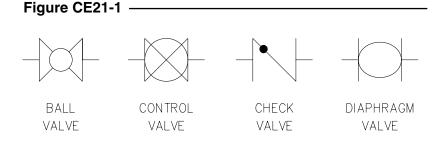
CHAPTER 21 EXERCISES

1. Piping Valves

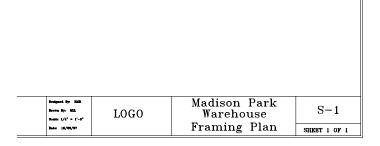
Complete the drawing of the four valves shown in Figure CE21-1. Each of the valves should be 1 unit long so that they can be accurately scaled when *Inserted* into a drawing. Create a *Block* for each of the valves. *SaveAs* CE21EX1.



2. Titleblock Creation and Insertion

Begin a *New* drawing. Create *Layers* named **Tblk** and **Tblk_text**. On layer **Tblk** draw a *Rectangle* **35"x23"**. *Offset* the rectangle to the inside by **.125"**. Create a titleblock similar to the one shown in Figure CE21-2 in the lower right corner. Create a logo for your own company in the space indicated as "Logo." Create a revision block in the lower

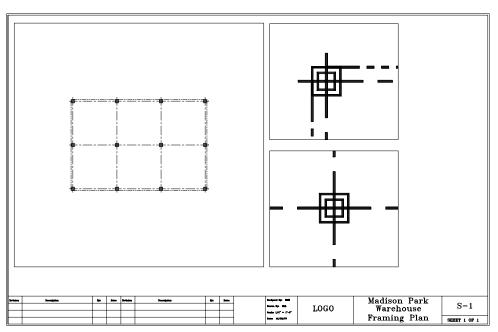
Figure CE21-2 -



left corner. SaveAs TBLK_D, and Close the drawing.

Open the drawing CE16EX2 from the Chapter 16 Exercises. Activate a Layout and *Insert* the TBKL D drawing into paper space. Create *Viewports* into model space on a new separate layer. There should be three viewports as shown in Figure CE21-3.

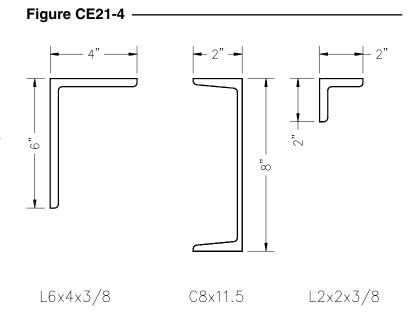
Figure CE21-3 -



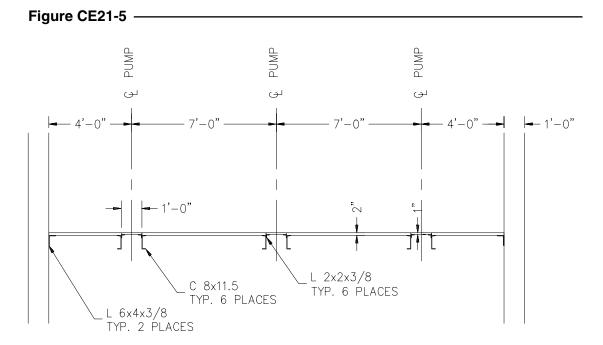
Use appropriate ZoomXP factors to achieve the scale of the plan view at 1/8''=1'-0'' and the scale for the detail drawings at 1''=1'-0''. SaveAs CE21EX2.

3. Pump Station Section

Begin a *New* drawing. Create the three steel sections shown in Figure CE21-4. Next, create *Wblocks* of the three steel sections. The names for the *Wblocks* should agree with the labels in the figure.

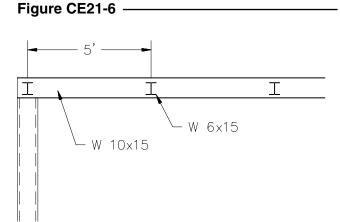


Draw the section through the pump station as shown in Figure CE21-5. *Insert* each of the *Blocks* you created several times to complete the drawing. Remember to use different *Layers* for the different features of the drawing. You do not need to add dimensions or text at this point. *SaveAs* PUMPSTA.



4. Steel Framing

Open the drawing CE20EX4 from the Chapter 20 Exercises. *Insert* W6X15 and W10X15 into the drawing and use these *Blocks* to create the framing for the roof as shown in Figure CE21-6.



Activate a *Layout* and *Insert* TBLK_D. Create a *Viewport* as shown in Figure CE21-7. The scale for this view should be ¼"=1'-0'. *SaveAs* FRAMING.

Figure CE21-7 -

