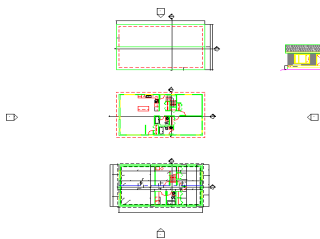


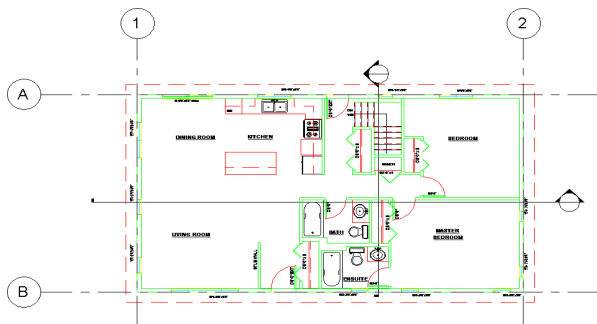
Start new project using default.rte template file from the English-Imperial folder.

LEVELS, GRIDS and WALLS

1. Verify imperial units for your file, **insert** your **DWG file** on the Level 1 view, **main floor plan** centered in the view.
2. In the South elevation view, **create/modify/rename level markers** to **match the heights** used in the AutoCAD section. (we don't need the ROOF) Agree with the pop-up to rename your view name – as seen in the Project Browser. Also **add one level -3" below T.O. BSMNT SLAB and Name it T.O. FOOTING**. Add another level **-11" below T.O. BSMNT SLAB and name it B.O. FOOTING**. Line them up vertically, **use upper case lettering** in the level names. The Level markers should be blue not black, except B.O. FOOTING.



3. Set view detail level to **FINE**, in the **MAIN FLOOR** view, place **grid lines** as shown using the main floor plan for locations. The grid lines are on the **outer side** of exterior sheathing. It may help to hide some of the DWG- (hide in view - by filter - imported categories)



4. Create **3 wall types** for this building, name them Exterior wall 2x6 with siding, Interior 2x4 and Interior 2x6, set the location line and the heights as shown.

Family:	Basic Wall		
Type:	Exterior wall 2x6 with siding		
Total thickness:	0' 6 11/16"		
Resistance (R):	7.5477 (h·ft²·°F)/BTU		
Thermal Mass:	1.7393 BTU/°F		
Layers			
	Function	Material	EXTERIOR SIDE Thickness
1	Finish 1 [4]	Siding, Clapboard	0' 0 5/16"
2	Membrane Layer	Air Infiltration Barri	0' 0"
3	Core Boundary	Layers Above Wrap	0' 0"
4	Substrate [2]	Oriented Strand Bo	0' 0 3/8"
5	Structure [1]	Softwood, Lumber	0' 5 1/2"
6	Core Boundary	Layers Below Wrap	0' 0"
7	Membrane Layer	Vapor Retarder	0' 0"
8	Finish 2 [5]	Gypsum Wall Board	0' 0 1/2"
INTERIOR SIDE			

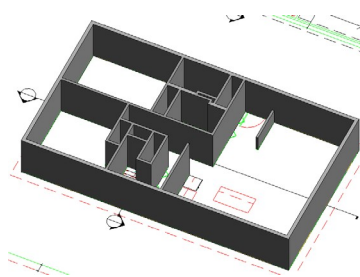
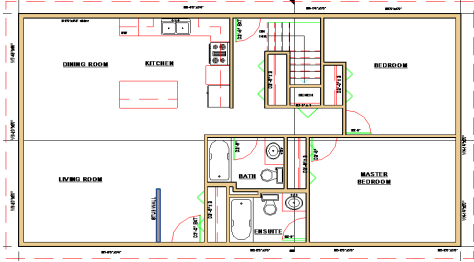
Location Line – Core Face Exterior, Base Const, TO SF - Height: T.O WALL.

Family:	Basic Wall		
Type:	Interior - 2x4		
Total thickness:	0' 4 1/2"		
Resistance (R):	4.4285 (h·ft²·°F)/BTU		
Thermal Mass:	1.5580 BTU/°F		
Layers			
EXTERIOR SIDE			
	Function	Material	Thickness
1	Finish 2 [5]	Gypsum Wall Board	0' 0 1/2"
2	Core Boundary	Layers Above Wrap	0' 0"
3	Structure [1]	Softwood, Lumber	0' 3 1/2"
4	Core Boundary	Layers Below Wrap	0' 0"
5	Finish 2 [5]	Gypsum Wall Board	0' 0 1/2"
INTERIOR SIDE			

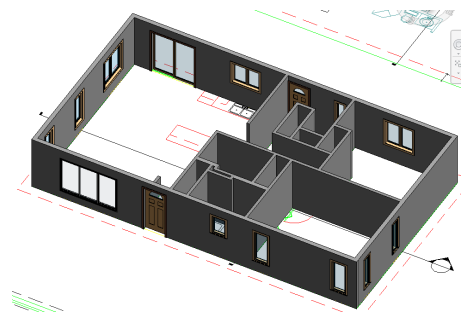
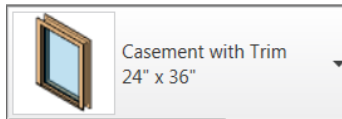
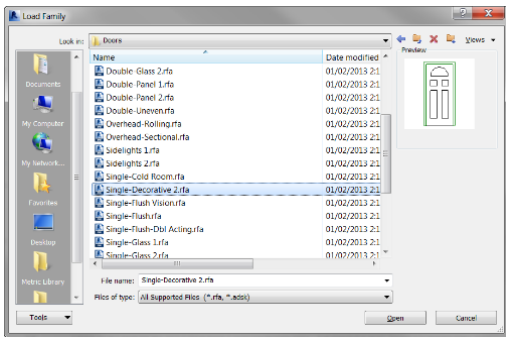
Family:	Basic Wall		
Type:	Interior - 2x6		
Total thickness:	0' 6 1/2"		
Resistance (R):	6.8323 (h·ft²·°F)/BTU		
Thermal Mass:	1.7922 BTU/°F		
Layers			
EXTERIOR SIDE			
	Function	Material	Thickness
1	Finish 2 [5]	Gypsum Wall Board	0' 0 1/2"
2	Core Boundary	Layers Above Wrap	0' 0"
3	Structure [1]	Softwood, Lumber	0' 5 1/2"
4	Core Boundary	Layers Below Wrap	0' 0"
5	Finish 2 [5]	Gypsum Wall Board	0' 0 1/2"
INTERIOR SIDE			

Location Line – Core Face Interior, Base Const. TO SF - Height: T.O WALL.

5. Draw the main floor exterior and interior **walls (ext, 2x4, 2x6)** using the floor plan to trace around clockwise, go through windows and doors, **do not break the walls**.



6. Set the MAIN FLOOR (TO SUBFLOOR) view visual style to **WIREFRAME**. Place doors and windows as located on dwg file on the **MAIN FLOOR** view. Use correct sizes as shown on floor plan, **load door and window types**, see the DWG elevations to see the window styles, load something similar. Residential doors are **6'8" high**, 80". Use the English-Imperial library for imperial windows and doors, **create the correct sizes** as required. Use **6'8" head height** for all windows. Turn off tags.



FLOOR

7. Create a **Floor type** from the Generic 12"...duplicate type and create the **I-Joist floor** system as shown.

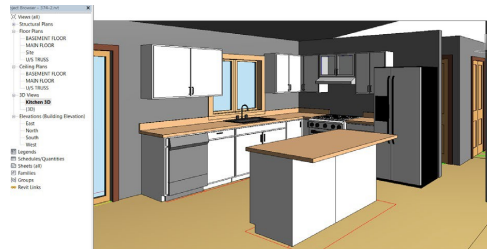
Family:	Floor		
Type:	I-joist 11 7/8 sys		
Total thickness:	1' 0 5/8" (Default)		
Resistance (R):	69.5287 (h·ft ² ·°F)/BTU		
Thermal Mass:	0.7482 BTU/(ft ² ·°F)		
Layers			
	</		

Place the floor, corners of floor should **line up with sheathing** of exterior walls. The Siding should stick out past the floor. **Cut opening (Edit Boundaries)** in floor for stairs, opening follows **stud line**, not gypsum board line.



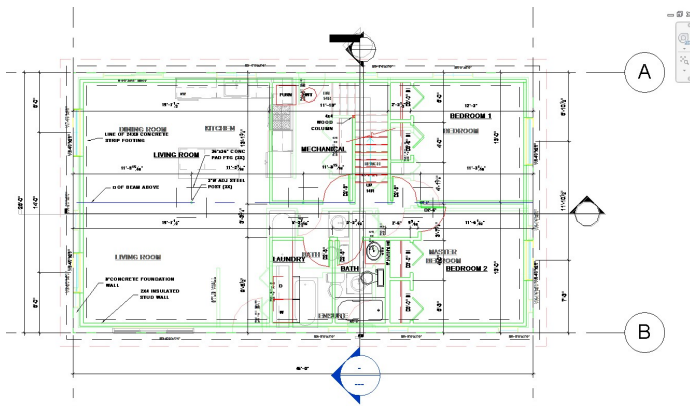
COMPONENTS

8. Add **MINIMUM 12** imperial **components**: toilets, tubs, sinks/vanities/counter top, kitchen sink, dishwasher, stove, fridge, cabinets for kitchen upper/lower/counter top, range hood, and island on MAIN FLOOR view. Try and get as much of the kitchen so it looks good.
9. Create a **camera view** of the kitchen cabinets, **name** this view **3D Kitchen**.



BASEMENT FLOOR

10. To **draw the basement floor plan**, it is not like you draw in AutoCAD with the basement to the side of the main floor drawing. In Revit you draw the basement floor plan exactly below the main floor in 3D, this means drawing the walls on the **Basement floor level**.
11. In the Main floor (T.O. SUBFLOOR) plan view, copy the AutoCAD file to the **clipboard**, **paste aligned to selected level**, T.O.SUBFLOOR, go to T.O. SUBFLOOR view to see the AutoCAD file.
12. In the Basement floor view, **move the AutoCAD file** so the basement lines up under the Main floor plan (T.O. SUBFLOOR), use the MOVE Command. Check the default 3D view and you should see the basement DWG under the main floor where you've been drawing.



This plan shows the basement AutoCADfile and Revit main floor plan as an underlay, all overlapping.

13. Create the wall type for the basement exterior wall as shown. Start with Basic wall – generic 8" masonry, duplicate and name it **8" concrete**. Create the layers in the wall, a layer of asphalt bitumen on the outside of 8" concrete. Place the exterior walls with the exterior side of 8" concrete wall **lined up with the exterior face of sheathing** above. This should be at the grid lines!!Go through windows, **do not break the wall at the windows**. **Top constraint = T.O Foundation OR -1'. 5/8" below Main floor level**, (T.O. SUBFL

Family:	Basic Wall		
Type:	Concrete - 8" Masonry		
Total thickness:	0' 8" (Default)		
Resistance (R):	1.1031 (h·ft²·°F)/BTU		
Thermal Mass:	15.0210 BTU/(ft²·°F)		
Layers			
	Function	Material	EXTERIOR SIDE Thickness
1	Membrane Layer	Asphalt, Bitumen	0' 0"
2	Core Boundary	Layers Above Wrap	0' 0"
3	Structure [1]	Concrete, Cast-in-Place gray	0' 8"
4	Core Boundary	Layers Below Wrap	0' 0"

End of Assignment 1

