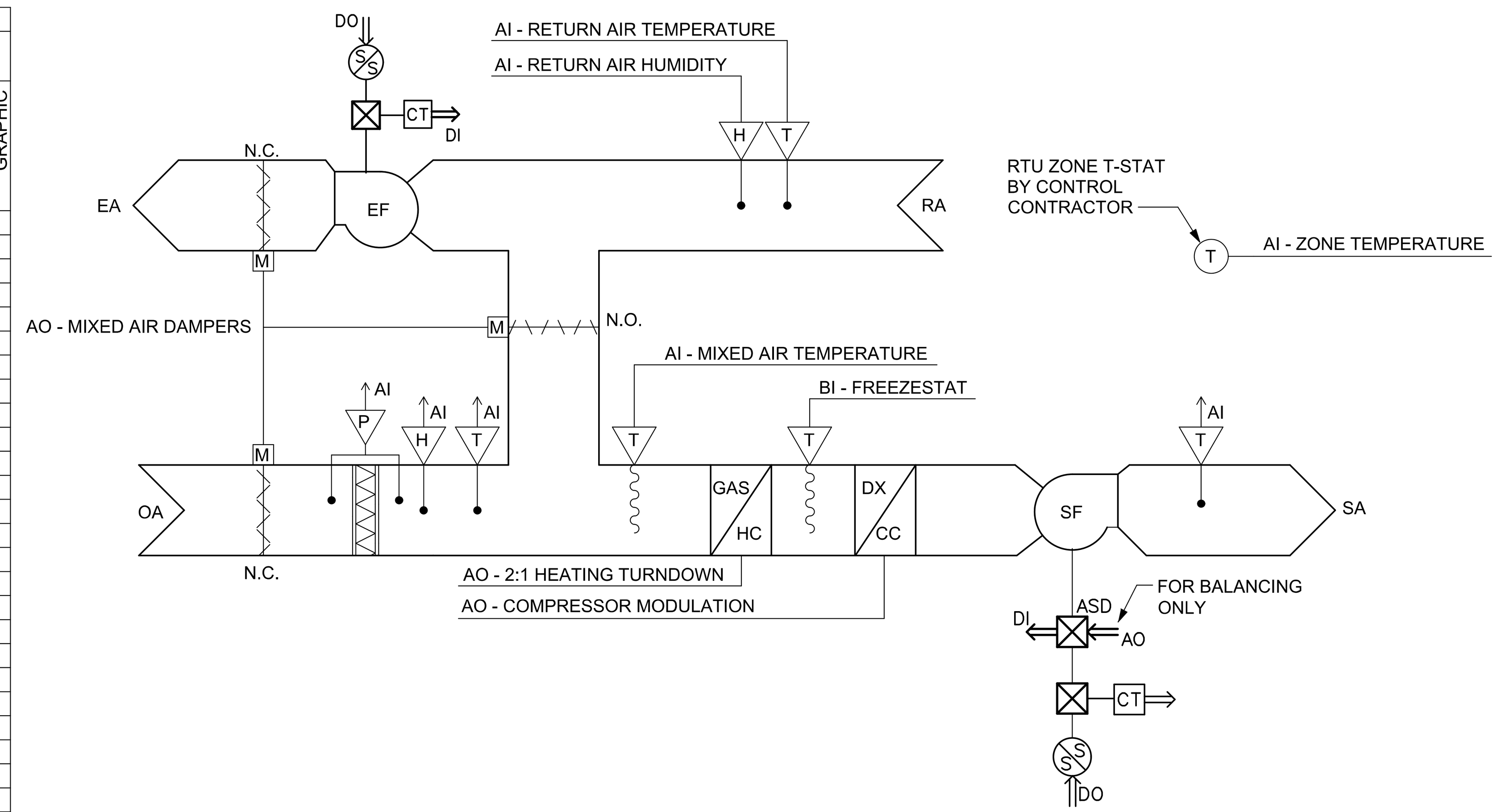
SYSTEM SUMMARY											
POINT NAME	HARDWARE POINTS				SOFTWARE POINTS						
	AI	AO	BI	BO	AV	BV	LOOP	SCHEDULE	TREND	ALARM	SHOW ON GRAPHIC
EXHAUST FAN START/STOP				X					X		X
EXHAUST FAN FAULT			X							X	
EXHAUST FAN STATUS			X						X		X
RETURN AIR TEMPERATURE	X								X		X
RETURN AIR HUMIDITY	X								X		X
MIXED AIR DAMPERS		X							X		X
MIXED AIR TEMPERATURE	X										
FREEZESTAT			X						X	X	X
FILTER DIFFERENTIAL PRESSURE	X								X		X
OUTSIDE AIR TEMPERATURE	X								X		X
OUTSIDE AIR HUMIDITY	X								X		X
2:1 HEATING TURNDOWN		X							X		X
COMPRESSOR MODULATION		X							X		X
HIGH RETURN AIR TEMP										X	
LOW RETURN AIR TEMP										X	
SUPPLY FAN START/STOP				X					X		X
SUPPLY FAN ASD SPEED		X							X		X
SUPPLY FAN ASD FAULT			X							X	
SUPPLY FAN STATUS			X						X		X
DISCHARGE AIR TEMPERATURE	X								X		X
ZONE TEMPERATURE	X								X		X
HIGH ZONE TEMP										X	
LOW ZONE TEMP										X	
HIGH DISCHARGE AIR TEMP										X	
LOW DISCHARGE AIR TEMP										X	
FILTER CHANGE REQUIRED										X	
HIGH MIXED AIR TEMP										X	
LOW MIXED AIR TEMP										X	
HIGH RETURN AIR HUMIDITY										X	
LOW RETURN AIR HUMIDITY										X	



ROOFTOP UNIT CONTROLS SEQUENCE:

RUN CONDITIONS - SCHEDULED:
THE UNIT SHALL RUN ACCORDING TO A USER DEFINABLE TIME SCHEDULE IN THE FOLLOWING MODES:

OCCUPIED MODE:
1. A 75 DEG. F (ADJ.) COOLING SETPOINT.
2. A 70 DEG. F (ADJ.) HEATING SETPOINT.
3. A 55% (ADJ.) RELATIVE HUMIDITY SETPOINT.

UNOCCUPIED MODE (NIGHT SETBACK):
1. AN 85 DEG. F (ADJ.) COOLING SETPOINT.
2. A 55 DEG. F (ADJ.) HEATING SETPOINT.

EMERGENCY SHUTDOWN:
THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING AN EMERGENCY SHUTDOWN SIGNAL.

FREEZE PROTECTION:
THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING A FREEZESTAT STATUS.

RTU OPTIMAL START:
THE UNIT SHALL START PRIOR TO SCHEDULED OCCUPANCY BASED ON THE TIME NECESSARY FOR THE ZONES TO REACH THEIR OCCUPIED SETPOINTS. THE START TIME SHALL AUTOMATICALLY ADJUST BASED ON CHANGES IN OUTSIDE AIR TEMPERATURE AND ZONE TEMPERATURES.

SUPPLY FAN:
THE SUPPLY FAN SHALL RUN ANYTIME THE UNIT IS COMMANDED TO RUN, UNLESS SHUTDOWN ON SAFETIES. TO PREVENT SHORT CYCLING, THE SUPPLY FAN SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
1. SUPPLY FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
2. SUPPLY FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.
3. SUPPLY FAN RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT (ADJ.).

SUPPLY AIR TEMPERATURE SETPOINT - FIXED:
THE CONTROLLER SHALL MONITOR THE SUPPLY AIR TEMPERATURE AND SHALL MAINTAIN FIXED SUPPLY AIR TEMPERATURE SETPOINTS AS FOLLOWS:
1. COOLING: THE SETPOINT SHALL BE 55 DEG. F (ADJ.).
2. HEATING: THE SETPOINT SHALL BE 90 DEG. F (ADJ.).

COOLING:
THE CONTROLLER SHALL MEASURE THE SUPPLY AIR TEMPERATURE AND MODULATE THE COMPRESSOR TO MAINTAIN ITS COOLING DISCHARGE SETPOINT.
THE COOLING SHALL BE ENABLED WHENEVER:
1. OUTSIDE AIR TEMPERATURE IS GREATER THAN 60 DEG. F (ADJ.).
2. AND THE ECONOMIZER IS DISABLED OR FULLY OPEN.
3. AND THE SUPPLY FAN STATUS IS ON.
4. AND THE HEATING IS NOT ACTIVE.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
1. HIGH DISCHARGE AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS 5 DEG. F (ADJ.) GREATER THAN SETPOINT.

GAS HEATING STAGES:
THE CONTROLLER SHALL MEASURE THE SUPPLY AIR TEMPERATURE AND STAGE THE HEATING TO MAINTAIN ITS HEATING SETPOINT. TO PREVENT SHORT CYCLING, THERE SHALL BE A USER DEFINABLE (ADJ.) DELAY BETWEEN STAGES, AND EACH STAGE SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME.
THE HEATING SHALL BE ENABLED WHENEVER:
1. OUTSIDE AIR TEMPERATURE IS LESS THAN 65 DEG. F (ADJ.).
2. AND THE SUPPLY FAN STATUS IS ON.
3. AND THE COOLING IS NOT ACTIVE.

THE HEATING SHALL RUN FOR FREEZE PROTECTION WHENEVER:
1. SUPPLY AIR TEMPERATURE DROPS FROM 40 DEG. F (ADJ.) TO 35 DEG. F (ADJ.).
2. AND THE SUPPLY FAN STATUS IS ON.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
1. LOW DISCHARGE AIR TEMP: IF THE DISCHARGE AIR TEMPERATURE IS 5 DEG. F (ADJ.) LESS THAN SETPOINT.

ECONOMIZER:
TO MAINTAIN A SETPOINT 2 DEG. F (ADJ.) LESS THAN THE SUPPY AIR TEMPERATURE SETPOINT. THE OUTSIDE AIR DAMPERS SHALL MAINTAIN A MINIMUM AIRFLOW OF 600 CFM THE FOLLOWING WHENEVER OCCUPIED:

THE ECONOMIZER SHALL BE ENABLED WHENEVER:
1. OUTSIDE AIR TEMPERATURE IS LESS THAN 65 DEG. F (ADJ.).
2. AND THE OUTSIDE AIR ENTHALPY IS LESS THAN 22 BTU/LB (ADJ.).
3. AND THE OUTSIDE AIR TEMPERATURE IS LESS THAN THE RETURN AIR TEMPERATURE.
4. AND THE OUTSIDE AIR ENTHALPY IS LESS THAN THE RETURN AIR ENTHALPY.
5. AND THE SUPPLY FAN STATUS IS ON.

THE ECONOMIZER SHALL CLOSE WHENEVER:
1. MIXED AIR TEMPERATURE DROPS FROM 40 DEG. F TO 35 DEG. F (ADJ.)
2. OR THE FREEZE STAT IS ON.
3. OR ON LOSS OF SUPPLY FAN STATUS.

THE OUTSIDE AND EXHAUST AIR DAMPERS SHALL CLOSE AND THE RETURN AIR DAMPER SHALL OPEN WHEN THE UNIT IS OFF. IF OPTIMAL START IS AVAILABLE THE MIXED AIR DAMPER SHALL OPERATE AS DESCRIBED IN THE OCCUPIED MODE EXCEPT THAT THE THE OUTSIDE AIR DAMPER SHALL MODULATE TO FULLY CLOSED.

MINIMUM OUTSIDE AIR VENTILATION:
WHEN IN THE OCCUPIED MODE, THE OUTSIDE AIR DAMPER SHALL GO TO A FIXED MINIMUM POSITION.

EXHAUST FAN:
THE EXHAUST FAN SHALL RUN WHENEVER THE ECONOMIZER IS ENABLED.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
1. EXHAUST FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
2. EXHAUST FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.

FILTER DIFFERENTIAL PRESSURE:
THE CONTROLLER SHALL MONITOR THE FILTER DIFFERENTIAL PRESSURE.
ALARMS SHALL BE PROVIDED AS FOLLOWS:
1. FILTER CHANGE REQUIRED: FILTER DIFFERENTIAL PRESSURE EXCEEDS USER DEFINABLE AMOUNT (ADJ.).

MIXED AIR TEMPERATURE:
THE CONTROLLER SHALL MONITOR THE MIXED AIR TEMPERATURE AND USE AS REQUIRED FOR ECONOMIZER CONTROL.
ALARMS SHALL BE PROVIDED AS FOLLOWS:
1. HIGH MIXED AIR TEMP: IF THE MIXED AIR TEMPERATURE IS GREATER THAN 90 DEG. F (ADJ.).
2. LOW MIXED AIR TEMP: IF THE MIXED AIR TEMPERATURE IS LESS THAN 45 DEG. F (ADJ.).

FILTER DIFFERENTIAL PRESSURE:
THE CONTROLLER SHALL MONITOR THE FILTER DIFFERENTIAL PRESSURE.
ALARMS SHALL BE PROVIDED AS FOLLOWS:
1. FILTER CHANGE REQUIRED: FILTER DIFFERENTIAL PRESSURE EXCEEDS USER DEFINABLE AMOUNT (ADJ.).

MIXED AIR TEMPERATURE:
THE CONTROLLER SHALL MONITOR THE MIXED AIR TEMPERATURE AND USE AS REQUIRED FOR ECONOMIZER CONTROL.
ALARMS SHALL BE PROVIDED AS FOLLOWS:
1. HIGH MIXED AIR TEMP: IF THE MIXED AIR TEMPERATURE IS GREATER THAN 90 DEG. F (ADJ.).
2. LOW MIXED AIR TEMP: IF THE MIXED AIR TEMPERATURE IS LESS THAN 45 DEG. F (ADJ.).

RETURN AIR HUMIDITY:
THE CONTROLLER SHALL MONITOR THE RETURN AIR HUMIDITY AND USE AS REQUIRED FOR ECONOMIZER OR HUMIDITY CONTROL.
ALARMS SHALL BE PROVIDED AS FOLLOWS:
1. HIGH RETURN AIR HUMIDITY: IF THE RETURN AIR HUMIDITY IS GREATER THAN 70% RELATIVE HUMIDITY (ADJ.).
2. LOW RETURN AIR HUMIDITY: IF THE RETURN AIR HUMIDITY IS LESS THAN 35% RELATIVE HUMIDITY (ADJ.).

RETURN AIR TEMPERATURE:
THE CONTROLLER SHALL MONITOR THE RETURN AIR TEMPERATURE AND USE AS REQUIRED FOR SETPOINT CONTROL OR ECONOMIZER CONTROL.
ALARMS SHALL BE PROVIDED AS FOLLOWS:
1. HIGH RETURN AIR TEMP: IF THE RETURN AIR TEMPERATURE IS GREATER THAN 90 DEG. F (ADJ.).
2. LOW RETURN AIR TEMP: IF THE RETURN AIR TEMPERATURE IS LESS THAN 45 DEG. F (ADJ.).

DISCHARGE AIR TEMPERATURE:
THE CONTROLLER SHALL MONITOR THE DISCHARGE AIR TEMPERATURE.
ALARMS SHALL BE PROVIDED AS FOLLOWS:
1. HIGH SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS GREATER THAN 100 DEG. F (ADJ.).
2. LOW SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS LESS THAN 45 DEG. F (ADJ.).

1 / M001 — RTU-01,02, & 0B GAS HEATING, DX COOLING, ECONOMIZER SEQUENCE OF OPERATION

SCALE: NONE

HVAC SYMBOL LIST

SYMBOL	DESCRIPTION
	EXISTING WORK TO BE REMOVED
	POINT OF CONNECTION
	POINT OF DISCONNECTION
MBH	THOUSAND BTU/HOUR
NTS	NOT TO SCALE
(E)	EXISTING
(L)	ACOUSTIC THERMAL LINING - 1½" THICK
(2L)	ACOUSTIC THERMAL LINING - 2" THICK
(DBL)	DOUBLE WALL LINED DUCT
FPM	FEET PER MINUTE
CFM	CUBIC FEET PER MINUTE
AFF	ABOVE FINISHED FLOOR
AD	ACCESS DOOR
W/W	WALL TO WALL
G.C.	GENERAL CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
E.C.	ELECTRICAL CONTRACTOR
N.O.	NORMALLY OPEN
N.C.	NORMALLY CLOSED
	FLEXIBLE DUCTWORK
AxB FO	DUCT SECTION - FLAT OVAL (FO)
12"	ROUND DUCT - IN INCHES
	DUCT SECTION - SUPPLY
	DUCT SECTION - RETURN
A, B	WIDTH A x DEPTH B

SINGLE LINE	DOUBLE LINE	DUCT TAKEOFFS
		TRANSITION SQUARE TO ROUND
R	R	RISE IN DUCT - IN DIRECTION OF AIRFLOW
D	D	DROP IN DUCT - IN DIRECTION OF AIRFLOW
DN 24x12 UP	DN 24x12 UP	SUPPLY DUCT TURNING UP OR DOWN
DN 24x12 UP	DN 24x12 UP	RETURN DUCT TURNING UP OR DOWN
24x12, 14x8	24x12, 6" BOOT TAP, 14x8	SUPPLY/RETURN RECTANGULAR MAIN RECTANGULAR BRANCH
24x12, 14"	24x12, 6" BOOT TAP, 14"	SUPPLY/RETURN RECTANGULAR MAIN ROUND BRANCH
18", 14"	18", CONICAL TEE, 14"	SUPPLY/RETURN ROUND MAIN ROUND BRANCH
18", 14"	18", LATERAL, 14"	SUPPLY/RETURN ROUND MAIN ROUND BRANCH
		MITERED ELBOW WITH TURNING VANES

SYMBOL	DESCRIPTION
	SUPPLY DIFFUSER, REGISTER OR GRILLE
	RETURN OR EXHAUST REGISTER OR GRILLE
	FIN TUBE RADIATION
	VALANCE
A / B / C	REGISTER, GRILLE OR DIFFUSER TAG A = TYPE B = NECK SIZE C = CFM
FT-A / B / C / D	FIN TUBE RADIATION TAG FT-A = TYPE B = FIN TUBE LENGTH C = ENCLOSURE LENGTH D = GPM
A / B / C / D	VALANCE TAG A = TYPE B = COIL SIZE C = COOLING GPM D = HEATING GPM
5	AIR TERMINAL UNIT AND TAG (OPTION 1)
A / B / C	AIR TERMINAL UNIT TAG (OPTION 2) A = UNIT NO. B = MAXIMUM CFM C = MINIMUM CFM
DSD	DUCT SMOKE DETECTOR
H	HUMIDISTAT
S	TEMPERATURE SENSOR
T, TE	PNEUMATIC/ELECTRIC THERMOSTAT
TG, SG	THERMOSTAT/SENSOR WITH GUARD

SYMBOL	DESCRIPTION
A	COMPRESSED AIR
V	VENT
BBD	BOILER BLOW DOWN
CS	CONDENSER WATER SUPPLY
CR	CONDENSER WATER RETURN
CWS	CHILLED WATER SUPPLY
CWR	CHILLED WATER RETURN
D	DRAIN
FOF	FUEL OIL FILL
FOG	FUEL OIL GAUGE
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
FOV	FUEL OIL TANK VENT
G	GAS
GS	GLYCOL SUPPLY
GR	GLYCOL RETURN
DTS	DUAL TEMPERATURE WATER SUPPLY
DTR	DUAL TEMPERATURE WATER RETURN
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
LPS	LOW PRESSURE STEAM
LPC	LOW PRESSURE CONDENSATE
MPS	MEDIUM PRESSURE STEAM
MPC	MEDIUM PRESSURE CONDENSATE
HPS	HIGH PRESSURE STEAM
HPC	HIGH PRESSURE CONDENSATE
PC	PUMPED CONDENSATE
RD	REFRIGERANT DISCHARGE
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
HG	HOT GAS
VAC	VACUUM
CW	DOMESTIC COLD WATER
TD	TRIPLE DUTY VALVE
	GLOBE VALVE
	BALL VALVE
	GATE VALVE
	CONTROL VALVE
	THREE WAY CONTROL VALVE
	CHECK VALVE
	BALANCING VALVE
	BUTTERFLY VALVE
	RELIEF VALVE
PRV	PRESSURE REDUCING VALVE
	PRESSURE/TEMPERATURE TEST PLUG
	SINGLE LINE PIPE OR DUCT CONTINUED
	DOUBLE LINE PIPE OR ROUND DUCT CONTINUED
	DOUBLE LINE RECTANGULAR DUCT CONTINUED
	AIR FLOW
	PIPE ANCHOR
	PIPE GUIDE
	EXPANSION COMPENSATOR WITH GUIDES
	PRE-FAB EXPANSION LOOP
	STRAINER
	PRESSURE GAUGE
	THERMOMETER
	UNION
V	AIR VENT
TT	THERMOSTATIC TRAP
FT	FLOAT & THERMOSTATIC TRAP
TD	THERMODYNAMIC TRAP
BT	BUCKET TRAP
	DIRECTION OF FLOW
	REDUCER
	CAP OR PLUG
	ELBOW DOWN
	ELBOW UP
	BOTTOM TAP
AAD	AUTOMATIC AIR DAMPER
FD	FIRE DAMPER
SD	SMOKE DAMPER
BDD	BACK DRAFT DAMPER
FC	FLEX CONNECTOR - DUCTWORK
M	MOTORIZED DAMPER
BG	BLAST GATE
	VOLUME DAMPER
SD	SUCTION DIFFUSER
	FLEXIBLE CONNECTOR - PIPING
	DRAIN VALVE WITH HOSE CONNECTION, CAP AND CHAIN
FS	WATER FLOW SENSOR
TS	WATER TEMPERATURE SENSOR
SP	STATIC PRESSURE SENSOR

MECHANICAL SYSTEMS GENERAL NOTES

A. ALL PIPING IS TO BE RUN CONCEALED IN FINISHED AREAS. COORDINATE PIPING INSTALLATION WITH WORK OF OTHER TRADES TO ENSURE CONCEALMENT.

B. COORDINATE ALL EQUIPMENT LOCATIONS AND INSTALLATION WITH THE WORK OF OTHER TRADES. COORDINATE EQUIPMENT WITH WALL, CEILING AND FLOOR FINISHES.

C. COORDINATE DIFFUSER AND GRILLE LOCATIONS WITH LIGHTING, FIRE DETECTION, AND CEILING. COORDINATE DUCTWORK WITH LIGHTING AND PIPING INSTALLERS TO ALLOW CLEARANCE FOR LIGHT FIXTURES, PIPING AND WORK OF OTHER TRADES.

D. COORDINATE LOUVER, DIFFUSER AND GRILLE FRAME TYPES TO MATE AND MATCH ADJACENT WALL AND CEILING CONSTRUCTION.

E. COORDINATE DUCTWORK WITH WORK OF OTHER TRADES TO ENSURE ALL DUCTWORK IS CONCEALED. COORDINATE EXACT DIFFUSER AND GRILLE LOCATIONS TO MATCH ARCHITECTURAL REQUIREMENTS FOR SPACING AND CENTERING.

F. PROVIDE MANUAL BALANCING DAMPERS FOR ALL DUCT BRANCHES SERVING SUPPLY DIFFUSERS, RETURN AIR GRILLES, LINEAR SLOTS AND EXHAUST AIR GRILLES.

G. UNLESS OTHERWISE NOTED PROVIDE DRAINS AT LOW POINTS. DRAINS SHALL BE CONSTRUCTED WITH 3/4" BALL VALVE WITH HOSE CONNECTION AND END CAP.

H. VERIFY THAT EQUIPMENT MATCHES FIELD VOLTAGE. COORDINATE WITH ELECTRICAL CONTRACTOR FOR REQUIREMENTS PRIOR TO ORDER.

I. INSTALLATION SHALL PROVIDE FOR SERVICE ACCESS AREAS. CONFIRM LOCATIONS AND SERVICEABILITY PRIOR TO ORDER.

J. COORDINATE ANY INTERRUPTION OF UTILITY SERVICES WITH OWNER.

K. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL WORK. REFER TO STRUCTURAL DRAWINGS FOR EXACT LOCATIONS OF BUILDING STRUCTURAL ELEMENTS. COORDINATE ALL EQUIPMENT LOCATIONS, CONCEALMENT AND SURFACE FINISH TREATMENTS WITH WORK OF ALL TRADES. IN ANY CASE OF DISCREPANCY BETWEEN THE PLANS OR IN ANY CASE WHERE SUCH ISSUES REQUIRE CLARIFICATION, NOTIFY ENGINEER IN WRITING.

L. ALL PIPING AND DUCTWORK SIZES INDICATED ARE MINIMUM SIZES. LARGER SIZES MAY BE INSTALLED BY THE CONTRACTOR IN ALL CASES. EXISTING SURFACES, SUBSTRATES, OR STRUCTURE WHICH ARE PENETRATED, ALTERED OR DAMAGED IN ANY WAY BY THE WORK ASSOCIATED WITH THIS CONTRACT SHALL BE REPAIRED SO AS TO MATCH ORIGINAL SURFACE, SUBSTRATE, OR STRUCTURE.

M. ALL SURFACE MOUNTED EQUIPMENT SHALL BE FASTENED WITH ANCHORS OR FASTENERS AS SPECIFIED FOR THE SUBSTRATE. PLASTIC OR FIBER SHIELDS ARE NOT ACCEPTABLE.

N. DRAWINGS ARE DIAGRAMATIC, AND DO NOT SHOW ALL RISES, DROPS, OFFSETS, AND ROUTING TO AVOID OBSTRUCTIONS. CONTRACTOR SHALL BE RESPONSIBILE FOR FIELD CONDITIONS REQUIRING ADDITIONAL MATERIAL QUANTITIES.

O. PROVIDE LABOR, MATERIALS, EQUIPMENT AND SERVICES AS REQUIRED FOR THE COMPLETE INSTALLATION DESIGNED IN THE CONTRACT DRAWINGS TO PERFORM AS DESCRIBED IN THE SEQUENCE OF OPERATIONS. PROVIDE WIRING AND CONDUIT REQIRED TO CONNECT DEVICES. CONTROL WIRING IS DEFINED AS WIRING UP AND INCLUDING 120 VOLTS. INSTALL WIRING IN ACCORDANCE WITH REQUIRMENTS OF "ELECTRICAL WIRING" IN SECTION 230504 AND THE NATIONAL ELECTRICAL CODE. PROVIDE ALL REQUIRED DEVICES FOR PROPER SYSTEM OPERATION, INCLUDING SPECIAL ELECTRICAL SWITCHES, TRANSFORMERS, RELAYS, PUSHBUTTON STATIONS ETC. ALL ACTUATION OF DAMPERS SHALL BE ELECTRIC.

P. PITCH CONDENSATE DRAIN PIPING AT 1" PER 10'-0 TOWARDS FLOOR DRAIN, SLOP SINK OR HUB DRAIN

Q. CONTRACTOR SHALL REFER TO SPECIFICATIONS FOR SPACING OF EQUIPMENT HANGERS. PRIOR TO COMMENCEMENT OF WORK, COORDINATE LOCATION OF CEILING EQUIPMENT HANGERS WITH GC.

R. REFER TO DETAIL SHEET M501 FOR DETAILS APPLICABLE TO ALL DRAWINGS, REGARDLESS IF THEY ARE SPECIFICALLY REFERENCED OR NOT.

S. PROVIDE INSULATED REFRIGERANT PIPING BETWEEN INDOOR HEAT PUMP UNITS AND OUTDOOR AIR COOLED CONDENSING UNITS. REFER TO DRAWINGS FOR ROUTING. PIPING SHALL BE SIZED AND INSTALLED AS PER HEAT PUMP MANUFACTURER'S INSTRUCTIONS AND ACTUAL FIELD PIPE LENGTHS. CAULK AND SEAL REFRIGERANT PIPE PENETRATIONS THROUGH EXTERIOR WALL (SEAL WEATHER TIGHT).

BID SET 9-18-20

M/E ENGINEERING
Mechanical/Electrical Engineering Consultants
M/E Project #: 203095
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DATE: 9/18/2020
REVISED:

PROJECT NO: 203095
DESIGNED BY: CDM
DRAWN BY: WRW
CHECKED BY: RSA
SCALE: AS NOTED
NOTES:

MECHANICAL GENERAL NOTES, SYMBOL LIST, DRAWING LIST

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M001

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