1 Stage 1 model & structure

30% of the work – generally takes 1-2 weeks for modeling – this process can be somewhat speeded up if necessary

☑ **What you are checking:**
Structure – all the bits and pieces are in the right place.

☒ **What you are not checking:**
Lighting, colours, materials, camera track/landscaping, sky/people/cars/trees/animated effects
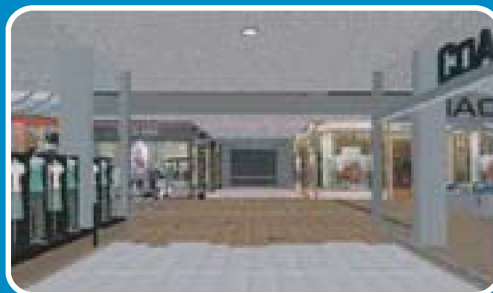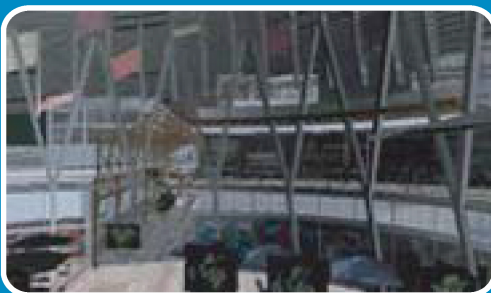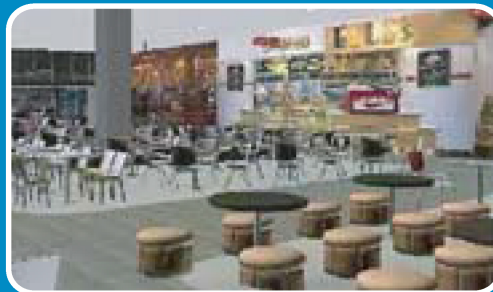
3D Modeling To build a 3D model we take your plans in DWG format (AutoCAD) and import them directly into the 3D program. These plans form the basis of the model - we do not re-draw the plans.
The elevations are then imported into the 3D software and matched to the plans. Where discrepancies or ambiguities occur between plans and elevations we refer to sections for clarification.
The more sections we receive the easier it is to get it right without making informed design decisions or referring the matter back to the architect.

2 Stage 2 camera pathway

*10% of the work – around 3-5 days – cannot be speeded up.
Changes to camera path take minimum of 1 day.*

☑ **What you are checking:**
> *Adjustments to Structure*
> *The pathway the camera follows.*
> *Any animated items within the animation.*
> *The height, positioning and scope of view of the animation.*
> *The speed of the camera movement.*
> *The length of the animation.*
> *The landscaping positioning.*

☒ **What you are not checking:**
> *Lighting, colours, materials,*

The camera pathway is rendered in cartoon format. The actual pathway of the animation is shown as a movie file.

3 Stage 3 texture & lighting from still shots.

*60% of the work – minimum of 2 weeks up to 4 weeks
depending on complexity – cannot be speeded up without loss of quality*

At this stage all lighting and material effects are added – lighting in an animation constitutes the main technical focus of an animation – it is at this stage that the success of the animation is determined. The time spent in this stage determines the final quality and appeal of the animation and speeding up this process will result in a loss of quality and appearance of textures, materials colours and most importantly the lighting. There may be 10,000 separate lights placed within the model during this stage.

An animation is rendered at around 30 frames per second – a three minute animation therefore has 5,400 separate frames – this means it is impossible to bring the graphics into Photoshop for post production effects – as a perspective can be adjusted in Photoshop. Therefore the time and effort required to get an animation to reach the same level of quality as a perspective is much higher than perspective work.

4 Stage 4 rendering & video editing

10% of the work – 1-2 days – cannot be speeded up because of computer processing time – changes after this period take 'time to do changes' + 1-2 days re-rendering.

Rendering - once all the parameters have been entered into the computer -lighting, structure, material maps, bump maps, colours etc the computer then calculates the effect of all these parameters on each individual pixel in the 5,400 images that make up an animation image.

Before rendering the model is a vector3D file but after rendering it becomes an series of image files able to put together as a moving video/DVD file.

Rendering at high resolution takes time - as much as two days for complex models – and this is on our large render farm – the same computer that was used to make Lord of the Rings movies 1 and 2.

Following rendering the files are taken into Adobe Premiere and Adobe After Effects for editing and the addition of any information such as graphic frames, addition of voice over, video effects and any changes after the rendering process involves a complete re-rendering and will require extra charges and time.