Chapter-5 Corridor Modeling

Overview

The user will complete the design using previously defined Geometry Chains and Profiles. These include the Road Baseline, RAB Circulatory Area and Flares. In this Chapter emphasis will be placed on:

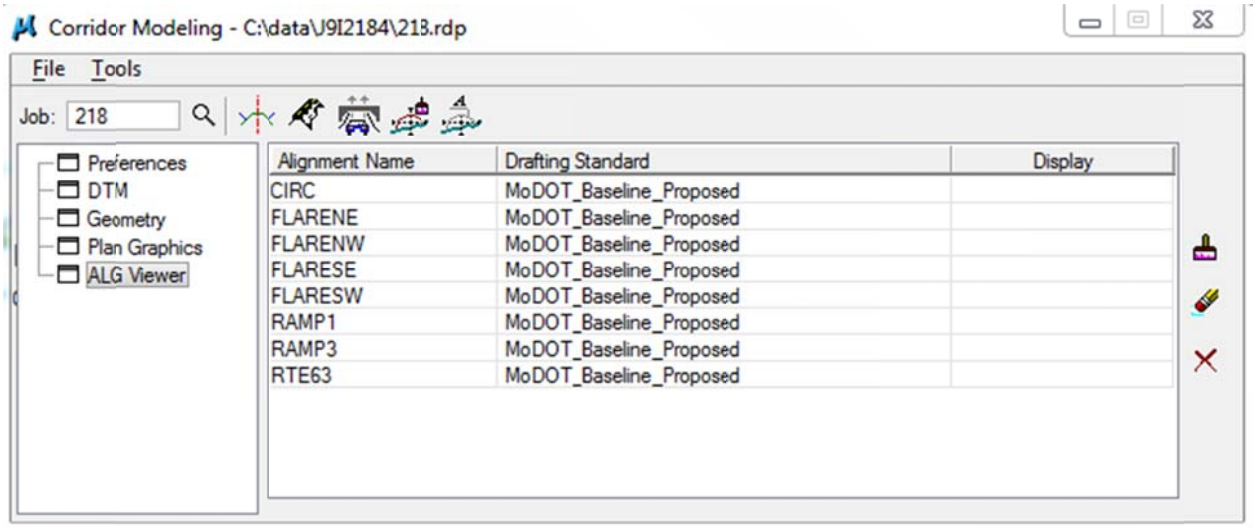
- Adding Multiple corridors to project
- Workflow
- Creating Flare surface
- Creating Flare Profile

Open the Project

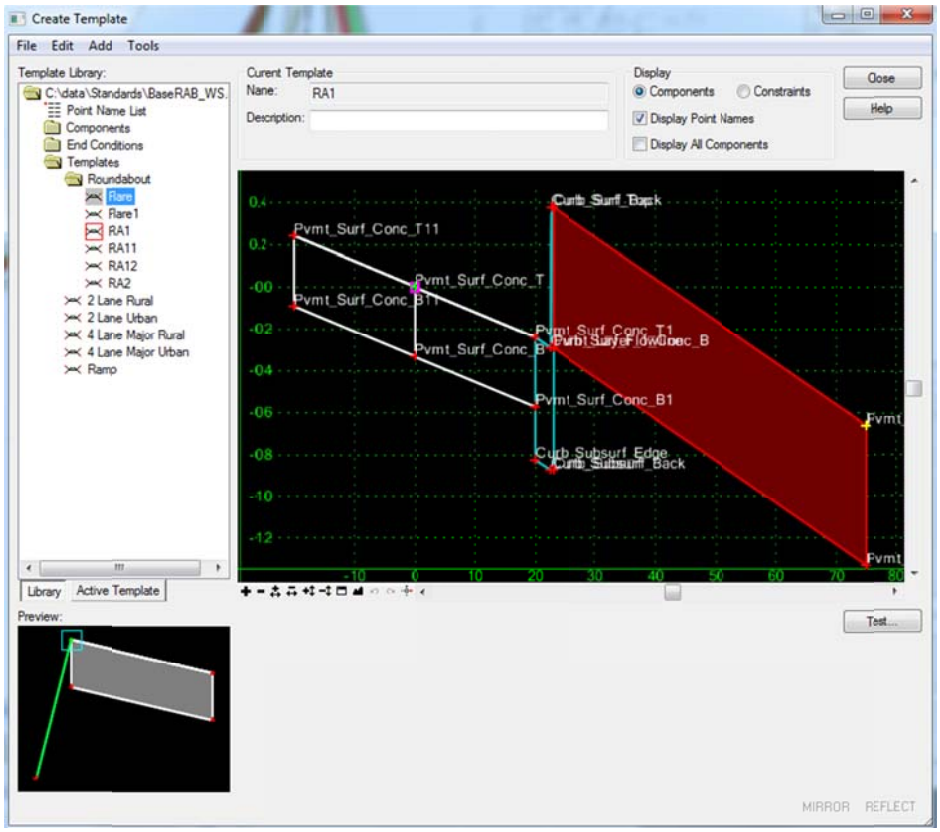
1. Open the RAB_Training_Chapter5.dgn from *C:/data/J9I2184*
2. Open Corridor Modeling – GEOPAK > Road > 3D Tools
3. From the Corridor Modeling dialog load the Road Design Preferences (rdp) File > Load > *C:/data/J9I2184*/218.rdp

   At this time take a minute to review the preferences. The following information has been provided and would be added in the same manner as setting the rdp for a typical corridor project.
   - Template Library = C:/data/Standards/BaseRAB_WS (.itl)
   - DTM = J9I2184.tin and CO_N.tin
   - Geometry = RTE63, FLARENE, FLARENW, FLARESW, FLARESE, RAMP1, RAMP3
   - Plan graphics- At this time no plan graphics have been added.

4. Review the rdp settings



5. Tag "Open create Template"
6. Review the templates – Close Templates



7. Tag “Open Roadway Designer”
8. From the Roadway designer dialog open the CH5_RAB.ird- *File* > *Open*

The ird contains the corridors leading to the RAB Approaches

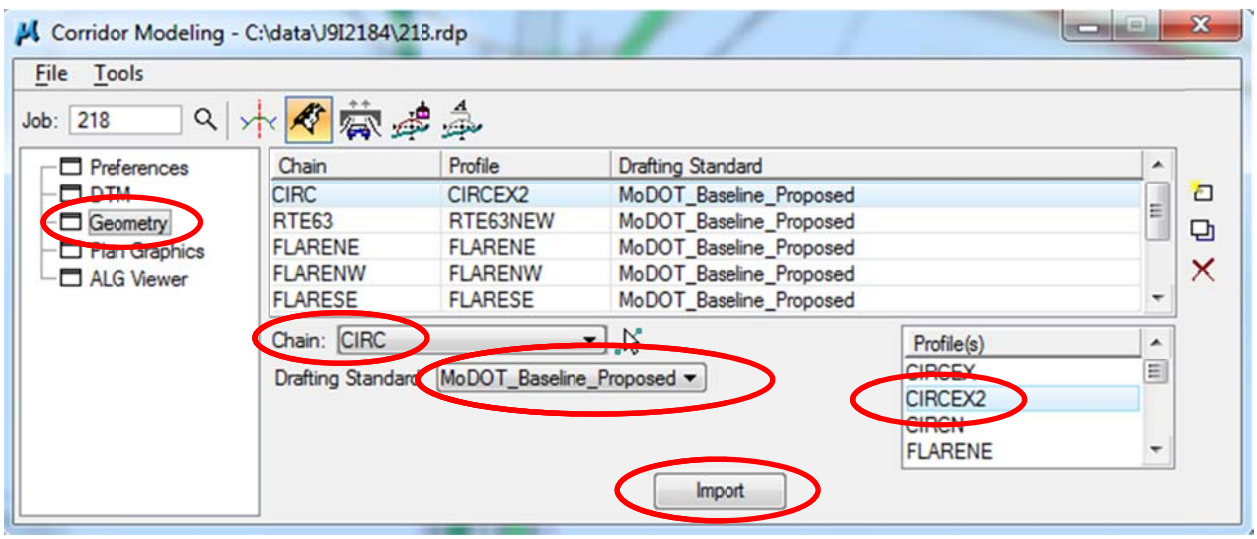
- Ramp1
- Ramp3
- Route 63
- Flares

The workflow to add the RAB corridors is as follows:

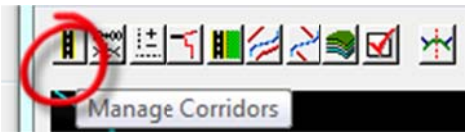
1. **Add the Circulatory area corridor**
2. **Create / edit flare profiles to align with incoming , outgoing, and midpoint corridors**
3. **Use Flare chain profile as baseline for attaching template – create flare corridors**

Add Circulatory Corridor

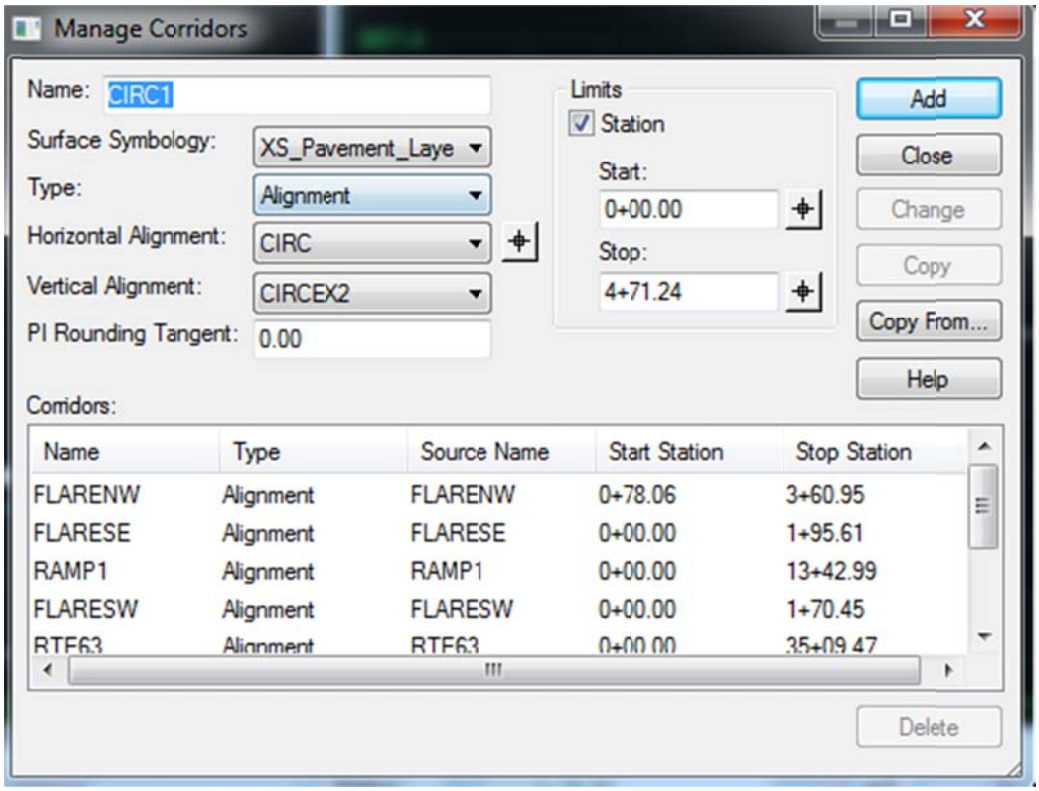
1. Click the Geometry selection on the left of the Corridor Modeling dialog to display all the Geometry that has been imported so far.
2. Change the Chain to CIRC, select the CIRCEX2 from the Profiles and Drafting Standard of MoDOT_Baseline_Proposed.
3. Click Add
4. Click Import to import the CIRC alignment into Roadway Designer.



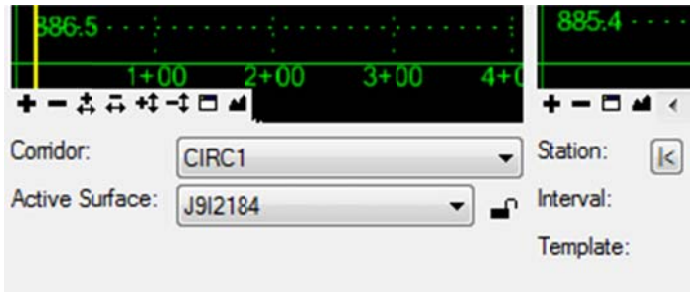
5. Continue with the Roadway Designer Dialog open and the 001_RAB.ird loaded
6. Tag Manage Corridors



7. Set the dialog as shown below

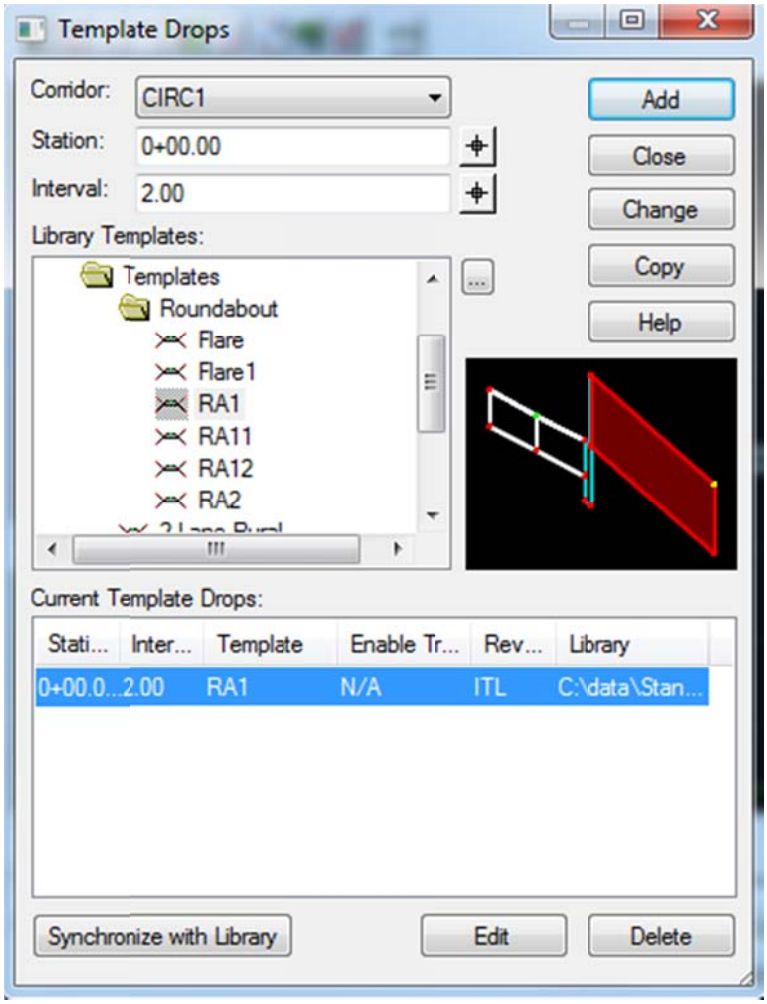


8. Tag the "Add" button and close the dialog – this will add the corridor to the list and set the Roadway designers focus on this Chain



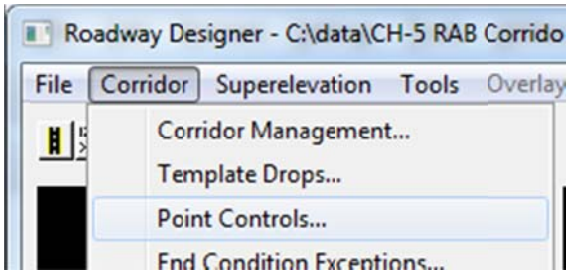
Add template drops

9. Select the Template Drops button (second from left)
10. Set the beginning station to 0+00
11. Set the interval to 2'
12. Select the RA1 template from the library folder

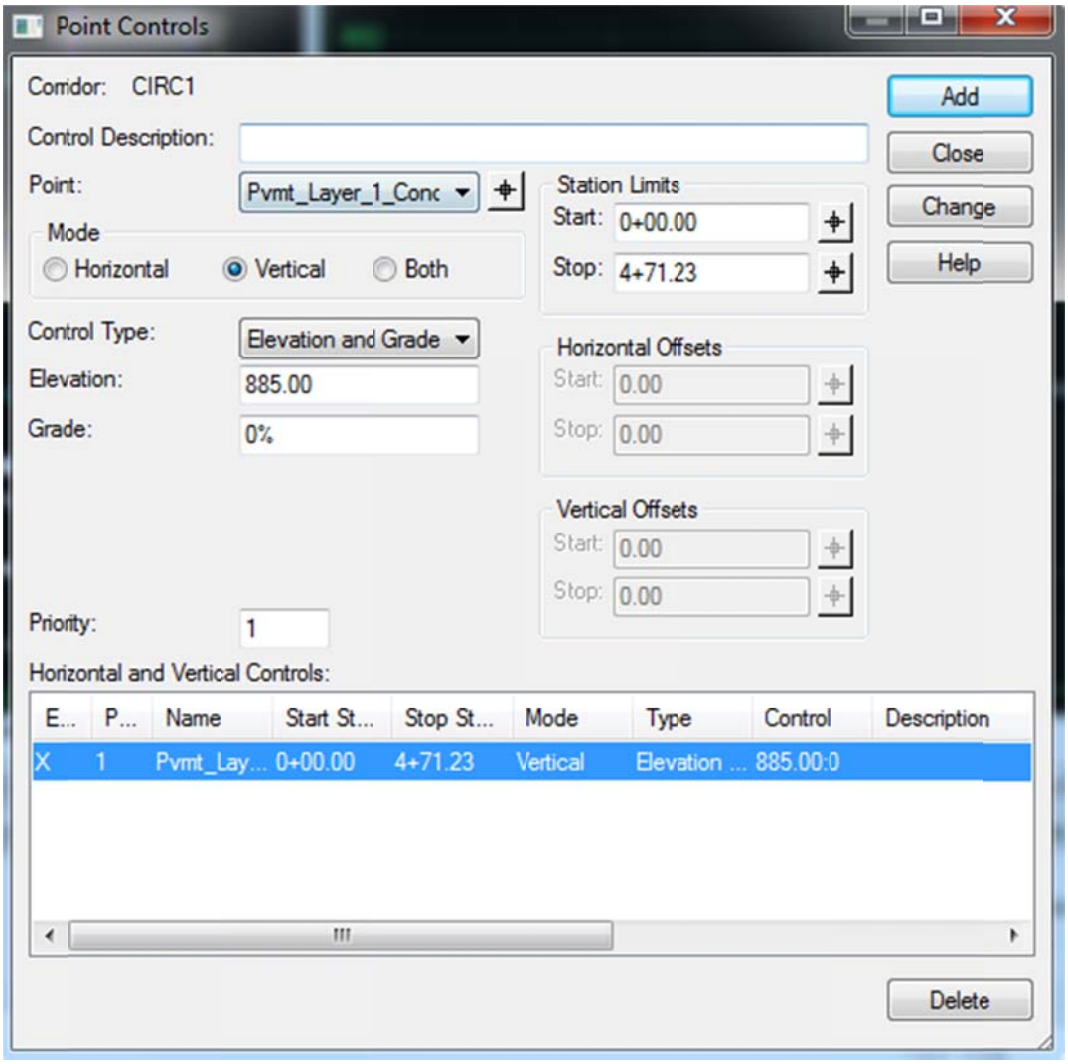


9. Tag Add – and close the dialog

10. Set Point Controls under the Corridor Drop down

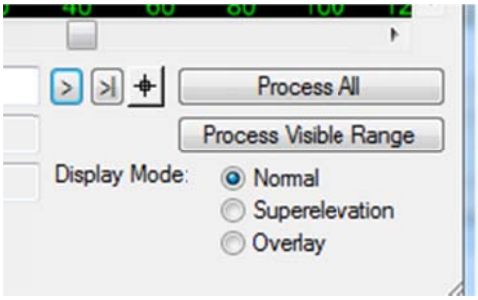


11. Set the point controlling the center of the roundabout to elevation 885

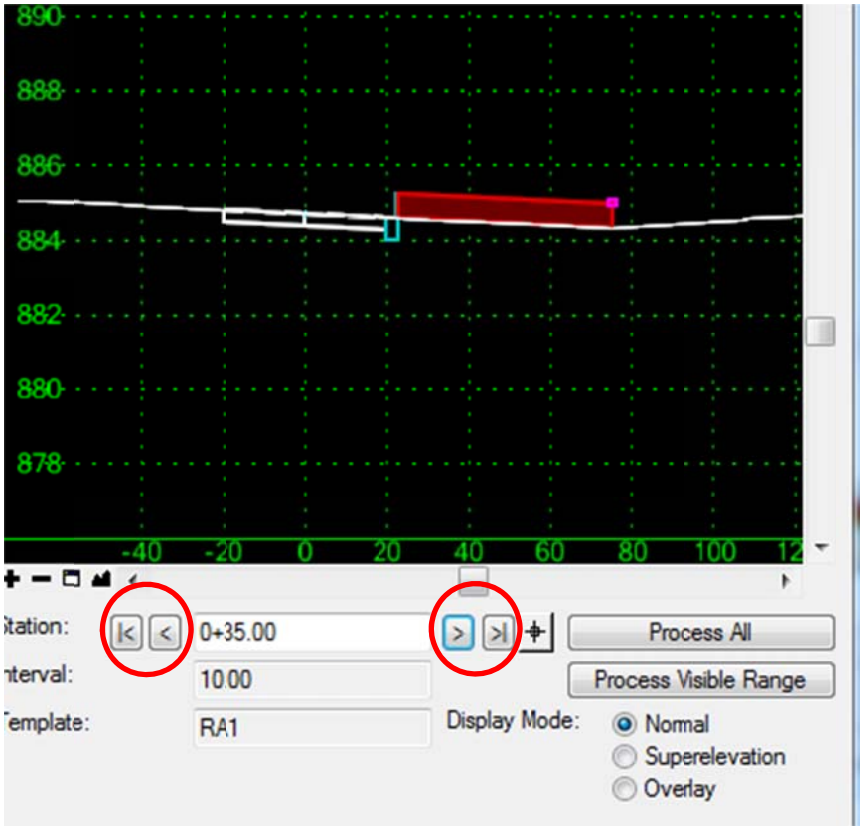


12. Close the Point Controls dialog

13. In the Roadway designer dialog tag "Process All"

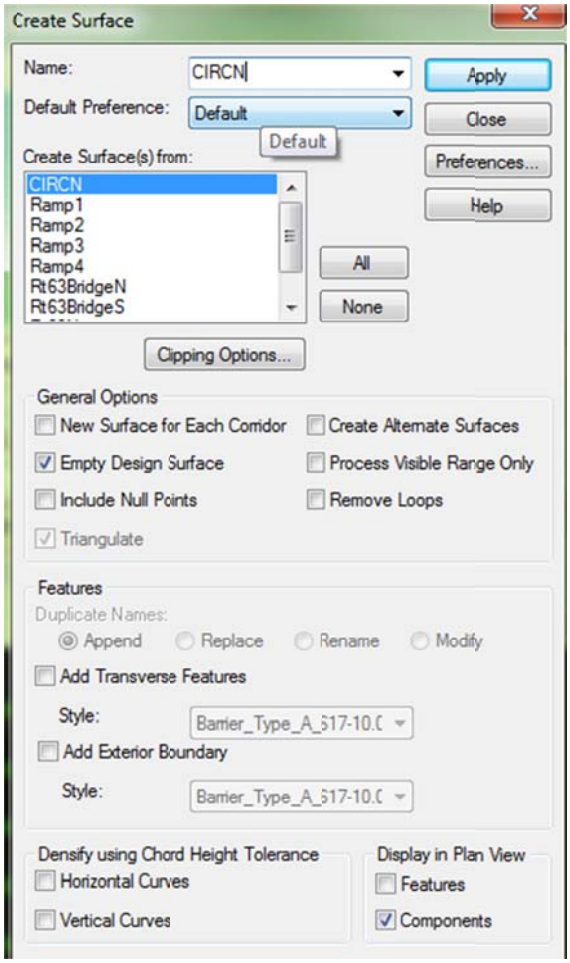


14. Use the station arrows to view the template drops



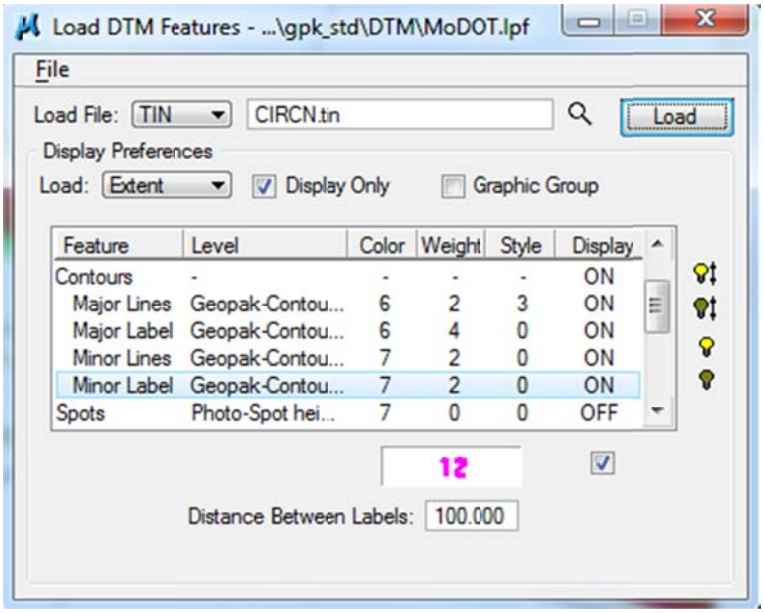
15. From the Roadway Designer Dialog select create Surface

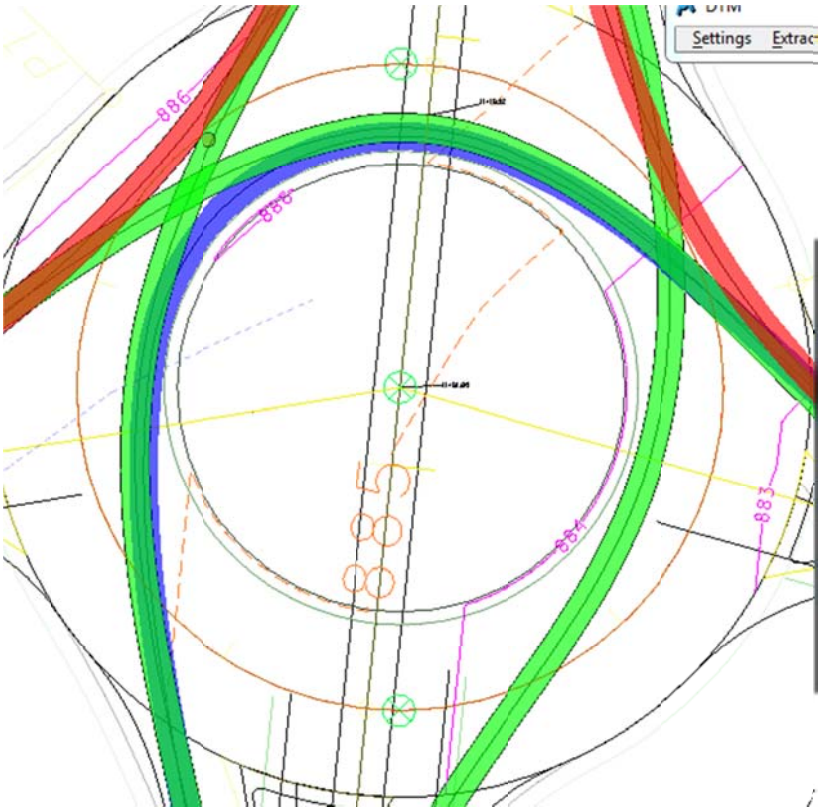
16. Set the display as shown > Click Process



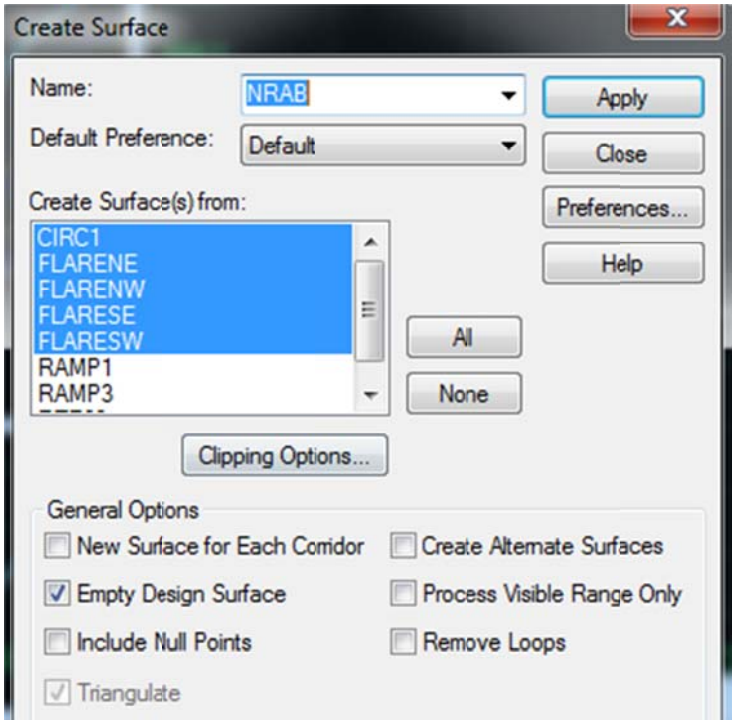
17. Close the reports > close the Create Surface Dialog

18. Review the results and close

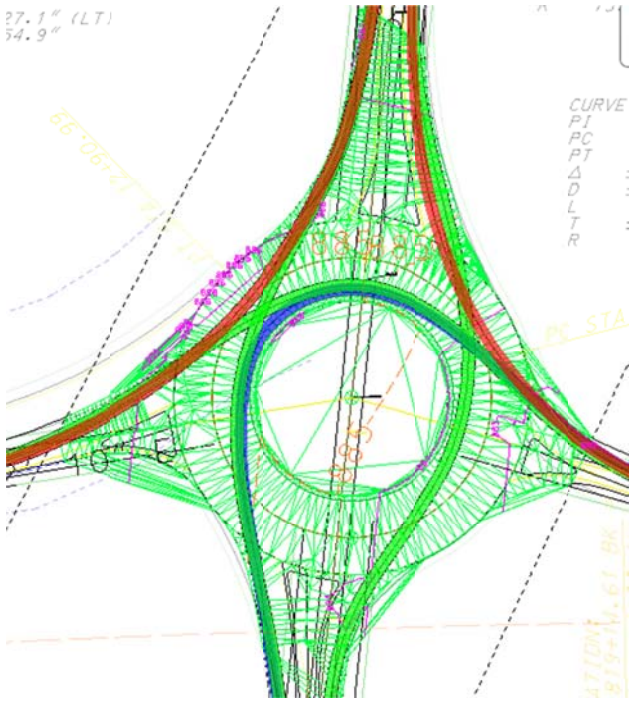


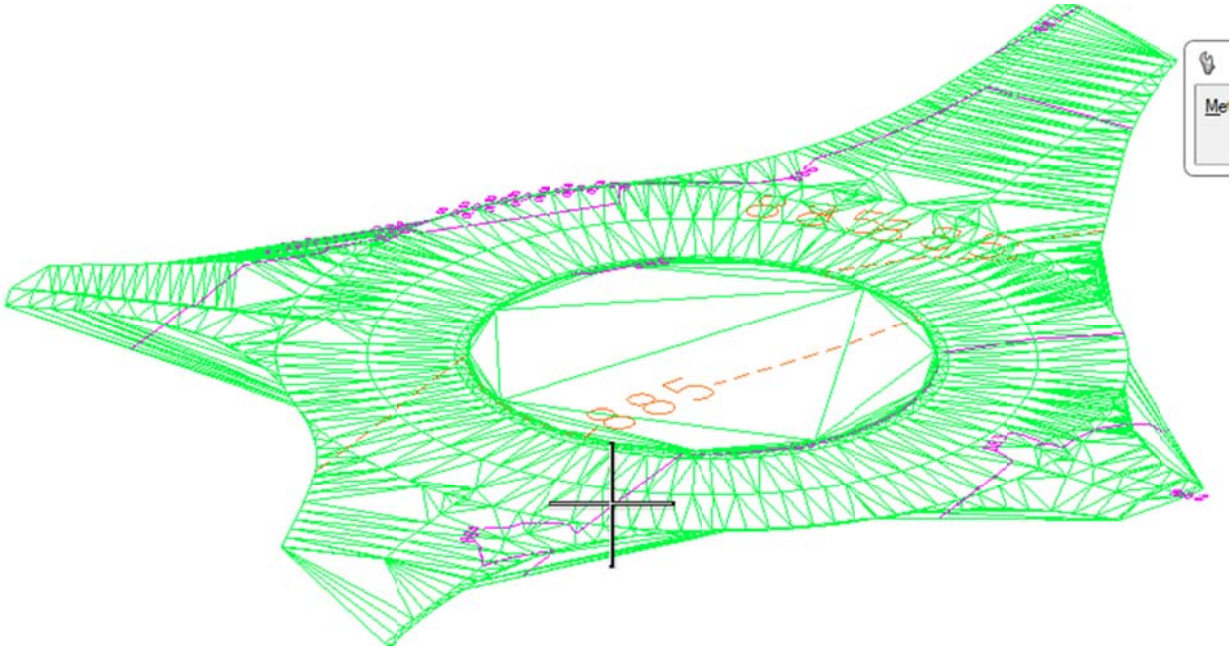


19. The Flares have been created for this class, however, view these to see how they were created. You may also create a Roundabout Surface using the CIRCN circular surface and the Flare corridors.



Utilizing all of these components will give you a surface for your Roundabout as created through the corridors.





20. Save the Roadway Designer ird file – File > Save