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SALEM, VA



SALEM FIRE STATION #2
RENOVATION
MECHANICAL LEGEND AND SCHEDULES

DRAWN BY JNB
DESIGNED BY JNB
CHECKED BY JNB
DATE 2024-08-30
SCALE As indicated
REVISIONS

MR1.01
PROJECT NO 03220052.01

CIRCULATION FAN SCHEDULE

MARK	AIRFOIL DIAMETER (FEET)	WEIGHT (LBS)	NOM HP/ AMPS	# OF AIRFOILS	V/FREQ./PH	BASIS OF DESIGN
HVLS-1	7	108	1.0/ 8.3	4	110V/60/1	HUNTER FANS, MODEL XP7
HVLS-2	7	108	1.0/ 8.3	4	110V/60/1	HUNTER FANS, MODEL XP7
HVLS-3	7	108	1.0/ 8.3	4	110V/60/1	HUNTER FANS, MODEL XP7
HVLS-4	7	108	1.0/ 8.3	4	110V/60/1	HUNTER FANS, MODEL XP7

NOTES:

- PROVIDE EACH FAN WITH INDIVIDUAL WALL MOUNTED SPEED CONTROLLER.
- PROVIDE EACH FAN WITH 2FT DOWN-ROD AND SUSPEND FROM BOTTOM OF ROOF JOISTS WITH UNI-STRUT AS RECOMMENDED BY MANUFACTURER.
- INSTALLING CONTRACTOR SHALL WORK WITH OWNER TO COORDINATE RELOCATING ANY EXISTING UTILITIES SUCH AS LIGHTS, PIPING & CONDUITS WHICH MAY NEED TO BE RELOCATED.

FAN SCHEDULE

MARK	QTY	AIR FLOW (CFM)	ESP (INWG)	WATTS	DRIVE TYPE	V/FREQ./PH	WEIGHT (LBS)	BASIS OF DESIGN (MANUFACTURER,MODEL#)
EF-1	1	60	0.25	24.7	DIRECT	115/60/1	10	BROAN, AE80B

NOTES:

- MANUFACTURER TO PROVIDE GRAVITY BACKDRAFT DAMPER.
- PROVIDE DEDICATED ON/OFF SWITCH AT TOILET ROOM ENTRANCE.

DUCTLESS MINI SPLIT OUTDOOR HEAT PUMP SCHEDULE (MULTI-ZONE)

MARK	COOLING CAPACITY @95°F (MBH)	HEATING CAPACITY @14°F (MBH)	ELECTRICAL			WEIGHT (LBS)	BASIS OF DESIGN
			V / PH	MCA	MOCP		
HP-1	32.5	32.8	208 / 1	33.0	40.0	181	HAIER, 5U42MS2HDA
HP-2	32.5	32.8	208 / 1	33.0	40.0	181	HAIER, 5U42MS2HDA
HP-3	32.5	32.8	208 / 1	33.0	40.0	181	HAIER, 5U42MS2HDA

NOTES:

- PROVIDE 4" CONCRETE PAD BELOW UNIT AND SECURE UNIT TO PAD.

DUCTLESS INDOOR UNIT SCHEDULE

MARK	UNIT TYPE	COOLING PERFORMANCE	HEATING PERFORMANCE	WEIGHT (LBS.)	BASIS OF DESIGN (MANUFACTURER,MODEL#)
		UNIT TOTAL COOLING (MBH)	HEATING OUTPUT (MBH)		
IU-1	WALL MOUNT	18.0	19.0	30	HAIER, AW18LC2VHB
IU-2	WALL MOUNT	18.0	19.0	30	HAIER, AW18LC2VHB
IU-3	WALL MOUNT	18.0	19.0	30	HAIER, AW18LC2VHB
IU-4	WALL MOUNT	18.0	19.0	30	HAIER, AW18LC2VHB
IU-5	WALL MOUNT	18.0	19.0	30	HAIER, AW18LC2VHB
IU-6	WALL MOUNT	7.0	8.0	22	HAIER, AW07LC2VHB
IU-7	WALL MOUNT	18.0	19.0	30	HAIER, AW18LC2VHB

NOTES:

- PROVIDE EACH INDOOR UNIT WITH WALL MOUNTED WIRELESS THERMOSTAT/CONTROLLER.
- PROVIDE EACH WALL MOUNT INDOOR UNIT WITH CONDENSATE REMOVAL PUMP, EQUIVALENT TO ASPEN PUMPS, MINI WHITE UNIVOLT WITH ABILITY TO PUMP 3.2 GAL/HR AT 33FT HEAD. PROVIDE 120V POWER SUPPLY.
- INDOOR UNITS ARE POWERED FROM OUTDOOR HEAT PUMP UNIT. PROVIDE WIRING FROM OUTDOOR UNIT TO EACH INDOOR UNIT AS RECOMMENDED BY THE MANUFACTURER AND CONCEAL WIRING WITHIN PIPING INCLOSURE.

HVAC LEGEND

DUCTWORK

	SUPPLY AIR DUCT, (RECTANGULAR)
	RETURN AIR DUCT, (RECTANGULAR)
	TEMPERATURE SENSOR
	RECTANGULAR DUCTWORK (1ST FIG. SIDE SHOWN, 2ND SIDE NOT SHOWN)
	ROUND DUCTWORK
	FLEXIBLE DUCT, (ROUND)
	SUPPLY DIFFUSER
	EXHAUST GRILLE
	RETURN GRILLE
	AIR DEVICE TAG 100 → AIRFLOW (CFM) 12 - A - 3 → INLET SIZE - TAG - # OF THROW DIRECTIONS
	DUCT TRANSITION, RECTANGULAR OR ROUND
	EQUIPMENT TAG AHU → EQUIPMENT TYPE ABBREVIATION 1 → UNIT MARK #
	MVD, MANUAL VOLUME DAMPER
	MOTORIZED CONTROL DAMPER
	CONNECT TO EXISTING
	LIMITS OF DEMOLITION
	EXISTING (EQUIPMENT OR DUCTWORK/PIPING)
	DEMOLITION (EQUIPMENT, PIPING, DUCTWORK, ETC.)
	DIRECTION OF AIRFLOW
	HEATING HOT WATER SUPPLY
	HEATING HOT WATER RETURN

GENERAL MECHANICAL SPECIFICATIONS

1. SCOPE:
 PROVIDE ALL MATERIALS, LABOR, TOOLS AND INCIDENTALS NECESSARY TO INSTALL AND MAKE READY FOR OWNER'S USE COMPLETE SYSTEMS OF HEATING, VENTILATION, AIR CONDITIONING (HVAC), PLUMBING, FOR THE PROPOSED WORK AND BUILDING RENOVATIONS AS SHOWN ON THE DRAWINGS AND CALLED FOR IN THESE SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION WITH OTHER DIVISIONS OF WORK FOR THE FULL EXTENT OF THE SCOPE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL ASPECTS, COMPONENTS, SYSTEMS, ETC. AND ACCOMMODATE THE PERFORMANCE INTENT OF THE CONSTRUCTION DOCUMENTS THROUGHOUT THE PROJECT SCOPE.

2. BIDDERS RESPONSIBILITY:
 EXAMINE THE DRAWINGS AND SPECIFICATIONS AND VISIT THE WORK SITE. BECOME FAMILIAR WITH THE CHARACTER OF THE WORK, THE COORDINATION WITH OTHER TRADES REQUIRED, AND ANY OTHER CONDITIONS THAT AFFECT THE COMPLETION OF THIS WORK. GENERAL CONTRACTOR SHALL BE REQUIRED TO COORDINATE WORK WITH TENANT FINISH CONTRACTOR IN A SIDE BY SIDE SCENARIO.

3. PERMITS, CODES AND LAWS:
 APPLY FOR ALL PERMITS AND PAY ALL FEES.
 ALL WORK SHALL BE IN ACCORDANCE WITH LATEST EDITIONS OF THE FOLLOWING RULES AND REGULATIONS, HEREIN REFERRED TO AS "CODES":
 THE LATEST OR ADOPTED EDITION OF THE APPLICABLE LOCAL, STATE, AND FEDERAL BUILDING, MECHANICAL, SANITATION, PLUMBING, ETC. CODES.
 UNDERWRITER'S LABORATORIES, INC. (U.I.) NATIONAL FIRE PROTECTION ASSOCIATION (N.F.P.A.) OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A)
 WHERE ANY OF THESE CODES ARE AT VARIANCE WITH THE DRAWINGS AND SPECIFICATIONS, THEIR REQUIREMENTS SHALL TAKE PRECEDENCE, UNLESS THE DRAWINGS AND SPECIFICATIONS REQUIREMENTS EXCEED THESE CODES. INCLUDE ANY COST NECESSARY TO MEET THESE CODES IN THE BID PRICE.

4. MECHANICAL PLANS:
 THE MECHANICAL PLANS ARE DIAGRAMMATIC AND BASED ON ONE MANUFACTURER'S EQUIPMENT.
 THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS, OR ALL THE DETAILS OF THE EQUIPMENT. VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO BE USED. INSTALLATION SHALL BE WITHIN THE LIMITATIONS IMPOSED BY THE ARCHITECTURAL, STRUCTURAL, HVAC, ELECTRICAL, AND PLUMBING REQUIREMENTS WITH ADEQUATE SPACE FOR MAINTENANCE.

5. QUESTIONS AND CLARIFICATIONS OF BID DOCUMENTS:
 BIDDERS SHALL NOT RELY ON ANY ORAL CLARIFICATION OF THE DRAWINGS OR SPECIFICATIONS. ANY QUESTIONS OR CLARIFICATIONS SHALL BE REFERRED IN WRITING TO THE ARCHITECT.

6. GUARANTEES:
 ALL EQUIPMENT, MATERIALS, AND WORKMANSHIP SHALL BE GUARANTEED IN WRITING FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. WARRANTIES SHALL BE IN WRITING AND SHALL INCLUDE FACTORY WARRANTIES FOR EACH PIECE OF EQUIPMENT. PROVIDE A CERTIFICATE FOR EACH PIECE OF EQUIPMENT. CLEARLY INDICATE ON EACH WARRANTY CERTIFICATE THE MODEL NO., SERIAL NO., LOCATION, AND OWNER'S NAME.

7. COMPLETE SYSTEM:
 ALL PRODUCTS, MATERIALS AND ACCESSORIES SHALL BE FURNISHED AND INSTALLED AS REQUIRED FOR A COMPLETE SYSTEM READY FOR OWNER'S BENEFICIAL USE.

8. WORKMANSHIP:
 ALL WORK SHALL BE PERFORMED BY COMPETENT MECHANICS USING PROPER TOOLS AND EQUIPMENT TO PRODUCE FIRST QUALITY WORK. ALL WORK SHALL BE NEATLY INSTALLED, ACCESSIBLE FOR MAINTENANCE, AND COMPLETE WITH ALL ACCESSORIES REQUIRED.

9. ACCESSIBILITY:
 INSTALL ALL EQUIPMENT AND THEIR APPURTENANCES SUCH AS, BUT NOT LIMITED TO, VALVES, COILS, DRAIN PANS, DRAINS, DAMPERS, CONTROLS, MOTORS, CONTROLLERS, ETC., SO THAT THEY CAN BE SERVICED, RESET, REPLACED OR RECALIBRATED, ETC. INSTALL ALL NECESSARY ACCESS PANELS AND BUILDING ACCESS DOORS, AS BELOW, WHERE REQUIRED TO ACCOMPLISH THIS. IF ANY EQUIPMENT OR COMPONENTS DO NOT FIT WHERE INTENDED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING, REQUESTING FURTHER GUIDANCE.
 PROVIDE BUILDING ACCESS DOORS FOR ALL MECHANICAL EQUIPMENT REQUIRING SERVICE, INCLUDING BUT NOT LIMITED TO, AHU'S, FANS, DAMPERS, DUCT ACCESS PANELS, CONTROLS, PIPING, VALVES, REGULATORS, TRAPS, ETC., INSTALLED ABOVE HARD CEILINGS, BEHIND WALLS, AND BELOW FLOORS, FOR INSTALLATION BY OTHER DIVISIONS OF THE WORK. BUILDING ACCESS DOORS ARE NOT REQUIRED WHERE THE MECHANICAL EQUIPMENT IS INSTALLED ABOVE LAY-IN AND ACCESSIBLE SPLINE CEILINGS. OTHER TYPES OF SPLINE CEILINGS REQUIRE BUILDING ACCESS DOORS. SIZE THE BUILDING ACCESS DOORS FOR THE USE INTENDED, BUT NOT LESS THAN 12 INCHES BY 12 INCHES. WHERE HUMAN ACCESS IS REQUIRED, PROVIDE 24 INCHES BY 24 INCHES, OR LARGER. WHERE BUILDING ACCESS DOORS CANNOT BE INSTALLED FOR STRUCTURAL OR ARCHITECTURAL REASONS, NOTIFY THE ARCHITECT. PRIME COAT BUILDING ACCESS DOORS IN PAINTED AREAS WITH FINISH PAINTING AS SPECIFIED IN OTHER DIVISIONS. IN WET AREAS, TOILET ROOMS, OR AREAS WITH CERAMIC TILE FLOORS OR WALLS, PROVIDE STAINLESS STEEL BUILDING ACCESS DOORS. PROVIDE BUILDING ACCESS DOORS WITH A CONCEALED KEY OPERATED LOCK AND CONCEALED HINGES. ALL LOCKS SHALL BE KEYED ALIKE. PROVIDE BUILDING ACCESS DOORS AS SPECIFIED IN OTHER DIVISIONS OF THE WORK OR PROVIDE MILCOR DOORS, OR EQUIVALENT, SUITABLE FOR THE INSTALLATION INTENDED. PROVIDE FIRE RATED DOORS FOR ALL FIRE RATED WALLS, PARTITIONS, AND CEILINGS.

10. WORK BY OTHER TRADES:
 FURNISH ALL SLEEVE FRAMES, BUILDING ACCESS DOORS, PREFABRICATED EQUIPMENT CURBS, ROOF CURBS, ETC. FOR INSTALLATION BY OTHER TRADES.
 INSTALL ALL MOTORS AND FURNISH THE STARTING EQUIPMENT AND DISCONNECTS TO THE DIVISION 26000 SUBCONTRACTOR FOR INSTALLATION. CONTROL WIRING, INCLUDING SWITCHES, THERMOSTATS, INTERLOCKS, ETC. SHALL BE FURNISHED BY DIVISION 23000. ENSURE THAT THE ELECTRICAL EQUIPMENT MOUNTED NEAR THE MECHANICAL EQUIPMENT DOES NOT BLOCK ACCESS TO SERVICE AREAS OF THE MECHANICAL EQUIPMENT. DO NOT ALLOW ANY EQUIPMENT TO BE INSTALLED ON THE HVAC EQUIPMENT ENCLOSURES.

11. FIRE STOPPING:
 ALL PENETRATIONS OF FLOORS AND OTHER FIRE-RATED ASSEMBLIES SHALL BE FIRE AND SMOKE-STOPPED IN STRICT ACCORDANCE WITH THE APPLICABLE CODES.

12. FOUNDATIONS AND SPECIAL SUPPORTS:
 FURNISH AND INSTALL ALL SPECIAL FOUNDATIONS AND SUPPORTS REQUIRED FOR EQUIPMENT INSTALLED UNDER THIS SECTION, UNLESS THEY ARE A PART OF THE BUILDING STRUCTURE AND ARE SHOWN IN OTHER SECTIONS.

13. CLEANING AND PAINTING:
 THOROUGHLY CLEAN ALL EQUIPMENT AND REMOVE ALL TRASH, CARTONS, ETC. MAKE ANY NECESSARY CORRECTIONS OR REPAIR/REPLACE ANY DAMAGED MATERIALS OR EQUIPMENT. LEAVE THE ENTIRE SYSTEM IN A THOROUGHLY CLEAN AND ORDERLY MANNER.
 ANY FINISHED SURFACES THAT HAVE BEEN SCRATCHED OR DISCOLORED SHALL BE TOUCHED-UP OR REPAINTED BREAK TO BREAK WITH PAINT TO MATCH THE ORIGINAL COLOR. TOUCH UP PAINTED SURFACES OR REPAINT THE ENTIRE PAINTED SURFACE IF TOUCH UP IS UNACCEPTABLE. SEE ARCHITECTURAL PAINTING SPECIFICATIONS.
 ALL METAL ITEMS SUBJECT TO RUSTING, INSIDE OR EXPOSED TO WEATHER SHALL BE GIVEN ONE COAT OF PROPER TYPE RUST PREVENTATIVE PRIMER AS SOON AS INSTALLED. APPLY TWO FINISH COATS WITH COLOR TO BE SELECTED BY THE ARCHITECT.
 FOR ALL INTERIOR OR EXTERIOR STRUCTURAL GALVANIZED STEEL, COLD GALVANIZE ALL EXPOSED METAL CUT ENDS, HOLES, WELDS, SCRATCHES, ETC., OR HOT DIP GALVANIZE THE ENTIRE STRUCTURE OR FRAME AFTER FABRICATION AND MOUNTING HOLES ARE CUT.
 UPON COMPLETION OF THE INSTALLATION, BUT NOT BEFORE, AND BEFORE ACCEPTANCE, THOROUGHLY CLEAN ALL EXPOSED EQUIPMENT, PIPING, DUCTWORK, INSULATION JACKETS, ETC.,

REMOVING ALL STICKERS, LABELS, MARKING, WRITING, FABRICATION MARKINGS, IDENTIFICATION, ADHESIVE, SEALER, GLUE, RUST, CORROSION, ETC., FROM THEIR EXTERIOR SURFACES.
 THE CLEANLINESS AND PAINTING ACCEPTABILITY IS AT THE SOLE DISCRETION OF THE ARCHITECT AND MAY REQUIRE ADDITIONAL CLEANING AND COATS OF PAINT BEFORE ANY SURFACE IS ACCEPTED.

14. SUBMITTAL AND SHOP DRAWINGS:
 SUBMIT MANUFACTURER'S CERTIFIED DATA RELATIVE TO ALL EQUIPMENT, PIPING, CONTROLS, ETC. REQUIRED FOR THE INSTALLATION OF THE HVAC, PLUMBING AND FIRE PROTECTION SYSTEMS. SUBMIT FOR REVIEW ALL NECESSARY ENGINEERING, PRODUCT AND INSTALLATION DATA, SHOP DRAWINGS, SAMPLES ETC. FOR ALL EQUIPMENT, MATERIAL, AND SYSTEMS TO ASCERTAIN COMPLIANCE WITH THE TECHNICAL REQUIREMENTS OF THE CONTRACT DOCUMENTS. SUBMIT SIX (6) COPIES OF ALL NECESSARY DATA, CUTS, MANUFACTURER'S SELECTIONS, CATALOGS, BULLETINS, INSTALLATION INSTRUCTIONS, DRAWINGS, DIAGRAMS, CURVES, ETC. CLEARLY INDICATE ON THE SUBMITTED DATA, THE MANUFACTURER'S NAME, PRODUCT NUMBER(S), OPTIONS, EQUIPMENT CAPACITY, DIMENSIONAL DATA, WEIGHTS, AND OTHER APPLICABLE TECHNICAL DATA FOR THE PROJECT.
 TRADE NAMES, MANUFACTURERS, AND CATALOGUE NUMBERS ARE MENTIONED HEREIN AND ON THE DRAWINGS SOLELY IN ORDER TO ESTABLISH A STANDARD FOR THE TYPE, GENERAL DESIGN, AND QUALITY OF PRODUCT REQUIRED. OTHER PRODUCTS SIMILAR IN DESIGN OF EQUIVALENT QUALITY CAPABLE OF FITTING WITHIN THE SPACES ALLOCATED AND COMPLYING WITH THE DRAWINGS AND SPECIFICATIONS WILL BE CONSIDERED AFTER THE CONTRACT IS LET UNLESS "PRIOR APPROVAL" REQUIREMENTS ARE SET FORTH IN THESE DOCUMENTS.
 WHERE TWO OR MORE MANUFACTURERS OR MATERIALS ARE NAMED, THE CONTRACTOR MAY SUBMIT ANY OF THOSE NAMES, PROVIDED THEY CONFORM TO THE SPECIFICATIONS AND DESIGN INTENT. CONTRACTOR SHALL INCLUDE WITH THE SUBMITTAL A LIST OF ALL COMPARATIVE FEATURES INDICATING COMPLIANCE WITH THE SPECIFICATIONS.
 THE ARCHITECT AND/OR ENGINEER MAY REQUIRE THE SUBMISSION OF SAMPLES, PARTICULARLY WHEREVER EQUIPMENT OR APPLIANCES ARE VISIBLE IN FINISHED AREAS, SUCH AS CEILINGS, INTERIOR AND EXTERIOR WALLS. THE CONTRACTOR AND SUPPLIER SHALL ARRANGE FOR DEMONSTRATIONS OF THE INSTALLATION OF ANY OF THESE PRODUCTS AND THEIR ABILITY TO PERFORM AS SPECIFIED, IF REQUIRED.
 REVIEW OF SUBMITTALS AND SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR FITTING THE EQUIPMENT IN THE SPACE ALLOTTED WITH SPACE FOR ALL CONNECTIONS AND SERVICING AND FOR THE COORDINATION OF THE WORK WITH WORK OF OTHER TRADES.

THE CONTRACTOR SHALL REVIEW ALL SUBMITTALS AND SHOP DRAWINGS AND INDICATE BY STAMP OR LETTER THAT HE HAS REVIEWED THEM, BEFORE FORWARDING THEM TO THE ARCHITECT AND/OR ENGINEER. SUBMITTALS AND DRAWINGS WILL BE RETURNED AFTER REVIEW INDICATING WHETHER EXCEPTIONS ARE TAKEN, THE SUBMITTAL RETURNED WITH CORRECTIONS, OR IS COMPLETELY REJECTED. RESUBMISSION OF REVISED SUBMITTALS AND SHOP DRAWINGS, IF REQUIRED, SHALL BE DONE BEFORE INSTALLATION AND CONSTRUCTION IS BEGUN.
 CORRECTIONS OR COMMENTS MADE ON THE SUBMITTALS AND DRAWINGS DURING THIS REVIEW DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THIS REVIEW IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, FABRICATION PROCESSES, TECHNIQUES OF CONSTRUCTION, COORDINATING THE WORK WITH THAT OF ALL OTHER TRADES, AND PERFORMING WORK IN A SAFE AND SATISFACTORY MANNER. REVIEW OF THE SUBMITTALS SHALL NOT PERMIT ANY DEVIATION FROM PLANS AND SPECIFICATIONS.
 SUBMITTALS FOR A SPECIFIC CLASS OF PRODUCTS, SYSTEMS, INSTALLATION PROCEDURES, SHOP DRAWINGS, ETC. WILL BE REVIEWED BY THE ENGINEER ONE TIME AND ITS RESUBMITTAL ONE TIME, IF NECESSARY, AS ABOVE, AT NO COST TO THE CONTRACTOR. THE CONTRACTOR WILL BEAR THE FULL COST FOR ALL SUBSEQUENT RESUBMITTAL REVIEWS AT THE ENGINEER'S STANDARD HOURLY RATES. PAYMENT WILL BE REQUIRED AT COMPLETION OF RESPECTIVE REVIEW.
 REQUIRED SHOP DRAWINGS:
 SUBMIT THE FOLLOWING SHOP DRAWINGS BEFORE ANY MECHANICAL DUCTWORK, PIPING, EQUIPMENT, ETC. IS FABRICATED AND INSTALLED. SUBMIT THESE SHOP DRAWINGS IN ¼ INCH PER FOOT MINIMUM SCALE WITH NECESSARY PLANS, ELEVATIONS, SECTIONS, DETAILS, AND ISOMETRICS. SUBMIT SIX (6) PAPER COPIES AND ONE (1) CD-ROM WITH ALL THESE DRAWINGS IN AUTOCAD DRAWING DWG FILES, LATEST AUTOCAD FORMAT.
 SOON AFTER AWARD OF THE CONTRACT, DETERMINE WHERE THERE MAY BE INSTALLATION, SPACE CONCERNS, AND/OR WHERE OTHER CONFLICTS MAY OCCUR. SUBMIT COORDINATION DRAWINGS, RELATING TO THESE CONFLICTS WITH THE MECHANICAL EQUIPMENT, DUCT, PIPING, ELECTRICAL, STRUCTURAL AND ARCHITECTURAL SYSTEMS ETC., SHOWING CLEARANCES AND RELATIONSHIP TO STRUCTURAL MEMBERS, PIPING, LIGHTS, CONDUITS, ELECTRICAL EQUIPMENT, AND BUILDING COMPONENTS. IN PREPARING THESE SHOP DRAWINGS, ESTABLISH LINES AND LEVELS FOR ALL DIVISIONS OF THE WORK IN THE AFFECTED AREA. IMMEDIATELY CALL TO THE ATTENTION OF THE ARCHITECT ANY INTERFERENCE OR CONFLICT FOR CLARIFICATION IN WRITING.
 SUBMIT SHOP DRAWINGS FOR ALL DUCTWORK. SUBMIT LAYOUT DRAWINGS OF EACH MECHANICAL SYSTEM SHOWING THE LOCATION, ARRANGEMENT, ETC. OF ALL EQUIPMENT, ALL TRADES, ETC. TO BE INSTALLED RELATED TO THE RESPECTIVE SYSTEM.

15. AS-BUILT DRAWINGS:
 MAINTAIN DAILY UPDATED DRAWINGS SHOWING DEVIATIONS FROM CONSTRUCTION DOCUMENTS. AT THE END OF THE PROJECT, PROFESSIONALLY PREPARE AS-BUILT DRAWINGS AND SUBMIT THREE COPIES, ONE REPRODUCIBLE.

16. OPERATION AND MAINTENANCE MANUALS:
 UPON COMPLETION OF THE PROJECT, SUBMIT THREE COPIES OF ALL OPERATION AND MAINTENANCE MANUALS, WARRANTIES, SPARE PARTS LIST, AS-BUILT DRAWINGS, TEST AND BALANCE REPORTS, AND LETTER OF GUARANTEE ALL BOUND IN THREE RING BINDERS, CLEARLY SHOWING WHICH EQUIPMENT WAS SUPPLIED TO THE JOB.

17. PROJECT COMPLETION:
 BEFORE STARTING AND TESTING ANY SYSTEM, HVAC, OR PLUMBING, TO PREVENT INADVERTENT OPERATION OF THE MECHANICAL EQUIPMENT BEFORE THE MANUFACTURER'S INSPECTION AND TESTING, THE CONTRACTOR SHALL:
 VERIFY THAT ALL ELECTRICAL POWER IS OFF TO ALL MECHANICAL EQUIPMENT, INCLUDING THE AHU'S, ACCU'S, BOOSTER PUMPS, FIRE PUMPS, ETC.
 LOCK OUT EACH SYSTEM USING SETON MODEL NUMBER 70329; "DO NOT OPERATE" LOCK ON LOCKOUT TAGS, OR EQUIVALENT. INSTALL LOCKOUT TAGS AT EACH PIECE OF EQUIPMENT, ELECTRICAL DISCONNECTS, STARTERS, SWITCHES, ETC.
 REMOVE THESE TAGS ONLY WHEN THE MANUFACTURER APPROVES OF THE EQUIPMENT INSTALLATION IN WRITING. EACH MANUFACTURER OR THEIR REPRESENTATIVE SHALL INSPECT THEIR EQUIPMENT FOR COMPLIANCE TO THEIR INSTALLATION REQUIREMENTS AND RECOMMENDATIONS. IN ADDITION, THE COMPRESSOR MANUFACTURER SHALL INSPECT EACH REFRIGERANT PIPING INSTALLATION FOR ADHERENCE TO THE APPROVED REFRIGERANT PIPING DIAGRAMS, ROUTING. EACH MANUFACTURER SHALL PREPARE A PUNCH LIST OF ALL DEFICIENCIES, IN WRITING WITH COPIES TO THE ARCHITECT AND CONTRACTOR.
 EACH MANUFACTURER SHALL REINSPECT THE EQUIPMENT AFTER THE CONTRACTOR HAS CORRECTED ALL DEFICIENCIES. WHEN THE MANUFACTURER HAS GIVEN THEIR WRITTEN APPROVAL WITH COPIES TO THE ARCHITECT AND CONTRACTOR, THE CONTRACTOR MAY REMOVE THE LOCKOUT TAGS, SAFELY START, AND TEST THE EQUIPMENT, AS REQUIRED HEREIN.
 CONTRACTOR SHALL PROVIDE FOR ALL NECESSARY DRILLING OF WALL STUDS, CEILING JOISTS, PLATES, FINISHES, ETC. TO ACCOMMODATE ROUTING AND INSTALLATION OF ALL PIPING, DUCT,

ETC.
 HVAC EQUIPMENT, METHODS AND MATERIALS

18. DUCTWORK GENERAL:
 DUCT SIZES SHOWN ON THE DRAWINGS ARE INSIDE DIMENSIONS AND DO NOT TAKE INTO ACCOUNT LINING THICKNESS. DUCTWORK SHALL BE GALVANIZED SHEET METAL WITH GAUGES, CONSTRUCTION DETAILS AND INSTALLATION ACCORDING TO N.F.P.A. STANDARD 90A, ASHRAE, AND SMACNA DUCT CONSTRUCTION MANUALS AND REQUIREMENTS. PROVIDE FLEXIBLE CONNECTIONS AT AIR HANDLING UNITS AND FANS.

19. FABRICATION, ERECTION, AND SUPPORT:
 ALL DUCTWORK SHALL BE FABRICATED, ERECTED, BRACED, AND SUPPORTED IN STRICT ACCORDANCE WITH THE LATEST EDITIONS OF SMACNA AND ASHRAE REQUIREMENTS.

20. JOINT SEALING:
 SEAL ALL DUCT JOINTS AND SEAMS (LONGITUDINAL AND TRANSVERSE) WITH HIGH PRESSURE DUCT SEALER, HARDCAST "IRON-GRIP 601" OR APPROVED EQUIVALENT. REINFORCED FOIL BACKED TAPES, CLOTH OR PLASTIC BACKED TAPES (DUCT TAPE) ARE NOT ACCEPTABLE.

21. FLEXIBLE AIR DUCT:
 DUCT SHALL BE UL LISTED UL-181, CLASS I AIR DUCT MATERIAL AND SHALL COMPLY WITH N.F.P.A 90A AND 90B AND ALL LOCAL REQUIREMENTS. DUCT SHALL HAVE AN OPERATING AIR PRESSURE OF 6 INCHES WG POSITIVE AND 4 INCHES WG NEGATIVE, ACOUSTICAL DOUBLE LAMINATED INNER FABRIC BONDED TO A STEEL HELIX WIRE. OUTER JACKET FIRE RETARDANT REINFORCED ALUMINUM MYLAR WITH FIBERGLASS INSULATION. FLEXMASTER TYPE "8M" ACOUSTICAL INSULATED OR EQUIVALENT.
 MAKE ALL FLEXIBLE DUCT CONNECTIONS TO HARD DUCT USING STAINLESS STEEL SCREW CLAMPING BANDS AND SEALED AIR TIGHT WITH HIGH PRESSURE DUCT SEALER. PLASTIC BANDS ARE NOT ACCEPTABLE.
 SEAL FLEXIBLE DUCT VAPOR BARRIER TO HARD DUCT AND/OR ADJACENT INSULATION. NO EXPOSED FIBERGLASS SHALL BE VISIBLE.

22. REFRIGERANT PIPING:
 REFRIGERANT PIPING SHALL CONFORM TO THE REQUIREMENTS OF THE SAFETY CODES FOR MECHANICAL REFRIGERATION AND REFRIGERANT PIPING AND THE MANUFACTURER REQUIREMENTS.
 RUN ALL PIPING SQUARE TO BUILDING LINES WHEREVER POSSIBLE. FIELD ROUTE PIPING IN ORDER TO PROVIDE FOR EASE OF ACCESS TO VALVES AND OTHER APPURTENANCES.
 SUPPORT PIPING FROM THE BUILDING STRUCTURE USING COPPER OR PVC COATED HANGERS. SUPPORT REFRIGERANT PIPING 4 FOOT ON CENTER AND AT EACH CHANGE OF DIRECTION. SUBMIT REFRIGERANT PIPING LAYOUT SHOP DRAWINGS FOR EACH UNIQUE SYSTEM, REVIEWED AND APPROVED BY THE MANUFACTURER, IN WRITING. SHOW ALL FILTERS, DRIERS, SIGHT-GLASSES, VALVES, ETC. AS REQUIRED BY THE MANUFACTURER.
 USE REFRIGERANT GRADE, CONTINUOUS FLEXIBLE COPPER TUBING WITH 1" INSULATION AND FLARE CONNECTIONS.
 ALL PIPING SHALL BE TESTED FOR 24 HOURS IN ACCORDANCE WITH THE FOLLOWING SCHEDULE AND PROVEN TIGHT:
 DISCHARGE AND LIQUID REFRIGERANT PIPING--300 PSIG, NITROGEN.
 SUCTION REFRIGERANT PIPING--150 PSIG NITROGEN.
 REFRIGERANT PIPING, AFTER PROVEN TIGHT, SHALL BE EVACUATED BY MEANS OF AN APPROVED VACUUM PUMP TO A VACUUM OF 2.5 MM HG ABSOLUTE. SYSTEMS SHALL STAND UNDER VACUUM WITH VACUUM PUMP OFF FOR A MINIMUM OF 12 HOURS. SYSTEMS MAY BE CHARGED WITH PROPER REFRIGERANT AFTER ARCHITECT'S APPROVAL OF VACUUM TEST. A DEHYDRATOR SHALL BE USED IN CHARGING HOSE DURING CHARGING OF SYSTEMS WITH REFRIGERANT.

23. GENERAL
 THIS SECTION APPLIES TO ALL MECHANICAL WORK.
 ALL INSULATION SHALL BE IN STRICT ACCORDANCE WITH ASHRAE STANDARDS AND ALL LOCAL AND STATE ENERGY CODES.
 THE INSULATION WORK SHALL BE PERFORMED BY A FIRM REGULARLY ENGAGED IN THIS TYPE WORK USING MECHANICS SKILLED IN THE TRADE.
 INSTALL ALL MATERIALS AS RECOMMENDED BY THE MANUFACTURER FOR THE SERVICE INTENDED. ALL INSULATION MATERIAL, INCLUDING SEALER MATERIAL, ADHESIVES, COVERING MATERIAL, FINISH, ETC. SHALL HAVE A U.L. LISTED FLAME SPREAD RATING NOT OVER 24 WITHOUT EVIDENCE OF CONTINUED PROGRESSIVE COMBUSTION AND WITH A SMOKE DEVELOPED RATING NOT HIGHER THAN 50. ALL COATINGS AND COVERINGS FOR HOT SERVICE SHALL BE BREATHER TYPE AND VAPOR BARRIER TYPE FOR COLD SERVICE.
 HVAC PIPING:
 INSULATE REFRIGERANT LINES AND ALL CONDENSATE DRAIN LINES WITH 1" THICK CLOE CELLED ELASTOMERIC INSULATION INSTALLED PER THE MANUFACTURERS REQUIREMENTS. PAINT EXTERIOR INSULATION WITH TWO COATS OF PAINT AS REQUIRED BY THE INSULATION MANUFACTURER.

24. EQUIPMENT:
 CAPACITY, PERFORMANCE AND CHARACTERISTICS OF EQUIPMENT SHALL BE AS INDICATED ON THE DRAWINGS AND AS SPECIFIED OR IMPLIED HEREIN. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY INCREASED COST TO HIMSELF OR OTHERS FOR EQUIPMENT WHICH DEVIATES FROM THAT SCHEDULED OR IMPLIED HEREIN. REGARDLESS OF COST AFFECT, THE ARCHITECT MUST APPROVE ANY DEVIATION FROM THE DRAWINGS AND THE SPECIFICATION.

25. MOTORS AND STARTERS:
 ALL ELECTRIC MOTORS SHALL BE HIGH EFFICIENCY TYPE WITH MAXIMUM OF 1750 RPM WITH OPEN DRIP PROOF OR TEFC ENCLOSURES, UNLESS OTHERWISE NOTED. MOTORS LOCATED ON AIR HANDLING UNITS SHALL BE MOUNTED IN RUBBER SUPPORTS OR THE FAN SHALL BE INDEPENDENTLY SUPPORTED ON SPRING ISOLATORS. MOTORS LOCATED IN THE CONDITIONED SPACE SHALL BE SELECTED FOR QUIET OPERATION AND SHALL NOT PRODUCE AN OBJECTIONABLE "MOTOR NOISE" IN THE SPACE.
 ELECTRICAL CHARACTERISTICS SHALL BE VERIFIED FROM THE ELECTRICAL DRAWINGS, PRIOR TO BIDDING, AND VERIFIED ON THE JOB WITH THE ELECTRICAL SUB-CONTRACTOR. IF A CONFLICT ARISES, THE ELECTRICAL DRAWINGS SHALL BE THE AUTHORITY.
 PROVIDE MOTOR STARTERS AND PROPER HEATER ELEMENTS SIZED IN ACCORDANCE WITH NFPA 70. STARTERS SHALL BE SQUARE-D OR EQUIVALENT WITH OVERLOAD TRIP ELEMENT IN EACH PHASE. LARGER MOTORS AND THEIR STARTERS SHALL MEET THE REQUIREMENTS OF THE UTILITY COMPANY AS TO INRUSH ALLOWABLE AND THE TYPE OF STARTING PERMITTED.
 SHOULD ANY MECHANICAL EQUIPMENT REQUIRE EXTRA WORK BY OTHER TRADES, FOR PROPER INSTALLATION, THIS CONTRACTOR SHALL BEAR ALL COSTS, SUCH AS INCREASED ELECTRICAL, STRUCTURAL, ROOFING, ETC.

26. SYSTEMS TEST AND BALANCE:
 THE REQUIRED TEST & BALANCE OF THE HVAC SYSTEM SHALL BE PERFORMED BY AN APPROVED INDEPENDENT TESTING AGENCY AS SPECIFIED BELOW.
 AGENCY QUALIFICATIONS:
 TEST & BALANCE SHALL BE PERFORMED BY AN INDEPENDENT AGENCY ENGAGED SOLELY IN TEST AND BALANCE WORK. AGENCY SHALL BE A MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) AND NATIONAL ENVIRONMENTAL BALANCING BUREAU, (NEBB). SUBMIT A WRITTEN REPORT WITHIN 30 DAYS OF COMMENCING WORK, WITH ANY RECOMMENDED CHANGES TO INSURE BALANCING CAPABILITY. SUBMIT A DETAILED TEST PLAN TO THE ARCHITECT ILLUSTRATING ALL FORMATS, DRAWINGS, AND TEST PROCEDURE TO BE USED FOR TESTING THE COMPLETED SYSTEM. THE APPROVED PLAN WILL BE USED FOR TESTING THE SYSTEMS. PROCEDURES SHALL INCLUDE REQUIREMENTS LISTED IN AABC/NEBB STANDARDS, LATEST EDITION AND ANY SPECIAL REQUIREMENTS FOR THIS PROJECT. MAKE PROJECT VISITS AS REQUIRED DURING CONSTRUCTION PERIOD INSPECTING FOR PROPER INSTALLATION OF THE SYSTEM AND RELATED BALANCING DEVICES. PROJECT VISIT REPORTS SHALL BE MADE TO THE ARCHITECT IN WRITING.
 CONTRACTORS REQUIREMENTS PRIOR TO TEST & BALANCE:

THE CONTRACTOR SHALL PERFORM ALL REQUIRED PRELIMINARY TESTS AND OTHER PREPARATORY WORK, INCLUDING BUT NOT LIMITED TO:
 MAKE SURE ALL FANS ARE OPERATING, CHECK ROTATION, RPM, AND AMPS. CHECK ALL DAMPERS FOR OPERATION.
 PUT ALL HVAC EQUIPMENT IN FULL OPERATION INCLUDING AIR UNITS AND FANS. MAKE SURE ALL HVAC CONTROLS ARE INSTALLED AND FULLY OPERATIONAL. CLEAN/REPLACE FILTERS JUST PRIOR TO TESTING.
 PROVIDE ALL BALANCING DEVICES AND DRIVE CHANGES THAT ARE DEEMED NECESSARY BY T&B AGENCY FOR BALANCE AT NO ADDITIONAL COST TO THE OWNER.
 TEST & BALANCE AGENCY SHALL BALANCE ALL AIR SYSTEMS FOR OPERATION WITHIN DESIGN CRITERIA. PRIME MOVERS SHALL BE WITHIN 5% OF DESIGN AND TERMINALS WITHIN 10% OF DESIGN. AIR SYSTEMS SHALL BE BALANCED AS DESCRIBED HEREIN.
 TEST REPORT: THE FINAL TAB REPORT SHALL BE SUBMITTED IN PDF FORMAT.
 REPORT SHALL BE INDEXED.
 TABLE OF CONTENTS SHALL LIST ALL REPORTS.
 ALL AIR OUTLETS SHALL BE LOCATED ON CODED DRAWINGS PREPARED BY THE T&B AGENCY. AIR OUTLETS FORMS SHALL BE PREPARED AND CORRELATED TO THE CODED DRAWINGS.
 TEST SUMMARY SHALL DESCRIBE FINAL TEST PROCEDURES AND SPECIAL CONDITIONS DURING TESTS (SUCH AS THERMOSTAT OUTSIDE/RETURN AIR RELATIONSHIP), AND DUCT STATIC PRESSURE. DESCRIBE OTHER DATA THAT MAY ASSIST OPERATING PERSONNEL IN THE CONTINUING OPERATION OF THE SYSTEM.
 T&B CONTRACTOR SHALL TAKE AND RECORD ALL NECESSARY READINGS AT THE FINAL BALANCE POINTS, SUCH AS BUT NOT LIMITED TO: AIR QUANTITIES, PRESSURES, SETPOINTS, ENTERING AND LEAVING COIL TEMPERATURES, SPACE INDOOR AND OUTSIDE WET AND DRY BULB TEMPERATURES, OUTDOOR WEATHER CONDITIONS, ELECTRICAL READINGS OF ALL NEW AND EXISTING MOTORS, COMPRESSORS, ETC.
 TEST REPORT SHALL CONTAIN TAB CERTIFICATION OF TEST DATA AND SYSTEM CONDITIONS. SUBMIT THE TEST REPORTS, FOR REVIEW, BEFORE SUBSTANTIAL COMPLETION.
 END OF MECHANICAL SPECIFICATIONS.



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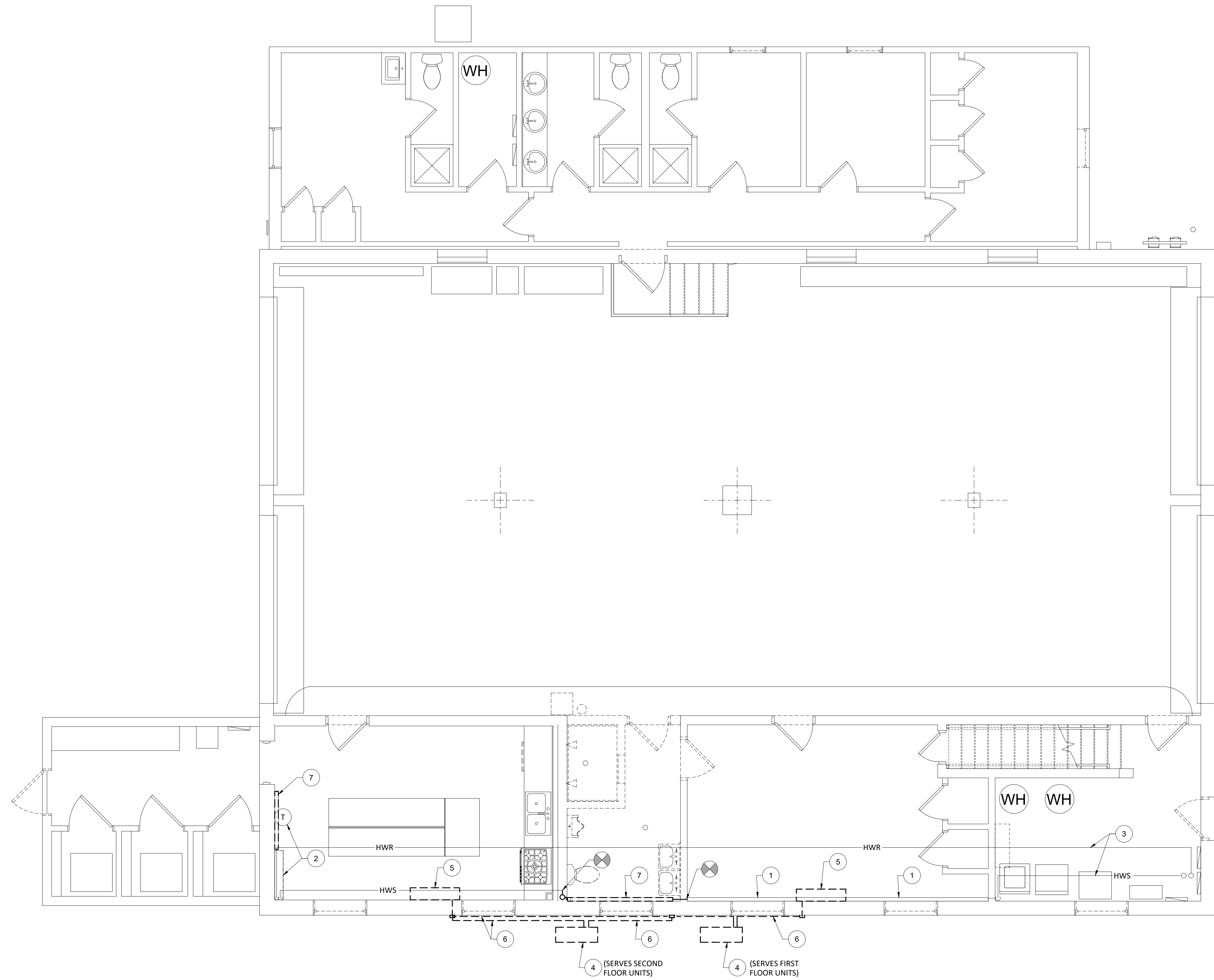
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SALEM FIRE STATION #2
 RENOVATION
 MECHANICAL SPECIFICATIONS

415 ELECTRIC ROAD
 SALEM, VIRGINIA 24153

DRAWN BY **JNB**
 DESIGNED BY **JNB**
 CHECKED BY **JNB**
 DATE **2024-08-30**
 SCALE **As indicated**
 REVISIONS



GENERAL NOTES:

1. CONTRACTORS SHALL VISIT SITE AND VERIFY EXISTING CONDITIONS PRIOR TO BIDDING.

KEYED NOTES:

- 1. EXISTING HYDRONIC BASEBOARD HEATER TO REMAIN.
- 2. EXISTING CABINET UNIT HEATER TO REMAIN.
- 3. EXISTING HOT WATER SUPPLY AND RETURN PIPING FROM BOILER SYSTEM ABOVE.
- 4. EXISTING OUTDOOR HEAT PUMP UNIT ON GRADE TO BE REMOVED IN ITS ENTIRETY. ASSOCIATED CONCRETE PAD AND ALL ASSOCIATED REFRIGERANT PIPING FROM UNIT TO BE REMOVED.
- 5. EXISTING WALL MOUNTED DUCTLESS UNIT AND ASSOCIATED REFRIGERANT AND CONDENSATE DRAIN PIPING TO BE REMOVED IN THEIR ENTIRETY.
- 6. EXISTING REFRIGERANT PIPING AND CONDENSATE PIPING ALONG EXTERIOR WALL LOCATED IN PIPING ENCLOSURE TO BE REMOVED.
- 7. EXISTING HYDRONIC BASEBOARD HEATER, ASSOCIATED HEATING ELEMENTS, ENCLOSURES, AND ASSOCIATED THERMOSTAT TO BE REMOVED IN THEIR ENTIRETY. MODIFY HOT WATER PIPING AS INDICATED.

MECHANICAL DEMOLITION PLAN - 1ST FL
 1 MR2.01 SCALE = 1/4"=1'-0"



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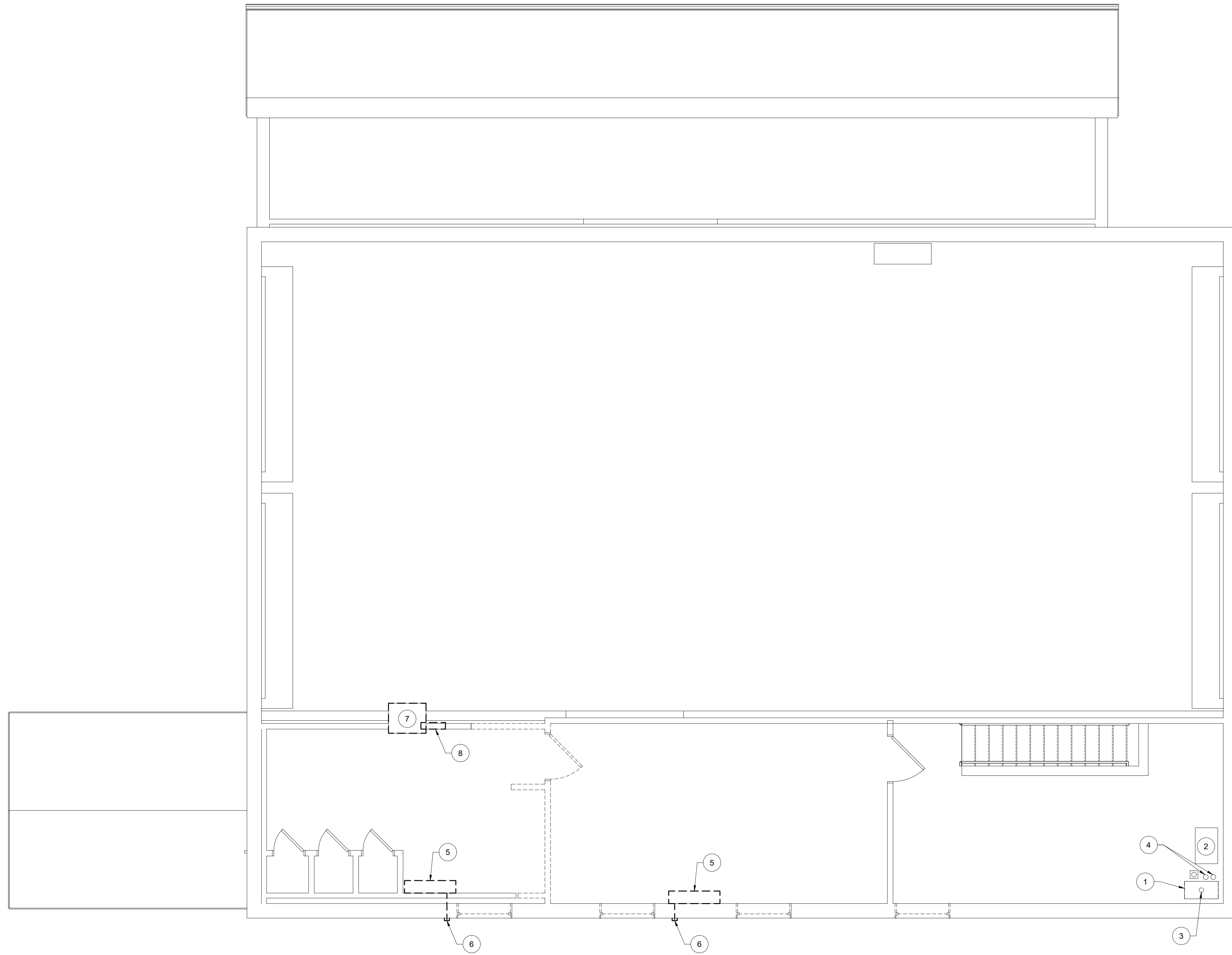


SALEM FIRE STATION #2
 RENOVATION
MECHANICAL DEMOLITION PLAN - FIRST FLOOR

415 ELECTRIC ROAD
 SALEM, VIRGINIA 24163

DRAWN BY JNB
 DESIGNED BY JNB
 CHECKED BY JNB
 DATE 2024-08-30
 SCALE As indicated
 REVISIONS

MR2.01
 PROJECT NO 03220052.01



GENERAL NOTES:

1. CONTRACTORS SHALL VISIT SITE AND VERIFY EXISTING CONDITIONS PRIOR TO BIDDING.

KEYED NOTES:

- 1 EXISTING GAS FIRED WATER BOILER SYSTEM TO REMAIN. ALL ASSOCIATED PIPING (GAS, HWS, HWR, & DRAINS), CONTROLS, AND CIRCULATION PUMPS TO REMAIN.
- 2 EXISTING EXPANSION TANK IN ROOF JOIST SPACE TO REMAIN.
- 3 EXISTING FLUE UP THROUGH ROOF.
- 4 EXISTING HOT WATER SUPPLY AND RETURN PIPING FROM BOILER SYSTEM DOWN THROUGH FLOOR TO REMAIN.
- 5 EXISTING WALL MOUNTED DUCTLESS UNIT AND ASSOCIATED REFRIGERANT AND CONDENSATE DRAIN PIPING TO BE REMOVED IN THEIR ENTIRETY.
- 6 EXISTING REFRIGERANT PIPING AND CONDENSATE PIPING DOWN EXTERIOR WALL LOCATED IN PIPING ENCLOSURE TO BE REMOVED.
- 7 EXISTING THROUGH WALL A/C UNIT AND ALL ASSOCIATED ACCESSORIES TO BE REMOVED IN THEIR ENTIRETY. PATCH WALL FROM REMOVED UNIT.
- 8 EXISTING WALL HEATER AND ALL ASSOCIATED ACCESSORIES TO BE REMOVED IN THEIR ENTIRETY. PATCH WALL FROM REMOVED UNIT.

MECHANICAL DEMOLITION PLAN - 2ND FL
 1 MR2.02 SCALE = 1/4"=1'-0"



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SALEM VA



SALEM FIRE STATION #2
 RENOVATION
MECHANICAL DEMOLITION PLAN - SECOND FLOOR

415 ELECTRIC ROAD
 SALEM, VIRGINIA 24163

DRAWN BY JNB
 DESIGNED BY JNB
 CHECKED BY JNB
 DATE 2024-08-30
 SCALE As indicated
 REVISIONS

MR2.02
 PROJECT NO 03220052.01

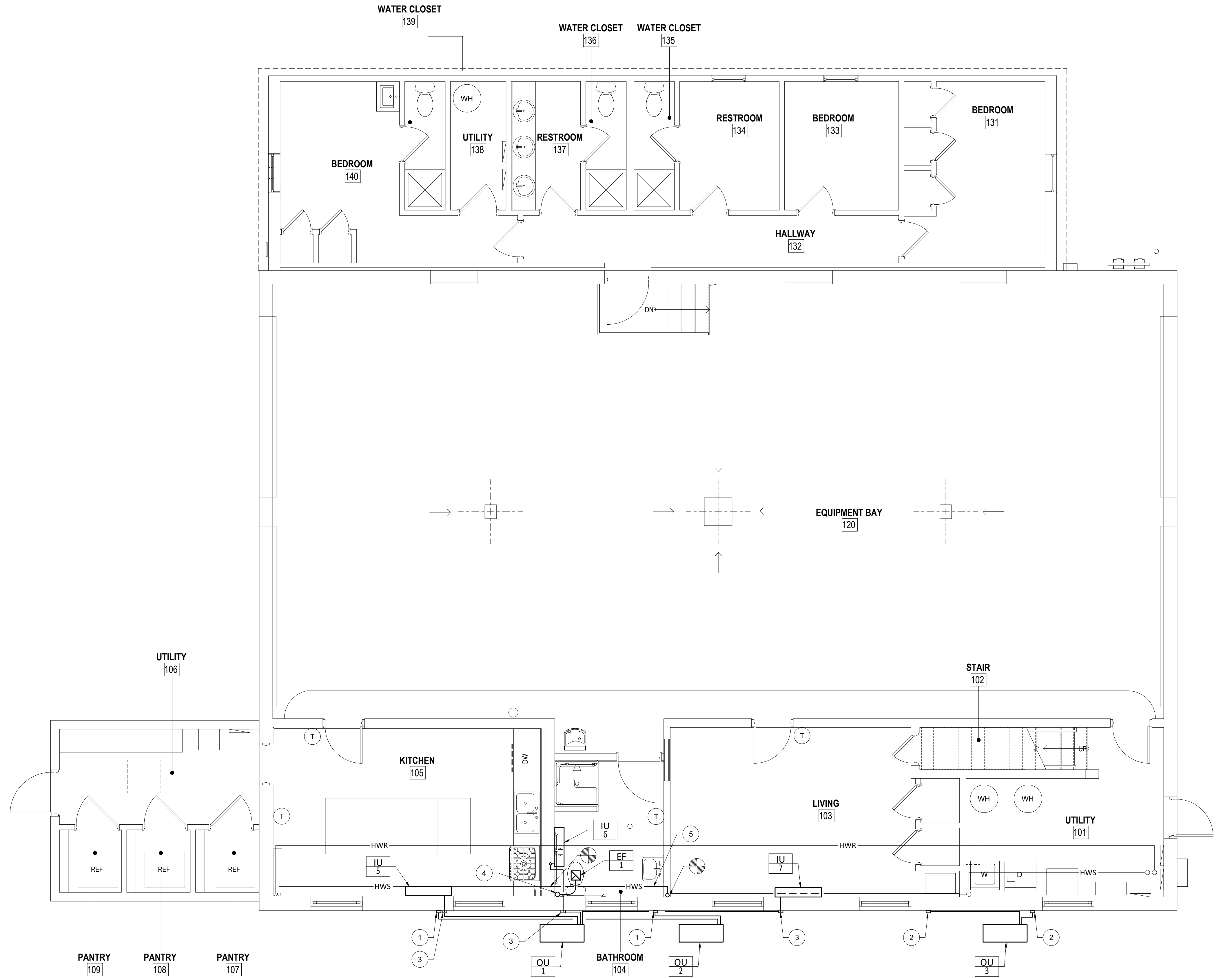


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SALEM, VA



GENERAL NOTES:

1. PROVIDE CONCRETE EQUIPMENT PADS FOR EQUIPMENT ON GRADE.
2. REFRIGERANT PIPING IS SHOWN SCHEMATICALLY. EXACT PIPING LENGTHS AND PATHS WILL NEED TO BE CONFIRMED BY CONTRACTOR PER FIELD CONDITIONS. ALL REFRIGERANT PIPING SHALL BE INSTALLED AND SIZED AS RECOMMENDED BY MANUFACTURER. PROVIDE ALL ACCESSORIES AS REQUIRED.
3. ALL EXPOSED PIPING SHALL BE CONCEALED WITH A WHITE, 4"x2" PVC DECORATIVE LINE COVER SYSTEM THAT IS PRE-ENGINEERED FOR THIS PURPOSE.
4. HEATING HOT WATER PIPING SHALL BE TYPE L HARD DRAWN COPPER TUBING AND FITTINGS. FITTINGS SHALL BE SUITABLE FOR 125 PSI WATER SERVICE. PROVIDE 1-1/2" EXTERNAL INSULATION (0.25 BTUIN./SQ.FT./F/HR. MAXIMUM "K" VALUE).

KEYED NOTES:

- 1 REFRIGERANT LINES FROM OU-2 UP TO INDOOR UNITS IU-1 AND IU-2 ON 2ND FLOOR. SPILL 1/2" PVC CONDENSATE DRAIN ON GRADE. ALL PIPING SHALL BE CONCEALED IN PIPING ENCLOSURE.
- 2 REFRIGERANT LINES FROM OU-3 UP TO INDOOR UNITS IU-3 AND IU-4 ON 2ND FLOOR. SPILL 1/2" PVC CONDENSATE DRAIN ON GRADE. ALL PIPING SHALL BE CONCEALED IN PIPING ENCLOSURE.
- 3 REFRIGERANT LINES FROM INDOOR UNIT DOWN TO OU-1 ON GRADE. ROUTE 1/2" PVC CONDENSATE DRAIN FROM CONDENSATE PUMP DOWN TO GRADE. ALL PIPING SHALL BE CONCEALED IN PIPING ENCLOSURE.
- 4 4"Ø EXHAUST DUCT UP TO GOOSENECK ON ROOF.
- 5 PROVIDE FULL SIZE HOT WATER SUPPLY (MIN. 3/4") TO BYPASS REMOVED BASEBOARD HEATER IN BATHROOM. CONTRACTOR TO CONFIRM PIPE SIZE.

MECHANICAL NEW WORK PLAN - 1ST FL
 MR3.01 SCALE = 1/4"=1'-0"

SALEM FIRE STATION #2
 RENOVATION
 MECHANICAL NEW WORK PLAN - FIRST FLOOR

415 ELECTRIC ROAD
 SALEM, VIRGINIA 24163

DRAWN BY JNB
 DESIGNED BY JNB
 CHECKED BY JNB
 DATE 2024-08-30
 SCALE As indicated
 REVISIONS

MR3.01
 PROJECT NO 03220052.01



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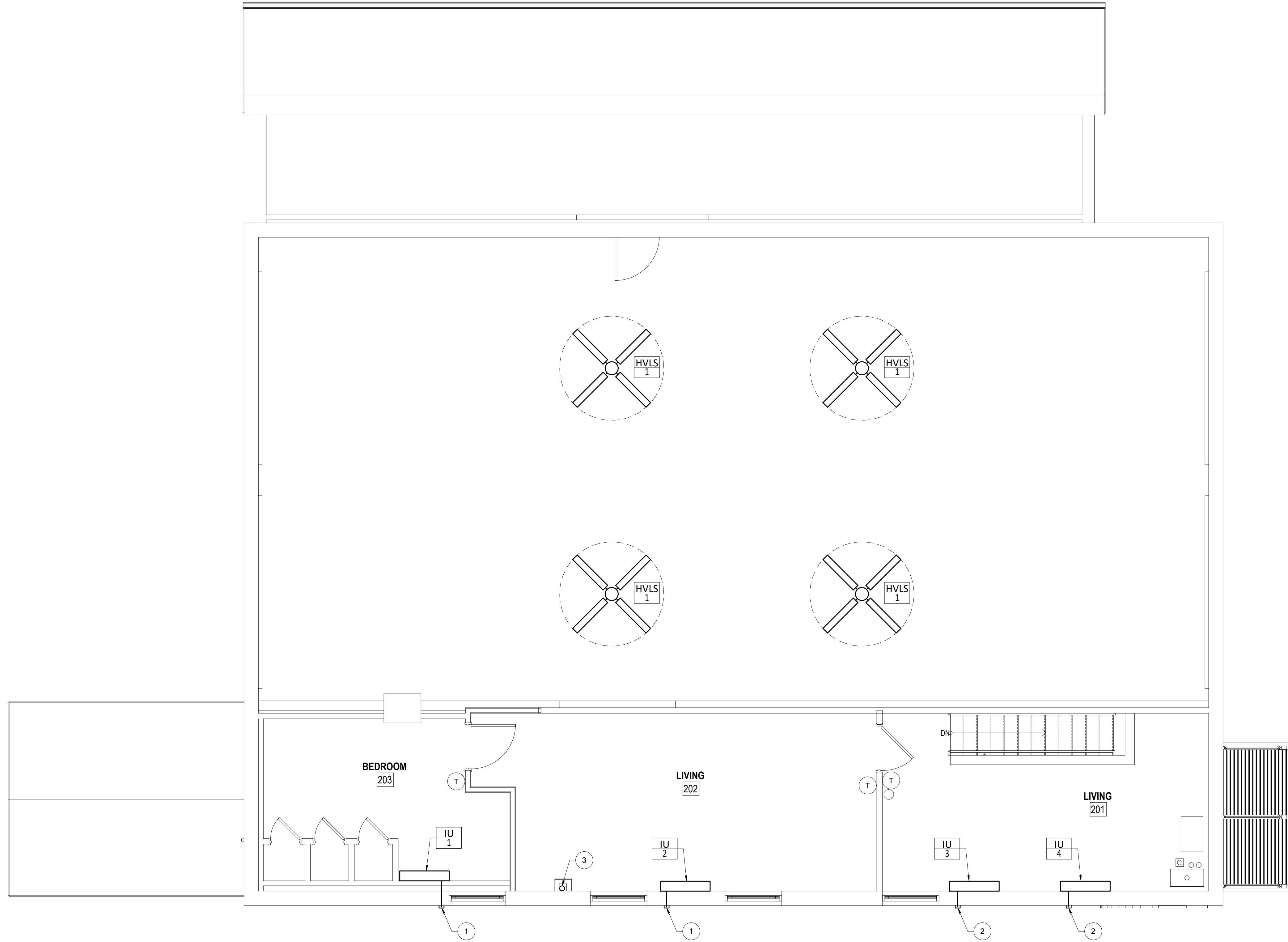
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SALEM, VA



GENERAL NOTES:

1. PROVIDE EQUIPMENT PADS FOR EQUIPMENT ON GRADE.
2. REFRIGERANT PIPING IS SHOWN SCHEMATICALLY. EXACT PIPING LENGTHS AND PATHS WILL NEED TO BE CONFIRMED BY CONTRACTOR PER FIELD CONDITIONS. ALL REFRIGERANT PIPING SHALL BE INSTALLED AND SIZED AS RECOMMENDED BY MANUFACTURER. PROVIDE ALL ACCESSORIES AS REQUIRED.
3. ALL EXPOSED PIPING SHALL BE CONCEALED WITH A WHITE, 4"x2" PVC DECORATIVE LINE COVER SYSTEM THAT IS PRE-ENGINEERED FOR THIS PURPOSE.

KEYED NOTES:

1. REFRIGERANT LINES FROM INDOOR UNIT DOWN TO OU-2 ON GRADE. ROUTE 1/2" PVC CONDENSATE DRAIN FROM CONDENSATE PUMP DOWN TO GRADE. ALL PIPING SHALL BE CONCEALED IN PIPING ENCLOSURE.
2. REFRIGERANT LINES FROM INDOOR UNIT DOWN TO OU-3 ON GRADE. ROUTE 1/2" PVC CONDENSATE DRAIN FROM CONDENSATE PUMP DOWN TO GRADE. ALL PIPING SHALL BE CONCEALED IN PIPING ENCLOSURE.
3. 4"Ø EXHAUST DUCT FROM BELOW AND UP TO GOOSENECK ON ROOF. COVER OPENING WITH INSECT SCREEN.

MECHANICAL NEW WORK PLAN - 2ND FL
 MR3.02 SCALE = 1/4"=1'-0"

SALEM FIRE STATION #2

RENOVATION

MECHANICAL NEW WORK PLAN - SECOND FLOOR

415 ELECTRIC ROAD
 SALEM, VIRGINIA 24163

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MR3.02

PROJECT NO 03220052.01