LAB 9 - Create Landscape Graphics

In this lab you'll create a Landscape & Environmental (L&E) model file and then use the CDOT Menu to place silt fence lines, hay bale cells and wetlands regions.

Chapter Objectives:

After completing this exercise you will know how to:

- Use the CDOT Menu to place L&E custom lines
- Use the CDOT Menu to place L&E cells
- Use the CDOT Menu to place L&E shapes (wetlands)
- Use the CDOT Menu to pattern areas

Lab 9.1 - Create the L&E Model File

- 1. Start MicroStation.
- 2. Re-set Project to 12345.
- 3. Set the directory to \Landscape_Environmental\Drawings\Reference Files.
- 4. Select the file 12345LAND_ENVI_Model.dgn and select Open.

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5. After opening the file, select File > Save As... and set the directory to C:\Projects\12345\Landscape_Environmental\Working.

6. Change the file name to CU12345LAND_ENVI_Model.dgn and select Save to save a copy to the Working folder.

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- 7. Select **References** from the **Primary** toolbar.
- Using what you've learned, attach the Design model reference (from Design's \Drawings\ Reference_Files folder), Coincident-World and at a 1:1 scale. Copy Attachments at a depth of 1 to bring in the Survey/Topo as direct attachments. See below.

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9. Fit the view.



10. From the **Reference** dialog, Turn *off* the display of Design's raster references.

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Place silt fence

1. Window around the end of the project just east of the existing bridge.



- 2. From the CDOT Menu, select the Landscape Environmental Group.
- 3. Set Status to Proposed.
- 4. Set the category to Erosion Other / Sediment Control.

5. Select the Silt Fence item.



This automatically sets the active level to LAND_ENVI_Erosion-Silt-Fence and selects the Place SmartLine tool.

(none)

6. Place data points to draw the silt fence along the toe-of-fill line on the south side of the proposed road (similar to the one shown).



7. $\langle \mathbf{R} \rangle$ when done.

Place Haybales

1. Set the category to Checks / Silt Dike.

2. Select the item **No Plot Line**.

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Utilities	Erosion Other / Sediment Control * Haybale
	Inlet Protection
	Soil Retention Blanket
	Wetlands
Settings	

This automatically sets the active level to DRAFT_INFO_No-Plot and selects the Place SmartLine tool. The No Plot level allows you to place a construction line representing the location of haybales, silt dikes, etc. that you can later divide with a cell.

🔎 (none) 🔻	DRAFT_INFO_No-Plot -	
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3. Place data points to draw the haybale construction line on the north side of the proposed road as shown.



4. $\langle \mathbf{R} \rangle$ when done.

- CDOT Menu CDOT Groups CDOT Tools Options Help Drafting Status ? Bridge Existing Proposed Construction Design Landscape Environmental Geometry Hydraulics **∖** A ≉ 🚳 Landscape Environmental s / Silt Materials Geotechnical Placement: ROW Survey 50' Spacing Traffic ITS Environmental ---- Utilities No Plot Line Erosion Other / Sediment Control * Haybale 🔆 Log Inlet Protection * Rock 🔆 Silt Dike Plants Soil Retention Blanket Wetlands Settings... 🚝 Active Settings - • • Active Scale: 100.00 Apply Active Angle: 0.00 Close
- 5. On the CDOT Menu, select Settings and set Active Scale to 100, Apply and then Close.

- 6. Set Placement to 50' Spacing.
- 7. Set the item to Haybale.



This automatically selects the Place Cell command and starts the Cell Divide program.

8. When prompted to Identify Element, <D> on the No Plot line you just placed.

9. **<D>** to accept.



The No Plot line is divided with the haybale cells at 50 ft. intervals.

Create wetlands

Draw the wetland shapes

1. Pan over to the left to the area around the bridge as shown.



2. From the Reference File dialog box, turn on the display of the Survey/Topo file.

3. Open *Level Display*, highlight the Survey/Topo reference, right-click in the list of levels and turn on all of the Survey/Topo reference levels.





4. On the CDOT Menu, set the category to Wetlands.

- CDOT Menu - • • CDOT Groups CDOT Tools Options Help Drafting Status ? Bridge Existing Proposed Construction Design Landscape Environmental Geometry Hydraulics 🔪 A 🕸 🚳 Landscape Environmental Checks / Silt ≺Wetland Le Materials Geotechnical Dike ROW Survey Wetland Rig ⊕ Traffic ITS Environmental Existing ---- Utilities Mitigation Erosion Other / 🛞 Permanent Sediment Control Temporary (Hatch) Inlet Protection Plants Soil Retention Blanket Settings...
- 5. Select the item Wetland Right.

This automatically sets the active level LAND_ENVI_Wetland-Right and selects the Place Shape tool.

6. Place data points to define the wetlands region as shown. To close the shape, select Close Element in the Place Shape Tool Settings box.



7. Repeat for the area on the other side of the bridge as shown.



Pattern the wetlands

8. On the CDOT Menu, select the Mitigation item from the Wetlands category.



This automatically selects the Pattern Area command and sets the active pattern cell.

- 9. When prompted, *<D>* on the wetland shape you just drew and then *<D>* to accept.
- 10. Repeat for the other wetlands shape on the north side of the bridge.



11. Turn *off* the display of the Survey/Topo reference.

- 12. Save Settings.
- 13. Proceed to the next lab.