



# Class Summary

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®.



# 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.



## About the Firm

NBBJ's BIM Approach

As an early adopter of BIM and supporting technologies our strategy centers on 'leadership', the cornerstone that enables us to deliver exceptional quality and value to our clients.





# 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.



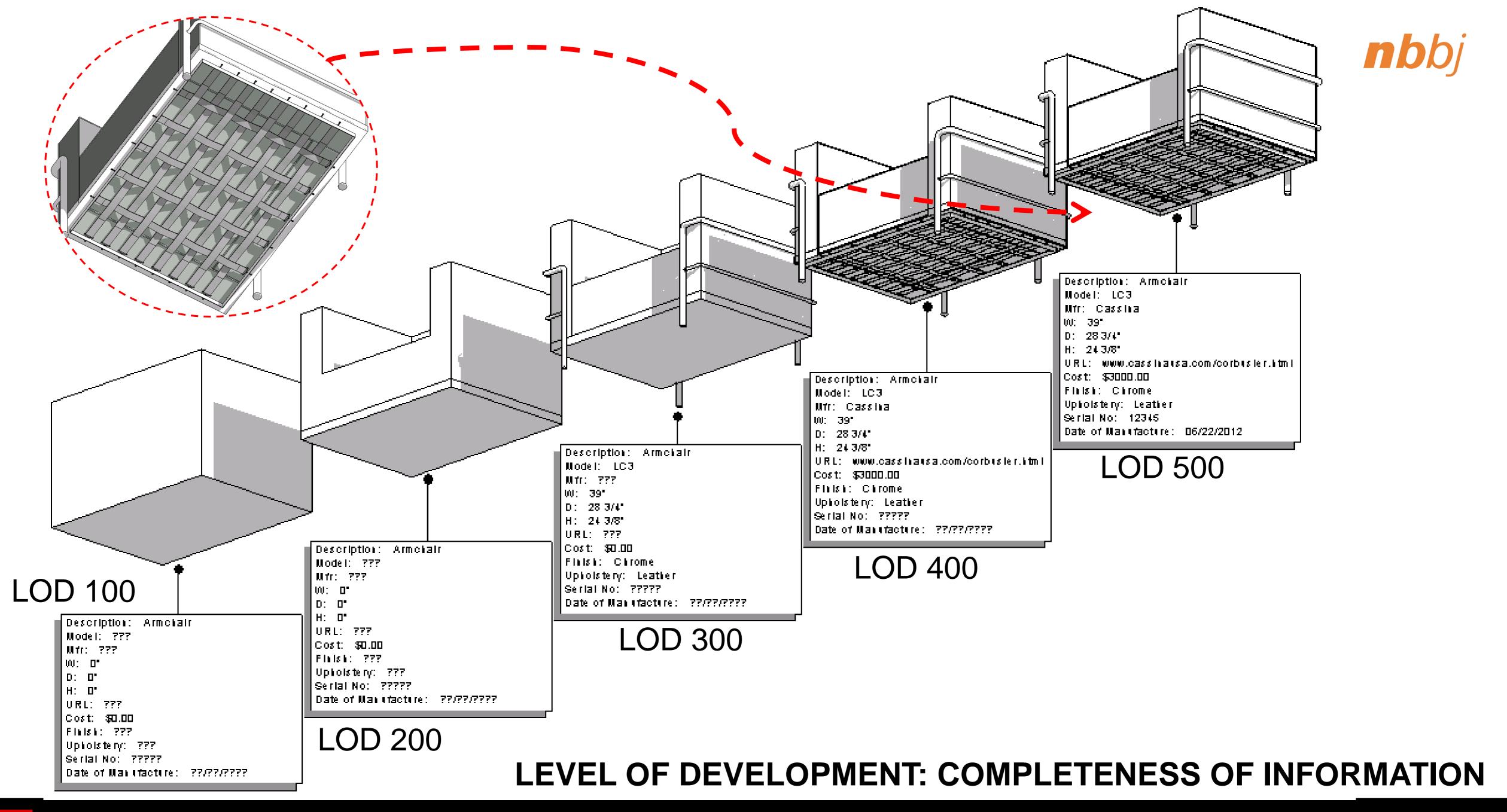
# I. DATA INTELLIGENT FAMILIES (FURNITURE AND TOILET ACCESSORIES)

### WHAT IS LOD?



- LOD (Level of Development) describes the level of completeness to which a Model Element is developed.
- LOD 100: massing indicative of area, height, volume, location, & orientation.
- LOD 200: approximate quantities, size, shape, location, & orientation.
- LOD 300: accurate in terms of quantity, size, shape, location, & orientation.
   For generation of traditional construction documents & shop drawings.
- LOD 400: accurate in terms of size, shape, location, quantity, & orientation with complete fabrication, assembly, & detailing information. Virtual representations of the proposed element & are suitable for construction.
- LOD 500: as constructed assemblies actual and accurate in term of size, shape, location, quantity, and orientation.
- LOD 100²: Model Elements are modeled as LOD 100. Non-geometric information must be attached to model elements to represent the accurate quantities, size.

mbbj LOD 100 **LOD 200 LOD 300 LOD 500 LOD 400** PLAN ELEVATION 3D LEVEL OF DEVELOPMENT: 2D & 3D GRAPHIC REPRESENTATION



## MODELING STRATEGIES



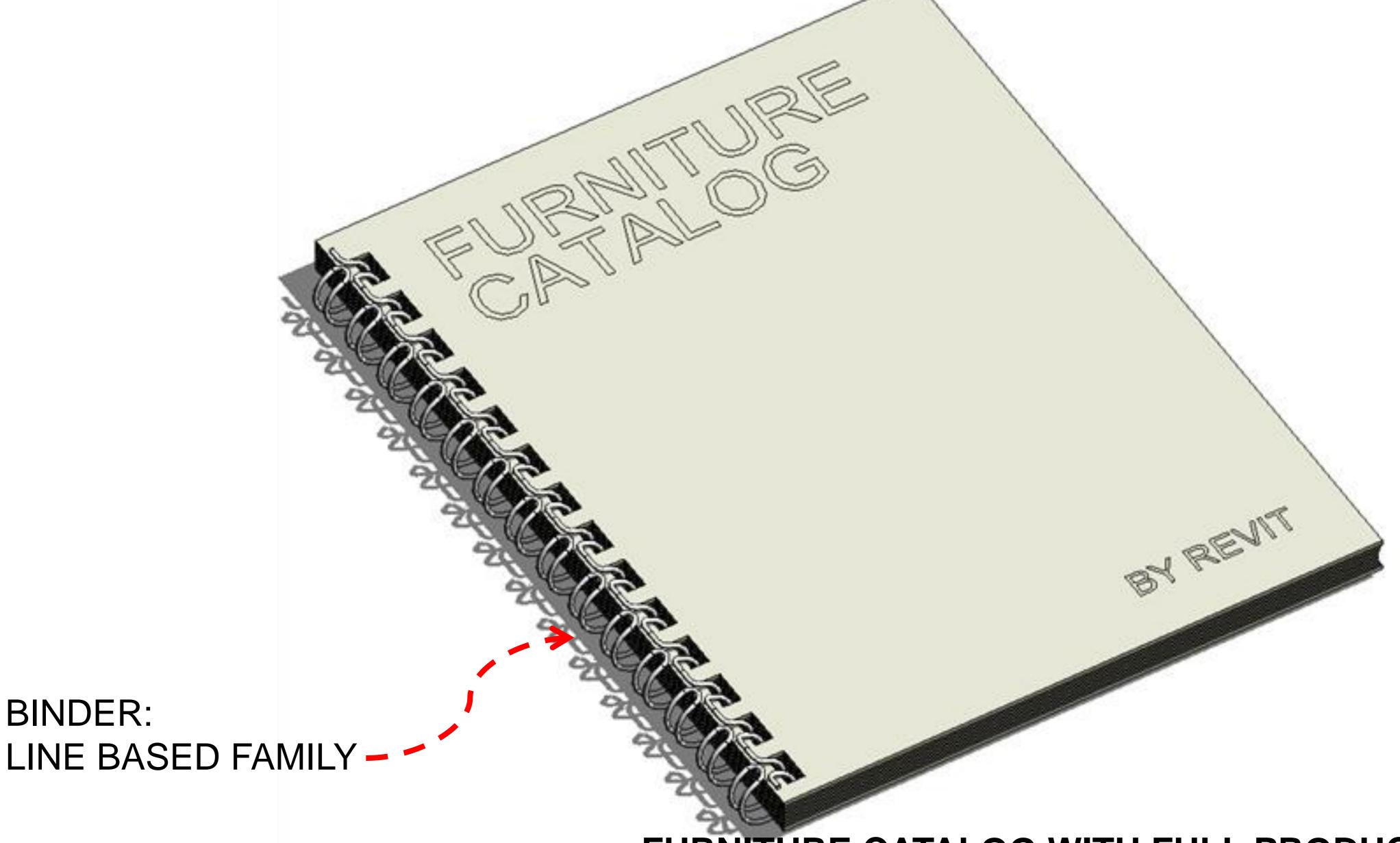
#### - CHALLENGES:

- Enormous amount of instances in project, impossible to model everything in a high level of detail.
- Impractical to put large quantity of small items (taking up insignificant space).

#### STRATEGIES:

- o Families in 2D to control file size and performance of the program
- o Importance of data to track quantity and control cost.
- Parameters able to generate numbers to represent the actual number of instances while manual placing the instances is avoided.

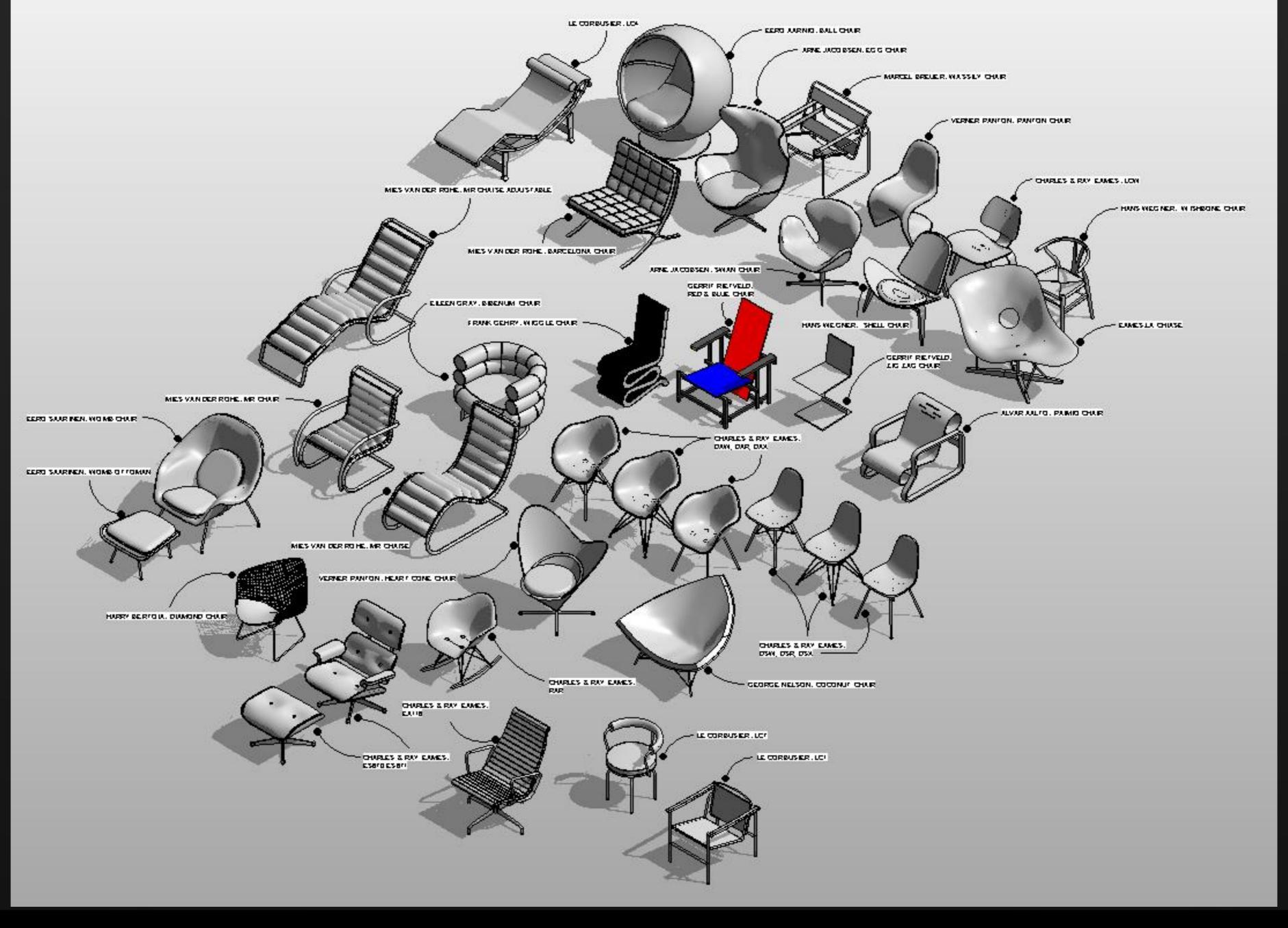


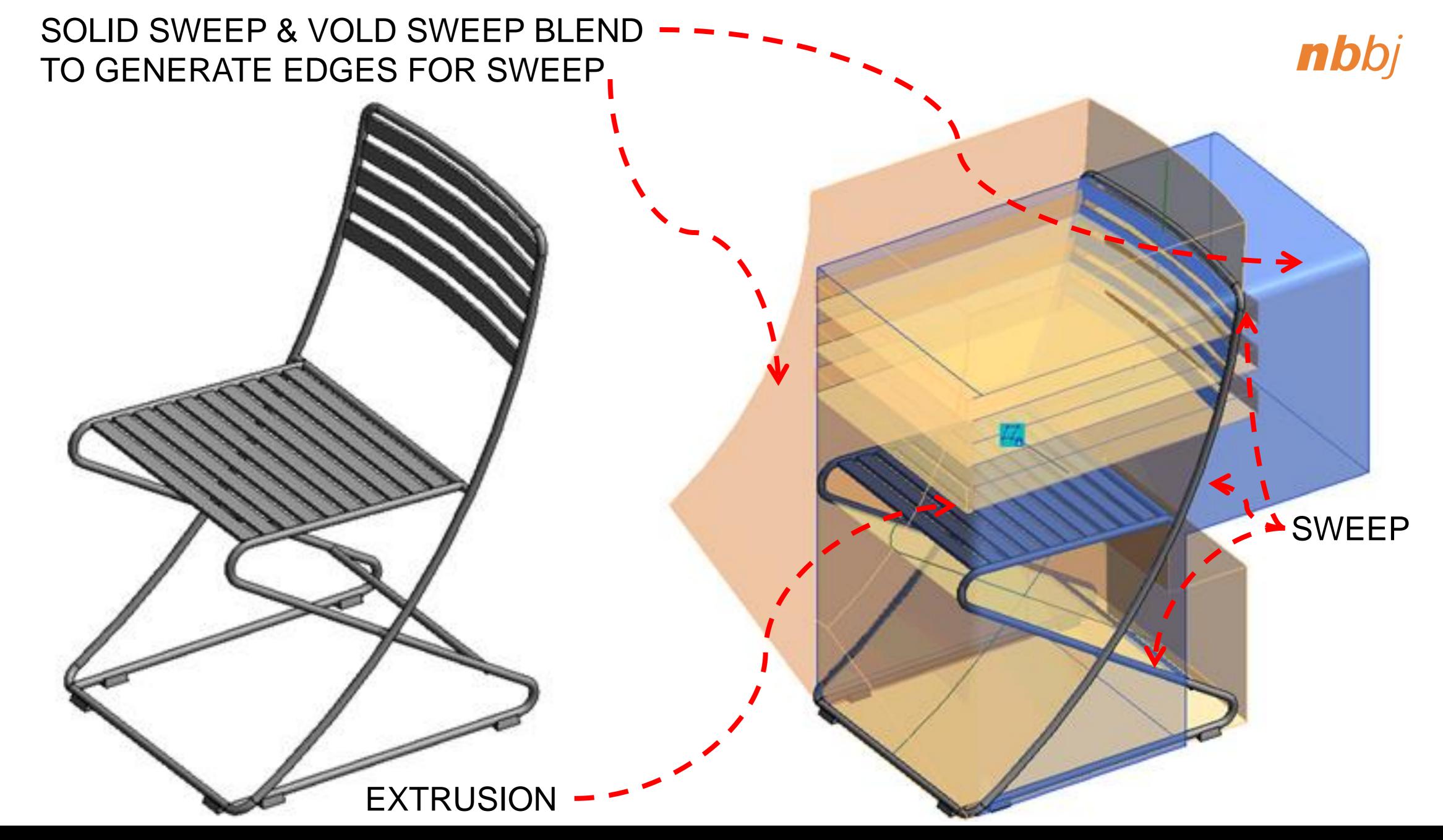


FURNITURE CATALOG WITH FULL PRODUCT INFORMATION

BINDER:



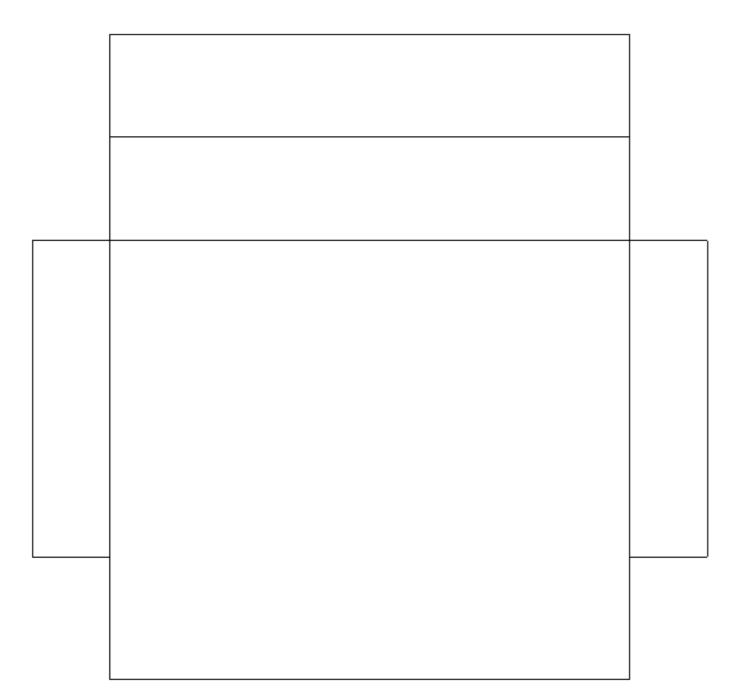




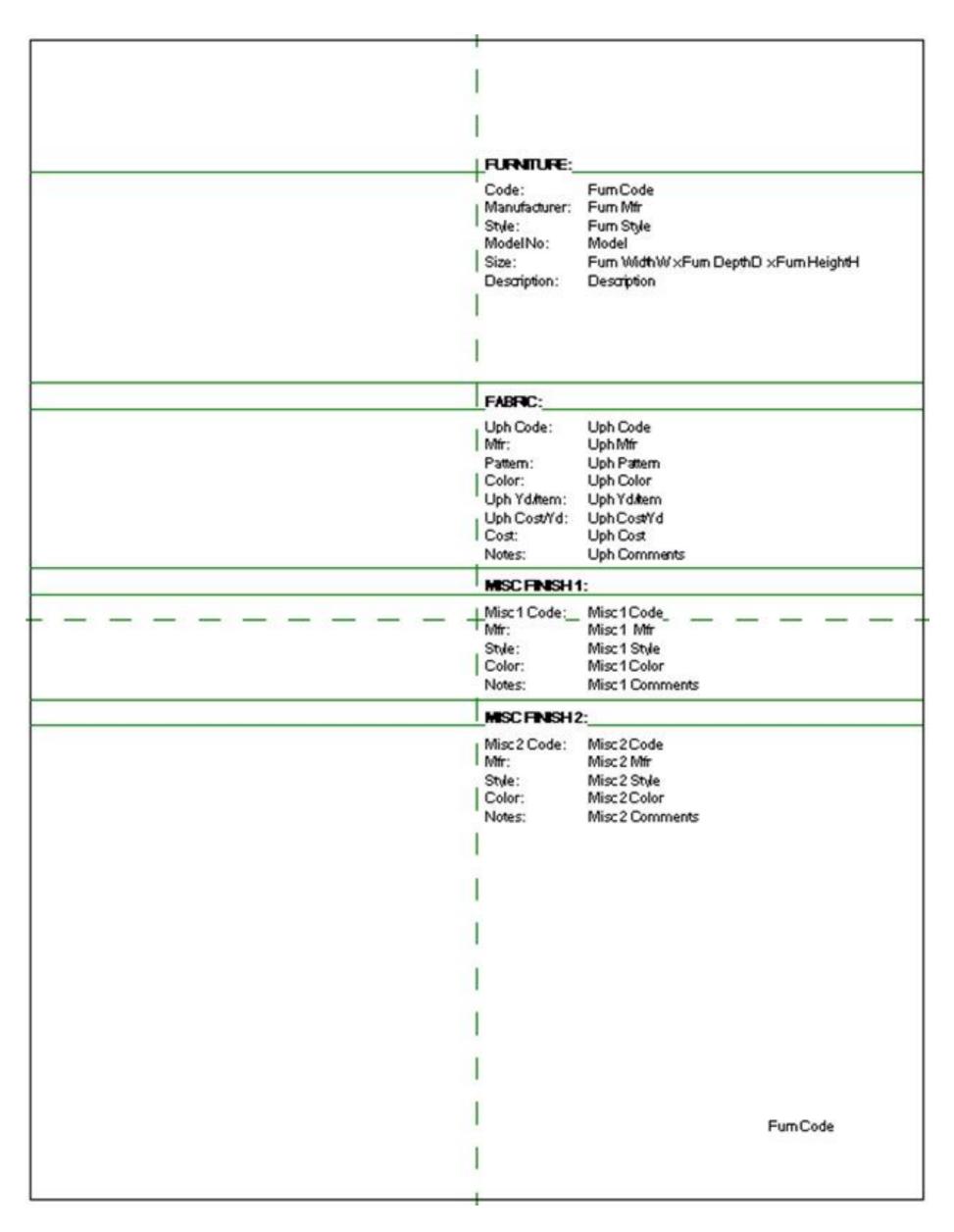
### FURNITURE LOD 100<sup>2</sup> CREATION



- Furniture Label Family AN-GENC-FN\_LABL.rfa to represent graphically on plan
- Shared parameters
- Furniture template FN.rft
- Association of parameters
- Symbolic lines showing plan view
- Detail levels: Coarse / Medium / Fine



**COARSE & MEDIUM** 



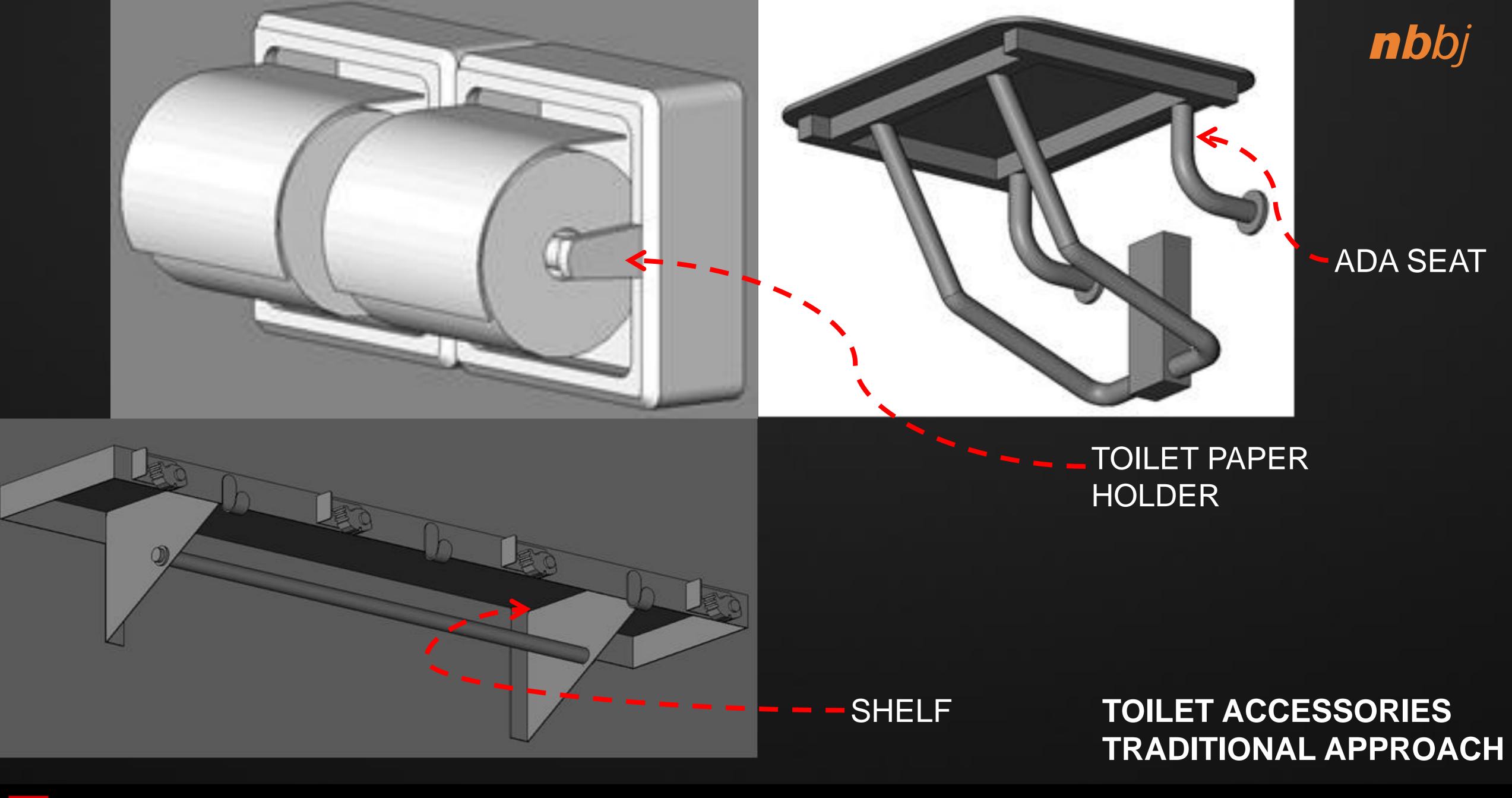




# TOILET ACCESSORIES



- WISH LIST
- o Place one instance to represent multiple instances in each toilet room.
- Toilet accessories group to be scheduled to show components.
- Able to track actual quantity of each component in project without manually placing in each room.
- Complete data of each toilet accessory component to be scheduled.



### TOILET ACCESSORY LOD 100<sup>2</sup> CREATION



- Toilet Accessory Label family AN-GENC-TA\_LABL.rfa to represent graphically on plan
- Toilet Accessory family SE-TA-GENC-100.rfa
- Shared parameters
- Shared family
- Toilet Accessory Label visible at "Fine" mode only

#### SHARED PARAMETERS



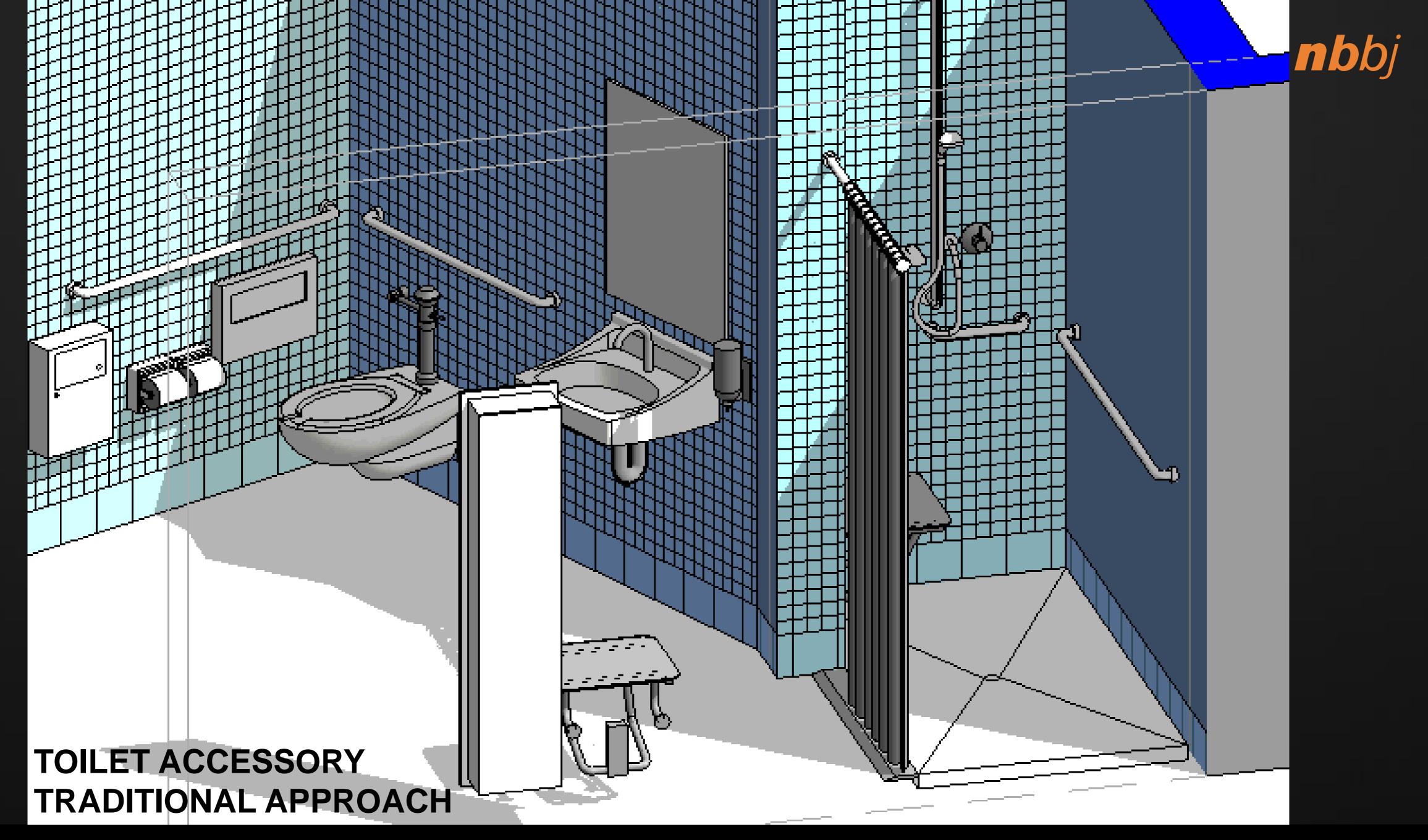
	III Family Types				
	Name: MR-6				
'					
	Parameter	Value			
	Identity Data				
	Type Comments	CC/OUTPATIENT BUILDING ONLY			
	Toilet Accessory Qty Requirement (default)				
	Toilet Accessory Mark	MR-6			
	Toilet Accessory Category	MIRROR			
'	Model	33"W X 48"H			
	Manufacturer	CUSTOM			
	Description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

TOILET ACCESSORY LABEL FAMILY: VISIBLE AT "FINE" MODE ONLY

**TOILET ACCESSORY FAMILY** 



MR-6



#### TOILET ACCESSORY GROUP LOD 1002 CREATION



- Combination of various Toilet Accessory family types in different quantities
- Toilet Accessory Group Label family AN-GENC-TAG\_LABL.rfa to represent graphically on plan
- Toilet Accessory Group Requirement Label family AN-GENC-TA\_QTY.rfa to represent the room type using certain group
- AN-GENC-TA\_QTY visible at "Fine" mode only
- Shared parameter associated with AN-GENC-TA\_QTY parameter



AN-GENC-TA\_QTY TAGGING ROOM TYPE USING THE TOILET ACCESSORY GROUP "Toilet Accessory Qty Requirement"

TA-4

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

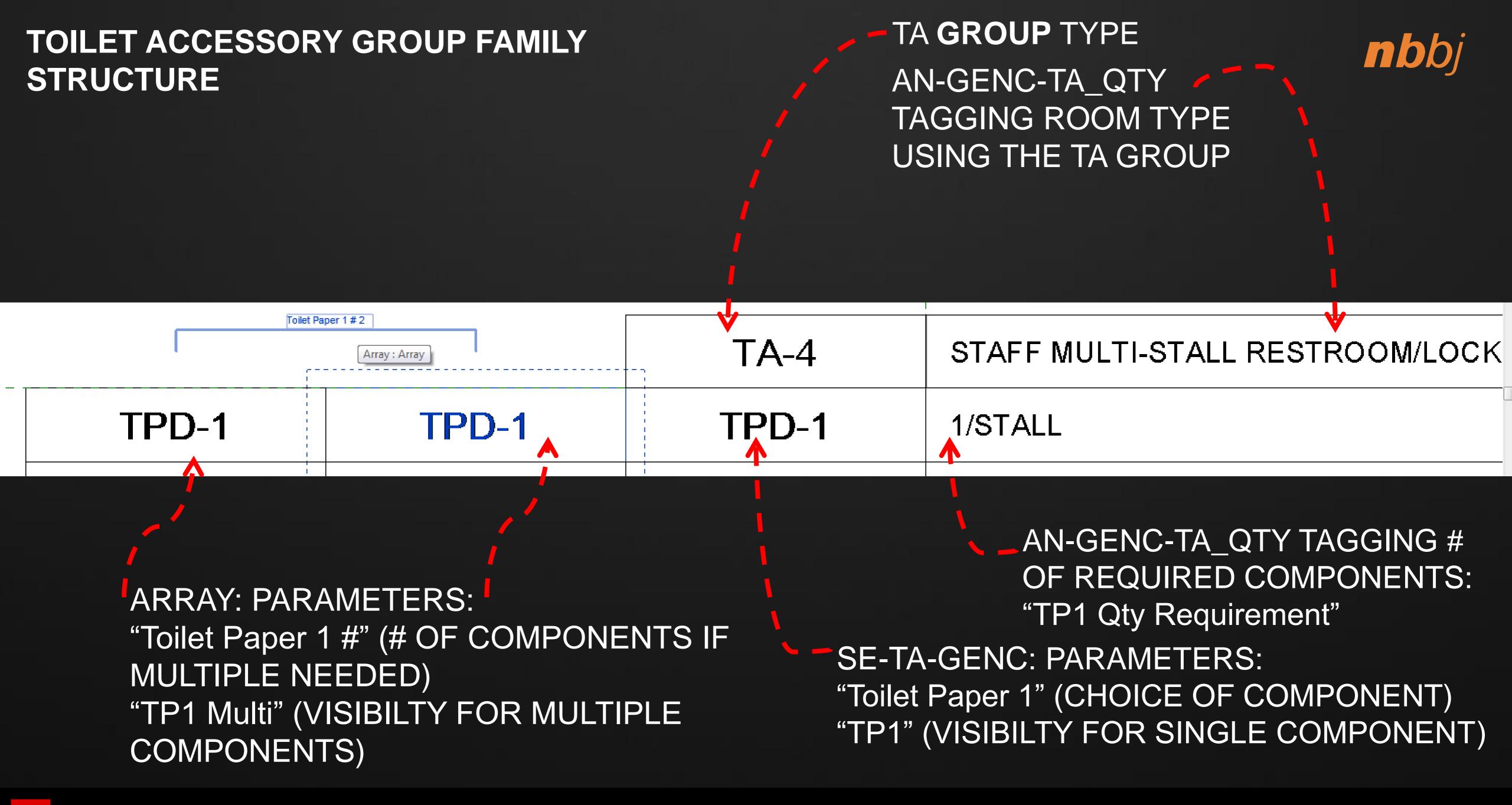
AN-GENC-TAG\_LABL TAGGING "Type Comments"

**TOILET ACCESSORY GROUP FAMILY STRUCTURE** 

### TOILET ACCESSORY GROUP LOD 1002 CREATION



- Nest Toilet Accessory family SE-TA-GENC-100.rfa
- Parameter for choice of component (Toilet Paper 1)
- Toilet Accessory family visible at "Fine" mode only
- Toilet Accessory family visibility controlled by parameter "TP1" (instance): visible for single component
- Copy Toilet Accessory family & array
- Array number controlled by parameter "Toilet paper 1#" (instance)
- Array member visibility controlled by parameter "TP1 Multi" (instance): visible for multiple components
- Toilet Accessory Requirement Label family AN-GENC-TA\_QTY.rfa to represent number of required components
- Shared parameter "Toilet Paper 1 Count" (instance) for inputting number (actual number of components)



#### TOILET ACCESSORY GROUP LOD 1002 CREATION



- Set formulas to parameters
- TP1=Toilet Paper 1 Count = 1 (For single component, TP1 visible)
- TP1 Multi=Toilet Paper 1 Count > 1 (For multiple components, TP1 Multi visible)
- Toilet Paper 1 #=if(Toilet Paper 1 Count > 1, Toilet Paper 1 Count, 2)
   (Toilet Paper 1 # can not be less than 2 since it is an array number)
- Place other components

#### COMPONENT CHOICE - TA COMPONENT MULTIPLE FOR: TA GROUP TYPE TA COMPONENT SINGLE



🛂
Toilet Paper 1
Toilet Paper 2
Soap
Paper Towel
Mirror 1
Mirror 2
Grab Bar 1
Grab Bar 2
Grab Bar 3
Misc 1
Misc 2
Misc 3
Misc 4

r 3

Misc 5

Misc 6

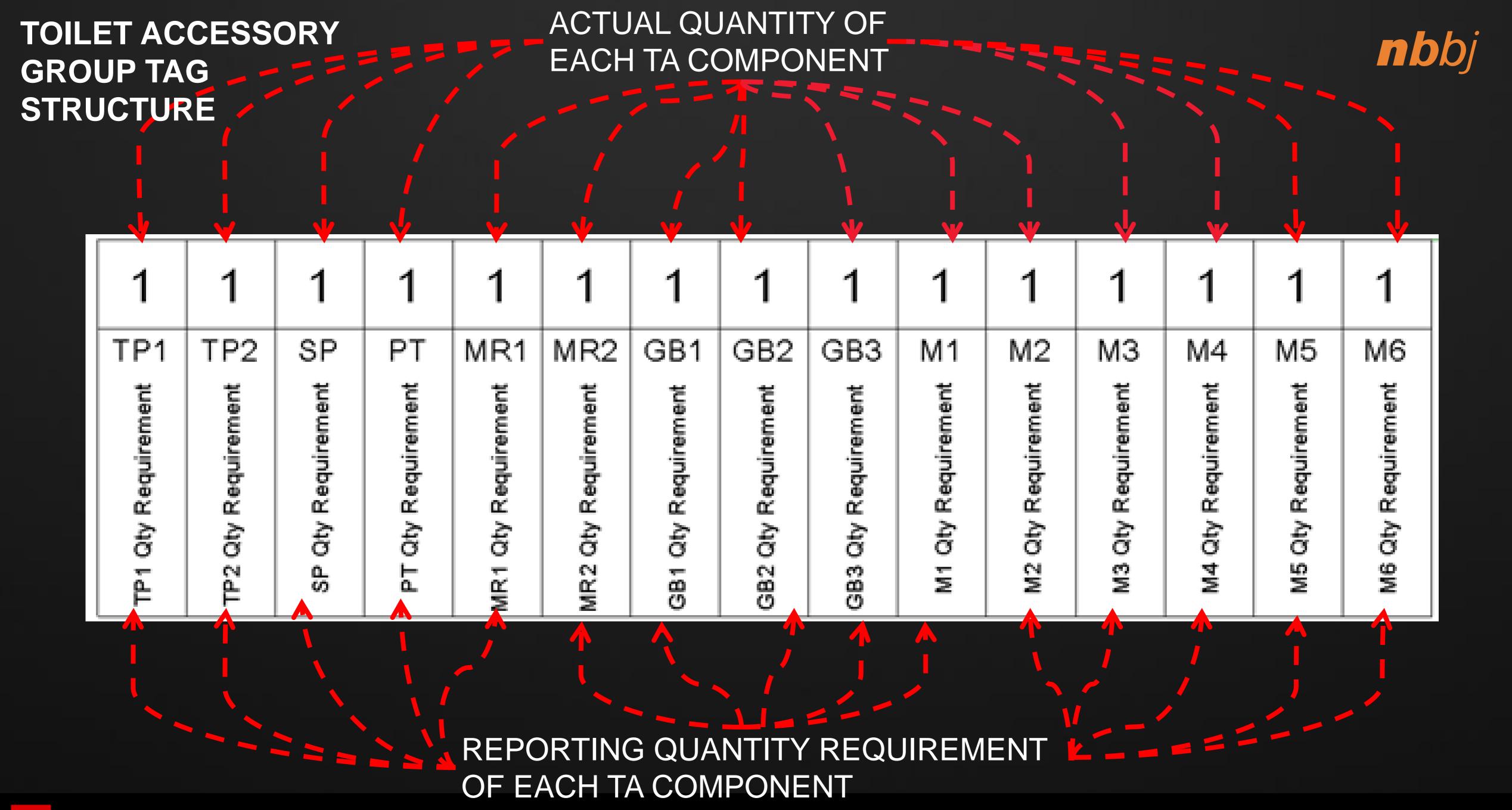
	11			
	/ 1	TA-4	STAFF MULTI-STALL RESTROOM/LOCKER ROOMS/SHOWERS (WHERE APPLICABLE)	ROOM
TPD-1	TPD-1	TPD-1	1/STALL	TYPE
N/A	N/A	N/A	N/A	USING TA
SD-2	SD-2	SD-2	1 BETWEEN EVERTWOSINKS	GROUP
PTD-2	PTD-2	PTD-2	2/TOILET ROOM	TYPE
MR-1	MR-1	MR-1	1/SINK	
N/A	N/A	N/A	N/A <	
GB-36	GB-36	GB-36	ADA STALL ONLY	QUANTITY
GB-42	GB-42	GB-42	ADA STALL ONLY	REQUIRE-
GB-L	GB-L	GB-L	1/SHOWERSTALL	MENT FOR
CH-1	CH-1	CH-1	1/TOILET STALL AND 2/SHOWER STALL	EACH
SCD-1	SCD-1	SCD-1	1/STALL	COMPONE
SN-1	SN-1	SN-1	1/STALL FEMALE TOILET ROOM ONLY	NT
SND-1	SND-1	SND-1	1/FEMALE TOILET ROOM ONLY	
SR-1	SR-1	SR-1	1/SHOWERSTALL	
SDS-2	SDS-2	SDS-2	1/SHOWERSTALL	

#### TOILET ACCESSORY GROUP FAMILY STRUCTURE

### TOILET ACCESSORY GROUP TAG



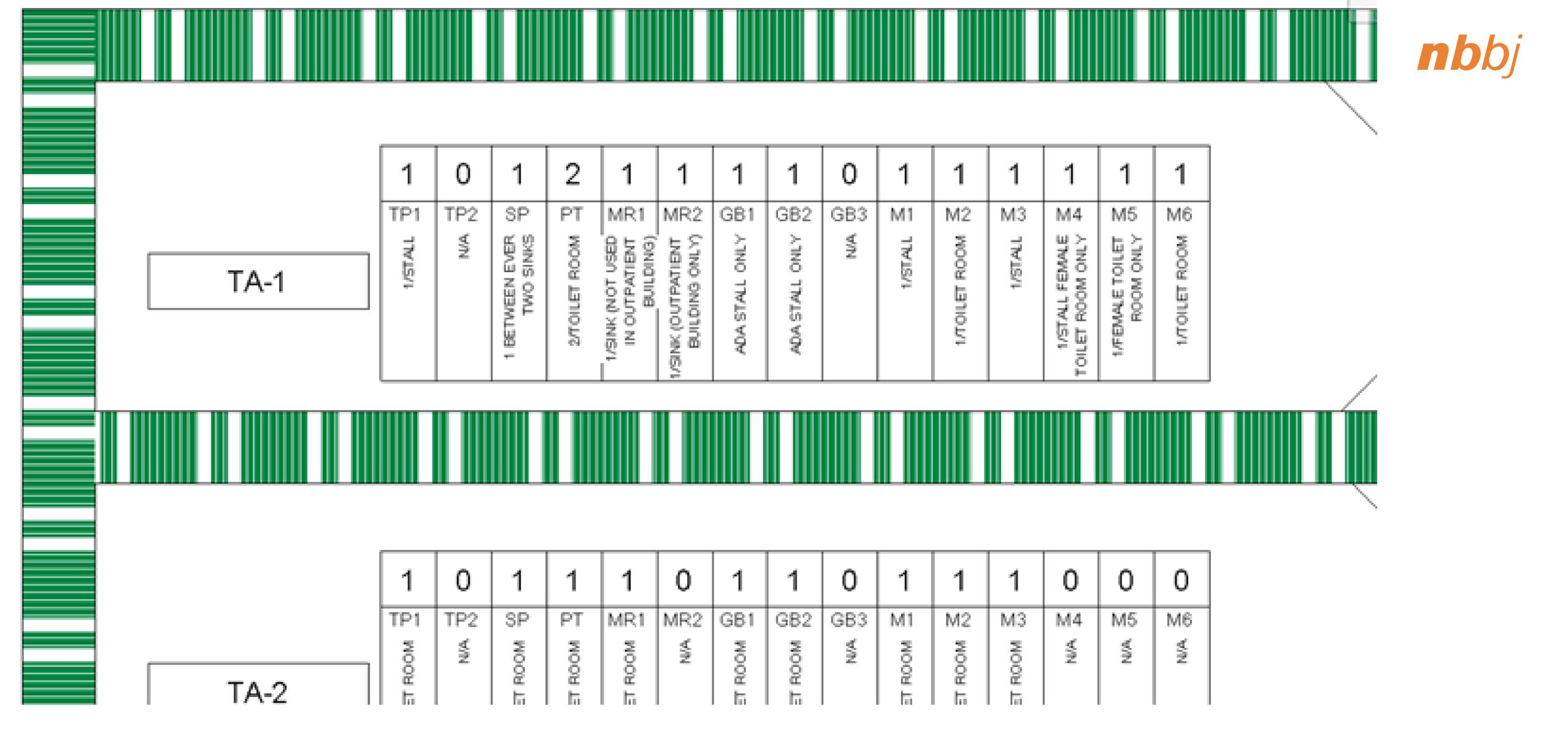
- Enables reporting data from families
- Enables inputting parametric values to families
- Shared parameters for:
- Quantity requirement of each TA component
- Actual quantity of each TA component



### PUT IT TO WORK



- Place TA group family of appropriate type in a toilet room
- Male or female?
- Count stalls
- Count handicap stalls
- Count shower stalls
- Count sinks
- Tag TA Group with TA Group Tag
- Read quantity requirement of each component
- Type in quantity for each component



#### **TOILET ACCESSORY GROUP IN ACTION WITH TAG**

### DOCUMENTATION: FLOOR PLANS



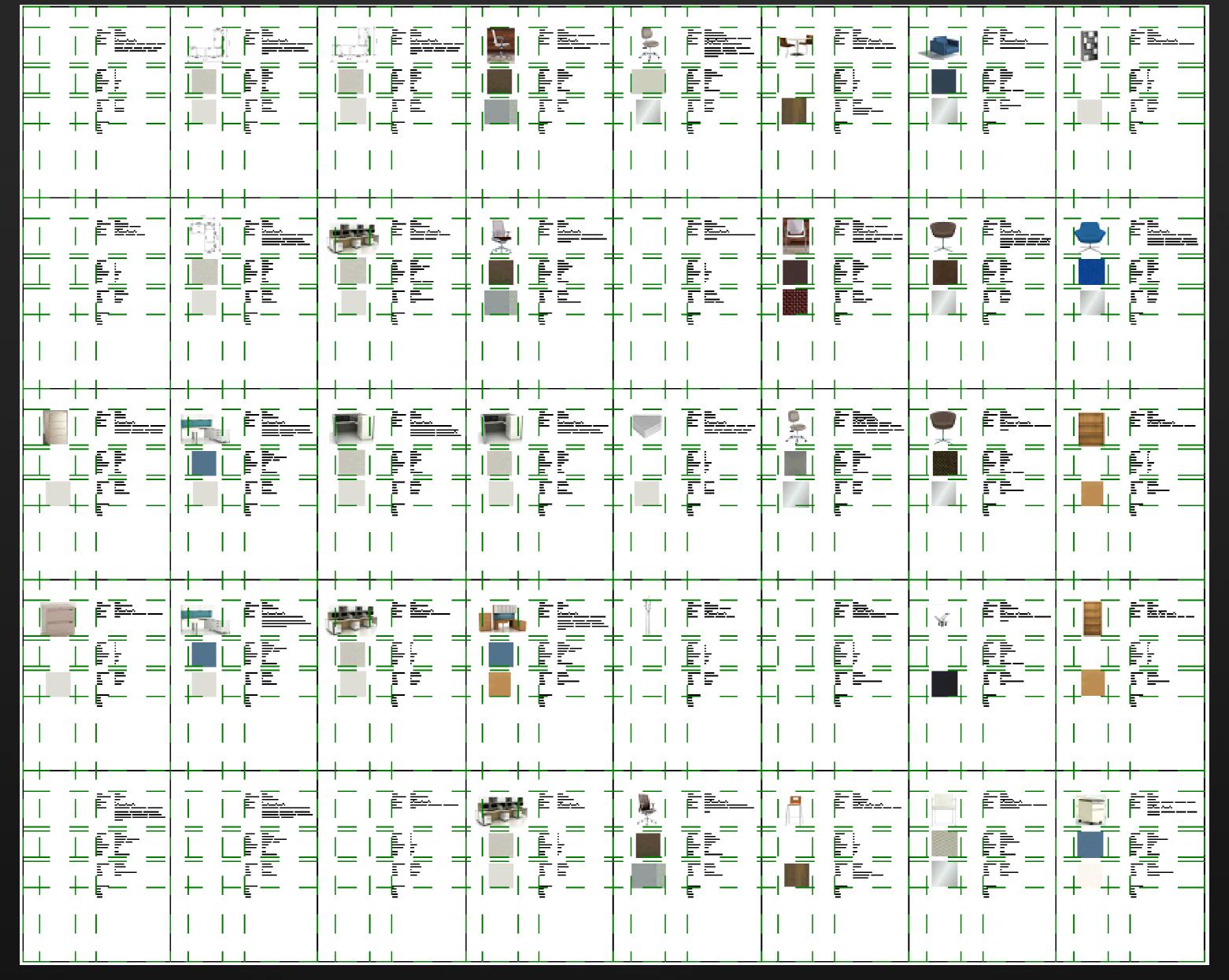
- Furniture families show up as symbolic lines representing plan view at "Coarse" & "Medium" mode
- Furniture families show up as 8.5 x 11data sheets at "Fine" mode
- Furniture plans set at "Coarse" or "Medium" but never at "Fine" mode
- Toilet Accessory Group families show up as group labels at "Coarse" & "Medium" mode
- Toilet Accessory Group families show all nested components (as labels) at "Fine" mode
- Floor plans set at "Coarse" or "Medium" mode

### DOCUMENTATION: LEGENDS



- Legend view at scale 12" = 1'-0" or 1:1 at "Fine" mode
- Place 40 different furniture types on the legend view, array in 5 rows & 8 columns
- Each furniture family show as an 8.5 x 11 data sheet
- Import pictures of furniture & scanned images of fabric & finishes, scale to approx. 2" x 2" & place in appropriate data sheets





#### DATA SHEETS IN LEGEND VIEW



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# DOCUMENTATION: SCHEDULES



TYPE	DESCRIPTION	MANUFACTURER	MODEL NUMBER/FINISH	COMMENTS
1115	BESSIGN HOIS	: MANOLAGIOILEIT	MODEL NOMBER MINOLI	OOMMEIALO
BCS-HORIZ-1	BABY CHANGING STATION	AMERICAN SPECIALTIES INC	ASI 9013 RECESSED STAINLESS STEEL	icc i
	BEDPAN CABINET	AMERICAN SPECIALTIES INC	ASI 0551 RECESSED BEDPAN CABINET IN SATIN STAINLESS STEEL	CC/PATIENT TOILET ROOM
	COAT/PURSE HOOK	HARDWARE UNLIMITED	SR 44-274 IN STAINLESS STEEL	CC
	COAT HOOK	BOBRICK	B-232 HOOK STRIP IN SATIN FINISH	iCC
GB-30	GRAB BAR	AMERICAN SPECIALTIES INC	ASI 3100-SERIES CONCEALED MOUNTING IN SATIN FINISH WITH PEENED GRIPPING SU	CC/30" LENGTH TYPE-01
GB-36	GRAB BAR	AMERICAN SPECIALTIES INC	ASI 3100-SERIES CONCEALED MOUNTING IN SATIN FINISH WITH PEENED GRIPPING SU	CC/36" LENGTH TYPE-01
GB-42	GRAB BAR	AMERICAN SPECIALTIES INC	ASI 3100-SERIES CONCEALED MOUNTING IN SATIN FINISH WITH PEENED GRIPPING SU	CC/42" LENGTH TYPE-01
GB-FL	GRAB BAR	AMERICAN SPECIALTIES INC	ASI 3451P SWING UP GRAB BAR WITH OPT 25	CC/FLIP UP GRAB BAR
GB-L	GRAB BAR	BOBRICK	B-6861-CONCEALED MOUNTING IN SATIN FINISH WITH PEENED GRIPPING SURFACE	CC/L-SHAPE
GB-MH36	GRAB BARS MENTAL HEALTH	NORIX	SECURITY GRAB BAR IGS-36	CC/36" LENGTH
GB-MH42	GRAB BARS MENTAL HEALTH	NORIX	SECURITY GRAB BAR IGS-42	CC/42" LENGTH
HD-1	HAND DRYER	AMERICAN SPECIALTIES INC	ASI 0185 ROVAL COLLECTION	CC
MR-1	MIRROR UNFRAMED	EPCO	2013-A 18" W X 48" H TOP/BOTTOM RAIL, SATIN CLEAR ANODIZED	CC
MR-2	MIRROR UNFRAMED	EPCO	2013-A 24" W X 48" H TOP/BOTTOM RAIL, SATIN CLEAR ANODIZED	CC/PATIENT ROOM TOILET
MR-3	MIRROR UNFRAMED	EPCO	2013-A 18" W X 66" H TOP/BOTTOM RAIL, SATIN CLEAR ANODIZED	CC/DRESSING ROOMS
MR-4	MIRROR	BRADLEY	748-24" W X 48" H IN STAINLESS STEEL POLISHED TO #8 FINISH	CCMENTAL HEALTH TOILET
MR-5	MIRROR UNFRAMED	CUSTOM	36"VV X 45"H	CC/PUBLIC RESTROOMS
MR-6	MIRROR UNFRAMED	CUSTOM	33"W X 48"H	CC/OUTPATIENT BUILDING ONLY
PTD-1	PAPER TOWEL DISPENSER AND DISPOSAL UNIT	AMERICAN SPECIALTIES INC	ASI 9462 PROFILE COLLECTION IN BRUSHED STAINLESS STEEL	CC
PTD-2	PAPER TOWEL DISPENSER	VA FURNISHED AND INSTALLED		VV
PTD-3	PAPER TOWEL DISPENSER	DUPONT CORIAN	CUSTOM CORIAN COMBINATION PTD & RECESSED SHELF UNIT- GLACIER WHITE, S-2	CC
PTD-4	PAPER TOWEL DISPENSER	BOBRICK	RECESSED PAPER TOWEL DISPENSER B-359	CCMENTAL HEALTH TOILET
SCD-1	TOILET SEAT COVER	AMERICAN SPECIALTIES INC	ASI 9477 PROFILE COLLECTION IN BRUSHED STAINLESS STEEL	CC
SD-2	SOAP DISPENSER	VA FURNISHED AND INSTALLED		VV
SD-3	SOAP DISPENSER	BOBRICK	CENTURA SERIES RECESSED B4063	CC/MENTAL HEALTH TOILET
SDS-1	SOAP DISH SHELF	BRADLEY	SA16 CHASE MOUNTED SOAP DISH IN SATIN FINISH STAINLESS STEEL	CCMENTAL HEALTH TOILET
SDS-2	SOAP DISH SHELF	AMERICAN SPECIALTIES INC	ASI 0400 RECESSED IN POLISHED STAINLESS STEEL	cc
SN-1	SANITARY NAPKIN DISPOSAL	AMERICAN SPECIALTIES INC	ASI ROYAL COLLECTION 20852 SURFACE MOUNTED IN BRUSHED STAINLESS STEEL	CC/LARGE ENOUGH FOR ADULT DIAPE
SND-1	SANITARY NAPKIN DISPENSER	AMERICAN SPECIALTIES INC	ASI PROFILE COLLECTION 9468 IN BRUSHED STAINLESS STEEL	CC
	SHOWER CURTAIN ROD	MOEN	DONNER COMMERCIAL MODEL #55-5	CC
	SHOWER SHELF	HCP INDUSTRIES	H12RC-13 TILE WHITE	CC/CUSTOM
	SHOWER CURTAIN TRACK	KIRSCH	SERIES 9600 TRACK, SPLIT TRACK AS REQUIRED WHERE PATIENT LIFT TRACK CROS	CC/PATIENT ROOM TOILET
	SHOWER CURTAIN TRACK	IMPERIAL FASTENER COMPANY	IFC-69 BREAK-AWAY TRACK IN SATIN ANNODIZED FINISH	CCMENTAL HEALTH TOILET
	TOWEL HOOK	BRADLEY	SA36 FRONT MOUNTED STAINLESS STEEL	CCMETAL HEALTH TOILET
	TOILET PAPER DISPENSER	AMERICAN SPECIALTIES INC	ASI 0040 JUMBO ROLL IN BRUSHED STAINLESS STEEL	CC
	TOILET PAPER DISPENSER	SEE GB-FL		
TPD-3	TOILET PAPER DISPENSER/SHELF	AMERICAN SPECIALTIES INC	ASI 0697-GAL IN SATIN FINISH	CC
TPD-4	TOILET PAPER DISPENSER	BRADLEY	SA12 FRONT MOUNTED RECESSED SECURITY HOLDER IN STAINLESS STEEL	CCMENTAL HEALTH TOILET

# DOCUMENTATION: SCHEDULES



TPD-1	TO ILET PAPER DISPENSER	1/STALL
8D-Z	SOAP DISPENSER	1 BETWEEN EVER TWO SINKS
PTD-1	PAPER TOWELD SPENSER	Z'TOILET ROOM
MR-S	MIRROR	1/SINK (NOT USED IN OUTPATIENT BUILDING)
MR-6	MIRROR	1/SINK (OUTPATIENT BUILDING ONLY)
08-36	GRAB BAR	ADA STALLONLY
G8-4Z	GRAB BAR	ADA STALLONLY
BCS-HORZ-1	MISC	1/TOILET ROOM
CH-1	MISC	1/STALL
HD-1	MISC	1/TOILET ROOM
90 D-1	MISC	1/STALL
8W-1	MISC	1/STALL FEMALE TO LET ROOM ONLY
8M D-1	MISC	1/FEMALE TOILET ROOM ONLY

#### TA-Z: PUBLIC SINGLE BATHROOM

TPD-1	TO ILET PAPER DISPENSER	1/TOILET ROOM
8D-Z	SOAP DEPENSER	1/TOILET ROOM
PTD-Z	PAPER TOWELD BPENSER	1/TOILET ROOM
MR-1	MIRROR	1/TOILET ROOM
OB-36	GRAB BAR	1/TOILET ROOM
G8-4Z	GRAB BAR	1/TOILET ROOM
BCS-HORZ-1	MISC	1/TOILET ROOM
CH-1	MISC	1/TOILET ROOM
SC 0-1	WISC	1/TOILET ROOM

#### TA-3: CLINICAL SINGLE PATIENT BATHROOM/SHOWER (WHERE APPLICABLE)

TPD-1	TO ILET PAPER DISPENSER	1/TOILET ROOM
8D-Z	SOAP DISPENSER	1/TOILET ROOM
PTD-Z	PAPER TOWEL DISPENSER	1/TOILET ROOM
MR-1	MIRROR	1/TOILET ROOM
GB-FL	GRAB BAR	Z'TOILET ROOM
GB-L	GRAB BAR	1/SHOWER STALL
CH-1	MISC	1/TO ILET ROOM AND 1/SHOWER STALL
SC D-1	MISC	1/TOILET ROOM
808-2	MISC	1/SHOWER STALL
8R-1	MISC	1/TOILET ROOM

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

TPD-1	TO ILET PAPER DISPENSER	1/STALL
8D-Z	SOAP DEPENSER	1 BETWEEN EVER TWO SINKS
PTD-Z	PAPER TOWEL DISPENSER	ZYTOILET ROOM
MR-1	MIRROR	1/8 IN K
08-36	GRAB BAR	ADA STALLONLY
OB-+Z	GRAB BAR	ADA STALLONLY
GB-L	GRAB BAR	1/SHOWER STALL
CH-1	MISC	1/TO ILET STALL AND Z/SHOWER STALL
SC D-1	MISC	1/STALL
808-Z	MISC	1/SHOWER STALL
SW-1	MISC	1/STALL FEMALE TO ILET ROOM ONLY
8 <b>M</b> D-1	MISC	1/FEMALE TOILET ROOM ONLY
SR-1	MISC	1/SHOWER STALL
	•	

#### A-5: STAFF SINGLE BATHROOM/SHOWER (WHERE APPLICABLE)

TPD-1	TO ILET PAPER DISPENSER	1/TOILET ROOM
80-Z	SOAP DISPENSER	1/TOILET ROOM
PTD-Z	PAPER TOWELD BPENSER	1/TOILET ROOM
MR-1	MIRROR	1/TOILET ROOM
08-36	ORAB BAR	1/TOILET ROOM
OB-4Z	ORAB BAR	1/TOILET ROOM
OB-L	ORAB BAR	1/SHOWER STALL
CH-1	MISC	1/TO ILET ROOM AND 1/SHOWER STALL
SC D-1	MISC	1/TOILET ROOM
808-Z	MISC	1/SHOWER STALL
SR-1	MISC	1/TOILET ROOM

#### TA-6: PATIENT BATHROOM/SHOWER

M/A	N/A	NTOILET ROOM
TPD-Z	TO ILET PAPER DISPENSER	1/TOILET ROOM
E-09T	TOILET PAPER DISPENSER/SHELF	1/TOILET ROOM
80-Z	SOAP DISPENSER	1/TOILET ROOM
PTD-3	PAPER TOWEL DISPENSER	1/TOILET ROOM
MR-Z	MIRROR	1/TOILET ROOM
08-30	ORAB BAR	1/TOILET ROOM
08-36	ORAB BAR	Z/TOILET ROOM
OB-FL	GRAB BAR	ZYTOILET ROOM
BPC-1	MISC	1/TOILET ROOM
CH-1	misc	1/TOILET ROOM AND 1/SHOWER STALL
SS-1	MISC	1/TOILET ROOM
ST-1	MISC	1/TOILET ROOM

#### TA-7: CLINICAL AREAS/STAFF LOUNGE/NOURISHMENT/NEDICATION ROOM/SOILED ROOM/LABS/NURSE STATIONS - TO BE APPLIED To all areas in Clinical or Back of House spaces where sinks are present

8D-Z	SOAP DISPENSER	NSINK
PTD-Z	PAPER TOWELD BPENSER	NSINK

#### TA-8: DRESSING ROOM

MR-3	MIRROR	1/D RESSING ROOM
CH-1	MISC	1/D RESSING ROOM

#### TA-9: MENTAL HEALTH - TO BE APPLIED IN ALL MENTAL HEALTH PATIENT TO LET ROOMS

TPD-4	TO ILET PAPER DISPENSER	1/TOILET ROOM
SD-3	SOAP DISPEMBER	1/TOILET ROOM
PTD-4	PAPER TOWELD SPENSER	1/TOILET ROOM
MR-4	MIRROR	1/TOILET ROOM
08-MH36	ORAB BAR	1/TOILET ROOM
OB-MH+2	ORAB BAR	1/TOILET ROOM
808-1	MISC	1/TOILET ROOM
8T-Z	MISC	1/TOILET ROOM
TH-1	MISC	WTOILET ROOM

#### TA-10: SLEEP LABS

TOILET PAPER DISPENSER TOILET PAPER	1/TOILET ROOM
TOLLET PAPER	
DISPENSERISHELF	1/TOILET ROOM
SOAP DISPENSER	1/TOILET ROOM
PAPER TOWELD SPENSER	1/TOILET ROOM
MIRROR	1/TOILET ROOM
ORAB BAR	ZYTOILET ROOM
ORAB BAR	Z/TOILET ROOM
MISC	1/TO LET ROOM AND 1/SHOWER STALL
	DISPENSER/SHELF SOAP DISPENSER PAPER TOWEL DISPENSER MIRROR GRAS BAR GRAS BAR

#### DOCUMENTATION: CUT SHEETS

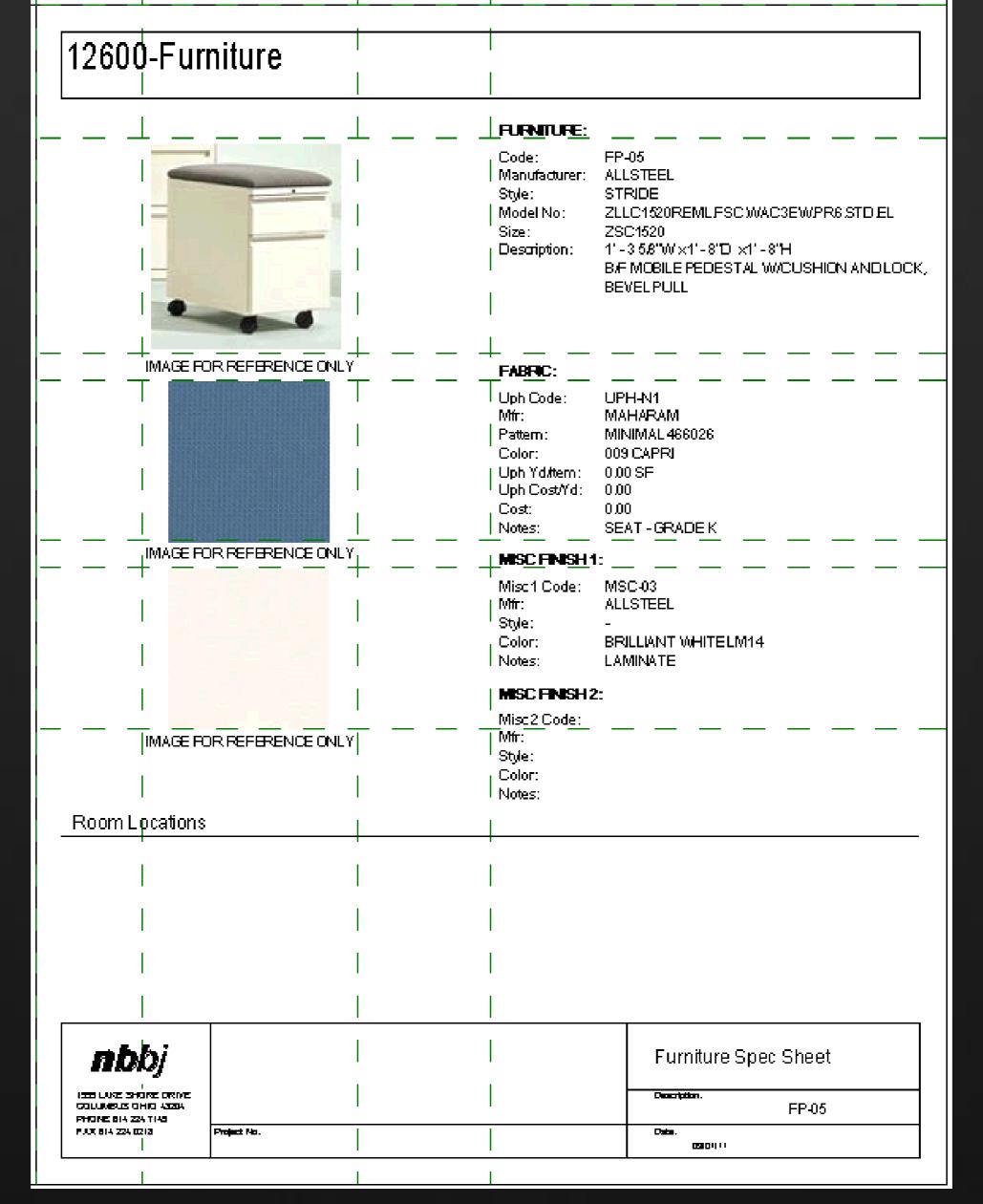


- Title block of 68" x 55" with (40) 8.5 x 11 layout title blocks arrayed in 5 rows & 8 columns
- Sheet with 68 x 55 title block
- Place furniture legend on sheet
- Print sheet to pdf
- Open the 68 x 55 pdf, print "tile all pages" to 8.5 x 11pdf





#### **40 CUT SHEETS**



8.5 X 11 CUT SHEET



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## II. INTERIOR FINISH BY ROOM SCHEDULES



### ROOM PARAMETERS

- Additional room parameters other than the Revit built-in room finish parameters
- Room parameters cannot be shared.
- Room parameters should be controlled by key parameter.



### ROOM KEY SCHEDULES

- Key schedules to define room finishes for typical room types.
- Key schedules to define finish material data (color, model number, manufacturer...).
- Proper naming of key schedules for easy browsing and identification.
- DOC-FIN-KEY-ROOM
- DOC-FIN-KEY-BASE
- DOC-FIN-KEY-CLG
- DOC-FIN-KEY-FLOOR
- DOC-FIN-KEY-MISC
- DOC-FIN-KEY-WALL



## ROOM TAGGING AND MAPPING SCHEDULES

- Shared parameter
- Room Tag
- Map schedule: WORK-FIN-MAP-ROOM
- Match Room Finish Key (shared parameter) with Room Finish Code (key parameter).



#### ROOM FINISH MATERIAL DATA

Map 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

Match finish code with finish parameter.

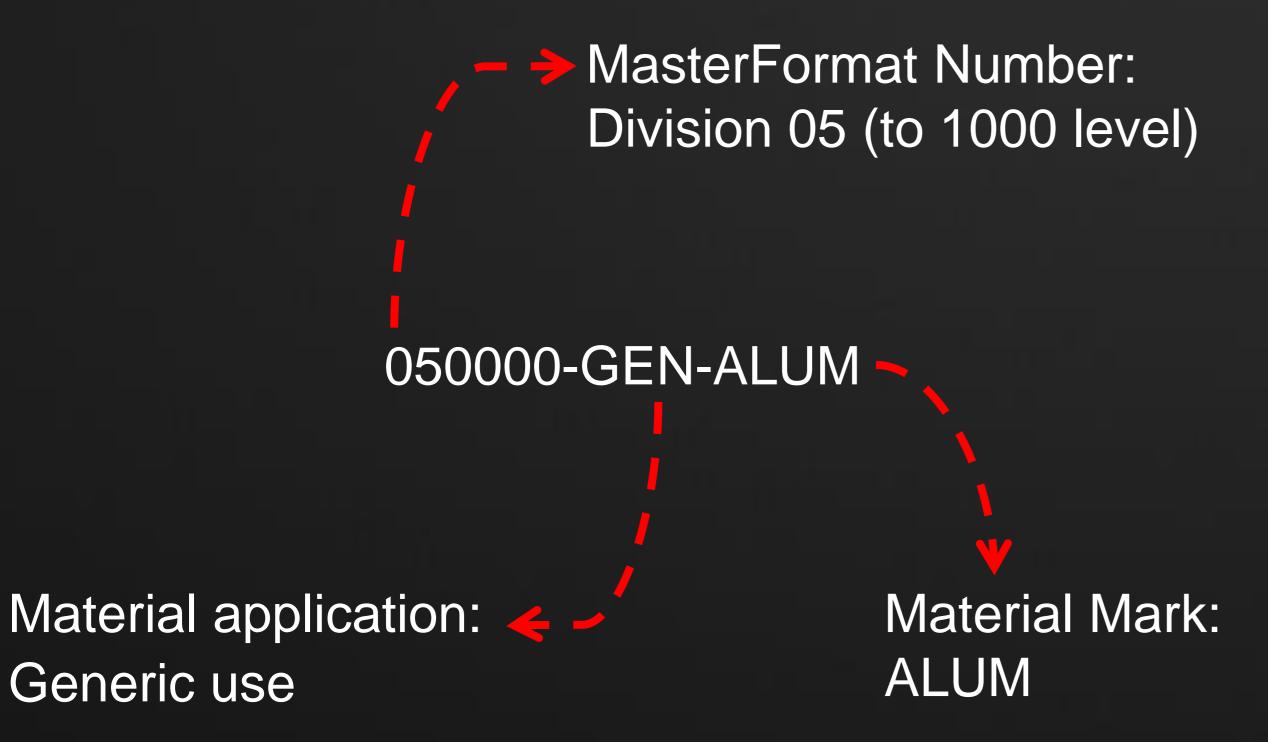


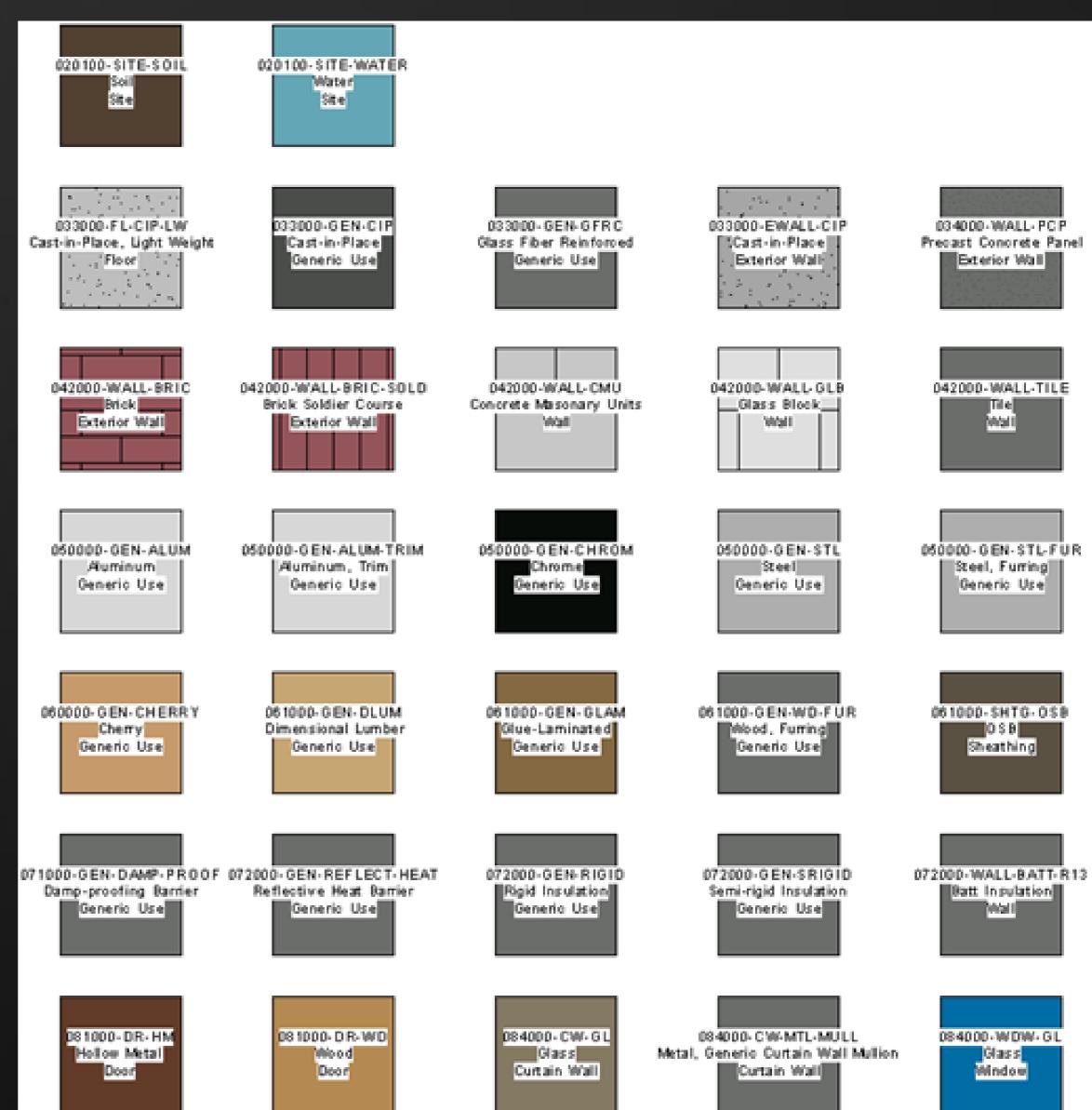


## III INTERIOR FINISH BY MATERIAL FAMILY



#### NAMING





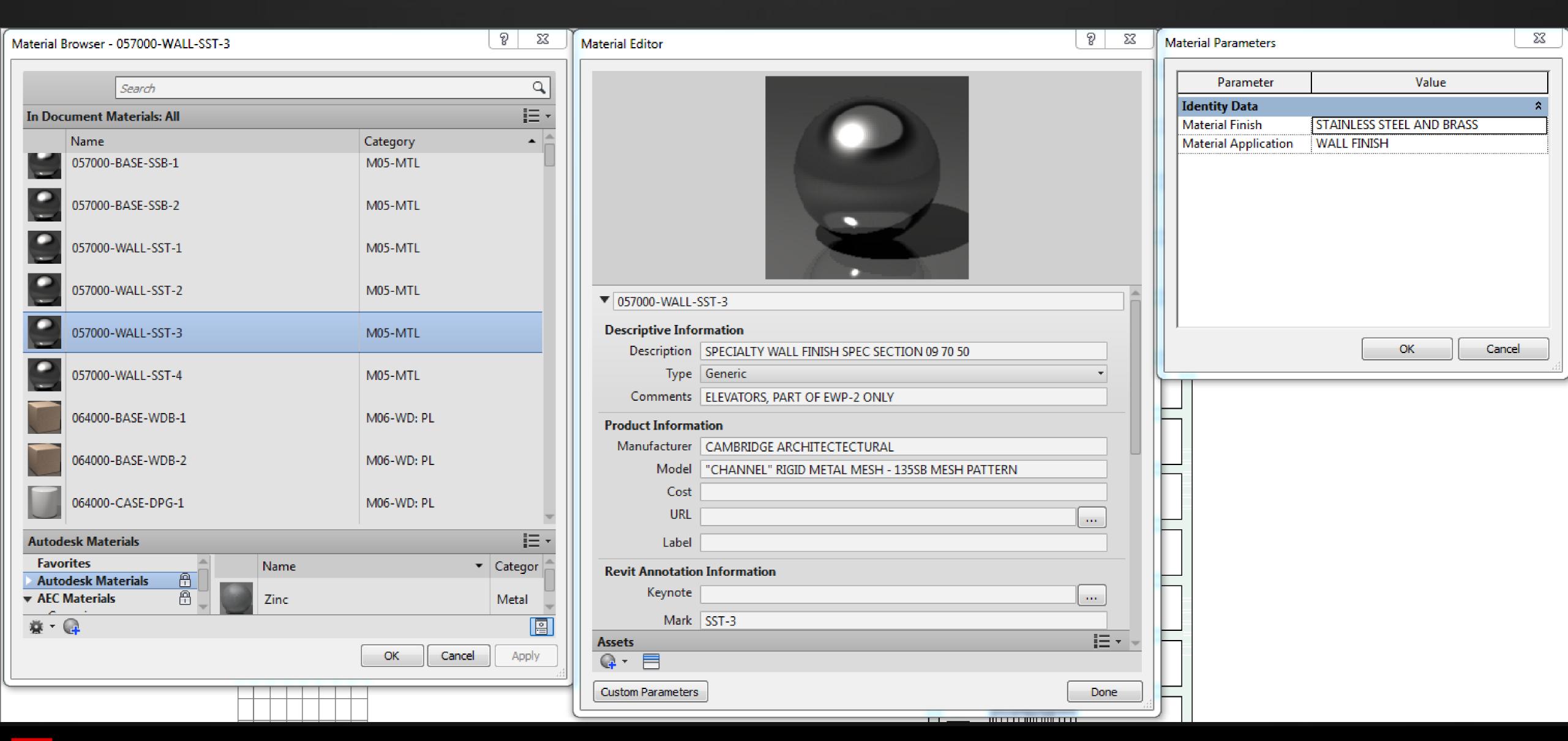
Generic use



## 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



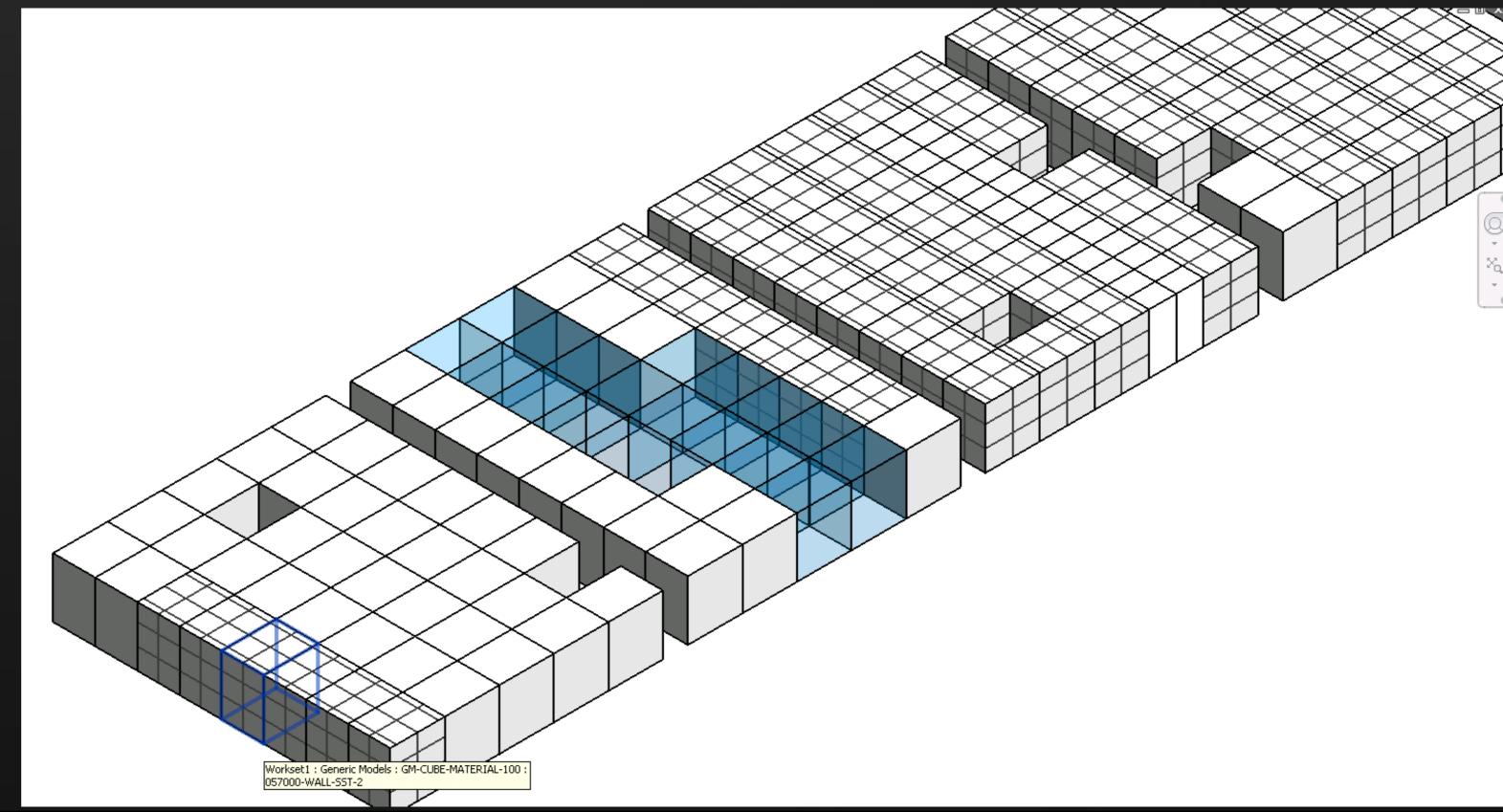




## MATERIAL CARRIER FAMILY

GM-CUBE-MATERIAL-100.rfa

Each type represents a material.



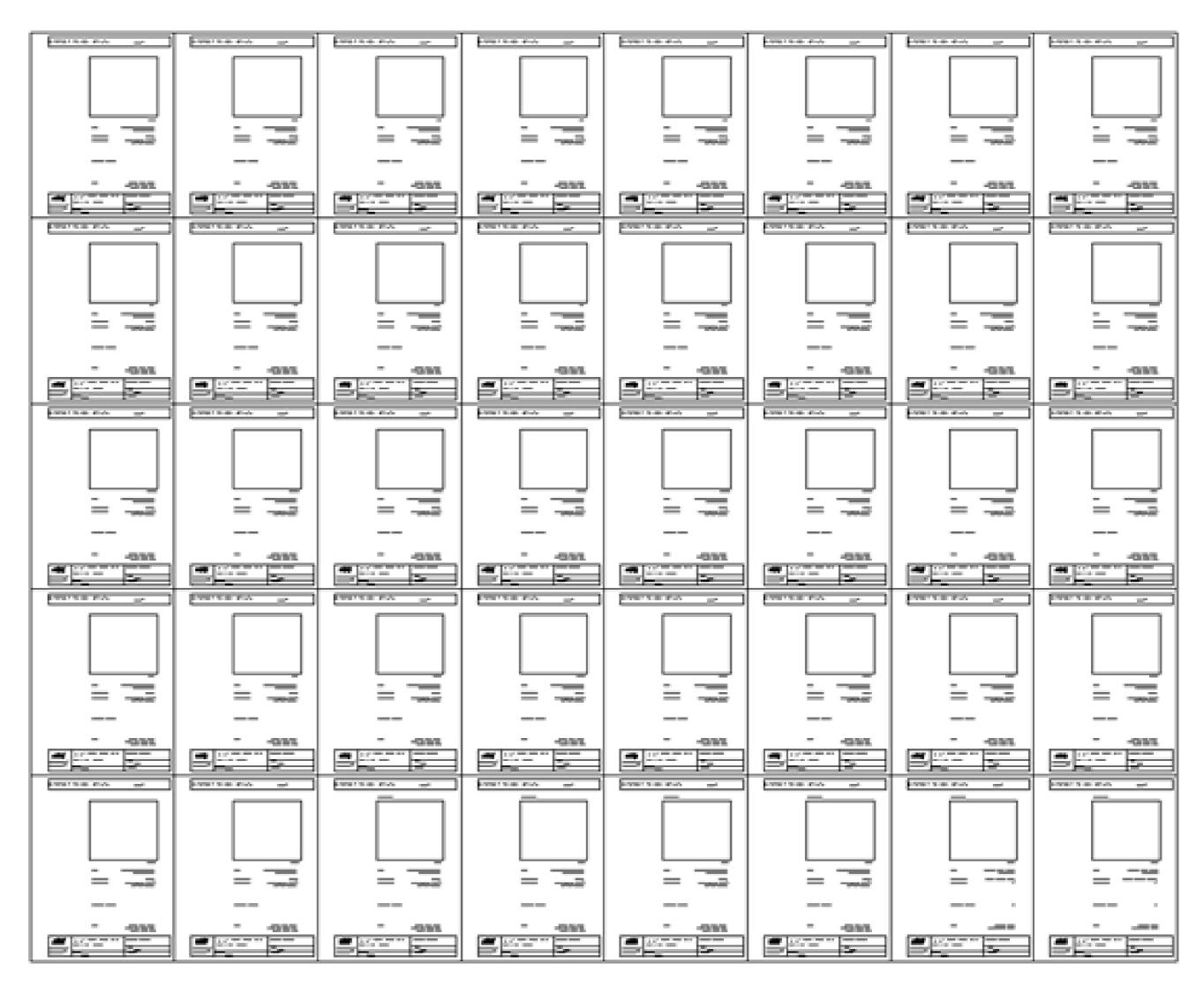


### DOCUMENTATION: CUT SHEETS

- "Non-existing" phase before Existing in project.
- "Non-existing" level (50' or more below level 1).
- Floor plan of Non-existing level scaled at 12"=1'-0"with phase as Non-existing.
- Put one type of GM-CUBE-MATERIAL-100 representing interior finish on the floor plan.
- Tag material cube.
- Use tag to input data.
- Scanned image
- Title block of 68" X 55"

# MATERIAL TAG BACK FRANCH 558-1 STAINLESS STEEL BASE SPEC SECTION 05 70 50 MODEL NUMBER: FINISH/RATTERN/COLOR: NOTES: REFERENCE DETAIL C2/C3/D2/D3 SHEET 0A8/19





68" X 55" TITLE BLOCK WITH CUT SHEETS



## DOCUMENTATION: FINISH KEY LEGEND

- Material take off schedule with phase Non-existing
- Scheduling material properties:
  - Material Application
  - Mark
  - Description
  - Keynote
  - Manufacturer
  - Model
  - Material Finish
  - Comments

•				DOC-MAT-FIN-BASE			
Material: Name	Material: Material Applicatio	Material: Mark	Material: Description	Material: Keynote Material: Manufa	c 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	INVARIWEAVE	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	β	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		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	· · · · · · · · · · · · · · · · · · ·	WD-4	FINISHED HARDWOOD SPEC SECTION 06 64 00	PLEXWOOD	PLEXWOOD STRIPS	OAK FINI	GRAIN TO BE ORIENTED HORIZONT
066000-WALL-WD-5	β	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	, \$	WDPNL-1	WOOD SPEC SECTION 06 64 00	DANZER GRO	VINTERIO STRATUS EURO OAK SUPERIOR	CLEARCO	TYP. WOOD PANELING IN CANTEEN,
066000-WALL-WDP	ò	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
	FLOOR FINISH	TC-1	TRAFFIC COATING SPEC SECTION 07 18 15	TRAFFIC COA			



## TIPS & TRICKS



- TIPS 1: use tag as a tool to input data driving quantity of components
- TIPS 2: smart use of shared parameters to enable tagging & scheduling

## Questions?



Thank You!

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