IET – BIM Forum 2015

Why BIM Fails? (In Hong Kong)

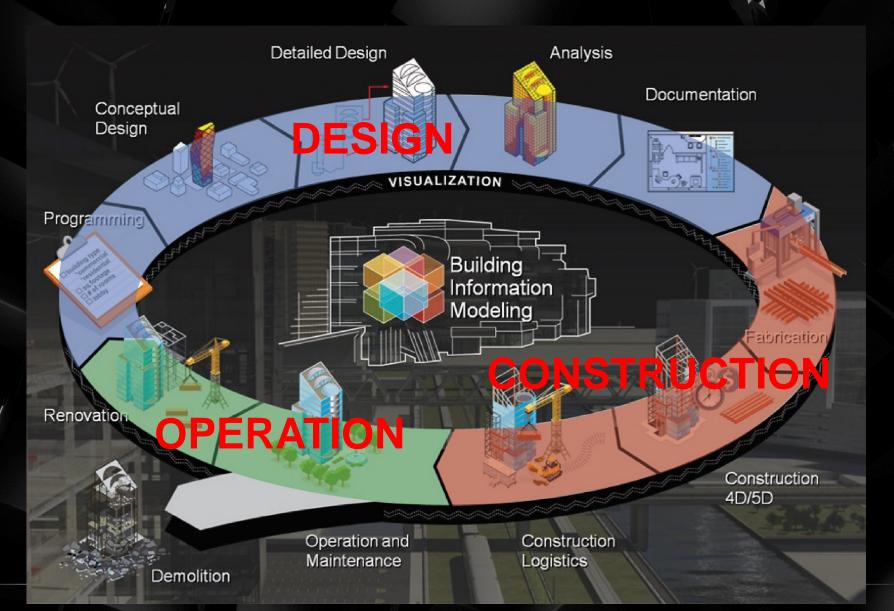


David Fung

Registered Architect, HKIA
Managing Director, A.C.I.D.
HKIBIM Chairman
HKUSPACE Department of Architecture, Adjunct Lecturer



Project Life Cycle 全生命周期



What happen to BIM in:



- Design Adoption
- Construction Connectivity
- Authority Support
- •BIM Practice and Standard
- BIM Consultancy
- •BIM Procurement

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B = Building

建築

= Information

資訊

= Modelling

模型/模擬



Fake BIM

M + ?

JUST 3D MODEL - NOT BIM



Fake BIM



Fake BIM

- Rendering
- CG (Computer Graphic)
- Animations
- Interactive Gaming

Use BIM tools not necessarily means BIM!







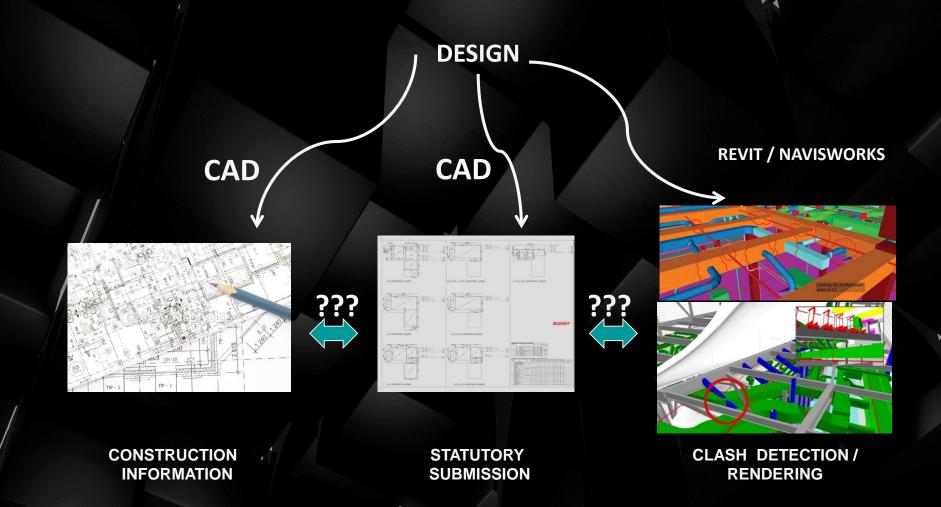
HALF-BIM

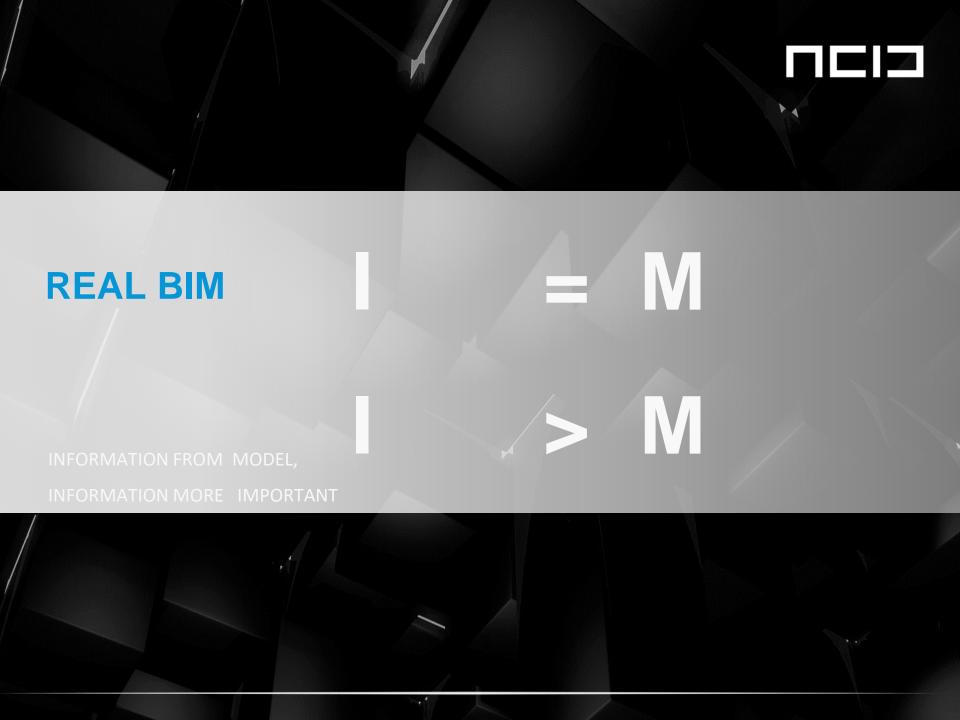
I <> M

3D MODEL >> QTO , CLASH ANALYSIS

HALF BIM







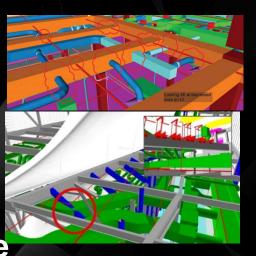
REAL BIM





CONSTRUCTION

DESIGN
in
BIM
Single Source Database



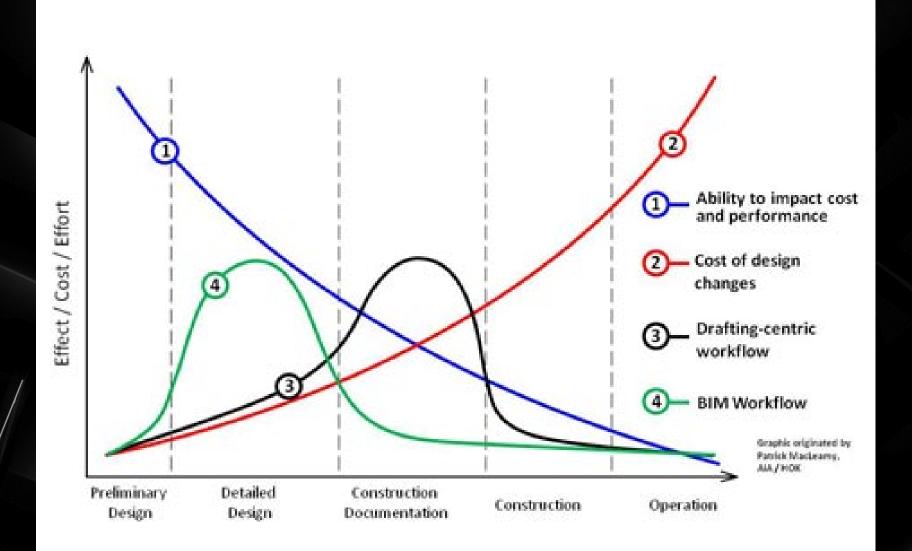
CLASH DETECTION



STATUTORY SUBMISSION

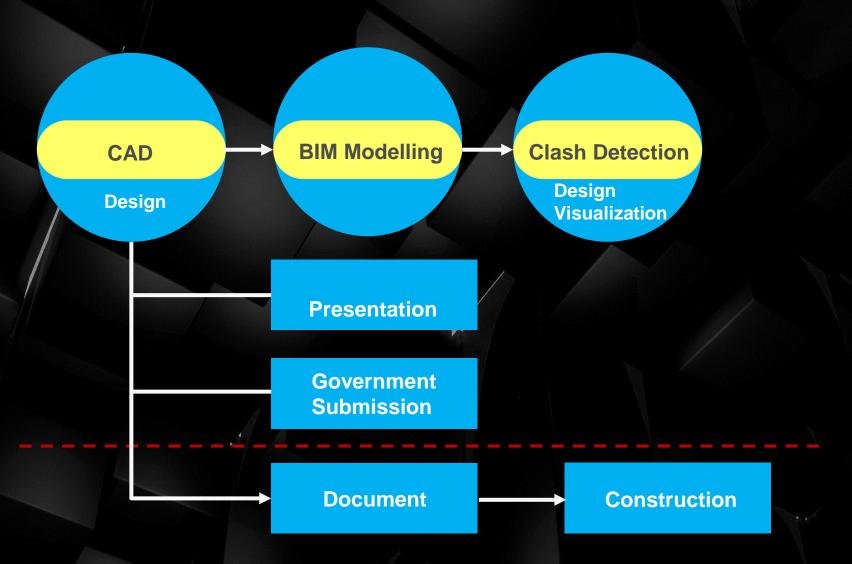


Hurdle in Design Phase



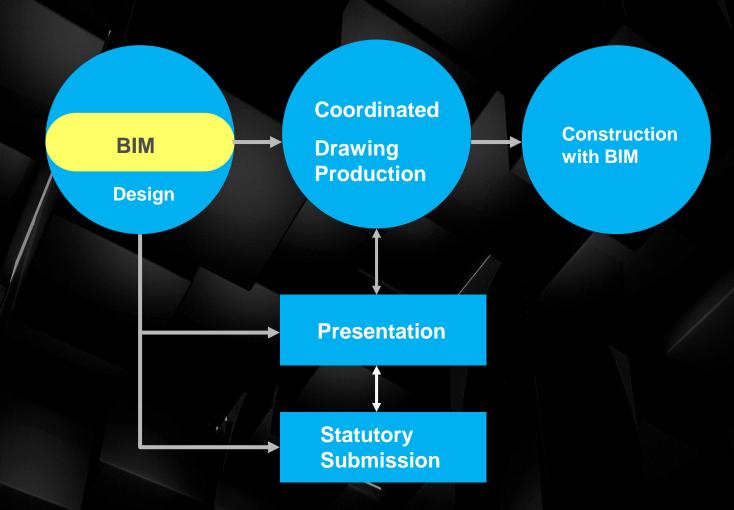


Misunderstood BIM work flow





BIM Design work flow



What happen to BIM in:



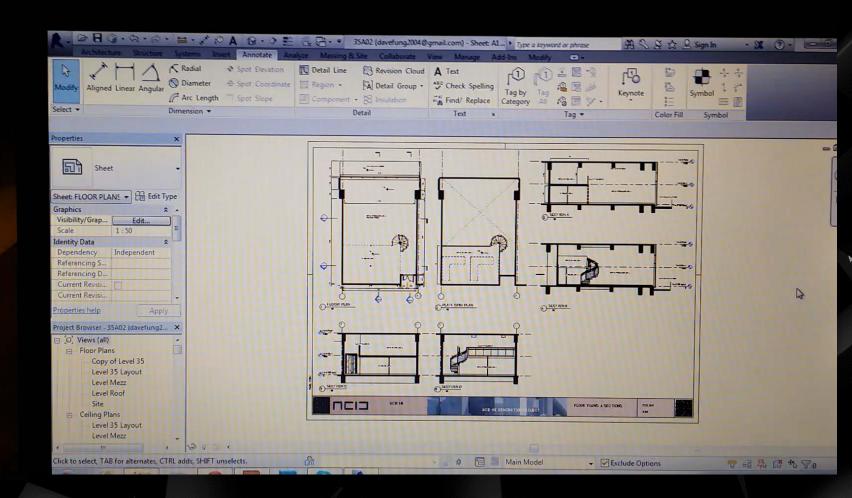
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Connections?





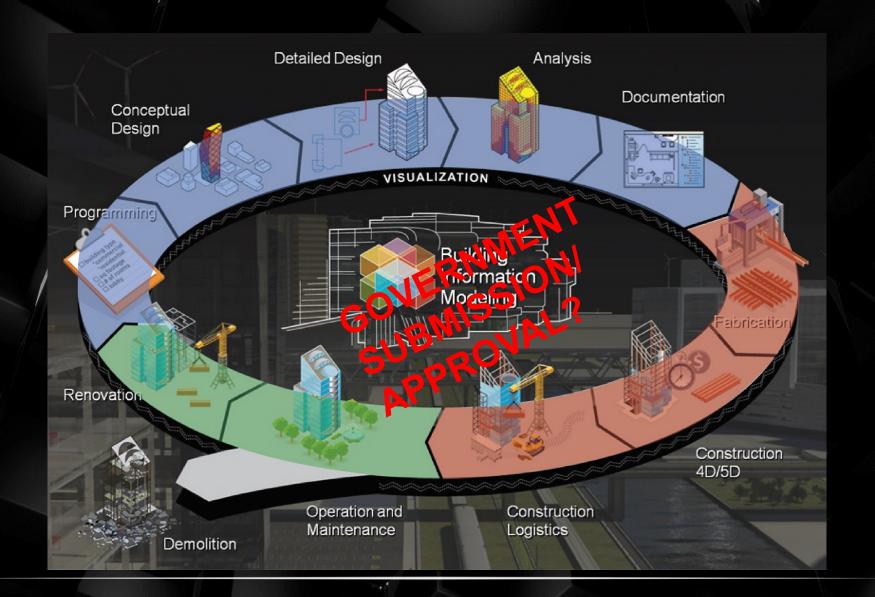


What happen to BIM in:



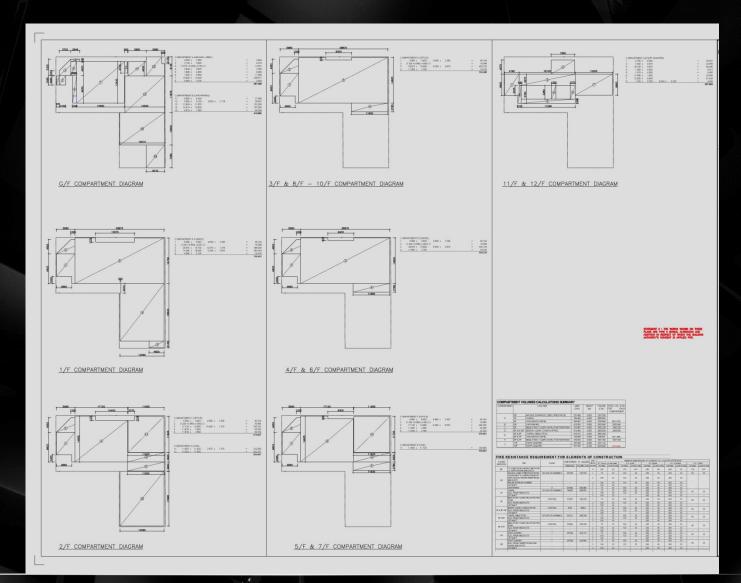
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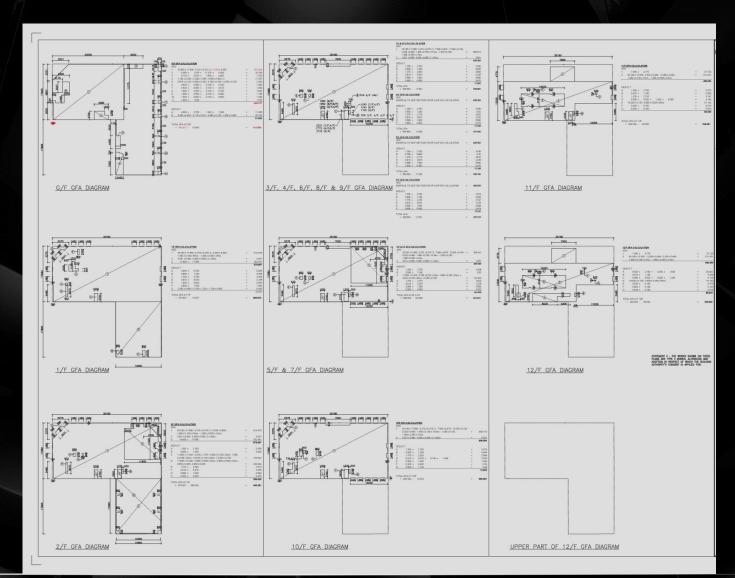
COMMON WAY: PROJECT EXAMPLE



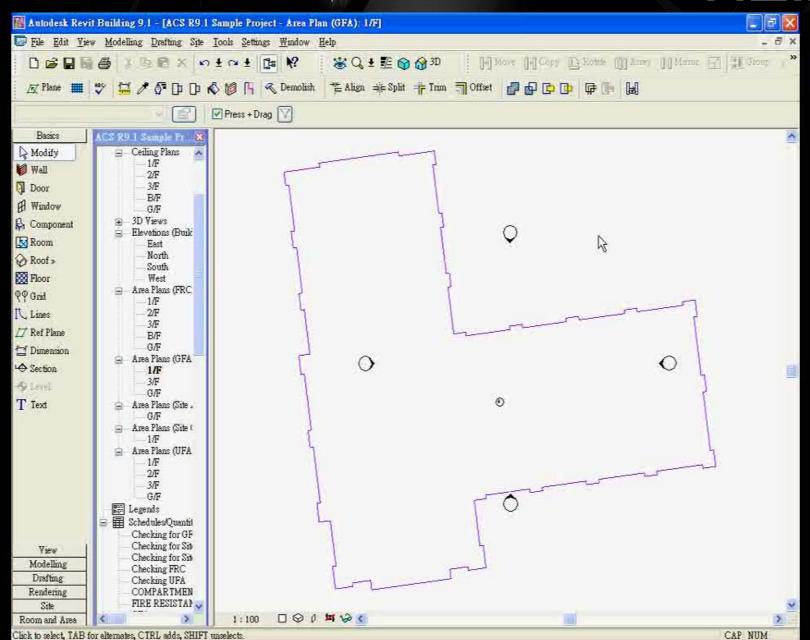


COMMON WAY: PROJECT EXAMPLE

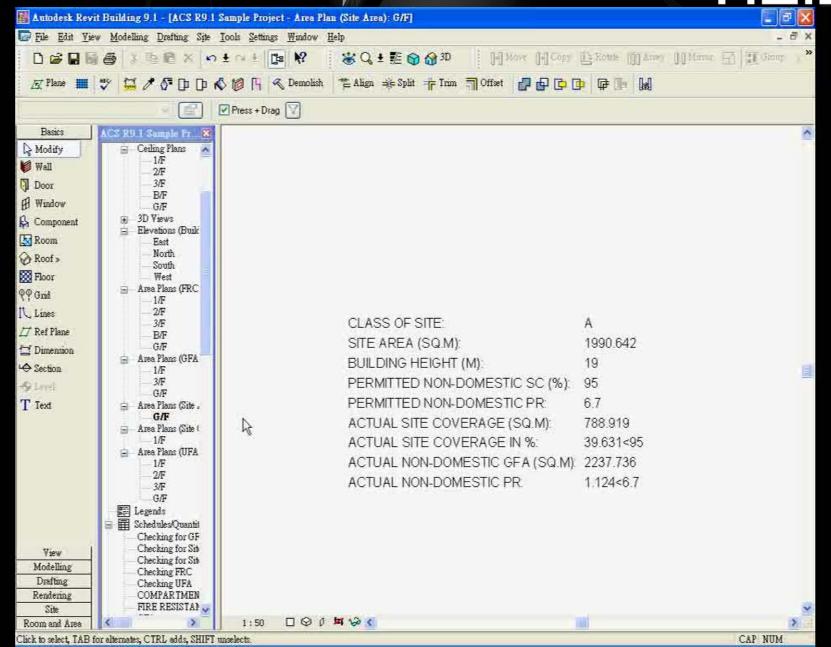




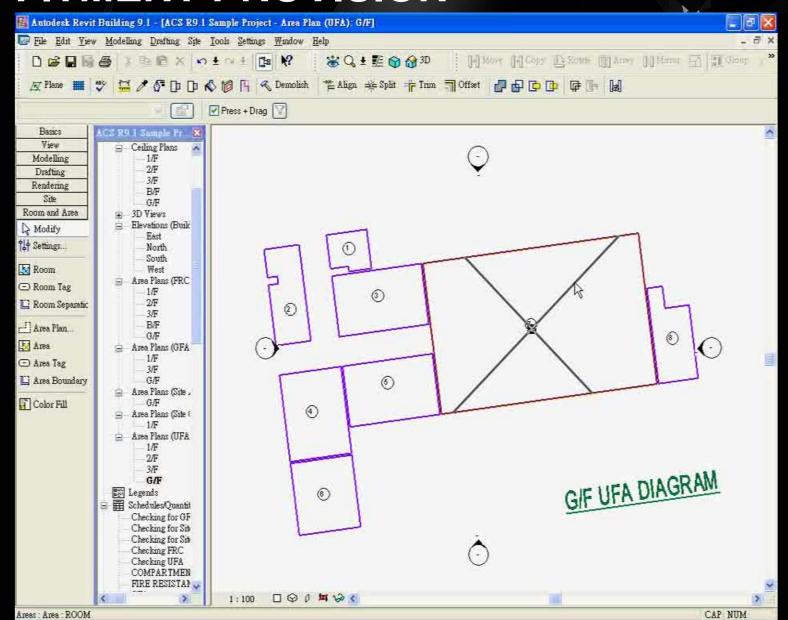
BIM method: GFA CALCULATION TITIE



BIM method: GFA CALCULATION

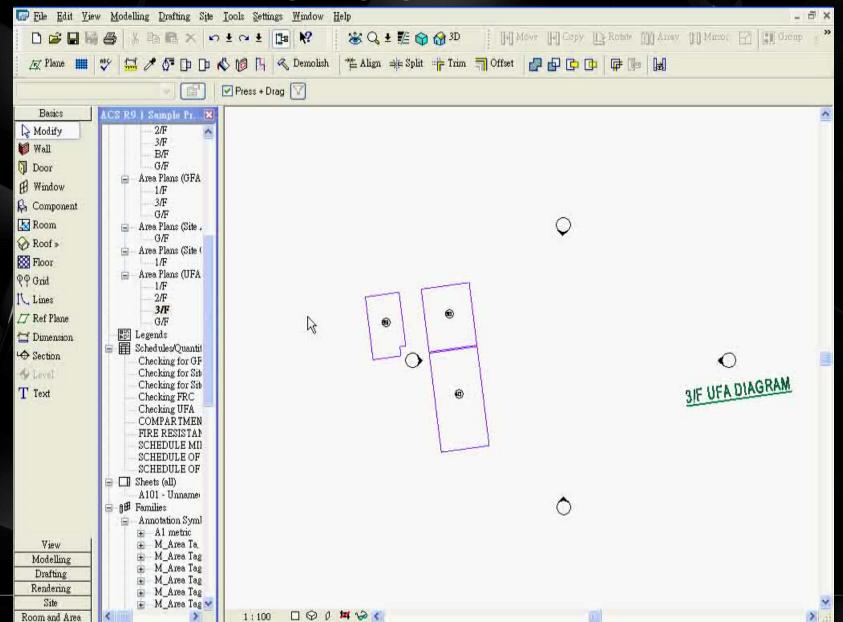


MEANS OF ESCAPE & SANITARY FITMENT PROVISION

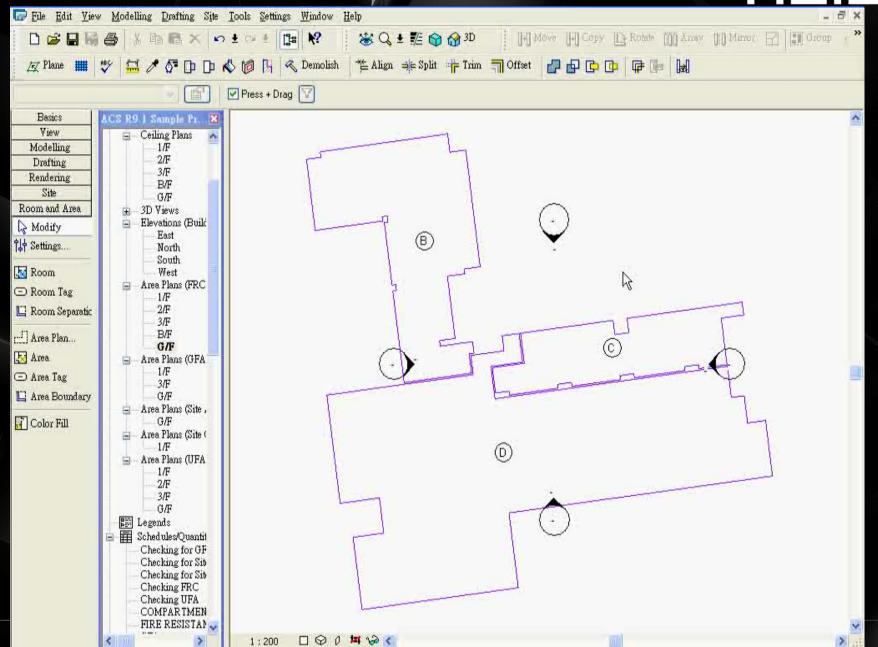


MEANS OF ESCAPE & SANITARY FITMENT PROVISION

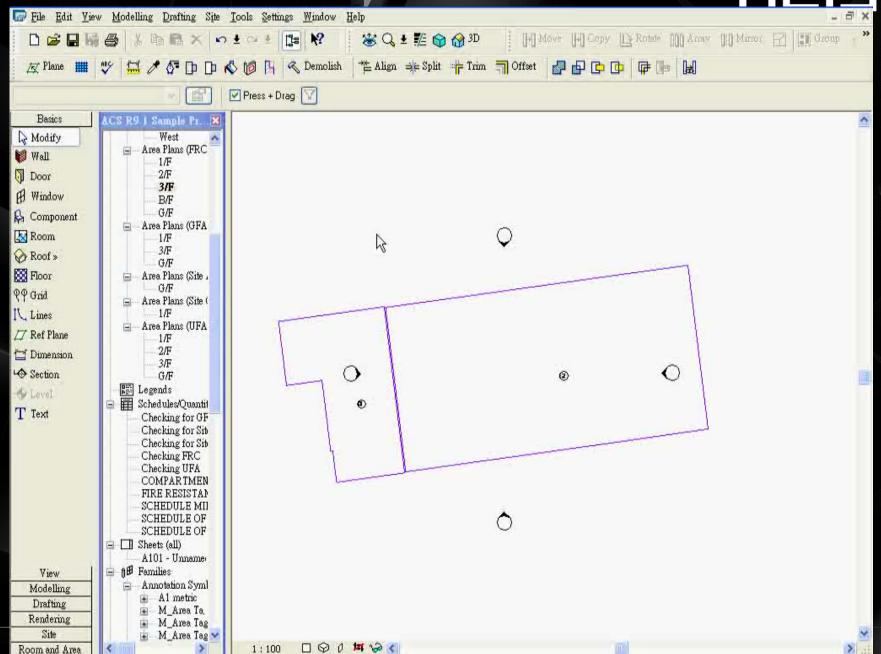


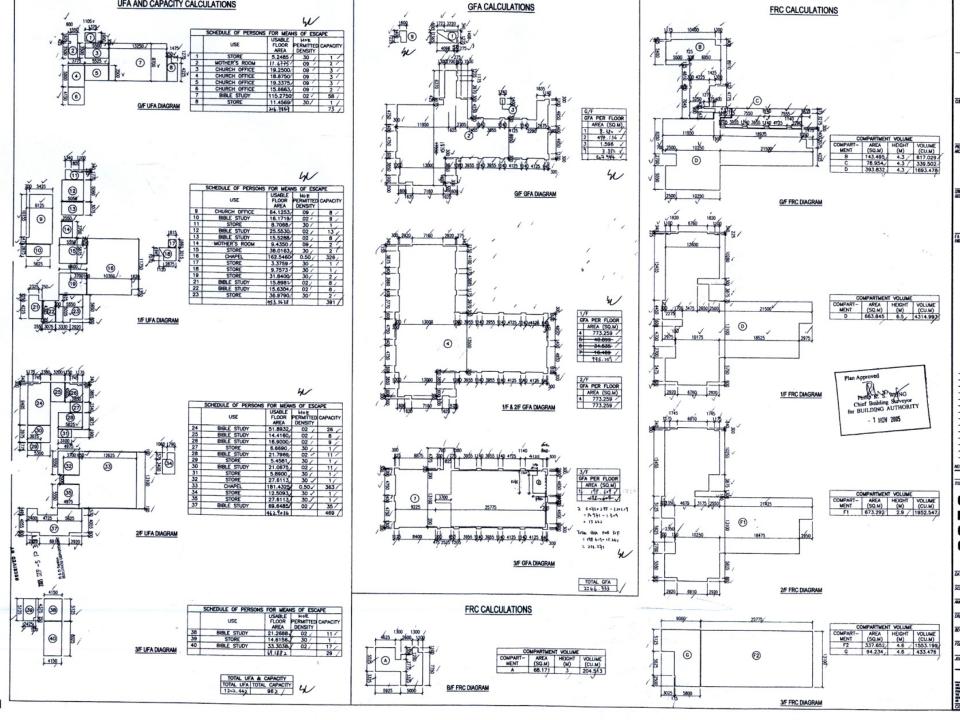


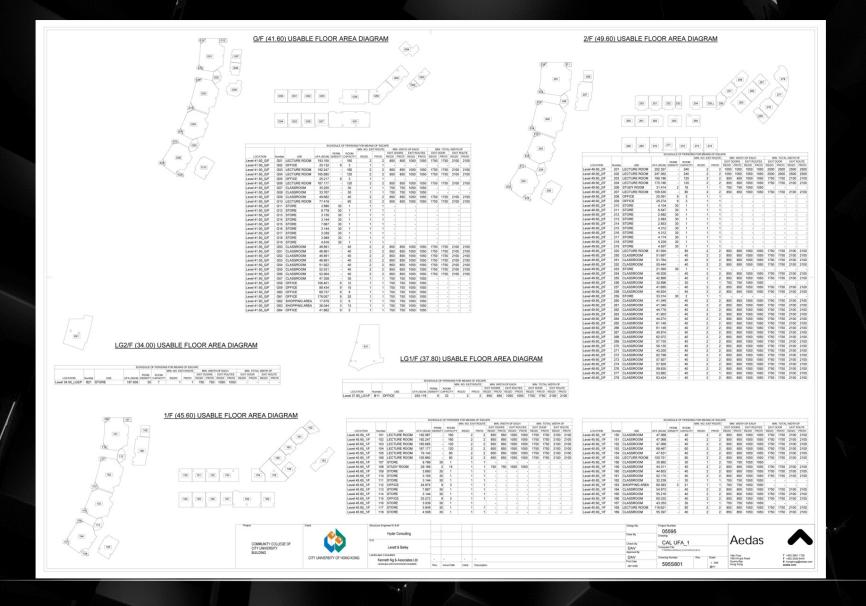
FIRE RESISTING CONSTRUCTION



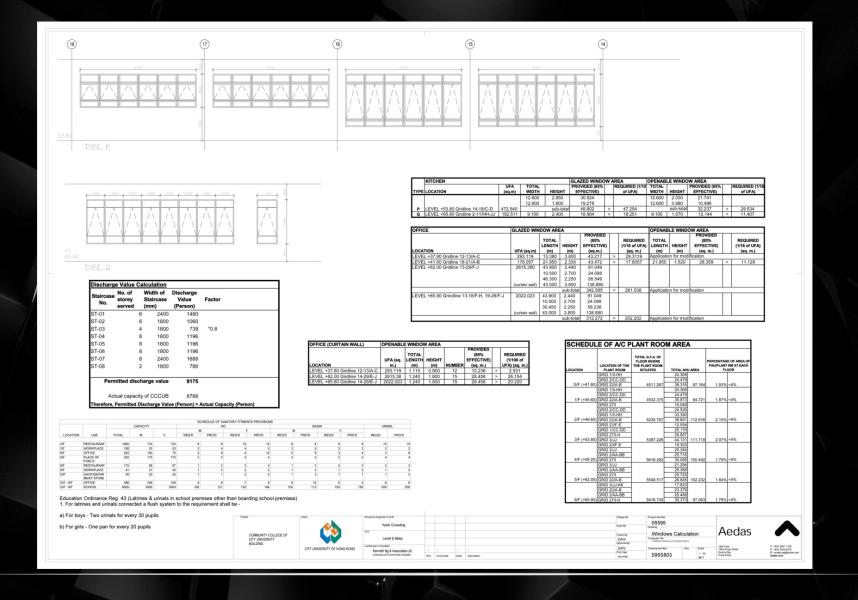
FIRE RESISTING CONSTRUCTION

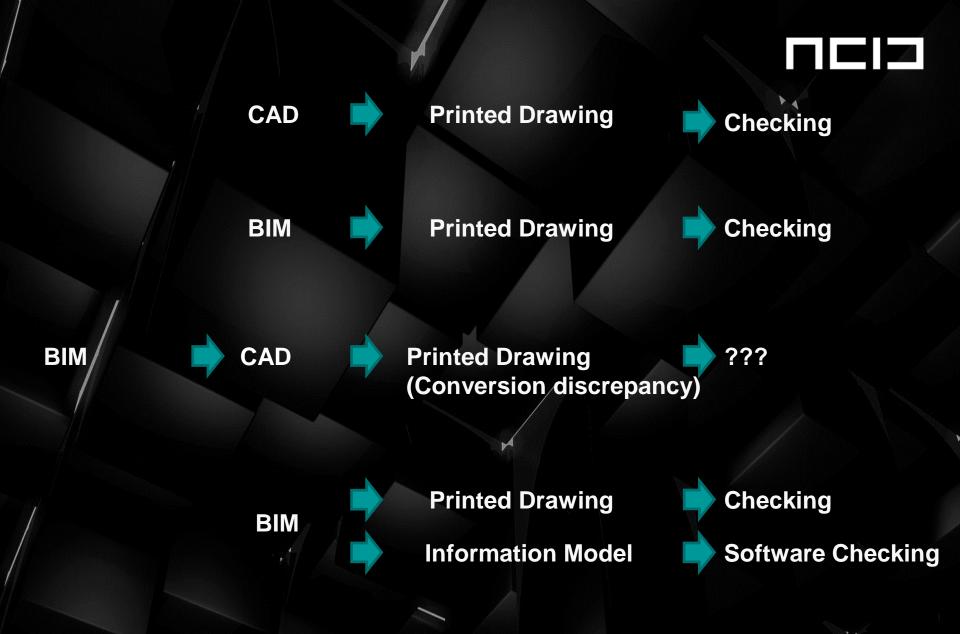






EXAMPLE OF GOVERNMENT SUBMISSION ADOPTING BIM





Building Information Modelling Statutory Submission





Buildings Department

The Government of the Hong Kong Special Administrative Region



GovHK 香港政府一站通

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Buildings Department

Practice Note for Authorized Persons, **ADM-19** Registered Structural Engineers and **Registered Geotechnical Engineers**

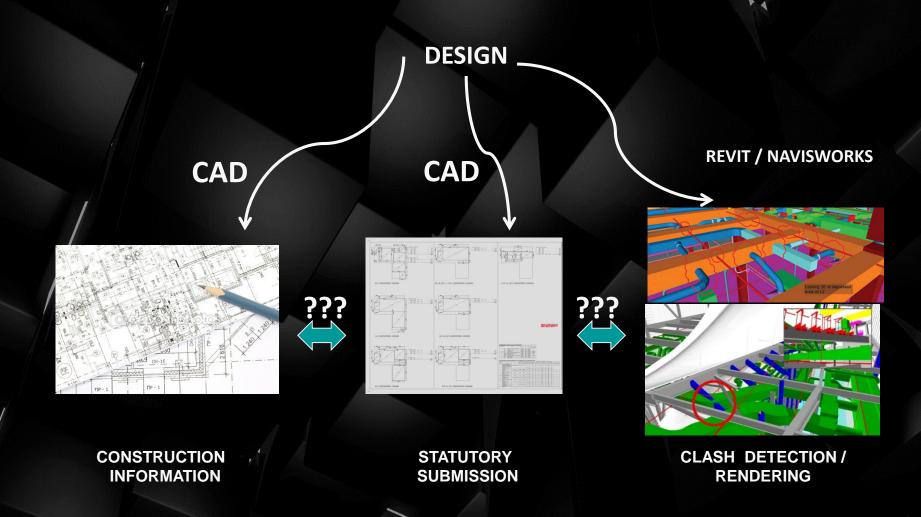
Re-engineering the Building Approval Process

Use of Computer for Mathematical Calculations

18. AP adopting the use of computer for calculating floor areas of buildings in the preparation of general building plans are required to provide BD with an electronic copy of the plan submission with the calculations in an accepted format capable of being verified by AutoCAD, MicroStation or other software accepted by BD. In this regard, AP should follow the guidelines at Appendix F.

HALF BIM



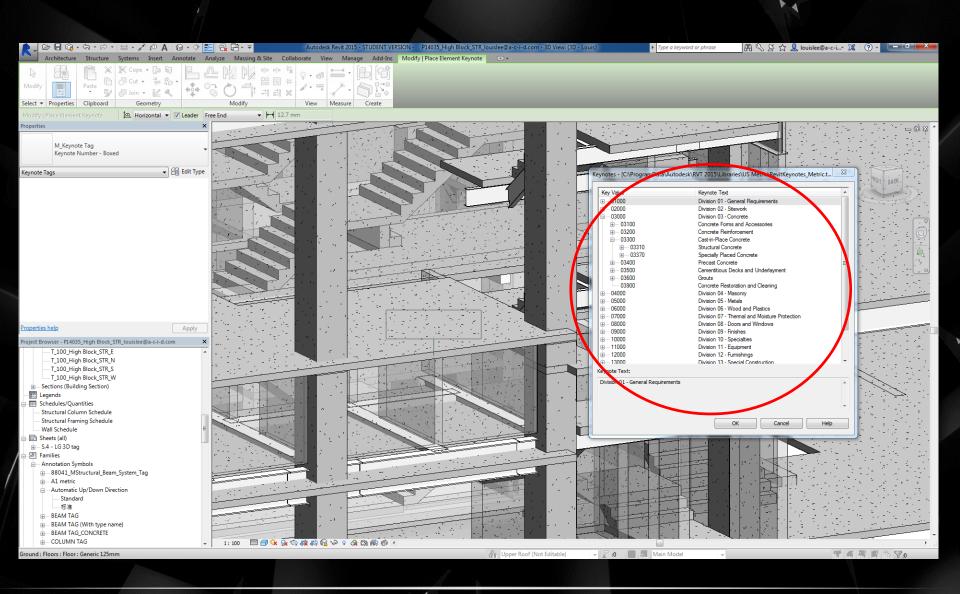


Only CAD Accepted!!!

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【V1.20】

【2014年10月7日修订】

UDC



中华人民共和国国家标准

P

GB/T50XXX-20XX

建筑工程设计信息模型分类和编码标准

Standard for classification and coding of building constructions design information model



10-20.30.00	骨灰寄存楼	Coiumbarium
10-20.40.00	公墓	Cemetery
10-21.00.00	交通建筑	traffic construction
10-21.10.00	客运站	Passager station
10-21.10.10	公路客运站	Driveway bus station
10-21.10.20	铁路客运站	Railway Transport Terminal
10-21.10.30	港口客运站	Port terminal
10-21.20.00	机场	Airport
10-21.20.10	航站楼	Terminal
10-21.20.20	机坪	Airport apron
10-21.20.30	跑道	Runway
10-21.30.00	城市轨道交通	City rail transit
10-21.40.00	交通枢纽	Transport hub
10-21.50.00	停车场库	Parking garage

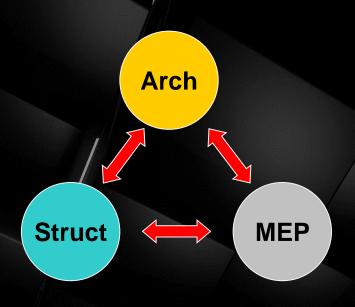
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Full BIM Project Team Structure







Best Practice: Office with All Disciplines

Second Best: Efficient Communication

Partial BIM Project Team Structure







































Most Common, Efficient

Very Efficient

Good, Arch has to build Structure

Very Efficient for Structure

??????

NEVER HAPPEN!!!

BIM Consultant Team Structure



Professional Knowledge
No BIM Operation Knowledge



BIM Consultant BIM Operation KnowledgeProfessional Knowledge???Rely on input of Professionals



Professional Knowledge No BIM Operation Knowledge

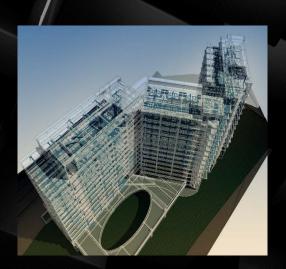


Professional Knowledge No BIM Operation Knowledge

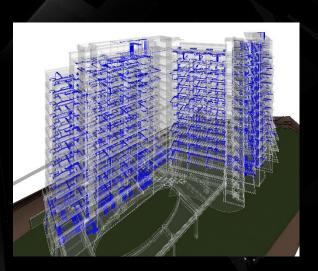


BIM Consultants? Who are they?

- Roles
- Professional Liability?
- Responsibility
- Training
- Knowledge Transfer







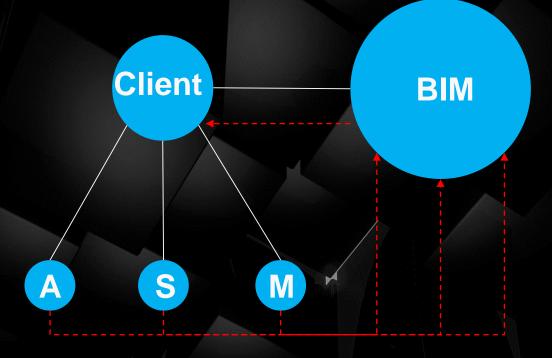
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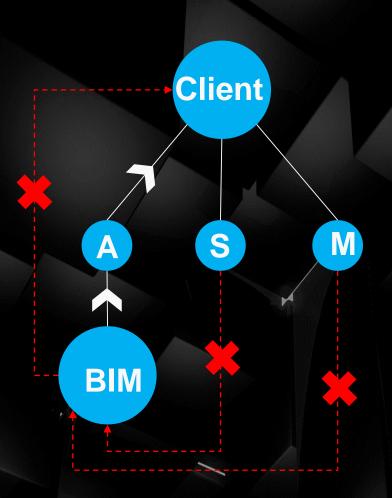
BIM Procurement



Low Level BIM Super BIM!



BIM Procurement

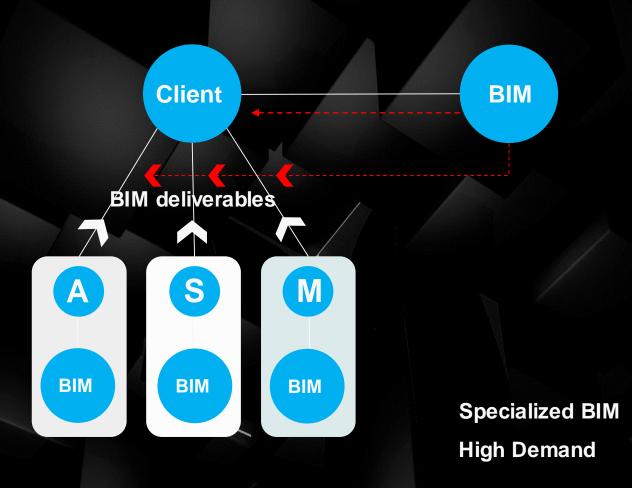


Dishonest reporting

Hard to chase information



Suggested BIM Procurement





- Design Adoption
- Construction Connectivity
- Authority Support
- •BIM Practice and Standard
- BIM Consultancy
- BIM Procurement

Failure



Success!

