Andhra Pradesh State Skill Development Corporation

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ARCHITECTURAL MODELING USING REVIT

RAMP

RAMP

WHAT IS RAMP?

A sloping surface joining two different levels, as at the entrance or between floors of a building is called RAMP. It is used for easy movement of vehicles from one level to another. In hospitals for wheelchair, stretcher movement might need a ramp to get from the doorway of a building etc,these all are examples where we use Ramp.

CREATION OF RAMP:

Create a ramp in a plan or 3D view by sketching the run of the ramp or by sketching boundary lines.

You use the same tools and procedures for sketching ramps that you use to sketch stairs. Just like stairs, you can define straight runs, L-shaped runs, U-shaped ramps, and spiral ramps. You can also modify the outside boundary of the ramp by modifying the sketch.

The easiest way to add a ramp is to sketch a run. We can create a ramp of straight runs, straight runs with landings, and spiral ramps. For more designs we can create ramp by using boundaries and raisers.

Steps to create Ramp:

1. Open a plan or 3D view.
2. Click Architecture tab ➤ Circulation panel ➤ Ramp.
3. Click Modify | Create Ramp Sketch tab ➤ Draw panel, and select either (Line) or (Center-ends Arc).
4. Place the cursor in the drawing area/where you want to place the ramp in plan, and drag to sketch the ramp run.
5. Click (Finish Edit Mode).
   The default settings for the Top Level and Top Offset properties may make the ramp too long for that just change the instance properties like top level, base level.

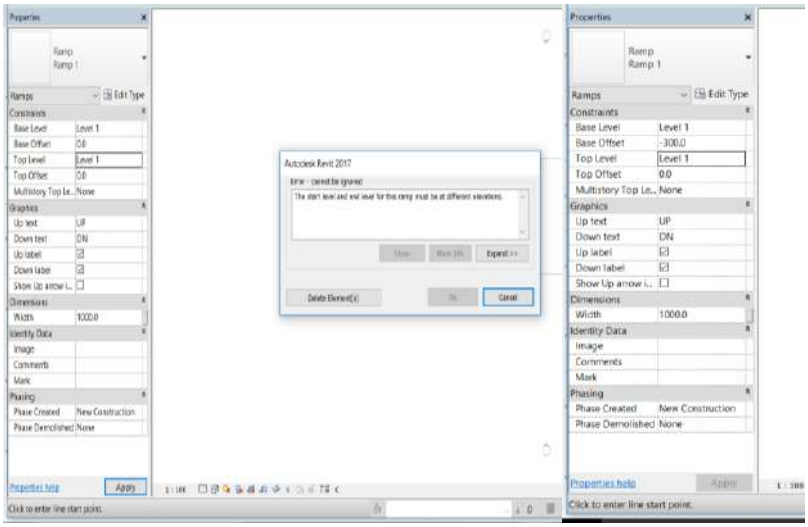
METHODS TO CREATE RAMP

We have two methods to create ramp

1. By changing the base and top level of ramp
2. By adding a new level.

By changing the base and top level of ramp:

First of all after selecting the ramp in the circulation panel in the architecture tab change the base and top level. For example if you are starting the ramp at 300 mm below level 1 and end at level 1 you have to give -300 in base offset and give top level as level 1. Here if you had given top level first you will get an error notification that the start level and end level for this ramp must be at different elevations. It happens because by default the base level is level 1, so if you had given the top level as level 1 first without changing the base offset. So be careful while changing these things.



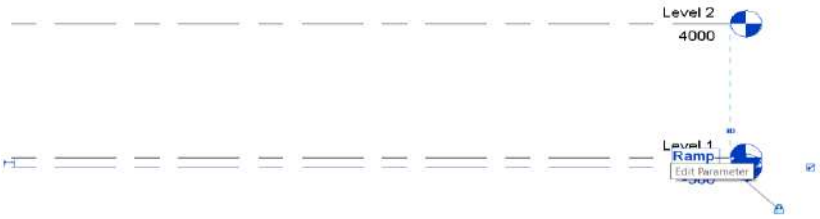
After changing all these things you can create the ramp following the above process where you want to place in the plan.

By adding a new level :
In this method you have to create a new level and then you have to create a ramp.

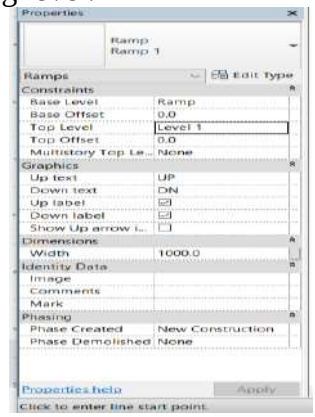
Creating new level:
If you have to start ramp at 300 mm below level one just create a new level at 300mm below level-1

To create a new level in the plan you have to go to any one of the elevation and then in the architecture tab there is a datum panel in which you have to click on level.
Then in draw tools for easy way take pick lines, in options bar give 300 mm offset and create level below the level 1 just by placing cursor at level one you will get a reference line then give left click in mouse then level will be created.

After that to change the name of the level just click on the level the name gets changed to editing mode so just change the name as you required here I am changing it as ramp.



Then after creating the level go to level one and take the ramp just change the base level as Ramp and top level as level 1 and create a ramp by following the same procedure as discussed above.This how we can create a ramp by creating level.

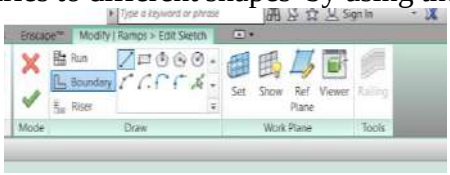


EDITING OF RAMP

After creating a ramp, you can edit its boundaries.

1. Open a plan view or a 3D view that displays the ramp.
2. Select the ramp, and click Modify | Ramps tab ➤ Mode panel ➤ Edit Sketch.

Here you can change its boundaries to different shapes by using the draw toolbar in the ribbon bar.



Changing of railing type on ramp
After creation of ramp

Here after placing the ramp you can change the railing type too. By selecting the railing on the ramp the different types of railing gets highlighted in the property palette. Just by clicking on the drop down arrow in the type selector you will see different types of railing just select the type what you want to place on the ramp.

If sketching a new ramp

To change the railing type while sketching a new ramp, you can specify the railing type to use.

1. To begin a new ramp, click Architecture tab ➤ Circulation panel ➤ (Ramp).
2. Click Create Ramp Sketch tab ➤ Tools panel ➤ Railing Type.
3. In the Railings Type dialog, select one of the existing railing types in the project, or select Default to add the default railing type, or select None to specify that no railing will be added.

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