Parking Lots with AutoCAD® Civil 3D® Corridors

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Learning Objectives

- Discover the Corridor enhancements of AutoCAD® Civil 3D® 2017
- Learn the steps and workflow involved in modeling a parking lot using feature lines, surfaces, and corridors
- See a live example of a parking lot with Corridors
- Get excited about this great new feature in AutoCAD® Civil 3D®

Description

Learn the key steps and workflows involved in designing a parking lot with AutoCAD® Civil 3D® 2017 software’s new enhancement Corridors from Feature Lines. As long as AutoCAD® Civil 3D® software has been available, parking lot grading has been difficult to model and obtain full quantities, sub surfaces, and so on. With the new enhancements of AutoCAD® Civil 3D® 2017 software, we gain a huge step forward in modeling our nonlinear grading areas. This class will go through the necessary steps, workflows, and techniques involved in obtaining a fully modeled parking lot utilizing AutoCAD® Civil 3D® 2017 software’s Corridors.

Your AU Expert(s)

Steve Hill is an Autodesk™ AutoCAD® / AutoCAD® Civil3D Certified Professional who has sixteen years of professional experience in Autodesk™ products and site civil design with an array of project types including subdivision design, road reconstructions, streetscapes, shopping centers, rail spurs, natural gas wells/pipelines, and landfill design. His project design experience includes various stages from overall planning to the detailed construction including site design, site grading, complex volume calculations, utility and pond sizing, soil erosion control measures, and details. Hill also maintains a strong background in computers and resolving issues on multiple operating platforms. With his LLC, Red Transit Consultants, he is passionate about developing applications and workflow management tools for AutoCAD®, Civil 3D®, and Map 3D® as well as small Windows stand-alone applications with various programming languages.
Background and Summary

Prior to AU 2016
It is recommended that you have a strong understanding of AutoCAD® Civil 3D® Corridors prior to coming to this lab session. The workflows and software features explained throughout this handout and during the lab session will be at an advanced level of corridor usage. We will be utilizing Assemblies that function similar to curb return Assemblies utilized in AutoCAD® Civil 3D® Corridor Intersections. The Assemblies will be added to various Regions of the Corridor model and will target horizontal and vertical offset Feature lines. The Corridor model will have multiple baselines with many regions and targets, thus full working knowledge of Corridor modeling will be highly beneficial. However, please do not allow this to turn you away from taking the class at this time – there will be information presented in the class in which will help further your understanding.

Data Sets
Data sets will be available on the day of the lab session and will be posted on the AU website after the conference. The data set files provided with this handout correspond to the task items listed. You may either choose to work through each task from the beginning, or skip directly to a specific task with the previous tasks completed.

AutoCAD® Civil 3D® Parking Lot Modeling Prior to AutoCAD® Civil 3D® 2017 Corridor Enhancements
Before getting into the details of this class, it is important to understand the prior workflows of Parking Lot Modeling within AutoCAD® Civil 3D®. As a refresher, I recommend Eric Chappell’s Autodesk™ University 2013 class called Ten Practically Awesome Grading Examples (CP2975-P). He has given this class in some form for numerous years and much of what he has taught can still be applied with the workflows for AutoCAD® Civil 3D® 2017 outlined here. However, one key component with the prior workflows is that curb and gutter and pavements could not be truly modeled; the new Corridor enhancements of AutoCAD® Civil 3D® 2017 allow us to do that.

Prior methods involved developing a surface for your final pavement grades, then once final, returning to model curb and gutter around islands by draping a feature line representing the pavement edge of the curb onto the design surface and performing Stepped Offsets to model the gutter and top of curb. This workflow helped to develop a surface that represented the design pavement and curb and gutter surface.
AutoCAD® Civil 3D® 2017 Corridor Enhancements

Below is a list of the enhancements listed on the Autodesk™ AutoCAD® Civil 3D® website we will see in this class that allows us to utilize the outlined workflow to model Parking Lots with Corridors:

- Feature Line as Corridor baseline – In addition to alignments and profiles, feature lines can be used as corridor baselines. Feature lines can also be selected when creating the corridor and when adding baselines.

- Property data to corridor solids - Enhancements to Corridor Solid extraction now enables the automatic association of property data and the ability to have corridor solids remain dynamic to changes in the corridor. The result is that corridor solids can now include information such as material, classification code, volumes and more. This can then be used throughout the design workflow, including: design making and construction planning.

- Corner cleanup for corridors - Where corridor tangents intersect at a corner, and where the corridor is created at a fixed width, the inner and outer corners of corridors are cleaned up automatically to improve modeling efficiency and accuracy. Please be sure to read up about how corner cleanup for corridors works on the AutoCAD® Civil 3D® 2017 Help Page – there are specific instances where it applies and does not apply.

- Extract corridor Feature Line workflow - Extract multiple feature lines from within corridor regions or closed polygonal areas. Use name template options to add corridor-related properties to the feature line names.

CORRIDOR CLEANUP EXAMPLES
(IMAGES TAKEN FROM THE AUTOCAD® CIVIL 3D® 2017 HELP PAGE)
Summary of Benefits when Using a Corridor for a Parking Lot

- True BIM capabilities
- Potentially faster grading revisions
- Grading edits are easier when required to swap out items like curb sizes, or adjusting pavement thicknesses late in design
- Profiling of all surfaces within the Corridor
- Projecting Corridor solids to sections
- Extracting AutoCAD® Solids from the Corridor
- The ability to use Civil 3D®’s QTO feature and assign pay items to the various components of the Corridor
- Better visualization graphic processing utilizing both corridor and surfaces for products like Navisworks®, Infraworks 360®, or 3ds Max®

Workflow Overview
To model a parking lot with a Corridor, we will be placing a Feature Line at the edge of pavement line for every curb. In doing this, each curb Baseline will have several Regions within the Corridor to define it. It is important to realize that Corridor samples are taken perpendicular to the Region’s Baseline. This will be critical in understanding how to develop the model. Below is the basic outline of the workflow:

1. Develop parking lot design. Prepare drawing with existing surface, parking lot line work, and any access roads leading into site. For any adjacent roads to the parking lot area, it is recommended to have a Corridor model developed along the roadway to allow for targeting within the parking lot Corridor model.

2. Establish a Feature line grid over top of your parking lot to establish a temporary design grade to use for establishing curb elevations. Ensure that the elevations used in the grid include critical points like high and low points through the parking lot.

3. Setup the curb Assembly. The Curb Return Fillets Assembly used with the Civil 3D® Intersection Wizard will be used for this example.
4. Ensure all central curbed islands have four different feature lines to target. The thin red line in the image below represents the baseline that will be added to a Corridor, the thick red line represents targets, and the hatched gray area represents a region. (2 Center of Drive Isles Feature Lines and 2 Center of Parking Bay Feature Lines)

![Central Curbed Island Example](image)

5. Border parking bays will be modeled different than central curbed islands. With these, we will need to add an additional feature line coming from the corner of the parking bay out to the drive isle. This needs to be done because the new Corridor cleanup functionality does not work with horizontal/vertical offset targets.

It is recommended that the angle of this line be a bisecting angle to the angle of the parking, but it is not required and will be dependent upon critical temporary design surface points. Like the central curbed islands, the thin red line represents the baseline that will be added to the Corridor, the thick red lines represent targets, and the hatched colored areas represent at least one region each.

![Border Parking Bays](image)

6. Assign curb elevations from the temporary base design surface.

7. Create a Corridor and add each of the curb Feature Lines as baselines. Regions will use the Curb Return Fillets Assembly and targets will project to the items discussed previous.

8. Final Corridor cleanups and adjustments (i.e.: splitting regions, targets, etc. for better build).
Task 1 – Model a Parking Lot with AutoCAD® Civil 3D® Corridors

Pre-Task – Feature Line Grid Explanation
1. Within the lab dataset, locate the drawing “Pre-Task.dwg”. The intent of this task is to provide an explanation of how the grid lines, shown in Task 1A, are established.
2. Locate the two 3D Polylines at the west and south areas of the parking lot.
3. Convert the 3D Polylines to Feature Lines. Use the Feature Line Editor to change elevations and grades as desired. The goal here is to develop a Feature Line grid with the elevations/grades for the pavement of the parking lot. Make sure these two Feature Lines address the following:
   a. Where the Feature Line crosses a Corridor, add a PI point to the Feature Line at the edge of asphalt and apply elevations at points that fall on the road surfaces, this will help control the road grades.
   b. Add grid Feature Lines at each center of drive isles.
   c. Add grid Feature Lines at each center of every parking bay.
   d. Elevations should only represent pavement elevations; ignore all curb.
   e. Establish high and low points across the surface.
   f. Note that these Feature Lines do not have to be the only Feature Lines used to define the pavement elevations/grades. Additional Feature Lines may be used; however, these Feature Lines will be used to model the Corridor.

4. Use the Stepped Offset command to offset the north-south Feature Line 60.0 feet to the east to the next drive isle centerline and apply the elevation adjustment as desired. Repeat across the parking lot.
5. Use the Stepped Offset command to offset the east-west Feature Line 54.5 feet to the north to the center of island, again applying the elevation adjustment as desired. Repeat across the parking lot to locate center of bays and center of islands.

Task 1A – Develop Temporary Design Base Grade Surface
1. Within the lab dataset, locate the drawing “Task 1A.dwg”.
2. Create a Tin surface called “Temp Design Base Grade”; set the Style to “Contours 1 and 5”.
3. Create a Site called “Temp Design Base Grade”.
4. Create a Feature Line grid across the parking lot as outlined in the pre-task above. In an effort to achieve consistent results for this example, 3D Polylines are already placed in the Task 1A drawing. These can be converted to Feature Lines and maintain their elevations and items 4A-4E below can be ignored. Place the feature lines in the “Temp Design Base Grade” Site; set the Style to “Basic Feature Line”.
5. Add the Feature Lines to the Temp Design Base Grade Surface. Verify that the surface appears is created correctly. Edit Feature Lines elevations if necessary.

Workflow Tip: You may desire to establish a couple of Feature Line grades and then perform a stepped offset to construct the grid. Alternatively, you may establish the grid, set a couple of Feature Line grades and then use the Set Adjacent Elevations tool.
Task 1B – Establish Projection Feature Lines

1. Continue working with the same drawing from Task 1A or within the lab dataset, locate the drawing “Task 1B.dwg”.
2. Create a Site called “Projection Feature Lines”.
3. Locate any abrupt angular changes on curb lines. These would be any corners that do not have a curve linking the two tangent lines.
4. Draw a line from the corner inwards to the parking lot towards the drive isle. It is recommended, but not required to draw the line as a bisecting angle to the angle of the parking space (i.e.: 90-degree parking spaces would have 45-degree projection line). Extend these lines to the drive isle feature line.
5. Create a Feature Line from each of these projection lines and establish their elevations/grades from the “Temp Design Base Grade” Surface – do not check set intermediate grade breaks. Place the Feature Line in the Projection Feature Lines Site and assign the Style “Lane Slope Break”.
6. For small parking bays, these projection lines can intersect at the drive isle line, but do not allow these projection lines to cross each other or cross the grid Feature Lines.

7. Repeat this process for all abrupt angular changes on curb lines. For angled and curved parking spaces, Projection Feature Lines should be done similarly.

Task 1C – Establish Curb Feature Lines

1. Continue working with the same drawing from Task 1B or within the lab dataset, locate the drawing “Task 1C.dwg”.
2. Create a Site called “Baseline Feature Lines”.
3. Locate a curb line within the parking lot. With the line that defines the edge of the curb adjacent to the pavement, create a Feature Line and establish its elevations/grades from the “Temp Design Base Grade” Surface – do not check set intermediate grade breaks. Place the Feature Line in the Baseline Feature Lines Site using the Style “Curb Line”.
4. Repeat this process for all curb within the parking lot.

Workflow Tip: If all of your asphalt lines are on the same layer, you can isolate that layer with the LAYISO command and use Create Feature Line from Objects command selecting all asphalt lines in turn creating Feature Lines with the desired Site, Style, and elevations from surface all at once.
Task 1D – Create the Assembly

1. Continue working with the same drawing from Task 1C or within the lab dataset, locate the drawing “Task 1D.dwg”.
2. Open the Civil 3D® Tool Palette and locate the “Assemblies – Imperial” tab.
3. Find the Assembly called “Curb Return Fillets”, select it and place in your drawing.
4. The curb Subassembly by default is set to a wider curb than we are using for this project. Select the curb Subassembly, right click and select Subassembly Properties, Parameters tab and modify Dimension B to 12” and Dimension E to 6”.
5. Note which side of the Assembly line the curb and pavement are on. By default when placing, curb is on the right and pavement is on the left.

NOTE: If desired, rather than selecting a pre-built Assembly with Subassemblies already provided, you may create your own Assembly by selecting Subassemblies and attaching. However, the selected pavement Subassembly must allow for horizontal and vertical offset targeting for parking lot Corridor modeling methods explained in this handout, the Subassembly help button can provide this information.

Task 1E – Create Corridor and Add Curb Interior Island Baselines

1. Continue working with the same drawing from Task 1D or within the lab dataset, locate the drawing “Task 1E.dwg”.
2. Turn Temp surface to No Display.
3. Create a Corridor and name it “Final Parking Lot Grading”.
   a. Select Baseline type: Feature Line.
   b. Next to the Feature Line selection pull down, select the pick button and select one of the parking lot island Feature Lines; you will need to name the Feature Line to proceed.
   c. Select Assembly: Curb Return Fillets.
   d. Do not select a surface target at this time.
e. Leave set baseline and region parameters checked.
f. Select ok to create the initial build of the Corridor.
g. Next will open a dialog called Baseline and Region Parameters. Set the overall frequency to 10’ on tangents, Along Curve to Both, Curve Increment to 5, and Mid-ordinate distance to 0.10’.

<table>
<thead>
<tr>
<th><strong>Horizontal Baseline</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Along tangents</strong></td>
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<tr>
<td><strong>Along curves</strong></td>
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<tr>
<td><strong>Curve increment</strong></td>
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<tr>
<td><strong>Mid-ordinate distance to define curvature</strong></td>
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<tr>
<td><strong>Along spirals</strong></td>
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<tr>
<td><strong>At horizontal geometry points</strong></td>
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<tr>
<td><strong>At superelevation critical points</strong></td>
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</tbody>
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<table>
<thead>
<tr>
<th><strong>Vertical Baseline</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Along vertical curves</strong></td>
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<tr>
<td><strong>At vertical geometry points</strong></td>
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<tr>
<td><strong>At high/low points</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Offset Target</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>At offset target geometry points</strong></td>
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<tr>
<td><strong>Adjacent to offset target start/end</strong></td>
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<tr>
<td><strong>Along offset target curves</strong></td>
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<tr>
<td><strong>Curve increment</strong></td>
</tr>
<tr>
<td><strong>Mid-ordinate distance to define curvature</strong></td>
</tr>
</tbody>
</table>

h. Select Ok and Rebuild the Corridor.

4. Observe the result of the built Corridor to verify it applied the Assembly correctly. If the result appears like shown below, it is likely that the Feature Line is going the wrong direction to apply the Curb Fillet Assembly with the curb on the right and the pavement on the left.

a. Select the Feature Line, and then from the contextual ribbon, use the ReverseFeature command from the Edit Geometry Panel.

b. Rebuild the Corridor.
5. Next we need to establish targets for the Region. Targets will be like the red lines in example image below.
   a. Select the Corridor, from the contextual ribbon, select Edit Targets, pick inside the region to edit.
   b. For Horizontal Width or Offset Targets, pick in the Object Name column where <None> is shown. Change the pull down from Alignments to Feature Lines. Select the four nearest Temp Design Base Grade Feature Lines surrounding the island. Naming the Feature Lines is not required, but may be beneficial.
   c. Leave the Selection choice if multiple targets are found pull down set to Target to Nearest Offset.
   d. Repeat the exact same steps for the Vertical Slope or Elevation Targets.
   e. Ok through dialogs, allow the Corridor to rebuild.

6. To repeat for other interior islands, select the Corridor and enter Corridor Properties. On the Parameters tab, select Add Baseline and select the next Feature Line. Once added, in the Parameters Tree View, right click on the newly added baseline and select Add Region. Choose the Curb Return Fillets Assembly and click ok.

There are several methods to adding baselines and setting targets in the Corridor. Repeat the process of adding baselines and regions and setting targets for all interior islands.

7. Corridor Frequencies, if not set in your template, must be done for each baseline added to the Corridor. Thus, once all islands are complete, open up Corridor Properties, Parameters tab, and select the button at the top: Set All Frequencies to the previously mentioned settings on Task 1E: Item 3: Letter G.
8. Create Corridor Surface of Final Grades. On the Surfaces tab, create the Corridor surface and add data to the surface. It is recommended for this complex Corridor to use the Feature Lines as opposed to using only the top code as it seems to get a better surface build. Lastly, on the Surface, make sure Overhang Corrections is set to Top Links.

**CORRIDOR SURFACE BUILD SETTINGS**

Workflow Tip: For a Corridor this complex, it is recommended but not required, to name each baseline related to what it is. This takes a bit more time initially, but can be very helpful in making modifications or troubleshooting issues.
### Corridor Baseline Naming

<table>
<thead>
<tr>
<th>Name</th>
<th>Horizontal Baseline</th>
<th>Vertical Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interior Island 1</td>
<td>Feature 1</td>
<td>Feature 1</td>
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<tr>
<td>Interior Island 2</td>
<td>Feature 6</td>
<td>Feature 6</td>
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<tr>
<td>Interior Island 3</td>
<td>Feature 7</td>
<td>Feature 7</td>
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<tr>
<td>Interior Island 4</td>
<td>Feature 8</td>
<td>Feature 8</td>
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<tr>
<td>Interior Island 5</td>
<td>Feature 9</td>
<td>Feature 9</td>
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<tr>
<td>Interior Island 6</td>
<td>Feature 10</td>
<td>Feature 10</td>
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<td>Interior Island 7</td>
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<td>Interior Island 8</td>
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<td>Interior Island 9</td>
<td>Feature 13</td>
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<td>Interior Island 10</td>
<td>Feature 14</td>
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<td>Interior Island 12</td>
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<tr>
<td>Interior Island 18</td>
<td>Feature 22</td>
<td>Feature 22</td>
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</tbody>
</table>
Task 1F – Curb Exterior Island Baselines

1. Continue working with the same drawing from Task 1E or within the lab dataset, locate the drawing “Task 1F.dwg”.
2. Prior to adding in the exterior island baselines, we need to make some edits to the surrounding road Corridors.
   a. Main Road Design Corridor
      i. Locate the Main Road Full Section Assembly.
      ii. Copy the Assembly and Subassemblies.
      iii. Rename the copy to “Main Road Half Section Left”.
      iv. Delete the right half of the Assembly.
      v. On the Main Road Corridor, select the Corridor and notice that it has already been split into three regions. Go to Corridor Properties.
      vi. Change the second region (approximate stations 1+91 – 7+87) to use the Main Road Half Section Left Assembly.
      vii. Select Ok and let the Corridor rebuild.
   b. Boundary Road Corridor
      i. Locate the Boundary Road Full Section Assembly.
      ii. Copy the Assembly and Subassemblies.
      iii. Rename the copy to “Boundary Road Half Section Right”.
      iv. Delete the left half of the Assembly.
      v. On the Boundary Road Corridor, select the Corridor, and notice that it has already been split into three regions. Go to Corridor Properties.
      vi. Change the second region (approximate stations 4+87 – 9+49) to use the Boundary Road Half Section Right Assembly.
      vii. Select Ok and let the Corridor rebuild.
3. Add one of the curb exterior islands as a Baseline to the parking lot Corridor. Use the Curb Return Fillets Assembly. Select Ok and allow the Corridor to rebuild.
4. You may find that you need to reverse the direction of the feature lines here as well. Reverse and rebuild as necessary.
5. While building this Corridor, I found it was better to split the exterior islands up into two regions to limit the targets applied to the regions. The split will need to occur at the cyan colored lines shown in the image below.
6. Edit the Targets for the newly added Regions. Targets for the larger region will be three of the Temp Design Base Grade Feature Lines shown in red below. The smaller region will target the adjacent road centerline Alignment and Design Profile shown in green below.
7. Repeat for all curb exterior islands.
8. Remember when complete, to go into Corridor Properties and Set All Frequencies to the previously mentioned settings on Task 1E: Item 3: Letter G.

Workflow Tip: You can speed up the task of having to modify the Corridor frequencies to the desired values each time regions are added to the corridor by modifying the Corridor command settings. Even though the drawing is set to Save Command Settings as you work, these frequency adjustments do not get saved to the commands.

To edit: Open Toolspace, Settings Tab, scroll to Corridors, Commands. Within the Create Corridor and Create Simple Corridor commands, right click and Edit Command Settings. Expand the item Assembly Insertion Defaults. This provides the default settings for Corridor frequencies. Edit the settings here and choose ok.

Note: This change is per drawing; if you have desired settings you like, perform these settings in your templates.
Task 1G – Boundary Curb Baseline

1. Continue working with the same drawing from Task 1F or within the lab dataset, locate the drawing “Task 1G.dwg”.

2. Add the western most boundary curb Feature Line as a Baseline to the parking lot Corridor. Use the Curb Return Fillets Assembly and if necessary, reverse the Feature Line Direction.

3. Next, we need to perform Split Region several times along this Baseline. Split Regions should occur at the following locations:
   a. End of curb returns where the Region is adjacent to another Corridor Region.
   b. At Each Projection Feature Line
   c. Depending on how it builds you may need to split where you change targets within the region (i.e.: abrupt angular changes in red lines below).

4. Delete the region on the western side of the boundary Baseline as it is not needed – we have a Corridor defining the surround road.

6. Assign Targets for each Region along the Baseline. Target examples are shown in the images below – red lines are targets for the regions.
7. Once all the Targets are set, rebuild the Corridor.
8. Pan along the Corridor Baseline and look for any projection holes like shown below. These are caused by not sampling with tight enough frequency or you may need to add a frequency manually at a specific station.

Tip: If the frequency does not fix the problem, you may need to split these regions once more and select the intersection of the two feature lines. This will force a sample to occur at the intersection. Then adjust the targets within each region to only include the targets for that region as when you split a region with assigned targets, both regions maintain the previously assigned targets.

9. Repeat the above workflow for the other two boundary curb Feature Lines.
10. Be sure to Set All Frequencies to the previously mentioned settings on Task 1E: Item 3: Letter G and rebuild when completed.
11. The final Corridor and final surface should now be complete. There may be some areas that need some slight cleanup. At the end of this document there are additional tips and known issues that can assist with this tedious task.
Task 2 – Create Additional Surfaces from the Corridor
With Corridors we can create surfaces of every layer!

CORRIDOR SURFACES

Task 3 – Create Profile and Section Through Parking Lot
With the ability of modeling a parking lot as a Corridor we can profile all the layers if we desire.

PROFILE THROUGH THE CORRIDOR SURFACES

SECTIONS THROUGH THE CORRIDOR
Task 4 – Create Solid From the Corridor

Civil 3D® 2017 includes a new feature – Creating a solid from a Corridor. Click on the Corridor and from the contextual ribbon select Extract Corridor Solids.

The command gives the ability to extract solids by Station Range, within a Polygon, or All Regions. It will then break down the extraction by region and subassemblies used in the region placing each on its own layer with a corresponding layer template. Properties about the region can also be extracted to the solid.
EXTRACTED CORRIDOR SOLIDS
Workflow Tips

- Select Similar – Select similar can be very helpful through this process by quickly allow you to select similar objects. Select an object, right click, and select similar at the bottom of right click menu.

- Isolate Objects / End object Isolation – Object isolation works similarly to layer isolation, except it can be far more powerful within Civil 3D®. Civil 3D® objects consist of styles with many layers, thus layer isolation is not as helpful. With object isolation, you can achieve similar results. Select objects, right click, Isolate Objects, and select Isolate selected objects – only those objects will then be displayed. To end, select any object, right click, Isolate Objects, and end isolation.

- When confused with Corridor – Look at Parameters tab, locate baseline, and look at stationing! Note the overall baseline stationing and the region stationing – also note that if zoomed to the extents of your corridor, as baseline or regions are selected, they are highlighted in your drawing.

- With the above in mind, you can also pan/zoom directly to any Corridor component from the Parameters tab. This can also be done from Toolspace by expanding the Corridor object.

- The Corridor Parameter buttons, collapse and expand are your friend. Use them – will make scrolling through complex Corridors much faster.

- When editing a Corridor, from the Parameters tab, you can check and uncheck regions of the Corridor that get built. This helps to isolate the build down to the area of interest.

- Contextual Ribbon has most of the commands available that can be accessed through dialogs. Click an object and look at the ribbon change. The command you need might be right in front of your face saving several clicks through dialogs.

- Closed Feature Lines make the Corridor Selection a bit wonky. If you don’t need the full length of the Feature Line to define the Corridor, you’re probably better off trimming or breaking the Feature Line up into several Feature Lines.

- Adjusting the start/end location of closed Feature Lines prior to adding to the Corridor could help save time by creating fewer regions.

- When placing projection Feature Lines, make sure to pay attention to Temp Surface High and Low points. There were numerous times I overlooked this and had a projection line connecting to a drive isle and went right by a low point where there would be a drainage structure. This caused some odd behaviors in the Corridor build. Revised the projection line to the low point and it solved the issue.
Known Issues / Solutions

- Corridor corner mitering only works when in the same region – but from my research, that does not help Parking Lot Corridors due to the need of targeting horizontal and vertical offsets. Autodesk™ Civil 3D® Development Team needs to carry the mitering over to work in between regions and perhaps make it work with targeting offsets as well.

- Start/end points on closed Feature Lines should be in the middle of a Feature Line and not at a corner – if you don’t make these adjustments, you may encounter some issues in between the first and last regions.

- The Corridor gapping resolution lives on! Gap troublesome Regions by 0.01 between it and the next region.

- Purge / Audit sometimes caught errors and removed a Feature Line, thus losing projections. No resolutions at this time, but you do end up with a nice piece of art work for your wall that looks similar to this below. Note that I’m not suggestion you don’t use Purge/Audit. Clearly there was something wrong and it deleted the object for a reason.

Just go through those regions with long projections, remove the targets, rebuild, then fix the targets, and rebuild again.

- If you encounter contours that look like this and you know your regions and targets are correct, look into splitting those regions up a bit and removing unnecessary targets from regions. Sometimes the targets can pull on the Corridor subassembly in that region and cause havoc; in this case, the Alignment / Profile target was pulling on the opposite side of the region. Splitting the region up into two regions and removing the Alignment / Profile target from the interior parking side of the region resolved the issue.
TARGETS OVERRIDING OPPOSITE SIDE OF REGION