BIM Practical Examples and Learnings.

BIM For Building Services
edc offices
edc sectors

SPORTS AND LEISURE

ENERGY FROM WASTE

PUBLIC BUILDINGS

HEALTH SECTOR

OFFICE AND EVENTS CENTRE

LOCAL GOVERNMENT

HOSPITALITY

RESIDENTIAL
edc implementation of BIM

- Management decided it was the companies direction
- Appointed a BIM Manager
- Started with basics BIM
- 3D modelling on projects even if not a requirement
- Gradual role out of training to staff
- Appreciation of changes to drawing presentation
- Appreciation of different drafting tools available
- Changed drawing standards to relevant BS standards
- Implemented an in house Common Data Environment
Wire frame model
Wireframe model with 3D M&E
Ireland BIM Project
Project 1 - Multi-use Building
Winning Work Abroad through Collaborative BIM
Successful Collaboration
Export Possibilities
Basic BIM Required

• Common Data Environment used
• Weekly Sharing of models
• Weekly Coordination and Design team meetings
• Clash detection and resolving
• Bill of Quantities & material take-offs required for tender stage
Learning outcomes

• New opportunity to win prestigious projects

• Company growth could be accelerated

• Demonstrated that collaboration through sharing of models and weekly video conferencing works during design stage

• Clash detection critical in negotiating riser and ceiling voids

• Bill of Quantities and material take-offs simplified

• Lack of local regulatory documents
Project 2 – Sports Arena
Level 2 BIM Required

• BIM Management of Architectural, Structural & MEP models
• Common Data Environment fully utilised
• 4D bi-weekly model updates
• Bi-weekly BIM coordination meetings
• COBie populated model information
• Asset Information Model
Learning outcomes

• Project difficult to manipulate into a Level 2 project if Level 2 principles have not been fully followed from conception to detailed design

• Information difficult to gather from subcontractors and suppliers.

• Challenges in promoting discipline in the use of the Common data environment

• Challenges in presenting fully coordinated model to site personnel. Highly detailed 2D coordination drawings required to represent model intent and to reduce re-modelling

• Vastly improved accuracy of builders works openings

• Programming of service installation improved with greater visualisation

• Less downtime on site, problems are realised early on and resolved within the model before they manifest themselves on site
Overview of BIM limitations and confusion

• Unrealistic expectations
• Employers Information Requirement (EIR)
• All or nothing BIM?
• BIM can be bought?
• BIM increases risk?
• CAD drafters are ideal candidates for BIM modeller?
Main advantages of using BIM in MEP design
2D CAD coordination
3D model coordination
3D model viewing utilising Virtual Reality
Spatial Awareness

- DEPTH OF FIELD
- BETTER SENSE OF SPACE
- EQUIPMENT PROPORTIONS
- PERIPHERAL VISION BEING USED
Model Viewing

- BETTER VIEWING OF MODEL
- FASTER REVIEW TIME
- ENHANCING CLIENT SIGN OFF PROCESS
Constructability

- Better Maintenance Evaluation
- Height Restriction
- Service & Equipment Supports
Builders Works
Ceiling Depths & Coordination
Plant Room Planning
Grille & Louvre Locations
Please experience our Virtual Reality Demo at our display
BiM regions - CitA Southern Series “Back to Basics”

When:
Wednesday 23rd March
6.30pm – 8.00pm

Registration & Directions:
http://www.cita.ie/events/cita-southern-bim-region-meeting-2/

Topics:
• History of BIM – Process, Technology & People
• BIM Level 1 - The forgotten first step
• BS 1192 – Basic Common Data Environment
• Tech Talk & Discussion