

Essential Skills Application: Sheet Metal Fabricator

Essential Skill: Document Use

Document Use refers to tasks that involve the reading and interpreting of documents to find the information you need - or putting information in where it is needed – in a variety of documents such as lists, forms, charts, technical drawings.

Application

This application of *Document Use* demonstrates the requirement for reading and gathering information from a technical drawing. Schematic and technical drawings and blueprints are often a part of the HVACR Industry showing the location of equipment to be installed, providing information on important design elements for the installation and maintenance of the mechanicals system. These types of drawings are used by many in the industry, from the Designer and Property Manager to the Refrigeration Mechanic and Safety Inspector. They must be able to read and interpret a drawing similar to that attached, extracting the information required for them to do their jobs.

While many others would use this sample drawing to work on the HVACR System - installation of a new heating and cooling rooftop system in a commercial establishment - this application focuses on how a Sheet Metal Fabricator would use the this technical drawing.

The drawing attached is a document that includes information such as the length and size of duct needed to determine materials required and pricing, the shape and layout of duct work to be fabricated with differing dimensions, special considerations so that the ductwork fabricated to transfer hot and cold air for heating, ventilation and air conditioning would fit correctly.

TASK

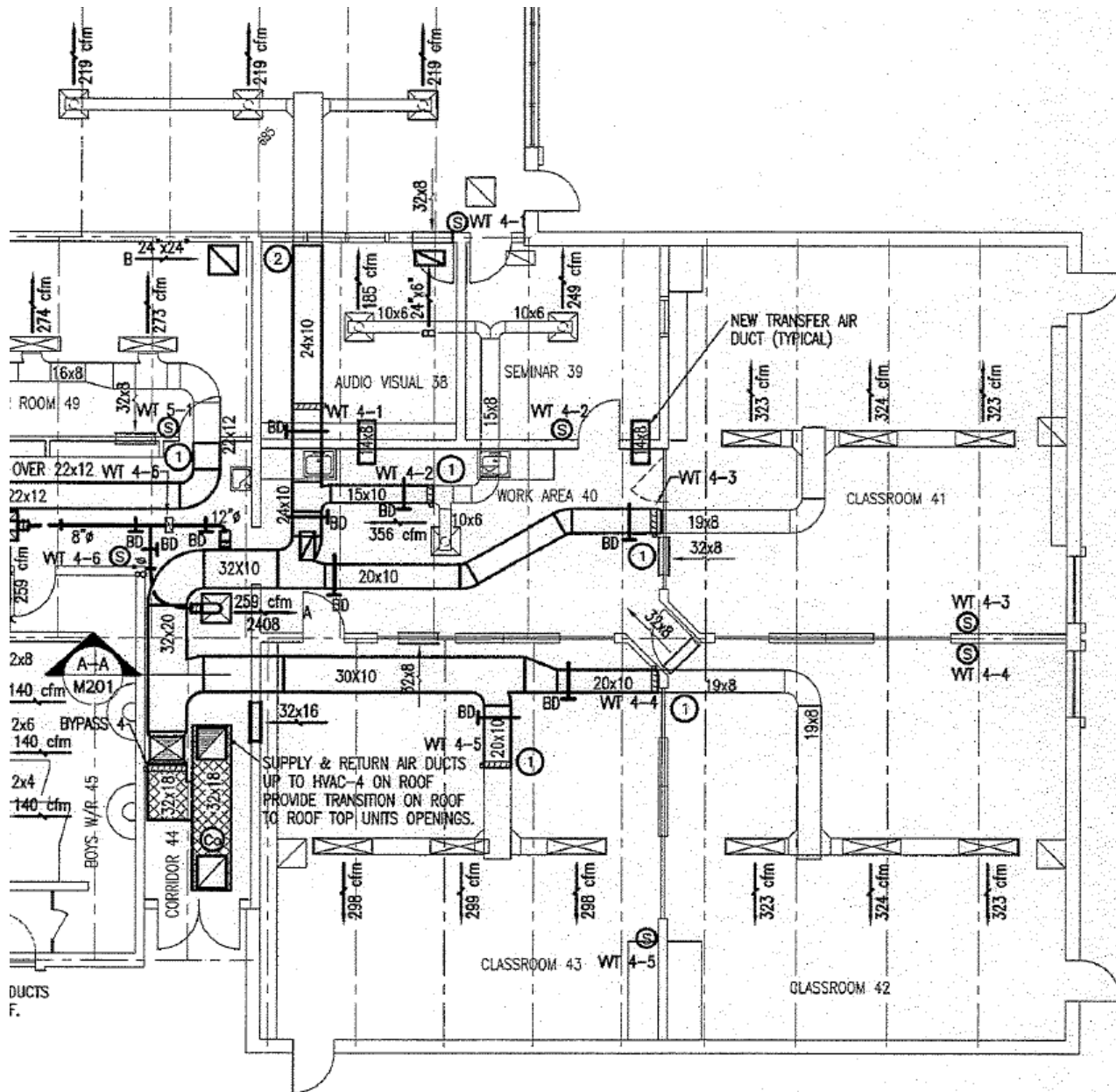
Step 1: View Drawing 1 for commercial roof top heating and cooling installation that follows.

Examine the drawing and determine the total number of Balancing Dampers (identified as BD) and how many of each size would be required.

Step 2: Check your answer on Drawing #2 – Compare the number of the BD's required to accommodate the various sizes according to the diagram by viewing the location of the Balancing Dampers on Drawing #2

A Balancing Damper? *Dampers are part of the duct work and are referred to as butterfly dampers encased in a sheet metal sleeve. They act as valves to regulate airflow and balance the system through the adjustment of their position – each branch of the system usually has a damper installed.*

Drawing 1 – locate the Balancing Dampers (BD) and record number and various sizes.



Drawing 2 View identified Balancing Dampers (BD) and answer

Total number of BD's required: 4 – 20 x 10 dampers/ 2 – 24 x 10 dampers/ 1 – 15 x 10 dampers

