

PART 1 General

1.1 GENERAL

- .1 All new control components to match existing Honeywell base building control system and to be compatible with, and tie into existing base building control system.
- .2 In addition to and coordination with points schedule changes, base building control system head end graphics are to be revised and updated to reflect new floor plans, new zoning of HVAC and new thermostat locations.
- .3 Work to be completed by Honeywell base building control contractor. Contact is Kirk Faddis, Honeywell Edmonton, Ph: 780-968-6400.

PART 2 Products

2.1 NOT USED

PART 3 Execution

3.1 ALARMS

- .1 Provide means to indicate the following alarm levels as indicated in the sequences of operations specified in this section:
 - .1 ALARM1: urgent alarm (fire or equivalent)
 - .2 ALARM2: urgent maintenance alarm, maintainers to be called out to resolve.
 - .3 ALARM3: indicate alarm only. Maintainers to deal with alarm on next business day

3.2 THERMOSTATS

- .1 Relocate thermostats where noted and upgrade graphics of EMCS to reflect changes in underfloor dividers that affect zoning, and to reflect new thermostat locations.

3.3 FAN COILS AND VAV BOXES

- .1 Set up and calibrate the fan coil terminal units where relocated. VAV box provides 100% outside ventilation air (preheated by central building HRV) to associated Fan Coil. Fan Coil provides heating, cooling and recirculation of air within a zone, all supplied through underfloor plenum to the occupied space.
- .2 Operating Modes:
 - .1 Night Mode: as set by the weekly time clock for each fan coil.

- .2 Night Flush Mode: to purge the building of excess heat overnight. Night Flush mode will be on if OAT is between 10°C and 20°C and Average Room temperatures throughout the facility are greater than 24°C.
 - .3 Day Mode: as set by the weekly time schedule for each fan coil. Implement a means to optimally start each fan coil onto day mode to ensure space temperatures are brought within allowable limits by the time of normal occupancy also there will be two different set points as determined by the lighting occupancy sensors; occupied or standby.
 - .4 Purge Mode: to maximize free cooling when outside air conditions are moderate. Purge Mode will be on when during occupied hours the OAT is between 10 and 20°C.
 - .5 Fire Mode: All fan coils fans are to shut off.
 - .6 Emergency Power Mode: Fan coils to go into Night mode.
- .3 Night Mode:
- .1 Set night set back heating set point to 18°C.
 - .2 If the space requires heating as set by a night set back temperature then the fan coil is to be turned on and the heating coil control valve opened 100%.
 - .3 VAV ventilation air damper to be closed
 - .4 Cooling control valve is closed
- .4 Day Mode:
- .1 Reset heating set point to 20°C.
 - .2 Fans to run continuously
 - .3 The heating control valve and the cooling control valve are to be modulated in sequence to maintain the space temperature at set point.
 - .4 If the space is occupied as determined by the lighting occupancy sensors, then the ventilation air is to be on. The VAV ventilation volume is to be set to minimum if purge mode is off and to be controlled as a VAV supply between minimum and maximum in accordance with space temperature if purge mode is on.
- .5 Night flush mode:
- .1 If room temperature is higher than 20°C and the main air handling unit is on in night flush mode, then start fan coil fan and open the VAV ventilation air to maximum. Heating and cooling control valves are to remain closed.
- .6 Alarms:
- .1 If any room temperature drops below 10°C then initiate an ALARM2.

END OF SECTION