

AUTODESK® CIVIL 3D

Dynamic 3D Computer-aided Design with Autodesk Civil 3D

Training Course for:
Autodesk® Civil 3D™ 2007



Lecture 9 – Supplementary Notes **Create Corridor super elevation by Assembly** **Offset**

November 2006

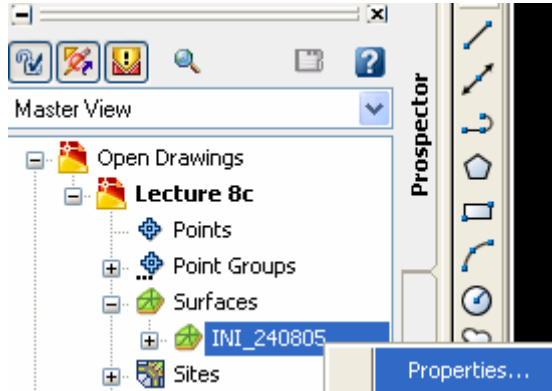
Autodesk

Objective

This document describes the steps to easy create corridors super elevation by Assembly offset in Civil 3D.

Exercise

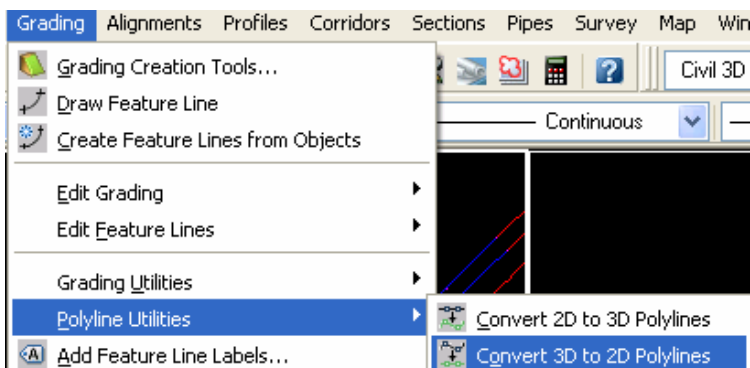
1. Open the 「Lecture 8c.dwg」 drawing
2. In the prospector, expand the 「Surface」 →select 「INI_240805」 surface, right click 「Properties」



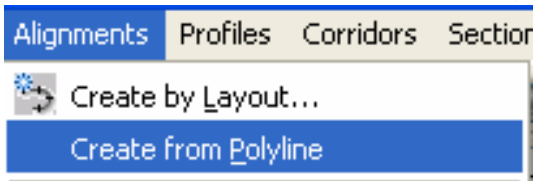
3. In the dialog box, Change the surface style 「_No Display」 and press [OK]



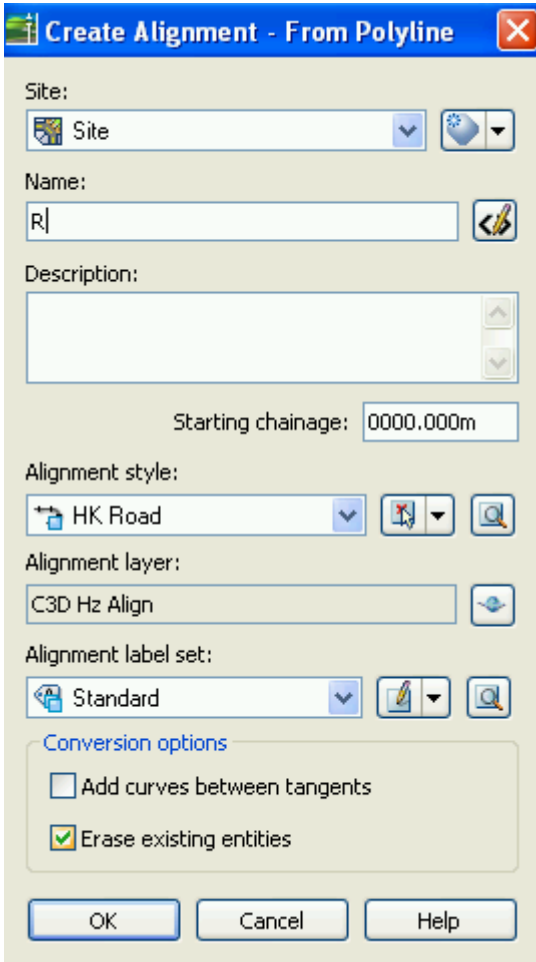
4. Select the two 3D polyline
5. In the menu Toolbar, select 「Grading」 → 「Polyline Utilities」 → 「Convert 3D to 2D Polyline」



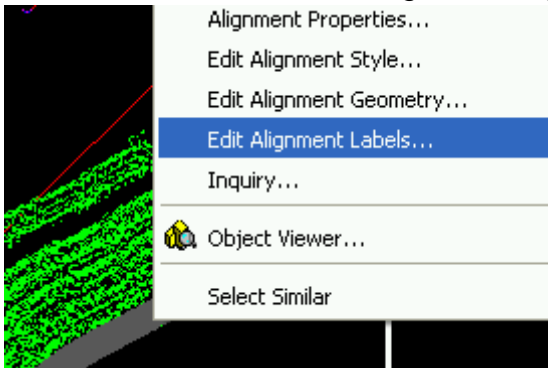
6. In the menu Toolbar, select 「Alignment」 → 「Create from Polyline」




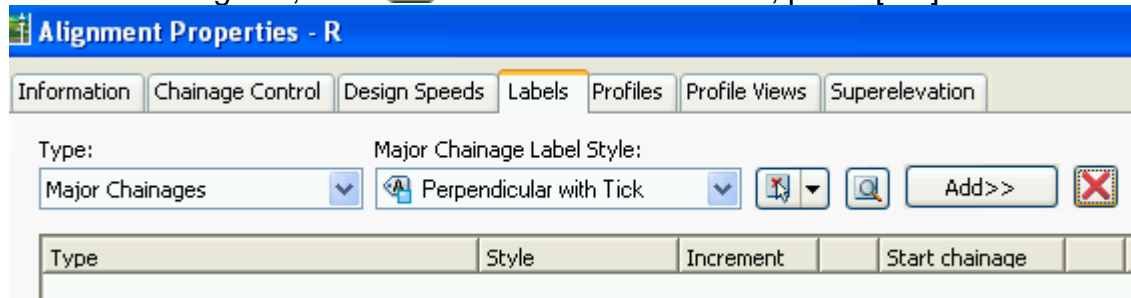
7. Select the right hand side polyline; in the dialog box, enter the name and turn on 「Erase existing entities」, press [OK]



8. Select the new create alignment, right click 「Edit alignment Labels」



9. In the dialog box, click  icon to clear the labels, press [OK]



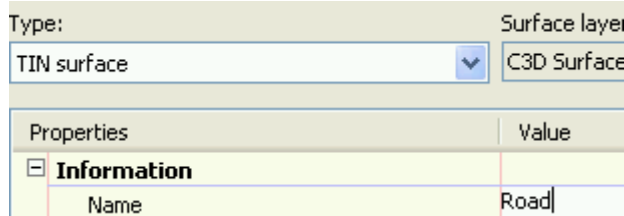
10. Repeat to Step 6-9, create the LHS alignment

11. Close the 「C3D Hz Align」 layer and open the 「Layer 1」 layer

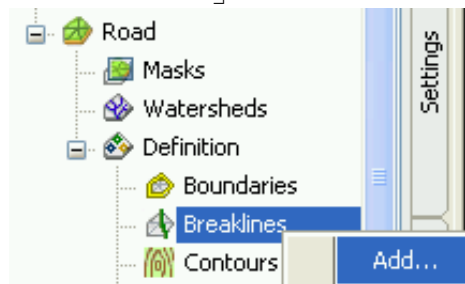
12. In the prospector, select the 「Surface」 → right click 「New」



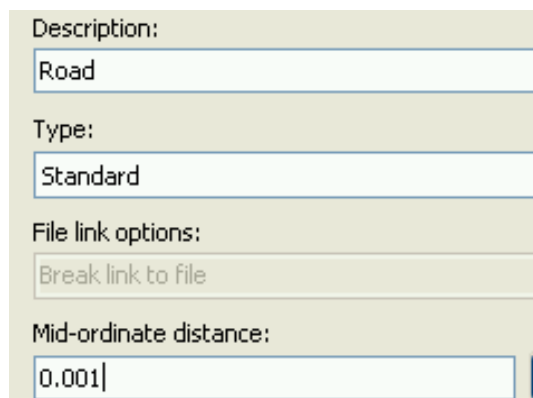
13. In the dialog box, enter the 「Name」, press [OK]



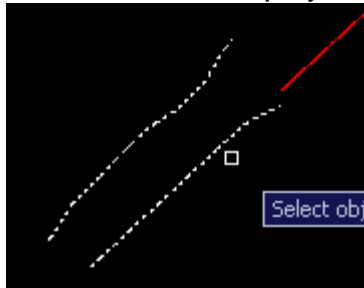
14. Select the new surface, expand 「the surface」 → 「Definition」 → 「Breaklines」 right click 「Add」



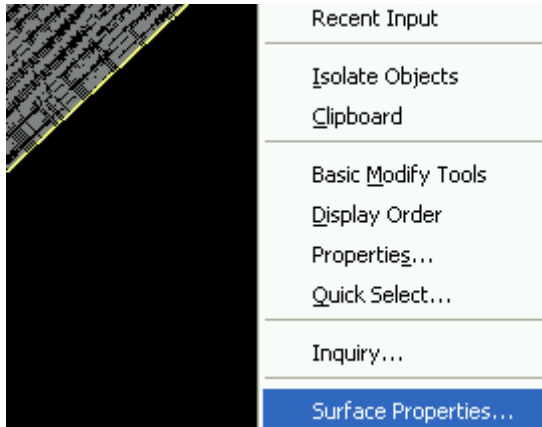
15. Enter the name and set the 「Mid-ordinate distance」 0.001, press [OK]



16. Select the two polyline, right click



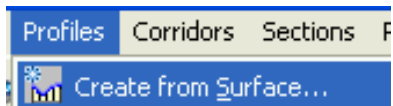
17. Select the new surface, right click 「Surface Properties」



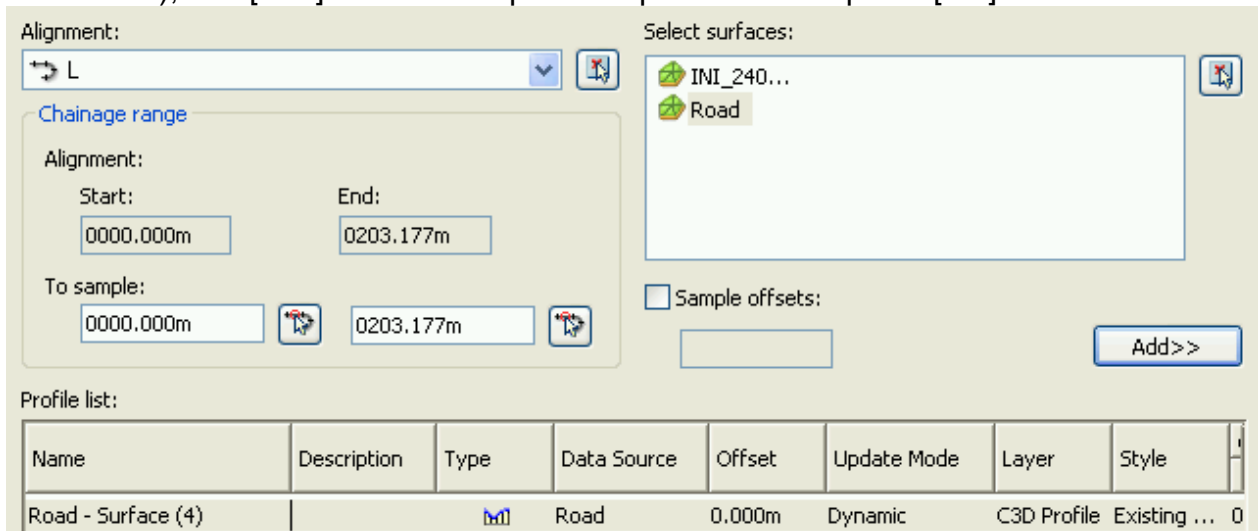
18. Change the surface style 「_No Display」 and press [OK]

19. Open the 「C3D Hz Align」 layer

20. In menu Toolbar, select 「Profile」 → 「Create from Surface」

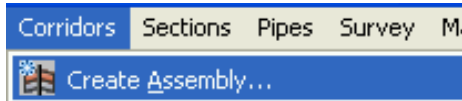


21. In the dialog box, select the alignment and surface(e.g. [L] alignment & [Road] surface), click[Add] to insert the profile in profile list and press [OK]

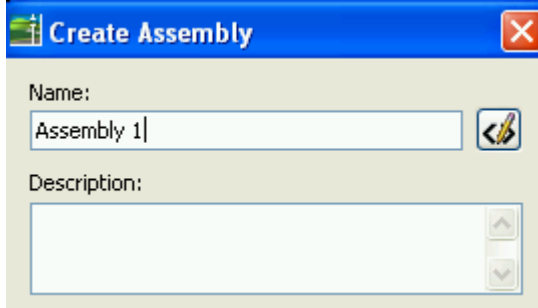


22. Repeat to step 21. for build up next profile

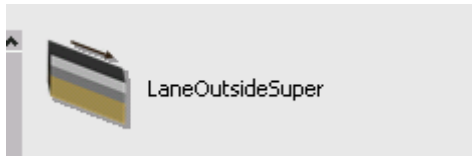
23. In menu Toolbar, select 「Corridors」 → 「Create Assembly」



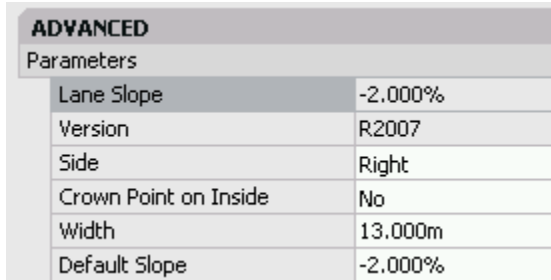
24. Enter the Name and press [OK], select in right bottom view space



25. In the Toolpalettes, select 「LandOutsideSuper」



26. Set 「Right」 side and width 「12m」

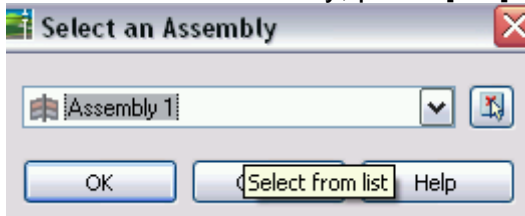


27. Repeat to step 26, Set 「Left」 side and width 「12m」

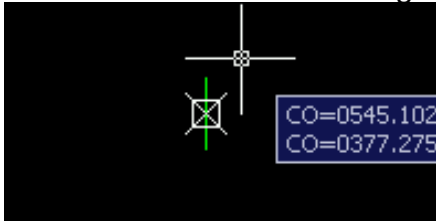
28. In the menu Toolbar, select 「Corridors」 → 「Create Assembly Offset」



29. Select the assembly, press [OK]



30. Select in the Corridors right hand side space

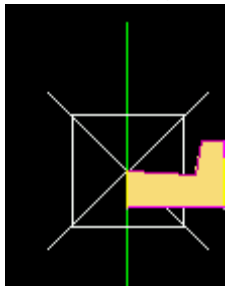


31. Repeat step 28-30 to drawing left hand side offset

32. In the Toolpalettes, select 「BasicKerbAndChannel」

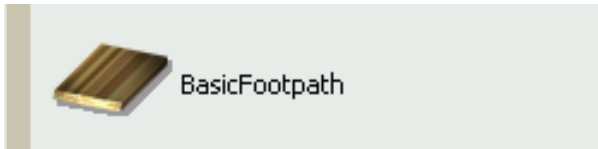


33. Set 「Right」 side, select the right hand side offset assembly

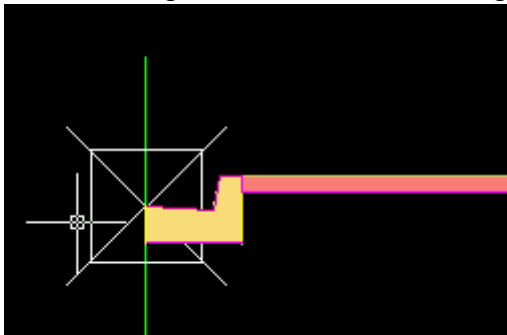


34. Set 「Left」 side, select the left hand side offset assembly

35. In the Toolpalettes, select 「BasicFootpath」



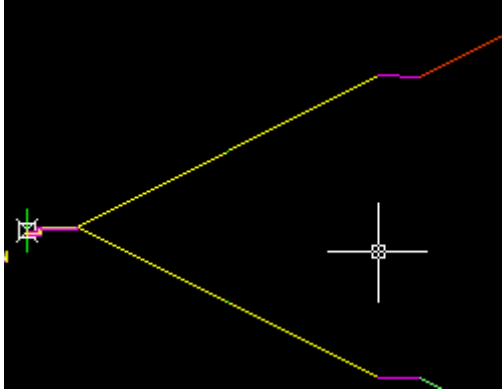
36. Set 「Right」 side, select the Right hand side offset assembly



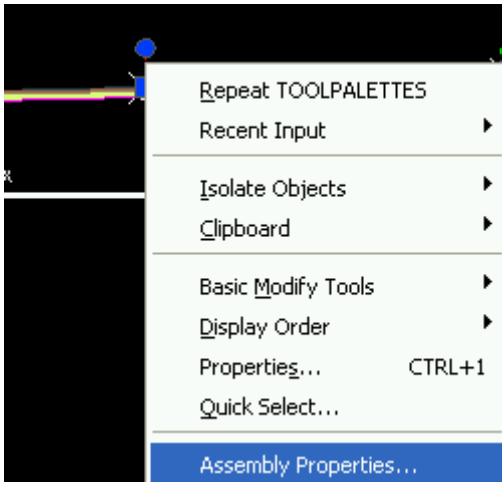
37. In the Toolpalettes, select 「DaylightBench」



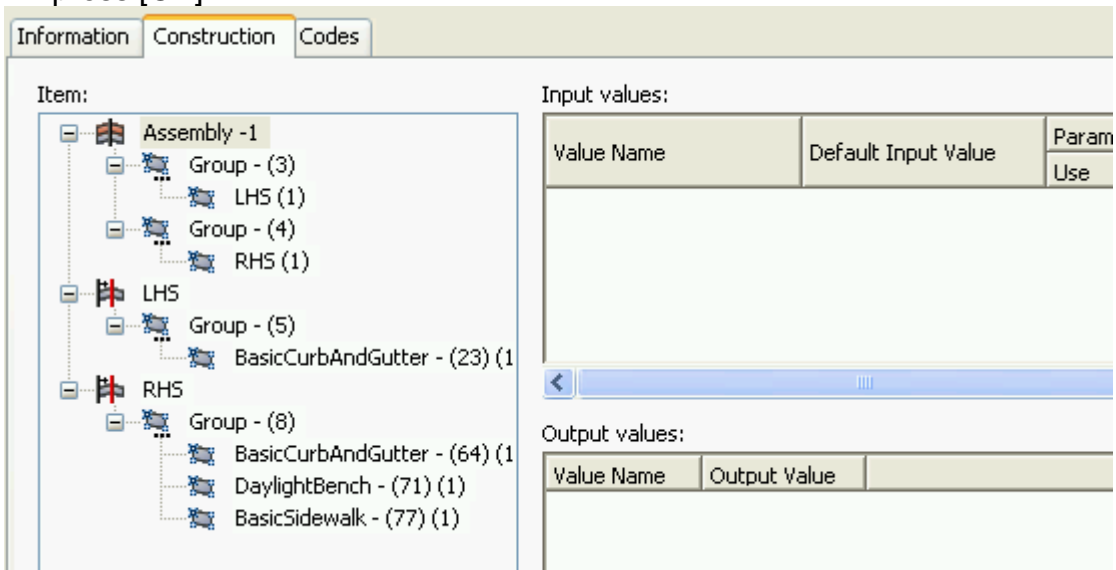
38. Set 「Right」 side, select the Right hand side offset assembly



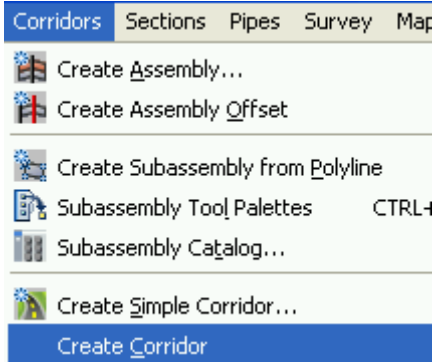
39. Select the Assembly, right click 「Assembly Properties」



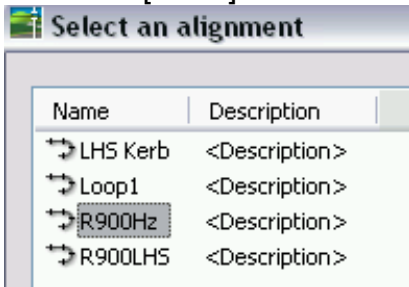
40. In 「Construction」, re-set the subassembly name to help me easy create corridors, press [OK]



41. In the menu Toolbar, select 「Corridors」 → 「Create Corridor」



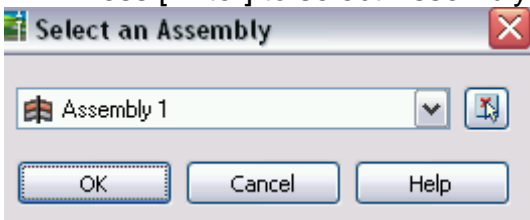
42. Press [Enter] to select Alignment (e.g.R900Hz)





43. Press [Enter] to select Profile (e.g.R900Hz)

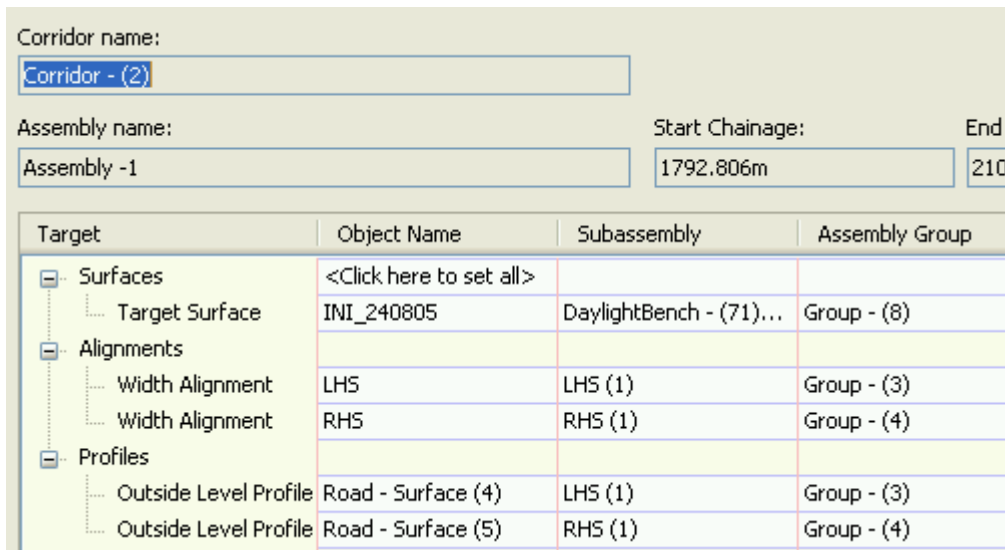
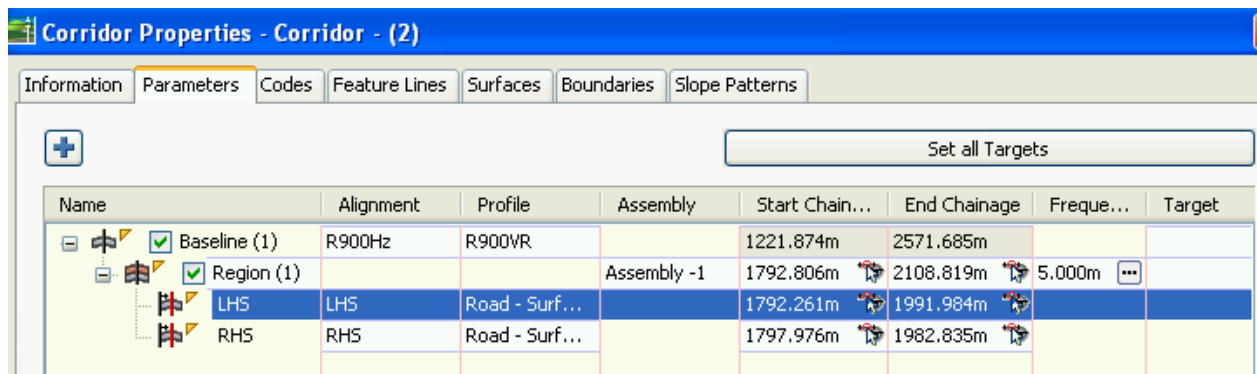


44. Press [Enter] to select Assembly (e.g. Assembly 1)



45. In dialog box :

- enter the corridor name in 「 Information 」
- in bottom box, select the baseline, enter the region (1) start & end chainage (1792.806–2108.819)
- click frequency  icon set straight, curves, transition & profile curves (5m.)
- click target  icon set Target surface (INI_240805)
- set alignment LHS(1) subassembly with LHS, RHS(1) with RHS
- set profile LHS(1) subassembly with LHS, RHS(1) with RHS
- select LHS offset, set alignment & profile [LHS]
- select RHS offset, set alignment & profile [RHS]
- set LHS offset start & end chainage (1792.261 – 1991.984)
- set RHS offset start & end chainage (1797.976 – 1982.853)
- press [OK]



46. Zoom out the drawing & rotate the drawing

47. Close the drawing file. Do not save the change