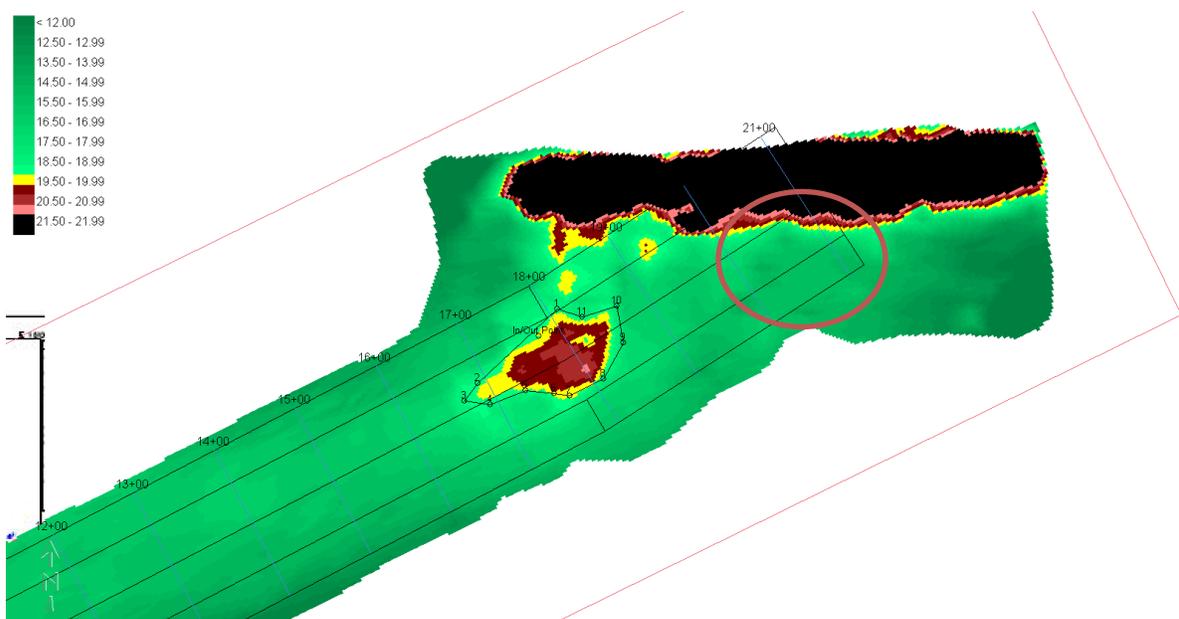# DREDGEPACK - Matrix Options

By Jerry Knisley

The matrix in DREDGEPACK® is key to understanding where to dredge. With a quick look at the screen, the operator can quickly know if material exists under the location where he is dredging. It is important to understand how to configure the dredge colors to accurately reflect where there is material to remove.

DREDGE DEPTH DISPLAY

When looking at the material inside of the channel, to a set the matrix to display the dredge can be deceiving. In the following example, we are going to focus on station 21+00 to illustrate the point. The project colors are set so that the operator is going to remove the green cells and stop when he reaches red. Anything that is colored black is considered too deep.

This matrix is filled with the pre-dredge survey data. The darker the green, the more material there is to remove to reach the desired depth of 20 feet. With DREDGEPACK® set to display the dredge depth in the cell, the operator has a large amount of material within the channel to the southeast corner (circled in red).

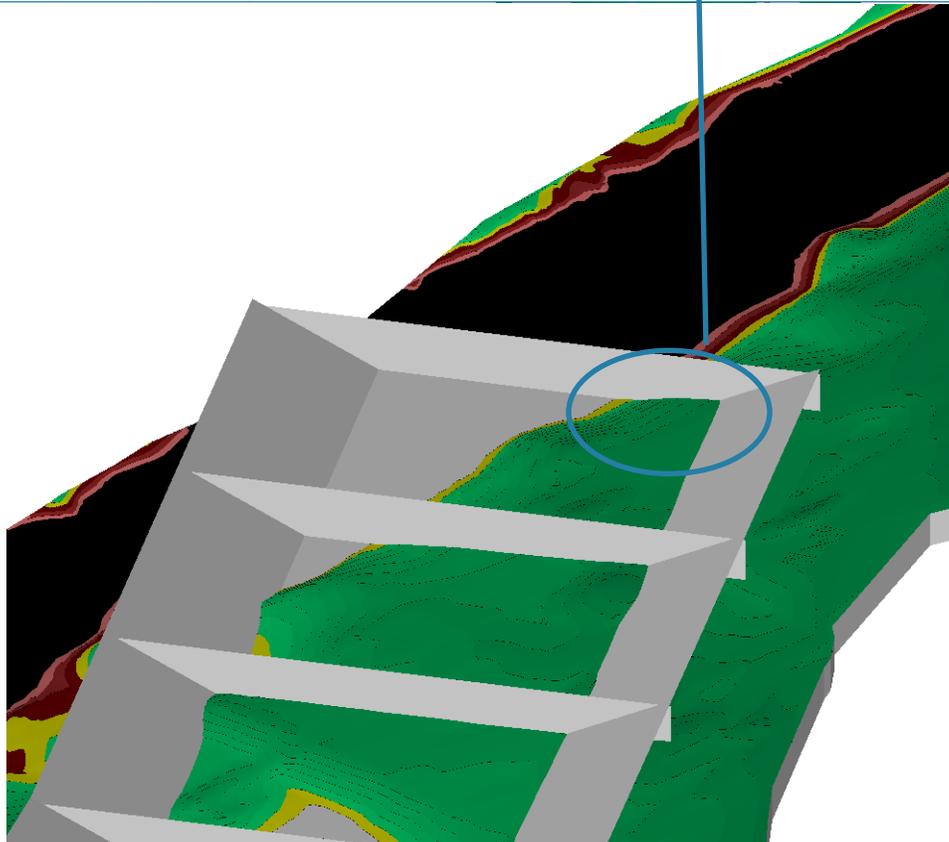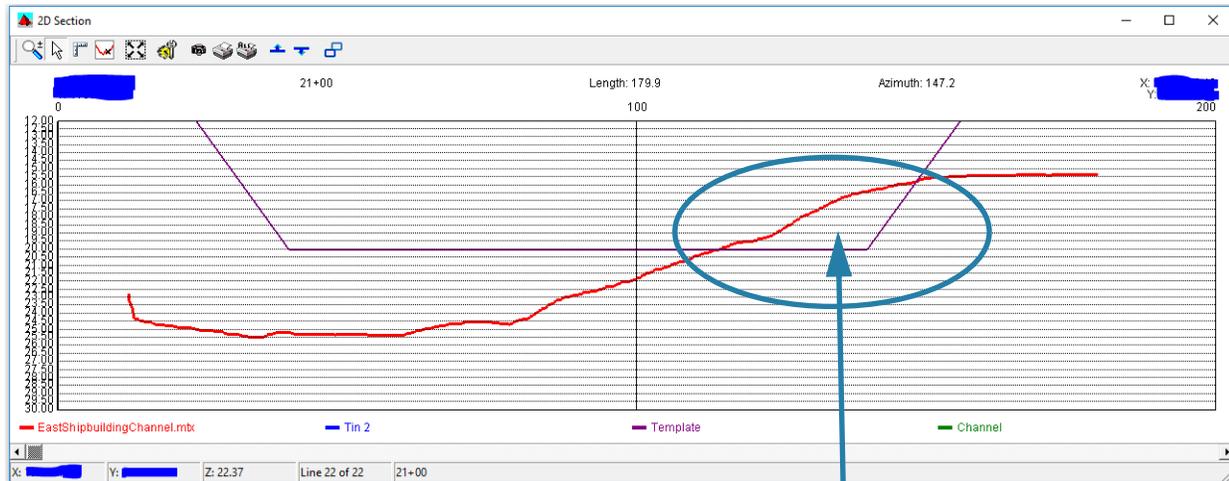**FIGURE 1.** *Matrix Displays Dredge Depth*

The material extends in this display from the center of the channel to the top of the slope. This is where the deception comes in: Taking the channel into account, the operator has much less material to remove.

CROSS SECTION AT STATION 21+00

The channel has a 2:1 side slope. This slope stops at existing ground. In Figure 2, you can see that the material does not exist in the side slope out to the edge of the channel, but only about half way.
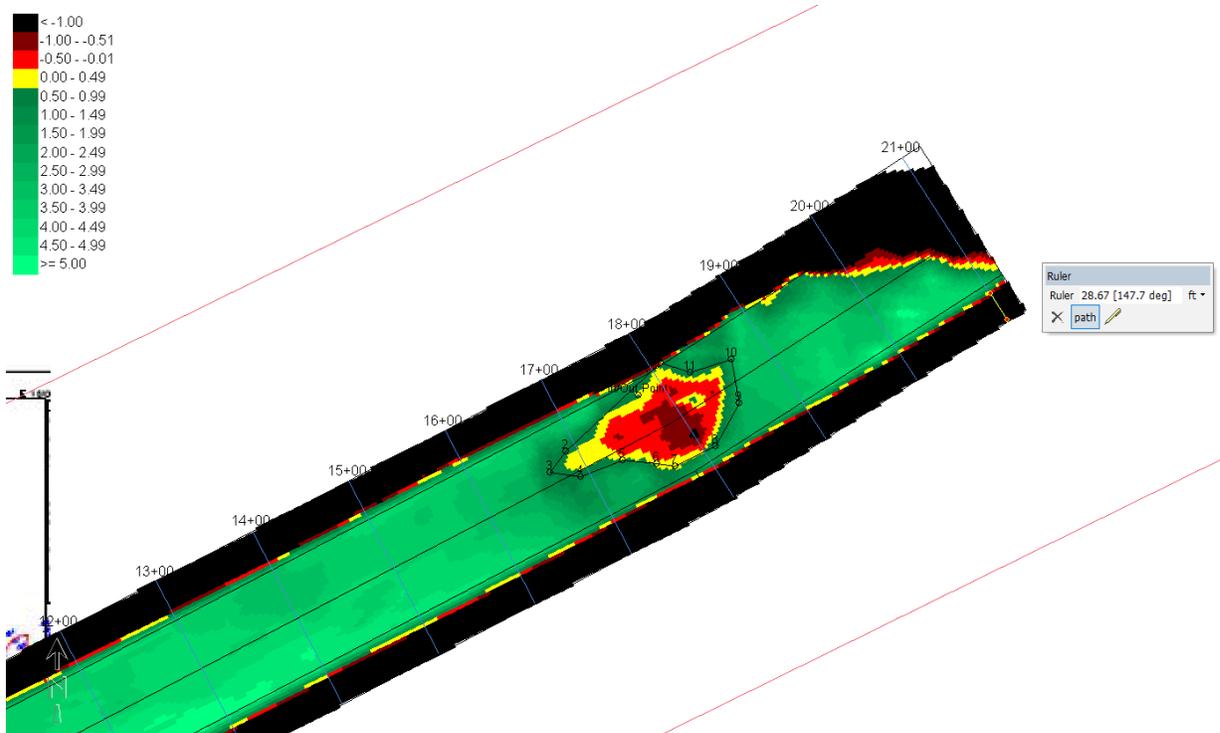
FIGURE 2. *Cross Section at Station 21+00*

CHANNEL – DREDGE DISPLAY

When the matrix option is changed to show Channel – Dredge depths, the material that really needs to be removed is revealed to the operator.

FIGURE 3. Displaying the Channel and Dredge Depth Difference

Our example reveals that the operator would have dredged outside of the required area for 28 feet, wasting precious time and resources. By using the matrix in this way, the project efficiency improves, as well as the situational awareness of the operator to the requirements of the project.