



+ [List Icon] [List Icon]
Axis
Segmentation
<b>Segmentation(SE)</b>
Column
Wall
Door/Window Opening
Beam
Slab
Steel Structure
Staircase
Finishes
Prefabrication
Foundation
Excavation
Others
Custom Element
Custom Quantity

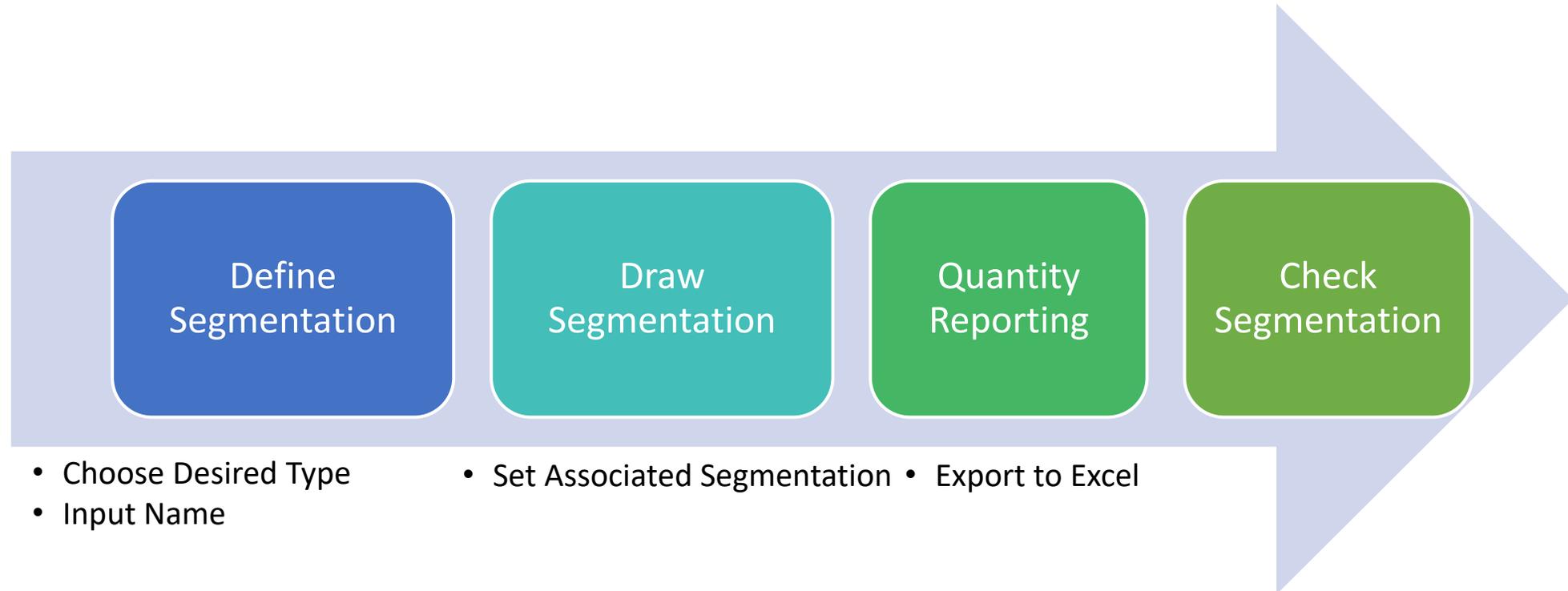


# Segmentation: Architectural Wall



# Progress Claim Flow

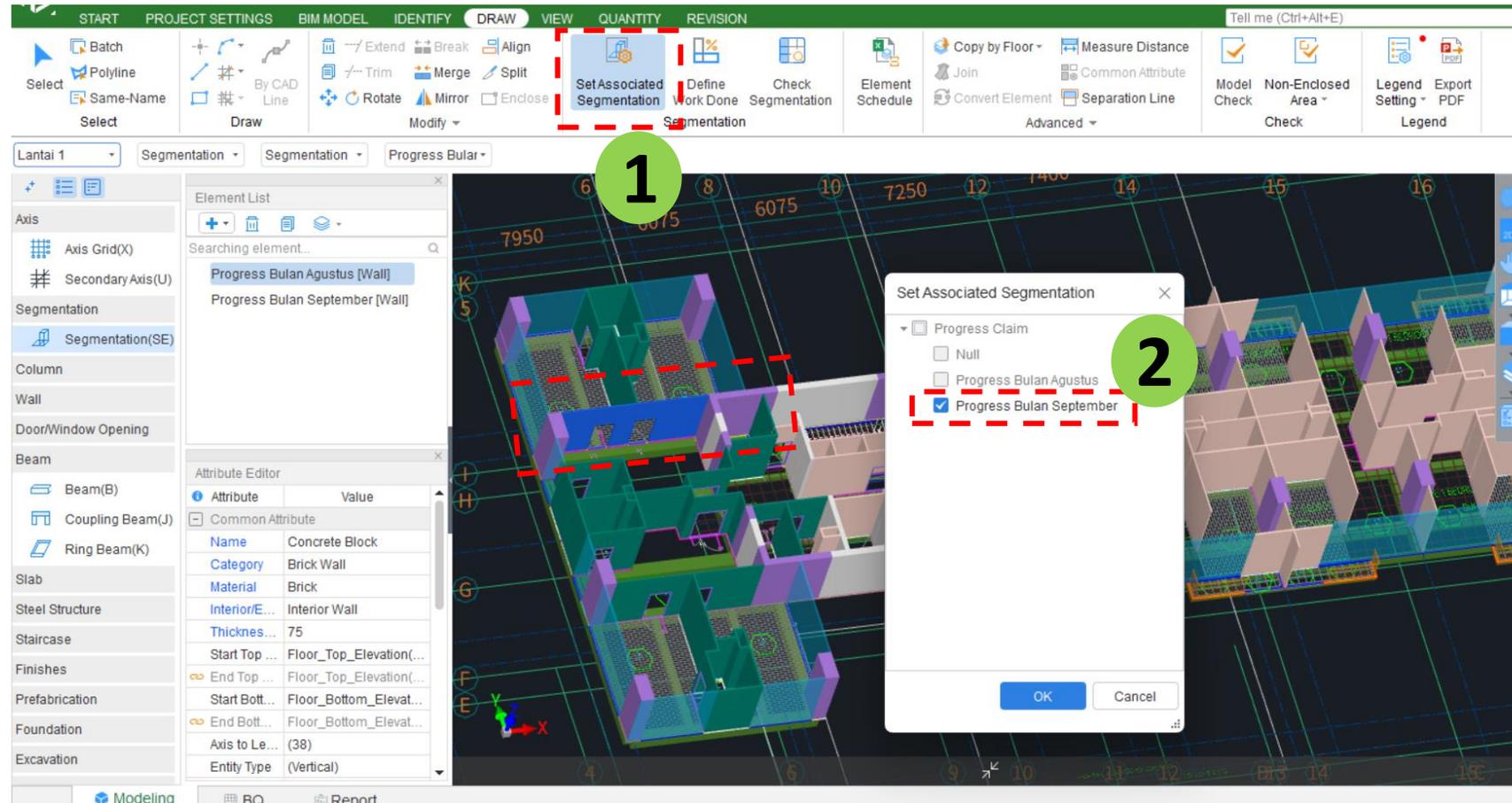
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# Draw Segmentation – Specific Element Method

- **Step 1:** Set Associated Segmentation and choose the specific element
- **Step 2:** Classify each wall progress





- + [Menu Icon] [List Icon]
- Axis
- Segmentation
- Segmentation(SE)**
- Column
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- Custom Quantity



# Quantity Reporting



# Quantity Reporting

- **Step 1:** After Calculate, go to View Quantity by Category
- **Step 2:** Set Classification and Quantity → Tick the desired segmentation (ex: Progress Claim).
- **Step 3:** Element Quantity → Tick the necessary quantities

The screenshot displays the 'View Quantity by Category' window and the 'Set Classification and Quantity' dialog box. The dialog box is divided into three main sections: 'Element Type', 'Classification Condition', and 'Element Quantity'.

**Classification Condition Table:**

Progress Claim	Floor	Name	Area(m2)
[Null]	Lantai 1	Bata	540.97
[Null]	Lantai 1	Concrete Block	527.82
[Null]	Lantai 1	W2A[350]	49.105
[Null]	Lantai 1	W2[350]	74.160
[Null]	Lantai 1	W3A[200]	19.803
[Null]	Lantai 1	W3[250]	46.260
Progress Bata Bulan April	Lantai 1	Bata	95.439
Progress Bata Bulan Mei	Lantai 1	Concrete Block	67.966
Progress Bata Bulan Mei	Lantai 1	Bata	47.174
Progress Bata Bulan Mei	Lantai 1	Concrete Block	38.714
Total			1507.417

**Set Classification and Quantity Dialog Box:**

**Classification Condition Table:**

Element Type	Attribute	Use
Column	1 Construction Zone	<input type="checkbox"/>
Wall	2 Subcontracting	<input type="checkbox"/>
Curtain Wall	3 Progress Claim	<input checked="" type="checkbox"/>
Door	4 Custom	<input type="checkbox"/>
Beam	5 Zone	<input type="checkbox"/>
In-situ Slab	6 Floor	<input checked="" type="checkbox"/>
Slab Opening	7 Material	<input type="checkbox"/>
Room	8 Concrete Grade	<input type="checkbox"/>
Floor Finish	9 Entity Type	<input type="checkbox"/>
Wall Finish	10 Interior/Exterior	<input type="checkbox"/>
Suspended ...	11 Thickness	<input type="checkbox"/>
Railing	12 Name	<input checked="" type="checkbox"/>
	13 Name Suffix	<input type="checkbox"/>
	14 Axis to Left Sideline	<input type="checkbox"/>
	15 Category	<input type="checkbox"/>
	16 Concrete Type	<input type="checkbox"/>
	17 Grout Type	<input type="checkbox"/>
	18 Mortar Grade	<input type="checkbox"/>

**Element Quantity Section:**

- All Quantities
- Volume
- Area of formwork
- Area of formwork for slab
- Length of formwork to edge
- Area of formwork to edge...
- Length of formwork to ed...
- Area of formwork to edge...
- Area
- Weight of reb...
- Number
- Net length of
- Volume of mc
- Original thick
- Original heigh
- Original lengt

**Navigation Buttons:** View Expression, View Quantity by Category, View Quantity, Calculate, View Entity, Lock, Unlock.

# Quantity Reporting

- Area of walls are now separated by each progress.
- Total quantities are constant, preventing any overclaimed and underclaimed amounts.
  - *[Null] : Entities outside progress claims*
- View Expression can be used to re-check the calculation

View Quantity by Category

- Column
- Wall
- Curtain Wall
- Door
- Beam
- In-situ Slab
- Slab Opening
- Room
- Floor Finish
- Wall Finish
- Suspended Ceiling
- Railing

Set Element Range   Set Classification and Quantity   Export to Excel

Classification Condition		Quantity	
Progress	Floor	Name	Area(m2)
Claim		Bata	540.975
[Null]	Lantai 1	Concrete Block	527.820
		W2A[350]	49.105
		W2[350]	74.160
		W3A[200]	19.803
W3[250]	46.260		
Progress Bata	Lantai 1	Bata	95.439
Bulan April	Lantai 1	Concrete Block	67.966
Progress Bata	Lantai 1	Bata	47.174
Bulan Mei	Lantai 1	Concrete Block	38.714
<b>Total</b>			<b>1507.417</b>

The screenshot shows the CubiCost software interface. The 'QUANTITY' menu is active, showing options like 'View Expression', 'View Quantity by Category', and 'View Quantity'. The 'Element List' shows 'W2 [350]' selected. The 'Attribute Editor' shows properties for 'Concrete Block' such as 'Name', 'Category', 'Material', and 'Thickness'. The 'View Element Entity Quantity Expression' table is shown below.

Quantity Name	Quantity Expression	Quantity	Unit	Segmentation
6 Original height of wall		3.600	m	Original
7 Original length of wall		10.680	m	Original
8 Volume	100%*1.333*Original   Volume>	1.333	m3	PCJProgress Bata Bulan April
9 Area	100%*17.769*Original   Area>	17.769	m2	PCJProgress Bata Bulan April
10 Number	100%*1*Original   Number>	1	pc	PCJProgress Bata Bulan April
11 Net length of wall	100%*7.600*Original   Net length of wall>	7.600	m	PCJProgress Bata Bulan April



- + [Icons]
- Axis
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- Segmentation(SE)**
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- Steel Structure
- Staircase
- Finishes
- Prefabrication
- Foundation
- Excavation
- Others
- Custom Element
- Custom Quantity



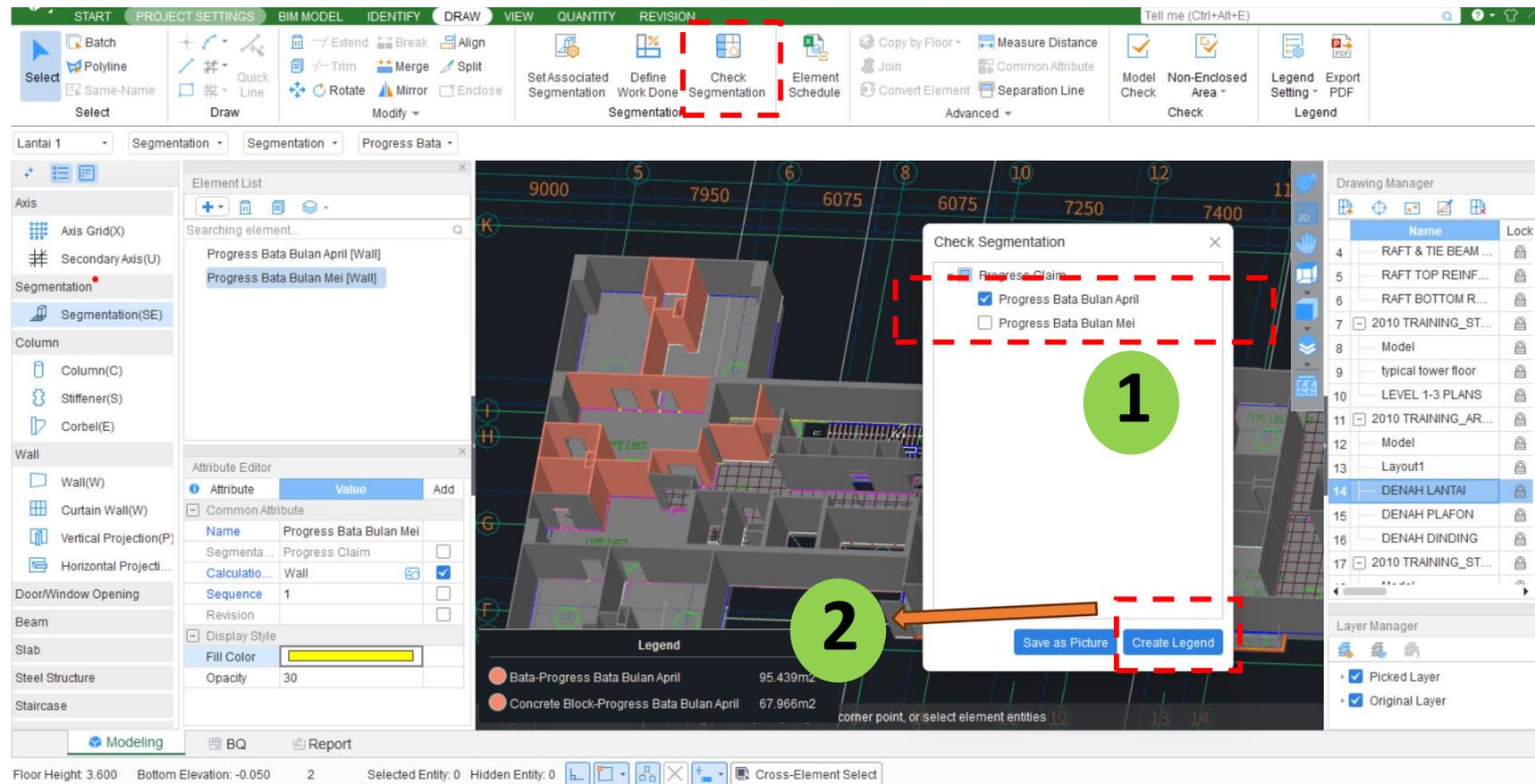
# Check Segmentation





# Check Segmentation

- **Step 1:** Check Segmentation → Choose the segmentation name
- **Step 2:** Create Legend to show the quantities (optional). Make sure to display the drawing to give a better view
- **Step 3:** Export PDF





+    ☰    ☰
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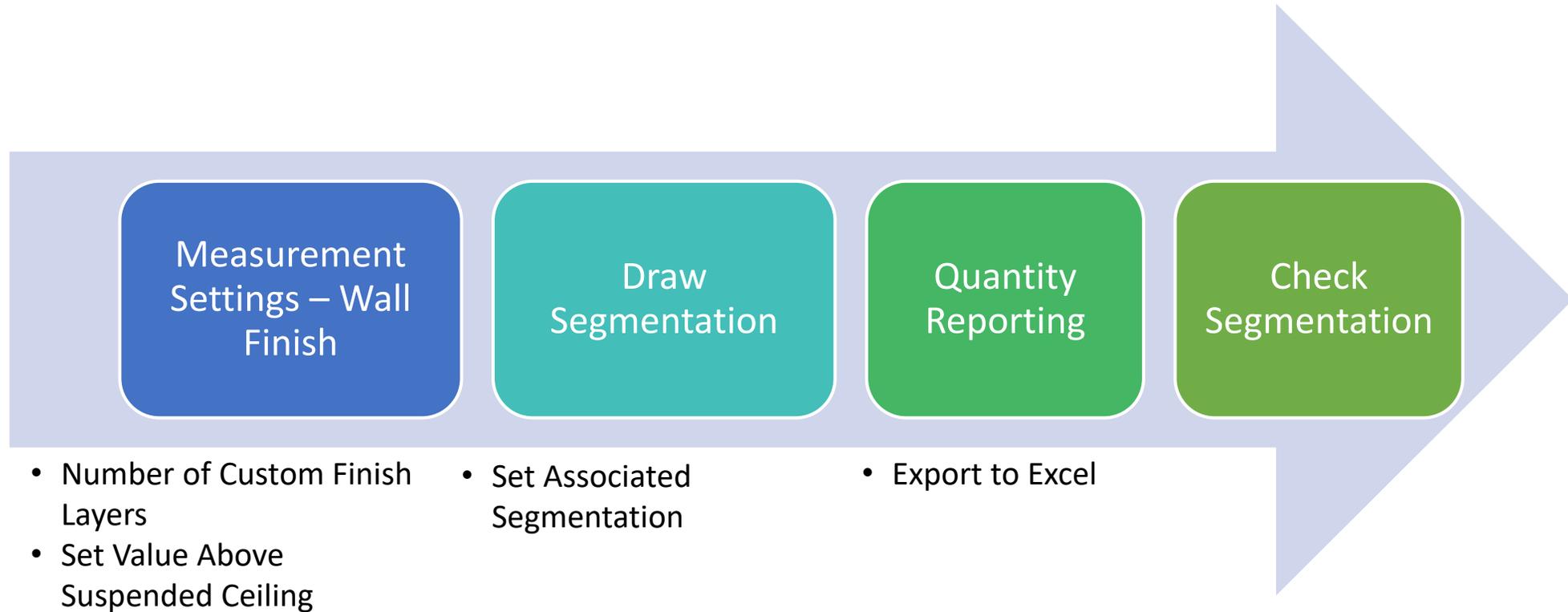


# Segmentation: Multiple Finish Layers

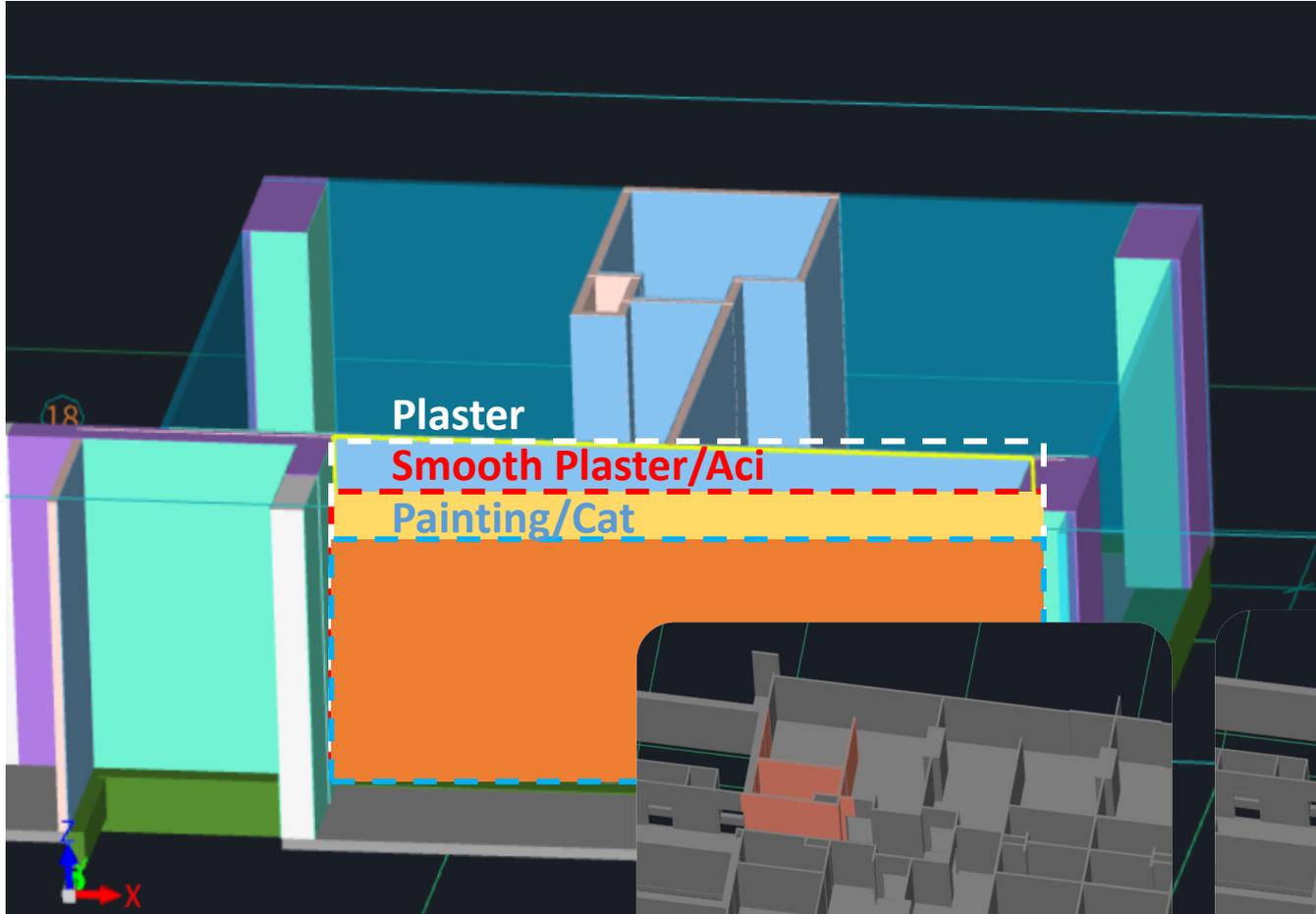


# Progress Claim Flow

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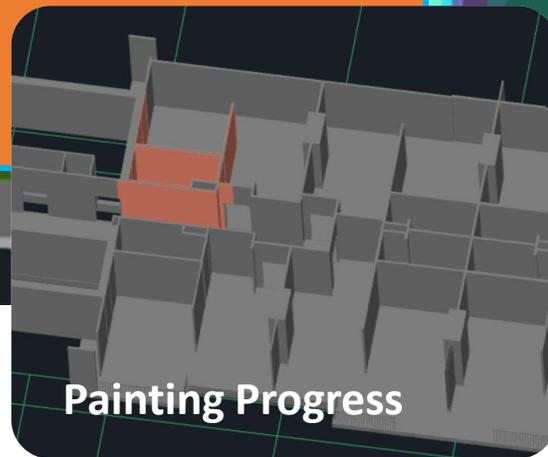


# Case: Multiple Layers in Wall Finish

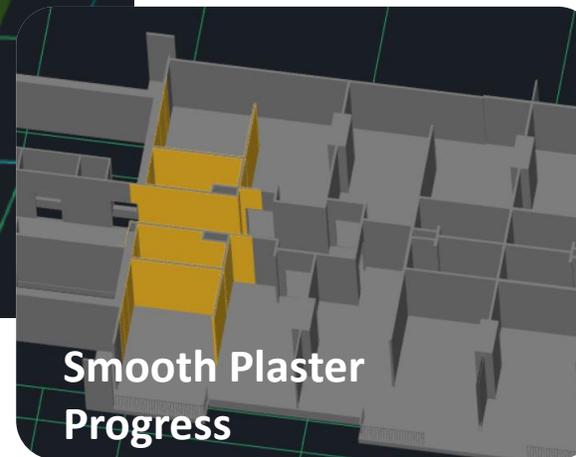


Wall finish work consists of multiple layers, including plaster, smooth plaster, and paint, which may vary in height.

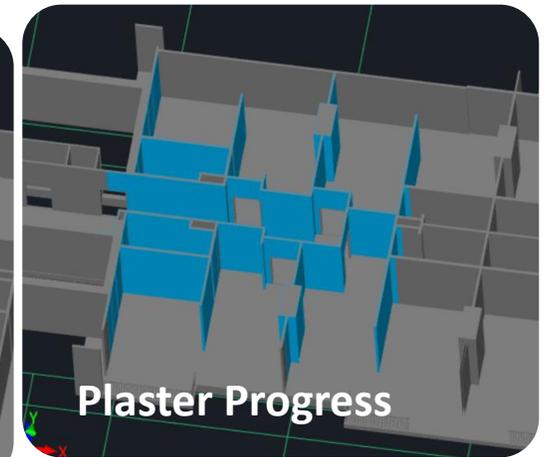
This work is also carried out in **stages**, with some walls completed up to the painting stage, while others may only have plaster or a combination of plaster and smooth plaster.



Painting Progress



Smooth Plaster Progress



Plaster Progress

# Measurement Settings – Wall Finish

Step 1: Measurement Settings

Step 2: Number of Custom Finish Layers to Interior Wall Finish

Step 3: Set value above suspended ceiling

Step 4: Method for calculating bottom elevation of finish to interior wall finish

Description	Option
1 Method for calculating bottom elevation of finish to interior wall finish	0 Calculate height from skirting
2 Method for calculating top elevation of finish to interior wall finish	0 If with suspended ceiling, select suspended ceiling bottom elevation + set value; otherwise, select slab bottom elevation
3 Set value above suspended ceiling (mm)	0
4 Method for calculating finish to exterior wall finish	0 If with basement, calculate from floor bottom elevation; if without basement, calculate from ground elevation for first floor, and calculate from fl...
5 Show custom finish to wall finish	1 Yes
6 Number of custom finish layers to interior wall finish	2
7 Method for calculating bottom elevation of custom finish to interior wall...	1 Calculate height from floor
8 Method for calculating top elevation of custom finish to interior wall finish	0 If with suspended ceiling, select suspended ceiling bottom elevation + set value; otherwise, select slab bottom elevation
9 Set value above suspended ceiling (mm)	50
10 Method for calculating bottom elevation of plastering to interior wall fini...	1 Calculate height from floor
11 Method for calculating top elevation of plastering to interior wall finish	0 If with suspended ceiling, select suspended ceiling bottom elevation + set value; otherwise, select slab bottom elevation
12 Set value for plastering above suspended ceiling 1 (mm)	100
13 Method for calculating custom finish to exterior wall finish	0 If with basement, calculate from floor bottom elevation; if without basement, calculate from ground elevation for first floor, and calculate from fl...
14 Tile waste calculation mode	0 Aesthetics first
15 Waste generated per cut for tile (mm)	5

Painting

Smooth  
Plaster/Aci

Plaster

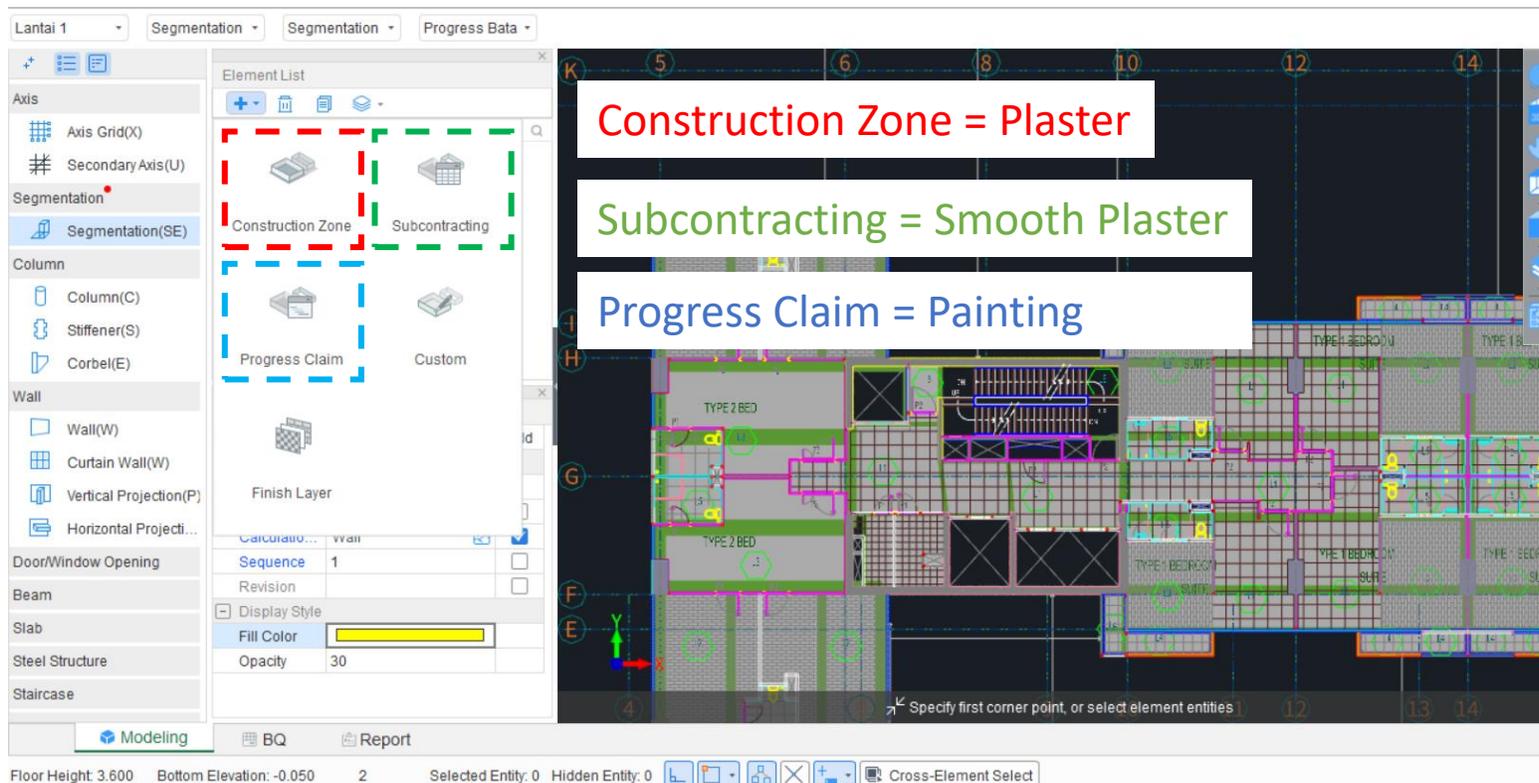


# Draw Segmentation



# Draw Segmentation

Currently, we can't separate work progress for painting (*cat*), smooth plaster (*aci*), plaster (*plester*) using the same segmentation type. Therefore, we will use combination of **Construction Zone**, **Subcontracting**, **Progress Claim**, and **Custom**. The number of types used corresponds to the number of layers. If there are only 3 layers (painting, smooth plaster, and plaster), we will only use 3 segmentation types (Construction Zone, Subcontracting, and Progress Claim).



# Draw Segmentation – Set Specific Entity

- **Step 1:** New Segmentation → Construction Zone, Subcontracting, Progress Claim
- **Step 2:** Element name

Construction Zone = Plaster (*Plester*)

Subcontracting = Smooth Plaster (*Aci*)

Progress Claim = Painting (*Cat*)

The screenshot shows the software interface with several windows open:

- Element List:** Shows 'Construction Zone' selected in the 'Segmentation' category.
- Calculation Scope:** A dialog box where 'Wall Finish' is checked under the 'Finishes' category. A red dashed box highlights this option, with a green circle containing the number '1' next to it.
- Attribute Editor:** Shows the configuration for 'Progress Plester Bulan Juni' with 'Segmentation...' set to 'Construction Zone' and 'Calculation S...' set to 'Wall Finish'.
- Another Attribute Editor:** Shows the configuration for 'Progress Cat Bulan Juni' with 'Segmentation...' set to 'Progress Claim' and 'Calculation S...' set to 'Wall Finish'.

A red dashed box encloses the right side of the interface, including the second Attribute Editor and the 'Element List' window. A green circle containing the number '2' is placed to the right of this box.

# Draw Segmentation – Set Specific Entity

- Step 3: Set Associated Segmentation
- Step 4: Choose the progress of that specific wall finish

The screenshot displays the CubiCost software interface. The top ribbon includes tabs for START, PROJECT SETTINGS, BIM MODEL, IDENTIFY, DRAW, VIEW, QUANTITY, and REVISION. The 'DRAW' tab is active, showing various tool icons. A red dashed box highlights the 'Set Associated Segmentation' icon in the 'Modify' group, with a green circle containing the number '3' next to it.

The 'Element List' panel on the left shows a search for 'Progress Cat Bulan Juni [Wall Finish]' and lists three results: 'Progress Plester Bulan Juni [Wall Finish]', 'Progress Aci Bulan Juni [Wall Finish]', and 'Progress Cat Bulan Juni [Wall Finish]'. The 'Progress Cat Bulan Juni [Wall Finish]' item is selected.

The 'Attribute Editor' panel shows the following table:

Attribute	Value
Name	Cat acrylic Emulsion appariton
Interior/Exterior	Interior Wall Finish
Thickness (mm)	15
Tile Material	Ceramic Tile
Tile Spec	
Cut Label	
Finish Position	Side
Start Top Eleva...	Wall_Top_Elevation(3.550)
Material Texture	(click to assign or right click to adjust)

The 'Set Associated Segmentation' dialog box is open, showing a tree view of segmentation categories. The 'Construction Zone' category is expanded, and the 'Progress Plester Bulan Juni' and 'Progress Aci Bulan Juni' items are checked. The 'Progress Aci Bulan Juni' item is highlighted, with a green circle containing the number '4' next to it. The dialog box also includes 'OK' and 'Cancel' buttons.



# Quantity Reporting



# Quantity Reporting

- Step 1: View Quantity by Category
- Step 2: Set Classification and Quantity → Choose the target segmentation
- Step 3: Element Quantity → Choose the corresponding layer

**1**

**2**

**3**

To see the plaster quantity only,  
 - Tick Construction Zone  
 - Tick Area of Plastering to Wall Finish

Classification Condition				Quantity		
Construction Zone	Floor	Name	Associated Room	Area of finish to wall finish(m2)	Area of custom finish to wall finish(m2)	Area of plastering to wall finish(m2)
[Null]	Lantai 1	Cat acrylic Emulsion appariton	Bedroom	431.313	439.300	447.287
			Corridor	239.174	244.5	
			Living Room type 1 bed	308.618	314.5	
			Living Room type 2 bed	141.687	144.1	
Progress Plester Bulan Juni	Lantai 1	Cat minyak	Janitor	70.695	72.1	
			Toilet	315.029	321.3	
			Bedroom	151.583	154.6	
			Corridor	27.460	28.2	
Progress Plester Bulan Juni	Lantai 1	Cat acrylic Emulsion appariton	Living Room type 2 bed	121.030	123.5	
			Janitor	35.058	35.7	
			Toilet	91.066	93.0	
Total				1932.712	1971.2	

**Set Classification and Quantity**

Element Type	Classification Condition	Use
Column	1 Construction Zone	<input checked="" type="checkbox"/>
Wall	2 Subcontracting	<input checked="" type="checkbox"/>
Curtain Wall	3 Progress Claim	<input type="checkbox"/>
Door	4 Custom	<input type="checkbox"/>
Beam	5 Zone	<input type="checkbox"/>
In-situ Slab	6 Floor	<input checked="" type="checkbox"/>
Slab Opening	7 Name	<input checked="" type="checkbox"/>
Room	8 Name Suffix	<input type="checkbox"/>
Floor Finish	9 Interior/Exterior	<input type="checkbox"/>
Wall Finish	10 Thickness	<input type="checkbox"/>
Suspended ...	11 Material of Attached Surface	<input type="checkbox"/>
Railing	12 Associated Room	<input checked="" type="checkbox"/>
	13 Associated Unit Type	<input type="checkbox"/>
	14 Parent Entity Type	<input type="checkbox"/>
	15 Parent Entity Attribute	<input type="checkbox"/>
	16 Parent Entity Attribute Value	<input type="checkbox"/>
	17 Surface Type	<input type="checkbox"/>
	18 Entity Object Type	<input type="checkbox"/>

**Element Quantity**

- Area of finish to brick ...
- Area of custom finish t...
- Area of finish to concre...
- Area of custom finish t...
- Area of finish to stone ...
- Area of custom finish t...
- Area of finish to block ...
- Area of custom finish t...
- Area of finish to light p...
- Area of custom finish t...
- Area of finish to color ...
- Area of custom finish t...
- Area of finish to wood...
- Area of custom finish t...
- Area of finish to surfac...
- Area of custom finish t...
- Area of plastering to w...

# Quantity Reporting

- **Progress Plester**

- Segmentation: Construction Zone
- Quantity: Area of Plastering to Wall Finish

Classification Condition					Quantity
Construction Zone	Floor	Name	Associated Room	Area of plastering to wall finish(m2)	
[Null]	Lantai 1	Cat acrylic Emulsion appariton	Bedroom	447.287	
			Corridor	249.923	
			Living Room type 1 bed	320.415	
			Living Room type 2 bed	146.658	
		Cat minyak	Janitor	73.602	
			Toilet	327.630	
		Cat acrylic Emulsion appariton	Bedroom	157.715	
			Corridor	28.985	
			Living Room type 2 bed	126.002	
			Cat minyak	Janitor	36.537
		Toilet		95.036	
Total				2009.790	

- **Progress Aci**

- Segmentation: Subcontracting
- Quantity: Area of Custom Finish to Wall Finish

Classification Condition					Quantity
Subcontracting	Floor	Name	Associated Room	Area of custom finish to wall finish(m2)	
[Null]	Lantai 1	Cat acrylic Emulsion appariton	Bedroom	516.625	
			Corridor	244.548	
			Living Room type 1 bed	314.516	
			Living Room type 2 bed	161.264	
		Cat minyak	Janitor	72.148	
			Toilet	345.089	
		Cat acrylic Emulsion appariton	Bedroom	77.324	
			Corridor	28.222	
			Living Room type 2 bed	106.425	
			Cat minyak	Janitor	35.798
		Toilet		69.291	
Total				1971.251	

- **Progress Cat**

- Segmentation: Progress Claim
- Quantity: Area of Finish to Wall Finish

Classification Condition					Quantity
Progress Claim	Floor	Name	Associated Room	Area of finish to wall finish(m2)	
[Null]	Lantai 1	Cat acrylic Emulsion appariton	Bedroom	307.103	
			Corridor	264.592	
			Living Room type 1 bed	308.618	
			Living Room type 2 bed	203.950	
		Cat minyak	Janitor	70.695	
			Toilet	368.859	
		Cat acrylic Emulsion appariton	Bedroom	75.791	
			Corridor	2.042	
			Living Room type 2 bed	58.767	
			Cat minyak	Janitor	35.058
		Toilet		37.236	
Total				1932.712	



# Check Segmentation



# Check Segmentation

- Step 1: Check Segmentation → Choose the specific finish layer
- Step 2: Create Legend

The screenshot displays the CubiCost software interface. The top ribbon includes tabs for START, PROJECT SETTINGS, BIM MODEL, IDENTIFY, DRAW, VIEW, QUANTITY, and REVISION. The 'DRAW' tab is active, showing various drawing tools. A green circle with the number '1' highlights the 'Check Segmentation' button in the ribbon. Below the ribbon, the 'Element List' panel shows a search for 'Progress Cat Bulan Juni [Wall Finish]'. The 'Attribute Editor' panel shows the 'Progress Cat Bulan Juni' element with 'Wall Finish' selected. A 'Check Segmentation' dialog box is open, showing a list of elements with checkboxes. A green circle with the number '2' and an orange arrow points to the 'Create Legend' button in the dialog. The 'Legend' panel at the bottom shows the following items:

Element Name	Area
Cat acrylic Emulsion appariton-Progress Cat Bulan Juni	136.600m2
Cat minyak-Progress Cat Bulan Juni	72.295m2

The status bar at the bottom shows: Floor Height: 3.600, Bottom Elevation: -0.050, 3, Selected Entity: 0, Hidden Entity: 0, and a 'Cross-Element Select' button.

# Check Segmentation

- Step 3: Export PDF

*This can only be done for each finish layer separately*

## Progress Cat Bulan Juni



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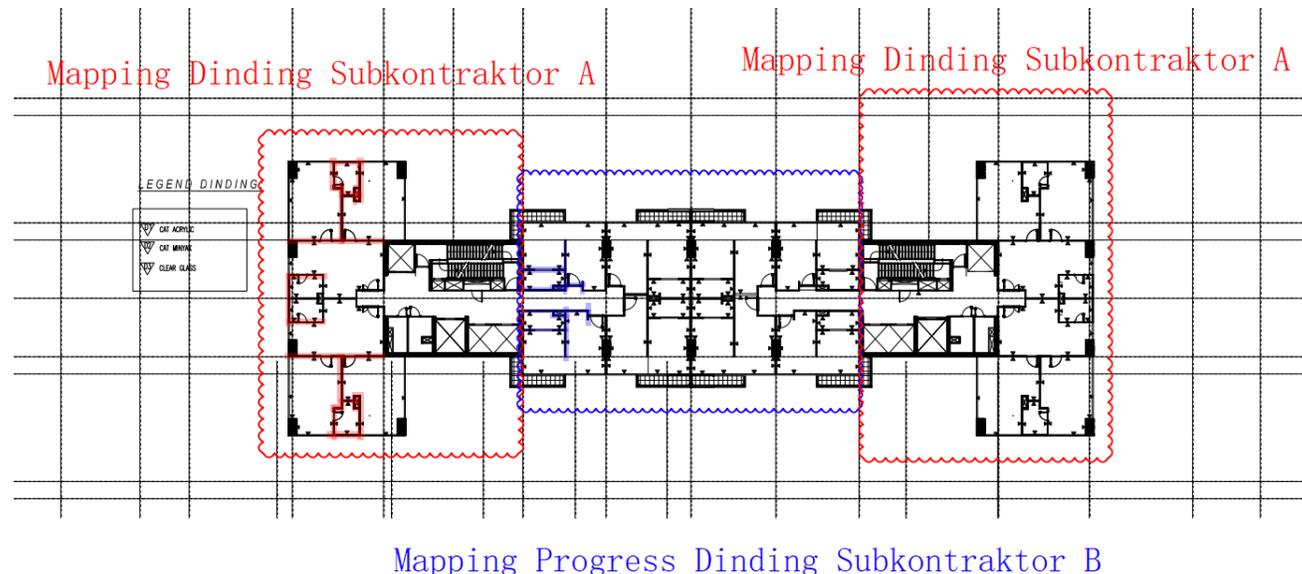
# CASE 1: WALL PROGRESS CLAIM

# Progress Claim of Architectural Walls 1<sup>st</sup> Floor

In February 2025, architectural wall construction is in progress, carried out by two sub-contractors:

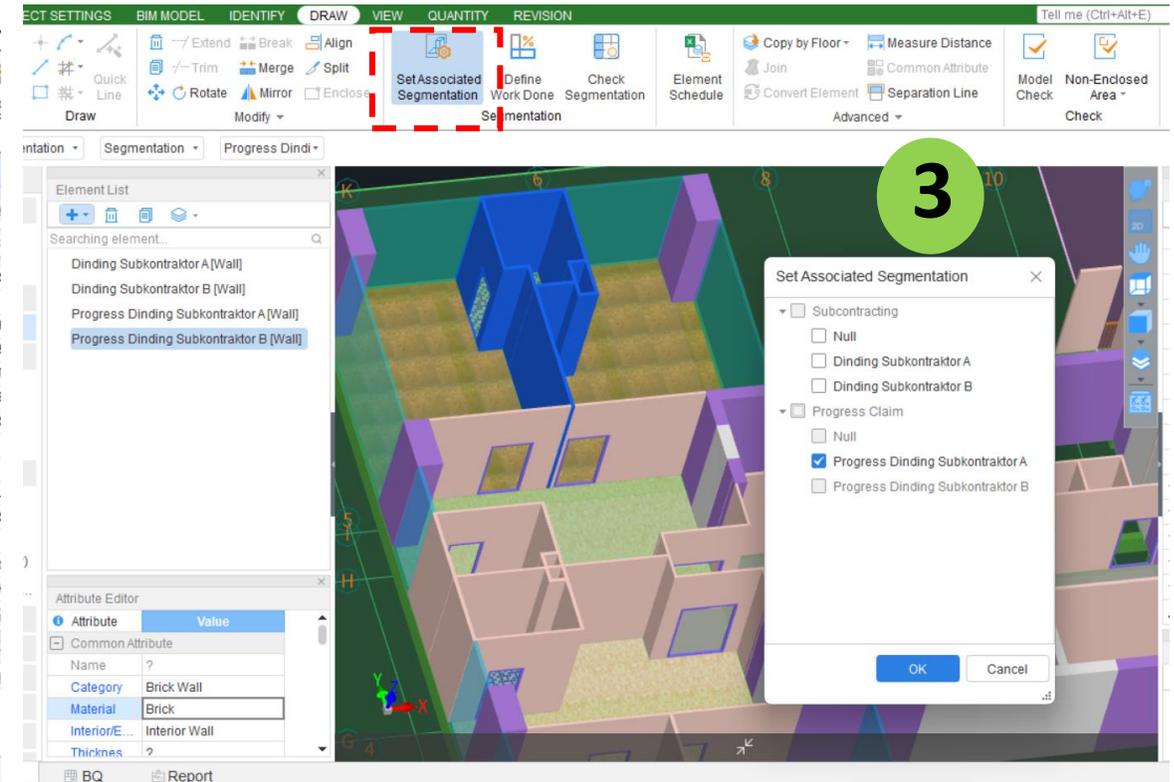
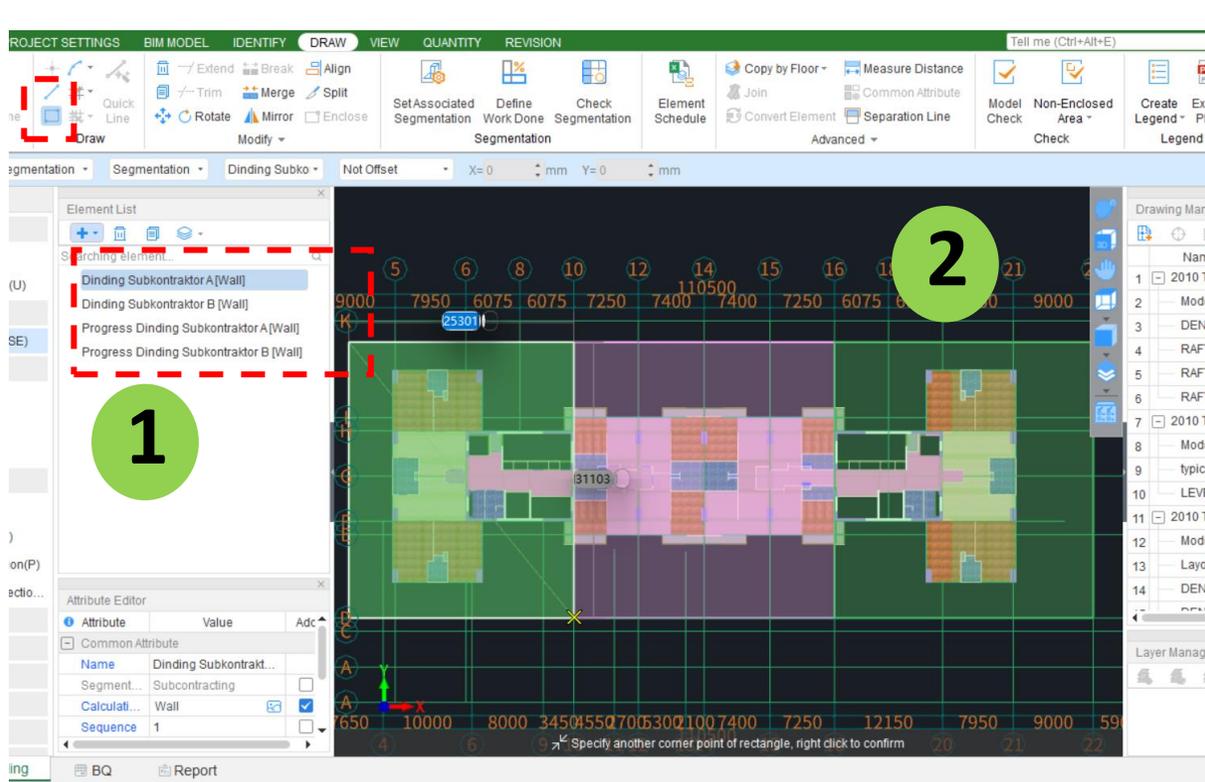
- Sub-Contractor A:** Working on both sides of the building
- Sub-Contractor B:** Working in the middle of the building

Some work is still pending, but claims and reports must be submitted



# Progress Claim of Architectural Walls 1<sup>st</sup> Floor

- **Step 1:** Create 2 segmentations of Subcontracting and 2 segmentations of Progress Claim
- **Step 2:** Use Subcontracting → Draw by Area for each subcontractor's region
- **Step 3:** Use Progress Claim → Set Associated Segmentation for Walls



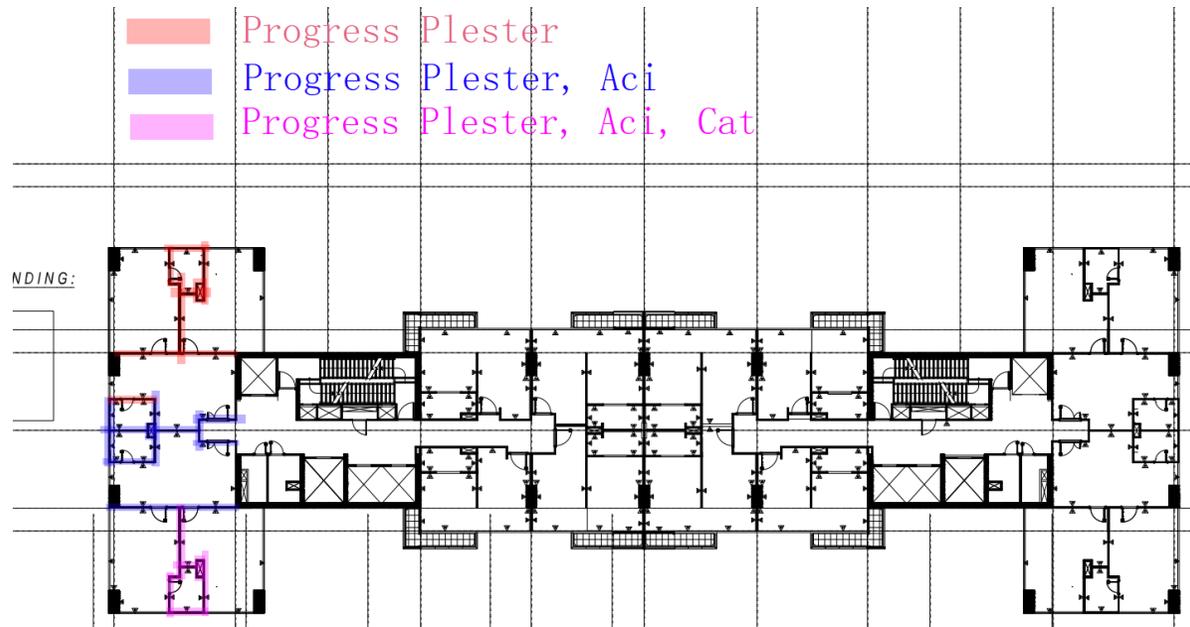
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# CASE 2: WALL FINISHES PROGRESS CLAIM

# Progress Claim of Wall Finishes 1<sup>st</sup> Floor

Wall finish work consists of multiple layers, including plaster (plester), smooth plaster (aci), and paint (cat), which may vary in height.

This work is also carried out in **stages**, with some walls completed up to the painting stage, while others may only have plaster or a combination of plaster and smooth plaster.



# Progress Claim of Wall Finishes 1<sup>st</sup> Floor

- **Step 1:** Create 3 segmentations: Construction Zone, Subcontracting, Progress Claim
- **Step 2:** Construction Zone → Set Associated Segmentation for Plaster
- **Step 3:** Subcontracting → Set Associated Segmentation for Aci
- **Step 4:** Progress Claim → Set Associated Segmentation for Cat

Construction Zone = Plaster

Subcontracting = Smooth Plaster

Progress Claim = Painting

Set Associated Segmentation

Segmentation	Sub-segmentation	Checked
Construction Zone	Progress Plaster Bulan Juni	<input type="checkbox"/>
Subcontracting	Progress Aci Bulan Juni	<input checked="" type="checkbox"/>
Progress Claim	Progress Cat Bulan Juni	<input checked="" type="checkbox"/>

Attribute	Value
Name	Cat acrylic Emulsion apparition
Interior/Exterior	Interior Wall Finish
Thickness (mm)	15
Tile Material	Ceramic Tile
Tile Spec	
Cut Label	
Finish Position	Side
Start Top Eleva...	Wall_Top_Elevation(3.550)