



MECHANICAL LEGEND

| | |
|--|-------------------------------------------------------|
| | SMOKE DETECTOR |
| | TESTER |
| | FIRE DAMPER |
| | PROGRAMMABLE THERMOSTAT |
| | MANUAL VOLUME DAMPER |
| | MOTORIZED DAMPER |
| | SUPPLY AIR DIFFUSER |
| | RETURN AIR GRILLE OPEN TO ABOVE CEILING PLENUM |
| | ROUND SUPPLY AIR DIFFUSER |
| | EXPOSED SPIRAL METAL DUCT W/R-4.2 INTERIOR INSULATION |
| | FLEX DUCT WITH R-6 INSULATION |
| | EXHAUST FAN |
| | OUTSIDE AIR |
| | ROOF TOP UNIT |
| | CUBIC FEET PER MINUTE |
| | RETURN AIR GRILLE |

HVAC DESIGN REQUIREMENTS

| DESIGN REQUIREMENT | YES | NO |
|-----------------------|-----|----|
| DUCT SMOKE DETECTOR | X | |
| FIRE DAMPER(S) | | X |
| SMOKE DAMPER(S) | | X |
| FIRE RATED ENCLOSURE | | X |
| FIRE RATED ROOF/FLOOR | | X |
| CEILING ASSEMBLY | | X |
| FIRE STOPPING | | X |
| SMOKE CONTROL | | X |

Ventilation per FMC 2010 Table 403.3

| Ventilation Zone Name | RETAIL | OFFICE | STORAGE |
|------------------------------------------------------|------------|--------|---------|
| 1) Minimum O/A required at Supply Outlet Voz: | | | |
| a) People Outdoor Air Flow Rate | Rp = 7.5 | 5 | 0 |
| b) Area Outdoor Air Flow Rate | Ra = 0.06 | 0.06 | 0.32 |
| c) Zone Population | Pz = 80 | 2 | 4 |
| d) Zone Net Occupiable Floor Area | Az = 6795 | 188 | 356 |
| e) O/A required in Breathing Zone: Vbz = RpPz + RaAz | Vbz = 1008 | 21 | 43 |
| f) Zone Air Distribution Effectiveness | Ez = 1 | 1 | 1 |
| g) Zone outdoor Air Flow Rate: Voz = Vbz/Ez | Voz = 1008 | 21 | 43 |
| TOTAL O/A INTAKE REQUIRED (CFM) = | 1072 | | |
| SET O/A INTAKE 550 CFM FOR RTU-1 | | | |
| SET O/A INTAKE 550 CFM FOR RTU-2 | | | |

NOTE:
 PER FBC 2010 ENERGY CONSERVATION SECTION 503.2.5.4 (SHUTOFF DAMPER CONTROLS)
 PROVIDE MOTORIZED DAMPERS FOR O/A INTAKE FOR RTU-1 & RTU-2. CONNECT MOTORIZED DAMPER TO TIME CLOCK TO CLOSE OUTSIDE AIR INTAKE AUTOMATICALLY WHEN THE SPACE SERVED IS NOT IN USE (OFF BUSINESS HOURS).

ANTONINI MODERN LIVING
MECHANICAL PLAN
 SCALE: 3/16" = 1'-0"

TO THE BEST OF THE ARCHITECT OR ENGINEERS KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AT THE TIME OF THEIR PREPARATION AS DETERMINED BY THE LOCAL AUTHORITIES IN ACCORDANCE WITH THE PROVISIONS OF THE FLORIDA BUILDING CODE.