
Chapter 5

HMR Plotting

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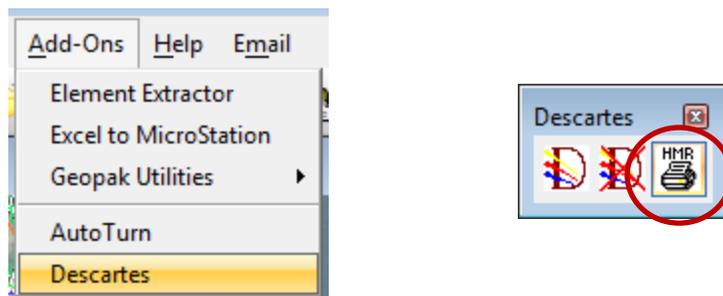
5.1 Objectives

Understand the use of the HMR plotting in Descartes and the options and settings that are contained within the HMR plotting routine.

5.2 HMR Plotting

HMR plotting is a plotting routine contained in the Descartes toolbar. This plotting routine gives you the flexibility to modify settings (print quality, line weights, transparency, etc.) before sending it to the print. You don't have these options using the standard MoDOT plotting routine. In addition, MicroStation files that have images attached to it will print out in better quality using the HMR plotting vs. the standard MoDOT plotting routine.

To load the HMR plotting routine, you need to load the Descartes toolbar first. This is located under the *Add-Ons* menu in MicroStation.



5.3 MoDOT Descartes dialog

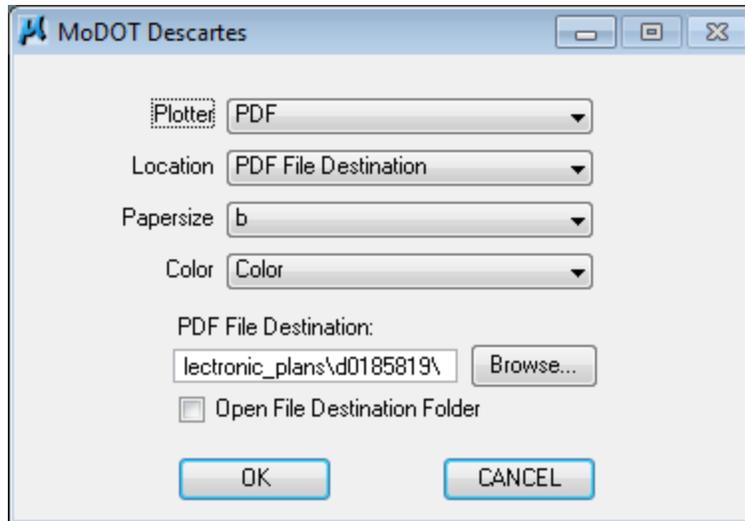
After selecting the HMR plotting icon, a series of dialog boxes will appear defining where you are sending the plot to and what print attributes you want for the print. The first dialog in the series will be the MoDOT Descartes plotting dialog. In here, you have the options of what plotter, location, papersize, color, etc. you desire for the print.

Plotter - select the plotter you desire to send the print to

Location - select the location for the print

Papersize - select the paper size that the plotter can handle

Color - select if you want the print to be in color or black and white



When you have the Plotter set to **PDF**, you will need to define where you want to store the PDF file. This is the *PDF File Destination* and it allows you to select the location of where you desire to store the PDF file from the MicroStation file. Use the *Browse* icon and then you can store the file within ProjectWise or to a network location.

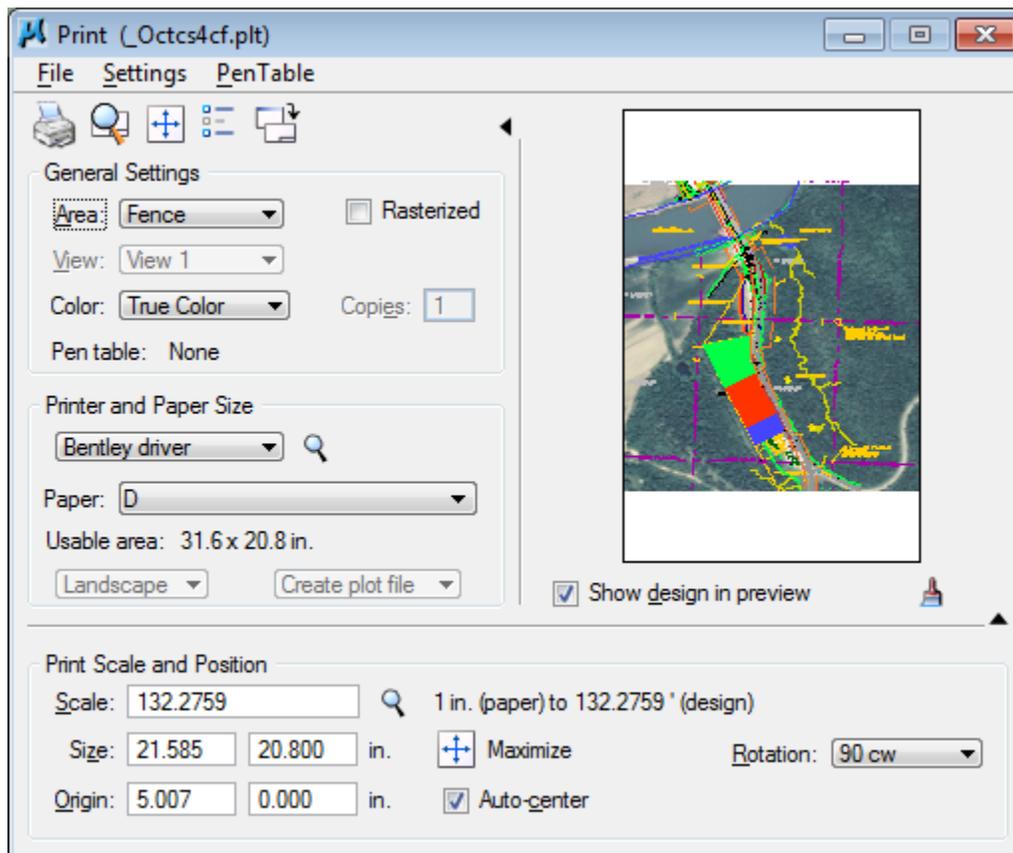
The *Open File Destination Folder* toggle will open up the folder when the PDF gets created. It will open up Windows Explorer to the location of where you stored the file.

This toggle doesn't work when you store the PDF file in ProjectWise though.

5.4 Print dialog

After defining the options in the MoDOT Descartes dialog (previous dialog), the next dialog box that will appear will be the **Print** dialog. This has many options and settings on how you can define the appearance of the print when it is plotted out

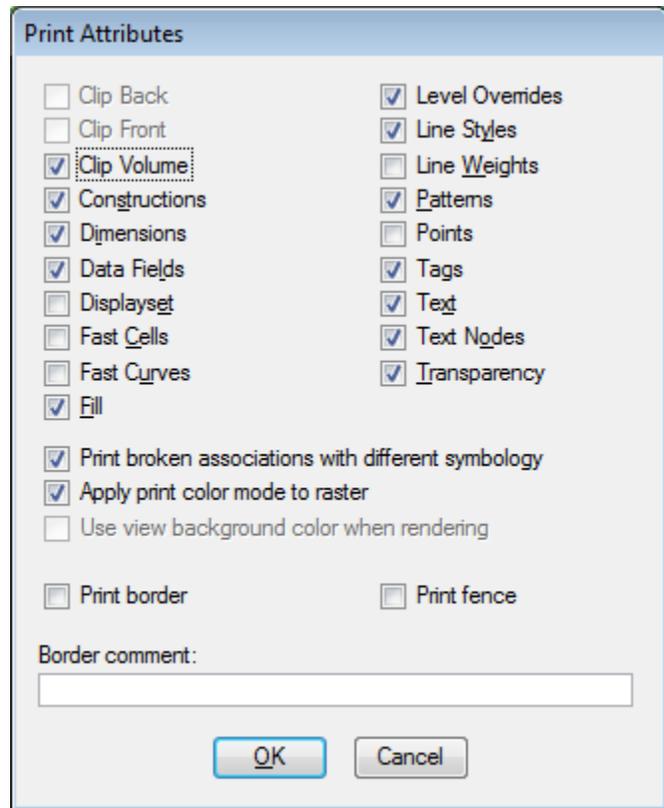
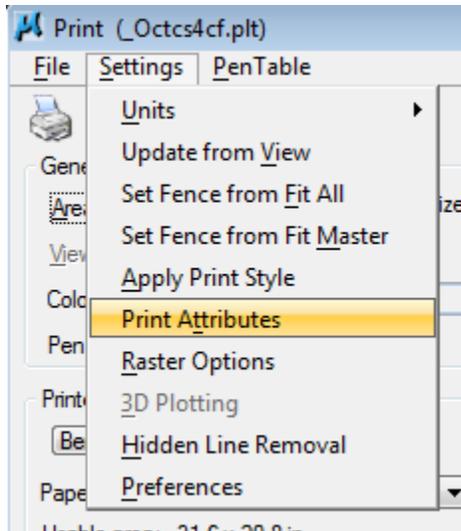
For MoDOT purposes, we will go over the options and settings that needed to be reviewed before sending it to the printer.



5.4.1 Print Attributes

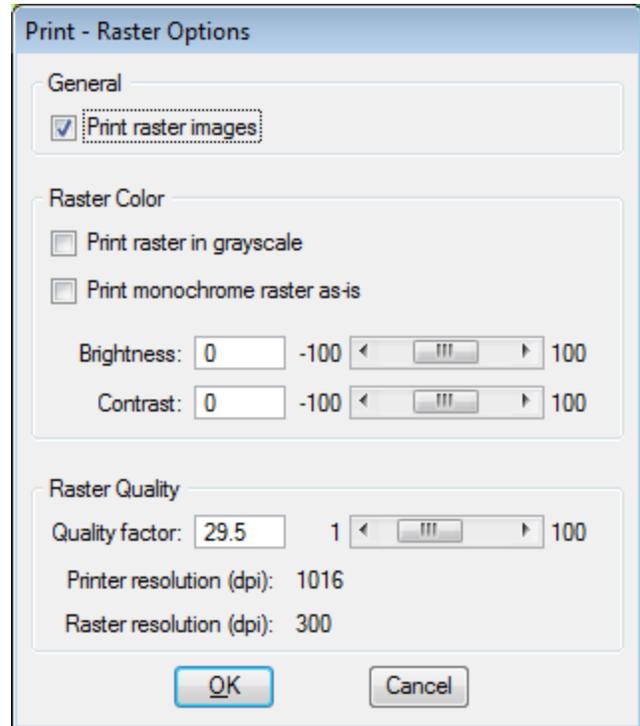
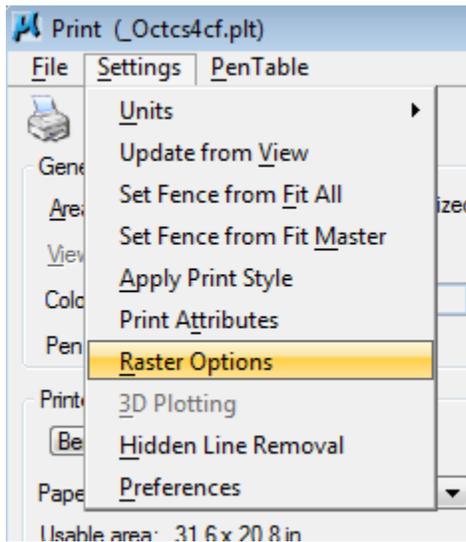
The Print Attributes is located in the Settings menu. In here, you can define what you want to show up on the plot or not show up on the plot.

Review these options before printing the sheet.



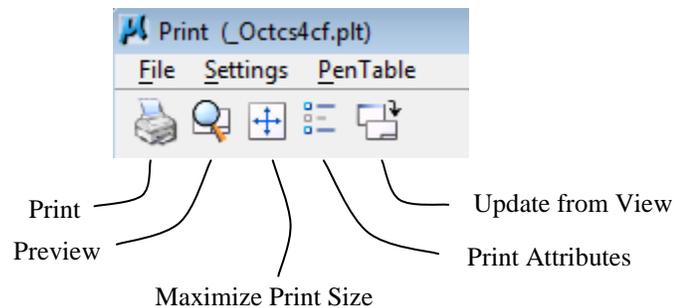
5.4.2 Raster Options

Another option that should be reviewed is the **Raster Options**. This allows you to modify the raster images attached to the file like changing the raster quality, brightness, contrast, etc. for the plot.



5.4.3 Print Icons

Also in the Print dialog are some icons for quick access to certain functions.



Print - defines where you are sending the plot drop file to. For MoDOT users, this file needs to be stored in the following location: *T:\plotdrop_nt*

Preview - gives a preview of the print before sending it to the plotter

Maximize Print Size - will maximize the print to fill the selected paper size

Print Attributes - will load the print attributes for defining exactly what you want printed to the sheet

Update from View - updates the print and print preview to the constraints of the view being shown. This option doesn't apply when you have a fence defined for the plotting area.

5.5 Example 5-1

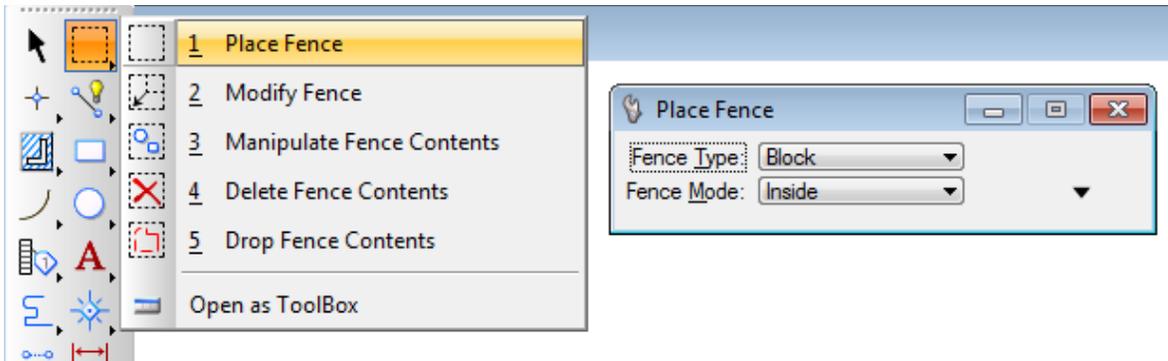
This example will demonstrate how to print a MicroStation file that has transparent shapes in it using HMR plotting through Descartes. The other way is to create a PDF file from the MicroStation drawing (these instructions are on the CADD Wiki site).

Note: The regular MoDOT plotting routine will not work when you have transparent shapes in the MicroStation file. The MicroStation file will print out, but the transparent shapes will print out solid instead of having the transparency applied to them.

1. In ProjectWise, open the following MicroStation file:

`pwname: \\MoDOT\Documents\District CADD\Design\cadduser##\J5P0887\Plan_J5P0887.dgn`

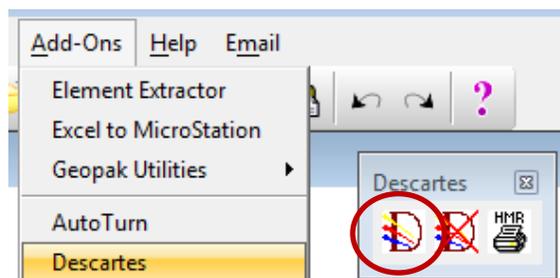
2. Use the **Place Fence** tool and create a fence defining the area you want to print out.



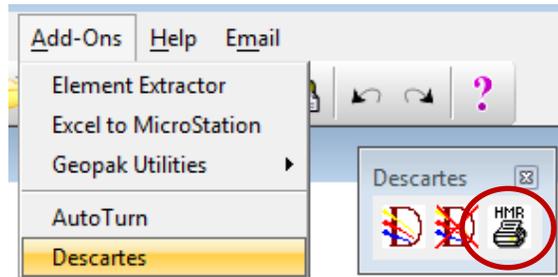
3. Now you will need to load Descartes.

Go to the *Add-ons* menu and select **Descartes**. This will open the *Descartes* toolbar.

Select the **Load Descartes** icon to open the Descartes application.

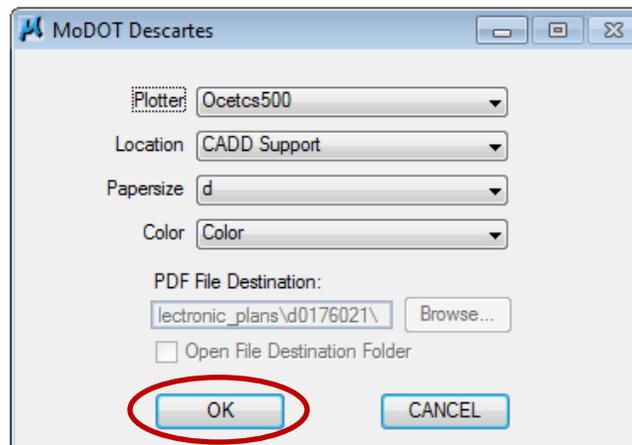


4. Click the **HMR Plotting** icon to load the Descartes plotting routine.



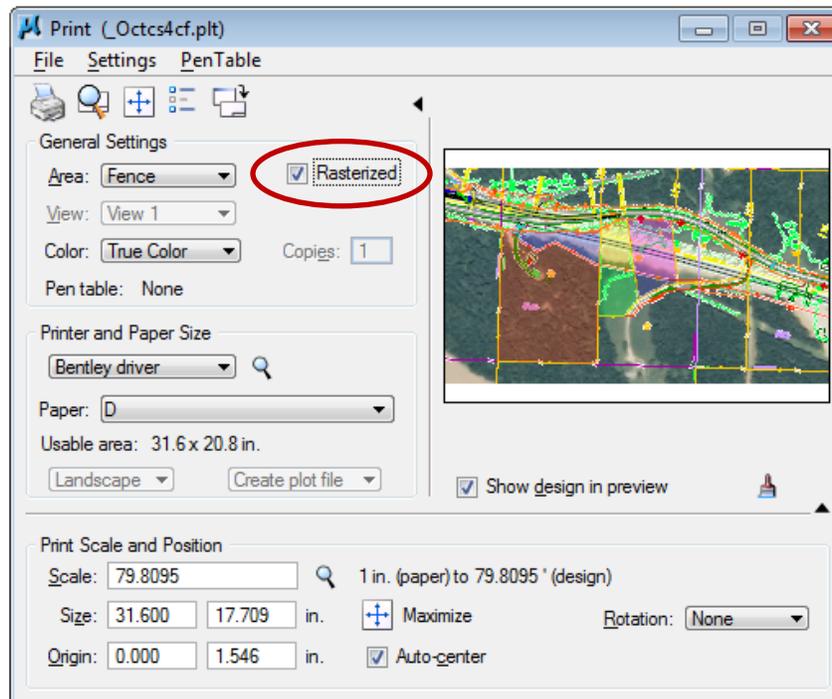
5. Go through the *MoDOT Descartes* plotting dialog and change the parameters (**Plotter**, **Location**, **Papersize**, **Color**) as needed for the plot you are trying to create.

Click **OK** once all the parameters are set.



6. In the *Print* dialog, there are a few items that need to be reviewed.

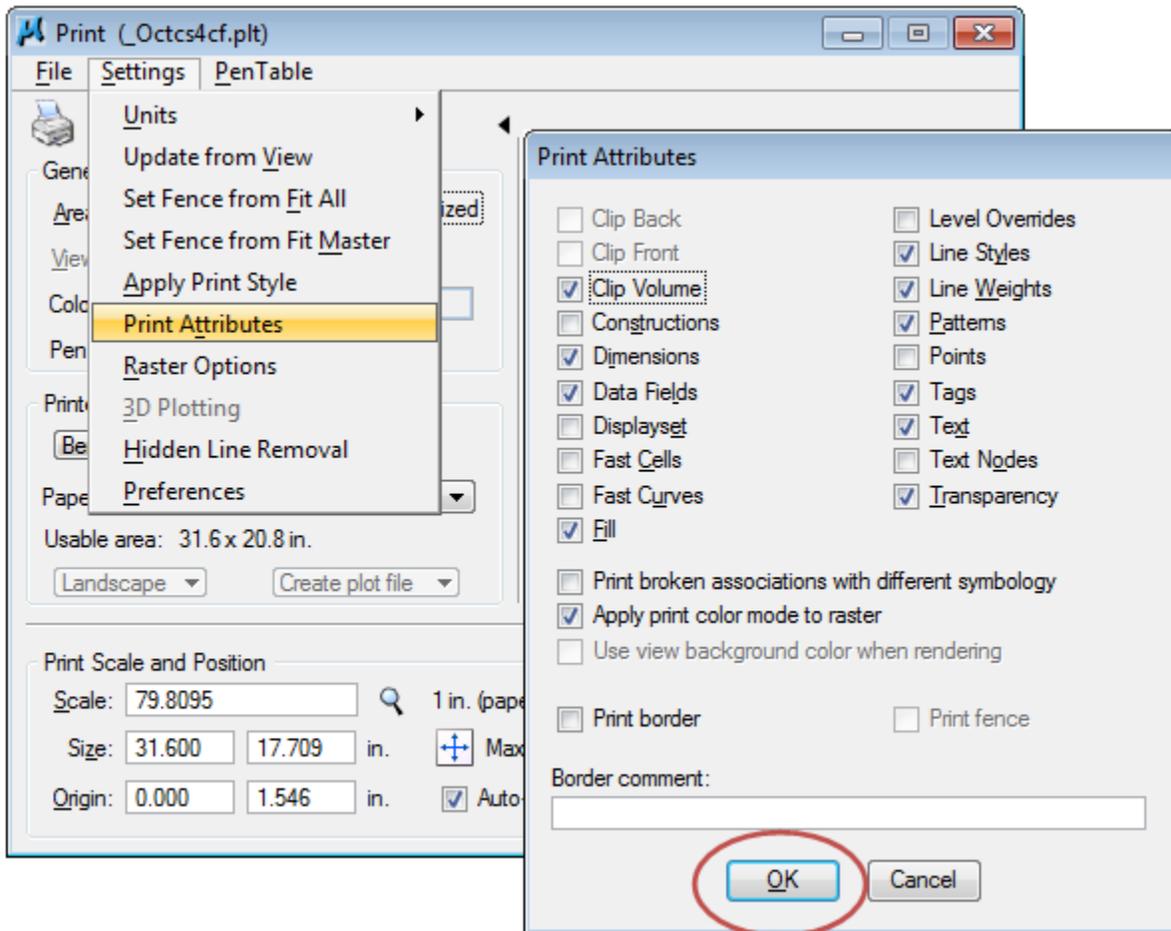
Since we are printing a file with transparent shapes, toggle on the option of **Rasterized**. This allows the transparent shapes to be printed out with the transparency.



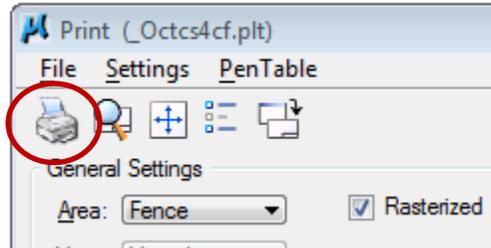
7. Under the *Settings* menu, select the **Print Attributes** option.

Inside the *Print Attributes* you will need to toggle on/off the items to be printed. In most situations, you can match the image below so your print comes out looking correctly.

Click **OK** when you are finished.



- Once you have the Print Attributes set the way you want, select the **Print** icon to send the print to the plotter.

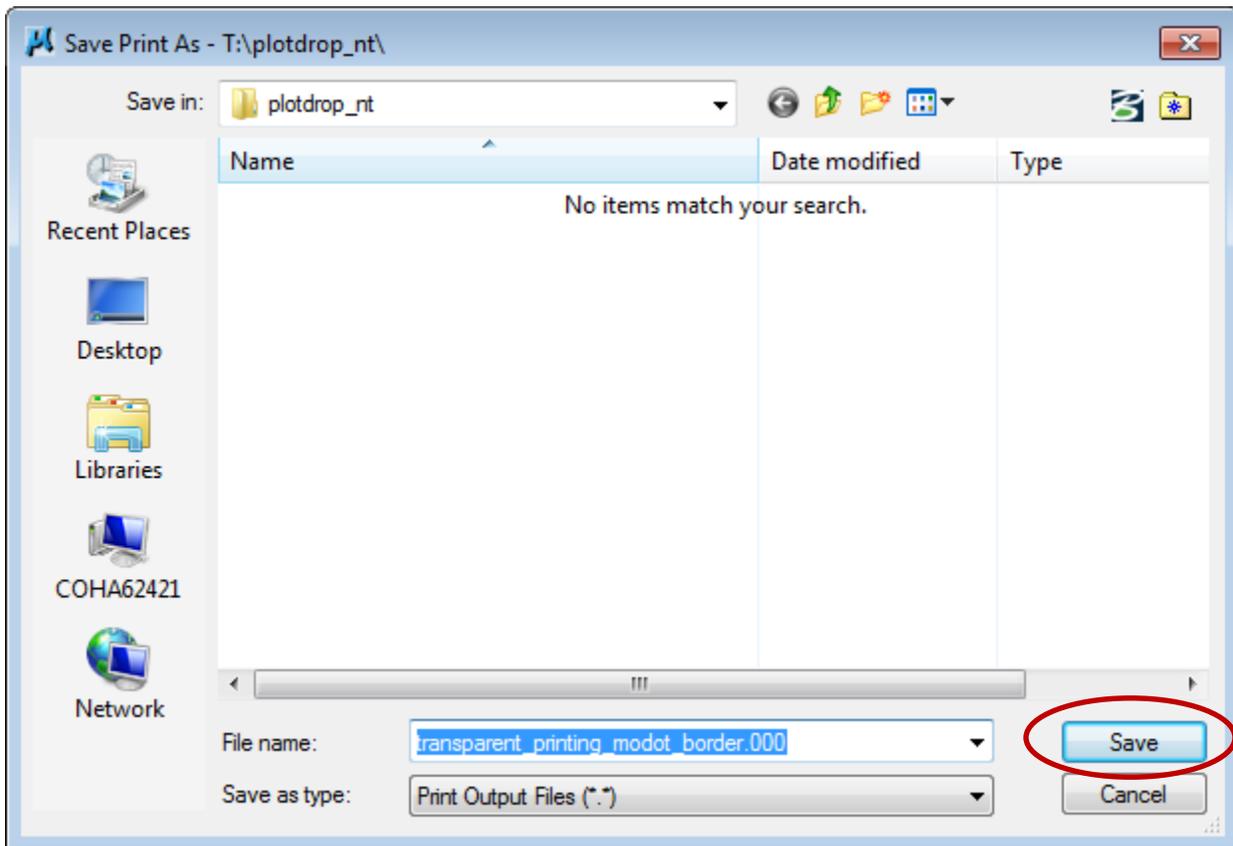


- The plot drop file has to be saved outside of ProjectWise.

So you will need to **Cancel** out of the first dialog.

Another dialog should follow up and allow you to save the file on the network. Save the plot drop file to **T:\plotdrop_nt** folder.

Click **Save** when you are finished.



10. The *MicroStation Print in Progress* dialog will show. **Leave this alone while it builds the plot drop file.**

Once it has completed building the file, click on the **Send** icon in the *MoDOT Descartes* dialog to send the plot drop file to the printer.

