

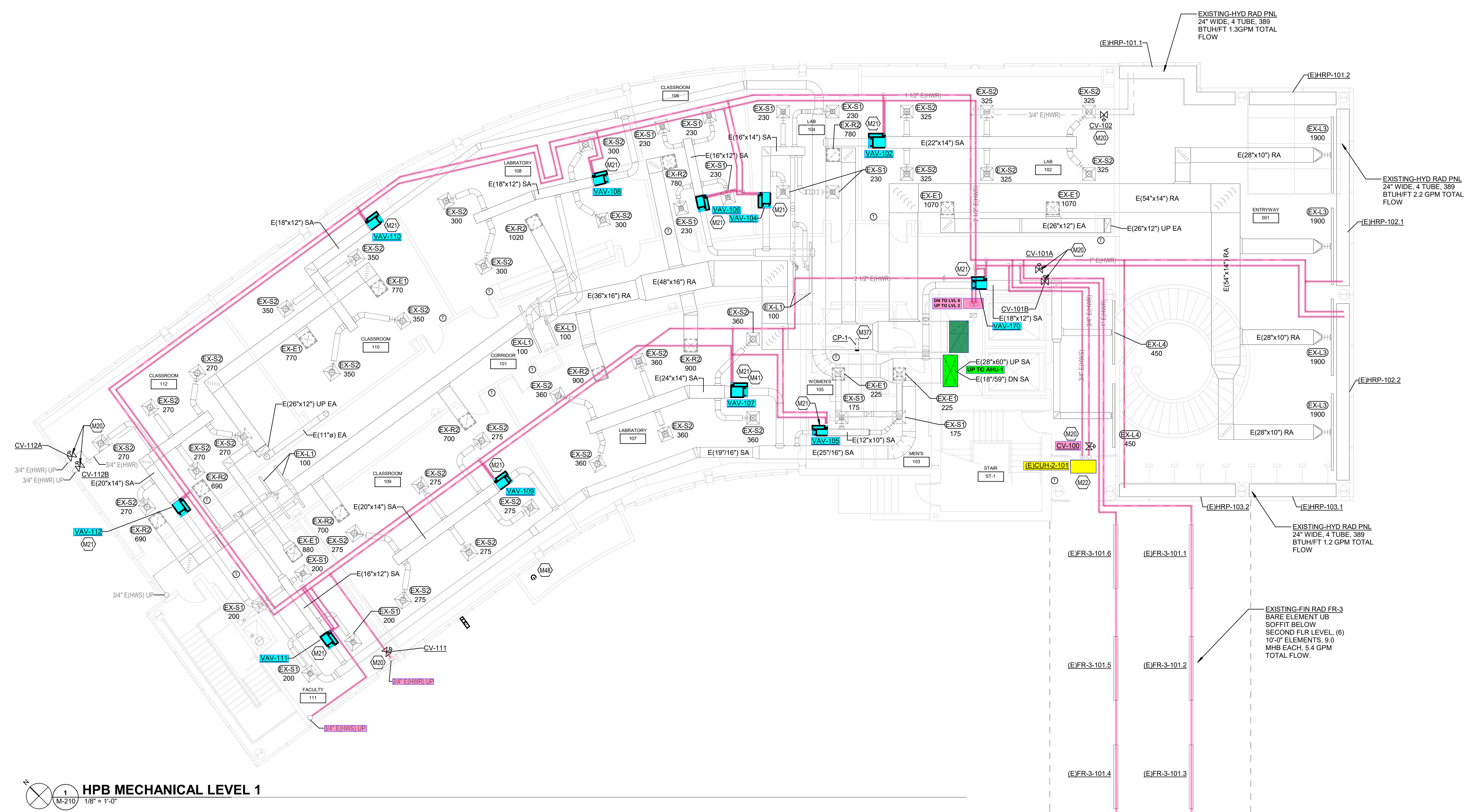
OWNER JOB #:	CS-TC-25-019
DATE:	12/18/2024
DRAWN:	DJF
CHECKED:	TLA

REVISIONS	
1	BID AND PERMIT 12/18/24

CONTROL VALVE SCHEDULE			
MARK	SIZE	GPM	SERVICE
CV-000	3/4"	2.5	CUH-4.0
CV-001A	3/4"	1.9	FR-2-1-2
CV-001B	3/4"	4.0	FR-2-4-7
CV-004	3/4"	1.8	FR-3-004-1-2
CV-005	3/4"	2.5	FR-3-005-2-3, 008-1-2
CV-007	1"	3.7	UH-1
CV-009	1"	3.7	UH-1
CV-010	3/4"	2.5	FR-3-010-1-4
CV-100	3/4"	2.5	CUH-2.1
CV-101A	1"	3.4	HR-G02-3-5
CV-101B	1"	5.4	FR-3-100-1-6
CV-102	3/4"	1.3	HR-G02-1-2
CV-111	3/4"	3.8	FR-1-215-1-2
CV-112A	3/4"	5.4	FR-1-216, 218-1-3
CV-112B	3/4"	1.7	FR-1-220, 222
CV-200B	3/4"	1.1	FR-1-303,306
CV-200C	3/4"	2.0	FR-1-300-302
CV-202A	3/4"	.8	FR-202-1-2
CV-202B	3/4"	1.4	FR-2-310-1-3
CV-202C	3/4"	1.5	FR-2-312-1-4
CV-202D	3/4"	1.5	FR-2-202-3-6
CV-203	3/4"	1.5	FR-2-203, 204,2-3
CV-204A	3/4"	1.5	FR-2-314-1-4
CV-204B	3/4"	.61	FR-2-318
CV-204C	3/4"	1.8	FR-204-4-7
CV-204D	3/4"	.9	FR-2-316
CV-206	3/4"	1.4	FR-1-320,322
CV-207	3/4"	1.6	FR-1-325,323,321
CV-208A	3/4"	1.62	FR-1-328,326,324
CV-208B	3/4"	1.62	FR-1-330,332,334
CV-209	3/4"	1.6	FR-1-325,323,321
CV-210	3/4"	1.62	FR-1-340,338,336
CV-212A	3/4"	1.62	FR-1-340,342,344
CV-212B	3/4"	1.1	FR-1-346,348
CV-212C	3/4"	1.1	FR-1-354,352
CV-213	3/4"	1.6	FR-1-331,329,327
CV-218	3/4"	1.1	FR-1-356,1
CV-220	3/4"	1.6	FR-1-358
CV-301	3/4"	1.6	HD-301-1-2
CV-200A	3/4"	0.9	HD-218-2
CV-AHU-CHW-A	5"	248	AHU-CHW COIL
CV-AHU-CHW-B	5"	248	AHU-CHW COIL
CV-AHU-HW	2 1/2"	54	AHU-HW COIL

VAV BOX RUNOUT SCHEDULE 1ST FLOOR		
MARK	DUCT INLET SIZE	GPM
VAV-102	14" Ø	5.12
VAV-104	12" Ø	2.96
VAV-105	8" Ø	1.77
VAV-106	10" Ø	4.02
VAV-107	14" Ø	5.12
VAV-108	12" Ø	2.96
VAV-109	12" Ø	2.96
VAV-110	12" Ø	3.26
VAV-111	10" Ø	2.35
VAV-112	12" Ø	4.09
VAV-170	12" Ø	2.96

TAGGED NOTES	
M20	PROVIDE NEW DDC CONTROLS. REPLACE EXISTING CONTROL VALVE. NEW CONTROL WIRING SHALL FOLLOW PATH MADE AVAILABLE BY REMOVAL OF PNEUMATIC TUBING.
M21	PROVIDE NEW VAV BOX, RE-HEAT COIL, THERMOSTAT, VALVES, AND ACCESSORIES. REFER TO DETAILS FOR MORE INFORMATION. RE-WORK EXISTING DUCTWORK CONNECTIONS AND REPAIR/PROVIDE NEW INSULATION AS NECESSARY. TAB CONTRACTOR TO RE-BALANCE SUPPLY DIFFUSERS DOWN STREAM OF VAV BOX.
M22	PROVIDE NEW DDC CONTROLS OF MECHANICAL EQUIPMENT. INTEGRATE WITH FRONT END.
M37	PROVIDE CONTROL PANEL IN ELECTRICAL ROOM. MAINTAIN ALL REQUIRED CLEARANCES.
M41	PROVIDE 3-WAY CONTROL VALVE.
M48	FASTEN OPERABLE WINDOWS WITHIN 10' OF BOILER FLUE SO AS NOT TO OPEN.



HPB MECHANICAL LEVEL 1
M-210
1/8" = 1'-0"

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OWNER JOB #:	CS-TC-25-019
DATE:	12/18/2024
DRAWN:	DJF
CHECKED:	TLA

REVISIONS	
1	BID AND PERMIT 12/18/24

M-220

MARK	SIZE	GPM	SERVICE
CV-000	3/4"	2.5	CUH-2.0
CV-001A	3/4"	1.9	FR-2.1.2
CV-001B	3/4"	4.0	FR-2.4.7
CV-004	3/4"	1.8	FR-3-004.1-2
CV-005	3/4"	2.5	FR-3-005.2-3, 008.1-2
CV-007	1"	3.7	UH-1
CV-009	1"	3.7	UH-1
CV-010	3/4"	2.5	FR-3-010.1-4
CV-100	3/4"	2.5	CUH-2.1
CV-101A	1"	3.4	HR-G02.3-5
CV-101B	1"	5.4	FR-3-100.1-6
CV-102	3/4"	1.3	HR-G02.1-2
CV-111	3/4"	3.8	FR-1.215.1-2
CV-112A	3/4"	5.4	FR-1.216.218.1-3
CV-112B	3/4"	1.7	FR-1.220.222
CV-200B	3/4"	1.1	FR-1.303.306
CV-200C	3/4"	2.0	FR-1.300.302
CV-202A	3/4"	8	FR-202.1-2
CV-202B	3/4"	1.4	FR-2.310.1-3
CV-202C	3/4"	1.5	FR-2.312.1-4
CV-202D	3/4"	1.5	FR-2.202.3-6
CV-203	3/4"	1.5	FR-2.203.204.2-3
CV-204A	3/4"	1.5	FR-2.314.1-4
CV-204B	3/4"	61	FR-2.318
CV-204C	3/4"	1.8	FR-204.4-7
CV-204D	3/4"	3	FR-2.316
CV-206	3/4"	1.4	FR-1.320.322
CV-207	3/4"	1.6	FR-1.325.323.321
CV-208A	3/4"	1.62	FR-1.328.326.324
CV-208B	3/4"	1.62	FR-1.330.332.334
CV-209	3/4"	1.6	FR-1.325.323.321
CV-210	3/4"	1.62	FR-1.340.338.336
CV-212A	3/4"	1.62	FR-1.340.342.344
CV-212B	3/4"	1.1	FR-1.346.348
CV-212C	3/4"	1.1	FR-1.354.352
CV-213	3/4"	1.6	FR-1.331.329.327
CV-218	3/4"	1.1	FR-1.356.1
CV-220	3/4"	1.6	FR-1.358
CV-301	3/4"	1.6	HD-301.1-2
CV-200A	3/4"	0.9	HD-218.2
CV-AHU-CHW-A	5"	248	AHU-CHW COIL
CV-AHU-CHW-B	5"	248	AHU-CHW COIL
CV-AHU-HW	2 1/2"	54	AHU-HW COIL

MARK	DUCT INLET SIZE	GPM
VAV-200	12" Ø	2.96
VAV-201	8" Ø	1.50
VAV-202	16" Ø	6.17
VAV-203	10" Ø	2.35
VAV-204	16" Ø	6.17
VAV-205	10" Ø	2.35
VAV-206	14" Ø	5.12
VAV-207	12" Ø	4.09
VAV-207B	12" Ø	4.09
VAV-208A	14" Ø	5.12
VAV-209	12" Ø	2.96
VAV-210	14" Ø	5.12
VAV-212	12" Ø	2.96
VAV-213	8" Ø	1.77
VAV-214	8" Ø	1.50
VAV-218	8" Ø	1.50
VAV-220	8" Ø	1.50

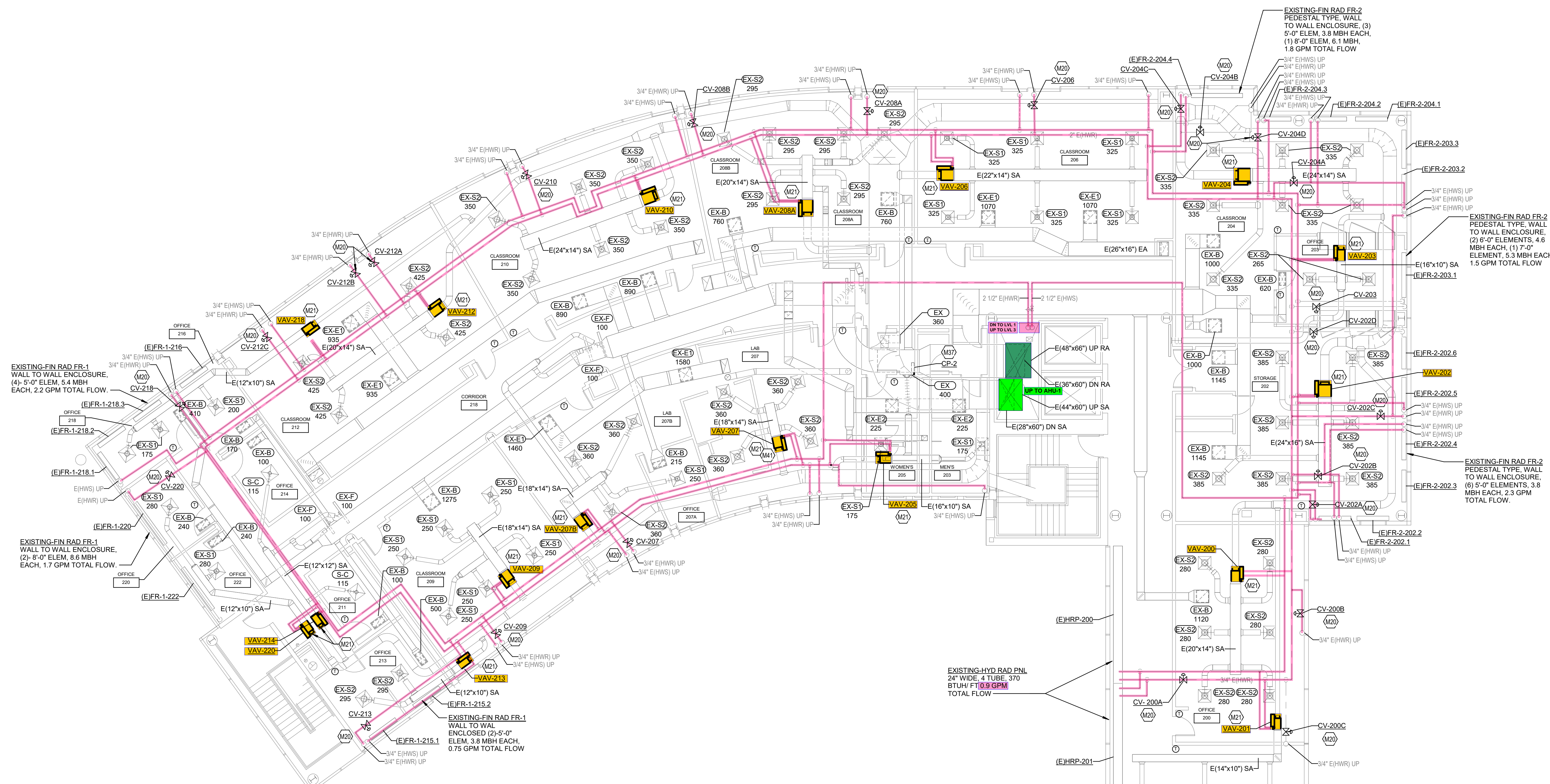
TAGGED NOTES

M20 PROVIDE NEW DDC CONTROLS. REPLACE EXISTING CONTROL VALVE. NEW CONTROL WIRING SHALL FOLLOW PATH MADE AVAILABLE BY REMOVAL OF PNEUMATIC TUBING.

M21 PROVIDE NEW VAV BOX, RE-HEAT COIL, THERMOSTAT VALVES, AND ACCESSORIES. REFER TO DETAILS FOR MORE INFORMATION. RE-WORK EXISTING DUCTWORK CONNECTIONS AND REPAIR/PROVIDE NEW INSULATION AS NECESSARY. TAB CONTRACTOR TO RE-BALANCE SUPPLY DIFFUSERS DOWN STREAM OF VAV BOX.

M37 PROVIDE CONTROL PANEL IN ELECTRICAL ROOM. MAINTAIN ALL REQUIRED CLEARANCES.

M41 PROVIDE 3-WAY CONTROL VALVE.



HPB MECHANICAL LEVEL 2
1/8" = 1'-0"

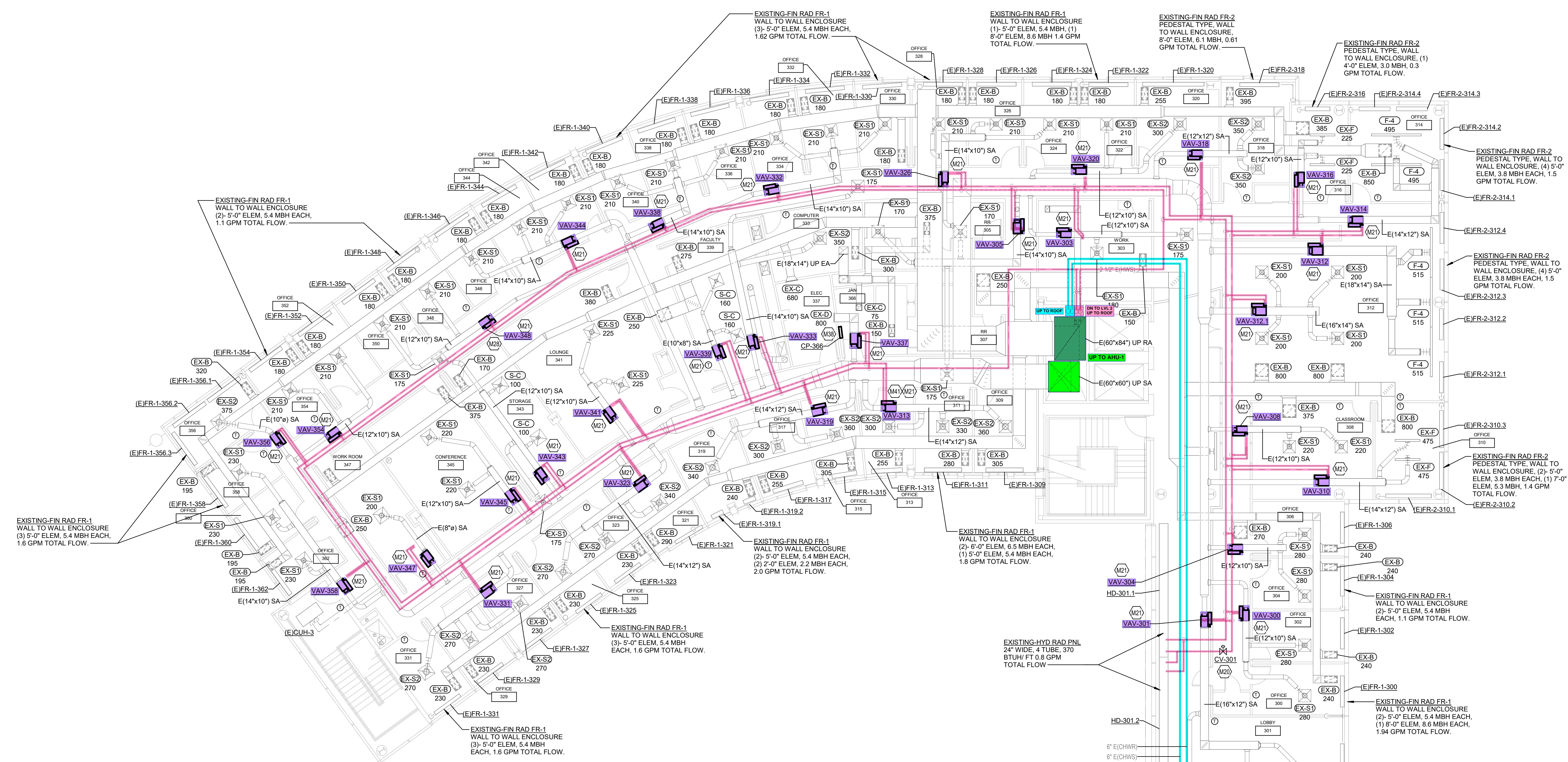
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CONTROL VALVE SCHEDULE			
MARK	SIZE	GPM	SERVICE
CV-000	3/4"	2.5	CUH-2.0
CV-001A	3/4"	1.9	FR-2.1-2
CV-001B	3/4"	4.0	FR-2.4-7
CV-004	3/4"	1.8	FR-3-004.1-2
CV-005	3/4"	2.5	FR-3-005.2-3, 008.1-2
CV-007	1"	3.7	UH-1
CV-009	1"	3.7	UH-1
CV-010	3/4"	2.5	FR-3-010.1-4
CV-100	3/4"	2.5	CUH-2.1
CV-101A	1"	3.4	HR-G02.3-5
CV-101B	1"	5.4	FR-3-100.1-6
CV-102	3/4"	1.3	HR-G02.1-2
CV-111	3/4"	3.8	FR-1-215.1-2
CV-112A	3/4"	5.4	FR-1-216.218.1-3
CV-112B	3/4"	1.7	FR-1-220.222
CV-200B	3/4"	1.1	FR-1-303.306
CV-200C	3/4"	2.0	FR-1-300.302
CV-202A	3/4"	8	FR-202.1-2
CV-202B	3/4"	1.4	FR-2-310.1-3
CV-202C	3/4"	1.5	FR-2-312.1-4
CV-202D	3/4"	1.5	FR-2-202.3-6
CV-203	3/4"	1.5	FR-2-203.204.2-3
CV-204A	3/4"	1.5	FR-2-314.1-4
CV-204B	3/4"	6.1	FR-2-318
CV-204C	3/4"	1.8	FR-204.4-7
CV-204D	3/4"	3	FR-2-316
CV-206	3/4"	1.4	FR-1-320.322
CV-207	3/4"	1.6	FR-1-325.323.321
CV-208A	3/4"	1.62	FR-1-328.326.324
CV-208B	3/4"	1.62	FR-1-330.332.334
CV-209	3/4"	1.6	FR-1-325.323.321
CV-210	3/4"	1.62	FR-1-340.338.336
CV-212A	3/4"	1.62	FR-1-340.342.344
CV-212B	3/4"	1.1	FR-1-346.348
CV-212C	3/4"	1.1	FR-1-354.352
CV-213	3/4"	1.6	FR-1-331.329.327
CV-218	3/4"	1.1	FR-1-356.1
CV-220	3/4"	1.6	FR-1-358
CV-301	3/4"	1.6	HD-301.1-2
CV-200A	3/4"	0.9	HD-218.2
CV-AHU-CHW-A	5"	248	AHU-CHW COIL
CV-AHU-CHW-B	5"	248	AHU-CHW COIL
CV-AHU-HW	2 1/2"	54	AHU-HW COIL

VAV BOX RUNOUT SCHEDULE 3RD FLOOR		
MARK	DUCT INLET SIZE	GPM
VAV-300	8" Ø	2.65
VAV-301	10" Ø	3.04
VAV-303	6" Ø	1.27
VAV-304	8" Ø	1.77
VAV-305	10" Ø	1.46
VAV-308	6" Ø	1.77
VAV-310	10" Ø	1.46
VAV-312	12" Ø	2.96
VAV-312.1	12" Ø	5.13
VAV-313	10" Ø	3.04
VAV-314	10" Ø	3.04
VAV-316	6" Ø	1.77
VAV-318	8" Ø	1.77
VAV-319	10" Ø	2.35
VAV-320	8" Ø	1.77
VAV-323	10" Ø	3.04
VAV-326	8" Ø	2.65
VAV-331	10" Ø	3.04
VAV-332	8" Ø	2.65
VAV-333	8" Ø	1.77
VAV-337	10" Ø	1.46
VAV-338	8" Ø	2.65
VAV-339	8" Ø	0.99
VAV-341	6" Ø	0.99
VAV-343	8" Ø	1.77
VAV-344	8" Ø	2.65
VAV-345	6" Ø	1.14
VAV-347	8" Ø	0.77
VAV-348	8" Ø	0.81
VAV-354	8" Ø	0.81
VAV-356	6" Ø	1.14
VAV-358	8" Ø	2.65

- TAGGED NOTES**
- M20 PROVIDE NEW DDC CONTROLS. REPLACE EXISTING CONTROL VALVE. NEW CONTROL WIRING SHALL FOLLOW PATH MADE AVAILABLE BY REMOVAL OF PNEUMATIC TUBING.
 - M21 PROVIDE NEW VAV BOX, RE-HEAT COIL, THERMOSTAT, VALVES, AND ACCESSORIES. REFER TO DETAILS FOR MORE INFORMATION. RE-WORK EXISTING DUCTWORK CONNECTIONS AND REPAIR/PROVIDE NEW INSULATION AS NECESSARY. TAB CONTRACTOR TO RE-BALANCE SUPPLY DIFFUSERS DOWN STREAM OF VAV BOX.
 - M28 PROVIDE PRESSURE DIFFERENTIAL SENSOR TO CONTROL HOT WATER PUMP 23RDS DOWN PIPING LOOP. MAKE ALL CONNECTION TAPS BELOW THE TOP OF THE MARK AT 4 TO 5 O'CLOCK OR 7 TO
 - M38 PROVIDE CONTROL PANEL IN THIS LOCATION. MAINTAIN ALL REQUIRED CLEARANCES.
 - M41 PROVIDE 3-WAY CONTROL VALVE.



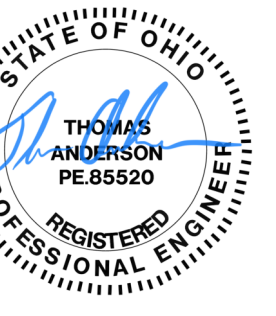
HPB MECHANICAL LEVEL 3
1 (M-230) 1/8" = 1'-0"

OWNER JOB #:	CS-TC-25-019
DATE:	12/18/2024
DRAWN:	DJF
CHECKED:	TLA

REVISIONS

1	BID AND PERMIT	12/18/24
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M-230



OWNER JOB #:	CS-TC-25-019
DATE:	12/18/2024
DRAWN:	DJF
CHECKED:	TLA

REVISIONS	
1	BID AND PERMIT 12/18/24

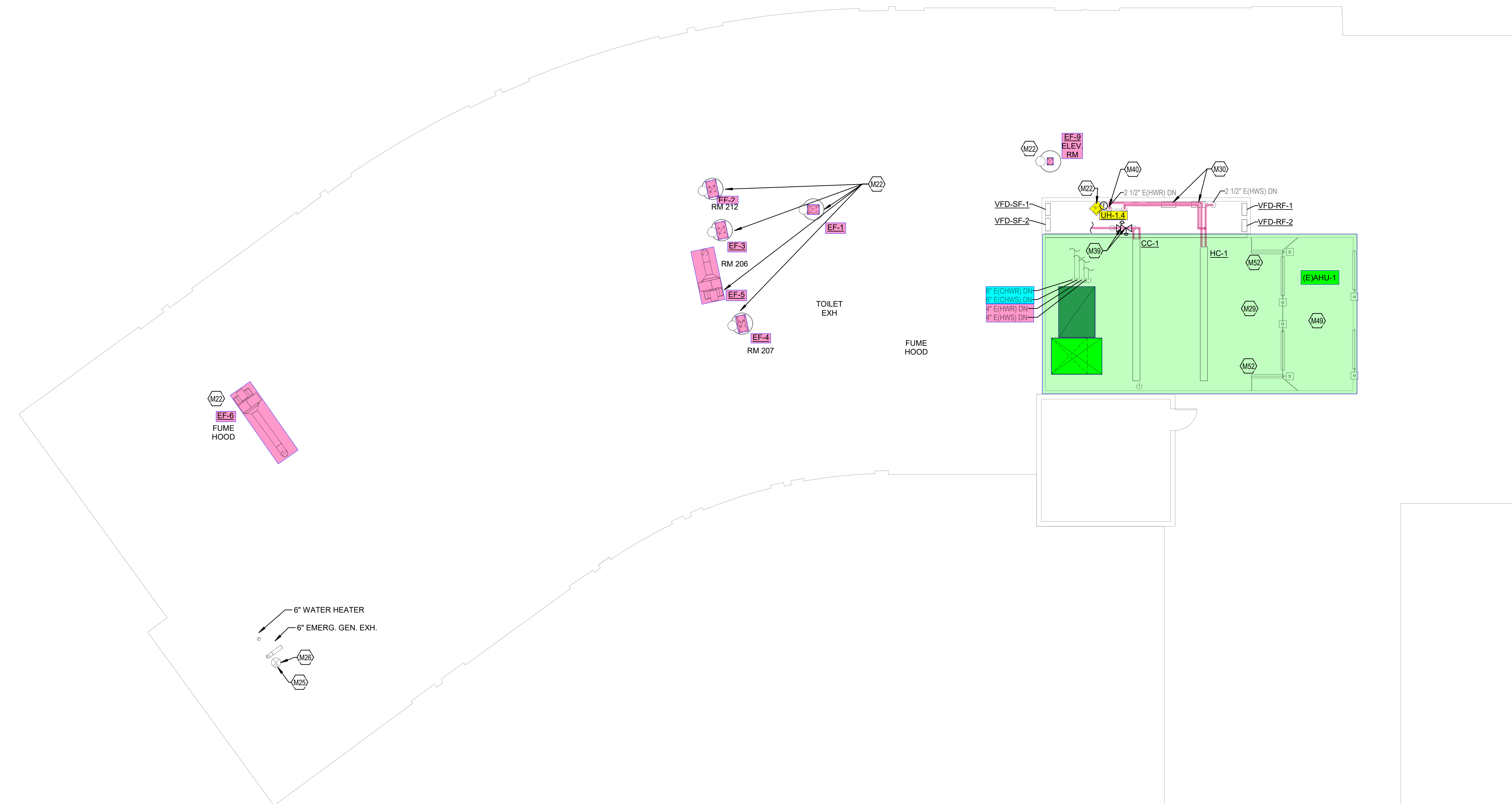
M-240

CONTROL VALVE SCHEDULE

MARK	SIZE	GPM	SERVICE
CV-000	3/4"	2.5	CUH-2.0
CV-001A	3/4"	1.9	FR-2-1.2
CV-001B	3/4"	4.0	FR-2.4.7
CV-004	3/4"	1.8	FR-3-004.1-2
CV-006	3/4"	2.5	FR-3-006.2-3, 008.1-2
CV-007	1"	3.7	UH-1
CV-009	1"	3.7	UH-1
CV-010	3/4"	2.5	FR-3-010.1-4
CV-100	3/4"	2.5	CUH-2.1
CV-101A	1"	3.4	HR-G02.3-5
CV-101B	1"	5.4	FR-3-100.1-6
CV-102	3/4"	1.3	HR-G02.1-2
CV-111	3/4"	3.8	FR-1-215.1-2
CV-112A	3/4"	5.4	FR-1-216.218.1-3
CV-112B	3/4"	1.7	FR-1-220.222
CV-300B	3/4"	1.1	FR-1-303.306
CV-200C	3/4"	2.0	FR-1-300.302
CV-202A	3/4"	.8	FR-202.1-2
CV-202B	3/4"	1.4	FR-2-310.1-3
CV-202C	3/4"	1.5	FR-2-312.1-4
CV-202D	3/4"	1.5	FR-2-202.3-6
CV-203	3/4"	1.5	FR-2-203.204.2-3
CV-204A	3/4"	1.5	FR-2-314.1-4
CV-204B	3/4"	.61	FR-2-318
CV-204C	3/4"	1.8	FR-204.4-7
CV-204D	3/4"	.9	FR-2-316
CV-206	3/4"	1.4	FR-1-320.322
CV-207	3/4"	1.6	FR-1-325.323.321
CV-208A	3/4"	1.62	FR-1-328.326.324
CV-208B	3/4"	1.62	FR-1-330.332.334
CV-209	3/4"	1.6	FR-1-325.323.321
CV-210	3/4"	1.62	FR-1-340.338.336
CV-212A	3/4"	1.62	FR-1-340.342.344
CV-212B	3/4"	1.1	FR-1-346.348
CV-212C	3/4"	1.1	FR-1-354.352
CV-213	3/4"	1.6	FR-1-331.329.327
CV-218	3/4"	1.1	FR-1-356.1
CV-220	3/4"	1.6	FR-1-358
CV-301	3/4"	1.6	HD-301.1-2
CV-200A	3/4"	0.9	HD-218.2
CV-AHU-CHW-A	5"	248	AHU-CHW COIL
CV-AHU-CHW-B	5"	248	AHU-CHW COIL
CV-AHU-HW	2 1/2"	54	AHU-HW COIL

TAGGED NOTES

- M22 PROVIDE NEW DDC CONTROL OF MECHANICAL EQUIPMENT. INTEGRATE WITH FRONT END.
- M25 REMOVE EXHAUST FAN AND DUCTWORK BACK TO ROOF CURB. CAP AND INSULATE AIR AND WATER TIGHT. DO NOT VOID ROOF WARRANTY.
- M26 CAP AND INSULATE BOILER FLUE AIR AND WATER TIGHT.
- M29 PROVIDE NEW DDC CONTROLS FOR AHU-1. REFER TO CONTROL SEQUENCE FOR ALL CONTROL POINTS.
- M30 EXISTING DDC CONTROL PANEL TO BE REUSED. INTEGRATE WITH NEW FRONT END AND CONVERT ALL PNEUMATIC CONTROLS AND DEVICES TO DIGITAL.
- M39 PROVIDE NEW HYDRONIC CONTROL VALVES AND DDC CONTROLS. REPAIR PIPE INSULATION WHERE NEW VALVE IS INSTALLED.
- M40 PROVIDE NEW HYDRONIC 3-WAY CONTROL VALVE AND DDC CONTROLS. REPAIR PIPE INSULATION WHERE NEW VALVE IS INSTALLED.
- M49 PROVIDE NEW ACTUATORS FOR PROPER CONTROL OF EXISTING DAMPERS.
- M52 PROVIDE AIR FLOW MEASURING STATION FOR OUTSIDE AIR.



MECHANICAL ROOF OVERALL
1/18" = 1'-0"

CS-CMTA-HPB-2024-01-01
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