LAB 21 - Vicinity Map - Vector

Vicinity maps can be referenced to the title sheet. These maps can be in the form of vector files (CADD elements) or raster files (images).

The CDOT standard procedure is to use county maps that have been translated from GIS information, these maps can be found on the shared drive at: ***public******CADD County Maps***\. The county of interest should be copied to your project location drawings folder and can be attached as a reference file to the Title Map. The local map can be edited as desired without affecting the original.

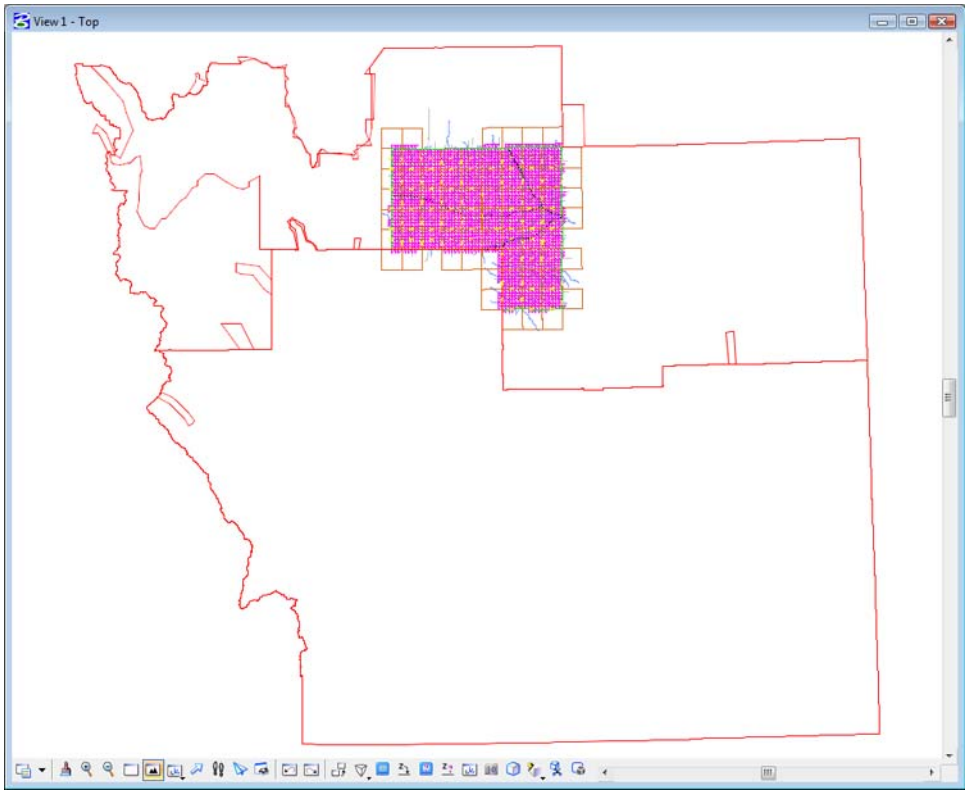
Chapter Objectives:

- Reference CADD County Map into Title Sheet
- Trim Vicinity Map reference file

For training purposes, a vicinity map has been stored in the ***References*** folder.

Review the vicinity map.

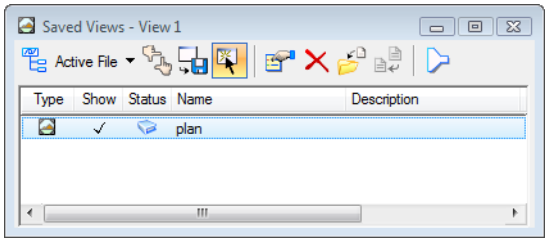
1. ***Open*** the MicroStation file **Elbert.dgn**
   this file is located in: **C:\Projects\12345\Design\Drawings\Reference_Files**



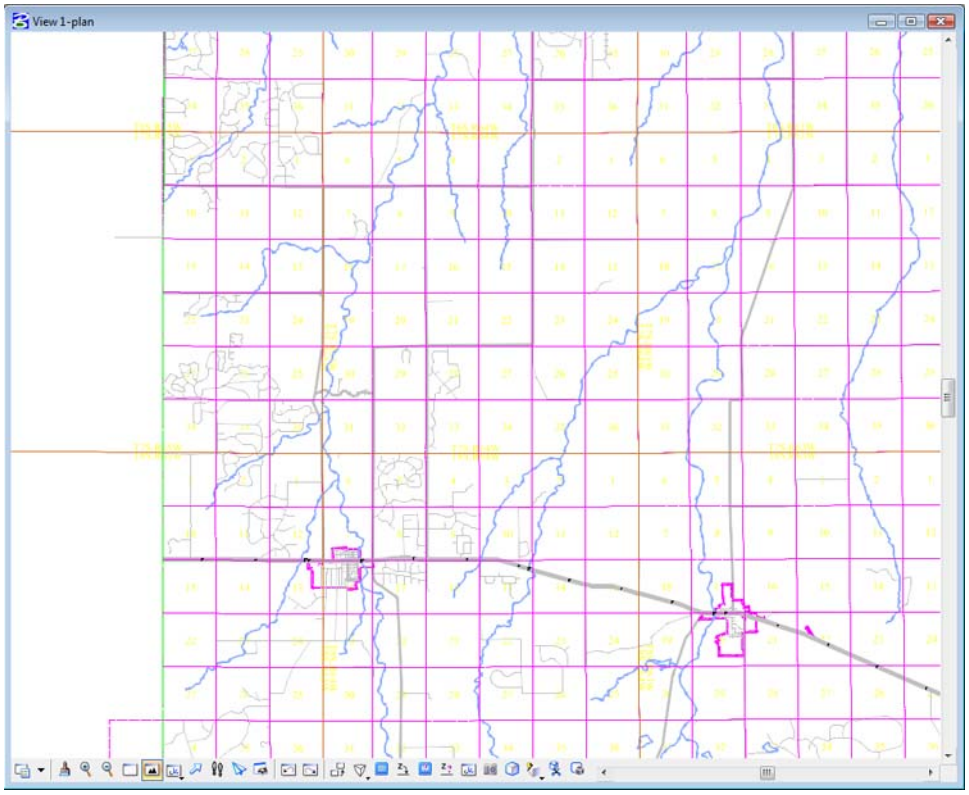
This file contains a Saved View to assist in attaching it as a reference file.

2. Select **Utilities > Saved Views** from the MicroStation pull-down menu.
3. **<D>** on the saved view by the name of ***plan***

4. **<D>** in the MicroStation view

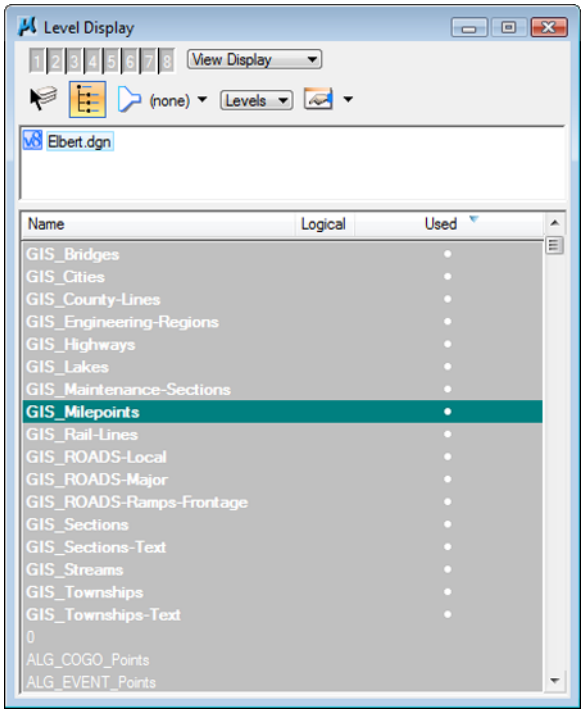


The MicroStation view updates to the limits of the saved view.



5. Use other MicroStation view commands to investigate the contents of the drawing.

Open the MicroStation **Level Display** dialog to investigate level stratification by choosing, **Settings > Level > Display**. Note all information resides on GIS_* levels.



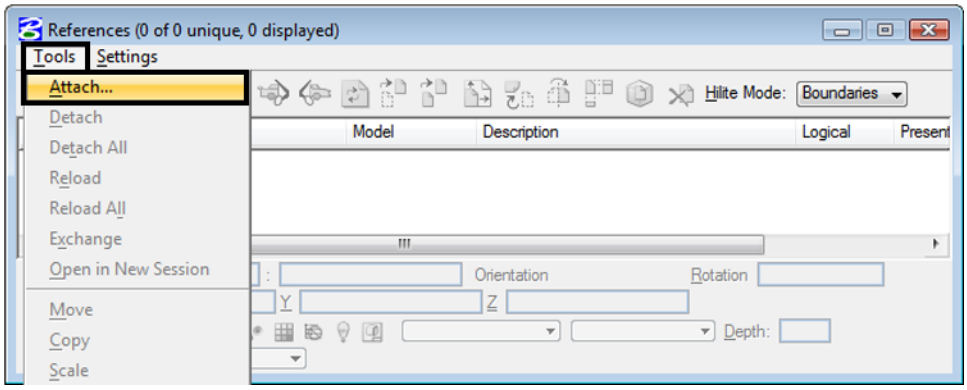
6. Turn level displays on and off to verify data stratification, then Close the Level Display dialog.

Attaching a vicinity map as a reference file

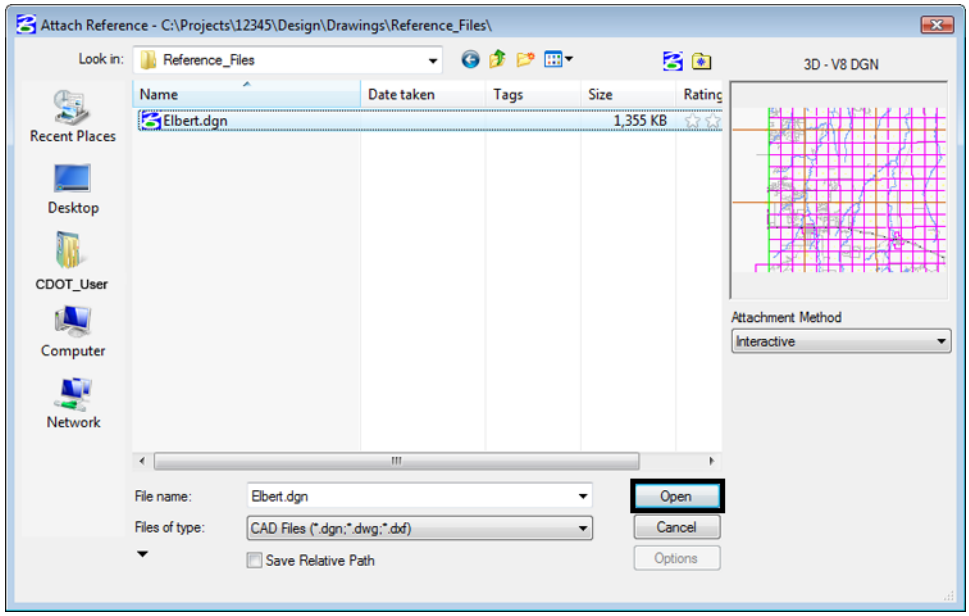
Attach the vicinity file as a reference file to the title sheet. Once attached, move, scale, and constrain the display limits.

Reopen the title sheet: ***12345ROW_TitleSht.dgn***. Once open:

1. Select **File > References** from the MicroStation menu bar.
2. In the References dialog box, select **Tools > Attach**

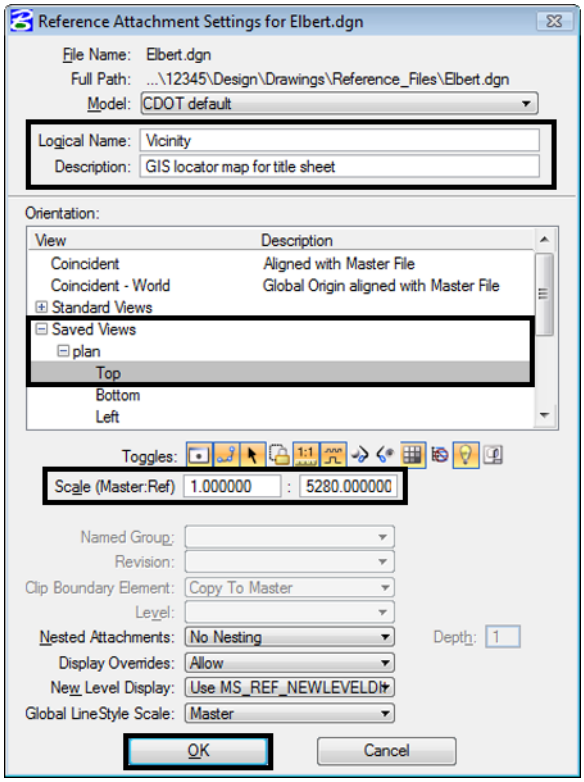


3. **<D>** the file ***Elbert.dgn*** from the ***….Design\Drawings\Reference_Files*** directory.
4. **<D> Open**

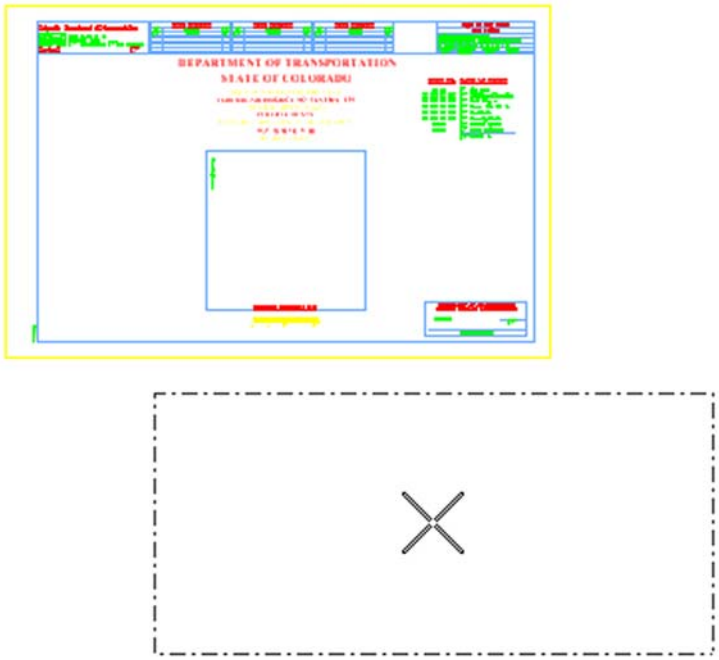


5. **Key-in** the Logical Name: ***Vicinity***
6. **Key-in** the Description: ***GIS locator map for title sheet***
7. Select the ***Saved View > plan*** option in the ***Orientation*** section of the dialog box.
8. GIS maps have been designed to be inserted at a scale factor of 1:***5280*** (Master : Reference). Enter that value for the Scale option.

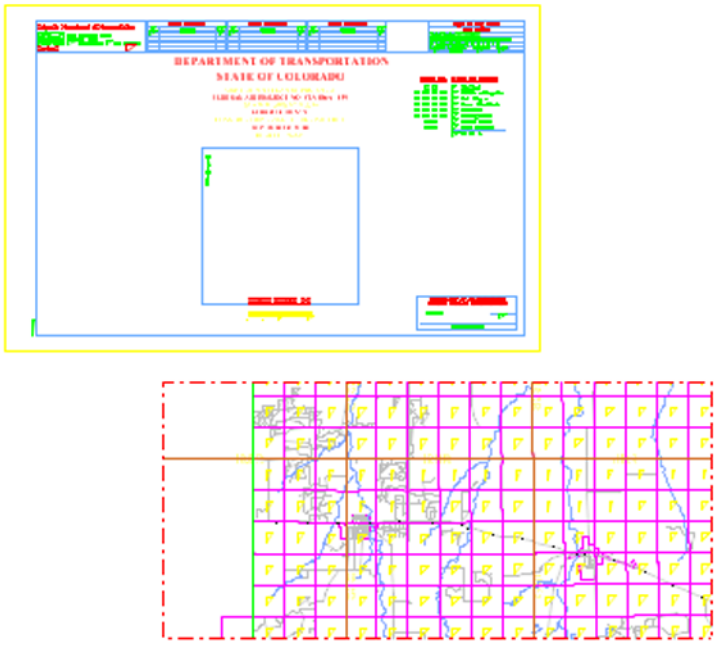
9. **<D> OK**



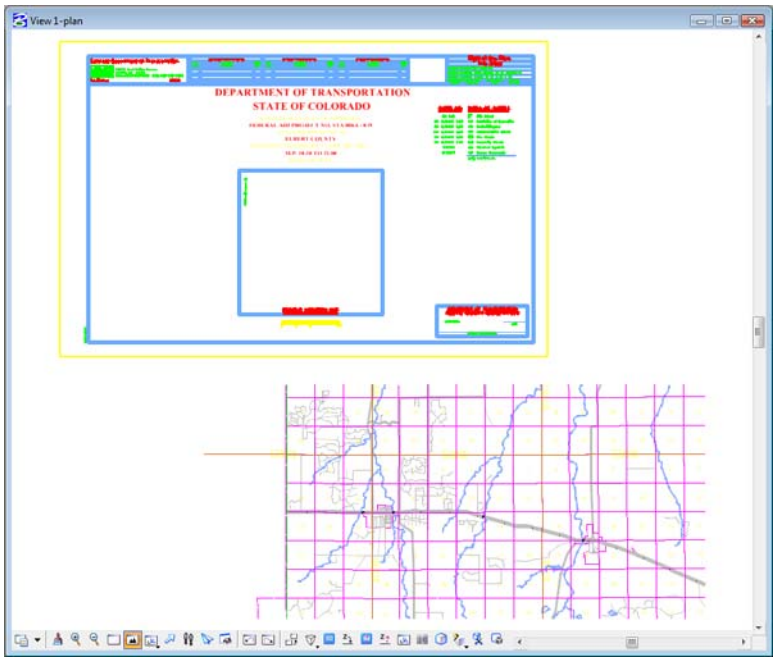
In the MicroStation view window, the limits of the saved view dynamically display relative to the location of the cursor.



10. **<D>** in the MicroStation view window area to attach and display the contents of the reference file.

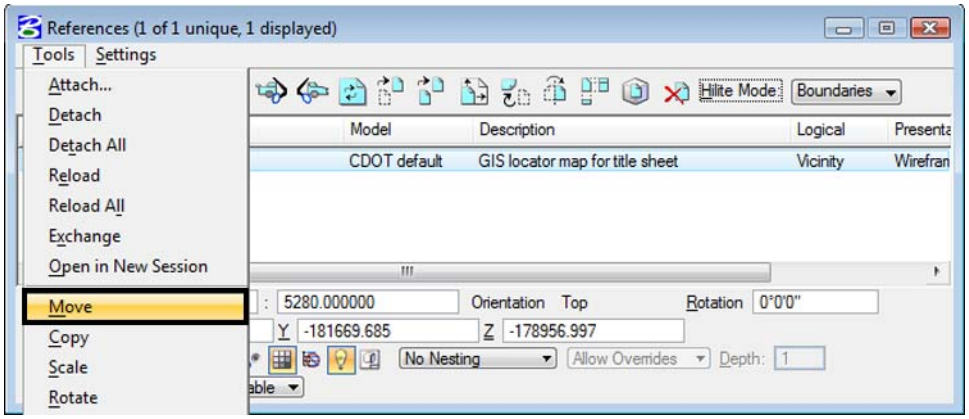


11. Select the MicroStation ***Fit*** command.

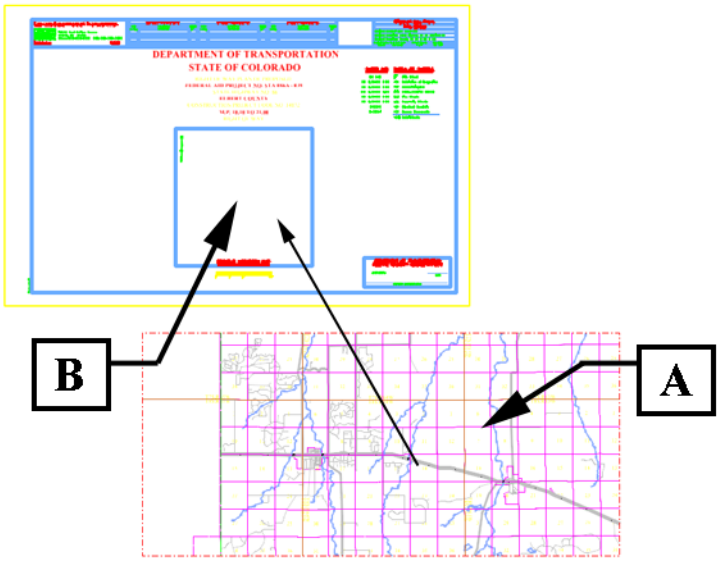


Move the reference file to align with the title sheet.

12. Select **Tools > Move** in the **References** dialog.



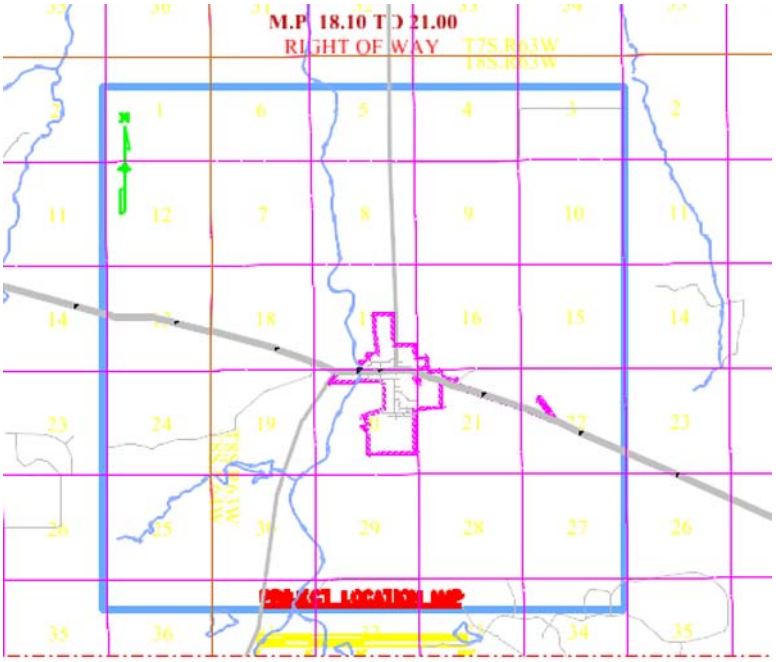
13. **<D>** at point ***A*** and then **<D>** at point ***B*** to move the attached reference file.



Execute additional move commands to reposition the reference file as necessary.

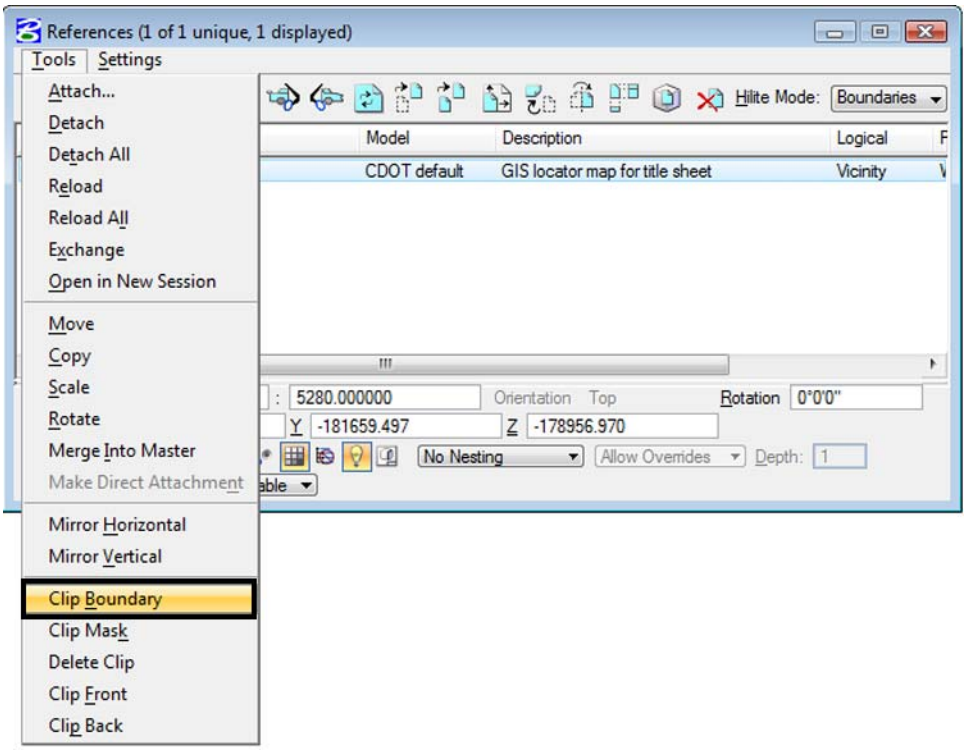
14. **<R>** to exit the Move References command.

15. **Zoom** into the ***Project Location Map*** area of the Title Sheet.

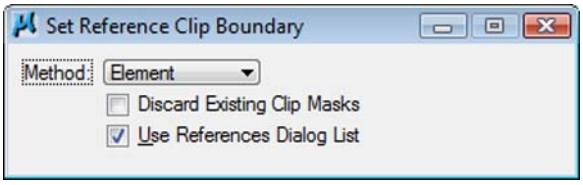


Constrain the display limits of the reference file (clip boundary)

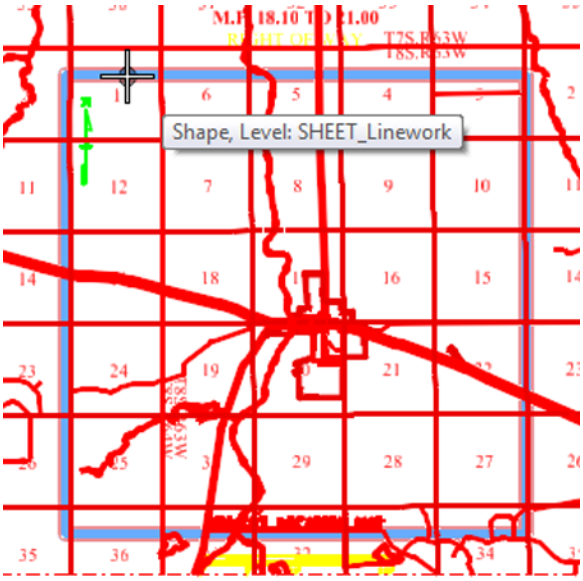
16. Select **Tools > Clip Boundary** from the Reference File dialog.



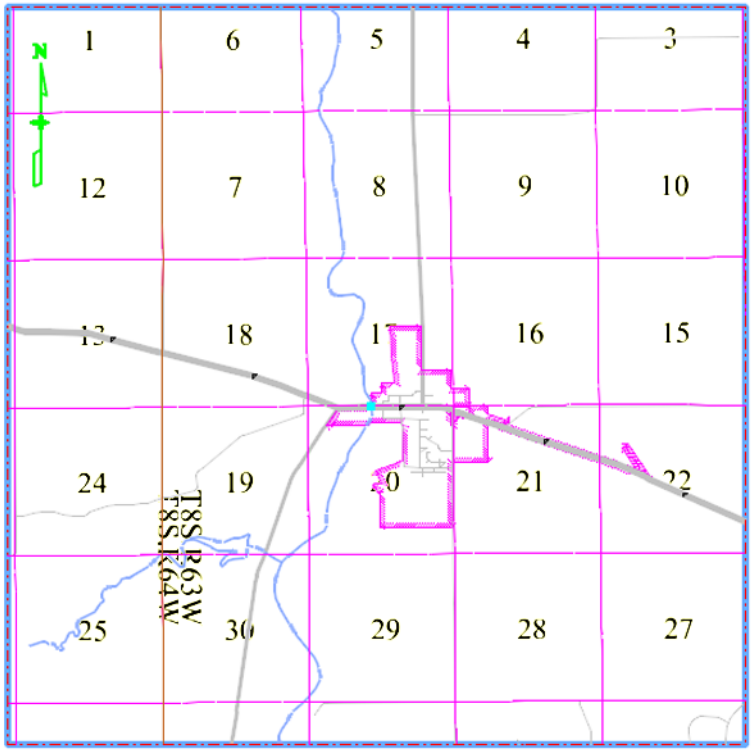
17. In the ***Tool Settings*** dialog. Set method to **Element**



18. **<D>** on the shape representing the limits of the location map display.



19. **<D>** a second time (anywhere on the screen) to accept the displayed solution.



20. Use the MicroStation command ***Modify Element*** command to resize the shape identified to define the clip boundary.

The reference file clip boundary will reconfigure with the shape modifications.

Note: The exercise just completed used an existing MicroStation shape to define reference file clipping boundaries. The same process can be followed by using a MicroStation Fence to define (and redefine) the reference file clip boundary.

Challenge Exercises:

- Move the shape used to define the reference file limits. What happens to the graphics limits displayed?
- Use the References dialog to move the vicinity map after it has been clipped.
- Delete the shape used to define the reference file limits. What happens? (select undo, to restore the shape)
- Turn levels on and off for the reference file attachment
- Constrain the reference file display using a fence block
- Try using a circular fence to define the clipping limits
- Define a clip mask within the reference file limits

- Modify elements in the file Elbert.dgn, what happens to the graphics displayed in the vicinity map?