

HVAC LEGEND			
SYM.	DESCRIPTION	SYM.	DESCRIPTION
A/00	AIR DISTRIBUTION MARK / CFM	MAHU	MINI-SPLIT AIR HANDLING UNIT
AC	AIR CONDITIONER	MAU	MAKE-UP AIR UNIT
AD	ACCESS DOOR	MEP	MECHANICAL EQUIP. PAD - RE: ARCH.
AFF	ABOVE FINISHED FLOOR	MHP	MINI-SPLIT HEAT PUMP
AHP	AIR HANDLING HEAT PUMP UNIT	MOD	MOTOR OPERATED DAMPER
AHU	AIR HANDLING UNIT	MVD	MANUAL VOLUME DAMPER
B	BOILER	OA	OUTSIDE AIR
BMC	BUILDING MANAGEMENT CONTROLLER	PA	PUMP
BPD	BYPASS DAMPER	PIU	POWERED INDUCTION UNIT
CFM	CUBIC FEET PER MINUTE	PMHP	PAD MOUNTED HEAT PUMP UNIT
CH	CHILLER	PMU	PAD MOUNTED UNIT
CR	CONDENSER WATER RETURN	RA	RETURN AIR
CD	CEILING DIFFUSER	RTHP	ROOF TOP HEAT PUMP UNIT
CS	CONDENSER WATER SUPPLY	RTU	ROOF TOP UNIT
CT	COOLING TOWER	SA	SUPPLY AIR
CU	CONDENSING UNIT	S.D.	SMOKE DAMPER
CWR	CHILLED WATER RETURN	S/FD	COMBO SMOKE / FIRE DAMPER
CWS	CHILLED WATER SUPPLY	S.o.g.	OUTDOOR AIR SENSOR - ENTHALPY
D	DRAIN	S.P.	STATIC PRESSURE
DCS	DUST COLLECTION SYSTEM	TWHP	THRU WALL HEAT PUMP UNIT
DF	DUCT FURNACE	VAV	VARIABLE AIR VALVE
DG	DOOR GRILLE	VVT	VARIABLE VOL./VARIABLE TEMP. VALVE
DN	DOWN	WHP	WALL HUNG HEAT PUMP UNIT
EDH	ELECTRIC DUCT HEATER	CO	CARBON DIOXIDE SENSOR
EF	EXHAUST FAN	DM	DUCT MOUNTED SMOKE DETECTOR
EH	ELECTRIC HEATER	HUMID/STAT	HUMID/STAT
ERV	ENERGY RECOVERY VENTILATOR	INT	INTERVAL TIMER
EUH	ELECTRIC UNIT HEATER	NIGHT	NIGHT SETBACK
FD	FIRE DAMPER	RS	ROOM SENSOR
FLDG	FUSIBLE LINK DOOR GRILLE	THERM/STAT	THERM/STAT
GF	GAS FURNACE UNIT	WMS	WALL MOUNTED SWITCH
GH	GRAVITY INTAKE HOOD	SPN	SPECIFIC KEYS NOTE
GHR	GRAVITY RELIEF HOOD	SPN W/ SCOOP & VOL. DAMPER	SPN W/ SCOOP & VOL. DAMPER
GWU	GAS WALL HUNG UNIT	DR	DOOR GRILLE
GUH	GAS UNIT HEATER	FD	FIRE DAMPER IN CEILING
HP	HEAT PUMP	EX	EXTRACTOR
HRE	HEAT RECOVERY FAN	FD	FIRE DAMPER IN WALL
HVS	HOODED VENTILATION SYSTEM	DA	DUCT W/ ACOUSTIC LINER
HWR	HEATING WATER RETURN	DU	DUCT W/ TURNING VANES
HWS	HEATING WATER SUPPLY	SA	SUPPLY AIR
L	LOUVER	RE	RETURN / EXHAUST AIR
L/D	COMBO LOUVER / DAMPER	V	VENT THROUGH ROOF

REMOTE CONDENSING UNIT SCHEDULE						
No.	TOTAL CAP. (BTU/HR)	NET COOLING		MIN. EFF. (EER)	MANUFACTURER	ACCESSORIES
		SENSIBLE CAPACITY (BTU/HR)	O.A. CONDENSER (°F)			
CU-F01A	41,970	31,415	95	14	CARRIER 24ACC442	AHU-F01
CU-F01B	41,970	31,415	95	14	CARRIER 24ACC442	AHU-F01
CU-F02A	44,170	36,590	95	14	CARRIER 24ACC448	AHU-F02
CU-F02B	44,170	36,590	95	14	CARRIER 24ACC448	AHU-F02

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.

ELECTRIC HEATER SCHEDULE					
No.	TYPE	LOCATION	KW	ELECTRICAL CHARACTERISTICS	MANUFACTURER
EH-F01	WALL	MECH 617	4	RE: ELECTRICAL DOCUMENTS	MARKEL 3320HD
EH-F03	WALL	MECH 629	4	RE: ELECTRICAL DOCUMENTS	MARKEL 3320HD
EH-F04	WALL	STORAGE 600	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.

DUCT FURNACE SCHEDULE									
No.	CFM THRU UNIT	INPUT CAPACITY (BTU/HR)	OUTPUT CAPACITY (BTU/HR)	ENT. D.B. (°F)	MIN. RISE (°F)	FUEL	VENT SIZE	MIN. EFF. (AFUE%)	MANUFACTURER
DF-F01	2400	140,000	112,000	55	43	N. GAS	5 DIA.	78	REZNOR HEEDU140
DF-F02	2800	140,000	112,000	55	37	N. GAS	5 DIA.	78	REZNOR HEEDU140

NOTES:
 1. REFER TO SPECIFICATION SECTION 235513 FOR FEATURES.
 2. REFER TO SPECIFICATION SECTION 230900 AND 230993 FOR CONTROLS.
 3. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS.
 4. GAS DUCT HEATER SHALL HAVE A MINIMUM ANNUAL FUEL UTILIZATION EFF. OF 78%.

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
E2	1600	24 X 24	22 X 12	---	E/RAG	PRICE 80	SUITABLE FOR DUCTING

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.
 3. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL DEVICES.
 4. SEE SIDEWALL MOUNTED DEVICES SHALL BE FACTORY PRIMED FOR FIELD PAINTING TO MATCH THE WALL PER SPECIFICATION SECTION 099123.

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 %EFF	COOLING MBH	LAT COIL (°F)	HOT GAS REHEAT (°F)	O.A. EAT (°F)	LAT WHEEL (°F)		WHEEL %EFF			
ERU-F01	2,750	1.0	3	2,850	1.0	3	93/75	80/66	65.3	120,400	52/51	70/61	18	72.3	65.3	92.9	150,000	120,000	GREENHECK RVE-40-36-10H
ERU-F02	2,750	1.0	3	2,850	1.0	3	93/75	80/66	65.3	120,400	52/51	70/61	18	72.3	65.3	92.9	150,000	120,000	GREENHECK RVE-40-36-10H

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.

THRU WALL HEAT PUMP SCHEDULE										
No.	TOTAL CFM COOLING	O.A. CFM	LOCATION	ADD. HTG. (KW)	NET COOLING		HEATING		MANUFACTURER	
					TOTAL CAPACITY (BTU/HR)	O.A. CONDENSER (°F)	OUTPUT CAPACITY (BTU/HR)	AMB. D.B. (°F)		
TWHP-F01	340	15	OFFICE 620	3.0	12,100	95	11,000	47	GREE ETAC12	

NOTES:
 1. REFER TO SPECIFICATION SECTION 238113 FOR FEATURES.
 2. REFER TO SPECIFICATION SECTION 230900 AND 230993 FOR CONTROLS.
 3. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS.
 4. PROVIDE ARCHITECTURAL STYLE EXTRUDED ALUMINUM GRILLE SIMILAR TO RELIABLE MODEL AEL 42 WITH FRAME STYLE 186.
 5. PROVIDE UNITS WITH REMOTE THERMOSTAT KIT.

PAD MOUNTED AIR CONDITIONING UNIT SCHEDULE																
No.	TOTAL CFM COOLING	O.A. MAX CFM	O.A. MIN CFM	EXT. ST. PRESS. (IN. WC)	MIN. FAN MOTOR B.H.P.	NET COOLING				HEATING			MANUFACTURER			
						TOTAL CAPACITY (BTU/HR)	ENTERING D.B. (°F)	SENSIBLE CAPACITY (BTU/HR)	O.A. CONDENSER (°F)	INPUT CAPACITY (BTU/HR)	OUTPUT CAPACITY (BTU/HR)	ENT. D.B. (°F)		FUEL	MIN. EFF. (EER)	
PMU-F01	11,400	2,000	2,000	1.2	8.57	397,370	80	67	281,560	90	800,000	648,000	17	N. GAS	9.82	CARRIER 48A4G035
PMU-F02	11,400	2,000	2,000	1.2	8.57	397,370	80	67	281,560	90	800,000	648,000	17	N. GAS	9.82	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. 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 FOR REDUCTION OF OUTSIDE AIR AS WELL AS SUBMIT ALL SUPPORTING DOCUMENTATION AND CALCULATIONS.
 5. PROVIDE THIRD PARTY ECONOMIZER AS REQUIRED TO ALLOW FOR DUCT CONFIGURATION AS SHOWN ON THE FLOOR PLAN AND RELIEF.

AIR HANDLING UNIT SCHEDULE											
No.	TOTAL CFM COOLING	O.A. CFM	EXT. ST. PRESS. (IN. WC)	MIN. FAN MOTOR H.P.	NET COOLING				MAX. FACE VELL (FPM)	FAN DISCH. ARR. G.	MANUFACTURER
					ENTERING D.B. (°F)	W.B. (°F)	D.B. (°F)	W.B. (°F)			
AHU-F01	2400	600	1.2	3	80	67	55	54	<550	UBR	CARRIER 39MN06
AHU-F02	2800	600	1.2	3	80	67	55	54	<550	UBR	CARRIER 39MN06

NOTES:
 1. REFER TO SPECIFICATION SECTION 237313 FOR FEATURES.
 2. REFER TO SPECIFICATION SECTION 230900 AND 230993 FOR CONTROLS.
 3. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS.
 4. PROVIDE EACH AHU WITH AN AIR TREATMENT SYSTEM CONTROLLING CONTAMINANTS OF CONCERN AND MEETING THE REQUIREMENTS OF THE INDOOR AIR QUALITY PROCEDURE OF ASHRAE 62.1. AIR TREATMENT MUST BE FULLY ENCLOSED IN THE EQUIPMENT AND POWERED BY 24 VOLT CONTROL VOLTAGE SUPPLIER SHALL PROVIDE A LETTER STATING THAT THEIR PRODUCT MEETS ALL REQUIREMENTS OF ASHRAE 62.1 FOR REDUCTION OF OUTSIDE AIR AS WELL AS SUBMIT ALL SUPPORTING DOCUMENTATION AND CALCULATIONS.
 5. PROVIDE FACTORY-MOUNTED VFD'S AT LOCATIONS SHOWN.

MINI-SPLIT HEAT PUMP SCHEDULE										
INSIDE UNIT (MAHU)					OUTSIDE UNIT (MHU)					
No.	TOTAL CFM COOLING	OUTSIDE AIR CFM	ADD. HTG. (KW)	MANUFACTURER	NET COOLING			HEATING		
					TOTAL CAP. (BTU/HR)	ENTERING D.B. (°F)	O.A. CONDENSER (°F)	OUTPUT CAP. (BTU/HR)	AMB. D.B. (°F)	
MAHU-F01	275	---	---	CARRIER 40MAQ09	---	---	---	---	---	
MAHU-F02	275	---	---	CARRIER 40MAQ09	---	---	---	---	---	
MAHU-F03	275	---	---	CARRIER 40MBC18	---	---	---	---	---	
MAHU-F04	275	---	---	CARRIER 40MAQ09	---	---	---	---	---	
MHP-F01	---	---	---	CARRIER 38MAQ09	9,000	80	67	95	10,000	17
MHP-F02	---	---	---	CARRIER 38MAQ09	9,000	80	67	95	10,000	17
MHP-F03	---	---	---	CARRIER 38MAQ18	18,000	80	67	95	19,000	4.7
MHP-F04	---	---	---	CARRIER 38MAQ09	9,000	80	67	95	10,000	17

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. 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 FOR REDUCTION OF OUTSIDE AIR AS WELL AS SUBMIT ALL SUPPORTING DOCUMENTATION AND CALCULATION.
 5. PROVIDE ALL UNITS WITH AN EXTRA WASHABLE FILTER.

EXHAUST FAN SCHEDULE									
No.	CFM	EXT. S.I. (IN. WC)	MAX. SONE LEVEL	DRIVE	H.P.	LOCATION	MANUFACTURER	CONTROLLED BY	
EF-F03	450	.125	6	DIRECT	1/12	TOIL 608	PENN DX10R	TIMING DEVICE	
EF-F04	800	.125	8.1	DIRECT	1/5	OFFICE 620	PENN DX110	THERMOSTAT	
EF-F05	1350	.125	3.8	BELT	1/4	GIRLS 623	PENN DX11B	TIMING DEVICE	
EF-F06	300	.125	4.5	DIRECT	1/25	CONCESSION 624	PENN DX10R	INTERVAL TIMER	
EF-F07	150	.125	3.7	DIRECT	1/30	JANITOR 628	PENN DX08R	TIMING DEVICE	
EF-F08	625	.125	5.0	DIRECT	1/7	BOYS 626	PENN DX11R	TIMING DEVICE	

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.
 5. FAN NUMBERING SCHEME CORRESPONDES WITH EXISTING FAN NUMBERING. OMITTED FAN NUMBERS ARE THOSE THAT HAVE BEEN REMOVED IN THIS PROJECT.

REVISION
December 20 2019

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DATE
December 10 2019

JOB NUMBER
01 610 292

HVAC RENOVATIONS FOR:
LEE MIDDLE SCHOOL GYMNASIUM
 COWETA COUNTY SCHOOL SYSTEM
 NEWNAN, GEORGIA

DRAWING NUMBER
M601

STATE OF GEORGIA
GREGORY SCHULTE
REGISTERED ARCHITECT

STATE OF GEORGIA
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