



Companion

QARC Companion Disclaimer

This Companion is provided to each Customer, as per the License Agreement with QARC Systems Pty Ltd.

Errors and Omissions Excepted.

QARC Systems Pty Ltd makes every reasonable effort to ensure the accuracy and validity of the information provided in this Companion and does not make any representations, warranties or guarantees express or implied, as to the accuracy or completeness of the Companion. As Revit and techniques for Revit are continually changing, Users must be aware that updates and amendments will be made from time to time to the Companion. It is the user's responsibility to determine whether there have been any such updates or amendments. Neither QARC Systems Pty Ltd nor any of its directors, officers, employees, or agents shall be liable in contract, tort or in any other manner whatsoever to any person for any loss, damage, injury, liability, cost or expense of any nature, including without limitation incidental, special, direct or consequential damages arising out of or in connection with the use of the Companion.

This Companion is proprietary to QARC Systems Pty Ltd. No part of the Companion shall be used, reproduced, translated, converted, adapted, stored in a retrieval system, communicated, or transmitted by any means, for any commercial purpose, including without limitation, sale, resale, license, rental or lease, without the prior express written consent of QARC Systems Pty Ltd.

Contents

1	Introduction	1
1.1	QARC Origins	1
1.2	What is QARC?	1
1.3	Release Frequency + Naming	2
1.4	QARC Delivery	2
1.4.1	QARC via Plug-in	2
1.4.2	QARC – Your Titleblocks	2
1.5	New Releases	2
1.5.1	Transferring ARChetype New Items	2
1.6	AS1100	3
1.7	No Need for the ARChetype?	3
2	Getting Started with the ARChetype	4
2.1	Download the ARChetype	4
2.2	Loading your Individual Titleblocks	4
2.3	Load the QARC Keynote file	5
2.4	Individualizing your ARChetype (Template)	5
2.5	Optimized Usage of the ARChetype and supplied content	5
2.6	Mapping your drive for rendering textures	5
2.7	New Product Releases	5
2.8	Starting a New Project	6
3	ARChetype Features	7
3.1	ARChetype Overview	7
3.2	Levels (& associated plan views)	7
3.3	Phases & Phase Filters	8
3.3.1	Phases for Relocated Buildings	9
3.3.2	Phase Filters beyond Standard	9
3.4	Views	9
3.4.1	Working Views	9
3.4.2	Views on Sheets	10
3.4.3	Specific Notes for Sheets	11
3.4.4	Sea Level Plan View	12
3.4.5	Plan Regions	12
3.4.6	View Ranges	12
3.4.7	Building Envelope Drafting Views	13

3.4.8	Other Drafting Views	13
3.4.9	Creating Extra Views with View Templates	14
3.4.10	Shadow Studies.....	15
3.4.11	Shadows Relative.....	15
3.5	Sheet Numbering	16
3.5.1	XXX00.....	16
3.5.2	Flexibility within the Set System.....	16
3.5.3	Hints.....	16
3.6	Browser Organization.....	17
3.6.1	Browser Organization _QARC 1.01 Active	18
3.6.2	Browser Organization _QARC 1.02 All	18
3.6.3	Browser Organization _QARC 1.03 GroupedByIssue.....	18
3.6.4	Browser Organization _QARC 2. X.0.00	18
3.7	Titleblocks	19
3.7.1	Sheet and Project Names	19
3.7.2	Titleblock Styles	20
3.7.3	Issues	20
3.7.4	Drawing List at Issue	22
3.7.5	Revisions	22
3.7.6	North Point	23
3.7.7	Scale Bars	24
3.7.8	Project Condition and Project Watermark	25
3.7.9	Wind Rate	25
3.7.10	Project Status on Existing Sheets.....	26
3.8	Grids	26
3.9	Guide Grids.....	27
3.10	Object Styles.....	27
3.11	Autocad Imports	28
4	Annotations.....	29
4.1	Annotations Overview.....	29
4.2	Store of Lines + Hatches + Dimensions	29
4.3	Line Styles.....	29
4.3.1	Revit Essentials	29
4.3.2	QARC Standard	29
4.3.3	Customizing Line Styles	30
4.4	Text and Dimension Types	30
4.4.1	Text	30
4.4.2	Adding extra Fonts.....	31

4.4.3	Dimension Types.....	31
4.4.4	Model Text.....	31
4.5	Hatch Styles.....	32
4.6	Keynotes.....	33
4.6.1	Auto Keynoting	33
4.6.2	Keynote Annotations – Architectural	34
4.6.3	Keynote Annotations - Structure	38
4.7	Annotation Symbols	40
4.7.1	Z100	40
4.7.2	Annotations within QARC Content Browser	41
4.8	Spot Dimensions	44
4.8.1	Spot Elevations	44
4.8.2	Spot Coordinates	46
4.8.3	Spot Slopes	46
4.9	Arrowheads.....	46
4.10	Detail Items as Annotations	47
4.10.1	Grid Dimension	47
4.10.2	Fall Arrow.....	47
4.10.3	Service Lines	47
4.11	Detail Items as 2D Detailing	47
4.12	Tags	48
4.12.1	Door & Window Tags.....	48
4.12.2	Room Tags	48
4.12.3	Ceiling Tag.....	48
4.12.4	Keynotes	48
4.12.5	Bracing Tags.....	48
4.12.6	Future Tags	48
5	Schedules and Legends	49
5.1	Door and Window Schedules and Legends.....	49
5.2	Area Plans & Schedules.....	52
5.3	Room Sheets, Schedules and Room Tags.....	53
5.3.1	Room Sheets & Schedules	53
5.3.2	Room Tags	53
5.4	Drawing Lists	54
5.5	Bracing	55
5.5.1	Bracing Families	55
5.5.2	Bracing Elevations.....	57
5.5.3	Bracing Plans.....	57

5.5.4	Bracing Schedule.....	58
5.6	Floor Plan Icons Legends.....	58
5.6.1	Icons Floor Plan Existing	58
5.6.2	Icons Floor Plan Proposed	58
5.7	Services Legend.....	59
6	System Families	60
6.1	Overview	60
6.2	Rendering.....	60
6.3	Walls.....	60
6.3.1	Wall Sweeps & Reveals.....	61
6.3.2	Curtain Walls	61
6.3.3	Stacked Walls.....	61
6.3.4	Walls with Intrinsic Sweeps	61
6.4	Rooves.....	62
6.5	Fasciae, Gutters and Cappings	62
6.5.1	A note about gutters:	62
6.5.2	Making ridge and hip cappings at different pitches.	63
6.5.3	Hints and Tips for Fasciae, Gutters and Cappings.....	64
6.5.4	QARC Gutter End Caps.....	65
6.5.5	Stairs	67
6.5.6	Railings.....	68
6.6	Floors.....	69
6.6.1	Floor Fasciae	69
6.7	Ceilings and Soffits	70
6.8	Structure	70
6.9	Columns	71
6.10	Assemblies	71
6.11	Materials	72
6.11.1	Materials Overview.....	72
6.11.2	Materials Application.....	72
6.11.3	Directing Revit to the Materials.....	73
6.11.4	Directing Revit to the Materials Manually.....	74
7	Families (or Components)	75
7.1	Families Overview	75
7.2	Family modeling in QARC.....	76
7.3	Family Nomenclature	76
7.4	On-Demand Families.....	78

7.5	Families by Others.....	78
7.5.1	Free Families.....	78
7.5.2	Families from Manufacturers	78
7.6	Helpful Hint for Windows:	78
8	BIMLocker	79
8.1	BIMLocker Introduction	79
9	Support	80
9.1	Companion	80
9.2	Check Lists.....	81
9.3	Webpage	81
9.4	Email Support.....	81
9.5	Articles (Tips).....	82
A	Appendices.....	83
A.1	APPENDIX - Sheet Numbering and Naming Conventions	84
A.1.1	Sheet Number System	84
A.1.2	Sheet Type System.....	86
A.2	APPENDIX - QARC Line Styles	87
A.3	APPENDIX - QARC Hatch Types	88
A.4	APPENDIX - QARC Text & Dimension Types	89
A.5	APPENDIX – QARC Level Heads	90
A.6	APPENDIX – View Titles	91
A.7	APPENDIX – Auxiliary File	92
A.7.1	Auxiliary File – Line Styles	92
A.7.2	Auxiliary File – Model Text	93
A.7.3	Auxilliary File – View Names + Grid Heads + Level Heads	93
A.7.4	Auxiliary File – Tags + Keynotes	93
A.7.5	Auxiliary File – Spot Coordinates	95
A.7.6	Auxiliary File – System Families	95
A.8	APPENDIX – All Annotations.....	98
A.9	APPENDIX – Schedules	102
A.9.1	Area Schedules	102
A.9.2	Material Quantity Schedules	103
A.9.3	Topography Schedule	104
A.9.4	Notation Schedules.....	104
A.9.5	Bracing Schedules	105
A.9.6	Drawing Schedules (Lists)	105

A.9.7	Door & Window Schedules	105
A.9.8	Framing & Slab Schedules (Legends)	105
A.9.9	Note Blocks for General Notes & Sheet Specific Notes	105
A.10	APPENDIX – ARChetype Transference	106
A.10.1	Starting New	106
A.10.2	Re-Starting New	106
A.10.3	Transfer new ARChetype features into your ARChetype version	106
A.10.4	Update your own template, with features from the ARChetype	106
A.10.5	List of added ARChetype features	107
A.10.6	List of Removed ARChetype features	107
A.11	APPENDIX – Tips (Support Articles)	108
A.12	APPENDIX – QARC Website and Blog	108
	http://qarcsystems.com.au/blog/	108
A.13	APPENDIX - Exporting to CAD	109
A.13.1	CAD for Consultants	109
A.13.2	CAD for Clients	110
A.14	APPENDIX - Sharing Revit file	111
A.15	APPENDIX – Autocad Imports	112
A.16	APPENDIX – Project Browser	113

Authors & Editors:

Peter Latemore
 Kaylene Richardson
 Andrew Beaman

Copywriting:

Julie Welch

Contributors:

Mark Wilson

1 Introduction

1.1 QARC Origins

QARC originated in 2012 as a comprehensive tool kit to use with Revit, via Dropbox. It is now delivered via a plug-in. We welcome your input so please give us your suggestions.

1.2 What is QARC?

QARC is a complete system for a design practice that delivers quality documentation and improved efficiencies.

QARC4Revit is QARC Systems' fully integrated system for Revit. It incorporates all of the following, plus useful extras, delivered via a plug-in:

ARChetype from is our Template, setup primarily for smaller projects, but suits ALL building types, with some minor tweaking. For a full expose refer *3.1 ARChetype Overview*. The QARC4Revit plug-in loads the ARChetype template into Revit as a project file.

There are over 8000 Families & System Families in the QARC4Revit Content library.

System Families are building elements like floors, walls, rooves etc. You simply Drag+Drop from the plug-in into your project. For further information refer *6 System Families*. These include text, dimensions, fascias, cappings, sweeps, railings and more.

Families are also available via Drag+Drop from the plug-in. The browser includes manufacturers content as well as our own QARC4Revit library. For a synopsis refer *7 Families (or Components)*.

Auxiliary File is a project file containing items not yet able to be uploaded. It has line types, assemblies, curtain walls. For a full expose refer *A.7 APPENDIX – Auxiliary File*

This **Companion** has been prepared to launch you into using QARC4Revit plug-in and the ARChetype. Consider also our many short training videos on the website.

We cannot teach you Revit. We suggest looking at "Introducing Revit" & "Start a Project" in Revit Help or obtain training from your reseller.

QARC4Revit contains additional resources, including a QA system of Check Sheets. Currently Tips are on the website. Refer *9.2 Check Lists* and *A.11 APPENDIX – Tips (Support Articles)*.

2 Getting Started with the ARChetype

The ARChetype system adopts a principle of MASTER REVIT FASTER. The ARChetype is set up ready for use by most practices and becomes your template with added individual items.

Individual items include:

- Standard Titleblocks (choice of many)
- Customised Titleblocks

Some Standard Notes & Details are included and more will be added in later releases.

2.1 Download the ARChetype

Using the QARC plug-in, via QARC in the Revit menu, above the menu item ARChetype, click **New** and a dialog box will load asking you to name a project file which is based on a template file (*.rte). You have a choice at this point to save away your own version of the ARChetype or just save it as your project file for a new job.

If creating your own ARChetype, immediately *Save As* the file for your continued use as your master template. We suggest a name like e.g. *YourName-ARChetype-Date.rvt*. You will continue with bringing in more items to this project file such as Titleblocks and your own master notes. You have a choice of using a Project File (rvt) or Template File (rte). The Template file allows you to select it each time you start a new project, by adding it to Revit's file locations.

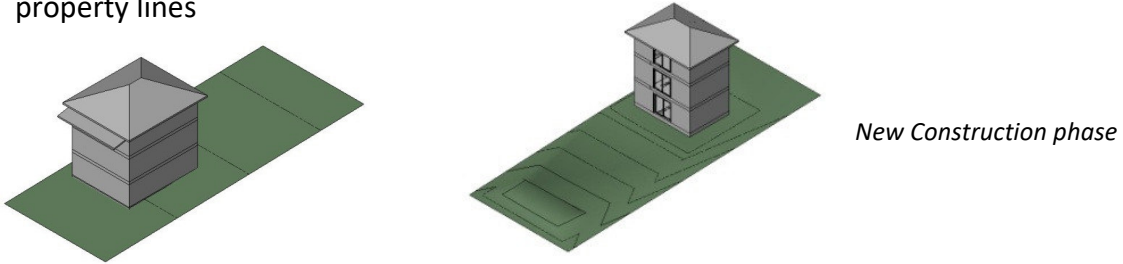
If going straight into a project file, you will still need to load things like your Titleblocks.

2.2 Loading your Individual Titleblocks

Load your individual Titleblocks, from wherever you have stored them.

1. We suggest using the *Drag & Drop* method. From windows explorer drag the five Titleblocks onto Revit.
2. Another method is the standard *Load Family*
3. If asked, do "Overwrite" existing Titleblocks in the project file.
4. Repeat until all Titleblocks have been loaded. If you use the *Drag & Drop* method with all 5 there is no need to repeat.
5. This changes all the standard Titleblocks across the ARChetype sheets to your individual Titleblocks, with the result that the ARChetype now looks like yours.

2.8 Starting a New Project

- Open your individualised template and save it to your project name. You may also choose to start a new project file directly from QARC4Revit from the plug-in menu at “New”. The process after you select “New” is a “Save As” Dialogue Box appears. We suggest naming project files with a format such as:
- *JobNo-Client-ProjectStatus-Rev.rvt*
- Specify the project information: *Manage* tab ► *Project Information*
- Move the levels to suit your project. Refer 3.2 *Levels (& associated plan views)*
- Adjust views to respond to level changes. Refer 3.2 *Levels (& associated plan views)*
- Remove the dummy elements that exist in your template. These items are placed in the ARChetype to provide an indication of where to place your model so that it coincides with the existing views. The dummy elements include:
 - floors, walls, and rooves in both the Existing and the New Construction phases
 - a toposurface in the Existing phase
 - property lines
- 
- Create toposurface. Refer the support article *ARChetype Topo from Survey.pdf* (currently on the website). Or visit Revit Help.
- Specify Property lines. Refer *Revit Help*
- Set project north. Refer the support article *ARChetype Project vs True North.pdf* (on the website) and *Revit Help*.
- Create your model in the Working Views (Refer 3.4.1) ensuring that the correct phasing is used. The existing building should be modelled in the views:
02.00 working Exist L0 plan, 02.01 working Exist L1 plan, 02.02 working Exist L2 plan and 02.03 working Exist roof plan.
New / Proposed work should be modelled in the views:
03.00 working Prop L0 plan, 03.01 working Prop L1 plan, 03.02 working Prop L2 plan and 03.03 working Prop roof plan.
- Annotate the drawings with text, dimensions, tags, and keynotes. Refer 4 *Annotations*.
- Update schedules and legends. Refer 5 *Schedules and Legends*.
- Ensure issue data is correct. Refer 3.7.3 *Issues*.

3 ARChetype Features

3.1 ARChetype Overview

A couple of dummy buildings are placed in the ARChetype to indicate roughly where to start creating your model. These also help us develop the ARChetype. They are made from simple generic elements, so that materials in any loaded elements take precedence. The dummy buildings are totally grey and quite simple.

The ARChetype is set up with the most common two Phases which should be used correctly. (eg. the toposurface goes in Existing, new building goes in New Construction).

The ARChetype includes drafting views with the prefix "Store" which contain elements such as line styles and dimension styles. Do not delete them or a purge will remove important elements. Note that the QARC Content Browser includes some of these.

There are many pre-set views, sheets, schedules, & more. The complete set can be seen by expanding items in the Project Browser. The Project Browser for Views is set to "_QARC 01 NotOnSheets ByType" which is the same as Views Not on Sheets. This gives a concise Browser. There is also a filtering system for the sheets, explained at 3.6 *Browser Organization*

The ARChetype opening view provides limited instructions on getting started with the Template. More detailed information can be found in this Companion. Read on!

All sheets contain extensive **instructional green notes** to assist you. These are on the right of every sheet. Do not move items below the Titleblock base, otherwise printing will fail.

3.2 Levels (& associated plan views)

The ARChetype has default levels as per this table:

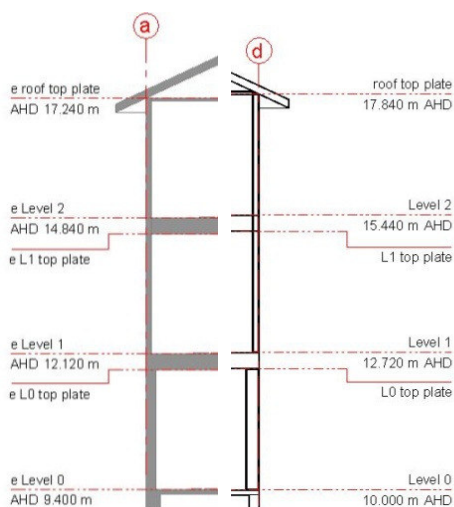
Proposed	Existing
<i>roof top plate</i>	<i>e roof top plate</i>
<i>Level 2</i>	<i>e Level 2</i>
<i>L1 top plate</i>	<i>e L1 top plate</i>
<i>Level 1</i>	<i>e Level 1</i>
<i>L0 top plate</i>	<i>e L0 top plate</i>

The table is arranged from top to bottom, just like on views.

Level 0 has a default setting = AHD 10.000

e Level 0 has a default setting = AHD 9.400

Level 0, Level 1, Level 2 e Level 0, e Level 1 and e Level 2 are intended to be floor levels.



At QARC Systems, we have found that the top plate levels are the most effective way to set walls and roof pitching points. As per everything in Revit, the best way to think about using Revit is as if you were building a real building inside the computer. Walls do go to a top plate position, regardless of what the ceiling does. So, we have found the best thing to do is place your walls from the floor level up to the top plate level and adjust the outer cladding to suit. Elements like trusses or a pitched roof can be correctly located at the roof top plate. When you place the ceiling, use your knowledge of the edge wall roof junction detail, and place the ceiling at the correct position. If you prefer, place an extra level in your drawings to reflect the ceiling level.

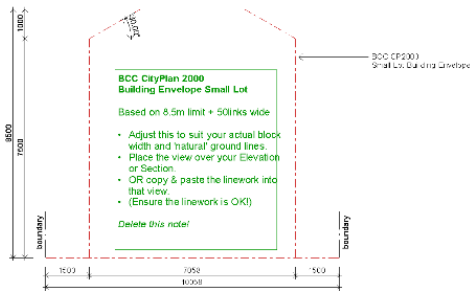
When you have determined the AHD (Australian Height Datum) of the levels you require you will need to move the provided levels. This can be deduced from a survey. The levels can be

3.4.7 Building Envelope Drafting Views

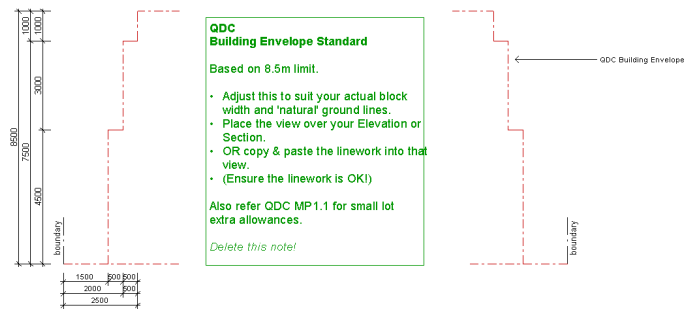
The ARChetype includes three drafting views to assist with BCC type small lots, and QDC acceptable solutions. Other authorities will be added over time. These are useful items to assist your documentation.

Adjust the linework for your local authority and project conditions, then place the drafting view over a section or elevation view as appropriate.

A drafting view can only be placed on one sheet. To use this on more than one sheet you can either duplicate the drafting view or make a legend with this in it. To make a legend, go to the View tab ➤ Create panel ➤ Legends drop-down ➤ Legend. Make a legend in the same scale (in this case 1:100) and name appropriately. Copy and Paste everything from the drafting view into the legend. This legend can be placed over multiple elevations and sections.



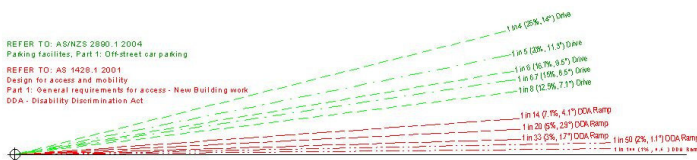
Drafting view:
Building Envelope –
BCC CP2014 Small Lot



Drafting view:
Building Envelope –
QDC Standard Lot

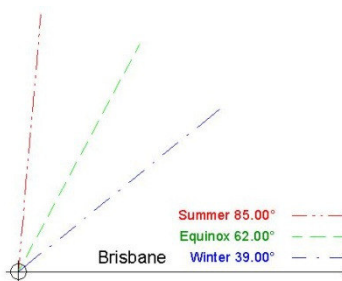
3.4.8 Other Drafting Views

RampDrive Slopes



A ramp and drive slope checking symbol is within the view. Copy & paste this symbol onto any section to check your angles and slopes.

SolarAngles



A solar angle symbol is within this view, with types created for over 60 Australian locations. Copy & Paste onto sections, that have a north facing wall (or near north-facing). You can then 'see' and show a client how the roof overhang is working to provide winter sun and avoid summer heat. If your location is not listed, choose a town nearby, for a general cross check.

3.5 Sheet Numbering

The Sheet numbering system adopted in the ARChetype was developed by **Mark Wilson** of Architects Black & Wilson in conjunction with Peter Latemore of QARC. Mark has fully tested this, finding it useful, especially on site.



3.5.1 XXX00

In general, 'numbers' are triple digits plus double letters, with digits being the 'Sheet Number' and letters describing the 'Sheet Type'. This provides greater power than just a digit or two and has similarities to the Library of Congress cataloguing system. A list of sheet and type categories is in *A.1 APPENDIX - Sheet Numbering and Naming Conventions*. The ARChetype has a near complete sheet set. Delete any sheets that are not needed.

The 'Sheet Number' also has the ability to represent a floor level. For example, the first level floor plan is 111FP, which is in the 100 century for plans, 10 decade for floor plans, 1 for level 1, and FP for 'Floor Plan'.

Each section has a separator or cover sheet if you need it. We recommend using them for large projects. These are numbered in the centuries, i.e. *300 - Sections*.

3.5.2 Flexibility within the Set System

The intent of this system is that each sheet (drawing) number, remains the same across all projects, and therefore it is relatively easy to insert extras.

The system is flexible - change numbers as you need or prefer, but try to stay generally within categories, so sharing of files is easier. As the QARC group grows, all users will find it simple to work with each other.

If you need space for staged development or option views, insert these in the spare spots.

3.5.3 Hints

As there are a lot of sheets in the ARChetype, we suggest you use the QARC pre-set filtering systems within the Project Browser. Refer *3.6 Browser Organization*

Another way to do this if you prefer to 'see' all the sheets is to rename the sheets in question with a Z in front of the existing sheet number.

eg. *621DW – Details – Wall Type X* becomes *Z621DW – Details – Wall Type X*

This sheet will now be listed at the bottom of the list of sheets in your Project Browser.

Additional Hints from Mark Wilson:

Mark uses an additional method, whereby he adds a "1" or "2" after the sheet number:

"1" indicates the sheet is active, while "2" means the sheet is in colour and active.

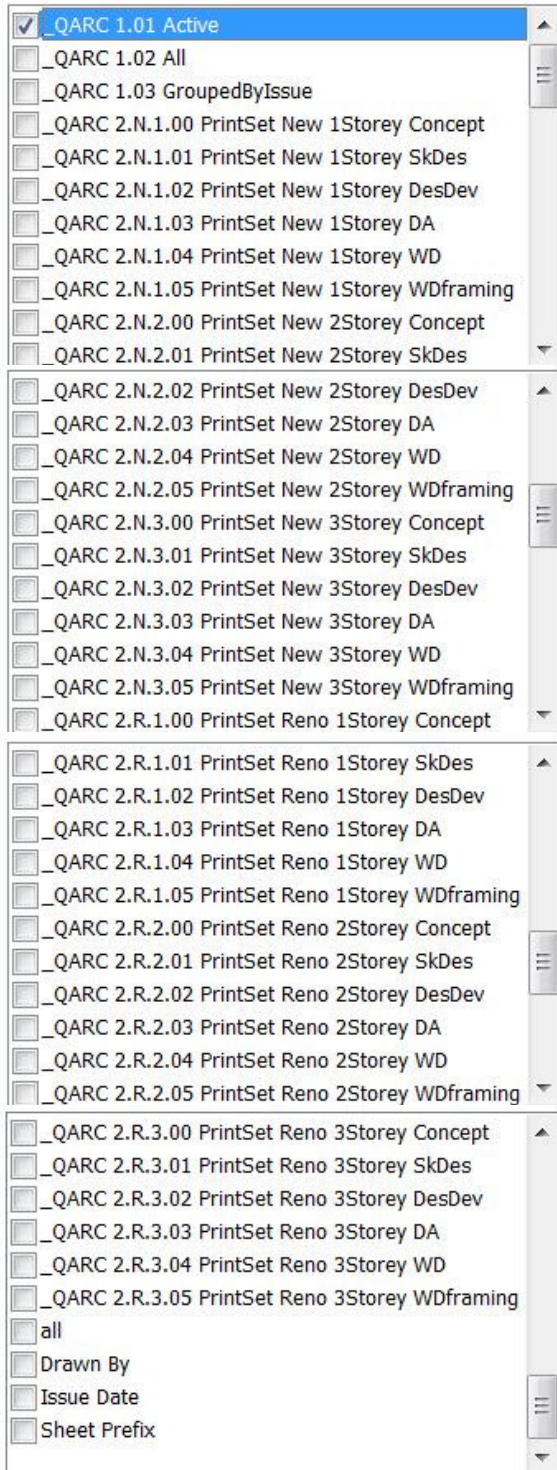
He alters 3D "visual style" depending on project status and adds more views. For Pre-Design, the model is rudimentary, with minimal views. For Sketch Design, plants & furniture are added in 'consistent colours'. For Design Development there are coloured 3D's, with some renders. For Working Drawings, a couple of rendered & coloured 3D's remain, but all vegetation is removed and lots of 3D black and white views are included.

3.6 Browser Organization

The ARChetype has over 200 sheets which you will not need on every project. You will use selections of them, starting with about 20 at an early stage of your project such as sketch design. The number will increase through design development, development application and doubling at least for working drawings.

To assist with this gradual increase in sheet numbers, the ARChetype has filtering systems within the project browser, at the *Sheets* section. These are generally in four types- everything, active sheets, grouped, and print sets.

In the project browser right click on the sheets heading. A dialogue box appears called “Browser Organization”. At left is the full list available for you to filter the sheets.



In addition to several standard REVIT filters such as “Drawn By” or “Sheet Prefix” (which are at the end), we have added many more. Choose these as appropriate and the project browser will show sheets as selected or grouped. Refer below for details of each filtering system.

Continued . . .

3.7 Titleblocks

Titleblocks are like a template for your sheet, defining the size and appearance. QARC provides you with individualised Titleblocks which you will include in your customised Template, based on the ARChetype. You can choose a “standard” Titleblock or have a customised one made especially for your practice.

Note that all sheets are setup as A3 in ARChetype, as that is the most common sheet size across users. At any time, you can change a sheet to A2 or A1 once you load those Titleblock families. Refer *2.4 Individualizing your ARChetype (Template)*. As part of changing a Titleblock from A3 to a larger size, you will have to relocate views to suit the larger sheet.

In the following sections, the standard Titleblock is referenced.

3.7.1 Sheet and Project Names

The ARChetype provides two fields for your project's name and two for your sheet's name, even though only one may be required.

The fields *Project Name* and *Project Name Extra* each display as a single line in the Titleblock. Each field allows for 26 characters (or so, depending upon your individual Titleblock).

The fields *Sheet Name* and *Sheet Name Extra* each display as a double line in the Titleblock. Each field allows for 40 characters (or so, depending upon your individual Titleblock).

These fields can be edited in the Titleblock on the sheet, in Properties for the Titleblock, or in a Drawing List schedule. Only the used fields will be displayed on the sheet.

The screenshot shows the Properties window for a Sheet. The 'Identity Data' section includes fields for Project Name Extra, Project Name, Sheet Name Extra, and Sheet Name. The 'Other' section includes fields for Sheet Number, Sheet Name, Sheet Issue Date, Sheet Issue, Project Name Extra, Sheet Name Extra, and Appears In Sheet List.

The diagram to the right shows a titleblock layout with the following fields:

- Project Name Extra (top left)
- Project Name (middle left)
- Sheet Name Extra (top right)
- Sheet Name (standard Revit field) (middle right)
- Project Name (bottom left)
- at Address line 1
- Address line 2
- for Client Name (bottom left)
- Site Plan 1-500 (bottom right)
- ? (bottom right)
- Sketch Design (bottom right)

Extra fields may be edited in the Titleblock Properties

Snapshots taken from QARC Titleblock. Customised Titleblocks may vary

Suggested <i>SheetIssue</i> Naming Protocol		
EX	Existing	first issue - EX01 second issue - EX02
SK	Sketch Design Stage	first issue - SK01 second issue – SK02
DD	Design Development	first issue - DD01 second issue – DD02
DA	Development Application	first issue - DA01 second issue – DA02
WD	Working Drawings for Building Approval	first issue - WD01 second issue – WD02
CD	Contract Documentation and/or Contract Administration	first issue - CD01 second issue – CD02
AB	As Built Documents at project completion	first issue - AB01 second issue – AB02

You can elect to not use this Issue system and utilise the Revit Revision system. If you choose to do this, it is recommended that you delete the sample text in **SheetIssueList01** and make the Issue field reflect your revision number.

3.7.4 Drawing List at Issue

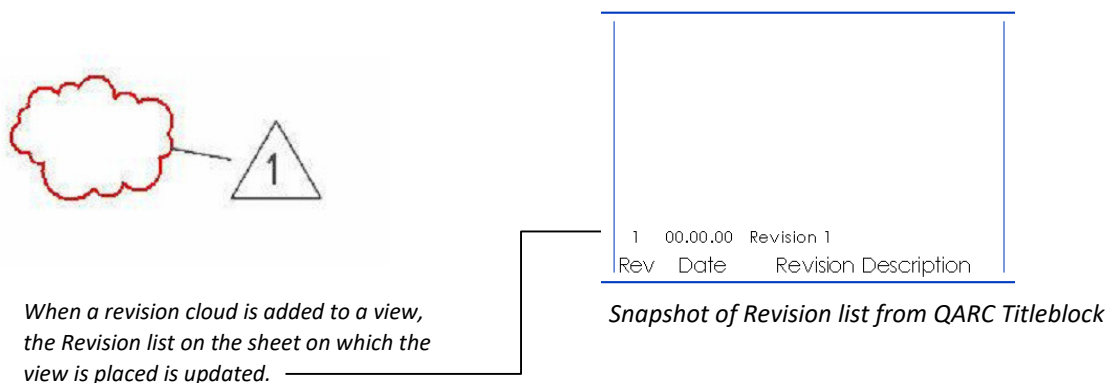
The ARChetype cover sheet has the schedule DwgListCover placed on it. This schedule can be filtered based on the **SheetIssue** field to show only those sheets included in the Issue. Refer Revit help for further information on filtering schedules. Also refer 5.4 *Drawing Lists*.

3.7.5 Revisions

Where it is necessary to identify the specific changes to a drawing, Revit's Revision process is appropriate. Refer the suggested procedures with Issues vs Revisions above.

Changes since the documents were issued to an authority or builder should be marked with a revision cloud in a view. Revision clouds can be added to any view (or sheet) with the exception of 3D views. The Revision list for the sheet on which the view is placed is automatically updated. Only revision numbers used in views on a sheet, will populate that sheet's Titleblock.

To update Revision information and learn more about Revision Clouds refer to Revit Help.



4 Annotations

4.1 Annotations Overview

The ARChetype and the QARC4Revit Content Browser contain most of the annotation items that a practice will require, based on research we conducted across QARC users. The ARChetype itself contains the font Arial, along with some line styles, hatches, and dimensions. A large selection of other items can be dragged and dropped from the QARC4Revit Content Browser. Within the ARChetype are many other project file specific items such as tags, level & view titles.

Currently some annotation items will not host inside QARC4Revit Content Browser. These are mainly line styles. In the QARC4Revit menu, is a button that will load an Auxiliary file that contains miscellaneous items such as these line styles, from which you can Copy/Paste or *Manage* ► *Transfer Project Standards*. Refer *A.7 APPENDIX – Auxiliary File*.

4.2 Store of Lines + Hatches + Dimensions

There are a number of drafting views in the ARChetype under the *Coordination* heading including:

- *StoreLineStyle* - shown in *A.2 APPENDIX - QARC Line Styles*
- *StoreHatchTypes* - shown in *A.3 APPENDIX - QARC Hatch Types*
- *StoreTextDimTypes* - shown in *A.4 APPENDIX - QARC Text & Dimension Types*

As these drafting views contain examples of the ARChetype annotation items, they will not be removed in a purge if the drafting view exists in the project. Do not delete these drafting views. Read on . . .

4.3 Line Styles

The ARChetype contains a series of drafting views under *Coordination* to store standards. The drafting view *StoreLineStyle* (shown in *A.2 APPENDIX - QARC Line Styles*) stores the line style standards included in the ARChetype. These line styles can be grouped into four categories: Revit Essentials & QARC Standard, which are kept in ARChetype; and Revit Standards & Lineweight, which are kept in the Auxiliary file. Refer *A.7 APPENDIX – Auxiliary File*

4.3.1 Revit Essentials

These are part of the Revit standard methodology and include line styles like *<Beyond>*, *<Centreline>*, *<Demolished>*, *<Hidden>*, *<Overhead>*, *Thin Lines*, and *Wide Lines*. These are used throughout Revit.

4.3.2 QARC Standard

The naming convention for these line styles is *_QARC* followed by a description of the line except for a collection of basic lines which have descriptive names only (e.g. *0.10 black*). Many of these lines have been developed to suit the needs of most users. The *0.35 pink* line, for example, is used by many in-house as a 'sketch' as it is similar to Revit's, and the *_QARC Building Envelope* line is used to show the allowable building envelope when required for council submissions.

4.6 Keynotes

There are two methods of utilizing keynotes in Revit, and the ARChetype uses both.

- 1 *Auto Keynoting* (as we call it), was introduced into Revit in 2012, and is the most elegant as it is very straightforward, once setup. Auto Keynoting depends upon a text file full of data, being 'fed' by an intelligent annotation that acts like a Tag.
- 2 *Keynote Annotations* was the earlier version, somewhat cumbersome, but still quite useful for views like framing plans, and note blocks. It depends on a simple annotation that then populates a schedule. ARChetype uses two sets of these, Architectural & Structural.

4.6.1 Auto Keynoting

The Revit keynoting system is a useful tool to quickly place keynotes in plan, elevation, section, and details. Every model element and material can have a keynote parameter assigned to it. It should be noted that a model element contains a collection of materials and you can keynote the materials included in the element or allocate a keynote to the element itself. Element keynotes can be seen in the *Properties* of an element.

When you tag items in a view, Revit builds a legend, *KEYNOTE LEGEND*, to be placed on the same sheet as the view. Only keynotes that appear on that sheet will display in the legend. The information for the legend is found in a file that is delivered to your computer when you start a new project using the **New** button in the QARC4Revit menu bar.

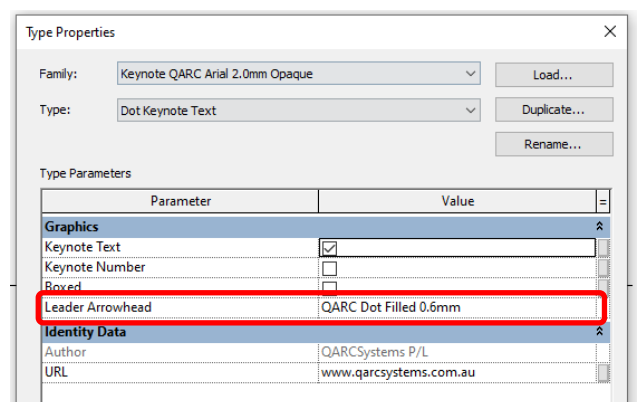
The ARChetype has been set up to always reference the keynotes text file from a common location on all computers using an Autodesk product like Revit. Its location is within the textures folder on your C: Drive.

To Keynote a material, go to *Annotate* tab ► *Keynote* drop-down menu ► *Material Keynote* or *Element Keynote*. In the view, select the building material or element to be tagged. If your material/element has been previously tagged it will be recognised and the keynote will generate automatically. If it is unrecognized choose a keynote from the menu that will be displayed.

The ARChetype includes several styles for keynoting. The variations in these styles include:

- Text - Arial (with and without boxing)
- Text direction - horizontal, diagonally up and diagonally down
- The use of the keynote acronym or the keynote text in full.
- Keynote leaders can be used or turned off.


The keynote leader style can be changed by editing the properties of the keynote family and choosing an option from the dropdown list for *Leader Arrowhead*.



Suggestions for inclusion in the keynote files can be sent to the QARC administrator at admin@qarcsystems.com.au

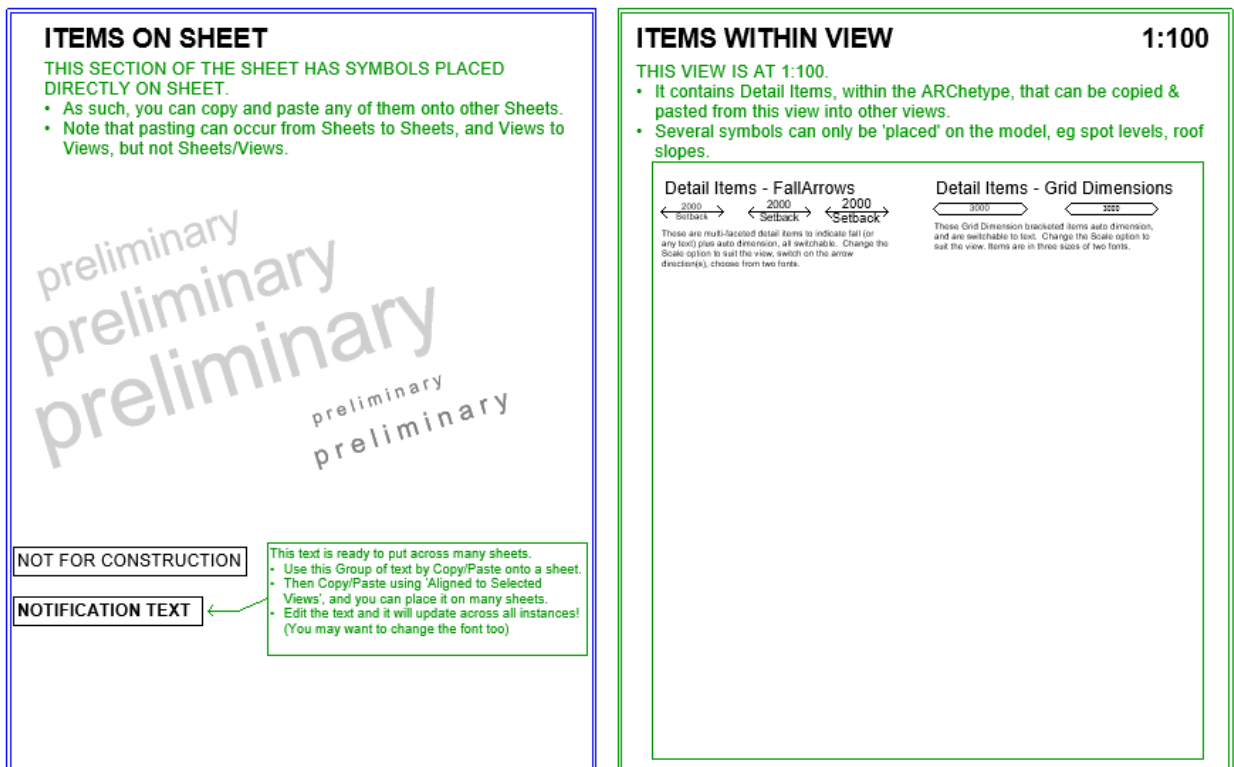
If you are interested in creating your own version of the Keynote text file, read our article - *ARChetype Manipulating Keynotes.pdf*. Refer A.11 APPENDIX – *Tips (Support Articles)*.

4.7 Annotation Symbols

The ARChetype contains several commonly used annotation symbols which may be placed within a view or on a sheet. These symbols can be included in your drawing set using the Symbols tool  on the Annotations tab. Also refer *A.8 APPENDIX – All Annotations*.

4.7.1 Z100

To maintain their presence in the ARChetype after a purge, some items have been deposited in the sheet *Z100 - Sheet Add-ons*.



QARC Symbols Legend
1 : 100

There are two sets of annotations on this sheet, those on the sheet (left) and those within a legend view (right). This is because Revit cannot Copy/Paste items from a sheet to a view and vice versa.

The sheet used to contain quite a few symbols that are now within the QARC Content Browser which is part of QARC4Revit - North Points (refer 3.7.6), Scale Bars (refer 3.7.7), basic Bracketed Text, 2D section/view titles, View Icons. Z100 still contains some useful text and Detail Items.

More explanation is on sheet Z100, so have a look. Now to the other **Annotations**:

4.8 Spot Dimensions

All Spot Dimension 'annotations' are project-based items and do not depend upon a family. As such you will only see them when you start a Spot command. EG *Annotate* tab ► *Spot Elevation*. The editing screen for these is very extensive, just like normal dimensions.

4.8.1 Spot Elevations

The ARChetype includes many formats of Spot Elevation showing the project level of the model item and a number which display a Relative elevation. Project based spot elevations display the elevation of the model item above *Project Level Zero*. Relative spot elevations display the elevation of the model item as a dimension from the level associated with the current view. There are many 1.5mm and 2.0mm versions, and some 2.5mm.

The examples below show the Project based spot elevation of a model item that has been placed at 9150mm above *Project Level Zero*.

The examples below show the Relative spot elevation of a model item that has been placed at 9150mm above *Project Level Zero* where the *Associated Level* of the current view is 10000mm. That is, the model item is at 850mm below the *Associated Level* of 10000mm.

5.2 Area Plans & Schedules

Area plans are based on the levels of your model and area schemes from which schedules are derived. The ARChetype includes several common area plans with their associated schemes and schedules. These are for:

- Existing floor area
- Proposed floor area
- New floor area
- GFA
- Site cover
- POS (Private Open Space)
- COS (Common Open Space)
- Landscaping

Each area plan has pre-set area boundaries with linking area tags so that they relate to each schedule. You should adjust the boundaries to suit your model. For the GFA (Gross Floor Area) scheme place your boundaries on the side of the outer walls that is required in your district, and the GFA schedule will automatically update.

The Site cover area scheme is designed to check the site coverage percentage. It is important to ensure that the site covered boundary is wholly within the site open boundary for the calculations to work. There are two schedules available for the site cover area scheme. One simply lists site open and site covered while the other categorises the areas by using the comments field as a sorting tool.

The new and proposed area schemes are similar to one another. The proposed floor area is intended for renovations, where there are retained or modified portions of buildings.

As schedules can be sorted and filtered on fields within the schedule, a comments field has been included in these area plan schedules. The comments field is a hidden column which can be used for information which becomes a secondary header within the schedule.

Area Schedule (Proposed)			
level	name	area	Comments
existing retained			
e ground lev	e-retained ground 1	9.3 m ²	existing retained
e 1st level	e-retained 1st 3	4.2 m ²	existing retained
		13.4 m ²	
proposed			
e ground lev	n-proposed ground	7.7 m ²	proposed
e 1st level	n-proposed 1st 4	7.7 m ²	proposed
		15.4 m ²	
Grand total		28.8 m ²	

Snapshots of Proposed Area Schedule in schedule editor. Comments column showing.

Area Schedule (Proposed)		
level	name	area
existing retained		
e ground level	e-retained ground 1	9.3 m ²
e 1st level	e-retained 1st 3	4.2 m ²
		13.4 m ²
proposed		
e ground level	n-proposed ground 2	7.7 m ²
e 1st level	n-proposed 1st 4	7.7 m ²
		15.4 m ²
Grand total		28.8 m ²

Snapshots of Proposed Area Schedule as placed on sheet. Comments column hidden.






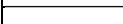






Refer A.9 APPENDIX – Schedules for a more complete list of included schedules.

5.5 Bracing

The ARCHetype includes a few structural bracing families and associated bracing plans and elevations to assist the user with documenting bracing. To 'start' you may need to use the elevation sheet first to ascertain the resistance required. Refer 5.5.2 *Bracing Elevation*.

5.5.1 Bracing Families

ARCHetype includes the most common bracing elements as families, like ply & steel cross braces, as well as more exotic items like piers, and masonry walls. Below is a list of those provided along with the tag you should use, in descending order from most common. Note the less common items are bunched together in single rows. The most common types within each bracing element are provided, but not every option otherwise ARCHetype would be overloaded. For details on each type look at sheet 643DB. All Bracing 'Families' are in the Structural Framing category, as a model item with symbolic lines. The only model portions are vertical 'invisible' model lines to ensure view ranges can 'see' them. ARCHetype manages to combine into one schedule rated items like ply sheet with items that have fixed capacity like piers.

Image	Family Name & Types	Family Description <i>What it represents</i>	Tag	Tag Name
	QARC BracingPanel PlyBracingPanel-MethodA-5.1kN/m-3300high-80%	Ply bracing installed as per Method A* for wall heights between 3300 & 3599mm	X1 1200	QARC BracingPanel Tag <i>Note: the lower value of this tag indicates the length of the element</i>
	QARC BracingPanel PlyBracingPanel-MethodA-5.7kN/m-3000high-90%	Ply bracing installed as per Method A* for wall heights between 2700 & 3299mm	X1 1200	QARC BracingPanel Tag <i>Note: the lower value of this tag indicates the length of the element</i>
	QARC BracingPanel PlyBracingPanel-MethodA-6.4kN/m-2700high-100%	Ply bracing installed as per Method A* for wall heights up to 2700mm	X1 1200	QARC BracingPanel Tag <i>Note: the lower value of this tag indicates the length of the element</i>
	QARC BracingPanel PlyBracingPanel-MethodB-4.8kN/m-3300high-80%	Ply bracing installed as per Method B* for wall heights between 3300 & 3599mm	X1 1200	QARC BracingPanel Tag <i>Note: the lower value of this tag indicates the length of the element</i>
	QARC BracingPanel PlyBracingPanel-MethodB-5.4kN/m-3000high-90%	Ply bracing installed as per Method B* for wall heights between 2700 & 3299mm	X1 1200	QARC BracingPanel Tag <i>Note: the lower value of this tag indicates the length of the element</i>
	QARC BracingPanel PlyBracingPanel-MethodB-6.0kN/m-2700high-100%	Ply bracing installed as per Method B* for wall heights up to 2700mm	X1 1200	QARC BracingPanel Tag <i>Note: the lower value of this tag indicates the length of the element</i>
	QARC BracingPanel PlyBracingPanel600w-MethodB-3.0kN/m-2700high-50%	Ply bracing installed as per Method B* for wall heights up to 2700mm & panel width > 600mm & <900mm	X1 1200	QARC BracingPanel Tag <i>Note: the lower value of this tag indicates the length of the element</i>
	QARC Bracing CrossSteel CrossBrace-Steel-9kN	Steel cross bracing with a bracing capacity of 9kN	A1 9.00 kN	QARC BracingkN Tag
	QARC Bracing CrossSteel CrossBrace-Steel-15kN	Steel cross bracing with a bracing capacity of 15kN	A1 15.00 kN	QARC BracingkN Tag
	QARC Bracing TimberStump TimberStump 0.8kN TimberStump 1.0kN TimberStump 1.25kN	Timber stump with a bracing capacity of 0.8kN, 1.0kN & 1.25kN	X1 0.80 kN	QARC BracingkN Tag
	QARC Bracing SteelPost SteelPost 600h 4.0kN SteelPost 900h 3.0kN	Steel post with a max height of 600/900mm & bracing capacity of 4.0kN/3.0kN	X1 4.00 kN	QARC BracingkN Tag
	QARC Bracing ConcStump ConcStump 2.5kN	Concrete stump with a bracing capacity of 1.25kN	XY0.30 2.50 kN	QARC BracingkN Tag

Continued . . .

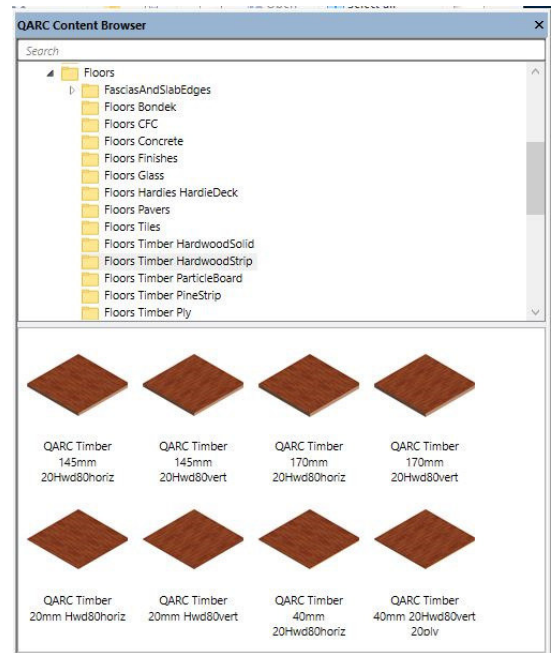
6 System Families

6.1 Overview

All System Families (Elements) are provided via the QARC Plug-in, within the QARC Content Browser.

When you drag and drop an element into your project, REVIT will begin the appropriate command for drawing that element.

The browser contains system families amongst many other items including families and annotations. These include floors, rooves, walls along with ceilings and soffits.



6.2 Rendering

All elements have fully renderable materials. Refer 6.11 *Materials* for a full discussion on this and what you must do on your computer to make the renders possible.

6.3 Walls

Revit walls have been created as proper building elements with all the appropriate layers. The top and bottom extensions on the outer layer of the walls have been unlocked to allow the extension option to function appropriately. It is recommended that the walls be placed to suit the main structural position and the extension option used to allow the cladding to cover items such as joists, bearers, or rafters.

It is a good practice to use grids to place walls and, indeed, most Revit elements whenever practical. All QARC walls are shown with the core representing the structural portion. This is in line with the Revit methodology where the core is the structural part e.g. the studs or steel framing.

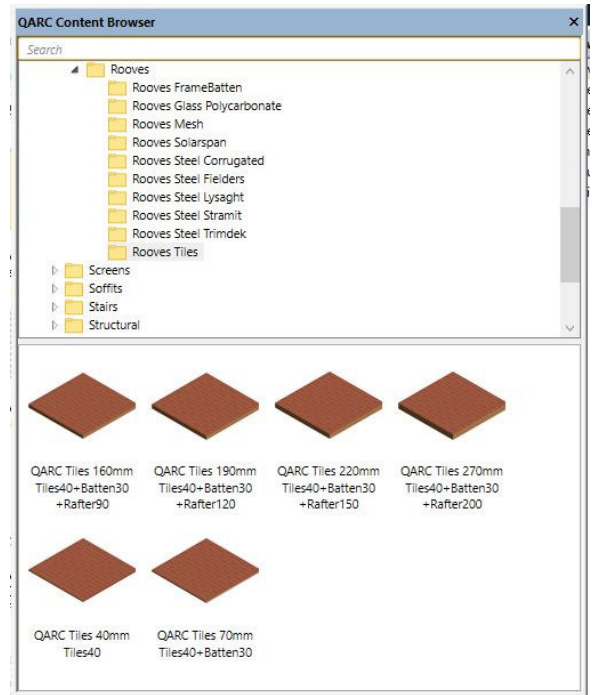


The structural portion of each element should align with the grid. We recommend aligning the exterior of the core with a grid as this is a fixed parameter even if there are changes to the cladding or the wall type, or the wall needs to be split. In the smaller scale construction environment to which QARC is best suited, the common practice is to place the exterior wall core on the grid. In industrial and commercial work, it is more appropriate to align the centre of the wall core with the grid to reflect industry practice.

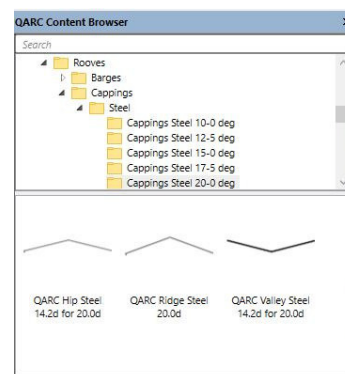
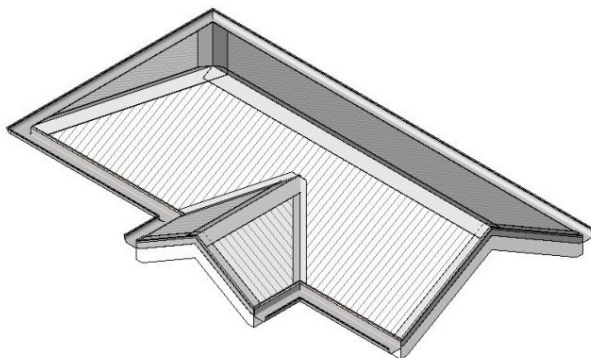
6.4 Rooves

The QARC Content Browser contains a considerable number of rooves and associated items such as fasciae, gutters and cappings.

The included steel and tile rooves have multiple layers representing the structural and finish layers of a roof. After inserting a roof into your project, we do not recommend editing that roof. Instead, select that roof and use the Create Similar command to start a new roof of the same type.



6.5 Fasciae, Gutters and Cappings



The QARC Content Browser contains fasciae, gutters, hip, ridge cappings, valleys and gutter end caps for both tile and steel rooves at numerous pitches. Many of these are now in

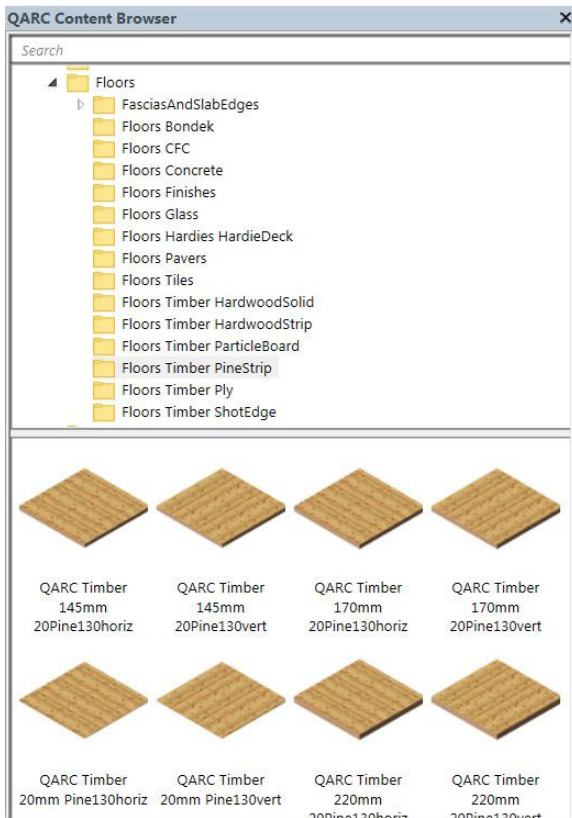
Colorbond colours. These are within the roof section of the browser which you drag and drop the item into the project, and it begins the 'fascia' command for you to then add the item onto the roof edges. Please note – these items act like sweeps, whereby Revit 'runs' the profile along an 'edge' of the roof. As such, they are 'system families' not families, and must be created within a project file. We highly recommend you adopt these sweeps, as your building will instantly look real for little effort, since QARC has done it all for you.

6.5.1 A note about gutters:

In Revit, the hosted Gutters will only attach to a horizontal edge of a roof or fascia. It is not possible to place a Revit gutter element on a non-horizontal portion of a roof or fascia.

To overcome this shortfall, the QARC gutter elements have been created as fascia elements. These 'gutters' will follow the roof or fascia and wrap completely around any shaped roof. To use these families, drag and drop as per above. Or if already loaded choose the *Architecture* tab > *Roof* > *Roof: Fascia*, select a 'gutter' family and proceed as usual.

6.6 Floors

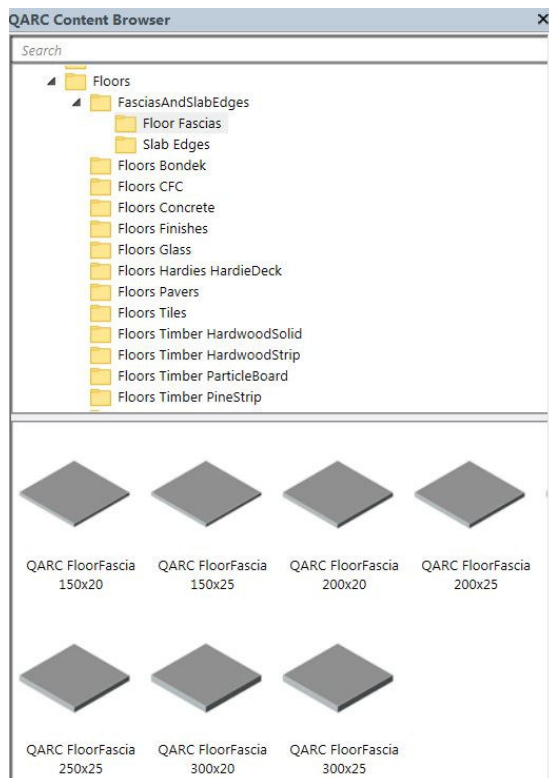


The QARC Content Browser includes floors and floor fasciae (slab edges). The floors are either single elements (e.g. timber strip floor) or layered floors which may represent a floor finish and its supporting structure.

All floor finishes have textures applied so that they render photo-realistically.

As for all System Families, use the QARC4Revit unique Drag & Drop method to bring a floor into your model. Preferably be in a floor plan, as Revit responds by starting the sketch command.

6.6.1 Floor Fasciae



The fasciae elements are within the floor portion of the Content Browser and you simply Drag+Drop to begin the command for placing fasciae (slab edges).

Floor fasciae which are referred to as slab edges in Revit, are useful for finishing off decks.

We supply a selection of Slab Edges as well.

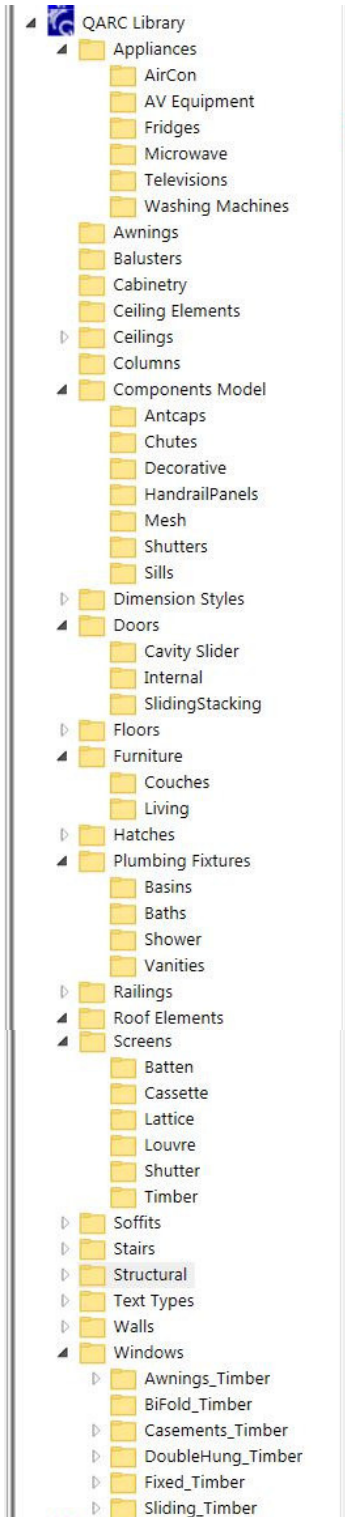
Another way to emulate a slab edge thickening is by creating a separate floor for the slab edge and thickenings and using join geometry to combine this with the slab.

You will see this in the auxiliary file.

7 Families (or Components)

7.1 Families Overview

The ARChetype contains only a few families in order to maintain a workable file of reasonable size. Families should be loaded into Revit as required.

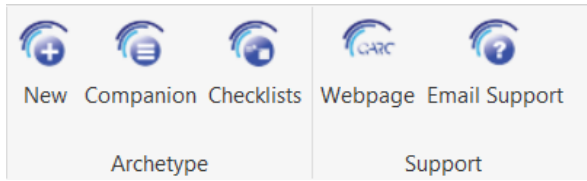


Families are a Revit term for what many CAD systems call a component. As in a real building, nearly everything that can be supplied as a unit, is best produced in Revit as a family. Revit does use the term Component to describe certain families like plumbing fixtures. The term is also used to describe in-place modelled 'families'.

QARC provides a very extensive library of Families, all available via the QARC Content Browser. The library includes doors, windows, plumbing fixtures, furniture, generic items and much more. As QARC develops this library, it is gradually being rebuilt and enhanced.

Here is the view of the QARC4Revit Content browser for the QARC library. The browser contains system families as well as families. The image has been arranged with family subfolders expanded so you can see the extent of the library. Please note the content library is expanding constantly and announcements of this come through Mail chimp emails. If you require a particular family you can email us at admin@qarcsystems.com.au.

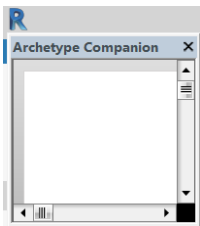
9 Support



9.1 Companion

This Companion is an evolving document that undergoes regular updates, mainly annually or on an ad hoc basis if we revise the ARChetype. It is written to assist with QARC, not Revit itself.

Like the rest of QARC we'd appreciate any suggestions you have to improve this Companion. Please email the administrator admin@qarcsystems.com.au



If you have this Companion printed, and want to see it electronically, it is available from the QARC menu in Revit. When the Companion button is selected, a dialogue box comes to screen containing a PDF version of the Companion. The first time you access it, it appears in the top left of the screen as a small box. Simply grab the bottom right corner and expand.

Contents	
1 Introduction	0
1.1 QARC Origins	0
1.2 What is QARC?	0
1.3 Release Frequency + Naming	0
1.4 QARC Delivery	1
1.4.1 QARC via Plug-in	1
1.4.2 QARC – Individual Folder	1
1.5 New in Release – November 2017	1
1.5.1 Transferring New Items	1
1.5.2 Changes This Release	2
1.6 AS1100	3
1.7 No Need for the ARChetype?	3
2 Getting Started with the ARChetype	4
2.1 Download the ARChetype	4

A.1 APPENDIX - Sheet Numbering and Naming Conventions

Refer 3.5 *Sheet Numbering*, for an explanation. The ARChetype sheet numbering system uses three digits for a 'Sheet No' and two letters for a 'Sheet Type'.

An example - the first level floor plan is 111FP, which is in the 100 century for plans, 10 decade for floor plans, 1 for level 1, and FP for 'Floor Plan'.

A.1.1 Sheet Number System

000	Preliminaries		All lead-in items
	001	Cover	Index, 3D image, Consultant List
	010	General 3D	Introductory Renderings
	020	Site Conditions	Locality 1:500 1:1000 1:2000. Council Data.
	030	District Plans	District & Block Setout Plans 1:500, 1:200
	040	Contour Plans	Survey & Site Data
	050	Site Works Plans	Ground & Civil
	060	Prelims Spare	User Defined
	070	Prelims Spare	User Defined
	080	Staging / Manage	Site Management etc
	090	Existing Landscape	Site Plans e-vegetation
100	Plans		All Plans
	100	Site Plans	1:200 1:500 (This includes Concept Site at 105)
	110	Floor Plans	1:100 Numbers to 119
	120	Room Plans	1:100 (For Room Scheduling)
	130	Roof Plans	1:100 Bird's Eye
	140	Services Plans	1:200 Services
	150	Electrical Plans	1:100
	160	Reflected Ceiling Plans	1:100
	170	Area Plans	O/S Walls, GFA, Site Cover, POS etc
	180	Shadow Plans	1:200
	190	Concept Plans	1:50, 1:100 Hand sketches at Concept
200	Elevations		All Exterior Elevated Views
	200	Elevations General	1:100 Numbers to 219
	220	Elevations Larger	1:50 Numbers to 239
	240	Elevations Smaller	1:200 Numbers to 259
	260	Elevations Concept	1:50, 1:100 Hand sketches at Concept
	270	Elevations Spare	User Defined. Numbers to 299
300	Sections		All Interior Elevated Views
	300	Sections Cross	1:100 Numbers to 319
	320	Sections Longitudinal	1:100
	330	Sections Larger	1:50
	340	Sections Smaller	1:200
	350	Sections Detail - Cross	1:20 Numbers to 369
	370	Sections Detail - Longitudinal	1:20
	380	Sections Concept	1:50, 1:100 Hand sketches at Concept
	390	Sections Spare	User Defined. Numbers to 399
400	Presentation		All General 3Ds etc
	400	Streetscapes & 3D Envelopes	For DAs
	410	Axonometrics	Traditional 3D views
	420	Axonometrics Cutaway	3D views cut through above floors
	430	Perspectives	Perspectives - see 900 also
	440	Landscaping	Plans Vegetation
	450	3D Shadow	Shadow Studies
	460	Renderings	Artist Impressions
	470	3D's Concept	Hand sketches (or Revit views) at Concept
	480	3D's Spare	User Defined. Numbers to 499

A.3 APPENDIX - QARC Hatch Types

The hatch types included in the ARChetype can be found in the Drafting View

02.02 StoreHatchTypeDrafting DoNotDelete in the Coordination sub-group.

If this drafting view is deleted, a purge will remove any hatch styles you have not used in your project file.

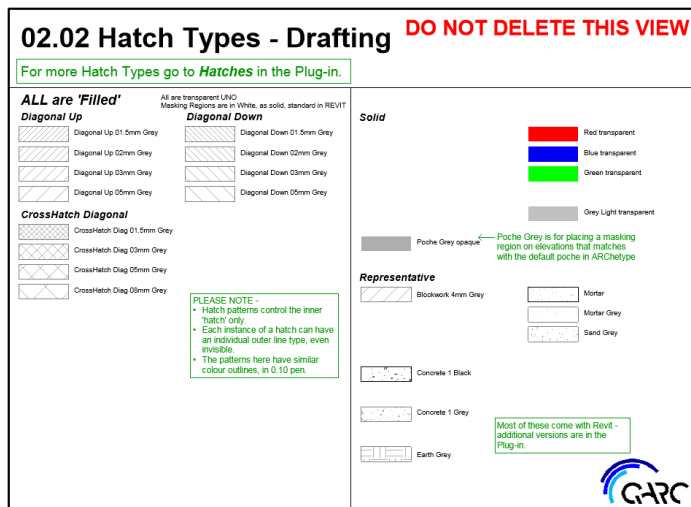
The copy shown below is not to scale.

Refer 4.5 *Hatch Styles* for additional explanations.

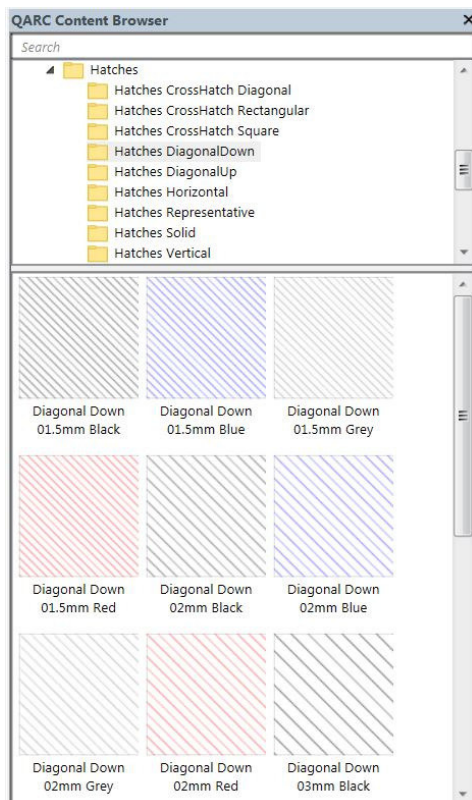
Additional Hatch Types beyond those in the ARChetype are within the Browser of the QARC4Revit Plug-in.

This is the drafting view within the ARChetype:

02.02 StoreHatchTypeDrafting DoNotDelete



A snapshot of the Hatch section within the Browser of the QARC4Revit Plug-in.



A.7 APPENDIX – Auxiliary File

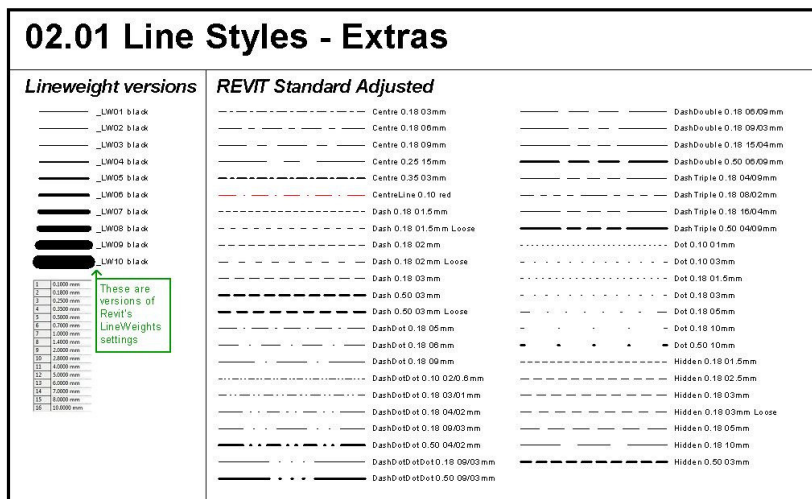
The QARC4Revit plug-in hosts nearly all items that are used in REVIT. A very few will not currently host. These include curtain walls, some wall hosted items like sweeps and reveals, and line styles. These few items are available within an Auxiliary file that is available from the QARC4Revit menu. This file will most probably remain as Revit cannot handle some items being presented in any other way than via a project file. The Auxiliary file also contains some extra annotation items in different fonts to those in the ARChetype, mainly CenturyGothic.

If you require something that is beyond what is in ARChetype or the QARC4Revit browser, we suggest you open this file and investigate what is in the farm and drafting views. If you still need something else, let QARC know and we will add it for other users too.

You simply copy and paste any 3D item you require. Some of the items can be brought in using Transfer Project Standards: *Manage* tab ► *Transfer Project Standards*, mainly things like level & view titles. Or you can copy and paste entire drafting views into your project file, and this will bring in all the extras within that drafting view.

Following are the items within the Auxiliary file.

A.7.1 Auxiliary File – Line Styles



In Drafting View *LineStyle* Extras are these:

Revit Standard Adjusted
This section contains standard Revit line styles which have been adjusted and renamed to be more relevant to an architectural template in Australia. The naming convention adopted has attempted to be descriptive. Note that dash

and hidden lines are the same as has always been the case in Revit.

Lineweight versions

Some users have requested a series of black lines that reflect Revit standard lineweights. So *_LW01* is lineweight 1.

A.8 APPENDIX – All Annotations

It is difficult to list and explain all the many annotation items. Section 4, and the Appendices A.2 above, have illustrated the major ones. Below are snapshots of the Annotations portion of the Project Browser, with additional explanations as required. Standard items that are part of Revit are not listed or described.

Please note that some ‘Symbols’ are linked to Schedules, eg the symbol *QARC Icon Reno* drives the schedule *Renovations List*. The link between Schedules and Symbols is included in A.9 *APPENDIX – Schedules*.

<ul style="list-style-type: none"> ⊕ ARCTitleA2 Cover ⊕ ARCTitleA2 CoverInsert ⊕ ARCTitleA2 Horiz ⊕ ARCTitleA2 JobSheetNoOnly ⊕ ARCTitleA2 Vert ⊕ ARCTitleA3 Cover ⊕ ARCTitleA3 CoverInsert ⊕ ARCTitleA3 Horiz ⊕ ARCTitleA3 JobSheetNoOnly ⊕ ARCTitleA3 Vert 	<p>ARC Title:</p> <p>These are all the pre-loaded Titleblocks – DO NOT DELETE! Refer 2.2 <i>Loading your Individual Titleblocks</i> about how you insert your individual Titleblocks.</p> <p>Note: The “ARC” prefix is being retained for the Titleblocks until all users have had their Titleblocks updated and inside the Plug-in.</p>
<ul style="list-style-type: none"> ⊕ Keynote QARC Arial 2.0mm ⊕ Keynote QARC Arial 2.0mm Opaque ⊕ Keynote QARC Arial 2.5mm ⊕ Keynote QARC Arial DiagDn 2.0mm ⊕ Keynote QARC Arial DiagDn 2.5mm ⊕ Keynote QARC Arial DiagUp 2.0mm ⊕ Keynote QARC Arial DiagUp 2.5mm 	<p>Keynotes:</p> <p>These are the families that help drive the Auto Keynoting system. Refer 4.6.1 <i>Auto Keynoting</i>.</p>
<ul style="list-style-type: none"> ⊕ QARC Area Tag Arial 1.5mm ⊕ QARC Area Tag Arial 2.0mm ⊕ QARC Area Tag Arial 2.5mm ⊕ QARC Area Tag Arial 3.0mm ⊕ QARC Bracing kN Tag ⊕ QARC BracingLoadsArrowsSymbol ⊕ QARC BracingLoadsPressureCoEfficientSymbol ⊕ QARC BracingPanel Tag ⊕ QARC BracketedText Symbol Arial ⊕ QARC BracketedText Symbol ArialNarrow ⊕ QARC CalloutHead 12mm Circle 3-2Arial ⊕ QARC CalloutHead 12mm OblongCircle 3-2.5Arial ⊕ QARC ElevationMark Pointer_Circle ⊕ QARC ElevationMarkCircle-6mmDia ⊕ QARC ElevBody 6.0mm ForInterior ⊕ QARC ElevBody 9.0mm ⊕ QARC ElevPointer 6.0mm Detail+Sheet Outside ⊕ QARC ElevPointer 9.0mm ⊕ QARC GridHead-Circle3mmRedArial ⊕ QARC GridHead-Circle5mmRedArial ⊕ QARC GridHead-Circle8mmRedArial ⊕ QARC GridHead-Circle12mmRedArial ⊕ QARC GridHead-Hexagon6mmRedArial ⊕ QARC GridHead-Hexagon9mmRedArial ⊕ QARC GridHead-Hexagon13mmRedArial 	<p>QARC Area Tags:</p> <p>Sophisticated area tags.</p> <p>Bracing Items:</p> <p>“QARC Bracing . . .” are all the tags & symbols for the QARC Bracing system. Refer 5.5 <i>Bracing</i> .</p> <p>Basic Bracketed Text:</p> <p>“QARC Bracketed Text Symbol . . .” Refer 4.7.1 <i>Z100</i>.</p> <p>Callout</p> <p>Elev</p> <p>Grid Heads:</p> <p>“QARC Grid Head . . .” are all the grid heads in ARChetype. Refer 3.8 <i>Grids</i>.</p>

A.10 APPENDIX – ARChetype Transference

This Appendix brings together the several references throughout this Companion about how to update your version of the ARChetype template. It also adds to them.

There are four ways we have seen the ARChetype used:

A.10.1 Starting New

Essentially starting from scratch.

Refer to *2 Getting Started with the ARChetype* for the full dissertation on this.

A.10.2 Re-Starting New

A bit similar to *A.10.1 Starting New*. Except that you've already done a bit of the setup before but did not modify the ARChetype.

In this scenario, if you can recall what you did last time, just repeat it with the same process as *Starting New*.

One trick we suggest is to copy and paste anything from your template into the new version.

As per *2.4 Individualizing your ARChetype (Template)*, we suggest it can help to have a permanent master project file, that you keep updating. And every year or two, you create a new template for your practice, based on the latest ARChetype.

There will be things like General Notes, Standard Notes, Framing Notes etc. You may have favoured families and system families that you want in the template, but we suggest you switch to BIMlocker for those.

Most of our users do not modify the ARChetype much, if at all. We know that almost all update their ARChetype each Christmas.

A.10.3 Transfer new ARChetype features into your ARChetype version

In the past, you used the ARChetype to create your own template. Some users have done this but made heavy modifications. So, it is nigh on impossible to start from scratch or recreate a template, and you do not want to lose all your previous work.

But you want to benefit from our latest ARChetype. What to do?

We have re-introduced a list of new features in the ARChetype, from R2018. Refer that table at the end of this section for how to bring the items in - *A.10.5 List of added ARChetype features*.

A.10.4 Update your own template, with features from the ARChetype

Refer *1.7 No Need for the ARChetype?*.

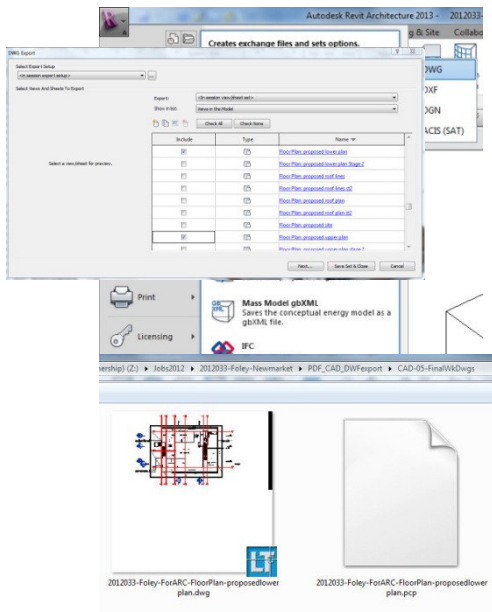
A.13 APPENDIX - Exporting to CAD

A.13.1 CAD for Consultants

We suggest the following process when you must provide other Consultants with CAD data. Usually engineers, especially structural. We believe it is good practice to have agreements with your consultants, as regards IP and CAD transfer - see your legal advisor.

At QARC, we insist that you do not transfer a Revit file to others, without first stripping it down, otherwise you will breach your agreement with us, plus give away your own IP. Refer A.14 APPENDIX - Sharing Revit file.

A good way to provide digital data to others and reduce risk, is to use Revit's excellent Export tools, one of which is Export CAD. This is especially handy when you might be forced into providing digital data to an entity over which you may have minimal control.



Go R>Export>Cad Formats>DWG

Carefully choose items in this next dialogue box.

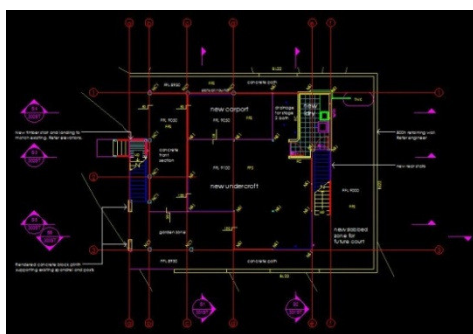
We suggest you ONLY export views, not sheets, and only those views that your consultant needs.

For a structural engineer, this is predominately floor plans.

Hit Next and choose the type of AutoCad version and other things.

If you have older versions of AutoCad, choose the one you have so you can preview it.

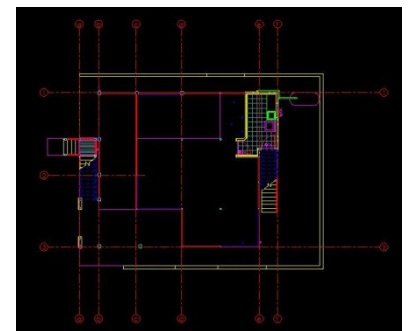
You will end up with two files per export. This is a thumbnail view. One is the DWG AutoCad file, the other is a PCP plot config file, that you can happily delete.



We suggest you always preview the DWG file in your AutoCad software. And possibly remove things.

Left is a plan before.

Right, the same one after deletions.



And always purge any file before sending it onto others. Save and send! And repeat for all the files.

Most engineers do not use your raw data, they simply 'underlay' it just like olden days on the board. But you might as well provide data that is both relevant to help them and stripped down to better protect you.