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-ET1	2ND FLOOR MECHROOM	CHILLED WATER	VERT DIAPHRAGM	315	[1200]	45	[7]	55	[13]	12	[83]	125	[860]	80	[550]	70	[480]	2	[8]	1.3	[5]	0.75	[19]	0.75	[19]	NONE

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-P1A	2ND FLOOR MECH ROOM	PATIENT CARE	CHILLED WATER	END SUCTION	MATCH EXISTING HEADER	120	[8]	60	[960]	MODEL	MODEL	44	[7]	1	SEE SPEC.	5	[4]	3	208	1750	NO	WITH SUCTION DIFFUSER AND HAND-OFF-AUTO PANEL
1-P1B	2ND FLOOR MECH ROOM	PATIENT CARE	CHILLED WATER	END SUCTION	MATCH EXISTING HEADER	120	[8]	60	[960]	MODEL	MODEL	44	[7]	1	SEE SPEC.	5	[4]	3	208	1750	NO	WITH SUCTION DIFFUSER AND HAND-OFF-AUTO PANEL
1-P2A	2ND FLOOR MECH ROOM	PATIENT CARE	COOLING TOWER	END SUCTION	MATCH EXISTING HEADER	140	[9]	42	[670]	MODEL	MODEL	95	[35]	1	SEE SPEC.	5	[4]	3	208	1750	NO	WITH SUCTION DIFFUSER AND HAND-OFF-AUTO PANEL
1-P3B	2ND FLOOR MECH ROOM	PATIENT CARE	COOLING TOWER	END SUCTION	MATCH EXISTING HEADER	140	[9]	42	[670]	MODEL	MODEL	95	[35]	1	SEE SPEC.	5	[4]	3	208	1750	NO	WITH SUCTION DIFFUSER AND HAND-OFF-AUTO PANEL

STEAM HEATING COIL SCHEDULE

MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	APPLICATION	AIR FLOW		MAX FACE VELOCITY		APD		TEMPERATURES				TOTAL MIN CAPACITY		STEAM				REMARKS
											EAT		LAT				ENT CONT VALVE		ENT COIL		
					CFM	[L/s]	FPM	[M/s]	IN WG	[Pa]	°F	[°C]	°F	[°C]	MBH	[kW]	PSIG	[kPa]	PSIG	[kPa]	
1-SHC2	2ND FLOOR MECH ROOM	WARD B	1-AHU2	PREHEAT	13200	[6200]	500	[2.54]	0.2	[50]	0	[-18]	58	[14]	861	[2900]	15	[100]	5	[35]	WITH FACE AND BYPASS

STEAM HUMIDIFER SCHEDULE

MARK	LOCATION	SYSTEM AND/OR SEVICE	HUMIDIFIER TYPE	AIR FLOW		# OF MANIFOLDS	EAT						LAT		SOURCE	STEAM						CONTROL TYPE	TRAP			REMARKS
							Db		Wb		DEWPOINT		DEWPOINT			PRESS ENT VALVE		PRESS ENT HEATER		FLOW			MARK	CAPACITY		
				CFM	[L/s]		°F	[°C]	°F	[°C]	°F	[°C]	°F	[°C]		PSIG	[kPa]	PSIG	[kPa]	LBS/HR	[kg/HR]			LBS/HR	[kg/HR]	
1-SH2	2ND FLOOR MECH ROOM	1-AHU2	STEAM TO CLEAN STEAM	14000	[6600]	1	75	[24]	47	[8]	-11	[-24]	50	[10]	STEAM	10	[69]	10	[69]	255	[120]	FIELD MOUNTED	NA	255	[120]	

FAN SCHEDULE

MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	AIR FLOW		TSP		FAN							MOTOR ELECTRICAL							CONTROL SEQUENCE	REMARKS
								TYPE	WHEEL	CLASS	ARRANGEMENT, ROTATION, AND DISCHARGE	DIAMETER		MIN % EFF	DRIVE	FAN MAX RPM	NOMINAL POWER		PHASE	VOLT	RPM	SPEED CONTROL		
												IN	[mm]				BHP	HP	[kW]						
				CFM	[L/s]	IN	[Pa]																		
1-SF2	2ND FLOOR MECH ROOM	WARD B	1-AHU2	13200	[6200]	5.68	[1400]	CENTRIFUGAL	AF	2	VERTICAL	27	[680]	ASHRAE 90.1	BELT	2000	18	20	[15]	3	208	1750	VFD	THRU BAS	WITH MERV 7 AND MERV 14 FILTERS
1-RF2	2ND FLOOR MECH ROOM	WARD B	1-AHU2	13200	[6200]	2.65	[660]	CENTRIFUGAL	AF	2	HORIZONTAL	27	[680]	ASHRAE 90.1	BELT	2000	10	15	[11]	3	208	1750	VFD	THRU BAS	
1-EF1	ROOF	WARD B	EXHAUST	7800	[3700]	3.5	[880]	CENTRIFUGAL	BI	2	UPBLAST	38.5	[960]	ASHRAE 90.1	BELT	1750	7.5	7.5	[6]	3	208	1750	VFD	MANUALLY SET THRU BAS	REPLACE EXISTING
1-EF2	2ND FLOOR MECH ROOM	WARD B	MECH EXHAUST	1000	[470]	0.25	[63]	AXIAL SIDEWALL	-	-	HORIZONTAL	17	[430]	ASHRAE 90.1	DIRECT	1160	0.14	0.16	[ ]	1	115	1160	ON/OFF	THRU STAT & ALARM PANEL	
1-EF3	2ND FLOOR KITCHEN	WARD B	KITCHEN HOOD EXHAUST	735	[350]	1	[250]	CENTRIFUGAL	BI	2	HORIZONTAL INLINE	18	[450]	ASHRAE 90.1	BELT	1873	0.27	0.5	[ ]	1	115	1725	ON/OFF	THRU HOOD CONTROL PANEL	NFPA AND UL RATED FOR APPLICATION

CHILLED WATER COOLING COIL SCHEDULE

MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	AIR FLOW		MAX FACE VELOCITY		APD		EAT				LAT				TOTAL CAPACITY		SENSIBLE CAPACITY		CHILLED WATER							REMARKS
										Db		Wb		Db		Wb						FLOW		EWT		LWT		WPD	
				CFM	[L/s]	FPM	[M/s]	IN WG	[Pa]	°F	[°C]	°F	[°C]	°F	[°C]	°F	[°C]	MBH	[kW]	MBH	[kW]	GPM	[L/s]	°F	[°C]	°F	[°C]	FT	[M]	
1-CWCC2	2ND FLOOR MECHROOM	WARD B	1-AHU2	13200	[6200]	520	[3]	1.1	[280]	80	[27]	66	[19]	54	[12]	54	[12]	470	[140]	370	[110]	100	[6]	45	[7]	55	[13]	17	[5]	-----

WATER COOLED CHILLER SCHEDULE

MARK	LOCATION	AREA AND/OR BLDG SERVED	TYPE	CAPACITY		MAX kW/TON	MIN COP	MAX IPLV (kW/TON)	EVAPORATOR							CONDENSER							ELECTRICAL				REMARKS
									FLOW		EWT		LWT		MAX WPD		FOULING FACTOR	FLOW		EWT		LWT		MAX WPD		FOULING FACTOR	POWER				
				TONS	[kW]				GPM	[L/s]	°F	[°C]	°F	[°C]	FT	[kPa]		GPM	[L/s]	°F	[°C]	°F	[°C]	FT	[kPa]		MCA	PHASE	VOLT	SPEED CONTROL	
1-WCCH2	2ND FLOOR MECH ROOM	WARD B	SCROLL	45	[13]	ASHRAE 90.1	ASHRAE 90.1	ASHRAE 90.1	114	[7]	45	[7]	55	[13]	15.5	[46]	0.00010	142	[9]	85	[29]	95	[35]	12	[36]	0.00010	205	3	208	-	WITH (4) COMPRESSORS, R410A

COOLING TOWER SCHEDULE

MARK	LOCATION	SERVICE	TOWER TYPE	TOTAL NOMINAL CAPACITY		# CELLS	FLOW RATE EACH CELL		WPD		TEMPERATURE						FAN MOTOR						SUMP HEATER		MAX OPERATING WEIGHT		MAX HEIGHT W/HANDRAIL		REMARKS
											AMBIENT Wb		EWT		LWT		NO	POWER		PHASE	VOLT	RPM	SPEED CONTROL	TYPE	CAPACITY				
				TONS	[kW]		GPM	[L/s]	FT	[kPa]	°F	[°C]	°F	[°C]	°F	[°C]		HP	[kW]						BTUH	[W]	LB	[kg]	FT	[M]	
1-CT2	ROOF	CONDENSER WATER	OPEN LOOP	45	[13]	1	135	[9]	6	[18]	78	[26]	95	[35]	85	[29]	1	3	[2]	3	208	1750	VFD	ELEC	13650	4000	2460	[1100]	9	[3]	WITH BASIN PUMP AND CHEMICAL FREE FILTER, FAN VFD, AND LOW SOUND FAN OPTION

SOLID SEPARATOR SCHEDULE (SIDE STREAM)

MARK	LOCATION	SYSTEM AND/OR SERVICE	TYPE	SIZE		CAPACITY		SIDE STREAM	PUMP (HP)	REMARKS
				IN	[mm]	GPM	[L/S]			
1-SSR2-A	2ND FLOOR MECH ROOM	1-CT2-A	CENT	2	[50]	65	[4]	YES	[3]	SEE DWG MH606 FOR PUMP AND DETAILS

HVAC DESIGN DATA

DESIGN CONDITIONS	SUMMER					WINTER					LOWEST AVERAGE ANNUAL DEWPOINT	
	TEMP		WET BULB TEMP		% HUMIDITY	TEMP		DEWPOINT TEMP		% HUMIDITY		
	°F	[°C]	°F	[°C]		°F	[°C]	°F	[°C]		°F	[°C]
OUTDOOR DESIGN CONDITIONS	90	[32]	72	[22]	53	1	[-17]	0	[-18]	NA	-5	[-21]
INDOOR AREA DESIGN CONDITIONS												
GENERAL ROOMS	72	[22]	63	[17]	50	72	[22]	49	[9]	30		
PATIENT ROOMS	75	[24]	61	[16]	50	78	[26]	53	[12]	30		
DINING AREAS	72	[22]	63	[17]	50	72	[22]	49	[9]	30		
LOUNGE	72	[22]	63	[17]	50	72	[22]	49	[9]	30		
CONFERENCE ROOMS	72	[22]	63	[17]	50	72	[22]	49	[9]	30		
TOILET ROOMS	72	[22]	-		-	78	[26]	-		-		

RADIANT CEILING PANEL SCHEDULE (ELECTRIC)

MARK	ROOM LOCATION	AREA SERVED	PANEL SIZE		CAPACITY		POWER SUPPLY			REMARKS
			IN	[mm]	BTUH	[W]	AMPS	PHASE	VOLT	
1-ERP-2-1	TUB ROOM	TUB ROOM	24 X 48	600 X 1200	2550	[750]	4.0	1	208	---
1-ERP-2-2	TUB ROOM	TUB ROOM	24 X 48	600 X 1200	2550	[750]	4.0	1	208	---

FIRE AND SMOKE DAMPERS

MARK	LOCATION	FAN SYSTEM	SYSTEM AND/OR SERVICE	DUCT SIZE	
				IN	[mm]
1-FDMPR-1	2ND FLOOR KITCHEN	1-EF-1	EXHAUST	24 X 16	600 X 400
1-FDMPR-2	2ND FLOOR KITCHEN	1-AHU2	1-TU-2-12	24 X 14	600 X 350

Revisions	Date
100% Submission	7/02/10
90% Submission	5/27/10
60% Submission	4/22/10

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CARDIOLOGY	DATE	ENGINEERING MANAGER	DATE
INFECTION CONTROL	DATE	CARELINE MANAGER	DATE
SAFETY OFFICER	DATE	CHIEF OF STAFF	DATE
MEDICAL CENTER DIRECTOR	DATE		
ASSOCIATE MEDICAL CENTER DIRECTOR	DATE		

Drawing Title: MECHANICAL SCHEDULES (SHEET 1 OF 2)

Project Title: RENOVATION OF BLDG #1, 2ND FLOOR, B-WARD

Date: JULY 2, 2010 (UPDATED 10/07/10)

Station No.: 528

Building Number: 1

Checked

Drawn

Location: V.A.M.C. BATAVIA, NEW YORK

09-352 MH-501

Office of Facilities

Department of Veterans Affairs