

ASI JD MacDonald Revit Content Overview & User Guide

This document provides an overview of the ASI JD MacDonald Revit content library. All families in the library have been created natively in Revit, allowing users the ability to design and document a full range of commercial washroom accessories.

Also covered in this document is an overview of the Revit content development methodologies used by IGS BIM Solutions in creating the Revit families, ensuring a consistent, robust and reliable Revit library. Ultimately, the Revit families should require minimal, firm-specific localisation / standardisation to become a highly valuable library of Revit families when commercial washroom accessories are required in a Revit project.

Should you require product options not found within the range of products detailed in this Revit content library, please contact us on 1800 023 441 or via email: enquiry@asijdmacdonald.com.au

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1.0 Family Creation Considerations

ASI JD MacDonald Revit families have been created to a consistent and high standard, with the objective of finding a balance between complexity of use, functionality, documentation output, file size and performance in a Revit project environment. Primary ASI JD MacDonald Revit content creation insights and considerations are listed below:

- Families supplied in Revit 2016 format.
- Native Revit geometry used throughout, including nested families. (E.g. no AutoCAD or SAT files etc.)
- Where appropriate, 3D geometry has been hidden in plan views with Masking Regions and 2D line work applied to ensure documentation consistency and regeneration speed in Plan.
- Loadable families have been created as non-hosted but can be hosted in a face-based template if this type of content is preferred by the end user.
- Consistent family and shared parameters (ANZRS and standard IGS parameters) have been used sparingly, allowing for ASI JD MacDonald attributes to be scheduled in the Revit project environment.
- Additional ANZRS Subcategories have been applied to all geometry and line work. Resulting families provide users the ability to fully customise how the elements document in a Revit project via View Templates and overrides.
- Reference Planes have been applied, named, tidied and set to the correct 'Is Reference'. Thought has been given to the likely end user requirements in placement / alignment and dimensioning of the families. The Origin Point has also been applied accordingly.
- Detail Level settings applied to 2D line work and 3D geometry improving model performance.
- All Warnings have been reviewed and removed where possible.
- Families have been fully Purged and all additional Materials, Line Patterns and Fill Patterns removed.
- Logical and consistent Type naming has been applied across all families.
- OmniClass Classification has been set appropriately.
- The family file sizes have been optimised to be relatively small when the family's overall capabilities are considered ensuring large Revit projects are not burdened by ASI JD MacDonald families.

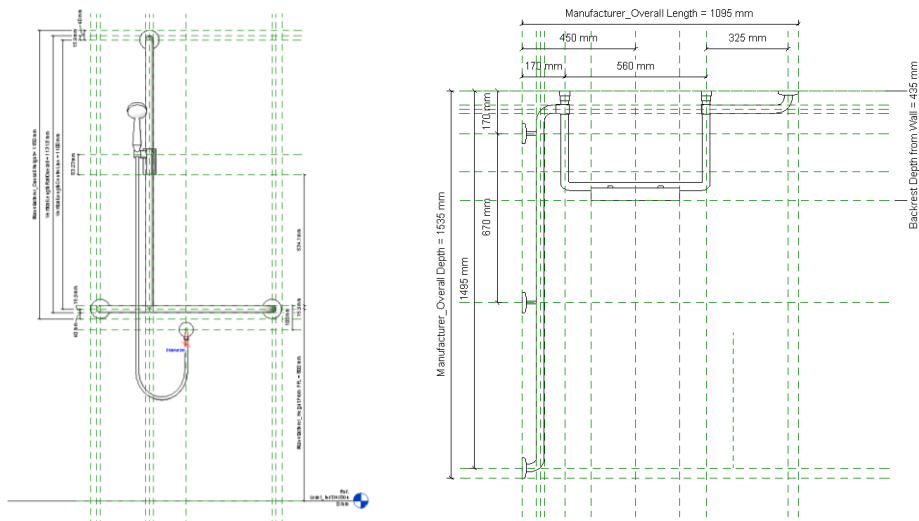
2.0 ASI JD MacDonald Revit Content Insights

2.1 Disability Compliance

The requirements for showing compliance with Section 15, 16 & 17 of AS1428.1 have been considered during the creation of the ASI JD MacDonald Revit Content Library. This has been achieved through inclusion of Reference Planes and Reference Lines for compliance dimensioning. The default “Height from FFL” parameter is set at the compliant height.

2.1.1 Grabrails & Backrests

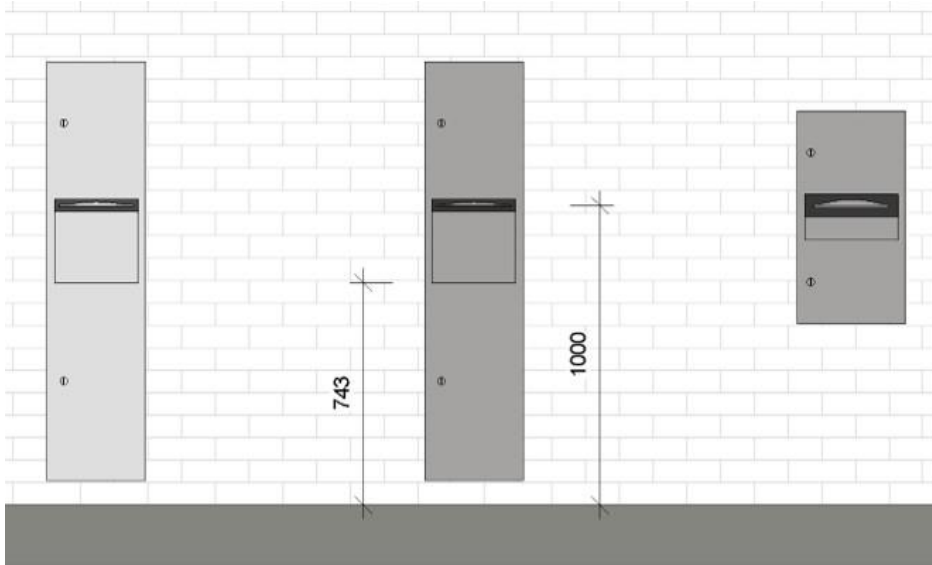
Reference Planes have been included in families where compliance dimensions are required in construction documentation.



For Toilet Backrest compliance, the “Backrest Depth From Wall” instance parameter is available to align with a variety of Toilet sizes. For compliance, this should align within 50mm the Toilet Seat Bolt Holes (Fig 39, Section 15.2.4, AS1428.1-2009).

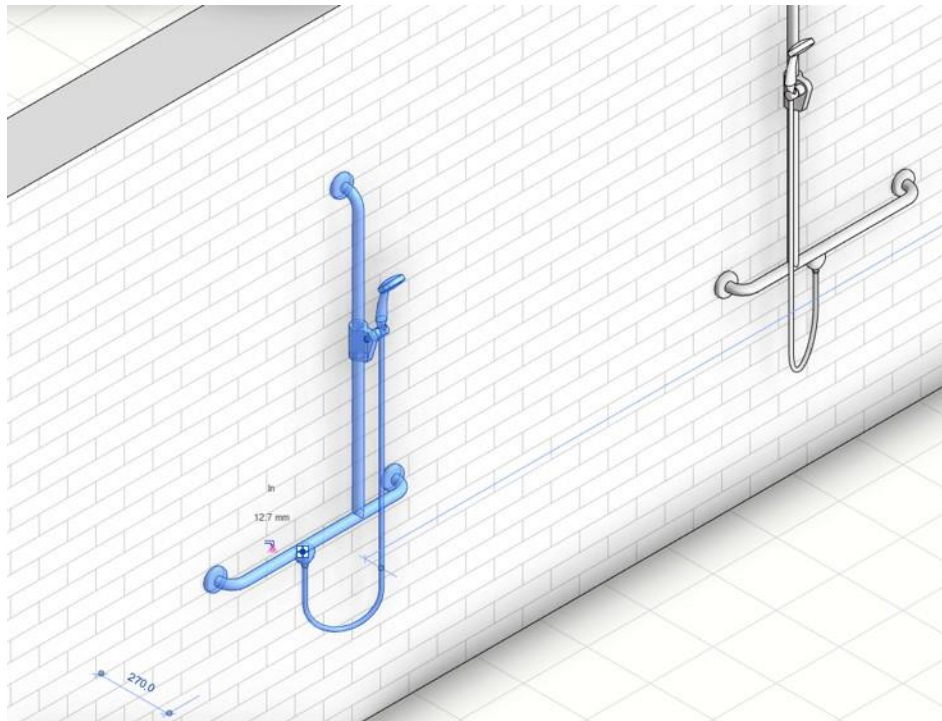
2.1.2 Other Accessible Washroom Fixtures & Fittings

Reference Planes have been included in families such as Mirrors, Shelves, Soap Dispensers, Towel Dispensers, Combination Units, Shower Seats and Clothes Hooks where compliance dimensions will be required.



2.2 Plumbing Connectors

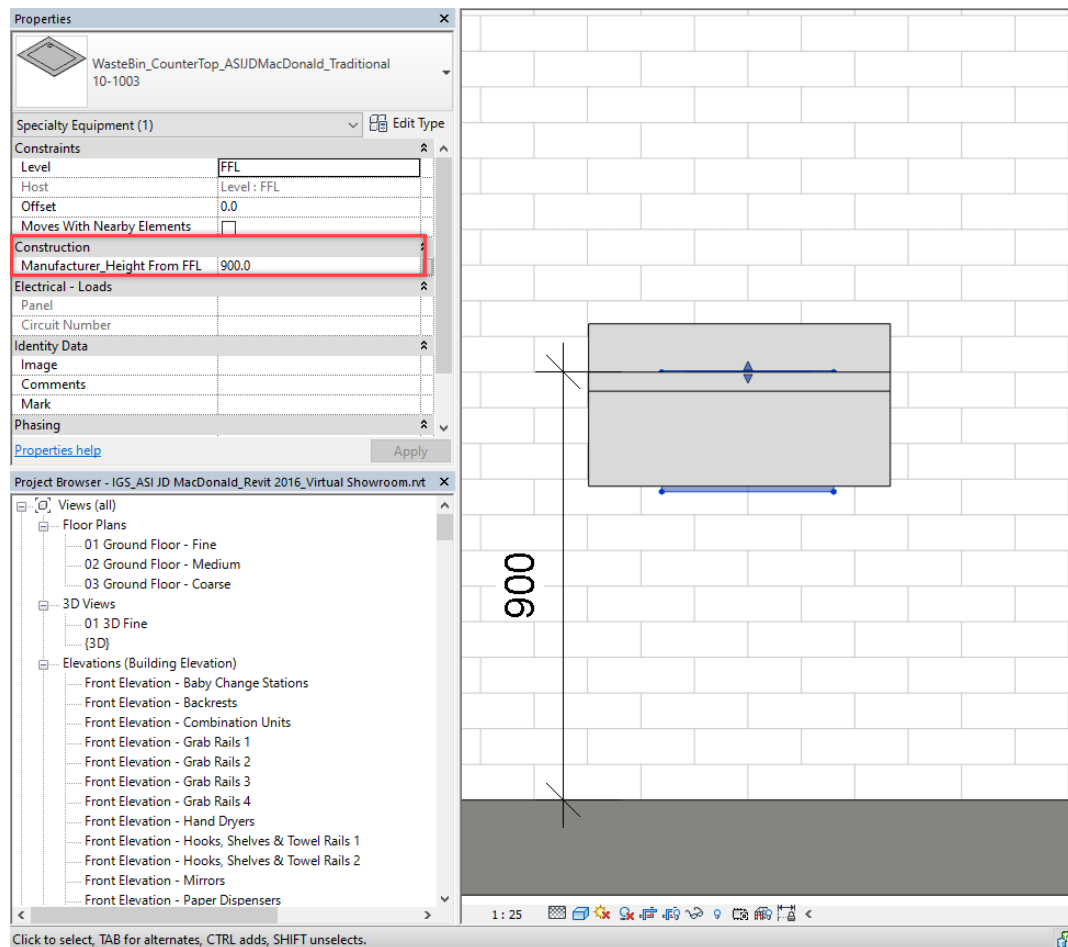
Where applicable, families contain correctly sized plumbing connections for inlets, positioned correctly on the family geometry.



2.3 Default Mounting Heights

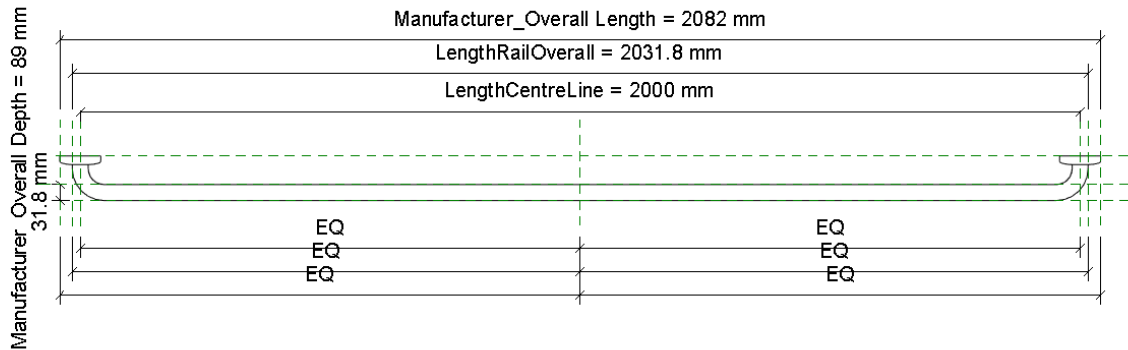
All families have a default mounting height applied. This means families will be inserted into projects at a standard height from FFL, rather than inserting at FFL. This is a shared parameter meaning it can be scheduled. The parameter “Manufacturer_Height From FFL” is instance-based and can be changed as required in the Revit project. The default mounting height for each product category is listed below:

- i. Bench-Mounted Objects: set to 900mm from Floor
- ii. Ambulant and Accessible Elements: comply with AS1428.1 requirements by default.
- iii. Floor-Mounted Elements: set to insert at floor level



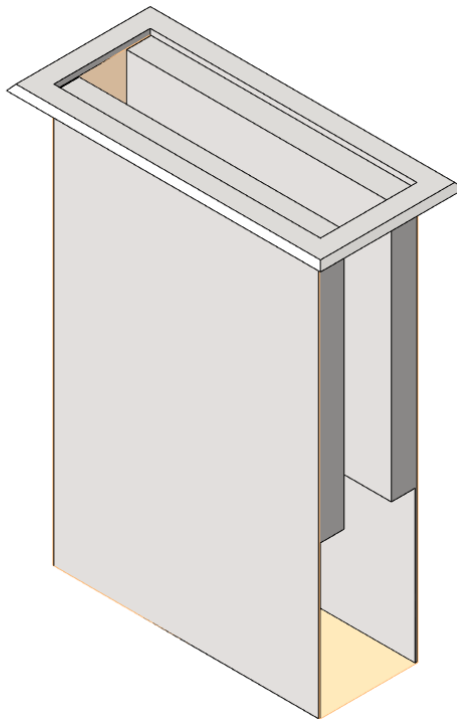
2.4 Parametric Families

Where a product size is to be specified at time of order, the family contains Instance-Based or Type-Based Parameters which adjust the geometry size according to and incorporating applicable product constraints.



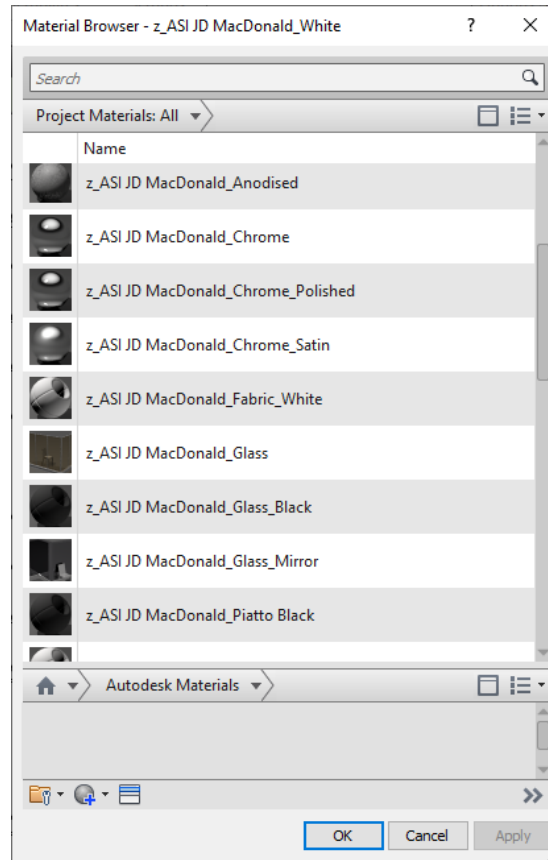
2.5 Voids

Voids have been included in the content where a product is recessed or to be placed in a benchtop cut-out. This allows the user to easily “Cut” model elements with the cut tool.



2.6 Basic Materials Library

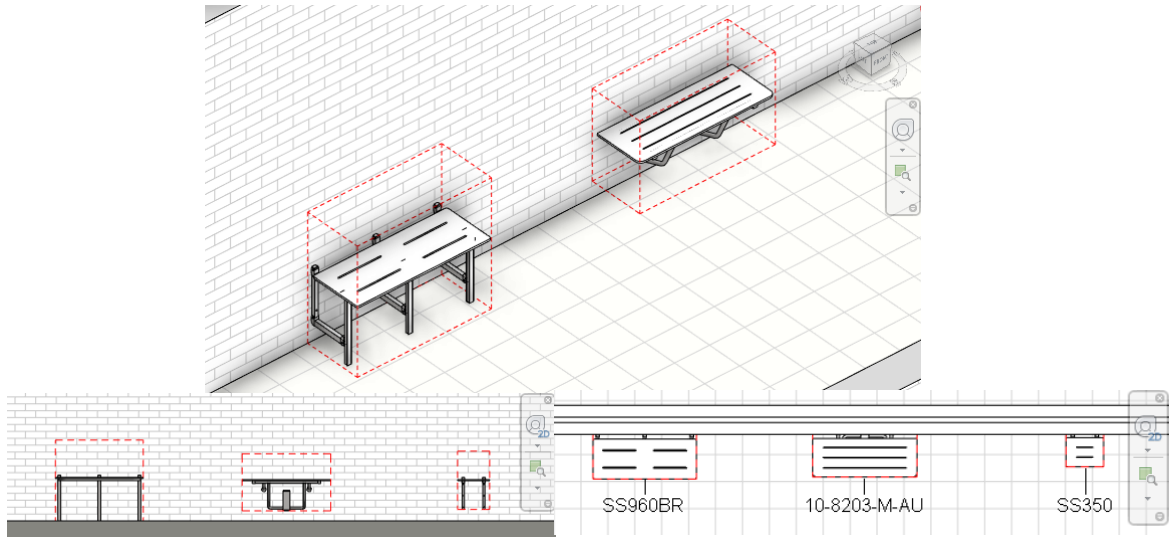
Basic, non-intrusive materials have been included in the Revit library. Materials are named with the prefix of 'z_' so they sit at the bottom of your materials library. All unused material assets have been deleted from the families, in addition to purging out all material assets where possible.



2.7 Clearance Zones

Clearance zones are a major design consideration. Where required, a clearance zone is included in the family in both 3D and 2D. These clearance zones have been set to a specific Subcategory of 'Required Space' and can be turned off en masse via View Templates.

Note. Always access the most up-to-date product information and guidance via the product-specific URL's present in each family.

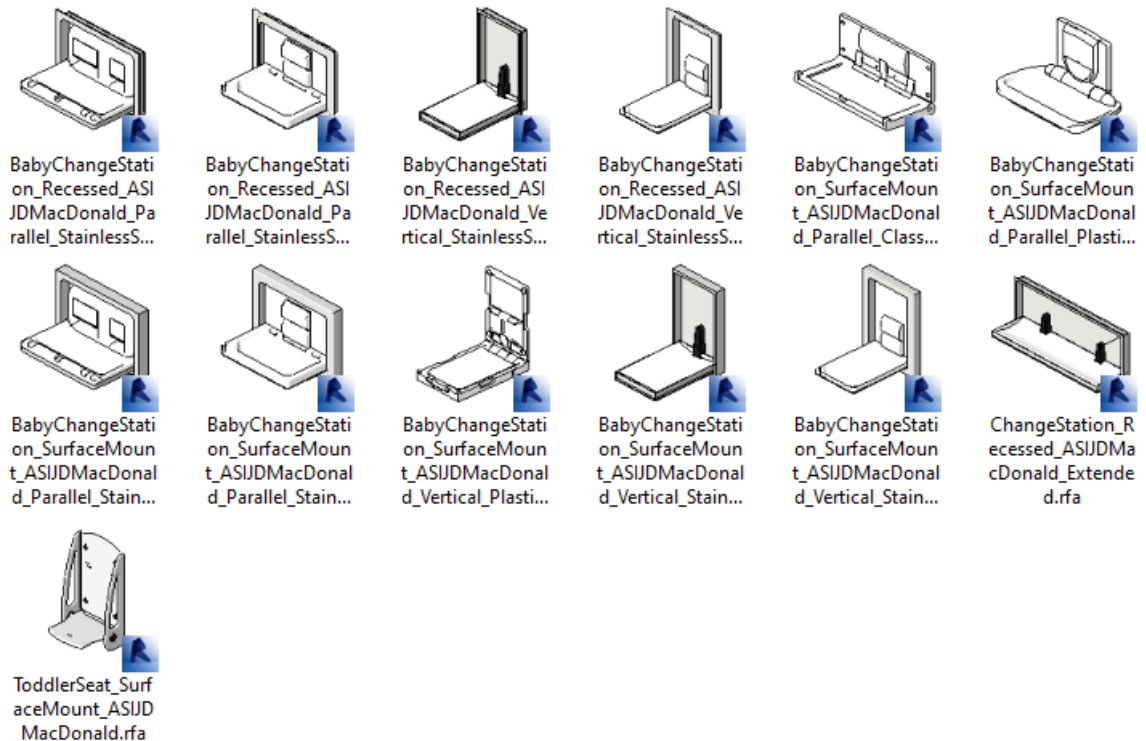


3.0 Library Overview

The ASI JD MacDonald Revit Content library is comprised of 14 product ranges incorporating 228 Families that are capable of representing 443 products. The metrics of the Revit library and intended use of each component are listed below:

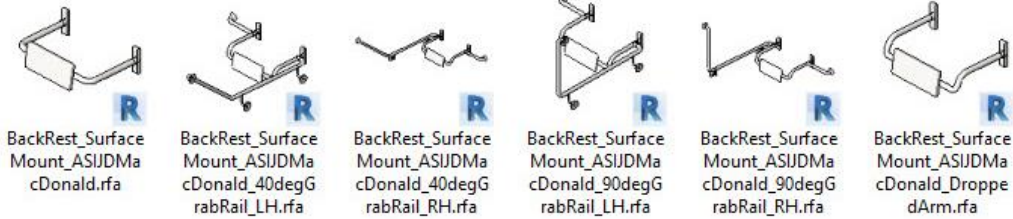
3.1 Baby Change Stations

13 x baby change station families have been included. Where applicable these include a void to cut the relevant wall element.



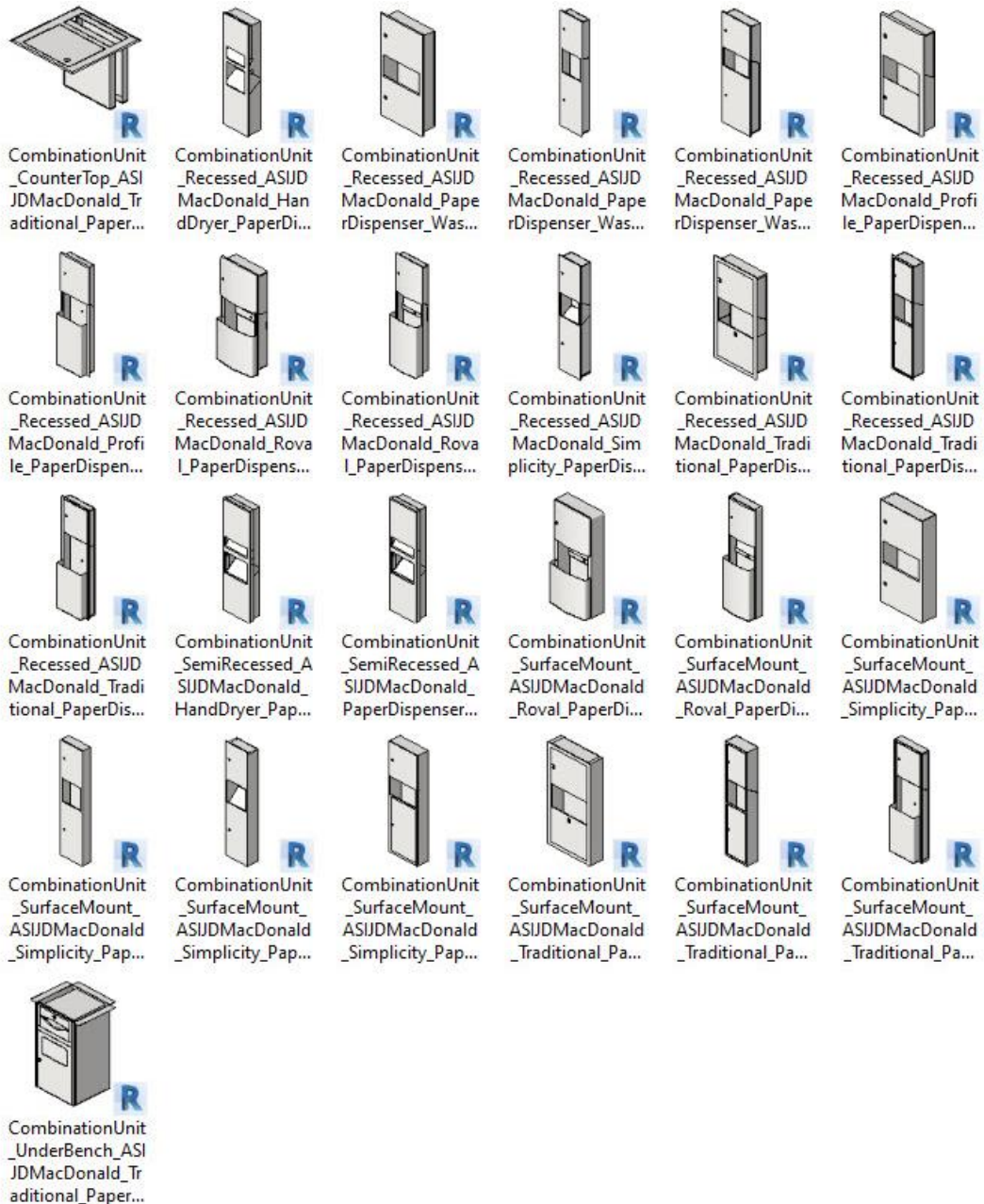
3.2 Backrests

6 x backrest families have been included.



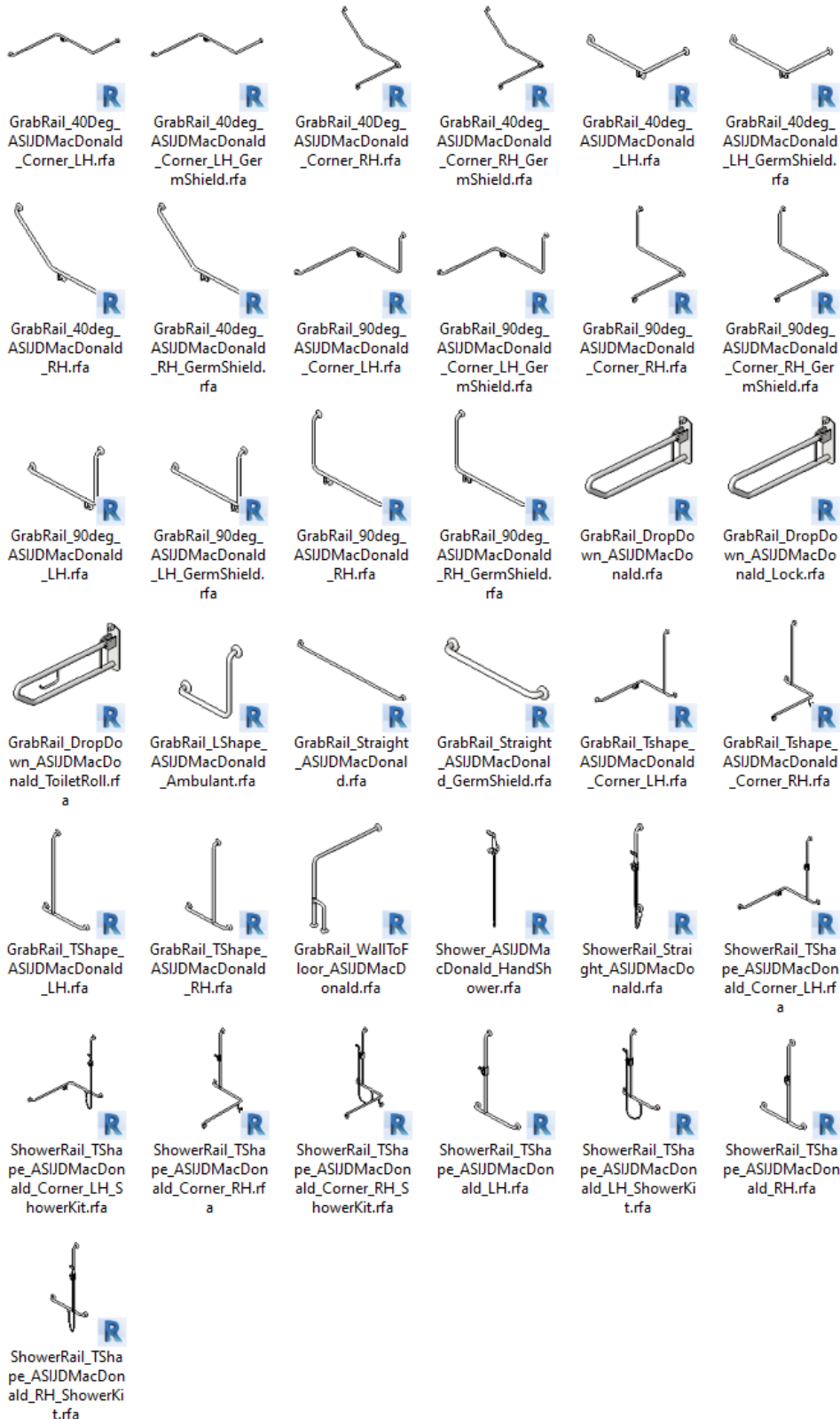
3.3 Combination Units

25 x combination unit families have been included. Where applicable these include a void to cut the relevant wall or casework element.



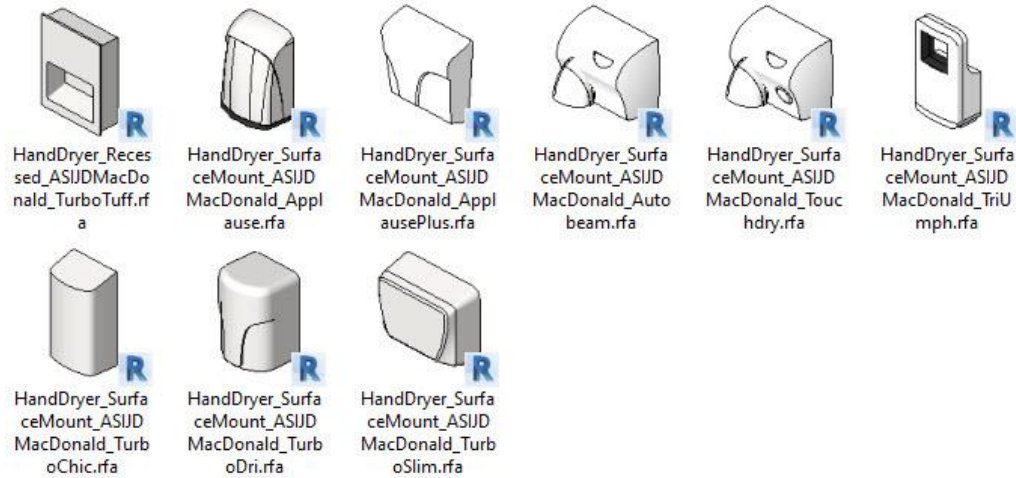
3.4 Grab Rails

37 x grab rail families have been included.



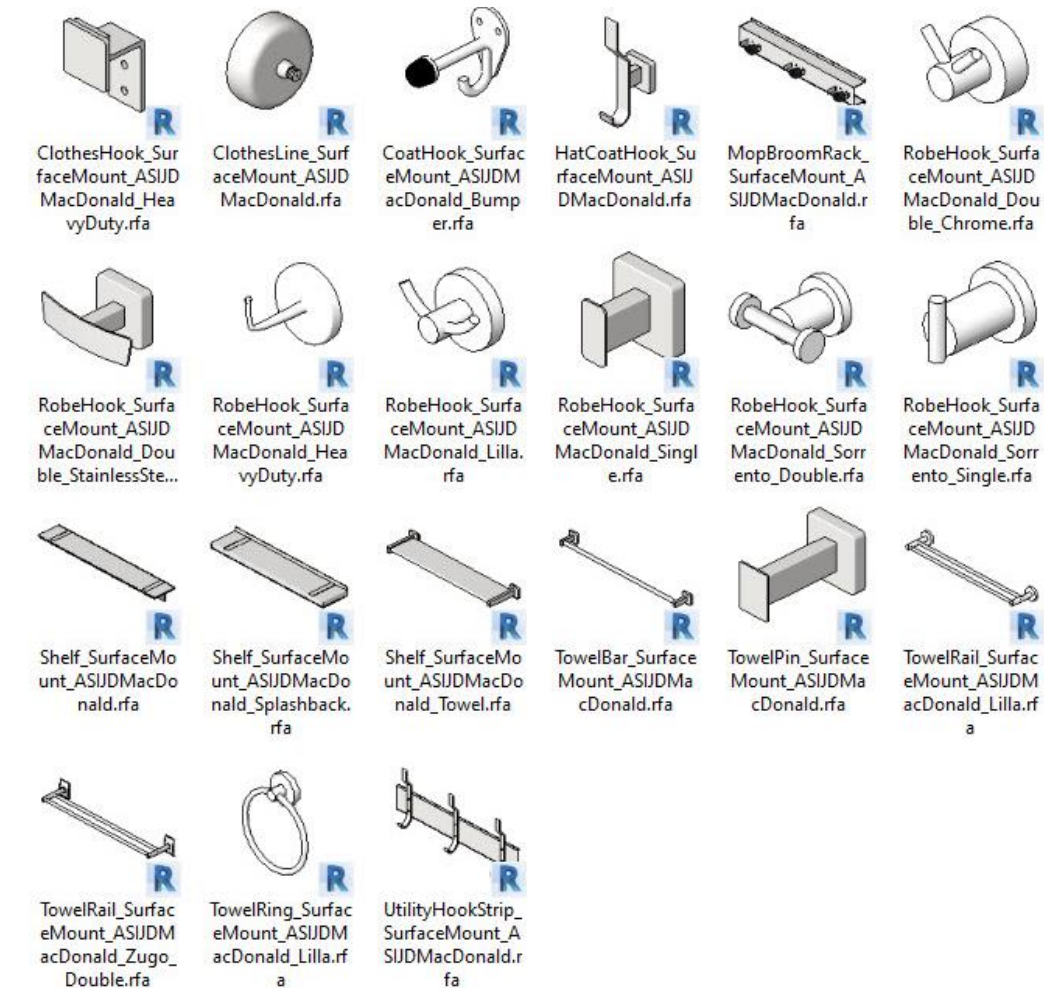
3.5 Hand Dryers

9 x hand dryer families have been included. Where applicable these include a void to cut the relevant wall element.



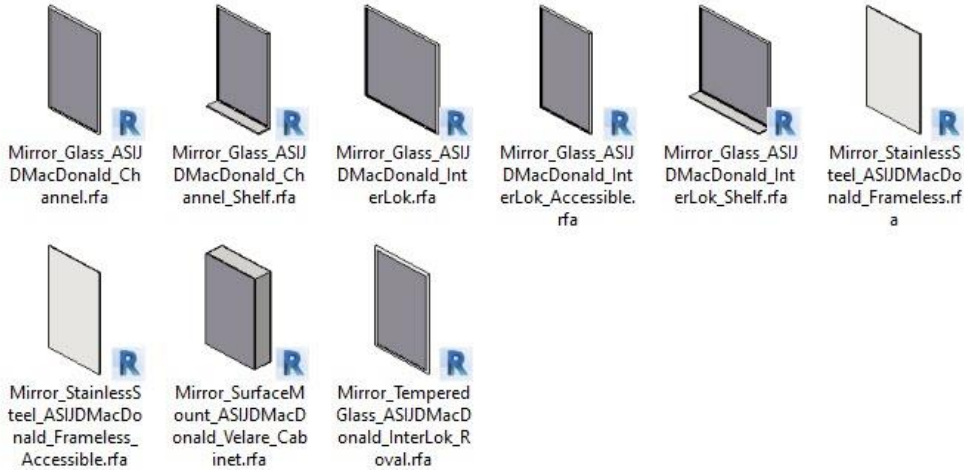
3.6 Hooks, Shelves & Towel Rails

21 x hook, shelf and towel rail families have been included.



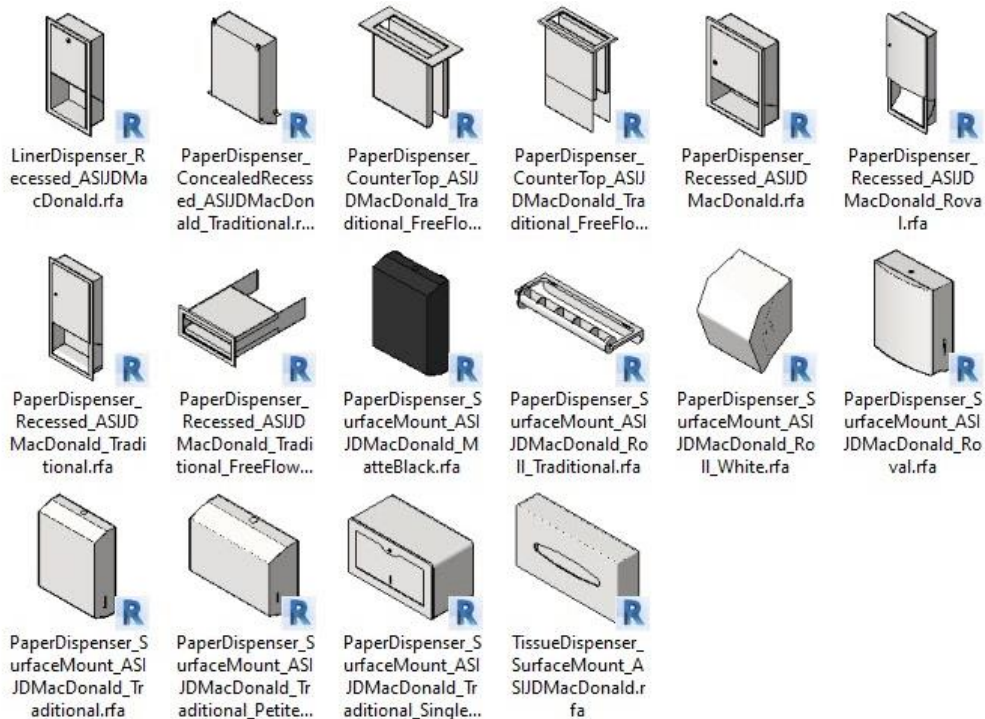
3.7 Mirrors

9 x mirror families have been included.



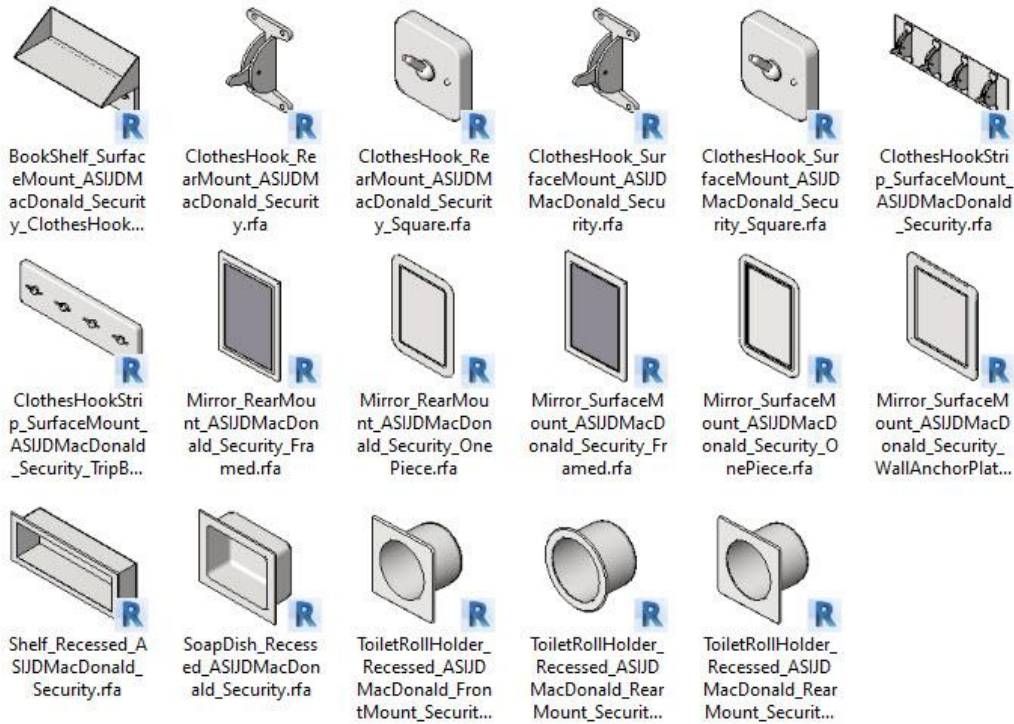
3.8 Paper Dispensers

16 x paper dispenser families have been included. Where applicable these include a void to cut the relevant wall or casework element.



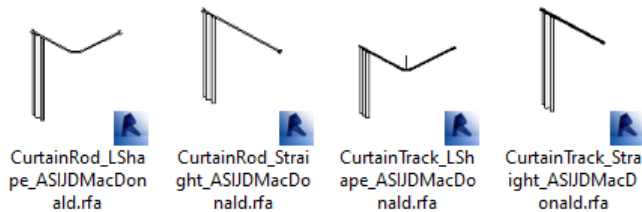
3.9 Security Fixtures

17 x security fixture families have been included. Where applicable these include a void to cut the relevant wall element.



3.10 Shower Curtains

4 x shower curtains families have been included.



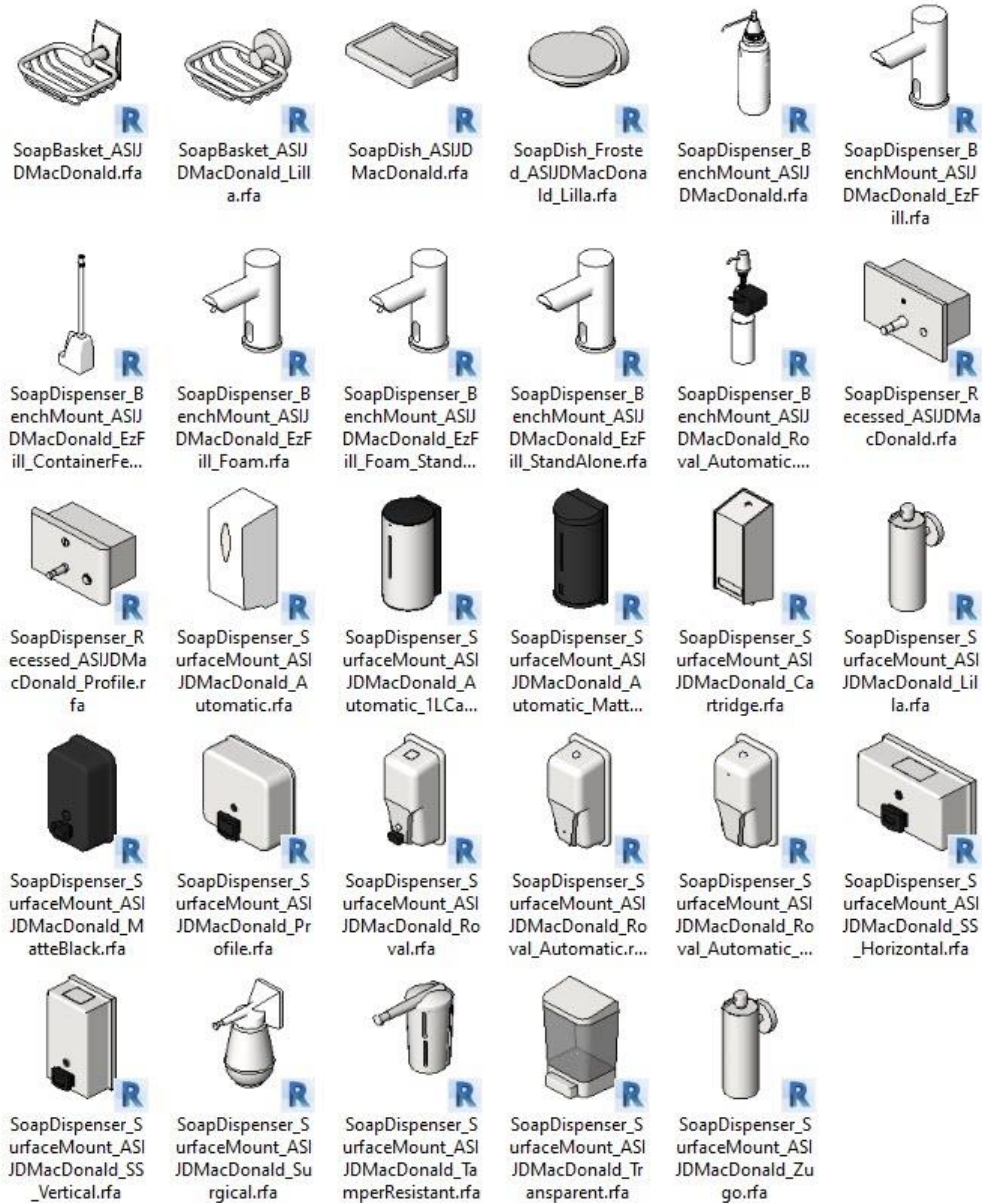
3.11 Shower Seats

6 x shower seats families have been included.



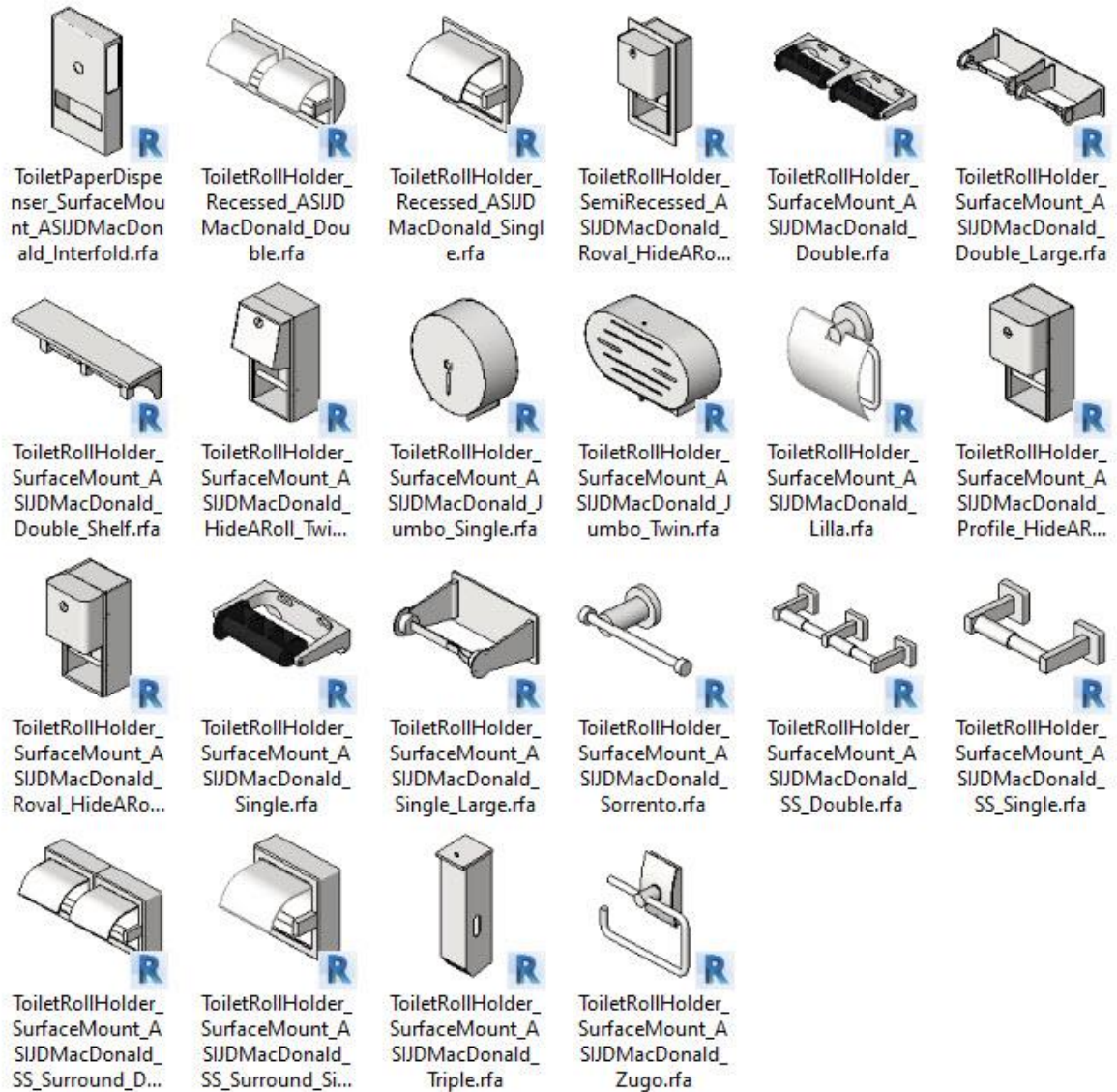
3.12 Soap Dispensers

29 x soap dispenser families have been included. Where applicable these include a void to cut the relevant wall element.



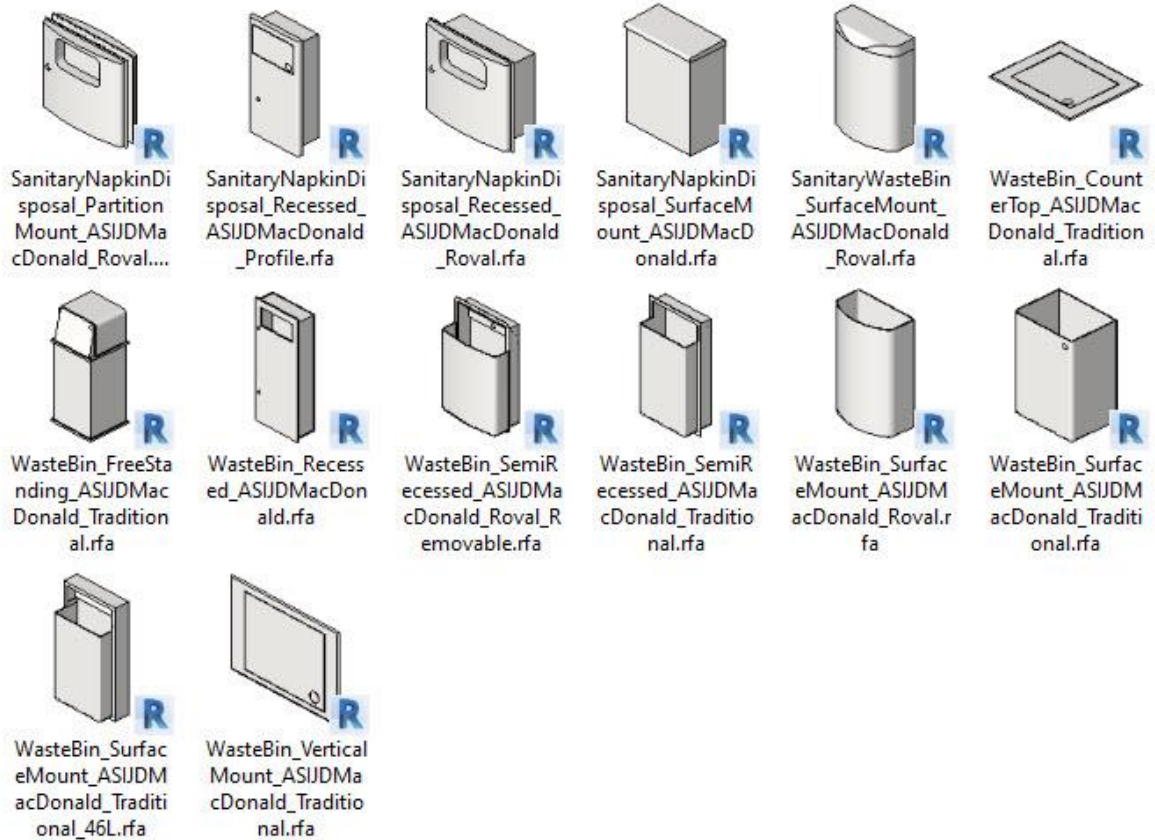
3.13 Toilet Paper Dispensers

22 x toilet paper dispenser families have been included. Where applicable these include a void to cut the relevant wall element.



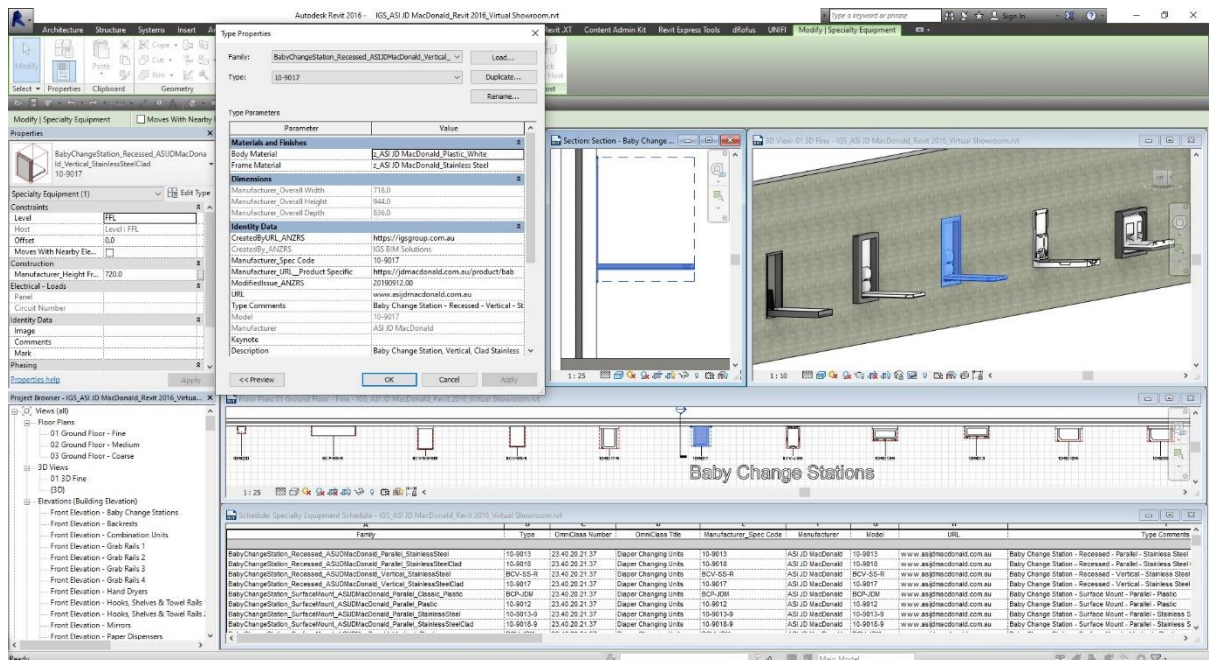
3.14 Waste Bins

14 x waste bin families have been included. Where applicable these include a void to cut the relevant wall or casework element.



3.15 Virtual Showroom / QA Project File

A pre-formatted sample Revit project has been created that contains all families and types laid out side by side. This project contains sample Floor Plans, Elevations, Sections, 3D perspectives and a preconfigured Schedule allowing Revit users to quickly assess the families' performance and documentation capabilities in a project environment. These Revit assets can be 'Copied & Pasted' into another Revit project as an alternative workflow to loading the separate families into your project.



4.0 Closing Statement

The overarching goal in creating this ASI JD MacDonald Revit content library is to increase the ease in which Revit users are able to design, document and specify ASI JD MacDonald products within the Revit environment. ASI JD MacDonald is committed to the continued maintenance and development of this Revit content library as the industry and BIM workflows evolve over time.

We welcome your feedback and insights to ensure we can continue to accommodate your Revit content requirements.