



# Creating Complex Channels

By Christian Shaw

Creating complex channels in HYPACK® can be easily done if you already have a DXF file of your channel/basin. The Intersector program takes AutoCad R12/R14/2000 file format DXF files and drapes a HYPACK® 2D Line File (LNW) over it to create a new line file with template points embedded.

## Before you begin:

- Make sure that all of the polylines in your DXF file are all on ONE layer and have depths assigned to them.

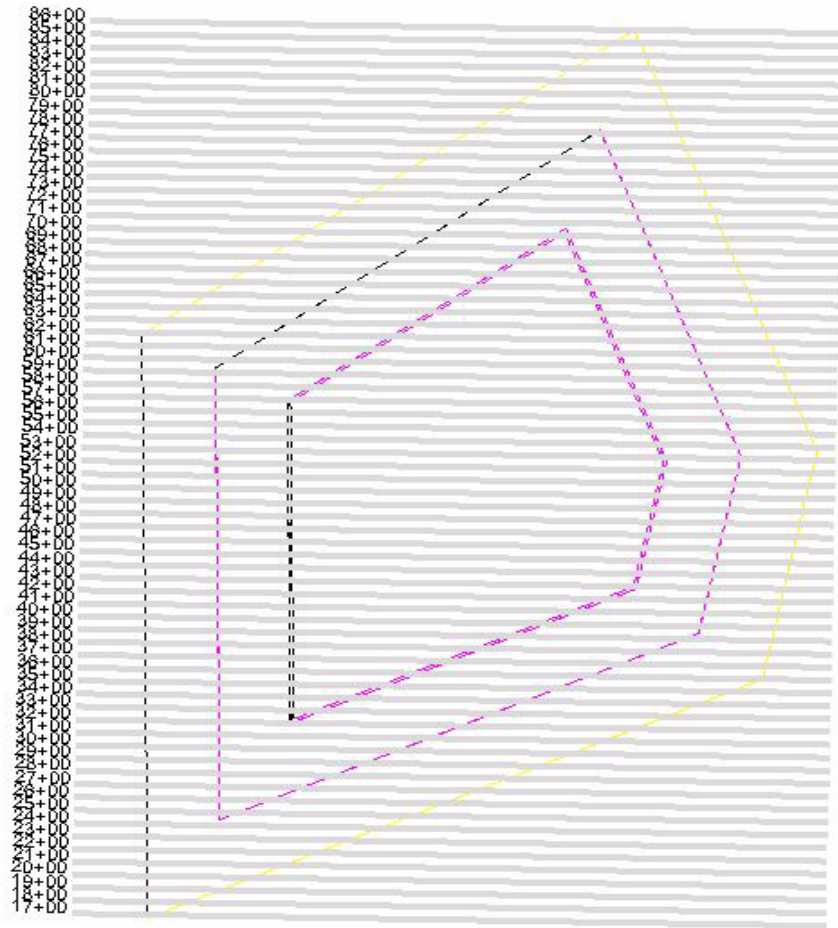
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**Note:** Intersector works most reliably if the DXF has only one layer.

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- In the HYPACK® LINE EDITOR, create a planned line file (\*.LNW) file that covers the extents of your work area.

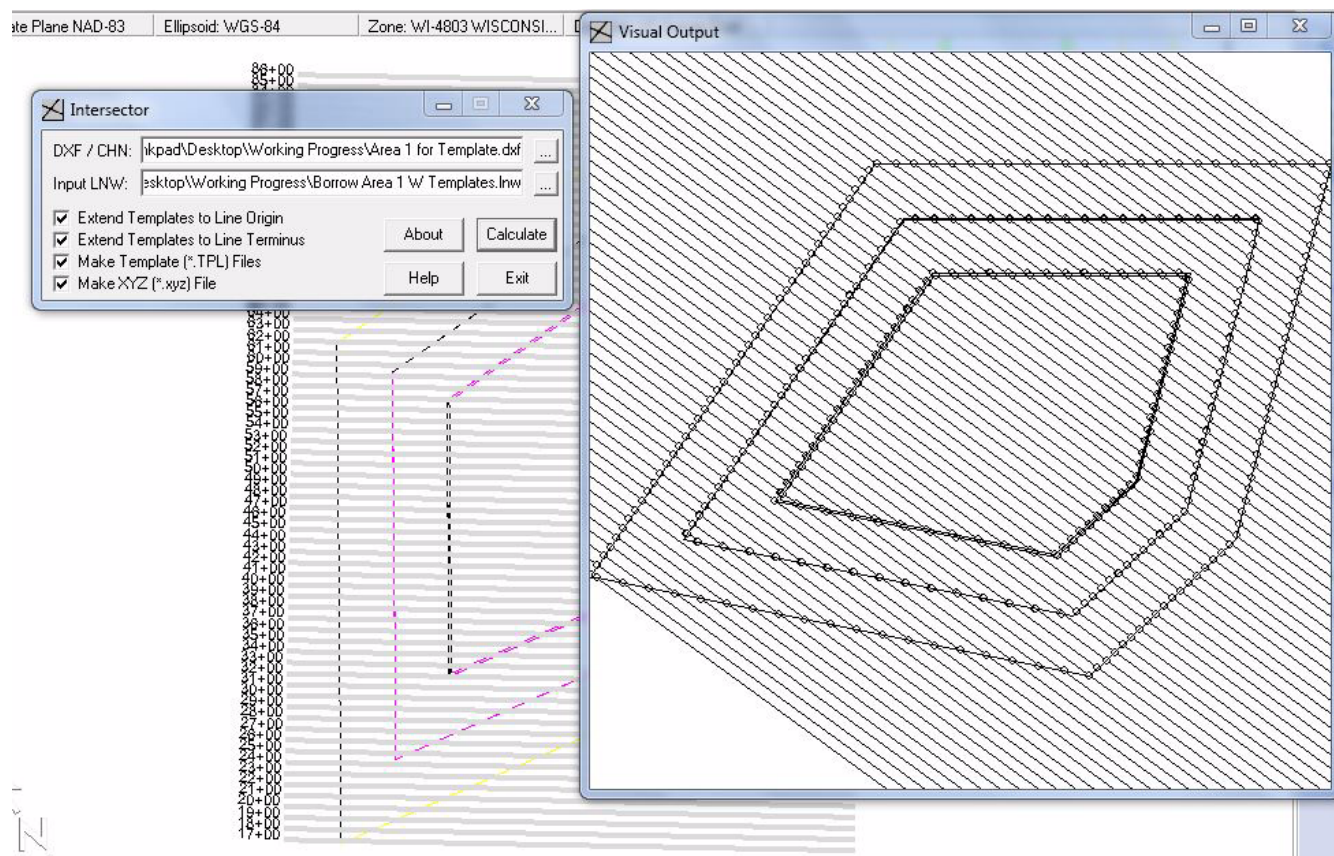
**FIGURE 1.** *A Planned Line File Covering the Extents of the DXF of your Project Area*



You may want to create lines at points of inflection so that you can capture the transition areas in your templates most accurately. This will certainly make your volume calculations more accurate.

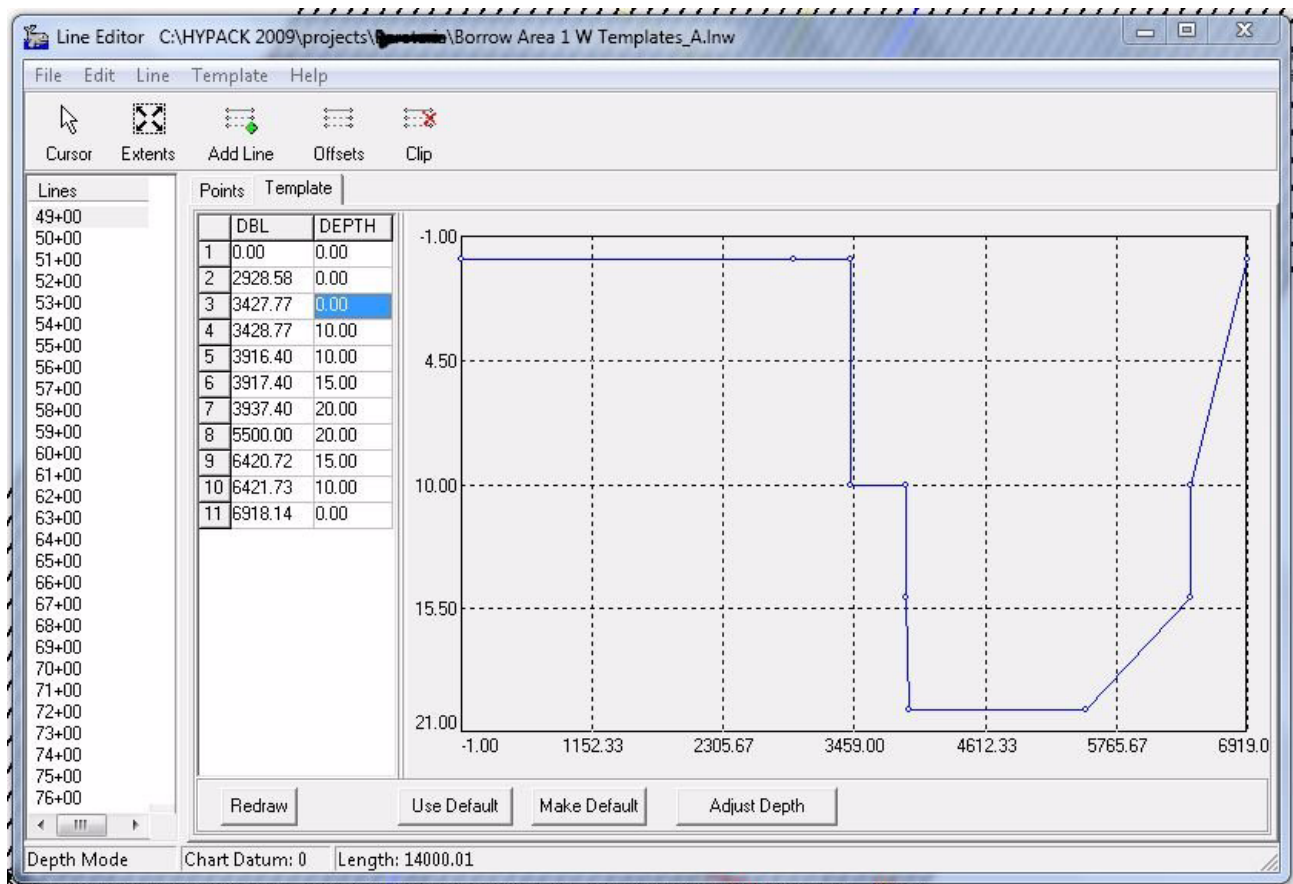
Now you are ready to open up the INTERSECTOR program.

1. **Select UTILITIES-DREDGING UTILITIES-INTERSECTOR** to launch the program.
2. **Load your DXF and LNW files.**



3. **Select any additional options you choose. (Optional)**
  - **Extend Templates to Line Origin/Line Terminus** will take the template points out to the beginning and to the end of your transect lines making these the end template points. Unselected, your template will end at the outermost polyline in the DXF.
  - **Make Template (TPL) files** will output an individual template file containing channel information for each section contained in your LNW file. These can be loaded in the CROSS SECTIONS AND VOLUMES program.
  - **Make XYZ file** will output an XYZ file containing the position and depth of all points where a line in the LNW file bisects a polyline of the DXF. It is simple to generate a channel file (\*.CHN) by loading this XYZ file into the TIN MODEL program and saving it out as a CHN file.
4. **Click [Calculate].**

**FIGURE 2. Resulting Line File with Template Information**



**FIGURE 3. TIN Model of the Resulting XYZ File:**

