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Kawneer UK Limited  
AA541 Casement Window  
System User Guide

Version 1.0    Revit 2013  
July 2014

 **KAWNEER**  
AN ALCOA COMPANY

## Kawneer AA541 Casement Window System

The Kawneer AA541 Casement Window System offers uncountable variations to suit any project specific requirement. To ensure that the BIM component for this system is equally as flexible the AA541 system has been setup as a curtain wall system rather than a typical window. By doing this we believe we have covered the extensive variation the Kawneer AA541 Casement Window System offers.

The AA541 Casement Window System can be used to fashion individual window configurations that can be cut out of walls or to be incorporated as part of a larger system working along side the Kawneer AA100 & AA110 Curtain Wall System components also available for download. This user guide will provide you all the necessary information to make full use of the AA541 Casement Window component.

## Loading the AA541 Casement Window System component into your project

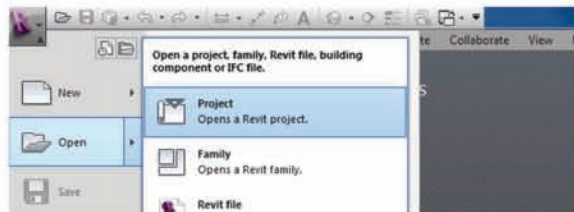
The Kawneer AA541 Casement Window System components have been modelled as Revit curtain wall systems and have 2no. pre-configured curtain wall system types to assist the user when building up their own configurations. For simplicity terms we consider these types as the external frame which should be set up first before moving on to opening lights and detailing. These are;

- AA541 Casement Window - Fixed Frame
- AA541 Casement Window - Coupling Frame

The first part of the process is to understand which of the above types you are using. Typically this will be the Fixed Frame system however the Coupling version is available to cater for long stretches of repeating windows.

Curtain walls in Revit are classed as a system family, this means it isn't a component as such and cannot be loaded as a typical Revit family. You can copy the AA541 curtain wall system or pre-configured arrangements into your project using the following method:

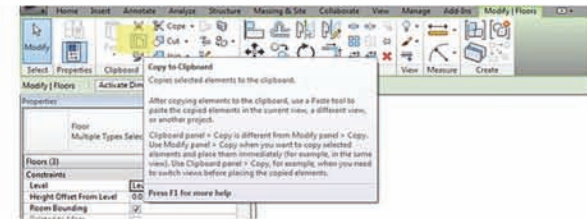
1. Open the Revit file containing your 'project', and navigate to an appropriate floor plan view.



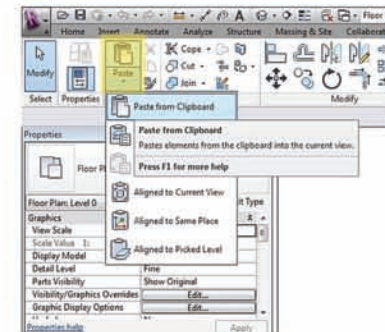
2. Save the component that you downloaded from bimstore to your desired location on your computer (in line with your company protocols).

3. Now open the AA541 Casement Window component that you have downloaded from bimstore. The default view that opens will be a plan view. Navigate around the project and choose the items you wish to copy. This can either be the system as a whole or one of the pre-configured types that have already been set up for you. Butt and Projected Hung opening light configurations are clearly identified when selecting.

4. Now copy the component to your clipboard (shortcut Ctrl+C) or from the main Revit ribbon as indicated below. (Note: Only the items selected [i.e. Mullions, transoms, glazing/solid panels etc] will be copied and available to paste into your project model). Please ensure that you are taking the whole system you require including the desired opening lights.



5. Now go to your project (plan view) and paste the element into your project (shortcut Ctrl+P). If you have placed one of the pre-configured arrangements you can simply now position this and cut it out of the desired wall.



6. The curtain wall system is now copied and embedded into your project and can be selected from the wall type selector within your project BIM. You can delete the item you pasted into your 'Revit model' and the wall type will remain within your project.

You now have all the pieces in place to begin creating your own configuration of the AA541 Casement Window System.

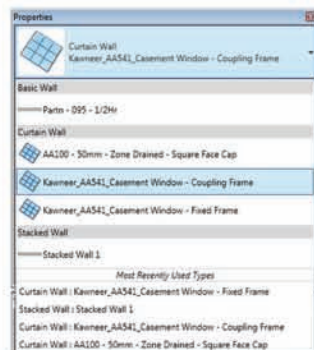
## Setting up your Kawneer AA541 Casement Window configuration

With everything in place you can now begin to set up your desired configuration of the AA541 Casement Window using the following method:

1. In an appropriate 'plan' view, select 'Wall' from the 'Architecture' tab on the main Revit ribbon. Use the 'Properties' dialogue box on the left hand of the screen to select the either the AA541 - Fixed Frame or AA541 - Coupling Frame wall type.

2. Now we will set up the external frame for the window ensuring that the shape of the window as a whole is as per our configuration. Click in the plan view to begin drawing the length of the curtain wall, alternatively type the length in to achieve a more accurate length of window.

3. With the Curtain Wall selected you can then amend the height in the 'Properties' dialogue box or go to a 3D view or elevation to use the pull handles.



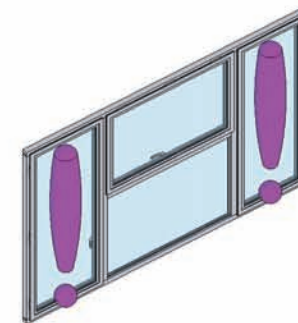
4. Now we need to split the window up in to various sections to cater for fixed lights and opening panels. Use the 'Curtain Grid' tool also located on the 'Architecture' tab of the Revit ribbon. Set up the configuration you require using both horizontal and vertical grids. If you require a grid not to go the full length or height, tab over the newly appeared mullion until you see the dotted grid line. Select the grid line and the 'Add/Remove Segments' button will appear on the Revit ribbon. Remove the sections you don't need.

5. The arrangement of your configuration is now set up, however as standard all of the panels will be as fixed lights. We now need to change the fixed glass panels to opening lights. hovering over the glass panel you wish to change use tab to highlight the curtain wall panel for the glass panel. As standard these are typically pinned. Click the pin icon to unpin the glass panel. You are now able to select 1 or 4 types of opening light from the 'Properties' dialogue box. These 4 types are;

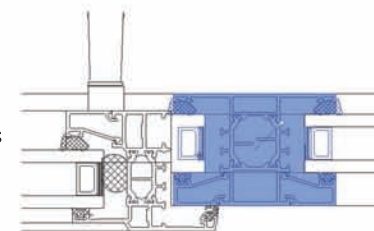
Butt Hung - Side Hung  
Butt Hung - Top Hung  
Projected Hung - Side Hung  
Projected Hung - Top Hung

6. Your window now is the correct arrangement and has its opening lights. If your opening lights have been oversized above the recommended size from Kawneer an exclamation point will automatically appear to let you know that the window is oversized and you should contact Kawneer Technical Support for further guidance.

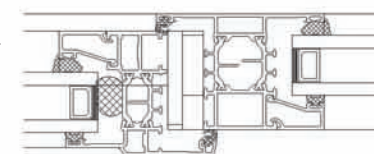
7. The final part of the process is to amend the fixed mullion types to be correct so that the detailing of the window is correct in line with Kawneer's detailing. Don't worry all of the required details have already been set up for you to simply use. Start with the plan details, go to a plan view which cuts through the window. Please note is you have a tall window that covers multiple levels you will need to cut some sections through the window at these various heights to change the details. Following all the plan view make sure you then do the section view details also.



If you have a fixed light the details will already be correct as this is the default set up. However if you have added opening lights the detail will need amending. Simply zoom in to the detail and select the mullion/transom. Again mullions and transoms are typically pinned as default so click the pin icon to unpin the mullion.



From the 'Properties' dialogue box you can now select the correct mullion type for every scenario. These have been named as clearly as possible to assist the user. For example with the detail shown in the image there is a fixed light on the right hand side and an opening light on the left hand side. From the 'Properties' dialogue box I need to select the correct detail which is -



Kawneer - AA541 - Intermediate Mullion LHS

Variations of the details included are;

- Fixed Mullion - LHS/Base
- Window Edge Mullion - LHS/Base
- Intermediate Mullion - Fixed (i.e fixed both sides)
- Intermediate Mullion - LHS/RHS Opening
- Intermediate Mullion - Fixed/LHS Opening
- Curtain Wall Adaptor Mullion - LHS/Base (for use with Kawneer AA100 & AA110 Systems)
- Curtain Wall Adaptor Mullion - RHS/Head (for use with Kawneer AA100 & AA110 Systems)
- Coupling Mullion LHS/RHS Fixed
- Coupling Mullion Fixed/LHS Opening
- Coupling Cill Fixed Light
- Coupling Cill Opening Light
- Fixed Mullion - RHS/Head
- Window Edge Mullion - RHS/Head
- Intermediate Mullion - Fixed/RHS Opening
- Coupling Mullion LHS/RHS Opening
- Coupling Mullion Fixed/RHS Opening
- Coupling Cill Fixed Light with Profile
- Coupling Cill Opening Light with Profile

## Kawneer AA541 Casement Window Coupling System

The Kawneer also provide a coupling system for the AA541 Casement Window to allow the system to be used as strip windows joining sections together. The AA541 Casement Window BIM component has also been set up to include this variation. Using all of the steps as previously mentioned in this user guide simply use the alternative coupling frame curtain wall type to start with;

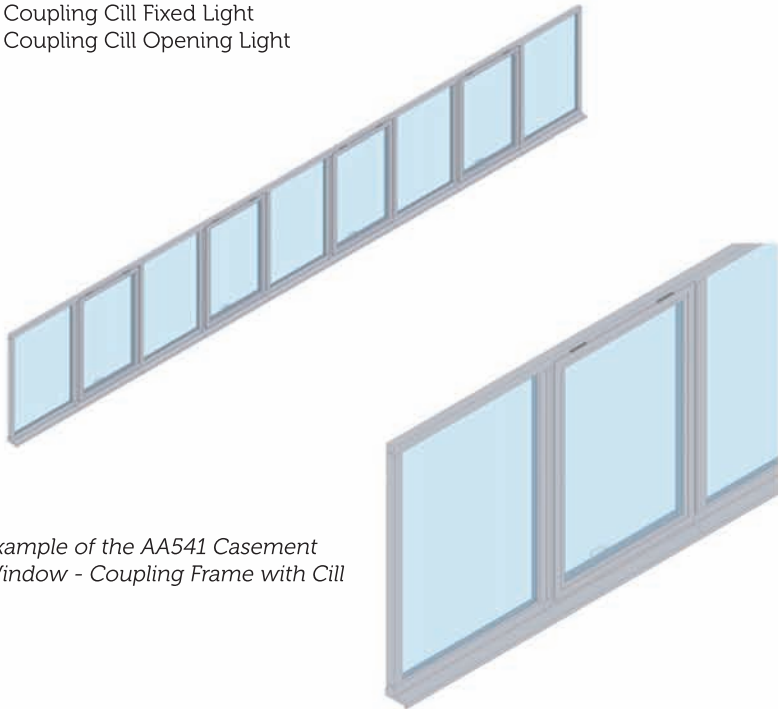
(Kawneer\_AA541\_Casement Window - Coupling Frame)

Please note that as standard the coupling frame version of the system has an alternative detail at the cill to include for a cill piece. As part of this system we have already included cill details with a pre-set cill profile modelled for you;

- Coupling Cill Fixed Light with Profile
- Coupling Cill Opening Light with Profile

However if you require an alternative cill profile to suit your own site specific configuration we recommend using the following cill details and modelling an in place profile for the cill piece.

- Coupling Cill Fixed Light
- Coupling Cill Opening Light



example of the AA541 Casement Window - Coupling Frame with Cill

## Using the Kawneer AA541 Casement Window with the AA100 & AA110 Systems

The Kawneer AA541 Casement Window System can also be used to sit within the Kawneer AA100 & AA110 Curtain Wall Systems. The BIM components have also been set up to cater for this compatibility.

To use the two systems together please use the following method;

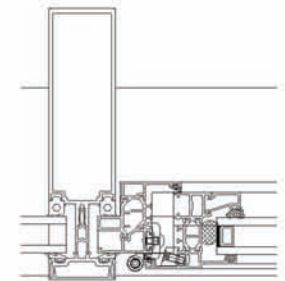
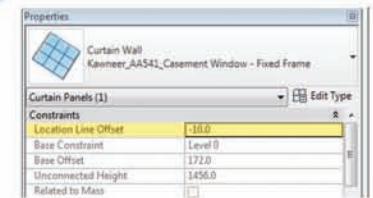
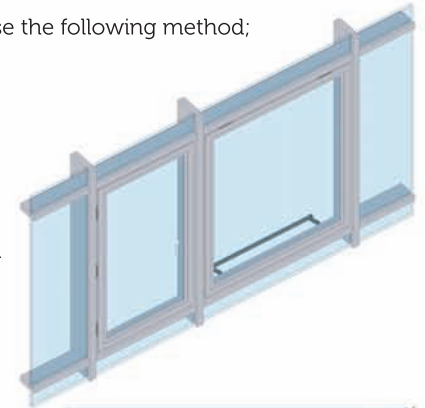
1. Open your Revit file containing your 'Project', and navigate to an appropriate floor plan view.
2. Now open up the two system files you wish to use. For example the AA541 Casement Window and the AA100 Curtain Wall System. Using the steps as described in this user guide and the AA100/AA110 user guide copy and paste the elements into your project file.
3. Set up your AA100/AA110 Curtain wall System as you require.
4. Similar to changing the curtain wall panels from glass to an opening light you can also scroll to the top of the 'Properties' dialogue box and insert a curtain wall system within a curtain wall system. Select the AA541 Casement Window - Fixed Frame to place this in the AA100/AA110.

Please note that when initially inserting the AA541 casement window, it will appear slightly out of position. Please select the casement window and change the parameter 'Location Line Offset' in the 'Properties' dialogue box to -10mm to set the window in the correct location.

5. You can now tab through to select the curtain wall panel within the system and change this to an opening light as required.

6. Once you have the system set up you will need to adjust the mullion / transom details as highlighted in the previous phase of this user guide. The mullion and transom types for the AA541 system embedded into the AA100/AA110 are known as curtain wall adaptors and are -preconfigured for you to use;

- Curtain Wall Adaptor Mullion - LHS/Base
- Curtain Wall Adaptor Mullion - RHS/Head





## Using the AA541 Opening Light Additional Features

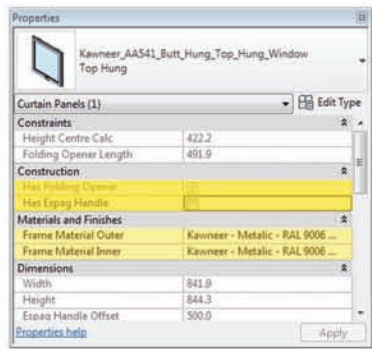
The Kawneer AA541 Casement Window Opening Light components have additional features built-in to assist the user when specifying and scheduling the BIM components, these include ironmongery options, automatic ironmongery requirements and materials. To use these additional features please follow the steps below;

1. With the Opening Light loaded and positioned in your project, select the opening light. Once selected the 'Properties' dialogue box will appear on the left hand of the screen.

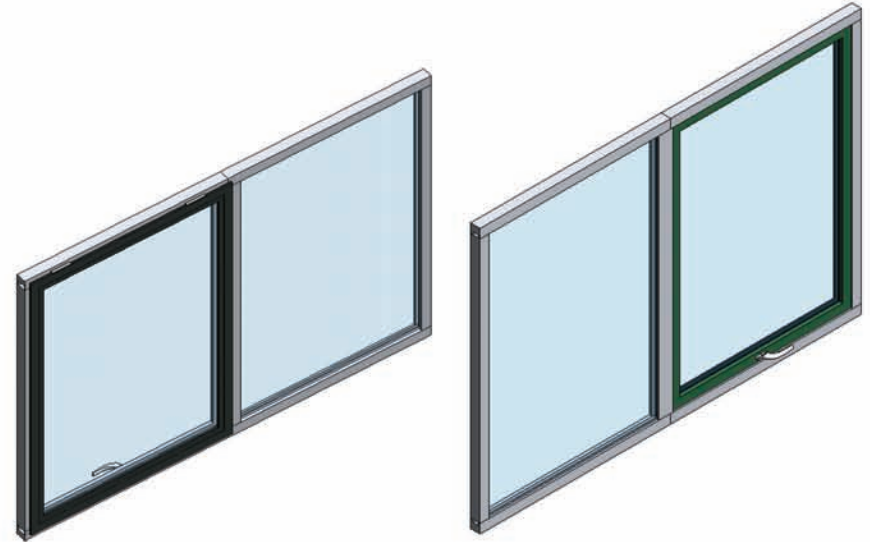
2. Scroll down the 'Properties' dialogue box until you reach the heading 'Construction' and 'Materials' in these boxes you will have tick boxes for a variety of options.

3. Tick the selected option and choose 'Apply' to switch the default Espag Handle to the 'Folding Opener' (note: top hung lights only)

Please note that if a 'Folding Opener' is selected and the opening light size is increased the Revit component will automatically update to the required opener as displayed in the images below.



4. We have also built-in user adjustable material options for the Inner and Outer frame of the AA541 Casement Window opening lights allowing the user to take advantage of the Kawneer 'Dual Colour' option. This again can be adjusted in the 'Properties' dialogue box under the 'Materials and Finishes' heading. The downloaded file comes with an Autodesk Materials Library for a range of pre-defined Kawneer materials.



## Other Notes

You can add the Kawneer AA541 Casement Window System to your company template file, they will then be available without loading when starting a new project.

## Revisions

Version 1.0 - First Issue

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