

## Hong Kong Institute of BIM

# BIM Exporting in One Belt One Road?



**David Fung** 

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





Statsbygg, Norway 2010: Requires IFC/BIM for new buildings

Is running 3 BIM pilots

U.S. GSA

U.S. Army Corp of Engineers

2008: Mandatory BIM for government projects

2016: Mandatory BIM for government projects > £5 million **Mainland China** 

Mandatory

BIM has been included as part of the National 12th Five Year Plan (2011 - 2015) and is formulating a BIM framework.

Korea

2012: Public Procurement Service will fully adopt IFCbased open BIM

**Senate Properties** (property services agency), Finland

2007: Requires IFC/BIM in its projects and intends to have integrated model-based operation in future

Hong Kong

**Professional Institutes,** Government, MTR, **Contractors adoptions** 

Singapore

2013: BIM Submission for Regulatory Approval

2012: BIM as part of public sector building project procurement











### イエイリ建設ITラボ

# 甦れ!日本の建築

3次元で建設生産プロセスを改革しよう!

【開催日時】

2007年9月28日 (金) 10:00~17:30

【会場】

東京コンファレンスセンター・品川/大ホール

【主催】

日経アーキテクチュア/ケンプラッツ/イエイU建設ITラボ

【特別協賛】

Autodesk\*





【協賛】

アークデータ研究所/キヤノンマーケティングジャパン/サイバネットシステム/ フォーラムエイト/ジオプラン/GSA/

環境シミュレーション/大塚商会/ソフトウェアセンター

【事例2 海外建築設計事務所の視点】

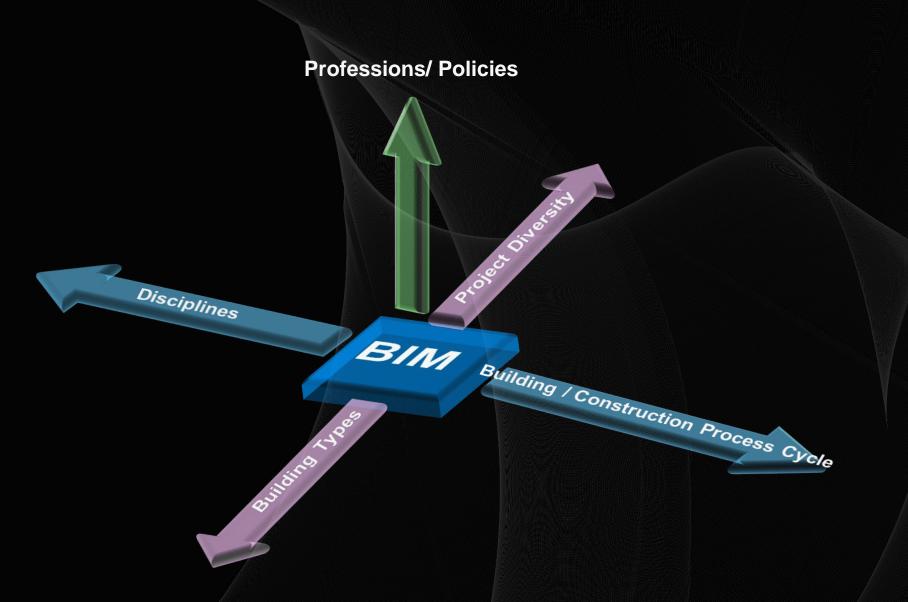
アエダスにおけるBIM - 意匠から構造、設備設計



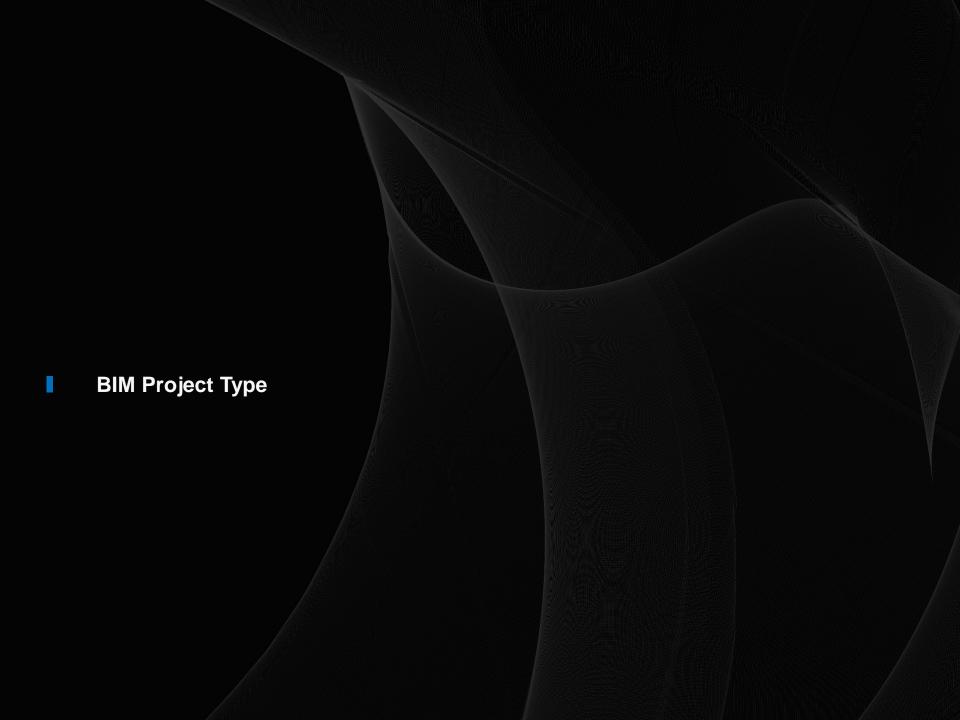


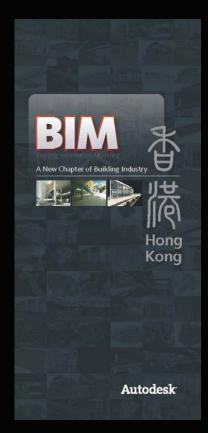










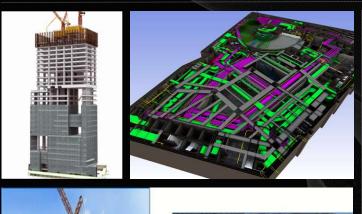


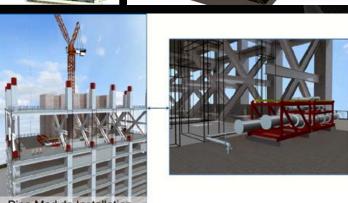


Complicated Geometry: Dubai Ocean Height One (Courtesy: Aedas and Mr Andrew Broomberg)

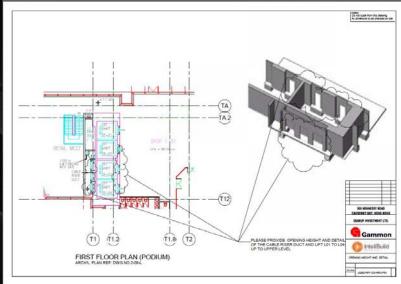
\* Winner of Autodesk BIM Awards 2007 - Hong Kong, Macau and Taiwan

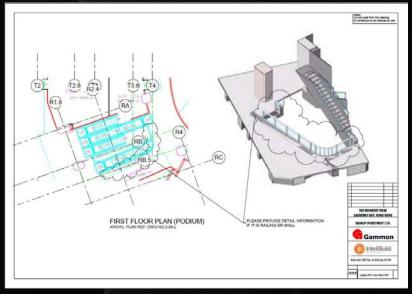












Redevelopment of Hennessy Centre
\* Winner of Autodesk BIM Awards 2010 - Hong Kong, Macau and Taiwan





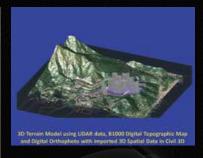
Proposed Office Development at 14-30 King Wah Road

\* Winner of Autodesk BIM Awards 2014 - Hong Kong, Macau and Taiwan



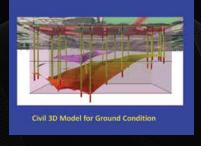


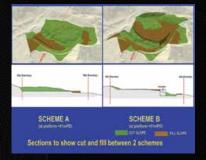












Bridging the Gaps with our Core Values – Successful Transformation of Revit Model to Enable Civil 3D/GIS/Revit Integration and Lighting Simulation & Rendering

\* Winner of Autodesk BIM Awards 2014 - Hong Kong, Macau and Taiwan



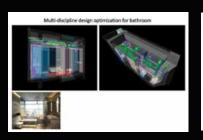


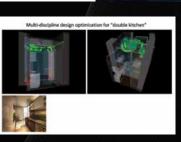
The University Heights Redevelopment

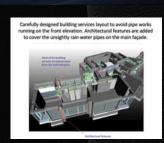
\* Winner of Autodesk BIM Awards 2013 - Hong Kong, Macau and Taiwan

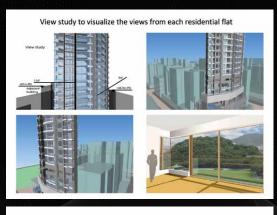


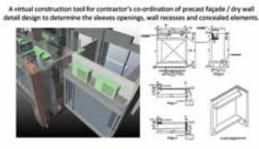


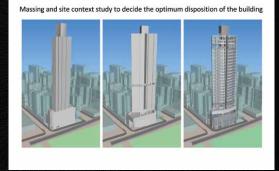








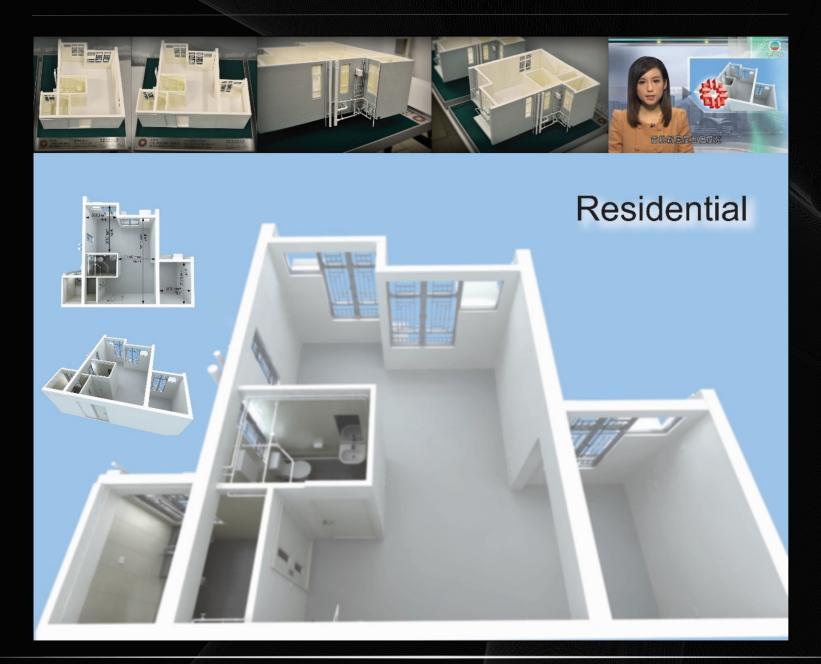




High Park Grand

\* Winner of Autodesk BIM Awards 2013 - Hong Kong, Macau and Taiwan







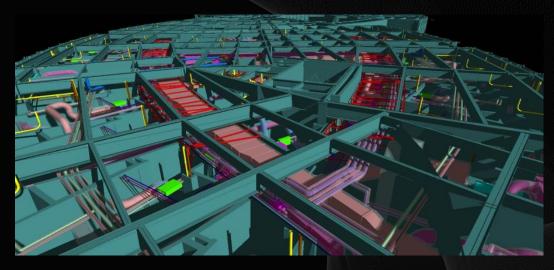






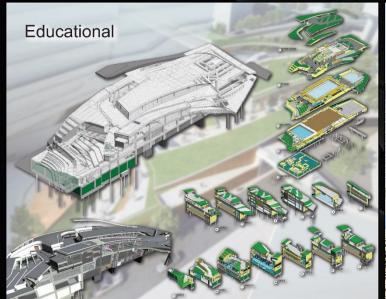


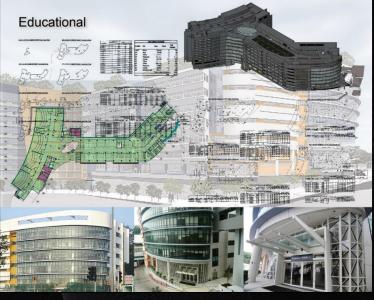












# PolyU Shenzhen Campus PolyU Shenzhen Campus

### CCCUB

\* Winner of Autodesk BIM Awards 2007 - Hong Kong, Macau and Taiwan

The PolyU Campus in the Shenzhen Virtual University Science Park

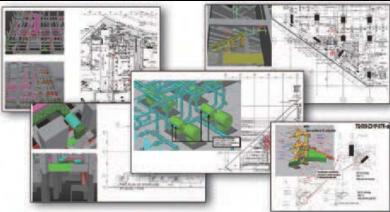
\* Winner of Autodesk BIM Awards 2009 - Hong Kong, Macau and Taiwan





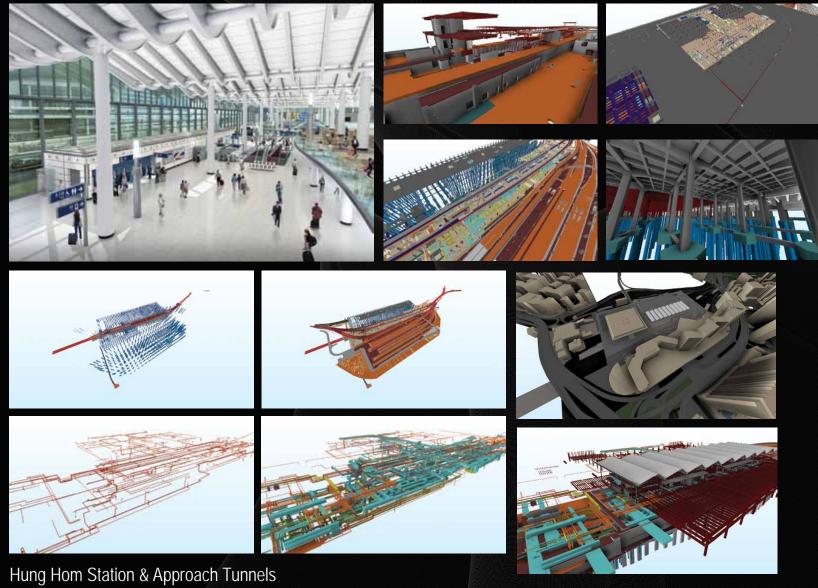






\* Winner of Autodesk BIM Awards 2009 - Hong Kong, Macau and Taiwan

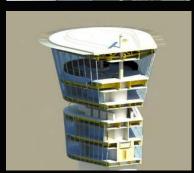


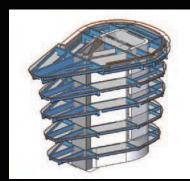




<sup>\*</sup> Winner of Autodesk BIM Awards 2013 - Hong Kong, Macau and Taiwan











the Chhatrapati Shivaji International Airport Air Traffic Control Tower & Technical Block – for the new airport in Mumbai, India

- \* Winner of Autodesk BIM Awards 2009 Hong Kong, Macau and Taiwan

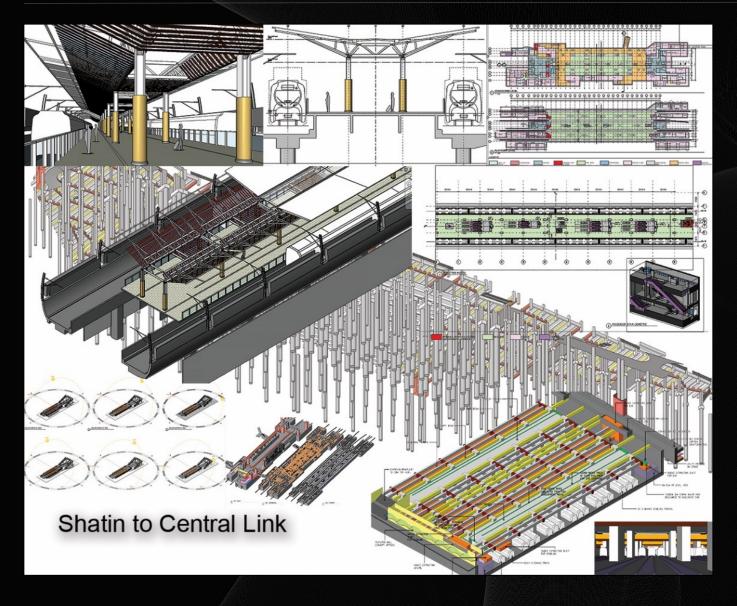




Midfield Development Design Consultancy Services

\* Winner of Autodesk BIM Awards 2009 - Hong Kong, Macau and Taiwan

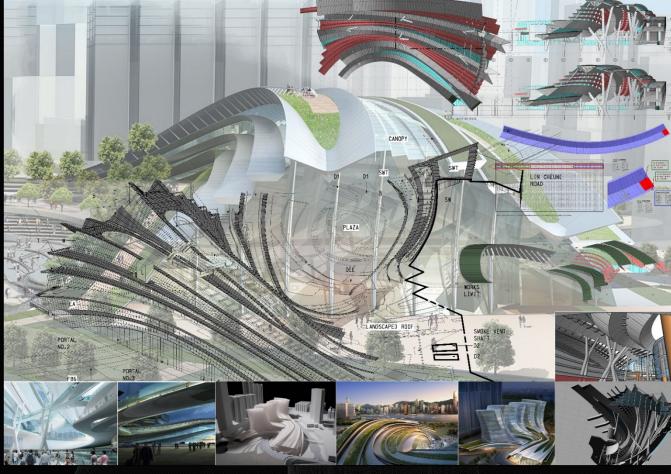




<sup>\*</sup> Winner of Autodesk BIM Awards 2010 - Hong Kong, Macau and Taiwan







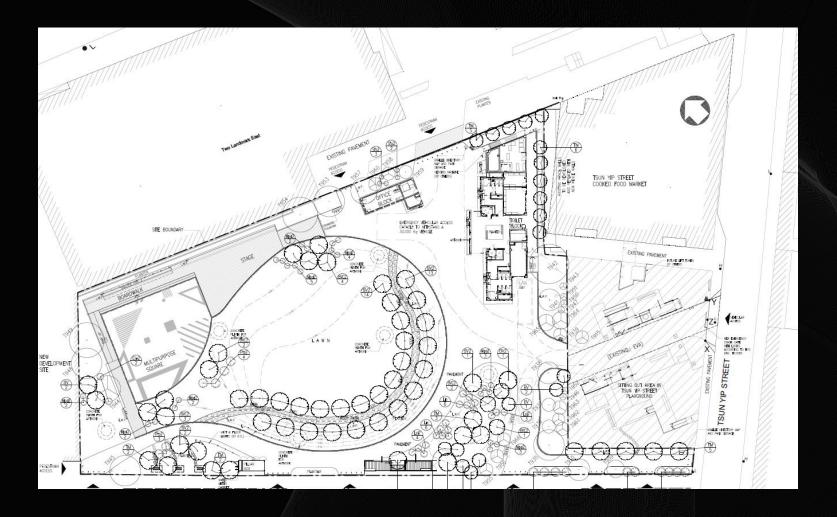


Autodesk Hong Kong BIM Awards 2010

Express Rail Link – West Kowloon Terminus

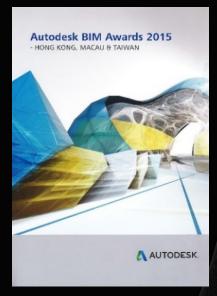
- \* Winner of Autodesk BIM Awards 2010 Hong Kong, Macau and Taiwan
- \* Winner of Autodesk BIM Awards 2012 Hong Kong, Macau and Taiwan









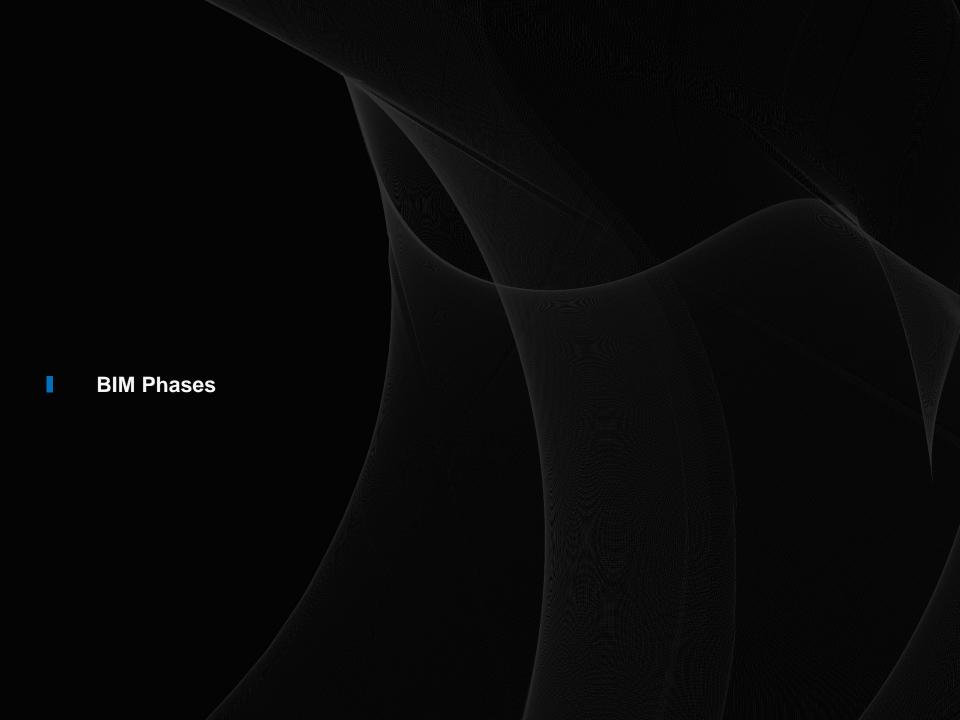




Heritage Consultancy - Victoria Peak Fire Station

- \* Winner of buildingSMART Hong Kong International BIM Award 2015
- \* Winner of Autodesk BIM Awards 2015 Hong Kong, Macau and Taiwan

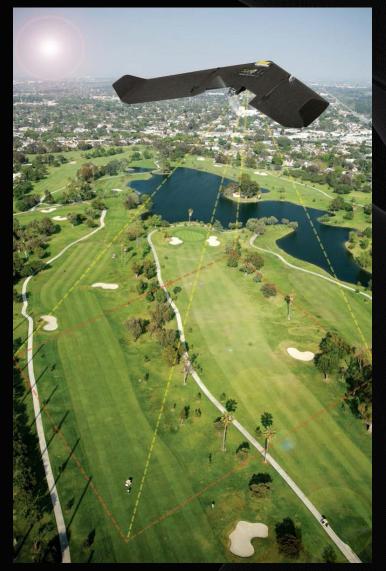


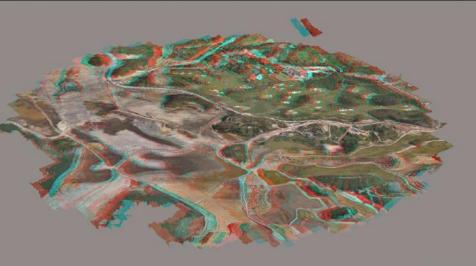


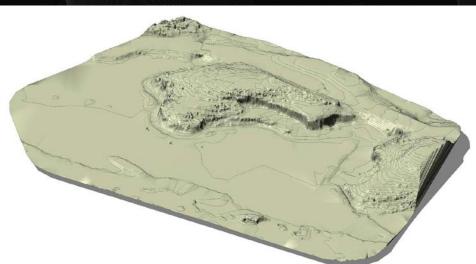






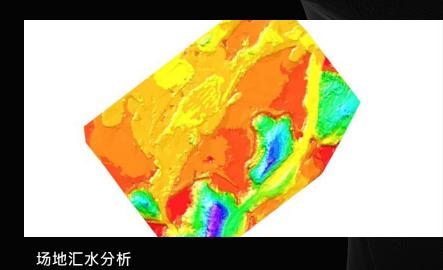


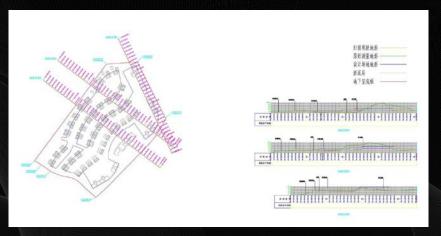




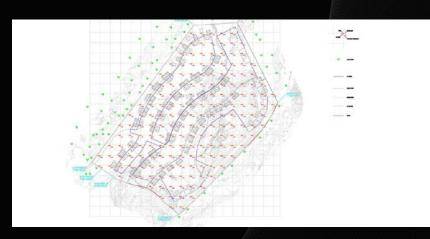
Photogrammetry

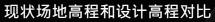


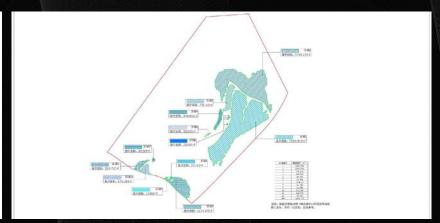




场地植被表面积统计







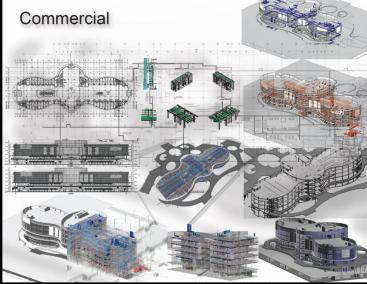
场地任意断面生成

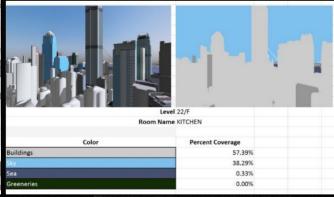






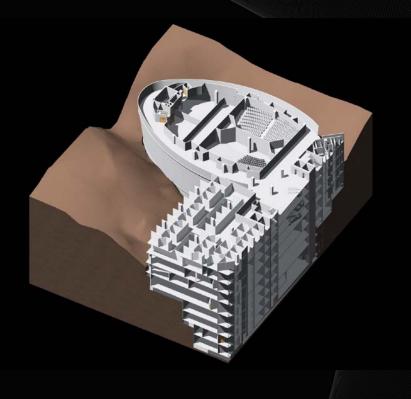


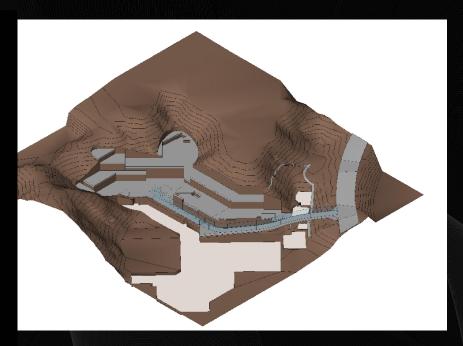




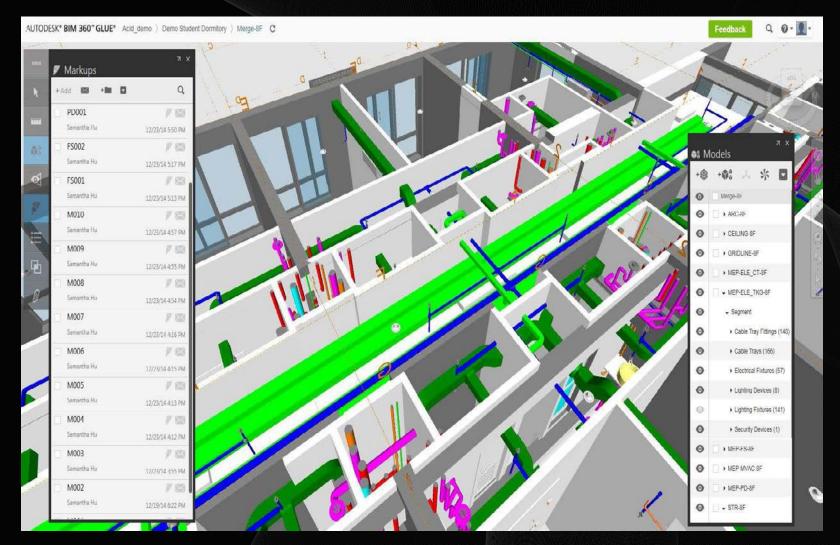
View Analysis for Commercial Development













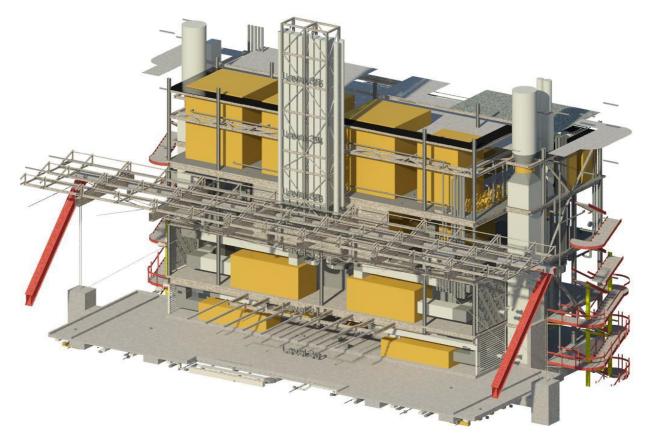


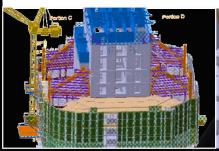
# 16. BUILDING INFORMATION MODELING

# 16.01 Building Information Modeling (BIM)

- a. 3D Building Information Modelling (BIM) was used for the design of the Project. That BIM 3D Model developed in design stage will be provided to the Contractor for information and for reference only at the commencement of the Contract. The Contractor shall take over the BIM 3D Model provided, and may adopt that Model, or produce its own BIM 3D Model, for the purposes of construction coordination and production of combined services drawings, builders work drawings and facility management use, etc.. The Contractor shall update the BIM 3D model with a design log recording the changes every month and submit to the Project Manager for review.
- b. The Contractor shall use BIM processes and technologies as approved by the Project Manager on the Project.
- c. The Contractor shall update the 3D model in accordance with the BIM specification as attached Appendix A4. The Contractor may propose revisions to the specification although these shall only be adopted upon written approval of the Project Manager.
- d. The Contractor shall provide their own hardware, software and internet communication links to fully support the full deployment and application of the BIM process. The Contractor shall also provide 2 sets of suitable hardware and software for the Project Manager to review the BIM Models.

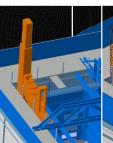


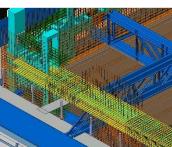








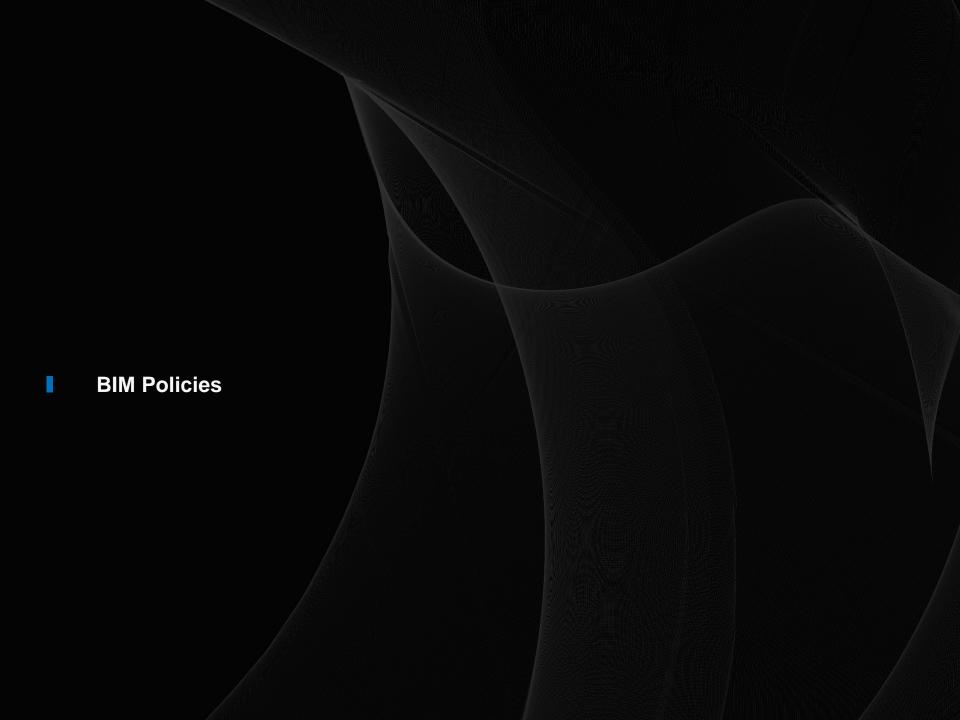














# Notice of the 8th Annual General Meeting for HKIBIM

Notice is hereby given that the 8th Annual General Meeting of HKIBIM for the year of 2016 which will be held on 23 February 2016(Tuesday).

- o Date:
  - o 23 Feb 2016 (Tuesday);
- Tim
  - o 6:00 p.m. ~ 8:00 p.m.
- Venue
  - 。 Spotlight Recreational Club (博藝會), 4/F, Screen World, Whampoa Garden, Hung Hom, Hong Kong
  - o Geoinfo Map (Showing the path from Hung Hom to Spotlight Recreational Club)
- o Rundown:
  - o 6:00 p.m. Registration
  - o 6:00 p.m. New members reception
  - 7:00 p.m. Membership certificates presentation ceremony and Certified Expert presentation ceremony
  - o 7:30 p.m. AGM
  - o 8:00 p.m. Dinner gathering at Spotlight Recreational Club (博藝會) (HK\$200 for member, HK\$300 for non-member)
- o AGM Agenda:
  - o To adopt the agenda of the 8th Annual General Meeting for the year of 2016;
  - o To adopt the minutes of 7th Annual General Meeting for the year of 2015;
  - Chairman's Report for the year of 2015 □ 2016;
  - Secretary's Report for the year of 2015 □ 2016;
  - o Treasurer's Statement of Accounts for the year of 2015 ☐ 2016;
  - To receive and adopt the Statement of Accounts for the year of 2015 □ 2016;
  - o A.O.B.:
  - o AGM Concluded;
- o A Dinner Gathering will be arranged immediately after the AGM at Spotlight Recreational Club (博藝會) (HKS200 for member, HKS300 for non-member);
- Please register for the AGM and Dinner gathering at <a href="http://goo.gl/forms/Xved4R4krX">http://goo.gl/forms/Xved4R4krX</a> by 18 Februry 2016 (Thursday).

  By order of the Board

Dr Neo Chan Hon. Secretary 15-Feb-2016 Search for:

Quick links

CIC's BIM Standards (Phase One) Oct-2015

Hong Kong BIM Conference 2015

Membership renewal 2015

Membership renewal 2014

Membership Application Form

BIM Project Specification

HKIBIM@Slideshare

HKIBIM Facebook Page

HKIBIM Linkedin Page

BIM@CIC

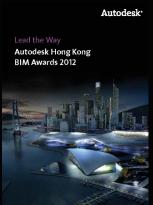
Tender Notice























# **建造業議會** 全力推動 BIM 發展 畫出業界新標準

建築信息模擬 (BIM) 是建造業近年的熱門話題,該技術能全面管理建造項目在整個生命周期內的相關 信息,提升生產效率及減低工地風險,並體現優化的監控施工過程。為推動本地建造業使用 BIM,及 表場為推動 BIM 而作出貢獻之人士,建造業議會於今年 3 月 11 日假環球貿易廣場的天際 100 香港觀 景台舉辦建造業首屆「卓越建築信息模擬獎」(BIM Excellence Awards)頒獎典禮。當晚建造業議會 與建造業界代表分享過去一年的工作成果,以及得獎者們細說得獎感受與應用 BIM 的心得。

撰文 余美玉 | 攝影 腳蛇溪

作 為一種建業業界的創新技術,建築信息模擬 建造程序,有助跨界别合作、內部協調、對外滿通、 (Building Information Modelling 或簡稱 BIM) 解決問題及風險管理等。同時,BIM 可通過採用數據 不單是一種三維總圖工具,更是一項嶄新的管理工具。 用以全面管理建造項目由籌備階段開始到建造階段,以 得以舒緩。 至營運階段整個生命周期內的所有相關信息:BIM 亦開

解決問題及風險管理等。同時,BIM 可通過採用數據 採集和整合流程提高生產力,使當前建造環境的壓力

業界開始了解 BIM 的各項優點,亦發現 BIM 已經 創斷新的工作方式,協助項目管理及執行,更有效調控 是全球建造業的大勢所趨。相比其他國家的 BIM 發展

### 業界積極回響 貢獻值得表揚

是次評審團成員具廣泛代表性・分別來自業界不同 的專業組織及團體。在評審過程,評審團親身見證了建 选業的變革,在約80個高水平的提名中,不單為評審

全面推行 BIM。得獎者之一的金門建築有限公司蘇國亮 工程師稿・在建塩業議會及政府牽頭大力推動下・ 2014 年可説是建造業發展 BIM 的里程碑,他相信未來 香港的 BIM 發展於亞洲區將最為突出。另一得獎者

2015 m 4 H 95



建造業議會執行總監陶祭博士 (右四)與一眾年度青年 BIMer (Young BiMer of the Year) 合照。

94 2015 tt 4 F





Hong Kong Institute of Building Information Modelling

BIM Project Specification



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# MTR CORPORATION

OPERATIONS DIVISION

### BUILDING INFORMATION MODELING MANUAL

DRAFT

VERSION A	ISSUE DATE 30/09/10
The following pages have be in this version of the Proced	een revised and are now included urc.
Page (s)	Date of Revision

	JOB TITLE	NAME	SIGNATURE
BY	Building & Architectural Engineering Manager	David Fung	
CONTROLLER	Civil & Building Engineering Manager	Philip Leung	
APPROVAL	General Manager-Technical & Engineering Services	David Leung	

HKIBIM Specification (Rev 2.1)

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ACID BIM Manual

HKIBIM BIM Manual

MTR BIM Manual



### APPLICATION FORM





# **IVE Engineering**

Your Partner in Professional Development

20 Tsing Yi Road, Tsing Yi Island, N.T., Hong Kong Fax: 3475 0845 Email: EDIT@vtc.edu.hk

Apply for	Deadline by 15/9/2015 Exam Day 26/9/15	Deadline by 11/10/2015 Exam Day 24/10/15	Course Fee Separate crossed the que for each course made	
(Put a ✓ in the box(es) of the course(s) you apply for)	Put ✓ for selection	Put ✓ for selection	(HK\$)	Cheque No.
1.1 CEI Basic (ArchiCAD)			600	
1.2 CEI Basic (Revit)			600	
2.1 CEII Architecture (ArchiCAD)			1,200	
2.2 CEII Architecture (Revit)			1,200	
2.3 CEII Structure (Revit)			1,200	
2.4 CEII MEP (Revit)			1,200	
2.5 CEII Revit Families			1,200	

### Personal Particulars

Name: (should be the name shown on HK.D/Passport)	(Name in English, family name first)	(C	ninese name)
HKID/Passport No.:	( )	Birthday:	(dd/mm/yy)
Correspondence Address:		Office Phone:	
		Mobile Phone:	
		Fax:	
Email Address:		HKIBIM Membership No.:	

# Declaration (\*Delete where appropriate)

I wish to receive information from VTC (including course information from its member institutions):( Yes / No )\*

I declare that the information provided in this form is, to my best knowledge, accurate and complete. I agree to abide by the rules and regulations of $ME$ if I am admitted to the course. I understand that the information provided in the form will be used by $VTC$ in the admission process	Signature:	
and course administration.	Date:	

- Whether a course will be offered depends on the enrolment and is subject to approval by VTC. The applicant will be informed of the timetable one week before the commencement of class.
- To facilitate communication, the applicant should provide in the Application Form a contact number of mobile phone which can receive SMS messages.

# HKIBIM accredited **BIM Certified Expert Examination**

(Course Code: 1525)

## Certified Expert Level I Examination

### Available categories:

- 1.1. CEI Basic (ArchiCAD)
- 1.2. CEI Basic (Revit)
- 3 hours
- . 26/9/2015 (Sat)
- HK\$600.00

### Certified Expert Level II Examination

### Available categories:

- 2.1. CEII Architecture (ArchiCAD)
- 2.2. CEII Architecture (Revit)
- 2.3. CEII Structure (Revit)
- 2.4. CEII MEP (Revit)
- 2.5. CEII Revit Families
- 3 hours
- 24/10/2015 (Sat)
- · HK\$1,200.00











### **Examination Venue**

- . BIM Centre, IVE (Monsion Hill)
- 6 Oi Kwan Road, Wanchai, Hong Kong
- . Or, other BIM Centre of VTC

### Application

Enquiries

· Submit the duly completed Application Form with a crossed cheque for the course fee of each course to: Engineering Discipline In-service Training

### IVE (Tsing Yi) Rm B322, 20 Tsing Yi Road, Tsing Yi Island

## T 2435 9423 (Mon- Fri 9:00-12:30 am & 1:30-5:00 pm)

- E EDiT@vtc.edu.hk
- W EDIT.vtc.edu.hk

EDiT.vtc.edu.hk (June 2015) EDiT.vtc.edu.hk (June 2015)



# **BIM Education Road Map**

# [CEIII-B] CEIII BIM Management 30 hrs BIM Management implementations with Project Execution Plan, requirements



## [CEIII-A]

and standards

### CEIII Architecture (Revit) 36 hrs

Architectural Concept Design, Detailed Design, Statutory Submission, Contract Documentations and Project Management level.



### [CEIII-S]

# CEIII Structure (Revit)

Structural Concept Design, Detailed Design, Statutory Submission, Contract Documentations and Project Management level.



### [CEIII-M] CEIII MEP (Revit)

Building Services Concept Design Detailed Design, Statutory Submission, Contract Documentations and Project Management level.



### [CEII-A]

### CEII Architecture (Revit) 32 hrs

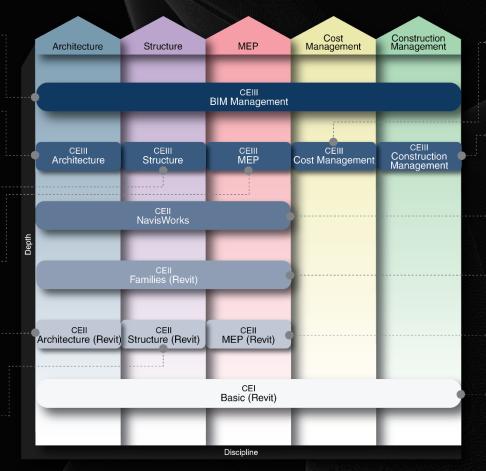
Common operational commands in architectural BIM model for design visualization, co-ordination and production of professional drawings.



### CEII Structure (Revit) 32 hrs

Collaboration of other project team disciplines producing collaborative design, and production of professional drawings. Integration of structural analysis.





### [CEIII-Q] CEIII Cost Management 24 hrs

Information extraction to facilitate estimation, tendering process and cost control over BIM process.



# [CEIII-C] CEIII Construction Management 32 hrs

BIM application during construction phase to improve constructability, efficiency, extensive project management and logistic tasks on site.



### [CEII-N] CEII Navisworks

# CEII Naviswork

Clash Analysis among differen BIM Systems and Construction sequences.



### [CEII-F] CEII Families (Revit) 21 hrs

Fundamental family building using Extrusion, Revolve, Blend, Sweep and Sweep Blend; to sophisticated parametric design principles.



### CEII MEP (Revit) 32 hrs

Collaboration of other project team disciplines; producing collaborative design, and production of professional drawings.



### [CEI] CEI Basic (Revit) 8 hrs

System settings, parametric and compilation to building form; definition /editing properties, drawings sheets, B.Q. and overall BIM management.







# The University of Hong Kong Knowledge Exchange







香港中文大學 The Chinese University of Hong Kong









School of Professional Education and Executive Development 專業進修學院







# **EDUCATION**

A.C.I.D. offers professional training courses at all professional levels. Both at BIM Studio or on site.



# CONSULTING

A.C.I.D. offers consulting services to all BIM related business from project inception, design, construction and operational phases to different organizations.



## PROJECT MANAGEMENT

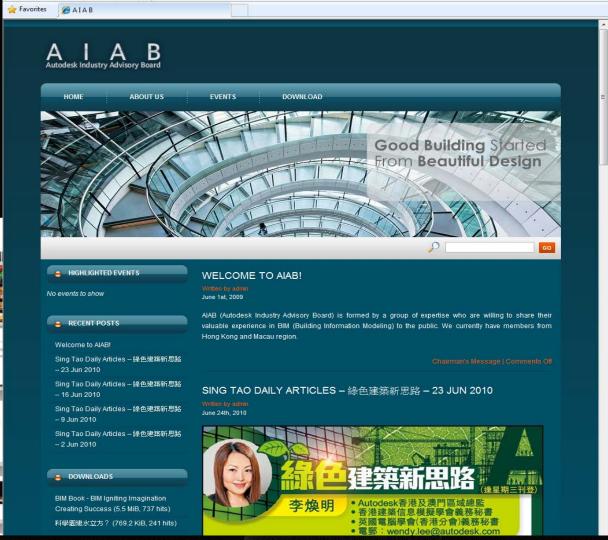
A.C.I.D.'s project team assists the client and team to carry out the BIM process in the project.







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