ROOM VENTILATION CALCULATIONS (23 PERCENT OUTDOOR AIR)								PG. 1 OF 3
VAV BOX	ROOM NAME	AREA (S.F.)	PEOPLE	CFM / S.F.	CFM / PEOPLE	O.A. CFM REQUIRED	TOTAL CFM REQUIRED	MINIMUM CFM PROVIDED
101	HOLDING	65	2	0.12	5	18	80	80
	HOLDING	65	2	0.12	5	18	80	80
	VESTIBULE	100		0.06	5	6	26	30
	VESTIBULE	100		0.06	5	6	26	30
								220
102	LOBBY	300	3	0.06	5	33	140	140
103	WOMEN'S LOCKERS	210	4	0.06	5	33	142	150
104	MEN'S LOCKERS	355	6	0.06	5	46	200	210
105	BREAK ROOM	200	3	0.06	5	28	120	120
106	VESTIBULE	120	3	0.06	5	23	100	100
107	LOBBY	830	9	0.06	5	95	420	420
108	OFFICE	600	7	0.06	5	71	320	320
109	INTERVIEW	100	3	0.06	5	21	90	90
110	OFFICE	195	3	0.06	5	27	120	120
111	VISITATION	190	7	0.06	5	47	210	210
	VISITATION	190	7	0.06	5	47	210	210
	SALLYPORT	85	-	0.06	5	6	26	40
								460
112	OFFICE	195	3	0.06	5	27	120	120
113	CONTROL ROOM	105	3	0.06	5	21	100	100
114	HALLWAY	490	-	0.06	5	29	130	130
201	FEMALE HOLDING	207	6	0.12	5	55	240	240
	HALLWAY	100	-	0.06	5	6	26	40
			-				280	280
202	MALE HOLDING	248	7	0.12	5	65	280	280
203	HOLDING	65	2	0.12	5	18	80	80
	HOLDING	65	2	0.12	5	18	80	80
	HOLDING	65	2	0.12	5	18	80	80
	HOLDING	65	2	0.12	5	18	80	80
							320	320
204	LOBBY	500	7	0.06	5	65	280	280
205	MALE HOLDING	248	7	0.12	5	65	280	280
206	PROCESS DESK	150	3	0.06	5	24	110	120
207	VIDEO ARRAIGNMENT	137	3	0.06	5	24	110	120
208	VIDEO ARRAIGNMENT	137	3	0.06	5	24	110	120
209	PHLEBOTOMIST	125	3	0.06	5	23	100	100
210	FINGER PRINTER	125	3	0.06	5	23	100	100
211	WORK STATIONS	1080	15	0.06	5	140	620	620
	HALLWAY	300	-	0.06	5	18	80	80
							700	700

AIR TERMINAL UNIT SCHEDULE

MARK	INLET DIA. (IN.)	MAX. CLG. CFM	MIN. CLG. CFM	HTG. CFM	E.A.T. (°F)	L.A.T. (°F)	REQUIRED (BTUH)	FLOW (GPM) △
VAV 101	8	220	220	220	56	90	8230	0.5
VAV 102	6	140	140	140	56	90	5240	0.5
VAV 103	6	150	150	150	56	90	5610	0.5
VAV 104	8	210	210	210	56	90	7850	0.5
VAV 105	6	120	120	120	56	90	4500	0.4
VAV 106	6	120	120	120	56	126	9,240	1.0
VAV 107	10	500	420	420	56	90	15,700	1.0
VAV 108	10	600	320	320	56	90	12,000	0.8
VAV 109	6	90	90	90	56	90	3366	0.3
VAV 110	6	120	120	120	56	90	4500	0.4
VAV 111	10	460	460	460	56	89	16,700	1.2
VAV 112	6	120	120	120	56	90	4500	0.4
VAV 113	6	160	100	100	56	90	3740	0.3
VAV 114	6	130	130	130	56	126	10,100	1.0
VAV 201	8	280	280	280	56	90	10,470	0.8
VAV 202	8	280	280	280	56	90	10,470	0.8
VAV 203	8	320	320	320	56	90	11,970	1.0
VAV 204	8	280	280	280	56	90	10,470	0.8
VAV 205	8	280	280	280	56	90	10,470	0.8
VAV 206	6	120	120	120	56	90	4500	0.4
VAV 207	6	120	120	120	56	90	4500	0.4
VAV 208	6	150	120	120	56	90	4500	0.4
VAV 209	6	150	100	100	56	90	3740	0.3
VAV 210	6	140	100	100	56	90	3740	0.3
VAV 211	12	980	700	700	56	88	23,390	1.7

AIR TERMINAL UNIT SCHEDULE

MARK	INLET DIA. (IN.)	MAX. CLG. CFM	MIN. CLG. CFM	HTG. CFM	E.A.T. (°F)	L.A.T. (°F)	REQUIRED (BTUH)	CAPACITY (KW)
VAV 301	8	320	320	320	56	84	9860	3.0
VAV 302	8	310	310	310	56	84	9550	3.0
VAV 303	8	300	300	300	56	84	9240	3.0
VAV 304	6	70	70	70	56	84	3762	1.1
ELECTRIC REHEAT COILS TO BE 277 VOLTS SINGLE PHASE								

GRILLES, REGISTERS & DIFFUSER SCHEDULE

MARK	TYPE	SIZE	MANUFACTURER	MODEL	DESCRIPTION
CD-1	SQUARE DIFFUSER	24x24 W/ 6"Ø NECK	PRICE	SPD	LAY IN, PLAQUE STYLE STEEL DIFFUSER, OPPOSED BLADE DAMPER, WHITE FINISH, PROVIDE BRANCH DUCTSAME SIZE AS NECK
CD-2	SQUARE DIFFUSER	24x24 W/ 8"Ø NECK	PRICE	SPD	LAY IN, PLAQUE STYLE STEEL DIFFUSER, OPPOSED BLADE DAMPER, WHITE FINISH, PROVIDE BRANCH DUCTSAME SIZE AS NECK
CD-3	SQUARE DIFFUSER	24x24 W/ 10"Ø NECK	PRICE	SPD	LAY IN, PLAQUE STYLE STEEL DIFFUSER, OPPOSED BLADE DAMPER, WHITE FINISH, PROVIDE BRANCH DUCTSAME SIZE AS NECK
CD-4	SQUARE DIFFUSER	12x12 W/ 6"Ø NECK	PRICE	SPD	LAY IN, PLAQUE STYLE STEEL DIFFUSER, OPPOSED BLADE DAMPER, WHITE FINISH, PLASTER FRAME, PROVIDE BRANCH DUCT SAME SIZE AS NECK
RG-1	RETURN GRILLE	24x12 W/ 8" BOOT	PRICE	635	LAY IN, ALUMINUM W/ 1/2", 45 DEGREE FIXED FINS, WHITE FINISH, PROVIDE DUCT AS SHOWN ON FLOOR PLANS SAME SIZE AS BOOT
RG-2	RETURN GRILLE	24x12 W/ 10" BOOT	PRICE	635	LAY IN, ALUMINUM W/ 1/2", 45 DEGREE FIXED FINS, WHITE FINISH, PROVIDE DUCT AS SHOWN ON FLOOR PLANS SAME SIZE AS BOOT △2
RG-3	RETURN GRILLE	24x24 W/ 14" BOOT	PRICE	635	LAY IN, ALUMINUM W/ 1/2", 45 DEGREE FIXED FINS, WHITE FINISH, PROVIDE DUCT AS SHOWN ON FLOOR PLANS SAME SIZE AS BOOT
ER-1	EXHAUST REGISTER	6x6	PRICE	635	LAY IN W/ PLASTER FRAME, ALUMINUM W/ 1/2", 45° FIXED FINS, OPPOSED BLADE DAMPER, WHITE FINISH
ER-2	EXHAUST REGISTER	12x12	PRICE	635	LAY IN W/ PLASTER FRAME, ALUMINUM W/ 1/2", 45° FIXED FINS, OPPOSED BLADE DAMPER, WHITE FINISH
WR-1	WALL REGISTER	8x6	PRICE	RCG	REVERSIBLE CORE,SURFACE MOUNT, FLAT FRAME, ALUMINUM, 22.5°, OPPOSED BLADE DAMPER, CONCEALED SCREWS, WHITE FINISH
WR-2	WALL REGISTER	12x6	PRICE	RCG	REVERSIBLE CORE,SURFACE MOUNT, SQUARE FRAME, ALUMINUM, 22.5°, OPPOSED BLADE DAMPER, CONCEALED SCREWS, WHITE FINISH
WR-3	WALL REGISTER	18x8	PRICE	RCG	REVERSIBLE CORE,SURFACE MOUNT, SQUARE FRAME, ALUMINUM, 22.5°, OPPOSED BLADE DAMPER, CONCEALED SCREWS, WHITE FINISH
SCD-1	SECURITY DIFFUSER	8x8 W/ 6"Ø BOOT	PRICE	MSRRCD	RISK RESISTANT SECURITY DIFFUSER , WHITE FINISH, PROVIDE BRANCH DUCT SAME SIZE AS BOOT
SCD-2	SECURITY DIFFUSER	9x9 W/ 8"Ø BOOT	PRICE	MSRRCD	RISK RESISTANT SECURITY DIFFUSER , WHITE FINISH, PROVIDE BRANCH DUCT SAME SIZE AS BOOT
SCD-4	SECURITY DIFFUSER	6x6 W/ 6"Ø BOOT	PRICE	MSRRCD	RISK RESISTANT SECURITY DIFFUSER , WHITE FINISH, PROVIDE BRANCH DUCT SAME SIZE AS BOOT △2
SG-1	SECURITY GRILLE	9x9 W/ 8"Ø BOOT	PRICE	MSRRP	RISK RESISTANT SECURITY GRILLE, WHITE FINISH, PROVIDE DUCT AS SHOWN ON FLOOR PLANS SAME SIZE AS BOOT
SG-2	SECURITY GRILLE	12x12 W/ 8"Ø BOOT	PRICE	MSRRP	RISK RESISTANT SECURITY GRILLE, WHITE FINISH, PROVIDE DUCT AS SHOWN ON FLOOR PLANS SAME SIZE AS BOOT
SG-3	SECURITY GRILLE	16x16 W/ 12"Ø BOOT	PRICE	MSRRP	RISK RESISTANT SECURITY GRILLE, WHITE FINISH, PROVIDE DUCT AS SHOWN ON FLOOR PLANS SAME SIZE AS BOOT
SG-4	SECURITY GRILLE	30x30	PRICE	MSRRP	RISK RESISTANT SECURITY GRILLE, WHITE FINISH, PROVIDE DUCT AS SHOWN ON FLOOR PLANS SAME SIZE AS BOOT
SR-1	SUPPLY REGISTER	8x8	PRICE	RCG	REVERSIBLE CORE,SURFACE MOUNT, SQUARE FRAME, ALUMINUM, 22.5°, OPPOSED BLADE DAMPER, CONCEALED SCREWS, WHITE FINISH
SR-2	SUPPLY REGISTER	12x12	PRICE	RCG	REVERSIBLE CORE,SURFACE MOUNT, SQUARE FRAME, ALUMINUM, 22.5°, OPPOSED BLADE DAMPER, CONCEALED SCREWS, WHITE FINISH
SR-3	SUPPLY REGISTER	12x12	PRICE	RCG	REVERSIBLE CORE,SURFACE MOUNT, SQUARE FRAME, ALUMINUM, 22.5°, OPPOSED BLADE DAMPER, CONCEALED SCREWS, WHITE FINISH △2
RR-1	WALL REGISTER	8x8	PRICE	RCG	REVERSIBLE CORE,SURFACE MOUNT, SQUARE FRAME, ALUMINUM, 22.5°, OPPOSED BLADE DAMPER, CONCEALED SCREWS, WHITE FINISH
RR-2	WALL REGISTER	16x12	PRICE	RCG	REVERSIBLE CORE,SURFACE MOUNT, SQUARE FRAME, ALUMINUM, 22.5°, OPPOSED BLADE DAMPER, CONCEALED SCREWS, WHITE FINISH
RR-5	EXHAUST REGISTER	6x6	PRICE	635	LAY IN W/ PLASTER FRAME, ALUMINUM W/ 1/2", 45° FIXED FINS, OPPOSED BLADE DAMPER, WHITE FINISH △2
TG-1	TRANSFER GRILLE	16x8	PRICE	RCG	REVERSIBLE CORE,SURFACE MOUNT, SQUARE FRAME, ALUMINUM, 22.5°, CONCEALED SCREWS, WHITE FINISH
NOTE: PROVIDE PLASTER FRAMES WERE LAYIN GRILLES & DIFFUSERS ARE USED IN DRYWALL CEILINGS, ALL SECURITY DIFFUSERS AND GRILLES TO HAVE 10" LONG 12 GAGE SLEEVE & 1-1/2x1-1/2 BOLTED BACK ANGLE FRAME AND NO HOLES IN FACE					

EXHAUST FAN SCHEDULE SCHEDULE

MARK	TYPE	CFM	SP	RPM	HP	VOLTAGE	SONES	WEIGHT (LBS.)	MANUFACTURER	MODEL
EF-101	POWER ROOF VENTILATOR	250	.25	1550	1/10	120	5	100	GREENHECK	G-070-VG
EF-102	POWER ROOF VENTILATOR	550	.25	1550	1/10	120	7	200	GREENHECK	G-090-VG
EF-103	POWER ROOF VENTILATOR	1220	.75	1400	3/4	120	8	200	GREENHECK	G-140-VG
EF-104	POWER ROOF VENTILATOR	290	.50	1550	1/10	120	7	200	GREENHECK	G-080-VG
EF-105	POWER ROOF VENTILATOR	610	.50	1245	1/4	120	7	200	GREENHECK	G-100-VG
SEF-101	SMOKE POWER ROOF VENTILATOR	2600	1.00	1075	1	208-3Ø	14	300	GREENHECK	USGF-180-VG
PROVIDE WITH 14" HIGH ROOF CURB WITH BACKDRAFT DAMPER, 2X6 WOOD NAILER, UNIT MOUNTED DISCONNECT BY MANUFACTURER, INSTALL EXHAUST FANS LEVEL, CURBS TO BE SLOPED TO MATCH ROOF SLOPE. MANUAL MOTOR STARTER BY E.C.										

PROPELLER UNIT HEATER SCHEDULE

MARK	CFM	HP	E.A.T. (°F)	L.A.T. (°F)	CAPACITY (BTUH)	GPM	VOLTAGE	MANUFACTURER	MODEL
PUH-101	1120	1/12	55	85	37,000	2.0	120-1-60	MODINE	HSB-63L
PUH-102	630	1/25	55	82	18,500	1.0	120-1-60	MODINE	HSB-33L
MANUAL MOTOR STARTER AT UNIT BY E.C.									

CONVECTOR SCHEDULE

MARK	BTUH	GPM	LENGTH	HEIGHT	DEPTH	TYPE	MANUFACTURER	MODEL
CONV-101	3800	0.5	40	32	4	FULLY RECESSED	MODINE	PL
CAPACITY IS BASED ON 180 DEGREES ENTERING WATER TEMPERATURE AND 70 DEGREES ENTERING AIR TEMPERATURE								

RADIANT PANEL SCHEDULE

MARK	BTUH	GPM	LENGTH	WIDTH	TYPE	MANUFACTURER	MODEL
RP-101	1840	0.5	47-3/4"	23-3/4"	CEILING LAYIN	STERLING	HYDRONIC FLUTED ALUMINUM

PACKAGE ROOFTOP UNIT SCHEDULE

MARK	TOTAL CFM	MIN. O.A. CFM	EXTERNAL S.P.	FAN	COOLING CAPACITY (95 AMBIENT)	COOLING SENSIBLE	ENTERING AIR	LEAVING AIR	HEATING KW	HEATING OUTPUT	FILTERS	VOLTAGE	MCA	MOP	WEIGHT	MANUFACTURER	MODEL
RTU-101	3100	710	2.0 INCHES	2.7 HP	101.3 MBH	78.8 MBH	78 / 67	55 / 54	6.8	23.2 MBH	2", MERV 8	208-3-60	42	60	1000 LBS.	TRANE	TZC102F3/ BAYHTRA309
RTU-102	3100	710	2.0 INCHES	2.7 HP	101.3 MBH	78.8 MBH	78 / 67	55 / 54	6.8	23.2 MBH	2", MERV 8	208-3-60	42	60	1000 LBS.	TRANE	TZC102F3/ BAYHTRA309
UNITS TO HAVE VARIABLE SPEED SUPPLY FAN AND COMPRESSOR, BAROMETRIC RELIEF, BACNET CARD & FACTORY CONTROLS FOR MULTI-ZONE VAV OPERATION. FUSED DISCONNECT AT UNIT BY E.C.																	

ROOF HOOD SCHEDULE

MARK	THROAT SIZE	DAMPER TYPE	MANUFACTURER	MODEL
RH-101	24 x 24	BACK DRAFT	GREENHECK	FGR
△2 RH-102	18x18	SMOKE CONTROL	GREENHECK	FGR
RH-103	16x16	SMOKE CONTROL	GREENHECK	FGR

AIR COOLED CONDENSING UNIT SCHEDULE

MARK	CAPACITY (95 AMBIENT)	VOLTAGE	MCA	MOP	WEIGHT	MANUFACTURER	MODEL
ACCU-1	24 MBH	208-1-60	20	30	250 LBS.	TRANE	4TTR6024J
PROVIDE REFRIGERANT PIPE WITH 3/4" ARMAFLEX INSULATION IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTION. PROVIDE 12" PIPE PORTAL RPS OR APPROVED EQUAL.. PROVIDE EQUIPMENT RAILS FOR CONDENSING UNITS RPS OR APPROVED EQUAL. UNIT MOUNTED DISCONNECT BY E.C.							

AIR HANDLING UNIT SCHEDULE

MARK	TOTAL CFM	MIN. O.A. CFM	EXTERNAL S.P.	FAN	COOLING CAPACITY	ENTERING AIR	LEAVING AIR	FILTERS	VOLTAGE	MANUFACTURER	MODEL
AHU-1	800	100	0.7 INCHES	.75 HP	24 MBH	80 / 67	58 / 56.5	2", MERV 8	208-1-60	TRANE	
COMBINATION STARTER WITH CIRCUIT BREAKERS AT UNIT BY E.C.											

HOT WATER COIL SCHEDULE

MARK	CFM	FACE SIZE	E.W.T. (°F)	E.A.T. (°F)	L.A.T. (°F)	CAPACITY (BTUH)	GPM	AIR PRESSURE DROP (IN.)
HWC-1	800	16x15	180	55	104	42,000	2.0	0.20

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REVISIONS

MARK	ISSUED DATE	DESCRIPTION
1	4/3/23	ADDENDUM NO. 1
2	4/12/23	ADDENDUM NO. 2

PROJECT NO:	77332-07
ISSUED DATE:	03/27/23
DRAWN BY:	RCM
CHECKED BY:	RCM

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SHEET TITLE:
MECHANICAL SCHEDULES

ISSUED FOR BID

SHEET NO:
M-601