



AUTODESK® REVIT®
DESIGN · CONNECT · OPTIMIZE



1.18

Building
Technology III

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ARCH 2431 Building Technology III Steel Assembly & Building Information Modeling (BIM) with Revit

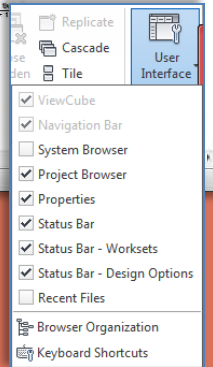
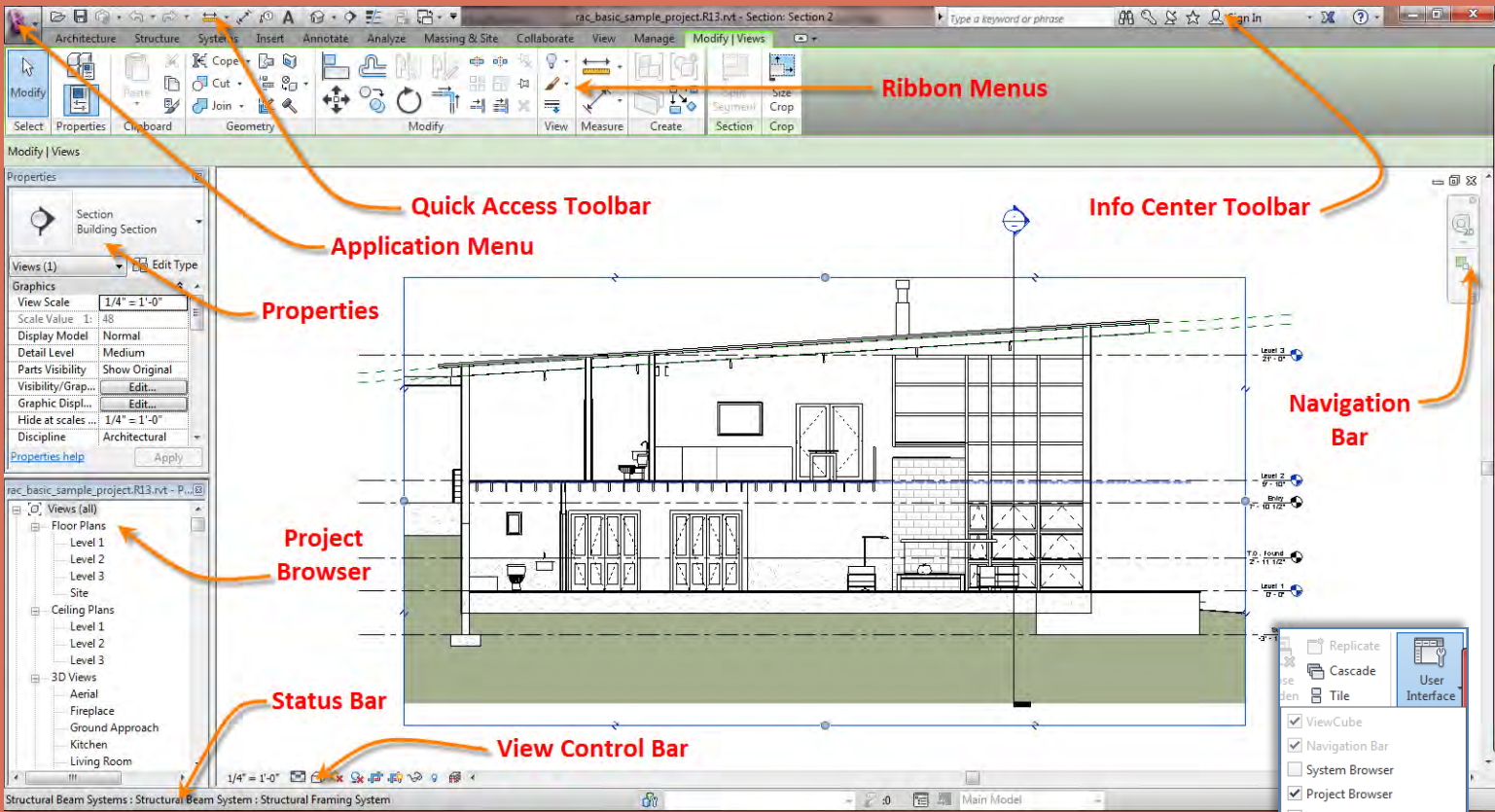
*Revit Interface
Ribbons, View Control, Project Browser,
Properties, Sheet Layout & Plotting*

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Prof. Blake Kurasek
Prof. Justin Sherman
Prof. Jieun Yang

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Jsherman@CityTech.Cuny.Edu
Jyang@CityTech.Cuny.Edu

Revit Interface

- Overview
- Ribbons
 - Group 1
 - Group 2
 - Group 3
- Tool Bars
 - Quick Access
 - Info Center
- View Control
 - Scale & Detail
 - Visual Styles
 - Sun Path
 - Cropping
 - Visibility Control
 - Hidden Elements
- Project
 - Browser
- Properties
- Sheet Layout
- Plotting



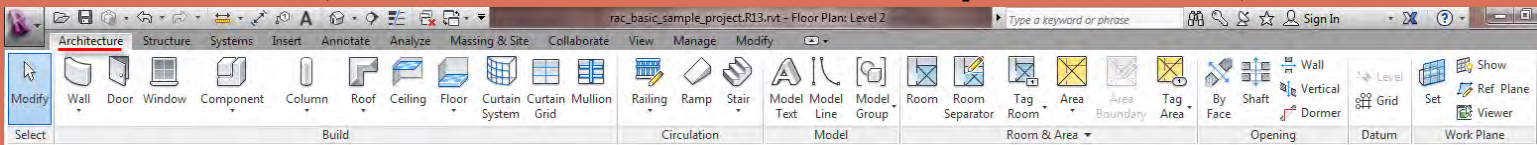
Settings on:

- Viewcube, Navigation Bar, Properties, Project Browser, Status Bar, Status Bar – Worksheets, Status Bar – Design Options

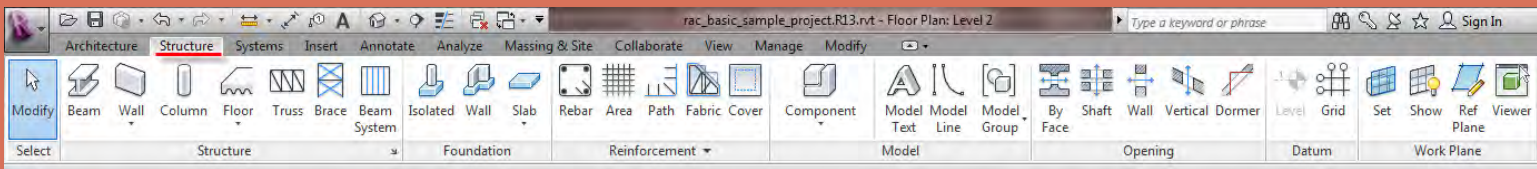
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Ribbons 1 of 3

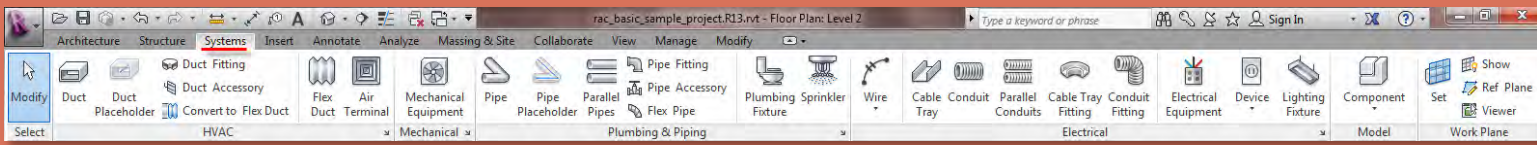
Architecture (walls, doors, windows, components ...)



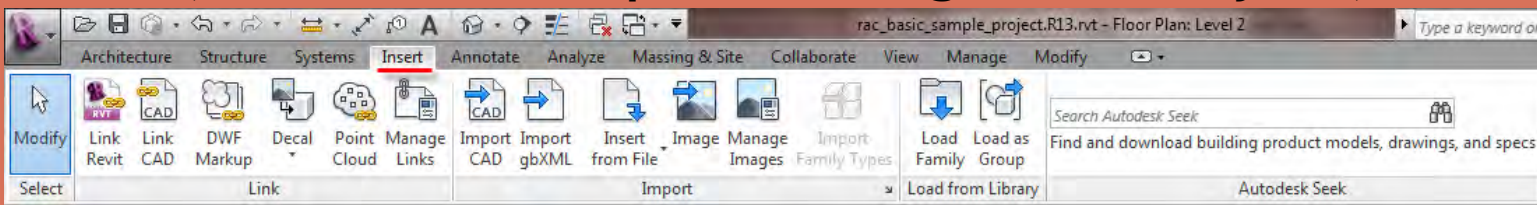
Structure (beams, structural walls & columns, floors ...)



Systems (hvac, mechanical, plumbing & piping, electrical ...)



Insert (link revit & cad, import cad, image, load family ...)



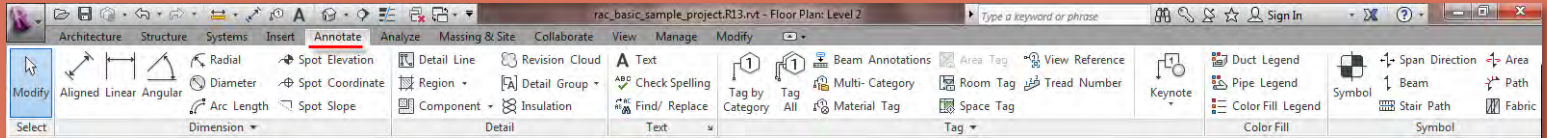
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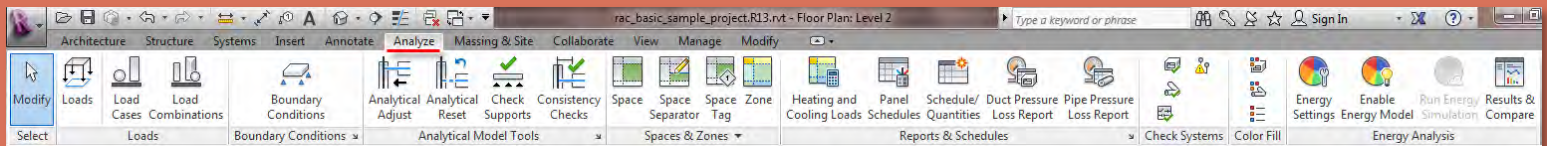
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Ribbons 2 of 3

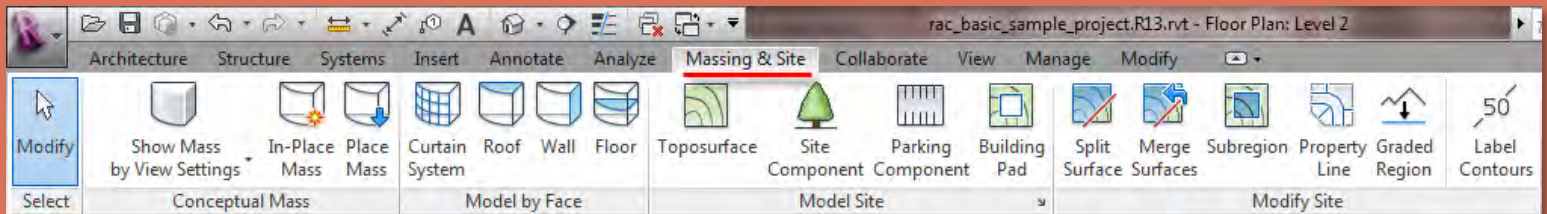
Annotate (dimensions, details, text, tags, color fill . . .)



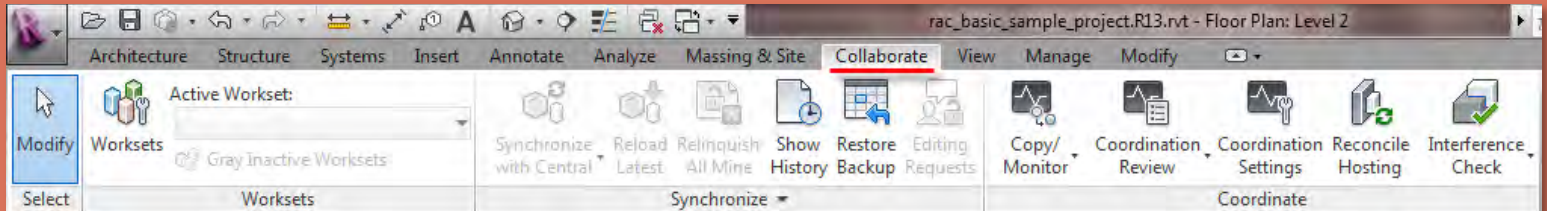
Analyze (loads, analytical model tools, energy analysis . . .)



Massing & Site (conceptual mass, model by face, model site . . .)

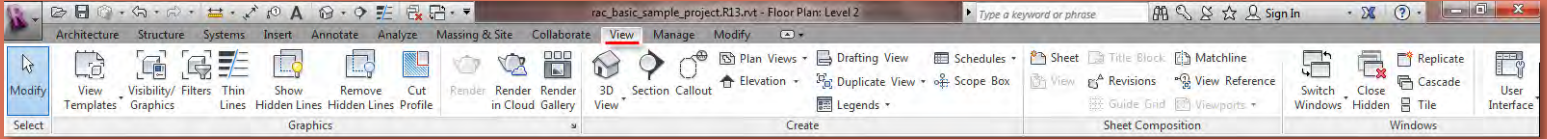


Collaborate (worksets, synchronize, coordinate . . .)

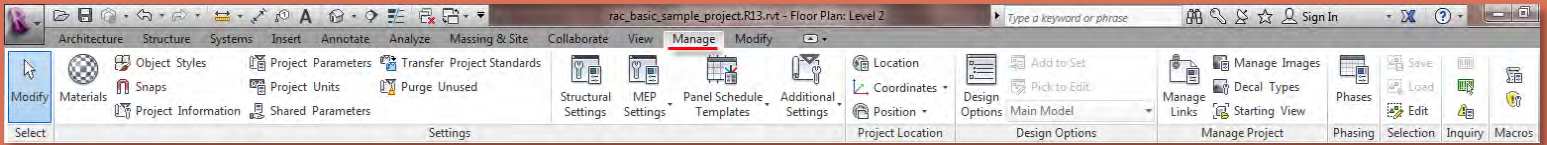


Ribbons 3 of 3

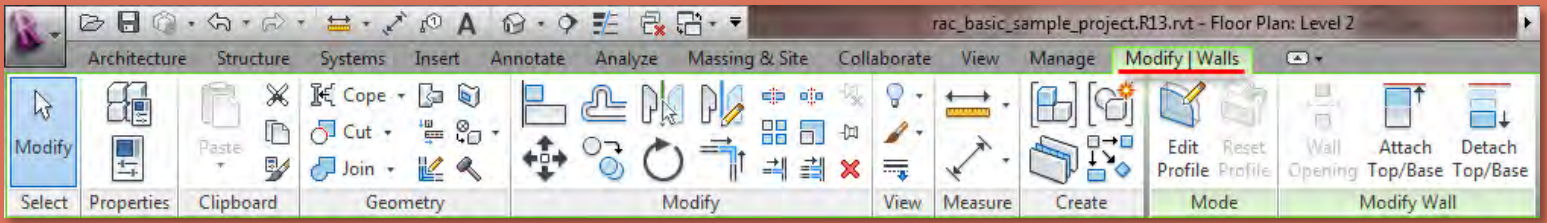
View (graphics, 3D, section, callout, plans, elevations . . .)



Manage (snaps, units, location, coordinates, position . . .)



Modify (options are dependant on object selection)



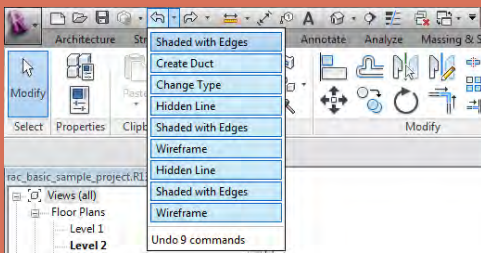
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Quick Access Toolbar

Undo

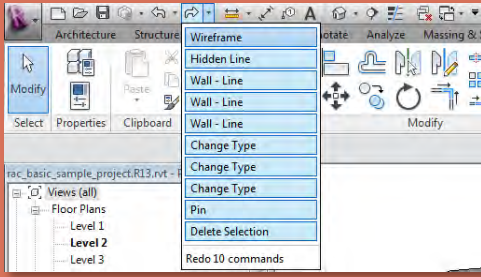


- New, Open, Save
- Synchronize
- Undo, Redo
- measure

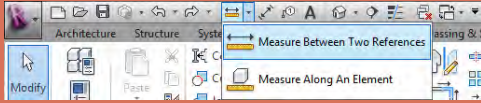
- aligned dimension
- tag by category
- text
- default 3D view

- section,
- thin lines
- close hidden windows
- switch windows

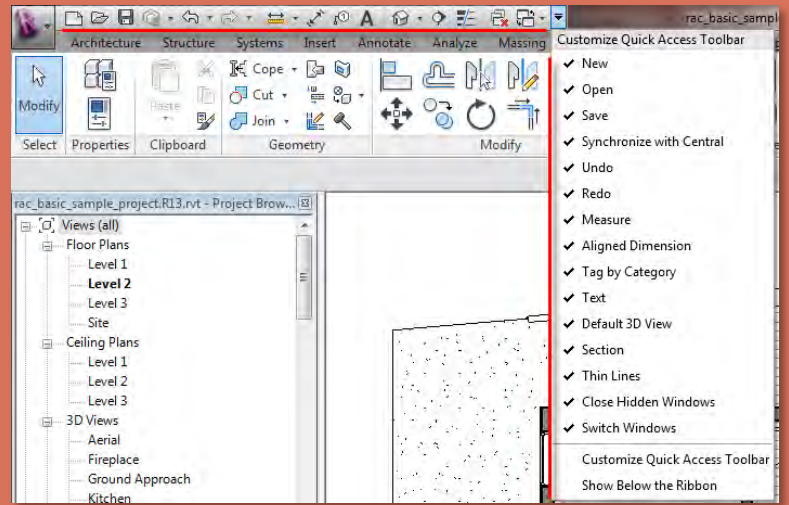
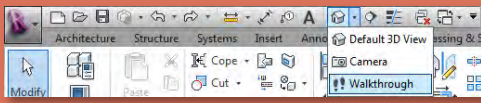
Redo



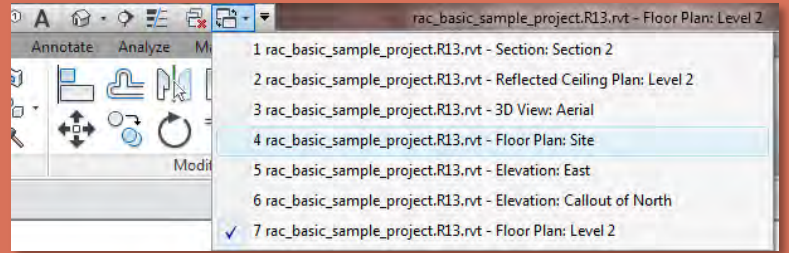
Measure



3D, Camera, Walkthrough



Close hidden windows & switch Windows



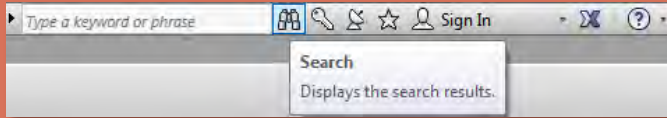
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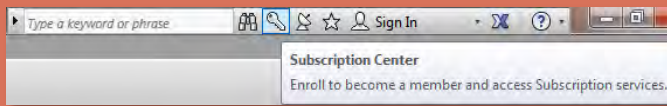
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InfoCenter Toolbar

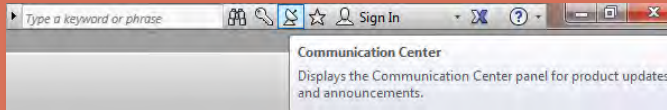
Search



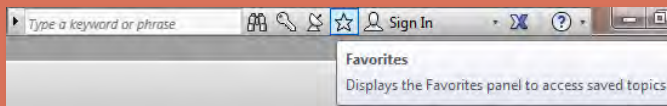
Subscription center



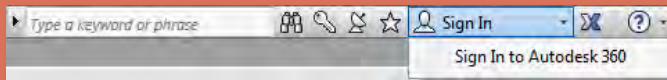
Communication Center



Favorites



Autodesk 360



Exchange Apps



• Search:

<http://wikihelp.autodesk.com/search?q=>
Search on Autodesk wiki site

• Subscription Center:

Access to subscription service benefits

• Communication Center:

Access to RSS feeds on software issues

• Favorites:

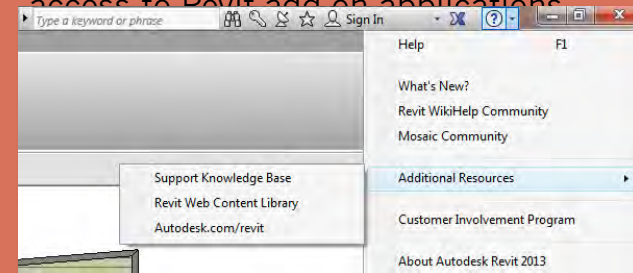
Add search results to your favorites

• Autodesk 360

Cloud centric storage and computing solution that provides each user with 3gb of free storage.

• Exchange Apps:

<http://apps.exchange.autodesk.com/>
access to Revit add on applications



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View Control Toolbar (scale and details)

Set View Scale

Custom...

- 12" = 1'-0"
- 6" = 1'-0"
- 3" = 1'-0"
- 1 1/2" = 1'-0"
- 1" = 1'-0"
- 3/4" = 1'-0"
- 1/2" = 1'-0"
- 3/8" = 1'-0"
- 1/4" = 1'-0"
- 3/16" = 1'-0"
- 1/8" = 1'-0"
- 1" = 10'-0"
- 3/32" = 1'-0"
- 1/16" = 1'-0"
- 1" = 20'-0"
- 3/64" = 1'-0"
- 1" = 30'-0"
- 1/32" = 1'-0"
- 1" = 40'-0"
- 1" = 50'-0"
- 1" = 60'-0"
- 1/64" = 1'-0"
- 1" = 80'-0"
- 1" = 100'-0"
- 1" = 160'-0"
- 1" = 200'-0"
- 1" = 300'-0"
- 1" = 400'-0"

1/8" = 1'-0"

Annotations adjust to selected scale

1/4" = 1'-0"

1/8" = 1'-0"

Coarse, medium or fine detail

Coarse

Medium

Fine

1/8" = 1'-0"

Coarse

Coarse

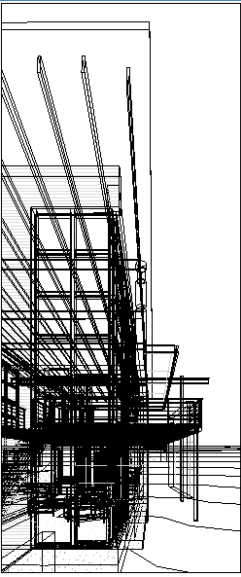
Fine

Fine

View Control Toolbar (visual styles)

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Wireframe



Hidden Line



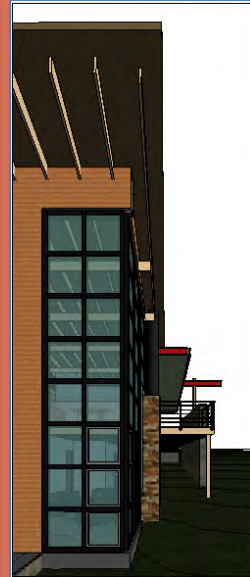
Shaded



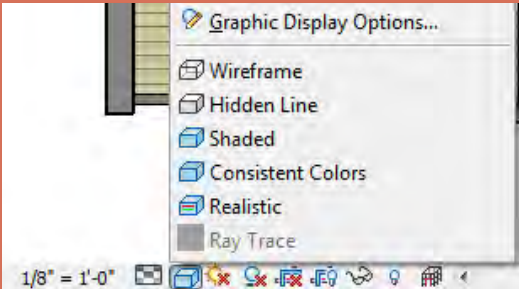
Consistent Colors



Realistic



Ray Trace



As you increase detail you slow display

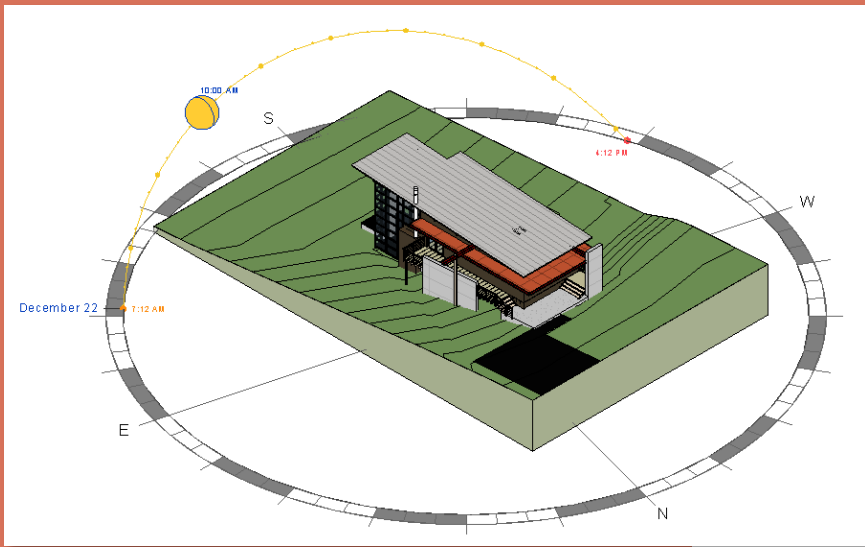


Shadows off / on

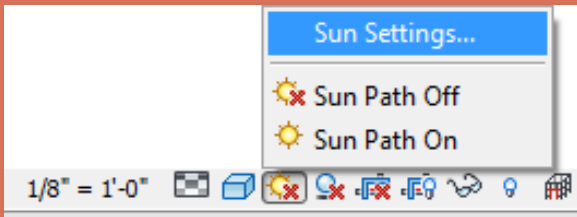
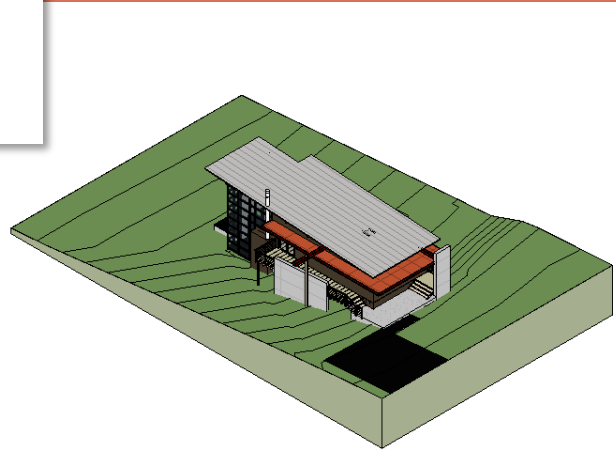
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View Control Toolbar (sun path)



Turn Sun Path On & Off



View Control Toolbar (cropping)

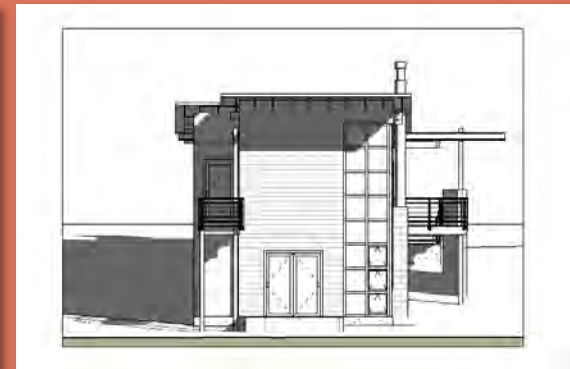
View with Cropping Off



View with Cropping On

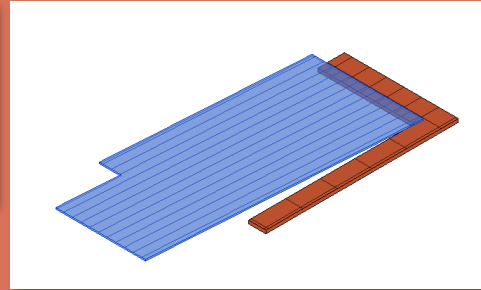
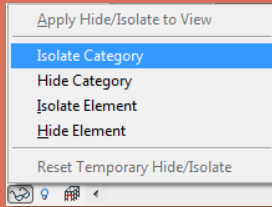


Crop Region On

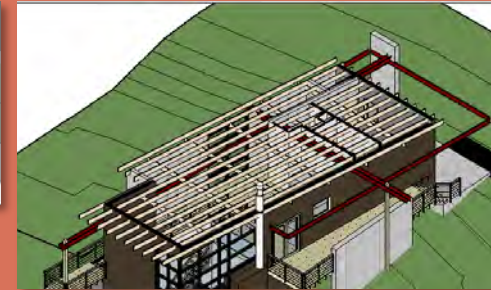
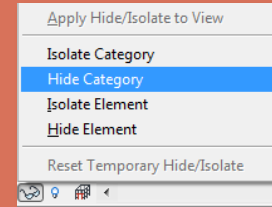


View Control Toolbar (visibility control)

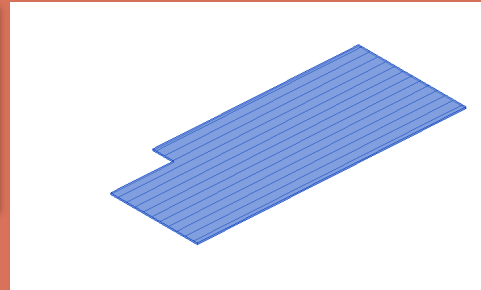
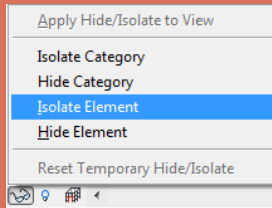
Isolate Category



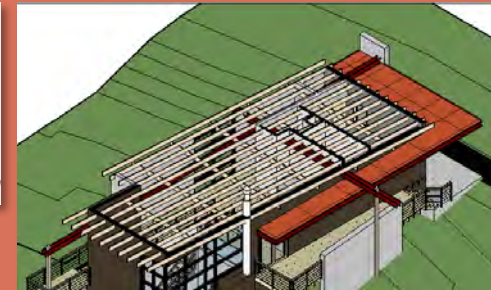
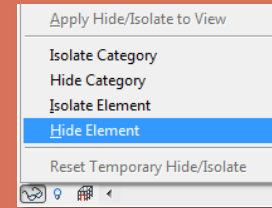
Hide Category



Isolate Element

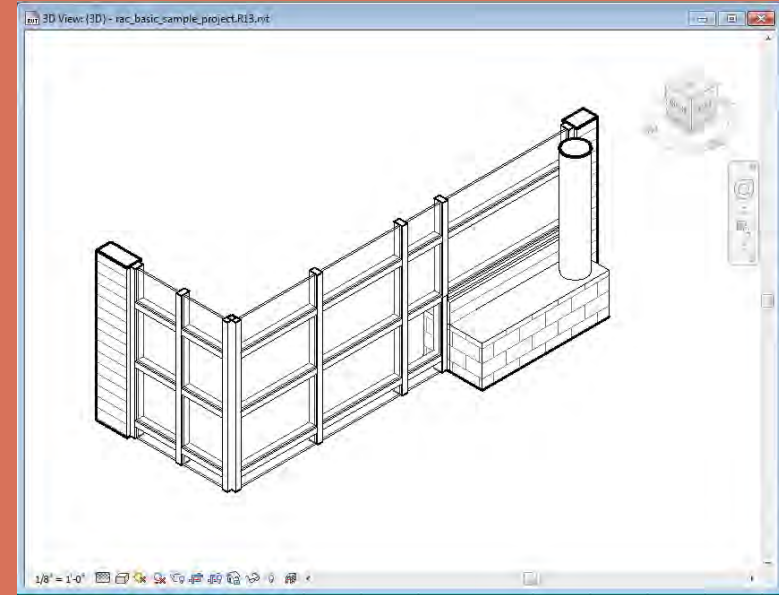
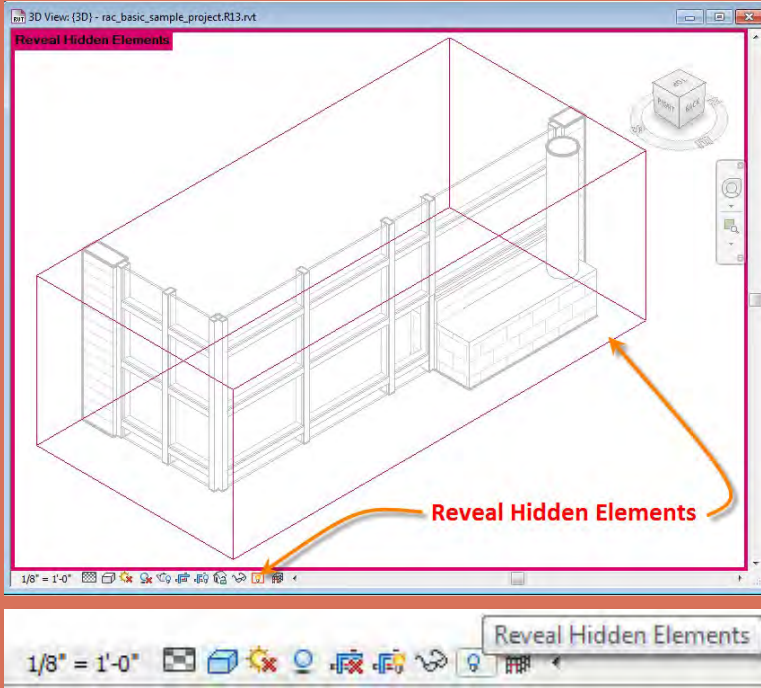


Hide Element

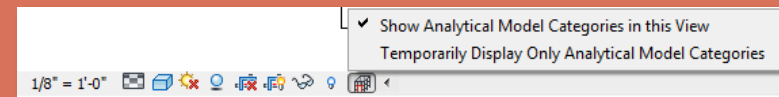


View Control Toolbar (hidden elements)

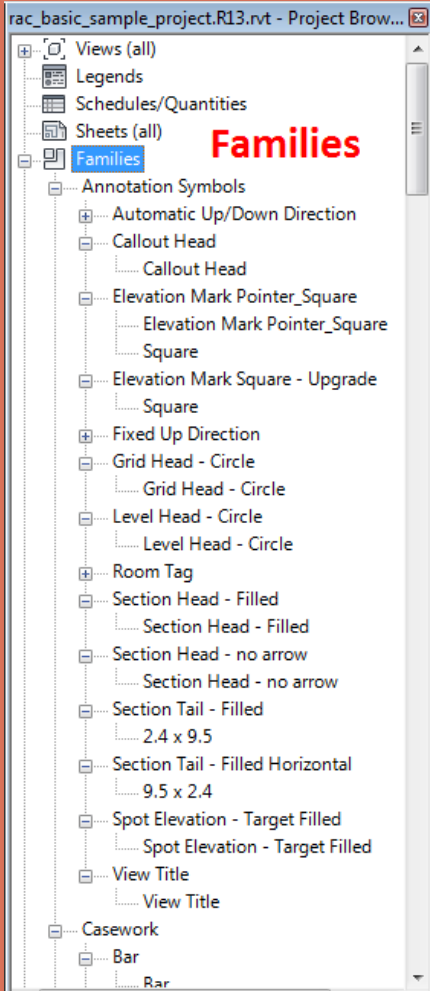
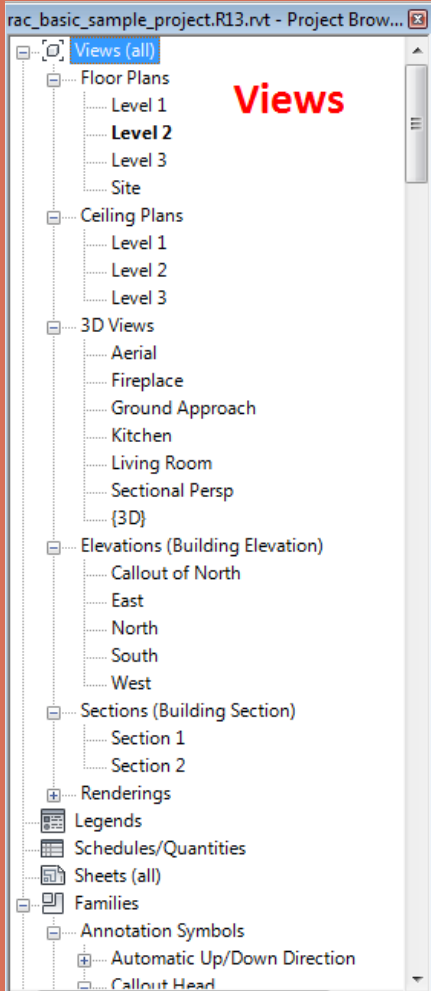
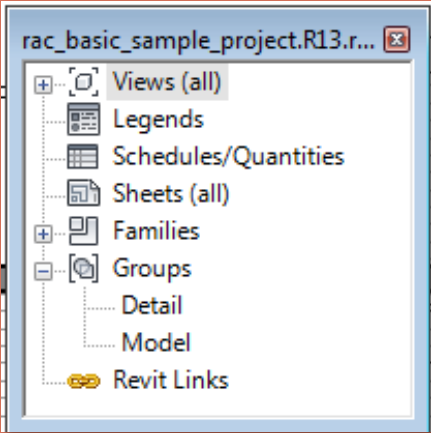
Reveal Hidden Elements



Show Analytical Model Categories



Project Browser



- Views (all)
- Legends
- Schedules/Quantities
- Sheets (all)
- Families
- Groups
- Revit Links

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Browser

• Properties

• Sheet Layout

• Plotting

Properties (of views or model objects)

Floor Plan View

Properties

Floor Plan

Floor Plan: Level 2 Edit Type

Graphics

View Scale	1/8" = 1'-0"
Scale Value 1:	96
Display Model	Normal
Detail Level	Medium
Parts Visibility	Show Original
Visibility/Grap...	Edit...
Graphic Displ...	Edit...
Underlay	None
Underlay Ori...	Plan
Orientation	Project North
Wall Join Disp...	Clean all wa...
Discipline	Architectural
Color Scheme...	Background
Color Scheme	<none>
System Color ...	Edit...
Default Analy...	None
Sun Path	<input type="checkbox"/>

Identity Data

View Template	<None>
View Name	Level 2
Dependency	Independent
Title on Sheet	
Referencing S...	
Referencing D...	

Basic Wall

Properties

Basic Wall CORR

Walls (1) Edit Type

Constraints

Location Line	Wall Centerline
Base Constraint	T.O. Found
Base Offset	0' 0"
Base is Attached	<input type="checkbox"/>
Base Extension ...	0' 0"
Top Constraint	Up to level: L...
Unconnected H...	18' 0 137/256"
Top Offset	0' 0"
Top is Attached	<input checked="" type="checkbox"/>
Top Extension ...	0' 0"

Room Bounding

Related to Mass

Structural

Enable Analytic...	<input type="checkbox"/>
Structural Usage	Non-bearing

Dimensions

Length	55' 6"
Area	639.35 SF
Volume	461.10 CF

Identity Data

Comments	
Mark	

Double-Glass Window

Properties

Double-Glass 1 1800 x 2100

Doors (1) Edit Type

Constraints

Level	Level 2
Sill Height	0' 0"

Construction

Frame Type	
------------	--

Materials and Fin...

Frame Material	
Finish	

Identity Data

Comments	
Mark	4

Phasing

Phase Created	New Constru...
Phase Demolish...	None

Other

Head Height	6' 10 173/256"
-------------	----------------

Stair with open treads

Properties

Stair open treads

Stairs (1) Edit Type

Constraints

Base Level	Level 1
Base Offset	0' 0"
Top Level	Level 2
Top Offset	0' 0"
Multistory Top ...	None

Graphics

Up text	UP
Down text	DN
Up label	<input checked="" type="checkbox"/>
Up arrow	<input checked="" type="checkbox"/>
Down label	<input checked="" type="checkbox"/>
Down arrow	<input checked="" type="checkbox"/>
Show Up arrow ...	<input type="checkbox"/>

Dimensions

Width	3' 0"
Desired Numbe...	18
Actual Number ...	18
Actual Riser Hei...	0' 6 9/16"
Actual Tread De...	0' 11"

Identity Data

Comments	
Mark	

Phasing

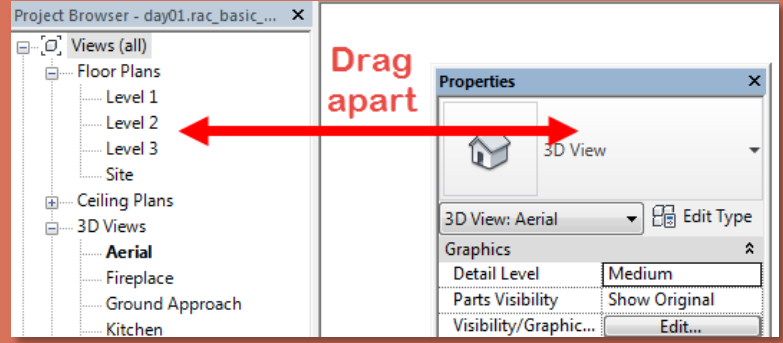
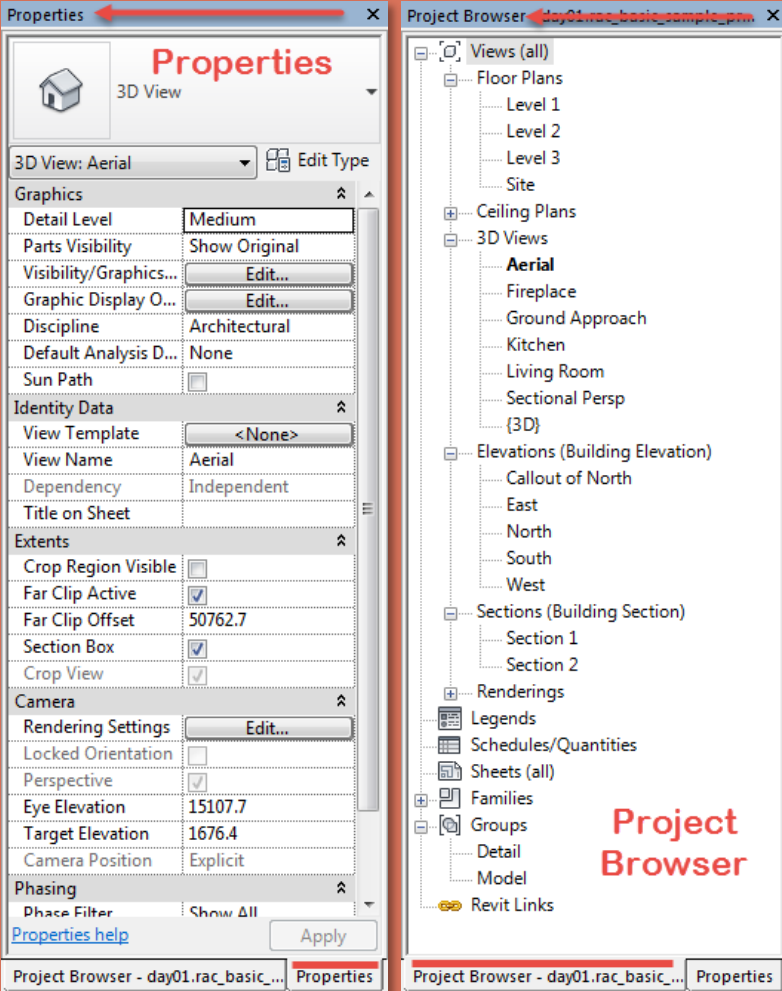
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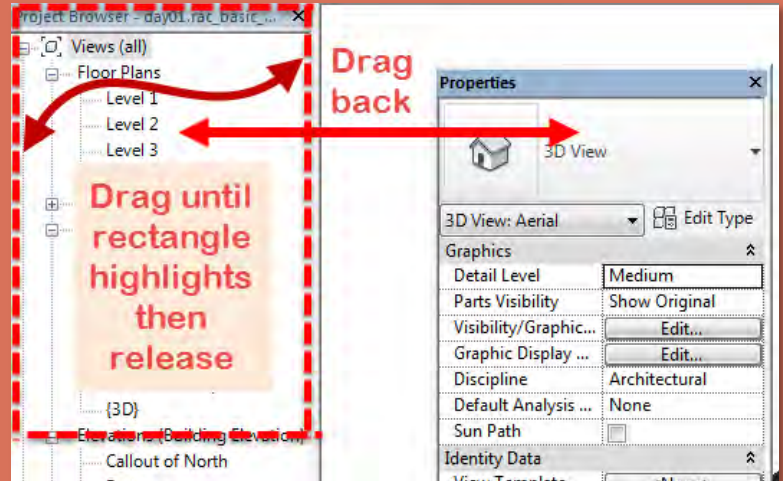
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Properties/Project Browser Tabbed View



- Drag apart so properties is floating
- Drag it back until rectangle highlights



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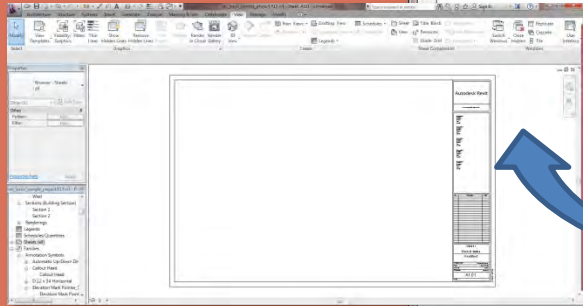
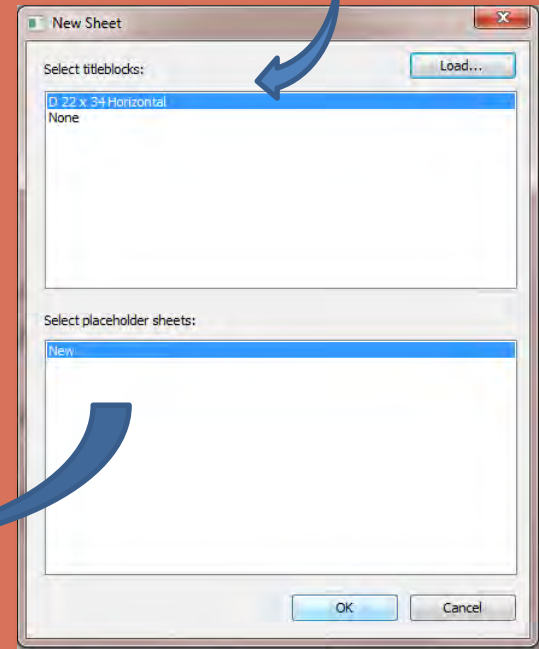
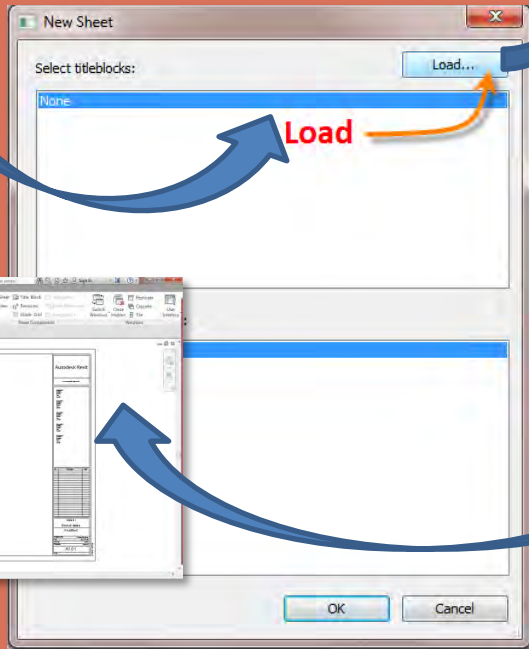
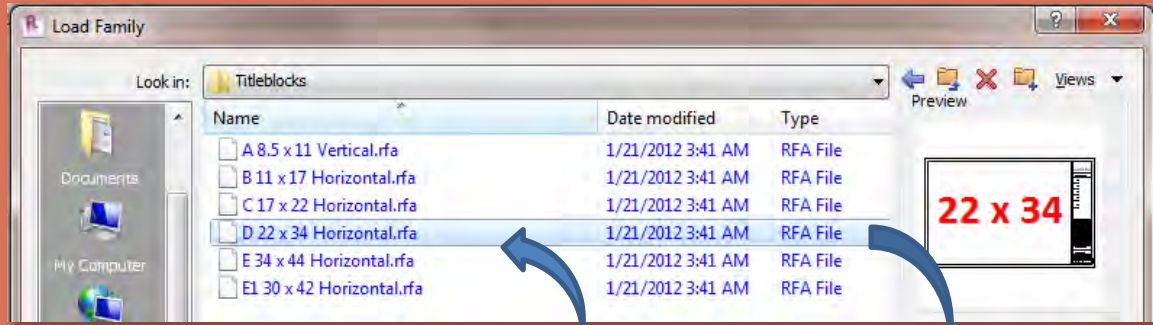
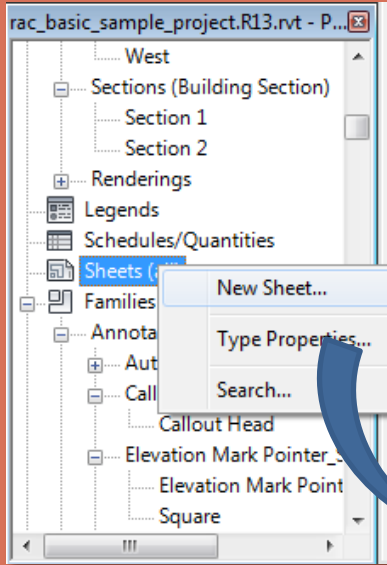
• Properties

• Sheet Layout

• Plotting

Sheet Layout (create new sheet)

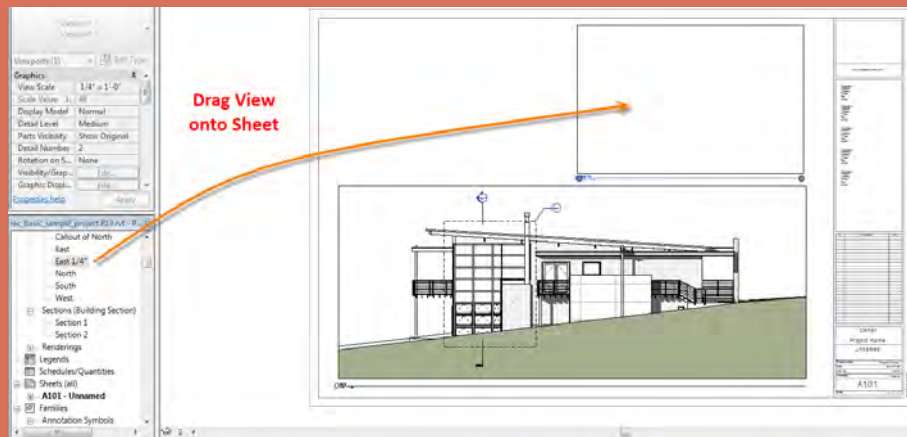
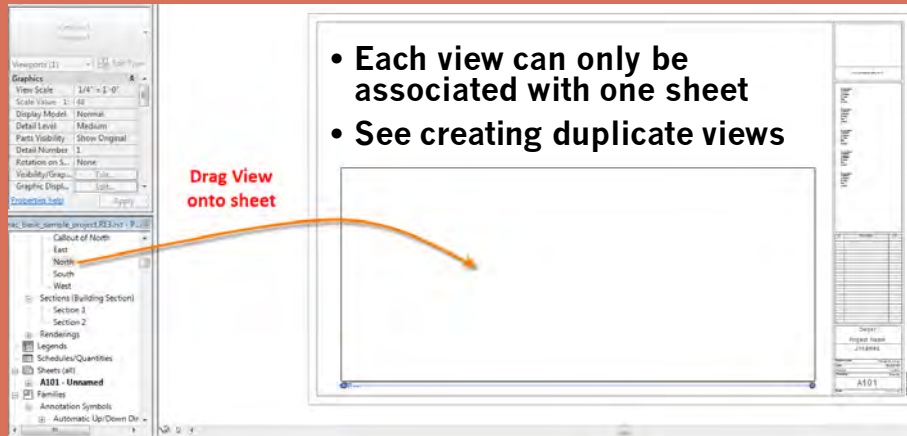
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 - Visibility Control
 - Hidden Elements
 - Project Browser
 - Scale & Detail
 - Visual Styles
 - Sun Path
 - Cropping
 - Visibility Control
 - Hidden Elements
 - Properties
 - Sheet Layout
 - Plotting



Sheet Layout (drag named views onto sheet)

Revit Interface

- Overview
- Ribbons
 - Group 1
 - Group 2
 - Group 3
- Tool Bars
 - Quick Access
 - Info Center
- View Control
 - Toolbar
 - Scale & Detail
 - Visual Styles
 - Sun Path
 - Cropping
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 - Hidden Elements
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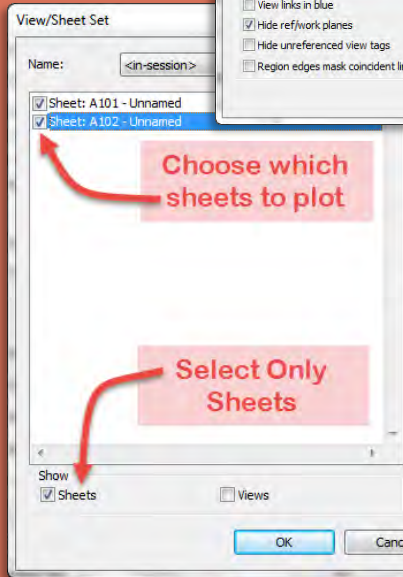
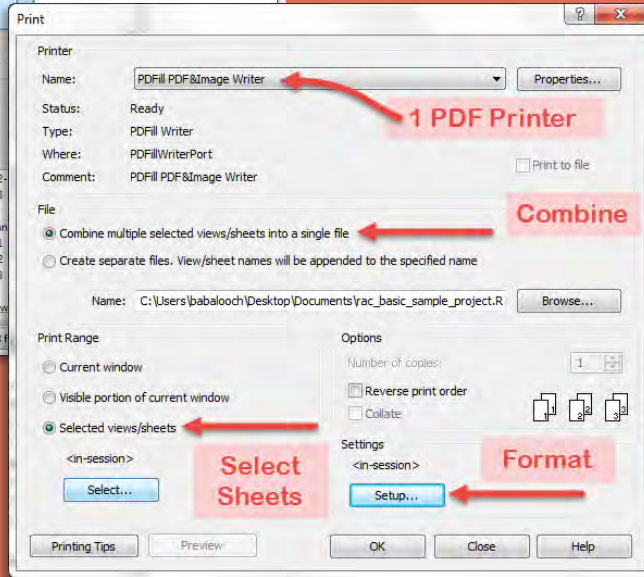
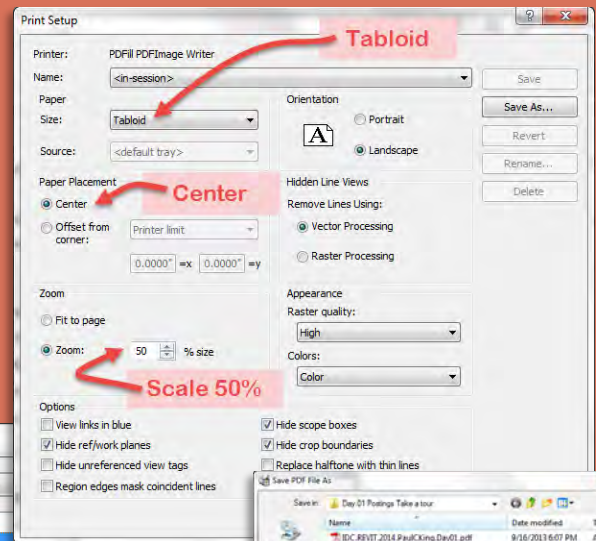
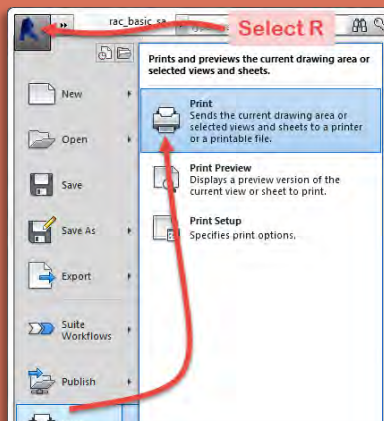


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Plot to PDF

- Print
- Select a PDF Printer
- Select Multiple Sheets
- Combine into single PDF
- 22 x 34 to Tabloid
- Center and Scale to 50%





That's all Folks!