#### MECHANICAL SPECIFICATIONS

DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 1 SPECIFICATION SECTIONS APPLY TO THIS

ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE APPLICABLE MECHANICAL CODE WITH LOCAL AMENDMENTS.

HVAC WORK SHALL BE AS INDICATED ON THE PLANS AND AS HEREIN SPECIFIED. THE WORK SHALL CONSIST OF PROVIDING COMPLETE OPERATIONAL HVAC SYSTEMS AS INDICATED ON THE DRAWINGS. THE SYSTEM SHALL BE TESTED AND BALANCED. CAPACITIES SHALL BE AS SHOWN ON THE DRAWINGS. ADJUSTMENTS AS REQUIRED SHALL BE MADE BY THE CONTRACTOR TO INSTALL THE WORK WITHIN THE INTENT OF THE DRAWINGS AND SPECIFICATIONS AND TO PROVIDE AN ACCEPTABLE SYSTEM IN ACCORDANCE WITH STATE CODES, LOCAL CODES, ASHRAE, AND SMACNA RECOMMENDATIONS.

WHENEVER A MATERIAL, ARTICLE, OR PIECE OF EQUIPMENT IS IDENTIFIED ON THE DRAWINGS BY REFERENCE TO MANUFACTURERS OR VENDORS NAMES, TRADE NAMES, CATALOG NUMBERS, OR THE LIKE, IT IS SO IDENTIFIED FOR THE PURPOSE OF ESTABLISHING A STANDARD, AND ANY MATERIAL, ARTICLE, OR PIECE OF EQUIPMENT OF OTHER MANUFACTURER'S OR VENDORS WHICH WILL PERFORM ADEQUATELY THE DUTIES IMPOSED BY THE GENERAL DESIGN WILL BE CONSIDERED EQUALLY ACCEPTABLE PROVIDED THE MATERIAL, ARTICLE, OR PIECE OF EQUIPMENT SO PROPOSED IS OF EQUAL SUBSTANCE, APPEARANCE, AND FUNCTION.

DUCTWORK SHALL BE GALVANIZED SHEET METAL FABRICATED AND INSTALLED IN ACCORDANCE WITH ASHRAE AND SMACNA RECOMMENDATIONS. ALL SQUARE ELBOWS SHALL INCLUDE SINGLE THICKNESS TURNING VANES. FIBERGLASS DUCTBOARD SHALL NOT BE USED AND WILL NOT BE ACCEPTED.

### DUCTWORK SHALL BE INSULATED AS FOLLOWS:

EXTERIOR RECTANGULAR DUCTWORK
ALL EXTERIOR SUPPLY AND RETURN DUCTWORK SHALL BE INTERNALLY LINED (USE CERTAINTEED-150 2" LINER WITH R-VALUE OF 8) TO 12" MINIMUM INSIDE. INTERIOR SHOW ROOM DUCTWORK (EXPOSED IN CONDITIONED AREA) THE FIRST 4' OF INTERIOR RECTANGULAR SUPPLY AND RETURN DUCTWORK EXPOSED IN THE SHOW ROOM AREA SHALL BE PROVIDED WITH 1" LINER. DUCTWORK SHALL TRANSITION TO DOUBLE WALL SPIRAL DUCT AT STRUCTURE EQUAL TO UNITED MCGILL

ACOUSTIC-K27. ALL CONCEALED DUCTWORK (RECTANGULAR OR SPIRAL) ALL CONCEALED DUCTWORK (RECTANGULAR OR SPIRAL) RUN ABOVE THE CEILING SHALL

BE WRAPPED WITH 2" FIBERGLASS INSULATION (R-VALUE OF 8). INTERIOR DUCTWORK (EXPOSED IN UNCONDITIONED AREA)
ALL INTERIOR SUPPLY AND RETURN DUCTWORK SHALL BE INTERNALLY LINED (USE CERTAINTEED-150 2" LINER WITH R-VALUE OF 8).

INTERIOR DUCTWORK (EXPOSED IN CONDITIONED AREA)
THE FIRST 4' OF INTERIOR SUPPLY AND RETURN DUCTWORK EXPOSED IN THE CONDITIONED AREA SHALL BE PROVIDED WITH 1" LINER.

INTERNAL INSULATION SHALL BE MINIMUM 1" THICK 1-1/2" PCF FIBERGLASS, NEOPRENE COATED, AND ADHERED WITH AN APPROVED ADHESIVE WITH 100% COVERAGE AND STICK CLIPS ON 12" CENTERS. INTERNALLY LINED INSULATION SHALL MEET BACTERIOLOGICAL STANDARD ASTM C 665. SHEET METAL SIZES SHALL BE INCREASED ACCORDINGLY TO ALLOW FOR DUCT LINER.

ALL TAKE-OFF FITTINGS SHALL HAVE EXTRACTORS AND DAMPERS. STAINLESS STEEL CLAMPS SHALL BE USED FOR ALL FLEXIBLE CONNECTIONS. FLEXIBLE DUCTWORK SHALL BE EXTERNALLY INSULATED AND CONFORM TO UL 181.

# **EQUIPMENT**:

ALL AIR HANDLING EQUIPMENT, DIFFUSERS, GRILLES, REGISTERS, FANS, REFRIGERATION UNITS, ETC. SHALL BE PROVIDED AS SCHEDULED ON THE DRAWINGS. CONTROLS SHALL BE PROVIDED AS REQUIRED AND DESCRIBED ON THE DRAWINGS AND IN COMPLIANCE WITH LOCAL ENERGY CODES, ALL CONTROL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH NEC REQUIREMENTS. ALL RELAYS, INTERLOCKS, ETC. SHALL BE PROVIDED AS REQUIRED. POWER WIRING SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR UP TO AND INCLUDING FINAL CONNECTION. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL STARTERS, DISCONNECTS, AND OTHER DEVICES AS REQUIRED BY CODE UNLESS INDICATED TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL MOUNT ALL DEVICES, ETC., AND THE ELECTRICAL CONTRACTOR SHALL WIRE THROUGH THEM AS REQUIRED. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE NEC. REFRIGERANT PIPING WHERE REQUIRED SHALL BE OF THE PRECHARGED TYPE AS SUPPLIED BY THE REFRIGERATION EQUIPMENT MANUFACTURER, PROPERLY SIZED AND INSULATED OR FIELD FABRICATED AT THE CONTRACTOR'S OPTION. FIELD FABRICATED REFRIGERANT PIPING SHALL BE TYPE "L" A.R.I. COPPER. SOLDERED WITH 95/5 SOLDER, INSULATED WITH 1" ARMAFLEX AND WEATHERPROOFED. PIPING SHALL BE ARRANGED AND PIPED IN ACCORDANCE WITH THE FOUIPMENT MANUFACTURER'S RECOMMENDATIONS AND SHALL INCLUDE SIGHT GLASSES, SERVICE VALVES, AND FILTER DRYERS WITH BY-PASS WHEN INDICATED OR AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER FOR PROPER EQUIPMENT OPERATION. ALL PIPING ARRANGEMENTS SHALL BE APPROVED BY BOTH THE EQUIPMENT MANUFACTURER AND THE ENGINEER PRIOR TO INSTALLATION.

AIR AS INDICATED. CHARGE REFRIGERATION EQUIPMENT. PROVIDE CLEAN FILTERS. START SYSTEMS, AND INSTRUCT THE OWNER IN OPERATION OF THE SYSTEM AFTER ALL TEST AND BALANCING HAS BEEN ACCOMPLISHED. ALL LEAKS OBSERVED IN THE SYSTEM SHALL BE REPAIRED BY EITHER REPLACING OR REPAIRING THE DEFECTIVE MATERIAL OR EQUIPMENT IN A MANNER APPROVED BY THE ENGINEER. THE ENTIRE HVAC SYSTEM SHALL BE UNCONDITIONALLY GUARANTEED FOR ONE YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER. ALL DEFECTIVE EQUIPMENT AND/OR MATERIAL SHALL BE REPLACED AT NO EXPENSE TO THE OWNER. ALL REFRIGERATION COMPRESSORS SHALL HAVE AN EXTENDED WARRANTY OF FOUR ADDITIONAL YEARS. ALL GUARANTEES SHALL BE WRITTEN, DATED, AND FORWARDED TO THE OWNER. EQUIPMENT SHALL BE PROVIDED WITH ISOLATORS, FLEXIBLE CONNECTORS AT EQUIPMENT CONNECTIONS AND INSULATED DRAIN LINES PIPED TO FLOOR DRAINS, HUB DRAINS, OR OTHER APPROVED DRAIN POINTS.

THE CONTRACTOR SHALL TEST ALL DUCT AND PIPING SYSTEMS FOR LEAKAGE, BALANCE

PIPE AND FITTINGS SHALL BE BLACK STEEL WITH MALLEABLE IRON FITTINGS UP THROUGH 2" I.P.S. AND STEEL WELDING FITTINGS 2-1/2" I.P.S. AND ABOVE. DIELECTRIC COUPLINGS OR UNIONS SHALL BE UTILIZED WHEN PIPING OF DISSIMILAR METAL IS CONNECTED.

GAS PIPING SYSTEM SHALL BE INSTALLED TO THE REQUIREMENTS OF THE AGA PAMPHLET "INSTALLATION OF GAS APPLIANCES AND GAS PIPING" AND NFPA STANDARD NO. 54. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS AND PAY ALL FEES WITH THE "LOCAL" GAS COMPANY FOR THE INSTALLATION OF THE GAS METER, GAS SERVICE, AND ITS ACCESSORIES.

GAS PIPING SHALL BE TESTED IN ACCORDANCE WITH THE PROCEDURES DESCRIBED IN NFPA NO. 54. ANY OTHER TESTS AS REQUIRED BY THE LOCAL BUILDING INSPECTION DEPARTMENT OR GAS COMPANY SHALL ALSO BE PERFORMED. PAINT GAS PIPING WITH RUST RESISTANT PAINT.

### SPLIT SYSTEM EQUIPMENT SCHEDULE

	REFERENCE			FAN COIL SELECTION C							CONDENSER SELECTION		ELECTRICAL										
TAG	MANUFACTURER	AREA SERVED	GAS FURNACE MODEL	EVAPORATOR COIL MODEL	NOMINAL TONS	AIR FLOW (CFM)	FAN HP	OUTSIDE AIR FLOW (CFM)	COOLING CAPACITY (BTU/HR)	SEER	HEATING INPUT (KW)	HEATING OUTPUT (BTU/HR)	OPERATING WEIGHT (LBS)	MODEL	OPERATING WEIGHT (LBS)	FAN VOLTS		SELEC*		VOLTS PI			REMAR
AHU-1	YORK	SHOW ROOM AREA	JHETB48GBCS2N1	C48C	4	1,600	0.625	270	47,500	14.3	7.2	24,600	201	YH2E48B21S	220	208	1	50	60	208 1	26.1	45	A,B,C,D,

GENERAL INFORMATION (ALL UNITS): 1. UNITS FURNISHED BY THE MECHANICAL CONTRACTOR. INSTALLATION AND STARTUP BY MECHANICAL CONTRACTOR.

3. PROVIDE SINGLE POINT POWER CONNECTION KIT FOR EACH AHU AND ASSOCIATED ELECTRICAL HEATING COIL 4. ELECTRICAL CONTRACTOR TO PROVIDE UNITS WITH FIELD MOUNTED AND WIRED DISCONNECT FOR SINGLE-POINT ELECTRICAL CONNECTION. REF ELECTRICAL.

5. PROVIDE ELECTRONIC PROGRAMMABLE THERMOSTAT AT LOCATIONS SHOWN. 6. PRIMARY CONDENSATE SHALL BE TRAPPED AND ROUTED AS SHOWN ON PLANS.

7. PROVIDE ONE YEAR COMPLETE PARTS AND LABOR WARRANTY. 8. PROVIDE ADDITIONAL FIVE YEAR WARRANTY COVERING COMPRESSORS.

10. MOUNT OUTDOOR CONDENSOR UNIT ON 4" CONCRETE PAD. FIELD COORDINATE INSTALLATION WITH GENERAL CONTRACTOR. 11. EQUIPMENT LISTED IS PROVIDED TO ESTABLISH A STANDARD. APPROVED EQUALS: TRANE, LENNOX, CARRIER.

## 9. PROVIDE OUTDOOR CONDENSOR UNITS WITH RUBEER ISOLATOR KIT.

12. PROVIDE FACTORY CORROSION PROTECTION FOR PROJECTS LOCATED WITH 10 MILES OF BRACKISH WATER.

2. 14.3 SEER2 MINIMUM UNITS WITH R-410A REFRIGERANT.

A. PROVIDE REMOTE SENSOR. B. PROVIDE REMOVEABLE/THROWAWAY FILTER IN FILTER RACK. C. INDOOR UNIT TO HAVE FACTORY MOUNTED THERMAL EXPANSION VALVE IF REQUIRED FOR 14.3 SEER2 RATING.

D. PROVIDE FIELD INSTALLED ELECTRIC HEAT KIT: OUTPUT SPECIFIED IN SCHEDULE E. PROVIDE FLOAT SWITCH IN AUXILLARY DRAIN PAN FOR SECONDARY CONDENSATE SHUTOFF. F. PROVIDE REFRIGERANT FILTER DRYER AT OUTDOOR CONDENSOR UNIT AS REQUIRED BY MANUFACTURER.

#### **VOLUME DAMPER SCHEDULE** MANUFACTURER | MODEL 16 GAUGE GALVANIZED STEEL SINGLE BLADE; 16 GAUGE UP TO 36" GALVANIZED ROLLED STEEL FRAME; 1/2" DIAMETER STEEL AIR BALANCE INC. A70 IN HEIGHT ROD AXLE WITH FLANGE BRONZE BEARINGS AND HEAVY BLADE DUTY MANUAL LOCKING QUADRANT. 16 GUAGE GALVANIZED STEEL SINGLE BLADE; 16 GUAGE RECTANGULAR UP TO 48" | GALVANIZED STEEL FRAME; 1/2" DIAMETER AIR BALANCE SINGLE BLADE IN HEIGHT STEEL ROD AXLE WITH BRONZE OILITE BEARINGS AND HEAVY DUTY MANUAL LOCKING QUADRANT. 14 GAUGE GALVANIZED STEEL OPPOSED BLADES; 20 GAUGE MOTORIZED ROUND | UP TO 24" | ROLLED STEEL FRAME; 1/2" DIAMETER RUSKIN SINGLE BLADE IN HEIGHT STEEL ROD AXLE WITH NYLON BEARINGS AND CONTROL

MODULE.

VENTILATION CALCULATIONS (FMC 2023)													
LOCATION	AREA (Az)	UNIT SERVED BY	OCC. LOAD/ 1,000 SQ FT	TOTAL OCCUPANTS (Pz)	CFM / PERSON (Rp)	CFM / SQ FT (Ra)	ZONE EFFECTIVENESS (Ez)	AREA BASED CFM	OCCUPANCY BASED CFM	BREATHING ZONE (Vbz)	ZONE OUTDOOR AIRFLOW MIN (Voz)	O/A PROVIDED	
SHOW ROOM-100	438	AHU-1	10	4	5	0.06	0.8	26	22	48	60	60	
OFFICE-103	113	AHU-1	5	1	5	0.06	0.8	7	3	10	12	20	
IT CLOSET-104	31	AHU-1	0	0	0	0.12	0.8	4	0	4	5	10	
SALES MANAGER-109	101	AHU-1	5	1	5	0.06	0.8	6	3	9	11	20	
BREAKROOM-110	227	AHU-1	50	11	5	0.06	0.8	14	57	70	88	100	
PARTS OFFICE-112	106	AHU-1	5	1	5	0.06	0.8	6	3	9	11	20	
ELEC./ MECH115	78	AHU-1	0	0	0	0.12	0.8	9	0	9	12	20	
CLOSET-130	12	AHU-1	0	0	0	0.12	0.8	1	0	1	2	10	
CLOSET-131	9	AHU-1	0	0	0	0.12	0.8	1	0	1	1	10	
TOTAL	1,114			17				75	87	161	202	270	

INTAKE VENTILATOR SCHEDULE													
MARK	AREA SERVED	MANUFACTURER	MODEL	CFM	PRESSURE DROP (IN. WG)	THROAT AREA (FT²)	INTAKE AREA (FT²)	MOUNTING FAN TYPE	REMARKS				
GRV-1	OUTSIDE AIR	GREENHECK	GRSI-12	270	0.03	1	3.36	ROOFTOP INTAKE	-				

GENERAL INFORMATION (ALL APPLY AS APPLICABLE): 1. ALL VENTILATORS AND ROOF CURBS ARE PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR.

2. MATCH ARCHITECTURAL COLOR SCHEME. REF ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION. 3. PROVIDE GRAVITY BACKDRAFT DAMPER AND BIRDSCREEN.

4. FANS MUST BE AMCA CERTIFIED AS WELL AS UL OR ETL LISTED. 5. FASTEN THE BASE OF INTAKE VENTILATOR TO ROOF CURB WITH (8) #10 SET SCREWS AND NEOPRENE / SS BONDED WASHERS (2 PER SIDE). 6. APPROVED EQUALS SHALL BE ACCEPTED.

MARK	MANUFACTURER	MODEL	TYPE	DAMPER	MOUNTING POSITION	FACE	REMARKS
CD-1	PRICE	SDS	SUPPLY	NO	SURFACE MOUNTED	3/4" SLOT WIDTH, 2-SLOT	LINEAR SLOT DIFFUSER; 3/4" SLOT WIDTH; 2 SLOTS: 1 SLOT ANGLED TO WASH DOWN WALL, 1 SLOT TO WASH DOWN CEILING; ALUMINUM; WHITE ENAMEL; PROVIDE SDBI INSULATED PLENUM
CD-2	TITUS	TMS-AA	SUPPLY	YES	SURFACE MOUNTED	24" X 24"	SQUARE DIFFUSER; ALUMINUM; WHITE ENAMEL; 360 DEGREE PATTERN; OPPOSED BLADE DAMPER IN NECK.
CD-3	TITUS	272RL	SUPPLY	YES	SURFACE MOUNTED	REF DRAWINGS	RECTANGULAR REGISTER; STEEL; WHITE ENAMEL; DOUBLE DEFLECTION 3/4" ADJUSTABLE LOUVERS; FRONT BLADES TO BE HORIZONTAL; OPPOSED BLADE DAMPER IN NECK.
CD-4	TITUS	TMS-AA	SUPPLY	YES	SURFACE MOUNTED	12" X 12"	SQUARE DIFFUSER; ALUMINUM; WHITE ENAMEL; 360 DEGREE PATTERN; OPPOSED BLADE DAMPER IN NECK.
RAG-1	PRICE	SDR	RETURN	NO	SURFACE MOUNTED	3/4" SLOT WIDTH, 2-SLOT	LINEAR SLOT DIFFUSER; 3/4" SLOT WIDTH; 2 SLOTS; ALUMINUM; WHITE ENAMEL; PROVIDE SDBI INSULATED PLENUM
RAG-2	TITUS	25RL	RETURN	NO	SURFACE MOUNTED	REF DRAWINGS	RECTANGULAR GRILLE; STEEL; WHITE ENAMEL; 1/2" SPACING; 30 DEGREE DEFLECTION; OPPOSED BLADE DAMPER IN NECK.
RAG-3	TITUS	50F (TYPE 1)	RETURN	NO	SURFACE MOUNTED	12" X 12"	PERFORATED DIFFUSER; ALUMINUM; WHITE ENAMEL; 360 DEGREE PATTERN.
RAG-4	TITUS	50F (TYPE 1)	RETURN	NO	SURFACE MOUNTED	24" X 24"	PERFORATED DIFFUSER; ALUMINUM; WHITE ENAMEL; 360 DEGREE PATTERN.

GENERAL NOTES (APPLY TO ALL ABOVE):

1. PROVIDE MOUNTING FRAME TO MATCH CEILING TYPE. VERIFY WITH ARCHITECT'S PLANS PRIOR TO ORDERING. 2. BRANCH DUCT SIZE SHALL BE SAME AS NOTED DIFFUSER NECK SIZE UNLESS NOTED OTHERWISE.

3. STANDARD WHITE BAKED ENAMEL FINISH, UNLESS NOTED OTHERWISE. 4. FOUR-WAY THROW PATTERN FOR SQUARE DIFFUSERS UNLESS NOTED OTHERWISE.

5. REFER TO PLANS FOR DIRECTIONAL ARROWS INDICATING CFM THROWS. NO DIRECTIONAL ARROWS INDICATES 4-WAY THROW. 6. DAMPER 7. APPROV

RS SHALL BE MOUNTED IN DUCT TAKE-OFFS. VED EQUALS SHALL BE ACCEPTED.

MECHANICAL PIPE MATERIAL SCHEDULE       SERVICE     UNDERGROUND     ABOVE GROUND       GAS     -     BLACK STEEL, SCHEDULE 40       CONDENSATE DRAIN     -     HARD DRAWN COPPER TUBE TYPE "M" OR SCHEDULE 40 PVC       REFRIGERANT PIPING     -     COPPER REFRIGERANT PIPING       CONCENTRIC VENT FLUE     -     STAINLESS STEEL SINGLE WALL CATEGORY III						
SERVICE	UNDERGROUND	ABOVE GROUND				
GAS	-	BLACK STEEL, SCHEDULE 40				
CONDENSATE DRAIN	-	TYPE "M" OR SCHEDULE 40				
REFRIGERANT PIPING	-	COPPER REFRIGERANT PIPING				
CONCENTRIC VENT FLUE	-					

GENERAL INFORMATION: 1. ALL MATERIALS SHALL BE APPROVED BY THE OWNER.

4. LOCKING CAPS SHALL BE PROVIDED FOR ALL REFRIGERANT ACCESS PORTS.

2. NO PVC PLASTIC PIPING IS ALLOWED WITHIN CEILING VOIDS IF USED FOR NON-DUCTED RETURN AIR 3. CONDENSATE DRAIN PIPING SHALL BE INSULATED WITH ELASTOMERIC INSULATION MINIMUM 3/8"

SHOP AREA EXHAUST FAN SCHEDULE												
	REFERENCE		GENERA	PERFO	RMANCE							
D	MANUFACTURER	MODEL	TYPE	DRIVE	CFM	ESP (IN WC)	MOTOR HP	MAX BHP	VOLTS	PH	CONTROL METHOD	REMARKS
	GREENHECK	AFR-20-02-0621	WALL / TYPE I	DIRECT	5 200	0.25	1	0.99	460	3	CONTINUOUS	Α

GREENHECK | AER-20-02-0621 | WALL / TYPE L | DIRECT | 5,200 | 0.25 | 1 | 0.99 | 400 | 3 | CONTINUOUS | GENERAL INFORMATION (ALL FANS AS APPLICABLE): 1. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE EXACT VOLTAGE AND PHASE OF EACH AND EVERY EQUIPMENT ITEM WITH THE ELECTRICAL CONTRACTOR, PRIOR TO ORDER.

2. PROVIDE PREFINISHED WEATHERPROOF LOUVERS. REFERENCE ARCHITECTURAL DRAWINGS FOR FINISH SELECTION. 3. PROVIDE GRAVITY BACKDRAFT DAMPER. BIRDSCREEN, HEAVY-DUTY SAFETY MOUNTED DISCONNECT, AND OSHA MOTOR SIDE GUARD. 4. FANS MUST BE AMCA CERTIFIED AS WELL AS UL OR ETL LISTED.

5. ENSURE MINIMUM 10'-0" CLEARANCE FROM AIR INTAKES. 6. ALL FANS ARE PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. 7. PROVIDE FACTORY PRE-WIRED FAN SPEED CONTROLLER FOR DIRECT DRIVE FANS.

8. NO SUBSTITUTIONS ALLOWED TO WORK WITH PEMB PROVIDED OPENINGS. 9. INTERLOCK FANS WITH FIRE ALARM AS REQUIRED BY AHJ. FIELD COORDINATE REQUIREMENTS WITH FIRE ALARM CONTRACTOR.

A. INTERLOCK EXHAUST FAN WITH WSF-1.

#### SHOP AREA SUPPLY FAN SCHEDULE

	GENERAI	PERFO	RMANCE									
MARK AREA SERVED	MANUFACTURER	MODEL	TYPE	DRIVE	CFM	ESP (IN WC)	MOTOR HP	MAX BHP	VOLTS	РН	CONTROL METHOD	REMARKS
WSF-1 SHOP AREA	GREENHECK	AER-20-02-0621	WALL / TYPE L	DIRECT	5,200	0.25	1	0.99	460	3	CONTINUOUS	-
GENERAL INFORMATION (ALL FANS AS APPLICABLE):  1. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE EXACT VOLTAGE AND PHASE OF EACH AND EVERY EQUIPMENT ITEM WITH THE ELECTRICAL CONTRACTOR, PRIOR TO ORDER.												

2. PROVIDE PREFINISHED WEATHERPROOF LOUVERS. REFERENCE ARCHITECTURAL DRAWINGS FOR FINISH SELECTION. 3. PROVIDE GRAVITY BACKDRAFT DAMPER, BIRDSCREEN, HEAVY-DUTY SAFETY MOUNTED DISCONNECT, OSHA MOTOR SIDE GUARD, AND WEATHERHOOD.

4. FANS MUST BE AMCA CERTIFIED AS WELL AS UL OR ETL LISTED. 5. ALL FANS ARE PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. 6. PROVIDE FACTORY PRE-WIRED FAN SPEED CONTROLLER FOR DIRECT DRIVE FANS.

7. PROVIDE MOTOR-OPERATED DAMPER WITH 120V ACTUATOR AND FAN START TIME DELAY CONTROLS. 8. NO SUBSTITUTIONS ALLOWED TO WORK WITH PEMB PROVIDED OPENINGS. 9. INTERLOCK FANS WITH FIRE ALARM AS REQUIRED BY AHJ. FIELD COORDINATE REQUIREMENTS WITH FIRE ALARM CONTRACTOR.

INLINE EXHAUST FAN SCHEDULE												
MARK	AREA SERVED	MANUFACTURER	MODEL	CFM	E.S.P. (IN. WC)	DRIVE	WATTS	V	PH	CONTROL	REMARKS	
EF-1	WOMEN'S-106	GREENHECK	CSP-A125	100	0.25	DIRECT	53	115	1	SWITCH	Α	
EF-2	MENS-105	GREENHECK	CSP-A125	100	0.25	DIRECT	53	115	1	SWITCH	Α	

GENERAL INFORMATION (ALL FANS AS APPLICABLE): 1. PROVIDE CEILING GRILLE, WALL DISCHARGE CAP, GRAVITY BACKDRAFT DAMPER. BIRDSCREEN, AND SAFETY MOUNTED DISCONNECT. 2. FANS MUST BE AMCA CERTIFIED AS WELL AS UL OR ETL LISTED.

PROVIDE FACTORY PRE-WIRED FAN SPEED CONTROLLER FOR DIRECT DRIVE FANS. 4. ENSURE MINIMUM 10'-0" CLEARANCE FROM AIR INTAKES, DOORS, AND OPERABLE WINDOWS.

6. ALL FANS ARE PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. 7. APPROVED EQUALS SHALL BE ACCEPTED.

A. INTERLOCK WITH RESTROOM LIGHTS.

### **ELECTRIC UNIT HEATER SCHEDULE**

MARK	AREA SERVED	MANUFACTURER I	MODEL	KW	HP	CFM	EL	ECTRI	C DATA	OPERATING	NOTES
IVIARN	AREA SERVED	WANUFACTURER	WODEL	rvv	ПР	CFIVI	V	PH MOCP		WEIGHT	NOTES
UH-1	SHOP	REZNOR	EGHB-3	2	0.033	510	480	3	15	45	A,B,C
UH-2	SHOP	REZNOR	EGHB-3	2	0.033	510	480	3	15	45	A,B,C
UH-3	SHOP	REZNOR	EGHB-3	2	0.033	510	480	3	15	45	A,B,C
UH-4	SHOP	REZNOR	EGHB-2	2	0.033	510	480	3	15	45	A,B,C
GENERAL IN	FORMATION (ALL UNITS	S):									
1. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE EXACT VOLTAGE AND PHASE OF EACH AND EVERY EQUIPMENT ITEM WITH THE											
ELECTRICAL	CONTRACTOR, PRIOR	TO ORDER.									

2. ALL UNITS ARE 480V, 3 PHASE, 60 HERTZ. 3. INSTALL BOTTOM OF HEATER AT ELEVATION INDICATED ON DRAWINGS UNLESS NOTED OTHERWISE.

A. MOUNT AT 16'-0" AFF WITHOUT OBSTRUCTING AIR FLOW.

B. PROVIDE WITH WALL MOUNTED STANDARD THERMOSTAT KIT.

4. PROVIDE UNIT WITH DISCONNECT SUPPLIED AND WIRED BY ELECTRICAL CONTRACTOR FOR A SINGLE POINT ELECTRICAL CONNECTION.

C. PROVIDE WITH MANUFACTURER'S STANDARD LOUVER AND CEILING MOUNTING BRACKET.



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ISSUE BLOCK

PR1 PLAN REV. 1 10.13.2023

PR2 PLAN REV. 2 11.10.2023

PR4 PLAN REV. 4 09.24.2024

PR6 PLAN REV. 6 02.26.2025

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DOCUMENTS THAT DO NOT HAVE THE ARCHITECT OR ENGINEER OF RECORD SEAL AND SIGNATURE SHALL BE CONSIDERED NOT FOR CONSTRUCTION

MECHANICAL SCHEDULES

SHEET: