

- GENERAL NOTES**
- MECHANICAL CONTRACTOR (M.C.) SHALL INSTALL MANUAL VOLUME DAMPERS AT BRANCH DUCTS AND AS SHOWN IN BRANCH DUCT DETAILS.
 - M.C. SHALL FIELD VERIFY DUCT ROUTING AND NOTIFY ENGINEER OF RECORD OF ANY CONFLICTS IMMEDIATELY.
 - ALL DUCT SIZES ARE INSIDE CLEAR.
 - M.C. SHALL USE FOIL GRIP AFD-1403-3 DUCT TAPE ON ALL LONGITUDINAL SEAMS AND TRANSVERSE JOINTS OF CONCEALED DUCT.
 - LONGITUDINAL SEAMS SHALL BE PITTSBURGH OR SNAP LOCK. TRANSVERSE JOINTS ON RECTANGULAR DUCTS SHALL DUCTWATE OR S-DRIE.
 - DUCT PRESSURE CLASSIFICATION IS BASED ON THE MAXIMUM VELOCITY AND STATIC PRESSURE THROUGH THE SUPPLY AND RETURN DUCT SYSTEMS. ALL SEAMS, JOINTS, FASTENER PENETRATIONS AND CONNECTIONS ARE TO BE SEALED PER SMACNA STANDARDS BASED ON DUCT CLASSIFICATION.
 - HOLD ALL DUCT WORK LEVEL AND TIGHT AGAINST BOTTOM OF STRUCTURE UNLESS OTHERWISE INDICATED. CLOSELY COORDINATE WITH LIGHTING/ELECTRICAL CONTRACTOR BEFORE ANY DUCT IS FABRICATED. M.C. SHALL BE RESPONSIBLE FOR COORDINATED DETAILED MECHANICAL SHOP DRAWINGS OF EXACT DUCT AND PIPE ROUTING AND LOCATIONS.
 - M.C. SHALL ADJUST GRILLE AND DIFFUSER LOCATIONS TO MATCH REFLECTED CEILING PLAN AND LIGHT LAYOUT.
 - M.C. SHALL COORDINATE WITH ALL TRADES AND PROVIDE OFFSETS AND TRANSITIONS AS NECESSARY TO CORRECT ANY INTERFERENCES. ALL SUPPLY, RETURN AND EXHAUST DUCT, HOT, COLD AND CONDENSATE WATER, DRAIN PIPING AND EQUIPMENT SHALL MEET OR EXCEED THE REQUIREMENTS OF ALL STATE AND LOCAL BUILDING CODES REGARDING SEISMIC CONSIDERATIONS IN RELATION TO THEIR INSTALLATION.
 - PROVIDE AN NEBB OR ABB CERTIFIED TEST AND BALANCE OF ALL SYSTEMS.
 - ALL LOW AND MEDIUM PRESSURE SUPPLY AND RETURN DUCT IN CONCEALED LOCATIONS SHALL HAVE 2.2 INCH THICKNESS WITH INSTALLED VALUE OF R-6.0 WRAP INSULATION WITH VAPOR SEAL.
 - PROVIDE 1" ANTI-MICROBIAL COATED DUCT LINER ON RETURN/SUPPLY DUCTS TO/FROM AIR HANDLING UNIT CONNECTION THROUGH FIRST 8' OF DUCT. INCREASE INDICATED DUCT SIZE 1" ON ALL SIDES WHERE LINER IS INSTALLED.
 - ALL CONDENSATE LINES SHALL BE INSULATED WITH 1" FIBERGLASS INSULATION WITH VAPOR BARRIER AND PREFORMED FITTINGS.
 - ALL EXPOSED SHEET METAL DUCT SHALL BE PAINT GRIP. M.C. SHALL COORDINATE COLOR WITH OWNER AND PAINT.
 - EXPOSED ROUND DUCT SHALL BE GALVANIZED LINDAB DOUBLE WALL 1" PERFORATED LINER DUCT.

- GAS PIPING NOTES**
- PROVIDE MANUFACTURER'S RECOMMENDED CLEARANCES AROUND ALL EQUIPMENT FOR SAFETY AND MAINTENANCE.
 - PAINT ALL GAS PIPING WITH TWO COATS PRIMER AND ONE COAT OF INDUSTRIAL OSHA YELLOW UNLESS OWNER/ARCHITECT REQUEST OTHER COLOR. LABEL EVERY 5' MAX.
 - NATURAL GAS PIPING 2" AND SMALLER SHALL BE SCHEDULE 40 BLACK STEEL (ASTM A-120) WITH 150 LB. M.I. SWEDED FITTINGS. UNDERGROUND PIPE SHALL BE TYPE L COPPER INSULATED WITH POLYETHYLENE ENCASEMENT SEALED WATER TIGHT.
 - VENT ALL REGULATORS TO EXTERIOR.

GAS PIPING LEGEND

PIPE ELBOW STRAINER
PIPE ELBOW DOWN PRESSURE REGULATOR
GAS COCK PIPE SUPPORT

NCFGC TABLE 402.4(5)

PIPE	INITIAL PRESSURE	PRESSURE DROP	MAX. DEVELOPED LENGTH	MAX. CAPACITY CFH
3/4"	5.0 PSI	3.5 PSI	125'	1,770
1"	5.0 PSI	3.5 PSI	125'	3,240
1 1/4"	5.0 PSI	3.5 PSI	125'	6,640
1 1/2"	5.0 PSI	3.5 PSI	125'	9,950

HVAC DESIGN DATA				
SUMMER				
		OUTSIDE		INSIDE
PROJECT	LOCATION	DRY BULB	WET BULB	DRY BULB
ROWAN ABC	SALISBURY, NC	95°F	78°F	76°F

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT:

Method of Compliance: Prescriptive Yes Performance Energy Cost Budget

Thermal Zone: ZONE 3A

R-Value U-Value

Roof/Ceiling: 30 0.033

Ext. Walls: 19 0.063

Doors: 6 0.187

Windows: 6 0.187

Walls Below Grade: 6 0.187

Floors Over Unconditioned spaces: 13 0.077

Floors On Slab: 6 0.187

Exterior Design Conditions:

winter dry bulb 14°F

summer dry bulb 95°F

Interior Design Conditions:

winter dry bulb 70°F ± 2°F

summer dry bulb 78°F ± 2°F

relative humidity 50% ± 15% (SUMMER ONLY)

Building heating load 376.0 MBH

Building cooling load 188.6 MBH

Mechanical Spacing/Conditioning System:

Unitary description of unit heating efficiency cooling efficiency heat input of unit cooling output of unit

Boiler:

Total Boiler Output, if oversized, state reason: N/A

Other:

Total Chiller Capacity, if oversized, state reason: N/A

LIST EQUIPMENT EFFICIENCIES: ** See Motor Efficiency Table This Sheet

EQUIPMENT SCHEDULES WITH MOTORS (Mechanical systems): ** See HVAC Equipment Schedule This Sheet

Motor horsepower: Motor type: Minimum efficiency: # of poles:

