Practice 2c
Add Grids

Practice Objective

- Add and modify grid lines.

In this practice, you will place grid lines using the linked Revit and CAD models as a guide. You will then add additional grid lines where curved walls need extra support, as shown in Figure 2–63.
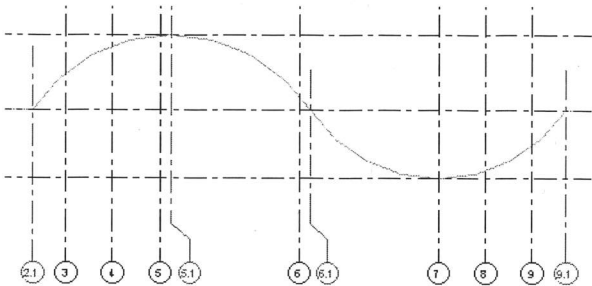

Figure 2–63

Task 1: Add grid lines.

1. Open **Structural-Grids-M.rvt** from the practice files folder.

2. Open the **Structural Plans: 00 GROUND FLOOR** view.

3. Open the Visibility/Graphics Overrides dialog box by typing **VV**.

4. Click on the *Imported Categories* tab. In the *Visibility* column, clear the checkbox next to the First-Floor-Structural-Suites-M.dwg as shown in Figure 2–64 to turn off the CAD file in the view.
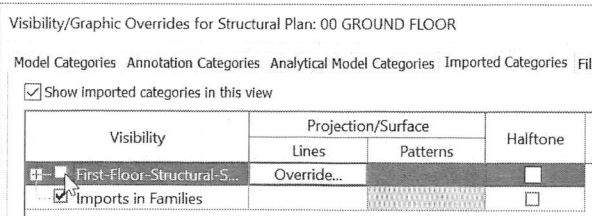

Figure 2–64

5. Click **OK**.

6. In the *Structure* tab>Datum panel, click ⚏ (Grid).

7. In the *Modify | Place Grid* tab>Draw panel, click ⬩ (Pick Lines).

8. Select the first horizontal grid line on the linked file. Zoom into the grid head and click inside the bubble, type **A**, and press <Enter>.

9. Continue selecting the vertical grid lines displayed in the imported file. The letters automatically increment.

10. Click the first vertical grid line and change the letter in the bubble to **1**.

11. Continue selecting the horizontal grid lines. The numbers automatically increment.

12. Click ⬐ (Modify) to end the command.

13. Only the grids should now display, as shown in Figure 2−65. Check the lengths of all grid lines. Modify the length by dragging the ends if needed.
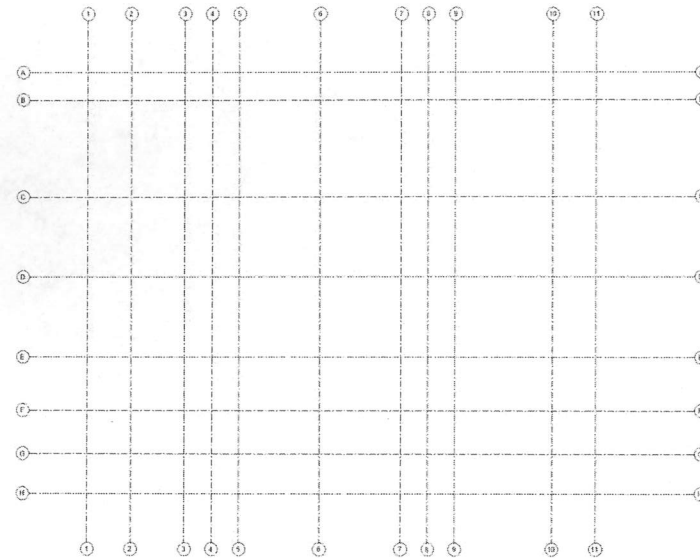

Figure 2−65

14. Open the default 3D.

15. Click ⬐ (Modify).

16. In Properties, in the *Graphics* section, click **Edit...** next to *Show Grids*.

17. In the Show Grids dialog box, select **00 GROUND FLOOR** and click **OK**.

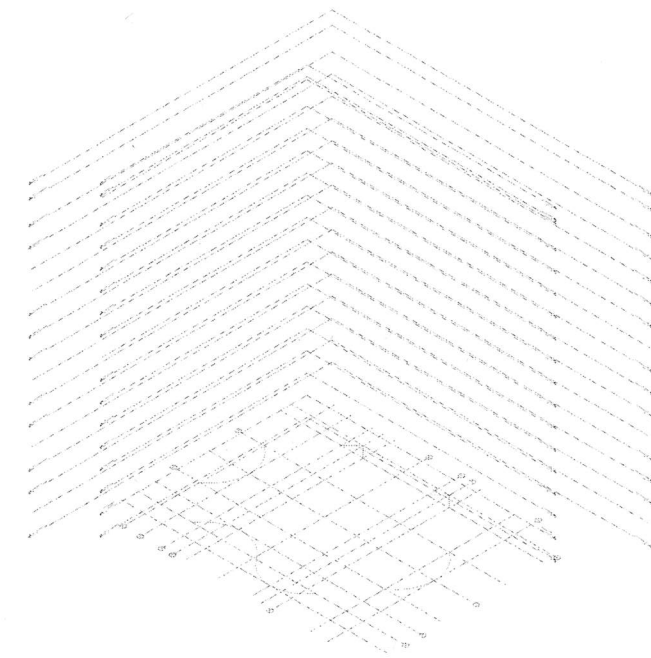18. The grids now display as shown in Figure 2−66.

Figure 2−66

19. Save the project.

Task 2: Add grid lines at arc points.

1. In the **Structural Plans: 00 GROUND FLOOR** view, zoom in on the south side of the floor plan, Additional grid lines need to be placed at the midpoints and end points of the arcs to support the curtain wall.

2. Open the Visibility/Graphics Overrides dialog box by typing **VV**.

3. Click on the *Imported Categories* tab. In the Visibility column, check the checkbox next to the **First-Floor-Structural-Suites-M.dwg**, as shown in Figure 2–67 to turn the CAD file back on in the view.
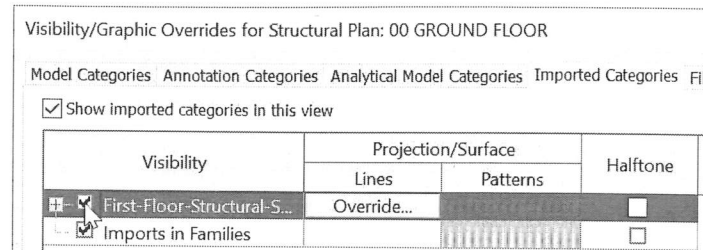

Figure 2–67

4. Click **OK**.

5. Zoom and pan to the south grid heads.

6. In the *Structure* tab>Datum panel, click ⊞ (Grid). In the *Modify | Place Grid* tab>Draw panel, verify that ✎ (Line) is selected.

7. Using the linked DWG as a guide, draw a grid line between grids **2** and **3**, as shown in Figure 2–68.
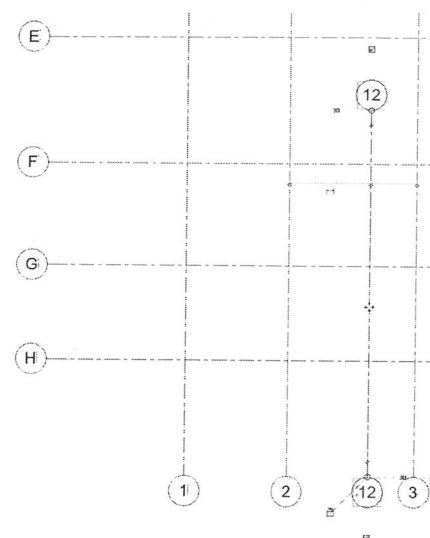

Figure 2–68

8. Once the grid line is in place, rename it to **2.1**.

9. Draw another vertical grid line at the midpoint of the same arc between grid 5 and 6, as shown in Figure 2–69. Align the grid's bubble head with the others.
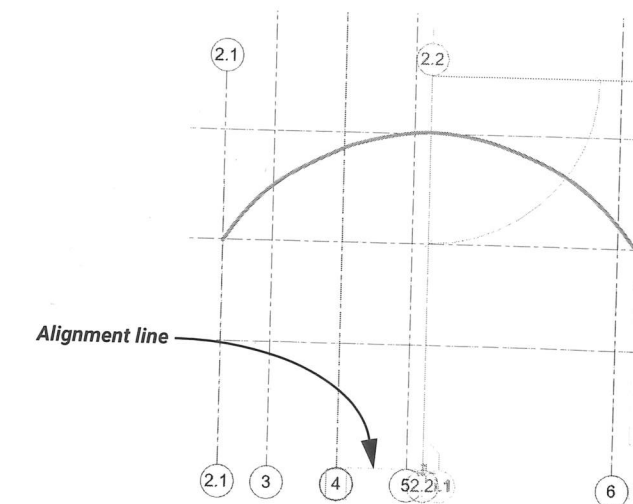

Figure 2–69

10. Click ⌖ (Modify).

11. Select the new grids, and in Properties, change the *Name* to **5.1**, as shown in Figure 2–70. The grid number changes in the view.
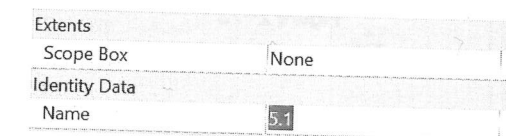

Figure 2–70

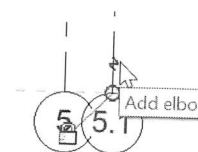12. Close to the grid 5.1 bubble head, click on ⇕ (Add elbow), as shown in Figure 2–71 to create a jog.

Figure 2–71

13. Click and drag the grip so the grid bubble head is away from grid 5's head, as shown in Figure 2–72.
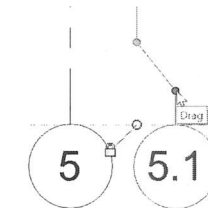

Figure 2–72

14. Add grid lines to the second arc for 6.1 and 9.1, as shown in Figure 2–73. When you are finished, there should be four new grid lines: **2.1**, **5.1**, **6.1**, and **9.1**.

Figure 2–73

15. Click ↖ (Modify).
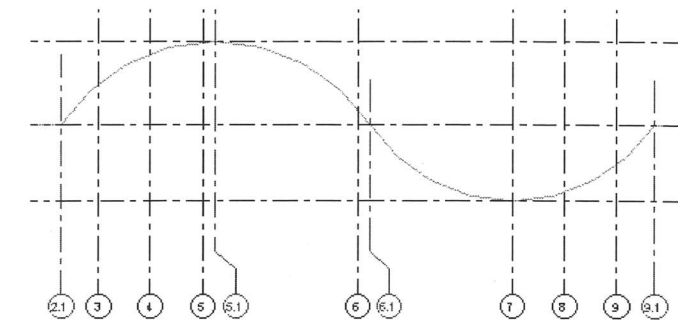
16. Zoom out to see the full layout.

17. Save and close the model.

End of practice