

SCDOT Load Rating

Standard Labeling Diagram Guidelines

The intent of the following instruction manual is to give basic information on how to use the SCDOT Labeling Diagram cell library to create consistent and uniform labeling diagrams. The cells contained in the library will not cover every possible structural design. They are to be used where applicable and modified where needed. Please use this document along with the SCDOT Load Rating Guidance Document section 5.5 and Appendix A5.3.

The SCDOT_Labeling_Diagram.DGN should be used to start all Labeling Diagram files. Open the SCDOT_Labeling_Diagram.DGN and Save As "ASSET NO. Labeling Sketch 01.dgn". If more than one sheet is required, name it "ASSET NO. Labeling Sketch 02.dgn" and so on. The SCDOT_Labeling_Diagram.DGN contains many bridge superstructure plan configurations, choose the one that agrees with your bridge and delete the others. If you have a unique bridge layout that is not contained in the SCDOT_Labeling_Diagram.DGN then the components used to create the Labeling Diagram can be found in the SCDOT_Labeling_Diagram.cel cell library. Below is a list of the components found in the library and a brief description of their use. (Images of the cells are not to scale in this document). When possible label all components on one diagram. If the information cannot be clearly noted on one diagram, please make one for superstructure items and one for substructure. Footing with piles may be shown on individual details if needed for clarity. For structures that do not have As-Built drawings the pile information may not be available, so these details can be omitted.

Use the SCDOT workspace in MicroStation.

If the structure labeling varies from the Inspection Report - add a note stating Labeling diagrams differs from Inspection Report.

All cells are set up to be inserted at a scale of 1.

Most callouts have data fields inserted so the callouts can be easily modified to correctly label the component.

Cells can be dropped so that they can be modified to meet a specific structure layout.

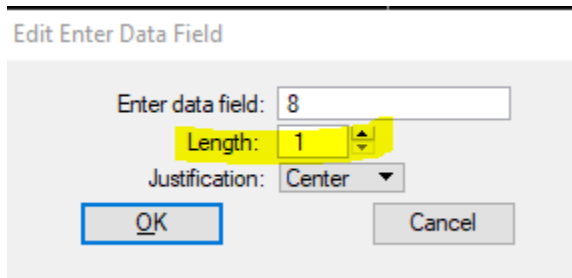
A maximum of 3 spans can be shown per Labeling Diagram. Structures with 4 or more spans will need to be shown on multiple sheets. A maximum of 15 girders can be shown per Labeling Diagram, if more width is required it will need to be shown on multiple sheets.

Data field instructions:

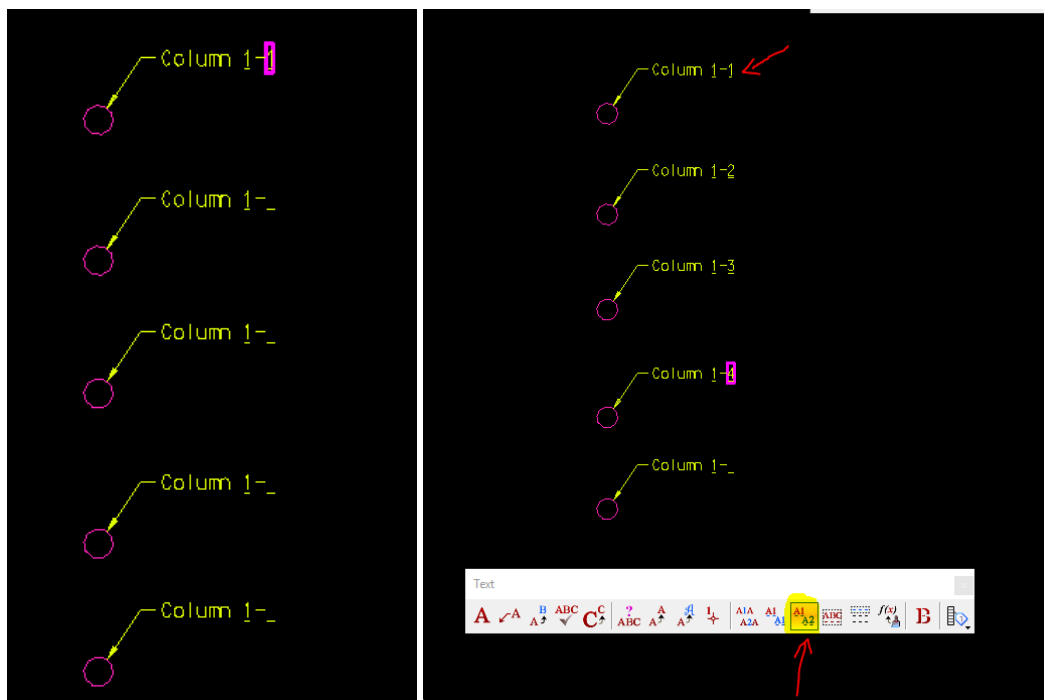
To fill in a data field use the “Fill in Single Enter-Data Field” tool on the Text Toolbar.



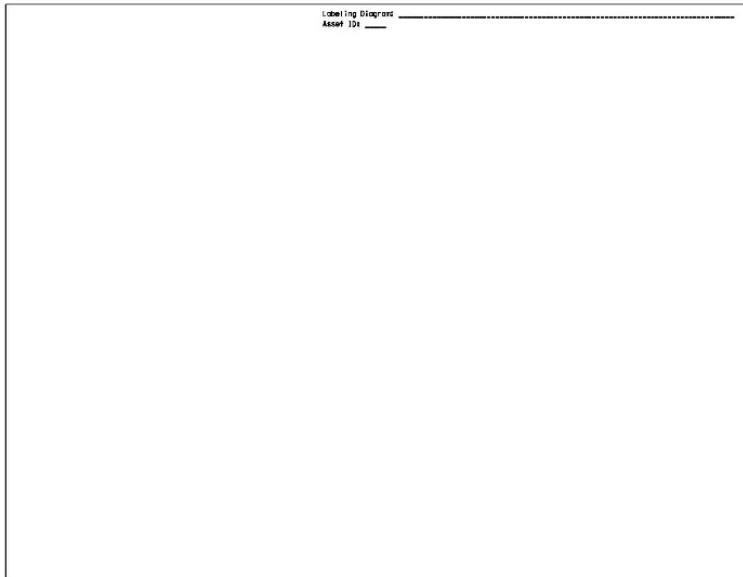
To add additional data fields, use the “Edit Text” tool. Right click on the data field and select “Insert Enter Data Field” and change the length to the required number of spaces. For example, if it is 1 space and you want to make it 2 to enter the number “10” change the length from 1 to 2. You can also fill out the data field in this tool on the top line “Enter Data Field”.



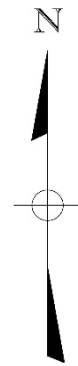
Use the “Copy/Increment Enter Data Fields” tool to fill out multiple data fields. For example, when labeling several columns at one bent, place the column cell once and fill out the first data field for the bent designation. Then copy it to all the column locations like shown in the first image below. Then select the “Copy/Increment Enter Data Fields” tool. Pick on the data field you filled out (highlighted in pink below), set the increment to 1 and select the other data fields in order and it will automatically fill them out.



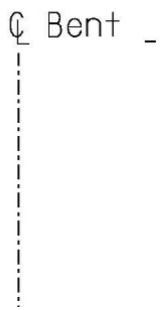
Cells in Cell Library SCDOT Labeling Diagram.cel



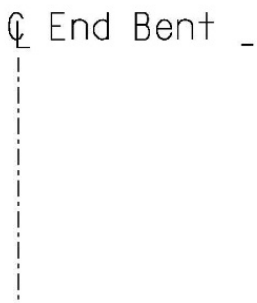
Border Labeling Diagram Border (8 ½"x 11")



North Arrow




CL Bent Centerline Bent for Interior Bents



CL End Bent Centerline for End Bents/Abutments

Bearing B __ (bk.)



Bearing callout_ahd Bearing callout ahead station

Bearing B __ (ahd.)




Bearing callout_bk Bearing callout back station

Pile __



Pile_H

Pile __

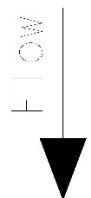


Pile_square

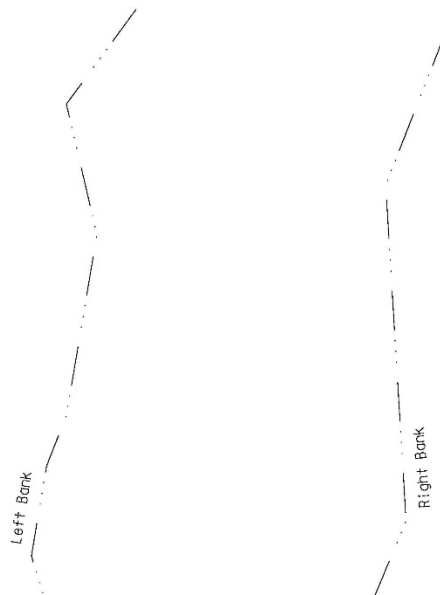
Column __



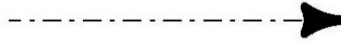
Column



Flow Arrow



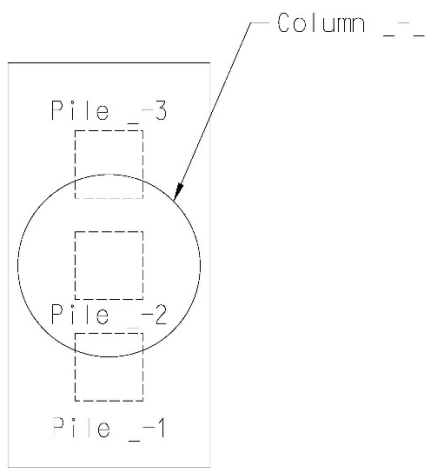
Waterway edge To be used to show edge of waterway



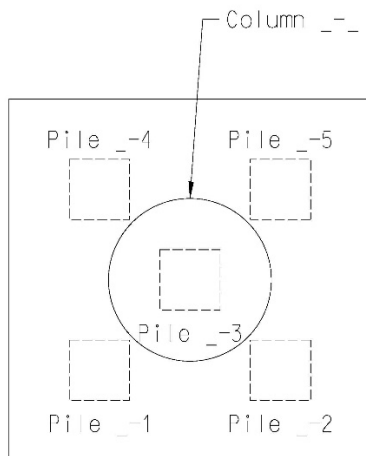
CL / Dir of Stationing



Column Footing – 4 piles Enlarged view of column footing (use and modify as needed)



Column Footing – 3 piles Enlarged view of column footing (use and modify as needed)



Column Footing – 5 piles Enlarged view of column footing (use and modify as needed)



Approach Slab Begin Used to label Beginning Approach Slab



Approach Slab End Used to label End Approach Slab



Barrier Left Used to label Left Barrier



Barrier Right Used to label Right Barrier

Floor Beams_02 through **Floor Beams_10** Plan view for 1 span depicting floor beams (use and modify as needed)

FB _1

FB _2

FB _1

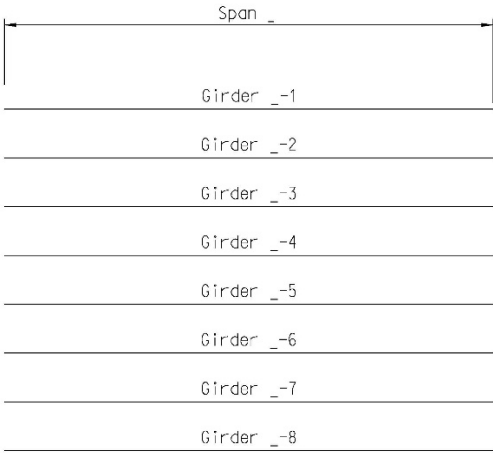
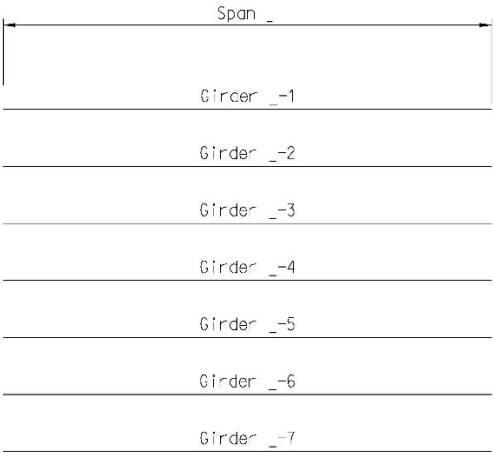
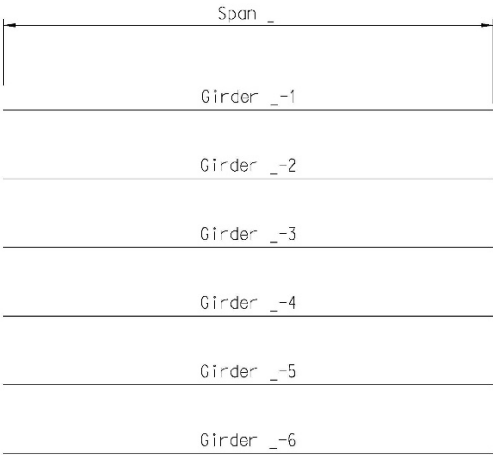
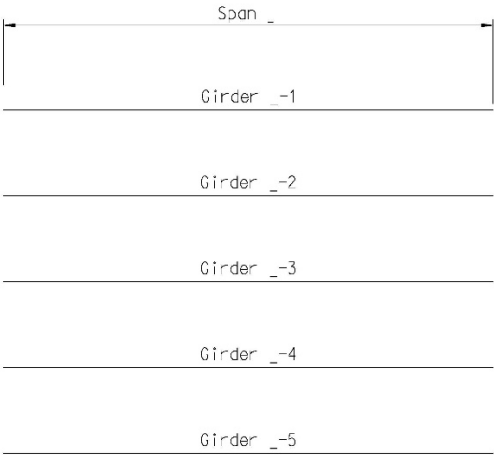
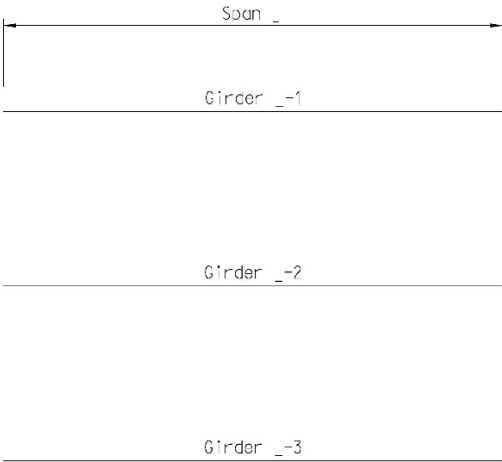
FB _2

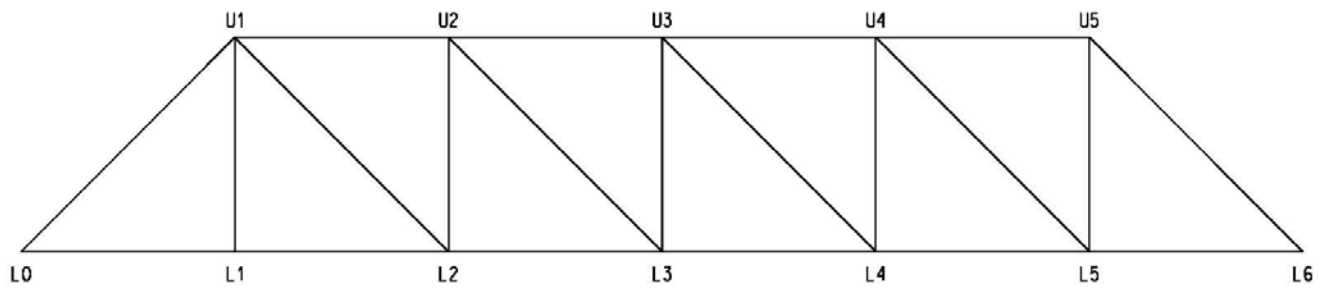
FB _3

FB _1	FB _1	FB _1	FB _1
FB _2	FB _2	FB _2	FB _2
FB _3	FB _3	FB _3	FB _3
FB _4	FB _4	FB _4	FB _4
FB _5	FB _5	FB _5	FB _5
FB _6	FB _6	FB _6	FB _6
FB _7	FB _7	FB _7	FB _7
FB _8	FB _8	FB _8	FB _8
FB _9	FB _9	FB _9	FB _9
FB _10	FB _10	FB _10	FB _10

FB _1	FB _1	FB _1	FB _1
FB _2	FB _2	FB _2	FB _2
FB _3	FB _3	FB _3	FB _3
FB _4	FB _4	FB _4	FB _4
FB _5	FB _5	FB _5	FB _5
FB _6	FB _6	FB _6	FB _6
FB _7	FB _7	FB _7	FB _7
FB _8	FB _8	FB _8	FB _8
FB _9	FB _9	FB _9	FB _9

Girders_03 through **Girders_08** Plan view for single span depicting girders (use and modify as needed)





Truss Elevation sample truss elevation (use and modify as needed)

Example Labeling Diagram

Labeling Diagrams Example Labeling Diagram
Asset ID: 00000

