Appendix C

What's New in Chief Architect X8

Welcome to Chief Architect X8. This appendix has been written to help our upgrading customers make a smooth transition from earlier versions of Chief Architect to Chief Architect X8.

Chapter Contents

Before You Begin

There are many new features in Chief Architect X8, and many existing features have changed. These changes affect the way Chief Architect functions, so it is very important to be familiar with them.

- "Getting Started Check List" on page 1320
- "Files Created in Version X7 and Prior" on page 1323
- "Files Created in Version X6 and Prior" on page 1323
- "For Files Created in Version X5 and Prior" on page 1324
- "For Files Created in Version X4 and Prior" on page 1324
- "For Files Created in Version X3 and Prior" on page 1326
- "For Files Created in Version X2 and Prior" on page 1326

Be sure to read this section before opening any plans created in earlier versions of Chief Architect.

Chief Architect X8 can open the **.plan**, **.layout**, **.PL1**, and **.LA1** files from prior versions. Before opening any files created in earlier versions of Chief Architect, it is important to be aware of changes made in the newest version and the effect they may have on your legacy plan and layout files. For details, see "Files Created in Version X7 and Prior" on page 1323, "For Files Created in Version X2 and Prior" on page 1326.

Please note that files saved in the latest program version cannot be read by older versions of the software. When a legacy file is saved in the version X8, an unaltered copy of the original file is created which can still be opened in the original version. See "Legacy Archive Files" on page 60.

As in all software, every new program version introduces changes to its functionality as well as to the user interface. If you choose to bring a project forward, be sure to take a few moments to look it over in the new version and confirm that the new functionality does not require you to make any modifications. Particularly if you have an approaching deadline, you may find it best to finish the current project in the version of the software in which you began it.

Getting Started Check List

The following checklist suggests steps you should take before migrating your files to Chief Architect X8. More information about each of these steps can be found after the checklist.

- ☐ 1. Check for and Install Program Updates
- ☐ 2. Migrate Legacy Library Files
- ☐ 3. Migrate Custom Graphics Files
- ☐ 4. Review the New Features List
- ☐ 5. Review Your Preferences Settings
- ☐ 6. Create new custom Template Plan and Layout files
- ☐ 7. Set up Custom Toolbar Configurations
- ☐ 8. Backup Entire Plan
- ☐ 9. Check chiefarchitect.com for more information

1. Check for and Install Program Updates

Program updates contain improvements to the original release version and we recommend using the most current version available. By default, Chief Architect checks for program updates every day when you launch the program. For information about changing this, see "General Panel" on page 98. Please note that program updates are available for download, which means that you need internet access to acquire them.

You can check for updates at any time:

- Select **Help> Download Program Updates** from the menu.
- Visit the Program Updates page on the Chief Architect Web site at chiefarchitect.com.

2. **Migrate Legacy Library Files**

Library content from previous program versions cannot be installed or copied into the Chief Architect X8 library. If you upgraded from version X1 or later and have custom library content on your computer from that program version, the program installer will locate it and ask if you want to migrate it into the Chief Architect X8 library. See “Migrating Library Catalogs” on page 15.

You can import library files from versions X1 through X5 at any time by selecting **Library> Import Library (.calib, .calibz)** from the program menu. In addition, library files from versions 10 and prior can be imported by selecting **Library> Convert Legacy (.alb) Library Files** from the program menu. Bear in mind, though, that older content may not be of the same quality as currently offered catalogs and that legacy Manufacturer catalogs may be out of date. See “Importing Library Catalogs” on page 828.

3. Migrate Custom Graphics Files

If you have custom graphics files, including textures, images or backdrops, that you were using in a previous program version, you can copy them manually using your operating system for use in Chief Architect X8. See “Chief Architect Data” on page 53.

- Copy custom texture files to the Chief Architect X8 Textures folder located in the Chief Architect X8 Data folder.
- Copy custom image files to your Chief Architect X8 Images folder located in the Chief Architect X8 Data folder.
- Copy custom backdrop files to your Chief Architect X8 Backdrops folder located in the Chief Architect X8 Data folder.

In Chief Architect X7 through X1, custom graphics were saved in the Chief Architect Data folder, as they are in version X8. In version 10 and prior, they were located in the program’s installation directory, in folders that began with “My”. Custom backdrops, for example, were saved in “My Backdrops”.

Texture and image files are not listed in the Library Browser. These files can be assigned to material and image objects, however, which are stored in the library so it is important to retain them. There are several tools available for adding materials and images to the library. For more information, see “Images” on page 1134 and “Creating Materials” on page 857.

4. **Review the New Features List**

There are a number of important reasons why you should familiarize yourself with the new and improved features in Chief Architect X8:

- New and improved features allow you to produce drawings more efficiently, so it is to your advantage to use them.

- Some changes to existing functionality may affect your accustomed drawing style and thus your productivity if you are not aware of them.
- New features may affect your choice of settings in your template files, as well as your preferred Preferences settings.

See “New and Improved Features by Chapter” on page 1328.

5. **Review Your Preferences Settings**

Any changes that you made to the Preferences settings in your previous version do not migrate into Chief Architect X8. You should review all the settings in the **Preferences** dialog to make sure that they are set to suit your drawing needs. For more information, see “Preferences Dialog” on page 90.

6. **Create new custom Template Plan and Layout files**

Chief Architect X8 installs a selection of template plan and layout files that have been set up to take advantage of the program’s updated tools and features. See “Template Files” on page 84. For best results, it is recommended that you either:

- Use the installed templates when creating new plans and layout files in Chief Architect X8
- Use the installed templates as the basis for creating new custom templates.

If you choose to continue using custom template files that you created in a previous program version, it is very important that you take the time to carefully review all the default settings in the file, making sure that they will continue to suit your needs in X8. First, make copies of your custom templates in the Chief Architect X8 Templates directory The Templates directory is located in the Chief Architect X8 Data folder. Next, open each template as you would a regular plan or layout file, by selecting **File> Open**, and then save any changes you make by selecting **File> Save**.

If you do choose to continue using a legacy template plan, it is best to also use a legacy layout template from the same program version, as well. As with a template plan, take the time to go through the layout template’s defaults and make sure they are suited for use in X8 and that their line weight scales do not conflict with those in your template plans. See “Line Weights and Scaling” on page 1224.

7. **Set up Custom Toolbar Configurations**

It is possible to migrate toolbar configuration files from previous versions to Chief Architect X8; however, it is not recommended because it is likely that you will be missing new tools available in version X8.

Instead, we recommend that you set up your custom toolbars the way you would like them in Chief Architect X8. You may find it most effective to customize your toolbars as you get used to working in the new program version, rather than beforehand. See “Toolbar Configurations” on page 131.

8. Backup Entire Plan

Before migrating a legacy file created in Chief Architect X7 or prior, it is a good idea to open the plan in the program version in which it was created and use the Backup Entire Plan tool (Export Entire Plan in version X3 and prior) to export the plan with all associated support files, including textures, backdrops and images. See “Backup Entire Plan” on page 70.

9. Check chiefarchitect.com for more information

If you have additional questions about the changes in Chief Architect, up to date information is available in the Support section of our web site. You can also post questions on the ChiefTalk web forum at chieftalk.chiefarchitect.com.

Files Created in Version X7 and Prior

In addition to the above recommendations, if you wish to open files created in Chief Architect Version X7 or prior, bear in mind the following before you open legacy files in Chief Architect X8.

☐ 1. **Boxed Eaves**

In Chief Architect X8, improvements to the generation of Boxed Eaves ensure that they extend into exterior rooms with “Use Soffit Surface for Ceiling” specified when located between the roof baseline and an interior room. In some legacy plans opened in Version X8, the **Length** value for Boxed Eaves may need to be modified in the **Roof Plane Specification** dialog. See “Options Panel” on page 485.

☐ 2. **Uppercase Text**

The Uppercase option was added to Text Styles in Version X8, whereas in Version X7 and prior, it was an option for Room Labels and Schedules only. In legacy plans opened in Version X8, any Schedules present in the drawing will be assigned a Custom Text Style, as will their associated Schedule Defaults. If any Schedule Default is set to Use Layer for Text Style and no objects are present on that layer, a new Schedule Text Style will be created and assigned to that layer. Room Labels are treated similarly: if any are present, they and their defaults will use a Custom Text Style. If a given Room Label or Schedule has been sent to layout more than once and was set to use different Text Styles in each layout view, it is possible that its appearance may be affected in some views. See “Text Styles” on page 1061.

Files Created in Version X6 and Prior

In addition to the above recommendations, if you wish to open files created in Chief Architect Version X6 or prior, bear in mind the following before you open legacy files in Chief Architect X8.

1. **Built-in Appliances**

   In Chief Architect X6 and prior, some appliance symbols designed to be inserted into base cabinets had incorrect sizing data. In legacy plans opened in version X8, these appliances will not fit into the cabinet correctly and will need to be replaced. Built-in dishwashers are particularly affected. See “Built-In Sinks and Appliances” on page 680.

2. **Formatting of Bulleted and Numbered Lists**

   In Version X7, various improvements were made to the way lines of Rich Text are spaced. In legacy plans opened in Version X7, Rich Text objects with bulleted and numbered lists may require adjustments. See “Paragraph Options Dialog” on page 1037.

3. **Chief Blueprint Font**

   The Chief Blueprint font was improved for Version X6, with decreased top and bottom spacing. The change in spacing may increase the overall height of text objects using this font in X6 files opened in Version X8. X5 and prior legacy files will not be affected by this change. See “Blueprint Fonts” on page 1030.

For Files Created in Version X5 and Prior

In addition to the above recommendations, if you wish to open files created in Chief Architect Version X5 or prior, bear in mind the following before you open legacy files in Chief Architect X8.

1. **Named Values for Doors and Windows**

   In Version X6, the Named Values door_style_name, door_type_name, and window_type_name were shortened to style_name and type_name. Any object labels or text macros using these Named Values in legacy plans opened in Version X8 will need to be replaced. See “Working with Named Values” on page 1305.

For Files Created in Version X4 and Prior

In addition to the above recommendations, if you wish to open files created in Chief Architect Version X4 or prior, bear in mind the following before you open legacy files in Chief Architect X8.

1. **Roof Overhangs and Framing**

   In Chief Architect X4 and prior, roof overhangs were measured to the outside of the subfascia, whereas in Version X5, they are measured to the outside of the fascia or shadow boards, if present. In legacy plans opened in Version X5, this will not affect the appearance of roof planes in floor plan view because in X4 and prior, roof plane polylines represented the projected framing area whereas in Version X5 they represent the total projected area. But, the position of the fascia and subfascia will shift, as will the length of the rafters. See “Eave and Gable Overhangs” on page 490.

☐ 2. **Door Swing Direction and Materials**

In Chief Architect X4 and prior, exterior doors that swing outward display interior material on exterior side of door. This was corrected in Version X8. Doors modified to work around the old behavior could be affected in legacy plans opened in Version X5. See “Changing Door Swings” on page 369.

☐ **3. Door Swing Direction and Louvers**

Improvements to door louver direction may affect louvers in all doors with the exception of bifold doors. See “Changing Door Swings” on page 369.

☐ **4. Wrapped Door/Window Lintels and Window Sills**

In Chief Architect X4 and prior, wrapped lintels and sills extended out further than those that were not wrapped. In legacy plans opened in Version X8, the extents of wrapped lintels and sills will be adjusted so that they equal their **Extend** setting. See “Door Casing” on page 368 and “Window Casing and Sills” on page 405.

☐ **5. Cabinet Feet**

The offsets for cabinet foot millwork symbols in Version X4 and prior were set per millwork symbol to insert into cabinets effectively. In Version X8, the offset is set in the **Cabinet Specification** dialogs. When legacy plans are opened in Version X5, cabinet foot offsets are set to 0 and transferred to their containing cabinet, if one exists. Any customized or independently placed cabinet feet will be affected. See “Pilasters, Feet, and Moldings” on page 691.

☐ **6. Object Labels in Cross Section/Elevation Views**

If a “Label” layer is turned on in a cross section/elevation view and objects of that type are visible in the view, then those objects’ labels will display in that view when the plan is opened in Version X8. See “Object Labels” on page 1279.

☐ **7. Transparent Materials**

In Chief Architect X4, materials assigned to the Transparent Material Class for ray tracing were visible in rendered views even when their Index of Refraction was set to 1.0. When legacy plans are opened in Version X8, Transparent materials with an Index of Refraction of 1.0 are transferred to the General Material class and assigned a Transparency value of 100%. This will not affect these materials’ appearance in ray trace views, but will make them completely invisible in rendered views. See “Properties Panel” on page 871.

☐ **8. Invisible Beams**

The legacy **Invisible Beam** checkbox was removed from the **Wall Specification** dialog. When legacy plans are opened in Version X8, any **Invisible Beam** walls will be converted to Invisible Walls. See “General Panel” on page 309.

For Files Created in Version X3 and Prior

In addition to the above recommendations, if you wish to open files created in Chief Architect Version X3 or prior, bear in mind the following before you open legacy files in Chief Architect X8.

☐ 1. **Text Styles**

The appearance of a number of objects that include text - including object labels, the North Pointer, Sun Angles, Joist Direction Lines, the Up/Down arrows for stairs and ramps - can now be controlled using Text Style. Their appearance may be altered somewhat in legacy plans opened in Chief Architect X8. See “Text Styles” on page 1061.

☐ **2. Light Sources**

The illumination created by light fixtures and Added Lights was improved in Chief Architect X8. Lighting in legacy plans may appear noticeably brighter when viewed in version X8. See “Light Data Panel” on page 647.

For Files Created in Version X2 and Prior

If you wish to open files created in Chief Architect Version X2 or prior, bear in mind the following file management changes and structural enhancements before you open legacy files in Chief Architect X8.

☐ 1. **Material textures, images, and backdrops**

Chief Architect X2 and prior installed with a catalog of library content, including a selection of material textures, images, and backdrops. This library catalog is no longer installed with the program because it is now available for download on-demand, so it will be possible to open a legacy plan in version X8 and encounter numerous missing file warnings. To avoid this, we recommend using the **Export Entire Plan** feature in the original program version to create a folder that includes the plan and all associated textures, images, and backdrops before opening this file in X8. This tool is renamed Backup Entire Plan in version X8. See “Backup Entire Plan” on page 70.

☐ 2. **Floor and ceiling finish thicknesses**

In Chief Architect X2 and prior, floor and ceiling finish layers were not modeled in 3D, and objects such as railings, stairs, landings, cabinets, fixtures, and furnishings measured their Floor to Bottom height from the subfloor. These objects now measure their Floor to Bottom height from the floor finish surface by default, so it is possible that you may notice height changes for these objects - particularly in saved, annotated cross section/elevation views. See “Floor and Ceiling Platform Definitions” on page 344.

☐ 3. **Riser heights and landing thicknesses**

The default Best Fit Riser Height for stairs that do not reach the next level has been updated from 9” (225 mm) in version X2 and prior to 6 3/4” (169 mm) in Chief Architect X8. This may affect the riser heights of stairs, as well as the thicknesses of landings attached to those stairs. See “Staircase Specification Dialog” on page 559.

☐ 4. **Auto Adjust Height**

The Follow Terrain option in some specification dialogs was replaced by the Auto Adjust Height checkbox. If a cabinet, fireplace, fixture, furniture, or other library symbol had Follow Terrain unchecked in version X2 or prior and was located in a room with a floor height other than the default for the current floor, then the object’s Floor to Bottom Height will change to equal that room’s floor height. The object’s position in the model will not change, however. See “Terrain Height vs Floor Height” on page 717 of the Reference Manual.

☐ 5. **Adjustable Thickness Walls**

In Chief Architect X2 and prior, generic, single-layer wall types were available for use. When a legacy plan file is opened in version X8 and these wall types are detected, they are replaced by an updated, non-generic wall type. Framed walls and Railings will also acquire 1/2” (13 mm) thick layers of sheetrock on each side. Railings that define a Deck room with Advanced Deck Framing Built will not acquire sheetrock layers. See “Legacy Wall Types” on page 304.

☐ 6. **Stairwells defined by railings**

Interior railings that used a generic, single-layer wall type drawn in older program versions will acquire layers of sheetrock when the plan is opened in version X8. This can affect the appearance of staircases where they join to a floor platform. To address this issue, select the railing and move it 1/2” (13 mm) away from the top edge of the staircase. See “Creating a Stairwell Manually” on page 557.

☐ 7. **Deck rooms**

In legacy plans opened in Chief Architect X8, Deck rooms with Advanced Deck Framing built retain the framing but have Automatic Deck Framing turned off by default. Decks with no Advanced Deck Framing built are converted to Balcony rooms. See “Decks” on page 340.

☐ 8. **Material definitions and light sources**

Settings in the **Define Material** dialog that affect materials’ appearance of brightness have been modified. The **Ambient** setting was removed, and the **Diffuse** setting for materials in legacy plans will be set to 100% when opened in version X8.

The Quality setting for light sources set to use Soft Shadows in ray tracing was also modified. Lights using Soft Shadows in legacy plans will be set to use Medium quality. The Light Diameter of light sources in legacy plans is capped at 4” (100 mm). See “Texture Panel” on page 869 and “Light Data Panel” on page 647.

☐ 9. **Structural Member Reporting**

When a plan created in Chief Architect X2 or prior is opened in Chief Architect X8, Materials Lists are set to calculate **Total Lineal Length**. For a combination of lineal length and piece count, select **Mixed Reporting** in the **Structural Member Reporting** dialog. See “Structural Member Reporting” on page 1286.

☐ 10. **Fill New Framing Members**

In Chief Architect X2 and prior, Fill New Framing Members was view-specific; in Chief Architect X8 it applies to the entire plan. As a result, it is turned off by default in legacy plans opened in version X8. See “CAD Defaults Dialog” on page 1072.

New and Improved Features by Chapter

The following is a list of new and improved features in Chief Architect Version X8. Where possible, cross-references to additional information has been provided.

Program Overview

- Added support for 3D Connexion's 3D mice. See “3D Mice” on page 34.
- Enhanced support for basic math in dialogs and when moving objects using dimensions. See “Math Operations in Dialogs” on page 40.
- The Move edit handle of a selected framing object, Soffit, or group-selection will now shift position to remain on-screen when you zoom in. See “Edit Handles” on page 34.
- Improved how names with numbers at the end are sorted in the Project Browser. See “Project Browser” on page 1125.

File Management

- The **Backup Entire Plan** tool now automatically creates a zipped folder. See “Backup Entire Plan” on page 70.
- New **Missing Files** dialog assists in handling of missing referenced graphics files. See “Referenced Files” on page 68.

Preferences and Default Settings

- New **Enable ‘Show Room Labels’ Automatic Behavior When Changing Room Types** setting in the **Preferences** dialog gives the option of leaving **Show Room Labels** unchecked when a Room Type is assigned to a room. See “Architectural Panel” on page 108.
- New **Reset Toolbars** button in the **Preferences** dialog. See “Reset Options Panel” on page 126.
- New **Measure Windows from Inside of Frame** setting for drawings imported from the Room Planner mobile app in the **Preferences** dialog. See “General Panel” on page 98.
- Obsolete **Record undo state only if idle longer than** setting was removed from the **Preferences** dialog. See “General Panel” on page 98.

Layers

- Layer sets can now be renamed. See “Layer Set Management” on page 147.

Editing Objects

- New **Object**, **Room**, **Floor**, and **Plan** Modes for the Object Painter tool. See “Matching Properties” on page 249.
- New properties including Fill Style can be applied using the **Object Eyedropper** and **Apply Properties** tools. See “Matching Properties” on page 249.
- New **Elevation Reference** setting for a variety of architectural objects lets you specify where their height is measured from. See “Specification Dialogs” on page 41.
- The heights of various architectural objects can now be measured from either their top or bottom surface. See “Specification Dialogs” on page 41.
- The Edit Object Parts toggle has been replaced by a **Connect CAD Segments** toggle, **Disconnect Edges** tool, and **Disconnect Selected Edge** edit tool. See “Connect CAD Segments” on page 182 and “Disconnect Edges” on page 184.
- **Sticky Mode** is now available for the **Break Line** edit tool. See “Break Line” on page 231.
- New **Complete Break** edit tool replaces double-clicking the **Break Line** edit button. See “Break Line” on page 231.
- New **Corner Edit Handles** and **Edge Edit Handles** toggles for the **Break Line** edit tool. See “Break Line” on page 231.

Walls, Railings, and Fencing

- The **Wall Specification** dialog now has a LABEL panel. See “Wall Specification Dialog” on page 308.
- Railing newels, balusters, and rails can now be displayed in floor plan view. See “In Floor Plan View” on page 281.
- **Wall Hatching** now only covers wall layers that are set to display, improving its usability with railings. See “Hatch Wall” on page 275.

Rooms

- Living Area labels are no longer created for structures that are not included in the Living Area Calculation such as detached garages and decks. See “Living Area” on page 339.
- New **Make Room Area Polyline** edit tool creates a polyline showing the extents of its Standard Area. See “Room Area” on page 339.
- Deck Planking and Joists can now be specified as **Treated**. See “Deck Panel” on page 356.
- Improved how deck joists are generated when Border Planks have been specified. See “Deck Framing and Planking” on page 341.

- Improved how deck joists and planking are automatically generated when deck joists have been rotated. See “Deck Framing and Planking” on page 341.
- Improved ability of planking in separate deck rooms to miter along an angled Room Divider. See “Deck Framing and Planking” on page 341.
- Improved how deck planking is automatically generated for adjacent decks. See “Deck Framing and Planking” on page 341.
- The **Display in Uppercase** checkbox for room labels was moved to the TEXT STYLE panel of the **Room Label Specification** dialog. See “Text Style Panel” on page 1063.

Doors and Windows

- Doors and windows can now span the intersections of straight, collinear walls. See “The Door Tools” on page 362 and “The Window Tools” on page 392.
- Corner windows can now be pushed further into a wall corner to produce a minimal corner post. See “Corner Windows” on page 395.
- Fixed glass corner windows can now have no corner post. See “Frame Panel” on page 415.
- Architectural objects like cabinets will now bump against door and window casings and sills. See “Bumping/Pushing” on page 221.
- When a wall type is specified for a Bay, Box, or Bow Window placed in a Pony Wall, it now replaces both wall types and spans the entire unit. See “General Panel” on page 430.

Foundations

- **Slabs** now have a LABEL panel in their specification dialog. See “Slab Specification Dialog” on page 463.
- **Slabs** now have a **Footing Offset** setting in their specification dialog. See “General Panel” on page 464.
- Post footings can now be specified as **Round** or **Square**. See “General Panel” on page 464.

Roofs

- New **Roof Defaults** dialog is accessible via the **Default Settings** dialog. See “Roof Defaults Dialog” on page 475.
- Roof framing can now be generated at the same time as roof planes in the **Build Roof** dialog. See “Structure Panel” on page 487.
- The Surface, Structure, and Ceiling layers of roof planes can now be specified. See “Structure Panel” on page 487.
- The Surface, Structure, and Ceiling layers of roof planes can now be Auto Detailed. See “In Cross Section Views” on page 491.
- The Framing Member Type can now be specified for the rafters of individual roof and ceiling planes. See “Structure Panel” on page 487.
- New option for a **Rebuild Fascia and Roof Trim** hotkey. See “Roof Panel” on page 481.

Stairs, Ramps, and Landings

- Stairs and Ramps now have object preview panes in their specification dialogs.

See “Staircase Specification Dialog” on page 559 and “Ramp Specification Dialog” on page 570.

- New **Top Height Reference** settings control where a staircase’s Top Height measures to. See “General Panel” on page 559.
- New **Break Line** settings allow you to create a break or cut line with optional transparency on staircases. See “Stair Break Lines” on page 539.
- New settings for creating stair railing returns and extensions. See “Handrail Panel” on page 572.
- Stair and ramp newels, balusters, and rails can now be displayed in floor plan view. See “In Floor Plan View” on page 539.
- New “Stair & Ramp, Details” layer controls the display of stair and ramp overhangs and tread nosing in floor plan view. See “In Floor Plan View” on page 539.
- New “Stair & Ramp, Stringers” layer controls the display of stair stringers in floor plan view. See “In Floor Plan View” on page 539.
- New **Handrail at Wall** settings allow railing returns and extensions. See “Handrail Panel” on page 569.
- The **Stringer Top** and **Bottom** values in the **Staircase Specification** dialog are now measured from the top front and bottom back corners of stair treads, respectively. Both can now be set to zero, as well. See “Style Panel” on page 563.
- Improved how stairs snap to nearby walls. See “Drawing Stairs and Ramps” on page 537.

Framing

- Improved wall framing around floor/ceiling beams. See “Framing with Beams” on page 582.
- New **Rotate** options in the **Framing Specification** dialog allow you to rotate and align wall framing and blocking within the wall framing layer. See “General Panel” on page 611.
- **Wall Blocking** now displays as a box with a single diagonal line when cut by a cross section plane. See “In Cross Section/Elevation Views” on page 605.
- Improved information text in **Wall Detail** views. See In Wall Detail Views.
- When multiple sill plates are specified, only the bottom one is now Treated. See “Sill Plates” on page 579.

Trusses

- The text of truss labels can now be specified. See “Truss Labels” on page 621.
- Unnecessary **Measurements** information removed from the **Truss Base Specification** dialog. See “General Panel” on page 626.
- Automatic Truss label numbering now begins with 1 instead of 0. See “Truss Labels” on page 621.

Cabinets

- Enhanced control of face items on cabinet sides and back. See “Front/Sides/Back Panel” on page 701 and “Accessories Panel” on page 706.

- New “Door - Hinge Bottom” and “Door - Hinge Top” face items create awning and hopper doors. See “Front/Sides/Back Panel” on page 701.
- New “Side Panel - Applied” and “Side Panel - Inset” face items. See “Front/Sides/Back Panel” on page 701.
- New **Full Overlay** and **Extend to Bottom** options for side panels. See “Accessories Panel” on page 706.
- New **Floor to Top** setting in the **Cabinet Specification** dialog. See “General Panel” on page 697.
- Box construction, overlay, and corner treatment settings are now grouped on the new BOX CONSTRUCTION panel in the **Cabinet Specification** dialogs. See “Box Construction Panel” on page 700.
- New **Lock from Auto Resize** option for cabinet face items. See “Front/Sides/Back Panel” on page 701.
- The list of cabinet face items is now alphabetized. See “Front/Sides/Back Panel” on page 701.
- Cabinet front settings can now be modified when multiple cabinets are selected. See “Front/Sides/Back Panel” on page 701.
- New **Always Present** option places cabinet feet under cabinets that are not end cabinets. See “Accessories Panel” on page 706.
- New **Retain Toe Kick** option preserves the toe kick on cabinets with cabinet feet. See “Accessories Panel” on page 706.
- Improved functionality of **Stretch to Fit** option for toe kicks. See “Accessories Panel” on page 706.
- Cabinet feet no longer display on Corner cabinets. See “Accessories Panel” on page 706.
- The **Custom Countertop** and **Custom Backsplash Specification** dialogs now have a LABEL panel. See “Custom Countertop Specification Dialog” on page 712 and “Material Region Specification Dialog” on page 801.

Plants and Sprinklers

- New “Unknown” option for plant Hardiness Zones. See “Plant Chooser Dialog” on page 767.
- New **Object Type** filter in the **Plant Chooser** dialog. See “Plant Chooser Dialog” on page 767.

The Library

- Improved Library Search sorts the most relevant results first. See “Searching the Library” on page 824.
- The **Export Library** command is now available for the User Catalog. See “Exporting Library Catalogs” on page 835.
- All specification settings are now saved when a symbol object is added to the library. See “Add to Library” on page 829.

Materials

- Improved ability to paint a single wall in a room using the **Material Painter** . See “Material Painter and Walls” on page 851.

- Improved interface of the MATERIALS panel. See “Materials Panel” on page 852.

3D Views

- The **Cross Section Slider** now supports multiple cutting planes. See “Cross Section Slider” on page 919.
- Enhanced panning and zooming in Perspective 3D views. See “Repositioning Cameras” on page 910.
- New **3D Focus on Object** tool. See “Move Camera with Mouse” on page 912.
- Zoom Using Field of View setting replaced by the **Perspective Crop Mode** toggle. See “To use Perspective Crop Mode” on page 911.
- The active **Sun Angle**, **Toggle Shadows**, and **Toggle Sunlight** status are saved on a per-camera basis. See “Saving and Printing 3D Views” on page 922.

Rendering and Ray Tracing

- New **Adjust Sunlight** tool opens the **Adjust Sunlight** dialog. See “Adjust Sunlight Dialog” on page 950.
- **Sun Angles** and the Generic Sun are no longer listed in the **Adjust Lights** dialog. See “Adjust Lights Dialog” on page 940.
- The Generic Sun now has a defaults dialog. See “Generic Sunlight” on page 938.
- The Generic Sun can now be set to follow the camera. See “Generic Sunlight” on page 938.
- The active **Sun Angle** can now be specified on a per-camera basis. See “Adjust Sunlight Dialog” on page 950.
- **Sun Angles** now derive their date format from your operating system settings. See “Sun Angles” on page 944.
- The **Opaque Window Glass** option was moved from the 3D View Defaults dialog and made available for most Rendering Techniques. See “Rendering Technique Options” on page 954.
- New **Toggle Shadows** tool. See “Shadows” on page 934.
- **Show Shadows** moved from the **Preferences** dialog to the **Camera Defaults** dialog. See “General Panel” on page 890.
- Shadows are now supported in the Vector View Rendering Technique. See “Vector View” on page 952.
- Now **Shadow Intensity** option for the Vector View and Technical Illustration Rendering Techniques. See “Rendering Technique Options” on page 954.
- **Show Shadows** can now be specified per camera view. See “Camera Panel” on page 924.
- Improved handling of reflective surfaces in Ray Trace views. See “Ray Trace Views” on page 965.
- New Interior and Exterior Ray Trace Configurations available in the installed template plans. See “Ray Trace Configurations” on page 967.

Dimensions

- New **Auto Story Pole Dimensions** tool. See “Auto Story Pole Dimensions” on page 1011.
- New **Blank Segment** setting added to the SEGMENTS panel of the **Dimension Line Specification** dialog (formerly the ADDITIONAL TEXT panel). See “Segments Panel” on page 1025.
- New **Location** settings for automatic elevation dimensions. See “General Panel” on page 1000.
- New **Elevation Marker** settings for vertically oriented dimension lines in cross section/elevation views. See “Extensions/Markers Panel” on page 1023.

Text, Callouts, and Markers

- New Ellipse, Capsule, Diamond, and Rectangle callout shapes for Callouts. See “Callout Panel” on page 1056.
- Callouts and Markers now have an object preview in their specification dialogs. See “Callout Specification Dialog” on page 1055 and “Marker Specification Dialog” on page 1059.
- New options for specifying the **Alignment** of Level Line **Marker** text. See “Marker Panel” on page 1060.
- New **Uppercase** option for Text Styles as well as Rich Text. See “Rich Text Specification Dialog” on page 1034 and “Text Style Panel” on page 1063.

CAD Objects

- New **Blocking Box** tool draws a CAD box with a single diagonal line through it. See “Blocking Box” on page 1102.

Importing and Exporting

- Import of **.skp** files created in SketchUp version 2016 is now supported. See “3D Data Import Requirements” on page 1183.
- Import and export of **.dxf//dwg** files created in AutoCAD® version 2016 is now supported. See “Importing 2D Drawings” on page 1170.

Custom Symbols

- New **Show Origin** option for custom symbols in the **Symbol Specification** dialog. See “3D Panel” on page 1196.
- New **Use Imported UV Map** option in the **Symbol Specification** dialog. See “3D Panel” on page 1196.
- The **Height off Floor** setting was moved from the **Symbol Specification** dialog to the regular specification dialog. See “General Panel” on page 844.
- Obsolete **Components** button removed from the **Symbol Specification** dialog. See “Options Panel” on page 1200.

Printing and Plotting

- Super B (13” x 19”) and E1 (30” x 42”) sheet sizes added to plan and layout template files. See “Drawing Sheet Setup Dialog” on page 1216.

Layout

- New **Live View** options for camera views, overviews, and cross section/ele-

vation views sent to layout. See “Keeping Layout Views Current” on page 1243.

- New **Color Fill** option for Vector Views sent to layout using Plot Lines. See “Send To Layout Dialog” on page 1241.

Schedules and Object Labels

- New schedule columns allow you to insert dynamic object previews into most types of schedules. See “General Panel” on page 1274.
- New **Framing Schedule** tool can be used to create framing, deck framing, and truss schedules. See “Schedules and Object Labels” on page 1267.
- New Ellipse, Capsule, Diamond, and Rectangle callout shapes for schedule labels. See “Label Panel” on page 1277.
- Object labels and schedules now support multiple lines of text. See “Label Panel” on page 1280 and “Using the Edit Handles” on page 1269.
- CAD objects as well as CAD-based architectural objects like slabs now have labels. See “Label Panel” on page 1280.
- The **Display All Text in Uppercase** setting for schedules replaced by **Uppercase** style option for Text Styles. See “General Panel” on page 1274.

Materials Lists

- New **Include Hidden Columns** option when exporting a Materials List. See “Materials List Export Dialog” on page 1296.
- The **Structural Member Reporting** dialog can now be accessed via the Tools menu. See “Structural Member Reporting” on page 1286.
- New **Structural Member Reporting Method** drop-down in the toolbar lets you change the reporting method used by an active Materials List. See “Structural Member Reporting” on page 1286.

Ruby Console

- New named values for layers, stairs, cabinets, and trusses. See “Working with Named Values” on page 1305.