

# Carpentry Level Two



Commercial Drawings 27201-13



## Kickoff Activity

- Explain how commercial buildings are framed. Identify any safety issues that may be encountered in commercial construction that are not usually part of residential construction.





# Objectives and Performance Task

## Objectives

- Identify the types and uses of commercial construction drawings and schedules.
  - Describe the use of structural drawings.

## Performance Task

Using an instructor-provided shop drawing, interpret key aspects of that drawing.

## Section 1.4.2

- Framing plans
  - Drawn by a structural engineer for each floor level that will be framed
  - Exterior walls or bearing walls are often drawn in lightly while heavier lines represent the framing



## Section 1.4.2

- Information found on framing plans
  - Notations identifying beams, joists, and girders by size, shape, and material
  - Column, pier, and support locations and their relationship to joists or framing
  - Notes or callouts identifying corresponding sections or detail drawings



## Section 1.4.2

- Columns on a framing plan
  - Shown from the top
  - Lines running between columns are beams, which fasten directly to the columns
  - Joists fasten between beams or between beams and walls
  - Bridging or support members are placed between joists



## Section 1.4.2

- Details, schedules, and notes
  - Reinforcing information for all areas where rebar or welded wire reinforcement will be used
  - Information for each type of connection made in framing members
  - Bearing-plate information detailing the features of all members that will bear directly on other members



## Section 1.4.2

- Details, schedules, and notes (continued)
  - Information for positioning ties, stirrups, or saddles
  - Placement and construction information for any unique features that cannot be adequately described with a drawing
  - Identify load limits, test strength, fastener types, and uniform specifications





## Section 1.4.3

- Shop drawings
  - Detail-oriented supplemental drawings
  - Describe the fabrication and erection of certain elements of a structure
  - Are approved during the submittal process and become part of the overall scope of the legal construction documents



## Section 1.4.3

- Rebar drawings
  - Detail the types and locations of reinforcement bar
  - Indicate the size, location, spacing, and other information needed to develop bar lists
  - Also used by ironworkers when installing the rebar



## Section 1.4.3

- Bar lists
  - Contain quantities, sizes, grading, lengths, and bending dimensions of the rebar
  - Used by the rebar fabricator to cut, bend, and tag rebar
  - Used by ironworkers to check shipments, sort rebar, and place rebar in forms



## Section 1.4.3

- Rebar bundles
  - Contain a tag that shows the quantity, size, weight, and bend configuration of a specific bundle
    - Tag is developed by the fabricator and shows the location in which the bars are to be placed
  - Usually sorted into bundles of the same type and building location



## Wrap Up

Listen attentively to the work experiences shared by the visiting commercial framing carpenter. Be prepared to ask questions that are well thought-out.

Next Lesson:

Mechanical, Electrical, and Plumbing Drawings  
Review Sections 1.5.0–1.5.3

