

SOUTH DAKOTA NRCS CIVIL 3D 2010 DRAFTING NOTE

DAM - DRAFTING

DRAFTING AND PLAN DEVELOPMENT

In this example, updating text fields, working with viewports and annotating objects are discussed.

Text Fields and the Titleblock

Fields for the titleblock are created and are a way to simplify updating the titleblock text. To modify the text in the fields click on the Application Menu or the large "C" in the upper left hand corner. Select Drawing Utilities and then click on Drawing Properties. In the Drawing Properties window, open the Custom tab. Included are text fields for the drawing titleblock. For more information on text fields, see [MN NRCS AutoCAD Civil 3D Quick Reference Guide Section 243](#), Annotation – Text Fields.

Figure 1: Drawing Properties

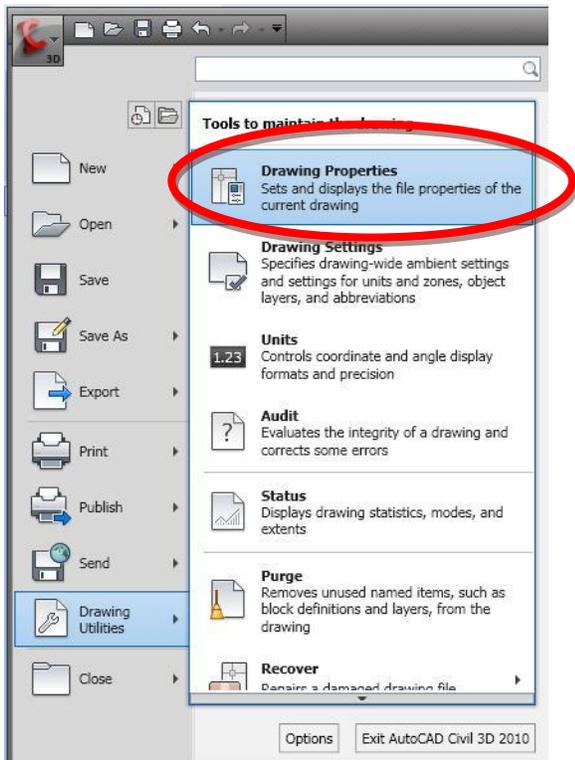


Figure 2: The custom tab in the Drawing Properties window.

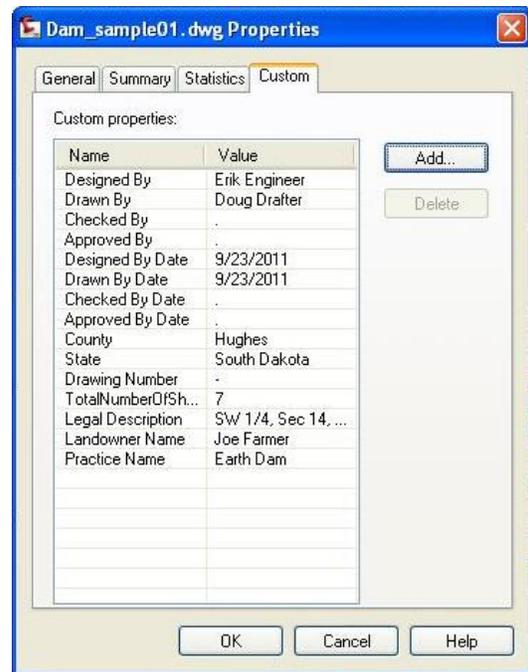


Figure 3: The title block on the page layouts with fields. Text with fields will have a grey box.

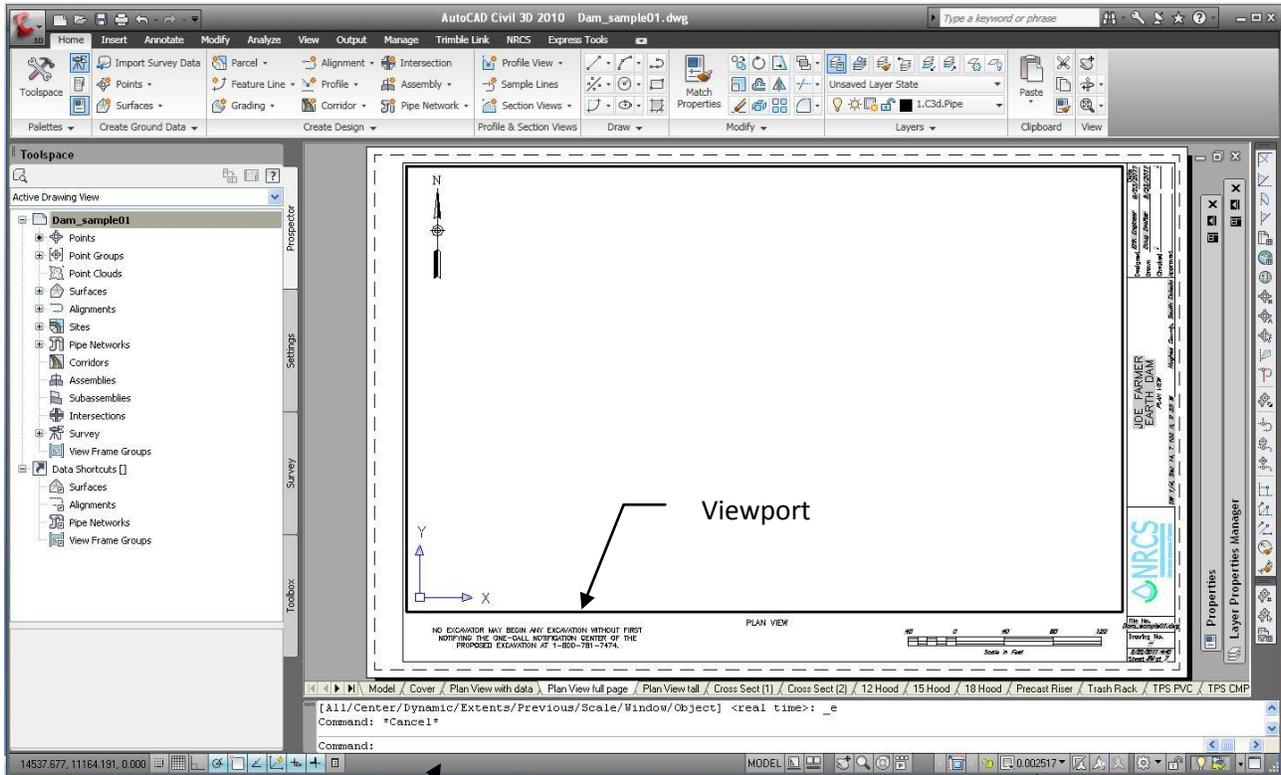


Viewports

A Civil 3D drawing contains two working environments called model space and paper space. Model space is where the three dimensional modeling occurs. Paper space contains the scaled model space objects and displays them on a piece on a paper-sized layout for printing. An object in paper space called a viewport is a window looking at objects in model space. Objects in model space are drafted at full size or are at a 1:1 scale. A scale is assigned to a viewport in order to have objects fit on a piece of paper for printing.

For more information on model space and layouts, see [MN NRCS AutoCAD Civil 3D Quick Reference Guide Section 260.0 to 260.2](#).

Figure 4: Paper space with the viewport set to model.



Application Status Bar

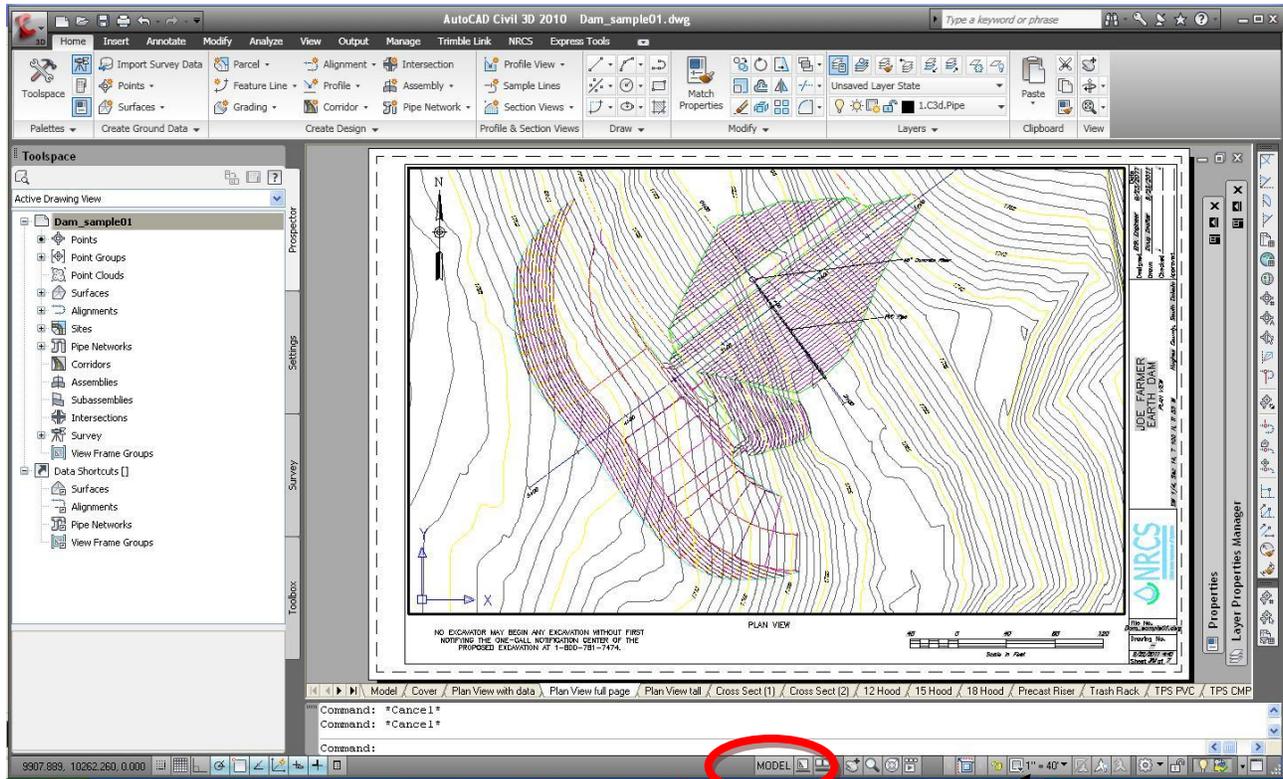
Model Space for the viewport

Scale

Zoom and pan the drawing into the viewport. Set the scale to the appropriate size for the selected view. In this example, the drawing is set to 1 inch = 40 ft.

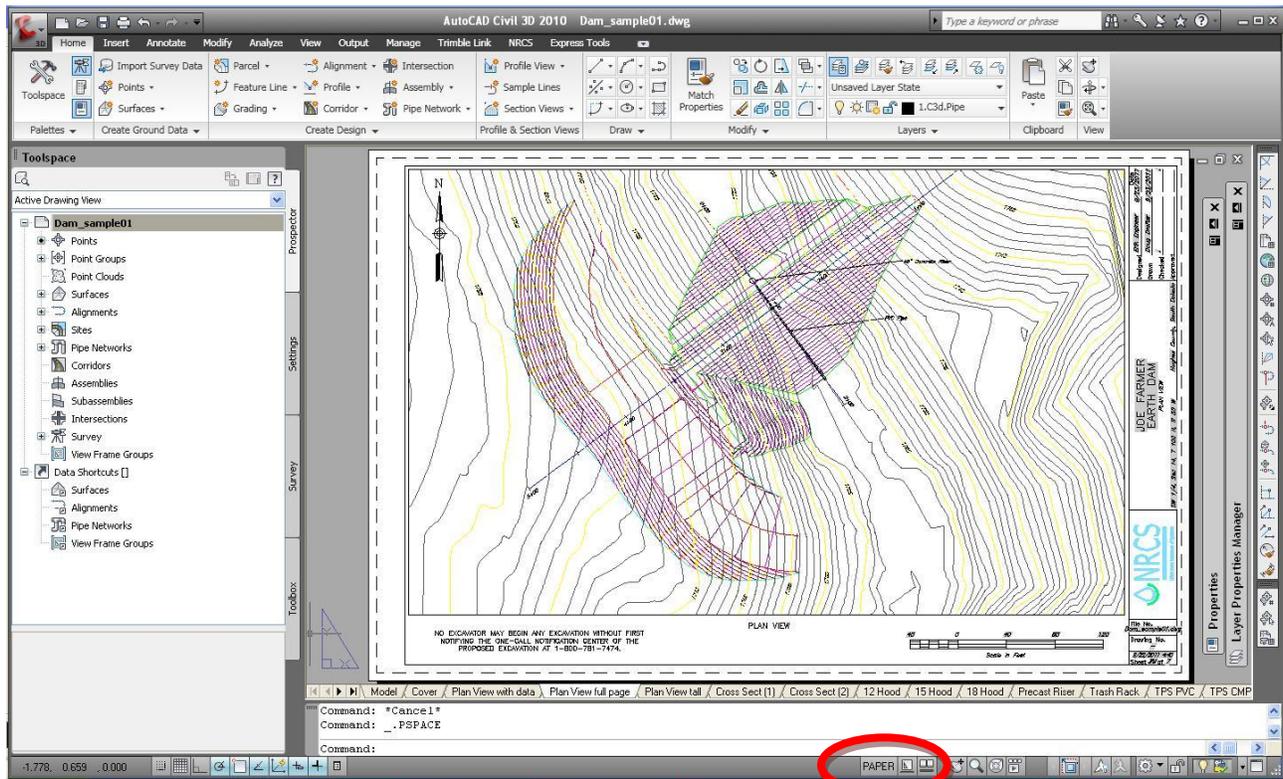
Once the position and scale is set, with the viewport still in paper space, right click on the viewport and open up the properties. Change the Display Locked to Yes to prevent accidentally panning the viewport or changing the scale. The viewport can be unlocked in the properties window.

Figure 5: Adjusting the drawing to display in the viewport. Paper space with the viewport set to Model.



Scale 1" = 40'

Figure 6: Paper space with the viewport set to Paper.



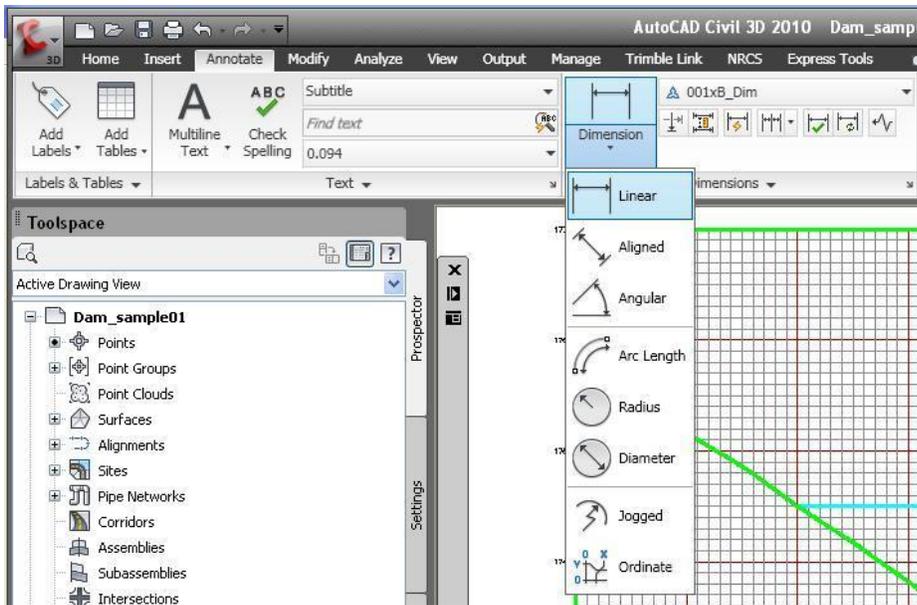
Adding Dimensions and Labels

Labels and dimensions provide detailed information about the designed structure. The Annotate Tab includes dimensioning, text, and multileaders. Dimensions and multileader lines are added to both plan view and profiles by the same procedure.

For more information on annotation and text, see [MN NRCS AutoCAD Civil 3D Quick Reference Guide Section 240](#), Annotation – Text and Leaders.

Select a dimension style such as the annotative style 001xB_Dim because it will update the size of the text relative to the scale of the model object. Then select the type of dimension. A linear dimension is used for the top length of the dam and width of the auxiliary spillway.

Figure 7: Adding dimensions to the centerline profile of the dam.



Select a multileader text style such as the annotative style 001xB_Notation(B) because it will update the size of the text relative to the scale of the model object. Then select multileader and click on the drawings where the arrowhead will be placed. Type your text.

Figure 8: Adding a multileader text object.

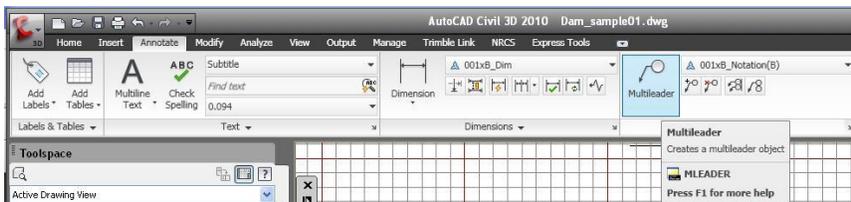


Figure 9: The profile view of the dam with dimensions and multileader text.

