Designing in 3D Using Corridors

Long before AutoCAD® Civil 3D® objects, CAD, or even computers existed, engineers were designing roads and other linear features in three stages: alignment, profile, and cross section. I suspect the reason for this is that it's much easier to think of a design one dimension at a time rather than think of all three dimensions at once. This was especially true before designs could be visualized in 3D on a computer screen. This approach to linear design has carried right through to the present day and is still evident, even with cutting-edge technology such as Civil 3D.

You have already learned about the alignment and profile stages of this design approach. In this chapter, you'll learn how assemblies are used to provide the third stage of the design process: the cross section. Then you'll combine all three elements (alignments, profiles, and assemblies) to take this three-stage design process to the next level: a dynamic three-dimensional model.

In this chapter, you'll learn to:

- **Understand corridors**
- **Create an assembly**
- **Create a corridor**
- **Apply corridor targets**
- **Create corridor surfaces**

Understanding Corridors

A *corridor* consists of hundreds or even thousands of individual Civil 3D objects that are dynamically linked to one another. A good way to begin understanding how corridors work is to study how these different components come together to become a 3D representation of your design.

Understanding the 3D Chain

In Chapter 5, "Designing in 2D Using Alignments," you used alignments to design the 2D path of a linear feature, in this case a road. In Chapter 7, "Designing Vertically Using Profiles," you designed the vertical path of the road using profiles. When combined, the alignment and profile form a three-dimensional pathway called a *3D chain*. The 3D chain serves as the backbone of your design.

3D chains can actually be seen in your drawing, but only if you view the drawing from a 3D perspective, as shown in Figure 9.1.

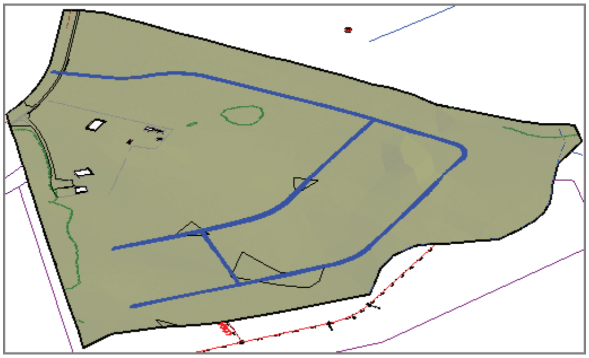


FIGURE 9.1 The blue lines represent 3D chains formed by combining alignments with profiles to form a three-dimensional pathway.

Because the 3D chain is dynamically linked to both the alignment and profile, a change to either one will automatically prompt a change to the 3D chain and subsequently update the corridor.

Understanding the Assembly

An *assembly* is a representation of the cross-sectional geometry of the feature you're designing. It establishes the overall shape of the cross section and distinguishes the areas within it. For example, a typical road cross section can have areas of asphalt pavement, base material, curbs, and sidewalks, as shown in Figure 9.2.

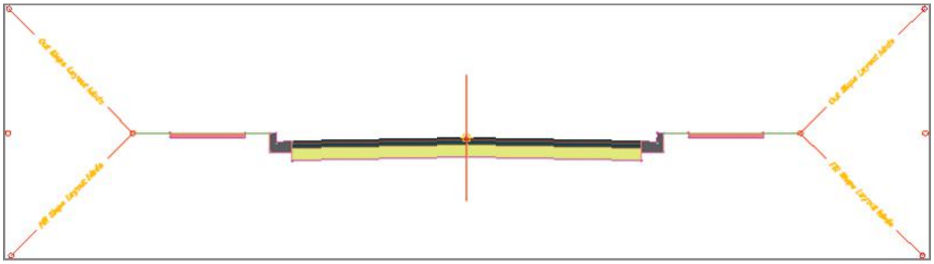


FIGURE 9.2 A Civil 3D assembly that establishes lanes, curbs, sidewalks, and grading

The parts of an assembly are called *subassemblies*. They are dynamically linked to one another and therefore have the potential to affect one another. For example, if a curb subassembly is located at the edge of a lane subassembly, the curb subassembly will automatically move outward if the lane width is increased.

Understanding Assembly Insertions

To create a corridor, Civil 3D inserts instances of an assembly along a 3D chain at regular intervals. These assembly insertions can be thought of as the ribs of the 3D model, providing shape to the road one assembly at a time (see Figure 9.3).

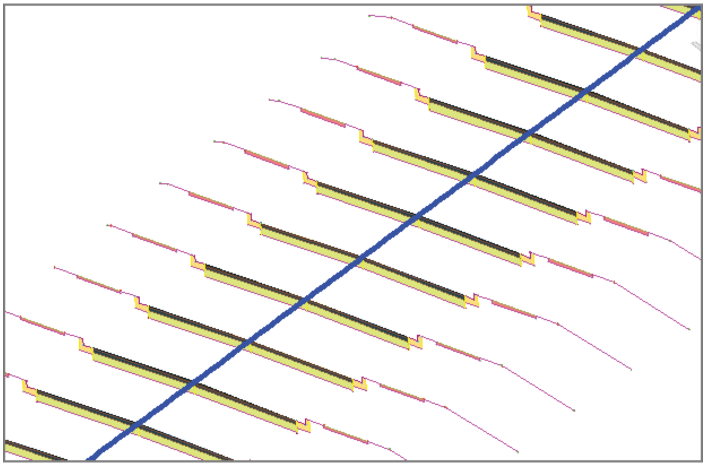


FIGURE 9.3 Assemblies inserted at intervals along a 3D chain

Because the assembly insertions are dynamically linked to the 3D chain, any change to the alignment or profile will prompt a change in the corridor. The assembly insertions are also dynamically linked to the assembly itself, so any change to the assembly will also prompt an update to the corridor.

Understanding Corridor Feature Lines

To provide a framework in the longitudinal direction, Civil 3D draws feature lines from assembly to assembly (see Figure 9.4). The feature lines employ a coding system to determine which points they are drawn through each time they cross an assembly.

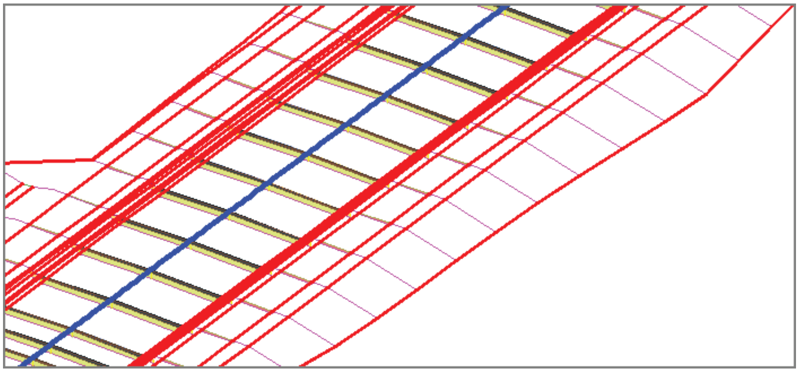


FIGURE 9.4 The red lines are feature lines that connect like points on each assembly insertion.

The feature lines are linked to the assembly insertions, which are linked to the 3D chain, and so on. I'll stop calling out relationships specifically and cover it all by saying that everything within a corridor is essentially related.

Understanding the Corridor Surface

As you view the assembly insertions along the 3D chain previously shown in Figure 9.3, imagine this as the structural framework of a ship or an airplane. With the framework in place, now imagine the hull or fuselage being installed on the vessel. This is a great way to envision the role of a *corridor surface* (see Figure 9.5).

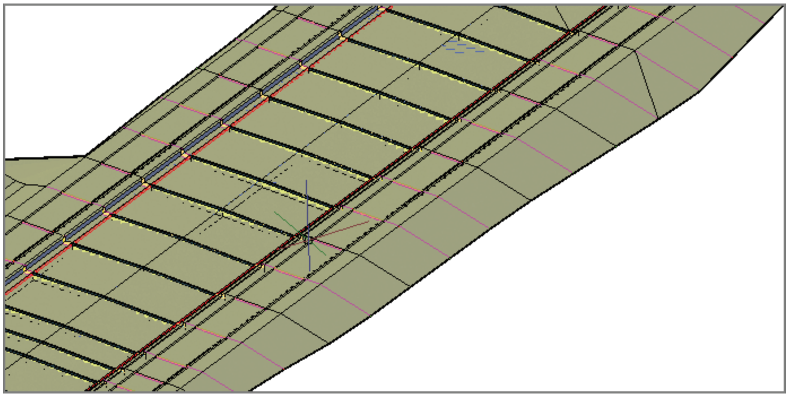


FIGURE 9.5 A corridor along with its corridor surface, shown in 3D view

Although they appear in Prospector like other surfaces, *corridor surfaces* are built directly from the corridor and maintain a link to the corridor. They can be displayed as contours, used to create surface profiles, and perform every other function normally associated with surfaces.

Creating an Assembly

As mentioned previously, an assembly consists of smaller components called *subassemblies*. To create an assembly, you begin by creating an assembly baseline, which is represented by a simple vertical line with a single base-point marker at its midpoint. Then you proceed by inserting individual subassemblies that represent elements such as lanes, curbs, ditches, and so on.

Before building an assembly, it's a good idea to have at least a sketch of the typical cross section of your design so you have something to reference as you work. Having detailed dimensions is helpful but not critical—the subassemblies can be changed with relative ease, even after the corridor has been built.

Exercise 9.1: Create an Assembly

In this exercise, you'll create an assembly that represents the cross section of the road for the proposed residential development.

If you haven't already done so, download and install the files for Chapter 9 according to the instructions in this book's Introduction.

1. Open the drawing named `Creating an Assembly.dwg` located in the `Chapter 09` class data folder.
2. On the Home tab of the ribbon, click Assembly ➢ Create Assembly.

3. In the Create Assembly dialog box, enter **Subdivision Road** as the name. For Code Set Style, select All Codes With Hatching. Click OK.
4. Click a point near the center of the top-right viewport to insert the assembly baseline.

A vertical red line appears in your drawing.

5. On the Home tab of the ribbon, click the Tool Palettes icon.

6. In the Tool Palettes window, right-click the gray strip labeled Tool Palettes, and select Civil Imperial (Metric) Subassemblies.

7. Click the stack of tabs at the bottom of the Tool Palettes window, and then click Basic, as shown in Figure 9.6.

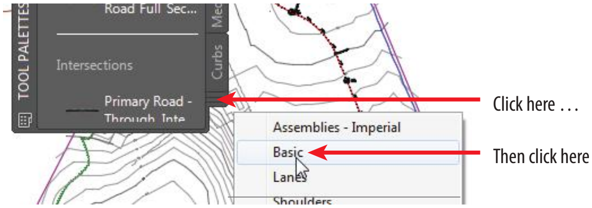


FIGURE 9.6 Selecting the Basic tool palette

The Properties window appears, and you're prompted on the command line to select a marker point.

8. On the Basic tool palette, click BasicLane.

9. In the Properties window, verify that Side is set to Right, and then click the marker at the midpoint of the assembly baseline.

   A lane subassembly is attached to the assembly baseline.

You may need to zoom in to see the circle markers on the lane subassembly.

10. On the Basic tool palette, click BasicCurbAndGutter. In the Properties window, change the value for Curb Height to **0.50** (**0.15**).

11. Click the upper-right circle marker on the lane subassembly you inserted earlier.

   A subassembly representing a curb and gutter is now attached to the lane.

This isn't the same Mirror command that AutoCAD® software uses for mirroring lines, arcs, and circles. This is a special command for subassemblies, and it must be used instead of the AutoCAD version.

12. Press Esc to end the assembly-insertion command. Click the lane subassembly and the curb subassembly, and then click Mirror on the ribbon.

13. Click the vertical red assembly baseline.

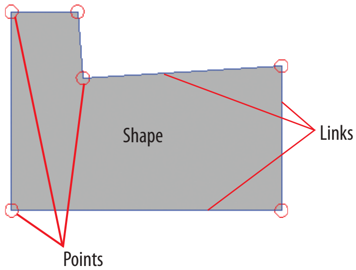
   Both sides of the assembly now display a lane and curb subassembly.

14. Save and close the drawing.

You can view the results of successfully completing this exercise by opening `Creating an Assembly - Complete.dwg`.

What Are Subassemblies Made Of?

Subassemblies are made up of three fundamental components: points, links, and shapes. A point is self-explanatory, a link is a line that is drawn between two points, and a shape is the result of three or more links forming a closed shape, as shown in the following diagram. Each point, link, and shape in a subassembly has at least one code. These codes are used to identify the purpose of a component and control its style, behavior, and relationship to other parts of the design. A collection of styles that apply to multiple codes is called a *code set style*.



Creating a Corridor

Certification Objective

Considering the complexity and sophistication of a corridor, the process of creating one is actually quite simple. Once the alignment, profile, and assembly are in place, it's just a matter of telling these three objects that they belong together. Of course, the design is far from complete at this point, but as you'll see in the next exercise, creating the initial version of a corridor involves only a few steps.

Exercise 9.2: Create a Corridor

In this exercise, you'll create the initial corridor for Jordan Court.

1. Open the drawing named `Creating a Corridor.dwg` located in the `Chapter 09` class data folder.
2. On the Home tab of the ribbon, click Corridor. 

If you haven't already done so, download and install the files for Chapter 9 according to the instructions in this book's Introduction.

3. In the Create Corridor dialog box, do the following:
   a. For Name, enter **Jordan Court**.
   b. For Alignment, verify that Jordan Court is selected.
   c. For Profile, select Jordan Court FGCL.
   d. For Assembly, select Subdivision Road.
   e. Uncheck the box next to Set Baseline And Region Parameters.
   f. Click OK.

Normally you would also make a choice for Target Surface, but for now, leave this setting set to <None>.

4. Zoom in to the bottom-right viewport, and notice the corridor that has been created there (see Figure 9.7).

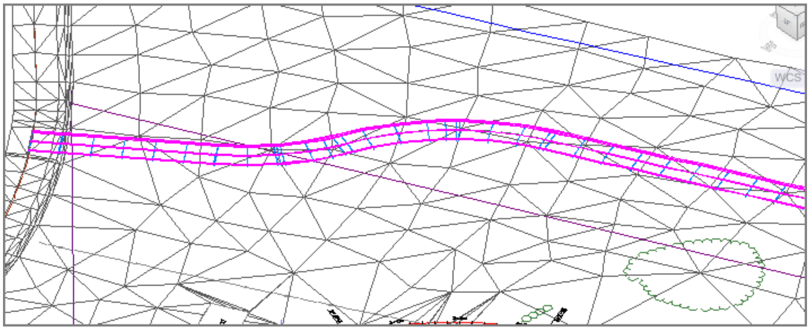


FIGURE 9.7 A portion of the newly created corridor shown in a 3D perspective

5. Save and close the drawing.

You can view the results of successfully completing this exercise by opening `Creating a Corridor - Complete.dwg`.

Applying Corridor Targets

One thing that makes corridors so powerful is their ability to interact with other objects in the drawing. Corridors are able to morph themselves into different shapes and sizes in order to respond to existing features or components of newly designed features. This is made possible through the use of special subassemblies that can be stretched, twisted, and reconfigured as the design progresses along the corridor. What makes these subassemblies special is that they utilize corridor targets.

Three types of targets can be applied to a corridor: *surface targets*, *width or offset targets*, and *slope or elevation targets*.

Understanding Surface Targets

Surface targets are used in a number of cases where the corridor needs to interact with a surface, such as when a slope is projected from a design elevation to the point where it intercepts an existing ground surface. This is referred to as *daylighting*. For example, in a section of road design that is above existing ground, daylighting can be used to create the embankment from the elevation of the road to the original ground elevation (see Figure 9.8).

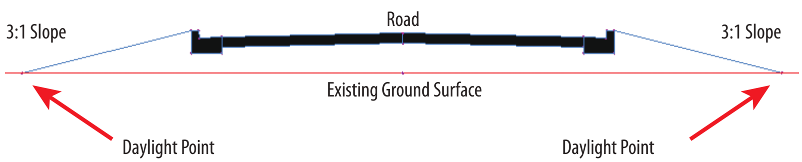


FIGURE 9.8 A cross-section view of a road that shows the daylighting of a 3:1 slope on either side

Although daylighting is the most common example of surface targeting, there are other examples such as establishing the cross slope of an existing road, setting the top elevation of a retaining wall, setting the depth of a pipe, and many others.

Understanding Width or Offset Targets

Another type of target used in corridor design is referred to as a *width or offset target*. As the name suggests, this type of target is used to vary the width of an object or the distance between a point and the centerline (also known as *offset*). For example, an alignment can be used as a target that controls the outside edge of a lane. As the path of the alignment moves away from the road centerline, the lane widens. As the path of the alignment moves toward the road centerline, the lane narrows (see Figure 9.9).

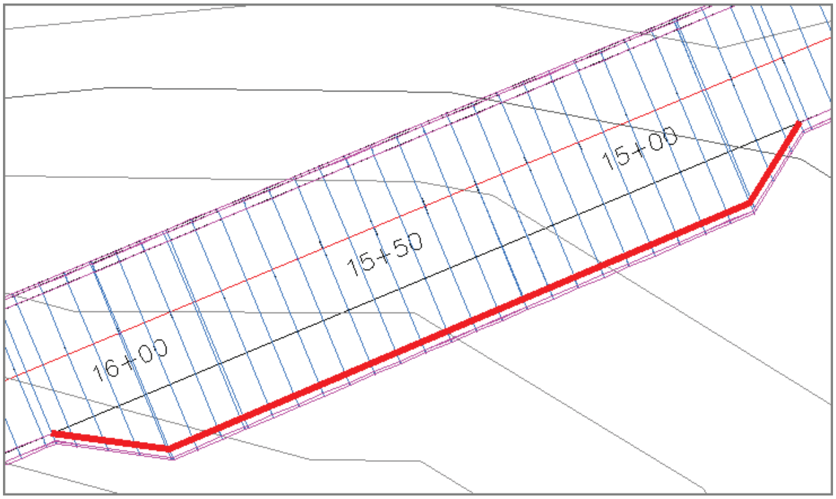


FIGURE 9.9 A width or offset target (in red) applied to a corridor to widen the lane and create a pull-off area

In addition to alignments, you can use feature lines, survey figures, and polylines as width or offset targets. Lane widening is probably the most common use of a width or offset target, but there are many other uses. For example, you can use a width or offset target to control the location of a ditch, the width of a shoulder, or the distance between a shoulder and a guardrail.

Understanding Slope or Elevation Targets

Slope or elevation targets are used to control the elevations of one or more components of a corridor. For example, these targets can control the elevations of a roadside ditch to ensure that it drains to a specific point, regardless of the slope of the adjacent road (see Figure 9.10). Profiles, feature lines, survey figures, and 3D polylines can be used as this type of target.

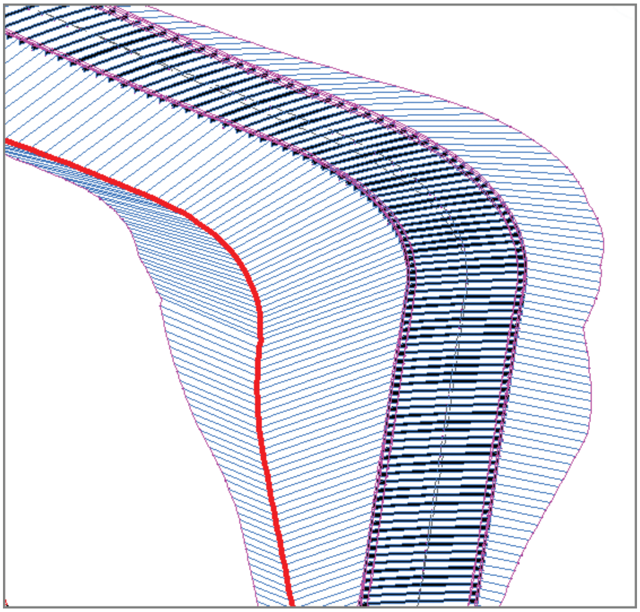


FIGURE 9.10 The use of a profile (3D chain shown in red) to control the elevations of a ditch

Tying Proposed Elevations to Existing Elevations

The concept of daylighting is found throughout all types of land development. As I've mentioned, one of the fundamental activities of land development is changing the shape of the land. This means portions of the development will have new elevations that are above or below the existing elevations. Because things such as roads and parking lots aren't much good underground and can't simply float in midair, there must be some way of transitioning between new elevations and existing elevations. The most economical material that can be used to construct that transition is soil, but soil isn't stable on steep slopes. Therefore, the transition between new and existing elevations is done with relatively mild slopes such as 3:1 (three units horizontal to one vertical). One of the most important components of your land-development design will be this tie-in between proposed elevations and existing elevations.

Enabling Target Behavior

Before you can use targets within your corridor, you must apply subassemblies that have targeting capabilities. Civil 3D comes with hundreds of subassemblies, each designed for a different purpose or application. Some of these subassemblies can use targets, and some can't. For example, the BasicLane subassembly that you used earlier doesn't have the ability to target anything. So if you would like to use a width or offset target to incorporate a turning lane, a pull-off area, or some other feature into your corridor, you'll have to use a different subassembly.

Exercise 9.3: Apply Subassemblies That Can Use Targets

If you haven't already done so, download and install the files for Chapter 9 according to the instructions in this book's Introduction.

In this exercise, you'll add subassemblies that will enable the corridor lane width to vary and the corridor to tie to an existing ground surface.

1. Open the drawing named `Adding Target Subassemblies.dwg` located in the `Chapter 09` class data folder.
2. Open the Tool Palettes window, and click the Basic tool palette.

3. Click BasicLaneTransition. On the command line, type **R** and press Enter to invoke the Replace option.

You can also click the word *Replace* on the command line instead of typing R.

4. In the upper-right viewport, click the right-lane subassembly. When prompted to select an attachment point for the highlighted subassembly, click the upper-left point of the curb and gutter, as shown in Figure 9.11

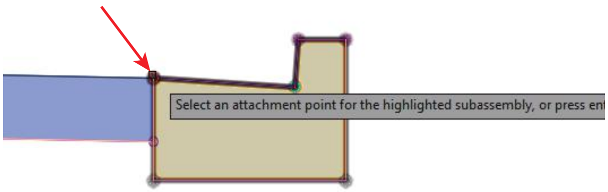


FIGURE 9.11 **Choosing the attachment point for the curb and gutter subassembly**

5. Repeat the previous two steps for the left-lane subassembly. This time, pick the upper-right corner point of the left curb and gutter subassembly.

6. Press Esc to clear the current selection. Click the assembly baseline (the vertical line to which the subassemblies are attached), and then click Assembly Properties on the ribbon.

7. In the Assembly Properties dialog box, do the following:

   a. Click the Construction tab. Click Group (1) twice to edit the name. Type **Right**, and press Enter. Use the same procedure to change the name of Group (2) to **Left**.

   b. Under the group now named Right, rename the two subassemblies **Right Lane** and **Right Curb**. Do the same for the Left group, naming the subassemblies **Left Lane** and **Left Curb**.

   c. Click Right Lane. Then, under Input Values, scroll down and find the Transition value. Change it to Hold Grade, Change Offset.

   d. Repeat step c for Left Lane.

   Figure 9.12 shows the Assembly Properties dialog after you complete all the tasks in this step.

As the name implies, the Hold Grade, Change Offset setting maintains the cross grade of the lane (which happens to be 2 percent) while widening or narrowing it to the specified distance.

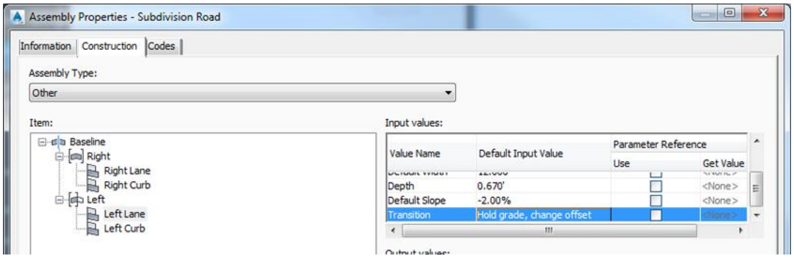


FIGURE 9.12 The Assembly Properties dialog box after the groups and subassemblies have been renamed and the properties for the lanes have been set properly

The assembly now contains two BasicLaneTransition subassemblies in place of the BasicLane subassemblies. This enables targeting so that you can create a turning lane in the next exercise.

8. Click OK to close the Assembly Properties dialog box and return to the drawing.

9. On the Basic tool palette, click BasicSideSlopeCutDitch.

Notice that you didn't have to set the Side property to Left or Right. Civil 3D has a special feature that automatically guesses which side of the assembly you're on.

10. Click the marker in the upper-left corner of the Left Curb subassembly. Click the marker in the upper-right corner of the Right Curb subassembly. The assembly should now look similar to Figure 9.13.

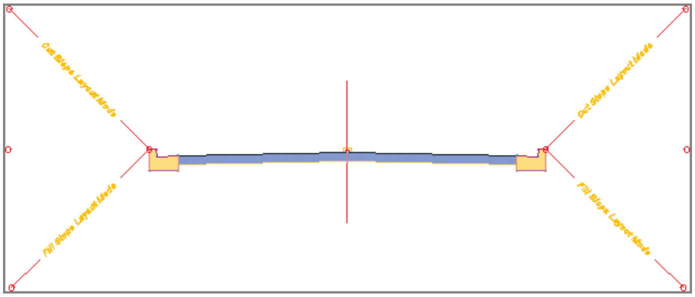


FIGURE 9.13 The assembly with newly added BasicSideSlopeCutDitch subassemblies on either side

11. Press Esc to end the current command. Click the right BasicSideSlopeCutDitch subassembly, and then click Subassembly Properties on the ribbon.
12. On the Information tab of the Subassembly Properties dialog box, change the name to **Right Daylight**.
13. Repeat the previous two steps for the same subassembly on the left, this time naming it **Left Daylight**.
14. Save and close the drawing.

Take the time to rename your subassemblies using logical, easy-to-remember names. This not only makes it easier to keep track of these things as you continue to work on your corridor, it also helps if you have to pass your work on to someone else.

You can view the results of successfully completing this exercise by opening `Adding Target Subassemblies - Complete.dwg`.

Assigning Targets

You use the Target Mapping dialog box to assign targets within a corridor. This dialog box lists the three types of targets (surfaces, width or offset targets, and slope or elevation targets) along with subassemblies within your corridor that are able to use each type of target (see Figure 9.14). Targets don't have to be used whenever they are available. In fact, for many corridors, the majority of the targets are set to <None>.

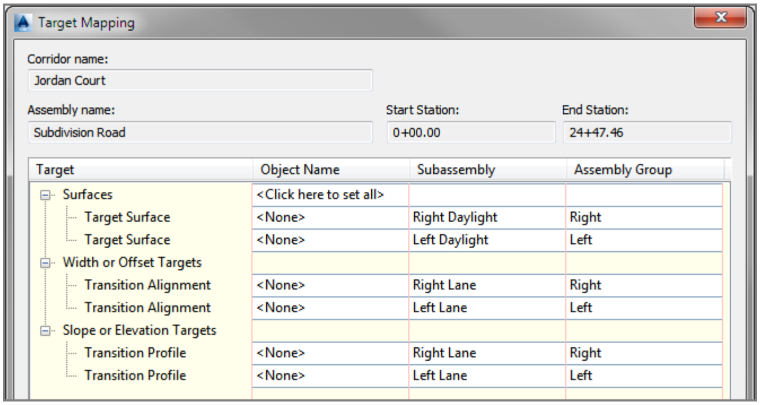


FIGURE 9.14 **The Target Mapping dialog box showing the three types of corridor targets along with the subassemblies that can use each type of target**

To assign a target, you click the cell in the Object Name column that corresponds to the subassembly you would like to set up. This displays a dialog box where you can select objects in the drawing graphically or by name.

Exercise 9.4: Assign Targets

In this exercise, you'll assign targets to the corridor to provide daylighting and a turn lane for Jordan Court.

If you haven't already done so, download and install the files for Chapter 9 according to the instructions in this book's Introduction.

1. Open the drawing named `Applying Corridor Targets.dwg` located in the `Chapter 09` class data folder.
2. Click the corridor in the drawing, and then click Edit Targets on the ribbon.

3. When prompted to select a region, click inside the left viewport anywhere within the corridor.

Corridor Region

In step 3, you're prompted to select a *region* to edit. A region is essentially a part of your corridor that begins at one station and ends at another. All corridors start out with a single region that extends the full length of the corridor. As a design evolves, however, you'll typically break up the corridor into multiple regions.

This opens the Set Width Or Offset Target dialog box.

4. In the Target Mapping dialog box, under Width Or Offset Targets, click <None> in the Object Name column next to the Left Lane subassembly.
5. In the Set Width Or Offset Target dialog box, under Select Object Type To Target, select Feature Lines, Survey Figures, and Polylines.
6. Click Select From Drawing. Then, in the left viewport, zoom in to the beginning of Jordan Court where it intersects with Emerson Road.
7. Click the red polyline that represents the desired path of the left lane's edge, and then press Enter.
8. Click OK twice to return to the drawing. The corridor is widened near the entrance, as shown in Figure 9.15. By widening the left lane this way, you make extra room for a turning lane.

It may seem that the red polyline is on the right side of the road, but remember that left and right are defined while looking in the direction in which the stations increase.

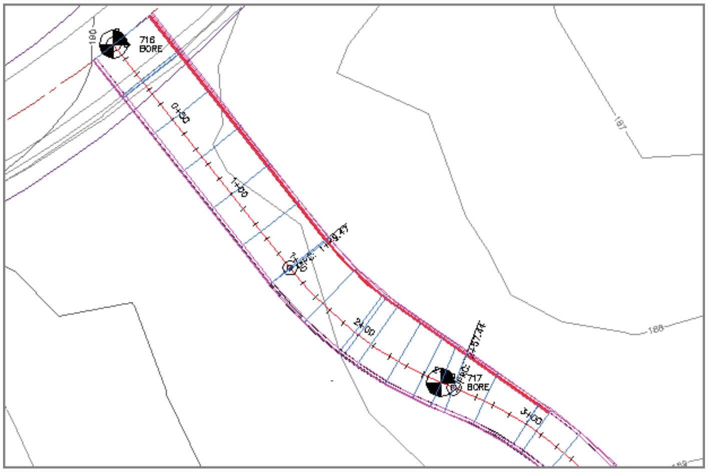


FIGURE 9.15 The corridor is wider where the lane-edge polyline was targeted.

9. Click within the corridor to reopen the Target Mapping dialog box.
10. In the Target Mapping dialog box, click the cell next to Surfaces that reads <Click Here To Set All>.
11. Select EG, and click OK. Then click OK to dismiss the Target Mapping dialog box. Pan around in the lower-right viewport to view the 3D representation of the corridor.

You should now see additional geometry along the edges of the corridor (see Figure 9.16). This represents the daylighting that has been applied. The daylighting geometry is noticeably wider in some areas than in others. These are areas that are below existing ground through which a ditch has been constructed. This automatic creation of ditches is a function of the BasicSideSlopeCutDitch subassembly.

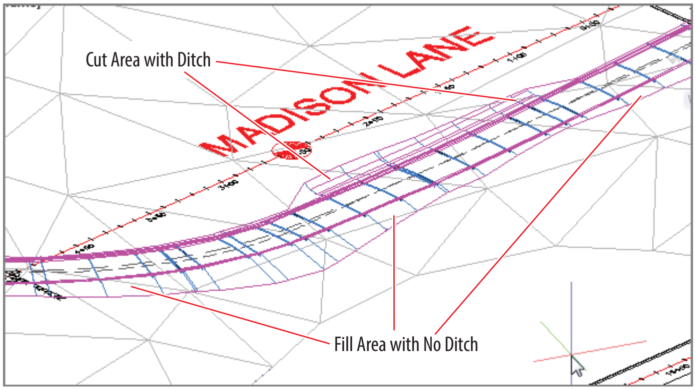


FIGURE 9.16 **Areas of daylighting along the corridor**

12. Save and close the drawing.

You can view the results of successfully completing this exercise by opening `Applying Corridor Targets - Complete.dwg`.

Creating Corridor Surfaces

In Chapter 4, "Modeling the Existing Terrain Using Surfaces," you learned about the benefits of using a surface to model the existing terrain. A surface provided a model of the land and enabled you to do things like display contours, label elevations, and create surface profiles. Imagine having all those capabilities with a corridor as well. This is made possible through the creation of a corridor surface.

Cut and Fill

The terms *cut* and *fill* are used quite a bit in relation to land-development activities. For example, in the BasicSideSlopeCutDitch subassembly, the word *cut* refers to a condition where the road is below existing ground and therefore has to project a slope upward in order to daylight. Another way to envision this is that earth must be cut away in order to construct the road in these areas. The opposite of cut is *fill*, which refers to conditions where an area must be filled in with earth to create a design feature. *Cut* and *fill* can also be used to refer to quantities of earth, where *cut* represents the volume of earth that must be removed to build something and *fill* represents the volume of earth that must be brought in to build something.

Corridor surfaces are unique in that they exist as an integrated part of the corridor, although they show up in Prospector like any other Civil 3D surface. You use the Corridor Surface dialog box to create the initial corridor surface, and then you choose the data within the corridor that is to be added to this surface. You can choose links and feature lines based on the codes assigned to them. You can also click the Boundaries tab and add a boundary to the surface. Often, the simplest way to apply a boundary is to use the corridor extents as the outer boundary. You can also create boundaries *automatically* based on coded feature lines within a corridor, *interactively* by selecting individual feature lines within the corridor, or manually by selecting a polyline that already exists in the drawing.

If you haven't already done so, download and install the files for Chapter 9 according to the instructions in this book's Introduction.

Exercise 9.5: Create a Corridor Surface

In this exercise, you'll create a finished ground surface for the Jordan Court corridor.

1. Open the drawing named `Creating a Corridor Surface.dwg` located in the `Chapter 09` class data folder.

2. Click the Jordan Court corridor, and then click Corridor Surfaces on the ribbon.

It's easier to select the corridor if you zoom in and click one of the blue lines representing an assembly insertion.

3. In the Corridor Surfaces dialog box, click the leftmost icon to create a new corridor surface.
4. Edit the name of the new surface so it reads **Jordan Court FG**.

5. Verify that Data Type is set to Links and that Code is set to Top and then click the plus sign to add the Top coded links to the surface.

6. Click OK. If the Corridor Properties – Rebuild dialog box opens, click Rebuild The Corridor.

   You should now see contours in the left viewport and TIN lines in the bottom-right viewport; however, a large area in the center of the site contains incorrect surface information (see Figure 9.17).

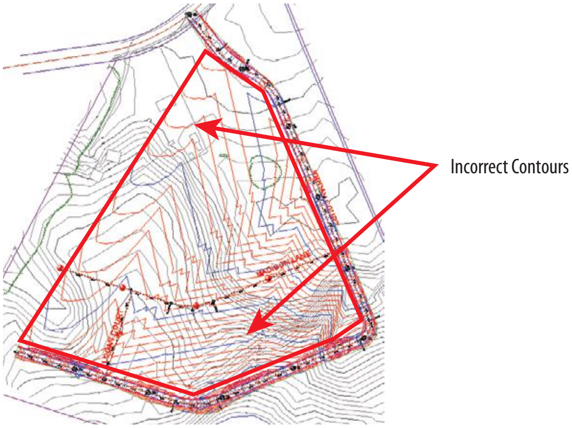


FIGURE 9.17 **Contours displayed for the newly created corridor surface. Note the incorrect contours in the center of the site.**

7. If the corridor is no longer selected, click the corridor in the drawing, and then click Corridor Surfaces again. Click the Boundaries tab of the Corridor Surfaces dialog box.

8. Right-click Jordan Court FG, and select Corridor Extents As Outer Boundary, as shown in Figure 9.18.

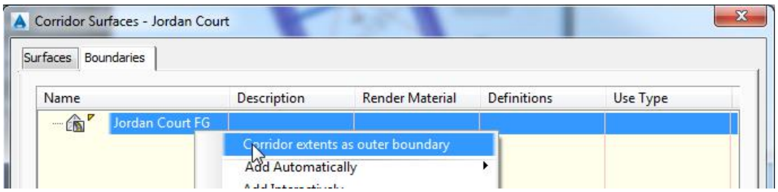


FIGURE 9.18 **Selecting the corridor extents as the basis for creating a surface boundary**

9. Click OK to return to the drawing. If the Corridor Properties – Rebuild dialog box opens, click Rebuild The Corridor.

   The surface has been contained within the extents of the corridor, as it should be. Now contours appear only where valid surface data exists.

10. Save and close the drawing.

You can view the results of successfully completing this exercise by opening `Creating a Corridor Surface - Complete.dwg`.

Alternate Corridor Surfaces

In this example, you created a surface that represents the top (finished) ground elevations of the corridor. You could have selected any one of the codes contained within the corridor, such as pave, datum, curb, and so on. Although most of these codes aren't particularly useful for creating surfaces, several are. The datum code, for example, is used to represent links that form the underside of the materials that make up the road. Why is this important? These links represent the trench, or *roadbed*, that must be excavated to accept road materials such as stone, concrete, and asphalt. The excavation of the roadbed often represents one of the most important aspects of constructing the project: earthmoving.

Certification Objective

Intersections

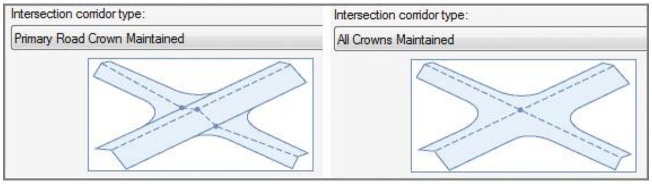
One of the most sophisticated applications of targets and regions is the design of an intersection. Here you'll find multiple baselines, regions, and targets that are necessary to tie two roads together as well as provide a smooth transition between them. For this reason, Civil 3D provides the Create Intersection command that automates the creation and management of these relationships.

After launching the Create Intersection command, you're presented with the Intersection Wizard, which contains the following series of dialog boxes that request information about the design:

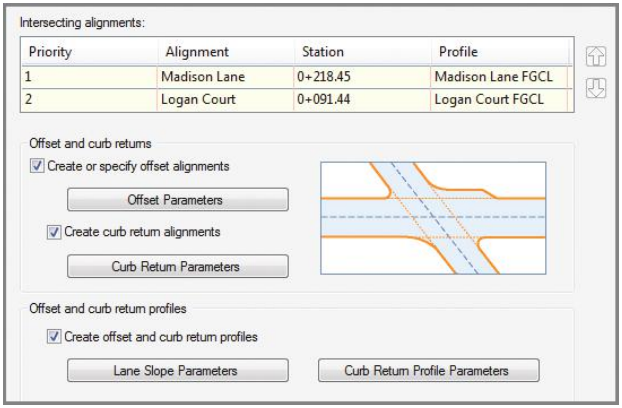
General **In this dialog, you specify general information about the intersection such as its name, description, and associated styles. Most important, you choose from one of two types of intersection designs: Primary Road Crown Maintained and All Crowns Maintained, as shown here.**

(Continues)

INTERSECTIONS *(Continued)*



Geometry Details In this dialog, you choose a profile for each alignment, which will drive the centerline elevations of each road. You also define important horizontal geometry specifications by modifying the Curb Return Parameters and Offset Parameters settings. You provide vertical design specifications by addressing the Lane Slope Parameters and Curb Return Profile Parameters settings. A portion of the Geometry Details dialog box is shown here.



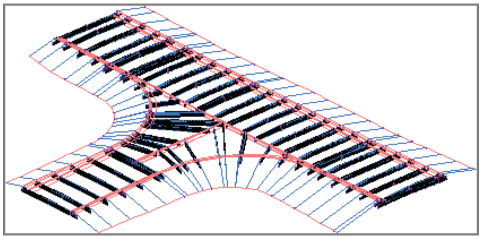
Corridor Regions In this dialog box, you specify the different assemblies that will be assigned to different portions of the intersection design. This group of assemblies and their assignments is called an *assembly set*. Assembly sets are typically set up by a CAD manager or lead CAD person and will most likely be provided for you, at least for your first few designs.

Corridor Region Section Type	Assembly to Apply
Warp All Turn Lanes	
Curb Return Fillets	Curb Return Fillets
Primary Road Full Section	Primary Road Full Section
Primary Road Half Section – Daylight Left	Primary Road Half Section - Daylight Left
Primary Road Half Section – Daylight Right	Primary Road Half Section - Daylight Right
Secondary Road Full Section	Secondary Road Full Section
Secondary Road Half Section - Daylight Left	Secondary Road Half Section - Daylight L...
Secondary Road Half Section - Daylight Right	Secondary Road Half Section - Daylight ...

(Continues)

Intersections *(Continued)*

After you complete the Create Intersection command, your drawing contains a full, 3D representation of the intersection, as shown in the following image. The intersection design consists of new baselines, regions, and targets. As you make changes to your design, the relationships between the many intersection components will be honored, keeping the design in sync within itself as well as with adjacent portions of the corridor.



Now You Know

Now that you have completed this chapter, you understand the anatomy of a corridor and how alignments, profiles, and assemblies are combined to build a 3D corridor model. You can create an assembly representing a typical road cross section and then create a corridor using that assembly along with an alignment and a profile in the drawing. You can utilize target-capable subassemblies and configure the corridor to use the available targets to provide daylighting and changes in lane width. And finally, you're able to create corridor surfaces so that important surface information can be used elsewhere in the design.

You're now ready to begin creating and working with corridors in a production environment.