



MECHANICAL NOTES

- ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND LOCAL CODES.
- ALL DUCTWORK SHALL BE GALVANIZED SHEET METAL AND SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA LOW PRESSURE DUCT CONSTRUCTION STANDARDS. DUCT HANGERS AND SUPPORTS SHALL BE IN ACCORDANCE WITH SMACNA RECOMMENDATIONS.
- ALL DUCTWORK DIMENSIONS ARE ACTUAL SHEET METAL DIMENSIONS. ALL DUCTWORK ENCLOSED BY CEILING OR WALL SHALL BE INSULATED. EXPOSED DUCTWORK DOES NOT REQUIRE INSULATION.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS AND PAY ALL FEES REQUIRED FOR THIS WORK.
- PROVIDE CONDENSATE DRAINS FOR ALL EQUIPMENT REQUIRING THEM. ALL CONDENSATE DRAINAGE PIPING SHALL BE SCHEDULE 40 PVC WITH SOCKET JOINTS USING SOLVENT CEMENT. PIPING SHALL RUN FULL SIZE OF THE CONNECTION AND SHALL HAVE AN ADEQUATE AIR SEAL TRAP AT EACH UNIT CONNECTION WITH A VENT UPSTREAM OF THE TRAP.
- THE MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND SHOW THE RELATIONSHIP BETWEEN EQUIPMENT AND CONNECTIONS. DO NOT SCALE THE DRAWINGS FOR EXACT SIZE OR LOCATIONS. BUILDING DIMENSIONS SHALL BE TAKEN FROM THE ARCHITECTURAL PLANS AND EQUIPMENT DIMENSIONS SHALL BE TAKEN FROM CERTIFIED EQUIPMENT DATA.
- IN AIR SYSTEMS GREATER THAN 2,000 CFM THAT SERVE MULTIPLE ENCLOSED SPACES, SMOKE DETECTORS SHALL BE LOCATED IN THE RETURN AIR STREAM AHEAD OF THE AIR FILTERS AND DOWNSTREAM OF ANY BRANCH CONNECTIONS PRIOR TO FRESH AIR INTAKE. SMOKE DETECTORS SHALL AUTOMATICALLY SHUTDOWN THE RTU WHEN SMOKE IS DETECTED IN THE DUCT.
- ALL FANS OF 2,000 CFM OR MORE SHALL HAVE MEANS OF AUTOMATIC SHUTDOWN.
- ROOFTOP UNITS TO HAVE FACTORY MOUNTED FUSED DISCONNECT SWITCH. MAY HAVE NON-FUSED DISCONNECT SWITCH IF APPROVED BY LOCAL AUTHORITIES.
- COORDINATE THE LOCATION OF ALL PENETRATIONS OF THE STRUCTURE WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- EXACT LOCATIONS OF ALL CEILING DIFFUSERS TO BE COORDINATED WITH LIGHTING LAYOUT AND REFLECTED CEILING PLAN.
- ALL FANS 3/4" HP AND ABOVE SHALL HAVE NON-FUSED DISCONNECT SWITCH MOUNTED AT THE FAN. MAY BE EQUIPPED WITH NON-FUSED DISCONNECT SWITCH IF APPROVED BY LOCAL AUTHORITIES.
- ALL RTUS TO BE CONTROLLED BY AN OWNER PROVIDED ENERGY MANAGEMENT SYSTEM.
- MOUNT THERMOSTATS AT 48" AFF UNLESS OTHERWISE NOTED. THERMOSTATS LOCATED ON AN OUTSIDE WALL SHALL BE MOUNTED ON AN INSULATED BASE.
- ALL PIPE DROPS IN SALES AREA FROM ROOF TO WALLS OR EQUIPMENT SHOULD BE COORDINATED AND GROUPED TOGETHER WITH OTHER MECHANICAL PIPES.
- COORDINATE ALL PHASING/CONTROL OF EQUIPMENT/SYSTEMS WITH PHASING PLAN. PROVIDE TEMPORARY CONTROLS AS REQUIRED FOR COMPLETE PHASES TO BE FUNCTIONAL FOR STORE OPERATIONS.
- ROOF EQUIPMENT INSTALLED ON THIS PROJECT, THAT WILL REQUIRE MAINTENANCE, SHOULD BE LESS THAN 10' AWAY FROM THE ROOF'S EDGE.

NOTES TO GENERAL CONTRACTOR REGARDING OWNER SUPPLIED, CONTRACTOR INSTALLED EQUIPMENT:

- CONTRACTOR TO OBTAIN APPROVAL OF ANY DELIVERY DATE CHANGES FROM OWNER PROJECT MANAGER AND COORDINATE WITH VENDOR.
- CONTRACTOR TO RECEIVE EQUIPMENT, PROVIDE INSPECTION, AND NOTIFY VENDOR & OWNER PROJECT MANAGER OF MISSING AND/OR DAMAGED MATERIALS WITHIN 48 HOURS AFTER DELIVERY (20 DAYS FOR CONCEALED DAMAGE).
- CONTRACTOR TO PROVIDE SAFE HARBORING, INSTALLATION, AND REMOVAL OF ANY SALVAGE MATERIALS.
- CONTRACTOR TO HANDLE ANY WARRANTY CLAIMS (PRIOR TO STORE OPENING) DIRECTLY WITH VENDOR.

CONTRACTOR TO COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH ELECTRICAL CONTRACTOR BEFORE ORDERING EQUIPMENT.

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
BOD	BOTTOM OF DUCT
CFM	CUBIC FEET PER MINUTE
COMP.	COMPRESSOR
CONN.	CONNECTION
CU	CONDENSING UNIT
DB	DRY BULB
DIA	DIAMETER
DN	DOWN
E	EXISTING
EAT	ENTERING AIR TEMPERATURE
EBH	ELECTRIC BASEBOARD HEATER
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
EFF	EFFICIENCY
EH	ELECTRIC HEATER
ENT	ENTERING
EJH	ELECTRIC UNIT HEATER
ENW	ENTERING WATER TEMPERATURE
FCU	FAN COIL UNIT
FSD	FIRE SMOKE DAMPER
FT	FEET
CFM	CUBIC FEET PER MINUTE
HP	HORSEPOWER
IN	INCH
LAT	LEAVING AIR TEMPERATURE
LVS	LEAVING
MAU	MAKE-UP AIR UNIT
MAX	MAXIMUM
MIN	MINIMUM
MOT	MOTORIZED
MSS	MINI SPLIT SYSTEM
NC	NOISE CRITERION
NO.	NUMBER
NOM	NOMINAL
OPER	OPERATING
OSA	OUTSIDE AIR
ΔP	PRESSURE DIFFERENTIAL
PD	PRESSURE DROP
PRV	PRESSURE REDUCING VALVE
RA(R)	RETURN AIR (REGISTER)
REQ'D	REQUIRED
RPM	REVOLUTIONS PER MINUTE
RTU	ROOFTOP UNIT
SAD	SUPPLY AIR DIFFUSER
SA(R)	SUPPLY AIR (REGISTER)
SP	STATIC PRESSURE
TEMP	TEMPERATURE
TOP	TOP OF DUCT
T'STAT	THERMOSTAT
(TYP)	TYPICAL
VEL	VELOCITY
VOL	VOLUME
WB	WET BULB
VAV	VARIABLE AIR VOLUME

LEGEND

	SUPPLY AIR DIFFUSER
	RETURN/EXHAUST AIR REGISTER
	FIRE DAMPER IN DUCT AT WALL
	BALANCING DAMPER IN DUCT
	SUPPLY DUCT TURNING DOWN
	DOWN
	EXISTING
	RETURN/EXHAUST TURNING DOWN
	SUPPLY TURNING UP
	RETURN/EXHAUST TURNING UP
	CO2 SENSOR
	TEMPERATURE SENSOR
	RELATIVE HUMIDITY/TEMPERATURE SENSOR
	ANULUS PULL STATION
	ENERGY MANAGEMENT GAS METER (WITH I.D. NUMBER)
	CONNECT TO EXISTING
	ROOF MOUNTED SKYLIGHTS
	AIR FLOW DIRECTION
	GAS PIPE IN PROJECT
	EXISTING GAS PIPE
	GAS PRESSURE REGULATOR
	THREE SIDED DUCT
	EXISTING DUCT TO REMAIN
	EXISTING DUCT TO BE REMOVED
	WORK IN PROJECT
	STANDARD BRANCH CONNECTION WITH AIR VOLUME DAMPER
	90° ELBOW WITH TURNING VANES
	EXISTING EQUIPMENT ON ROOF
	PADDLE FAN
	FIRE DAMPER IN DUCT

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FIRE PROTECTION

ISSUE LOG

NO.	REV.	DESCRIPTION	DATE
1	-	PERMIT SET	12/06/18
2	-	BID SET	03/21/19

JOB: 2019041 SCALE: AS SHOWN
SHEET NO.
M0.1
MECHANICAL SYMBOLS AND GENERAL NOTES
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