AIR TERMINAL UNIT SCHEDULE (AHU 1)

MARK	MAXIMUM AIRFLOW (CFM)	MINIMUM AIRFLOW (CFM)	ROUND INLET SIZE	HEATING COIL REQUIREMENTS								ELECTRICAL		
				HEATING AIRFLOW (CFM)	TOTAL HEATING LOAD (MBH)	EAT (DEG F)	LAT (DEG F)	EWT (DEG F)	LWT (DEG F)	HW FLOW RATE (GPM)	VALVE TYPE	VOLTS	PHASE	Hz
ATU 1-1	1,300	390	12"	1,300	37.5	57.4	84	180	150	2.5	2-WAY	277	1	60
ATU 1-2	1,300	390	12"	1,300	37.5	57.4	84	180	150	2.5	2-WAY	277	1	60
ATU 1-3	530	160	8"	515	14.9	57.4	84	180	150	1.0	2-WAY	277	1	60
ATU 1-4	405	125	6"	N/A - COOLING ONLY ATU BOX								277	1	60
ATU 1-5	405	125	6"	N/A - COOLING ONLY ATU BOX								277	1	60
ATU 1-6	1,405	425	12"	1,405	40.5	57.4	84	180	150	2.7	2-WAY	277	1	60
ATU 1-7	1,150	345	10"	345	10.0	57.4	84	180	150	0.7	2-WAY	277	1	60
ATU 2-1	1,370	415	12"	495	14.2	57.6	84	180	150	0.9	2-WAY	277	1	60
ATU 2-2	525	160	8"	300	8.6	57.6	84	180	150	0.6	2-WAY	277	1	60
ATU 2-3	300	90	6"	165	4.7	57.6	84	180	150	0.3	2-WAY	277	1	60
ATU 2-4	400	120	6"	185	5.3	57.6	84	180	150	0.4	2-WAY	277	1	60
ATU 2-5	1,375	415	12"	1,375	39.4	57.6	84	180	150	2.6	2-WAY	277	1	60
ATU 2-6	1,375	415	12"	1,375	39.4	57.6	84	180	150	2.6	2-WAY	277	1	60
ATU 2-7	410	125	6"	410	11.7	57.6	84	180	150	0.8	2-WAY	277	1	60
ATU 2-8	675	205	8"	365	10.5	57.6	84	180	150	0.7	2-WAY	277	1	60
ATU 2-9	610	185	8"	200	5.7	57.6	84	180	150	0.4	2-WAY	277	1	60
ATU 2-10	1,530	460	12"	600	17.2	57.6	84	180	150	1.1	2-WAY	277	1	60
ATU 2-11	555	170	8"	190	5.4	57.6	84	180	150	0.4	2-WAY	277	1	60
ATU 2-12	945	285	10"	340	9.7	57.6	84	180	150	0.6	2-WAY	277	1	60
ATU 2-13A	2,060	620	14"	2,040	58.4	57.6	84	180	150	3.9	2-WAY	277	1	60
ATU 2-13B	2,060	620	14"	2,040	58.4	57.6	84	180	150	3.9	2-WAY	277	1	60
ATU 2-14	1,790	540	12"	540	15.5	57.6	84	180	150	1.0	2-WAY	277	1	60
ATU 2-15	430	200	6"	200	5.7	57.6	84	180	150	0.4	2-WAY	277	1	60
ATU 2-16	975	295	10"	290	8.3	57.6	84	180	150	0.6	2-WAY	277	1	60
ATU 2-17	860	260	8"	N/A - COOLING ONLY ATU BOX								277	1	60
ATU 3-1	1,260	380	12"	500	14.4	57.4	84	180	150	1.0	2-WAY	277	1	60
ATU 3-2	145	45	6"	130	3.8	57.4	84	180	150	0.3	2-WAY	277	1	60
ATU 3-3	1,390	420	12"	1,390	40.1	57.4	84	180	150	2.7	2-WAY	277	1	60
ATU 3-4	1,730	520	12"	590	17.0	57.4	84	180	150	1.1	2-WAY	277	1	60
ATU 3-5	600	180	8"	180	5.2	57.4	84	180	150	0.3	2-WAY	277	1	60
ATU 3-6	155	50	6"	90	2.6	57.4	84	180	150	0.2	2-WAY	277	1	60
ATU 3-7	155	50	6"	70	2.0	57.4	84	180	150	0.1	2-WAY	277	1	60
ATU 3-8	155	50	6"	70	2.0	57.4	84	180	150	0.1	2-WAY	277	1	60
ATU 3-9	260	80	6"	590	80.0	57.4	84	180	150	5.3	2-WAY	277	1	60
ATU 3-10	100	30	6"	70	2.0	57.4	84	180	150	0.1	2-WAY	277	1	60
ATU 3-11	100	30	6"	70	2.0	57.4	84	180	150	0.1	2-WAY	277	1	60
ATU 3-12	125	40	6"	65	1.9	57.4	84	180	150	0.1	2-WAY	277	1	60
ATU 3-13	600	180	8"	320	9.2	57.4	84	180	150	0.6	2-WAY	277	1	60

AIR TERMINAL UNIT SCHEDULE NOTES

1. ALL AIR TERMINAL UNITS SHALL BE PROVIDED WITH 1/2" MATT-FACED INSULATION.
2. ROUND INLET DUCT CONNECTION SHALL NOT BE SMALLER THAN SIZE INDICATED.
3. PROVIDE ALL AIR TERMINAL UNITS WITH FACTORY MOUNTED DISCONNECTS AS PER NEC.
4. PROVIDE ALL AIR TERMINAL UNITS WITH CONTROL TRANSFORMER FOR TERMINAL CONTROL.
5. MAXIMUM INTERNAL RESISTANCE OF AIR TERMINAL UNIT (INLET TO DISCHARGE STATIC PRESSURE DIFFERENTIAL) WITH PRIMARY AIR DAMPER FULL OPEN AT MAXIMUM PRIMARY AIR FLOW INDICATED SHALL BE MINIMIZED, BUT AT NO CONDITION GREATER THAN 0.5 INCHES H2O.
6. ACOUSTIC PERFORMANCE OF AIR TERMINAL UNITS SHALL BE BASED UPON TESTS CONDUCTED IN ACCORDANCE WITH ARI STANDARD 880.
7. BASIS OF DESIGN IS TITUS.

FAN SCHEDULE

MARK	LOCATION	TYPE	DRIVE	PERFORMANCE DATA					ELECTRICAL DATA			NOTES
				CFM	E.S.P. (IN. W.C.)	MAX. RPM	MAX. SONES	MIN. HP (W)	VOLTS	PHASE	Hz	
EF-1	1ST FLOOR	CEF	DD	50	0.50	722	1.0	24 (W)	115	1	60	1, 2, 3, 4, 5, 6, 8, 10
EF-2	1ST FLOOR	CEF	DD	50	0.50	722	1.0	24 (W)	115	1	60	1, 2, 3, 4, 5, 6, 8, 10
EF-3	1ST FLOOR	CEF	DD	50	0.50	722	1.0	24 (W)	115	1	60	1, 2, 3, 4, 5, 6, 8, 10
EF-4	1ST FLOOR	ICF	DD	600	0.50	1,550	1.4	231 (W)	115	1	60	1, 2, 3, 4, 5, 6, 7, 8, (AHU-1), 8, 9
EF-5	2ND FLOOR	ICF	DD	200	0.40	1,550	3.8	75 (W)	115	1	60	1, 2, 3, 4, 5, 6, 7, (AHU-2), 8, 9
EF-6	2ND FLOOR	ICF	DD	1,800	0.50	1,100	5.5	1/2 HP	115	1	60	1, 2, 3, 4, 5, 6, 7 (AHU-2), 8, 9
EF-7	1ST FLOOR	ICF	DD	150	0.50	1,550	2.5	145 (W)	115	1	60	1, 2, 3, 4, 5, 6, 7 (AHU-3), 8, 9

FAN NOTES:

1. CEF - CEILING EXHAUST FAN; ICF - INLINE CABINET FAN
2. DD - DIRECT DRIVE;
3. PROVIDE FANS WITH SPEED CONTROLLER FOR AIR FLOW BALANCING. MOUNT CONTROLLER WITHIN FAN HOUSING.
4. PROVIDE FAN WITH AN INTEGRAL DISCONNECT.
5. PROVIDE WITH GRAVITY BACKDRAFT DAMPER.
6. REFER TO FIRE ALARM DRAWINGS FOR FIRE ALARM SHUTDOWN RELAYS.
7. INTERLOCK FAN WITH INDICATED AHU.
8. SEE ELECTRICAL FOR COMBINATION MOTOR STARTER/DISCONNECT.
9. SEE DETAIL 2 ON SHEET M5.02.
10. INTERLOCK FAN WITH LIGHT SWITCH.

ULTRAVIOLET NOTES

TYPE - FOR AHU-1, AHU-2, AHU-3
UV-C FIXTURE - FIXTURING SHALL CONSIST OF A POWER SUPPLY, POWER SUPPLY HOUSING, "PLENUM RATED" WIRING LOOM, LAMP PLUG, LAMP-PLUG PROTECTOR AND ENCAPSULATED LAMP WITH ADJUSTABLE LAMP RETAINING DEVICE.

POWER SUPPLY - POWER SUPPLY SHALL BE CSA AND UL LISTED AS A VARIABLE INPUT TYPE (120-277 VAC +/- 10%), 50-60 HZ WITH A PROGRAMMED RAPID START. SUPPLY SHALL BE DESIGNED AS HIGH POWER FACTOR, CLASS P, SOUND RATED "A", TYPE 1 OUTDOOR AND WITH INHERENT THERMAL PROTECTION AND NO PCB'S. SUPPLY SHALL BE CAPABLE OF PRODUCING THE SPECIFIED OUTPUT AND ORGANISM DESTRUCTION AT NOT MORE THAN 15 WATTS OF POWER CONSUMPTION FOR EACH SQUARE FOOT OF TREATED, CROSS SECTIONAL AREA. THE POWER SUPPLY SHALL BE CAPABLE OF PROPERLY POWERING 1-145W UV-C LAMP OR 1- OR 2- 75W UV-C LAMPS WHILE ENSURING AT LEAST 9000 HOURS OF LAMP LIFE, AND WITH GREATER THAN 85% OF ITS INITIAL OUTPUT, AT THE LAMPS "END OF LAMP LIFE" PHASE. POWER SUPPLY SHALL BE PROTECTED AGAINST "END OF LAMP LIFE" CONDITIONS, WARRANTED FOR 5 YEARS, AND BE LABELED FOR FIELD WIRING.

POWER SUPPLY HOUSING - SHALL BE CONSTRUCTED OF 20GA GALVANIZED, POWDER COATED STEEL AND DESIGNED TO FACILITATE NEC REGULATED POWER SUPPLY INSTALLATION OUTSIDE PLENUMS. EACH HOUSING SHALL BE CAPABLE OF PROPERLY HOLDING, GROUNDING AND WIRING EITHER FOUR OR EIGHT BALLASTS WITHIN TO PROTECT AGAINST ELECTRICAL SHOCK AND MOISTURE, AS WELL AS RF AND EMI LEAKS.

PLENUM RATED WIRING LOOM - SHALL BE OF SUFFICIENT LENGTH TO FACILITATE LAMP CONNECTION TO A REMOTELY LOCATED POWER SUPPLY. THE LAMP AND LOOM SHALL BE CAPABLE OF BEING MOUNTED ANYWHERE IN THE SYSTEM AND/OR AS SHOWN ON THE DRAWINGS. THE LOOM SHALL MEET UL SUBJECT 13 AND UL 1581, AND ARTICLE 725 OF THE NEC. THE LOOM JACKET SHALL BE CONSTRUCTION OF UV-C RESISTANT MATERIALS AND SHALL HAVE AN INTERNAL ALUMINUM/MYLAR SHIELD.

LAMP PLUG - SHALL BE OF THE 4-PIN TYPE CAPABLE OF ACCOMMODATING A SINGLE-ENDED HO LAMP.

LAMP-PLUG PROTECTOR - SHALL BE OF UV RESISTANT MATERIALS AND DESIGNED TO SHRINK 3-1 OVER THE LAMP PLUG AND WIRING LOOM FOR PROTECTION AGAINST ELECTRICAL SHOCK, MOISTURE AND SEPARATION.

EACH LAMP PLUG AND PLENUM RATED WIRING LOOM CONNECTION SHALL HAVE A UVC RESISTANT, ELASTIC PLUGLUV TO ENSURE A WATER TIGHT CONNECTION AND SEAL BETWEEN ANY SINGLE-ENDED LAMP AND WIRING LOOM LAMP PLUG TO PREVENT ELECTRICAL SHOCK, CONNECTION SHORTS AND/OR LAMP OR BALLAST FAILURE FROM LAMP PIN OXIDATION OR PIN ARCING.

LAMP RETAINING DEVICE - MAY BE SINGLE OR DUAL TYPES, MAGNETICALLY OR PERMANENTLY AFFIXED WITHIN THE IRRADIATED CAVITY AND CONSTRUCTED OF UVC RESISTANT MATERIALS AND PROVIDE FOR MAXIMUM FLEXIBILITY IN QUICK LAMP POSITIONING, REMOVAL AND HOLDING POWER.

LAMPS - EACH LAMP SHALL CONTAIN LESS THAN 8 MILLIGRAMS OF MERCURY AND SHALL BE HERMETICALLY LAMINATED WITH A THIN LAYER OF UV-C TRANSMISSIBLE MATERIAL TO PROVIDE PROTECTION AGAINST LAMP BREAKAGE AND TO ENSURE LAMP CONTENTS FROM A BROKEN LAMP ARE CONTAINED. LAMP LIFE SHALL BE 9000 HOURS WITH NO MORE THAN A 15% OUTPUT LOSS AT THE END OF THE LAMPS LIFE. LAMPS SHALL BE CONSTRUCTED WITH UV-C PROOF MATERIAL BASES AND SHALL NOT PRODUCE OZONE.

IRRADIATION - FIXTURELESS LAMPS ARE TO BE INSTALLED IN SUFFICIENT QUANTITY AND IN SUCH A MANNER SO AS TO PROVIDE AN EQUAL DISTRIBUTION OF THE AVAILABLE UV-C ENERGY. WHEN INSTALLED, THE UV-C ENERGY PROVED SHALL BE OF THE LOWEST POSSIBLE REFLECTED AND SHADOWED LOSSES AND SHALL BE DISTRIBUTED IN A 360 DEGREE PATTERN WITHIN THE CAVITY TO PROVIDE THE HIGHEST UV-C ENERGY ABSORPTION BY MICROBIAL PRODUCTS IN THE AIR.

INTENSITY - THE MINIMAL UV-C ENERGY STRIKING A SURFACE SHALL BE SUFFICIENT TO CONTINUOUSLY DESTROY A MONO-LAYER OF MOLD AND/OR BACTERIA IN LESS THAN ONE HOUR WHILE OPERATING IN AIR TEMPERATURES OF 1-70°C.

INSTALLATION - THE BALLAST HOUSING SHALL BE CAPABLE OF INSTALLATION WITHIN THE AIR STREAM AND/OR WITHIN A POWER SUPPLY HOUSING. LAMPS SHALL BE MOUNTED TO IRRADIATE THE INTENDED SURFACE(S) AS WELL AS ALL OF THE AVAILABLE LINE OF SIGHT AIR STREAM THROUGH PROPER LAMP PLACEMENT AND INCIDENT ANGLE REFLECTION.

SAFETY - TO PROTECT PERSONNEL, ALL ACCESS PANELS AND DOORS TO ANY UV-C ASSEMBLY AND/OR WITHIN VIEW OF ANY UV-C ASSEMBLY SHALL INCLUDE MECHANICAL INTERLOCK SWITCH TO INSURE THAT ALL UV-C ASSEMBLIES WILL BE DE-ENERGIZED WHEN ANY OF THESE ACCESSES ARE OPENED. THIS SHALL BE IN ADDITION TO THE MANUAL DISCONNECT SWITCH MOUNTED OUTSIDE THE AIR HANDLING UNIT CASING.

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MECHANICAL SCHEDULES

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