ROOF-MOUNTED PACKAGED AC UNIT SCHEDULE

SYMBOL	MANUFACTURER & MODEL NO.	LOCATION	AREA SERVED	COOLING CAPACITY BTUH (AT 99° AMB.) TOTAL	SENSIBLE	EER	HEATING CAPACITY MBH INPUT	OUTPUT	EFF. (%)	SUPPLY AIR C.F.M.	EAT (° F) DB	EAT (° F) WB	LAT (° F) DB	LAT (° F) WB	SUPPLY FAN QTY.	E.S.P.	BHP	RPM	ELECTRICAL VOLT/ø/Hz	COMPRESSOR QTY	RLA/ea	LRA/ea	CONDENSER FAN QTY	FLA/ea	EXHAUST FAN QTY	FLA	MINIMUM CIRCUIT AMPS	MOCP	REFRI-GERANT TYPE	FILTER (NO) & DIM. (IN.)	MIN. OSA (CFM)	UNIT SIZE (WxLxH) (IN)	OPER. WT. (LBS)	REMARKS
AC 1	YORK ZH090 (7.5 Tons)	BLDG '1' ROOF	BLDG '1' OFFICE BUILDING	85,060	73,350	11.4	–	–	–	3000	78.4	63.7	55.9	54.1	1	1.4	2.49	1471	460/3/60	2	7.7	50	2	0.8	1	1.7	28.1	35	R-410A	(4)25X16X2	650	59x89x42	1310	①②④⑤⑦⑧⑩
AC 2	YORK ZJ240 (20 Tons)	BLDG '1' ROOF	BLDG '1' CLASSROOM BUILDING	241,790	204,140	11.6	–	–	–	8000	80.4	65.1	56.9	55.1	1	1.8	7.69	1128	460/3/60	4	9.6	70	4	1.9	1	5.6	61.2	70	R-410A	(12)12X24X2	2640	92x180x52	3170	①②③④⑤⑧⑩
AC 3	YORK ZJ240 (20 Tons)	BLDG '2' ROOF	BLDG '2'	238,080	206,630	11.6	–	–	–	8000	78.4	63.4	54.7	53.2	1	1.8	7.69	1128	460/3/60	4	9.6	70	4	1.9	1	5.6	61.2	70	R-410A	(12)12X24X2	1730	92x180x52	3170	①②③④⑤⑧⑩
AC 4	YORK ZJ037N05 (3 Tons)	BLDG '2' ROOF	BLDG '2'	33,590	28,970	SEER 15.0	45,000 / 60,000	36,750 / 49,000	81.5	1200	76.5	60.6	54.2	50.5	1	0.8	0.68	1010	460/3/60	1	6.4	45	1	1.3	–	–	11.9	15	R-410A	(4)25X16X2	120	59x89x42	850	②④⑤⑥⑩
AC 5	YORK ZJ180 (15 Tons)	BLDG '3' ROOF	BLDG '3' 1ST FLOOR	177,780	162,200	12.4	–	–	–	6,000	77.7	62.0	52.8	51.5	1	2.0	5.66	1215	460/3/60	4	7.7	50	4	1.1	1	5.6	49.9	55	R-410A	(12)12X24X2	1200	92x180x52	3084	①③④⑤⑧⑨⑩
AC 6	YORK ZJ180 (15 Tons)	BLDG '3' ROOF	BLDG '3' 2DN FLOOR	177,050	153,740	12.4	–	–	–	6,000	76.0	59.3	52.4	48.2	1	1.8	5.45	1178	460/3/60	4	7.7	50	4	1.1	1	5.6	49.9	55	R-410A	(12)12X24X2	590	92x180x52	3084	①③④⑤⑧⑨⑩

REMARKS:
① FURNISH WITH FACTORY INSTALLED AND WIRED FIXED ENTHALPY CONTROLLED ECONOMIZER WITH MODULATING CENTRIFUGAL EXHAUST FAN AND ROOM PRESSURE SENSOR. ROOM PRESSURE SENSOR SHALL BE MOUNTED IN CEILING ABOVE THERMOSTAT. FURNISH WITH PLASTIC TUBING AS REQUIRED.
② PROVIDE 11" HIGH PRE-FABRICATED ROOF CURB, SHAPED PER ROOF SLOPE.
③ PROVIDE SUPPLY FAN MOTOR WITH VARIABLE FREQUENCY DRIVE TO COMPATIBLE WITH VAV SYSTEM.
④ PROVIDE FAR 30/30 THROWAWAY FILTERS.
⑤ PROVIDE STAINLESS STEEL CONDENSATE DRAIN PAN.
⑥ PROVIDE BAROMETRIC RELIEF (MIN. 20%) HOOD WITH OUTSIDE AIR INTAKE HOOD.
⑦ FURNISH WITH VVT ZONE CONTROL SYSTEM.
⑧ AUTOMATIC SHUT-OFF SHALL BE DONE UPON DETECTION OF SMOKE BY DUCT SMOKE DETECTOR OR SPACE SMOKE DETECTION SYSTEM, REFER TO GENERAL NOTE NO. 17 ON THIS SHEET.
⑨ PROVIDE 18" HIGH FACTORY CALCULATED, WELDED AND PREFABRICATED VIBRATION ISOLATION CURB, SHAPED PER ROOF SLOPE.
⑩ PROVIDE DISCONNECT SWITCH PER ELECTRICAL DRAWINGS.

SPLIT SYSTEM SCHEDULE

FAN COIL UNIT

SYMBOL	MANUFACTURER & MODEL NO.	SERVING AREA & LOCATION	COOLING CAPACITY BTUH	SEER	HEATING CAPACITY BTUH	HSPF	CFM LOW	CFM MED	CFM HIGH	E.S.P. INCH WC	V-PH-Hz	UNIT POWER FLA	UNIT POWER MCA	UNIT POWER CKT BKR AMP	MIN. OSA CFM	(NO.) FILTER DIM. (IN.)	UNIT SIZE (WxLxH) (IN.)	APPROX. OPER.WT. (LBS)	REMARKS
FC 1-1	CARRIER FX4C036	BUILDING 1 IDF, MPOE, ELECT.	32,600	14.0	–	–	960	1090	1250	0.5	208-1-60	4.1	5.1	15	–	21.5x20	22x54x21	144	①③④⑤
FC 2-1	CARRIER 40QNC018	BUILDING 2 TEL	15,800	13.0	–	–	460	525	645	–	208-1-60	0.53	0.66	15	–	(2)12.5x16.1	42.5x8x11.6	45	①③④⑤
FC 2-2	CARRIER FX4C024	BUILDING 2 ELECT.	20,390	14.0	–	–	430	670	790	0.5	208-1-60	2.4	3.0	15	–	21.5x16.5	22x48x18	120	①③④⑤
FC 3-1	CARRIER 40QNC018	BUILDING 3 ELEV. ROOM	15,800	13.0	–	–	460	525	645	–	208-1-60	0.53	0.66	15	–	(2)12.5x16.1	42.5x8x11.6	45	①③④⑤
FC 3-2	CARRIER 40QNC018	BUILDING 3 TEL./ELECT.	15,800	13.0	–	–	460	525	645	–	208-1-60	0.53	0.66	15	–	(2)12.5x16.1	42.5x8x11.6	45	①③④⑤
FC 3-3	CARRIER 40QNC018	BUILDING 3 DATA	15,800	13.0	–	–	460	525	645	–	208-1-60	0.53	0.66	15	–	(2)12.5x16.1	42.5x8x11.6	45	①③④⑤
FC 4-1	CARRIER 40MVQ012	BUILDING 4 OFFICE	11,000	13.0	10,900	7.7	340	365	425	–	35V DC	1.18	25 WATT	–	15	–	32x8x11	18	①④ POWER IS PROVIDED FROM OUTDOOR UNIT.

CONDENSING UNIT/ HEAT PUMP

SYMBOL	MANUFACTURER & MODEL NO.	LOCATION	COOLING CAPACITY BTUH	HEATING CAPACITY BTUH	COMPRESSOR RLA	COMPRESSOR LRA	CONDENSER FAN FLA	UNIT POWER V-PH-Hz	UNIT POWER MCA	UNIT POWER FUSE AMP	REFRIG-ERANT TYPE	REFRIGERANT PIPE CONN. LIQUID	REFRIGERANT PIPE CONN. VAPOR	UNIT SIZE (WxLxH) (IN.)	APPROX. OPER.WT. (LBS)	SERVING CONDENSING UNIT	REMARKS
CU 1-1	CARRIER 38HDR036	BUILDING 1 ROOF	32,600	–	14.1	77.0	1.45	208-1-60	19.1	30	R-410A	3/8"	7/8"	17x45x37	250	FC 1-1	①②⑤⑥
CU 2-1	CARRIER 38HDF018	BUILDING 2 ROOF	15,800	–	12.8	58.3	0.8	208-1-60	12.1	20	R-410A	3/8"	5/8"	15x36x25	170	FC 2-1	①②⑤
CU 2-2	CARRIER 38HDR024	BUILDING 2 ROOF	20,390	–	12.8	58.3	0.8	208-1-60	16.8	25	R-410A	3/8"	5/8"	15x36x31	180	FC 2-2	①②⑤
CU 3-1	CARRIER 38HDF018	BUILDING 3 ROOF	15,800	–	12.8	58.3	0.8	208-1-60	12.1	20	R-410A	3/8"	5/8"	15x36x25	170	FC 3-1	①②⑤
CU 3-2	CARRIER 38HDF018	BUILDING 3 ROOF	15,800	–	12.8	58.3	0.8	208-1-60	12.1	20	R-410A	3/8"	5/8"	15x36x25	170	FC 3-2	①②⑤
CU 3-3	CARRIER 38HDF018	BUILDING 3 ROOF	15,800	–	12.8	58.3	0.8	208-1-60	12.1	20	R-410A	3/8"	5/8"	15x36x25	170	FC 3-3	①②⑤
HP 4-1	CARRIER 38MVQ012	BUILDING 4 ROOF	11,000	10,900	5.2	21	0.38	208-1-60	9	15	R-410A	1/4"	1/2"	15x36x25	85	FC 4-1	①②⑤

REMARKS:
① WIRING POWER & CONTROL PIPING SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.
② PROVIDE AND INSTALL FILTER DRIER, REFRIGERANT SIGHT GLASS, LIQUID LINE SOLENOID VALVE, EXTERNALLY EQUALIZED EXPANSION VALVES.
③ PROVIDE AND INSTALL CONDENSATE PUMP WHERE REQUIRED.
④ PROVIDE WIRED THERMOSTAT
⑤ PROVIDE DISCONNECT SWITCH PER ELECTRICAL DRAWINGS.
⑥ PROVIDE LOW AMBIENT KIT AND CRANKCASE HEATER.

EXHAUST FAN SCHEDULE

SYMBOL	MANUF'R & MODEL NO.	SERVICE (BLDG/RM NO.)	TYPE/ ARRANGEMENT	DRIVE	CFM	FAN RPM	E.S.P. IN. WC	MOTOR HP/WATTS	VOLT/PH/HZ	OPERATING WEIGHT LBS	REMARKS
EF 1-1	COOK GC-240	BLDG 1 MEN'S TOILET 1-103	CEILING MTD CENTRIFUGAL	DIRECT	99	1200	0.25	65 W	120/1ø/60	22	PROVIDE BACKDRAFT DAMPER, DISCONNECT SWITCH
EF 1-2	COOK GC-240	BLDG 1, WOMEN'S TOILET 1-104	CEILING MTD CENTRIFUGAL	DIRECT	99	1200	0.25	65 W	120/1ø/60	22	PROVIDE BACKDRAFT DAMPER, DISCONNECT SWITCH
EF 1-3	COOK GN-420	BLDG 1, MEN'S RESTROOM 1-130	IN-LINE CENTRIFUGAL	BELT	260	1075	0.25	172 W	120/1ø/60	30	PROVIDE BACKDRAFT DAMPER, DISCONNECT SWITCH
EF 1-4	COOK GN-520	BLDG 1, WOMEN'S RESTROOM 1-128, AND 1-129	IN-LINE CENTRIFUGAL	BELT	320	1200	0.375	171 W	120/1ø/60	32	PROVIDE BACKDRAFT DAMPER, DISCONNECT SWITCH
EF 2-1	COOK 70 ACEB	BLDG 2, WOMEN 2-119	ROOF MTD CENTRIFUGAL	BELT	290	1689	0.375	1/6 HP	120/1ø/60	69	PROVIDE BACKDRAFT DAMPER, BIRD SCREEN, DISCONNECT SWITCH, FACTORY ROOF CURB
EF 2-2	COOK 70 ACEB	BLDG 2, MEN 2-118 AND 2-117	ROOF MTD CENTRIFUGAL	BELT	230	1500	0.375	1/6 HP	120/1ø/60	69	PROVIDE BACKDRAFT DAMPER, BIRD SCREEN, DISCONNECT SWITCH, FACTORY ROOF CURB
EF 3-1	COOK GC-164	BLDG 3, SHOWER ROOM 1, 3-111	CEILING MTD CENTRIFUGAL	DIRECT	166	1300	0.5	145 W	120/1ø/60	15	PROVIDE BACKDRAFT DAMPER, BIRD SCREEN, DISCONNECT SWITCH, FACTORY ROOF CAP
EF 3-2	COOK GC-164	BLDG 3, SHOWER ROOM 2, 3-114	CEILING MTD CENTRIFUGAL	DIRECT	166	1300	0.5	145 W	120/1ø/60	15	PROVIDE BACKDRAFT DAMPER, BIRD SCREEN, DISCONNECT SWITCH, FACTORY ROOF CAP
EF 3-3	COOK 70 ACEB	BLDG 3, JAN. 3-121 AND 3-120	ROOF MTD CENTRIFUGAL	BELT	95	1310	0.5	1/6 HP	120/1ø/60	69	PROVIDE BACKDRAFT DAMPER, BIRD SCREEN, DISCONNECT SWITCH, FACTORY ROOF CURB
EF 3-4	COOK 60 ACEB	BLDG 3, COMM. LAUNDRY 3-126	ROOF MTD CENTRIFUGAL	BELT	135	1528	0.5	1/6 HP	120/1ø/60	69	PROVIDE BACKDRAFT DAMPER, BIRD SCREEN, DISCONNECT SWITCH, FACTORY ROOF CURB
EF 3-5	COOK GC-142	BLDG 3, STAFF TOILET 3-107	CEILING MTD CENTRIFUGAL	DIRECT	70	1000	0.5	59 W	120/1ø/60	15	PROVIDE BACKDRAFT DAMPER, BIRD SCREEN, DISCONNECT SWITCH, FACTORY ROOF CAP
EF 3-6	COOK GC-142	BLDG 3, H.C. TOILET 3-108	CEILING MTD CENTRIFUGAL	DIRECT	70	1000	0.5	59 W	120/1ø/60	15	PROVIDE BACKDRAFT DAMPER, BIRD SCREEN, DISCONNECT SWITCH, FACTORY ROOF CAP
EF 3-7	COOK GC-162	BLDG 3, SHOWER ROOM 3, 3-207	CEILING MTD CENTRIFUGAL	DIRECT	145	1200	0.25	103 W	120/1ø/60	15	PROVIDE BACKDRAFT DAMPER, BIRD SCREEN, DISCONNECT SWITCH, FACTORY ROOF CAP
EF 3-8	COOK GC-162	BLDG 3, SHOWER ROOM 4, 3-210	CEILING MTD CENTRIFUGAL	DIRECT	145	1200	0.25	103 W	120/1ø/60	15	PROVIDE BACKDRAFT DAMPER, BIRD SCREEN, DISCONNECT SWITCH, FACTORY ROOF CAP
EF 3-9	COOK 60 ACEB	BLDG 3, RES. LAUDDRY 3-218	ROOF MTD CENTRIFUGAL	BELT	108	1134	0.25	1/6 HP	120/1ø/60	69	PROVIDE BACKDRAFT DAMPER, BIRD SCREEN, DISCONNECT SWITCH, FACTORY ROOF CURB
EF 4-1	COOK 100 ACEB	BLDG 4, WORKROOM 4-100	ROOF MTD CENTRIFUGAL	BELT	564	1346	0.375	1/6 HP	120/1ø/60	69	PROVIDE BACKDRAFT DAMPER, BIRD SCREEN, DISCONNECT SWITCH, FACTORY ROOF CURB
EF 4-2	COOK GC-240	BLDG 4, RESTROOM 4-103	CEILING MTD CENTRIFUGAL	DIRECT	99	1200	0.25	65 W	120/1ø/60	22	PROVIDE BACKDRAFT DAMPER, DISCONNECT SWITCH

AIR DISTRIBUTION SCHEDULE

SYMBOL & DESCRIPTION	MANUFACTURER & MODEL NO.	NECK SIZE (INCHES)	CFM	MAX VELOCITY	MAX N.C.	PRESS. DROP IN. W.C.	REMARKS
S-1 CEILING SUPPLY AIR DIFFUSER	ANEMOSTAT RMD	8 x 8 10 x 10 12 x 12 14 x 14 16 x 16 18 x 18 20 x 20 22 x 22	0 – 180 181 – 280 281 – 400 401 – 550 551 – 720 721 – 910 911 – 1120 1121 – 1360	400	20	0.06	ADJUSTABLE MODULAR CORE. FOR LAY-IN T-BAR CEILING: 'RMD-FP', FOR HARD CEILING: 'RMD-S', WITH FILLER PANEL FOR T-BAR CEILING
R-1 E-1 T-1 CEILING RETURN, EXHAUST, TRANSFER & RELIEF AIR REGISTER	ANEMOSTAT SAC35LS	8 x 8 10 x 10 12 x 12 14 x 14 16 x 16 18 x 18 20 x 20 22 x 22	0 – 150 151 – 240 241 – 350 351 – 490 491 – 650 651 – 910 911 – 1030 1031 – 1250	400	15	0.03	FOR LAY-IN T-BAR CEILING, ¾" BLADE SPACING, 0° FIXED BLADE
S-2 SIDEWALL SUPPLY AIR DIFFUSER	ANEMOSTAT S2HO	22 x 8 24 x 12 24 x 18	300 – 430 550 – 730 731 – 1120	400	20	0.03	DOUBLE ADJUSTABLE BLADES, HORIZONTAL FRONT BLADE, ¾" SPACING
R-2 T-2 SIDEWALL RETURN, TRANSFER AIR GRILLE	ANEMOSTAT S3HS	12 x 12 24 x 12 30 x 12	0 – 360 361 – 730 731 – 1100	400	20	0.03	FOR SIDEWALL, ¾" BLADE SPACING, 0° FIXED BLADE

NOTES 1. MOUNTING FRAME TO BE COMPATIBLE WITH CEILING TYPE

LEGEND & ABBREVIATIONS

SYMBOL	ABB.	DESCRIPTION	SYMBOL	ABB.	DESCRIPTION
	SAD	SUPPLY AIR DUCT SECTION		S/S	STAINLESS STEEL
	RAD	RETURN AIR DUCT SECTION		AC	AIR CONDITIONING
	EAD	EXHAUST AIR DUCT SECTION		AP	ACCESS PANEL
	CAD	COMBUSTION AIR DUCT SECTION		BAS	BUILDING AUTOMATION SYSTEM
	(L)	LINED DUCTWORK		B.D.D.	BACK DRAFT DAMPER
	CD	CEILING SUPPLY AIR DIFFUSER		BHP	BRAKE HORSEPOWER
	RAR	CEILING RETURN AIR REGISTER		CFM	CUBIC FEET PER MINUTE
	EAR	CEILING EXHAUST AIR REGISTER		CONC.	CONCRETE
	SWS	SIDEWALL SUPPLY REGISTER		COND.	CONDENSATE
	SWR	SIDEWALL RETURN REGISTER		D.B.	DRY BULB
	SWE	SIDEWALL EXHAUST REGISTER		DN.	DOWN
	CU	FLEXIBLE CONNECTION		DTR	DOWN THRU ROOF
	MVD	MANUAL VOLUME DAMPER		ENT.	ENTERING
	OBD	QUADRANT BALANCING DAMPER		EF	EXHAUST FAN
DA	DL	DOOR LOUVER		E.S.P.	EXTERNAL STATIC PRESSURE
U/C	UC	UNDERCUT DOOR		F.P.I.	FINS PER INCH
T	T-STAT	THERMOSTAT – FOR MOUNTING, SEE DETAIL ON DWG M-1.1		FIN. FLR.	FINISH FLOOR
				FLA.	FULL LOAD AMPS
C	C	CO2 SENSOR		GC	GENERAL CONTRACTOR
				HHW	HEATING HOT WATER
	S.A.	SUPPLY AIR		HP	HORSEPOWER
	R.A.	RETURN AIR		HWS	HEATING HOT WATER SUPPLY
	E.A.	EXHAUST AIR		HWR	HEATING HOT WATER RETURN
	T.A.	TRANSFER AIR		IN.	INCHES
	OSA	OUTSIDE AIR		KW	KILOWATTS
	TYP.	TYPICAL		L.R.A.	LOCKED ROTOR AMPS
	S.F.	SQUARE FOOT		M.C.A.	MINIMUM CIRCUIT AMPS
SD	SFD	COMBINATION SMOKE AND FIRE DAMPER		M.F.S.	MAXIMUM FUSE SIZE
FD	FD	FUSIBLE LINK FIRE DAMPER		PH	PHASE
S		DUCT MOUNTED SMOKE DETECTOR		PSI	POUNDS PER INCH
	TG	TRANSFER GRILLE		PSIG	POUNDS PER SQUARE INCH GAGE
				RPM	REVOLUTIONS PER MINUTE
				R.L.A.	RATED LOAD AMPS
				SIM.	SIMILAR
				U.T.R	UP THRU ROOF

MECHANICAL DRAWING LIST

SERIAL NO.	DWG NO.	TITLE
1	M-1.1	MECHANICAL SCHEDULES, LEGEND & NOTES
2	M-1.2	MECHANICAL SCHEDULES
3	M-1.3	MECHANICAL TITLE 24 DOCUMENT
4	M-1.4	MECHANICAL TITLE 24 DOCUMENT
5	M-2.1.1	BUILDING 1 – MECHANICAL FLOOR PLAN
6	M-2.1.2	BUILDING 1 – MECHANICAL PIPING PLAN
7	M-2.1.3	BUILDING 1 – MECHANICAL ROOF PLAN
8	M-2.2.1	BUILDING 2 – MECHANICAL FLOOR PLAN
9	M-2.2.2	BUILDING 2 – MECHANICAL PIPING PLAN
10	M-2.2.3	BUILDING 2 – MECHANICAL ROOF PLAN
11	M-2.3.1	BUILDING 3 – MECHANICAL 1ST FLOOR PLAN
12	M-2.3.2	BUILDING 3 – MECHANICAL 2ND FLOOR PLAN
13	M-2.3.3	BUILDING 3 – MECHANICAL 1ST FLOOR PIPING PLAN
14	M-2.3.4	BUILDING 3 – MECHANICAL 2ND FLOOR PIPING PLAN
15	M-2.3.5	BUILDING 3 – MECHANICAL ROOF PLAN
16	M-2.4.1	BUILDING 4 – MECHANICAL FLOOR AND ROOF PLAN
17	M-3.1	MECHANICAL DETAILS
18	M-3.2	MECHANICAL DETAILS
19	M-4.1	MECHANICAL CONTROL DIAGRAMS
20	M-4.2	MECHANICAL CONTROL DIAGRAMS

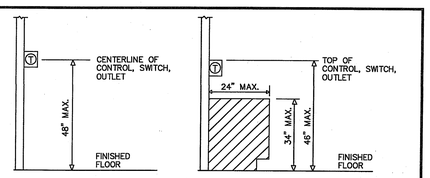
GENERAL NOTES

1. ENTIRE INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE 2007 CALIFORNIA MECHANICAL CODE, 2007 CALIFORNIA BUILDING CODE, 2007 CALIFORNIA ELECTRICAL CODE, 2007 CALIFORNIA PLUMBING CODE AND ENERGY CONSERVATION STANDARDS (TITLE 24, PART 6) WITH LOCAL AMENDMENTS.
2. COORDINATE ENTIRE INSTALLATION OF THE H.V.A.C. SYSTEM WITH THE WORK OF ALL OTHER TRADES PRIOR TO ANY FABRICATION OR INSTALLATION. PROVIDE ALL FITTINGS, OFFSETS, AND TRANSITIONS AS REQUIRED FOR A COMPLETE WORKABLE INSTALLATION.
3. COORDINATE THE LOCATION OF ALL CEILING DIFFUSERS, REGISTERS AND GRILLES WITH THE ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL LIGHTING LAYOUT AND ARCHITECTURAL ROOM ELEVATIONS.
4. COORDINATE THE LOCATION OF ALL ROOF OPENINGS AND THE LOCATION OF ALL ROOF MOUNTED EQUIPMENT WITH THE STRUCTURAL AND ARCHITECTURAL PLANS PRIOR TO ANY INSTALLATION. MECHANICAL TO PROVIDE EQUIPMENT WEIGHTS FOR PLATFORM AND CURB SIZES. FOR ROOF AND WALL PENETRATION DETAILS AND REQUIREMENTS, SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
5. PLATFORMS, CURBS AND FLASHINGS FOR MECHANICAL EQUIPMENT SHALL BE AS INDICATED ON THE STRUCTURAL AND ARCHITECTURAL PLANS, UNLESS NOTED OTHERWISE.
6. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL FITTINGS, TRANSITIONS, DAMPERS, VALVES, AND OTHER DEVICES REQUIRED FOR A COMPLETE WORKABLE INSTALLATION. SEE SPECIFICATIONS.
7. MAINTENANCE LABEL SHALL BE AFFIXED TO ALL MECHANICAL EQUIPMENT AND A MAINTENANCE MANUAL SHALL BE PROVIDED FOR THE OWNER'S USE.
8. ALL DUCTWORK SHALL BE CONSTRUCTED, ERECTED AND TESTED IN ACCORDANCE WITH THE MOST RESTRICTIVE OF PROCEDURES DETAILED IN THE ASHRAE HANDBOOK OF FUNDAMENTALS OR THE APPLICABLE STANDARDS ADOPTED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION. A COPY OF THE SMACNA STANDARDS SHALL BE KEPT AT THE JOB FOR REFERENCE BY THOSE REVIEWING THE WORK.
9. DUCTWORK SHALL BE INSULATED OR LINED (L) PER SPECIFICATIONS OR AS NOTED ON DRAWINGS. ALL DUCTWORK EXPOSED ON ROOF SHALL BE INTERNALLY LINED UNLESS OTHERWISE INDICATED OR SPECIFIED. ALL DUCT SIZES ARE FREE AIR FLOW SIZES. ALL DUCT JOINTS SHALL BE SEALED. INSULATION SHALL HAVE A FLAME SPREAD OF NOT MORE THAN 25 AND A SMOKE DENSITY NOT EXCEEDING 50 PER CMC SECTION 605.0. SEE SPECIFICATIONS.
10. MANUAL VOLUME DAMPERS SHALL BE PROVIDED IN ALL DUCT BRANCHES TO INDIVIDUAL DIFFUSERS, GRILLES AND REGISTERS. THIS NOTE TAKES PRECEDENCE OVER ANY OMISSIONS ON THE DRAWINGS.
11. ALL CEILING DIFFUSERS AND SUPPLY AIR REGISTERS SHALL BE PROVIDED WITH OPPOSED BLADE DAMPERS. THE OPPOSED BLADE DAMPERS SHALL BE USED FOR FINE TUNING ONLY AS REQUIRED TO ACHIEVE THE ±5% OF DESIGN. IN NO CASE ARE THE VOLUME DAMPERS TO BE SET SO AS TO GENERATE NOISE INTO THE SPACE SERVED.
12. ALL EQUIPMENT, DUCTS, PIPING, AND OTHER DEVICES AND MATERIALS INSTALLED OUTSIDE OF THE BUILDING OR OTHERWISE EXPOSED TO THE WEATHER SHALL BE COMPLETELY WEATHERPROOFED.
13. AIR FILTERS SHALL BE A STATE FIRE MARSHAL APPROVED AND LISTED TYPE. PREFORMED FILTERS HAVING COMBUSTIBLE FRAMING SHALL BE TESTED AS A COMPLETE ASSEMBLY. AIR FILTERS IN ALL OCCUPANCIES SHALL BE CLASS 2 OR BETTER (AS SHOWN IN THE STATE FIRE MARSHAL LISTING). AIR FILTERS SHALL BE ACCESSIBLE FOR CLEANING OR REPLACEMENT.
14. PROVIDE AUTOMATIC FIRE DAMPERS, SMOKE DAMPERS OR COMBINATION SMOKE/FIRE DAMPERS AT ALL PENETRATIONS OF FIRE RESISTIVE CONSTRUCTION THROUGHOUT. CONTRACTOR SHALL COORDINATE WITH THE FIRE RESISTIVE CONSTRUCTION INDICATED ON THE ARCHITECTURAL DRAWINGS. THIS NOTE SHALL TAKE PRECEDENCE OVER ANY OMISSIONS ON THE DRAWINGS. SEE SPECIFICATIONS. THE DAMPERS SHALL BE MANUFACTURED AND INSTALLED IN COMPLIANCE WITH CHAPTERS 7 AND 9 OF THE CALIFORNIA BUILDING CODE AND CHAPTER 6 OF THE CALIFORNIA MECHANICAL CODE.
15. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH AND BE CONSIDERED TO BE PART OF A SEPARATE AND COMPLETE MECHANICAL SPECIFICATION.
16. ALL HVAC EQUIPMENT SHALL BE CERTIFIED BY THE CALIFORNIA ENERGY COMMISSION TO COMPLY WITH EFFICIENCY STANDARDS PER TITLE 24, PART 6, SECTIONS 111 AND 112.
17. AUTOMATIC SHUTOFFS – SEE CMC 2007, SECTION 609.0

    AIR-MOVING SYSTEMS SUPPLYING AIR IN EXCESS OF 2,000 CUBIC FEET PER MINUTE TO ENCLOSED SPACES WITHIN BUILDINGS SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF. AUTOMATIC SHUTOFF SHALL BE ACCOMPLISHED BY INTERRUPTING THE POWER SOURCE OF THE AIR-MOVING EQUIPMENT UPON DETECTION OF SMOKE IN THE MAIN SUPPLY AIR DUCT SERVED BY SUCH EQUIPMENT. SMOKE DETECTORS SHALL BE LABELED BY AN APPROVED AGENCY FOR AIR DUCT INSTALLATION AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S APPROVED INSTALLATION INSTRUCTIONS. SUCH DEVICES SHALL BE COMPATIBLE WITH THE OPERATING VELOCITIES, PRESSURES, TEMPERATURES AND HUMIDITIES OF THE SYSTEM. WHERE FIRE DETECTION OR ALARM SYSTEMS ARE PROVIDED FOR THE BUILDING, THE SMOKE DETECTORS REQUIRED BY THIS SECTION SHALL BE SUPERVISED BY SUCH SYSTEMS.
18. ALL APPLIANCE AND PLUMBING VENTS SHALL BE AT LEAST TEN (10) FEET IN A HORIZONTAL DIRECTION, OR THREE (3) FEET ABOVE THE OUTSIDE AIR INTAKES OF ALL HVAC UNITS.
19. PROVIDE RISE OR DROP FOR DUCT ROUTING IN CONGESTED ABOVE-CEILING SPACE TO AVOID ANY SPACE CONFLICT BETWEEN DUCTS OR BETWEEN DISCIPLINES. ROUND DUCT CAN BE CONVERTED TO RECTANGULAR DUCT WITH EQUIVALENT SECTIONAL AREA.
20. SMOKE/FIRE DAMPERS SHALL BE OPERATED BY SMOKE DETECTORS LOCATED IN ACCORDANCE WITH CBC 716.3.2.1.

SEISMIC NOTES

1. THE SEISMIC ANCHORAGE OF MECHANICAL EQUIPMENT SHALL CONFORM TO C.C.R. TITLE 24, 2007 CBC CHAPTER 16A. REFER TO STRUCTURAL AND MECHANICAL DETAILS FOR ANCHORAGE OF ROOF MOUNTED EQUIPMENT.
2. UNLESS SPECIFICALLY SHOWN ON THESE PLANS, NO STRUCTURAL MEMBER SHALL BE CUT, DRILLED OR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER AND THE AUTHORITIES HAVING JURISDICTION.



MOUNTING HEIGHT OVER OBSTRUCTION

THERMOSTAT MOUNTING

1. ACCESS NOTE: (TYPICAL FOR ALL BUILDINGS)

THERMOSTATS ARE TO BE LOCATED NO MORE THAN 48" ABOVE FINISHED FLOOR. (46" MAXIMUM HEIGHT IF LOCATED OVER A COUNTER) (24" MAXIMUM REACH DEPTH @ COUNTER)

2. THERMOSTAT LOCATION SHOWN ON PLANS ARE TENTATIVE. FOR EXACT LOCATION OF THERMOSTATS, CONSULT WITH OWNER REPRESENTATIVE.

County of Orange
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Architecture & Engineering

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Revisions

0742

Consultants

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