

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

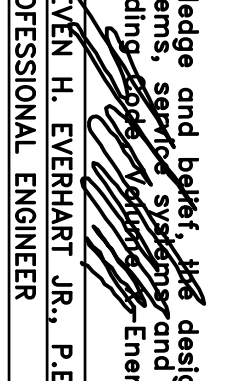
METHOD OF COMPLIANCE

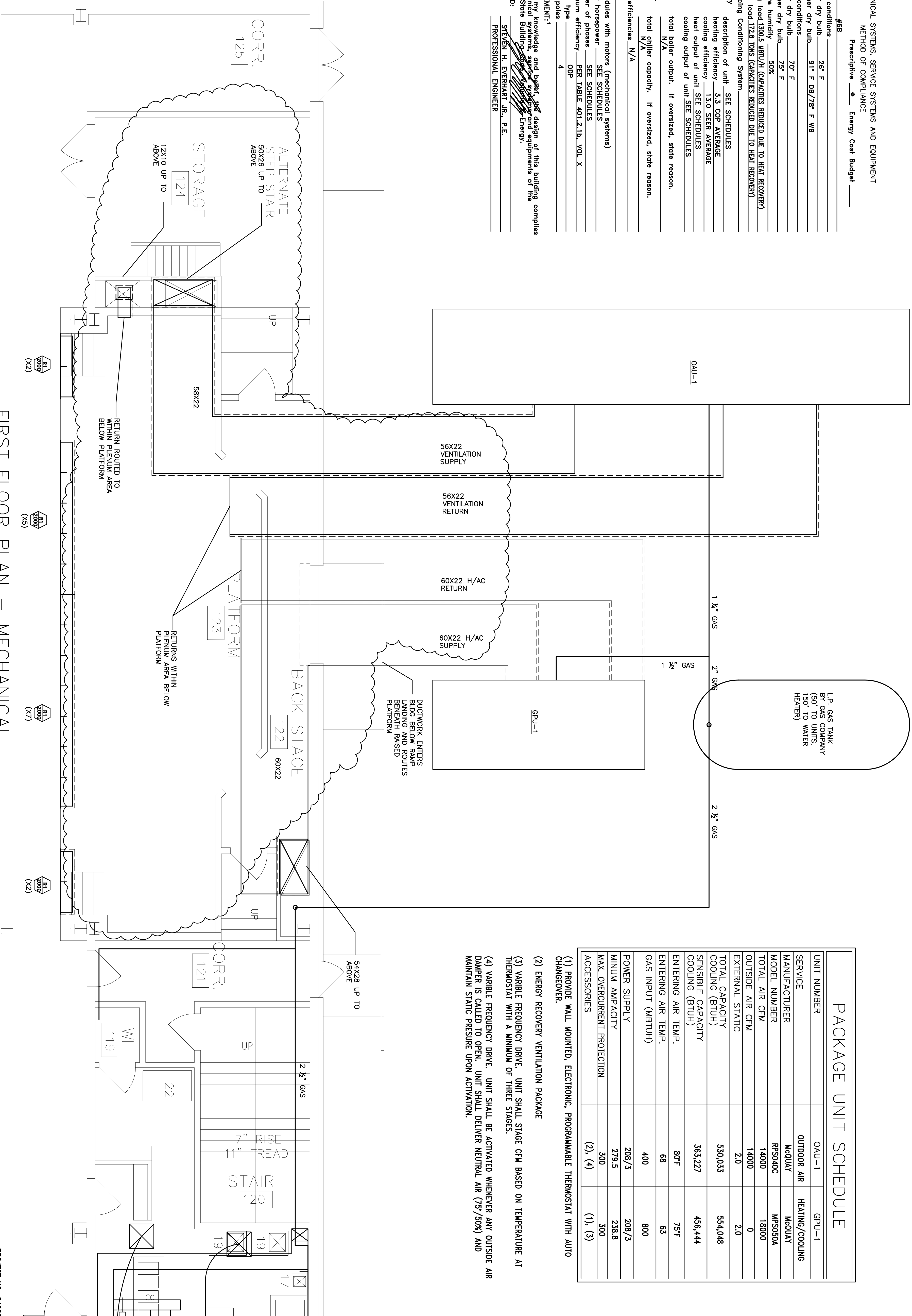
Prescriptive — Energy Cost Budget —

Thermal Zone	#58
Exterior design conditions	26° F
winter dry bulb	91° F DB/78° F WB
summer dry bulb	79° F
winter design conditions	70° F
summer dry bulb	79° F
relative humidity	50%
Building heating load	1360.3 MBTU/H (CAPACITIES REDUCED DUE TO HEAT RECOVERY)
Building cooling load	172.8 TONS (CAPACITIES REDUCED DUE TO HEAT RECOVERY)
Mechanical Spacing Conditioning System	
Unitary	description of unit SEE SCHEDULES
heating efficiency	3.3 COP AVERAGE
cooling efficiency	13.0 SEER AVERAGE
heat output of unit	SEE SCHEDULES
cooling output of unit	SEE SCHEDULES
boiler	total boiler output. If oversized, state reason.
chiller	total chiller capacity. If oversized, state reason.
List equipment efficiencies	N/A

Equipment schedules with motors (mechanical systems)	SEE SCHEDULES
motor horsepower	SEE SCHEDULES
number of phases	PER TABLE 401.2.1b, VOL. X
minimum efficiency	ODP
motor type	4
# of poles	4

DESIGNER STATEMENT:¹
 To the best of my knowledge and belief, the design of this building complies with the mechanical systems, service systems and equipments of the North Carolina State Building Code.

SIGNED: 
 NAME: STEVEN H. EVERHART, JR., P.E.
 TITLE: PROFESSIONAL ENGINEER



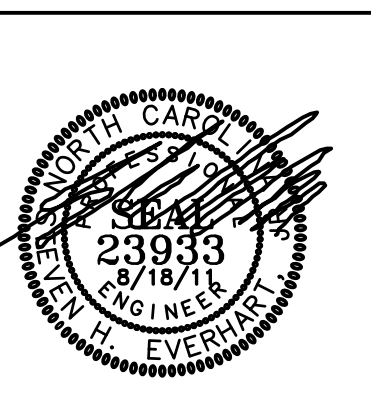
PACKAGE UNIT SCHEDULE

UNIT NUMBER	OAU-1	GPU-1
SERVICE	OUTDOOR AIR	HEATING/COOLING
MANUFACTURER	McQUAY	McQUAY
MODEL NUMBER	RF5040C	MF5050A
TOTAL AIR CFM	14000	18000
OUTSIDE AIR CFM	14000	0
EXTERNAL STATIC	2.0	2.0
TOTAL CAPACITY COOLING (BTUH)	530,033	554,048
SENSIBLE CAPACITY COOLING (BTUH)	363,227	456,444
ENTERING AIR TEMP.	80°F	75°F
ENTERING AIR TEMP.	68	63
GAS INPUT (MBTUH)	400	800
POWER SUPPLY	208/3	208/3
MINUM AMPACITY	279.5	238.8
MAX. OVERCURRENT PROTECTION	300	300
ACCESSORIES	(2), (4)	(1), (3)

- (1) PROVIDE WALL MOUNTED, ELECTRONIC, PROGRAMMABLE THERMOSTAT WITH AUTO CHANGEOVER.
- (2) ENERGY RECOVERY VENTILATION PACKAGE
- (3) VARIABLE FREQUENCY DRIVE. UNIT SHALL STAGE CFM BASED ON TEMPERATURE AT THERMOSTAT WITH A MINIMUM OF THREE STAGES.
- (4) VARIABLE FREQUENCY DRIVE. UNIT SHALL BE ACTIVATED WHENEVER ANY OUTSIDE AIR DAMPER IS CALLED TO OPEN. UNIT SHALL DELIVER NEUTRAL AIR (75°/50%) AND MAINTAIN STATIC PRESSURE UPON ACTIVATION.

FIRST FLOOR PLAN - MECHANICAL

SCALE: 1/8"=1'-0"



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FIRST FLOOR PLAN
 MECHANICAL

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SHEET NUMBER:
 M/4
 OF 4