LAB 14 - Modifying Single Template Drops and Target Aliasing

This lab demonstrates the procedure for editing a single template drop and setting up a corridor for *target aliasing*. Modifying single template drops is used for making minor corrections to the design prior to creating a surface. Target aliasing is used to specify alternate targets for end condition interception.

Chapter Objectives:

- Modify a single template drop by moving a point.
- Add a parallel corridor and use target aliasing to tie to the original corridor as needed.

Before beginning this lab, verify that the following files are loaded:

- C:\Projects\12345\Design\Drawings\Reference_Files\12345DES_Model.dgn
- C:\Workspace\Workspace-CDOT_XM\Standards-Global\InRoads\Preferences\CDOT_Civil.xin
- C:\Projects\12345\Design\InRoads\12345DES_Geometry.alg
- C:\Projects\12345\Design\InRoads\12345 existing ground.dtm
- C:\Projects\12345\Design\InRoads\12345DES.ird
- C:\Projects\12345\Design\InRoads\DES12345_Templates.itl

Lab 14.1 - Modifying a Single Template Drop

At station 225+50.00 the design toe falls inside a small rise in the natural ground creating an area that pools water. This station is edited to move the toe to the top of that rise.

- 1. Select Modeler > Roadway Designer from the InRoads menu bar.
- 2. Select **12345DES** for the corridor (created in lab 4).

+-**	-t 🗆 🖬 🗧		+		
Comidor:	12345DES	-	Station: 🛛 🕹	203+87.30	> > +
Active Surface:	12345 existing ground	•	Interval:	25.00	
			Template:	12345_HMA_2Lane	

3. Key in **225+50.00** in the Station indicator and press the Tab key.

+-04	•		
Station:	<u>k <</u>	225+50.00	+ K <
Interval:		25.00	
Template:		12345_HMA_2Lane	

4. **<R>** in the template view and select **Edit Station** from the menu.



5. In the *Editing Template at Station 225+50.00 Only* dialog box, <R> on the LT_Toe-of-Fill point and select Move Point.



6. Move the pointer to the small rise approximately 50' to the left of the centerline. The point snaps to the ground line. $\langle D \rangle$ at that location to complete the move.



- 7. **<D> OK** to dismiss the *Editing Template at Station 225+50.00 Only* dialog box.
- 8. Select File > Save.

This method of modifying template drops should be used sparingly. If there are more than a couple of locations that require editing, modifying the template should be considered over editing single template drops.

Lab 14.2 - Target Aliasing

Target aliasing is used to define multiple targets for an end condition. In this exercise two parallel corridors are constructed. The first corridor ties to the existing ground exclusively. The second corridor ties to the existing ground or the first corridor. This lab uses the **12345DES** corridor created in lab 4 in addition to a new corridor created in this lab.

First, the offset corridor is created.

- 1. Select **Corridor > Corridor Management** from the Roadway Designer menu bar or **<D>** the Corridor Management button.
- 2. In the Manage Corridors dialog box, key in *SH 86_Offset_Left* for the *Name*.
- 3. Verify that the Horizontal Alignment is SH 86 and the Vertical Alignment is SH 86 V.
- 4. **<D> Add**.

5. **<D> Close**.

Manage Corrido	rs			- 0 2
Name: SH 86_Offse	t_Left	Lim	its Station	Add
Type:	Alignment	•	Start:	Close
Horizontal Alignment:	SH 86	→ +	203+80.28	Change
/ertical Alignment:	SH 86 V	~	Stop:	Сору
PI Rounding Tangent	0.00		260+43.16	Copy From
				Help
Corridors:	Tree	Course Name	Out Outing	Data Dation
Name	Туре	Source Name	Start Station	Stop Station
Conidors: Name Template Transitio	Type Alignment	Source Name SH 86	Start Station 203+80.28	Stop Station 260+43.16
Name Template Transitio Scab-on Detour	Type Alignment Alignment	Source Name SH 86 SH 86	Start Station 203+80.28 206+00.00	Stop Station 260+43.16 215+00.00
Name Template Transitio Scab-on Detour 12345DES	Type Alignment Alignment Alignment	Source Name SH 86 SH 86 SH 86 SH 86	Start Station 203+80.28 206+00.00 203+80.28 205-00.00	Stop Station 260+43.16 215+00.00 260+43.16 215-00.00
Corridors: Name Template Transitio Scab-on Detour 12345DES Off Ramp	Type Alignment Alignment Alignment Alignment	Source Name SH 86 SH 86 SH 86 SH 86 SH 86	Start Station 203+80.28 206+00.00 203+80.28 205+00.00 203-00.20	Stop Station 260+43.16 215+00.00 260+43.16 215+00.00 200+43.16
Corridors: Name Template Transitio Scab-on Detour 12345DES Off Ramp SH 86_Offset_Left	Type Alignment Alignment Alignment Alignment Alignment	Source Name SH 86 SH 86 SH 86 SH 86 SH 86 SH 86	Start Station 203+80.28 206+00.00 203+80.28 205+00.00 203+80.28	Stop Station 260+43.16 215+00.00 260+43.16 215+00.00 260+43.16

A template drop is added to the offset corridor.

- 6. Select **Corridor** > **Template Drops** from the Roadway Designer menu bar or <**D**> the Template Drops button.
- 7. In the *Template Drops* dialog box, key in *25* for the *Interval*.
- 8. Expand the **1 Templates** folder.
- 9. Highlight the **HMA_Crowned_B10** template.
- 10. <D> Add.

11. **<D> Close**.

🐂 Template	Drops			- • •
Corridor: SH	H 86_Offset_Left	•		Add
Station: 20	3+80.28	+		Close
Interval: 25	.00	-4-		Change
Library Templa	stes:			
Current Templ	iemplates 12345_HMA_2L 12345_HMA_4L 20NC_4Lane_F 20NC_Divided_ 20NC_Ramo_ HMA_Crowned_ HMA_5:dl_Dovtk ate Drops:	ane ane light-Side_Only TypeA_4Lane B10 ypeA_4Lane		Help
Station	Interval	Template	Revised In	Library
203+80.28	25.00	HMA_Crowned_B10	ITL	C:\Projects\12345\Des
•		m		4
Synchronize	with Library		E	dit Delete

The corridor is built on the same alignment as the 12345DES alignment. A point control is used to move *SH 86_Offset_Left* corridor 80' to the left.

- 12. Select **Corridor > Point Controls** from the Roadway Designer menu bar or **<D>** the Point Controls button.
- 13. In the *Point Controls* dialog box, select HMA_Lift1_Centerline-Top for the *Point*.
- 14. Toggle on **Horizontal** for the Mode.
- 15. In the *Horizontal Offsets* area, key in *-80* for both the *Start* and *Stop* offsets.
- 16. **<D> Add**.

17. **<D> Close**.

Point Controls					- • ×
Corridor: SH 86_Offset_Left Point: HMA_ Mode Mode Vertic	Lift1_Centerlin al	✓ ◆ Stat Start Stop	ion Limits 203+80.28 260+43.16	+	Add Close Change
Control Type: Alignm Horizontal Alignment: SH 86	ent	▼ + Hori Start Stop	zontal Offsets -80.00 -80.00	÷	Help
Use as Secondary Alignme Priority: 1	ent	Vert Star Stop	ical Offsets 0.00 0.00	+ +	
Horizontal and Vertical Control	s:				
En Pri Name	Start Station	Stop Station	Mode	Туре	Control
X 1 HMA_Lift1	203+80.28	260+43.16	Horizontal	Alignment	SH 86
					Delete

The final step is to add the target aliasing.

18. Select **Tools > Target Aliasing** from the Roadway Designer menu. The *Target Aliasing* dialog box is displayed.



19. In the *Target Aliasing* dialog box, Highlight Corridor – 12345DES from the *Surface or Corridor* list.

20. **<D> Add**. The highlighted entry is moved to the Aliases list.

arget:	<active surface=""></active>	•	ОК
Surface or Con	ridor	Aliases:	Cancel
Corridor - 12345DES		Add ->	
Comidor - Scab-on Detour Comidor - Template Transition Surface - 12345 existing ground Surface - Default		<- Remove	L
		Move Up	
		Move Down	

21. Highlight Surface - 12345 Existing Ground from the Surface or Corridor list.

22. <D> Add.

arget:	<active surface=""></active>	•		ОК
Surface or Corrid	for	22	Alases:	Cancel
Corridor - Off Ramp Corridor - Scab-on Detour Corridor - Template Transition Surface - Default		Add ->	Corridor - 12345DES Surface - 12345 existing ground	Cancer
		<- Remove		Help
		Move Up		
		Move Down		

23. **<D> Cancel** to dismiss the *Target Aliasing* dialog box.

The order that aliases are listed is important because it determines the testing order. In this exercise, the end condition tests against the *Corridor – 12345DES* first. If it cannot tie to the corridor it tests against the *Surface – 12345 Existing Ground*.

- 24. Scroll through the stations and notice how the right end condition behaves.
- 25. Select **File > Save** from the Roadway Designer menu bar.
- 26. **<D> Close** to dismiss the Roadway Designer dialog box.

Chapter Summary:

- In *Lab 14.1 -Modifying a Single Template Drop* a single template drop was modified by moving a point.
- In*Lab 14.2 Target Aliasing* target aliasing was used to tie one corridor to another. This method also allowed the corridor to tie to the existing ground as needed.