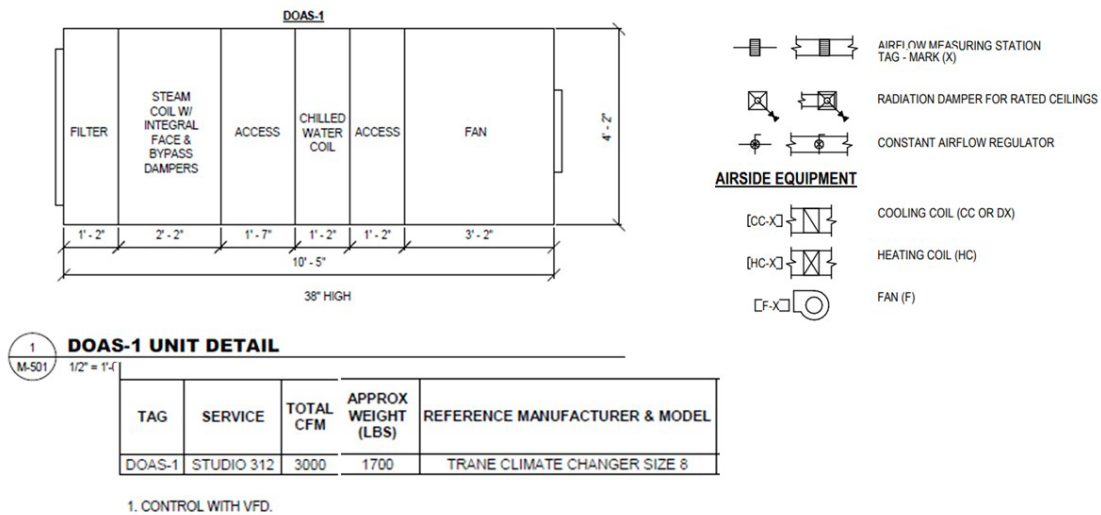


## 48-798 HVAC & Power Supply for Low Carbon Buildings



Excerpt from MMCH 3<sup>rd</sup> floor studio ventilation system drawings

### 48-798: HVAC & Power Supply for Low Carbon Buildings

Units: 9

Instructor: Nina Baird, PhD

What type of mechanical systems and power supply choices work effectively within a well-designed building envelope to create comfortable and healthful low-carbon buildings? This is a graduate course that focuses on heating, cooling, ventilation, and power supply systems for new and future commercial buildings. It provides an introduction to HVAC and power supply needs and to system choices likely to produce comfortable and healthful buildings that help us move toward a zero-carbon future. It is intended to engage students in consideration of sustainable choices for commercial buildings and how those choices may vary by building type and project location. The course should also strengthen students' understanding of these systems to prepare for "48-722: Building Performance Modeling."

Students will learn the fundamental components and operations of these systems, sufficient to understand how they impact building design and the environment. Current (2021) U.S. commercial building codes, current ASHRAE standards, and climate zones will be referenced for system design, although we will also consider code requirements from EU countries, and from China and India, to provide additional perspective.