



VDOT Creating Plats with GEOPAK

2004 Edition (Version 8.8)



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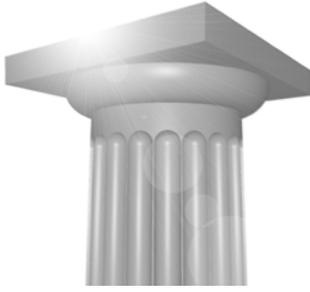
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Creating Plats

OBJECTIVES

This course material will serve as a reference manual for steps to be followed when creating plats via VDOT standard procedures.

INTRODUCTION

There are several options for creating plats in GEOPAK depending on the available information. This manual will focus on the basic steps of:

1. Importing ASCII data of field located points.
2. Storing parcel information in GEOPAK Coordinate Geometry.
3. Matching geometry with Design's right-of-way information.
4. Creating individual MicroStation models for each plat.
5. Referencing and creation of the plat.
6. Labeling

IMPORTING ASCII

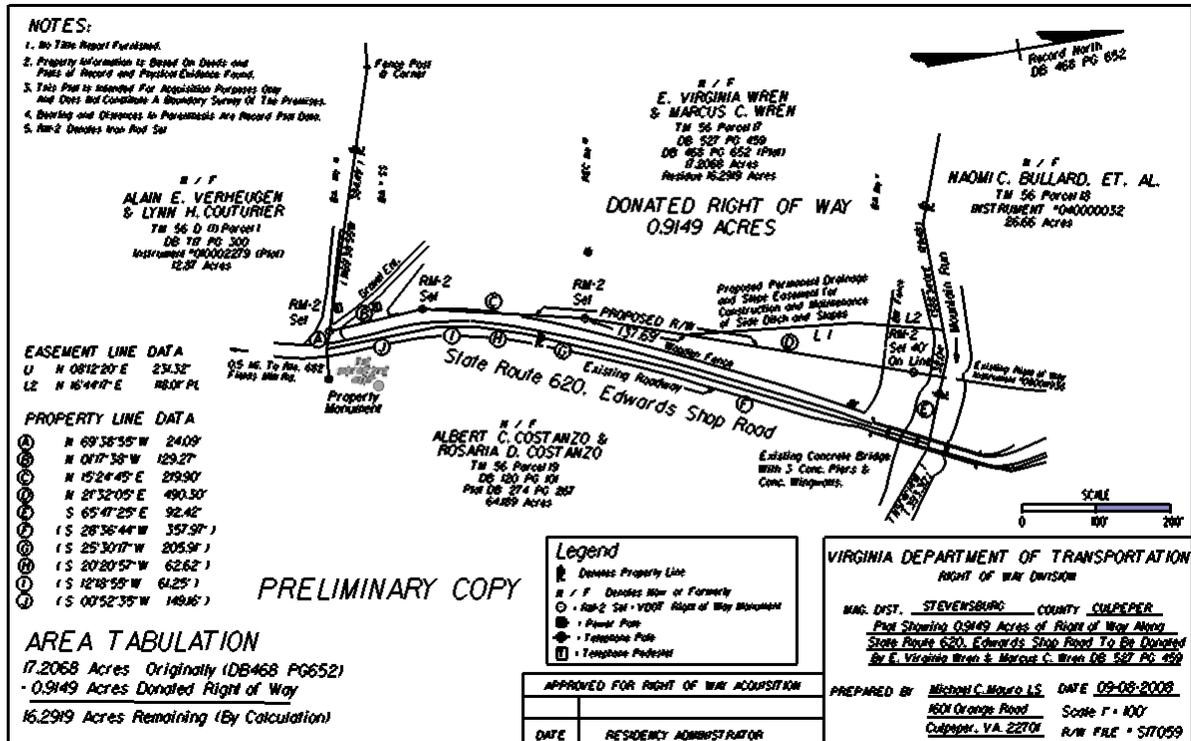
There are several options for importing ASCII data in Coordinate Geometry. One of the simplest ways is to use the Import > ASCII option directly from within Coordinate Geometry.

This tool will directly store a plain ASCII XYZ file; no Survey Chains will be created. The ASCII file must have one line of data per point. Enter the name of the file or click Select. Then set the delimiter (character between each field in the data). If a comment is in the file, it must be at the end of the line, and separated by a unique delimiter. Set the None or Invalid Point Name and Chain name. If the Duplicate Filter Tolerance is on, any point within the specified tolerance of another point is ignored. The last step is to set the order of the fields within each row (Field Order). If the first row is Point#, X, and Y, set the Field Order to Point#, East(X), North(Y), and the rest to None. Click **Apply** to commence processing.



This exercise will store parcels in Coordinate Geometry for the proposed right-of-way take, along with the easement areas. During this process we will also create a primary PLAT file that will eventually contain each individual plat as a separate model.

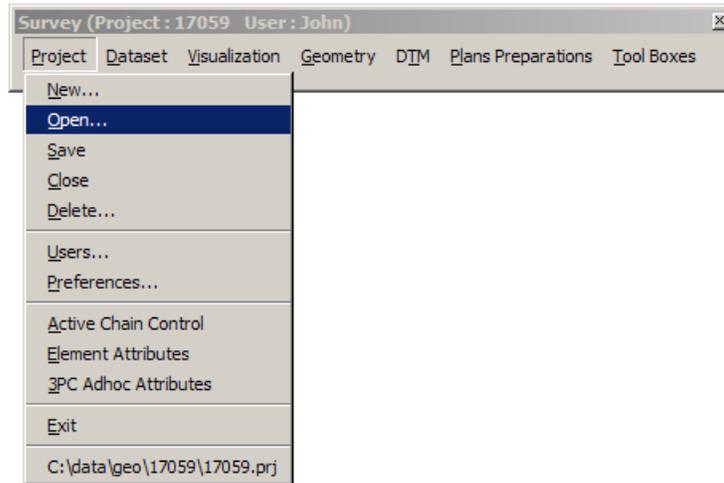
Below is an example of what the PLAT will look like once completed.



LAB EXERCISE: IMPORTING ASCII

IMPORTING VIA COGO

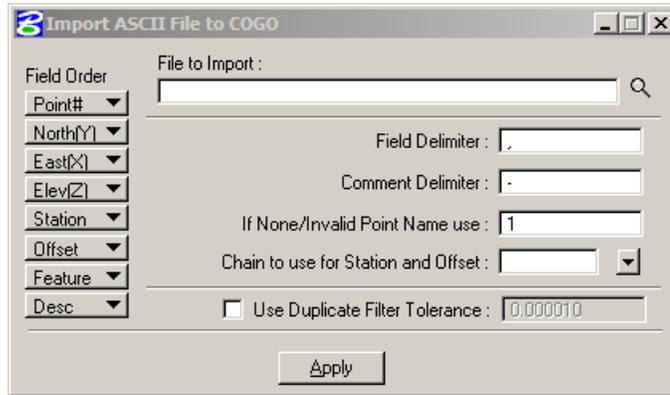
1. Open the MicroStation file *C:\data\geo\17059\s17059.dgn*.
2. Select from the Survey menu bar **Project > Open** and open the project *17059*.



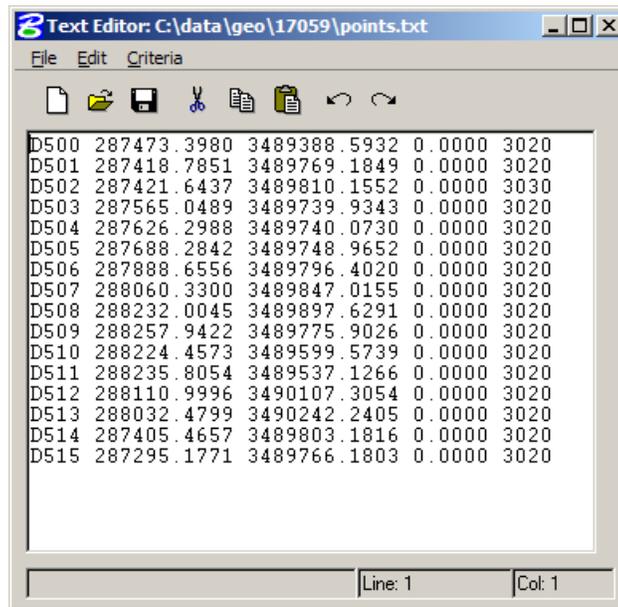
3. Once in the Project select **Geometry > Classic COGO**.



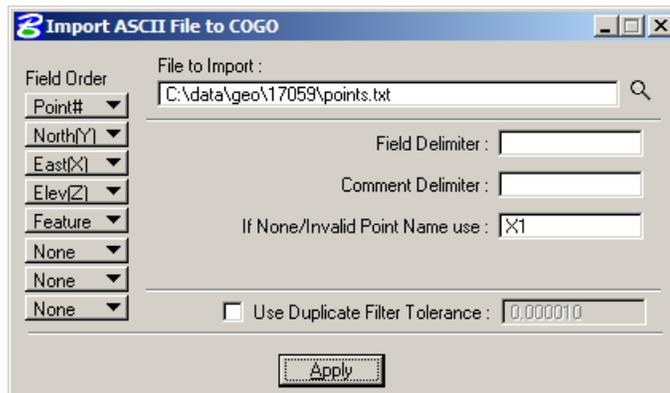
- In Coordinate Geometry select **File > Import > ASCII Points**.



- Using the toggles on the left side of the dialog, set each one based on the format of the ASCII file as shown below.

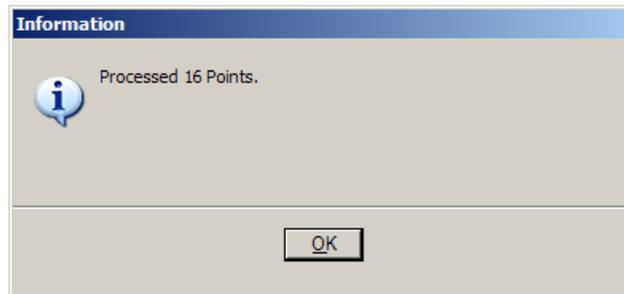


- The completed toggle settings should look like the dialog below.



- Complete the remaining portions of the dialog by using **Space** as a Field Delimiter.
- Select the File to Import **points.txt**.

9. Click the **Apply** button.
10. The dialog below will display when completed.



11. Review the coordinates in COGO and visualize them graphically.

The screenshot shows the "Navigator(123)" software window. The title bar includes the Bentley logo and the text "Navigator(123)". Below the title bar is a menu bar with "Select" and "Tools". A toolbar contains several icons: a crosshair, a selection tool, a file icon, a printer icon, a document icon, and a lightbulb icon. Below the toolbar is a dropdown menu labeled "Element:" with "Point" selected. The main area of the window contains a table with the following data:

Name	Feature	Northing	Easting	Elevation
D500	3020	287473.3980	3489388.5932	0.0000
D501	3020	287418.7851	3489769.1849	0.0000
D502	3030	287421.6437	3489810.1552	0.0000
D503	3020	287565.0489	3489739.9343	0.0000
D504	3020	287626.2988	3489740.0730	0.0000
D505	3020	287688.2842	3489748.9652	0.0000
D506	3020	287888.6556	3489796.4020	0.0000
D507	3020	288060.3300	3489847.0155	0.0000
D508	3020	288232.0045	3489897.6291	0.0000
D509	3020	288257.9422	3489775.9026	0.0000
D510	3020	288224.4573	3489599.5739	0.0000
D511	3020	288235.8054	3489537.1266	0.0000
D512	3020	288110.9996	3490107.3054	0.0000
D513	3020	288032.4799	3490242.2405	0.0000
D514	3020	287405.4657	3489803.1816	0.0000
D515	3020	287295.1771	3489766.1803	0.0000

CREATING MODELS

Working with design models, you can create one or more discrete models, simply, within a single DGN file. Using the Models dialog box, you can quickly switch between the various models in the DGN file.

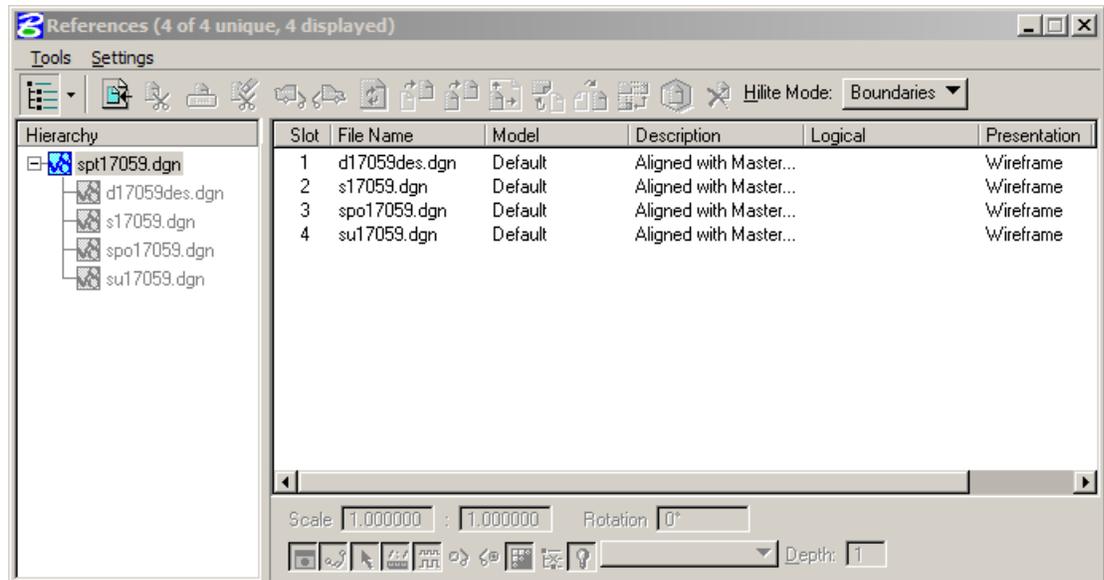
When you first create a DGN file, it has a default design model ready to place elements. When you open the Models dialog box, the default model has the name Default, with the Description as Master Model. You can use this model and, if necessary, change its name and description to more appropriate values.

Taking advantage of models will allow the creation of a single model for each plat within one MicroStation design file.

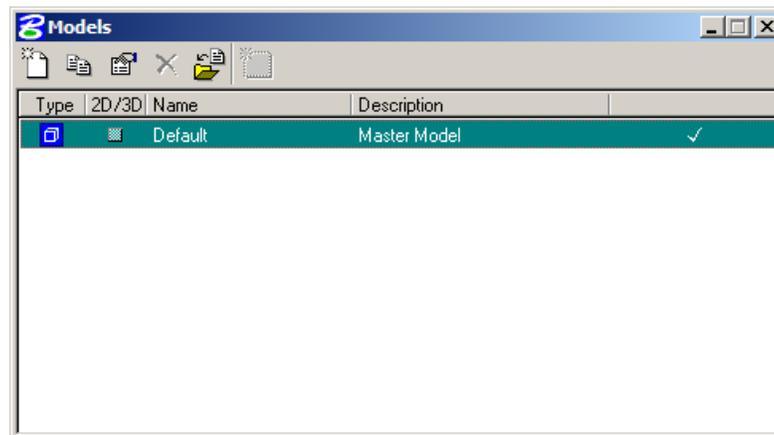
LAB EXERCISE: CREATING MASTER PLAT FILE & MODEL

CREATE MICROSTATION FILE

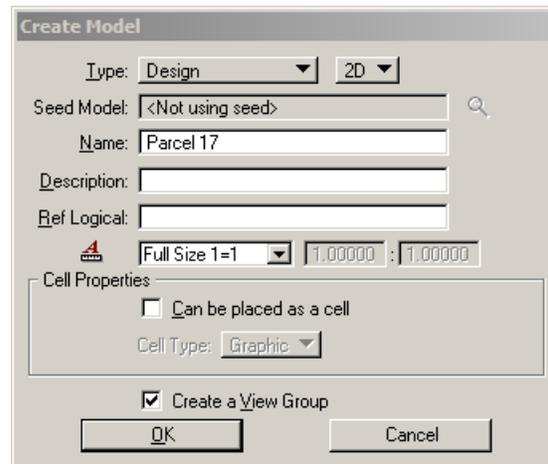
1. Create a new MicroStation file from the seed file in *C:\data\geo\standards* called *spt17059.dgn*
2. Open the new file and reference the other project files.



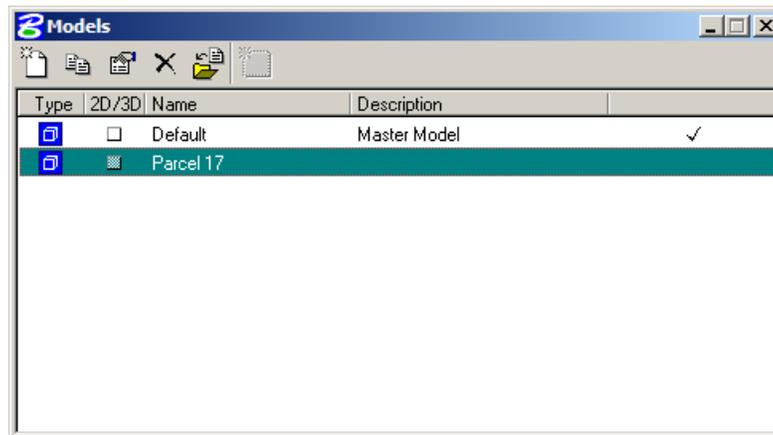
3. Next create a new model for the PLAT called *Parcel 17* by selecting *File > Models*



- Click the Create New Model icon.
- Populate the dialog as shown below being sure the Model Type is **Design** and provide the name of **Parcel 17**.



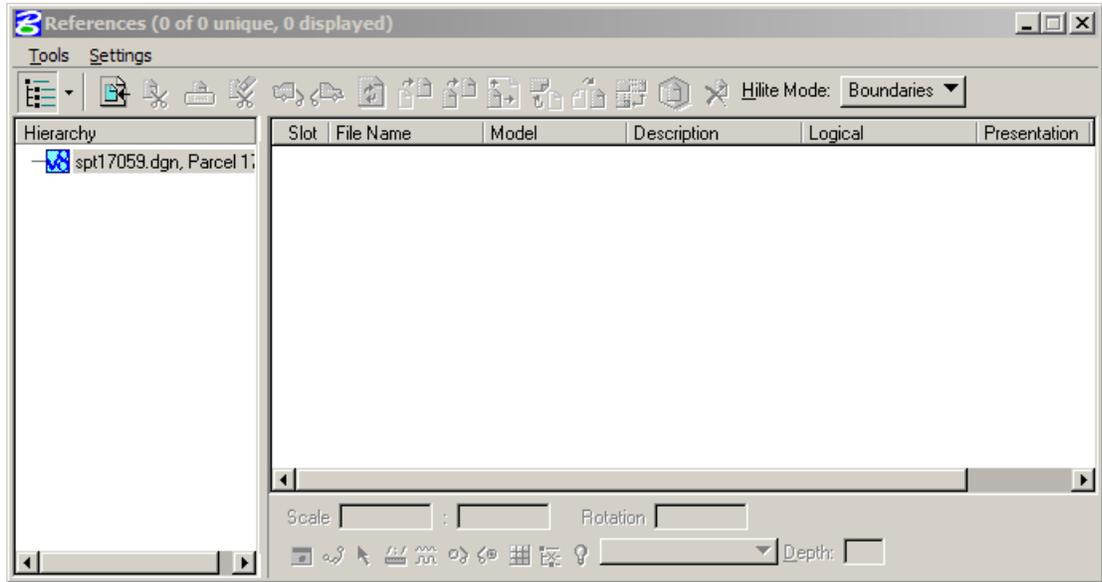
- Click **OK**.
- This will create a new model in the design file that will contain the PLAT for Parcel 17.



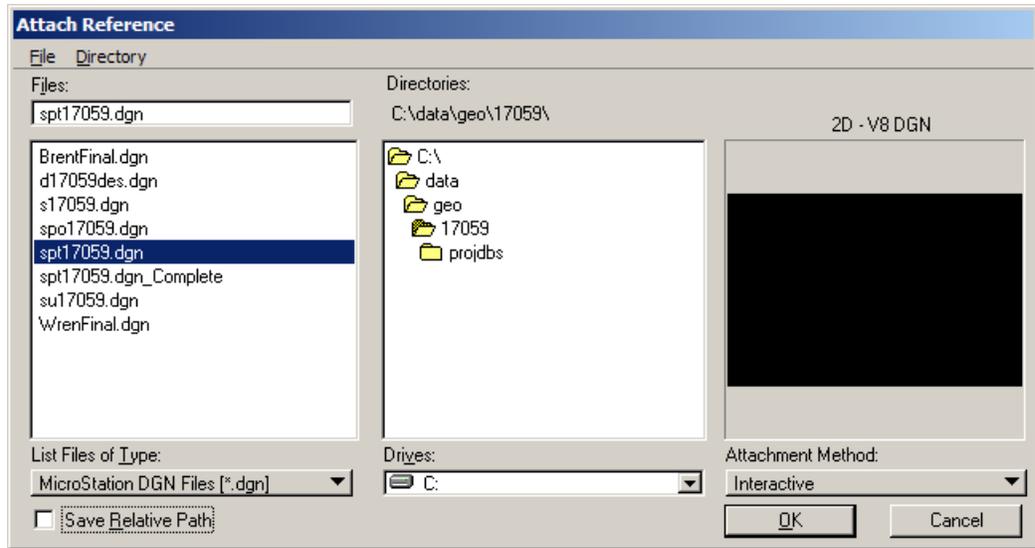
- MicroStation will also automatically switch into the new model.
- Close the Model dialog.

 **REFERENCING THE PLAT**

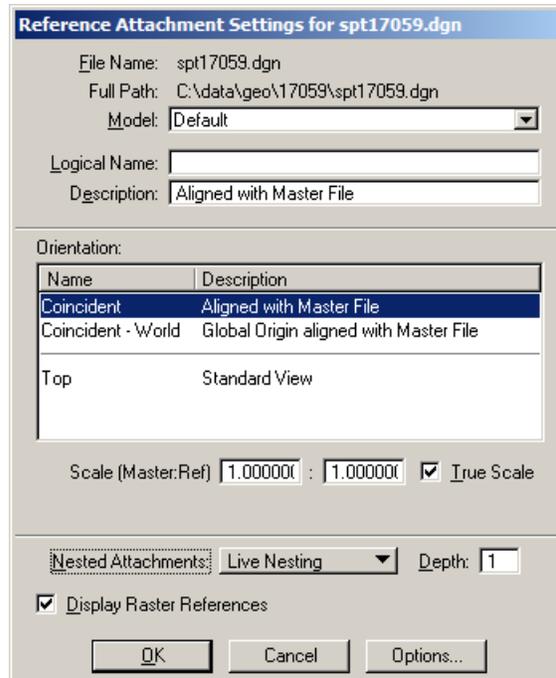
1. From the MicroStation main menu select File > Reference



2. From the Tools pulldown select Attach
3. Select the file spt17059.dgn from the list to attach as a reference.



4. In the Reference Attachment Settings dialog make sure that the Nesting Attachments option is Live Nesting and set to a Depth of 1.



The image shows a dialog box titled "Reference Attachment Settings for spt17059.dgn". It contains the following fields and options:

- File Name: spt17059.dgn
- Full Path: C:\data\geo\17059\spt17059.dgn
- Model: Default (dropdown menu)
- Logical Name: (empty text field)
- Description: Aligned with Master File (text field)
- Orientation: A table with two columns: Name and Description.

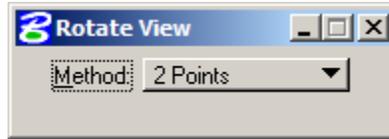
Name	Description
Coincident	Aligned with Master File
Coincident - World	Global Origin aligned with Master File
Top	Standard View
- Scale (Master:Ref) 1.000000 : 1.000000 (input fields) True Scale (checkbox)
- Nested Attachments: Live Nesting (dropdown menu) Depth: 1 (input field)
- Display Raster References (checkbox)
- Buttons: OK, Cancel, Options...

5. Click OK

 **ROTATING THE PLAT**

Once all of the desired reference files have been attached the next step is to rotate the graphics to an angle suitable for the plat. This can be accomplished using the **Rotate View** option.

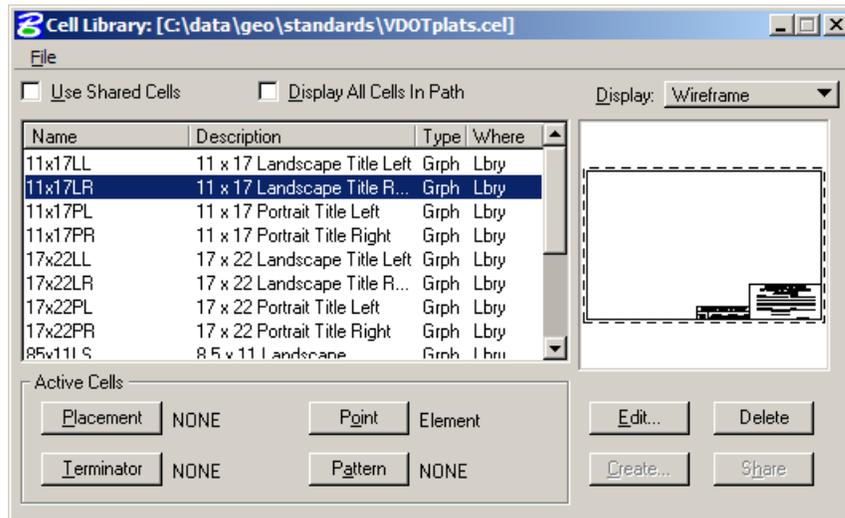
1. Click the **Rotate View** icon on the MicroStation view window.
2. Set the Settings option to **2 Points**.



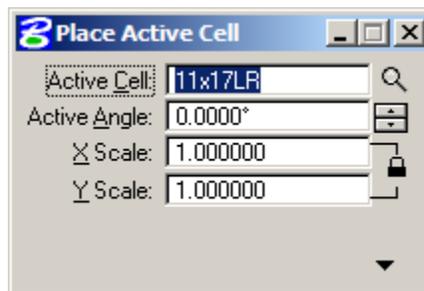
3. Click a data point anywhere on the screen.
4. Move the cursor around on the view until the desired rotation is accomplished.
5. Enter a second data point to define the rotation angle. (*refer to page 2 for plat*)

 **PLACING THE BORDER**

1. Once the view has been rotated to the desired rotation, select from the MicroStation main menu *Element > Cells*.
2. From the Cell Library (*VDOTplats.cel*) dialog double click on the cell *11x17LR*



3. Make sure that the scale shown in the settings dialog is set at *1.00* and place the border in the file.



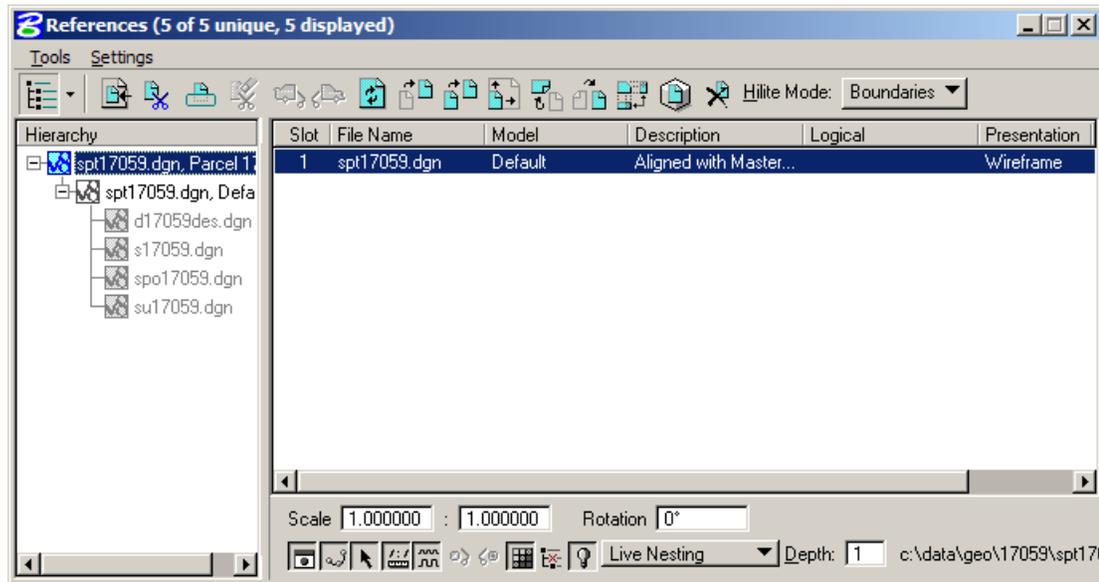
4. Try this step a few times until you have the border placed exactly where it needs to be.

 **CLIPPING THE PLAT**

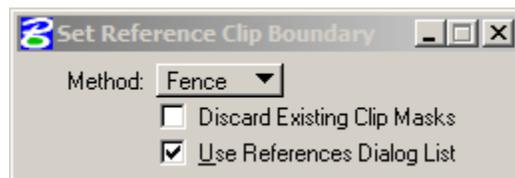
1. Now that the border has been placed select the Place Fence option.



1. Make sure that the *Type* is set to *Shape* and *Mode* is set to *Clip* then place a fence that will represent the clipping border to clip all of the reference files.
2. When satisfied with the fence location select from the MicroStation main menu **File > Reference**.
3. Select the **Clip Reference** icon from the Reference File Manager.

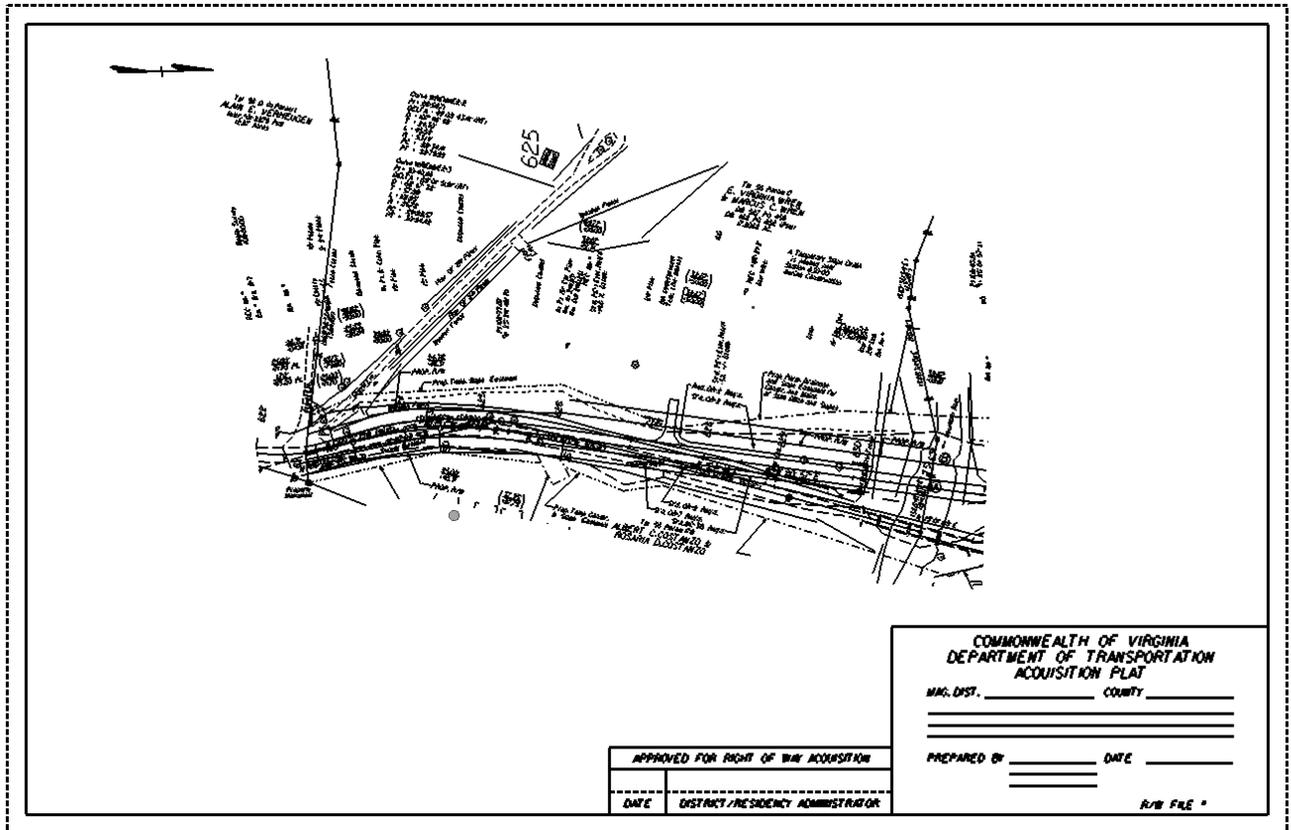


4. Check the Tool Settings dialog to ensure the following settings.



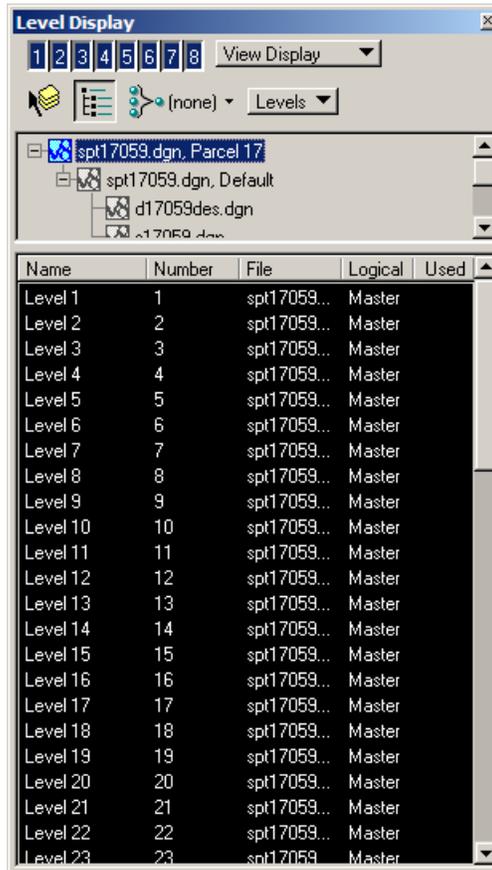
5. Click a data point in the MicroStation view.

- Review the results. There should now be only the desired area to create the individual plat showing in the design file as shown below.

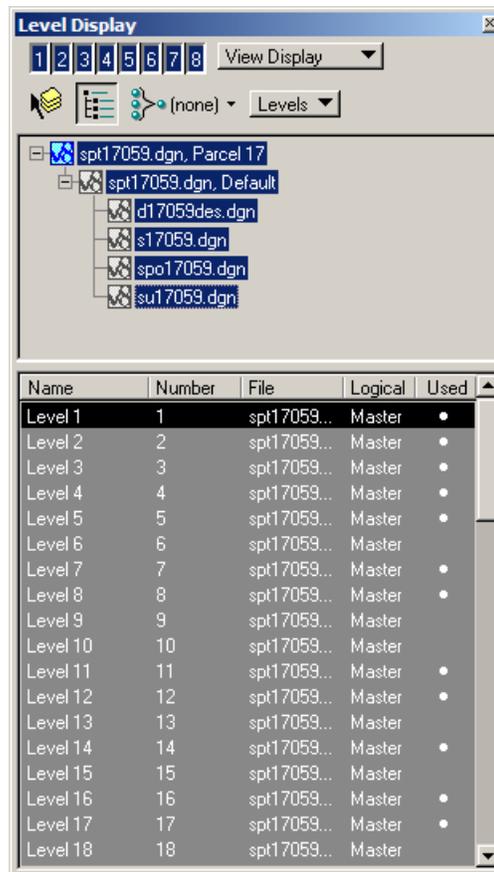


 **REMOVING UNWANTED LEVELS**

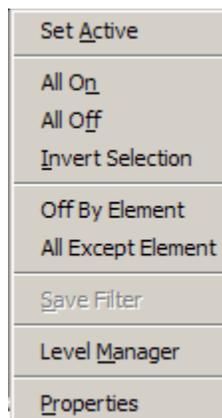
1. Now that the plat is located and clipped the next step is to turn off any unwanted levels. Open the Level Display dialog.



- Highlight all of the files listed in the file window including all of the reference files.

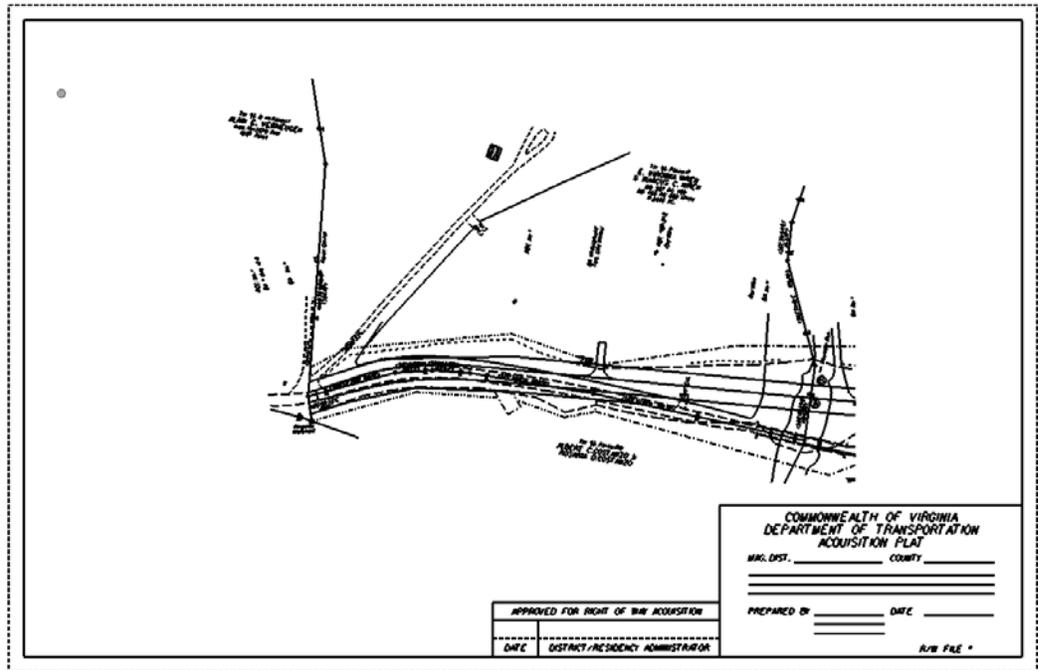


- Right-click in the level portion of the dialog and select the option to turn off levels by selection. *Off By Element*.



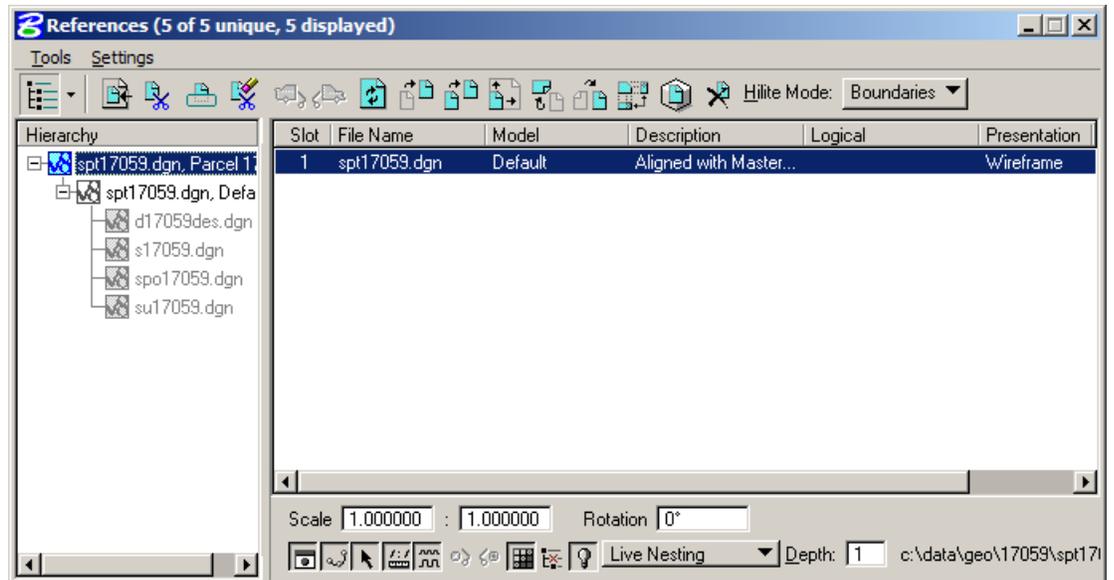
- Begin selecting the various graphical elements that should not be displayed in the final plat.

- When completed the plat should look similar to the one below.



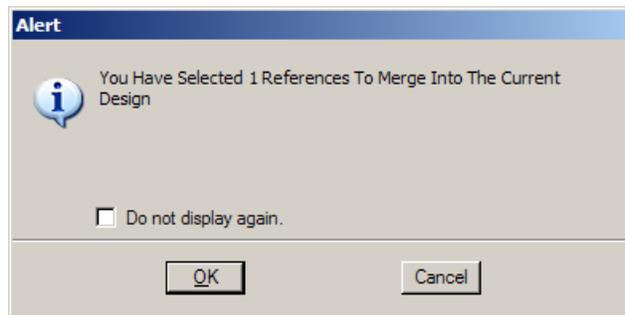
MERGING REFERENCE FILES

- Now that the reference files have been clipped the next step is to **Merge** the graphics into the Plat model. From the **Reference File Manager** select **Tools > Merge into Master**.

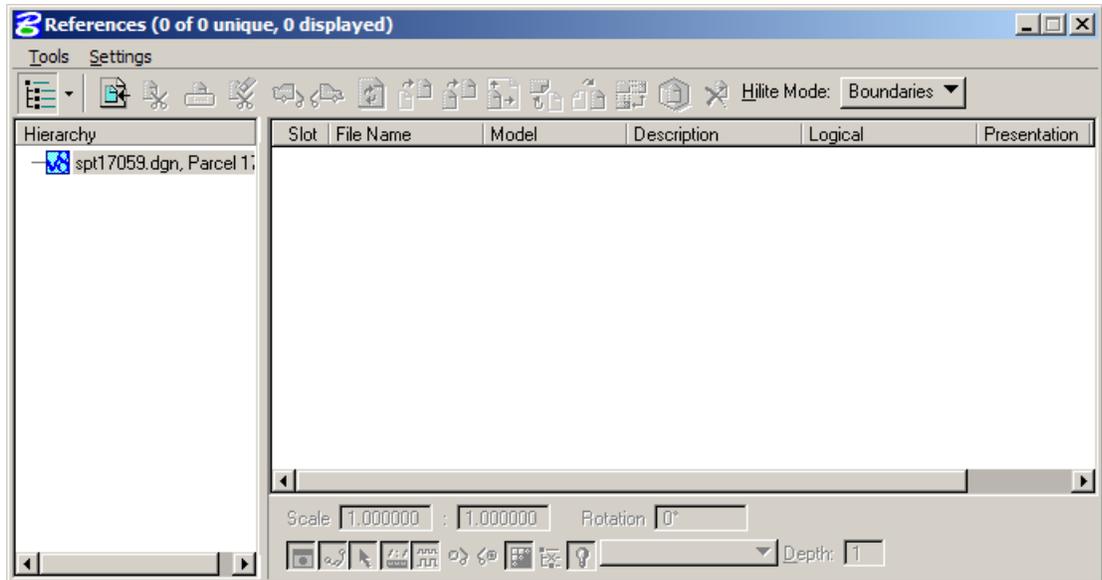


- Click a data point in the MicroStation view to select the view.

3. Click OK on the following dialog.



4. Notice now that there are no longer any reference files attached.



CLEANUP

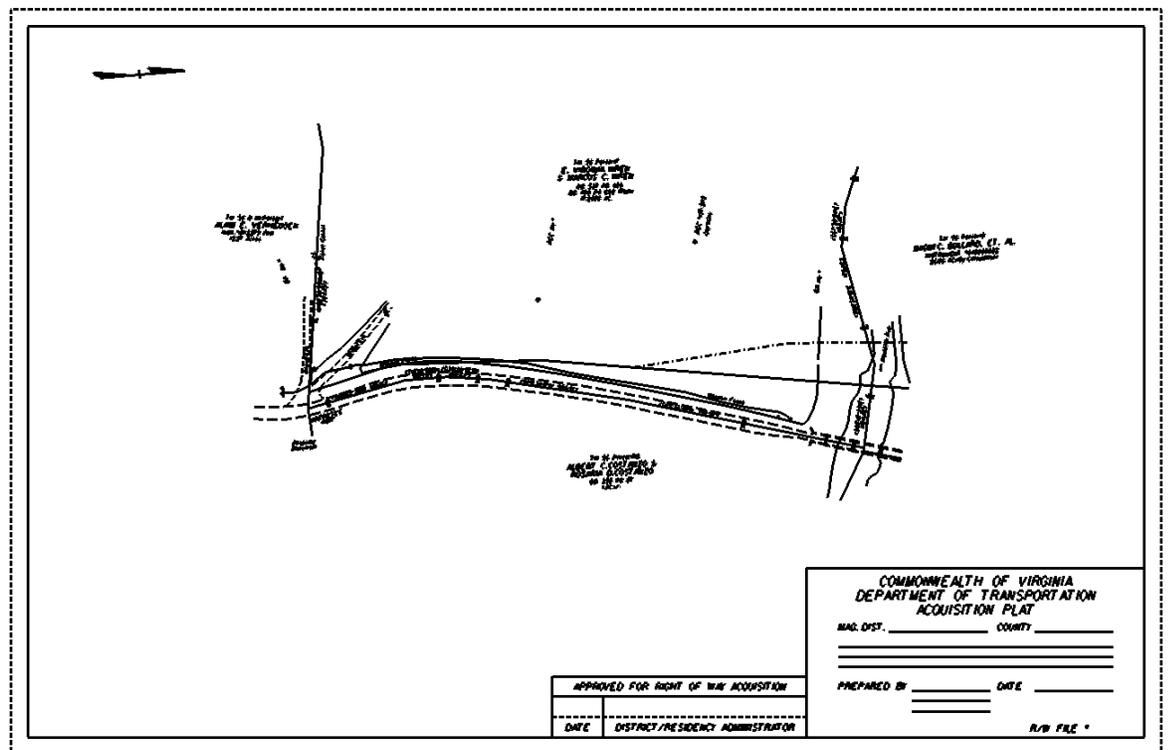
The next step in preparing the plat for recording is to remove any unwanted elements. This would include features unnecessary or unwanted that may clutter the plat including design features, topographic features and labeling. It may also be necessary to move some elements to different locations to clean up the plat.

This can be accomplished by using any of MicroStations Modify, Manipulate and Delete tools along with level display if desired.

The main features to retain on the plate are:

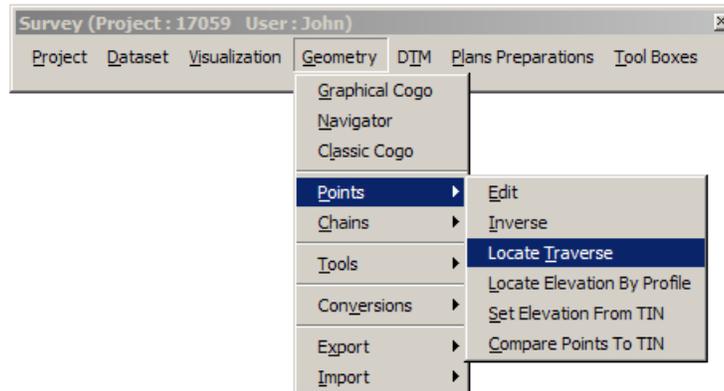
- Roads
- Property
- Entrances
- Fences
- Streams/Creeks
- Utilities

Once completed you should end up with a plat that resembles the one below.

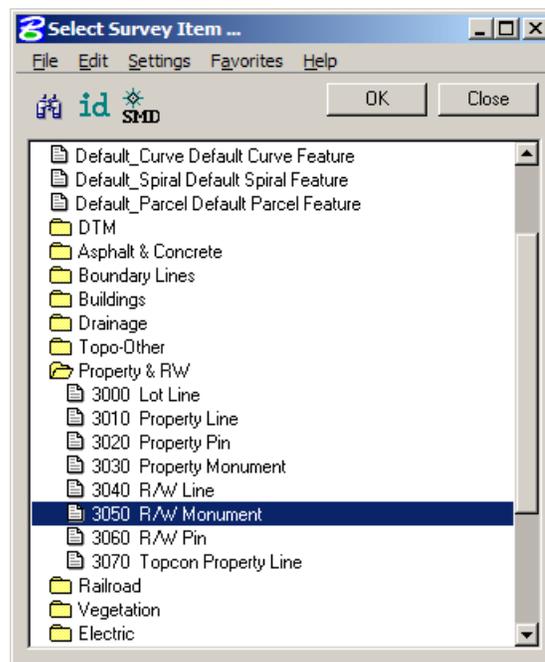


COMPUTING RIGHT-OF-WAY

1. Open GEOPAK Survey. *Applications > Survey > Survey.*
2. Open the project 17059.
3. Select *Geometry > Points > Locate Traverse.*



4. Before locating any points, select the *Browse* button from the main *COGO* dialog and set the feature to *3050*.



- Enter the information as shown below to store point **D600** as the first R/W point.

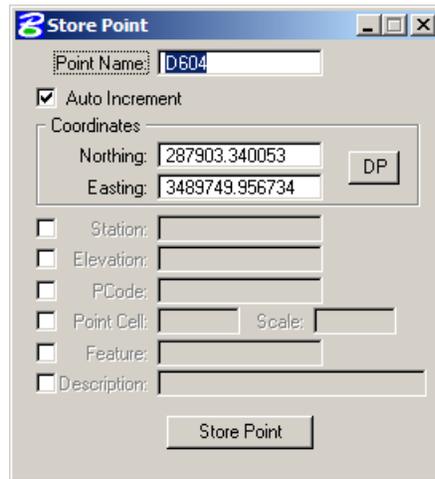
- Continue to store the remaining R/W points as shown in the table below.

D600 TO D601	N 13 28' 40.9" W	129.27'
D601 TO D602	N 03 13' 36.4" E	219.90'
D602 TO D603	N 09 20' 57.5" E	490.30'

- Review the points in the *Navigator* when complete.

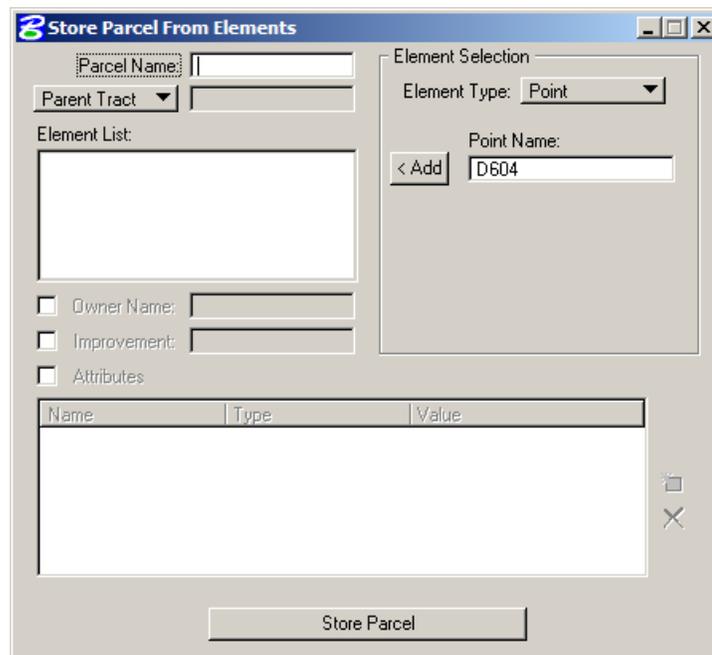
Name	Feature	Northing	Easting	Elevation
D500	3020	287473.3980	3489388.5932	0.0000
D501	3020	287418.7851	3489769.1849	0.0000
D502	3030	287421.6437	3489810.1552	0.0000
D503	3020	287565.0489	3489739.9343	0.0000
D504	3020	287626.2988	3489740.0730	0.0000
D505	3020	287688.2842	3489748.9652	0.0000
D506	3020	287888.6556	3489796.4020	0.0000
D507	3020	288060.3300	3489847.0155	0.0000
D508	3020	288232.0045	3489897.6291	0.0000
D509	3020	288257.9422	3489775.9026	0.0000
D510	3020	288224.4573	3489599.5739	0.0000
D511	3020	288235.8054	3489537.1266	0.0000
D512	3020	288110.9996	3490107.3054	0.0000
D513	3020	288032.4799	3490242.2405	0.0000
D514	3020	287405.4657	3489803.1816	0.0000
D515	3020	287295.1771	3489766.1803	0.0000
D600	3050	287422.2068	3489745.3391	
D601	3050	287547.9166	3489715.2099	
D602	3050	287767.4680	3489727.5876	
D603	3050	288251.2550	3489807.2383	

8. On the main *COGO* dialog turn the *Feature* option *OFF*.
9. Click the *Add Element* icon on the *Navigator*.
10. Toggle *OFF* the *Feature* option on the *Store Point* dialog and store the additional three points for the permanent drainage easement by using the *DP* button.



STORING PARCELS IN COGO

1. If COGO is not already open the from the main Survey menu bar select *Geometry > Classic COGO*.
2. From the COGO pulldowns select *Element > Parcel > Store*.



3. Provide a Parcel name for the take in the dialog. (*RWI*)
4. Place cursor in the *Element List* window of the dialog.

- Graphically click on each point that makes up the right-of-way take as shown below.

Parcel Name: RW1

Parent Tract: [Dropdown]

Element List:
D501 D600 D601 D602 D603 D508
D506 D505 D504 D503 D501

Element Selection
Element Type: Point
Point Name: D604
< Add

Owner Name: [Text]
 Improvement: [Text]
 Attributes

Name	Type	Value

Store Parcel

- Toggle on the *Owners Name* and type in *Wren*.

Parcel Name: RW1

Parent Tract: [Dropdown]

Element List:
D501 D600 D601 D602 D603 D508
D506 D505 D504 D503 D501

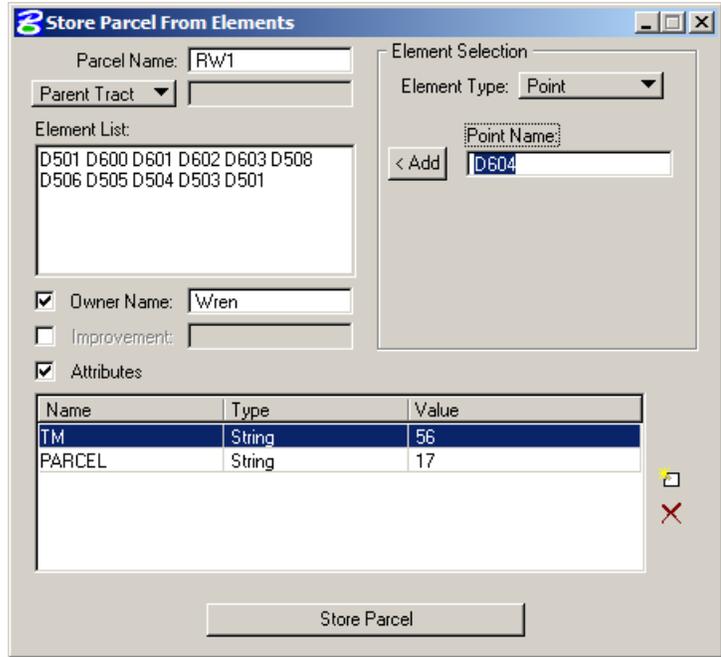
Element Selection
Element Type: Point
Point Name: D604
< Add

Owner Name: Wren
 Improvement: [Text]
 Attributes

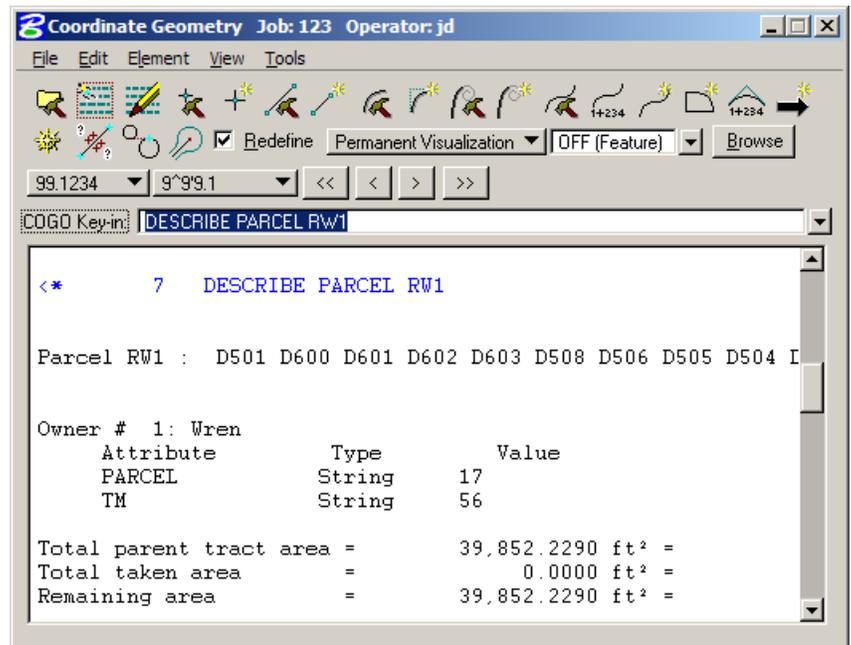
Name	Type	Value

Store Parcel

- Toggle on the *Attributes* option and provide the following attributes by clicking on the *Add* icon to the right side of the window.



- Click the *Store Parcel* button.
- Describe the parcel in *COGO* and review.



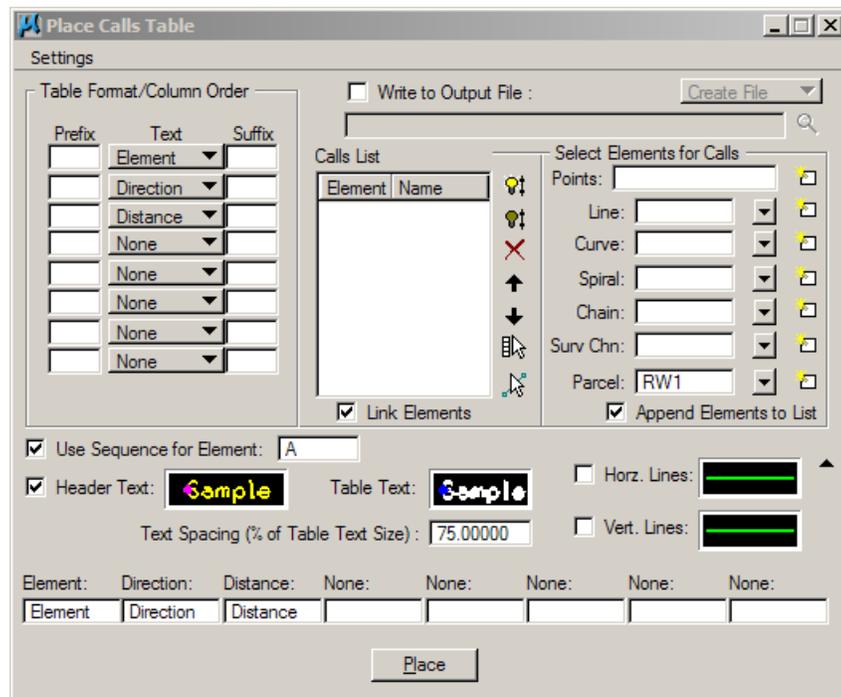
- Repeat this process by storing a separate parcel for the *Permanent Drainage Easement*.

PLAT PREPARATION TOOLS

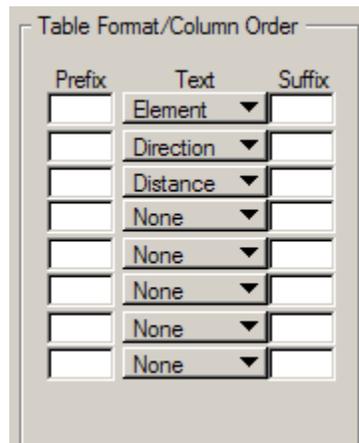
GEOPAK provides a number of tools to facilitate the Plat Preparation process. These tools provide computed text inserts for call tables as well as labeling options with smart labels.

CREATING CALL TABLES

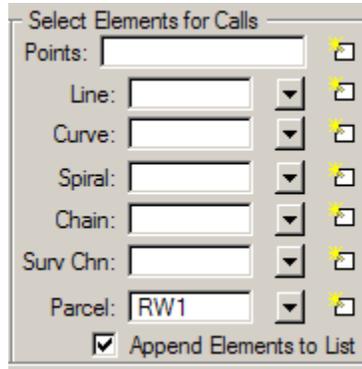
1. While still in the *Parcel 17* model select from the *Survey* main menu bar *Plans Preparation > Place Call Tables*.



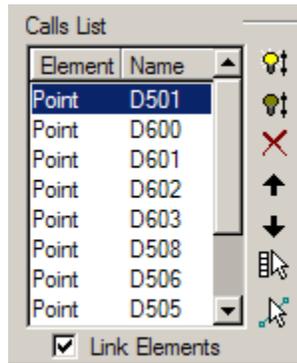
2. On the left side of the dialog set the toggles for the *Table Format/Column Order* section as shown below.



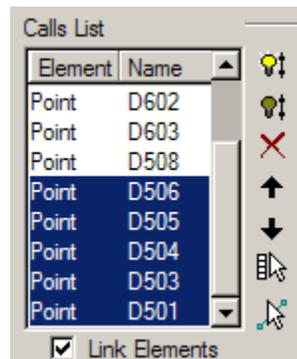
- Now move to the right side of the dialog and select the *Parcel* option in the *Select Elements For Calls* portion of the dialog.



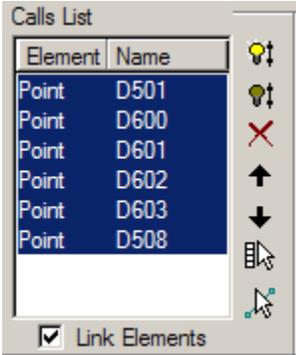
- In the Parcel field select the parcel to be labeled. (*RW1*)
- Click the icon to the right of the field to add it to the *Call List* window.



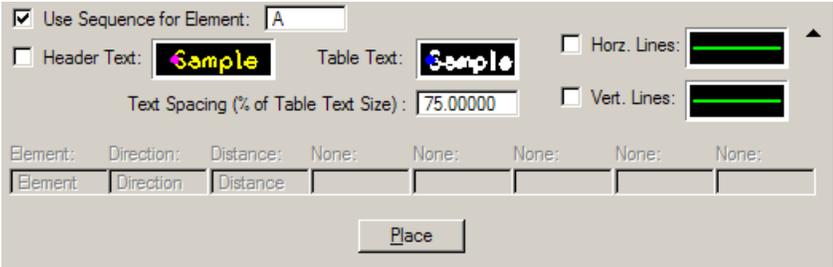
- Now sort the points to determine the range of the calls wanted in the table. In this case we will make two separate tables since the text is different for different portions of the table.
- Highlight the points from *D506 to D501* and click the *Delete* icon to remove from the list.



8. Highlight the remaining range of points in the list window.



9. Move to bottom portion of the dialog and complete as shown below.

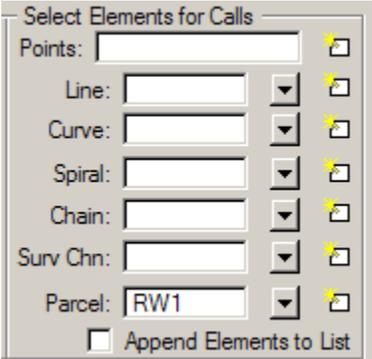


10. Click the **Place** button on the dialog and move the cursor to the MicroStation view.

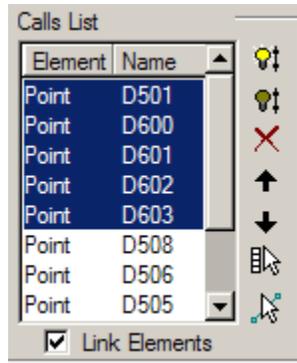
11. Place the calls in the lower left of the plat. You should now have a portion of the table as shown below.

A	N	81° 50' 3.0" W	24.0900
B	N	13° 28' 40.9" W	129.2700
C	N	3° 13' 36.4" E	219.9000
D	N	9° 20' 57.5" E	490.3000
E	S	77° 58' 38.5" E	92.4179

12. Next, return to the *Select Elements For Calls* portion of the dialog and toggle **OFF** the *Append Elements to List* option and click the icon to the right.

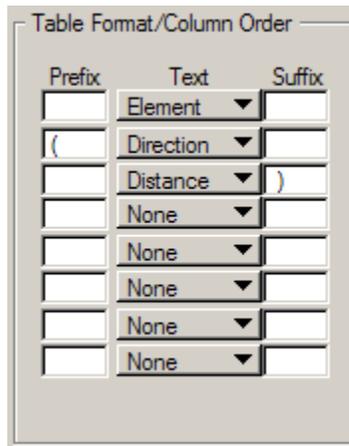


13. Next highlight the first range of points and *Delete* from the list.



14. Highlight the remaining points in the list.

15. Before placing the calls, edit the prefix and suffix for Direction and Distance as shown below.



16. Click the Place button and move the cursor to the bottom of the previous table and place the remainder of the calls.

A	N	81° 50' 3.0" W	24.0900
B	N	13° 28' 40.9" W	129.2700
C	N	3° 13' 36.4" E	219.9000
D	N	9° 20' 57.5" E	490.3000
E	S	77° 58' 38.5" E	92.4179
F	(S	16° 25' 36.2" W	357.9600)
G	(S	13° 19' 9.2" W	205.9100)
H	(S	8° 9' 49.5" W	62.6200)
I	(S	0° 7' 47.1" W	61.2501)
J	(S	11° 18' 32.8" E	149.1600)

PLACING TEXT WITHIN AN OBJECT

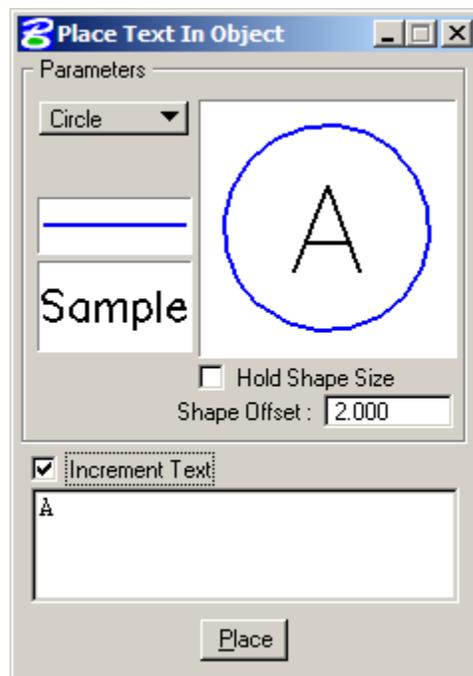
The Place Text on Object tool draws text within a specified object based on user-defined parameters.

To begin, select the desired shape from the list at the top of the dialog. The selected shape is reflected in the preview box. Next select the desired symbology of the object and text with two sample graphics (one for object and one for text.)

If the Hold Shape toggle is activated, the size of the first placed shape is utilized for all placements, even if the text is outside the object. If the toggle is not on, the shapes are adjusted so all text is placed inside the shape. The Shape Offset is the distance from the text justification to the shape. Setting this to a non-zero value provides for space between the text and object to avoid overlapping.

If the Increment Text is turned on, each data point on the screen increments the text by one number or letter.

1. To label the individual lines that corresponds to the line table select from the main Survey menu bar **Plans Preparation > Place Text In Object**.
2. Make the settings as shown below.



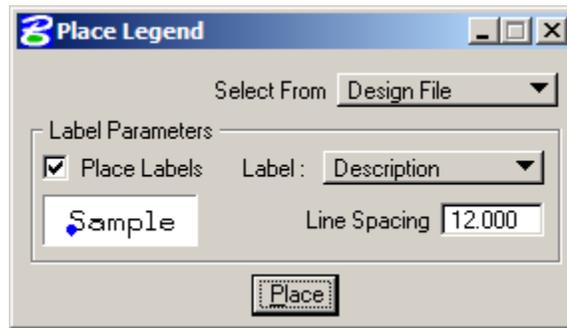
3. With the **Increment Text** toggle **ON** the text characters will increment automatically as you place the text.
4. Click the Place button and place the characters clockwise around the right-of-way.

PLACE LEGEND

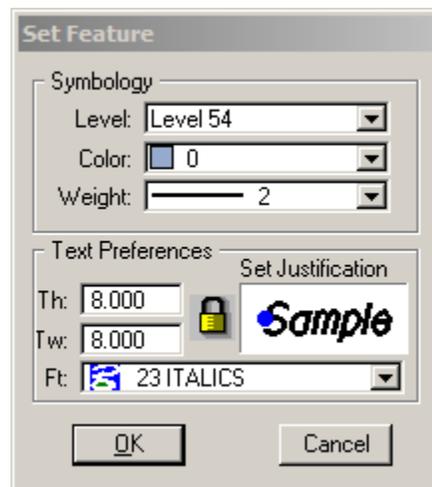
The Place Legend Tool enables the surveyor to place a legend comprised of all survey features located within the current MicroStation design file.

The file is scanned, the legend is developed, and the user is prompted for a data point to define the upper left corner of the legend. Note the data point is not the actual corner, but a point between the symbol and label. When placed, the entire legend is a graphic group for easily manipulation and deletion.

1. From the main Survey menu bar select **Plans Preparation > Place Legend**.



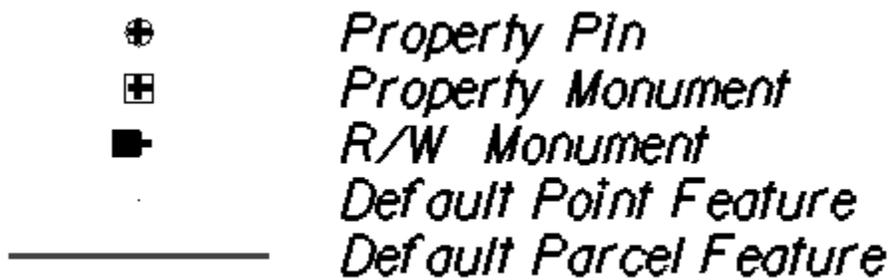
2. Double click on the **WYSIWYG** portion of the dialog to set the text parameters and set as shown below.



3. Click **OK**
4. Make the remaining settings in the dialog as shown below.



5. Click the ***Place*** button and move the cursor to the MicroStation view and place the legend.
6. You should now have a legend as shown below.



PLAN VIEW LABELING

INTRODUCTION

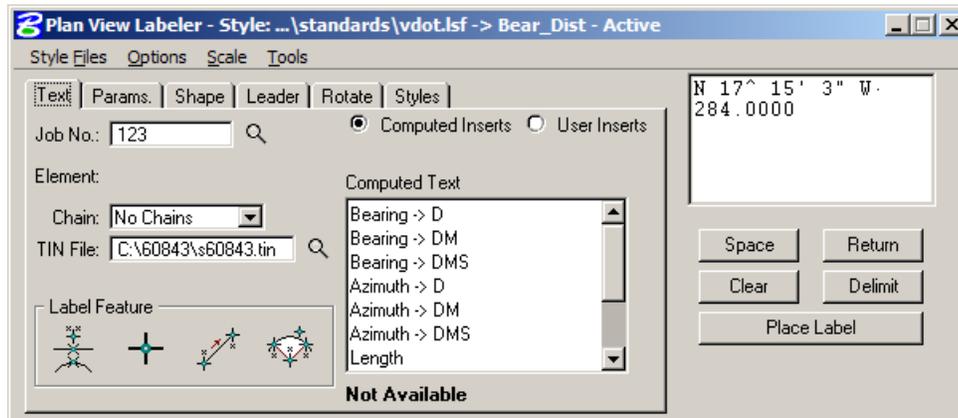
GEOPAK's labeling tools allow a user to place "smart" labels in a MicroStation drawing. These labels have the ability to calculate XYZ coordinates, station, offset, direction, length, radius, degree of curvature, etc. of the associated element.

ACCESSING THE PLAN VIEW LABELER

The Plan View Labeler can be accessed by selecting *Plans Preparation > Plan View Labeling* from the main Survey Menu Bar.

PLAN VIEW LABELING

When the Plan View Labeling icon is selected, the dialog depicted below is displayed.



The label to be placed is displayed in the box on the right side of the dialog as shown above. The Space button places a space in the label at the cursor position. The Return button starts a new line of text. The Clear button starts a new label. The Delimit button places a line above or below a line of text. The Place Label button attaches the label to the cursor for placement in the drawing.

The user can select the various tabs to define / modify the label appearance.

TEXT

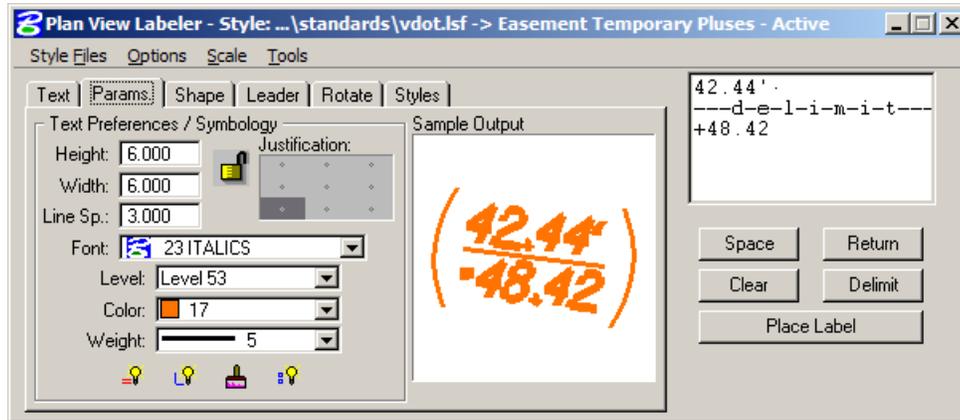
For data to be computed, the job number and the chain need to be selected. If elevations are to be calculated, a TIN file needs to be chosen.

The Computed Inserts are items that GEOPAK has the ability to calculate for the chosen item. The list of Computed Inserts changes with the type of element that is chosen. If a line is chosen, the list of Computed Inserts will show inserts of bearing, and length. If a curve is chosen the list of Computed Inserts will change to show inserts of radius, curvature, chord length, etc.

The User Inserts are inserts that a user may use on a regular basis. This list can be customized for a specific user's needs.

The Identify Element button allows the user to choose the element to use for calculations in the label. The Data Point button will let the user pick a specific point to calculate the coordinates, station, or offset for.

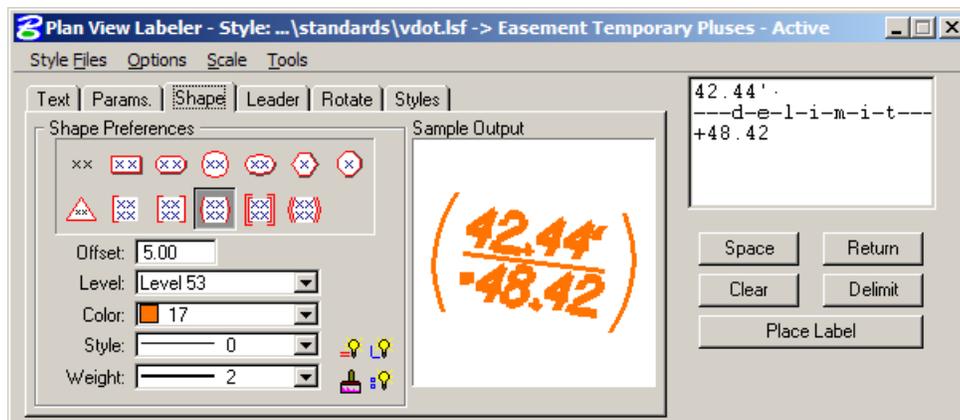
PARAMETERS



The **Parameters** tab enables the user set up the text size and symbology for the label.

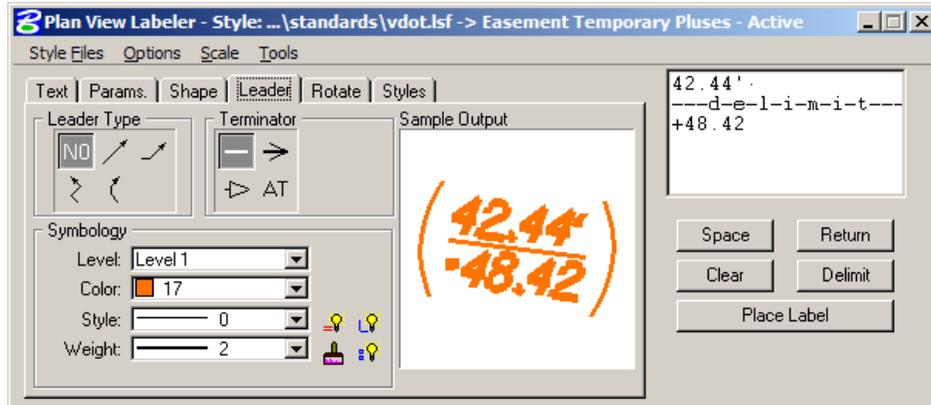
By Current sets the symbology to the current MicroStation settings. **By Element** allows the user to set the symbology by choosing a MicroStation element. **D&C Symbology** allows the user to set the symbology based on a item stored in the D&C Manager database. **Set All** sets the symbology for all elements in the label (text, delimiters, leader lines, etc.).

SHAPE



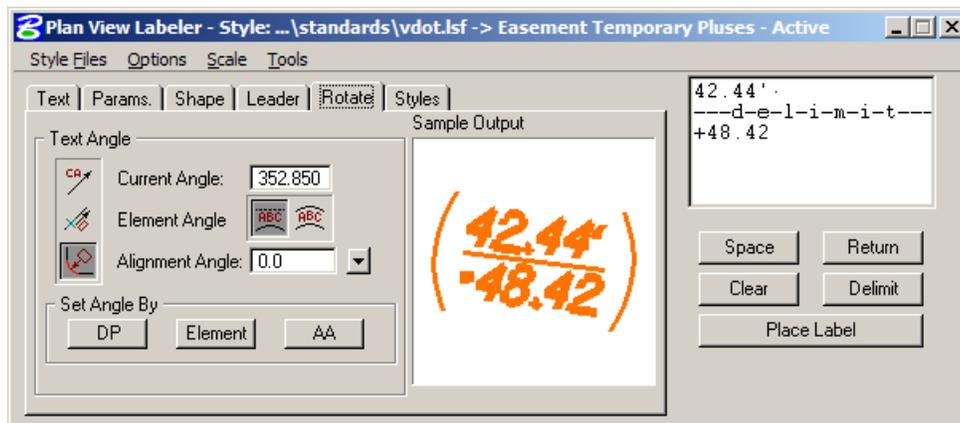
The Shape tab allows the user to place a shape around the label, and set the symbology for the shape.

LEADER



The Leader tab allows the user to attach a leader from the label to the point. Different leader types and terminators can be chosen. The active terminator can also be used.

ROTATE



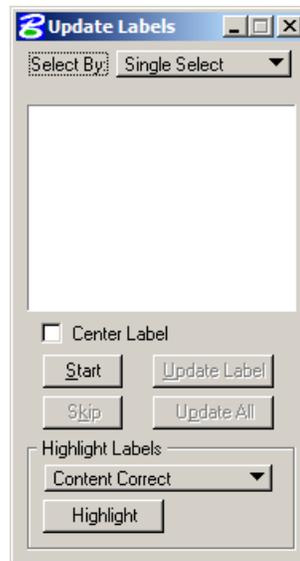
The **Rotate** tab allows the label to be rotated. The rotation can be determined from the current angle, the angle of the element, or an angle relative to the alignment. The angle can also be set by two data points (first data point set the location, next data point sets the angle) or the active angle.

Options > Label Viewer brings up a dialog that allows a user to view and place a label.



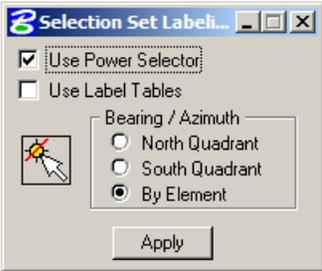
The **Scale > Scale Style** menu allows the user to choose a plan scale. All labels will be adjusted according to the plan scale. The user simply keys in a scale, and chooses a **Labeling Style**. The corresponding label will be placed at the correct size for the scale that was chosen.

Tools > Label Updater - The Label Update tool is a powerful tool for updating GEOPAK labels. When alignments are updated, TIN files modified, labels moved, etc., GEOPAK remembers the computed text information utilized in the placement of the original label. Therefore, the software can update the label based on updated data. The tool utilizes the dialog depicted below.



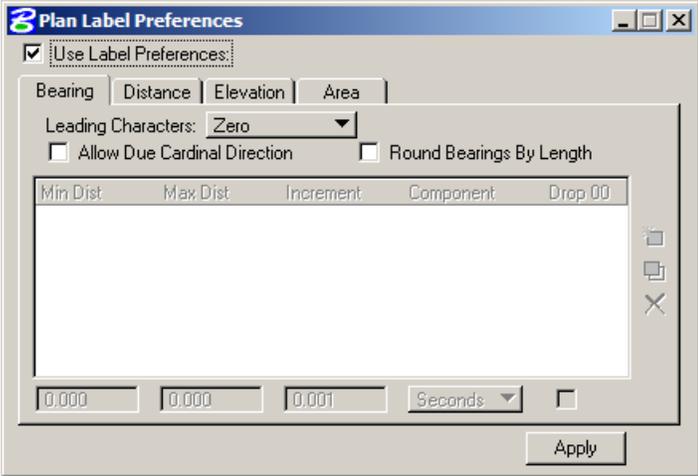
Tools > Selection Set Labeling - The Selection Set Label tool is a powerful tool for placing or updating labels within a selection set.

When the Selection Set Labeling tool is activated from the pulldown menu, the dialog depicted below opens.



Tools > Plan Label Preferences – Allows for the customization of the plan view labels. Options include Bearing, Distance, Elevation, and Area.

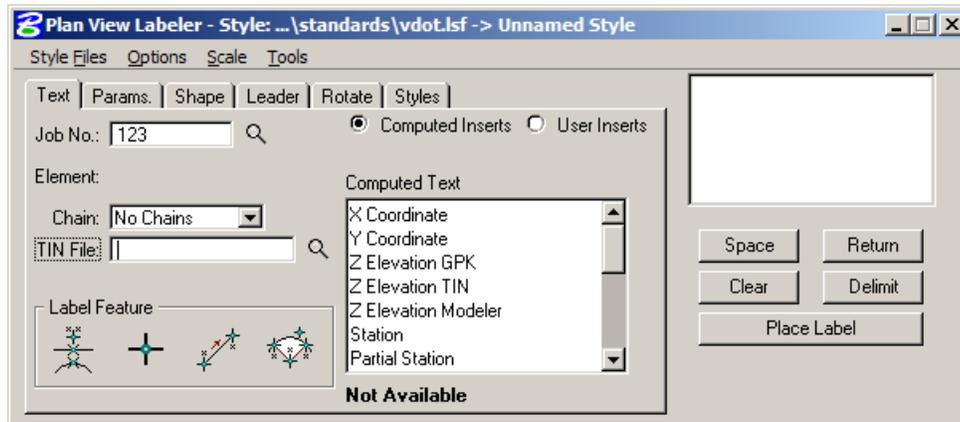
When the Plan Label Preferences tool is activated from the pulldown menu, the dialog depicted below opens.



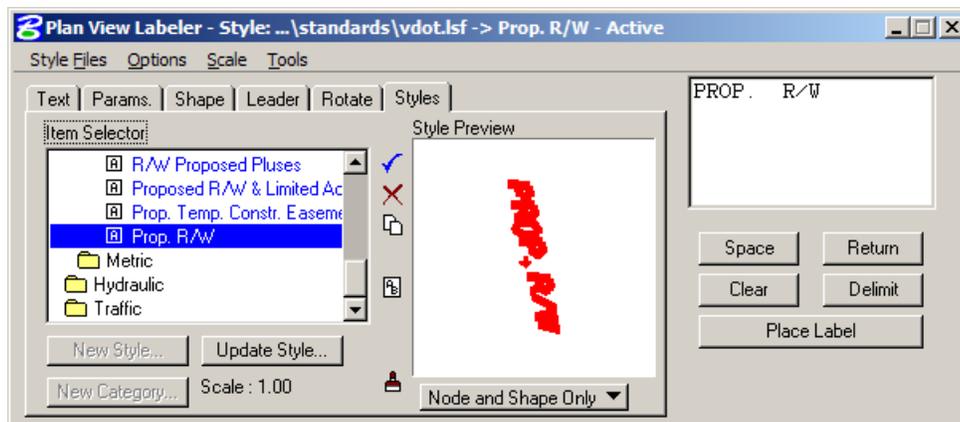
Lab Exercise: Labeling

 **ACCESSING THE LABELER - USING PREDEFINED LABEL STYLES**

1. While still in Parcel 17 Model select Plan View Labeling from the main Survey Menu Bar. (Plans Preparation > Plan View Labeling).

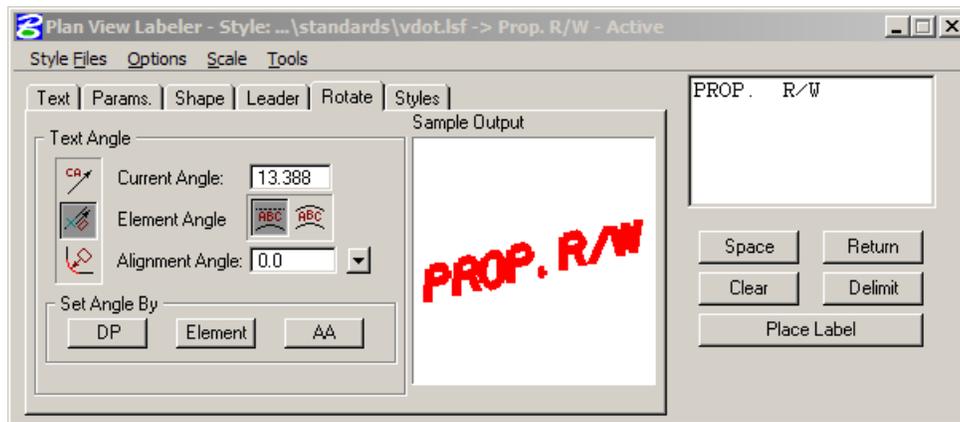


2. Select the *Styles* Tab.
3. Traverse with the Item Selector box to locate the following style:
Labels > Right Of Way > Imperial > 50 Scale
4. Next, double click the **Prop. RW** style.



5. Move back to the Rotate tab and click on the Element button.

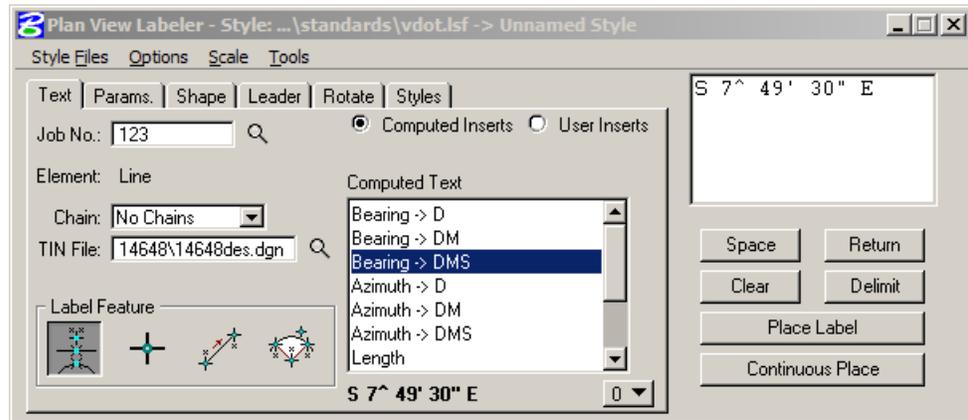
6. Identify the Proposed Right-Of-Way line in the MicroStation view.



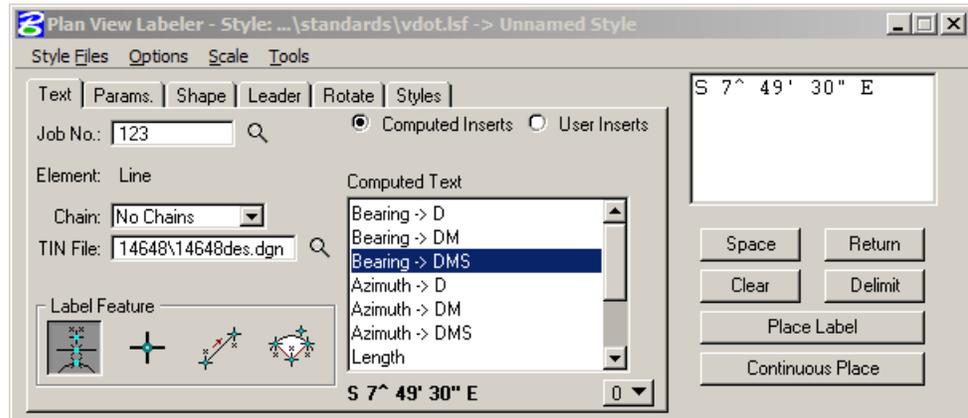
7. Notice the label is attached to the cursor at the correct rotation; Place the label by data pointing in the view.
8. Be sure to go to the **Leader** tab and set to **NONE** if no leader is required.

CREATING AND SAVING A NEW LABEL STYLE

1. Select the **Text** tab then click **Clear** below the label composition window.
2. On the **Plan View Labeler** dialog, click the **Select GEOPAK or MS Element** icon, then identify any of the lines representing the parcel and accept. The computed text inserts should now contain items such as **Bearing**, **Azimuth**, and **Length**.
3. Click on the **Bearing -> DMS** insert. This should show the current value below the Computed Text window in addition to a user definable toggle for the number of decimal places. Set this to **0**, then double click **Bearing -> DMS**.
4. In the **Composition Window** add parenthesis to the beginning and end of the bearing.

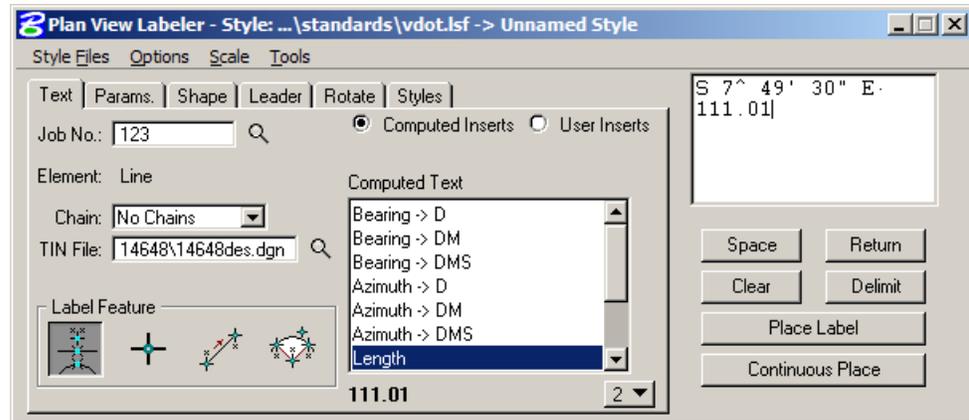


5. Click **Return** to start a new line for the label.



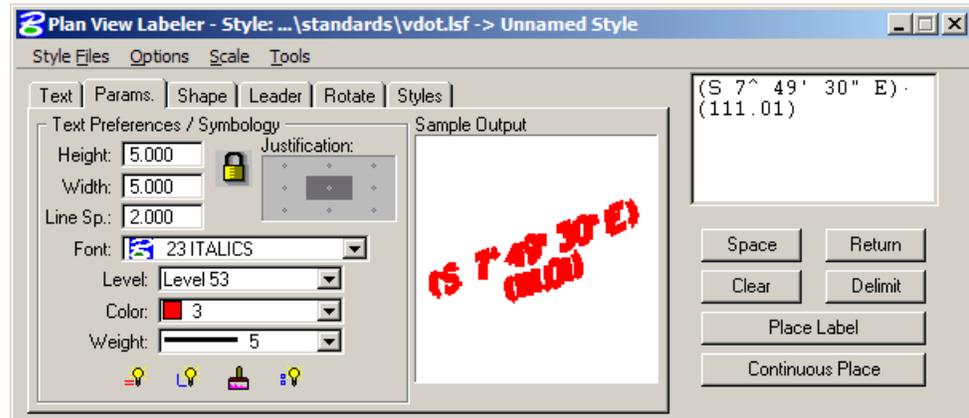
Note Your Bearing may be different depending on which MicroStation line you identified.

- Single click on the **Length** item, set its number of decimal places to **2**, then double click **Length**.



Note Your Distance may be different depending on which MicroStation line you identified.

- Add a set of parenthesis to the distance.
- Select the **Params.** Tab and set the Height, Width to 5 and Line Sp. to 2.0 and the Justification to Center-Center.



- Select the **Shape** tab, set the **Shape Preferences** to **No Shape**.
- Select the **Leader** tab and set the **Leader Type** to **NO Leader** and the set the **Terminator** to **No Terminator**.
- Click **Place Label**.
- Select the **Styles** tab.
- In the **Item Selector** window, double click **Labels** then double click **Line Labels**.
- Click **New Style**.
- Set the Style name to **Plat Label**.
- Click **OK** to save the style.
- Click **Style Files > Save** to update the **lsf** file.
- Exit MicroStation.

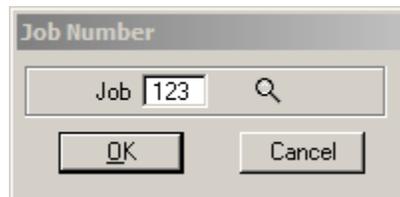
PLACING NOTES

INTRODUCTION

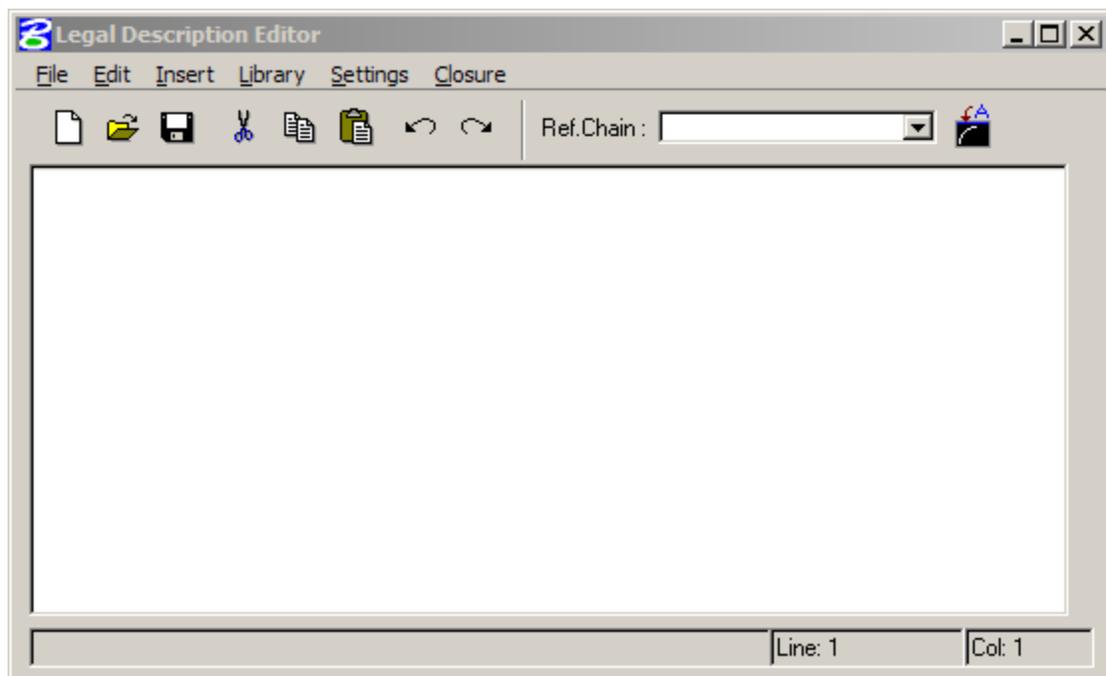
The *Legal Description Editor* is a powerful tool for the automated generation of notes and legal descriptions. Its power lies in the completely customizable terminology, styles, and preferences, all easily accomplished via dialogs.

ACCESSING LEGAL DESCRIPTION EDITOR

When the Legal Description Editor is accessed a dialog box prompting for the coordinate geometry database will appear like the one below.



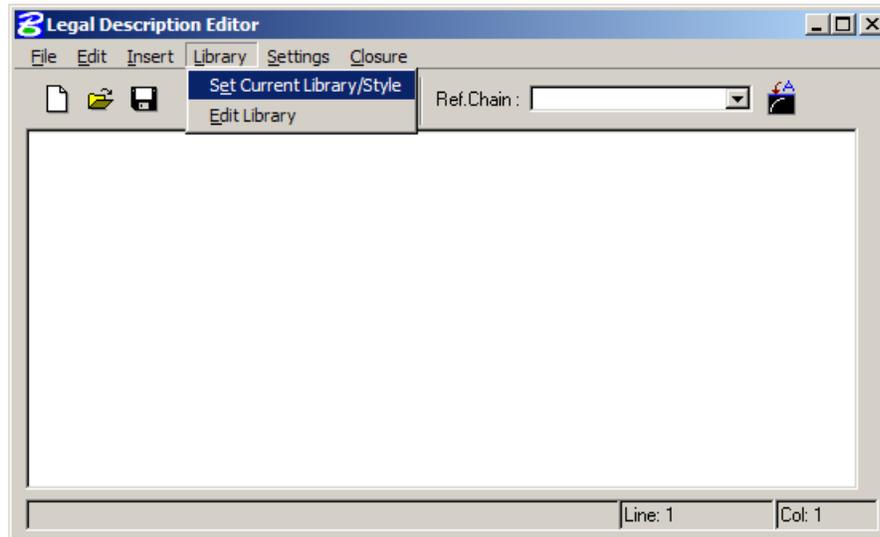
Once the desired job number is selected the main Editor dialog will appear.



This dialog has several pull-downs allowing for customization of the Editor and default settings for how descriptions will be written.

LIBRARY SETTINGS

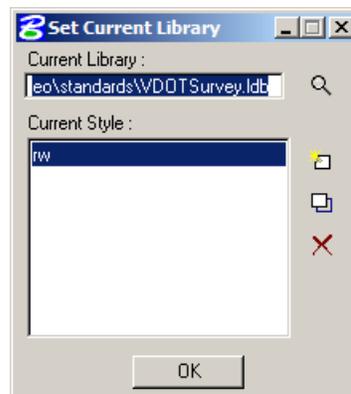
The Library Settings and the Library itself are without a doubt the most important part of the Legal Description Editor. The library provides a way for the user to establish default phrases and add customized phrases to a central location for recall at any time.



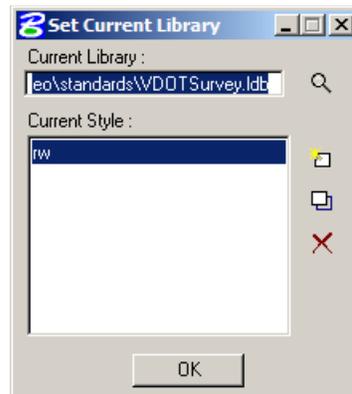
The first selection is the **Set Current Library/Style** option. If this is the first time this option has been selected you will be prompted to provide a **Style** name.



If this is not the first time this has been accessed and there is already a default or custom style name then you will be prompted with the following dialog where you can create a new style or select an existing one.



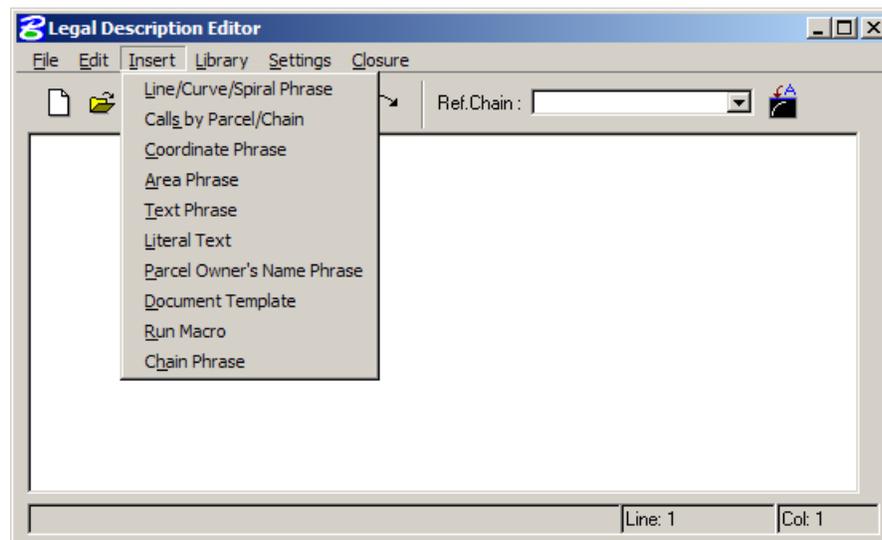
This allows the user to select the library from which to work from or to store defaults to. There is an option here to set various styles such as right-of-way, condemnations, etc. This provides the user with the flexibility to store and recall various styles depending on the type of descriptions that will be written.



INSERTING PHRASES

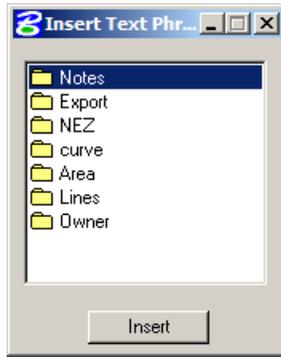
When the library has been set up and stored the user is ready for writing a legal description.

This is done by selecting from the *INSERT* pull-down.

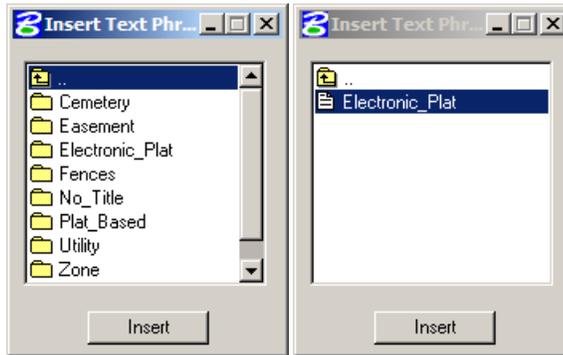


The user uses the insert option to select the desired type of phrase to insert. Once selected, dialogs will appear allowing for the selection of that particular type of phrase from the items that were saved in the library.

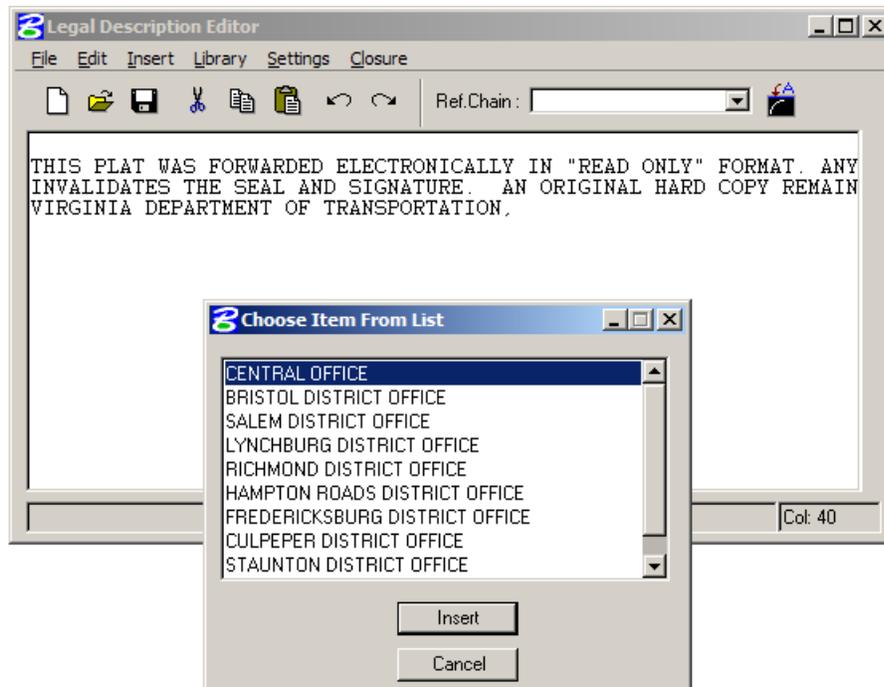
For example a **TEXT PHRASE** could be selected and the following dialog will appear.



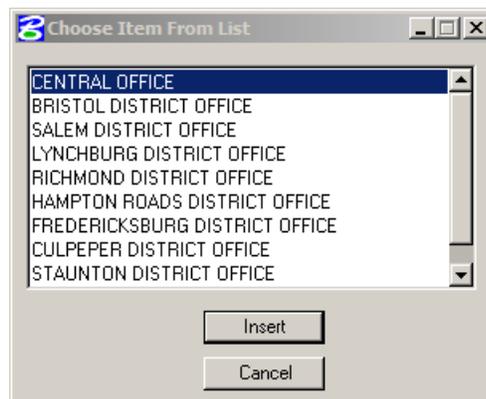
The user then selects the type of **TEXT PHRASE** such as **NOTES...** and then the following dialog appears allowing for the selection of the desired note.



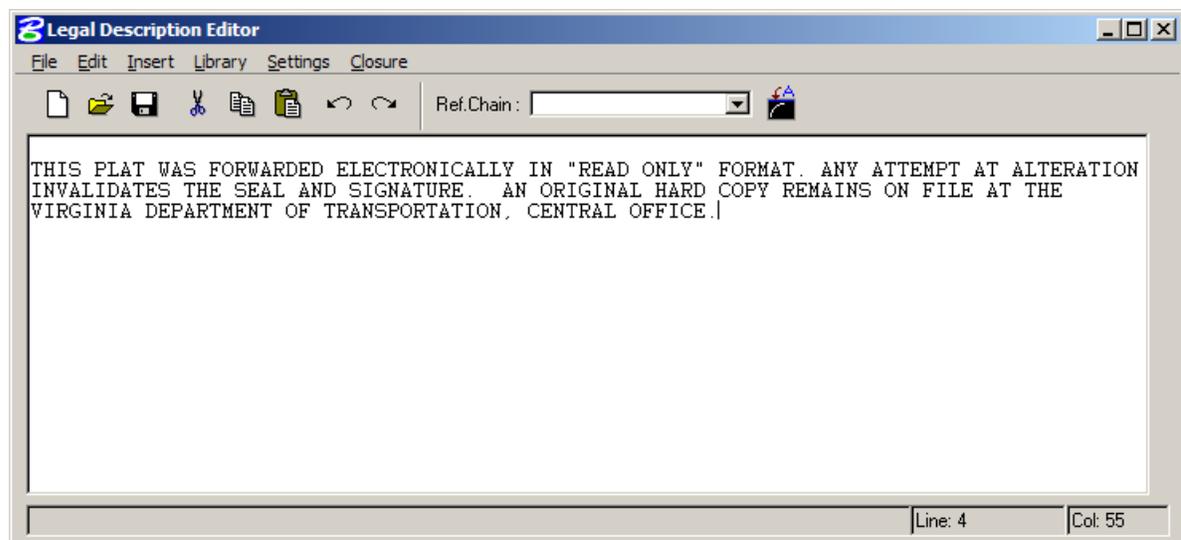
Once highlighted and the **INSERT** button selected, the note will be inserted into the description in its entirety. In this case part of the note is automatically placed in the description and then the user is prompted to provide some variable information.



In this case the user is prompted to select from a list of known options, (offices).



Here you can see the final product of inserting this one phrase.



Remember the above dialog is nothing more than an editor and you have the option of simply typing anything in it to supplement or modify what an insert has placed there.

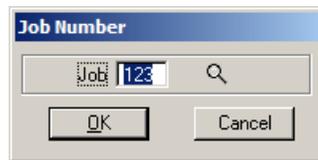
LEGAL DESCRIPTION EDITOR

SETUP OF LEGAL DESCRIPTION EDITOR

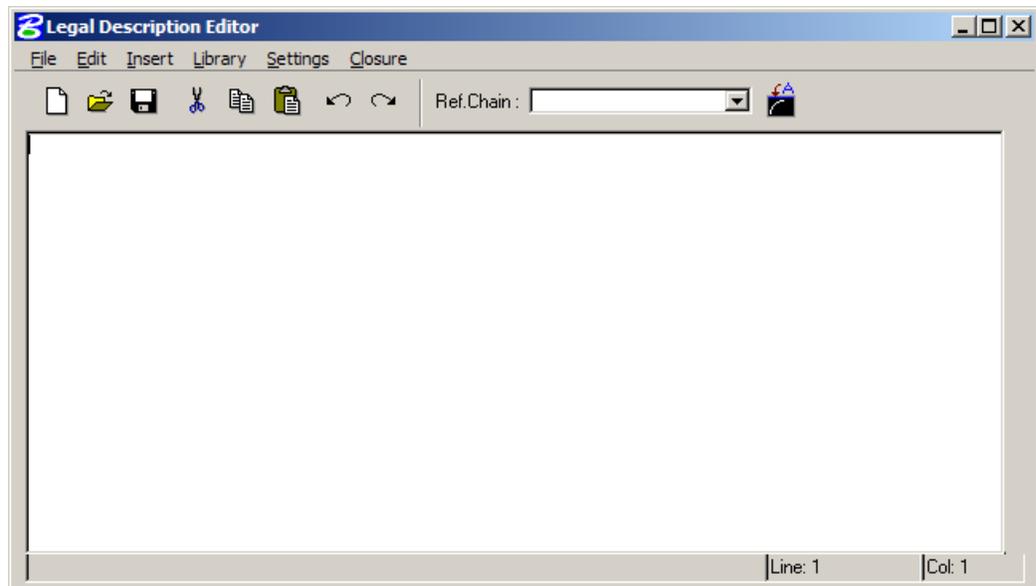
1. Access the *Legal Description Editor* from the following pulldown on the *Survey Menu* bar:



2. When the Legal Description Editor is accessed a dialog prompting for the coordinate geometry database will appear like the one below. Select the job (job123.gpk) for this project.

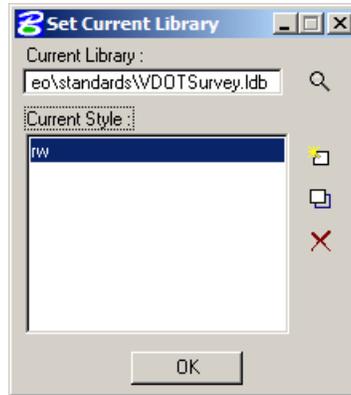


3. Once the desired job number is selected the main Editor dialog will appear.

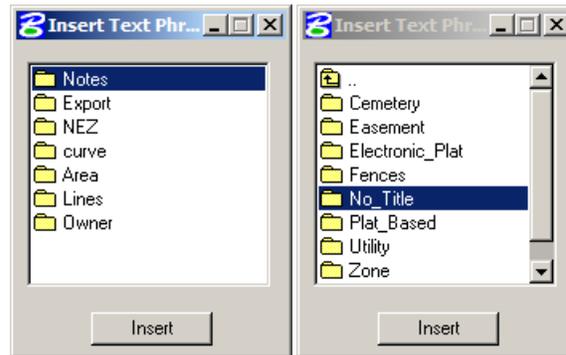


4. Set the Library by selecting *Library > Set Current Library*.

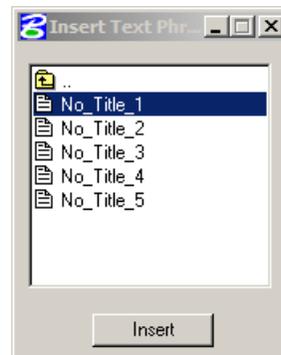
5. Make sure the VDOT library has been set and click OK.



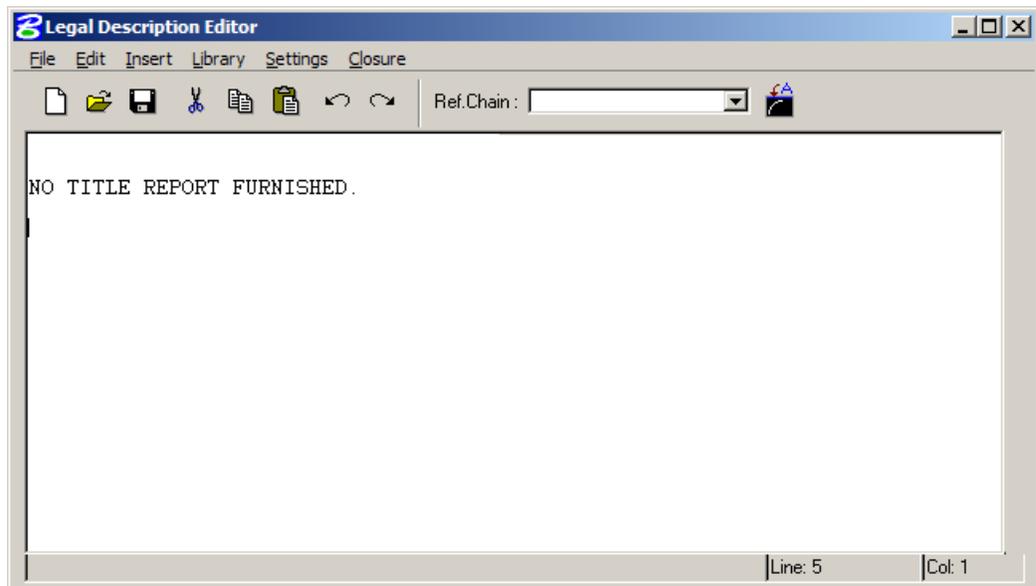
6. Select *Insert > Text Phrase*.



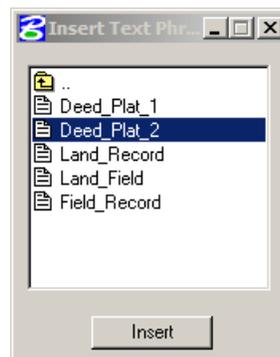
7. Double click on *Notes* and then *No_Title*.
8. Highlight *No_Title1* and click the *Insert* button.



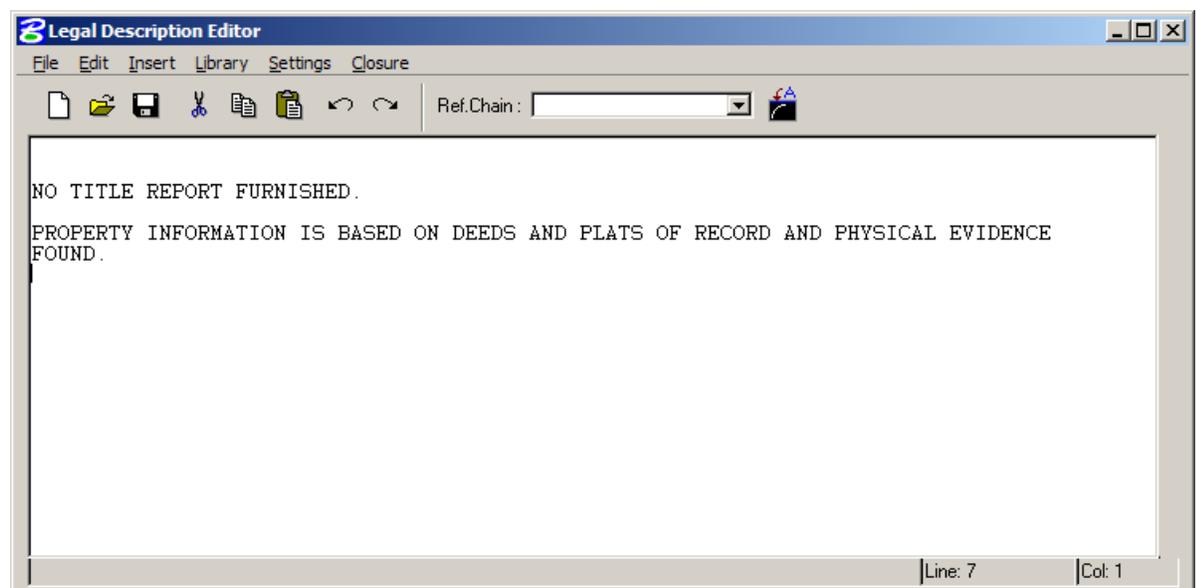
- Click **Enter** to perform a carriage return.



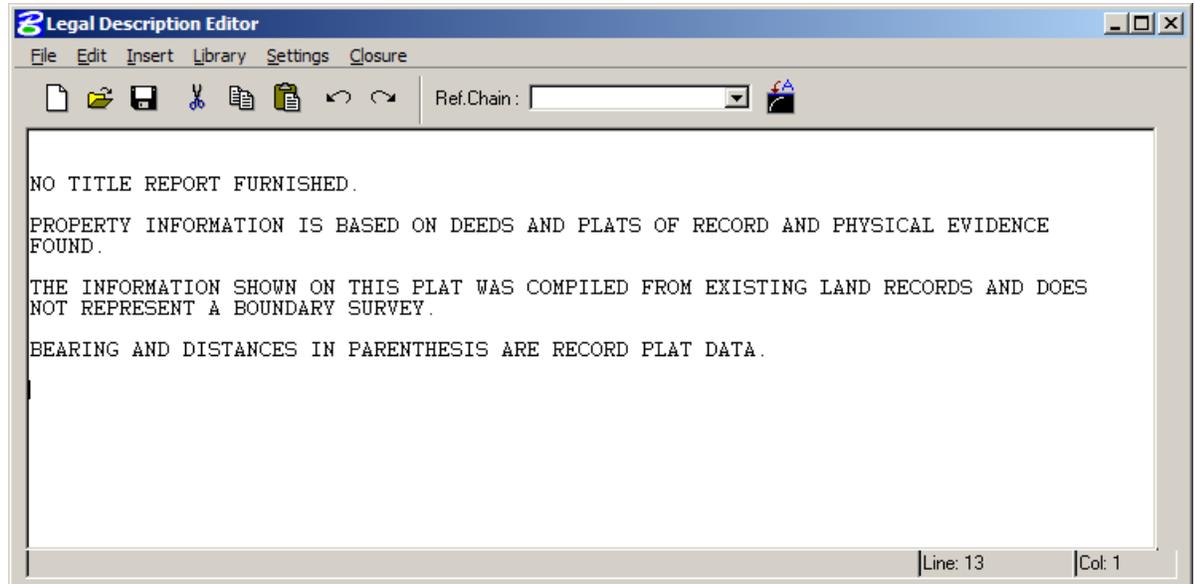
- Navigate to Plat_Based > Deed_Plat_2



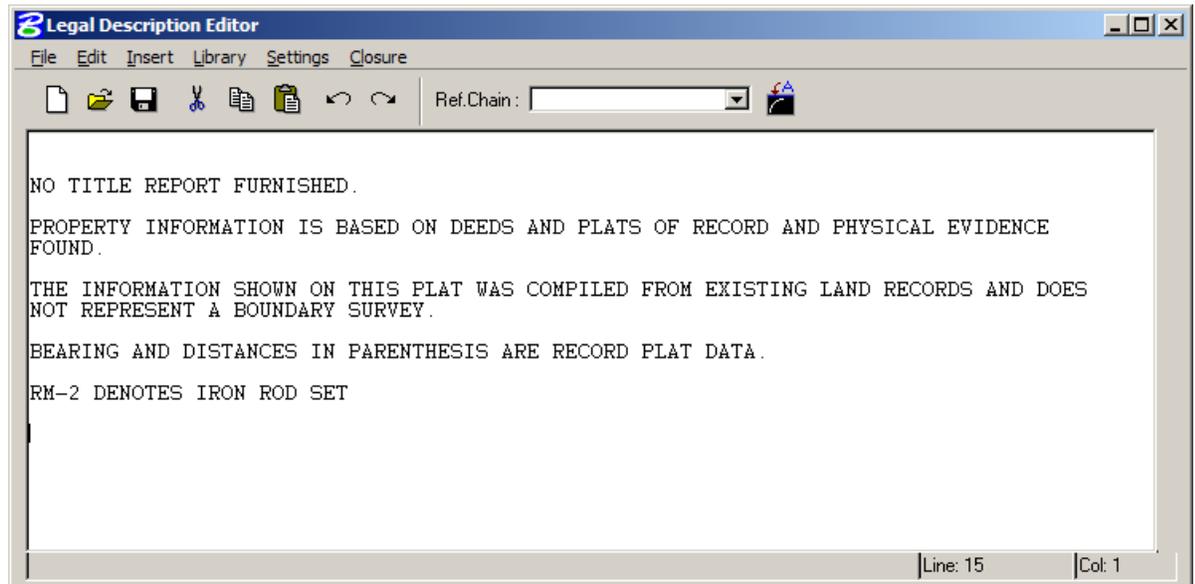
- Click Insert



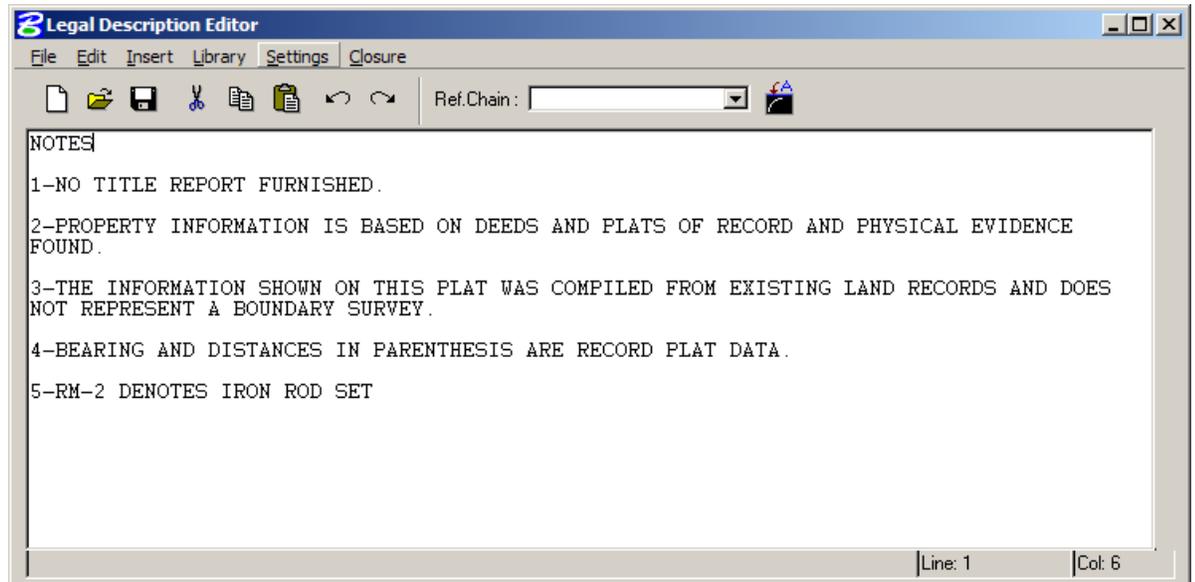
12. Navigate the *Notes* and place the remaining two notes in the text window.



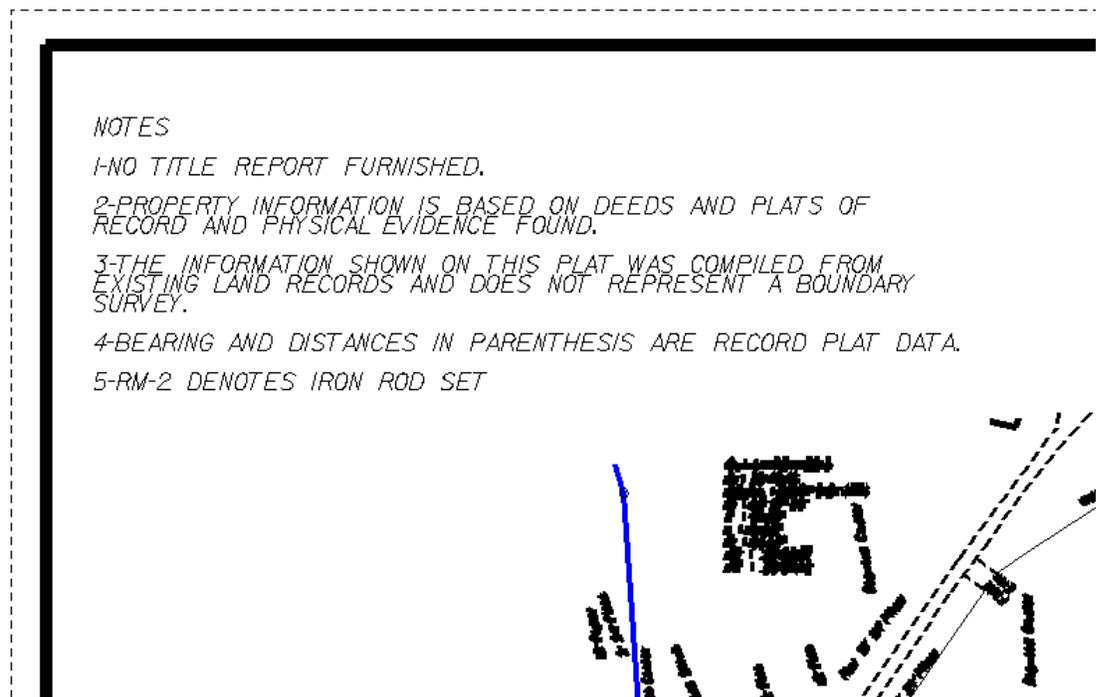
13. Create one more open line at the end and key-in the remaining note.



14. Now edit each and add numerical bullets to each.



15. Select the icon on the far right of the dialog and move the cursor to the screen to place the notes.



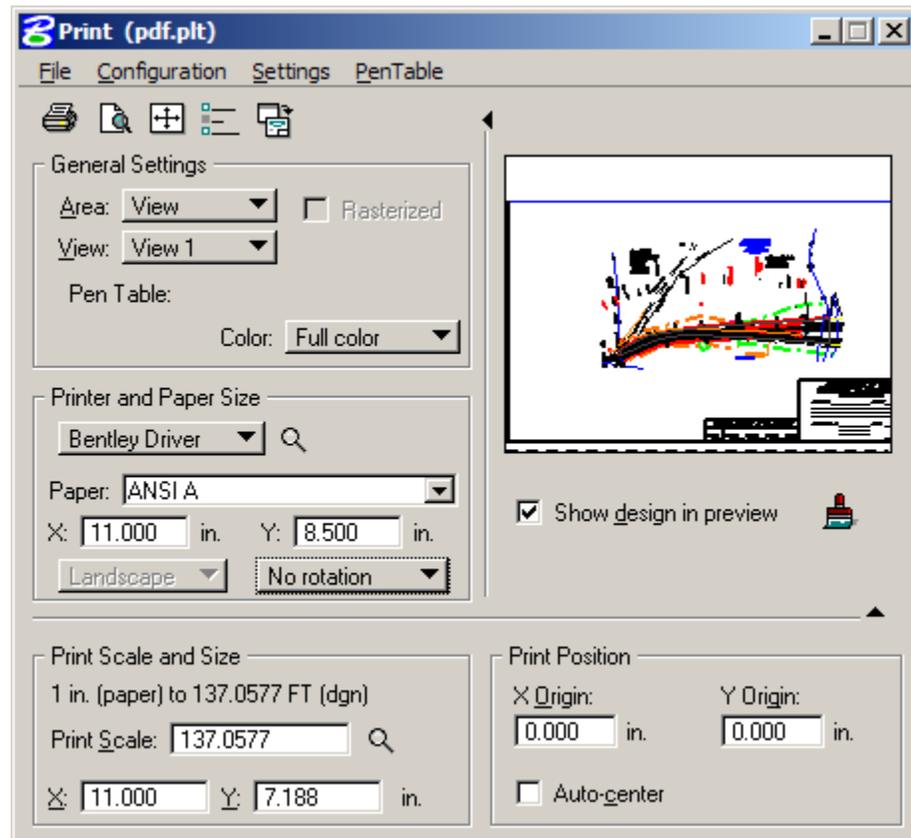
16. Text settings for the notes correspond to your current MicroStation text settings.

17. Close Legal Description Editor.

PLOTTING PLATS

MicroStation provides a wide range of options to print your design file using the print dialog. Once open several the most important thing is to verify you are printing using the correct driver.

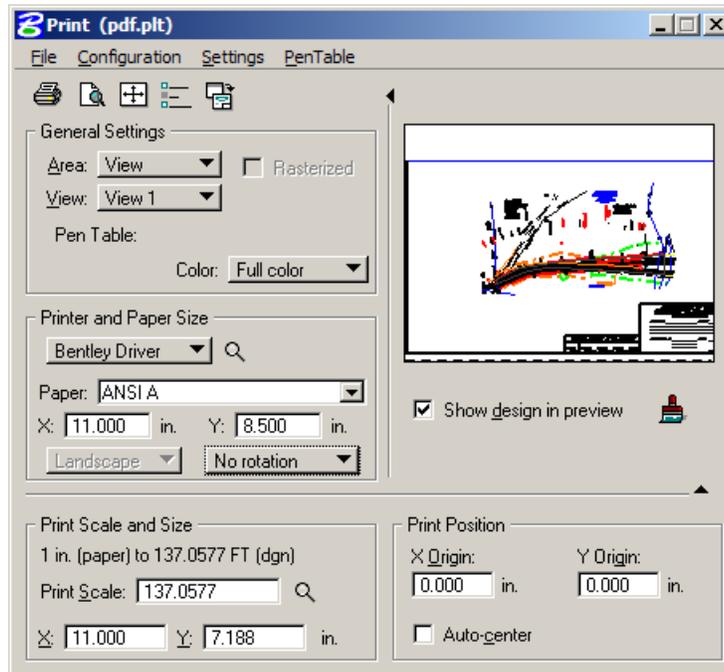
The dialog opens when File > Print is chosen. A Show Preview button to the right of the icon bar lets you expand the dialog box to display a preview image. A further Show Details button at the lower right corner of the preview image lets you expand the dialog box to display additional settings in the Print Size/Scale and Print Position group boxes. The title bar of the dialog box displays the name of the printer driver configuration (.pltcfg or .plt) file being used.



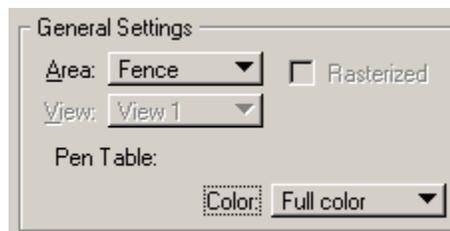
LAB EXERCISE: PLOTTING

 **PLOTTING A PDF**

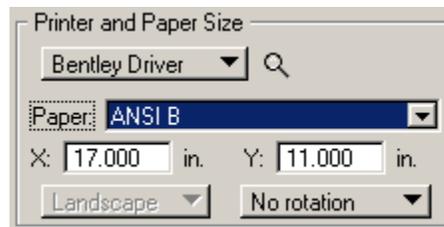
1. While still in the model *Parcel 17* select from the MicroStation main menu *File > Print*. This will invoke the Print dialog.



2. Place a fence around the clip line on the plat border.
3. In the *General Settings* change the *Area* toggle to *Fence*

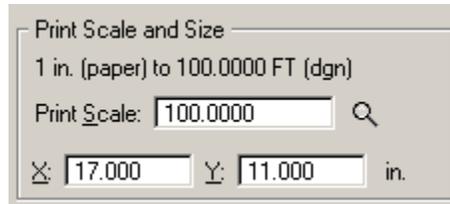


4. Next, in the *Printer and Paper Size* portion of the dialog change the first toggle to *Bentley Driver*.
5. Use the *Browse* icon to select the driver *pdf.plt*

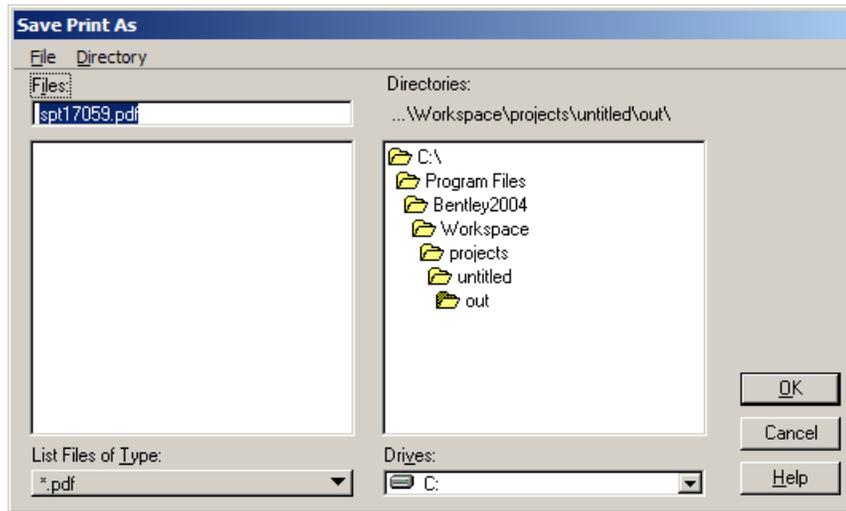


6. Set the *Paper* field to *ANSI B*

7. Lastly set the *Scale* in the lower portion of the dialog to **100**



8. Once complete select the print icon of **File > Print**.
9. When prompted, provide a file name to plot the pdf.



10. Finally open the pdf with Adobe and review.

