

COMPANY

Yee Fai Construction Company Limited

PROJECT

Commercial Development at KTIL240, 98 How Ming Street, Kowloon, Hong Kong

LOCATION

98 How Ming Street, Kwun Tong, Kowloon, Hong Kong

TYPE

Commercial

SCHEDULED TIME OF COMPLETION

1-October-2022

Greater Value from Early Value: BIM in VDC



About Yee Fai Construction Company Limited

Yee Fai is a wholly-owned subsidiary of Sanfield (Management) Limited. Operating in Hong Kong building construction sector since 1974, we focus on our customers' needs with our capabilities and resources to bring extra values through our innovative and sustainable solutions. Our core values are "Building Homes with Heart" and "Safety, Quality, Speed and Efficiency".

BIM PARTNERS

KT Real Estate Limited

Turbo Result Limited

AGC Design Limited

WSP (Asia) Limited

Ove Arup & Partners Hong Kong Limited

Arcadis Hong Kong Limited

Lik Kai Engineering Company Limited

Ridgid Plumbing Limited

SUNeVision Super e-Technology Services Limited

Alpha Idea International Limited

G&M Engineering Company Limited

Entasis Limited

Kai Shing Management Services Limited

bimSCORE Limited

Summit Technology (Hong Kong) Limited

AUTODESK PRODUCTS USED

3ds Max

AEC Collection

AutoCAD

AutoCAD Raster Design

BIM 360® Docs

Dynamo for Revit

Navisworks Manage

PlanGrid

ReCap™ Pro

Revit

Project Description

This Redevelopment Project – KTIL240 is located at Lots where a Kowloon Motor Bus (KMB) Depot had operated since 1966. In conjunction with other developments at the same district such as Millennium City, APM and Landmark East, KTIL240 is now taking part in the transformation processes to modernize Kwun Tong as one of the oldest urban districts in Hong Kong into an area for Grade A offices, as well as exciting retail and entertainment hubs.

Project Challenges

Building projects in Hong Kong are not easy, as we always have very tight design and construction period. And the industry is also looking for a more efficiency way to add more value and make more profits, so as this project. Since the design and construction time is so limited, we need a more collaborative process to achieve higher quality project deliverables.

Meanwhile many projects treat BIM as burden and failed due to lack of participation of project team members. We seek for a solution that could bring benefits to all project stakeholders and hence motivate them to embrace BIM.

Solutions for challenges

If you are familiar with the MacLeamy Curve, our target is to pull our coordination process to as earlier as possible, and therefore save time and costs due to any design changes or lacking of coordination.

Since the building uses "top-down" construction method, there will be very limited coordination time before site commencement. The construction team joined the design coordination process almost immediately after awarded to ensure construction concerns are incorporated during design collaboration.

While at the beginning, a dozen of BIM uses are planned covering different disciplines and project stages, ensuring all parties getting positive feedback from BIM.

How does BIM benefit the project?

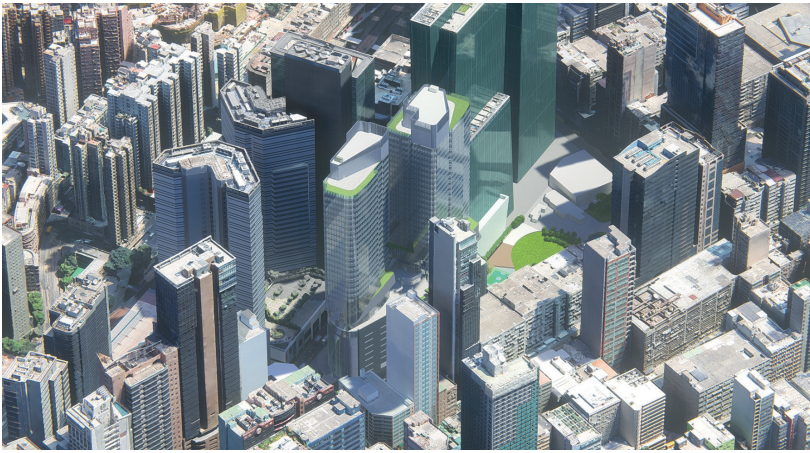
Since BIM model is the natural good centralized platform storing project information, virtual design and construction (VDC) process is used to utilize BIM process to facilitate project collaboration. Such VDC process in a way increases the transparency of project information, and making the BIM-based and value-driven collaboration consistent and accountable.

Up to current construction progress, no abortive work has been incurred by insufficient BIM review and collaboration. The well coordinated BIM lead to submission drawings purely from models, and with the help of latest innovation technologies, we are now able to transform the digital building to physical one.

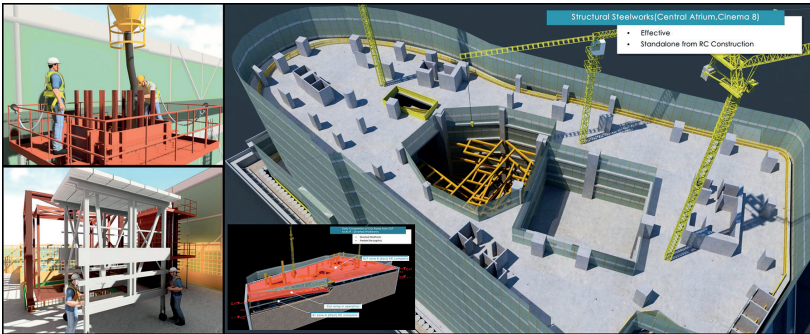
Better with BIM

In order to extend BIM to cover most of project life cycle, goals are set in later operation stage to use BIM for asset and facility management. These goals include achieving accuracy as-built drawings with less than 3mm deviations, reducing FM data search time from 2-3 hours to minutes, and providing a proactive informed FM system.

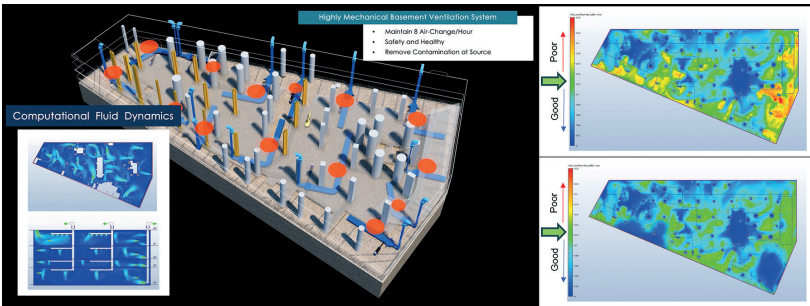
The early participation of facility management team turns their requirements into model development specifications, keeping us to provide a just-in-time and just-enough BIM process. And as the experience we achieved in this project, to have Greater Value from Early Value with BIM in VDC.



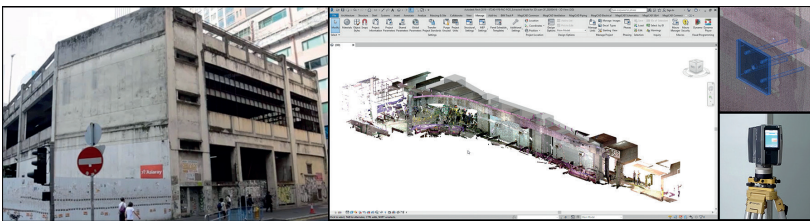
Fly View of Overall Site and Surroundings
Image Courtesy of Yee Fai Construction Company Limited



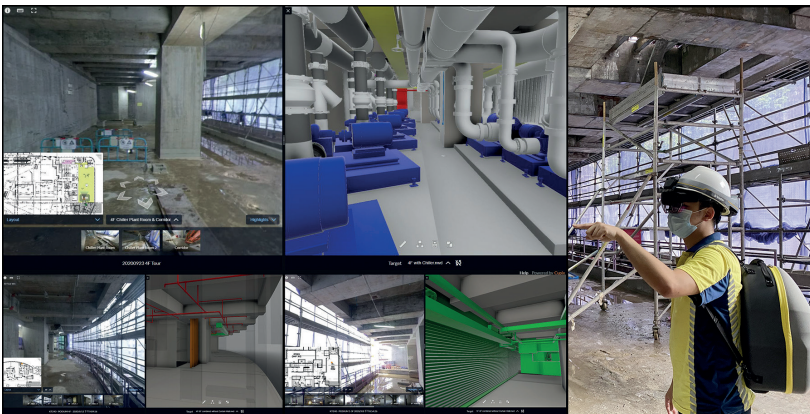
4D Simulation of Construction Sequence and Site Safety
Image Courtesy of Yee Fai Construction Company Limited



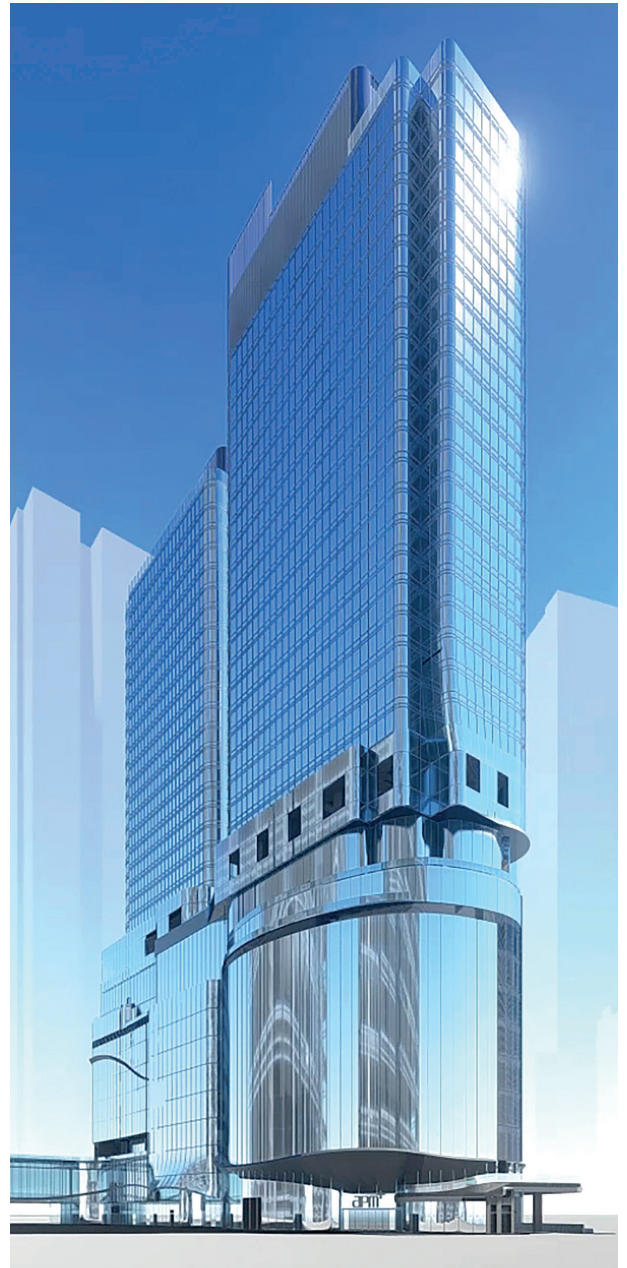
CFD Simulation for Basement Temporary Air Ventilation and Smoke Extraction
Image Courtesy of Yee Fai Construction Company Limited



Demolished KMB Depot and Laser Scanning for Curtain Wall Fabrication
Image Courtesy of Yee Fai Construction Company Limited



Site Condition and BIM Model Comparison by MR Equipment and Panoramagram
Image Courtesy of Yee Fai Construction Company Limited



Overview of Building Façade Design
Image Courtesy of Yee Fai Construction Company Limited



Nearby Park View of Building
Image Courtesy of Yee Fai Construction Company Limited



Virtual Mockup with VR Equiped Exploration
Image Courtesy of Yee Fai Construction Company Limited