



# **REVIT Level 2**

## **Session 08**

# AGENDA for today

## Creating Working drawings from Revit

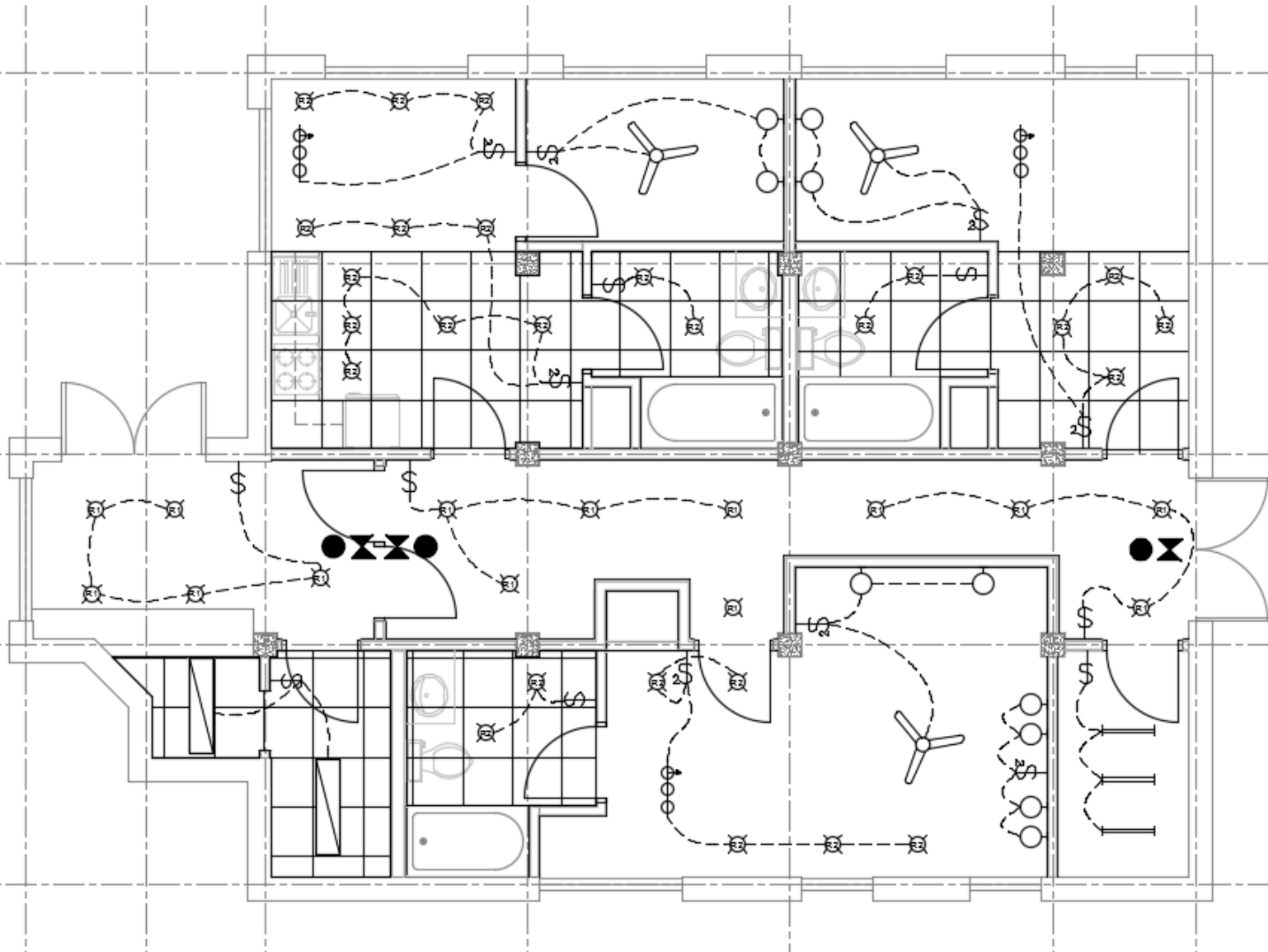
- PHASES
  - A1- As built Drawing
  - A2- Demolition Plan
- 
- A3-Partition Plans
  - A4-Furniture and Fixture Plans
- 
- A5-Ceiling Plan
  - A6-Power and Communication Plan
  - A7-Sections Drawings
  - A8-Interior Wall Elevations
  - A9-Details and Millwork

**SESSION 06**

**SESSION 07**

**SESSION 08**

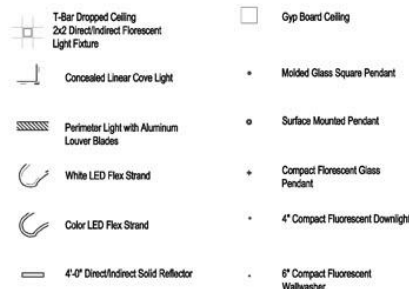
# A5- REFLECTIVE CEILING PLAN (RCP)



LIGHTING LEGEND	
SYMBOLS	DESCRIPTION
	3" RECESSED DOWN LIGHT
	305 x 1219 (1x4) FLUORESCENT LIGHTING FIXTURE
	2' X 2' ACT TILE
	SUSPENDED LIGHT FIXTURE
	TRACK MOUNTED LIGHTS
	152MM (6") RECESSED DOWN LIGHT
	SURFACE OR RECESSED LIGHT FIXTURE
	SINGLE LAMP SURFACE FLUORESCENT FIXTURE
	DOUBLE LAMP SURFACE FLUORESCENT FIXTURE
	EMERGENCY LIGHT
	WALL MOUNTED FIXTURE
	CEILING FAN
	SINGLE POLE SWITCH
	THREE WAY SWITCH
	DOUBLE POLE SWITCH
<small>NOTES: ALL SYMBOLS IN THE REFLECTED CEILING PLAN LEGEND ARE NOT TO SCALE. REFER TO LIGHTING SPECIFICATIONS FOR MORE DIMENSIONS OF EACH LIGHTING FIXTURE.</small>	

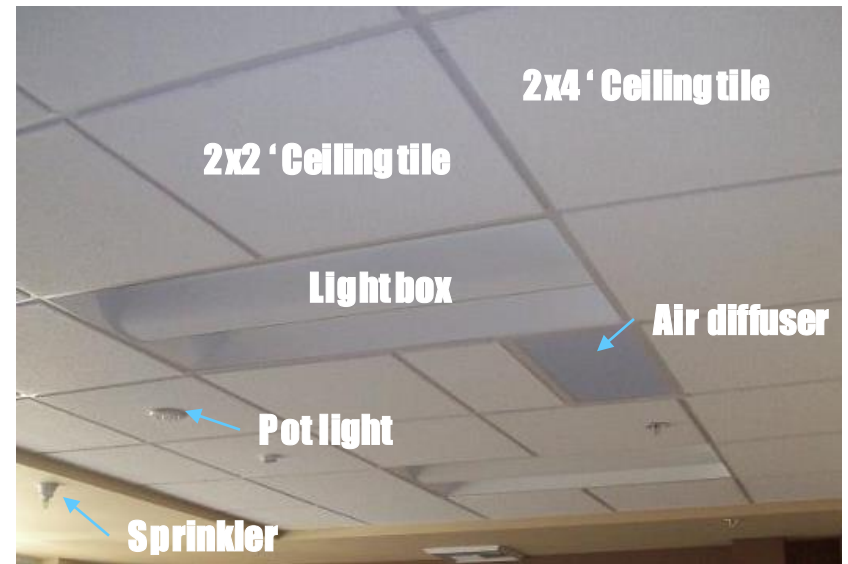
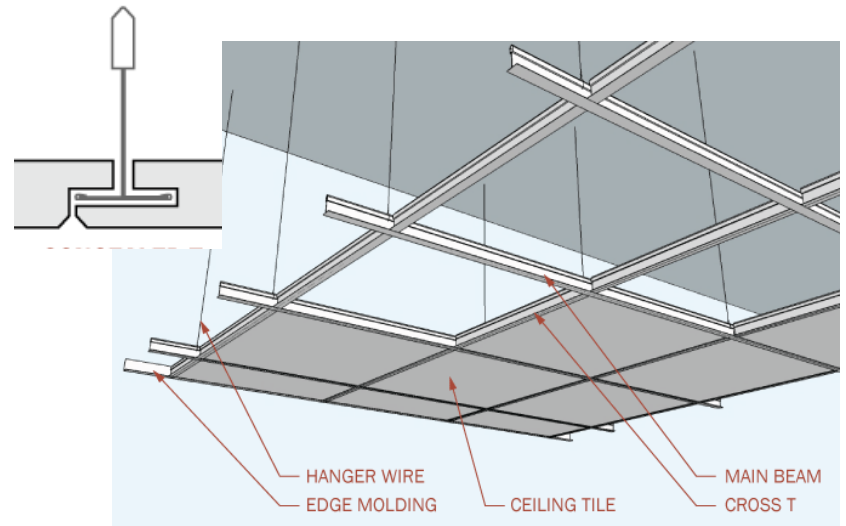
# Reflective ceiling plan

- Reflected ceiling plan shows the ceiling tiles, lighting, sprinklers, smoke detectors, and any other objects that are located in or on the ceiling, such as the mechanical air diffusers and grilles. THESE DIFFUSERS AND GRILLS CAN ALSO BE PLACED ON AN HVAC DRAWING INSTEAD.
- Reflected ceiling plan (RCP) is named so because it is a mirror image (reflected) view of the floor plan. You are looking up at the ceiling.



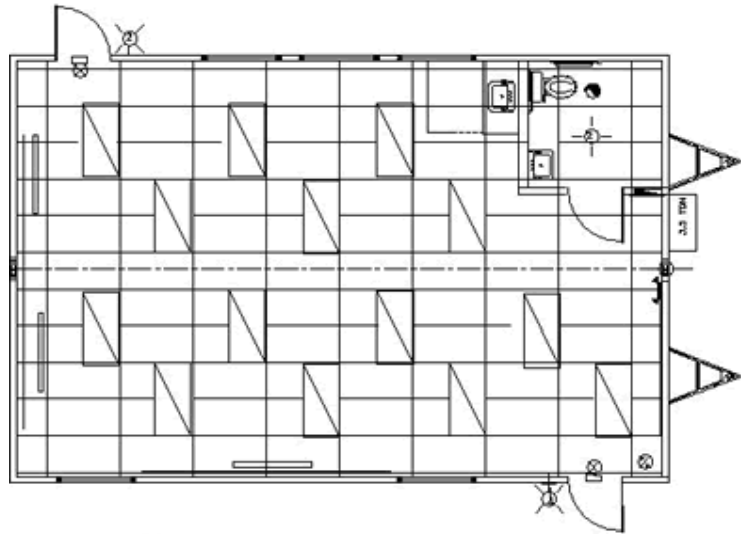
# Ceiling tiles

- Ceiling tiles are usually suspended using a t-bar frame.
- It may also be referred to as a **drop ceiling**, **T-bar ceiling**, **false ceiling**, **suspended ceiling**, **grid ceiling**, **drop in ceiling**, **drop out ceiling**, or **ceiling tiles** and is a staple of modern construction in both residential and commercial applications.
- The tiles can be manufactured using a variety of materials and designs
- Within this grid system, lighting, air grills, smoke detectors, can be installed.

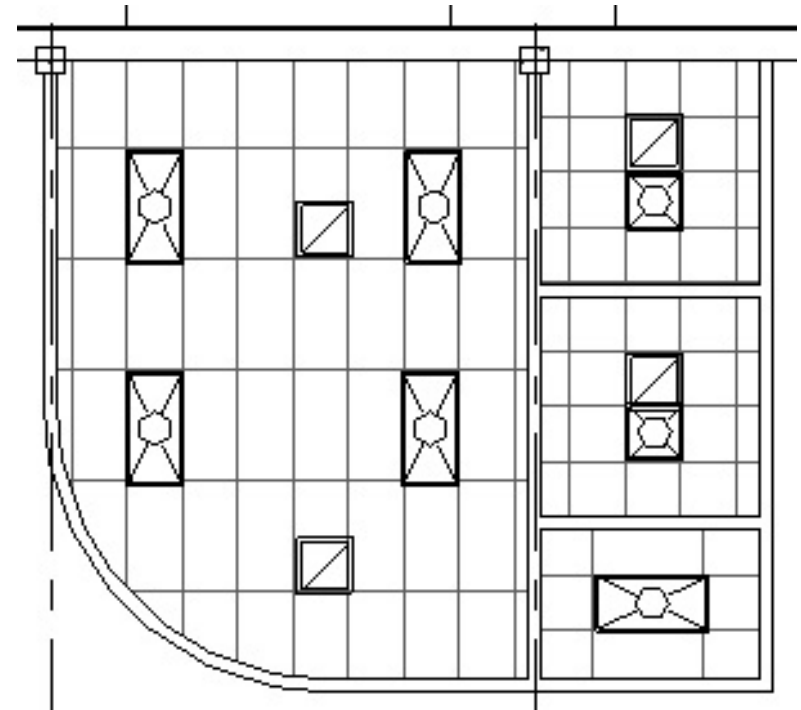


# Ceiling tiles SHOWN IN A RCP.

- HERE ARE SOME EXAMPLES.



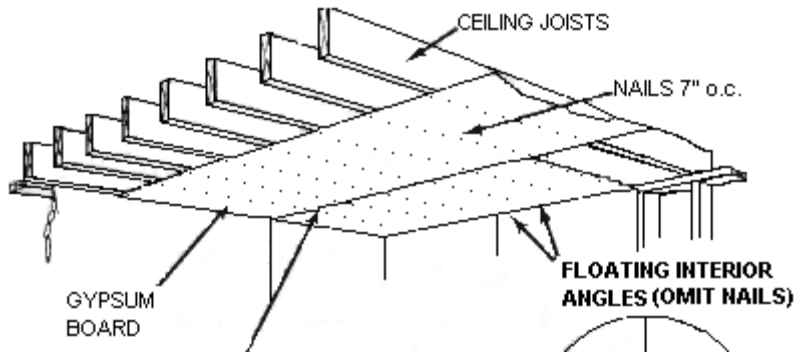
2 TUBE 2'x4'  
LAY IN  
FLUORESCENT  
LIGHT FIXTURE  
W/ ENERGY  
SAVING  
BALLAST



# Gypsum board ceilings

- Screwed into ceiling joists.

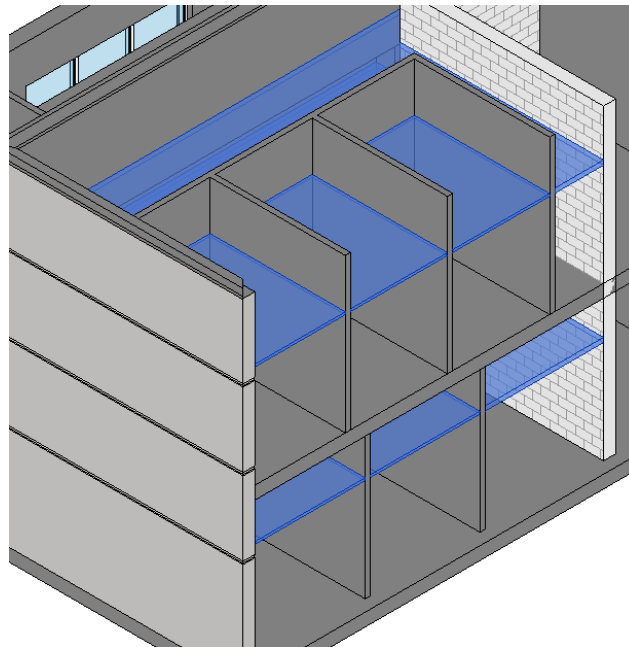
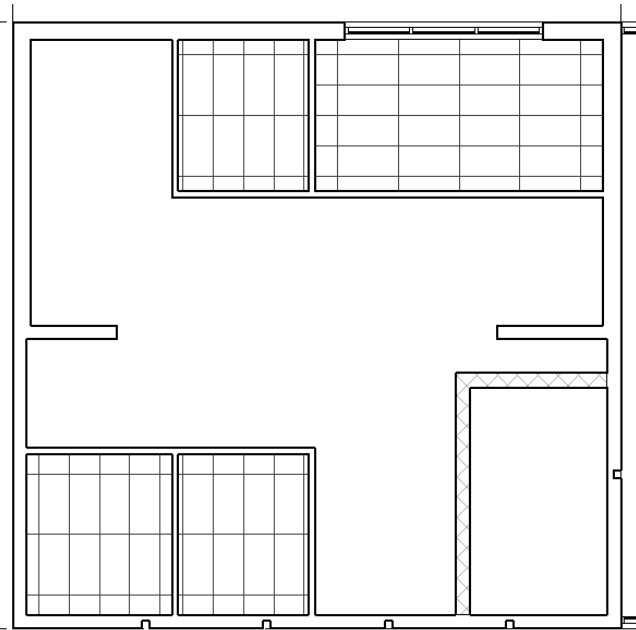
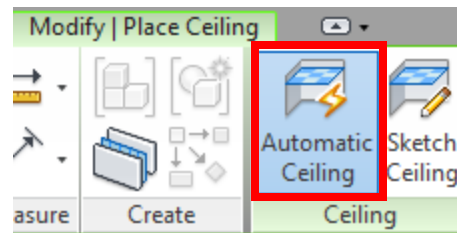
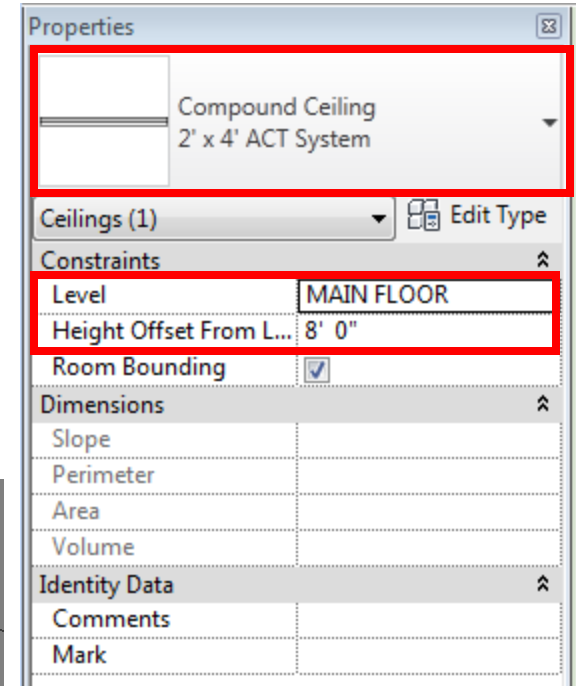
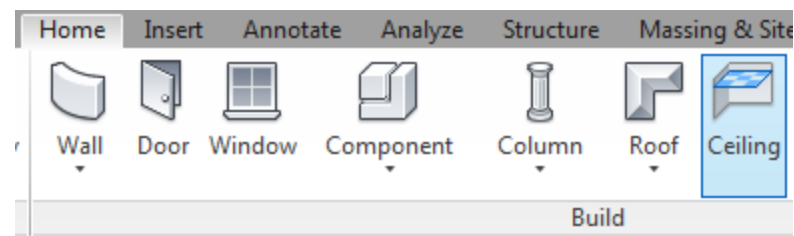
## PERPENDICULAR CEILING APPLICATION





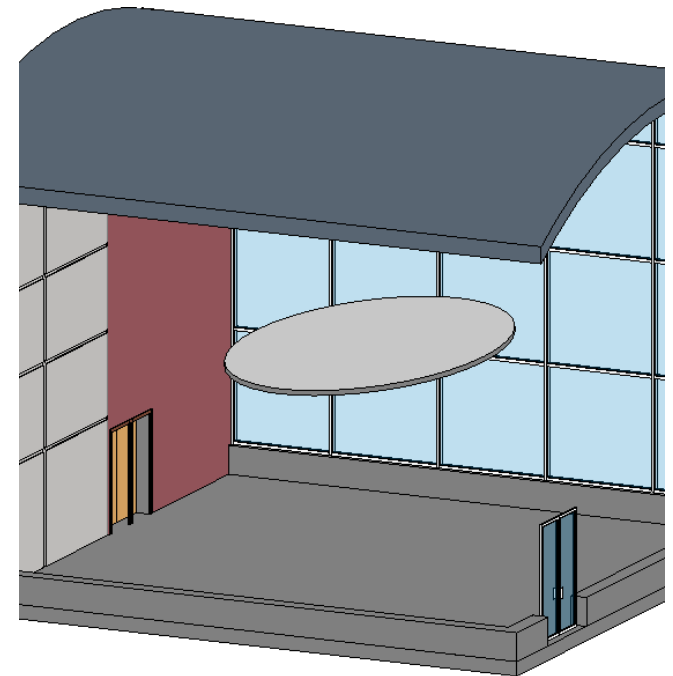
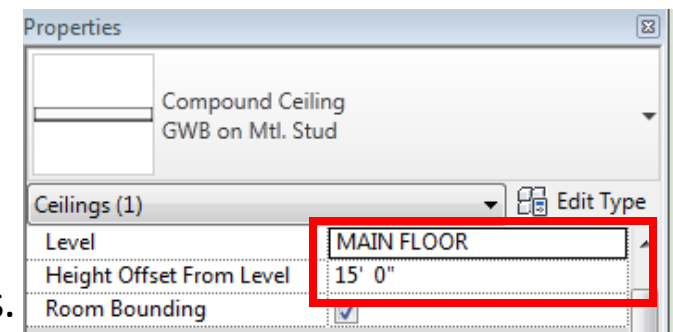
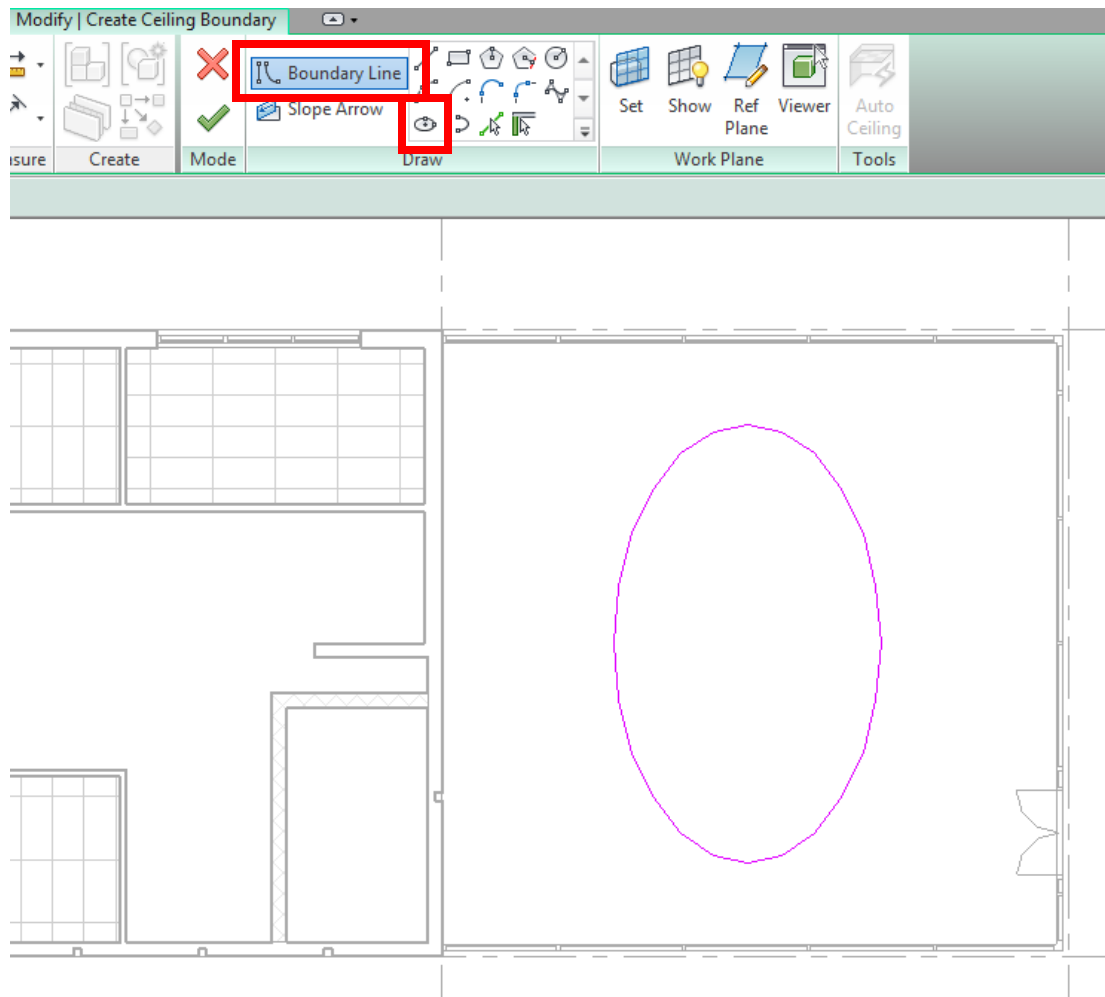
# Creating Ceilings- Automatic

- You can create ceilings automatically in a project view or by sketching.
- Ceilings should be created in the reflected ceiling plan (RCP) view .



# Creating Ceilings-Sketch

- You can use the sketch tool to create a suspended ceiling that may not have walls to define its boundaries.

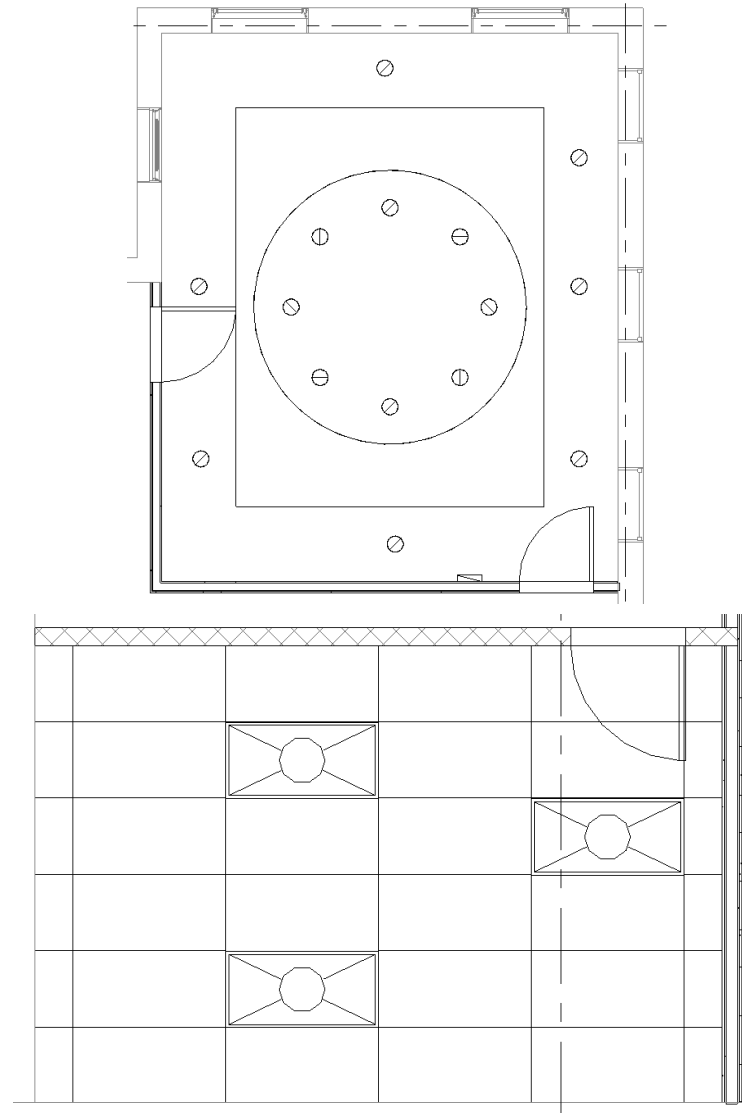
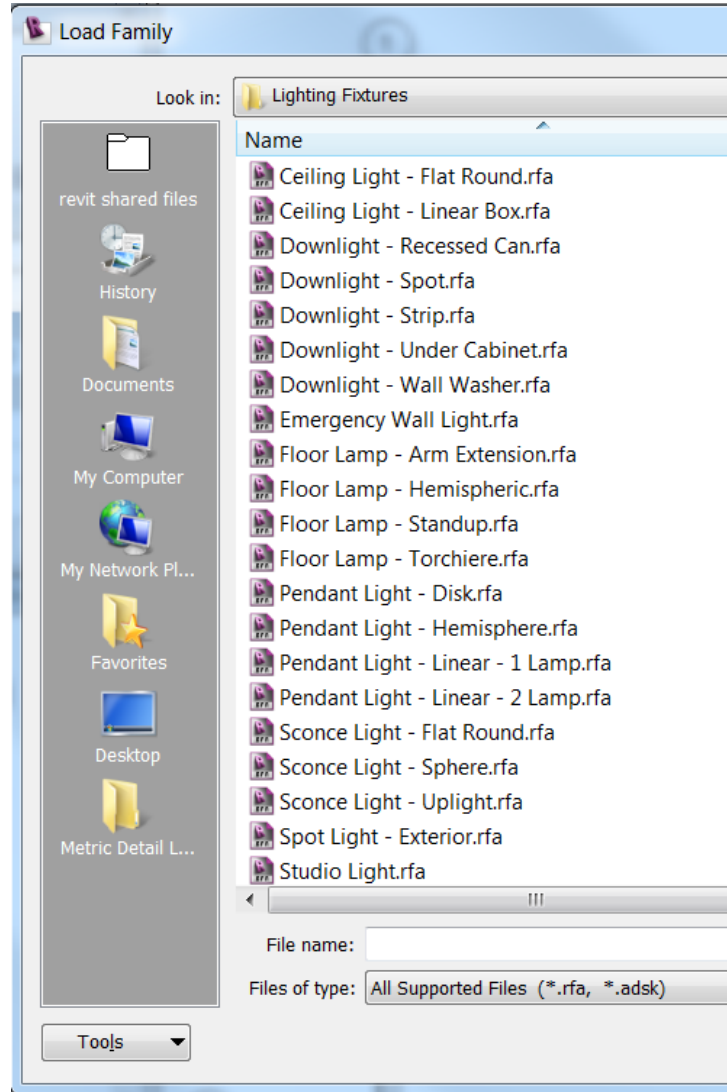


# Lighting symbols

	Ceiling mounted luminaire			Ceiling Light Outlet	
	Enclosed ceiling luminaire			Recessed Ceiling Light	
	Wall light			Ceiling Fan	
	Down lighter			Ceiling Light with Pull Cord	
	Outdoor lightning (standard or bollard)			Spotlight, Single Head	
	1-light bar			Spotlight, Double Head	
	Multi-light bar Light bar with glass globes.			Suspended Light	
	Batten fluorescent fixture (1, 2, 3, 4 lamps)			Suspended Lights	
	Surface Fluorescent Light			Lights, Track Mounted	
	Modular fluorescent fitting				
	Emergency light				
	Illuminated emergency sign				
	Emergency Light, Recessed				
	Light, Surface Mounted				

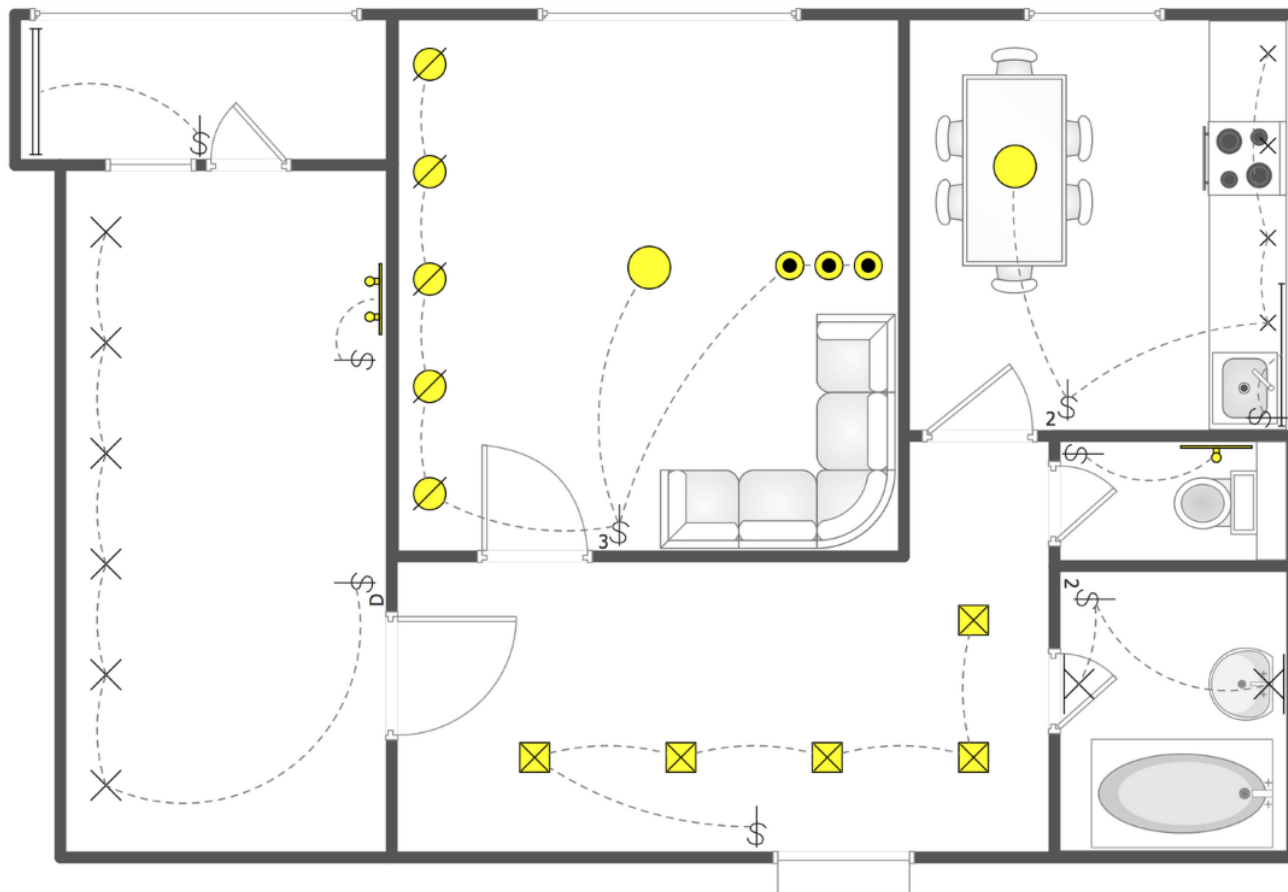
# Adding lighting

- When adding lighting simply add lighting fixture components.



# Wiring and switches

- On a reflective ceiling plan, switch locations for lighting is also provided.
- the wiring can be shown using a dashed line . This dashed line SHOWS WHAT LIGHTING FIXTURE A SPECIFIC SWITCH CONTROLS.



# Switches symbols



Single Pole Swit



Switch Control



Dimmer Switch



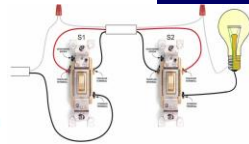
Dimmer Switch



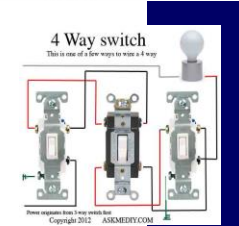
Double Pole Switch



Three-way Switch



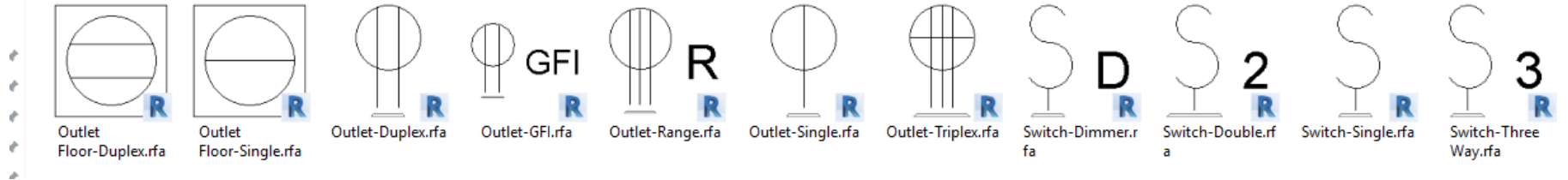
Four-way Switch



# Adding the symbols

- SIMPLY ADD SYMBOLS AS COMPONENTS
- MOST SYMBOLS FOUND UNDER:

This PC > OS\_Install (C:) > ProgramData > Autodesk > RVT 2017 > Libraries > US Imperial > Electrical > Architectural > Electrical Power > Terminals



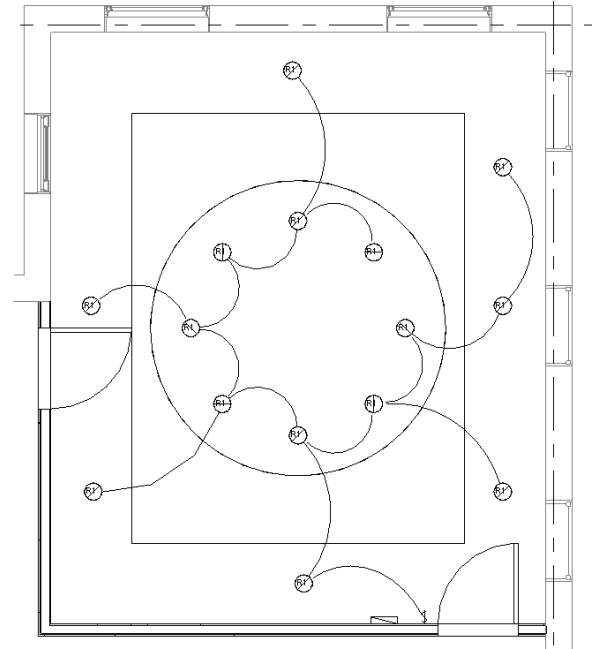
This PC > OS\_Install (C:) > ProgramData > Autodesk > RVT 2017 > Libraries > US Imperial > Electrical > Architectural > Information and Communication > Communication



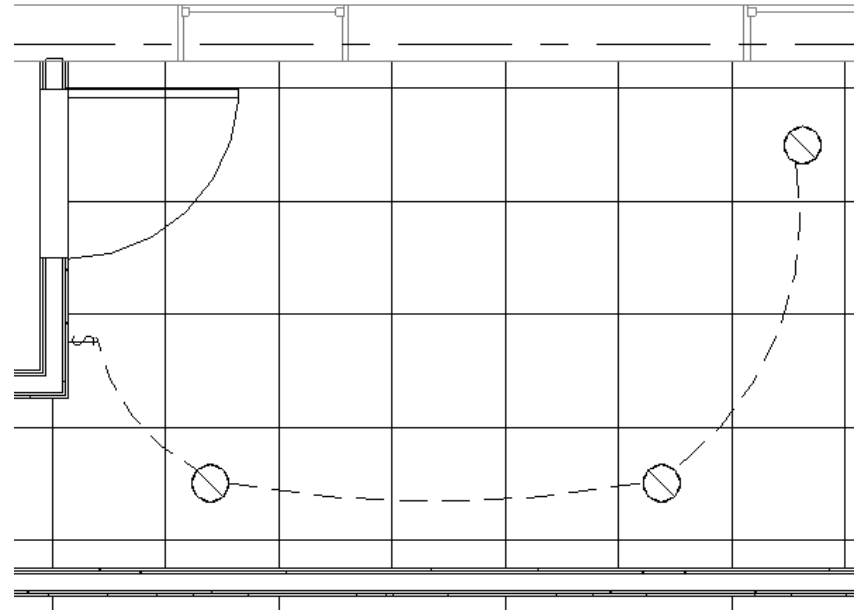
# Adding switches and wires

## Method 1:

- Once the lighting fixtures are added,
- Add switches (system> devices> lighting)
- Select all fixtures and switch then select power
- Choose what wire type



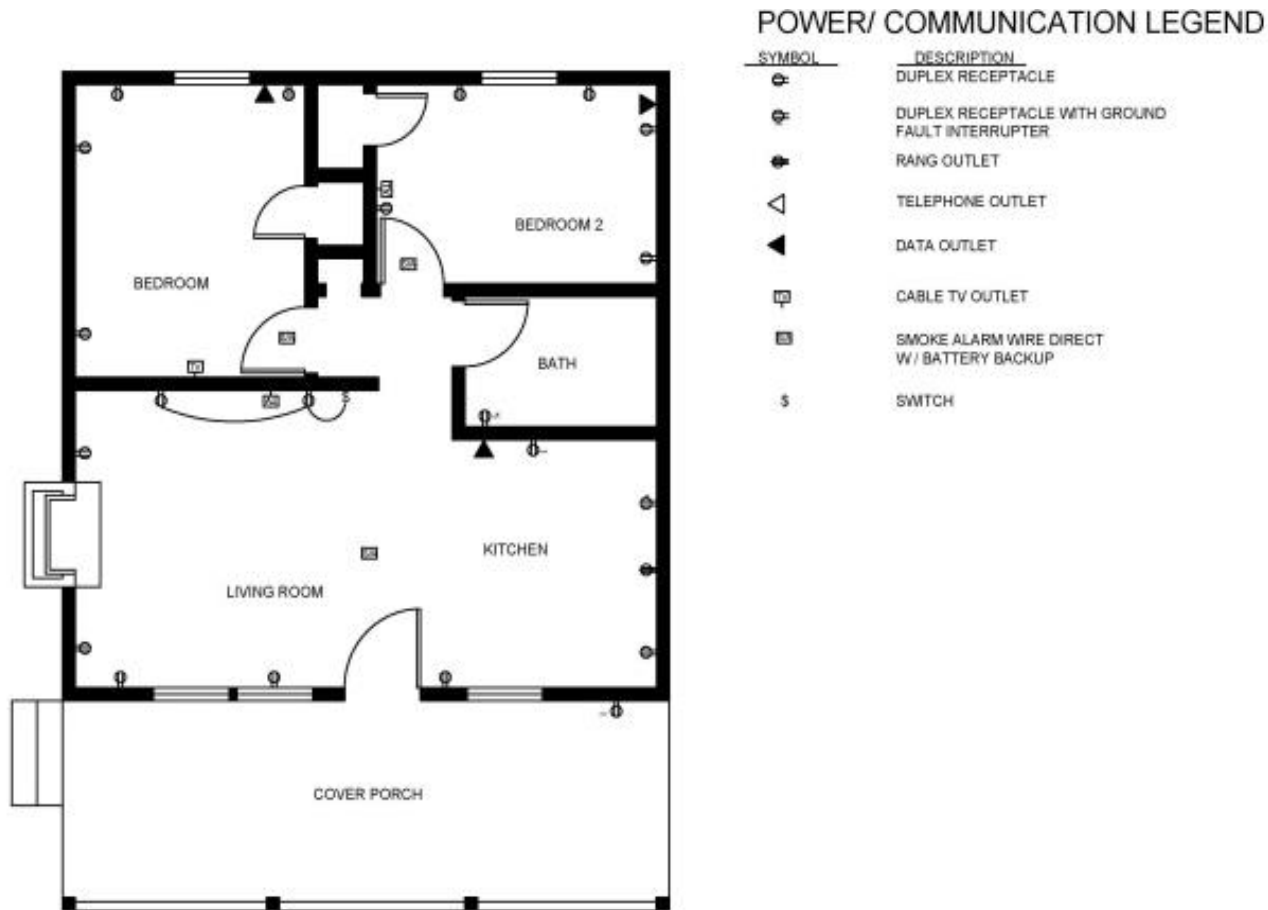
- Method 2:
- Place fixtures and switches AS COMPONENTS
- Add wires individually as annotated detail lines (arc/ hidden)

































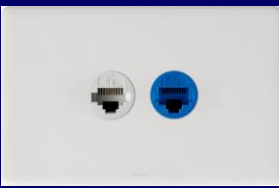
# POWER AND COMMUNICATION PLAN

- SHOWS ALL ELECTRICAL OUTLETS AND SWITCHES, DATA AND TELEPHONE JACKS, ELECTRICAL AND TELECOMMUNICATIONS PANELS, SENSORS, THERMOSTATS, JUNCTION BOXES, BASICALLY ANY FLOOR OR WALL MOUNTED POWER/COMMUNICATIONS DEVICE.
- THESE ARE SYMBOLIZED AND SHOWN ON THE FLOORPLANS, WITH AN ACCOMP.



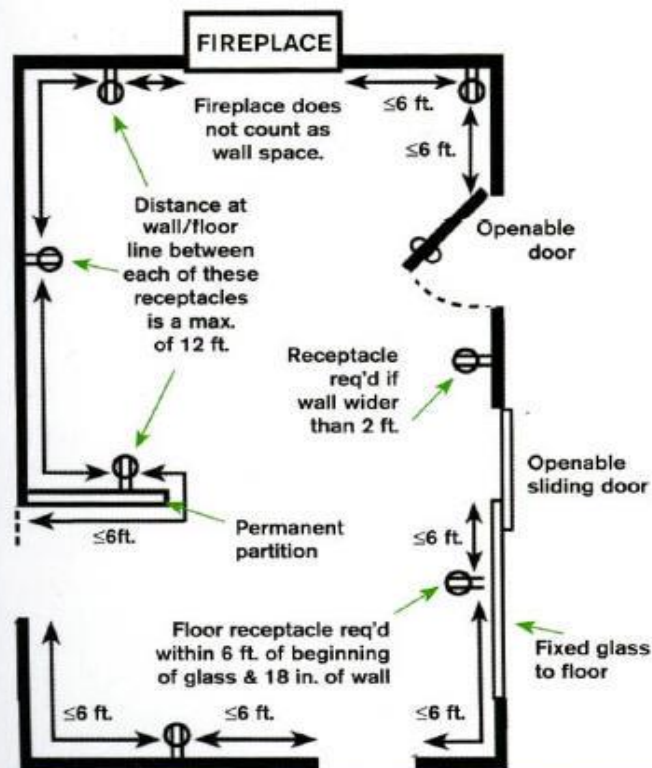
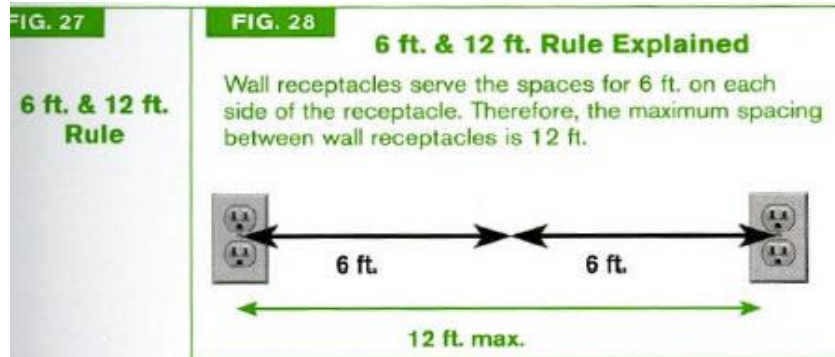
# POWER AND COMMUNICATION SYMBOLS

	Single Receptacle Outlet	
	Duplex Receptacle Outlet	
	Double Duplex Receptacle Outlet (Quad)	
WP 	Waterproof Receptacle Outlet	
GFCI 	Ground-Fault Circuit Interrupter Receptacle Outlet	
	Triplex Receptacle Outlet	
D 	Clothes Dryer Outlet	
R 	Range Outlet	
DW 	Special-Purpose Outlet (Letter indicates use; DW=dishwasher)	
	Floor Outlet	

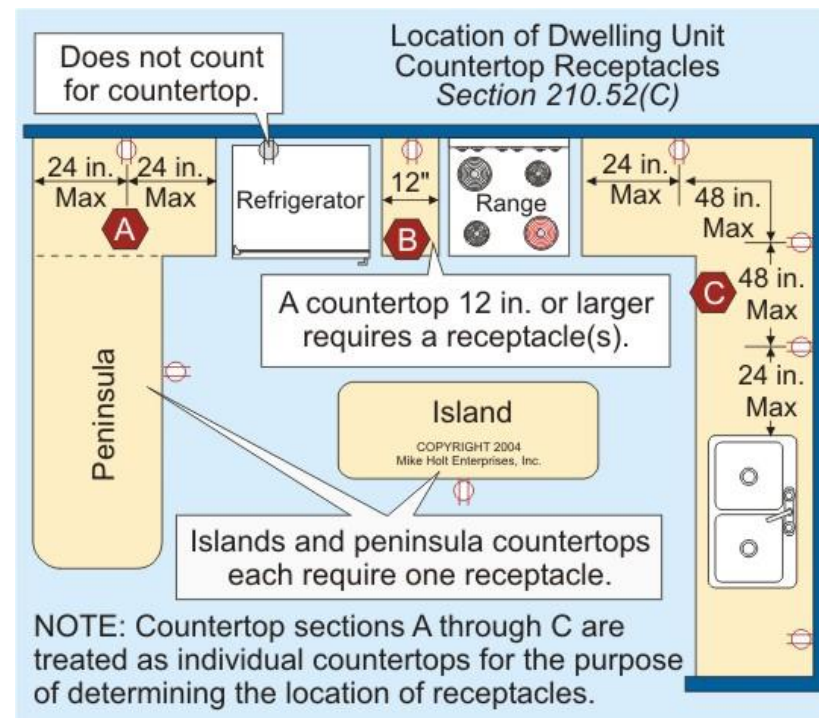
	Thermostat	
	Television Outlet	
	Telephone Jack	
	Electrical Panel	
<div style="display: flex; align-items: center; justify-content: center;">  <div style="border: 1px solid black; padding: 5px; text-align: center;">             WALL MOUNTED VOICE/DATA OUTLET         </div> </div>		
		

# OUTLET LOCATIONS

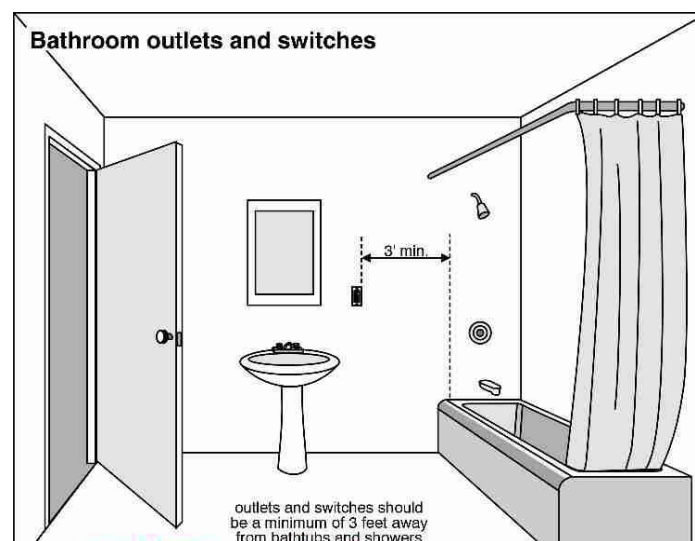
- IN ROOMS



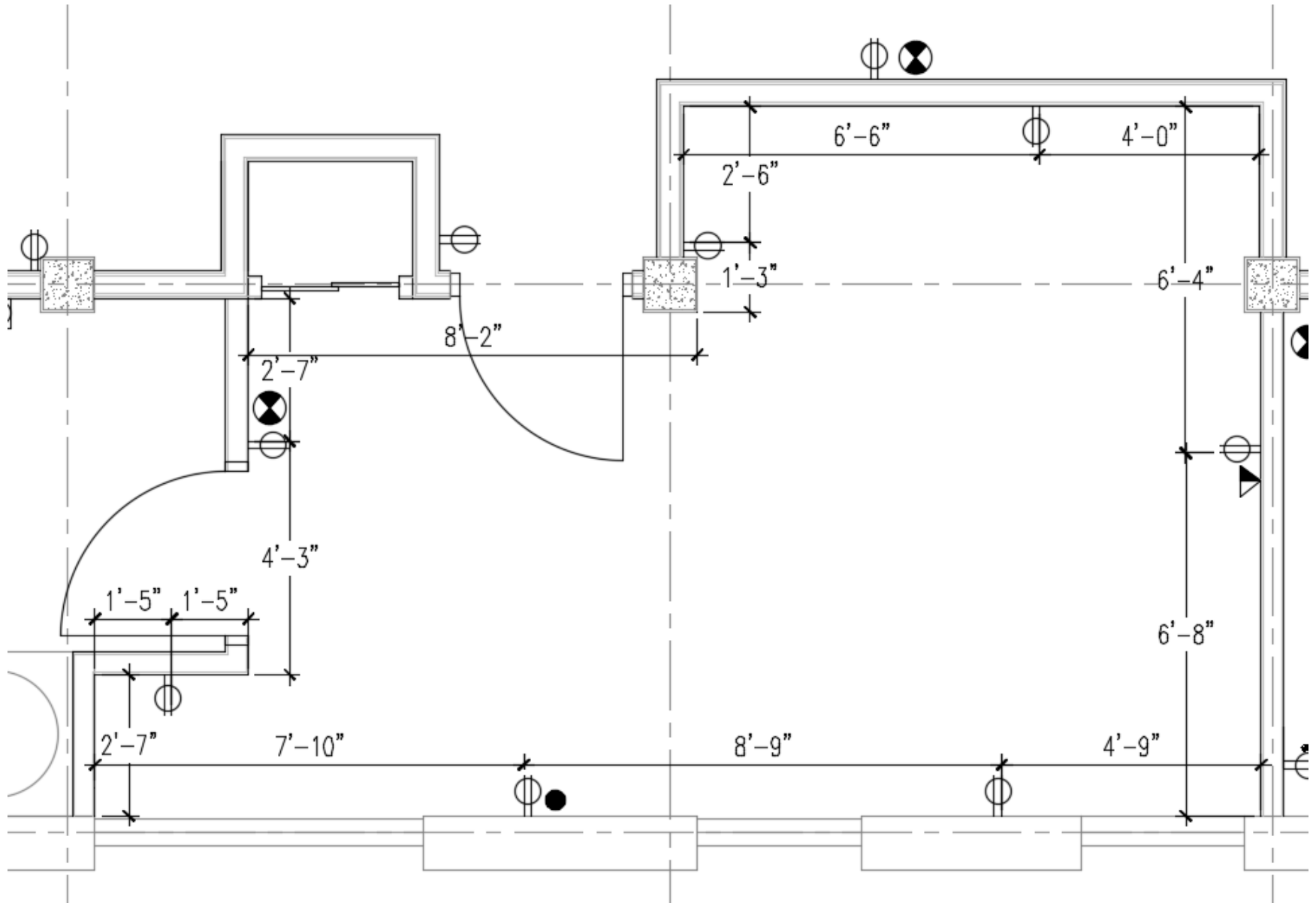
- IN KITCHEN



- IN BATHROOM



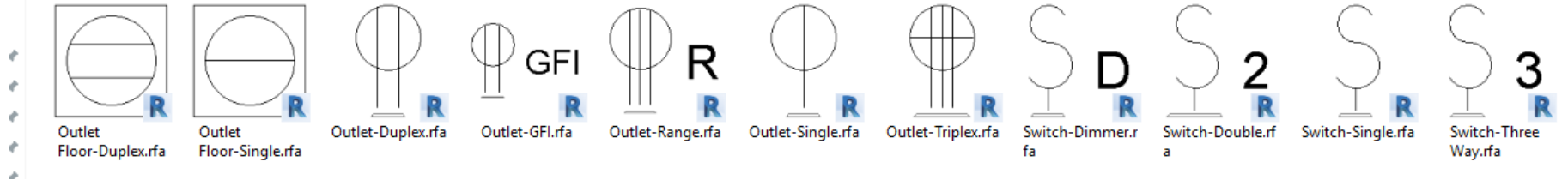
# OUTLET LOCATIONS



# Adding the symbols

- SIMPLY ADD SYMBOLS AS COMPONENTS
- MOST SYMBOLS FOUND UNDER:

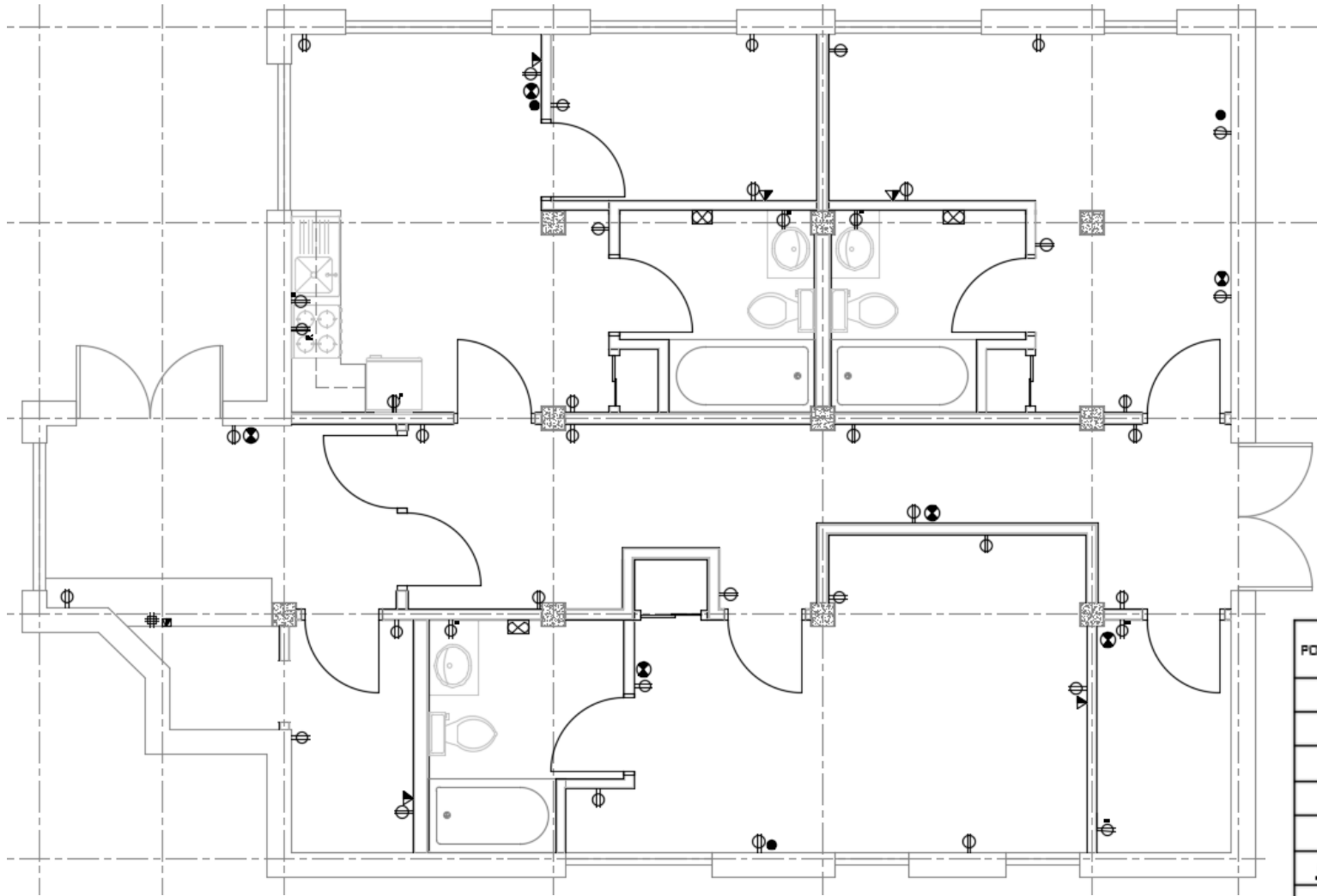
This PC > OS\_Install (C:) > ProgramData > Autodesk > RVT 2017 > Libraries > US Imperial > Electrical > Architectural > Electrical Power > Terminals



This PC > OS\_Install (C:) > ProgramData > Autodesk > RVT 2017 > Libraries > US Imperial > Electrical > Architectural > Information and Communication > Communication



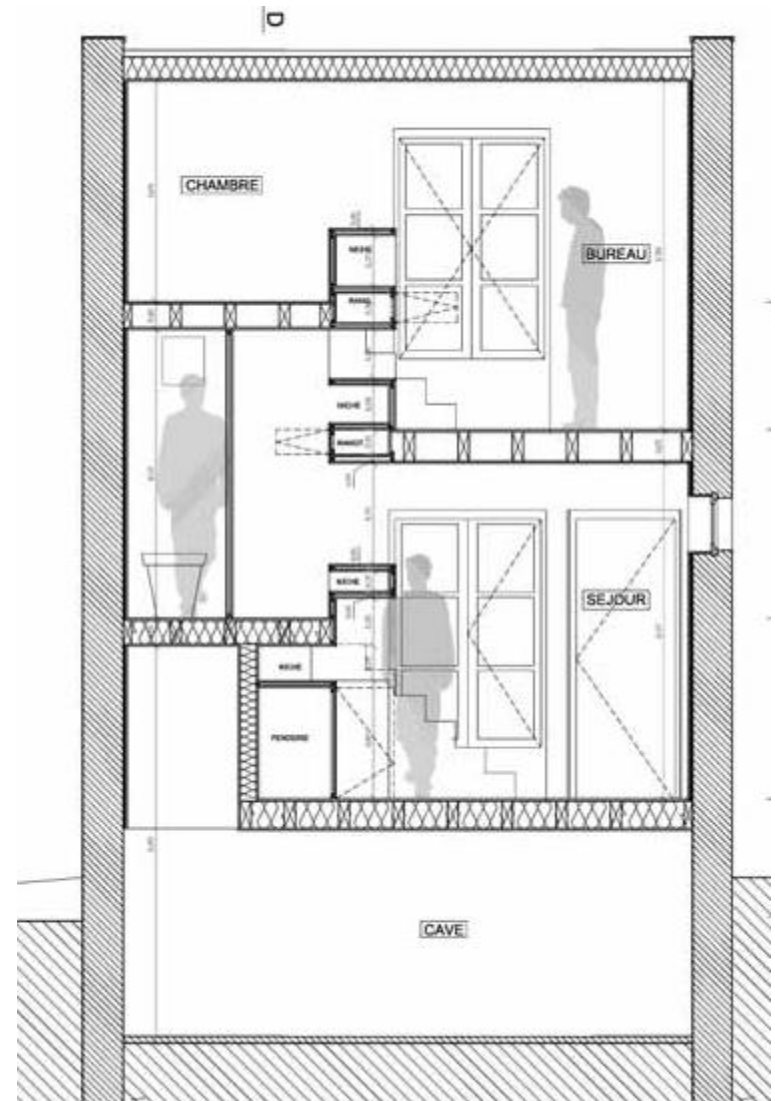
# A6- POWER AND COMMUNICATION PLAN



POWER & COMMUNICATION LEGEND	
	EXHAUST FAN
	SMOKE / CARBON MONOXIDE DETECTOR
	WALL MOUNTED DOUBLE OUTLET
	WALL MOUNTED GFI OUTLET
	WALL MOUNTED QUAD OUTLET
	RANGE / FRIDGE OUTLET
	WALL MOUNTED VOICE/ DATA OUTLET
	WALL MOUNTED VOICE OUTLET
	WALL MOUNTED TV/ CABLE OUTLET
	FLOOR MOUNTED QUAD OUTLET
	FLOOR MOUNTED VOICE/ DATA OUTLET

# INTERIOR SECTIONS

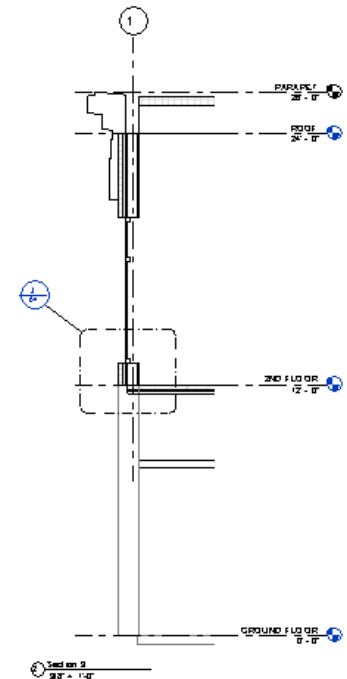
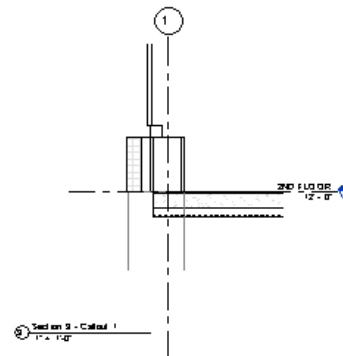
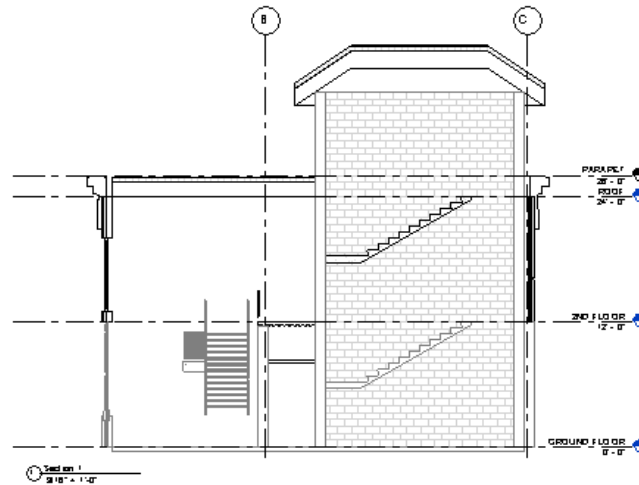
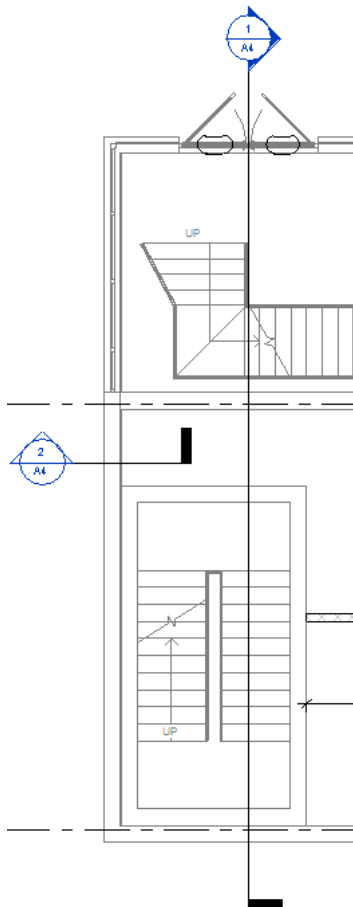
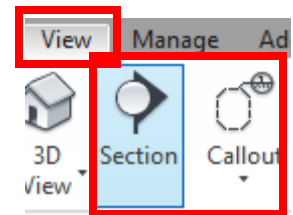
- AN INTERIOR SECTION IS VERY MUCH THE SAME AS AN ELEVATION BOTH IN APPEARANCE AS WELL AS IN PROCEDURE. THE MAIN DIFFERENCE ARE AS FOLLOWS:
  - THE SECTION DRAWING MAY SHOW STRUCTURAL ELEMENTS ABOVE THE FINISHED CEILING AND BELOW THE FINISH FLOOR
  - THE SECTION DRAWING MAY CUT THROUGH SEVERAL ROOMS, NOT JUST 1 LIKE MOST WALL ELEVATIONS
  - THE SECTION DRAWING MAY SHOW MULTIPLE FLOOR LEVELS
  - THE SECTION DRAWING MAY SHOW WALL/FLOOR CONSTRUCTION IN MORE DETAIL.





# Building & wall sections & callouts

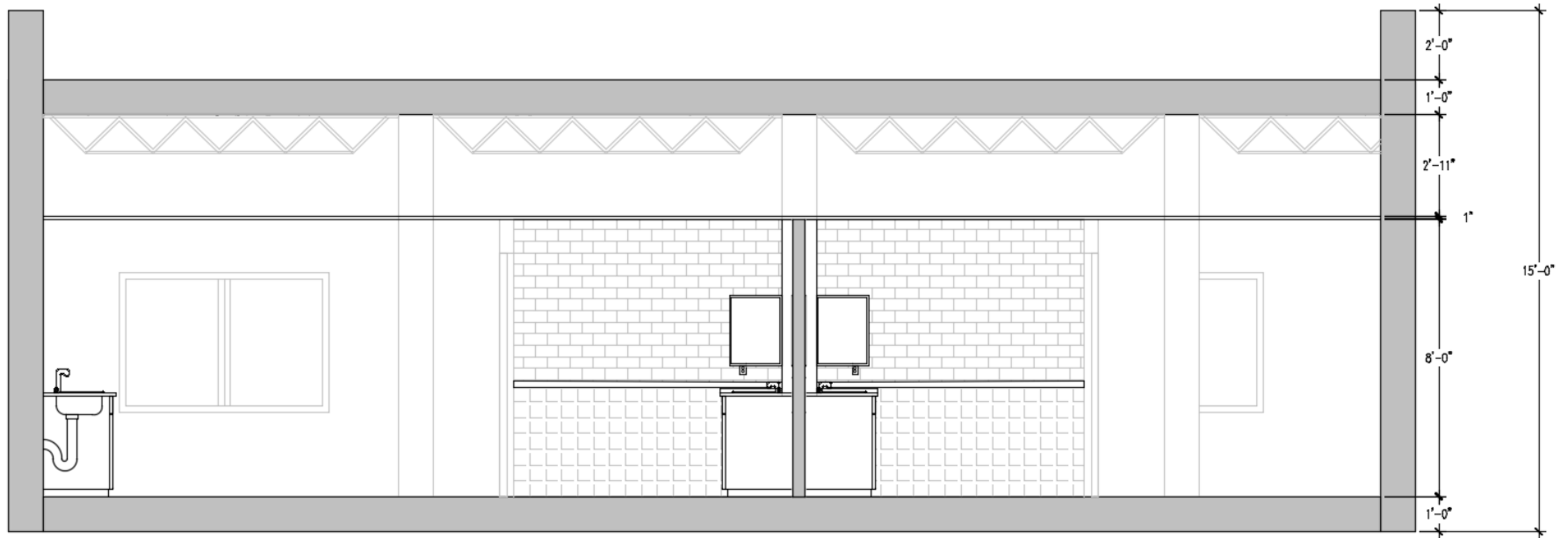
- By drawing a simply section line you can create a building or wall section.
- From that section, a zoomed up detail (Callout) can be generated





# A7- BUILDING SECTION

## SECTION



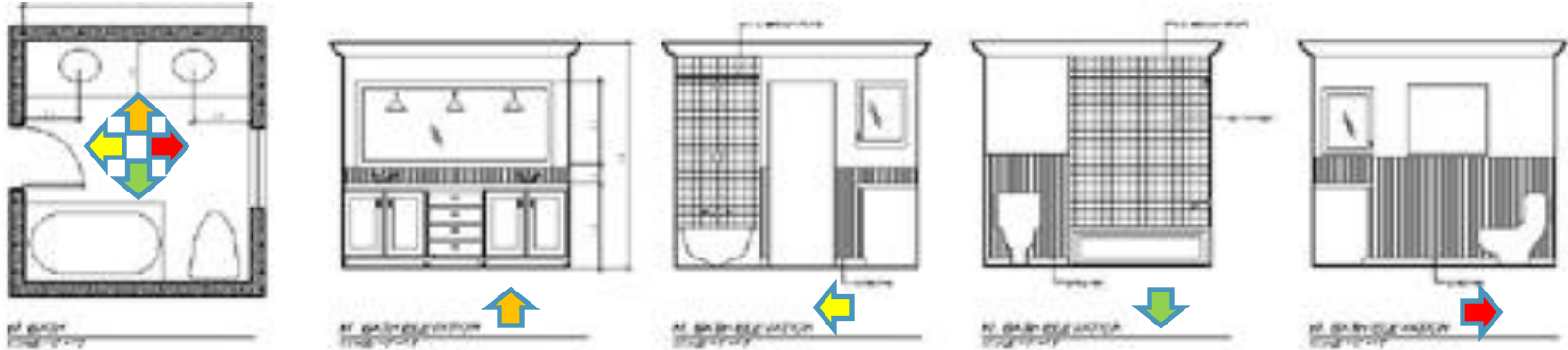
# Interior Wall Elevations

- Interior Elevations are like sections in that they show all of the heights inside the house. The difference between Interior Elevations and Sections is that Interior Elevations start at the finished floor elevation and stop at the ceiling. Interior Elevations show individual walls in specific rooms, whereas Sections cut through floors showing multiple rooms stacked on top of each other.



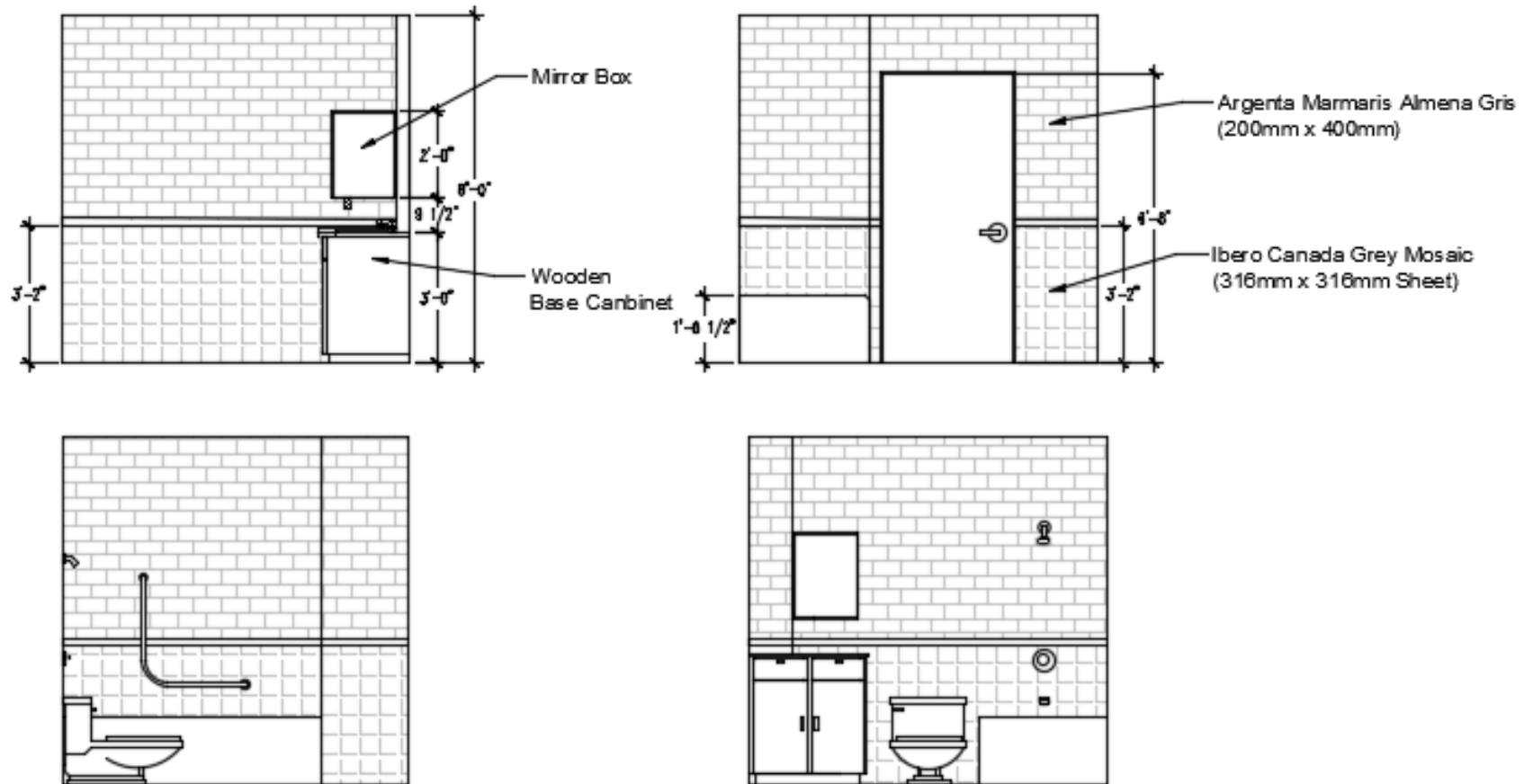
# INTERIOR WALL ELEVATIONS

- EXAMPLES OF INTERIOR WALL ELEVATIONS



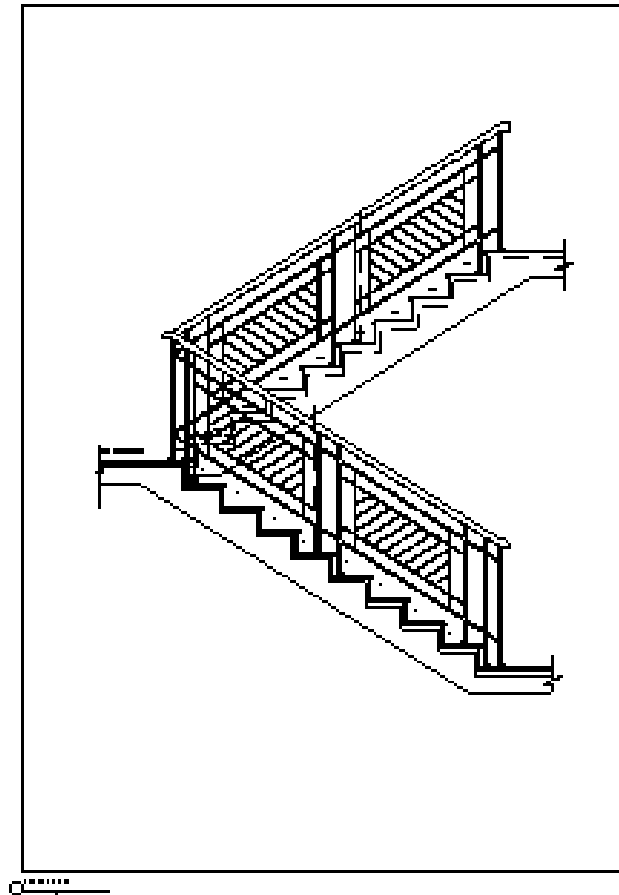
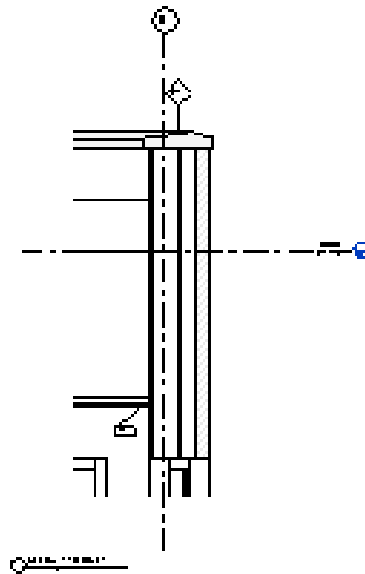
- **INFORMATION YOU WILL FIND ON AN INTERIOR WALL ELEVATION:**
  - HEIGHTS OF OBJECTS
  - MATERIALS USED
  - DETAILS THAT YOU CAN'T SEE IN THE FLOOR PLAN
  - WALL ELEVATIONS DO NOT SHOW ANYTHING BELOW THE FLOOR FINISH OR ABOVE THE CEILING FINISH

# A8- INTERIOR WALL ELEVATIONS



# Details

- Details can be simple callouts from existing views
- You can also insert existing cad files for details



# A9-Detail callouts

- A callout can be placed in any view in order to zoom into a drawing to create another view
- Component details can be added later

