

## **HUGH HODGSON SCHOOL OF MUSIC (1691)**

The Hugh Hodgson School of Music was constructed in 1995. The building air conditioning is provided by seven variable volume air handling units (AHUs) and two single zone air handling units located throughout the building. The variable volume terminal units are either fan powered parallel units delivering a variable volume supply or fan powered series units which are constant volume. In areas requiring quiet conditions, constant volume terminal units are provided. All of the terminal units are equipped with electric reheat coils for space heating.

Chilled water is supplied throughout the building from a chiller located in the mechanical room. Heating hot water, distributed throughout the building for heating, is provided by a gas-fired boiler.

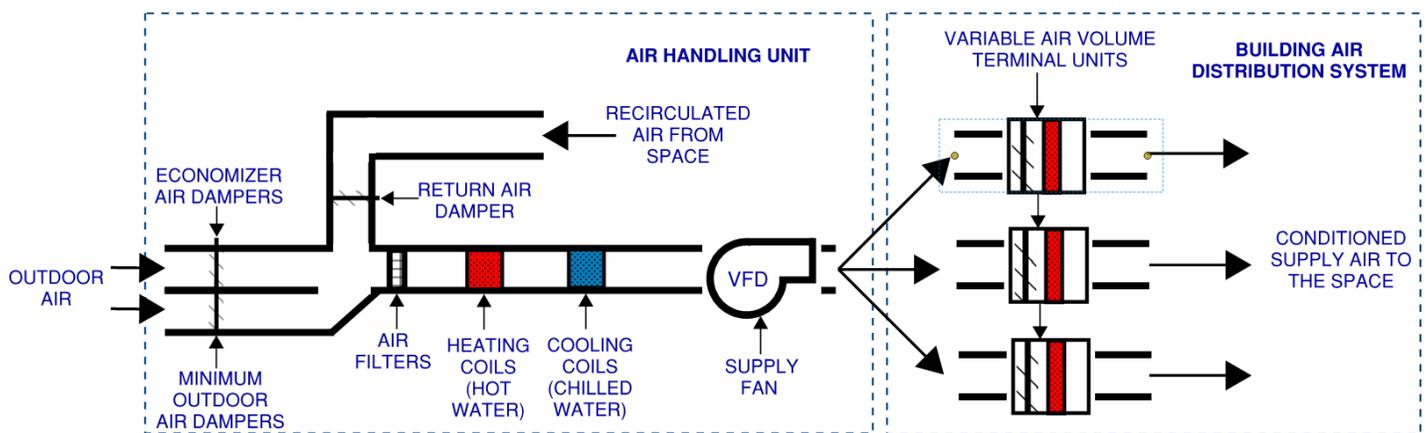
The air handling units are equipped with an air side economizer function that increases ventilation to provide free cooling when ambient weather conditions are appropriate. These units are equipped with an occupancy schedule that disables the AHU during periods where the facility is unoccupied. The occupancy schedules have been adjusted to operate the unit and ventilate the building continuously as part of FMD's COVID-19 response plan. Some AHUs are also equipped with demand controlled ventilation programming that reduces ventilation to high occupancy spaces based on sensed occupancy as an energy savings measure. The demand controlled ventilation strategies have been disabled during the pandemic as part of FMD's COVID-19 response plan.

## VARIABLE VOLUME AIR HANDLING UNITS

Variable volume air handling units (AHUs) deliver a variable volume of conditioned air consisting of a mixture of recirculated building air and fresh air from outside. The building return air is filtered, mixed with outdoor air and cooled with chilled water coils in the air handling unit before being supplied to rooms throughout the building via above ceiling ductwork.

Space heating is provided by Variable Air Volume terminal units (VAVs) with hot water reheat coils located in supply ductwork throughout the building. The VAVs are equipped with an air damper to regulate the volume of air delivered from the central AHU to the space based on the current space temperatures and a hot water reheat coil to provide space heating when needed. The VAVs include a fan and a filter combination that will mix air from the above the ceiling with the conditioned air from the central AHU when the space requires heating.

Air is recirculated from the spaces back to the air handling units through ceiling mounted air return registers located in each space. Return air is pulled from a plenum space above the ceiling. Exhaust is provided in restrooms on each floor to remove odors and to maintain a slightly positive building pressurization.

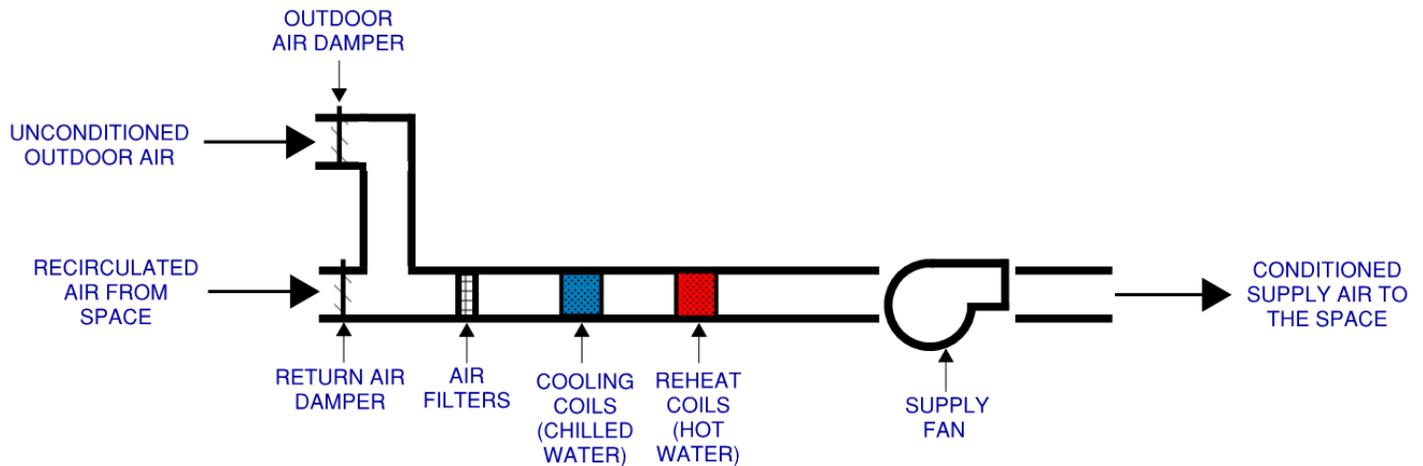


**VARIABLE VOLUME AIR HANDLING UNIT SCHEMATIC**

## SINGLE ZONE AIR HANDLING UNITS

Single zone air handling units (AHUs) deliver a constant volume of conditioned air consisting of a mixture of recirculated building air and fresh air from outside. The building return air is filtered, mixed with outdoor air and cooled with chilled water coils and/or heated with hot water coils in the air handling unit before being supplied to the space(s) served via above ceiling ductwork.

Air is recirculated back to the air handling units through ceiling mounted air return registers located in the space(s) served. Return air is pulled from a plenum space above the ceiling. Exhaust is provided in restrooms on each floor to remove odors and to maintain a slightly positive building pressurization.



**SINGLE ZONE AIR HANDLING UNIT SCHEMATIC**