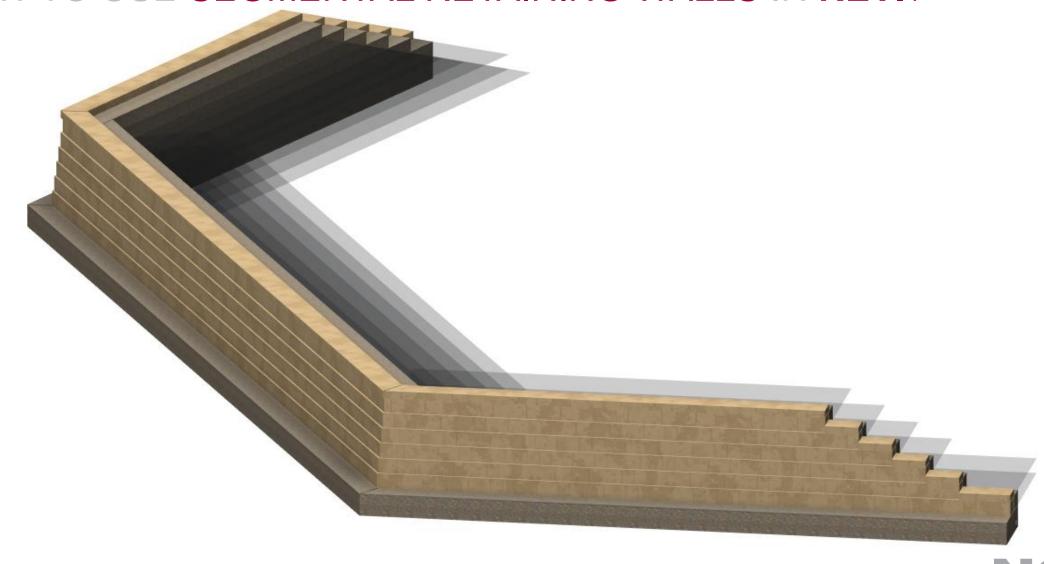
HOW TO USE SEGMENTAL RETAINING WALLS IN REVI1



STEPS TO FOLLOW:

- 1. INTRODUCTION TO **BIM**
- 2. LINK **MATERIALS** INTO REVIT PROJECT
- 3. CREATE **NEW WALL** USING REVIT **STACKED WALL**
- 4. ADD COPING, GEOGRID, LEVELING PAD & GRAVEL FILL WITH REVIT WALL SWEEPS
- 5. CREATE **SCHEDULES** FOR QUANTITY ESTIMATES

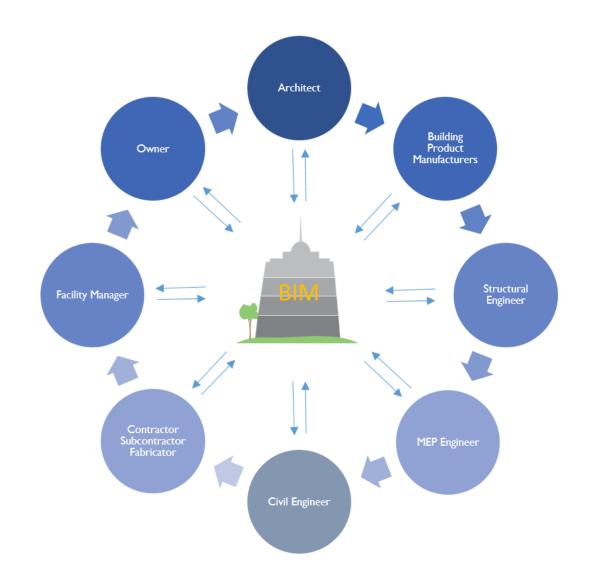


1. Introduction to **BIM**



WHAT IS BIM?

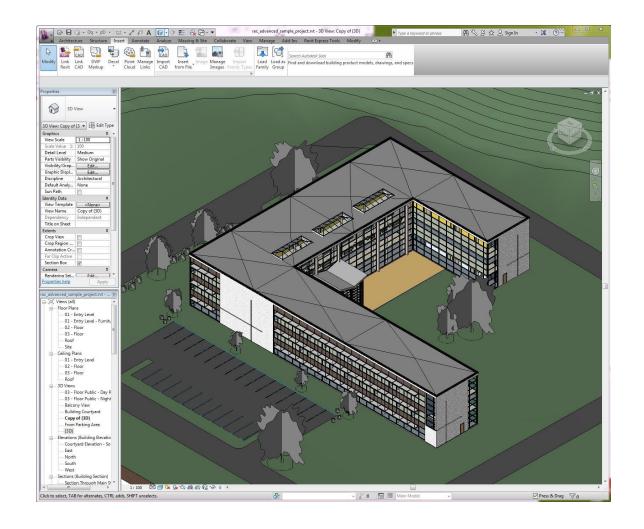
BUILDING INFORMATION MODELING (BIM) IS A PROCESS FOR DESIGNING, **CONSTRUCTIONG, AND MAINTAINING BUILDING DIGITALLY.** IT IS USED BY ARCHITECTS, ENGINEERS, CONTRACTORS, AND BUILDING OWNERS FOR HOLISTIC BUILDING **DESIGN AND PROJECT** COLLABORATION.







The industry standard for BIM Software:
BIM is the **PROCESS**;
Revit is the **TOOL**.

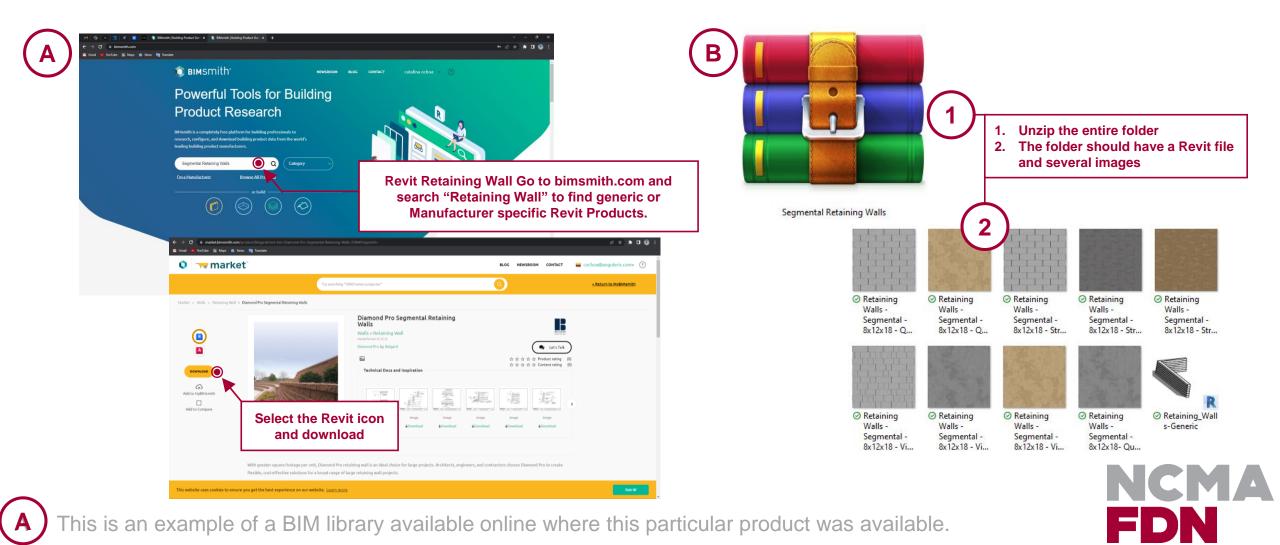


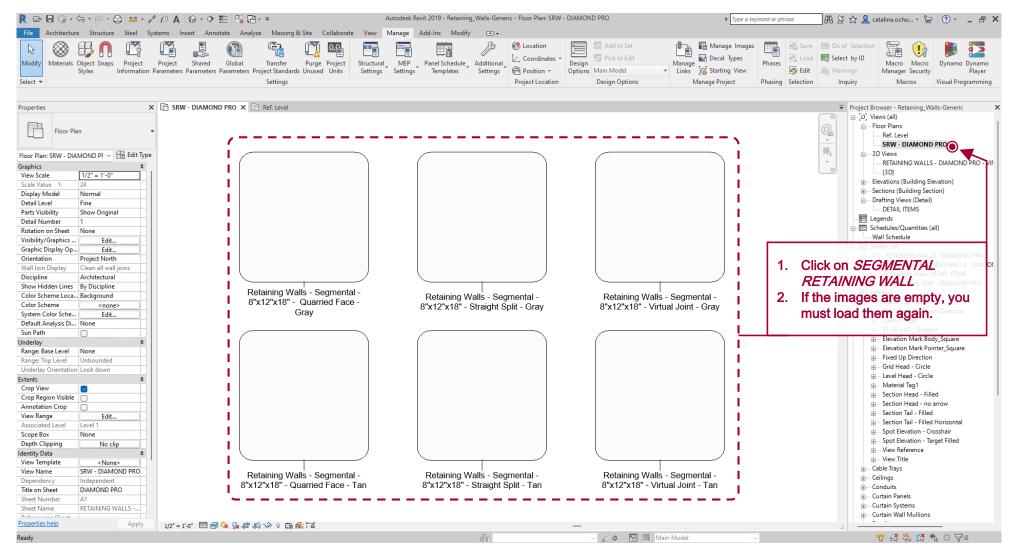




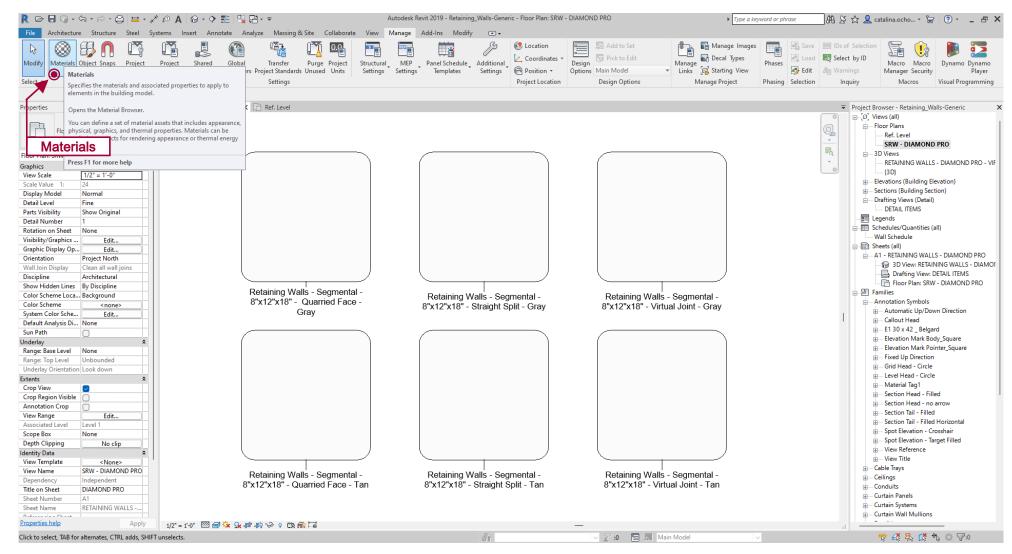
- 1. Start with an EXISTING RETAINING WALL material from an existing library.

 OR download a PRE-MADE RETAINING WALL material, similar to (A)
- 2. Downloaded content should provide multiple files (.rfa or .rvt, .png or .jpg) similar to (B)

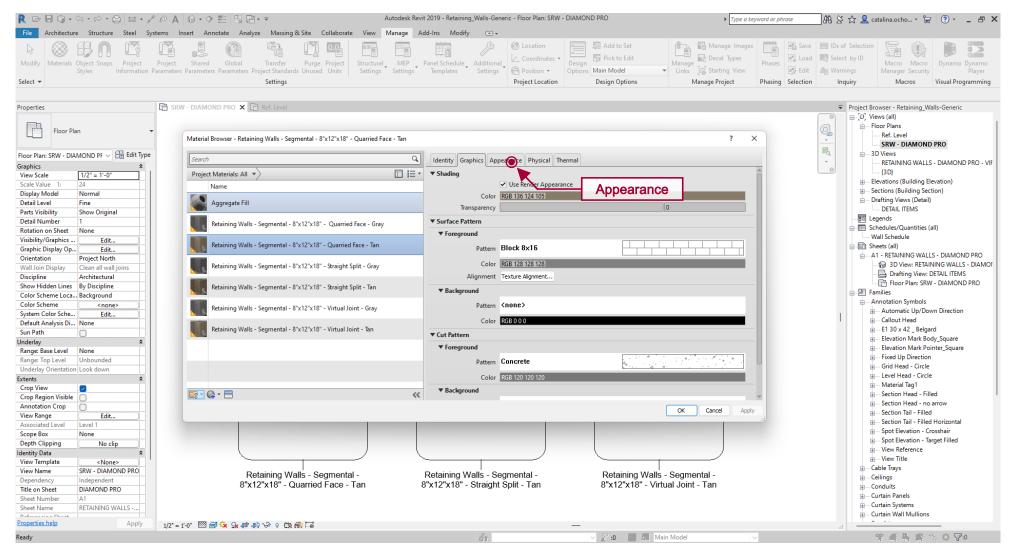




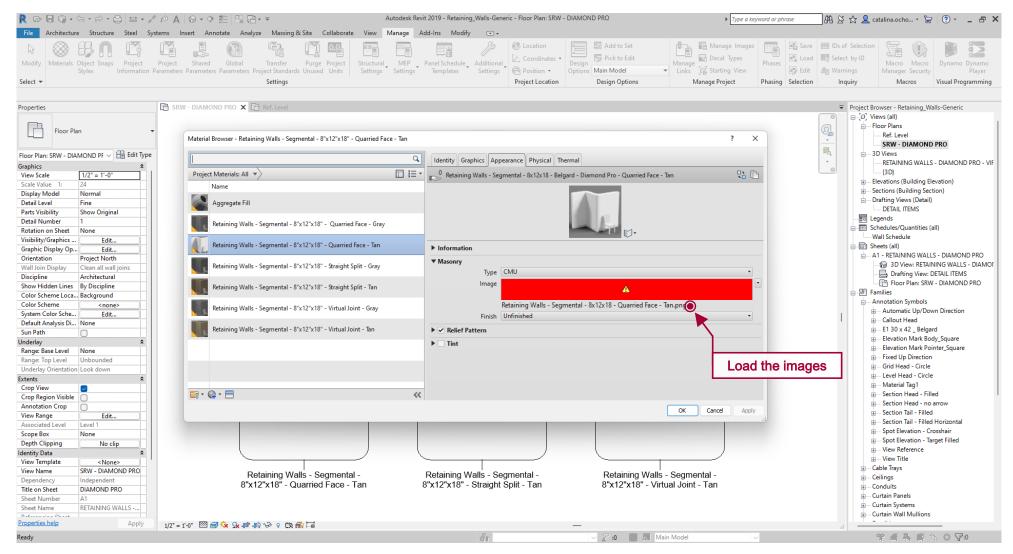




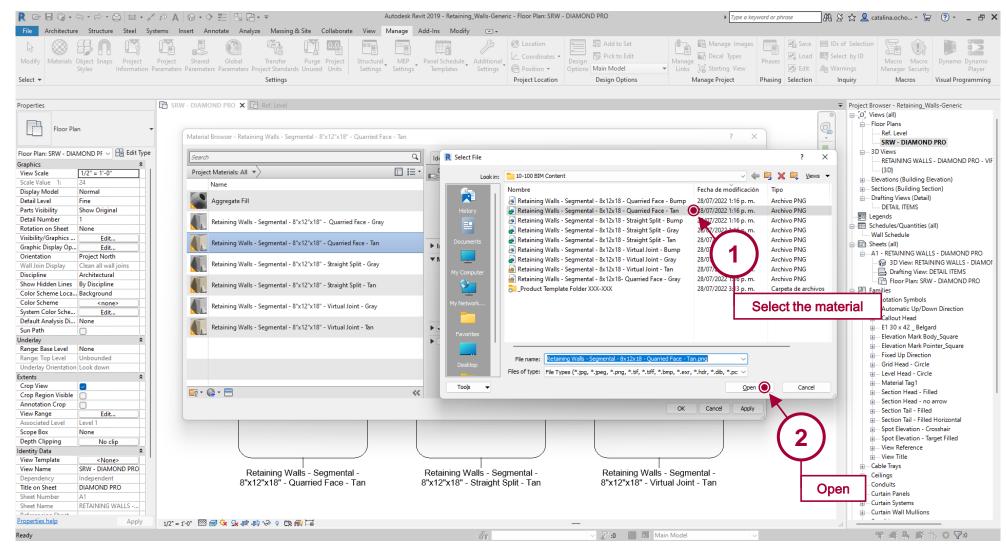




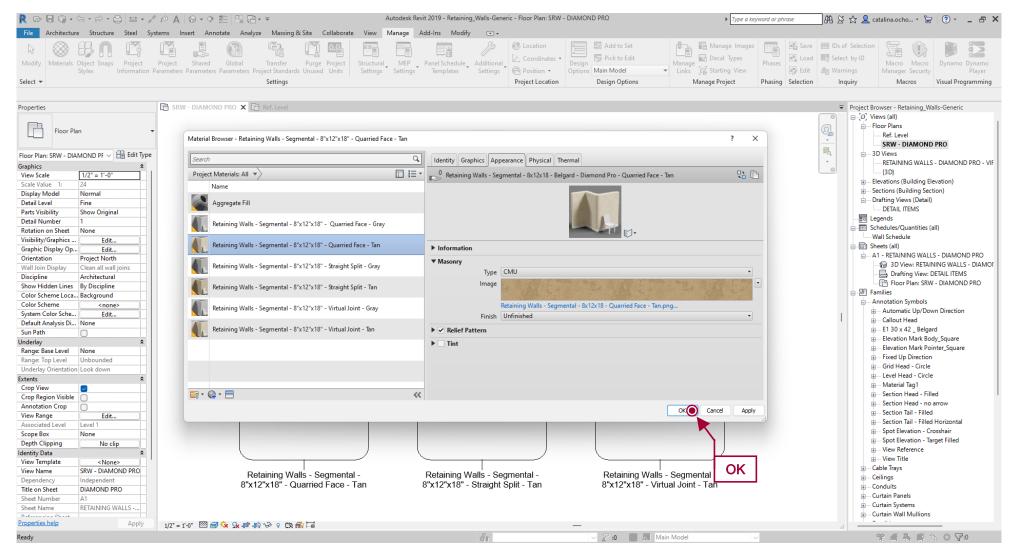




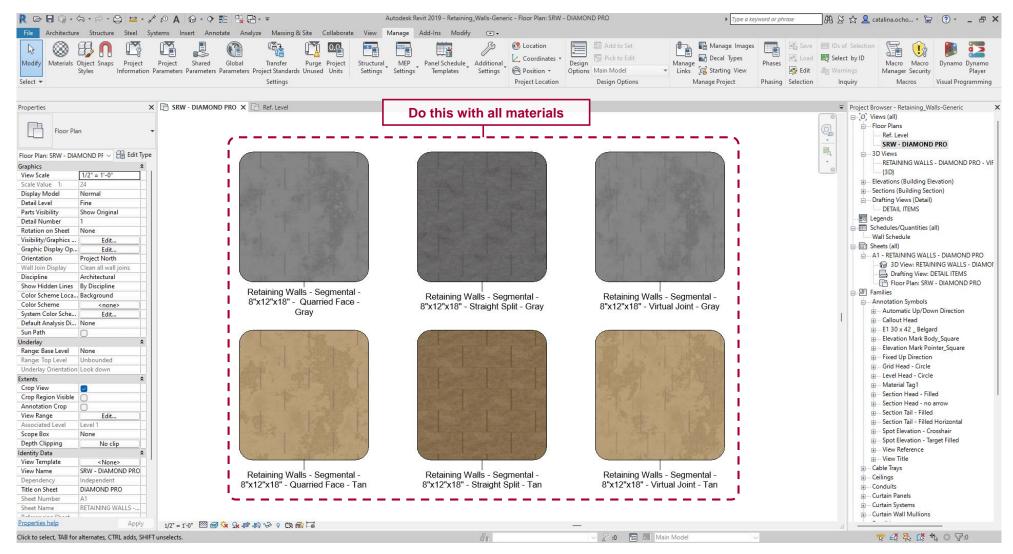






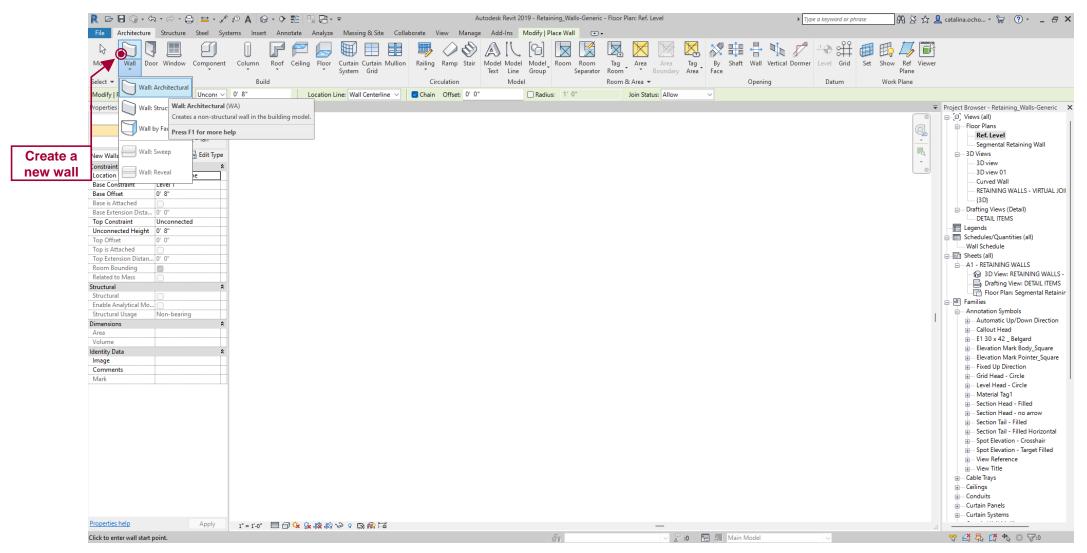




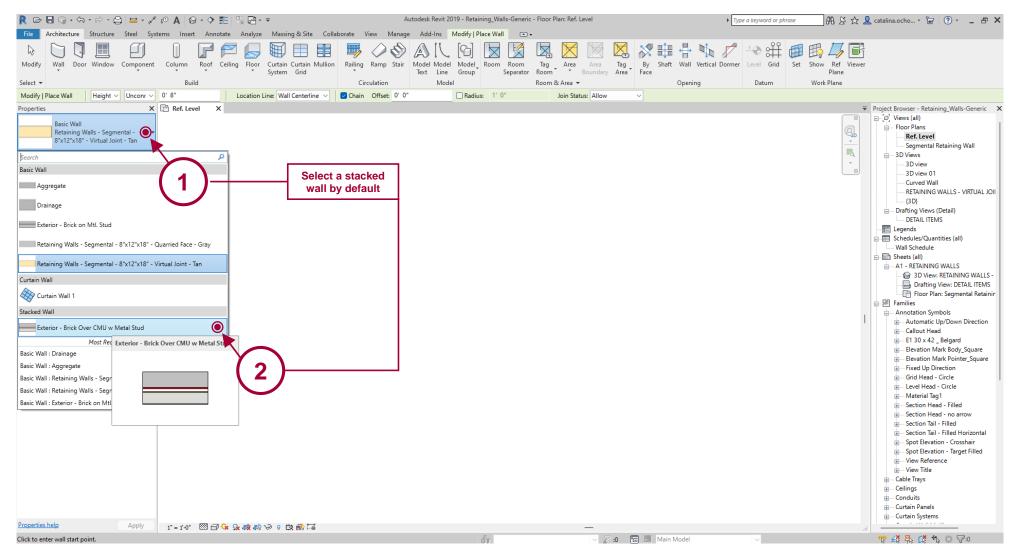




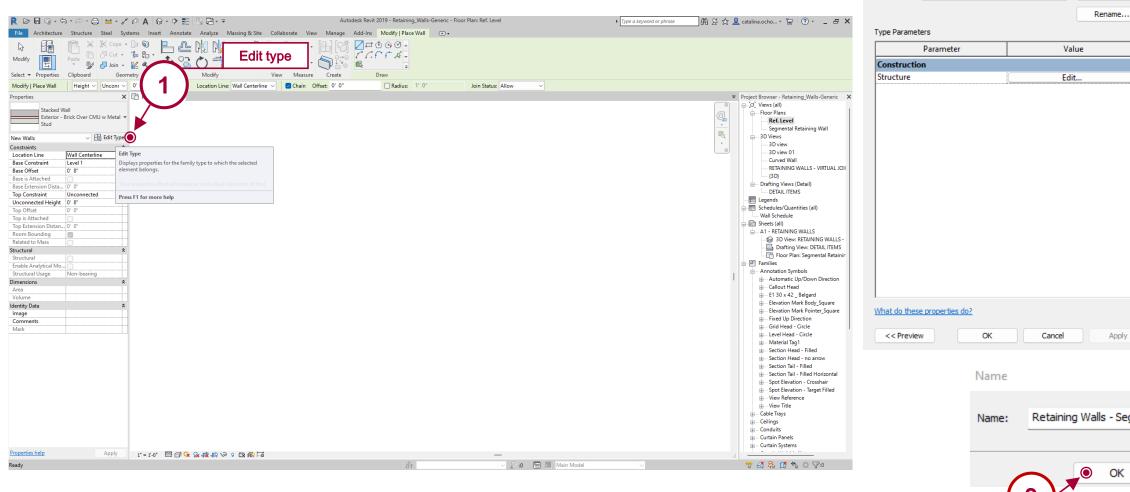


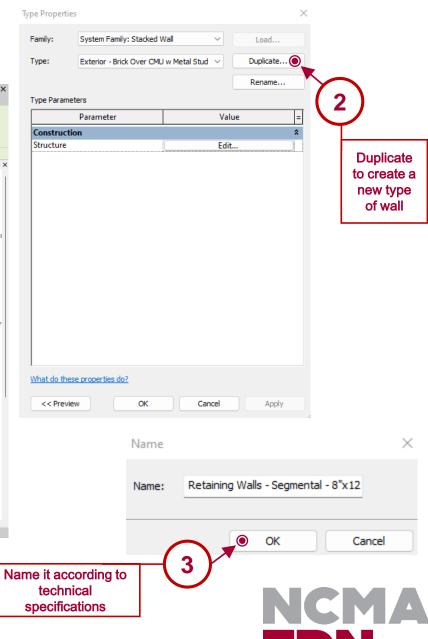


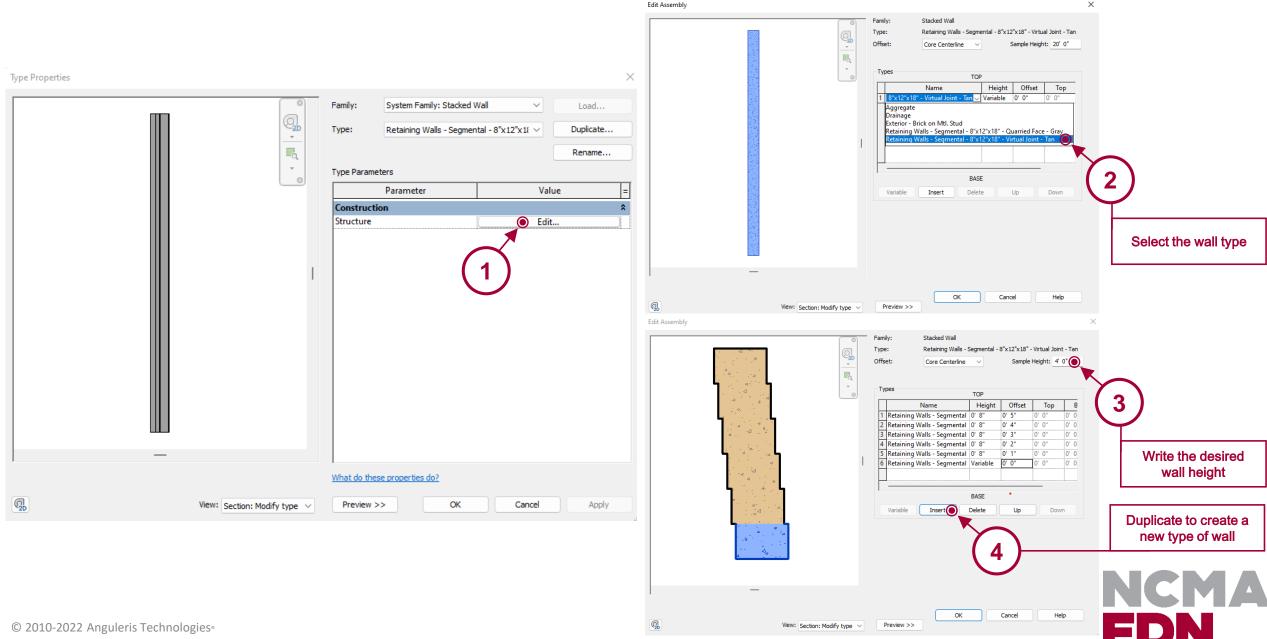


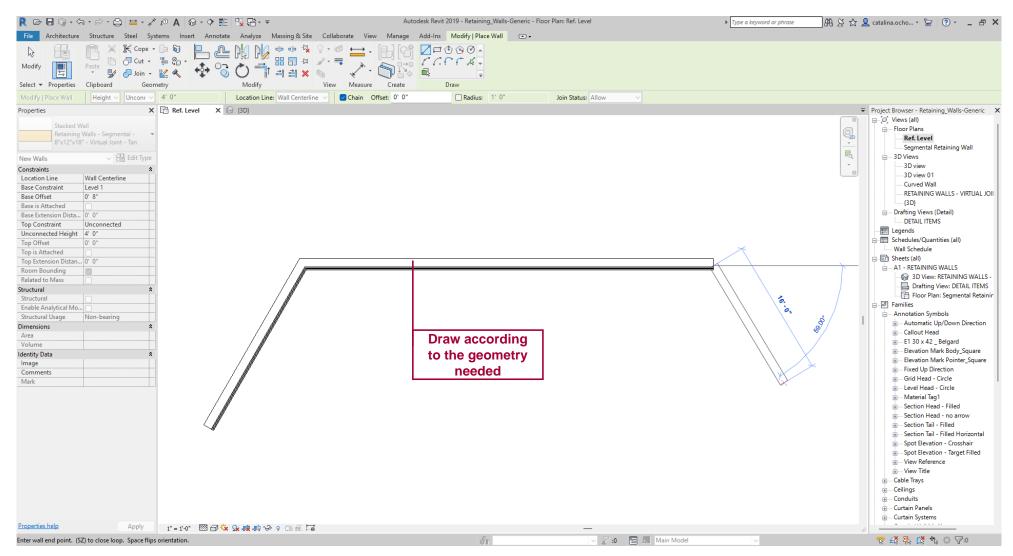




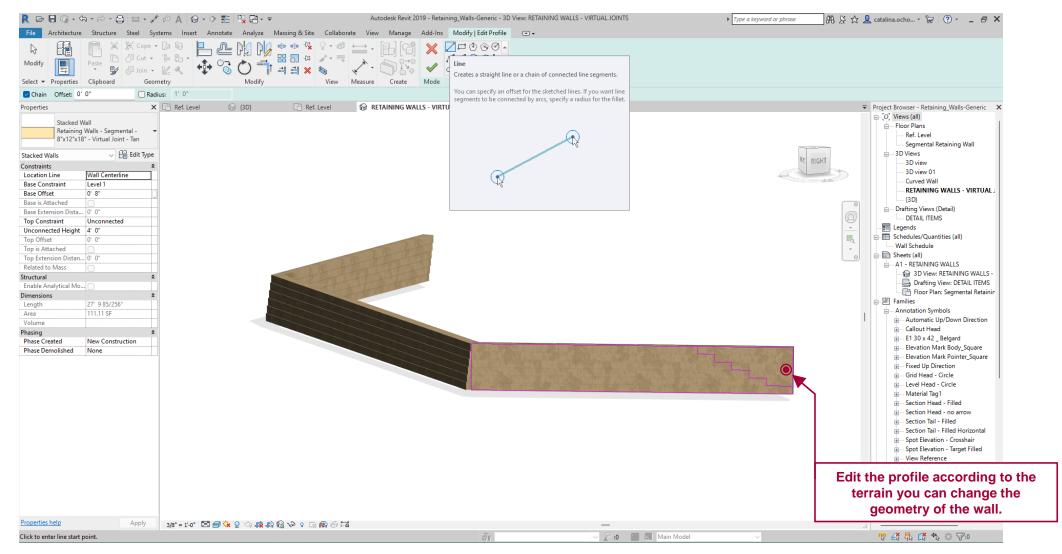




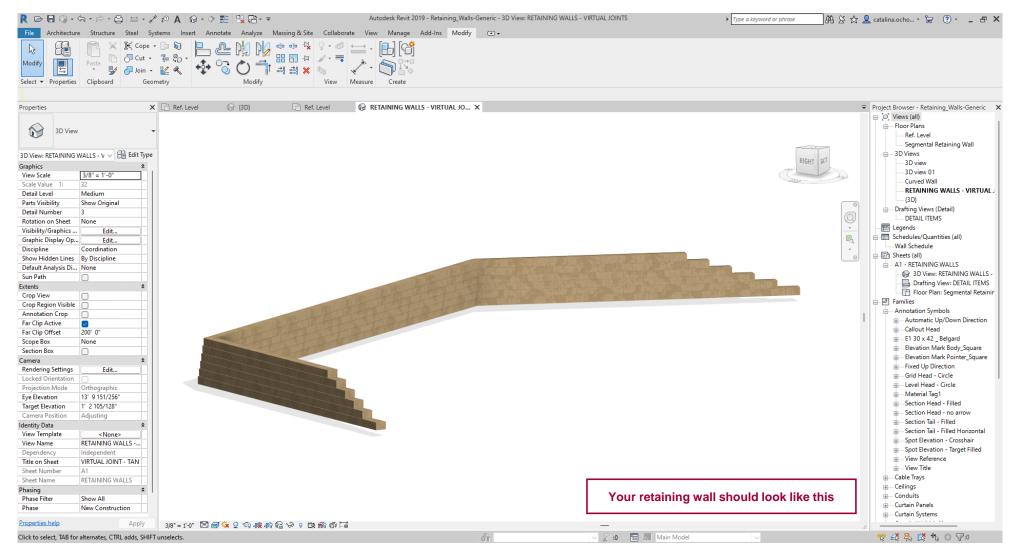








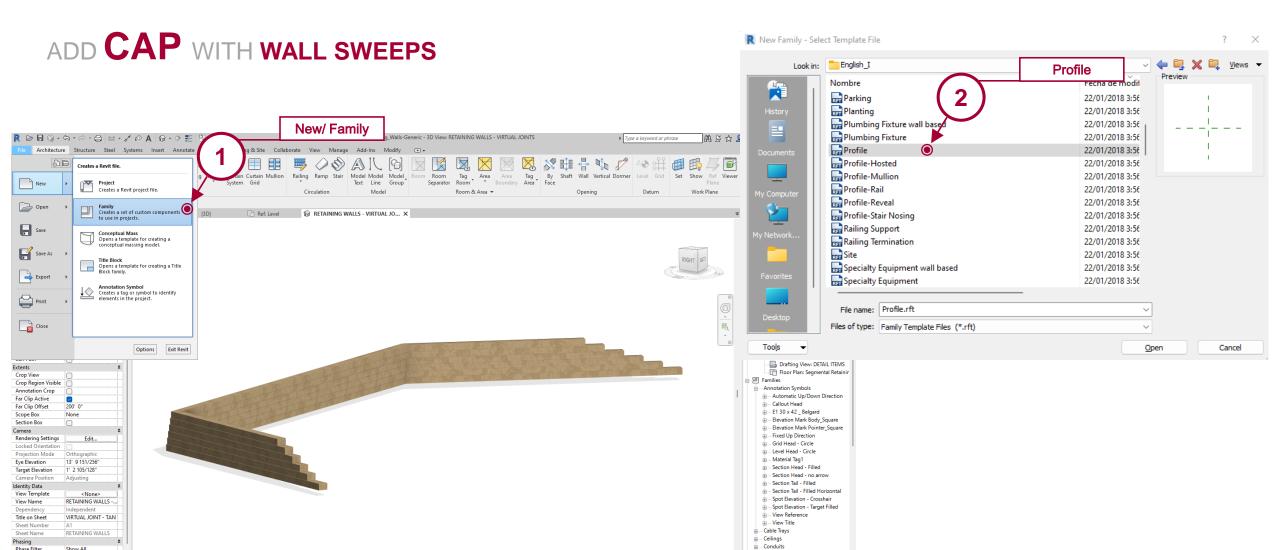






4. ADD CAP, GEOGRID, LEVELING PAD & GRAVEL FILL WITH WALL SWEEPS





📝 :0 📳 🔊 Main Model

- Curtain Panels

Curtain Systems

嚟 益 犇 び 嗎 ○ ▽∞



Apply

3/8"=1"-0" 🖾 🗐 😘 👤 🕾 🙉 🙉 🕾 😭 😭 🔊 0 🖼 📾 🗇 🖼

Phase Filter

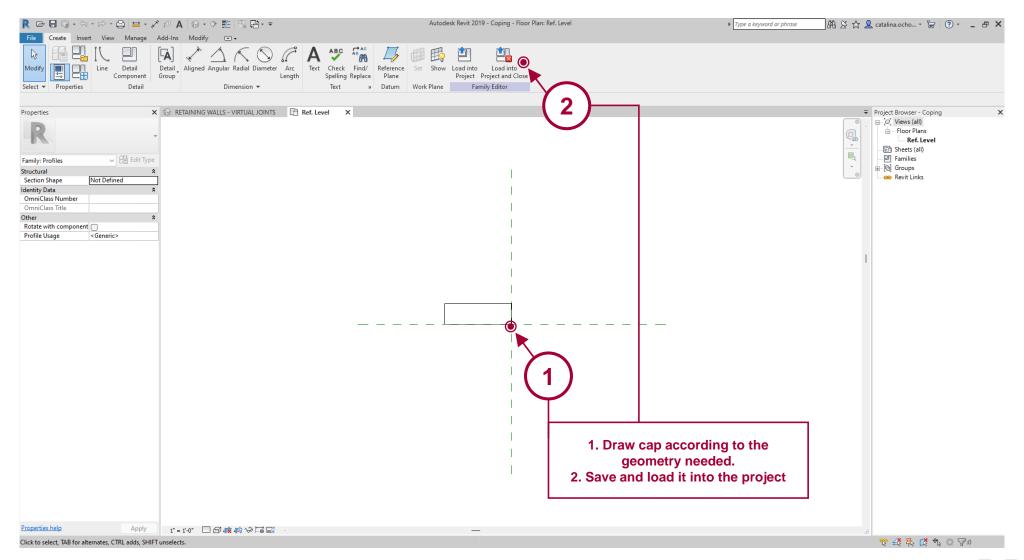
Properties help

Phase

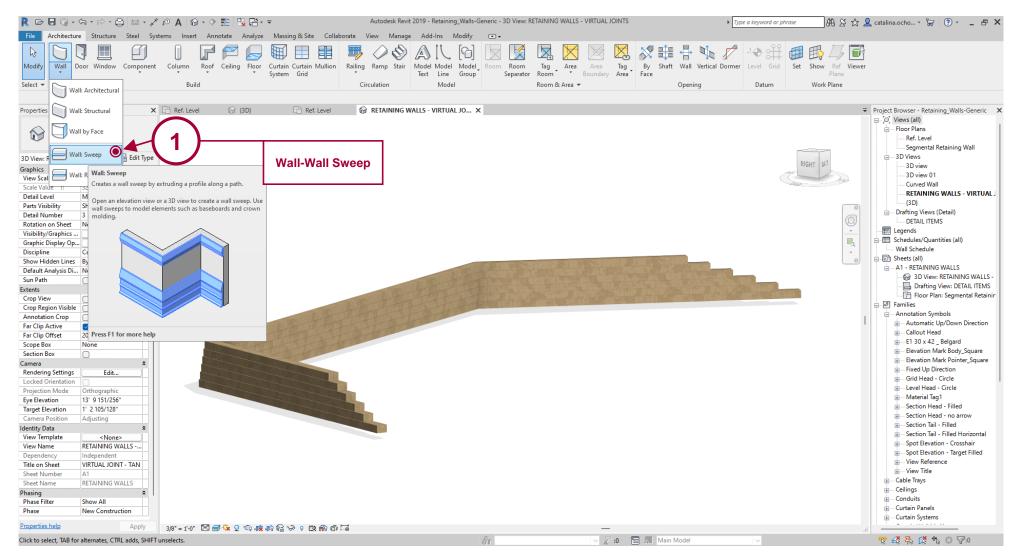
Show All

New Construction

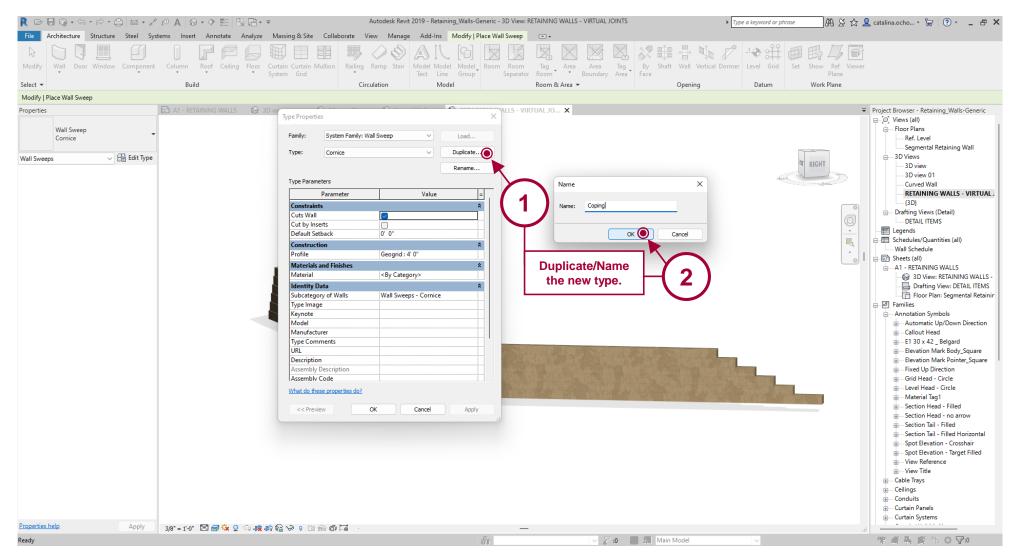
Click to select, TAB for alternates, CTRL adds, SHIFT unselect



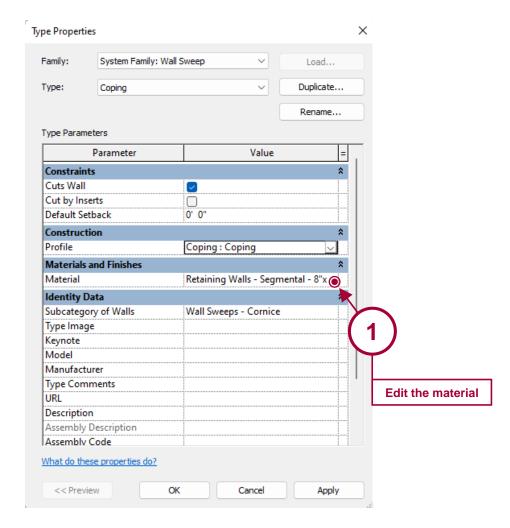


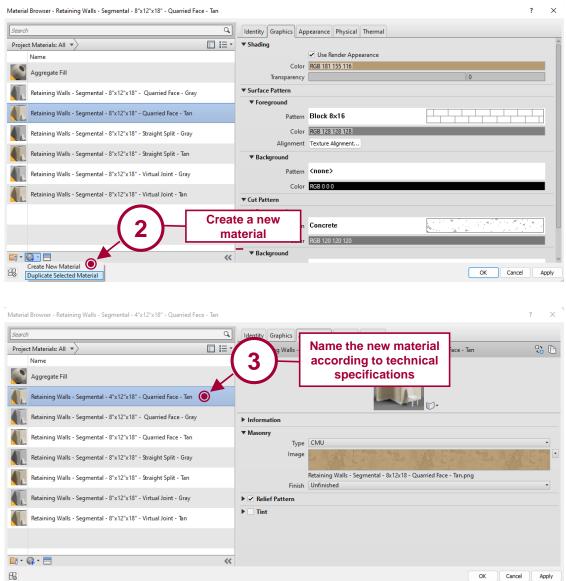




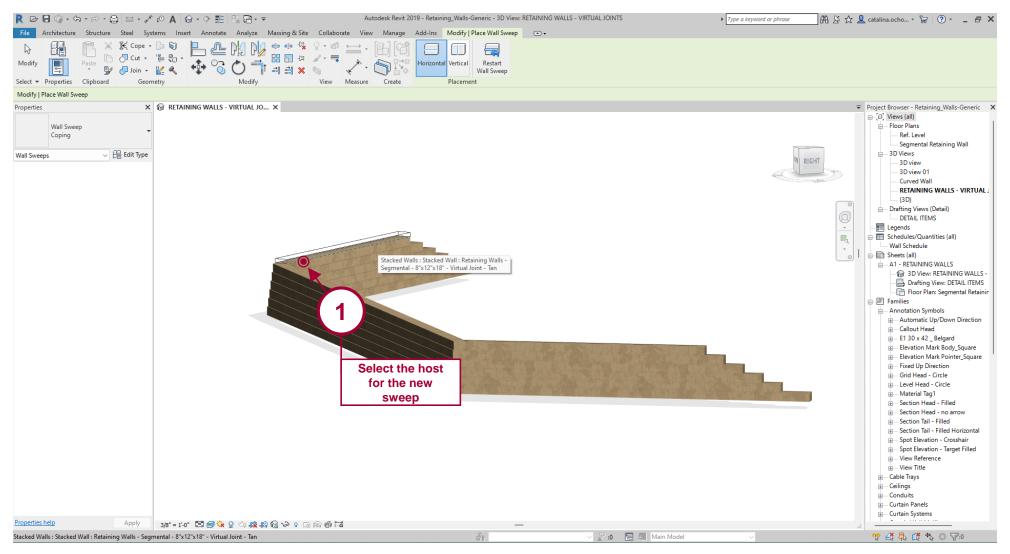




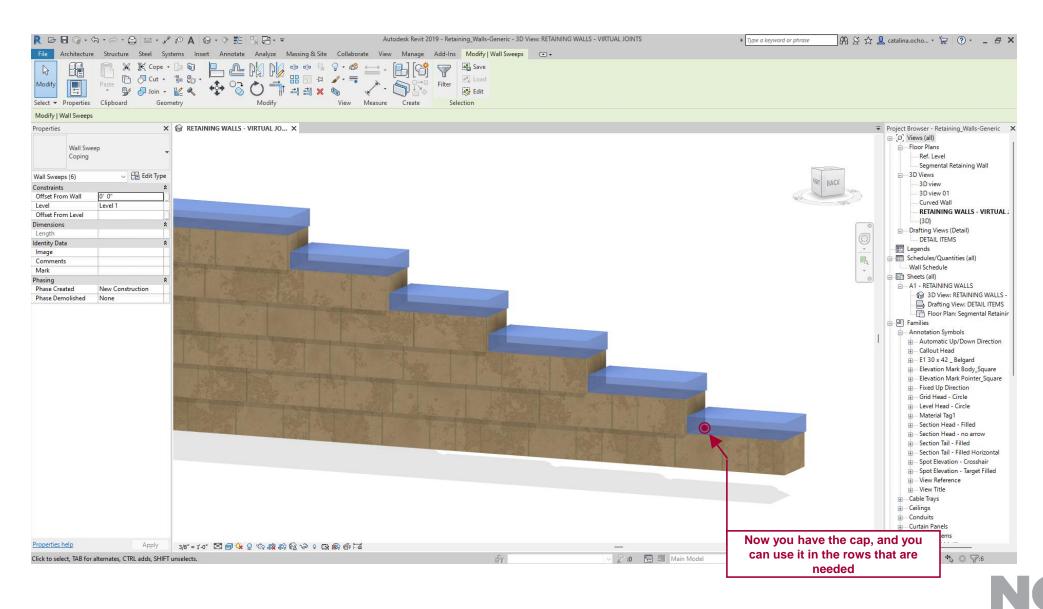


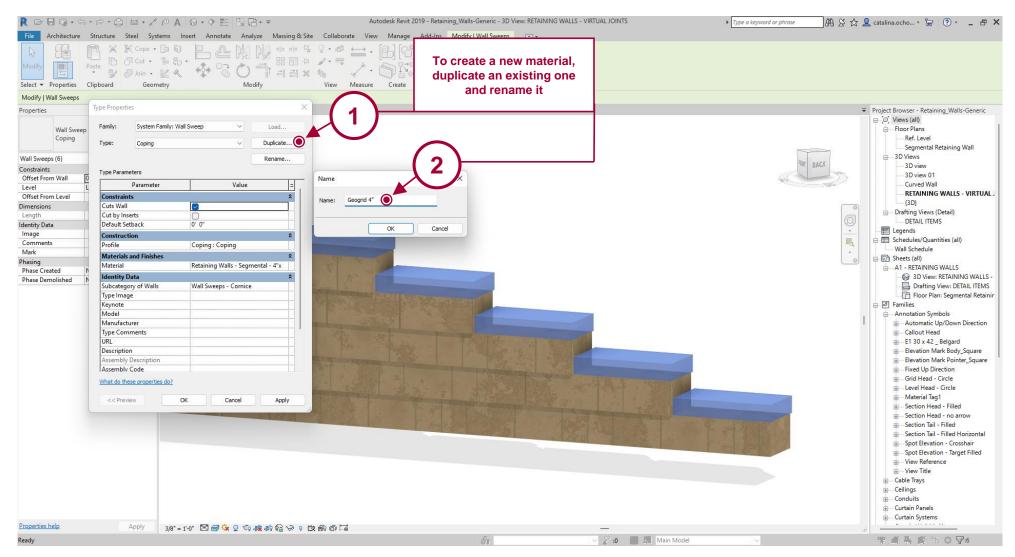




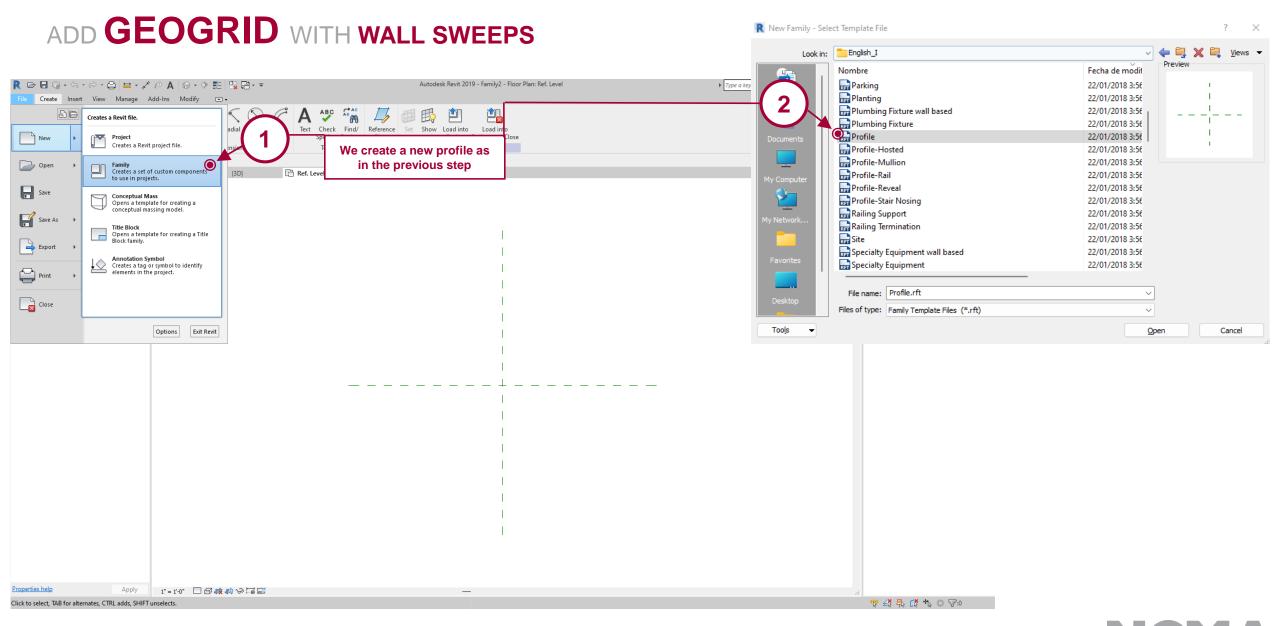




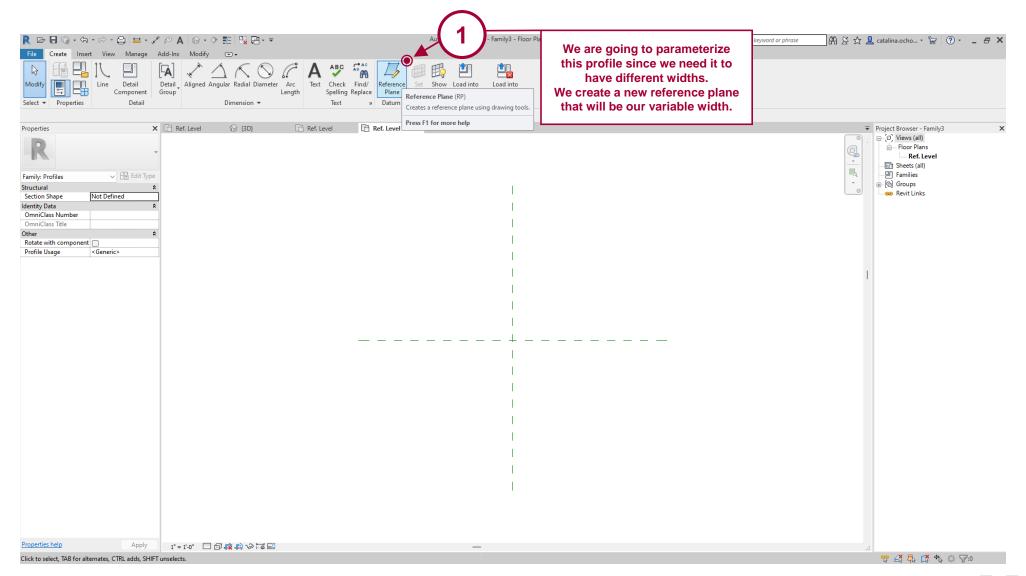




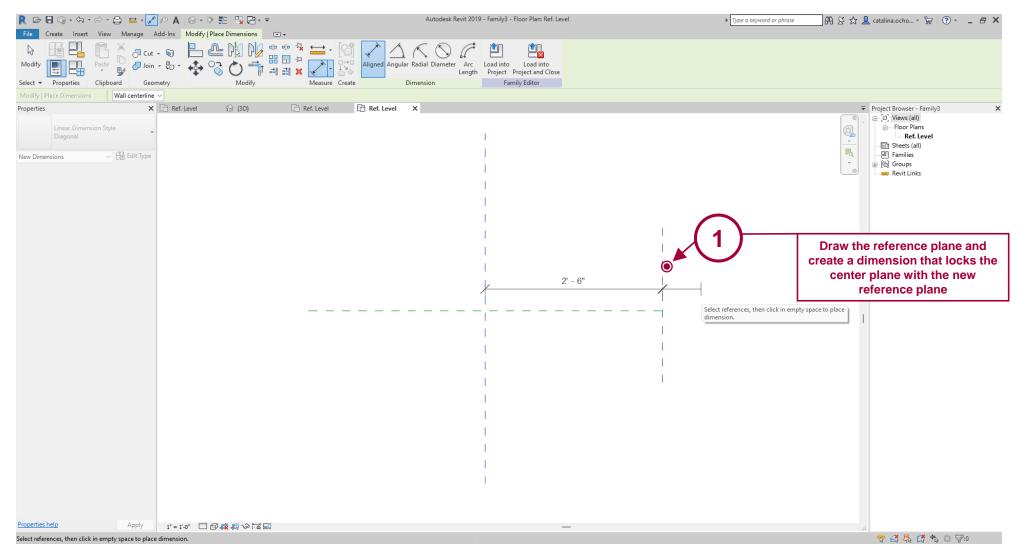




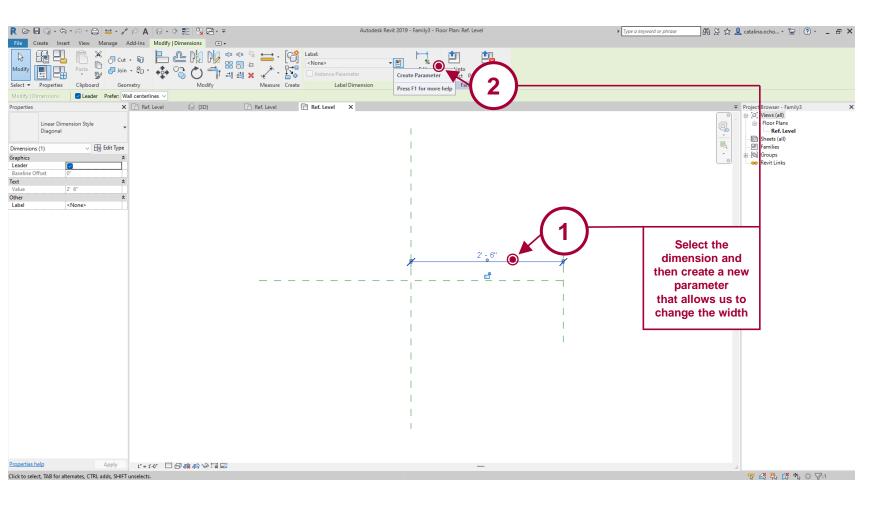


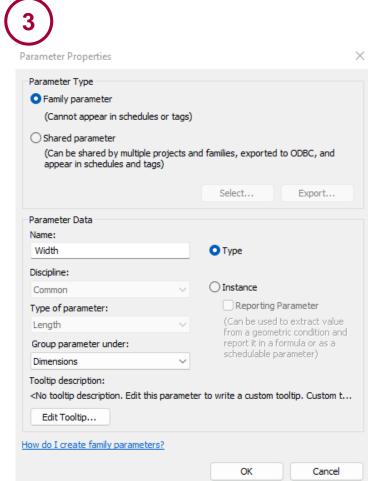




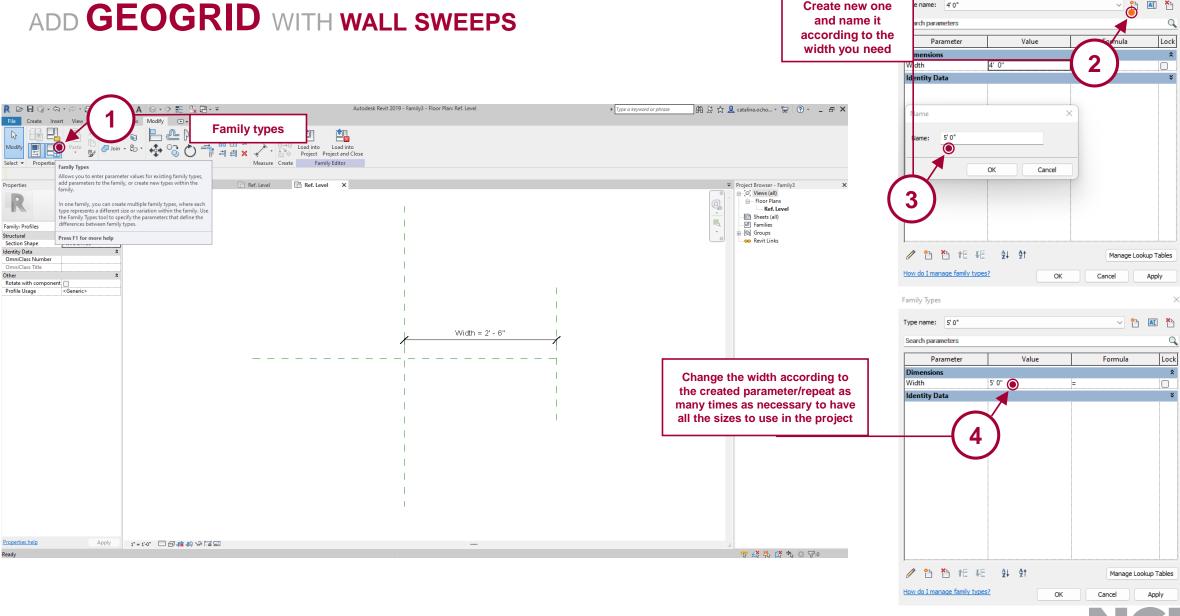








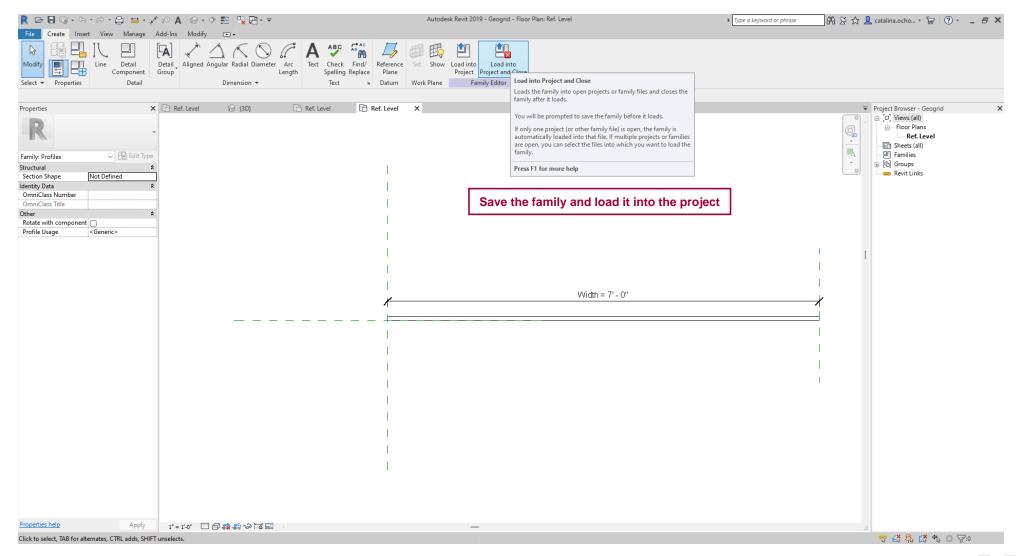




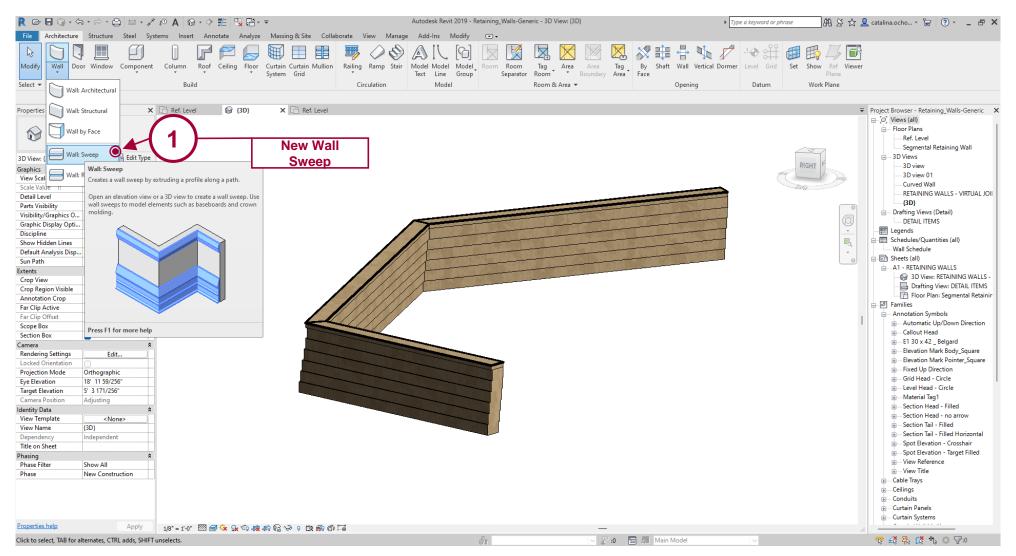


Family Types

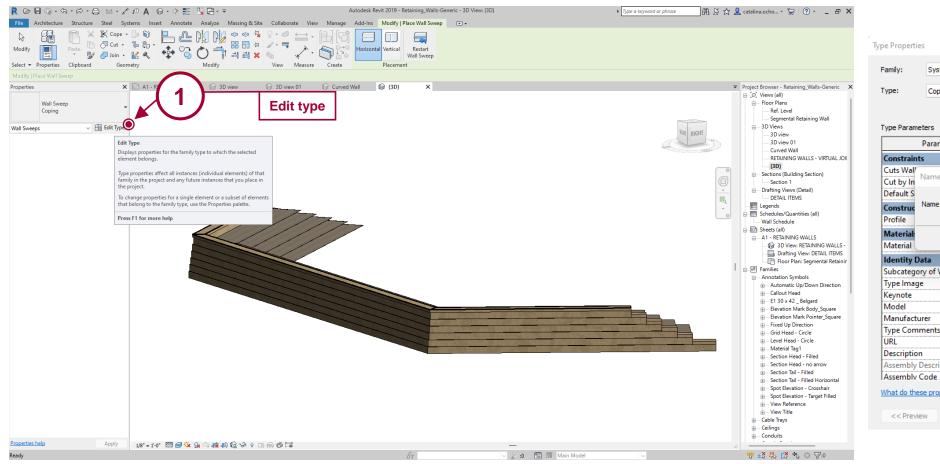
name: 4'0"

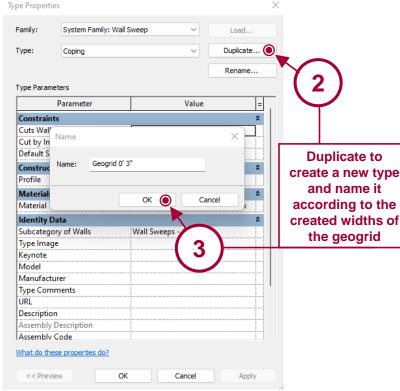




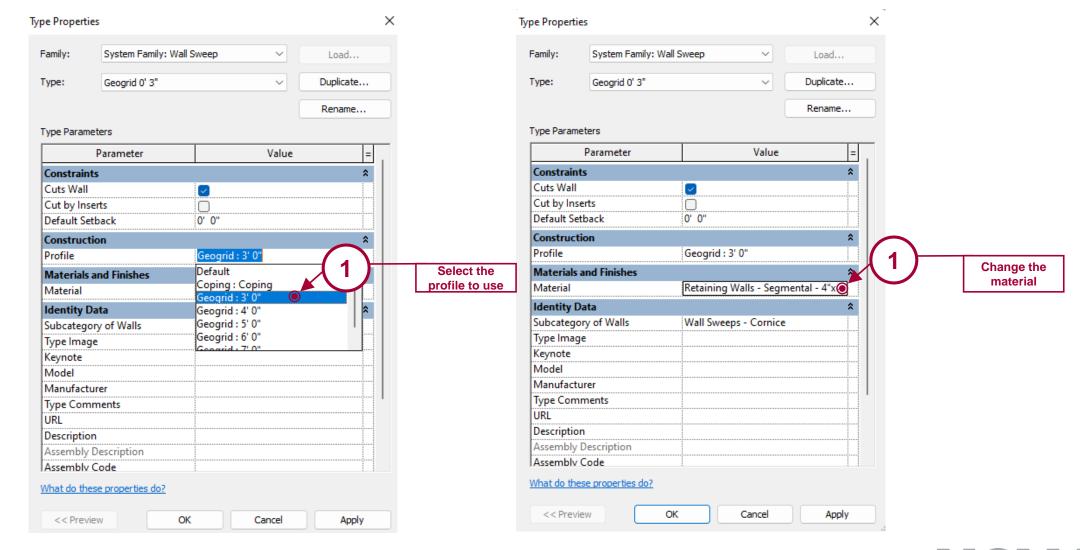




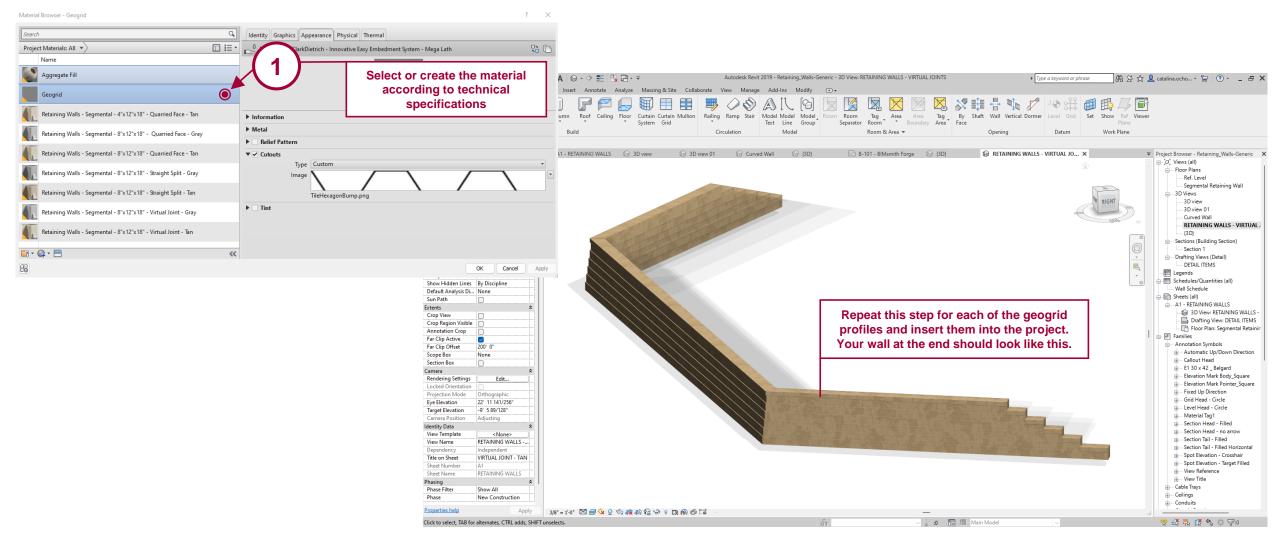






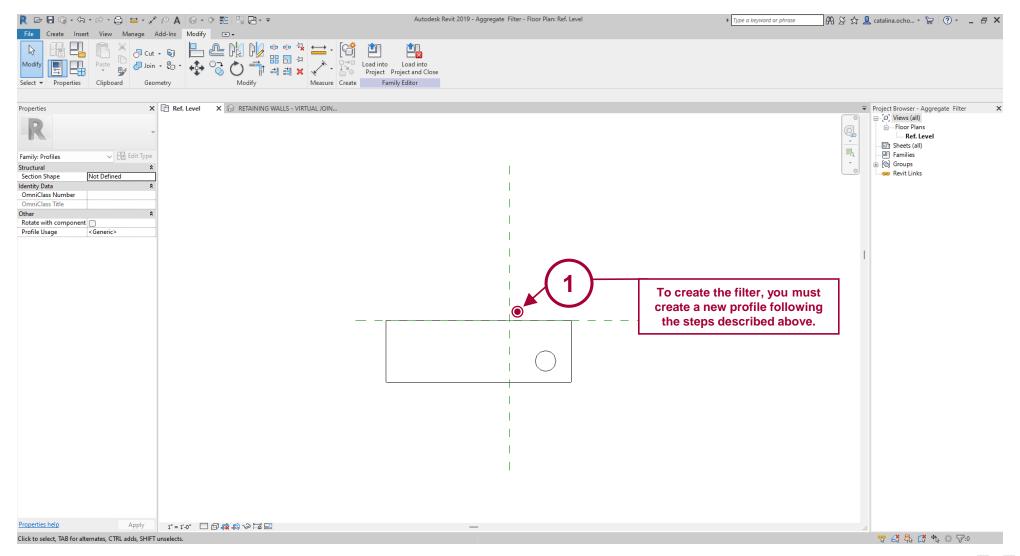






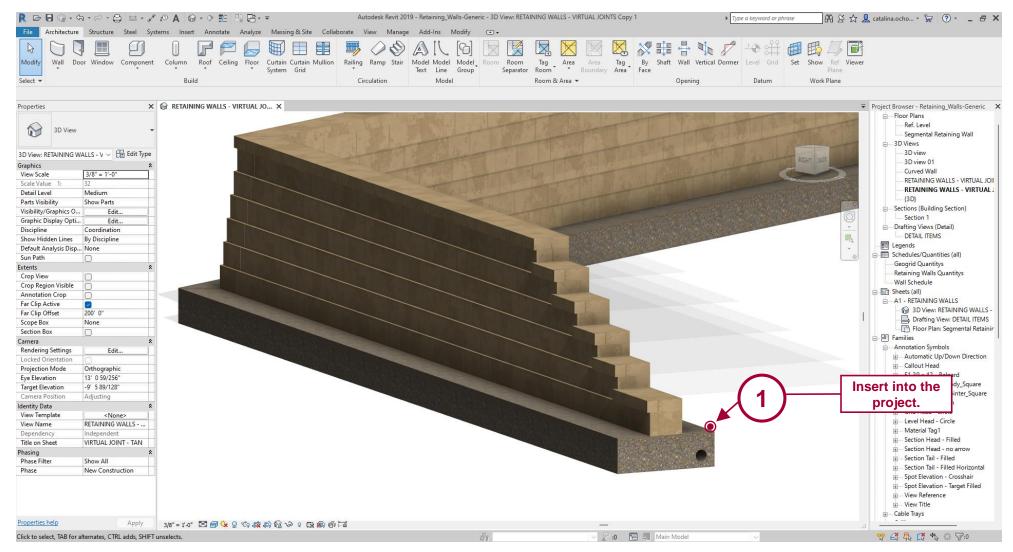


ADD LEVELING PAD WITH WALL SWEEPS

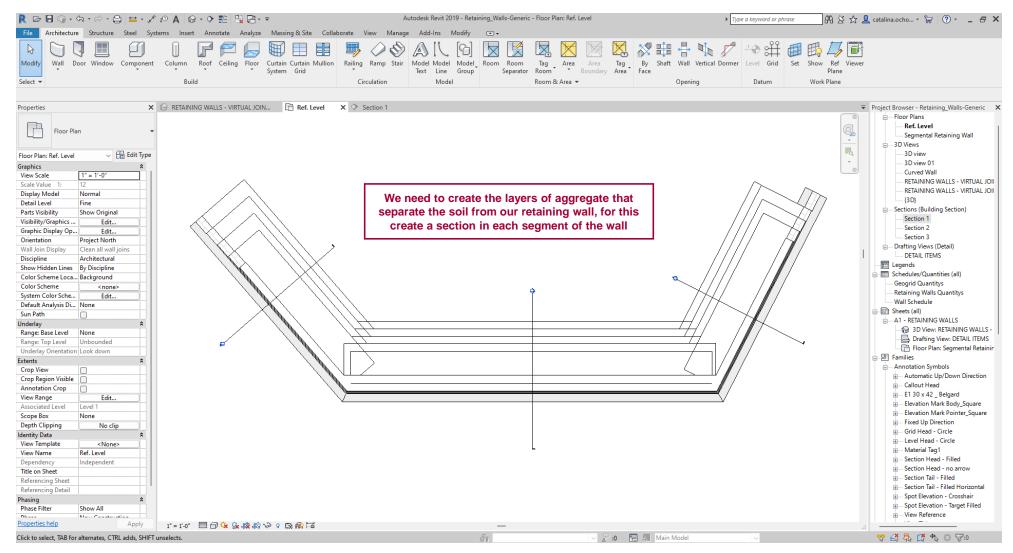




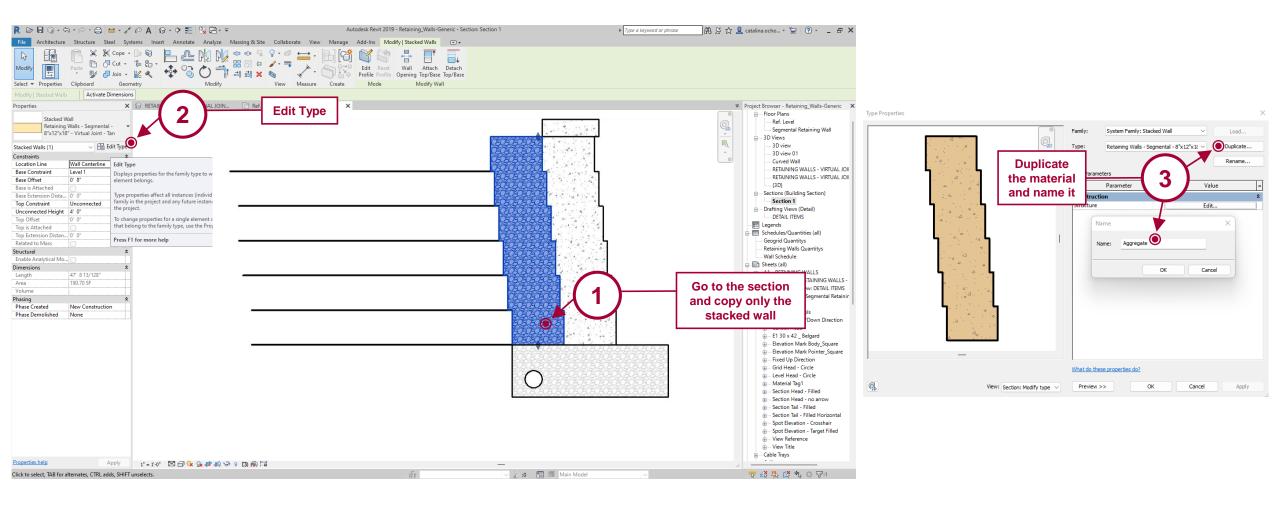
ADD LEVELING PAD WITH WALL SWEEPS



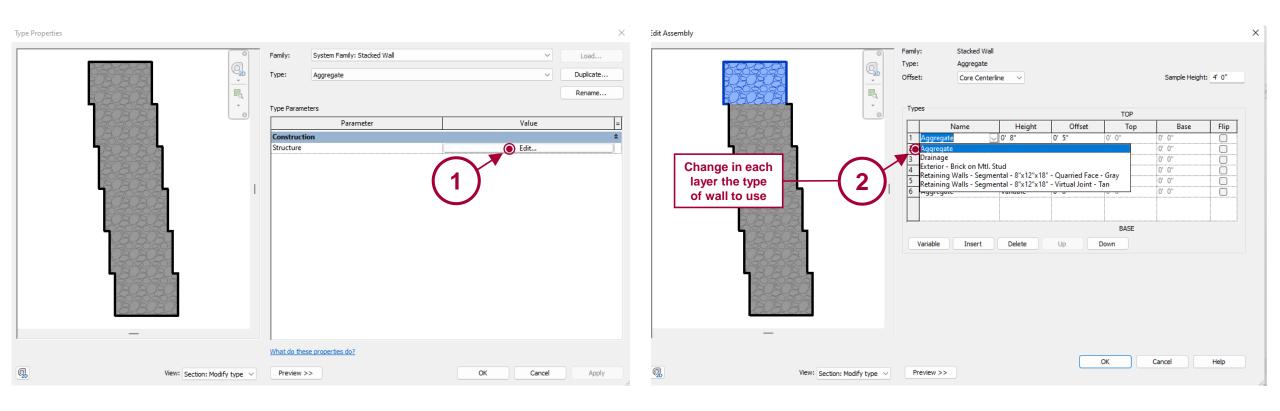




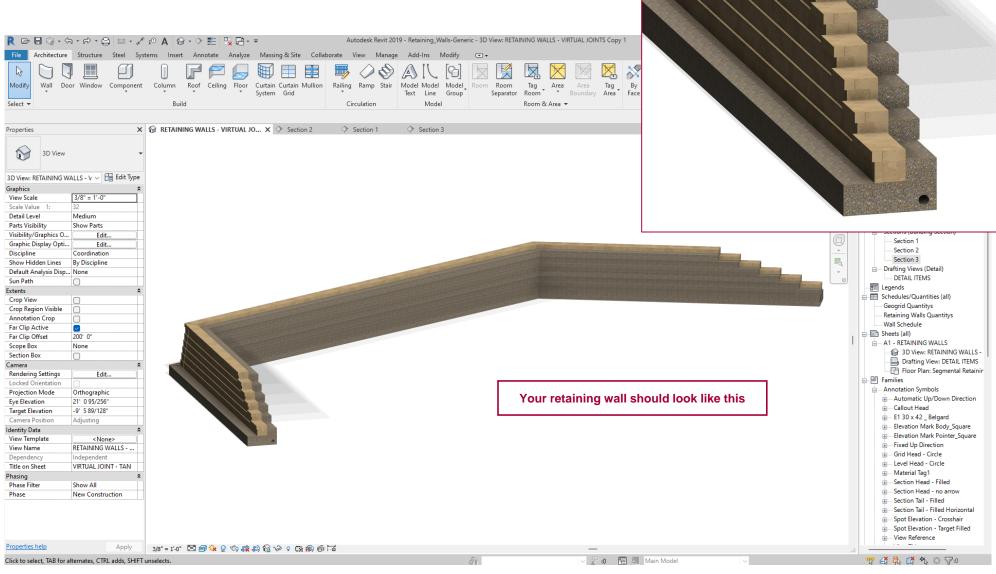






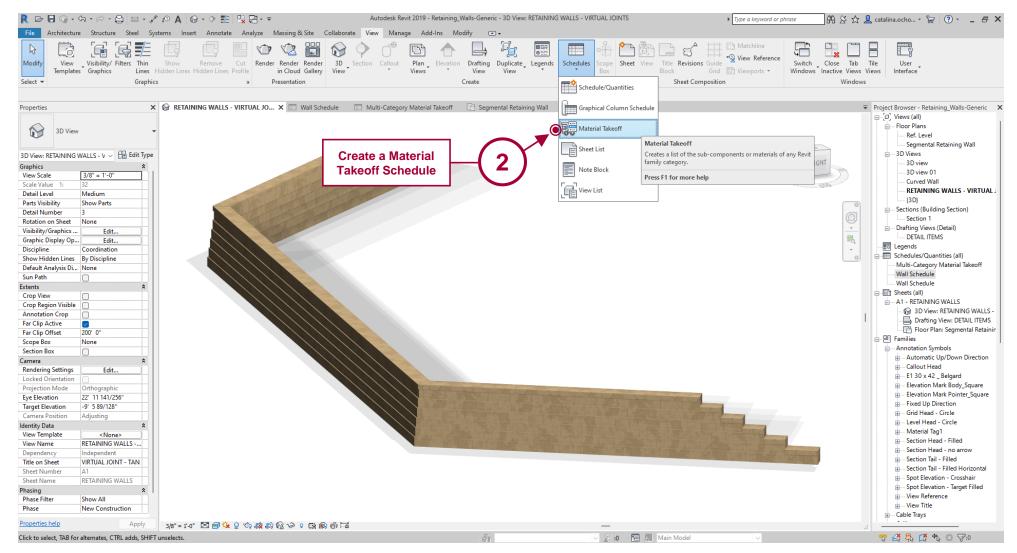




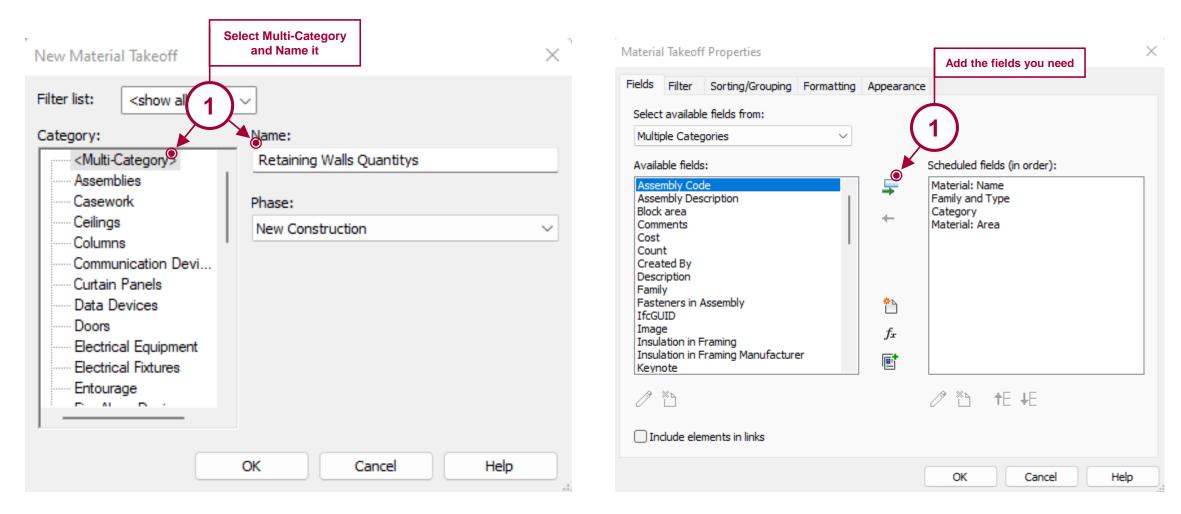




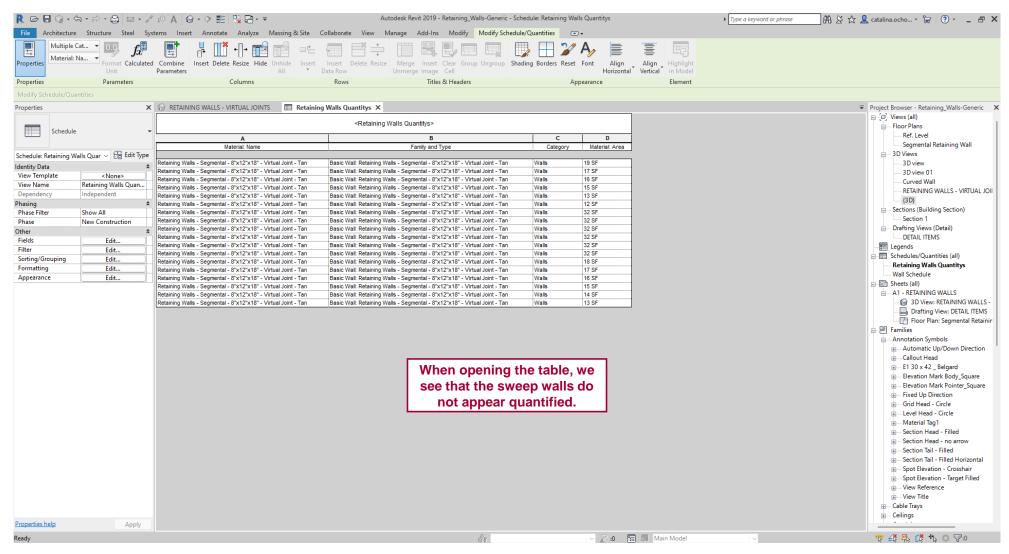




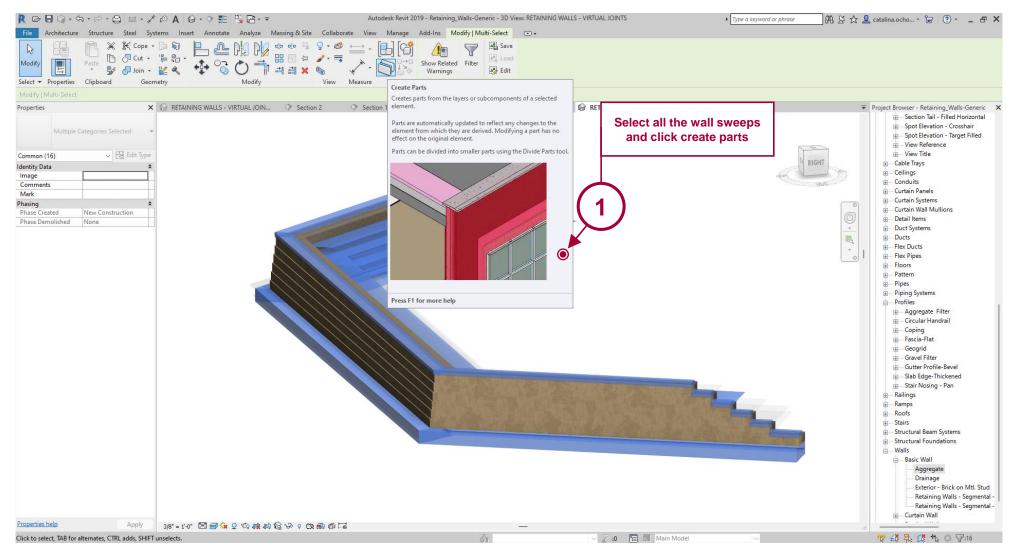




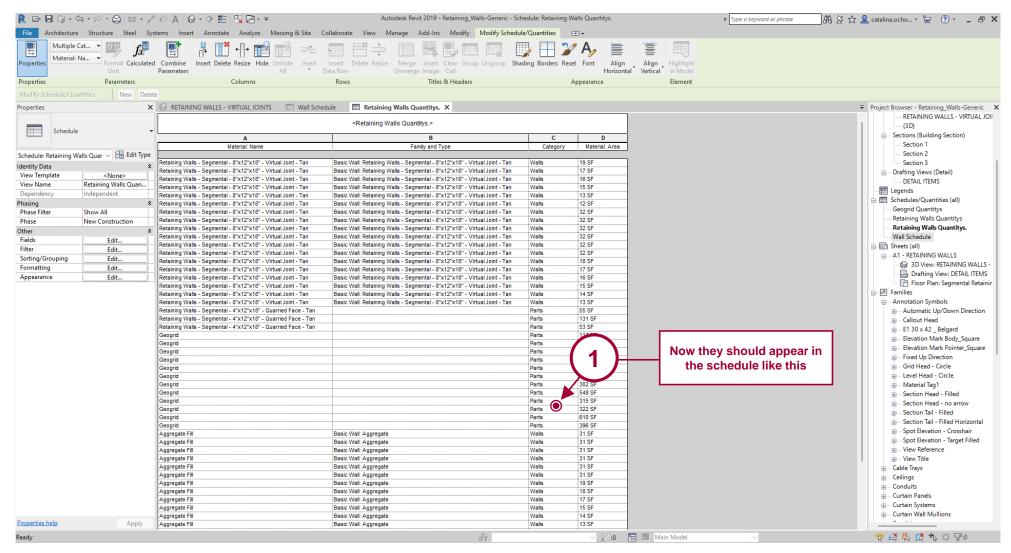




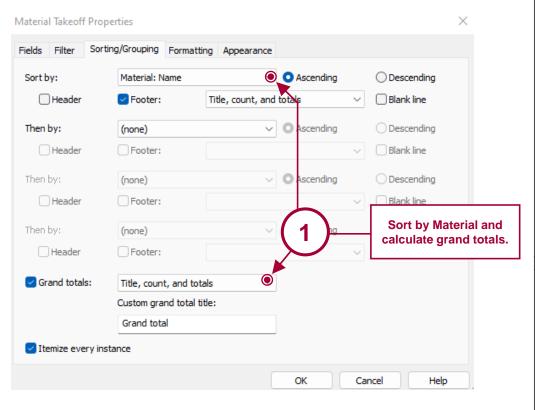




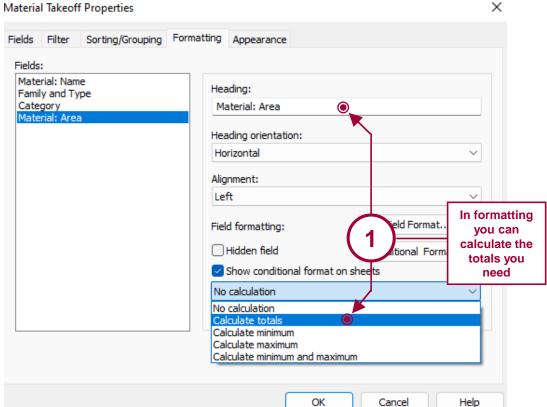








A	В	С	D
Material: Name	Family and Type	Category	Material: A
	Desir Well, Assessed	Walls	31 SF
ggregate Fill	Basic Wall: Aggregate		
ggregate Fill	Basic Wall: Aggregate	Walls	31 SF 31 SF
ggregate Fill	Basic Wall: Aggregate	Walls	
ggregate Fill	Basic Wall: Aggregate	Walls	31 SF
ggregate Fill	Basic Wall: Aggregate	Walls	31 SF
gregate Fill	Basic Wall: Aggregate	Walls	31 SF
gregate Fill	Basic Wall: Aggregate	Walls	19 SF
igregate Fill	Basic Wall: Aggregate	Walls	18 SF
gregate Fill	Basic Wall: Aggregate	Walls	17 SF
gregate Fill	Basic Wall: Aggregate	Walls	15 SF
gregate Fill	Basic Wall: Aggregate	Walls	14 SF
gregate Fill	Basic Wall: Aggregate	Walls	13 SF
gregate Fill	Basic Wall: Aggregate	Walls	19 SF
ggregate Fill	Basic Wall: Aggregate	Walls	17 SF
ggregate Fill	Basic Wall: Aggregate	Walls	16 SF
ggregate Fill	Basic Wall: Aggregate	Walls	15 SF
gregate Fill	Basic Wall: Aggregate	Walls	14 SF
ggregate Fill	Basic Wall: Aggregate	Walls	13 SF
gregate Fill		Parts	257 SF
ggregate Fill		Parts	424 SF
gregate Fill		Parts	263 SF
gregate Fill: 21			
eogrid		Parts	117 SF
eogrid		Parts	263 SF
eogrid		Parts	118 SF
eogrid		Parts	231 SF
eogrid		Parts	430 SF
eogrid		Parts	221 SF
eogrid		Parts	302 SF
eogrid		Parts	548 SF
eogrid		Parts	315 SF
eogrid		Parts	322 SF
eogrid		Parts	610 SF
eogrid		Parts	396 SF
eogrid: 12	·	*	
etaining Walls - Segmental - 4"x12"x18" - Quarried Face - Tar	1	Parts	55 SF
etaining Walls - Segmental - 4"x12"x18" - Quarried Face - Tar		Parts	131 SF
etaining Walls - Segmental - 4"x12"x18" - Quarried Face - Tar		Parts	53 SF



<Retaining Walls Quantitys.>

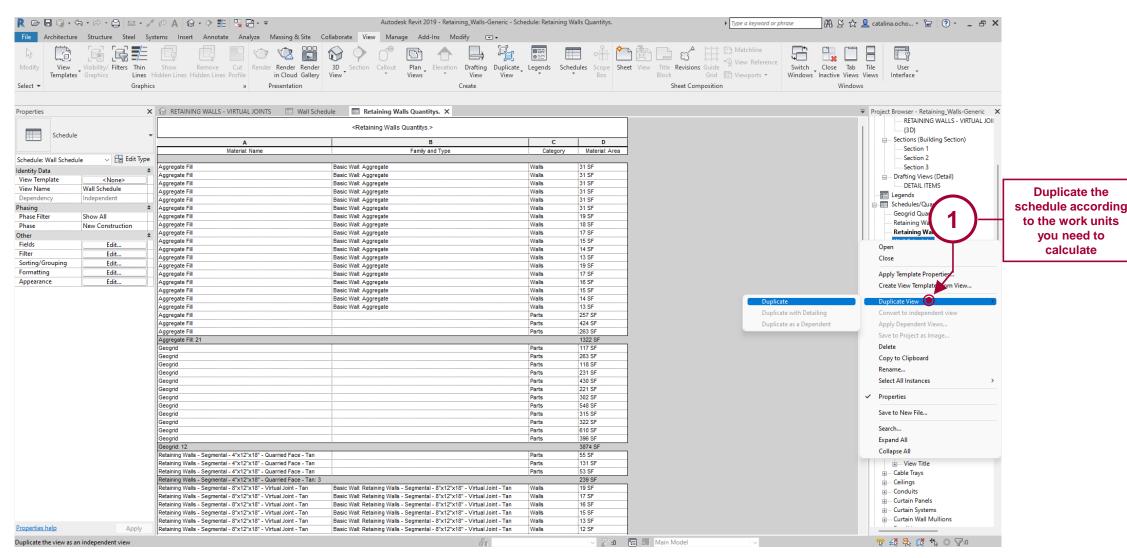
Α	В	С	D
Material: Name	Family and Type	Category	Material: Are
Aggregate Fill	Basic Wall: Aggregate	Walls	31 SF
Aggregate Fill	Basic Wall: Aggregate	Walls	31 SF
Aggregate Fill	Basic Wall: Aggregate	Walls	31 SF
Aggregate Fill	Basic Wall: Aggregate	Walls	31 SF
Aggregate Fill	Basic Wall: Aggregate	Walls	31 SF
Aggregate Fill	Basic Wall: Aggregate	Walls	31 SF
Aggregate Fill	Basic Wall: Aggregate	Walls	19 SF
Aggregate Fill	Basic Wall: Aggregate	Walls	18 SF
Aggregate Fill	Basic Wall: Aggregate	Walls	17 SF
Aggregate Fill	Basic Wall: Aggregate	Walls	15 SF
Aggregate Fill	Basic Wall: Aggregate	Walls	14 SF
Aggregate Fill	Basic Wall: Aggregate	Walls	13 SF
Aggregate Fill	Basic Wall: Aggregate	Walls	19 SF
Aggregate Fill	Basic Wall: Aggregate	Walls	17 SF
Aggregate Fill	Basic Wall: Aggregate	Walls	16 SF
Aggregate Fill	Basic Wall: Aggregate	Walls	15 SF
Aggregate Fill	Basic Wall: Aggregate	Walls	14 SF
Aggregate Fill	Basic Wall: Aggregate	Walls	13 SF
Aggregate Fill		Parts	257 SF
Aggregate Fill		Parts	424 SF
Aggregate Fill		Parts	263 SF
Aggregate Fill: 21	-		1322 SF ()
Geogrid		Parts	117 SF
Geogrid		Parts	263 SF
Geogrid		Parts	118 SF
Geogrid		Parts	231 SF
Geogrid		Parts	430 SF
Geogrid		Parts	221 SF
Geogrid		Parts	302 SF
Geogrid		Parts	548 SF
Geogrid		Parts	315 SF
		Parts	322 SF
Geogrid		Parts	522 SF 610 SF
Geogrid			
Geogrid		Parts	396 SF
Geogrid: 12			3874 SF
Retaining Walls - Segmental - 4"x12"x18" - Quarried Face - Tan		Parts	55 SF
Retaining Walls - Segmental - 4"x12"x18" - Quarried Face - Tan		Parts	131 SF
Retaining Walls - Segmental - 4"x12"x18" - Quarried Face - Tan		Parts	53 SF
Retaining Walls - Segmental - 4"x12"x18" - Quarried Face - Tan: 3			239 SF
	Basic Wall: Retaining Walls - Segmental - 8"x12"x18" - Virtual Joint - Tan	Walls	19 SF
Retaining Walls - Segmental - 8"x12"x18" - Virtual Joint - Tan			17 SF
Retaining Walls - Segmental - 8"x12"x18" - Virtual Joint - Tan	Basic Wall: Retaining Walls - Segmental - 8"x12"x18" - Virtual Joint - Tan	Walls	
Retaining Walls - Segmental - 8"x12"x18" - Virtual Joint - Tan Retaining Walls - Segmental - 8"x12"x18" - Virtual Joint - Tan	Basic Wall: Retaining Walls - Segmental - 8"x12"x18" - Virtual Joint - Tan	Walls	16 SF
Retaining Walls - Segmental - 8"x12"x18" - Virtual Joint - Tan			
Retaining Walls - Segmental - 8"x12"x18" - Virtual Joint - Tan Retaining Walls - Segmental - 8"x12"x18" - Virtual Joint - Tan	Basic Wall: Retaining Walls - Segmental - 8"x12"x18" - Virtual Joint - Tan	Walls	16 SF



To obtain quantities, we must take into account that each material is measured in a different way, for example:

- The AGGREGATE is measured by volume.
- The NUMBER OF BLOCKS is obtained with the area of each block.
- The GEOGRID is measured in number of rolls according to supplier.



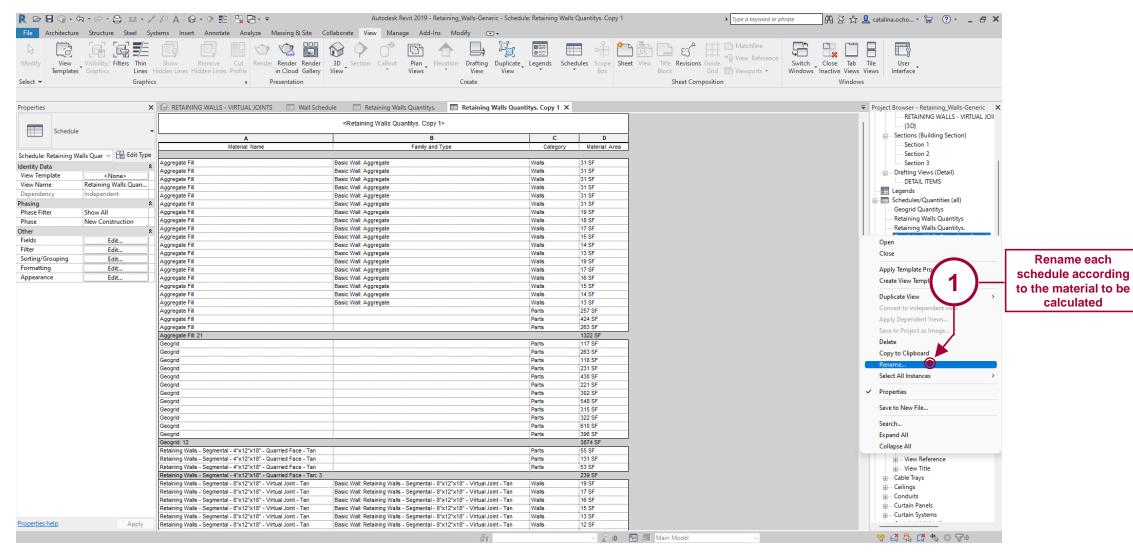




Duplicate the

you need to

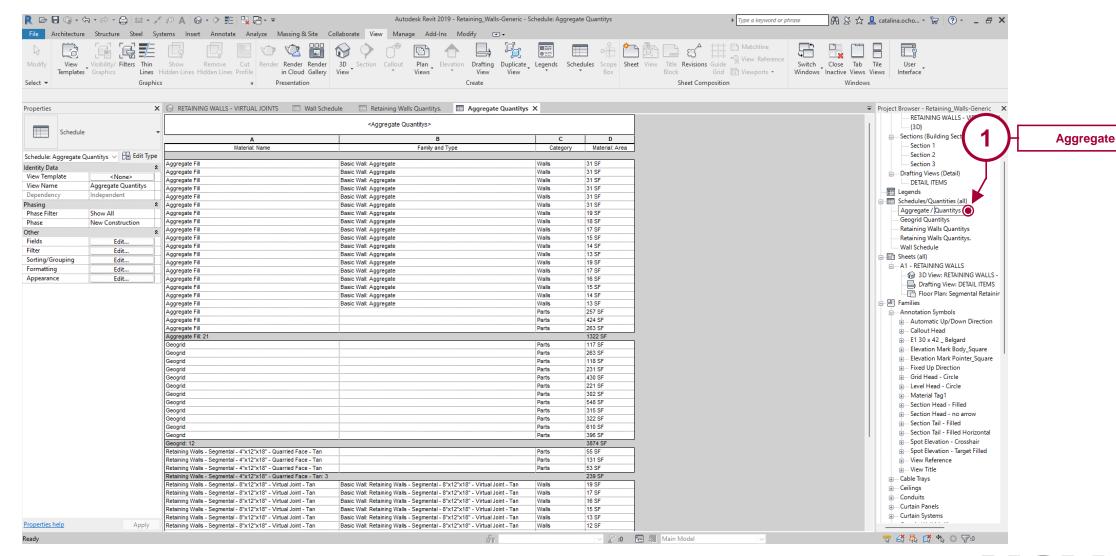
calculate



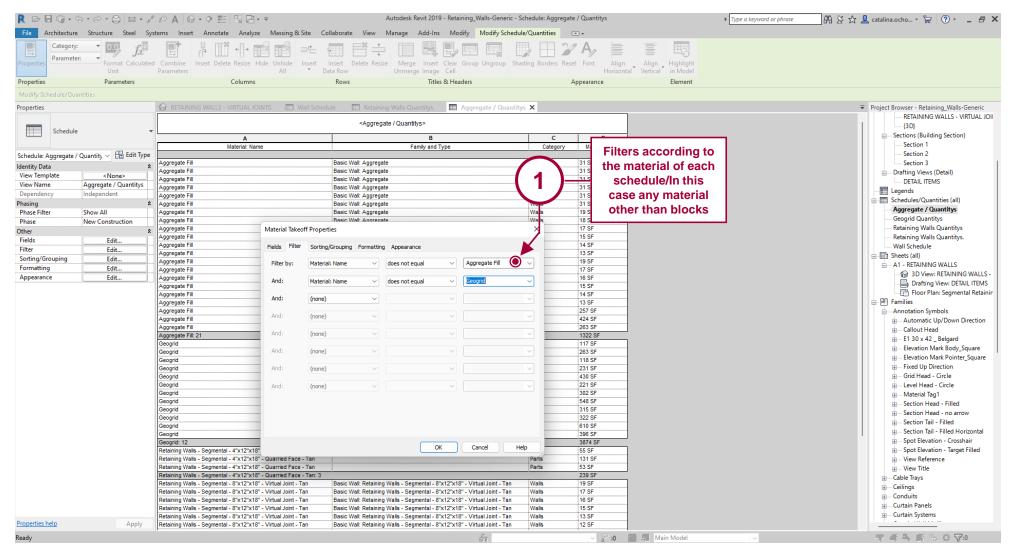


Rename each

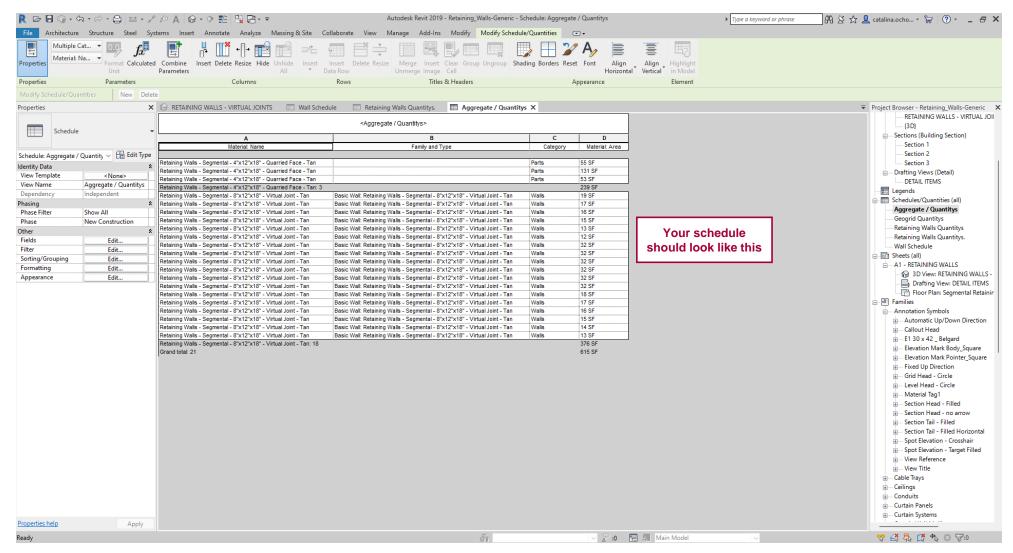
calculated



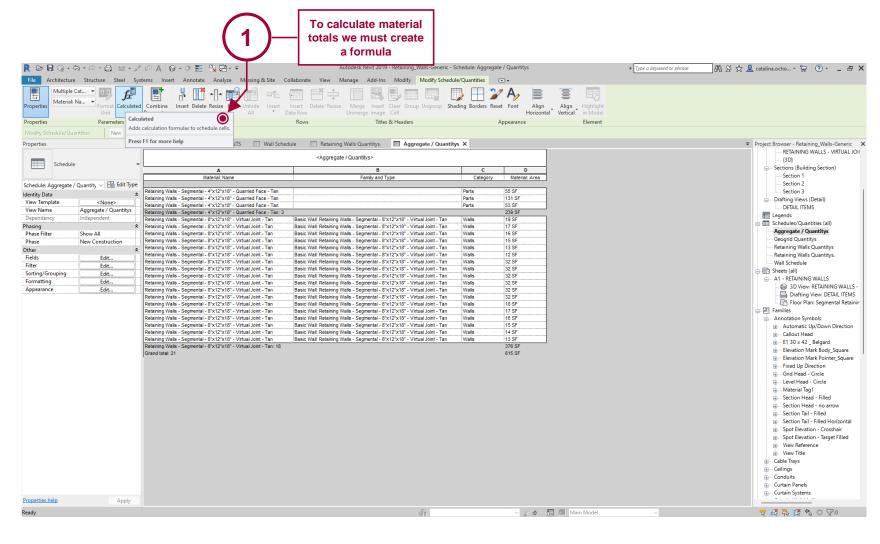


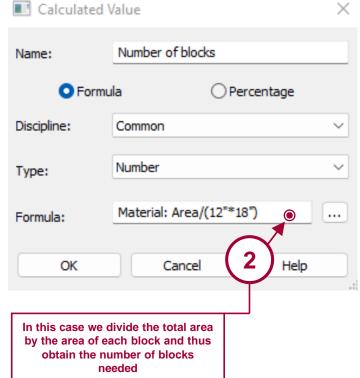




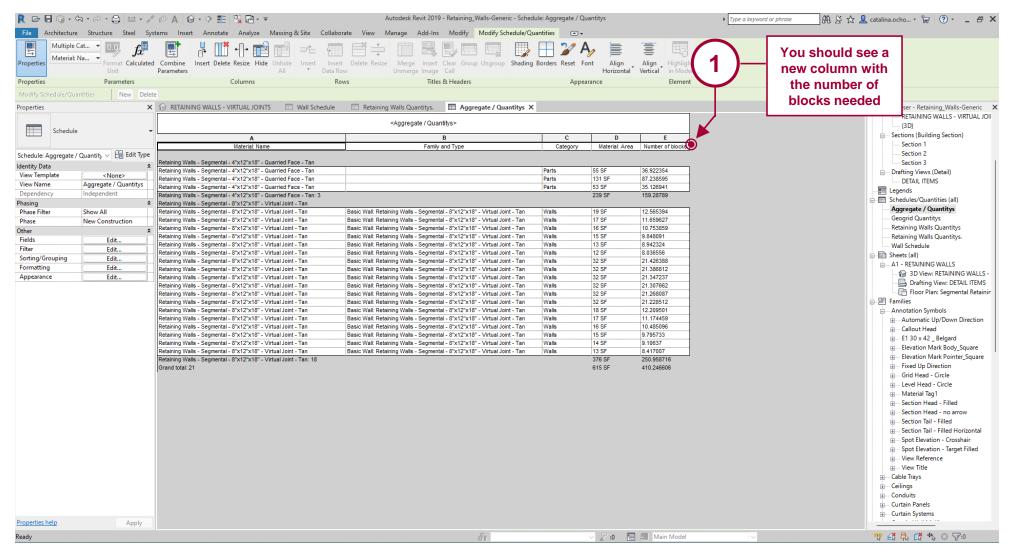




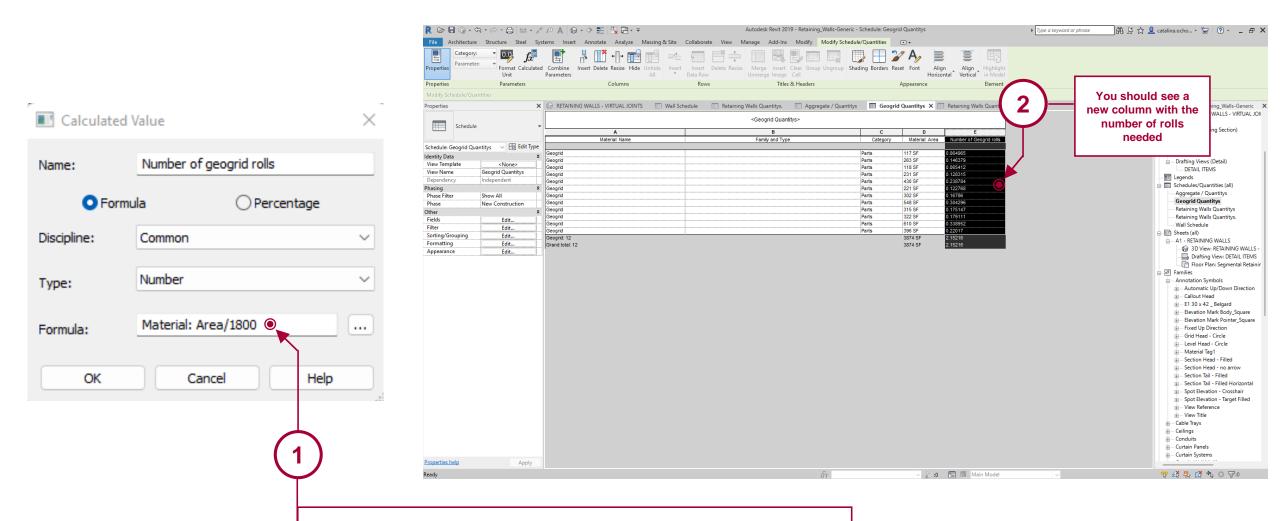








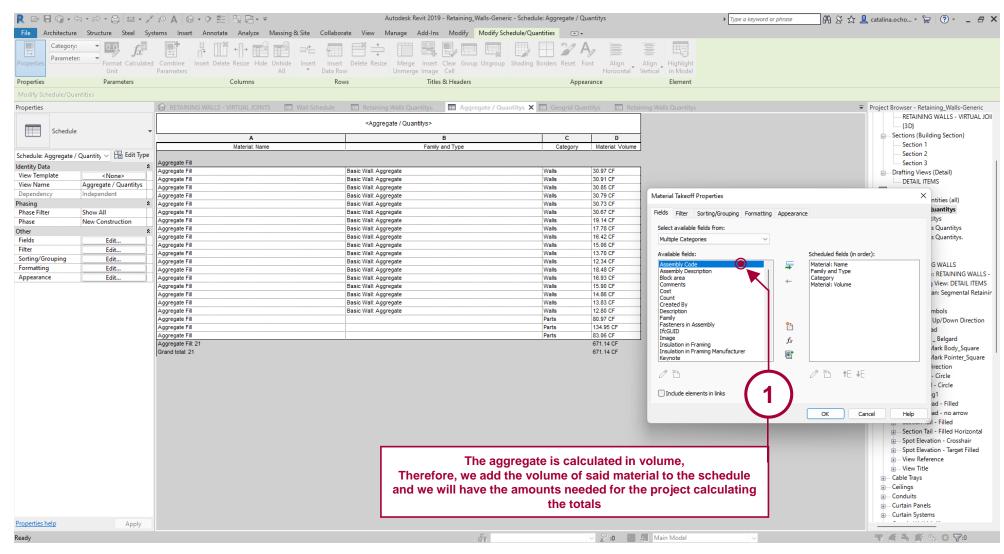




The calculation of the geogrid is made according to the measurements provided by the supplier of the rolls of the material, in this case, we use as an example a roll of 12"x150' (1800sf).

So in the formula, we divide the area of the material used by the area of each roll







Should you require more information, please contact us

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Herndon, VA

Phone: 703-713-1900