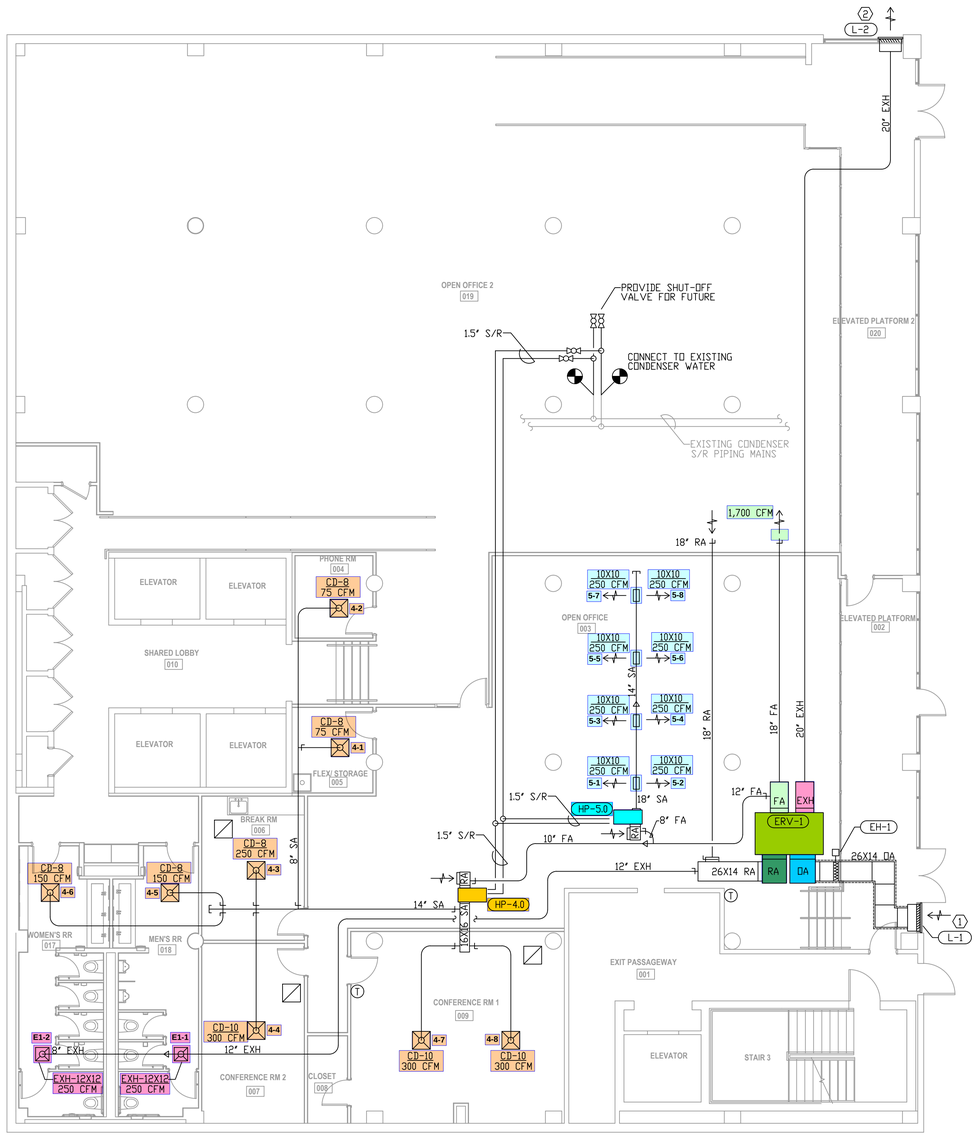

BASEMENT PLAN
SCALE: 1/8" = 1'-0"

EQUIPMENT SCHEDULES

HP-5.0 NOMINAL 5-TON HORIZONTAL WATER SOURCE HEAT PUMP EQUAL TO CLIMATEMASTER TC-060. 2,000 CFM @ 0.50" ESP, 12.5 GPM, 460/3/60, 12.15 MCA/15 MOCP. PROVIDE WALL MOUNTED SENSOR TO MATCH EXISTING BUILDING CONTROLS. CONNECT TO EXISTING BAS. PROVIDE CALIBRATED BALANCE VALVE PACKAGE WITH SHUT-OFF VALVES, STRAINER, AND P/T PORTS. 3/4" CONDENSATE TO EXISTING CONDENSATE MAIN. SMOKE DETECTOR BY OTHERS.

HP-4.0 NOMINAL 4-TON HORIZONTAL WATER SOURCE HEAT PUMP EQUAL TO CLIMATEMASTER TC-048. 1,600 CFM @ 0.50" ESP, 10.0 GPM, 460/3/60, 9.5 MCA / 15 MOCP. PROVIDE WALL MOUNTED SENSOR TO MATCH EXISTING BUILDING TEMPERATURE CONTROLS. CONNECT TO EXISTING BAS. PROVIDE CALIBRATED BALANCE VALVE PACKAGE WITH SHUT-OFF VALVES, STRAINER, AND P/T PORTS. 3/4" CONDENSATE TO EXISTING CONDENSATE MAIN. SMOKE DETECTOR BY OTHERS.

ERV-1 HEAT RECOVERY UNIT EQUAL TO RENEWAIRE HE SERIES. 2,250 CFM INTAKE AND EXHAUST. 460/3/60, 7.2 MCA / 15 MOCP. PROVIDE VFD ON INTAKE AND EXHAUST, ONBOARD CONTROLS CONNECTED TO EXISTING BAS.

EH-1 ELECTRIC DUCT HEATER EQUAL TO RENEWAIRE EK SERIES. 32KW, 460/3/60, 48.11 MCA / 50 MOCP. CONTROLS BY RENEWAIRE. PROVIDE AIRFLOW SAFETIES AND INTERLOCKS.

L-1 INTAKE LOUVER EQUAL TO LOUVERS&DAMPERS LA SERIES. 2,250 CFM NOMINAL SIZE 32.5x94". FIELD VERIFY EXACT DIMENSIONS WITH EXISTING.

L-2 EXHAUST LOUVER EQUAL TO LOUVERS&DAMPERS LA SERIES. 2,250 CFM NOMINAL SIZE 29x94". FIELD VERIFY EXACT DIMENSIONS WITH EXISTING.

DUCT INSULATION
OUTSIDE AIR LOUVER AND DUCT TO BE EXTERNALLY INSULATED FROM LOUVER TO ERV

SUPPLY DUCT FROM HEAT PUMPS INTERNALLY LINED WHERE EXPOSED AND EXTERNALLY WRAPPED ABOVE CEILINGS.

EXHAUST LOUVER EXTERNALLY INSULATED.

NO INSULATION FOR EXHAUST DUCT OR RETURN AIR.

CODED NOTES

1. NEW INTAKE LOUVER, FULL HEIGHT, COORDINATE WITH EXISTING CONDITIONS. CONCEAL WITH DRYWALL (BY OTHERS).
2. NEW EXHAUST LOUVER, FULL HEIGHT, COORDINATE WITH EXISTING CONDITIONS. CONCEAL WITH DRYWALL (BY OTHERS).

GENERAL NOTES

A) NEW DUCTWORK TO BE GALVANIZED, FABRICATED AND INSTALLED PER SMACNA AND SECTIONS M-603.0 OF THE 2024 OHIO MECHANICAL CODE.

B) VERIFY EXACT ROUTING OF ALL DUCTWORK PRIOR TO FABRICATION OR ORDERING. FIELD VERIFY JOB SITE CONDITIONS.

C) COORDINATE EXACT LOCATIONS OF THERMOSTATS WITH EXISTING CONDITIONS AND OWNER PRIOR TO INSTALLATION.

D) FOR PURPOSES OF CLARITY AND LEGIBILITY, DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC, ALTHOUGH SIZE AND LOCATION OF EQUIPMENT ARE SHOWN TO SCALE WHEREVER POSSIBLE.

E) DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS OF DUCT

VENTILATION SCHEDULE

room #	room name	Az area	occupancy classification	TBL 6-1 occ density peo/1000 sf	Pz population	TBL 6-1 Rp peo oa	TBL 6-1 Ra area oa	Vbz oa cfm	TBL 6-2 Ez air dist eff	Voz oa req'd	design cfm	%oa req'd	system %oa	actual oa cfm
003	Open Office	2,045	Office Space	5	11	5	0.06	178	0.8	223	2,000	11%	42%	846
004	Phone Room	78	Storage rooms	0	0	0	0.12	9	0.8	12	75	16%	42%	32
005	Storage	85	Storage rooms	0	0	0	0.12	10	0.8	13	75	17%	42%	32
006	Break Room	180	Conference/meeting	50	9	5	0.06	56	0.8	70	200	35%	42%	85
007	Conference Room 2	220	Conference/meeting	50	11	5	0.06	68	0.8	86	300	29%	42%	127
009	Conference Room 1	490	Conference/meeting	50	25	5	0.06	154	0.8	193	600	32%	42%	254
019	Future	2,045	Multi-purpose assembly	120	246	5	0.06	1353	0.8	1691	4,000	42%	42%	1,691
		5,143			0			0		2288	7,250			3,065

OUTSIDE VENTILATION AIR DESIGN PER OHIO MECHANICAL CODE 2024 IN ACCORDANCE WITH INTERNATIONAL MECHANICAL CODE SECTION 403.2
SYSTEM MAXIMUM OUTSIDE AIR BASED ON PEAK OCCUPANCY

Vbz = (Rp * Pz) + (Ra * Az)
Vbz = Breathing zone outdoor air flow
Rp = Outdoor air flow rate per person (table 6-1)
Pz = Zone population - maximum occupancy (table 6-1)
Ra = Outdoor air flow rate per unit area (table 6-1)
Az = Zone floor area

Voz = Vbz / Ez
Voz = Zone outdoor air flow
Vbz = Breathing zone outdoor air flow (calculated)
Ez = Zone air distribution effectiveness (table 6-2)
Ez = 0.80 (based on ceiling supply, ceiling return)

STATE OF OHIO
VANCE C. GRANSCUM
E-54916
REGISTERED PROFESSIONAL ENGINEER
06/11/2024

FELDKAMP ENTERPRISES, INC.
3642 MUDDY CREEK ROAD, CINCINNATI,OH 45238
PHONE- 513-347-4500 FAX- 513-347-4506

SUMMIT HOTEL BASEMENT
5345 MEDPACE WAY
CINCINNATI, OH 45227

REV	DESCRIPTION	DATE
0	FOR PERMIT	06/11/2024

DRAWN BY-ADS
DATE- 06/11/2024
SCALE- 1/8"=1'

M-1