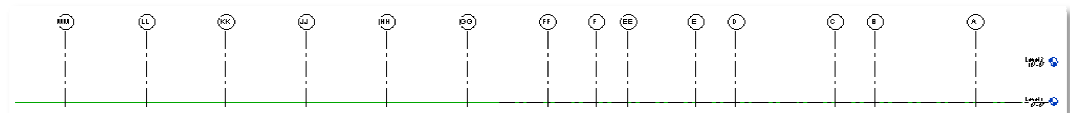


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Bldg: Levels

DEVELOPMENT OF LEVELS & ADJUSTMENTS TO THE GRID

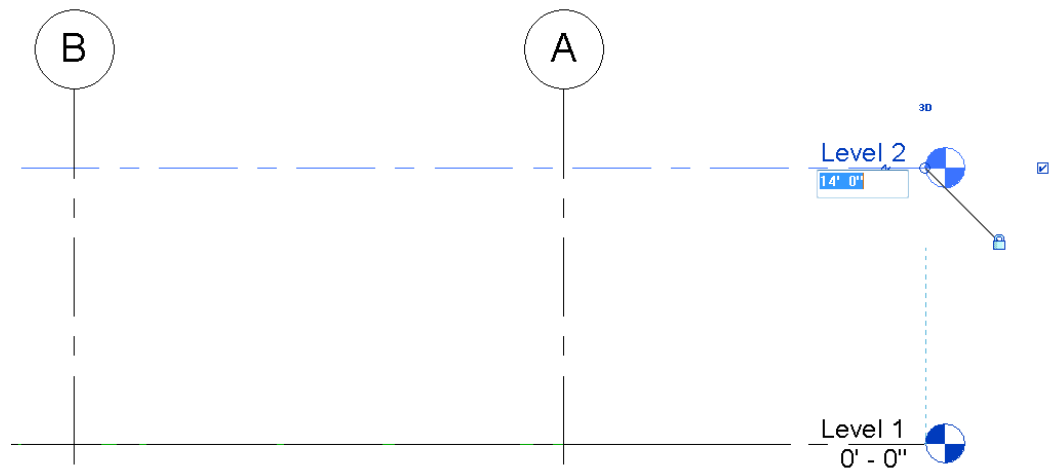
Overview: The existing drawing includes **2 levels** set **10'** apart. For the Lab Building we need to create a total of **6 levels** with a vertical floor to floor spacing of **14'-0"** plus 1 additional level **14'-0"** above the 6th floor for the roof and another **3'-0"** above this for the top of the parapet.
Start with the **North Elevation** and follow these steps:



1: Lab Levels:

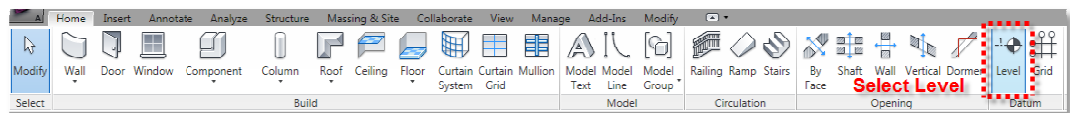
West Elevation:

Zoom in to show Level 1 & Level 2. With the base slab on level 1 at an elevation of 0'-0" change the height of level 2 to be **14'-0"**. Level 2 will shift up.



Zoom out

Zoom out so you can see column grids **A to F**
Select Home Tab > Level

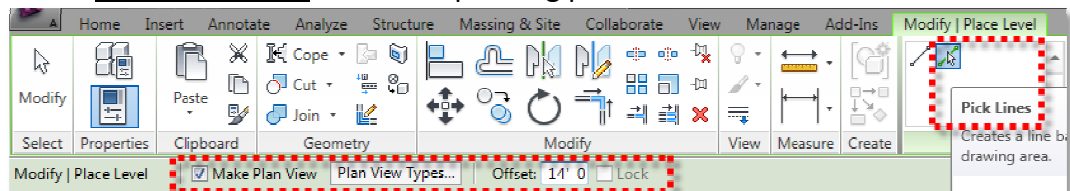


Pick Lines

Select **Pick Lines** > to offset the existing grid lines

Set the **Offset = to 14'-0"** for the floor to floor

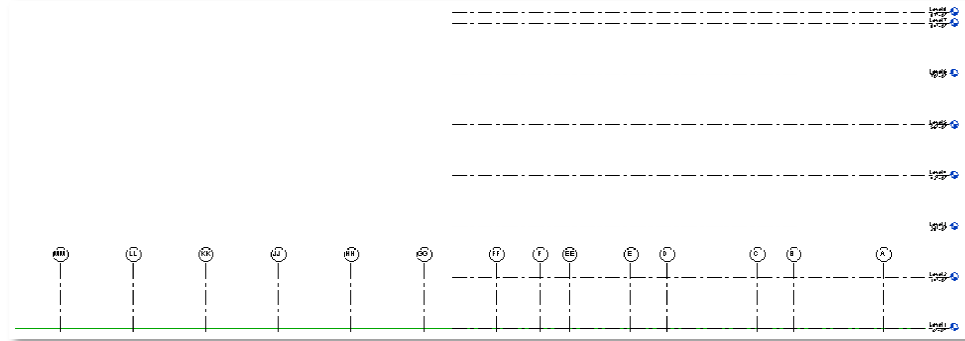
Check **Make Plan View** and corresponding plan views are created with each level



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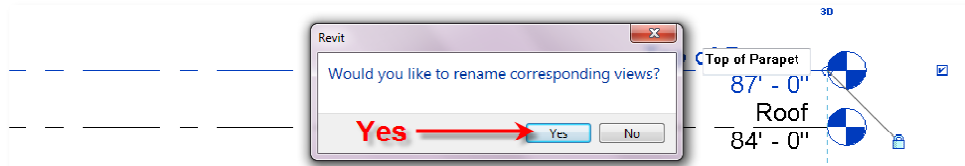
Create Levels

Create additional **levels 3, 4, 5 & 6** by offsetting **level 2**. Set the floor to floor spacing of all levels to **14'-0"**. Add an additional level **14'-0"** above the 6th floor for the **roof** and another **3'-0"** above this for the **top of parapet**.



Rename the top two levels **Roof** and **Top of Parapet**.

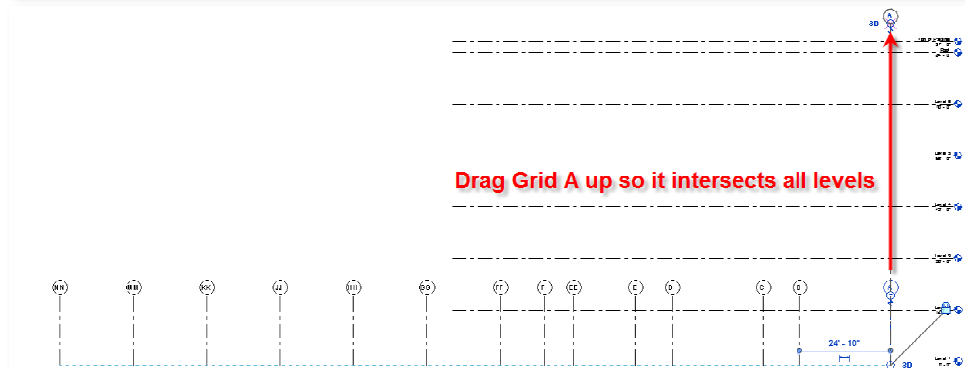
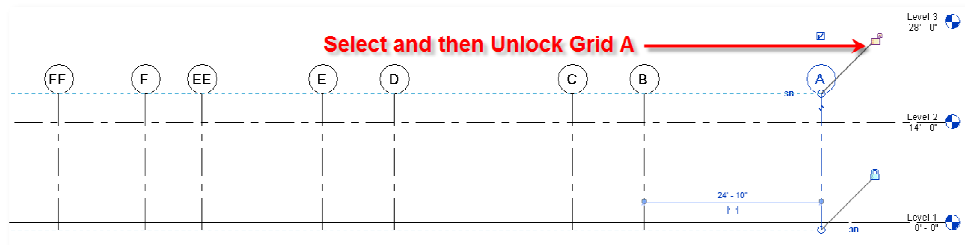
When prompted to "**rename corresponding views**" say "**yes**".



Review any of the new levels (**3,4,5,6, Roof**) and notice that the column grid does not display in these plan views. **Why?**

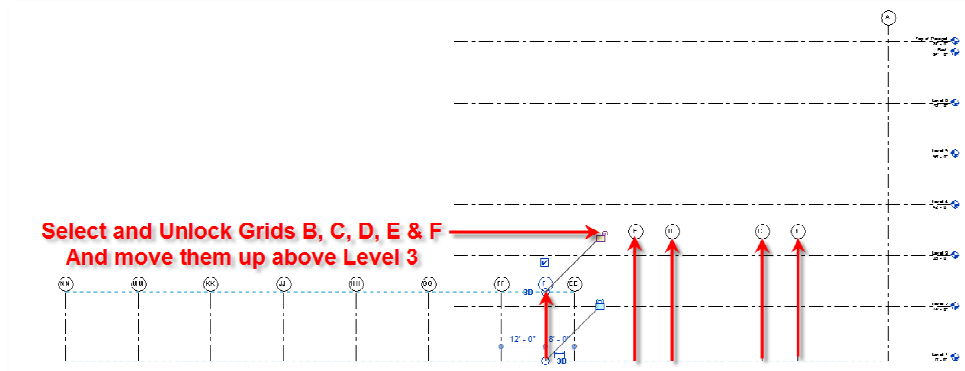
North Elevation: On the North view notice that none of the grids including **A, B, C, D, E & F** extend above the second level. **Grid lines that do not intersect levels do not display.**

Adjust Grid A: On the North view select and then unlock Grid A. Next drag **Grid A** up until it intersects all the levels. Check the new levels (**3,4,5,..**) again to see if it displays.

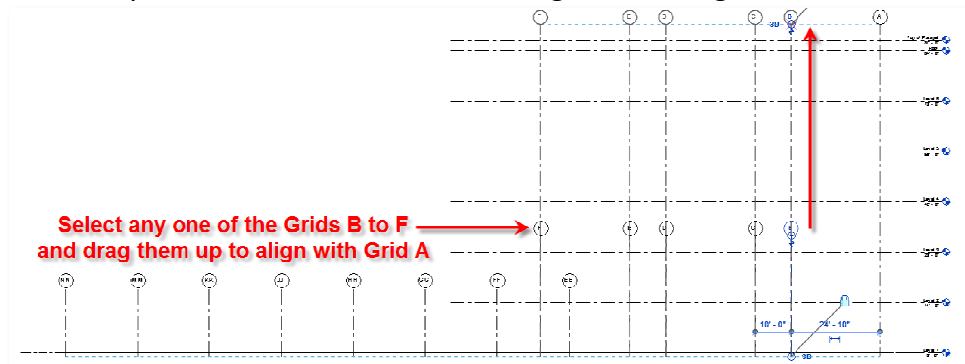


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Adjust Grids B to F: Select & unlock Grids B, C, D, E & F one at a time and move them above **Level 3**



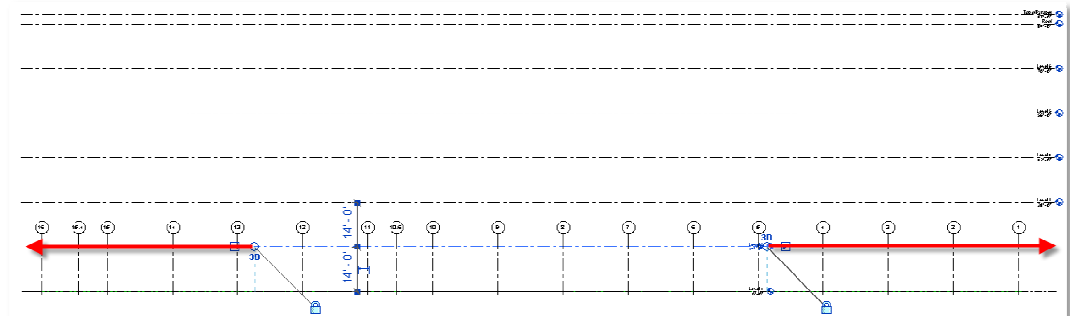
Move them all: Select any one of the **Grids B to F** and drag them to align with **Grid-A**



Working in the west view drag these grids up until they extend above the top level. To move just these levels you will need to unlock them. Check the plans.

2: Lab Levels:

West Elevation: On the **West** view notice that the original two levels 1 & 2 do not extend across the full length of the building. Drag them across to line up with the other levels.

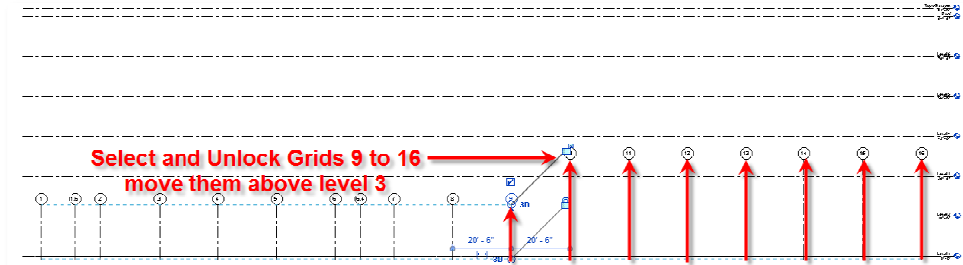


As with the North elevation the grids from **9 through 16** do not extend above the second level. Drag these grids up until they extend above the top level.

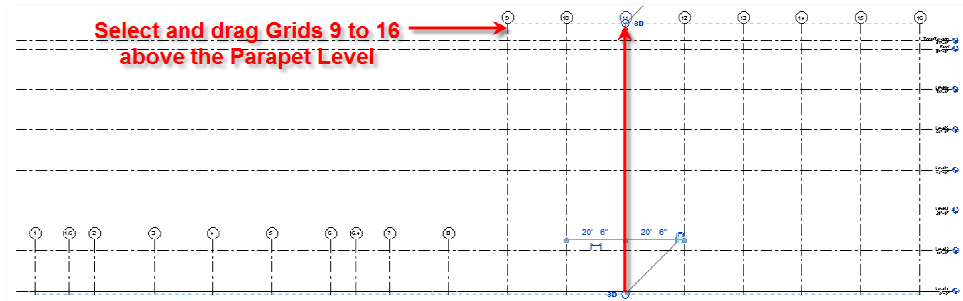
You will need to unlock them one at a time to move them up.

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Adjust Grids 9 to 16 Select & unlock Grids 9 to 16 one at a time and move them above Level 3



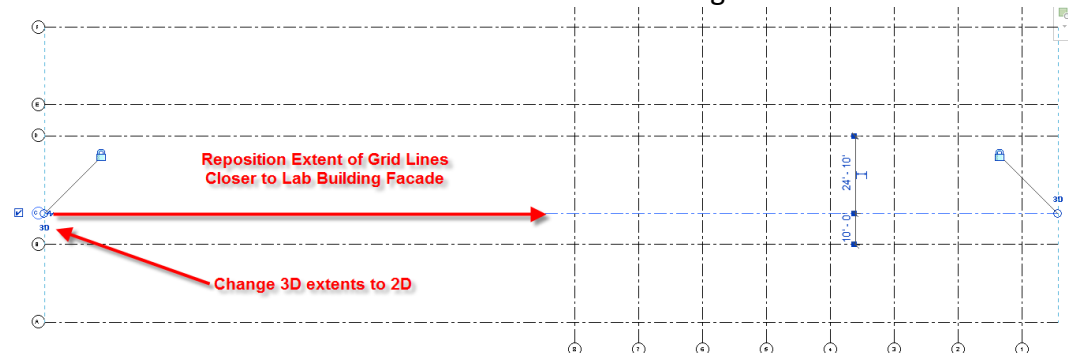
Move them all: Select any one of the **Grids 9 to 16** and drag them **above the Parapet Level**



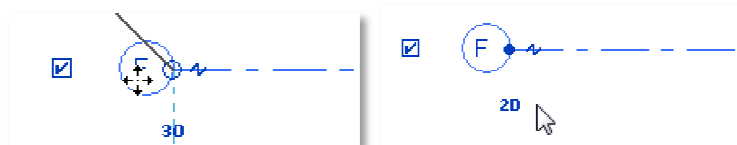
3: Floor plan:

Level 3:

Use the project browser to navigate to **level 3**. Notice that the horizontal grid lines extend well beyond the modular lab building envelope. On the lower levels we want the grid to extend across the Atrium space. On **levels 3 and higher** we need to move them closer to the facade of the building.

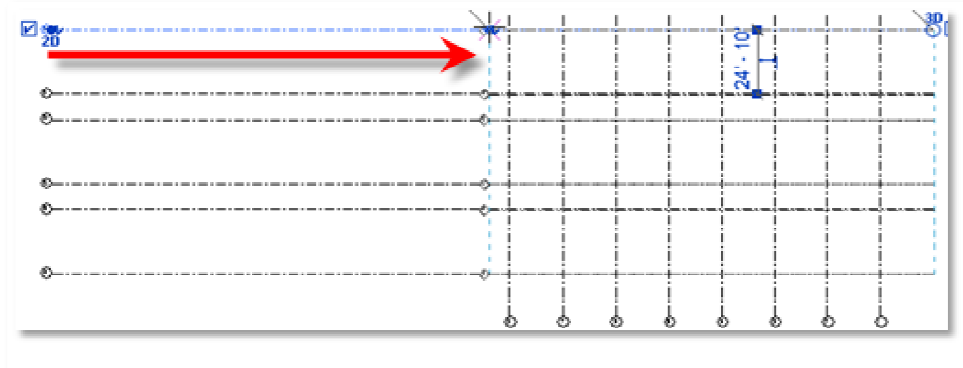


To move the grids independently on level 3 select the grid and then click on the **3D** to change display from **3d model extents** to **view specific extents**. The text will change to **2D**. **In 2D mode modifications take effect in only this 2D view.**

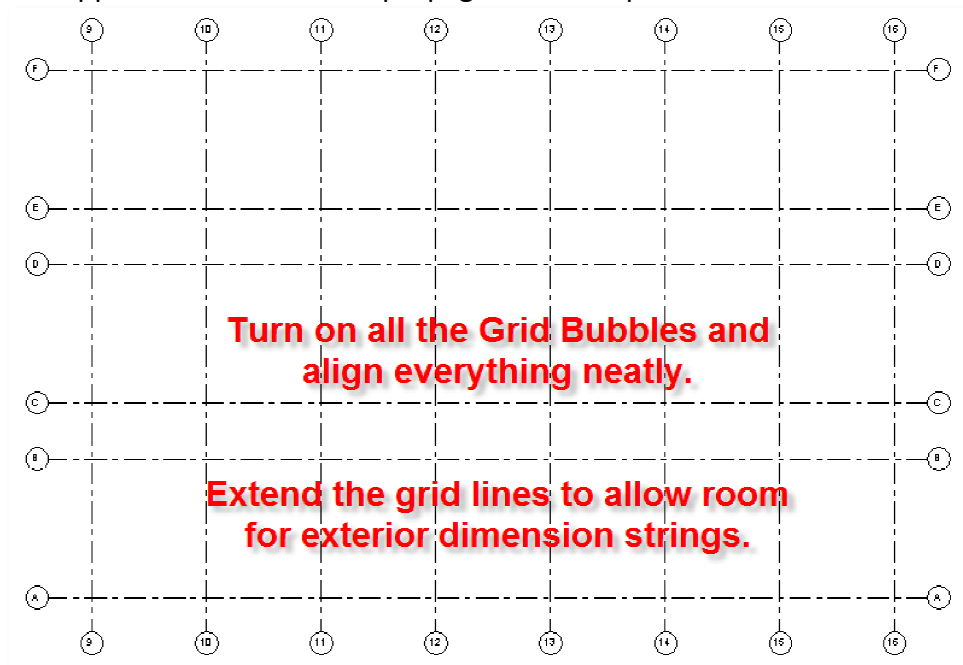


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Move them all: Change them all from **3d to 2d mode** and then **move** them together as a group

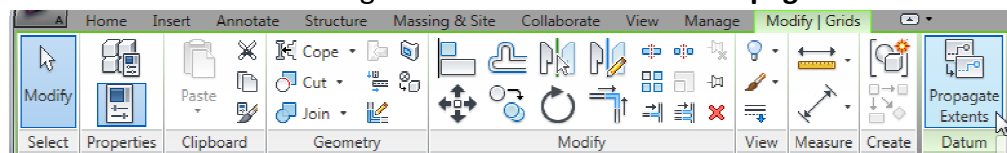


Compare Levels: If you compare level 3 to the other levels you will see that the change has **occurred only on this floor**. Our next step is to "**propagate**" this change to all of the upper levels. Before we propagate "Cleanup Level 3"



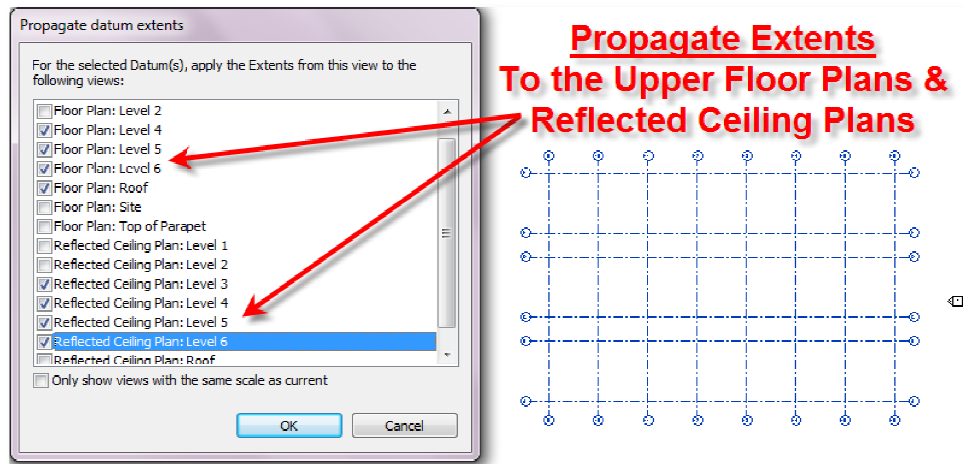
**4: Propagate:
Extents:**

On **Level 3** select all of the grid lines and then select "**Propagate Extents**"

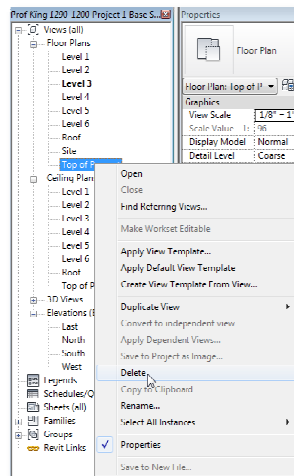


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Propagate Select Floor Plan Levels 4, 5, 6 & Roof & Reflected Ceiling Plan Levels 3, 4, 5 & 6

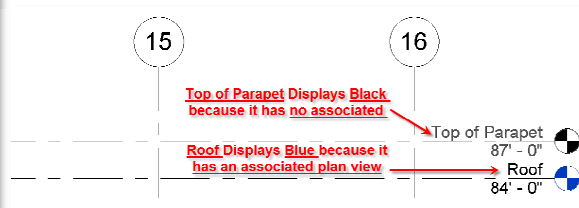


5: Cleanup: In the project browser review the levels that have been created. Highlight "Top of Parapet" under both Plans and Reflected Ceiling Plans. Right click and delete.



Zoom in on the Top of Parapet that the Top of Parapet displays blue.

as a referring plan story" level with



Propagate Level 1: Check and cleanup the grid lines and bubbles on level 1. Then propagate extents to Level 2 & 3 and Levels 1 & 2 Reflected Ceiling Plans.

Cleanup Elevations: Later we will also need to clean up each of the elevations to extend the levels.

Go to Floor Plan: Select a Level. Then Right Click and Select "Go to Floor Plan"

Go to Elevation: In Plan Select the Elevation Symbol. Rt. Click "Go to Elevation View"

Project Browser: Review the new views created in this process

Blue Level Key: Indicates that Level has corresponding Plan View.

Black Level Key: Indicates that Level does not have corresponding Plan View .