

Addendum #: 1

KBSO Project #: 24023
Project Name: Noblesville HS AHU Replacements – Bid Pack 5
Issue Date: 8/14/2026

This Addendum number 1 to the drawings and specifications shall supplement, amend, and become a part of the bidding documents, plans, and specifications. All bids and construction contracts shall be based on these modifications to the original contract documents.

Part 1. BIDDING AND CONTRACT DOCUMENTS

1.01 Question and answer:

a. **Question:**

- i. Are there any alternates in this project?

b. **Answer:**

- i. No, there are no alternates. Listed below are the specification adjustments required to remove references to alternates. The intent is as follows:
 - 1. Base bid shall include face and bypass preheat coils for the air handlers, consistent with the AHU schedules and notes.
 - 2. Base bid shall include duct sealing for newly added ductwork, but not the “Aeroseal duct sealing” paragraph. Aeroseal is not required.

c. **Question:**

- i. Is all newly added hydronic piping required to be welded?

d. **Answer:**

- i. Yes.

e. **Question:**

- i. M751 shows an entry vestibule/stairwell to the west (plan north) and a similar stairwell to the east (plan south). Can either entry vestibule be used to bring in equipment and materials?

f. **Answer:**

- i. Yes. These vestibules have removable mullions. Verify sizes in field.

g. **Question:**

- i. Can the portable lift that is currently located outside of the mechanical room M16 (for AHU-23) be utilized by the contractors for this project?

h. **Answer:**

- i. Yes.

Part 2. SPECIFICATIONS

2.01 Add 01 10 00 1.6.G, revise to read:

- a. If the contractor elects to utilize a crane for any components or equipment to go in mechanical room M16 (where AHU-23 is located), then all crane work shall be scheduled in the 1st week of summer break (from 6/2/27 through 6/11/27).

2.02 01 23 00 Alternates – remove entire section without replacement.

2.03 23 31 13 2.5.G Aeroseal Duct Sealant (ALTERNATE BID ONLY):

- a. Remove paragraph in its entirety without replacement.
- 2.04 23 31 13 3.3.C.1 revise to read:
 - a. All newly installed ducts shall be sealed as listed.
- 2.05 23 31 13 3.3.C.3 remove in its entirety without replacement.
- 2.06 23 73 13 2.4.C. Revise paragraph heading to remove "(ALTERNATE BID ONLY)".

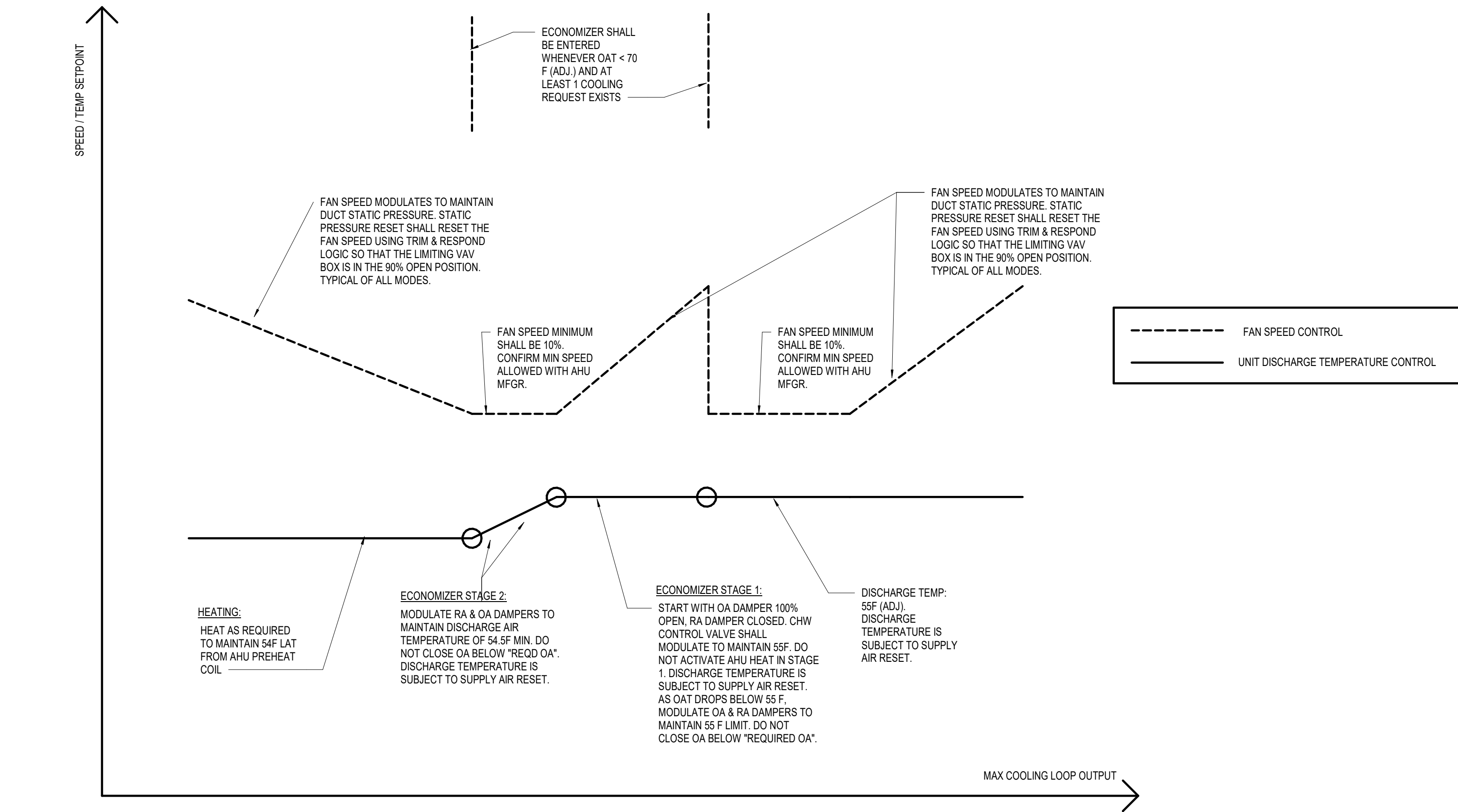
Part 3. DRAWINGS

- 3.01 M851 - SEQUENCE OF OPERATIONS
 - a. Drawing revised to include sequence of operations for AHU-24

ATTACHMENTS:

M851 - SEQUENCE OF OPERATIONS
Pre-bid Sign-In Sheet

END OF ADDENDUM



1 MZ VAV TEMPERATURE MAP BP5

SCHEDULED PRE-COOL PERIODS

1. THE OWNER SHALL HAVE THE ABILITY FROM THE FRONT END TO SCHEDULE A PRECOOL PERIOD DURING THE NIGHT BEFORE AN ANTICIPATED MAXIMUM COOLING DAY (MCD).
2. THE PRECOOL PERIOD SHALL TEMPORARILY OVERRIDE ALL OF THE SPACE SETPOINTS THROUGHOUT THE BUILDING SO THAT THE COOLING SETPOINT IS ADJUSTED TO 80F (ADJ.). THIS SHALL ONLY APPLY DURING PERIODS WHERE THE BUILDING IS UNOCCUPIED AND THE OUTDOOR AIR DAMPERS ARE SHUT.
3. THE START OF THE PRECOOL PERIOD SHALL BE ADJUSTABLE, WITH A DEFAULT OF 1:00 AM (ADJ.).
4. DURING THE PRECOOLING PERIOD THE CHILLER SHALL BE LIMITED TO A MAXIMUM OF 80% CAPACITY BY ADJUSTING THE CHILLED WATER SUPPLY TEMPERATURE SETPOINT.
5. THE END OF THE PRECOOL PERIOD SHALL BE 11:30 AM (ADJ.).
6. ONCE THE BUILDING GOES INTO OCCUPIED MODE DURING THE MCD - THE THERMOSTAT EFFECTIVE SETPOINT SHALL BE GRADUALLY BLENDED FROM THE NIGHT PRECOOL SETPOINT OF 68F TO THE NORMAL COOLING SETPOINT OVER A PERIOD OF 4 HOURS (ADJ.).
7. UPON COMPLETION OF THE MAXIMUM COOLING DAY THE BUILDING SHALL REVERT TO THE NORMAL SETPOINTS AND CONTROL. ALL PARAMETERS SHALL BE ADJUSTABLE.

CONTROLS CHECKOUT PROCEDURE

- A. CONTACT ENGINEER TO COORDINATE A CONTROLS SYSTEM CHECKOUT. ALLOW 3 WORKING WEEKS NOTICE. SCHEDULE MEETING IN APPROPRIATE AMBIENT CONDITIONS FOR THE BOILER AND CHILLER TO OPERATE. ANTICIPATE TWO SEPARATE TESTING DAYS APPROXIMATELY 6 MONTHS APART.
- B. THE FOLLOWING POINTS MUST BE ABLE TO BE OVERRIDDEN FOR EACH AIR SYSTEM AS REQUIRED FOR DEMONSTRATION PURPOSES:

1. OUTDOOR AIR TEMPERATURE
2. SPACE TEMPERATURE
3. OCCUPIED / UNOCCUPIED STATUS

- C. AIR HANDLING UNIT (AHU) SYSTEMS CHECKOUT:

1. A RANDOM AHU WILL BE SELECTED.
2. ENGINEER WILL REQUEST THE AIR SYSTEM START IN MAXIMUM COOLING MODE. INCREMENTALLY BACK PARAMETERS DOWN TO SIMULATE PARTIAL COOLING, THEN ECONOMIZER, THEN HEATING MODES. AFTER FULL HEATING IS REACHED, REVERSE DIRECTION AND RETURN TO FULL COOLING INCREMENTALLY.

- D. VARIABLE AIR VOLUME (VAV) BOX SYSTEM CHECKOUT:

1. A RANDOM SAMPLE OF 5 VAV BOXES WILL BE SELECTED.
2. ENGINEER WILL REQUEST THE AIR SYSTEM START IN MAXIMUM COOLING MODE. INCREMENTALLY BACK PARAMETERS DOWN UNTIL THE VAV BOX MINIMUM FLOW IS REQUESTED FROM THE CONTROLLER.
3. INCREMENTALLY LOWER THE COOLING LOOP OUTPUT (OR INCREASE HEATING LOOP OUTPUT) UNTIL HEATING IS DEMANDED. VERIFY THAT THE VAV BOX DISCHARGE AIR TEMPERATURE INCREASES TO ITS MAXIMUM.
4. LOWER THE LOOP COOLING OUTPUT (OR INCREASE HEATING LOOP OUTPUT) INTO FULL HEATING MODE. VERIFY THE VAV BOX AIRFLOW INCREASES WHILE KEEPING DISCHARGE AIR TEMPERATURE CONSTANT.
5. RETURN TO FULL COOLING INCREMENTALLY.

- G. RETURN FAN

1. VERIFY THAT FANS ARE OPERATIONAL AND RUN WHEN DEMANDED.
2. VERIFY RETURN FAN SPEED TRACKS THE APPROPRIATE CONTROL SIGNAL.

- H. UNIFIED FRONT END CHECKOUT PROCEDURE

1. FOR EACH AHU THAT WAS BROUGHT INTO FRONT END BUT NOT MODIFIED AS PART OF THIS PROJECT:
2. A RANDOM SELECTION OF 2% OF THE TERMINAL UNITS (VAV BOXES) THAT ARE ASSOCIATED WITH EACH AHU WILL BE SELECTED FOR REVIEW:
 - A. OVERRIDE SPACE THERMOSTAT TO SHOW A WARM TEMPERATURE AND CALL FOR MORE COOLING. OBSERVE VAV BOX AIRFLOW AND REHEAT COIL ACTIVATION. REPEAT FOR HEATING.
 - B. A RANDOM SELECTION OF 5% OF EXHAUST FANS WILL BE SELECTED FOR REVIEW.
 - A. VERIFY FAN STATUS. DURING THE PROJECT, CREATE A TREND FOR FAN STATUS CHANGES TO BE TRACKED AND REVIEWED DURING THE CONTROLS CHECKOUT.
 - C. OVERRIDE THE OUTDOOR AIR TEMPERATURE FOR THE AHU TO VERIFY ECONOMIZER OPERATION. CONTINUE TO DROP OUTSIDE AIR TEMPERATURE UNTIL HEATING COIL ACTIVATION.
 - D. OVERRIDE BUILDING PRESSURE TO VERIFY RETURN FAN OPERATION.
3. FOR EACH CHILLER THAT WAS BROUGHT INTO THE FRONT END BUT NOT MODIFIED AS PART OF THIS PROJECT:
 - A. OVERRIDE THE CALLS FOR COOLING TO ENABLE THE CHILLER TO START.
 - B. OBSERVE OPERATION OF THE CHILLER. OBSERVE THAT THE BUILDING CONTROLS SYSTEM IS ABLE TO PROVIDE THE CHILLED WATER SETPOINT (UNLESS CONSTANT).
4. IT IS THE RESPONSIBILITY OF THE T.C.C. TO COORDINATE A TIME TO PERFORM THE CHECKOUT WHEN THE AMBIENT TEMPERATURE IS PROJECTED TO BE ABOVE 45F.

VAV TERMINAL REHEAT

AIR TERMINALS (VAV BOXES) ARE PRESSURE INDEPENDENT SHUTOFF BOXES WITH HOT WATER REHEAT.

1. A DISCHARGE AIR TEMPERATURE SENSOR SHALL BE PROVIDED FOR EACH VAV BOX. DEVICE SHALL BE FURNISHED, WIRED, AND INSTALLED BY 23 09 00.
2. COOLING DESIGN AND MINIMUM CFM SHALL MATCH THE EXISTING VAV BOX SCHEDULES TO BE PROVIDED BY OWNER (LATER). FULL COOLING DEMAND SHALL BE ACCOMPLISHED WITH THE AIR VALVE FULLY OPEN AND THE HHW CONTROL VALVE FULLY CLOSED. A DROP IN COOLING LOAD SHALL CAUSE THE VAV BOX TO MODULATE ITS AIRFLOW DOWN TO ITS SCHEDULED MINIMUM. VAV BOX AIRFLOW OPERATION SHALL BE A SLOW CONTROL VALVE - REACTING TO A STEP CHANGE IN REQUIRED AIRFLOW IN AN APPROXIMATE TIMELINE OF <5 MINUTES.

3. STAGE 1 HEAT: WHERE RADIANT PANELS EXIST WITHIN A ZONE THE RADIANT PANELS SHALL ACT AS THE 1ST STAGE OF HEAT. ALLOW CONTROL VALVE TO MODULATE OPEN TO A MAXIMUM OF 50% (ADJ.). ONCE MAXIMUM VALVE POSITION HAS BEEN REACHED FOR A PERIOD OF 5 MINUTES ALLOW STAGE 2 WARMING.
- NOTE THAT IN ORDER FOR THE RADIANT PANEL STAGE TO BE ENABLED ALL RADIANT PANELS WITHIN A ZONE SHALL BE SERVED BY A SINGLE CONTROL VALVE. T.C.C. SHALL VERIFY IN FIELD.
- PROVIDE A TOGGLE FOR THE OWNER FOR EACH AHU SYSTEM TO DISABLE RADIANT PANEL HEATING FOR ALL THE ZONES SERVED BY THAT AHU.

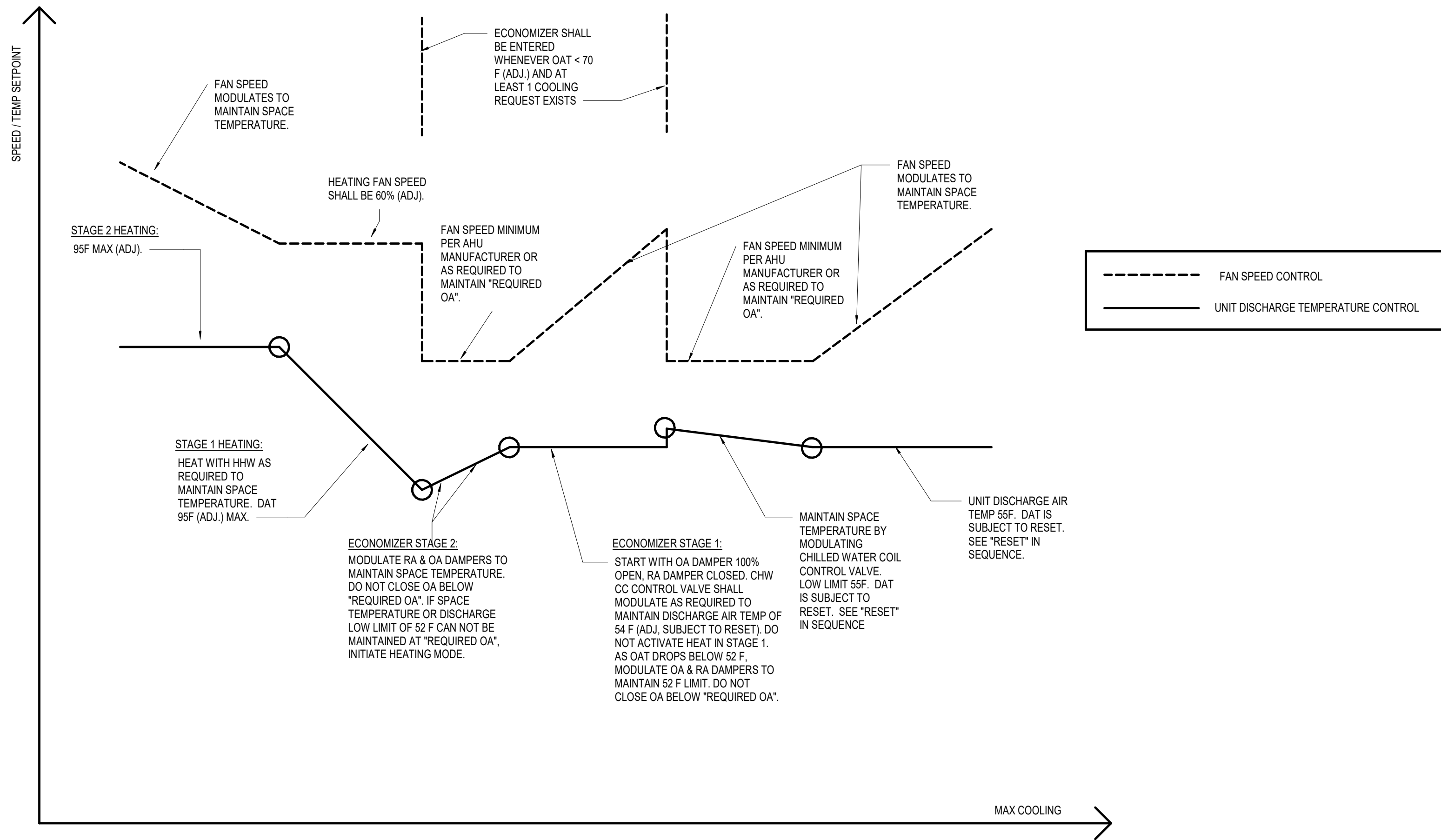
- STAGE 2 HEAT: UPON A CALL FOR HEAT FROM THE SPACE THERMOSTAT, THE HHW CONTROL VALVE SERVING THE AIR TERMINAL (AKA VAV) BOX SHALL MODULATE UP TO A MAXIMUM DISCHARGE AIR TEMPERATURE OF 80F (ADJ. FOR EACH ZONE).

4. ONCE MAXIMUM DISCHARGE TEMPERATURE IS REACHED AND THERE IS STILL A HEATING DEMAND, AIRFLOW THROUGH VAV BOX SHALL MODULATE UP TO THE REHEAT CFM.
5. WHEN THE SPACE OCCUPANCY SENSORS INDICATE THE SPACE IS UNOCCUPIED THE VAV BOX MINIMUM SHALL BE RESET TO ZERO. THIS DOES NOT FORCE VAV BOX TO ZERO UNLESS THE SPACE LOAD ALSO DROPS TO ZERO.

VAV TERMINAL REHEAT POINTS LIST

THE FOLLOWING POINTS SHALL BE ABLE TO BE VIEWED, TRENDED, AND ALARMED AT THE FRONT END INTERFACE. IN ADDITION, THE POINTS INDICATED AS ADJUSTABLE IN THE SEQUENCE SHALL BE ABLE TO BE CONTROLLED FROM THE FRONT END.

DISCHARGE AIR TEMPERATURE
ZONE TEMPERATURE
ZONE SETPOINT
AIR VALVE POSITION
CONTROL VALVE % OPEN (USE CONTROLLER LOOP OUTPUT ONLY - DO NOT USE POSITIONER)



2 SZ VAV TEMPERATURE MAP BP5

AHU-E1 (EAST CAFE) SINGLE ZONE AHU SEQUENCE

1. THE FOLLOWING MODES SHALL BE MADE AVAILABLE FOR SCHEDULING:
 - A. DAY
 - B. NIGHT (SCHEDULED UNOCCUPIED)
2. UNOCCUPIED MODE:
 - A. OUTDOOR AIR DAMPER SHALL BE CLOSED DURING ALL UNOCCUPIED PERIODS. SCHEDULED THROUGH BAS.
 - B. SUPPLY FANS SHALL BE ALLOWED TO RUN DOWN TO THE MINIMUM SPEED ALLOWED BY MFGR. PROVIDE THE MINIMUM SPEED ON SUBMITTAL.
 - C. BELOW THE SAFE MINIMUM SPEED, THE AHU SHALL CYCLE TO SATISFY THE AVERAGE SPACE TEMPERATURE. A DEADBAND OF +/- 3 DEGREES SHALL BE USED FOR THE SPACE AVERAGE TO CYCLE THE FANS.
 - D. MORNING WARM UP:
 - ENABLED AT OUTSIDE AIR TEMPERATURES BELOW 50F (ADJ.).
 - PRIOR TO OCCUPIED MODE BEING ENABLED, AT A TIME DETERMINED BY THE BMS BASED ON OUTSIDE AIR TEMPERATURE AND THE HISTORIC TIME IT TAKES THE INDIVIDUAL ZONES TO REACH OCCUPIED SPACE TEMPERATURE SET POINTS. THE UNIT SHALL ENTER THE MORNING WARM-UP MODE. IN THIS MODE, ALL VAV BOXES WHOSE SPACE TEMPERATURES ARE BELOW THE OCCUPIED HEATING SETPOINT SHALL MODULATE THEIR DAMPERS FULLY OPEN AND THE AHU DISCHARGE TEMPERATURE SHALL BE 50F. ONCE EVERY SPACE HAS REACHED ITS OCCUPIED MODE HEATING SETPOINT OR MORE THAN 10% OF THE SPACES HAVE EXCEEDED THEIR COOLING MODE SET POINT, THE AHU SHALL RETURN TO ITS NORMAL OCCUPIED MODE OF OPERATION.
 - E. DISCHARGE AIR TEMP CONTROL:
 - WHENEVER THE HEATING LOOP OUTPUT OF MORE THAN 10% OF VAVS IS GREATER THAN 90% FOR MORE THAN 5 MINUTES THE DAT FROM THE AHU SHALL BE RESET UPWARD BY TRIM AND RESPOND LOGIC UP TO A MAX OF 65F.
3. VENTILATION:
 - A. THE OUTDOOR AIR DAMPER SHALL MODULATE TO MAINTAIN VENTILATION RATE AS SCHEDULED.
 - B. RETURN AIR CO2 CONTROL:
 - THE DESIGN VENTILATION AIR SHALL BE RESET DOWNWARD AS REQUIRED TO KEEP THE RETURN AIR CO2 AT A CONSTANT SETPOINT. COORDINATE SETPOINT WITH OWNER TO MATCH EXISTING SETPOINT. AT NO POINT SHALL THE OA DAMPER OPEN PAST THE DESIGN OA RATE PER THE AHU SCHEDULE, REGARDLESS OF CO2 INDICATION. THE REDUCED VENTILATION RATE AS ADJUSTED BY CO2 SHALL BE CALLED 'REQUIRED OA'.
4. RESET:
 - A. THE DISCHARGE AIR TEMPERATURE SHALL RESET DURING COOLING MODE AS FOLLOWS:
 - THE DAT SHALL BE RESET UPWARD FROM THE DESIGN DAT BY TRIM AND RESPOND LOGIC WHENEVER RETURN AIR RELATIVE HUMIDITY INDICATES BELOW THE SETPOINT OF 55% (ADJ.) AND THE AHU CONTROLLER COOLING LOOP OUTPUT IS LESS THEN THE VALUE CORRESPONDING TO 85% FAN SPEED.
 - A. TOGGLE SHALL BE PROVIDED ON THE FRONT END TO TEMPORARILY OVERRIDE THIS SUPPLY AIR TEMPERATURE RESET.
 - B. WHERE THE SPACE TEMPERATURE IS BEING CONTROLLED DIRECTLY BY THE DAT (SEE TEMPERATURE MAP), THIS RESET ALGORITHM SHALL CALCULATE IN THE BACKGROUND AND SERVE AS THE UPPER LIMIT FOR DAT. IF A WARNER DAT IS REQUIRED TO SATISFY SPACE SETPOINT BUT IS LIMITED THEN HEATING SHALL ACTIVATE AND COOLING CONTROL VALVE SHALL GRADUALLY CLOSE.
5. DEHUMIDIFICATION MODE:
 - A. DEHUMIDIFICATION MODE MAY BE APPLIED IN COOLING AND ECONOMIZER MODES.
 - B. WHEN THE SPACE AVERAGE RELATIVE HUMIDITY INDICATES ABOVE 65% (ADJ.) THE DEHUMIDIFICATION MODE SHALL BE ENABLED.
 - C. RESET THE REQUIRED COOLING COIL DISCHARGE AIR TEMPERATURE LOWER BY TRIM AND RESPOND LOGIC. MAINTAIN THE SPACE TEMPERATURE BY ACTIVATING THE REHEAT COIL. MODULATE THE REHEAT COIL TO MAINTAIN THE SPACE TEMPERATURE AT THE SAME TEMPERATURE AS THE SPACE WAS PRIOR TO HUMIDIFICATION MODE BEING ENABLED.
 - D. EXIT DEHUMIDIFICATION MODE WHEN RH IS BELOW 47% (ADJ.).
6. SEE TEMPERATURE MAP ON THIS SHEET FOR OCCUPIED COOLING, OCCUPIED HEATING, AND ECONOMIZER MODE INSTRUCTIONS.
 - A. FOR SYSTEMS THAT ARE SERVED BY DUCT REHEAT COILS - THE 'SPACE TEMPERATURE' THROUGHOUT THIS SEQUENCE SHALL BE INTERPRETED AS THE SPACE WITH THE HIGHEST COOLING LOOP OUTPUT. THE REMAINING SPACES SHALL ACTIVATE DUCT COILS IF REQUIRED TO MAINTAIN HTG SPACE SETPOINT.

GENERAL CONTROLS SAFETIES AND ALARMS

1. BUILDING OCCUPANCY SCHEDULE:
 - A. THE OWNER SHALL HAVE THE ABILITY TO DEFINE THE OCCUPANCY SCHEDULE OF EACH AIR HANDLING SYSTEM SEPARATELY OR AT ONCE.
2. SPACES THAT INDICATE UNOCCUPIED DURING SCHEDULED OCCUPIED HOURS SHALL BE CALLED 'DAY UNOCCUPIED'.
3. SPACES THAT INDICATE OCCUPIED DURING SCHEDULED OCCUPIED HOURS SHALL BE CALLED 'DAY OCCUPIED'.
4. ALL PERIODS SCHEDULED AS 'UNOCCUPIED' SHALL BE CALLED 'NIGHT'.
5. ACTIVATION OF DUCT MOUNTED SMOKE DETECTOR(S) SHALL STOP ALL FANS IN THE ASSOCIATED AIR HANDLER OR ROOFTOP UNIT.
6. FOR AHU OR RTU WITH AN ASSOCIATED FREEZE/STAT THE FREEZE/STAT SENSOR ACTIVATION SHALL CLOSE THE OUTDOOR AIR DAMPERS AND OPEN THE HOT WATER VALVE TO PREVENT FREEZING. FAN SHALL CONTINUE TO RUN AT DEMANDED SPEED. AN ALARM SHALL BE SENT TO THE FRONT END.
7. FOR ANY UNITS WITH ASSOCIATED FREEZE PROTECTION PUMPS, THE PUMP SHALL BE ENERGIZED AND RUN WHENEVER THE OUTDOOR AIR TEMPERATURE IS BELOW 35F. REGARDLESS IF UNIT IS RUNNING OR NOT. PUMP SHALL BE EQUIPPED WITH A CURRENT TRANSFORMER (CT), ALARM WHEN PUMP IS CALLED FOR AND FAILS TO RUN.
8. BUILDING SPACE PRESSURE SENSORS ARE SHOWN ON PLANS. SIGNALS SHALL BE AVERAGE TO PROVIDE ONE UNIFORM AHU/RTU PRESSURE SIGNAL FOR EACH SET OF SENSORS (SEE NOTES ON PLANS). PROVIDE DIGITAL FILTER TO MINIMIZE WIND SPIKES. IF ANY SIGNAL BECOMES INOPERATIVE IT SHALL BE DROPPED FROM THE AVERAGE.
9. FOR VARIABLE SPEED FANS - THE DUCT OR PLENUM STATIC PRESSURE SENSORS LOCATED DOWNSTREAM MAY DOUBLE AS HIGH STATIC PRESSURE SENSORS AND SHALL SHUT THE ASSOCIATED FANS DOWN WHEN EXCESSIVE PRESSURES ARE OBSERVED. ALARM AT FRONT END.
10. FOR VARIABLE SPEED FANS - THE DUCT OR PLENUM STATIC PRESSURE SENSORS LOCATED UPSTREAM OF THE FANS SHALL SHUT THE ASSOCIATED FANS DOWN WHEN LOW PRESSURES ARE OBSERVED. ALARM AT FRONT END.
11. ALL RTU/AHU FANS SHALL BE PROVIDED WITH CURRENT TRANSFORMERS (CT) TO DETERMINE FAN STATUS.
12. WHERE MULTIPLE PARALLEL FANS ARE REQUIRED TO RUN IN UNISON - THE FAN SPEED FOR EACH SHALL BE THE SAME.
13. FAN SPEED MINIMUM SHALL BE ALLOWED TO TURN DOWN TO 10%.
14. WHERE INDIVIDUAL ACTUATORS ARE SHOWN FOR THE RETURN AIR AND OUTDOOR AIR DAMPERS - THESE DAMPERS SHALL MODULATE IN SEQUENCE. ONE OF THE TWO SHALL BE 100% OPEN AND THE OTHER SHALL MODULATE AS REQUIRED WHENEVER OPERATING IN MIXED AIR MODE (BOTH RA AND OA FLOW IS PRESENT).
15. THE MOTOR OVERLOAD AMPERAGE SHALL BE BROUGHT IN AS AN ANALOG INPUT VIA BACNET FROM EACH VFD. THE FULL LOAD AMP LIMIT FOR EACH MOTOR SHALL BE SET IN THE CONTROL SYSTEM. THIS LIMIT SHALL OVERRIDE THE SPEED SIGNAL AND LIMIT SPEED IF THE AMPERAGE READING IS ABOVE THE FULL LOAD AMPERAGE. THE FULL LOAD AMP LIMITS SHALL BE SET IN THE FIELD FOR ALL VFDs SERVING THE AHU FANS AND THE HHW AND CHW PUMPS. THIS 'CURRENT LIMIT' OR EQUIVALENT IS A FEATURE OF THE VFD AND WILL LIMIT THE VFD OUTPUT FREQUENCY SO THE AMP LIMITS ARE NOT EXCEEDED.
16. WHERE A LOW LIMIT TEMPERATURE TRANSMITTER IS PROVIDED FOR THE RETURN LEG OF HYDRONIC COILS, THE SEQUENCE SHALL AUTOMATICALLY OVERRIDE AND REDUCE THE OUTDOOR AIR SETPOINT WHENEVER THE SENSOR INDICATES 55F (ADJ.) OR BELOW. THIS SHALL ALLOW MORE RETURN INTO THE MIXED AIR AND INCREASE THE MIXED AIR TEMPERATURE. ALARM AT FRONT END. NOTE THAT THIS DOES NOT AFFECT THE SUPPLY AIR DEMANDED. WHEN TEMPERATURE TRANSMITTER SIGNAL BECOMES INOPERATIVE OR OUT OF RANGE AN ALARM SHALL BE SENT TO THE FRONT END.
17. TCC SHALL PROVIDE STANDARD ALARMS ON FRONT END. VERIFY AND COORDINATE FINAL ALARM POINTS WITH OWNER. FOR BUDGETING PURPOSES, THE TCC SHALL ASSUME THAT ANY SOFTWARE POINT COULD BE REQUESTED BY THE OWNER TO ALARM. PROVIDE TIERED ALARMS PER LATEST ASHRAE STANDARDS.
18. F&P DAMPER OPERATION (WHERE EQUIPPED): WHEN THE OAT IS ABOVE 40F (ADJ.) THE F&P DAMPER SHALL BE OPEN TO THE COIL (0% BYPASS). TEMPERATURE CONTROL SHALL BE ACHIEVED BY THE MODULATING CONTROL VALVE. WHEN THE OAT FALLS BELOW 40F (ADJ.) THE CONTROL VALVE SHALL OPEN FULLY AND TEMPERATURE CONTROL SHALL BE ACHIEVED BY MODULATING THE F&P DAMPERS. UPON ACTIVATION OF THE FREEZE/STAT THE F&P DAMPER SHALL FALL OPEN TO THE COIL (0% BYPASS) TO PROTECT THE COOLING COIL DOWNSTREAM SHOULD ANY RESIDUAL AIR BE MOVING THROUGH THE AHU.



SCALE:	AS
DRAWN BY:	Author
DESIGNED BY:	Designer
CHECKED BY:	Checker
DATE:	07/24/2026
PROJECT #:	24023

REVISIONS:		
#	DESCRIPTION	DATE
1	ASH-001	02.28.25
2	ASH-004	08.26.25
3	ADD #1 BPS	08.14.25

SEQUENCE OF OPERATIONS

Noblesville High School AHU Replacements – BP5 Prebid
Sign in sheet
Date: 8/4/2026

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