

Tutorial: Generating Plans and Views

Except for generating the paperwork, the Horizons Unlimited building is complete.

5

In this chapter:

- ⊕ Generate a 2D plan
- ⊕ Change detail options
- ⊕ Create views

Getting an Overview

In this chapter, you will finalize the Horizons Unlimited building and get it on paper.

Objectives

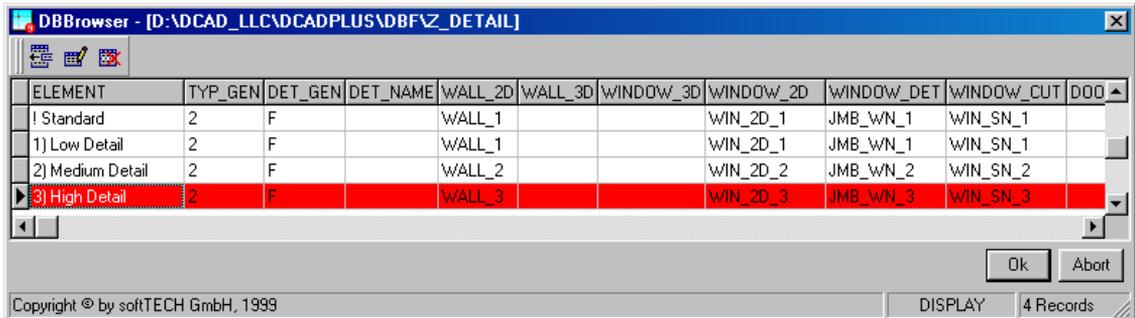
You will be able to:

- Generate a 2D plan.
- Change detail options in the 2D plan.
- Generate the 3D model.
- Create views.

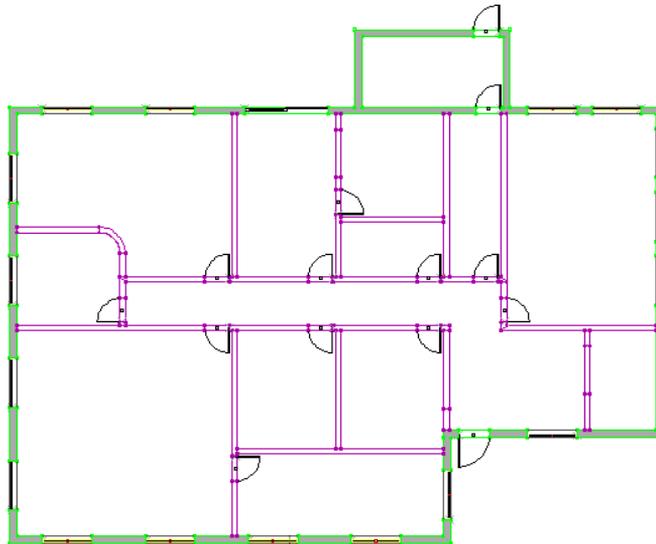
Generating a 2D Plan

Gen_2D elaborates on the construction draft you created using ZAC.

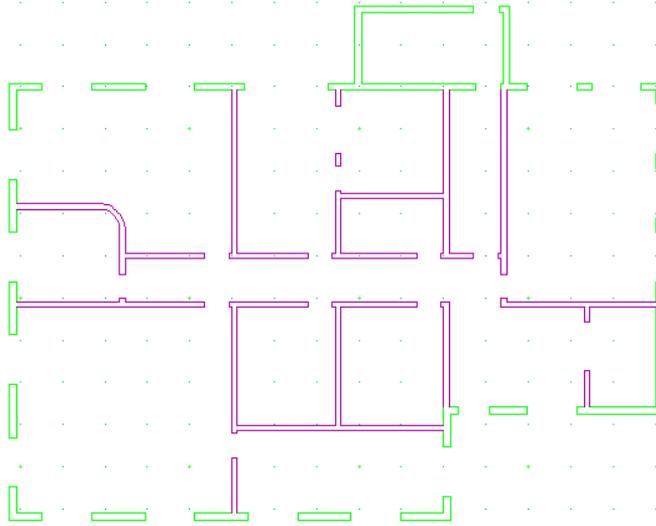
- To generate a 2D plan for Zone A:
1. Press **[L]** and activate only the ACON layer.
 2. Press **[A]** to display the ZAC icon toolbar and the ARCHTECT menu.
 3. Select Gen_2D from the ARCHTECT menu.
 4. Activate Layer, BldUnit, SandWall, and Hatch.
 5. Select Detail, highlight High Detail in the database, and click on Ok.



6. Activate AddFill and make sure that Fl is active on the switchbar.
7. Select START.



8. Press **[L]** and activate only the APL2 layer. Notice that this displays the walls alone. If you look at the APLA level, you will see only the windows and doors. Similarly, APLH displays only the hatches and color fills.



9. Generate 2D plans for the layers BCON, CCON, and UCON. Notice that all these plans are saved in separate layers.
10. Save this as HU 2D Generation.

Creating 3D Views

You can examine your building with the help of 3D generation and views.

→ To use 3D generation:

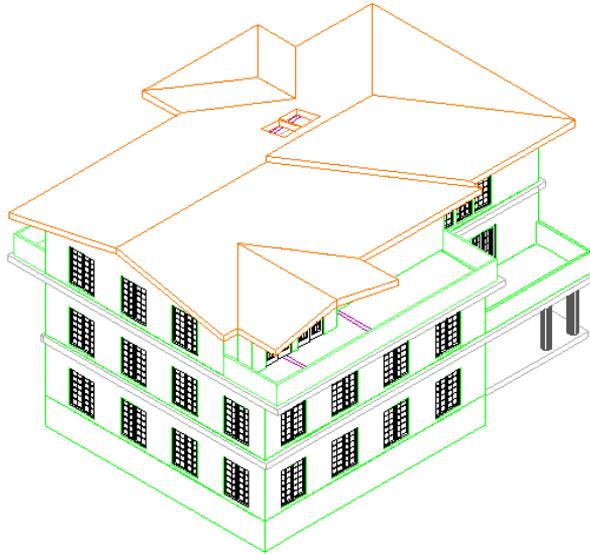
1. Press **[L]** and activate all the layers that end in CON, FLO, and SURFAC.
2. Press **[A]** and select WorkMode from the ARCHTECT menu.
3. Deactivate 2DPlan and Symbol2D; activate Symbol3D; and right-click to return to the ARCHTECT menu.
4. Select Gen_3D from the ARCHTECT menu and activate Layer and LyrSrch.
5. Select START. Your drawing should look like this:



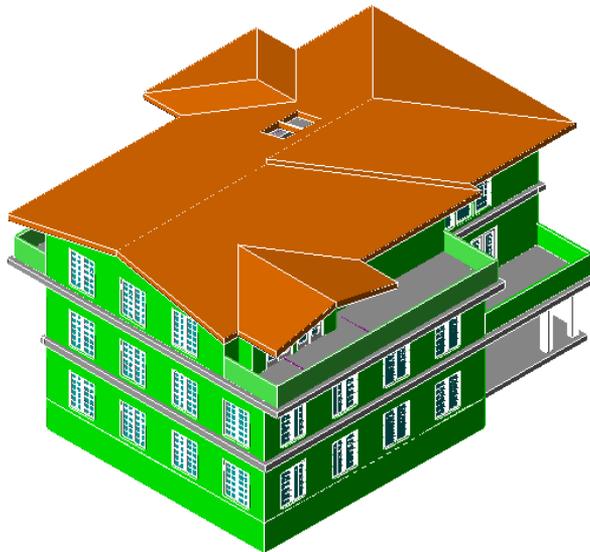
6. Click the Isometric view and Zoom to drawing extents icons on the Navigation toolbar. Your drawing should look like this:



7. Click on the Start Hidden Line Removal icon on the Viewing Tools toolbar. Your drawing should look like this:



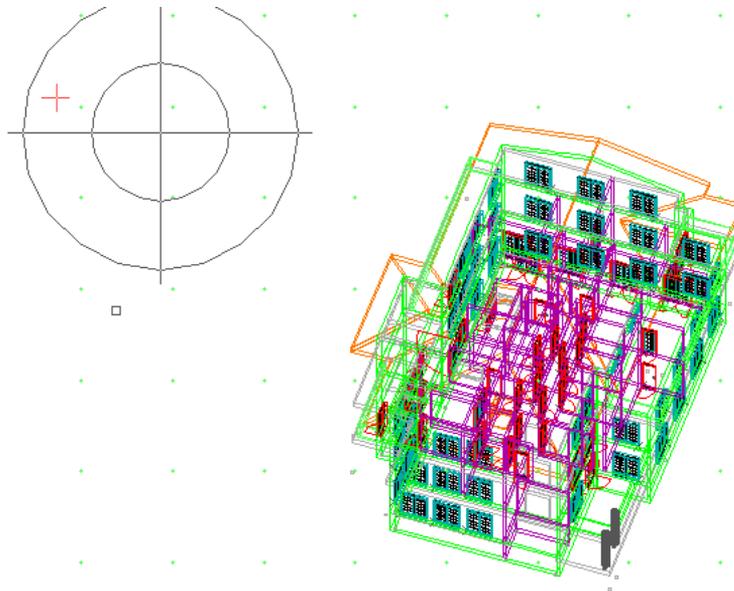
8. Click on the Start Quick Shader icon on the Viewing Tools toolbar. The Q-Shader menu appears. Your drawing should look like this:



- Use the preset view head (front, back, left, and right) icons on the Navigation toolbar to look at your drawing. If your drawing seems to disappear from the screen, zoom to the extents to bring it back to center stage. The front view is shown here:



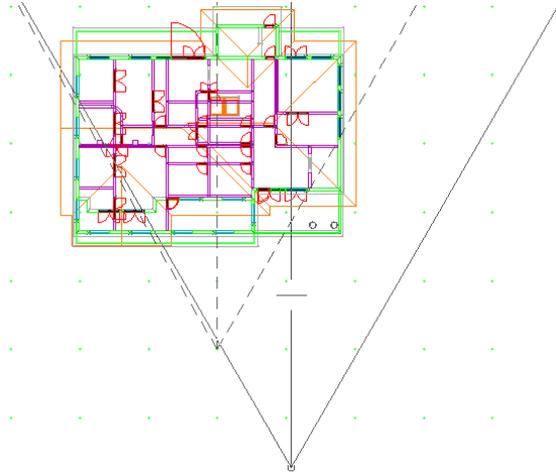
- Select 3D_Views from the Q-Shader menu. The globe appears in the upper left corner of the screen. Click in different portions of the globe to see your drawing from different angles. Again, you can zoom to the extents when the drawing seems to disappear from the screen. The view using the upper left outer quadrant of the globe is shown here:



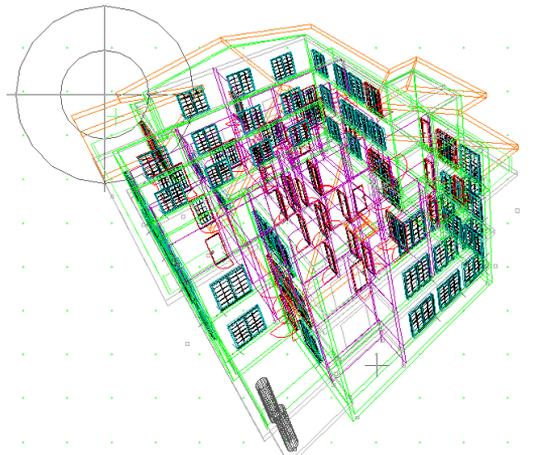
When you click in the inner quadrants, you view the building from the top downward; when you click in the outer quadrants, you see it from the bottom upward.

→ To create perspective views:

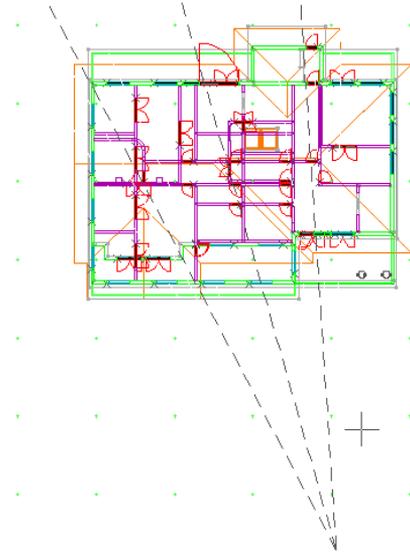
1. Click on the Perspective View icon on the Navigation toolbar. This switches to the plan view and the 3D_Views menu appears.
2. Use **PageUp** and the arrow keys to move your drawing to the upper left portion of the screen.
3. Select SetPersp from the 3D_Views menu, move your cursor near the bottom of your screen beneath the lower right portion of the building, and click.



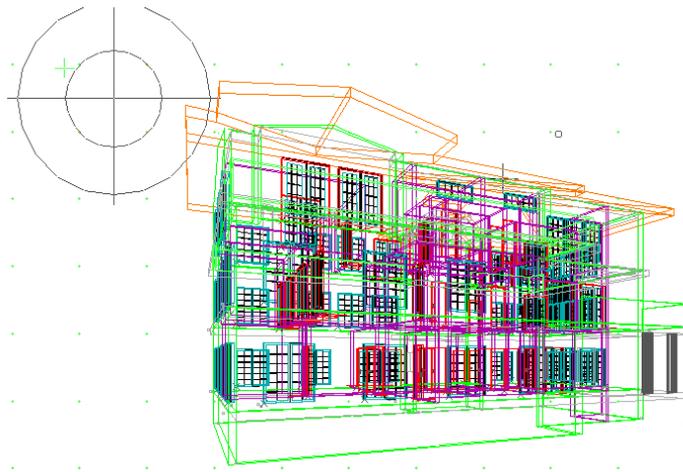
4. Press **Ortho** to turn off Ortho mode on the Switchbar and click near the center of the building.
5. Click in different quadrants of the globe to look at different perspective views. Zoom to extents if your drawing seems to disappear from the screen. This shows the view from the inner lower right quadrant:



6. Select SetPersp, choose Camera, and set the lens to 110mm. This changes your field of vision.



7. Deactivate FixCone in the SetPersp menu. Click beneath the left portion of the building for the viewpoint and click on the upper right corner of the building as the target. As you move your cursor, the cone expands and contracts.



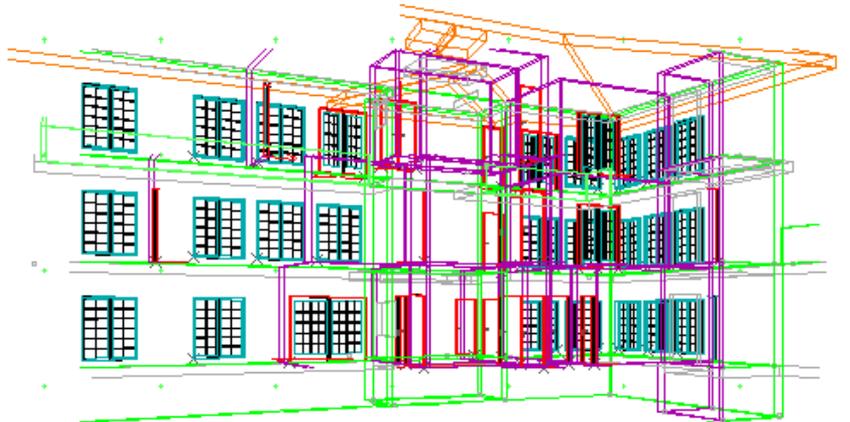
8. Select GotoView from the 3D_Views menu, choose AddView, type Prspctv, and press **Enter**.

Save this as HU Views.

- To look inside the building:
1. Press **[Shift] + [V]** to go to the 3D_Views menu and select SetPersp.
 2. Choose HthrClip, type 90, and press **[Enter]**. Right-click to return to the perspective view.
 3. Click on the Start Hidden Line Removal icon. (Your screen may look different, depending on how you set your perspective view.)



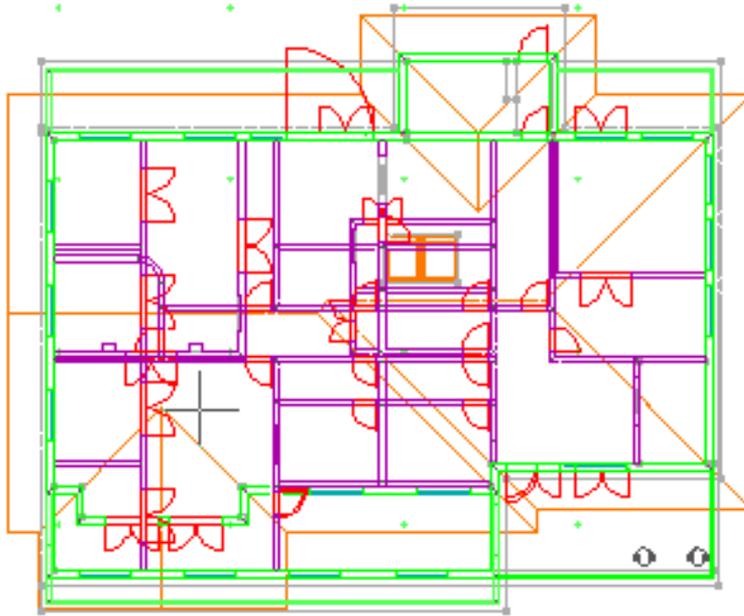
4. Use the Front View icon and switch to Perspective in the Navigation toolbar to see this view:



5. Press **[Shift] + [V]** to return to the 3D_Views menu, select SetPersp, choose HthrClip, change the distance to 1, and press **[Enter]**.

→ To walk through the building:

1. Press **[A]** and select WorkMode from the ARCHTECT menu.
2. Deactivate Symbol3D. Your drawing should look like this:



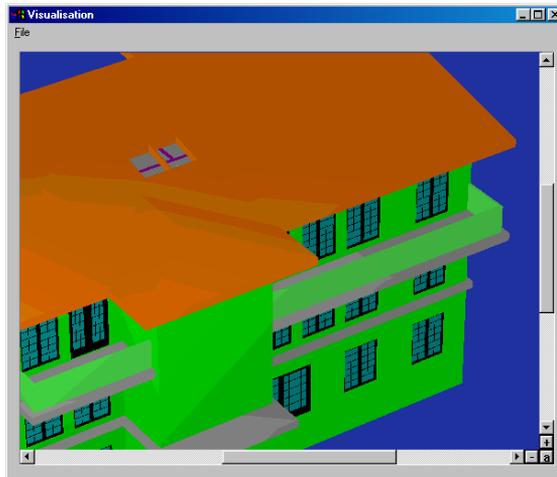
3. Press **[Shift] + [V]** and select WalkThru from the 3D_Views menu. The Perspective view appears on your screen along with the WalkThru menu.
4. Select WalkDist, type 1, and press **[Enter]**.
5. Select TurnAng, type 5, and press **[Enter]**.
6. Use the function keys to move around in the Horizons Unlimited building:

F1	Walk forward
F2	Walk backward
F5	Turn right
F6	Turn left
F9	Step up
F10	Step down

- To control images using Object Viewer:
1. Press **[A]**, select WorkMode from the ARCHTECT menu, and activate 2DPlan.
 2. Click on the Object Viewer icon.
 3. Rotate the building by holding down the left mouse button and dragging the cursor around the Visualisation screen. You can even turn the building upside down.
 4. Press **[D]** to display a wire frame version of the building that you can rotate. Press **[D]** again to return to the shaded model of the Horizons Unlimited building.
 5. Hold down the right mouse button and drag the cursor downward to magnify the building; drag the cursor upward to minimize it.

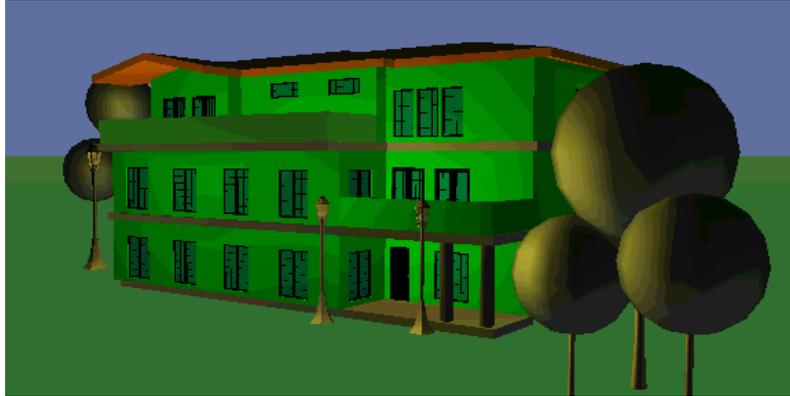
You can also use the + and – buttons on the lower right corner of the Visualisation screen to magnify and minimize the display.

Notice that as you magnify the building, the scroll bars become smaller. You can pull the magnified model around on the screen using the scroll bars.



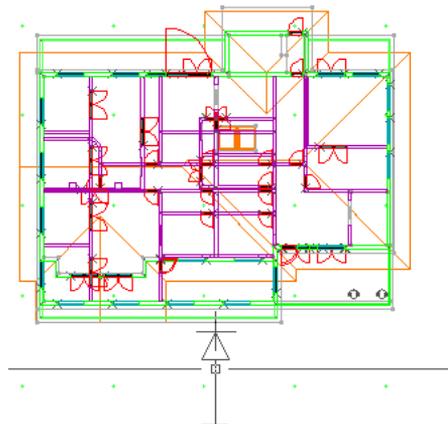
6. Press **[A]** (or click on the a button on the lower right corner of the Visualisation screen) to display the southwest isometric view of the building.
7. Store the image by selecting Save as . . . from the File pull-down menu on the Visualisation screen. Type HU Isometric and press **[Enter]**. This saves a bitmap version of your building on the default directory.
8. Click on the X button at the top right corner of the Visualisation screen to return to your drawing screen.

- To look at the Horizons Unlimited building with DataCAD Plus vis:
1. Select DataCAD-plus vis from the View pull-down menu, pull your cursor slightly to the right, and click on Start.
 2. Refer to the *DataCAD Plus Vis User's Manual* for details about embellishing, rendering, and raytracing your drawing.

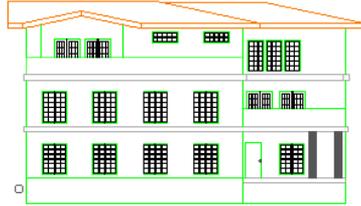


Save the drawing as HU Elevations.

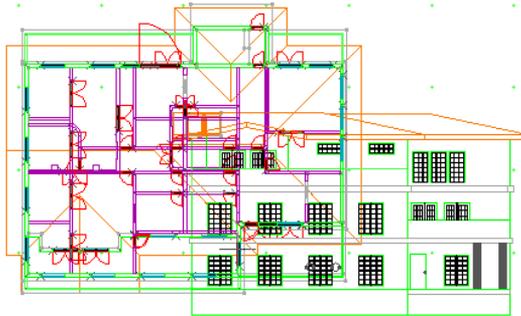
- To create the south elevation:
1. Press [L] and activate all CON, FLO, and R-SURFAC layers.
 2. Press [A], select WorkMode, and activate Symbol3D.
 3. Click on the Define New Elevation icon on the Viewing Tools toolbar.
 4. Click below the Horizons Unlimited drawing and pull the mouse upward on the drawing for the south elevation.



5. Click to create the elevation view.
6. Click on the Start Hidden Line Removal icon on the Viewing Tools toolbar.



7. Select NewLyr from the SaveImg menu, type ElSouth for the layer name, and press **[Enter]**.
8. Choose On from the SaveImg menu.
9. Select Plan from the View pull-down menu. The elevation and the floor plan appear together.



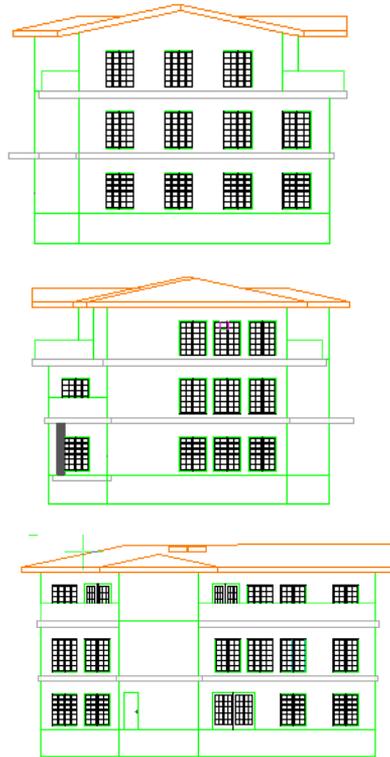
10. Press **[L]**, select ActvOnly, choose ElSouth, and right-click.
11. Click on the Add Go to View icon on the Viewing Tools toolbar, type SouthEl, and press **[Enter]**.

➔ To create each of the other elevations:

1. Press **[L]** and turn on all CON, FLO, and R-SURFACE layers.
2. Click on the Define New Elevation icon on the Viewing Tools toolbar.
3. Click beside the left (west) side of the drawing, pull the cursor toward the right, and click.

For the east elevation, click beside the right side of the drawing and drag the cursor left. For the north elevation, click above the drawing and drag the cursor downward.

- Click on the Start Hidden Line Removal icon on the Viewing Tools toolbar.



- Select NewLyr from the SaveImg menu, enter ElWest, and choose On.

For the east elevation, name the layer ElEast; for the north elevation, use ElNorth.

- Select Plan from the View pull-down menu.
- Press **L**, activate ActvOnly, select ElWest, and right-click.

For the east elevation, select ElEast; for the north, use ElNorth.

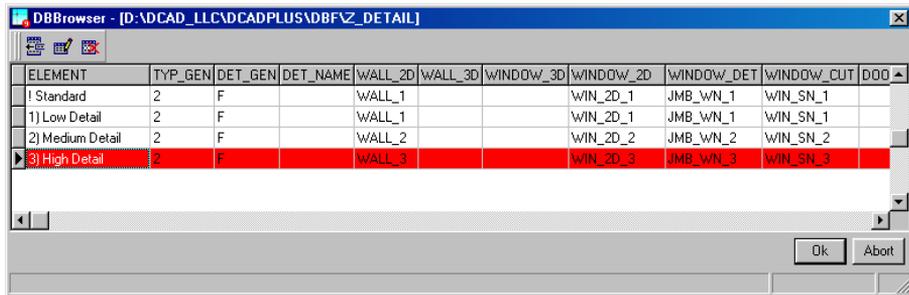
- Click on the Add Go to View icon on the Viewing Tools toolbar, type WestEl, and press **Enter**.

For the east elevation, name the view EastEl; for the north elevation, use NorthEl.

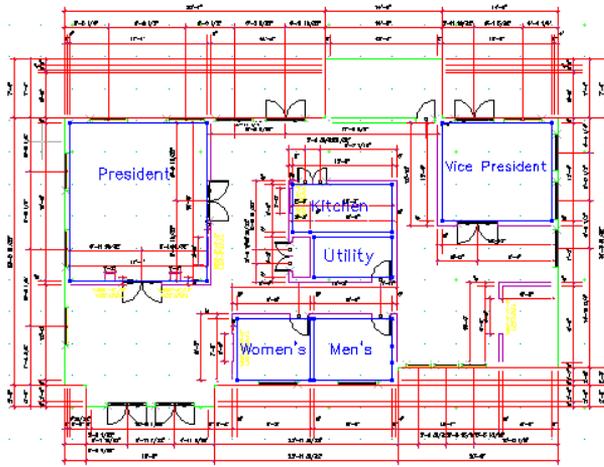
- To create 2D floor plans for each floor:
1. Press [A], select Zone from the ARCHTECT menu, and choose A.
 2. Select Gen_2D from the ARCHTECT menu and activate Layer, BldUnit, SandWall, Hatch, AddFill, and Detail.

Make sure FI is activated in the Switch bar.

3. Highlight HighDetail in the database and click Ok.



4. Select START.
5. Press [L], select ON/OFF, and activate ACON, AROM, and ADIM.
6. Click on the Add Go to View icon on the Viewing Tools toolbar and enter the name HUF1r1.
7. Repeat steps 1 through 6 for zones B and C, naming those views HUF1r2 and HUF1r3. The third floor view is shown here:



Save this as HU 2D Plan.