



Briefing on the 10-Year Hospital Development Plan

15 September 2016



Programme

1. Welcome Message

Dr S V Lo

Director, Strategy & Planning Division

2. Introduction of the 10-year Hospital Development Plan

Mrs Sheila Mair

Senior Manager (Planning & Development)

Capital Planning Department, Strategy & Planning Division

3. Delivery of the 10-year Hospital Development Plan

Mr Andrew Wong

Chief Project Manager (Capital Projects)

Capital Planning Department, Strategy & Planning Division

4. Q&A



Briefing on the 10-Year Hospital Development Plan

15 September 2016



The 2016 Policy Address





The 2016 Policy Address



To use **\$200 billion**
to implement various
hospitals projects in the
next 10 years



Introduction

to the 10-Year
Hospital
Development
Plan





Portfolio of work

1 Construction of New Acute Hospital at Kai Tak Development Area

11 Redevelopment / Expansion of existing hospitals

Including:

Queen Mary Hospital (Phase 1)

Prince of Wales Hospital (Phase 2, Stage 1)

Kwong Wah Hospital

United Christian Hospital

Operating Theatre Block for Tuen Mun Hospital

Haven of Hope Hospital

Grantham Hospital (Phase 1)

Kwai Chung Hospital

Our Lady of Maryknoll Hospital

Lai King Building in Princess Margaret Hospital

North District Hospital



Portfolio of work

- 1** Construction of New Acute Hospital at Kai Tak Development Area
- 11** Redevelopment / Expansion of existing hospitals
- 3** Construction of new Community Health Centres
- 1** Construction of new Supporting Services Centre



10-year Hospital Development Plan

Deliverables

5,000

additional hospital bed spaces

90+

additional Operating Theatres

430,000

additional annual capacity of
general outpatient clinic
attendances

2,800,000

additional annual capacity of
specialist outpatient clinic
attendances



Portfolio of Work





Portfolio

New Acute Hospital

at Kai Tak Development Area, Kowloon City

Area ~ 500,000m² CFA

Scope of Works

- Construction of a new acute hospital at the Kai Tak Development Area with inpatient and ambulatory services of major specialties
 - Provision of 2,400 beds
 - Major acute services
 - Ambulatory services
 - A&E department
 - Operating theatre
 - Oncology centre
 - Neuroscience centre





Portfolio

Redevelopment of Queen Mary Hospital – Phase 1 Southern District

Area ~ 135,000m² CFA

Scope of Works

- Demolition of Clinical Pathology Building, University Pathology Building and Houseman Quarters
- Construction of a new hospital block to accommodate:
 - A&E department
 - Diagnostic radiology
 - Cardiac catheterization laboratories,
 - Intensive care unit
 - In-patient wards for major specialties
- Provision of a new vehicular access point to the new block and a roof helipad





Portfolio

Redevelopment of

Prince of Wales Hospital - Phase 2 (Stage 1)

Sha Tin

Area ~ 190,000 m² CFA

Scope of Works

- Demolition of 4 Staff Quarters Blocks, Nursing School Lecture Theatre and Hospital old buildings
- Construction of a new in-patient extension block
 - Provision of around 450 additional beds
 - Major acute services
 - Additional operating theatres
 - Expanded radiology
 - Cardiac catheterization laboratories





Portfolio

Redevelopment of Kwong Wah Hospital Yau Tsim Mong

Area ~ 270,000m² CFA

Scope of Works

- Demolition of all existing buildings in phases except Tsui Tsin Tong Out-patient Building and Tung Wah Museum
- Enhancement of the museum setting
- Construction of a new hospital complex for expansion of facilities including:
 - Major ambulatory care centre
 - 350 additional beds
 - Expanded specialist out-patient department
 - Additional operating theatres
 - Expanded diagnostic and radiology services





Portfolio

Expansion of United Christian Hospital Kwun Tong

Area ~ 200,000m² CFA

Scope of Works

- Demolition of 3 existing blocks and Block P (Low)
- Construction of a new ambulatory block
 - Expanded specialist out-patient department
 - A new oncology centre
- Extension and renovation of Block S for expansion of facilities including:
 - Additional 560 beds
 - Additional operating theatres
 - Intensive care unit





Portfolio

Extension Operating Theatre Block for

Tuen Mun Hospital

Tuen Mun

Area ~ 34,000m² CFA

Scope of Works

- Construction of a new block adjacent to the existing Operating Theatre Block to accommodate:
 - 20 x OTs and 2 x Delivery OTs
 - Expanded A&E and radiology departments
 - Day surgery / delivery suites
 - Intensive care unit and isolation facilities
 - Expanded Central Sterile Supplies Department





Portfolio

Redevelopment of Grantham Hospital - Phase 1

Southern District

Area ~ 93,000m² CFA

Scope of Works

- Demolition of Senior Staff Quarters, Nurse Quarters Block 1 and Block 2
- Construction of a new block to accommodate
 - In-patient services
 - Oncology centre
 - Ambulatory care centre
 - Research facilities
 - Ancillary and other services





Portfolio

Redevelopment of Kwai Chung Hospital Kwai Tsing

Area ~ 160,000m² CFA

Scope of Works

- Phased demolition of existing hospital buildings
- Construction of a new hospital campus with inpatient wards and rehabilitation facilities for delivery of a full range of psychiatric services
- Provision of 1,000 beds upon completion of the project





Portfolio

Redevelopment of Our Lady of Maryknoll Hospital Wong Tai Sin

Area ~ 48,000 m² CFA

Scope of Works

- Redevelopment of North and East wings into a new block
- Refurbishment of the Out Patient Building
- Provision of:
 - Inpatient care services
 - Ambulatory services
 - Day surgery services
 - Endoscopy unit and electro-diagnostic unit
 - Cardiac diagnostic & care centre
 - Renal dialysis centre





Portfolio

Expansion of **Lai King Building** of Princess Margaret Hospital Kwai Tsing

Area ~ 60,000m² CFA

Scope of Works

- Construction of a new extension block
 - Provision of around 400 additional beds
 - Expansion of diagnostic radiology service
 - Provision of a geriatric day hospital with enhanced rehabilitation services





Portfolio

Expansion of North District Hospital Sheung Shui

Area ~ 100,000m² CFA

Scope of Works

- Expansion of the existing hospital
 - Provision of additional 600 beds
 - Increased capacity of specialist out-patient clinic attendances





Portfolio

Development of Community Health Centres

- Provision of general out-patient services, multi-disciplinary support services and patient empowerment services in a community setting

North District

Ex-Mong Kok Market Site

Shek Kip Mei





Summary

10-Years...

Portfolio

- 1** New Acute Hospital
- 11** Redeveloped / Expanded Hospitals
- 3** Community Health Centres
- 1** Support Services Centre

Complexity

Teaching Hospital – Community Hospital

Total CFA

~ 1.8 Million m²



Huge Opportunity

+

Huge Challenge

So how do we deliver it?

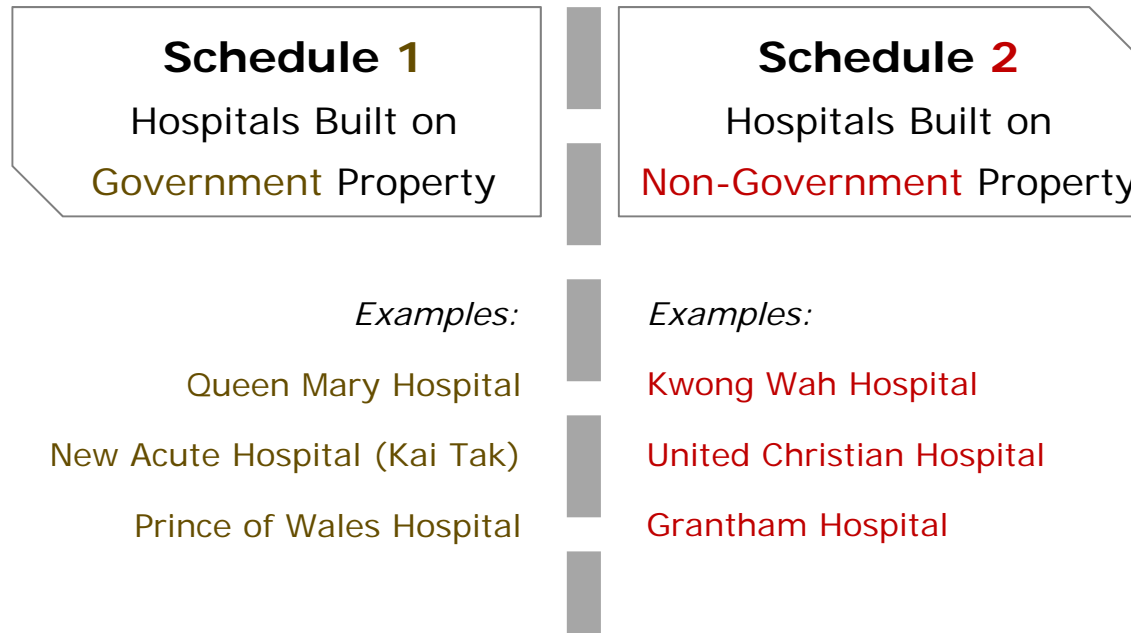


Delivery of the 10-Year Hospital Development Plan

Background

Hospital Categorization

Hospital Authority Ordinance categorizes all Hong Kong hospitals into 2 broad categories:



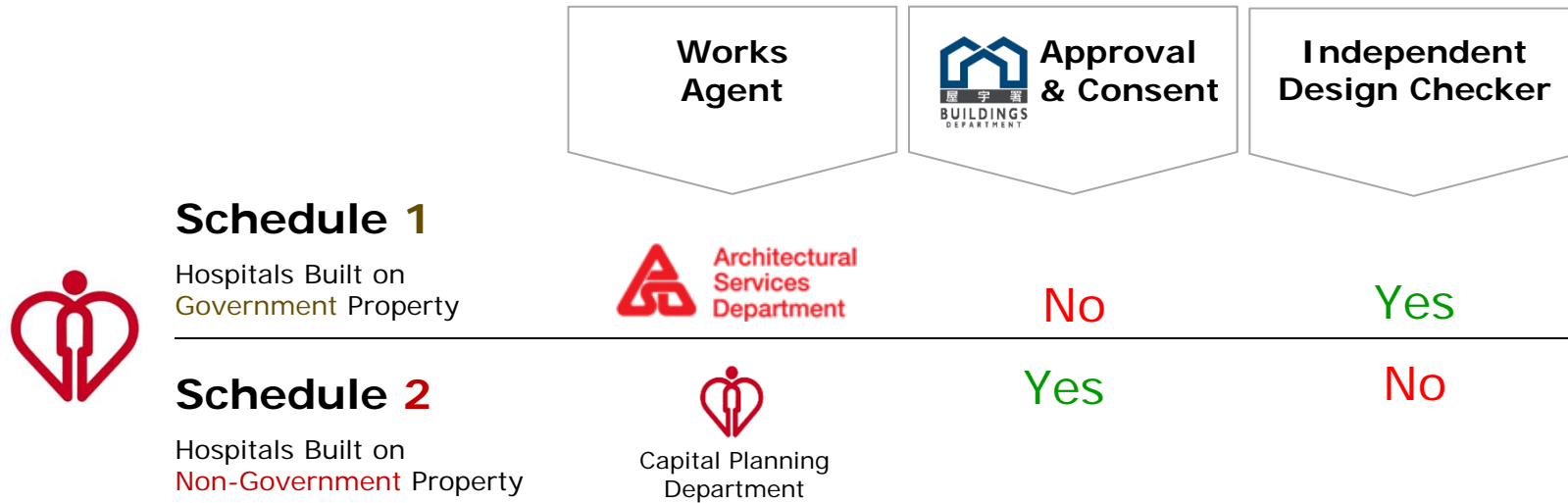


Delivery of the 10-Year Hospital Development Plan

Background

Historically

The procurement route and process would vary according to the hospital categories





Delivery of the 10-Year Hospital Development Plan

Hospital Development Plan

Works Agent

Projects

Schedule 1

Redevelopment of Queen Mary Hospital (Phase 1)

Redevelopment of Kwai Chung Hospital

Community Health Centre in North District

Community Health Centre in Shek Kip Mei & Ex-Mong Kok Market

Hospital Authority Supporting Services Centre in Tin Shui Wai

New Acute Hospital at Kai Tak Development Area

Redevelopment of Prince of Wales Hospital (Phase 2) (Stage 1)

Extension of Operating Theatre Block of Tuen Mun Hospital

Expansion of North District Hospital

Expansion of Lai King Building in Princess Margaret Hospital

Schedule 2

Redevelopment of Kwong Wah Hospital

Expansion of United Christian Hospital

Expansion of Haven of Hope Hospital

Redevelopment of Grantham Hospital, Phase 1

Redevelopment of Our Lady of Maryknoll Hospital



Delivery of the 10-Year Hospital Development Plan

Hospital Development Plan

Works Agent

Projects

By ArchSD	By HA	
Redevelopment of Queen Mary Hospital (Phase 1)	New Acute Hospital at Kai Tak Development Area	Redevelopment of Kwong Wah Hospital
Redevelopment of Kwai Chung Hospital	Redevelopment of Prince of Wales Hospital (Phase 2) (Stage 1)	Expansion of United Christian Hospital
Community Health Centre in North District	Extension of Operating Theatre Block of Tuen Mun Hospital	Expansion of Haven of Hope Hospital
Community Health Centre in Shek Kip Mei & Ex-Mong Kok Market	Expansion of North District Hospital	Redevelopment of Grantham Hospital, Phase 1
Hospital Authority Supporting Services Centre in Tin Shui Wai	Expansion of Lai King Building in Princess Margaret Hospital	Redevelopment of Our Lady of Maryknoll Hospital

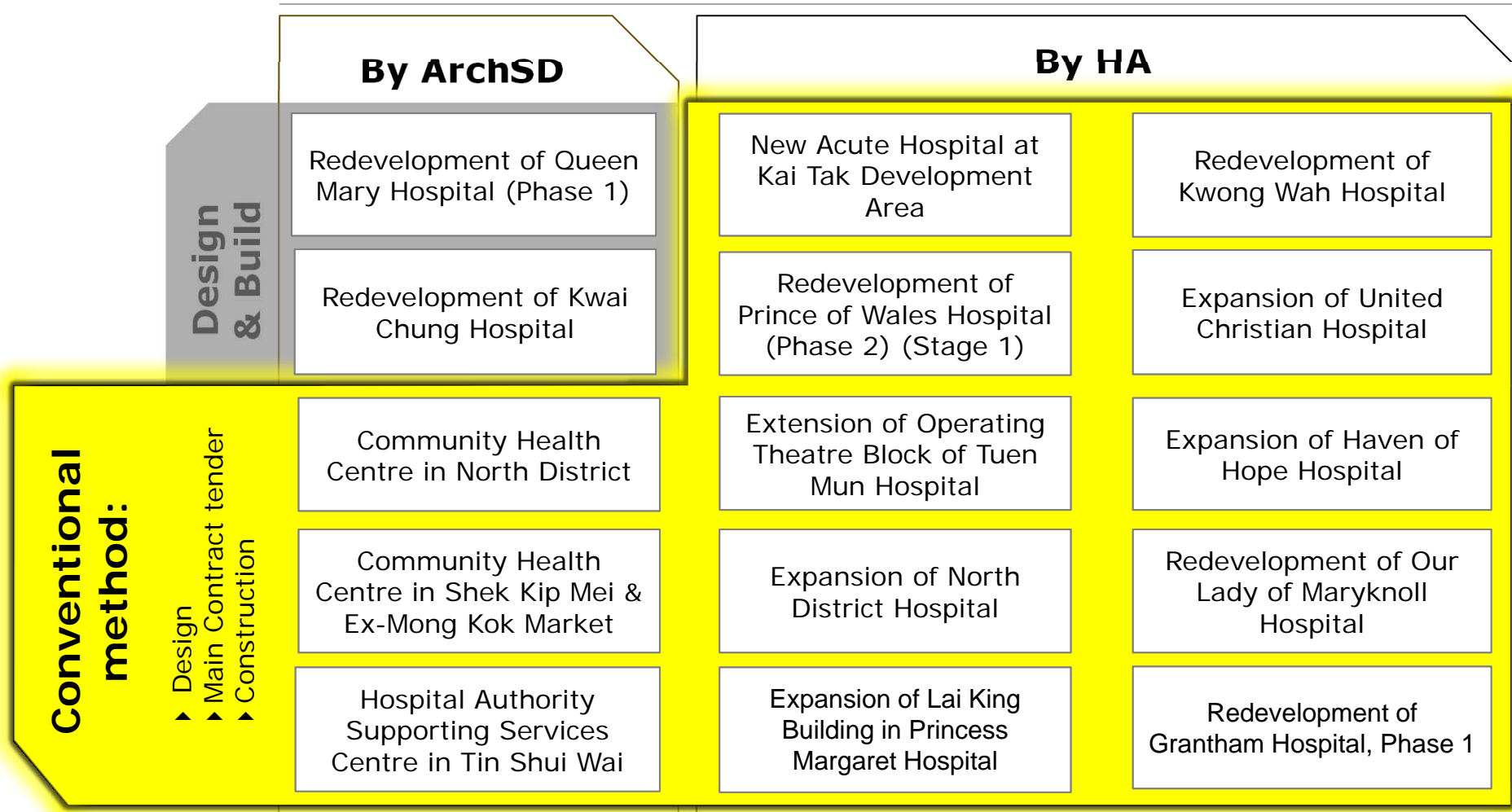


Delivery of the 10-Year Hospital Development Plan

Hospital Development Plan

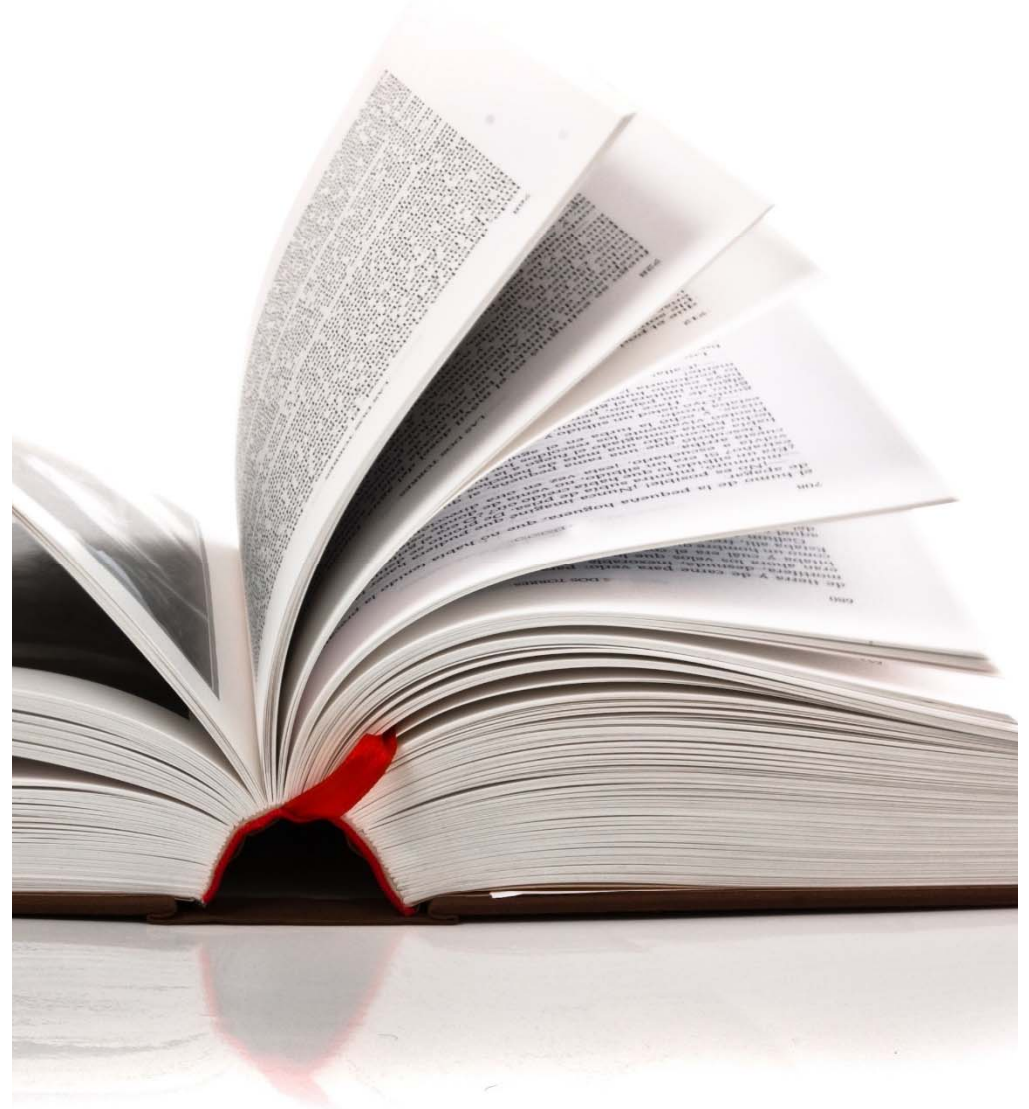
Works Agent

Projects





Procurement Principles





Goal

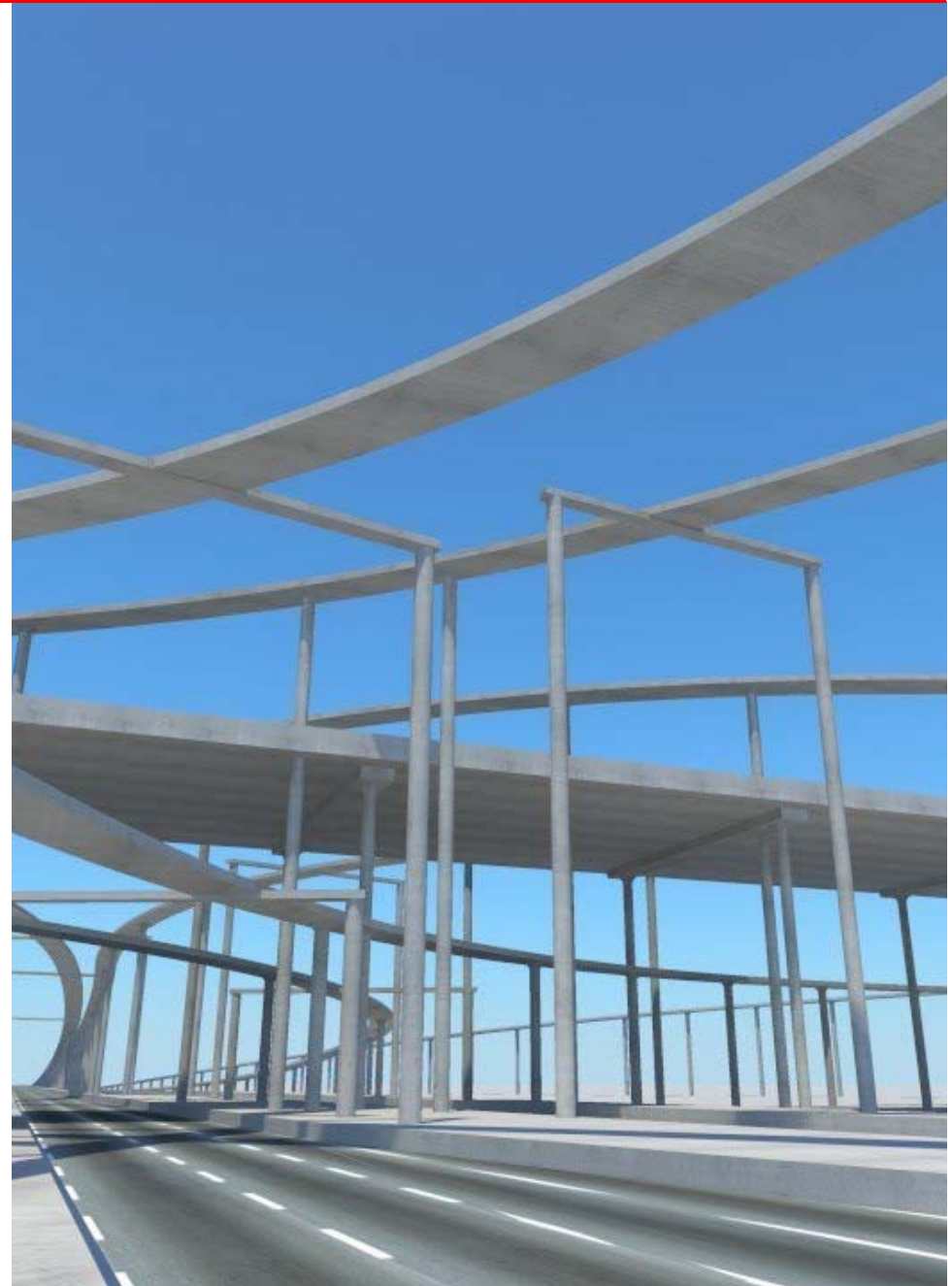
- International Best Practice
- Innovative Designs
- Efficient and effective planning
- State-of-the-art technology

Process

- Open and fair competition
- Probity and Ethics in procurement
- Align with government tendering procedures
- World Trade Organization Compliant

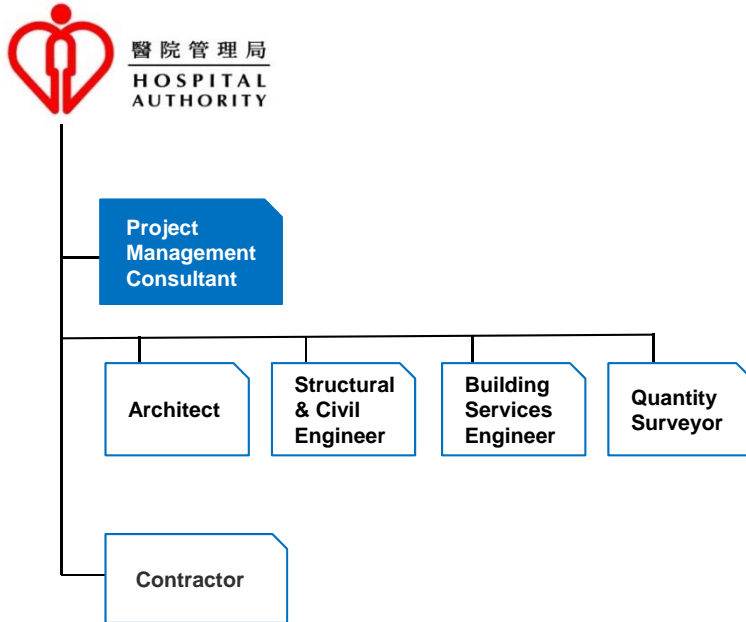


HA Procurement Routes



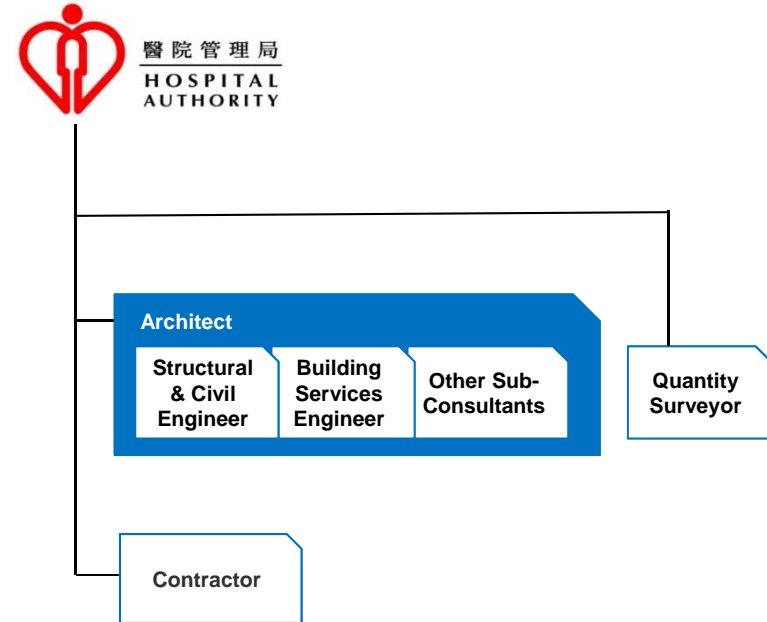


Projects procured in 2 routes



Route 1 [PMC Route]

- Appointment of Project Management Consultant
- Each consultant individually appointed
- Main Contractor directly appointed



Route 2 [Architectural Lead]

- Appointment of Architect as Lead Consultant by HA
- Sub-consultants are directly appointed by Architect
- Main Contractor directly appointed



Delivery of the 10-Year Hospital Development Plan

Hospital Development Plan

Works Agent

Projects

By ArchSD	By HA	
Redevelopment of Queen Mary Hospital (Phase 1)	New Acute Hospital at Kai Tak Development Area	Redevelopment of Kwong Wah Hospital
Redevelopment of Kwai Chung Hospital	Redevelopment of Prince of Wales Hospital (Phase 2) (Stage 1)	Expansion of United Christian Hospital
Community Health Centre in North District	Extension of Operating Theatre Block of Tuen Mun Hospital	Expansion of Haven of Hope Hospital
Community Health Centre in Shek Kip Mei & Ex-Mong Kok Market	Expansion of North District Hospital	Redevelopment of Grantham Hospital, Phase 1
Hospital Authority Supporting Services Centre in Tin Shui Wai	Expansion of Lai King Building in Princess Margaret Hospital	Redevelopment of Our Lady of Maryknoll Hospital









Delivery of the 10-Year Hospital Development Plan

Hospital Development Plan

Works Agent

Projects

		By HA	
Route 1 [PMC Route]		New Acute Hospital at Kai Tak Development Area	Redevelopment of Kwong Wah Hospital
		Redevelopment of Prince of Wales Hospital (Phase 2) (Stage 1)	Expansion of United Christian Hospital
Route 2 [Architectural Lead]		Extension of Operating Theatre Block of Tuen Mun Hospital	Expansion of Haven of Hope Hospital
		Expansion of North District Hospital	Redevelopment of Grantham Hospital, Phase 1
		Expansion of Lai King Building in Princess Margaret Hospital	Redevelopment of Our Lady of Maryknoll Hospital
			



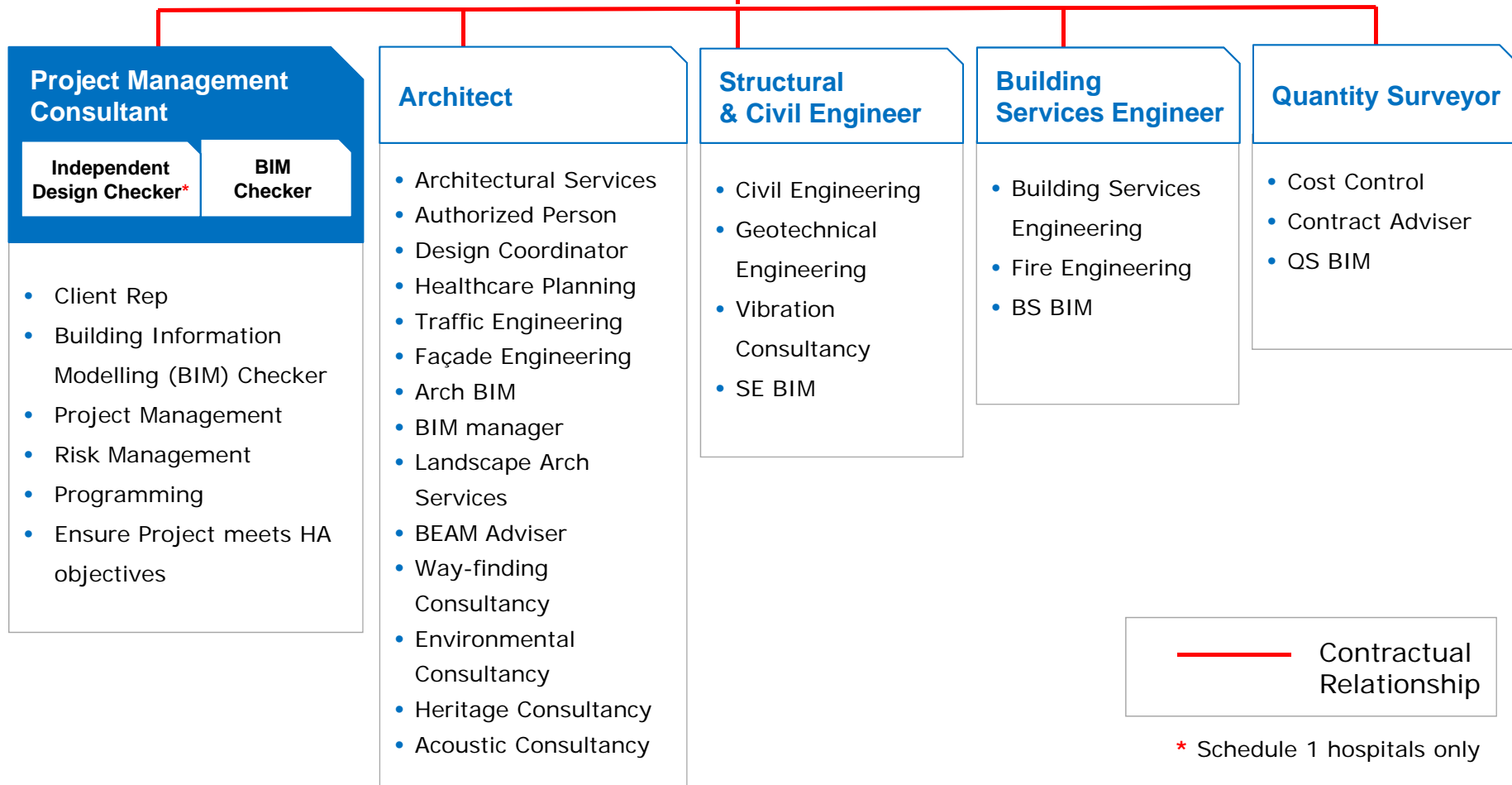
Procurement of Consultancy Services Under PMC

[Route 1]



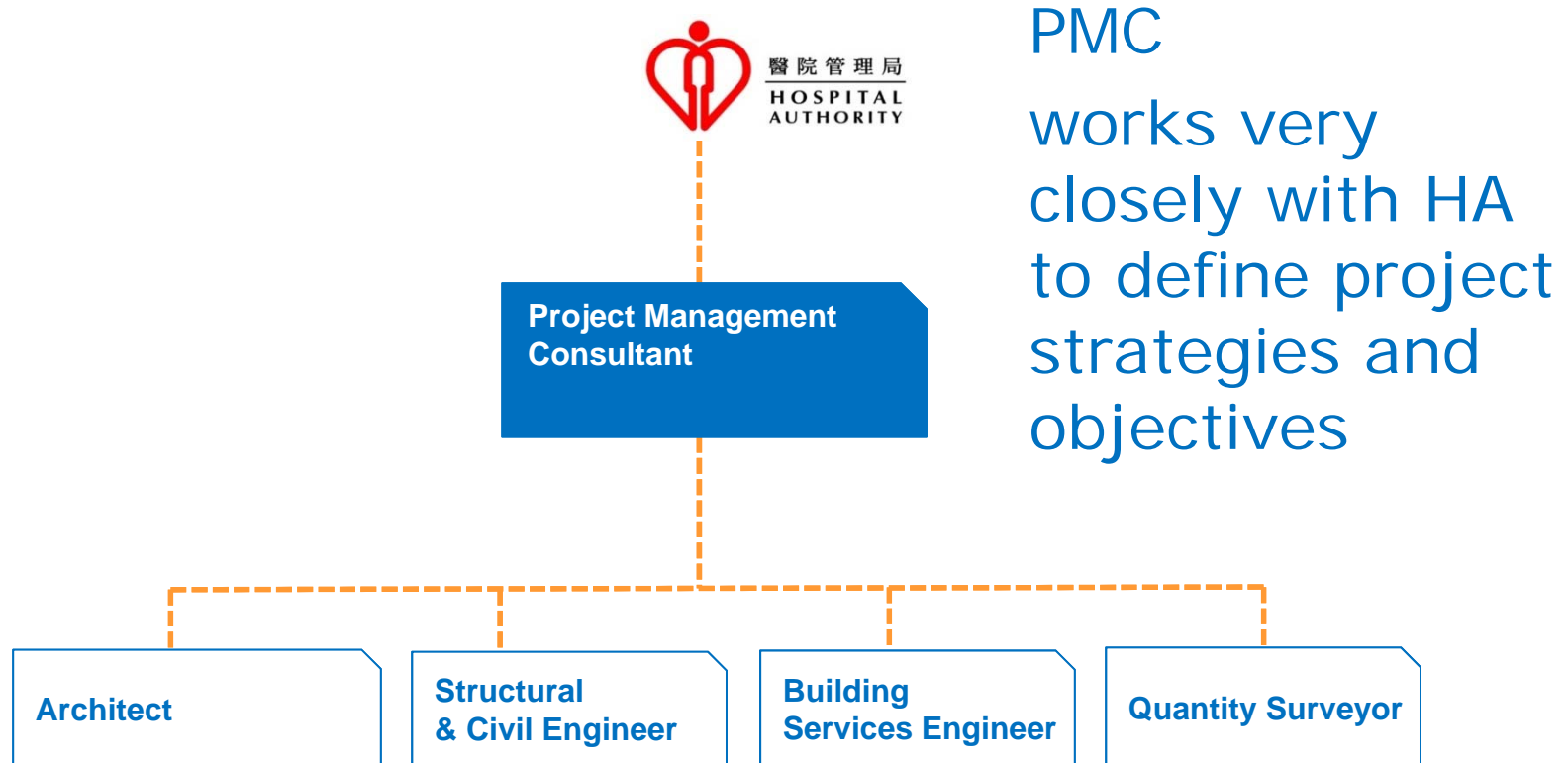


Contractual Relationship & Scope





Functional Relationship



PMC

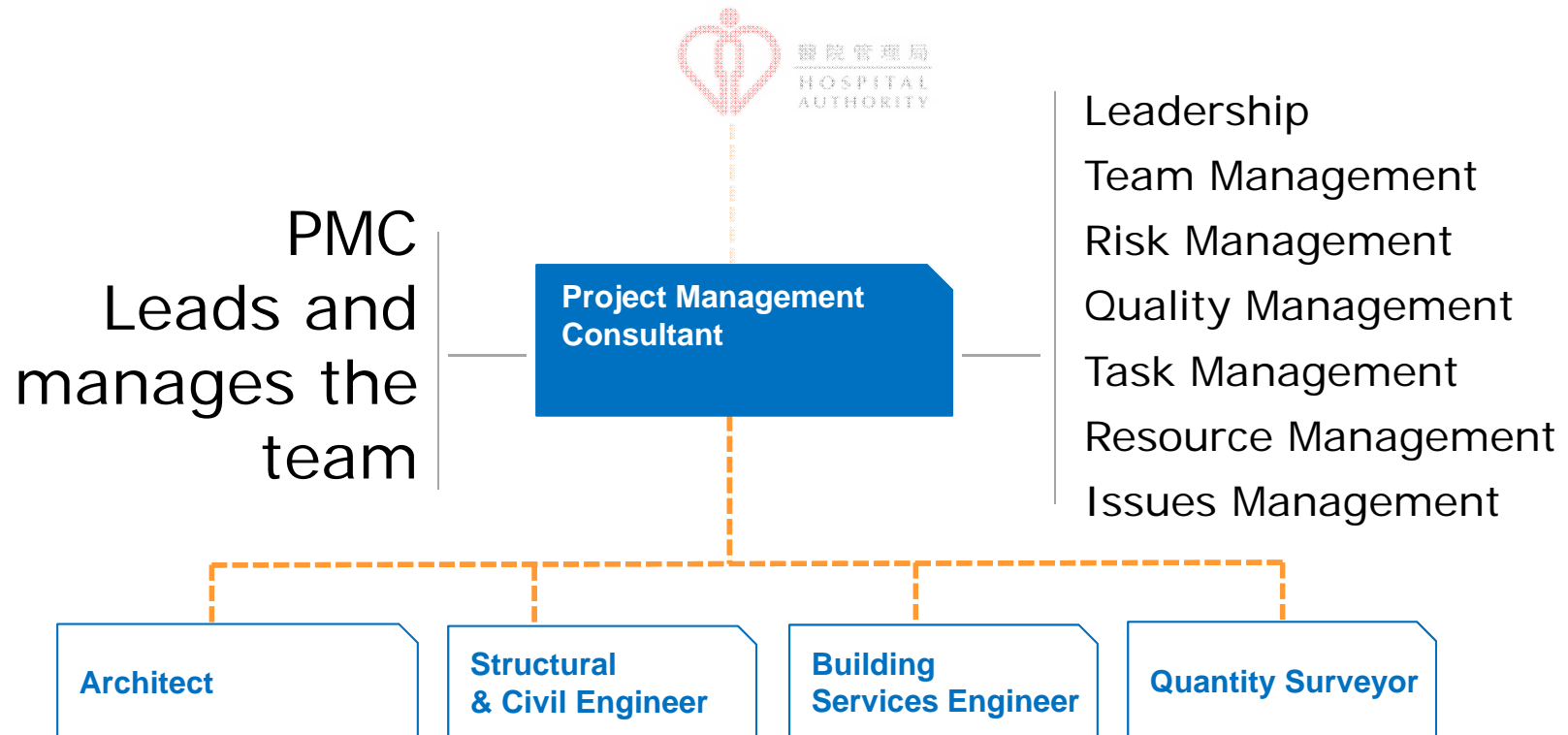
works very closely with HA to define project strategies and objectives





Procurement of Consultancy Services Under PMC Route

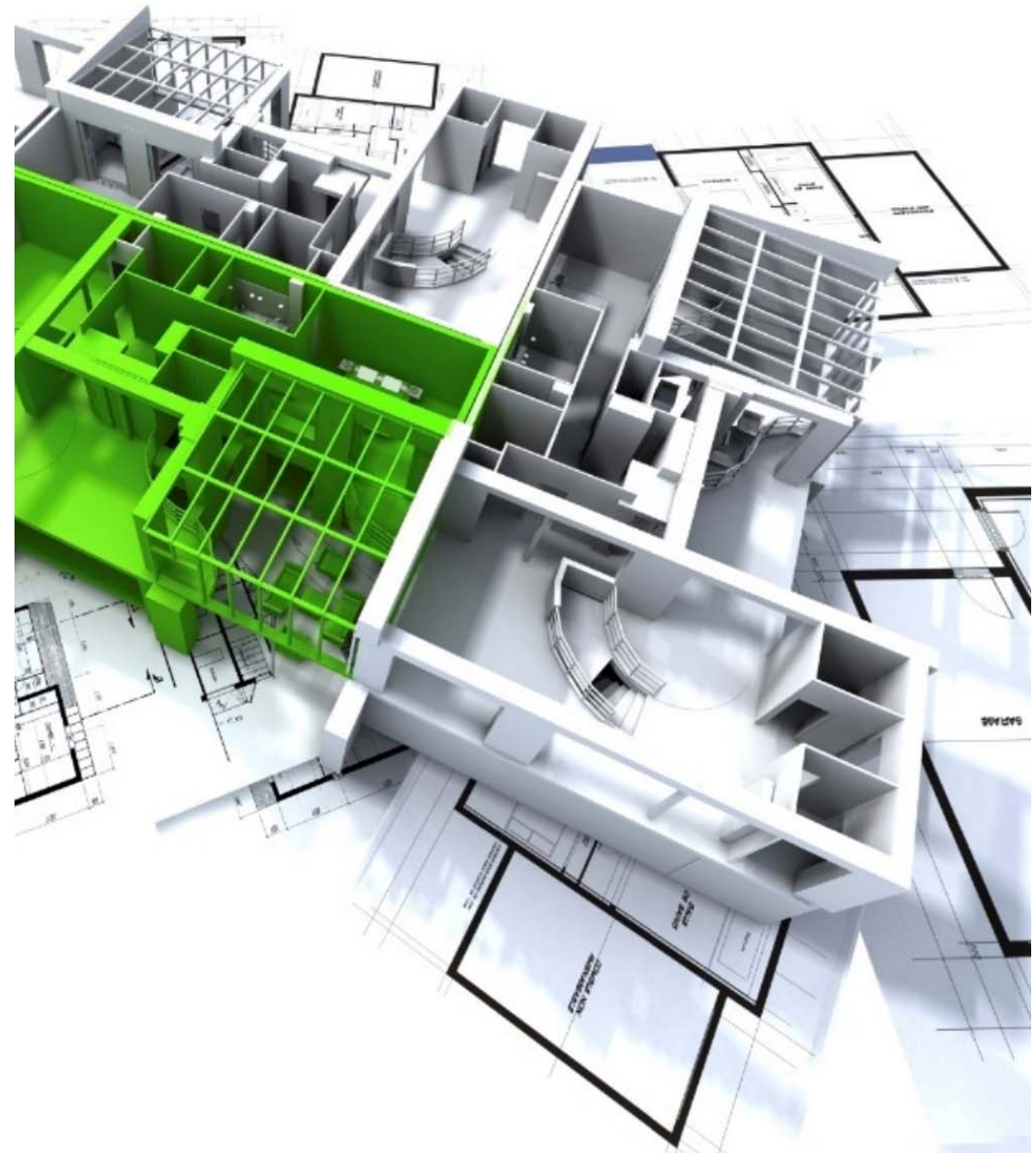
Functional Relationship



----- Functional Relationship



Introduction of
**Building
Information
Modelling
(BIM)**





Building Information Modelling (BIM)

Consultancy

Goal

- To facilitate End Users engagement process
- To do spatial coordination to reduce clash and discrepancies
- To assist tender preparation & quantity takes off

Extent

- 3D model to allow clash analysis with approximate size, shape and location of major building components
- Anticipated Level of Details LOD 200/300

Main Contract

Goal

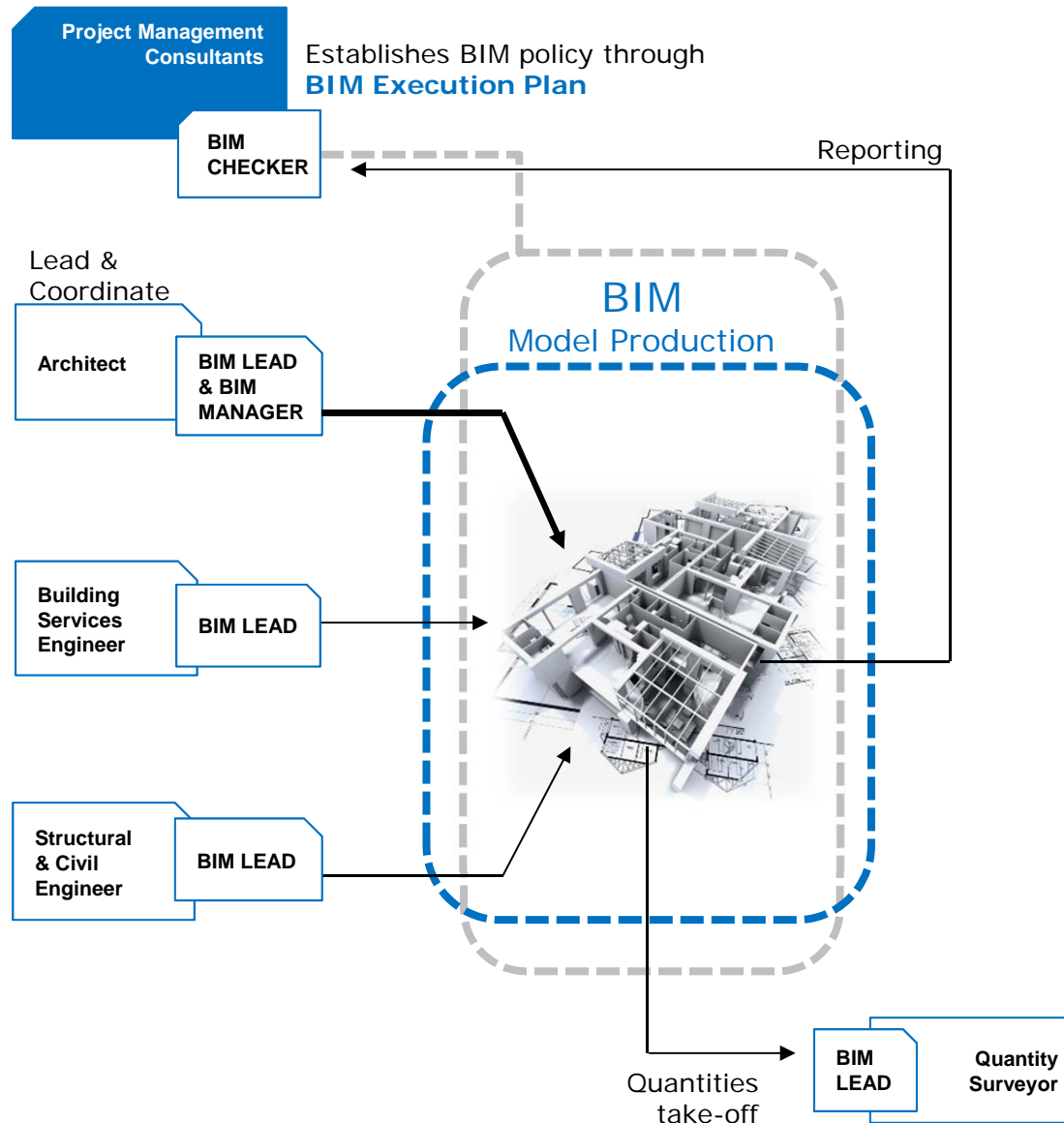
- Contractor develops tender BIM model for the use in construction
- Produce As-built BIM model for Facility Management





Building Information Modelling (BIM)

Consultant BIM Roles



Project Management Consultant BIM Policy / checker

- Administer BIM process
- Report clash analysis
- BIM Execution Plan

Architect BIM Lead & BIM Manager

- Produce & update architectural model & drawings
- Consolidate models
- Lead the coordination

Structural & Civil Engineer BIM Lead

- Produce & update structural model & drawings

Building Services Engineer BIM Lead

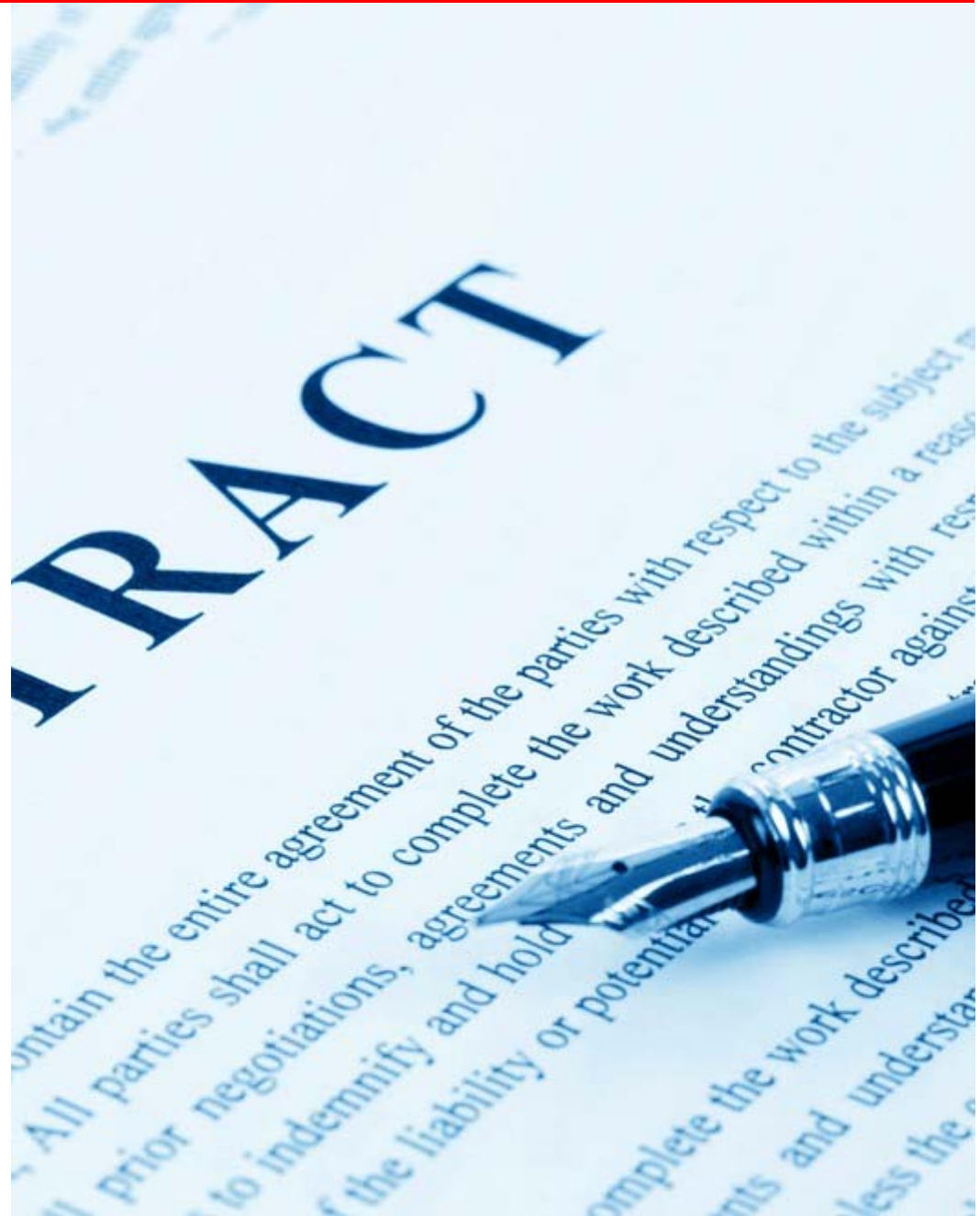
- Produce & update building services model & drawings

Quantities Surveyor BIM Lead

- Produce quantity takes off from model & drawings



Consultancy Tenders





Consultancy Tender Invitation

Project Management Consultant

- Open Tender
- For Schedule 1 Hospitals, Independent Design Checker must be a Band I Architectural Consultant on the List of the Architectural and Associated Consultants Selection Board (AACSB) to take up the role of Building Department/ Statutory Compliance
- Sub-consultants permitted ; Joint Venture not permitted





Design / Survey Consultants Tender Invitation

Architectural Consultant

**Quantity Surveying
Consultant**

**Structural & Civil
Engineering Consultant**

**Building Services
Consultant**

-
- Selective Tendering
 - All Band I on the List of The Architectural and Associated Consultants Selection Board (AACSB)
 - Sub-consultants permitted ;
Joint Venture not permitted





Multi-Disciplinary Tenderers

Multi-Disciplinary Tenderers

- Multi-disciplinary firms are permitted to tender and be awarded any or all of the following Agreements:

Architectural

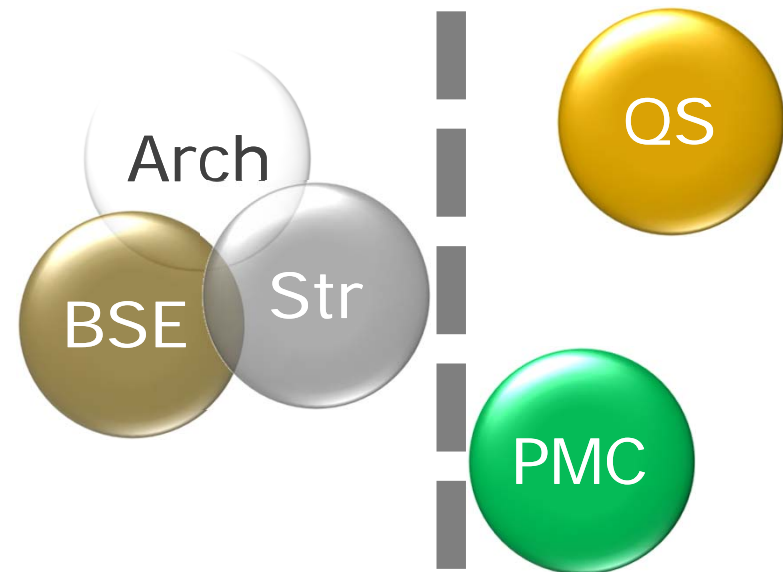
Structural & Civil Engineering,
and

Building Services

- Firms awarded the following Agreements cannot be awarded any of the other agreements to avoid conflict of interest:

Project Management Consultant

Quantity Surveyor Agreement





Consultancy Assessment



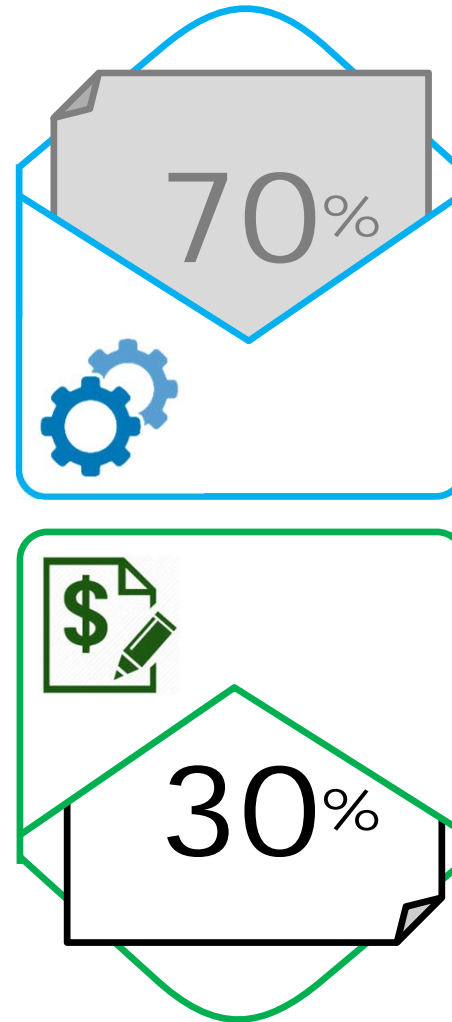


Two Envelope

Two envelope Assessment with Screening Criteria

- Screening Criteria:

(Only Tenders who pass the screening criteria will be considered for assessment)
- **70%** Technical Proposal
- **30%** Fee Proposal





Screening Criteria

Proven record of COMPLETING ONE

- Major hospital project (at a certain value) in Hong Kong or elsewhere / public or private sector

OR

- Building project of similar complexity and scale (at a certain value) in HK or elsewhere / public or private sector



Reflecting complex building services.

Example

Large Institutional Buildings

Residential Housing Blocks

Complex

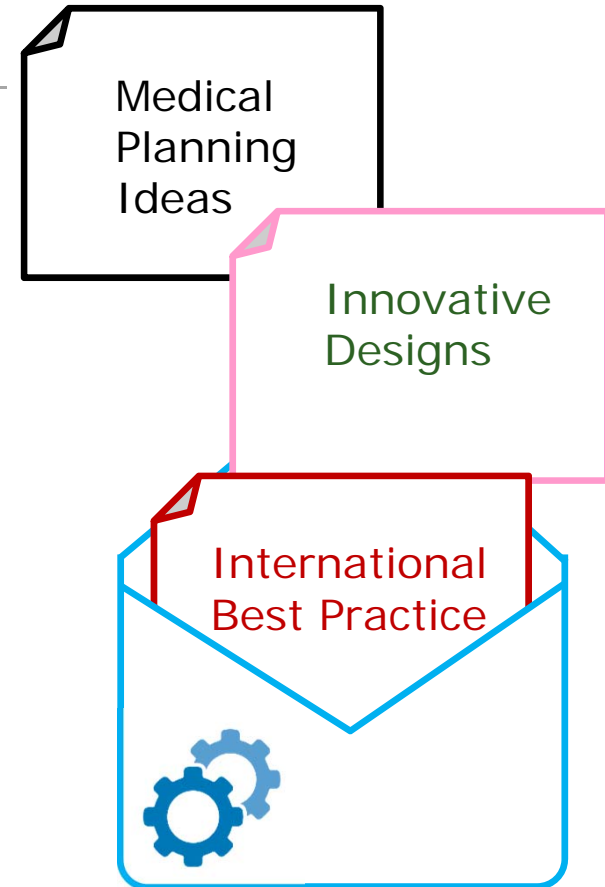
YES NO



Marking Scheme

70% Technical Proposal

- **Consultant's Experience**
Hong Kong, International
- **Response to the Brief**
Understanding of key objectives, identification of project constraints and innovative design
- **Approach to Cost Effectiveness and Sustainability**
Energy efficiency, green initiatives
- **Methodology and Program**
Efficient and effective planning, master program, risk management,
- **Staffing**
Staff experience, qualification and resourcing





Consultancy Assessment

Marking Scheme

70% Technical Proposal

Overall and sectional passing mark will be set

Those failing to pass Technical assessment will not be considered further



Scores

Agreements awarded to the conforming tender with the highest combined score calculated:

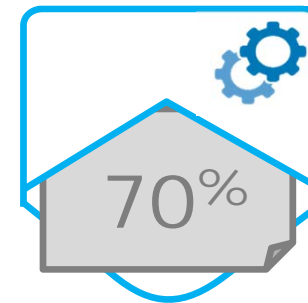
$$30 \times \frac{\text{The lowest tender fee}}{\text{The tender fee of the tenderer}}$$

+

$$70 \times \frac{\text{The tenderer's score}}{\text{The highest technical score}}$$



+





Procurement of Contractors for Main Contracts





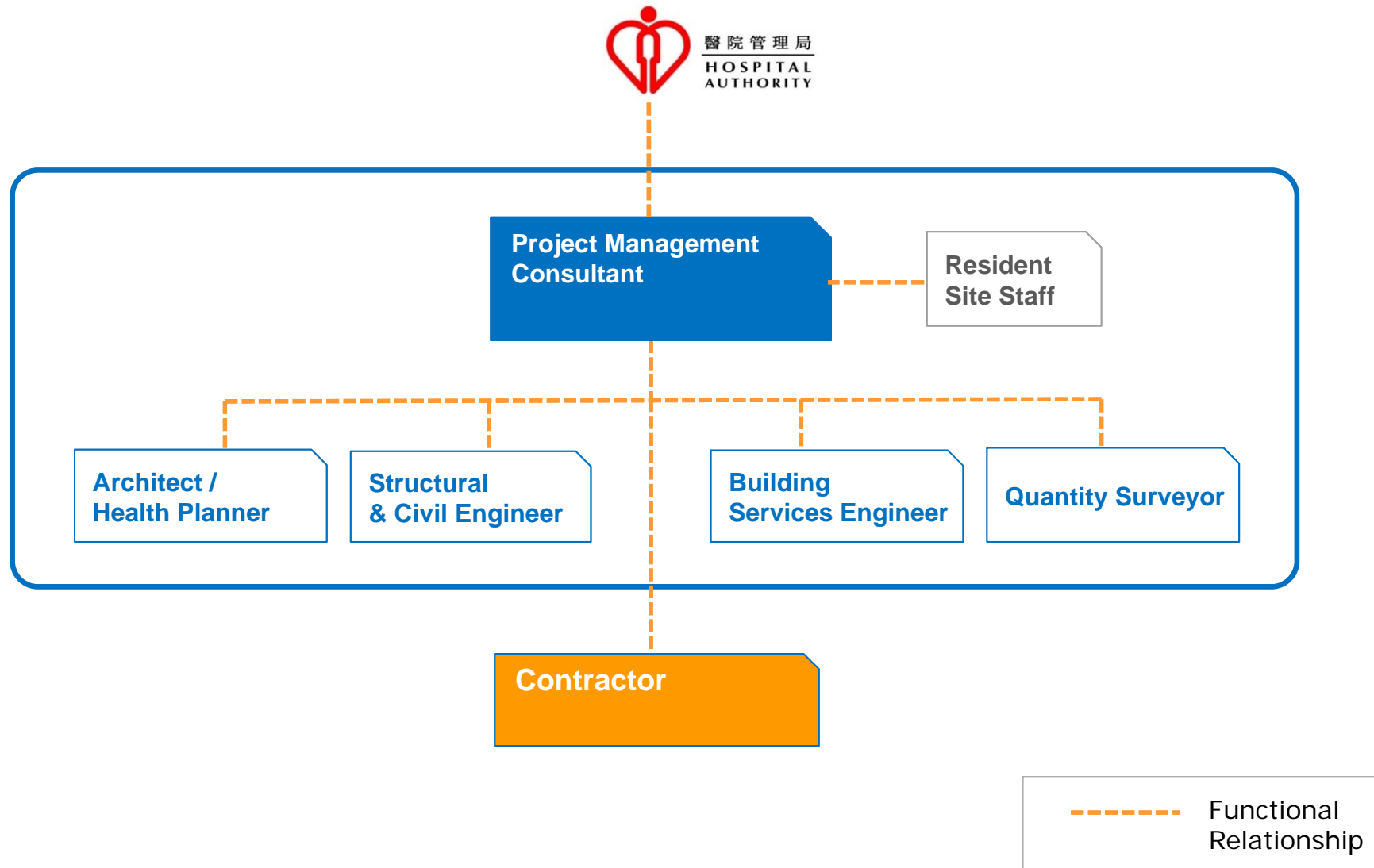
Procurement of Contractors for Main Contracts

Contractual Relationship





Functional Relationship

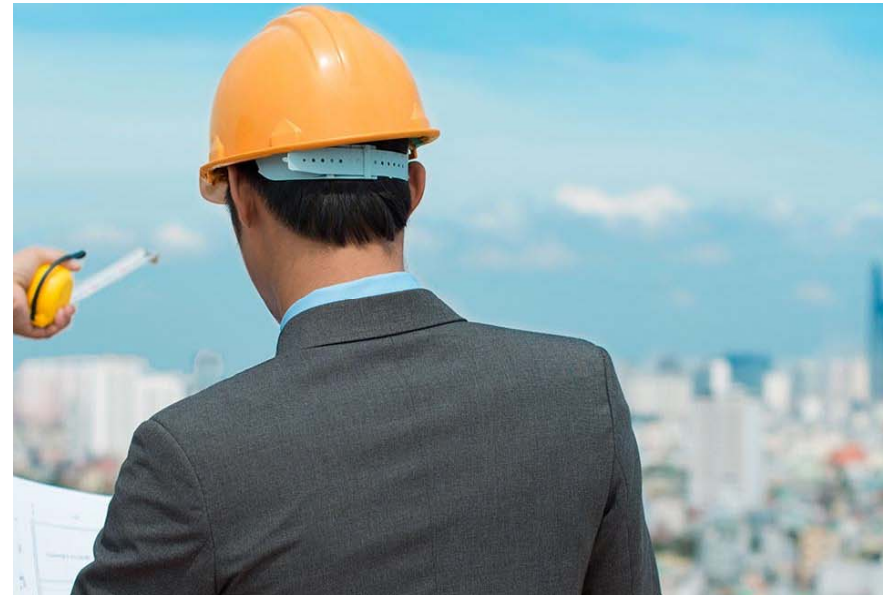




Tender Invitation

Main Contractor

- Selective Tendering
- Normally Confirmed Group C of Category of Buildings on the List of Approved Contractors for Public Works published by DEVB
- Joint Venture permitted
(must have leader with major share holding)





Procurement of Contractors for Main Contracts

Contractors Tenderer Assessment

Formula Approach with Screening Criteria

- **60%** Price
- **40%** Past Performance





Screening Criteria

Proven record of COMPLETING ONE

- Major hospital project (at a certain value) in Hong Kong or elsewhere / public or private sector

OR

- Building project of similar complexity and scale (at a certain contract value) with 20% value in building service in HK or elsewhere

AND

- The tenderer or his proposed specialist sub contractors possess all licenses, permits and other authorization required to perform the specialist works in accordance with all applicable laws and regulations



Marking Scheme – Formula Approach

- **40%** Past Performance

Performance Score:

Both performance and safety rating retained by:

DEVB (the latest score), *and*

HA (the latest available score under the same category will be considered on equal basis)

- **60%** Price (Lump Sum based on Bill of Quantities)

$$60 \times \frac{\text{the lowest Tender Price among those conforming Tenders}}{\text{the Tender Price of the Tenderer}} + 40 \times \frac{\text{the Tenderer's performance score}}{\text{the highest performance score among those conforming Tenders}}$$



Tentative Tender Invitation Dates

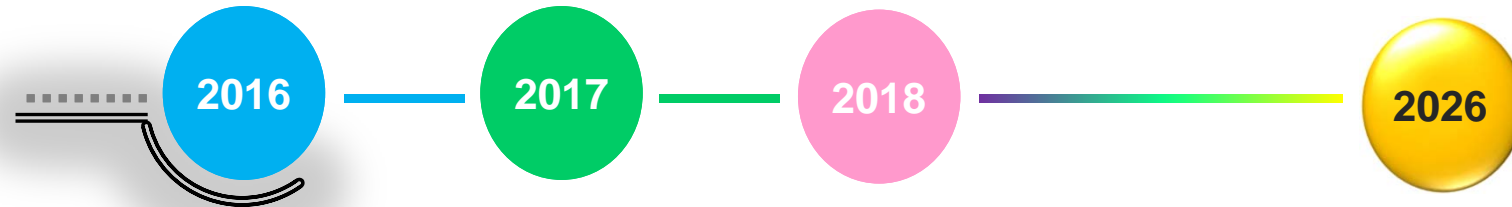
Tentative Tender Invitation Dates





Tentative Tender Invitation Dates

Timeline



Planned for 2016

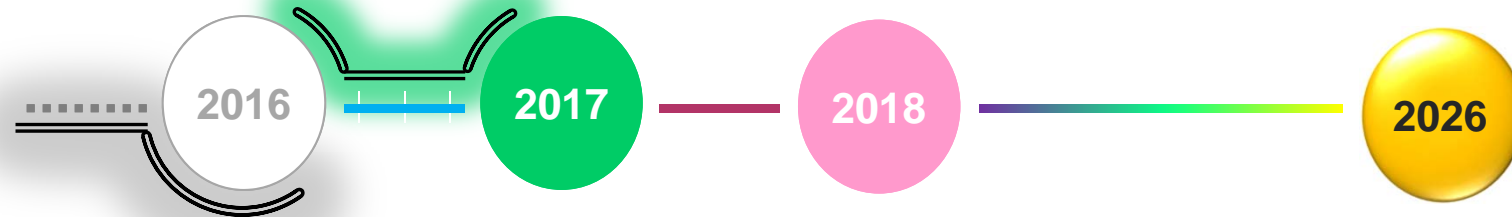
Consultancy

- [New Acute Hospital \(Kai Tak\)](#)
Consultancy Agreements &
Preparatory Works



Tentative Tender Invitation Dates

Timeline



Planned for 2017

Consultancy

- Prince of Wales Hospital (Stage 1, Phase 2)
Consultancy Agreements & Preparatory Works

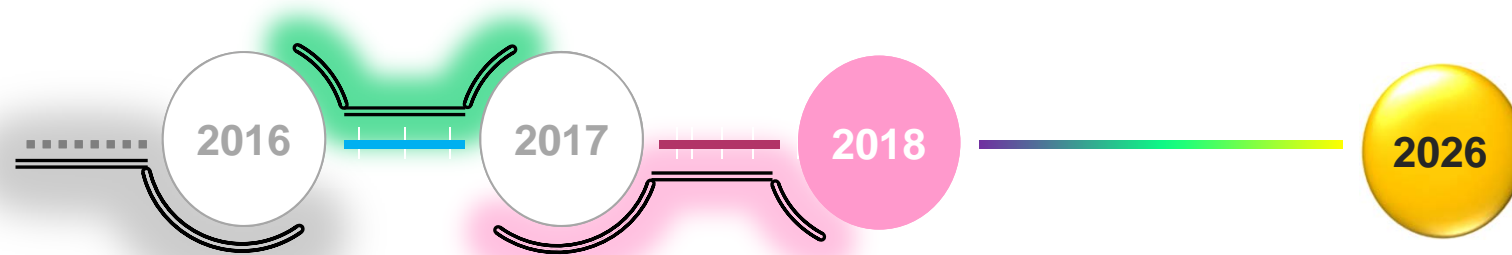
Works

- Queen Mary Hospital
Design & Build Main Contract
- Tuen Mun Hospital Operating Block
Main Works
- New Acute Hospital (Kai Tak)
Foundation Works



Tentative Tender Invitation Dates

Timeline



Planned for 2018

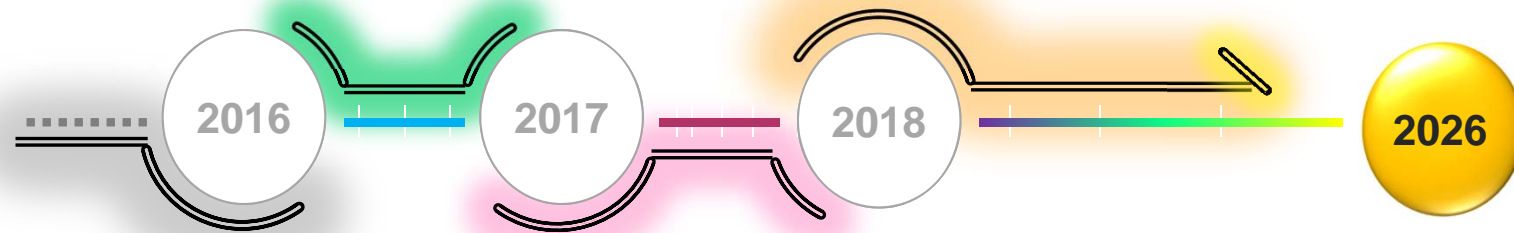
Works

- Kwong Wah Hospital (Phase 1)
Superstructure Works
- United Christian Hospital (Ambulatory
Block and Block S Extension)
Superstructure Works



Tentative Tender Invitation Dates

Timeline



Beyond 2018

Consultancy

- **Grantham Hospital**
Consultancy Agreements & Preparatory Works
- **Our Lady of Maryknoll Hospital**
Consultancy Agreements & Preparatory Works
- **North District Hospital**
Consultancy Agreements & Preparatory Works

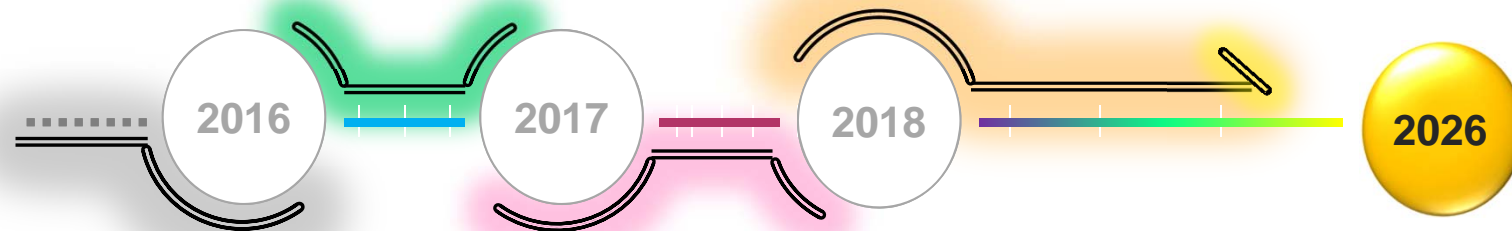
Works

- **Grantham Hospital (Phase 1)**
Demolition, site formation and foundation works
- **Grantham Hospital (Phase 1)**
Superstructure works
- **Kwong Wah Hospital (Phase 2)**
Demolition, site formation, foundations and superstructure works
- **Lai King Building in Princess Margaret Hospital**
Main works



Tentative Tender Invitation Dates

Timeline



Beyond 2018

Works...continued

- New Acute Hospital (Kai Tak)
Main works
- Our Lady of Maryknoll Hospital
Substructure works
- Our Lady of Maryknoll Hospital
Superstructure works
- North District Hospital
Main works
- Prince of Wales Hospital
(Stage 1, Phase 2)
Substructure works
- Prince of Wales Hospital
(Stage 1, Phase 2)
Superstructure works
- United Christian Hospital
(Blocks P & S)
Main works



Conclusion

- Hospital Authority Hospital 10-year Development Plan information available on:

<http://www.ha.org.hk>

- You can communicate with the Hospital Authority on the 10-Year Hospital Development Plan via email:

ha10yrhdp@ha.org.hk

- Further tender briefings will be arranged
- Today's presentation will be uploaded to HA Website
- Monitor the Hospital Authority's website for exact tender notices



Q & A





Q & A

Please clearly declare in English your:

1. Name
2. Company
3. Question





Thank you &
good luck!