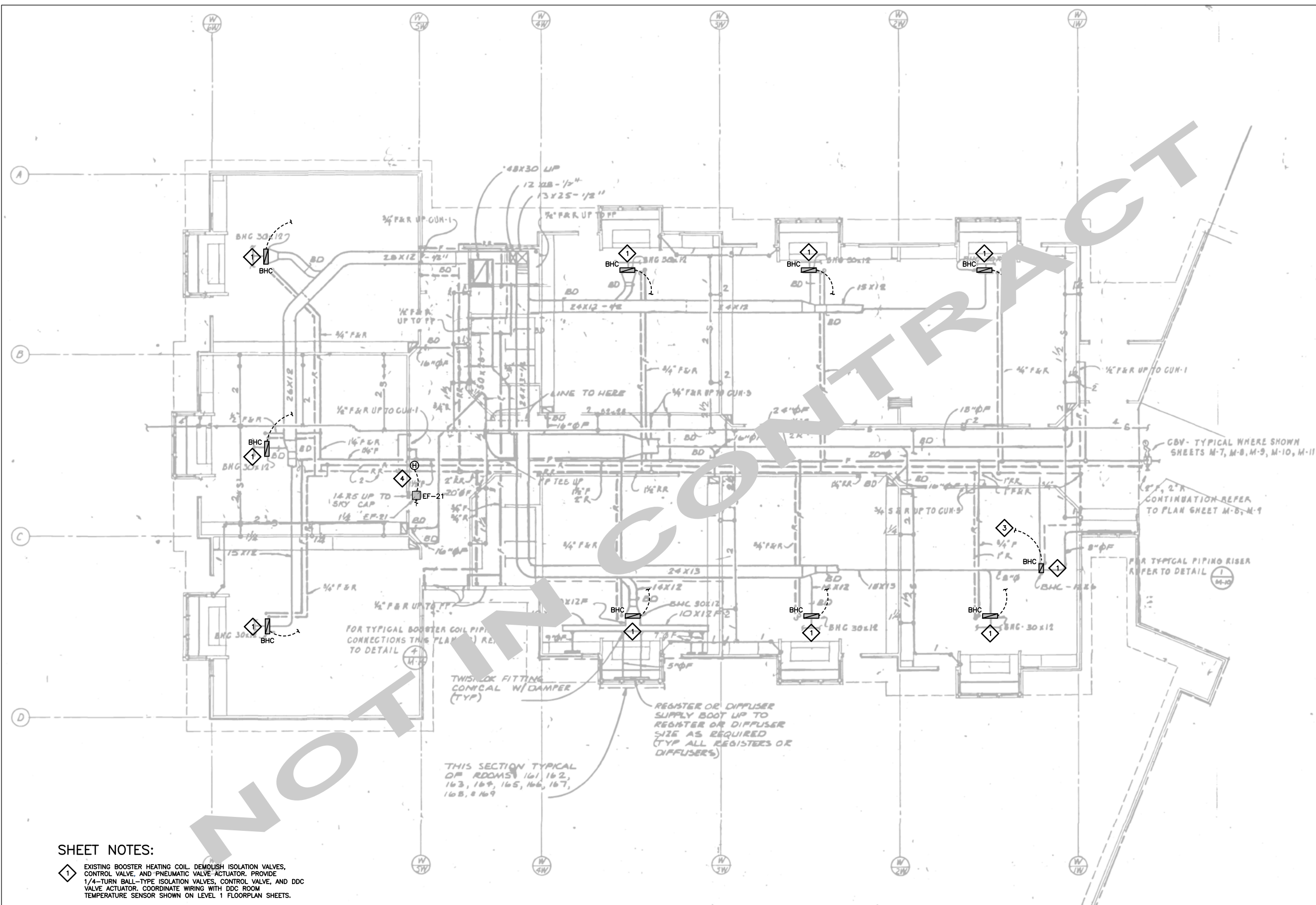


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SHEET NOTES:

- 1 EXISTING BOOSTER HEATING COIL. DEMOLISH ISOLATION VALVES, CONTROL VALVE, AND PNEUMATIC VALVE ACTUATOR. PROVIDE 1/4-TURN BALL-TYPE ISOLATION VALVES, CONTROL VALVE, AND DDC VALVE ACTUATOR. COORDINATE WIRING WITH DDC ROOM TEMPERATURE SENSOR SHOWN ON LEVEL 1 FLOORPLAN SHEETS.
- 2 BOOSTER HEAT COILS SERVED BY ROOM TEMPERATURE SENSORS.
- 3 SERVED BY SINGLE ROOM TEMPERATURE SENSOR.
- 4 EXISTING EXHAUST FAN, PROVIDE LINE VOLTAGE HUMIDISTAT.

1 PH 2 FOUNDATION PLAN - WEST WING

SCALE: 0 4' 8' 16'

CONSULTANT:



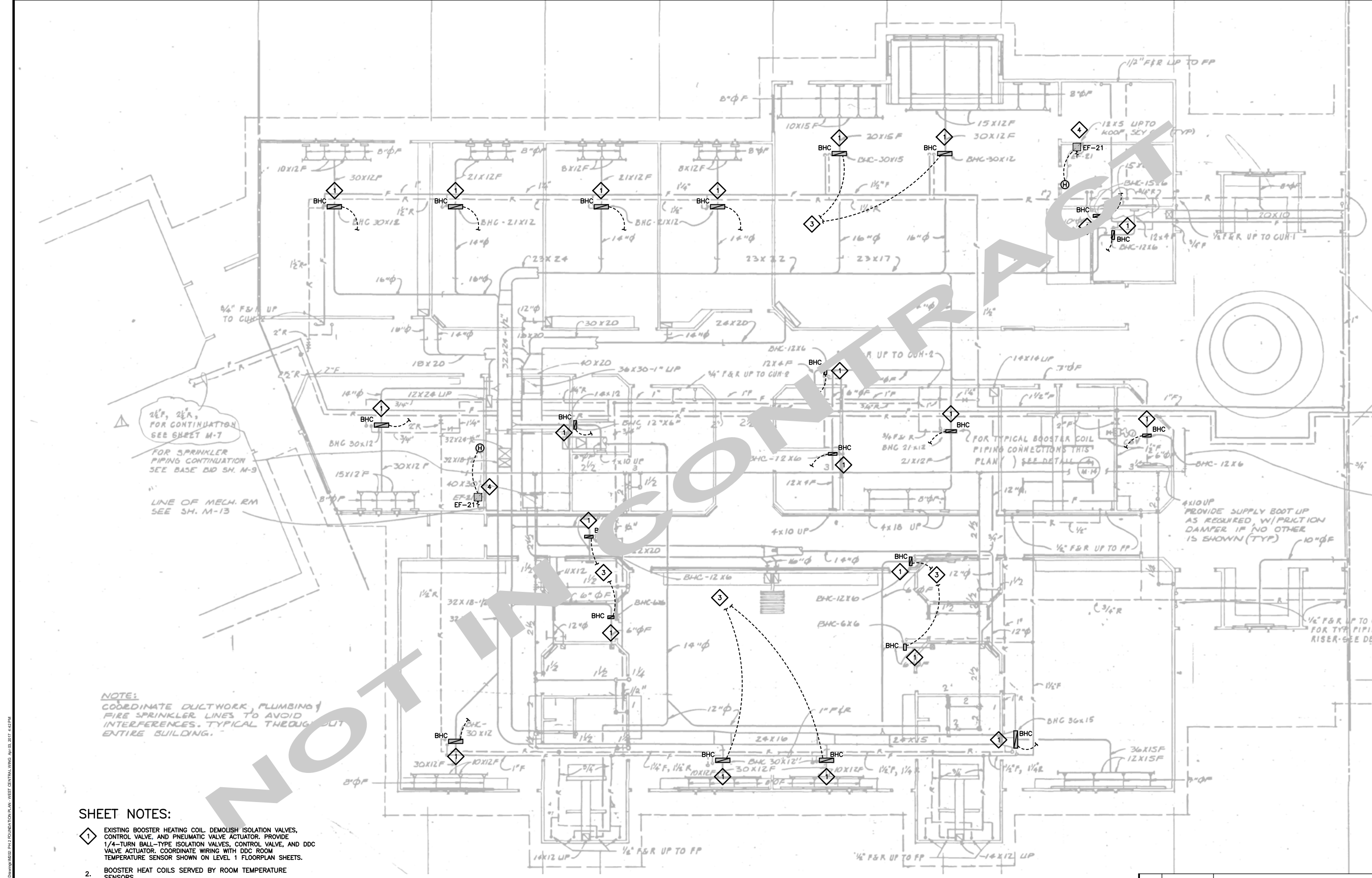
PROJECT: MENDENHALL RIVER COMMUNITY SCHOOL
CONTROLS UPGRADE
CBJ PROJECT NO. BE17-246

JUNEAU, ALASKA

SHEET TITLE: PH 2 FOUNDATION PLAN
- WEST WING

DESIGN	DA
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DATE	MARCH 31, 2017
PROJECT No.	16485JM/15-123
SHEET NUMBER	M201
10 OF 23 SHEETS	

No.	Date	Item




SHEET NOTES:

- 1 EXISTING BOOSTER HEATING COIL. DEMOLISH ISOLATION VALVES, CONTROL VALVE, AND PNEUMATIC VALVE ACTUATOR. PROVIDE 1/4-TURN BALL-TYPE ISOLATION VALVES, CONTROL VALVE, AND DDC VALVE ACTUATOR. COORDINATE WIRING WITH DDC ROOM TEMPERATURE SENSOR SHOWN ON LEVEL 1 FLOORPLAN SHEETS.
- 2 BOOSTER HEAT COILS SERVED BY ROOM TEMPERATURE SENSORS.
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1 PH 2 FOUNDATION PLAN - WEST CENTRAL WING
 SCALE: 0 4' 8' 16'

No.	Date	Item

CONSULTANT:



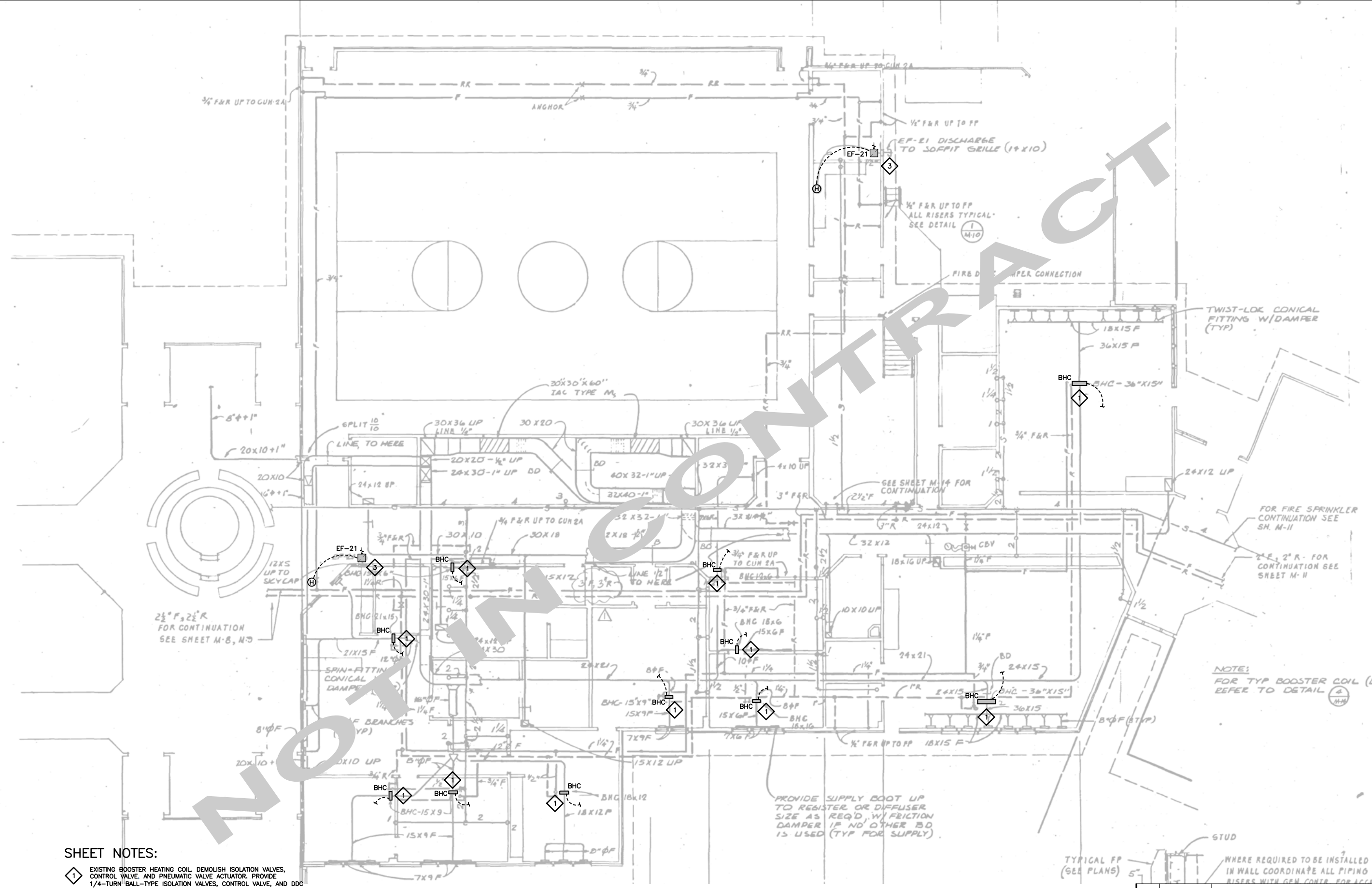
PDC ENGINEERS
 PLAN • DESIGN • CONSTRUCT
 1028 Aurora Drive, Fairbanks, Alaska 99709
 907.452.1414 | AEGC605

PROJECT: MENDENHALL RIVER COMMUNITY SCHOOL
 CONTROLS UPGRADE
 CBJ PROJECT NO. BE17-246
 JUNEAU, ALASKA

SHEET TITLE: PH 2 FOUNDATION PLAN
 - WEST CENTRAL WING

DESIGN	DA
DRAWN	KB
CHECKED	DM
DATE	MARCH 31, 2017

PROJECT No.
16485JM/15-123
 SHEET NUMBER
M202
 11 OF 23 SHEETS



- SHEET NOTES:**
- 1 EXISTING BOOSTER HEATING COIL. DEMOLISH ISOLATION VALVES, CONTROL VALVE, AND PNEUMATIC VALVE ACTUATOR. PROVIDE 1/4-TURN BALL-TYPE ISOLATION VALVES, CONTROL VALVE, AND DDC VALVE ACTUATOR. COORDINATE WIRING WITH DDC ROOM TEMPERATURE SENSOR SHOWN ON LEVEL 1 FLOORPLAN SHEETS.
 - 2 BOOSTER HEAT COILS SERVED BY ROOM TEMPERATURE SENSORS.
 - 3 EXISTING EXHAUST FAN, PROVIDE LINE VOLTAGE HUMIDISTAT.

1 PH 2 FOUNDATION PLAN - EAST CENTRAL WING

SCALE: 0 4' 8' 16'

No.	Date	Item

DESIGN	DA
DRAWN	KB
CHECKED	DM
DATE	MARCH 31, 2017
PROJECT No.	16485JM/15-123
SHEET NUMBER	M203
12 OF 23 SHEETS	

CONSULTANT:

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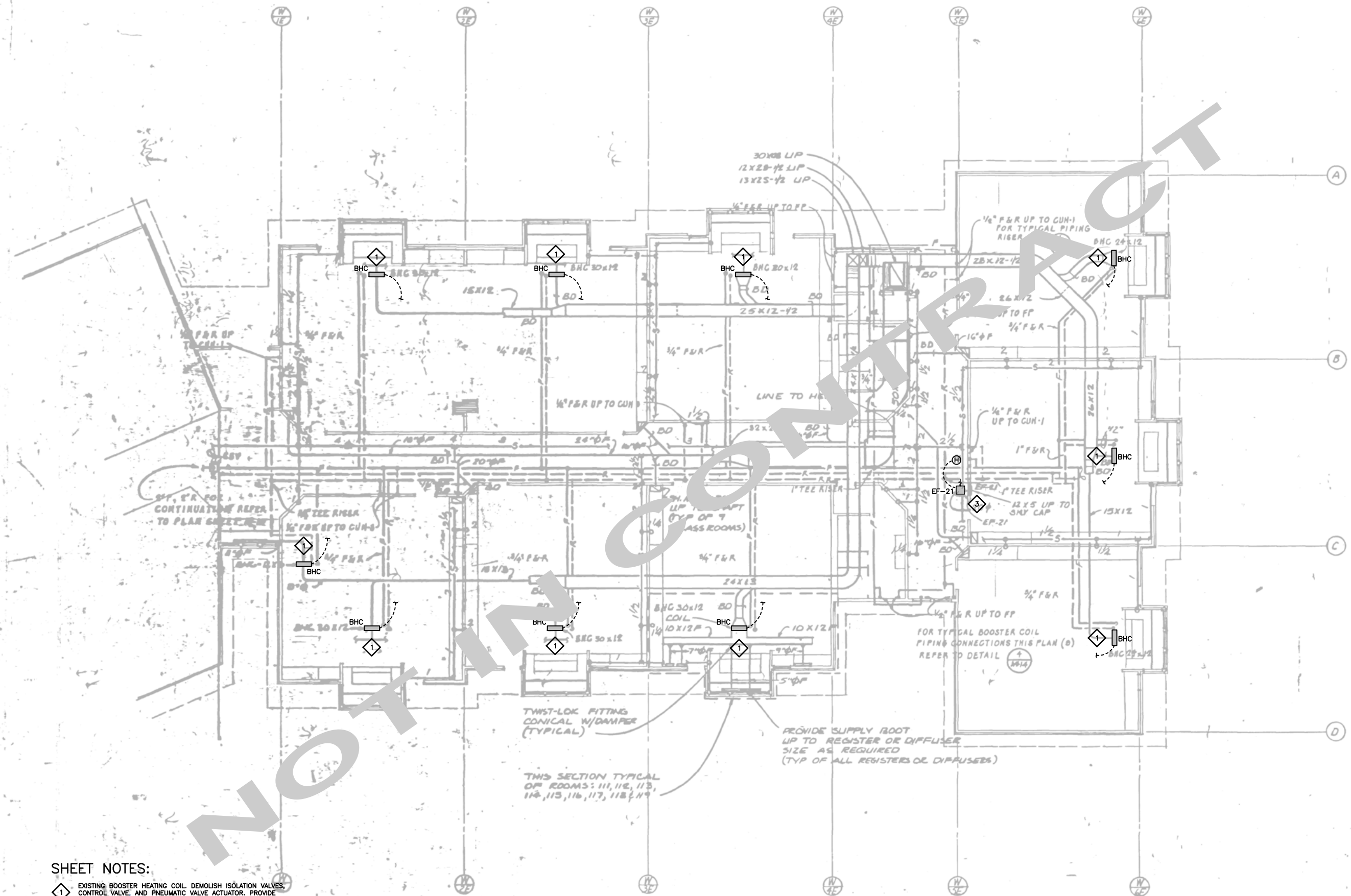
1028 Aurora Drive, Fairbanks, Alaska 99709
907.452.1414 | AEGC605

PROJECT: MENDENHALL RIVER COMMUNITY SCHOOL CONTROLS UPGRADE CBJ PROJECT NO. BE17-246

JUNEAU, ALASKA

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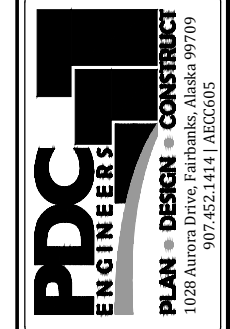
SHEET NOTES:

- 1. EXISTING BOOSTER HEATING COIL. DEMOLISH ISOLATION VALVES, CONTROL VALVE, AND PNEUMATIC VALVE ACTUATOR. PROVIDE 1/4-TURN BALL-TYPE ISOLATION VALVES, CONTROL VALVE, AND DDC VALVE ACTUATOR. COORDINATE WIRING WITH DDC ROOM TEMPERATURE SENSOR SHOWN ON LEVEL 1 FLOORPLAN SHEETS.
- 2. BOOSTER HEAT COILS SERVED BY ROOM TEMPERATURE SENSORS.
- 3. EXISTING EXHAUST FAN.

1 PH 2 FOUNDATION PLAN - EAST WING

SCALE: 0 4' 8' 16'

CONSULTANT:



PROJECT: **MENDENHALL RIVER COMMUNITY SCHOOL CONTROLS UPGRADE**
 CBJ PROJECT NO. BE17-246
 JUNEAU, ALASKA

SHEET TITLE: **PH 2 FOUNDATION PLAN - EAST WING**

DESIGN	DA
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CHECKED	DM
DATE	MARCH 31, 2017

PROJECT No. **16485JM/15-123**
 SHEET NUMBER

M204
 13 OF 23 SHEETS

No.	Date	Item

FLOOR REGISTER
4'X10" @ 280 CFM EACH
TYP UNLESS SHOWN
OTHER WISE

2" LINEAR SILL DIFFUSER
40 CFM/FOOT

FP 5'-0" @ 0.1 MBH

4'X12" FLOOR REGISTER
150 CFM EACH (E)

LINE OF MECH. RM.
SEE SH. M-13

FLOOR REGISTER
4"X20" 180 CFM
EACH (4 TYP)

3" LINEAR SILL DIFFUSER
70 CFM/FOOT LENGTH
AS NOTED FOR ROOMS
352, 353, 357 &
358

SHEET NOTES:

- 1 PROVIDE DDC ROOM TEMPERATURE SENSOR, COORDINATE WIRING WITH EXISTING BOOSTER HEATING COILS SHOWN ON FOUNDATION PLAN SHEETS.
- 2 EXISTING CABINET UNIT HEATER. DEMOLISH ISOLATION VALVES, CONTROL VALVE, AND VALVE ACTUATOR. PROVIDE 1/4-TURN BALL-TYPE ISOLATION VALVES, LINE-VOLTAGE CONTROL VALVE, AND VALVE ACTUATOR. LOCATE LINE-VOLTAGE THERMOSTAT INSIDE CABINET IN RETURN AIR PATH. PROVIDE DDC TEMPERATURE SENSOR IN RETURN AIR PATH FOR MONITORING ONLY.
- 3 EXISTING FINNED PIPE. DEMOLISH ISOLATION VALVES, CONTROL VALVE, AND VALVE ACTUATOR. PROVIDE 1/4-TURN BALL-TYPE ISOLATION VALVES AND LINE-VOLTAGE CONTROL VALVE WITH INTEGRAL VALVE ACTUATOR. PROVIDE DDC TEMPERATURE SENSOR IN RETURN AIR PATH OF FINNED PIPE ENCLOSURE FOR MONITORING ONLY.
- 4 EXISTING EXHAUST FAN. DEMOLISH EXISTING CONTROLS. PROVIDE DDC FAN START/STOP AND STATUS.

1 PH 2 LEVEL 1 - WEST CENTRAL WING

SCALE: 0 4' 8' 16'

CONSULTANT:



PROJECT:
**MENDENHALL RIVER COMMUNITY SCHOOL
CONTROLS UPGRADE
CBJ PROJECT NO. BE17-246**

JUNEAU, ALASKA

SHEET TITLE:
**PH 2 LEVEL 1 - WEST
CENTRAL WING**

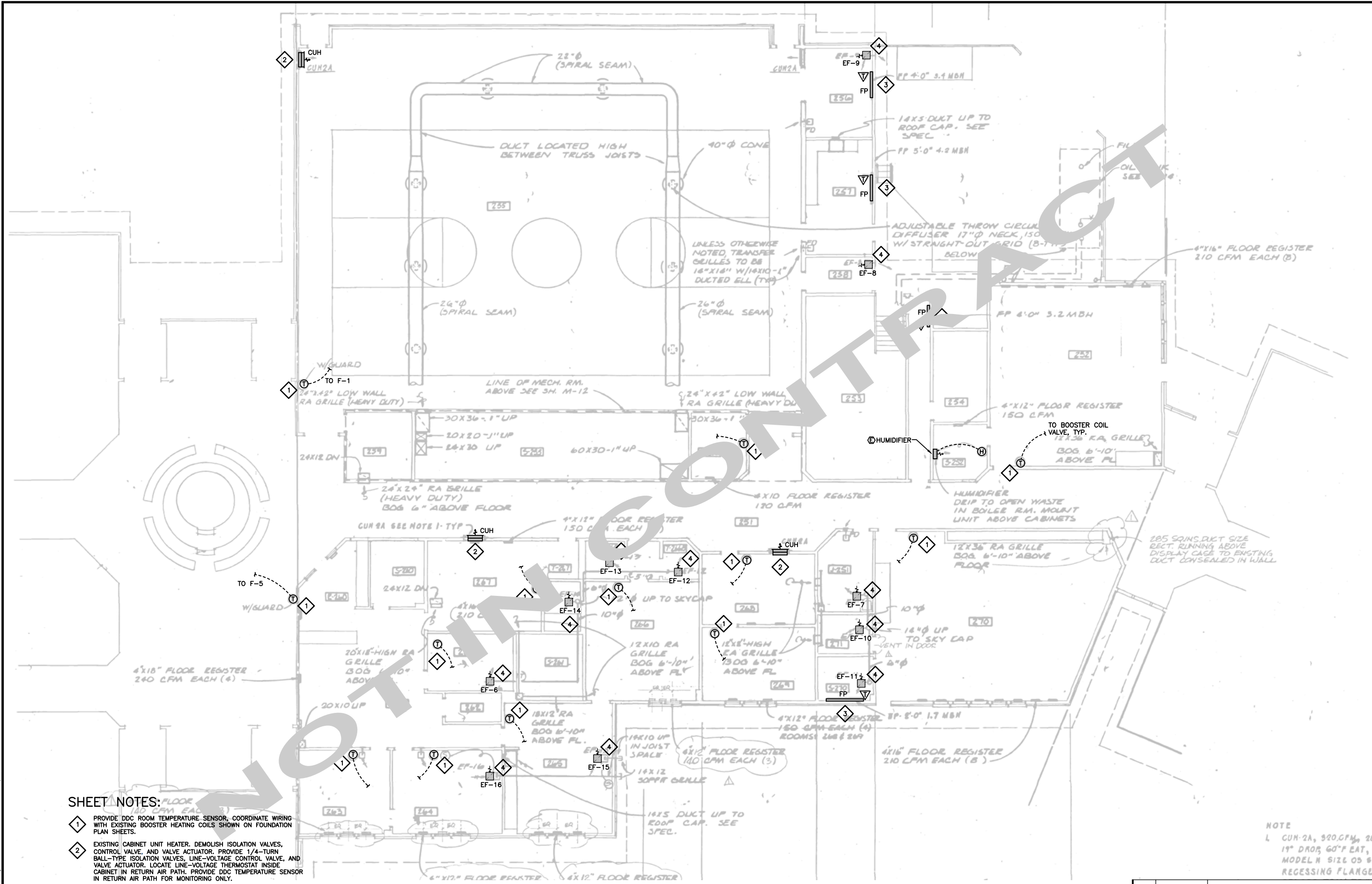
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DATE MARCH 31, 2017

PROJECT No.
16485JM/15-123
SHEET NUMBER

M212
15 OF 23 SHEETS

No.	Date	Item

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SHEET NOTES:

- 1 PROVIDE DDC ROOM TEMPERATURE SENSOR, COORDINATE WIRING WITH EXISTING BOOSTER HEATING COILS SHOWN ON FOUNDATION PLAN SHEETS.
- 2 EXISTING CABINET UNIT HEATER. DEMOLISH ISOLATION VALVES, CONTROL VALVE, AND VALVE ACTUATOR. PROVIDE 1/4-TURN BALL-TYPE ISOLATION VALVES, LINE-VOLTAGE CONTROL VALVE, AND VALVE ACTUATOR. LOCATE LINE-VOLTAGE THERMOSTAT INSIDE CABINET IN RETURN AIR PATH. PROVIDE DDC TEMPERATURE SENSOR IN RETURN AIR PATH FOR MONITORING ONLY.
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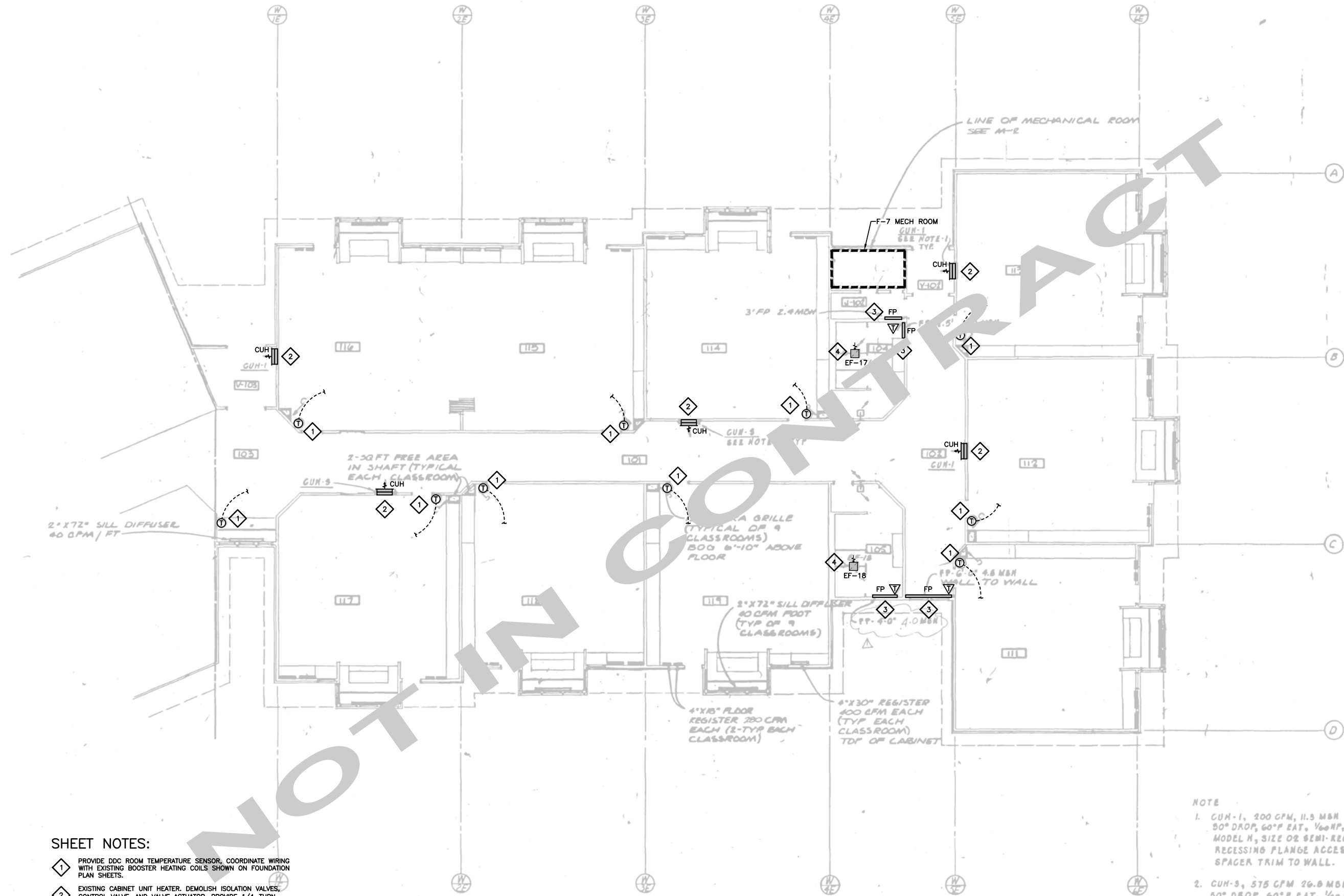
1 PH 2 LEVEL 1 - EAST CENTRAL WING

SCALE: 0 4' 8' 16'

NOTE
 L CUN-2A, 500 CFM, 24
 1" DRIP, 60" FAT,
 MODEL M SIZE 05 B
 RECESSING FLANGE

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PROJECT: MENDENHALL RIVER COMMUNITY SCHOOL CONTROLS UPGRADE CBJ PROJECT NO. BE17-246	CONSULTANT: 														
SHEET TITLE: PH 2 LEVEL 1 - EAST CENTRAL WING															
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PROJECT No. 16485JM/15-123															
SHEET NUMBER M213															
16 OF 23 SHEETS															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>No.</th> <th>Date</th> <th>Item</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align: center;">REVISIONS</td> </tr> </tbody> </table>		No.	Date	Item	REVISIONS										
No.	Date	Item													
REVISIONS															

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SHEET NOTES:

- 1 PROVIDE DDC ROOM TEMPERATURE SENSOR, COORDINATE WIRING WITH EXISTING BOOSTER HEATING COILS SHOWN ON FOUNDATION PLAN SHEETS.
- 2 EXISTING CABINET UNIT HEATER. DEMOLISH ISOLATION VALVES, CONTROL VALVE, AND VALVE ACTUATOR. PROVIDE 1/4-TURN BALL-TYPE ISOLATION VALVES, LINE-VOLTAGE CONTROL VALVE, AND VALVE ACTUATOR. LOCATE LINE-VOLTAGE THERMOSTAT INSIDE CABINET IN RETURN AIR PATH. PROVIDE DDC TEMPERATURE SENSOR IN RETURN AIR PATH FOR MONITORING ONLY.
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- 4 EXISTING EXHAUST FAN. DEMOLISH EXISTING CONTROLS. PROVIDE DDC FAN START/STOP AND STATUS.

1 PH 2 LEVEL 1 - EAST WING

SCALE: 0 4' 8' 16'

NOTE

1. CUH-1, 200 CFM, 11.5 MBH 200°F EWT 90° DROP, 60°F EAT, 1/20 HP, TRANE MODEL H, SIZE 02 SEMI-RECESSED IN RECESSING FLANGE ACCESSORY- PROVIDE SPACER TRIM TO WALL.
2. CUH-3, 575 CFM 26.0 MBH 200°F EWT 50° DROP, 60°F EAT, 1/20 HP, TRANE MODEL H, SIZE 06 SEMI-RECESSED IN RECESSING FLANGE ACCESSORY- PROVIDE SPACER TRIM TO WALL.

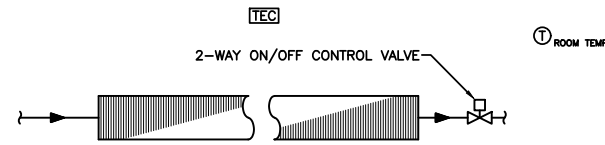
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PROJECT No. 16485JM/15-123	
SHEET NUMBER	
M214	
17 OF 23 SHEETS	

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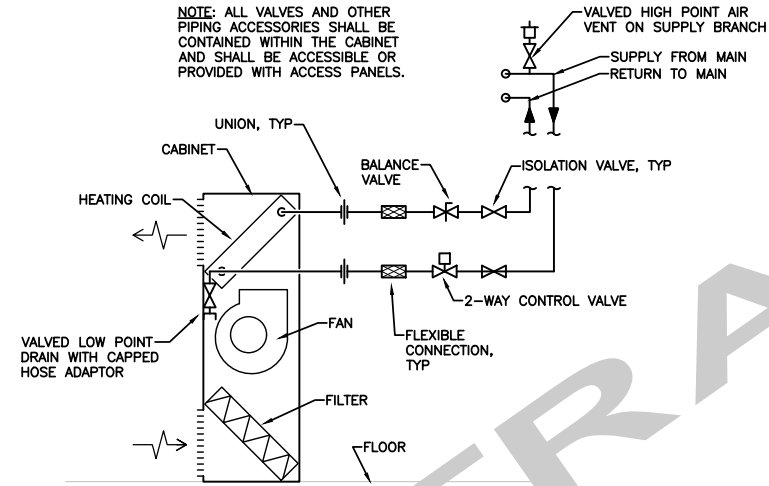


PROJECT: MENDENHALL RIVER COMMUNITY SCHOOL
 CONTROLS UPGRADE
 CBJ PROJECT NO. BE17-246
 JUNEAU, ALASKA

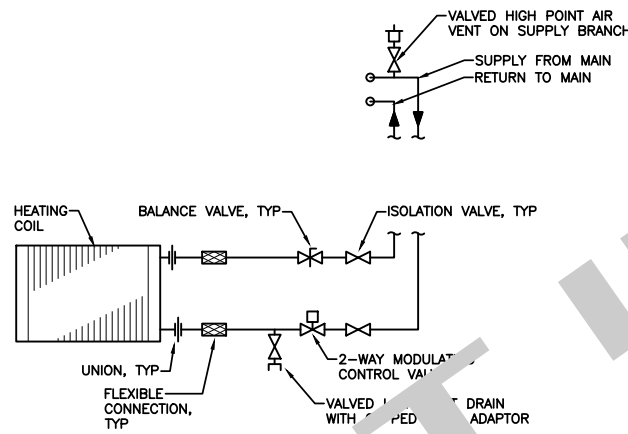
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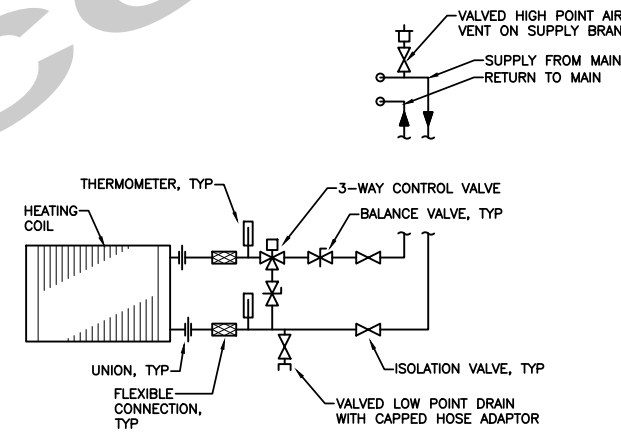
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NO SCALE



2 TYPICAL CABINET UNIT HEATER DETAIL
NO SCALE



3 TYPICAL VAV BOX WITH REHEAT COIL PIPING DIAGRAM
NO SCALE



4 TYPICAL AIR HANDLER HEATING COIL PIPING DIAGRAM
NO SCALE

CONSULTANT :



PROJECT :
MENDENHALL RIVER COMMUNITY SCHOOL
CONTROLS UPGRADE
CBJ PROJECT NO. BE17-246
JUNEAU, ALASKA

SHEET TITLE :
PH 2 TYPICAL
MECHANICAL
DIAGRAMS

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DATE MARCH 31, 2017

PROJECT No.
16485JM/15-123
SHEET NUMBER

M221
18 OF 23 SHEETS

No.	Date	Item

SEQUENCE OF OPERATIONS – PHASE 2

1.1.1 THIS ARTICLE DESCRIBES THE SEQUENCE OF OPERATION FOR:

1.1.1.1 GENERAL

1.1.1.2 GRAPHICAL USER INTERFACE

1.1.1.3 ALARMS

1.1.1.4 EQUIPMENT START-UP

1.1.1.5 EXHAUST FANS

1.1.1.6 BOOSTER HEATING COILS

1.1.1.1 ELECTRIC UNIT HEATER (AHU-3)

1.1.1.7 UNIT HEATERS & CABINET UNIT HEATERS

1.1.1.8 FINNED PIPE

1.2 SHOP DRAWINGS FOR MECHANICAL-SYSTEM-CONTROLLED AND CONTROL SYSTEM COMPONENTS

1.2.1 LABEL WITH SETTINGS, ADJUSTABLE RANGE OF CONTROL AND LIMITS. SUBMIT WRITTEN DESCRIPTION OF CONTROL SEQUENCE. SUBMIT FLOW DIAGRAMS FOR EACH CONTROL SYSTEM, GRAPHICALLY DEPICTING CONTROL LOGIC. SUBMIT DRAFT COPIES OF GRAPHIC DISPLAYS INDICATING MECHANICAL SYSTEM COMPONENTS, CONTROL SYSTEM COMPONENTS, AND CONTROLLED FUNCTION STATUS AND VALUE. COORDINATE SUBMITTALS WITH INFORMATION REQUESTED ELSEWHERE IN THIS SECTION.

1.3 GENERAL

1.3.1 ALL POINTS AND ALARMS NOTED HERE SHALL BE DISPLAYED AT THE DISTRICT'S EXISTING GRAPHICAL USER INTERFACE FOR MONITORING AND CONTROLLING THE BUILDING. ALL SAFETY SHUTDOWNS SHALL BE HARDWIRED AND SHALL NOT BE DEPENDENT ON THE BUILDING AUTOMATION SYSTEM (BAS) FOR OPERATION.

1.3.2 ALL WORK OUTLINED HERE SHALL BE CONTROLLED BY THE BAS AND CONNECTED TO THE BAS UNLESS OTHERWISE NOTED. THE GRAPHICS AND THE MONITORING AND CONTROL TAGS SHALL BE FULLY INTEGRATED INTO THE DISTRICT'S REMOTE HOST SYSTEM.

1.3.3 IF PACKAGED CONTROL PANELS ARE USED, PROVIDE ADDITIONAL SENSORS IN THE FIELD FOR BAS MONITORING OF POINTS NOTED UNDER EACH SECTION. PROVIDE 10% SPARE CAPACITY FOR FUTURE USE AT EACH BAS PANEL.

1.3.4 ALL ALARMS BASED ON A DEVIATION FROM ADJUSTABLE SETPOINT (I.E. 2 DEGREES F ABOVE SETPOINT) THAT EXPERIENCES AN OFFSET, SUCH AS AN OUTSIDE AIR RESET SCHEDULE, SHALL NOT BE FIXED BUT RATHER MOVE WITH THE SETPOINT.

1.3.5 TERMINAL CONTROLLERS, ACTUATORS, SENSORS, AND ASSOCIATED COMPONENTS ARE TO BE NAMED/ADDRESSED BASED ON THE ROOM THEY ARE IN.

1.3.6 REVIEW THE JUNEAU SCHOOL DISTRICT NAMING CONVENTIONS AND PROGRAMMING STANDARDS. INCORPORATE STANDARDS INTO PROGRAMMING AND STANDARD SEQUENCE OF OPERATIONS.

1.3.7 INCORPORATE JSD STANDARD SEQUENCES AND PROGRAMMING DESCRIPTIONS FOR THE FOLLOWING FUNCTIONS:

1.3.7.1 OCCUPANCY SCHEDULE. UTILIZE FOR ALL AREAS UNLESS OTHERWISE INDICATED.

1.3.7.2 OPTIMIZED STARTUP: PROVIDE A LEARNING ALGORITHM, OPTIMIZED START TIME, TO ALLOW BUILDING TO REACH OCCUPIED SETPOINT AT SCHEDULED OCCUPANCY. OPTIMIZED START TIME WILL BE LIMITED TO NOT EARLIER THAN 2 HOURS OF SCHEDULED OCCUPANCY.

1.3.7.3 OCCUPANCY SCHEDULING AND OCCUPIED/UNOCCUPIED MODE SHALL BE COORDINATED WITH JUNEAU SCHOOL DISTRICT.

1.3.7.4 THE FOLLOWING EXAMPLE SCHEDULE SHALL BE ADJUSTABLE IN THE DDC FRONT END FOR NIGHT TEMPERATURE SETBACK

TIME	BUILDING TEMPERATURE SETPOINT
12:00 AM – 5:00 AM	65°F
5:00 AM – 4:30 PM	72°F
4:30 PM – 8:00 PM	68°F
8:00 PM – 12:00 AM	65°F

1.4 GRAPHICAL USER INTERFACE

1.4.1 SYSTEM SHALL SEAMLESSLY INTEGRATE WITH EXISTING FRONT END GRAPHICS PACKAGE.

1.4.2 PROVIDE GRAPHICS TO MEET THE FOLLOWING:

1.4.2.1 MAIN GRAPHIC PAGE WITH LINKS TO FLOORPLAN GRAPHICS AND SPECIFIC EQUIPMENT GRAPHICS

1.4.2.2 FLOORPLAN GRAPHICS

1.4.2.3 SPECIFIC EQUIPMENT GRAPHICS

1.4.2.4 LINKS TO ANY SPECIFIC EQUIPMENT GRAPHIC SHALL NOT BE MORE THAN 3 LINKS AWAY FROM THE MAIN GRAPHIC PAGE

1.4.3 ALL VALUES AND SETPOINTS NOTED WITHIN THE SEQUENCE OF OPERATION ARE TO BE PROVIDED ON THE GRAPHICAL USER INTERFACE FOR MONITORING AND CONTROLLING. ADDITIONAL POINTS SHALL BE PROVIDED AS REQUIRED TO TROUBLESHOOT SYSTEM OPERATION.

1.4.3.1 FOR EACH POINT, PROVIDE THE POINT DESCRIPTION, ADDRESS, AND VALUE.

1.4.4 ALL POINTS OUTLINED SHALL BE ADDRESSABLE THROUGH THE SAME MEANS. ALL POINTS SHALL BE PROGRAMMABLE FROM THE HOST COMPUTER AND GRAPHICS SHALL BE PREPARED FOR ALL POINTS. ALL SETPOINTS SHALL BE ADJUSTABLE THROUGH THE GRAPHICS.

1.4.5 A GENERAL SYSTEM ALARM NOTIFICATION SHALL BE VISIBLE ON ALL GRAPHICS. ALARMS SHALL BE COLLECTED ON A CENTRAL ALARM PAGE. ALARMS GENERATED SHALL BE DOCUMENTED AND NOT ERASED EVEN IF THE SYSTEMS HAVE AN AUTOMATIC RESET FUNCTION.

1.4.6 FAIL POSITION FOR SPRING-WOUND ACTUATED VALVES AND DAMPERS SHALL BE NOTED ON THE GRAPHICS. A DESCRIPTOR RELATING THE VOLTAGE PROVIDED TO THE ACTUATOR AND THE DEVICES FIELD POSITION SHALL BE SHOWN ON THE GRAPHICS (I.E. 10 V IS CLOSED, 10 V IS OPEN).

1.5 ALARMS

1.5.1 CONTRACTOR TO WORK WITH THE JSD TO IDENTIFY WHAT ALARMS ARE TO BE TEXTED OUT AND TO WHAT PHONE NUMBERS. THESE POINTS ARE TO BE NOTED IN THE OPERATION AND MAINTENANCE MANUAL.

1.5.2 COORDINATE WITH JSD FOR MAINTENANCE PERSONNEL TO INCLUDE IN TEXTING NOTIFICATIONS.

1.5.3 AN ALARM SHALL INDICATE THE POINT, POINT NAME, AND STATUS. JSD STANDARD PROGRAMMING ABBREVIATIONS SHALL BE UTILIZED.

1.5.4 THERE SHALL BE THREE (2) LEVELS OF ALARMS: CRITICAL AND MAINTENANCE. ALARM LEVELS SHALL BE IMPLEMENTED AS PER THE JSD INPUT/OUTPUT/ALARM SUMMARY.

1.5.4.1 CRITICAL ALARMS:

1.5.4.1.1 WHENEVER A CRITICAL ALARM IS ANNUNCIATED, ANNUNCIATE THE ALARM AT THE REMOTE WORKSTATIONS AND AT THE LOCAL WORKSTATIONS. ALL CRITICAL ALARMS SHALL BE LATCHING. EACH ALARM SHALL REQUIRE OPERATOR ACKNOWLEDGEMENT BEFORE CLEARING. DO NOT REPEAT ALARM UNLESS PREVIOUSLY CLEARED.

1.5.4.1.2 UTILIZE TCP/IP NETWORK COMMUNICATIONS TO ANNUNCIATE ALARMS AT THE REMOTE WORKSTATIONS.

1.5.4.1.3 PROVIDE CAPABILITY TO CLEAR CRITICAL ALARMS AT THE REMOTE WORKSTATIONS AND THE LOCAL WORKSTATIONS.

1.5.4.2 MAINTENANCE ALARMS

1.5.4.2.1 LOG WARNING ALARMS IN THE CONTROLLER MEMORY. MAINTAIN WARNING ALARM LOGS FOR THE PREVIOUS THREE (3) DAYS BEFORE OVERWRITING, SEGREGATED INTO 24 HOUR PERIODS.

1.5.4.2.2 ALARM SHALL ANNUNCIATE ONCE AFTER LATCHING. ONCE CLEARED REPEAT IF ALARM RETURNS.

1.5.4.2.3 PROVIDE AN INDIVIDUAL MAINTENANCE ALARM FOR EACH ZONE TEMPERATURE. INITIATE A WARNING ALARM WHENEVER ZONE TEMPERATURE IS BELOW 58°F FOR A DELAY PERIOD OF 30 MINUTES.

1.6 EQUIPMENT START-UP

1.6.1 START MECHANICAL EQUIPMENT IN SEQUENCE WITH TIME DELAY BETWEEN STARTS TO AVOID POWER SURGE. FOR A PARTICULAR AREA, START PUMPS BEFORE FANS. START AHU FANS SEQUENTIALLY BY UNIT NUMBER. START EXHAUST FANS DIRECTLY AFTER ASSOCIATED SUPPLY FANS. PROVIDE START-UP DELAY PERIOD WITH A FIVE (5) SECOND SET POINT UNLESS OTHERWISE INDICATED. START EQUIPMENT ACCORDING TO THE FOLLOWING SCHEDULE:

1.6.1.1 HYDRONIC HEATING EQUIPMENT

1.6.1.2 PUMPS

1.6.1.3 BOILERS

1.6.1.4 AIR HANDLING UNIT FANS

1.6.1.5 EXHAUST FANS

1.7 EXHAUST FANS

APPLIES TO: GENERAL EXHAUST FANS AS NOTED IN THE DRAWINGS.

1.7.1 DISABLED/UNOCCUPIED MODE:

1.7.1.1 EXHAUST FANS SHALL BE OFF.

1.7.2 OCCUPIED MODE:

1.7.2.1 EXHAUST FANS SHALL BE ENERGIZED 30 MINUTES BEFORE THE START OF BUILDING OCCUPANCY AND SHALL REMAIN ENERGIZED UNTIL 120 MINUTES AFTER THE END OF BUILDING OCCUPANCY.

1.7.2.2 STAGE STARTUP OF EXHAUST FANS AT LEAST 30 SECONDS AFTER MAIN BUILDING VENTILATION TO PREVENT PEAK SERVICE CHARGES.

1.7.3 SAFETY SHUTDOWNS:

1.7.3.1 UPON ACTIVATION OF THE FIRE ALARM SYSTEM, THE UNIT SHALL GO INTO THE DISABLED/UNOCCUPIED MODE. AFTER FIRE ALARM SYSTEM HAS BEEN CLEARED THE UNIT SHALL RETURN TO OCCUPIED MODE AND BEGIN INITIAL STARTUP SEQUENCE.

1.7.4 THE FOLLOWING POINTS SHALL BE SHOWN ON THE GRAPHICAL USER INTERFACE:

POINTS	TYPE	ALARM
(TYPICAL OF EACH FAN*)		
FAN ENABLE*		-
FAN STATUS*		CRITICAL

1.8 BOOSTER HEATING COILS

1.8.1 BOOSTER HEATING COIL CONTROL VALVE SHALL MODULATE OPEN/CLOSED TO MAINTAIN ROOM TEMPERATURE SETPOINT

1.8.2 IF SPACE TEMPERATURE DROPS BELOW 55 DEGREES F (ADJUSTABLE), A CRITICAL ALARM SHALL BE GENERATED. ALARM SHALL BE DISABLED IN SUMMER MODE.

1.8.3 THE FOLLOWING SHALL BE SHOWN ON THE GRAPHICAL USER INTERFACE:

POINTS	TYPE	ALARM
CONTROL VALVE COMMAND	AO/DO	-
SPACE TEMPERATURE	AI	CRITICAL
SPACE TEMP SETPOINT	AO	-

1.9 UNIT HEATERS & CABINET UNIT HEATERS

1.9.1 LINE VOLTAGE THERMOSTAT SHALL CYCLE CONTROL VALVE OPEN/CLOSE AND ENGAGE FAN AS REQUIRED TO MAINTAIN ROOM TEMPERATURE SETPOINT. BULLET-TYPE TEMPERATURE SENSOR TO BE PROVIDED FOR BAS MONITORING ONLY.

1.9.2 IF SPACE TEMPERATURE DROPS BELOW 55 DEGREES F (ADJUSTABLE), A CRITICAL ALARM SHALL BE GENERATED. ALARM SHALL BE DISABLED IN SUMMER MODE.

1.9.3 THE FOLLOWING SHALL BE SHOWN ON THE GRAPHICAL USER INTERFACE:

POINTS	TYPE	ALARM
SPACE TEMPERATURE	AI	CRITICAL
SPACE TEMP SETPOINT	AO	-

1.10 FINNED PIPE

1.10.1 24 V INTEGRAL THERMOSTAT-CONTROL VALVE SHALL CYCLE CONTROL VALVE OPEN/CLOSE TO MAINTAIN ROOM TEMPERATURE SETPOINT. BULLET-TYPE TEMPERATURE SENSOR TO BE PROVIDED FOR BAS MONITORING ONLY.

1.10.2 IF SPACE TEMPERATURE DROPS BELOW 55 DEGREES F (ADJUSTABLE), A CRITICAL ALARM SHALL BE GENERATED. ALARM SHALL BE DISABLED IN SUMMER MODE.

1.10.3 THE FOLLOWING SHALL BE SHOWN ON THE GRAPHICAL USER INTERFACE:

POINTS	TYPE	ALARM
SPACE TEMPERATURE	AI	CRITICAL
SPACE TEMP SETPOINT	AO	-

– END OF SEQUENCE OF OPERATIONS –

CONSULTANT :



PROJECT :

**MENDENHALL RIVER COMMUNITY SCHOOL
CONTROLS UPGRADE
CBJ PROJECT NO. BE17-246**

JUNEAU, ALASKA

SHEET TITLE :

PH 2 SEQUENCE OF OPERATIONS

DESIGN	DA	
DRAWN	KB	
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DATE	MARCH 31, 2017	
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