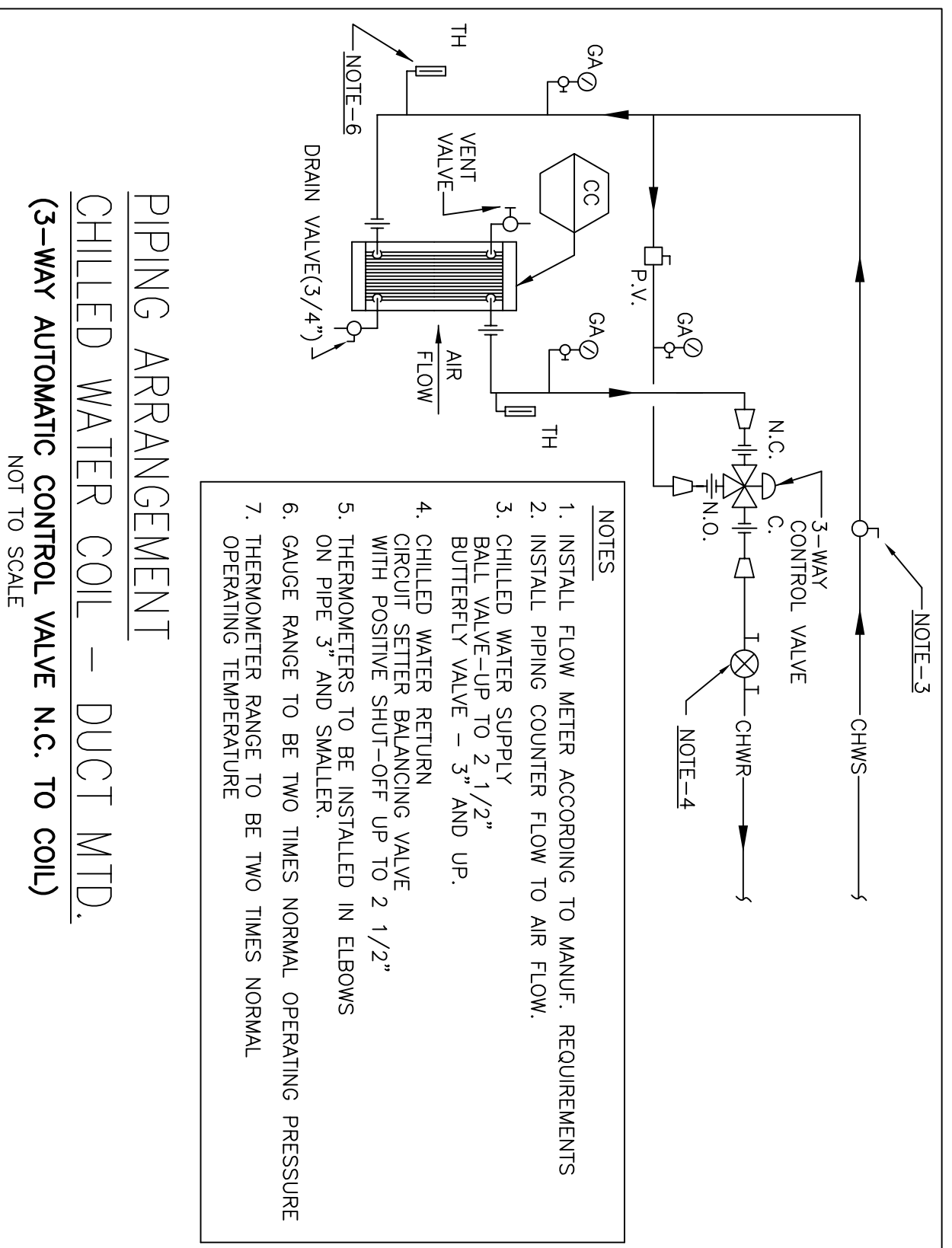
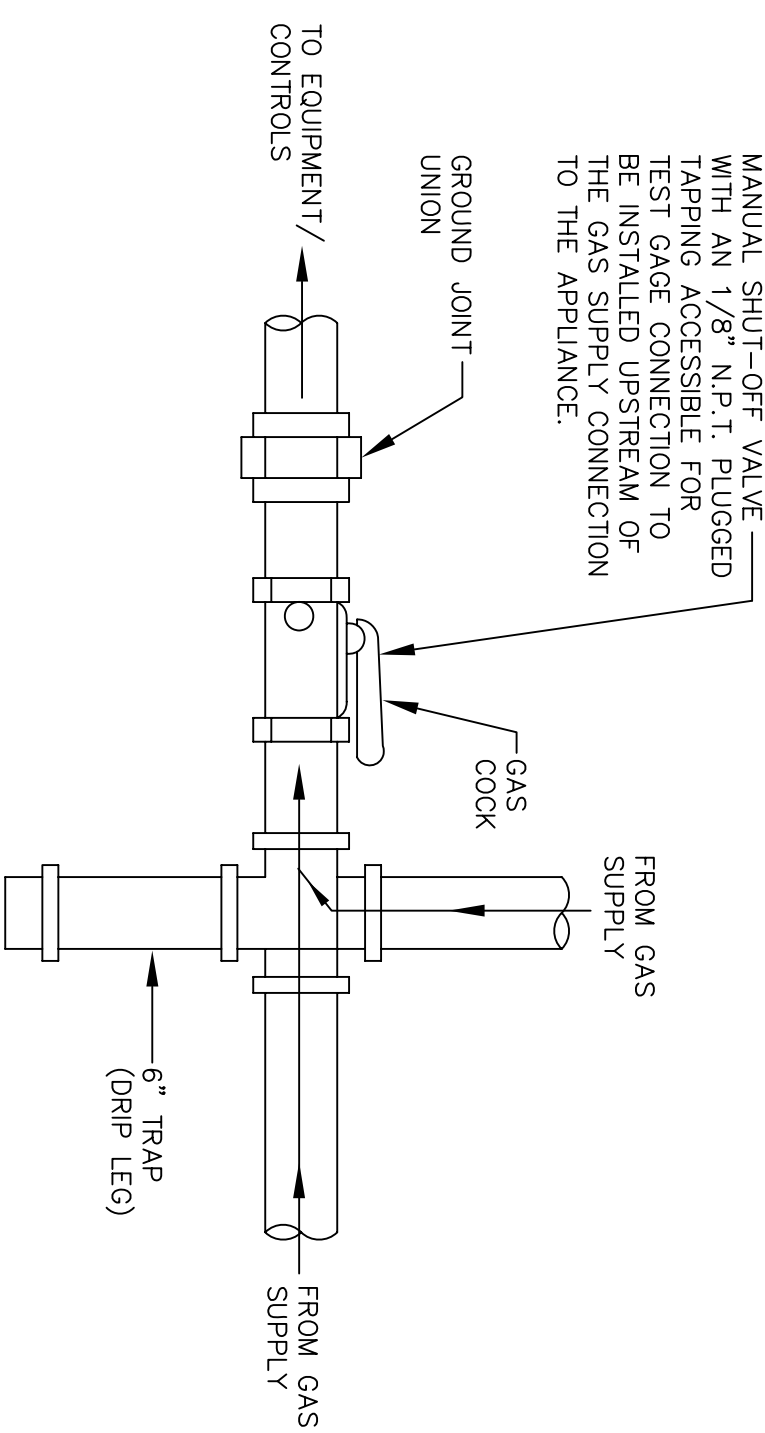


HVAC NOTES

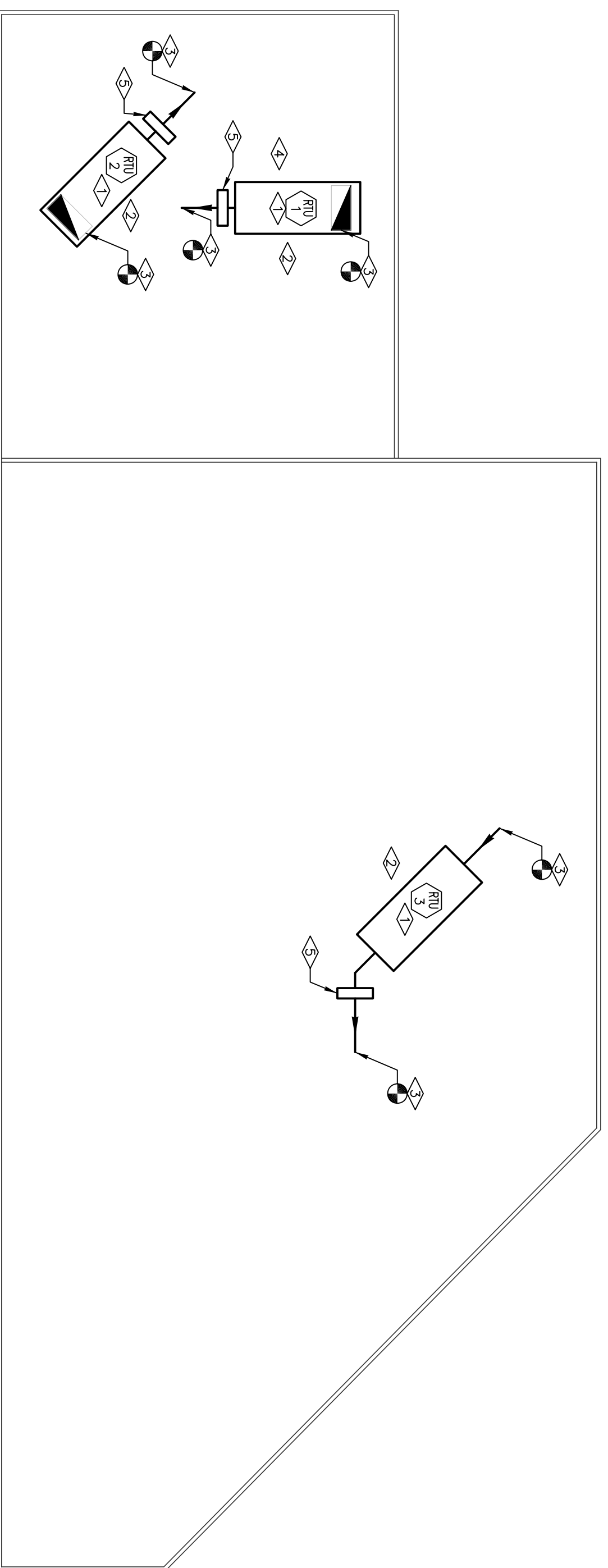


- NOTES**
1. INSTALL FLOW METER ACCORDING TO MANUF. REQUIREMENTS
 2. INSTALL PIPING COUNTER FLOW TO AIR FLOW.
 3. CHILLED WATER SUPPLY BALL VALVE-UP TO 2 1/2" AND UP.
 4. CHILLED WATER RETURN BALL VALVE-UP TO 2 1/2" WITH POSITIVE SHUT-OFF UP TO 2 1/2" ON PIPE 3" AND SMALLER.
 5. THERMOMETERS TO BE INSTALLED IN ELBOWS
 6. GAUGE RANGE TO BE TWO TIMES NORMAL OPERATING PRESSURE
 7. THERMOMETER RANGE TO BE TWO TIMES NORMAL OPERATING TEMPERATURE

PIPING ARRANGEMENT CHILLED WATER COIL - DUCT MTD. (3-WAY AUTOMATIC CONTROL VALVE N.C. TO COIL) NOT TO SCALE

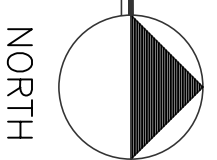


GAS CONNECTION TO EQUIPMENT DETAIL NOT TO SCALE



SCHEMATIC FLOOR PLAN

SCALE: NTS



1. SCOPE OF WORK

- A. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.
- B. ALL WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH THE 2006 INTERNATIONAL MECHANICAL CODE, ALL LOCAL CODES AND ALL OTHER REGULATION GOVERNING WORK OF THIS NATURE.

- C. THE CONTRACTOR SHALL, BEFORE SUBMITTING ANY PROPOSAL, EXAMINE THE PROPOSED SITE AND SHALL DETERMINE FOR HIMSELF THE CONDITIONS THAT MAY EFFECT THE WORK. NO ALLOWANCE SHALL BE MADE IF THE CONTRACTOR FAILS TO MAKE SUCH EXAMINATIONS.

- D. ALL EQUIPMENT AND MATERIALS SHALL BE AS SPECIFIED OR "APPROVED EQUAL" BY THE ENGINEER OR ARCHITECT.

2. PERMITS

- A. THE CONTRACTOR SHALL SECURE ALL PERMITS OR APPLICATIONS AND PAY ANY AND ALL FEES.

3. SHOP DRAWINGS

- A. SUBMIT MATERIAL LIST AND SHOP DRAWINGS FOR MAJOR EQUIPMENT TO THE ARCHITECT/ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL SUBMIT FIVE SETS OF SHOP DRAWINGS AND THEY SHALL BE CLEARLY LABELED.

4. FLEXIBLE TYPE DUCT

- A. SHALL BE OF TWO ELEMENT SPIRAL CONSTRUCTION COMPOSED OF A CORROSION RESISTANT METAL SUPPORTING SPIRAL AND COATED FABRIC WITH A MINERAL BASE. FLEXIBLE DUCT CONNECTORS SHALL BE LISTED BY U.L., CLASS 1 DUCTS, AND SHALL HAVE A FLAME SPREAD RATING NOT EXCEEDING 25 AND A SMOKE DEVELOPED RATING NOT EXCEEDING 50.

- B. USE OF FLEXIBLE DUCTWORK SHALL BE LIMITED TO NO MORE THAN 6 LINEAR FEET PER RUN.

- C. CONTRACTOR SHALL BE CAREFUL SO AS NOT TO KINK OR COLLAPSE FLEXIBLE DUCT.

5. DUCTWORK

- A. THE DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "SMACNA" APPLICABLE MANUALS. ALL DUCTWORK SHALL BE THE LOW VELOCITY TYPE, UNLESS SPECIFIED OTHERWISE.

- B. CONTRACTOR SHALL PROVIDE AND INSTALL APPROVED FIRE DAMPERS AND ACCESS PANELS IN ANY AND ALL DUCTWORK WHICH PENETRATES A HORIZONTAL OR VERTICAL FIRE PARTITION, OR AS OTHERWISE SHOWN ON DRAWINGS.

- C. ALL BRANCH DUCTS TO HAVE VOLUME DAMPERS.

- D. SMOOTH TURN RADIUS DUCTWORK OR TURNING VANES SHALL BE USED THROUGHOUT WHERE FLOW EXCEEDS 150 CFM.

- E. ALL DUCT JOINTS TO BE SEALED IN ACCORDANCE WITH "SMACNA" STANDARDS AND ACCEPTED GOOD PRACTICE.

- F. ALL DUCT DIMENSIONS SHOWN ARE NET INSIDE VALUES. DIMENSIONS MAY BE CHANGED SO LONG AS THE NET FREE FACE AREA IS MAINTAINED.

- G. ALL CONCEALED DUCTWORK SHALL BE INSULATED WITH 1-1/2" FIBERGLASS INSULATING BLANKET WITH ALUMINUM FOL FACING.

- H. ALL SUPPLY AND RETURN DUCTWORK 15 FEET DOWNSTREAM OF THE HVAC UNIT SHALL BE INTERNALLY LINED WITH A 1/2" ACOUSTICAL DUCT LINER.

6. DRAINAGE PIPING (CONDENSATE)

- A. SHALL BE SCHEDULE 40 PVC PIPE WITH SOLVENT JOINTS. PITCH HORIZONTAL LINES 1" IN 10'-0" CONDENSATE DRAINS SHALL BE ROUTED TO FLOOR DRAIN OR INDIRECT WASTE DRAIN.

7. HVAC CONTROLS

- A. CONTRACTOR TO SUPPLY AND INSTALL ALL CONTROL WIRING AND THERMOSTATS AS REQUIRED.

8. ELECTRICAL

- A. CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR FOR LOCATION OF WIRING FOR EACH HVAC UNIT.

9. GAS PIPING

- A. SHALL BE SCHEDULE 40 BLACK STEEL PIPE WITH MALLEABLE IRON FITTINGS, WHERE GAS PIPE CONNECTS TO EQUIPMENT. IT SHALL BE PROVIDED WITH A DRIP LEG THE FULL SIZE OF THE RUNOUT. A 100% SHUT-OFF VALVE AND A UNION. GAS PIPING CONTAINING PRESSURE GREATER THAN 9" W.G. SHALL BE SCHEDULE 40 BLACK STEEL PIPE WITH WELDED JOINTS.

10. MISCELLANEOUS

- A. ALL EXTERIOR OPENINGS TO BE PROPERLY CAULKED AND SEALED WITH A SEALANT OF HIGH QUALITY AND LONG LIFE, TO PREVENT INFILTRATION OF OUTSIDE AIR INTO CONDITIONED SPACE.

- B. COORDINATE INSTALLATION OF ALL ROOF FLASHING AT ROOF PENETRATION.

- C. DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS. VERIFY ALL FIGURES, CONDITIONS, AND DIMENSIONS AT THE JOB SITE.

- D. THE MECHANICAL PLANS ARE INTENDED TO BE DIAGRAMMATIC AND ARE BASED ON ONE MANUFACTURER'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS, OR ALL THE DETAILS OF THE EQUIPMENT. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT IN THE AVAILABLE SPACE.

11. TESTING AND BALANCING

- A. THE HVAC SYSTEM SHALL BE TESTED AND BALANCED BY AN INDEPENDENT AGENCY, UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. A SEALED TYPE WRITTEN REPORT SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL.

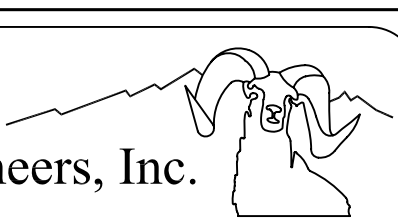
ROOFTOP AIR HANDLING UNIT SCHEDULE - GAS FIRED

| EQUIP. NO. | SERVICE | SUPPLY AIR (CFM) | OUTSIDE AIR (CFM) | E.S.P. (IN. W.G.) | COOLING | | HEATING | | FILTERS | EQUIP. CAP. (HP) | ELECTRICAL | | MANUFACTURER & MODEL | OPTIONS-ACCESSORIES |
|------------|-----------------------|------------------|-------------------|-------------------|----------|---------------|----------|----------------|---------|------------------|-------------|----------|----------------------|---------------------|
| | | | | | NOM. GPM | GAS MBH INPUT | NOM. GPM | GAS MBH OUTPUT | | | V/PH/CT | MCA/MOCP | | |
| RTU-1 | BUILDING CONDITIONING | 7,000 | 1,750 | 1.5 | - | 471 | 400 | 256 | 2" | - | 208/3/60/40 | 50 | STERLING - PV-40-G | NOTE 1, 1750 LBS |
| RTU-2 | BUILDING CONDITIONING | 7,000 | 1,750 | 1.5 | - | 471 | 400 | 256 | 2" | - | 208/3/60/40 | 50 | STERLING - PV-40-G | NOTE 1, 1750 LBS |
| RTU-3 | BUILDING CONDITIONING | 8,000 | 2,800 | 1.5 | - | 706 | 600 | 384 | 2" | - | 208/3/60/40 | 50 | STERLING - PV-80-G | NOTE 1, 2050 LBS |

- NOTES:**
1. PROVIDE WITH ROOF CURB, NON-FUSED DISCONNECT SWITCH, HINGED ACCESS DOORS, CONTROL MODULE, SUPPLY AND RETURN DUCT SMOKE DETECTORS WITH VISUAL THE SUPPLY AND RETURN DUCTWORK CONFIGURATION.

- FIELD NOTES**
- REMOVE THE EXISTING ROOF MOUNTED AIR HANDLING UNIT AND REPLACE WITH NEW. PROVIDE NEW AHU WITH ROOF CURB. RECONNECT THE EXISTING 2" CHILLED WATER PIPING TO THE CONNECTIONS OTHER UNITS. STRUCTURE AND CONDITIONAL WITH ALL.
 - REPAIR THE EXISTING GAS PIPED DUCT FURNACE AND MAINTAIN GAS PIPING FOR RECONNECTION TO AIR HANDLING UNIT FURNACE SECTION. CONNECT NEW GAS PIPING TO EXISTING AND ROUTE TO NEW CONNECTION ON THE AHU. PROVIDE GAS COCK AT CONNECTION.
 - CONNECT NEW DUCTWORK TO EXISTING AT THIS LOCATION.
 - PATCH ROOF TO MATCH EXISTING AT THIS LOCATION WHERE THE DUCT FURNACE FLUE WAS REMOVED.
 - INSTALL RELOCATED CHILLED WATER COIL IN NEW DUCTWORK. MAINTAIN THREE-WAY CONTROL TRANSMISSION DUCTWORK TO COIL WITH NO MORE THAN 20 DEGREE FITTINGS. PROVIDE A 32% PROPYLENE GLYCOL SOLUTION IN CHILLED WATER SYSTEM.

DO NOT REPRODUCE THESE DRAWINGS AND INFORMATION WITHOUT THE WRITTEN PERMISSION OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED.



Bighorn Consulting Engineers, Inc.
Mechanical & Electrical Engineers
569 S. Westgate Dr., Suite 1
Grand Junction, CO 81505
phone: 970-241-8709, fax: 970-241-9514

COLORADO MOUNTAIN COLLEGE
GLENWOOD CENTER
PERMIT # - 4476
GLENWOOD SPRINGS, CO

| DATE | ISSUED FOR |
|----------|-------------|
| 08/07/08 | REVIEW |
| 08/29/08 | ADDENDUM #2 |
| 09/22/08 | ADDENDUM #3 |
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|---------------|----------|
| DATE: | 09/22/08 |
| DRAWN BY: | MS |
| CHECKED BY: | MHI |
| SCALE: | AS SHOWN |
| SHEET NUMBER: | M1-1 |