

## **JOURNALISM BUILDING**

The Journalism Building is a 121,000 square foot classroom and office building that was originally constructed in 1964. The building has undergone a number of partial HVAC renovations since this time, notably in 1964, 1999, 2002, 2009, 2010 and 2011.

The facility is served by HVAC systems that include both variable volume (VAV) air handling units (AHUs) and constant volume air handling units. VAV terminal units and fan-powered terminal units (PIUs) are downstream of the VAV AHUs. Cooling is delivered through campus chilled water imported from UGA's Central Campus Chilled Water District. Heating is delivered through a combination of steam preheat coils and heating hot water reheat coils at the VAV terminal units and PIU terminal units. Heating hot water is produced through a steam-to-hot water heat exchanger located in the basement mechanical room.

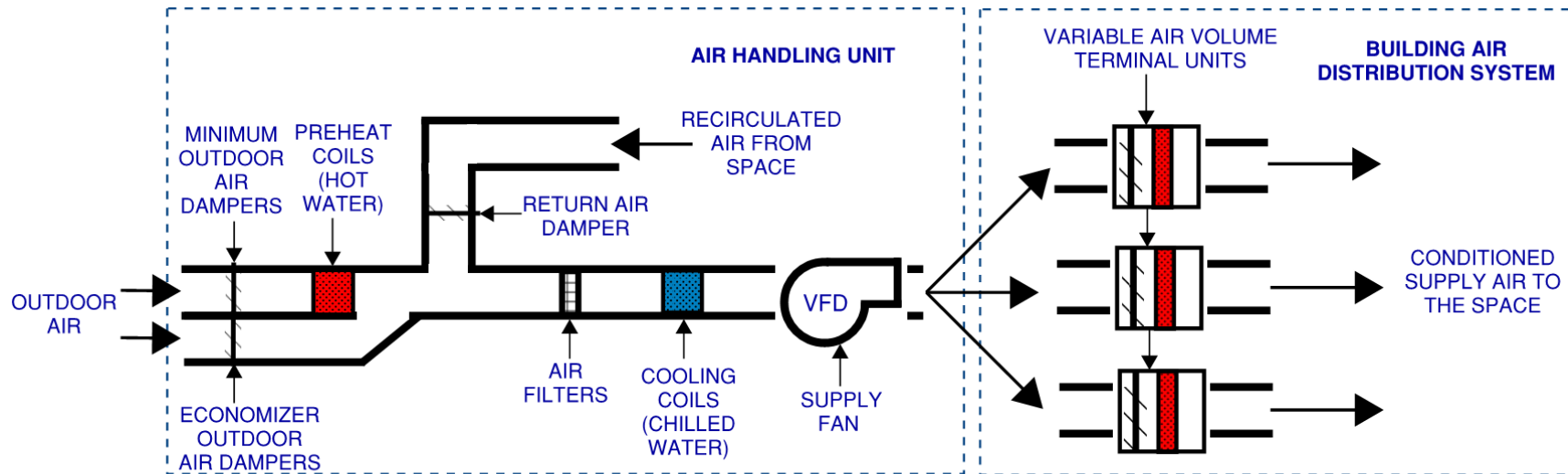
Restroom exhaust fans serve the two main banks of restrooms which are stacked through the building. The primary means of control is still pneumatics with some of the HVAC equipment under Direct Digital Control (DDC). There are eighty-eight (88) pneumatically-controlled VAVs spread across Floors 1, 2, 3 and 5. There are five (5) DDC-controlled VAVs on the 2nd Floor. There are seven (7) DDC-controlled VAVs on the 3rd Floor. There are eighteen (18) DDC-controlled parallel fan-powered terminal units and one (1) DDC-controlled VAV on the 4th Floor.

### **VARIABLE AIR VOLUME AIR HANDLING UNITS**

The facility's four Variable Air Volume Air Handling Units are equipped with a bank of MERV-8 filters installed upstream of the cooling coil and supply air fan, which remove large particulate matter from the airstream continuously. Air from the spaces is recirculated via the above ceiling plenum space and mixed with ventilation air within the AHUs. This mixed air is drawn through a bank of MERV-8 filters and then cooled and dehumidified as needed as it passes through a chilled water, cooling coil. The cool, dehumidified air is then distributed throughout the spaces served by each AHU in ductwork.

Prior to being delivered to individual spaces, duct mounted terminal units vary the volume of air to each zone and provided heating as required based on the current space temperature using an air damper and hot water, reheat coil. Some terminal units also include a fan that draws in recirculated air across a filter from the adjacent above ceiling plenum space to be mixed in with the cool air supplied from the central AHU during heating operation. Each Variable Air Volume Air Handling Unit is capable of operating with air side economizer controls which bring in additional quantities of outdoor air when the ambient temperature and humidity conditions are appropriate.

AIR HANDLING UNIT	UNIT LOCATION	FLOOR SERVED
AHU-1	Level 2 Mechanical Room	Level 1
AHU-2	Level 2 Mechanical Room	Level 2
AHU-6	Level 4 Mechanical Room	Level 3 and Level 4
AHU-7	Level 5 Mechanical Room	Level 5



### VARIABLE VOLUME AIR HANDLING UNIT SCHEMATIC

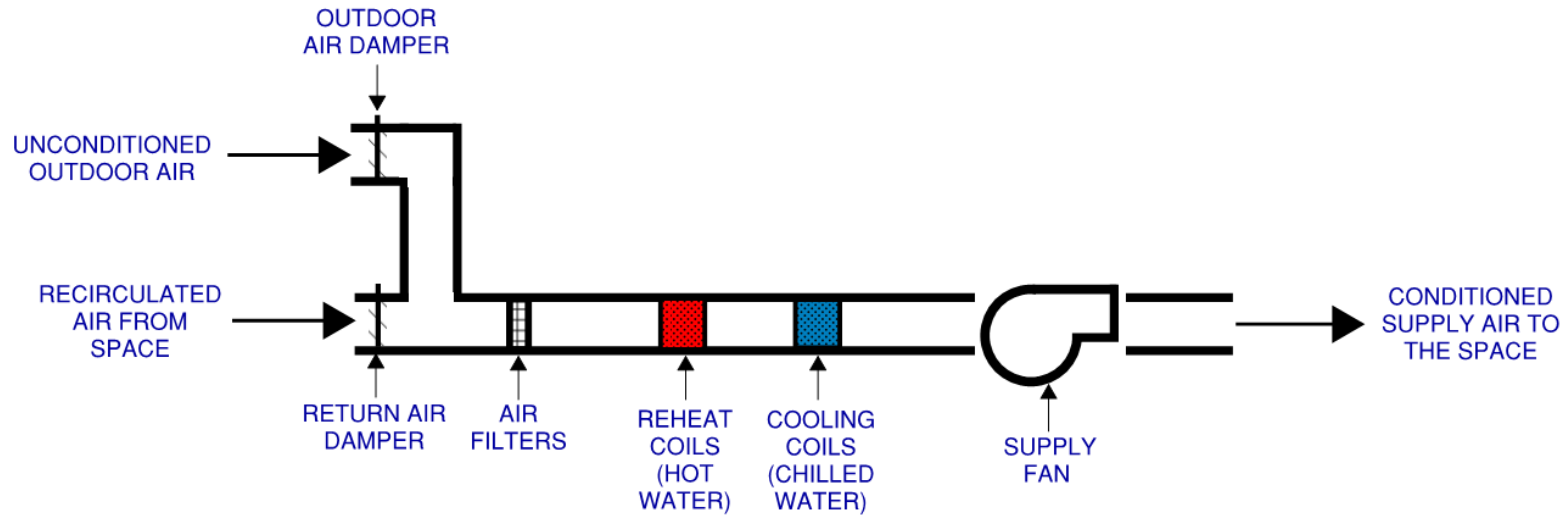
#### SINGLE ZONE AIR HANDLING UNITS

Journalism also includes 3 single zone, constant volume Air Handling Units that each serve a recording studio within the building. A single zone AHU includes an outside air damper paired with a return air damper used to proportion the mixture of ventilation air with

recirculated air from each space. The mixed airstream is drawn through a bank of filters and then cooled or heated via a chilled water cooling coil or steam heating coil. The outdoor air damper is closed when ambient temperature conditions are extremely cold.

A project is currently in design to replace AHU-5, serving Studio 3. The new AHU is currently being designed to include a UV Light to inhibit biological activity within the unit and outdoor air economizer functionality to allow for increased ventilation when ambient temperature and humidity conditions are appropriate.

SINGLE ZONE AIR HANDLING UNIT	UNIT LOCATION	FLOOR SERVED
AHU-3	Mechanical Mezzanine	Studio #2 (Rm 116A)
AHU-4	Mechanical Mezzanine	Studio #1 (Rm 112)
AHU-5	Mechanical Mezzanine	Studio #3 (Rm 116B)



**SINGLE ZONE AIR HANDLING UNIT SCHEMATIC**