State of Georgia

Department of Transportation

Bridge Concrete Bent

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Revision 1.1

Atlanta, Georgia 30308

Georgia Department of Transportation

This document was developed as part of the continuing effort to provide guidance within the Georgia Department of Transportation in fulfilling its mission to provide a safe, efficient, and sustainable transportation system through dedicated teamwork and responsible leadership supporting economic development, environmental sensitivity and improved quality of life. This document is not intended to establish policy within the Department, but to provide guidance in adhering to the policies of the Department.

Your comments, suggestions, and ideas for improvements are welcomed.

Please send comments to:

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DISCLAIMER

The Georgia Department of Transportation maintains this printable document and is solely responsible for ensuring that it is equivalent to the approved Department guidelines.

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Table of Contents

Chapter 1 Concrete Bent

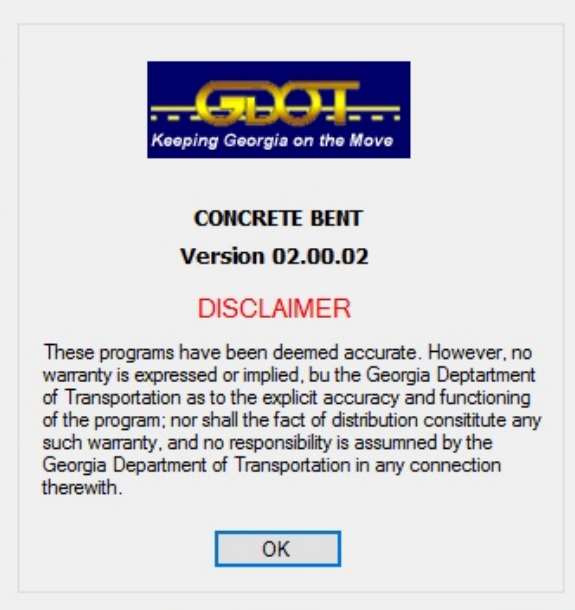
1.1 Purpose

The purpose of this program is to allow GDOT MicroStation users to create and revise Concrete Bent input files. This chapter covers the Concrete Bent application for Bridge Design.

NOTE:

- This program is for MicroStation V8 and newer data; does not support V7 input data.
- An example project is used for program data throughout the document.

1.2 Application Overview



1.3 Concrete Bent Components Title bar

- Menu bar
- Toolbar
- Project tab
- General details tab
- Cap data tab
- Elevations tab
- Beam and bearings tab
- Column data tab
- Footing data tab

1.4 Types of Concrete Bent Information

Use the fields in the tabs of the GDOT - Concrete Bent window to set the following types of information about concrete bents:

- Project description information
- General information
- Cap information
    - Cap dimension information
    - Cap step dimension information
- Elevation information
    - Cap step elevation information
    - Footing elevation information
    - Bottom cap elevation information
- Beam and bearing information
    - Bearing information
    - Beam angle information
    - Beam dimension information
- Column information
    - Column location information
    - Column dimension information
    - Reinforcing steel bar information

- Footing information
  - Footing dimension information
  - Reinforcing steel bar information
  - Pile information

1.5 Menu Bar Options

File: Select this menu item to display the File menu. Use this menu to perform any of the following tasks:

- Open a new Concrete Bent input file
- Open an existing Concrete Bent input file
- Save a Concrete Bent input file
- Save a Concrete Bent input file with another file name
- Print a concrete quantity file
- Preview a concrete quantity file
- Preview a graphics design file
- Exit the Concrete Bent application

Help: Select this menu item to display the Help menu. Use this menu to perform any of the following tasks:

- Search for specific Help topics about the Concrete Bent application
- View version information about the Concrete Bent application

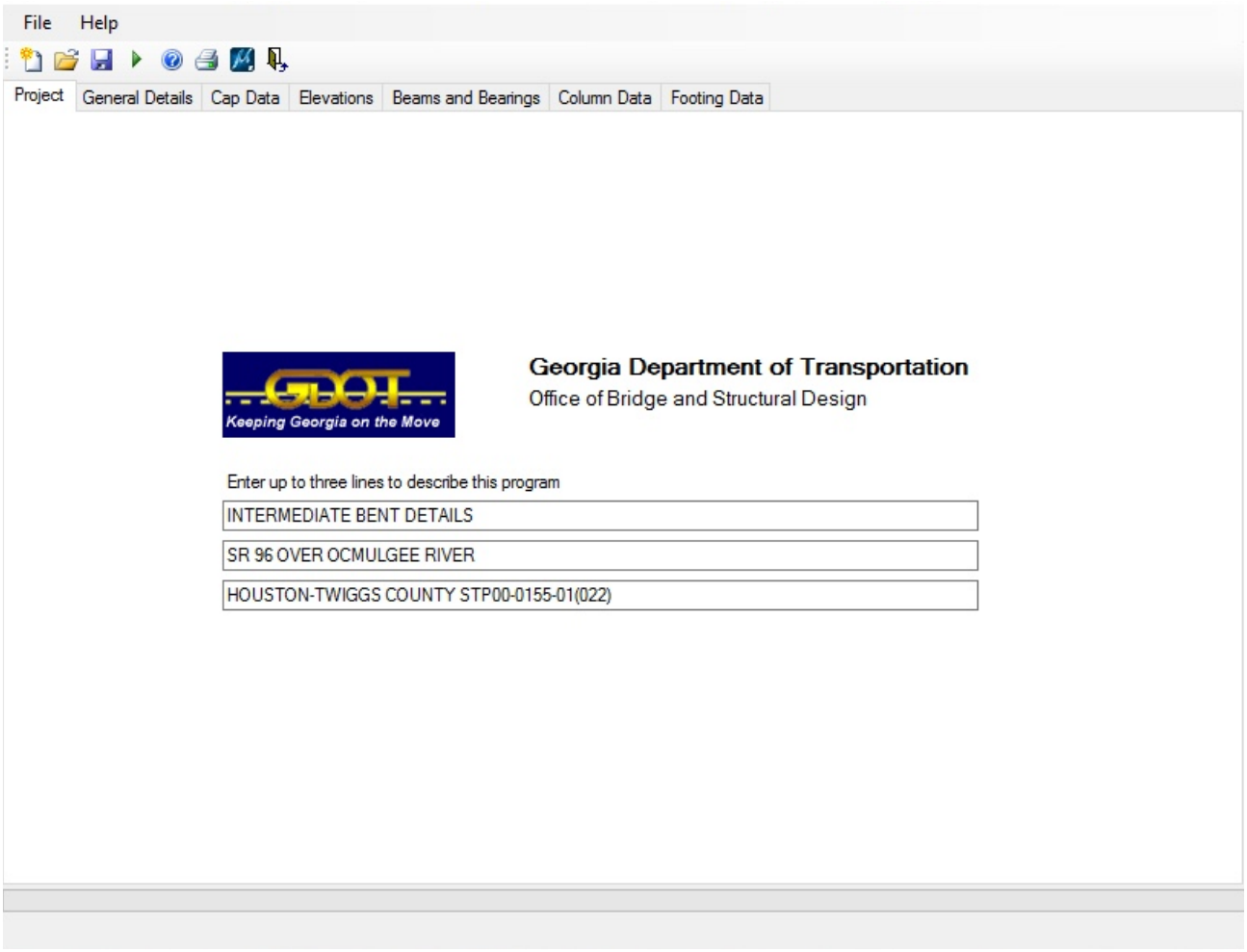
1.6 Toolbar Options

The Concrete Bent toolbar is one of the components in the GDOT - Concrete Bent window. The Concrete Bent toolbar contains the following toolbar buttons:

- New
- Open
- Save
- Run
- Help
- Print
- Open Drawing
- Exit

Field	Descriptions
	**New:** Select this toolbar button to display the Confirm Reset confirmation window. Use this window to verify that you want to open a new Concrete Bent input file.
	**Open:** Select this toolbar button to display the Open window. Use this window to open an existing Concrete Bent input file.
	**Save:** Select this toolbar button to display the Save As window. Use this window to save the Concrete Bent input file.
	**Run:** Select this toolbar button to run the input file and create a MicroStation DGN File.
	**Help:** Select this toolbar button to display the Help contents window. Use this window to search for specific Help topics about the Concrete Bent application.
	**Print:** Select this toolbar button to display the Printer window. Use this window to perform any of the following tasks: • Preview a graphics design file • Print a concrete quantity file
	**Open Drawing:** Opens MicroStation from Concrete Bent using the current input file.
	**Exit:** Select this toolbar button to display the Confirm Exit confirmation window. Use this window to verify that you want to exit the Concrete Bent application.

Chapter 2 Project Tab



Introduction: Use the fields in the GDOT - Concrete Bent Project tab to modify the project description information in a Concrete Bent input file.

Enter Up To Three Lines To Describe This Program

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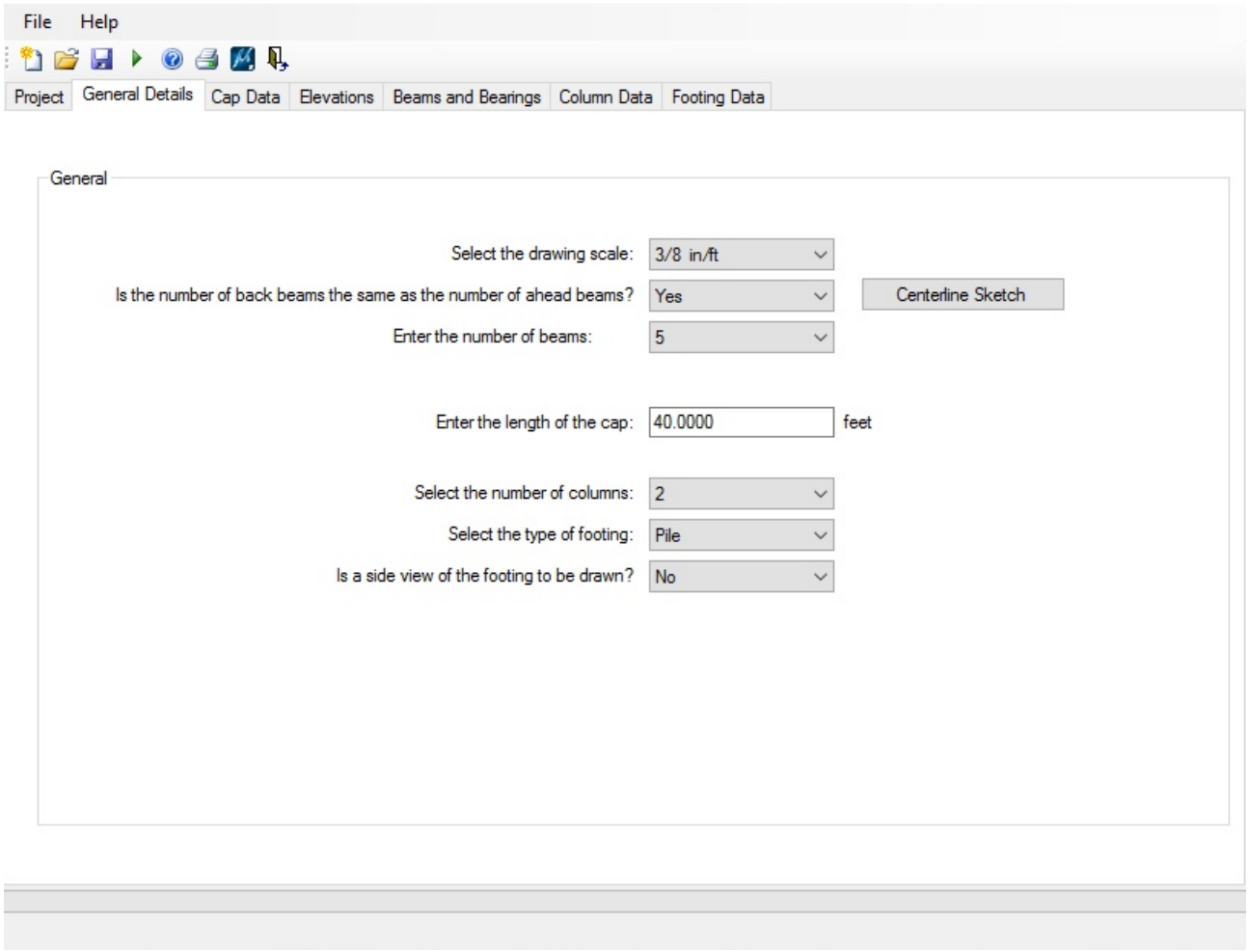
Chapter 3 General Details



Introduction: Use the fields in the GDOT - Concrete Bent General Details tab to modify the general information in a Concrete Bent input file.

3.1 General Details List of Window Fields

The GDOT - Concrete Bent General Details tab contains the following fields:

- General group box
  - Select The Drawing Scale
  - Is The Number Of Back Beams The Same As The Number Of Ahead Beams?
  - Enter The Number Of Beams
  - Enter The Length Of The Cap
  - Select The Number Of Columns
  - Select The Type Of Footing
  - Is A Side View Of The Footing To Be Drawn?

3.2 General Details List of Window Buttons

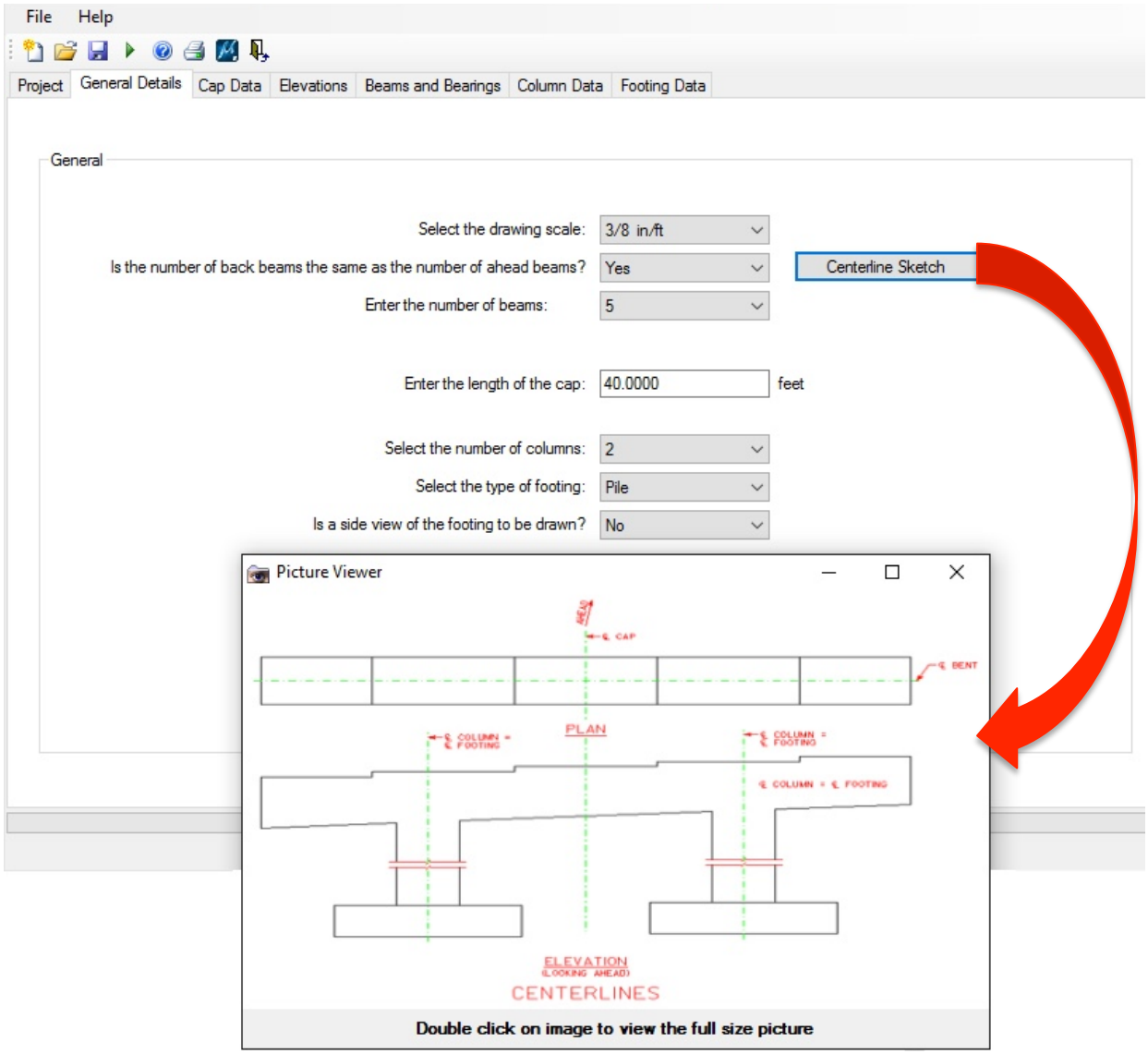
The GDOT - Concrete Bent General Details tab contains the following buttons:

- General group box
  - Click To View Centerlines Sketch

3.3 General Details Options

Field	Descriptions
Select The Drawing Scale	Use this field in the General group box to set the text size, arrowhead size, and detailing measurements for the drawing. Select one of the following values: • 3/8 in/ft (default value)
Is The Number Of Back Beams The Same As The Number Of Ahead Beams?	Use this field in the General group box to set whether or not the number of back beams and ahead beams used in the project is the same number of beams. Select one of the following values: • Yes (default value) • No
Enter The Number Of Beams	Use this field in the General group box to set the number of beams used in the project. • Default value: 4 beams Note: This field is not displayed if you selected "No" in the "*Is The Number Of Back Beams The Same As The Number Of Ahead Beams*" field in this tab.
Enter The Number Of Back Beams	Use this field in the General group box to set the number of back beams used in the project. • Default value: 4 beams Note: This field is not displayed if you selected "Yes" in the "*Is The Number Of Back Beams The Same As The Number Of Ahead Beams*" field in this tab.

Field	Descriptions
Enter The Number Of Ahead Beams	Use this field in the General group box to set the number of ahead beams used in the project. • Default value: 4 beams Note: This field is not displayed if you selected "Yes" in the "*Is The Number Of Back Beams The Same As The Number Of Ahead Beams*" field in this tab.
Enter The Length Of The Cap	Use this field in the General group box to set the length of the cap along the centerline of the cap, in feet.
Select The Number Of Columns	Use this field in the General group box to set the number of columns used in the project. • Default value: 2 columns
Select The Type Of Footing	Use this field in the General group box to set the type of footing used in the project. • Spread (default value)
Is A Side View Of The Footing To Be Drawn?	Use this field in the General group box to set whether or not to draw a side view of the footing. Select one of the following values: • No (default value) • Yes



3.4 Centerline Sketch

Field	Descriptions
Click To View Centerlines Sketch	Click this button in the General group box to display the Centerline Sketch window. Use this window to view an example drawing. This drawing includes the following information: • The location of the centerline of the cap • The location of the centerline of the bent • The location of the centerline of the column • The location of the centerline of the footing

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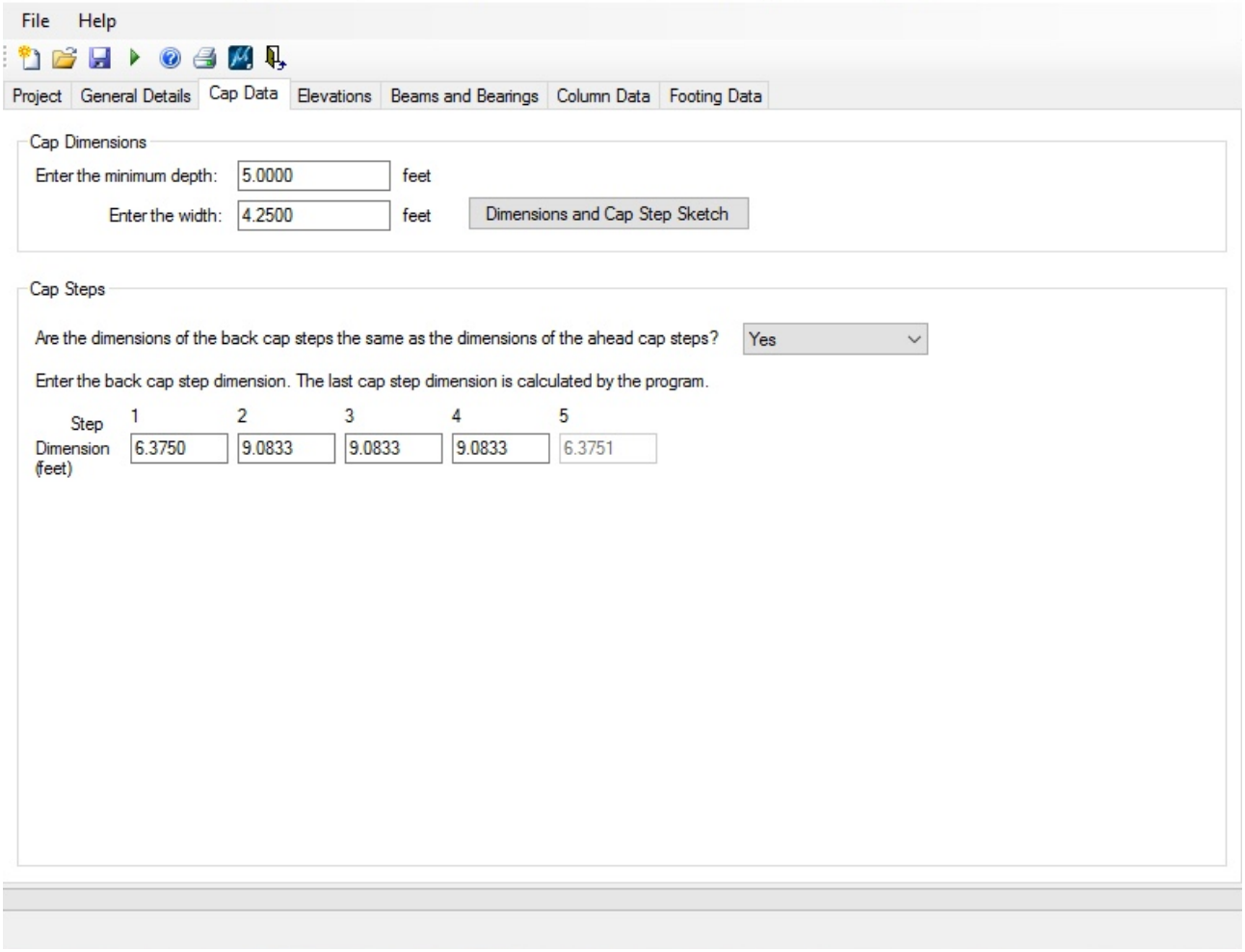
Chapter 4 Cap Data



Introduction: Use the fields in the GDOT - Concrete Bent Cap Data tab to set the cap information in a Concrete Bent input file. The cap information includes the following information: Cap dimension information, and Cap step dimension information

4.1 Cap Data List of Window Fields

- Cap Dimensions group box
  - Enter The Minimum Depth
  - Enter The Width
- Cap Steps group box
  - Are The Dimensions Of The Back Cap Steps The Same As The Dimensions Of The Ahead Cap Steps?
  - Enter The Cap Step Dimension
  - Enter The Back Cap Step Dimension

4.2 Cap Data List Of Window Buttons

The GDOT - Concrete Bent Cap Data tab contains the following buttons:

- Cap Steps group box
  - Click To View Cap Dimensions And Cap Steps Sketch

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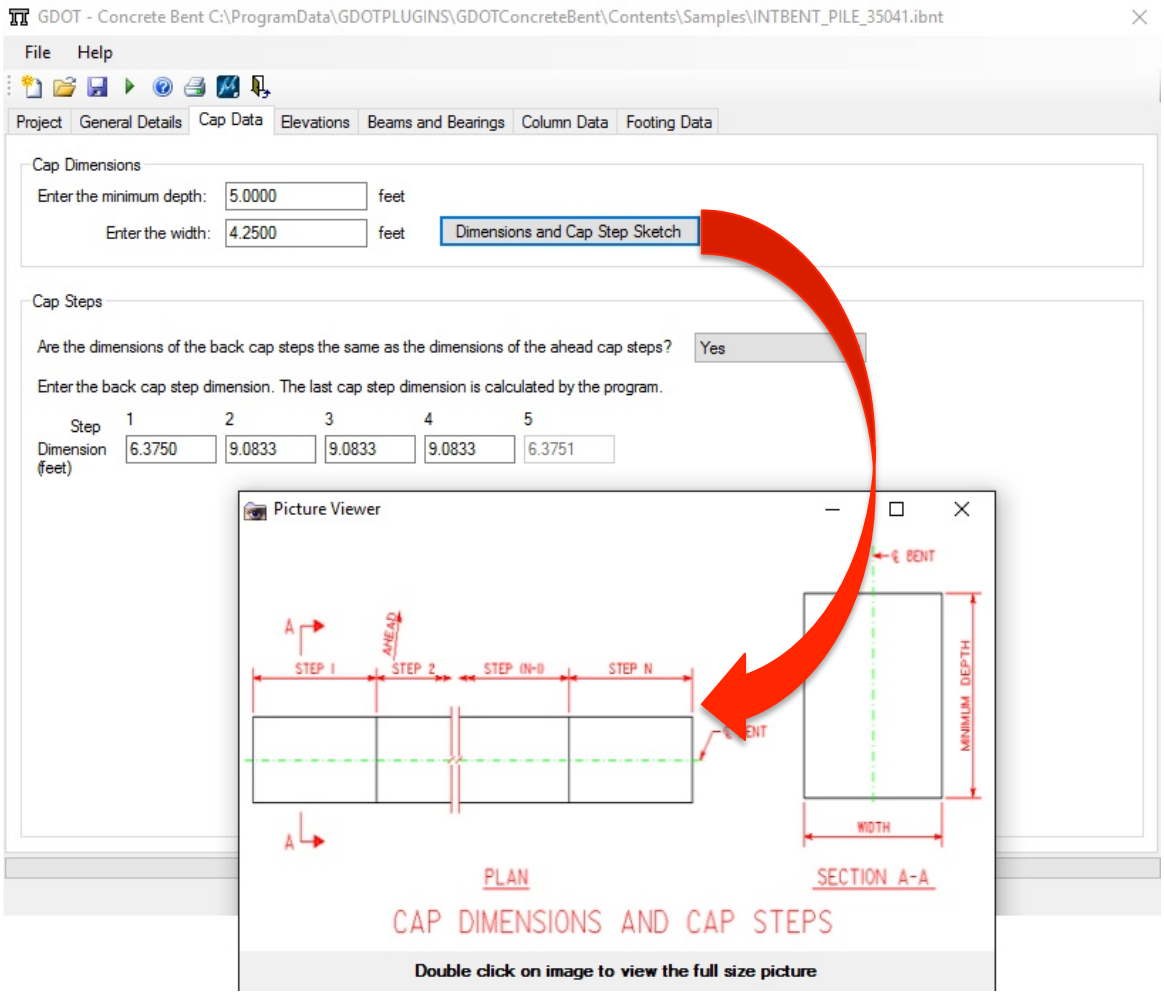
4.3 Cap Data Options

Field	Descriptions
Enter The Minimum Depth	Use this field in the Cap Dimensions group box to set the minimum depth of the cap, in feet.
Enter The Width	Use this field in the Cap Dimensions group box to set the width of the cap, in feet.
Are The Dimensions Of The Back Cap Steps The Same As The Dimensions Of The Ahead Cap Steps?	Use this field in the Cap Dimensions group box to set whether or not the dimensions of the back cap steps and ahead cap steps used in the project are equal. Select one of the following values: • Yes (default value) • No Note: This field is not displayed if you selected "No" in the "*Is The Number Of Back Beams The Same As The Number Of Ahead Beams?*" field in the GDOT - Concrete Bent General Details tab.
Enter The Cap Step Dimension	Use this field in the Cap Steps group box to set the dimension of each of the cap steps, in feet. Note: • The last cap step dimension is calculated by the Concrete Bent application. • This field is not displayed if you selected "No" in the "Is The Number Of Back Beams The Same As The Number Of Ahead Beams?" field in the GDOT - Concrete Bent window, General Details tab. • This field is not displayed if you selected "No" in the "Are The Dimensions Of The Back Cap Steps The Same As The Dimensions Of The Ahead Cap Steps?" field in this tab.

Field	Descriptions
Enter The Back Cap Step Dimension	Use this field in the Cap Steps group box to set the dimension of each of the back cap steps, in feet. Note: • The last back cap step dimension is calculated by the Concrete Bent application. • This field is not displayed if you selected "Yes" in the “Are The Dimensions Of The Back Cap Steps The Same As The Dimensions Of The Ahead Cap Steps?” field in this tab.



4.4 Cap Dimensions & Cap Steps Sketch

Field	Descriptions
Click To View Cap Dimensions And Cap Steps Sketch	Choose this button in the Cap Steps group box to display the Cap Dimensions And Cap Steps Sketch window. Use this window to view an example sketch. This sketch includes the following information: • The location of the centerline of the bent • The location of the minimum depth measurement of the cap • The location of the width measurement of the cap • The location of the measurements of the back cap steps • The location of the measurements of the ahead cap steps

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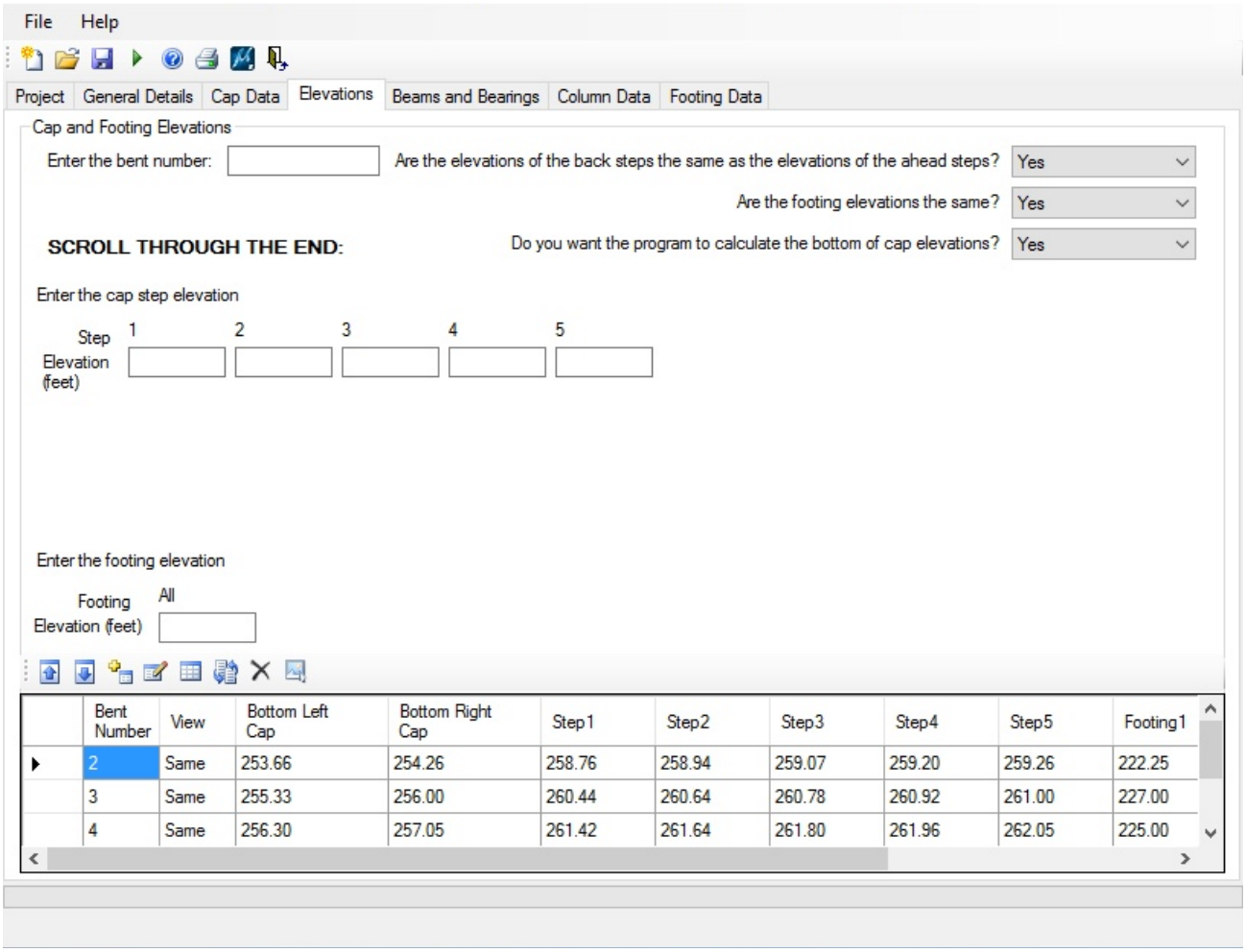
Chapter 5 Elevations



Introduction: Use the fields in the GDOT - Concrete Bent Elevations tab to set the elevation information in a Concrete Bent input file. The elevation information includes the following information: Cap step elevation information, Footing elevation information, and Bottom cap elevation information

Note: Scroll the text at the bottom of the Cap and Footing Elevations group box to view all of the fields in the group box.

5.1 Elevations List of Window Fields

- Cap and Footing Elevations group box
  - Enter The Bent Number
  - Are The Elevations Of The Back Cap Steps The Same As The Elevations Of The Ahead Cap Steps?
  - Are The Footing Elevations The Same?
  - Do You Want The Program To Calculate The Bottom Cap Elevations?
  - Enter The Cap Step Elevation
  - Enter The Back Cap Step Elevation
  - Enter The Ahead Cap Step Elevation
  - Enter The Footing Elevation
  - Enter The Bottom Left Cap Elevation
  - Enter The Bottom Right Cap Elevation
  - Bent Number/View/Bottom Left Cap/Bottom Right Cap/Step x/Footing x table

5.2 Elevations List of Window Buttons:

- Cap and Footing Elevations group box
  - Up arrow
  - Down arrow
  - Add
  - Edit
  - Insert
  - Replace
  - Delete
  - Click To View Elevation Sketch

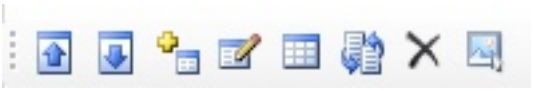
5.3 Elevations Options

Field	Descriptions
Enter The Bent Number	Use this field in the Cap and Footing Elevations group box to set the number of bents used in the project.
Are The Elevations Of The Back Cap Steps The Same As The Elevations Of The Ahead Cap Steps?	Use this field in the Cap and Footing Elevations group box to set whether or not the elevations of the back cap steps and ahead cap steps used in the project are equal. Select one of the following values: • Yes (default value) • No Note: This field is not displayed if you selected "No" in the '*Is The Number Of Back Beams The Same As The Number Of Ahead Beams?*" field in the GDOT - Concrete Bent window, General Details tab.
Are The Footing Elevations The Same?	Use this field in the Cap and Footing Elevations group box to set whether or not the elevations of the footings used in the project are equal. Select one of the following values: • Yes (default value) • No
Do You Want The Program To Calculate The Bottom Cap Elevations?	Use this field in the Cap and Footing Elevations group box to set whether or not the Concrete Bent application calculates the elevations of the bottom caps. Select one of the following values: • Yes (default value) • No

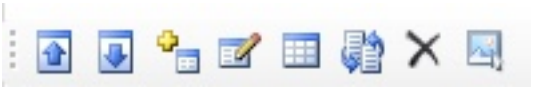
Field	Descriptions
Enter The Cap Step Elevation	Use this field in the Cap and Footing Elevations group box to set the elevation of each of the cap steps, in feet. Note: • This field is not displayed if you selected "No" in the Is "*The Number Of Back Beams The Same As The Number Of Ahead Beams?*" field in the GDOT - Concrete Bent window, General Details tab. • This field is not displayed if you selected "No" in the "Are The Elevations Of The Back Cap Steps The Same As The Elevations Of The Ahead Cap Steps?" field in this tab.
Enter The Footing Elevation	Use this field in the Cap and Footing Elevations group box to set the elevation of each of the footings, in feet. The minimum and maximum values are as follows:

Bent Number/View/Bottom Left Cap/Bottom Right Cap/Step x/Footing x table	
Field	Description
Bent Number	The bent number.
View	Whether the view is Back, Ahead, or Same.
Bottom Left Cap	The elevation of the bottom left cap, in feet.
Bottom Right Cap	The elevation of the bottom right cap, in feet.
Step x	The elevation of each cap step, in feet.
Footing x	The elevation of each footing, in feet.

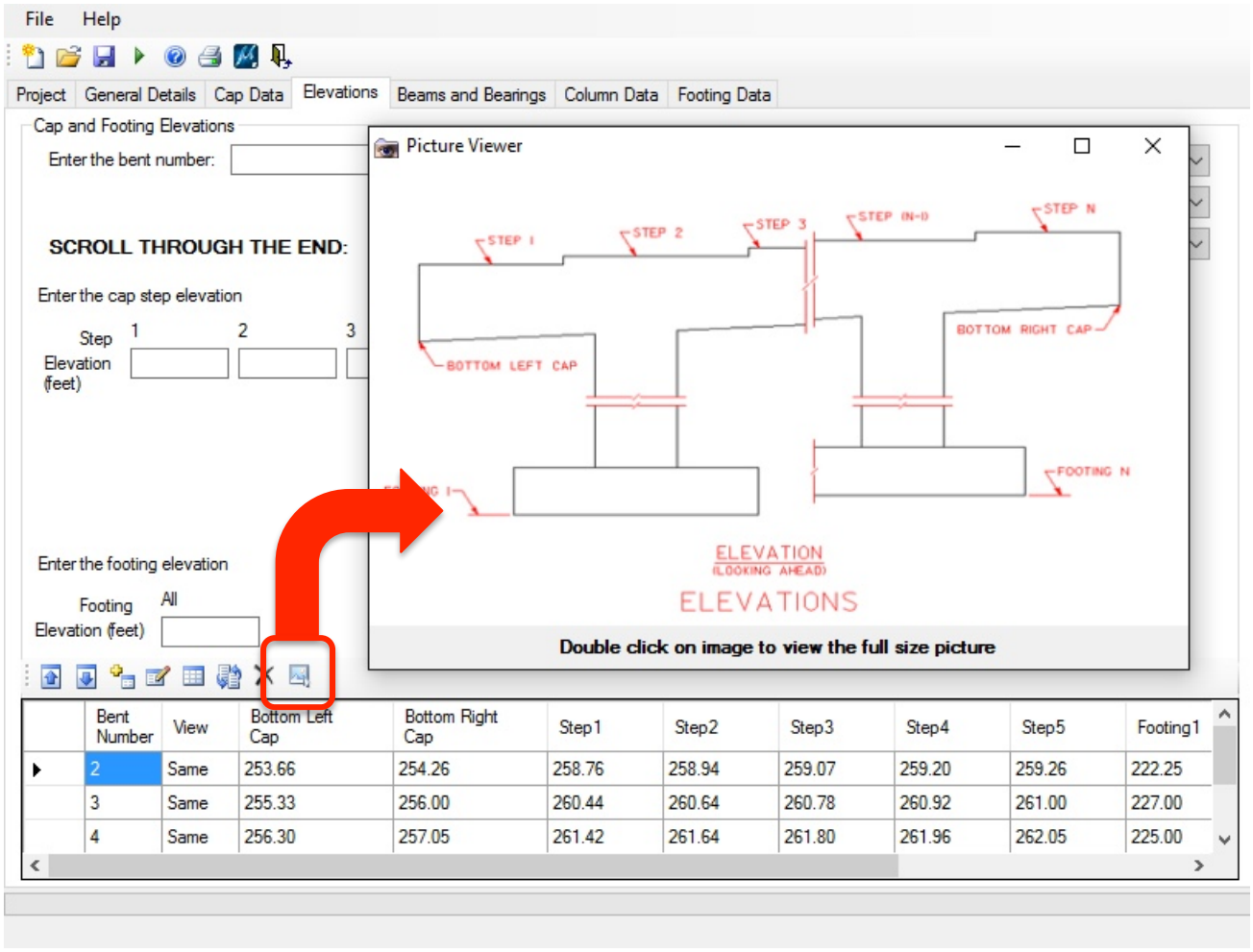
5.4 Button Options



Field	Descriptions
	**Up Arrow:** Do the following: 1. Select an entry row in the Bent Number/View/Bottom Left Cap/Bottom Right Cap/Step x/Footing x table. 2. Choose this button to move the selected entry up one table row.
	**Down Arrow:** Do the following: 1. Select an entry row in the Bent Number/View/Bottom Left Cap/Bottom Right Cap/Step x/Footing x table. 2. Choose this button to move the selected entry down one table row.
	**Add to data grid:** Do the following: 1. Type or select values in the fields in the Cap and Footing Elevations group box. 2. Choose this button to add this information to the Bent Number/View/Bottom Left Cap/Bottom Right Cap/Step x/Footing x table, in the row after the last table row.
	**Edit data grid:** Do the following: 1. Select an entry row in the Bent Number/View/Bottom Left Cap/Bottom Right Cap/Step x/Footing x table. 2. Choose this button to display the values in the fields in the Cap and Footing Elevations group box.



Field	Descriptions
	**Insert above selected data grid row:** Do the following: 1. Type or select values in the fields in the Cap and Footing Elevations group box. 2. Select an entry row in the Bent Number/View/Bottom Left Cap/Bottom Right Cap/Step x/Footing x table. 3. Choose this button to insert this information in the table row above the selected entry row.
	**Replace selected record in data grid:** Do the following: 1. Type or select values in the fields in the Cap and Footing Elevations group box. 2. Select an entry row in the Bent Number/View/Bottom Left Cap/Bottom Right Cap/Step x/Footing x table. 3. Choose this button to replace the existing values in the entry row with the new values in the fields in the Cap and Footing Elevations group box.
	**Delete selected row in data grid:** Do the following: 1. Select an entry row in the Bent Number/View/Bottom Left Cap/Bottom Right Cap/Step x/Footing x table. 2. Choose this button to display the values in the fields in the Cap and Footing Elevations group box.
	**Click to view elevation sketch:** Choose this button in the Cap and Footing Elevations group box to display the Elevation Sketch window. Use this window to view an example sketch. This sketch includes the following information: • The location of the footings • The location of the bottom left cap • The location of the bottom right cap • The location of the measurements of the cap steps



Bent Number	View	Bottom Left Cap	Bottom Right Cap	Step1	Step2	Step3	Step4	Step5	Footing1
2	Same	253.66	254.26	258.76	258.94	259.07	259.20	259.26	222.25
3	Same	255.33	256.00	260.44	260.64	260.78	260.92	261.00	227.00
4	Same	256.30	257.05	261.42	261.64	261.80	261.96	262.05	225.00

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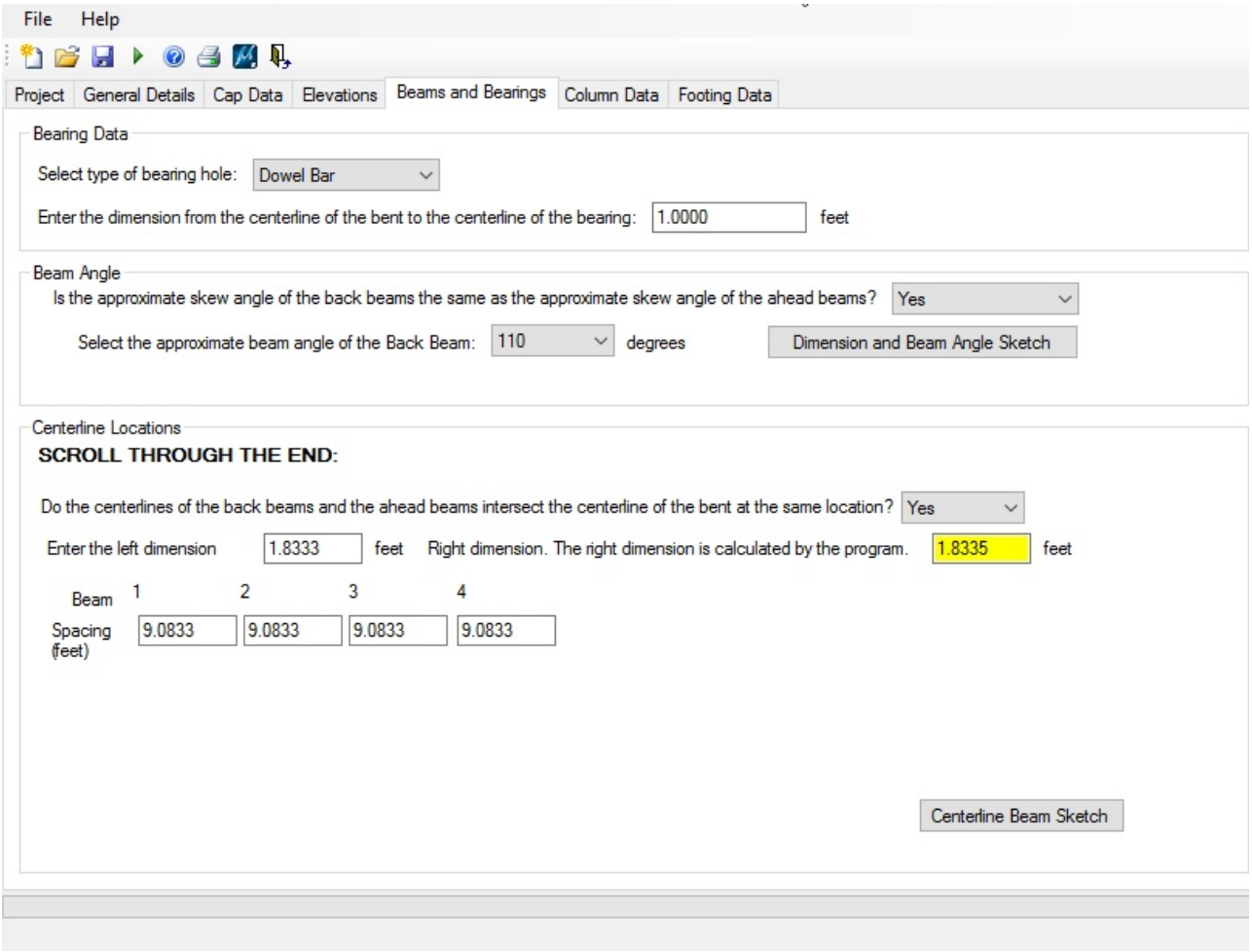
Chapter 6 Beams & Bearings



Introduction: Use the fields in the GDOT - Concrete Bent window, Beam and Bearings tab to set the beam and bearing information in a Concrete Bent input file. The beam and bearing information includes the following information: Bearing information, Beam angle information and Beam dimension information

Note: Scroll the text in the Centerline Locations group box to view all of the fields in the group box.

6.1 Beams and Bearings List of Window Fields

The GDOT - Concrete Bent Beam and Bearings tab contains the following fields:

- Bearing Data group box
  - Select The Type Of Bearing Hole
  - Enter The Distance From The Center Of The Bent To The Center Of The Bearing
- Beam Angle group box
  - Is The Approximate Skew Angle Of The Back Beams The Same As The Approximate Skew Angle Of The Ahead Beams?
  - Select The Approximate Skew Angle Of The Beams
  - Select The Approximate Skew Angle Of The Back Beams
  - Select The Approximate Skew Angle Of The Ahead Beams
- Centerline Locations group box
  - Do The Centerlines Of The Back Beams And The Ahead Beams Intersect The Centerline Of The Bent At The Same Location?
  - Enter The Left Dimension
  - Right Dimension
  - Enter The Back Left Dimension
  - Back Right Dimension
  - Beam Spacing
  - Enter The Ahead Left Dimension
  - Ahead Right Dimension
  - Beam Spacing

6.2 Beams and Bearings List Of Window Buttons

The GDOT - Concrete Bent Beam and Bearings tab contains the following buttons:

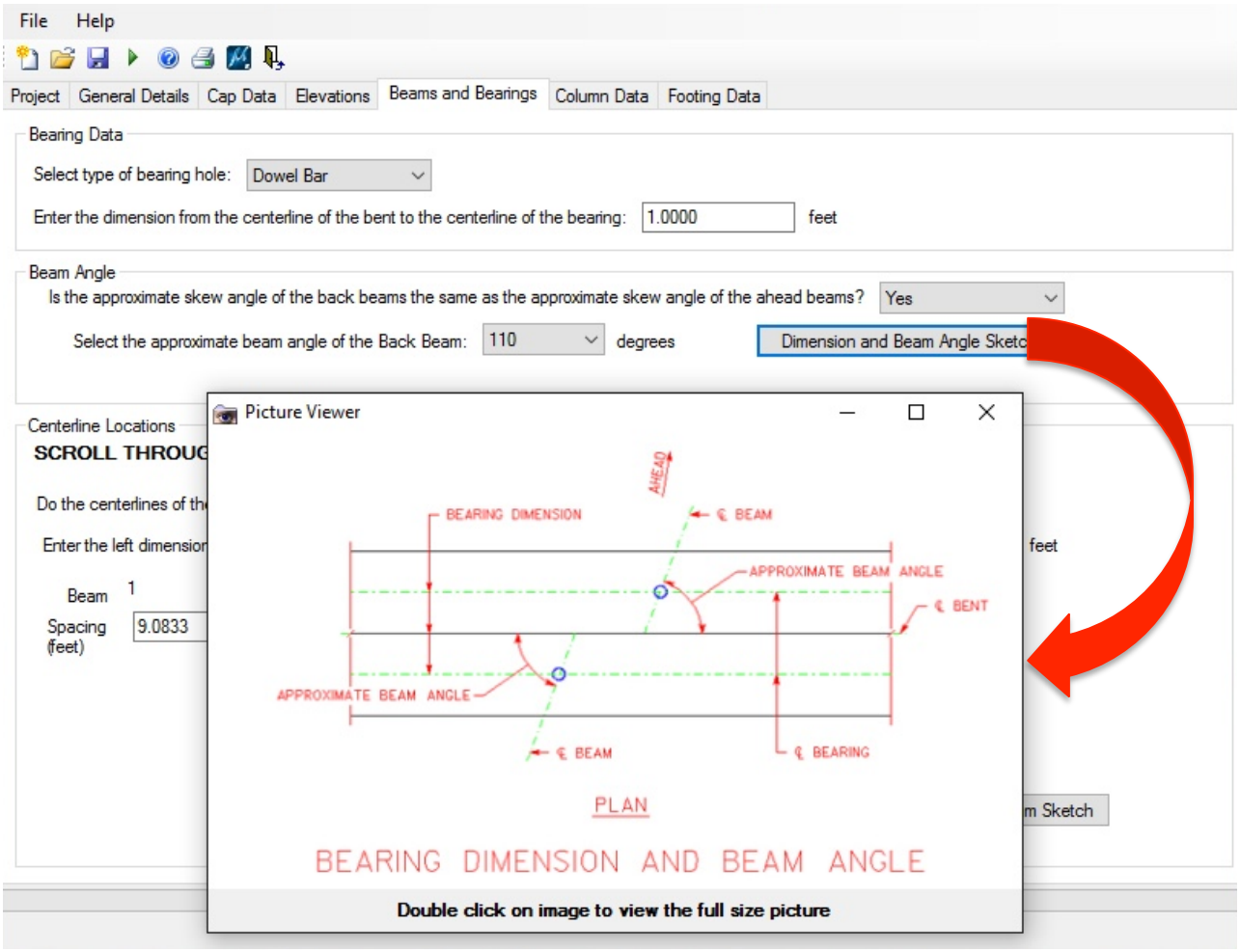
- Beam Angle group box
  - Click To View Bearing Dimension And Beam Angle Sketch
- Centerline Locations group box
  - Click To View Centerline Beam Sketch

6.3 Beams & Bearings Options

Field	Descriptions
Select The Type Of Bearing Hole	Use this field in the Bearing Data group box to set the type of bearing hole used in the project. Select one of the following values: • Dowel Bar (default value) • Two Anchor Bolts • None
Enter The Distance From The Center Of The Bent To The Center Of The Bearing	Use this field in the Bearing Data group box to set the dimension from the center of the bent to the center of the bearing, in feet.
Is The Approximate Skew Angle Of The Back Beams The Same As The Approximate Skew Angle Of The Ahead Beams?	Use this field in the Beam Angle group box to set whether or not the skew angles of the back beams and ahead beams used in the project are equal. Select one of the following values: • Yes (default value) • No
Select The Approximate Skew Angle Of The Beams	Use this field in the Beam Angle group box to set the skew angle of the beams, in degrees. Note: This field is not displayed if you selected "No" in the "*Is The Approximate Skew Angle Of The Back Beams The Same As The Approximate Skew Angle Of The Ahead Beams?*" field in this tab.
Select The Approximate Skew Angle Of The Back Beams	Use this field in the Beam Angle group box to set the skew angle of the back beams, in degrees. Note: This field is not displayed if you selected "Yes" in the "*Is The Approximate Skew Angle Of The Back Beams The Same As The Approximate Skew Angle Of The Ahead Beams?*" field in this tab.

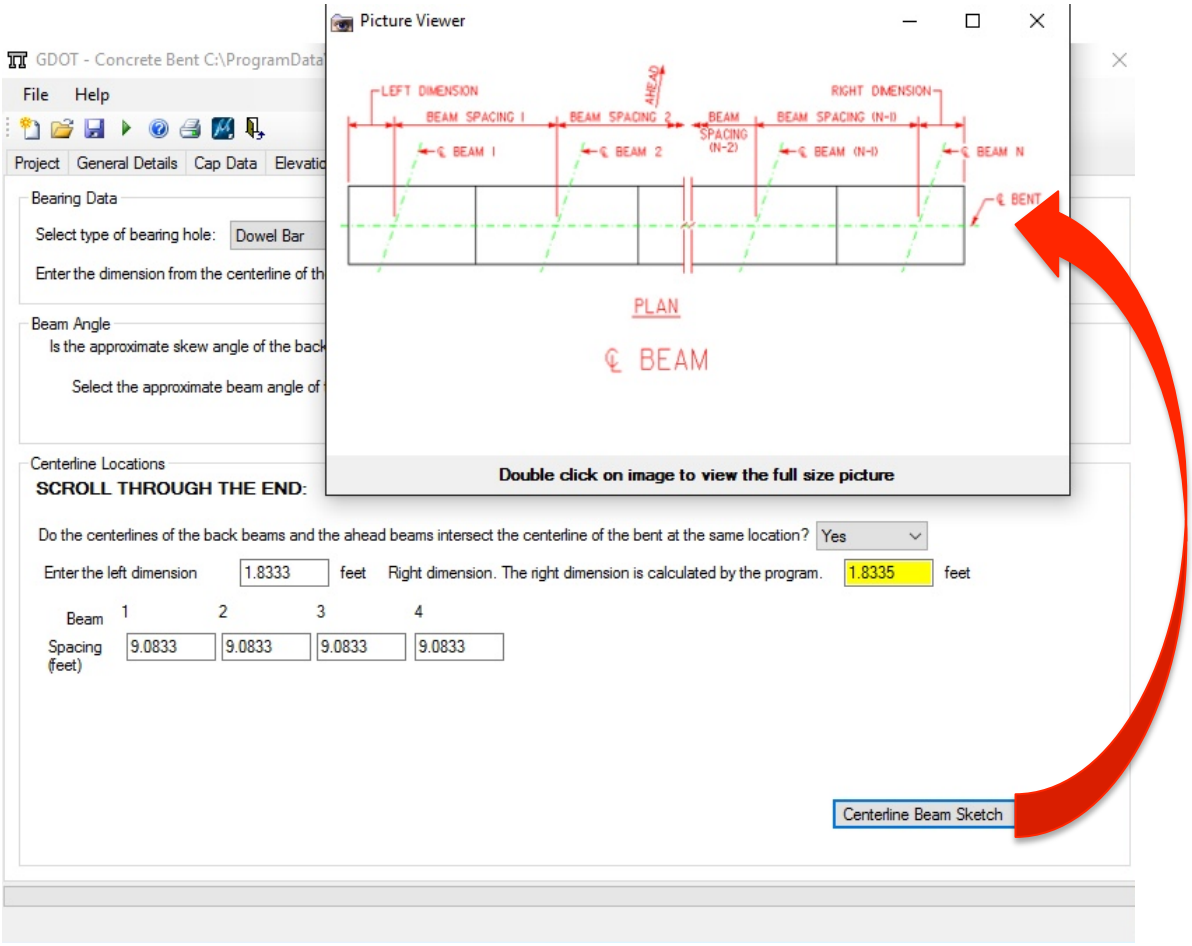
Field	Descriptions
Select The Approximate Skew Angle Of The Ahead Beams	Use this field in the Beam Angle group box to set the skew angle of the ahead beams, in degrees. Note: This field is not displayed if you selected "Yes" in the "*Is The Approximate Skew Angle Of The Back Beams The Same As The Approximate Skew Angle Of The Ahead Beams?*" field in this tab.
Do The Centerlines Of The Back Beams And The Ahead Beams Intersect The Centerline Of The Bent At The Same Location?	Use this field in the Centerline Locations group box to set whether or not the centerline of the back beams and the ahead beams intersect the centerline of the bent at the same location. Select one of the following values: • Yes (default value) • No
Enter The Left Dimension	Use this field in the Centerline Locations group box to set the centerline dimension of the left beam, in feet. Note: This field is not displayed if you selected "No" in the "*Do The Centerlines Of The Back Beams And The Ahead Beams Intersect The Centerline Of The Bent At The Same Location?"* field in this tab.
Back Right Dimension	The dimension of the right beam is calculated by the Concrete Bent application. Note: This field is not displayed if you selected "No" in the "*Do The Centerlines Of The Back Beams And The Ahead Beams Intersect The Centerline Of The Bent At The Same Location?*" field in this tab.
Beam Spacing	Use this field in the Centerline Locations group box to set the spacing between the beams, in feet.

Field	Descriptions
Enter The Ahead Left Dimension	Use this field in the Centerline Locations group box to set the centerline dimension of the ahead left beam, in feet. Note: This field is not displayed if you selected "Yes" in the "*Do The Centerlines Of The Back Beams And The Ahead Beams Intersect The Centerline Of The Bent At The Same Location?*" field in this tab.
Ahead Right Dimension	The dimension of the ahead right is calculated by the Concrete Bent application. Note: This field is not displayed if you selected "Yes" in the "*Do The Centerlines Of The Back Beams And The Ahead Beams Intersect The Centerline Of The Bent At The Same Location?*" field in this tab.



6.4 Dimension and Beam Angle Sketch

Field	Descriptions
Click To View Bearing Dimension And Beam Angle Sketch	Choose this button in the Beam Angle group box to display the Bearing Dimension And Beam Angle Sketch window. Use this window to view an example sketch. This sketch includes the following information: • The location of the centerline of the beam • The location of the centerline of the bearing • The location of the centerline of the bent • The location of the bearing dimension measurement • The location of the beam angle measurement



6.5 Centerline Beam Sketch

Field	Descriptions
Click To View Centerline Beam Sketch	Choose this button in the Centerline Locations group box to display the Centerline Beam Sketch window. Use this window to view an example sketch. This sketch includes the following information: • The location of the centerline of the bent • The location of the centerline of each beam • The location of the left dimension measurement • The location of each beam spacing measurement • The location of the right dimension measurement

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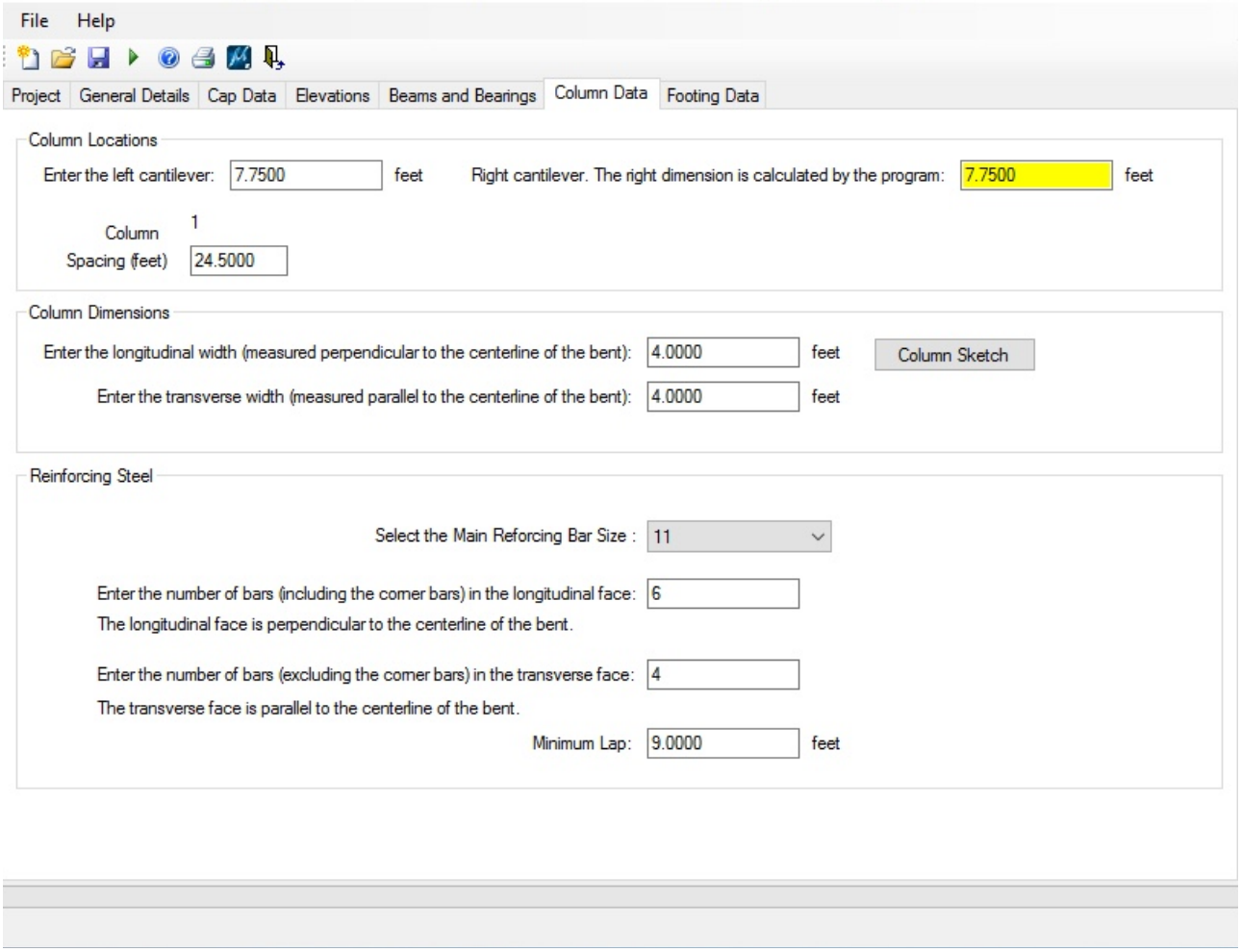
Chapter 7 Column Data



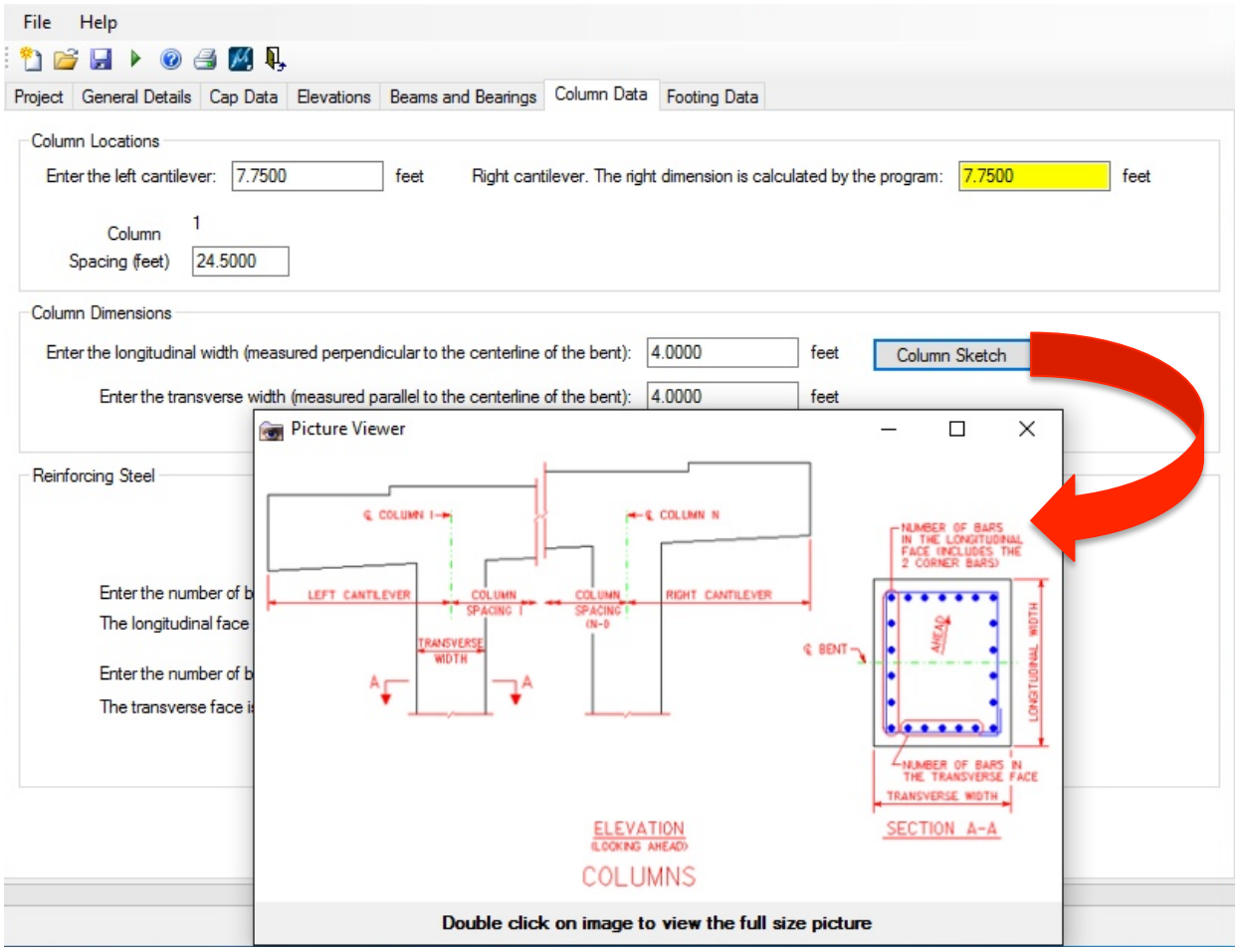
Introduction: Use the fields in the GDOT - Concrete Bent window, Column Data tab to set the column information in a Concrete Bent input file. The column information includes the following information: Column location information, Column dimension information, and Reinforcing steel bar information

7.1 Concrete Bent List Of Window Fields

- Column Locations group box
  - Enter The Left Cantilever
  - Right Cantilever
  - Column Spacing
- Column Dimensions group box
  - Enter The Longitudinal Width
  - Enter The Transverse Width
- Main Reinforcing Steel group box
  - Select The Bar Size
  - Enter The Number Of Bars In The Longitudinal Face
  - Enter The Number Of Bars In The Transverse Face

7.2 Column Data Options

Field	Descriptions
Enter The Left Cantilever	Use this field in the Column Locations group box to set the dimension of the left cantilever, in feet.
Right Cantilever	The dimension of the right cantilever is calculated by the Concrete Bent application.
Column Spacing	Use this field in the Column Locations group box to set the spacing between each of the columns, in feet.
Enter The Longitudinal Width	Use this field in the Column Dimensions group box to set the longitudinal width of the column, in feet.
Enter The Transverse Width	Use this field in the Column Dimensions group box to set the transverse width of the column, in feet.
Select The Bar Size	Use this field in the Main Reinforcing Steel group box to set the size of the reinforcing steel bars used in the project.
Enter The Number Of Bars In The Longitudinal Face	Use this field in the Main Reinforcing Steel group box to set the number of the reinforcing steel bars in the longitudinal face, including the corner bars
Enter The Number Of Bars In The Transverse Face	Use this field in the Main Reinforcing Steel group box to set the number of the reinforcing steel bars in the transverse face, excluding the corner bars.



7.3 Column Sketch

Field	Descriptions
Click To View Column Sketch	Choose this button in the Column Dimensions group box to display the Column Sketch window. Use this window to view an example sketch. This sketch includes the following information: • The location of the centerline of each column • The location of the left cantilever measurement • The location of each column spacing measurement • The location of the right cantilever measurement • The location of the transverse face of the column • The location of the longitudinal face of the column

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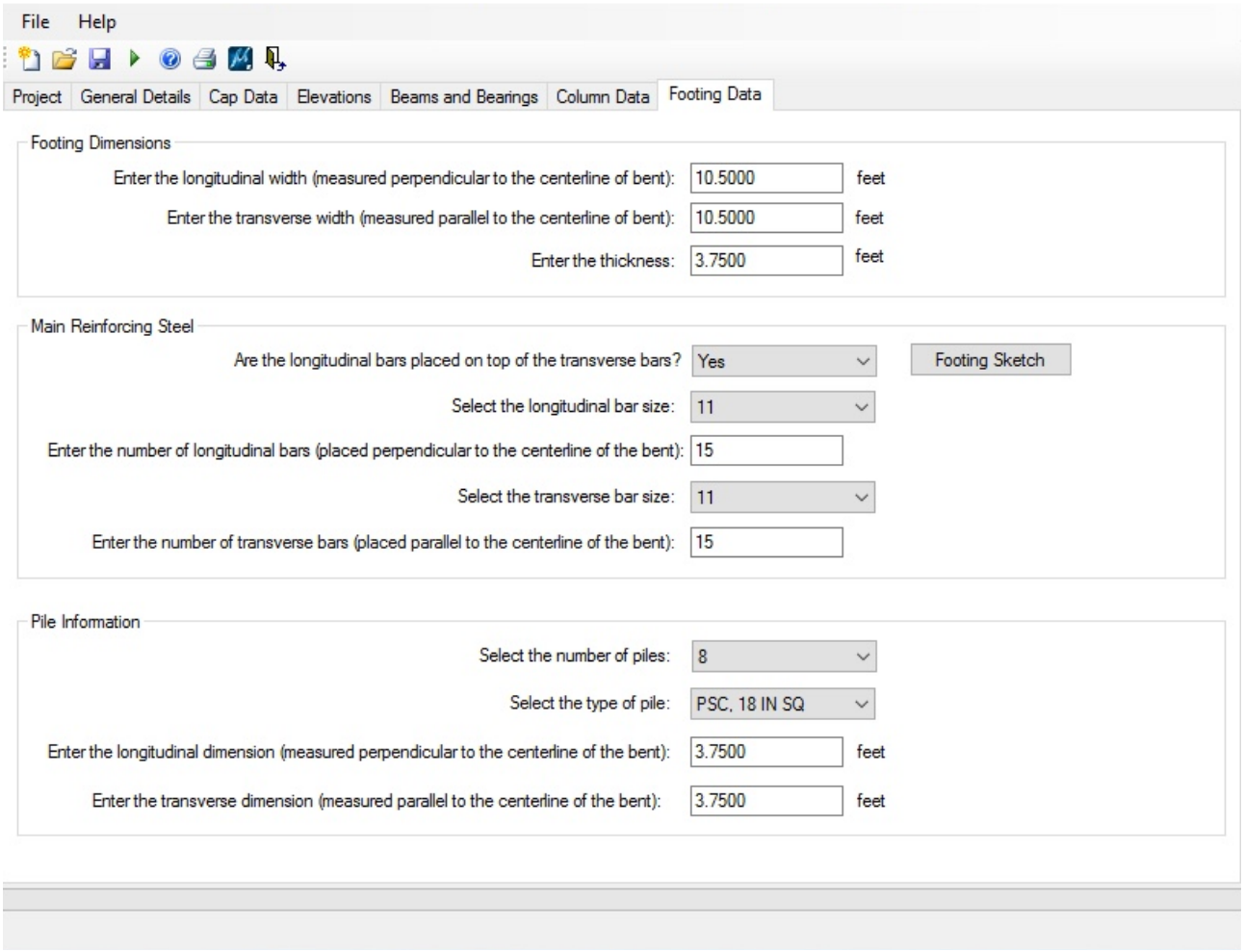
Chapter 8 Footing Data



Introduction Use the fields in the GDOT - Concrete Bent window, Footing Data tab to set the footing information in a Concrete Bent input file. The footing information includes the following information: Footing dimension information, Reinforcing steel bar information, and Pile information

Depending on the value that you select in the Select The Type Of Footing field in the GDOT - Concrete Bent window, General Details tab, one of the following GDOT - Concrete Bent window, Footing Data tab is displayed

If you selected "Spread" in the Select The Type Of Footing field in the GDOT - Concrete Bent window, General Details tab, the following GDOT - Concrete Bent window, Footing Data tab is displayed.

8.1 Footing Data List Of Window Fields

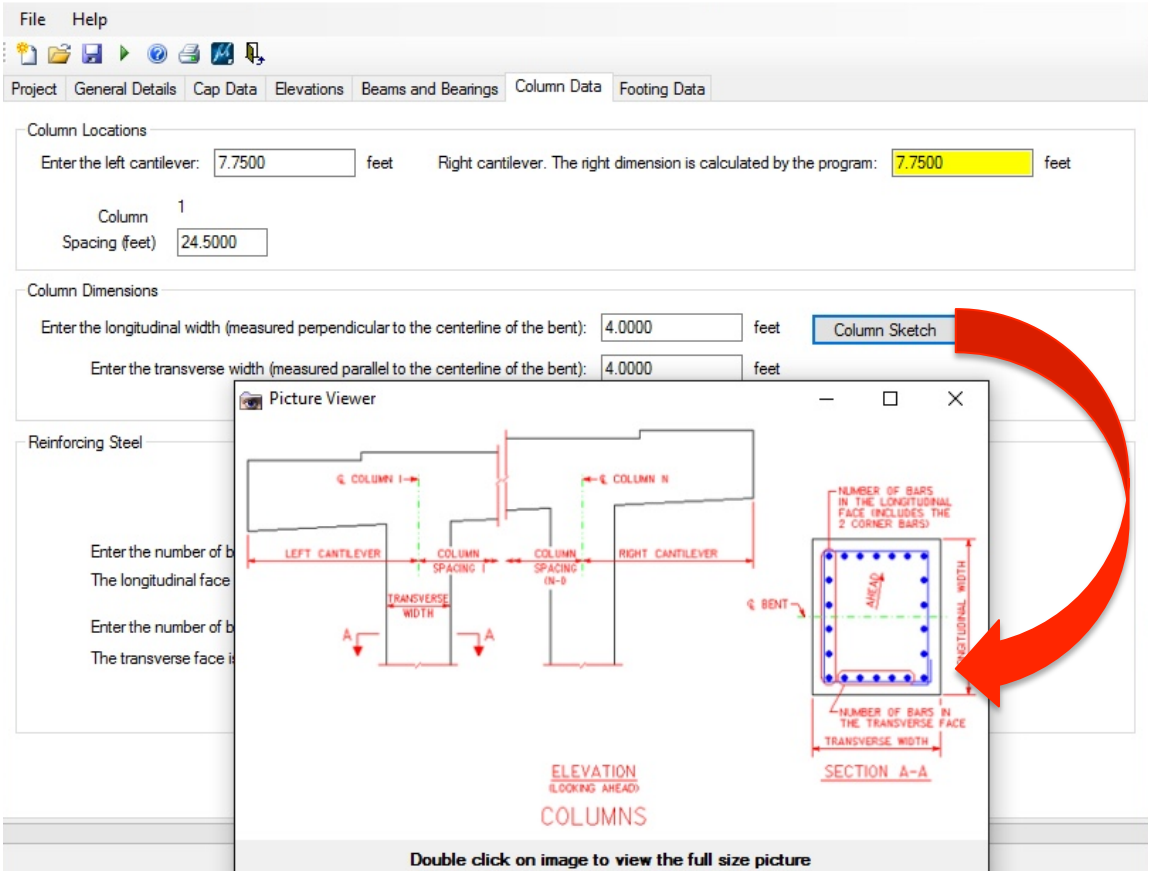
- Footing Dimensions group box
  - Enter The Longitudinal Width
  - Enter The Transverse Width
  - Enter The Thickness
- Main Reinforcing Steel group box
  - Are The Longitudinal Bars Placed On Top Of The Transverse Bars?
  - Select The Longitudinal Bar Size
  - Enter The Number Of Longitudinal Bars
  - Select The Transverse Bar Size
  - Enter The Number Of Transverse Bars
- Pile Information group box
  - Select The Number Of Piles
  - Select The Type Of Pile
  - Enter The Longitudinal Pile Dimension

8.2 Footing Data List Of Window Buttons

- Main Reinforcing Steel group box
  - Click To View Footing Sketch

8.3 Footing Data Options

Field	Descriptions
Enter The Longitudinal Width	Use this field in the Footing Dimensions group box to set the longitudinal width of the footing, in feet.
Enter The Transverse Width	Use this field in the Footing Dimensions group box to set the transverse width of the footing, in feet.
Enter The Thickness	Use this field in the Footing Dimensions group box to set the thickness of the footing, in feet.
Are The Longitudinal Bars Placed On Top Of The Transverse Bars?	Use this field in the Main Reinforcing Steel group box to set whether or not the longitudinal reinforcing steel bars are placed on top of the transverse reinforcing steel bars. Select one of the following values: • Yes (default value) • No
Select The Longitudinal Bar Size	Use this field in the Main Reinforcing Steel group box to set the size of the longitudinal reinforcing steel bars used in the project.
Enter The Number Of Longitudinal Bars	Use this field in the Main Reinforcing Steel group box to set the number of longitudinal reinforcing steel bars.
Select The Transverse Bar Size	Use this field in the Main Reinforcing Steel group box to set the size of the transverse reinforcing steel bars used in the project.
Enter The Number Of Transverse Bars	Use this field in the Main Reinforcing Steel group box to set the number of transverse reinforcing steel bars



8.3 Footing Sketch

Field	Descriptions
Click To View Footing Sketch	Choose this button in the Main Reinforcing Steel group box to display the Footing Sketch window. Use this window to view an example sketch. This sketch includes the following information: • The location of the centerline of the column • The location of the centerline of the footing • The location of the centerline of the cap • The location of the centerline of the bent • The location of the thickness of the footing measurement • The location of the transverse width measurement of the footing • The location of the longitudinal width measurement of the footing