ENERGY RECOVERY UNIT

MARK	MODEL/ SERIES	SERVES	SUPPLY AIRFLOW (CFM)	SUPPLY E.S.P. (IN. WG)	SUPPLY MOTOR (HP)	SUPPLY MOTOR (BHP)	SUPPLY FAN (RPM)	EXHAUST AIRFLOW (CFM)	EXHAUST E.S.P. (IN. WG)	EXHAUST MOTOR (HP)	EXHAUST MOTOR (BHP)	EXHAUST FAN (RPM)	WHEEL MOTOR (HP)
ERU-1	RVE-40-36-30H-101-E	GUESTROOMS	2180	1.5	3	1.55	1645	2680	1.5	3	2.32	1907	1/3
ERU-2	RVE-40-36-30H-12.5I-E	GUESTROOMS	3120	1.5	3	2.68	1946	1400	1.5	1.5	0.94	2053	1/3

MARK	SUMMER EXH EAT (°F DB)	EXH EAT (°F WB)	OA EAT (°F DB)	OA EAT (°F WB)	WHEEL LAT (°F DB)	WHEEL LAT (°F WB)	EVAP LAT (°F DB)	EVAP LAT (°F WB)	RH LAT (°F DB)	RH LAT (°F WB)
ERU-1	75	62.3	80.5	76.2	76.3	66.8	52.2	52.1	73.1	52.1
ERU-2	75	62.3	80.5	76.2	78.2	71.3	51.5	51.5	71.2	51.5

MARK	WINTER EXH EAT (°F DB)	EXH EAT (°F WB)	OA EAT (°F DB)	OA EAT (°F WB)	WHEEL LAT (°F DB)	WHEEL LAT (°F WB)	HEAT LAT (°F DB)	HEAT LAT (°F WB)	HEATING INPUT (MBH)	HEATING OUTPUT (MBH)	OPERATING WEIGHT (LBS)	V	PH
ERU-1	70	54.1	19.5	16.1	57.1	45.8	91.1	45.8	100	80	3213	208	3
ERU-2	70	54.1	19.5	16.1	39.1	33	98.5	33	250	200	3419	208	3

MARK	REMARKS 1	2	3	4	5	6	7	8	9	##	##	##	##	##
ERU-1	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ERU-2	X	X	X	X	X	X	X	X	X	X	X	X	X	X

NOTES (APPLY TO ALL):
A. SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS.
B. UNIT CAPACITIES SHOULD BE WITHIN +/-10% OF SCHEDULED CAPACITIES
C. DESIGN IS BASED ON PRODUCTS BY AAON. SHOULD AN ALTERNATE MANUFACTURER BE PROVIDED, THE MECHANICAL CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR COORDINATING EQUIPMENT'S ELECTRICAL CHARACTERISTICS WITH THE ELECTRICAL CONTRACTOR.
D. ALL UNITS SHALL BE INSTALLED WITH AN ELECTRONIC WATER LEVEL DETECTOR IN THE PRIMARY DRAIN PAN. THE WATER LEVEL DETECTOR SHALL SHALL BE INSTALLED AT A POINT HIGHER THAN THE PRIMARY DRAIN LINE AND LOWER THAN THE DRAIN PAN OVERFLOW RIM. THE WATER LEVEL DETECTOR SHALL BE WIRED TO SHUTDOWN THE UNIT UPON DETECTION OF WATER. SHUTDOWN THE UNIT UPON DETECTION OF WATER.

REMARKS:
1. NON POWERED WEATHER PROOF GFCI RECEPTICLE
2. SUMMER DESIGN CONDITIONS BASED ON ASHRAE .4% EVAPORATION COLUMN
3. UNITS TO HAVE MODULATING HOT GAS RE-HEAT FOR DEHUMIDIFICATION (ON/OFF NOT ACCEPTABLE) AND DELIVER 75 F @ 50% RH AIR AT DESIGN CONDITIONS
4. UNITS TO HAVE HOT GAS BYPASS ON ALL CIRCUITS
5. UNITS TO HAVE MODULATING GAS HEAT FURNACES WITH STAINLESS STEEL HX CARRYING 25 YEAR NON-PRO-RATED WARRANTY; 12:1 TURNDOWN
6. CABINET CONSTRUCTION IS 2" DOUBLE WALL WITH FOAM INJECTED PANELS WITH R-13 INSULATION VALUE
7. OUTSIDE AIR METAL MESH PRE-FILTER; 2" PLEATED FILTERS - MERV 8
8. FACTORY INSTALLED ELECTRICAL DISCONNECT FOR SINGLE POINT WIRING
9. ECM CONDENSER FAN MOTORS FOR CONDENSER HEAD PRESSURE CONTROL (VFD CONDENSER FANS ACCEPTABLE)
10. UNITS TO HAVE CONDENSER COIL HAIL GUARDS
11. DIRECT DRIVE PLENUM SUPPLY FAN WITH UNIT MOUNTED VFD (BELT DRIVEN FANS NOT ACCEPTABLE). FAN CONROLLED BY PRESSURE SENSOR.
12. PHASE AND BROWNOUT PROTECTION MONITOR.
13. 14" - 36" HIGH FULLY WELDED INSULATED PLENUM CURB FOR VERTICAL/HORIZONTAL DISCHARGE WITH 1" VIBRATION ISOLATION RAILS FACTORY INSTALLED
14. UNITS SHALL INCLUDE FACTORY START-UP AND TWO (2) YEAR PARTS AND LABOR WARRANTY FOR THE ENTIRE UNIT, INCLUDING REFRIGERANT. COMPRESSOR WARRANTY WILL EXTEND AN ADDITIONAL THREE (3) YEARS - PARTS ONLY.

PACKAGED TERMINAL HEAT PUMPS

MARK	NOMINAL TONS	S.A. (CFM)	OA (CFM)	ELEC. AUX. HTG. (KW) (230V / 208V)	COOLING TOTAL (BTU/H) (230V / 208V)	COOLING SENSIBLE (BTU/H) (230V / 208V)	EER	HEAT PUMP HEATING TOTAL (BTU/H) (230V / 208V)	COP	BASIS OF DESIGN (MAKE / MODEL)	1	2	3	4	5	6	7	8	9	##	##
PTHP - A	0.5	194 / 340	---	2.4 / 2.3	7,200 / 7,000	6,120 / 5,950	13.2	6,400 / 6,200	4.0	GE / AZ61H07DA	X	X	X	X	X	X	X	X			
PTHP - B	0.75	212 / 360	---	3.3 / 3.2	9,400 / 9,200	7,050 / 6,900	12.7	8,300 / 8,100	3.8	GE / AZ61H09DA	X	X	X	X	X	X	X	X			

NOTES (APPLY TO ALL):
A. SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS.
B. SUBMITTED UNIT CAPACITIES SHALL BE WITHIN +/- 10% OF SCHEDULED VALUES.
C. BASIS OF DESIGN: CARRIER. REFER TO SPECIFICATIONS.
ACCEPTABLE ALTERNATES: AMANA, FRIEDRICH, LG, TRANE.

REMARKS:
1. FACTORY STEEL WALL CAGE.
2. ARCHITECTURAL EXTERIOR GRILLE. COLOR SELECTION SHALL BE BY ARCHITECT.
3. REMOTE WALL THERMOSTAT WITH UNIT CONTROL PANEL COVER.
4. 230V / 208V SUB-BASE. SUB-BASE SHALL INCLUDE POWER CORD AND CHASEWAY.
5. WALL CASE INSULATION KIT.
6. INTERNAL CONDENSATE REMOVAL FOR UN-PIPED REMOVAL OF CONDENSATE IN HP HEAT MODE.
7. SLINGER RING FOR UN-PIPED REMOVAL OF CONDENSATE IN COOLING MODE.
8. MANUAL OUTDOOR AIR DAMPER.

SPLIT DIRECT EXPANSION (DX) EQUIPMENT

MARK	SERVES	TOTAL S.A. (CFM)	O.A. (CFM)	E.S.P. (IN WG)	MOTOR (HP)	AUXILIARY HEATER (KW @ 208V)	WEIGHT (LBS)	BASIS OF DESIGN	OUTDOOR MIN. SEER	WEIGHT (LBS)	BASIS OF DESIGN	NOMINAL TONNAGE (TONS)	TOTAL (MBH)	SENS (MBH)	LAT (MBH)	Ent. Tdb (°F)	Ent. Twb (°F)	Lvg. Tdb (°F)	Lvg. Twb (°F)	1	2	3	4	5	6	7
FCU-1 / CU-1	DINING	1,880	200	0.50	3/4	6.8	201.0	FX4DNB061	14.5	[illegible]	[illegible]	[illegible]	59.3	42.7	16.8	78.0	64.0	54.5	53.3	X	X	X	X	X	X	X
FCU-2 / CU-2	FOOD PREP	800	80	0.50	1/3	11.3	128.0	FY5BNF024	14.0	[illegible]	[illegible]	2.0	21.8	18.5	5.5	78.0	64.0	55.5	54.6	X	X	X	X	X	X	X
FCU-3 / CU-3	FITNESS CENTER	1,200	223	0.50	1/3	11.3	[illegible]	FY5BNF036	[illegible]	131	24AC0436	3.0	36.5	26.1	10.6	75.5	66.0	56.0	55.0	X	X	X	X	X	X	X
FCU-4 / CU-4	LAUNDRY	800	150	0.50	1/4	13.5	[illegible]	FY5BNF024	[illegible]	125.0	24AC0424	2.0	26.9	19.2	7.7	76.5	66.0	55.5	54.5	X	X	X	X	X	X	X
FCU-5 / CU-5	PUBLIC AREA	1,880	200	0.50	3/4	[illegible]	201.0	FX4DNB061	14.5	187.0	24ABC460	5.0	59.3	42.7	16.8	78.0	64.0	54.5	53.3	X	X	X	X	X	X	X

NOTES (APPLY TO ALL):
A. SEE ELECTRICAL DRAWINGS FOR POWER REQ[illegible]EMENTS.
B. SUBMITTED UNIT CAPACITIES SHOULD BE WI[illegible]N +/-10% O[illegible]DULED CAPA[illegible]S.
C. BASIS OF DESIGN: CARRIER. RE[illegible] TO SPECIF[illegible]ATIONS.
ACCEPTABLE ALTERNATES: JO[illegible] TRANE, D[illegible]KIN/MCQUAY, LENNOX.
D. ALL EVAPORATORS [illegible] COOLING C[illegible]CATED ABOVE THE LOWEST LEVEL FINISHED FLOOR SHALL BE INSTALLED WITH AN AUXILIA[illegible] CONDENS[illegible] DRAIN PA[illegible] UNDER [illegible] UNIT. PROVIDE AN ELECTRONIC WATER LEVEL DETECTOR WIRED TO SHUTDOWN THE UNIT UPON [illegible]TION OF WATER IN THE AUXILIARY DRAIN PAN.
[illegible] AN ALTERNATIVE TO THE AUXI[illegible] CONDENSATE DRAIN PAN, AN ELECTRONIC WATER LEVEL DETECTOR WIRED TO SHUTDOWN [illegible]T UPON DETECTION OF WATER MAY BE INSTALLED IN THE PRIMARY DRAIN LINE, THE OVERFLOW DRAIN LINE OR THE [illegible] SUPPLIED DRAIN PAN. THE WATER LEVEL DETECTOR SHALL BE LOCATED AT A POINT HIGHER THAN THE PRIMARY DRAIN LINE CONNE[illegible] AND BELOW THE OVERFLOW RIM OF SUCH PAN.

REMARKS (APPLY AS SCHEDULED):
1. PROGRAMMABLE THERMOSTAT.
2. LOW AMBIENT PACKAGE.
3. DISPOSABLE FILTER.
4. ANTI-SHORT CYCLE TIMER.
5. INDOOR FAN DELAY KIT.
6. DISCONNECT SWITCH PROVIDED BY THE ELECTRICAL SUBCONTRACTOR AT BOTH THE INDOOR AND OUTDOOR UNIT. REFER TO THE ELECTRICAL DOCUMENTS.
7. MOUNT OUTDOOR CONDENSING UNIT ON ROOF. EXTEND 6" BEYOND UNIT ON ALL SIDES.

DUCTLESS SPLIT DIRECT EXPANSION (DX) EQUIPMENT

MARK	SERVES	TYPE	MODEL/SERIES	NOMINAL TONS	CFM	OUTSIDE AIR AIR CFM	OUTDOOR MARK	MIN. SEER	MIN. HSPF	MODEL/SERIES	COOLING TOTAL (MBH)	HEATING @ 47°F (MBH)
MFCU-1	EMPLOYEE BREAKROOM	HORIZONTAL DUCTED, HEAT PUMP	PEA-A18AA4	1.50	423/529/635	50	MHP-1	14.3	10.0	PUZ-A18NHA4	18.0	19.0
MFCU-2	EMPLOYEE WORKROOM	HORIZONTAL DUCTED, HEAT PUMP	PEA-A18AA4	1.50	423/529/635	50	MHP-2	14.3	10.0	PUZ-A18NHA4	[illegible]	[illegible]
MFCU-3	MATV ROOM	WALL-MOUNTED, COOLING ONLY	PKA-A18HA4	1.50	320/370/425	0	MCU-3	15.3	N/A	PUY-A18NHA4	18.0	N/A
MFCU-A	ELEVATOR SHAFT, GUEST LAUNDRY, ENGINEER OFFICE, COMPUTER ROOM	WALL-MOUNTED, HEAT PUMP	PKA-A18HA4	1.50	320/370/425	0	MHP-A	15.3	9.5	PUZ-A18NHA4	18.0	19.0

NOTES (APPLY TO ALL):
A. BASIS OF DESIGN: MITSUBISHI. EQUAL PRODUCTS: DAIKIN, LENNOX, SAMSUNG, LG, SANYO, CARRIER, JCI/YORK.
B. SINGLE POWER CONNECTION AT OUTDOOR UNIT. DISCONNECT SWITCHES PROVIDED AT THE INDOOR AND OUTDOOR UNITS BY ELECT[illegible] SUBCONTRACTOR. REFER TO THE ELECTRICAL DOCUMENTS.
C. R-410A REFRIGERANT.
D. FACTORY CONDENSATE PUMP OR CONDENSATE LIFT MECHANISM.
E. WALL MOUNTED WIRED REMOTE CONTROLLER.
F. INVERTER DRIVEN COMPRESSOR.
G. MOUNT MHP ON ROOF.
H. REFRIGERANT LINE SET TOTAL EQUIVALENT LENGTH SHALL NOT EXCEED 100 FEET. SHOULD [illegible] ALTERNATE MANUFAC[illegible]RER BE USED, CONTRACTOR SHALL COMPLY WITH ALTERNATE MANUCAFTURER LINE SET LIMITATIONS.

POOL DEHUMIDIFICATION SYSTEM

UNIT NO.	SUPPLY FAN TOTAL CFM	ESP (IN WC)	MAX MOTOR (HP)	OA (CFM)	COOLING COIL TOTAL CAP (MBH)	SENSIBLE CAP (MBH)	REHEAT (MBH)	MOISTURE REMOVAL LATENT CAPACITY (LBS/HR @55% RH)	HEATING GAS IN (MBH)	GAS OUT (MBH)	CONDENSING UNIT FAN QTY	BASIS OF DESIGN	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PDU-1 / PCU-1	1,350	1.00	2.20	320	48.6	25.1	60.5	19.0	100	80	1	POOLPAK: PCP-1400 / NC-B-1V	X	X	X	X	X	X	X	X	X	X	X	X	X	X

REMARKS:
1. SEE ELECTRICAL DRAWINGS FOR ELECTRICAL INFORMATION.
2. UNIT SHALL BE PROVIDED WITH AN INTEGRAL OUTDOOR AIR INLET ASSEMBLY. UNIT OUTDOOR AIR INLET SHALL BE DOWNSTREAM OF THE EVAPORATOR COIL AND BEFORE REHEAT COIL AND A 2" PLEATED AIR FILTER WITH 30% EFF.
3. UNIT SHALL BE SUPPLIED IN THE VERTICAL BLOWER CONFIGURATION. BLOWER ASSEMBLY SHALL BE FORWARD CURVED CENTRIFUGAL. BLOWER MOTOR SHEAVE SHALL BE A VARIABLE PITCH TYPE TO ALLOW FIELD ADJUSTMENTS.
4. OUTDOOR UNIT IS FLUID COOLED. PROVIDE AND INSTALL GLYCOL LINES AS RECOMMENDED BY THE MANUFACTURER.
5. FURNISH AND INSTALL DUCT MOUNTED SMOKE DETECTOR IN SUPPLY AIR DUCT.
6. UNIT SHALL BE PROVIDED WITH MICRO PROCESSOR CONTROLLER WITH COMBINATION OF THERMOSTAT & HUMIDISTAT.
7. UNIT SHALL BE PROVIDED WITH FACTORY INSTALLED TEMPERATURE AND RELATIVE HUMIDITY SENSORS IN THE RETURN AIR FILTER SECTION.
9. UNIT MANUFACTURER SHALL OFFER A ONE YEAR WARRANTY ON PARTS AND A FIVE YEAR WARRANTY ON THE COMPRESSORS. THE WARRANTIES SHALL START FROM THE OWNER ACCEPTANCE OF THE PROJECT.
10. ALL DEHUMIDIFIER UNIT COILS SHALL BE COATED TO PROTECT FROM CHEMICALS AND CORROSION.
11. PROVIDE CONDENSATION PREVENTION SENSOR ON FRAME OF GLASS WINDOW & WIRE TO SENSOR CONTROLLER (KEY PAD INTERFACE).
12. SELECTION IS BASED ON 82°F DB @ 60% RH INDOOR SPACE CONDITIONS. 82°F WATER TEMPERATURE.
13. DISCONNECT AT BOTH THE INDOOR AND OUTDOOR UNIT PROVIDED BY OTHERS.
14. UNIT SHALL BE PROVIDED WITH MERV 7 PRIMARY FILTERS & MERV 12 SECONDARY FILTERS. FILTERS SHALL BE FULLY SYNTHETIC MEDIA WITH SUPPORTING STRUCTURE TO PREVENT MOISTURE LADEN FILTER COLLAPSE.

LOUVERS

SYMBOL	MODEL/ SERIES	SERVES	SIZE WxH (IN)	MIN FREE AREA (SQ FT)	CFM	MAX PRESS. DROP (IN WG)	INTERLOCK	FRAME	1	2	3	4	5
WL-1	ESD-635	FCU-5,6 OUTSIDE AIR	24x18	0.9	470	0.05	N/A	ALUMINUM	X	X	X		
WL-2	ESD-635	EF-1,2 EXHAUST	24x18	1.2	600	0.05	N/A	ALUMINUM	X	X	X		
WL-3	ESD-635	EF-3,8 EXHAUST	24x18	0.9	450	0.05	N/A	ALUMINUM	X	X	X		
WL-4	ESD-635	DRYER EXHAUST	24x36	3.0	-	0.07	N/A	ALUMINUM	X	X	X		X
WL-5	ESD-635	DRYER MAKEUP	36X30	3.8	-	0.04	DRYER A	ALUMINUM	X	X	X	X	X
WL-6	ESD-635	DRYER MAKEUP	36X30	3.8	-	0.04	DRYER B	ALUMINUM	X	X	X	X	X
PL-A	PEV-400	PENTHOUSE ELEVATOR VENT	38X38	3	-	-	N/A	ALUMINUM	X			X	

NOTES (APPLY TO ALL):
A. FINAL COLOR SELECTION SHALL BE MADE BY ARCHITECT AT TIME OF SHOP DRAWING APPROVAL. PROVIDE COLOR/FINISH CHARTS AS PART OF SUBMITTAL.
B. DESIGN IS BASED ON PRODUCTS BY GREENHECK. ACCEPTABLE ALTERNATES SHALL BE BY UNITED ENERTECH, ARROW, RUSKIN.

REMARKS (APPLY AS SCHEDULED):
1. BIRD SCREEN
2. BAKED ON ENAMEL FINISH.
3. GRAVITY BACKDRAFT DAMPER.
4. 120V MOTORIZED DAMPER.
5. INSULATED PLENUM, MINIMUM 24" DEEP, FULL SIZE OF LOUVER CONNECTION.

ELECTRIC WALL HEATER

MARK	CFM	WATTS	HEAT (BTU/H)	BASIS OF DESIGN	1	2	3	4	5
EWH-A	100	2000	6825	QMARK AWH	X	X	X	X	X

REMARKS:
1. PROVIDE WITH INTEGRAL THERMOSTAT AT UNIT TO MAINTAIN MINIMUM 45 F (ADJUSTABLE).
2. COORDINATE ELECTRICAL CHARACTERISTICS WITH ELECTRICAL CONTRACTOR.
3. FAN DELAY SWITCH.
4. THERMAL CUTOUT.
5. FACTORY DISCONNECT SWITCH.

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KEYPLAN

CONSULTANT

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PROJECT # 119288

SEAL

GEORGIA REGISTERED No. 034608 PROFESSIONAL ENGINEER JENNIFER LYNN DUCHAC

ISSUE & REVISION RECORD

#	DATE	DESCRIPTION
	06.10.2019	30% DESIGN REVIEW SET
	08.16.2019	90% REVIEW SET
	08.23.2019	PERMIT SET

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PROJECT

Fairfield BY MARRIOTT INN & SUITES

DAWSONVILLE, GEORGIA

PROTOTYPE VERSION 2016
REV 7 12-21-18

4 STORY, 92 UNITS
w/ INDOOR POOL

FAIRFIELD
DAWASON FOREST ROAD
DAWSONVILLE, GA
30534

CLIENT

RIMROCK COMPANIES
10000 RIVERSIDE AVE
SUITE 32201
JACKSONVILLE, FL 32204

PHILLIPS JOB NUMBER 1972101
ISSUE DATE 08/23/2019
DRAWN BY/CHECKED BY TW . JD
DRAWING TITLE
SCHEDULES

SHEET NUMBER
M-0.3

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