

BIM

4-2

1.

1.1

1.1.1

1.1.2

1.1.3

(, , , , , ,)
(, ,)
()

1.2

1.2.1

1.2.2

1.2.3

2.

2.1

2.2

2.3

2.3.1

2.3.2

3.

3.1

3.2

4.

4.1

4.2

4.3

BIM

1.

1.1

1.1.1

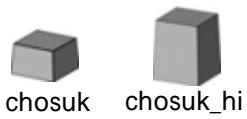
(, , , , , ,)

- Revit Architecture family

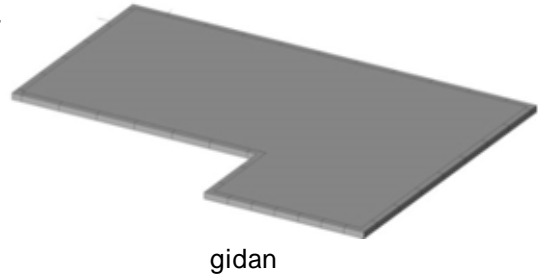
(: (chosuk), (gidung), (gidan), (bo), (daegong), (dori), (janghyu))

가 . (: (bo_twaeryang))

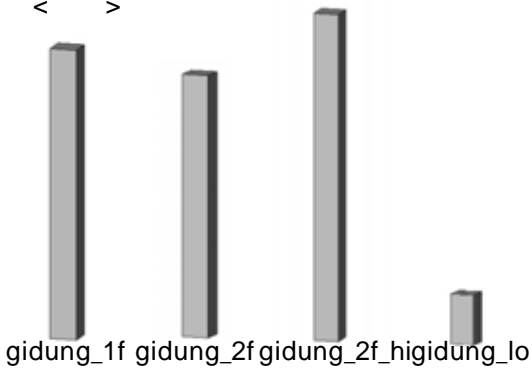
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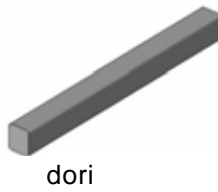
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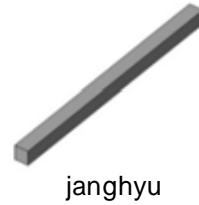
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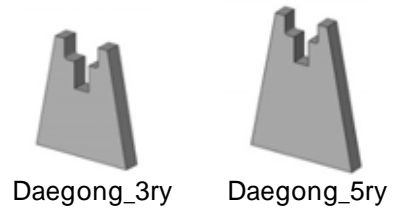
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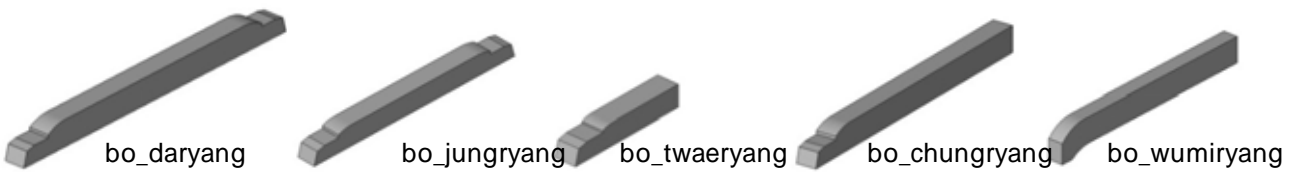
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1.

1.1

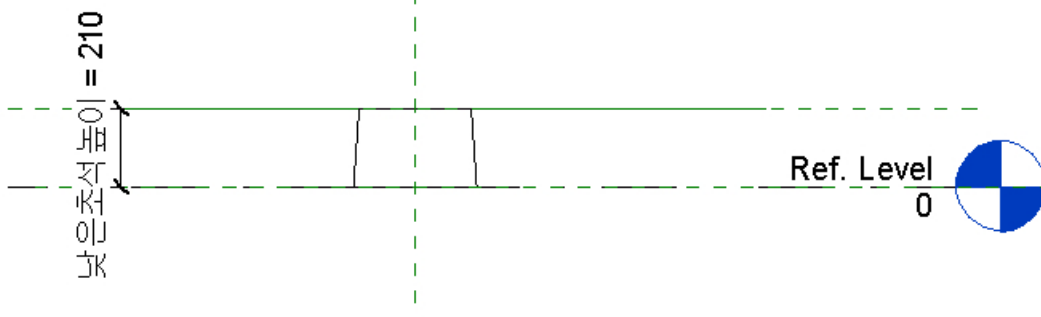
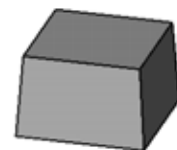
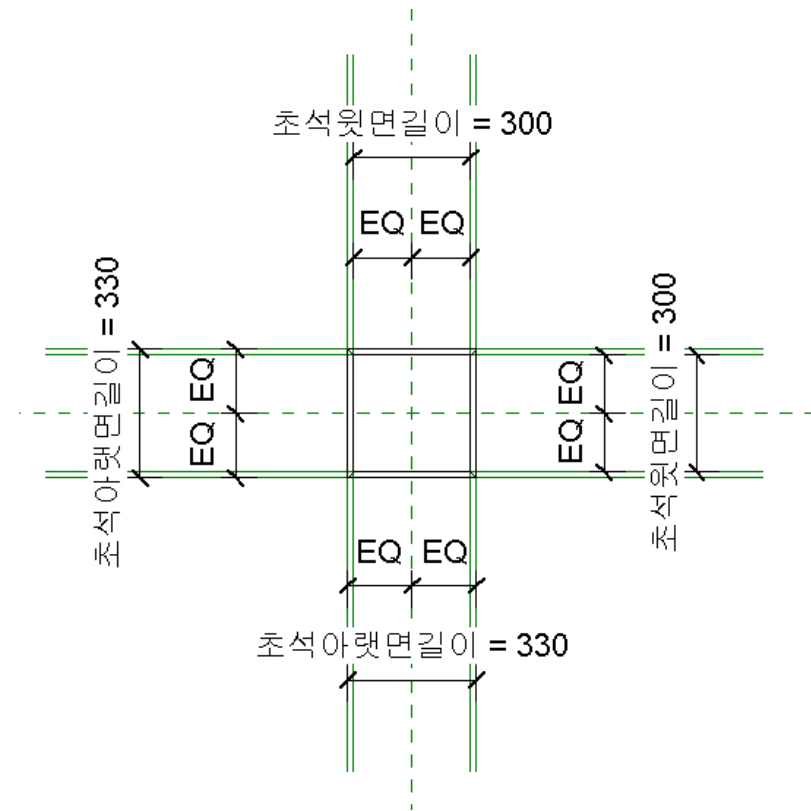
1.1.1

(, , , , ,)

- Revit Architecture family

< >

Parameter
Materials and Fini
Structural Material
Dimensions
초석윗면길이
초석아랫면길이
낮은초석높이



1.

1.1

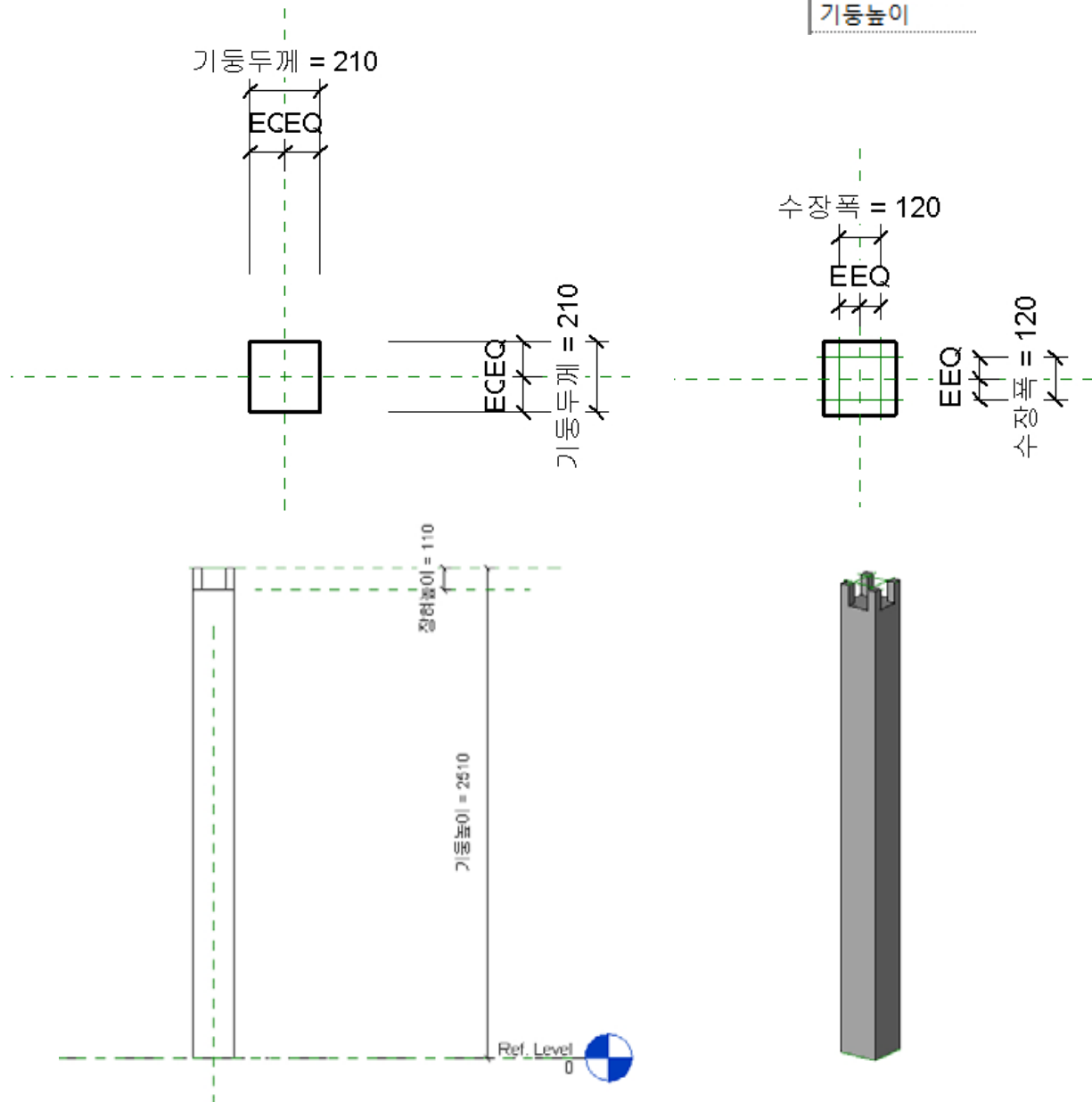
1.1.1

(, , , , ,)

- Revit Architecture family

< >

Parameter
Materials and Structural Mat
Dimensions
장혀높이
수장폭
기둥두께
기둥높이



1.

1.1

1.1.1

(, , , , , ,)

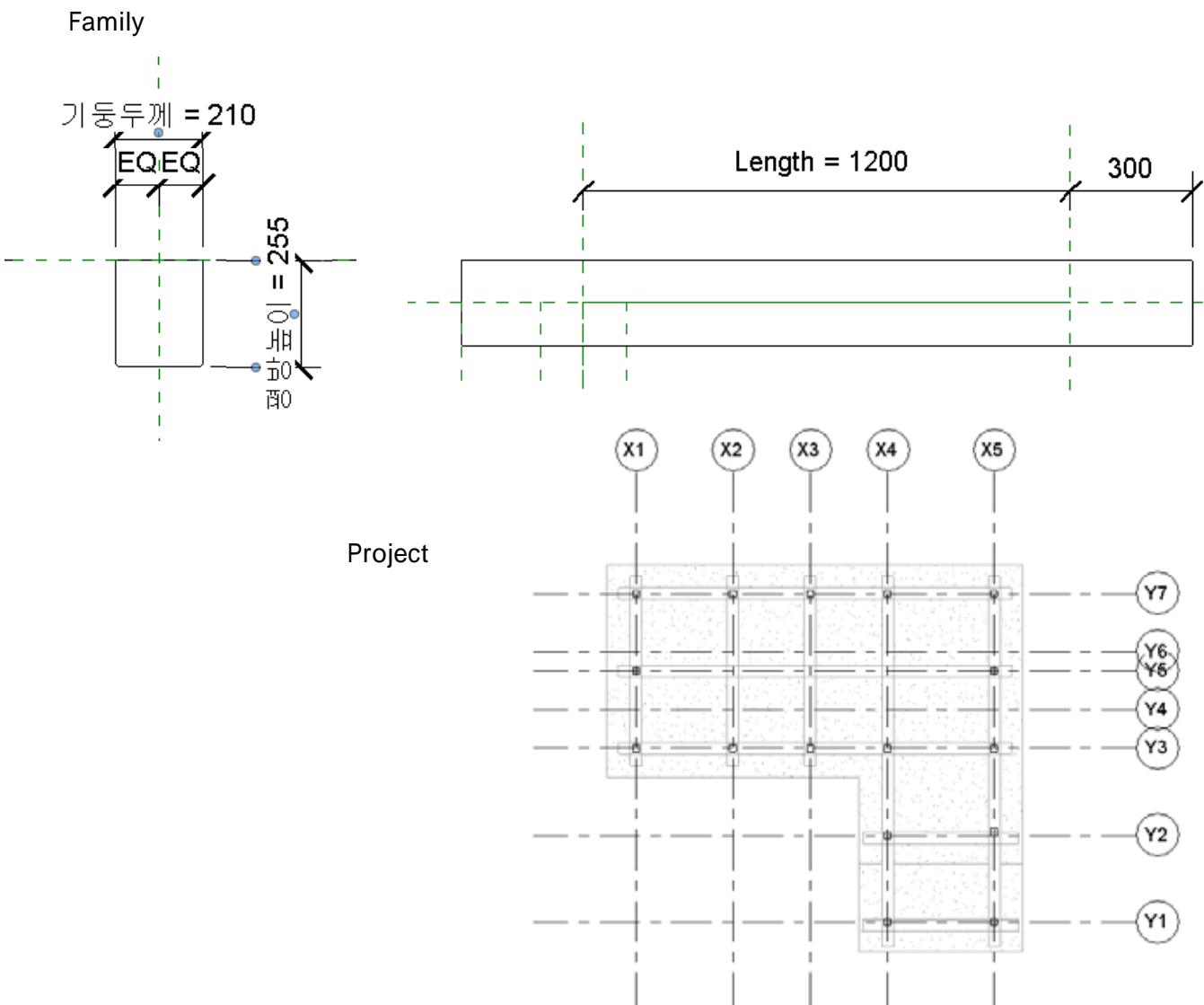
- Revit Architecture family

< >

family

, project
가

Parameter	Value
Constraints	
Length (default)	1200.0
Materials and Finishes	
Structural Material	
Dimensions	
평방높이	255.0
기둥두께	210.0



1.

1.1

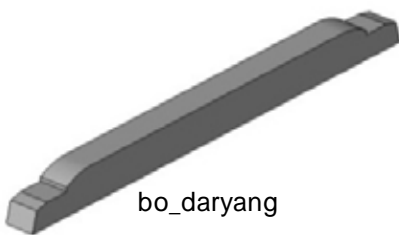
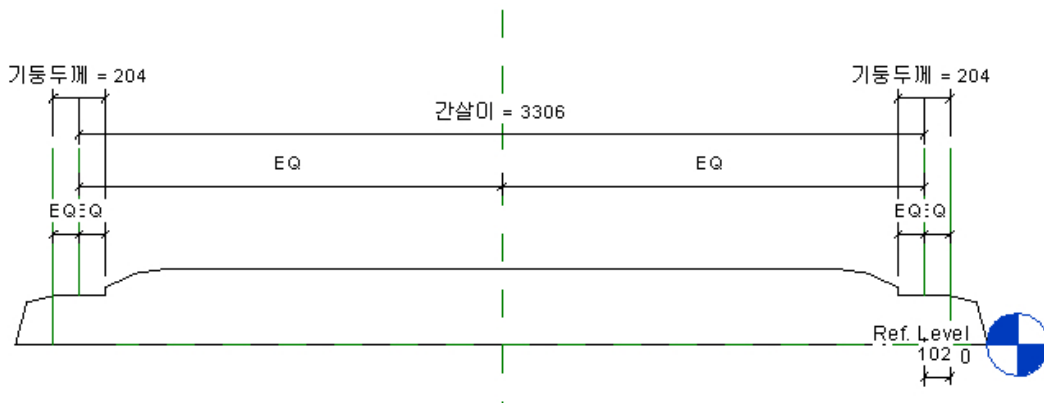
1.1.1

(, , , , , ,)

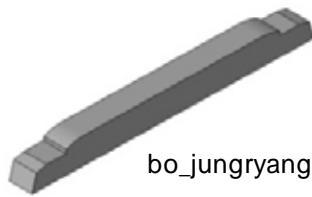
- Revit Architecture family

< >

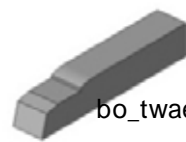
Parameter
Materials and Structural Mat
Dimensions
장혀높이
수장폭
기둥두께
기둥높이



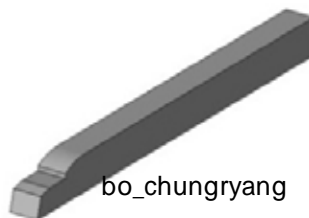
bo_daryang



bo_jungryang



bo_twaeryang



bo_chungryang



bo_wumiryang

1.

1.1

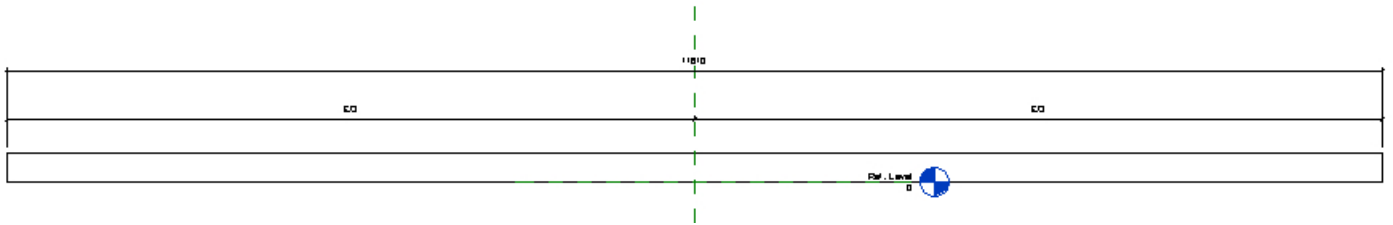
1.1.1

(, , , , , ,)

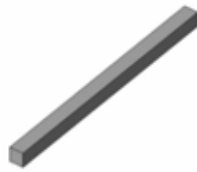
- Revit Architecture family

< , >

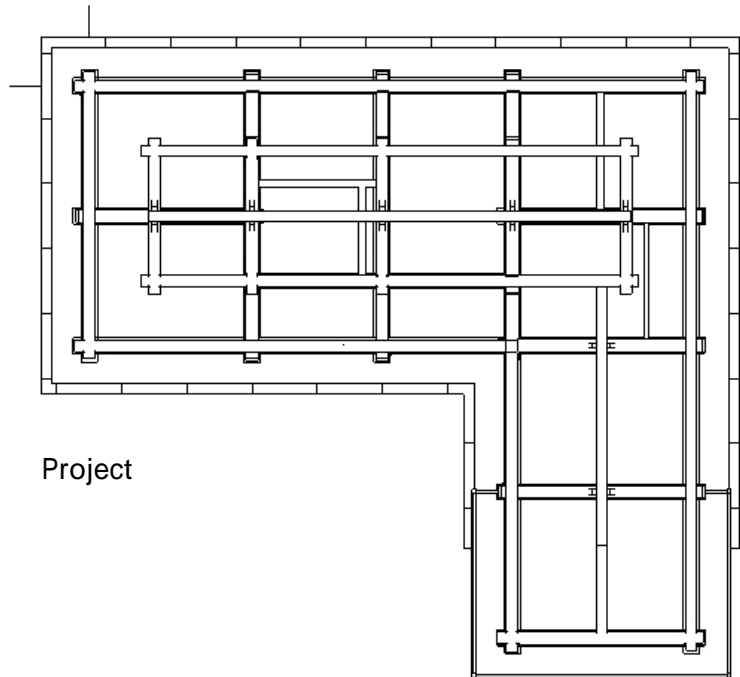
family 가 family
가 , project
가 .



dori



janghyu



Project

1.

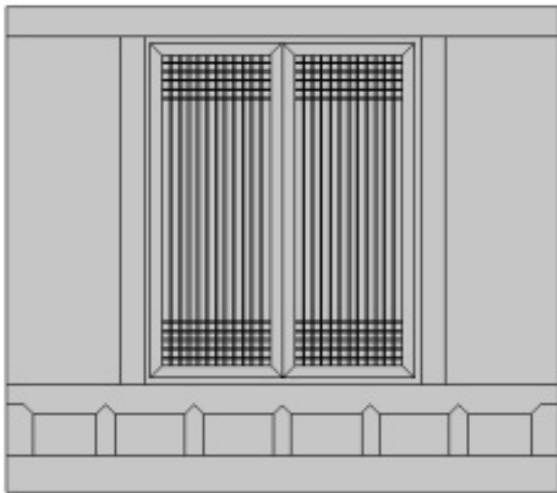
1.1

1.1.2 (, ,)

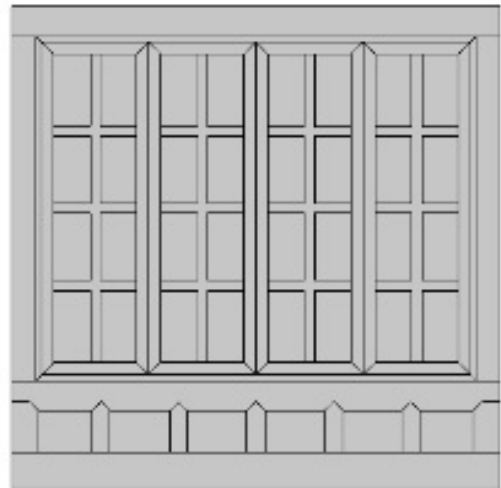
- Revit Architecture family

. (: (wall))

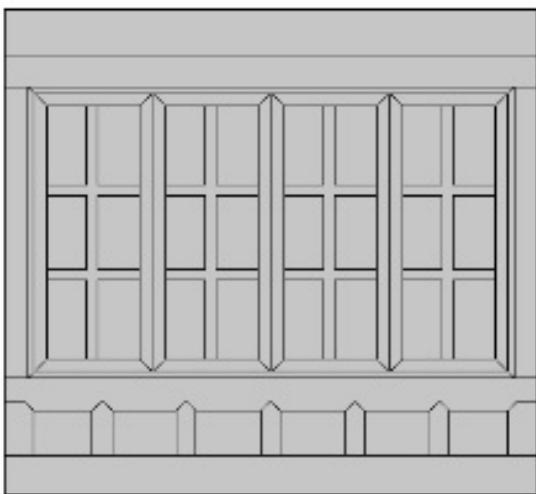
가 . (: (wall_win1), (wall_dr1), (wall_full))



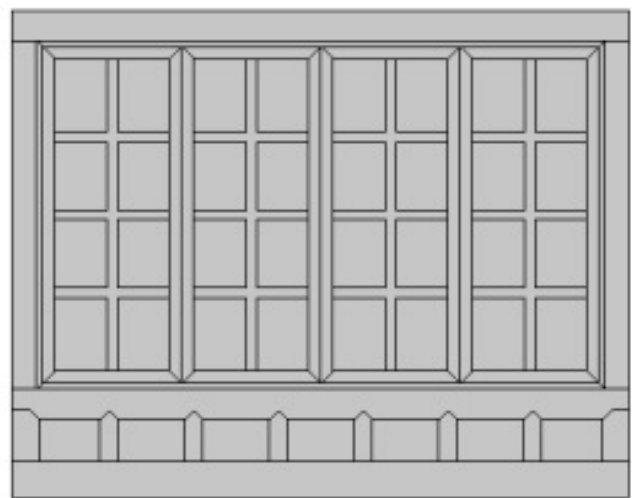
wall_win1



wall_win2



wall_win3



wall_win4

1.

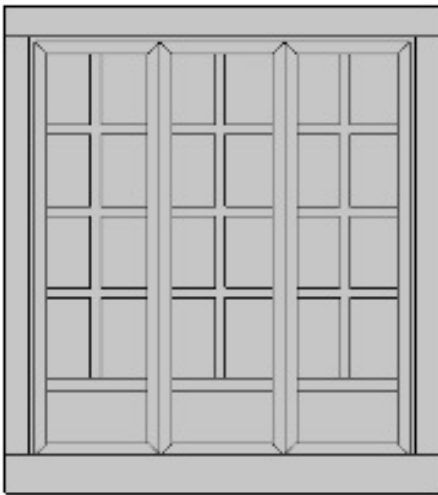
1.1

1.1.2 (, ,)

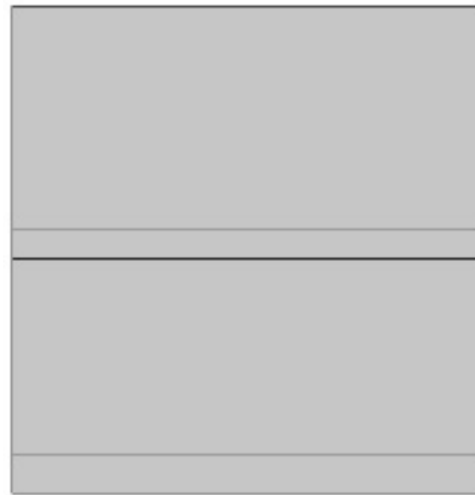
- Revit Architecture family

. (: (wall))

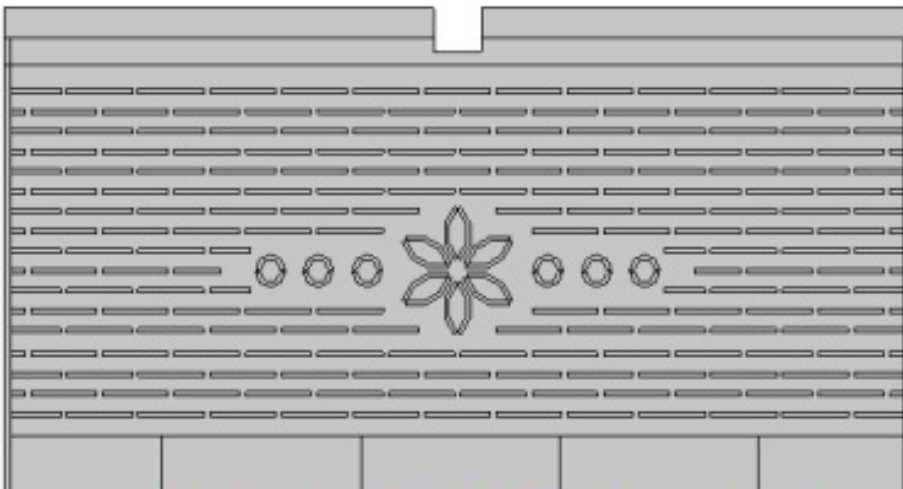
가 . (: (wall_win1), (wall_dr1), (wall_full))



wall_dr1



wall_full_1



wall_full_2

1.

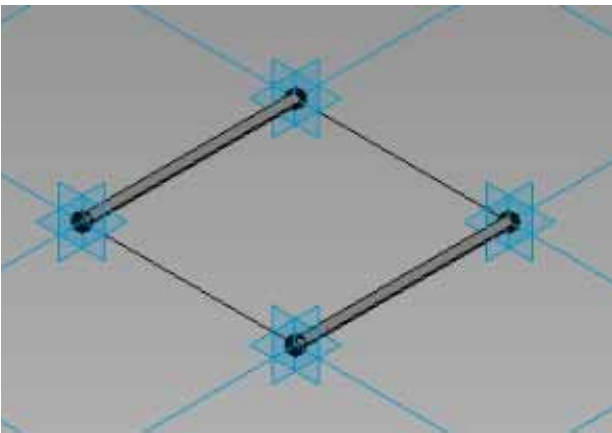
1.1

1.1.3 ()

- Revit Architecture family

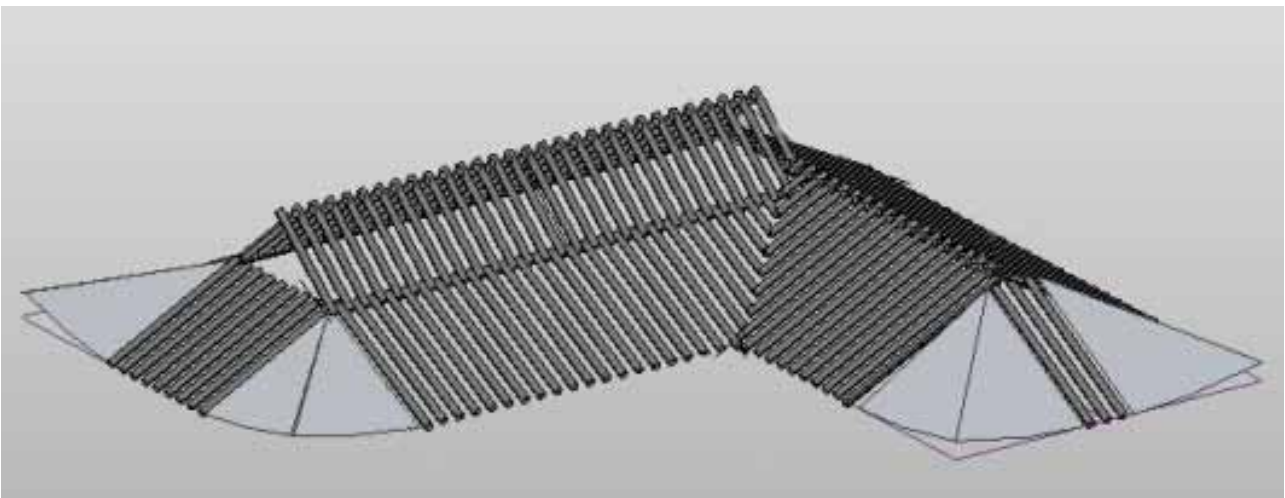
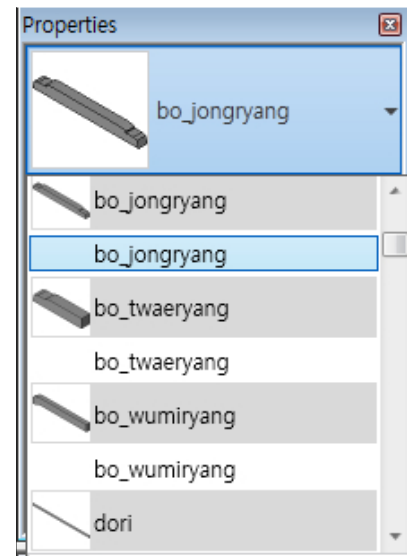
(: (seokarae))

가 . (: (seokarae_R135))



seokarae_R135

Project family load 가 .



roof_seokarae_plane

1.

1.1

1.1.3 ()

- Revit Architecture family

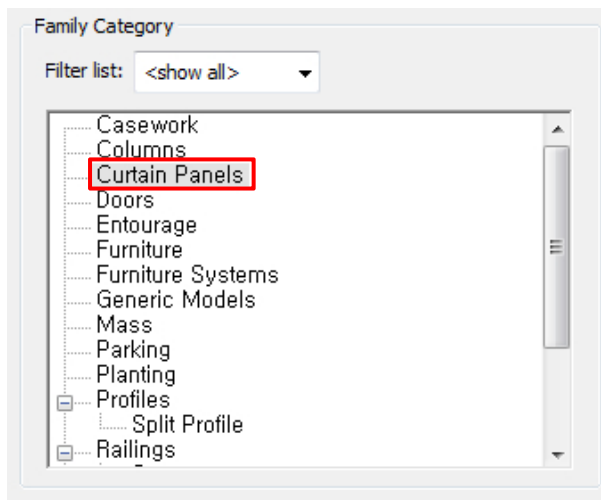
< >

Family (category)

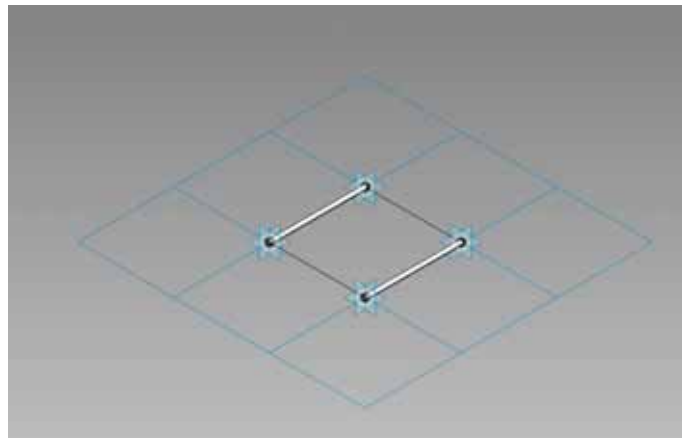
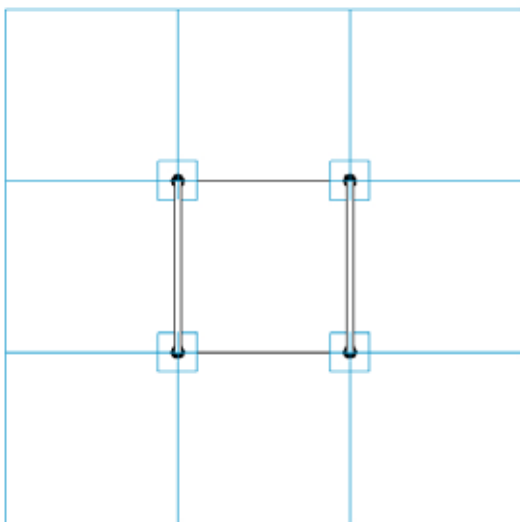
가

Curtain Panels

family category



curtain panels



1.

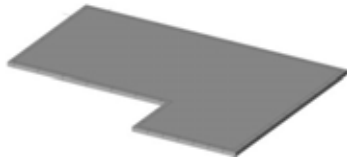
1.2

1.2.1

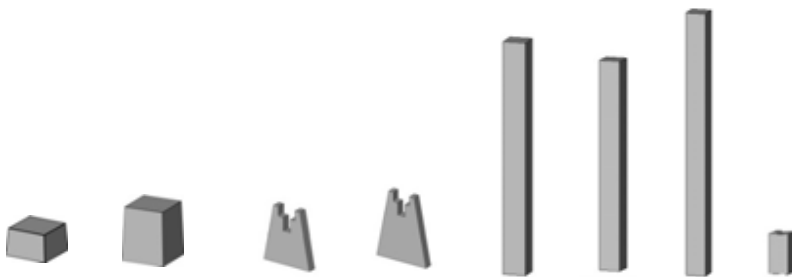
- BIM

- – structural foundation
 - – structural column
 - – structural framing
- Revit project family

Structural Foudation

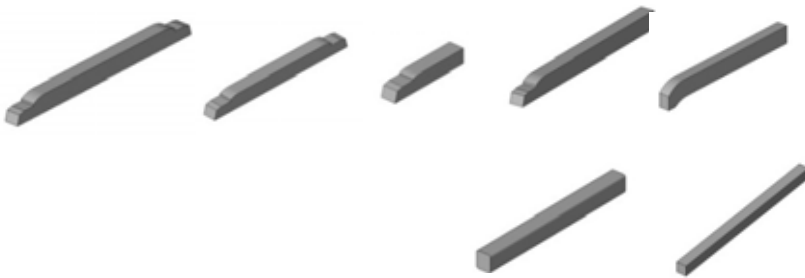


Structural Column



- – (210)
- – (410)
- (240x240)
- 1 (h=2600)
- 2 (h=2400)
- 2 (h=2900)
- (h=300)
- (thk90)
- 5
- 3

Structural Framing



- – (240x300)
- – (240x270)
- – (?x240)
- – (240x300)
- – (180x300)
- – (120x240)
- – (138x150)
- – (90x150)

1.

1.2

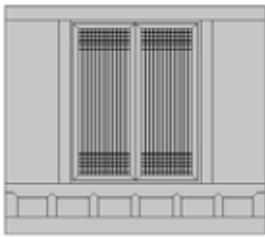
1.2.2

- BIM

- , , – component Revit project

family

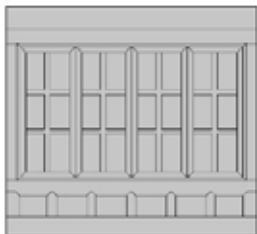
Component



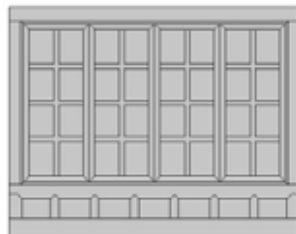
wall_win1



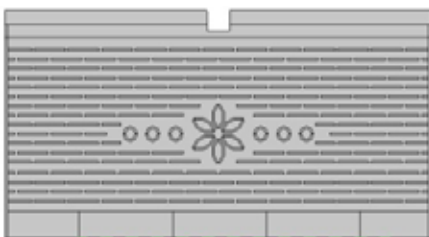
wall_win2



wall_win3



wall_win4



wall_full_2



wall_full_1



wall_dr1

- – 3 ()
- – ()
- 4 () 1
- 4 () 2
- 4 () 3
- –
-

1.

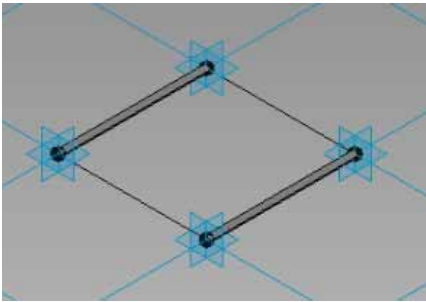
1.2

1.2.3

- BIM

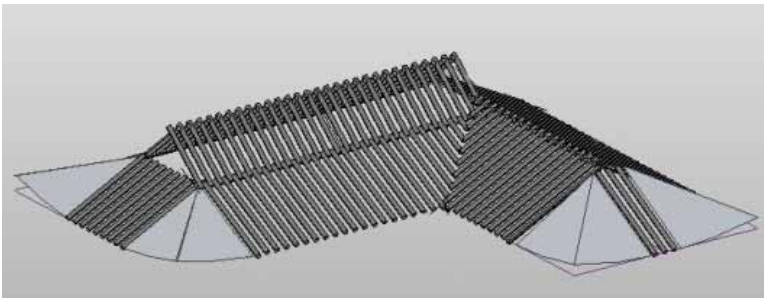
- - curtain panel pattern
- - component

Curtain Panel Pattern



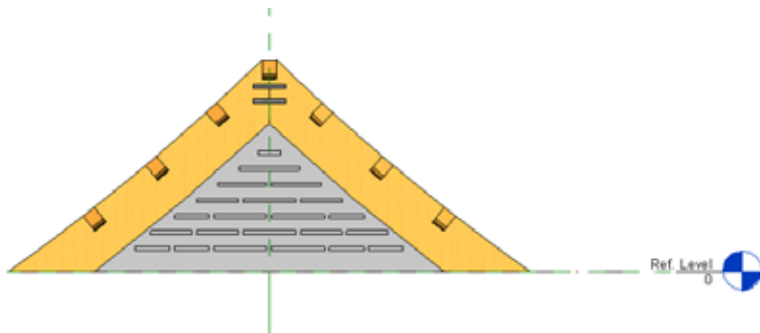
seokarae_R135

- - (R=135)
-



roof_seokarae_plane

Component



-

2.

2.1

Revit

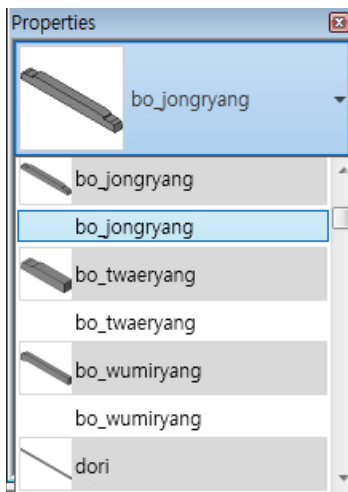
family

load

beam

foundation

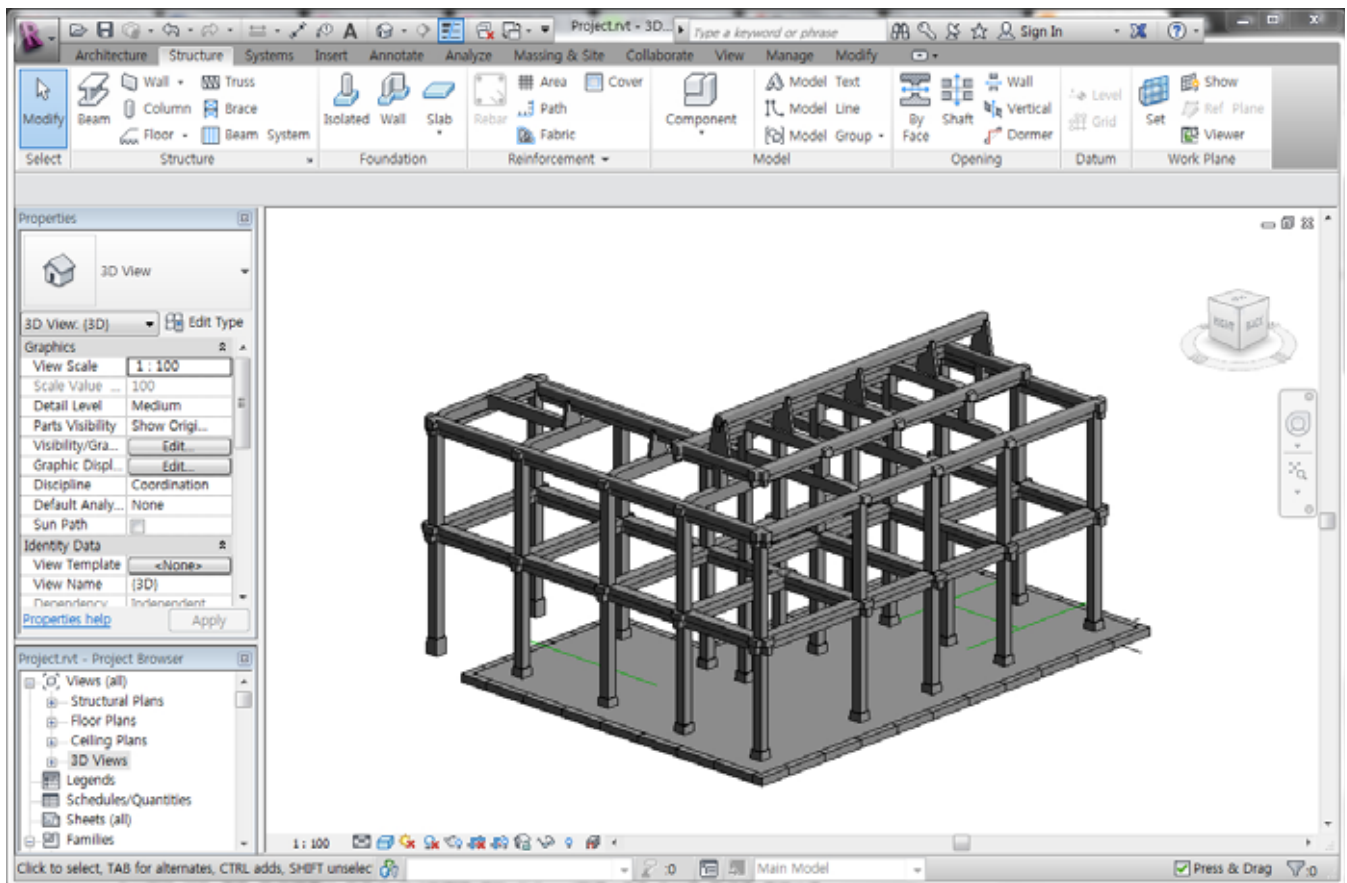
column



Project family

BIM

: Revit Architecture



2.

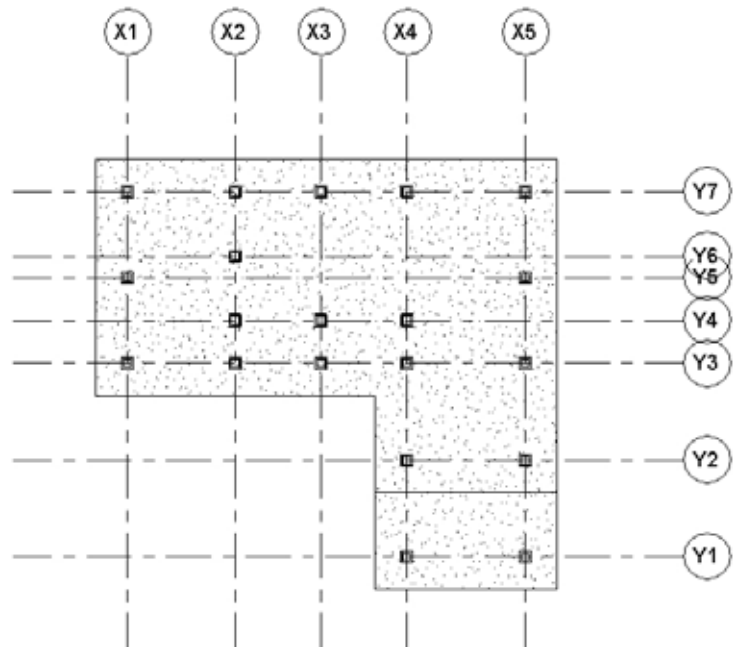
2.1

project

Project

floor plan

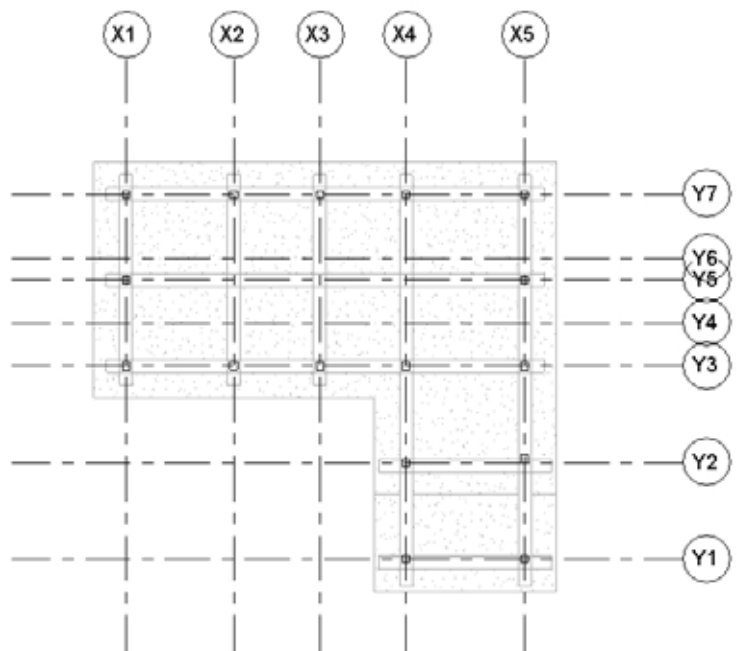
1



Project

floor plan

2



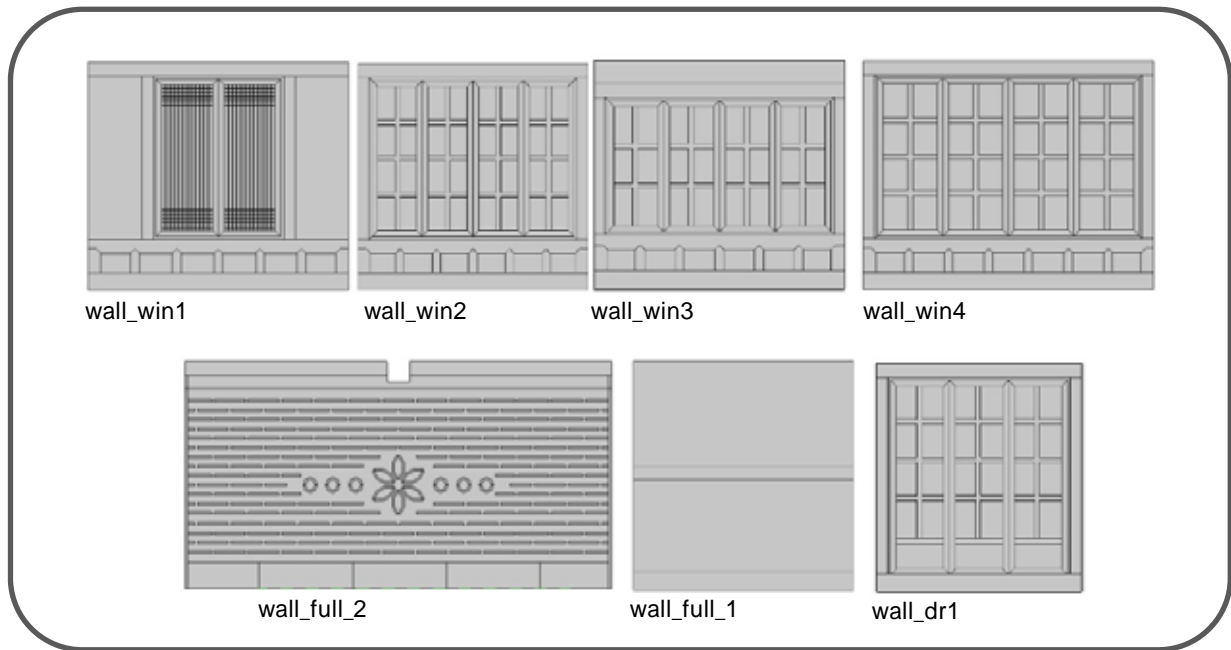
BIM

: Revit Architecture

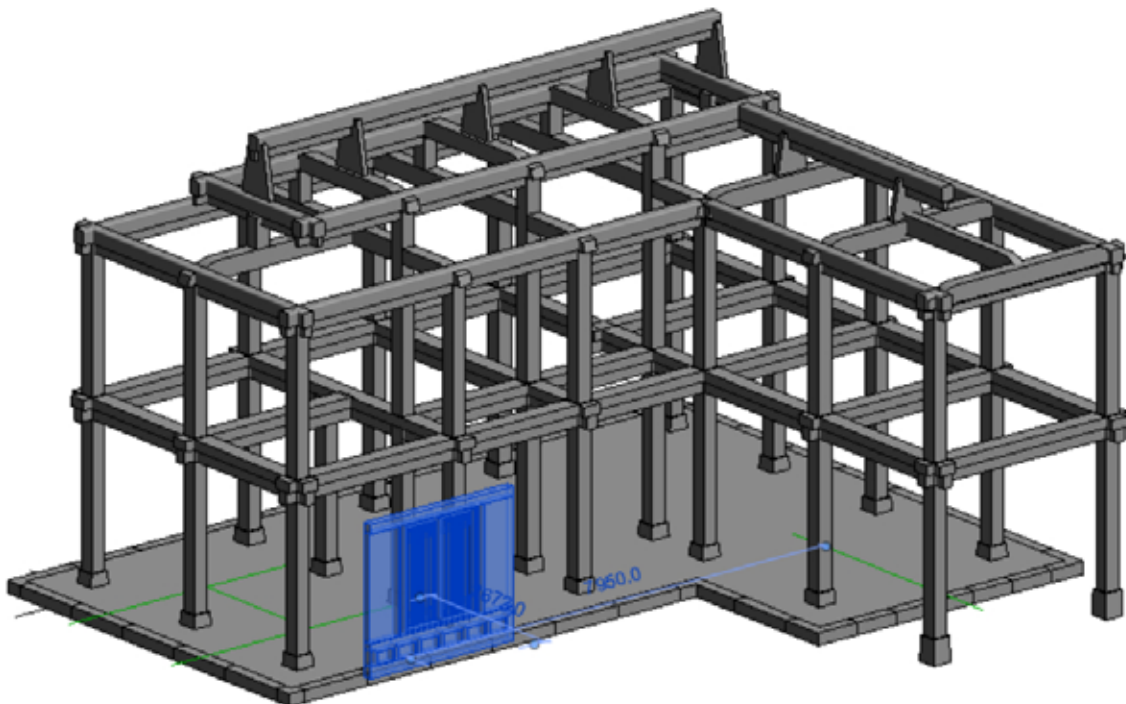
2.

2.2

component



Project
family



2.

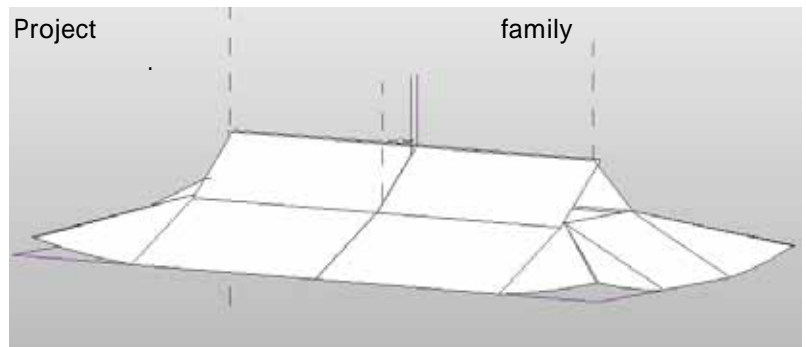
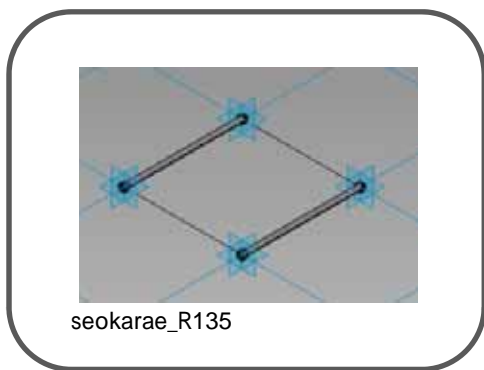
2.3

2.3.1

가

family curtain panel pattern

가



Properties

Rectangle
seokarae1_up

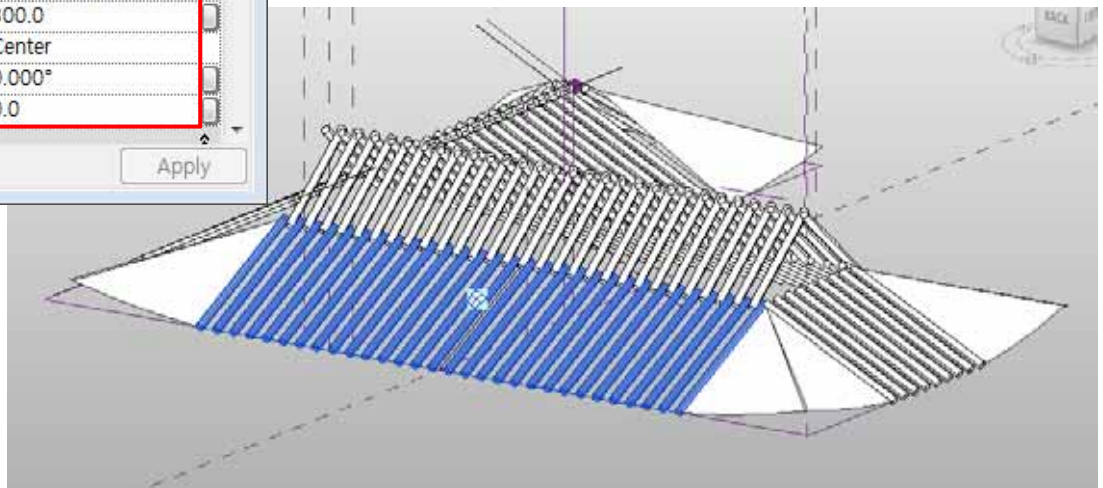
Divided Surface (1) Edit Type

Constraints	
Border Tile	Empty
All Grid Rotation	0.000°
U Grid	
Layout	None
V Grid	
Layout	Fixed Distance
Distance	300.0
Justification	Center
Grid Rotation	0.000°
Offset	0.0

Pattern Application
[Properties help](#) Apply

Curtain panel

가



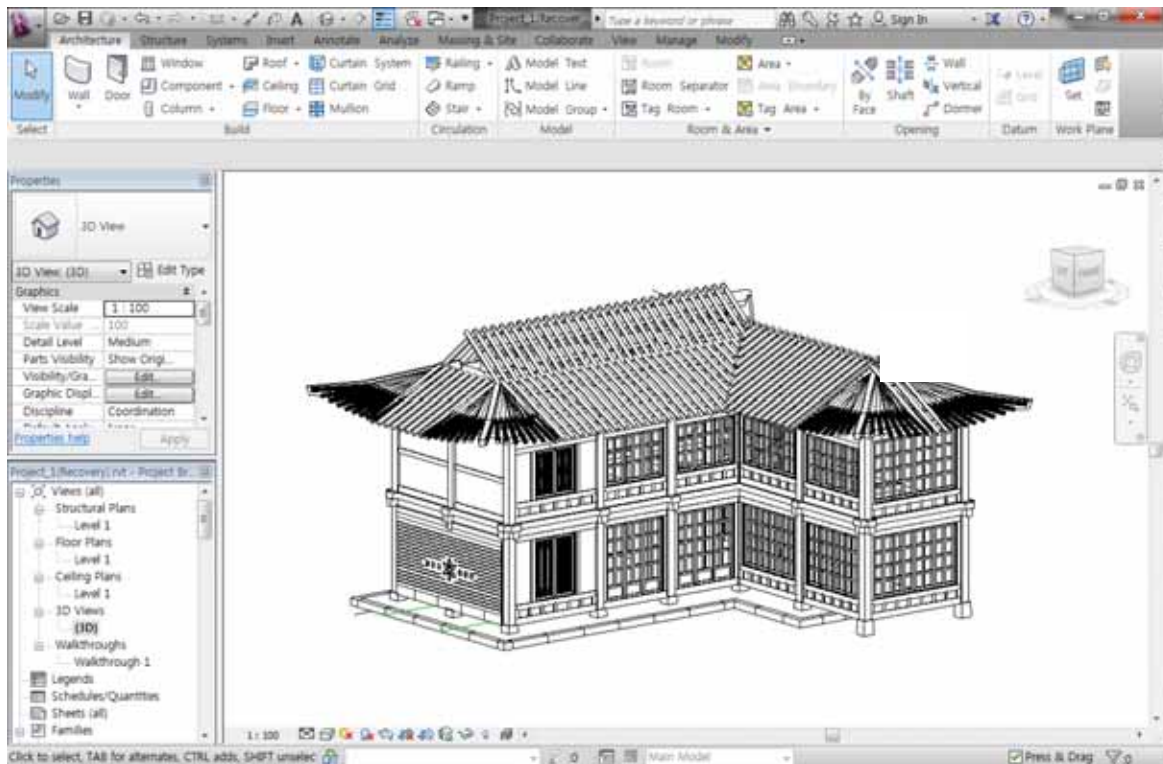
2.

2.3

2.3.1

가 curtain panel pattern 가 family 가

<curtain panel family >

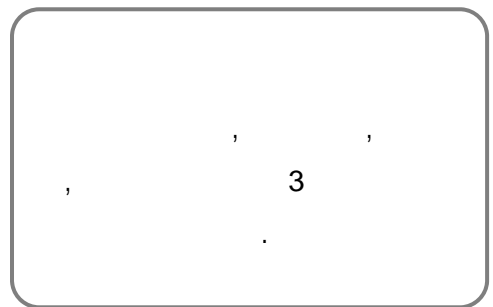
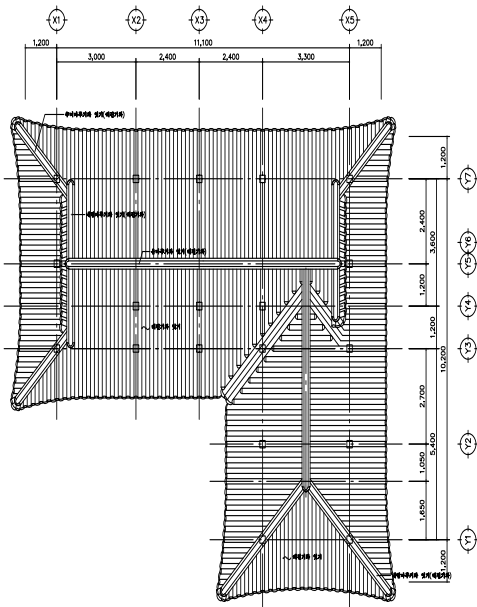
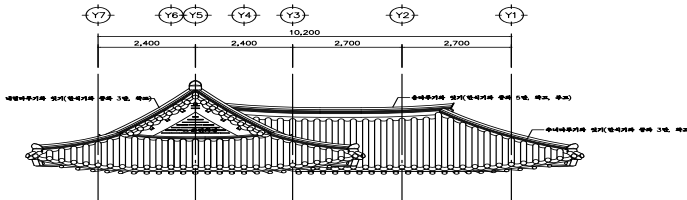
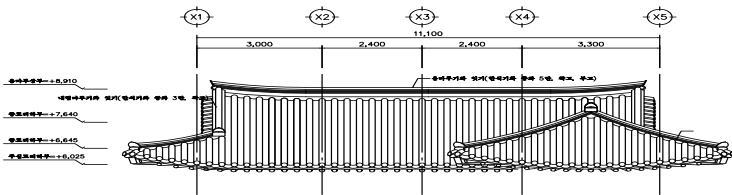


2.

2.3

2.3.2

< CAD >



Revit
Revit

가

, Revit
, Revit

Revit

2.

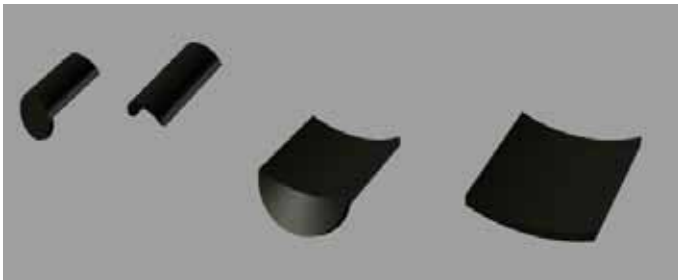
2.3

2.3.2

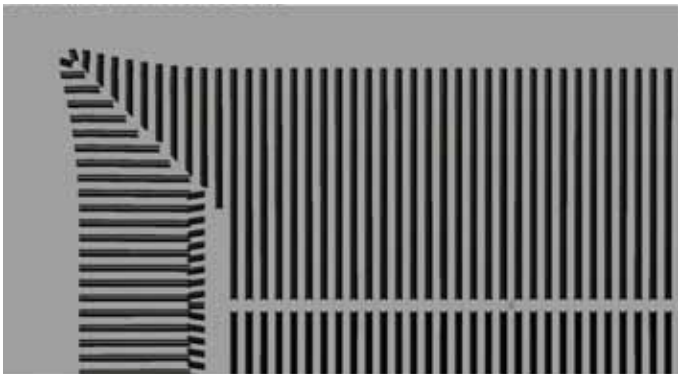
(rhinoceros)

가 가

< : , , , >

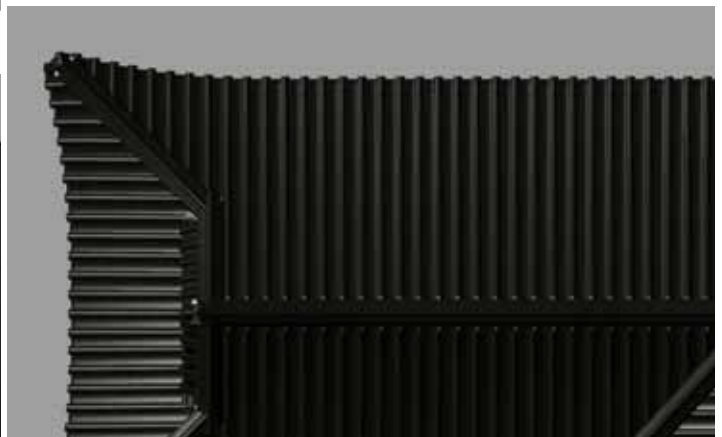
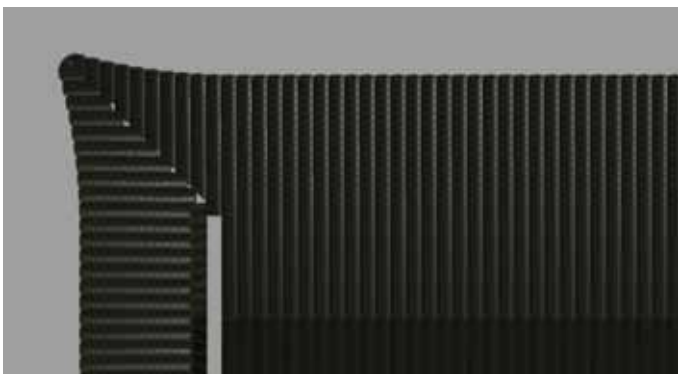


< >



< , , >

< >



: Rhinoceros

2.

2.3

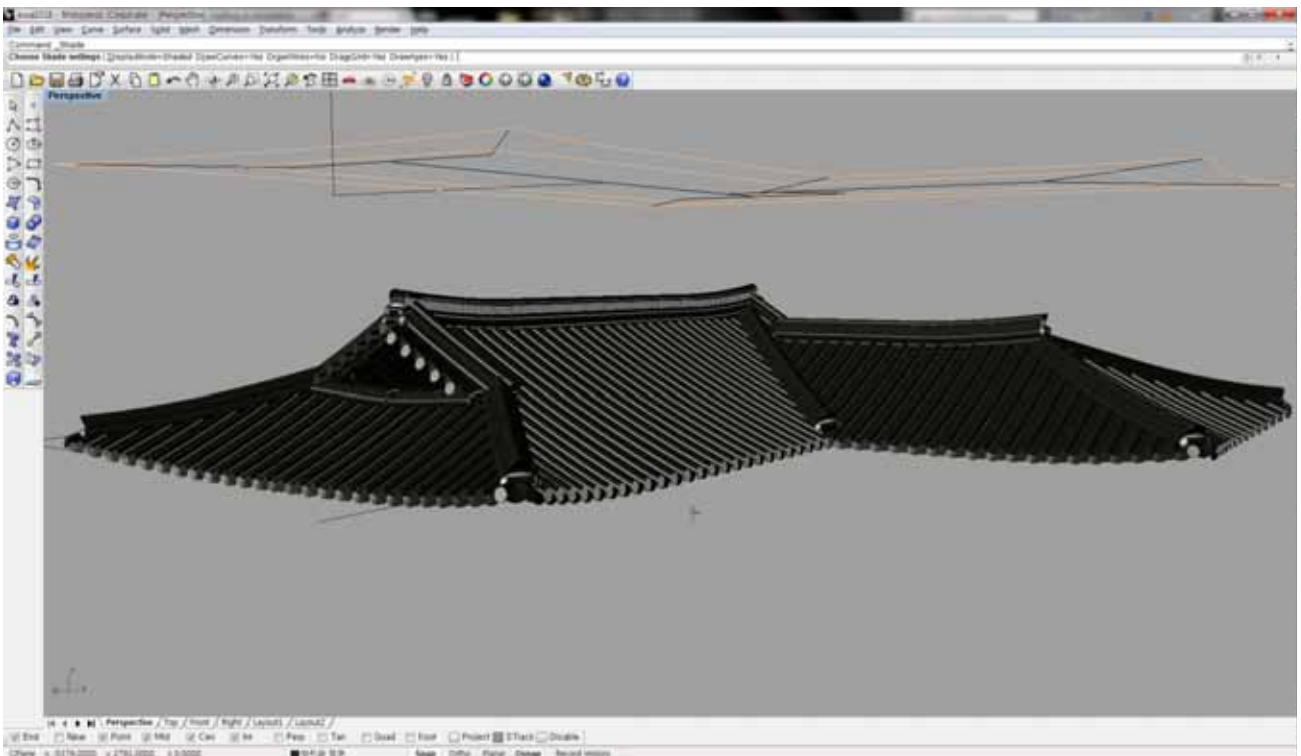
2.3.2

(rhinoceros)

가 가

< Rhino

>



: Rhinoceros

2.

2.3

2.3.2

Rhino modeling , Revit . Solid

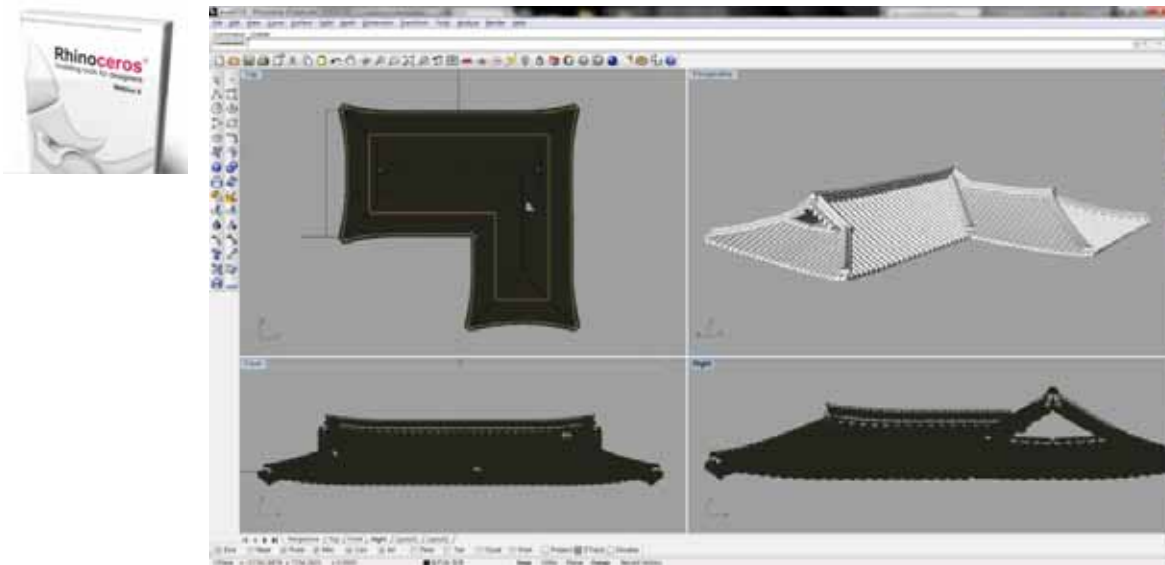
Revit Autodesk Inventor

solid modeling solid

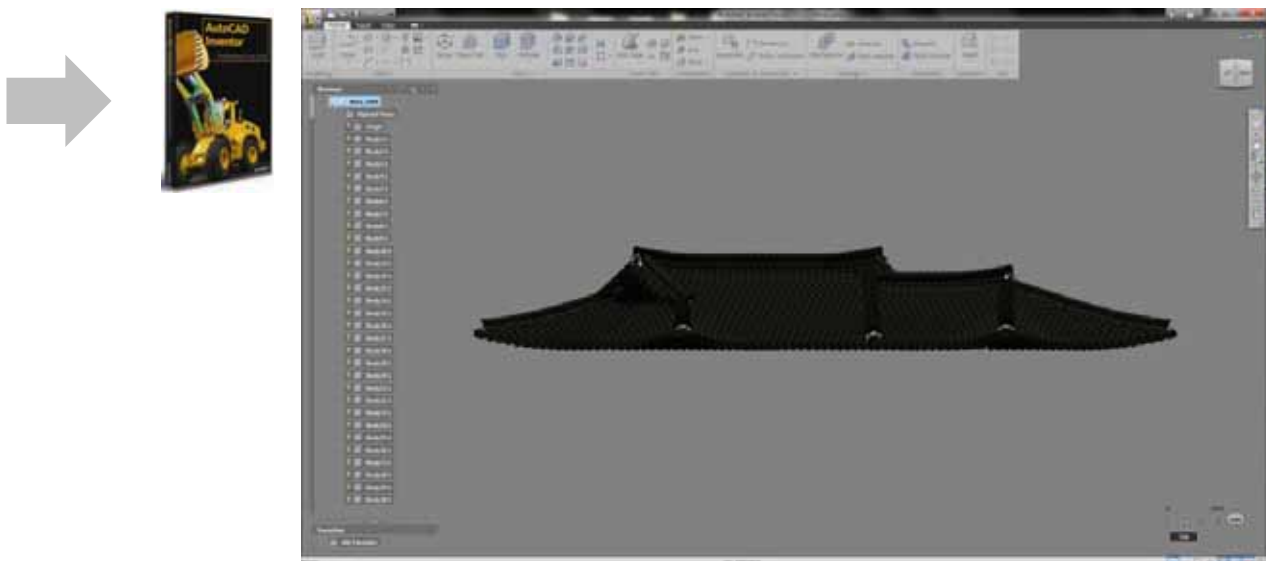
nurbs

- Sketchup, Rhino3D : nurbs modeling tool
- Cad, Revit : solid modeling tool

<Rhinceros : nurbs >



<Autdest Inventor : solid >



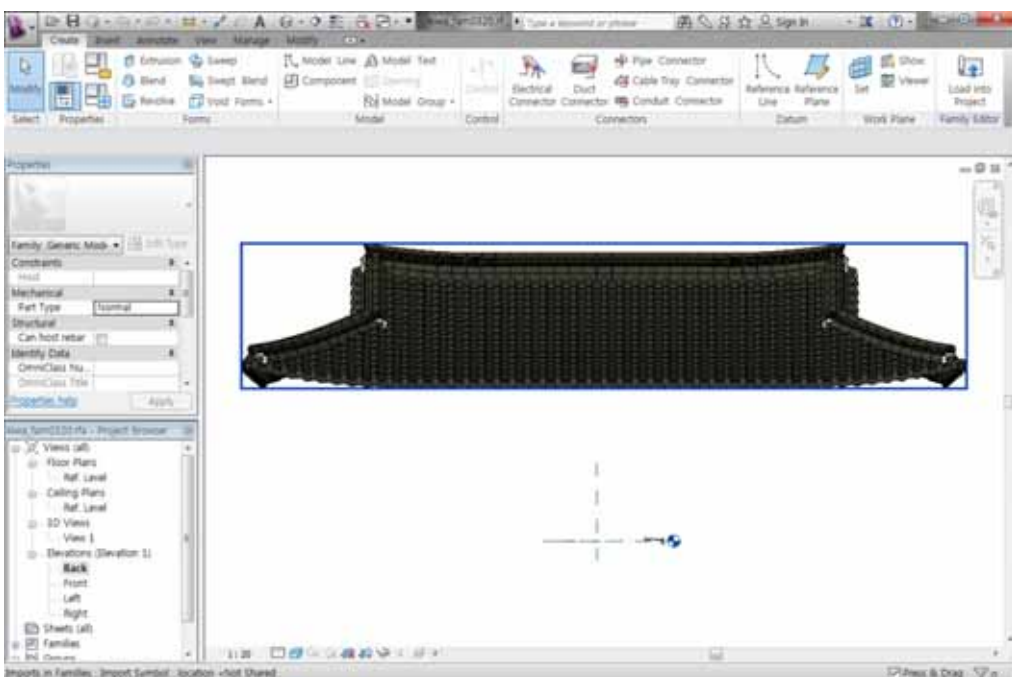
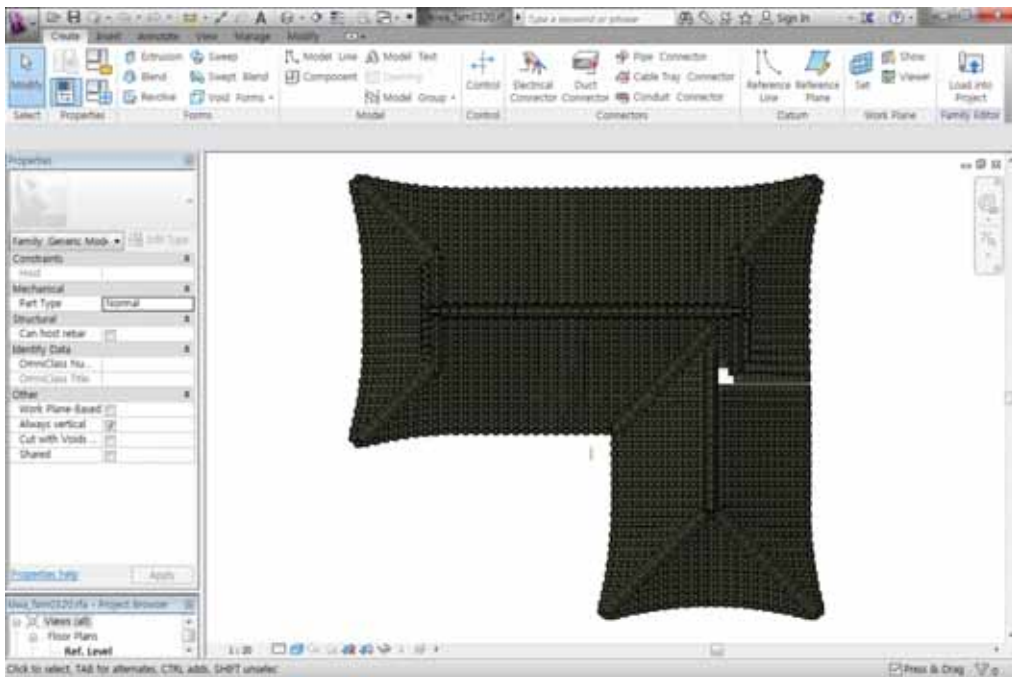
2.

2.3

2.3.2

Soild 가 , Revit Family 가 Project 가

<Revit family solid >

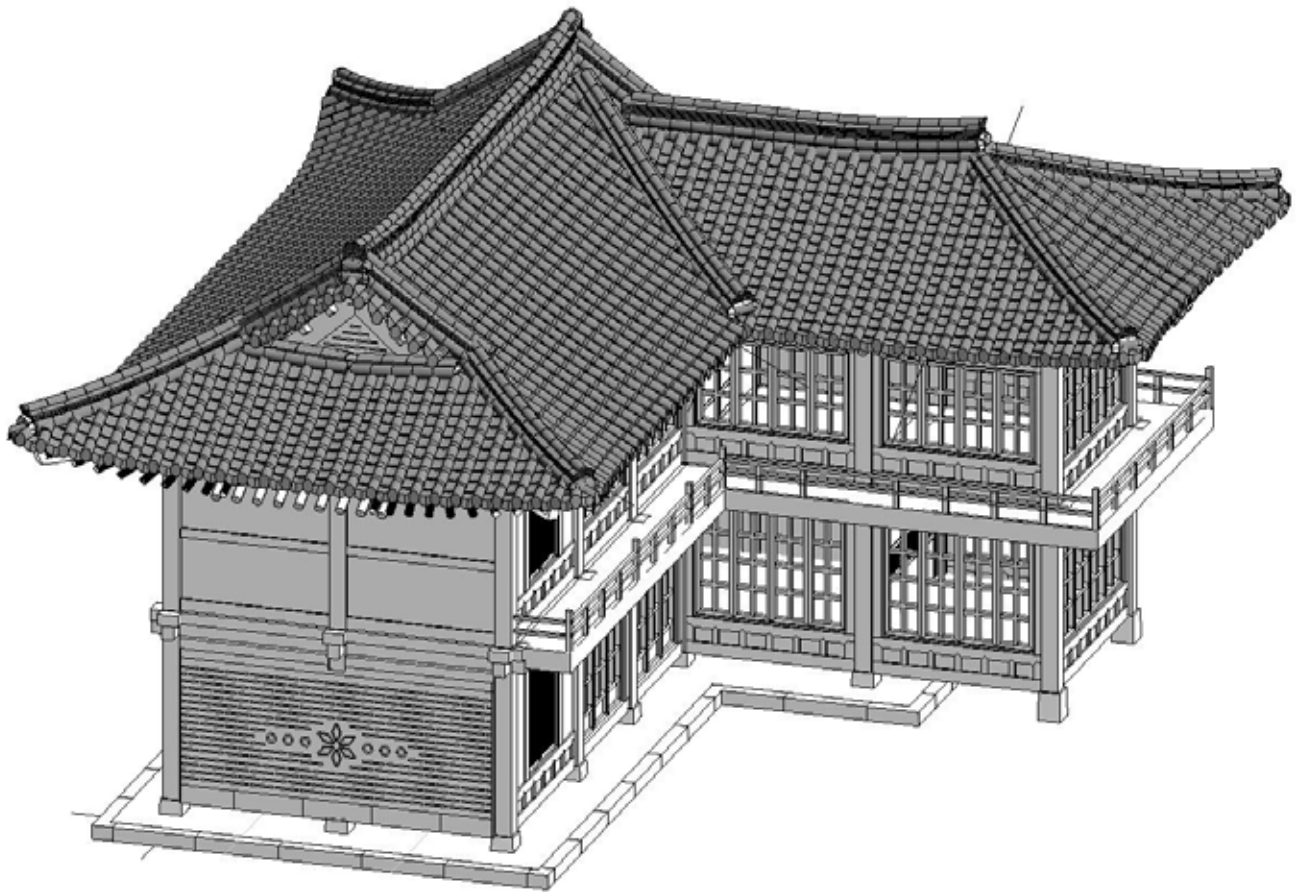


2.

2.3

2.3.2

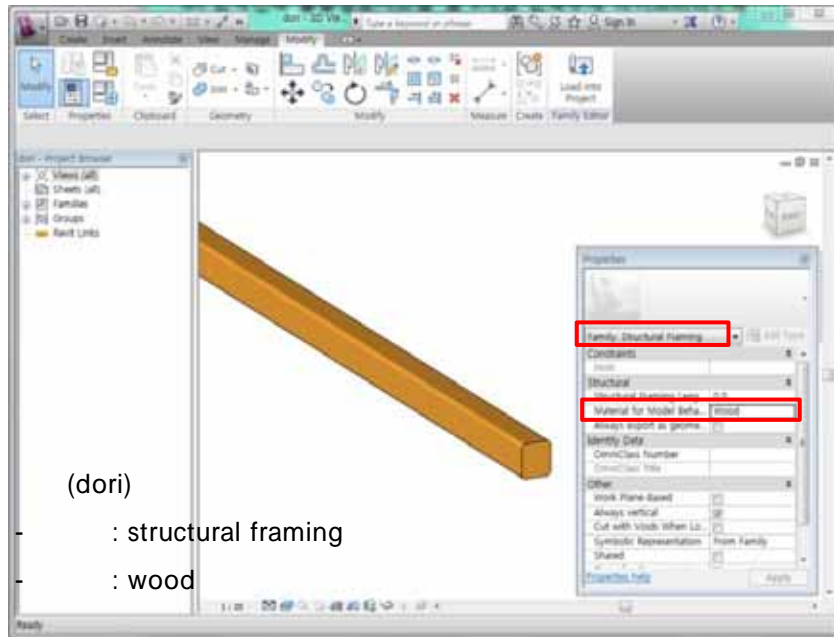
Revit family project
BIM



3.

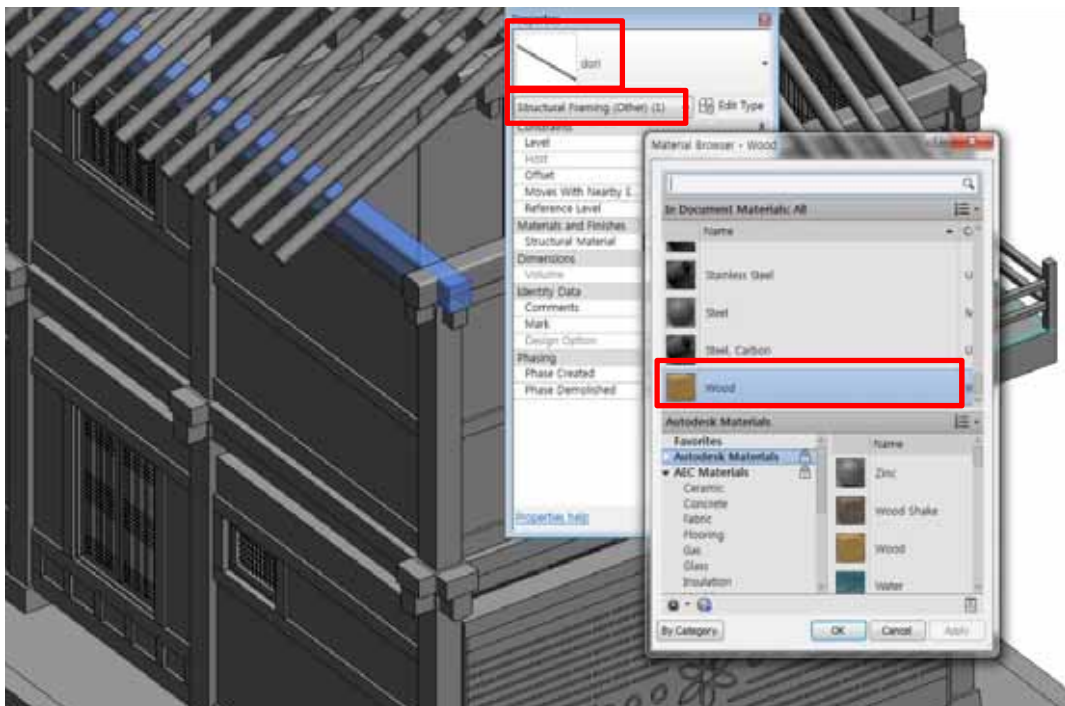
3.1

< Revit modeling Family >



(dori)
: structural framing
: wood

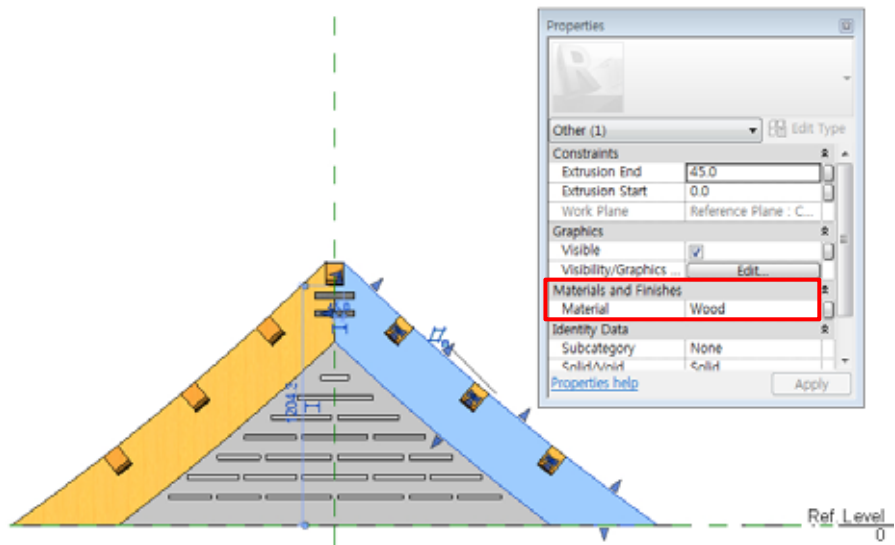
< Revit modeling Project >



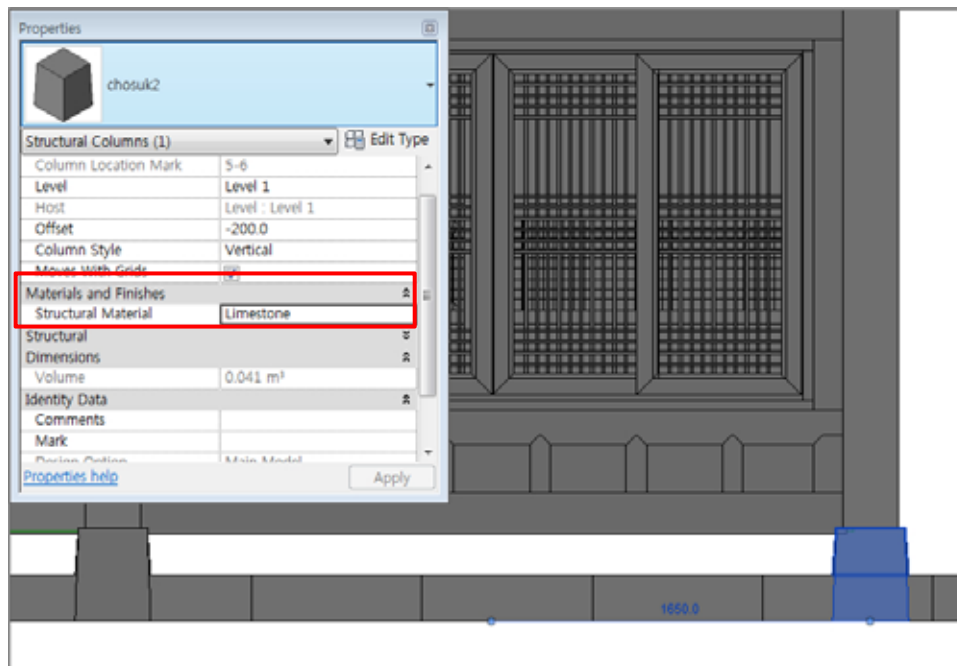
3.

3.1

< Revit modeling Family >



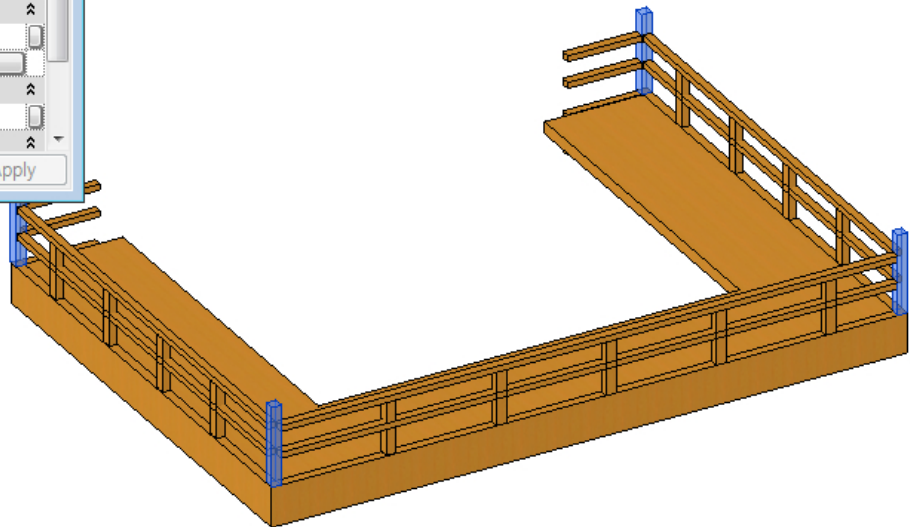
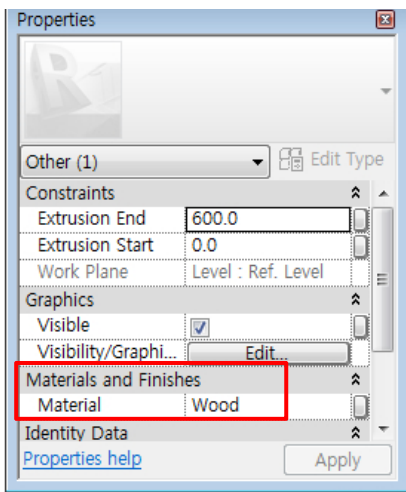
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3.

3.1

< Revit modeling Family >

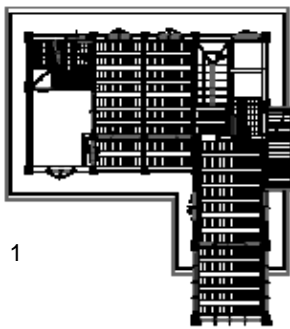


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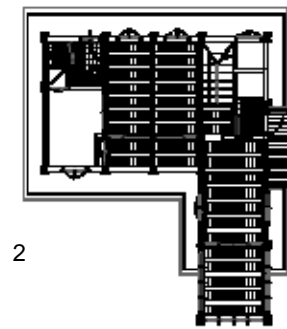
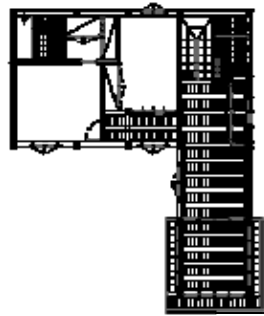
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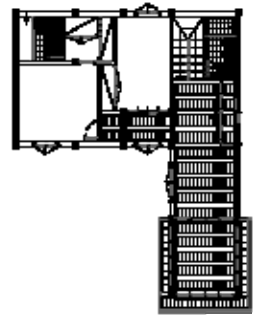
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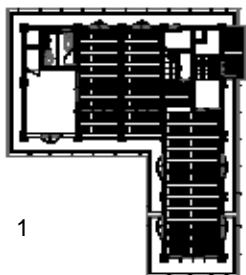
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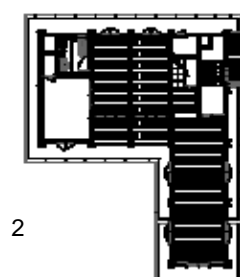
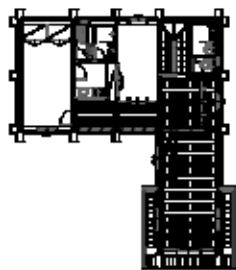
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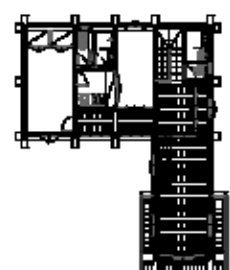
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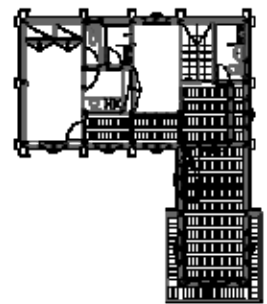
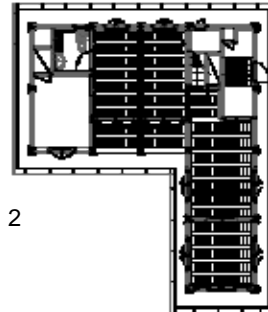
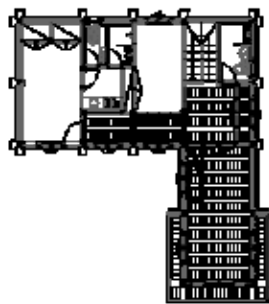
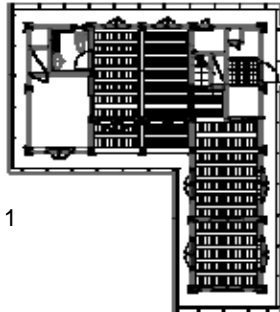
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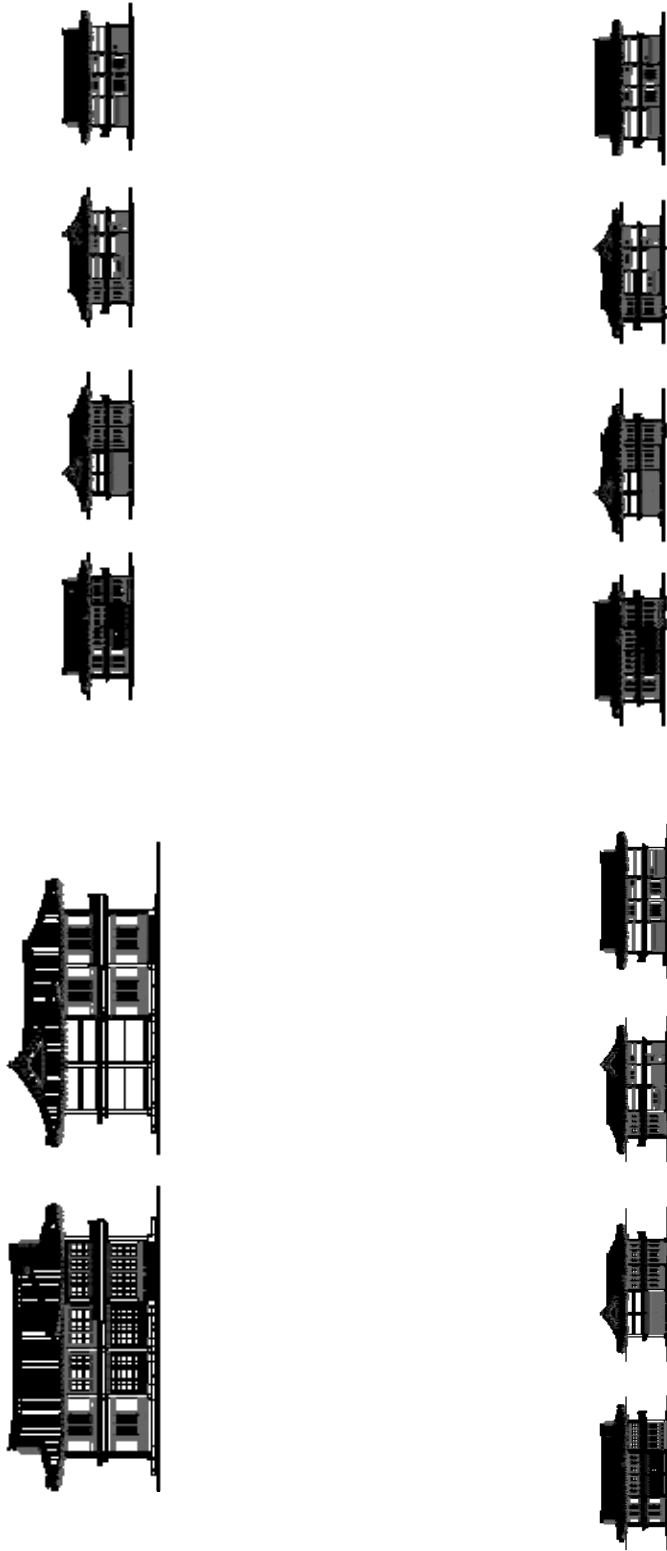
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4.1

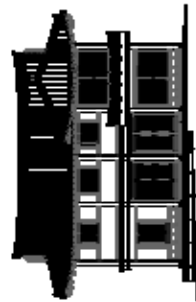
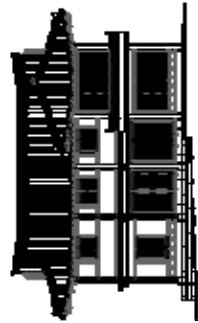
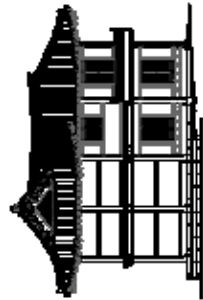
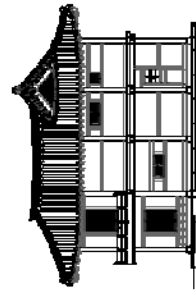
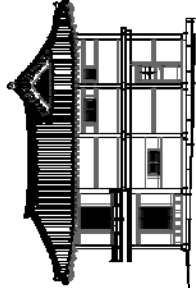
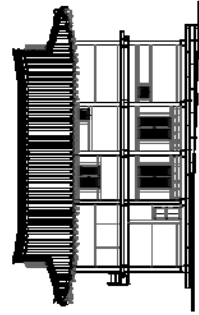
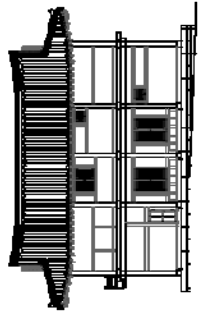
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4.

4.1

가



4.

4.2

- 2013 4 11

Revit architecture

2013 4 11

K



4.

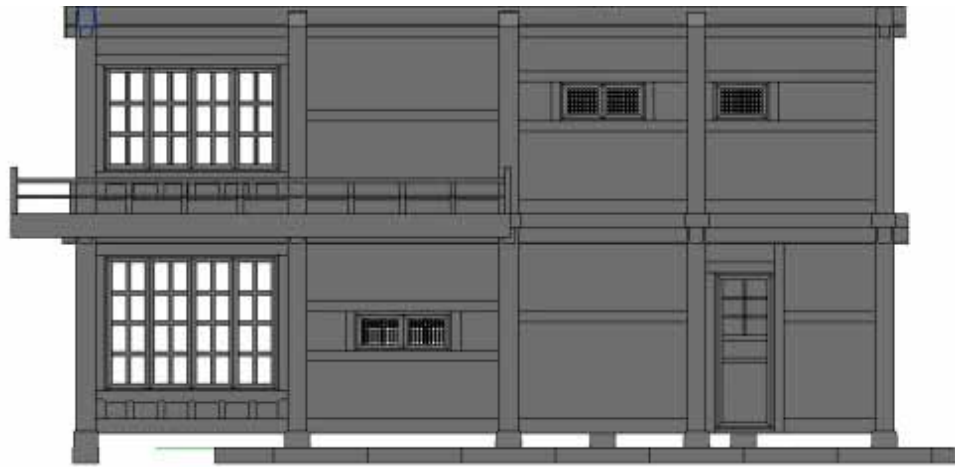
4.2

- 2013 4 11

Revit architecture

2013 4 11

K



4.

4.2

- 2013 4 11

Revit architecture

2013 4 11

K



4.

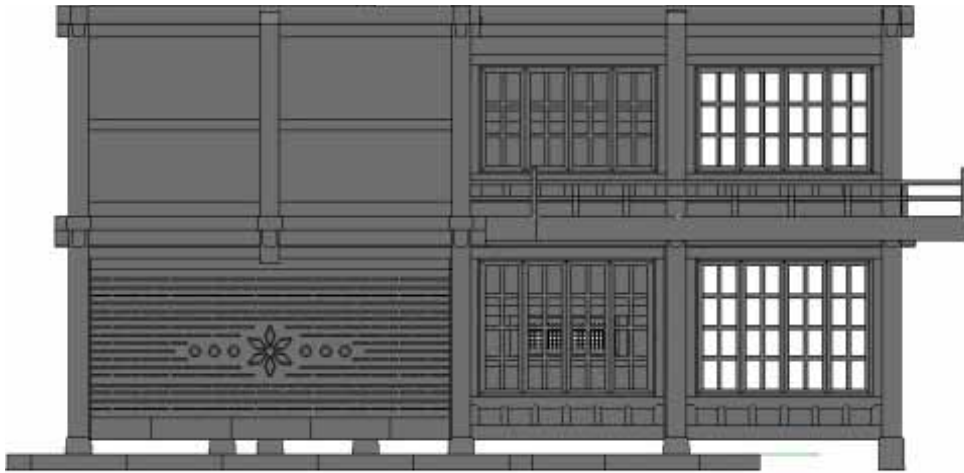
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- 2013 4 11

Revit architecture

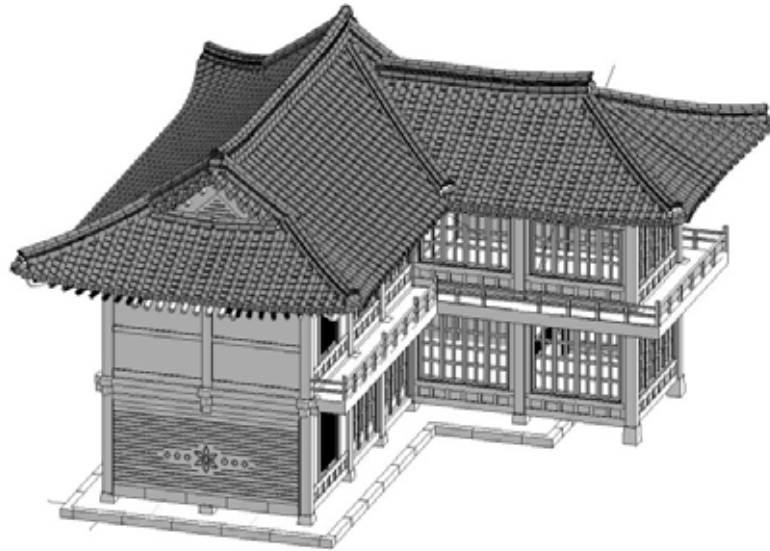
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4.

4.3 BIM



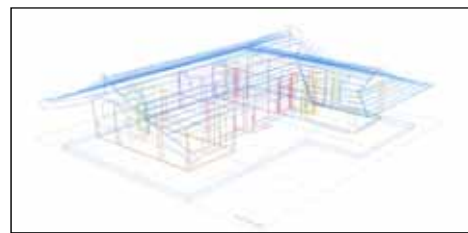
Revit Architecture
4

, IFC



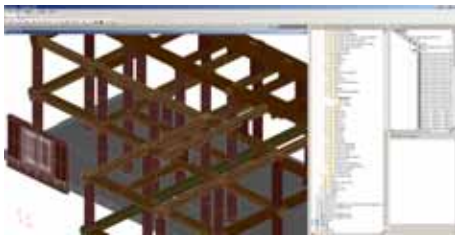
1

-



3

-



2

-

가							
	LOD	IFC	P-Description	Revit	DP	ArchICAD	Parametric
- (3)	level 1/						
- (5)	level 1/						
ㄱ (3+5)	level 1/						
ㄴ (5+5 , 2)	level 1/						
ㄷ (3+5)	level 1/						
ㄹ (5+5)	level 1/						
ㅁ (3+5)	level 1/						
ㅂ (3+4+5)	level 1/						

4

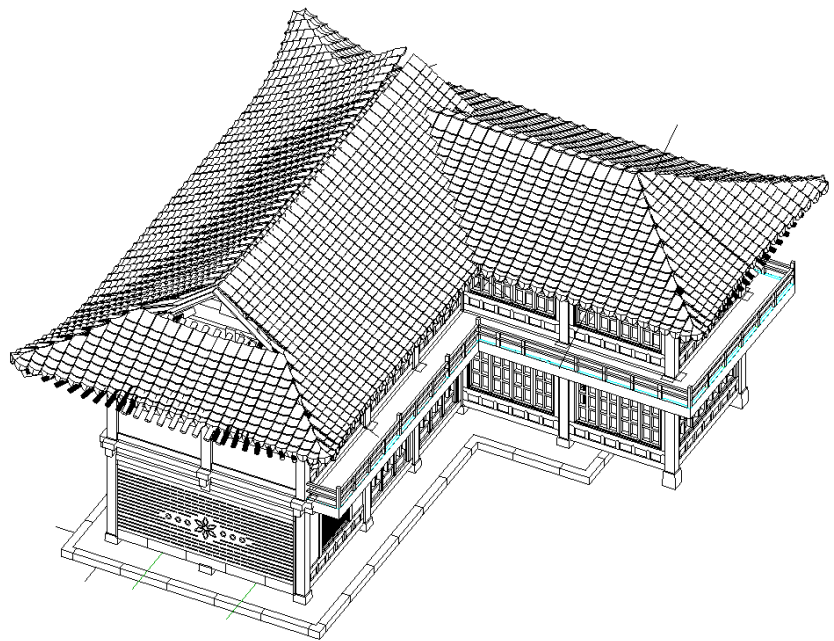
- BIM

4.

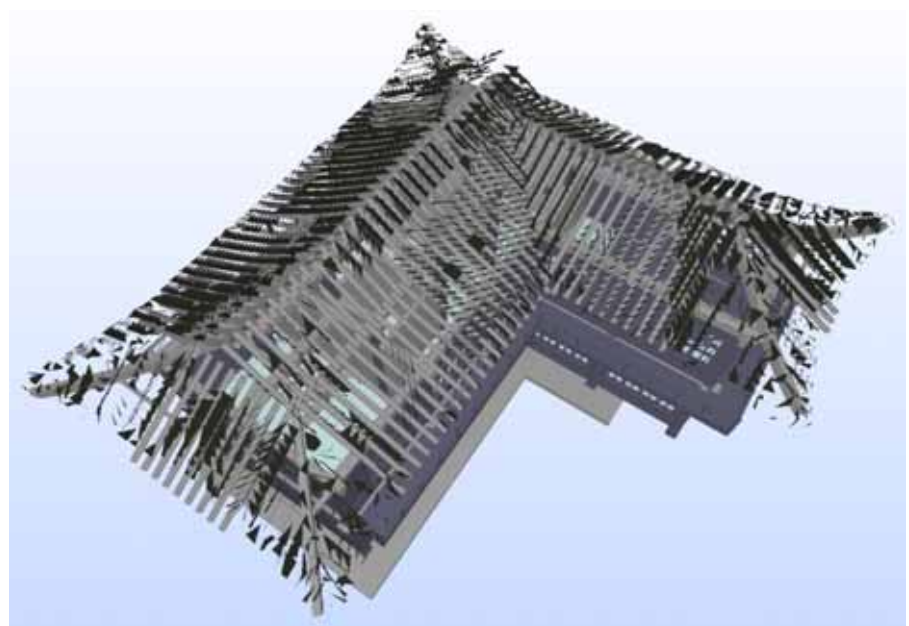
4.3 BIM

- Revit (2013 4 4 ifc)

Revit Rhino 가 IFC SMC



< ' Rhino Inventor Revit >



< Revit IFC SMC >

4.

4.3 BIM

- Revit

ifc

3

solid

Revit
Revit

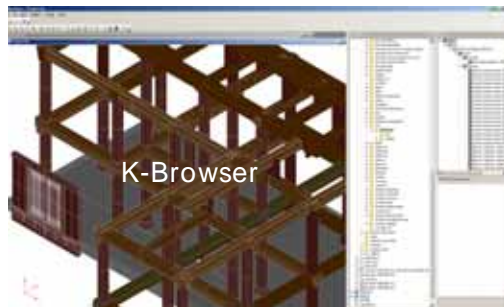
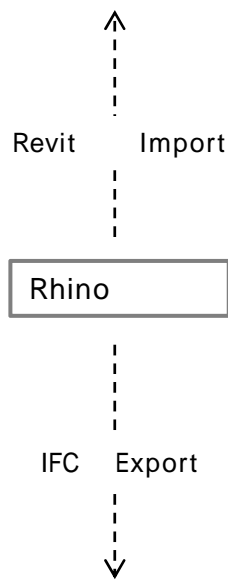
IFC

SMC

Rhino

가

.

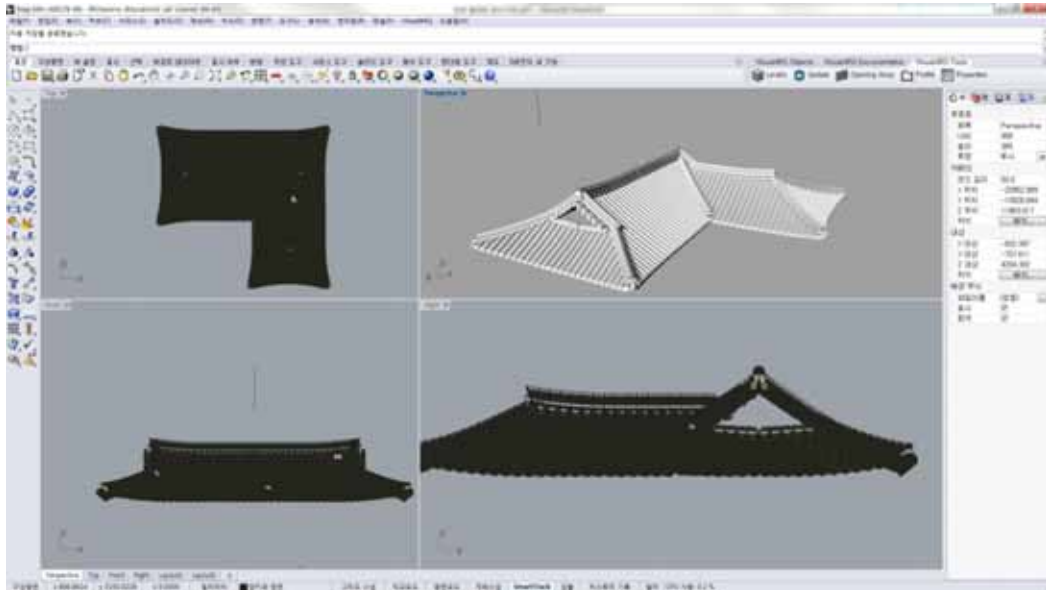


4.

4.3 BIM

- Revit ifc

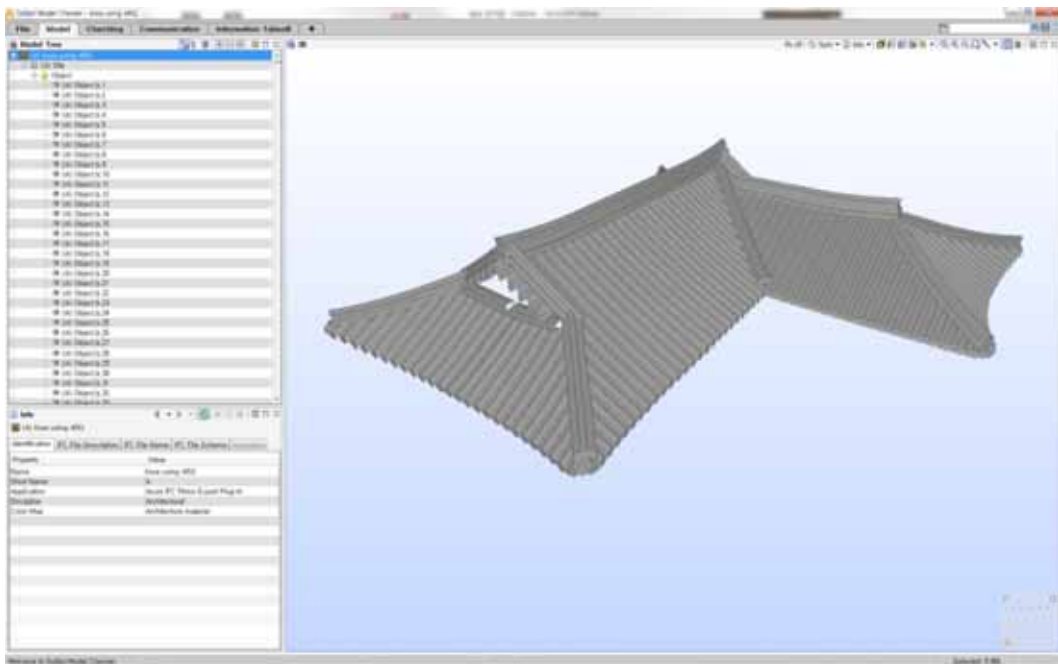
3 solid Revit Revit IFC SMC Rhino 가 .



< Rhino >



< IFC >



< IFC Solibri Model Checker >

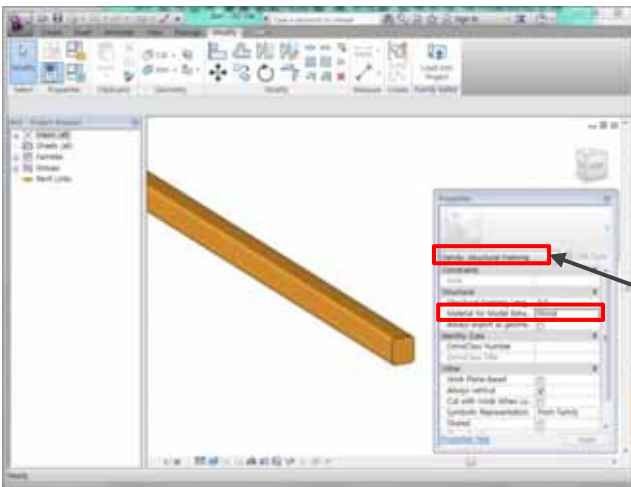
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4.3 BIM

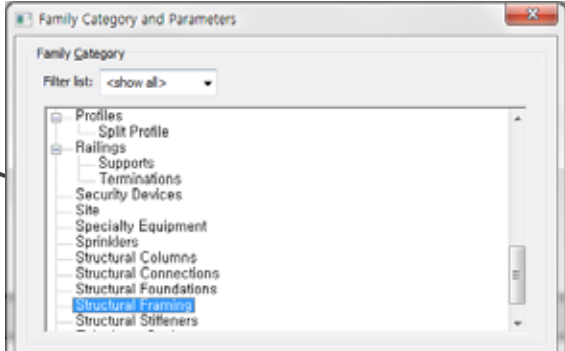
- Revit ifc

REVIT Family 가 family category가 structural framing K
-> 가 family : , , ,

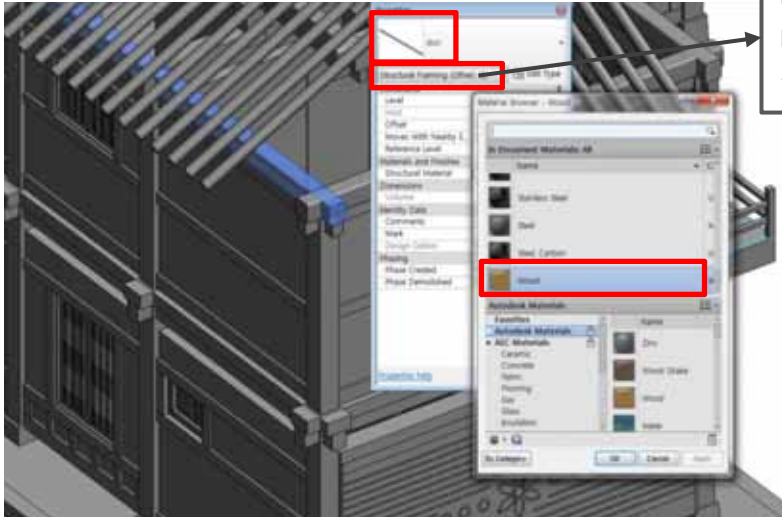
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< family category >



< Revit modeling Project >



Project properties
Project load dori 가 structural framing

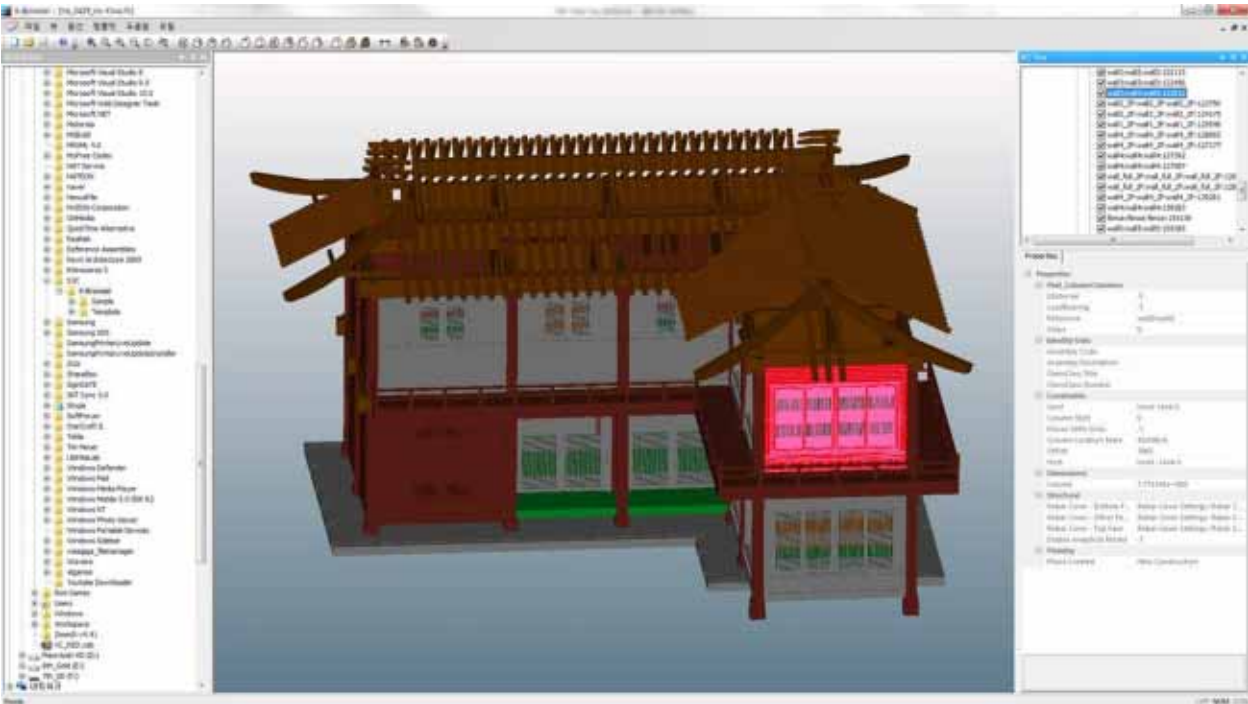
4.

4.3 BIM

- Revit ifc

REVIT Family 가 family category가 structural framing K
-> 가 family : , , ,

Ifc K
(BuildingElementProxies)



4.

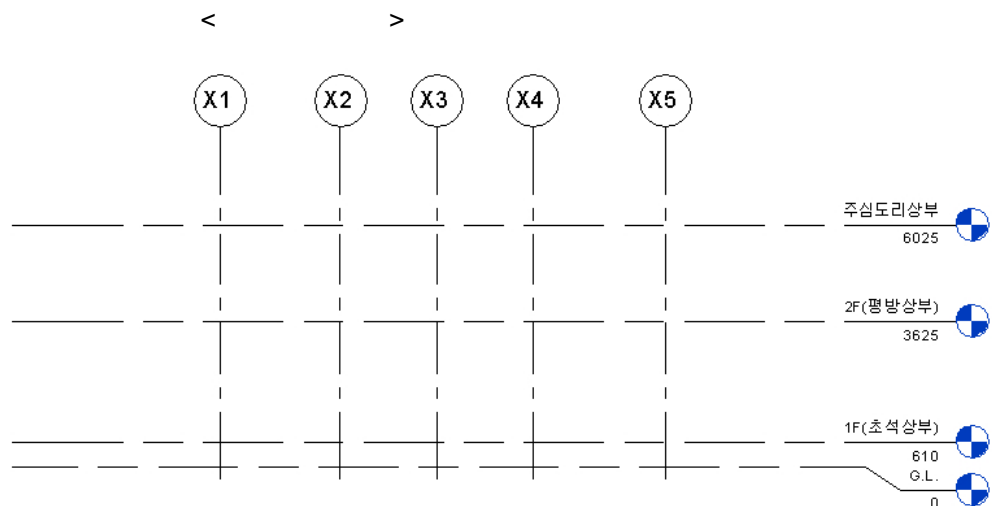
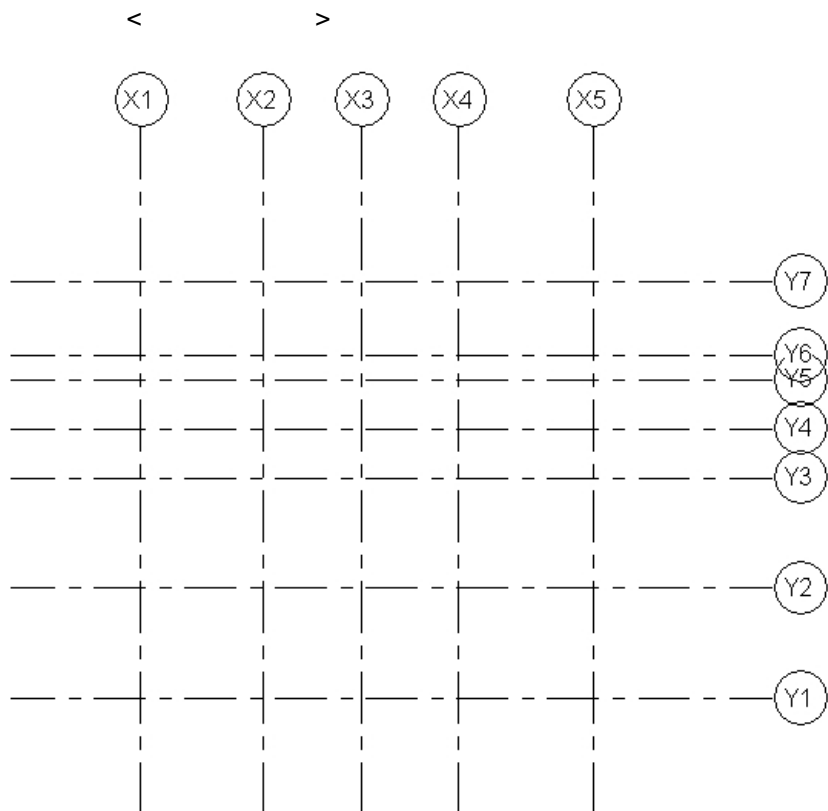
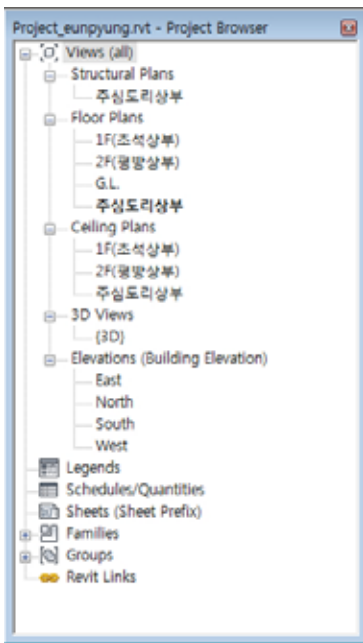
4.3 BIM

- Revit

Project

G.L. (ground level), 1F(), 2F(),
가

< plan >

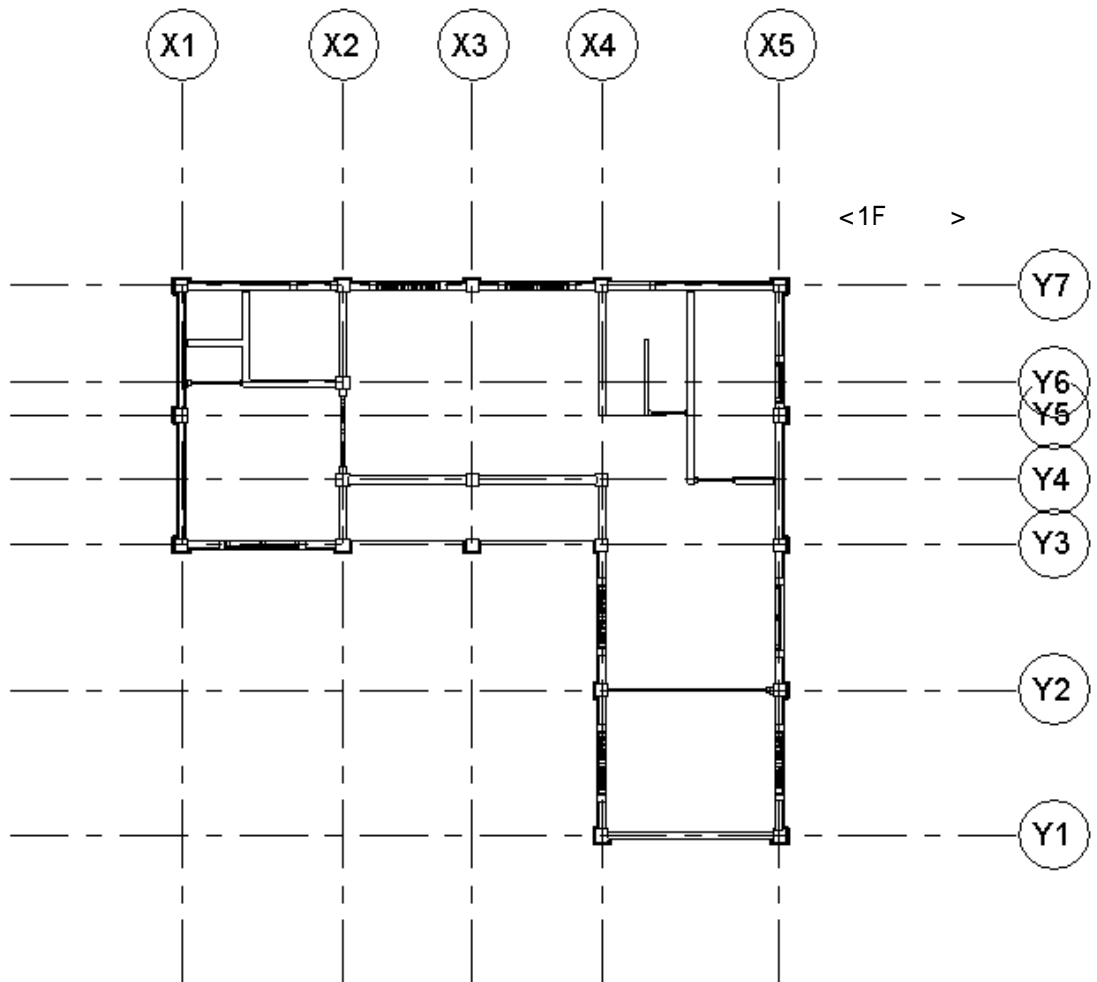
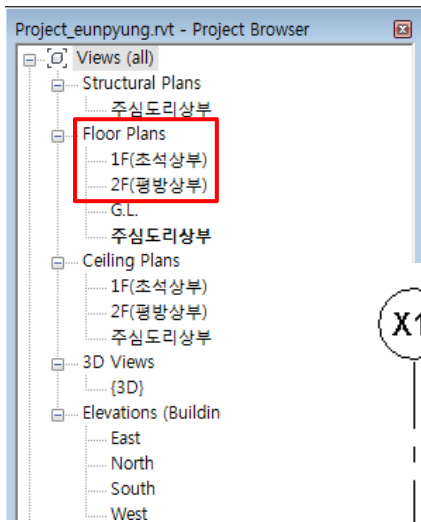


4.

4.3 BIM

- Revit

1 2

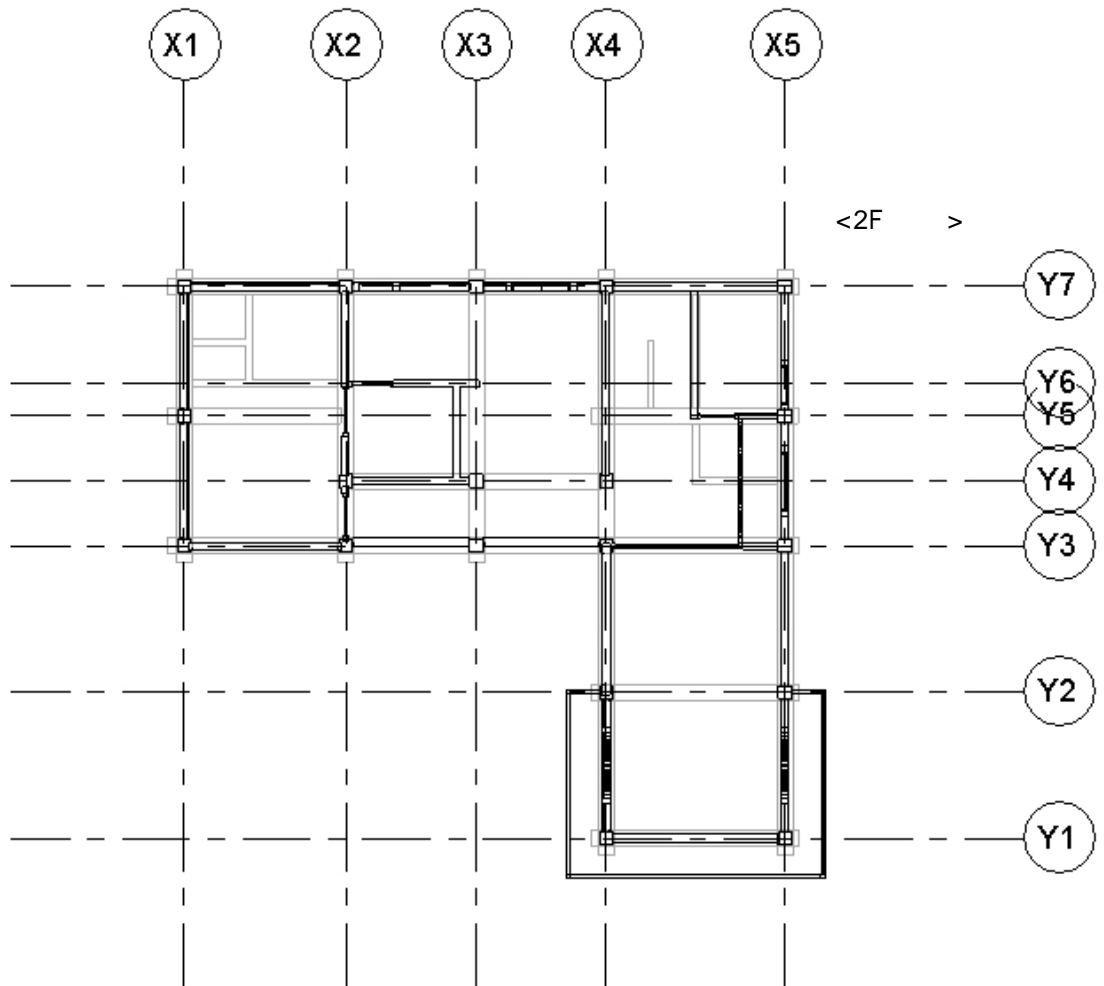
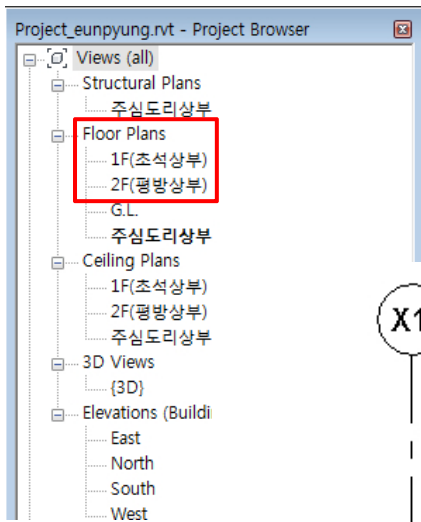


4.

4.3 BIM

- Revit

1 2



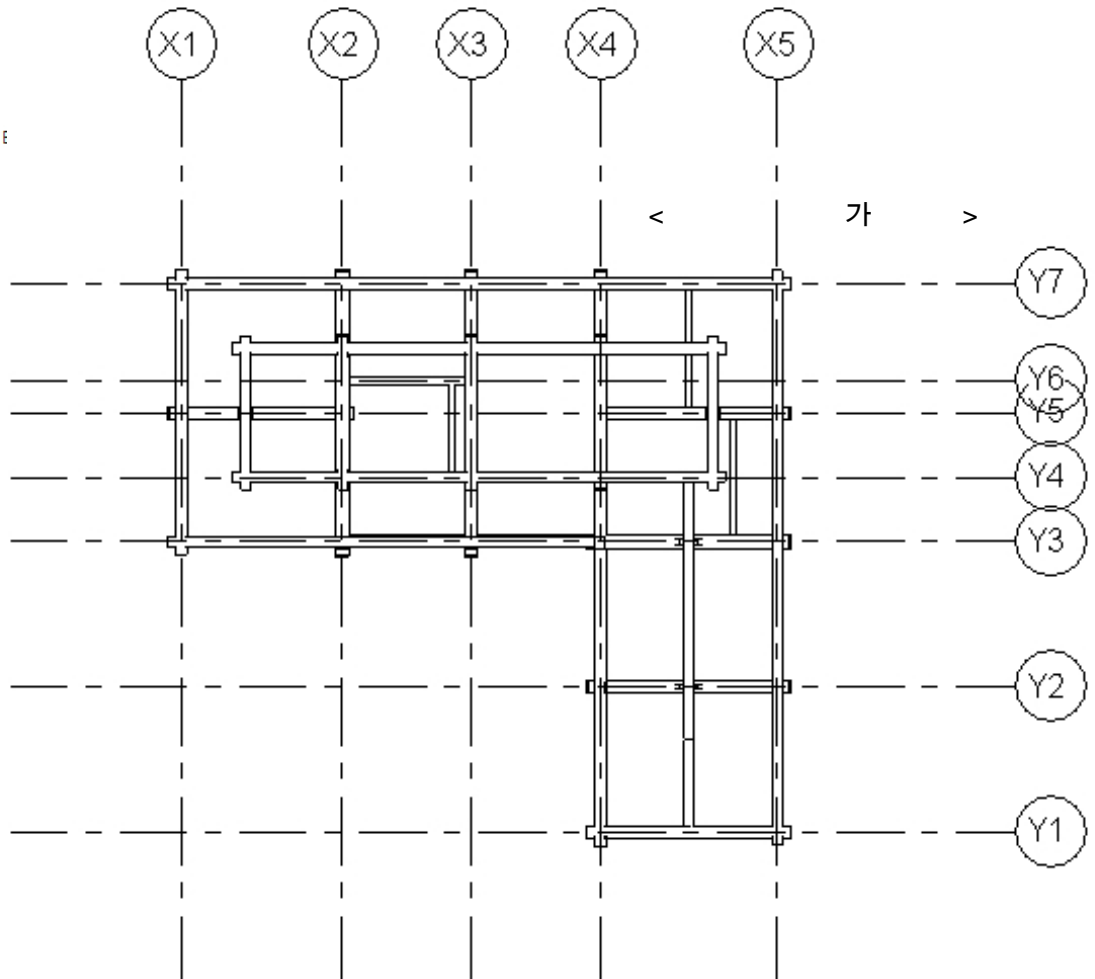
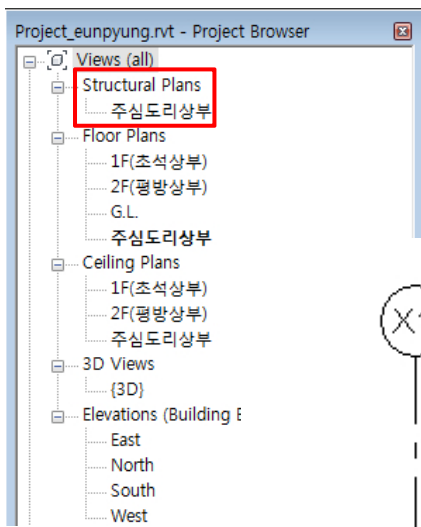
4.

4.3 BIM

- Revit

3D

가



4.

4.3 BIM

- Revit

3D

가

