Student Project

Student Project — Shopping Complex

In this project, you need to create a BIM model of a shopping complex. In this model, you will create a section view, a graphical column schedule, a structural column schedule, a structural foundation takeoff schedule, and a sheet. Refer to Figures 1 through 12 to complete the project. Use the following project parameters and specifications for completing the project:

1. Structural Columns:

For Imperial	Type: **Concrete-Rectangular-Column** Dimension: 24” x 30” Type: **W-Wide Flange-Column** Dimension: W10x33
For Metric	Type: **M_Concrete-Rectangular-Column** Dimension: 600 x 750mm Type: **M_W-Wide Flange-Column** Dimension: W840x251mm

2. Structural Framing:

For Imperial	Type: **Concrete-Rectangular** Dimension: 24” x 32”
For Metric	Type: **M_Concrete-Rectangular** Dimension: 400x800mm

3. Structural Foundation:

For Imperial	Type: **Footing-Rectangular** Dimension: 72” x 48” x 18” Type: **Foundation Slab** Dimension: 6” Foundation Slab
For Metric	Type: **Footing-Rectangular** Dimension: 1800 x 1200 x 450 Type: **Foundation Slab** Dimension: 150mm Foundation Slab

4. Levels:

For Imperial	For Metric
Name - **Foundation**	Name - **Foundation**
Elevation -10’ 0”	Elevation -3000mm
Name - **Ground**	Name - **Ground**
Elevation-0’	Elevation -0
Name - **First**	Name - **First**
Elevation 12 0”	Elevation - 3600mm
Name - **Second Floor**	Name - **Second Floor**
Elevation 21’ 0”	Elevation - 6300mm
Name - **Third**	Name - **Third**
Elevation 30’ 0”	Elevation - 9000mm
Name - **Fourth**	Name - **Fourth**
Elevation - 39’-0”	Elevation - 11700
Name - **Fifth**	Name - **Fifth**
Elevation -48’	Elevation - 14400

Name - **Terrace**
Elevation - 57'

Name - **Terrace**
Elevation - 17100

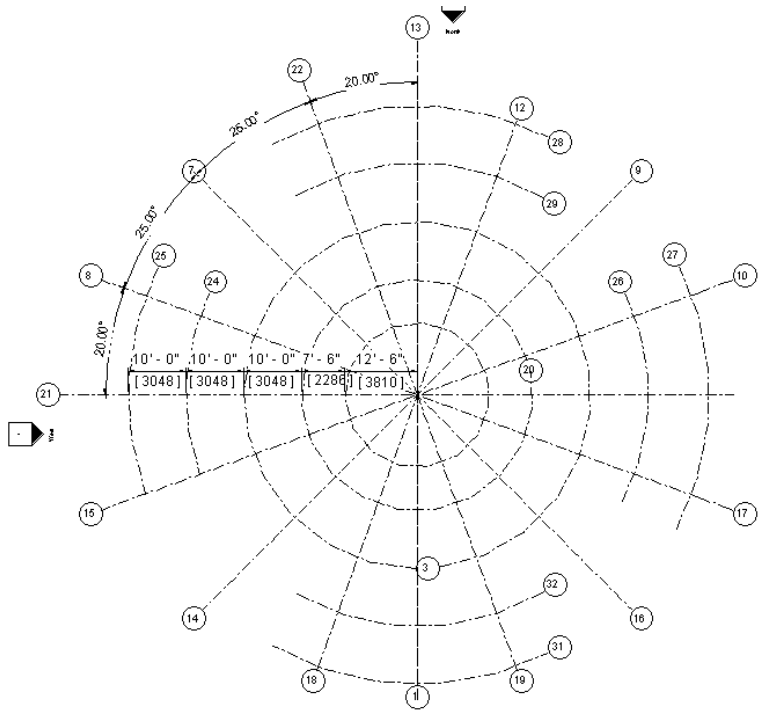

Figure 1 *Grids for the project*

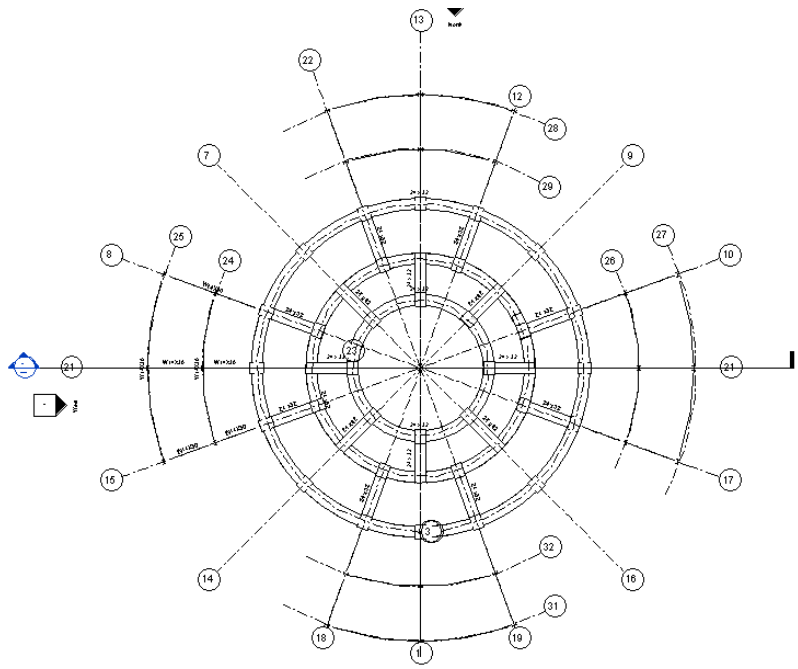

Figure 2 *Structural plan view at* ***First*** *level*

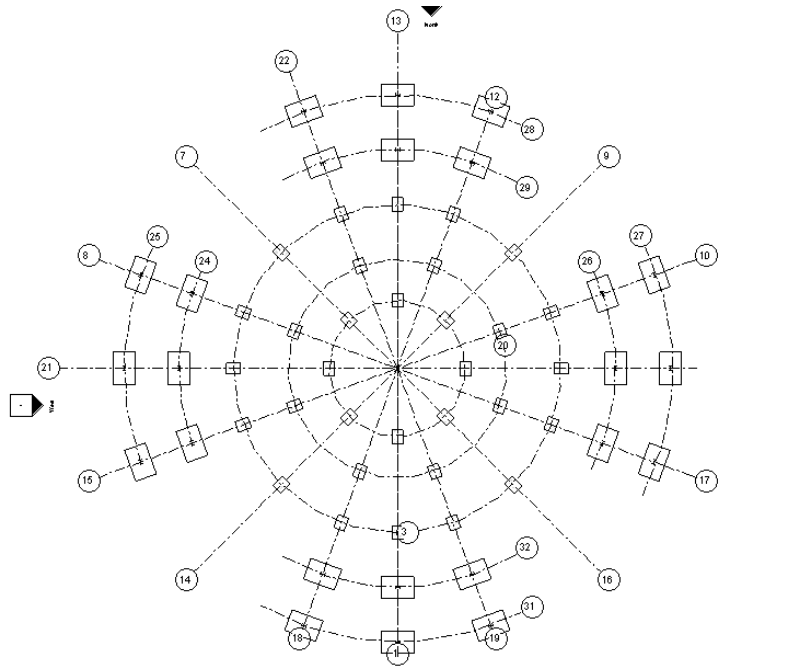

Figure 3 *Structural plan view at* ***Ground*** *level*

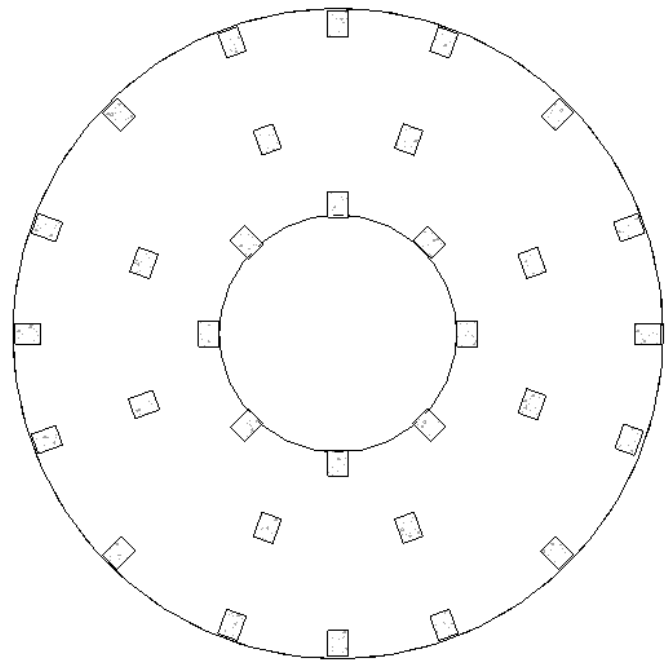

Figure 4 *Structural plan view at* ***Foundation*** *level*

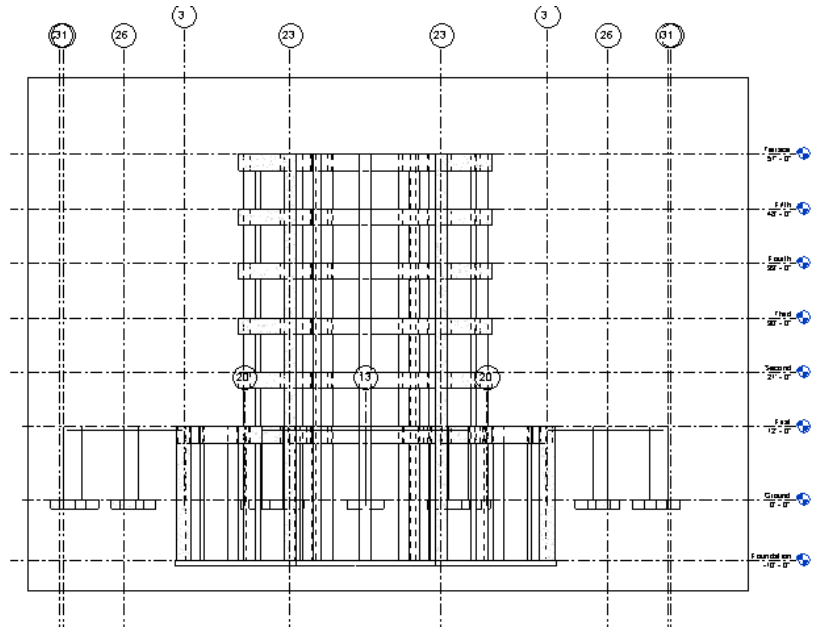

Figure 5 *Sectional view of the project*

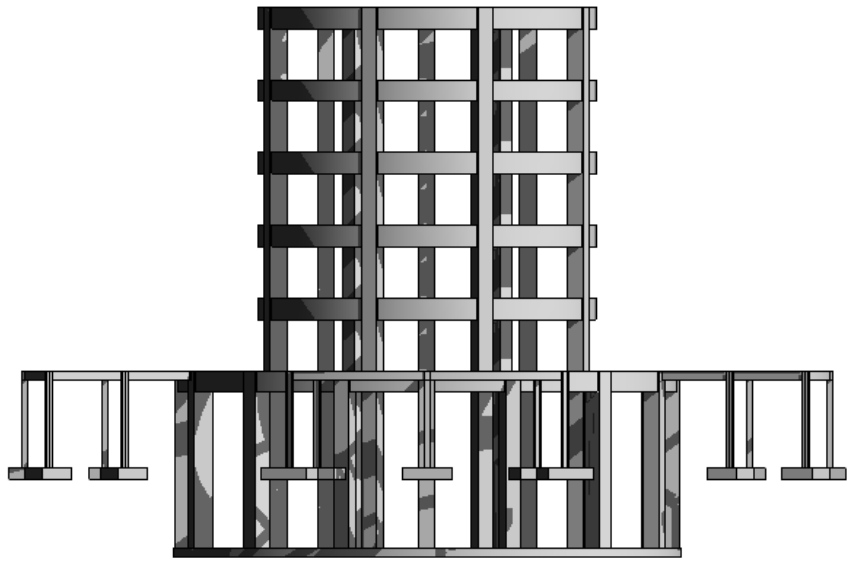

Figure 6 *Front view of the project*

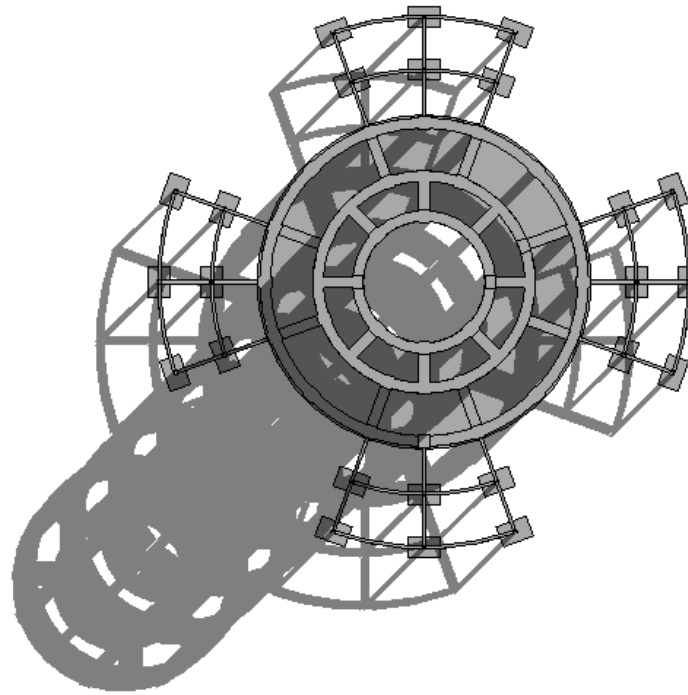

Figure 7 *Top view of the project*

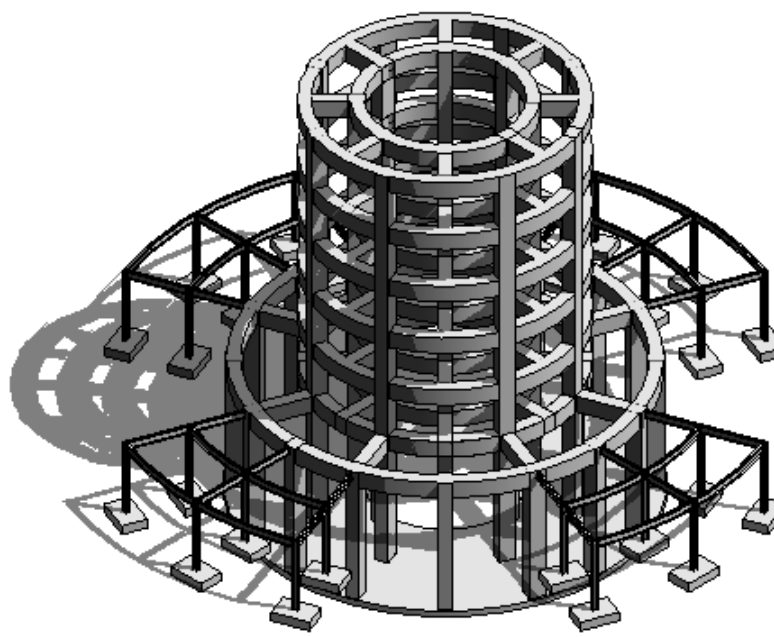

Figure 8 *3D view of the project*

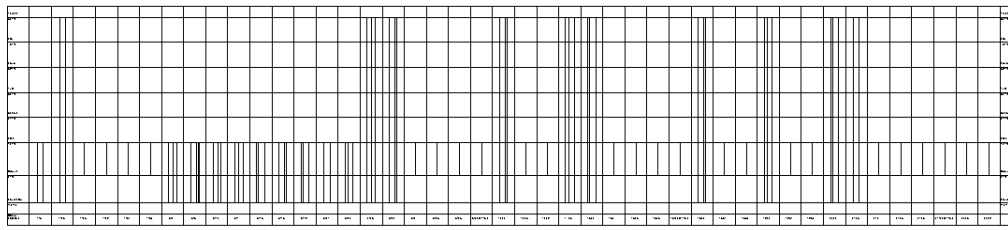

Figure 9 *Graphical Column Schedule of the project*

Structural Column Schedule			
Type	Volume	Count	Length
24 x 30			
24 x 30	7565.00 CF	34	1513' - 0"
W10X33			
W10X33	18.93 CF	24	288' - 0"
Grand total: 5	7583.93 CF		1801' - 0"

Figure 10 *Structural Column Schedule of the project*

Structural Foundation Material Takeoff			
Type	Area	Material: Area	Perimeter
6" Found	2702 SF	2702 SF	270' - 2 1/8"
72" x 48"	39 SF	78 SF	
Grand total: 25			

Figure 11 *Structural Foundation Material Takeoff of the project*

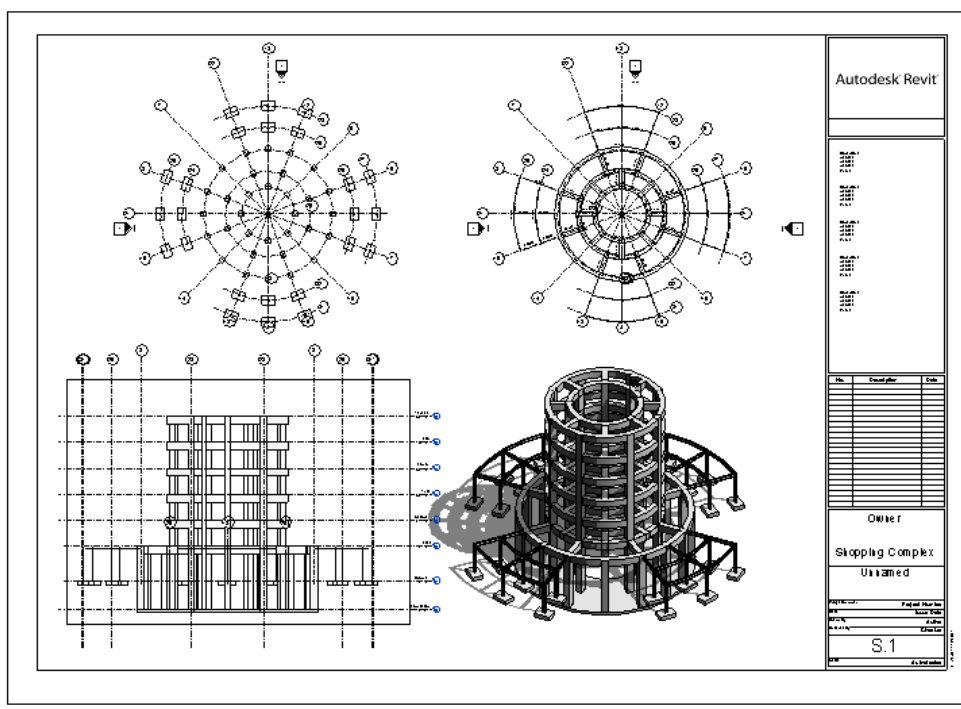

Figure 12 *Sheet view created for the project*