



Guidelines for the MCT brattberg library in Aveva E3D Design

Instructions for Modeling Cable- and Pipe transits utilizing the features of the MCT Brattberg Aveva package.

At first E3D user shall route penetrated elements (like pipe, cable way) through elements which can be fitted with penetrations.

Such elements are:

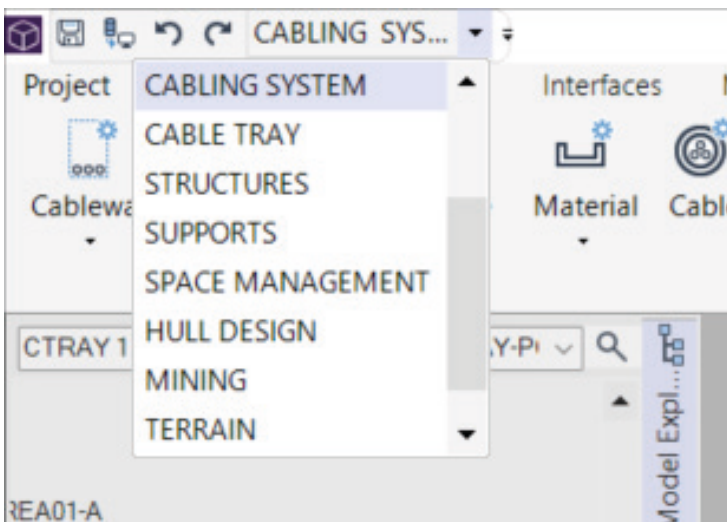
- Structure (STRU) elements (for example PANE, STWALL)
- Hull plates (HPLATE)*

**HPLATE is an old type of a marine hull element; the new type (IPLATE) is not yet compatible with penetrations*

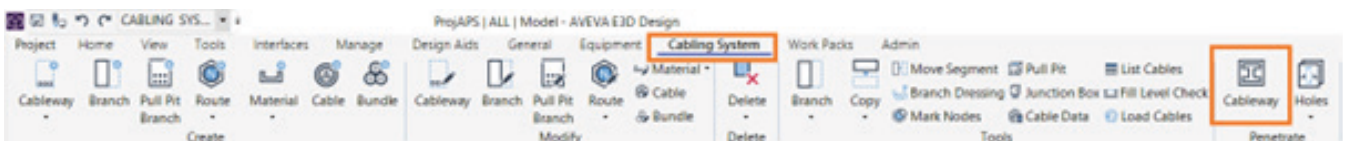
Penetrations cannot be done for plate created as equipment (EQUI). It means that if the user would like to use cabinet transits “dummy” STRU plate should be used instead of EQUI.

Creating penetrations under cabling system.

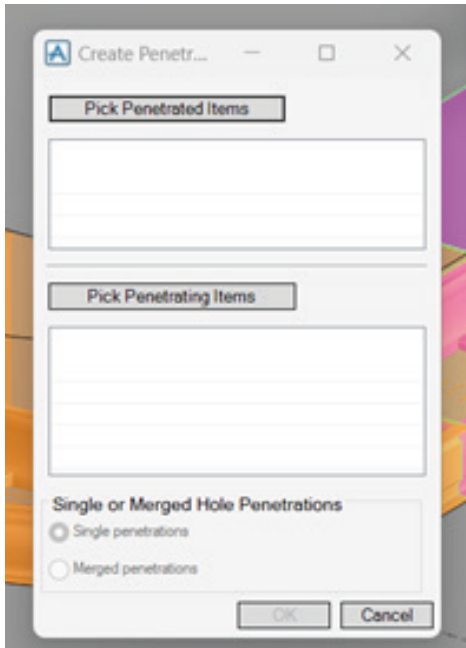
1. Choose “cabling system” discipline in upper left drop-down window.



2. Go to “cabling system” tab in upper ribbon and search for “cableway”

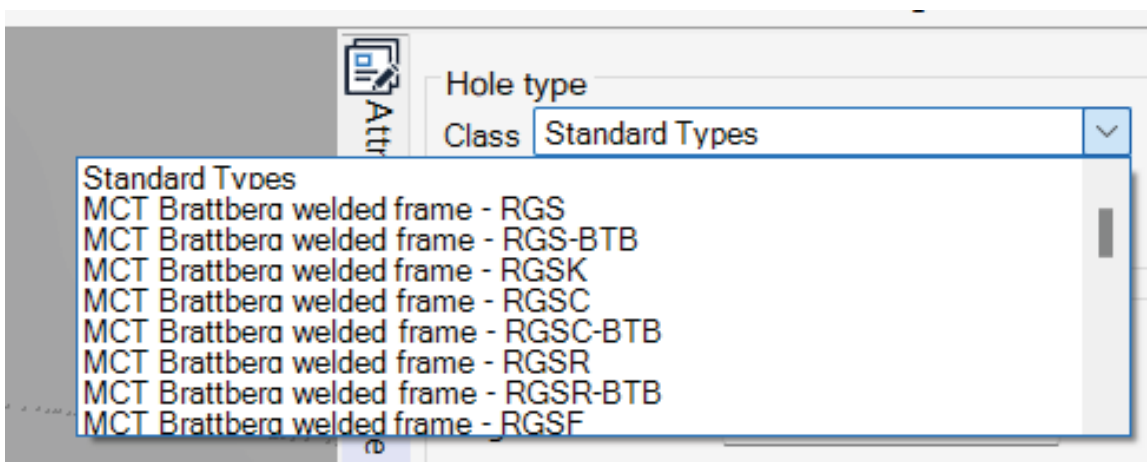


3. Click it and new window will appear.



4. Choose “pick penetrated items” and then click on model window on penetrated structure. Then choose “pick penetrating items” and then click on cable way which is passed through structure. Then confirm OK.

5. New window will appear “Cable Hole Management – Definition”. In the “Class” drop-down window all Brattberg penetrations are available.



The common prefix is “MCT Brattberg”

6. Choose one of main types in Class drop-down window. Then choose subtype in Type drop down-window and confirm OK (before that see next point).

Attribu... x

Cable Hole Management De... x

Hole type

Class MCT Brattberg bolted frame - RGG v

Type MCT Brattberg RGG frame, multi s... v

Hole shape selection

#Horizontal Select... v

#Vertical Select... v

Penetration RGG-8+8x5 PRIMER v

Properties...

Positioning

Open Offset 75mm

Width Offset 0mm

Gap 200mm

Rotation 0

Panel side Front Face v

Add Penetrating

Information

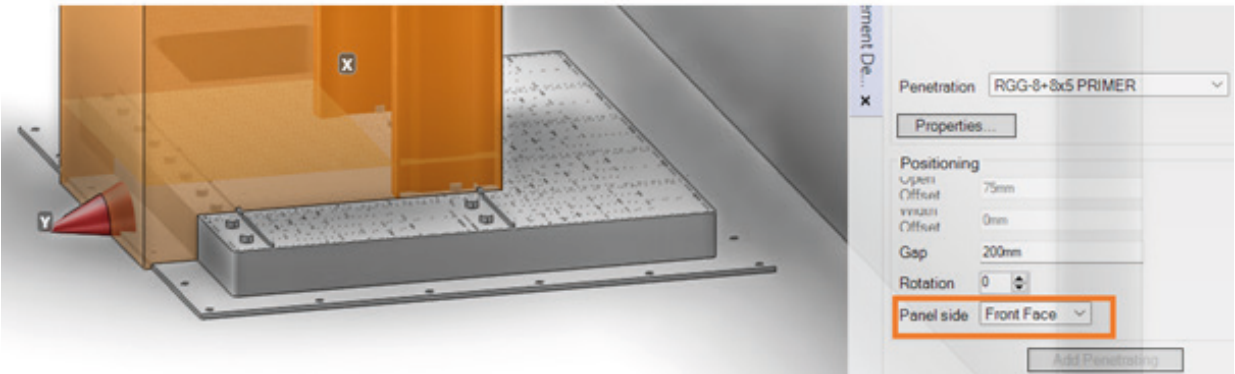
Purpose CABLINGSYSTEM

Code

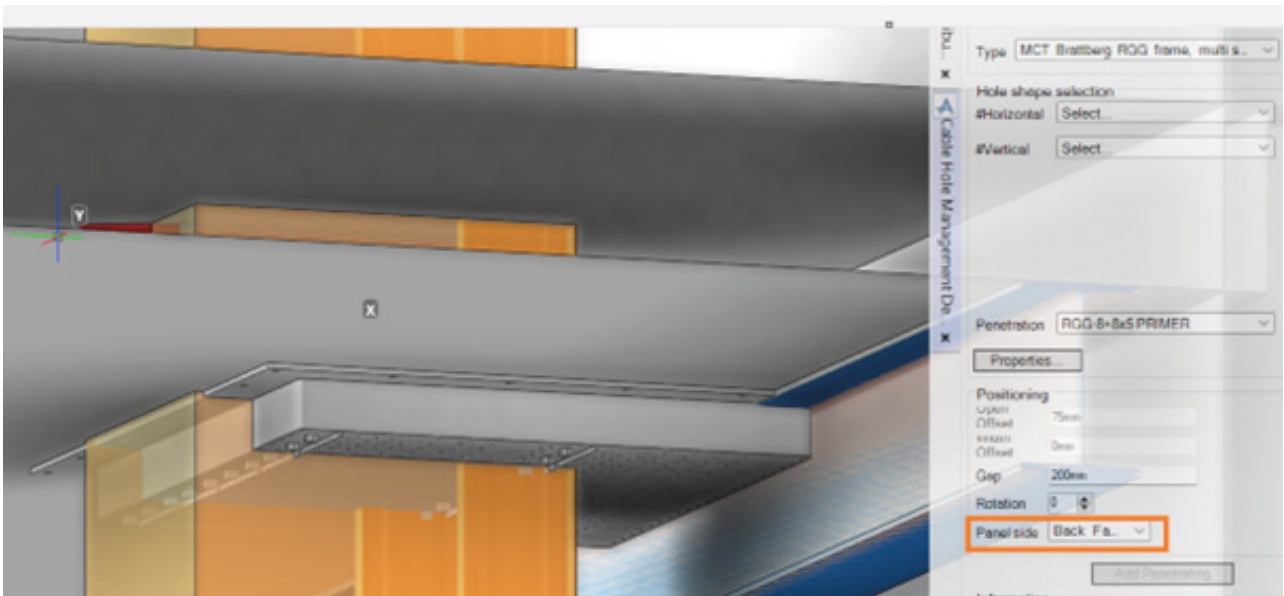
OK Cancel

7. After choosing penetration user can change orientation of penetration. Look for drop-down window Panel side.

Front face is default.



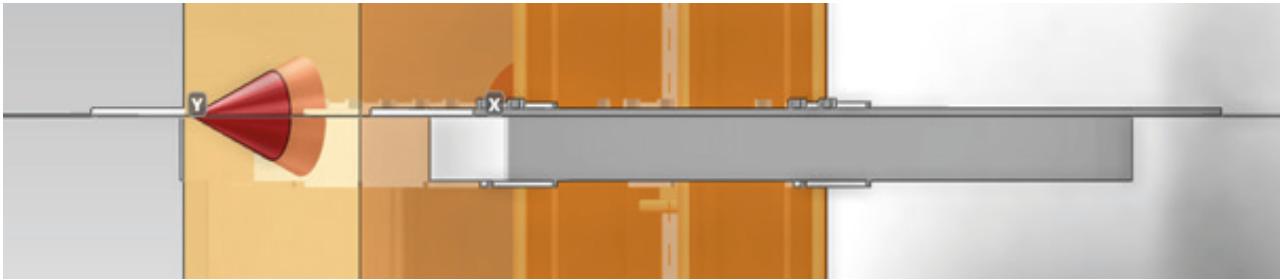
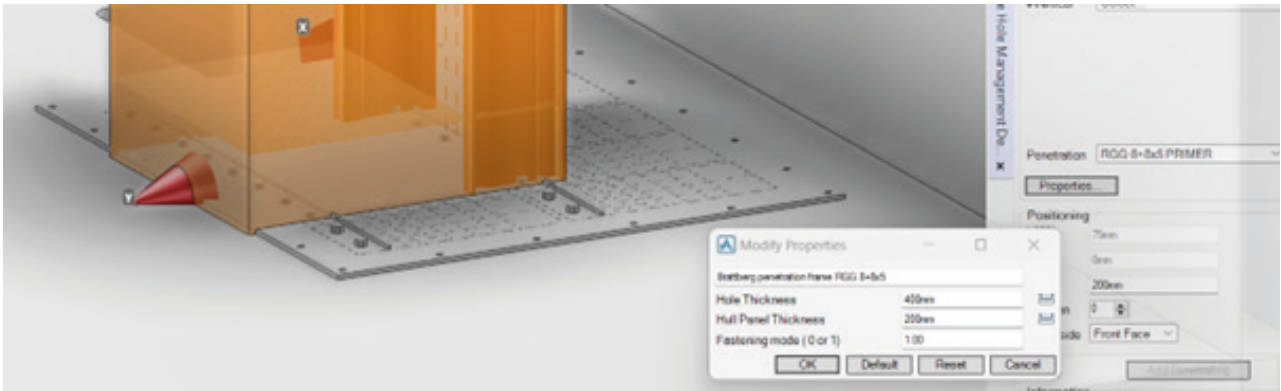
If user would like to put penetration on the opposite side, Back Face should be used. It is a typical aveva project option.



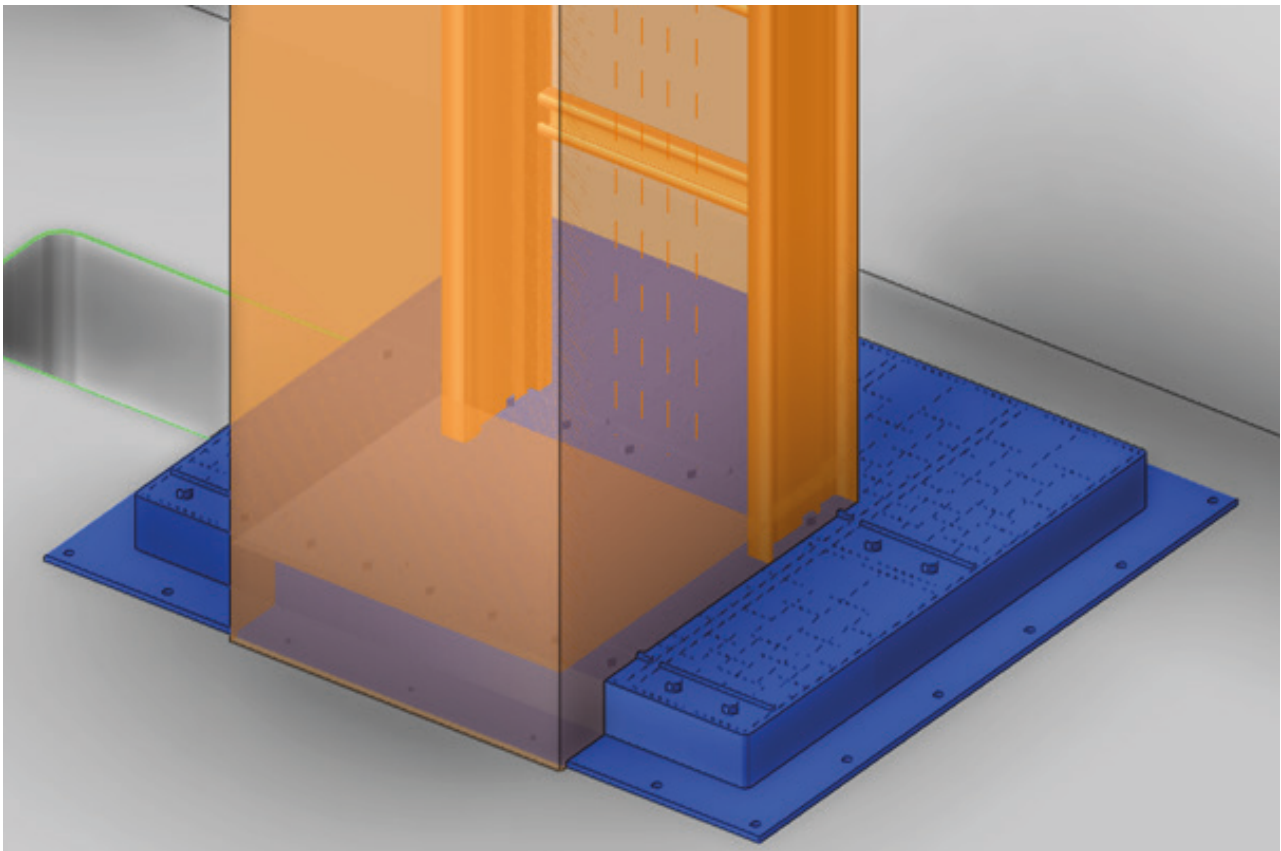
Besides this there is a special Brattberg option for changing orientation of penetration with external frame. Frame can be flipped in Properties by changing fastening mode. Default value for basic orientation is "0".



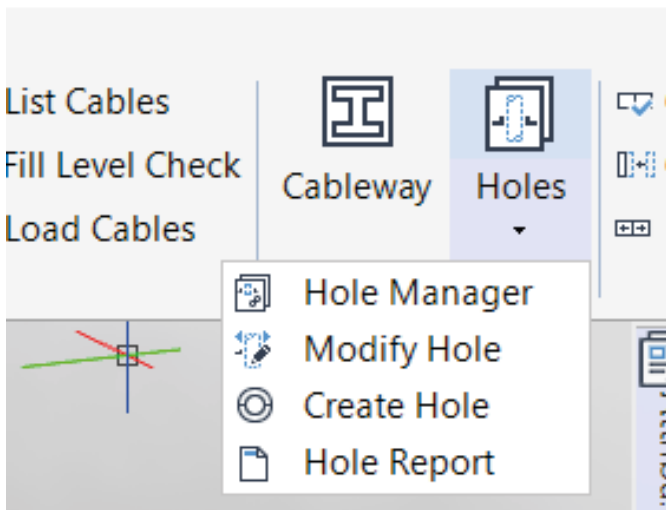
By choosing "1" frame is flipped.



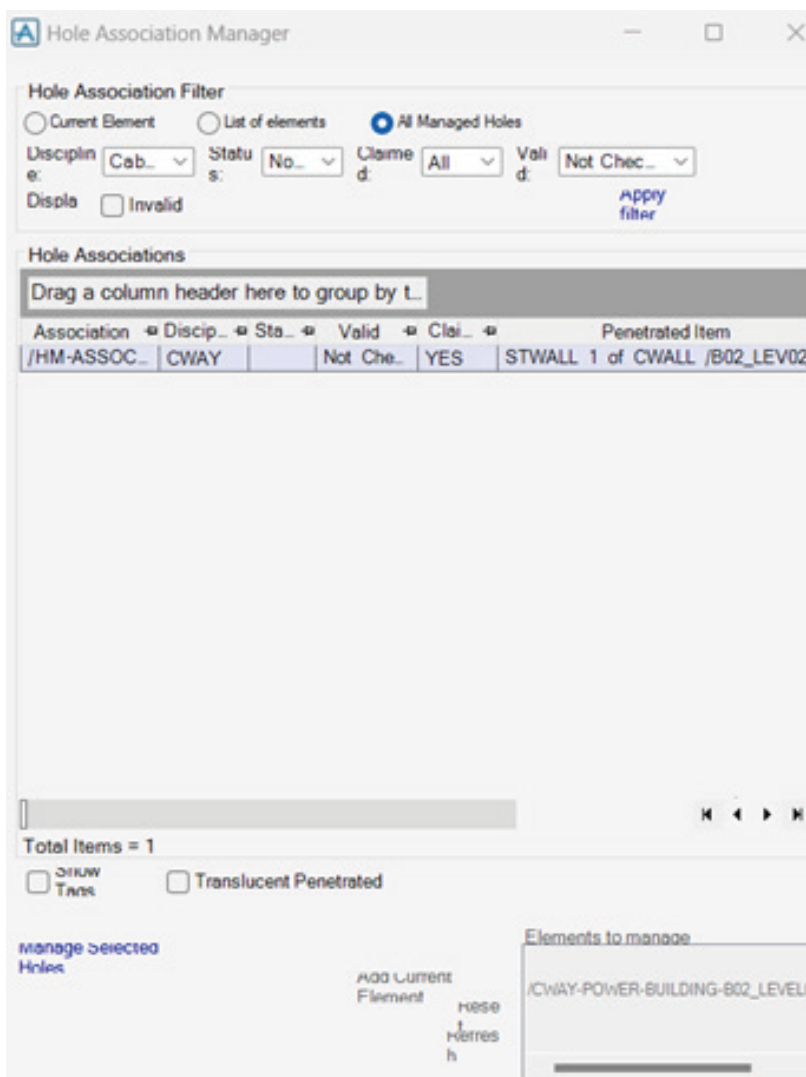
8. Penetration has been placed.



9. Approval of penetration can be done in "Hole manager"



The Hole Association Manager form will open. Search for the penetration by using Hole Association Filter, select the right one and click "Manage selected holes" near the bottom of the form.



If everything is correct the result should be green Passed view.

The screenshot shows the 'Hole Management' window. At the top, there is a 'SHOW Tabs' checkbox. Below it is a 'List of holes' section with a table. The table has columns: HOLE NAME, HOLEOWNER, STAT..., VAL..., PURP..., and H. The first row contains: /HM-ASSOC..., STWALL 1 of CWALL /B02_LEV02_E..., [empty], TR..., CWAY, and TYPE F. Below the table is a scroll bar and the text 'Total Items = 1'. Below that is a 'Hole Validation Re...' section with a table. The table has columns: Test carried out and Result. The rows are: 'Check existence of all associated elements' with 'Passed', 'Check the Virtual Hole intersects the PANEL' with 'Passed', and 'Check the Cable Way data and Hole data a...' with 'Passed'. Below this table is another scroll bar and the text 'Total Items = 3'. At the bottom, there is a 'Comment' field with a 'Save' button. Below the comment field are two columns: 'Originator Ta' and 'Reviewer Ta'. Under 'Originator Ta' are: Request, Redundant, Cancel Request, and Delete Entry. Under 'Reviewer Ta' are: Approve, Reject, Agree, and Redundant. At the very bottom, there is a 'Return to Hole Associations' button with a green arrow icon.

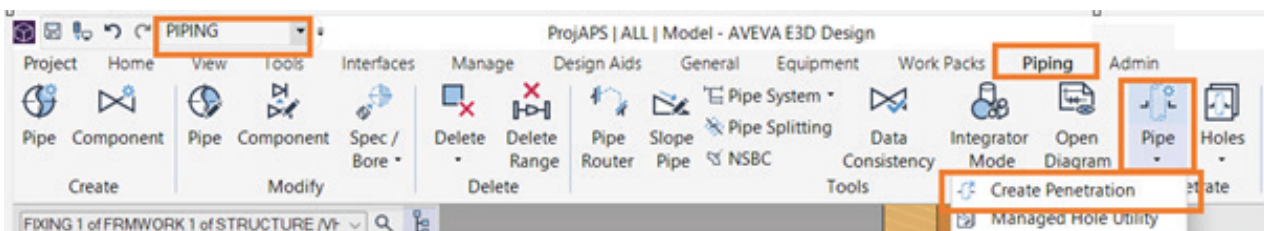
To final approve click Request , confirm Yes , click Approve and confirm Yes. In Aveva Plant 3D user can approve own penetrations. In Aveva Marine there is difference with approval action. E3D user can send request but it is hull modeller who can accept it and provide approval.

10. After approval the cut hole can be seen in the model.



Creating penetrations under piping system.

Piping penetrations are made in the exact same way with the exception of discipline according to below image.





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**we are
putting
safety
first**

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