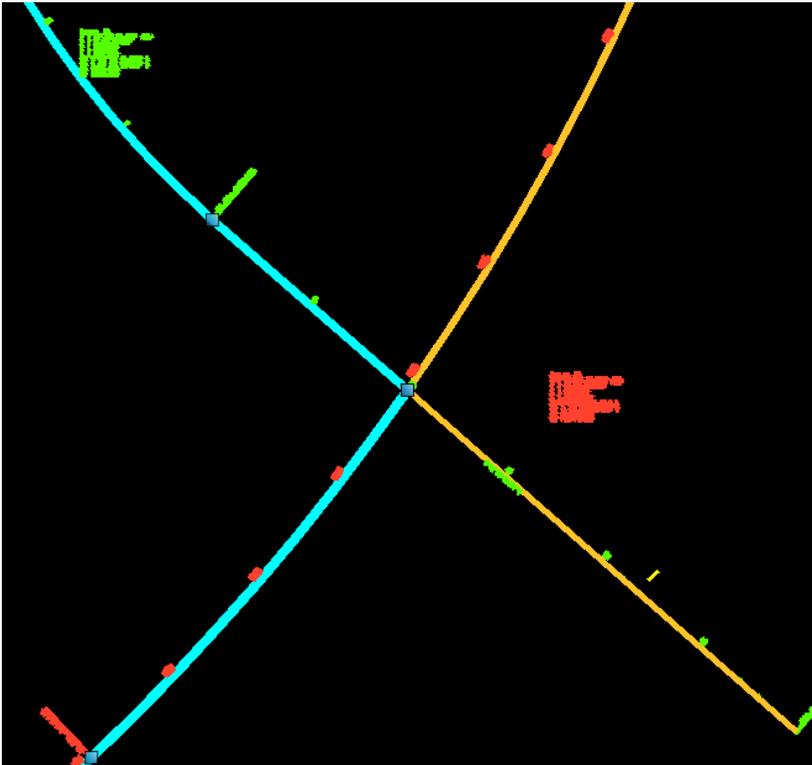


Roundabouts

Preparing the Alignments

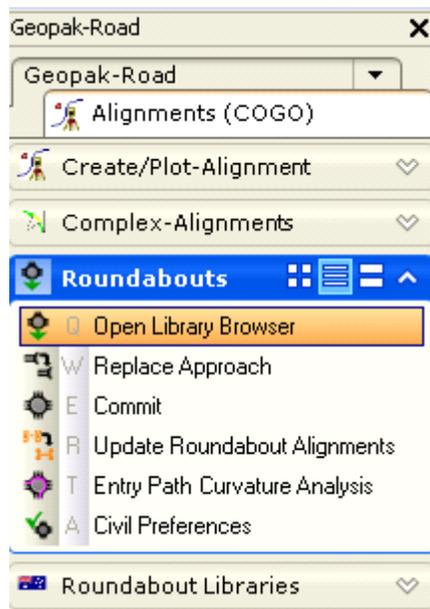
In a DGN file with your alignments plotted, break the alignment elements at their intersection and then create a complex chain of each Approach side far enough back so that the roundabout approaches will fit within the complex chains. Note that complex chains do not have to be created if the approaches will fit on the intersecting elements.

In the example below, a complex chain was created for the NW & SW approaches because the roundabout approaches do not fit within the intersecting elements on these sides. The Roundabout approaches for the other sides will fit on the single intersecting elements.

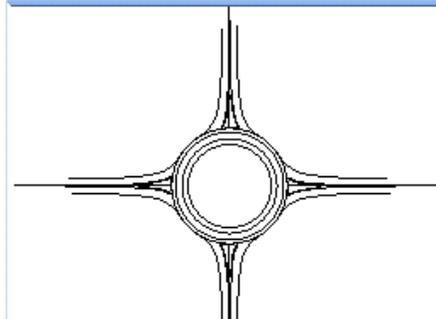
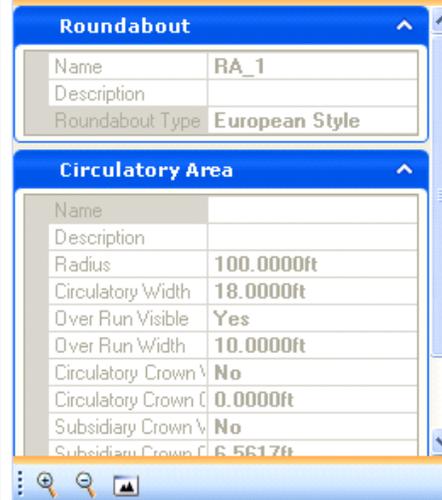
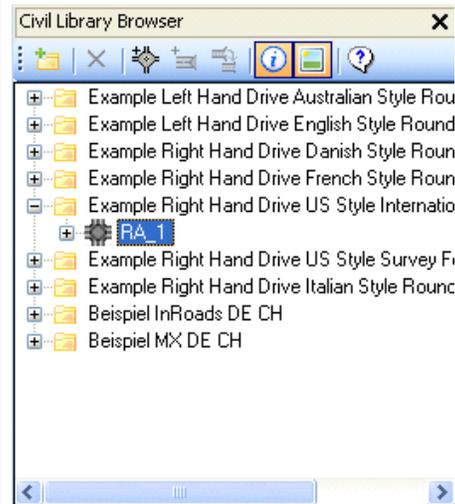


Placing the Roundabout

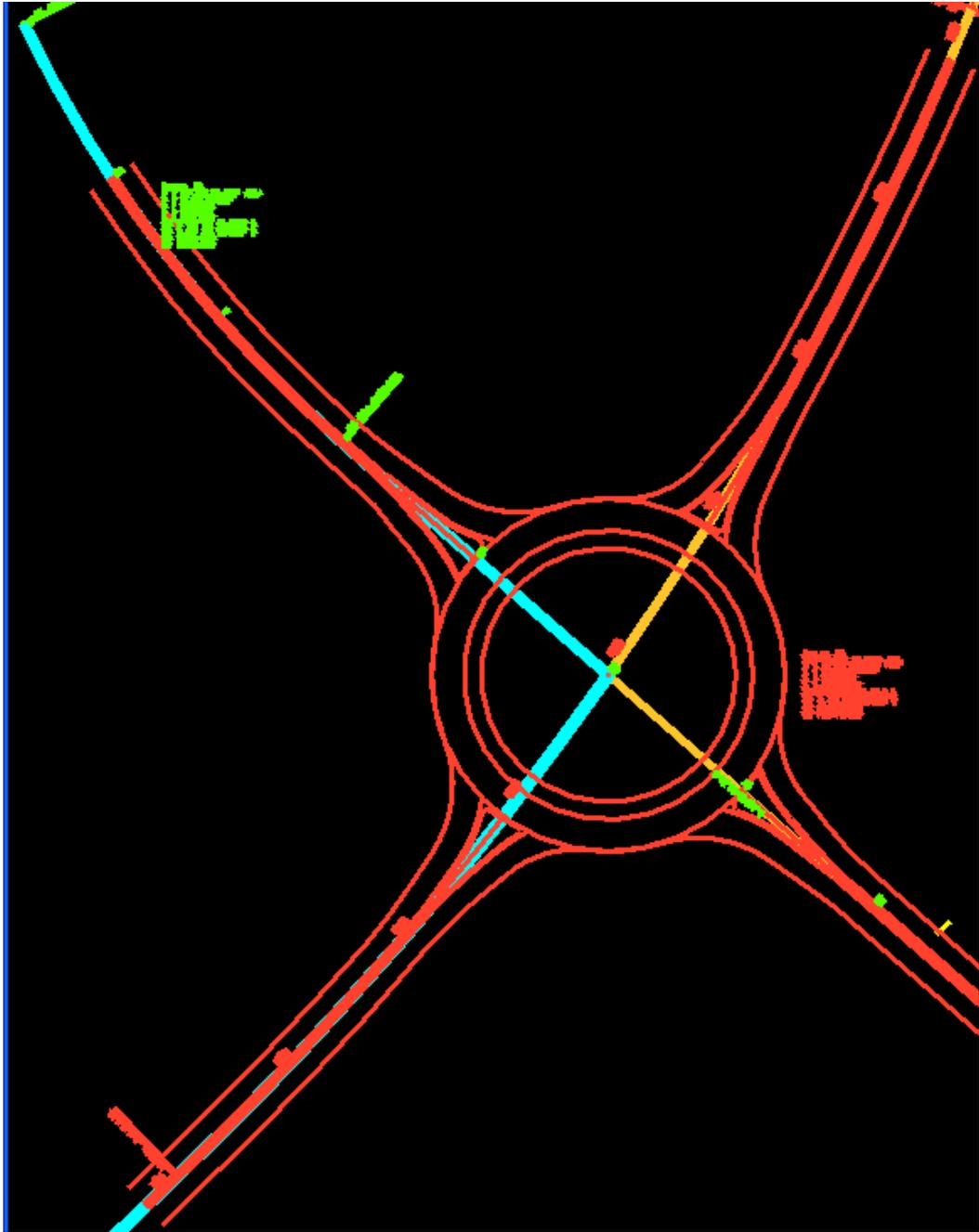
- 1) Open the Roundabout Library Browser.



- 2) From the Library Browser, choose the Roundabout to place & tag the Place Roundabout tool.



- 3) Data Point each alignment approach and after all is selected, reset, and then Snap & Data the intersection point to place the roundabout. (Follow Microstation prompts for this.)

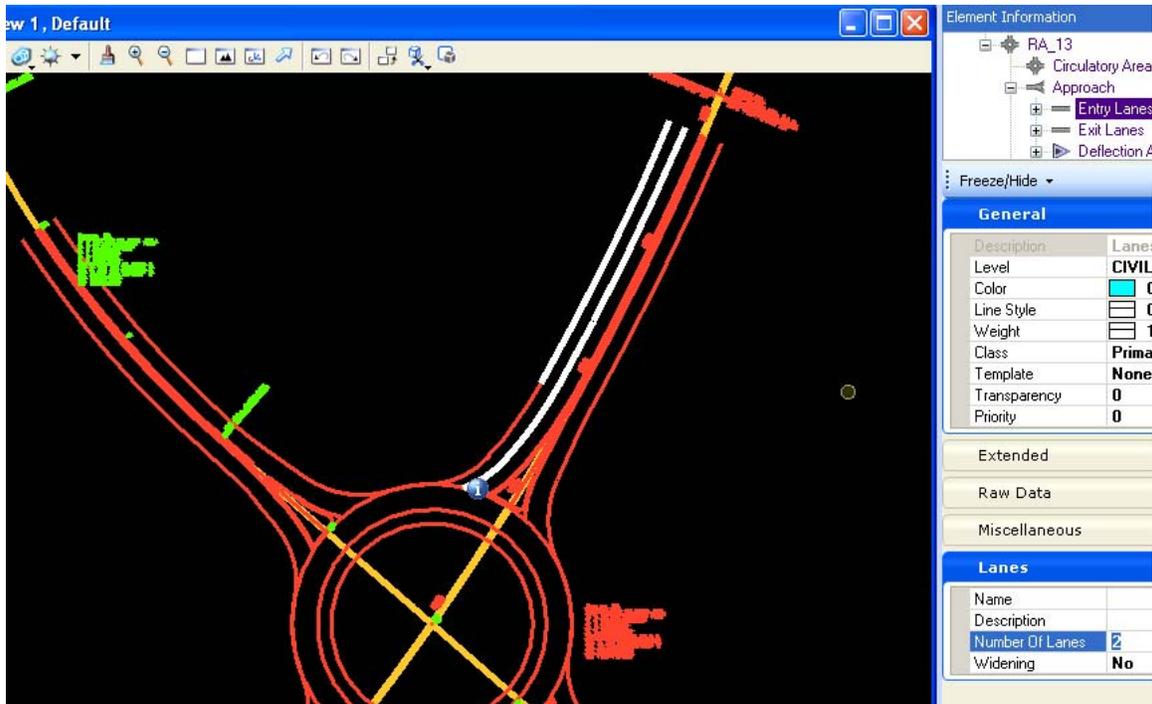


Modifying the Roundabout

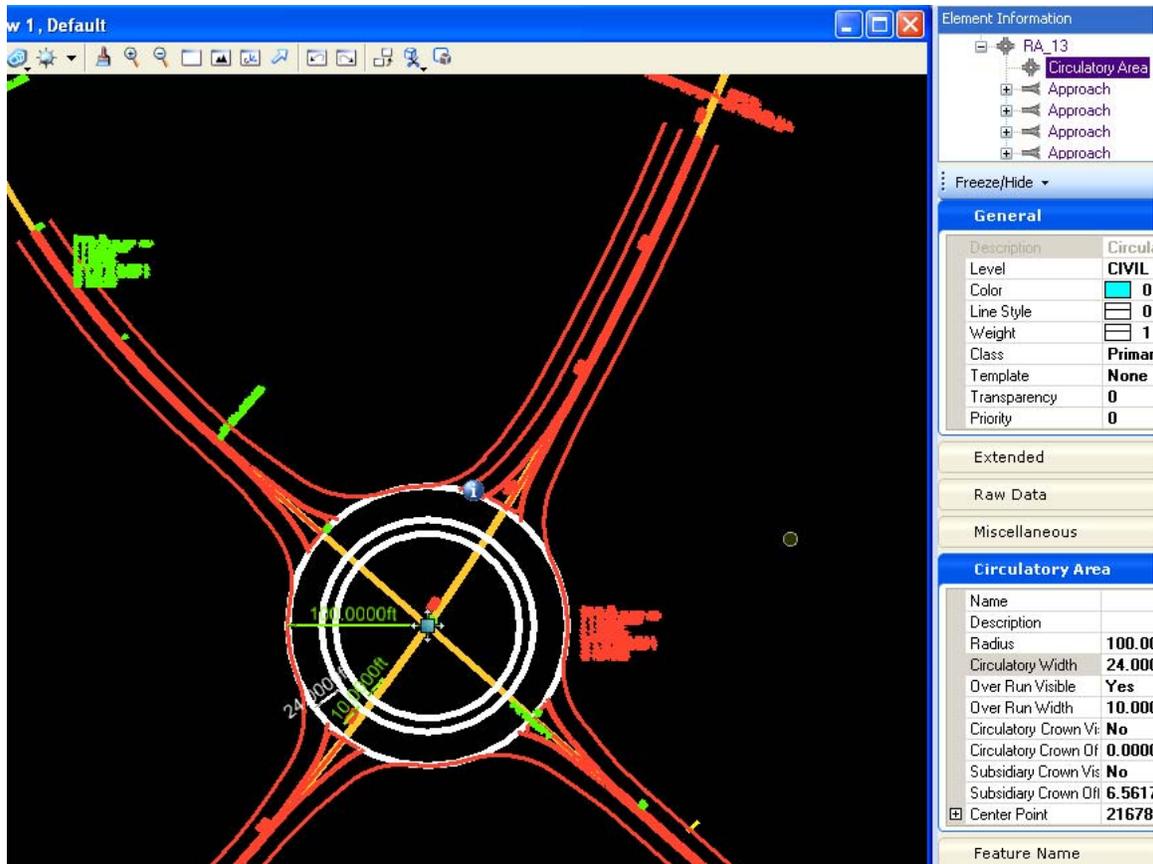
With the Library Browser open, use Element Selection to select any element of the roundabout and then tag Microstation's Element Information tool. 

Tag the each "Approach" or Circulatory Area and see them highlighted and then drive down in the one you want to change to actually change values. A couple of examples edits are shown below.

Example 1 – I changed the number of Entry lanes from 1 to 2 on the NE Approach.

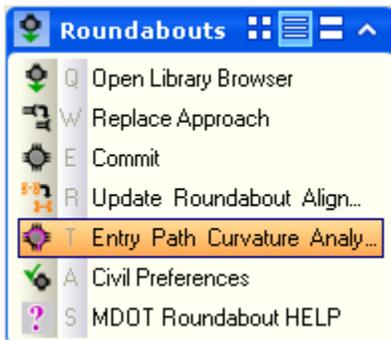


Example 2 – I changed the Circulatory Width from 18 to 24 ft.

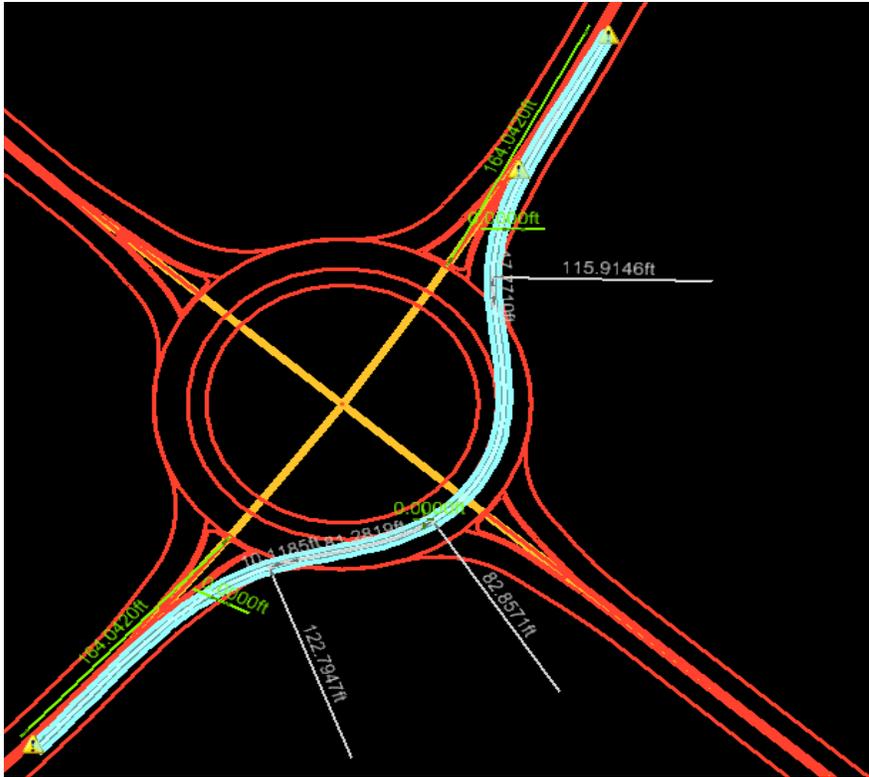


Entry Path Curvature Analysis

This tool analyzes your roundabout from one selected approach to another and places a vehicle path on the roundabout. From this path you can view the design speed.



You are prompted to choose the Entry and then Exit approaches. Once done, a vehicle path is drawn and you can then select it to see details such as the calculated design speed.



General	
Extended	
Raw Data	
Miscellaneous	
Feature Name	
Entry Path Curvature	
Design Speed Calculation	
Crossfall	0.0000
Side Friction Factor	0.3000
Calculated Design S	23 MPH
Entry Path Radii	
Maximum Entry Radi	328.0840ft
Entry Radius	122.7947ft
Entry Distance	10.1185ft
Circular Radius	82.8571ft
Circulatory Distance	81.2819ft
Exit Radius	115.9146ft
Exit Distance	17.7710ft