



MANUFACTURER SHALL FURNISH AND/OR INSTALL ALL NECESSARY CONTROL DEVICES TO ACCOMPLISH THE FOLLOWING SEQUENCE OF OPERATION (REFER TO RESPONSIBILITY SCHEDULE FOR FIELD INSTALLATION REQUIREMENTS):

DURING OCCUPIED HOURS WHEN THE OUTDOOR TEMPERATURE IS ABOVE 55 DEGREES FAHRENHEIT THE AIR HANDLING UNIT WILL BE SUPPLIED WITH 44 DEGREE FAHRENHEIT CHILLED WATER. WHEN IN THE OCCUPIED MODE, THE AIR HANDLING UNIT FAN WILL BE ENERGIZED, THE OUTDOOR AIR/RETURN AIR DAMPER AC SHALL OPEN THE OUTDOOR AIR DAMPER TO THE MINIMUM POSITION (ADJUSTABLE). AS THE SPACE TEMPERATURE RISES ABOVE THE ROOM TEMPERATURE SET COOLING SETPOINT OF 73 DEGREES FAHRENHEIT (ADJUSTABLE), THE CONTROL VALVE IN THE CHILLED WATER PIPE SHALL MODULATE TO MAINTAIN ROOM SET TEMPERATURE.

WHEN THE OUTDOOR TEMPERATURE BELOW 55 DEGREES FAHRENHEIT THE AIR HANDLING UNIT WILL CLOSE THE CHILLED WATER CONTROL VALVE. AS THE TEMPERATURE RISES ABOVE THE ROOM TEMPERATURE COOLING SETPOINT (ADJUSTABLE), THE OUTDOOR AIR/RETURN AIR DAMPER ACTUATOR SHALL CLOSE. THE OUTDOOR AIR/RETURN AIR DAMPERS TO SATISFY ROOM TEMPERATURE COOLING SETPOINT, AS THE SPACE TEMPERATURE FALLS BELOW THE ROOM TEMPERATURE COOLING HEAT SETPOINT (ADJUSTABLE) THE OUTSIDE AIR/RETURN AIR DAMPER ACTUATOR SHALL MODULATE THE OUTSIDE AIR FLOW TO THE MINIMUM POSITION, AND THE ELECTRIC RESISTANCE HEATER SHALL BE ENERGIZED IN STAGES (WHERE APPLICABLE), IF THE MIXED AIR TEMPERATURE DROPS 40 DEGREES FAHRENHEIT (ADJUSTABLE) AS SENSED BY A LOW LIMIT THERMOSTAT SENSITIZED AGAINST THE CHILLED WATER COIL ENTERING AIR SIDE. THE AIR DAMPER SHALL CLOSE, THE RETURN AIR DAMPER SHALL OPEN, AND THE ELECTRIC HEATER (WHERE APPLICABLE) SHALL BE FULLY ENERGIZED AND THE WATER VALVE SHALL FULLY OPEN.

DURING UNOCCUPIED MODE, THE AIR HANDLING UNIT FAN WILL BE DEENERGIZED, AND THE OUTDOOR AIR/RETURN AIR DAMPER ACTUATOR SHALL CLOSE THE AIR DAMPER. AS THE SPACE TEMPERATURE FALLS BELOW THE ROOM TEMPERATURE SENSOR UNOCCUPIED HEATING SETPOINT (ADJUSTABLE), AIR HANDLING UNIT FAN SHALL START, AND THE ELECTRIC HEAT SHALL BE FULLY ENABLED (WHERE APPLICABLE). WHEN THE SPACE TEMPERATURE RISES 5 DEGREES FAHRENHEIT ABOVE ROOM TEMPERATURE SENSOR UNOCCUPIED HEATING SETPOINT THE AIR HANDLING UNIT FAN AND HEATER SHALL BE DEENERGIZED.

RELIEF FAN (WHERE APPLICABLE) SHALL BE ENERGIZED WHENEVER THE SUPPLY FANS ARE OPERATING, AND THE MIXING BOXES ARE IN THE ECONOMIZER MODE OF OPERATION. THE RELIEF FAN SPEED SHALL BE VARIED THROUGH A VARIABLE FREQUENCY DRIVE CONTROLLED BY SPACE PRESSURE DIFFERENTIAL RELATIVE TO OUTDOOR AIR PRESSURE. FAN SPEED SHALL MODULATE TO MAINTAIN A SPACE PRESSURE OF 0.05" POSITIVE RELATIVE TO OUTDOOR PRESSURE. RELIEF DAMPER SHALL OPEN WHENEVER RELIEF FAN IS ENERGIZED.

A MANUFACTURER PROVIDED OR FIELD INSTALLED PAN OVERFLOW SWITCH WILL DISABLE ALL FANS, COOLING, HEATING, AND CLOSE OUTDOOR AIR DAMPER IF WATER IS SENSED IN THE PAN.

A FIELD INSTALLED CO2 SENSOR SHALL MODULATE THE OUTDOOR AIR DAMPER DURING OCCUPIED OPERATION BETWEEN SCHEDULED OA FLOW CFM AND MIN OA FLOW TO MAINTAIN A CO2 CONCENTRATION BETWEEN 1000PPM AND 500PPM.

A DUCT MOUNTED SMOKE DETECTOR SHALL DEENERGIZE THE AIR HANDLING UNIT FAN AND TOILET EXHAUST FAN, AND CLOSE THE OUTDOOR AIR DAMPER IN OCCUPIED AND UNOCCUPIED MODES WHENEVER SMOKE IS SENSED.

SETPOINTS:

OCCUPIED	HEATING:	70°F	COOLING:	74°F
UNOCCUPIED	HEATING:	60°F	COOLING:	85°F

NETWORK WIRING AND SEQUENCE	NTS	E 02/18/1
	00D-M0401-E05-SCHD	

HVAC RESPONSIBILITY SCHEDULES	NTS	<div style="font-size: 2em; font-weight: bold; margin: 0;">A</div> <div style="font-size: 0.8em; margin: 0;">09/13/1</div>
	00D-M0401-A00-SCHD	

[illegible]

REVISIONS:

REQUIRED BY:	DATE
ELITE CONSTRUCTION GROUP LAKE JACKSON-TX PHONE: 979-285-0712 NOTE:-THESE PRINTS HAVE BEEN REDUCED BY 50 PERCENT. SCALE WILL BE 50 PERCENT OF WHAT IS NOTED ON PLANS	
DATE ISSUED:	9/26/14
DESIGNED BY:	MAR
DRAWN BY:	TBA
CHECKED BY:	JMZ

DRAWING NUMBER:
M04.01