VARIABLE AIR VOLUME BOX SCHEDULE

TAG NO.	MAX. COOL CFM	MIN. SET POINT CFM	INLET SIZE (IN.)	MAX. RAD. NC @ 1" WG	HOT WATER COIL DATA										BASIS OF DESIGN		REMARKS
					MBH	PROP GLYCOL	GPM	EWT (°F)	LWT (°F)	EAT (°F)	LAT (°F)	ROWS	MAX. AIR P.D (IN W.C.)	RUNOUT PIPE SIZE	MANUFACTURER	MODEL NO.	
VAV 1	825	300	10	20	8.1	40%	.72	200	170	55	80	1	0.15	3/4"	ENVIRO-TEC	SDR-WC	
VAV 2	700	210	10	20	5.7	40%	0.38	200	170	55	80	1	0.15	3/4"	ENVIRO-TEC	SDR-WC	
VAV 3	320	120	6	20	3.25	40%	0.22	200	170	55	80	1	0.15	3/4"	ENVIRO-TEC	SDR-WC	
VAV 4	780	240	10	20	6.5	40%	0.43	200	170	55	80	1	0.15		ENVIRO-TEC	SDR-WC	
VAV 5	120	120	6	20	–	–	–	–	–	–	–	–	0.15	–	ENVIRO-TEC	SDR	
VAV 6	120	120	6	20	–	–	–	–	–	–	–	–	0.15	–	ENVIRO-TEC	SDR	
VAV 7	400	400	6	20	–	–	–	–	–	–	–	–	0.15	–	ENVIRO-TEC	SDR	
VAV 8	580	180	8	20	4.9	40%	0.33	200	170	55	80	1	0.15	3/4"	ENVIRO-TEC	SDR-WC	
VAV 9	420	130	8	20	3.5	40%	0.23	200	170	55	80	1	0.15	3/4"	ENVIRO-TEC	SDR-WC	
VAV 10	440	140	8	20	3.8	40%	0.26	200	170	55	80	1	0.15	3/4"	ENVIRO-TEC	SDR-WC	
VAV 11	630	200	8	20	5.4	40%	0.36	200	170	55	80	1	0.15	3/4"	ENVIRO-TEC	SDR-WC	
VAV 12	320	120	6	20	3.25	40%	0.22	200	170	55	80	1	0.15	3/4"	ENVIRO-TEC	SDR-WC	
VAV 13	980	300	10	20	8.1	40%	0.54	200	170	55	80	1	0.15	3/4"	ENVIRO-TEC	SDR-WC	
VAV 14	430	130	8	20	3.5	40%	0.23	200	170	55	80	1	0.15	3/4"	ENVIRO-TEC	SDR-WC	
VAV 15	480	150	8	20	4.0	40%	0.27	200	170	55	80	1	0.15	3/4"	ENVIRO-TEC	SDR-WC	
VAV 16	2400	720	16	20	19.4	40%	1.3	200	170	55	80	1	0.15	3/4"	ENVIRO-TEC	SDR-WC	
VAV 17	2800	800	16	20	21.6	40%	1.5	200	170	55	80	1	0.15	3/4"	ENVIRO-TEC	SDR-WC	
VAV 18	2800	800	16	20	21.6	40%	1.5	200	170	55	80	1	0.15	3/4"	ENVIRO-TEC	SDR-WC	
VAV 19	400	400	6	20	–	–	–	–	–	–	–	–	0.15	–	ENVIRO-TEC	SDR	

HOT WATER COIL SCHEDULE

TAG No.	SERVICES	LOCATION ROOM #	TOTAL AIR FLOW (CFM)	HEATING DESIGN AIR FLOW (CFM)	MBH	EAT (°F)	LAT (°F)	NO. OF ROWS	APD (IN. W.G.)	GPM	EWT (°F)	LWT (°F)	MAX. WPD (FT. H $_2$0)	CONNECTION SIZE (IN.)	BASIS OF DESIGN		REMARKS
															MANUFACTURER	MODEL NO.	
HC 1	AV-1	LAB 481	1500	500	41	55	80	2	0.15	3	200	170	0.5	5/8	AEROFIN		
HC 2	AV-2	LAB 482	1500	500	41	55	80	2	0.15	3	200	170	0.5	5/8	AEROFIN		
HC 3	AV-3	LAB 486	1500	500	41	55	80	2	0.15	3	200	170	0.5	5/8	AEROFIN		
HC 4	AV-4	LAB 492	1500	500	41	55	80	2	0.15	3	200	170	0.5	5/8	AEROFIN		FUTURE
HC 5	AV-5	LAB 494	1500	500	41	55	80	2	0.15	3	200	170	0.5	5/8	AEROFIN		FUTURE
HC 6	AV-6	LAB 496	1500	500	41	55	80	2	0.15	3	200	170	0.5	5/8	AEROFIN		FUTURE
HC 7	AV-7	LAB 489	570	320	15	55	75	2	0.12	1.1	200	170	0.5	5/8	AEROFIN		
HC 8	AV-8	LAB 493	450	250	12	55	75	2	0.07	0.9	200	170	0.5	5/8	AEROFIN		
HC 9	AV-9	LAB 482	450	250	12	55	75	2	0.07	0.9	200	170	0.5	5/8	AEROFIN		

HYDRONIC RADIANT CEILING HEATING PANEL SCHEDULE

TAG NO.	SERVICE	GPM	WATER TEMP (F°)		PROP GLYCOL	WIDTH (IN.)	LENGTH (IN.)	BTUH PER LIN. FT	CONTROL VALVE (SEE SCHEDULE)	BASIS OF DESIGN		REMARKS
			ENT.	LVG.						MANUFACTURER	MODEL NO.	
RHP 1	OFFICES	REFER TO PLANS	200	170	40%	24	REFER TO PLANS	455	SEE FLOOR PLANS	AERO-TECH		

FINNED TUBE RADIATION SCHEDULE

TAG NO.	SERVICE	BTU/LF (180°F AVE. WATER TEMP.)	PROP GLYCOL	ENCLOSURE							BASIS OF DESIGN		REMARKS
				TUBE	TUBE SIZE	FIN SIZE	ROWS	HEIGHT	WIDTH	MOUNTING HEIGHT	MANUFACTURER	MODEL NO.	
FTR-1 –	SEE PLAN	820	40%	COPPER	3/4"	2 3/4"x3"x48'	1	–	–	7 3/4"	VULCAN	LINOVECTOR BARE ELEMENTS	PROVIDE HANGER ASSEMBLY FOR CASE WORK MOUNTING

FAN SCHEDULE

TAG NO.	SERVICE/ LOCATION	CFM	ESP (IN. W.G.)	MIN. % EFF.	RPM	ELECTRICAL				TYPE	DRIVE	ROOF OPENING	BASIS OF DESIGN		REMARKS
						RPM	BHP	HP	V/ø/HZ				MANUFACTURER	MODEL NO.	
EF 19	ROOF	21900	5.0	65	1170	1725	28.3	30	460/3/60	CENT HIGH PLUME	DIRECT	–	STROBIC	TS3L300E12	
EF 20	ROOF	21900	5.0	65	1170	1725	28.3	30	460/3/60	CENT HIGH PLUME	DIRECT	–	STROBIC	TS3L300E12	
EF 21	ROOF	21900	5.0	65	1170	1725	28.3	30	460/3/60	CENT HIGH PLUME	DIRECT	–	STROBIC	TS3L300E12	
EF 39	RESTROOM EXH. /ROOF	1350	0.75	65	862	1725	0.27	1	460/3/60	CENT UPBLAST	BELT	–	GREENHECK	CUBE-180HP-10	FAN SHALL BE CAPABLE TO OPERATE AT 2,700 CFM AT 1" STATIC FOR FUTURE CAPACITY.
EF 40	2ND FLOOR DATA CLOSET	950	0.25	65	1140	1725	0.13	1/6	115/1/60	INLINE	DIRECT	–	GREENHECK	SQ-120-B	
EF 41	4TH FLOOR DATA CLOSET	950	0.25	65	1140	1725	0.13	1/6	115/1/60	INLINE	DIRECT	–	GREENHECK	SQ-120-B	
EF 42	5TH FLOOR DATA CLOSET	950	0.25	65	1140	1725	0.13	1/6	115/1/60	INLINE	DIRECT	–	GREENHECK	SQ-120-B	

REGISTER, GRILLE & DIFFUSER SCHEDULE

TAG NO.	CFM RANGE	TYPE	INLET SIZE (IN.)	MATERIAL	MAX. P.D.	MAX. N.C.	BASIS OF DESIGN		REMARKS
							MANUFACTURER	MODEL NO.	
SD-1 THROW CFM	50-100	CEILING	6x6	ALUM	.057	30	METALAIR	SERIES 5000-IV	EQUIPPED WITH OPPOSED BLADE DAMPER
SD-2 THROW CFM	101-225	CEILING	9x9	ALUM	.057	30	METALAIR	SERIES 5000-IV	EQUIPPED WITH OPPOSED BLADE DAMPER
SD-3 THROW CFM	226-500	CEILING	12x12	ALUM	.057	30	METALAIR	SERIES 5000-IV	EQUIPPED WITH OPPOSED BLADE DAMPER
SD-4 THROW CFM	501-702	CEILING	15x15	ALUM	.057	30	METALAIR	SERIES 5000-IV	EQUIPPED WITH OPPOSED BLADE DAMPER
SD-5 THROW CFM	703-950	CEILING	18x18	ALUM	.057	30	METALAIR	SERIES 5000-IV	EQUIPPED WITH OPPOSED BLADE DAMPER
SD-6 THROW CFM	100-500	CEILING	12"ø	STEEL	.10	30	ANEMOSTAT	HCR-242	PROVIDE 1" FOIL FACED INSULATED PLENUM
SD-7 THROW CFM	50 CFM/LIN.FT	DUCT	–	STEEL	.017	30	UNITED McGILL	DUCT-D-FUSER TYPE AD	
SG-1 THROW CFM	100-250	DUCT	6x10	STEEL	.017	30	METALAIRE	–	
SG-2 THROW CFM	100-250	DUCT	6x10	STEEL	.017	30	METALAIRE	–	
RR-1 –	0-800	CEILING	12x12	ALUM	.008	30	METALAIR	MODEL CC5	
ER-1 –	0-200	CEILING	10x6	ALUM	.016	30	METALAIR	SERIES RH	EQUIPPED WITH OPPOSED BLADE DAMPER
ER-2 –	0-500	CEILING	12x12	ALUM	.011	30	METALAIR	SERIES RH	EQUIPPED WITH OPPOSED BLADE DAMPER
ER-3 –	0-750	CEILING	18x18	ALUM	.003	30	METALAIR	SERIES RH	EQUIPPED WITH OPPOSED BLADE DAMPER
ER-4 –	0-1800	CEILING	24x24	ALUM	.003	30	METALAIR	SERIES RH	EQUIPPED WITH OPPOSED BLADE DAMPER
TG-1 –	151-300	CEILING	12x12	ALUM	.011	30	METALAIR	SERIES RH	EQUIPPED WITH OPPOSED BLADE DAMPER

LABORATORY AIR VALVES

SUPPLY AIR VALVE – INDEPENDENT								EXHAUST AIR VALVE (1) – INDEPENDENT								REMARKS
TAG NO.	LOCATION ROOM #	AIR FLOW MIN (CFM)	AIR FLOW MAX (CFM)	OPERATING PRESSURE ΔP	INLET/OUTLET SIZE WxH (IN)	MANUFACTURE	MODEL #	TAG NO.	LOCATION ROOM #	AIR FLOW MIN (CFM)	AIR FLOW MAX (CFM)	OPERATING PRESSURE ΔP	INLET/OUTLET SIZE WxH (IN)	MANUFACTURE	MODEL #	
AV 1	LAB 481	550	1500	0.5	12x10	TEK-AIR	PVT-2000	EAV 1	LAB 481	0	950	0.5	12x10	TEK-AIR	PVT-2000	
AV 2	LAB 482	500	1500	0.5	12x10	TEK-AIR	PVT-2000	EAV 2	LAB 482	500	1500	0.5	12x10	TEK-AIR	PVT-2000	
AV 3	LAB 486	750	1500	0.5	12x10	TEK-AIR	PVT-2000	EAV 3	LAB 486	400	1150	0.5	12x10	TEK-AIR	PVT-2000	
AV 4	LAB 492	500	1500	0.5	12x10	TEK-AIR	PVT-2000	EAV 4	LAB 492	500	1500	0.5	12x10	TEK-AIR	PVT-2000	
AV 5	LAB 494	550	1500	0.5	12x10	TEK-AIR	PVT-2000	EAV 5	LAB 494	0	950	0.5	12x10	TEK-AIR	PVT-2000	FUTURE
AV 6	LAB 496	500	1500	0.5	12x10	TEK-AIR	PVT-2000	EAV 6	LAB 496	500	1500	0.5	12x10	TEK-AIR	PVT-2000	FUTURE
AV 7	LAB 489	320	570	0.5	8x8	TEK-AIR	PVT-2000	EAV 7	LAB 496	420	670	0.5	8x8	TEK-AIR	PVT-2000	
AV 8	LAB 493	250	450	0.5	8x8	TEK-AIR	PVT-2000	EAV 8	LAB 493	350	550	0.5	8X8	TEK-AIR	PVT-2000	
AV 9	LAB 482	250	450	0.5	8x8	TEK-AIR	PVT-2000	EAV 9	LAB 482	350	550	0.5	8x8	TEK-AIR	PVT-2000	
	–	–	–	–	–	–	–	EAV 10	OPEN OFFICE	0	1230	0.5	16x16	TEK-AIR	PVT-2000	
	–	–	–	–	–	–	–	EAV 11	OPEN OFFICE	815	4775	0.5	12x10	TEK-AIR	PVT-2000	
	–	–	–	–	–	–	–	EAV 12	OPEN OFFICE	0	1500	0.5	12x10	TEK-AIR	PVT-2000	
	–	–	–	–	–	–	–	EAV 13	OPEN OFFICE	0	1500	0.5	12x10	TEK-AIR	PVT-2000	
	–	–	–	–	–	–	–	EAV 14	OPEN OFFICE	0	1500	0.5	12x10	TEK-AIR	PVT-2000	
	–	–	–	–	–	–	–	EAV 15	OPEN OFFICE	810	4770	0.5	16x16	TEK-AIR	PVT-2000	
	–	–	–	–	–	–	–	EAV 16	OPEN OFFICE	0	1500	0.5	12x10	TEK-AIR	PVT-2000	

DUCTLESS SPLIT-TYPE AIR CONDITIONER SCHEDULE

INDOOR UNIT					OUTDOOR UNIT					TOTAL COOL (MBH)	HEATING (MBH)	EER/SEER	REFRIGERANT PIPE SIZE (IN.)		BASIS OF DESIGN		REMARKS
UNIT TAG	LOCATION	ELECTRICAL		MODEL	UNIT TAG	LOCATION	ELECTRICAL		MODEL				LIQUID	GAS	MANUFACTURER	MODEL	
		V/ø/HZ	INPUT, KW				V/ø/HZ	INPUT, KW									
ACU 8	2nd FLOOR SERVER ROOM	115/1/60	0.12	PK36FK3	ACC 8	ROOF	208/1/60	3.35	PU36EK	34.2	–	9.9/10.2	1/2	3/4	MITSUBISHI	PK36FK	PROVIDE BUILT-IN CONDENSATE PUMP, LOW AMBIENT TEMPERATURE KIT & REMOTE CONTROLLER
ACU 9	2nd FLOOR SERVER ROOM	115/1/60	0.12	PK36FK3	ACC 9	ROOF	208/1/60	3.35	PU36EK	34.2	–	9.9/10.2	1/2	3/4	MITSUBISHI	PK36FK	PROVIDE BUILT-IN CONDENSATE PUMP, LOW AMBIENT TEMPERATURE KIT & REMOTE CONTROLLER
ACU 10	4th FLOOR ELECTRIC ROOM	115/1/60	0.4	PC36GK	ACC 10	ROOF	208/1/60	3.7	PU36EK	33.7	–	10.4/10.8	1/2	3/4	MITSUBISHI	PC36GK	PROVIDE BUILT-IN CONDENSATE PUMP, LOW AMBIENT TEMPERATURE KIT & REMOTE CONTROLLER
ACU 11	5th FLOOR ELECTRIC ROOM	115/1/60	0.4	PC36GK	ACC 11	ROOF	208/1/60	3.7	PU36EK	33.7	–	10.4/10.8	1/2	3/4	MITSUBISHI	PC36GK	PROVIDE BUILT-IN CONDENSATE PUMP, LOW AMBIENT TEMPERATURE KIT & REMOTE CONTROLLER
ACU 12	2nd FLOOR ELECTRIC ROOM	115/1/60	0.4	PC36GK	ACC 12	ROOF	208/1/60	3.7	PU36EK	33.7	–	10.4/10.8	1/2	3/4	MITSUBISHI	PC36GK	PROVIDE BUILT-IN CONDENSATE PUMP, LOW AMBIENT TEMPERATURE KIT & REMOTE CONTROLLER

LABORATORY FUME HOOD AIR VALVES

TAG NO.	LOCATION ROOM #	AIR FLOW MIN (CFM)	AIR FLOW MAX (CFM)	OPERATING PRESSURE ΔP	INLET/OUTLET SIZE DIA. (in)	MANUFACTURE	MODEL #	REMARKS
FHAV 1	LAB 481	550	550	0.3"-3"	8"	PHOENIX	CVV-B-F-08M-A-C-N-H-X	PROVIDE CONSTANT VOLUME VALVE WITH NO CONTROLS
FHAV 2	LAB 492	350	350	0.3"-3"	8"	PHOENIX	CVV-B-F-08M-A-C-N-H-X	PROVIDE CONSTANT VOLUME VALVE WITH NO CONTROLS
FHAV 2	LAB 492	550	550	0.3"-3"	8"	PHOENIX	CVV-B-F-08M-A-C-N-H-X	PROVIDE CONSTANT VOLUME VALVE WITH NO CONTROLS

SMMA
SYMMES MAINI & MCKEE ASSOCIATES

1000 Massachusetts Avenue
Cambridge, Massachusetts 02138
617.547.5400 Fax 617.354.5758

OWNER REVIEW

NAME	DATE

NO.	DATE	DESCRIPTION
	06.21.06	ISSUED FOR CONSTRUCTION
	05.03.06	SCOPE REVISION
	03.22.06	100% QC REVIEW
B	03.16.06	PROGRESS PRINT
A	03.08.06	80% PROGRESS PRINT

ISSUE LOG

△ = CLOUDED CHANGE

UNIVERSITY OF SOUTHERN MAINE
70 FALMOUTH STREET
PORTLAND, MAINE

RESEARCH WING
PHASE III FIT-OUT

SCHEDULE
SHEET 1 OF 2

SCALE	NONE
DRAWN BY	FV
CHECKED BY	
PROJ. ARCH. / ENGR.	GI
PROJ. MGR.	RCH
JOB NO.	03049.10

© SYMMES, MAINI & MCKEE ASSOCIATES, INC. 2004

M0.02