



# OpenRoads Designer: Plan and Profile Sheet Exercise

## Exercise 1: S.R. 185 Plan and Profile Sheets

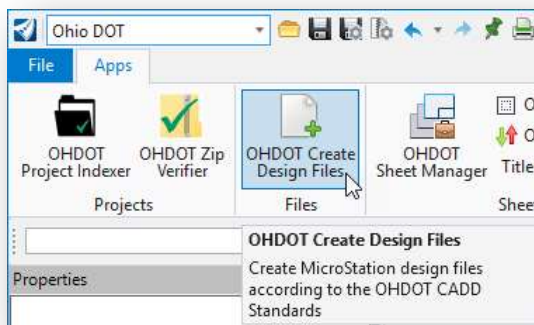
### Part A: Sheet Design Files

Take the following steps to create the design file for the plan and profile sheets:

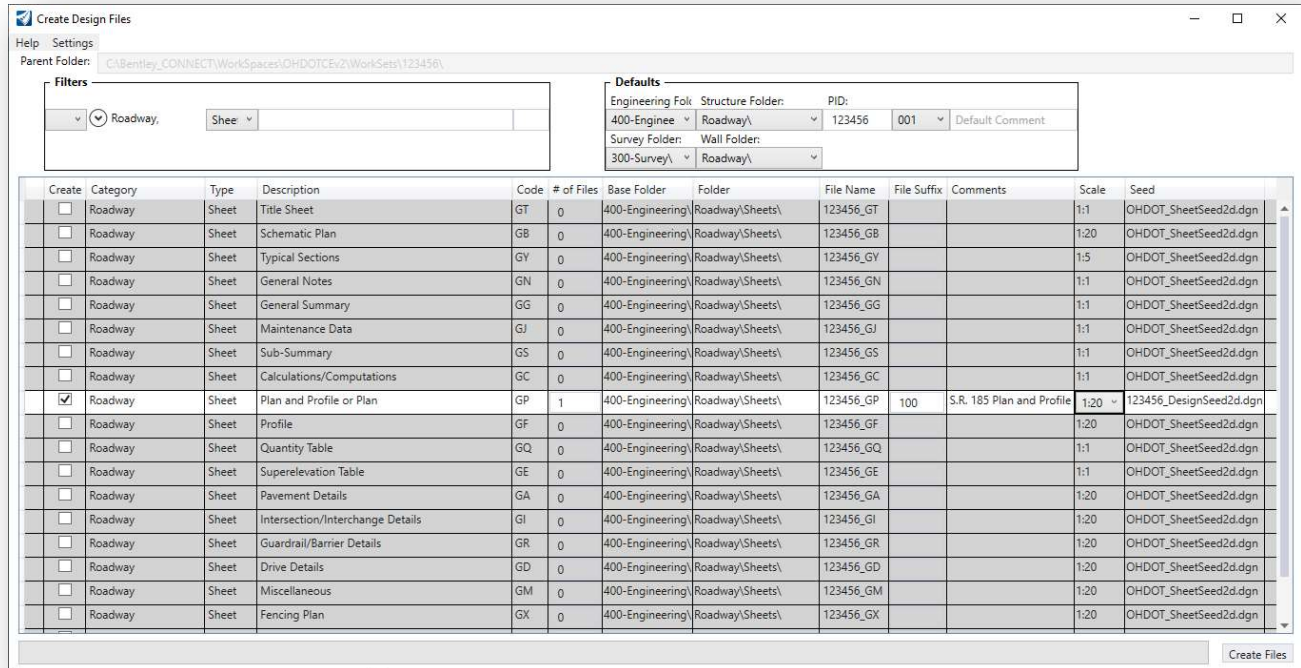
- ✓ Open **ProjectWise Explorer**



- ✓ Browse to the folder containing the training data. The folder location will be provided by the instructor for each class.
- ✓ Browse to the **400-Engineering\Roadway\Basemaps\** folder.
- ✓ Open the file **123456\_BK001.dgn**
- ✓ Select the **Ohio DOT** Workflow
- ✓ Select the **OHDOT Create Design Files** application



- ✓ Create the sheet design file for S.R. 185 using the settings below:



- When the **File Suffix** value of 100 is entered, the application will change the selected seed file to use the **123456\_DesignSeed2d.dgn** file.
  - Select **Settings > Open Last Created File**
  - Select the **Create Files** option
- The new file is created in the **400-Engineering\Roadway\Sheets** folder

✓ When prompted, check the current file back into ProjectWise

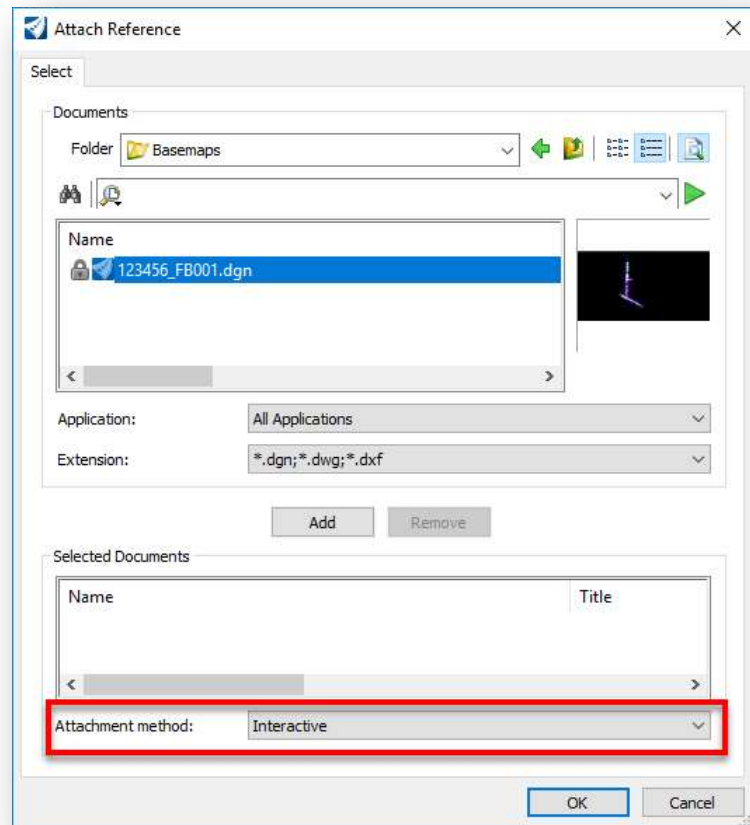


## Part B: Plan View References

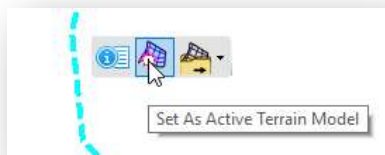
- ✓ From the **OpenRoads Modeling** WorkFlow, select **Home > Attach Tools > References** to attach the files with the plan view information. Start by attaching the Survey Field Book (FB) design file from the following folder:

**300-Survey\Basemaps\123456\_FB001.dgn**

- ✓ When selecting the references, set the **Attachment Method** to **Interactive**. This will open the **Reference Attachment** dialog for each file as it is attached. This is necessary to review and set the **Nested Attachments** parameter for each file.

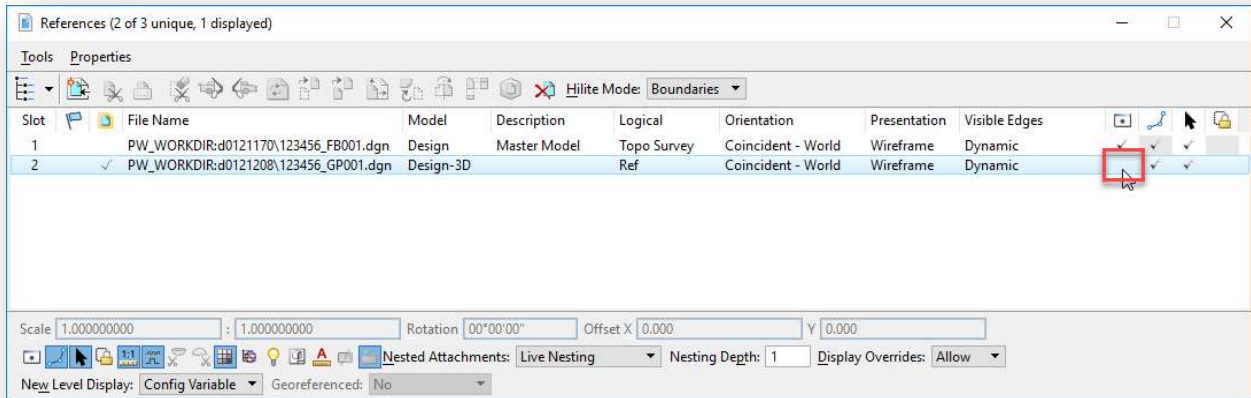


- ✓ From the **Reference Attachment** dialog, set the **Nested Attachments** parameter to **No Nesting**.
- ✓ After attaching the Survey Field Book design file (FB) set the terrain model as the active terrain by selecting the terrain model element and choosing the **Set As Active Terrain Model** icon from the pop-up menu.





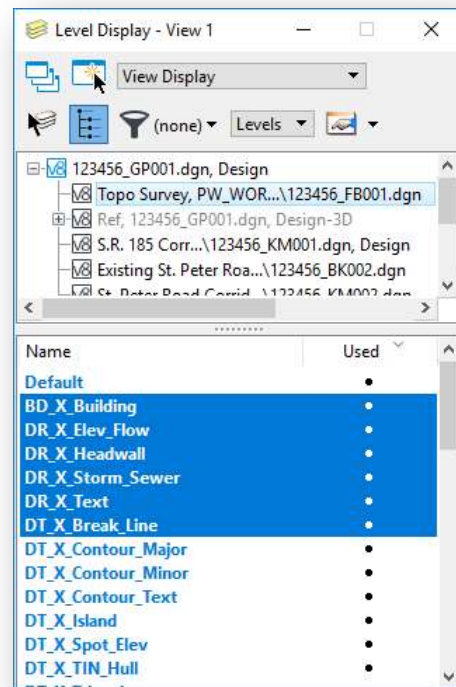
- ✓ The 3D model will not be displayed on the sheets. From the **References** dialog, turn off the display of the Design-3D model.



- ✓ Attach the following files using the **Nested Attachments** setting of **No Nesting**:
  - 400-Engineering\Roadway\Basemaps\123456\_BK001.dgn (CL Proposed S.R. 185)
  - 400-Engineering\Roadway\Basemaps\123456\_BK002.dgn (CL Existing St. Peter Road)
  - 400-Engineering\Roadway\Basemaps\123456\_BK003.dgn (CL Proposed Jameson Road)
  - 400-Engineering\Roadway\Basemaps\123456\_KM001.dgn (S.R. 185 Corridor Model)
  - 400-Engineering\Roadway\Basemaps\123456\_KM002.dgn (St. Peter Road Corridor Model)
  - 400-Engineering\Roadway\Basemaps\123456\_KM003.dgn (Jameson Road Corridor Model)
  - 400-Engineering\RW\Basemaps\123456\_BR001.dgn (Existing Right-of-Way)

- ✓ After the references are attached, from the **Home** tab, select the **Level Display** icon to turn on/off the levels that you wish to display in the Plan View of the sheets.
  - Select each reference file to turn on/off the desired levels

- ✓ Select **File > Save Settings** after you have completed the task of turning on/off the levels

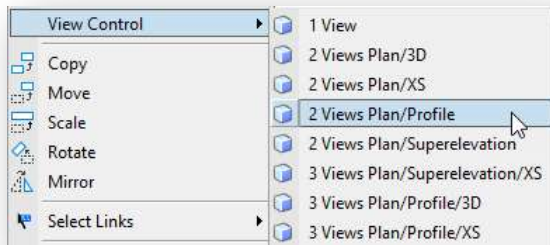




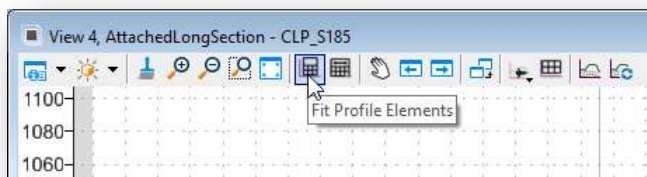
## Part C: Profiles

A profile window must be displayed to lay out the named boundaries for the profile portion of the sheets. Take the following steps to open the profile window:

- ✓ Hold down the right-mouse button in the view window to access the menu shown below.
  - Select the **2 Views Plan/Profile** option and follow the prompts to open a profile view for the S.R. 185 Alignment



- ✓ If the profile is not displayed in the profile window, use the **Level Display** dialog (**Home > Level Display**) to turn on the levels for the existing and proposed alignments and then choose the **Fit Profile Elements** command from the profile window.



The profile is now ready to define the named boundaries.



## Part D: Plan View Named Boundaries

MicroStation Named Boundaries are placed to define the limits of each plan and profile sheet.

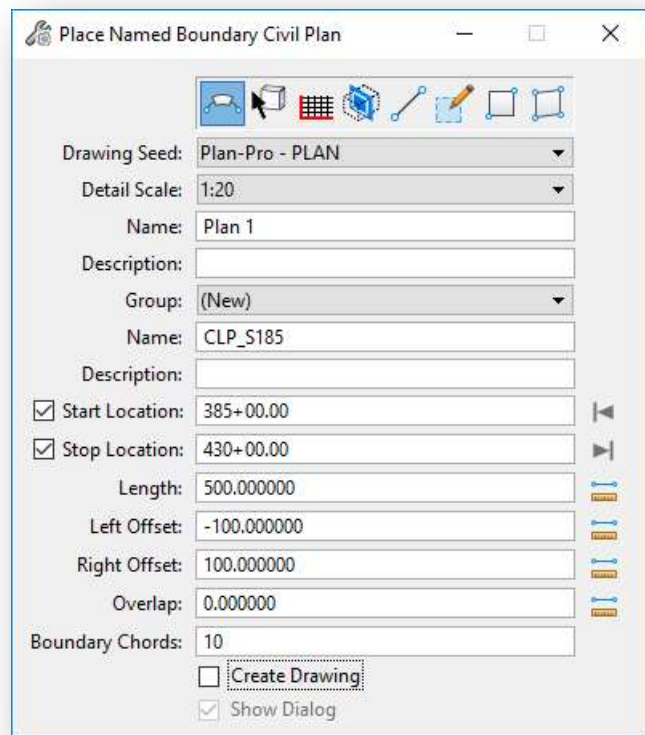
When the named boundaries are placed, they are spaced according to the **Starting Location** station value and the **Length** the selected sheet configuration file.

In some cases, placing the named boundaries from start to finish may result in boundaries that fall with the match line locations in the middle of a bridge or intersection.

Take the following steps to define the plan view named boundaries as a continuous run for S.R. 185:

- ✓ From the **Drawing Production** tab, select the **Place Named Boundaries** command
- ✓ From the **Place Named Boundary** command, take the following steps:

- Select the **Civil Plan** icon (first icon at the top of the dialog)
- Set the **Drawing Seed** to use the **Plan-Pro - PLAN** option
- Toggle off the **Create Drawing** option at the bottom of the dialog.
- Click inside the **Start Location** key-in field
- Left-click on the plan view alignment graphic for S.R. 185. The dialog will track the start location station value relative to the cursor location
- Key in a **Start Location** value of **385+00**
- Key in a **Stop Location** value of **430+00**
  - Note that the default **Length** parameter for the **Plan-Pro - PLAN** option is **500'**. If the value does not default to an even 500.0', change the parameter setting in the dialog.
- Issue a left-click in the plan view.
  - This will display the named boundaries before they are placed in the file.
  - Issue a left-click in the plan view (it may take two clicks) to accept the placement of the first two named boundaries.
  - The **Place Named Boundaries** dialog is automatically closed



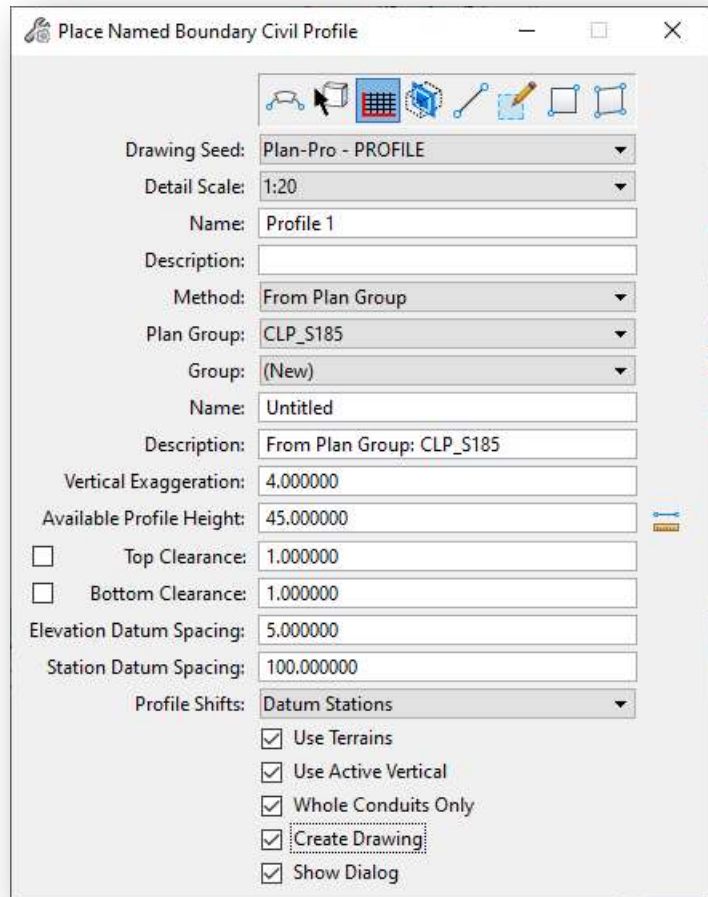




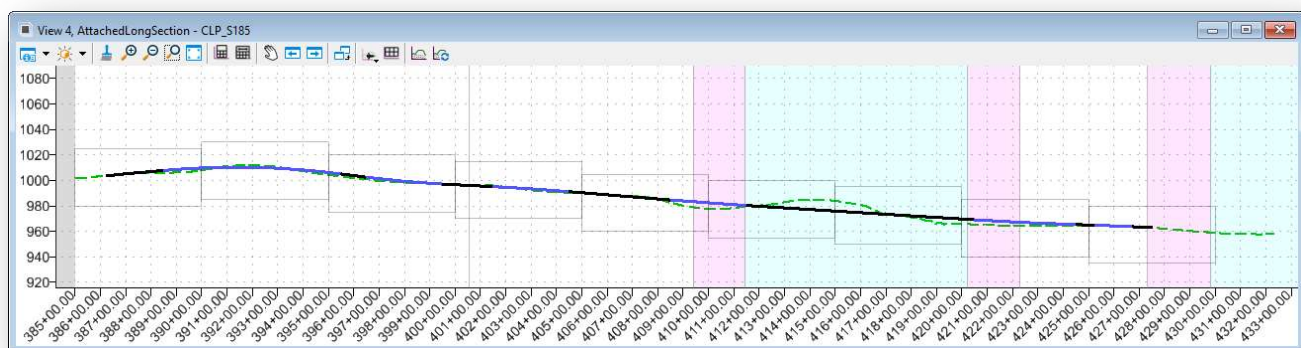
## Part E: Profile Named Boundaries

Take the following steps to define the profile view named boundaries for S.R. 185:

- ✓ From the **Drawing Production** tab, select the **Place Named Boundaries** command
- ✓ From the **Place Named Boundary** command, take the following steps:
  - Select the **Civil Profile** icon (third icon at the top of the dialog)
  - Set the **Drawing Seed** to use the **Plan-Pro 20 - PROFILE** option
  - Set the **Method** to **From Plan Group**
  - Toggle **On** the following options:
    - **Use Terrains**
    - **Use Active Vertical**
    - **Whole Conduits Only**
    - **Create Drawing**
    - **Show Dialog**
  - Issue a left-click in the profile view (it may take three clicks) to accept the placement of the named boundaries for the profile.



The boundaries are placed like the example below.





## Part E: Create Drawing

If the **Show Dialog** option is toggled on as shown on the previous page, the **Create Drawing** dialog is opened.

- ✓ Toggle on the **One Sheet Per Dgn** option if you desire to create a new design file for each sheet. When this option is toggled on, the name entered for the plan view **Sheet Model > Model Name** parameter is used to create each sheet design file.

**ODOT recommendation:** When using the **One Sheet Per Dgn** option, enter the **Sheet Model > Model Name** value using the PID number for the project with the two-character code for the sheet type and a three-digit number.

Example: 123456\_GP101

- ✓ Set the **Drawing Model Annotation Scale** and the **Sheet Model Detail Scale** parameters for both the plan and profile to the desired scale as shown above. Do **NOT** set the **Sheet Model Annotation**



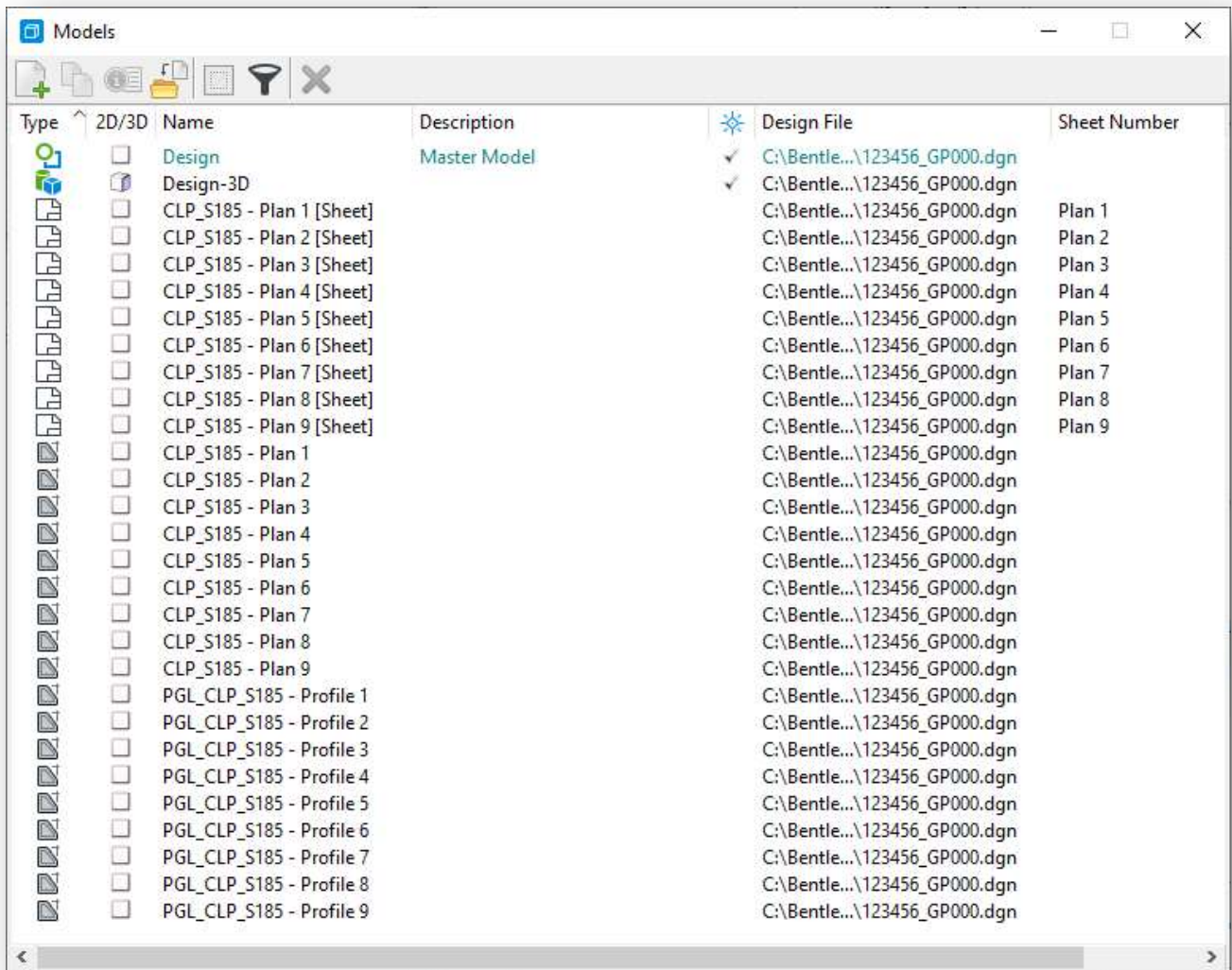


Scale value. Leave this parameter at **1:1** as shown above.

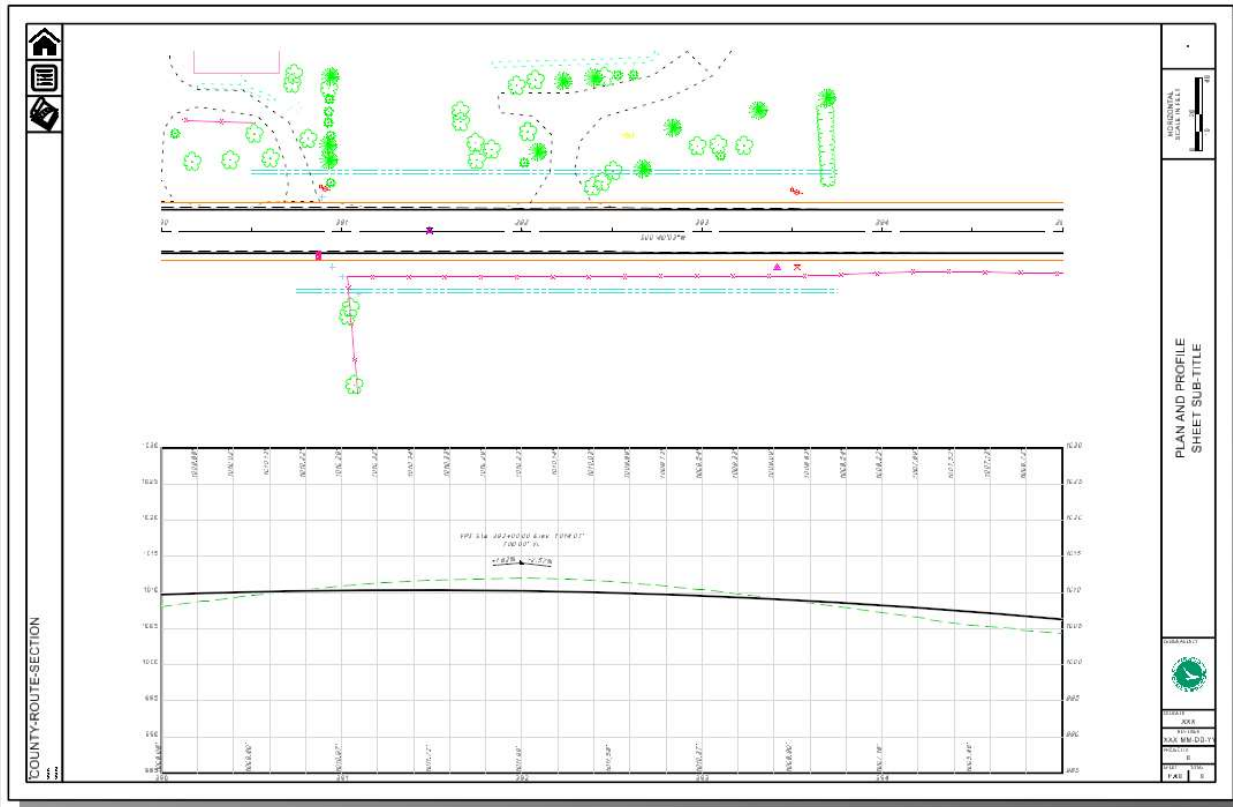
- ✓ Select the **OK** button to initiate the sheet creation process.

A drawing model is created for each named boundary. A sheet model is created for each sheet. The plan and profile drawing models are referenced to the sheet model

- ✓ Review the drawing and sheet models by choosing the model name from the **Models** dialog, as shown below.



An example of a completed sheet is shown below.



This completes this exercise. Exit OpenRoads Designer and check the file back into ProjectWise.



## OpenRoads Software Version

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This document was prepared using the following software version:

OpenRoads Designer CONNECT Edition – 2021 Release 1 Update 10 – Version 10.10.01.03

## Contacts

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For any questions, suggestions, or problems with this document please contact the ODOT Office of CADD and Mapping Services by use of the following form on the ODOT website:

[https://odot.formstack.com/forms/cadd\\_servicerequest](https://odot.formstack.com/forms/cadd_servicerequest)

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