

FAN POWERED VARIABLE AIR VOLUME TERMINAL SCHEDULE

DESIGNATION	FPVAV-1.1	FPVAV-1.2	FPVAV-1.3	FPVAV-1.4	FPVAV-1.5	FPVAV-1.6	FPVAV-1.7	FPVAV-1.8	FPVAV-2.1	FPVAV-2.2	FPVAV-2.3	FPVAV-2.4	FPVAV-2.5	FPVAV-2.6	FPVAV-2.7	FPVAV-2.8	FPVAV-2.9	FPVAV-2.10	FPVAV-2.11	FPVAV-2.12	FPVAV-2.13	FPVAV-2.14	FPVAV-2.15	FPVAV-2.16	FPVAV-2.17	FPVAV-2.18	FPVAV-2.19	FPVAV-2.20	FPVAV-2.21	
MANUFACTURER	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	
MODEL NO.	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	DTQ5	
ROOM NAME/FLOOR	ROOM 102	ROOM 103 & 104	ROOM 108	ROOM 108	ROOM 105 & 106	ROOM 108	ROOM 108	ROOM 118	ROOM 237	ROOM 225	ROOM 225	ROOM 226	ROOM 226	ROOM 228	ROOM 228 & 229	ROOM 236	ROOM 230	ROOM 202 & 203	ROOM 205	ROOM 206	ROOM 208	ROOM 209	ROOM 222 & 223	ROOM 219 & 220	ROOM 218	RM. 211-214	CORR. 207	CORR. 201 & 217	CORR. 224	
ASSOCIATED AIR HANDLER	AHU-2	AHU-2	AHU-2	AHU-2	AHU-2	AHU-2	AHU-2	AHU-2	AHU-3	AHU-3	AHU-3	AHU-3	AHU-3	AHU-3	AHU-3	AHU-3	AHU-3	AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-1	AHU-3	
INLET SIZE	8"	6"	10"	10"	6"	10"	10"	8"	12"	12"	12"	12"	12"	12"	12"	14"	8"	6"	8"	8"	8"	10"	8"	8"	8"	8"	8"	12"	8"	
DESIGN CFM	580 ¹⁰	225	1080 ¹⁴	1350 ¹⁰	180	1080 ¹⁴	1080 ¹⁴	730 ²⁰	1480 ²⁷	1750 ¹⁷	1750 ¹⁷	1820 ²²	1820 ²²	1700 ¹⁷	1500 ¹⁶	2065 ²¹	610 ¹⁷	210	545 ¹⁰	800 ²⁵	640 ¹⁸	1230 ²⁰	550 ¹⁰	460 ⁹	615 ¹⁷	640 ²³	680 ¹⁹	1475 ¹⁵	565 ¹⁰	
MIN. CFM	45 ¹⁰	20 ¹⁰	215 ¹⁶	260 ¹¹	15	215 ¹⁶	215 ¹⁶	55 ¹⁰	750 ¹⁴	750 ¹⁴	750 ¹⁴	750 ¹⁴	750 ¹⁴	685 ^{3,5}	455 ^{1,5}	760 ¹⁴	15 ¹⁰	45	190 ^{1,25}	190 ^{1,25}	190 ^{1,25}	258 ^{1,5}	80 ^{1,5}	150 ^{1,5}	20 ^{1,5}	100 ^{1,5}	100 ^{1,5}	600 ^{2,2}	60 ^{1,5}	
FAN CFM	580	225	1080	1350	180	1080	1080	730	1480	1750	1750	1820	1820	1700	1500	2065	610	210	545	800	640	1230	550	460	615	640	680	1475	565	
FAN HP	1/6	1/6	1/4	1/3	1/6	1/4	1/4	1/4	3/4	3/4	3/4	3/4	3/4	3/4	1/3	3/4	1/4	1/6	1/6	1/4	1/4	1/3	1/6	1/6	1/4	1/4	1/4	1/3	1/6	
FAN VOLTS/PHASE	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	277/1	
HEATING KW	3	2	7	9	2	7	7	3	15	14	14	14	14	13	11	12	3	2	3	6	5	11	3	5	6	7	3	4	3	
CONTROL STEPS	2	2	3	3	2	3	3	2	4	4	4	4	4	4	4	2	2	2	2	2	2	2	2	2	2	2	2	3	2	
VOLTS/PHASE	277/1	277/1	480/3	480/3	277/1	277/1	277/1	277/1	480/3	480/3	480/3	480/3	480/3	480/3	480/3	480/3	277/1	277/1	277/1	277/1	277/1	277/1	480/3	277/1	277/1	277/1	480/3	277/1	480/3	277/1
PANEL & CIRCUIT	HP1-7	HP1-4	HP1-11	HP1-14	HP1-17	HP1-33	HP1-34	HP1-19	HP2-37	HP2-38	HP2-43	HP2-44	HP2-44	HP2-50	HP2-55	HP2-56	HP2-61	HP2-62	HP2-63	HP2-64	HP2-65	HP2-66	HP2-67	HP2-69	HP2-71	HP2-72	HP2-73	HP2-75	HP2-78	
WIRE & CONDUIT	2#12, #126, 1/2" C.	2#12, #126, 1/2" C.	3#12, #126, 1/2" C.	2#12, #126, 1/2" C.	2#12, #126, 1/2" C.	3#12, #126, 1/2" C.	3#12, #126, 1/2" C.	2#12, #126, 1/2" C.	3#12, #126, 1/2" C.	3#12, #126, 1/2" C.	3#12, #126, 1/2" C.	3#12, #126, 1/2" C.	3#12, #126, 1/2" C.	3#12, #126, 1/2" C.	3#12, #126, 1/2" C.	3#12, #126, 1/2" C.	2#12, #126, 1/2" C.	2#12, #126, 1/2" C.	2#12, #126, 1/2" C.	2#12, #126, 1/2" C.	2#12, #126, 1/2" C.	2#12, #126, 1/2" C.	2#12, #126, 1/2" C.	2#12, #126, 1/2" C.	2#12, #126, 1/2" C.	3#12, #126, 1/2" C.	2#12, #126, 1/2" C.	3#12, #126, 1/2" C.	2#12, #126, 1/2" C.	
OVER CURRENT DEVICE	20A-1P	20A-1P	15A-3P	15A-3P	20A-1P	15A-3P	15A-3P	20A-1P	25A-3P	25A-1P	25A-3P	25A-3P	25A-3P	25A-3P	20A-3P	20A-3P	20A-1P	20A-1P	20A-1P	20A-1P	20A-1P	20A-1P	20A-1P	20A-1P	25A-1P	30A-1P	15A-3P	20A-1P	15A-3P	20A-1P
CONTROL SEQUENCE	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	
REFERENCE DRAWING/DETAIL	M2	M2	M2	M2	M2	M2	M2	M2	M4	M4	M4	M4	M4	M4	M4	M4	M4	M4	M4	M4	M4	M4	M4	M4	M4	M4	M4	M4	M4	M4
REMARKS																														

① SEE SPECIFICATIONS, SECTION 15450.

DOMESTIC WATER HEATER - ELECTRIC

DESIGNATION	HWH-1 & 2	HWH-3
MANUFACTURER	A.O. SMITH	A.O. SMITH
MODEL	ELS5F-20	ELS5F-30
CAPACITY (GALLONS)	20	30
RECOVERY @ 100°F RISE (GPH)	20	20
OUTLET TEMP. (°F)	110	110
ELEMENTS (NO.)	1	1
TOTAL INPUT (KW)	4500	4500
VOLTS/PHASE	277/1	277/1
PANEL & CIRCUIT	HP2-27	HP2-24
WIRE & CONDUIT	2#10, #106, 1/2" C.	2#10, #106, 1/2" C.
OVERCURRENT DEVICE	30A-1P	30A-1P
DISCONNECT	YES	YES
REFERENCE DRAWING/DETAIL	M1 & M4	M4
REMARKS	① ②	

① WATER HEATER HWH-1 IS LOCATED IN ROOM 106. WATER HEATER HWH-2 IS LOCATED IN ROOM 215.
 ② NOTE: HWH-1 IS LOCATED IN THE FIRST FLOOR BATH ROOM FED FROM A 30A/1P BREAKER IN PANEL HP1-34.

UNIT HEATER SCHEDULE - ELECTRIC

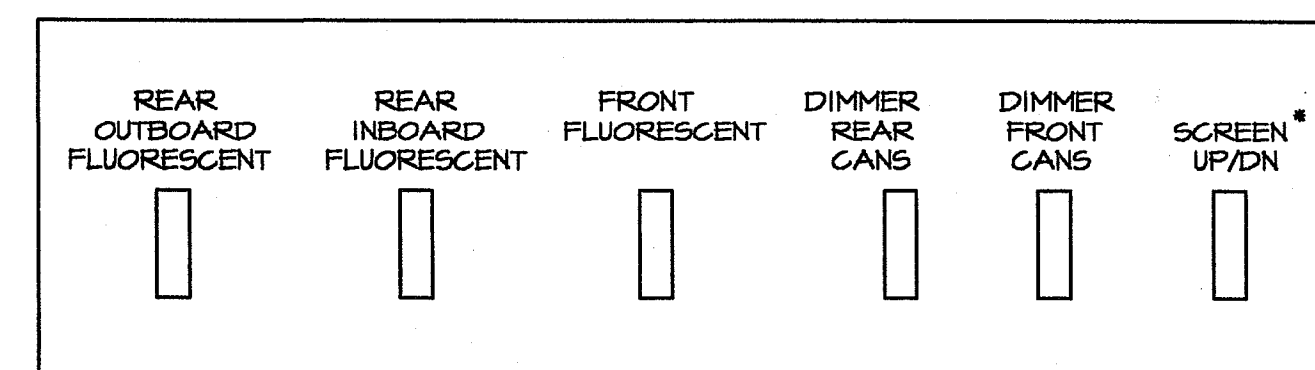
DESIGNATION	UH-1	UH-2	CUH-1	CUH-2
HEATER TYPE	HORIZ. PROPELLOR	HORIZ. PROPELLOR	CABINET	CABINET
LOCATION	CHILLER PLANT	CHILLER PLANT	VEST. 101	CORR.113
MOUNTING	SUSPENDED	SUSPENDED	FLOOR	FLOOR
MANUFACTURER	TRANE	TRANE	TRANE	TRANE
MODEL	UHEC	UHEC	B	B
CFM	700	700	680	680
FAN RPM	1550	1550	1200	1200
FAN QTY.	1	1	2	2
FAN DRIVE	DIRECT	DIRECT	DIRECT	DIRECT
MOTOR QTY.	1	1	1	1
HEATER KW	10	10	10	10
NO. OF ELEMENTS	1	1	12	12
FILTERS	N/A	N/A	N/A	N/A
VOLTAGE/PHASE	460/3	460/3	460/3	460/3
PANEL & CIRCUIT	HP1-27		HP1-21	HP1-22
WIRE & CONDUIT	3#12, #126, 1/2" C.	3#12, #126, 1/2" C.	3#12, #126, 1/2" C.	3#12, #126, 1/2" C.
OVERCURRENT DEVICE	20A-3P	20A-3P	20A-3P	20A-3P
DISCONNECT	YES	YES	YES	YES
CONTROL				
REFERENCE DWG./DETAIL	ME6	ME6	M2	M2
REMARKS	①	①		

① UNIT HEATER UH-2 IS LOCATED IN THE 2ND FLOOR MECH. ROOM. UH-1 IS FED FROM CIRCUIT HP2-31.

FAN SCHEDULE

DESIGNATION	EF-1	EF-2	EF-3	EF-4
FAN TYPE	ROOF EXHAUSTER	ROOF EXHAUSTER	UPBLAST EXHAUST	UPBLAST EXHAUST
SERVICE	RESTROOM	RESTROOM	KITCHEN HOOD	KITCHEN HOOD
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL	GB-140-3	GB-130-4	CUBE-180HP-20	CUBE-360HP-15
CFM	1160	900	2455	8400
STATIC PRESSURE	.75	.75	2.5	2.5
FAN DIAMETER	--	--	--	--
FAN RPM	1122	1107	1608	764
BRAKE HORSEPOWER	.27	.18	1.8	5.14
MOTOR HORSEPOWER	1/3	1/4	2	7-1/2
VOLTAGE/PHASE	120/1	120/1	208/3	208/3
DRIVE	BELT	BELT	BELT	BELT
PANEL & CIRCUIT		LP2-	LP2-	LP2-
WIRE & CONDUIT	2#12, #126, 1/2" C.	2#12, #126, 1/2" C.	2#12, #126, 1/2" C.	3#8, #106, 1/2" C.
OVERCURRENT DEVICE	15A-1P	15A-1P	15A-1P	40A-3P
DISCONNECT				
STARTER				
COMBINATION STARTER	YES	YES	YES	YES
CONTROL	SEE SPECS.	SEE SPECS.	①	①
DAMPER TYPE				
DAMPER VOLTAGE				
REFERENCE DRAWING/DETAIL	ME3	ME3	ME3	ME3
REMARKS				

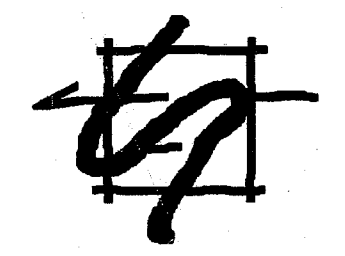
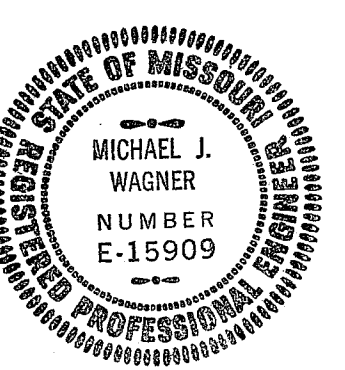
① KITCHEN HOOD CONTROLLED BY START-STOP BUTTON, PROVIDED BY KITCHEN EQUIPMENT MANUFACTURER.



* THIS SWITCH IS REQUIRED ONLY AT THE FRONT OF THE ROOM

TYPICAL 6 GANG LIGHT CONTROL
 NO SCALE AT DOOR AND AT CONSOLE IF OPPOSITE THE DOOR.

54B 11021902
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 924 FRANCIS ST. JOSEPH, MO 64501 (816) 233-8003 FAX 233-7793

PROJECT: PROPOSED RENOVATIONS STUDENT UNION MISSOURI WESTERN STATE COLLEGE 4525 DOWNS DRIVE SAINT JOSEPH, MISSOURI

SHEET: **ME4**

DATE: 12-8-98

MREC STUDENT UNION
 PROJECT NUMBER: 8651902
 PROJECT NAME: STUDENT UNION RENOVATIONS
 PLOTTED SHEET NAME/NUMBER: ME4
 OPERATOR INITIALS: MEJ
 PLOT DATE: 12-3-98