# LAB 11 - Creating a Closed Alignment

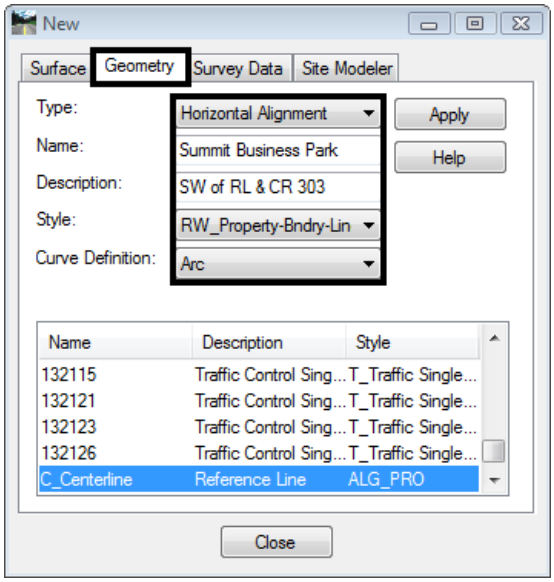
## *Chapter Objectives:*

- Create Cogo points through various Intersection Commands
- Generate Alignments from Cogo Points

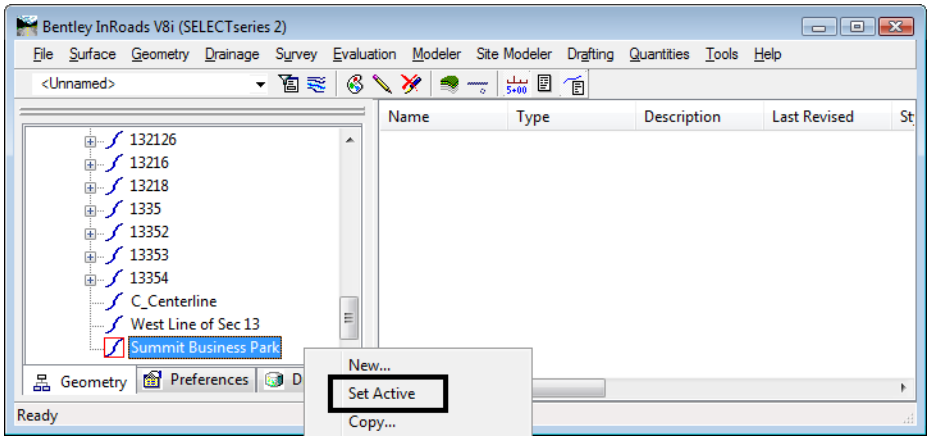
The plat of Summit Business Park has the 4 corners defined by Cogo points. Creating a closed alignment using the PI Method to represent the boundary of the plat will facilitate right of way creation.

Create a new horizontal alignment named ***Summit Business Park***.

1. Select **File > New >** ***[Geometry]***
2. ***Type: Horizontal Alignment***
3. ***Name: Summit Business Park***
4. ***Description: SW of int. of RL & CR 303***
5. ***Style: RW_Property-Bndry-Line_ex***
6. ***Curve Definition: Arc***
7. **<D> Apply**

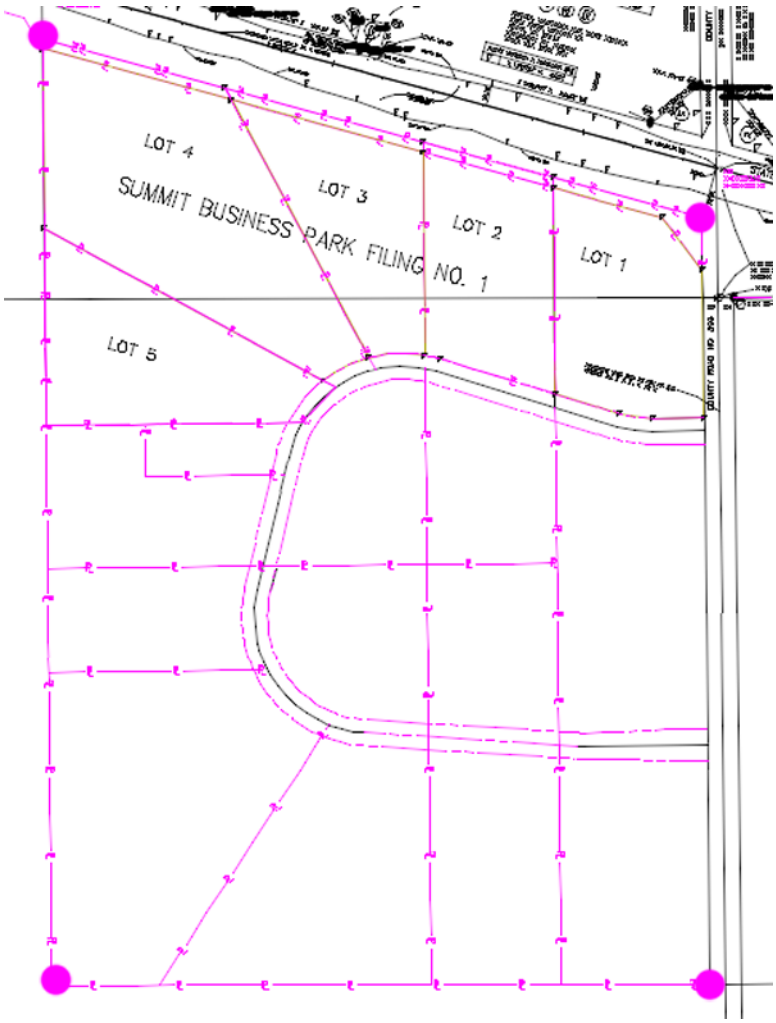


8. Set the active horizontal alignment: ***Summit Business Park***

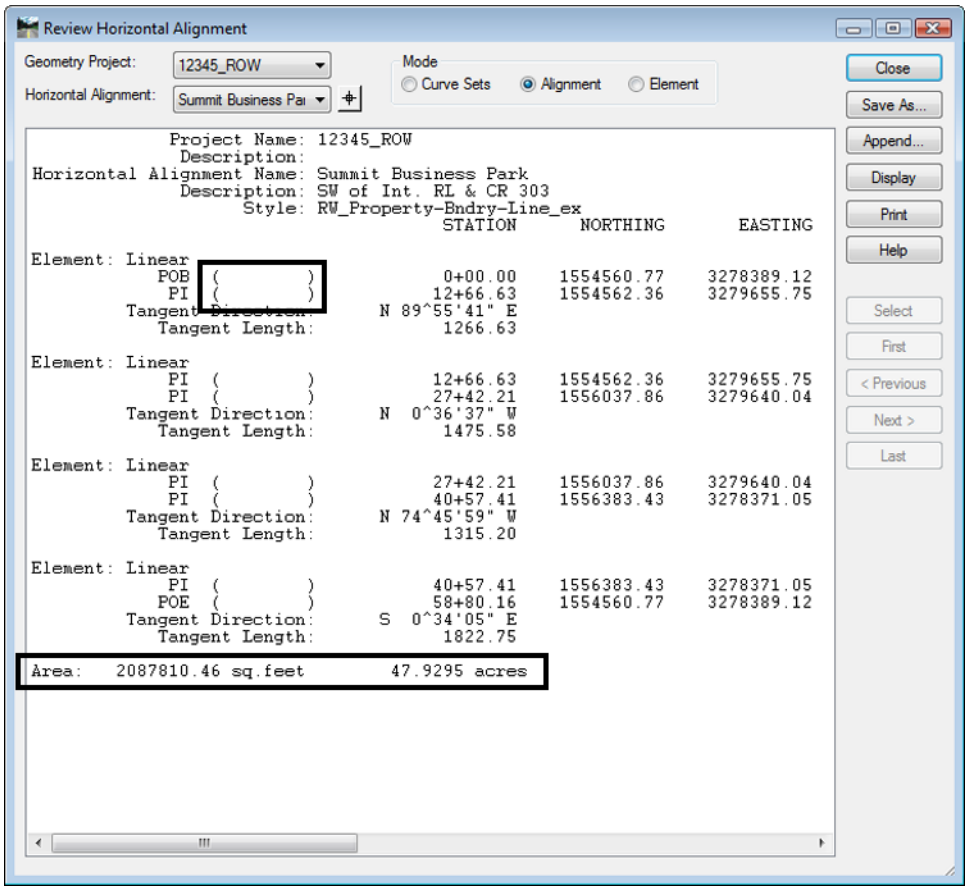



9. Select **Geometry > Horizontal Curve Set > Add PI**

10. You are Prompted to: ***Identify Alignment End***



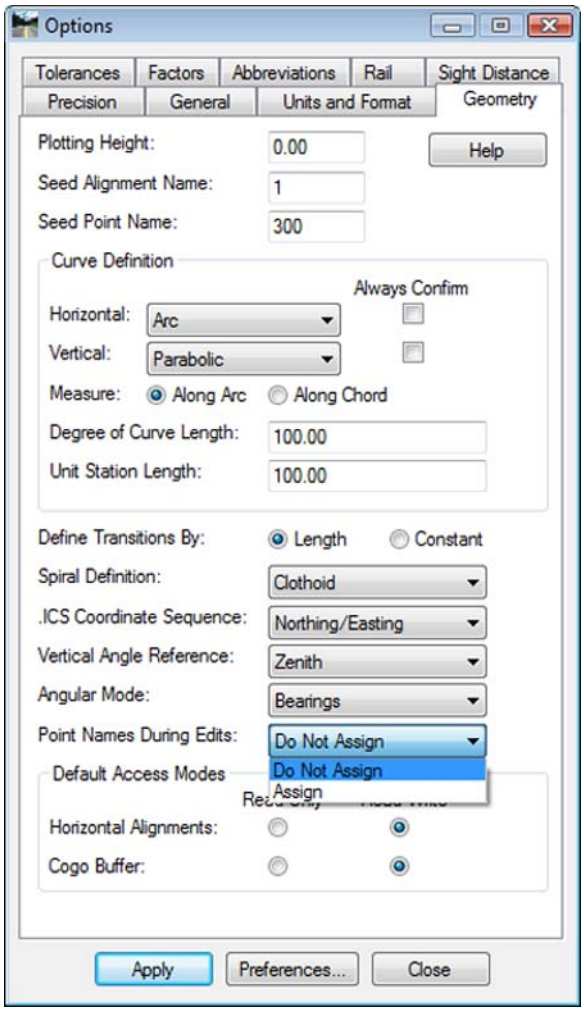
11. Toggle ***On*** the geometry Point snap
12. Select the plat corners in a counter-clockwise direction
13. **<D>** near the ***SW*** corner of the plat (defines the POB)
14. **<D>** near the ***SE*** corner of the plat
15. **<D>** near the ***NE*** corner of the plat
16. **<D>** near the ***NW*** corner of the Plat
17. **<D>** near the ***SW*** corner of the plat (defines the POE)
18. **<R>** to cancel point selection, **<R>** to terminate the command
19. Toggle ***Off*** the geometry point snap
20. Select **Geometry > Review Horizontal** to verify the contents of the alignment.




***Note:*** Notice the lack of point names (or Cogo numbers) in the parentheses. Also note the parcel area information is displayed and the alignment is dynamically highlighted on the screen.

21. Close the Review Horizontal Alignment dialog

The population of the name/number field is contingent on the settings under **File > Project Options [Geometry]** at time of geometry creation.

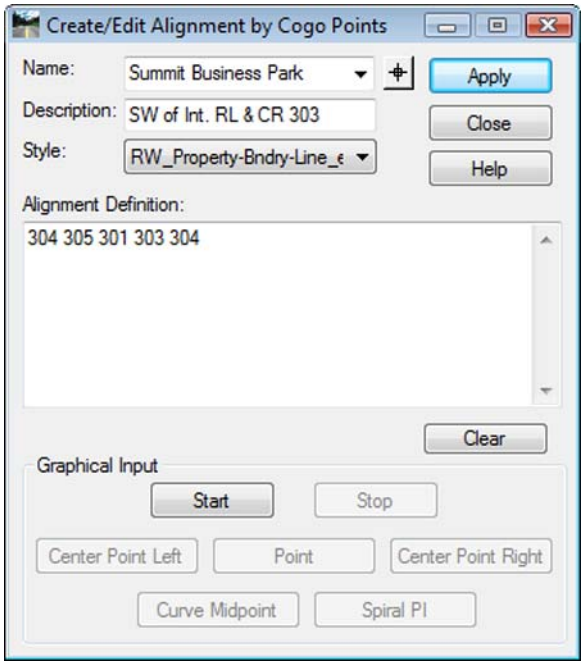



## *Geometry Verification*

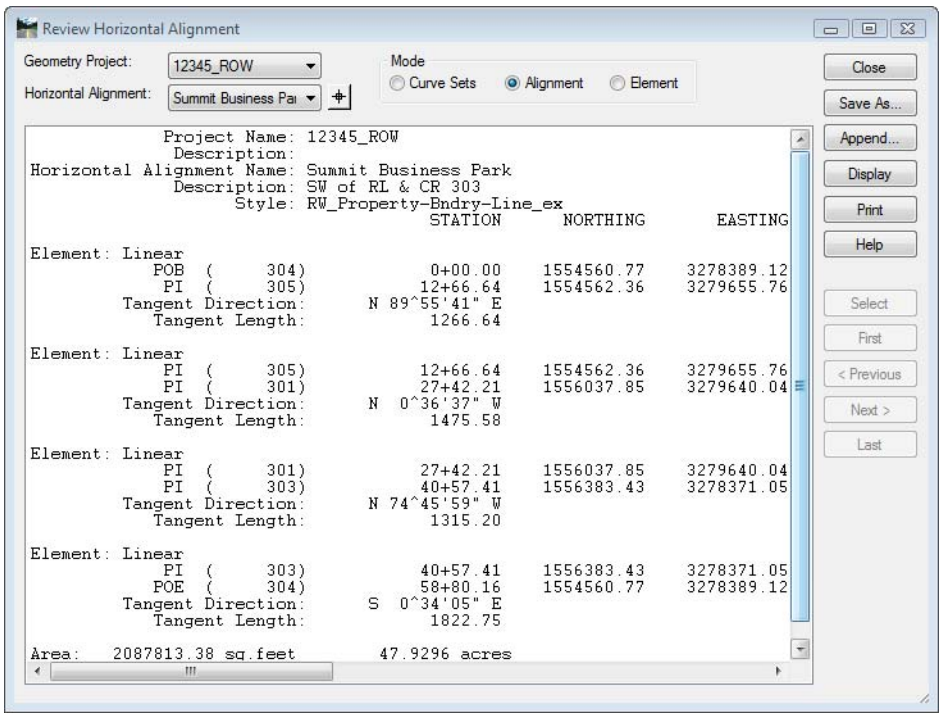
As seen above, the Cogo points selected to define the alignment are not necessarily a part of the definition of the alignment. To rectify this, 2 possible solutions exist. Firstly, the Create/Edit Alignment by Cogo Points command could have been used to generate the alignment initially. Secondly, this same command can be used to assign and verify the alignment.

1. Select **Geometry > Utilities > Create/Edit Alignment by Cogo Points**

2. **<D> Yes**




The alignment is associated with the selected Cogo Points.

3. Edit points as necessary.

4. **<D> Apply** – verify results by reviewing the alignment.