

A

three inches = one foot

one and one half inches = one foot

one inch = one foot

one and one half inches = one foot

one inch = one foot

three quarters inch = one foot

one half inch = one foot

three quarters inch = one foot

one half inch = one foot

three quarters inch = one foot

one half inch = one foot

one quarter inch = one foot

one half inch = one foot

one quarter inch = one foot

one eighth inch = one foot

one quarter inch = one foot

one eighth inch = one foot

one quarter inch = one foot

one eighth inch = one foot

one quarter inch = one foot

one eighth inch = one foot

one quarter inch = one foot

one eighth inch = one foot

one quarter inch = one foot

one eighth inch = one foot

A

B

B

C

C

D

D

E

E

F

F


STEAM TO WATER HEAT EXCHANGER SCHEDULE																						
MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	TYPE	WATER CONDITIONS						STEAM PRESSURE				CONTROL VALVE		TRAP		REMARKS			
					FLOW		EWT		LWT		WPD	ENT CONTROL		ENT HEAT		LBS/HR	[kg/HR]	TRAP #		CAPACITY		
					GPM	[L/s]	°F	[°C]	°F	[°C]		FT	[kPa]	PSIG	[kPa]					PSIG	[kPa]	LBS/HR
1-HE72A	7TH FLOOR INTERSTITIAL	BONE MARROW	HEATING WATER	SHELL & TUBE	32.3	[2]	140	[60]	180	[82]	0.2	[1]	15	[100]	12	[83]	669	[300]	1-TP2	720	[330]	1,2
REMARKS																						
1. HEAT EXCHANGER CORRECTIONS HAVE BEEN APPLIED FOR GPM, FPD, EFT, LFT FOR A 33% PROPYLENE GLYCOL / WATER FLUID.																						

EXPANSION TANK SCHEDULE																										
MARK	LOCATION	SYSTEM AND/OR SERVICE	TYPE	APPROX SYSTEM VOLUME		SYSTEM TEMPERATURE RANGE				INITIAL PRESSURE IN TANK		MAX OPERATING PRESSURE		FILL PRESSURE AT TANK				MIN VOLUME TANK		MIN BLADDER VOLUME		PIPE SIZE TO TANK		COLD WATER FILL SIZE		REMARKS
						MIN		MAX						RELIEF VALVE		AT TANK										
				GAL	[L]	°F	[°C]	°F	[°C]	PSIG	[kPa]	PSIG	[kPa]	PSIG	[kPa]	PSIG	[kPa]	GAL	[L]	GAL	[L]	IN	[mm]	IN	[mm]	
1-ET72A	7TH FLR INTERSTITIAL	HEATING WATER	VERT DIAPHRAGM	15	[57]	50	[10]	180	[82]	55	[380]	150	[1000]	25	[170]	20	[140]	6.4	[24]	3.2	[12]	0.75	[19]	0.75	[19]	

AIR SEPARATOR SCHEDULE												
MARK	LOCATION	SYSTEM AND/OR SERVICE	TYPE	AIR SEPARATOR							REMARKS	
				SIZE IN		FLOW		WPD		BUILT-IN STRAINER REQ'D		
				IN	[mm]	GPM	[L/s]	FT	[kPa]			
1-AS72A	7TH FLR INTERSTITIAL	HEATING WATER	HORIZONTAL INLINE	2	[50]	33	[2]	0.7	[2]	NO	---	




PUMP SCHEDULE																						
MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	TYPE	CIRCULATING FLUID										MIN % EFF	ELECTRICAL MOTOR					REMARKS	
					FLUID	FLOW		HEAD		NPSH AVAILABLE		TEMPERATURE		SP GR		NOMINAL POWER		PHASE	VOLT	MAX RPM		SPEED CONTROL
						GPM	[L/s]	FT	[kPa]	FT	[kPa]	°F	[°C]		HP	[kW]						
1-P72A	7TH FLOOR INTERSTITIAL	HE72A	GLYCOL WATER HEATING	IN LINE	30% PROPYLENE GLYCOL / WATER	33	[2]	15	[240]		[]	180	[82]	1.026	60%	0.40	[]	1	120	3200	CONSTANT	1
2-P72A	7TH FLOOR INTERSTITIAL	HE72A	GLYCOL WATER HEATING	IN LINE	30% PROPYLENE GLYCOL / WATER	33	[2]	15	[240]		[]	180	[82]	1.026	60%	0.40	[]	1	120	3200	CONSTANT	1
REMARKS:																						
1. PUMP CORRECTIONS HAVE BEEN APPLIED FOR GPM, WPD, EWT, LWT FOR A 30% PROPYLENE GLYCOL / WATER SOLUTION .																						

STEAM HUMIDIFIER SCHEDULE																							
MARK	LOCATION	SYSTEM AND/OR SERVICE	HUMIDIFIER TYPE	AIR FLOW		# OF MANIFOLDS	EAT				LAT		SOURCE	STEAM				CONTROL TYPE	REMARKS				
							Db		Wb		DEWPOINT			DEWPOINT		PRESS ENT VALVE				PRESS ENT HUMIDIFIER		FLOW	
				CFM	[L/s]		°F	[°C]	°F	[°C]	°F	[°C]		°F	[°C]	PSIG	[kPa]			PSIG	[kPa]	LBS/HR	[kg/HR]
1-H72A	ROOF	AHU-72A	UNIT-MOUNTED DISPERSION TUBE	16,400	[7700]	5	21.5	[-6]	21.4	[-6]	0	[-18]	39	[4]	BOILER STEAM	7	[48]	5	[35]	287	[130]	C-1	1, 2
NOTES:																							
1. BASIS OF DESIGN NORTEC (OR PRE-APPROVED EQUAL) WITH INVERTED BUCKET TRAPS.																							
2. HUMIDIFIER MANIFOLD INSTALLED BY AHU MANUFACTURER. HUMIDIFIER CONTROL VALVE PROVIDED BY AHU MANUFACTURER, SHIPPED LOOSE FOR FIELD INSTALLATION BY MC. PIPING INSTALLED PER MANUFACTURER REQUIREMENTS.																							



AIR TERMINAL UNIT SIZING SCHEDULE																
SIZE	MIN ALLOWABLE AIR FLOW		MAX ALLOWABLE AIR FLOW		DUCT INLET SIZE		MAX APD		MAXIMUM SOUND POWER LEVEL (Re: 10 ⁻¹² WATTS)							REMARKS
									OCTAVE BANDS							
	CFM	[L/s]	CFM	[L/s]	IN	[mm]	IN WG	[Pa]	2	3	4	5	6	7		
F	270	[130]	750	[350]	9	[230]	0.4	[100]	71	69	60	54	51	47	----	
G	750	[350]	1050	[500]	10	[250]	0.4	[100]	74	68	61	57	54	52	----	
NOTES																
1. INLET STATIC BASED ON ARI 885-98.																
2. THIS SCHEDULE IS USED WITH THE TERMINAL UNIT SCHEDULE.																
3. CONTROL SEQUENCE SHALL BE AS INDICATED ON THE AIR TERMINAL CONTROL DIAGRAM M.401.																

SINGLE DUCT AIR TERMINAL UNIT SCHEDULE																
MARK	LOCATION	AREA AND/OR ROOM SERVED	SYSTEM AIR HANDLING	SIZE	AIR FLOW				ADDITIONAL SOUND ATTENUATION REQUIRED	CONTROL TYPE	CONTROL SEQUENCE	REHEAT			PERIMETER SUPPLEMENTAL HEAT LINK	REMARKS
					MAX		MIN					HW	ELEC	NONE		
					CFM	[L/s]	CFM	[L/s]								
SD7W-40	INTERSTITIAL SPACE	136	AHU-72A	F	640	[300]	640	[300]	NONE	VAV	5 DEGREE DEADBAND	X			NONE	SEE HOT WATER COIL SCHEDULE FOR REHEAT COIL

		CONSULTANTS:		ARCHITECT/ENGINEERS:	Drawing Title MECHANICAL - SCHEDULES	Project Title REFURBISH BONE MARROW TRANSPLANT UNIT	Project Number 671-15-100	Office of Construction and Facilities Management Department of Veterans Affairs
					Approved Project Director	Location VAMC SAN ANTONIO TX	Building Number 1	
Addendum 02	04/12/17	engineers consultants commissioning 2805 Van Buren Street, Suite 2004 Houston, TX 77022 P: 402.364.2028 F: 402.364.2029 CA#: 5121 Expiration Date: 06/30/2017 MEP PROJECT NO.: P14.15.01		1144 AIRPORT BLVD. SUITE 260 AUSTIN, TX. 78702 (866) 226-8071 TELE. (866) 226-9969 FAX WWW.PRIME-ARCH.COM	Date NOVEMBER 12, 2015	Checked JAU	Drawn JRM	