REinVenting an Interior design pracTice

Kelvin Tam – NBBJ

AB2535 Interior designers may think Autodesk® Revit® software is less useful to them than it is to architects, but this class will definitely change their minds. As the scope of interior design is mostly on objects, such as furniture and interior finish materials, documenting enormous quantities of information in these categories makes it a challenge to model. It is almost impossible to model every little thing, but when it comes to project cost, everything counts. How can the information be included in the intelligent model without microscopic modeling that will overload the model? This class will introduce the use of data intelligent families with minimum geometry and smart scheduling to cover the interior design scope of work. The class will also demonstrate techniques that make use of data management in Revit to do documentation in various formats, which enables interior design delivery packages to be done in a single file instead of using different programs like Microsoft® Excel®, Microsoft® Word, and Adobe® InDesign®.

Learning Objectives

At the end of this class, you will be able to:

- Understand importance of data rather than geometry in model

- Creating data intelligent families

- Scheduling data from families to track quantity and cost

- Use Revit as an all-in-one program to present information in various format

About the Speaker

With a passion in BIM, Kelvin Tam, registered architect, LEED AP has been thinking out of the Revit package box for challenges that the program could hardly do and trying to push Revit Architecture to the very limit to satisfy architects' specific needs for design, documentation and management. He has been working as both a designer and BIM lead on a variety of building types in the nation's leading design firms as RTKL, Rossetti Architects and NBBJ. Currently, Kelvin is the studio BIM lead at NBBJ Columbus office and is highly involved in setting up standards and protocols for the firm's BIM implementation. Holding a B.S. in Environmental Design from the College of Architecture at the University of Houston and a B. Arch from SCI-Arc, Kelvin has a very strong design sensibility and is bringing design and technology together in the practice of architecture.
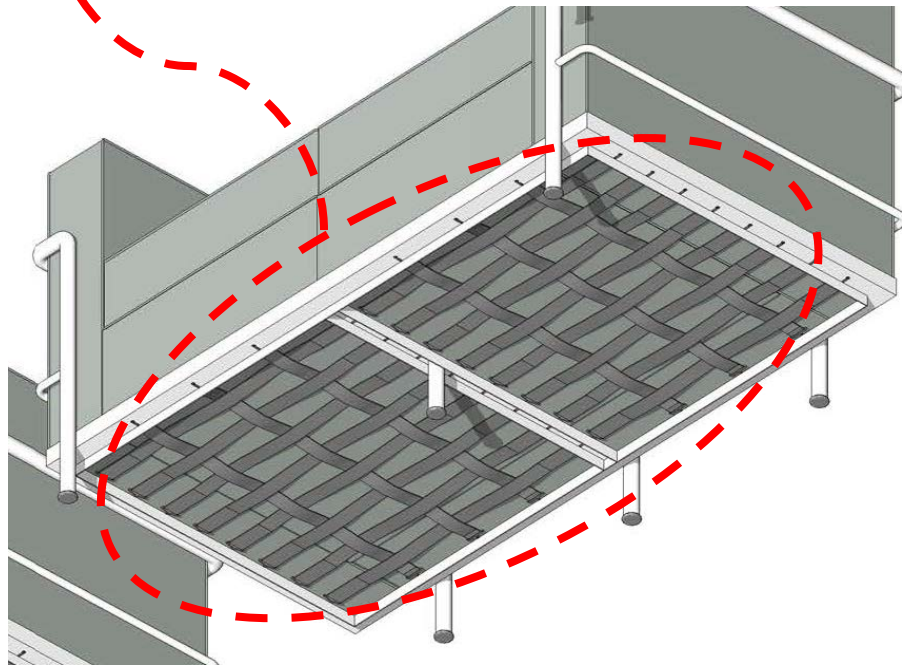
ktam@nbbj.com
http://www.linkedin.com/in/kelvintam
http://www.revitswat.wordpress.com

I. DATA INTELLIGENT FAMILIES (FURNITURE AND TOILET ACCESSORIES)
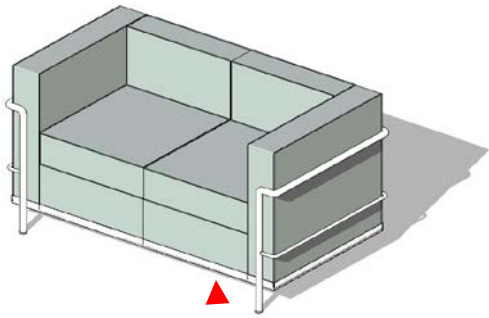
LC2 sofa designed by Le Corbusier

LOD 500 family showing exact construction

I1. GLOSSARY

AIA Document E202:

- Who is responsible for each element of the model and to what level of development?
- What are authorized uses for the model?
- To what extent can users rely on the model?
- Who will manage the model?
- Who owns the model?

LOD (Level of Development): describes the level of completeness to which a Model Element is developed.

I2. DEFINITIONS

LOD 100: overall building massing indicative of area, height, volume, location, and orientation may be modeled in three dimensions or represented by other data.

LOD 200: Model Elements are modeled as generalized or assemblies with approximate quantities, size, shape, location, and orientation. Non-geometric information may also be attached to Model Elements.

LOD 300: Model Elements are modeled as specific assemblies accurate in terms of quantity, size, shape, location, and orientation. Non-geometric information may also be attached to Model Elements. Suitable for generation of traditional construction documents and shop drawings.

LOD 400: Model Elements are modeled as specific assemblies that are accurate in terms of size, shape, location, quantity, and orientation with complete fabrication, assembly, and detailing information. Non-geometric information may also be attached to Model Elements. Model Elements are virtual representations of the proposed element and are suitable for construction.

LOD 500: Model Elements are modeled as constructed assemblies actual and accurate in term of size, shape, location, quantity, and orientation. Non-geometric information may also be attached to modeled elements.

LOD 100²: Model Elements are modeled as LOD 100. Non-geometric information must be attached to model elements to represent the accurate quantities, size.
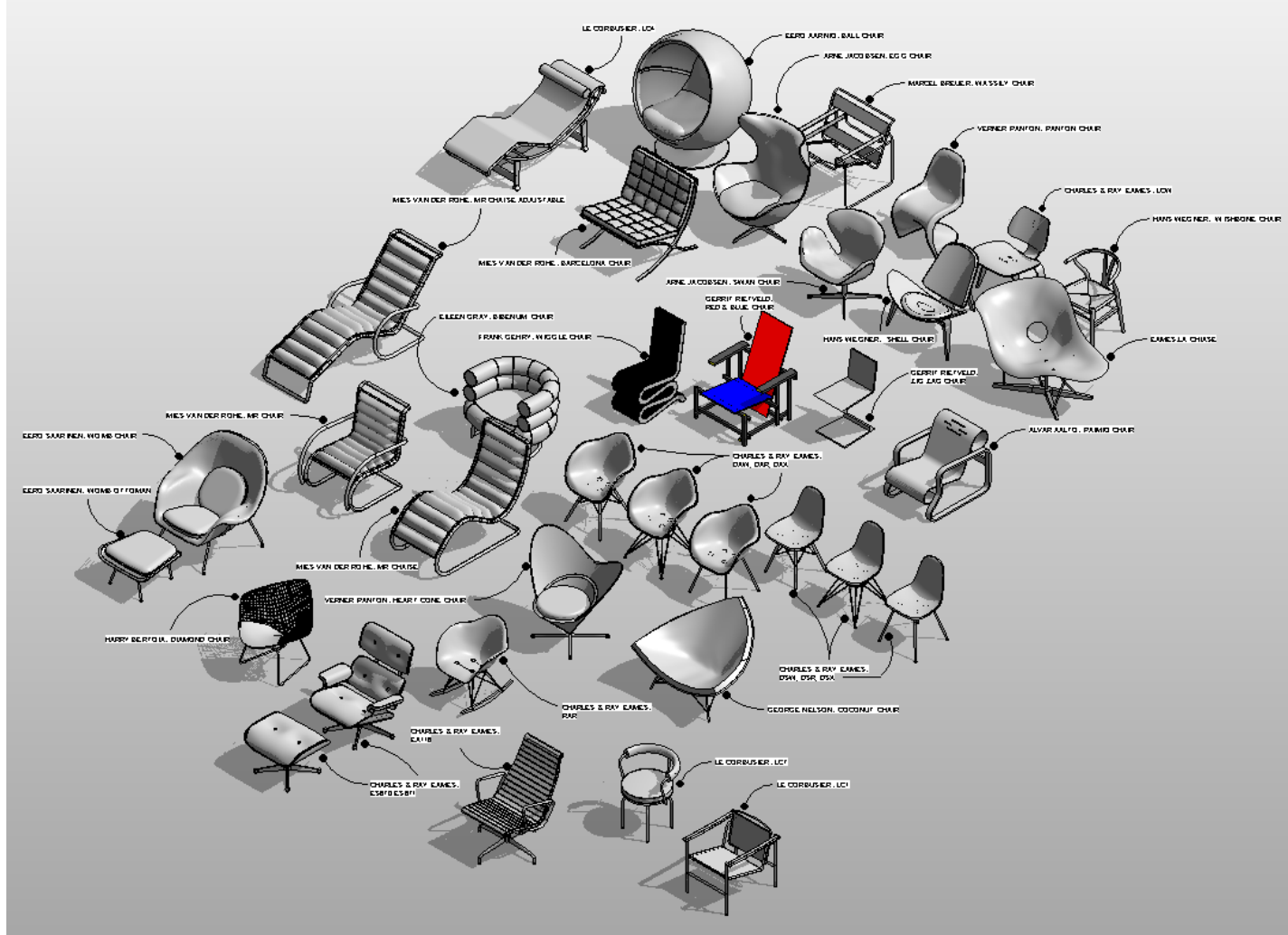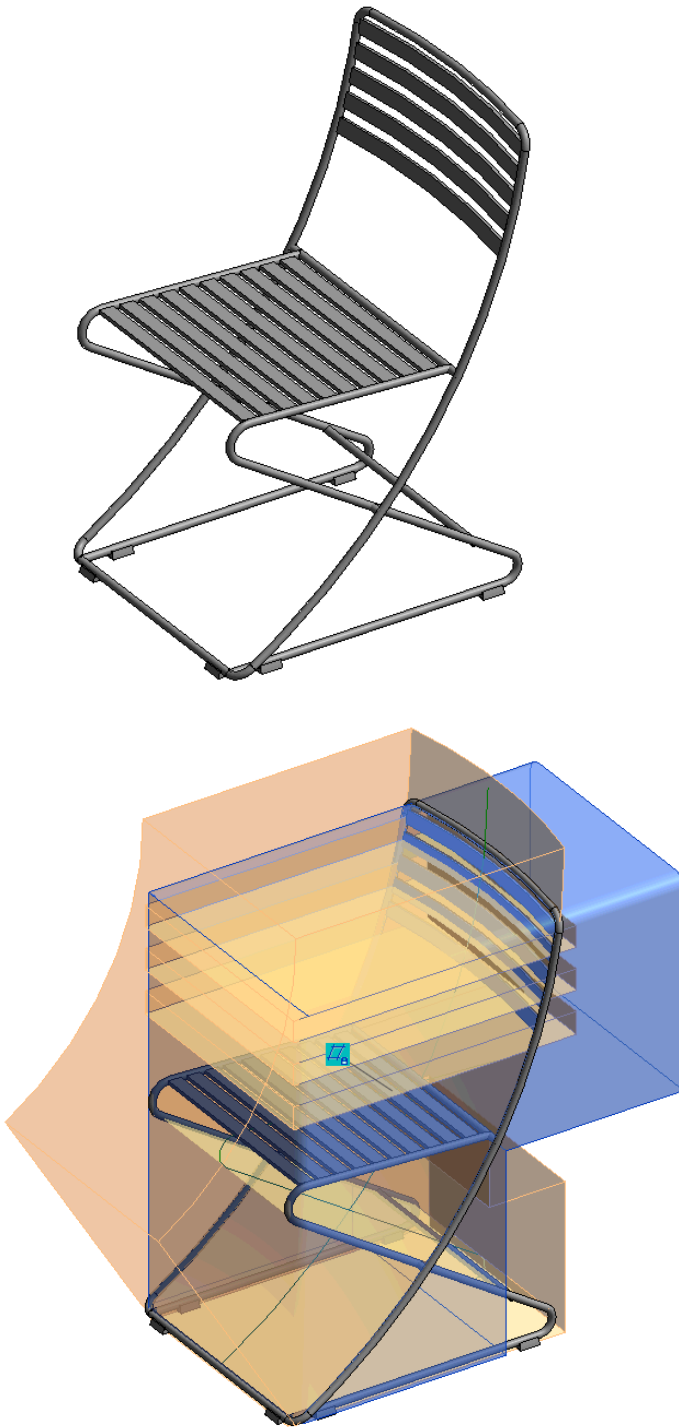
I3. OBJECTIVES

The purpose of data intelligent families is having accurate values (data, numbers) which can be driven by parameters and formulas in the family while keeping the family file size minimum by simplifying or eliminating three-dimensional geometry.

FURNITURE CATALOG

BY REVIT

I4. FAMILY CREATION

I4.1 FURNITURE

LOD 500 model construction

I4.1.1 FURNITURE LABEL

1. Create a generic annotation family.
2. Add the following family type parameters:

Dimensions: Furn Depth (Length)
      Furn Height (Length)
      Furn Width (Length)

Text: Description
      Furn Code (Text)
      Furn Mfr (Text)
      Furn Style (Text)
      Misc 1 Code (Text)
      Misc 1 Color (Text)
      Misc 1 Comments (Text)
      Misc 1 Mfr (Text)
      Misc 1 Style (Text)
      Misc 2 Code (Text)
      Misc 2 Color (Text)
      Misc 2 Comments (Text)
      Misc 2 Mfr (Text)
      Misc 2 Style (Text)
      Model (Text)
      Uph Code (Text)
      Uph Color (Text)
      Uph Comments (Text)
      Uph Cost (Number)
      Uph Cost/Yd (Number)
      Uph Mfr (Text)
      Uph Pattern (Text)
      Uph Yd/Item (Number)

3. Draw a rectangle 8.5" X 11".
4. Inside the rectangle, create labels and associate the labels with parameters above.
5. Save annotation family as AN-GENC-FN_LABL.rfa.

FURNITURE:

Code:	Furn Code
Manufacturer:	Furn Mfr
Style:	Furn Style
Model No:	Model
Size:	Furn WidthW x Furn DepthD x Furn HeightH
Description:	Description

FABRIC:

Uph Code:	Uph Code
Mfr:	Uph Mfr
Pattern:	Uph Pattern
Color:	Uph Color
Uph Yd/Item:	Uph Yd/Item
Uph Cost/Yd:	Uph CostYd
Cost:	Uph Cost
Notes:	Uph Comments

MISC FINISH 1:

Misc 1 Code:	Misc 1 Code
Mfr:	Misc 1 Mfr
Style:	Misc 1 Style
Color:	Misc 1 Color
Notes:	Misc 1 Comments

MISC FINISH 2:

Misc 2 Code:	Misc 2 Code
Mfr:	Misc 2 Mfr
Style:	Misc 2 Style
Color:	Misc 2 Color
Notes:	Misc 2 Comments

Furn Code

I4.1.2 FURNITURE TEMPLATE

1. All shared parameters are ready built in template.
2. No need to add parameters when creating new family.
3. Create a furniture family.
4. Load the generic annotation AN-GENC-FN_LABL.rfa.
5. Place the furniture label family at the center.
6. Select AN-GENC-FN_LABL and edit type.
7. Associate all parameters in the furniture label family by creating shared parameters as follows (all type parameters):

   Dimensions: Furniture Depth (Length)
                                 Furniture Height (Length)
                                 Furniture Width (Length)

   Identity Data: Furniture Code (Text)

   Other: Furniture Misc 1 Code (Text)
                                 Furniture Misc 1 Color (Text)
                                 Furniture Misc 1 Comments (Text)
                                 Furniture Misc 1 Manufacturer (Text)
                                 Furniture Misc 1 Style (Text)
                                 Furniture Misc 2 Code (Text)
                                 Furniture Misc 2 Color (Text)
                                 Furniture Misc 2 Comments (Text)
                                 Furniture Misc 2 Style (Text)
                                 Furniture Style (Text)
                                 Upholstery Code (Text)
                                 Upholstery Color (Text)
                                 Upholstery Comments (Text)
                                 Upholstery Cost (Currency)
                                 Upholstery Cost per Yard (Currency)
                                 Upholstery manufacturer (Text)
                                 Upholstery Pattern (Text)
                                 Upholstery Yardage per Item (Area)
8. Select the furniture label family, edit Visibility/Graphic Overrides, at Detail Levels, check "Fine" only.
9. Save family as a template FN.rft.

I4.1.3 FURNITURE FAMILY

1. Create furniture family using template FN.rft.
2. Draw symbolic line on Ref. Level representing plan view of furniture.
3. Select all symbolic lines, edit Visibility/Graphic Overrides, at Detail Levels, check "Coarse" and "Medium".
4. Input furniture data by typing in the furniture label family.
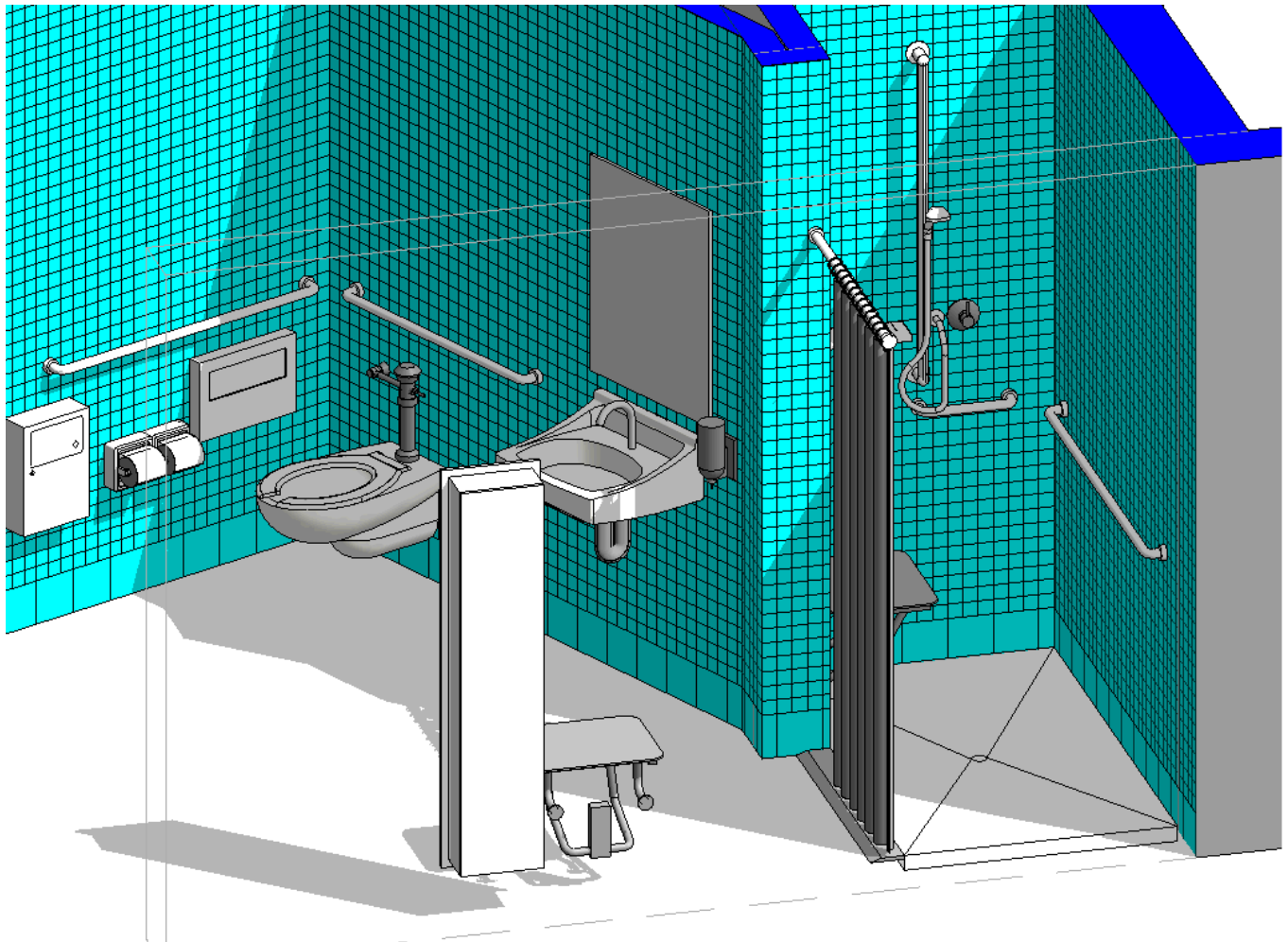
I4.2 TOILET ACCESSORIES
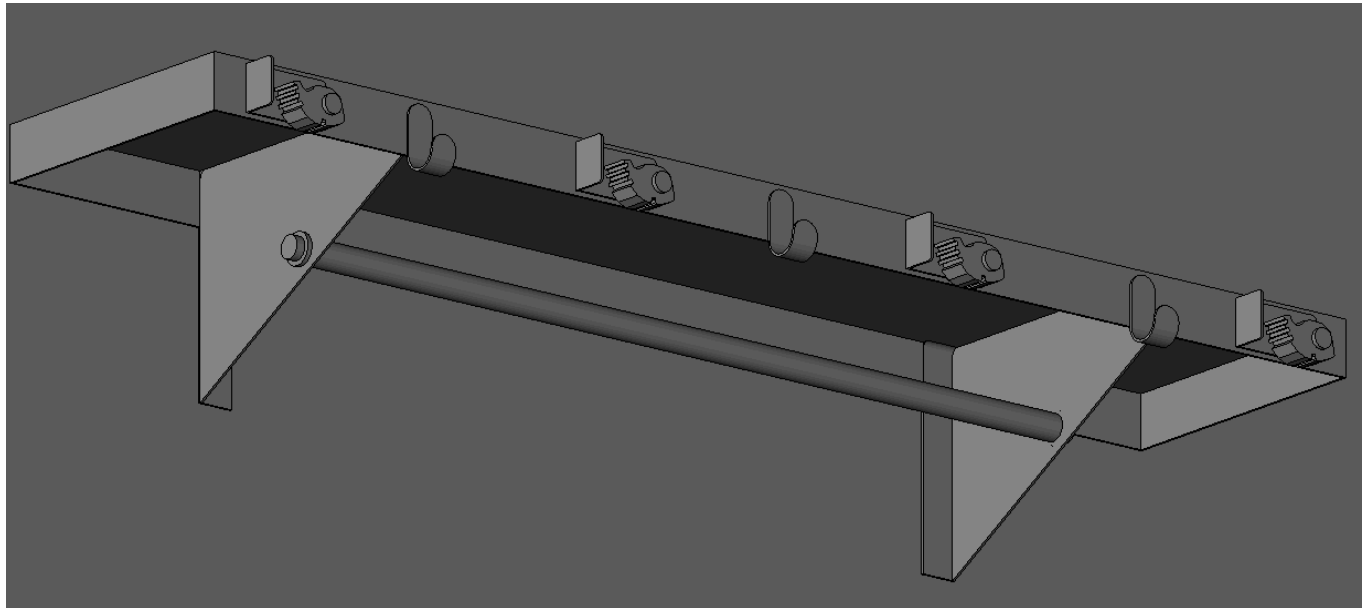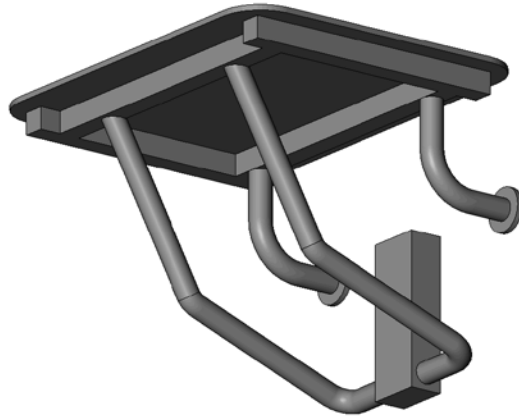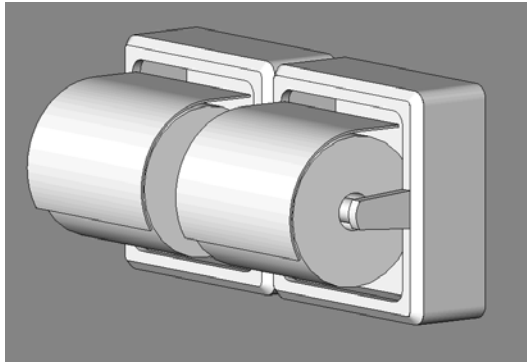
1. Create a generic annotation family.
2. Add family type parameter: Label under Text.
3. Create label and associate label with parameter "Label".
4. Save annotation family as AN-GENC-TA_LABL.rfa.
5. Create toilet accessory family with specialty equipment template.
6. Create the following shared parameters(all text):
   Identity Data: Toilet Accessory Category (Type)
                                Toilet Accessory Mark (Type)
                                Toilet Accessory Qty Requirement (Instance)
7. Load annotation family AN-GENC-TA_LABL.rfa.
8. Place toilet accessory label family at the center.
9. Select AN-GENC-TA_LABL and edit type.

10. Associate the parameter "Label" with "Toilet Accessory Mark".
11. Edit Visibility/Graphics Overrides, at Detail Levels, check "Fine" only.
12. Create a number of family types by defining:
    Assembly Code
    Cost
    Description
    Manufacturer
    Model
    Toilet Accessory Category
    Toilet Accessory Mark
    Type Comments
    (Leave Toilet Accessory Qty Requirement blank)
13. Make family "Shared".
14. Save family as SE-TA-GENC-100.rfa.

Family Types	
Name:	MR-6
Parameter	**Value**
Identity Data	
Type Comments	CC/OUTPATIENT BUILDING ONLY
Toilet Accessory Qty Requirement (default)	
Toilet Accessory Mark	MR-6
Toilet Accessory Category	MIRROR
Model	33"W X 48"H
Manufacturer	CUSTOM
Description	MIRROR UNFRAMED
Cost	1.00
Assembly Code	C1030200
Keynote	
URL	

MR-6

I4.3 TOILET ACCESSORY GROUP

1. Toilet accessory group family is a combination of various toilet accessory family types in different quantities.
2. Create a generic annotation family.
3. Add family type parameter: Label under Text.
4. Create label and associate label with parameter "Label".
5. Save annotation family as AN-GENC-TAG_LABL.rfa.
6. Create a generic annotation family.
7. Add family instance parameter: Label under Text.
8. Create label and associate label with parameter "Label".
9. Save annotation family as AN-GENC-TA_QTY.rfa.
10. Create toilet accessory group family with specialty equipment template.
11. Load AN-GENC-TAG_LABL.rfa.
12. Place AN-GENC-TAG_LABL at the center, select, edit type and associate the parameter "Label" with Type Comments.
13. Load AN-GENC-TA_QTY.rfa.

14. Place AN-GENC-TA_QTY right next to AN-GENC-TAG_LABL at the center, select, associate the parameter "Label" by creating shared parameter "Toilet Accessory Qty Requirement" (Type).

TA-4	STAFF MULTI-STALL RESTROOM/LOCKER ROOMS/SHOWERS (WHERE APPLICABLE)

AN-GENC-TAG_LABL   AN-GENC-TA_QTY
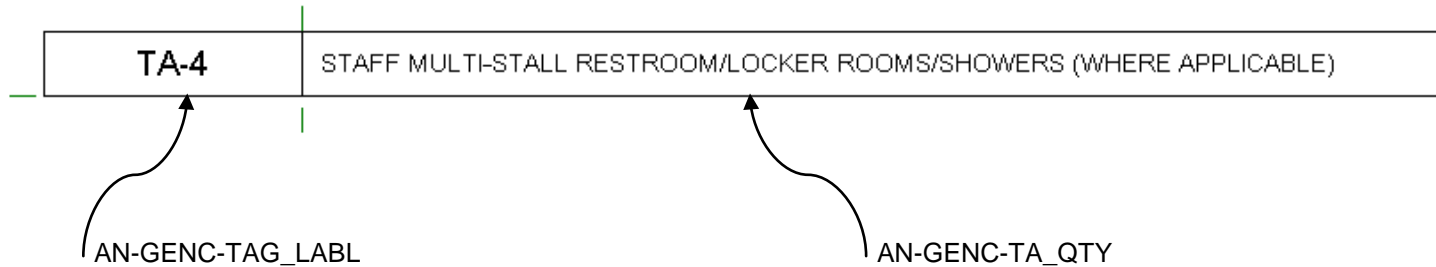
15. Load SE-TA-GENC-100.rfa.
16. Select a type of SE-TA-GENC-100 and place it right below AN-GENC-TA_LABL.
17. On the "Label" parameter, add a shared parameter (instance) as "Toilet Paper 1" (choice of toilet paper 1) under Other.
18. Associate "Visible" parameter by creating family parameter (instance) "TP1" under Analysis Results.
19. Edit Visibility/Graphic Overrides, at Detail Levels, check "Fine" only.
20. Under Identity Data, associate "Toilet Accessory Qty Requirement" by creating shared parameter "TP1Qty Requirement" (Type) under Identity Data.
21. Copy the toilet accessory family to the left, array, associate number of array by creating family parameter "Toilet Paper 1 #" (instance)under Identity Data.
22. Edit array group, select array member, associate "Visible" parameter by creating family parameter "TP1 Multi" (instance) under Analysis Results. Finish group.
23. Place AN-GENC-TA_QTY to the right of the toilet accessory family, associate the parameter "Label" with "TP1 Qty Requirement".
24. Create shared parameter "Toilet Paper 1 Count" (instance) (input data) under Identity Data.
25. Set formulas to the following:
    TP1   =Toilet Paper 1 Count = 1
    TP1 Multi   =Toilet Paper 1 Count > 1
    Toilet Paper 1 #
    =if(Toilet Paper 1 Count > 1, Toilet Paper 1 Count, 2)

Toilet Paper 1 # 2

Array : Array

TPD-1	TPD-1	TPD-1	1/STALL

TA-4   STAFF MULTI-STAL

SE-TA-GENC-100   AN-GENC-TA_QTY
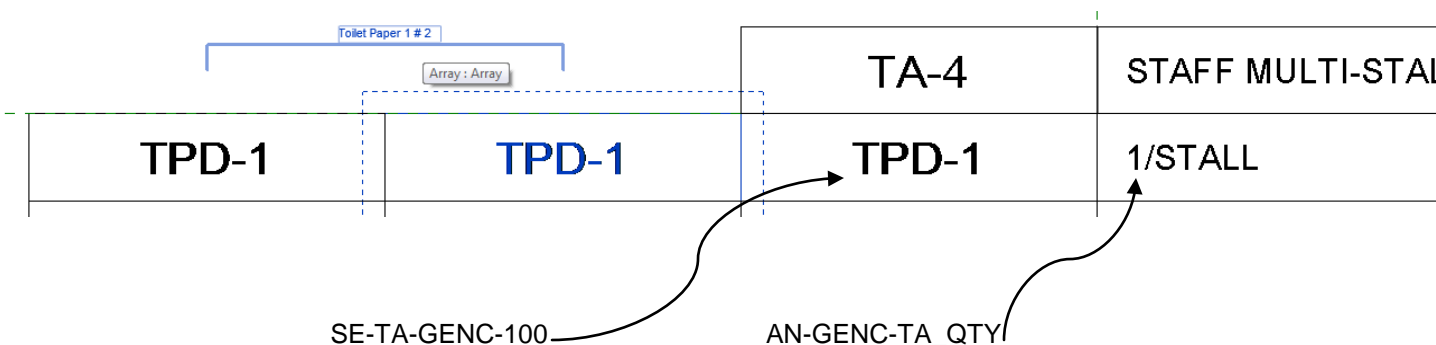
26. Understanding the parameters:

Toilet Paper 1: Choice of component used in the toilet accessory group type.

TP1 Qty Requirement: number of component per stall or per toilet required for the toilet accessory group type.

Toilet Paper 1 Count: Input data for actually number of components in the toilet. Calculated from TP1 Qty Requirement.

TP1: visibility of single component, made visible in case of single component required.

TP1 Multi: visibility of array components, made visible in case of more than one components required.

Toilet Paper 1 #: number of memebers in the array, can not be less than 2 to make the array logical, should equal to Toilet Paper 1 Count except the count is equal to one.

27. Similarly, place components for Toilet Paper 2, repeat steps 16 to 25.
28. Place components for Soap, repeat step 27.
29. Place components for Paper Towel, repeat step 27.
30. Place components for Mirror 1, repeat step 27.
31. Place components for Mirror 2, repeat step 27.
32. Place components for Grab Bar 1, repeat step 27.
33. Place components for Grab Bar 2, repeat step 27.
34. Place components for Grab Bar 3, repeat step 27.
35. Place components for Misc 1, repeat step 27.
36. Place components for Misc 2, repeat step 27.
37. Place components for Misc 3, repeat step 27.
38. Place components for Misc 4, repeat step 27.
39. Place components for Misc 5, repeat step 27.
40. Place components for Misc 6, repeat step 27.
41. Select all instances of AN-GENC-TA_QTY, edit Visibility/Graphic Overrides, at Detail Levels, check "Fine" only.
42. Create a number of Toilet Accessory Group types by defining:

Assembly Code

Description

Toilet Accessory Qty Requirement (used by room type)

Type Comments (toilet accessory group type name)

Toilet paper 1 (choice of component)

TP1 Qty Requirement (number of component/stall or /toilet)

Toilet Paper 2 (choice of component)

TP2 Qty Requirement (number of component/stall or /toilet)

Soap (choice of component)

SP Qty Requirement (number of component/stall or /toilet)

Paper Towel (choice of component)

PT Qty Requirement (number of component/stall or /toilet)

Mirror 1 (choice of component)

MR1 Qty Requirement (number of component/stall or /toilet)

Mirror 2 (choice of component)

MR2 Qty Requirement (number of component/stall or /toilet)

Grab Bar 1 (choice of component)

GB1 Qty Requirement (number of component/stall or /toilet)
Grab Bar 2 (choice of component)
GB2 Qty Requirement (number of component/stall or /toilet)
Grab Bar 3 (choice of component)
GB3 Qty Requirement (number of component/stall or /toilet)
Misc 1 (choice of component)
M1 Qty Requirement (number of component/stall or /toilet)
Misc 2 (choice of component)
M2 Qty Requirement (number of component/stall or /toilet)
Misc 3 (choice of component)
M3 Qty Requirement (number of component/stall or /toilet)
Misc 4 (choice of component)
M4 Qty Requirement (number of component/stall or /toilet)
Misc 5 (choice of component)
M5 Qty Requirement (number of component/stall or /toilet)
Misc 6 (choice of component)
M6 Qty Requirement (number of component/stall or /toilet)

43. Save family as SE-TA-GROUP-100.rfa.

		TA-4	STAFF MULTI-STALL RESTROOM/LOCKER ROOMS/SHOWERS (WHERE APPLICABLE)
TPD-1	TPD-1	TPD-1	1/STALL
N/A	N/A	N/A	N/A
SD-2	SD-2	SD-2	1 BETWEEN EVER TWO SINKS
PTD-2	PTD-2	PTD-2	2/TOILET ROOM
MR-1	MR-1	MR-1	1/SINK
N/A	N/A	N/A	N/A
GB-36	GB-36	GB-36	ADA STALL ONLY
GB-42	GB-42	GB-42	ADA STALL ONLY
GB-L	GB-L	GB-L	1/SHOWER STALL
CH-1	CH-1	CH-1	1/TOILET STALL AND 2/SHOWER STALL
SCD-1	SCD-1	SCD-1	1/STALL
SN-1	SN-1	SN-1	1/STALL FEMALE TOILET ROOM ONLY
SND-1	SND-1	SND-1	1/FEMALE TOILET ROOM ONLY
SR-1	SR-1	SR-1	1/SHOWER STALL
SDS-2	SDS-2	SDS-2	1/SHOWER STALL

I4.4 TOILET ACCESSORY GROUP TAG

1. A toilet accessory tag enables not only reporting the data from the family but also inputting parametric values to the family.
2. Create a specialty equipment tag.
3. Create labels and associate them with shared parameters:
   TP1 Qty Requirement
   Toilet Paper 1 Count
   TP2 Qty Requirement
   Toilet Paper 2 Count
   SP Qty Requirement
   Soap Count
   PT Qty Requirement
   Paper Towel Count
   MR1 Qty Requirement
   Mirror 1 Count
   MR2 Qty Requirement
   Mirror 2 Count
   GB1 Qty Requirement
   Grab Bar 1 Count
   GB2 Qty Requirement
   Grab Bar 2 Count
   GB3 Qty Requirement
   Grab Bar 3 Count
   M1 Qty Requirement
   MISC 1 Count
   M2 Qty Requirement
   MISC 2 Count
   M3 Qty Requirement
   MISC 3 Count
   M4 Qty Requirement
   MISC 4 Count
   M5 Qty Requirement
   MISC 5 Count
   M6 Qty Requirement
   MISC 6 Count
4. Save family as AN-TAG_SEQM-TA_GROUP.rfa.

1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TP1	TP2	SP	PT	MR1	MR2	GB1	GB2	GB3	M1	M2	M3	M4	M5	M6
TP1 Qty Requirement	TP2 Qty Requirement	SP Qty Requirement	PT Qty Requirement	MR1 Qty Requirement	MR2 Qty Requirement	GB1 Qty Requirement	GB2 Qty Requirement	GB3 Qty Requirement	M1 Qty Requirement	M2 Qty Requirement	M3 Qty Requirement	M4 Qty Requirement	M5 Qty Requirement	M6 Qty Requirement

I4.5 PUT IT TO WORK

1. Load SE-TA-GROUP.rfa to a project.
2. Load AN-TAG_SEQM-TA_GROUP.rfa to project.
3. Place toilet accessory group family with the appropriate type in a toilet room on a floor plan with "Coarse" Detail Level.
4. Determine male or female toilet.
5. Count stalls.
6. Count handicap stalls.
7. Count shower stalls.
8. Count sinks.
9. Tag toilet accessory group family with AN-TAG_SEQM-TA_GROUP.
10. Read the quantity requirement for each toilet accessory component.
11. Type in number for each component, 0 for N/A.
12. This will generate the quantity of each components required by the room.

TA-1

TP1	TP2	SP	PT	MR1	MR2	GB1	GB2	GB3	M1	M2	M3	M4	M5	M6
1	0	1	2	1	1	1	1	0	1	1	1	1	1	1
1/STALL	N/A	1 BETWEEN EVERY TWO SINKS	2/TOILET ROOM	1/SINK (NOT USED IN OUTPATIENT BUILDING)	1/SINK (OUTPATIENT BUILDING ONLY)	ADA STALL ONLY	ADA STALL ONLY	N/A	1/STALL	1/TOILET ROOM	1/STALL	1/STALL FEMALE TOILET ROOM ONLY	1/FEMALE TOILET ROOM ONLY	1/TOILET ROOM

TA-2

| TP1	TP2	SP	PT	MR1	MR2	GB1	GB2	GB3	M1	M2	M3	M4	M5	M6
1	0	1	1	1	0	1	1	0	1	1	1	0	0	0
ET ROOM	N/A	ET ROOM	ET ROOM	ET ROOM	N/A	ET ROOM	ET ROOM	N/A	ET ROOM	ET ROOM	ET ROOM	N/A	N/A	N/A

I5. DOCUMENTATION

I5.1 FLOOR PLANS

1. Furniture families will show up as symbolic lines representing plan view graphically at "Coarse" and "Medium" level of detail.
2. Furniture families will show up as 8.5 X 11data sheets at "Fine" level of detail.
3. Furniture plans should be set at "Coarse" or "Medium" but never at "Fine" level of detail.
4. Toilet accessory group families will show up as group label at "Coarse" and "Medium" level of detail.
5. Toilet accessory group families will show all the components (as labels) at "Fine" level of detail.
6. Floor plans should be set at "Coarse" or "Medium" level of detail.

I5.2 LEGENDS

1. Create a legend view at scale 12" = 1'-0" or 1:1 at "Fine" level of detail.
2. Place 40 different furniture types on the legend views, array in 5 rows and 8 columns.
3. Each furniture family shows as an 8.5 X 11 data sheet.
4. Import pictures of furniture and scanned images of fabric and finishes, scale to approx. 2" X 2" and place in appropriate data sheets.
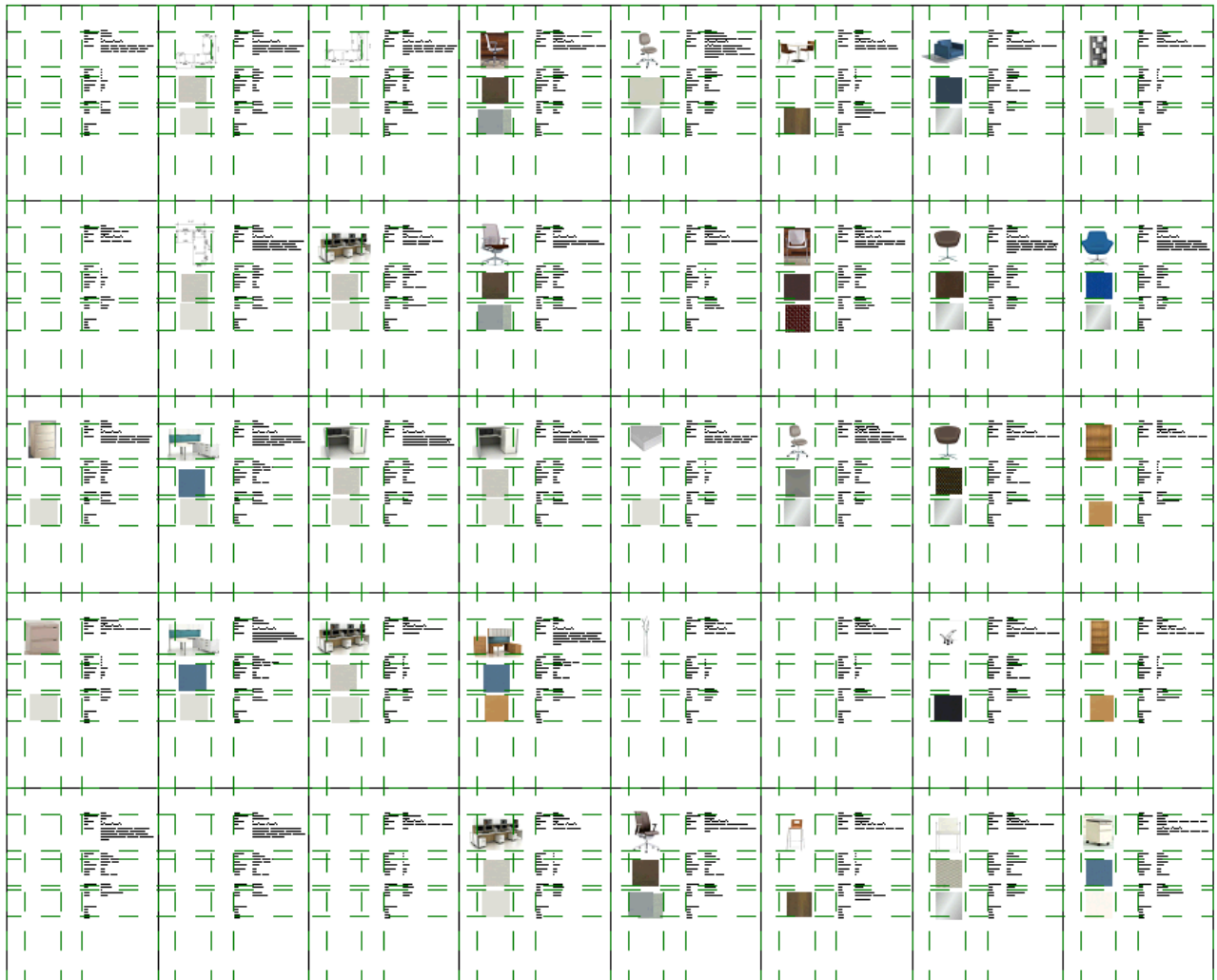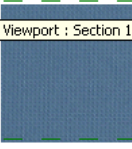
I5.3 SCHEDULES

1. Most family parameters are shared, they can be schedulable.

I5.4 CUT SHEETS

1. Create title block of 68" X 55" with (40) 8.5 X 11layout title blocks arrayed in 5 rows and 8 columns.
2. Create a sheet with 68 X 55 title block.
3. Place the furniture legend on the sheet.
4. Print sheet to pdf.
5. Open the 68 X 55 pdf, print "Tile all pages" to 8.5 X 11pdf.
6. This is now a document of 40 pages 8.5 X 11 data sheets.

12600-Furniture

IMAGE FOR REFERENCE ONLY

IMAGE IS FOR REFERENCE ONLY

Viewports : Viewport : Section 1

Room Locations

FURNITURE:

Code:	FP-05
Manufacturer:	ALLSTEEL
Style:	STRIDE
Model No:	ZLLC1520REMLFSC.WAC3EWPR6.STD.EL
Size:	ZSC1520
Description:	1' - 3 5/8" W x 1' - 8" D x 1' - 8" H
	B/F MOBILE PEDESTAL W/CUSHION AND LOCK,
	BEVEL PULL

FABRIC:

Uph Code:	UPH-N1
Mfr:	MAHARAM
Pattern:	MINIMAL-466026
Color:	009 CAPRI
Uph Yd/Item:	0.00 SF
Uph Cost/Yd:	0.00
Cost:	0.00
Notes:	SEAT - GRADE K

MISC FINISH 1:

Misc1 Code:	MSC-03
Mfr:	ALLSTEEL
Style:	-
Color:	BRILLIANT WHITE LM14
Notes:	LAMINATE

MISC FINISH 2:

Misc2 Code:	
Mfr:	
Style:	
Color:	
Notes:	

nbbj

1555 LAKE SHORE DRIVE
COLUMBUS OHIO 43204
PHONE 614 224 7149
FAX 614 224 0218

Project No.

Furniture Spec Sheet

Description.
FP-05

Date.
030611

II.   INTERIOR FINISHES BY ROOM SCHEDULES

II1. ROOM PARAMETERS

1. Create room parameters for Room Finishes(not shared):
   Room Type
   Accent Wall Finish
   Millwork Horizontal
   Millwork Vertical
   Wall Protection
   Misc Finish
   Room Finish Coded Notes
   Toilet Accessory Group
2. Create room parameters for Base Finish (not shared):
   Base Finish Type
   Base Finish Manufacturer
   Base Finish Model Number
   Base Finish Color
   Base Finish Comments
3. Create room parameters for Ceiling Finish (not shared):
   Ceiling Type
   Ceiling Manufacturer
   Ceiling Model Number
   Ceiling Finish Color
   Ceiling Finish Comments
4. Create room parameters for Floor Finish (not shared):
   Floor Finish Type
   Floor Finish Manufacturer
   Floor Finish Model Number
   Floor Finish Color
   Floor Finish Comments
5. Create room parameters for Misc Finish (not shared):
   Misc Finish Type
   Misc Finish Manufacturer
   Misc Finish Model Number
   Misc Finish Color
   Misc Finish Comments (U)
6. Create room parameters for Wall Finish (not shared):
   Wall Finish Type
   Wall Finish Manufacturer
   Wall Finish Model Number
   Wall Finish Comments
7. Create room parameter for Wall Protection (not shared):
   Wall Protection Type
   Wall Protection Manufacturer
   Wall Protection Model Number
   Wall Protection Comments

II2. ROOM KEY SCHEDULES

1. Create Key Schedule DOC-FIN-KEY-ROOM.
2. Name key parameter as Room Finish Code.
3. Room Finish Code (K) controls:
   Room Type (U)
   Base Finish (R)
   Floor Finish (R)
   Wall Finish (R)
   Accent Wall Finish (U)
   Ceiling Finish (R)
   Millwork Horizontal (U)
   Millwork Vertical (U)
   Wall Protection (U)
   Misc Finish (U)
   Room Finish Coded Notes (U)
   Toilet Accessory Group (U)
4. Create Key Schedule DOC-FIN-KEY-BASE.
5. Name key parameter as Base Finish Code.
6. Base Finish Code (K) controls:
   Base Finish Type (U)
   Base Finish Manufacturer (U)
   Base Finish Model Number (U)
   Base Finish Color (U)
   Base Finish Comments (U)
7. Create Key Schedule DOC-FIN-KEY-CLG.
8. Name key parameter as Ceiling Finish Code.
9. Ceiling Finish Code (K) controls:
   Ceiling Type (U)
   Ceiling Manufacturer (U)
   Ceiling Model Number (U)
   Ceiling Finish Color (U)
   Ceiling Finish Comments (U)
10. Create Key Schedule DOC-FIN-KEY-FLOOR.
11. Name key parameter as Floor Finish Code.
12. Floor Finish Code (K) controls:
    Floor Finish Type (U)
    Floor Finish Manufacturer (U)
    Floor Finish Model Number (U)
    Floor Finish Color (U)
    Floor Finish Comments (U)
13. Create Key Schedule DOC-FIN-KEY-MISC.
14. Name key parameter as Misc Finish Code.
15. Misc Finish Code (K) controls:
    Misc Finish Type (U)
    Misc Finish Manufacturer (U)
    Misc Finish Model Number (U)
    Misc Finish Color (U)
    Misc Finish Comments (U)
16. Create Key Schedule DOC-FIN-KEY-WALL.
17. Name key parameter as Wall Finish Code.
18. Wall Finish Code (K) controls:
    Wall Finish Type (U)
    Wall Finish Manufacturer (U)

Wall Finish Model Number (U)
Wall Finish Color (U)
Wall Finish Comments (U)
19. Create Key Schedule DOC-FIN-KEY-WP.
20. Name key parameter as Wall Protection Code.
21. Wall Protection Code (K) controls:
Wall Protection Type (U)
Wall Protection Manufacturer (U)
Wall Protection Model Number (U)
Wall Protection Comments (U)

K: Key parameter
U: User-created parameter
R: Revit built-in parameter

22. In each key schedule, define the code by inputting values on the parameters.

II3. ROOM TAGGING AND MAPPING SCHEDULES
1. Create a room schedule WORK-FIN-QTY-ROOM
2. Include Room Number, Room Name and Room Finish Code in the schedule.
3. Assign Room Finish Code to each room.
4. Room Finish Code is a key parameter which cannot be tagged on floor plan.
5. Create a shared parameter named Room Finish Key.
6. Add shared parameter Room Finish Key to a room tag family.
7. Create a room schedule WORK-FIN-MAP-ROOM.
8. Include Room Finish Code and Room Finish Key
9. In the schedule, input value of Room Finish Key to match Room Finish Code.
10. Tag Rooms.

II4. ROOM FINISH MATERIAL DATA
1. The finish code parameters (key parameter) are defining the data of the finish materials (manufacturer, model number, color…).
2. Room Finish Code assigned for each room determines Base Finish, Floor Finish, Wall Finish, Ceiling Finish which are Revit built-in parameters having no relationship with the Finish Code parameters.
3. For the rooms to get finish material data, finish code parameters have to be input into each room.
4. Create room schedules:
WORK-FIN-MAP-BASE
WORK-FIN-MAP-CLG
WORK-FIN-MAP-FLOOR
WORK-FIN-MAP-MISC
WORK-FIN-MAP-WALL
WORK-FIN-MAP-WP
Each schedule should include the finish parameter and the corresponding finish code.
5. In each schedule, match finish code with finish parameter.

TYP ROOM	TYP ROOM FINISH CODE	ROOM TYPE	FLOOR	BASE	PRIMARY	ACCENT WALL	CEILING	COUNTERTOP	ARCH WDWK/CSWK – VERT	WALL PROTECTION	MISC	CODED NOTES
1C165	B1	SLEEP	SV-2	ICB-6	P-4	P-1,31	GWB	PLAM-1	PLAM-1		H-2	
4C128	B2	BED STATION	SV-3	RB-1	P-4	P-6	GWB				CC-1	
4C134	B2A	BED STATION ISOLATION	SV-3	ICB-4	P-4	P-6	GWB				CC-1	7
	B3	PATIENT ROOM	SV-11	RB-1	P-4	P-1,4	AT-2/GWB (P-1,4)	S-1	PLAM-1,3	WP-3	CC-1/WTS-2/H-1, H-3	7/16
2D139	B4	OBESERVATION	SV-2	RB-1	P-4	P-5	AT-2	PLAM-1	PLAM-3	WP-5	CC-1/H-2/H-2A	7
2B143	B5	ISOLATION ROOM	SV-11,12	ICB-12	P-4	P-1	GWB (P-1,4)	S-1	PLAM-1,3	WP-3	CC-1/WTS-2/H-3	7/16
	B6	SUPPLY	SV-2	RB-1	P-1	P-42	GWB	S-1	PLAM-3		H-1/H-1A	
2B165B	B10	ANTE ROOM	SV-12	ICB-12	P-2	--	GWB	S-1	PLAM-1		H-1	7
2M031	B93	VEST	SV-10	RB-1	P-6	--	GWB (P-6)					
2M010	B94	TL CORR F	SV-10	RB-1	P-2	P-1,6	AT-2/GWB (P-2)					
	B95	ISO ROOM	SV-10	ICB-4	P-4	P-6,52	GWB (P-1,4)	S-1	PLAM-1,3	WP-3	CC-1/WTS-2/H-3	16
	B96	PATIENT ROOM	SV-10	RB-1	P-4	P-6,52	AT-2/GWB (P-4)	S-1	PLAM-1,3	WP-3	CC-1/WTS-2/H-3	16
	B97	NOUR	SV-10	RB-1	P-1	P-6/FTCT-3	GWB	S-6	PLAM-5 (P-52)		CH-1/H-1A/H-2/H-2A	
	B98	QUIET DEN	CPT-1	RB-1	P-2	P-5	AT-2					
2M029	B99	LIVING/DINING	SV-10/CP-1	RB-1	P-4	P-5,6,34W	GWB/AT-2 (P-2,33,34)	WDPNL-1 (P-52)	WDPNL-1 (P-52)	WP-6	WTS-1	6, 12, 14, 16
1D231/1J231	C1	MED	SV-2	ICB-4	P-2	PWC-2	AT-4	S-1	PLAM-3	WP-2	H-2/H-2A	7
5D151B	C1A	MH MED	SV-2	ICB-4	P-2	PWC-2	AT-4	S-1	PLAM-3	WP-2	H-4	7
4C127	C1B	MED	SV-2	ICB-4	P-2	PWC-2	AT-2	S-1	PLAM-3	WP-2	H-2	7
6J210/1D158	C2	SOIL	SV-2	ICB-6	EP-2	PWC-2	ATSP-1			WP-2		7
2E178	C2A	DECONTAM	RES-3	RESB-6	RESW-1	--	GWBSC					7
3E143	C2B	DECONTAMINATION	SV-2	ICB-6	EP-2	PWC-2	GWBSC	SST	SST	WP-2	H-2	
3E141	C2C	CLEAN UP	SV-2	ICB-6	EP-2	PWC-2	ATSP-1	SST	SST	WP-2	H-2	
2H008	C2D	TL - SOIL	SV-2	ICB-6	EP-2	--	ATSP-1	S-1	PLAM-1	WP-2	H-2/H-2A	7
1C176	C2E	BEDS - SOIL	SV-2	ICB-6	EP-2	--	ATSP-1	S-1	PLAM-1	WP-2	H-2	7
6J263/1D217	C3	HK	RES-2	RESB-6	EP-2	PWC-2	ATSP-1		PLAM-3	WP-2		
1E124	C4	STORAGE/WC STORAGE	VCT-2	RB-1	P-2	PWC-2	AT-4			WP-2		
2E109	C4A	SCR	SV-2	RB-1	P-2	--	GWBSC					
	C4B	OUTDOOR WHEELCHAIR STORAGE				--				WP-2		
	C5	PATIENT LAUNDRY	VCT-2	RB-1	P-2	PWC-2	AT-4			WP-2		
6J261/1D159/6J2	C6	CLEAN/MAIL	SV-2	ICB-4	EP-2	PWC-2	ATSP-1	PLAM-1	PLAM-3	WP-2	H-2/H-2A	
2E164	C6A	BLOOD GAS	SV-2	ICB-4	EP-2	--	ATSP-1	S-1	PLAM-3		H-2/H-2A	7
1D159/3G160	C6B	SCOPE STORE/CLEAN	SV-2	ICB-6	EP-2	PWC-2	ATSP-1			WP-2		
3G159	C6C	EQUIP CLEAN UP	SV-2	ICB-6	EP-2	PWC-2	ATSP-1	PLAM-1	PLAM-3	WP-2	H-2/H-2A	7
1H108	C6D	TECH/CLEAN	SV-2	RB-1	P-2	PWC-2	AT-4	PLAM-1	PLAM-3	WP-2	H-2	
6J208	C6E	CLEAN/MED	SV-2	ICB-4	EP-2	PWC-2	AT-4	S-1	PLAM-3	WP-2	H-2	7
2M010A	C6F	CLEAN LINEN	SV-10	RB-1	P-2	PWC-2	GWB			WP-2		
2M012	C6G	LAUN	SV-10	RB-1	P-2	P-6/PWC-2	AT-2	S-6	PLAM-5	WP-2	CH-1/H-1A/H-2/H2A	
	C7	PAT HOLD	SV-2	RB-1	P-2	P-4	AT-2			WP-5	CC-1	
2G112	C7A	PAT HOLD	SV-2	RB-1	P-3	P-5	AT-2			WP-5		
2B105/1N104	C8	CHUTE ROOM	RES-2	RESB-6	EP-2	PWC-2	ATSP-1			WP-2		
	C8A	CEP WORKROOM	RES-1	RESB-6	EP-2	PWC-2	GWBSC			WP-2		
2D155	C9	NOURISH	SV-2	ICB-4	P-2	PWC-2	AT-4	S-1	PLAM-3	WP-2	H-2/H-2A	7
1C180	C9A	NOURISH (SLEEP)	SV-3	RB-1	P-2	--	GWB	S-1	PLAM-1		H-2	7
2B155F	C9B	NOURISH (PT CORR)	SV-1	RB-1	P-1	--	GWB	S-1	PLAM-1		H-2	7
	C10	CYL STOR	VCT-2	RB-1	P-2	--	GWBSC					
	C11	SUB WAIT	CPT-1	RB-2	P-2	P-22	AT-3/GWB					
1J126/1J130/1J20	C11A	FAM WTG/THERAPY	CP-4	RB-2	P-3	P-5,31	AT-2/GWB					
1M100	C11B	REHAB MEDICINE SUBWAIT	CP-4	RB-2	P-2	P-4,34	AT-3					
1J136	C11C	FAMILY WTG/RELAX	CP-4	RB-2	P-3	P-31	AT-2					
2D142	C11D	D&T SUBWAITING	CPT-1	RB-1	P-3	P-5	AT-3/GWB					
2E129/2E109/2E1	C12	CT/ULTRASOUND/ECHO (2G136)/ER	SV-2	ICB-6	P-2	P-4	AT-2/GWB	PLAM-1	PLAM-3	WP-5	CC-1/WTS-2/H-2/H-2A	7, 16

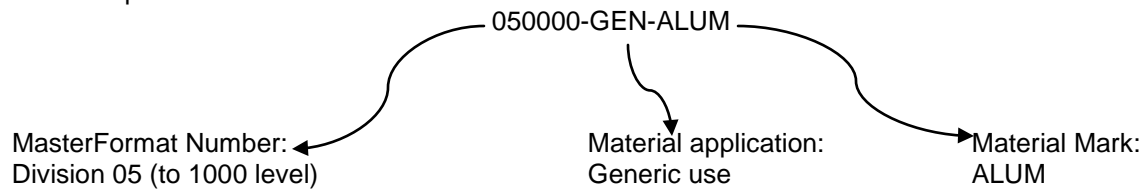## III. INTERIOR FINISHES BY MATERIAL FAMILY

III1. NAMING
Name by:
MasterFormat Number (CSI Division number)
Material Application
Description / Material Mark (Finish Code) for interior finish materials
For example:

050000-GEN-ALUM

MasterFormat Number: Material application: Material Mark:
Division 05 (to 1000 level)   Generic use   ALUM

020100-SITE-SOIL Soil Site	020100-SITE-WATER Water Site

|				
033000-FL-CIP-LW Cast-in-Place, Light Weight Floor	033000-GEN-CIP Cast-in-Place Generic Use	033000-GEN-GFRC Glass Fiber Reinforced Generic Use	033000-EWALL-CIP Cast-in-Place Exterior Wall	034000-WALL-PCP Precast Concrete Panel Exterior Wall
042000-WALL-BRIC Brick Exterior Wall	042000-WALL-BRIC-SOLD Brick Soldier Course Exterior Wall	042000-WALL-CMU Concrete Masonary Units Wall	042000-WALL-GLB Glass Block Wall	042000-WALL-TILE Tile Wall
050000-GEN-ALUM Aluminum Generic Use	050000-GEN-ALUM-TRIM Aluminum, Trim Generic Use	050000-GEN-CHROM Chrome Generic Use	050000-GEN-STL Steel Generic Use	050000-GEN-STL-FUR Steel, Furring Generic Use
060000-GEN-CHERRY Cherry Generic Use	061000-GEN-DLUM Dimensional Lumber Generic Use	061000-GEN-GLAM Glue-Laminated Generic Use	061000-GEN-WD-FUR Wood, Furring Generic Use	061000-SHTG-OSB OSB Sheathing
071000-GEN-DAMP-PROOF Damp-proofing Barrier Generic Use	072000-GEN-REFLECT-HEAT Reflective Heat Barrier Generic Use	072000-GEN-RIGID Rigid Insulation Generic Use	072000-GEN-SRIGID Semi-rigid Insulation Generic Use	072000-WALL-BATT-R13 Batt Insulation Wall
081000-DR-HM Hollow Metal Door	081000-DR-WD Wood Door	084000-CW-GL Glass Curtain Wall	084000-CW-MTL-MULL Metal, Generic Curtain Wall Mullion Curtain Wall	084000-WDW-GL Glass Window

III2. ADDITIONAL MATERIAL PARAMETERS

Material Finish (Shared parameter), text under identity data
Material Application (Shared parameter), text under identity data
Material Reuse (Project parameter), yes/no under identity data
Material Preconsumer Recycled (Project parameter), number under identity data
Material Postconsumer Recycled (Project parameter), number under identity data
Material Distance Manufacturer (Project parameter), length under identity data
Material Distance Extraction (Project parameter), length under identity data
Material Renewable Content (Project parameter), number under identity data
Material FSC (Project parameter), yes/no under identity data
Material density (Project parameter), number under identity data
Material Information Source (Project parameter), text under identity data
Weight (Project parameter applied to all families), number under identity data for the purpose of calculation of FSC wood value in families
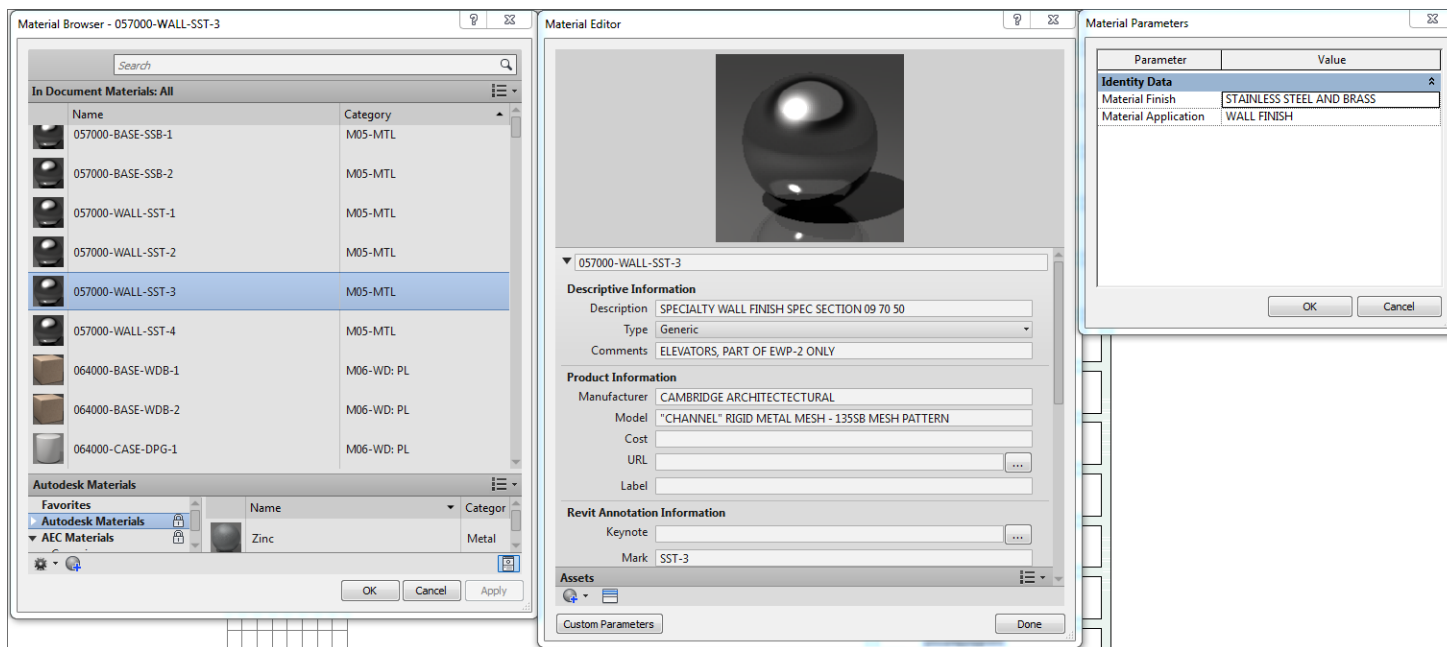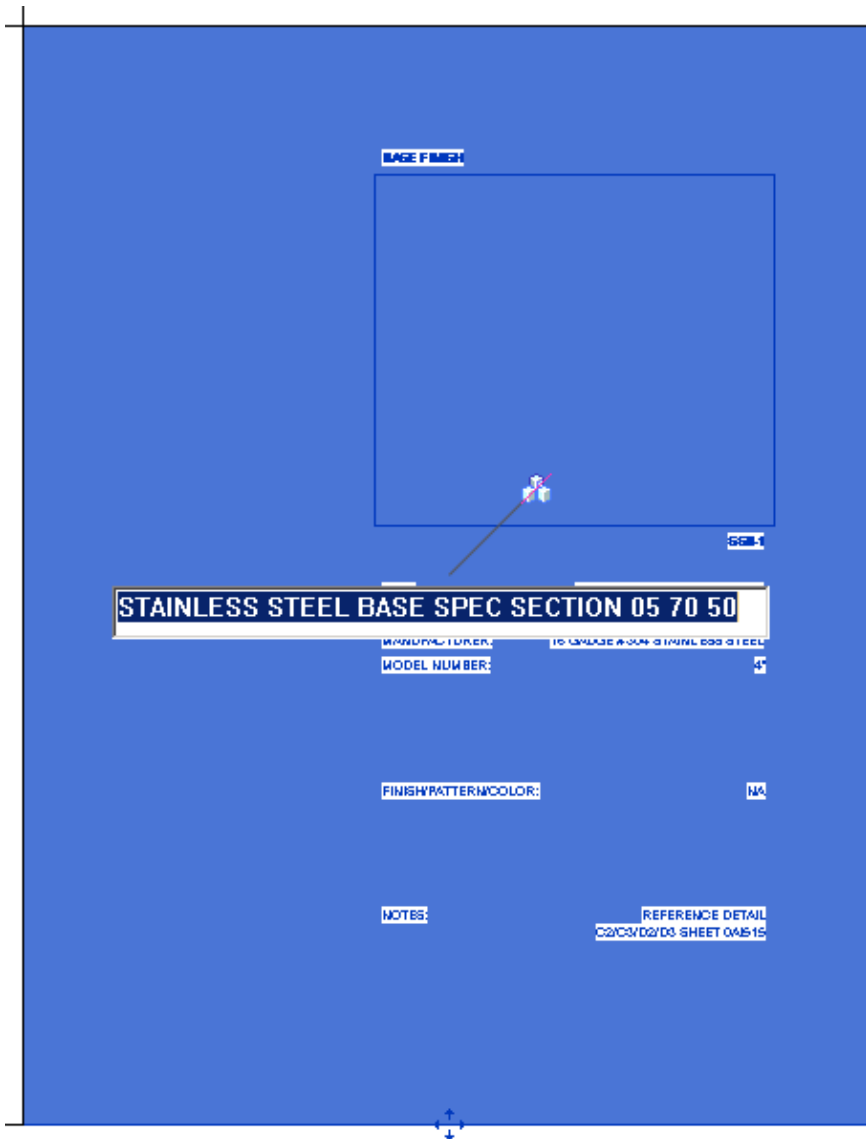
III3. MATERIAL CARRIER FAMILY

The material carrier family: GM-CUBE-MATERIAL-100.rfa is a family with types with material assigned to it. Each type represents a material.
Create new material: duplicate from existing material. Duplicate from existing type of GM-CUBE-MATERIAL-100. Assign new material to the new type.

Workset1 : Generic Models : GM-CUBE-MATERIAL-100 :
057000-WALL-SST-2
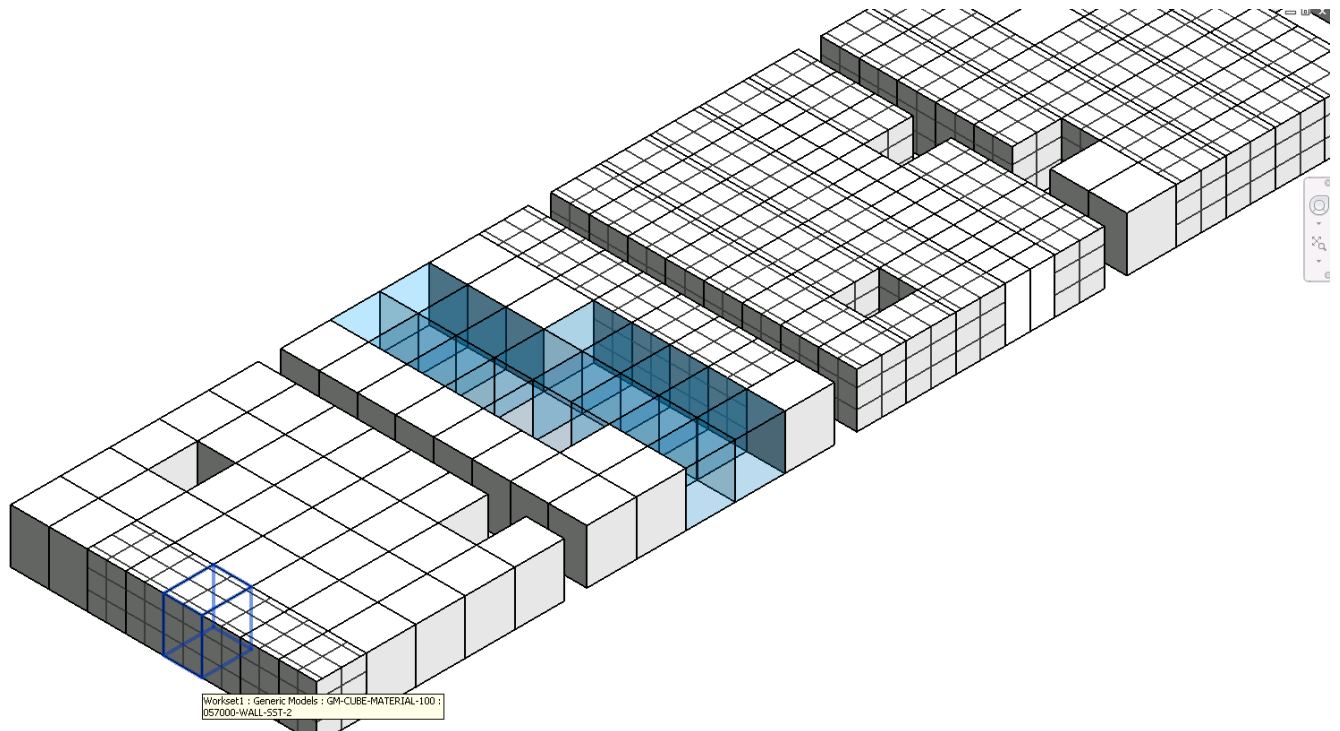
III4. DOCUMENTATION OF INTERIOR FINISHES IN PROJECT

1. Create interior materials as in III3. All identity data need not to be filled in.
2. Edit GM-CUBE-MATERIAL-100.rfa, set Width Length and Height of the material cube to be 8.5" X 11" X 12" by putting values in formula fields.
3. Create "Non-existing" phase before Existing in project.
4. Create "Non-existing" level (50' or more below level 1).
5. Create floor plan of Non-existing level scaled at 12"=1'-0"with phase as Non-existing.
6. Put one type of GM-CUBE-MATERIAL-100 representing interior finish on the floor plan.

   A. 8.5 X 11 INTERIOR FINISH CUT SHEETS

i. Tag the instance with AN-TAG_MAT-CSHT which is an 8.5" X 11" material tag symbol tagging Material Application, Material Mark, Material Description, Manufacturer, Model, Material Finish and Comments.
ii. Fine adjust the position of the material tag to align with the material cube instance.
iii. Array the instance with the material tag in 8 columns and 5 rows. Ungroup.
iv. Select each material cube instance and swap to a different type of another interior finish material.
v. Select each material tag and type in the required identity data for the material.
vi. Import scanned image and place it on top of each material cube instance.
vii. Crop floor plan and put view on TB-FIN-68X55 title block (68" X 55").

BASE FINISH

SSL1

STAINLESS STEEL BASE SPEC SECTION 05 70 50

MANUFACTURER: 16 GAUGE A-304 STAINLESS STEEL

MODEL NUMBER: 5"

FINISH/PATTERN/COLOR: NA

NOTES: REFERENCE DETAIL
                                 C2/C3/D2/D3 SHEET 0AIS1S

viii.   Print to pdf of 68" X 55".

ix.   From 68" X 55" pdf, print by tile to 8.5" X 11" to create 40 sheets of cut sheets.

INTERIOR FINISH MANUAL

BASE FINISH

SSB-1

ITEM: STAINLESS STEEL BASE SPEC
                                              SECTION 05 70 50

MANUFACTURER: 16 GAUGE #304 STAINLESS STEEL
MODEL NUMBER: 4"

FINISH/PATTERN/COLOR: NA

NOTES: REFERENCE DETAIL
                                    C2/C3/D2/D3 SHEET 0A/515

nbbj   SLVHCS REPLACEMENT MEDICAL CENTER PROJECT | Construction Documents
1555 LAKE SHORE DRIVE   NEW ORLEANS, LOUISIANA
COLUMBUS OHIO 43204
PHONE 614 224 7145   DATE: 08/24/12
FAX 614 224 0203   PROJECT NO.   REVISIONS:
                         SLVHS 2-401

Scanned image or real sample

x.   For more than 40 cut sheets, repeat iii to viii.

B. FINISH KEY LEGEND
    i.   Create material takeoff DOC-MAT-FIN-BASE with phase as Non-existing scheduling fields:
          Material: Name
          Material: Material Application
          Material: Mark
          Material: Description
          Material: Keynote
          Material: Manufacturer
          Material: Model
          Material: Material Finish
          Material: Comments

				DOC-MAT-FIN-BASE				
Material: Name	Material: Material Applicatio	Material: Mark	Material: Description	Material: Keynote	Material: Manufac	Material: Model	Material: Mat	Material: Comments
057000-BASE-SSB-1	BASE FINISH	SSB-1	STAINLESS STEEL BASE SPEC SECTION 05 70 50		16 GAUGE #3	4"		REFERENCE DETAIL C2/C3/D2/D3 SH
057000-BASE-SSB-2	BASE FINISH	SSB-2	STAINLESS STEEL BASE SPEC SECTION 05 70 50		16 GAUGE #3	6"		REFERENCE DETAIL C2/C3/D2/D3 SH
057000-WALL-SST-	BASE FINISH	SST-1	SPECIALTY WALL FINISH SPEC SECTION 05 70 50		STAINLESS S	304 STAINLESS STEEL	STAINLES	SATIN
057000-WALL-SST-	WALL FINISH	SST-2	SPECIALTY WALL FINISH SPEC SECTION 05 70 50		CONTRARIAN	INVARWEAVE	STAINLES	ELEVATORS, PART OF EWP-2 ONLY
057000-WALL-SST-	WALL FINISH	SST-3	SPECIALTY WALL FINISH SPEC SECTION 09 70 50		CAMBRIDGE A	"CHANNEL" RIGID METAL MESH - 135SB MESH PATTERN	STAINLES	ELEVATORS, PART OF EWP-2 ONLY
057000-WALL-SST-	WALL FINISH	SST-4	SPECIALTY WALL FINISH SPEC SECTION 05 71 00		US STARCRA	COLD ROLLED STEEL	MBS333	SEE SEPEC SECTION 05 71 00
064000-BASE-WDB-	BASE FINISH	WDB-1	WOOD BASE SPEC SECTION 06 40 00		HARDWOOD	6" H FINISHED HARDWOOD BASE	QUARTER	FINAL STAIN FINISH SHOULD MATC
064000-BASE-WDB-	BASE FINISH	WDB-2	WOOD BASE SPEC SECTION 06 40 00		HARDWOOD	4" H FINISHED HARDWOOD BASE	QUARTER	FINAL STAIN FINISH SHOULD MATC
064000-CASE-DPG-1	SPECIALTY FINISH	DPG-1	DECORATIVE PLASTIC GLAZING SPEC SECTION 06 40 0		LIGHTBLOCKS	1/2" MULTILAYER, SINGLE SIDE	GREEN B	CONTROL: 745-11
064000-CASE-DPG-2	SPECIALTY FINISH	DPG-2	DECORATIVE PLASTIC GLAZING SPEC SECTION 06 40 0		LIGHTBLOCKS	1/2" MULTILAYER, SINGLE SIDED	BLUE BM	CONTROL: 367-11
064000-CASE-DPG-3	SPECIALTY FINISH	DPG-3	DECORATIVE PLASTIC GLAZING SPEC SECTION 06 40 0		LIGHTBLOCKS	1/2" MULTILAYER, SINGLE SIDED	YELLOW	CONTROL: 362-11
064000-CASE-DPG-4	SPECIAL FINISH	DPG-4	DECORATIVE PLASTIC GLAZING SPEC SECTION 06 40 0		LIGHTBLOCKS	1/2" MULTILAYER, SINGLE SIDED	ORANGE	CONTROL: 376-11
064000-CASE-DPG-5	SPECIALTY FINISH	DPG-5	DECORATIVE PLASTIC GLAZING SPEC SECTION 06 40 0		LIGHTBLOCKS	1/2" MULTILAYER, SINGLE SIDED	RED BM 2	CONTROL: 371-11
064000-CASE-DPG-6	SPECIALTY FINISH	DPG-6	DECORATIVE PLASTIC GLAZING SPEC SECTION 06 40 0		LIGHTBLOCKS	1/2" MULTILAYER, SINGLE SIDED	STUDIO S	
064000-CASE-FR-1	SPECIALTY FINISH	FR-1	ARCHITECTURAL WOOD WORK ACCESSORIES SPEC SE		CR LAURENCE	STRAIGHT STYLE LADDER PULL #LPBS	304 STAI	FOOTRAIL COMPONENT, CUSTOM L
064000-CASE-FR-2	SPECIALTY FINISH	FR-2	ARCHITECTURAL WOODWORK ACCESSORIES SPEC SE		CR LAURENCE	POSTS FOR PR-1	304 STAI	FOOTRAIL COMPONENT, CUSTOM S
064000-CASE-FR-5	SPECIALTY FINISH	FR-5	ARCHITECTURAL WOODWORK ACCESSORIES SPEC SE		FRY REGLET	JPM-75 3/4" MOULDING TRIM	MEDIUM B	TO BE USED AS EDGE TRIM ION OPE
064000-CASE-PLAM	SPECIALTY FINISH	PLAM-1	PLASTIC LAMINATE SPEC SECTION 06 40 00		LAMINART PE	PEARLESENCE	2421T SN	USE OYSTER SHEILD WHEN USED O
064000-CASE-PLAM	SPECIALTY FINISH	PLAM-2	PLASTIC LAMINATE SPEC SECTION 06 40 00		LAMINART PE	PEARLESENCE	2430T NA	USE OYSTER SHEILD WHEN USED O
064000-CASE-PLAM	SPECIALTY FINISH	PLAM-3	PLASTIC LAMINATE SPEC SECTION 06 40 00		LAMINART PE	PEARLESENCE	2428T BIS	USE OYSTER SHEILD WHEN USED O
064000-CASE-PLAM	SPECIALTY FINISH	PLAM-4	PLASTIC LAMINATE SPEC SECTION 06 40 00		PIONTE	SOLID COLORS	ST604 NU	USE OYSTER SHEILD WHEN USED O
064000-CASE-PLAM	SPECIALTY FINISH	PLAM-5	PLASTIC LAMINATE SPEC SECTION 06 40 00		LAMINART PE	PEARLESENCE	2402T BR	USE OYSTER SHEILD WHEN USED O
064000-CASE-PLAM	SPECIALTY FINISH	PLAM-7	PLASTIC LAMINATE SPEC SECTION 06 40 00		LAMINART PE	PEARLESENCE	2451T SH	USE OYSTER SHEILD WHEN USED O
064000-CASE-PLAM	SPECIALTY FINISH	PLAM-8	PLASTIC LAMINATE SPEC SECTION 06 40 00		LAMINART PE	PEARLESENCE	2102T RO	TO BE USED IN RESERCH BUILDING
064000-CASE-PLAM	SPECIALTY FINISH	PLAM-10	PLASTIC LAMINATE SPEC SECTION 06 40 00		NEVAMAR		2084T FO	USE DEDLLKEN WOODTAPE EDGE B
066000-CASE-H-1	SPECIALTY FINISH	H-1	CABINET PULL SPEC SECTION 06 64 00		EPCO - ENGIN	AS53-96-SS STAINLESS STEEL BAR PULL	OVERALL	MOUNTS HORIZONTAL AT CABINET
066000-CASE-H-1A	SPECIALTY FINISH	H-1A	CABINET PULL SPEC SECTION 06 64 00		EPCO - ENGIN	AS53-256-SS STAINLESS STEEL BAR PULL	OVERALL	MOUNTS HORIZONTAL AT CABINET
066000-CASE-H-2	SPECIALTY FINISH	H-2	CABINET PULL SPEC SECTION 06 64 00		EPCO - ENGIN	MC402-3-SS STAINLESS STEEL BAR PULL	OVERALL	MOUNTS HORIZONTAL AT CABINET
066000-CASE-H-2A	SPECIALTY FINISH	H-2A	CABINET PULL SPEC SECTION 06 64 00		EPCO - ENGIN	MC402-8-SS STAINLESS STEEL BAR PULL	OVERALL	MOUNTS HORIZONTAL AT CABINET
066000-CASE-H-3	SPECIALTY FINISH	H-3	CABINET PULL SPEC SECTION 06 64 00		EPCO - ENGIN	BP544-SS STAINLESS STEEL BAR PULL	OVERALL	MOUNTS VERTICAL AT CABINET DO
066000-CASE-H-4	SPECIALTY FINISH	H-4	CABINET PULL SPEC SECTION 06 64 00		EPCO - ENGIN	DP485-SS STAINLESS STEEL RECESSED PULL	OVERALL	MOUNTS VERTICAL AT CABINET DO
066000-CASE-H-4A	SPECIALTY FINISH	H-4A	CABINET PULL SPEC SECTION 06 64 00		EPCO - ENGIN	DP4115-SS STAINLESS STEEL RECESSED PULL	OVERALL	MOUNTS HORIZONTAL AT CABINET
066000-CASE-H-5	SPECIALTY FINISH	H-5	CABINET PULL SPEC SECTION 06 64 00		EPCO - ENGIN	DP341-DC ZINC (NON-FERROUS) CABINET PULL	OVERALL	USED IN MRI ROOMS ONLY
066000-CASE-S-1	SPECIALTY FINISH	S-1	SOLID SURFACE SPEC SECTION 06 61 16		DUPONT CORI	CORIAN 1/2" THICK SOLID SURFACE	GLACIER	TYPICAL SOLID SURFACE COUNTER
066000-CASE-S-3	SPECIALTY FINISH	S-3	SOLID SURFACE SPEC SECTION 06 61 16		DUPONT CORI	CORIAN 1/2" THICK SOLID SURFACE	MEDEA	CONCOURSE BENCHES
066000-CASE-S-5	SPECIALTY FINISH	S-5	SOLID SURFACE SPEC SECTION 06 61 16		DUPONT CORI	TERRA COLLECTION 1/2" THICK SOLID SURFACE	SUEDE	PATIENT AND STAFF TOILETS
066000-CASE-S-6	SPECIALTY FINISH	S-6	SOLID SURFACE SPEC SECTION 06 61 16		DUPONT CORI	CORIAN 1/2" THICK SOLID SURFACE	BRONZIT	USED AT BLDG 6 NOURISHMENT AR
066000-CASE-ST-1	SPECIALTY FINISH	ST-1	STONE SPEC SECTION 06 61 16		DIFINITI QUAR	ENLIGHTEN COLLECTION 1 1/8" THICK SOLID SURFACE	PEARL	
066000-CASE-ST-1B	SPECIALTY FINISH	ST-1B	STONE SPEC SECTION 06 61 16		DUPONT ZODI	ZODIAQ	SNOW W	TO BE USED AT CANTEEN SERVERY
066000-CASE-ST-5	SPECIALTY FINISH	ST-5	STONE SPEC SECTION 06 61 16		STONE SOUR	MARBLE 1 1/8" THICK SOLID SURFACE	CALACA	TO BE USED AT MAIN DESK
066000-CASE-ST-6	SPECIALTY FINISH	ST-6	STONE SPEC SECTION 06 61 16		DUPONT ZODI	ZODIAQ	COARSE	TO BE USED IN PUBLIC TOILETS
066000-WALL-SSPN	WALL FINISH	SSPNL-1	SOLID SURFACE PANEL SPEC SECTION 06 61 00		DUPONT CORI	CORIAN 1/4" THICK SOLID SURFACE	GLACIER	
066000-WALL-WD-1	WALL FINISH	WD-1	FINISHED HARDWOOD SPEC SECTION 06 64 00		FINISHED WO	QUARTER SAWN WHITE OAK STAINED TO MATCH ADJA	FINAL ST	
066000-WALL-WD-2	WALL FINISH	WD-2	FINISHED HARDWOOD SPEC SECTION 06 64 00		FINISHED WO	RIFT SAWN WHITE OAK STAINED TO MATCH ADJACENT	FINAL ST	
066000-WALL-WD-3	WALL FINISH	WD-3	FINISHED HARDWOOD SPEC SECTION 06 64 00		PLEXWOOD	PLEXWOOD ONE-SIDE PANEL ON 3/4" MDF BACKER	OAK FINI	GRAIN TO BE ORIENTED HORIZONT
066000-WALL-WD-4	WALL FINISH	WD-4	FINISHED HARDWOOD SPEC SECTION 06 64 00		PLEXWOOD	PLEXWOOD STRIPS	OAK FINI	GRAIN TO BE ORIENTED HORIZONT
066000-WALL-WD-5	WALL FINISH	WD-5	FINISHED HARDWOOD SPEC SECTION 06 64 00		PLEXWOOD	PLEXWOOD SOLID 2400 X 1200 X 50	OAK FINI	GRAIN TO BE ORIENTED HORIZONT
066000-WALL-WDP	WALL FINISH	WDPNL-1	WOOD SPEC SECTION 06 64 00		DANZER GRO	VINTERIO STRATUS EURO OAK SUPERIOR	CLEARCO	TYP. WOOD PANELING IN CANTEEN,
066000-WALL-WDP	WALL FINISH	WDPNL-2	WOOD SPEC SECTION 06 64 00		BROOKSIDE V	BROOKLINE RIFT WHITE OAK 112-00/Y-17	POLYURE	WOOD PANELING IN PERC DEPT. GR
071000-FLR-TC-1	FLOOR FINISH	TC-1	TRAFFIC COATING SPEC SECTION 07 18 15		TRAFFIC COA			

 ii. Input keynote (MasterFormat number) per material
 iii. Replace headings:
   FINISH CODE for Material: Mark
   FINISH TYPE for Material: Description
   MANUFACTURER for Material: Manufacturer
   MODEL NUMBER for Material: Model
   COLOR for Material: Material Finish
   COMMENTS for Material: Comments
 iv. Hide Keynote column.
 v. Filter schedule by Material Application equals BASE FINISH.
 vi. Duplicate schedule and filter by Material Application per FLOOR FINISH, WALL FINISH, CEILING FINISH. Rename schedule as DOC-MAT-FIN-FLR similarly.
 vii. Put schedules on sheets.

IV CONCLUSION

With the techniques of Revit scheduling and tagging, both the data entry process and documentation can be done simultaneously. In projects with thousands of instances which the data information is more important than three-dimensional geometric information, the usage of LOD 100² families can be an alternative in lieu of overloading file with heavy weight families and placing enormous quantity of instances in project. The strategy requires minimum effort of modeling while still allowing accurate cost estimating.

V. TIPS

1. TIP 1: Use Tag as a tool to input data driving quantity of components.
2. TIP 2: Smart use of shared parameters to enable tagging and scheduling.