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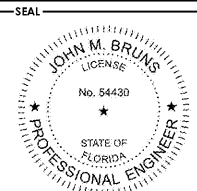
PROJECT

Office DEPOT
STORE #0409
BOCA RATON, FL

4901 N. FEDERAL HIGHWAY
BOCA RATON, FL 33431

ISSUE DATE: 11/09/2018
STORE NUMBER: #0409
LEASABLE AREA: 29,701 S.F.
GROSS FLOOR AREA: 28,752 S.F.
JOB NUMBER: 2018.012000

Table with 2 columns: ISSUED FOR BIDDING, DATE



JOHN M. BRUNS
#54430 | EXP. 02/28/2019

SHEET
MECHANICAL NOTES

DRAWN: DJH
CHECKED: JMB

M401

EQUIPMENT OPERATING CHECK

EQUIPMENT OPERATING CHECK (EOC):

SYSTEMS COMMISSIONING (SCM) PROVIDES EMS PROGRAMMING AND START UP AND TESTING (2 DAYS REQUIRED). CONTRACTOR MUST HAVE ALL EMS REQUIRED WIRING COMPLETE PRIOR TO SYSTEM COMMISSIONING. THE INSTALLING HVAC CONTRACTOR SHALL HAVE AT LEAST ONE QUALIFIED TECHNICIAN PRESENT TO CORRECT ANY PROBLEMS OR DEFICIENCIES DISCOVERED IN THE UNIT OR CONTROL PERFORMANCE. CORRECTIONS SHALL OCCUR DURING THE 2 DAY START UP AND TESTING PERIOD.

THE HVAC CONTRACTOR SHALL PREPARE A REPORT TO ENTEK CONCERNING THE EQUIPMENTS' ACTUAL PERFORMANCE DURING THE EOC. THE ENTEK REPRESENTATIVE'S VISIT WILL BE COORDINATED BETWEEN THE CONTRACTOR AND ENTEK. THE VISIT IS TYPICALLY JUST BEFORE THE STORE FIXTURING DATE. THE HVAC CONTRACTOR WILL RECEIVE A PRE-VISIT CHECKLIST WHICH MUST BE COMPLETED AND FAXED BACK TO ENTEK AT LEAST ONE WEEK PRIOR TO THE VISIT.

PERFORM TEST AND BALANCE PER SPECIFICATION SECTION 15700 AS PART OF THE EOC PRIOR TO THE ENTEK VISIT.

FAILURE TO COMPLETE THE WORK PRIOR TO THE VISIT OR FAILURE TO MAKE PERSONNEL AVAILABLE DURING THE VISIT AS OUTLINED ABOVE MAY RESULT IN PUNCHLIST ITEMS THAT WILL REQUIRE A RETURN VISIT BY THE ENTEK REPRESENTATIVE IN ORDER TO VERIFY EQUIPMENT OPERATION. ALL COSTS ASSOCIATED WITH RETURN VISIT(S) BY THE ENTEK REPRESENTATIVE WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

COMMISSIONING
CONTRACTOR SHALL REVIEW THE SPECIFICATIONS FOR A COMPLETE LIST OF RESPONSIBILITIES ASSOCIATED WITH THE COMMISSIONING PROCESS.

SEQUENCE OF OPERATIONS

- I. GENERAL
A. OVERVIEW
1.) ALL CONTROL FUNCTIONS DESCRIBED BELOW ARE SET VIA THE EMS COMMUNICATION BUS. OVERRIDE IS PROVIDED AT THE EMS SYSTEM OVERRIDE PANEL IN THE MANAGER'S OFFICE FOR SAFETY AND SECURITY. SETPOINTS FOR TIME-OF-DAY FUNCTIONS AND TEMPERATURE FUNCTIONS ARE DETERMINED AND SET BY OFFICE DEPOT.
2.) MOST TEMPERATURE CONTROL IS PROVIDED THROUGHOUT THE BUILDING VIA THE EMS SYSTEM. SOME EQUIPMENT HAS LOCAL INDIVIDUAL CONTROL PROVIDED BY A THERMOSTAT, INDEPENDENT OF THE EMS.
B. ENERGY CODE COMPLIANCE
1.) THE HVAC AND LIGHTING SPECIFICATIONS, AND WITH THE CONTROL FUNCTIONS LISTED BELOW, ARE MEANT TO CONFORM WITH THE ENERGY CODE IN FORCE. CONTRACTOR SHALL CONFORM WITH ENERGY CODE REQUIREMENTS.
II. AIR CONDITIONING SYSTEM (HVAC) CONTROL
A. ROOFTOP UNIT (RTU) CONTROL
1.) DESCRIPTION: DIRECT CONTROL OF THE ROOFTOP PACKAGED UNITS THAT PROVIDE COOLING AND HEATING WITHIN THE STORE, WITH NO MORE THAN TWO STAGES OF COOLING AND TWO STAGES OF HEATING. GLOBAL ECONOMIZER CONTROL IS PROVIDED WHERE INDICATED.
2.) SCHEDULES: EACH STORE WILL BE INDIVIDUALLY PROGRAMMED BASED ON THE STORE OPERATING HOURS.
3.) SETPOINTS: A FIXED ZONE TEMPERATURE SETPOINT WILL BE UTILIZED FOR ALL ROOFTOP UNITS. BELOW ARE THE DEFINED SETPOINTS FOR ALL STORES:
a. OCCUPIED: COOLING: 75 DEG F HEATING: 70 DEG F
b. UNOCCUPIED (SETBACK): COOLING: 85 DEG. F; HEATING: 55 DEG F
4.) DAMPER & FAN CONTROL:
a. DURING UNOCCUPIED PERIODS, THE OUTSIDE AIR DAMPERS SHALL BE CLOSED AND THE FAN SHALL RUN INTERMITTENTLY WITH THE HEATING OR COOLING FUNCTION IN ACCORDANCE WITH THE NIGHT SETBACK FUNCTION OF THE EMS ON DEMAND OF THE ZONE SENSOR.
b. UNITS WITH DEMAND CONTROL VENTILATION: DURING OCCUPIED PERIODS, THE OUTSIDE AIR DAMPERS SHALL BE OPEN TO MINIMUM POSITION AND THE FAN SHALL RUN CONTINUOUS. WHERE INDICATED, THE PACKAGED COOLING AND HEATING UNITS SHALL COME EQUIPPED WITH ECONOMIZER CONTROL TO TAKE ADVANTAGE OF FREE COOLING WHEN THE OUTSIDE AIR TEMPERATURE IS BELOW THE TEMPERATURE INDICATED IN ASHRAE 90.1-2013 TABLE 6.5.1.1.3. WHERE INDICATED, THE EMS DEMAND CONTROLLED VENTILATION (DCV) FEATURE SHALL MODULATE THE OUTSIDE AIR DAMPERS TO MAINTAIN INDOOR AIR QUALITY BY KEEPING THE CO2 PARTS/MILLION LESS THAN 1000 PPM. ENTEK SHALL MAKE THIS SETTING ADJUSTMENT IN THE FIELD.
c. UNITS WITHOUT DEMAND CONTROL VENTILATION: DURING OCCUPIED PERIODS, THE OUTSIDE AIR DAMPERS SHALL BE OPEN TO OA SETTING INDICATED AND THE FAN SHALL RUN INTERMITTENTLY. WHERE INDICATED, THE PACKAGED COOLING AND HEATING UNITS SHALL COME EQUIPPED WITH ECONOMIZER CONTROL TO TAKE ADVANTAGE OF FREE COOLING WHEN THE OUTSIDE AIR TEMPERATURE IS BELOW THE TEMPERATURE INDICATED IN ASHRAE 90.1-2013 TABLE 6.5.1.1.3.
5.) HOT GAS REHEAT CONTROL: (AS APPLICABLE)
a. DURING PERIODS OF NO DEHUMIDIFICATION DEMAND, THE UNIT SHALL OPERATE CONVENTIONALLY IN HEATING AND COOLING MODE AS NEEDED TO MAINTAIN SPACE TEMPERATURE. ECONOMIZER MODE SHALL ONLY BE AVAILABLE WHEN THERE IS NO DEMAND FOR DEHUMIDIFICATION.
b. DURING PERIODS OF DEHUMIDIFICATION DEMAND AND NO COOLING DEMAND, HOT GAS REHEAT AND STAGE ONE COOLING SHALL INITIATE PROVIDING A SUPPLY AIR DISCHARGE TEMPERATURE OF 68-75 DEGREES WHEN THE SPACE RELATIVE HUMIDITY IS 60% (ADJUSTABLE) OR ABOVE.
c. DURING PERIODS OF DEHUMIDIFICATION AND SINGLE STAGE COOLING DEMAND, HOT GAS REHEAT AND STAGE TWO COOLING SHALL INITIATE PROVIDING A SUPPLY AIR DISCHARGE TEMPERATURE OF 68-75 DEGREES.
d. DURING PERIODS OF DEHUMIDIFICATION AND SECOND STAGE COOLING DEMAND, THE UNIT SHALL OPERATE IN FULL COOLING MODE AND REHEAT OPERATION SHALL BE DEACTIVATED.
6.) OVERRIDE CAPABILITIES: THE RTU'S CAN BE OVERRIDDEN THROUGH THE CORPORATE REMOTE COMMUNICATION PORTAL.
B. EXHAUST FAN CONTROL
1.) DESCRIPTION: ON-OFF CONTROL OF EXHAUST FANS.
2.) THE RESTROOM EXHAUST FAN(S) IS/ARE CONTROLLED BY A MOTION SENSOR ONLY. DURING OCCUPIED PERIODS, THE FAN/LIGHT SHALL RUN CONTINUOUSLY. DURING UNOCCUPIED PERIODS, THE FAN/LIGHT SHALL TURN OFF AFTER A PREDETERMINED TIME DELAY. REFER TO ELECTRICAL DRAWINGS FOR EXHAUST FAN/LIGHT CONTROL.
3.) THE ASSOCIATE LOUNGE EXHAUST FAN IS CONTROLLED BY SEPARATE SWITCH.
III. OTHER CONTROL & EMS ISSUES
A. REMOTE COMMUNICATION:
1.) REMOTE ACCESS TO THE EMS IS VIA DSL OR OTHER BROADBAND CONNECTION. ALL MONITORING, ALARMING, AND PROGRAMMING IS ACCESSIBLE THROUGH THIS DEDICATED CONNECTION.
2.) OFFICE DEPOT WILL PROVIDE A NETWORK INTERFACE TO THE EMS CONTROLLER.
IV. EMS NOTES FOR CONTRACTOR
A. GENERAL NOTES
1.) OFFICE DEPOT'S EMS CHECKOUT VENDOR ENTEK WILL PROVIDE A CHECKOUT OF THE CONTROL SYSTEM AS PART OF ITS GLOBAL ACCOUNT AGREEMENT WITH OFFICE DEPOT. THE CHECKOUT INCLUDES VERIFICATION THAT THE CONTROLS INSTALLATION IS COMPLETE AND THAT THE BUILDING FUNCTIONS AS INTENDED.
2.) MECHANICAL CONTRACTOR IS RESPONSIBLE FOR COMPLETING AN "OFFICE DEPOT MECHANICAL PRE-VISIT CHECKLIST FORM" TO BE OBTAINED FROM OFFICE DEPOT PROJECT MANAGER, AND SENDING IT TO ENTEK. THE MC MUST BE ON SITE DURING THE CHECKOUT ACTIVITY.
3.) FOLLOWING INSTALLATION BY THE MC AND CHECKOUT BY ENTEK, A DEFICIENCY REPORT WILL BE PREPARED BY ENTEK AND ISSUED WITH THE PROJECT PUNCH LIST TO THE GC. MC SHALL COMPLETE ALL ITEMS ON THE DEFICIENCY REPORT BEFORE LEAVING SITE.
B. COMMISSIONING
1.) CONTRACTOR SHALL REVIEW THE SPECIFICATIONS FOR A COMPLETE LIST OF RESPONSIBILITIES ASSOCIATED WITH THE COMMISSIONING PROCESS.