

Course challenge exercise

Create a proposed storm sewer network and collaborate with Revit.

With the provided Civil 3D drawing, **EOC_SITE.dwg**, and the Revit model **ARCHITECTURAL_RENOVATION.rvt**, you will use the skills that you learned in the course to solve this final challenge. By using the existing ground (EG) surface as a guide, you will create a new storm sewer network leading from the remodeled building on the site. Then you will create an exported Civil 3D drawing and an exported Revit model on shared coordinates

Complete the required activities:

- Open the drawing file **EOC_SITE.dwg**.
- Create a pipe network using the Pipe Network Creation Tools.
- Name the Remodeled Building Storm Sewer.
- Set the Network Parts list to Storm Sewer.
- Select EG for the surface name.
- Set the Structure label style to Data with Connected Pipes (Storm) and the Pipe label style to Name Only.
- Using the Network Layout Tools menu, select Concrete Structure 1.500 (dia 530 frame 900 cone. (21"x 35"))
- Change the pipe to 300 mm (12") Concrete Pipe.
- Pick the first point 4 meters away on a bearing of 45 degrees NW of COGO point 293.
- Draw the network with 4 structures, terminating near COGO point 175.
- Create a new sanitary storm network named Proposed Building Storm Sewer.
- Use EG as the surface.
- Select Concrete Structure 1.500 dia 530 frame 900 (21"x 35") cone.
- For the pipe select 450mm (18") Concrete Pipe.
- Pick the first point 15 meters (49') away on a bearing of 45 degrees SE of COGO point 445.
- Model a network with 5 structures ending around COGO point 473.
- Export the Civil 3D Drawing to the ACC project in the Site Civil folder.
- Open the Revit model **ARCHITECTURAL_RENOVATION.rvt** provided with the datasets.
- Collaborate the model to the Cloud.
- In the ACC project, browse to the Architectural folder.
- In Floor Plan Level 1, export to DWG format.

- In the Export Settings dialog, make sure Meter and Shared Coordinates are selected.
- Export the model **ARCHITECTURAL_RENOVATION.rvt** to a dwg on shared coordinates.
- Link the **ACAD-EOC_SITE-Model.dwg** file in the Site Civil folder in the ACC project.
- Make sure Shared Coordinates are set and that the import units are Meters.
- Open the **EOC_SITE.dwg**.
- Open the external references dialog.
- Attach the **ARCHITECTURAL_RENOVATION.DWG**.

Success Criteria:

- **Concrete elements sized properly:** The structures and pipes are sized according to the instructions.
- **The correct surface is hosting the structures:** The structures are hosted to the existing ground surface and the pipes are not at an elevation of 0.
- **Model consistency:** The pipe networks are named according to the buildings they are servicing. The exported models all land in the correct geographic position

What to Submit:

- **EOC_SITE.dwg.** Provide a link to this drawing on the ACC site.
- **ARCHITECTURAL_RENOVATION.rvt.** Provide a link to this model on the ACC site.