

Revit - Creating Sheets

Contents

Overview	1
Border Size	1
Creating a New Sheet	2
Drawing Title.....	2
Reference Finish Floor Elevation	3
Detail Boundary Lines.....	3
For Reference Only	3
North Arrow	3
Key Plan.....	3
Key Plan (Parameter)	4
Key Plan Area (Parameters)	4
Drawing Scale	4
Placing Plan Views on Sheets with Plan Guide Points	4
Turn the Plan Guide Points On	4
Placing a View at a Plan Guide Point.....	4

The following information is subject to change.

Overview

The IDS Revit Project Model contains one border family, named IDS_Std Border 30x42, used for all Construction Documents. It has been developed to accommodate multiple configurations for multiple projects within one Revit model as well as for each discipline. Do not rename the family or load a different border family into the Project Model. Doing so will circumvent the existing predeveloped sheets and their project sheet phase development.

Each project is different. There may be project conditions not covered by this document. Contact the Project BIM Coordinator with questions and clarification.

The Project Model has five phases named Existing, New Construction, New Construction (A), New Construction (B), and New Construction (C). The last three phases are placeholders for possible future phases of design. Having multiple project phases in each Project Model is an essential component of the IDS design process. To accommodate multiple projects for a single Revit building model, the IDS_Std Border 30x42 sheet border family has been developed with four family types. Each type correlates to a project design phase. These names may be different depending on the project, but for documentation purposes we will use these family types and phase names.

Family Type	Sheet Phase
• New Construction	New Construction
• New Construction (A)	New Construction (A)
• New Construction (B)	New Construction (B)
• New Construction (C)	New Construction (C)

By having one Construction Document border family, IDS_Std Border 30x42, with multiple Family Types, only one border family is needed in the Project Model to document each project. If there is another project within the Project Model, the next Family Type is used for these sheets.

This documentation is written for the Project Border Family Type: New Construction. However, the same procedures can be used to edit the other Border Family Types.

Border Size

In the Project Model there is one Construction Document Border Family, IDS_Std Border 30x42. However, there are two other Border Families, IDS_Std Border 24x36 and IDS_Std Border 36x48, available when required that are not loaded into the Project Model. These families have been developed in the same manner as the IDS_Std Border 30x42 family.

This procedure illustrates how to change the IDS_Std Border 30x42 family to the IDS_Std Border 36x48 family.

1. From the Project Model *Project Browser*, expand *Families > Annotation Symbols*. Then, right-click on **IDS_Std Border 30x42**. From the popup menu, select **Rename**. The family name, *IDS_Std Border 30x42*, is highlighted for editing in the Project Browser.
2. Rename it to **IDS_Std Border 36x48**.
3. Right-click on **IDS_Std Border 36x48**. From the popup menu, select **Reload**. The Open dialog appears.
 - a. Navigate to the location of the Border Family by the exact same name.
Note: The default location of the Revit 2023 Border Families is
J:\Standards\Corporate\IDS_Covers and Borders\2023
 - b. Select it, then select **Open**. The *Open* dialog closes, The *Family Already Exists* dialog appears.
 - i. Select **Overwrite the existing version and its parameter values**.

Note: All Borders in the Project Model will now be the **IDS_Std Border 36x48**.

For all sheets that have been predeveloped, the notes and schedules will need to be moved to the appropriate location on the new border.

Creating a New Sheet

This procedure uses the **IDS_Std Border 30x42** border family and the **New Construction** family type. However, the procedure can be performed with the other two IDS Construction Document borders and/or family types.

1. From the Project Browser, right-click on **Sheets (Sheet Folders)**. From the pop-up list, select **New Sheet**. The *New Sheet* dialog appears.
2. From the *Select titleblocks* list, select **IDS_Std Border 30x42 : New Construction**. Then select **OK**. The *New Sheet* dialog closes and the new sheet is placed in the Project Browser, *Sheets (Sheet Folders)* under the category ????. The new sheet is the active view.
3. From the *Properties* pallet, *Text* area:
 - a. For the *Sheet Folder* parameter, from the drop-down list, select **3 Construction Documents**.
 - b. For the *Sheet Phase* parameter, from the drop-down list, select **New Construction**.
 - c. For the *Dept Code* parameter, enter the appropriate value. The sheet is moved to the appropriate location in the Project Browser.
If needed, refer to the *Drafting View Department Codes* located in the Revit Project Browser under **.Corporate Standards > ??? > Drafting Views (Drafting) > Standards** for a complete list of view Dept Codes.
4. From the *Properties* pallet, *Identity Data* area:
 - a. For the *Sheet Number* parameter, enter the appropriate value.
 - b. For the *Sheet Name* parameter, enter the appropriate value.
 - c. For the *Designer By* parameter, select the placeholder value **Designer**, enter the appropriate value.
 - d. For the *Drawn By* parameter, select the placeholder value **Author**, enter the appropriate value.

Drawing Title

There are many predeveloped sheets in the project model. Their Sheet Names are displayed in the IDS Drawing Title area of the border. The Sheet Name parameter is a fixed length label on the border. When a Sheet Name is too long for the label's fixed length it will word wrap at a space character in the Sheet Name to a new line of text in the label.

For example, the Sheet Name: **First Floor Mezzanine Reflected Ceiling Plan** will not fit on a single line on the border. The default setting of 4.25" Sheet Name Length, would display as:

First Floor Mezzanine Reflected Ceiling
Plan

On the predeveloped sheet, it has been set to the 3.00" Sheet Name Length parameter to display as:

First Floor Mezzanine
Reflected Ceiling Plan

The display with the adjustment is the desired result in this case.

Six instance parameters have been created to control the display of the Sheet Name on the sheet. However, only one of these parameters should be used per sheet.

- 4.25" Sheet Name Length
- 4.00" Sheet Name Length
- 3.75" Sheet Name Length
- 3.50" Sheet Name Length
- 3.25" Sheet Name Length
- 3.00" Sheet Name Length

When a new sheet is created, the 4.25" Sheet Name Length parameter is used as the default. When the Sheet Name word wraps on the sheet in a manner that is not desired, use this procedure to achieve the best visual result. Keep in mind that due to certain constraints, the optimum display of the Sheet Name may not be achievable.

1. With the sheet opened, select the border family.
2. From the *Properties* pallet, under the *Graphics* area, deselect the **4.25" Sheet Name Length** parameter.
3. Select the next **Sheet Name Length** parameter from the list. Then, move the cursor away from the *Properties* pallet into the Revit Drawing area.
 - a. If this does not result in the desired Sheet Name word wrap,
 - i. Deselect the previously selected **Sheet Name Length** parameter.
 - ii. Select the next **Sheet Name Length** parameter from the list. Then, move the cursor away from the *Properties* pallet into the Revit Drawing area.
 - b. Repeat step a until the Sheet Name word wraps as desired.

Note: Never use spaces in the Sheet Name to achieve word wrapping. The effect of adding spaces will be displayed on the Architectural Cover Sheet List of Drawings as well as other areas of the project.

Reference Finish Floor Elevation

The Reference Finish Floor Elevation is used to indicate that the Finish Floor Elevation is at 100'-0". This display is turned off by default. To turn it on for all sheets of the Type:

1. From a sheet, select the Border.
2. From the *Properties* pallet, select **Edit Type**. The *Type Properties* dialog appears.
3. From the *Visibility* area, for the *Reference Finish Floor Elevation*, from the *Value* column, check the **Visibility** check box. Then select **Apply**. The *Type Properties* dialog closes and all sheets of the Type display the Reference Finish Floor Elevation: 100'-0".

Detail Boundary Lines

The Detail Boundary Lines instance parameter is used to temporarily display boxed areas on a sheet that are used for the location of details on the sheet. The display of the Detail Boundary Lines is turned off by default. To turn them on:

1. From a sheet, select the Border.
2. From the *Properties* pallet, from the *Visibility* area, for *Detail Boundary Lines*, from the *Value* column, check the **Visibility** check box. The Detail Boundary Lines display for the current sheet.

To turn the Detail Boundary Lines off:

1. From a sheet, select the Border.
2. From the *Properties* pallet, from the *Visibility* area, for *Detail Boundary Lines*, from the *Value* column, uncheck the **Visibility** check box. The Detail Boundary Lines no longer display for the current sheet.

For Reference Only

The For Reference Only Note is used to show intent of work. It is an instance parameter that is off by default for all sheets.

1. From a sheet, select the Border.
2. From the *Properties* pallet, from the *Visibility* area, for the *For Reference Only*, from the *Value* column, check the **Visibility** check box. The For Reference Only appears on the border above the Project Number and Sheet Number.

North Arrow

The North Arrow is only used for plan sheets. When a new sheet is created, the visibility of North Arrow is off by default. However, the North Arrow has been turned on for predeveloped plan sheets.

The North Arrow rotation is set in the Editing the Border Family, North Arrow procedure.

To turn on the North Arrow:

1. From a sheet, select the Border.
2. From the *Properties* pallet, from the *Visibility* area, for the *North Arrow* parameter, from the *Value* column, check the **Visibility** check box. The North Arrow appears on the Border.

Key Plan

There are three parts of a Key Plan. The Key Plan Boundary, the Area Designations, and the Key Plan Area Filled Regions. The visibility of all Key Plans are off by default for all sheets. Because the elements of the Key Plan are controlled by instance parameters, the visibility of all Key Plans can be set differently from one sheet to another.

Key Plan (Parameter)

The Key Plan parameter turns the Key Plan Boundary and the Area Designations on/off.

To turn on the Key Plan Boundaries and the Area Designations:

1. From a sheet, select the Border.
2. From the *Properties* pallet, from the *Visibility* area, for the *Key Plan* parameter, from the *Value* column, check the **Visibility** check box. The Key Plan Boundary Linework and Text Designations appears on the Border.

Key Plan Area (Parameters)

A Key Plan Area is a Filled Region that indicates the area of a building for the view placed on the sheet. Typically, the Key Plan Areas are designated by an alphabetical character typically starting with A. For example, Key Plan Area A. However, projects can vary in its Key Plan Area designations.

To turn on a Key Plan Area:

1. From a sheet, select the Border.
2. From the *Properties* pallet, from the *Visibility* area, for the appropriate Key Plan Area parameter, from the *Value* column, check the **Visibility** check box. The Key Plan Area Filled Region appears, within the Key Plan Boundary Linework, on the Border.

Repeat this procedure for each Key Plan Area as needed.

Drawing Scale

Different sheets with different views on them will display different values for the Drawing Scale.

For example:

- Sheets such as the AR.0 have a scale on the sheet of **No Scale**.
- Sheets that have a single plan view at a scale of $1/8" = 1'-0"$ will have a scale on the sheets as **1/8" = 1'-0"**.
Note: In this case, the view would not have a view title because the view name and scale are displayed on the sheet.
- Sheets that have multiple views will have a scale on the sheets **As Noted**.
Note: In this case, each view would have a view title.

The value for the Drawing Scale of each sheet can be entered either directly on the Border or through the *Properties* pallet.

There is another option where the BIM Coordinator can run a Dynamo graph that automatically applies the correct value for each project sheet. However, this requires that everyone relinquish all elements and be out of the model for this to work properly.

Placing Plan Views on Sheets with Plan Guide Points

Plan Guide Points are typically used when placing Plan Views onto sheets. As stated previously, Plan Guide Points are used to arrange similar plan views on sheets in the same location. For example, the location of a Second Floor Plan Area A view on a sheet, will more than likely be the same for a First Floor Plan Area A view on another sheet.

The visibility of the Plan Guide Points elements are controlled by a Border Family Type parameter named Plan Guide Point. By default, the Plan Guide Point parameter is turned off.

Turn the Plan Guide Points On

1. From a sheet, select the Border.
2. From the *Properties* pallet, select **Edit Type**. The *Type Properties* dialog appears.
3. From the *Visibility* area, for the Plan Guide Point, from the *Value* column, check the **Visibility** check box. Then select **Apply**. The *Type Properties* dialog closes and all sheets of the Type display one or more Plan Guide Points.

Placing a View at a Plan Guide Point

Repeat this procedure as needed.

1. Do not activate the view on the sheet. Work from the sheet.
2. Select the plan view. Then, from the *Modify | Viewports* ribbon, *Modify* area, select **Move**.
 - a. If there is an intersection of two grid lines, you will be able to snap to them. If there are no grid lines, select a point near the corresponding intersection of a corner of the building. You may need to zoom in reasonably close for this.
3. Then move and place the intersection at the Plan Guide Point cross. Once all plan views have been positioned on each sheet, the Plan Guide Points should be turned off.
4. From a sheet, select the Border.
5. From the *Properties* pallet, select **Edit Type**. The *Type Properties* dialog appears.
6. From the *Visibility* area, for the Plan Guide Point, from the *Value* column, uncheck the **Visibility** check box. Then select **Apply**. The *Type Properties* dialog closes and all sheets of the Type no longer display any Plan Guide Points.