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IHSD HIGH SCHOOL RENOVATIONS
INDIAN HILL SCHOOL DISTRICT
6865 DRAKE ROAD, CINCINNATI, OHIO 45243

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NO.	DATE	ISSUED / REVISION
1	10/28/2022	100% CD SET

DRAWN BY	CHECKED BY
Author	Checker

PROJECT NO. **2021.01.015**
DRAWING TITLE:
MECHANICAL SCHEDULES

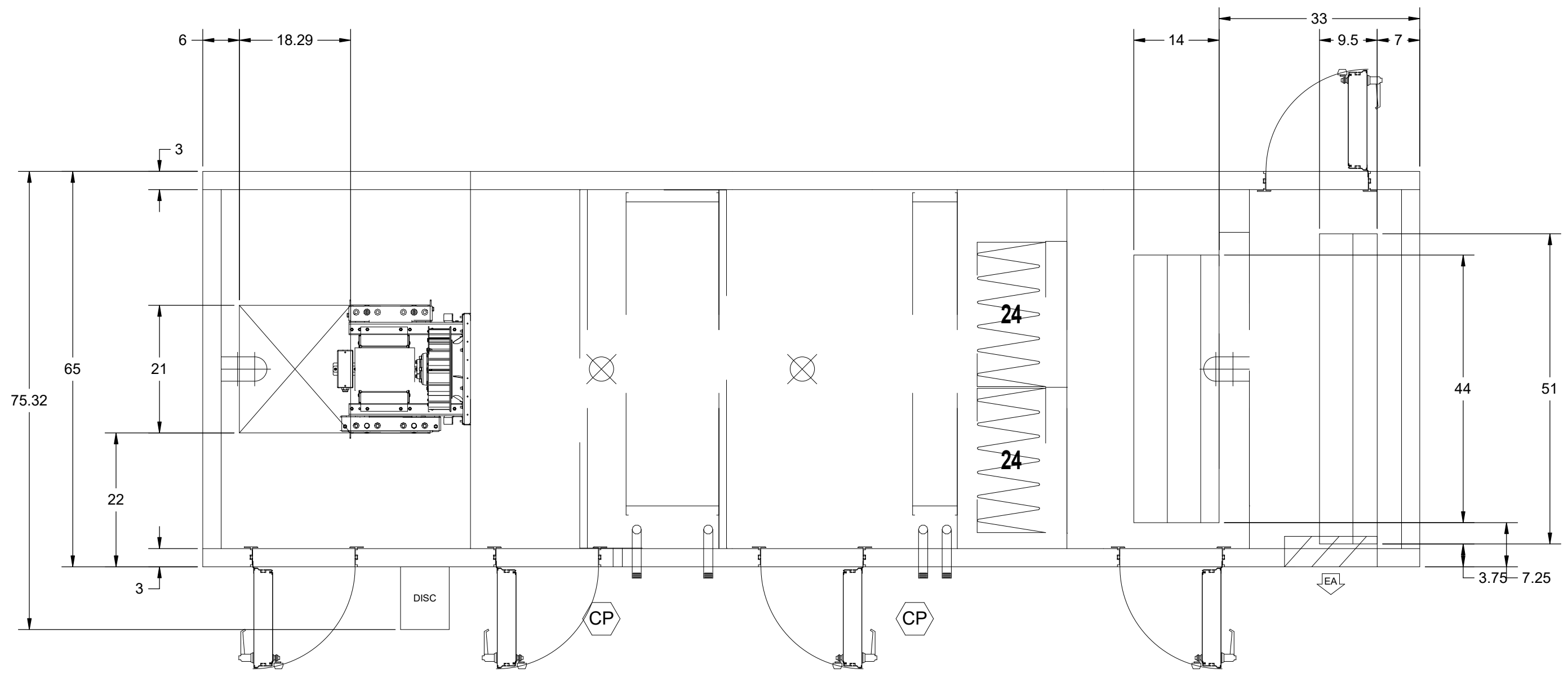
DESIGNATION	AREA SERVED	UNIT OPERA... WEIGHT LBS	FAN DATA														COIL...										WATER COIL DATA										FILTER DATA		BASIS OF DESIGN MFG. / MODEL NO.	REMARKS					
			FAN FUNCTION	FAN TYPE	WHE... SIZE	FAN CLASS	NO. OF FANS / MOTORS	TOTAL AIR FLOW CFM	INDIVID. AIR FLOW CFM	TSP. IN. WG	ESP. IN. WG	FAN RPM	NOMIN... MOTOR RPM	DESIGN VFD SETTING HZ	IND. MOT... SIZE, HP	INDIVID. FAN BHP	TOTAL FAN BHP	FAN WALL MCA AMPS	FAN WALL MOCPP AMPS	ELECTRICAL SUPPLY VOLT/FREQ...	MINIMUM OA AIR DESIGN, CFM	COIL TYPE	NO. OF COILS	TOTAL COIL AIR FLOW, CFM	EAT		LAT		TOTAL COIL CAPACITY MBH	SENSIBLE COIL CAPACITY MBH	FLUID MEDIA	APD. IN. WG	NO. OF ROWS	FINN PER INCH	CONN. SIZE	FACE VEL. FPM	FACE AREA SF	FLOW FT. GPM			WPD FT. WG	EW. DEG F	LWT. DEG F	PRE PRIMARY	POST SECONDARY
AHU-H1	WRESTLING ROOM	5717	SUPPLY	DIRECT DRIVE	135-9	11	1	4,800	4,800	4.00	1.50	3,882	3,560	61.1	11.0	5.48	5.48	11.3	20.0	460 / 60 / 3	1,200	CHW	3	4,800	80.0	67.0	54.6	54.5	2,081	1,399	30% PG	0.84	10	9	X	416	115.50	42	11.6	45	54	(2) 24"x24" MERV 8	(2) 24"x24" MERV 13	MILLER-PICKING	
																						HW	3	4,800	55.0	---	84.9	---		1,846	30% PG	0.07	1	8	X	416	116.25	16	1.1	180	160				

VENTILATION SCHEDULE																						
Project: IHHS Job No: 2020.01.062															Designer: MLM Engineer: MLM							
Unit #	room name	Az area	occupancy classification	TBL 6-1 occ density	Pz population	TBL 6-1 Rp	TBL 6-1 Ra	Vbz area	TBL 6-2 Ez	Voz	design cfm	4x oa ton	Trace	Trace	Trace%oa	%oa	system	actual oa cfm	Exhaust CFM/sf	Exhaust Fixtures (75CFM/Fixture)	Exhaust Required CFM	Actual
AHU-5	144 ORCHESTRA	2,143	Music/theater/dance	35	61	10	0.06	739	0.8	924	4,000	3,696	4.40	1760	53%	23%	25%	1,000				
AHU-5	145 PRACTICE	146	Music/theater/dance	35	4	10	0.06	49	0.8	61	300	244	0.40	160	38%	20%	25%	75				
AHU-5	146 ENSEMBLE	288	Music/theater/dance	35	6	10	0.06	77	0.8	97	600	388	0.50	200	49%	16%	25%	150				
AHU-5	147 ENSEMBLE	463	Music/theater/dance	35	10	10	0.06	128	0.8	160	650	640	0.70	280	57%	25%	25%	163				
AHU-5	148 ENSEMBLE	313	Music/theater/dance	35	10	10	0.06	119	0.8	149	600	596	0.60	240	62%	25%	25%	150				
AHU-5	156 OFFICE AND MUSIC STORAGE	418	Office Space	5	3	5	0.06	40	0.8	51	225	204	0.50	200	26%	23%	25%	56				
AHU-5	158 BAND STORAGE	382	Storage rooms	0	0	0	0.12	46	0.8	58	250	232	0.20	80	73%	23%	25%	63				
AHU-5	169 ORCHESTRA VESTIBULE	121	Corridors	0	0	0	0.06	7	0.8	10	50	40	0.10	40	25%	20%	25%	13				
AHU-5	171 ENSEMBLE	289	Music/theater/dance	35	8	10	0.06	97	0.8	122	500	488	0.30	120	102%	24%	25%	125				
		8,536									11,475							2908				
AHU-H1	016 STORAGE	1,225	Storage rooms	0	0	0	0.12	147	0.8	184	750	736	1.60	640	29%	25%	25%	188				
AHU-H1	017 WRESTLING/FITNESS	2,060	Health club/weight rooms	10	21	20	0.06	536	0.8	670	3,100	2,680	2.60	1040	64%	22%	25%	775				
AHU-H1	036 STORAGE	204	Storage rooms	0	0	0	0.12	24	0.8	31	150	124	0.30	120	26%	21%	25%	38				
AHU-H1	109 CORRIDOR	1,350	Corridors	0	0	0	0.06	81	0.8	102	800	408	1.60	640	16%	13%	25%	200				
		4,839									4,800			12								
TOTAL OA:																		4,144	TOTAL...		150	

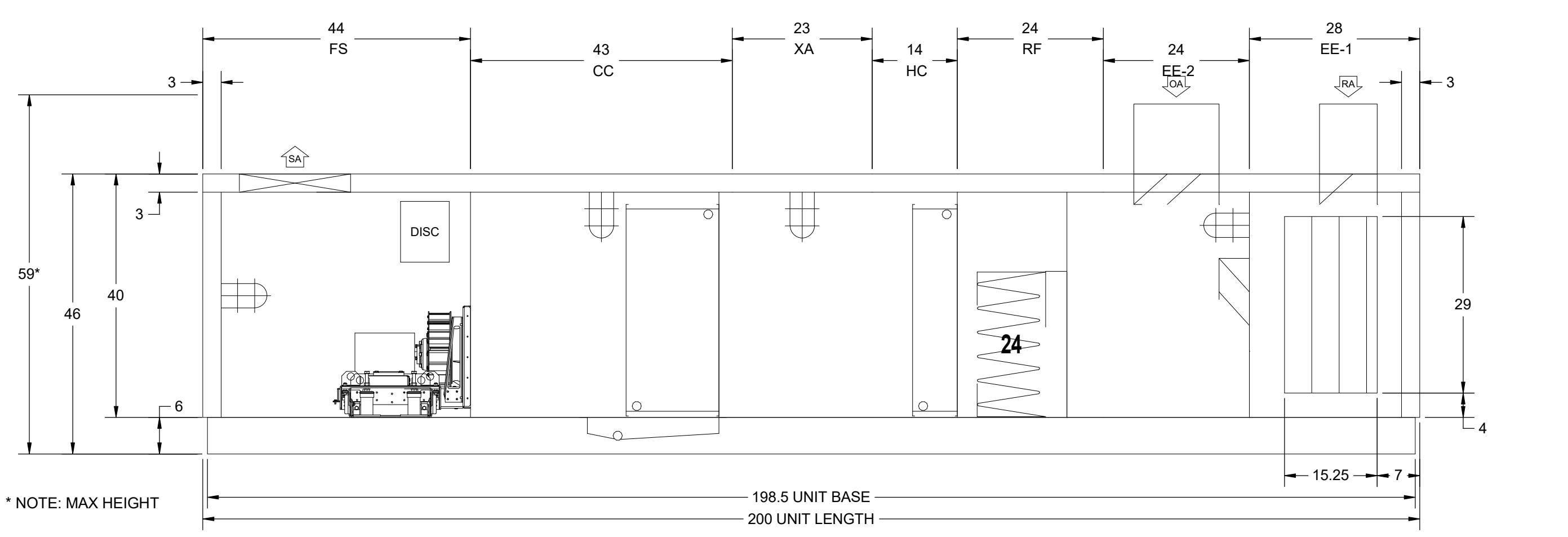
Vbz = (Rp * Pz) + (Ra * Az) Voz = Vbz / Ez
 Vbz = Breathing zone outdoor air flow Voz = Zone outdoor air flow
 Rp = Outdoor air flow rate per person (table 6-1) Vbz = Breathing zone outdoor air flow (calculated)
 Pz = Zone population - maximum occupancy (table 6-1) Ez = Zone air distribution effectiveness (table 6-2)
 Ra = Outdoor air flow rate per unit area (table 6-1) Ez = 0.80 (based on ceiling supply, ceiling return)
 Az = Zone floor area

EXHAUST FAN SCHEDULE																
DESIGNATION	SERVES	FAN TYPE	AIR FLOW CFM	ESP IN. WG.	DRIVE TYPE	RPM	BHP	ELECTRICAL DATA		MOTOR EFFICIENCY TYPE	VARIABLE SPEED DRIVE	INTEGRAL DISCONNECT	CONTROL METHOD	BASIS OF DESIGN		NOTES
								VOLTS/Hz/PH	MOTOR HP					MANUFACTURER	MODEL NO.	
EF-1	172 RESTROOM/173 RESTROOM	CENTRIFUGAL DOWNBLAST	150	0.25	DIRECT	1300	0.01	120/60/1	1/60	VG	YES	YES	OCCUPANCY SENSOR	GREENHECK	G-070-VG	

NOTES:



PLAN VIEW



ELEVATION VIEW

* NOTE: MAX HEIGHT 198.5 UNIT BASE 200 UNIT LENGTH