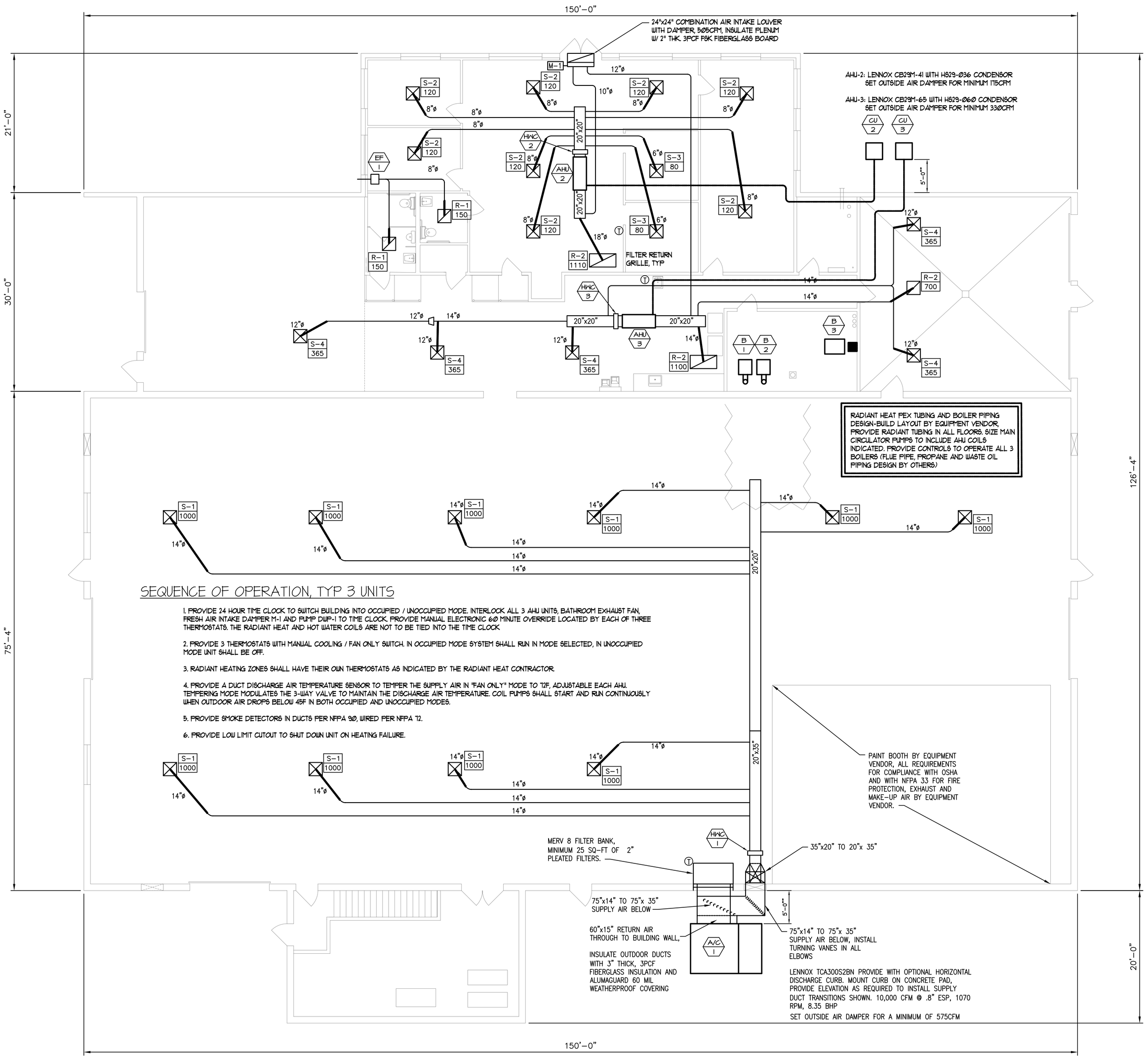


FIRST FLOOR PLAN

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

SEQUENCE OF OPERATION, TYP 3 UNITS

1. PROVIDE 24 HOUR TIME CLOCK TO SWITCH BUILDING INTO OCCUPIED / UNOCCUPIED MODE. INTERLOCK ALL 3 AHU UNITS, BATHROOM EXHAUST FAN, FRESH AIR INTAKE DAMPER M-1 AND PUMP DUP-1 TO TIME CLOCK. PROVIDE MANUAL ELECTRONIC 60 MINUTE OVERRIDE LOCATED BY EACH OF THREE THERMOSTATS. THE RADIANT HEAT AND HOT WATER COILS ARE NOT TO BE TIED INTO THE TIME CLOCK.

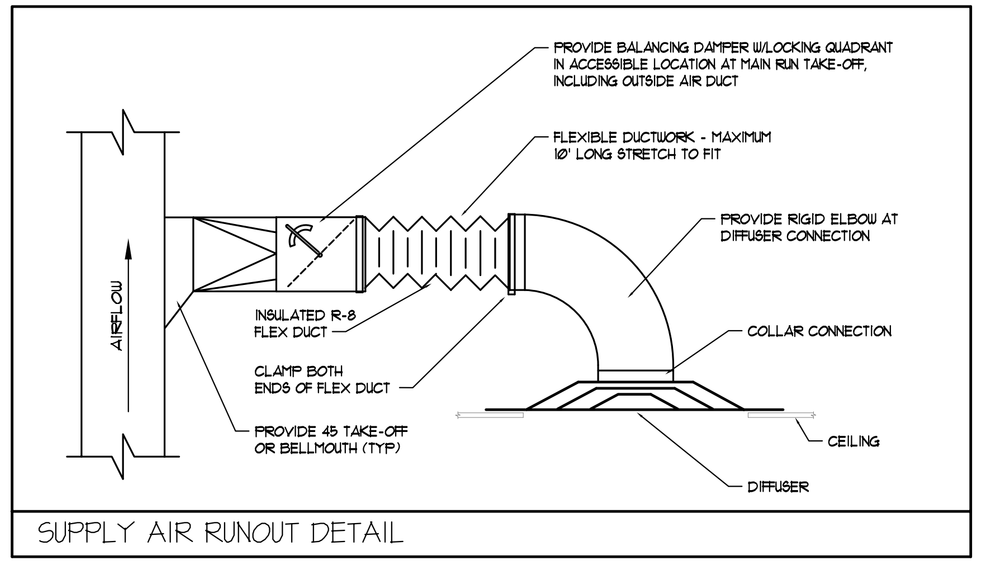
2. PROVIDE 3 THERMOSTATS WITH MANUAL COOLING / FAN ONLY SWITCH. IN OCCUPIED MODE SYSTEM SHALL RUN IN MODE SELECTED, IN UNOCCUPIED MODE UNIT SHALL BE OFF.

3. RADIANT HEATING ZONES SHALL HAVE THEIR OWN THERMOSTATS AS INDICATED BY THE RADIANT HEAT CONTRACTOR.

4. PROVIDE A DUCT DISCHARGE AIR TEMPERATURE SENSOR TO TEMPER THE SUPPLY AIR IN "FAN ONLY" MODE TO 72F, ADJUSTABLE EACH AHU. TEMPERING MODE MODULATES THE 3-WAY VALVE TO MAINTAIN THE DISCHARGE AIR TEMPERATURE. COIL PUMPS SHALL START AND RUN CONTINUOUSLY WHEN OUTDOOR AIR DROPS BELOW 45F IN BOTH OCCUPIED AND UNOCCUPIED MODES.

5. PROVIDE SMOKE DETECTORS IN DUCTS PER NFPA 90, WIRED PER NFPA 72.

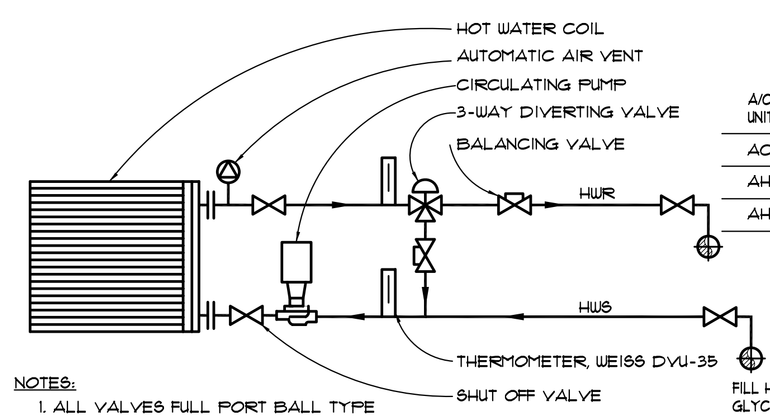
6. PROVIDE LOW LIMIT CUTOUT TO SHUT DOWN UNIT ON HEATING FAILURE.



SUPPLY AIR RUNOUT DETAIL

GENERAL NOTES:

1. MECHANICAL WORK IS INDICATED DIAGRAMMATICALLY. ADJUST EQUIPMENT AS REQUIRED WITH EXISTING CONDITIONS FOR CLEARANCE AND ALIGNMENT FOR LOCATIONS OF DIFFUSERS , REGISTERS AND GRILLS. EXACT LOCATION OF ALL COMPONENTS ARE TO BE DETERMINED IN THE FIELD AND BY ACTUAL BUILDING CONDITIONS. EQUIPMENT, DUCTWORK OR PIPES INTERFERING WITH OTHER INSTALLATIONS SHALL BE RELOCATED AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.
2. PROVIDE VOLUME DAMPERS AT EACH BRANCH FROM MAIN DUCTWORK AND DUCT RUNOUTS. PROVIDE OPPOSED BLADE DAMPERS AT EACH NECK TO AN INDIVIDUAL REGISTER OR DIFFUSER IN SUPPLY, RETURN AND EXHAUST DUCTS IRRESPECTIVE OF WHETHER OR NOT DAMPER IS INDICATED ON PLANS.
3. PIPING & DUCTWORK SHALL BE CONCEALED UNLESS OTHERWISE NOTED.
4. PROVIDE DUCTWORK WITH OFFSETS AND TRANSITIONS AS REQUIRED TO FIT UNDER STRUCTURAL MEMBERS OR OTHER OBSTRUCTIONS. SQUARE OR ROUND SIZES MAY BE USED INTERCHANGEABLY BY THE CONTRACTOR. MAINTAIN DUCT CROSS SECTION AREA.
5. PROVIDE AIR VENTS AT ALL HIGH POINTS IN PIPING AND DRAIN VALVES AT ALL LOW POCKETS. PROVIDE UNIONS AS REQUIRED FOR ASSEMBLY AND FOR REMOVAL OF ALL EQUIPMENT.
6. COORDINATE ALL WORK WITH THE TOWN OFFICE PERSONNEL. PROVIDE TEMPORARY BARRIERS AS REQUIRED TO PROTECT WORK AREAS FROM THE PUBLIC AND TOWN EMPLOYEES.
7. SEE ELECTRICAL DRAWINGS FOR CONNECTION OF EQUIPMENT TO POWER CIRCUITS.
8. MOUNT THERMOSTATS AT 4'-6" AFF.
9. ALL ROUND DUCT TO BE GALVANIZED STEEL SPIRAL PIPE.
10. ALL RECTANGULAR DUCT TO BE GALVANIZED STEEL CONSTRUCTION PER SMACNA FOR 1-1/2" STATIC PRESSURE.
11. OBTAIN ALL REQUIRED PERMITS AND PAY ALL FEES RELATING TO NEW MECHANICAL WORK.
12. FURNISH AND INSTALL ALL NECESSARY PIPING, EQUIPMENT, SUPPORTS AND ANY EQUIPMENT NOT SHOWN ON DRAWINGS OR CALLED FOR IN SPECIFICATIONS AND NECESSARY TO PROVIDE A COMPLETE FUNCTIONAL SYSTEM.
13. PROVIDE ACCESS TO ALL EQUIPMENT REQUIRING PERIODIC SERVICE AND MAINTENANCE.
14. ALL PLUMBING, MECHANICAL AND ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH STATE AND LOCAL CODES AND THE MAINE ENERGY CODE.
15. REQUIRED FIRE RESISTANCE RATING OF FLOORS, WALLS, AND CEILINGS SHALL BE MAINTAINED WHERE PIPE PENETRATIONS ARE MADE. FIRE STOPPING SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS.
16. PROVIDE SHUT OFF VALVES ON ALL SUPPLY PIPING TO INDIVIDUAL HEATING EQUIPMENT UNITS
17. PITCH ALL WATER LINES TO DRAIN.
18. INSTALL DIELECTRIC COUPLINGS BETWEEN DISSIMILAR MATERIALS.
19. ALL TESTS SHALL BE CONDUCTED PRIOR TO INSULATING OR CLOSING IN WORK.
20. SEE SPECIFICATIONS FOR OTHER REQUIREMENTS.
21. ALL WORK SHOWN ON DIAGRAMS AND DETAILS BUT NOT ON PLANS OR VICE VERSA SHALL BE INCLUDED AS IF SHOWN ON BOTH.
22. INSTALL HORIZONTAL RUNS OF PIPING AS HIGH AS POSSIBLE, PROVIDE 1/2" BOILER DRAIN VALVES AT ALL LOW POINTS.
23. INSTALL AHU CONDENSATE DRAIN PIPING TO BOILER ROOM DRAIN, PROVIDE 3" AIR GAP
24. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE INDICATED WORK COMPLETE, FUNCTIONAL AND READY FOR OPERATION.
25. INSULATE, SEAL AIRTIGHT AND PRESSURE TEST DUCTS FOR LEAKAGE IN CONFORMANCE WITH THE MAINE STATE ENERGY CODE
26. INSTALL ALL EQUIPMENT PER THE MANUFACTURERS INSTALLATION INSTRUCTIONS AND BEST INDUSTRY PRACTICE.



A/C UNIT	COIL	COIL MBH	TACO PUMP GPM	TACO PUMP MODEL	RUNOUT PIPE SIZE
AC-1	HWC-1	132	13.2	0011	1-1/4"
AHU-2	HWC-2	30	3	008	3/4"
AHU-3	HWC-3	53	5.3	009	1"

FILL HOT WATER PIPING WITH A 10% SOLUTION OF PROPOLYENE GLYCOL FOR BURST PROTECTION.

NOTES:

1. ALL VALVES FULL PORT BALL TYPE
2. VALVES SHALL BE SAME SIZE AS PIPE.
3. PROVIDE UNIONS AND/OR FLANGES AS REQUIRED FOR FIT-UP AND REMOVAL OF COIL AND PUMP.
4. MAXIMUM CONTROL VALVE PRESSURE DROP = 5' HEAD
5. LOCATE PIPING IN A HEATED SPACE, INSULATE PIPING W/ 1-1/2" FIBERGLASS & ASJ, DOUBLE INSULATION IN UNHEATED AREAS

DETAIL - HOT WATER COIL

NOT TO SCALE

STATE OF MAINE JEFFREY J. HARRISON 6995 LICENSED PROFESSIONAL ENGINEER 05/05/2008

REV.	DESCRIPTION	DATE	APPROVED

TOLERANCES
DECIMAL:
FRACTIONAL:
ANGULAR:
MATERIAL:
DWN BY: JJH
CKD BY: JJH
DATE: 5/5/08
SCALE: 1/8"=1'-0"

BUILDING TECH SERVICES — ENGINEERING DESIGN CAD DRAFTING
1740 ROOSEVELT TRAIL
NAPLES, MAINE
(207) 329-2454
BTS

TITLE: MOODY'S COLLISION CENTER HVAC

JOB No. 08102 | DWG No. H-1 | REV. 0