RQAW | DCCM

ADDENDUM NO. 1

Job Name:	**Noblesville City Hall Controls Upgrade**
Project Number:	24-800-036-1
Date of Addendum:	**11/5/2024**

THIS ADDENDUM FORMS A PART OF THE CONTRACT DOCUMENTS AND IS ISSUED IN ACCORDANCE WITH THE INSTRUCTIONS TO BIDDERS. ACKNOWLEDGE RECEIPT OF THIS ADDENDUM BY SIGNING THE ADDENDUM ACKNOWLEDGEMENT SECTION OF YOUR PROPOSAL.

Clarifications:

1. Substitution Request for Reliable Controls Denied. All allowable manufacturers were vetted by the owner prior to issuing of bid set.

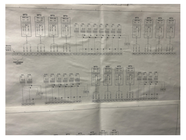
Drawings:

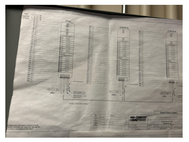
1. **Revise** Sheet M220
    a. Added Unit Heaters above the ceilings of Lg. Conference Rooms A213 and A214.
2. **Revise** Sheet M500
    a. Adjusted Entering Water Temperature on VAV box coils.
3. **Revise** Sheet M600
    a. Added Unit Heater Schedule
4. **Add** Sheet E321
    a. Provided Circuiting of new Unit Heaters
5. **Revise** Sheet P101
    a. Updated RO system storage tank from 80 gallons to 120 gallons.

Attachments:

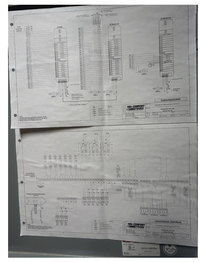
1) Drawings
2) Prebid Meeting Notes
3) Prebid Meeting Attendance

END OF ADDENDUM 1





PHOTOS AT DDC PANEL C



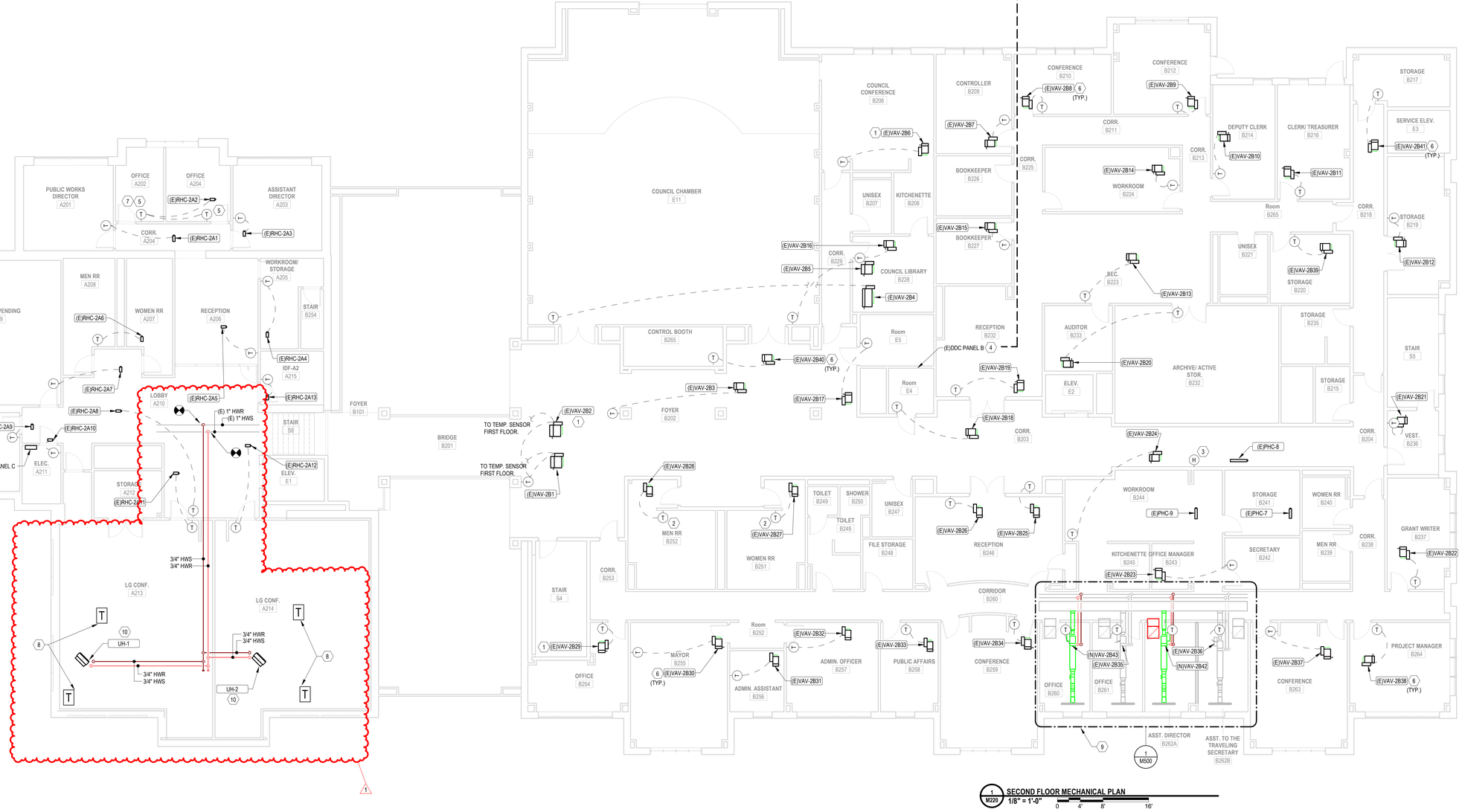
PHOTOS AT DDC PANEL B

GENERAL NOTES:

A) TCC SHALL PERFORM A COMPLETE CONTROLS REPLACEMENT FOR THE ENTIRE FACILITY INCLUDING ALL FIELD DEVICES INCLUDING BUT NOT LIMITED TO DAT SENSORS WALL T/H/P SENSORS, VALVE ACTUATORS AND EXHAUST FAN ISOLATION DAMPERS.
B) DEVICES WITH BACNET CARD SHALL BE FULLY INTERGRATED TO BMS WITH CUSTOM GRAPHICS.
C) TCC SHALL PERFORM A POINT TO POINT CHECKOUT AT THE END OF THE PROJECT.
D) TCC SHALL STRIVE TO IDENTIFY ANY DAMPERS, VALVES, PIPING ACCESSORIES, ETC. THAT MAY NEED REPLACEMENT BEYOND THE CONTROLS COMPONENTS WITHIN THEIR SCOPE. TCC SHALL UTILIZE THE ALLOWANCE WRITTEN WITHIN THE SPECIFICATIONS TO FIX THESE ISSUES, BUT NOT PRIOR TO COMMUNICATION AND APPROVAL FROM THE OWNER AND THE ENGINEER.
E) TCC SHALL BUILD FRONT END GRAPHICS AND SUBMIT TO ENGINEER FOR APPROVAL.
F) FIELD CONTROLLERS ON EACH LEVEL SHOULD HAVE SPARE CAPACITY FOR THE FOLLOWING:
- BASEMENT: (4)VAV BOXES
- FIRST FLOOR: (10)VAV BOXES
- SECOND FLOOR: (10)VAV BOXES

PLAN NOTES

#	NOTE
1	PROVIDE VAV BOX WITH NEW 3-WAY CONTROL VALVE.
2	REMOVE EXISTING TEMPERATURE SENSOR AND REPLACE WITH NEW FLAT PLATE SENSOR.
3	REPLACE EXISTING HUMIDITY SENSOR WITH NEW HUMIDITIY SENSOR SERVING (E)RTU-83.
4	TCC TO INTEGRATE ALL EXISTING POINTS INDICATED WITHIN EXISTING PANEL SCHEDULES.
5	PROGRAM DUAL THERMOSTATS TO BE TEMPERATURE AVERAGING.
6	ALL NEW VAV BOXES SHALL CONTROL BASED ON THE NEW SEQUENCE INDICATED ON SHEET M600. (TYPICAL OF ALL).
7	THIS SHALL BE THE CONTROLLING THERMOSTAT.
8	PROVIDE NEW TEMPERATURE SENSORS IN ATTIC ABOVE CONFERENCE ROOM. ONE NEAR ROOF RIDGE AND ANOTHER NEAR THE EXTERNAL WALL WHERE SHOWN. SENSORS SHALL TIE INTO THE BAS AND ALARM IF TEMERATURE FALLS BELOW 40 DEGREES (ADJ). ALARM SHALL INDICATE ROOM NUMBER ASSOCIATED WITH FREEZING CONDITIONS.
9	REFER TO SHEET M500 FOR RENOVATION WORK IN THIS AREA.
10	INSTALL UNIT HEATER IN ATTIC TO MAINTAIN 50 DEGREES (ADJ). ROUTE 3/4" HWS/R PIPE BACK TO EXISTING MAIN AS REQUIRED.



1 M220 SECOND FLOOR MECHANICAL PLAN
1/8" = 1'-0"
0 4' 8' 16'

RQAW

DCCM

100% CD BID SET

City of Noblesville

Noblesville City Hall Controls Upgrade

16 S. 10TH ST.
Noblesville, In. 46060

#	Revision	Date
1	ADDENDUM #1	11.05.2024

Project #: 24-800-036-1
Designed By: A.M.
Drawn By: R.T.
Checked By: A.M.
Date: 10/11/2024

DUSTIN E. BARTH REGISTERED No. 12200401 STATE OF INDIANA PROFESSIONAL ENGINEER

SECOND FLOOR MECHANICAL PLAN

M220

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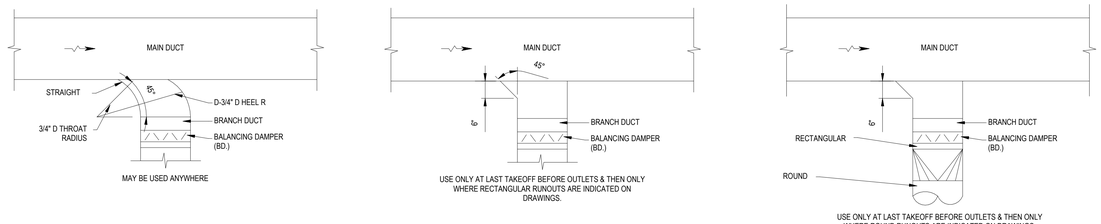
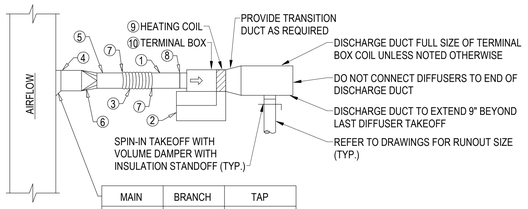


NOTE:
THIS CONNECTION SHALL BE USED AT ALL BRANCHES FROM MAINS AND SUB-MAINS. BALANCING SHALL BE PROVIDED AS SHOWN IN ADDITION TO THOSE INDICATED ON THE PLANS.

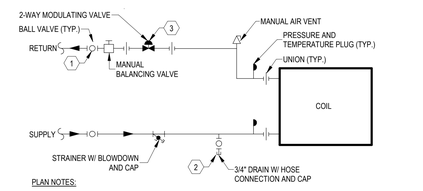
5 M - DETAIL - DUCT BRANCH CONNECTION
NOT TO SCALE



MAIN	BRANCH	TAP
SQUARE	SQUARE	45° BOOTTAP
SQUARE	ROUND	BELLMOUTH
ROUND	ROUND	45° LATERAL

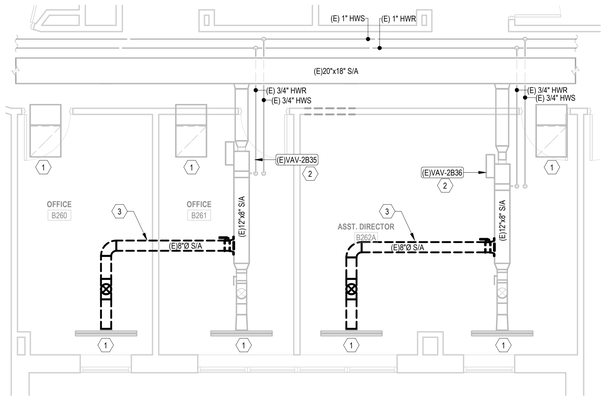
DETAIL NOTES:
1. A MINIMUM OF THREE (3) DUCT DIAMETERS (MAXIMUM OF 3'-0") OF STRAIGHT HARD METAL DUCT SHALL BE PROVIDED DIRECTLY UPSTREAM OF TERMINAL BOX INLET AFTER TRANSITION TO TERMINAL BOX INLET SIZE.
2. MAINTAIN A MINIMUM OF 24" CLEARANCE FOR SERVICE, CONTROLLER, AND HEATING COIL VALVING. PROVIDE 36" MINIMUM CLEARANCE WHERE VOLTAGE EXCEEDS 24V. COORDINATE ACCESS CLEARANCE FROM UNIT THROUGH CEILING BELOW WITH ALL TRADES.
3. OPTIONAL INSULATED FLEXIBLE DUCT CONNECTION TO THE TERMINAL BOX. HARD DUCT IS PERFECTLY ACCEPTABLE. FLEXIBLE DUCT SHALL NOT EXCEED ONE (1) FOOT IN LENGTH. FLEXIBLE DUCT SHALL BE INSTALLED STRAIGHT WITH NO OFFSETS.
4. REFER TO DRAWINGS FOR RUNOUT SIZES. RUNOUT SIZE 2" LARGER THAN TERMINAL UNIT INLET SIZE UNLESS NOTED OTHERWISE.
5. DUCT SIZE AFTER TRANSITION IS SAME SIZE AS SCHEDULED TERMINAL UNIT INLET SIZE AS MODIFIED BY COMPLETED SUBMITTALS.
6. TRANSITION, AS REQUIRED, IF RUNOUT SIZE DIFFERS FROM TERMINAL UNIT INLET SIZE.
7. TIE-WRAP CONNECT FLEX DUCT HELICAL COIL TO ROUND METAL DUCTWORK. PULL FLEX DUCT VAPOR BARRIER OVER LOWER TIE-WRAP AND INSTALL SECOND TIE-WRAP OVER THE VAPOR BARRIER. INSULATE METAL DUCT OVER TOP OF SECOND TIE-WRAP AND INSTALL INSULATOR'S TAPE ON EDGES.
8. INSULATE ALL EXPOSED METAL AT TERMINAL UNIT INLET. INSULATE AROUND FLOW SENSORS.
9. INSULATE ALL EXPOSED METAL AT COIL. INSULATE RETURN BENDS. SEAL CLEAT JOINTS. DUCTWORK INSULATION SHALL OVERLAP THE INTERNALLY INSULATED TERMINAL UNIT BY TWO INCHES. INSULATE COIL PIPING BETWEEN CONTROL VALVE AND COIL CONNECTION.
10. SUPPORT TERMINAL BOX SUCH THAT IT CAN HANG INDEPENDENTLY OF ANY DUCTWORK CONNECTIONS. ATTACH FOUR STRAP HANGERS TO UNIT. SEAL SCREW PENETRATIONS OF TERMINAL UNIT.

3 M - DETAIL - TERMINAL BOX
NOT TO SCALE

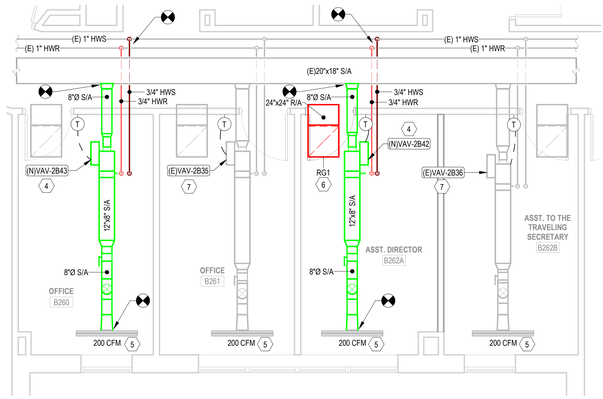


PLAN NOTES:
1. PROVIDE BUTTERFLY VALVES IN LIEU OF BALL VALVES WHEN PIPE SIZES ARE ABOVE 2", (TYP.)
2. INSTALL AT LOWEST POINT IN PIPING
3. INSTALL MODULATING VALVE SO THAT STEM IS VERTICAL.

4 M - DETAIL - NON-AHU 2-WAY WATER COIL PIPING
NOT TO SCALE



2 M500 SECOND FLOOR OFFICE RENOVATION MECHANICAL DEMOLITION PLAN
1/4" = 1'-0"



1 M500 SECOND FLOOR OFFICE RENOVATION MECHANICAL PLAN
1/4" = 1'-0"

PLAN NOTES

#	NOTE
1	EXISTING DIFFUSER / GRILLE TO REMAIN.
2	EXISTING VAV BOX TO REMAIN. VAV BOX AIRFLOWS TO BE REBALANCED.
3	DEMO DUCT RUNOUT TO DIFFUSER BACK TO MAIN AND CAP.
4	INSTALL NEW VAV BOX IN LOCATION SHOWN. CONNECT DUCTWORK BACK TO EXISTING MAIN AND EXISTING DIFFUSER AS REQUIRED. ROUTE HOT WATER PIPING BACK TO EXISTING MAIN AS REQUIRED.
5	REBALANCE EXISTING DIFFUSER TO CFM SHOWN.
6	PROVIDE NEW RETURN GRILLE IN CEILING. ROUTE SOUND BOOT THROUGH CORRIDOR WALL. PAINT INSIDE OF DUCTWORK MATTE BLACK.
7	REBALANCE VAV AIRFLOW AND WATER FLOW PER VAV BOX SCHEDULE.

VARIABLE AIR VOLUME TERMINAL UNIT SCHEDULE

REMARKS:
1. UNLESS OTHERWISE NOTED, ALL DUCT RUNOUTS TO BE 2" LARGER THAN BOX INLET SIZE.
2. TERMINAL BOX DOWNSTREAM DUCT RUNOUT SHALL BE SIZE OF TERMINAL BOX DISCHARGE. COORDINATE WITH FINAL TERMINAL BOX SUBMITTAL.
3. MINIMUM OF 2-ROW COIL IS REQUIRED.
4. CONTRACTOR TO VERIFY LEFT OR RIGHT HAND PIPING CONNECTIONS.

				DUCT SIZE	PRIMARY AIRFLOW		HEATING COIL							
								AIRSIDE			WATERSIDE			
PHASE	MARK	MANUFACTURER	MODEL	INLET	MAX	MIN	CAP (BTU/h)	ROWS	CFM	EAT(DB) (°F)	LAT(DB) (°F)	GPM	EWT (°F)	PIPE DIA	REMARKS
(E)	VAV-2B35	CARRIER	35EC	6"	200	75	6470	2	150	55.0	95.0	0.5	160	3/4"	(EXISTING)
(E)	VAV-2B36	CARRIER	35EC	6"	200	75	6470	2	150	55.0	95.0	0.5	160	3/4"	(EXISTING)
(N)	VAV-2B42	PRICE	SDV	6"	200	75	6470	2	150	55.0	95.0	0.5	160	3/4"	1,2,3,4
(N)	VAV-2B43	PRICE	SDV	6"	200	75	6470	2	150	55.0	95.0	0.5	160	3/4"	1,2,3,4

1

DIFFUSER / GRILLE SCHEDULE

REMARKS:
1. BRANCH DUCTWORK TO THE DIFFUSER SHALL BE THE SAME SIZE AS THE NECK UNLESS OTHERWISE NOTED.
2. PROVIDE FRAME STYLE APPROPRIATE FOR CEILING TYPE (I.E. LAY IN, SURFACE MOUNT).

TAG	NECK SIZE	FACE LENGTH	FACE WIDTH	MATERIAL	FINISH	MAX NC	MAX THROW (FT)	MAX TOTAL APD (IN WG)	MANUFACTURER	MODEL	NOTES
RG1	24"x24"	24"	24"	ALUMINUM	WHITE	20	12	0.05	PRICE	EGG CRATE 80	1,2

INSULATION SCHEDULE

SYSTEM	TYPE	THICKNESS	THERMAL CONDUCTIVITY (BTU-IN / HR-FT2-DEGF)
HOT WATER SUPPLY / RETURN	FLEXIBLE ELASTOMERIC	1"	.25
SUPPLY DUCTWORK	MINERAL FIBER BLANKET WITH FSK JACKET	1.5"	.27
RETURN DUCTWORK	NONE	NONE	NONE

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City of Noblesville
Noblesville City Hall Controls Upgrade
16 S. 10TH ST.
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#	Revision	Date
1	ADDENDUM #1	11.05.2024

Project #: 24-800-036-1
Designed By: A.M.
Drawn By: R.T.
Checked By: A.M.
Date: 10/11/2024

DUSTIN E. BARTH REGISTERED No. 12200401 STATE OF INDIANA PROFESSIONAL ENGINEER
Dustin Barth

N

SECOND FLOOR OFFICE RENOVATION MECHANICAL PLANS

M500

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MISCELLANEOUS POINTS SCHEDULE

POINT NO.	EQUIPMENT	LOCATION	TYPE	NOTES
1	CIVIL SEWAGE EJECTOR PUMP HIGH LEVEL ALARM	-	ALARM	-
2	DOMESTIC HOT WATER RECIRCULATION PUMP	MECHANICAL ROOM	ALARM	-
3	ATS-1	ELECTRICAL ROOM	STATUS	1
4	GENERATOR RUNNING	EXTERIOR	ALARM	2
5	ATS-1	ELECTRICAL ROOM	STATUS	-
6	DOMESTIC WATER MAKEUP METER	-	FLOW	-

NOTES:
1. CREATE A STATUS SIGNAL WHEN THE ATS IS ENABLED TO UTILIZE THE EMERGENCY GENERATOR.
2. TCC SHALL PROVIDE UNDERGROUND CONDUIT TO ROUTE THE POINT INTO THE BUILDING FROM THE EMERGENCY GENERATOR.

UNIT HEATER SCHEDULE

REMARKS:
1. PROVIDE WITH FACTORY WIRED AND MOUNTED FUSED DISCONNECT.
2. PROVIDE WITH BACNET CARD AND THERMOSTAT.

MARK	DESCRIPTION	ARRANGEMENT	EAT (°F)	LAT (°F)	CFM	HEATING CAPACITY (MBH)	CIRCULATING FLUID					ELECTRICAL			MAKE	MODEL	REMARKS
							PIPE RUNOUT SIZE	FLOW	EWT (°F)	LWT (°F)	MAX W.P.D (FT HD)	HP	VOLT	PH			
UH-1	ATTIC UNIT HEATER	HORIZONTAL	50	83	340	12	3/4	1.3	160	140	0.5	1/20	115	1	MODINE	HC 18	1, 2
UH-2	ATTIC UNIT HEATER	HORIZONTAL	50	83	340	12	3/4	1.3	160	140	0.5	1/20	115	1	MODINE	HC 18	1, 2

(E)EQUIPMENT INDEX

MARK	MANUFACTURER	EXISTING CONTROL	YEAR INSTALLED
B-1	FULTON	BACNET	2006
B-2	FULTON	BACNET	2006
CH-1	AAON	BACNET	2023
CH-2	AAON	BACNET	2023
CP-1	---	FIELD DEVICES	2006
CWP-1	BELL & GOSSETT	FIELD DEVICES	2023
CWP-2	BELL & GOSSETT	FIELD DEVICES	2023
DHW-1	INTELLIHOT	---	2012
DHW-2	INTELLIHOT	---	2012
DWRP-1	---	---	2012
EF-A1	GREENHECK	FIELD DEVICES	2006
EF-A2	GREENHECK	FIELD DEVICES	2006
EF-B1	GREENHECK	FIELD DEVICES	2006
EF-B2	GREENHECK	FIELD DEVICES	2006
EF-B3	GREENHECK	FIELD DEVICES	2006
EF-B4	GREENHECK	FIELD DEVICES	2006
GMU-1	BELL & GOSSETT	FIELD DEVICES	2012
HM-1	APRILAIRE	BACNET	2012
HM-2	DRISTEEM	BACNET	2022
HM-3	DRISTEEM	BACNET	2022
HM-4	DRISTEEM	BACNET	2022
HWP-1	ARMSTRONG	FIELD DEVICES	2006
HWP-2	ARMSTRONG	FIELD DEVICES	2006
IPEX DOUBLE CONTAINMENT PANEL	IPEX	---	2012
IRCU-1	APC	---	2012
IRCU-2	APC	---	2012
IRCU-3	APC	---	2012
IRCU-4	APC	---	2012
IRCU-5	APC	---	2012
PHC-1	---	FIELD DEVICES	2006
PHC-2	---	FIELD DEVICES	2006
PHC-3	---	FIELD DEVICES	2006
PHC-4	---	FIELD DEVICES	2006
PHC-5	---	FIELD DEVICES	2006
PHC-6	---	FIELD DEVICES	2006
PHC-7	---	FIELD DEVICES	2006
PHC-8	---	FIELD DEVICES	2006
PHC-9	---	FIELD DEVICES	2006
RHC-1A1	---	FIELD DEVICES	2006
RHC-1A2	---	FIELD DEVICES	2006
RHC-1A3	---	FIELD DEVICES	2006
RHC-1A4	---	FIELD DEVICES	2006
RHC-1A5	---	FIELD DEVICES	2006
RHC-1A6	---	FIELD DEVICES	2006
RHC-1A7	---	FIELD DEVICES	2006
RHC-1A8	---	FIELD DEVICES	2006
RHC-1A9	---	FIELD DEVICES	2006
RHC-1A10	---	FIELD DEVICES	2006
RHC-1A11	---	FIELD DEVICES	2006
RHC-1A12	---	FIELD DEVICES	2006
RHC-1A13	---	FIELD DEVICES	2006
RHC-1A14	---	FIELD DEVICES	2006
RHC-1A15	---	FIELD DEVICES	2006
RHC-1A16	---	FIELD DEVICES	2006
RHC-1A17	---	FIELD DEVICES	2006
RHC-1A18	---	FIELD DEVICES	2006
RHC-1A19	---	FIELD DEVICES	2006
RHC-1A20	---	FIELD DEVICES	2006
RHC-2A1	---	FIELD DEVICES	2006
RHC-2A2	---	FIELD DEVICES	2006
RHC-2A3	---	FIELD DEVICES	2006
RHC-2A4	---	FIELD DEVICES	2006
RHC-2A5	---	FIELD DEVICES	2006
RHC-2A6	---	FIELD DEVICES	2006
RHC-2A7	---	FIELD DEVICES	2006
RHC-2A8	---	FIELD DEVICES	2006
RHC-2A9	---	FIELD DEVICES	2006
RHC-2A10	---	FIELD DEVICES	2006
RHC-2A11	---	FIELD DEVICES	2006
RHC-2A12	---	FIELD DEVICES	2006
RHC-2A13	---	FIELD DEVICES	2006
RTU-A1	CARRIER	CARRIER	2006
RTU-A2	CARRIER	CARRIER	2006
RTU-B1	AAON	BACNET	2023
RTU-B2	AAON	BACNET	2023
RTU-B3	AAON	BACNET	2023
VAV-0B1	CARRIER	iVue	2006
VAV-0B2	CARRIER	iVue	2006
VAV-0B3	CARRIER	iVue	2006
VAV-0B4	CARRIER	iVue	2006
VAV-0B5	CARRIER	iVue	2006
VAV-0B6	CARRIER	iVue	2006
VAV-0B7	CARRIER	iVue	2006
VAV-0B8	CARRIER	iVue	2006
VAV-0B9	CARRIER	iVue	2006
VAV-0B10	CARRIER	iVue	2006
VAV-0B11	CARRIER	iVue	2006
VAV-0B12	CARRIER	iVue	2006
VAV-0B14	CARRIER	iVue	2006
VAV-0B15	CARRIER	iVue	2006
VAV-0B16	CARRIER	iVue	2006
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VAV-1B1	CARRIER	iVue	2006
VAV-1B2	CARRIER	iVue	2006
VAV-1B3	CARRIER	iVue	2006
VAV-1B4	CARRIER	iVue	2006
VAV-1B5	CARRIER	iVue	2006
VAV-1B6	CARRIER	iVue	2006
VAV-1B7	CARRIER	iVue	2006

(E)EQUIPMENT INDEX

MARK	MANUFACTURER	EXISTING CONTROL	YEAR INSTALLED
VAV-1B8	CARRIER	iVue	2006
VAV-1B9	CARRIER	iVue	2006
VAV-1B10	CARRIER	iVue	2006
VAV-1B10A	CARRIER	iVue	2006
VAV-1B11	CARRIER	iVue	2006
VAV-1B12	CARRIER	iVue	2006
VAV-1B13	CARRIER	iVue	2006
VAV-1B14	CARRIER	iVue	2006
VAV-1B15	CARRIER	iVue	2006
VAV-1B16	CARRIER	iVue	2006
VAV-1B17	CARRIER	iVue	2006
VAV-1B18	CARRIER	iVue	2006
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VAV-1B20	CARRIER	iVue	2006
VAV-1B21	CARRIER	iVue	2006
VAV-1B22	CARRIER	iVue	2006
VAV-1B23	CARRIER	iVue	2006
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VAV-1B25	CARRIER	iVue	2006
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VAV-1B28	CARRIER	iVue	2006
VAV-1B29	CARRIER	iVue	2006
VAV-1B30	CARRIER	iVue	2006
VAV-1B31	CARRIER	iVue	2006
VAV-1B32	CARRIER	iVue	2006
VAV-1B33	CARRIER	iVue	2006
VAV-1B34	CARRIER	iVue	2006
VAV-1B35	CARRIER	iVue	2006
VAV-1B36	CARRIER	iVue	2006
VAV-1B37	CARRIER	iVue	2006
VAV-1B38	CARRIER	iVue	2006
VAV-1B39	CARRIER	iVue	2006
VAV-1B40	CARRIER	iVue	2006
VAV-1B41	CARRIER	iVue	2006
VAV-1B42	CARRIER	iVue	2006
VAV-1B43	CARRIER	iVue	2006
VAV-1B44	CARRIER	iVue	2006
VAV-1B45	CARRIER	iVue	2006
VAV-1B46	CARRIER	iVue	2006
VAV-1B47	CARRIER	iVue	2006
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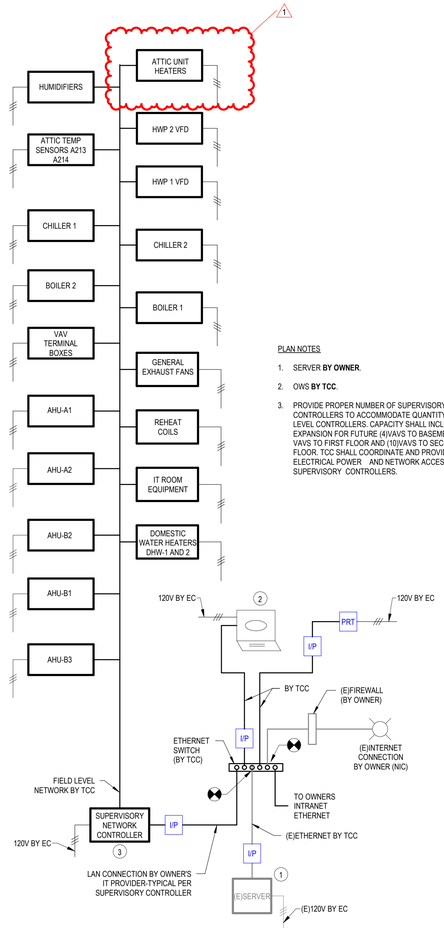
VAV-2B25	CARRIER	iVue	2006
VAV-2B26	CARRIER	iVue	2006
VAV-2B27	CARRIER	iVue	2006
VAV-2B28	CARRIER	iVue	2006
VAV-2B29	CARRIER	iVue	2006
VAV-2B30	CARRIER	iVue	2006
VAV-2B31	CARRIER	iVue	2006
VAV-2B32	CARRIER	iVue	2006
VAV-2B33	CARRIER	iVue	2006
VAV-2B34	CARRIER	iVue	2006
VAV-2B35	CARRIER	iVue	2006
VAV-2B36	CARRIER	iVue	2006
VAV-2B37	CARRIER	iVue	2006
VAV-2B38	CARRIER	iVue	2006
VAV-2B39	CARRIER	iVue	2006
VAV-2B40	CARRIER	iVue	2006
VAV-2B41	CARRIER	iVue	2006
VAV-2B42	PRICE	NEW	NEW
VAV-2B43	PRICE	NEW	NEW
WATER DETECTION PANEL	---	---	2012

GENERAL NOTE - CONTROLS:

1. THESE SEQUENCES DEFINE THE MANNER AND METHOD BY WHICH CONTROLS FUNCTION. REQUIREMENTS FOR EACH TYPE OF CONTROL SYSTEM OPERATION ARE SPECIFIED. EQUIPMENT, DEVICES, AND SYSTEM COMPONENTS REQUIRED FOR CONTROL SYSTEMS ARE IN SPECIFICATION SECTIONS. FURNINSH ALL CONTROL DEVICES AND COMPONENTS, WHETHER SPECIFIED OR NOT, TO ACCOMPLISH THE DESCRIBED SEQUENCES.
2. ALL CONTROL VALVES WILL BE ELECTRONIC/ELECTRIC ACTUATED.
3. THIS DDC CONTROL SYSTEM WILL BE DESIGNED SO THAT THE OWNER WILL BE ABLE TO ACCESS AND CONTROL THIS SYSTEM FROM ANYWHERE ON THE WAN USING A STANDARD INTERNET BROWSER.
4. ALL THERMOSTATS WILL BE REMOTE/READABLE. ADJUSTABLE FOR NIGHT SETBACK CAPABILITIES. THERMOSTATS SHALL HAVE DIGITAL DISPLAY AND SETPOINT ADJUSTMENT.
5. LISTED CONTROL POINTS ARE MINIMUM REQUIREMENTS. T.C.C. SHAL PROVIDE ADDITIONAL POINTS IF REQUIRED FOR SPECIFIED SEQUENCE OF OPERATION.
6. TEMPERATURE CONTROL CONTRACTOR SHALL NOTIFY AND COORDINATE MECHANICAL CONTRACTOR OF ALL WELLS NEEDED IN PIPING.
7. CONTROL CONTRACTOR SHALL LOCATE ALL CONTROLLERS, RELAYS, ETC. AT AN EASILY ACCESSIBLE LOCATION IF NOT INSTALLED WITHIN EQUIPMENT CABINET.
8. ALL RELIEF DAMPERS AND EXHAUST FAN ISOLATION DAMPERS SHALL BE INSULTED, TIGHT-CLOSING TEMPERATURE CONTROL DAMPERS.
9. ALL OUTSIDE AIR, RETURN AIR AND RELIEF DAMPERS TO READ BACK ACTUAL ORIENTATION OF DAMPERS USING END SWITCHES.



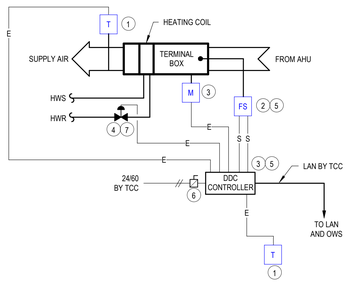
PLAN NOTES

1. SERVER **BY OWNER**.
2. OWS **BY TCC**.
3. PROVIDE PROPER NUMBER OF SUPERVISORY CONTROLLERS TO ACCOMMODATE QUANTITY OF FIELD LEVEL CONTROLLERS. CAPACITY SHALL INCLUDE EXPANSION FOR FUTURE (4)VAVS TO BASEMENT, (10) VAVS TO FIRST FLOOR AND (10)VAVS TO SECOND FLOOR. TCC SHALL COORDINATE AND PROVIDE ELECTRICAL POWER AND NETWORK ACCESS TO ALL SUPERVISORY CONTROLLERS.

1 BAS SYSTEM ARCHITECTURE
NO SCALE

PLAN NOTES

1. FURNISHED, INSTALLED, WIRED AND COMMISSIONED BY TCC.
2. INTEGRAL WITH TERMINAL BOX.
3. FURNISHED AND COMMISSIONED BY TCC; INSTALLED BY TERMINAL BOX SUPPLIER.
4. FURNISHED BY TCC; INSTALLED BY MC.
5. AIR VOLUME SENSOR TO RECALIBRATE AUTOMATICALLY WITH A SCHEDULE APPROVED BY OWNER.
6. DISCONNECT BY BOX MFR.
7. FAIL IN LAST POSITION.



SEQUENCE OF OPERATION - VAV BOXES:

1. TERMINAL BOX CONTROLLER SHALL RESPOND TO CHANGES IN SPACE TEMPERATURE AND VARIATIONS IN SYSTEM STATIC PRESSURE TO MODULATE SUPPLY AIR VOLUME VALVE FROM SCHEDULED COOLING MINIMUM TO SCHEDULED MAXIMUM AIRFLOW. WHEN THE BOX HEATING IS REQUIRED, BOX TO BEGIN CONTROLLING HW VALVE TO 85°F, AS SPACE CONTINUES TO DEMAND HEAT, VAV BOX TO TREND CFM UP TO MAXIMUM WHILE MAINTAINING 85°F. UPON CONTINUED CALL FOR HEATING, HW COIL TO OPEN TO MAXIMUM LEAVING AIR TEMPERATURE. BOX HEATING AIRFLOW IS THEN MODULATED FROM SCHEDULED MINIMUM HEATING AIRFLOW TO SCHEDULED MAXIMUM HEATING AIRFLOW TO MAINTAIN 85°F (ADJ.) DISCHARGE TEMPERATURE AS ADDITIONAL HEAT IS REQUIRED. THROUGH LAN TO OPERATORS WORK STATION. IT SHALL BE POSSIBLE TO READ AND ADJUST SPACE TEMPERATURE AND SUPPLY AIR VOLUME (MAXIMUMS AND MINIMUMS) TCC TO NOTE THAT ALL ACTUATORS ARE FURNISHED AND INSTALLED BY TCC.
2. TIME SCHEDULE ARE UTILIZED TO RESET SPACE DEADBAND TEMPERATURES AND CLOSE TERMINAL BOXES IN ACCORDANCE WITH THE FACILITY'S TEMPERATURE SETBACK POLICY:
   - OCCUPIED MODE
     HEATING SET POINT = 70 DEGREES
     COOLING SET POINT = 72 DEGREES
     TERMINAL BOX AIR VALVE CONTROLS TO AIRFLOW SETPOINT
   - UNOCCUPIED MODE (BUILDING OCCUPANCY SCHEDULE OFF)
     HEATING SET POINT = 60 DEGREES
     COOLING SET POINT = 80 DEGREES
     TERMINAL BOX AIR VALVE FULLY CLOSED UNTIL UNOCCUPIED MODE SETPOINT IS REACHED, THEN OPEN TO MINIMUM AIRFLOW AND CONTROL TO STANDBY MODE SETPOINTS.
5. EACH TERMINAL UNIT AIR VALVE AND HEATING VALVE SHALL CLOSE WHEN ITS ASSOCIATED AHU IS DE-ENERGIZED.

SEQUENCE OF OPERATION - CAV BOXES:

1. TERMINAL BOX CONTROLLER SHALL RESPOND TO CHANGES IN SPACE TEMPERATURE BY MODULATING HEATING COIL VALVE SUPPLY AIR VOLUME TO BE MAINTAINED AT A CONSTANT VALUE REGARDLESS OF CHANGES IN SUPPLY DUCT STATIC PRESSURE THROUGH CONTROL OF DAMPER ACTUATOR. THROUGH LAN TO OPERATORS WORK STATION IT SHALL BE POSSIBLE TO READ AND ADJUST SPACE SPACE TEMPERATURE AND SUPPLY AIR VOLUMES (MAXIMUM AND MINIMUMS), TCC TO NOTE THAT ALL ACTUATORS ARE FURNISHED AND INSTALLED BY TCC.

2 VAV/CAV TERMINAL BOX CONTROL SCHEMATIC
NO SCALE

RQAW

DCCM

100% CD BID SET

City of Noblesville

Noblesville City Hall Controls Upgrade

16 S. 10TH ST.
Noblesville, In. 46060

#	Revision	Date
1	ADDENDUM #1	11.05.2024

Project #: 24-800-036-1

Designed By: A.M.

Drawn By: R.T.

Checked By: A.M.

Date: 10/11/2024

DUSTIN E. BARTH
REGISTERED
No. 12200401
STATE OF INDIANA
PROFESSIONAL ENGINEER

Dustin Barth

N

SCHEDULES - MECHANICAL

M600

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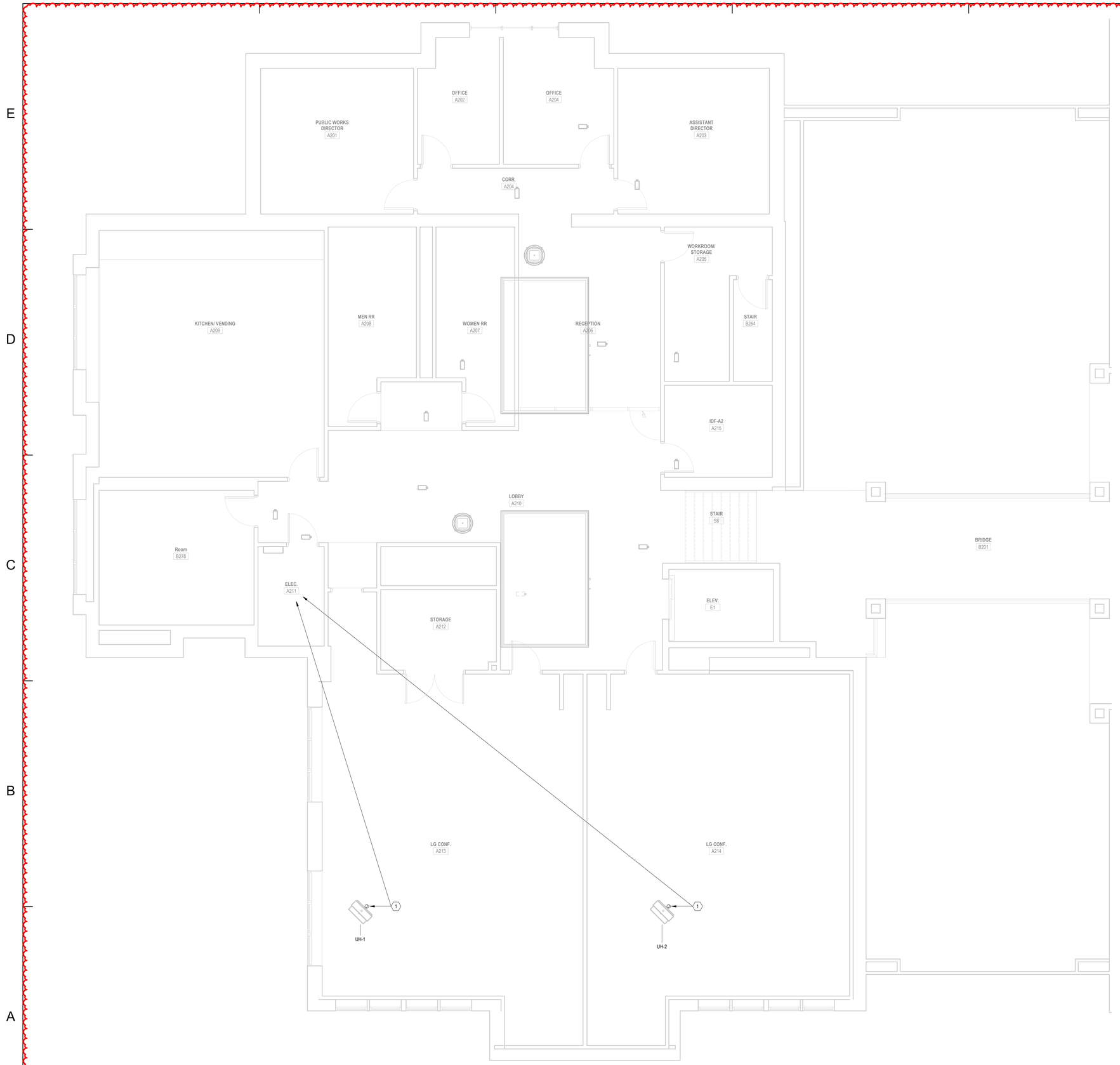

1 E321 SECOND FLOOR POWER PLAN - CONFERENCE ROOMS
1/4" = 1'-0"
0 2' 4' 8'

GENERAL NOTES - POWER:

A. REFER TO SHEET E001 FOR ELECTRICAL SYMBOLS AND ADDITIONAL GENERAL NOTES.

B. REFER TO MECHANICAL AND PLUMBING SERIES DRAWINGS FOR ADDITIONAL SCOPE OF WORK.

C. REFER TO SPECIFICATION SECTION 260519 FOR MINIMUM CONDUCTOR SIZE REQUIRED BASED ON THE TOTAL CIRCUIT DISTANCE.

D. REFER TO ARCHITECTURAL SCHEDULES, DETAILS, AND ELEVATIONS FOR ADDITIONAL INFORMATION ON DEVICE LOCATIONS PRIOR TO ROUGH-IN.

E. UNLESS NOTED OTHERWISE, ALL NEW DEVICES SHALL BE INSTALLED FLUSH IN WALL.

PLAN NOTES

#	NOTE
1	CONNECT COMPLETE VIA NEAREST AVAILABLE SPARE 120V, 20A CIRCUIT. AVAILABLE SPARE ANTICIPATED TO BE IN ADJACENT ELEC. ROOM A211. PROVIDE NEW 120V, 20A BREAKER AS REQUIRED. BOTH UNIT HEATERS MAY BE ON THE SAME CIRCUIT. PROVIDE INDIVIDUAL DISCONNECTING MEANS AS REQUIRED.

RQAW
DCCM

100% CONSTRUCTION DOCUMENTS

CITY OF NOBLESVILLE

NOBLESVILLE CITY HALL CONTROLS UPGRADE

16 S 10th St, Noblesville, IN 46060

#	Revision	Date
1	ADDENDUM #01	11.05.2024

Project #: 24-800-036-1
Designed By: JAF
Drawn By: JAF
Checked By: DB
Date: 10.11.2024

DUSTIN E. BARTH REGISTERED No. 12200401 STATE OF INDIANA PROFESSIONAL ENGINEER
Dustin Barth

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SECOND FLOOR POWER PLAN - CONFERENCE ROOMS

E321

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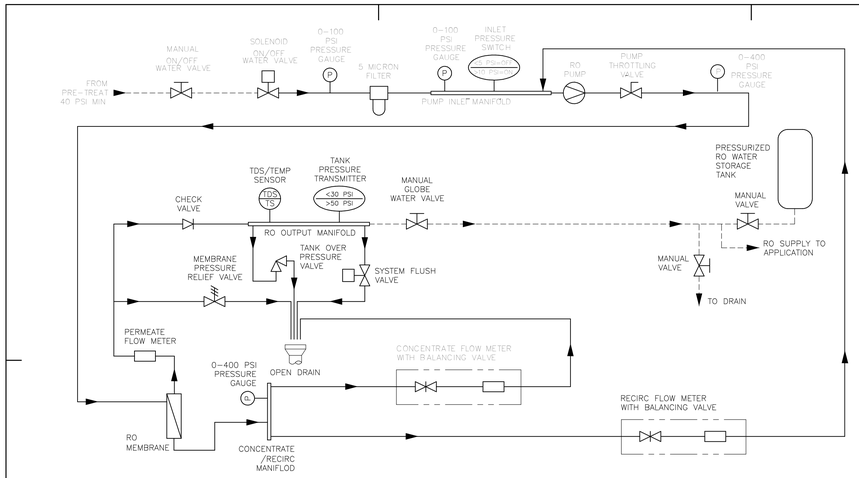
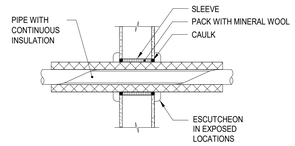
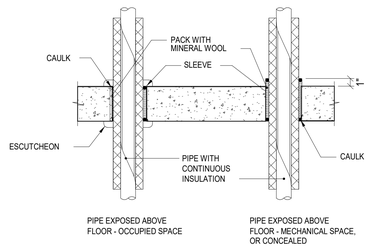


6 P101 RO SYSTEM PIPING DIAGRAM
NOT TO SCALE

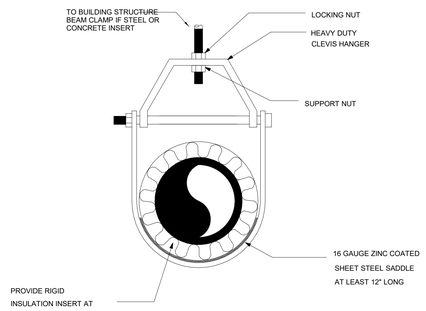


PIPE THRU WALL



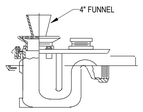
PIPE THRU FLOOR

7 P101 PIPING THRU FLOOR DETAIL
NOT TO SCALE



8 P101 PIPE HANGING DETAIL
NOT TO SCALE

J.R.SMITH DRAIN
FIG. # 2041



FD-1

9 P101 FLOOR DRAIN DETAIL
NOT TO SCALE

PLAN NOTES

#	NOTE
1	CONNECT NEW 1-1/4" DOM. CW TO EXISTING CW RISER IN CHASE. CONTRACTOR TO CONFIRM EXISTING SIZE AND LOCATION IN FIELD.
2	CONNECT NEW 2" RO WATER TO EXISTING RO RISER IN CHASE. CONTRACTOR TO CONFIRM EXISTING SIZE AND LOCATION IN FIELD.
3	NEW 1" CW DROP TO DECHLORINATOR.
4	NEW 1" CW DROP TO REVERSE OSMOSIS SYSTEM. COORDINATE PLACEMENT OF RO SYSTEM FOR FILTRATION REMOVAL MAINTENANCE AT CEILING TILE. REMOVAL OF CEILING TILE SHALL BE DONE BY CONTRACTOR.
5	NEW 2" CW DROP TO RO SYSTEM STORAGE TANK.
6	CONNECT NEW 4" WASTE TO EXISTING SANITARY. CONTRACTOR TO CONFIRM SIZE AND LOCATION IN FIELD.
7	NEW 3" WASTE UP TO FLOOR DRAIN.
8	CONNECT NEW 3/4" CW TO EXISTING CW LINE. CONTRACTOR TO CONFIRM SIZE AND LOCATION IN FIELD.
9	NEW 3/4" CW UP TO ROOF HYDRANT.
10	CONNECT NEW 3/4" CW TO EXISTING CW LINE OF ADEQUATE SIZE. CONTRACTOR TO VERIFY SIZE AND LOCATION IN FIELD.
11	NEW 3/4" CW DN.

DRAIN SCHEDULE

TAG	FLOOR DRAIN DESCRIPTION	MANUFACTURER	MODEL #
FD-1	FLOOR DRAIN: ADJUSTABLE CAST IRON BODY, ROUND NICKEL BRONZE STRAINER. CAULK OUTLET. SURESEAL INLINE FLOOR DRAIN TRAP SEALER.	J.R. SMITH	2005-Y02-NB

DECHLORINIZATION SYSTEM SCHEDULE

TAG	LOCATION	MEDIA VOLUME	DIMENSIONS DIAMETER X HEIGHT	CONNECTIONS IN/OUT	BACKWASH FLOW	SHIPPING WEIGHT	MANUFACTURER	MODEL #	NOTES
DWS-1	STORAGE RM B235	1.00 FT³ (0.028 M³)	9" X 48"	1"	4.2 GPM\	130LBS	DRISTEEM	DC948	

RO SYSTEM SCHEDULE

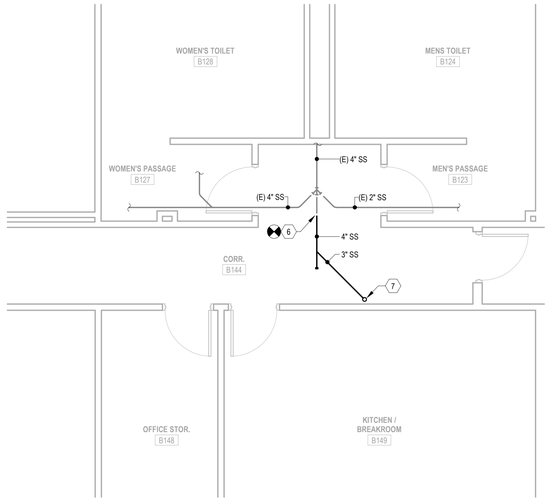
TAG	LOCATION	VOLT	PHASE	PERMEATE FLOW RATE (GPD)	GPM	WATER OUTLET CONN.	DRAIN OUTLET CONN.	MANUFACTURER	MODEL #	NOTES
RO-1	STORAGE RM B235	120	1	1429	MIN 4 GPM	3/4"	1"	DRISTEEM	RO 401	

PRESSURIZED STORAGE TANK SCHEDULE

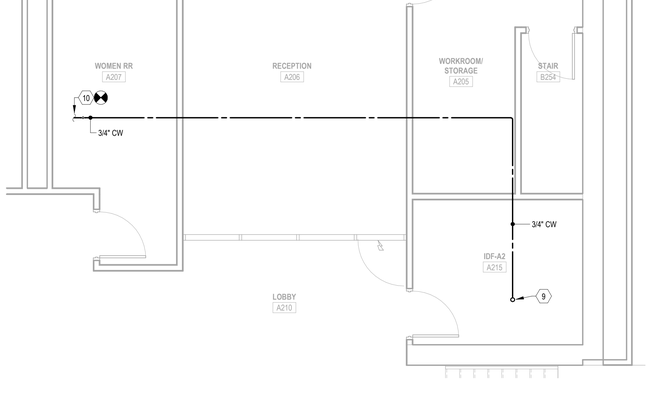
TAG	LOCATION NAME/#	TYPE	GALLON CAPACITY	ACTIVE CAPACITY	TANK WIDTH	TANK HEIGHT	WEIGHT	MANUFACTURER	MODEL #	NOTES
ST-1	STORAGE RM B235	VERTICAL	120	35.4 GAL	24"	66"	335 lb	DRISTEEM	120 GAL	

PLUMBING EQUIPMENT SCHEDULE

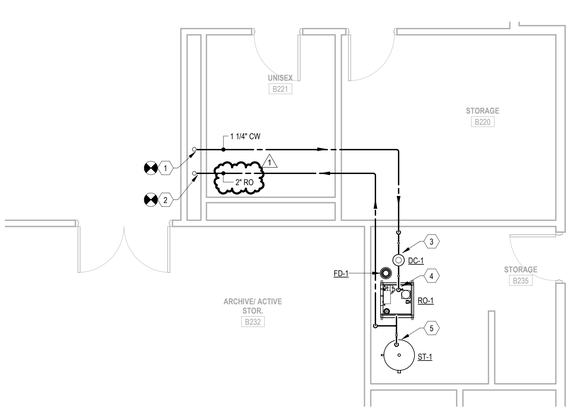
TAG	DESCRIPTION	MANUFACTURER / MODEL # / CAPACITY	ELECTRICAL REQUIREMENTS	REMARKS (SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)
RH-1	ROOF HYDRANT	WOODFORD #RHY2-MS	-	



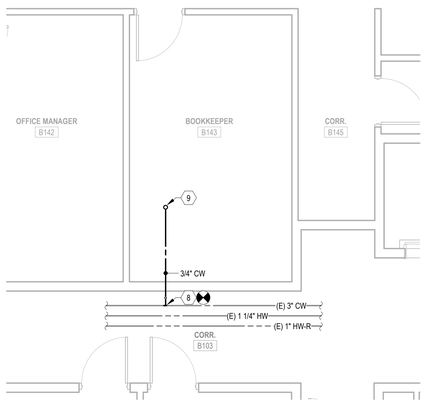
1 P101 FIRST FLOOR PLUMBING PLAN - B144
1/4" = 1'-0"



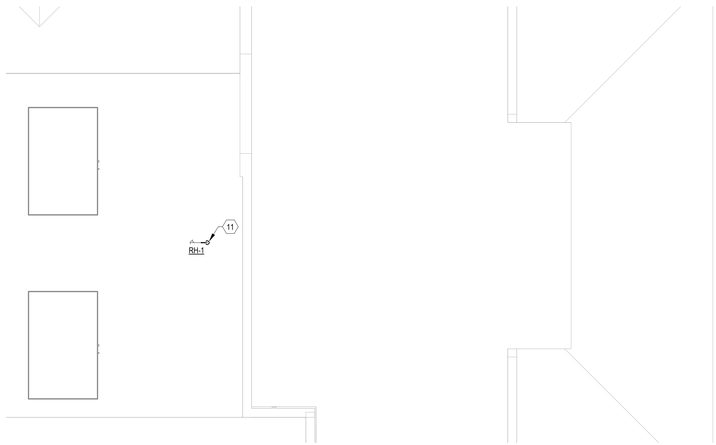
2 P101 SECOND FLOOR PLUMBING PLAN - A205, A206, A207, & A215
1/4" = 1'-0"



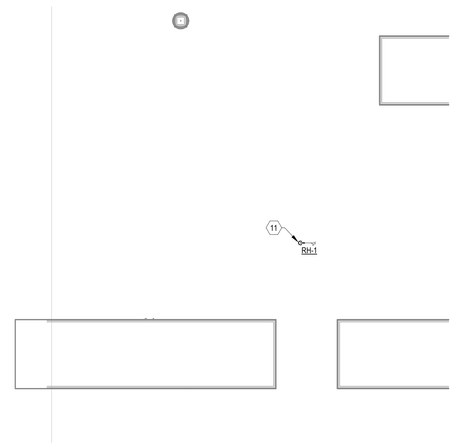
3 P101 SECOND FLOOR PLUMBING PLAN - B220, B221, & B235
1/4" = 1'-0"



4 P101 FIRST FLOOR PLUMBING PLAN - B103, B143
1/4" = 1'-0"



5 P101 ROOF PLUMBING PLAN
1/8" = 1'-0"



RQAW
DCCM

100% Construction Documents

CITY OF NOBLESVILLE

NOBLESVILLE CITY HALL CONTROLS UPGRADE

16 S 10th St, Noblesville, IN 46060

#	Revision	Date
1	ADDENDUM #1	11.05.2024

Project #: 24-800-036-1
Designed By: K.I.
Drawn By: J.W.
Checked By: K.I.
Date: 10.07.2024

DUSTIN E. BARTH REGISTERED No. 12200401 STATE OF INDIANA PROFESSIONAL ENGINEER
Dustin Barth

PLUMBING PLANS, SCHEDULES, & DETAILS

P101

11/6/2024 12:39:19 PM

RQAW
DCCM

Corporate Headquarters
8770 North St., Ste. 110
Fishers, IN 46038
317.588.1798

Project Name: Noblesville City Hall Controls Upgrade

Topic: Pre-Bid Meeting

Date: 2024.10.22

Organizer: Adam Mattingly

Attendees: David Dale, Nick Vilders, Adam Mattingly

Unless comments to the contrary are received within seven (7) days of the issue date of these minutes, the minutes will be assumed to be correct as written.

The following discussions/decisions will be made during the meeting:

1. Introduction
2. Project Summary
   - This project is a complete controls system renovation from the existing Carrier I-Vue system to a Tridium system with a Niagara N4 front end. Existing equipment with Bacnet cards to be integrated into system, and non-Bacnet field devices to be replaced and integrated into system.
   - RO System on second floor
   - Fire Protection insulation in conference rooms
   - Split Large office into two
   - Single Bid Package
3. Schedule
   - Bid Date: November 12th, 2024
     - Opening at 9am at Noblesville City Hall
   - Start Date: ~December 2024
   - Completion: Proposed as part of Bid
4. Questions
5. Walkthrough

RQAW
ARCHITECTURE

Fishers, IN - Corporate
8770 North St., Ste. 110
Fishers, IN 46038
317.588.1798

Meeting Attendance:

Name	Representing (Department, Division, etc.)	In Attendance (X)	Phone	E-mail
Nate Hunter	WMI	X	260-494-8007	nhunter@cemi.llc.com