Practice 2b
Set Up Levels

Practice Objective

- Add and modify levels.

In this practice, you will set up the levels required in the project, including the top of the footing, as shown in Figure 2–43. you will then modify the levels names and create plan views.

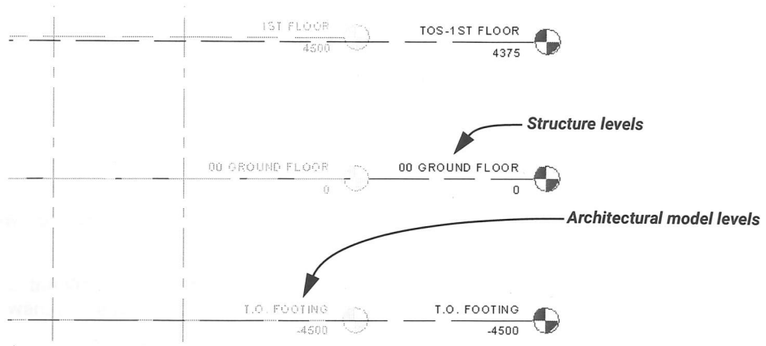

Figure 2–43

The analytical views have been deleted from the project as we will not be using them.

Task 1: Modify existing levels.

1. Open the project **Structural-Levels-M.rvt** from the practice files folder.
2. In the Project Browser, expand the **Elevations (Building Elevation)** node and open the **South** view. Notice that the architectural walls are not displayed, this is because the views discipline is set to Structural so only structure elements will show.

3. Select the link. There are two existing levels in the current project and a large number of levels in the linked model, as shown in Figure 2–44.

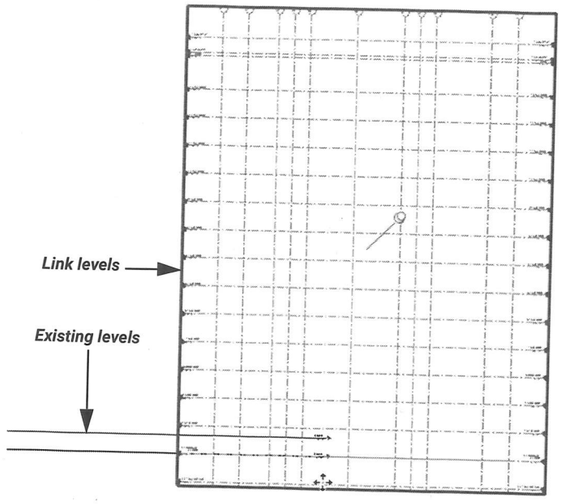

Figure 2–44

4. Right-click on the link and select **Override Graphics in View>By Category**. In the View-Specific Category Graphics dialog box, select **Halftone** and click **OK**.
5. Click (Modify).
6. In the view, select on the project **Level 2** and press <Delete>. A warning dialog box opens, as shown in Figure 2–45. Click **OK** to delete the corresponding view and its elements as they are not required in this project.

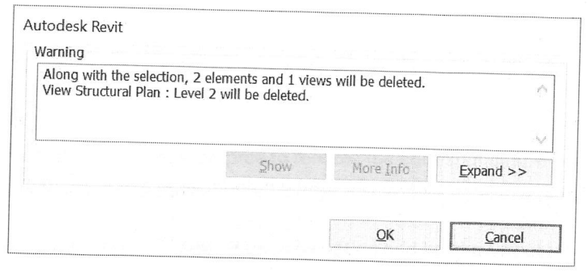

Figure 2–45

7. Double-click on the projects level name *Level 1* and rename it to **00 GROUND FLOOR,** as shown in Figure 2–46. Press <Enter>.

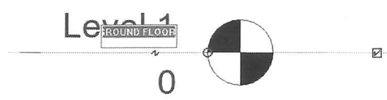

Figure 2–46

8. Click **Yes** or press <Y> when prompted to rename the corresponding views.
9. In the Project Browser, the former **Level 1** view has been renamed **00 GROUND FLOOR**.
10. Select level 00 GROUND FLOOR, click (Modify the level by dragging its model end) and drag the level head over to line up with the Revit linked levels, as shown in Figure 2–47. Do not worry about being precise.

Figure 2–47

11. Save the project.

Task 2: Create new levels.

1. In the *Structure* tab>Datum panel, click (Level).
2. In the *Modify | Place Level* tab>Draw panel, click (Pick Lines).
3. In the Options Bar, verify that **Make Plan View** is selected. Click **Plan View Types...**.

4. In the Plan View Types dialog box, click **Ceiling Plan** and **Floor Plan** to deselect them (only **Structural Plan** is selected), as shown in Figure 2–48. Click **OK**.

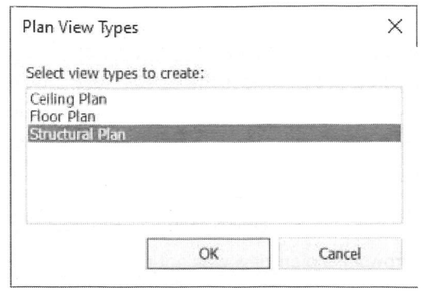

Figure 2–48

5. In the Options Bar, set the *Offset* to **4375mm**. (This will place a level at the **TOS** height.)
6. Hover the cursor over the project's level line of **00 GROUND FLOOR** and move the cursor slightly upward until you see the dashed alignment line display above the **00 GROUND FLOOR** level, as shown in Figure 2–49. (Alignment line has been enhanced for clarity.)
7. Click to place the level.

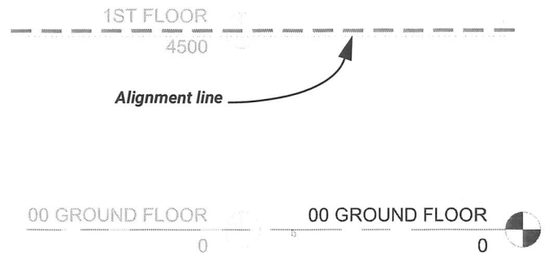

Figure 2–49

8. Click (Modify).
9. Click on the new level and rename it **TOS-1ST FLOOR**.
10. Click **Yes** or press <Y> when prompted to rename the corresponding views.
11. Start the **Level** command again. In the *Modify | Place Level* tab>Draw panel, click (Pick Lines).
12. In the Options Bar, clear the **Make Plan View** option and set the *Offset* to (negative) **-125mm**.

13. Hover your cursor over the linked model's **2ND FLOOR**. Make sure the dashed alignment line display below the level and click to place the new level.
14. Click (Modify).
15. Select the level, in Properties, in the *Identity Data* section, change the name to **TOS-2ND FLOOR**, as shown in Figure 2–50 and move the cursor into the view area to apply the changes.

Figure 2–50

16. Notice, in the Project Browser, a plan view was not created.
17. Start the **Level** command again and notice the option to **Make Plan View** is checked again. Verify only structural plan is selected in the *Plan View Types*.
18. Start the **Level** command again. In the *Modify | Place Level* tab>Draw panel, click (Pick Lines).
19. In the Options Bar, verify **Make Plan View** option is checked and set the *Offset* to (negative) **-125mm**.
20. Continue adding levels up to level **14 ROOF** making sure the new levels have a prefix of **TOS**.
21. Save the project.

Task 3: Create a structural plan view.

1. In the *View* tab>Create panel, expand (Plan Views) and click (Structural Plan).
2. In the New Structural Plan dialog box, select the level **TOS-2ND FLOOR**, as shown in Figure 2–51, and click **OK**.

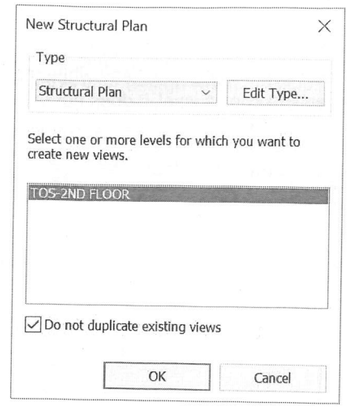

Figure 2–51

- The new view opens and now displays in the Project Browser.

3. Save the project.

Task 4: Create additional levels.

1. Return to the **South** view by clicking on the *Views* tab at the top of the view area.
2. Start the **Level** command, create an additional level above the **TOS-14 ROOF** and rename it to **15 SKYWAY** level. This level does not need an offset.
3. Zoom and pan to the **00 GROUND FLOOR** level and select on it.
4. In the *Modify | Levels* tab>Modify panel, click (Copy).
5. In the Options Bar, deselect **Multiple**.
6. In the view, click 00 GROUND FLOOR'S level line for the copy start point. For the second point, click below 00 GROUND FLOOR (the distance does not matter right now as you will set this in the next few steps).
7. Click (Modify) to end the command.

8. Rename the level to **00 T.O. FOOTING** and set the height to (negative) **-4500mm**, as shown in Figure 2–52.
   - Notice how the copied level has a black level head while the 00 GROUND FLOOR has blue. This is because when you copy a level, it does not create a plan view.

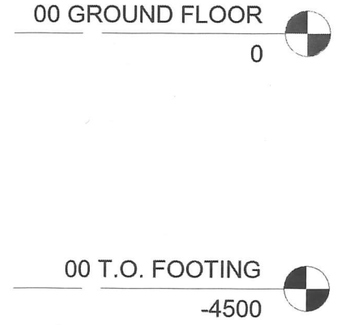

Figure 2–52

9. Create a structural plan view of the 00 T.O. FOOTING. The view displays in the Project browser and if you return to the South view, you will notice the level head is now blue.
10. Zoom out to display the entire project.

End of practice