ROOFTOP UNIT SCHEDULE

PLAN MARK	AREA SERVED	MAKE	MODEL NUMBER	UNIT TYPE	EER IEER	SA (CFM)	OA (CFM)	ESP (IN. W.C.)	TSP (IN. W.C.)	SUPPLY FAN										DX COOLING COIL				HOT GAS REHEAT				ELECTRIC HEAT				REFRIGERANT CIRCUITS							UNIT ELECTRICAL			COND. DRAIN CONN. (IN.)	DIMENSIONS (LXWXH-IN.)	OPER. WEIGHT (LB.)	REMARKS
										FAN EACH					MOTOR EACH					CAP.		EAT DB/WB (DEG. F)	LAT DB/WB (DEG. F)	CAP. SENS (MBH)	EAT DB/WB (DEG. F)	LAT DB/WB (DEG. F)	CAP. STEPS	POSITION	CAP. (KW)	EAT/LAT DB (DEG. F)	CAP. STEPS	MAX. AMB. OPER. (DEG. F)	MIN. AMB. OPER. (DEG. F)	CAP. STEPS	COMRR. QTY.	CKT. QTY.	REFG. CHARGE EA. CKT. (LB.)	REFRIG. TYPE	MCA	MOCP	VOLTAGE (V/HZ/PH)				
										QNTY.	TYPE	DIA. X W (IN.XIN.)	RPM	DRIVE TYPE	QNTY.	BHP	HP	TYPE	TOTAL (MBH)	SENS (MBH)																								
EX RTU-1	CLASSROOM CONFERENCE	CARRIER	50TC-A07	SZCAV	EXISTING	1800	340	0.80	1.90	1	DWDI FC	10.0X10.0	-	DIRECT	1	1.9	2.90	ODP	69.8	49.4	78.1/65.8	53.5/53.0	-	-	-	-	REHEAT	11.5	63.4/85.2	1	95	40	1	1	1	14.1	R410A	23.0	25	480/60/3	0.75	74.38X46.75X41.38	920	1 2 3 4 5 6 7 8 9 12 15 18 23 24 25 26 28 29
EX RTU-2	RECEPTION OPEN OFC.	CARRIER	50TC-D09	SZCAV	EXISTING	2550	340	0.80	2.10	1	DWDI FC	15.0X15.0	971	BELT	1	1.8	2.90	ODP	94.9	68.5	77.2/64.9	52.4/52.3	-	-	-	-	REHEAT	13.9	64.7/83.3	1	95	40	2	2	2	10.5/10.8	R410A	26.0	30	480/60/3	0.75	88.13X59.50X49.38	1200	1 2 3 4 5 6 7 8 9 12 15 18 23 24 25 26 28 29
EX RTU-3	OFFICES BREAK RM.	CARRIER	50TC-D09	VVTCAV	EXISTING	2550	310	0.80	2.10	1	DWDI FC	15.0X15.0	971	BELT	1	1.8	2.90	ODP	94.5	68.5	77.0/64.7	52.2/52.1	-	-	-	-	REHEAT	13.9	65.0/83.6	1	95	40	2	2	2	10.5/10.8	R410A	26.0	30	480/60/3	0.75	88.13X59.50X49.38	1200	1 2 3 4 5 6 7 8 9 12 15 19 23 24 25 26 28 29
RTU-4	DINING PREMIER KIT.	ADDISON	PRRK-241	SZCAV	12.9/15.0	4500	1900/800	1.00	3.19	1	SWSI BI	20.19-7.36	2055	DIRECT	1	3.8	6.97	ECM	269.5	150.9	82.0/69.5	49.9/49.1	90.8	49.9/49.1	72.2/58.4	MOD.	REHEAT	30.0	61.7/84.5	SCR	95	40	MOD.	2	2	-	R410A	53.4	70	480/60/3	1.00	143.63X92.00X99.00	5007	1 2 3 4 5 6 7 8 10 11 13 14 15 16 17 20 21 22 23 24 25 26 27 28 29
RTU-5	WORK AREA	CARRIER	50TC-D09	SZCAV	11.2/13.0	2550	500	1.00	2.30	1	DWDI FC	15.0X15.0	971	BELT	1	1.8	5.00	ODP	97.2	68.4	78.3/66.0	53.4/53/4	-	-	-	-	REHEAT	13.9	63.2/81.8	1	95	40	2	2	2	10.5/10.8	R410A	27.0	30	480/60/3	0.75	88.13X59.50X49.38	1200	1 2 3 4 5 6 7 9 11 12 14 15 17 20 23 24 25 26 28 29
RTU-6	PROD. KIT.	ADDISON	PRRK-300	SZCAV	12.9/15.0	4980	3010/1110	1.00	2.91	1	SWSI BI	20.19-7.36	2147	DIRECT	1	3.8	6.97	ECM	320.9	151.2	80.0/72.2	52.7/52.4	101	52.7/52.4	71.4/59.8	MOD.	REHEAT	30.0	56.2/76.8	SCR	95	40	MOD.	2	2	-	R410A	54.9	70	480/60/3	1.00	143.63X92.00X99.00	5054	1 2 3 4 5 6 7 8 10 11 13 14 15 16 17 20 21 22 23 24 25 26 27 28 29

1. PROVIDE SINGLE POINT POWER CONNECTION.
2. PROVIDE NEMA 3R DISCONNECT SWITCH.
3. PROVIDE INTEGRAL THROUGH–CURB CONDUIT CHASE FOR ELECTRICAL SERVICE.
4. PROVIDE 120V GFIC CONVENIENCE OUTLET UNDER DIVISION 26.
5. PROVIDE PHASE FAILURE\REVERSAL\IMBALANCE AND UNDER AND OVER VOLTAGE PROTECTION.
6. INCLUDE FILTER MANUFACTURER'S RECOMMENDED DIRTY FILTER AIR PRESSURE DROP IN UNIT INTERNAL LOSSES; SEE FILTER SCHEDULE.
7. FAN BRAKE HORSEPOWER SHALL NOT EXCEED 85% OF SCHEDULED NOMINAL MOTOR HORSEPOWER.
8. PROVIDE SOLID DOUBLE WALL AIR TUNNEL LINERS AND TWO INCH THICK POLYISOCYANURATE CABINET INSULATION WITH MINIMUM R–13 VALUE.
9. PROVIDE OUTDOOR AIR HOOD WITH LOW–LEAK CLASS 1 OUTDOOR AIR DAMPER AND TWO–POSITION ACTUATOR.
10. PROVIDE OUTDOOR AIR HOOD WITH LOW–LEAK CLASS 1 OUTDOOR AIR DAMPER AND MODULATING ACTUATOR PROVIDE OUTDOOR AIR HOOD WITH LOW–LEAK CLASS 1 OUTDOOR AIR DAMPER AND MODULATING ACTUATOR. LARGER SCHEDULED OUTDOOR AIR FLOW CFM IS WITH KITCHEN HOODS ON AND SMALLER CFM IS WITH KITCHEN HOODS OFF.
11. PROVIDE ANTI–CORROSION COATING ON COOLING, HOT GAS REHEAT (IF APPLICABLE), AND CONDENSER COILS MEETING ASTM–B117 10,000 HOUR SALT SPRAY TEST.
12. PROVIDE NON–CORROSIVE DOUBLE–SLOPED ASHRAE COMPLIANT IAQ DRAIN PAN.
13. PROVIDE TYPE 304 STAINLESS STEEL DOUBLE–SLOPED ASHRAE COMPLIANT IAQ DRAIN PAN.
14. PROVIDE CONDENSER COIL HAIL GUARD.
15. PROVIDE RAWAL HOT GAS BYPASS WITH ALL REFRIGERANT APPURTENANCES PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
16. PROVIDE MODULATING HOT GAS REHEAT.
17. PROVIDE MANUFACTURERS PROGRAMMABLE DDC CONTROLLER WITH BMS BACNET INTERFACE.
18. PROVIDE BMS SPACE TEMPERATURE CONTROL SEQUENCE OF OPERATION WITH COOLING, DEHUMIDIFICATION, AND HEATING MODES AND CONSTANT SUPPLY AIR VOLUME AS FILTERS LOAD FROM A CLEAN TO DIRTY CONDITION.
19. PROVIDE BMS CONSTANT SUPPLY AIR TEMPERATURE CONTROL SEQUENCE OF OPERATION WITH COOLING, DEHUMIDIFICATION, AND HEATING MODES AND CONSTANT SUPPLY AIR VOLUME AS FILTERS LOAD FROM A CLEAN TO DIRTY CONDITION.
20. PROVIDE MANUFACTURERS SPACE TEMPERATURE CONTROL SEQUENCE OF OPERATION WITH COOLING, DEHUMIDIFICATION, AND HEATING MODES, AND CONSTANT SUPPLY AIR AIRFLOW AS FILTERS LOAD FROM A CLEAN TO DIRTY CONDITION.
21. PROVIDE MANUFACTURERS PORTABLE 10 INCH TOUCHSCREEN HUMAN–MACHINE INTERFACE.
22. PROVIDE FAN INLET PIEZOMETER RING WITH PRESSURE TRANSDUCER AIR FLOW STATION.
23. PROVIDE CONDENSATE DRAIN PAN OVERFLOW SAFETY SWITCH. UNIT SHALL SHUT DOWN UPON DRAIN PAN CONDENSATE OVERFLOW AND ALARM.
24. PROVIDE WALL MOUNTED TEMPERATURE SENSOR. PROVIDE ADDITIONAL REMOTE WALL MOUNTED TEMPERATURE SENSOR(S) AS INDICATED ON THE DRAWINGS.
25. PROVIDE WALL MOUNTED HUMIDITY SENSOR.
26. PROVIDE FIRE ALARM SYSTEM COMPATIBLE SUPPLY AIR DUCT MOUNTED SMOKE DETECTORS FOR ALL UNITS OVER 2,000 CFM SUPPLY AIRFLOW TO SHUT DOWN UNIT UPON DETECTION OF SMOKE UNDER DIVISION 26.
27. PROVIDE TWO INCH DEFLECTION SPRING VIBRATION ISOLATION RAILS.
28. PROVIDE MINIMUM 18 INCH HIGH GALVANIZED STEEL ROOF CURB WITH 1"–3# INSULATION, LINER, AND CURB GASKET. COORDINATE ROOF CURB WITH ROOF INSULATION THICKNESS, SLOPE AND STRUCTURE CONSTRUCTION. ROOF CURB HEIGHT SHALL BE MINIMUM 14" ABOVE FINISHED ROOF.
29. PROVIDE AND SUBMIT UNIT AND ROOF CURB FLORIDA BUILDING CODE COMPLIANT WIND LOAD RATING CERTIFICATION, CALCULATIONS, AND UNIT–TO–ROOF CURB AND ROOF CURB–TO–ROOF SUPPORT STRUCTURE TIE–DOWN DESIGN, SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER.

MAKEUP AIR UNIT SCHEDULE

PLAN MARK	AREA SERVED	MAKE	MODEL NUMBER	UNIT TYPE	EER IEER	MAX. SA (CFM)	MINI. SA (CFM)	ESP (IN. W.C.)	TSP (IN. W.C.)	SUPPLY FAN												DX COOLING COIL				HEATING				REFRIGERANT CIRCUITS								UNIT ELECTRICAL			SONES	COND. DRAIN CONN. (IN.)	DIMENSIONS (LXWXH-IN.)	OPER. WEIGHT (LB)	CONTROL INTERLOCKS	EQUIPMENT INTERLOCKS	REMARKS
										FAN EACH					MOTOR EACH							CAP.		EAT DB/WB (DEG. F)	LAT DB/WB (DEG. F)	TYPE	SENS. CAP. (MBH)	EAT DB (DEG. F)	LAT DB (DEG. F)	MAX. AMB. OPER. (DEG. F)	MIN. AMB. OPER. (DEG. F)	CAP. STEPS	COMRR. QTY.	CKT. QTY.	REFG. CHARGE EA. CKT. (LB.)	REFRIG. TYPE	MCA	MOCP	VOLTAGE (V/HZ/PH)							
										QNTY.	TYPE	DIA. (IN)	RPM	DRIVE	QNTY.	BHP	HP	RPM	TYPE	ENC.	TOTAL (MBH)	SENS (MBH)	(DEG. F)	(DEG. F)		(MBH)	(DEG. F)	(DEG. F)	OPER. (DEG. F)	OPER. (DEG. F)	STEPS	QTY.	QTY.	EA. CKT. (LB.)	TYPE										
MAU-1	PROD. KIT.	ACCUREX	XMSX-115-H22-07	VAV MUA	12.5/-	4890	2445	0.500	1.042	1	DWDI FC	15.00	812	BELT	1	2.23	3.00	1800	NEMA	ODP	122.7	76.0	91.8/77.8	77.7/71.9	-	-	44.6	68.0	95	40	2	2	2	-/-	R410A	20.7	25	480/60/3	18.7	0.75	158.98X86.32X44.95	2090	KIT. HD. 107	RTU-6	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
MAU-2	PROD. KIT.	ACCUREX	XMSX-120-H32-12	VAV MUA	12.4/-	6150	3075	0.500	0.917	1	DWDI FC	20.00	537	BELT	1	1.81	5.00	1800	NEMA	ODP	188.0	108.3	91.8/77.8	75.9/70.5	-	-	44.6	68.0	95	40	2	2	2	-/-	R410A	36.2	45	480/60/3	9.8	0.75	184.70X101.07X48.72	2950	KIT. HD. 209	RTU-6	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
MAU-3	PREMIER KIT.	ACCUREX	XMSX-120-H32-16	VAV MUA	12.2/-	7600	3800	0.600	1.208	1	DWDI FC	20.00	623	BELT	1	3.02	7..5	1800	NEMA	ODP	221.6	127.0	91.8/77.8	76.7/70.9	-	-	44.6	68.0	95	40	2	2	2	-/-	R410A	43.2	50	480/60/3	13.8	0.75	184.70X101.07X48.72	3020	KIT. HD. 718	RTU-4	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

1. PROVIDE SINGLE POINT POWER CONNECTION:.
2. PROVIDE NEMA 3R DISCONNECT SWITCH.
3. PROVIDE NEMA PREMIUM EFFICIENCY INVERTER DUTY MOTOR WITH CLASS H INSULATION FOR SUPPY FAN.
4. PROVIDE AEGIS MOTOR SHAFT GROUNDING RING.
5. VARIABLE SPEED DRIVE PROVIDED BY MAKEUP AIR UNIT MANUFACTURER.
6. SCHEDULED EXTERNAL STATIC PRESSURE EXCLUDES BELT DRIVE LOSS, FILTER OR OTHER INTERNAL COMPONENT AIR PRESSURE DROPS.
7. FAN BRAKE HORSEPOWER SHALL NOT EXCEED 85% OF SCHEDULED NOMINAL MOTOR HORSEPOWER.
8. PROVIDE SOLID DOUBLE WALL AIR TUNNEL LINERS AND ONE INCH THICK FIBERGLASS CABINET INSULATION WITH MINIMUM R–4.3 VALUE.
9. PROVIDE OUTDOOR AIR HOOD WITH GREENHECK M/N: VCD–23 LOW LEAK CLASS 1A 1 OUTDOOR AIR DAMPER AND TWO–POSITION ACTUATOR.
10. PROVIDE ANTI–CORROSION COATING ON INDOOR COIL MEETING ASTM–B117 10,000 HOUR SALT SPRAY TEST.
11. PROVIDE TYPE 304 STAINLESS STEEL DOUBLE–SLOPED ASHRAE COMPLIANT IAQ DRAIN PAN.
12. PROVIDE BELT DRIVE WITH MINIMUM TWO GROOVE ADJUSTABLE MOTOR SHEAVE AND 1.50 SERVICE FACTOR RATING.
13. PROVIDE SUPPLY FAN BEARINGS WITH MINIMUM 100,000 HOUR L10/500,000 HOUR L50 LIFE.
14. PROVIDE RUBBER–IN SHEAR VIBRATION ISOLATORS UNDER FAN/MOTOR BASE AND COMPRESSORS.
15. PROVIDE MANUFACTURERS PROGRAMMABLE DDC CONTROLLER WITH BMS BACNET INTERFACE.
16. PROVIDE MANUFACTURERS CONSTANT SUPPLY AIR TEMPERATURE CONTROL SEQUENCE OF OPERATION WITH COOLING AND HEATING MODES AND CONSTANT SUPPLY AIR VOLUME.
17. PROVIDE MINIMUM 18 INCH HIGH WELDED GALVANIZED STEEL ROOF CURB WITH 1"–3# INSULATION, LINER, AND CURB GASKET. COORDINATE ROOF CURB WITH ROOF INSULATION THICKNESS, SLOPE AND STRUCTURE CONSTRUCTION. ROOF CURB HEIGHT SHALL BE MINIMUM 14" ABOVE FINISHED ROOF.
18. PROVIDE AND SUBMIT UNIT AND ROOF CURB FLORIDA BUILDING CODE COMPLIANT WIND LOAD RATING CERTIFICATION, CALCULATIONS, AND UNIT–TO–ROOF CURB AND ROOF CURB–TO–ROOF SUPPORT STRUCTURE TIE–DOWN DESIGN, SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER.
19. MAKEUP AIR UNIT PROVIDED BY KITCHEN EQUIPMENT VENDOR.

AIR COOLED MINI- SPLIT SCHEDULE

IDU PLAN MARK	ODU PLAN MARK	AREA SERVED	SYSTEM TYPE	MAKE	IDU MODEL NUMBER	IDU TYPE	ODU MODEL NUMBER	SEER HSPF	IDU FAN			COOLING			HEATING		REFRIGERANT CIRCUIT							ODU ELECTRICAL			COND. DRAIN CONN. (IN.)	OPER. WEIGHT		REMARKS
									SA (CFM)	OA (CFM)	ESP (IN. W.C.)	CAPACITY		EAT DB/WB (DEG. F)	CAP. SENS. (MBH)	EAT DB/WB (DEG. F)	MAX. AMB. OPER. (DEG. F)	MIN. AMB. OPER (DEG. F)	CAP. STEPS	SUCT. LINE (IN.)	LIQ. LINE (IN.)	REFRIG. CHARGE (LB.)	REFRIG. TYPE	MCA	MOCP	VOLTAGE (V/HZ/PH)		IDU (LB.)	ODU (LB.)	
												TOTAL (MBH)	SENS. (MBH)																
DX-1	CU-1	128 COPY	HEAT PUMP	CARRIER	40MBCQ18	CASSETTE	38MAQB18R	20.0/10.5	420	0	0.00	16.0	13.6	80.0/67.0	18.0	68.0	122	-4	MOD.	0.375	0.250	4.30	R410	18.0	25	208/60/1	-	26	119	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
DX-2	CU-2	111 KIT. OFC.	HEAT PUMP	CARRIER	40MBCQ09	CASSETTE	38MAQB09R	20.0/11.2	380	0	0.00	9.0	7.7	80.0/67.0	9.0	68.0	122	-4	MOD.	0.050	0.250	3.31	R410	9.0	15	208/60/1	-	24	92	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

1. PROVIDE SINGLE POINT POWER CONNECTION AT ODU.
2. INTERCONNECTING ODU TO IDU POWER AND CONTROL WIRING BY DIVISION 26.
3. ODU/IDU DISCONNECT SWITCHES BY DIVISION 26.
4. PROVIDE PHASE LOSS/IMBALANCE/REVERSAL PROTECTION.
5. PROVIDE IDU CLEANABLE PERMANENT FILTERS.
6. PROVIDE ODU COIL GUARD.
7. PROVIDE ODU RIS ISOLATORS
8. REFRIGERANT PIPING SHALL BE ACR RIGID TYPE WITH LONG RADIUS ELBOW FITTINGS.
9. MANUFACTURER SHALL PROVIDE REFRIGERANT LINE ACCESSORIES INCLUDING MOISTURE INDICATING SIGHT GLASS, TXV, LIQUID AND SUCTION LINE FULL PORT BALL SERVICE VALVES, AND REFRIGERANT CIRCUIT ACCESS/GAUGE PORTS.
10. MANUFACTURER SHALL SIZE REFRIGERANT LINES AND REFRIGERANT CHARGE PRIOR TO BID.
11. PROVIDE IDU CONDENSATE PUMP WITH RESERVOIR AND OVERFLOW SENSOR.
12. PROVIDE WALL MOUNTED WIRED IDU CONTROLLER. CONFIGURE FOR SPACE TEMPERATURE IN LIEU OF RETURN AIR CONTROL.
13. PROVIDE BACNET BMS INTERFACE.
14. PROVIDE FIRE ALARM SYSTEM COMPATIBLE SUPPLY AIR DUCT MOUNTED SMOKE DETECTORS FOR ALL IDU OVER 2,000 CFM SUPPLY AIRFLOW TO SHUT DOWN UNIT UPON DETECTION OF SMOKE UNDER DIVSION 26.
15. PROVIDE ODU ALUMINUM EQUIPMENT ROOF STAND WITH CURRENT FLORIDA PRODUCT APPROVAL AND MIAMI–DADE NOA NUMBER.
16. PROVIDE AND SUBMIT ODU AND ROOF STAND FLORIDA BUILDING CODE COMPLIANT WIND LOAD RATING CERTIFICATION, CALCULATIONS, AND UNIT–TO–ROOF STAND AND ROOF STAND–TO–ROOF SUPPORT STRUCTURE TIE–DOWN DESIGN, SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER.

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