

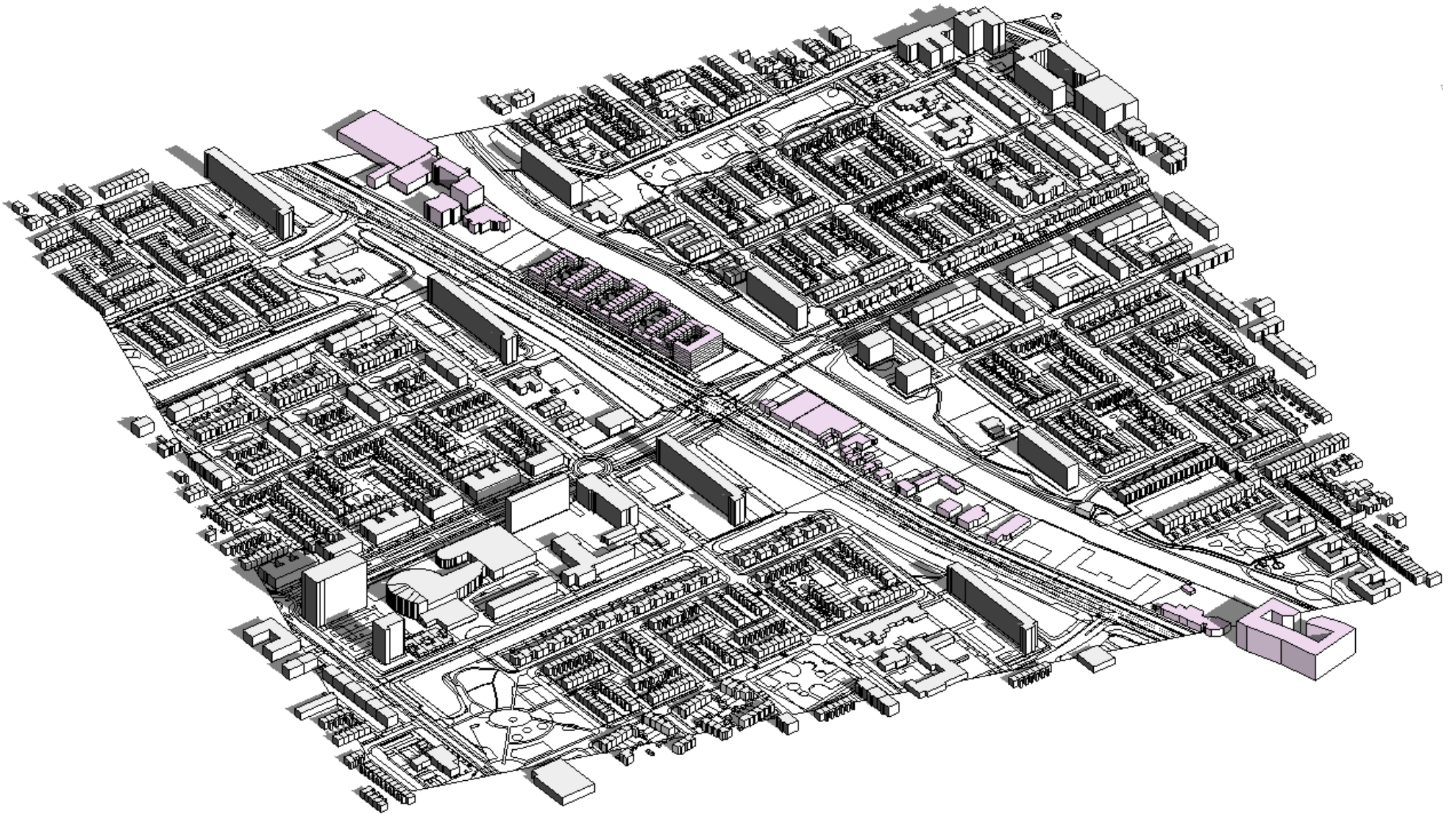
Dynamo Sprint 05

DIM_03

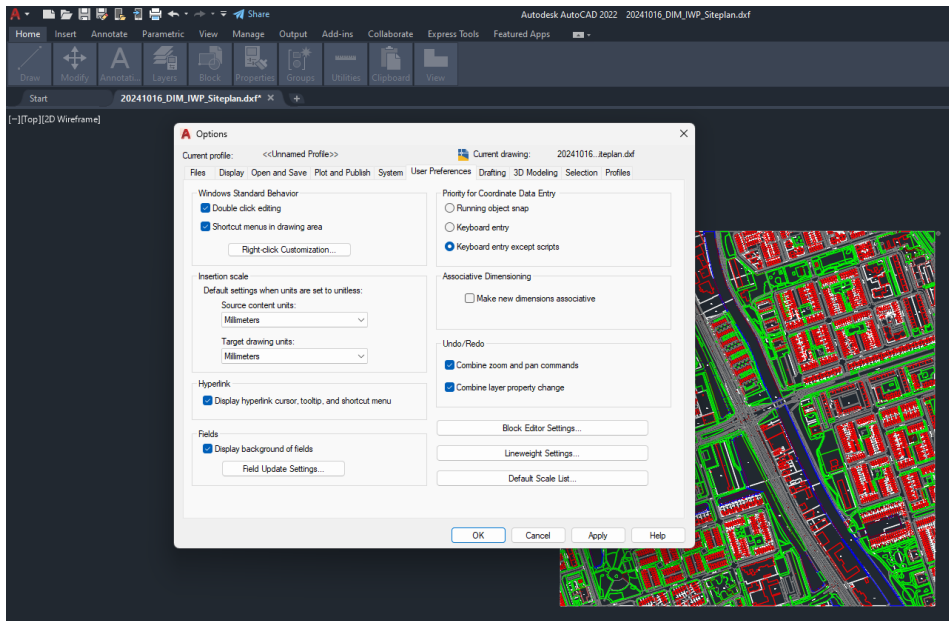
17.10.2024



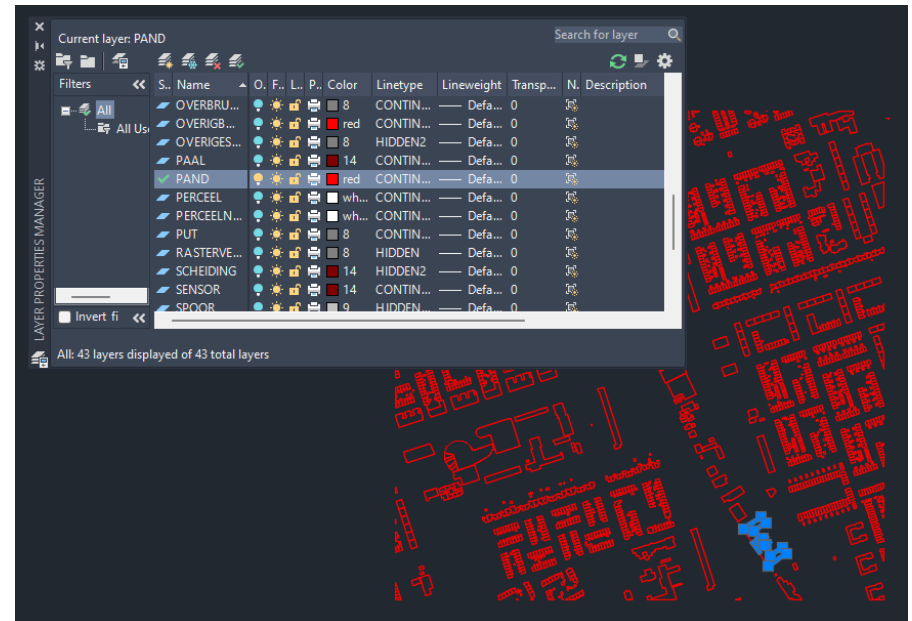
Onderlegger



Autocad checks

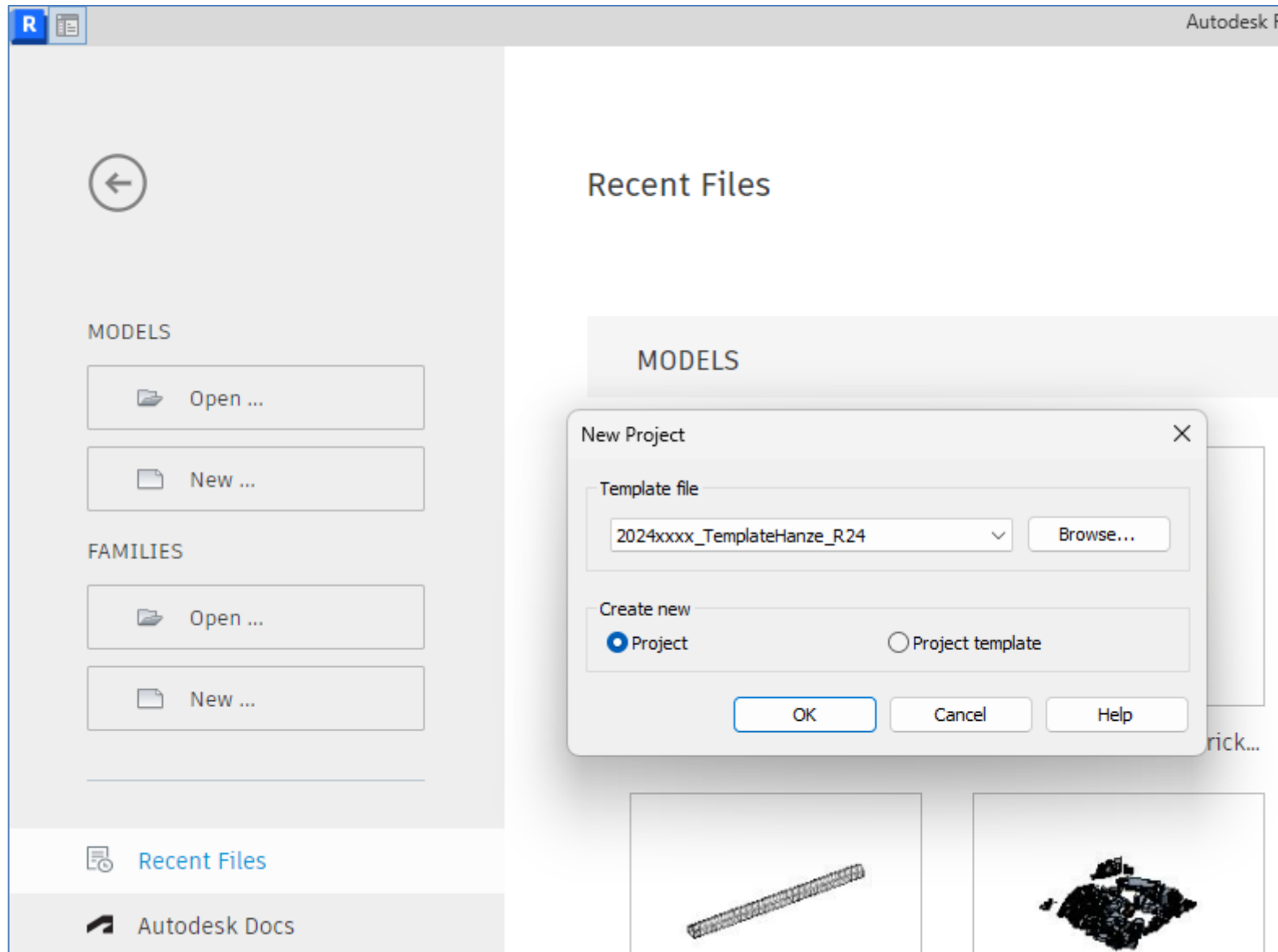


1) Check units (need to be mm)

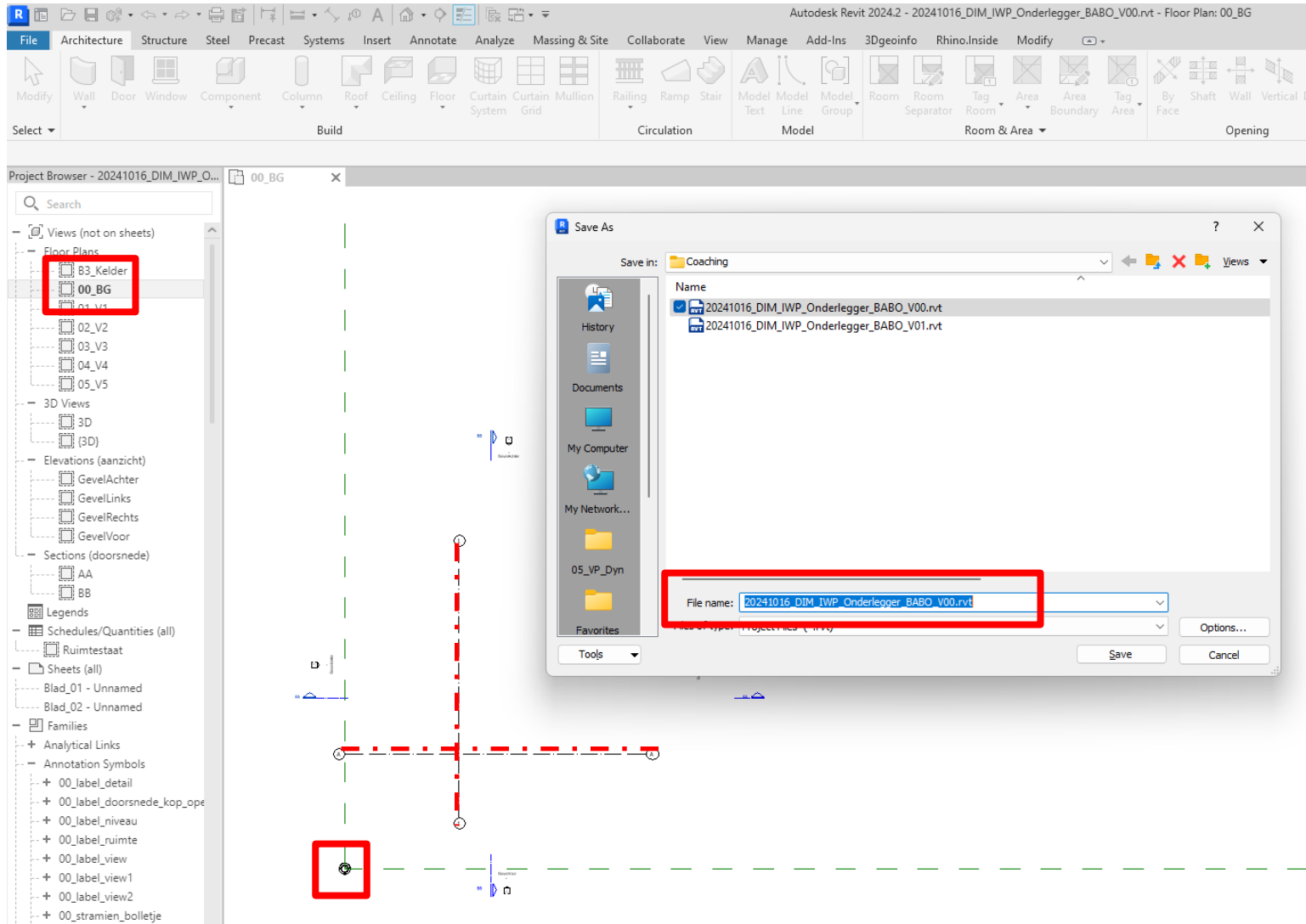


2) Check that closed polylines are used for the objects you want to **LINK** to Revit

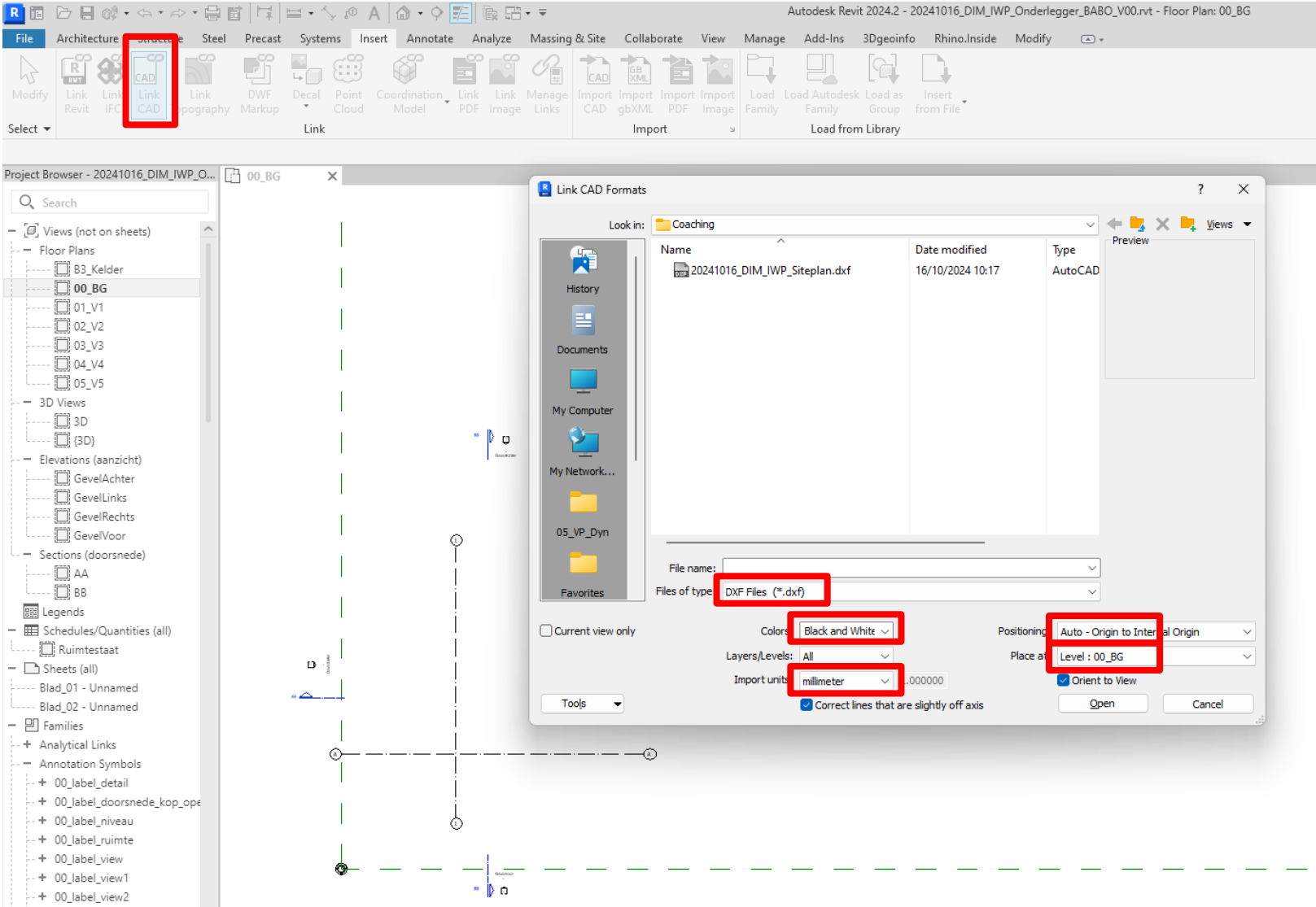
New Revit project



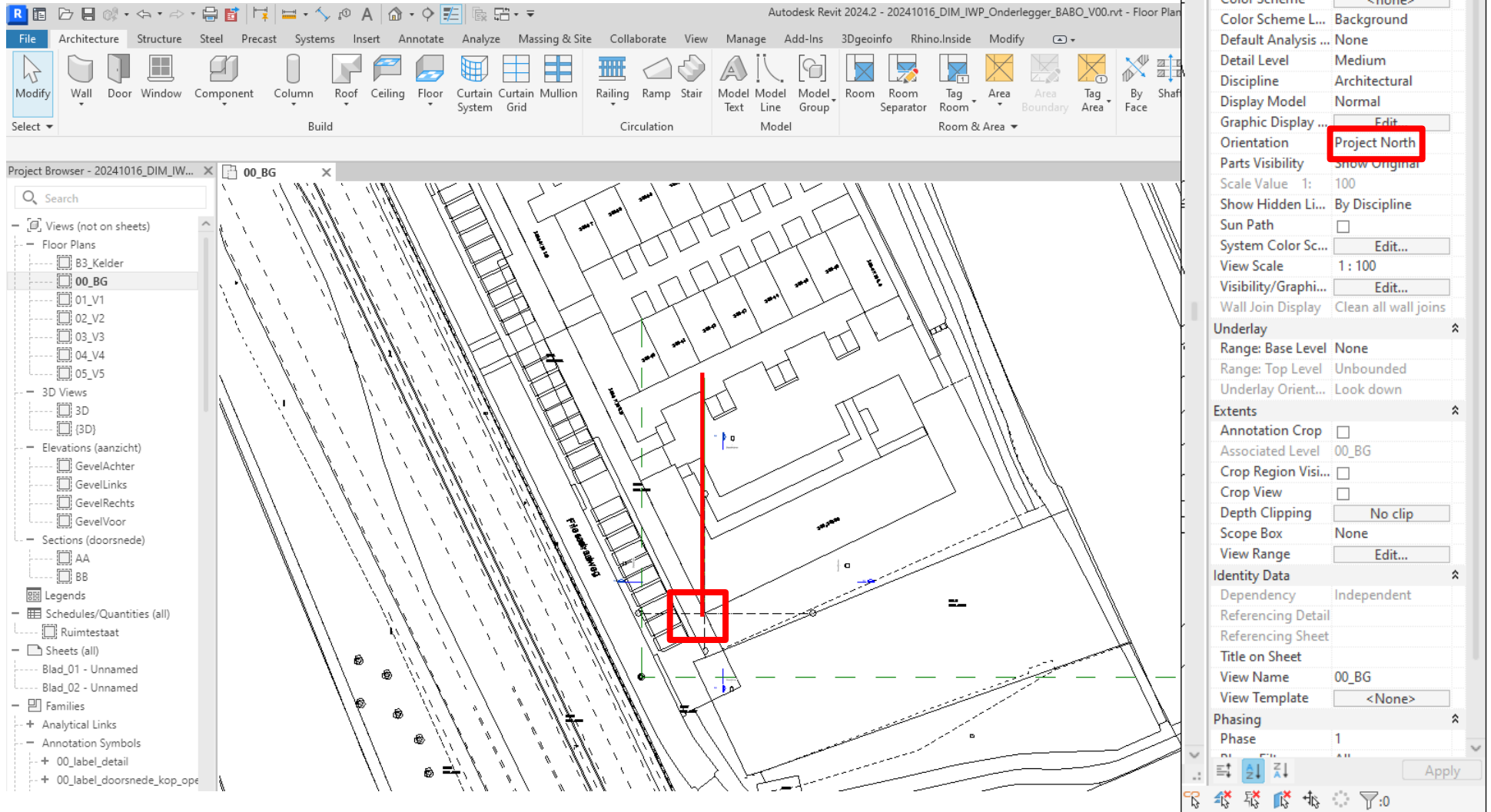
Project name & some first adjustments (reduce grid & levels)



Link DXF



Place **DXF** at zero point of GRID, switch to ProjectNorth and draw ,Model line' at ,True North'



Rotate DXF & Model-line to ,Project North‘

The image shows the Autodesk Revit 2024.2 interface. The 'Position' dropdown menu is open, showing options: Relocate Project, Rotate True North, Mirror Project, and Rotate Project North. The 'Rotate Project North' option is selected. The main window displays a floor plan with a red square and a red arrow pointing to it. The Properties panel on the right shows 'Project North' selected for Orientation.

Project Browser - 20241016_DIM_IW...

- Views (not on sheets)
 - Floor Plans
 - B3_Kelder
 - 00_BG**
 - 01_V1
 - 02_V2
 - 03_V3
 - 04_V4
 - 05_V5
 - 3D Views
 - 3D
 - (3D)
 - Elevations (aanzicht)
 - GevelAchter
 - GevelLinks
 - GevelRechts
 - GevelVoor
 - Sections (doorsnede)
 - AA
 - BB
 - Legends
 - Schedules/Quantities (all)
 - Ruimtestaat
 - Sheets (all)
 - Blad_01 - Unnamed
 - Blad_02 - Unnamed
 - Families
 - + Analytical Links
 - Annotation Symbols
 - + 00_label_detail
 - + 00_label_doorsnede_kop_ope
 - + 00_label_niveau

Set True North to 'Model-line'

The image shows the Autodesk Revit 2024.2 interface with the 'Position' dropdown menu open, highlighting the 'Rotate True North' option. The Properties panel on the right shows the 'Orientation' property set to 'True North'. The main view is a floor plan of a building with a red vertical line indicating the true north direction.

Autodesk Revit 2024.2 - 20241016_DIM_IWP_Underlegger_BABO_V00.rvt - Floor Plan:

Position

- Relocate Project
- Rotate True North**
- Mirror Project
- Rotate Project North

Properties

Floor Plan

Floor Plan: 00_BG

Graphics

- Color Scheme: <none>
- Color Scheme L...: Background
- Default Analysis ...: None
- Detail Level: Medium
- Discipline: Architectural
- Display Model: Normal
- Graphic Display: Edit
- Orientation: **True North**
- Parts Visibility: Show Original
- Scale Value 1: 100
- Show Hidden Li...: By Discipline
- Sun Path:
- System Color Sc...: Edit...
- View Scale: 1 : 100
- Visibility/Graph...: Edit...
- Wall Join Display: Clean all wall joins

Underlay

- Range: Base Level: None
- Range: Top Level: Unbounded
- Underlay Orient...: Look down

Extents

- Annotation Crop:
- Associated Level: 00_BG
- Crop Region Visi...:
- Crop View:
- Depth Clipping: No clip
- Scope Box: None
- View Range: Edit...

Identity Data

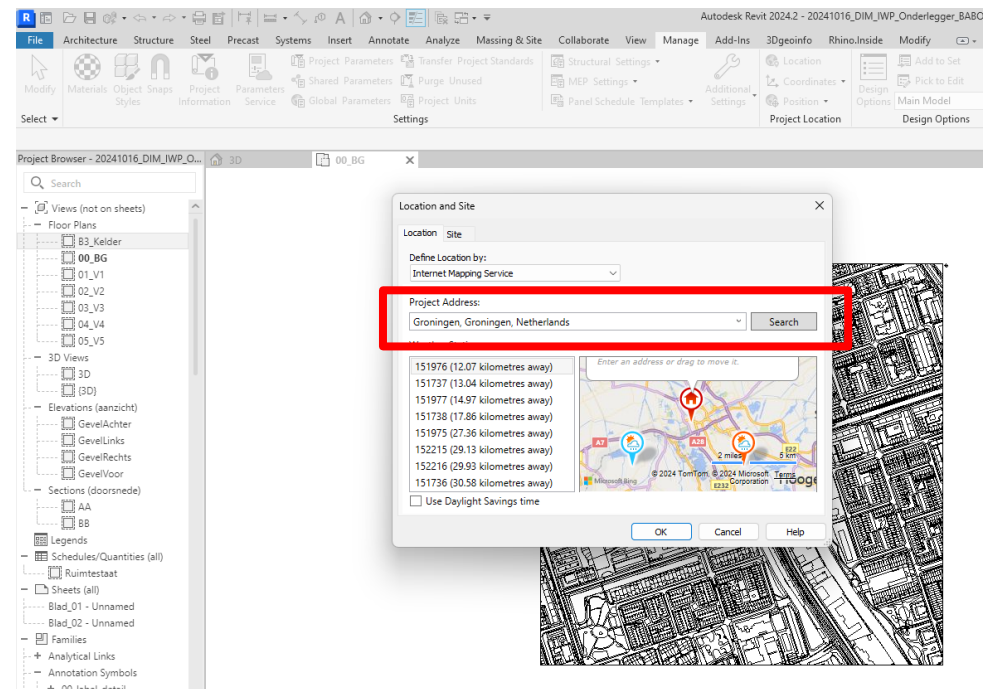
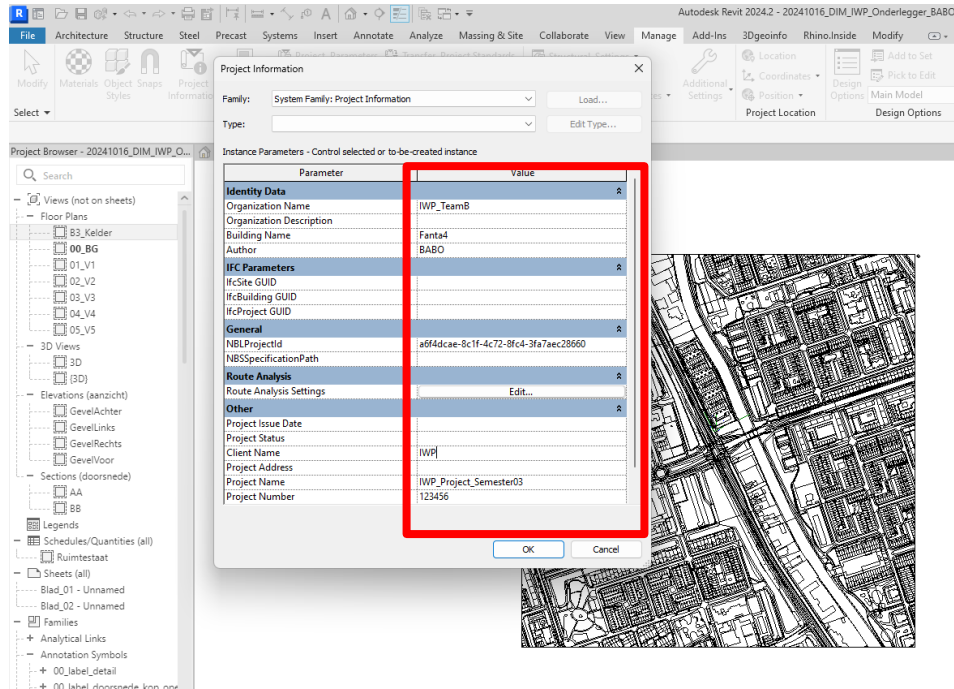
- Dependency: Independent
- Referencing Detail:
- Referencing Sheet:
- Title on Sheet:
- View Name: 00_BG
- View Template: <None>

Phasing

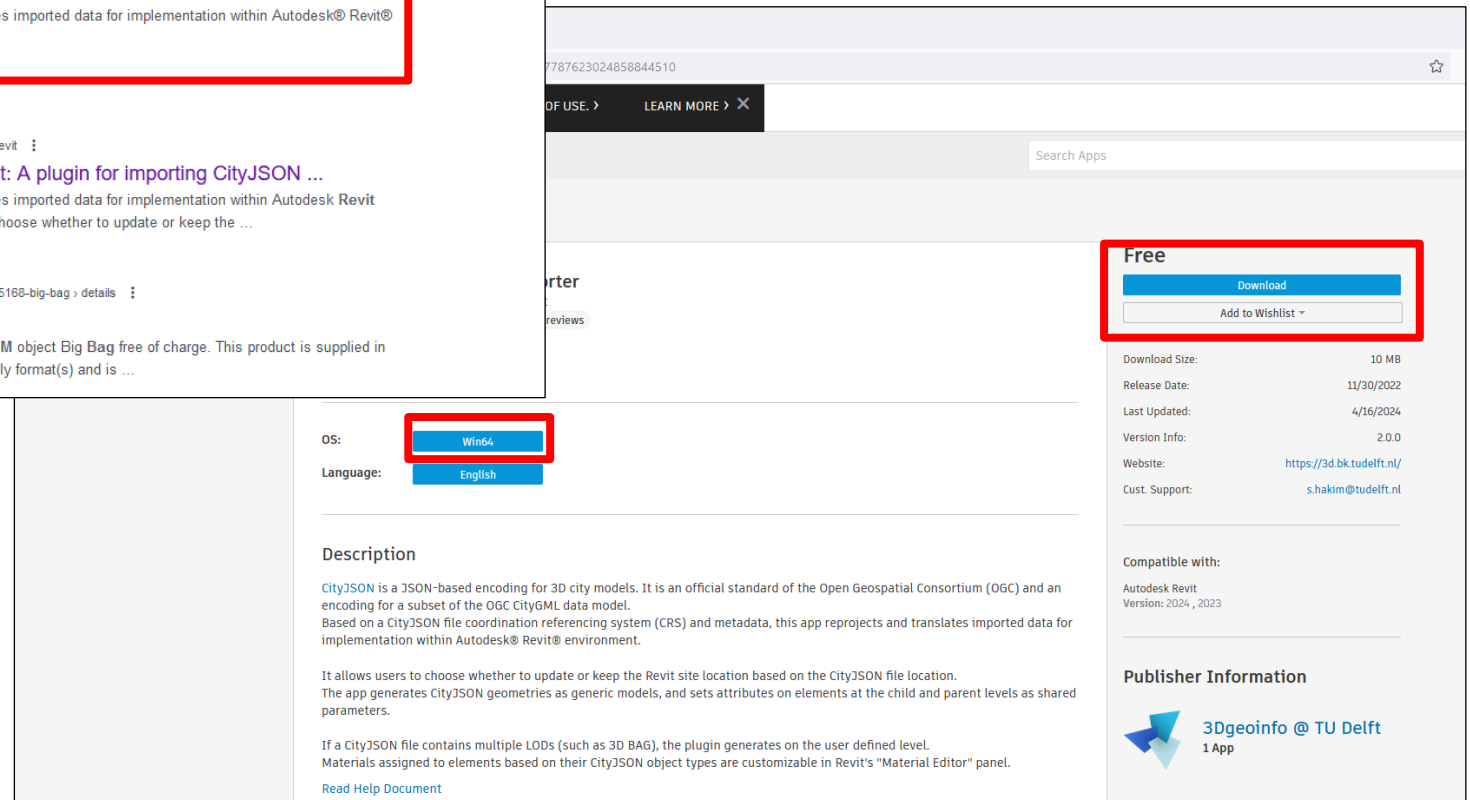
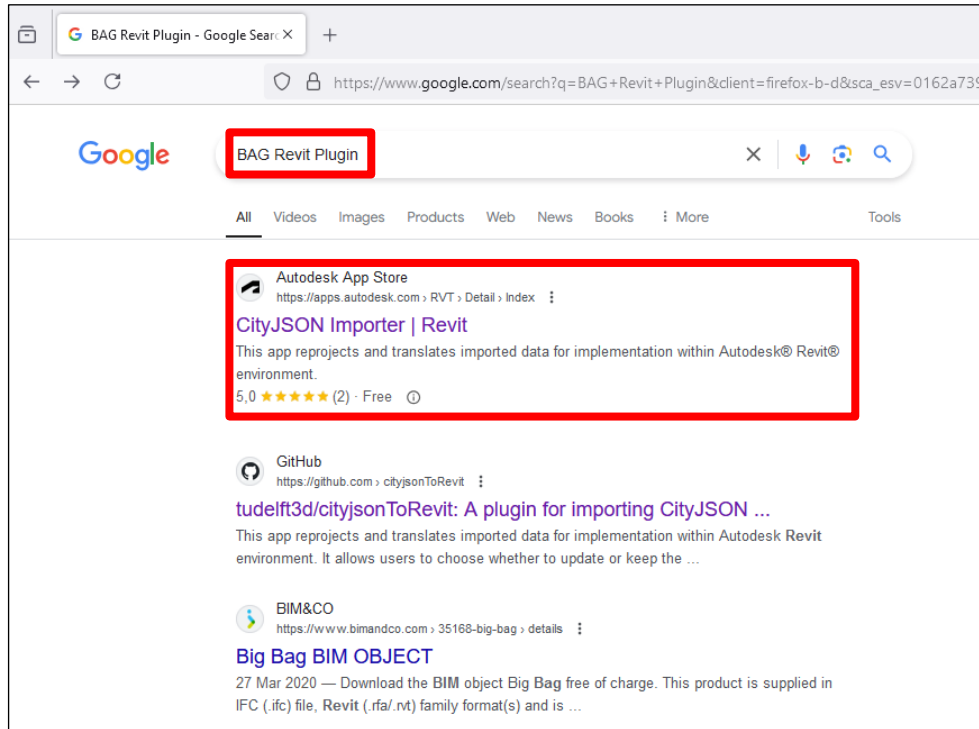
- Phase: 1

Apply

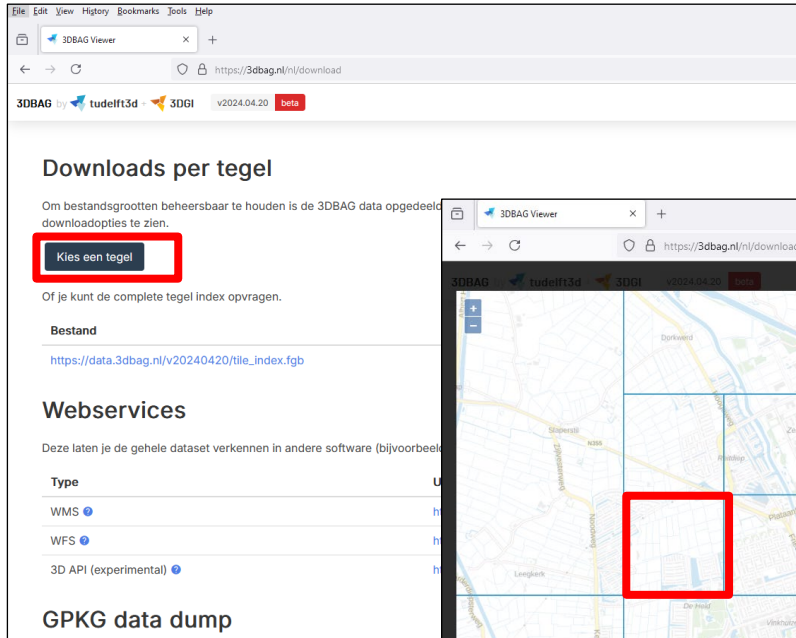
Set ProjectInfo & Location



Plugin Install



BAG-tegel download



3DBAG by tudelft3d 3DGI v2024.04.20 beta

Downloads per tegel

Om bestandsgrootten beheersbaar te houden is de 3DBAG data opgedeeld in downloadopties te zien.

Kies een tegel

Of je kunt de complete tegel index opvragen.

Bestand

https://data.3dbag.nl/v20240420/tile_index.fgb

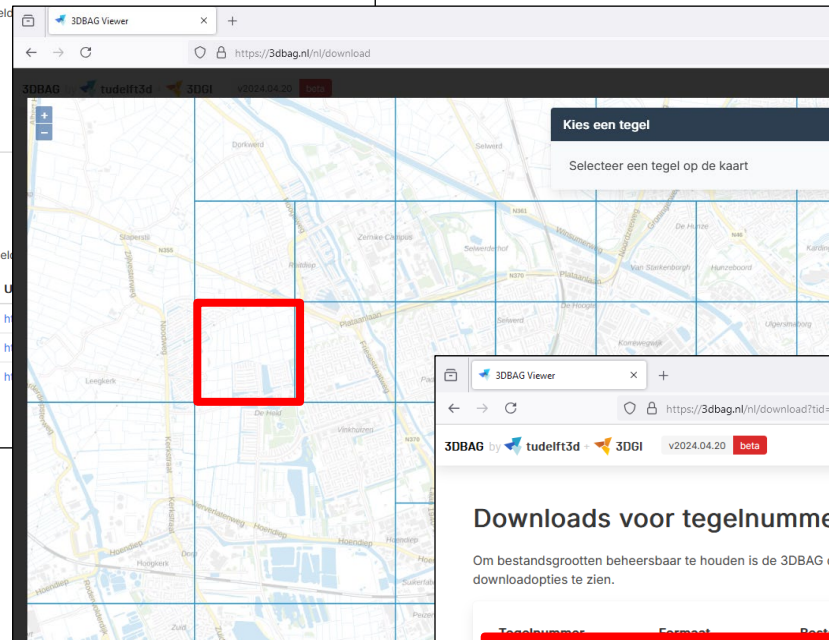
Webservices

Deze laten je de gehele dataset verkennen in andere software (bijvoorbeeld UTM)

Type

- WMS
- WFS
- 3D API (experimental)

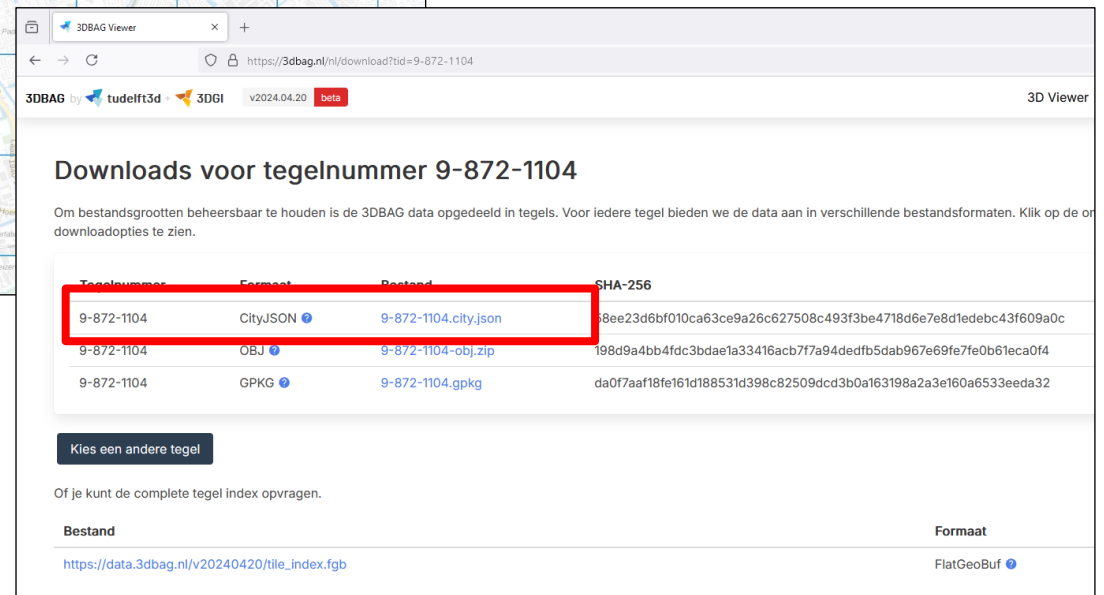
GPKG data dump



3DBAG by tudelft3d 3DGI v2024.04.20 beta

Kies een tegel

Selecteer een tegel op de kaart



3DBAG by tudelft3d 3DGI v2024.04.20 beta

Downloads voor tegelnummer 9-872-1104

Om bestandsgrootten beheersbaar te houden is de 3DBAG data opgedeeld in tegels. Voor iedere tegel bieden we de data aan in verschillende bestandsformaten. Klik op de of downloadopties te zien.

Tegelnummer	Formaat	Bestand	SHA-256
9-872-1104	CityJSON	9-872-1104.city.json	88ee23d6bf010ca63ce9a26c627508c493f3be4718d6e7e8d1edebc43f609a0c
9-872-1104	OBJ	9-872-1104-obj.zip	198d9a4bb4fdc3bdae1a33416acb7f7a94dedfb5dab967e69fe7fe0b61eca0f4
9-872-1104	GPKG	9-872-1104.gpkg	da0f7aaf18fe161d188531d398c82509dcd3b0a163198a2a3e160a6533eeda32

Kies een andere tegel

Of je kunt de complete tegel index opvragen.

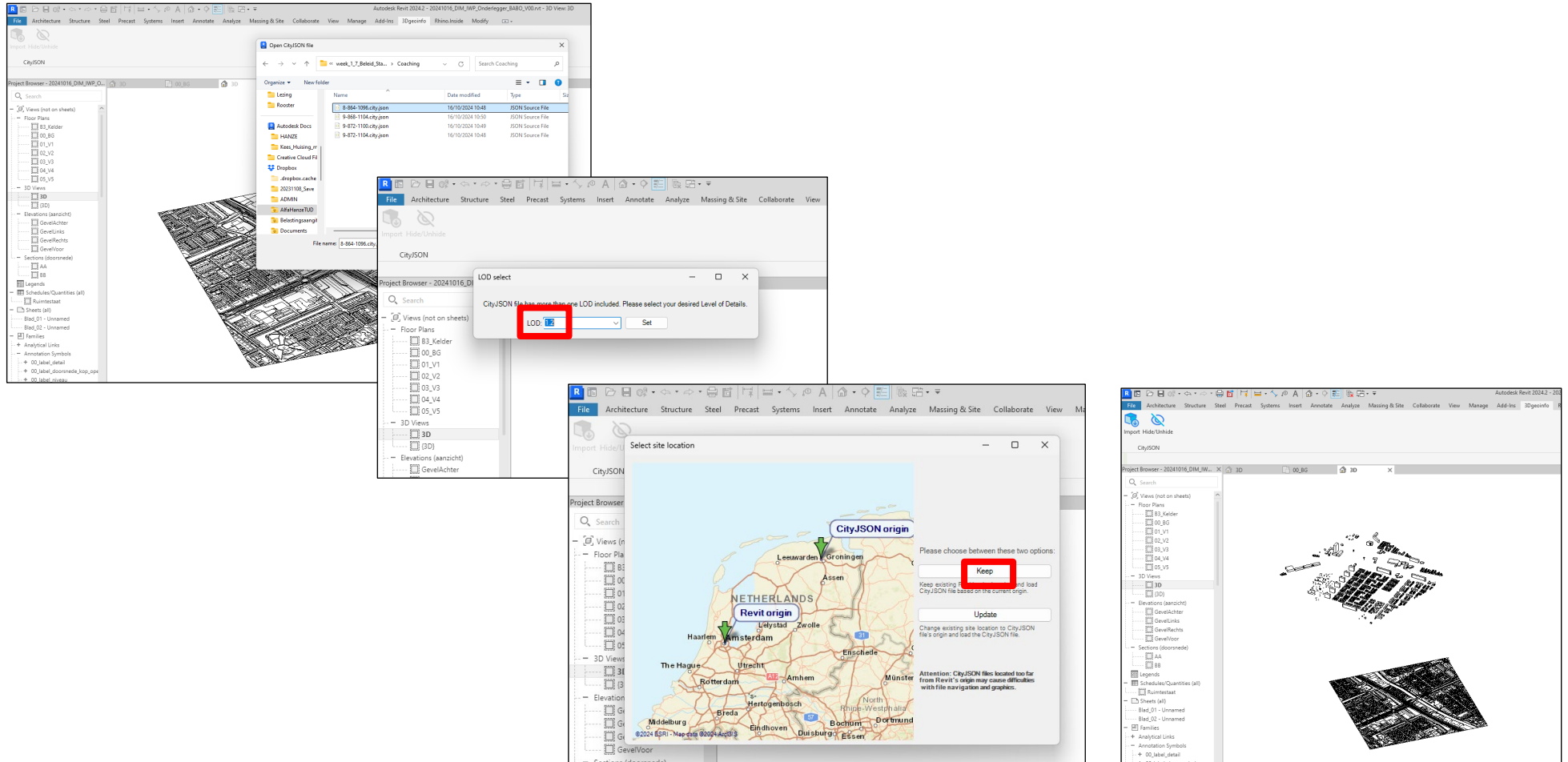
Bestand

https://data.3dbag.nl/v20240420/tile_index.fgb

Formaat

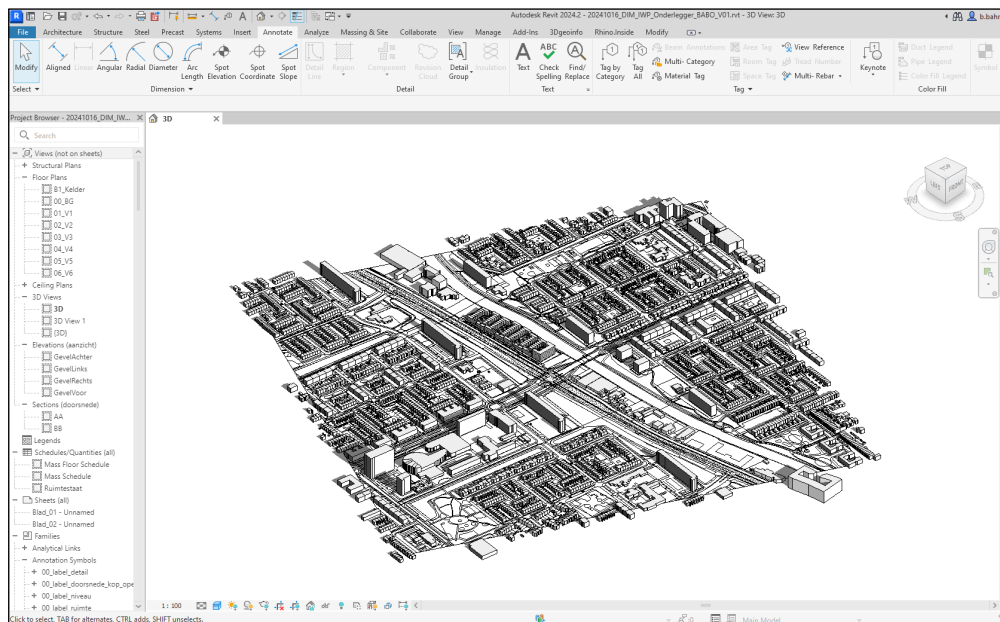
FlatGeoBuf

BAG-tegel import

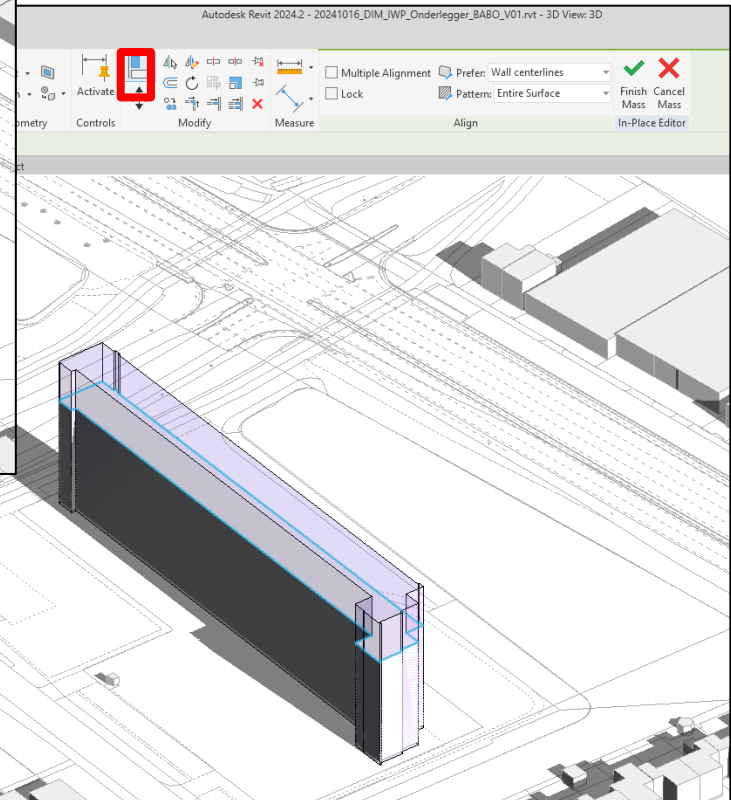
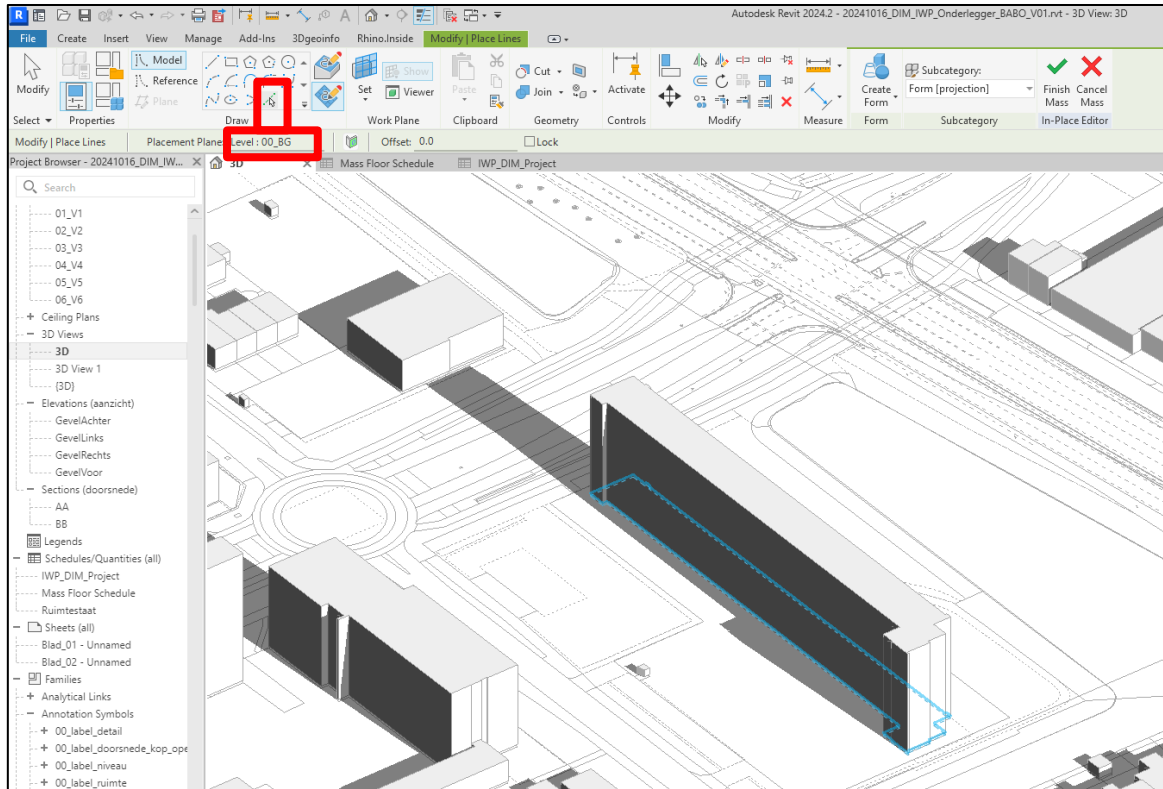


Adjust!

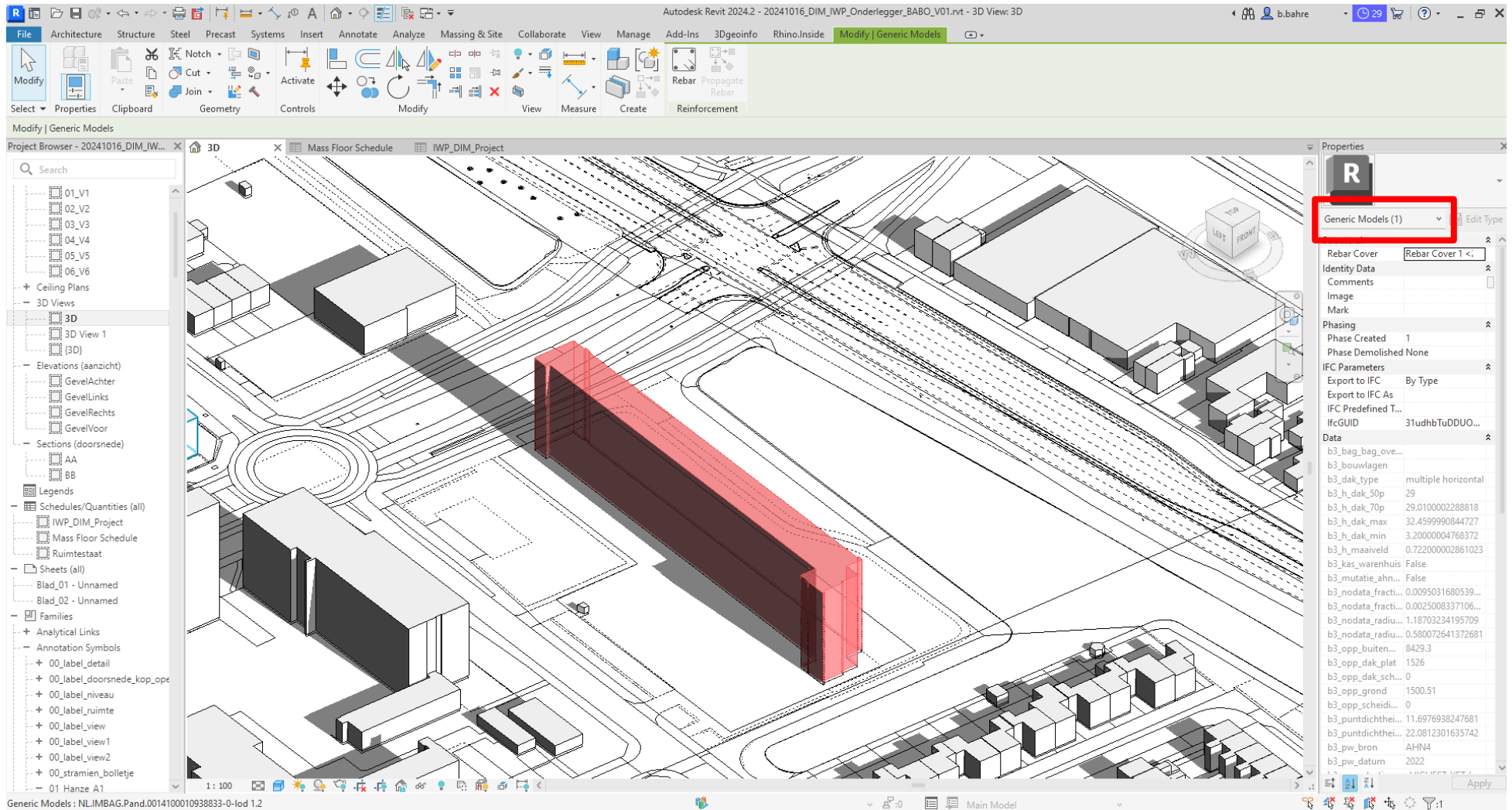
- 1) Pin DXF
- 2) Import 'tegels'
- 3) Create group of all tegels
- 4) Move and rotate group to meet dxf
- 5) Adjust color of Generic Model category with VV
- 6) Set sun and shadows to location and time
- 7) Replace generic models with 'In-Place Masses' where needed
- 8) Adjust color of 'Mass' category with VV
- 9) Check leves and level height
- 10) Select 'Masses' and add 'Mass-Floors'
- 11) Create Mass and Mass Floor schedules to get project data



create masses with pick lines & align

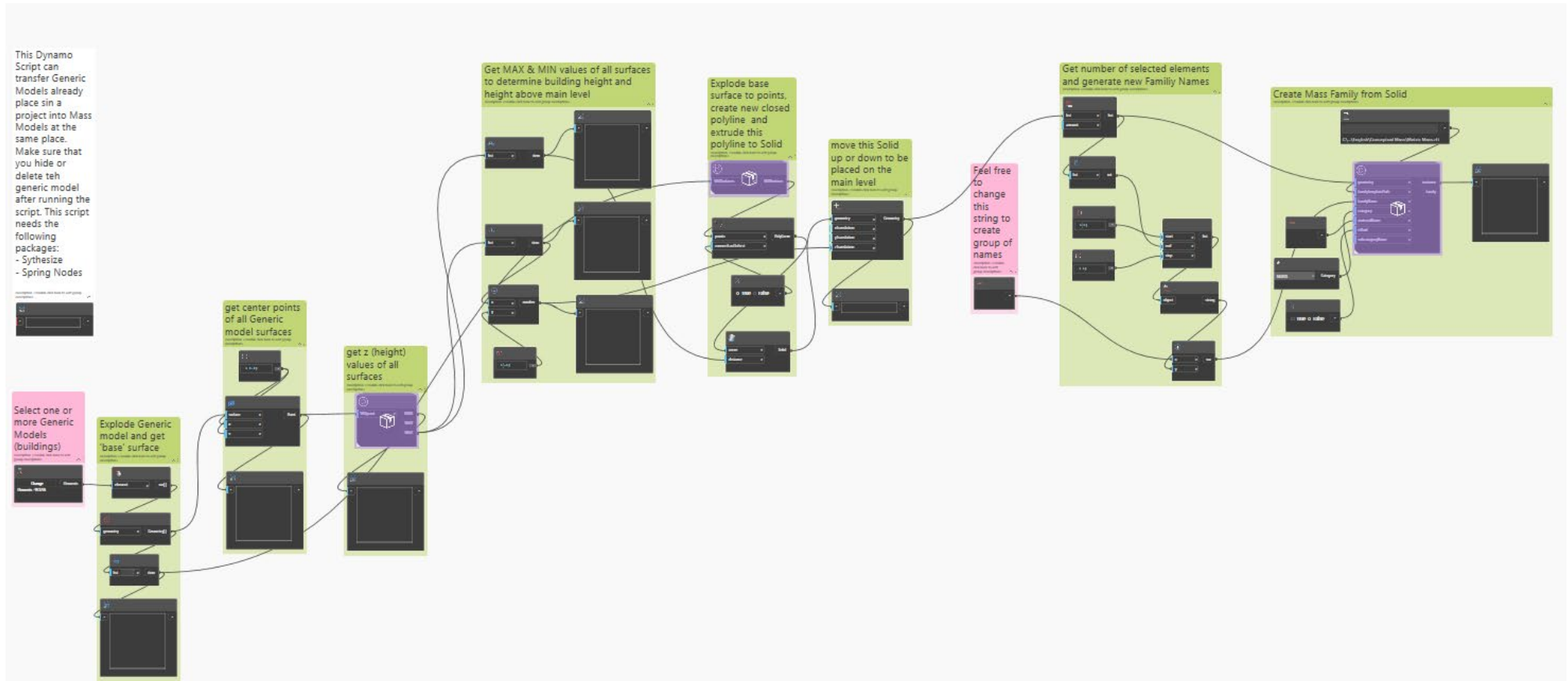


Hide (maybe delete) generic model

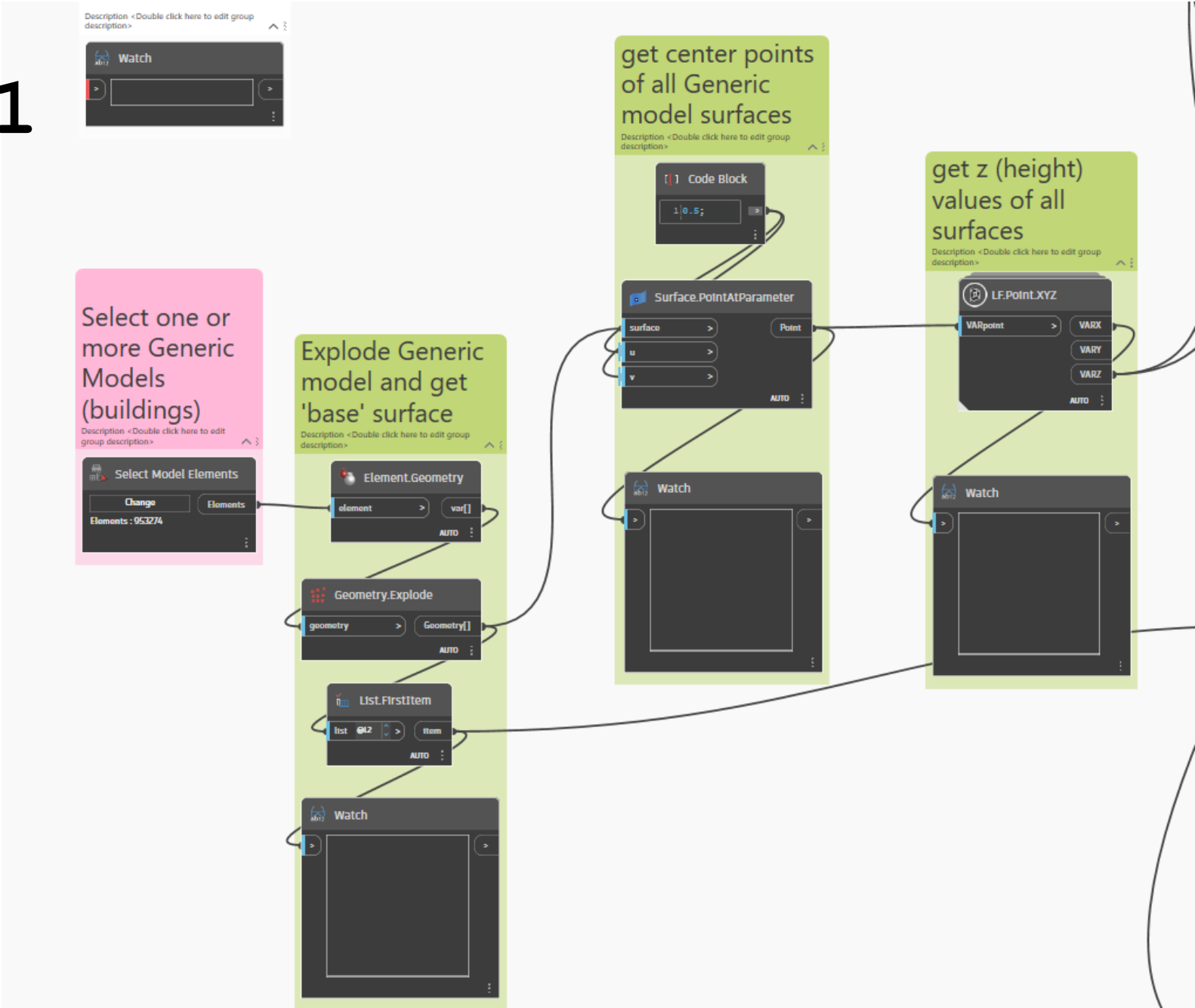


Is the conversion possible
via a Dynamo script?

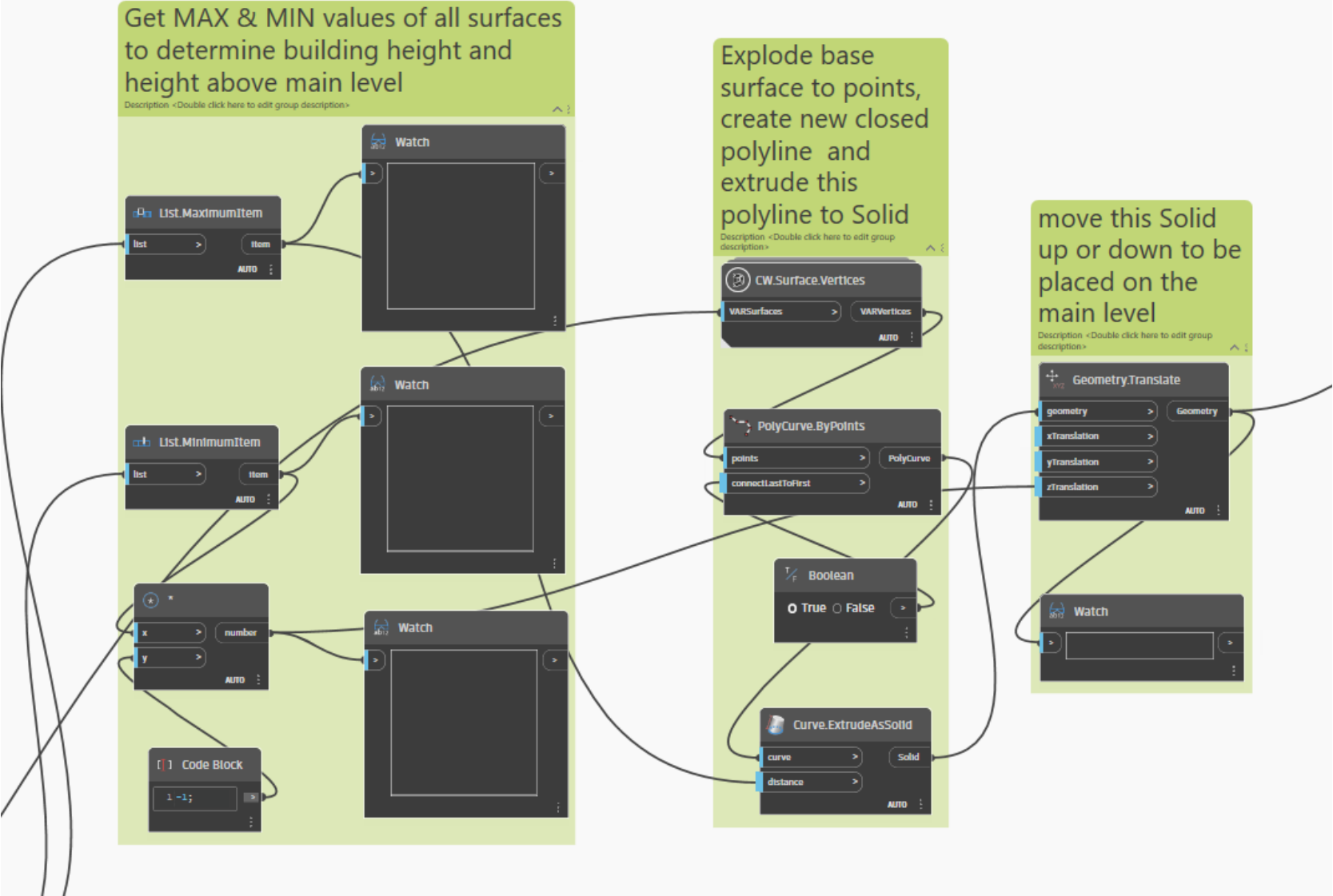
Generic Models to Masses (GMTM)



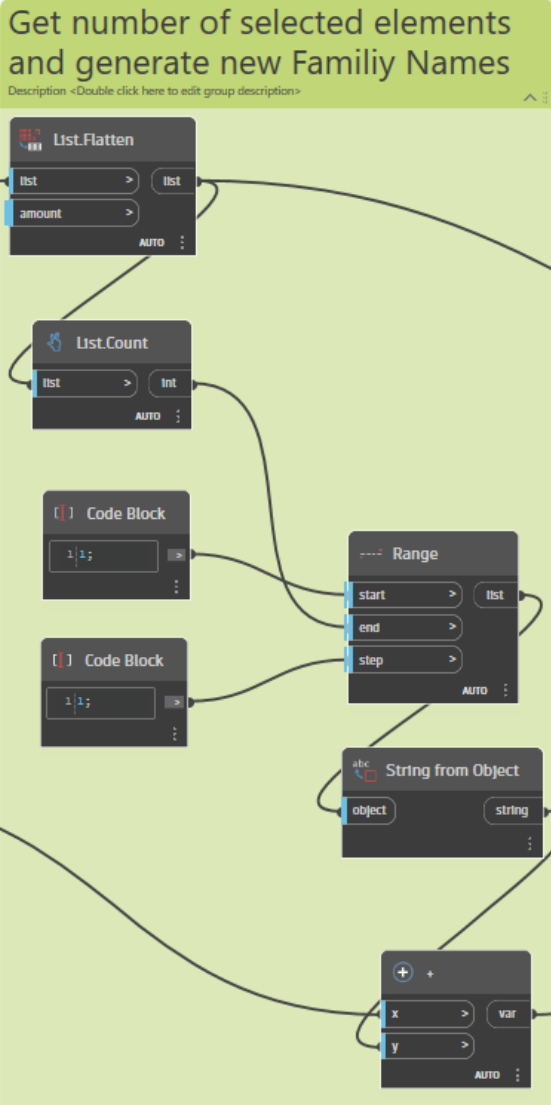
GMTM_01



GMTM_02



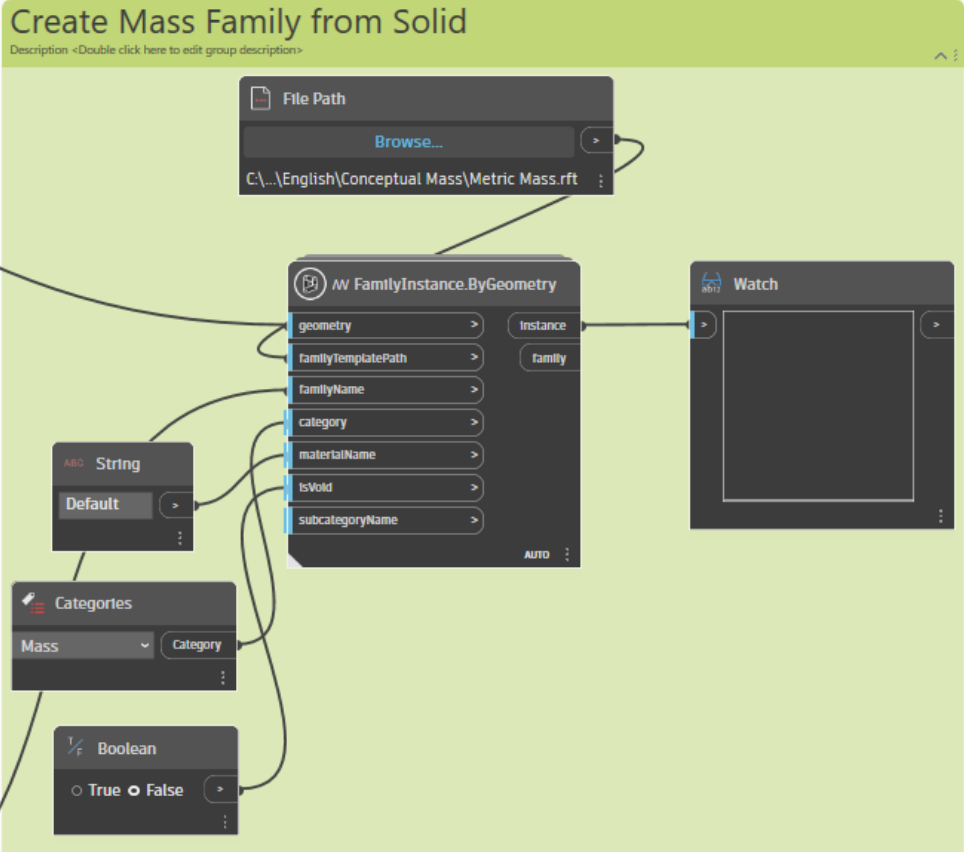
GMTM_03



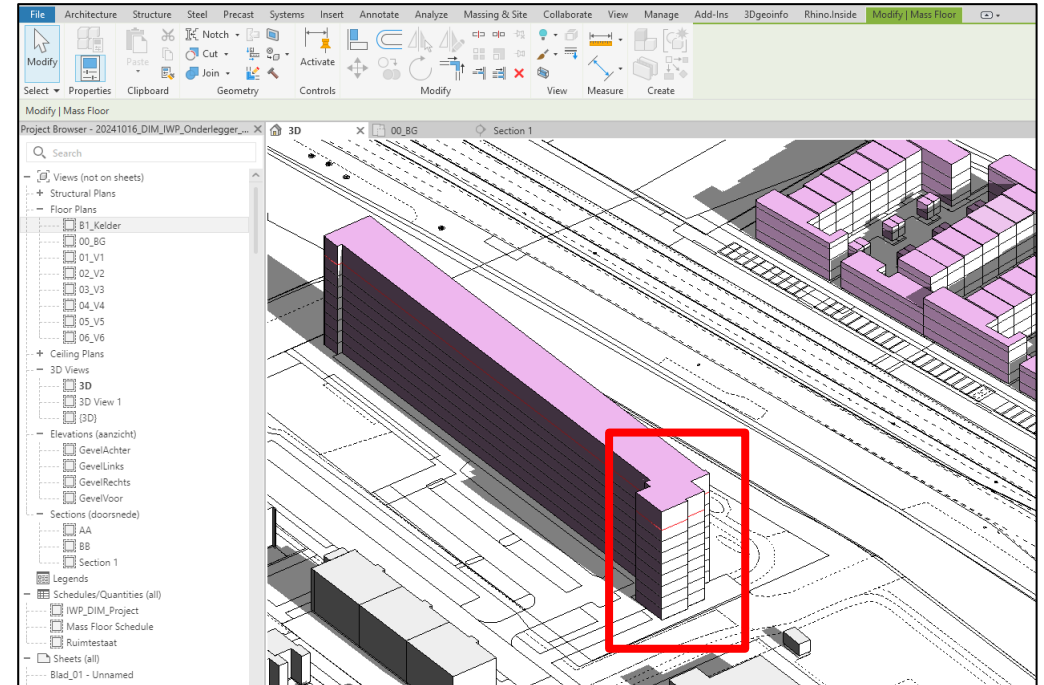
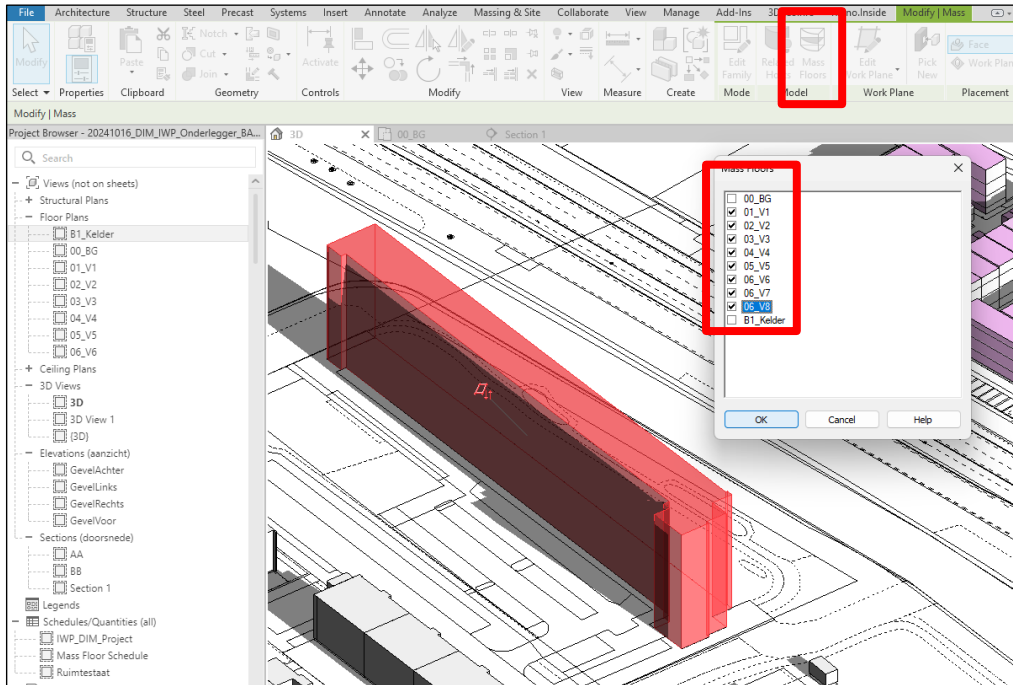
Feel free to change this string to create group of names

Description <Double click here to edit group description>

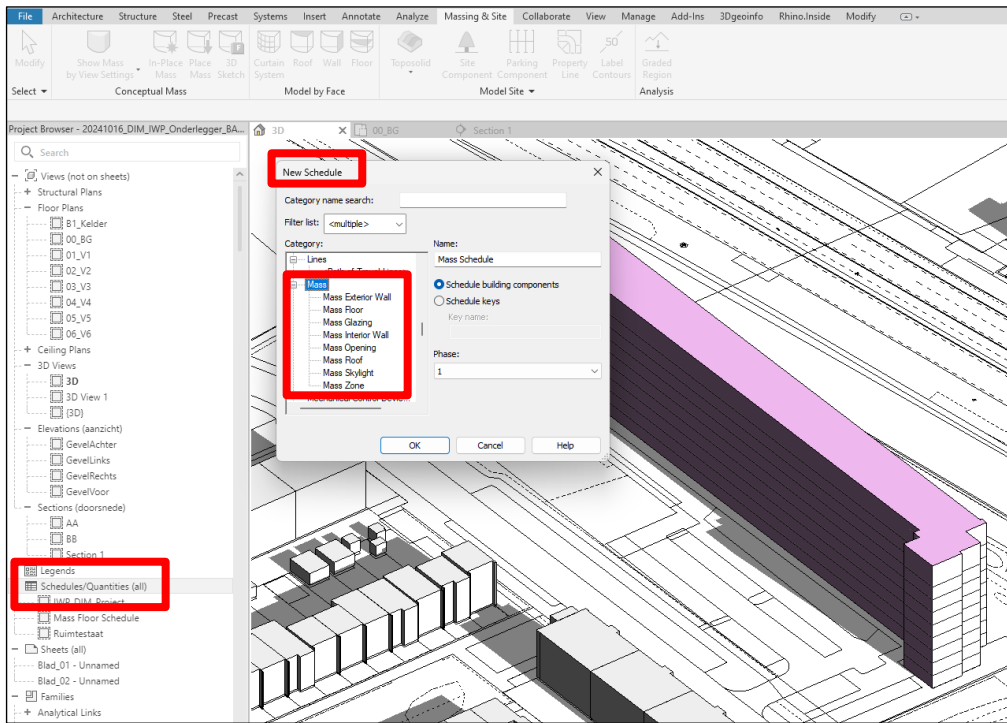
String
C4_



Select & create Mass floors



Create Mass schedule



The screenshot shows the Revit interface with the 'Mass Floor Schedule' table open. The table has columns for Level, Room Name, Area, and Volume. The table is filtered to show 'Mass Floor' elements. The 'Fields' dialog box is also open, showing the 'Scheduled fields (in order)'. The 'Mass Floor Schedule' table is highlighted in red.

Level	Room Name	Area	Volume
1	C4_1	1496.15 m ²	4488.45 m ³
1	C4_1	1496.15 m ²	4488.45 m ³
1	C4_1	1496.15 m ²	4488.45 m ³
1	C4_1	1496.15 m ²	4488.45 m ³
1	C4_1	1496.15 m ²	4488.45 m ³
1	C4_1	1496.15 m ²	4488.45 m ³
1	C4_1	1496.15 m ²	4488.45 m ³
1	C4_1	1496.15 m ²	4488.45 m ³
8	C4_1	11969.20 m ²	38908.86 m ³

The 'Fields' dialog box shows the 'Scheduled fields (in order)'. The fields are:

- Count
- Mass: Family
- Level
- Floor Area
- Floor Volume
- Mass: Comments
- Comments

Mass Floor Schedule

<Mass Floor Schedule>						
A	B	C	D	E	F	G
Count	Mass: Family	Level	Floor Area	Floor Volume	Mass: Comments	Comments
C4_1						
1	C4_1	01_V1	1496.15 m ²	4488.45 m ³		
1	C4_1	02_V2	1496.15 m ²	4488.45 m ³		
1	C4_1	03_V3	1496.15 m ²	4488.45 m ³		
1	C4_1	04_V4	1496.15 m ²	4488.45 m ³		
1	C4_1	05_V5	1496.15 m ²	4488.45 m ³		
1	C4_1	06_V6	1496.15 m ²	4488.45 m ³		
1	C4_1	06_V7	1496.15 m ²	4488.45 m ³		
1	C4_1	06_V8	1496.15 m ²	7489.73 m ³		
8			11969.20 m ²	38908.86 m ³		

...