

TERMINAL BOX (TB) SCHEDULE

TAG	INLET SIZE (IN)	OUTLET SIZE (IN)	CFM MAX.	CFM MIN.	HOT WATER HEATING COIL				TYPICAL UNIT MFG & MODEL NO.	NOTES:			
					INLET STATIC PRESSURE MIN.	APD MAX.	MBH	EAT °F			LAT °F	GPM @ 180°F EWT	ROWS
TB-5	6	10X10	225	60	0.04	0.25	2.1	55	85	0.21	1	ENVIROTEC SDR-SA-WC-6	-
TB-12	6	10X10	300	75	0.04	0.25	9.9	55	85	0.99	1	ENVIROTEC SDR-SA-WC-6	1
TB-24	10	14X12-1/2	885	200	0.015	0.4	29.205	55	85	2.9205	2	ENVIROTEC SDR-SA-WC-10	1
TB-43	10	14X12-1/2	900	690	0.015	0.4	29.7	55	85	2.97	2	ENVIROTEC SDR-SA-WC-10	1

NOTES: 1. SIZE HEATING COIL FOR MAX CFM

EXISTING TERMINAL BOX (TB) SCHEDULE

TAG	INLET SIZE (IN)	OUTLET SIZE (IN)	CFM MAX.	CFM MIN.	HOT WATER HEATING COIL				TYPICAL UNIT MFG & MODEL NO.	NOTES:			
					INLET STATIC PRESSURE MIN.	APD MAX.	MBH	EAT °F			LAT °F	GPM @ 180°F EWT	ROWS
TB-1	8	14X10	325	85	0.04	0.25	2.1	55	85	0.21	1	N/A	1
TB-2	8	14X10	325	85	0.04	0.25	2.1	55	85	0.21	1	N/A	1
TB-3	8	14X10	325	85	0.04	0.25	2.1	55	85	0.21	1	N/A	1
TB-4	4	10X6	140	35	0.75	55	75	55	75	0.1	0.1	N/A	1
TB-6	6	10X6	255	65	2.1	55	85	55	85	0.2	0.1	N/A	1
TB-7	6	10X6	255	65	2.1	55	85	55	85	0.2	0.1	N/A	1
TB-14	14	22X16	1800	600	58.3	55	85	5.83	8.3			N/A	1
TB-19	6	10X6	225	60	1.95	55	85	0.2	0.1			N/A	1
TB-20	6	10X6	225	60	1.95	55	85	0.2	0.1			N/A	1
TB-21	14	22X16	1800	600	58.3	55	85	5.83	8.3			N/A	1
TB-21	8	14X10	435	110	3.56	55	85	0.4	0.2			N/A	1
TB-22	6	10X6	315	80	2.6	55	85	0.3	0.1			N/A	1
TB-23	8	14X10	440	110	3.56	55	85	0.4	0.2			N/A	1
TB-25	12	22X12	1405	350	7.56	55	75	0.8	0.3			N/A	1
TB-26	8	14X10	345	85	7.5	55	75	0.8	0.3			N/A	1
TB-27	10	22X10	45	14.5	16.1	55	75	0.8	0.3			N/A	1
TB-28	10	22X10	75	14.5	16.1	55	75	0.8	0.3			N/A	1
TB-29	10	22X10	460	240	7.78	55	85	0.8	0.7			N/A	1
TB-30	16	22X16	2200	2000	71.3	55	85	7.13	14			N/A	1
TB-31	10	22X10	845	845	18.3	55	75	1.8	2.3			N/A	1
TB-49	6	10X6	320	80	1.73	55	75	0.2	0.1			N/A	1
TB-50	6	10X6	250	50	5.4	55	75	0.54	0.1			N/A	1
TB-51	6	10X6	235	51	2.9	55	75	0.51	0.1			N/A	1
TB-53	14	22X16	1680	1680	54.4	55	85	5.44	8.4			N/A	1

NOTES: 1. EXISTING TERMINAL BOX TO REMAIN. CONTRACTOR SHALL PROVIDE ALL NEW CONTROL HARDWARE, CALIBRATE AND BALANCE TO PERFORMANCE INDICATED. TIE-IN TO EXISTING HONEYWELL FRONT END SYSTEM.

REGISTER, DIFFUSER & GRILL SCHEDULE - GENERAL

TAG	CFM	NECK SIZE (IN)	TYPE	ΔP	MAX NC	TYPICAL UNIT MFG & MODEL NO.	NOTES
S-1	4130	9x8 (8)	LOUVERED DIRECTIONAL DIFFUSER	0.08	15	TITUS 24x24 LAY-IN MODULE	DP 1,2
S-2	130-380	9x8 (8)	LOUVERED DIRECTIONAL DIFFUSER	0.10	20	TITUS 24x24 LAY-IN MODULE	TCCA 1,2
S-3	280-460	12x12 (10)	LOUVERED DIRECTIONAL DIFFUSER	0.13	21	TITUS 24x24 LAY-IN MODULE	TCCA 1,2
S-4	491-620	19X15	LOUVERED DIRECTIONAL DIFFUSER	0.10	25	TITUS 24x24 LAY-IN MODULE	TCCA 1,2
R-1	4140	6	PERFORATED RETURN GRILLE	0.18	18	TITUS 24x24 LAY-IN MODULE	PAR 1
R-2	140-240	8	PERFORATED RETURN GRILLE	0.19	25	TITUS 24x24 LAY-IN MODULE	PAR 1
R-3	241-380	10	PERFORATED RETURN GRILLE	0.18	30	TITUS 24x24 LAY-IN MODULE	PAR 1
R-4	381-460	14	PERFORATED RETURN GRILLE	0.18	31	TITUS 24x24 LAY-IN MODULE	PAR 1
E-1	480	6X6	LOUVERED EXHAUST GRILLE	0.05	20	TITUS 35RLL SURFACE MOUNT	1,3,4
E-2	80-150	8x8	LOUVERED EXHAUST GRILLE	0.08	20	TITUS 35RLL SURFACE MOUNT	1,3,4
E-3	150-240	10x10	LOUVERED EXHAUST GRILLE	0.15	25	TITUS 35RLL SURFACE MOUNT	1,3,4

KEYED NOTES:
1. ALUMINUM CONSTRUCTION.
2. 4-WAY PATTERN TYPICAL.
3. 4.5° DEFLECTION.
4. OPPOSED BLADE DAMPER.

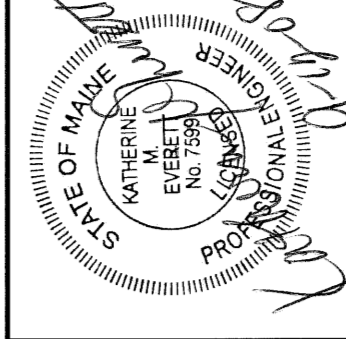
AUTOMATIC TEMPERATURE CONTROLS

GENERAL SCOPE OF THE CONTROL WORK ON THE PROJECT SHALL BE AN EXTENSION OF THE EXISTING HONEYWELL DDC SYSTEM DAMPER ACTUATORS, AND SPACE TEMPERATURE SENSORS ON ALL NEW AND EXISTING VAV (TB) TERMINAL BOXES ON AHU-64 AIR HANDLING SYSTEM ON BEAN BUILDING.
3. PROVIDE TEMPERATURE SENSORS, HUMIDITY SENSORS, AND PRESSURE SENSORS WHERE INDICATED OR AS REQUIRED TO MEET THE SEQUENCES.
GENERAL SYSTEM STARTUP:
1. THE MECHANICAL AND PLUMBING SYSTEMS, INCLUDING THE HUMIDIFIERS, VAV TERMINAL BOXES, AND THE VAV SYSTEMS, SHALL BE COMMISSIONED THROUGH THE JOINING OF THE VAV SYSTEMS DESCRIBED HEREON.
PROPOSED SEQUENCE OF OPERATION, POINTS LIST AND SCHEMATIC DIAGRAM FOR EQUIPMENT NOT INCLUDED IN THOSE SEQUENCE OF OPERATIONS.

SEQUENCES OF OPERATION

1. VAV BOX W/ HOT WATER REHEAT AND/OR HOT WATER RADIATION:
GENERAL ZONE CONTROL:
REHEAT ZONE CONTROL: REHEAT ZONES SHALL BE CONTROLLED FROM SENSORS AS SHOWN ON THE "M" DRAWINGS. ZONE SENSORS SHALL HAVE THE CAPABILITY OF EITHER AN AVERAGE SENSOR INPUT OR ANY ONE INDIVIDUAL SENSOR INPUT. PROGRAMMING SHALL BE FULL AVERAGE INPUT. THE SYSTEM PRESSURE FLUCTUATIONS (TP) IS CONTROLLED INDEPENDENT OF OCCUPIED ZONE CONTROL.
2. UNOCCUPIED ZONE CONTROL: BETWEEN MAXIMUM AND MINIMUM SUPPLY AIR VOLUME SETTINGS. THE CONTROLLER MONITORS THE ROOM TEMPERATURE SENSOR AND AIR VELOCITY SENSOR AND MODULATES THE SUPPLY AIR DAMPER TO MAINTAIN THE ROOM TEMPERATURE AT SETPOINT. AND ROOM VALVE TO MAINTAIN HEATING MODE.
3. HEATING MODE: HEATING MODE IS DEFINED AS ANY SENSED TEMPERATURE LESS THAN 1 DEGREE BELOW SETPOINT. IN HEATING MODE THE FINNED TUBE RADIATION WILL MODULATE BASED ON THE OUTSIDE AIR REHEAT SCHEDULE. UNOCCUPIED ZONE CONTROL: UNOCCUPIED ZONES SHALL BE SCHEDULED THROUGH THE BUILDING AUTOMATION SYSTEM. THE ZONE MAY RESET TO THE OCCUPIED MODE FOR A REDETERMINED TIME PERIOD UPON A SIGNAL FROM THE CONTROL SYSTEM.
4. COOLING MODE: THE ZONE COOLING MODE IS DEFINED AS ANY SENSED TEMPERATURE GREATER THAN 1 DEGREE ABOVE SETPOINT. UNOCCUPIED ZONE CONTROL: UNOCCUPIED ZONES SHALL BE SCHEDULED THROUGH THE BUILDING AUTOMATION SYSTEM. THE ZONE MAY RESET TO THE OCCUPIED MODE FOR A REDETERMINED TIME PERIOD UPON A SIGNAL FROM THE CONTROL SYSTEM.
5. UNOCCUPIED ZONE CONTROL:
THE TERMINAL UNITS SHALL BE CONTROLLED SAME AS OCCUPIED MODE IN UNOCCUPIED ZONES. UNOCCUPIED ZONES SHALL BE SCHEDULED THROUGH THE BUILDING AUTOMATION SYSTEM. THE ZONE MAY RESET TO THE OCCUPIED MODE FOR A REDETERMINED TIME PERIOD UPON A SIGNAL FROM THE CONTROL SYSTEM.

ISSUED FOR CONSTRUCTION
9-12-08



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SCHEDULES AND SPECS

SHEET TITLE:	NOT TO SCALE	DATE:	9-12-08
PROJECT NUMBER:	CDP	GRAPHIC SCALE:	0'
JOB CONTROL NUMBER:	EGG		
DATE OF RECORD:	KRE	SHEET NO.:	M-601
SHRIT CAD FILE:	M-601-08099		
PROJECT NO.:	08099		

A14 SEQUENCE OF OPERATIONS

NOT TO SCALE