

DESIGN / MODELLING / RENDERING

Slide 2: very 1st Revit model based on winning design, along w/ some rendering / modelling works using AutoCAD and 3DMax, ChongQing

Slide 3: computational design using Rhino/Grasshopper and Revit/Dynamo, Toronto

AutoCAD / ADT

Slide 4: AutoCAD drawing using ADT Project Navigator, mixed use, HOK, Hong Kong

Digital Project

Slide 5: Model / Material Takeoff / Design Issue (Clashing) report using Digital Project, mixed use, Gehry Technologies, Hong Kong

Revit

Slide 6: very 1st Revit project at DD, residential, HOK, Hong Kong

Slide 7: various Revit projects at Concept / SD / DD, mixed use / interior / hotel / office, HOK, Hong Kong

Slide 8: Revit project at SD, hotel, and emails support, along w/ Revit related forum discussion posts, HOK, Hong Kong

Slide 9-10: Revit project at CD, residential, Cedarglen Homes, Calgary

Slide 11: Revit project at CD, mixed use, Nemetz, Vancouver

Slide 12: Revit project at CD, office, along w/ some documentation of office Revit standards and best practice, Nemetz, Vancouver

Slide 13: Revit project at CD, residential / hotel, along w/ excerpt from CAADRIA paper of Revit CUI add-on tool, Ong & Ong, Singapore

Slide 14-15: Revit project at CD, office, BIAD, Beijing

Slide 16-17: Revit project at Concept / SD, mixed use, Memphis, Shanghai

Slide 18: Revit project at SD, arena, DSRA, Halifax

Slide 19: Revit research project for energy analysis, DSRA, Halifax

Slide 20: Revit project at CD, facility, Inviro, Toronto

Navisworks

Slide 21: Navisworks Project and Template for clashing detection at CD, office, BIAD, Beijing

BIM 360 / Forge Customization

Slide 22: BIM 360 training project w/ customized viewer via Forge, MTRC, Hong Kong

Customization in AutoCAD / Revit / Navisworks

Slide 23-24: AutoCAD programming using Lisp / VBA / VB.Net, HOK, Hong Kong

Slide 25-26: Revit programming using C#, Strucsoftsolutions, Montreal

Slide 27-28: Revit programming using C#, Cedarglen Homes, Calgary

Slide 29-30: web based DWF / database programming using C# / SQL, Cedarglen Homes, Calgary

Slide 31: Revit programming using C# / XML, Ong & Ong, Singapore

Slide 32: Navisworks programming using C#, BIAD, Beijing

Slide 33: Revit programming using Dynamo, BIAD, Beijing

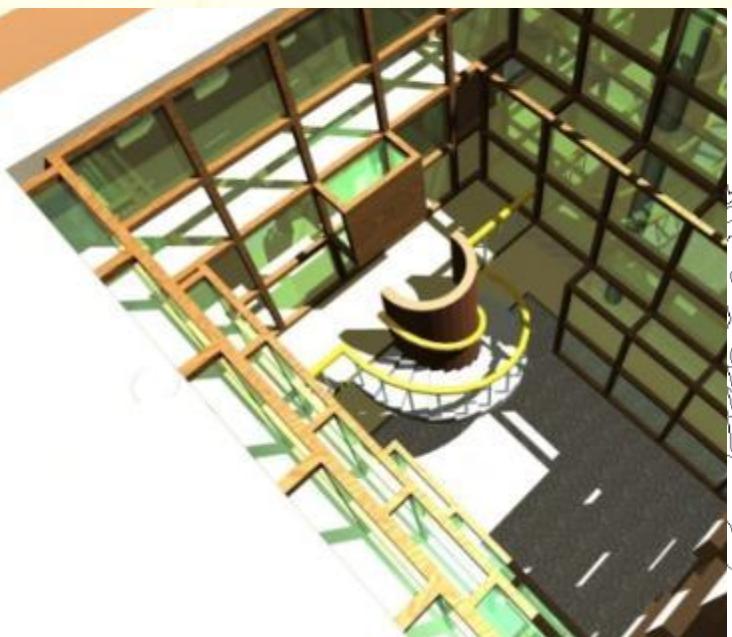
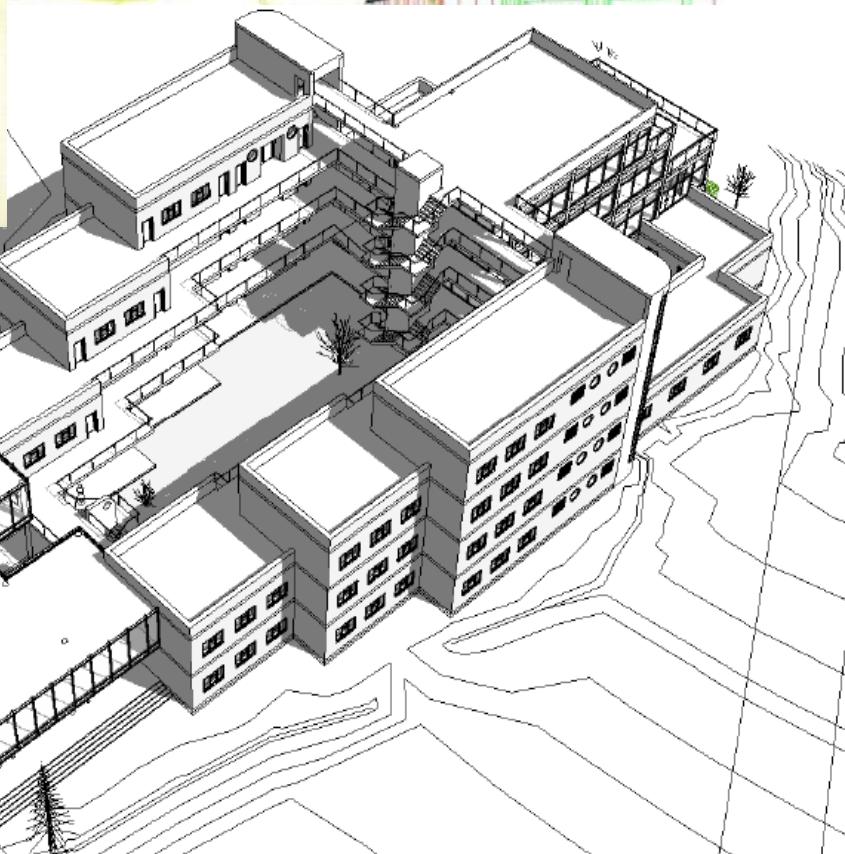
Slide 34: Revit programming using C#, DSRA, Halifax

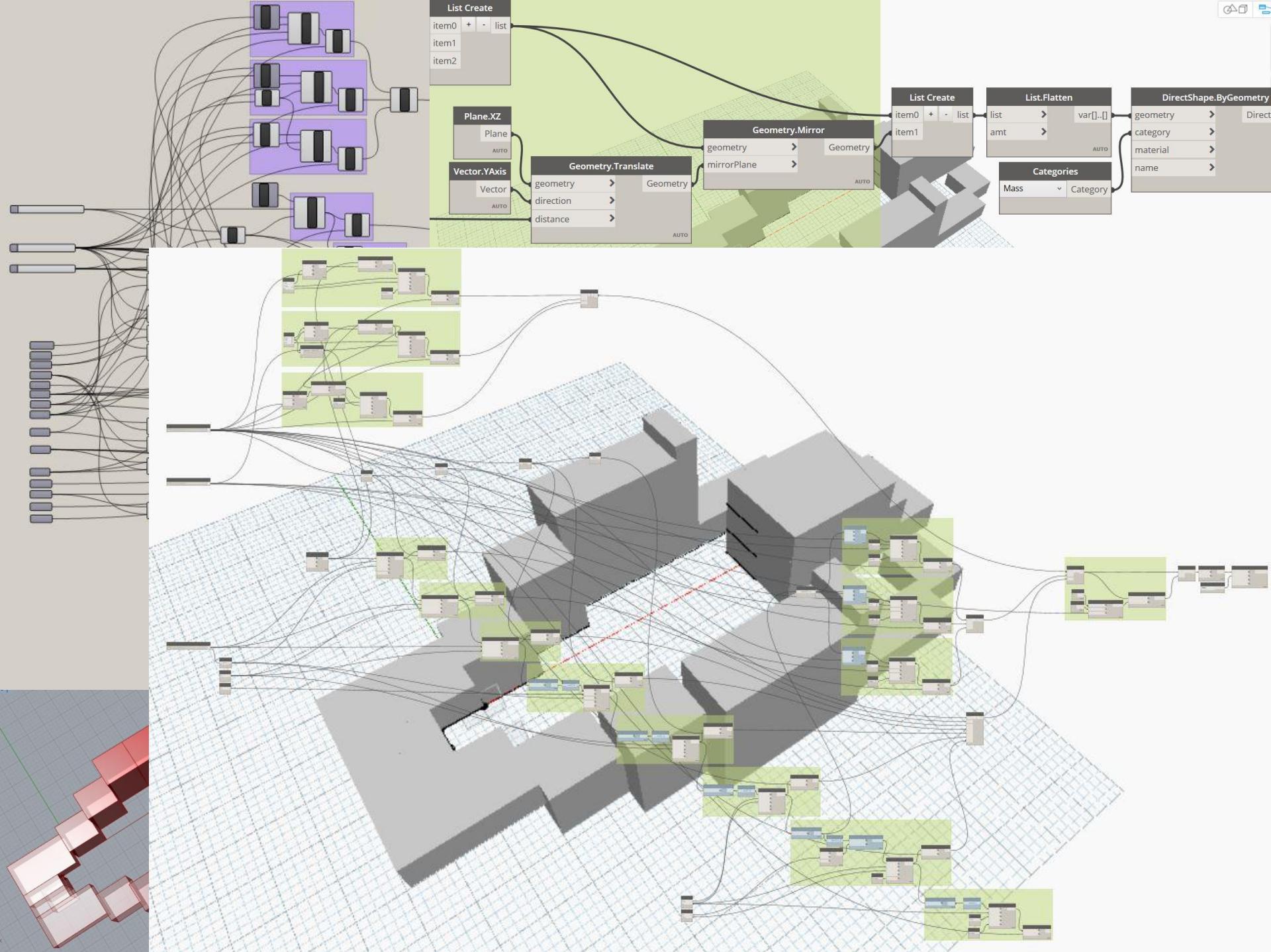
Slide 35: Revit programming using Dynamo / Python to create 3D rooms and select walls profile-edited, DSRA, Halifax

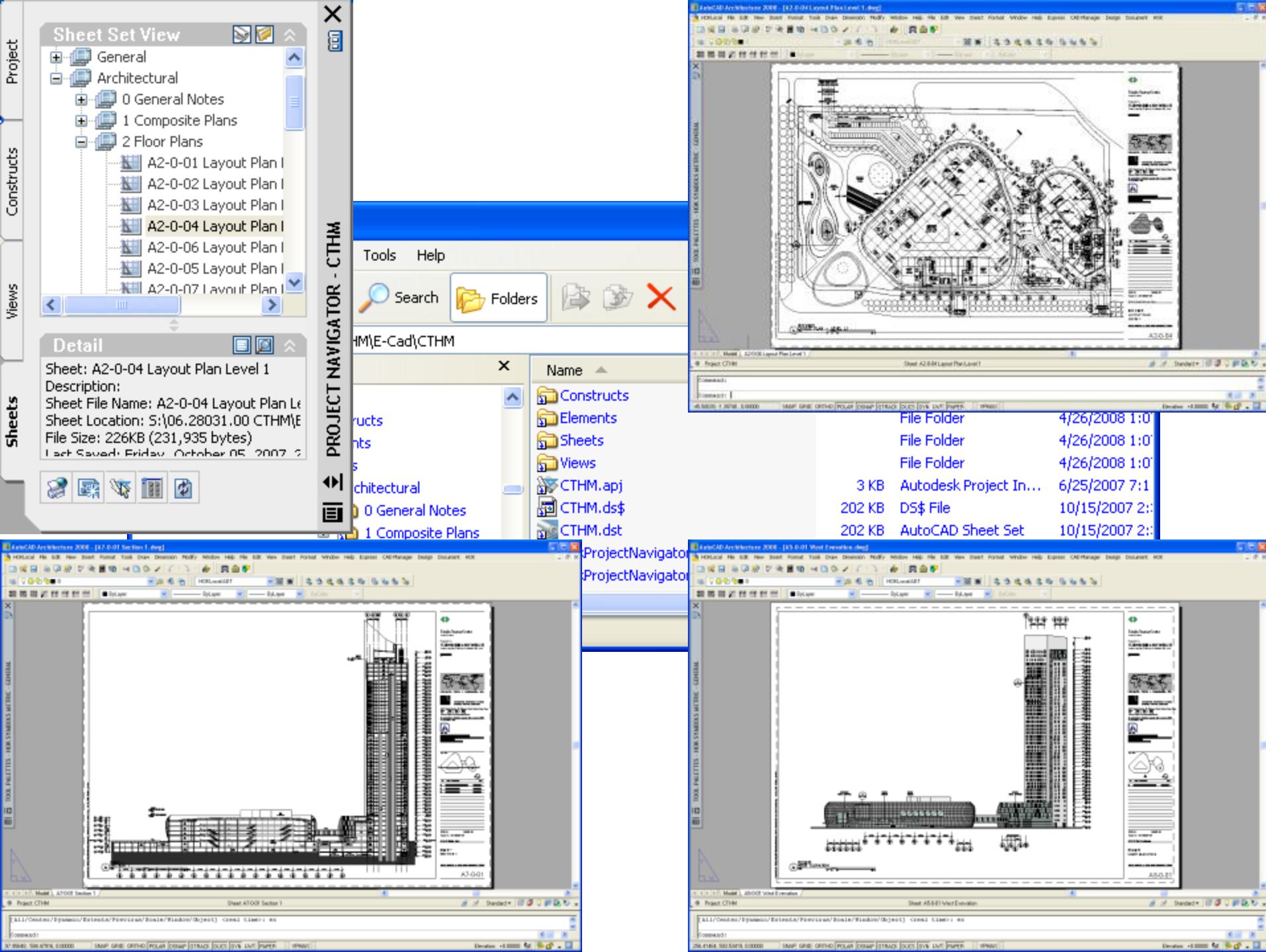
Slide 36: Navisworks API and Dynamo, MTRC, Hong Kong

周宁 重庆建筑工程学院建筑系

主要技术经济指标







太古汇项目的一些设计疑问 (Design Issue for TKH Project)

1) 柱截面尺寸比梁的宽度小 (column size less than beam width)

[T02 L05-L19 and L24-L28 beam width and column width 1.jpg](#)

[T02 L05-L19 and L24-L28 beam width and column width 2.jpg](#)

[Podium L3 beam width and column width.jpg](#)

2) 核心筒外形不同(different core profile)

[Hotel core and column.pdf](#)

3) 卫生间定位/移位 (washroom alignment/shift)

[T02 L05-L19 Washroom.jpg](#)

4) 梁在管道井的正下方 (beam directly under duct)

[T02 L05-L19 beam and duct 1.jpg](#)

[T02 L05-L19 beam and duct 2.jpg](#)

[T02 L05-L19 beam and duct 3.jpg](#)

5) 柱的尺寸与柱表不相符合(column size inconsistent with column table)

[Podium L2mz column size and table.pdf](#)

6) 结构高差造成一些设计疑问(structural level difference raises some design issues)

[Podium B4 level difference.pdf](#)

7) 建筑图与结构图不相符合 (a)

a) column in structural drawing

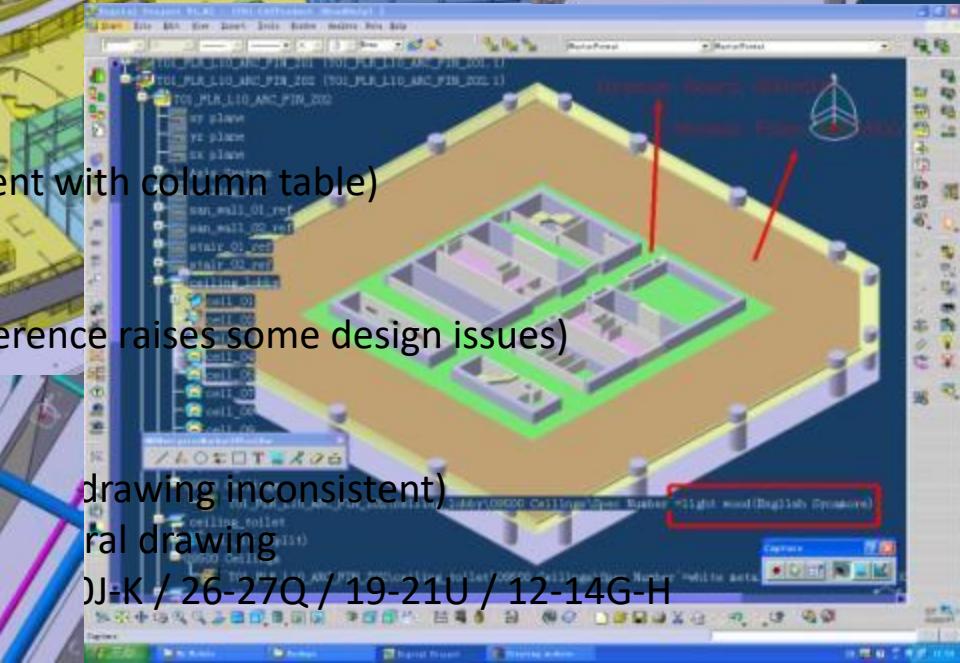
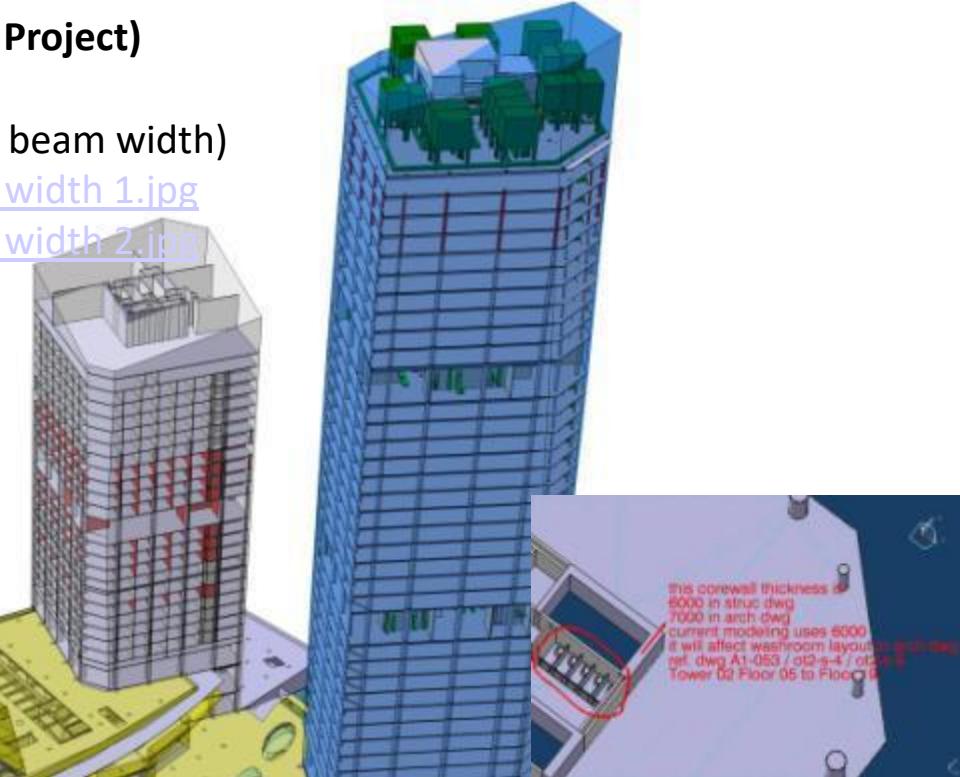
[Podium B4 at grid 4C / 11C](#)



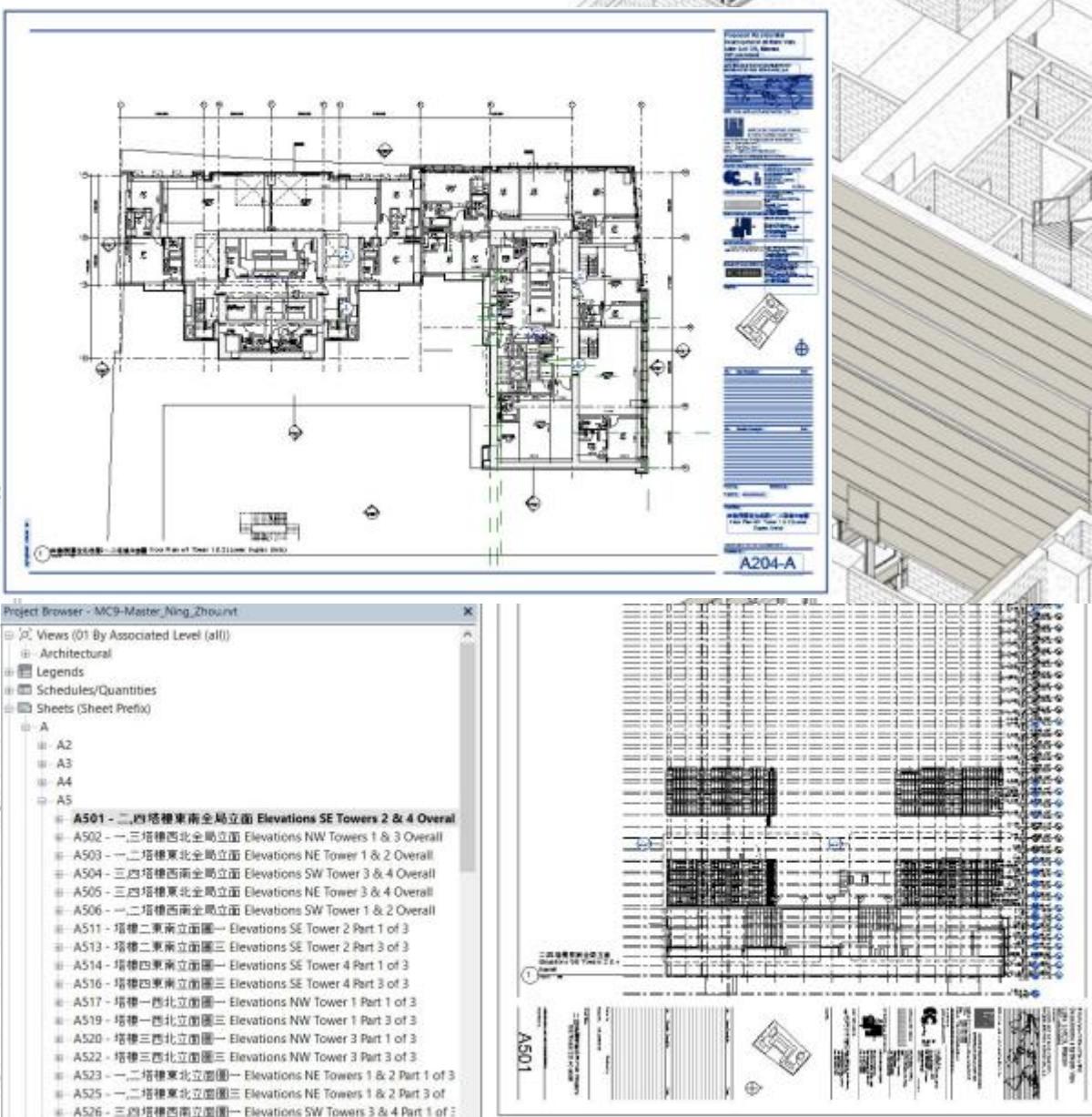
drawing inconsistent)

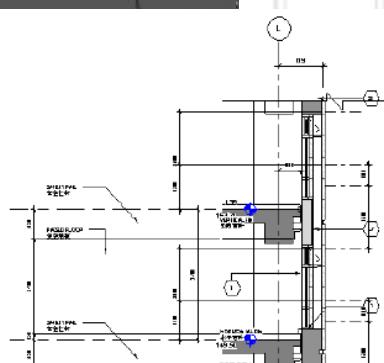
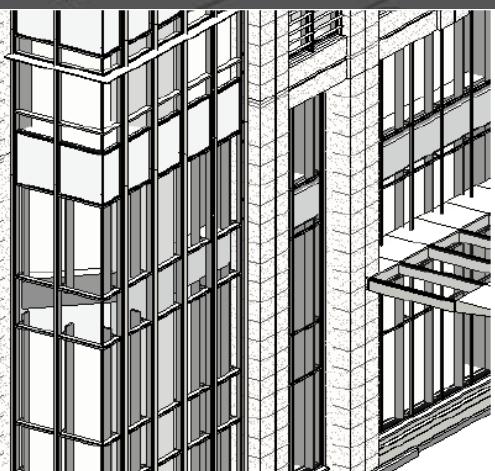
b) column in structural drawing

[J-K / 26-27Q / 19-21U / 12-14G-H](#)

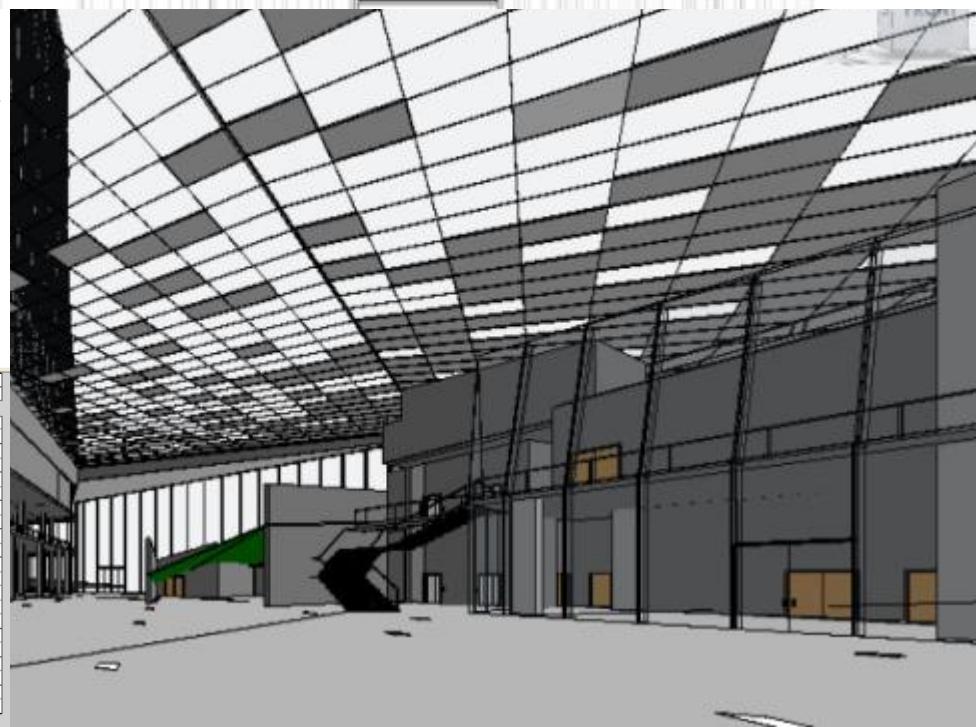
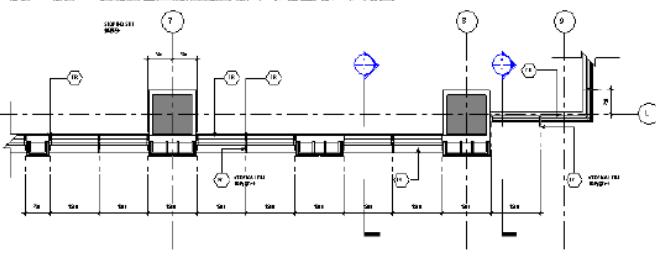


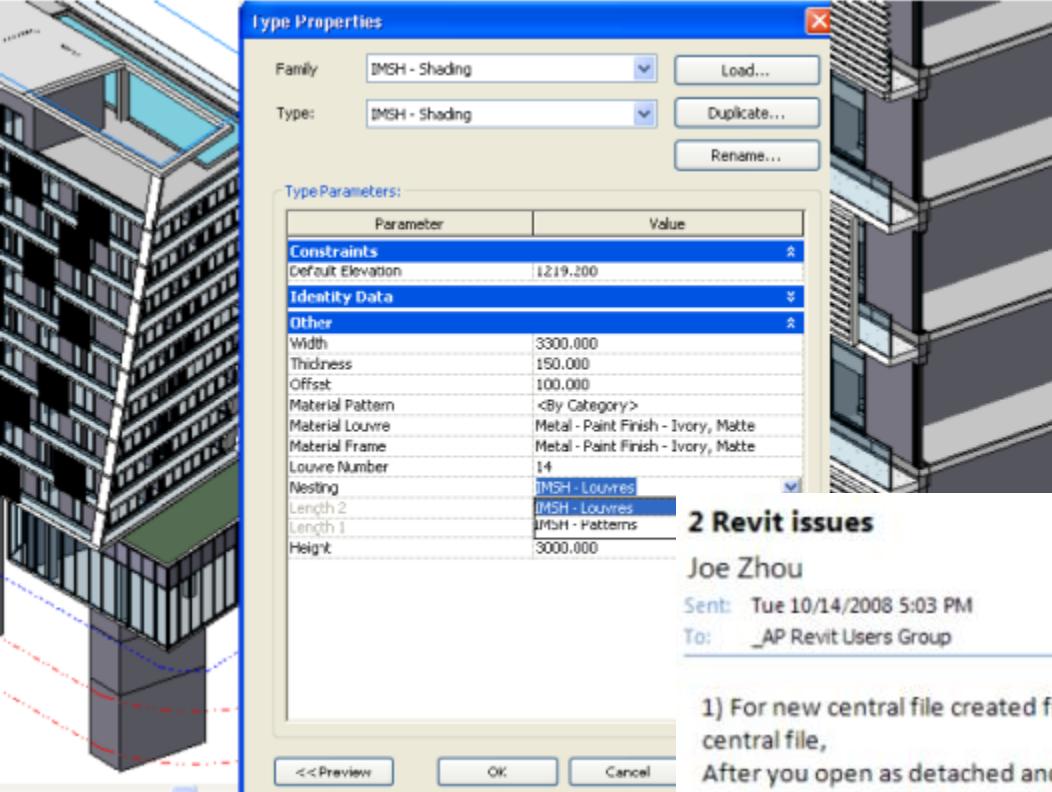
use ADT at first
switch to Revit
no more CAD!!!





CSHO - Glazing		Family	Count	Material	Name	Material	Area
CSHO - Glazing	164	Glass	1163.26 m ²				
CSHO - Glazing	2400	Glass	2655.2 m ²				
CSHO - Glazing	44	Glass	84.2 m ²				
CSHO - Glazing	820	Glass	1168.38 m ²				
CSHO - Glazing	44	Glass	71.91 m ²				
CSHO - Glazing	164	Glass	241.66 m ²				
CSHO - Glazing	3	Glass	8.23 m ²				
CSHO - Glazing	146	Glass	447.73 m ²				
CSHO - Glazing	15	Glass	85.94 m ²				
CSHO - Glazing	19	Glass	78.83 m ²				
CSHO - Glazing	3	Glass	15.37 m ²				
CSHO - Glazing	3100	Glass	116000 m ²				
CSHO - Glazing	3	Glass	15.99 m ²				
CSHO - Glazing	146	Glass	787.93 m ²				
CSHO - Glazing	6	Glass	33.95 m ²				
CSHO - Glazing	178	Glass	1210.9 m ²				
CSHO - Glazing	19	Glass	110.04 m ²				
CSHO - Glazing	15	Glass	123.91 m ²				
CSHO - Glazing	3	Glass	29.91 m ²				
CSHO - Glazing	30	Glass	265.27 m ²				
CSHO - Glazing	16	Glass	54.2 m ²				





Search:

Keyword(s): ning, zhou

Search:

- New Utility to get elements on a certain level
Started by sfraust, 2007-11-20 05:22 PM [1] [2] [3] [4] [5] [6]
- Void Cut Two Walls
Started by gdb, 2011-08-09 05:27 PM
- Key Schedule Parameter
Started by aaronrumpf, 2012-02-09 09:51 PM [1] [2]
- Printing Halftone Text Resolved
Started by mabrey, 2008-04-04 07:20 PM
- Interacting with Revit through a UserForm
Started by dangtrang37325793, 2011-04-29 01:44 PM [1] [2]
- Even or Odd Formula
Started by phyllisr, 2011-06-30 06:08 PM [1] [2]
- Moving linked model onto new workset
Started by Kunnsam, 2012-02-10 11:18 PM
- Schedule in mw heights

<http://forums.augi.com/search.php?searchid=840940>

<https://www.revitforum.org/search.php?searchid=1875283>



Search Results		Keywords: ning, zhou		Page 1 of 4 [1] [2] [3] [4] [5]		Search Index	
different conduit colors	Started by Ning Zhou, September 30th, 2011 12:07 AM [1] [2]	Replies: 19	Views: 5,208	Last Post: February 9th, 2012 04:03 PM [1]	by tset,3000	Focus: REV - General	
Separating the models and the drawings	Started by sander, February 4th, 2012 01:25 AM [1] [2]	Replies: 16	Views: 6,038	Last Post: February 8th, 2012 11:27 PM [1]	by Andrew F.	Focus: Architecture and General Revit Questions	
Revit Electrical Template	Started by Lennart, October 16th, 2011 05:51 PM [1] [2]	Replies: 43	Views: 5,267	Last Post: January 30th, 2012 06:06 PM [1]	by ccooper	Focus: REV - General	
modular join between curtain wall and sloped glazing	Started by Ning Zhou, January 10th, 2012 04:17 AM [1] [2]	Replies: 4	Views: 1,257	Last Post: January 13th, 2012 01:13 PM [1]	by Ning Zhou	Focus: Architecture and General Revit Questions	
Display of Grids and Louvers to 3D views	Started by Ning Zhou, March 26th, 2012 09:51 AM [1] [2]	Replies: 5	Views: 1,298	Last Post: December 8th, 2012 03:03 PM [1]	by rupac,syspro	Focus: Architecture and General Revit Questions	
DEM 3D User	Started by Cys, September 18th, 2012 10:40 AM [1] [2]	Replies: 14	Views: 4,237	Last Post: August 19th, 2012 03:28 PM [1]	by tset,3000	Focus: Coordination Tools	
Cuts cutouts show up through linked views?	Started by ronhomed, February 24th, 2012 11:00 PM [1] [2]	Replies: 13	Views: 8,728	Last Post: August 2nd, 2012 06:37 PM [1]	by apjwadekar	Focus: Architecture and General Revit Questions	
Revit Model update from 2012 to 2018	Started by ericgarcia, July 6th, 2012 05:51 PM [1] [2]	Replies: 2	Views: 1,032	Last Post: July 7th, 2012 02:58 PM [1]	by ericgarcia	Focus: Architecture and General Revit Questions	
Revit 2018	Started by Dzheres, April 16th, 2015 11:28 PM [1] [2]	Replies: 78	Views: 16,418	Last Post: May 29th, 2015 01:55 AM [1]	by Ning Zhou	Focus: Out There	
Sticky: Building a Revit Template		Replies: 185	Views: 1,130	Last Post: May 13th, 2015 08:39 PM [1]	by Ning Zhou	Focus: Out There	

2 Revit issues

Joe Zhou

Sent: Tue 10/14/2008 5:03 PM

To: _AP Revit Users Group

1) For new central file created from template central file,

After you open as detached and save as to new location, you have to do "Save To Central" once in order to relinquish all worksets you just owned, updated "readme.txt" at V:\RAC2009\HOKLocal Template\

2) since quite a few projects at Concept stage is using Revit now, design option is one of the favorable Revit tools to use along w/ area schedule, etc., the following tip is for your info., Always create empty design option as one of the design options for each design option set, it can be very useful in checking and visibility control

Thanks

Joe Zhou
CAD Manager

Revit performance issue

Joe Zhou

Sent: Wed 10/15/2008 6:11 PM

To: Yee Kim; Mabel Wang; Rita Jin

Cc: _AP Revit Users Group

A few notes on Revit performance issue,

1) increase paging file size

2) enable 3GB switch

The above task needs to be done using computer's local administrator right, if your local IT is not available, then let me know

3) clean up temp files

4) unload unneeded linked/imported AutoCAD drawings

5) close hidden or unneeded windows

6) purge unused families

7) restart Revit or computer sometimes, my recommendation is to restart computer before you go for lunch

8) ...

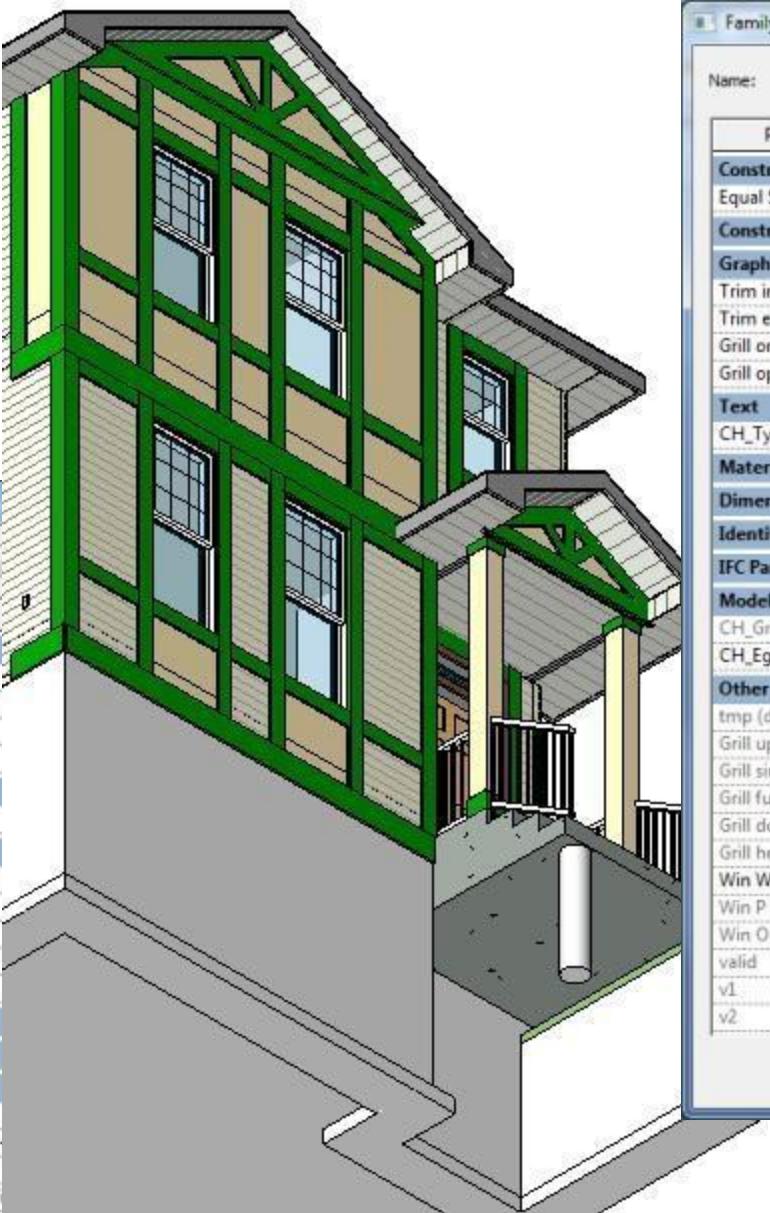
Joe Zhou
CAD Manager

Family Types

Name: default

Parameter	Value
Graphics	
Solid Fill (default)	<input checked="" type="checkbox"/> =
Batten Top	<input checked="" type="checkbox"/> =
Batten Middle	<input checked="" type="checkbox"/> =
Batten Bottom	<input checked="" type="checkbox"/> =
Text	
CH_Type (defau	CH_Batte =
Materials and Finishes	
Material Lower	<By C =
Material OSB	<By C =
Material Post	<By C =
Material Upper	<By C =
Material Batten	<By C =
Dimensions	
Identity Data	
Other	
tmp4	0' 4" =
tmp3	0' 4" = Width1 Post * 1.5
tmp2	0' 1" = Width1 Post / 2
tmp1	3' 11" = if(Batten Bottom,
Offset Top	0' 4" = if(Batten Top, Heig
Offset Middle	0' 6" = if(Batten Middle, H
Offset Bottom	0' 8" = if(Batten Bottom, H
OBU	0' 0 3/8" = Width Batten - Wi
Max Post	0' 6" = if(Width2 Post > V

OK Cancel Apply Help



Family Types

Name: 24" x 48"

Parameter	Value	Formula
Constraints		
Equal Split	<input checked="" type="checkbox"/>	=
Construction		
Graphics		
Trim interior on (defa	<input type="checkbox"/>	=
Trim exterior on (defa	<input type="checkbox"/>	=
Grill on (default)	<input type="checkbox"/>	=
Grill options (default)	5	=
Text		
CH_Type		=
Materials and Finishes		
Dimensions		
Identity Data		
IFC Parameters		
Model Properties		
CH_Grill (default)	<input type="checkbox"/>	= Grill on
CH_Egress	<input checked="" type="checkbox"/>	=
Other		
tmp (default)	<input type="checkbox"/>	= or(Grill full, Grill upper full)
Grill upper full (defau	<input type="checkbox"/>	= and(Grill options = 5, Grill on)
Grill single ladder (de	<input type="checkbox"/>	= and(Grill options = 4, Grill on)
Grill full (default)	<input type="checkbox"/>	= and(Grill options = 1, Grill on)
Grill double ladder (d	<input type="checkbox"/>	= and(Grill options = 2, Grill on)
Grill heritage (default)	<input type="checkbox"/>	= and(Grill options = 3, Grill on)
Win Width	1' 10 1	= Width - 0' 0 3/4" * 2
Win P Height	2' 0 1/	= if(Equal Split, Height / 2 - 0' 0 3/
Win O Height	2' 0 1/	= if(Equal Split, Height / 2 - 0' 0 3/
valid	<input checked="" type="checkbox"/>	= and(v1, v2)
v1	<input checked="" type="checkbox"/>	= and(Win O Height > 0' 10 101/12
v2	<input checked="" type="checkbox"/>	= if(Win O Height < 3' 3 95/256", 1

OK Cancel Apply Help

Family Types

Name:

Parameter	Value	Formula
Siding on/off (default)	<input checked="" type="checkbox"/>	=
Batten Top Corner Angle 2 (defa)	0.000°	=
Batten Top Corner Angle 1 (defa)	0.000°	=
Batten Top (default)	<input checked="" type="checkbox"/>	=
Batten Bottom Corner Angle 2 (d)	0.000°	=
Batten Bottom Corner Angle 1 (d)	0.000°	=
Batten Bottom (default)	<input checked="" type="checkbox"/>	=

Text

CH_Type (default) CH_Batt=

Materials and Finishes

M3 (default) <By =

M2 (default) <By =

ML (default) <By =

Dimensions

W (default) 0' 4" =

T3 (default) 0' 0 1/4" =

T2 (default) 0' 1" =

T1 (default) 0' 1" =

Slope (default) 0.50000 =

Offset (default) 2' 0" =

H (default) 2' 0" =

Cutoff (default) 1' 0" =

Identity Data

Other

L (default) 4' 0" =

A (default) 26.565° =

OK **Cancel**



CH_Type	Family and Type	CH_Width	Count	CH_Length	Rounding-Up Length
CH_Battens Column	CH_Batten: Edge based	4"	8	5' - 2"	8' - 0"
CH_Battens Column	CH_Batten: Edge based	8"	8	5' - 2"	8' - 0"
CH_Battens Column: 16				10' - 4"	16' - 0"
CH_Battens Gable	CH_Batten face based: default	4"	6	9' - 4"	12' - 0"
CH_Battens Gable	CH_Batten face based: default	6"	2	4' - 6"	6' - 0"
CH_Battens Gable	CH_Batten line based: edge	6"	6	39' - 0"	41' - 0"
CH_Battens Gable: 14				52' - 10"	59' - 0"

CH_Battens Wall	CH_Batten face based: default	6"	34	154' - 7 1/2"	178' - 0"
CH_Battens Wall	CH_Batten face based: default	10"	1	14' - 1"	15' - 0"
CH_Battens Wall	CH_Batten line based: edge	6"	10	81' - 7 1/2"	90' - 0"
CH_Battens Wall	CH_Batten line based: edge	8"	1	3' - 6"	4' - 0"
CH_Battens Wall	CH_Batten line based: edge	10"	3	17' - 1"	20' - 0"

CH_Battens Wall: 49

Grand total: 79

Material: Name	Material: Area	Rounding-Up Area
CH_Ext Cladding_Eng Wood Panel	21.33 SF	22.00 SF
CH_Ext Cladding_Eng Wood Panel	21.33 SF	22.00 SF
Column: 2	42.65 SF	44.00 SF
CH_Ext Cladding_Eng Wood Panel	5.79 SF	6.00 SF
CH_Ext Cladding_Eng Wood Panel	1.96 SF	2.00 SF
Gable: 2	7.75 SF	8.00 SF
CH_Ext Cladding_Eng Wood Panel	8.89 SF	9.00 SF
CH_Ext Cladding_Eng Wood Panel	77.81 SF	78.00 SF
CH_Ext Cladding_Eng Wood Panel	3.13 SF	4.00 SF
CH_Ext Cladding_Eng Wood Panel	5.33 SF	6.00 SF
Wall: 4	95.15 SF	97.00 SF
CH_Ext Cladding_Eng Wood Panel	145.55 SF	149.00 SF
CH_Ext Cladding_Vinyl	646.05 SF	647.00 SF
CH_Ext Cladding_Vinyl	48.16 SF	49.00 SF
CH_Ext Cladding_Vinyl	34.74 SF	35.00 SF
CH_Ext Cladding_Vinyl	16.05 SF	17.00 SF
CH_Ext Cladding_Vinyl	13.45 SF	14.00 SF
CH_Ext Cladding_Vinyl	331.34 SF	332.00 SF
CH_Ext Cladding_Vinyl	664.26 SF	665.00 SF
Wall: 7	1754.04 SF	1759.00 SF
CH_Ext Cladding_Vinyl	1754.04 SF	1759.00 SF

PERKINS
+WILL

PCI

MARINE
GATEWAY

400 8th Marine Drive
Vancouver British Columbia

PCI
Developments
Corp.

NETTIE GALLA
+ ASSOCIATES LTD.
GENERAL CONTRACTORS
GENERAL CONSTRUCTION
GENERAL CONTRACTING
GENERAL BUILDING
GENERAL CONSTRUCTION
GENERAL CONTRACTOR

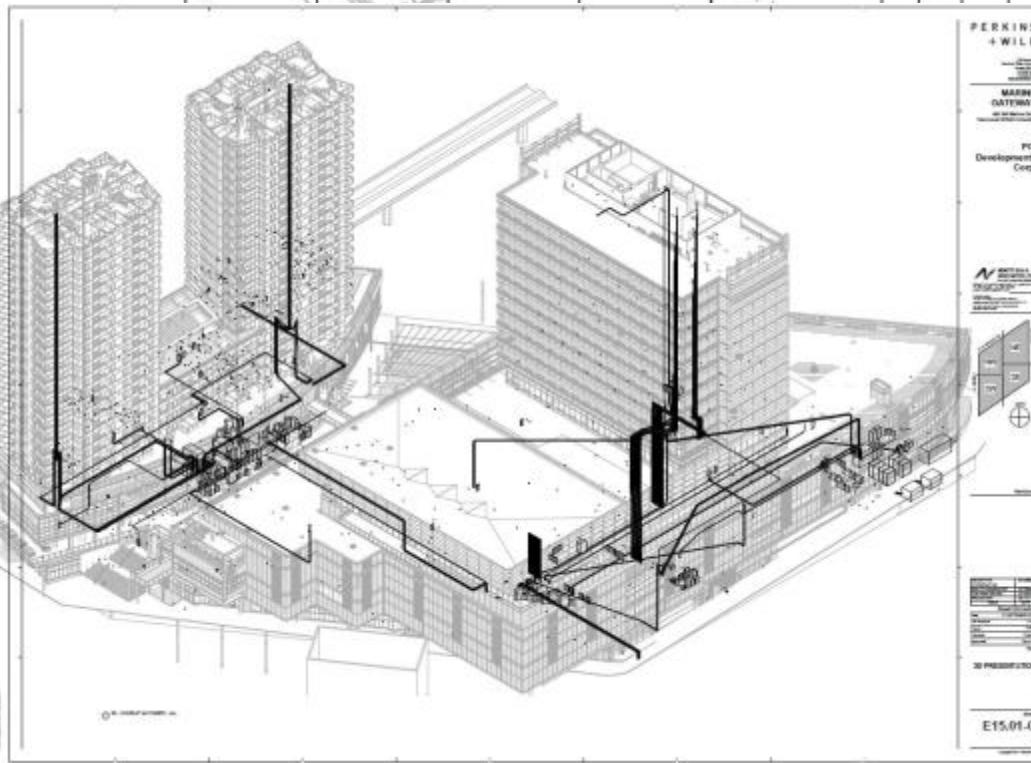
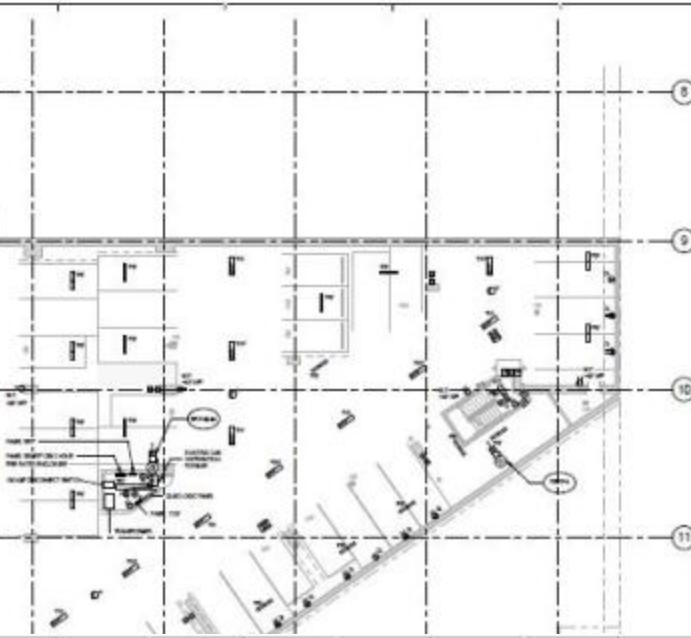
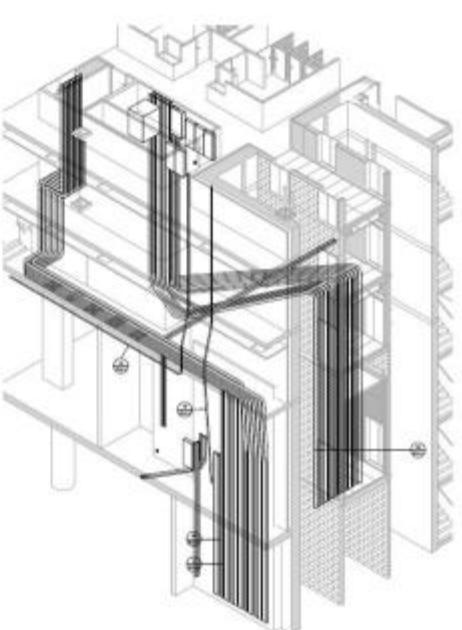
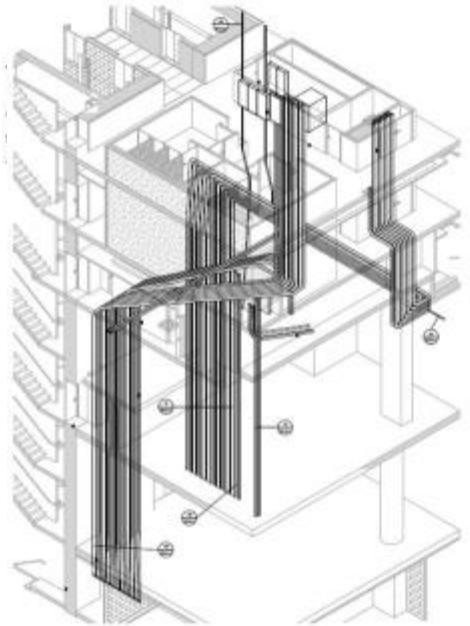


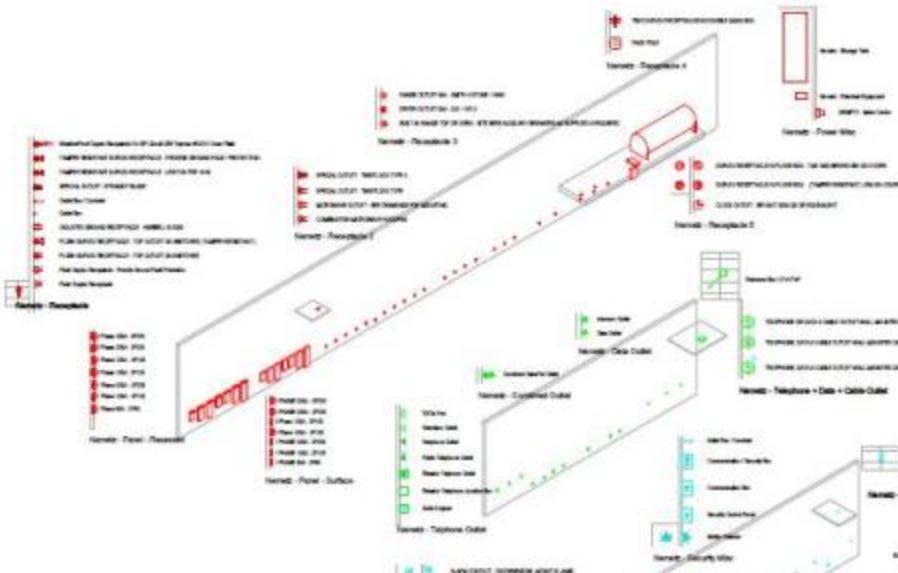
PERKINS
+WILL

MARINE
GATEWAY

PCI
Developments
Corp.

NETTIE GALLA
+ ASSOCIATES LTD.
GENERAL CONTRACTORS
GENERAL CONSTRUCTION
GENERAL CONTRACTING
GENERAL BUILDING
GENERAL CONSTRUCTION
GENERAL CONTRACTOR





Nemetz Revit Questions and Answers

drafted on May 30, 2011

May 2011

1) Q: Estella Chan and many others asked about the proper linkage procedure

A: short demo has been provided, and related document at H:\Nemetz - REVIT MEP - Standards and Families\REVIT - Documentation\Nemetz - Procedure to link other discipline models

2) Q: Delfin Maranan raised the question of modeling irregular "cover" for certain equipments which cannot be modeled as one single piece element using standard wall / ceiling / etc. tools

A: use In-Place modeling tool, go to Home -> Component -> Model In-Place, you can choose any appropriate category like wall / ceiling / etc., use it as last option because it's not recommended

3) Q: Ben Yip asked about how to set up Snap

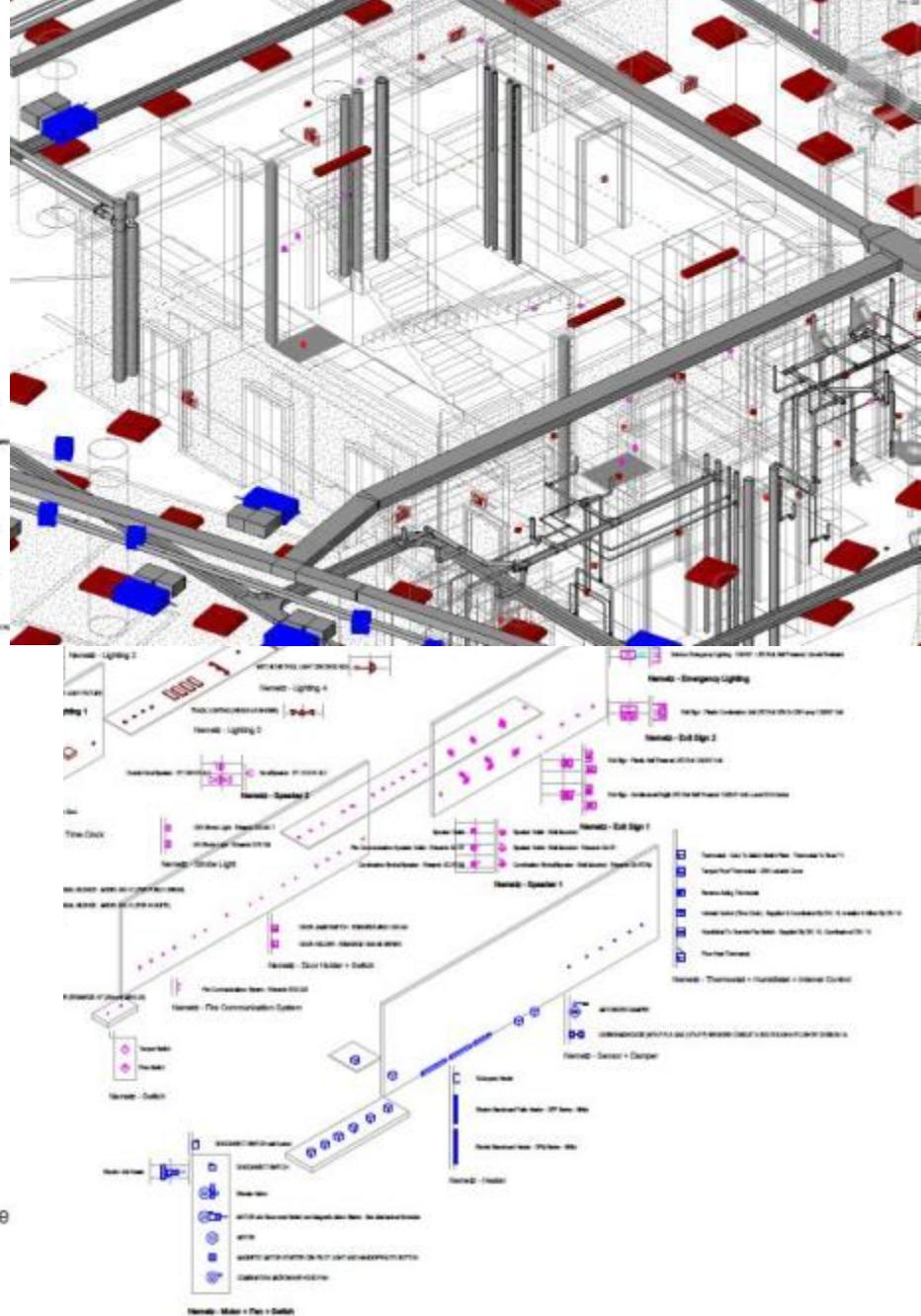
A: go to Manage -> Snaps

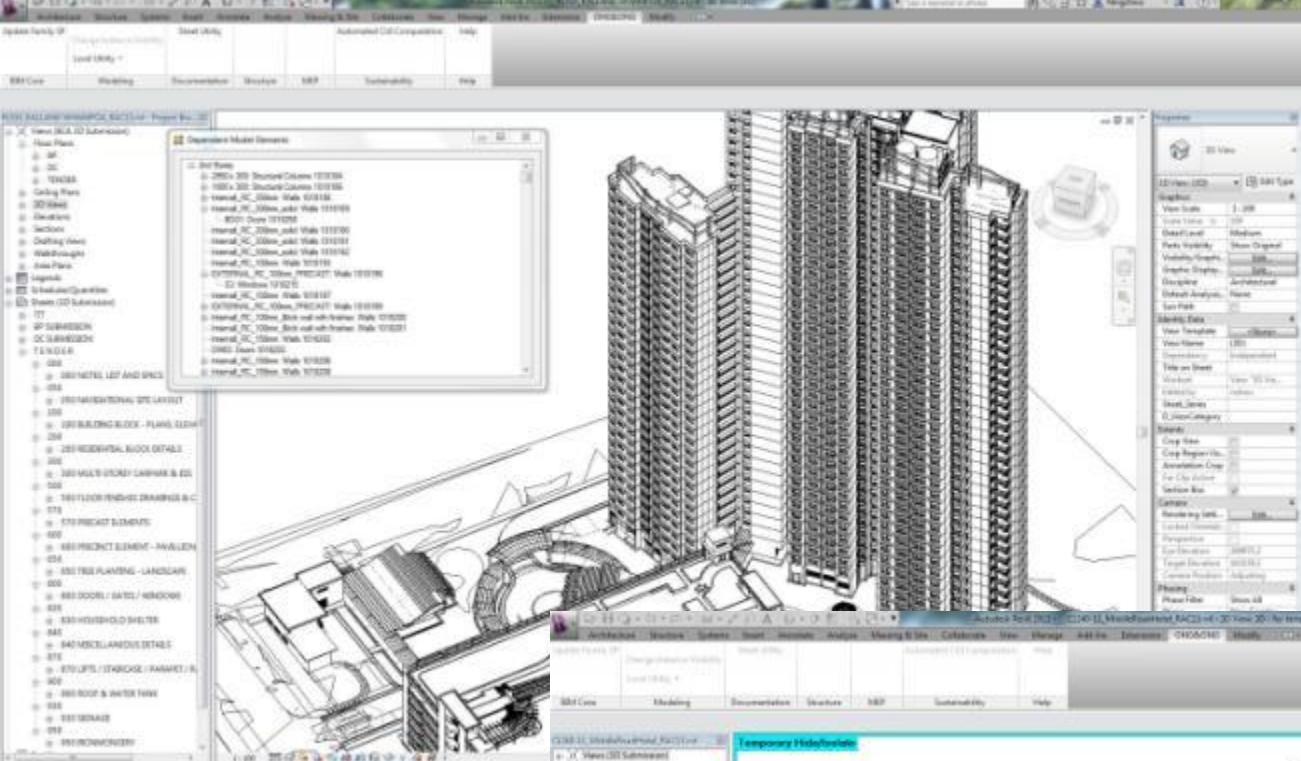
4) Q: Delfin Maranan mentioned that he has trouble to select certain elements in Revit model

A: it's because Design Option has been used in Revit model, in order to select it, you have to uncheck "Exclude Options" at low bottom of screen

5) Q: Peter Tolentino asked if we can convert AutoCAD titleblock into Revit titleblock

A: yes, it can but will take time to make it right like line weight and text style / size, to my best knowledge, architect will provide us w/ their Revit titleblock so we won't have to create our own, if you do want to create one for temporary use, then simply import AutoCAD titleblock into blank new Revit titleblock



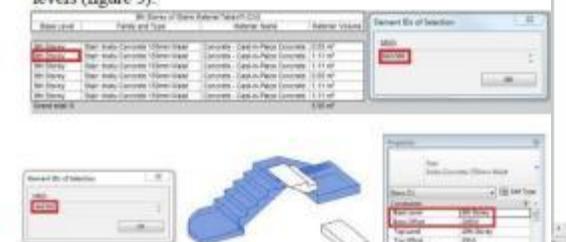


2. Vertical element that spans across multiple levels will not be reported correctly. As per figure 2, a wall spanning from 1st storey up to 3rd storey. This will create a potential error whereby the report will show wall on level 1 only but not on level 2 and level 3.



Figure 2.

3. User may manipulate the level setting by using 'base offset' feature in order to adjust the position of the object. This will create inaccuracy in the report hence some objects may be reported on different levels (figure 3).



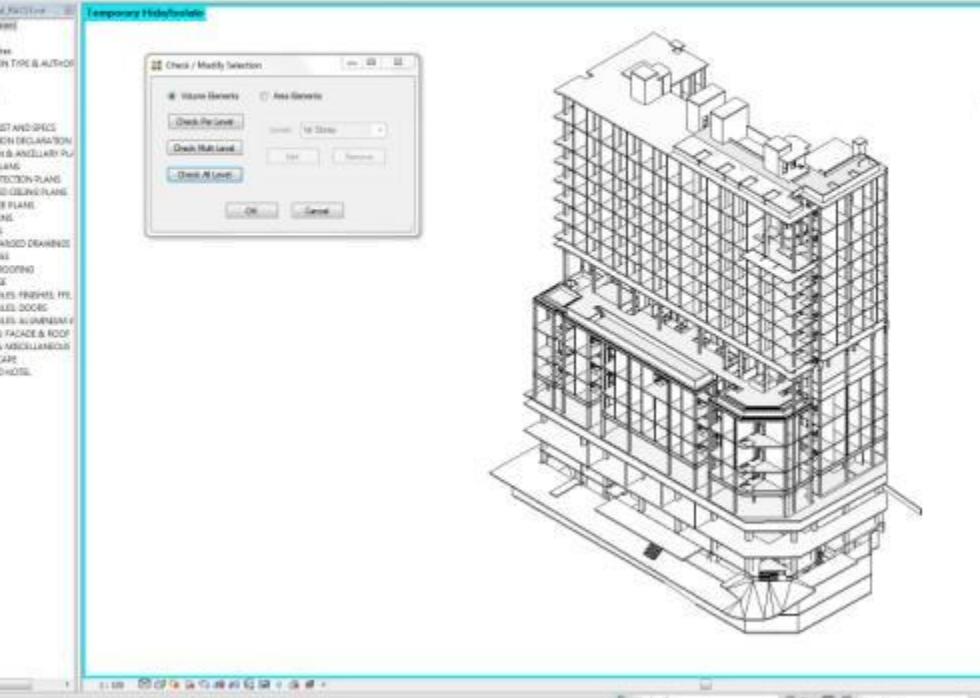
4.3. COMPARISON BETWEEN MATERIAL TAKE-OFF AND CUI ADD-ON TOOL

We have done some studies on a real project and can provide a comparison between Material Take-off schedule and our CUI Add-on tool. As shown in Table 1, we can summarise our experiment as follows:

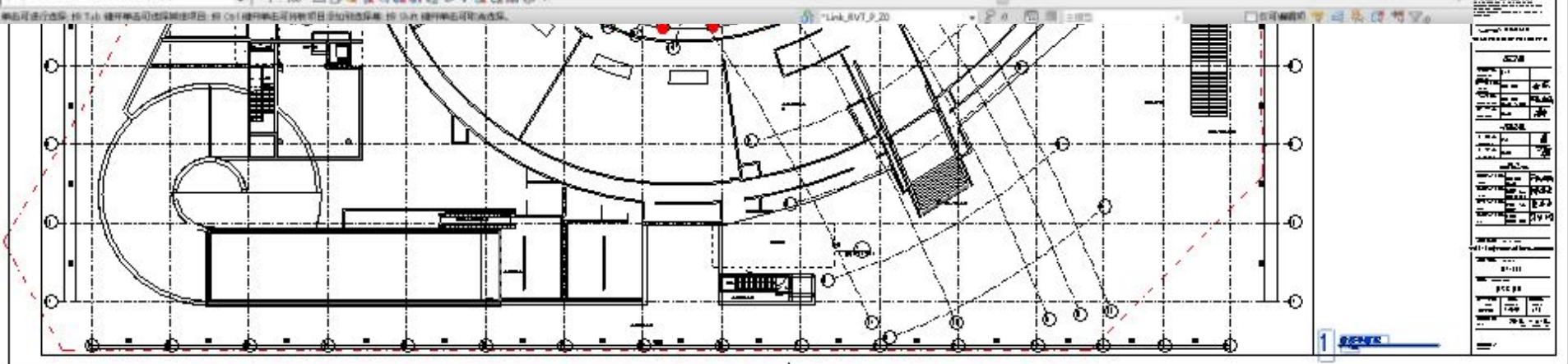
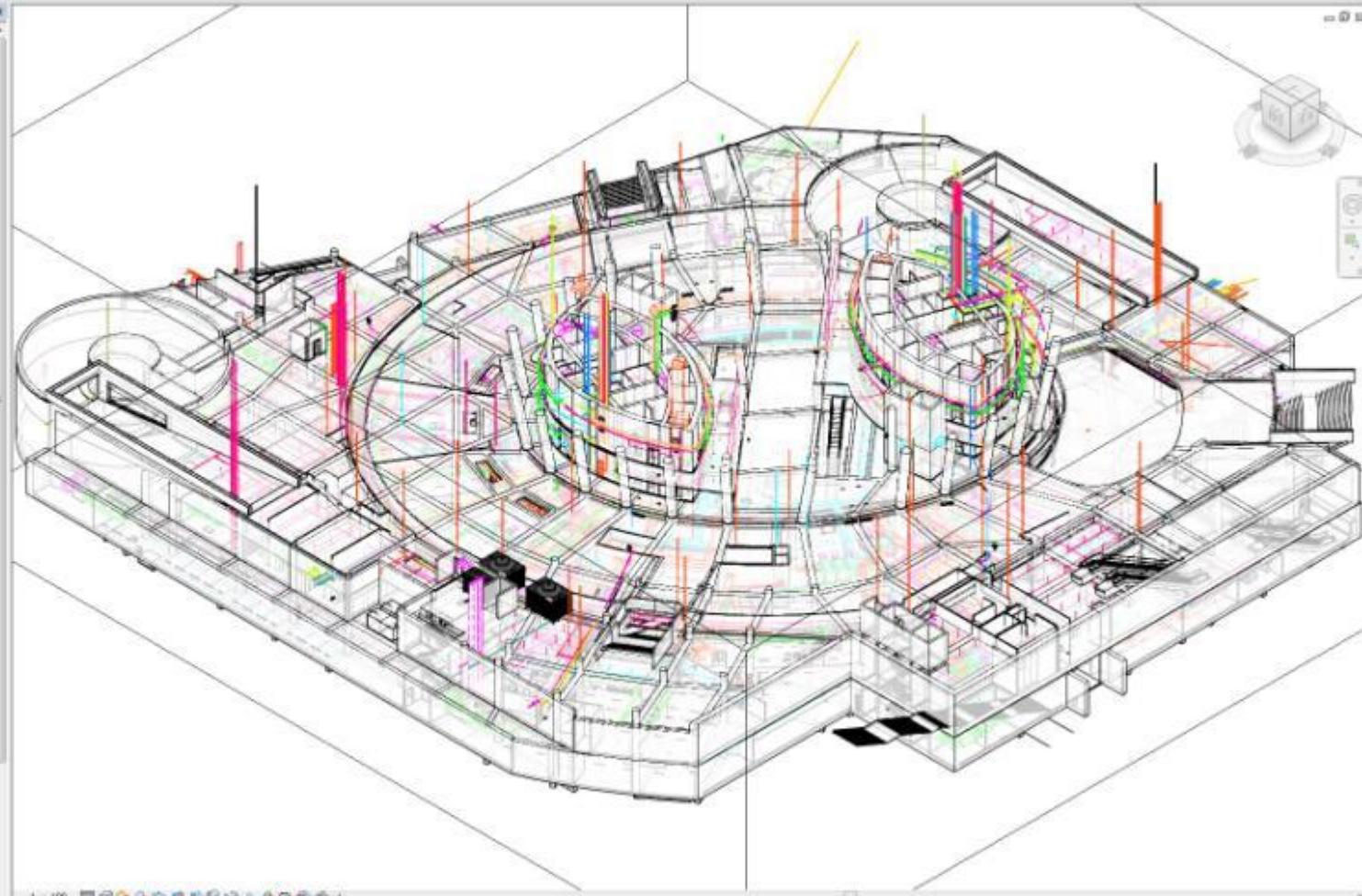
- There are some columns which were positioned on nearby levels which did not get picked up by Material Take-off schedule. With CUI add-on tool all columns within the range of '1st storey' level will be included.
- Material Take-off did not include some beams although those should have been included as part of '1st storey' level.
- Similar to beams, the same issue applied to slabs
- Some stairs located in between levels were not included in material take-off. CUI add-on tools picked up all stairs within '1st storey' level.
- Some walls spanned across multiple levels, but Material Take-off schedule will not be able to separate them level by level, hence they were included in '1st storey' level.

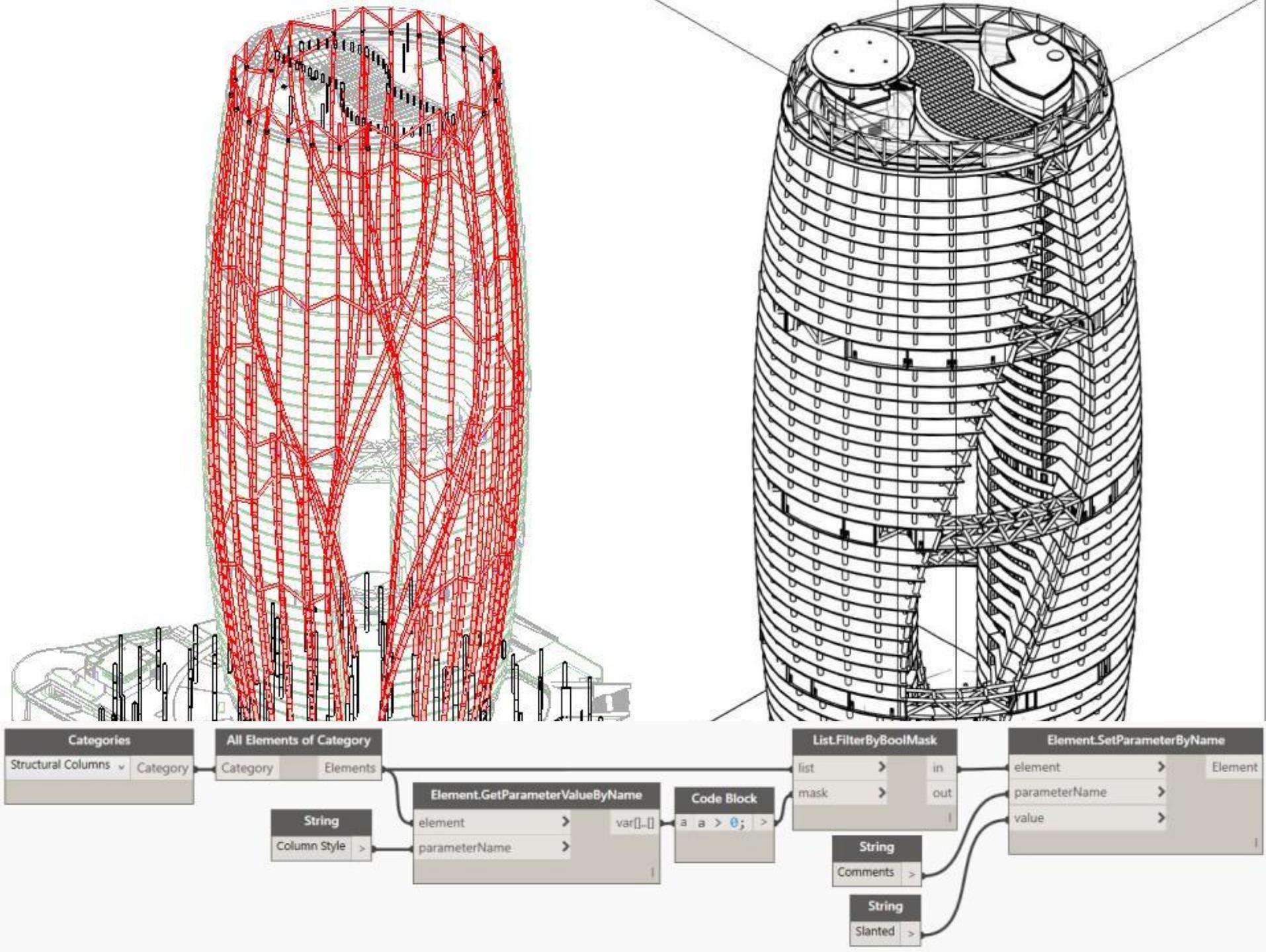
Table 1.

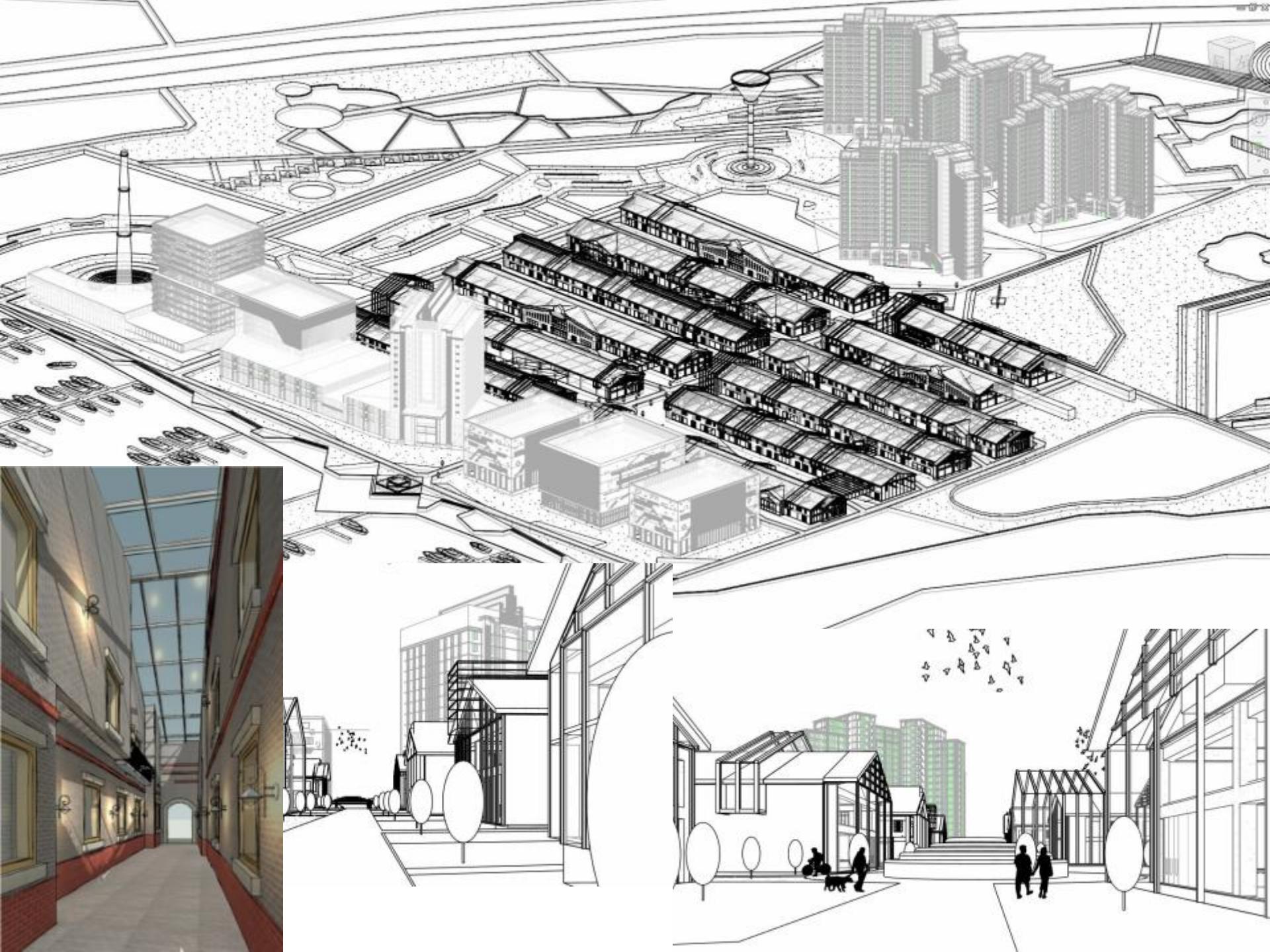
1 st Storey	Using Material Take-Off Schedule	Using CUI Add-on tool
Columns	16.12	46.92
Beams	555.15	594.57
Slabs	117.01	478.43
Staircases	17.01	22.49
Loadbearing walls	167.7	107.71
Subtotal Volume	\$73	1250.14
Subtotal Areas	566	899.76

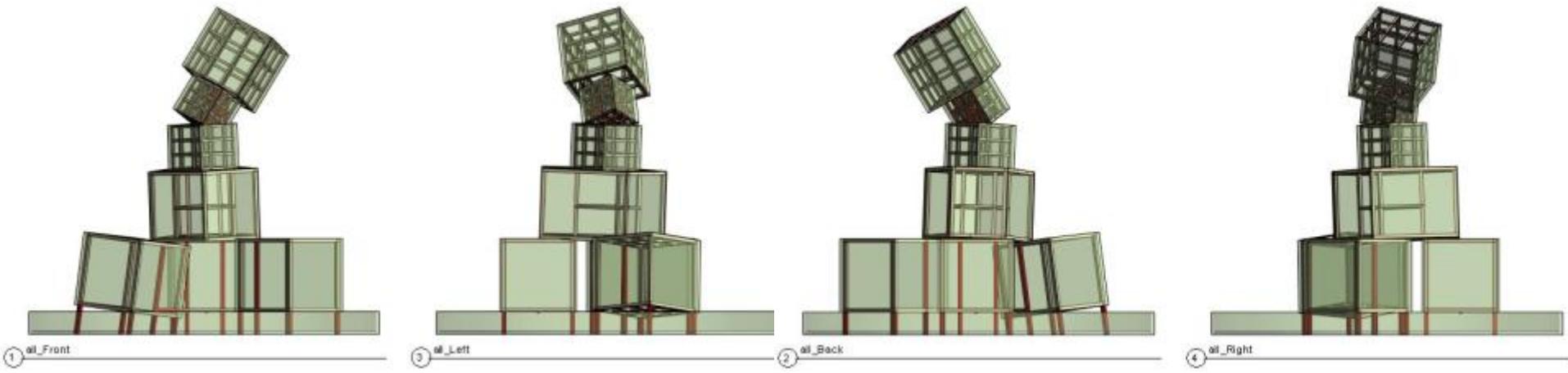


- ⑤ 地下室(土建)
- ⑥ 地下室
- ⑦ 地下车库,设备
- ⑧ 地下车库(土建)
 - ⑨ A-05-001 - 地下一层平面图及柱柱位图
 - ⑩ A-05-002 - 地下二层平面图及柱柱位图
 - ⑪ A-05-101 - 带首层梁柱位图及柱柱位图
 - ⑫ A-05-201 - 带首层梁柱位图
 - ⑬ A-07-001 - 地下一层车库及柱柱位图
 - ⑭ A-07-001M - 地下一层车库及柱柱位图
 - ⑮ A-07-101 - 带首层梁柱位图
 - ⑯ A-08-001 - 地下一层配电及柱柱位图
 - ⑰ A-08-002 - 地下一层水泵房及泵房柱柱位图
 - ⑱ A-10-001 - 地下一层平面图
 - ⑲ A-10-001M - 地下一层车库平面图
 - ⑳ A-10-002 - 地下二层平面图
 - ㉑ A-10-101 - 首层平面图
 - ㉒ A-10-102 - 二层平面图
 - ㉓ A-30-001-A - 地下一层核心筒平面图
 - ㉔ A-30-001-B - 地下一层核心筒平面图
 - ㉕ A-30-002-A - 地下二层核心筒平面图
 - ㉖ A-30-002-B - 地下二层核心筒平面图
 - ㉗ A-30-101-A - 地面核心筒平面图
 - ㉘ A-30-101-B - 地面核心筒平面图
 - ㉙ A-30-102-A - 地二层核心筒平面图
 - ㉚ A-30-102-B - 地二层核心筒平面图
 - ㉛ A-31-011 - L-P31/02/03/04/B/E/南墙剖面图
 - ㉜ A-31-021 - L-P31/05/06/07/08/A/B/东墙剖面图
 - ㉝ A-32-000 - 地下室采光井
 - ㉞ A-32-121 - 5-12号楼平面图
 - ㉟ A-32-151 - 5-15号楼平面图
 - ㉠ A-32-411 - 5-43号楼平面图
 - ㉡ A-32-421 - 5-42号楼平面图
 - ㉢ A-34-011 - E-F31/02/03/04/北墙剖面图
 - ㉣ A-34-021 - E-F31/04/05/06/07/08/北墙剖面图
 - ㉤ A-34-031 - E-F31/06/07/08/北墙剖面图
 - ㉥ A-34-041 - E-F31/07/08/北墙剖面图
 - ㉦ A-34-051 - E-F31/08/09/北墙剖面图
 - ㉧ A-34-061 - E-11号楼楼梯平面图
 - ㉨ A-35-000 - 汽车库平面图
 - ㉩ A-35-101 - R-01储油罐大坪图1
 - ㉪ A-35-102 - R-01储油罐大坪图2
 - ㉫ A-35-103 - R-01储油罐大坪图3
 - ㉬ A-35-201 - R-02储油罐大坪图1
 - ㉭ A-35-202 - R-02储油罐大坪图2
 - ㉮ A-35-203 - R-02储油罐大坪图3
 - ㉯ A-36-021 - R-02自行车棚及木栏杆
 - ㉰ A-43-001 - 门禁表
 - ㉱ A-92-001 - 地下一层防火分区图
 - ㉲ A-92-001M - 地下一层防火分区及分层图
 - ㉳ A-92-002 - 地下二层防火分区图









Temporary Hide/Isolate

Parameter

Parameter	Value	Formula
p5_Y	23.400	=
p5_Z	6702.736	=
p5a_Angle	60.000°	=
p5a_Angle	22.000°	=
p5c_Angle	23.000°	=
p6_Angle	286.000°	=
p6_X	512.484	=
p6_Y	157.368	=
p7_Angle	0.000°	=
p7_X	89.883	=
p7_Y	2613.763	=
p7_Z	0.000	=
screen Thickness1	20.000	=
screen Thickness2	80.000	=
steel height	3000.000	=

Visibility

box1 (default)	<input checked="" type="checkbox"/>	=
box2 (default)	<input checked="" type="checkbox"/>	=
box3 (default)	<input checked="" type="checkbox"/>	=
box4 (default)	<input checked="" type="checkbox"/>	=
box5 (default)	<input checked="" type="checkbox"/>	=
box6 (default)	<input checked="" type="checkbox"/>	=
box7 (default)	<input checked="" type="checkbox"/>	=

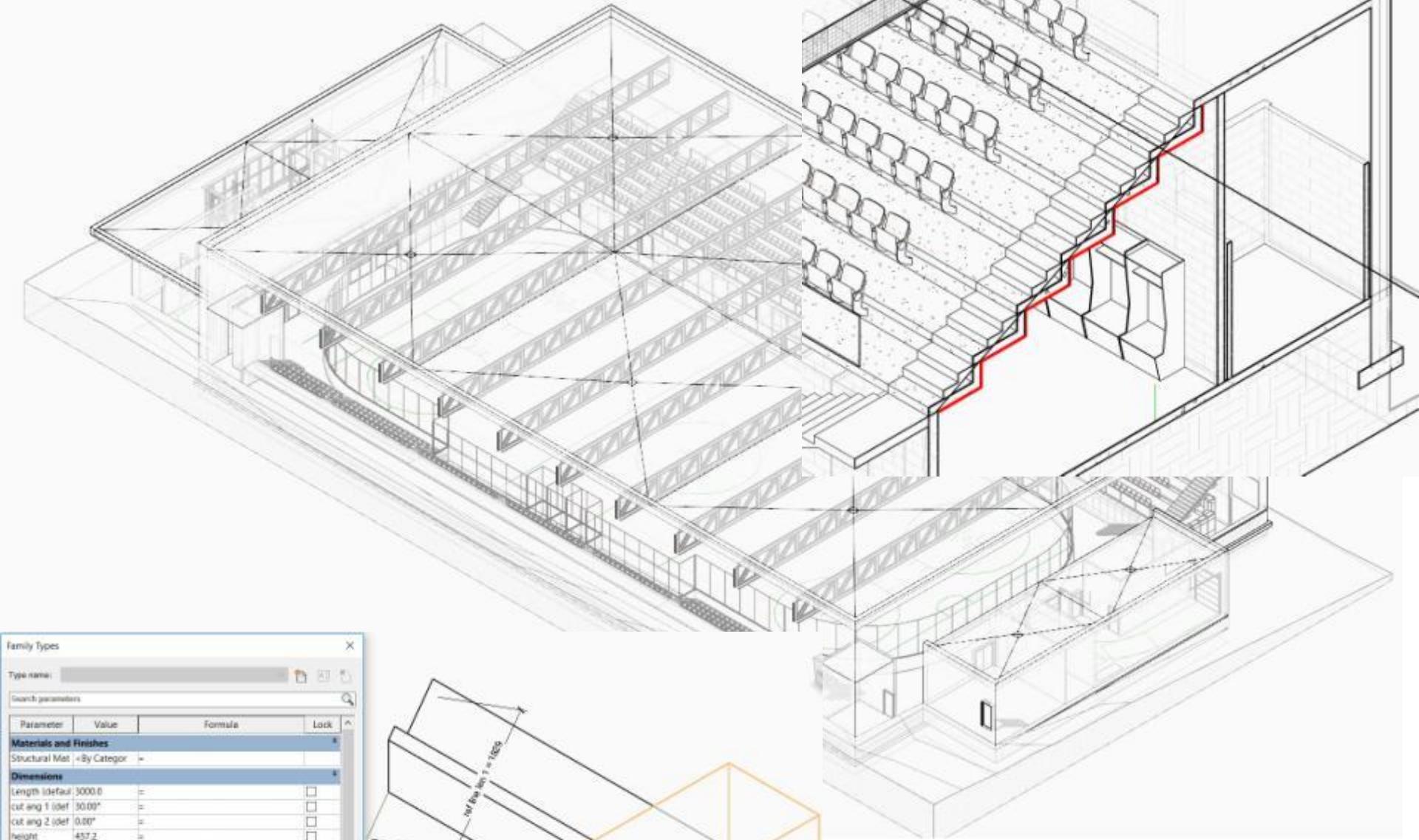
Other

control	<input type="checkbox"/>	=
screen	<input type="checkbox"/>	=
tmp1	104.000	=frame Width
tmp2	64.000	=frame Width

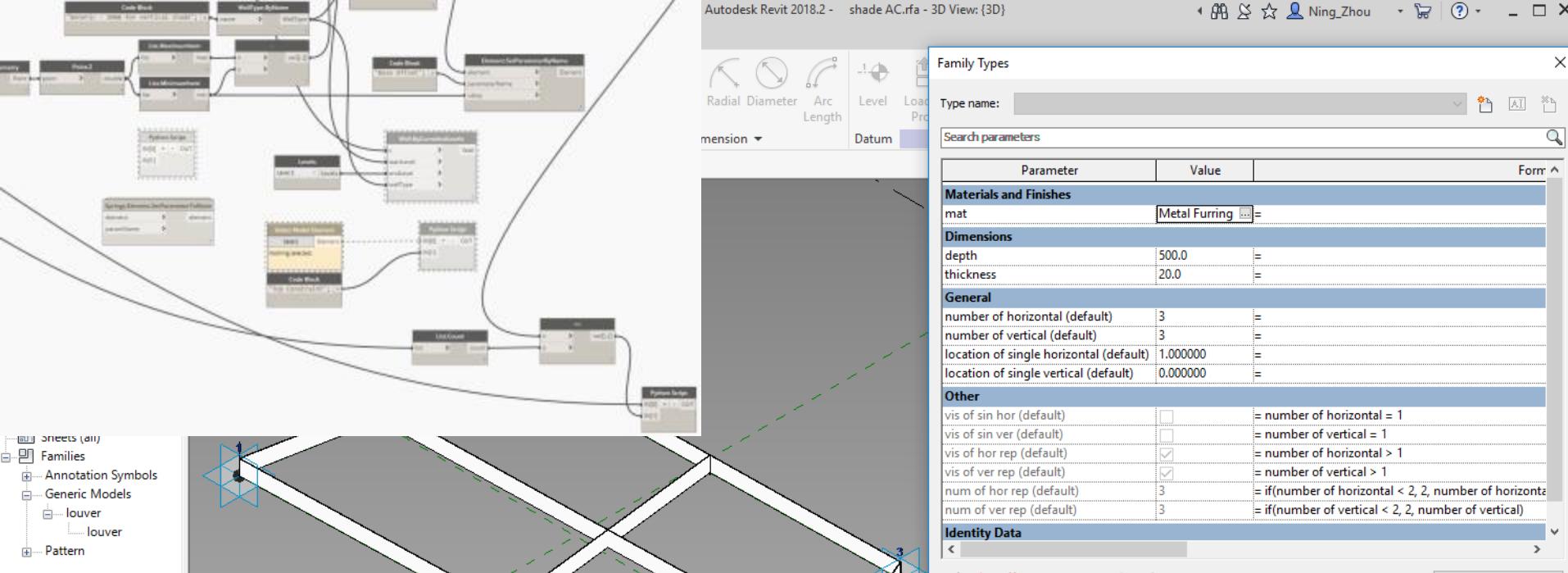
Identity Data

OK Cancel

Temporary Hide/Isolate dialog showing a complex 3D model of a building under construction. The model consists of multiple levels of steel frames supported by red legs. A green circular callout labeled **5 all_Above** highlights a section of the upper frame. Another green circular callout labeled **6 all_Below** highlights a section of the lower frame. The dialog also includes a table of parameters, a visibility list, and other settings.



<https://www.revitforum.org/architecture-general-revit-questions/37190-best-way-model-arena-seating.html>



File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?



Revit energy model after convert shades to walls & roofs.xml

```

1  <?xml version="1.0" encoding="UTF-16"?>
2  <gbXML useSIUnitsForResults="true" temperatureUnit="C" lengthUnit="Meters" areaUnit="SquareMeters" version="2.0" xmlns="http://www.gbxml.org/schema">
3    <Campus id="aim002">
4      <Location>
5        <StationId IDType="WMO">120778_2004</StationId>
6        <ZipcodeOrPostalCode>00000</ZipcodeOrPostalCode>
7        <Longitude>-63.5666</Longitude>
8        <Latitude>44.65</Latitude>
9        <Elevation>50.9016</Elevation>
10       <CADModelAzimuth>0</CADModelAzimuth>
11       <Name>Halifax, NS Canada</Name>
12     </Location>
13   <Building buildingType="Office" id="aim0013">
```

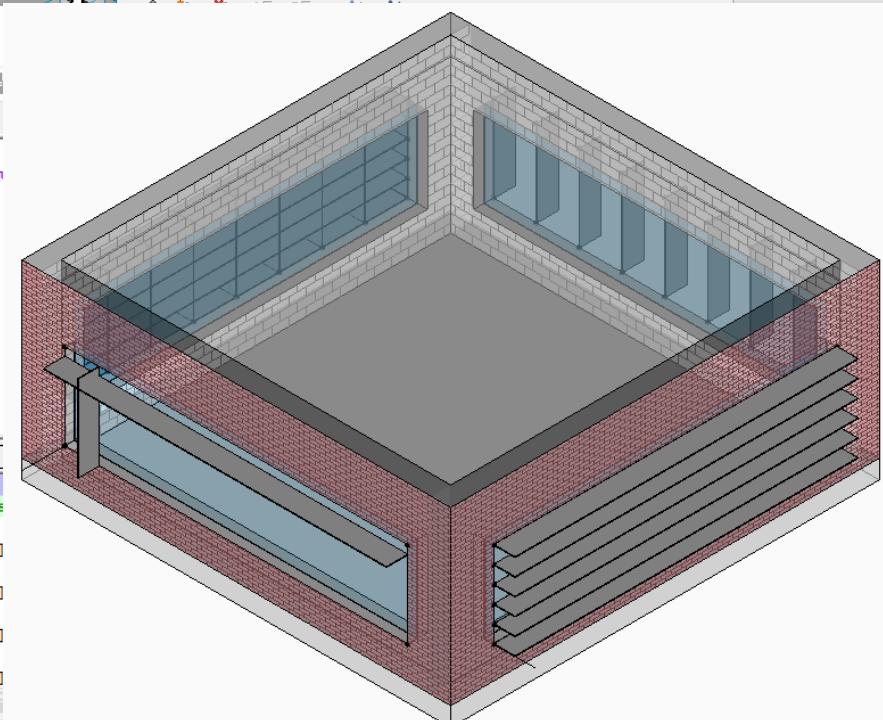
Find result - 64 hits

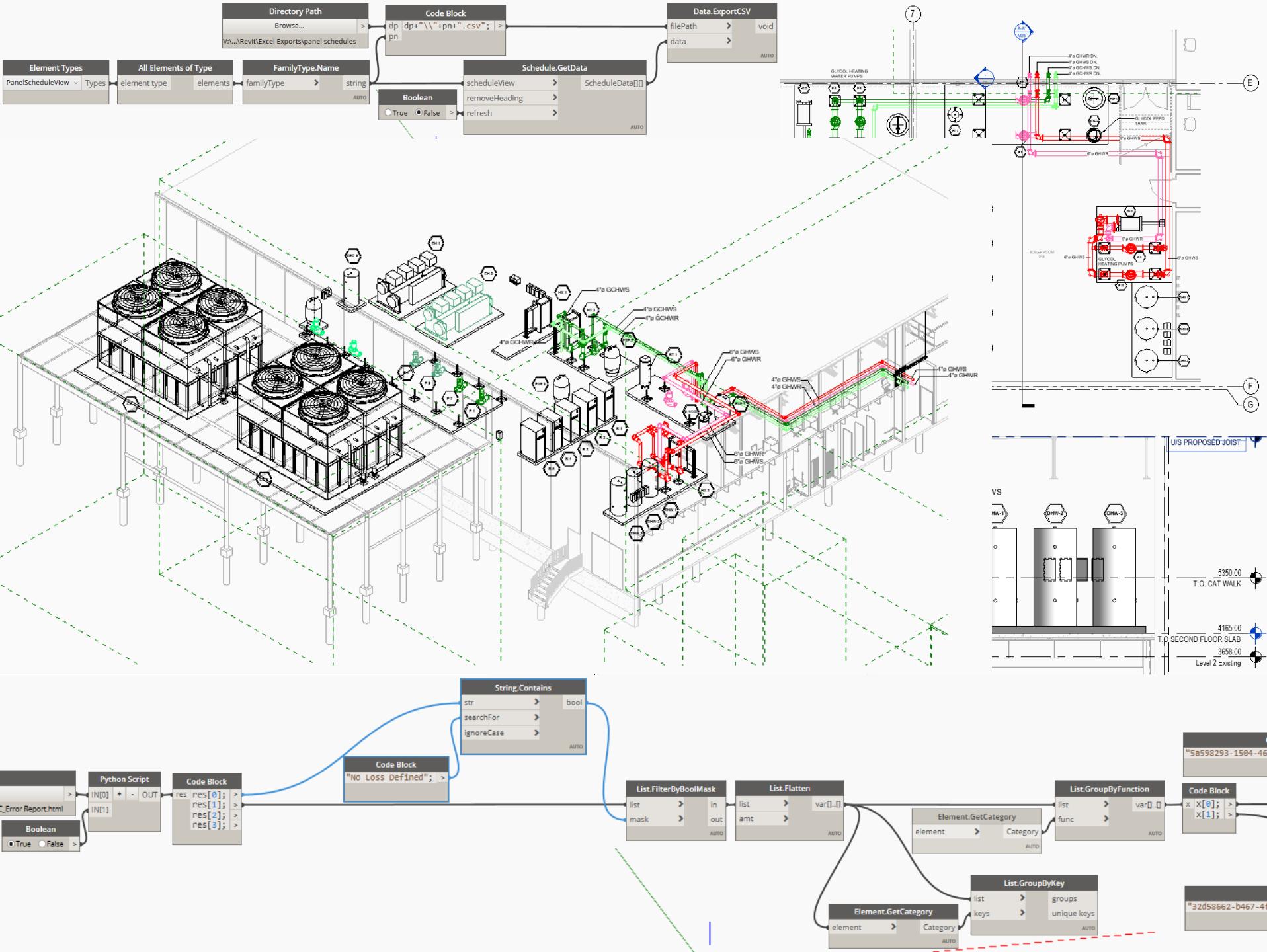
Search "Shade" (64 hits in 1 file)

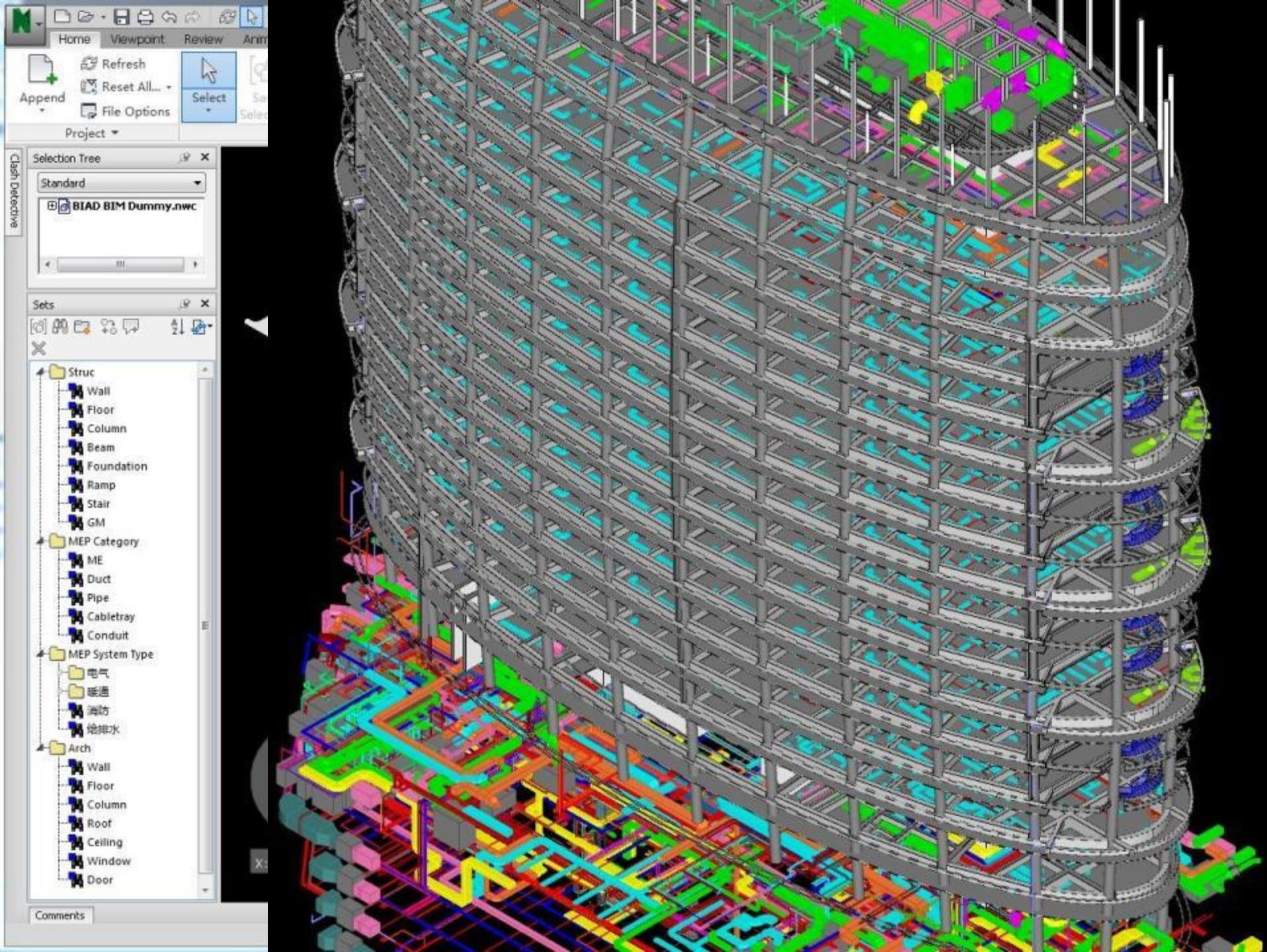
C:\Users\NingZhou\Desktop\New folder\energy modeling\Revit energy model after convert shades to walls & roofs.xml

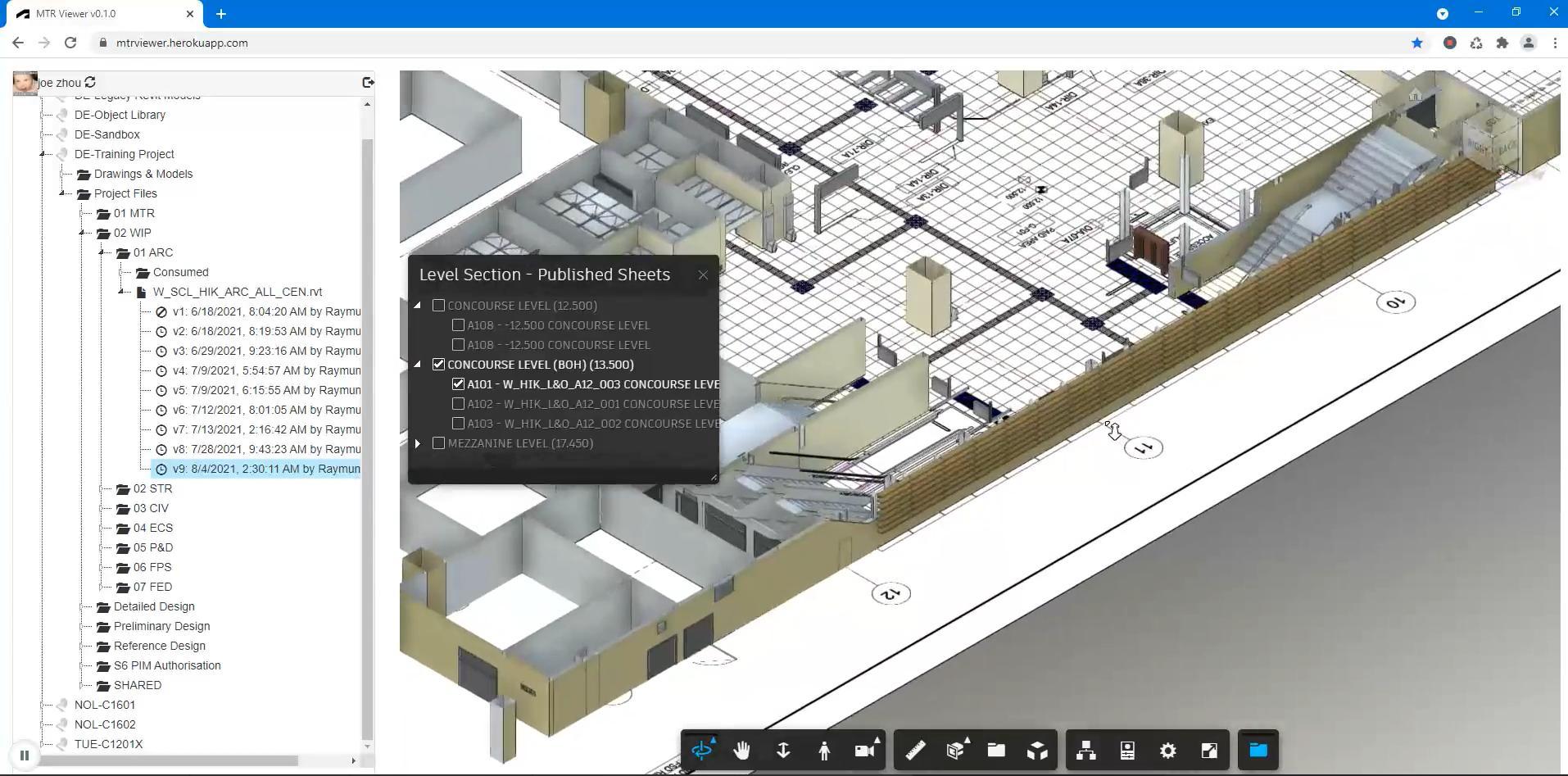
```

Line 758:   <Surface surfaceType="Shade" exposedToSun="true" id="aim0260">
Line 794:     <CADObjectId>Basic Roof: Generic Roof - 20mm for horizontal shade [443847]
Line 797:   <Surface surfaceType="Shade" exposedToSun="true" id="aim0270">
Line 833:     <CADObjectId>Basic Roof: Generic Roof - 20mm for horizontal shade [443865]
Line 836:   <Surface surfaceType="Shade" exposedToSun="true" id="aim0280">
Line 872:     <CADObjectId>Basic Roof: Generic Roof - 20mm for horizontal shade [443883]
Line 875:   <Surface surfaceType="Shade" exposedToSun="true" id="aim0290">
Line 911:     <CADObjectId>Basic Roof: Generic Roof - 20mm for horizontal shade [443901]
```







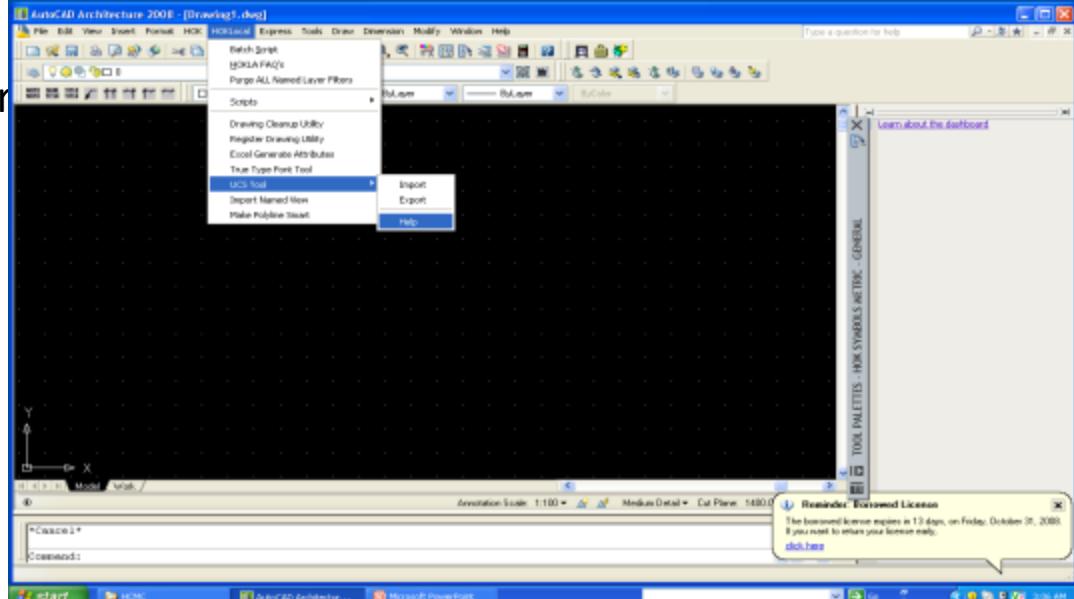


package.json M start.js index.html M main.css M ForgeViewer.js M SheetsBrowserExt.js M

public > js > SheetsBrowserExt.js > ...

```
73 
74     setLevelFilterByName(name, focus) {
75         const level = this.findLevelByName(name);
76         if (level) {
77             // this.viewer.setCutPlanes([new THREE.Vector4(0,0,1,-1*(level.zMax - (level.zMax - level.zMin > 4 ? 4 : 0)))], [new THREE.Vector4(0,0,1,-1*(level.zMin + 7.6))], [new THREE.Vector4(0,0,-1,level.zMin)]);
78 
79             this.isFilterApplied = true;
80             this.levelSelector.selectFloor(level.index, false);
81             this.prevFilter = {
82                 level: name,
83                 space: null
84             };
85         }
86     }
87 }
```

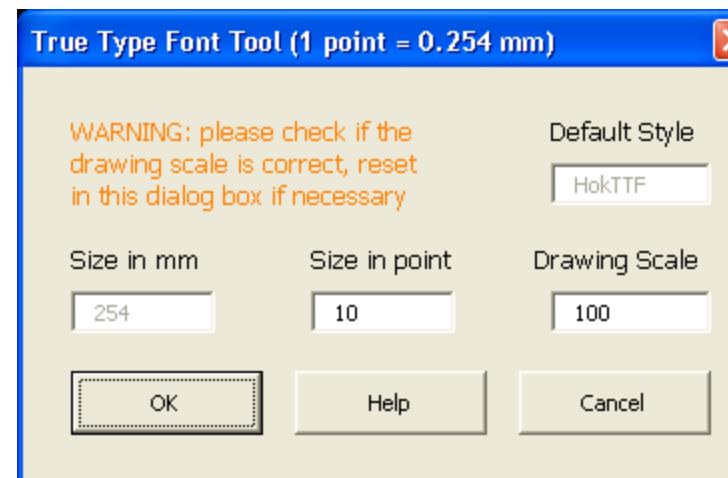
```
(defun HokLocalStartup( / )
  (load "HOK customized plot using rector")
  (load "ZeroThickness.fas")
  (load "FlattenAll.fas")
  (load "Overkill In Lisp.fas")
  (load "Delete Invisible Objects.fas")
  (load "Merge Binding Layers.fas")
  (load "Change Xref Layers.fas")
  (load "Change Viewport Layers.fas")
  (load "Detach Unloaded Xrefs.fas")
  (load "Import SVF.fas")
  (command "Netload" "DrawingCleanupUtility.dll")
  (load "UCS_export.fas")
  (load "UCS_import.fas")
  (load "Import Named Views.fas")
  (load "HOK customized polyline and text with area info using recactor.fas")
```



Option Explicit

```
Public Const conName = "HOK True Type Font Tool"
Public Const gstrFONT = "romans.shx"
Public Const gstrTYPEFACE = "Arial"
Public Const gdbIWIDTH = 0.85
```

```
' This is the main entry point for the program
Public Sub Test_Run()
```



```
Imports System.Windows.Forms
```

```
Public Class dlgDCU
```

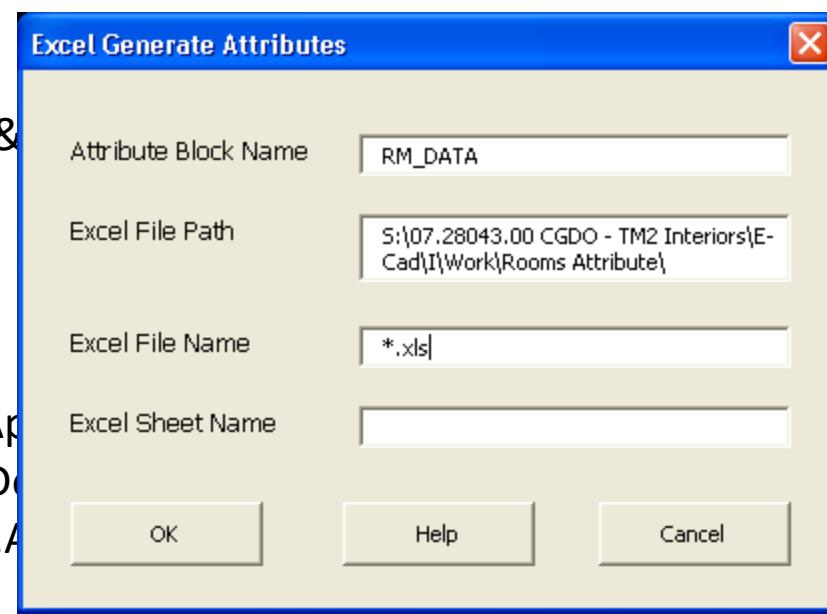
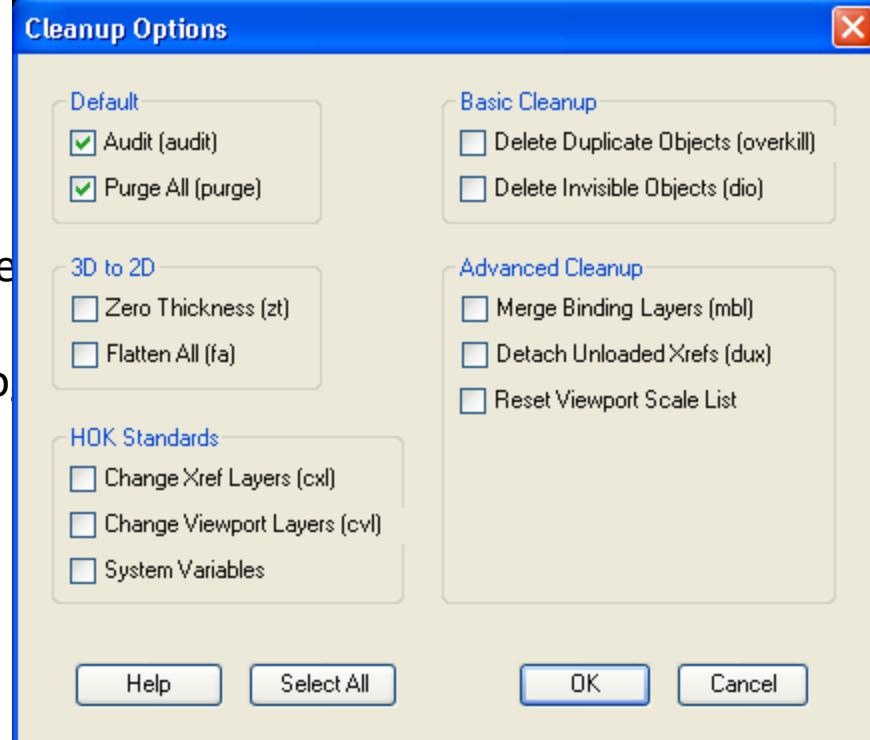
```
    Private Sub OK_Button_Click(ByVal sender As System.EventArgs, ByVal e As System.Windows.Forms.KeyEventArgs) Handles OK_Button.Click
        Me.DialogResult = System.Windows.Forms.DialogResult.OK
        Me.Close()
    End Sub
```

```
    Dim script As String = ""
    Dim var As String = ""
```

```
If chkAudit.Checked Then
    script = script & "audit" & vbCr & "yes" & vbCr
End If
If chkPurgeAll.Checked Then
    script = script & "-purge" & vbCr & "all" & vbCr &
End If
```

```
'omitted
```

```
Dim myAcad As Autodesk.AutoCAD.Interop.AcadApplication
Dim myDWG As Autodesk.AutoCAD.Interop.AcadDocument
myAcad = Autodesk.AutoCAD.ApplicationServices.Application
myDWG = myAcad.ActiveDocument
```



```
r.ActiveDocument.EndTransaction();  
}  
} // BeamSystemBuilder
```

```
void Create2DBeamSystem(APPLICATION r, List<BSPData> _2DList)  
{
```

```
    List<BSPData> dirList2D = new List<BSPData>();  
    m_Bsd.BSP.BSPDict.TryGetValue(true, out dirList2D);
```

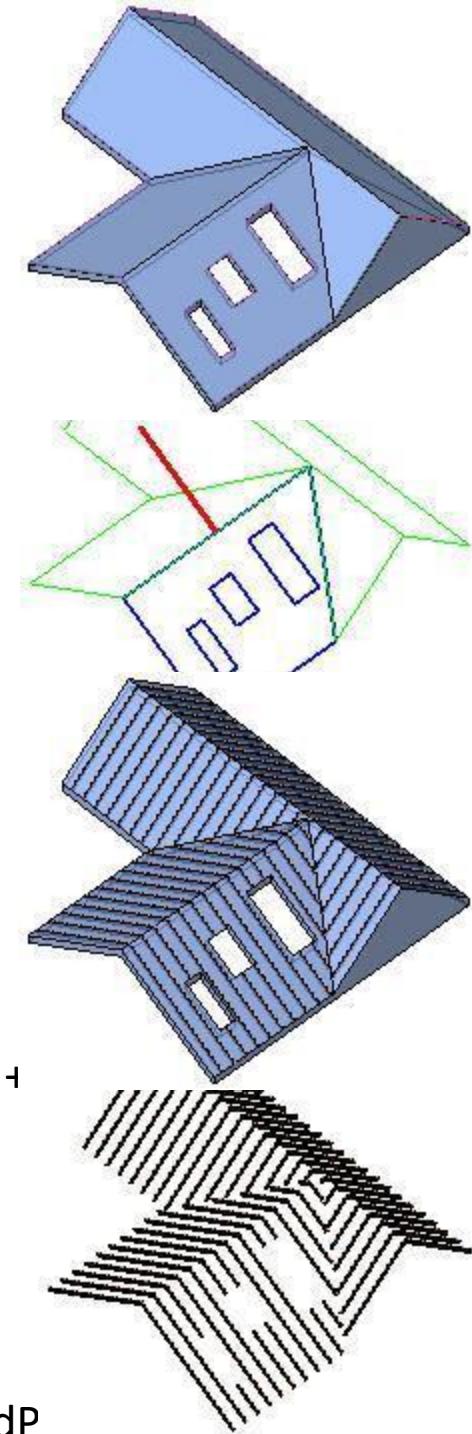
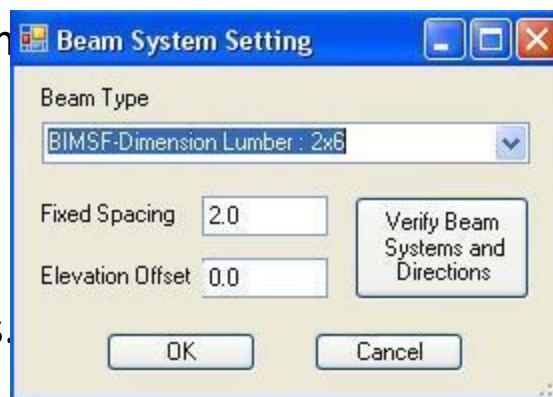
```
    frmProgress progress = new frm  
    progress.Show();  
    progress.Refresh();
```

```
    int count = _2DList.Count;  
    progress.pbaBS.Step = progress.  
    for (int i = 0; i < count; i++)  
{
```

```
    int j = i + 1;
```

```
    progress.Text = "creating " + j.ToString() + " / " + count.ToString() +  
    progress.pbaBS.PerformStep();  
    progress.Refresh();
```

```
    ModelCurveArrArray mcaa = _2DList[i].Profiles;  
    XYZ nor = Utilities.getNormalMCA(mcaa.get_Item(0));  
    XYZ ori = mcaa.get_Item(0).get_Item(0).GeometryCurve.get_EndP
```



```

}
public VStudData m_VL = new VStudData(); // vertical left stud
public VStudData m_VR = new VStudData(); // vertical right stud
public VStudData m_IVL = new VStudData(); // intermediate vertical stud
public VStudData m_IVR = new VStudData(); // intermediate vertical stud

```

```
public enum cutbackType
```

```
{
```

```
    Center,  
    Front,  
    Back
```

```
};
```

```
public cutbackType m_Cutback;
```

```
public List<string> m_ColumnList;  
public List<string> m_FramingList;
```

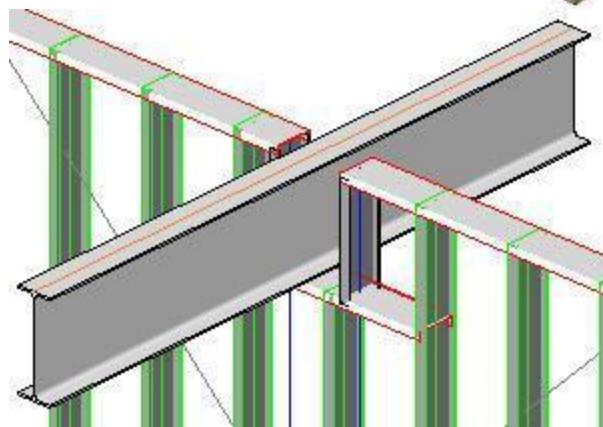
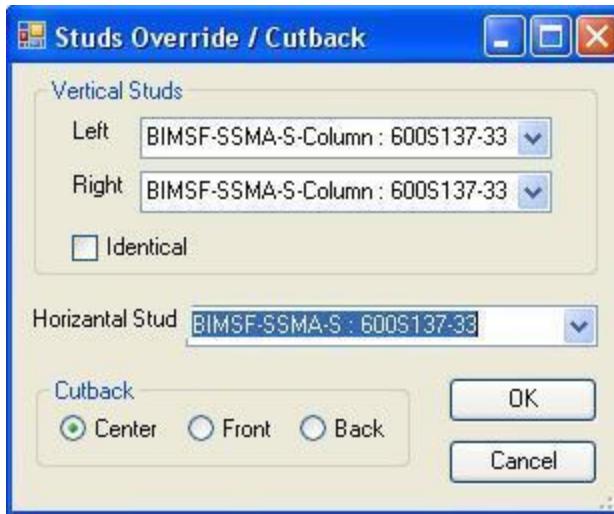
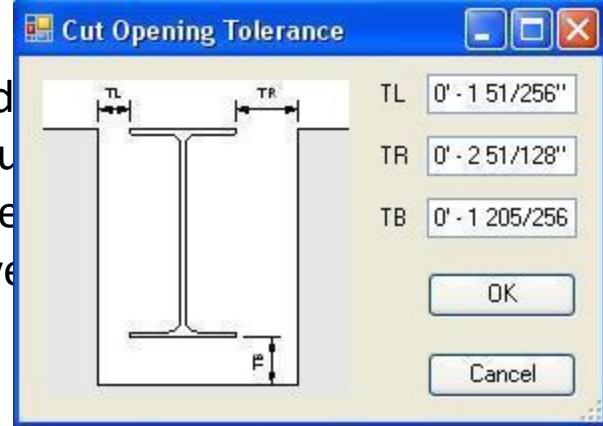
```
public AddStuds(APPLICATION r, ELEMENT e)
```

```
{
```

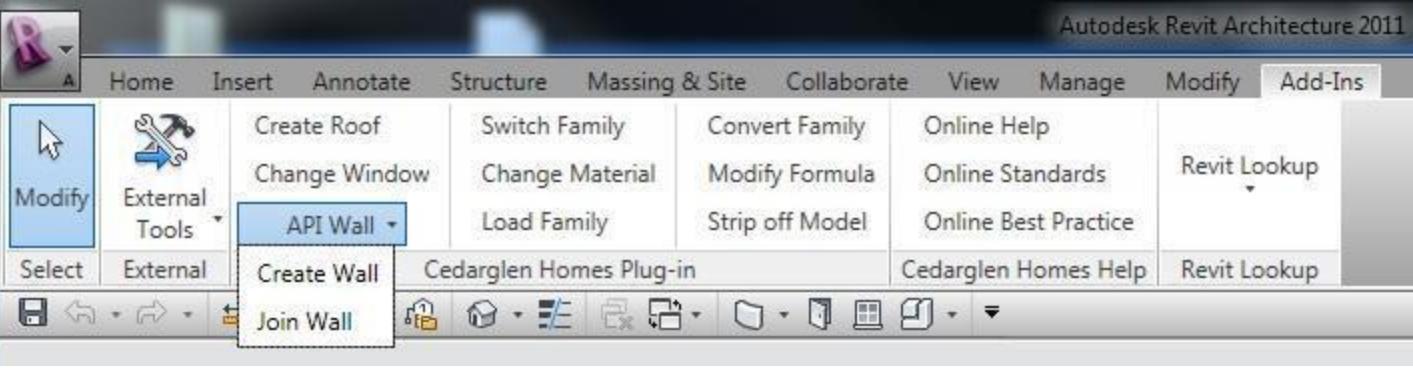
```
    m_ColumnList = Utilities.getColumnList(r);  
    m_FramingList = Utilities.getFramingList(r);
```

```
m_IT.FI = e as FamilyInstance;
```

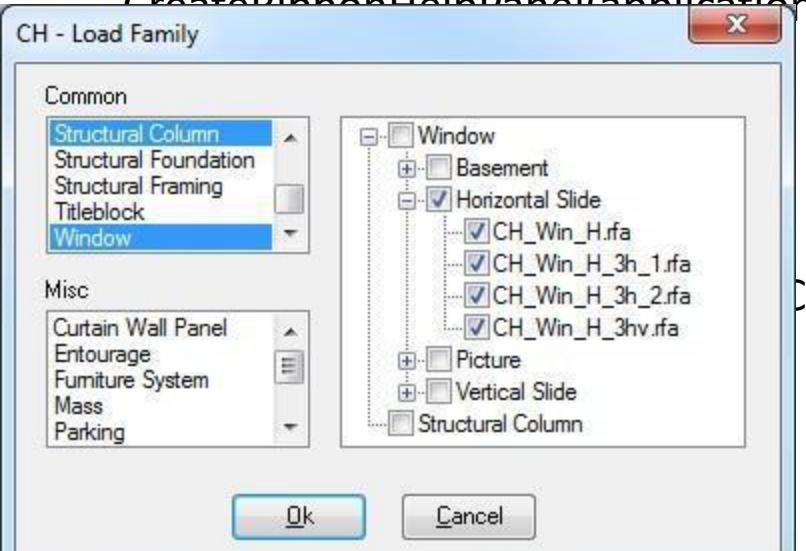
```
m_IT.W = rparam.Beam_CS_Width(m_IT.FI.Symbol);
```



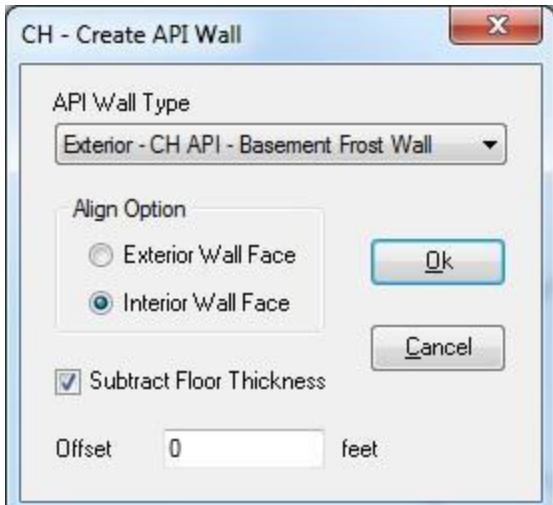
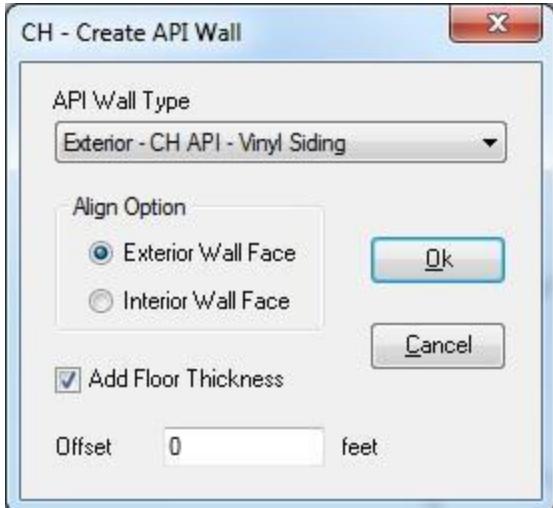
```
[Transaction(Transaction)
[Regeneration(Regeneration)
public class CH_Ribbon
{
    static string AddInPath = "CH_Command.dll");
```



```
public CmdResult OnStartup(UIControlledApplication application)
{
    application.DialogBoxShowing += new
    EventHandler<DialogBoxShowingEventArgs>(myDialogBoxShowing);
    try
    {
        CreateRibbonPluginPanel(application);
        CreateRibbonHelpPanel(application);
```



Create Ribbon Panel");



```

Transaction trans = new Transaction(doc, "CH - create wall(s)")
trans.Start();
foreach (Wall wall in walls)
{
    if (wall.Category.Name == "Stacked Walls") continue;
}

```



SubTransaction st = new SubTransaction(doc);

```

int wu =
wall.get_Parameter(BuiltInParameter.STRUCTURAL_ANALYSIS)
if (wu != 1)
{

```

```

    st.Start();
    wall.get_Parameter(BuiltInParameter.STRUCTURAL_ANALYSIS)
    st.Commit();
    doc.Regenerate();
}

```

```

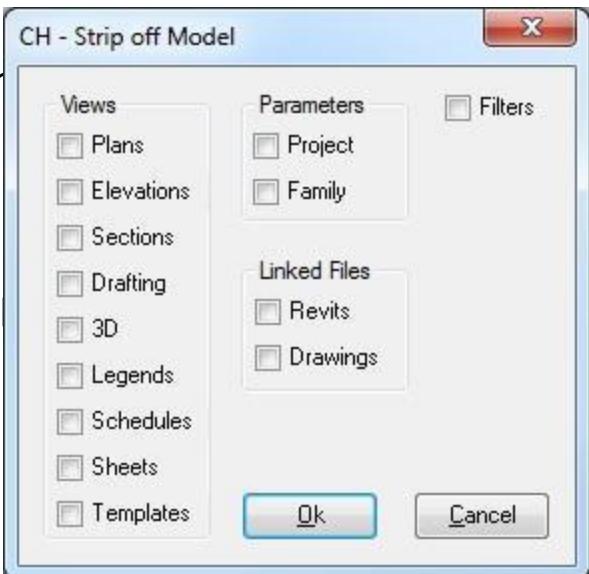
int am =

```

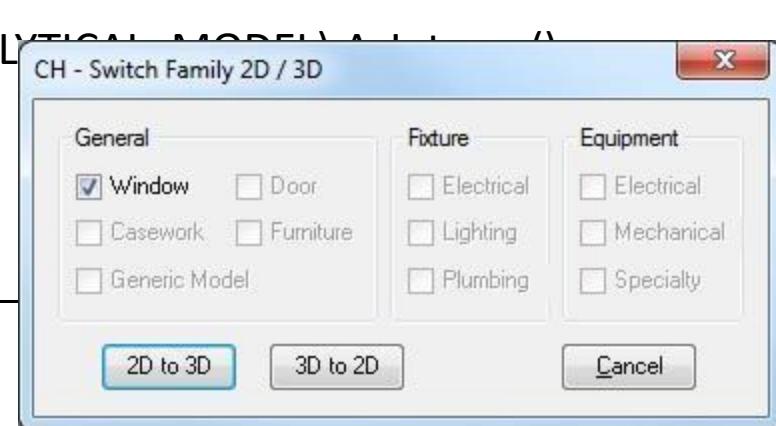
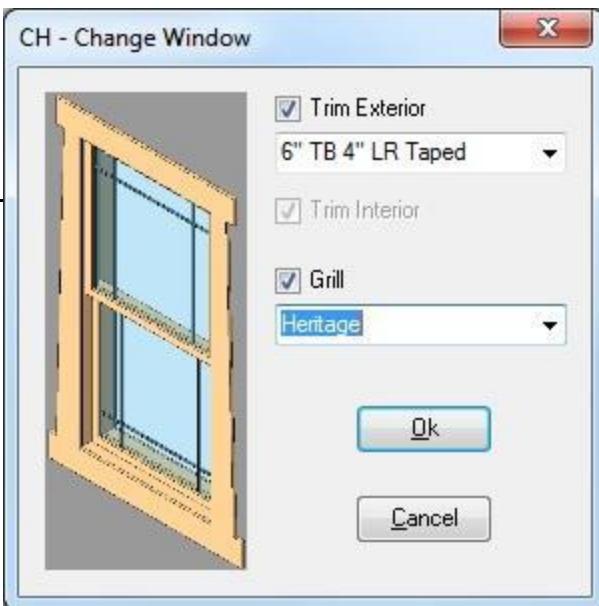
```

wall.get_Parameter(BuiltInParameter.STRUCTURAL_ANALYSIS)
if (am != 1)
{
    st.Start();
    wall.get_Parameter(BuiltInParameter.STRUCTURAL_ANALYSIS)
    st.Commit();
    doc.Regenerate();
}

```



L_USAGE
TURAL_U



WELCOME TO CEDARGLEN HOMES - REVIT WEB APPLICATION!

This site demonstrates the use of DWFs embedded and manipulated in a web environment.

DWFs containing both 2D and 3D views is embeded using an [Autodesk Design Review 2011](#) viewer pane.

Free Downloads from the Autodesk web site:

[Autodesk Design Review 2011](#)

<%@ Page Title="Cedarglen Homes - Revit Web Application" MasterPageFile="~/Site.Master" Inherits="RevitWebApplication" %>

<asp:Content ID="HeaderContent" ContentPlaceHolderID="HeaderContentPlaceHolder">

<asp:Content ID="BodyContent" ContentPlaceHolderID="BodyContentPlaceHolder">

 <h2>Welcome to Cedarglen Homes</h2>

 <table>

 <tr valign="top">

 <td style="width: 150px; vertical-align: top; padding-right: 10px;">

 This site demon-

environment.

 DWFs containing both 2D and 3D views is embeded using an

 Copyright © Cedarglen Homes 2010

 <asp:HyperLink runat="server" ID="HyperLink1" NavigateUrl="http://usa.autodesk.com/adsk/servlet/pc/index?siteID=123112&id=12423405" Text="Autodesk Design Review 2011" /> viewer pane.

 Free Downloads from the Autodesk web site:

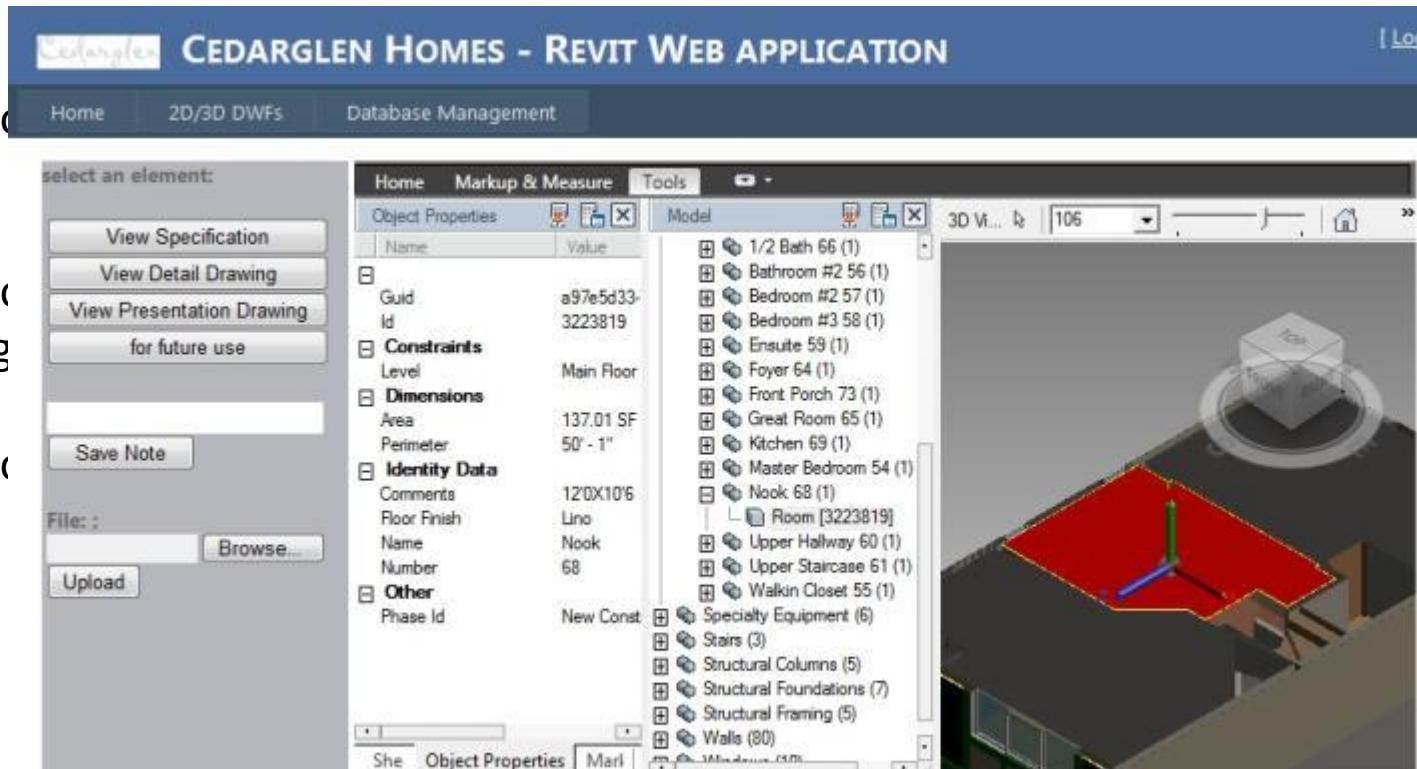
 <asp:HyperLink runat="server" ID="DWF" NavigateUrl="http://usa.autodesk.com/adsk/servlet/pc/index?siteID=123112&id=12423405" Text="Autodesk Design Review 2011" />



```

<body>
    <form id="form1" runat="server">
        <asp:Label runat="server" ID="LabelPrompt" Text="select an element:" Font-Bold="true"
    />
        <table runat="server" id="TableCommands" border="0">
            <tr valign="top">
                <td style="vertical-align:top;">
                    <br />
                    <asp:Button runat="server" ID="ViewSpecification" Width="95%" Text="View
Specification" />
                    <br />
                    <asp:Button runat="server" ID="ViewDrawing" Width="95%" Text="View
Drawing" />
                    <br />
                    <asp:Button runat="server" ID="ViewPresentation" Width="95%" Text="View
Presentation Drawing" />
                    <br />
                    <asp:Button runat="server" ID="UploadFile" Width="95%" Text="Upload
File" />
                    <br />
                </td>
                <td>
                    <table runat="server" border="1">
                        <tr>
                            <td style="width: 20%; vertical-align: top; padding-right: 10px;">
                                select an element:
                                <br />
                                <asp:LinkButton runat="server" ID="ViewSpecLink" Text="View Specification" />
                                <br />
                                <asp:LinkButton runat="server" ID="ViewDetailLink" Text="View Detail Drawing" />
                                <br />
                                <asp:LinkButton runat="server" ID="ViewPresentationLink" Text="View Presentation Drawing" />
                                <br />
                                <asp:LinkButton runat="server" ID="SaveNoteLink" Text="for future use" />
                                <br />
                                <asp:LinkButton runat="server" ID="FileLink" Text="File : " />
                                <asp:LinkButton runat="server" ID="BrowseLink" Text="Browse..." />
                                <br />
                                <asp:LinkButton runat="server" ID="UploadLink" Text="Upload" />
                            </td>
                            <td>
                                <table border="1" style="width: 100%; border-collapse: collapse;">
                                    <tr>
                                        <th style="text-align: left; padding: 2px;">Object Properties
                                        <th style="text-align: left; padding: 2px;">Model
                                    </tr>
                                    <tr>
                                        <td style="padding: 2px;">Name
                                        <td style="padding: 2px;">Value
                                    </tr>
                                    <tr>
                                        <td style="padding: 2px;">Guid
                                        <td style="padding: 2px;">a97e5d33-3223819
                                    </tr>
                                    <tr>
                                        <td style="padding: 2px;">Constraints
                                        <td style="padding: 2px;">
                                    </tr>
                                    <tr>
                                        <td style="padding: 2px;">Level
                                        <td style="padding: 2px;">Main Floor
                                    </tr>
                                    <tr>
                                        <td style="padding: 2px;">Dimensions
                                        <td style="padding: 2px;">137.01 SF  
50' - 1"
                                    </tr>
                                    <tr>
                                        <td style="padding: 2px;">Identity Data
                                        <td style="padding: 2px;">
                                    </tr>
                                    <tr>
                                        <td style="padding: 2px;">Comments
                                        <td style="padding: 2px;">12'0X10'6
                                    </tr>
                                    <tr>
                                        <td style="padding: 2px;">Floor Finish
                                        <td style="padding: 2px;">Lino
                                    </tr>
                                    <tr>
                                        <td style="padding: 2px;">Name
                                        <td style="padding: 2px;">Nook
                                    </tr>
                                    <tr>
                                        <td style="padding: 2px;">Number
                                        <td style="padding: 2px;">68
                                    </tr>
                                    <tr>
                                        <td style="padding: 2px;">Other
                                        <td style="padding: 2px;">
                                    </tr>
                                    <tr>
                                        <td style="padding: 2px;">Phase Id
                                        <td style="padding: 2px;">New Const
                                    </tr>
                                </table>
                            </td>
                        </tr>
                    </table>
                </td>
            </tr>
        </table>
    <table runat="server" border="1" style="margin-top: 10px;">
        <tr>
            <td style="width: 20%; vertical-align: top; padding-right: 10px;">
                <asp:Label runat="server" ID="LabelPrompt" Text="select an element:" Font-Bold="true"
            />
                <br />
                <asp:LinkButton runat="server" ID="ViewSpecLink" Text="View Specification" />
                <br />
                <asp:LinkButton runat="server" ID="ViewDetailLink" Text="View Detail Drawing" />
                <br />
                <asp:LinkButton runat="server" ID="ViewPresentationLink" Text="View Presentation Drawing" />
                <br />
                <asp:LinkButton runat="server" ID="SaveNoteLink" Text="for future use" />
                <br />
                <asp:LinkButton runat="server" ID="FileLink" Text="File : " />
                <asp:LinkButton runat="server" ID="BrowseLink" Text="Browse..." />
                <br />
                <asp:LinkButton runat="server" ID="UploadLink" Text="Upload" />
            </td>
            <td>
                <table border="1" style="width: 100%; border-collapse: collapse;">
                    <tr>
                        <th style="text-align: left; padding: 2px;">Object Properties
                        <th style="text-align: left; padding: 2px;">Model
                    </tr>
                    <tr>
                        <td style="padding: 2px;">Name
                        <td style="padding: 2px;">Value
                    </tr>
                    <tr>
                        <td style="padding: 2px;">Guid
                        <td style="padding: 2px;">a97e5d33-3223819
                    </tr>
                    <tr>
                        <td style="padding: 2px;">Constraints
                        <td style="padding: 2px;">
                    </tr>
                    <tr>
                        <td style="padding: 2px;">Level
                        <td style="padding: 2px;">Main Floor
                    </tr>
                    <tr>
                        <td style="padding: 2px;">Dimensions
                        <td style="padding: 2px;">137.01 SF  
50' - 1"
                    </tr>
                    <tr>
                        <td style="padding: 2px;">Identity Data
                        <td style="padding: 2px;">
                    </tr>
                    <tr>
                        <td style="padding: 2px;">Comments
                        <td style="padding: 2px;">12'0X10'6
                    </tr>
                    <tr>
                        <td style="padding: 2px;">Floor Finish
                        <td style="padding: 2px;">Lino
                    </tr>
                    <tr>
                        <td style="padding: 2px;">Name
                        <td style="padding: 2px;">Nook
                    </tr>
                    <tr>
                        <td style="padding: 2px;">Number
                        <td style="padding: 2px;">68
                    </tr>
                    <tr>
                        <td style="padding: 2px;">Other
                        <td style="padding: 2px;">
                    </tr>
                    <tr>
                        <td style="padding: 2px;">Phase Id
                        <td style="padding: 2px;">New Const
                    </tr>
                </table>
            </td>
        </tr>
    </table>

```



Autodesk Revit 2013 - C1240-11_MiddleRoadHotel_RAC13.rvt - 3D View [3D - Ichou] Type a keyword or phrase

Architecture Structure Systems Insert Annotate Analysis Massing & Site Collaborate View Manage Add-Ins Extens... ONG&ONG Modify Ningzhou

Update Family SP Sheet Utility Automated CUE Computation Help

Change Instance Visibility Level Utility

BM Core Modeling Documentation Structure MEP Sustainability Help

C1240-11_MiddleRoadHotel_RAC13.rvt - 3D View [3D - Ichou]

0, Views [3D Submission] Legends Schedules/Quantities Sheets [SUBMISSION TYPE & AUTHOF ITT BP SUBMISSION DC SUBMISSION TENDER 000 NOTES, LIST AND SPECS 010 SUBMISSION DECLARATION 100 SITE PLAN & ANCILLARY PL 200 FLOOR PLANS 230 FIRE PROTECTION PLANS 250 REFLECTED CEILING PLANS 260 DRAINAGE PLANS 260 EQUIMENTATE

View XML View Area XML Transform XML to Excel Transform XML to HTML Project XML as Collection

C:\Users\nzhou\Documents\Area_4.rvt - C:\Users\nzhou\Documents\Volume.rvt - C:\Users\nzhou\Document... - EZ Zimbra Web Client Log In... Suggested Sites Get more Add-ons

```
<?xml version="1.0" encoding="UTF-8"?>
<Root Volume="8366.761">
  <!--last updated on: 4-30-2013, 3:45:17_PM-->
  model location: C:\Users\nzhou\Documents\C1240-11_MiddleRoadHotel_RAC13.rvt
  <Level Volume="641.59" Name="Multi-Floor">
    <Level Volume="187.3197" Name="Basement 02">
      <Level Volume="57.03" Name="Basement 02A">
        <Level Volume="166.9097" Name="Basement 01">
          <Level Volume="305.3817" Name="Basement 01A">
            <Level Volume="168.0951" Name="Street level">
              <Level Volume="374.0882" Name="1st Storey">
                <Category Volume="17.51891" Name="Walls">
                  <Element Volume="0.259731" Name="Lightweight Precast Concrete_150mm" Material="Concrete - Precast Concrete" Id="4428239"/>
                  <Element Volume="1.411892" Name="Lightweight Precast Concrete_150mm" Material="Concrete - Precast Concrete" Id="4428282"/>
                  <Element Volume="0.465389" Name="Lightweight Precast Concrete_150mm" Material="Concrete - Precast Concrete" Id="4428423"/>
                  <Element Volume="0.787093" Name="Lightweight Precast Concrete_150mm" Material="Concrete - Precast Concrete" Id="4428458"/>
                  <Element Volume="0.589707" Name="Lightweight Precast Concrete_150mm" Material="Concrete - Precast Concrete" Id="5213791"/>
                  <Element Volume="1.429087" Name="Internal_RC_150" Material="Wall_Concrete" Id="601770"/>
                  <Element Volume="0.005617" Name="Internal_RC_150" Material="Wall_Concrete" Id="1895243"/>
                  <Element Volume="1.722011" Name="Internal_RC_150" Material="Wall_Concrete" Id="5196064"/>
                  <Element Volume="0.423604" Name="Internal_RC_150" Material="Wall_Concrete" Id="5197749"/>
                  <Element Volume="0.14565" Name="Internal_RC_150" Material="Wall_Concrete" Id="5197801"/>
                  <Element Volume="1.681098" Name="Internal_RC_150" Material="Wall_Concrete" Id="5198891"/>
                  <Element Volume="1.514669" Name="External_RC_200mm" Material="Wall_Concrete" Id="5703748"/>
                  <Element Volume="7.083359" Name="External_RC_200mm" Material="Wall_Concrete" Id="5703846"/>
                </Category>
                <Category Volume="348.67894" Name="Floors">
                  <Element Volume="90.835184" Name="Concrete Precast 250mm" Material="Concrete - Pre Cast" Id="604140"/>
                  <Element Volume="2.890662" Name="Concrete Precast 250mm" Material="Concrete - Pre Cast" Id="4940089"/>
                  <Element Volume="123.248755" Name="Concrete Precast 200mm" Material="Concrete - Reinforced" Id="604728"/>
                  <Element Volume="28.655229" Name="Concrete Precast 200mm" Material="Concrete - Reinforced" Id="609001"/>
                  <Element Volume="7.361851" Name="Concrete Precast 200mm" Material="Concrete - Reinforced" Id="627931"/>
                </Category>
              <Category Area="1.20774" Name="Walls">
                <Element Area="0.092903" Name="Internal_RC_150" Id="601770"/>
                <Element Area="0.092903" Name="Internal_RC_150" Id="1895243"/>
                <Element Area="0.092903" Name="Lightweight Precast Concrete_150mm" Id="4428239"/>
                <Element Area="0.092903" Name="Lightweight Precast Concrete_150mm" Id="4428282"/>
                <Element Area="0.092903" Name="Lightweight Precast Concrete_150mm" Id="4428423"/>
                <Element Area="0.092903" Name="Lightweight Precast Concrete_150mm" Id="4428458"/>
                <Element Area="0.092903" Name="Internal_RC_150" Id="5196064"/>
                <Element Area="0.092903" Name="Internal_RC_150" Id="5197749"/>
                <Element Area="0.092903" Name="Internal_RC_150" Id="5197801"/>
                <Element Area="0.092903" Name="Internal_RC_150" Id="5198891"/>
                <Element Area="0.092903" Name="Lightweight Precast Concrete_150mm" Id="5213791"/>
                <Element Area="0.092903" Name="External_RC_200mm" Id="5703748"/>
                <Element Area="0.092903" Name="External_RC_200mm" Id="5703846"/>
              </Category>
              <Category Area="1537.3456" Name="Floors">
                <Element Area="363.340523" Name="Concrete Precast 250mm" Id="604140"/>
                <Element Area="616.243273" Name="Concrete Precast 200mm" Id="604728"/>
                <Element Area="143.276146" Name="Concrete Precast 200mm" Id="609001"/>
                <Element Area="36.809255" Name="Concrete Precast 200mm" Id="627931"/>
                <Element Area="6.492762" Name="Concrete Precast 200mm" Id="629288"/>
              </Category>
            <Category Area="1537.3456" Name="Floors">
              <Element Area="363.340523" Name="Concrete Precast 250mm" Id="604140"/>
              <Element Area="616.243273" Name="Concrete Precast 200mm" Id="604728"/>
              <Element Area="143.276146" Name="Concrete Precast 200mm" Id="609001"/>
              <Element Area="36.809255" Name="Concrete Precast 200mm" Id="627931"/>
              <Element Area="6.492762" Name="Concrete Precast 200mm" Id="629288"/>
            </Category>
          <Category Area="1537.3456" Name="Floors">
            <Element Area="363.340523" Name="Concrete Precast 250mm" Id="604140"/>
            <Element Area="616.243273" Name="Concrete Precast 200mm" Id="604728"/>
            <Element Area="143.276146" Name="Concrete Precast 200mm" Id="609001"/>
            <Element Area="36.809255" Name="Concrete Precast 200mm" Id="627931"/>
            <Element Area="6.492762" Name="Concrete Precast 200mm" Id="629288"/>
          </Category>
        <Category Area="1537.3456" Name="Floors">
          <Element Area="363.340523" Name="Concrete Precast 250mm" Id="604140"/>
          <Element Area="616.243273" Name="Concrete Precast 200mm" Id="604728"/>
          <Element Area="143.276146" Name="Concrete Precast 200mm" Id="609001"/>
          <Element Area="36.809255" Name="Concrete Precast 200mm" Id="627931"/>
          <Element Area="6.492762" Name="Concrete Precast 200mm" Id="629288"/>
        </Category>
      <Category Area="1537.3456" Name="Floors">
        <Element Area="363.340523" Name="Concrete Precast 250mm" Id="604140"/>
        <Element Area="616.243273" Name="Concrete Precast 200mm" Id="604728"/>
        <Element Area="143.276146" Name="Concrete Precast 200mm" Id="609001"/>
        <Element Area="36.809255" Name="Concrete Precast 200mm" Id="627931"/>
        <Element Area="6.492762" Name="Concrete Precast 200mm" Id="629288"/>
      </Category>
    <Category Area="1537.3456" Name="Floors">
      <Element Area="363.340523" Name="Concrete Precast 250mm" Id="604140"/>
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      <Element Area="143.276146" Name="Concrete Precast 200mm" Id="609001"/>
      <Element Area="36.809255" Name="Concrete Precast 200mm" Id="627931"/>
      <Element Area="6.492762" Name="Concrete Precast 200mm" Id="629288"/>
    </Category>
  <Category Area="1537.3456" Name="Floors">
    <Element Area="363.340523" Name="Concrete Precast 250mm" Id="604140"/>
    <Element Area="616.243273" Name="Concrete Precast 200mm" Id="604728"/>
    <Element Area="143.276146" Name="Concrete Precast 200mm" Id="609001"/>
    <Element Area="36.809255" Name="Concrete Precast 200mm" Id="627931"/>
    <Element Area="6.492762" Name="Concrete Precast 200mm" Id="629288"/>
  </Category>

```

Section Box Camera Rendering Sett... Locked Orient... Perspective Eye Elevation: 18701.8 Target Elevation: 136625.0 Camera Position Adjusting Phasing Phase Filter Show All Phase New Constru... Other Sheet_Series

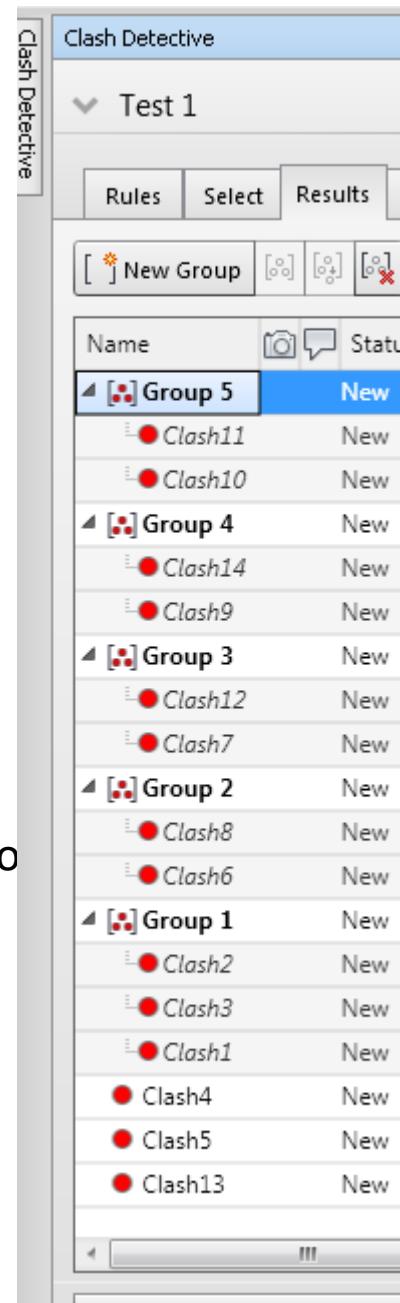
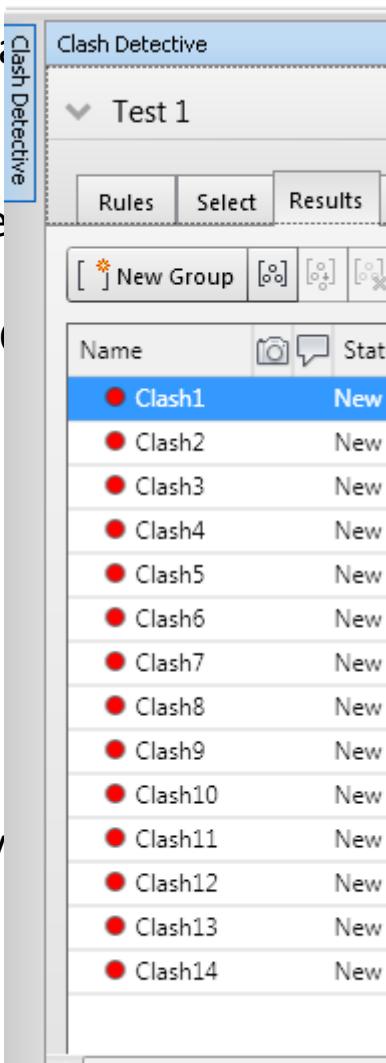
Workset1 Main Model Editable Only Press & Drag Apply

```

[PluginAttribute("ClashDetective.Test", "NZS", ToolTip = "ClashDetective.Test tool tip",
DisplayName = "ClashDetective Grouping")]
//[AddInPluginAttribute(AddInLocation.AddIn)] // default
public class Test : AddInPlugin
{
    public override int Execute(params string[] parameters)
    {
        DocumentClash oDC = NApp.MainDocument.GetDocumentClash();
        DocumentClashTests oDCT = oDC.TestsData;
        // perhaps use recursive
        for (int i = 0; i < oDCT.Tests.Count; i++)
        {
            ClashTest test = oDCT.Tests[i] as ClashTest;
            if (test.Children.Count.Equals(0)) continue;

            int groupNumber = 0;
            List<int> lstClashResultPos1 = new List<int>(); /
            bool done = false;
            // perhaps use recursive
            while (!done)
            {
                ModelItemCollection sel1 = new ModelItemCollection();
                SavedItem issue1 = null;
                int pos = 0;
                for (int j = groupNumber; j < test.Children.Count; j++)

```



Ning Zhou

Senior Member



it should work, i didn't use clockwork, and not good at Python yet, so i tried to use normal API via C# to create my own Dynamo node, works great, well, my very first Zero Touch stuff!

Analyze

Builtin

Core

Display

Geometry

NZS

ZeroTouchTest

- HighlightSelection
- LoadableSelection

Office

Operators

Revit

Add

Attached Thumbnails



Filters

test

New...

Edit...

Rename...

Delete

OK

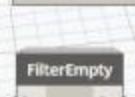
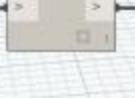
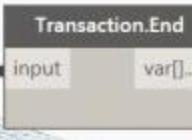
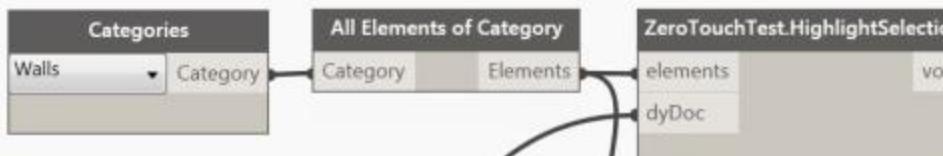
Cancel

Help

Join Date: July 20, 2011

Posts: 654

Current Local Time: 03:11 AM



The screenshot shows the Visual Studio IDE interface. The main window displays the 'TagLayers.cs' file, which contains C# code for a Revit add-in. The code includes methods for executing external commands, interacting with the UI application, and managing compound structures. Below the code editor, there is a command-line section with the following text:

```
@ECHO OFF
REM Script to install DSRA Revit plug-in
REM Author : Ning Zhou
REM Date   : 29 Nov 2017
```

To the right of the code editor, a 'External Tools' window is open, listing several tools: ConvertGeometries, DeleteCADs, Match3DOrientation, MatchDoor2Room, MatchSB2SB, Navisworks 2018, and TagLayers. The 'TagLayers' tool is currently selected.

```
20 [Transaction(TransactionMode.Manual)]
21 public class TagLayers : IExternalCommand
22 {
23     public class DefaultElementsFilter ...
24
25     public class CSSelectionFilter ...
26
27     public Result Execute(ExternalCommandData commandData, ref string message, ElementSet elements)
28     {
29         UIApplication uiapp = commandData.Application;
30         Application app = uiapp.Application;
31         UIDocument uidoc = uiapp.ActiveUIDocument;
32         Document doc = uidoc.Document;
33
34         doc.ActiveView.DetailLevel = ViewDetailLevel.Fine;
35         //ReferenceArray ra = new ReferenceArray();
36         ISelectionFilter selFilter = new CSSelectionFilter(doc);
37         Reference myRef = uidoc.Selection.PickObject(ObjectType.PointOnElement, selFilter, "select wall/floor/roof/ceiling");
38         ElementId myId = myRef.ElementId;
39         Element myEle = doc.GetElement(myId);
40         XYZ myPt = myRef.GlobalPoint;
41
42
43         HostObjAttributes HOA = doc.GetElement(myEle.GetTypeId()) as HostObjAttributes;
44         CompoundStructure CS = HOA.GetCompoundStructure();
45         IList<CompoundStructureLayer> layersCS = CS.GetLayers();
46         string s = string.Empty;
47         foreach (CompoundStructureLayer layerCS in layersCS)
48         {
49             Units units = doc.GetUnits();
50             FormatValueOptions formatvalueoptions = new FormatValueOptions();
51
52             if (layerCS.Name == "Tagged Layer")
53             {
54                 string tagText = "Tagged";
55                 string tagColor = "Red";
56                 string tagFontSize = "12pt";
57                 string tagFontStyle = "Bold";
58                 string tagTextColor = "Black";
59                 string tagTextAlign = "Center";
60                 string tagTextBaseline = "Bottom";
61                 string tagTextOffsetX = "0";
62                 string tagTextOffsetY = "0";
63
64                 TaggedText tag = new TaggedText();
65                 tag.Text = tagText;
66                 tag.Color = tagColor;
67                 tag.FontSize = tagFontSize;
68                 tag.FontStyle = tagFontStyle;
69                 tag.TextColor = tagTextColor;
70                 tag.TextAlign = tagTextAlign;
71                 tag.TextBaseline = tagTextBaseline;
72                 tag.TextOffsetX = tagTextOffsetX;
73                 tag.TextOffsetY = tagTextOffsetY;
74
75                 tag.X = myPt.X;
76                 tag.Y = myPt.Y;
77                 tag.Z = myPt.Z;
78
79                 tag.Insert();
80             }
81         }
82     }
83 }
```

```
NET USE Z: "\\\$ERVER12\Public" /PERSISTENT:NO
```

SET REVITAPI=z:\REVIT\DESIGN STANDARDS LIBRARY\Dynamic+API

```
SET REVIT2017_LOC=%appdata%\Autodesk\Revit\Addins\2017\help_20171129.td - Notepad
```

COPY "%REVITAPI%\TagLayers.dll" "%REVIT2012.LOC%\File Edit Format View Help

copy %REVITAPI%\\tagLayers.dll REVIT2017_LOCAL
copy "%REVITAPI%\\tagLayers.addin" "%REVIT2017\\Locclose Revit, and double click on "install Revit plug-ins.bat" to run installation script

```
copy "%WINDIR%\System32\MatchScore2009.dll" "%WINDIR%\System32\ 1) TagLayers
```

copy "%REVITAPI%\MatchDoor2Room.dll" "%REVIT2017%\Plug-ins" - will tag multiple layers of wall/floor/roof/ceiling using multi-category tag
copy "%REVITAPI%\MatchDoor2Room.addin" "%REVIT2017%\Plug-ins" - user may have to manually move tag around to appropriate location after initial placement

copy "%REVITAPI%\SwitchColorScheme.dll" "%REVIT20%\Revit\Addins\RevitAPI"

<https://forums.autodesk.com>

2) MatchDoor2Room

. will match room number w/ door number, for instance room number 101 will match door number 101.

. assume user already added room tags and door tags

, user first pick room tag then door tag, continue until

3.1 switchcolorsscheme

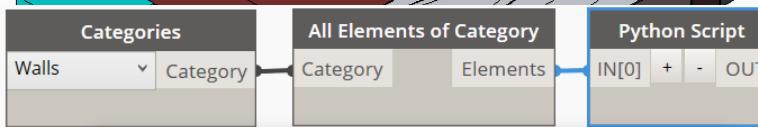
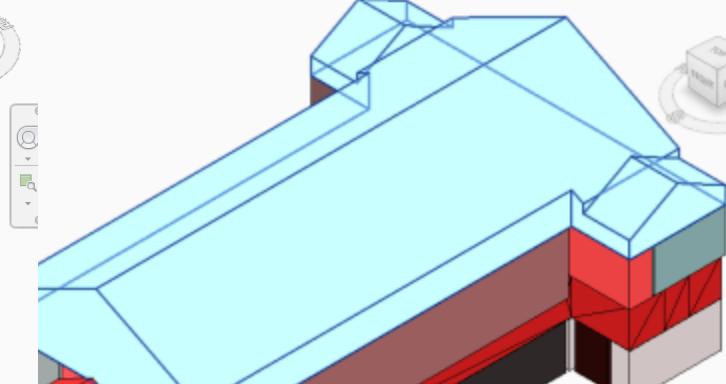
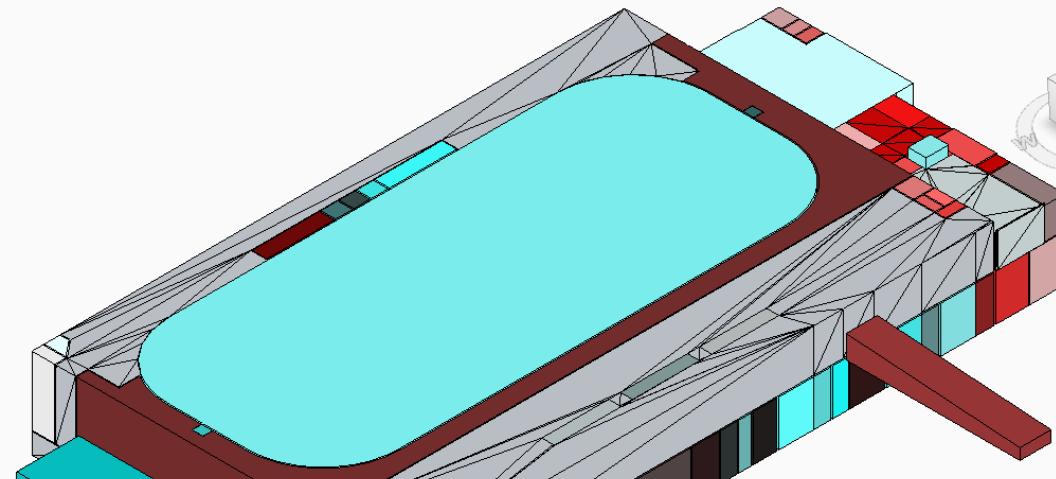
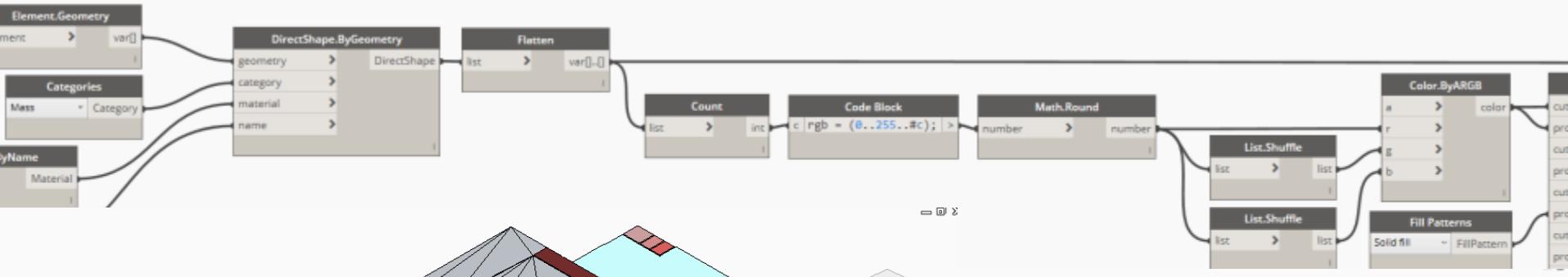
3) SWITCHCOLORSCHEME
will turn on/off color scheme for plan views on sheet

. Will turn on/off color scheme for
click Yes to turn on color scheme

. click Yes to turn on color scheme
click No to turn off color scheme

. click No to turn off color scheme

https://forums.autodesk.com/t5/forums/searchpage/tab/message?advanced=false&allow_punctuation=false&q=ning%20zhou



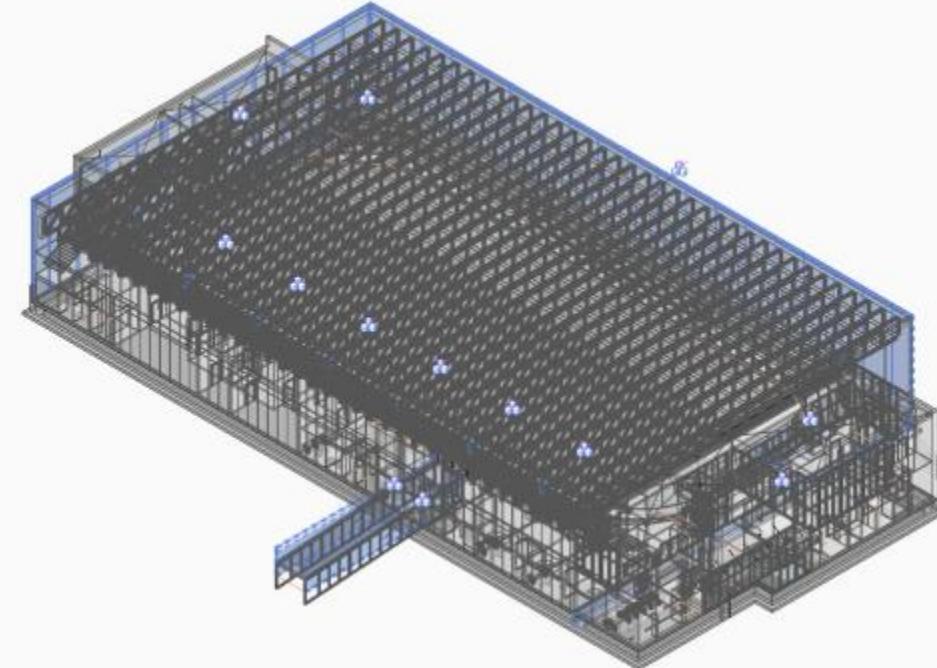
```
R Edit Python Script...
import clr
clr.AddReference("RevitServices")
import RevitServices
from RevitServices.Persistence import DocumentManager
from RevitServices.Transactions import TransactionManager
from System.Collections.Generic import *
clr.AddReference("RevitAPI")
import Autodesk
from Autodesk.Revit.DB import *

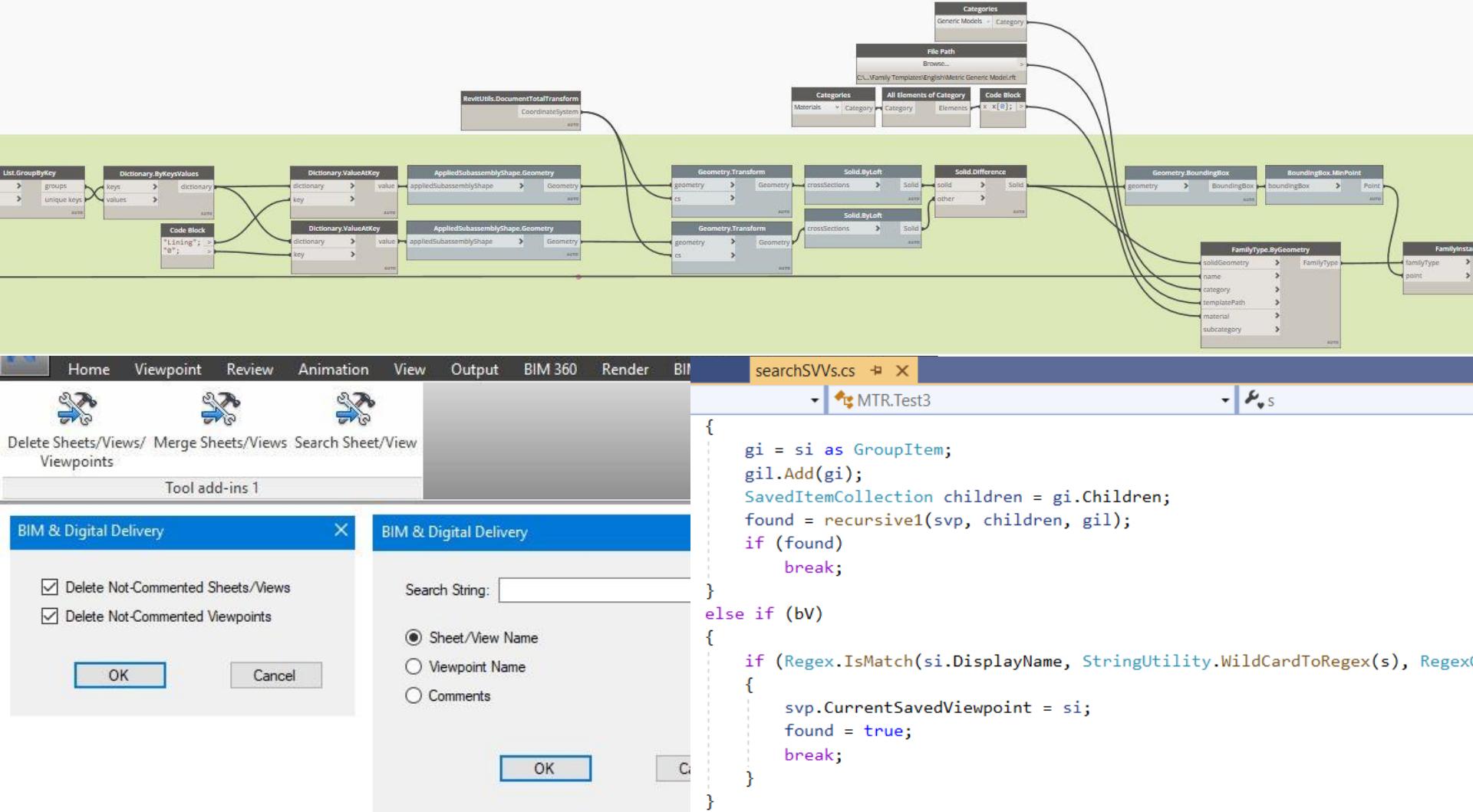
doc = DocumentManager.Instance.CurrentDBDocument
uiapp = DocumentManager.Instance.CurrentUIApplication
app = uiapp.Application
uidoc=DocumentManager.Instance.CurrentUIApplication.ActiveUIDocument

highlight = []
elements = UnwrapElement(IN[0])
elementsel = uidoc.Selection

TransactionManager.Instance.EnsureInTransaction(doc)
for element in elements:
    trans = Autodesk.Revit.DB.SubTransaction(doc)
    trans.Start()
    ids = doc.Delete(element.Id)
    trans.RollBack()
```

Accept Changes Cancel





functions

1) Delete Sheets/Views/Viewpoints -> delete sheets/views/viewpoints w/ following options
 . Delete Not-Commented Sheets/Views -> delete all sheets/views without any comment in sheet browser
 . Delete Not-Commented Viewpoints -> delete all viewpoints without any comment in all sheets/views of sheet browser

2) Merge Sheets/Views -> merge sheets/views due to merging different NWFs/NWDs with same sheets/views

3) Search Sheet/View -> search (partial) matched name/comment w/ following options
 . Sheet/View Name -> search (partial) matched name and set found sheet/view to current
 . Viewpoint Name -> search (partial) matched name and set found viewpoint to current
 . Comments -> search (partial) matched comment and list in dialogbox and send to clipboard

searchSVVs.cs

```

MTR.Test3

{
    gi = si as GroupItem;
    gil.Add(gi);
    SavedItemCollection children = gi.Children;
    found = recursive1(svp, children, gil);
    if (found)
        break;
}
else if (bV)
{
    if (Regex.IsMatch(si.DisplayName, StringUtility.WildCardToRegex(s), RegexOptions.IgnoreCase))
    {
        svp.CurrentSavedViewpoint = si;
        found = true;
        break;
    }
}
else if (bC)
{
    ...
}

```