## Memorandum for the Review Committee on Quality Assurance Issues Relating to Fresh Water Supply of Public Housing Estates of the Hong Kong Housing Authority

## Organization Structure for Delivery of Housing Authority's Construction **Projects**

## **PURPOSE**

This paper informs Members of the Organization Structure for Delivery of Housing Authority's construction projects.

## **BACKGROUND**

2. At the Review Committee (RC)'s meeting on 8 December 2015, Members were informed of the Technical Studies in Development and Construction Division of the Department. The Chairman requested information on the Organization Structure for Delivery of Housing Authority's construction projects.

## ORGANIZATION STRUCTURE

## **Housing Authority**

3. The Development and Construction Division (DCD) works as a fully integrated multi-disciplinary matrix organization. The total establishment of DCD as at 17 December 2015, including non-directorate staff, is 2 497.

At the strategy level of the organization structure, Deputy Director/Development & Construction (DD(DC) is charged with the responsibilities of, amongst others, formulating and implementing of policies, strategies and standards, for new public housing developments<sup>1</sup>. In support, one Assistant Director<sup>2</sup> looks after the development standards and procurement while three Assistant Directors<sup>3</sup> manage new works projects including the construction stage. Project delivery is achieved through multi-disciplinary teamwork within a matrix. Chief professionals of various disciplines are profession-specific section heads according to their respective fields of expertise, backed by a team of senior professionals, professionals and technical grade staff as well as the supervisory staff at the implementation level. In particular, the Chief Architect (CA) looks after projects from design, tender, construction to completion and post-completion stages and takes up the role of Project Manager, Design Team Leader, as well as Contract Manager<sup>4</sup> for building contracts. A project team is formed for individual projects with chief professionals of various disciplines plus their nomination of senior professionals and professionals. CAs

- 2 The job description of AD(Development and Procurement) includes: to establish, develop, maintain and review procurement strategies and practices to meet corporate needs; to assist DD(DC) in the formulation of construction policies and procedures with a view to producing quality public housing; and others.
- 3 The job description of AD(Project) includes: to oversee the design and construction of public housing and new Home Ownership Scheme developments, including new construction and redevelopment of existing estates, and to liaise with other departments and relevant parties to ensure that production targets are met; to assist DD(DC) in the formulation of construction policies and procedures with a view to producing quality public housing; and others.
- 4 Responsibility and Authority of
  - a) Project Manager (PM)
  - When a project is included in the PHCP/PHDF, the responsible Chief Architect becomes the Project Manager for the project.
  - Project Managers are responsible for monitoring quality standards in respect of design and construction.
  - b) Design Team Leader (DTL)
  - A Design Team Leader (DTL) is a Chief Architect responsible for coordinating and managing the multi-disciplinary design for a project to comply with requirements of the HKHA and HD.
  - c) Contract Manager (CM)
  - Contract Managers are responsible for controlling the production quality, progress and financial management of the contract.

<sup>1</sup> The Job description of DD(DC) includes: to assist Permanent Secretary for Housing Planning and Lands (Housing) in formulating and implementing policies and strategies in relation to public housing and explaining the same to the Housing Authority, Legislative Council and in public; to plan, develop and implement policies, strategies and legislation relating to the Public Housing Construction Programme (PHCP) and Public Housing Development Forecast (PHDF); to oversee the development and construction of public housing projects of the Housing Department, including new construction and redevelopment of existing estates and the associated quality management systems; and others.

and Chief Building Services Engineers (CBSEs) are involved in managing the design and construction of plumbing installation work of buildings. Since the HA does not possess a construction services arm, all construction works are executed by qualified contractors procured through competitive tendering conforming to the Government Procurement Agreement of the World Trade Organisation (WTO GPA).

5. The Organization Structure for Delivery of Housing Authority's construction projects is shown in the chart at **Annex 1**, and demarcation of responsibilities for managing the design and construction of plumbing installation work of buildings between architectural and building services discipline in the chart at **Annex 2**.

## **Main Contractor**

- 6. The Main Contractor is fully responsible for carrying out the Works required. Under the General Conditions of Contract, the Main Contractor has the general obligations to execute the Works including providing all necessary labour, materials, construction plant, temporary works and superintendence and completing the Works within the time as stipulated in the contract. The Main Contractor shall comply with the Contract Manager's instruction on any matter related to the contract and conform to all enactments and regulations including but without limitation to the Waterworks Ordinance (Cap. 102) and Waterworks Regulations (Cap. 102A) in the execution of the Works.
- 7. The Main Contractor is fully responsible for carrying out the Works, including plumbing installations, and maintaining continuous supervision on site at all times until completion of the Works and handing over upon issue of occupation permit. As contract administrators of the HA, the CAs and CBSEs of DCD are responsible for periodic supervision of the contractor's works on site. As required by the specifications, the Main Contractor shall also provide all necessary superintendence through a management team during currency of the works, and name a competent and authorized agent who should be constantly on site on a full time basis dedicated to the superintendence of the Works.
- 8. The Organization Structure for the Main Contractor is shown in the chart at **Annex 3**.

## **INFORMATION**

9. This paper is for Members' information.

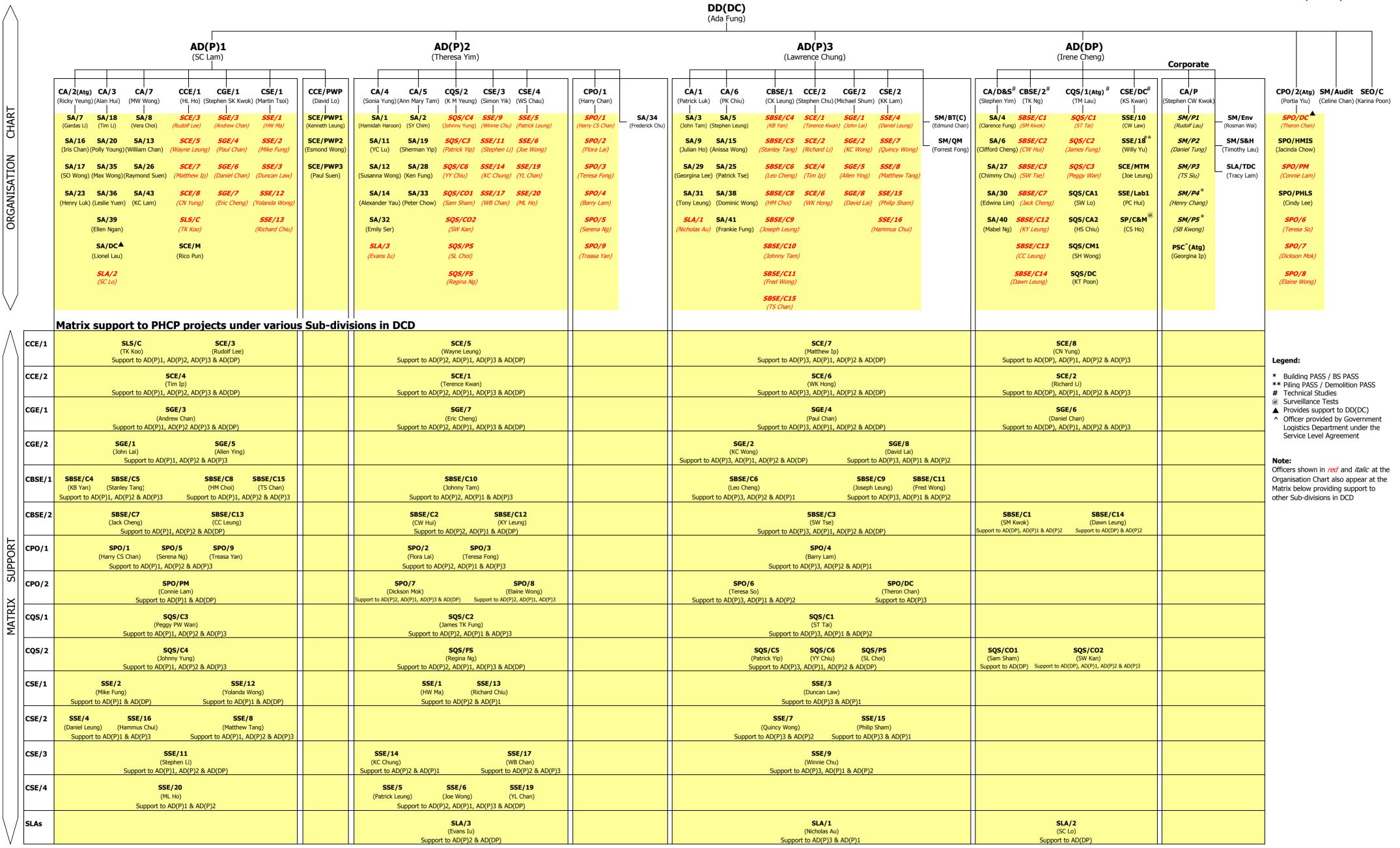
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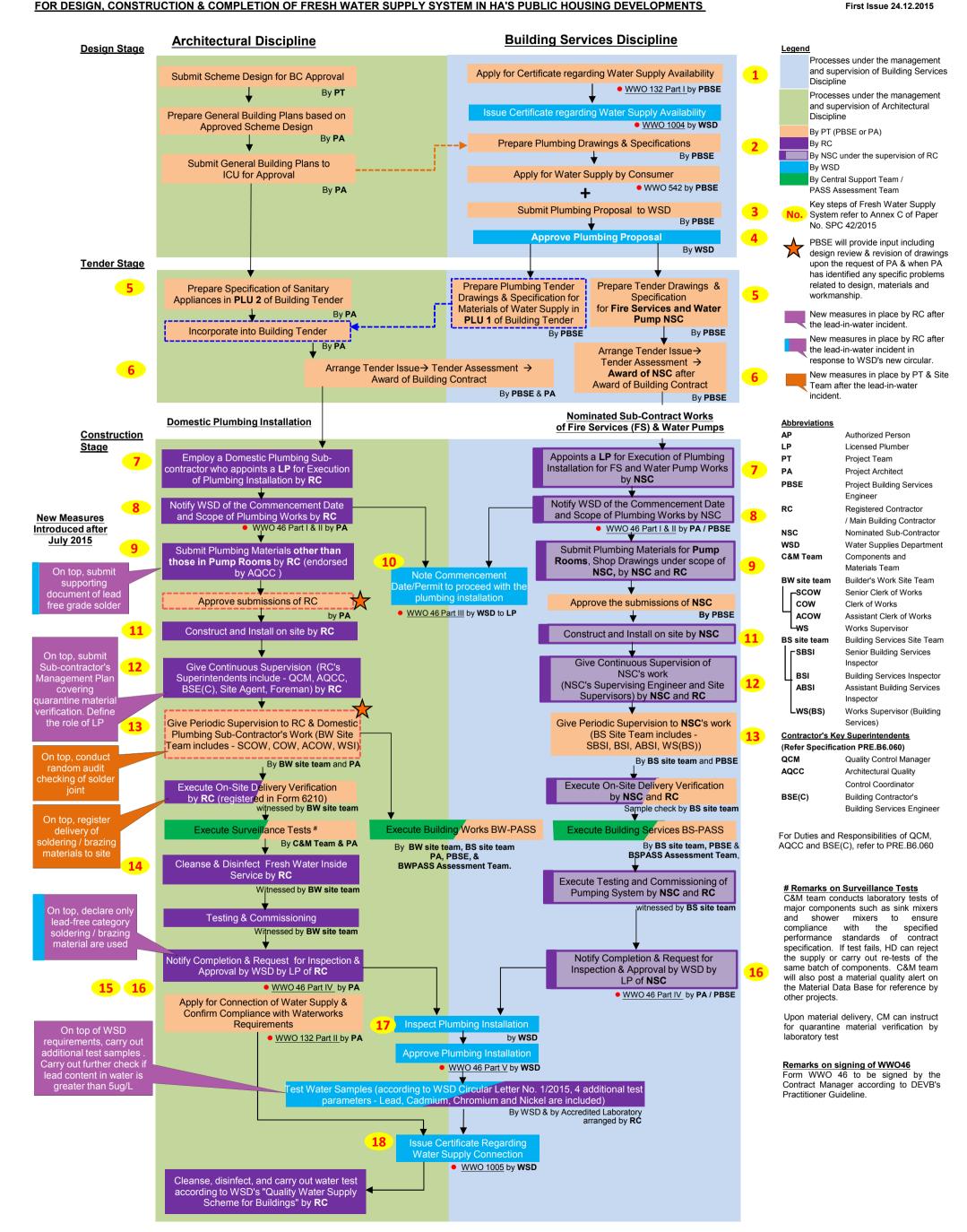
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File Ref. : HD (C) DS 624/1
Date of Issue : 28 December 2015
Date of Revision : 29 December 2015
Date of 2<sup>nd</sup> Revision : 5 January 2016

# Organisation Chart of Development and Construction Division for Delivery of Housing Authority's Construction Projects (As at 24 December 2015)

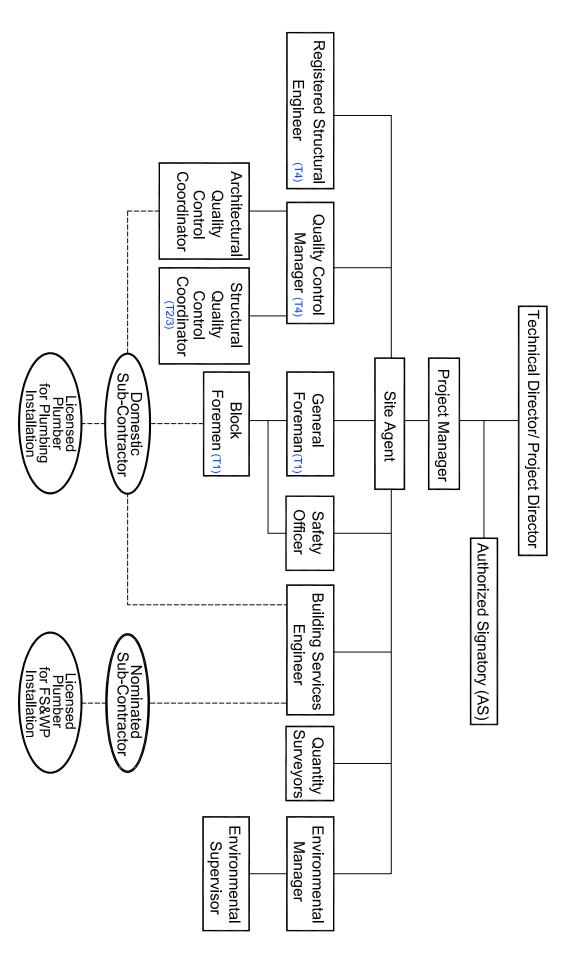






# Site Organization Chart showing Contractor's Superintendence according to Specification PRE B6.060





Remark on Technically Competent Person -

Memorandum issued under section 39A of Buildings Ordinance. According to Building (Administration) Regulation 41, the registered contractor shall carry out continuous supervision pursuant to the supervision plan prepared in compliance with the Technical

of Technically Competent Persons(TCPs) and their frequency level of inspection appropriate to various types of building works. For building works, TCPs that may be required under the Registered Contractor's Stream are T1, T2, T3 and T4, under the supervision of the AS. It is a common practice for the contractor's The Technical Memorandum for Supervision Plans 2009 (TMSP) was issued by Buildings Department in this regard and defines the classes of supervision by means of the number and grades

superintendents required under the Building Contract to take up the role of TCPs. An example of such was indicated in " BLUE" in the flow chart above.

Legend - FS & WP - Fire Services and Water Pumps

# Responsibilities and Duties of Authorized Signatory (AS), Quality Control Manager (QCM), Architectural Quality Control Coordinator (AQCC), Building Services Engineer and Site Agent

## 1. Authorized Signatory (AS)

The AS shall carry out the duties in the Site Supervision Plan (SSP) and other relevant requirements. The SSP shall comply in all respects with the requirements of the Technical Memorandum for Supervision Plans 2009 and the Code of Practice for Site Supervision 2009 published by Buildings Department. (Preliminaries PRE.B6.060 (15) refers)

## 2. Quality Control Manager (QCM):

The QCM shall be full time on Site. The duties and responsibilities of the QCM are as follows (Preliminaries PRE.B6.060 (2) refers) –

- (a) Organize, plan and supervise Quality Control Coordinators (QCCs) in checking, endorsing and inspecting works in their relevant disciplines;
- (b) Carry out further inspection, checking and endorse on QCCs' work;
- (c) Ensure works were inspected by the respective QCCs in accordance with the Quality Control System (QCS), and are in accordance with the Specification and Drawings before seeking Approval from Contract Manager (CM) to covering up under GCC Clause 7.3;
- (d) Certify photocopies of the ISO certificates for materials or components as true copies of the original certificates when circumstances warranted;
- (e) Submit relevant forms to CM within 14 days of completion of the works;
- (f) Any other duties as required in the Specification.

## 3. Architectural Quality Control Coordinator (AQCC):

The responsibilities and duties of AQCC are as follows (Preliminaries PRE.B6.060 (3) refers)—

- (a) AQCC shall assist QCM in inspecting and checking of the works, respond to queries and endorsing all relevant documents as assigned;
- (b) The AQCC shall check and endorse the following items and QCM shall further inspect and endorse the forms and documents relevant to items (i) and (ii) below:
  - (i) Architectural shop drawings, associated design and method statement;
  - (ii) Remedial works proposal;
  - (iii) Sample submission for materials and components;
  - (iv) Material delivered on Site against Approved samples;

- (v) Testing reports for materials and components;
- (vi) Request for inspection and tests;
- (vii) Delivery vouchers, certificate of origin, etc.;

## 4. Building Services Engineer:

The duties of the Building Services Engineer include the obligations defined in the following clauses (Preliminaries PRE.B6.060 (5) refers) –

## (a) PRE.B8.1410 – Site Meetings

- (i) Attend site meetings when required by the CM. Inform Nominated Sub-contractors, Direct Contractors and utility undertaking when their presence is required. Report on items of work as directed by the CM; and
- (ii) Arrange regular site meetings with Nominated Sub-contractors, Direct Contractors and utility undertakers. Provide CM with a copy of the minutes of such meetings.

### (b) PRE.B8.1420 – Coordination of Services

- Generally the Drawings for services are schematic and only indicate the approximate location of the various services;
- (ii) Ensure the compatible integration and co-ordination of the works to be undertaken by Nominated Sub-contractors both with one another and with the remainder of the Works and the works by Direct Contractors and Utilities Undertakers, propose a solution for the CM's approval if there is any conflict or incompatibility discovered during the course of the above co-ordination process;
- (iii) Supply to Nominated Sub-contractors, Direct Contractors, Utilities Undertakers all dimensions and other information necessary to ensure the correct and timely execution of the Works;
- (iv) Co-ordinate with Nominated Sub-contractors, Direct Contractors and Utilities Undertakers in the preparation of the schedules of submissions for installation drawings and materials, the programme of works and the testing and commissioning programme;
- (v) Verify and endorse the installation drawings prepared by Nominated Sub-contractors before submitting them to the CM for approval;
- (vi) Monitor and report the progress of Nominated Sub-contractors' submission and installation activities;
- (vii) Prepare a delivery method statement for all items of plant and equipment provided by Nominated Sub-contractors, Direct Contractors and Utilities Undertakers, including the identification of all temporary access requirements;

- (viii) Verify and endorse that the material delivered to Site and installed by the Nominated Sub-contractors are approved by the CM and in full compliance with the Contract requirements, in accordance with PRE.B12.280;
- (ix) Verify and endorse the test reports prepared by the Nominated Sub-contractors upon completion of the Sub-Contract Works that the installations are completed and in compliance with the Sub-Contract requirements; and
- (x) Additional obligations required for non-standard blocks.

(The details of Building Services Engineer's obligations under PRE.B8.1430, PRE.B8.1440, PRE.B12 and GCC Clause 5.25(3) below were not provided in this extract)

- (c) PRE.B8.1430 Progress and record photographs;
- (d) PRE.B8.1440 As-built drawings and documentations;
- (e) PRE.B12 Attendance, including general attendance on all trades, domestic subcontractors, nominated sub-contractors, direct contractors, government departments, utility undertakers and materials supplied by HA;
- (f) Obligations defined in GCC Clause 5.25(3) on making available information required by the CM to enable him to keep and maintain his site records properly; and
- (g) Liaise with the Safety Officers / Safety Supervisors on all Site operations in respect of building services Nominated Sub-Contractors.

## 5. Site Agent:

The Contractor shall name from the members of the management team a competent and authorized agent who shall be proficient in both Chinese and English and shall at all times represent the Contractor on the Site and receive on behalf of the Contractor instructions, orders or directions from the Contract Manager and the Contract Manager's Representative. Such agent shall be constantly on the Site on a full time basis dedicated to the superintendence of the Works. (HKHA General Conditions of Contract for Building Works clause 5.8(4) refers)