POOL ROOM AIR DEHUMIDIFICATION EQUIPMENT SCHEDULE (SELECTION BASED ON DECTRON)

MARK	MODEL NUMBER	CFM			HEATER		SUPPLY FAN			COMPRESSOR		EXH. FAN			UNIT		ELECTRICAL	CAPACITY		REHEAT COIL	EER	IEER	WT	REFRIG.	SERVICE
		TOTAL	OA	EA	KW	STEP	ESP	HP	FLA	NO.	RLA/LRA	NO.	HP	FLA	MCA	MOCP	VOLTS-PH-HZ	TMBH	SMBH	MBH			LBS		
RTU-1	DS-020-NC-X-PJEE1142E5C2AD3H	1465	150	165	10.0	MODULATING	0.75	2.1	3.4	1	7.6 / 61.0	1	1.5	3.0	27.9	35	480-3-60	52.7	31.9	65.9	N/A	N/A	1400	R410A	MIKVAH ROOM

NOTES:
1. OUTSIDE DESIGN CONDITIONS – ASHRAE 2021 COOLING DATA: 93.4°DB – 77.8°DB (OKEECHOBEE, FL)
2. ROOM DESIGN CONDITIONS: 75.0°DB – 60.0% RH.
3. PROVIDE TEMPERATURE AND HUMIDITY CONTROL.
4. PROVIDE HORIZONTAL DISCHARGE.
5. PROVIDE OUTSIDE AIR INTAKE WITH RAINHOOD, WMS, MOTORIZED CONTROL DAMPER AND FILTER.
6. PROVIDE FACTORY FABRICATED ROOFCURB WITH PROPER VIBRATION ISOLATORS
7. PROVIDE UNIT MOUNTED ELECTRIC HEATER-SINGLE POINT POWER CONNECTION.
8. PROVIDE DISCONNECT SWITCH WITH ALL ROOFTOP PACKAGE UNITS.
9. PROVIDE WIND LOAD CALCULATIONS PER FBC 2020.
10. WARRANTY: 2 YEARS ON DRIVELINE, 5 YEARS ON COMPRESSOR, 2 YEARS ON COILS.

PACKAGED OUTDOOR AIR-COOLED CONDENSER

MARK	MODEL NUMBER	DESIGN OUTDOOR TEMP.	NO. OF MOTORS	MOTORS HP	MOTOR FLA A
RTU-1-CU	NC-B-1V	100 F	1	1.6	3.3

NOTES:
1. PROVIDE COATED CONDENSER COIL FOR CORROSION PROTECTION.
2. PROVIDE WIND LOAD CALCULATIONS PER FBC 2020.

PACKAGED ROOFTOP AIR CONDITIONING EQUIPMENT SCHEDULE (SELECTION BASED ON DAIKIN 100% OA UNIT)

MARK	MODEL	CFM		HEATER		FAN		COMPRESSOR (EACH)			COND. FAN		UNIT		ELECTRICAL	EAT		LAT		CAPACITY		EER	IEER	HOT GAS REHEAT TMBH	LAT	WT	DIMENSIONS (LXWXH); IN.	REMARKS
RTU	NUMBER	TOTAL	OA	KW@ 208 V	STEP	ESP	HP	NO.	RLA	TOTAL KW	NO.	TOTAL FLA	MCA	MOCP	V-PH-HZ	DB	WB	DB	WB	TMBH	SMBH				DB	LBS		
RTU-2	DAIKIN DPS016A	1700	1700	10.0	SCR	1.0	3.0	1	22.9	11.35	2	5.2	32.3	38	480-3-60	85.2	81.9	52.3	52.3	184.5	61.0	12.0	N/A	32.58	70.0	3624	163X77X83	MODULATING HOT GAS REHEAT INVERTER COMPRESSOR

ROOFTOP AC NOTES:
1. OUTSIDE DESIGN CONDITIONS: ASHRAE 2021 DEHUMIDIFICATION DP/MCDB AND HR DATA: 85.20°DB – 81.97°DB (OKEECHOBEE, FL)
2. PROVIDE A/C UNITS W/ DAIKIN MICROTECH® III CONTROLS.
3. PROVIDE OUTSIDE AIR INTAKE WITH WMS AND MOTORIZED CONTROL DAMPER.
4. PROVIDE SINGLE POINT KIT FOR ELECTRICAL HOOK-UP.
5. PROVIDE DISCONNECT SWITCH WITH ALL ROOFTOP PACKAGE UNITS.
6. PROVIDE DUCT SMOKE DETECTOR AS SHOWN ON PLANS.
7. PROVIDE FACTORY FABRICATED ROOFCURB WITH PROPER VIBRATION ISOLATORS.
8. PROVIDE WIND RATED CURB WITH VIBRATION ISOLATION.
9. PROVIDE HOT GAS REHEAT W/ COMBINATION SPACE TEMP. AND HUMIDITY SENSOR.
10. PROVIDE CORROSION PROTECTION ON EVAPORATOR AND CONDENSER COILS.
11. PROVIDE FLOAT SWITCH IN DRAIN PAN WIRED TO DEACTIVATE UNIT UPON CONDENSATE BACK-UP.
12. PROVIDE FILTER RACK W/ MERV 8 FILTER.
13. PROVIDE NON-CORROSIVE CONDENSATE DRAIN PAN.
14. MANUFACTURER SHALL PROVIDE SIGNED AND SEALED DRAWINGS SHOWING MECHANICAL UNIT CABINET AND ATTACHMENT METODOLOGY ARE IN COMPLIANCE WITH THE FBC 7TH EDITION WIND LOAD REQUIREMENTS.
15. CURB ANCHORING TO ROOF AS PER DETAILS IN STRUCTURAL ENGINEER PLANS.
16. PROVIDE FACTORY INSTALLED BACNET CONTROLLER WITH COMBO DIGITAL TEMP. AND HUMIDITY SENSOR.
17. PROVIDE UNITS WITH DIRTY FILTER SWITCH.
18. PROVIDE NON-FUSED DISCONNECT.

OUTSIDE AIR CALCULATIONS
SINGLE AND MULTIZONE RECIRCULATING SYSTEMS. (BASED ON TABLE 403.3.1.1, FBC 2020 AND ASHRAE STANDARD 62.1-2016)

SYSTEM TAG	VENTILATION ZONE	OCCUPANCY CATEGORY	Az (SF)	Pz (p)	Rp (CFM/p)	Ra (CFM/SF)	Rp x Pz (CFM)	Ra x Az (CFM)	Vbz (CFM)	Ez	Voz (CFM)	Fresh Air Intake (CFM)
RTU-2	W CORRIDOR	CORRIDOR	287.0	–	–	0.06	–	17.22	17.22	1	17.22	137.6 CFM REQUIRED
	E CORRIDOR	CORRIDOR	279.0	–	–	0.06	–	16.74	16.74	1	16.74	
	CENTRAL CORRIDOR	CORRIDOR	233.0	–	–	0.06	–	13.98	13.98	1	13.98	1700 CFM PROVIDED BY 100% O/A RTU-2
	BREAK ROOM	DINING RM	86.0	3	7.5	0.18	22.5	15.48	37.98	1	37.98	
	LAUNDRY RM	LAUNDRIES	146.0	1	7.5	0.12	7.5	17.52	25.02	1	25.02	
	RECEPTION	RECEPTION	229.0	7	5.0	0.06	35.0	13.74	48.74	1	48.74	
	VESTIBULE	MAIN ENTRY LOBBY	98.0	2	5.0	0.06	10.0	5.88	15.88	1	15.88	

DEFINITIONS:
Az: NET OCCUPIED FLOOR AREA
Ra: OUTDOOR AIRFLOW RATE REQUIRED PER UNIT AREA AS DETERMINED FROM TABLE 6-1
Pz: ZONE POPULATION
Rp: OUTDOOR AIRFLOW RATE REQUIRED PER PERSON AS DETERMINED FROM TABLE 6-1
Vou: UNCORRECTED OUTDOOR AIR INTAKE
Voz: ZONE OUTDOOR AIRFLOW
Voz = Vbz/Ez
Ez: ZONE AIR DISTRIBUTION EFFECTIVENESS AS DETERMINED FROM TABLE 6-2
Vbz: BREATHING ZONE OUTDOOR AIR FLOW
Vbz = Rp X Pz + Ra X Az

EXHAUST AIR CALCULATIONS
(BASED ON TABLE 403.3.1.1, FBC 2020)

BATHROOM EXHAUST CALCS: 50 CFM X 8 PREP RM (TOILETS)= 400 CFM MIN. REQ.
85 CFM X 8 PREP RM (TOILETS)= 680 CFM PROVIDED

ATTENDENT RM EXHAUST CALCS: 50 CFM X 1 (LAVATORY)= 50 CFM PROVIDED
TOTAL EXH.= 730 CFM PROVIDED (BY EF-2)

TEVILAH RMS EXHAUST CALCS: (BASED ON REQUIRED EXH. FOR POOLS) 0.48 CFM/S.F X 325 S.F)= 156 CFM MIN. REQ.
200 CFM PROVIDED (BY EF-1)

BUILDING AIR BALANCE SCHEDULE

TAG	SUPPLY AIR CFM	OUTSIDE AIR CFM	RETURN AIR CFM	EXHAUST AIR CFM	SPACE NET PRESSURE CFM
RTU-1	1465	150	1315	---	+150
RTU-1 (EXH.)	---	---	---	150	-150
RTU-2	1700	1700	---	---	+1700
EF-1	---	---	---	200	-200
EF-2	---	---	---	730	-730
EF-3	---	---	---	420	-420
TOTAL	3165	1850	1315	1500	+ 350 BUILDING PRESSURE

RISE | FL architecture

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Digitally signed by George San Juan Date: 2024.08.05 11:10:56 -04'00'

CIVIL CONSULTANT:

REVISIONS:

NO.	DATE	DESCRIPTION
1	3-29-2024	RESPONSE TO COMMENTS
2	6-13-2024	COORDINATION

CLIENT:
CLIENT NAME

PROJECT NAME / LOCATION:
MIKVAH
OKEECHOBEE, FL

DRAWING TITLE:
MECHANICAL INDEX, SYMBOL, LEGEND AND NOTES PLAN

EXAMINER'S SIGNATURE:

PROFESSIONAL SEAL:

GEORGE SANJUAN P.E.
FLORIDA LICENSE #66100

SCALE: 1/4" = 1'-0"

DATE:

PROJECT NO.

M002

DRAWING NO.
06

BARCODE

THE (GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ARCHITECTS. DO NOT SCALE DRAWINGS. THE DRAWINGS SHALL NOT BE USED UNTIL SIGNED BY CONSULTANTS.

7/25/2023 2:53:09 PM