Roxtec

Guidelines for The Roxtec library in Aveva E3D Design

Instructions for Modeling Cable- and Pipe transits utilizing the features of the Roxtec Package

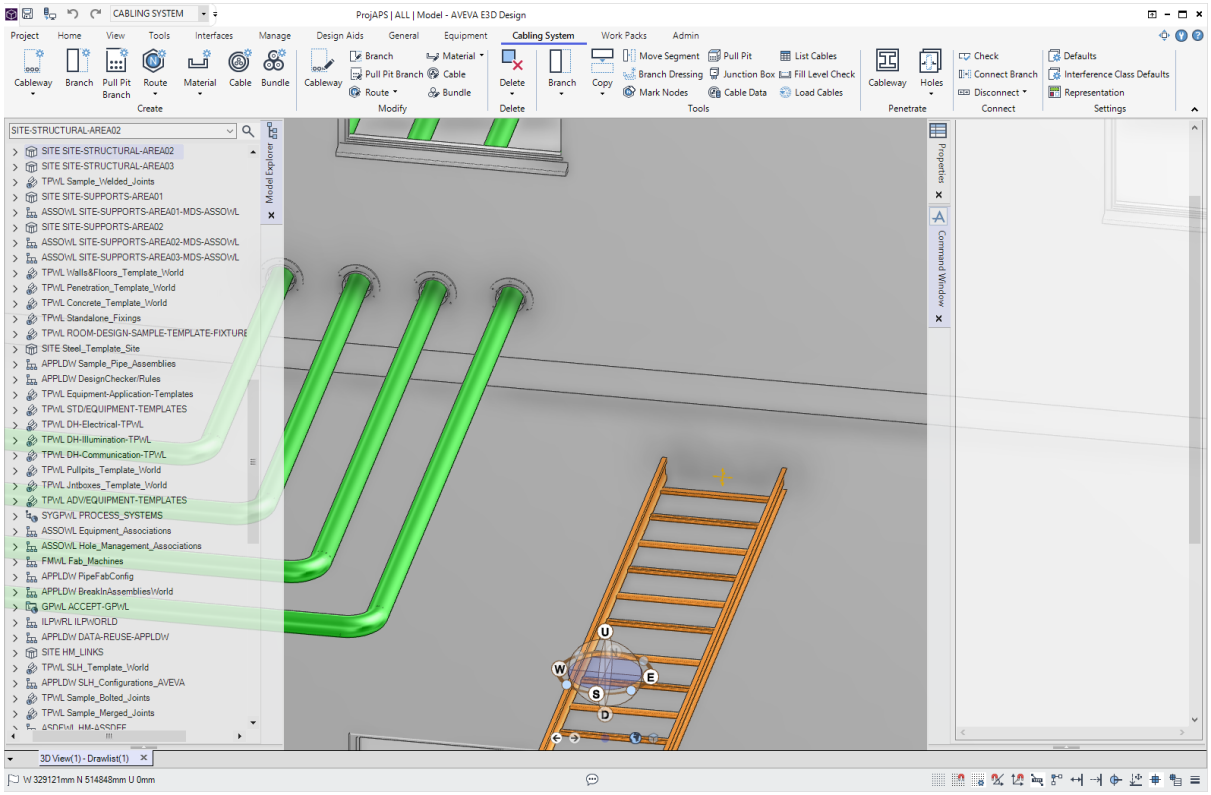
Revision 2, 2024-05-21

Contents

Cable penetrations

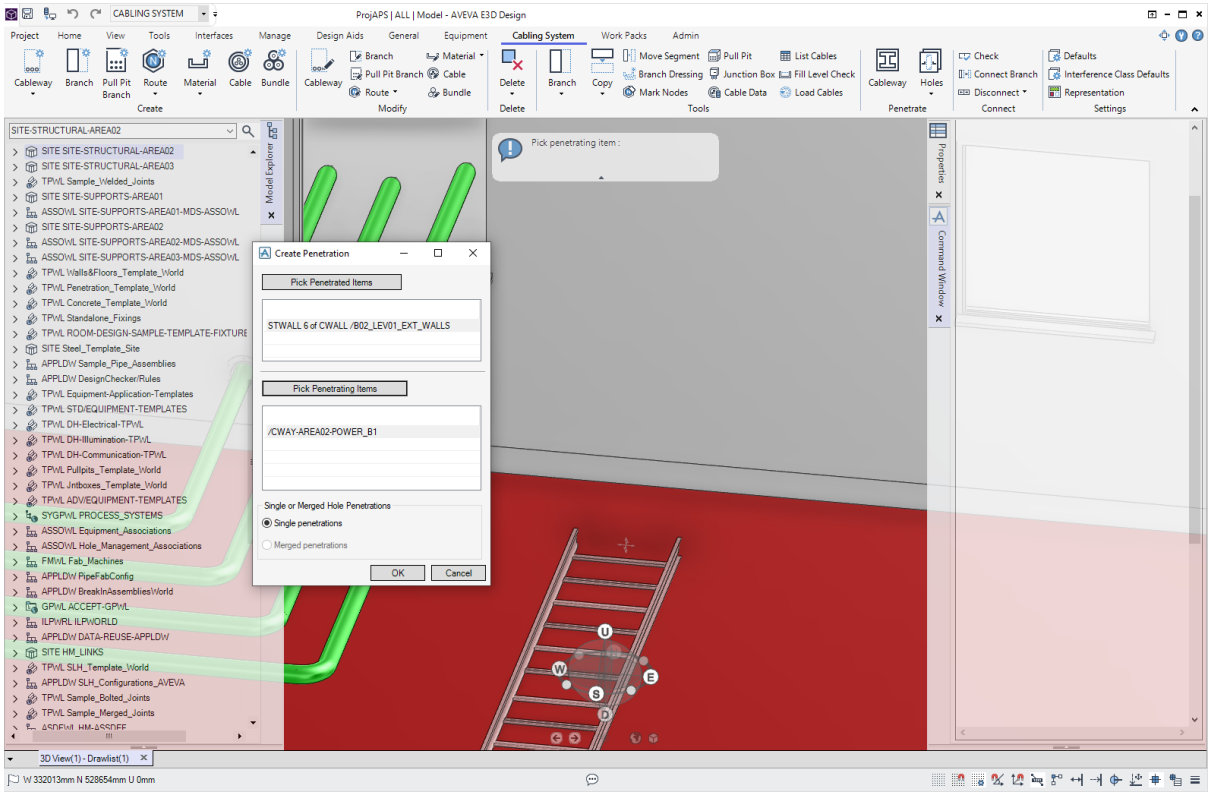
1 Preparation

Add the relevant parts of the 3D model to the drawlist.



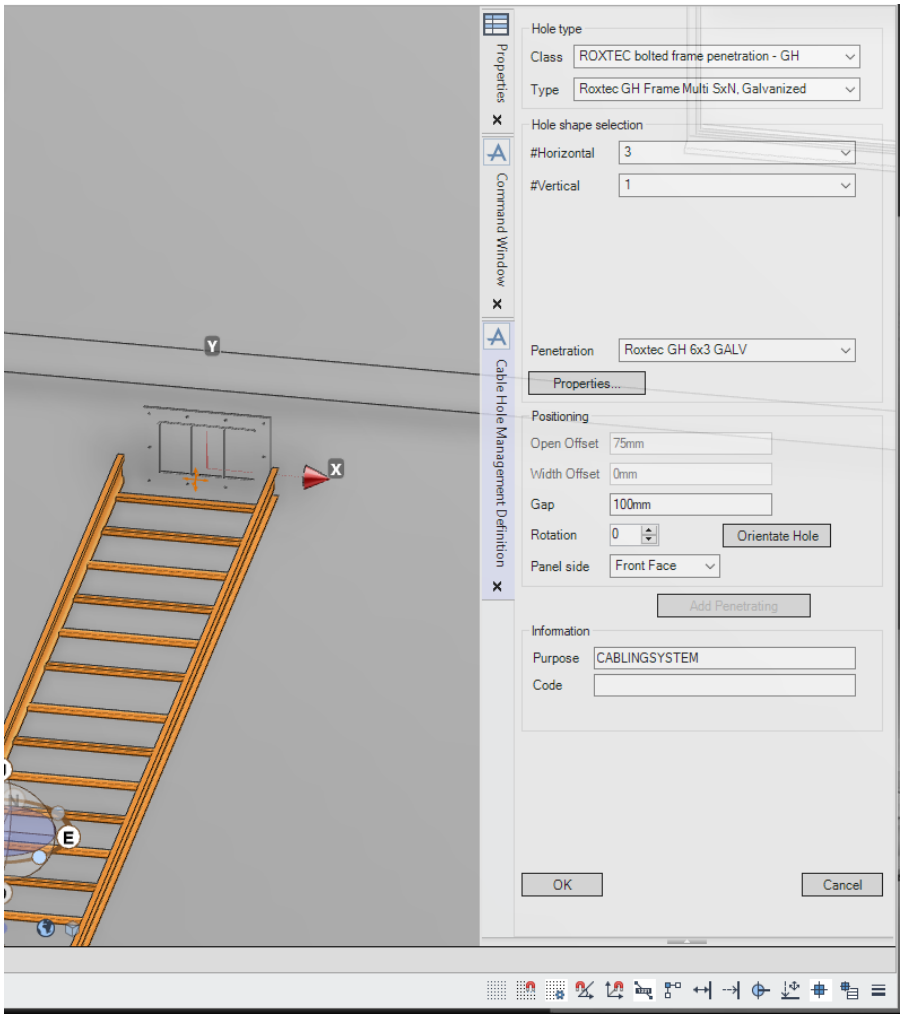
2 Creation of penetrations

Open the “Create penetration” form by clicking ***Cableway*** in the ***Penetrate*** group in the ribbon bar. Add the wall as penetrated item and the relevant cable tray or trays as penetrating elements. Make sure “Penetrations” is selected in the form. Click OK.



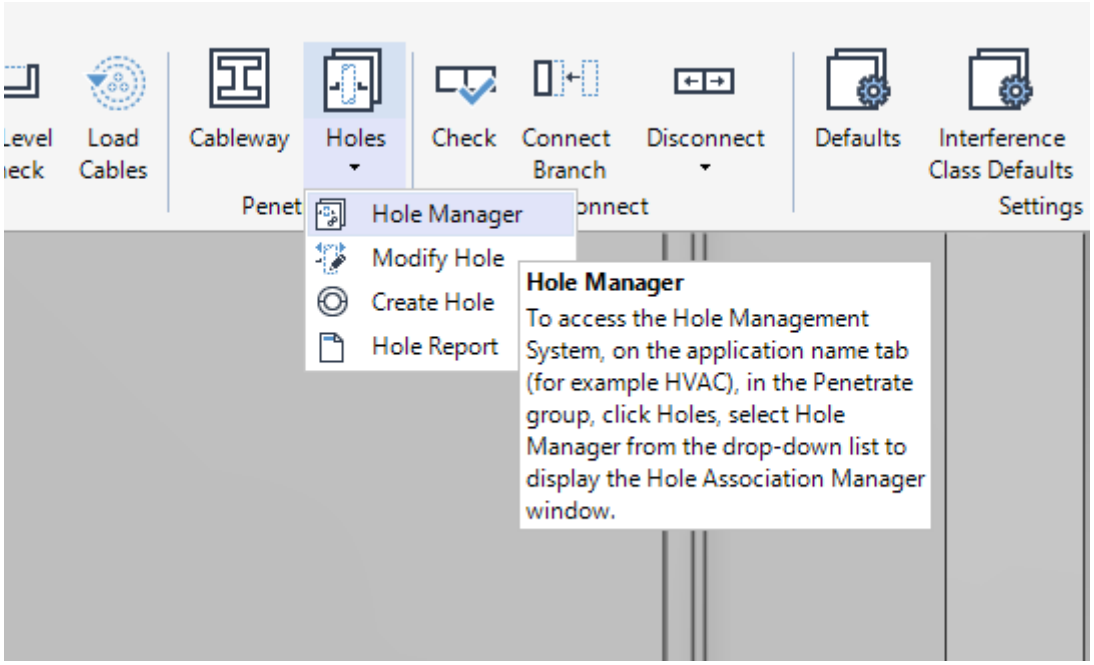
3 Class selection

The form “Hole Management – Definition” will open. In the “Class” drop down gadget all defined Roxtec penetrations are available. Select the relevant one.



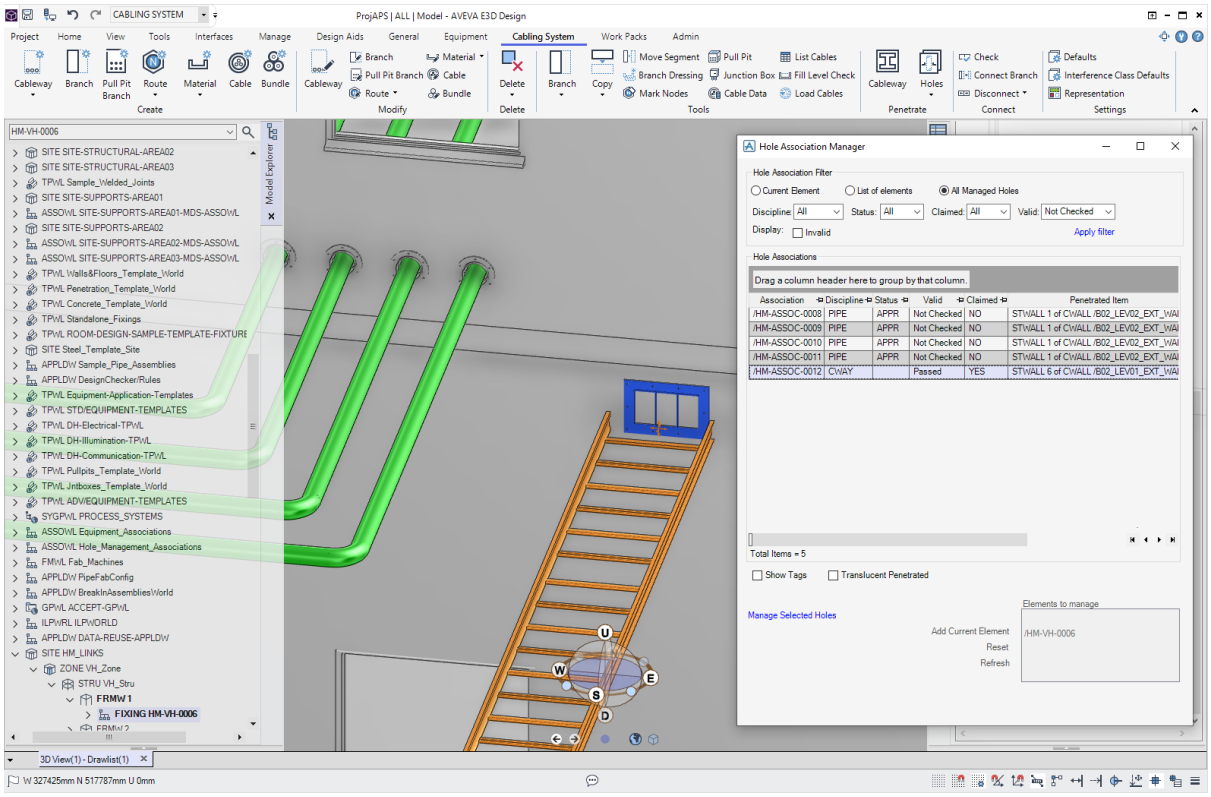
4 Hole manager

Open the Hole Manager application by clicking ***Holes -> Hole Manager*** in the ribbon bar.



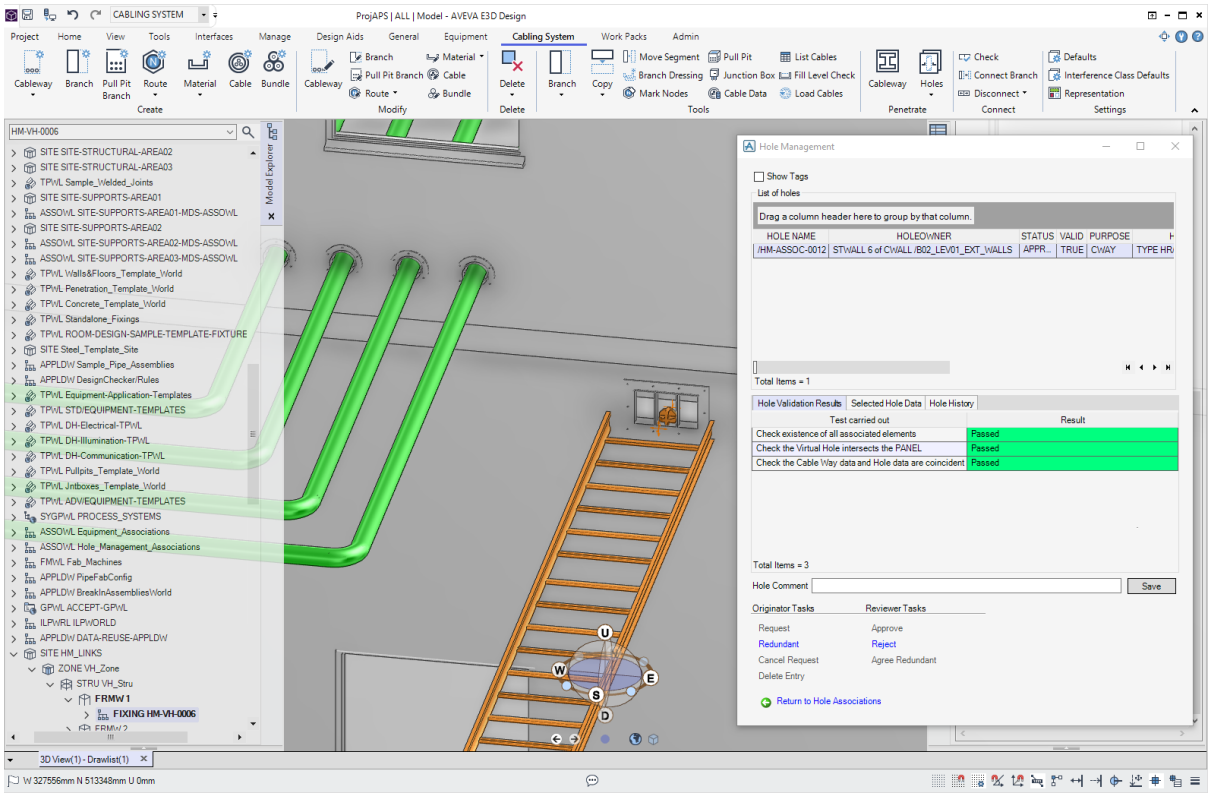
5 Hole association

The Hole Association Manager form will open. Search for the holes, select them and click “Manage selected holes” near the bottom of the form.



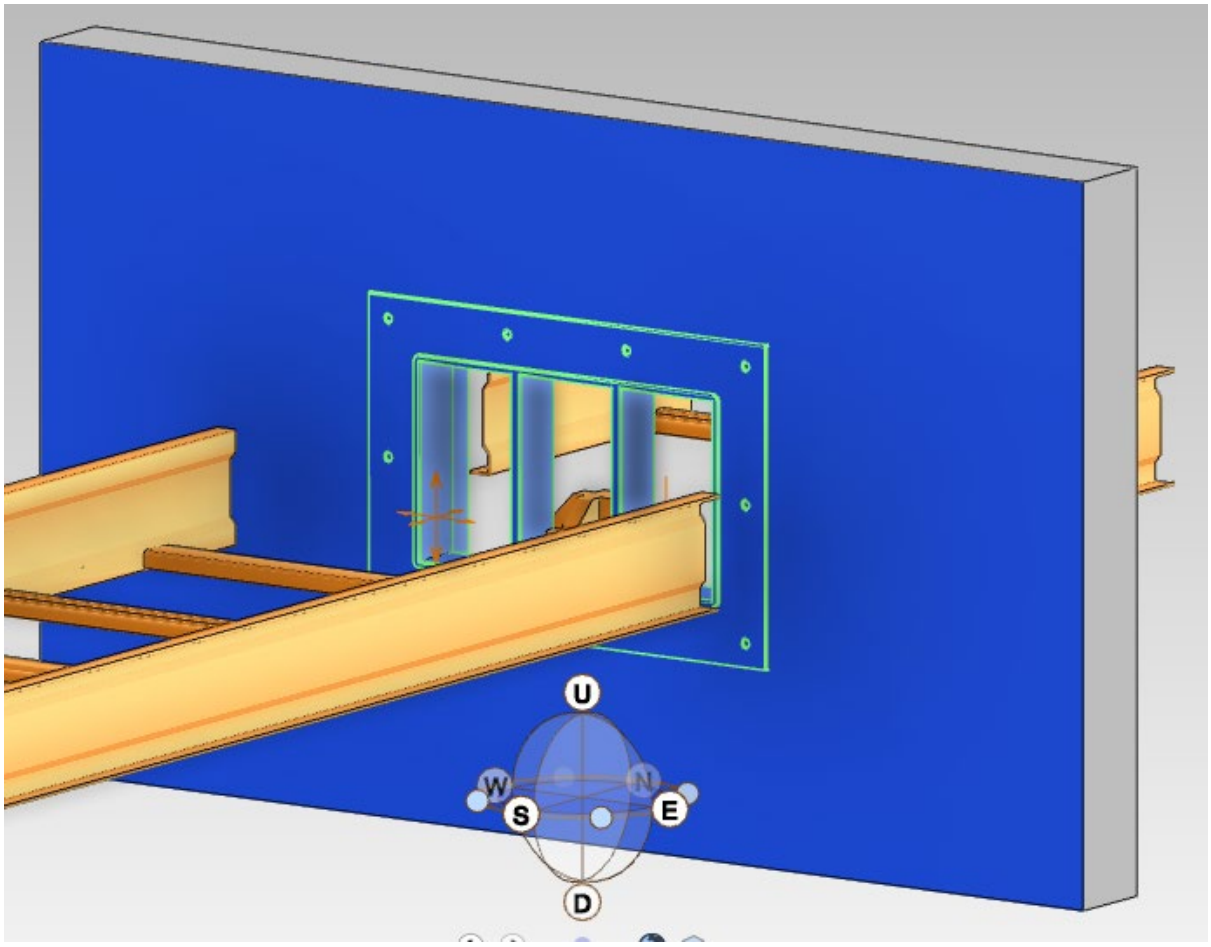
6 Approving the holes

In the Hole Management form, select all holes and, as the relevant user, click “Request”. The link label “Approve” is now activated. Click it, to approve the hole.



7 Completion

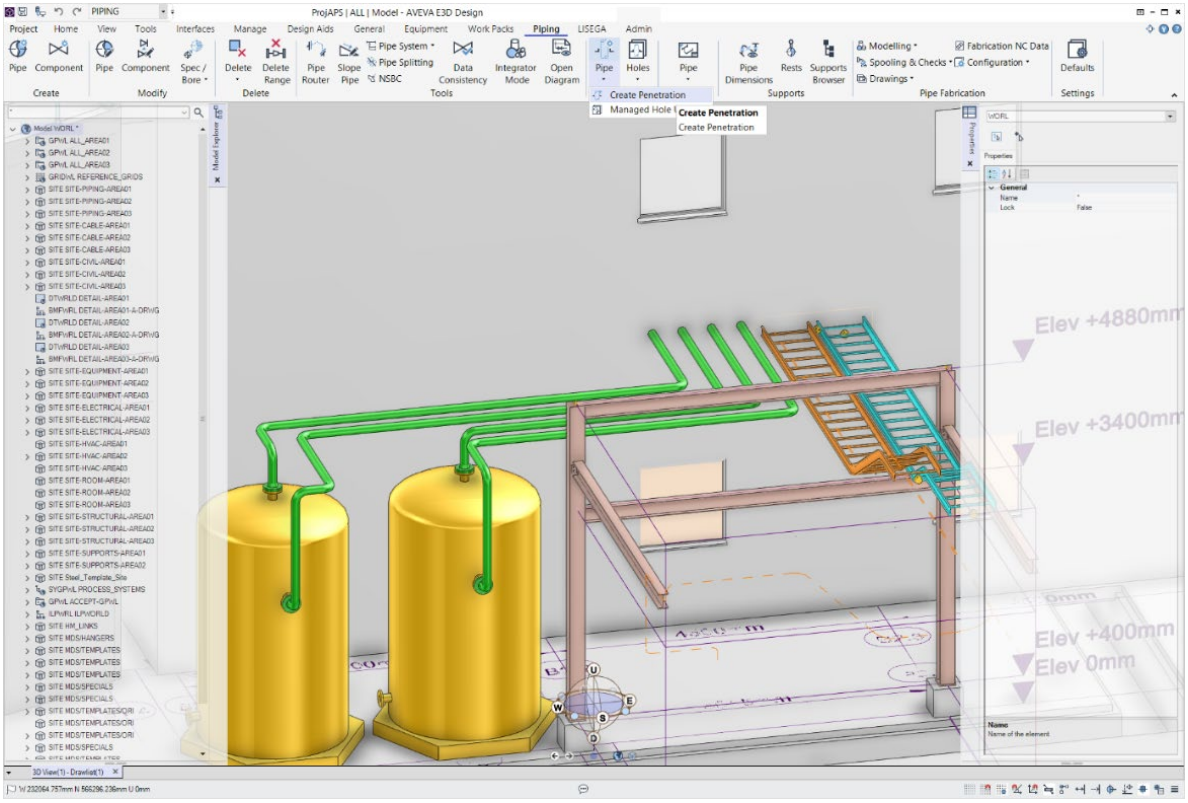
When “Approve” is clicked in the previous step the actual holes are created in the wall. The frame can also be seen graphically in the 3D view. This is also when the actual holes are created in the wall. When penetrations are created and approved within the 3D model the results is as below:



Pipe penetrations

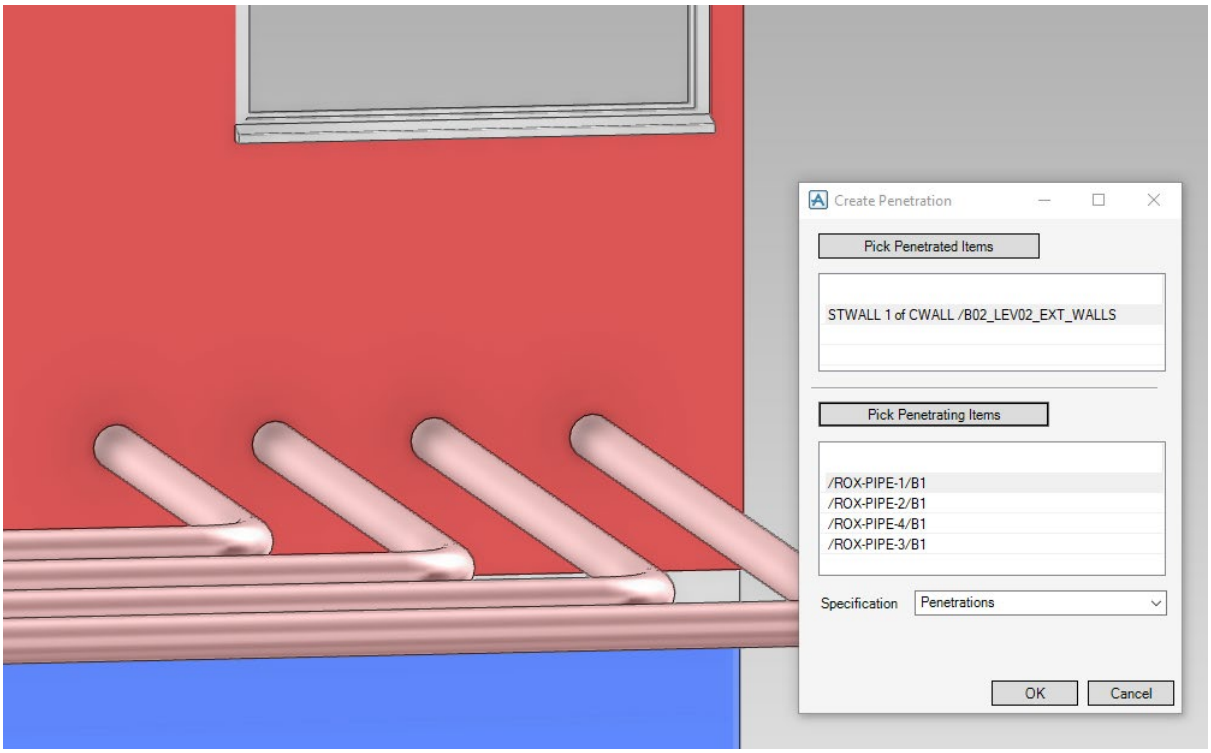
1 Preparation

Add the relevant parts of the 3D model to the drawlist.



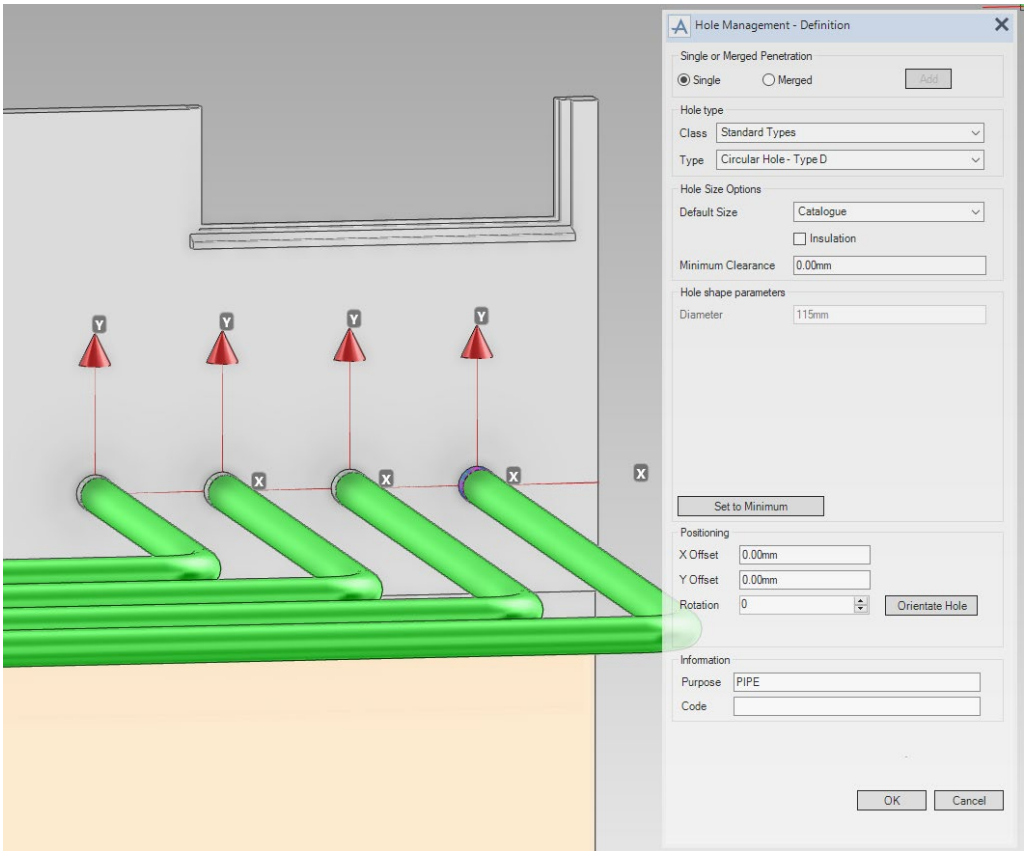
2 Grouping Items

Open the “Create penetration” form by clicking ***Pipe*** -> ***Create Penetration*** in the ***Penetrate*** group in the ribbon bar. Add the wall as penetrated item and the relevant pipe or pipes as penetrating elements. Make sure “Penetrations” is selected in the form. Click OK.



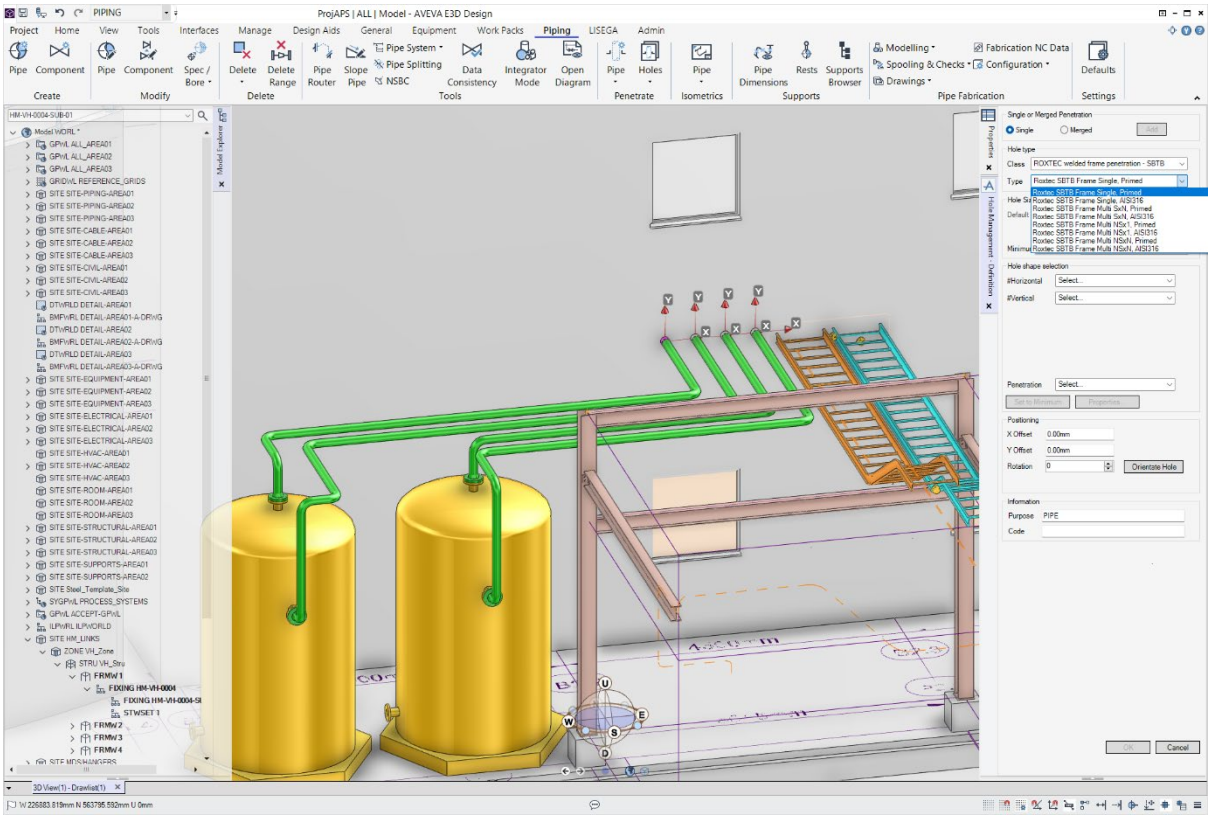
3 Class Selection

The form “Hole Management – Definition” will open. In the “Class” drop down gadget all defined Roxtec penetrations are available. Select the relevant one.



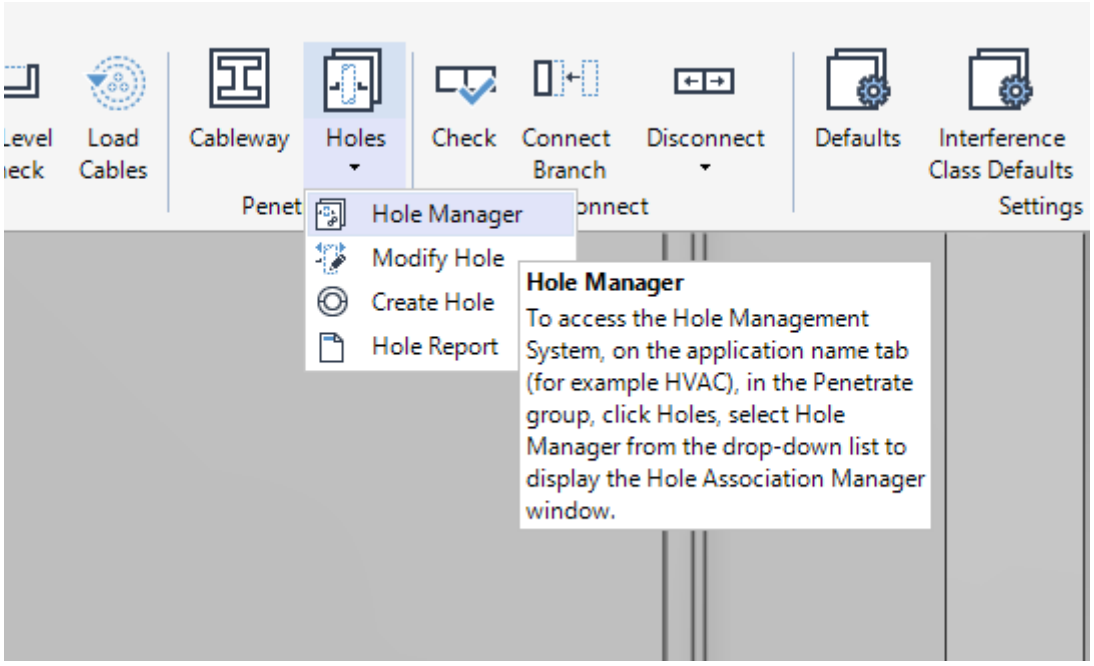
4 Type Selection

When a Roxtec class of penetrations is selected the “Type” drop down gadget will be populated with relevant types.



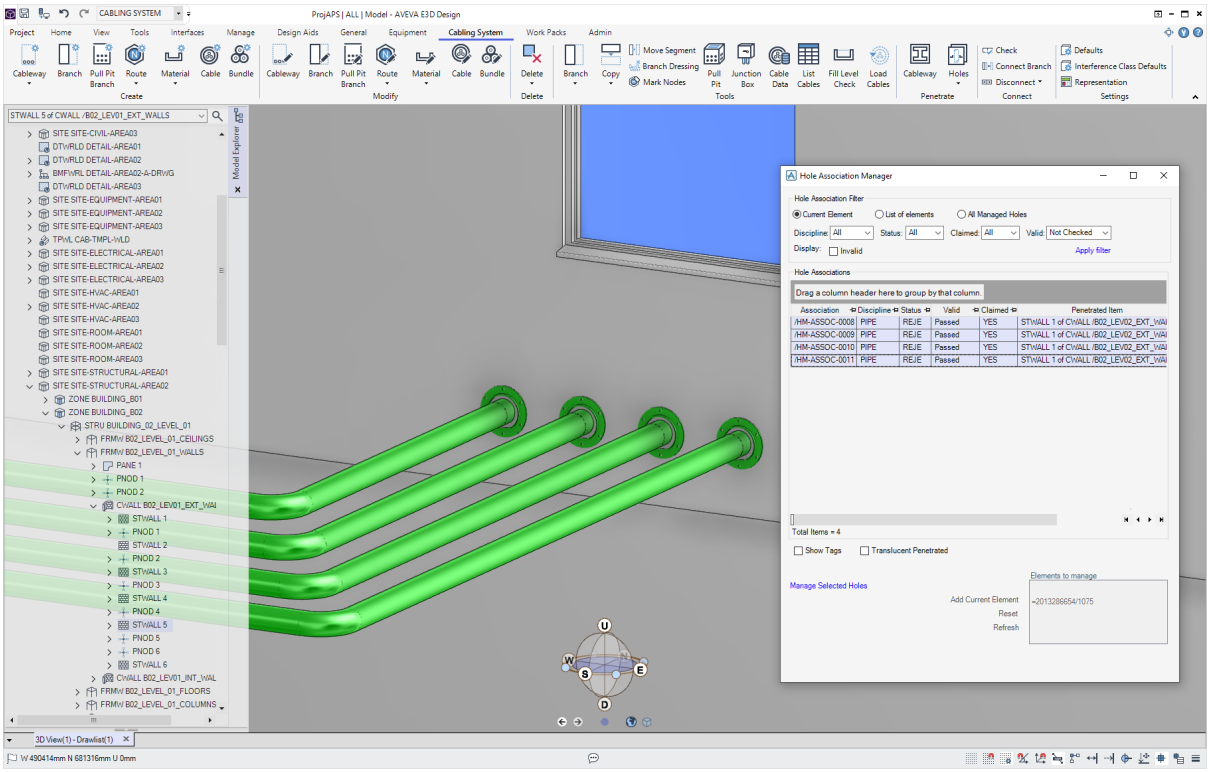
5 Hole Manager

Open the Hole Manager application by clicking ***Holes -> Hole Manager*** in the ribbon bar.



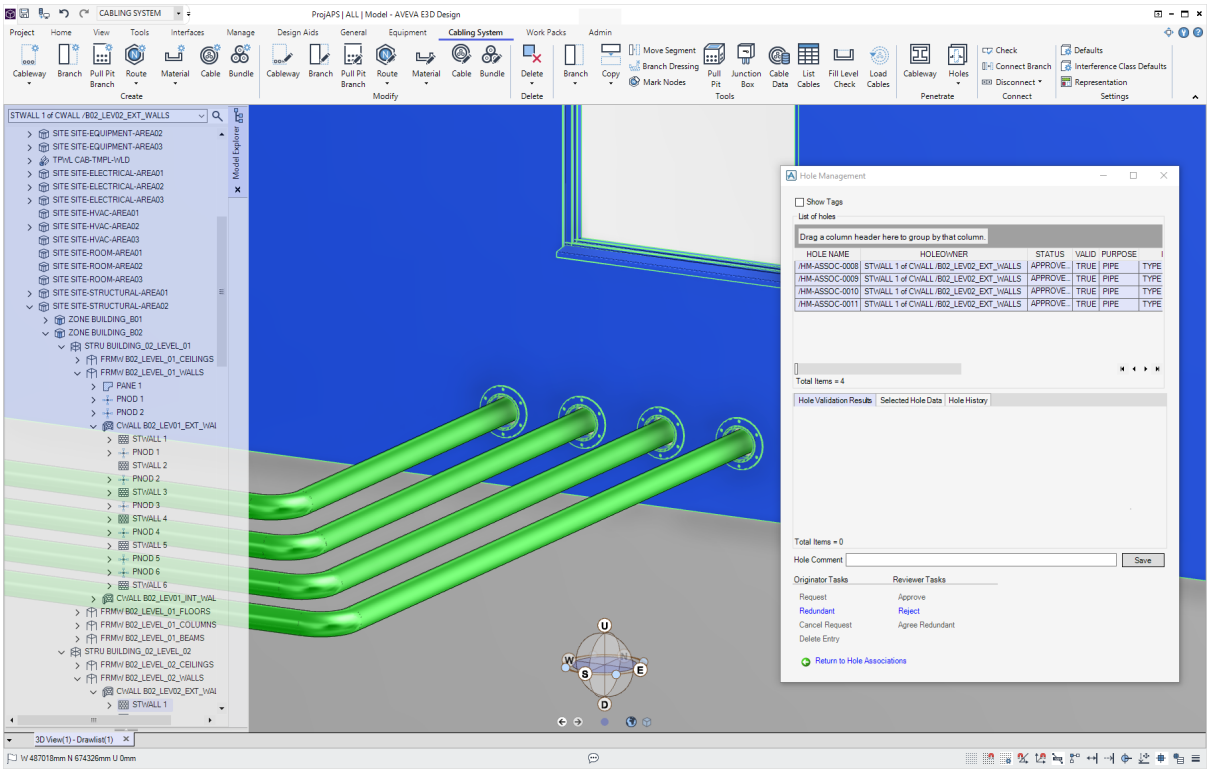
6 Hole Association

The Hole Association Manager form will open. Search for the holes, select them and click “Manage selected holes” near the bottom of the form.



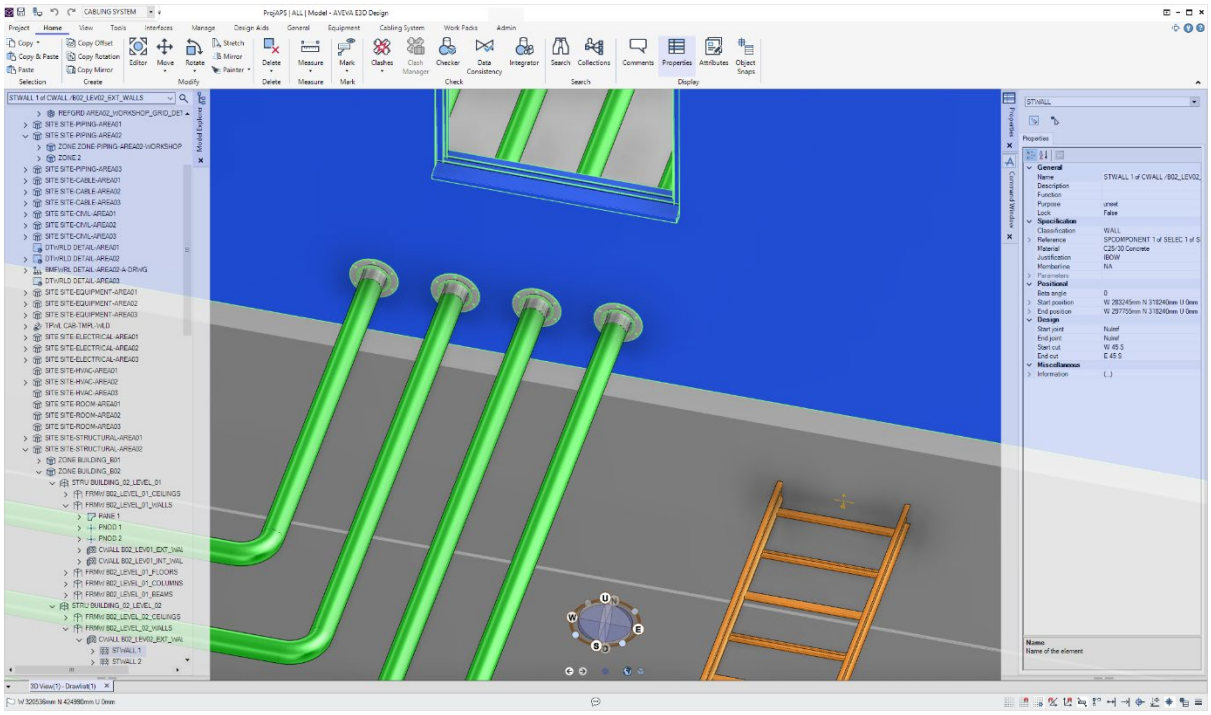
7 Approving the Holes

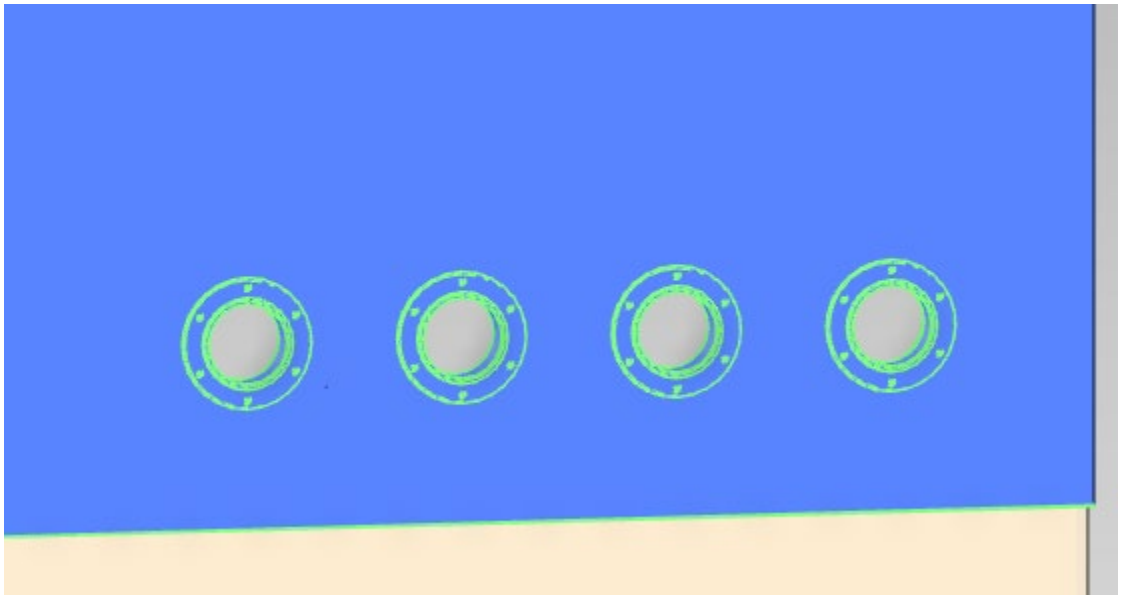
In the Hole Management form, select all holes and, as the relevant user, click “Request”. The link label “Approve” is now activated. Click it to approve the hole.



8 Completion

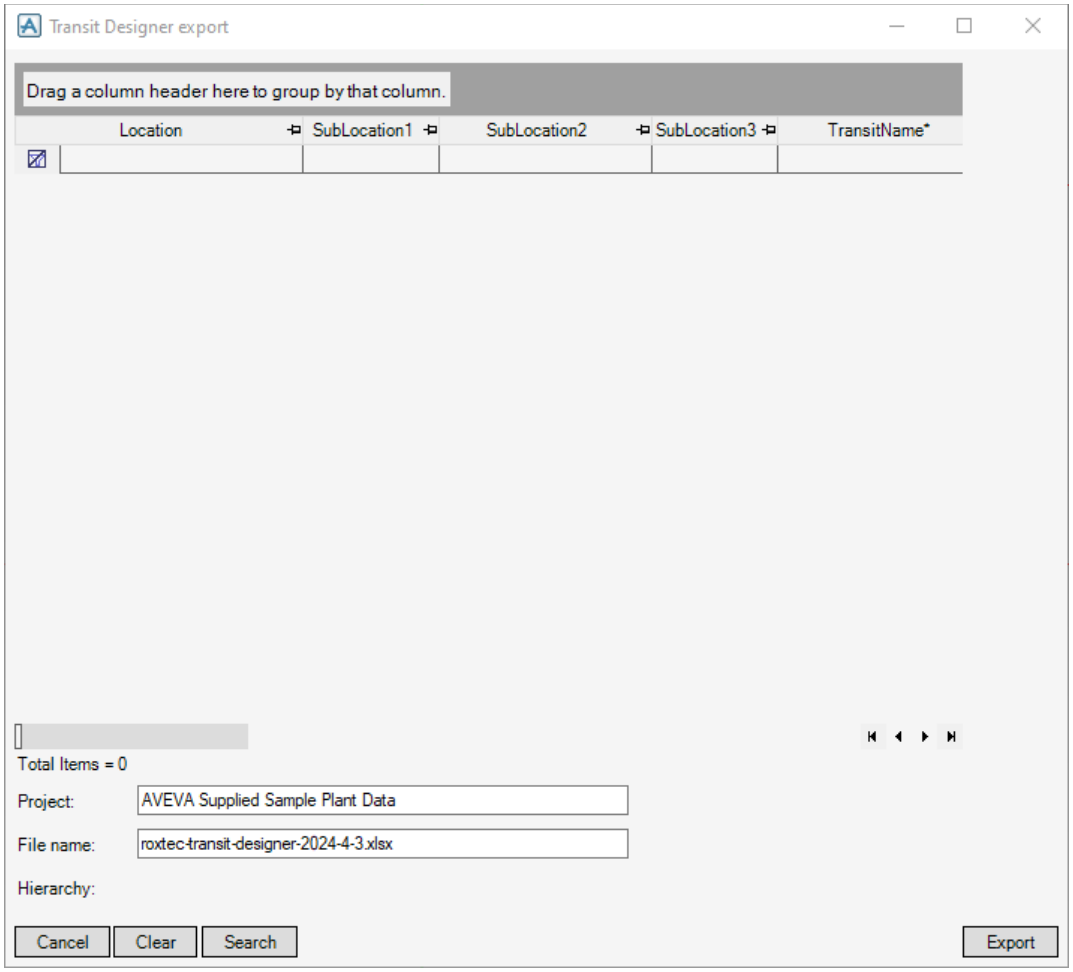
When “Approve” is clicked in the previous step the actual holes are created in the wall. The sleeves can also be seen graphically in the 3D view.





Roxtec Transit Designer export

Roxtec have developed a PML form that allows Aveva E3D Design users to export piping or cable penetrations to a .xlsx file that is compatible with Roxtec Transit Designer.



The form is minimalistic by design and working with it is straight forward; add the penetrations to the grid and click “Export”, and the fixings in the grid will be exported to an .xlsx file.

1 Usage

Add relevant element to the form by clicking the “Search” button. Data for the elements can be changed in the grid, but these changes will not be persisted to the database which means they will have to be done again the next time the form is used.

When the relevant elements are added to the form and any manual changes are made to the grid.

2 Gadgets

The gadgets on the form are described in this chapter.

Grid
The grid shows a list of all relevant penetrations found in the project. The data shown in this grid is also the same data as is exported to Roxtec Transit Designer, so if manual changes are required, they can be done in the grid. Changes made in the grid, however, will not be persisted to the database.

Project text field
The “Project” text field shows the description of the current project. This can be changed.

File name text field
The “File name” text field shows the name of the file where the data will be output. This can be changed.

Cancel button
Clicking the “Cancel” button closes the form without creating an export file.

Clear button
The “Clear” button clears the grid.

Search button
The “Search” button searched the current project for relevant elements. Any found element will be added to the grid. If the current element is of type WORLD then the entire project will be searched, which takes time in a large project. If current element is not a database world then the search will be run for the current element.

Export button
The “Export” button exports the data shown in the grid into a file with the name given in the “File name” text field.

3 Installing the form

To install the form, simply copy the file roxexport.pmlfrm to your pmllib. It can be installed locally or centrally, as long as E3D Design can read the file. After copying the file to the relevant folder, the command "**pml rehash all**" must be issued. The user that runs this command must have write access to any folder in the PMLLIB path, or the command will fail silently.

4 Opening the form

The name of the form is !!roxexport, and it can be opened by typing the following command on the command line:

Show !!roxexport