Construction Services

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Virtual Reality

Virtual Reality (VR) in relation to construction is the ability to take a computer-generated 3-dimensional model and provide the ability to view, walkaround and interact with the model prior to construction.

Through the use of either headsets or what is termed a "BIM Cave", (a room set up specifically for the immersive capability of virtual reality), individuals can experience dynamically a buildings aesthetics and provide a spatial understanding of its form prior to construction commencement.

Virtual Reality is an extension of the BIM process and whilst we all know BIM can optimise the delivery of buildings by providing greater efficiencies at all stages of the building lifecycle, BIM does not encourage exploration of form, space and aesthetics as VR can.

VR can also play an important role at all stages of the design-to-construction process, from evaluating design options and showcasing proposals, to designing out errors and ironing out construction and serviceability issues before breaking ground on site.

Even at the conceptual or fit out stages, VR can be an effective means of exploring the relationships between spaces; the impact of light on a room at different times of the day or year, views from mezzanine floors or layout of furniture and furniture types, wall and floor coverings. With a physical scale model or BIM model on screen, you still have to imagine what it would be like to exist inside the space. With VR, you actually experience the proportion and scale.

It is one thing to model a building in a 3D CAD system but using VR to experience how it will feel and function can take design to a whole new level. Designers can exist inside their designs, encouraging bold new ideas and more interaction.

In deploying virtual reality, many companies look to start with a base system such as Enscape or 3DS Max in tandem with a headset such as the HTC Vive or the Oculus Rift. Often though, having experienced the power of the immersive technologies, Clients move to a BIM Cave to provide a joint immersive experience with Colleagues or Clients.

For more information on our construction services please call 01992 807 444 or email marketing@excitech.co.uk.

Features and Benefits of Virtual Reality

- Enhanced Client experience, awareness and interaction
- Used by Client as sales tool
- Improved planning applications
- Improved collaboration and communication between Designers, Contractors and Sub-contractors
- Reduced RFI's and change requests
- Risk reduction
  - See potential conflicts earlier
- Training
- Health and Safety Training
  - Graduate
  - Marketing
- PR images, case studies and internal promotion