

Workflow to Create Plan Sheets using MicroStation

The steps outlined below will cover the main steps to use MicroStation in ProjectWise, to create a few plan sheets in a PL file.

Other Project Data and CAD Base Files

Non-civil CAD Base files are stored in the 3_Base_files folder in ProjectWise. Each file will typically contain well-named design-type models that display discipline design base information that is used to assemble sheets. A Designer or CADD Technician using MicroStation will place non-civil graphical content in models that are specific to a particular discipline. The models will be attached as references, as necessary to assemble sheets.

Civil data produced by Designers from multiple disciplines using OpenX software is typically delivered via container files stored in the 6_Civil_Data folder in ProjectWise. Each civil container file will have reference attachments to published data that is stored in discipline folders. During the sheet assembly process, the Default model of the civil container file will be attached as a reference using live nesting with a depth of 1 to display the civil graphics.

Create the Plan Sheet File and the Named Boundaries Model

Use **Document>New>Advanced Wizard...** in ProjectWise and select *MicroStation_Seed2D.dgn* from the CAD_Resources\Seed\MicroStation folder as the template. On the Document Naming Tool page of the wizard, add the file extension .dgn to the Document Name field before clicking **[Next >]**. The picture below shows the creation of a new plan sheet file for the Roadway discipline. Plan sheet files for all disciplines are created in a similar manner.

Advanced Document Creation Wizard

Define Document Attributes
You should define environment specific document attributes.
Modified attributes may apply to remaining documents.

Document Naming Tool

Project ID: K99999

Classification: Roadway | Discipline: Roadway | SubDiscipline: Roadway

Document Description(*): <Sheet-No> - Plan Sheets | Date: | Seq #:

Document Name(*): R_K99999_pl_01.dgn | Correct ProjectWise Folder: 2_Plan_Sheets | Undo:

Error Message: Incorrect Document Name: edited searchable key words. Please undo.

Structure Name: | Structure #: | DFI #: |

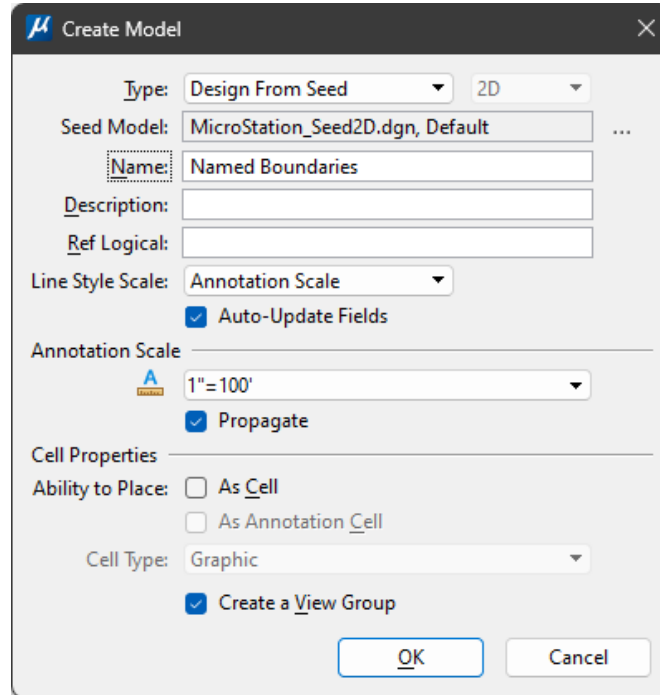
Tips

1. Edit description after name is populated: <here and delete chevrons>, #, \$, ? and add to the beginning or end.
2. Edit name: date, sequence number, ?, #, add zDeleted to the beginning (as needed).
3. Edit Digital Plan descriptions and names: "?" with a letter (a-z or A-Z); replace "#" with a digit (0-9).
4. Do not delete searchable key words.
5. Select the correct folder using the Advanced Wizard/Select Target Folder page; otherwise, cancel and name the document in the correct folder.
6. Click into the Error Message field and confirm it's blank (no errors).
7. Consultants Only: Copy/paste the name and description to the Advanced Wizard/Document Properties page or the General tab using the "Properties..." shortcut.
8. Send document suggestions to PWNamingCommittee@ndct.oregon.gov

< Back | Next > | Cancel

In ProjectWise, open the DGN file for editing with MicroStation. Ensure that you can see the ODOT ribbon workflows and have access to the ODOT Standards.

In MicroStation, open the **Models** dialog and click the **Create Model** icon. Choose a Type of “Design From Seed”, which should automatically use the Default model of MicroStation_Seed2D.dgn. Name this new model Named Boundaries.

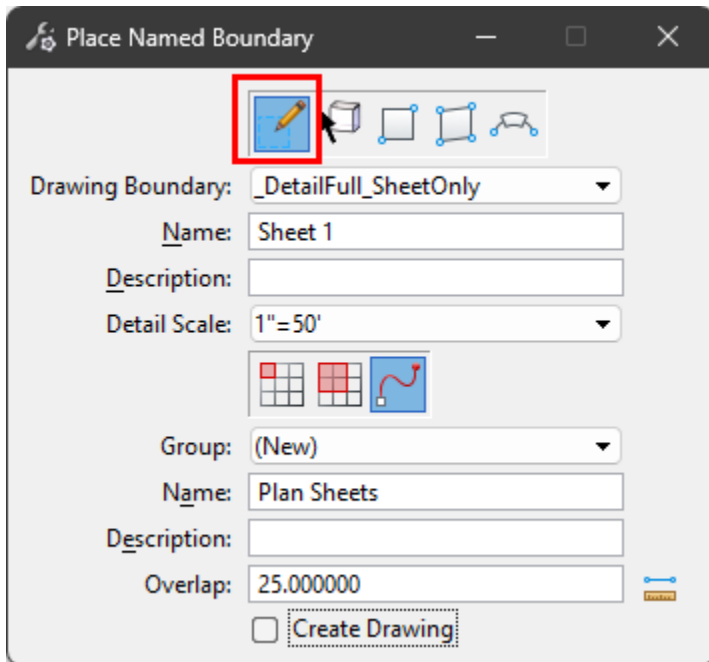


Prepare the Named Boundaries Model with References

In the Named Boundaries model, attach a reference to any data that should appear in a plan sheet. This could be references to civil container files and CAD base files. For plan sheet locations and orientation, it is most important to attach a geometry and the existing terrain in the Named Boundaries model before placing named boundaries. Other reference attachments may be added later, after sheets have been created, and the new referenced data will automatically appear in the sheets.

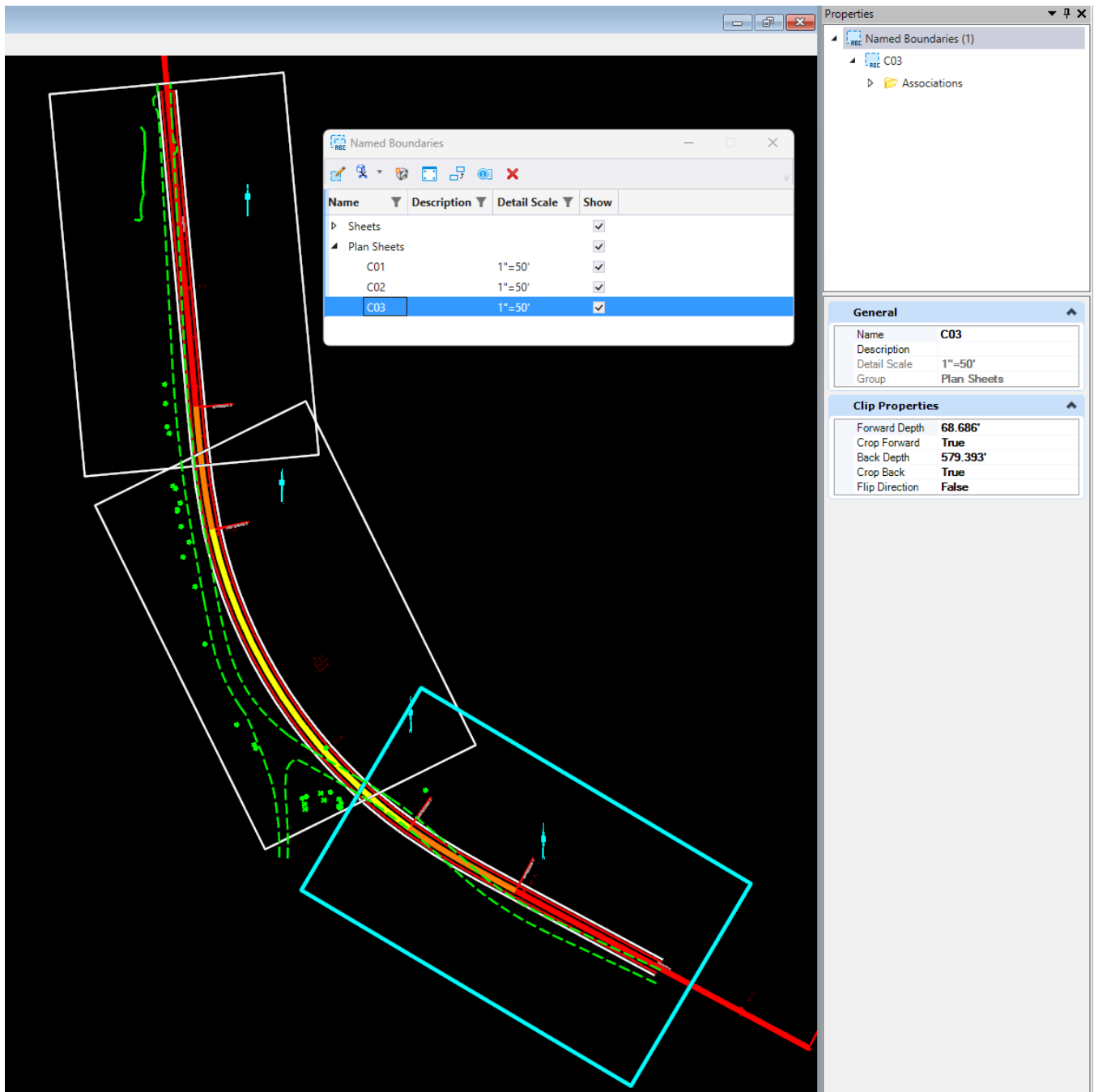
Place the Named Boundaries

Set the active level to S_NamedBoundary. Using the View tab of the Drawing ribbon workflow, select “Place Named Boundary” and choose the method of “From Drawing Boundary” from the pencil icon on the top row. Set the tool settings of the Place Named Boundary command as shown on the picture below.



The **Drawing Boundary:** set to _DetailFull_SheetOnly will create a sheet with the level control in the sheet model itself. The top **Name:** field will become the name of the named boundary and will increment when more than one sheet is created. The **Detail Scale:** is set to 1"=50' and the mode is set to the icon that looks like an alignment to use “**along a path**”. The lower **Name:** field will become the name of the group that is created to hold the named boundaries. The **Overlap:** is set to 25 feet. Leave “Create Drawing” unchecked. Set AccuSnap to use “nearest” snap mode; then left click on the displayed alignment line where you would like the first sheet edge to begin. Left click again on the other end of the same displayed alignment to place the named boundaries along the selected geometry with the detail scale and overlap that was set.

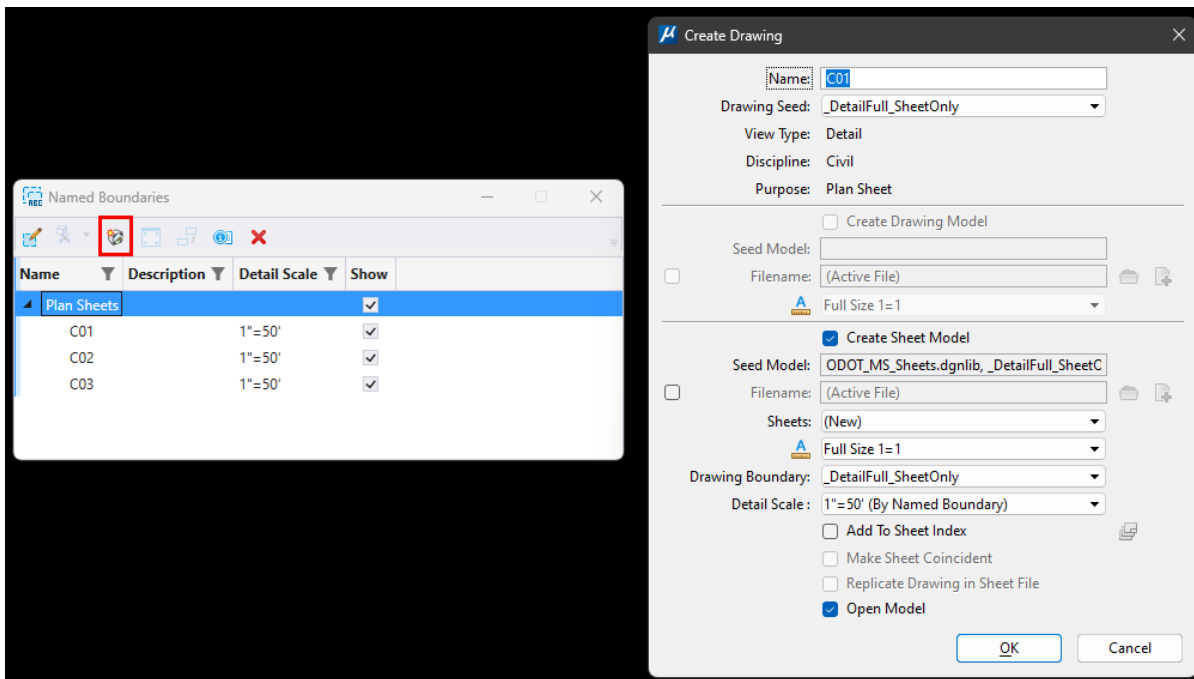
The picture on the next page shows three named boundaries placed at 1"=50' detail scale. The 25' overlap is visible at the centerline. The Named Boundaries window is open showing the Plan Sheets group and the named boundaries have been renamed to their intended sheet number.



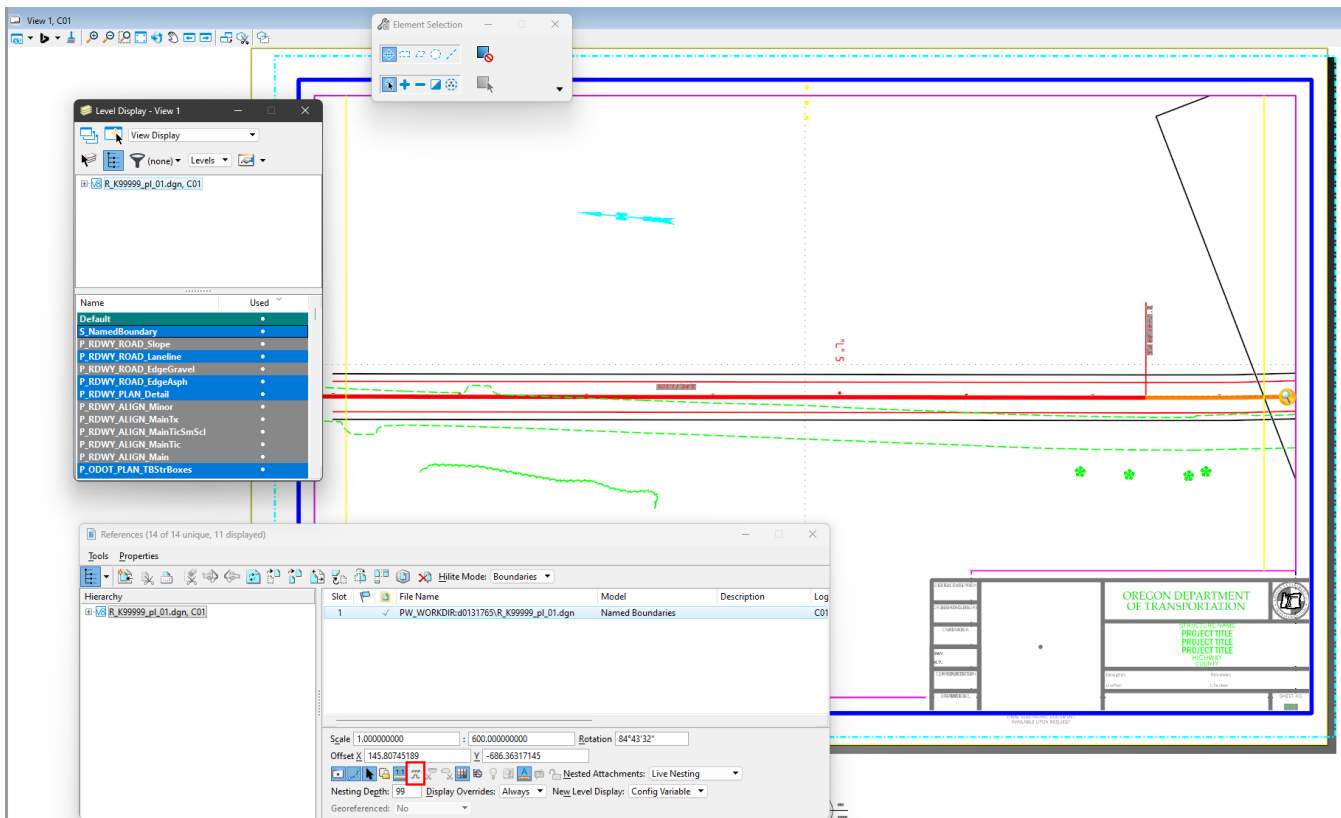
Create the Drawings (Sheets)

The command “Create Drawing” may be used on an individual named boundary using a right press on the graphics. All the named boundaries in a group can be used if the Named Boundaries window is open. Launch the **Named Boundaries** dialog from the small icon in the lower right corner of the Named Boundaries group on the View ribbon tab. Select the entire group by highlighting “Plan Sheets” and choose the “Create Drawing” icon from the tool at the top of the window. The Create Drawing dialog will open as shown in the picture on the next page.

Check the box to “Open Model” on the Create Drawing dialog and click [OK] to create one sheet model in the active file for each named boundary in the group.



The picture below shows the first sheet, the reference to the Named Boundaries model, the border, the title block, and drawing aids that are available. You must toggle off “Scale Linestyles By Reference Scale” on the reference attachment to the Named Boundaries model (outlined in red, below).



The Detail Callout and construction class elements may be toggled off in the View Attributes. Level Display may also be used to adjust the view.

The named boundaries are stored in the “Named Boundaries” model, so that model must be the active model in order to add reference attachments to other data that shows in all the sheets.