

TERRELL HALL (0023)

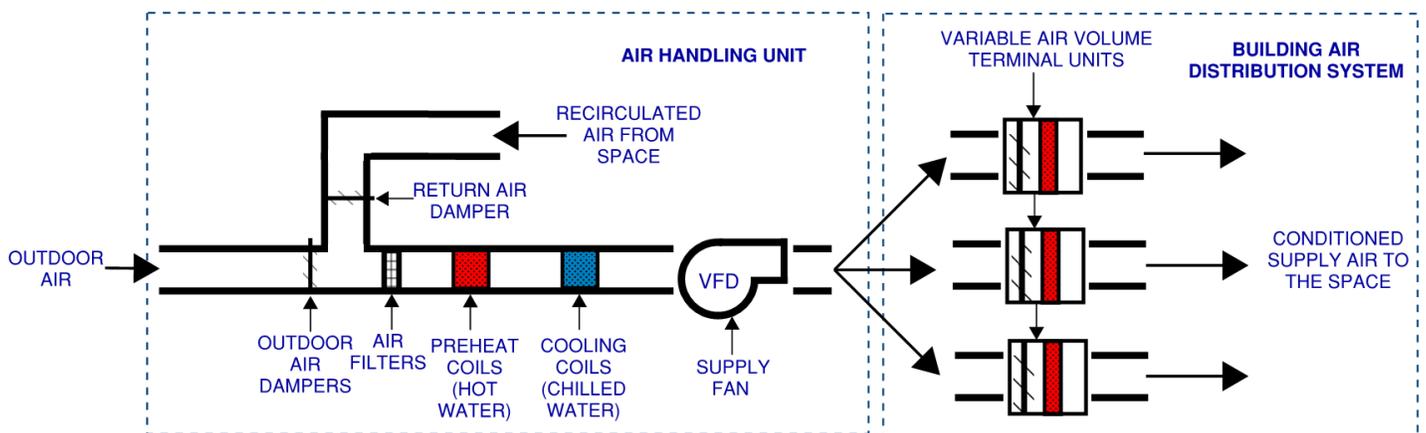
Terrell Hall was built in 1903 to replace the previous building on the same foundation, Science Hall, when it was destroyed by a fire. The central air conditioning system was added during a major building renovation to the building in 1994. At that time, a central, variable volume air handling unit was added to serve the building, AHU-1. Supply air and return air ductwork is routed through the core of the building to each floor. AHU-1 supplies 18 fan powered, variable volume terminal units with hot water reheat coils and seven variable air volume terminal units located within ductwork throughout the building. The supply air to the building is composed of 7% outdoor air for ventilation. The building units are equipped with an air side economizer function that increases ventilation to provide free cooling when ambient weather conditions are appropriate.

Chilled water is supplied throughout the building from the building's air cooled chiller which is shared with Phi Kappa Hall and the Administration Building. Heating hot water, distributed throughout the building for heating, is provided from the campus steam distribution system.

VARIABLE VOLUME AIR HANDLING UNIT

The air handling unit delivers a variable volume of conditioned air consisting of a mixture of recirculated building air and fresh air from outside of the building. 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 through above ceiling ductwork. The Variable Air Volume terminal units (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. In areas requiring heat, the terminal units are also equipped with a fan to mix in warm air from the above ceiling space with conditioned air from the central AHU and also include a hot water coil to heat conditioned air from the central AHU as required in individual spaces.

Air is recirculated from the spaces back to the air handling unit through ceiling mounted air return registers located in each space. 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