



BIM Capability



Nguyễn Quốc Trung



EXPERIENCE BEYOND.

EXPERIENCE BEYOND is our quest to go beyond aesthetics and functionality, into the realm of cognition. It is about how design sparks creativity and innovation.

Ultimately, it is having the continuous foresight to create better tomorrows.



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Excel in

INNOVATIVE BIM

for design and beyond

BIM is the core of multidisciplinary
collaboration to deliver fully coordinated
information rich sustainable design



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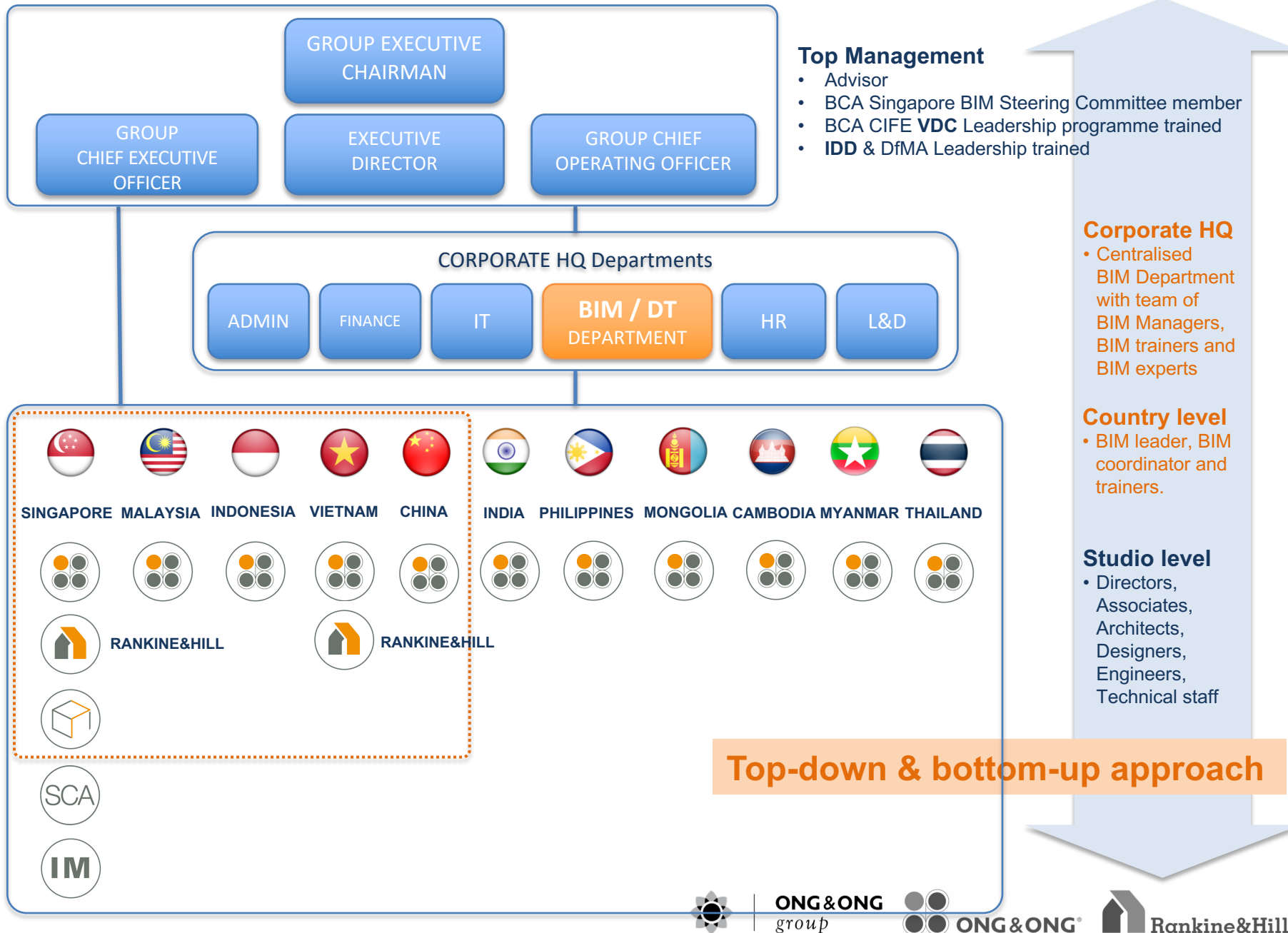


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Company BIM Roadmap/ Management Commitment and Support



WHAT IS BIM?



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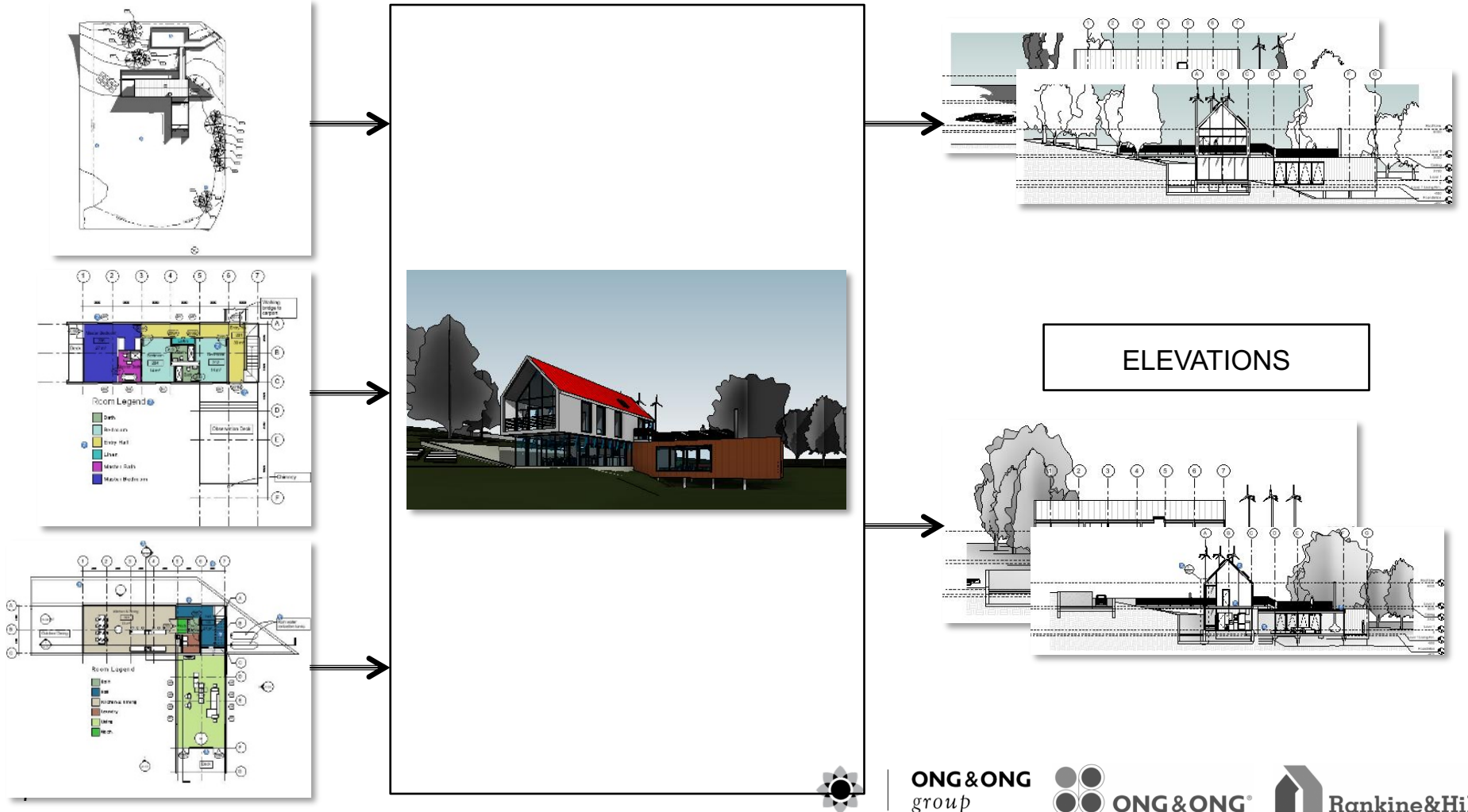
Traditional design process

PLANS

THE MODEL

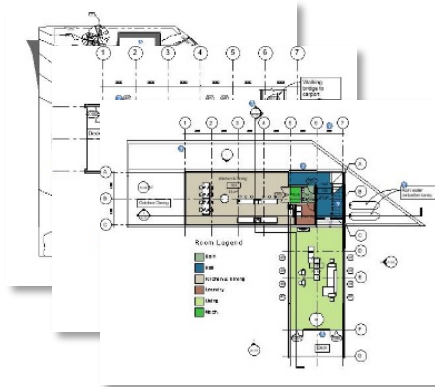
SECTIONS

ELEVATIONS



BIM design process

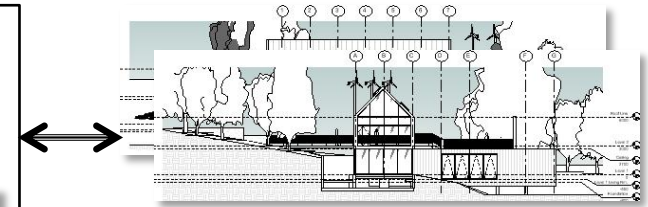
PLANS



THE MODEL



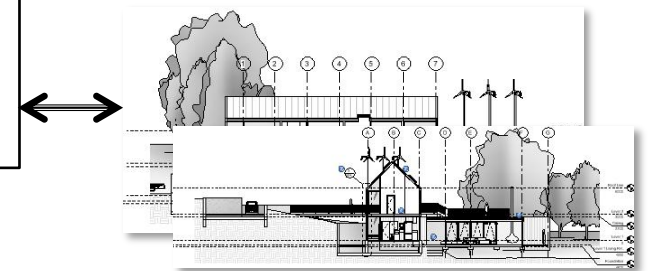
SECTIONS



SCHEDULES

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<Planting Schedule>			
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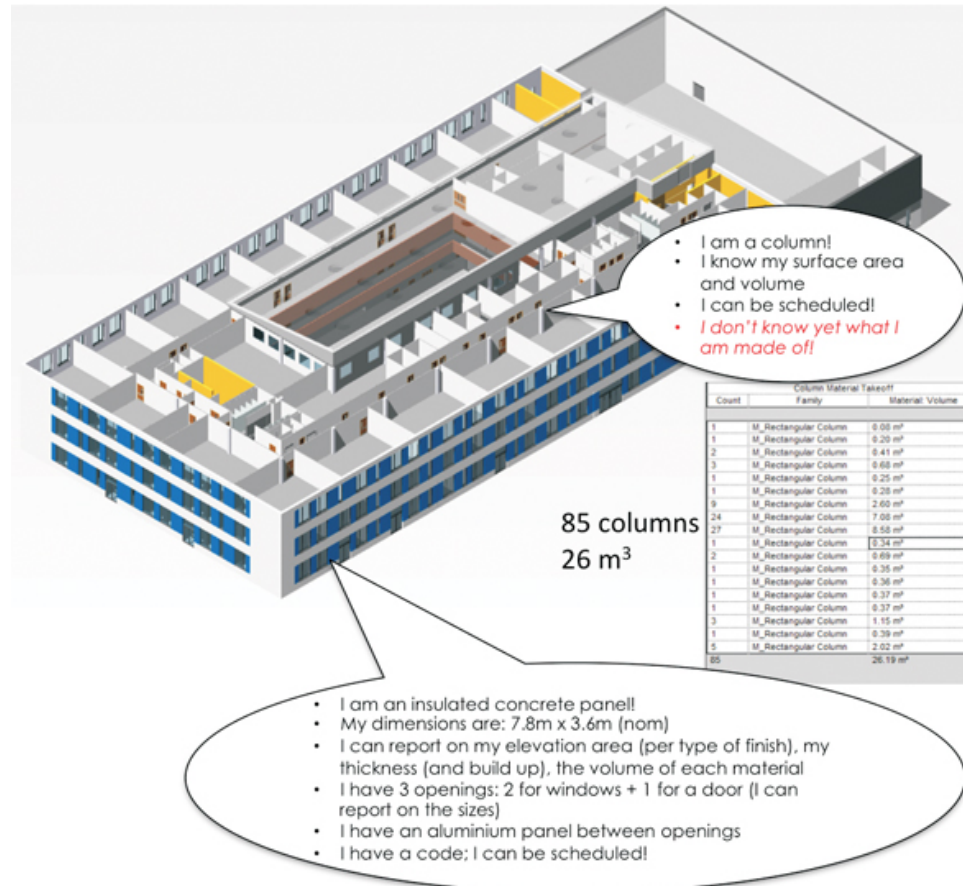
ELEVATIONS



Building Information Modeling

GRAPHIC INFORMATION

NON-GRAPHIC INFORMATION



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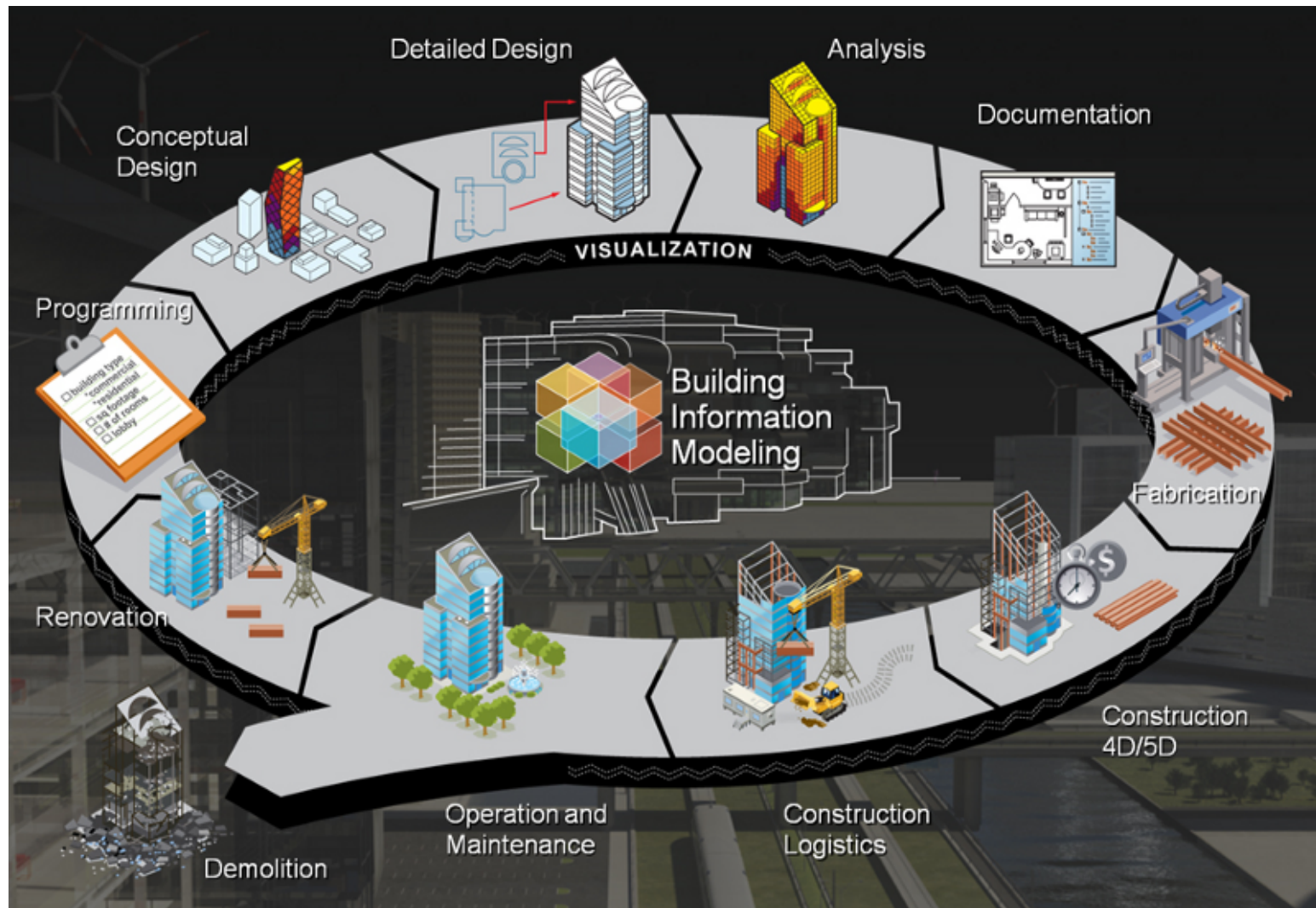


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Building Life Cycle



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BIM BENEFIT



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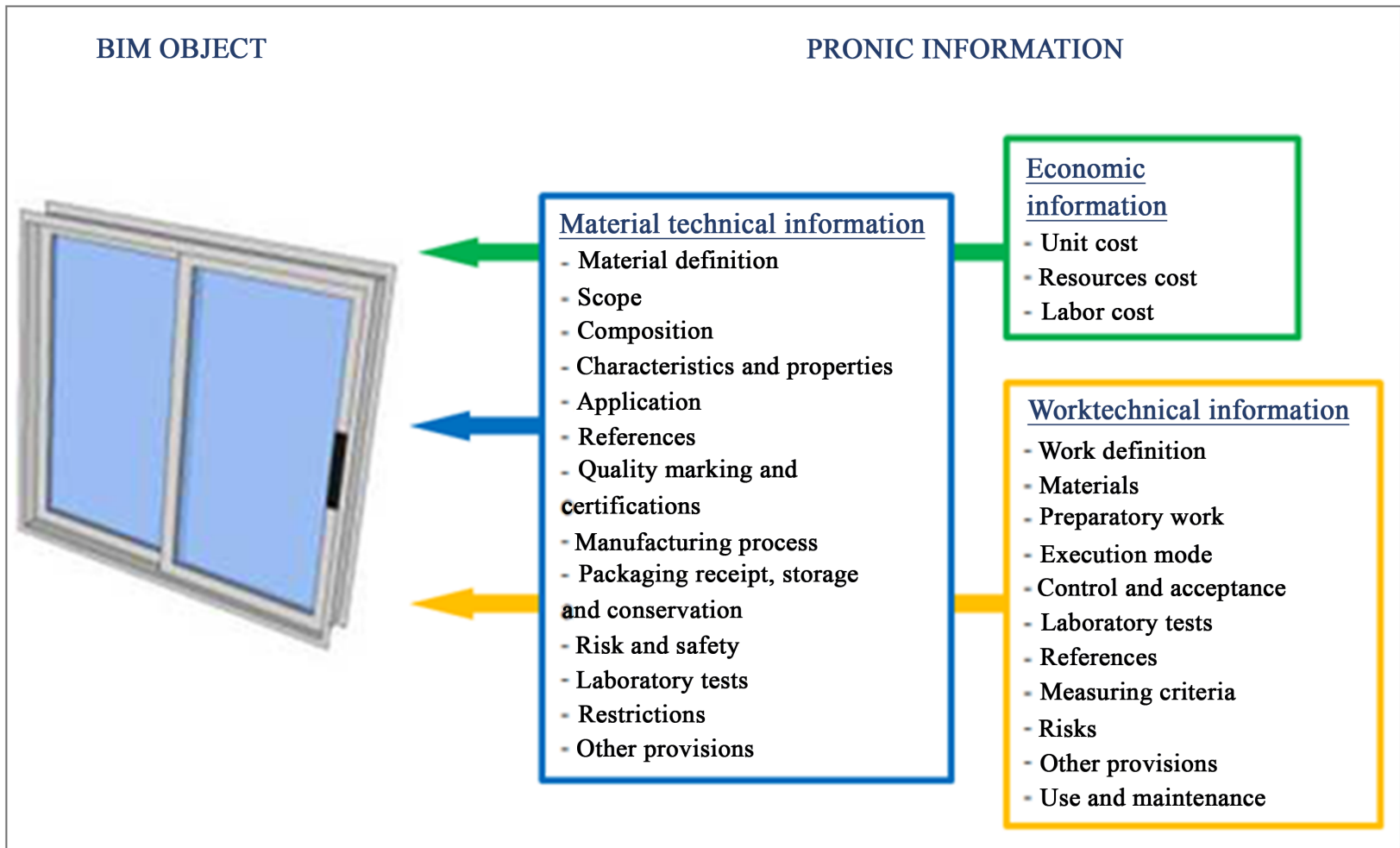


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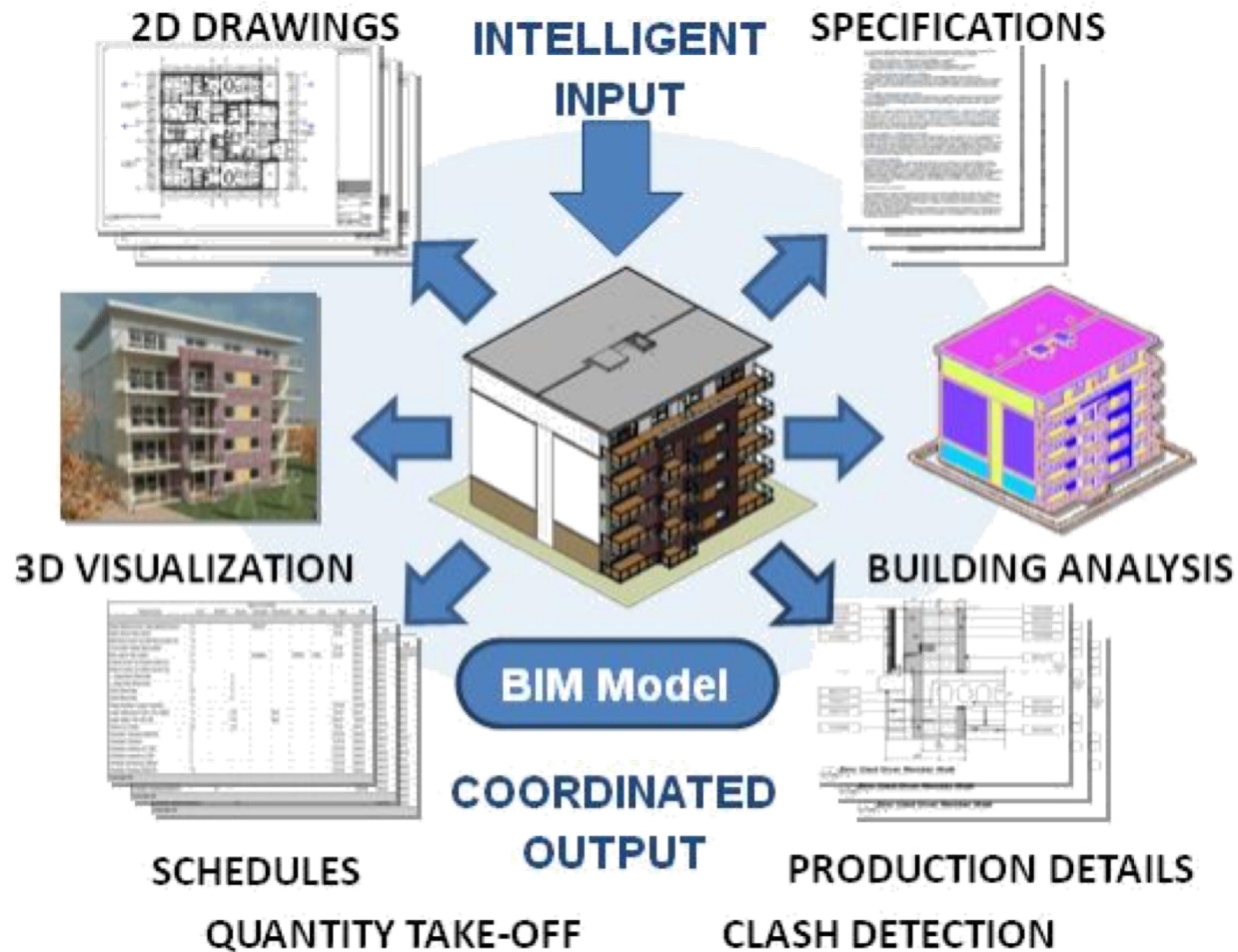


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Model Information



Output Information



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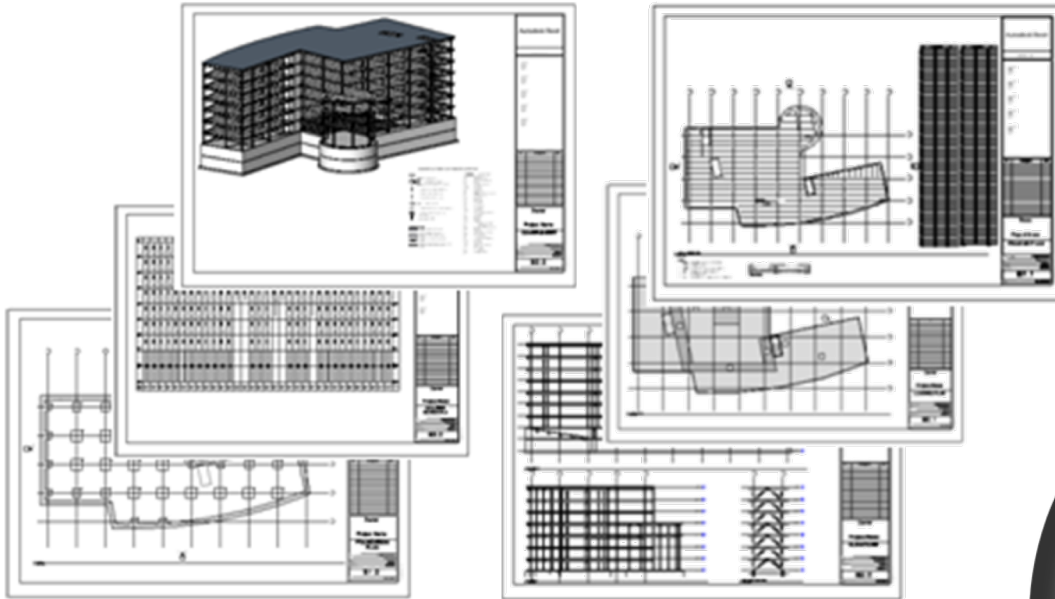


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Time-saving



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Standards

Work-flow

Collaborative
Workflow

BIM Management

Handover



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ONG&ONG template integration with BIM Code of Practice - Singapore

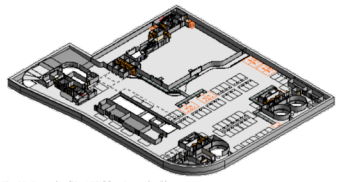
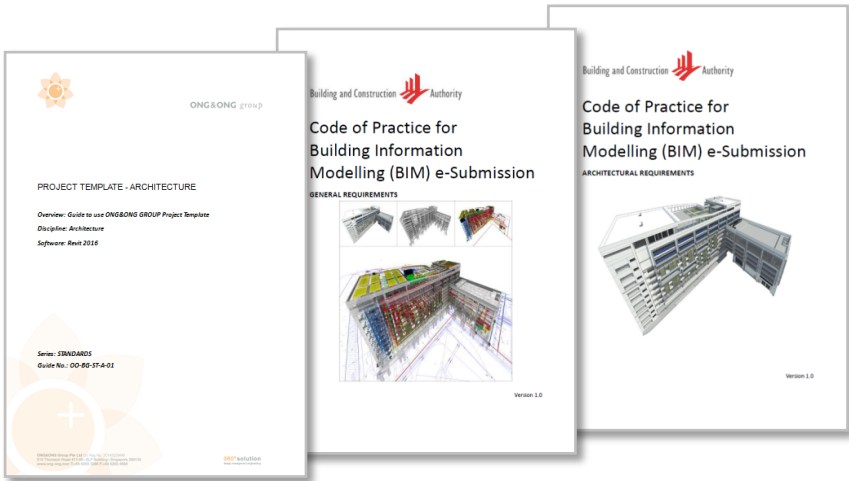


Fig. 10: Example of Part 3D (showing setback)

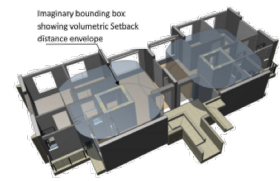
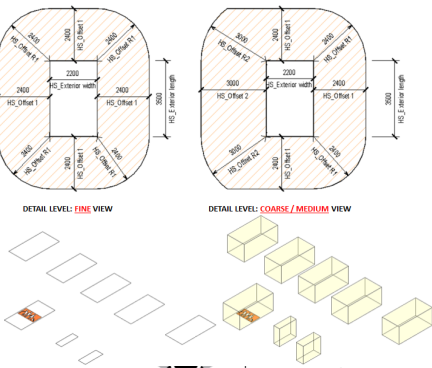
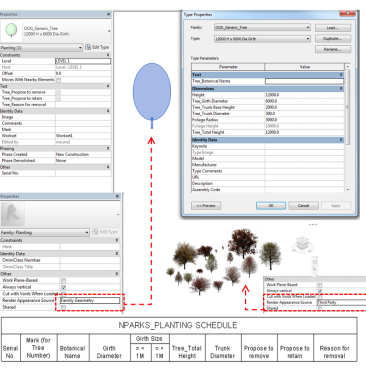
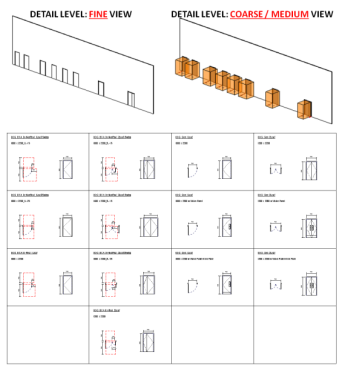
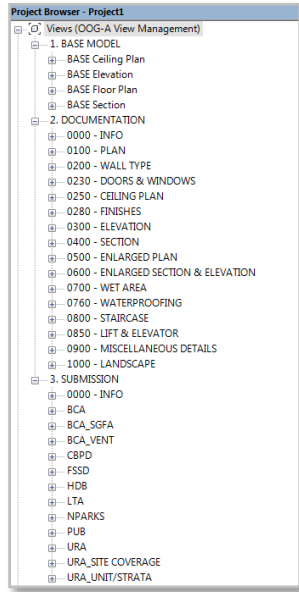
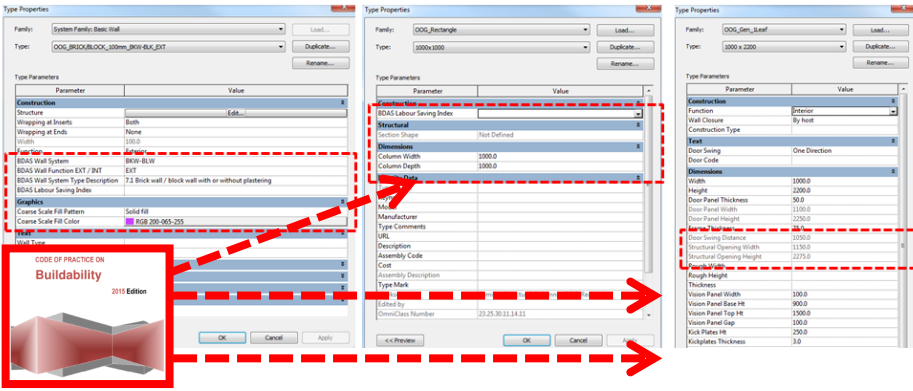


Image (above): Ref: BCA e-submission guide





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WORK-FLOW

The Team

ARCHITECT

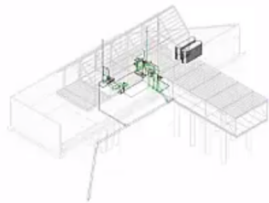
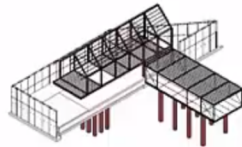
STRUCTURAL
ENGINEER

MEP
ENGINEER

BUILDER

CLIENT

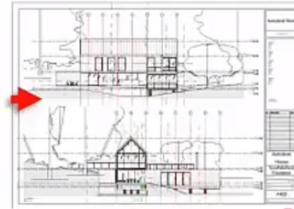
Revit Cloud work-sharing



Publish sets

Verified/
Accepted

Design Collaboration



Share package



Approved/Consume

Document Management



Folder Permissions



Issue creation/tracking



Review & Markup



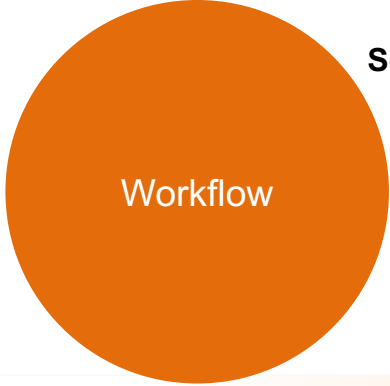
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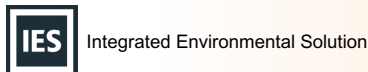
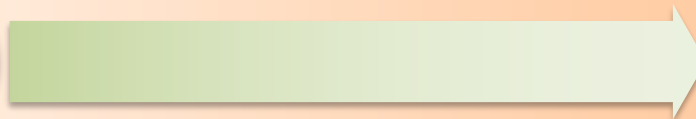
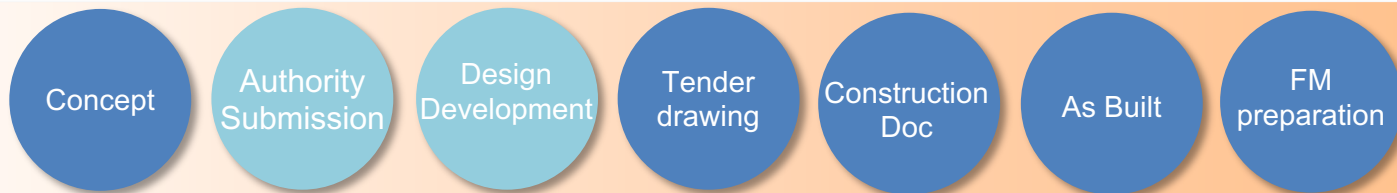


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Software technologies

Seamless interoperability



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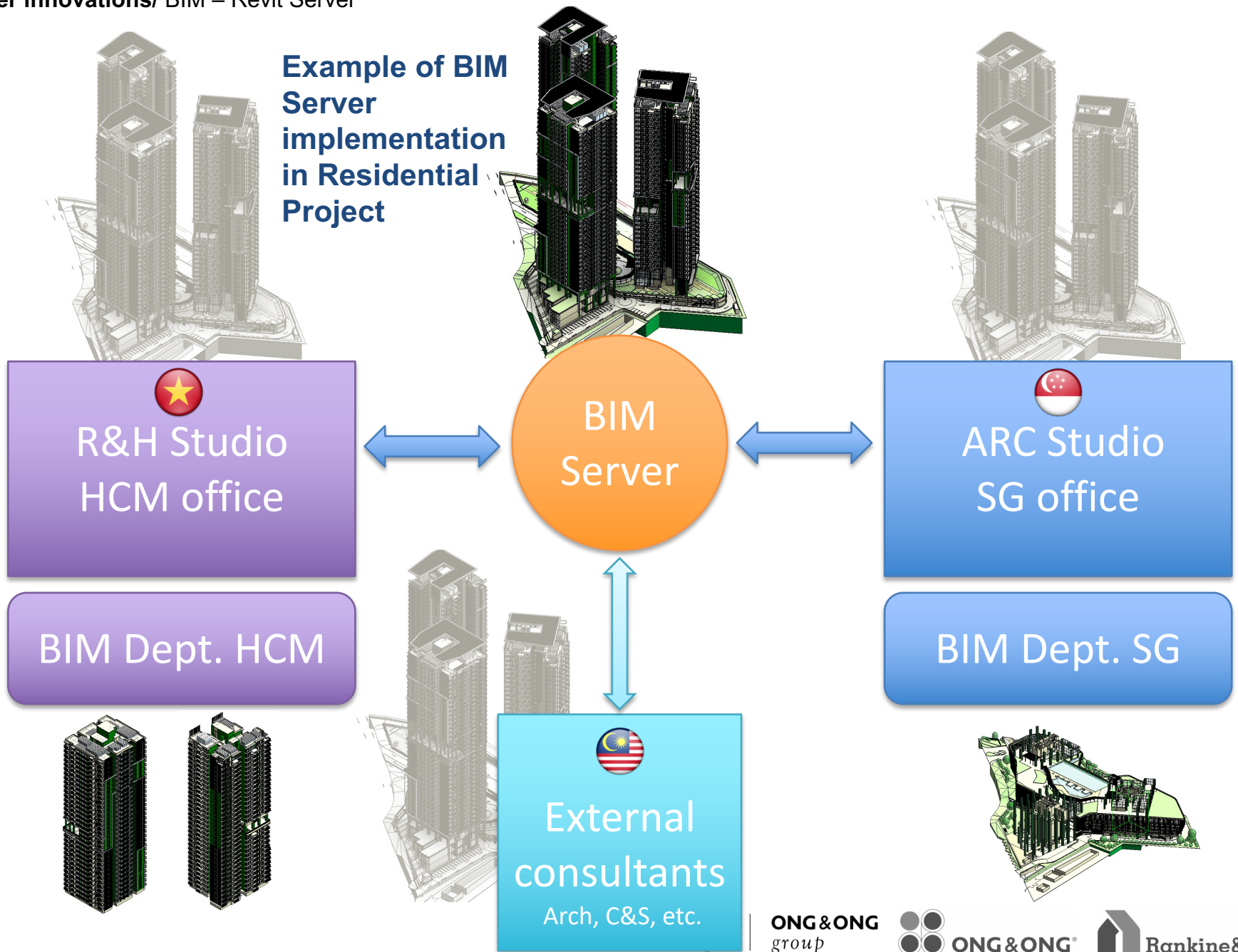


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**Example of BIM
Server
implementation
in Residential
Project**





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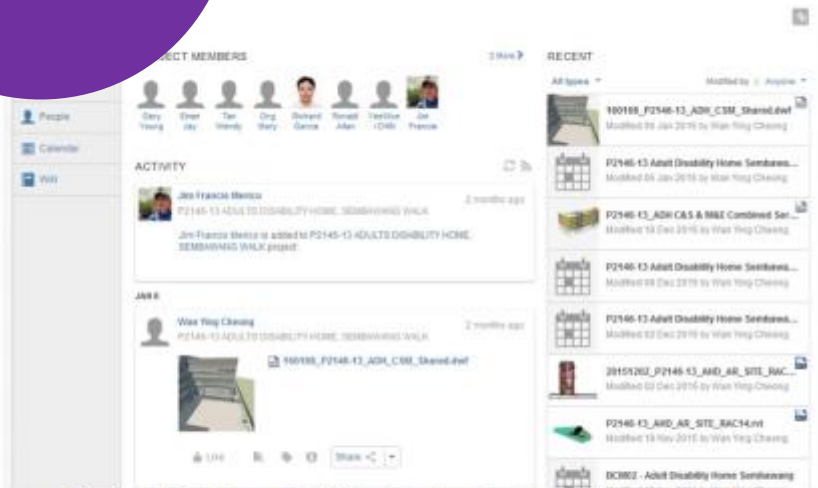
Information Management

BIM management

BIM Manager role

Information exchange management between stakeholders

Model review, clash detection and report



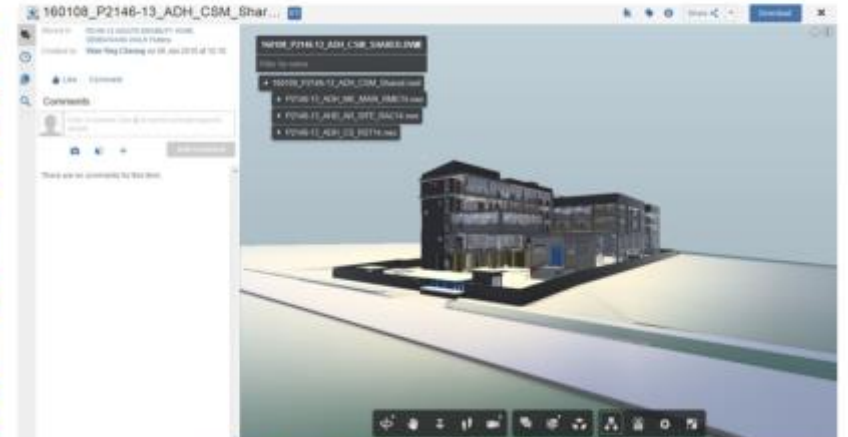
Project Set Up on A360 with all project member invited. Events such as meeting were also schedule and announce to all here.



ARCH model review



C&S & M&E combined service model review



ARCH, C&S & M&E combined services model review



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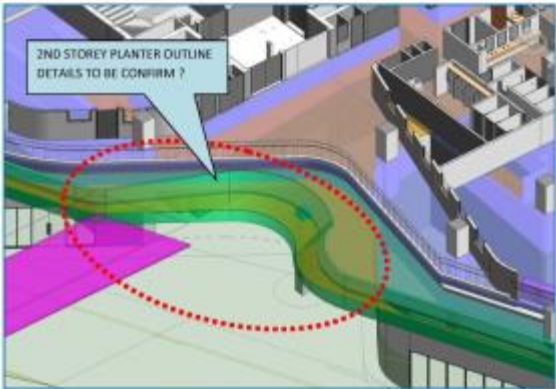
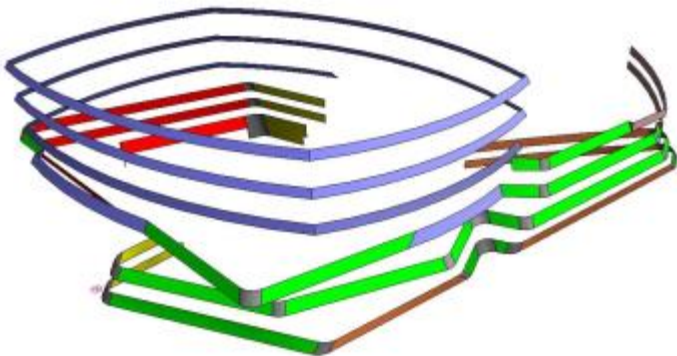
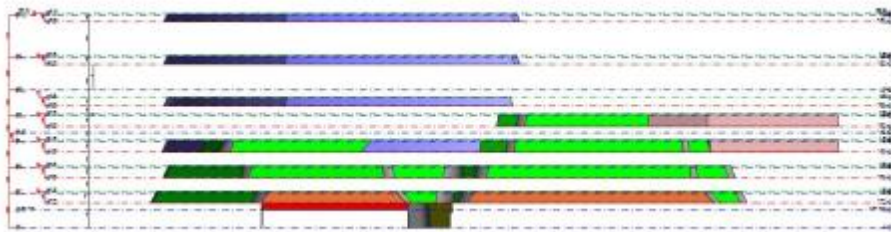


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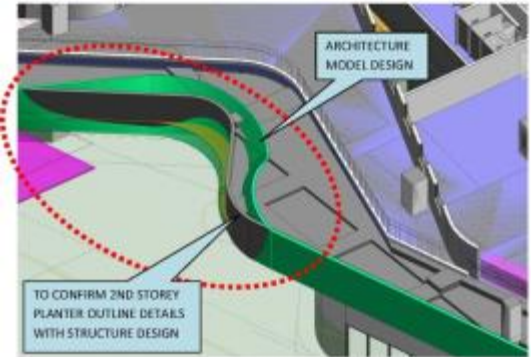


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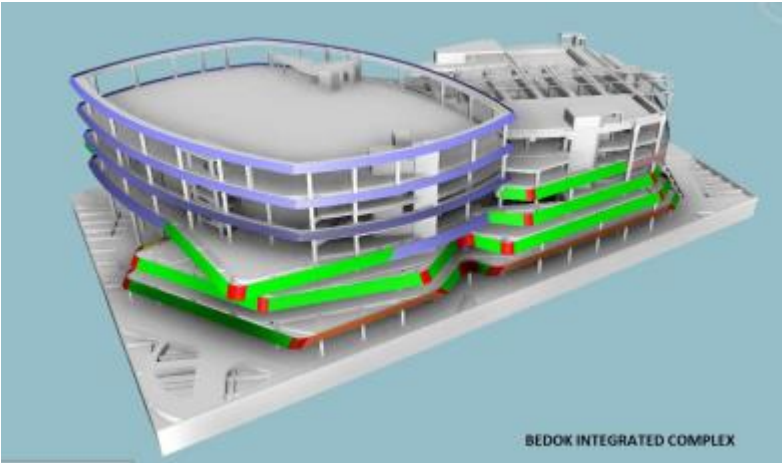
Massing & Coordinating Walls with varying angles and curves



ST07 - 1st - 2nd STOREY ARCHI REVIT 3D VIEW



ST07 AREA - 1st - 2nd STOREY ARCHI AND STRUCTURE COMBINE 3D VIEW



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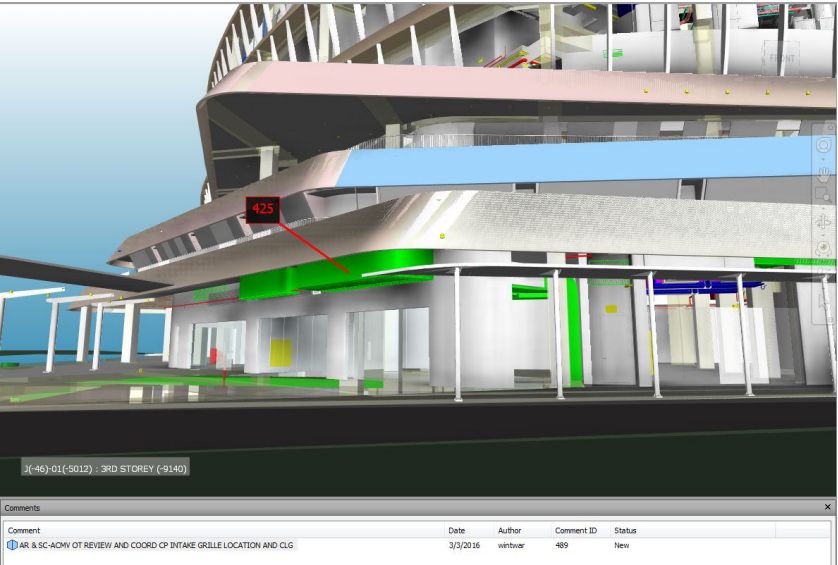
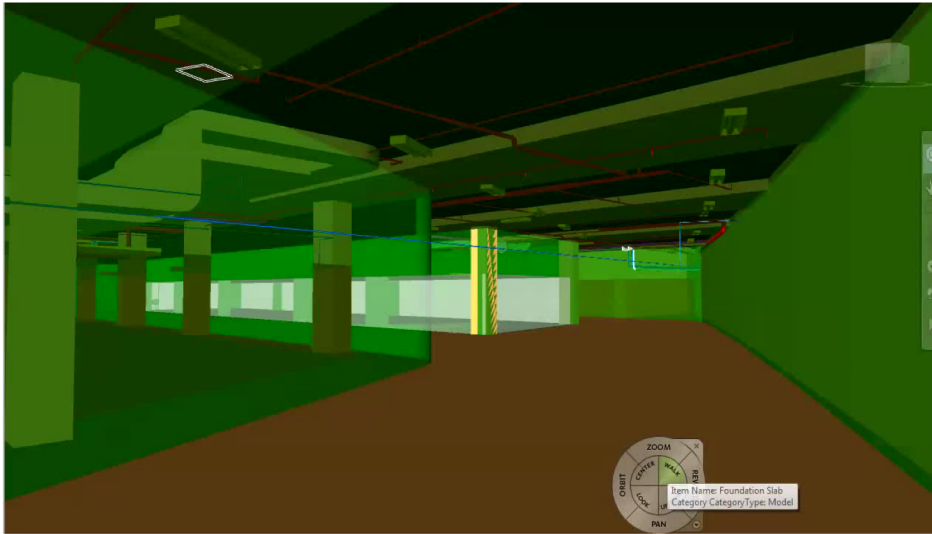


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Model Checking for Truck Turning Headspace Clearance



Massing created to represent spatial requirements



Multiple rounds of Review and Report for Action

Tag View 424

Camera Position 463ft, 154ft, 365ft

Comment 488

Status	New
User	wintwar
Text	SCS-ACMV move ducts above clg
Date	2016/3/3 07:34:30

475ft, 137ft, 374ft473ft, 132ft, 361ft476ft, 137ft, 378ft

Tag View 425

Camera Position 307ft, 17ft, 365ft

Comment 489

Status	New
User	wintwar
Text	AR & SC-ACMV OT REVIEW AND COORD CP INTAKE GRILLE LOCATION
Date	2016/3/3 07:44:08

310ft, 85ft, 373ft304ft, 78ft, 372ft319ft, 98ft, 376ft

Tag View 426

Camera Position 246ft, 226ft, 365ft

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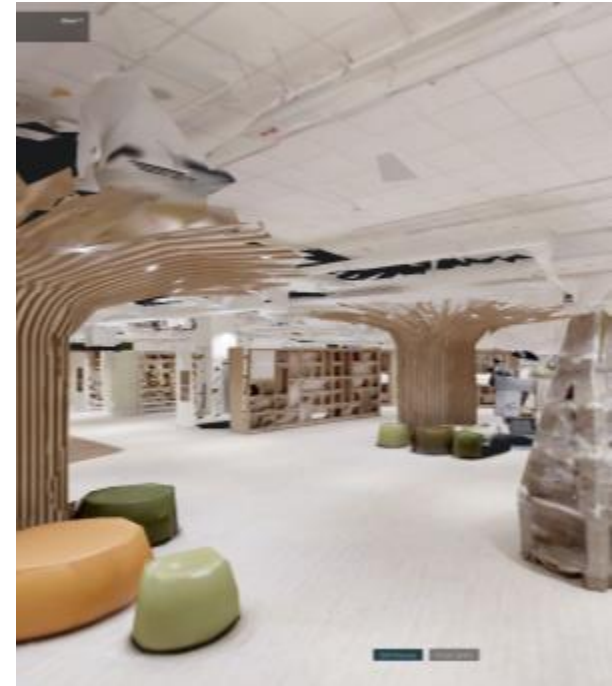
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BIM As-built

BIM As-built
Visual check comparison

	PHOTO NO.	SITE PHOTO	MODEL SNAPSHOT	AQ	BINTAI	CJ	EDZ	FF	KONE	LCE	MPE	PSG	RICO	SH	ZEC...	MC
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	L5_0009	L2_NLB_0011			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>						
		L2_NLB_0012			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>						

Scan to BIM – as built model verification with point cloud



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< Library@Heartbeat

More ▾



Delihouse Floor plan



 Matterport terms | Help



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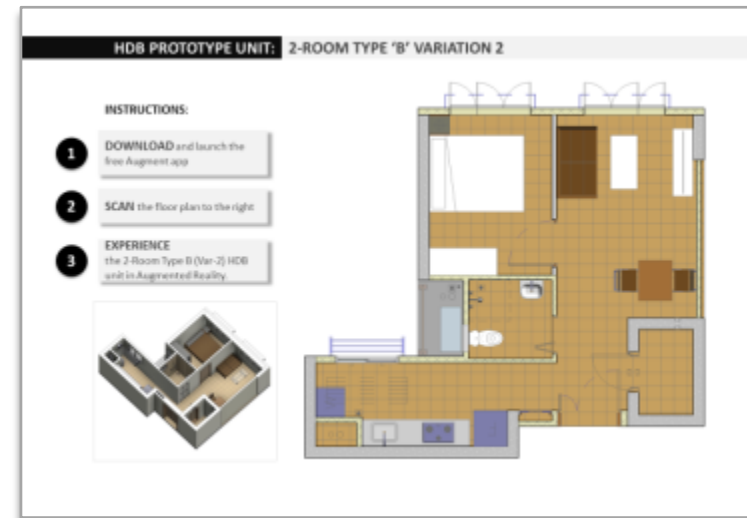


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Integrated BIM

Augmented Reality (AR)

Visualise design using interactive AR directly from BIM model



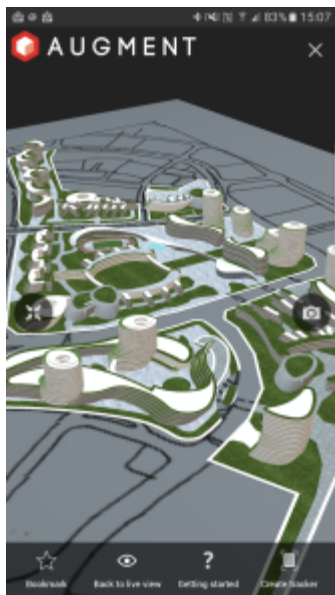
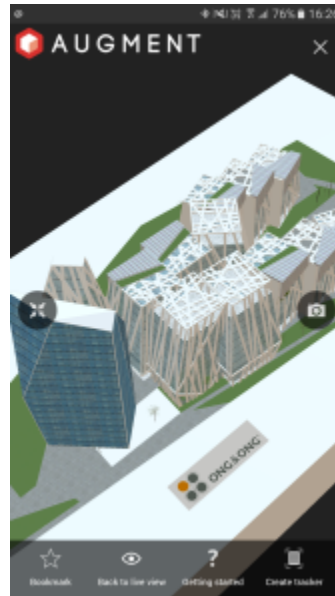
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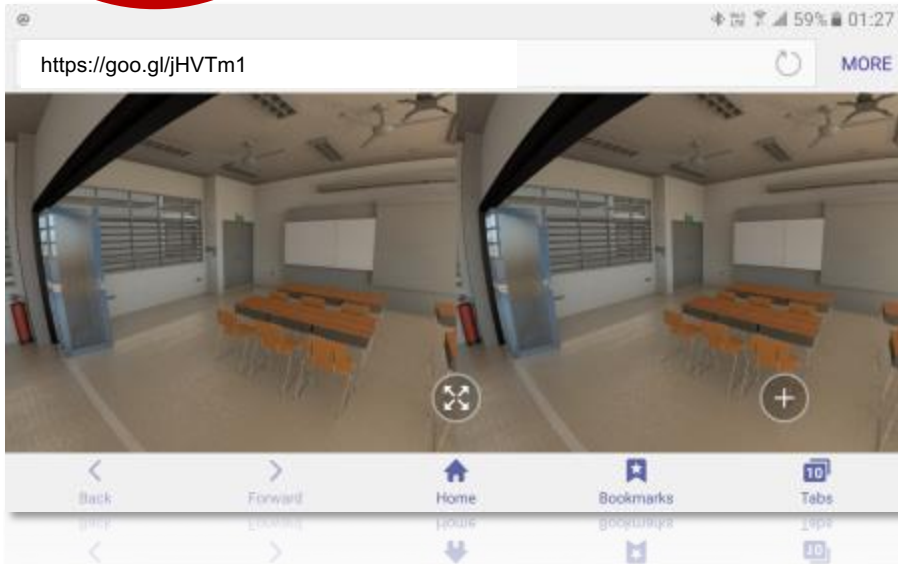


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Integrated BIM

Realtime Rendering – Visualisation & Virtual Reality (VR)

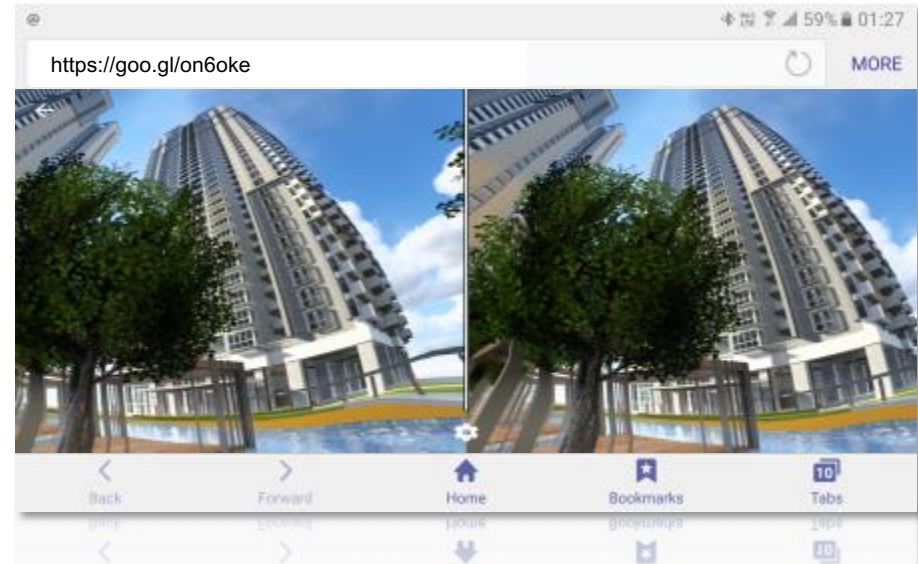
Using **gaming engine** technology for fast and immersive visualisation



Share walkthrough as a movie file (mpg)



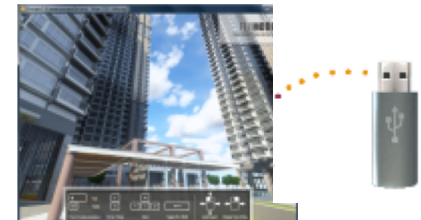
View realtime rendering using VR headset



360 panorama view with Google Cardboard



Share realtime rendering as an .exe file (no Revit needed)



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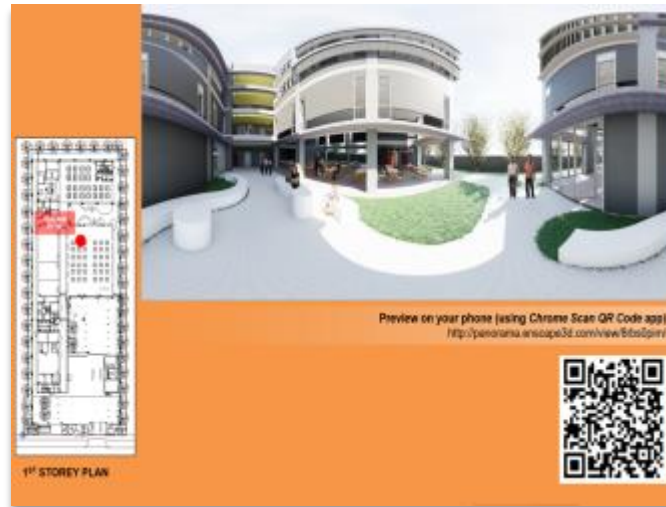


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Design exploration in 360 panorama with Google cardboard



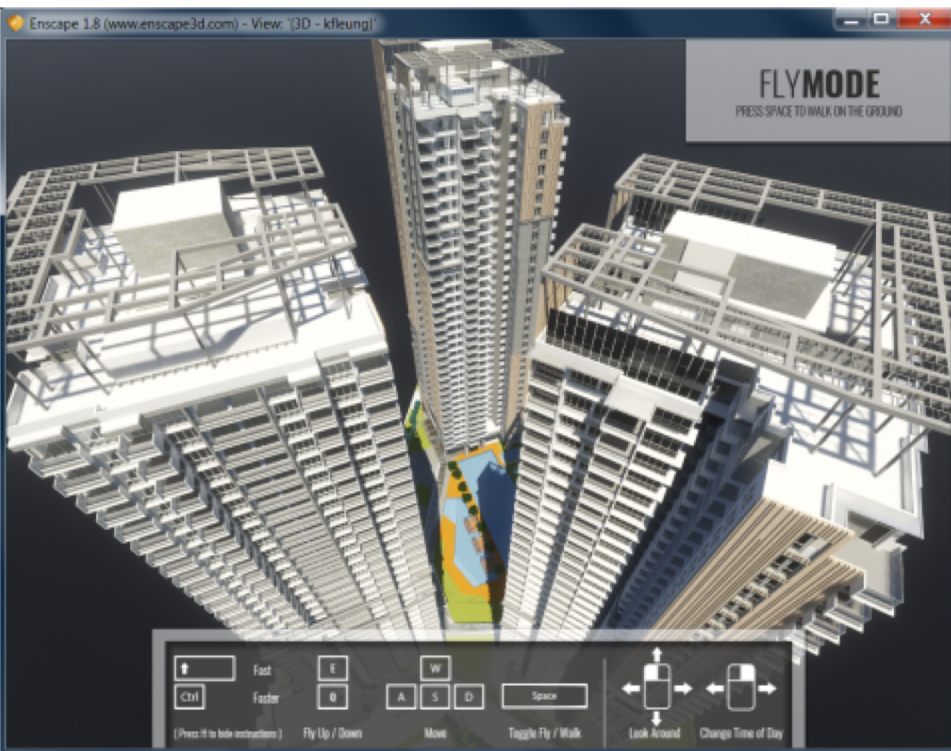
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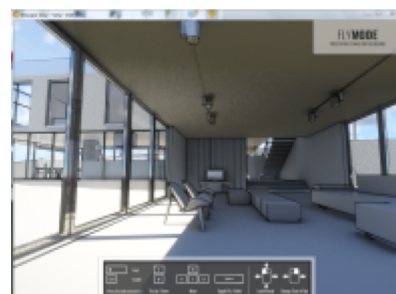
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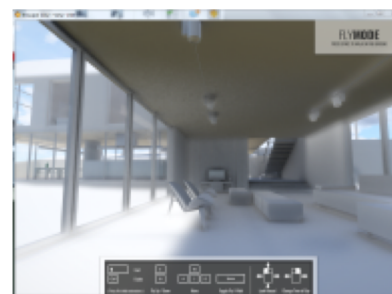
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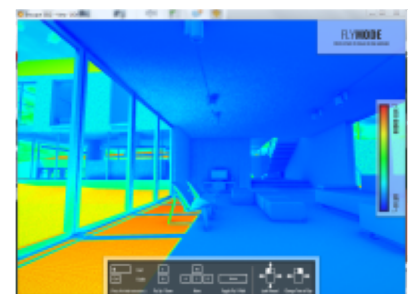
Full colour rendering



Sketch paper mode



White polystyrol mode



Light view



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Design exploration with VR headset



Share walkthrough as
a movie file (mpg)



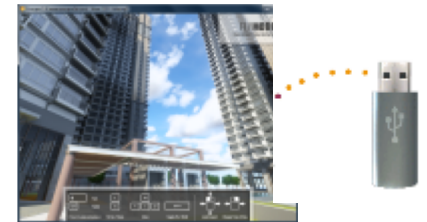
View realtime rendering
using VR headset



360 panorama view
with Google Cardboard



Share realtime rendering
as an .exe file (no Revit needed)



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Thank You!

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