

SYMBOL	MFG. NO.	CFM	S.P.	H.P.	COOLING			HEATING		O.A. CFM	VOLTAGE	MCA	FUSE	WEIGHT
					TOTAL	SENS.	IN	OUT						
TOP OF EAST UNIT 1	HVAC-1	YHC092E4	2920	1.0	2	91.4	68.0	150	120	400	400 / 3	19.9	25	1497
TOP OF EAST UNIT 2	HVAC-2	YHC092E4	2920	1.0	2	91.4	68.0	150	120	400	400 / 3	19.9	25	1497
MEZZ MTG RMS	HVAC-3	YHC036E4	1170	0.7	1	36.5	27.9	120	96	250	400 / 3	10.7	15	861
MEZZ MTG RMS	HVAC-4	YHC036E4	1170	0.7	1	36.5	27.9	120	96	250	400 / 3	10.7	15	861
BALLROOM	HVAC-5	YHC120E4	3900	1.0	3	118.5	92.3	250	195	750	400 / 3	24.9	30	1716
BALLROOM	HVAC-6	YHC120E4	3900	1.0	3	118.5	92.3	250	195	750	400 / 3	24.9	30	1716
BALLROOM	HVAC-7	YHC120E4	3900	1.0	3	118.5	92.3	250	195	750	400 / 3	24.9	30	1716
HAWTHORN RM	HVAC-8	YHC060E4	1950	0.7	1	63.2	46.3	130	103	250	400 / 3	16.8	25	1111
JR BALLROOM	HVAC-9	YHC092E4	2920	1.0	2	91.4	68.0	150	120	400	400 / 3	19.9	25	1497
LOBBY	HVAC-10	YHC120E4	3900	1.0	3	118.5	92.3	250	195	340	400 / 3	24.9	30	1716
DAY DINING	HVAC-11	YHC092E4	2920	1.0	2	91.4	68.0	150	120	400	400 / 3	19.9	25	1497
LONGFELLOW RM	HVAC-12	YFD181E4	5850	1.3	5	180.0	135.0	250	195	750	400 / 3	39.0	45	2540
SPA	HVAC-13	YFD151E4	4875	1.0	5	159.1	114.6	250	195	750	400 / 3	31.0	40	2330
LAUNDRY	HVAC-14	YHC150E4	4875	1.0	5	159.1	114.6	250	195	500	400 / 3	31.0	40	2330
KITCHEN	HVAC-15	YHC092E4	2920	1.0	2	91.4	68.0	150	120	300	400 / 3	19.9	25	1497
KITCHEN	HVAC-16	YHC092E4	2920	1.0	2	91.4	68.0	150	120	300	400 / 3	19.9	25	1497

UNITS BASED ON : TRANE , COMPLETE WITH ECONOMIZERS , BAROMETRIC RELIEFS , HINGED ACCESS, DISC SWITCH, CONVENIENCE OUTLET, & ROOF CURBS.
 OUTDOOR DESIGN - 95 DEG.F, DB / 72 DEG.F, WB AIR ENTERING COIL - 80 DEG.F, DB / 67 DEG.F, WB
 UNITS SHALL BE NATURAL GAS FIRED.

LAUNDRY & KITCHEN UNITS, HVAC-15,16, & 17 SUPPLIED WITH CONCENTRIC DROPS

MECHANICAL EQUIPMENT

1. ELECTRIC HEATERS

RF-1,2,3,4,5, Q-MARK, 750 WATT CEILING RADIANT PANELS, 24"x48", WHITE, 277V/160
 50 MINUTE ROTARY WALL MOUNTED TIMER (SPA)

RF-6,7,8, Q-MARK, 750 WATT CEILING RADIANT PANELS, 24"x48", WHITE, 277V/160
 WALL THERMOSTATS (VESTIBULE)

ELH-142, Q-MARK #CUG935, 5000 WATT CABINET UNIT HEATER WITH INTEGRAL THERMOSTAT.
 277V/160 (STAIR TOWERS)

ELH-347, Q-MARK #AMH-4157MG, 1500 WATT UNIT HEATER WITH INTEGRAL THERMOSTAT.
 277V/160 (VESTIBULE 105 & 2ND FL STAIR)

ELH-445, Q-MARK #MUH-05-41, 5000 WATT ELECTRIC UNIT HEATER WITH INTEGRAL THERMOSTAT.
 480V/360 (TOWER ROOMS)

ELH-6, Q-MARK #MUH-03-41, 3000 WATT ELECTRIC UNIT HEATER WITH INTEGRAL THERMOSTAT.
 480V/360 (TOWER ROOM)

EBB-1, Q-MARK, 1500 WATT ELECTRIC BASEBOARD HEATERS WITH BUILT-IN THERMOSTATS.
 277V/160 (TYP. FOR (8), TOP OF THE EAST 4 STAIR)

EBB-2, Q-MARK, 750 WATT ELECTRIC BASEBOARD HEATERS WITH BUILT-IN THERMOSTATS.
 277V/160 (TYP. FOR (3), 13TH FLOOR) (TYP. FOR (1), SERVICE ELEV LOBBY)

DH-1, Q-MARK, 1500 WATT FAN POWERED ELECTRIC HEATER IN CEILING WITH 30 MINUTE WALL TIMER.
 277V/160 (TYP. FOR (1), PRESIDENTIAL SUITE BATHROOM)

2. MAKE-UP AIR UNITS

MUA-1,2,3,4,5, TRANE #GRCA40GFWO, GAS FIRED ROOFTOP MAKE-UP AIR UNITS, 3575 CFM, 1" ESP,
 1145 RPM, 3 HP FAN, 350 MBH, 55 HEAT EXCHANGER, OA HOOD, MOD, FILTER, HINGED DOORS, &
 CURB, 200V/360, 1311 POUNDS

MUA-4 TRANE #GRCA40GFWO, GAS FIRED ROOFTOP MAKE-UP AIR UNITS, 4000 CFM, 1" ESP, 1145
 RPM, 3 HP FAN, 400 MBH, 55 HEAT EXCHANGER, OA HOOD, MOD, FILTER, HINGED DOORS, & CURB,
 200V/360, 1311 POUNDS

NOTE:
 MUA-144 HORIZONTAL DISCHARGE
 MUA-243 DOWN DISCHARGE

3. BOILERS, B-1,2,3

LOCHINVAR #FRN3000, NATURAL GAS FIRED BOILERS, 3000 MBH INPUT, 2400 MBH OUTPUT, 4"
 WATER CONNECTION, 10" VENT & COMBUSTION AIR, 4125 POUNDS.

120V/160, x MCA, x FUSE

4. EXPANSION TANKS, ET-1&2

TACO #CBX-600

5. COOLING TOWER

EVAPCO #AT-112-212, 506 TON CAPACITY, 1500 GPM, 95F EWT, 85F LWT, 74F WB, 25 HP FAN,
 480V/360, 11 1/2" I-3/4" Lx 11 1/2" O.D. Wx 3" H, 13,750 POUNDS. EVAP-PAK FILL, ELECTRIC HEATERS
 (2) 50W, LAZEX, PREMIUM MOTOR.

4. DOMESTIC WATER HEAT EXCHANGER #HX-1

ALFA-LAVAL #A06M-AFG, 3 1/2 S.S. PLATES, 981 MBH TOTAL, 152 LBS., OVERALL SIZE
 10x15x26" HIGH, 2" CONNECTIONS. BOILER WATER : 825 GPM, 150 DEG.F E.W.T., 168 DEG.F
 L.W.T., 4.9 PSI PD, DOMESTIC WATER : 158 GPM, 105 DEG.F E.W.T., 160 DEG.F L.W.T., 0.3 PSI PD

5. DOMESTIC WATER STORAGE TANKS:

LOCHINVAR #UJ-504, 504 GALLON CAPACITY, 46" DIA. x 92" HIGH, 1623 POUNDS

6. COOLING TOWER HEAT EXCHANGER #HX-2

ALFA-LAVAL #A06-BFG, 3.5, S.S. PLATES, CT SIDE 1500 GPM, 85F EWT, 94F LWT, 9.9 PSI PD,
 HP LOAD SIDE 1200 GPM, 90F EWT, 80F LWT, 6.6 PSI PD, OVERALL SIZE 25"x36"x66" HIGH
 3628 POUNDS

7. COOLING TOWER SIDE STREAM FILTER

MODEL #MFEZ-30, FILTER, 3 HP PUMP, STRAINER, CONTROL PANEL, AUTO BACKWASH, 98 GPM
 MAX., 480V/360, 975 POUNDS.

DIFFUSERS-GRILLES-REGISTERS

SYMBOL	MFG# & MODEL#	SIZE	CFM	NC	PD	THROW	CONN.	REMARKS
A	ANEMOSTAT #EPL	6" DIA.	0-100	<20	0.03	2-6	6" DIA.	ED GRID
B	ANEMOSTAT #EPL	8" DIA.	101-200	<20	0.01	3-6	8" DIA.	ED GRID
C	ANEMOSTAT #EPL	10" DIA.	201-400	<29	0.05	5-14	10" DIA.	ED GRID
D	ANEMOSTAT #EPL	12" DIA.	401-640	<29	0.03	7-17	12" DIA.	ED GRID
E	ANEMOSTAT #S3HD	12"x12"	0-350	<25	0.04	---	10" DIA.	---
F	ANEMOSTAT #GC5L	12"x24"	351-700	<25	0.04	---	14" DIA.	---
G	ANEMOSTAT #GC5L	24"x24"	701-1300	<30	0.03	---	16" DIA.	---
H	ANEMOSTAT #S2V0	12"x4"	0-100	<20	0.02	9-15	8" DIA.	VD
J	ANEMOSTAT #S2V0	14"x4"	101-200	<20	0.03	11-18	8" DIA.	VD
K	ANEMOSTAT #S2V0	16"x6"	201-350	<20	0.02	13-20	10" DIA.	VD
L	ANEMOSTAT #S2V0	24"x6"	351-450	<20	0.02	16-28	10" DIA.	VD
M	ANEMOSTAT #S3HD	8"x6"	0-100	<20	0.02	---	6" DIA.	VD
N	ANEMOSTAT #DM41	6"x6"	0-100	<20	0.06	3-6	6"x6"	VD
P	ANEMOSTAT #DM41	9"x9"	101-200	<20	0.06	4-9	9"x9"	VD
Q	ANEMOSTAT #DM41	9"x12"	201-350	<20	0.06	5-11	9"x12"	VD
R	ANEMOSTAT #DM41	12"x12"	351-500	<20	0.06	7-14	12"x12"	VD
LD-1	ANEMOSTAT #LBD-75	40"x48" SLOT	100-200	<20	0.06	7-14	8" DIA.	VD
LD-2	ANEMOSTAT #LBD-75	40"x48" SLOT	200-300	<20	0.06	7-14	10" DIA.	VD
LD-3	ANEMOSTAT #LBD-75	48"x48" SLOT	300-400	<20	0.06	7-14	10" DIA.	VD
LD-4	ANEMOSTAT #LBD-150	48"x48" SLOT	600-800	<20	0.06	---	14" DIA.	VD
T	ANEMOSTAT #S3HD	8"x6"	0-100	<20	0.04	---	---	VD

ALL REGISTERS, GRILLES & DIFFUSERS WHITE (ALUMINUM AT WOOD PANELS)

LINEARS TO BE SURFACE TYPE, EXCEPT FOR LAY-INS AT RMS 005, & 040 THRU 047. SEE ARCHITECTURAL PLANS FOR CEILING TYPES.

PUMP & CIRCULATOR SCHEDULE

SYMBOL	MFG. NOS.	GPM	FT. HEAD	H.P.	RPM	VOLT/PH	REMARKS
P-142	F5013	1200	145	60	1760	480V/360	WSPH LOOP
P-344	F5010	1500	70	40	1750	480V/360	TOWER LOOP
P-5,647	KV4007	275	15	1-1/2	1160	480V/360	BOILER INJECTION
P-049	KV6009	825	30	15	1760	480V/360	DHW HEAT EXCHANGER
P-10,11&12	1941	150	30	2	1750	480V/360	DHW HEAT EXCHANGER
P-13	2400-455	30	25	1/3	3450	120V/160	DHW RECIRC-120F
P-14	00135F	10	15	1/6	3250	120V/160	DHW RECIRC-160F

1) NOS. BASED ON : TACO , SEE SPECIFICATIONS FOR ACCEPTABLE MANUFACTURERS.

2) P-142 SHALL BE FURNISHED WITH FREQUENCY DRIVERS.

3) P-10,11,12,13 & 14 SHALL BE BRONZE CONSTRUCTION.

EXHAUST FAN SCHEDULE

SYMBOL	LOCATION	MFG. NO.	CFM	S.P.	HP/W	RPM	TIP SPEED	REMARKS
EF-1	ROOF	DX12B	1150	0.63"	1/3	1130	4705	(1) (2) (3) (4) (5) (6) (7)
EF-2	ROOF	DX12B	1150	0.63"	1/3	1130	4705	(1) (2) (3) (4) (5) (6) (7)
EF-3	ROOF	DX16S	550	0.63"	1/3	1300	4670	(1) (2) (3) (4) (5) (6) (7)
EF-4	ROOF	DX16S	550	0.63"	1/3	1300	4670	(1) (2) (3) (4) (5) (6) (7)
EF-5	ROOF	DX12B	1350	0.63"	1/3	1130	4705	(1) (2) (3) (4) (5) (6) (7)
EF-6	ROOF	DX16S	550	0.63"	1/3	1300	4670	(1) (2) (3) (4) (5) (6) (7)
EF-7	ROOF	DX16S	550	0.63"	1/3	1300	4670	(1) (2) (3) (4) (5) (6) (7)
EF-8	ROOF	DX12B	1100	0.63"	1/3	1130	4705	(1) (2) (3) (4) (5) (6) (7)
EF-9	ROOF	DX16S	550	0.63"	1/3	1300	4670	(1) (2) (3) (4) (5) (6) (7)
EF-10	ROOF	DX16S	550	0.63"	1/3	1300	4670	(1) (2) (3) (4) (5) (6) (7)
EF-11	ROOF	DX12B	1350	0.63"	1/3	1130	4705	(1) (2) (3) (4) (5) (6) (7)
EF-12	ROOF	DX16S	550	0.63"	1/3	1300	4670	(1) (2) (3) (4) (5) (6) (7)
EF-13	ROOF	DX12B	1100	0.63"	1/3	1130	4705	(1) (2) (3) (4) (5) (6) (7)
EF-14	ROOF	DX16S	4000	0.63"	1	950	4950	(1) (2) (3) (4) (5) (6) (7) (8)
EF-15	ROOF	DX16S	600	0.25"	1/3	1300	4670	(1) (2) (3) (4) (5) (6) (7)
EF-16	ROOF	DX12B	1475	0.75"	1/3	1130	4705	(1) (2) (3) (4) (5) (6) (7)
EF-17	ROOF	DX16S	600	0.50"	1/3	1300	4670	(1) (2) (3) (4) (5) (6) (7)
EF-18	CEILING	Z105	350	0.25"	243	1050	-----	(1) (2) (3) (4) (5) (6) (7)
EF-19	CEILING	Z105	325	0.25"	243	1050	-----	(1) (2) (3) (4) (5) (6) (7)
EF-20	CEILING	Z105	325	0.25"	243	1050	-----	(1) (2) (3) (4) (5) (6) (7)
EF-21	CEILING	Z105	325	0.25"	243	1050	-----	(1) (2) (3) (4) (5) (6) (7)
EF-22	CEILING	Z105	325	0.25"	243	1050	-----	(1) (2) (3) (4) (5) (6) (7)
5F-1	ROOF	D30	12000	0.75"	5	829	6607	(1) (2) (3) (4) (5) (6) (7)
5F-2	ROOF	D30	12000	0.75"	5	829	6607	(1) (2) (3) (4) (5) (6) (7)
5F-3	ROOF	D30	12000	0.75"	5	829	6607	(1) (2) (3) (4) (5) (6) (7)

FANS BASED ON : PENN , SEE SPECIFICATIONS FOR ACCEPTABLE MANUFACTURERS , 5AF-1 & 2 BASED ON KANAF/PLAKT.

- (1) THERMOSTAT CONTROLLED
- (2) BACKDRAFT DAMPER
- (3) WALL DISCHARGE CAP
- (4) 120 V - 1 PHASE- 60 HZ.
- (5) SPEED CONTROL
- (6) ROOF CURB (SEE PLANS FOR ROOF SLOPE)
- (7) FACTORY MOUNTED DISCONNECT SWITCH.
- (8) 200V-3 PHASE-60 HZ
- (9) WEATHERPROOF

KEF-142, KSU-142 SUPPLIED BY OTHERS, PLEASE REFER TO KITCHEN EQUIPMENT REPRESENTATIVE DRAWINGS FOR INFORMATION.

WATER SOURCE HEAT PUMP SCHEDULE

SYMBOL	UNIT TYPE	E.S.P.1	COOLING			HEATING			REMARKS	CONN.	FILTERS	MCA	FUSE
			TOT. MBH	SENS. MBH	TOT. MBH</								