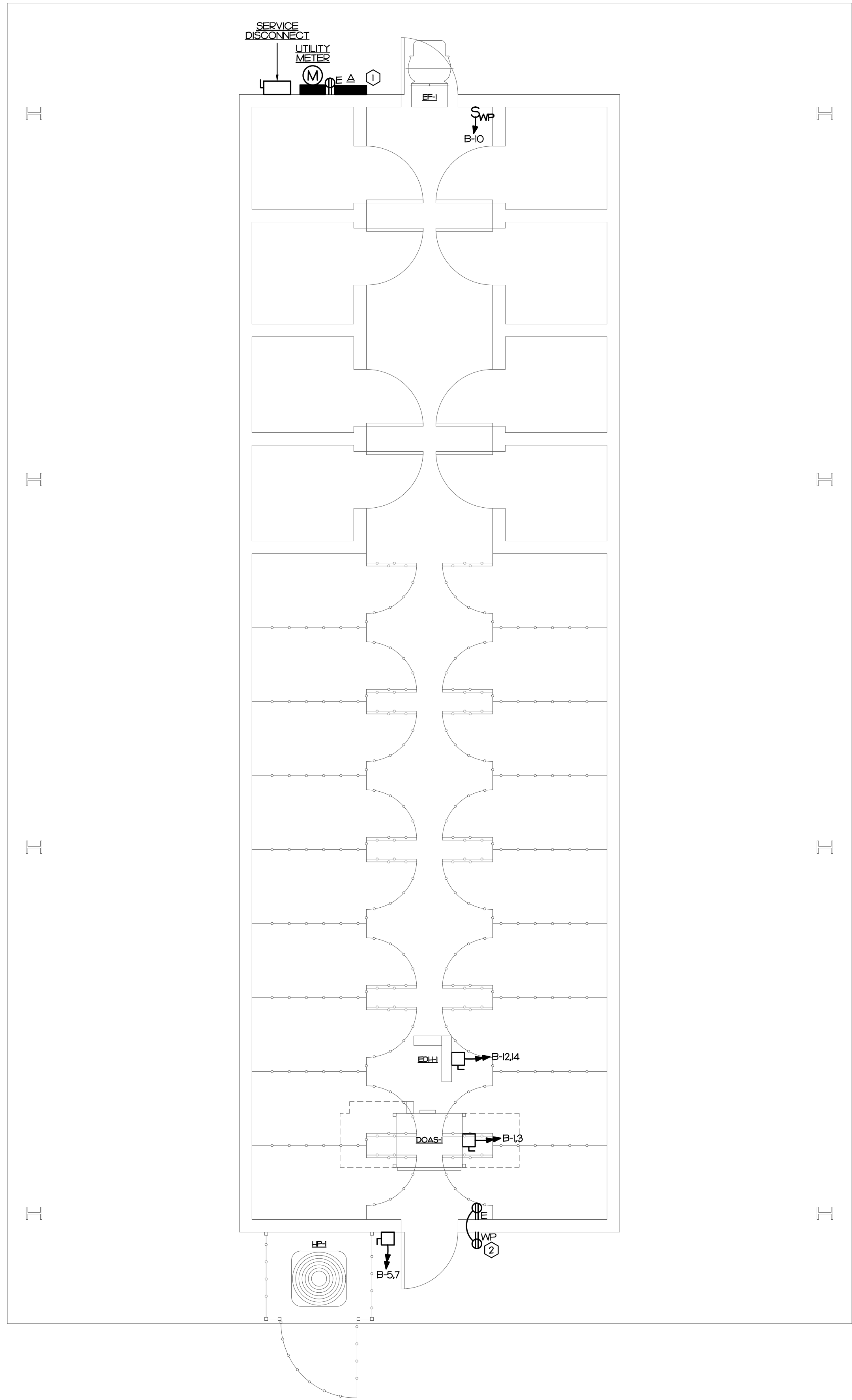
- ① EXISTING PANEL BOARD REPLACED WITH NEW AT SAME LOCATION. EXTEND/REWORK EXISTING BRANCH CIRCUITS TO NEW PANEL AS REQUIRED. SEE POWER RISERS AND PANEL SCHEDULE FOR DETAILS.
- ② CONNECT NEW RECEPTACLE TO EXISTING RECEPTACLE CIRCUIT AS SHOWN.

SYMBOL LEGEND

SYMBOL	DESCRIPTION	REMARKS
SWP	20A SINGLE POLE TOGGLE SWITCH WITH NEMA 3R COVER PLATE MOUNT 42" AFF. UNLESS NOTED OTHERWISE. THERMOPLASTIC.	BELL 528-0 WITH 5320-0 BOX
E	EXISTING SPECIFICATION GRADE GFCI RECEPTACLE TO REMAIN.	EXISTING
WP	SPECIFICATION GRADE TAMPER RESISTANT, WEATHER RESISTANT AND GFCI DUPLEX RECEPTACLE WITH IN-USE WEATHER PROOF COVER. MOUNT 16" AFF. UNLESS OTHERWISE NOTED.	HUBBELL GFTWRST20-20 WP26M COVER PLATE
J	JUNCTION BOX SIZED PER NEC.	
□	DISCONNECT SWITCH SEE PLANS FOR SIZE AND TYPE	SQUARE D HEAVY DUTY
—	NEW CONCEALED WIRING	PER NEC.
→	HOME RUN TO PANEL BOARD. NUMBERS OF ARROW INDICATE CIRCUITS	PER NEC.
■	120/240V 1R, 3W PANEL BOARD - SEE PANEL SCHEDULES	SQUARE D NO
M	UTILITY METER BASE	SEE POWER RISER
AFF.	ABOVE FINISHED FLOOR - NOTE ALL MOUNTING DIMENSIONS GIVEN ARE TO THE BOTTOM OF THE OUTLET BOX	

GENERAL NOTES

- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS. 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 ARCHITECT, 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. SEE DETAIL FOR CONNECTION TO EQUIPMENT PROVIDED BY THE MECHANICAL CONTRACTOR.
- 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 THIN/THIN WIRE. ALL WIRE TERMINALS AND EQUIPMENT SHALL BE LISTED AND APPROVED FOR 75°C. ONLY THIN/2 WIRE SHALL BE INSTALLED IN WET AND EXTERIOR LOCATION.
- MINIMUM CONDUIT SIZE SHALL BE 1/2" AND MINIMUM WIRE SIZE SHALL BE #12 AWG.
- ALL WIRING SHALL BE IN CONDUIT. THE USE OF MC OR AC TYPE CABLES IS PROHIBITED.
- 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 SINGLE PHASE, THREE 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.
- ELECTRICAL IDENTIFICATION
 - FURNISH AND INSTALL ENGRAVED LAMINATED PHENOLIC NAMEPLATES FOR ALL SAFETY SWITCHES, PANEL BOARDS, TRANSFORMERS, SWITCHBOARDS, 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.
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR A COMPLETE ELECTRICAL DEMOLITION NOTED OR IMPLIED ON THESE PLANS.
- ALL ABANDONED AND UNUSED CABLES IN HOLLOW SPACES, VERTICAL SHAFTS, AND VENTILATION OR AIR-HANDLING DUCTS SHALL BE REMOVED PER NEC 725.25, 760.25, 770.25, 800.25, 820.25 AND 830.25.
- THE ELECTRICAL CONTRACTOR SHALL FIELD COORDINATE THE INSTALLATION OF THE NEW UNDERGROUND ELECTRICAL SERVICE WITH THE LOCAL UTILITY. THE OWNER SHALL PAY ALL CHARGES FOR THE INSTALLATION OF THE NEW UNDERGROUND UTILITY SERVICE.
- PRIOR TO CONNECTING ANY NEW RECEPTACLES TO EXISTING CIRCUITS, THE ELECTRICAL CONTRACTOR SHALL FIELD VERIFY THAT NO MORE THAN 10 RECEPTACLES ARE CONNECTED TO A 20 AMP CIRCUIT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF THE ABOVE CONDITION CAN NOT BE ACHIEVED.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR MAINTAINING CIRCUIT CONTINUITY TO ALL LIGHTING, DEVICES AND EQUIPMENT NOT SUBJECT TO REMOVAL. PROVIDE ADDITIONAL CONDUIT AND WIRING AS REQUIRED.
- RELOCATE AS NECESSARY ALL EXISTING CIRCUITS FOUND PASSING THROUGH THE AREA OF CONSTRUCTION AND WHICH ARE PRESENTLY IN USE IN OTHER PARTS OF THE BUILDING UNAFFECTED BY THIS PROJECT PHASE, TO MAINTAIN THE CONTINUITY OF SERVICE AND GROUNDING, AND TO CONCEAL THEM ABOVE NEW CEILINGS.
- WHERE EXISTING EQUIPMENT AND DEVICES SHALL BE REMOVED, THE CONTRACTOR SHALL REMOVE ALL THE ASSOCIATED CONDUIT AND CONDUCTORS THAT SHALL NOT REMAIN IN OPERATION BACK TO THEIR RESPECTIVE SOURCE OR TO THE POINT ON A SHARED CIRCUIT FROM WHERE THE EQUIPMENT OR DEVICE IS SERVED.



NOTES:

1. A COMBINATION STARTER MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER
2. E.C. SHALL FURNISH ALL REQUIRED FUSES.

WIRING TO MECHANICAL EQUIPMENT

NOT TO SCALE

REVISIONS					

PROGRESS DRAWING
NOT TO BE USED FOR CONSTRUCTION

ATLANTEC ENGINEERS, PA
IMEG CONSULTANTS' CORP.
No. F-1507
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RALEIGH, NC 27612
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PREPARED FOR:
CITY OF ROCKY MOUNT

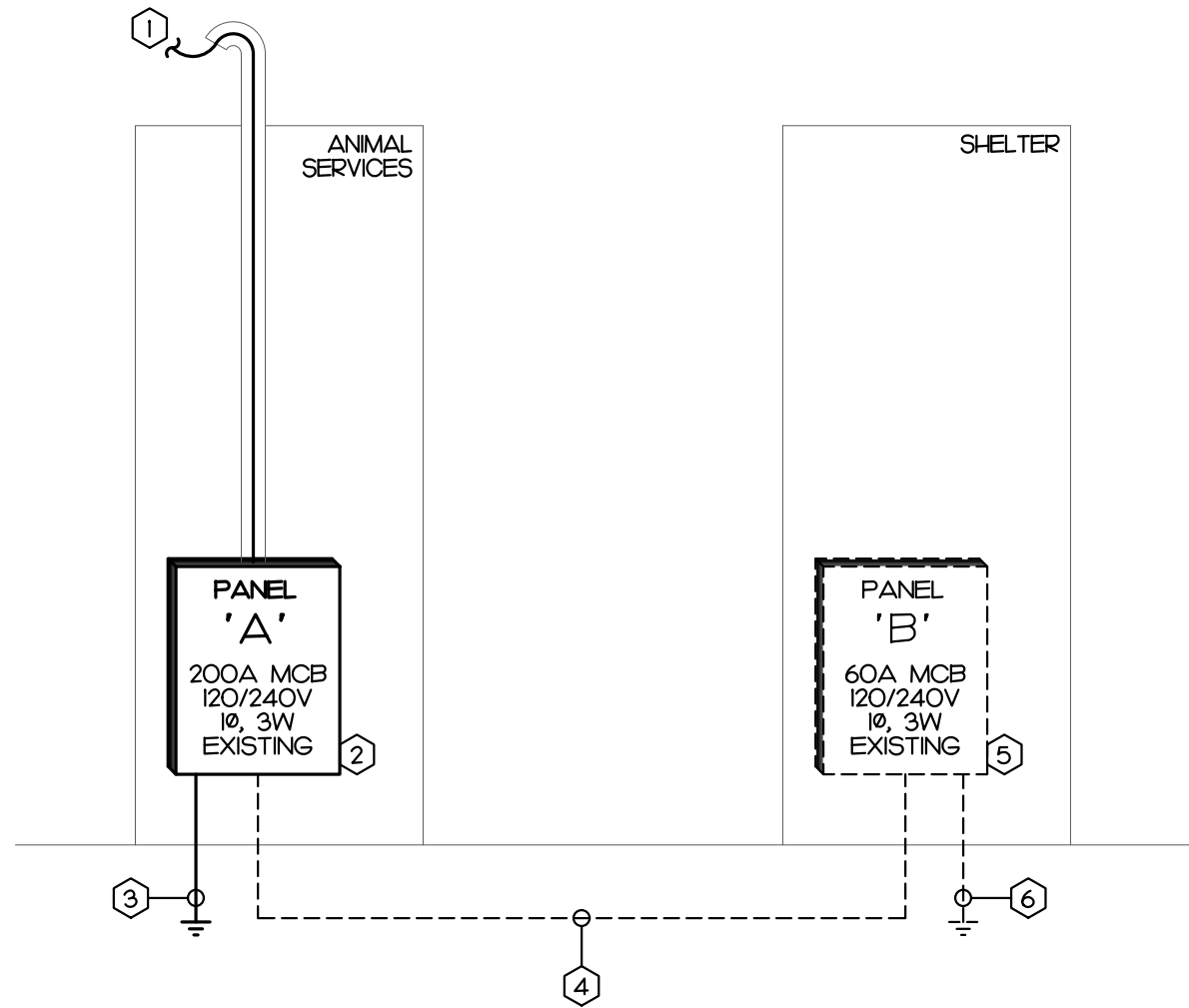
CITY OF ROCKY MOUNT - ANIMAL SHELTER - HVAC RENOVATION
107 N CHURCH STREET
ROCKY MOUNT
NORTH CAROLINA

CONTENTS:
POWER PLAN, LEGEND, NOTES, DETAILS

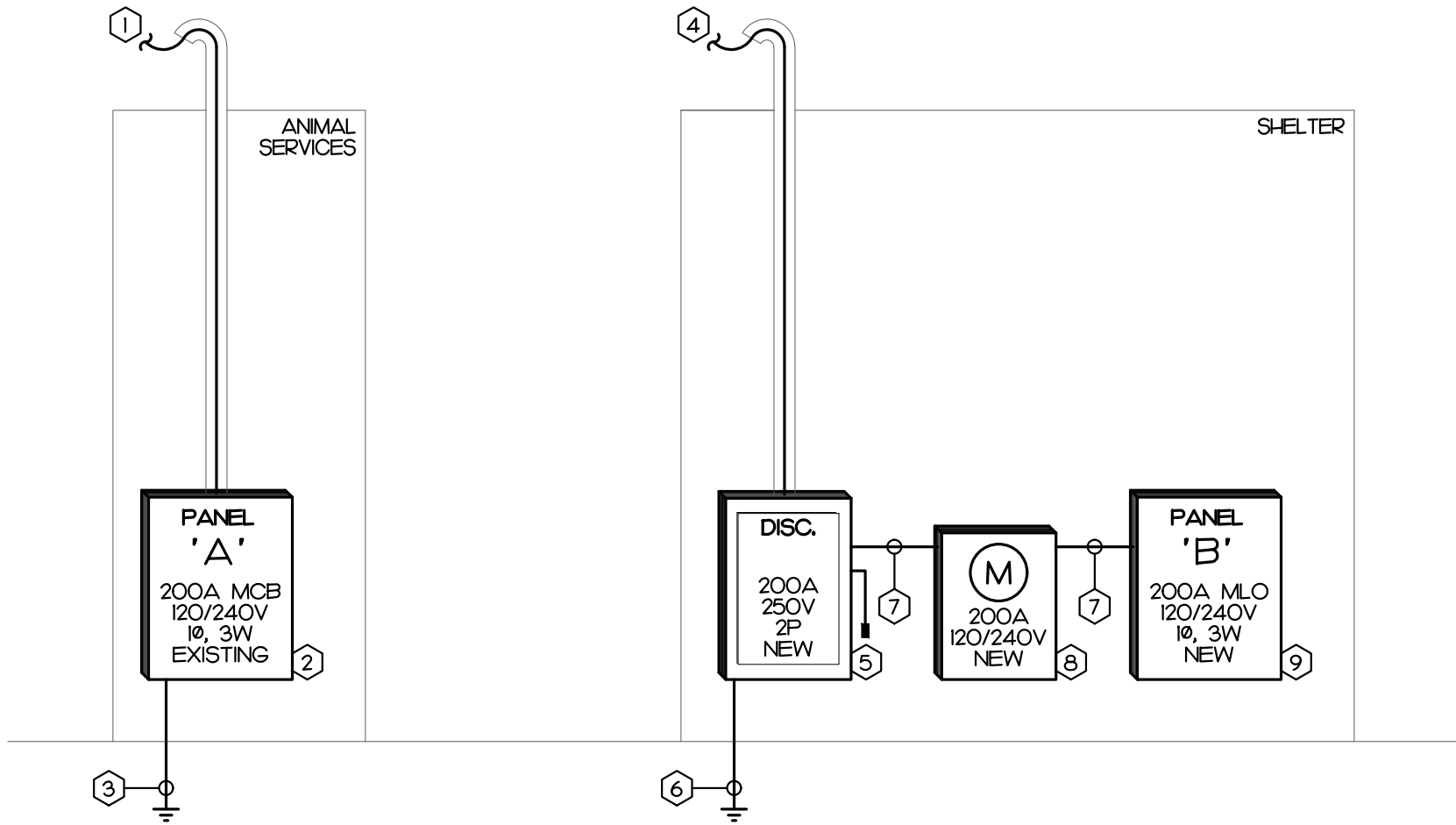
DATE:
MARCH 6, 2025

DESIGNER: MCB
ENGINEER: MCB

SHEET NO.
E1
OF 2



- KEY NOTES:
- 1 EXISTING OVER-HEAD SERVICE CONDUCTORS TO REMAIN.
 - 2 EXISTING METER AND LOAD CENTER COMBINATION TO REMAIN.
 - 3 EXISTING GROUNDING ELECTRODE CONDUCTORS TO REMAIN.
 - 4 EXISTING FEEDER TO BE DEMOLISHED.
 - 5 EXISTING PANEL BOARD TO BE DEMOLISHED. INTERCEPT EXISTING BRANCH CIRCUITS IN JUNCTION BOXES ABOVE AND/OR BELOW PANEL BOARD AS REQUIRED. PROVIDE TERMINAL BLOCKS IN JUNCTION BOXES TO MAKE SPLICE CONNECTIONS. THE USE OF WIRE NUTS IS NOT ACCEPTABLE. EXTEND/REWORK EXISTING BRANCH CIRCUITS TO REMAIN TO NEW PANEL. SEE 2/E2 KEY NOTE #9 FOR DETAILS.
 - 6 EXISTING GROUNDING ELECTRODE CONDUCTORS BE DEMOLISHED.



- KEY NOTES:
- 1 EXISTING OVER-HEAD SERVICE CONDUCTORS TO REMAIN.
 - 2 EXISTING METER AND LOAD CENTER COMBINATION TO REMAIN.
 - 3 EXISTING GROUNDING ELECTRODE CONDUCTORS TO REMAIN.
 - 4 NEW 10, 3W, OVERHEAD SERVICE CONDUCTORS IN ACCORDANCE WITH LOCAL UTILITY, E.C. TO PROVIDE WEATHER HEAD AND CONDUIT DOWN TO DISCONNECT. PENETRATE ROOF AWNING AS REQUIRED.
 - 5 NEW 120/240V, 2P, NEMA 3R, 200A, SERVICE-RATED DISCONNECT FUSED AT 200A WITH MINIMUM 35KAIC RATED, CURRENT LIMITING FUSES.
 - 6 GROUNDING ELECTRODE CONDUCTORS PER NEC 250:
 - 1-#4G IN 1/2" CONDUIT TO BUILDING STEEL AND CW MAIN.
 - 1-#6G IN 1/2" CONDUIT TO 2 DRIVEN RODS.
 - 1-#4G IN 1/2" CONDUIT TO REINFORCED STEEL AT CONCRETE FOOTING IF AVAILABLE.
 - 7 NEW METER BASE IN ACCORDANCE WITH LOCAL UTILITY.
 - 8 3-#3/0, 1-#6G IN 2" CONDUIT.
 - 9 NEW PANEL BOARD. EXTEND/REWORK INTERCEPTED BRANCH CIRCUITS IN JUNCTION BOXES TO NEW PANEL BOARD AS REQUIRED. PROVIDE TERMINAL BLOCKS IN JUNCTION BOXES TO MAKE SPLICE CONNECTIONS. THE USE OF WIRE NUTS IS NOT ACCEPTABLE. EXTEND/REWORK EXISTING BRANCH CIRCUITS TO REMAIN TO NEW PANEL.

1 DEMOLITION POWER RISER
E2 NOT TO SCALE

2 RENOVATION POWER RISER
E2 NOT TO SCALE

PANEL B

120/240V, 1 PHASE, 3 WIRE

CKT	DESCRIPTION	KVA	C	G	W	CB	CKT	CKT	CB	W	G	C	KVA	DESCRIPTION	CKT	
1	DOAS-1	0.4	1/2	12	12	15	1	2	20	12	12	1/2	1.0	NOTE 2,3	EXISTING LOAD	2
3		0.4	--	--	12	2P	3	4	20	12	12	1/2	0.2	NOTE 2	X-WALL LT	4
5	4P-1	4.0	3/4	10	8	50	5	6	20	12	12	1/2	0.2	NOTE 2	X-EXTERIOR LTS	6
7		4.0	--	--	8	2P	7	8	20	12	12	1/2	0.5	NOTE 2	X-CEILING FANS	8
9	X-LTS, X-EX FAN	1.0	1/2	12	12	20	9	10	15	12	12	1/2	0.5		EF-1	10
11	X-REC	0.7	1/2	12	12	20	11	12	80	4	8	1 1/4	7.5		EDH-1	12
13	EXISTING LOAD	1.0	1/2	12	12	20	13	14	2P	4	--	--	7.5			14
15	SPACE ONLY	0.0	--	--	--	--	15	16	--	--	--	--	0.0		SPACE ONLY	16
17	SPACE ONLY	0.0	--	--	--	--	17	18	--	--	--	--	0.0		SPACE ONLY	18
19	SPACE ONLY	0.0	--	--	--	--	19	20	--	--	--	--	0.0		SPACE ONLY	20
21	SPACE ONLY	0.0	--	--	--	--	21	22	--	--	--	--	0.0		SPACE ONLY	22
23	SPACE ONLY	0.0	--	--	--	--	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
31	SPACE ONLY	0.0	--	--	--	--	31	32	--	--	--	--	0.0		SPACE ONLY	32
33	SPACE ONLY	0.0	--	--	--	--	33	34	--	--	--	--	0.0		SPACE ONLY	34
35	SPACE ONLY	0.0	--	--	--	--	35	36	--	--	--	--	0.0		SPACE ONLY	36
37	SPARE	0.0	--	--	--	20	37	38	20	--	--	--	0.0		SPARE	38
39	SPARE	0.0	--	--	--	20	39	40	20	--	--	--	0.0		SPARE	40
41	SPARE	0.0	--	--	--	20	41	42	20	--	--	--	0.0		SPARE	42

DESCRIPTION	CONNECTED KVA	DEMAND FACTOR	DEMAND KVA
CONT. LOAD	0.80	125%	1.00
RECEPTACLE	1.72	100%/50%	1.72
MTRS/COOLS	10.34	100%	10.34
HEATS	15.00	100%	15.00
WATER HEATER	0.00	100%	0.00
EQUIPMENT	1.00	100%	1.00
KITCHEN EQUIP.	0.00	65%	0.00
SPECIAL EQ.	0.00	100%	0.00
25% OF LARGEST HVAC/MOTOR			1.98
TOTAL DEMAND			31.04

200 A MINIMUM BUS SIZE
MAIN LUGS ONLY
10 K MINIMUM AIC RATING

NOTES
1. SQUARE D: NQ
2. EXISTING BRANCH CIRCUIT TO BE REFD FROM NEW PANEL, E.C. TO VERIFY EXISTING CONDUCTOR SIZE. NOTIFY ENGINEER IF OTHER THAN AS SHOWN.
3. E.C. TO TRACE AND LABEL EXISTING BRANCH CIRCUIT TO REMAIN.
4.

SURFACE MOUNTING
NEMA 3R ENCLOSURE
GROUND BAR

CONNECTED LOADS	
PHASE A ¹	15.6 KVA
PHASE B ¹	13.3 KVA
TOTAL ¹	28.9 KVA
DEMAND	129 AMP

3 PANEL SCHEDULE
E2 NOT TO SCALE

REVISIONS	

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107 N CHURCH STREET
ROCKY MOUNT
NORTH CAROLINA

CONTENTS:
POWER RISERS, PANEL SCHEDULE

DATE:
MARCH 6, 2025

DESIGNER: MCB
ENGINEER: MCB

SHEET NO.
E2
OF 2