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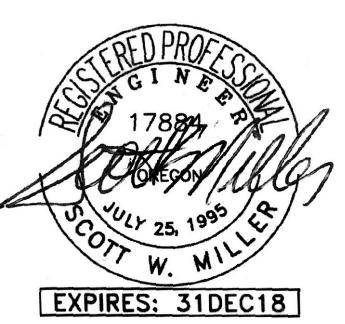
ADDENDUM #2
2/22/2018

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A NEW REMODEL PROJECT FOR:

SHERWOOD HIGH SCHOOL

16956 SW MEINCKE ROAD
SHERWOOD, OR



DRAWN BY: EVK
CHECKED BY: SWM
DATE: 1-30-18
TITLE: MECHANICAL SCHEDULES
SCALE: NTS

SHEET NO:
M6.0
1 OF 8

MECHANICAL LEGEND	
	(SA) SUPPLY AIR DIFFUSER
	(RA) RETURN AIR DIFFUSER
	(EXH) EXHAUST AIR DIFFUSER
	(OSA OR OA) OUTSIDE AIR
	DIRECTIONAL AIR FLOW
	MANUAL VOLUME DAMPER
	SUPPLY OR OUTSIDE AIR DUCT UP & DOWN
	RETURN AIR DUCT UP & DOWN
	EXHAUST AIR DUCT UP & DOWN
	SUPPLY OR OUTSIDE AIR DUCT UP & DOWN
	RETURN AIR DUCT UP & DOWN
	EXHAUST AIR DUCT UP & DOWN
	BRANCH SELECTOR BOX
	THERMOSTAT OR TEMP. SENSOR
	NOTE
	EQUIPMENT DESIGNATOR
	FLOW LIMITING CONTROL VALVE
	BALL VALVE
	GATE VALVE
	CHECK VALVE
	BALANCING VALVE
	THERMOMETER
	DIRECTION OF FLOW
	PUMP
	STRAINER
	PRESSURE GAUGE
	PETE'S PLUG
	DOUBLE CHECK ASSEMBLY
	PRESSURE REDUCING VALVE
	UNION
	2-WAY CONTROL VALVE
	3-WAY CONTROL VALVE
	CAP
	SMOKE DETECTOR
	FIRE DAMPER
	AUTO DAMPER

MAKE-UP-AIR UNIT	
MARK NUMBER	MAU 1
TYPE	INDIRECT
CFM	2,500
OSA	100%
EXTERNAL SP. (H ₂ O)	1.0
ECM MOTOR HP	2.3
FAN RPM	2,221
DISCHARGE DIRECTION	VERTICAL
WHEEL TYPE AND SIZE, IN.	SWSI AF, 14
CONTROLLED BY	DDC
FILTER TYPE	30%-2" DISPOSABLE
GAS INPUT (MBH)	300
GAS OUTPUT (MBH)	240
ENT. AIR °F	20°F
LVG. AIR °F	110°F
EFFICIENCY	80%
DESIGN WEIGHT (LBS)	1,500
SMOKE DETECTOR	YES
ELECTRICAL V/P	460/3
BASIS OF DESIGN: DAIKIN	DAHA07A

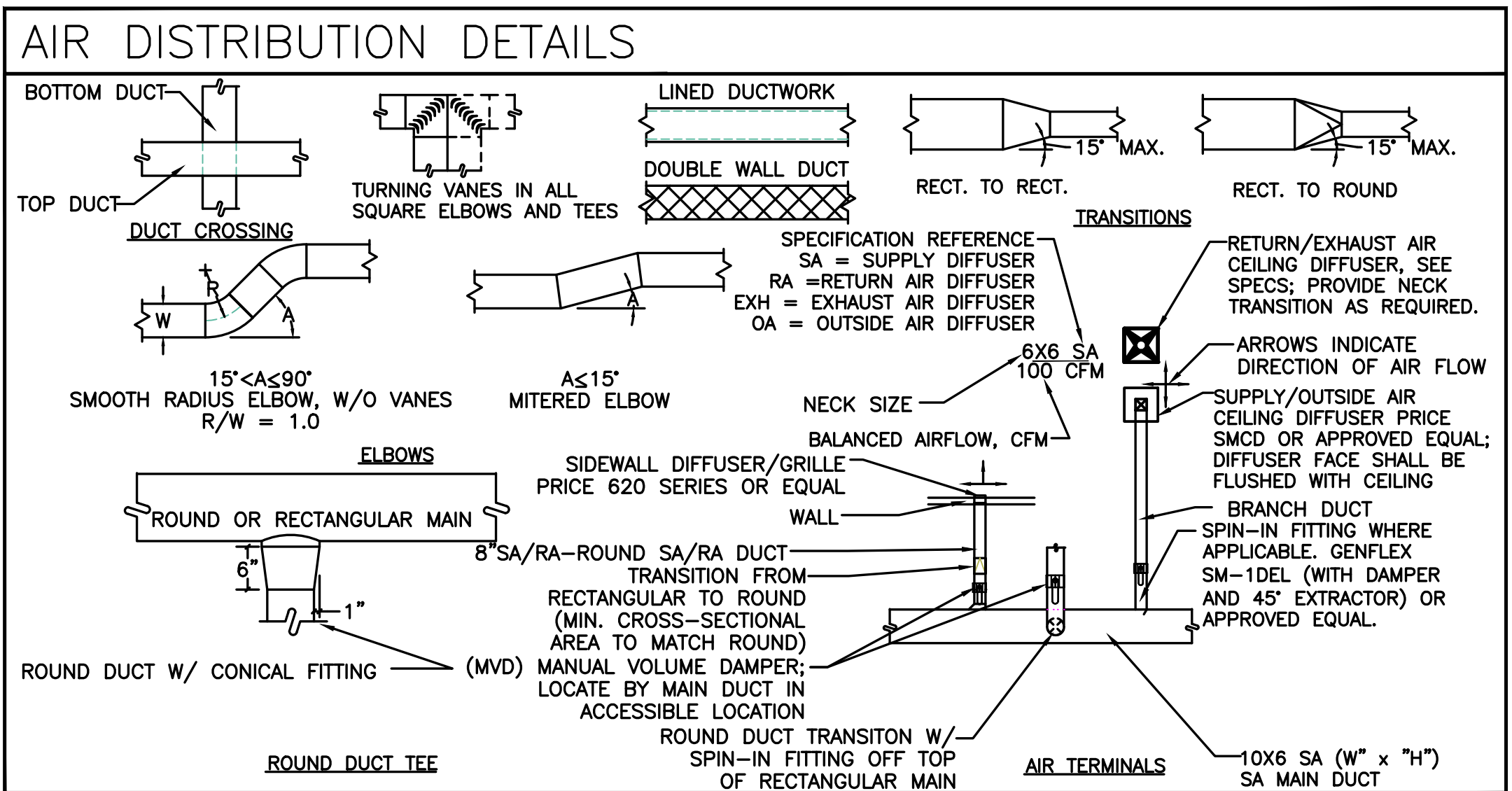
CONDENSING UNIT	
MARK NUMBER	DAC 1
TYPE	AIR COOLED
NOMINAL TONS	10
ENT. EVAP AIR TEMP (DB/WB.)	81/64
EER	12.8
AMBIENT AIR (°F)	95
REFRIGERANT TYPE	R-410A
AIR HANDLING UNIT SERVED LABEL	DAHU 1
BASIS OF DESIGN: DAIKIN	RCS11F125D
ELECTRICAL CONNECTION, V/PH	460/3
WIGHT, LBS	590

AIR HANDLING UNIT	
MARK NUMBER	DAH 1
SYSTEM	DANCE S25
TYPE	ROOF TOP SPLIT
TOTAL CFM	2,800
MIN. OSA (CFM)	280
DCV MAX. OSA (CFM)	840
WHEEL TYPE AND SIZE, IN.	SWSI AF, 14
EXTERNAL S.P., IN. W.C.	1.25
RPM	2,272
HP	2.3
ECONOMIZER 100%	YES
FILTER TYPE	30%
GAS HEATING INPUT/OUTPUT, MBH	300/240
EAT/LAT, °F	20/99
TURNDOWN RATIO	5:1
THERMAL EFFICIENCY, %	80
CFM	2,800
NET TOTAL/SENSIBLE COOLING(MB/H)	104/73
ENT. EVAP AIR TEMP (DB/WB.)	81/67
LEAVING. EVAP AIR TEMP (DB/WB.)	57/55
AMBIENT AIR (°F)	95
REFRIGERANT TYPE	R-410A
UNIT DIMENSIONS, L"xW"xH", INCHES	91"x58"x57"
UNIT WEIGHT (LBS.)	1,215
SMOKE DETECTOR IN RETURN DUCT	YES
REMOTE CO2 SENSOR	YES
FLUE DEFLECTOR	YES
VIBRATION ISOLATION CURB	YES
ELECTRICAL CONNECTION, V/PH	460/3
BASIS OF DESIGN: DAIKIN	DAHA07A
UNIT LABEL	DAC 1
NOMINAL TONS	7
COMPRESSORS (NUMBER)	2
EER	12.8
ELECTRICAL CONNECTION, V/PH	460/3
WEIGHT	586
BASIS OF DESIGN: DAIKIN	RCS11F125D

FURNACE WITH CONDENSING UNITS						
MARK NUMBER	F 1	F 2	F 3	F 4	F 5	F 6
SYSTEM	CLASSROOM W-4	CLASSROOM W-3	CLASSROOM W-2	SCIENCE W-5 & WORKROOM E109	CLASSROOM W-6	
TYPE	TWINNED FURNACES					
CONFIGURATION	CONDENSING	CONDENSING	CONDENSING	CONDENSING	CONDENSING	CONDENSING
FUEL	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS
TOTAL CFM	1,200	1,200	1,200	1,100	1,100	1,350
ECONOMIZER	YES	YES	YES	YES	YES	YES
MIN. OSA (CFM)	110	110	110	115	115	125
DCV MAX. OSA (CFM)	440	440	440	1,175	1,175	735
MIN. EXTERNAL SP. (H ₂ O)	0.50	0.50	0.50	0.50	0.50	0.50
VARIABLE SPEED ECM	YES	YES	YES	YES	YES	YES
FILTER TYPE	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8	2" MERV 8
GAS INPUT HIGH/LOW, MBH	80/56	80/56	80/56	80/56	80/56	100/96
GAS OUTPUT HIGH/LOW, MBH	76.8/53.8	76.8/53.8	76.8/53.8	76.8/53.8	76.8/53.8	70/67.2
STAGES	2	2	2	2	2	2
AFUE %	96	96	96	96	96	96
FURNACE ELECTRICAL REQUIREMENTS, V/PH	115/1					
CONDENSING UNIT MARK NUMBER	CU 1	CU 2	CU 3	CU 4	CU 5	CU 6
NOMINAL COOLING CAPACITY, TONS	4	4	4	3	3	4
EAT, °F DB/WB	83/64	83/64	83/64	85/65	85/65	85/65
LAT, °F DB/WB	55/50	55/50	55/50	55/50	55/50	55/50
AMBIENT AIR (°F)	95	95	95	95	95	95
AHRI COMBINATION EFFICIENCY SEER/EER	13/11	13/11	13/11	13/11	13/11	13/11
WALL MOUNTED CO2 SENSOR	YES	YES	YES	YES	YES	YES
REFRIGERANT	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
COOLING COIL DESIGN MODEL: DAIKIN	CHPF4860D6	CHPF4860D6	CHPF4860D6	CVPF4860D6	CVPF4860D6	CHPF4860D6
FURNANCE WEIGHT INCLUDING COIL (LBS)	220	220	220	200	200	240
CONDENSING UNIT WEIGHT W/OUT CURB (LBS)	189	189	189	196	196	189
FURNACE BASIS OF DESIGN: DAIKIN	DM96VE0804CNA	DM96VE0804CNA	DM96VE0804CNA	DM96VE0804CNA	DM96VE0803BNA	DM96VE1004CNA
CONDENSING UNIT BASIS OF DESIGN: DAIKIN	DX13SA0484A	DX13SA0484A	DX13SA0484A	DX13SA0364A	DX13SA0364A	DX13SA0484A
CONDENSING UNIT ELECTRICAL REQUIREMENTS, V/PH	480/3					

EXHAUST FANS	
MARK NUMBER	EF BV
TYPE	ROOF
SYSTEM	(E)BOILER ROOM
CFM	1,000
TOTAL SP. (IN H ₂ O)	0.317
RPM	1,725
WHEEL TYPE	B.I.
DRIVE TYPE	DIRECT
MOTOR HP	1/6
CONTROLLED BY	SENSOR
INTERLOCKED WITH	FAN/LOUVER DAMPER
DAMPER TYPE	AUTO
ISOLATION	RIB
DESIGN WEIGHT (LBS)	29
MAX. SONES	10.4
ELECTRICAL (V/φ) (POWER)	115/1
BASIS OF DESIGN: GREENHECK	G-095-VG

* - PROVIDE FAN WITH VARI-GREEN DRIVE 100 W/ ON-BOARD POTENTIOMETER DIAL.
** - PROVIDE WITH SOLID STATE SPEED CONTROL NEAR FAN FOR BALANCING.



TAG	Unit Weight, Lbs	Basis of Design (Daikin)	Electrical		Smoke Detector	Supply Fan								Cooling		Heating													
			Voltage	EER / SEER		Airflow (CFM)	Min OSA (CFM)	Max OSA (CFM)	ESP (inH ₂ O)	Motor Size (HP)	Power Exhaust	Economizer 100%	Filter	EAT (°F)	LWB (°F)	LAT (°F)	Total Capacity (Btu/hr)	Sensible Capacity (Btu/hr)	Ambient DB (°F)	Stages	Qty	Refrigerant	Type	Size	Stages	Total Capacity (Btu/hr)	EDB (°F)	LDB (°F)	
																													Compressor
AC-1	619	DSG060	460/60/3	11.6/14.0	NO	1860	118	470	1.00	1.0 HP	YES	YES	2" MERV 8	80	64	56.9	53.7	56596	51000	95	1 step	1	R410A	Gas	115/86 MBH	2 Stage	92000	60	105.6
AC-2	2433	MPS025B	460/60/3	10	YES	9600	518	2070	1.25	7.5 HP	YES	YES	2" MERV 8	79	64	54.5	53.1	304630	284134	95	2 steps	2	R410A	Gas	400 MBH	2 Stage	324000	60	91.1
AC-3	619	DSG060	460/60/3	11.6/14.0	NO	1860	41	165	1.00	1.0 HP	YES	YES	2" MERV 8	77	62	56.9	53.6	56529	50000	95	1 step	1	R410A	Gas	115/86 MBH	2 Stage	92000	60	105.8
AC-4	597	MPS015B	460/60/3	11.1	YES	5800	901	3605	1.25	5.0 HP	YES	YES	2" MERV 8	87	65	55.1	53.4	179178	167519	95	2 steps	2	R410A	Gas	350 MBH	2 Stage	284000	60	105.1
AC-5	2000	MPS020B	460/60/3	11.1	YES	9220	765	3060	1.25	7.5 HP	YES	YES	2" MERV 8	82	64	57.8	55	244183	238048	95	2 steps	2	R410A	Gas	400 MBH	2 Stage	324000	60	92.4
AC-6	1095	MPS008B	460/60/3	11.2	YES	3280	193	770	1.25	2.0 HP	YES	YES	2" MERV 8	80	63	55.1	53.7	98801	94703	95	2 steps	2	R410A	Gas	225 MBH	2 Stage	182250	60	111.2
AC-7	1165	MPS010B	460/60/3	11.2	YES	3550	270	1080	1.25	3.0 HP	YES	YES	2" MERV 8	81	64	53.2	52.4	119188	110266	95	2 steps	2	R410A	Gas	225 MBH	2 Stage	182250	60	107.3

SHEET IS REVISED PER ADDENDUM #2

VENTILATION AIR SCHEDULE

ROOM NUMBER AND NAME	AREA (SQ. FT.)	OCCUPANT LOAD (#/1000 SQ. FT.)	NUMBER OF FIXTURES (PLUMBING)	NUMBER OF OCCUPANTS	OUTSIDE AIR REQUIREMENT (CFM/P) OR (CFM/FIXT) *	OUTSIDE AIR REQUIREMENT (CFM/SQ FT.)	OUTSIDE AIR REQUIRED (CFM)	ZONE OSA (CFM)	SUPPLY AIR (CFM)	PRIMARY OSA FRACTION	RETURN AIR (CFM)	EXHAUST AIR (CFM)	Zone Ventilation Efficiency	Corrected OSA CFM	AIR SYSTEMS
Az	Pz	Rp	Ra	Vbz	Ez	Voz	Vpz	Zp	Evz						
RTU-1/CU-1															
CORRIDORS	716	0	0	0	0.06	43	0.8	54	350	0.15	350	0	1.13	58	VAV-1-1
E-13 CLASSROOM	737	35	26	10	0.12	348	0.8	436	1200	0.36	1200	0	0.92	472	VAV-1-1
E-11 CLASSROOM	737	35	26	10	0.12	348	0.8	436	1200	0.36	1200	0	0.92	472	VAV-1-2
E-10 CLASSROOM	737	35	26	10	0.12	348	0.8	436	1200	0.36	1200	0	0.92	472	VAV-1-3
E-8 CLASSROOM	737	35	26	10	0.12	348	0.8	436	1200	0.36	1200	0	0.92	472	VAV-1-4
HALLWAY	325	0	0	0	0.06	20	0.8	24	350	0.07	350	0	1.22	26	VAV-1-5
E-7 CLASSROOM	737	35	26	10	0.12	348	0.8	436	1200	0.36	1200	0	0.92	472	VAV-1-5
E-3 CLASSROOM	737	35	26	10	0.12	348	0.8	436	1200	0.36	1200	0	0.92	472	VAV-1-6
H100 ATTENDANCE	214	10	3	5	0.06	28	0.8	35	400	0.09	400	0	1.20	38	VAV-1-7
H101 BOOKKEEPING/ATHLETICS	195	10	2	5	0.06	22	0.8	27	400	0.07	400	0	1.22	29	VAV-1-7
HALLWAY	325	0	0	0	0.06	20	0.8	24	200	0.12	200	0	1.16	26	VAV-1-7
H105 HUB	70	0	0	0	0.12	8	0.8	11	75	0.14	75	0	1.15	11	VAV-1-8
H111 WORKROOM	322	10	4	5	0.06	39	0.8	49	400	0.12	400	0	1.16	53	VAV-1-8
H109 HEALTH RM.	78	20	2	5	0.06	15	0.8	18	100	0.18	100	0	1.10	20	VAV-1-8
H106 SRO OFFICE	78	5	1	5	0.06	10	0.8	12	100	0.12	100	0	1.17	13	VAV-1-8
H107 ATHLETIC DIRECTOR	145	5	1	5	0.06	14	0.8	17	150	0.11	150	0	1.17	19	VAV-1-8
H110 ASSOS PRINCIPAL	145	5	1	5	0.06	14	0.8	17	150	0.11	150	0	1.17	19	VAV-1-8
H114 FILE ROOM	105	0	0	0	0.12	13	0.8	16	100	0.16	100	0	1.13	17	VAV-1-8
H112 & H113 TOILET	128	0	0	75		0			100		0	150			EF-1
H12 HALLWAY	305	0	0	0	0.06	18	0.8	23	200	0.11	200	0	1.17	25	VAV-1-8
TOTAL RTU-1:	7573		170			2941		10275	10175		150		0.92	3185	
CORRECTED TOTAL OUTDOOR AIR FLOW RATE CFM 3185 Corrected OSA Fraction Zs = 0.31															
RTU-2															
E-12 CLASSROOM	735	35	26	10	0.12	348	0.8	435	1095	0.40	1095	0	0.81	537	VAV-2-1
G115 OFFICE	88	5	1	5	0.06	10	1.0	10	100	0.10	100	0	1.11	13	VAV-2-2
G116 PRINCIPAL	164	5	1	5	0.06	15	1.0	15	370	0.04	370	0	1.17	18	VAV-2-2
G114 & G126 CARRIER COUNSELING	1081	5	6	5	0.06	95	0.8	119	900	0.13	900	0	1.08	146	VAV-2-3
G117 HEALTH	164	10	2	5	0.06	20	0.8	25	125	0.20	125	0	1.01	31	VAV-2-3
G122 OFFICE	165	5	1	5	0.06	15	0.8	19	170	0.11	170	0	1.10	23	VAV-2-4
G123 COUNSELING	174	5	1	5	0.06	15	0.8	19	225	0.09	225	0	1.12	24	VAV-2-4
G125 OFFICE	112	5	1	5	0.06	12	0.8	15	180	0.08	180	0	1.13	18	VAV-2-4
G124 OFFICE	84	5	1	5	0.06	10	0.8	13	135	0.09	135	0	1.12	15	VAV-2-4
G127 WORKROOM	222	20	5	10	0.18	90	0.8	112	450	0.25	450	0	0.96	139	VAV-2-5
G130 PHOTO LAB	237	20	5	10	0.18	93	1.0	93	400	0.23	400	0	0.98	114	VAV-2-5
G131 DARK ROOM	45	20	1	10	0.18	18	0.8	23	75	0.30	75	0	0.91	28	VAV-2-5
G129 PROCESSING	134	10	2	5	0.06	18	0.8	23	75	0.30	75	0	0.91	28	VAV-2-5
E-1 CLASSROOM	685	35	24	10	0.12	322	0.8	403	1290	0.31	1290	0	0.90	497	VAV-2-6
E-9 CLASSROOM, G138 & G139	812	35	29	10	0.12	387	1.0	387	2625	0.15	2625	0	1.06	478	VAV-2-7
TOTAL RTU-2:	4902		106			1709		8215	8215		0		0.81	2109	
CORRECTED TOTAL OUTDOOR AIR FLOW RATE CFM 2109 Corrected OSA Fraction Zs = 0.26															
RTU-3															
E17 CLASSROOM	1241	25	32	10	0.12	469	0.8	586	1,700	0.34	1700	0	1.03	732	VAV-3-1
E131 CORRIDOR	615	0	0	0	0.06	37	0.8	46	600	0.08	600	0	1.29	58	VAV-3-1
E104 STAFF DINING	860	10	9	5	0.06	97	0.8	121	1200	0.10	1200	0	1.27	151	VAV-3-2
W-32 CLASSROOM	1264	35	45	10	0.12	602	0.8	752	1700	0.44	1700	0	0.93	940	VAV-3-3
W-33 CLASSROOM	736	25	19	10	0.12	278	0.8	348	1100	0.32	1100	0	1.05	435	VAV-3-4
D127 STUDENT COMMONS	755	60	46	7.5	0.18	481	0.8	601	1100	0.55	1100	0	0.82	751	VAV-3-5
D129 STUDENT COMMONS	755	60	46	7.5	0.18	481	0.8	601	1100	0.55	1100	0	0.82	751	VAV-3-6
E101 CHEMICAL STORAGE	82	0	0	0	0.12	10	0.8	12	75	0.16	0	100	1.21	15	VAV-3-7
E102 CHEMICAL STORAGE	140	0	0	0	0.12	17	0.8	21	150	0.14	0	200	1.23	26	VAV-3-7
E103 PREF.	623	35	22	10	0.12	295	0.8	368	890	0.42	890	0	0.95	460	VAV-3-7
D128 STUDENT COMMONS	1008	60	61	7.5	0.18	639	0.8	798	1400	0.57	1400	0	0.80	997	VAV-3-8
E131 CORRIDOR	615	0	0	0	0.06	37	0.8	46	600	0.08	600	0	1.29	58	VAV-3-8
TOTAL RTU-3:	8692		280			4301		11605	11380		300		0.80	5373	
CORRECTED TOTAL OUTDOOR AIR FLOW RATE CFM 5373 Corrected OSA Fraction Zs = 0.46															
AHU-1/CU-74															
D125 STUDENT COMMONS	6126	50	307	7.5	0.06	2670	1.0	2670	5500	0.49	5500	0	0.81	3288	VAV-5-1
D123 SERVING AREA	1850	35	65	7.5	0.18	821	1.0	821	2000	0.41	2000	0	0.89	1010	VAV-5-2
B104 HALL	262	0	0	0	0.06	16	1.0	16	225	0.07	225	0	1.23	19	VAV-5-2
D107 BREAK ROOM	113	10	2	5	0.06	17	1.0	17	275	0.06	275	0	1.24	21	VAV-5-3
H146 PROJECT STORAGE	174	0	0	0	0.12	21	1.0	21	150	0.14	150	0	1.16	26	VAV-5-3
D106 OFFICE	82	5	1	5	0.06	10	1.0	10	100	0.10	100	0	1.20	12	VAV-5-3
D118 HALL	126	0	0	0	0.06	8	1.0	8	250	0.03	250	0	1.27	9	VAV-5-3
D108 TOILET/RESTROOM	150	0	0	75		0			200		0	250			VAV-5-3
S-1 CLASSROOM	644	35	23	10	0.12	307	1.0	307	1050	0.29	1050	0	1.00	378	VAV-5-3
A143 OFFICE	79	5	1	5	0.06	10	1.0	10	1000	0.01	1000	0	1.29	12	VAV-5-3
STAIR 3 AND UPSTAIRS	760	0	0	0	0.06	46	1.0	46	700	0.07	700	0	1.23	56	VAV-5-4
D114, D119 ELECTRICAL & MAINTENANCE	760	0	0	0	0.12	91	1.0	91	1325	0.07	1325	0	1.23	112	VAV-5-5
D113 IDF	80	0	0	0	0.12	10	1.0	10	50	0.19	50	0	1.11	12	VAV-5-5
D110 MECHANICAL	123	0	0	0	0.12	15	1.0	15	50	0.30	50	0	1.00	18	VAV-5-5
D111 MAINTENANCE	115	0	0	0	0.12	14	1.0	14	75	0.18	75	0	1.11	17	VAV-5-5
STAIR 2 AND UPSTAIRS	1150	0	0	0	0.06	69	1.0	69	900	0.08	900	0	1.22	85	VAV-5-5
TOTAL AHU-1:	12594		399			4122		13850	13650		250		0.81	5076	
CORRECTED TOTAL OUTDOOR AIR FLOW RATE CFM 5076 Corrected OSA Fraction Zs = 0.37															
AHU-2/CU-75															
G105 BREAK ROOM	76	15	2	5	0.06	15	0.8	18	150	0.12	150	0	1.17	21	VAV-7-1
G100 STORE	286	15	5	7.5	0.12	72	0.8	90	500	0.18	500	0	1.12	105	VAV-7-1
G104 OFFICE	67	5	1	5	0.06	9	0.8	11	100	0.11	100	0	1.18	13	VAV-7-1
G103 TOILET/RESTROOM	132	0	0	75		0			100		0	150			VAV-7-1
E-18 SKILL CENTER	859	35	31	10	0.12	413	1.0	413	1000	0.41	1000	0	0.88	481	VAV-7-1
G102 QUIET ROOM	67	5	1	5	0.06	9	0.8	11	150	0.08	150	0	1.22	13	VAV-7-1
G106 OFFICE	229	5	2	5	0.06	24	0.8	30	250	0.12	250	0	1.18	35	VAV-7-2
G107 G108 STUDENT STORE	594	15	9	7.5	0.12	139	0.8	173	950	0.18	950	0	1.11	202	VAV-7-2
COMMONS HALLWAY	315	0	0	0	0.06	19	1.0	19	200	0.09	200	0	1.20	22	VAV-7-2
D125 STUDENT COMMONS	5511	50	276	7.5	0.06	2401	1.0	2401	5500	0.44	5500	0	0.86	2796	VAV-7-3



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PAUL L BENTLEY Architect A.I.A. P.C.

1 - ADDENDUM #2
2/22/2018

M Consulting Engineers
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A NEW REMODEL PROJECT FOR:
SHERWOOD HIGH SCHOOL
SHERWOOD, OR
16956 SW MEINECKE ROAD



DRAWN BY: EVK
CHECKED BY: SWM
DATE: 1-30-18
TITLE: MECHANICAL SCHEDULES
SCALE: NTS

SHEET NO:
M6.2
3 OF 8

AC-4																
C147 LOBBY/CORRIDOR	2319	150		348	7.5	0.06	2749	0.8	3436	5415	0.63	5415	0	0.97	3560	---
C148 WOMENS	170	0	2	0	75		0			145	0	275	0			---
C145 MENS	170	0	2	0	75		0			145	0	275	0			---
C146 TICKET BOOTHS	160	30		5	5	0.06	35	0.8	43	95	0.46	95	0	1.14	45	---
TOTAL AC-4:	2819			353					3480	5800		5510	550	0.97	3605	
AC-5																
S-19 THEATER	2650	100		265	10	0.12	2968	1.0	2968	8620	0.34	8620	0	0.98	3025	---
F122 CONTROL RM	140	30		5	5	0.06	33	1.0	33	600	0.06	600	0	1.27	34	---
TOTAL AC-5:	2790			270					3001	9220		9220	0	0.98	3059	
AC-6																
F-125 EXISTING AUDITORIUM	1223	50		62	10	0.12	767	1.0	767	3280	0.23	3280	0	1.00	767	---
TOTAL AC-6:	1223			62					767	3280		3280	0	1.00	767	
AC-7																
F115 VESTIBULE	274	0		0	0	0.06	16	0.8	21	200	0.10	200	0	1.20	21	---
F117, F118 DRESS	173	0		0	0	0.06	10	0.8	13	110	0.12	110	0	1.18	13	---
F116 TOILET	170	0	2	0	75		0			50	0	150	0			---
S-18 CHOIR CLASSROOM	1710	35		60	10	0.12	805	0.8	1007	3000	0.34	3000	0	0.96	1044	---
TOTAL AC-7:	1710			60					1007	3360		3310	150	0.96	1079	
DAH-1/DAC-1																
F-125 DANCE	2090	15		32	10	0.12	571	0.8	714	2800	0.25	2800	0	1.00	714	---
TOTAL DAC-1:	2090			32					714	2800		2800	0	1.00	714	
MAU-1																
C120 GIRLS LOCKER ROOMS	130	0		0	0	0.5	65	0.8	81	465	0.17	465	0	1.22	105	---
C113 TEAM ROOM	604	0		0	0	0.5	302	0.8	378	850	0.44	850	0	0.95	486	---
C116 TEAM ROOM	394	0		0	0	0.5	197	0.8	246	400	0.62	400	0	0.78	317	---
C115 WHIRLPOOL	135	0		0	0	0.12	16	0.8	20	75	0.27	75	0	1.12	26	---
C122, C149 STORAGE/JANITOR	150	0		0	0	0.12	18	0.8	23	80	0.28	80	0	1.11	29	---
C114 OFFICE	80	10		1	5	0.06	10	0.8	12	70	0.18	70	0	1.22	16	---
TOTAL MAU-1:	1493			1					760	1940		1940	0	0.78	979	
AC-1																
W-1 COMPUTER LAB	985	35		35	10	0.12	468	1.0	468	1860	0.25	1860	0	1.00	468	---
TOTAL AC-1:	985			35					468	1860		1860	0	1.00	468	
CORRECTED TOTAL OUTDOOR AIR FLOW RATE CFM 468 Corrected OSA Fraction Zs = 0.25																
AC-2																
E118 MEDIA CENTER	2875	25		72	10	0.12	1065	1.0	1065	3885	0.27	3885	0	0.93	1151	---
E129 COMPUTER LAB	1430	35		51	10	0.12	682	1.0	682	2520	0.27	2520	0	0.93	737	---
E121 CONFERENCE ROOM	156	50		8	5	0.06	49	1.0	49	210	0.24	210	0	0.96	53	---
E117 CORRIDOR	2000	0		0	0	0.06	120	1.0	120	2985	0.04	2985	0	1.16	130	---
TOTAL AC-2:	6461			131					2070	9600		9600	0	0.93	2070	
CORRECTED TOTAL OUTDOOR AIR FLOW RATE CFM 2070 Corrected OSA Fraction Zs = 0.22																
AC-3																
E126 IDF RM	112	0		0	0	0	0	1.0	0	250	0.00	250	0		0	---
E125 OFFICE	67	5		1	5	0.06	9	1.0	9	115	0.08	115	0	0.99	11	---
E124 OFFICE	110	5		1	5	0.06	12	1.0	12	90	0.13	90	0	0.94	14	---
E123 OFFICE	67	5		1	5	0.06	9	1.0	9	115	0.08	115	0	0.99	11	---
E127 BINDERY	365	10		4	5	0.06	42	1.0	42	300	0.14	300	0	0.93	52	---
E128 WORK ROOM	223	10		3	5	0.06	28	1.0	28	200	0.14	200	0	0.93	35	---
E117 CORRIDOR	746	0		0	0	0.06	45	1.0	45	195	0.23	195	0	0.84	56	---
E115, E116 RESTROOMS	237	0	2	0	75		0			100	0	200	0			---
E119 CONFERENCE ROOM	402	50		21	5	0.06	129	1.0	129	485	0.27	485	0	0.80	161	---
TOTAL AC-3:	402			21					129	1850		1750	0	0.80	161	
CORRECTED TOTAL OUTDOOR AIR FLOW RATE CFM 161 Corrected OSA Fraction Zs = 0.09																
F-1																
W-4 CLASSROOM	690	35		25	10	0.12	333	1.0	333	1200	0.28	1200	0	1.00	333	---
TOTAL F-1:	690			25					333	1200		1200	0	1.00	333	
F-2																
W-3 CLASSROOM	710	35		25	10	0.12	335	1.0	335	1200	0.28	1200	0	1.00	443	---
TOTAL F-2:	710			25					335	1200		1200	0	1.00	443	
F-3																
W-2 CLASSROOM	710	35		25	10	0.12	335	1.0	335	1200	0.28	1200	0	1.00	443	---
TOTAL F-3:	710			25					335	1200		1200	0	1.00	443	
F-4 & F-5																
E109 WORK ROOM	486	10		5	5	0.06	54	0.8	68	350	0.19	0	440	1.01	70	---
CORRIDOR	335	0		0	0	0.06	20	1.0	20	375	0.05	0	0	1.15	21	---
W-5 CLASSROOM	940	25		24	10	0.12	353	1.0	353	1475	0.24	740	735	0.96	367	---
TOTAL F-4 & F-5:	1761			29					441	2200		740	1175	0.96	458	
CORRECTED TOTAL OUTDOOR AIR FLOW RATE CFM 458 Corrected OSA Fraction Zs = 0.21																
F-6																
CORRIDOR	335	0		0	0	0.06	20	1.0	20	150	0.13	0	0	1.14	20	---
W-6 CLASSROOM	950	25		24	10	0.12	354	1.0	354	1200	0.30	465	735	0.98	360	---
TOTAL F-6:	1285			24					374	1350		465	735	0.98	381	

1
SHEET IS REVISED PER ADDENDUM #2.

RTU-1/CU-1 VAV BOXES WITH HOT WATER REHEAT																			
MARK NO.	TYPE	ZONE SQ. FT.	MAX COOLING CFM	MAXIMUM DEADBAND CFM	MAXIMUM HEATING CFM 50% or VENT	INLET IN.	OUTLET IN.	SA INLET TEMP DEG. F	SA TEMP AT HEATING DEG. F	REHEAT COIL LOAD MBH	INLET WATER TEMP (F)	OUTLET WATER TEMP (F)	GPM	CONN. SIZE IN.	VALVE TYPE	MAX. STATIC LOSS *	MAX. DISCHARGE SOUND POWER LEVEL **	MAX. RADIATED SOUND POWER LEVEL **	CONTROL TYPE
VAV-1-1	VAV	1453	1550	530	775	14	20X16	55	100	37.7	140	110	2.5	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-1-2	VAV	737	1200	472	600	12	16X15	55	100	29.2	140	110	1.9	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-1-3	VAV	737	1200	472	600	12	16X15	55	100	29.2	140	110	1.9	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-1-4	VAV	737	1200	472	600	12	16X15	55	100	29.2	140	110	1.9	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-1-5	VAV	1062	1550	498	775	14	20X16	55	100	37.7	140	110	2.5	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-1-6	VAV	737	1200	472	600	12	16X15	55	100	29.2	140	110	1.9	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-1-7	VAV	734	1000	93	500	10	14X13	55	100	24.3	140	110	1.6	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-1-8	VAV	1376	1375	177	688	12	16X15	55	100	33.4	140	110	2.2	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
TOTAL		7573	10275	3186	5138					249.7			16.6						
RTU-2 VAV BOXES WITH HOT WATER REHEAT																			
MARK NO.	TYPE	ZONE SQ. FT.	MAX COOLING CFM	MAXIMUM DEADBAND CFM	MAXIMUM HEATING CFM 50% or VENT	INLET IN.	OUTLET IN.	SA INLET TEMP DEG. F	SA TEMP AT HEATING DEG. F	REHEAT COIL LOAD MBH	INLET WATER TEMP (F)	OUTLET WATER TEMP (F)	GPM	CONN. SIZE IN.	VALVE TYPE	MAX. STATIC LOSS *	MAX. DISCHARGE SOUND POWER LEVEL **	MAX. RADIATED SOUND POWER LEVEL **	CONTROL TYPE
VAV-2-1	VAV	735	1095	537	548	12	16X15	55	95	23.7	140	110	1.6	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-2-2	VAV	252	470	94	235	8	12X10	55	95	10.2	140	110	0.7	1/2	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-2-3	VAV	1245	1025	205	513	12	16X15	55	95	22.1	140	110	1.5	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-2-4	VAV	535	710	142	355	10	14X13	55	95	15.3	140	110	1.0	1/2	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-2-5	VAV	638	1000	309	500	10	14X13	55	95	21.6	140	110	1.4	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-2-6	VAV	685	1290	497	645	12	16X15	55	95	27.9	140	110	1.9	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-2-7	VAV	812	2625	525	1313	16	24X18	55	95	56.7	140	110	3.8	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
TOTAL		4902	8215	2309	4108					177.4			11.8						
RTU-3 VAV BOXES WITH HOT WATER REHEAT																			
MARK NO.	TYPE	ZONE SQ. FT.	MAX COOLING CFM	MAXIMUM DEADBAND CFM	MAXIMUM HEATING CFM 50% or VENT	INLET IN.	OUTLET IN.	SA INLET TEMP DEG. F	SA TEMP AT HEATING DEG. F	REHEAT COIL LOAD MBH	INLET WATER TEMP (F)	OUTLET WATER TEMP (F)	GPM	CONN. SIZE IN.	VALVE TYPE	MAX. STATIC LOSS *	MAX. DISCHARGE SOUND POWER LEVEL **	MAX. RADIATED SOUND POWER LEVEL **	CONTROL TYPE
VAV-3-1	VAV	1856	2300	790	1150	16	24X18	55	95	49.7	140	110	3.3	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-3-2	VAV	860	1200	240	600	12	16X15	55	95	25.9	140	110	1.7	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-3-3	VAV	1264	1700	940	940	14	20X16	55	95	40.6	140	110	2.7	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-3-4	VAV	736	1100	435	550	12	16X15	55	95	23.8	140	110	1.6	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-3-5	VAV	755	1100	751	751	12	16X15	55	95	32.4	140	110	2.2	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-3-6	VAV	755	1100	751	751	12	16X15	55	95	32.4	140	110	2.2	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-3-7	VAV	845	1105	502	553	12	16X15	55	95	23.9	140	110	1.6	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-3-8	VAV	1621	2000	1055	1055	14	20X16	55	95	45.6	140	110	3.0	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
TOTAL		8692	11605	4409	5295					228.7			18.3						
AHU-1/CU-74 VAV BOXES WITH HOT WATER REHEAT																			
MARK NO.	TYPE	ZONE SQ. FT.	MAX COOLING CFM	MAXIMUM DEADBAND CFM	MAXIMUM HEATING CFM 50% or VENT	INLET IN.	OUTLET IN.	SA INLET TEMP DEG. F	SA TEMP AT HEATING DEG. F	REHEAT COIL LOAD MBH	INLET WATER TEMP (F)	OUTLET WATER TEMP (F)	GPM	CONN. SIZE IN.	VALVE TYPE	MAX. STATIC LOSS *	MAX. DISCHARGE SOUND POWER LEVEL **	MAX. RADIATED SOUND POWER LEVEL **	CONTROL TYPE
VAV-5-1	VAV	6126	5500	3288	3288	24X16	24X18	55	100	159.8	140	110	10.7	1 1/4	3-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-5-2	VAV	2112	2225	1030	1113	16	24X18	55	100	54.1	140	110	3.6	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-5-3	VAV	1368	3025	605	1513	24X16	24X18	55	100	73.5	140	110	4.9	1	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-5-4	VAV	760	700	140	350	8	12X10	55	100	17.0	140	110	1.1	1/2	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-5-5	VAV	2228	2400	480	1200	16	24X18	55	100	58.3	140	110	3.9	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
TOTAL		12594	13850	5543	7463					362.7			24.2						
AHU-2/CU-75 VAV BOXES WITH HOT WATER REHEAT																			
MARK NO.	TYPE	ZONE SQ. FT.	MAX COOLING CFM	MAXIMUM DEADBAND CFM	MAXIMUM HEATING CFM 50% or VENT	INLET IN.	OUTLET IN.	SA INLET TEMP DEG. F	SA TEMP AT HEATING DEG. F	REHEAT COIL LOAD MBH	INLET WATER TEMP (F)	OUTLET WATER TEMP (F)	GPM	CONN. SIZE IN.	VALVE TYPE	MAX. STATIC LOSS *	MAX. DISCHARGE SOUND POWER LEVEL **	MAX. RADIATED SOUND POWER LEVEL **	CONTROL TYPE
VAV-7-1	VAV	1487	2000	633	1000	14	20X16	55	100	48.6	140	110	3.2	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-7-2	VAV	1138	1400	280	700	12	16X15	55	100	34.0	140	110	2.3	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-7-3	VAV	5511	5500	2796	2796	24X16	24X18	55	100	135.9	140	110	9.1	1 1/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-7-4	VAV	1230	2075	415	1038	14	20X16	55	100	50.4	140	110	3.4	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
TOTAL		9366	10975	4124	5534					268.9			17.9						
AHU-3/CU-76 VAV BOXES WITH HOT WATER REHEAT																			
MARK NO.	TYPE	ZONE SQ. FT.	MAX COOLING CFM	MAXIMUM DEADBAND CFM	MAXIMUM HEATING CFM 50% or VENT	INLET IN.	OUTLET IN.	SA INLET TEMP DEG. F	SA TEMP AT HEATING DEG. F	REHEAT COIL LOAD MBH	INLET WATER TEMP (F)	OUTLET WATER TEMP (F)	GPM	CONN. SIZE IN.	VALVE TYPE	MAX. STATIC LOSS *	MAX. DISCHARGE SOUND POWER LEVEL **	MAX. RADIATED SOUND POWER LEVEL **	CONTROL TYPE
VAV-13-1	VAV	1842	1900	826	950	14	20X16	55	100	46.2	140	110	3.1	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-13-2	VAV	1619	1850	673	925	14	20X16	55	100	45.0	140	110	3.0	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-13-3	VAV	645	1300	457	650	12	16X15	55	100	31.6	140	110	2.1	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-13-4	VAV	1232	1950	777	975	14	20X16	55	100	47.4	140	110	3.2	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
VAV-13-5	VAV	1812	1750	667	875	14	20X16	55	100	42.5	140	110	2.8	3/4	2-WAY CONTROL VALVE	0.75	67	59	DDC
TOTAL		7150	8750	3400	4375					212.6			14.2						

* - INCLUDING COIL, SOUND ATTENUATOR SECTION & VAV BOX
 ** - THIRD OCTAVE CERTIFIED RATING IN ACCORDANCE WITH ARI STANDARD 880-94

▲ -ADDENDUM #2
 2/22/2018

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A NEW REMODEL PROJECT FOR:
SHERWOOD HIGH SCHOOL
 16956 SW MEINECKE ROAD
 SHERWOOD, OR

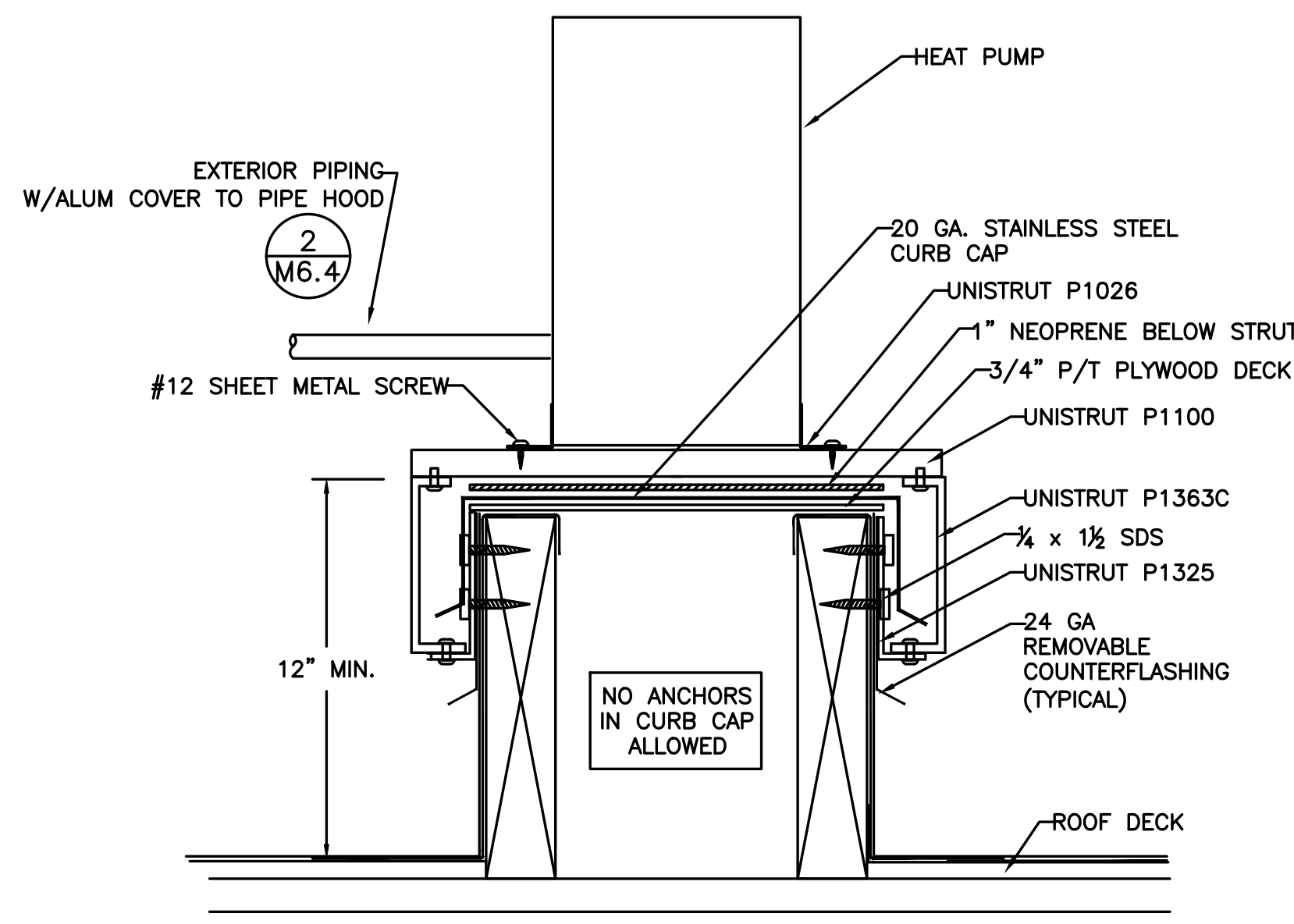
REGISTERED PROFESSIONAL
 17884

 SCOTT W. MILLER
 EXPIRES: 31DEC18

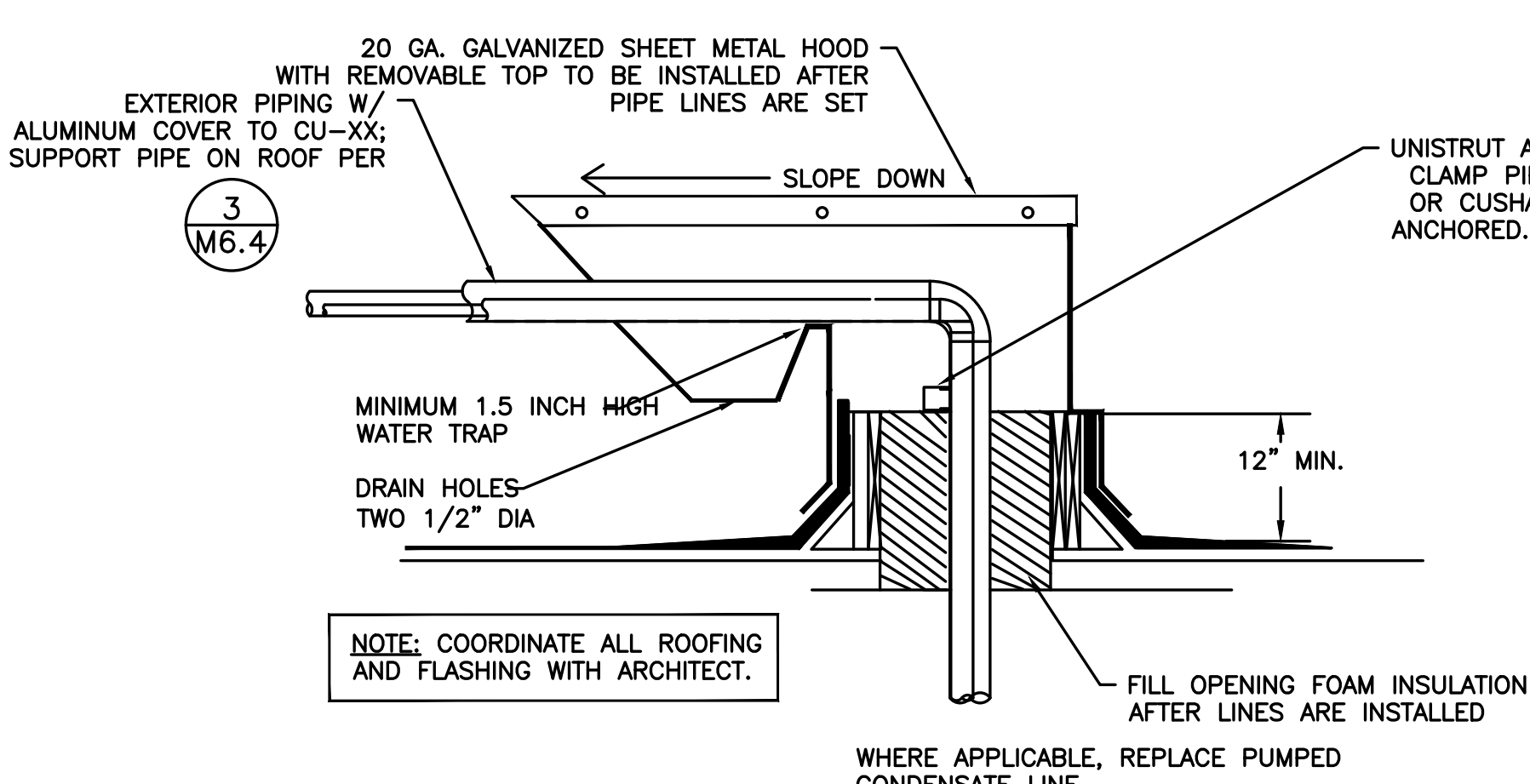
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 CHECKED BY: SWM
 DATE: 1-30-18
 TITLE: MECHANICAL SCHEDULES
 SCALE: NTS

SHEET NO:
M6.3
 4 OF 8

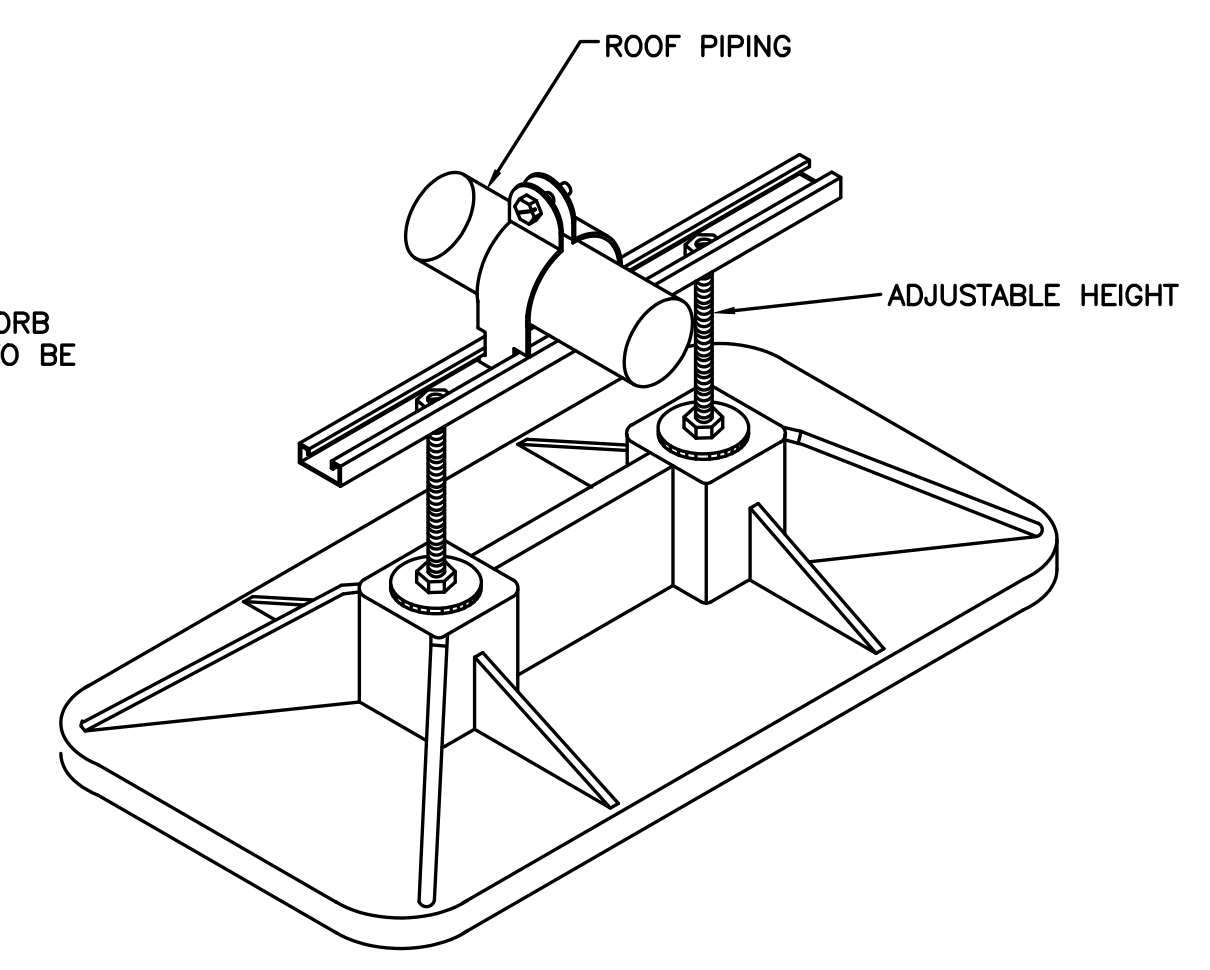
▲
 SHEET IS REVISED PER ADDENDUM #2.



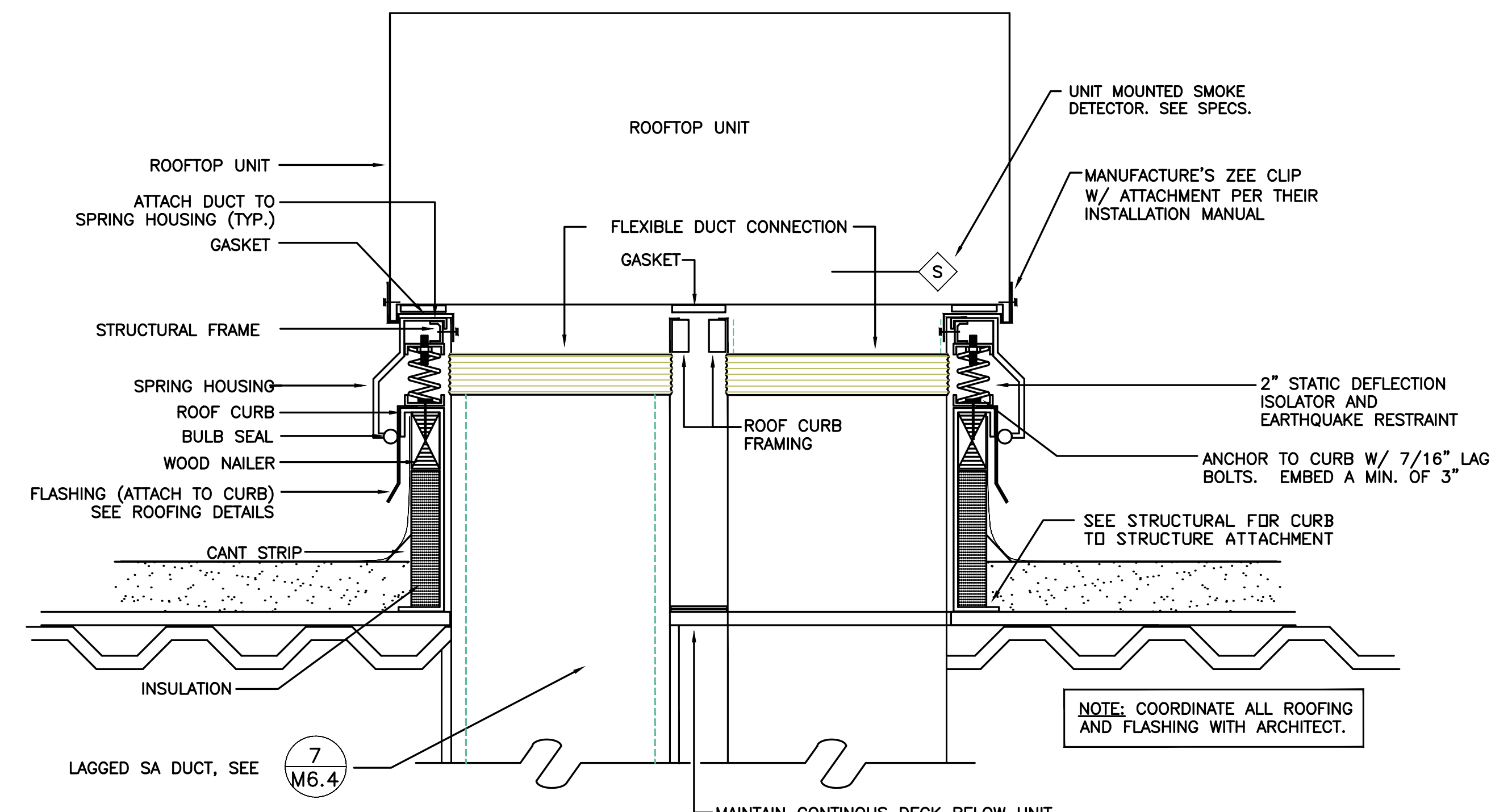
1 SMALL CONDENSING UNIT CURB DETAIL
 M6.4 SCALE: DETAIL
 NOTE: COORDINATE ALL ROOFING AND FLASHING WITH ARCHITECT.



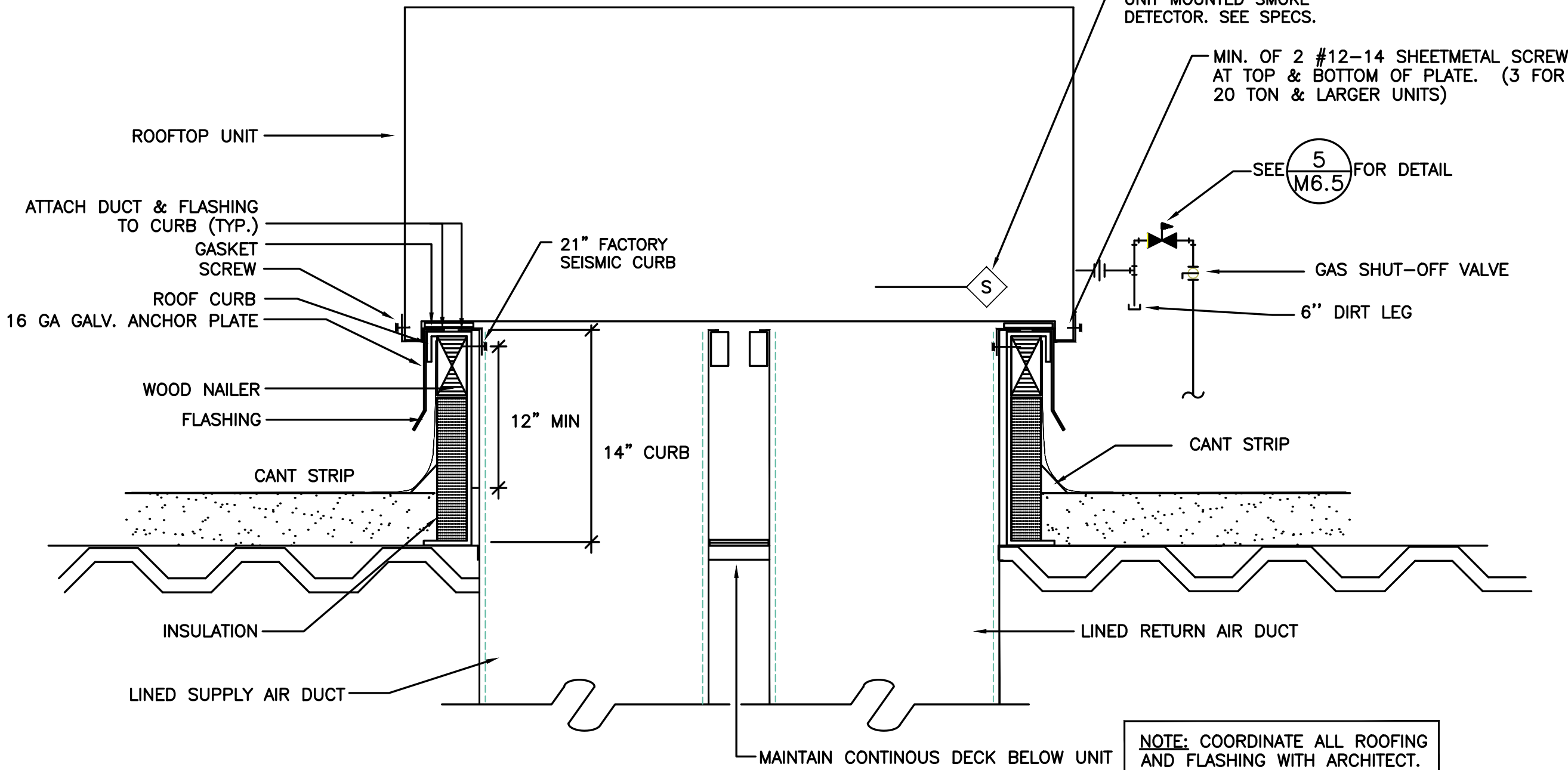
2 REFRIGERANT PIPE HOOD
 M6.4 NTS
 NOTE: COORDINATE ALL ROOFING AND FLASHING WITH ARCHITECT.



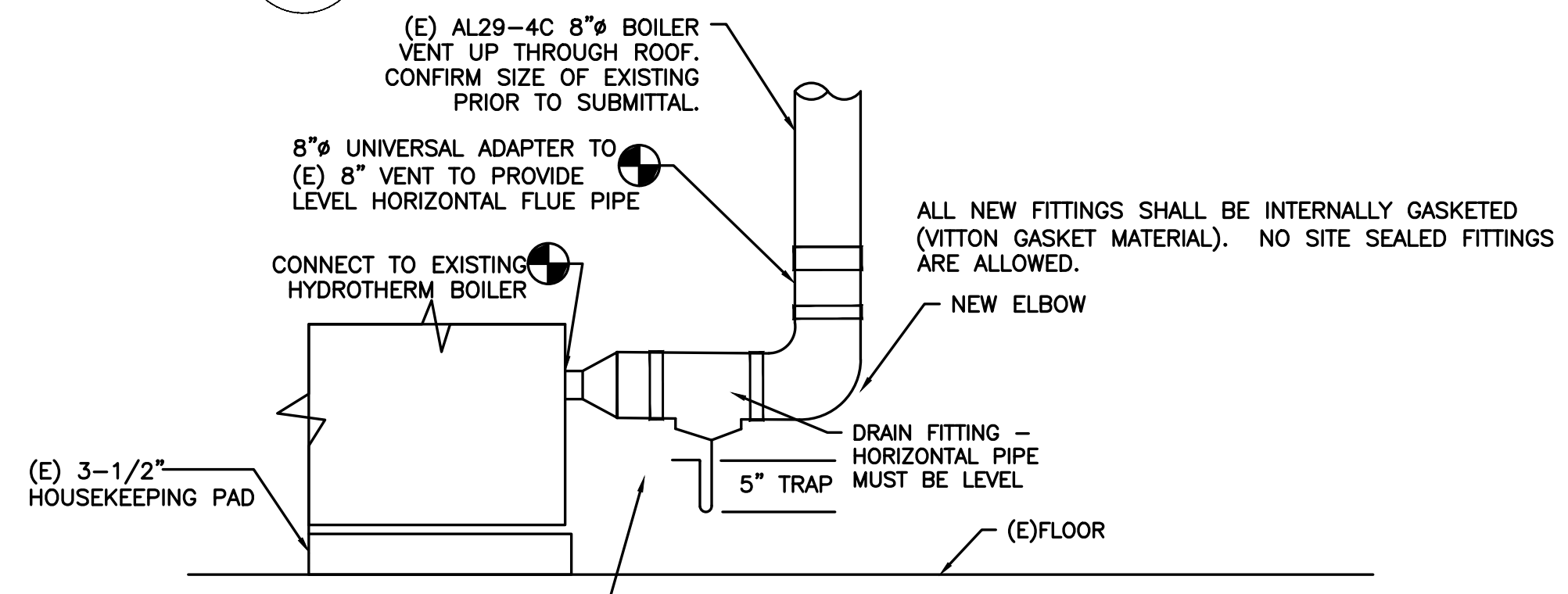
3 ROOF PIPING SUPPORT DETAIL
 M6.4 SCALE: DETAIL
 PPH TYPE PP10 WITH STRUT, OR EQUAL, PROVIDE SADDLE SUPPORT FOR REFRIGERANT PIPING. SUPPORT @ 48\"/>



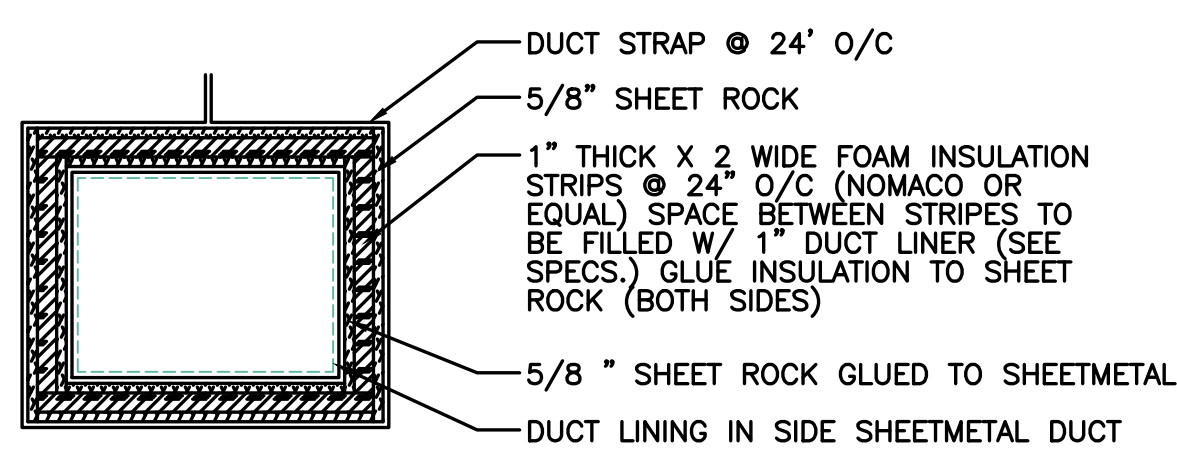
4 AC & RTU-XX (7 TONS OR MORE) DETAIL
 M6.4 SCALE: DETAIL
 NOTE: COORDINATE ALL ROOFING AND FLASHING WITH ARCHITECT.



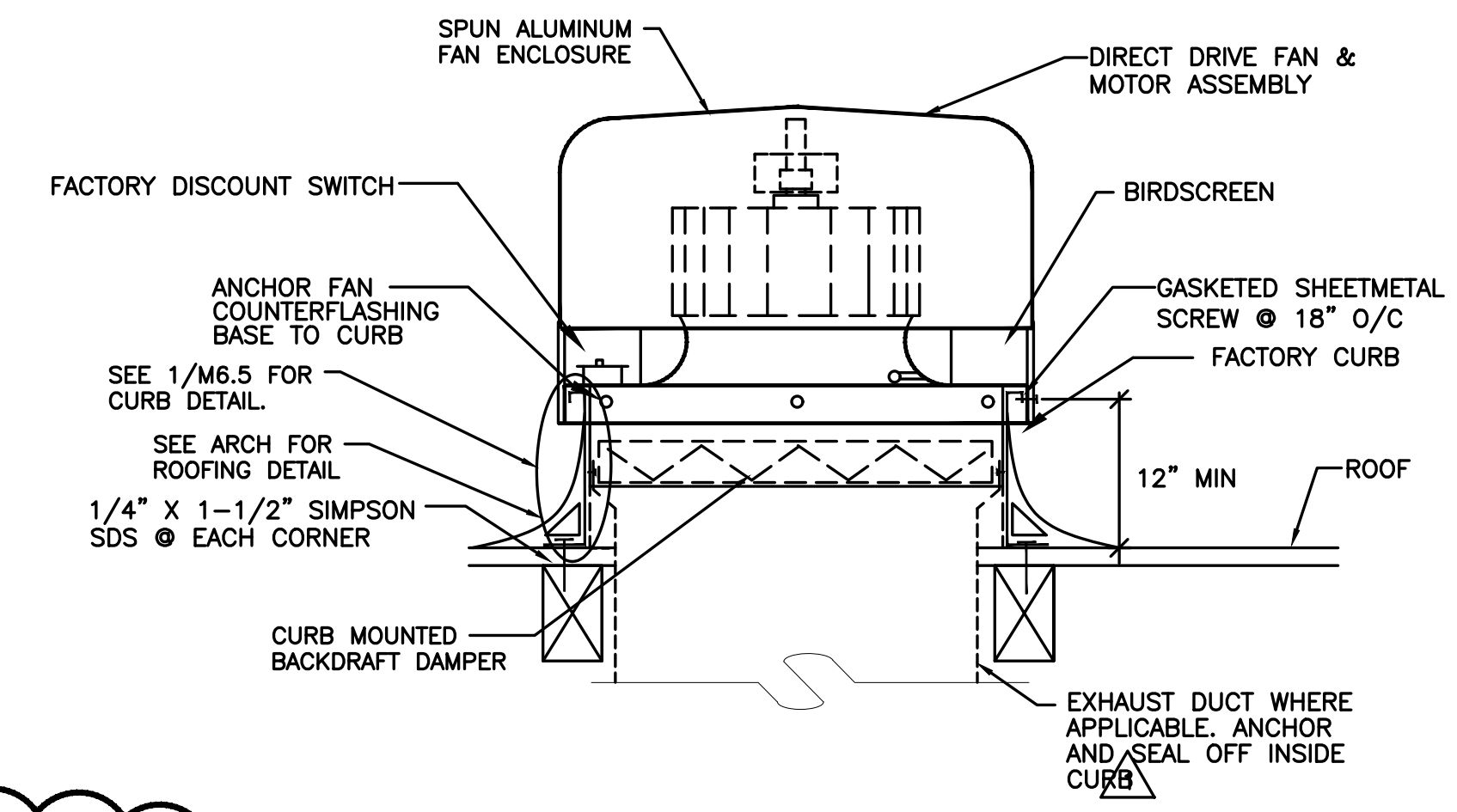
5 ROOFTOP UNIT CURB DETAIL FOR AC UNITS
 M6.4 SCALE: DETAIL
 (6 TONS OR LESS)
 NOTE: COORDINATE ALL ROOFING AND FLASHING WITH ARCHITECT.



6 BOILER FLUE DETAIL
 M6.4 DETAIL
 ALL NEW FITTINGS SHALL BE INTERNALLY GASKETED (VITON GASKET MATERIAL). NO SITE SEALED FITTINGS ARE ALLOWED.



7 LAGGED DUCT
 M6.4 SCALE: DETAIL



8 ROOF MOUNTED EXHAUST FAN
 M6.4 SCALE: DETAIL
 EXHAUST DUCT WHERE APPLICABLE, ANCHOR AND SEAL OFF INSIDE CURB

SHEET IS REVISED PER ADDENDUM #2.



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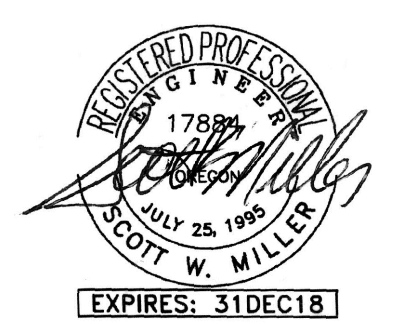
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A NEW REMODEL PROJECT FOR:

SHERWOOD HIGH SCHOOL

16956 SW MEINECKE ROAD
 SHERWOOD, OR



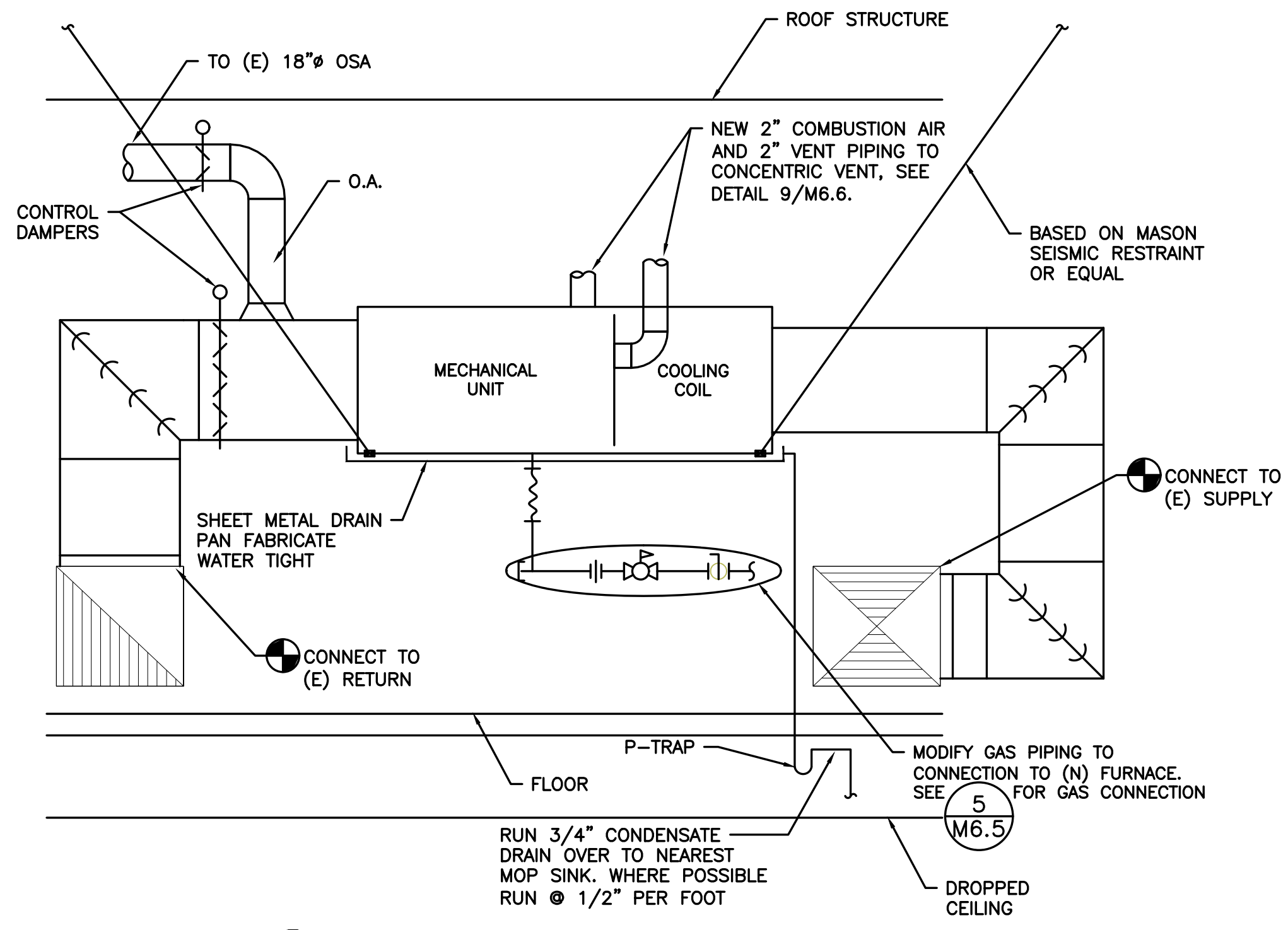
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TITLE:	MECHANICAL DETAILS
SCALE:	NTS

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	5 OF 8

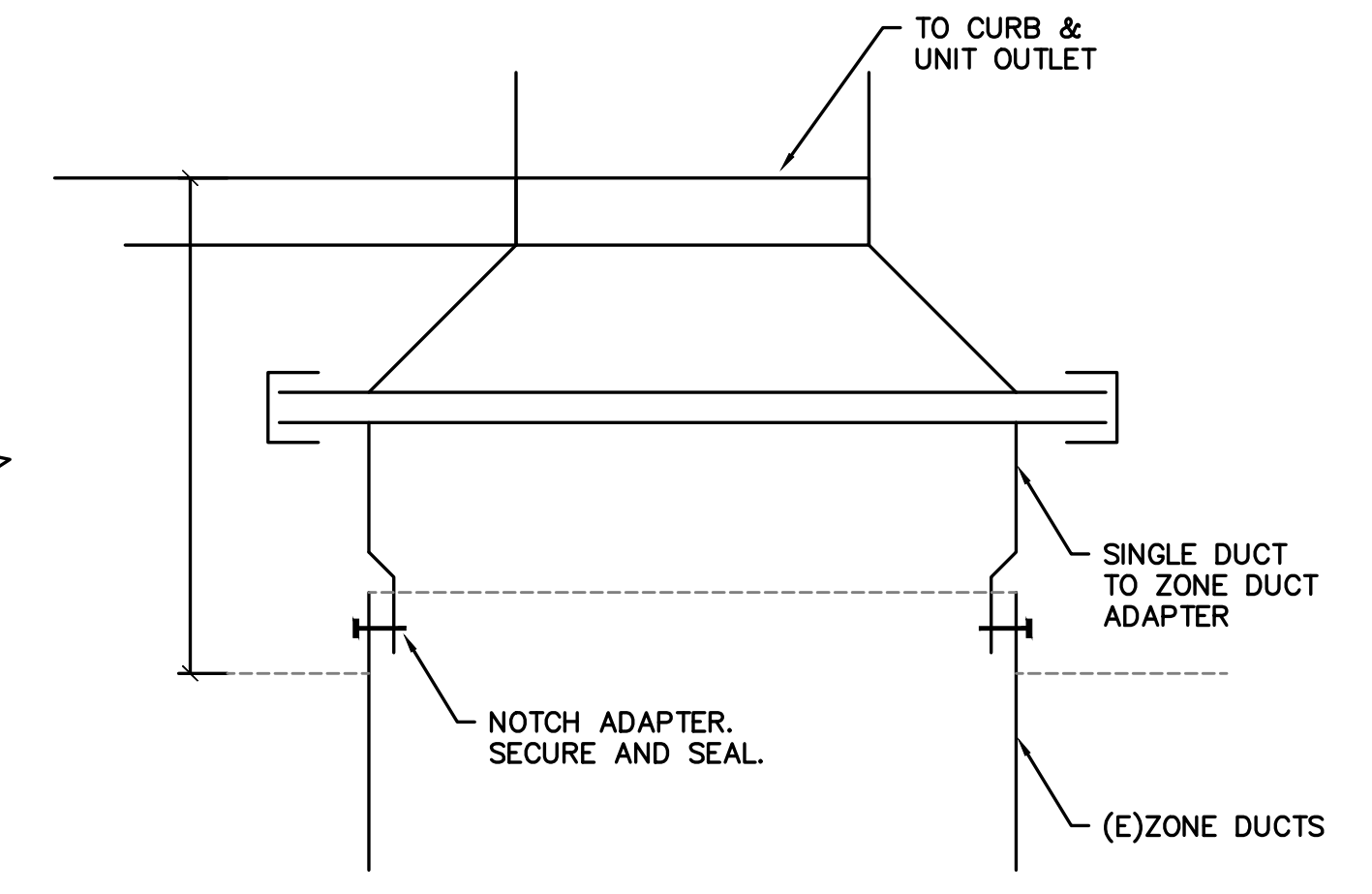
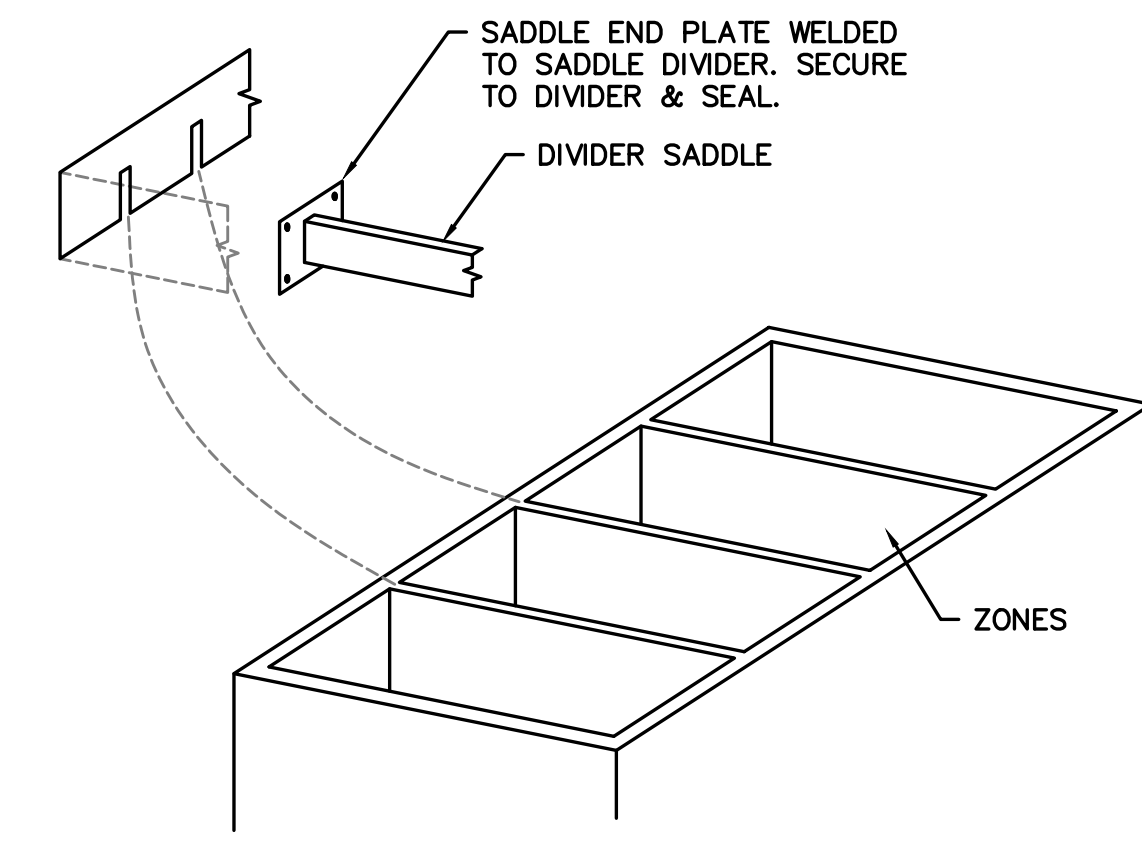


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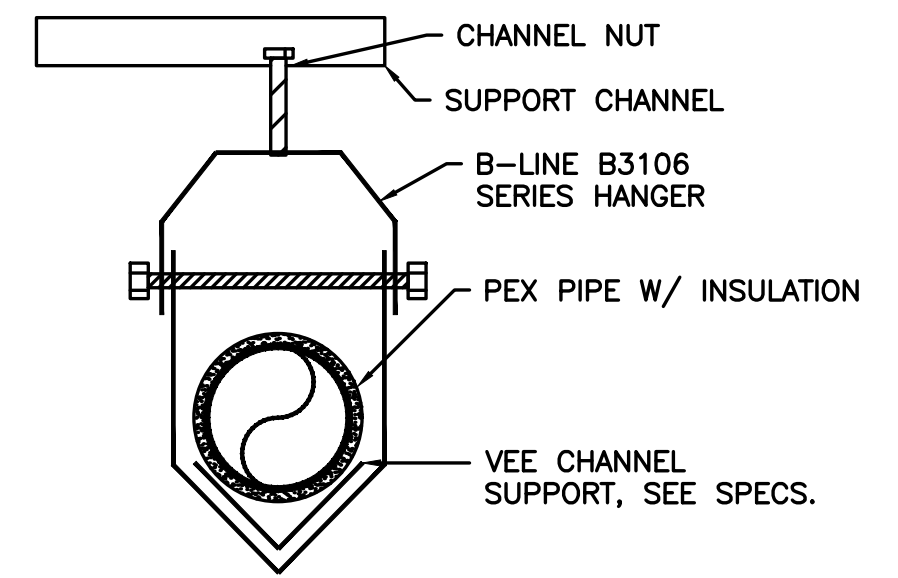
PAUL L BENTLEY Architect A.I.A. P.C.



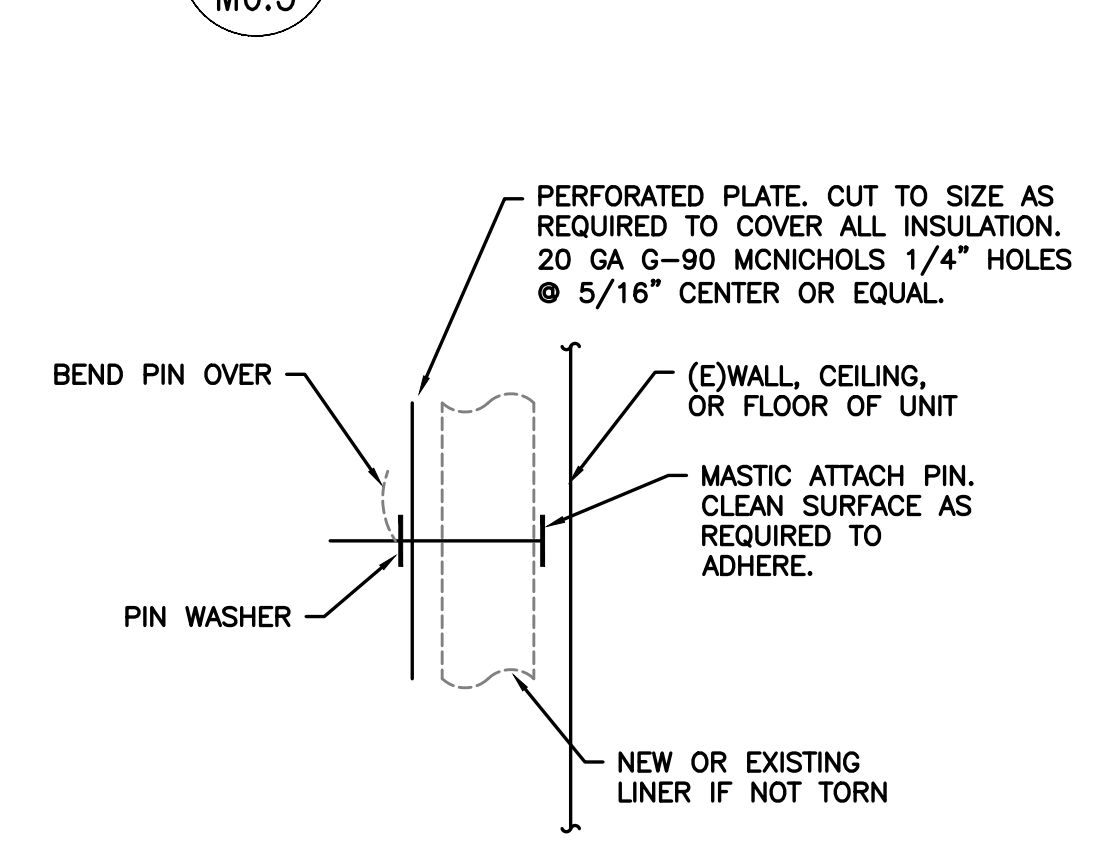
4 FURNACE DETAIL
M6.5 SCALE: DETAIL



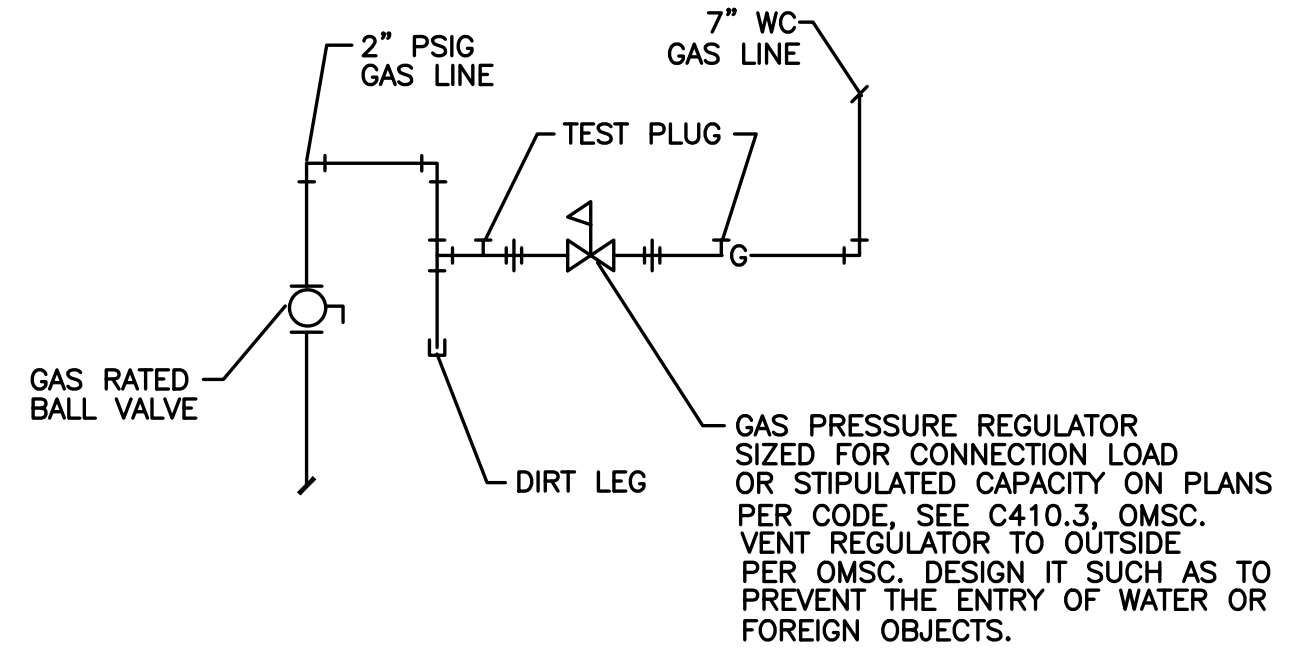
1 CONNECT TO EXISTING MZ DUCTS
M6.5 NTS



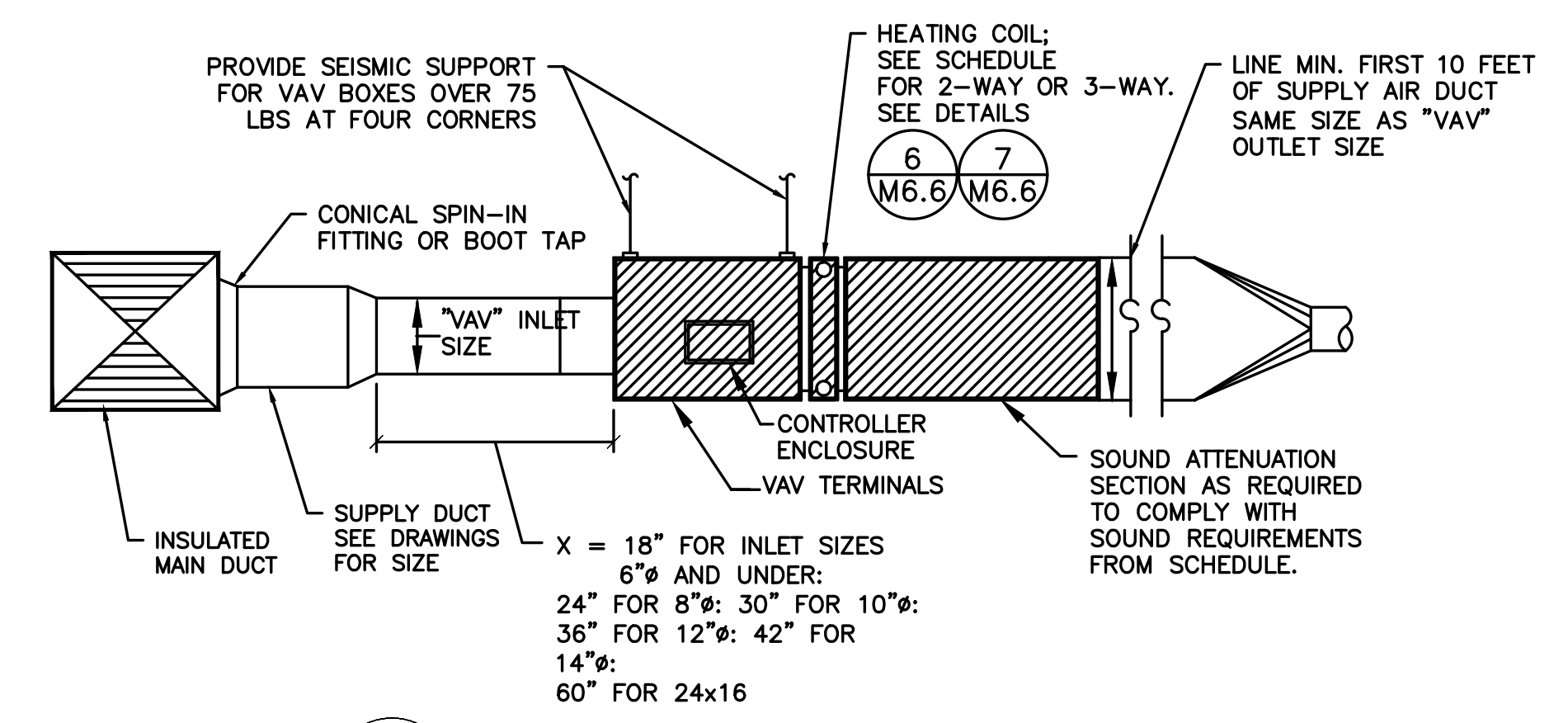
8 PEX SUPPORT
M6.5 SCALE: DETAIL



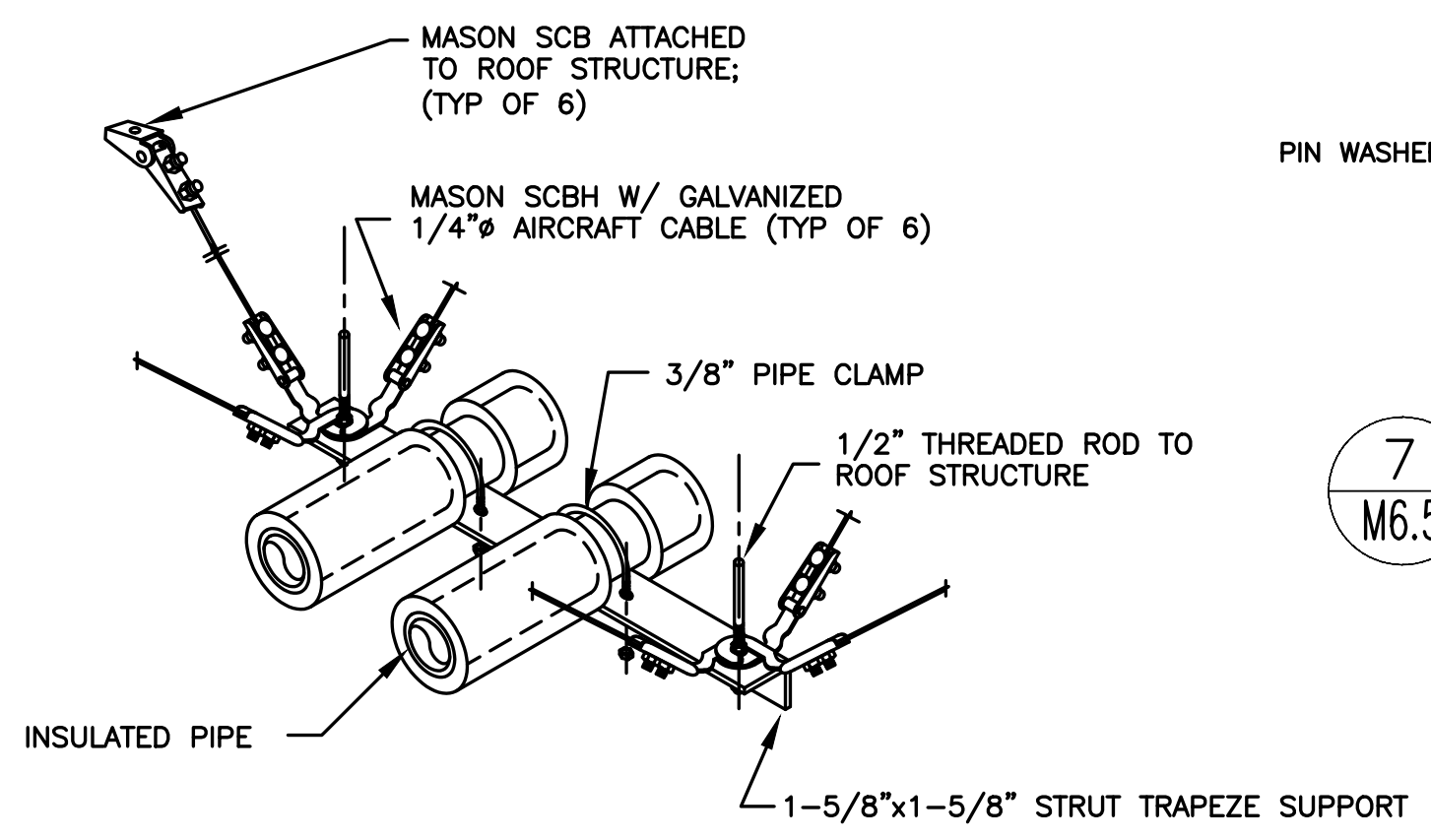
7 (E)UNIT LINER REPAIR
M6.5 SCALE: DETAIL



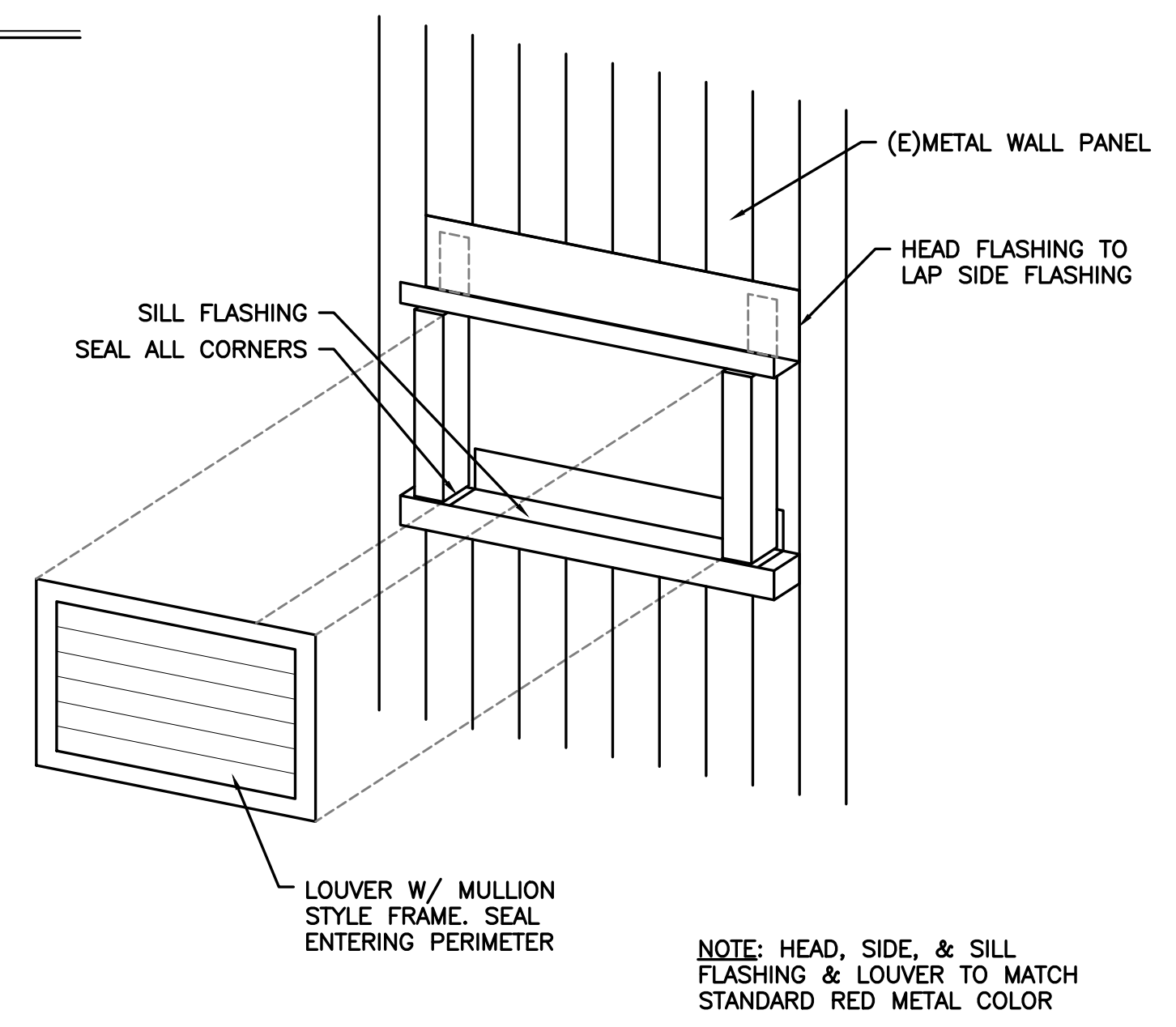
5 GAS REG. DETAIL
M6.5 SCALE: DETAIL



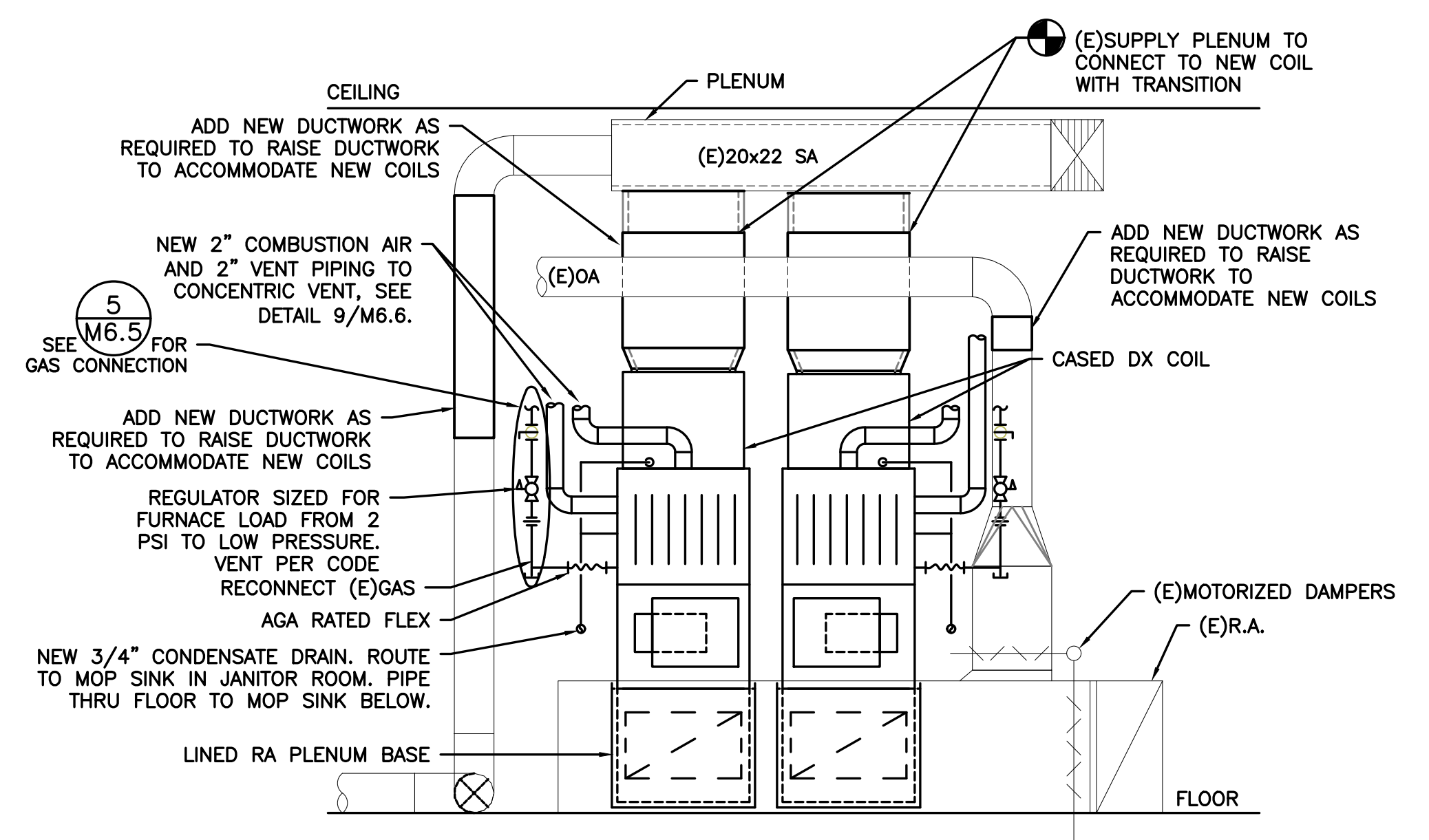
2 TYPICAL VAV BOX DETAIL
M6.5 SCALE: DETAIL



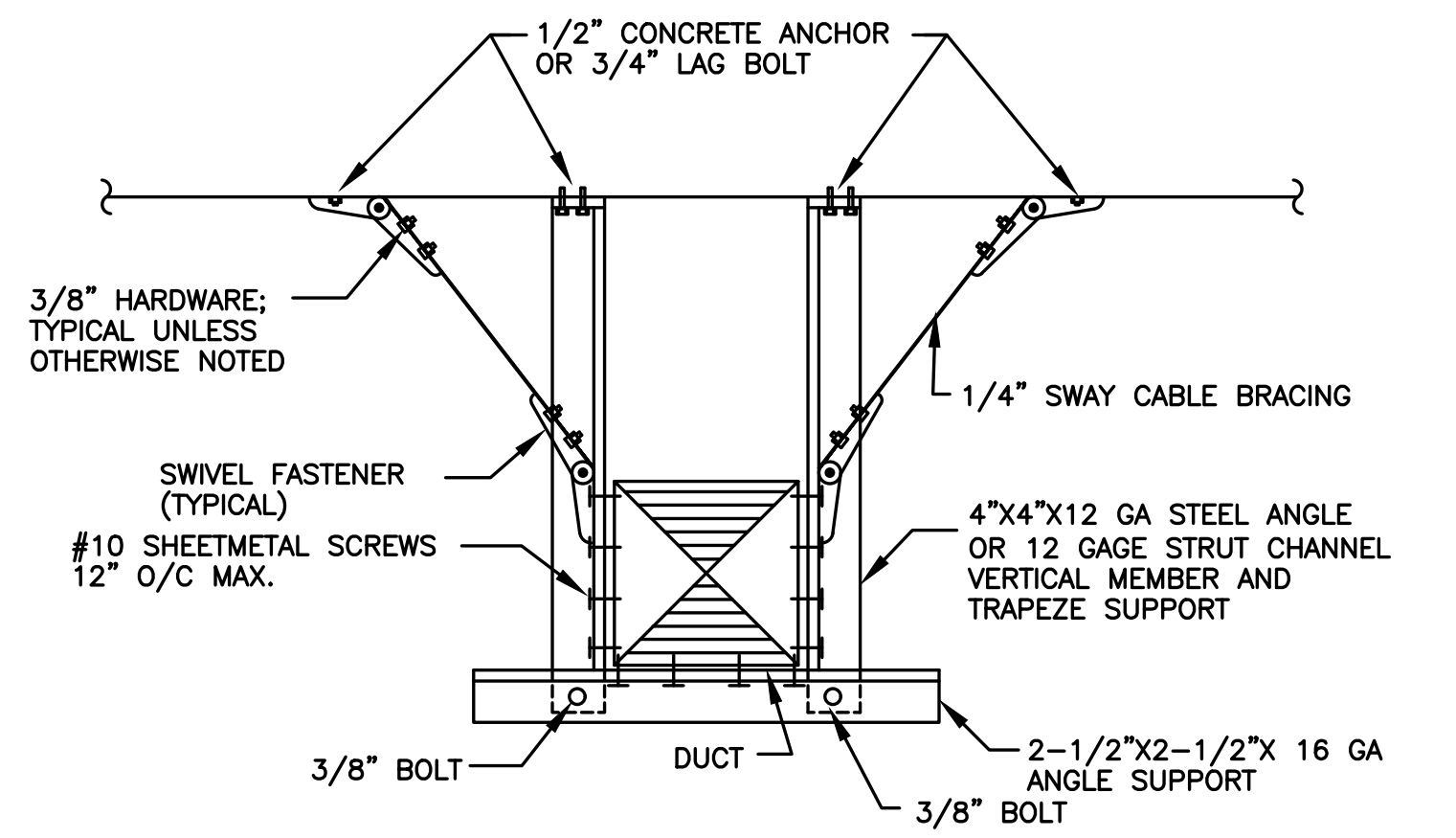
9 TRAPEZE SEISMIC PIPE SUPPORT
M6.5 SCALE: DETAIL



6 LOUVER DETAIL
M6.5 SCALE: DETAIL



3 F-4 AND 5 DETAIL
M6.5 SCALE: DETAIL



10 DUCT SEISMIC SUPPORT BRACE
M6.5 SCALE: DETAIL

SHEET IS REVISED PER ADDENDUM #2.

ADDENDUM #2
2/22/2018

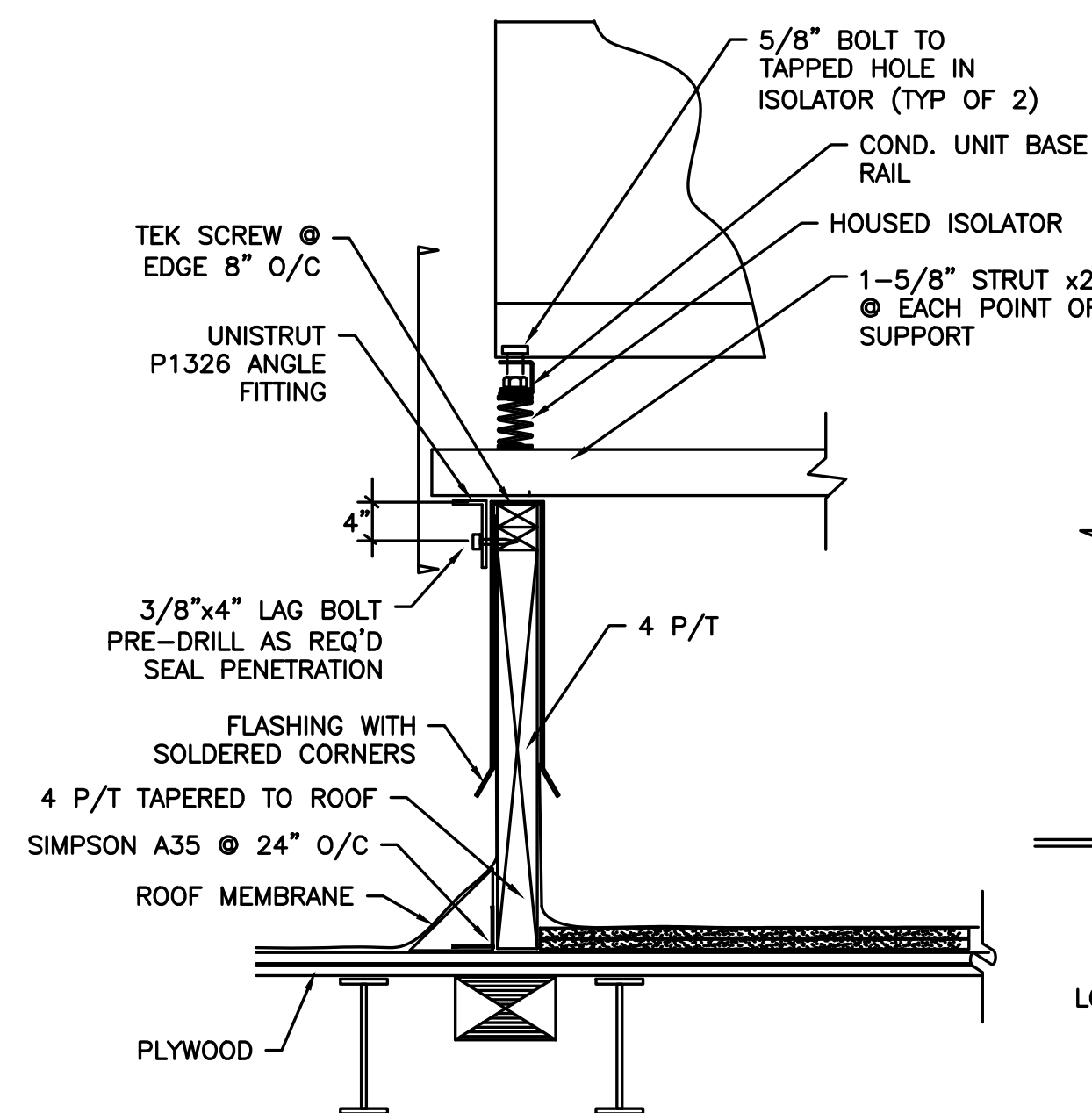
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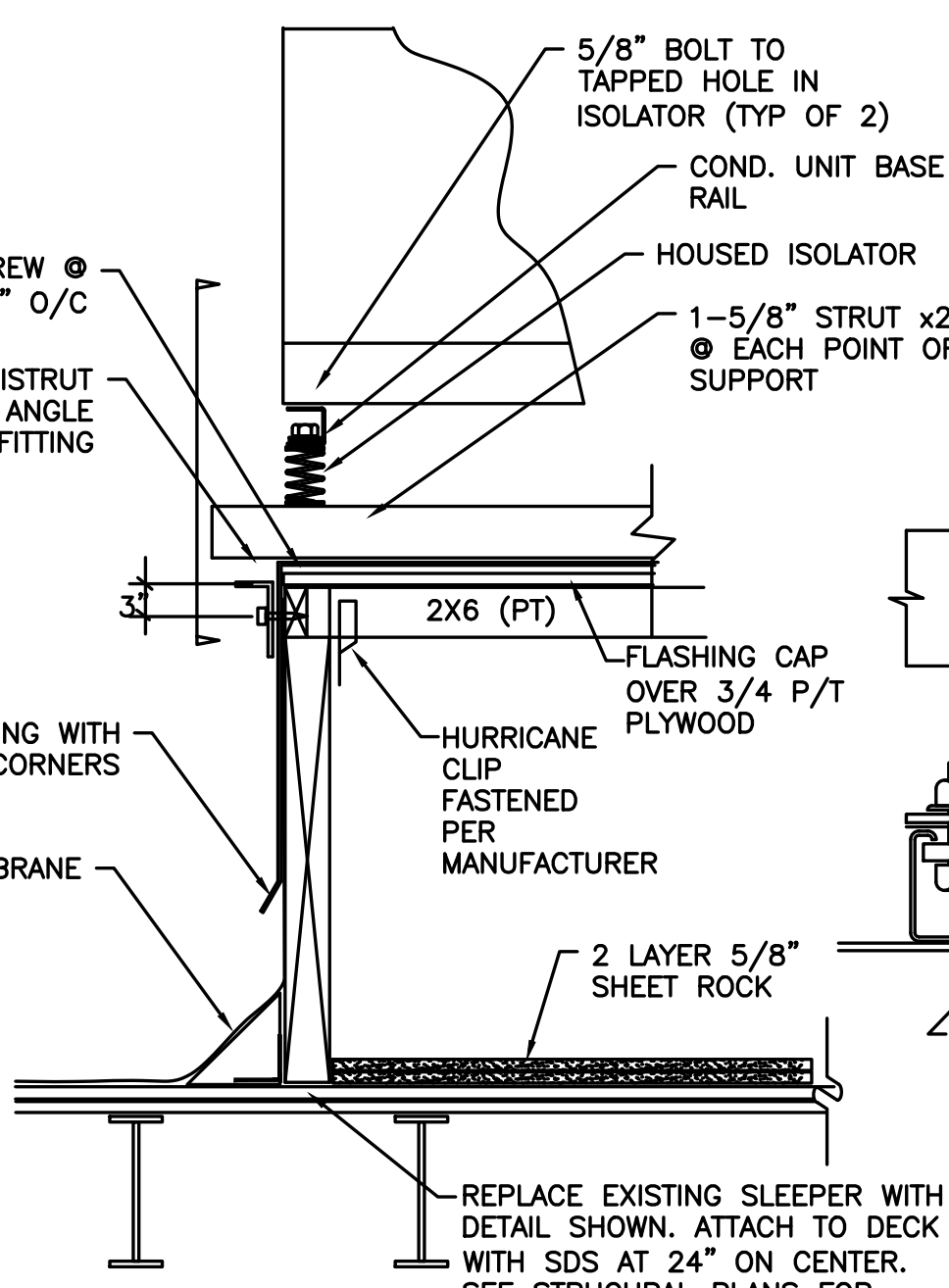
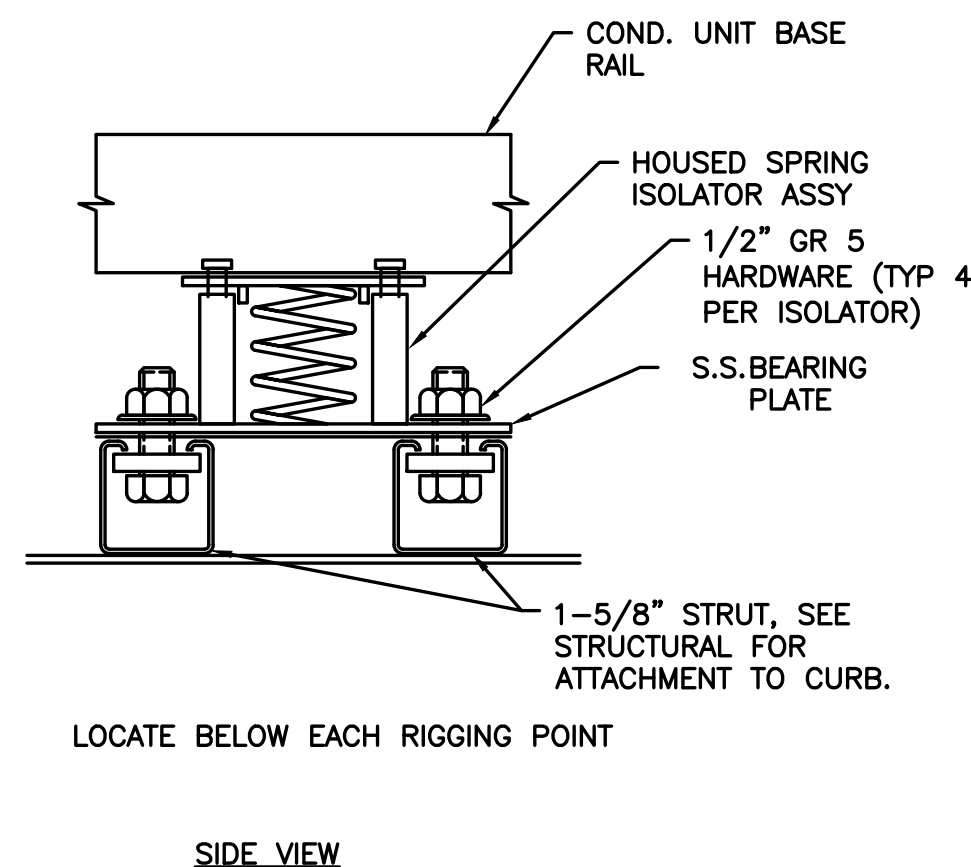
REGISTERED PROFESSIONAL ENGINEER
1788
SCOTT W. MILLER
EXPIRES: 31DEC18

DRAWN BY: EVK
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DATE: 1-30-18
TITLE: MECHANICAL DETAILS
SCALE: NTS

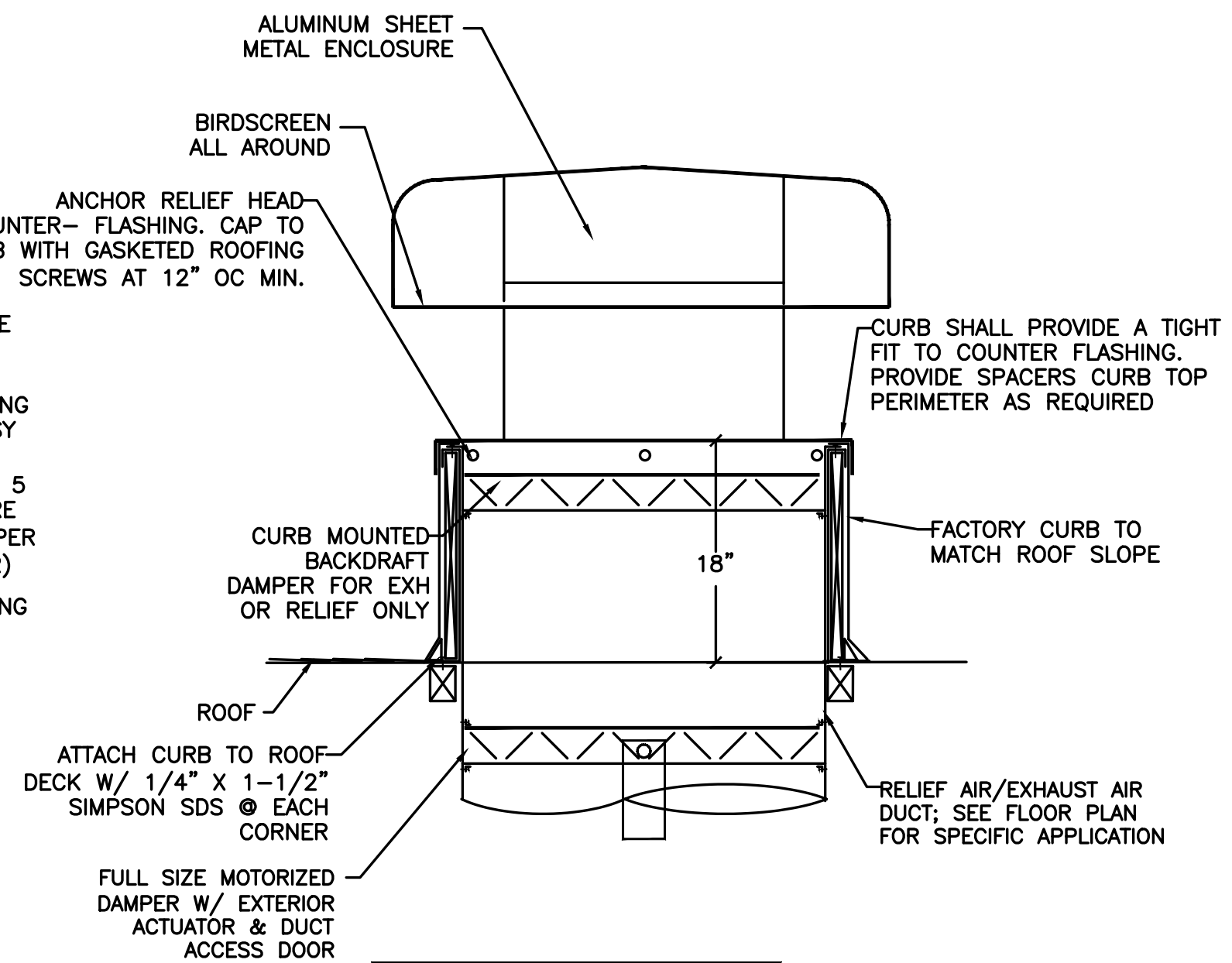
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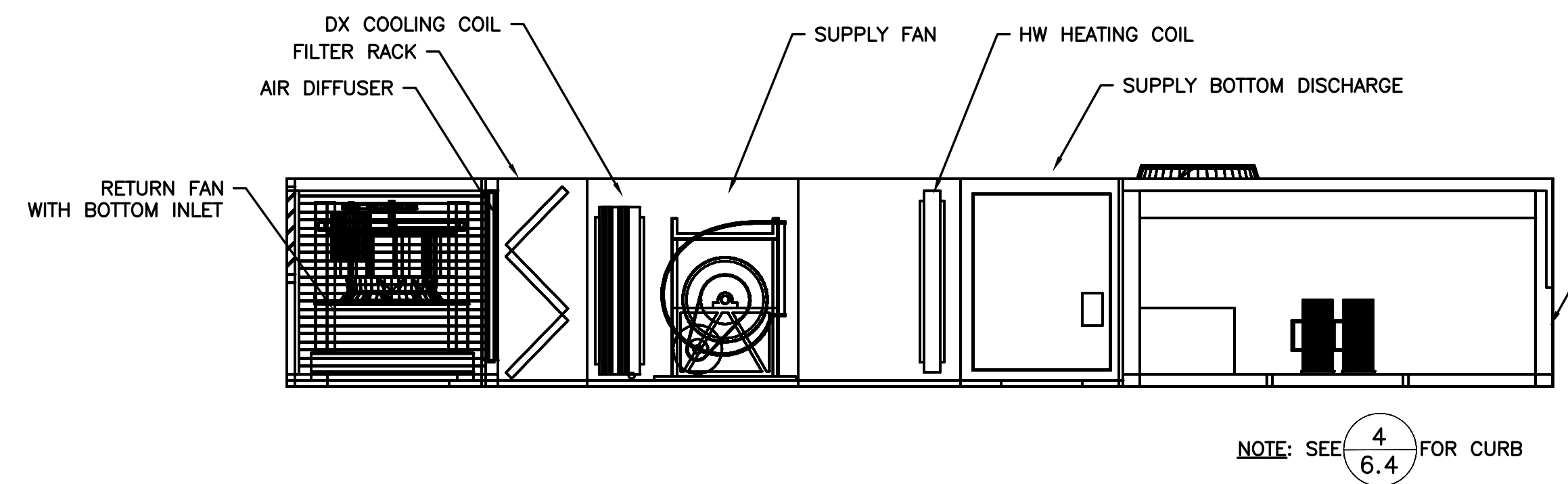
1 CURB DETAIL FOR CU-74
M6.6 SCALE: DETAIL



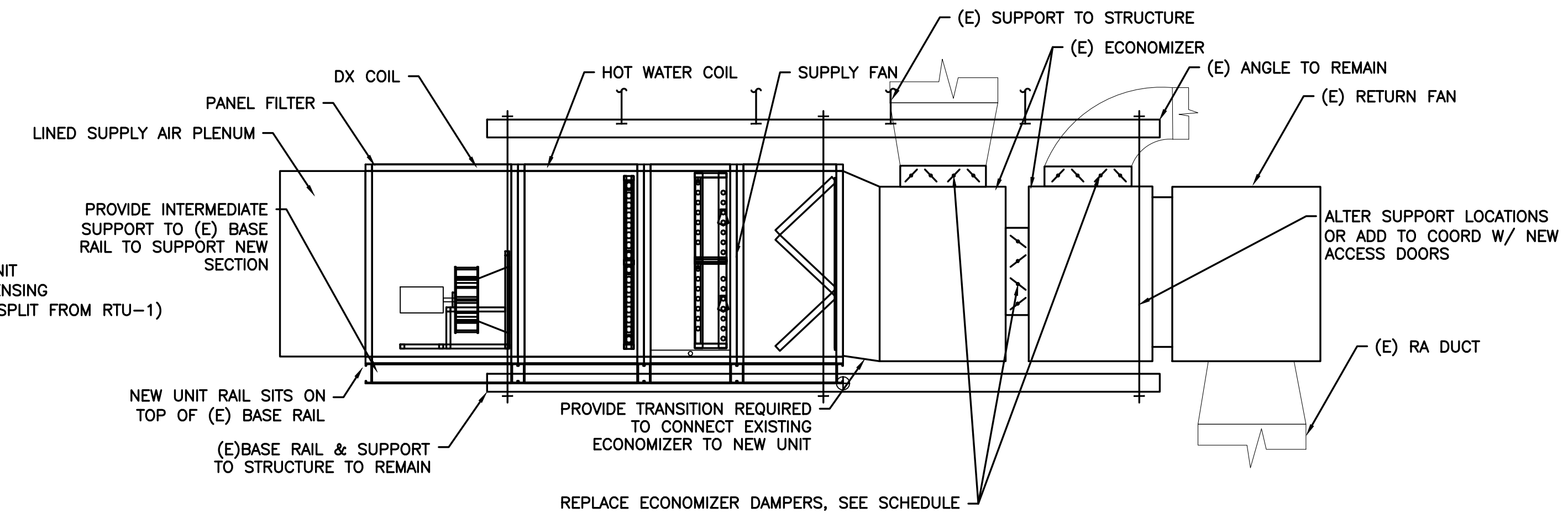
2 CURB DETAIL FOR CONDENSING UNITS
(10 TONS OR LARGER)
M6.6 SCALE: DETAIL



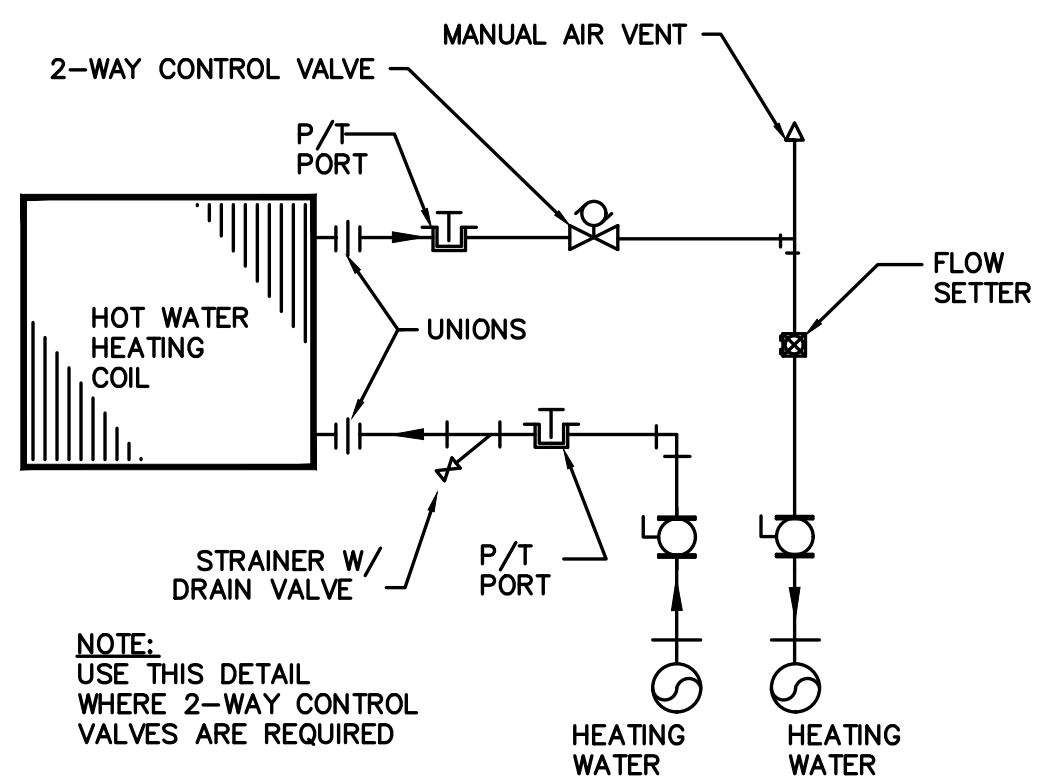
3 RELIEF HEAD
M6.6 SCALE: DETAIL



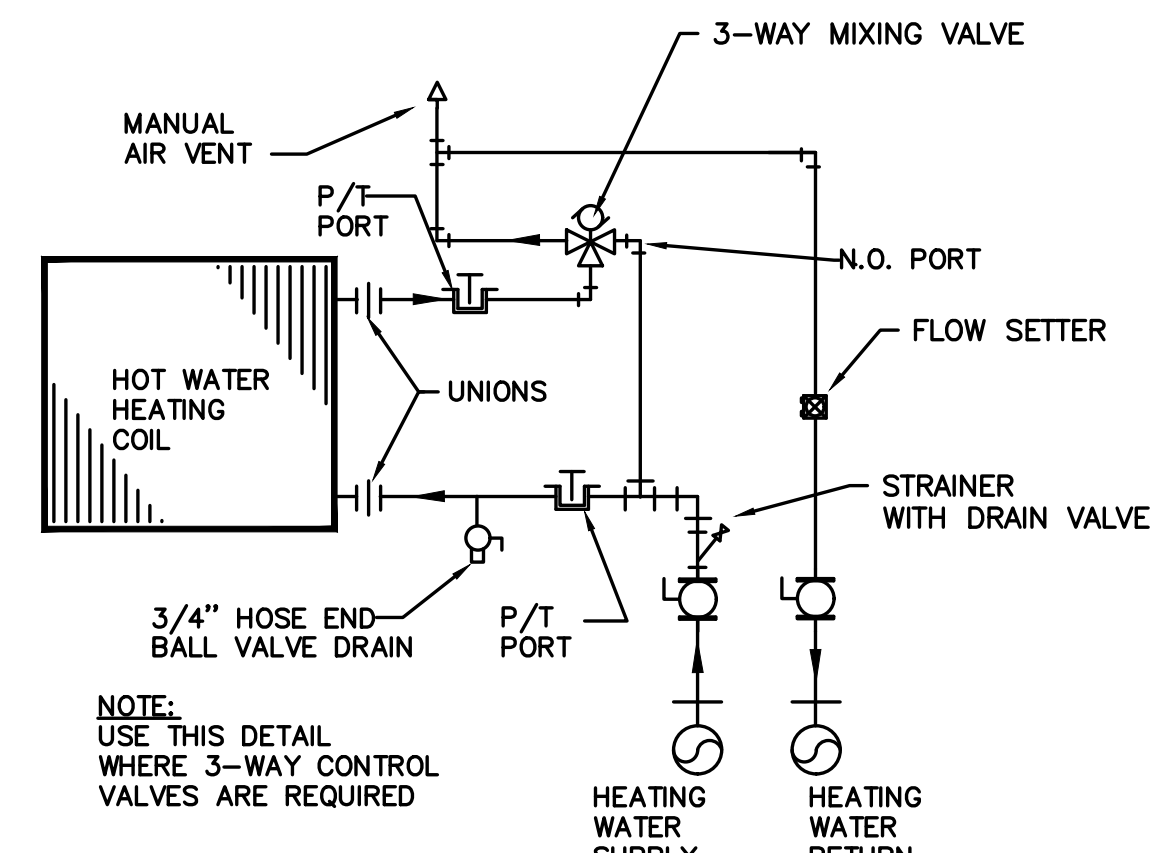
4 VAV ROOF TOP UNIT RTU-1, RTU-2 & RTU-3 DETAIL
M6.6 NTS



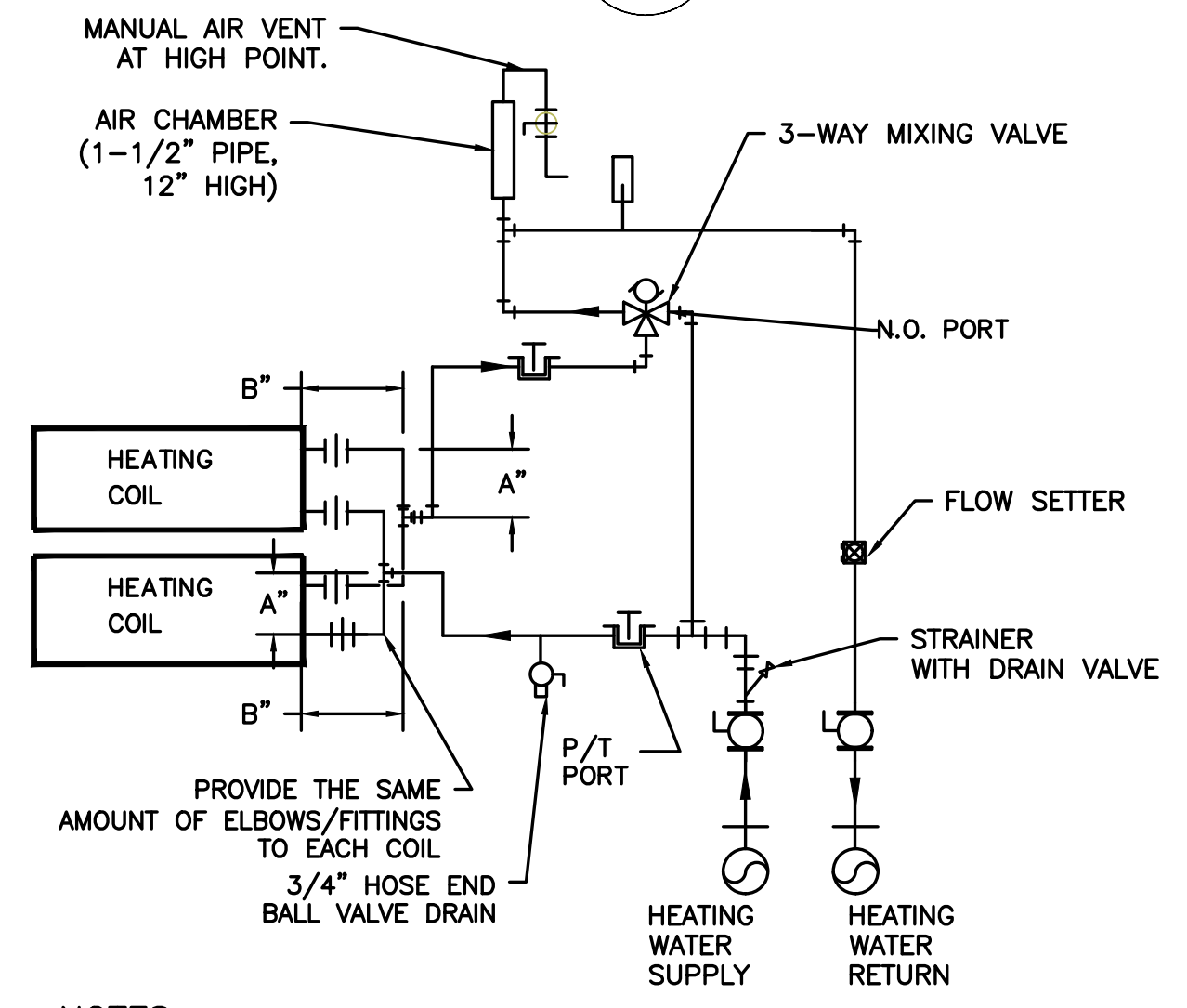
5 AHU-1, 2 & 3 AIR HANDLING UNIT DETAIL
M6.6 NTS



6 2-WAY CONTROL VALVE
M6.6 SCALE: DETAIL

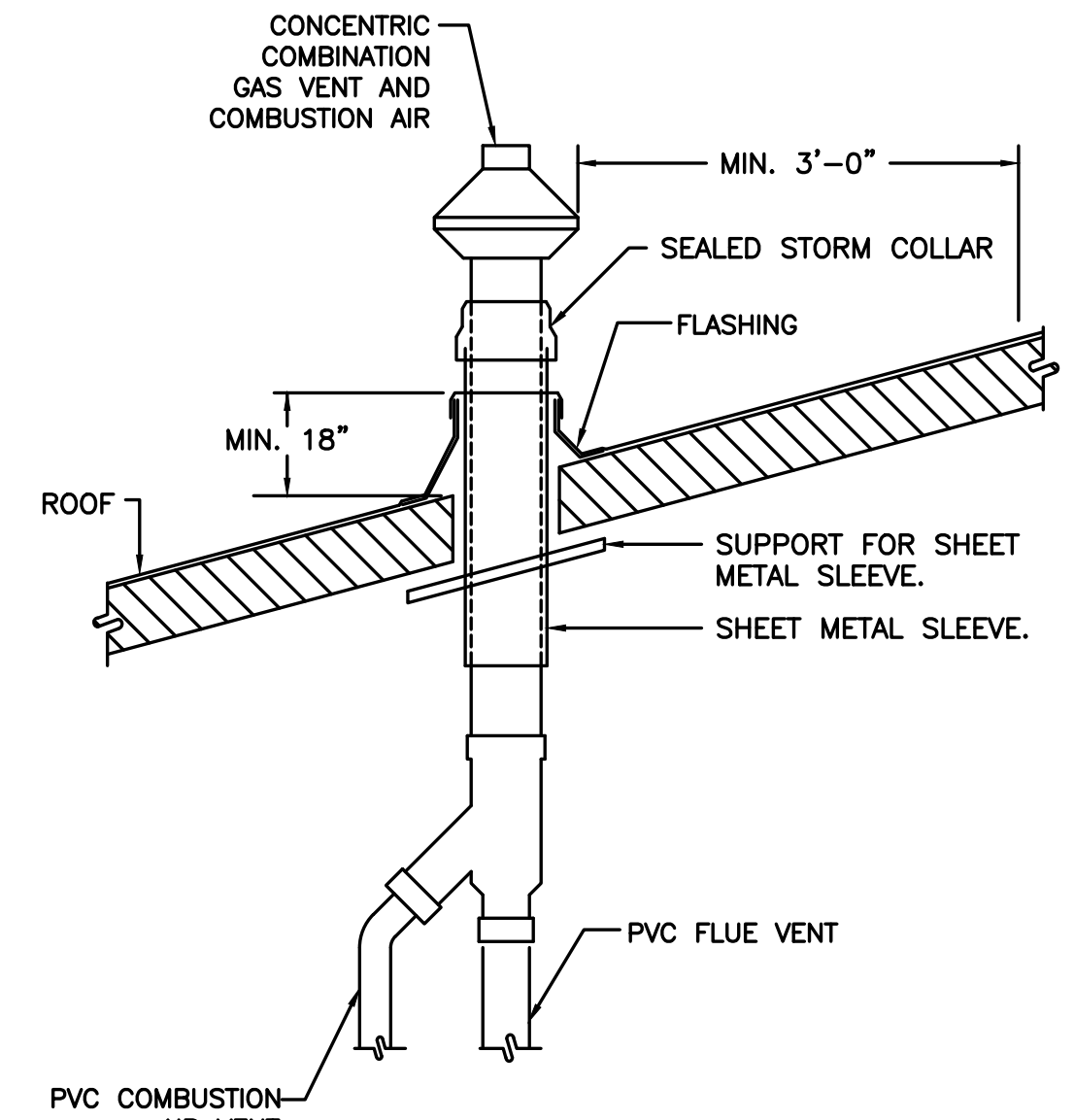


7 3-WAY MIXING VALVE
M6.6 SCALE: DETAIL



NOTES:
1. PROVIDE BUTTERFLY VALVES FOR PIPING 2-1/2" AND LARGER AND BALL VALVES FOR PIPING 2" AND SMALLER.
2. PIPE SIZE PER SCHEDULE.
3. PROVIDE DIELECTRIC UNION BETWEEN DISSIMILAR PIPING MATERIALS. (UNION OR FLANGE)
4. 3/4" BALL VALVE WITH HOSE END CONNECTIONS AND CAP.
5. NORMAL POSITION TO PROVIDE FULL HEATING.

8 MULTIPLE COILS 3-WAY MIXING
M6.6 SCALE: DETAIL



9 CONCENTRIC GAS VENT
M6.6 DETAIL

1/M6.6 NOTES:
1. PROVIDE BUTTERFLY VALVES FOR PIPING 2-1/2" AND LARGER AND BALL VALVES FOR PIPING 2" AND SMALLER.
2. PIPE SIZE PER SCHEDULE.
3. SEE SPECS FOR CONNECTION OF DISSIMILAR METALS
4. NORMAL CONTROL VALVE POSITION TO PROVIDE FULL HEATING

VALVE PIPING DIAGRAM

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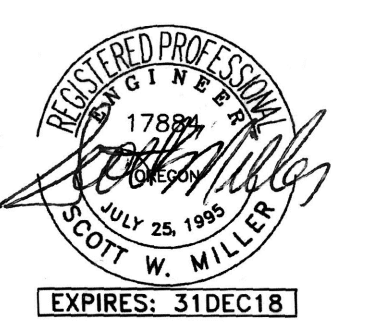
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ADDENDUM #2
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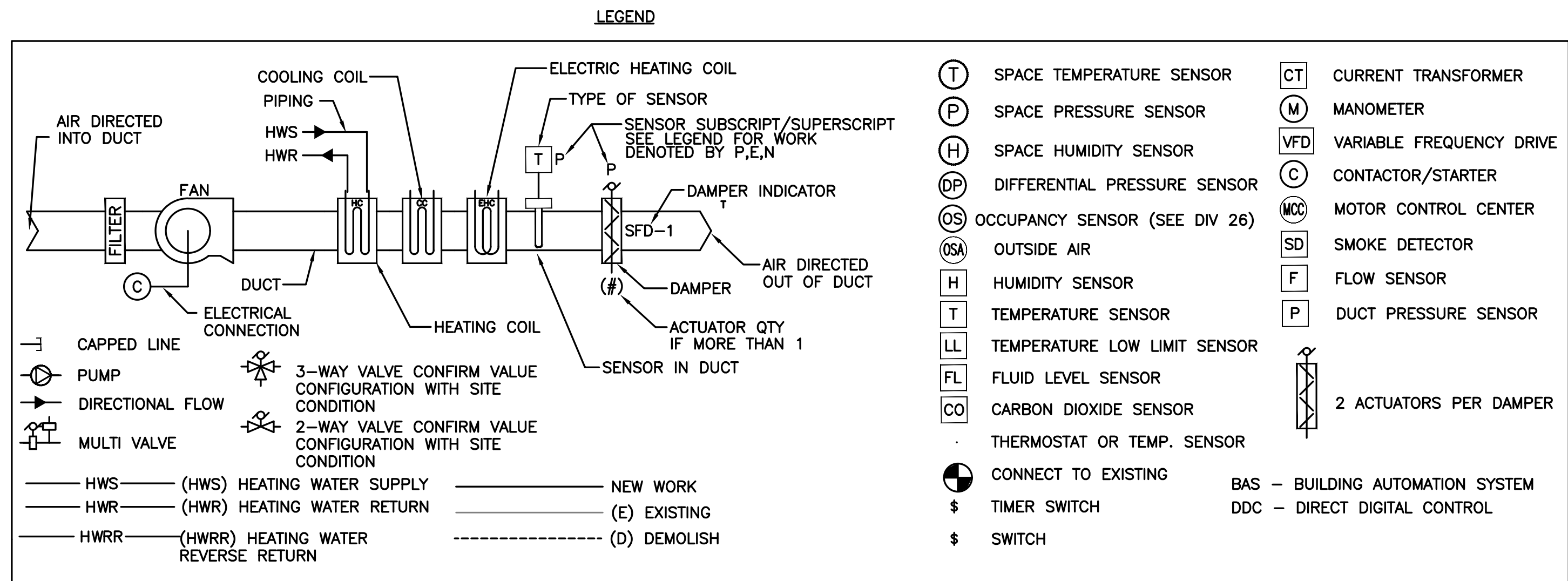
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CONTROLS FOR VAV TERMINAL UNIT, SEE 1/M6.7

POINT DESCRIPTION	INPUT		OUTPUT		ALARM	TREND
	DIGITAL	ANALOG	DIGITAL	ANALOG		
SPACE TEMP		X				X
AIR FLOW		X				X
DAMPER POSITION				X		
HEATING VALVE				X		X
DISCHARGE TEMPERATURE		X				X
CO2 LEVEL		X			X	X

CONTROLS FOR BOILER EXHAUST FAN, SEE 2/M6.7

POINT DESCRIPTION	INPUT		OUTPUT		ALARM	TREND
	DIGITAL	ANALOG	DIGITAL	ANALOG		
FAN MOTOR STATUS					X	
START/STOP			X			
SPACE TEMP		X			X	X
DAMPER POSITION			X			

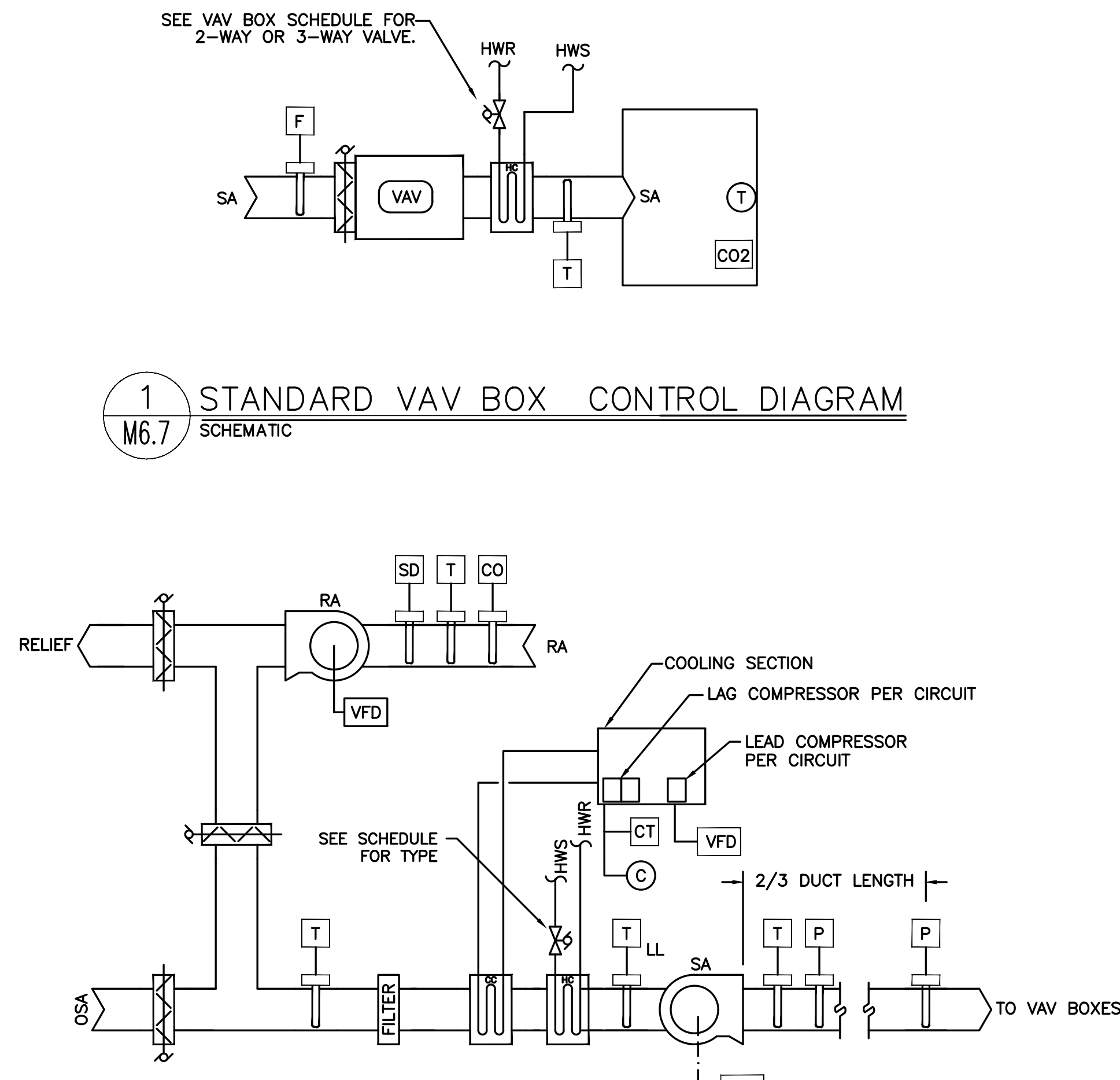
CONTROLS FOR VAV, RTU, OR AH, SEE 3/M6.7

POINT DESCRIPTION	INPUT		OUTPUT		ALARM	TREND
	DIGITAL	ANALOG	DIGITAL	ANALOG		
SUPPLY FAN START/STOP			X			
RA FAN START/STOP			X			
SUPPLY FAN STATUS	X				X	X
RA FAN STATUS	X				X	X
RA FAN SPEED				X	X	X
SUPPLY FAN SPEED				X	X	X
DISCHARGE AIR TEMPERATURE		X				X
MIXED AIR TEMPERATURE		X				
RETURN AIR TEMP		X				
SMOKE DETECTOR	X				X	
OUTSIDE DAMPER POSITION				X		X
EXHAUST DAMPER POSITION				X		
RETURN AIR DAMPER POSITION				X		
COMPRESSOR COMMAND (TYP)			X			
COMPRESSOR STATUS (TYP)	X				X	X
COMPRESSOR SPEED (LEAD ONLY PER CIRCUIT)				X		
HEATING WATER VALVE				X		
DUCT PRESSURE		X				X
DUCT PRESSURE ALARM	X				X	X
FREEZE STAT	X				X	
RA CO2		X				X

CONTROLS FOR DAH-1, SEE 4/M6.7

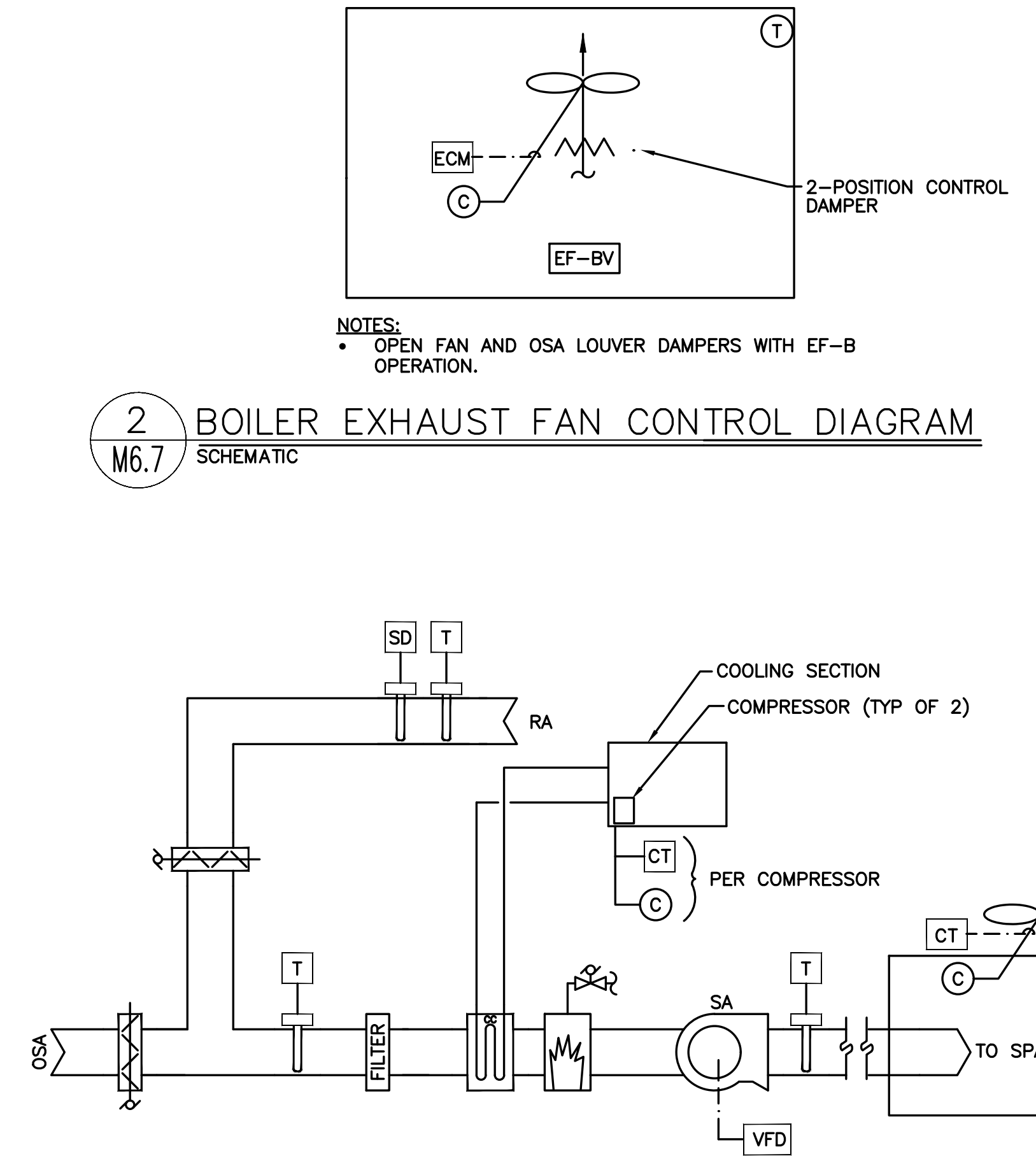
POINT DESCRIPTION	INPUT		OUTPUT		ALARM	TREND
	DIGITAL	ANALOG	DIGITAL	ANALOG		
SUPPLY FAN START/STOP			X			
RELIEF FAN START/STOP			X			
SUPPLY FAN STATUS	X				X	X
RELIEF FAN STATUS	X				X	X
SUPPLY FAN SPEED				X	X	X
DISCHARGE AIR TEMPERATURE		X				X
MIXED AIR TEMPERATURE		X				
RETURN AIR TEMP		X				
SMOKE DETECTOR	X				X	
OUTSIDE DAMPER POSITION				X		X
RETURN AIR DAMPER POSITION				X		
COMPRESSOR COMMAND (TYP)			X			
COMPRESSOR STATUS (TYP)	X				X	X
HEATING WATER MODULATION				X		X
SPACE TEMP		X				
SPACE CO2		X			X	

1 STANDARD VAV BOX CONTROL DIAGRAM
M6.7 SCHEMATIC

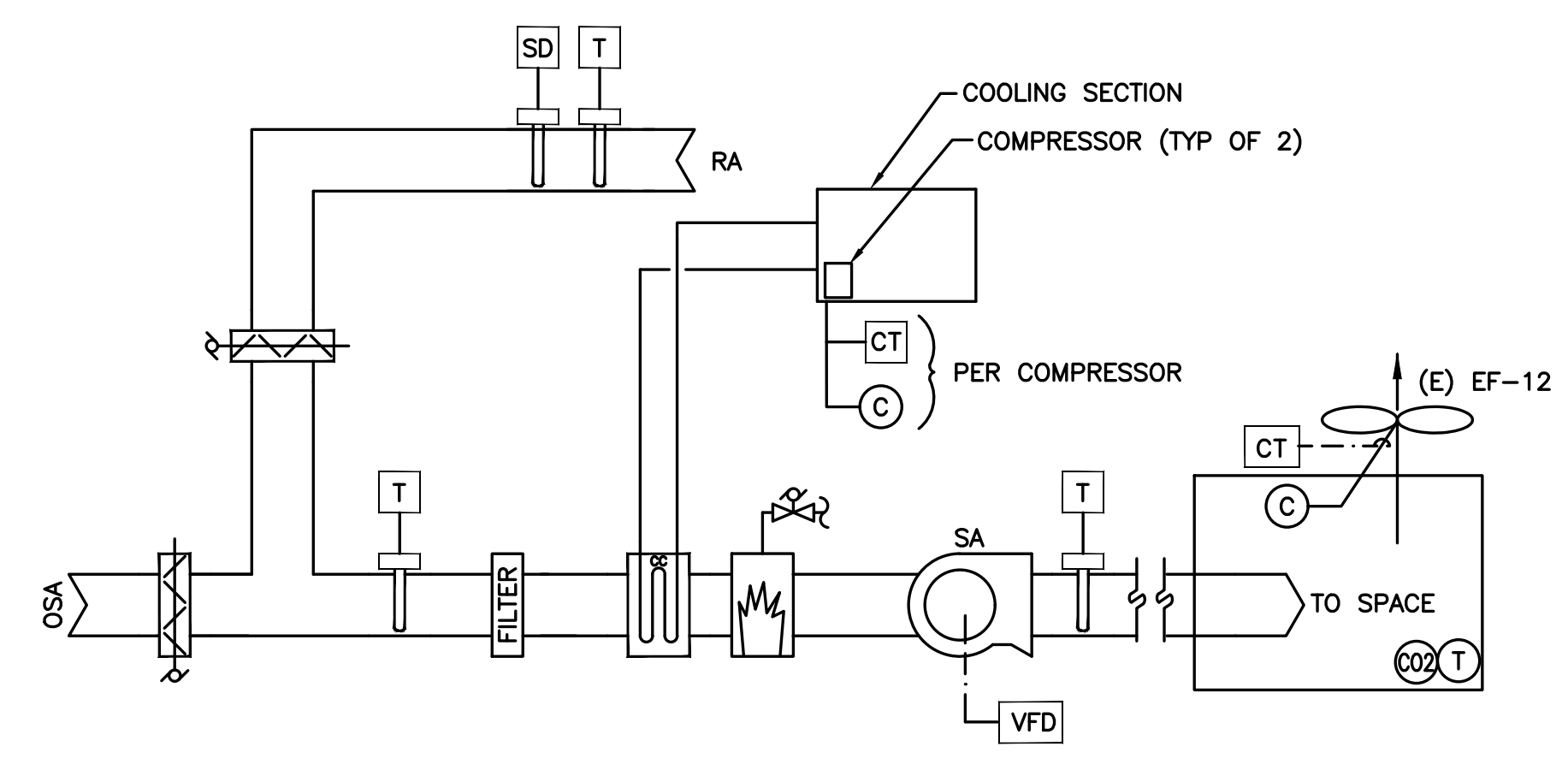


3 VAV SYSTEM CONTROL DIAGRAM
M6.7 SCHEMATIC

2 BOILER EXHAUST FAN CONTROL DIAGRAM
M6.7 SCHEMATIC



4 DAH-1 CONTROL DIAGRAM
M6.7 SCHEMATIC



ADDENDUM #2
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REGISTERED PROFESSIONAL ENGINEER
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SCOTT W. MILLER
EXPIRES: 31DEC18

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