## AIR TERMINAL UNIT SCHEDULE - STANDARD AND LAB VALVES

| AIR VALVES - SECTION 230995 | | | | | | | | | | | DUCT HW COILS - SECTION 238216 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TAG | SERVES | MFR | MODEL | MATERIAL | VALVE (QTY), SIZE | CFM MIN | RANGE MAX | NOMINAL OUTLET SIZE | MAX. RAD. & DISCH. NC | MAX APD AT MAX. COOLING | DUCT HW COIL TAG | MANUFACTURER | COIL WIDTH (IN.) | COIL HEIGHT (IN.) | FACE VEL (FPM) | MBH | GPM | FLUID | MAX WPD | EWT | LWT | EAT | LAT | ROWS | RUNOUT SIZE |
| **LAB** | | | | | | | | | | | | | | | | | | | | | | | | |
| SAV-1 | LAB SUPPLY | TRIATEK | VV-3-12-A-I-FA-PC | ALUMINUM | (3) 12" | 2,622 | 3,050 | 27"x27" | 30 | 0.30" | | TRANE | 40 | 21 | 523 | 82.4 | 5.5 | 30% PG | 3' | 180 | 150 | 55 | 80 | 2 | 1-1/4" |
| EAV-1A | LAB GEN EXH | TRIATEK | VV-3-10-A-N-FA-PC | ALUMINUM | (3) 10" | 0 | 1,650 | 27"x27" | 30 | 0.30" | ------- | | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ |
| EAV-1B | FH-1 | TRIATEK | VV-0-8-H-N-FA-PC | HERESITE | (1) 8" | 280 | 280 | 8" | 30 | 0.30" | ------- | | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ |
| EAV-1C | FH-2 | TRIATEK | VV-0-8-H-N-FA-PC | HERESITE | (1) 8" | 280 | 280 | 8" | 30 | 0.30" | ------- | | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ |
| EAV-1D | FH-3 | TRIATEK | VV-0-8-H-N-FA-PC | HERESITE | (1) 8" | 280 | 280 | 8" | 30 | 0.30" | ------- | | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ |
| EAV-1E | FH-4 | TRIATEK | VV-0-8-H-N-FA-PC | HERESITE | (1) 8" | 280 | 280 | 8" | 30 | 0.30" | ------- | | | | | | | | | | | | | | |
| EAV-1F | FH-6 FUTURE | TRIATEK | VV-0-8-H-N-FA-PC | HERESITE | (1) 8" | 280 | 280 | 8" | 30 | 0.30" | ------- | | | | | | | | | | | | | | |
| EAV-1G | FH-7 FUTURE | TRIATEK | VV-0-8-H-N-FA-PC | HERESITE | (1) 8" | 280 | 280 | 8" | 30 | 0.30" | ------- | | | | | | | | | | | | | | |
| **PREP** | | | | | | | | | | | | | | | | | | | | | | | | |
| SAV-2 | PREP SUPPLY | TRIATEK | VV-0-8-A-I-FA-PC | ALUMINUM | (1) 8" | 250 | 200 | | | | | TRANE | 12 | 9 | 267 | 7.6 | 0.5 | 30% PG | 3' | 180 | 150 | 55 | 90 | 2 | 1-1/4" |
| EAV-2A | PREP GEN EXH | TRIATEK | VV-0-8-A-N-FA-PC | ALUMINUM | (1) 8" | 200 | 150 | | | | | | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ |
| EAV-2B | FH-5 | TRIATEK | VV-0-8-H-N-FA-PC | HERESITE | (1) 8" | 225 | 225 | 8" | 30 | 0.30" | ------- | | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ | ------ |
| **OFFICE** | | | | | | | | | | | | | | | | | | | | | | | | |
| SAV-3 | OFFICE SUPPLY | TRANE | | | | | 225 | | | | | TRANE | 12 | 9 | 300 | 8.5 | 0.6 | 30% PG | 3' | 180 | 150 | 55 | 90 | 2 | 1-1/4" |
| **ALTERNATE** | | | | | | | | | | | | | | | | | | | | | | | | |
| SAV-4A | COLLABORATIVE SUPPLY | TRANE | | | 10" | | 700 | | | | | | | | | | | | | | | | | | |
| SAV-4B | OFFICES SUPPLY | TRANE | | | 8" | | 330 | | | | | | | | | | | | | | | | | | |
| EAV-4 | STORAGE GEN EXH | TRANE | | | 10" | | 900 | | | | | | | | | | | | | | | | | | |

NOTE: PROVIDE ACOUSTICAL INSULATICN (AIR VALVE OPTION) IF REQUIRED TO KEEP NC LEVELS AT 30 OR BELOW.

## RADIANT PANEL SCHEDULE (HOT WATER)

| TAG | TYPE | PANELS IN SERIES | TUBING SIZE | No. OF PASSES | BTUH | MEAN WATER TEMP | FLUID | GPM | MAX PRESS. DROP | PANEL WIDTH | OVERALL PANEL LENGTH | PIPE RUNOUT SIZE | INSULATION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RP-1 | 48X24 MODULAR RADIANT | 4 | 5/8" | 6 | 4,960 | 155 | 30% PG | 1.3 | 2 FT. | 24" | 192" | 3/4" | 1" |

## REGISTERS - GRILLES - DIFFUSERS (RGD) SCHEDULE

| TAG | PRICE MODEL | TYPE | NECK SIZE | FACE SIZE | CFM RANGE | MAX TOTAL P.D. (IN W.C.) | MAX NC LEVEL | BORDER TYPE | BLOW | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|
| S-1 | FRFDA | FLUSH FACE RADIAL FLOW ADJUSTABLE DIFFUSER | 10" DIA | 24"x48" | 400 - 550 | 0.13" | 30 | LAY-IN | 2-WAY, FULL RADIAL, ADJ. | |
| S-2 | FRFDA | FLUSH FACE RADIAL FLOW ADJUSTABLE DIFFUSER | 12" DIA | 24"x48" | 551 - 600 | 0.09" | 28 | LAY-IN | 2-WAY, FULL RADIAL, ADJ. | |
| R-1 | 530 | STEEL RETURN GRILLE, 3/4" SPACING, 35 DEG VANES | 22"x10" | 22"x10" | 140-550 | 0.03" | 27 | LAY-IN | ---------- | |
| R-2 | 510Z | STEEL RETURN GRILLE, 3/4" SPACING, 0 DEG VANES | 22"x22" | 22"x22" | 851-1900 | 0.05" | 22 | LAY-IN | | |

## ROOM PRESSURE BALANCE

### Inputs

| Exhaust Volume Requirements | | |
|---|---|---|
| Fume Hood Exhaust Minimum: | 120 | CFM |
| Fume Hood Exhaust Maximum: | 600 | CFM |
| Additional Exhaust Minimum: | 360 | CFM -BSC |
| Additional Exhaust Maximum: | 360 | CFM -BSC |

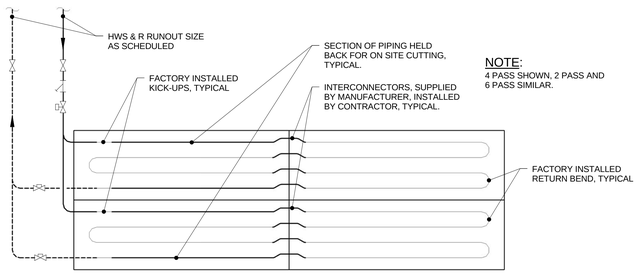
| Design Requirements | | room = 934 SF |
|---|---|---|
| Room Volume: | 8,403 | CUBIC FEET |
| Air Changes Per Hour (ACH): | 8 | |
| Minimum Supply Cooling Volume: | 0 | CFM |
| Maximum Supply Cooling Volume: | 2,150 | CFM |

### Outputs

| | | |
|---|---|---|
| ACH Rate= | 1,120 | CFM |
| Minimum Total Supply = | 1,120 | CFM |
| Maximum Total Supply = | 2,150 | CFM |
| Minimum Total Exhaust = | 1,420 | CFM |
| Maximum Total Exhaust = | 2,450 | CFM |
| General Exh at Min. Supply and Fume Hd Exh. = | 1,300 | CFM |
| General Exh at Max. Supply and Fume Hd Exh. = | 1,950 | CFM |
| Minimum General Exhaust = | 460 | CFM |
| Maximum General Exhaust = | 1,970 | CFM |
| Design Infiltration (Offset): | 300 | CFM |

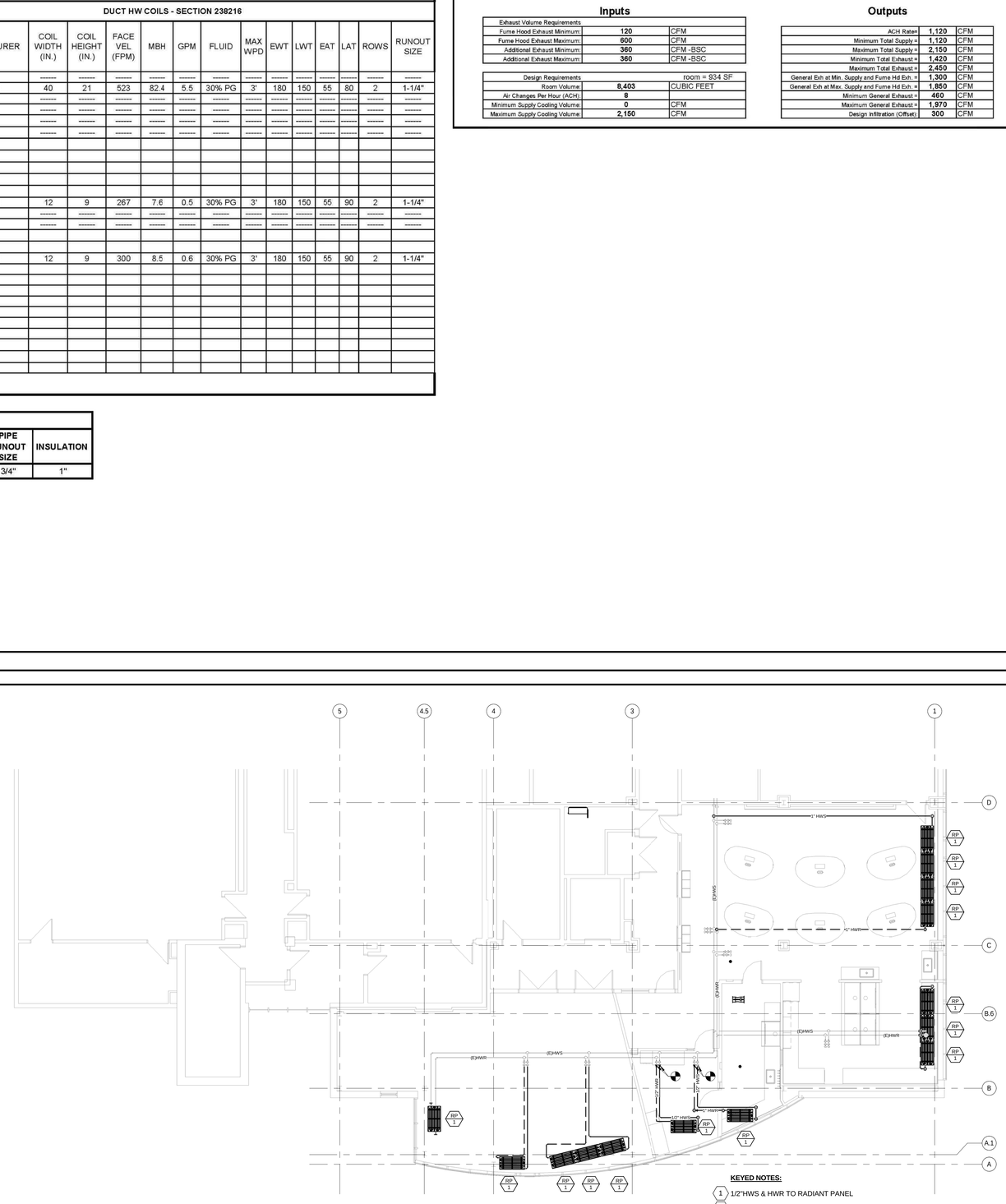
| | |
|---|---|
| E1 | MECHANICAL SCHEDULES |
| NONE | |

| | |
|---|---|
| G1 | NOT USED |
| NONE | |




NOTE:
4 PASS SHOWN, 2 PASS AND 6 PASS SIMILAR.

| | |
|---|---|
| J1 | DETAIL - HW RADIANT CEILING PANEL |
| NONE | |




**KEYED NOTES:**

1. 1/2"HWS & HWR TO RADIANT PANEL
2. 3/4"HWS & HWR TO RADIANT PANELS
3. RECONNECT (E)REFRIGERATION PIPING TO RELOCATED AC UNIT.

**GENERAL NOTES:**

1. CONTRACTOR SHALL HAVE PRECAST PLAN INDICATING STRANDS AND/OR REBAR IN (E)SLAB PRIOR TO CORE DRILLING HOLES FOR UTILITIES THROUGH XRAY METHODS AND MARK REINFORCEMENT ACCORDINGLY. CORE PIPE PENETRATIONS BETWEEN STRANDS.

2. PROVIDE FIRE CAULKING FOR PIPE PENETRATIONS THROUGH (E)FLOORS

| | |
|---|---|
| J6 | MECHANICAL - PART PLAN - THIRD FLOOR - PIPING |
| 1/8" = 1'-0" | |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UNIVERSITY OF SOUTHERN MAINE

# SCIENCE BUILDING
# C300 CHEMISTRY LAB

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| NO. | DESCRIPTION | DATE |
|---|---|---|

CONTENT:
MECHANICAL
PARTIAL PLAN - THIRD FLOOR
PIPING

| | |
|---|---|
| DRAWN BY: | SGH |
| PROJECT NO: | 15049 |
| DATE: | JULY 21, 2015 |
| REVISED: | |
| SCALE: | AS NOTED |

MP1.1

Project Phase
PERMIT SET