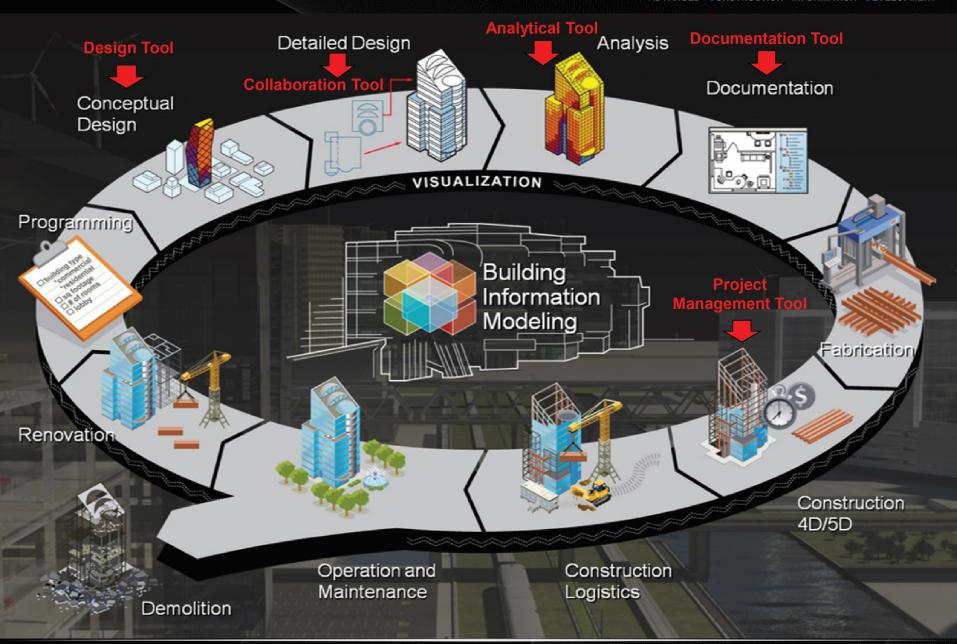
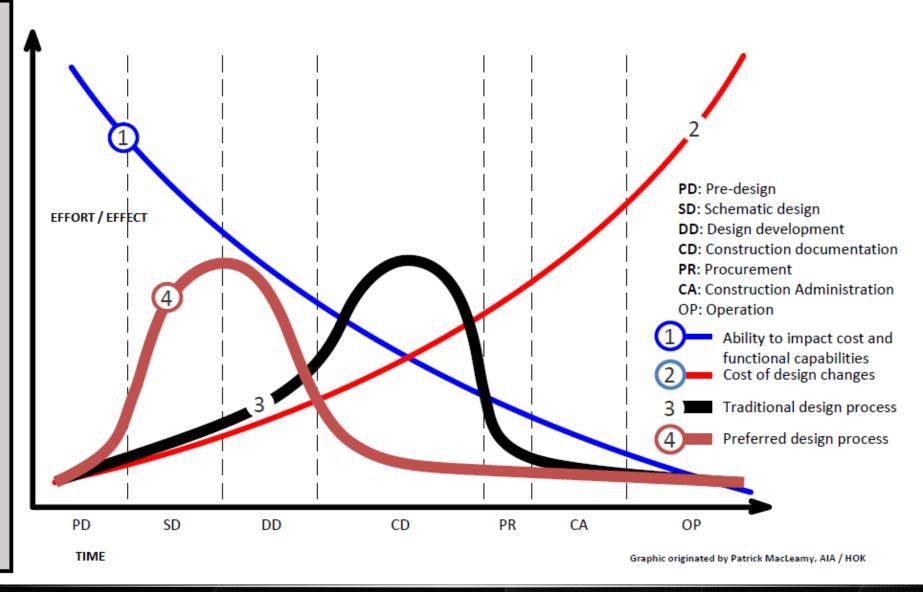


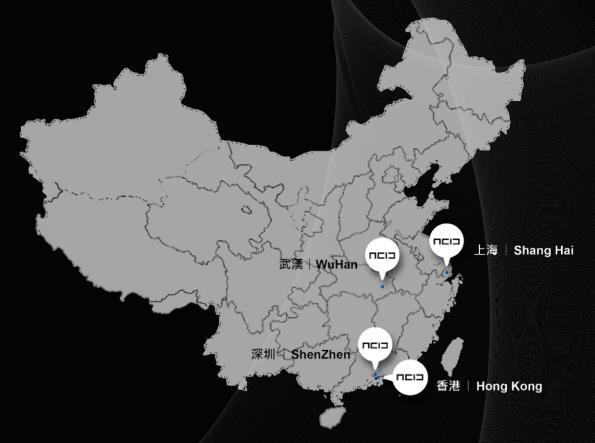
- A DVANCED
- C ONSTRUCTION
- NFORMATION
- EVELOPMENT

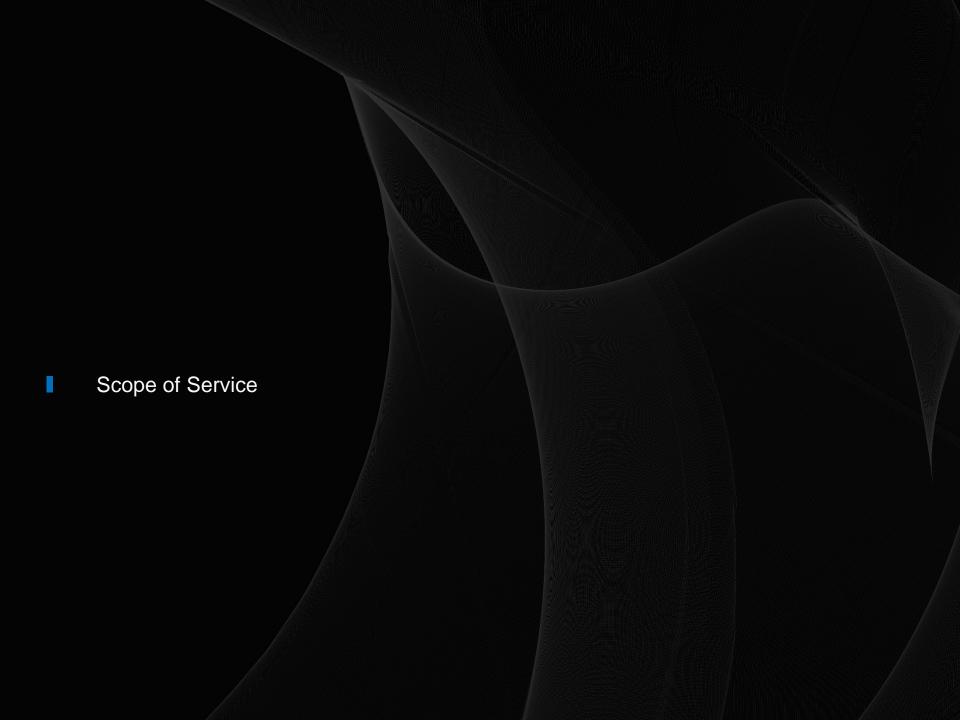


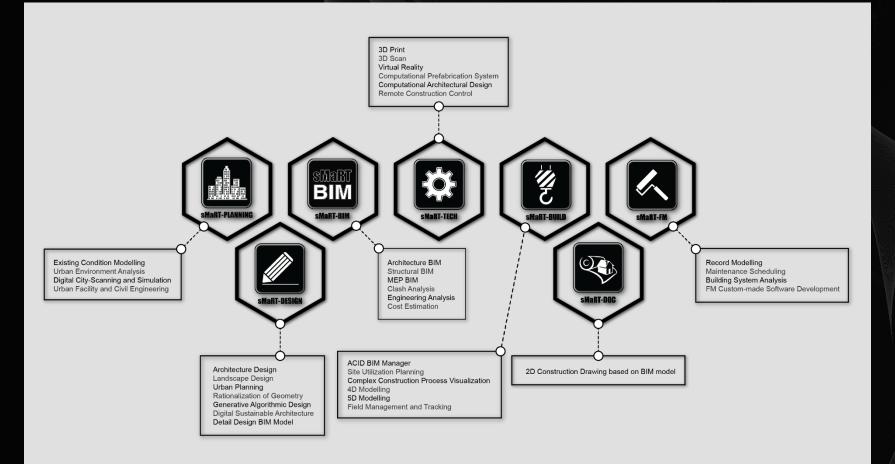


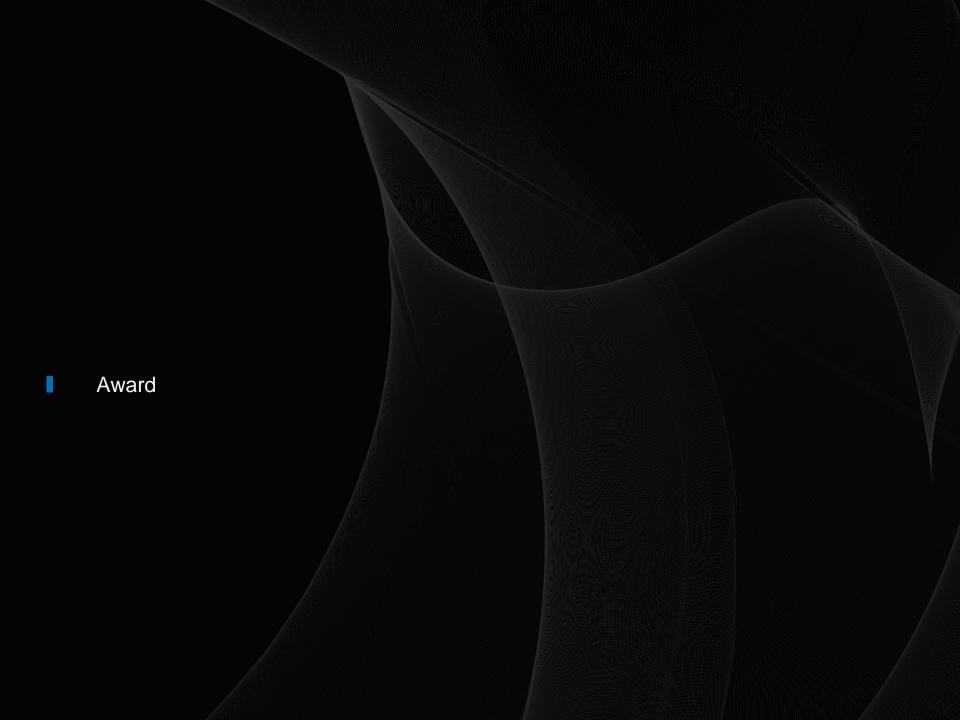


- Hong Kong, Wuhan, Shanghai and Shenzhen Office
- Over 100 qualified Professional and Technical Staff
- Location









我们是

中华人民共和国住建部

《建筑工程设计信息模型交付标准》参编单位

《建筑工程设计信息模型分类和编码标准》参编单位

《建筑工程设计信息模型出图标准》参编单位

buildingSMART中国分部理事单位

香港建筑信息模拟学会(HKIBIM)发起人及现任会长(David Fung)香港建筑师学会(HKIA)公司会员(ACID-HK)中国数字建筑设计专业委员会(DADA)联合发起人香港房屋署、建筑署BIM技术管理顾问及培训导师团队

行业荣誉

设计获奖/Design Award

- 荣获2013国际绿色建筑设计银奖/Award Silver Medal of International Green Architecture 2013
- 荣获2013欧洲设计年TOP50设计/Award TOP50 Design of 2013 European Design Year
- 荣获2012年公民建筑奖提名
- 荣获2014WA中国建筑奖社会公平奖佳作奖/Excellence Award of 2014 WA Social Equality Award
- 荣获2014WA中国建筑奖设计实验奖入围奖

BIM 获奖/BIM Award

- ACID-HK HIM 項目(BIM技术古建保护应用)荣获:
- 香港2015buildingSMART大奖
- 香港BIM大奖 2015
- ACID-HK 為香港BIM Award 2014 贊助機構
- ACID-HK香港董事总经理冯树坚先生:

荣获香港建造業議會2014卓越建築信息模擬獎BIM Excellence Award

被选为香港建筑模拟学会(HKIBIM)会长 2015-16

被选为香港建筑师学会(HKIA)BIM及IT小組副会长 2015-16

接受亚洲电视台采访發表對香港BIM 發展的意見及討論







This is to certify that

Advanced Construction Information Development Limited

was admitted as a Corporate Member of the Institute on the Twenty-fifth day of April 2015

thereby accepting the privileges and responsibility of membership and undertaking to comply with the Rules of the Institute.

Registrar

The Hong Kong Society of Architects was founded in the year 1956. It was reconstituted in the year 1972 as the Hong Kong Institute of Architects.



Date of issue 29th April 2015

Serial No. CM0200

This Certificate Remains the Property of the Hong Kong Institute of Architects.









Autodesk^{*}

Lead the Way

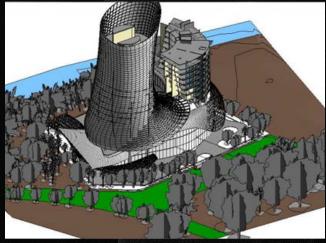
Autodesk Hong Kong BIM Awards 2012





2012





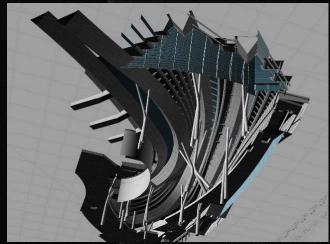




() 10 Patent

2010



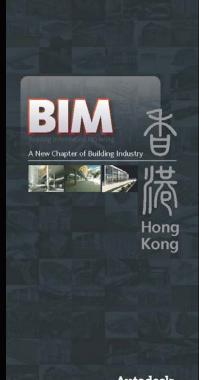








2009





2007









Chairmen of Board Changsheng Qu



Vice Chairman Shuang Song



Managing Director David Fung



BIMer of the Year, BIM Excellence Awards 2014, Construction Industry Council

Vice Chairman of BIM and IT Committee, HKIA 2015-2016

Chairman of HKIBIM 2015-2017





General Manager Wei Mu



Design Director Song Qin



BIM Associate Samantha Hu





FDUCATION

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



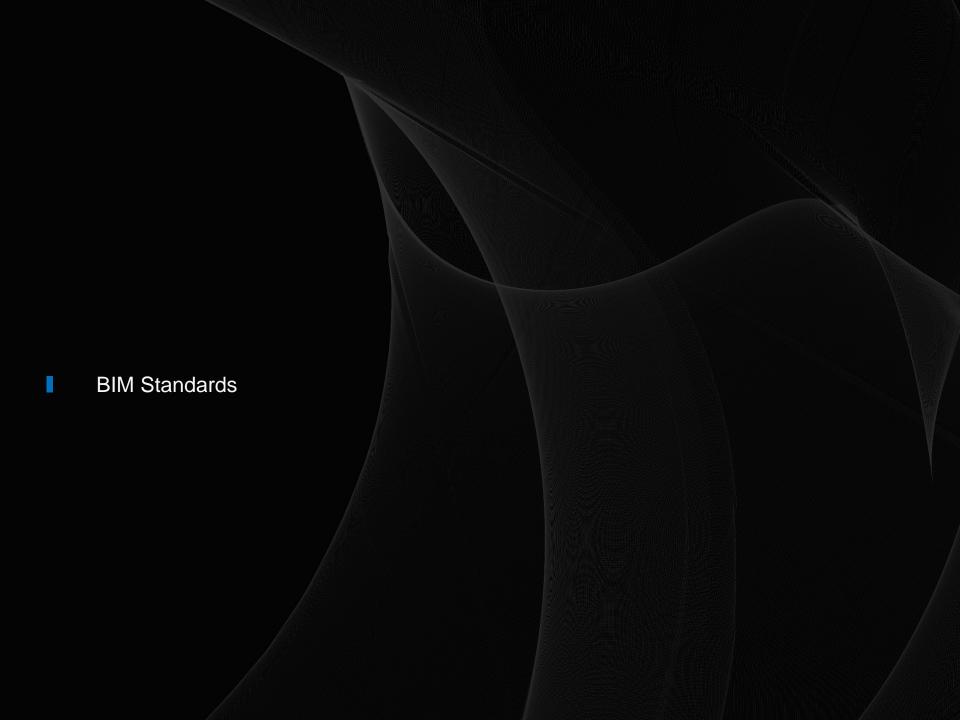
CONSTITUTION

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.



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交付标准

Deliver Standard of Building Design Information Modeling

20XX - XX - XX 发布

20XX - XX - XX 实施

中华人民共和国住房和城乡建设部 联合发布 中华人民共和国国家质量监督检验检疫总局

起研科技股份有限公司

中国建筑东北设计研究院有限公司

中藏一局类团建设发展有限公司 充特力软件(北京)有限公司

上海城建(集团)公司

河北建筑 、程学院

中国五洲二程设计集团有限公司

北京中信和业投资有限公司 包济大学建筑设计研究院 (集团) 有限公司

天津大学管理与经济学部工程管理系

华中科技大学建筑与城市规划学院

深圳市建筑科学研究院

北京华思维泰克科技育限公司

北京建直投资发展(集团)有限公司

苏州金峰鄉建筑装饰股份有限公司

鲁班软件

深圳市建筑设计总院

上海市城市建设设计研究系院

四川省建筑设计研究院

A.C. L.D. 华料促建(武汉)工用信息发展有限公司

仁苏省苏中建设集团股份有限公司

深圳华阳国际工程设计有限公司

木标准主要起草人员。(排名不分先后)

易看 张志飞 徐卫国 卜一秋 黄瑰 · 高成勇 王国後 罗伟 一于治 杨峥 金新阳 马周成 隊勇 候本才 何立彼 社鍋 辛佐兒 冯志江 王乔侗 张学斌 淋卫 周立 李伟伟 庄惟聚 陈宁军 军继良 张东升 张金月 穆成 张启 周汉钦 主晚泉 刘立明 吴俊书 汤志 姚有光 汤帆 杨海涛 能婚形 山片盛 為柯 唐小王

程思念 欧场胜

UDC

中华人民共和国国家标准

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

20XX - XX - XX 发布

20XX - XX - XX 实施

中华人民共和国住房和城乡建设部 中华人民共和国国家质量监督检验检疫总局

《建筑工程设计信息模型交付标准》参编单位

《建筑工程设计信息模型出图标准》参编单位

《建筑工程设计信息模型分类和编码标准》参编单位



Hong Kong Institute of Building Information Modelling

BIM Project Specification



*

MTR CORPORATION

OPERATIONS DIVISION

BUILDING INFORMATION MODELING MANUAL

DRAFT

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

	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)

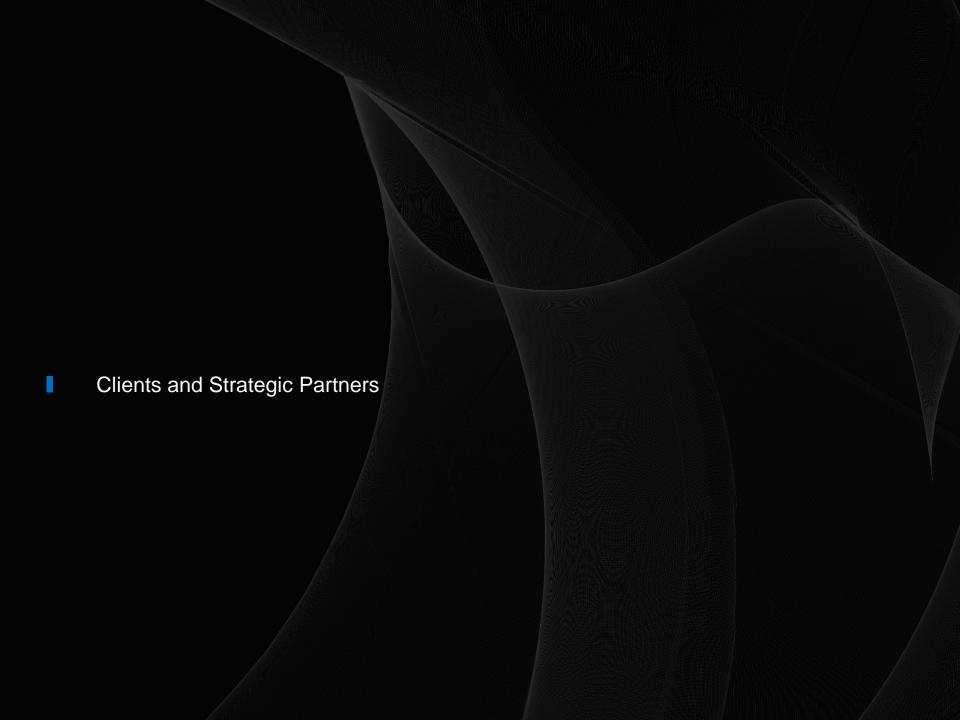
Page 1 of 26

ACID BIM Manual

HKIBIM BIM Manual

MTR BIM Manual





Clients





香港房屋委員會 Hong Kong Housing Authority















Strategic Partners





































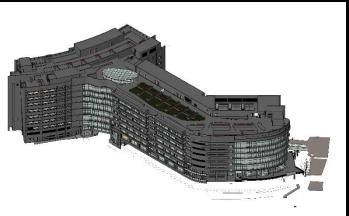
City University of Hong Kong Community College Building

Client: City University of Hong Kong
P.I.C.: David Fung (worked with Aedas)

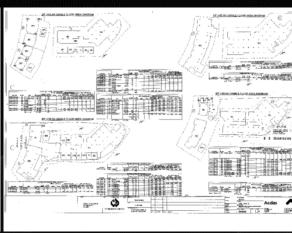
Period: 2005 - 2008

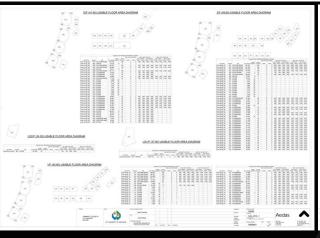
Scope: GFA 42,000 sq.m. building development to accommodate the anticipate staff and students within the campus BIM project. Won **Hong Kong BIM Awards (2007)**. First major completed BIM project from Design, documentation, construction. **Won International Revit Experience Award (2007)**.

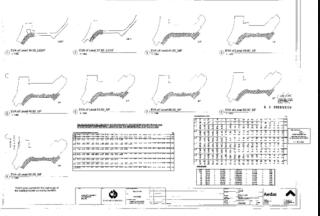


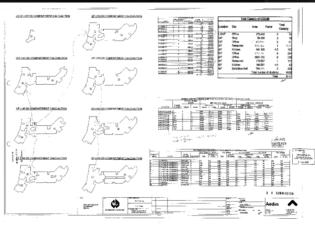


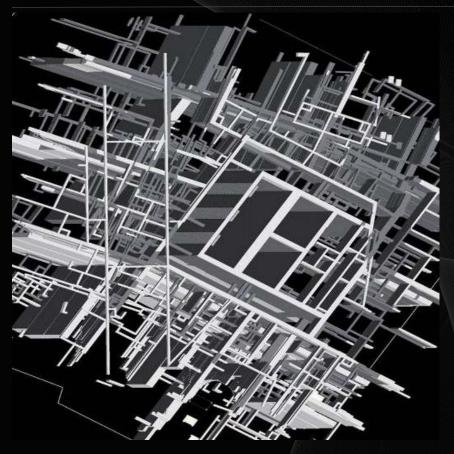












Ocean Heights

Client : DAMAC Properties

P.I.C.: David Fung (worked with Aedas)

Period : 2006 – 2007

Scope: Twisted curve organic shaped office tower using BIM technology in resolving the external façade and the internal structure (2006 – 2007). Won **Hong Kong BIM Award (2007)**.



Hong Kong Polytechnic University Shenzhen Campus

Client: Hong Kong Polytechnic University P.I.C.: David Fung (worked with Aedas)

Period: 2006 - 2009

Scope: The Hong Kong Polytechnic University Shenzhen Campus, a 12,500 sq.m. academic facility. Complete BIM project from Design to Completion. First China Project all in BIM, including all productions. Won **Hong Kong BIM Award (2009)**.





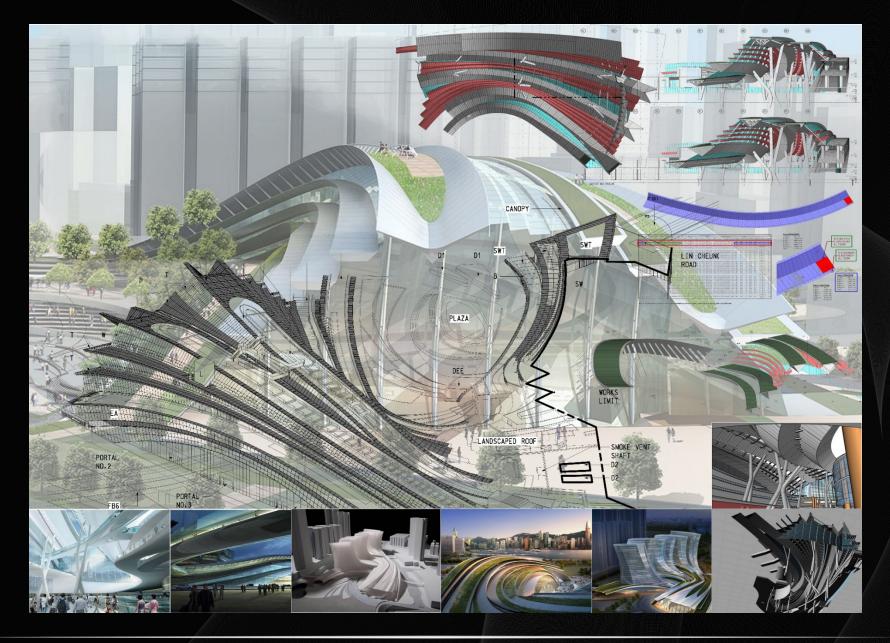
West Kowloon Terminus

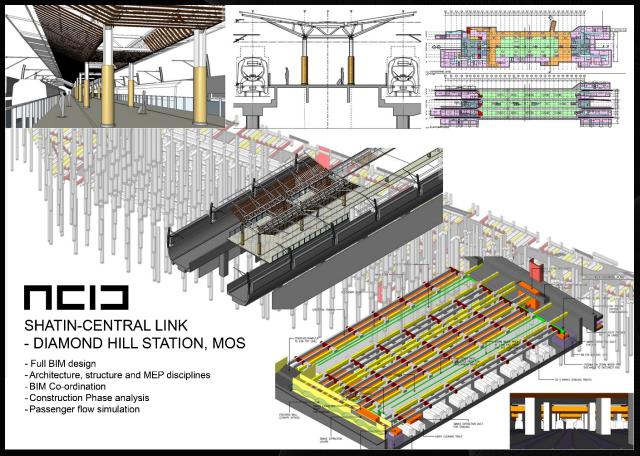
Client: MTR Corporation Limited

P.I.C.: David Fung (worked with Aedas)

Period: 2009 - 2010

Scope: Designing the gigantic organic roof structure for the Hong Kong Express Rail Terminus using BIM, facilitating organic design into documentation, quantity take off and rational manufacturing. Won **Hong Kong BIM Award (2010).**





Shatin to Central Link

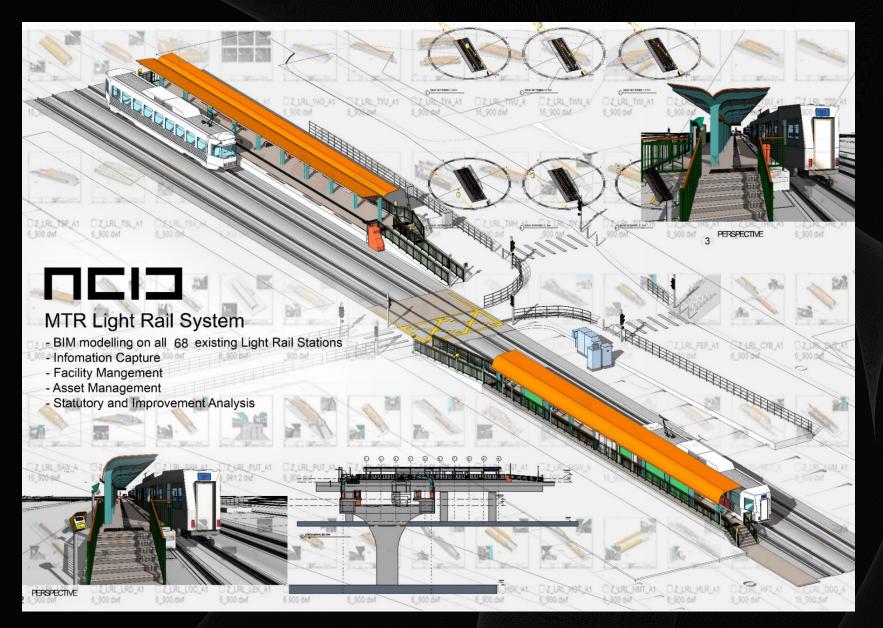
Client: MTR Corporation Limited

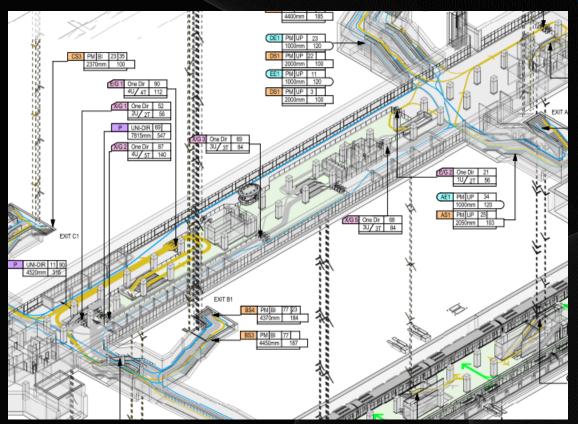
P.I.C.: David Fung (worked with Aedas)

Period: 2009 - 2010

Scope: Various MTR Architectural and MEP engineering design contracts using BIM. Various MTR Architectural and MEP engineering design contracts using BIM.







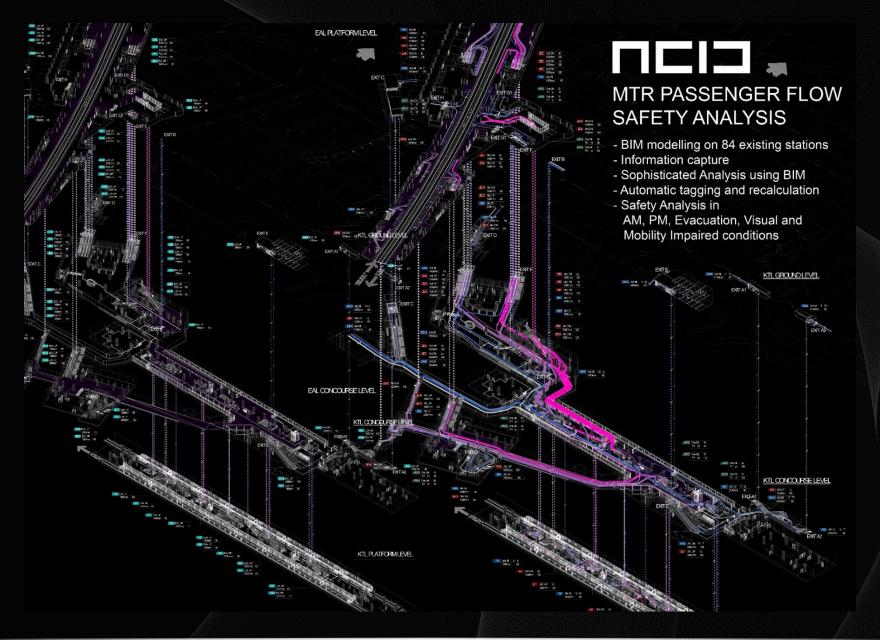
MTR Station Passenger Flow Rate Study

Client: MTR Corporation Limited

P.I.C.: David Fung (worked with MTR)

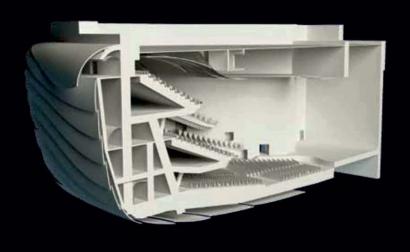
Period: 2010 - 2014

Scope: MTR Passenger Flow Safety study using BIM for analysis and FM for all existing stations. Use of modelling & information embedded in the existing 84 MTR stations; undergo vigorous passenger flow analysis to determine the safety critical areas throughout all station layouts.

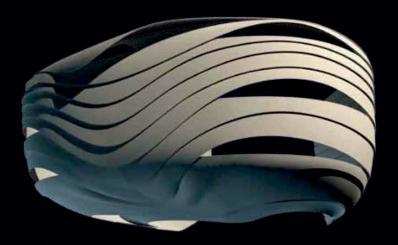


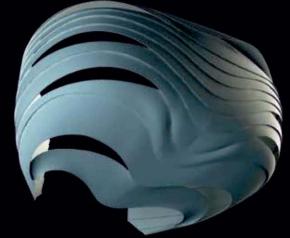


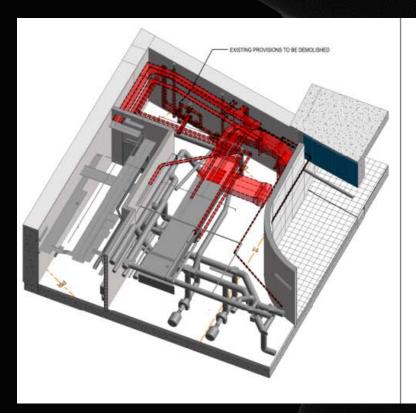


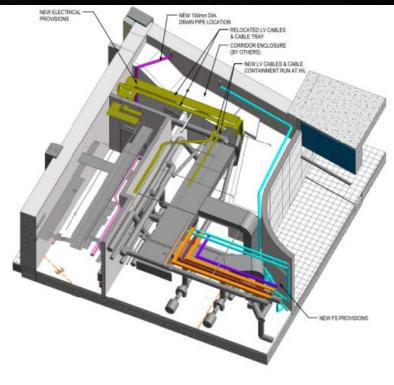












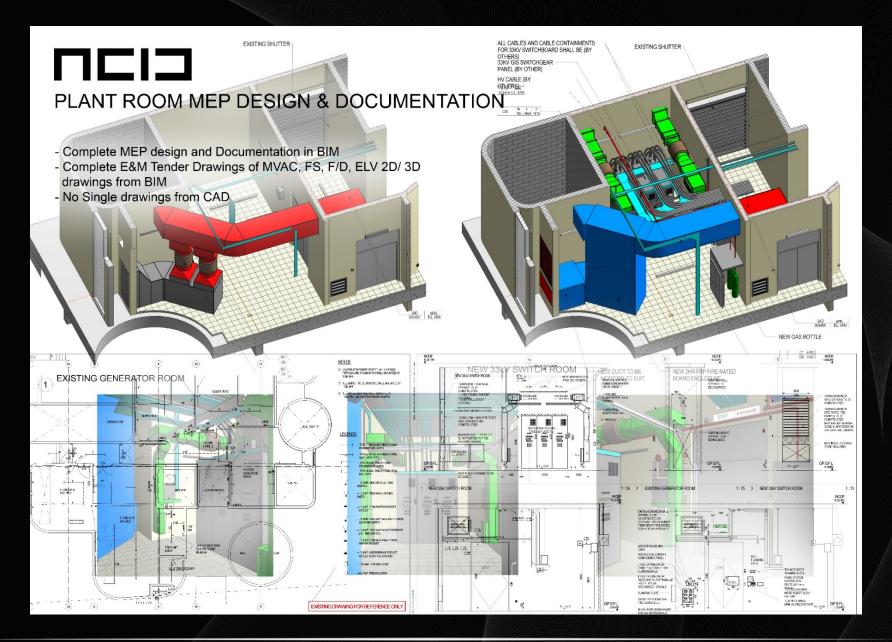
MTR Railway Projects

Client: MTR Corporation Limited

P.I.C.: David Fung (worked with MTR)

Period: 2010 - 2014

Scope: Various MTR Architectural and MEP engineering design contracts using BIM.





Tang City – 101

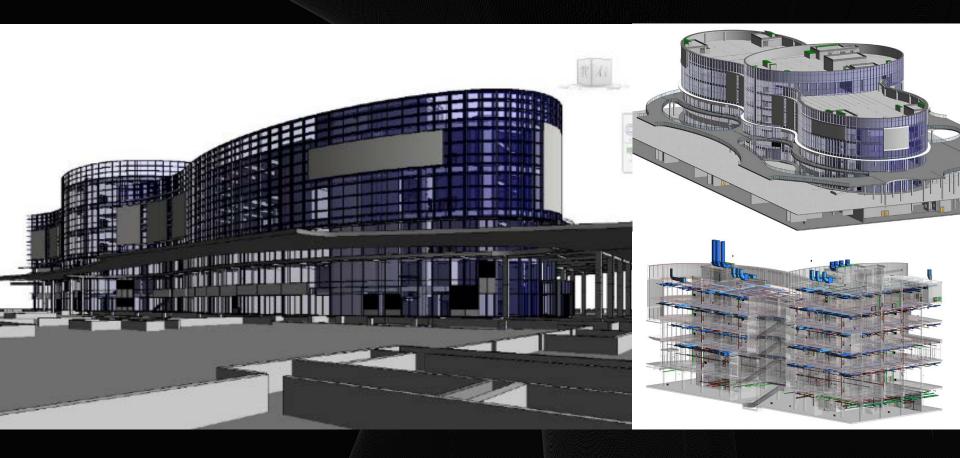
Client : Hebei Tangshan Heng Rong Real Estate Development Co. Ltd.

P.I.C.: Greeson Liu Period: 2013 – 2014

Scope: One of largest residential developments in Tang Shan City, Hebei province. The total area of 462 acres, the plot ratio of 2.38, with a total construction area of nearly one million sq. m. A series different flat type for selection such as high rise apartment and townhouse and villa etc. With 72,000 sq.m. retail area.







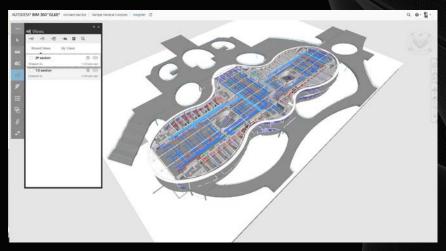
KangMei Office

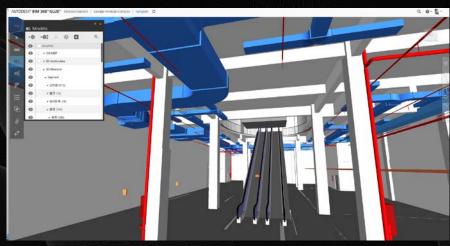
Client : KangMei Pharmaceutical Co. Ltd. P.I.C. : Hu Hengbin / Greeson Liu (2014)

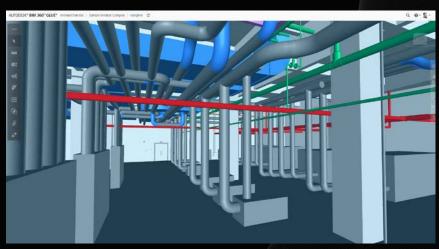
Period: 2014

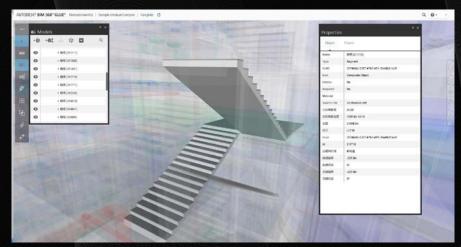
Scope: A mix-used development which includes office, retail, and hotel / service apartment. Full BIM services including

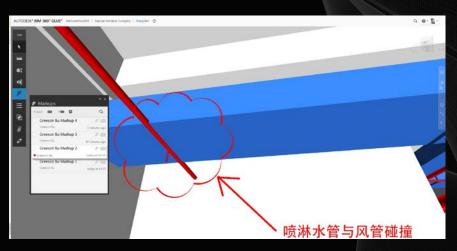
BIM modelling, Clash Analysis and Issue of professional drawings for submission and construction.

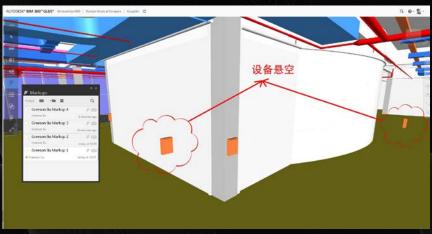


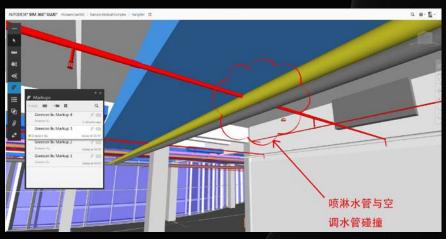


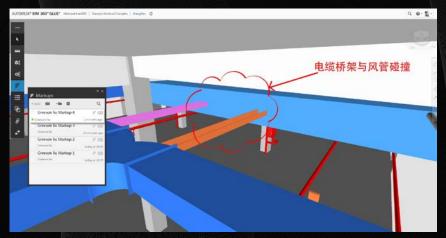


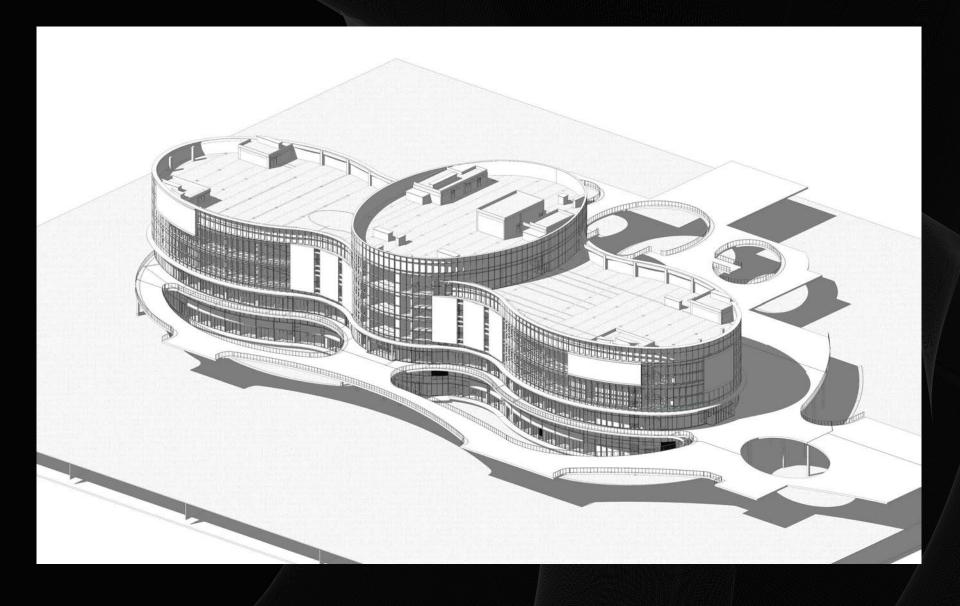


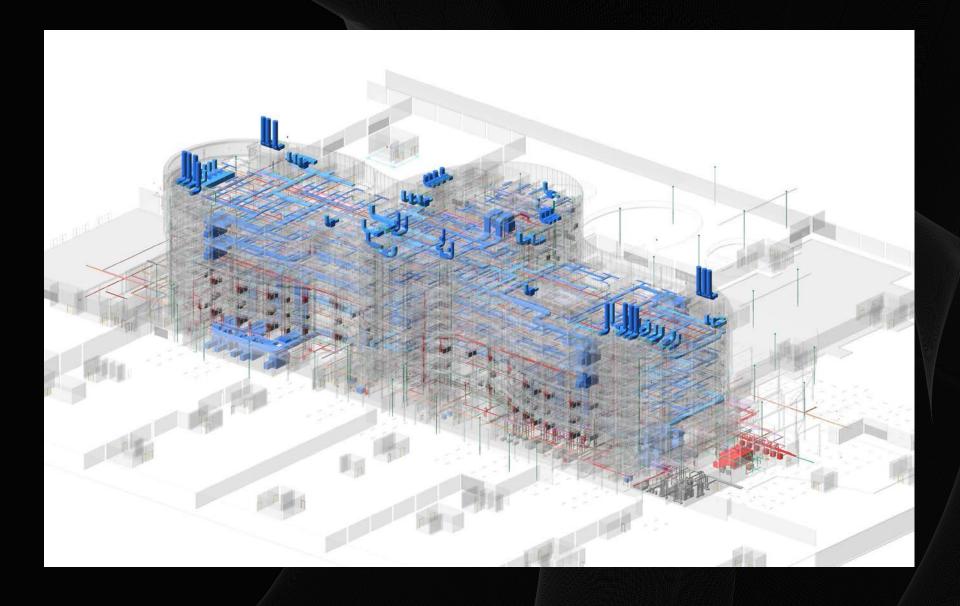


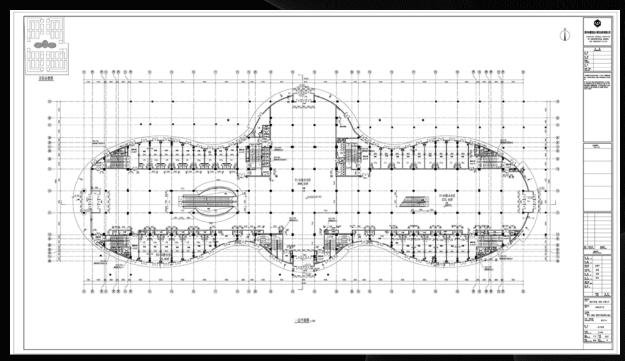


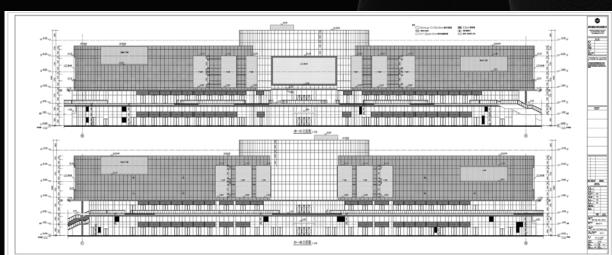


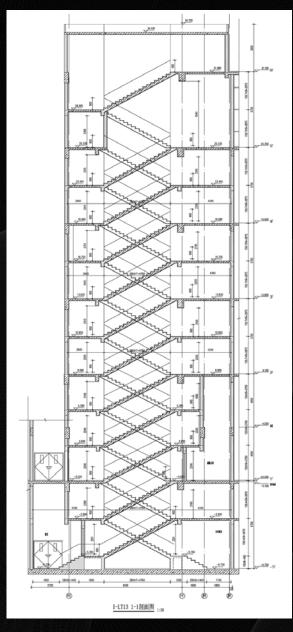














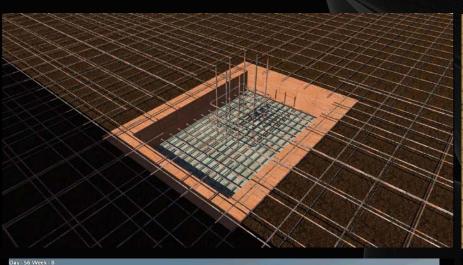
			当	合排え	火				
[族与类型]	[系统分类]	[尺寸]	[内径]	[外径]	[总体大小]	[规格/类型]	[相对粗糙度]	[材质]	[合计]
管道类型: ACID HVAC 冷水供水管	循环供水	20 mm	20 mm	22 mm	20 mm	CECS 171 - 1.0 MPa	2020	铜	1
管道类型: ACID HVAC 冷水供水管	循环供水	25 mm	26 mm	28 mm	25 mm	CECS 171 - 1.0 MPa	2620	铜	1
管道类型: ACID HVAC 冷水供水管	循环供水	40 mm	40 mm	42 mm	40 mm	CECS 171 - 1.0 MPa	3960	铜	10
管道类型: ACID HVAC 冷水供水管	循环供水	80 mm	82 mm	85 mm	80 mm	CECS 171 - 1.0 MPa	8200	铜	5
管道类型: ACID HVAC 冷水供水管	循环供水	100 mm	105 mm	108 mm	100 mm	CECS 171 - 1.0 MPa	10500	铜	33
管道类型: ACID HVAC 冷水供水管	循环供水	125 mm	130 mm	133 mm	125 mm	CECS 171 - 1.0 MPa	13000	铜	45
管道类型: ACID HVAC 冷水供水管	循环供水	150 mm	155 mm	159 mm	150 mm	CECS 171 - 1.0 MPa	15500	铜	11
管道类型: ACID HVAC_冷水供水管	循环供水	200 mm	211 mm	219 mm	200 mm	CECS 171 - 1.0 MPa	21100	铜	2
管道类型: ACID HVAC 冷热水供水管	循环供水	125 mm	130 mm	133 mm	125 mm	CECS 171 - 1.0 MPa	13000	铜	15
管道类型: ACID HVAC 冷热水供水管	循环供水	150 mm	155 mm	159 mm	150 mm	CECS 171 - 1.0 MPa	15500	铜	2
管道类型: ACID HVAC 冷热水供水管	循环供水	200 mm	211 mm	219 mm	200 mm	CECS 171 - 1.0 MPa	21100	铜	28
管道类型: ACID HVAC_冷热水供水管	循环供水	250 mm	259 mm	267 mm	250 mm	CECS 171 - 1.0 MPa	25900	铜	16
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管道类型: ACID HVAC 冷热水回水管	循环供水	200 mm	211 mm	219 mm	200 mm	CECS 171 - 1.0 MPa	21100	铜	6
管道类型: ACID_FSD_喷淋	循环供水	25 mm	26 mm	28 mm	25 mm	CECS 171 - 1.0 MPa	2620	铜	6
管道类型: ACID_FSD_消防	循环供水	65 mm	68 mm	86 mm	65 mm	22	136. 6	铁,铸铁	12
管道类型: ACID FSD 消防	循环供水	100 mm	104 mm	122 mm	100 mm	22	208. 28	铁,铸铁	15
管道类型: ACID FSD 消防	循环供水	100 mm	105 mm	108 mm	100 mm	CECS 171 - 1.0 MPa	10500	铜	2
管道类型: ACID_FSD_消防	循环供水	150 mm	156 mm	175 mm	150 mm	22	311. 912	铁,铸铁	13
管道类型: ACID_HP_采暖供水	循环供水	40 mm	40 mm	42 mm	40 mm	CECS 171 - 1.0 MPa	3960	铜	6
管道类型: ACID PD 废水	循环供水	50 mm	53 mm	56 mm	50 mm	GB/T 5836	26500	PVC-U	28
管道类型: ACID PD 废水	循环供水	75 mm	78 mm	82 mm	75 mm	GB/T 5836	39000	PVC-U	52
管道类型: ACID_PD_废水	循环供水	80 mm	84 mm	90 mm	80 mm	GB/T 5836	42000	PVC-U	3
管道类型: ACID_PD_废水	循环供水	100 mm	104 mm	110 mm	100 mm	GB/T 5836	51800	PVC-U	13
管道类型: ACID PD 排水	循环供水	25 mm	28 mm	32 mm	25 mm	GB/T 5836	14000	PVC-U	1
管道类型: ACID PD 排水	循环供水	50 mm	53 mm	56 mm	50 mm	GB/T 5836	26500	PVC-U	120
管道类型: ACID_PD_排水	循环供水	75 mm	78 mm	82 mm	75 mm	GB/T 5836	39000	PVC-U	173
管道类型: ACID PD 排水	循环供水	100 mm	0 mm	0 mm	100 mm	GB/T 5836	0	PVC-U	1
管道类型: ACID PD 排水	循环供水	100 mm	104 mm	110 mm	100 mm	GB/T 5836	51800	PVC-U	604
管道类型: ACID PD 排水	循环供水	150 mm	152 mm	160 mm	150 mm	GB/T 5836	76000	PVC-U	59
管道类型: ACID_PD_排水	循环供水	200 mm	190 mm	200 mm	200 mm	GB/T 5836	95100	PVC-U	9
管道类型: ACID PD 空调补水	循环供水	15 mm	14 mm	15 mm	15 mm	CECS 171 - 1.0 MPa	1360	铜	5
管道类型: ACID PD 空调补水	循环供水	20 mm	20 mm	22 mm	20 mm	CECS 171 - 1.0 MPa	2020	铜	13
管道类型: ACID PD 空调补水	循环供水	32 mm	33 mm	35 mm	32 mm	CECS 171 - 1.0 MPa	3260	铜	59
管道类型: ACID_PD_空调补水	循环供水	50 mm	52 mm	54 mm	50 mm	CECS 171 - 1.0 MPa	5160	铜	2
管道类型: ACID PD 空调补水	循环供水	65 mm	65 mm	67 mm	65 mm	CECS 171 - 1.0 MPa	6460	铜	6
管道类型: ACID PD 空调补水	循环供水	80 mm	82 mm	85 mm	80 mm	CECS 171 - 1.0 MPa	8200	铜	35
管道类型: ACID PD 空调补水	循环供水	100 mm	105 mm	108 mm	100 mm	CECS 171 - 1.0 MPa	10500	铜	3
管道类型: ACID_PD_给水	循环供水	10 mm	11 mm	12 mm	10 mm	CECS 171 - 1.0 MPa	1080	铜	81
管道类型: ACID PD 给水	循环供水	15 mm	14 mm	15 mm	15 mm	CECS 171 - 1.0 MPa	1360	铜	473
管道类型: ACID PD 给水	循环供水	20 mm	20 mm	22 mm	20 mm	CECS 171 - 1.0 MPa	2020	铜	401
管道类型: ACID PD 给水	循环供水	25 mm	26 mm	28 mm	25 mm	CECS 171 - 1.0 MPa	2620	铜	266
管道类型: ACID_PD_给水	循环供水	32 mm	33 mm	35 mm	32 mm	CECS 171 - 1.0 MPa	3260	铜	144
管道类型: ACID PD 给水	循环供水	40 mm	40 mm	42 mm	40 mm	CECS 171 - 1.0 MPa	3960	铜	12
管道类型: ACID PD 给水	循环供水	50 mm	52 mm	54 mm	50 mm	CECS 171 - 1.0 MPa	5160	铜	89
管道类型: ACID PD 给水	循环供水	65 mm	65 mm	67 mm	65 mm	CECS 171 - 1.0 MPa	6460	铜	7
管道类型: ACID_PD_给水	循环供水	80 mm	82 mm	85 mm	80 mm	CECS 171 - 1.0 MPa	8200	铜	12
管道类型: ACID PD 给水	循环供水	100 mm	105 mm	108 mm	100 mm	CECS 171 - 1.0 MPa	10500	铜	16
管道类型: ACID PD 给水 管道类型: ACID PD 通气	循环供水	150 mm	155 mm	159 mm	150 mm	CECS 171 - 1.0 MPa	15500	铜	19
管道类型: ACID PD 通气 管道类型: ACID PD 通气	循环供水	100 mm 150 mm	105 mm 155 mm	108 mm 159 mm	100 mm 150 mm	CECS 171 - 1.0 MPa CECS 171 - 1.0 MPa	10500 15500	铜铜	56 19
官道矣望: ACID_PD_地气 总计: 3035	循环供水	TOU MM	100 mm	199 mm	190 mm	CECS 171 - 1.0 MPa	19900	刊	19
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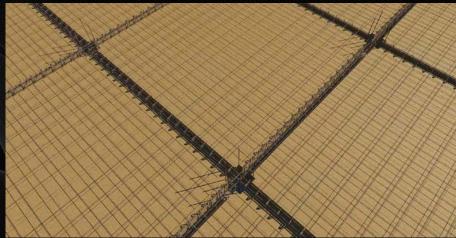
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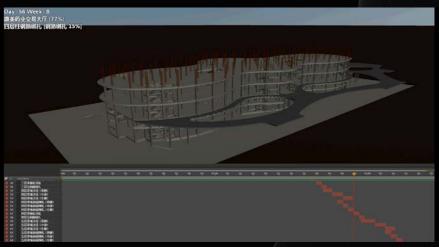
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[族与类型]	[系统分类]	[尺寸]	[内径]	[外径]	[总体大小]	[规格/类型]	[相对粗糙度]	[材质]	[合计]
管道类型: ACID HVAC 补水管	家用冷水	15 mm	14 mm	15 mm	15 mm	CECS 171 - 1.0 MPa	1360	铜	20
管道类型: ACID HVAC 补水管	家用冷水	25 mm	26 mm	28 mm	25 mm	CECS 171 - 1.0 MPa	2620	铜	5
管道类型: ACID HP 采暖供水	家用冷水	20 mm	20 mm	22 mm	20 mm	CECS 171 - 1.0 MPa	2020	铜	5
管道类型: ACID HP 采暖供水	家用冷水	20 mm	21 mm	27 mm	20 mm	22	42. 6	铁,铸铁	95
管道类型: ACID HP 采暖供水	家用冷水	25 mm	27 mm	34 mm	25 mm	22	54.6	铁,铸铁	8
管道类型: ACID HP 采暖供水	家用冷水	32 mm	42 mm	35 mm	32 mm	22	84. 8	铁,铸铁	7
管道类型: ACID HP 采暖供水	家用冷水	40 mm	48 mm	41 mm	40 mm	22	96. 6	铁,铸铁	5
管道类型: ACID HP 采暖供水	家用冷水	50 mm	52 mm	54 mm	50 mm	CECS 171 - 1.0 MPa	5160	铜	17
管道类型: ACID HP 采暖供水	家用冷水	50 mm	53 mm	60 mm	50 mm	22	105. 4	铁,铸铁	8
管道类型: ACID HP 采暖供水	家用冷水	70 mm	68 mm	76 mm	70 mm	22	136, 2	铁,铸铁	3
管道类型: ACID HP 采暖供水	家用冷水	80 mm	82 mm	85 mm	80 mm	CECS 171 - 1.0 MPa	8200	铜	1
管道类型: ACID HP 采暖供水	家用冷水	100 mm	105 mm	108 mm	100 mm	CECS 171 - 1.0 MPa	10500	铜	2
管道类型: ACID HP 采暖供水	家用冷水	125 mm	130 mm	133 mm	125 mm	CECS 171 - 1.0 MPa	13000	铜	1
管道类型: ACID HP 采暖供水	家用冷水	200 mm	211 mm	219 mm	200 mm	CECS 171 - 1.0 MPa	21100	铜	2
管道类型: ACID HP 采暖供水	家用冷水	250 mm	259 mm	267 mm	250 mm	CECS 171 - 1.0 MPa	25900	铜	7
管道类型: ACID HP 采暖供水	家用冷水	300 mm	315 mm	325 mm	300 mm	CECS 171 - 1.0 MPa	31500	铜	1
管道类型: ACID HP 采暖供水	家用热水	20 mm	20 mm	22 mm	20 mm	CECS 171 - 1.0 MPa	2020	铜	24
管道类型: ACID HP 采暖供水	家用热水	20 mm	21 mm	27 mm	20 mm	22	42.6	铁,铸铁	451
管道类型: ACID HP 采暖供水	家用热水	25 mm	27 mm	34 mm	25 mm	22	54.6	铁,铸铁	171
管道类型: ACID_HP_采暖供水	家用热水	32 mm	42 mm	35 mm	32 mm	22	84. 8	铁,铸铁	154
管道类型: ACID_HP_采暖供水	家用热水	40 mm	40 mm	42 mm	40 mm	CECS 171 - 1.0 MPa	3960	铜	5
管道类型: ACID_HP_采暖供水	家用热水	40 mm	48 mm	41 mm	40 mm	22	96.6	铁,铸铁	90
管道类型: ACID_HP_采暖供水	家用热水	50 mm	52 mm	54 mm	50 mm	CECS 171 - 1.0 MPa	5160	铜	30
管道类型: ACID_HP_采暖供水	家用热水	50 mm	53 mm	60 mm	50 mm	22	105. 4	铁,铸铁	78
管道类型: ACID_HP_采暖供水	家用热水	65 mm	65 mm	67 mm	65 mm	CECS 171 - 1.0 MPa	6460	铜	5
管道类型: ACID_HP_采暖供水	家用热水	70 mm	68 mm	76 mm	70 mm	22	136. 2	铁,铸铁	20
管道类型: ACID_HP_采暖供水	家用热水	80 mm	82 mm	85 mm	80 mm	CECS 171 - 1.0 MPa	8200	铜	12
管道类型: ACID_HP 采暖供水	家用热水	80 mm	84 mm	101 mm	80 mm	22	168. 656	铁,铸铁	10
管道类型: ACID_HP_采暖供水	家用热水	100 mm	105 mm	108 mm	100 mm	CECS 171 - 1.0 MPa	10500	铜	6
管道类型: ACID_HP_采暖供水	家用热水	125 mm	130 mm	133 mm	125 mm	CECS 171 - 1.0 MPa	13000	铜	2
管道类型: ACID HP 采暖供水	家用热水	200 mm	209 mm	230 mm	200 mm	22	418.084	铁,铸铁	21
管道类型: ACID HP 采暖供水	家用热水	200 mm	211 mm	219 mm	200 mm	CECS 171 - 1.0 MPa	21100	铜	42
管道类型: ACID_HP_采暖供水	家用热水	250 mm	259 mm	267 mm	250 mm	CECS 171 - 1.0 MPa	25900	铜	19
管道类型: ACID HP 采暖供水	家用热水	300 mm	315 mm	325 mm	300 mm	CECS 171 - 1.0 MPa	31500	铜	12
管道类型: ACID HP_采暖供水	家用热水	350 mm	340 mm	377 mm	350 mm	CECS 171 - 1.0 MPa	34000	铜	6
管道类型: ACID_HP_采暖回水	家用冷水	20 mm	O mm	O mm	20 mm	22	0	铁,铸铁	10
管道类型: ACID HP 采暖回水	家用冷水	20 mm	20 mm	22 mm	20 mm	CECS 171 - 1.0 MPa	2020	铜	30
管道类型: ACID HP 采暖回水	家用冷水	20 mm	21 mm	27 mm	20 mm	22	42.6	铁,铸铁	586
管道类型: ACID_HP_采暖回水	家用冷水	25 mm	27 mm	34 mm	25 mm	22 22	54. 6	铁,铸铁	166
管道类型: ACID_HP_采暖回水 管道类型: ACID_HP 采暖回水	家用冷水 家用冷水	32 mm 40 mm	42 mm 40 mm	35 mm 42 mm	32 mm	CECS 171 - 1.0 MPa	84. 8 3960	铁,铸铁 铜	140 5
管道类型: ACID_HP_采暖回水	家用冷水	40 mm	40 mm	42 mm 41 mm	40 mm	22	96.6	铁,铸铁	84
管道类型: ACID_HP 采暖回水	家用冷水	50 mm	52 mm	54 mm	40 mm 50 mm	CECS 171 - 1.0 MPa	5160	切り	20
管道类型: ACID HP 采暖回水	家用冷水	50 mm	52 mm	60 mm	50 mm	22	105. 4	铁,铸铁	71
管道类型: ACID HP 采暖回水	家用冷水	65 mm	65 mm	67 mm	65 mm	CECS 171 - 1.0 MPa	6460	切,好妖	6
管道类型: ACID HP 采暖回水	家用冷水	70 mm	68 mm	76 mm	70 mm	22	136. 2	铁,铸铁	17
管道类型: ACID_HP_采暖回水	家用冷水	80 mm	82 mm	85 mm	80 mm	CECS 171 - 1.0 MPa	8200	切,好妖	11
管道类型: ACID HP 采暖回水	家用冷水	80 mm	84 mm	101 mm	80 mm	22	168, 656	铁,铸铁	11
管道类型: ACID HP 采暖回水	家用冷水	125 mm	130 mm	133 mm	125 mm	CECS 171 - 1.0 MPa	13000	铜	2
管道类型: ACID III 不吸回水	家用冷水	200 mm	211 mm	219 mm	200 mm	CECS 171 - 1.0 MPa	21100	铜	51
管道类型: ACID HP 采暖回水	家用冷水	250 mm	259 mm	267 mm	250 mm	CECS 171 - 1.0 MPa	25900	铜	4
管道类型: ACID HP 采暖回水	家用冷水	300 mm	315 mm	325 mm	300 mm	CECS 171 - 1.0 MPa	31500	铜	5
管道类型: ACID HP 采暖回水	家用热水	20 mm	20 mm	22 mm	20 mm	CECS 171 - 1.0 MPa	2020	铜	4
管道类型: ACID HP 采暖回水	家用热水	20 mm	21 mm	27 mm	20 mm	22	42.6	铁,铸铁	75
管道类型: ACID HP 采暖回水	家用热水	50 mm	53 mm	60 mm	50 mm	22	105. 4	铁,铸铁	1
管道类型: ACID PD 给水	家用冷水	15 mm	14 mm	15 mm	15 mm	CECS 171 - 1.0 MPa	1360	铜	10
管道类型:标准	家用热水	20 mm	20 mm	22 mm	20 mm	CECS 171 - 1.0 MPa	2020	铜	2
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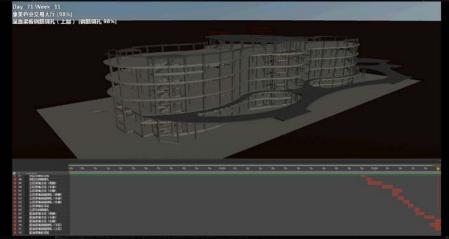
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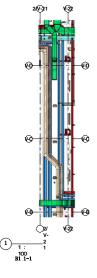
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「「「「「「「「「「」」」」「「」」「「」」「「」」「「」」「「」「「」「「」	[材质]	[合计]
管道类型: ACID HVAC 补水管 家用冷水 15 mm 14 mm 15 mm 15 mm CECS 171 - 1.0 MPa 1360	铜	20
官道类型: ACID HVAC 补水管 家用冷水 15 mm 14 mm 15 mm 16 mm CECS 171 - 1.0 MPa 1360 管道类型: ACID HVAC 补水管 家用冷水 25 mm 28 mm 25 mm CECS 171 - 1.0 MPa 2620	铜铜	20 5
音道英型: ACID HP 采暖供水 家用冷水 20 mm 20 mm 22 mm 20 mm CECS 171 - 1.0 MPa 2020 管道类型: ACID HP 采暖供水 家用冷水 20 mm 20 mm 22 mm 20 mm CECS 171 - 1.0 MPa 2020	铜铜	5
音道夫里: ACID III 来暖供水 家用冷水 20 mm 22 mm 20 mm 20 mm 22 42.6	铁,铸铁	95
管道类型: ACID HP 采暖供水 家用冷水 25 mm 27 mm 34 mm 25 mm 22 54.6	铁,铸铁	8
管道类型: ACID HP 采暖供水 家用冷水 32 mm 42 mm 35 mm 32 mm 22 84.8	铁,铸铁	7
管道类型: ACID HP 采暖供水 家用冷水 40 mm 48 mm 41 mm 40 mm 22 96.6	铁,铸铁	5
管道类型: ACID HP 采暖供水 家用冷水 50 mm 52 mm 54 mm 50 mm CECS 171 - 1.0 MPa 5160	铜	17
管道类型: ACID_HP_采暖供水 家用冷水 50 mm 53 mm 60 mm 50 mm 22 105.4	铁,铸铁	8
管道类型: ACID HP 采暖供水 家用冷水 70 mm 68 mm 76 mm 70 mm 22 136.2	铁,铸铁	3
管道类型: ACID HP 采暖供水 家用冷水 80 mm 82 mm 85 mm 80 mm CECS 171 - 1.0 MPa 8200	铜	1
管道类型: ACID_HP_采暖供水	铜	2
管道类型: ACID HP 采暖供水 家用冷水 125 mm 130 mm 133 mm 125 mm CECS 171 - 1.0 MPa 13000	铜	1
管道类型: ACID_HP_采暖供水 家用冷水 200 mm 211 mm 219 mm 200 mm CECS 171 - 1.0 MPa 21100	铜	2
管道类型: ACID_HP_采暖供水 家用冷水 250 mm 259 mm 267 mm 250 mm CECS 171 - 1.0 MPa 25900	铜	7
管道类型: ACID HP 采暖供水 家用冷水 300 mm 315 mm 325 mm 300 mm CECS 171 - 1.0 MPa 31500	铜	1
管道类型: ACID HP 采暖供水 家用热水 20 mm 20 mm 22 mm 20 mm CECS 171 - 1.0 MPa 2020	胡 妹 妹妹	24
管道类型: ACID HP 采暖供水 家用热水 20 mm 21 mm 27 mm 20 mm 22 42.6 管道类型: ACID HP 采暖供水 家用热水 25 mm 27 mm 34 mm 25 mm 22 54.6	铁,铸铁铁,铸铁	451 171
音道英型: ACID HP 采暖供水 家用熱水 25 mm 27 mm 34 mm 25 mm 22 34.6 管道类型: ACID HP 采暖供水 家用熱水 32 mm 42 mm 35 mm 32 mm 22 84.8	铁,铸铁	154
音道英型: ACID HP 采暖供水 家用熱水 40 mm 40 mm 42 mm 40 mm CECS 171 - 1.0 MPa 3960	切, 好妖	5
音道 美型: ACID HP 采暖供水 家用热水 40 mm 48 mm 41 mm 40 mm 22 96.6	铁,铸铁	90
音道类型: ACID HP 采暖供水 家用热水 50 mm 52 mm 54 mm 50 mm CECS 171 - 1.0 MPa 5160	铜	30
管道类型: ACID HP 采暖供水 家用热水 50 mm 53 mm 60 mm 50 mm 22 105.4	铁,铸铁	78
管道类型: ACID HP 采暖供水 家用热水 65 mm 65 m	铜	5
日本之主: NACIO III	铁,铸铁	20
管道类型: ACID HP 采暖供水 家用热水 80 mm 82 mm 85 mm 80 mm CECS 171 - 1.0 MPa 8200	铜	12
管道类型: ACID HP 采暖供水 家用热水 80 mm 84 mm 101 mm 80 mm 22 168.656	铁,铸铁	10
管道类型: ACID HP 采暖供水 家用热水 100 mm 105 mm 108 mm 100 mm CECS 171 - 1.0 MPa 10500	铜	6
管道类型: ACID HP_采暖供水	铜	2
管道类型: ACID HP 采暖供水	铁,铸铁	21
管道类型: ACID HP 采暖供水 家用热水 200 mm 211 mm 219 mm 200 mm CECS 171 - 1.0 MPa 21100	铜	42
管道类型: ACID HP 采暖供水 家用热水 250 mm 259 mm 267 mm 250 mm CECS 171 - 1.0 MPa 25900	铜	19
管道类型: ACID HP 采暖供水 家用热水 300 mm 315 mm 325 mm 300 mm CECS 171 - 1.0 MPa 31500	铜	12
管道类型: ACID_HP_采暖供水 家用热水 350 mm 340 mm 377 mm 350 mm CECS 171 - 1.0 MPa 34000	铜	6
管道类型: ACID_HP_采暖回水 家用冷水 20 mm 0 mm 20 mm 22 0	铁,铸铁	10
管道类型: ACID HP 采暖回水 家用冷水 20 mm 20 mm 22 mm 20 mm CECS 171 - 1.0 MPa 2020	铜炉烘炒	30
管道类型: ACID HP 采暖回水 家用冷水 20 mm 21 mm 27 mm 20 mm 22 42.6 管道类型: ACID HP 采暖回水 家用冷水 25 mm 27 mm 34 mm 25 mm 22 54.6	铁,铸铁铁,铸铁	586 166
管道类型: ACID HP 采暖回水 家用冷水 25 mm 27 mm 34 mm 25 mm 22 54.6 管道类型: ACID HP 采暖回水 家用冷水 32 mm 42 mm 35 mm 32 mm 22 84.8	铁, 铸铁	140
音道 英型: ACID IP 采暖回水 家用冷水 40 mm 42 mm 40 mm CECS 171 - 1.0 MPa 3960	铜	5
音道英型: ACID HP 采暖回水 家用冷水 40 mm 42 mm 42 mm 40 mm 22 96.6	铁,铸铁	84
管道类型: ACID HP 采暖回水 家用冷水 50 mm 52 mm 54 mm 50 mm CECS 171 - 1.0 MPa 5160	铜	20
管道类型: ACID HP 采暖回水 家用冷水 50 mm 52 mm 50 mm 50 mm 50 mm 22 105.4	铁,铸铁	71
1	铜	6
管道类型: ACID HP 采暖回水 家用冷水 70 mm 68 mm 76 mm 70 mm 22 136.2	铁,铸铁	17
管道类型: ACID HP 采暖回水 家用冷水 80 mm 82 mm 85 mm 80 mm CECS 171 - 1.0 MPa 8200	铜	11
管道类型: ACID_HP 采暖回水	铁,铸铁	11
管道类型: ACID HP 采暖回水 家用冷水 125 mm 130 mm 133 mm 125 mm CECS 171 - 1.0 MPa 13000	铜	2
管道类型: ACID HP 采暖回水 家用冷水 200 mm 211 mm 219 mm 200 mm CECS 171 - 1.0 MPa 21100	铜	51
管道类型: ACID HP 采暖回水 家用冷水 250 mm 259 mm 267 mm 250 mm CECS 171 - 1.0 MPa 25900	铜	4
管道类型: ACID HP 采暖回水 家用冷水 300 mm 315 mm 325 mm 300 mm CECS 171 - 1.0 MPa 31500	铜	5
管道类型: ACID HP 采暖回水 家用热水 20 mm 22 mm 20 mm CECS 171 - 1.0 MPa 2020	铜	4
管道类型: ACID_HP_采暖回水 家用热水 20 mm 21 mm 27 mm 20 mm 22 42.6	铁,铸铁	75
管道类型: ACID HP 采暖回水 家用热水 50 mm 53 mm 60 mm 50 mm 22 105.4	铁,铸铁	1
管道类型: ACID PD 给水 家用冷水 15 mm 14 mm 15 mm 15 mm CECS 171 - 1.0 MPa 1360	铜	10
管道类型: 标准 家用热水 20 mm 20 mm 22 mm 20 mm CECS 171 - 1.0 MPa 2020	铜	2
总计: 2658		TOTAL PROPERTY.

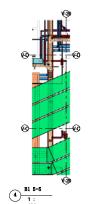


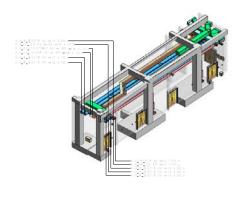




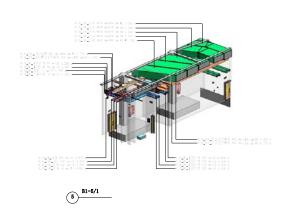


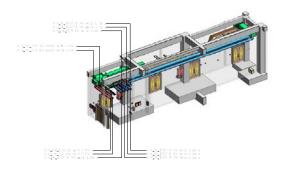


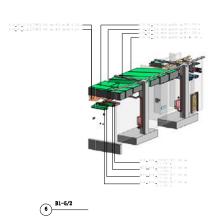




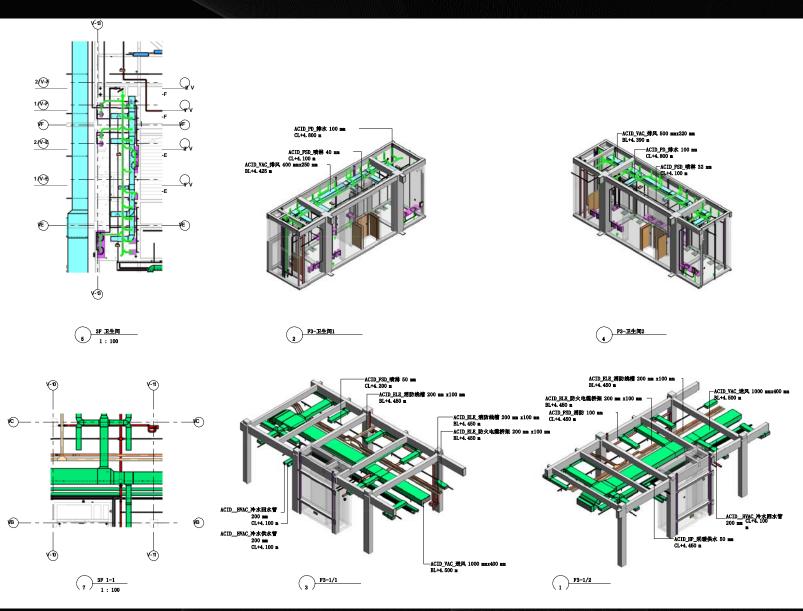
2 B1-1/1



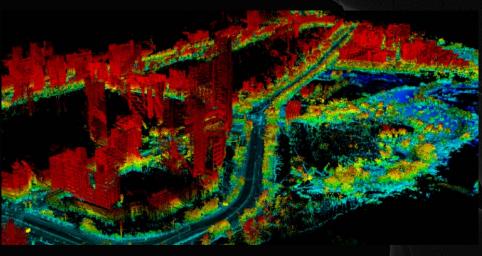




3 B1-1/2









Sanya – A Digital City

Client: Sanya Municipal People's Government

P.I.C.: David Fung

Period: 2013

Scope: Scanning the roads, greened areas and buildings of the city with Point Cloud Technology. The scanning speed can be up to 50,000 points per second with less than 3mm deviation. The scanned area is as large as 300m. The generated point cloud data has been output to BIM software for model building and restoration in the virtual world. Such application took BIM to a whole new level and granted BIM a revolutionary concept, CIM (City Information Modelling), which can be applied in municipal management, city planning and traffic dispersion. Integrating with the data of drainage and electricity provided by the government departments, viewable objects (e.g. buildings, trees) and the non-viewable objects (e.g. underground drainage system, electricity system) in reality can be combined so as to provide accurate information on the roads and pipelines enhancement.



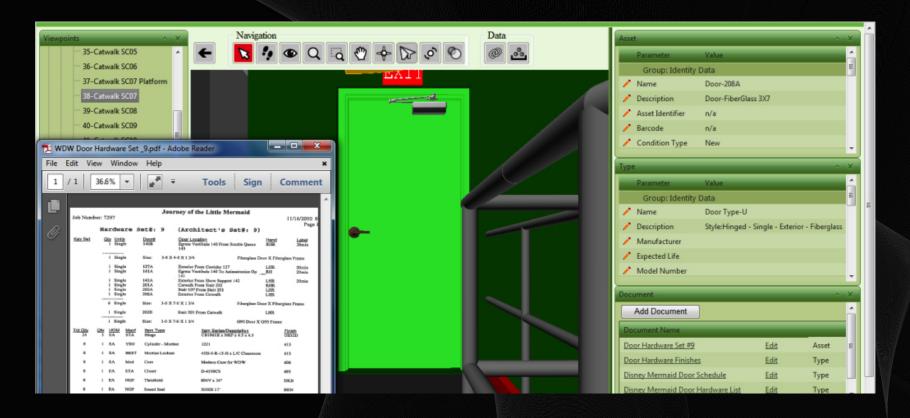
Photogrammetry and Laser Scanning Service

Client: Hong Kong Private Developer

P.I.C.: David Fung

Period: 2014

Scope: Photos of high profile buildings which captured by Unmanned Aerial Vehicles can be generated into point cloud data then BIM models. The accuracy of photogrammetry is inevitably affected by photo quality, however, as photogrammetry allows a prompt collection of a large number of architectural photos from the sky or inaccessible areas, it has undoubtedly become the first choice for restoring the city landscape and historical buildings.



EMSD Management Project

Client: EMSD

P.I.C.: David Fung

Period: 2014

Scope: Building BIM models with existing information and programming architectural management and maintenance with property management software. When problems arise, the causes and the solutions can be identified immediately with the help of the program. It will be extensively applied in hospital management.



ZouCheng Project

Client: ZouCheng People's Government

P.I.C.: David Fung

Period: 2015-

Scope: Combining the residential and commercial development, together with park and community amenities, this is one of the largest residential developments in ZouCheng. The total area is 462,000 sq.m. with a total construction area of 336,000 sq.m.

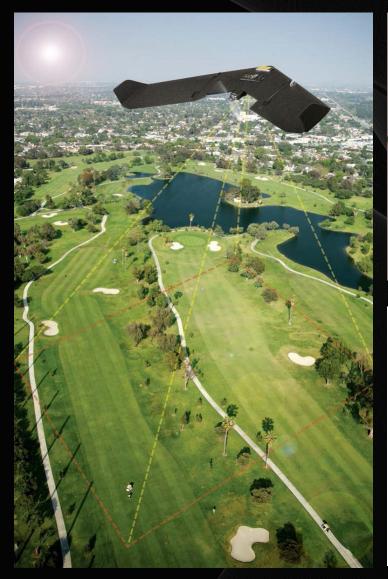


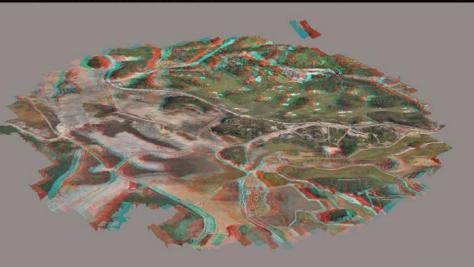
Yili Shanhaisong Project, Qinzhou City

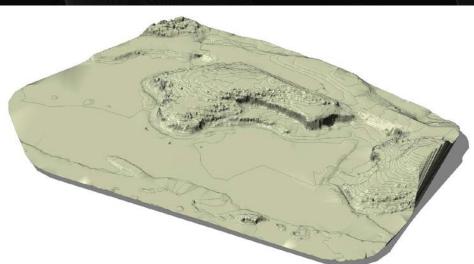
Client: Guangxi Binhai City Development Co. Ltd.

P.I.C.: Mu Wei Period: 2014-

Scope: Consists of hotel, clubhouse and golf course with consistent planning, so as to increase the overall value. The total area of 186,000 sq.m., the plot ratio of 0.9 - 1.3 with total construction area more than 200,000 sq.m. Full services include feasibility analysis, project planning, construction drawings design, construction management and property management.

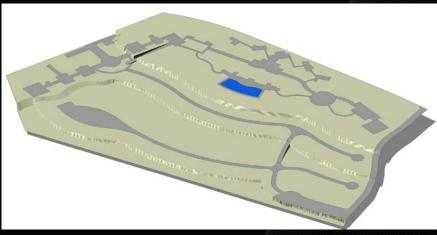


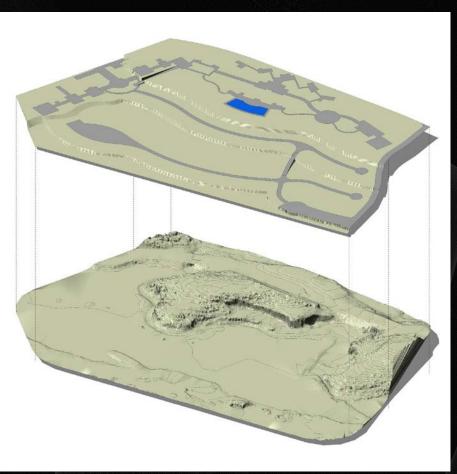




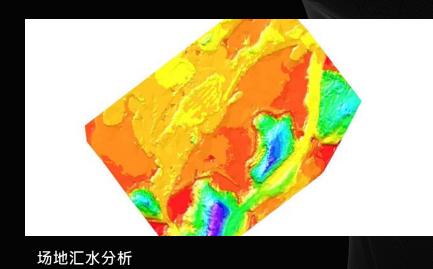
Photogrammetry

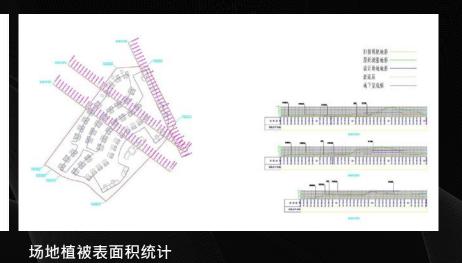






Site Analysis





| ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | #### | #### | #### | ##### | #### | #### |

现状场地高程和设计高程对比

场地任意断面生成



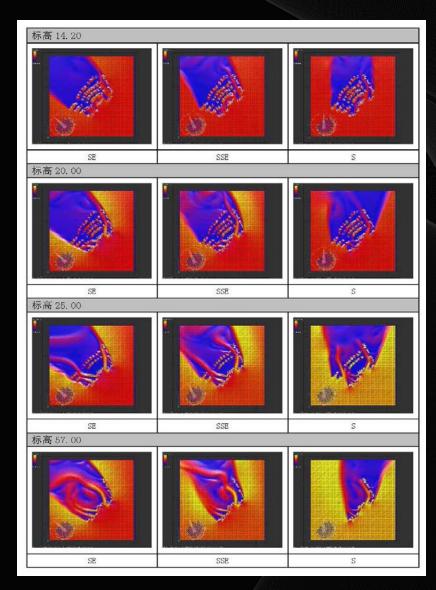




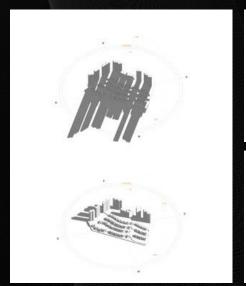




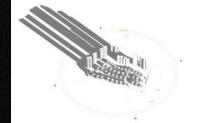
设计方案



日照辐射分析

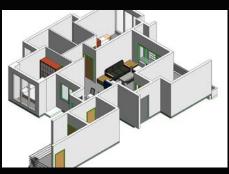






日照遮挡分析

场地风环境分析







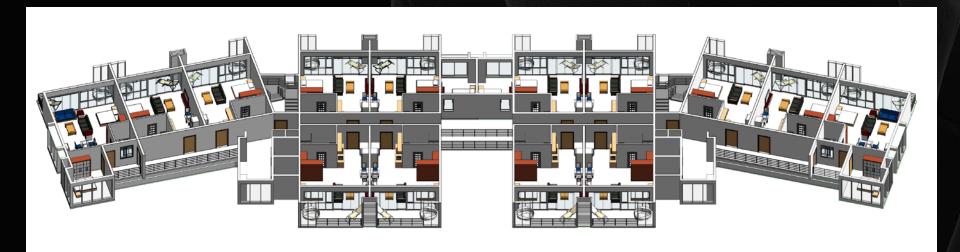


户型A-1

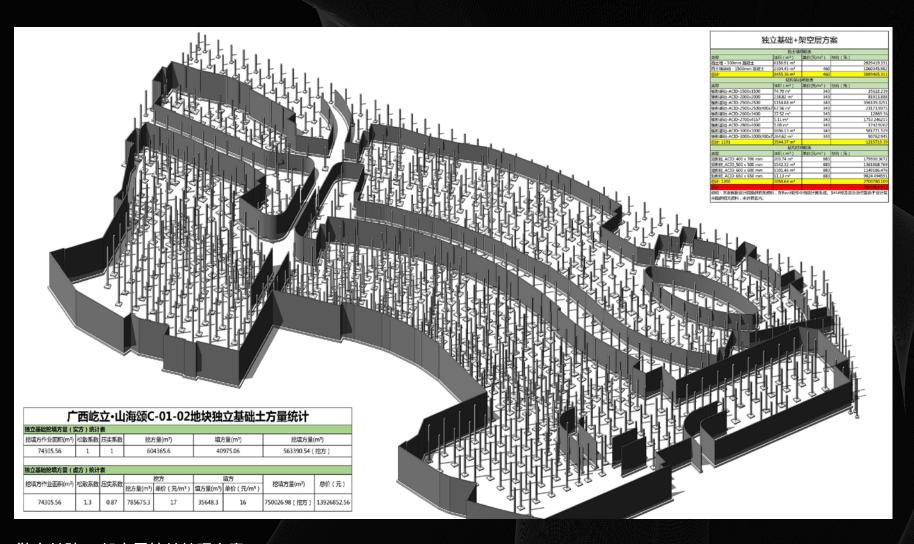
户型 A-2

复式户型1

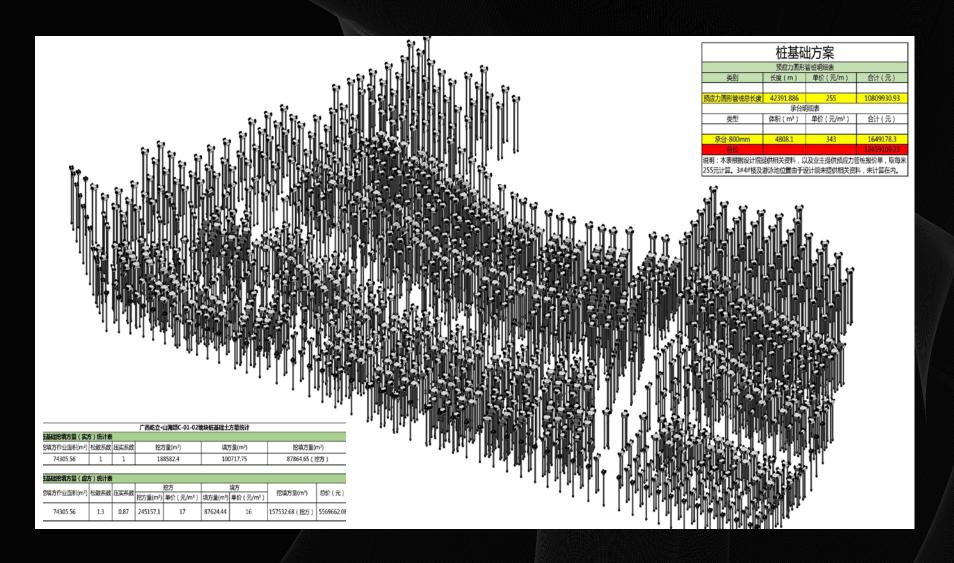
复式户型 2



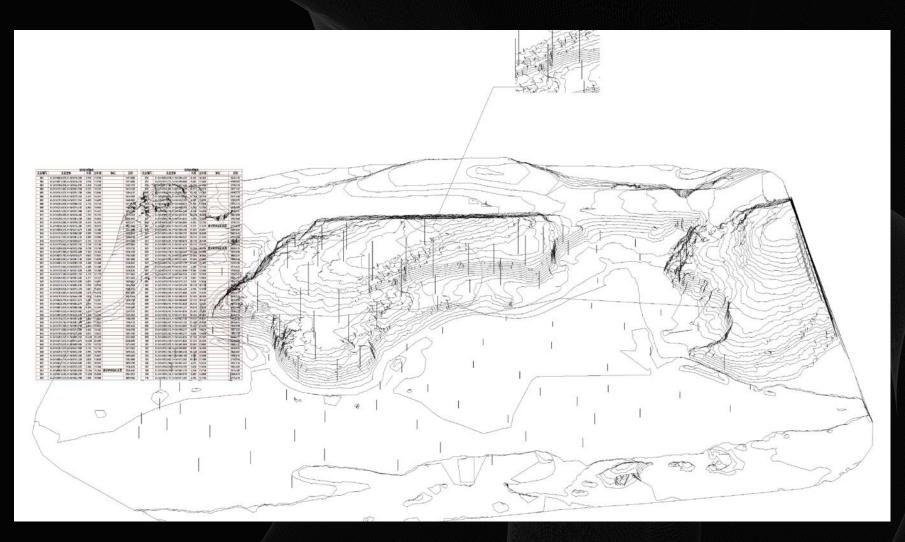
花园洋房标准层



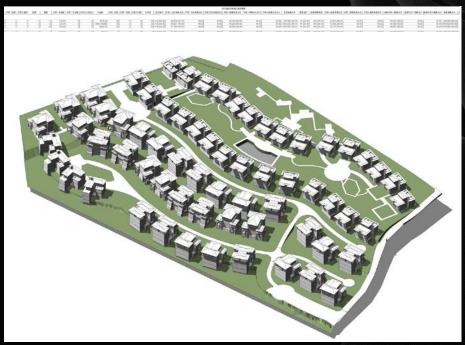
独立基础 + 架空层地基处理方案



桩基地基处理方案



详勘钻孔造价估算





设计方案对比-销售价格估算







设计方案对比-销售价格估算







HKHA HOS Project – Video and 3D Printing from BIM

Client: Hong Kong Housing Authority

P.I.C.: Samantha Hu

Period: 2014

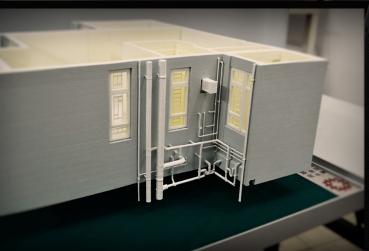
Scope: BIM models are built for two typical flats in HKHA HOS Project based on the existing drawings. With rendering and post-production processes, perspectives and 3D animation are produced.

Output of BIM models to 3D printing technology provides a fast and accurate way of bringing virtual models into reality.





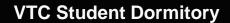












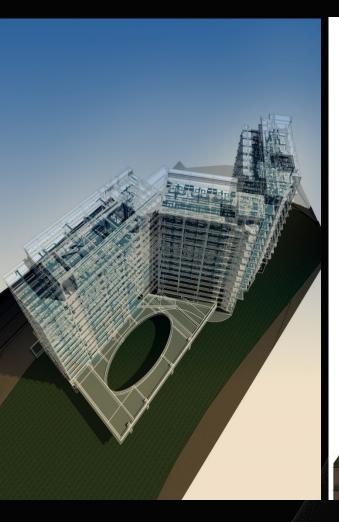
Client: Vocational Training Council

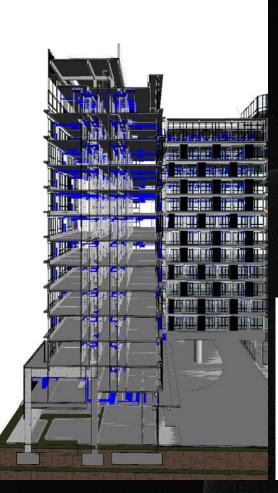
P.I.C.: Samantha Hu

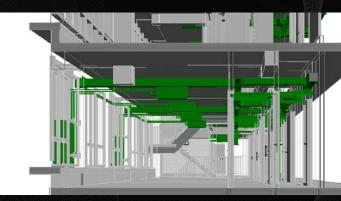
Period: 2014-



Scope: BIM models for architecture, structure and MEP were built to check CSD, clash report to be generated from Glue. Models were exported to Navisworks for 4D construction management and to generate 6 videos to present the construction methodology.



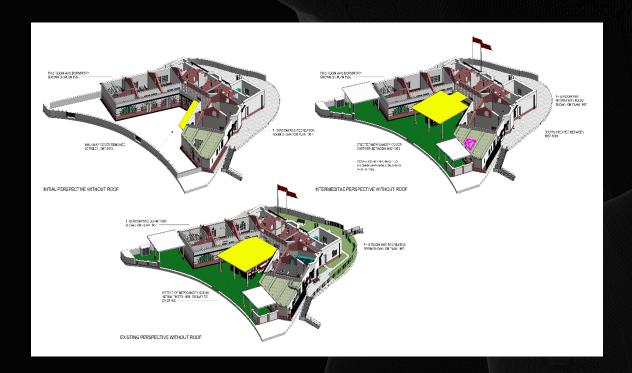


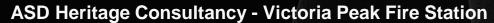




HERITAGE NFORMATION ODELLING

VICTORIA PEAK FIRE STATION





Client: Architectural Services Department, HK

P.I.C. : David Fung Period : 2014-2015

Historical building located on top of the Victoria Peak, Hong Kong Island. The building was built as student dormitories and renovated to a fire station at 60s. Laser scanning and photogrammetry were used to collect existing information, the building is built in Revit, and AR, RFID, NFC will be introduced to tell people the story of the building. **Winner of buildingSMART Hong Kong International BIM Award 2015.**

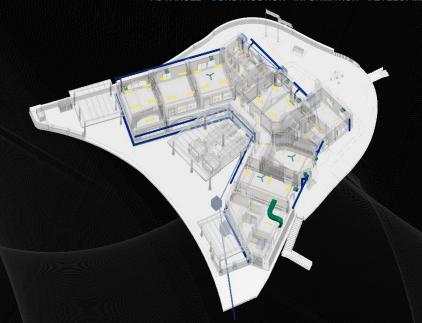


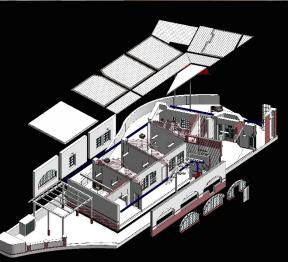


Point Cloud BIM Process Visualization

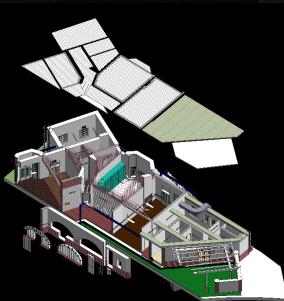


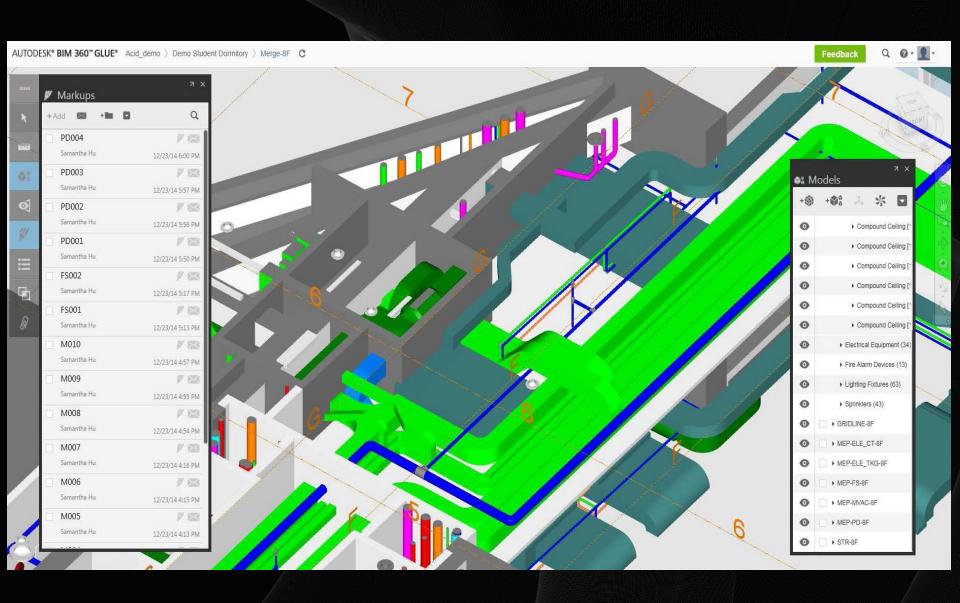


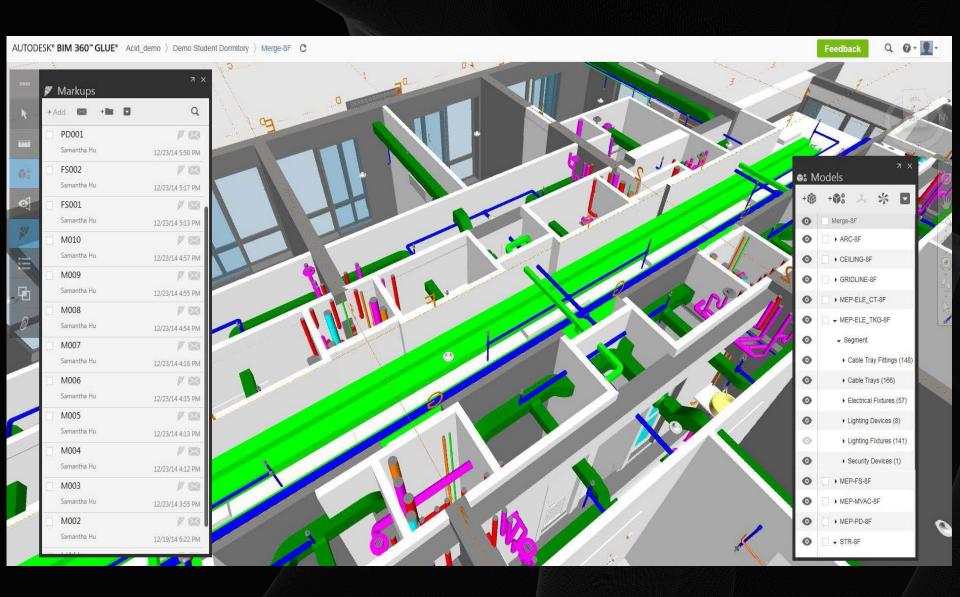


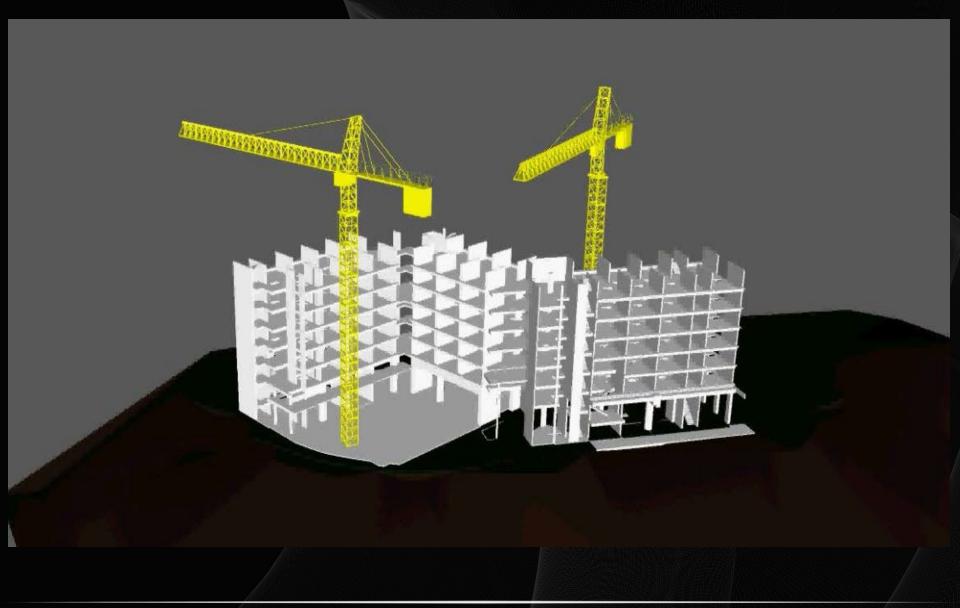




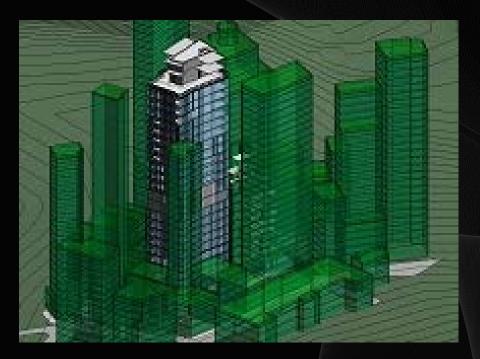




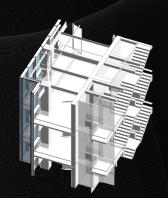














Twin Commercial Tower, Pottinger Street, Henderson

Client: Henderson (恒基兆业地产发展有限公司)

P.I.C.: Samantha Hu

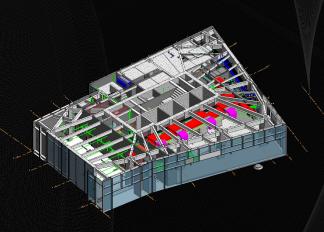
Period: 2014-

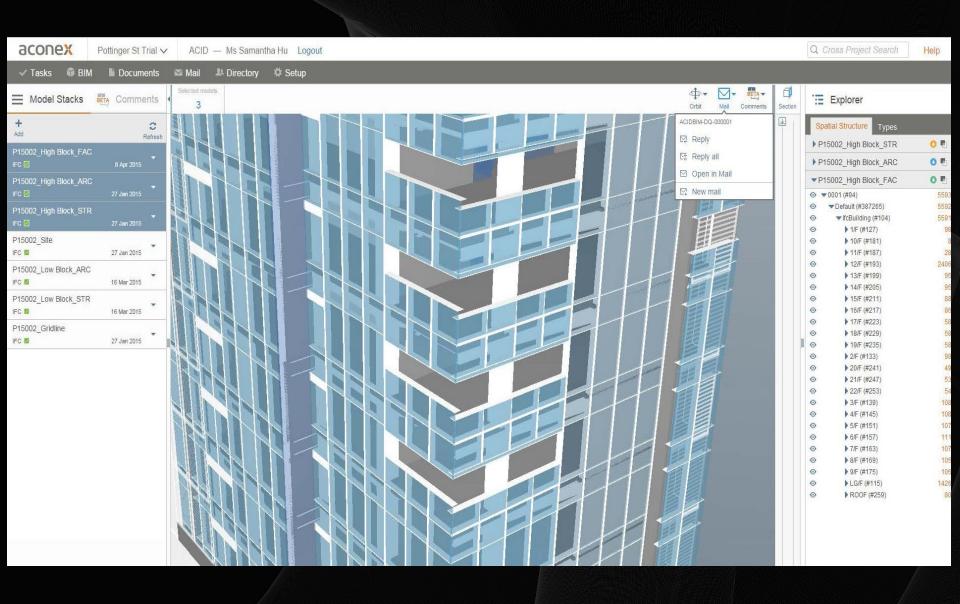
Scope: The building locates in Central, Hong Kong, as the plot ratio in HK is not allow to greater than 15 for non-commercial building, the total GFA is 12,634.251 sq.m. for this site which area is 842.251 sq.m.

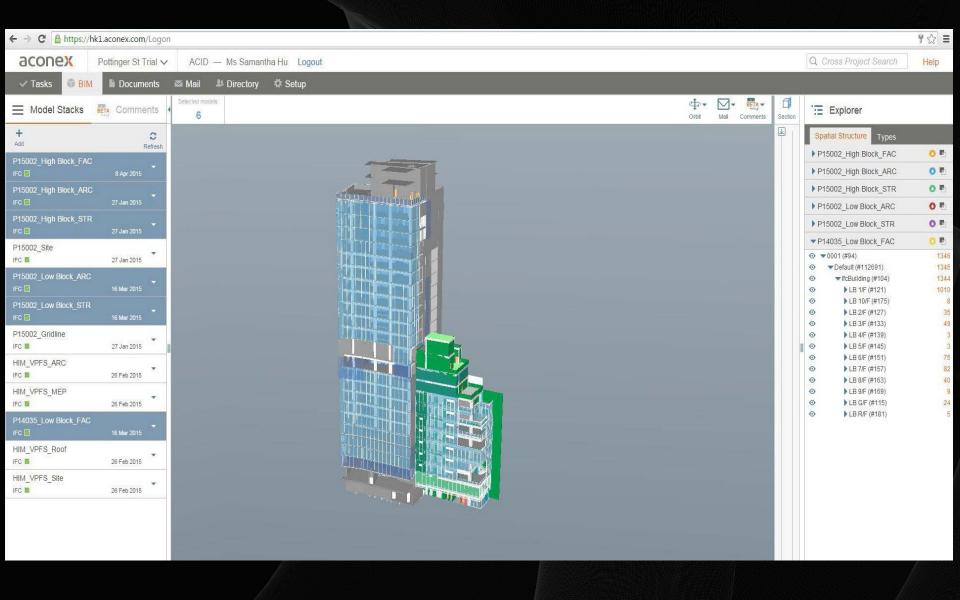
Several teams involved in the project in different locations and share the cloud platform. Client, designer and consultant work with cloud to co-ordinate, monitor the program.

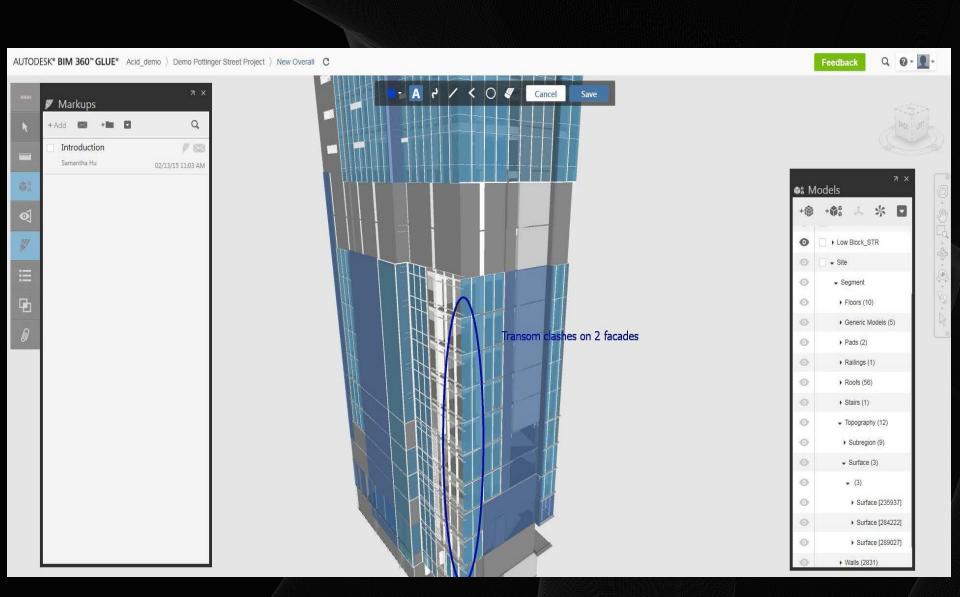












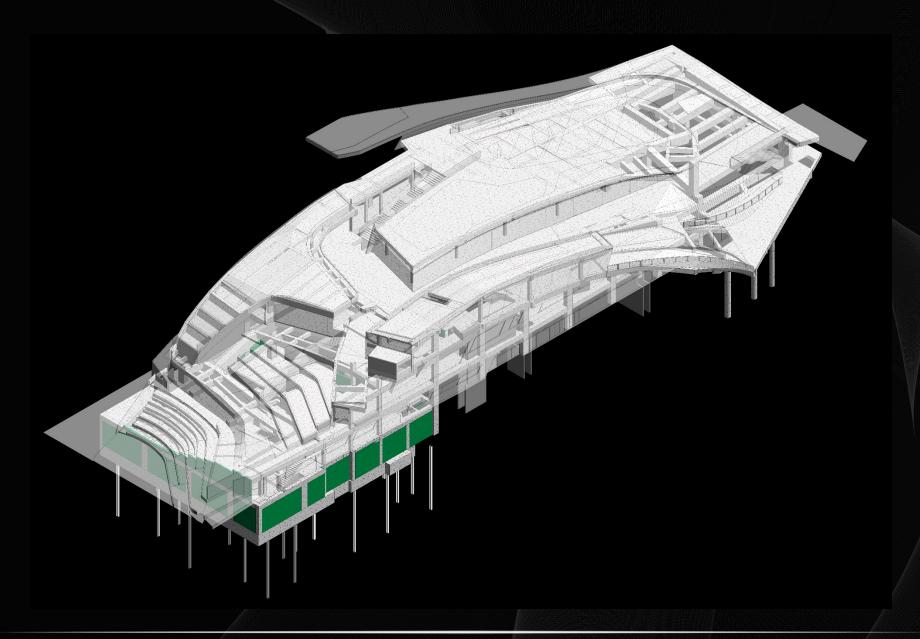


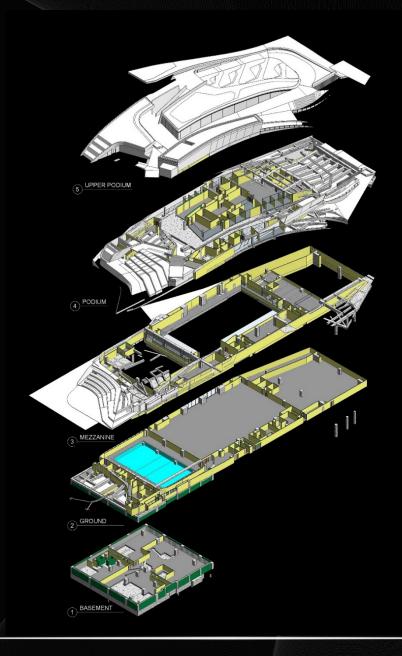
Redevelopment of Block X, the Hong Kong Polytechnic University

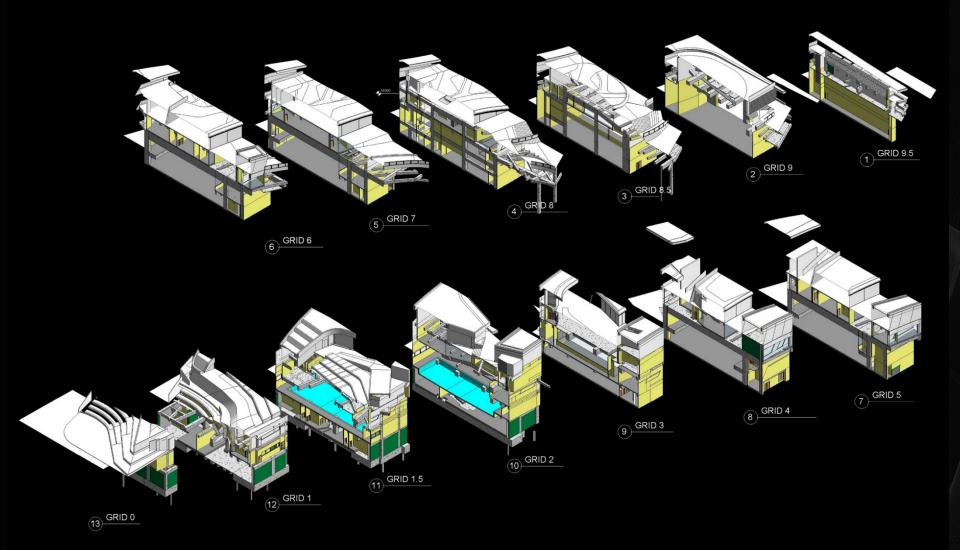
Client: Andrew Lee King Fun & Associates Architects Ltd.

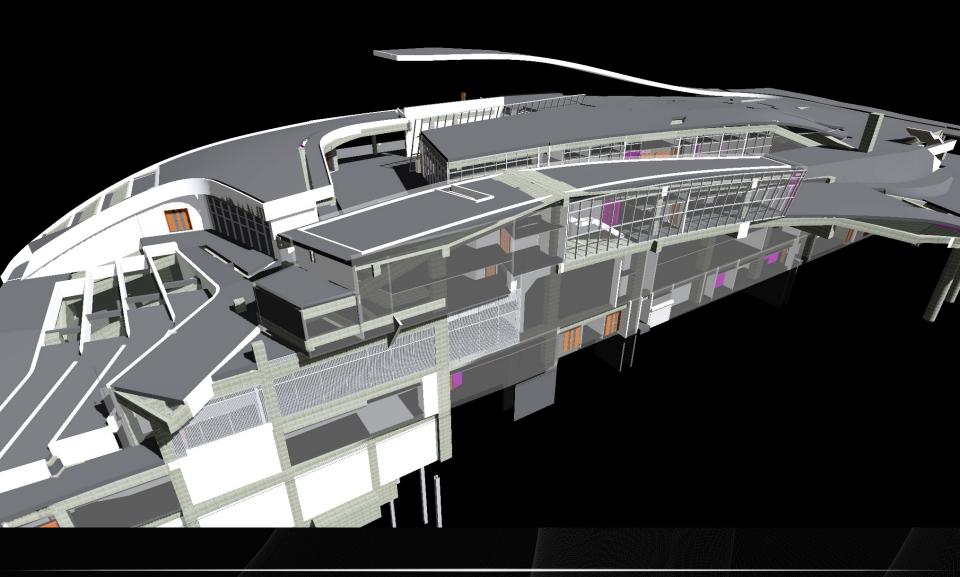
P.I.C.: David Fung Period: 2015-

Scope: A multi-functional building in university Hung Hom campus, will connect the surrounding building (Innovation Tower) in the future. BIM model for all discipline will be set up in Revit, clash detection done in Glue as other projects. The as-built model to be collected from contractor, after run through the COBie system, the model will be transfer to EcoDomus and Maximo for facility management.

















项目展示









项目展示









项目展示

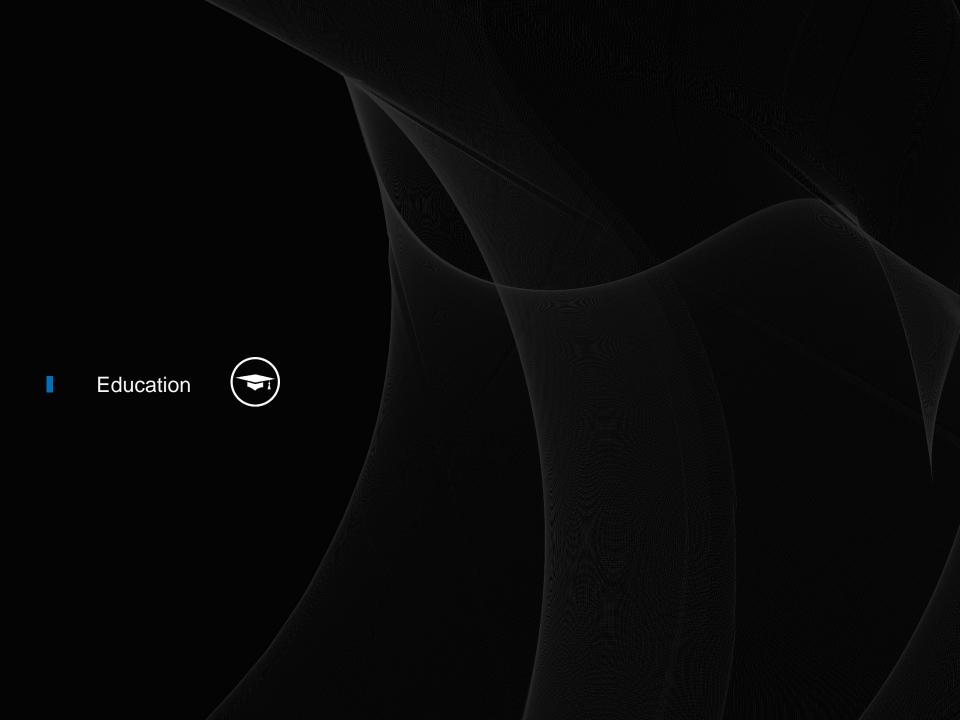




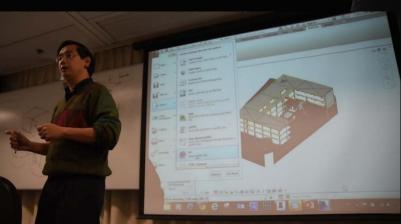


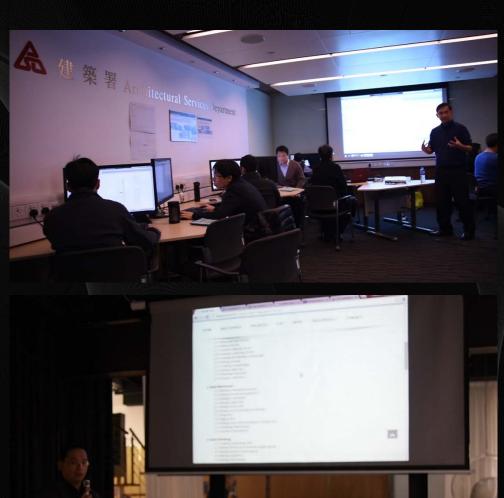


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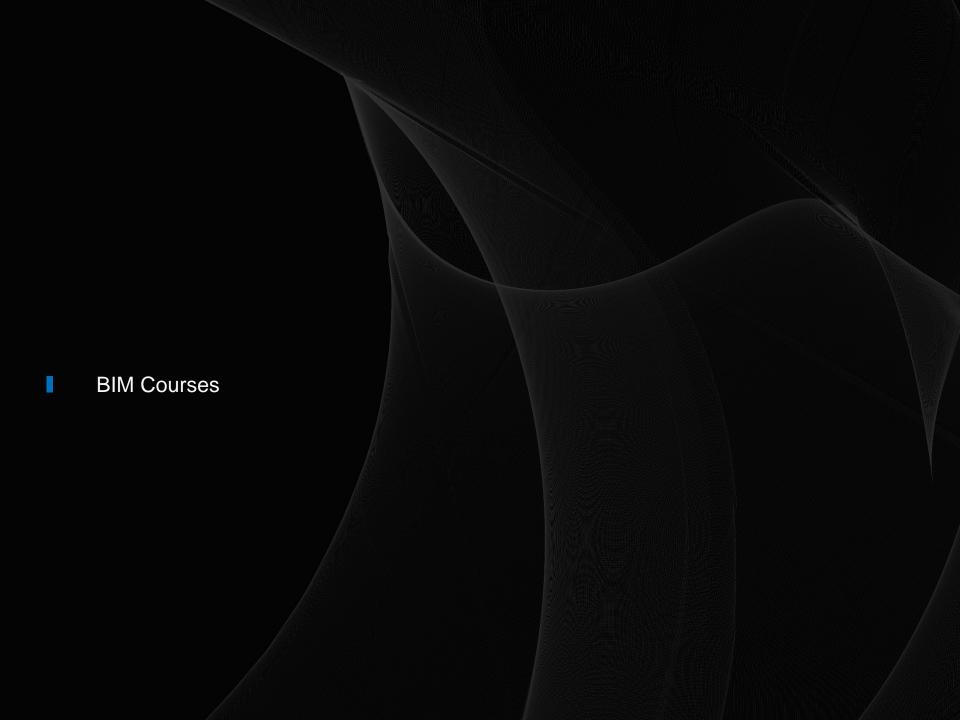












BIM Education Road Map



CEIII BIM Management 30 hrs BIM Management implementations with Project Execution Plan, requirements and standards



CEIII Architecture (Revit) 36 hrs Architectural Concept Design, Detailed Design, Statutory Submission, Contract



[CEIII-S]
CEIII Structure (Revit) 24 hrs Submission, Contract Management level.



[CEIII-M] CEIII MEP (Revit) 24 hrs Building Services Concept



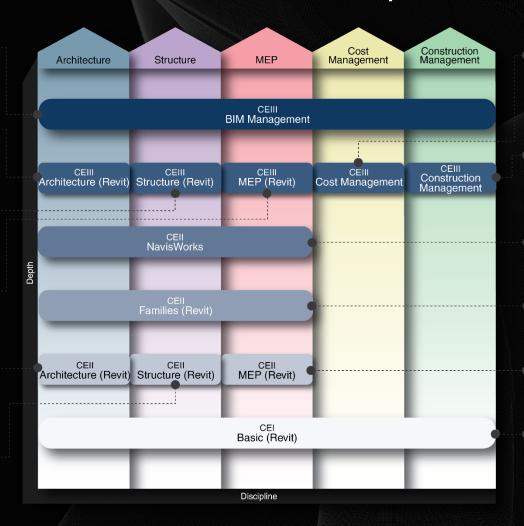
CEII Architecture (Revit) 32 hrs Common operational commands in architectural BIM model for design visualization. co-ordination and production of professional drawings.



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] 24 hrs Information extraction to



CEIII Const 32 hrs

BIM application during





[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

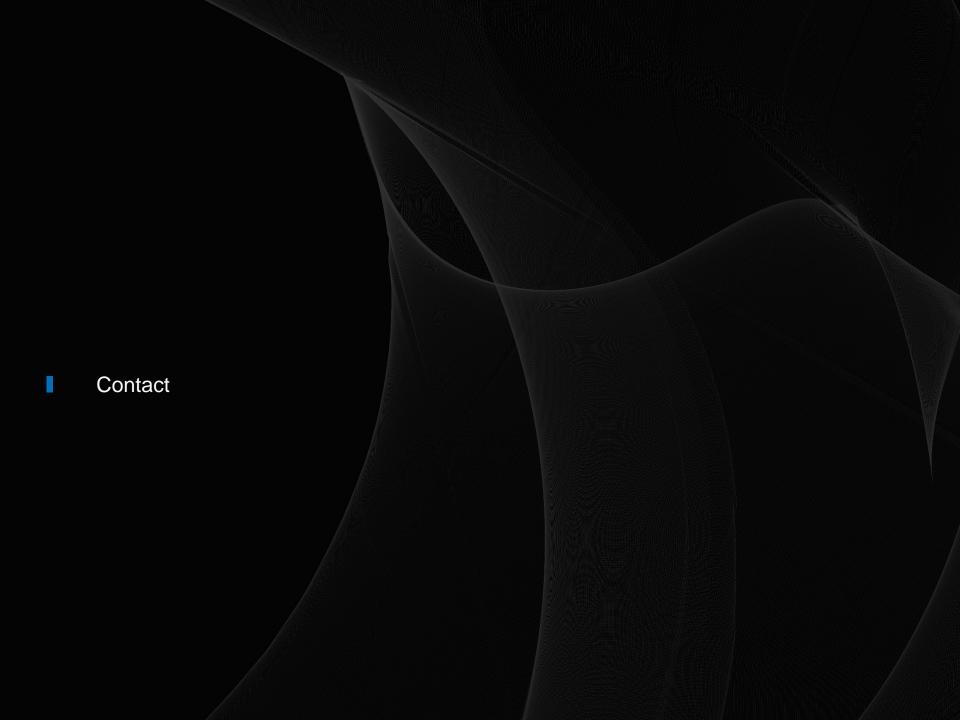
Collaboration of other project team disciplines; producing collaborative design, and production of professional drawings.



CEI Basic (Revit) 8 hrs System settings, parametric and compilation to building form; definition /editing properties, drawings sheets B.Q. and overall BIM management.











hongkong@a-c-i-d.com



+852 3468 5250



+852 3585 5599



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A.C.I.D. - China

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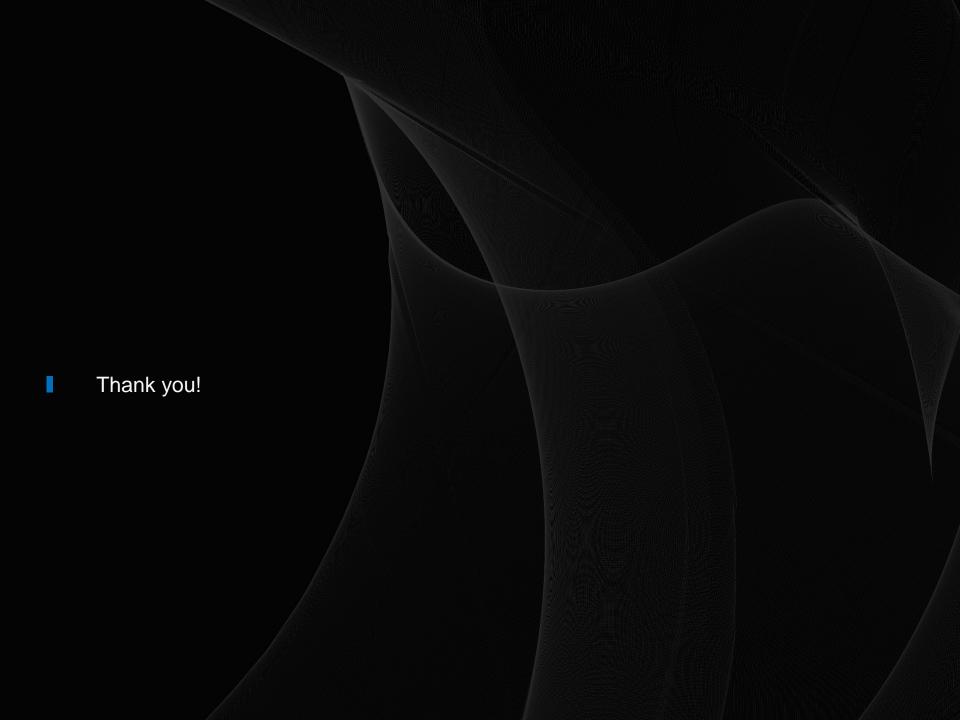
BIM Studio

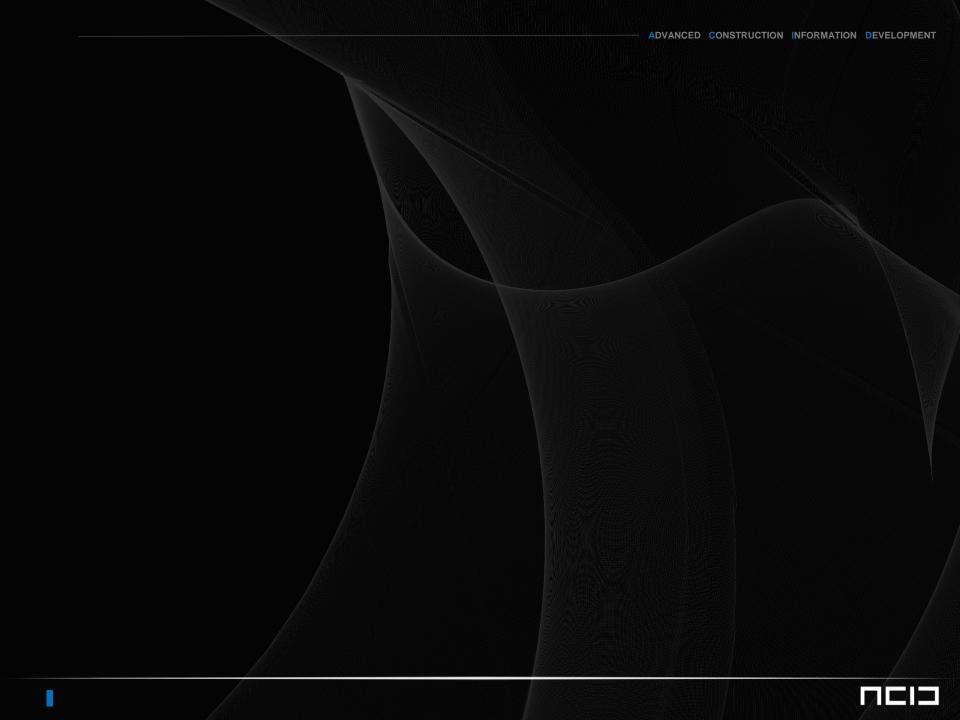


香港荃灣海盛路3號 TML 廣場35樓A2

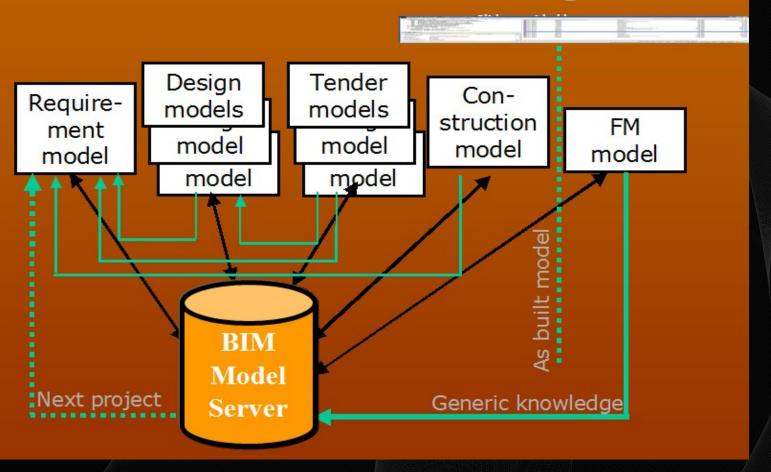
A2, 35/F, TML Tower,3 Hoi Shing Road, Tsuen Wan, Hong Kong



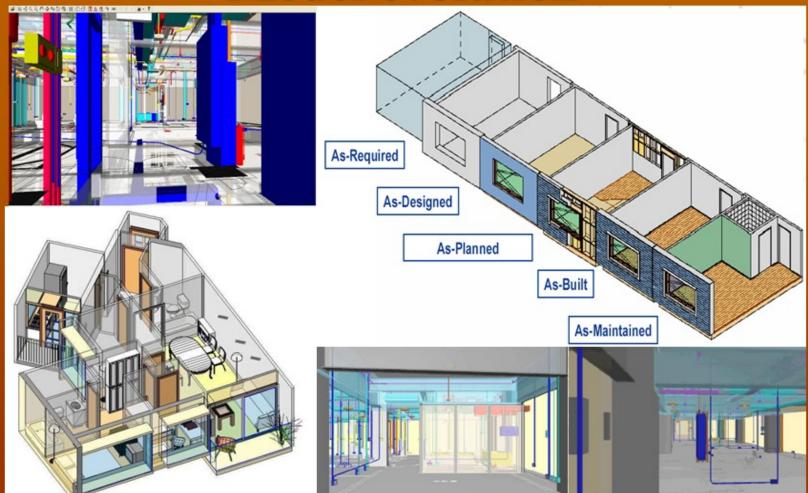




BIM Evolution -Information Flow Different Models at different stages



Model evolution



Bring BIM To Site For Asset Construction and Operation

Building Component Management S.S



Shop Drawing CAD

3 D Building Model Data

Material Plan S.S

Material Management Database

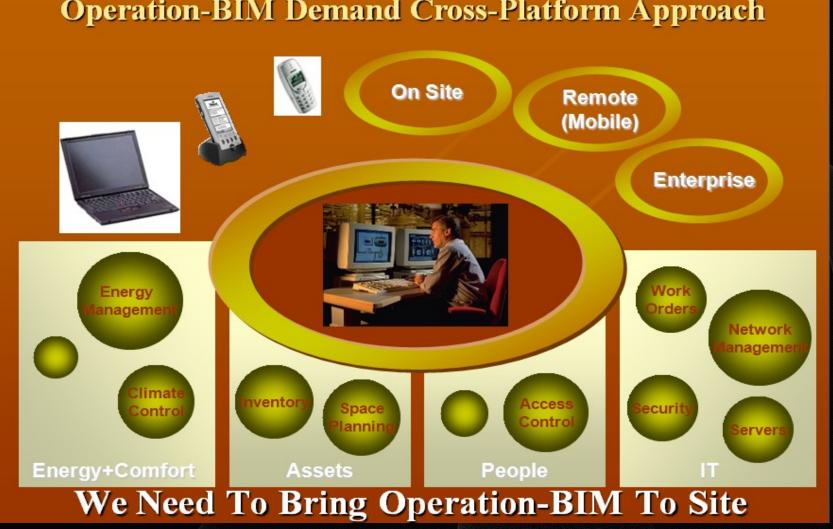
Erection Site Management S.S

Actual Management S.S



Progress Control

Operation-BIM Demand Cross-Platform Approach



3D FIM Framework

Maintenance , Repair & Operation (MRO)

3D FIM Project Implementation

Reverse Integration (BIM Data-set Segmentation)

Fire CCTV HVAC
FMCS
Facility Monitor System

Maintenance Work-order Management Platform (MRO)

Scada/HMI

CX Commissioning

MRO Training

Virtual Asset Searching Equipment Tagging

3D + Time (MRO Schedule), Location Alert & Warning

IT Systems + Internet + GPS + Phone/Pad/PDA + RFID



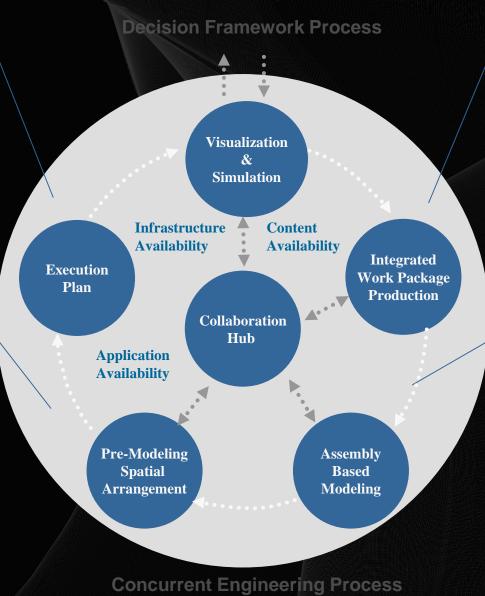
VDC Team Management Model Layer-1

VDC BIM Manager

- P 1 Value Planning
- P2 Deliverable Planning
- P3 Resource Planning
- P4 Execution Planning
- P5 Modeling Planning
- P6 Innovation Planning

VDC CSD Engineer (Pre-Construction)

- **E 1** Technical Solution Planning.
- **E 2 MEP** Trade Routing Planning.
- **E 3** Define Resolution Direction.
- E 4 Ensure continuous design process integration.
- E 5 Define Work Breakdown strategy .
- **E 6** Identify and allocate costs.



Design and Build

VDC Site Manager

- **S 1** Define Site VDC Process.
- S 2 Define the deliverable issuance procedure.
- S 3 Determine updating and change management.
- S 4 Define the Trade Collaboration procedure,
- **S 5** Manage the IT investment.

VDC CSD Engineer (Construction)

- **C 1** Identify automated solutions.
- C 2 Detail Trade Modeling Requirement.
- C 3 Arrange Continuous Subcontractor validation.
- C 4 Enable Assembly Modeling.
- C 5 Deliverable QA / QC.
- C 6 Manage changes.



VDC Management Focus

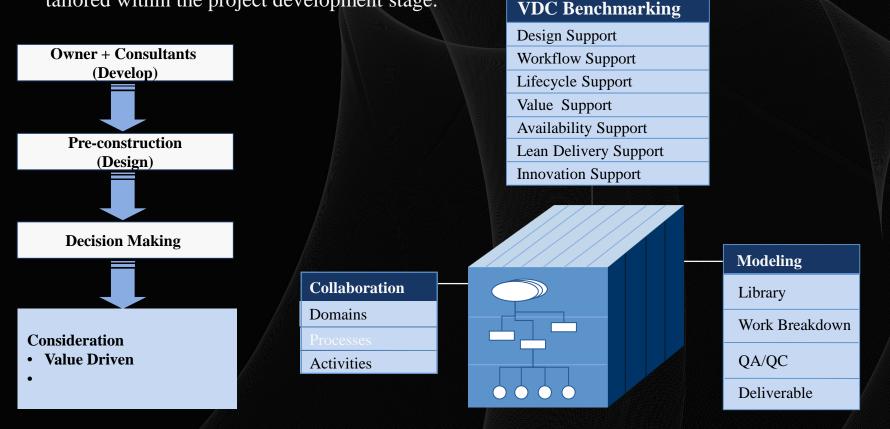
Design and Build

As Lean Delivery Approach framework for VDC collaboration process focuses on two key areas:

▶ Providing the model based information content required to support Base-Of-Design (BOD) verification and layout planning.

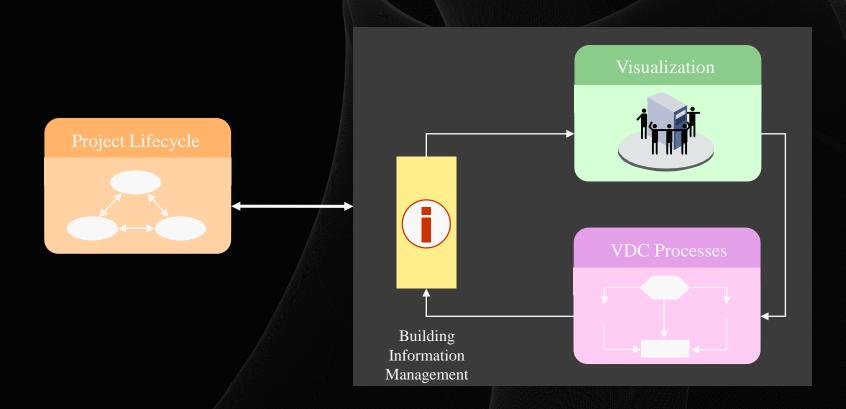
▶ Managing team activities as the result of the VDC Process-related best practice that need to be

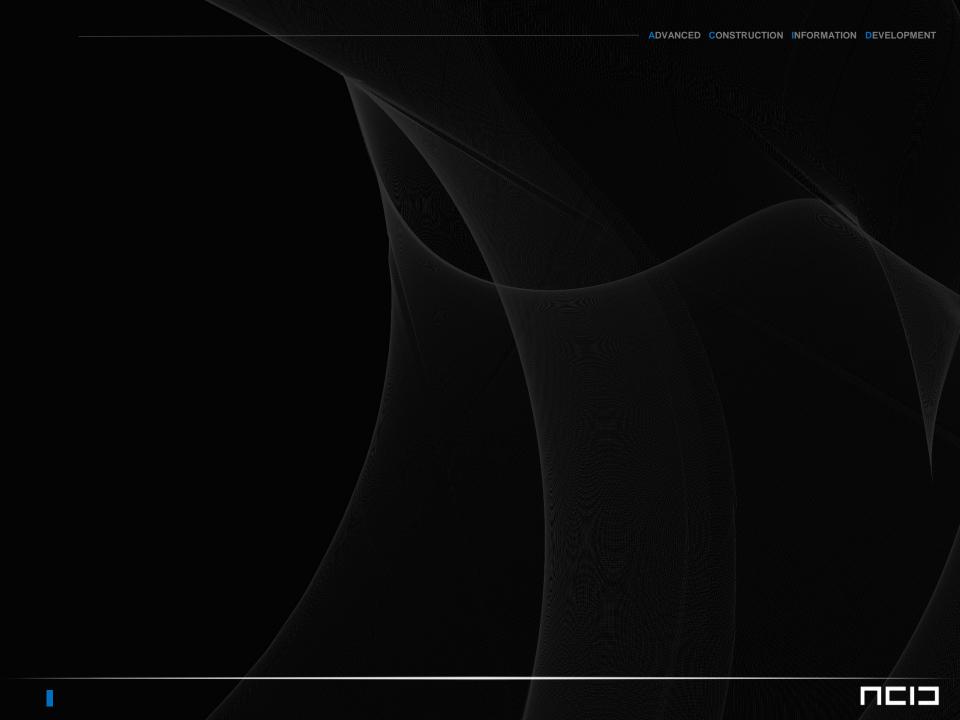
tailored within the project development stage.



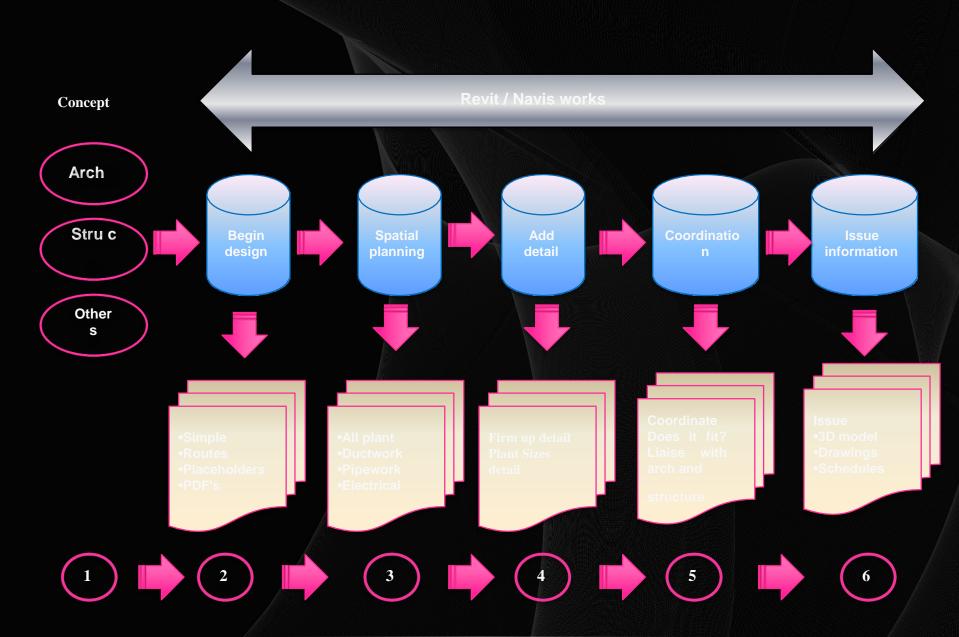
VDC Management Focus

The objective is to facilitate on-time Integrated Work Package deliverables to site team whilst managing the Model Based Project Life Cycle Workflow.

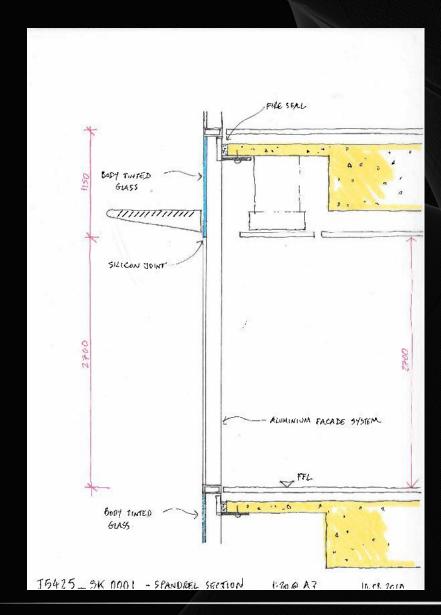


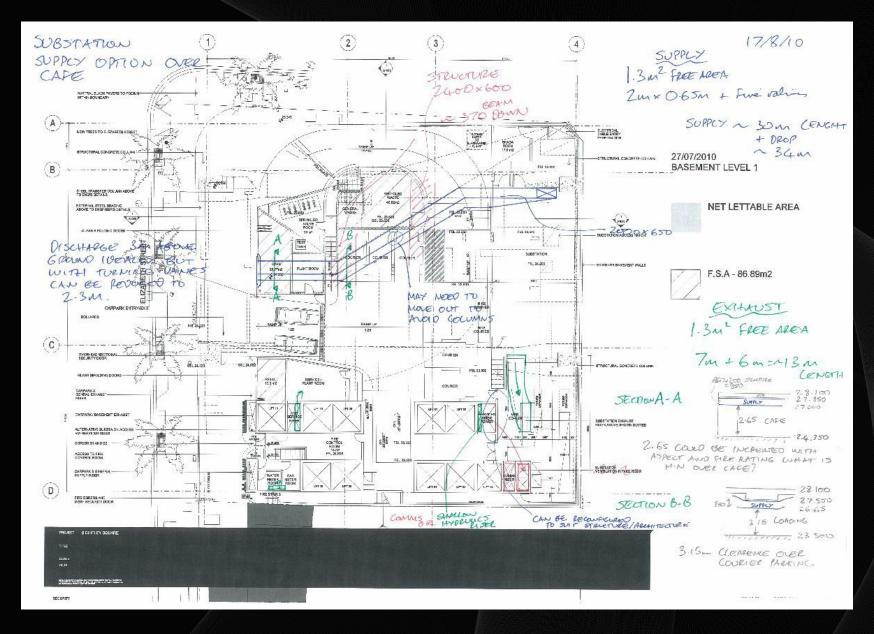


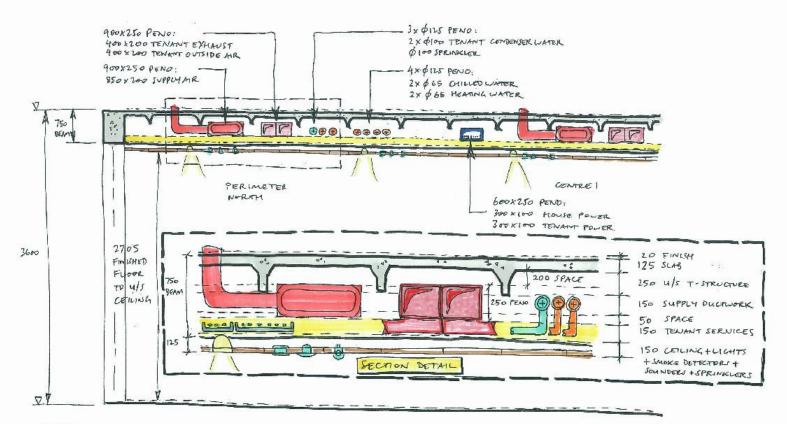
- Client concept
- Architect provides visual images etc.
- Structural involvement (can we build it?)
- PDF,s, hand sketches / Google sketch up etc..
- No 2D or 3D cad
- Oh...and lots of "MEETINGS"



- Concept
- Client and design team discuss concept.
- Produce hand sketches, PDF's
- Cad not engaged.
- Agree services zoning strategy?





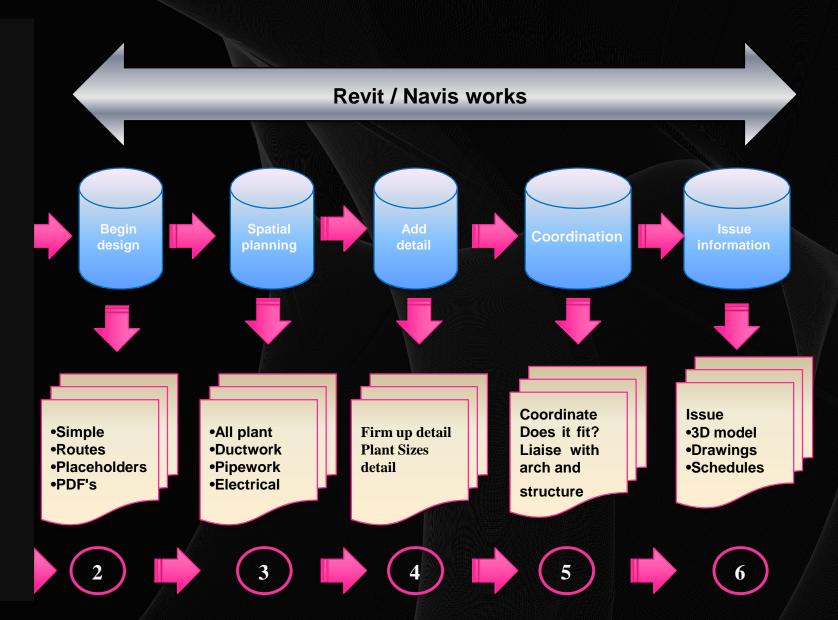


NOTES:

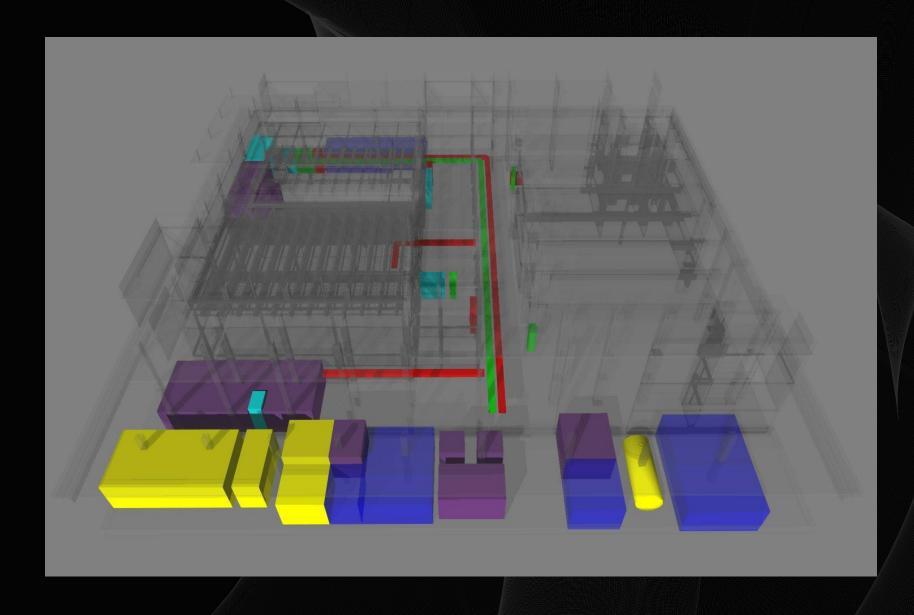
- 1.) PRELIMINARY FERVICES & SIZES NOMINATED, REVIEW OF FIT OUT & FLEXIBILITY REQUIRED
- 2) PENETRATIONS NOW INATED AT CENTRE OF BEAM.
 POTENTIAL TO RAIST PENETRATIONS UP TO
 SOFFIT TBC BY ATRACTICAL ENGINEER. MAY
 BE ABLE TO RAISE CEILING 1002 200mm?
- 3.) SERVICES NOMINATED MAY BE MIRRORED FOR OTHER APEAS OF FLUTE PLATE.

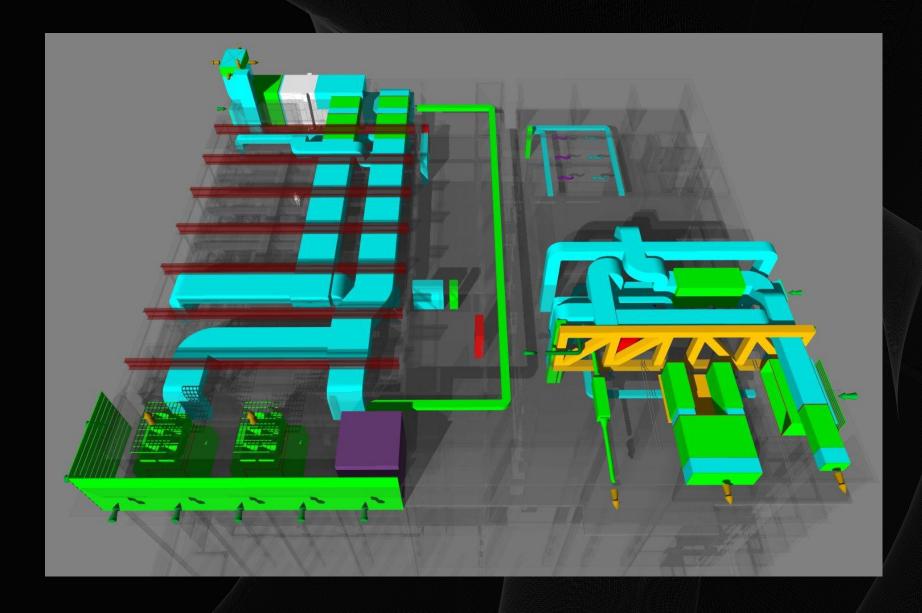
SEVICES SECTION

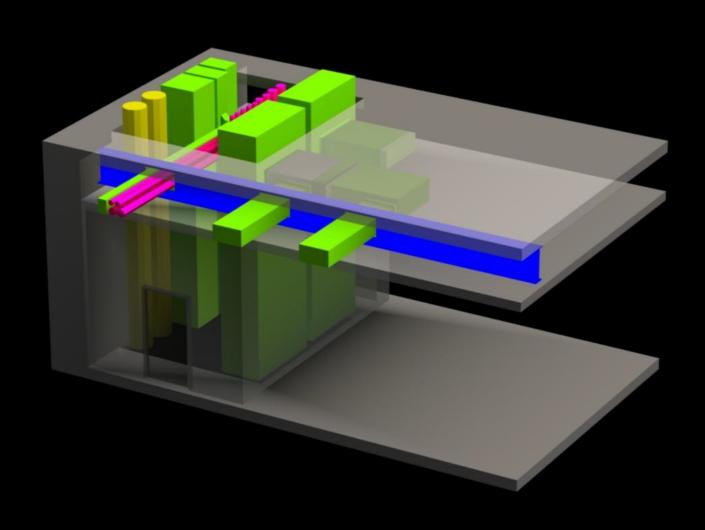
205953/00 ARUP FERVILES SECTION 10\$2 20/4/10 AB

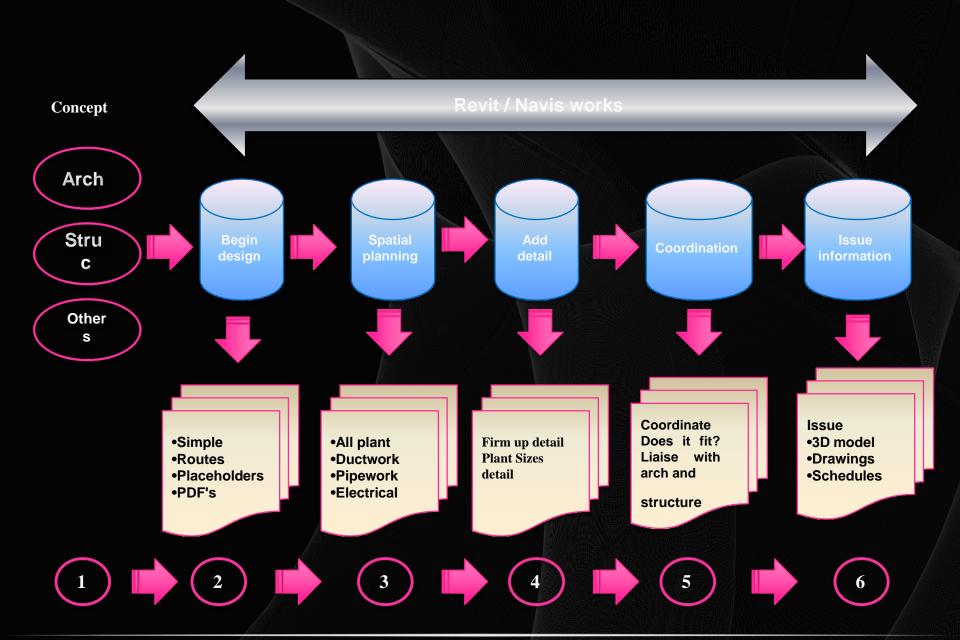


- Begin design.
- Design begins to evolve from step 1 meetings.
- Simple shapes to represent plant items.
- **Cad may be engaged?**
- Lots of options.

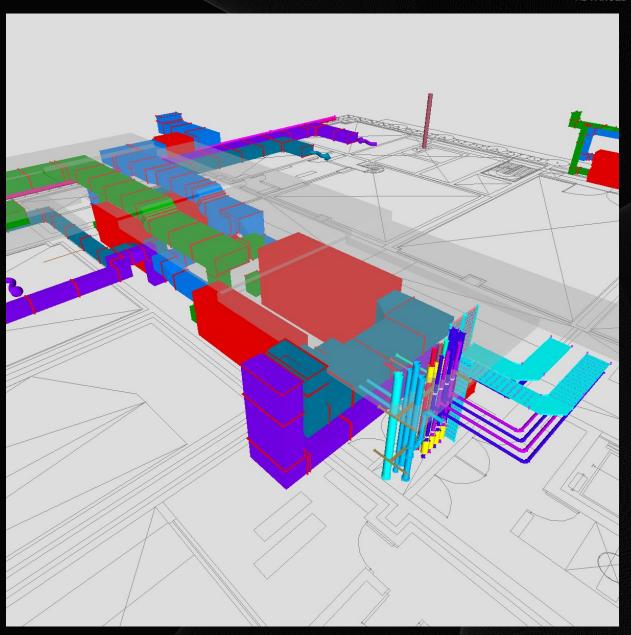


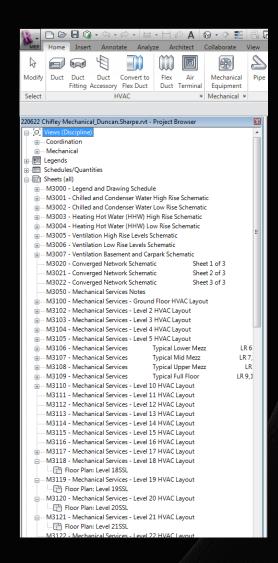


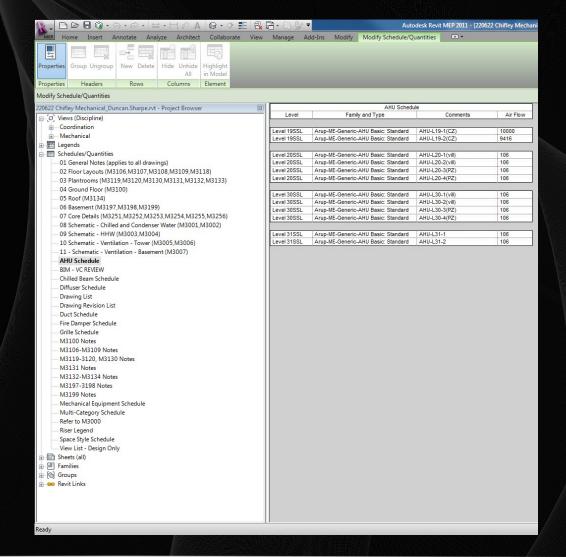


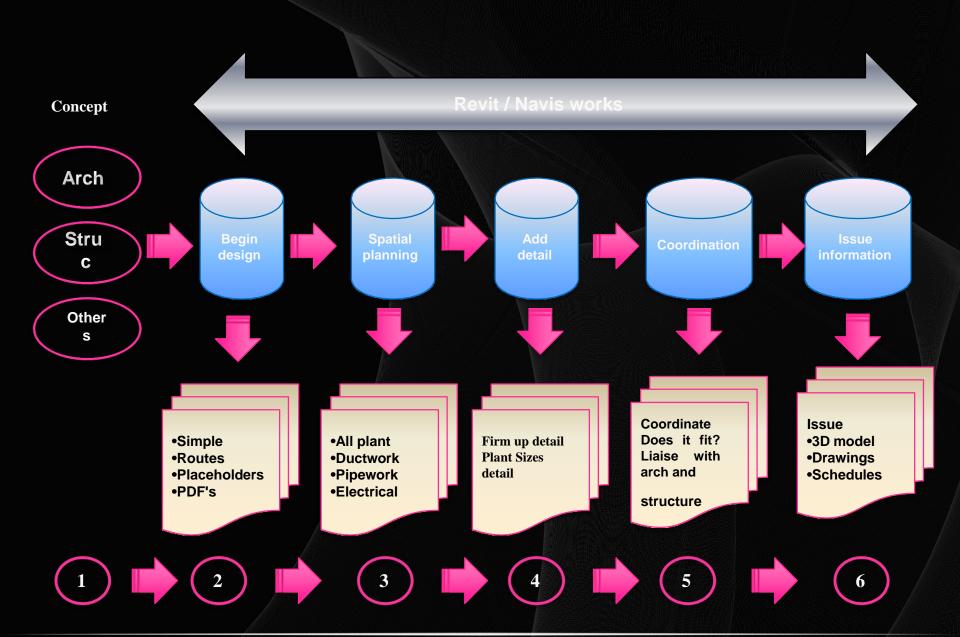


- Spatial planning.
- Design evolves from step 2 meetings.
- Service routes / strategy are agreed.
- Cad and engineers collaborate.

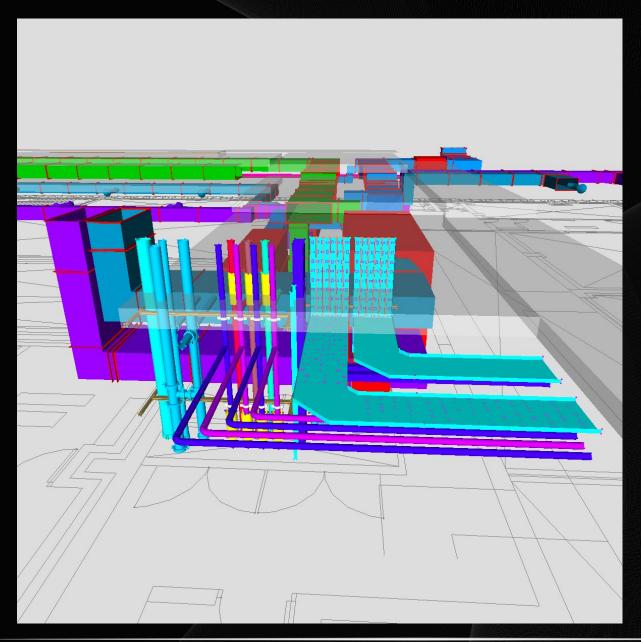


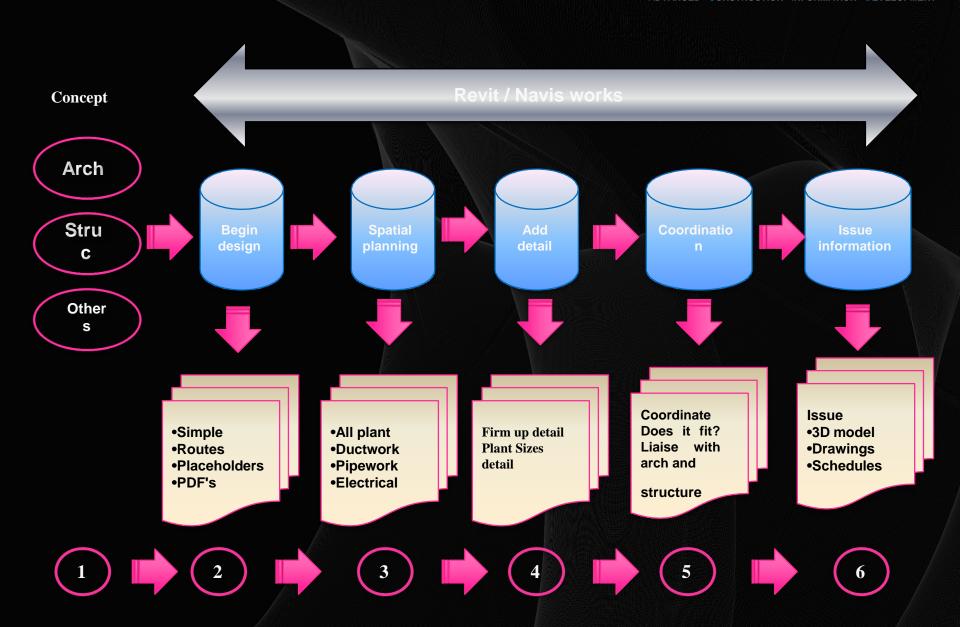




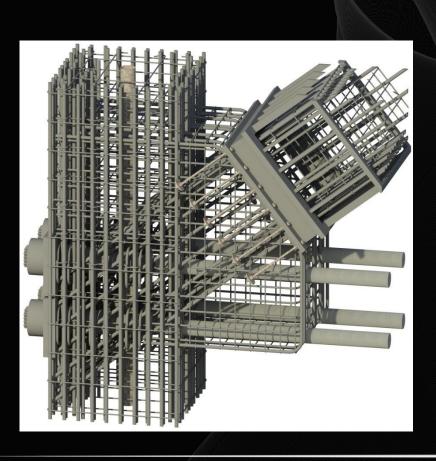


- Add detail.
- Model all services duct/pipe/Elec systems.
- Plant items are now more accurately sized.
- Use approved content / families.
- Generic content.

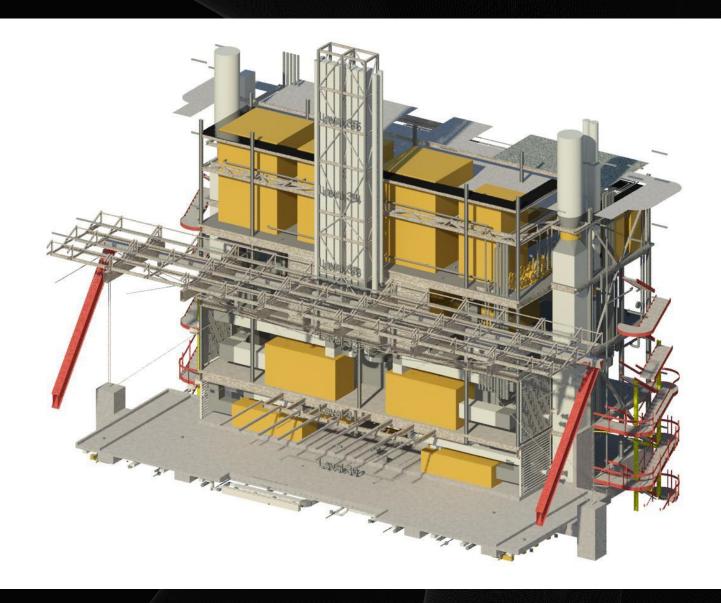


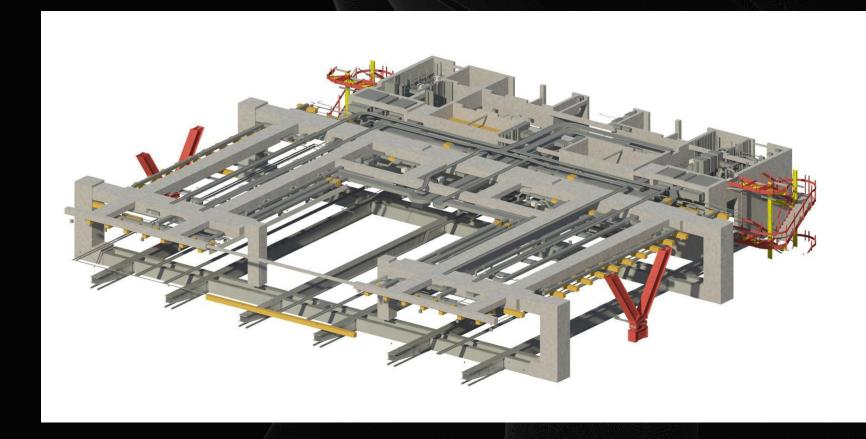


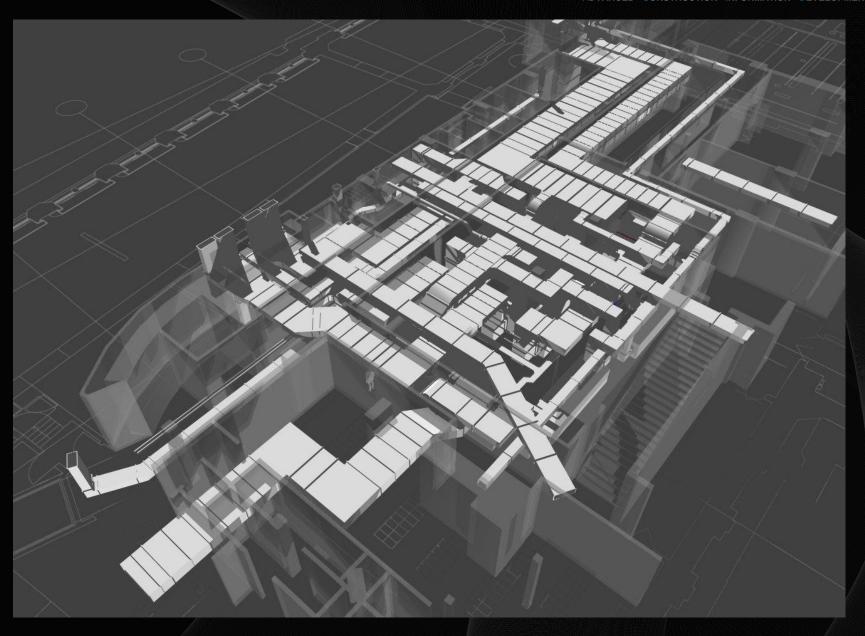
- Coordination.
- Accurate coordination between services / structure and architecture.
- Information is passed between all members of the design team in 3D format.
- Plant items have property fields which may be empty and ready for population by contractors.

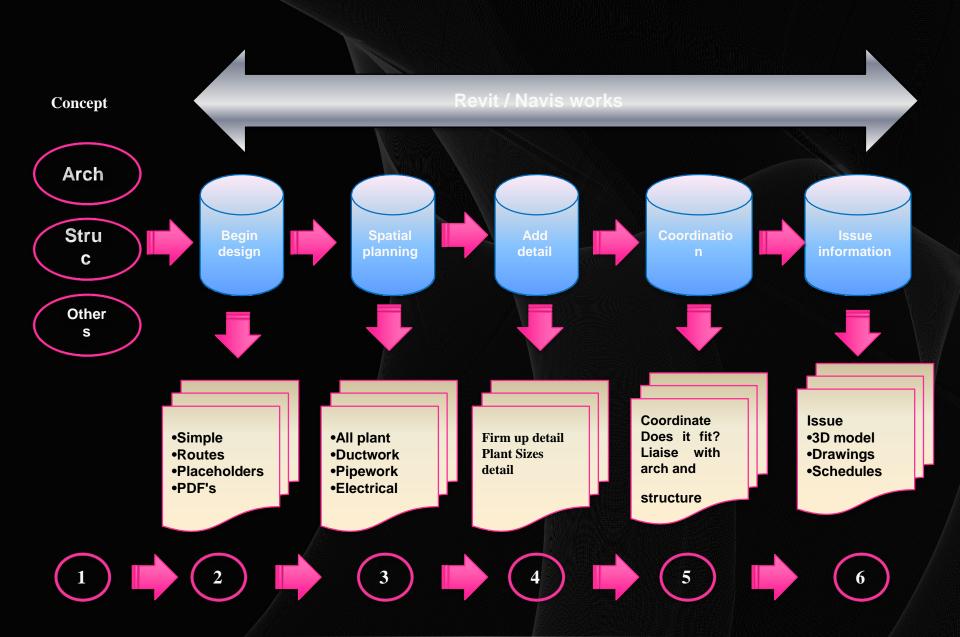




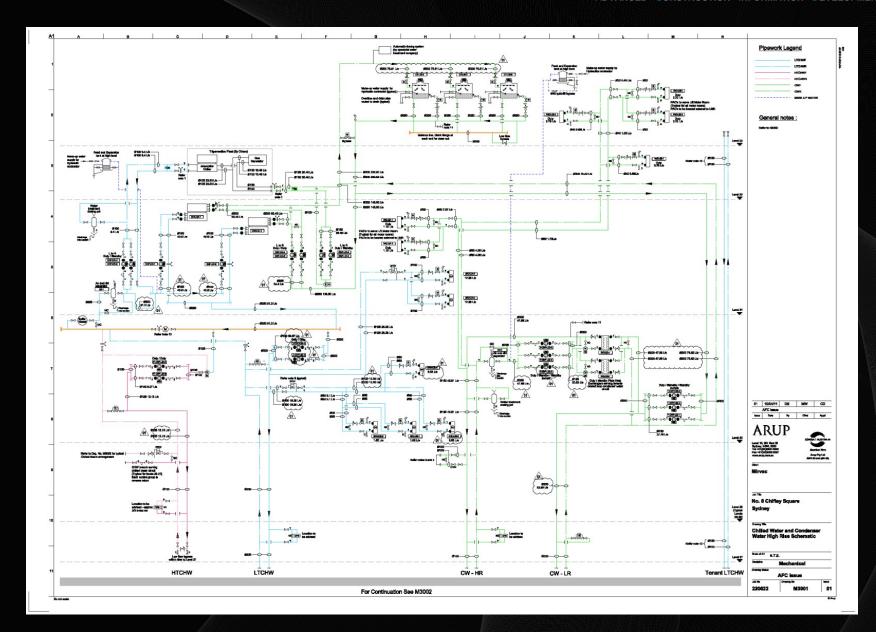


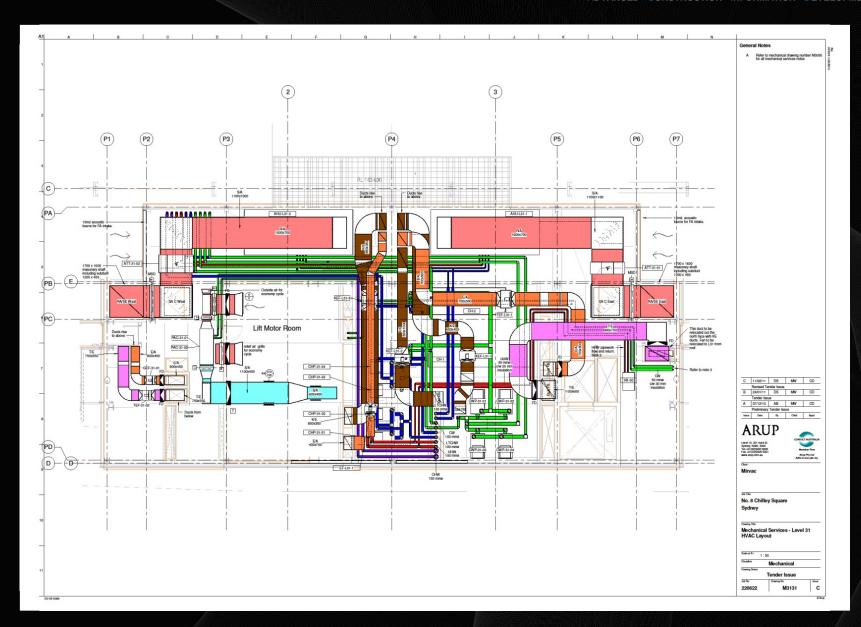


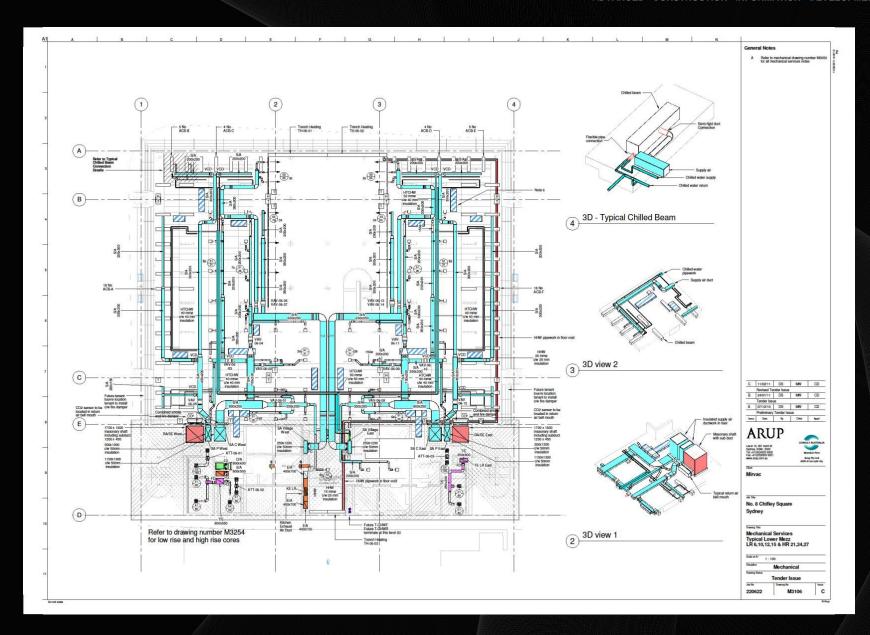


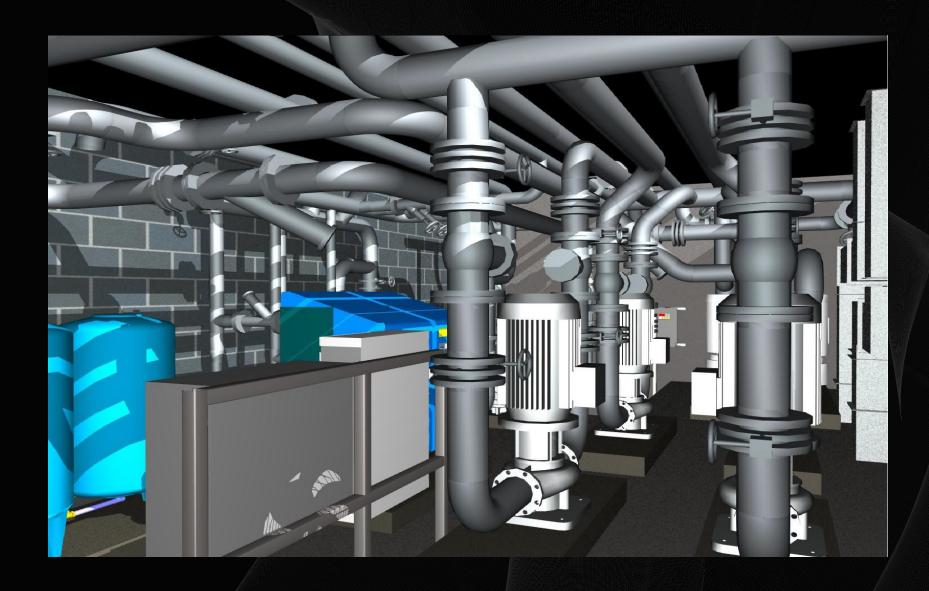


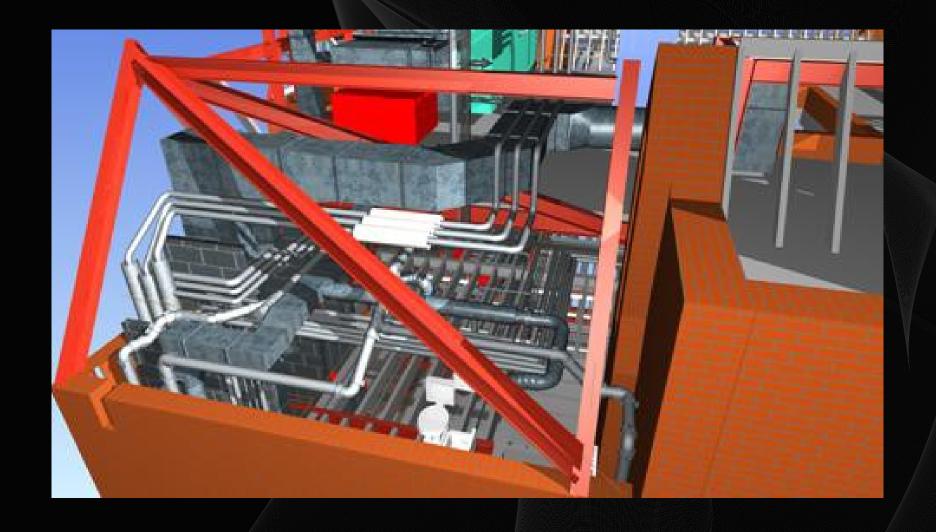
- Issue Information.
- Hand over to contractor DWG RVT PDF –
 Schedules etc (everything contained within Revit).
- Contractor coordinate in Revit
- Fabrication.
- Installation.

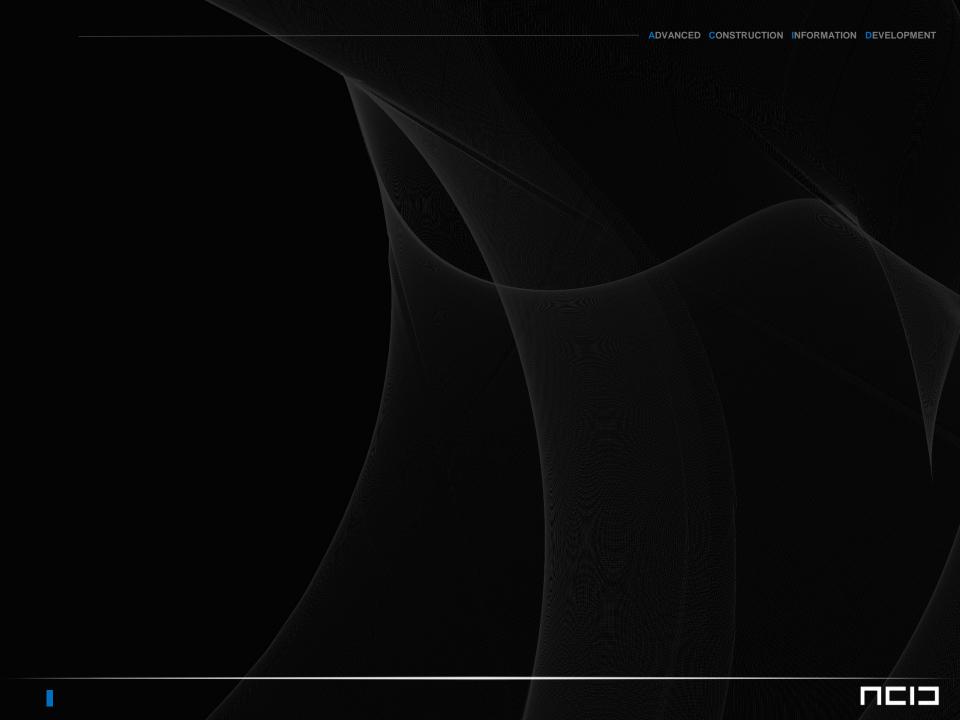


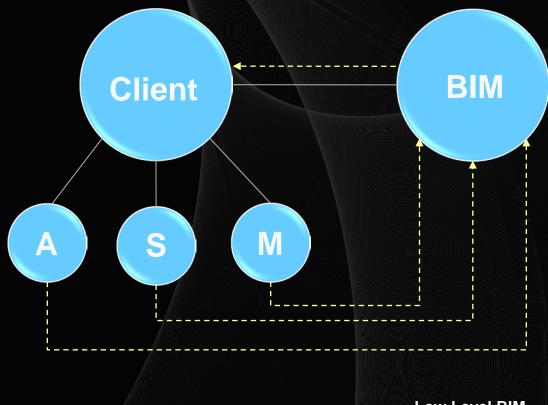




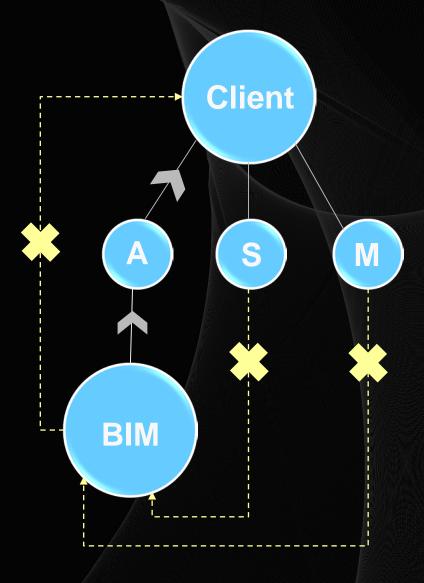






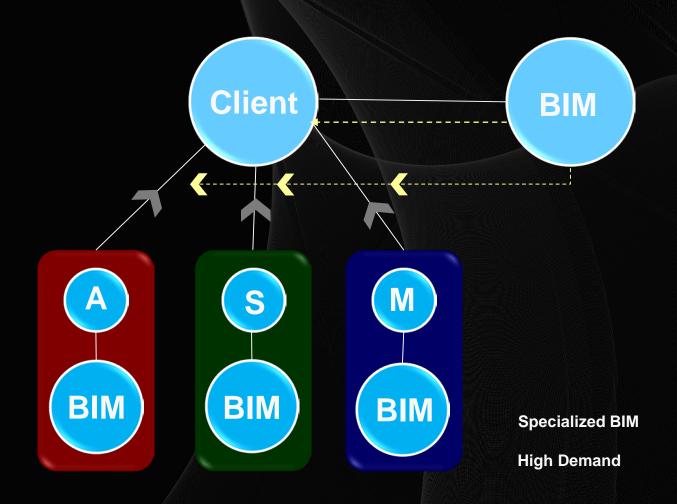


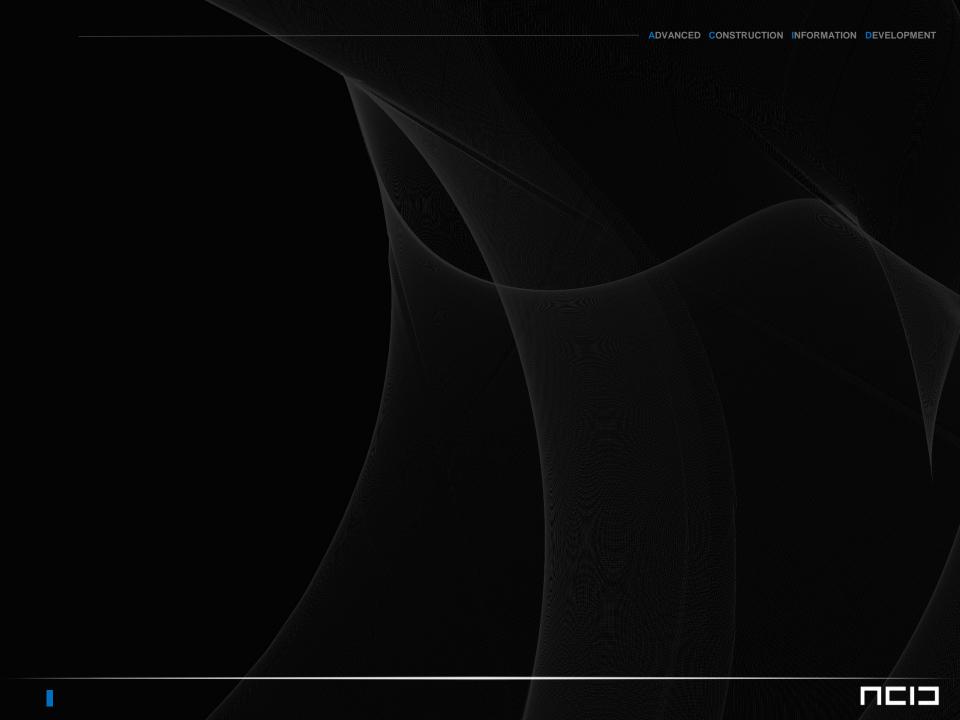
Low Level BIM Super BIM!



Dishonest reporting

Hard to chase information

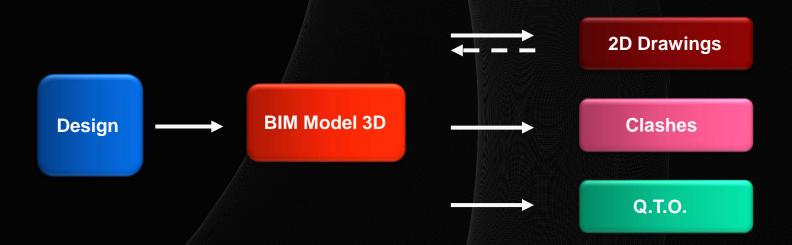


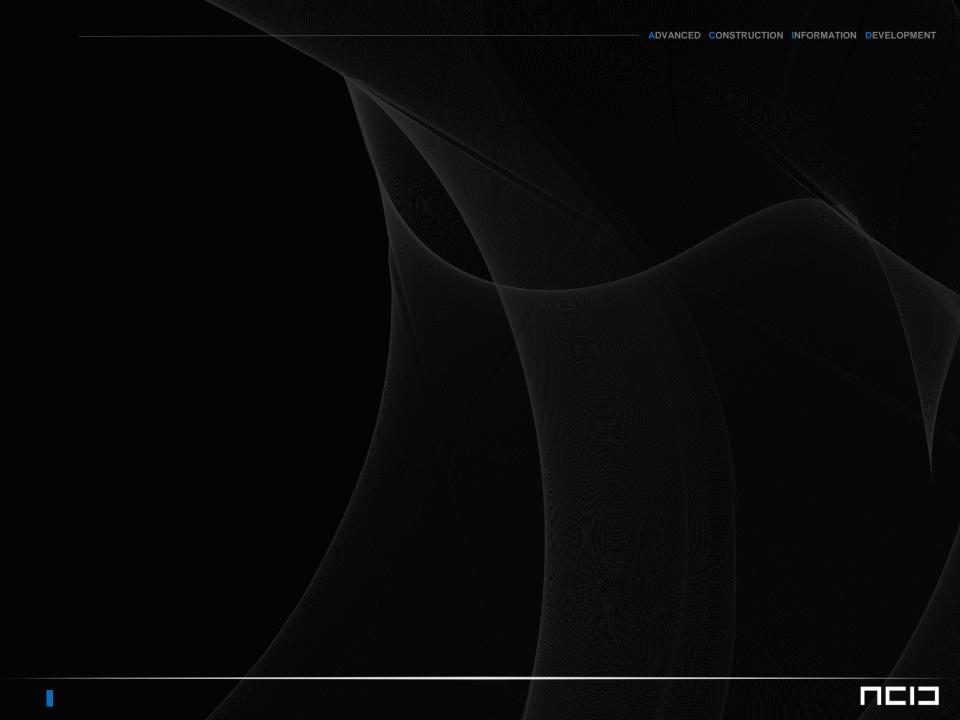


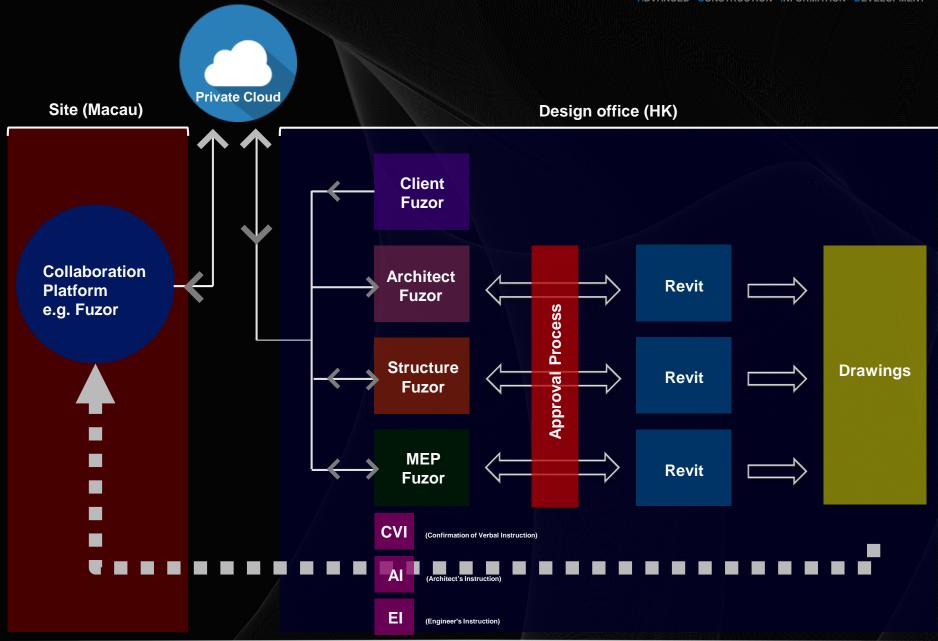
Perceived BIM Workflow

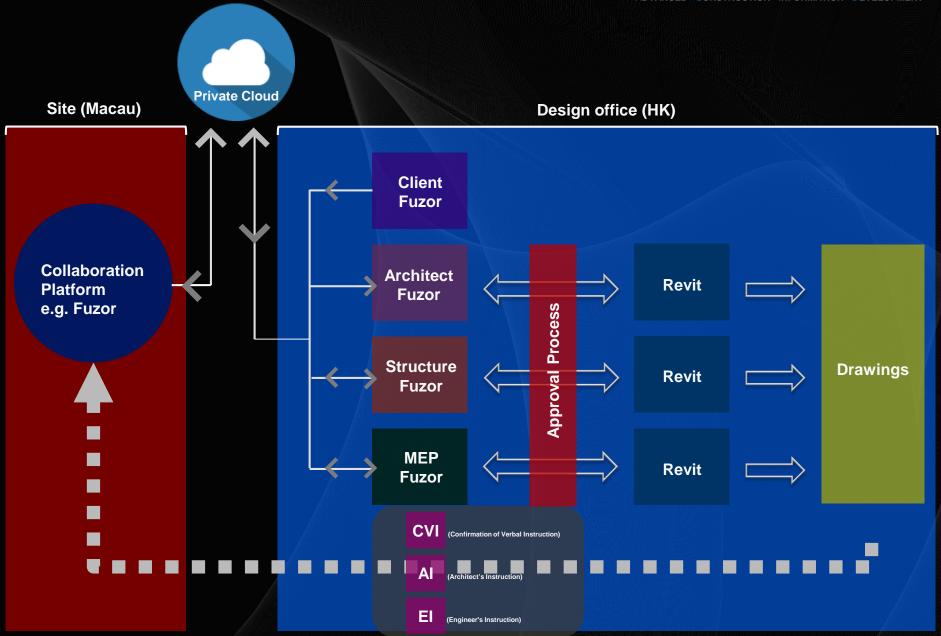


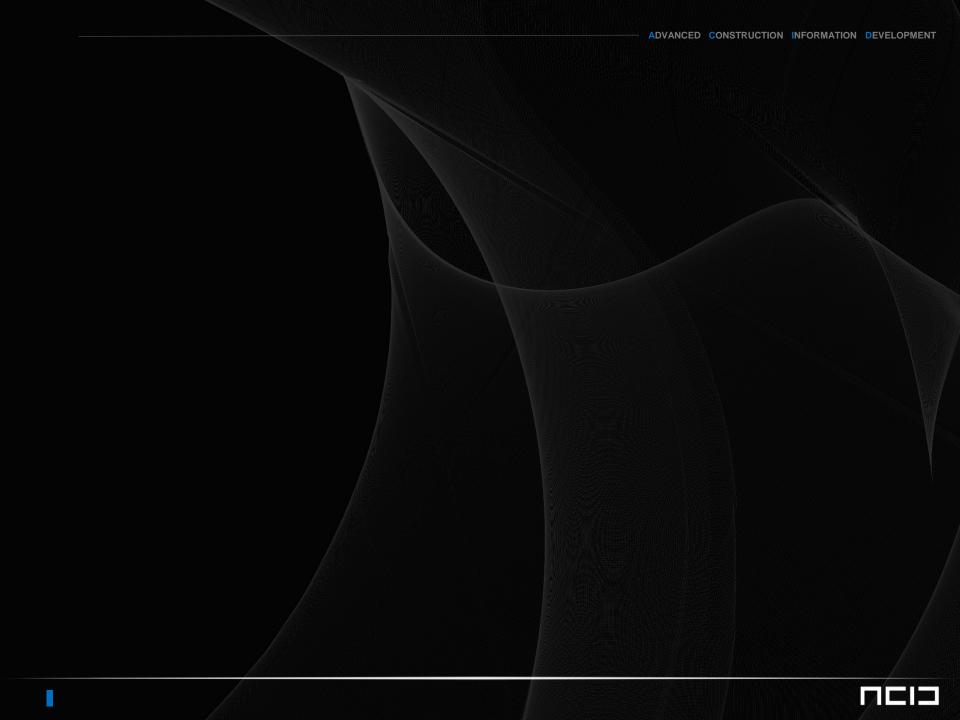
True BIM Workflow:











Professions Policies

Disciplines

Project Diversity

BIM

Building Types

Building / Construction Process Cycle



