



SPB Number: 2022.0104
MECHANICAL-PLUMBING UPDATES
[X] All Travel Center Stores
THE CLIPS BELOW ARE TAKEN FROM THE LH PROTOTYPE

Issued: 05/13/2022

STANDARD PLAN BULLETIN NOTICE
RaceTrac Engineering and Construction Division

1. RTU UPDATES: Updated RTU #4 to 15 ton and adjusted all the RTUs information.

- Sheets: M002, M200, E200 & E432
- Attachments: M002

ROOFTOP A/C EQUIPMENT SCHEDULE																			
A/C UNIT TAG	MANUFACTURER	MODEL	CFM	E.S.P. (in. W.C.)	BHP	COOLING(MBH)*				HEATING				ELECTRICAL				OPERATING WEIGHT LBS.	NOTES
						TOTAL	SENSIBLE	IEER	EER	TYPE	KW	MBH	STAGES	OUTSIDE AIR CFM	VOLT/PH/ HZ	MCA	MOC		
RTU-1	CARRIER	50TC-E14K3MS-WV1K0	4800	1.0	3.94	158.7	106.1	12.4	11.0	ELEC	24.0	81.9	1	760	208/350	101	110	1535	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
RTU-2	CARRIER	50TC-E14K3MS-WV1K0	4800	1.0	4.08	158.2	106.7	12.4	11.0	ELEC	24.0	81.9	1	710	208/350	101	110	1535	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
RTU-3	CARRIER	50TC-E14K3MS-WV1K0	4800	1.0	4.08	158.7	107.9	12.4	11.0	ELEC	24.0	81.9	1	650	208/350	101	110	1535	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
RTU-4	CARRIER	50TC-E16K2MS-WV1K0	5780	1.0	3.03	180.8	142.5	12.0	11.0	ELEC	12.4	42.3	1	400	208/350	72	80	1857	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14

*MODEL NUMBER PROVIDED THROUGH NATIONAL ACCOUNT AGREEMENT. IF ANY DISCREPANCIES BETWEEN MODEL NUMBER AND NOTES OCCUR, PROVIDE REQUIRED ACCESSORIES AS INDICATED IN NOTES.
RACETRAC HAS AN EXCLUSIVE NATIONAL ACCOUNT WITH CARRIER. PLEASE CONTACT BOB ECKWEILER 937-222-9742 OR EMAIL bob.eckweiler@carrier.com FOR PRICING QUESTIONS.

2. OUTSIDE AIR CALCULATION AND AIR BALANCE UPDATES: Updated the total CFM provided for the outside air calculations. Updated air balance schedule and various CFMs and duct sizes were updated. Air distribution schedule was revised.

- Sheets: M001 & M120
- Attachments: M001

OUTSIDE AIR CALCULATIONS								
AREA SERVED OR UNIT TAG	NET OCCUPIABLE AREA SQ. FT.	MAX. OCCUPANCY P/1000 SQ. FT.	TOTAL NO. OF PEOPLE	VENTILATION RATE		VENTILATION EFFECTIVENESS	TOTAL CFM O/A REQUIRED	TOTAL CFM O/A PROVIDED
				CFM/P	SQ. FT.			
OCCUPIABLE STORAGE	1266	2	4	5	0.12	80%	190	
SALES	4902	15	93	7.5	0.12	80%	1557	
RTU-1								760
RTU-2								710
RTU-3								650
RTU-4								400
KSF-1								1,040
TOTALS							1,747	3,560
NOTES:								



AIR BALANCE SCHEDULE					
AREA SERVED	EQUIPMENT TAG	SUPPLY AIR (CFM)	RETURN AIR (CFM)	OUTSIDE AIR (CFM)	EXHAUST AIR (CFM)
SALES	RTU-1	4,800	4,040	760	X
SALES	RTU-2	4,800	4,090	710	X
STORAGE	RTU-3	4,800	4,150	650	X
FOOD PREP	RTU-4	5,760	5,360	400	X
WOMEN'S RESTROOM	EF-1	X	X	X	200
MEN'S RESTROOM	EF-2	X	X	X	500
FOOD PREP	EF-3	X	X	X	600
FROZEN CARBONATED BEVERAGE	EF-4	X	X	X	600
KITCHEN EXHAUST	KEF-1	X	X	X	1,300
KITCHEN MAKEUP	KSF-1	X	X	1,040	X
TOTALS		20,160	17,640	3,560	3,200

NOTES:

3. **UNIT HEATER UPDATE:** Updated notes on unit heater schedule.

- Sheet: M002
- Attachments: M002

UNIT HEATER SCHEDULE (ELECTRIC)

MARK	MANUFACTURER	MODEL	NOM (KW)	MIN NO OF STAGES	EAT/LAT (DEG. F)	CFM	V/PH	DISC TYPE	NOTES
UH-1	MARLEY	MUH0381	3	1	30/40	350	208/1	DIV.26	A-D

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

NOTES:

- A. MOUNT 8 FEET ABOVE FINISHED FLOOR WITHOUT OBSTRUCTING AIRFLOW.
B. PROVIDE WITH UNIT MOUNTED THERMOSTAT.
~~C. PROVIDE NECESSARY MOUNTING BRACKET AND ACCESSORIES FOR MOUNTING.~~
D. DISCONNECT SWITCH FURNISHED BY DIVISION 26 CONTRACTOR.



4. **WATER HEATER RECOVERY CALCULATION:** Updated water heater recovery calculations.

- Sheet: P001
- Attachments: P001

WATER HEATER RECOVERY CALCULATION					
FIXTURE	DEMAND (GPH)	QUANTITY	TOTAL (GPH)	NOTES	DESIGNER UPDATE PI
LAVATORY	6	8	48	0.50 GPM AERATOR	
HAND SINK	10	2	20	0.50 GPM AERATOR	
3-COMP SINK	60	1	60	2.20 GPM AERATOR	
1-COMP SINK	15	1	15	2.20 GPM AERATOR	
MOP SINK	20.0	1	20	2.20 GPM AERATOR	
			163		
163 PH X 0.30 USAGE FACTOR = 48.9 GPH RECOVERY					
48.9 GPH X 0.9 STORAGE FACTOR = 44 GAL TANK MINIMUM, 50 GAL TANK PROVIDED					
18,000 WATT = 82.6 GPH @ 90°F TEMP RISE PROVIDED					