

CONFORMANCE SET



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5/20/2024 11:27:00 AM

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ZONE LEVEL			Zones served by system																											
	ELEV - 1	Unoccupied	G100 - STUDENT VEST	G100A - STAFF VEST	G101 - CORRIDOR	G102 - CORRIDOR/PIN-UP	G103 - CORRIDOR	G104 - CORRIDOR	G105 - STAIR C	G106 - STAIR A	G107 - STAIR B	G108 - VISITOR VEST	G109 - RECEPTION	G110 - CORRIDOR	G111 - SECRETARY	G112 - AP OFFICE	G113 - CONFERENCE ROOM	G114 - UNISEX	G115 - PRINCIPAL CONFERENCE	G116 - UNISEX	G117 - PRINCIPAL	G118 - AUDITIONS	ADMIN WORKROOM	G120 - FINANCE OFFICE	G121 - OFFICE	G122 - GALLERY/COLLABORATION				
Az	Space type (select from pull-down list)	100	98	49	1143	1825	719	657	280	521	452	72	647	365	128	120	249	78	202	78	202	120	555	120	120	339				
Pz	Floor area of zone, ft2	0	0	0	0	0	0	0	0	0	0	0	6	0	1	1	8	0	8	0	1	1	12	1	1	0				
Rp	Zone population, largest # of people expected to occupy zone	0	0	0	0	0	0	0	0	0	0	0	5	0	5	5	0	5	0	0	5	5	5	5	5	0				
Ra	People outdoor air rate from Table 6.1, cfm/person	0	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06				
Pz*Rp	Area outdoor air rate from Table 6.1, cfm/ft2	0	0	0	0	0	0	0	0	0	0	0	30	0	5	5	40	0	40	0	5	5	60	5	5	0				
Az*Ra	Zone air distribution effectiveness, Table 6.2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Voz	Zone air distribution effectiveness, Table 6.2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Voz	Outdoor airflow to the zone corrected for zone air distribution effectiveness, (Pz*Rp + Az*Ra)/Ez, cfm	0	6	3	69	110	43	39	17	31	27	4	69	22	13	12	55	0	52	0	17	12	93	12	12	20				
Vpz	Primary airflow to zone from air handler, In VAV systems, use the design value, cfm	0	175	100	100	150	50	50	275	225	150	125	400	25	75	75	175	0	175	0	75	75	350	75	75	25				
Vpzm	The minimum value of the primary airflow to zone from air handler, In CAV systems, Vpzm = Vpz, cfm	0	70	40	40	60	20	20	110	90	60	50	160	10	30	30	70	0	70	0	30	30	140	30	30	10				
Zp	Primary outdoor air fraction, Voz/Vpzm	NA	0.08	0.07	1.71	1.83	2.16	1.97	0.15	0.35	0.45	0.09	0.43	2.19	0.42	0.41	0.78	NA	0.74	NA	0.57	0.41	0.67	0.41	0.41	2.03				
Zones served by system			G123 - CUSTODIAL	G124 - SCULPTURE	G125 - WOMEN'S	G126 - ELEC	G127 - MENS	G128 - CERAMICS	G128A - ART STORAGE	G128B - KILN	G129 - MDF	G130 - RECORDING STUDIO	G131 - MS SCIENCE	G132 - GALLERY	G132A - STORAGE	G133 - PREP	G134 - EC/GEN CLASS	G134A - EC RESTROOM	G135 - MECHANICAL	G135A - FIRE PUMP	G136 - MS SCIENCE	G137 - BOOK STORAGE	G138 - TITINERANT OFFICES	G139 - EMER ELEC						
Az	Space type (select from pull-down list)	Unoccupied	Art classroom	Unoccupied	Unoccupied	Unoccupied	Unoccupied	Art classroom	Storage rooms	Art classroom	Unoccupied	Computer Lab.	Classrooms (age 9 plus)	Museums/Galleries	Storage rooms	Storage rooms	Classrooms (age 9 plus)	Unoccupied	Unoccupied	Unoccupied	Unoccupied	Classrooms (age 9 plus)	Unoccupied	Unoccupied						
Pz	Floor area of zone, ft2	44	1174	232	100	232	1175	284	209	286	987	1012	1162	105	303	750	140	714	225	1012	301	313	48							
Rp	Zone population, largest # of people expected to occupy zone	0	30	0	0	0	38	0	0	0	30	30	0	0	0	0	30	0	0	0	30	0	6	0						
Ra	People outdoor air rate from Table 6.1, cfm/person	0	10	0	0	0	10	0	10	0	10	10	7.5	7.5	0	0	7.5	0	0	0	7.5	0	5	0						
Ra	Area outdoor air rate from Table 6.1, cfm/ft2	0	0.18	0	0	0	0.18	0.12	0.18	0	0.12	0	0.06	0.12	0.12	0	0	0	0	0	0	0	0.06	0						
Pz*Rp	Zone air distribution effectiveness, Table 6.2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
Az*Ra	Zone air distribution effectiveness, Table 6.2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2						
Voz	Outdoor airflow to the zone corrected for zone air distribution effectiveness, (Pz*Rp + Az*Ra)/Ez, cfm	0	511	0	0	0	572	34	38	0	416	225	70	13	36	225	0	0	0	225	0	49	0	0						
Vpz	Primary airflow to zone from air handler, In VAV systems, use the design value, cfm	0	525	0	0	0	575	50	50	400	775	450	1150	50	50	600	0	0	0	450	50	175	0	0						
Vpzm	The minimum value of the primary airflow to zone from air handler, In CAV systems, Vpzm = Vpz, cfm	0	210	0	0	0	230	20	20	160	310	180	460	20	20	240	0	0	0	180	20	70	0	0						
Zp	Primary outdoor air fraction, Voz/Vpzm	NA	2.43	NA	NA	NA	2.48	1.70	1.88	NA	1.35	1.25	0.15	0.63	1.82	0.94	NA	NA	NA	1.25	NA	0.70	NA	0						
Zones served by system			G140 - GEN CLASS	G141 - GEN CLASS	G142 - NURSE	G142A - TLT	G143 - REGISTRAR & RECORDS	G144 - SRO	G145 - PARENTS																					
Az	Space type (select from pull-down list)	Classrooms (age 9 plus)	Classrooms (age 9 plus)	Office space	Office space	Storage rooms	Office space	Office space																						
Pz	Floor area of zone, ft2	750	750	320	75	300	125	195																						
Rp	Zone population, largest # of people expected to occupy zone	30	30	1	0	1	1	8																						
Ra	People outdoor air rate from Table 6.1, cfm/person	7.5	7.5	5	0	0	0	5																						
Ra	Area outdoor air rate from Table 6.1, cfm/ft2	0	0	0.06	0	0.12	0.06	0.06																						
Pz*Rp	Zone air distribution effectiveness, Table 6.2	1	1	1	1	1	1	1																						
Az*Ra	Zone air distribution effectiveness, Table 6.2	1	1	1	1	1	1	1																						
Voz	Outdoor airflow to the zone corrected for zone air distribution effectiveness, (Pz*Rp + Az*Ra)/Ez, cfm	113	113	12	0	18	6	26																						
Vpz	Primary airflow to zone from air handler, In VAV systems, use the design value, cfm	675	600	200	0	50	75	225																						
Vpzm	The minimum value of the primary airflow to zone from air handler, In CAV systems, Vpzm = Vpz, cfm	270	240	80	0	20	30	90																						
Zp	Primary outdoor air fraction, Voz/Vpzm	0.42	0.47	0.15	NA	0.90	0.21	0.29																						
SYSTEM LEVEL																														
Ps	System population, maximum simultaneous # of occupants of space served by system	303																												
D	Occupant diversity, ratio of system peak occupancy to sum of space peak occupancies, = Ps/ΣPz	1.00																												
Vou	Uncorrected outdoor air intake, = D*ΣRp*Pz + ΣRa*Az	3442																												

AHU-E1 OUTSIDE AIR CALCULATIONS

AHU-E1 OUTSIDE AIR CALCULATIONS

ZONE LEVEL		Zones served by system																												
		ELEV - 2	G201 - CORRIDOR	G202 - CORRIDOR/PIN-UP	G203 - CORRIDOR	G204 - CORRIDOR	G205 - STAIR C	G206 - STAIR A	G207 - STAIR B	G208 - GUIDANCE/STUDENT SERVICES	G209 - COUNSELOR	G210 - COUNSELOR	G211 - COUNSELOR	G212 - FILE RM	G213 - COUNSELOR	G214 - CONFERENCE ROOM	G215 - CAREER CENTER	G216 - SOCIAL WORKER	G217 - TESTING	G218 - TEACHER BREAKROOM	G219 - STAFF TLT	G220 - WELLNESS ROOM	G220A - WELLNESS A	G220B - WELLNESS B	G222 - GALLERY/COLLABORATION					
		Unoccupied	Corridors	Corridors	Corridors	Corridors	Corridors	Corridors	Corridors	Office space	Office space	Office space	Office space	Office space	Office space	Conference / meeting	Office space	Office space	Office space	Office space	Unoccupied	Office space	Office space	Office space	Office space	Corridors				
Az	Space type (select from pull-down list)	100	719	2177	719	779	280	521	450	692	120	120	125	107	120	250	544	120	120	506	70	66	52	52	335					
Pz	Zone population, largest # of people expected to occupy zone	0	0	0	0	0	0	0	0	0	6	1	1	1	1	8	6	1	1	12	0	1	1	1	0					
Rp	People outdoor air rate from Table 6.1, cfm/person	0	0	0	0	0	0	0	0	0	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0					
Ra	Area outdoor air rate from Table 6.1, cfm/ft2	0	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06					
Pz*Rp	Zone air distribution effectiveness, Table 6.2	0	0	0	0	0	0	0	0	0	30	5	5	5	5	40	30	5	50	0	5	5	5	5	0					
Az*Ra	Zone air distribution effectiveness, Table 6.2	43.14	130.82	43.14	130.82	46.74	16.31	31.29	26	41.52	7.2	7.2	7.2	6.42	7.2	32.84	7.2	32.84	7.2	30.36	3.96	3.12	3.12	3.12	20.42					
Ez	Zone air distribution effectiveness, Table 6.2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
Voz	Outdoor airflow to the zone corrected for zone air distribution effectiveness, (Pz*Rp + Az*Ra)/Ez, cfm	0	43	131	43	47	17	31	27	72	12	12	13	11	12	55	63	12	12	90	0	9	8	8	20					
Vpz	Primary airflow to zone from air handler. In VAV systems, use the design value, cfm	0	50	175	50	50	50	100	125	150	100	100	75	50	75	200	125	75	75	350	0	25	25	25	25					
Vpzm	The minimum value of the primary airflow to zone from air handler. In CAV systems, Vpzm = Vpz, cfm	0	20	70	20	20	20	40	50	60	40	40	30	20	30	60	50	30	30	140	0	10	10	10	10					
Zp	Primary outdoor air fraction, Voz/Vpzm	NA	2.16	1.87	2.16	2.34	0.64	0.78	0.54	1.19	0.31	0.31	0.42	0.57	0.41	0.69	1.25	0.41	0.41	0.65	NA	0.90	0.61	0.61	2.01					
ZONE LEVEL		Zones served by system																												
		G223 - CUSTODIAL	G224 - DRAW/PAINT	G224A - ART STORAGE	G225 - WOMENS	G226 - ELEC	G227 - MENS	G228 - PRINT/MAKING	G228A - ART STORAGE	G229 - IDF	G230 - GEN CLASS	G231 - MS/HS SCIENCE	G232 - GEN CLASS	G233 - SHARED PREP	G234 - GEN CLASS	G235 - HS CHEMISTRY	G236 - GEN CLASS	G237 - CHEM STORAGE	G238 - MECH	G239 - GEN CLASS	G240 - GEN CLASS	G241 - GEN CLASS	G242 - GEN CLASS							
		Unoccupied	Art classroom	Storage rooms	Unoccupied	Unoccupied	Unoccupied	Art classroom	Storage rooms	Unoccupied	Classrooms (age 9 plus)	Classrooms (age 9 plus)	Classrooms (age 9 plus)	Storage rooms	Classrooms (age 9 plus)	Science laboratories	Classrooms (age 9 plus)	Storage rooms	Unoccupied	Classrooms (age 9 plus)	Classrooms (age 9 plus)	Classrooms (age 9 plus)	Classrooms (age 9 plus)							
Az	Space type (select from pull-down list)	44	1154	246	100	231	1160	246	160	753	753	753	753	252	750	1498	750	750	207	714	750	750	750							
Pz	Zone population, largest # of people expected to occupy zone	0	30	0	0	0	0	0	0	0	30	30	30	0	30	30	30	30	0	0	30	30	30							
Rp	People outdoor air rate from Table 6.1, cfm/person	0	0	0	0	0	0	0	0	0	7.5	7.5	7.5	0	7.5	7.5	7.5	7.5	0	0	7.5	7.5	7.5							
Ra	Area outdoor air rate from Table 6.1, cfm/ft2	0	0.18	0.12	0	0	0	0.18	0.12	0	0.18	0.12	0	0.12	0	0.18	0	0.12	0	0	0	0	0							
Pz*Rp	Zone air distribution effectiveness, Table 6.2	0	300	0	0	0	0	300	0	0	225	225	225	0	225	225	225	225	0	0	225	225	225							
Az*Ra	Zone air distribution effectiveness, Table 6.2	0	207.12	29.52	0	0	0	208.8	29.52	0	13.88	13.88	13.88	0	30.24	13.88	265.28	26.88	0	24.84	0	0	0							
Ez	Zone air distribution effectiveness, Table 6.2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1							
Voz	Outdoor airflow to the zone corrected for zone air distribution effectiveness, (Pz*Rp + Az*Ra)/Ez, cfm	0	508	30	0	0	0	509	30	0	225	225	225	30	225	569	225	25	0	225	225	225	225							
Vpz	Primary airflow to zone from air handler. In VAV systems, use the design value, cfm	0	525	50	0	0	0	500	50	400	650	475	750	50	675	500	675	50	0	675	600	600	675							
Vpzm	The minimum value of the primary airflow to zone from air handler. In CAV systems, Vpzm = Vpz, cfm	0	210	20	0	0	0	200	20	160	290	150	300	20	270	200	270	20	0	270	240	240	270							
Zp	Primary outdoor air fraction, Voz/Vpzm	NA	2.42	1.48	NA	NA	NA	2.54	1.48	NA	0.87	1.18	0.75	1.51	0.83	2.85	0.83	1.24	NA	0.83	0.94	0.94	0.83							
SYSTEM LEVEL																														
Ps	System population, maximum simultaneous # of occupants of space served by system	402																												
D	Occupant diversity, ratio of system peak occupancy to sum of space peak occupancies, = Ps/ΣPz	1.00																												
Vou	Uncorrected outdoor air intake, = D*ΣRp*Pz + ΣRa*Az	4473																												

AHU-E17 OUTSIDE AIR CALCULATIONS

THIS LINE IS TO REMAIN ABOVE THE EXISTING FLOOR FINISHES. ONE INCH EQUALS FOUR FEET. DIMENSIONS ARE IN FEET.

E

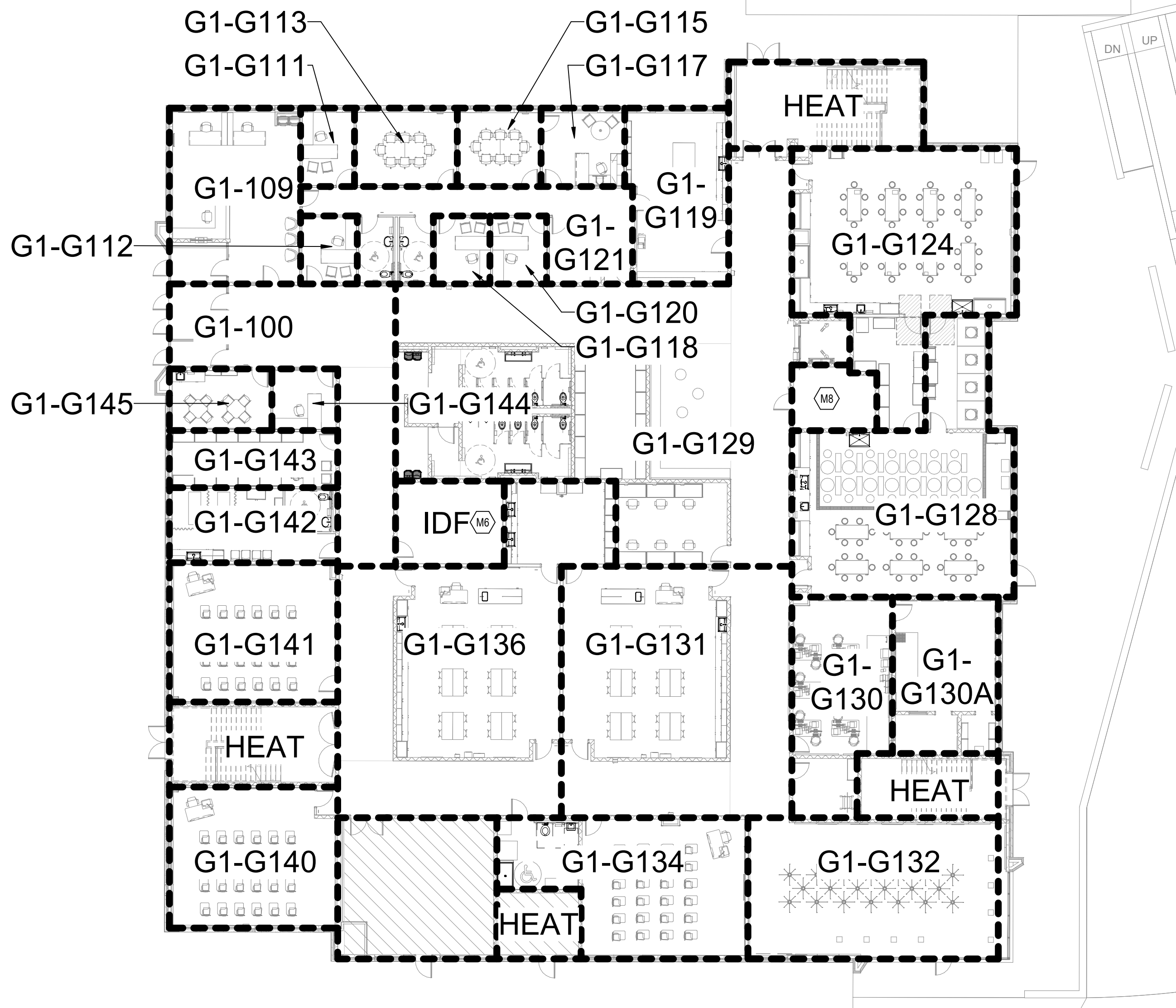
D

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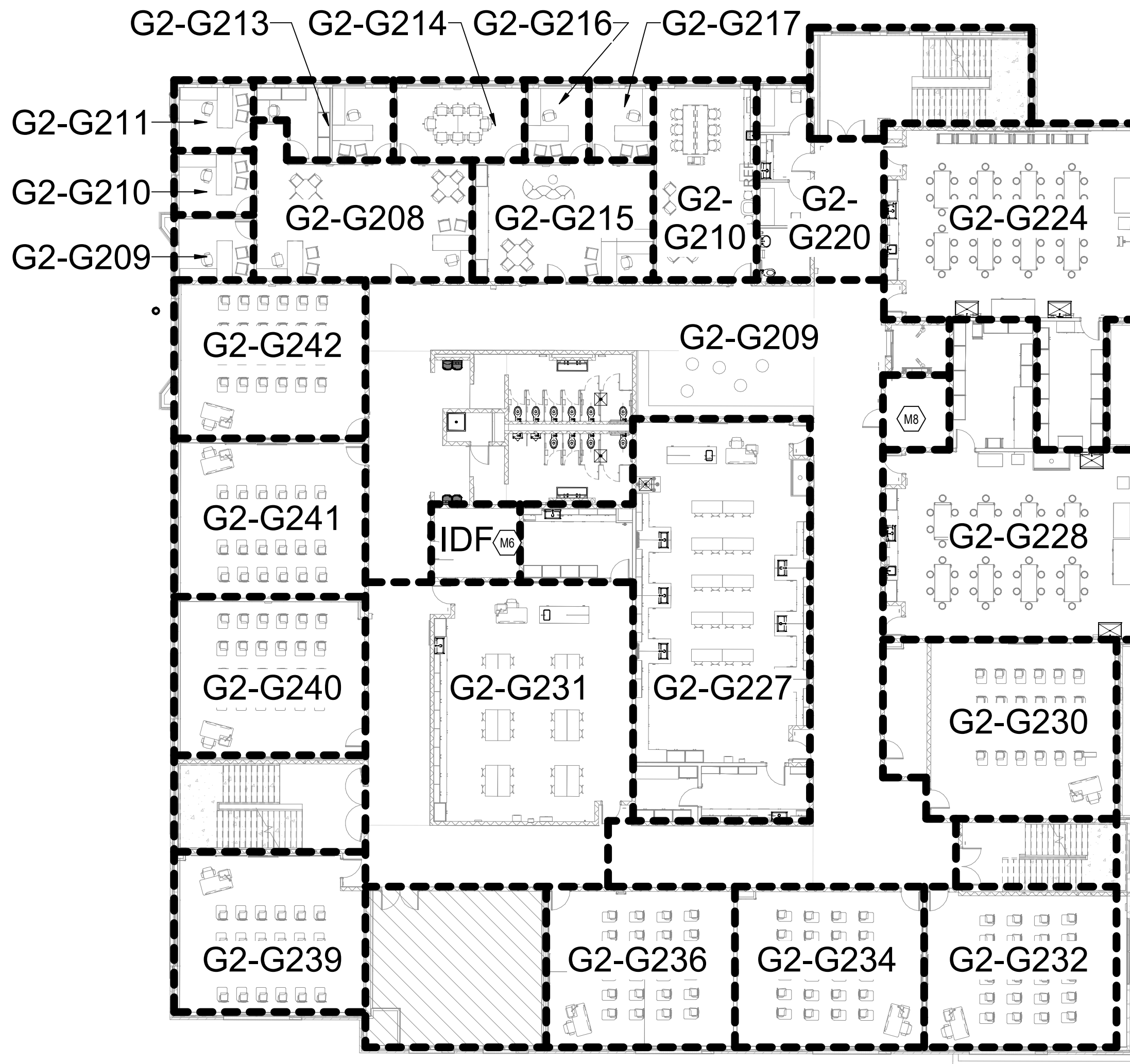
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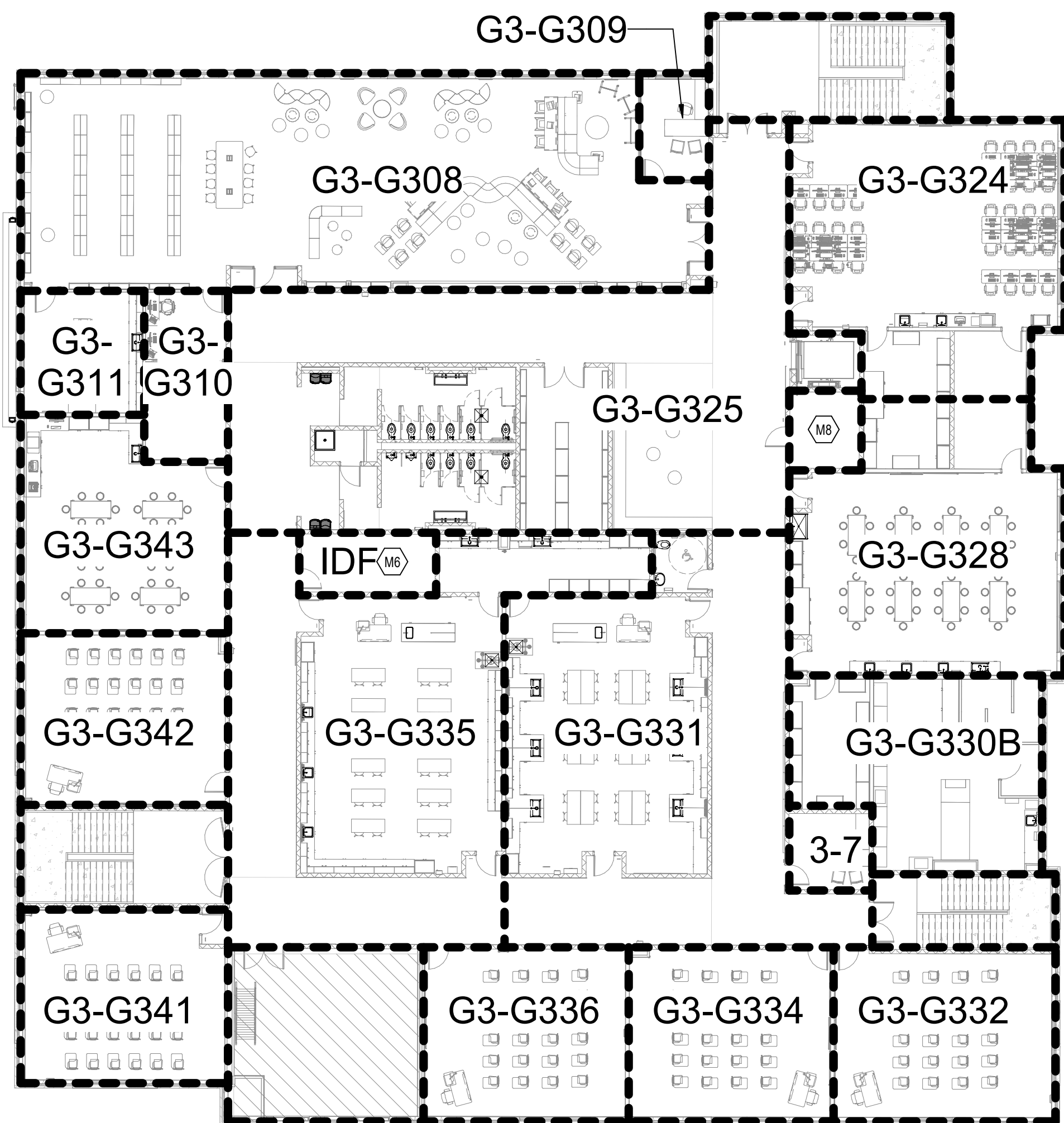
5/20/2024 11:27:19 AM



1 FLOOR PLAN - LEVEL 1 - ZONING PLAN
NTS



2 FLOOR PLAN - LEVEL 2 - ZONING PLAN
NTS



3 FLOOR PLAN - LEVEL 3 - ZONING PLAN
NTS

KEYNOTES

- M8 IDF ROOM TO BE COOLED BY VAV BOXES DURING OCCUPIED HOURS. DURING UNOCCUPIED HOURS, IDF ROOM TO BE COOLED BY DUCTLESS MINI SPLIT SYSTEM.
- M8 ELECTRICAL ROOM TO BE VENTILATED THROUGH INLINE EXHAUST FAN.

NORTHWEST
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LS3P

227 WEST TRADE STREET, SUITE 700
CHARLOTTE, NORTH CAROLINA 28202
TEL. 704.333.6686 FAX. 704.333.2926
WWW.LS3P.COM

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**NWSA Visual
Arts-Classroom Bldg**

1415 Beatties Ford Rd.
Charlotte, NC 28216

LS3P PROJECT: 92011224030

DATE	DESCRIPTION

SHEET NAME:
MECHANICAL
ZONING PLAN

ORIG 05/15/24
SUBMISSION:

SHEET:

M103

CONFORMANCE SET

5/20/2024 11:27:22 AM

AIR HANDLING UNIT SCHEDULE

MARK	MANUF	MODEL	SERVICE	LOCATION	NOM. SIZE L x W x H (IN)	SUPPLY AIR FAN										ACOUSTICS					
						WEIGHT (LBS)	SUPPLY AIR CFM	MIN. OA CFM	MAX OA CFM	# OF FANS - RPM	SA FAN TYPE	T.S.P.E/P (IN WG)	MOTOR HP/BHP (PER FAN)	VOLT.	PH.	HZ	FLA	RADIATED (dB)		UNIT RETURN (dB)	
AHU-G1	TRANE	CSAA021	FIRST FLOOR	MECH ROOM G135	198"60"x57"	3299	10225	3450	6000	2-1800	DIRECT DRIVE	4.35 / 2	7.5 / 6.4	460 V	3	60	9.8 A	63 / 125 / 250 / 1000 / 2000 / 4000 / 8000 Hz	63 / 125 / 250 / 1000 / 2000 / 4000 / 8000 Hz	63 / 125 / 250 / 1000 / 2000 / 4000 / 8000 Hz	
AHU-G2	TRANE	CSAA021	SECOND FLOOR	MECH ROOM G238	198"60"x57"	3299	10775	4750	6000	2-1800	DIRECT DRIVE	4.35 / 2	7.5 / 6.4	460 V	3	60	9.8 A	63 / 125 / 250 / 1000 / 2000 / 4000 / 8000 Hz	63 / 125 / 250 / 1000 / 2000 / 4000 / 8000 Hz	63 / 125 / 250 / 1000 / 2000 / 4000 / 8000 Hz	
AHU-G3	TRANE	CSAA021	THIRD FLOOR	MECH ROOM G338	198"60"x57"	3299	11000	3925	6000	2-1800	DIRECT DRIVE	4.35 / 2	7.5 / 6.4	460 V	3	60	9.8 A	63 / 125 / 250 / 1000 / 2000 / 4000 / 8000 Hz	63 / 125 / 250 / 1000 / 2000 / 4000 / 8000 Hz	63 / 125 / 250 / 1000 / 2000 / 4000 / 8000 Hz	

AIR HANDLING UNIT SCHEDULE - CONT.

MARK	COOLING AIRFLOW (CFM)	TOTAL COOLING CAP	CHILLED WATER COIL (EAT DESIGNED FOR MAX OA CFM)										HEATING WATER COIL (EAT DESIGNED FOR MAX OA CFM)										FILTER		REMARKS
			SENSIBLE COOLING CAP (BTU/H)	EAT (DBW/DBF)	LAT (DBW/DBF)	EWTLWT (CFM)	MAX FACE VELOCITY (FPM)	MAX APD (IN)	FLOW RATE (GPM)	MAX. FLOW RATE (GPM)	HEATING AIRFLOW (CFM)	TOTAL HEATING CAP (BTU/H)	EAT (F)	LAT (F)	EWTLWT (F)	MAX. FACE VELOCITY (FPM)	MAX. APD (IN)	FLOW RATE (GPM)	MAX. FLOW RATE (GPM)	TYPE	CFM / MAX VELOCITY (C/VD)				
AHU-G1	10225	479.4	322.6	81.6 / 68.1	53.5 / 29	44/56	500	0.94	80	5.81	5100	315	18	75	160 / 120	257	0.041	16	0.62	MERV 10 / 13	10225 / 307	MID-LIFE	ALL		
AHU-G2	10775	529	350	82.4 / 68.7	53 / 52.9	44/56	527	1.051	88	6.95	5800	358	18	75	160 / 120	292	0.055	18	0.8	MERV 10 / 13	10775 / 323	MID-LIFE	ALL		
AHU-G3	11000	495.8	339.6	81 / 67.6	53 / 52.9	44/56	538	1.075	83	6.17	5500	317	18	75	160 / 120	277	0.63	16	0.63	MERV 10 / 13	11000 / 330	MID-LIFE	ALL		

REMARKS:

1. PROVIDE WITH FACTORY START-UP UTILIZING MANUFACTURERS STANDARD FORMS AND THE FORMS INCLUDED IN THE SPECIFICATIONS.
2. ENTIRE UNIT SHALL BE DOUBLE WALL CONSTRUCTION WITH #6 BASE RAIL.
3. SUPPLY STAINLESS STEEL LAD CONDENSATE PAN. ENTIRE DRAIN SHALL BE PITCHED TO OUTLET. WATER CARRY OVER IS NOT ALLOWED. SELECT CHILLED WATER COILS COLDING. PROVIDE STAINLESS STEEL INTERMEDIATE DRAIN PANS FOR STACKED CHILLED WATER COILS ALL PRE-PIPED TO MAIN DRAIN PAN.
4. CHILLED WATER COILS SHALL BE A MAXIMUM OF 8 ROWS AND 10 FPI
5. PROVIDE STAINLESS STEEL CHILLED WATER COIL CASING.
6. REFER TO DRAWINGS FOR FULL UNIT CONFIGURATION
7. PROVIDE FACTORY MOUNTED OUTSIDE AIR AND RETURN AIR DAMPERS
8. THE TOTAL STATIC PRESSURE FOR THE FANS SHALL INCLUDE THE FOLLOWING: (A) LISTED ESP, (B) DESIGN FILTER ALLOWANCE, (C) PRESSURE DROPS THROUGH UNIT CONFIGURATION INCLUDING (COILS, DAMPERS, FILTERS, ETC.
9. PROVIDE HIGH EFFICIENCY INVERTER DUTY
10. UNIT DESIGN FAN HORSEPOWER, DIMENSIONS AND WEIGHT ARE LISTED IN THE SCHEDULE. IT IS THE CONTRACTOR'S AND ALTERNATE MANUFACTURER'S RESPONSIBILITY TO ENSURE THAT THE HORSEPOWER, FIT AND ALL CLEARANCES ARE MAINTAINED SHOULD EQUIPMENT OTHER THAN SPECIFIED BE FURNISHED.
11. COORDINATE SHIPPING SPOLES/AS REQUIRED FOR THE UNIT
12. VFD SHALL BE FIELD INSTALLED AND MOUNTED TO THE WALL WITH IN THE SAME MECHANICAL ROOM. EACH VFD SHALL BE WIRED AND GROUNDED INDEPENDENTLY AS PER THE MANUFACTURERS RECOMMENDATIONS AND VFD PARAMETERS SET FOR THE SPECIFIC APPLICATION AND RECORDED IN THE CONTROLS "AS-BUILTS"
13. THE MAXIMUM MOTOR SIZE SHALL BE 10 HP. PROVIDE DUAL PLENUM FANS WHERE REQUIRED TO MEET THIS REQUIREMENT. BACK DRAFT DAMPERS SHALL BE PROVIDED ON WHERE DUAL FANS ARE REQUIRED.
14. PROVIDE UNIT WITH FILTER RANGERS FOR 2" THIN AWAY MERV 10.
15. UNIT SHALL BE PROVIDED WITH FOUR (4) COMPLETE MEDIA CHANGES.
16. SINGLE VFD PROVIDED FOR MULTIPLE MOTORS. PROVIDE MANUAL MOTOR PROTECTOR AND AND CT FOR STATUS FOR EACH FAN MOTOR BETWEEN THE VFD AND MOTOR.
17. COILS ENTERING AIR TEMPERATURES ARE BE SENSING FOR MAXIMUM 04 CM CFM. AHU TO NORMALLY OPERATE AT MIN 04 CFM.
18. COORDINATE SHIPPING SPLITS OF AHU TO FIT THROUGH 64"x80" LOUVER

BUILDING PRESSURE SUMMARY NORMAL AHU OPERATION	
EQUIPMENT	CFM
AHU-G1, G2, G3	+ 12,125
EXHAUST FANS OPERATING CONTINUOUSLY	- 4750
EXHAUST FANS OPERATING NONCONTINUOUSLY	0
RELIEF FAN	- 5,875
CFM OFFSET	+ 1,500

REMARKS:

1. NO SCIENCE LAB EXHAUST FANS OPERATING
2. AHU'S TO CONTROL TO MAINTAIN THE SCHEDULED MINIMUM FLOW DURING NORMAL OPERATION
RELIEF FAN TO MAINTAIN CFM OFFSET DURING NORMAL OPERATION.

BUILDING PRESSURE SUMMARY ECONOMIZER AHU OPERATION	
EQUIPMENT	CFM
AHU-G1, G2, G3	+ 22,000
EXHAUST FANS OPERATING CONTINUOUSLY	- 4750
EXHAUST FANS OPERATING NONCONTINUOUSLY	0
RELIEF FAN	- 15,750
CFM OFFSET	+ 1,500

REMARKS:

1. 75% OF THE CONNECTED AHU MAXIMUM AIRFLOW WAS USED IN THE ECONOMIZER CALCULATION. THIS IS BASED ON LOAD CALCULATIONS THAT INDICATE THAT THE AIR HANDLING UNITS WILL NOT OPERATE AT MAXIMUM AIRFLOW DURING ECONOMIZER MODE SINCE THE ENVELOPE LOAD IS REDUCED AT PART LOAD CONDITIONS
2. RELIEF FAN SIZED TO MAINTAIN CFM OFFSET WHEN NONCONVENTIONAL EXHAUST FANS ARE NOT ACTIVE. RELIEF FAN WILL PROPORTIONALLY MODULATE DOWN AS REQUIRED TO MAINTAIN CFM OFFSET WHEN SCIENCE LAB EXHAUST FANS ACTIVATE.

BUILDING PRESSURE SUMMARY LAB EF OPERATION	
EQUIPMENT	CFM
AHU-G1, G2, G3	+ 18,000
EXHAUST FANS OPERATING CONTINUOUSLY	- 4750
EXHAUST FANS OPERATING NONCONTINUOUSLY	- 11750
RELIEF FAN	0
CFM OFFSET	+ 1,500

REMARKS:

1. CALCULATION ASSUMES NO MORE THAN 85% OF NONCONTINUOUS SCIENCE LAB EXHAUST FANS WILL OPERATE AT ONCE.
2. AHU'S TO CONTROL TO MAINTAIN THE SCHEDULED MINIMUM FLOW DURING NORMAL OPERATION. AHU'S TO MODULATE TO MAXIMUM SCHEDULED AIRFLOW UPON ACTIVATION OF LAB EXHAUST FANS REQUIRING AN INCREASED AIRFLOW TO MAINTAIN POSITIVE PRESSURE.

EXHAUST FAN SCHEDULE

MARK	MANUFACTURER	MODEL	ROOM NUMBER	SERVICE	TYPE	GFM / ESP	DRIVE / FAN RPM	FAN HP	ELECTRICAL			REMARKS
EF-G1	GREENHECK	SQ-100-VG	G128	CERAMICS ROOM EXHAUST	CENTRIFUGAL INLINE	1000 / 0.3	DIRECT ECM / 1,468	0.25	115V	1	60	4.56,7.12,14.15
EF-G1	GREENHECK	SQ-100-EC	G124	PAINT ROOM GENERAL EXHAUST	CENTRIFUGAL INLINE	1000 / 0.3	DIRECT ECM / 1,468	0.25	115V	1	60	4.56,7.12,14.15
EF-G2	GREENHECK	SQ-100-VG	G131	SCIENCE LAB EXHAUST	CENTRIFUGAL INLINE	1050 / 0.3	DIRECT ECM / 1,521	0.25	115V	1	60	4.56,7.9,14.15
EF-G2	GREENHECK	SQ-100-VG	G136	SCIENCE LAB EXHAUST	CENTRIFUGAL INLINE	1050 / 0.3	DIRECT ECM / 1,521	0.25	115V	1	60	4.56,7.9,14.15
EF-G3	GREENHECK	SQ-100-VG	G124A	FUME HOOD EXHAUST	CENTRIFUGAL INLINE	850 / 0.75	DIRECT ECM / 1,311	0.25	115V	1	60	4.56,7.12,13,14,15
EF-G3	GREENHECK	SQ-100-VG	G124B	FUME HOOD EXHAUST	CENTRIFUGAL INLINE	850 / 0.75	DIRECT ECM / 1,311	0.25	115V	1	60	4.56,7.12,13,14,15
EF-G3	GREENHECK	SQ-100-VG	G228	FUME HOOD EXHAUST	CENTRIFUGAL INLINE	850 / 0.75	DIRECT ECM / 1,311	0.25	115V	1	60	4.56,7.12,13,14,15
EF-G4	GREENHECK	SQ-7M1-VG	G124C	KILN EXHAUST	CENTRIFUGAL INLINE	600 / 0.05	DIRECT ECM / 2,496	0.5	115V	1	60	4.56,7.11,14,15
EF-G4	GREENHECK	SQ-7M1-VG	G228A	KILN EXHAUST	CENTRIFUGAL INLINE	600 / 0.05	DIRECT ECM / 2,496	0.5	115V	1	60	4.56,7.11,14,15
EF-G5	GREENHECK	SQ-120-VG	G227	CHEMISTRY ROOM EX. FUME HOOD EA	CENTRIFUGAL INLINE	1,225 / 0.75	DIRECT ECM / 1,725	0.5	115V	1	60	4.56,7.12,13,14,15
EF-G6	GREENHECK	SQ-90-VG	G227A	PREP ROOM EXHAUST	CENTRIFUGAL INLINE	200 / 0.3	DIRECT ECM / 1,169	0.125	115V	1	60	4.56,7.8,14.15
EF-G7	GREENHECK	SQ-120-VG	G231	SCIENCE LAB EXHAUST	CENTRIFUGAL INLINE	1,225 / 0.3	DIRECT ECM / 1,314	0.5	115V	1	60	4.56,7.9,14.15
EF-G8	GREENHECK	SQ-90-VG	G133	PREP ROOM EXHAUST	CENTRIFUGAL INLINE	325 / 0.3	DIRECT ECM / 1,323	0.125	115V	1	60	4.56,7.8,14.15
EF-G9	GREENHECK	SQ-90-VG	G129	PREP ROOM EXHAUST	CENTRIFUGAL INLINE	325 / 0.3	DIRECT ECM / 1,323	0.125	115V	1	60	4.56,7.8,14.15
EF-G9	GREENHECK	CUE-240HP-VG	RR EA	RESTROOM EXHAUST	CENTRIFUGAL UPBLAST	3600 / 0.5	DIRECT ECM / 716	1	115V	1	60	12,3.4.5,10,14,15
EF-G10	GREENHECK	CUE-120-VG	G331	SCIENCE LAB EXHAUST	CENTRIFUGAL UPBLAST	1,225 / 0.3	DIRECT ECM / 1,322	0.25	115V	1	60	12,3.4.5,9,14,15
EF-G10	GREENHECK	CUE-120-VG	G335	SCIENCE LAB EXHAUST	CENTRIFUGAL UPBLAST	1,225 / 0.3	DIRECT ECM / 1,322	0.25	115V	1	60	12,3.4.5,9,14,15
EF-G11	GREENHECK	CUE-120-VG	G324	ART ROOM EXHAUST	CENTRIFUGAL UPBLAST	1,000 / 0.3	DIRECT ECM / 1,153	0.25	115V	1	60	12,3.4.5,12,13,14,15
EF-G11	GREENHECK	CUE-120-VG	G328	ART ROOM EXHAUST	CENTRIFUGAL UPBLAST	1,000 / 0.3	DIRECT ECM / 1,153	0.25	115V	1	60	12,3.4.5,12,14,15
EF-G12	GREENHECK	CUE-90-VG	G337	PREP ROOM EXHAUST	CENTRIFUGAL UPBLAST	300 / 0.3	DIRECT ECM / 1,563	0.125	115V	1	60	12,3.4.5,8,14,15
EF-G13	GREENHECK	CUE-140-VG	G330B	PROCESSING LAB EXHAUST	CENTRIFUGAL UPBLAST	2400 / 1.25	DIRECT ECM / 1,725	1	115V	1	60	12,3.4.5,13,14,15
EF-G14	GREENHECK	SQ-95-VG	G126	ELECTRIC ROOM	CENTRIFUGAL INLINE	400 / 0.125	DIRECT ECM / 1,031	0.167	115V	1	60	4.56,7.11,14,15
EF-G14	GREENHECK	SQ-95-VG	G226	ELECTRIC ROOM	CENTRIFUGAL INLINE	400 / 0.125	DIRECT ECM / 1,031	0.167	115V	1	60	4.56,7.11,14,15

REMARKS:

1. OUTDOOR FANS: PROVIDE WITH NEMA-3R FACTORY MOUNTED NON-FUSED DISCONNECT SWITCH. INDOOR FANS: PROVIDE WITH NEMA-1 FACTORY MOUNTED NON-FUSED DISCONNECT SWITCH.
2. PROVIDE WITH MOTORIZED DAMPER AND 24V ACTUATOR.
3. PROVIDE WITH AN 18" INSULATED ROOF CURB.
4. THE EXHAUST FAN SHALL BE UL 705 LISTED.
5. PROVIDE WITH A FACTORY MOUNTED MOTOR SPEED CONTROLLER.
6. PROVIDE WITH VIBRATION ISOLATION HANGING/SUPPORT KIT. (NEOPRENE)
7. PROVIDE WITH VIBRATION ISOLATION CLAMPS.
8. PREP ROOM EXHAUST FANS SHALL OPERATE CONTINUOUSLY (24/7).
9. EXHAUST FAN SHALL BE CONTROLLED VIA TIMED WALL SWITCH. LABORATORIES GENERAL EXHAUST FANS SHALL BE INTEGRATED WITH LAB UTILITY SHUTDOWN SYSTEM. FAN SHALL OVERRIDE ON UPON ACTIVATION OR LAB SHUT DOWN.
10. EXHAUST FAN SHALL BE OPERATE CONTINUOUSLY WHEN BUILDING IS SCHEDULED OCCUPIED.
11. EXHAUST FAN SHALL OPERATE BASED ON TEMPERATURE SENSOR.
12. EXHAUST FAN SHALL BE CONTROLLED VIA WALL SWITCH.
13. PROVIDE EXHAUST FAN WITH INSULATED ROOF CURB AND EXTENSION AS NECESSARY SO THAT DISCHARGE IS MINIMUM 8' ABOVE FINISHED ROOF. PROVIDE 12"x12" WEATHERPROOF PLACARD ON SIDE OF FAN HOUSING. PLACARD SHALL READ "WARNING: FUME/HOOD EXHAUST FAN. TAKE PROPER PRECAUTIONS PRIOR TO WORKING IN THIS AREA".
14. APPROVED MANUFACTURERS: TYWIN CITY, GREENHECK, LOREN CORP.
15. ALL LARGE MOTORS SHALL BE PROVIDED WITH A MOTOR STARTER AND HOA SWITCH. FRACTIONAL HP MOTORS SHALL BE PROVIDED WITH A FRACTIONAL HP MOTOR SWITCH WITH THERMAL OVERLOADS.

RELIEF FAN SCHEDULE

MARK	MANUFACTURER	MODEL	SERVICE	TYPE	CFM / ESP	DRIVE / FAN RPM	FAN HP	ELECTRICAL			REMARKS
								VOLTS	PH	HZ	
RAF-G1	GREENHECK	GB-402-50	AHU G1,G2,G3 RELIEF	CENTRIFUGAL DOWNBLAST	15,750 / 0.5	BELT / 473	5	480 V	3	60	ALL

REMARKS:

1. PROVIDE WITH NEMA-3R FACTORY MOUNTED NON-FUSED DISCONNECT SWITCH.
2. PROVIDE WITH MOTORIZED DAMPER WITH BLADE AND JAMB SEALS AND 24V ACTUATOR.
3. PROVIDE WITH INSULATED ROOF CURB.
4. THE EXHAUST FAN SHALL BE UL LISTED.
5. MOTOR SHALL BE RATED FOR USE WITH A VFD. INCLUDE SHAFT GROUNDING RING. (VFD BY OTHERS)
6. APPROVED MANUFACTURERS: TWIN CITY, GREENHECK, LOREN COOK.
7. REFER TO VFD SCHEDULE FOR ASSOCIATED VFD SERVING RELIEF FAN.

SPLIT SYSTEM INDOOR UNIT SCHEDULE

MARK	MODEL #	MANUF.	DIMENSIONS (IN.)			WEIGHT (LBS)	AIRFLOW (CFM)	ELECTRICAL		REMARKS
			LENGTH	WIDTH	HEIGHT			VOLTAGE	PHASE	
WMM-012	FTKB12AXVJU	DAIKIN	35	8	12	20	360 CFM	208	1	ALL
WMM-030	FTX30NVJU	DAIKIN	48	10	14	38	890 CFM	208	1	ALL

SPLIT SYSTEM OUTDOOR UNIT SCHEDULE

MARK	MANUF.	MODEL #	DIMENSIONS (IN.)			WEIGHT (LBS)	TOTAL COOLING (MBH)	REFRIGERANT	EFFICIENCY (SEER)	ELECTRICAL				REMARKS
			LENGTH	WIDTH	HEIGHT					MCA	MOCP	VOLTAGE	PHASE	
CU-12	DAIKIN	RKB12AUXJU	26	11	22	57	12.0	R-410A	17	7.7	15	208	1	ALL
CU-30	DAIKIN	RX30NMVJU	35	13	28	133	30.0	R-410A	17.5	19.8	20	208	1	ALL

REMARKS:

- REMARKS:
1. PROVIDE UNIT WITH SINGLE POINT POWER CONNECTION. INDOOR UNIT SHALL BE POWERED FROM OUTDOOR UNIT.
 2. INSTALL OUTDOOR UNIT PER DETAIL ON SHEET M-603.
 3. PROVIDE UNIT WITH WIRE WALL MOUNTED THERMOSTAT.
 4. TRANE, LG, MITSUBISHI, ARE ACCEPTABLE ALTERNATE MANUFACTURERS.

CMS - Northwest
School of the
Arts

LS3P

227 WEST TRADE STREET, SUITE 700
CHARLOTTE, NORTH CAROLINA 28202
TEL. 704.333.6686 FAX. 704.333.2926
WWW.LS3P.COM



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SCHEDULES -
BUILDING G

ORIG 05/15/24
SUBMISSION:

SHEET:

M104

CONFORMANCE SET

VAV/CAV BOX SCHEDULE - AHU-G1

SYMBOL	ZONE NUMBER	ROOM SERVED	MANUFACTURER	MODEL	INLET	AHU SERVED BY	COOLING AIRFLOWS		HEATING AIRFLOW (CFM)	MAX. TOTAL APD AT MAX. CFM	CAPACITY (MBH)	HOT WATER COIL			NO. OF ROWS	WPD	RUNOUT PIPE SIZE	REMARKS
							MAXIMUM (CFM)	MINIMUM (CFM)				EAT / LAT	EWT / LWT	GPM				
VAV-06	G1-G100	G100 - VESTIBULE	TRANE	VCWF 06	6"	AHU-G1	350	175	175	0.5" WG	9.34	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-08	G1-G109	G109 - RECEPTION	TRANE	VCWF 08	8"	AHU-G1	550	225	225	0.5" WG	10.98	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G1-G111	G11 - SECRETARY	TRANE	VCWF 04	4"	AHU-G1	125	50	50	0.5" WG	4.42	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G1-G112	G112 - AP OFFICE	TRANE	VCWF 04	4"	AHU-G1	75	40	40	0.5" WG	3.71	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G1-G113	G113 - CONFERENCE ROOM	TRANE	VCWF 04	4"	AHU-G1	200	100	100	0.5" WG	7.05	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G1-G115	G115 - PRINC CONFERENCE	TRANE	VCWF 04	4"	AHU-G1	200	100	100	0.5" WG	7.05	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G1-G117	G117 - PRINCIPAL	TRANE	VCWF 04	4"	AHU-G1	125	50	50	0.5" WG	4.42	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G1-G118	G118 - AUDITIONS	TRANE	VCWF 04	4"	AHU-G1	75	40	40	0.5" WG	3.71	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-06	G1-G119	G119 - ADMIN WORKROOM	TRANE	VCWF 06	6"	AHU-G1	250	125	125	0.5" WG	7.97	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G1-G120	G120 - FINANCE OFFICE	TRANE	VCWF 04	4"	AHU-G1	75	40	40	0.5" WG	3.71	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G1-G121	G121 - OFFICE	TRANE	VCWF 04	4"	AHU-G1	75	40	40	0.5" WG	3.71	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-10	G1-G124	G124 - SCULPTURE	TRANE	VCWF 10	10"	AHU-G1	525	275	275	0.5" WG	13.42	55 / 100	160 / 120	0.76	2	0.5 FT	3/4"	ALL
VAV-10	G1-G128	G128 - CERAMICS	TRANE	VCWF 10	10"	AHU-G1	600	300	300	0.5" WG	14.64	55 / 100	160 / 120	0.81	2	0.5 FT	3/4"	ALL
VAV-08	G1-G129	G129 - ITERANT OFFICES	TRANE	VCWF 08	8"	AHU-G1	525	275	275	0.5" WG	13.42	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-10	G1-G130	G130 - CONTROL ROOM	TRANE	VCWF 10	10"	AHU-G1	625	325	325	0.5" WG	15.86	55 / 100	160 / 120	0.86	2	0.5 FT	3/4"	ALL
VAV-08	G1-G130A	G130A - RECORDING STUDIO	TRANE	VCWF 08	8"	AHU-G1	300	150	150	0.5" WG	9.21	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-10	G1-G131	G131 - MS SCIENCE	TRANE	VCWF 10	10"	AHU-G1	675	325	325	0.5" WG	15.86	55 / 100	160 / 120	0.86	2	0.5 FT	3/4"	ALL
VAV-12	G1-G132	G132 - GALLERY	TRANE	VCWF 12	12"	AHU-G1	1150	575	575	0.5" WG	28.06	55 / 100	160 / 120	1.25	2	0.5 FT	3/4"	ALL
VAV-10	G1-G134	G134 - GEN CLASS	TRANE	VCWF 10	10"	AHU-G1	600	300	300	0.5" WG	14.64	55 / 100	160 / 120	0.81	2	0.5 FT	3/4"	ALL
VAV-10	G1-G136	G136 - MS SCIENCE	TRANE	VCWF 10	10"	AHU-G1	675	325	325	0.5" WG	15.86	55 / 100	160 / 120	0.86	2	0.5 FT	3/4"	ALL
VAV-08A	G1-G137	G137 - MDF	TRANE	VCCF 08	8"	AHU-G1	575	300	0	0.5" WG	-	-	-	-	-	-	-	ALL
VAV-10	G1-G140	G140 - GEN CLASS	TRANE	VCWF 10	10"	AHU-G1	700	350	350	0.5" WG	17.08	55 / 100	160 / 120	0.91	2	0.5 FT	3/4"	ALL
VAV-10	G1-G141	G141 - GEN CLASS	TRANE	VCWF 10	10"	AHU-G1	700	350	350	0.5" WG	17.08	55 / 100	160 / 120	0.91	2	0.5 FT	3/4"	ALL
VAV-06	G1-G142	G142 - NURSE	TRANE	VCWF 06	6"	AHU-G1	225	125	125	0.5" WG	7.97	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G1-G143	G143 - RECORDS	TRANE	VCWF 04	4"	AHU-G1	75	40	40	0.5" WG	3.71	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G1-G144	G144 - SRO	TRANE	VCWF 04	4"	AHU-G1	75	40	40	0.5" WG	3.71	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G1-G145	G145 - PARENTS ROOM	TRANE	VCWF 04	4"	AHU-G1	200	100	100	0.5" WG	7.05	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL

VAV/CAV BOX SCHEDULE - AHU-G2

SYMBOL	ZONE NUMBER	ROOM SERVED	MANUFACTURER	MODEL	INLET	AHU SERVED BY	COOLING AIRFLOWS		HEATING AIRFLOW (CFM)	MAX. TOTAL APD AT MAX. CFM	CAPACITY (MBH)	HOT WATER COIL			NO. OF ROWS	WPD	RUNOUT PIPE SIZE	REMARKS
							MAXIMUM (CFM)	MINIMUM (CFM)				EAT / LAT	EWT / LWT	GPM				
VAV-04	G2-G208	G208 - GUIDANCE	TRANE	VCWF 04	4"	AHU-G2	175	100	100	0.5" WG	7.05	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G2-G209	G209 - COUNSELOR	TRANE	VCWF 04	4"	AHU-G2	125	75	75	0.5" WG	5.89	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-06	G2-G210	G210 - TEACHER BREAKROOM	TRANE	VCWF 06	6"	AHU-G2	325	175	175	0.5" WG	9.34	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G2-G210	G210 - COUNSELOR	TRANE	VCWF 04	4"	AHU-G2	125	75	75	0.5" WG	5.89	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G2-G211	G211 - COUNSELOR	TRANE	VCWF 04	4"	AHU-G2	125	75	75	0.5" WG	5.89	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G2-G213	G213 - COUNSELOR	TRANE	VCWF 04	4"	AHU-G2	200	100	100	0.5" WG	7.05	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G2-G214	G214 - CONFERENCE ROOM	TRANE	VCWF 04	4"	AHU-G2	225	125	125	0.5" WG	7.97	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G2-G215	G215 - CAREER CENTER	TRANE	VCWF 04	4"	AHU-G2	150	75	75	0.5" WG	5.89	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G2-G216	G216 - SOCIAL WORKER	TRANE	VCWF 04	4"	AHU-G2	125	75	75	0.5" WG	5.89	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G2-G217	G217 - TESTING	TRANE	VCWF 04	4"	AHU-G2	125	75	75	0.5" WG	5.89	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-06	G2-G220	G220 - WELLNESS RM	TRANE	VCWF 06	6"	AHU-G2	300	150	150	0.5" WG	8.72	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-06	G2-G223	G223 - COLLABORATION	TRANE	VCWF 06	6"	AHU-G2	275	150	150	0.5" WG	8.72	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-10	G2-G224	G224 - DRAW / PAINT	TRANE	VCWF 10	10"	AHU-G2	725	375	375	0.5" WG	19.07	55 / 100	160 / 120	0.95	2	0.5 FT	3/4"	ALL
VAV-10	G2-G227	G227 - HS CHEMISTRY	TRANE	VCWF 10	10"	AHU-G2	625	325	325	0.5" WG	17.17	55 / 100	160 / 120	0.86	2	0.5 FT	3/4"	ALL
VAV-10	G2-G228	G228 - PRINTMARKING	TRANE	VCWF 10	10"	AHU-G2	725	375	375	0.5" WG	19.07	55 / 100	160 / 120	0.95	2	0.5 FT	3/4"	ALL
VAV-10	G2-G230	G230 - GEN CLASS	TRANE	VCWF 10	10"	AHU-G2	675	350	350	0.5" WG	15.86	55 / 100	160 / 120	0.91	2	0.5 FT	3/4"	ALL
VAV-08	G2-G231	G231 - HS SCIENCE	TRANE	VCWF 08	8"	AHU-G2	575	275	275	0.5" WG	15.1	55 / 100	160 / 120	0.76	2	0.5 FT	3/4"	ALL
VAV-10	G2-G232	G232 - GEN CLASS	TRANE	VCWF 10	10"	AHU-G2	775	375	375	0.5" WG	19.07	55 / 100	160 / 120	0.95	2	0.5 FT	3/4"	ALL
VAV-08A	G2-G233	G233 - IDF	TRANE	VCCF 08	8"	AHU-G2	575	300	0	0.5" WG	-	-	-	-	-	-	-	ALL
VAV-10	G2-G234	G234 - GEN CLASS	TRANE	VCWF 10	10"	AHU-G2	700	350	350	0.5" WG	18.14	55 / 100	160 / 120	0.91	2	0.5 FT	3/4"	ALL
VAV-10	G2-G236	G236 - GEN CLASS	TRANE	VCWF 10	10"	AHU-G2	700	350	350	0.5" WG	18.14	55 / 100	160 / 120	0.91	2	0.5 FT	3/4"	ALL
VAV-10	G2-G239	G239 - GEN CLASS	TRANE	VCWF 10	10"	AHU-G2	700	350	350	0.5" WG	18.14	55 / 100	160 / 120	0.91	2	0.5 FT	3/4"	ALL
VAV-10	G2-G240	G240 - GEN CLASS	TRANE	VCWF 10	10"	AHU-G2	625	325	325	0.5" WG	17.17	55 / 100	160 / 120	0.86	2	0.5 FT	3/4"	ALL
VAV-10	G2-G241	G241 - GEN CLASS	TRANE	VCWF 10	10"	AHU-G2	625	325	325	0.5" WG	15.86	55 / 100	160 / 120	0.86	2	0.5 FT	3/4"	ALL
VAV-10	G2-G242	G242 - GEN CLASS	TRANE	VCWF 10	10"	AHU-G2	625	325	325	0.5" WG	15.86	55 / 100	160 / 120	0.86	2	0.5 FT	3/4"	ALL

VAV/CAV BOX SCHEDULE - AHU-G3

G MARK	ZONE NUMBER	ROOM SERVED	MANUFACTURER	MODEL	INLET	AHU SERVED BY	COOLING AIRFLOWS		HEATING AIRFLOW (CFM)	MAX. TOTAL APD AT MAX. CFM	CAPACITY (MBH)	HOT WATER COIL					REMARKS	
							MAXIMUM (CFM)	MINIMUM (CFM)				EAT / LAT	EWT / LWT	GPM	NO. OF ROWS	WPD		RUNOUT PIPE SIZE
VAV-10	G3-G238	G238 - 2D ART	TRANE	VCWF 10	10"	AHU-G3	900	450	450	0.5" WG	21.96	55 / 100	160 / 120	1.08	2	0.5 FT	3/4"	ALL
VAV-14	G3-G308	G308 - MEDIA CENTER	TRANE	VCWF 14	14"	AHU-G3	1700	850	850	0.5" WG	39.25	55 / 100	160 / 120	1.97	2	0.5 FT	1"	ALL
VAV-04	G3-G309	G309 - OFFICE	TRANE	VCWF 04	4"	AHU-G3	125	75	75	0.5" WG	5.89	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-04	G3-G310	G310 TV VIDEO PRODUCTION	TRANE	VCWF 04	4"	AHU-G3	250	125	125	0.5" WG	7.97	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-06	G3-G311	G311 - WORKROOM	TRANE	VCWF 06	6"	AHU-G3	325	175	175	0.5" WG	9.34	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-10	G3-G324	G324 - MEDIA ARTS	TRANE	VCWF 10	10"	AHU-G3	750	375	375	0.5" WG	19.07	55 / 100	160 / 120	0.95	2	0.5 FT	3/4"	ALL
VAV-06	G3-G325	G325 - M.C STORAGE	TRANE	VCWF 06	6"	AHU-G3	400	200	200	0.5" WG	9.76	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-06	G3-G330B	G330B - DARK ROOM	TRANE	VCWF 06	6"	AHU-G3	450	225	225	0.5" WG	10.98	55 / 100	160 / 120	0.53	2	0.5 FT	3/4"	ALL
VAV-10	G3-G331	G331 - HS BIOLOGY	TRANE	VCWF 10	10"	AHU-G3	625	325	325	0.5" WG	17.17	55 / 100	160 / 120	0.86	2	0.5 FT	3/4"	ALL
VAV-10	G3-G332	G332 - GEN CLASS	TRANE	VCWF 10	10"	AHU-G3	800	400	400	0.5" WG	19.96	55 / 100	160 / 120	1.0	2	0.5 FT	3/4"	ALL
VAV-04	G3-G333	G333 - ART DIRECTOR	TRANE	VCWF 04	4"	AHU-G3	75	40	40	0.5" WG	3.71	55 / 100	160 / 120	0.5	2	0.5 FT	3/4"	ALL
VAV-10	G3-G334	G334 - GEN CLASS	TRANE	VCWF 10	10"	AHU-G3	700	350	350	0.5" WG	18.14	55 / 100	160 / 120	0.91	2	0.5 FT	3/4"	ALL
VAV-10	G3-G335	G335 - HS PHYSICS	TRANE	VCWF 10	10"	AHU-G3	350	175	175	0.5" WG	5.50	55 / 100	160 / 120	0.91	2	0.5 FT	3/4"	ALL
VAV-10	G3-G336	G336 - GEN CLASS	TRANE	VCWF 10	10"	AHU-G3	700	350	350	0.5" WG	18.08	55 / 100	160 / 120	0.91	2	0.5 FT	3/4"	ALL
VAV-08A	G3-G339	G339 - IDF	TRANE	VCFC 08	8"	AHU-G3	575	300	0	0.5" WG	-	-	-	-	-	-	-	ALL
VAV-10	G3-G341	G341 - GEN CLASS	TRANE	VCWF 10	10"	AHU-G3	725	375	375	0.5" WG	19.07	55 / 100	160 / 120	0.95	2	0.5 FT	3/4"	ALL
VAV-10	G3-G342	G342 - GEN CLASS	TRANE	VCWF 10	10"	AHU-G3	650	325	325	0.5" WG	17.17	55 / 100	160 / 120	0.86	2	0.5 FT	3/4"	ALL
VAV-10	G3-G343	G343 - MAKER SPACE	TRANE	VCWF 10	10"	AHU-G3	650	325	325	0.5" WG	17.17	55 / 100	160 / 120	0.86	2	0.5 FT	3/4"	ALL

REMARKS:
1. ACCEPTABLE MANUFACTURERS: BELL AND GOSSETT, TACO, ARMSTRONG
2. PUMP EFFICIENCIES LISTED ARE THE MINIMUM ACCEPTABLE VALUES - DO NOT SUBMIT LESS EFFICIENT PUMPS.

M44 PIPING TRANSITIONS FROM RUNNING ALONG RETAINING WALL TO ROUTING ON TOP OF ARCHITECTURAL SITE CANOPY.



A

6

CONFORMANCE SET

A

6

CONFORMANCE SET

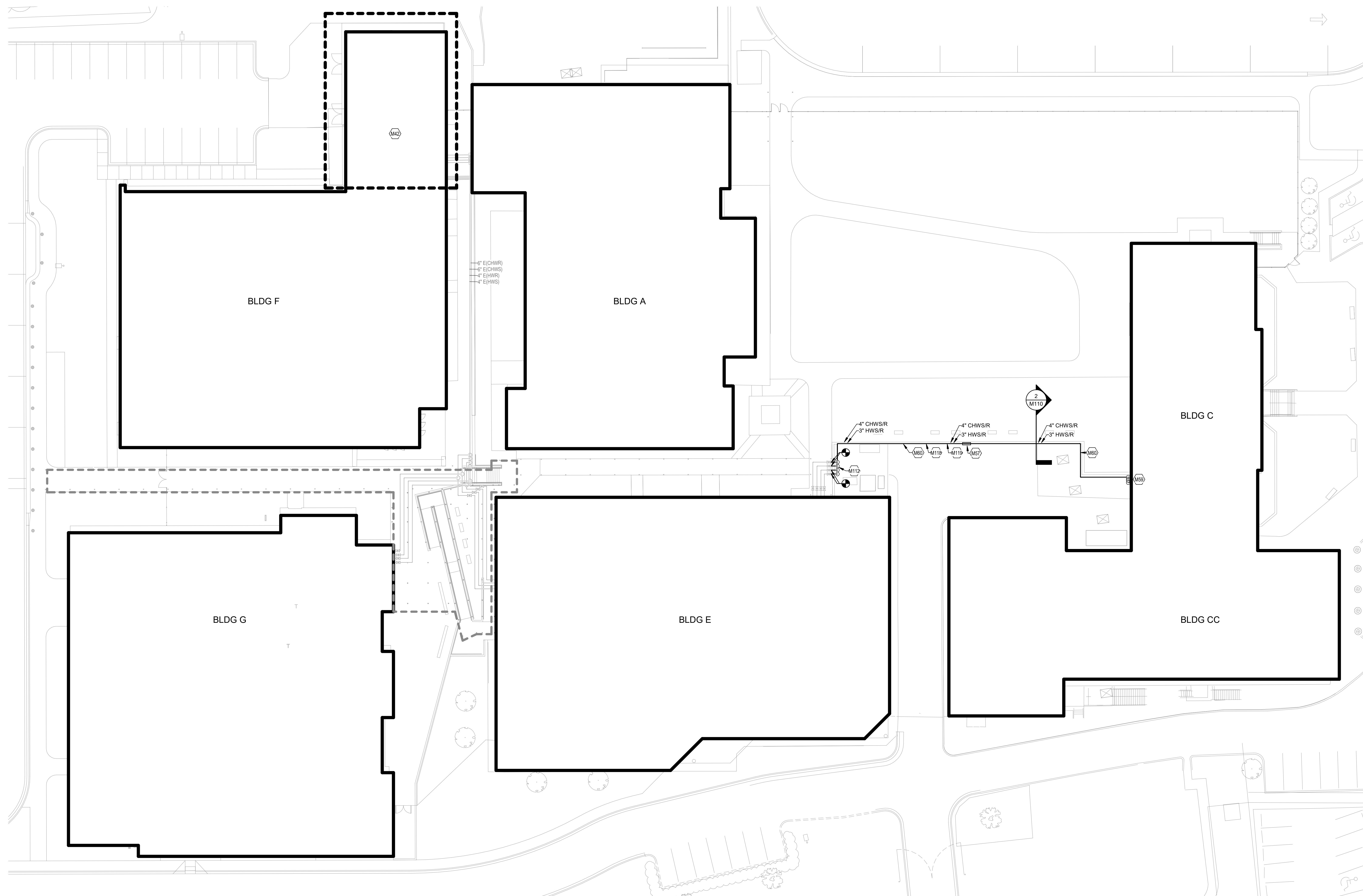
M117 DEMOLISH ALL DUAL TEMPERATURE PIPING.





1. GROOVED STEEL PIPING IS ACCEPTABLE FOR ALL EXTERIOR SITE PIPING AND PIPING MAINS THROUGH BUILDING E AS A PART OF PHASE 1 SCOPE.

M119 SIZE CHWS/R EXPNSION FITTINGS FOR THE FOLLOWING DESIGN PARAMETERS: 44F ENTERING WATER TEMPERATURE, 54F LEAVING WATER TEMPERATURE, 30 PSI MINIMUM PRESSURE, 115 PSI MAXIMUM PRESSURE. TYPICAL OF ALL CHWS/R PIPING.



1 SITE PLAN - MECHANICAL - PHASE 3
SCALE: 1" = 20'-0"

[illegible]

M110

THE LINE SHOWN ABOVE IS EXACTLY ONE FOOT IN REALITY. DIMENSIONS ARE IN FEET AND INCHES. DIMENSIONS ARE IN FEET AND INCHES.

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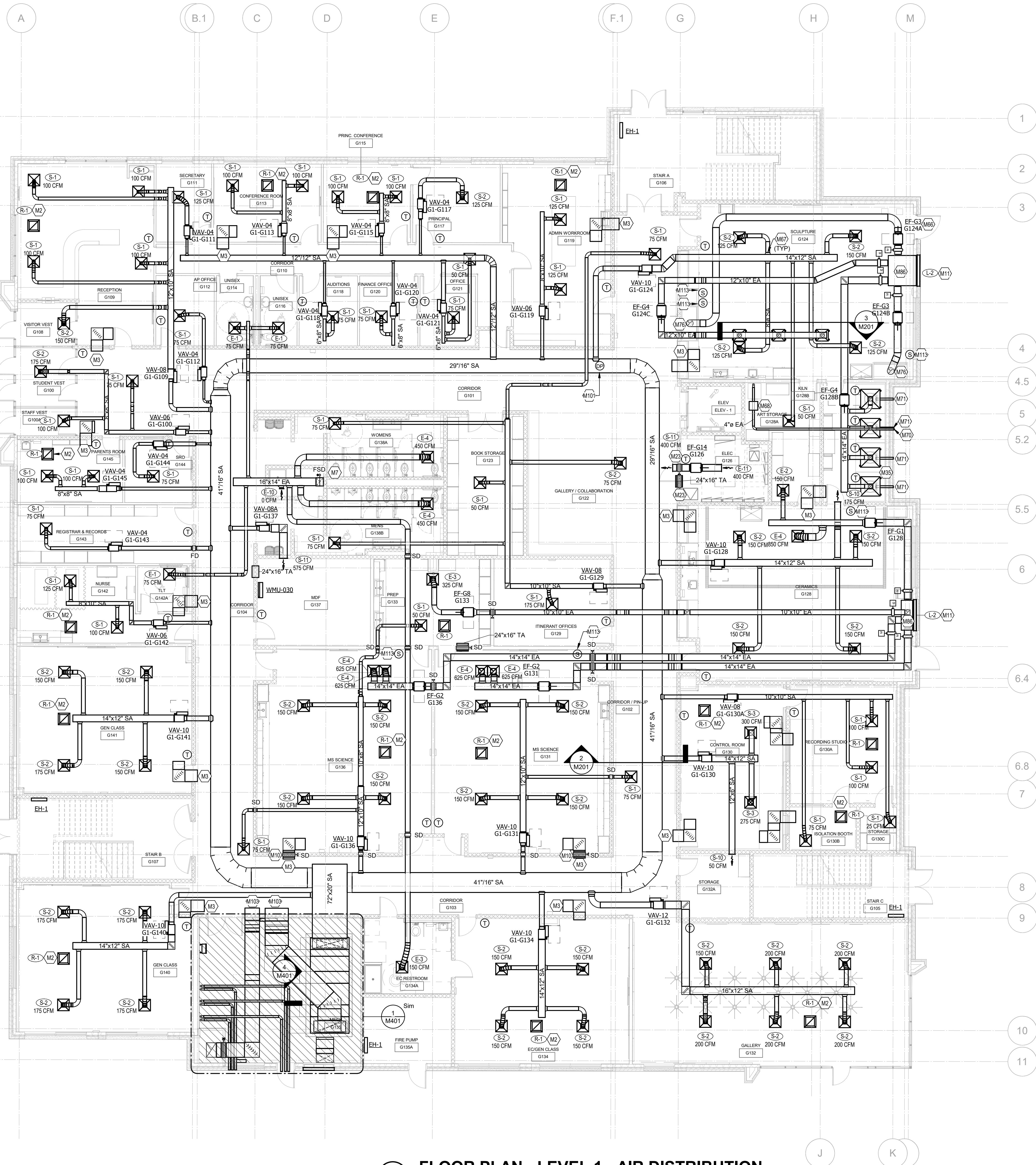
E

D

C

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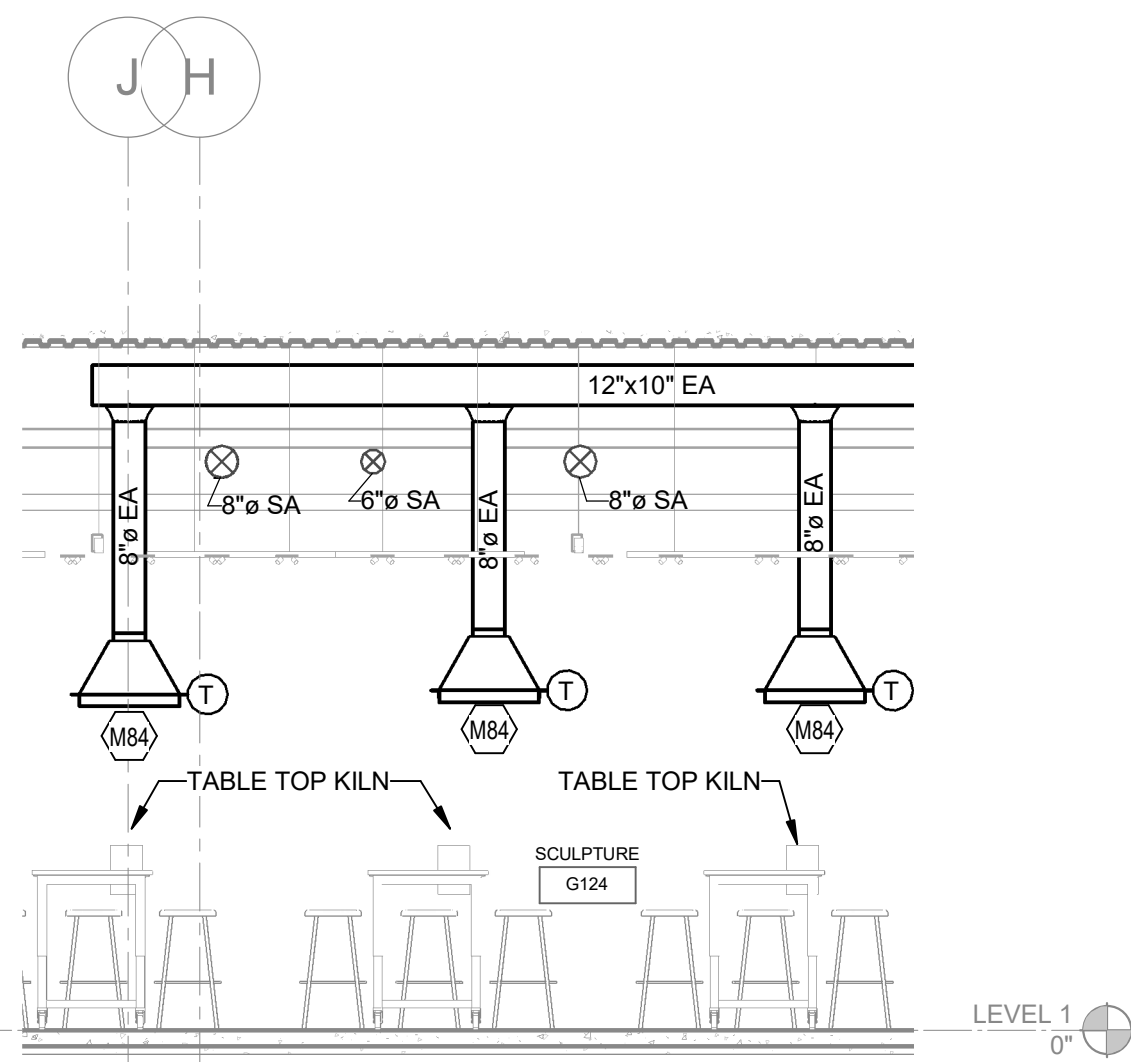
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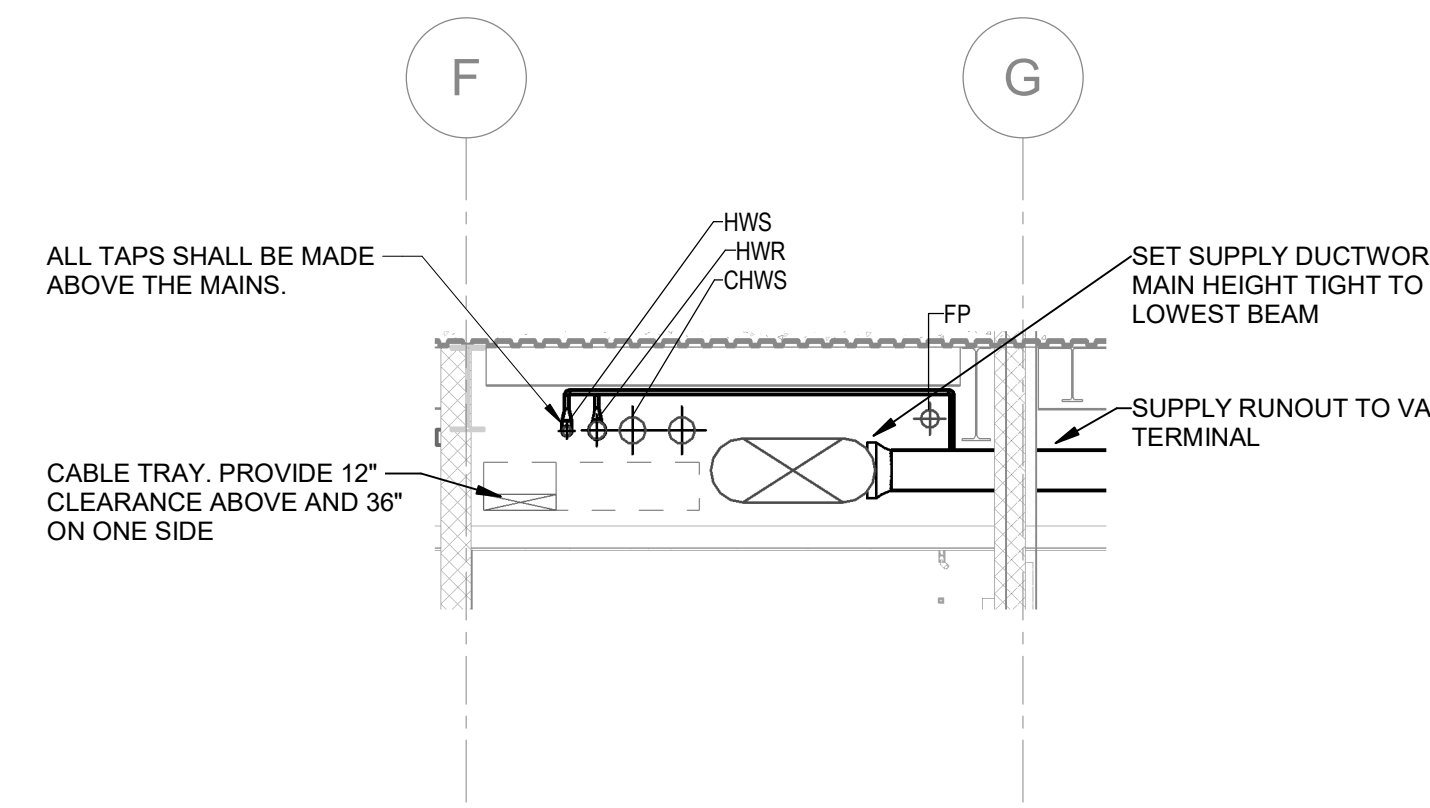
1 FLOOR PLAN - LEVEL 1 - AIR DISTRIBUTION
1/8" = 1'-0"

KEYNOTES

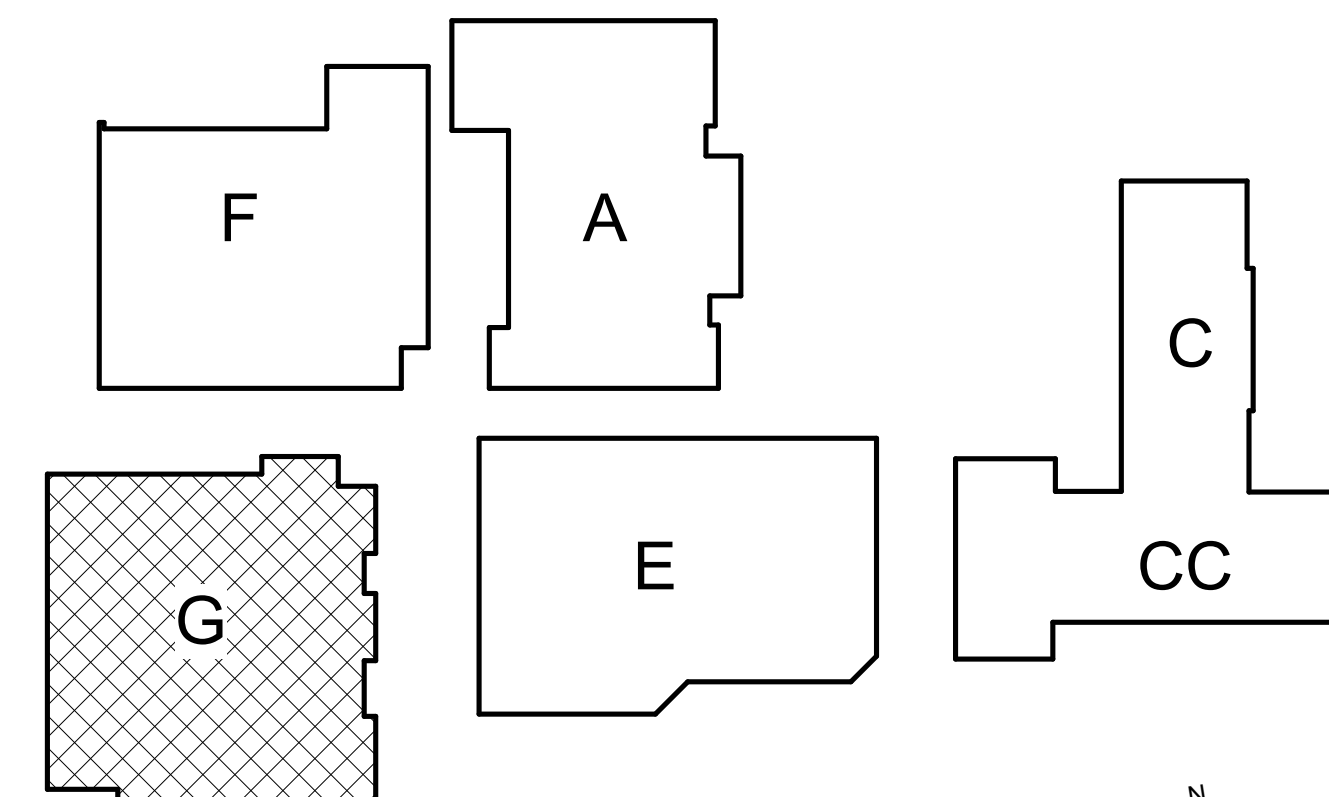
- M2 PROVIDE RETURN AIR CANOPY PER DETAIL ON SHEET M603. TYPICAL OF ALL PLENUM RETURN GRILLES.
- M3 24"x16" TRANSFER AIR DUCT. DUCT SHALL BE SINGLE WALL LINED WITH 1" THICK SONIC XP FIBERGLASS DUCLINER OR EQUAL. TYPICAL.
- M7 INSTALL FIRE/SMOKE DAMPER AT FLOOR.
- M10 PROVIDE SMOKE DAMPERS FOR ALL TRANSFER AIR PENETRATIONS THOROUGH SCIENCE LAB SMOKE WALLS.
- M11 REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHT OF LOUVER.
- M23 PROVIDE FIRE DAMPER AT LOCATION INDICATED.
- M35 PROVIDE 42"x42" EXHAUST HOOD FOR EACH KILN. KEEPS OVERHEAD CANOPY HOOD OR APPROVED EQUAL. INSTALL HOOD PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE INLINE EXHAUST FAN AND ROUTE TO SIDEWALL LOUVER. FAN SHALL BE CONTROLLED BY TEMPERATURE SENSOR LOCATED IN EACH HOOD.
- M66 INSTALL EXHAUST FAN OUTSIDE OF ARCHITECTURAL RECTANGULAR SUSPENDED CEILING PANELS.
- M67 COORDINATE LOCATIONS OF BALANCING DAMPERS RELATIVE TO ARCHITECTURAL RECTANGULAR SUSPENDED CEILING PANELS. INSTALL DAMPERS IN OPEN AREAS BETWEEN PANELS TO ALLOW FOR ACCESS TO DAMPERS. TYPICAL.
- M68 INSTALL UL LISTED BOOSTER FAN FOR DRYER. INSTALL DUCT CLEAN PER DETAIL ON SHEET M504. PROVIDE CLEANOUT FOR ALL VERTICAL RISERS. DRYER DUCT SHALL BE WRAPPED WITH 1-HR FIRE RATED WRAP FROM EXIT OF DRYER TO TERMINATION AT THE EXTERIOR OF THE BUILDING.
- M70 CENTER DRYER EXHAUST VENT ABOVE KILN EXHAUST WALL PENETRATION. INSTALL VENT PER DETAIL ON SHEET M504.
- M71 PROVIDE ALL KILNS WITH WALL MOUNTED VENTILATION FAN AND DISCHARGE TUBE SHIPPED WITH KILN FOR INSTALLATION BY MECHANICAL CONTRACTOR. TERMINATE KILN EXHAUST WITH RAIN HOOD ON BUILDING EXTERIOR PER MANUFACTURER REQUIREMENTS. CENTER ALL KILN EXHAUST WALL PENETRATIONS AT EQUAL ELEVATIONS.
- M76 14" DIAMETER DUCT DOWN TO FUME HOOD. TRANSITION DUCT TO FUME HOOD COLLAR CONNECTION. BALANCE TO 850 CFM.
- M84 PROVIDE 24"x24" EXHAUST HOOD FOR EACH TABLE TOP KILN. KEEPS OVERHEAD CANOPY HOOD OR APPROVED EQUAL. INSTALL HOOD 80" AFF. PROVIDE INLINE EXHAUST FAN AND ROUTE TO SIDEWALL LOUVER. FAN SHALL BE CONTROLLED BY TEMPERATURE SENSOR LOCATED IN EACH HOOD.
- M86 FULL SIZE INSULATED PLENUM BOX. EXTEND MINIMUM OF 24". ALL DUCTWORK SHALL BE INSULATED UP TO MOTORIZED DAMPER CONNECTION.
- M101 INSTALL DIFFERENTIAL PRESSURE SENSOR AT LOCATION INDICATED.
- M103 TERMINATE DUCT WITH FLARED DUCT OPENING, OPEN-ENDED WITH SCREEN, WITHIN CEILING PLENUM.
- M113 TIMED WALL SWITCH FOR EXHAUST FAN. PROVIDE LAMICOID PACARD DENOTING UNIT CONTROL BY SWITCH. PACARD LANGUAGE SHALL BE REVIEWED WITH OWNER AND ENGINEER PRIOR TO ORDERING.



3 TABLE TOP KILN SECTION
SCALE: 1/4" = 1'-0"



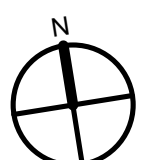
2 TYPICAL CORRIDOR SECTION
SCALE: 1/4" = 1'-0"



KEYPLAN

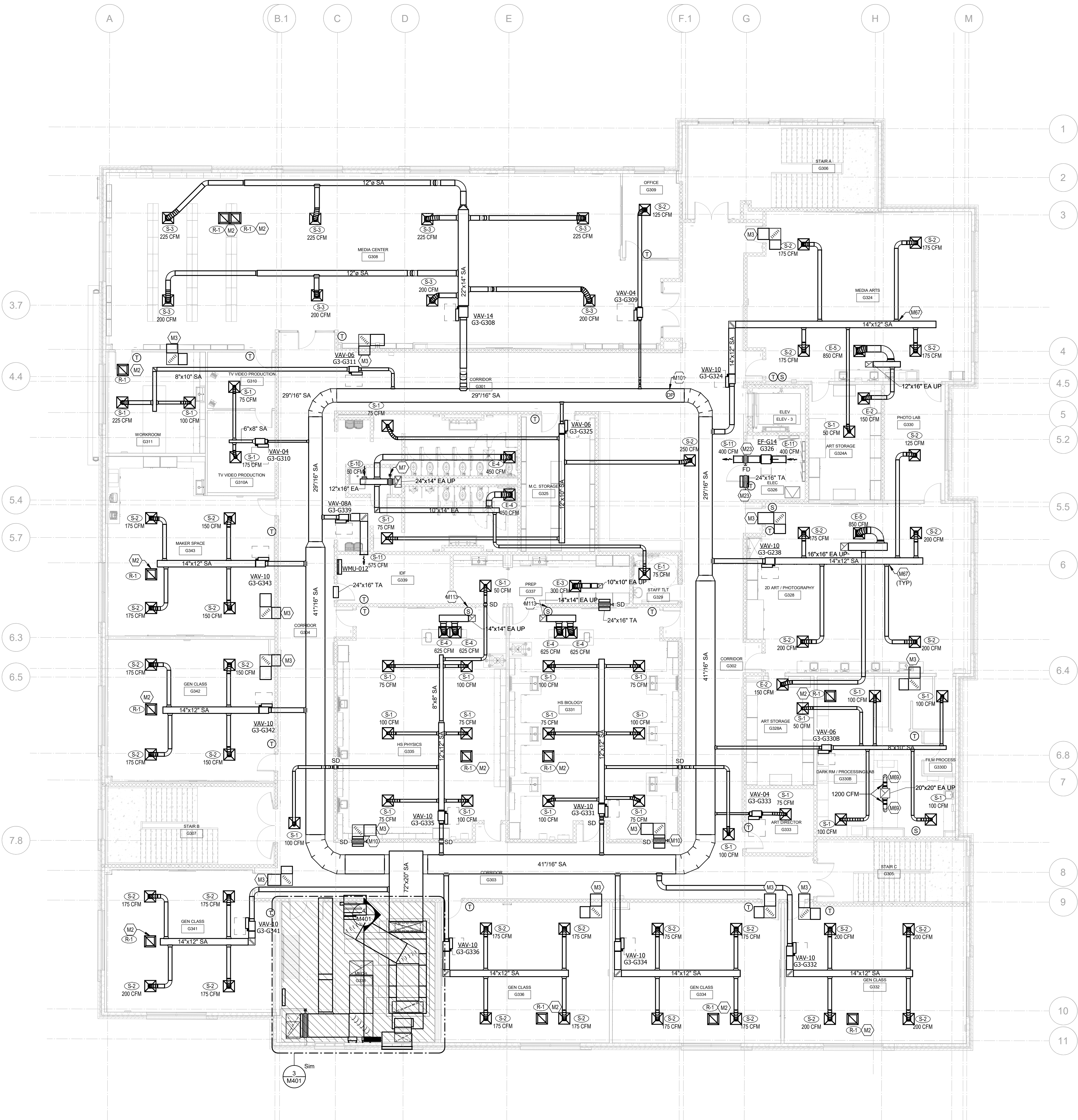
DATE	DESCRIPTION
1 11/07/23	LUESA REVIEW 1
3 11/07/23	CMS COORDINATION

M113 TIMED WALL SWITCH FOR EXHAUST FAN. PROVIDE LAMICOID PACARD DENOTING UNIT CONTROL BY SWITCH. PACARD LANGUAGE SHALL BE REVIEWED WITH OWNER AND ENGINEER PRIOR TO ORDERING.

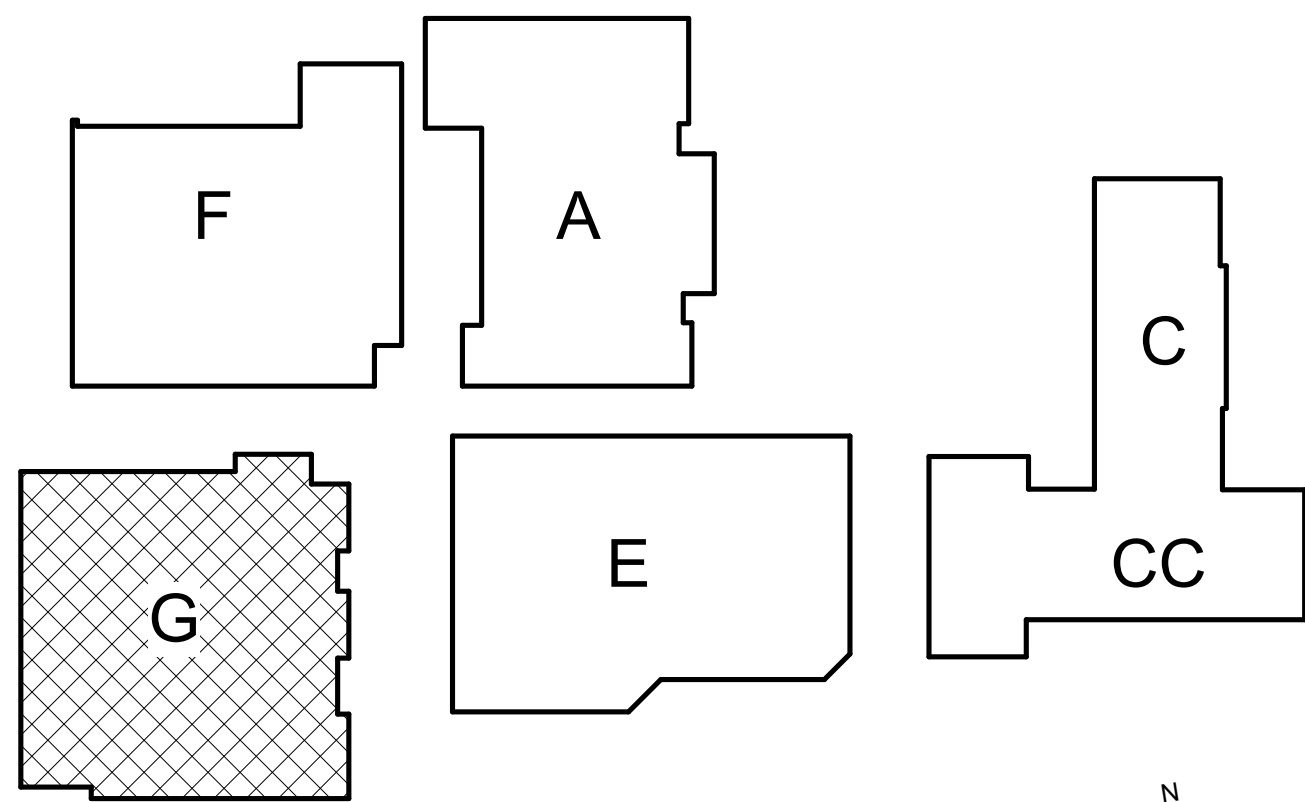


KEYPLAN

THE LINE DRAWING ABOVE IS EXACTLY ONE INCH PER FOOT UNLESS OTHERWISE NOTED
5/20/2024 11:28:18 AM



1 FLOOR PLAN - LEVEL 3 - AIR DISTRIBUTION
1/8" = 1'-0"



KEYPLAN

KEYNOTES

- M2 PROVIDE RETURN AIR CANOPY PER DETAIL ON SHEET M603. TYPICAL OF ALL PLENUM RETURN GRILLES.
- M3 24"x16" TRANSFER AIR DUCT. DUCT SHALL BE SINGLE WALL LINED WITH 1" THICK SONIC XP FIBERGLASS DUCTLINER OR EQUAL. TYPICAL.
- M7 INSTALL FIRE/SMOKE DAMPER AT FLOOR.
- M10 PROVIDE SMOKE DAMPERS FOR ALL TRANSFER AIR PENETRATIONS THROUGH SCIENCE LAB SMOKE WALLS.
- M23 PROVIDE FIRE DAMPER AT LOCATION INDICATED.
- M67 COORDINATE LOCATIONS OF BALANCING DAMPERS RELATIVE TO ARCHITECTURAL RECTANGULAR SUSPENDED CEILING PANELS. INSTALL DAMPERS IN OPEN AREAS BETWEEN PANELS TO ALLOW FOR ACCESS TO DAMPERS. TYPICAL.
- M69 DUCTWORK DOWN TO VENT-HOOD FUME STACK CONNECTION. COORDINATE FINAL AIRFLOWS AND NUMBER OF REQUIRED FUME STACKS WITH SUBMITTED HOOD MANUFACTURER. BASIS OF DESIGN HOOD REQUIRES 1,200 CFM THROUGH 2, 8" DIAMETER, EXHAUST STACKS.
- M101 INSTALL DIFFERENTIAL PRESSURE SENSOR AT LOCATION INDICATED.
- M113 TIMED WALL SWITCH FOR EXHAUST FAN. PROVIDE LAMICOID PACARD DENOTING UNIT CONTROL BY SWITCH. PACARD LANGUAGE SHALL BE REVIEWED WITH OWNER AND ENGINEER PRIOR TO ORDERING.

DATE	DESCRIPTION
1 11/07/23	LUESA REVIEW 1

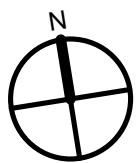
SHEET NAME:
FLOOR PLAN -
LEVEL 3 - AIR
DISTRIBUTION

ORIG SUBMISSION: 05/15/24

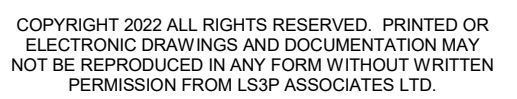
SHEET:
M203

CONFORMANCE SET

5/20/2024 11:28:21 AM



M24	INSTALL FAN MINIMUM OF 10'-0" AWAY FROM ROOF EDGE.
M45	MOUNT CONDENSING UNITS ON ROOF CURB. INSTALL PER REQUIREMENTS SHOWN IN CONDENSING UNIT DETAIL ON SHEET M504.G.
M46	REFER TO PIPE CHASE / ROOF CURB DETAIL ON SHEET M504.G FOR REFRIGERANT PIPE PENETRATION REQUIREMENTS.
M104	COORDINATE ORIENTATION OF ALL ROOFTOP EQUIPMENT TO AID MAINTENANCE ACCESS WITH WALKPAD LOCATIONS.



LS3P PROJECT: 9201-224030

[illegible]

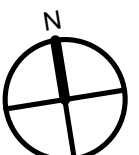
M204

CONFORMANCE SET

MARK	HWS/R PIPE SIZE	CHWS/R PIPE SIZE
VAV-04	3/4"	-
VAV-06	3/4"	-
VAV-08	3/4"	-
VAV-08A	3/4"	-
VAV-10	3/4"	-
VAV-12	3/4"	-
VAV-14	3/4"	-

[illegible]

CONFORMANCE SET



KEYPLAN

M53 INSTALL 3-WAY VALVE AT VAV BOX. INSTALL PER DETAIL ON SHEET M503.



SCALE: 1/8" = 1'-0"

THE LINE SHOWN ABOVE IS EXACTLY
ONE INCH LONG AT THIS SHEETS
ORIGINAL SCALE

A

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M53 INSTALL 3-WAY VALVE AT VAV BOX. INSTALL PER DETAIL ON SHEET M503.

MARK	HWS/R PIPE SIZE	CHWS/R PIPE SIZE
VAV-04	3/4"	-
VAV-06	3/4"	-
VAV-08	3/4"	-
VAV-08A	3/4"	-
VAV-10	3/4"	-
VAV-12	3/4"	-
VAV-14	3/4"	-



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[illegible]

M302

CONFORMANCE SET

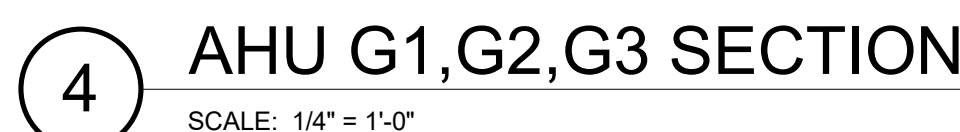
A

6

CONFORMANCE SET

SCALE: 1/8" = 1'-0"

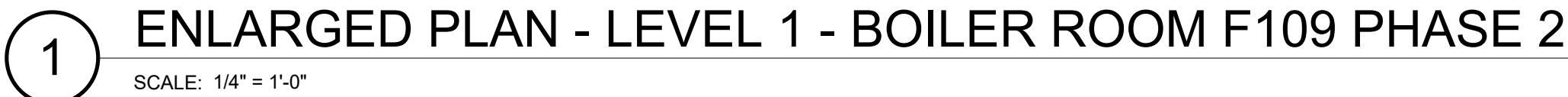
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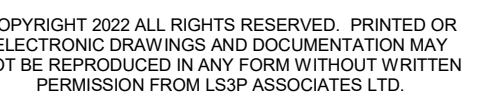
- | | |
|------|---|
| M11 | REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHT OF LOUVER. |
| M41 | INSTALL AIR HANDLING UNIT ON 4" CONCRETE PAD. EXTEND PAD MINIMUM OF 6" ON ALL SIDES OF UNIT. |
| M51 | BUILDING G HOT WATER DIFFERENTIAL PRESSURE SENSOR LOCATION. |
| M52 | BUILDING G CHILLED WATER DIFFERENTIAL PRESSURE SENSOR LOCATION. |
| M56 | VAV CONTROL PANEL. CONTROLS CONTRACTOR TO COORDINATE NUMBER AND PROVIDED CONTROLLERS WITH ELECTRICAL CONTRACTOR AND REQUIRE ALL REQUIRED CONTROLLERS AS NEEDED. |
| M64 | INSTALL BAS PANEL AT LOCATION INDICATED. |
| M73 | TERMINATE FLUE PIPING MINIMUM OF 10'-0" AWAY FROM DOOR ENTRANCE. PIPING PIPING 10'-0" ABOVE GRADE AND PROVIDE WITH MANUFACTURER APPROVED FLUE TERMINATION KIT. |
| M74 | CENTER COMBUSTION AIR PIPING ABOVE DOOR ENTRANCE. TERMINATE COMBUSTION AIR PIPING 10'-0" ABOVE GRADE AND PROVIDE WITH MANUFACTURER APPROVED COMBUSTION AIR TERMINATION KIT. |
| M77 | AIR MIXING SECTION. |
| M78 | ACCESS SECTION. |
| M79 | FAN SECTION. |
| M80 | HOT WATER COIL SECTION. INSTALL PER PIPING SCHEMATIC ON SHEET M501. |
| M81 | CHILLED WATER COIL SECTION. INSTALL PER PIPING SCHEMATIC ON SHEET M501. |
| M82 | DISCHARGE PLENUM. |
| M83 | FULL SIZE RETURNED PLENUM BOX. EXTEND MINIMUM OF 24". |
| M85 | ENTIRE INSULATED DUCT INDICATED BY HATCH SHALL BE LINED WITH 2" THICK FIBROUS-GLASS DUCTLINER. DUCT SHALL BE DOUBLE WALL WITH PEGGATED INNER SHELL PER SPECIFICATIONS. PROVIDE OPEN ENDED SCREEN FOR RETURN AIR PLENUM OPENING. |
| M87 | CONNECT TO TOP OF PLENUM BOX TO ALLOW FOR REQUIRED STRAIGHT LENGTH OF DUCT FOR AIRFLOW MONITORING STATION. |
| M88 | ROUTE AHU CONDENSATE TO NEAREST FLOOR DRAIN. |
| M89 | VFD LINKED TO RELIEF FAN RAF-G1 ON ROOF. REFER TO ROOF PLAN FOR LOCATION. |
| M103 | TERMINATE DUCT WITH FLARED DUCT OPENING. OPEN-ENDED WITH SCREEN, WITH CEILING PLENUM. |

[illegible]

5/20/2024 11:20:04 AM



M115 INSTALL CONTROL VALVE, BALANCE VALVE, PT PORT, STRAINER, ETC. PER CHILLED WATER SCHEMATIC BETWEEN EXISTING CHILLER AND SHUTOFF VALVE.



LS3P PROJECT: 9201-224030

[illegible]

ORIGINAL SUBMISSION: 05/15/24

PERFORMANCE SET



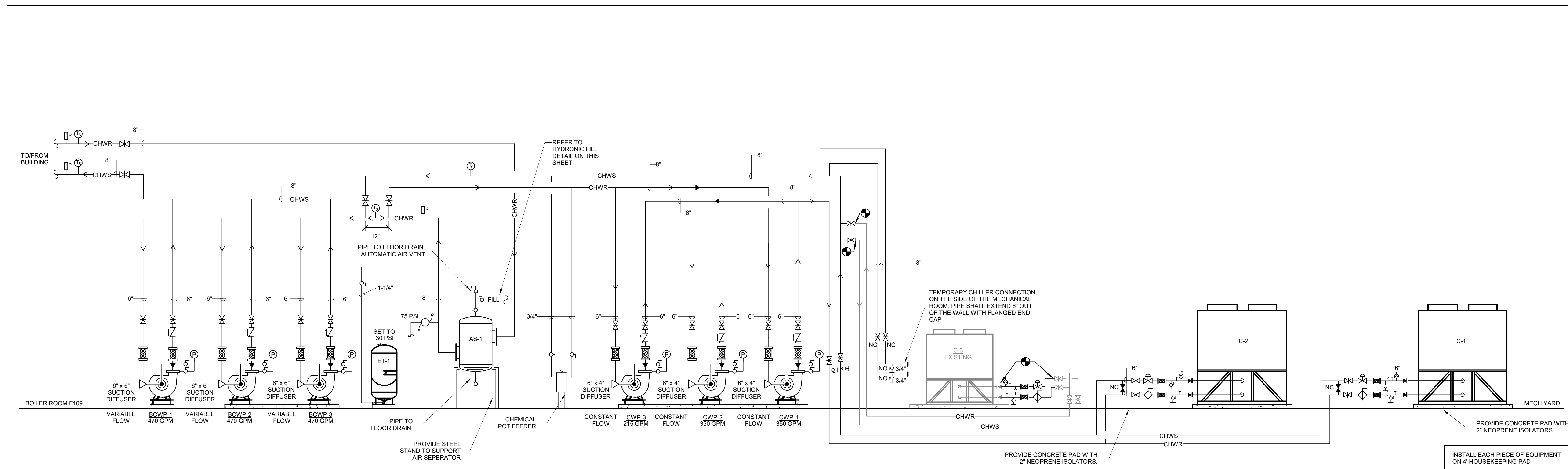
AIR HANDLING UNIT - PIPE SCHEDULE		
MARK	GPM	BRANCH PIPE SIZE HWS/R
AHU-G1	15.8	1 1/2"
AHU-G2	17.9	1 1/2"
AHU-G3	15.8	1 1/2"

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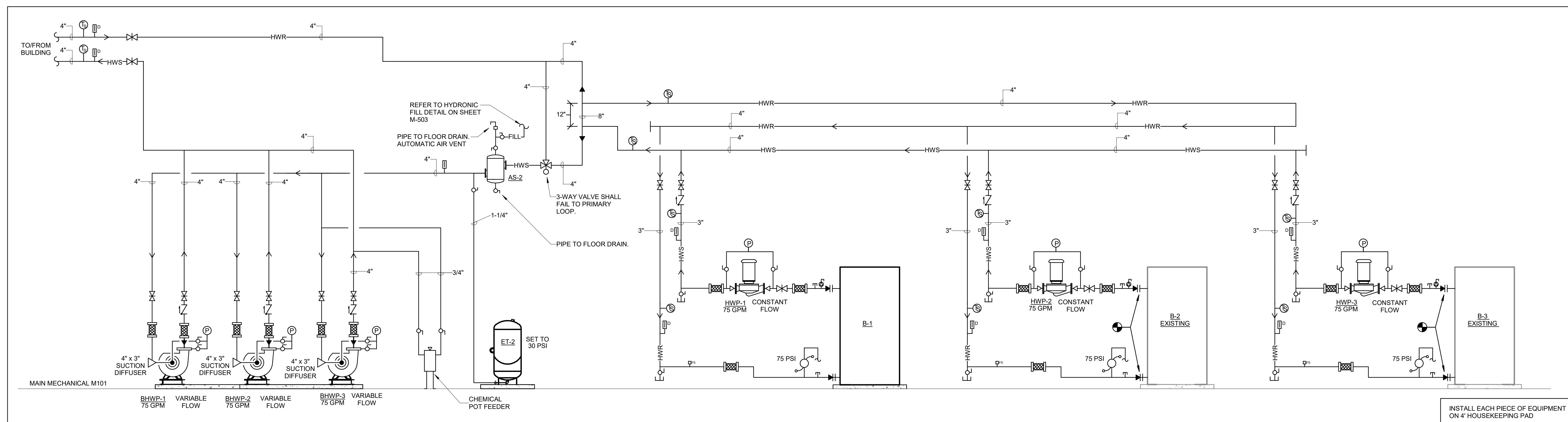
M501

CONFORMANCE SET

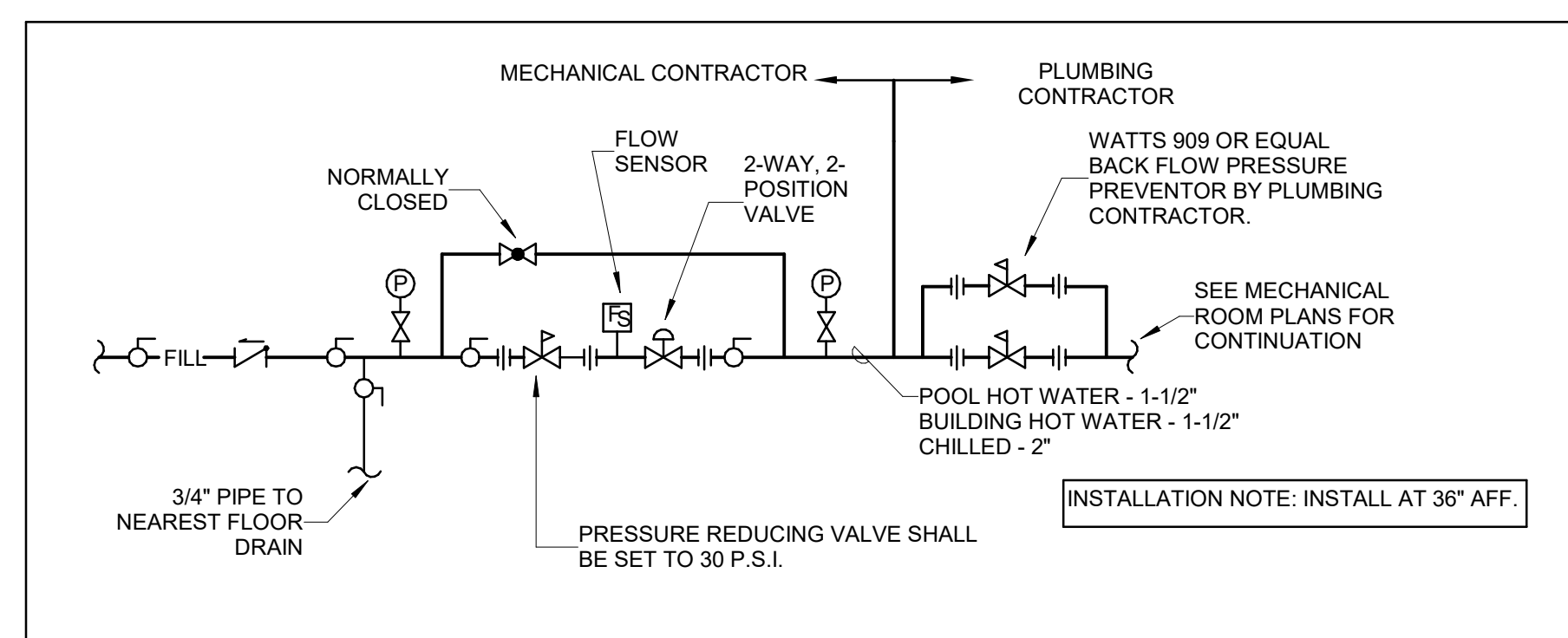


1 CHILLED WATER PIPING SCHEMATIC

NO SCALE



2 HOT WATER PIPING SCHEMATIC



3 HYDRONIC FILL SYSTEM - PIPING DETAIL

[illegible]

NO SCALE

2 NO SCALE

3 NO SCALE

(4) NO SCAL

5 NO SCAL

(6) NO SCALING

(7) NO SCALE

8 NO SCALE

9 NO SCALE

10 NO SCALE

11 VAV



5/20/2024 11:29:19 AM



FLOOR PLAN - LEVEL 1 - CONTROLS

SCALE: 1/8" = 1'-0"

164 INSTALL BAS PANEL AT LOCATION INDICATE



KEYPLAN

CONFORMANCE SET

THE LINE SHOWN ABOVE IS EXACTLY ONE FOOT LONG. THE LINE SHOWN ABOVE IS EXACTLY ONE FOOT LONG. THE LINE SHOWN ABOVE IS EXACTLY ONE FOOT LONG.

E

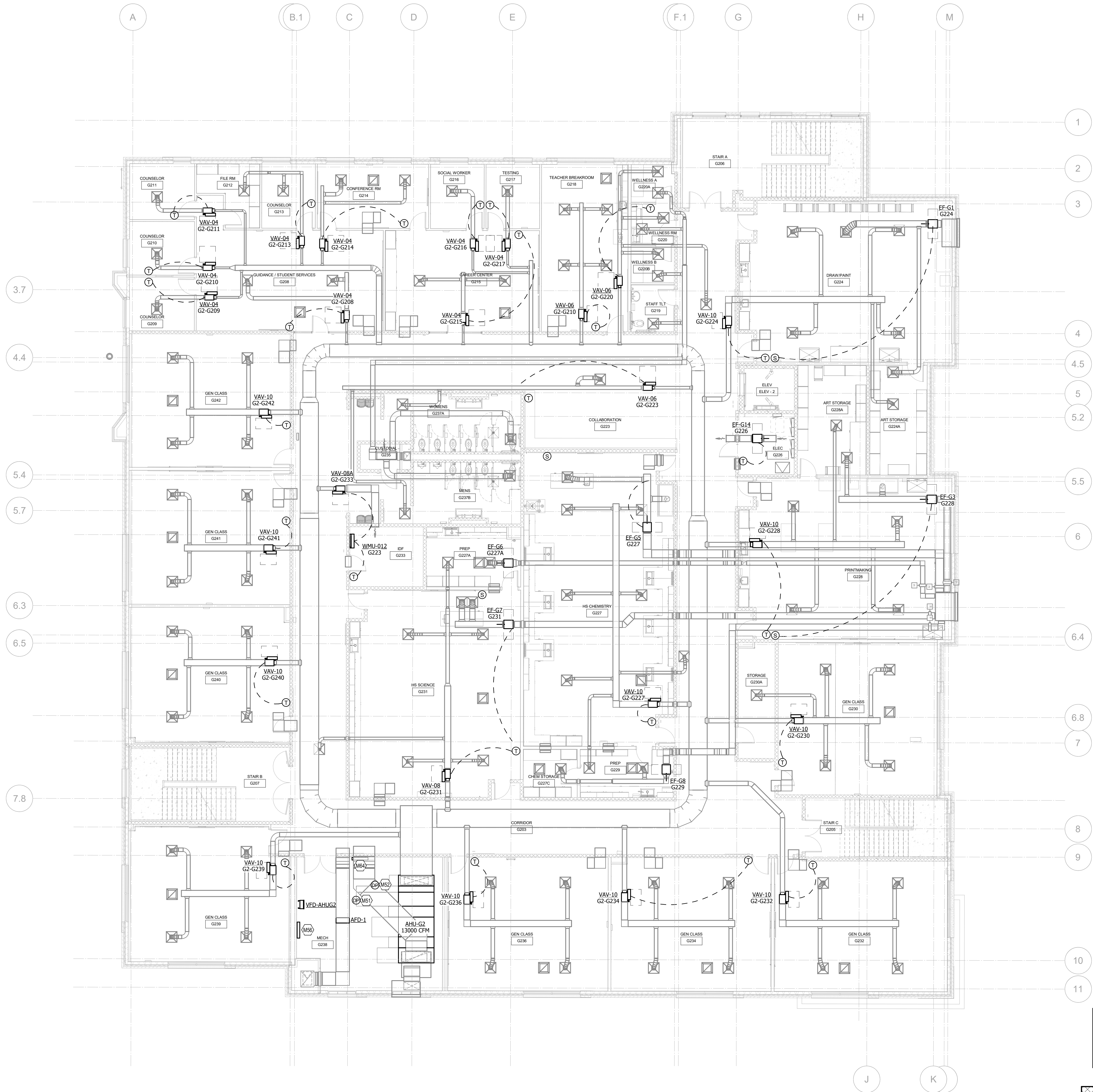
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C

B

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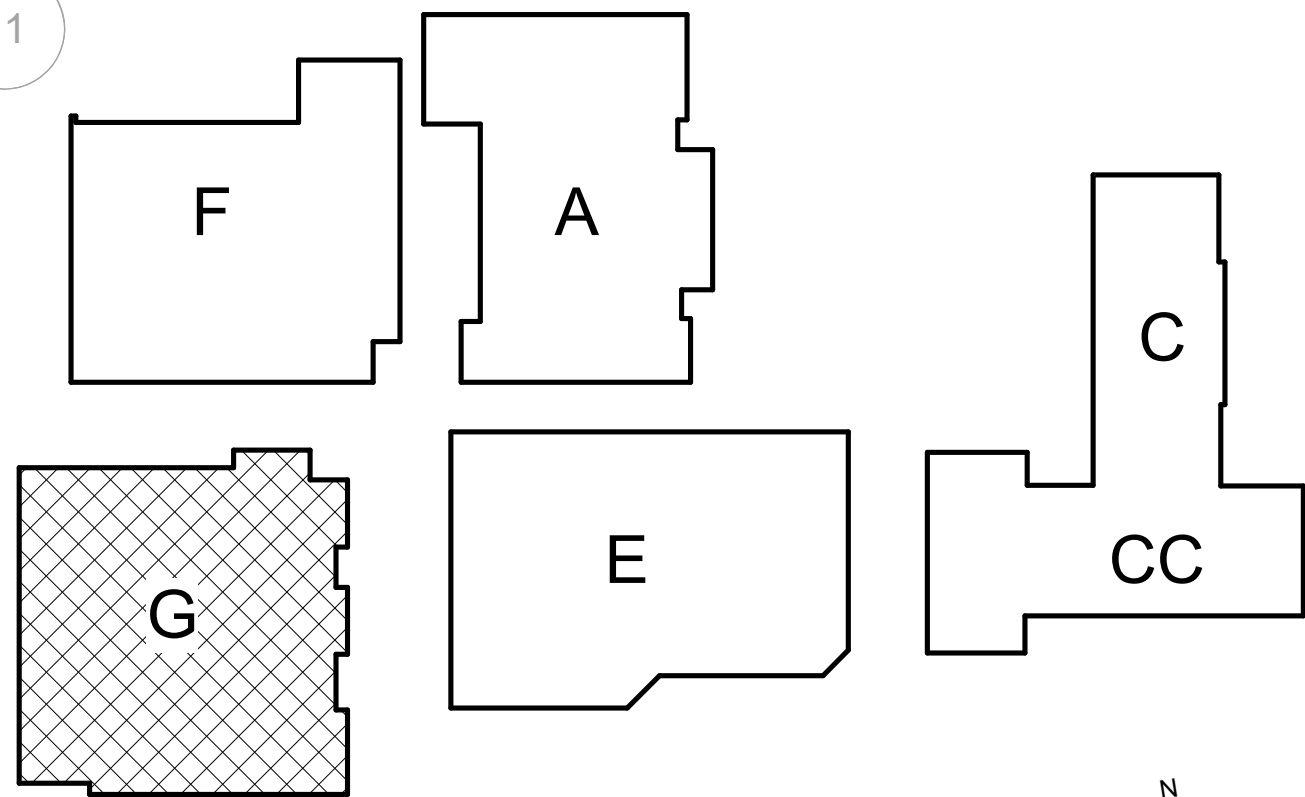
1 FLOOR PLAN - LEVEL 2 - CONTROLS
SCALE: 1/8" = 1'-0"

CONTROLS GENERAL NOTES

1. CONTROLS CONTRACTOR IS RESPONSIBLE FOR CREATING A NEW "CONTROLS FLOOR PLAN" WHERE THE CONTROLS CONTRACTOR CREATES A NEW BUILDING WIDE CONTROLS GRAPHIC THAT DISPLAYS THE EXISTING BUILDING ARCHITECTURAL LAYOUT, ALL MECHANICAL EQUIPMENT, ALL THERMOSTAT LOCATIONS, ALL DUCTWORK AND GRILLES, ETC.

KEYNOTES

- M51 BUILDING G HOT WATER DIFFERENTIAL PRESSURE SENSOR LOCATION.
- M52 BUILDING G CHILLED WATER DIFFERENTIAL PRESSURE SENSOR LOCATION.
- M56 VAV CONTROL PANEL. CONTROLS CONTRACTOR TO COORDINATE NUMBER OF REQUIRED CONTROLLERS WITH ELECTRICAL CONTRACTOR AND PROVIDE ALL REQUIRED CONTROLLERS AS NEEDED.
- M64 INSTALL BAS PANEL AT LOCATION INDICATED.



KEYPLAN

DATE	DESCRIPTION

**NWSA Visual
Arts-Classroom Bldg**
1415 Beatties Ford Rd

Charlotte, NC 28216

LS3P PROJECT: 9201-224030

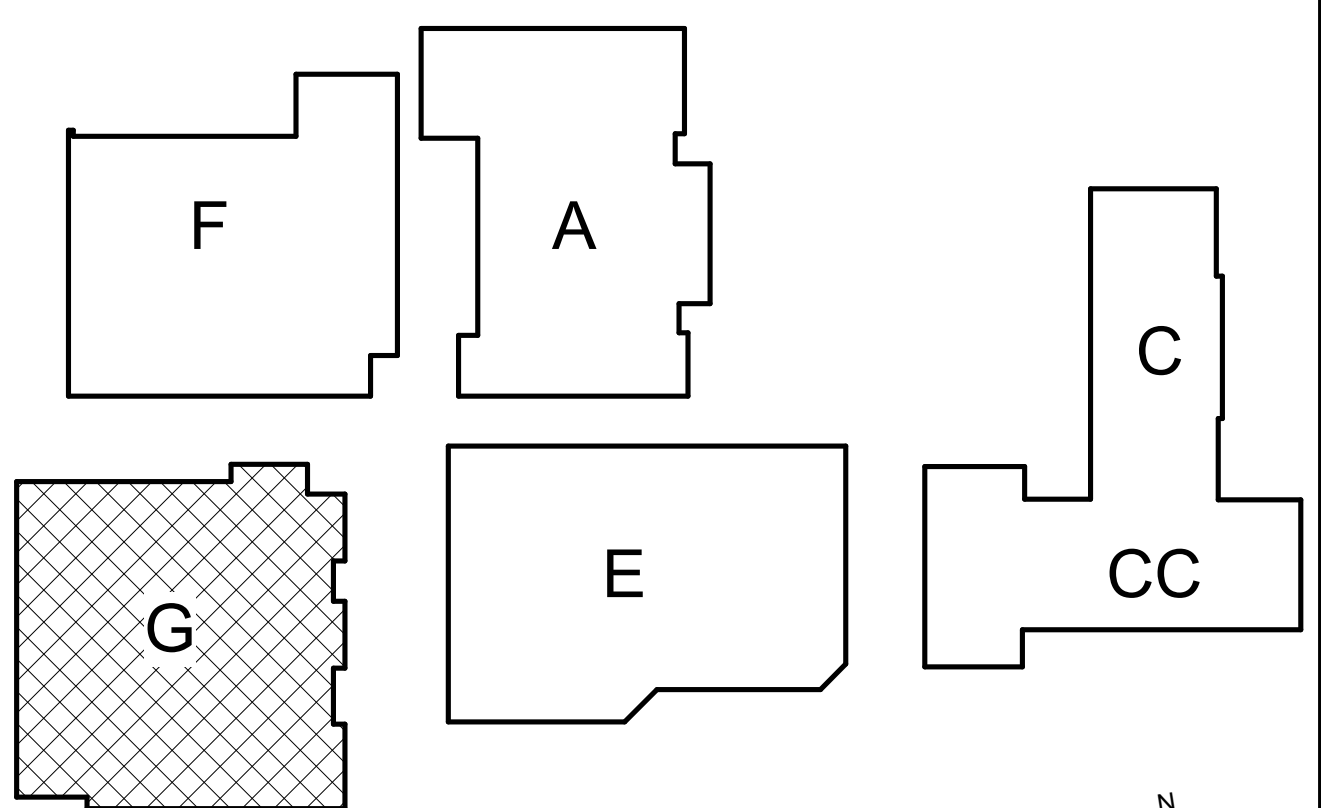
[illegible]

HEET NAME:
FLOOR PLAN -
LEVEL 3 -
CONTROLS

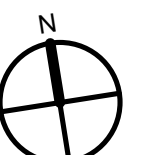
ORIGINAL SUBMISSION: 05/15/24

HEET: **M603**

CONFORMANCE SET



KEYPLAN



CONTROLS GENERAL NOTES

1. CONTROLS CONTRACTOR IS RESPONSIBLE FOR CREATING A NEW "CONTROLS FLOOR PLAN" WHERE THE CONTROLS CONTRACTOR CREATES A NEW BUILDING WIDE CONTROLS GRAPHIC THAT DISPLAYS THE EXISTING BUILDING ARCHITECTURAL LAYOUT, ALL MECHANICAL EQUIPMENT, ALL THERMOSTAT LOCATIONS, ALL DUCTWORK AND GRILLES, ETC.

KEYNOTES

- | | |
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| M56 | VAV CONTROL PANEL. CONTROLS CONTRACTOR TO COORDINATE NUMBER OF REQUIRED CONTROLLERS WITH ELECTRICAL CONTRACTOR AND PROVIDE ALL REQUIRED CONTROLLERS AS NEEDED. |
| M64 | INSTALL BAS PANEL AT LOCATION INDICATED. |
| M72 | ROOFTOP EXHAUST FANS SHOWN ON 3RD FLOOR CONTROLS PLAN TO CLARIFY LOCATION RELATIVE TO WALL SWITCHES. TYPICAL. |

1 FLOOR PLAN - LEVEL 3 - CONTROLS

SCALE: 1/8" = 1'-0"



