

## Model Setup



The following steps will be required to set up the model:

SLOPE steps:

- Save new model
- Specify analysis settings
- Add Supports
- Analyze SVSLOPE model
- Results



The details of these outlined steps are detailed in the following sections.

### NOTE:



Any values on the dialogs that are not specifically mentioned in the steps below are assumed to be the default values currently present.

This model is a continuation of the base model, 2D Support Example Base Model. If the previous model is open begin the model at **Save New model**.

Otherwise:

- Open the *SOILVISION Manager* dialog ,
- In LEARNING MODE, select the SVSLOPE module icon  and click **My Models**,
- Find the **EBANKOD** file and double-click to open model.


### a. Save New Model

- Select *SVSLOPE icon*  on the left of the workspace to return to SVSLOPE.
- Press *File > Save As*  to save new model,
- Enter **EBANKOD\_Anchors** as the New File Name,
- Click **OK** to close the dialog.

### b. Specify Analysis Settings (Model > Settings)



In SVSLOPE the *Settings* dialog is used to specify the method for determining the critical slip surface and the details of the applicable search techniques to be used in the analysis.

For this model the settings will be entered as follows:

- Select *Model > Settings*  from the menu,
- Select the *Slip Surface* tab,  
Slip Direction: **Right to Left**  
Slip Shape: **Circular**  
Search Method: **Entry and Exit**
- Select the *Calculation Methods* tab from the dialog and select the method types as shown below:  
**Morgenstern-Price - Half Sine**
- Select the *Convergence* tab from the dialog and change the values for the Convergence Options as noted below:  
Number of Slices: **50**  
Check the box for Minimum Slide Surface Depth and enter the value: **10 ft**
- Press **OK** to close the dialog.

### c. Add Supports (Supports)

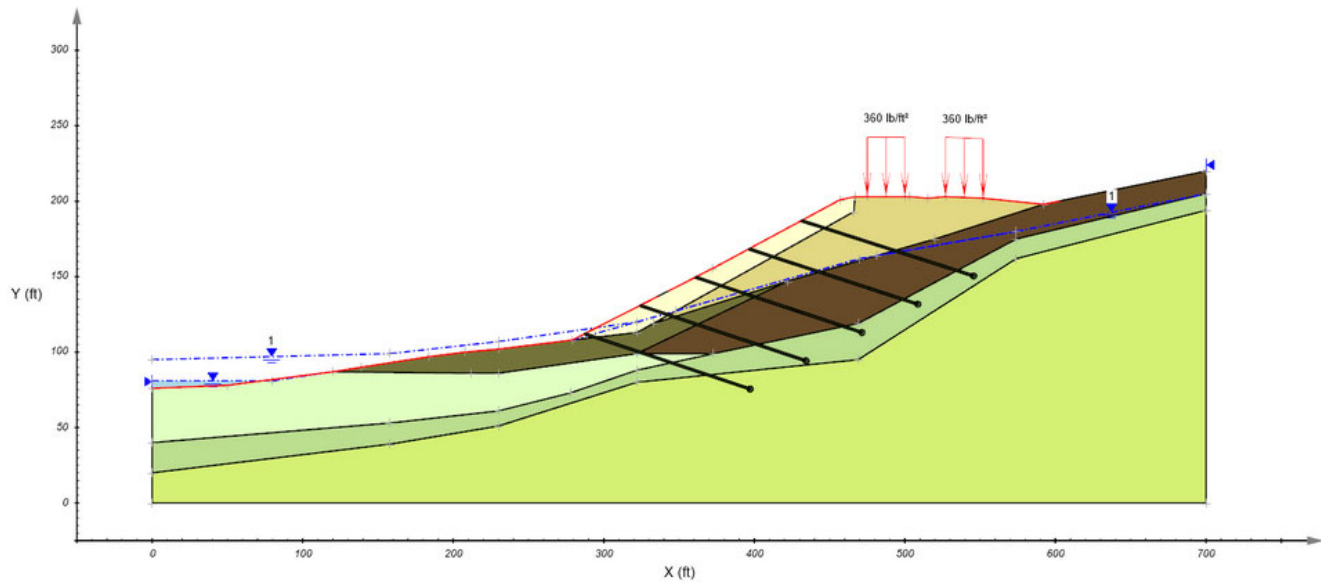
The next step is to add support to reinforce the slope.

- Open the *Support Type Manager* dialog by selecting *Supports > Type Manager*  from the menu,
- Press the *New* button to open the *New Support Property* dialog,
- Select **End Anchored** from the *Support Type* drop down menu and enter the name **End Anchored**,
- Click **OK**, the *Support Properties* dialog will automatically open
- Select **Active** in the Force Application section,
- In the Capacity and Spacing section, enter 10 ft for the Out-of-Plane spacing, and 327000 lbf for the tensile capacity.
- Click **OK** to accept parameters and close the *Support Properties* dialog, and **OK** again to close the Support Type Manager,
- Open the *Support Geometry* dialog by selecting *Supports > Geometry*  from the menu,
- Click the *New* button 5 times for the new support entries,
- Select *Support 1* in the left hand side of the dialog.
- Leave the *Individual Support* button selected.
- Leave the *Orientation* as **None** and enter the following coordinates in the Support Line Segment Section:  
Start Point of the Line X = 431, Y = automatically calculated  
End Point of the Line X = 546, Y = 150
- Select **end-anchored (End Anchored)** as the *Support Property Type*,
- Repeat from steps 10 to 13 to enter in the information for the remaining supports 2 - 5 using the data in the table below:

Support	Individual or Multiple Supports	Orientation				Support Property Type
		Start Point of the Line		End Point of the Line		
		X	Y	X	Y	
Support 2	Individual	396	calculated	509	132	end-anchored (End Anchored)
Support 3	Individual	361	calculated	471	113	end-anchored (End Anchored)
Support 4	Individual	324	calculated	434	94	end-anchored (End Anchored)
Support 5	Individual	287	calculated	397	75	end-anchored (End Anchored)

- Click **OK**, to close the *Support Geometry* dialog.

Now you screen will look like the diagram below.




#### e. Analyze model (Solve > Analyze)

The next step is to analyze the model.

1. Select *Solve > Analyze* from the menu. The *SVSLOPE Solver* dialog will pop-up and automatically solve.
2. Select the *Results* button to view results

#### f. Results (Solve > Results)

The visual results for the current model may be examined by selecting the *Solve > Results* menu option or click on Results icon . The model results will be displayed. To switch between the results of the different methods selected, click on the drop down menu (as shown below) at the top of the screen and select the method you would like to view.

To view the results in more detail proceed to [Results and Discussion](#).

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Results and Discussion

The results of the calculation of the factor of safety and the critical slip surface for the Morgenstern-Price Method are shown below. At the end of calculation the factor of safety is approximately 1.587. The sup each support in the screenshot below from 0 to 3.27E+04 lbf.

