Course	**BIM Fundamentals for Virtual Design and Construction**
Duration:	**1 Day**
Trainer	**BIM Professional**



1.0 Introduction

This intensive 1-day course bridges the critical gap between theoretical BIM concepts and practical on-site application, designed specifically for construction professionals, project managers, and engineers. It empowers participants to confidently transition from traditional 2D documentation to advanced digital-first coordination workflows. By focusing on real-world scenarios, the course explores how to navigate complex 3D models, ensure strict information accuracy, and execute precise model-based coordination. Participants will gain hands-on experience leveraging essential digital tools to proactively minimize project risk, significantly reduce costly rework, and ensure seamless communication between site operations and the design office. Ultimately, this training drives superior project delivery and operational efficiency in a collaborative construction environment.

2.0 Training Objectives

This course aims to equip participants with the digital competency required for modern construction projects. The training aims to contextualize BIM standards by teaching the practical application of maturity levels to enhance project strategy and information management. Participants will build digital proficiency by developing hands-on skills in using viewer tools to interrogate models for real-time decision-making. Furthermore, the course enables participants to master coordination by performing model-based clash detection to proactively resolve conflicts early. Finally, it seeks to unify project workflows by establishing digital communication protocols that streamline collaboration between site and office teams, effectively bridging the operational gap.

3.0 Learning Outcome

- **Utilize BIM Standards and Workflows:** translate core BIM principles and maturity levels into practical project strategies that enhance accuracy and information management.
- **Navigate and Interpret Models:** utilize digital viewer tools to read, interrogate, and visualize BIM models effectively for real-time decision-making and data extraction.
- **Execute Model-Based Coordination:** perform practical clash detection and issue management reporting to identify and resolve design conflicts before construction begins.
- **Streamline Site-Office Collaboration:** implement BIM-enabled communication workflows to bridge the gap between site operations and office documentation.

4.0 Course Modules

Training Agenda

08.45-09.00	Registration, Introduction and Ice-breaking
09.00-10.40	**Module 1: Applying BIM Principles and Workflows** BIM's core principles, BIM Execution Plans (BEP), Implement BIM ISO 19650 workflows
	Practical Session Drafting BIM deliverables and BIM Execution Plans (BEP)
10.40-10.50	Tea Break

	10.50-12.30	**Module 2: Visualizing and Interrogating BIM Models** Interrogate federated models, analyze BIM properties, and utilize quantification tools.
		Practical Session Manipulate section boxes, query element parameters, and isolate specific model categories.
	12.30-14.00	Lunch
	14.00-15.40	**Module 3: Model-Based Coordination and Clash Detection** Configure clash matrices, define geometric tolerances, and identify hard versus soft interferences.
		Practical Session Execute interference checks and prepare clash detection report
	15.40-15.50	Tea Break
	15.50-17.30	**Module 4: Integrated Site-Office Collaboration Workflows** Synchronize cloud-based RFIs, markups, and issue tracking within the Common Data Environment
	17.30-17.00	**Concluding Summary and Recap** Comprehensive summary of the course content and a final Q&A session to prepare participants for immediate application.

5.0	**Who Should Attend** - Management of consulting firms, contracting companies, property developers, industrial asset owners. - Professionals (engineers, architects, designers, coordinators and technicians) - Specialists engaged in BIM-related Research and Development
6.0	**Methodology** The session will employ a blended approach, with an 50% focus on hands-on practical activities and 50% on conceptual training. The training will involve interactive sessions, discussions, and course notes.

Photos from Passed Training:



