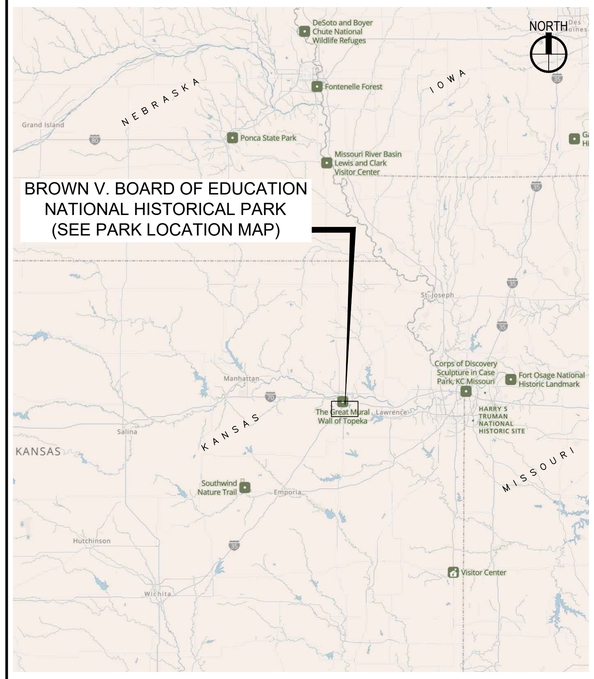
REPLACE HEAT PUMPS AND CIRC. PUMPS

MONROE ELEMENTARY

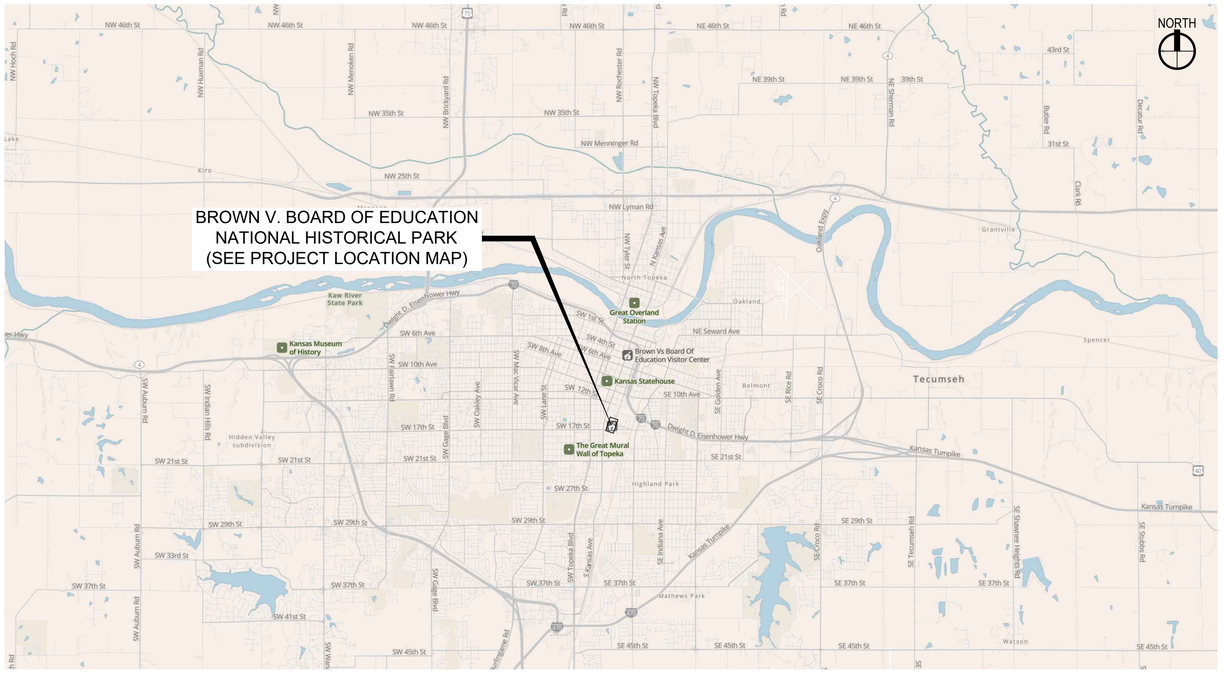
BROWN V. BOARD OF EDUCATION

NATIONAL HISTORICAL PARK



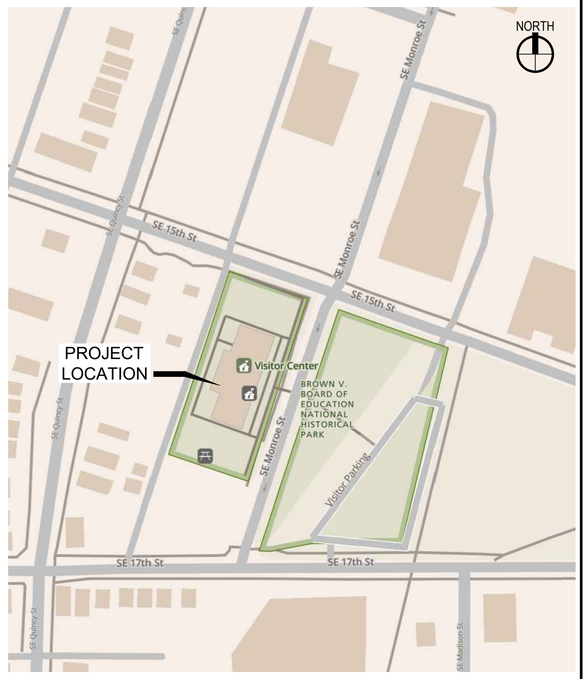
REGIONAL LOCATION MAP

NOT TO SCALE



PARK LOCATION MAP

NOT TO SCALE



PROJECT LOCATION MAP

NOT TO SCALE

DRAWING SHEET INDEX

SHEET	SUB SHEET	TITLE OF SHEET
MECHANICAL		
1	M0.0	GENERAL NOTES, LEGEND, SPECIFICATIONS
2	M1.0	MECHANICAL DEMOLITION
3	M1.1	MECHANICAL SCHEDULES AND LAYOUT

Mark	Sheet	REVISION	Date	Initial

QUALITY DESIGN CERTIFICATION

☐ Prepared in Accordance with Design Development (Title I) _____ Drawing No.
OR
☐ Variance from Design Development (Title I) Approved by Superintendent on _____ Date
OR
☒ Construction Drawing Not Preceded by Design Development (Title I)

Zev Rohloff — Project Manager — 04/15/2026 — Date

NATIONAL PARK SERVICE

CONSTRUCTION DRAWINGS

UNITED STATES
DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE
MIDWEST REGIONAL OFFICE

TITLE OF PROJECT
REPLACE HEAT PUMPS AND CIRC. PUMPS
LOCATION WITHIN PARK
MONROE ELEMENTARY
NAME OF PARK
BROWN V. BOARD OF EDUCATION
NATIONAL HISTORICAL PARK

REGION	COUNTY	STATE
MWRO 3,4,5	SHAWNEE	KANSAS

DRAWING NO. 462 80015

PMIS/PKG NO. 234468

SHEET 1 OF 4

\\NPMWROXFS\CADdata\Cadusers\Groups\Maint\Active\BRVB_234468_Heat Pumps - Circ Pumps\11_In-House\BRVB-80010_COVER.dwg 4/16/2026 9:39 AM BY Rohloff, Zev A

GENERAL MECHANICAL NOTES

1. MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND SCHEMATIC IN NATURE ONLY. ROUTINGS AND EQUIPMENT LOCATIONS DEPICTED ARE APPROXIMATE, UNLESS NOTED OTHERWISE, AND SHALL NOT BE "SCALED" NOR CONSTRUED TO SHOW EVERY ELBOW, FITTING, TRANSITION, OFFSET, ETC. REQUIRED TO PROVIDE A COMPLETE AND OPERABLE SYSTEM. CONTRACTOR MUST FIELD COORDINATE THE INSTALLATION OF ALL CONTRACT WORK.
2. FULLY COORDINATE THE INSTALLATION OF ALL WORK WITH THE WORK OF OTHER TRADES, ARCHITECTURAL AND STRUCTURAL BUILDING ELEMENTS. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND STRUCTURAL DRAWINGS TO VERIFY ALL ELEVATIONS, BUILDING SECTIONS, CEILING TYPE AND HEIGHT REQUIREMENTS AND FLOOR/FOUNDATION ELEVATIONS.
3. COORDINATE THE LOCATION OF ALL EQUIPMENT WITH ARCHITECTURAL AND STRUCTURAL BUILDING ELEMENTS. EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDED MAINTENANCE CLEARANCES AND ANY/ALL STATE/LOCAL CODE CLEARANCE REQUIREMENTS. CONTRACTOR SHALL COORDINATE EQUIPMENT INSTALLATION WITH MANUFACTURER'S REPRESENTATIVE(S) AND PROVIDE ALL DEVICES REQUIRED TO ENSURE SATISFACTORY OPERATION OF ALL SYSTEMS AND EQUIPMENT.
4. CONTRACTOR SHALL PROVIDE A FACTORY START-UP OF ALL EQUIPMENT BY THE MANUFACTURER'S REPRESENTATIVE(S).
5. CONTRACTOR SHALL PROVIDE "OWNER'S TRAINING" FOR ALL EQUIPMENT AND SYSTEMS INSTALLED UNDER THIS PROJECT. MINIMUM TRAINING FOR MAJOR EQUIPMENT SHALL NOT BE LESS THAN 8 HOURS PER EQUIPMENT/COMPONENT UNLESS NOTED OTHERWISE.
6. ALL MECHANICAL SYSTEMS (AND THE COMPONENTS THEREOF) SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, THE CONTRACT DOCUMENTS, AND APPLICABLE STATE/LOCAL CODES. INSTALLING CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS NECESSARY BY STATE/LOCAL/FEDERAL AGENCIES TO PLACE SYSTEMS INTO OPERATION.
7. SEAL AROUND ALL PENETRATIONS THROUGH WALLS, CEILINGS, ROOF AND FLOORS TO MAINTAIN REQUIRED RATINGS.
8. WELDING OF MECHANICAL PIPING - WHERE NECESSARY - SHALL BE PERFORMED BY A CERTIFIED WELDER AND SHALL CONFORM TO ASME B31.1. OWNER RESERVES THE RIGHT, AT THEIR EXPENSE, TO PROVIDE THIRD PARTY WELDING INSPECTION SERVICES (VISUAL AND/OR RADIOGRAPHIC) TO INSPECT ANY/ALL WELDING. ANY WELDING FAILING INSPECTION (VISUAL OR RADIOGRAPHIC) SHALL BE REMOVED/REPAIRED AT THE CONTRACTOR'S EXPENSE.
9. THE MAXIMUM FLEXIBLE DUCT LENGTH SHALL BE 4FT WITH NO 90° ELBOWS.
10. CONTRACTOR SHALL PROVIDE VIBRATION ISOLATION FOR ALL EQUIPMENT THAT MEETS THE MANUFACTURER'S RECOMMENDATIONS AND ANY CONTRACT DOCUMENT REQUIREMENTS.
11. REFRIGERANT PIPING SHALL NOT BE RUN UNDERGROUND UNLESS SPECIFICALLY NOTED OTHERWISE.
12. REFRIGERANT PIPING SHALL BE PURGED WITH NITROGEN AFTER COMPLETED BUT PRIOR TO BEING CHARGED WITH REFRIGERANT.

GENERAL PLUMBING NOTES

1. PLUMBING DRAWINGS ARE DIAGRAMMATIC AND SCHEMATIC IN NATURE ONLY. ROUTINGS AND EQUIPMENT LOCATIONS DEPICTED ARE APPROXIMATE, UNLESS NOTED OTHERWISE, AND SHALL NOT BE "SCALED" NOR CONSTRUED TO SHOW EVERY ELBOW, FITTING, TRANSITION, OFFSET, ETC. REQUIRED TO PROVIDE A COMPLETE AND OPERABLE SYSTEM. CONTRACTOR MUST FIELD COORDINATE THE INSTALLATION OF ALL CONTRACT WORK.
2. FULLY COORDINATE THE INSTALLATION OF ALL WORK WITH THE WORK OF OTHER TRADES, ARCHITECTURAL AND STRUCTURAL BUILDING ELEMENTS.
3. COORDINATE THE LOCATION OF ALL EQUIPMENT WITH ARCHITECTURAL AND STRUCTURAL BUILDING ELEMENTS. EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDED MAINTENANCE CLEARANCES AND ANY/ALL STATE/LOCAL CODE CLEARANCE REQUIREMENTS. CONTRACTOR SHALL COORDINATE EQUIPMENT INSTALLATION WITH MANUFACTURER'S REPRESENTATIVE(S) AND PROVIDE ALL DEVICES REQUIRED TO ENSURE SATISFACTORY OPERATION OF ALL SYSTEMS AND EQUIPMENT.
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6. ALL PLUMBING SYSTEMS (AND THE COMPONENTS THEREOF) SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, THE CONTRACT DOCUMENTS, AND APPLICABLE STATE/LOCAL CODES. INSTALLING CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS NECESSARY BY STATE/LOCAL/FEDERAL AGENCIES TO PLACE SYSTEMS INTO OPERATION.
7. SEAL AROUND ALL PENETRATIONS THROUGH WALLS, CEILINGS, ROOF AND FLOORS TO MAINTAIN REQUIRED RATINGS.
8. IN-LINE PUMPS SHALL BE PROPERLY AND ADEQUATELY SUPPORTED FROM THE SLAB, ROOF OR OTHER SECURED STRUCTURE SO AS TO MITIGATE VIBRATION TRANSFERENCE TO THE SYSTEM. VIBRATION ISOLATION SHALL BE PROVIDED, REFER TO DRAWINGS/SPECIFICATIONS.

GENERAL ELECTRICAL NOTES

1. FULLY COORDINATE THE INSTALLATION OF ALL ELECTRICAL DEVICES WITH THE WORK OF OTHER TRADES.
2. UNLESS OTHERWISE NOTED, ELECTRICAL DEVICES ARE TO BE FLUSH MOUNTED AND ALL WIRE AND CONDUIT IS TO BE ROUTED CONCEALED. COORDINATE INSTALLATION WITH EXISTING CONDITIONS, AND INCLUDE PATCHING AND REFINISHING OF EXISTING SURFACES TO ACCOMMODATE THIS REQUIREMENT.
3. COORDINATE THE LOCATION OF ALL HVAC EQUIPMENT WITH THE MECHANICAL AND CONTROLS CONTRACTORS. PROVIDE ALL DEVICES (I.E. STARTERS, SWITCHES, CONTACTS, ETC.) REQUIRED TO ENSURE SATISFACTORY OPERATION OF ALL SYSTEMS AND EQUIPMENT. (CONTROL WIRING TO BE PROVIDED BY MECHANICAL CONTRACTOR.) COORDINATE DEVICE REQUIREMENTS WITH ACTUAL EQUIPMENT.
4. FOR ALL HVAC CONTROL DEVICES PROVIDED BY THE ELECTRICAL CONTRACTOR. PROVIDE ALL NECESSARY AUXILIARY COMPONENTS AND CONTACTS TO ENSURE PROPER SYSTEM CONTROL FUNCTIONS.
5. SEAL AROUND ALL CONDUIT AND CABLE PENETRATIONS THROUGH WALLS, CEILINGS AND FLOORS TO MAINTAIN CODE REQUIRED RATINGS.
6. IN ADDITION TO THOSE SHOWN ON THE DRAWINGS, PROVIDE ALL NECESSARY SLEEVES THROUGH WALLS AND FLOORS TO ALLOW FOR THE DISTRIBUTION OF OWNER FURNISHED TELEPHONE AND DATA CABLING. COORDINATE REQUIREMENTS WITH THE OWNER.
7. PROVIDE NEUTRAL CONDUCTOR FOR MECHANICAL EQUIPMENT IF NECESSARY.
8. PROVIDE 4" CONCRETE HOUSEKEEPING PAD FOR ALL FLOOR MOUNTED POWER PANELBOARDS, SWITCHBOARDS AND FLOOR MOUNTED TRANSFORMERS.
9. FOR ALL RENOVATION, SURFACE MOUNTED CONDUIT IN FINISHED SPACES IS NOT ALLOWED. CONTRACTOR SHALL ROUTE CONDUCTORS IN SURFACE MOUNTED RACEWAY. SURFACE MOUNTED CONDUIT MAY BE USED IN UNFINISHED SPACES SUCH AS MECHANICAL ROOMS. ENGINEER SHALL HAVE THE FINAL JUDGMENT AS TO WHETHER A ROOM IS FINISHED OR UNFINISHED. IF A ROOM IS IN QUESTION, THE CONTRACTOR SHALL CONTACT THE ENGINEER.
10. THE CONTRACTOR IS RESPONSIBLE FOR UPDATING ALL PANEL DIRECTORIES OF ALL AFFECTED PANELS.
11. FOR ALL NEW CONSTRUCTION, ROUTE ALL CONDUIT CONCEALED IN FINISHED SPACES. IN UNFINISHED SPACES SUCH AS MECHANICAL ROOMS SURFACE CONDUIT MAY BE USED.
12. ALL BRANCH LIGHTING, RECEPTACLE CIRCUITS SHALL HAVE A DEDICATED NEUTRAL CONDUCTOR. MECHANICAL CIRCUITS SHALL HAVE A NEUTRAL CONDUCTOR WHERE REQUIRED BY EQUIPMENT.
13. PROVIDE JUNCTION BOX COVER ON ALL JUNCTION BOXES.

MECHANICAL SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
GENERAL			
	CONNECTION POINT OF NEW TO EXISTING		ITEMS SHOWN FULL-TONE INDICATES NEW
	ITEMS SHOWN HALF-TONE INDICATES EXISTING	1	FLAG NOTE AND NUMBER
TYPICAL PIPING			
	PIPE TEE DOWN / PIPE TEE UP		UNION
	ELBOW DN / ELBOW UP		STRAINER WITH BLOWDOWN
	ISOLATION VALVE (BALL OR BUTTERFLY)		
	MANUAL BALANCING VALVE		AUTOMATIC CONTROL VALVE TWO-WAY / THREE WAY
	AUTOMATIC BALANCING VALVE		PRESSURE REGULATING VALVE (PRV)
	GATE VALVE		PRESSURE GAUGE
	GLOBE VALVE		THERMOMETER
	CHECK VALVE (ARROW INDICATES FLOW)	E	CAPPED PIPE
	PIPE TEE / PIPE TEE, TOP CONNECTION / PIPE TEE, BOTTOM CONNECTION		
HYDRONIC HVAC PIPING			
HWS	HOT WATER SUPPLY PIPING	HPLS	HEAT PUMP LOOP PIPING SUPPLY PIPING
HWR	HOT WATER RETURN PIPING	HPLR	HEAT PUMP LOOP RETURN PIPING
CWS	CHILLED WATER SUPPLY PIPING	GWS	GLYCOL WATER SUPPLY PIPING
CWR	CHILLED WATER RETURN PIPING	GWR	GLYCOL WATER RETURN PIPING
CS	CONDENSER WATER SUPPLY PIPING		AIR VENT
CR	CONDENSER WATER RETURN PIPING	CD	COIL CONDENSATE DRAIN (SLOPE TO DRAIN)
REFRIGERATION PIPING			
RL	REFRIGERANT LIQUID LINE		SOLENOID VALVE
RS	REFRIGERANT SUCTION LINE		THERMOSTATIC EXPANSION VALVE (TXV)
RD	REFRIGERANT HOT GAS DISCHARGE LINE		SIGHT GLASS
HVAC			
6x6 R-1 / 100	SIDEWALL SUPPLY REGISTER OR GRILLE (NECK SIZE (IN), TAG / AIRFLOW (CFM))	S	SWITCH
		T	THERMOSTAT
6x6 G-1 / 100	SIDEWALL RETURN OR EXHAUST REGISTER OR GRILLE (NECK SIZE (IN), TAG / AIRFLOW (CFM))	H	HUMIDISTAT
		CO2	CARBON DIOXIDE SENSOR
Ø30 D-1 / 100	SUPPLY AIR DIFFUSER (NECK SIZE (IN), TAG / AIRFLOW (CFM))	M	MOTORIZED CONTROL DAMPER WITH ACTUATOR
		VD	VOLUME DAMPER
	SUPPLY AIR, OUTSIDE AIR OR MIXED AIR DUCT END OR RISER UP / RISER DN		FIRE DAMPER WITH SLEEVE AND ACCESS DOOR
		SD	SMOKE DAMPER WITH SLEEVE AND ACCESS DOOR
	RETURN AIR, EXHAUST AIR OR RELIEF AIR DUCT END OR RISER UP / RISER DN		FIRE/SMOKE DAMPER WITH SLEEVE AND ACCESS DOOR
		S.A.	SUPPLY AIR
12/8	RECTANGULAR DUCTWORK (WIDTH/DEPTH)(IN) (FIRST NUMBER IS SIDE SHOWN)	R.A.	RETURN AIR
		E.A.	EXHAUST AIR
12"Ø	ROUND DUCTWORK (DIAMETER)(IN) (SPIRAL DUCT IN EXPOSED AREAS)	O.A.	OUTSIDE AIR
		M.A.	MIXED AIR
	TURNING VANES		BRANCH, BELL MOUTH WITH VOLUME DAMPER
			BRANCH, STANDARD
	RETURN OR EXHAUST GRILLE, CEILING (NECK SIZE (IN), TAG / AIRFLOW (CFM))	AIR FLOW	SPLITTER DAMPER
B.J.	BETWEEN JOISTS	2HR	2 HR FIRE DAMPER WITH SLEEVE AND ACCESS DOOR

MECHANICAL SPECIFICATIONS

CODES AND PERMITS
ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES. ALL FEES AND PERMITS SHALL BE PAID FOR BY THE CONTRACTOR.

WORKMANSHIP
ALL MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH ACCEPTED GOOD PRACTICE OF THE INDUSTRY.

COORDINATION
COORDINATE THE MECHANICAL WORK WITH THE WORK OF ALL OTHER TRADES.

DIMENSIONS
VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD.

SUBMITTALS
CONTRACTOR SHALL SUBMIT THE FOLLOWING TO ENGINEER FOR REVIEW:
1. SHOP DRAWINGS AND PRODUCT DATA FOR
   - 1.1. HEAT PUMP WTW-1
   - 1.2. HEAT PUMP WTW-2
   - 1.3. PUMP P-1
   - 1.4. PUMP P-2
   - 1.5. GRILLE G-1
   - 1.6. EXHAUST FAN EF-1
2. ALL START-UP REPORTS SUPPLIED BY MANUFACTURER FOR ALL EQUIPMENT PROVIDED

HEAT PUMP
HEAT PUMPS SHALL BE REPLACED IN-KIND. REFRIGERANT SHALL BE R-32 OR R-454B

PUMP
PUMPS SHALL BE REPLACED IN-KIND.

DIFFUSERS AND GRILLES
DIFFUSERS AND GRILLES SHALL BE OF TYPE AND SIZE LISTED IN THE SCHEDULE OR EQUAL. COORDINATE WITH EXISTING EQUIPMENT AS REQUIRED.

DUCTWORK CONSTRUCTION
A. EXHAUST AIR DUCTWORK SHALL BE GALVANIZED STEEL.
B. ALL DUCTWORK SHALL CONFORM TO NFPA AND SMACNA STANDARDS.
C. DUCTWORK SIZES SHOWN ARE NET INSIDE DIMENSIONS.

EXHAUST FAN
EXHAUST FAN SHALL BE OF TYPE AND SIZE LISTED IN THE SCHEDULE OR EQUAL, AS APPROVED BY THE ENGINEER

FACTORY START-UP OF EQUPMENT
HEAT PUMPS SHALL BE STARTED UP BY A FACTORY AUTHORIZED REPRESENTATIVE. START-UP REPORTS SHALL BE SUBMITTED TO ENGINEER / OWNER.

TESTING, ADJUSTING, AND BALANCING
A. ALL BALANCING WORK SHALL COMPLY WITH NEBB "PROCEDURAL STANDARDS FOR TESTING, ADJUSTING, AND BALANCING OF ENVIROMENTAL SYSTEMS".

COMPLETION
ALL SYSTEMS SHALL BE COMPLETE, FULLY FUNCTIONAL, AND READY FOR OPERATION BY OWNER.

SYSTEMS OPERATION INSTRUCTION
IN ADDITION TO WRITTEN OPERATION AND MAINTENANCE INFORMATION, THE EQUIPMENT SUPPLIER AND CONTRACTOR SHALL FULLY AND CAREFULLY INSTRUCT THE OWNER'S REPRESENTATIVE REGARDING THE PROPER OPERATION, CARE, AND MAINTENANCE OF EACH PIECE OF EQUIPMENT PROVIDED BY THE CONTRACTOR.

GUARANTEE
ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE.

Mark	REVISION	Date

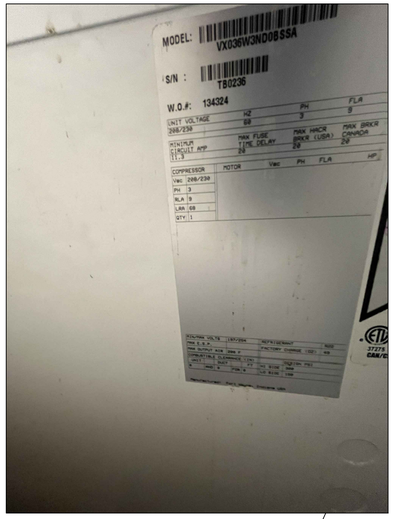
DESIGNED: ZAR
CADD: ZAR
TECH. REVIEW: AMM
DATE: 04/15/2026

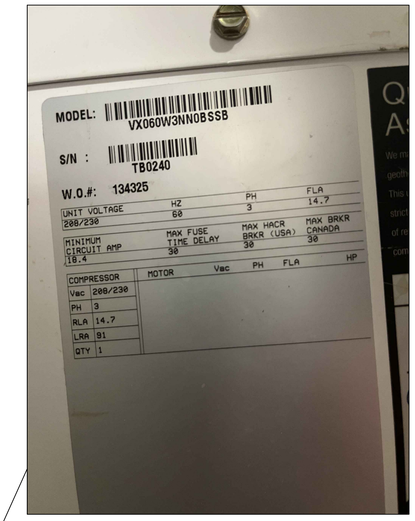
SUB SHEET NO. M0.0

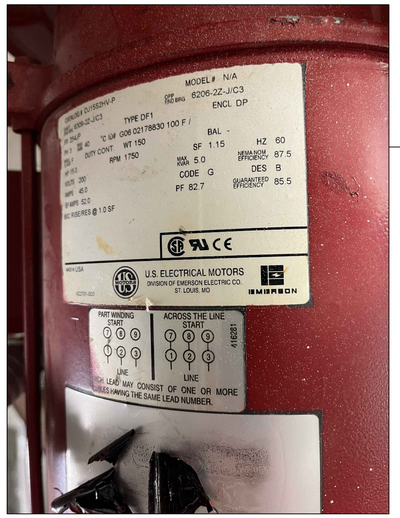
TITLE OF SHEET: GENERAL NOTES, LEGEND, SPECIFICATIONS

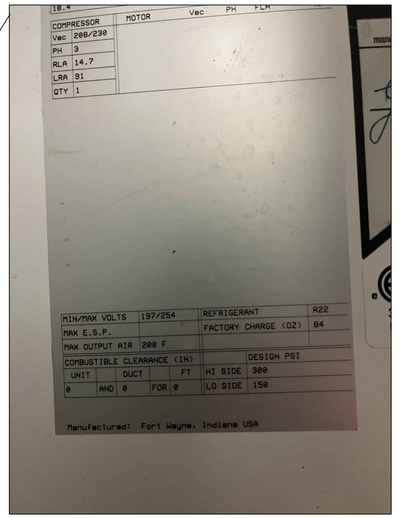
DRAWING NO. 462 80015
PMIS/PKG NO. 234468
SHEET 2 OF 4

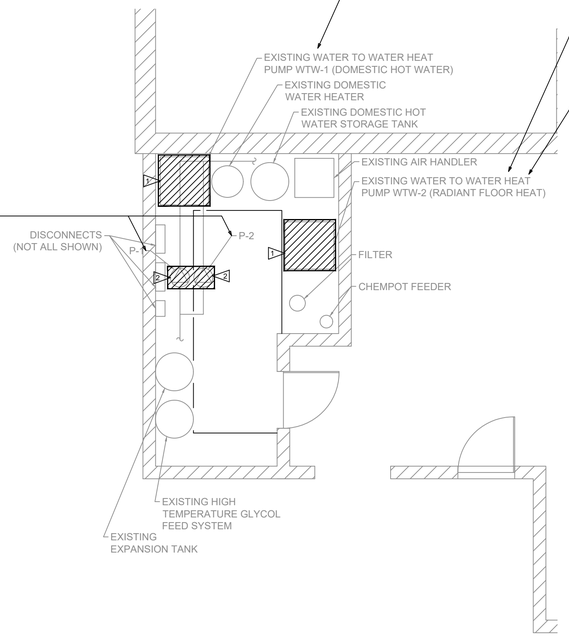
\\NPWWROXFS\CADdata\Cadusers\Groups\Maint\Active\BRVB_234468_Heat Pumps - Circ Pumps\11_In-House\234468M.dwg 4/16/2026 9:10 AM BY Rohloff, Zev A











FLOOR PLAN - HVAC

SCALE: 1/4" = 1'-0"

NORTH

FLAG NOTES

1. REMOVE EXISTING WATER TO WATER HEAT PUMP.
2. REMOVE EXISTING PUMP.

Mark	REVISION	Date

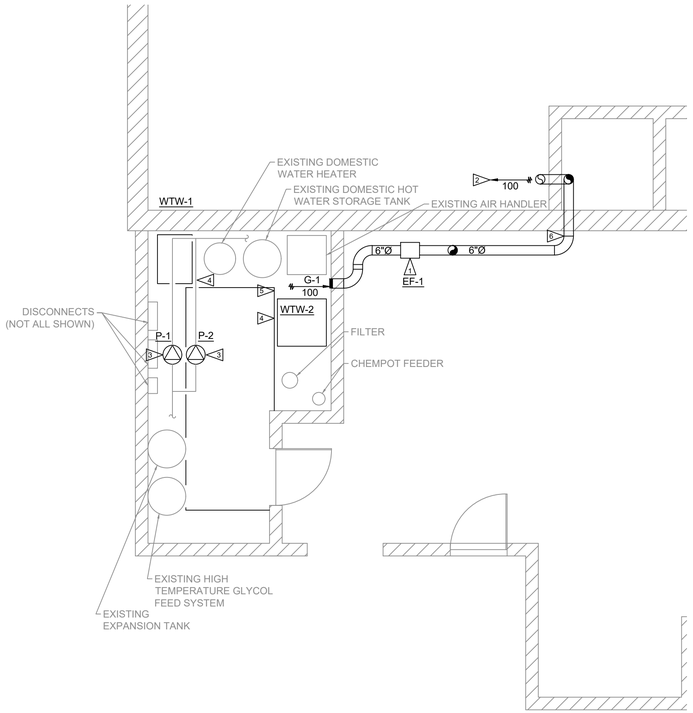
DESIGNED: ZAR
CADD: ZAR
TECH. REVIEW: AMM
DATE: 04/15/2026

SUB SHEET NO. M1.0

TITLE OF SHEET: MECHANICAL DEMOLITION

DRAWING NO. 462 80015
PMIS/PKG NO. 234468
SHEET 3 OF 4

\\NPMWROXFS\CADdata\Carlusers\Groups\Maint\Active\BRVB_234468_Heat Pumps - Circ Pumps\11_In-House\234468M.dwg 4/16/2026 9:10 AM BY Rohloff, Zev A



WATER TO WATER HEAT PUMP

MARK	LOCATION	SERVES	REFR.	REFR. WEIGHT (OZ)	LOAD				SOURCE						PHYSICAL				ELECTRIC					MANUFACTURER OR EQUAL	RMKS		
					EWT (°F)	LWT (°F)	FLOW (GPM)	MAX WPD (FTHD)	EWT (°F)	LWT (°F)	FLOW (GPM)	MAX WPD (FTHD)	MIN. COP	TOTAL CAP. (MBTUH)	LENGTH (IN.)	WIDTH (IN.)	HEIGHT (IN.)	OPERATING WEIGHT (LBS)	VOLT	PHASE	FREQ. (HZ)	MCA (AMPS)	MOCP (AMPS)					
WTW-1	MECH ROOM	DOMESTIC HOT WATER	R-22	-	60	-	6	4	40	-	7	4	-	22.7	30.5	30.5	23.5	-	208	3	60	-	-	VERSATEC VX036W3CD0B	1		
WTW-2	MECH ROOM	RADIANT SYSTEM	R-22	-	60	-	8	5.9	40	-	8	8.1	-	33.7	-	-	-	-	208	3	60	-	-	VERSATEC VX060W3CCOB	1		

1. REPLACE EXISTING HEAT PUMPS IN-KIND. MATCH EXISTING LWT'S. UNIT SHALL BE R-32 OR R-454B. VERIFY NEW AND EXISTING HEAT PUMP DIMENSIONS. SEE DRAWINGS FOR EXISTING CLEARANCES AND NAMEPLATE DATA.

PUMP SCHEDULE

MARK	SERVES	GPM	HEAD (FT)	MOTOR DATA			RPM	MANUFACTURER AND MODEL NUMBER	RMKS		
				HP	VOLT	PH					
P-1	GEOTHERMAL LOOP	187	114	15	208	3	1750		1		
P-2	GEOTHERMAL LOOP	187	114	15	208	3	1750				

1. PUMP SHALL BE ALL BRONZE CONSTRUCTION.

EXHAUST FAN SCHEDULE

MARK	SERVES	TYPE	MTG LOCATION	CFM	EXT. S.P.	RPM	MOTOR DATA			CURB TYPE	CURB HEIGHT	MAX FREE AIR SONES	MANUFACTURER AND MODEL NUMBER OR EQUAL	RMKS.		
							HP	VOLT	PH							
EF-1	MECHANICAL ROOM	INLINE	CEILING	100	0.25	984	1/20	115	1	-	-	10	GREENHECK MODEL BSQ-70	1	2	

1. COMPLETE WITH VIBRATION ISOLATORS, GALVANIZED STEEL HOUSING - BACKWARD INCLINED ALUMINUM WHEEL - TWO BOLTED ACCESS PANELS - INTEGRAL DUCT CONNECTION FLANGES - BALL BEARING MOTORS -ADJUSTABLE MOTOR PULLEY - ADJUSTABLE MOTOR PLATE - FAN SHAFT MOUNTED IN BALL BEARING PILLOW BLOCKS - STATIC FREE BELTS - CORROSION RESISTANT FASTENERS.
2. UL/CUL 705 LISTED - "POWER VENTILATORS", SWITCH, NEMA-7 AND 9, TOGGLE, SHIPPED SEPARATE, STAINLESS STEEL FASTENERS - 300 SERIES, STAINLESS STEEL SHAFT - 300 SERIES, ALUMINUM HOUSING, MOTOR COVER, ALUMINUM, FAN: SPRING, HANGING, 1 INCH ISOLATOR PN: 850343, INCL. 4 ISOLATORS AND 4 BRACKETS, UNIT WARRANTY: 1 YR

DIFFUSER REGISTER GRILLE SCHEDULE

MARK	MAX NC	FINISH			DAMPER		FRAME TYPE			MANUFACTURER & MODEL NO., OR EQUAL	RMKS		
		WHITE	PRIME	SPEC	OBD	NONE	LAY-IN	SURFACE	SPECIAL				
G-1	25			X	X			X		TITUS 30RL	1		

1. COORDINATE MOUNTING SURFACE CONSTRUCITON WITH GENERAL CONTRACTOR PRIOR TO FURNISHING.

FLOOR PLAN - HVAC

SCALE: 1/4" = 1'-0"

NORTH

FLAG NOTES

1. EXHAUST FAN SHALL CYCLE ON REFRIGERANT DETECTION ALARM BY ANY HEAT PUMP.
2. 6" EXHAUST SHALL GOOSENECK OUT OF EXISTING PIT, TERMINATING BEYOND PIT WALL, ABOVE GRADE.
3. KANSAS LICENSED ELECTRICAL CONTRACTOR TO VERIFY CONDUIT AND CONDUCTOR SIZE IS APPROPRIATE FOR NEW PUMPS, AND PROVIDE ALL NECESSARY CONNECTIONS.
4. KANSAS LICENSED ELECTRICAL CONTRACTOR TO PROVIDE ALL NECESSARY CONNECTIONS FOR HEAT PUMP.
5. INSTALL STANDALONE REFRIGERANT DETECTION SYSTEM (RDS) FOR THE A2L REFRIGERANT OF THE NEW WATER SOURCE HEAT PUMPS AT GROUND LEVEL. RDS SHALL INITIATE THE EXHAUST FAN UPON DETECTION OF GREATER THAN 10% OF REFRIGERANT LOWER FLAMMABILITY LIMIT AND SHALL REMAIN ON FOR 10 MINUTES AFTER DETECTION BELOW 10% OF REFRIGERANT LOWER FLAMMABILITY LIMIT. CONTRACTOR SHALL INSTALL A SHUNT TRIP AT THE MECHANICAL ROOM ELECTRICAL PANEL. RDS SHALL TRIP MECHANICAL ROOM PANEL AT 25% OF REFRIGERANT LOWER FLAMMABILITY LIMIT. SHUNT TRIP SHALL BE MANUALLY RESET.
6. SEAL EXTERIOR PENETRATION AIR AND WATER TIGHT.

Mark	REVISION	Date

DESIGNED: ZAR
CADD: ZAR
TECH. REVIEW: AMM
DATE: 04/15/2026

SUB SHEET NO. M2.0

TITLE OF SHEET: MECHANICAL SCHEDULES AND LAYOUT

DRAWING NO. 462 80015
PMIS/PKG NO. 234468
SHEET 4 OF 4

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