

Legend and Symbol Information Sheets

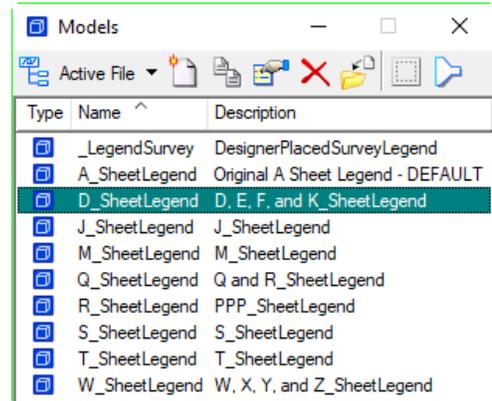
Design Manual
Chapter 21
Automation Tools
 Originally Issued: 03-23-11
 Revised: 05-29-19

This section contains information pertaining to the preparation of **Legend and Symbol Information Sheets**, (hereinafter referred to as the **Legend Sheet**). Since plans contain multiple color sections, multiple **Legend Sheets** must be included to define the use of color across those sections. The following list of **Legend Sheets** shows which sheet letter series is covered by each one.

- Plan and Profile **Legend Sheet** – Covers sheet series D, E, F, and K
- Traffic Control and Staging **Legend Sheet** - Covers sheet series J
- Storm Sewer **Legend Sheet** - Covers sheet series M
- Soils **Legend Sheet** - Covers sheet series Q
- Erosion Control **Legend Sheet** - Covers sheet series R
- Sidewalk **Legend Sheet** - Covers sheet series S
- Cross Section **Legend Sheet** - Covers sheet series W, X, Y, and Z

Refer to Section [1F-5a](#) for more information on Plan and Profile Legend and Symbol Information Sheets.

The **Legend Sheet** seed file for the creation of a new **Legend Sheet** is accessed through the [CopySeed program](#). The seed file contains several models, each of which has a **Legend Sheet** for the specific sheet series, as shown at the right. Designers should name the file **CCRRRPPP_Igd.sht** and should only need to enter data into the **_LegendSurvey** model.

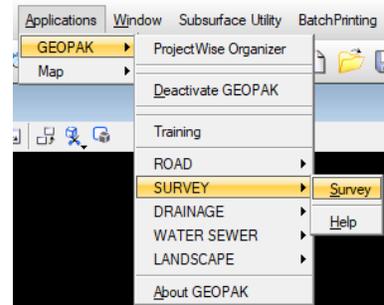
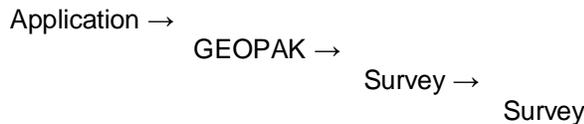


The “CCRRRPPP” Design File Naming convention refers to the 2-digit **C**ounty, 3-digit **R**oute, and the 3-digit project **P**arenthesis number assigned to the project, see Section [20A-1](#).

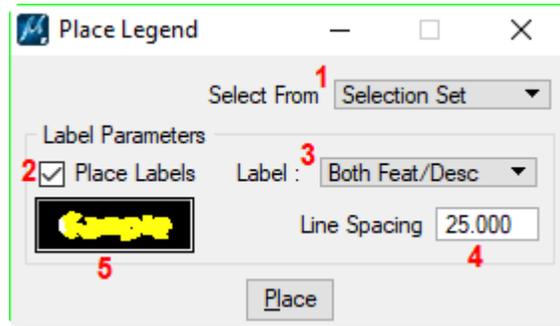
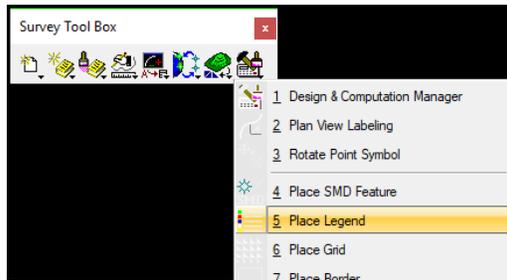
Creating a List of Project Specific Survey Symbols

Legend sheets contain a list of project specific survey symbols. To create this project specific list, begin by attaching references of the **Field_TOPO_0100** model of the **.sur** file and/or the **TOPO_0100** model of the **.pho** file to the **_LegendSurvey** model. **Clip** the referenced information to include only the information specific to the current project.

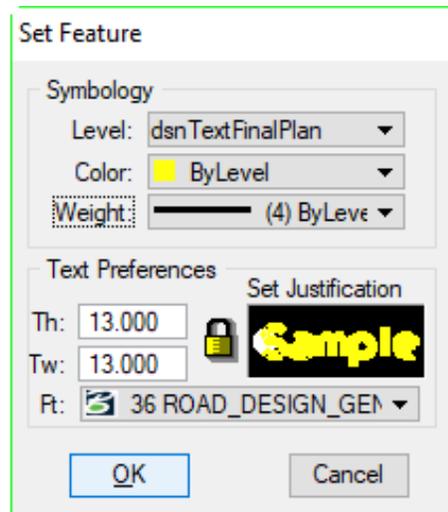
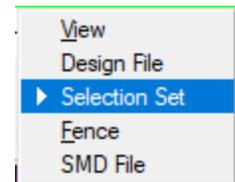
The Legend Place tool is accessed through the GEOPAK survey tools:



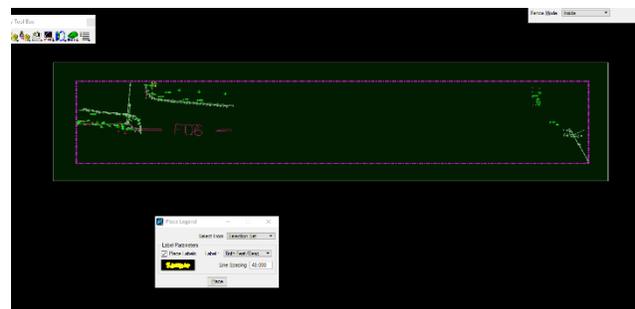
Under the D&C manager icon is the Place Legend tool as shown below to the right. The Place Legend tool box will appear, see below right for details.



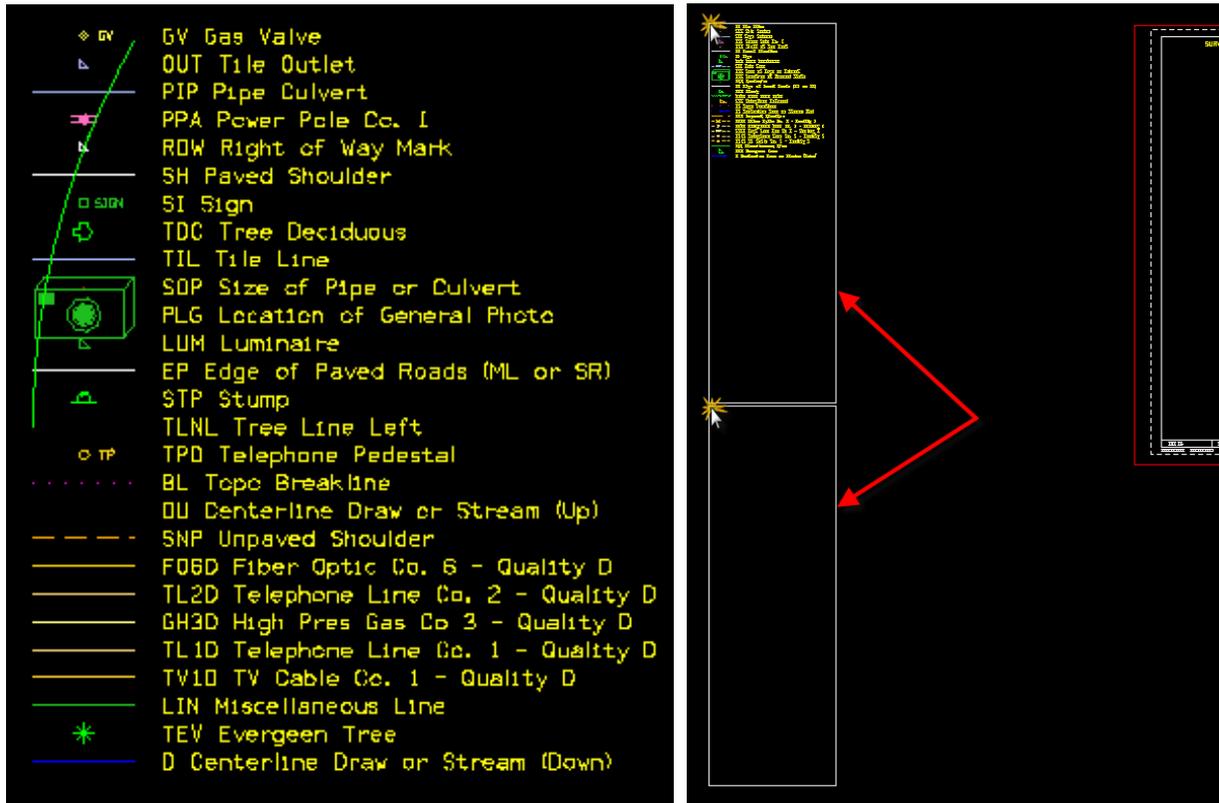
1. **Select From:** This drop down menu determines where the tool is analyzing to generate the list of symbology. **View** analyzes everything currently visible on screen. **Design File** analyzes entire active file. **Selection Set** analyzes the elements that are part of your current selection set, this is the setting that will be used. **Fence** analyzes all elements within a placed fence. **SMD File** will place all of the elements that are compared when analyzing by the other functions.
2. **Place Labels:** If this check box is unchecked only the symbols will be placed; otherwise, the checked setting will be used.
3. **Label:** This drop down determines what will be generated. If **Feature Name** is chosen, only the symbology is generated. If **Description** is chosen, only the text description is generated. If **Both Feat/Desc** is chosen, the full legend entry will be generated.
4. **Line Spacing:** This determines the space between each legend entry. Set this to 25.
5. **Text Feature Symbology:** By double clicking in the text box the Set Feature pop-up will appear. The appropriate settings are shown to the right.



Select the entire referenced PHO and/or SUR file. All the elements selected to be analyzed should now be highlighted.



Next, press the Place button. The generated legend should appear at your cursor, see below left. Place this into the designated areas to the left of the border, snapping to the top left of the boxes, as shown below right. These two boxes represent the limits that are being referenced into the other legend sheets, each box representing a column on the sheet.



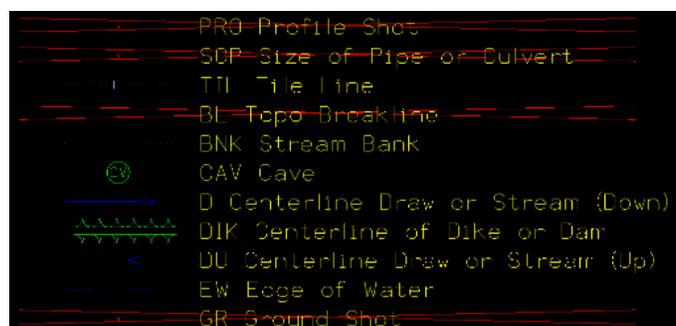
Correcting the Survey Symbol list

For the purpose of the display on the old **Legend Sheets**, the line styles used in the `_lgd.sht` file **Survey Symbols** list are scaled up for the 100 scale file. Annotation scaling is now used to control the scale of the line styles. This eliminates multiple models for different scales.

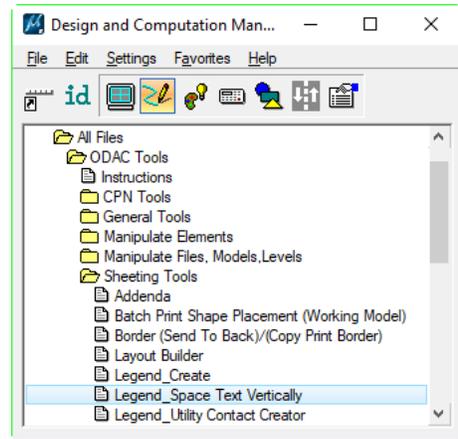
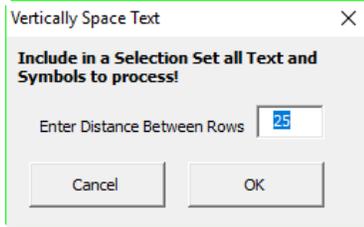
Lines that use patterns or symbols, such as utility lines, drainage flow arrows, tile lines, tree lines, and fence lines will need the style scales adjusted from 100 to .5.

The cell symbols in the legend are copied at the correct scale and do not need adjustment.

Unnecessary items, such as those that have been crossed out in the example at the right, should be removed from the legend. Any other line styles that are unnecessary for this **Survey Symbol** list, such as “Photo Shots” and “ROW symbols”, should also be removed.

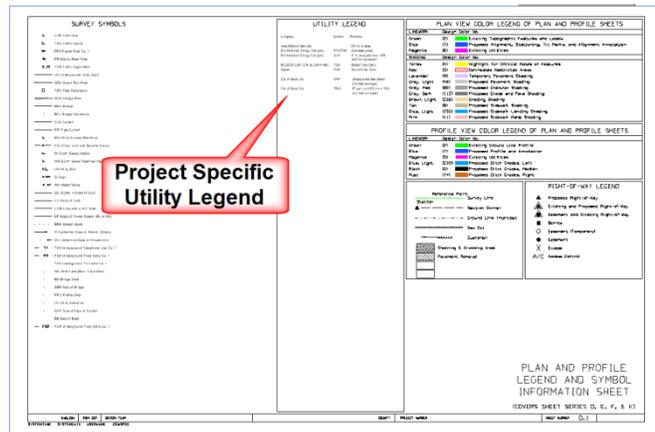


To realign the items to maintain the original 25 foot spacing after unnecessary items have been removed, use the **Legend_Space Text Vertically** Tool from **D & C Manager** as shown at the right. First, create a selection set of all symbols and text and then input '25' into the **Enter Distance Between Rows** field as shown below. *Select* the **OK** button, and the remaining symbology and description will automatically be moved so that they are properly spaced and aligned.



Project Specific Utility Legend – UtilityLegend Tool

The symbols in the **Project Specific Utility Legend** list provide Utility Ownership information, unlike the generic information in the **Survey Symbols** list. Utility information should be placed in the **Utility Legend** Box in the **_LegendSurvey** model. The Utility Ownership information is generated using the **UtilityLegend** tool located under the **PSS** dropdown, as shown below. The Utility information will be placed in the center of the Legend Sheet, as shown to the right.



Refer to the [sample](#) legend and symbol information sheet for further guidance.

For direction on how to obtain utility contact information from **PSS**, refer to Section [21A-503](#).

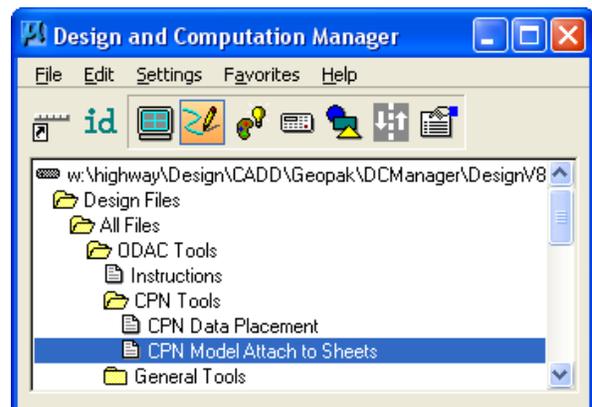
If the utility contact information obtained from PSS is not a one-to-one match with the utility legend from the **Field_G_Sheets** model, then contact the District Utility Coordinator for updated contact information. If the District Utility Coordinator does not provide updated contact information, only the information provided in the **Field_G_Sheets** model may be shown in the legend.

Note: Designers must input survey symbols and a utility legend that are specific to the current project. This may or may not include the entire surveyed area.

Attaching CPN Data

The **CPN Model Attach to Sheets** command is accessed from the **Geopak D&C manager**, as shown to the right. This command will attach the **CPN** model to all specified models in the current sheet file.

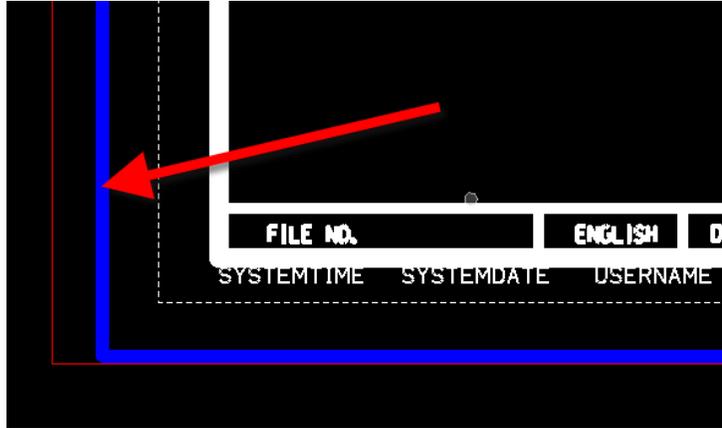
Refer to [21A-1](#) for instructions on using the CPN Model Attach to sheets D&C tool.



Legend and Symbol Information Sheet Print Organizer

The **Legend and Symbol Information Sheet** (Legend Sheet) is normally the first sheet of the associated series of sheets and should be numbered accordingly, such as **D.1, M.1**, etc. However, an exception to this rule is the **Legend Sheet** for the Traffic Control and Staging information is to follow the tabulation sheets in the “**J**” sheet series, as instructed in Section [1F-10](#). This will cause the “**J**” **Legend Sheet** to be embedded in the middle of the “**J**” sheet series and numbered accordingly.

The legend file contains all of the series’ legend sheets ready to print. For series that are not being used, the batch print shape that is active in each model will need to be deleted, shown to the right.



For instruction on MicroStation Print Organizer, refer to Section [21E-1](#).

Chronology of Changes to Design Manual Section: 021A-052 Legend and Symbol Information Sheets

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|-----------|--|
| 5/29/2019 | Revised Updated to reflect current process. |
| 9/30/2011 | Revised Corrected graphic examples and links. |
| 7/5/2011 | Revised Updated to include vertical spacing tool , utility contact information, 'S' Sheet information, and link to sample legend sheet. |
| 3/23/2011 | NEW New Section |