

PUMP SCHEDULE																											
MECHANICAL REQUIREMENTS																ELECTRICAL REQUIREMENTS											
UNIT NO.	LOCATION	SERVES	MANUFACTURER & MODEL NO.	TYPE	GPM	HEAD FT H2O	BHP	HP	RPM	IMPELLER SIZE	MIN. % EFFICIENCY	SUCTION (IN.)	DISCHARGE (IN.)	MECH REMARKS	VOLTPH	MIN. CKT. AMP	WIRE SIZE	STARTER						CONTROL	DISCONNECT		ELEC REMARKS
																		TYPE	SIZE	LOCATION	CNTRL. DVC.	AUX.	BY		TYPE	BY	
5-PGHW-36	MECH	PREHEAT	B&G 1510 1-1/2BC	BASE	96	88	3.53	5	1750	8.9	61.33	2.0	1.5	1.2,3,4,5	4803	9.5	12	E1	-	-	-	-	-	BY TCC	E4	-	-
5-PGHW-37	MECH	PREHEAT	B&G 1510 1-1/2BC	BASE	96	88	3.53	5	1750	8.9	61.33	2.0	1.5	1.2,3,4,5	4803	9.5	12	E1	-	-	-	-	-	BY TCC	E4	-	-
5-PHW-36	MECH	HEATING	B&G 1510 2E	BASE	195	120	8.65	15	1750	11.0	68.68	3.0	2.0	1.2,3,4,6	4803	28.3	10	E1	-	-	-	-	-	BY TCC	E4	-	-
5-PHW-37	MECH	HEATING	B&G 1510 2E	BASE	195	120	8.65	15	1750	11.0	68.68	3.0	2.0	1.2,3,4,6	4803	26.3	10	E1	-	-	-	-	-	BY TCC	E4	-	-
5-PCW-36	MECH	COOLING	B&G 1510 3G	BASE	432	110	16.67	20	1750	11.6	73.01	4.0	3.0	1.2,3,4,6	4803	33.8	10	E1	-	-	-	-	-	BY TCC	E4	-	-
5-PCW-37	MECH	COOLING	B&G 1510 3G	BASE	432	110	16.67	20	1750	11.6	73.01	4.0	3.0	1.2,3,4,6	4803	33.8	10	E1	-	-	-	-	-	BY TCC	E4	-	-
5-PHR-36	MECH	HEAT RECOVERY	B&G 80 1-1/2x1-1/2 X7B	INLINE	40	45	1.15	2	1750	6.6	41.62	1.5	1.5	7	4803	4.3	12	E2	0	AT UNIT	-	E3	DIV 26	BY TCC	E5	DIV 26	-
5-PHR-37	MECH	HEAT RECOVERY	B&G 80 1-1/2x1-1/2 X7B	INLINE	40	45	1.15	2	1750	6.6	41.62	1.5	1.5	7	4803	4.3	12	E2	0	AT UNIT	-	E3	DIV 26	BY TCC	E5	DIV 26	-
5-RCP-36	MECH	DOMESTIC HW	B&G NBF-36	INLINE	10	15	0.36	0.5				0.75	0.75	8	208/1	8.7	12	E2	0	AT UNIT	-	E3	DIV 26	BY TCC	E5	DIV 26	-

MECH REMARKS:
1. PUMP SHALL HAVE SUCTION DIFFUSER.
2. PUMP SHALL HAVE TRIPLE DUTY VALVE.
3. CONTROL PANEL SHALL BE WALL OR UNIT MOUNTED.
4. PAIRED PUMPS ARE SET UP FOR A LEAD LAG SYSTEM FOR FULL REDUNDANCY.
5. PUMP CAPACITY BASED ON 30% PROPYLENE GLYCOL.
6. PUMP CAPACITY BASED ON 100% WATER.
7. PUMP CAPACITY BASED ON 50% PROPYLENE GLYCOL.
8. PUMP SHALL BE BRONZE CIRCULATOR FOR USE WITH DOMESTIC HOT WATER RECIRCULATION.

ELEC REMARKS:
E1. VFD BY DIV. 23
E2. COMBINATION STARTER/NON-FUSED DISCONNECT SWITCH IN NEMA 1 ENCLOSURE
E3. TWO N.O. AND TWO N.C. AUXILIARY CONTACTS WITH H.O.A.
E4. DISCONNECT FURNISHED WITH VFD
E5. DISCONNECT FURNISHED WITH STARTER

AIR FILTER SCHEDULE												
MECHANICAL REQUIREMENTS												
DESIG.	SERVES	EQUAL TO MANUFACT. DESIG.	CFM	MAX F.V. FPM	APD INT.	APD FINAL	SIZE WIDTH IN.	SIZE HEIGHT IN.	SIZE DEPTH IN.	ASHRAE EFF.	ACCESSORIES	MECH REMARKS
5-PF-36	5-AHU-36	FARR 3030	10,000	500	0.30	1.00	24	24	2"	THROWAWAY	MERV 7	1
5-PF-36A	5-AHU-36	FARR RIGA-FLO	10,000	500	0.50	1.00	24	24	6"	CARTRIDGE	MERV 11	1
5-AF-36	5-AHU-36	FARR DURAFIL ES	10,000	500	0.65	2.00	24	24	12"	CARTRIDGE	MERV 14	1
5-PF-37	5-AHU-37	FARR 3030	10,000	500	0.30	1.00	24	24	2"	THROWAWAY	MERV 7	1
5-PF-37A	5-AHU-37	FARR RIGA-FLO	10,000	500	0.50	1.00	24	24	6"	CARTRIDGE	MERV 11	1
5-AF-37	5-AHU-37	FARR DURAFIL ES	10,000	500	0.65	2.00	24	24	12"	CARTRIDGE	MERV 14	1
5-PF-38	5-AHU-38	FARR 3030	4,000	500	0.30	1.00	24	24	2"	THROWAWAY	MERV 7	1
5-PF-38A	5-AHU-38	FARR RIGA-FLO	4,000	500	0.50	1.00	24	24	6"	CARTRIDGE	MERV 11	1
5-AF-38	5-AHU-38	FARR DURAFIL ES	4,000	500	0.65	2.00	24	24	12"	CARTRIDGE	MERV 14	1
5-FB-37	5-EF-37	FARR 3P GLIDEPACK	1,200	600	0.65	2.00	24	24	12"	CARTRIDGE	HEPA	HOUSING 1.2,4
5-FB-38	5-EF-38	FARR 3P GLIDEPACK	1,200	600	0.65	2.00	24	24	12"	CARTRIDGE	HEPA	HOUSING 1.2,4
5-FB-39	5-EF-39, 39A	FARR 3P GLIDEPACK	10,000	500	0.65	2.00	24	24	12"	CARTRIDGE	HEPA	HOUSING 1.3,4

MECH REMARKS:
1. FILTERS SHALL ALL BE 24" X 24".
2. FILTER HOUSING SHALL BE 1 FILTER HIGH BY 2 FILTERS WIDE.
3. FILTER HOUSING SHALL BE 2 FILTERS HIGH BY 3 FILTERS WIDE. INSULATE SIMILAR TO OUTDOOR DUCTWORK. MAINTAIN ACCESS AND KEEP WEATERTIGHT.
4. FILTERS SHALL BE HIGH CAPACITY TYPE, SIMILAR TO FARR XH ABSOLUTE HEPA FILTERS.

HUMIDIFIER SCHEDULE (STEAM)													
MECHANICAL REQUIREMENTS													
UNIT NO.	LOCATION	SERVES	MANUFACTURER & MODEL#	ENTERING DRY BULB	ENTERING RH %	LEAVING RH %	STEAM LBS/HR	APD	STEAM PRESSURE (PSIG)	CFM	DUCT SIZE (IN)	DUCT VEL. (FPM)	MECH REMARKS
5-H-36	5-AHU-36	2ND LEVEL	ARMSTRONG	55	20	60	248	0.032	5	14,000	AHU-201	500	1
5-H-37	5-AHU-37	3RD LEVEL	ARMSTRONG	55	20	60	340	0.025	5	10,000	AHU-301	500	1

MECH REMARKS:
1. BUILDING STEAM HUMIDIFIER WITH INTEGRAL FACE AND BYPASS.
2. ENTERING AIR TEMPERATURE OF 55°F TO HUMIDIFIER.

DIFFUSER, REGISTER & GRILLE SCHEDULE											
MECHANICAL REQUIREMENTS											
TYPE NO.	SERVICE	MANUFACTURER & MODEL NO.	FACE SIZE	MOUNTING TYPE	PATTERN	MAXIMUM NC	MAXIMUM PD (T.M.G.)	INTEGRAL DAMPER	FINISH COLOR	MATERIAL	MECH REMARKS
S1	CEILING SUPPLY	PRICE SMDA	24X24	LAY-IN	LOUVER FACE, RND NECK, VERT HORIZ ADJ AIR FLOW, 10 FT VERT THROW	25	0.05	---	WHITE	ALUM	
S2	CEILING SUPPLY	PRICE SMDA	24X24	SURFACE	LOUVER FACE, RND NECK, VERT HORIZ ADJ AIR FLOW, 10 FT VERT THROW	25	0.05	---	WHITE	ALUM	
S3	CEILING SUPPLY	PRICE SMDA	12X12	SURFACE	LOUVER FACE, RND NECK, VERT HORIZ ADJ AIR FLOW, 10 FT VERT THROW	25	0.05	---	WHITE	ALUM	
S4	SIDE WALL	PRICE S30D	NECK + 1"	SURFACE	DOUBLE DEFLECTION ADJUSTABLE LOUVERED BLADES	25	0.08	ORD	WHITE	STEEL	
R1	CEILING RETURN	PRICE 80	24X24	LAY-IN	1/2"X1/2"X1" CUBE CORE, CHANNEL FRAME FTB	20	0.12	---	WHITE	ALUM	
R2	CEILING RETURN	PRICE 80	NECK + 1 3/4"	SURFACE	1/2"X1/2"X1" CUBE CORE, 1 1/4" FLANGE FTB	20	0.12	---	WHITE	ALUM	
R3	CEILING RETURN	PRICE 80	12X12	LAY-IN	1/2"X1/2"X1" CUBE CORE, CHANNEL FRAME FTB	20	0.12	---	WHITE	ALUM	
R4	CEILING RETURN	PRICE 80	24X12	LAY-IN	1/2"X1/2"X1" CUBE CORE, CHANNEL FRAME FTB	20	0.12	---	WHITE	ALUM	
R5	SIDE WALL	PRICE 80	NECK + 1 3/4"	SURFACE	1/2"X1/2"X1" CUBE CORE, 1 1/4" FLANGE FTB	20	0.12	---	WHITE	ALUM	
E1	CEILING EXHAUST	PRICE 80	NECK + 1 3/4"	SURFACE	1/2"X1/2"X1" CUBE CORE, 1 1/4" FLANGE FTB	20	0.12	---	WHITE	ALUM	

MECH REMARKS:
1.

LOUVER SCHEDULE												
MECHANICAL REQUIREMENTS												
DESIG	LOCATION	MANUFACT. DESIG.	*CFM	MAX APD IN W.G.	SIZE WIDTH	SIZE HEIGHT	FREE AREA SF	FRAME STYLE	CONST.	FINISH	ACCESSORIES	MECH REMARKS
L-09R	MECH	GREENHECK ESD063	16,000	0.17	60	72	16.35	CHANNEL	ALUMINUM	BAKED ENAMEL	BIRDSCREEN	1
L-10R	MECH	GREENHECK ESD063	4,000	0.13	42	32	4.54	CHANNEL	ALUMINUM	BAKED ENAMEL	BIRDSCREEN	1
L-36R	MECH	GREENHECK ESD063	10,000	0.10	48	72	13.27	CHANNEL	ALUMINUM	BAKED ENAMEL	BIRDSCREEN	1
L-37R	MECH	GREENHECK ESD063	10,000	0.10	48	72	13.27	CHANNEL	ALUMINUM	BAKED ENAMEL	BIRDSCREEN	1
L-38R	221	GREENHECK ESD063	2,500	0.17	36	24	2.56	CHANNEL	ALUMINUM	BAKED ENAMEL	BIRDSCREEN	1
L-38S	215	GREENHECK ESD063	4,000	0.12	36	36	4.33	CHANNEL	ALUMINUM	BAKED ENAMEL	BIRDSCREEN	1
L-39S	ROOF	GREENHECK ESD063	42,000	0.15	144	90	50.87	CHANNEL	ALUMINUM	BAKED ENAMEL	BIRDSCREEN	1
L-40R	219A	GREENHECK ESD063	350	0.08	18	16	0.72	CHANNEL	ALUMINUM	BAKED ENAMEL	BIRDSCREEN	1

*ALL LOUVERS SHALL BE AMCA CERTIFIED FOR ALL PERFORMANCE AND WATER PENETRATION.
MAX. WATER PENETRATION SHALL BE LESS THAN .01 OZ./SQ. FT. FREE AREA FOR INTAKE LOUVERS.

MECH REMARKS:
1. LOUVER COLOR SHALL BE SELECTED BY THE ARCHITECT FROM THE MANUFACTURER'S STANDARD BAKED ENAMEL COLOR CHART.

RADIANT PANEL SCHEDULE											
MECHANICAL REQUIREMENTS											
UNIT NO.	MANUFACTURER & MODEL#	OUTPUT BTUH	GPM	PRESSURE DROP FT. WC	AVG. WTR TEMP. (DEG. F)	OVERALL LENGTH (FT.)	OVERALL WIDTH (FT.)	PANEL TYPE	FINISH	REMARKS	
RP-1	AIRTEX HEF-2	1980	0.5	0.20	165	10	1	LINEAR	WHITE	1.2	
RP-2	AIRTEX HEF-2	1780	0.5	0.19	165	9	1	LINEAR	WHITE	1.2	
RP-3	AIRTEX HEF-2	1580	0.5	0.17	165	8	1	LINEAR	WHITE	1.2	
RP-4	AIRTEX HEF-2	1190	0.5	0.14	165	6	1	LINEAR	WHITE	1.2	
RP-5	AIRTEX HEF-2	790	0.5	0.10	165	4	1	LINEAR	WHITE	1.2	
RP-6	AIRTEX HEF-2	965	0.5	0.08	165	3	1	LINEAR	WHITE	1.2	
RP-7	AIRTEX HEF-2	2775	0.5	0.28	165	14	1	LINEAR	WHITE	1.2	
RP-8	AIRTEX HPH	1410	0.5	0.23	165	4	2	REGULAR LAY-IN	WHITE	2	

REMARKS:
1. PROVIDE GYP. FRAME.
2. PROVIDE 1" THICK FOIL FACED INSULATION BACKING, SHALL BE PLENUM RATED.

NOTE:

ALL VARIABLE FREQUENCY DRIVES SHALL BE PROVIDED BY THE TEMPERATURE CONTROLS CONTRACTOR. ALL VFD'S SHALL BE FROM THE SAME MANUFACTURER.

CONSULTANTS:		
MARK	REVISION DESCRIPTION	DATE



ARCHITECTS/ ENGINEERS:

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Drawing Title MECHANICAL SCHEDULES
Approved: Project Director

Project Title Sioux Falls VA Health Care System Acute Inpatient Medical Unit Addition and Renovation		
Location VA Medical Center 2801 W. 22nd Street, PO Box 5046 Sioux Falls, SD 57117-5046	Date 08/06/2012	Checked BSW

Project Number 04100857
Building Number 5
Drawing Number 5-MH602 Dwg. 100 of 123

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