• Prepare complete structural steel baseplate, framed, and seated connections.
Connection details in structural drafting are used to show exactly how all structural members are to be connected during erection. They are very similar to sections except they are much more detailed and they isolate on the area in which connection is located.

Connection details are used in a number of different ways and are an important part of a set or structural steel working drawings, drafters use the details, alone with sections and framing plans, in preparing fabrication details of structural members. Erection crews use connection details to guide them in putting a structure together.
Fig. 8-1 Connection details

Notes:
3. Welded beams - 44 ksi & 80 ksi.
Structural steel connections may be either bolted or welded. Riveting, once widely used, is no longer considered a major steel-connecting process. Welded and/or bolted connections are used for the following:

- Connect column baseplates to a foundation
- Make column splices
- Connect beams to columns
- Connect beams to beams
• Structural steel columns are fitted with a steel baseplate designed to fit over anchor bolts cast into a concrete foundations. The details showing exactly how this connection is made and specifying all necessary information about the connection is called a *baseplate connection detail*.

• *A baseplate connection detail must be provided for every different connection situation*. This means that baseplate connections situations in which all vital information (baseplate size, anchor bolt size, and connection specifications) is the same, may share a common connection detail.
Fig. 8-2 Baseplate connection details
A common connection method for joining beams to columns and beams to beams is framed connection. A *Framed connection* involves connecting one member to another member at the webs.

*Seated connections* occur when a beam rests on top of a column or another beam, or when beam must be attached to the flange of a column. Seated connections are often used together with framed connections. By doing this, erection is made easier.
Example 1

Fig. 8-4 Connection details
Designing structural connections is the job of an engineer or experienced designer. Drawings connection details is the job of the drafters. In order to draw connection details, the drafter must have the following items:

- All pertinent framing plans
- All pertinent sections
- Engineering specifications for all connections