

DEDICATED OUTSIDE AIR UNIT W/ENERGY RECOVERY SCHEDULE

No.	SUPPLY FAN			EXHAUST FAN			SUMMER CONDITIONS					WINTER CONDITIONS					MANUFACTURER		
	CFM	ESP (IN. WC)	MIN. HP	CFM	ESP (IN. WC)	MIN. HP	O.A. EAT (°F)	LAT WHEEL (°F)	WHEEL XEFF	COOLING MBH	LAT COIL (°F)	HOT GAS REHEAT (°F)	O.A. EAT (°F)	LAT WHEEL (°F)	WHEEL XEFF	LAT GAS BURNER (°F)		INPUT CAPACITY (BTU/HR)	OUTPUT CAPACITY (BTU/HR)
ERU - E1	2750	1.0	3	2820	.9	3	95/75	79.6/65.8	63	120.4/84.4	51.6/50.9	72	17/14	52.5	63	93	150,000	120,000	GREENHECK RVE-40-36-30H-10I-E

- NOTES:  
 1. REFER TO SPECIFICATION SECTION 237433 FOR FEATURES.  
 2. REFER TO SPECIFICATION SECTION 230900 AND 230993 FOR CONTROLS.  
 3. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS.  
 4. ENERGY RECOVERY WHEEL MOTOR TO BE A MINIMUM 1/2 HP.  
 5. ROOM RETURN AIR CONDITIONS: 75 F DB @ 50 R.H.  
 6. PROVIDE EACH ERU WITH AN AIR TREATMENT SYSTEM CONTROLLING CONTAMINANTS OF CONCERN AND MEETING THE REQUIREMENTS OF THE INDOOR AIR QUALITY PROCEDURE OF ASHRAE 62.1-2007. AIR TREATMENT MUST BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. SYSTEM SHALL BE 24 VAC POWERED THROUGH THE UNIT. SUPPLIER SHALL PROVIDE A LETTER STATING THAT THEIR PRODUCT MEETS ALL REQUIREMENTS OF ASHRAE 62.1-2007 FOR REDUCTION OF OUTSIDE AIR AS WELL AS SUBMIT ALL SUPPORTING DOCUMENTATION AND CALCULATIONS.  
 7. PROVIDE EACH UNIT-INSTALLED FIRE ALARM ADDRESSABLE SMOKE DETECTOR ON SUPPLY SIDE OF UNIT.

PAD MOUNTED AIR CONDITIONING UNIT SCHEDULE

No.	TOTAL CFM COOLING	MIN/MAX O.A. CFM	EXT. STATIC PRESS. (IN. WC)	MIN. FAN MOTOR H.P.	NET COOLING				HEATING				MANUFACTURER		
					ENTERING		SENSIBLE CAPACITY (BTU/HR)	O.A. CONDENSER (°F)	INPUT CAPACITY (BTU/HR)	OUTPUT CAPACITY (BTU/HR)	ENT. D.B. (°F)	FUEL		MIN. EFF. (EER)	
					D.B. (°F)	W.B. (°F)									
PMU - E1	11,400	880/2500	1	15	372,560	80	67	281,560	90	800,000	648,500	17	N. GAS	9.8	CARRIER 48A4G035
PMU - E2	11,400	880/2500	1	15	372,560	80	67	281,560	90	800,000	648,500	17	N. GAS	9.8	CARRIER 48A4G035

- NOTES:  
 1. REFER TO SPECIFICATION SECTION 237413 FOR FEATURES.  
 2. REFER TO SPECIFICATION SECTION 230900 AND 230993 FOR CONTROLS.  
 3. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS.  
 4. PROVIDE EACH PMU WITH AN AIR TREATMENT SYSTEM CONTROLLING CONTAMINANTS OF CONCERN AND MEETING THE REQUIREMENTS OF THE INDOOR AIR QUALITY PROCEDURE OF ASHRAE 62.1-2007. AIR TREATMENT MUST BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. SYSTEM SHALL BE POWERED THROUGH A 120 VOLT OUTLET PROVIDED WITH THE UNIT. SUPPLIER SHALL PROVIDE A LETTER STATING THAT THEIR PRODUCT MEETS ALL REQUIREMENTS OF ASHRAE 62.1-2007 FOR REDUCTION OF OUTSIDE AIR AS WELL AS SUBMIT ALL SUPPORTING DOCUMENTATION AND CALCULATIONS.  
 5. PROVIDE EACH UNIT-INSTALLED FIRE ALARM ADDRESSABLE SMOKE DETECTOR ON SUPPLY SIDE OF UNIT.  
 6. PROVIDE EACH PMU WITH HUMIDITY CONTROL. ECONOMIZER HOOD W/BAROMETRIC RELIEF.

EXHAUST FAN SCHEDULE

No.	CFM	EXT. S.P. (IN. WC)	MAX. SONE LEVEL	DRIVE	H.P.	LOCATION	MANUFACTURER	CONTROLLED BY
EF - E1	680	.25	7.4	DIRECT	.15	GIRLS 508	PENNBARRY DX11Q	TIMING DEVICE
EF - E2	350	.15	3.5	DIRECT	.10	CONCESSION 504	PENNBARRY DX10R	INTERVAL TIMER
EF - E3	200	.15	3.2	DIRECT	.05	JAN. 513	PENNBARRY DX08R	TIMING DEVICE
EF - E4	250	.15	2	DIRECT	.05	ELEC 515	PENNBARRY DX10R	THERMOSTAT

- NOTES:  
 1. REFER TO SPECIFICATION SECTION 233423 FOR FEATURES.  
 2. REFER TO SPECIFICATION SECTION 230900 AND 230993 FOR CONTROLS.  
 3. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS.  
 4. AT CONTRACTOR'S OPTION, PROVIDE TRANSITION FROM FAN BACKDRAFT DAMPER TO EQUIVALENT ROUND DUCT AND EXTEND DOWN TO EXHAUST GRILLE, WHEN FAN SERVES A SINGLE GRILLE.

AIR DISTRIBUTION COMPONENTS SCHEDULE

SYMBOL	MAX. CFM	FACE SIZE	NECK SIZE	THROW	FUNCTION	MANUFACTURER	REMARKS
E1	750	24 X 12	22 X 10	---	E/RAG	PRICE 80	SUITABLE FOR DUCTING
S4	100	24 X 24	6 DIA	4 WAY	CD	PRICE SCD-1	W/ FACTORY INSULATED METAL BACK PAN
SR1	---	96 X 50	96 X 48	---	SRAG	PRICE 96	HEAVY DUTY 3/4" THICK

- NOTES:  
 1. PROVIDE SQUARE TO ROUND ADAPTERS FOR EXHAUST/RETURN GRILLES AS REQUIRED.  
 2. ALL SUPPLY-AIR DIFFUSERS SHALL BE FACTORY INSULATED, FOIL-BACKED TYPE.

GAS FURNACE SCHEDULE

No.	TOTAL CFM COOLING	O.A. CFM	EXT. STAT. PRESS. (IN. WC)	MIN. FAN MOTOR H.P.	ENT. AIR (°F)	LEAV. AIR (°F)	INPUT CAP. (BTU/HR)	OUTPUT CAP. (BTU/HR)	FUEL	MIN. EFF. (AFUE) (%)	MANUFACTURER
GF - E1	1900	400	.6	1	47	97	120,000	110,400	N. GAS	92	CARRIER 59SP2A120/CNPVP6124ALA
GF - E2	1900	400	.6	1	47	97	120,000	110,400	N. GAS	92	CARRIER 59SP2A120/CNPVP6124ALA

- NOTES:  
 1. REFER TO SPECIFICATION SECTION 235400 FOR FEATURES.  
 2. REFER TO SPECIFICATION SECTION 230900 AND 230993 FOR CONTROLS.  
 3. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS.  
 4. GAS FURNACE SHALL HAVE A MINIMUM ANNUAL FUEL UTILIZATION EFF. OF 78%.

REMOTE CONDENSING UNIT SCHEDULE

No.	TOTAL CAP. (BTU/HR)	NET COOLING		O.A. CONDENSER (°F)	MIN. EFF. (EER)	MANUFACTURER	ACCESSORIES
		SENSIBLE CAPACITY (BTU/HR)	INPUT CAPACITY (BTU/HR)				
CU - E1	57,470	42,280	95	11.7	CARRIER 24AHA460	GF-E1	
CU - E2	57,470	42,280	95	11.7	CARRIER 24AHA460	GF-E2	

- NOTES:  
 1. REFER TO SPECIFICATION SECTION 236200 FOR FEATURES.  
 2. REFER TO SPECIFICATION SECTION 230900 AND 230993 FOR CONTROLS.  
 3. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS.

MINI-SPLIT HEAT PUMP SCHEDULE

No.	INDOOR UNIT (MAHU)	TOTAL COOLING (BTU/HR)	OUTSIDE AIR CFM	ADD. H.P. (KW)	NET COOLING			HEATING		MANUFACTURER	
					TOTAL CAP. (BTU/HR)	ENTERING		O.A. CONDENSER (°F)	OUTPUT CAPACITY (BTU/HR)		AMBIENT D.B. (°F)
						D.B. (°F)	W.B. (°F)				
MAHU - E1	275	---	---	---	---	---	---	---	---	CARRIER 40MAQB09B--3	
MAHU - E2	275	---	---	---	---	---	---	---	---	CARRIER 40MAQB09B--3	
MAHU - E3	275	---	---	---	---	---	---	---	---	CARRIER 40MBCQ12---3	
MHP - E1	---	---	---	9,000	75	63	95	9,000	47	CARRIER 38MAQB09R--3	
MHP - E2	---	---	---	9,000	80	67	95	9,000	47	CARRIER 38MAQB09R--3	
MHP - E3	---	---	---	12,000	75	63	95	12,000	47	CARRIER 38MAQB12R--3	

- NOTES:  
 1. REFER TO SPECIFICATION SECTION 238126 FOR FEATURES.  
 2. REFER TO SPECIFICATION SECTION 230900 AND 230993 FOR CONTROLS.  
 3. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS.  
 4. PROVIDE EACH MAHU WITH AN AIR TREATMENT SYSTEM CONTROLLING CONTAMINANTS OF CONCERN AND MEETING THE REQUIREMENTS OF THE INDOOR AIR QUALITY PROCEDURE OF ASHRAE 62.1-2007. AIR TREATMENT MUST BE FULLY ENCLOSED IN THE EQUIPMENT AND POWERED BY 208/1 VOLT CIRCUIT THROUGH THE UNIT. SUPPLIER SHALL PROVIDE A LETTER STATING THAT THEIR PRODUCT MEETS ALL REQUIREMENTS OF ASHRAE 62.1-2007 FOR REDUCTION OF OUTSIDE AIR AS WELL AS SUBMIT ALL SUPPORTING DOCUMENTATION AND CALCULATION.  
 5. PROVIDE ALL UNITS WITH AN EXTRA WASHABLE FILTER.  
 6. PROVIDE ALL UNITS WITH A WIRED WALL MOUNTED BACNET THERMOSTAT CONTROLLER.  
 7. PROVIDE WALL MOUNTED UNIT MAHU-E1 AND E2 EACH WITH CONDENSATE LIFT PUMP - LITTLE GIANT EC-OP SERIES CONDENSATE REMOVAL PUMPS WITH RESERVOIR AND PUMP CONCEALING COVER.

ELECTRIC HEATER SCHEDULE

No.	TYPE	LOCATION	KW	ELECTRICAL CHARACTERISTICS	MANUFACTURER
EH - E1	WALL	MECHANICAL 509	4	RE: ELECTRICAL DOCUMENTS	MARKEL 3320HD
EH - E2	CEILING	GIRLS 508	4	RE: ELECTRICAL DOCUMENTS	MARKEL 3480
EH - E3	CEILING	CORRIDOR 501	4	RE: ELECTRICAL DOCUMENTS	MARKEL 3480
EH - E4	CEILING	BOYS 517	4	RE: ELECTRICAL DOCUMENTS	MARKEL 3480
EH - E5	WALL	MECH. 526	4	RE: ELECTRICAL DOCUMENTS	MARKEL 3320HD

- NOTES:  
 1. REFER TO SPECIFICATION SECTION 238239.19 FOR FEATURES.  
 2. REFER TO SPECIFICATION SECTION 230900 AND 230993 FOR CONTROLS.  
 3. SURFACE MOUNT WALL HEATERS WITH BOTTOM OF UNIT 2'-0" A.F.F. UNLESS OTHERWISE NOTED.

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 HVAC RENOVATIONS FOR:  
**ARNALL MIDDLE SCHOOL GYMNASIUM**  
 COWETA COUNTY SCHOOL SYSTEM  
 NEWNAN, GEORGIA  
 REVISION: December 20 2019  
 DATE: December 10 2019  
 JOB NUMBER: 01 610 296  
 DRAWING NUMBER: M601  
 REGISTERED ARCHITECT: GREGORY SCHULTE  
 REGISTERED ENGINEER: MICHAEL C. WALDRON