

Tender Reference No. : BM-TD-202301

4 December 2023

INVITATION TO TENDER
Provision of 24 months Maintenance Services for MVAC System
of CUHK Medical Centre
(Tender No.: BM-TD-202301)

The CUHK Medical Centre Limited (CUHKMC) intends to invite Tenderer to submit a proposal for Provision of 24 months Maintenance Services for Mechanical Ventilation and Air Conditioning (MVAC) System of CUHK Medical Centre.

If your company is interested, please submit a full proposal with all required submissions mentioned in the Tender documents by **12:00 noon on 12 January 2024 (HK Time)**.

To ensure compliance with the Tender requirements, Tenderers are strongly advised to attend the site visit session prior to the submission of Tender. The site visit session will be arranged on **13 December 2023** afternoon. Interested tenderer please register by email (procurement@cuhkmc.hk) before 12:00 noon on **11 December 2023 (HK Time)**.

Late submissions or incomplete proposals will not be considered. Please note that this invitation for proposal is non-committal on our part and your proposal would be provided to CUHK Medical Centre Limited at no cost.

Yours faithfully,



Cindy LEUNG
Senior Manager, Supplies & Procurement
CUHK Medical Centre Limited

Enclosure

CUHK Medical Centre Limited

Tender Invitation

on

**Provision of 24 months Maintenance Services
for MVAC System of CUHK Medical Centre**

Tender Reference: BM-TD-202301

Tender Issue Date: 4 December 2023

Tender Closing Date and Time: 12:00 noon on 12 January 2024 (HK Time)

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II	Terms of Tender
III	Conditions of Contract
IV	Special Conditions of Contract
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PART I

INTERPRETATION

In this Tender document, the following words and expressions shall have the following meanings unless otherwise stated:

“Contract”	means the contract made between CUHKMC and the Successful Tenderer for the provision of Services;
“Successful Tenderer”	means the Tenderer whose Tender is accepted by CUHKMC;
“Services”	means the services to be provided by the Successful Tenderer under the Contract;
“CUHKMC”	means CUHK Medical Centre Limited;
“CUHKMC Representative”	means the person acting for and on behalf of CUHKMC or any duly authorised officer for the time being performing his/her duties;
“Tender”	means the Tender submitted by the Tenderers for the provision of Services;
“Tenderer” or “Company”	means the person, firm or company whose details are set out in the relevant Schedule of Submissions (“Schedule”).

PART II

TERMS OF TENDER

1 Invitation to Tender

- 1.1 Tenderers are invited for the provision of Services subject to and in accordance with the requirements/specifications, Terms of Tender and Conditions of Contract.
- 1.2 CUHKMC reserves the right in its absolute discretion to cancel this Tender at any time.
- 1.3 CUHKMC will not be responsible for or liable to any Tenderer for any cost or expense incurred in relation to (i) the preparation or submission of the Tender; or (ii) any communication between the Tenderer and CUHKMC in relation to the Tender, under any circumstances (including the cancellation of this Tender by CUHKMC).
- 1.4 The Tenderer acknowledges and agrees that CUHKMC is not responsible for the accuracy of any information provided in this Tender, and the Tenderer has made its own independent evaluation of the business potential of the Tender Brief and it has submitted its Tender submission based solely on the result of such independent evaluation.
- 1.5 The Tenderers are required to fill in the information indicated in “Offer To Be Bound” (Part V).

2 Tender

- 2.1 This Tender relates to the provision of all (or any part) of the Services whose details and specifications are set out in the Tender Brief.
- 2.2 Tenderer must note that its offers in their tender submission must comply with the requirements of this Tender in every respect. Tender submission which does not comply with requirements shall not be considered.
- 2.3 The Tender documents are to be completed in English (except where certain Supporting Documents are expressly required to be in Chinese) and in permanent ink or typescript and submitted in the manner stipulated. Tenderer is required to stamp and initial next to any corrections made.
- 2.4 The Schedule issued with this Tender must not be altered by the Tenderer. Any modification of the Schedule considered necessary by the Tenderers should be the subject of a separate letter accompanying the Tender. Figures should not be altered or erased; any alteration should be effected by striking through the incorrect figures and inserting the correct figures in ink above the original figures. All such amendments should be initialed by the Tenderer in ink.
- 2.5 Tender are to be completed in permanent ink or typescript; Tender not so completed may not be considered.

- 2.6 Tender may not be considered if complete information is not given with the Tender or if any particulars and data asked for in the Schedule are not furnished in full. Where appropriate, descriptive and technical literature should be submitted with the Tender. CUHKMC Representative may request clarification of particulars and data supplied, or additional particulars and data, and if so the Tenderer shall have 5 working days or such further period as CUHKMC Representative may specify to submit such further information. Failure to do so within the time period shall result in the Tender being considered incomplete.
- 2.7 CUHKMC Representative is not bound to accept the lowest or any Tender and reserves the right to accept all or any part of any Tender at any time within the Tender Validity Period.

3 Tender Validity Period

Tender shall, unless otherwise indicated by the Tenderer, remain open for **one-hundred-and-twenty (120) days** after the Tender Closing Date and the Tenderer agree not to withdraw the offer constituted by such Tender for this period (“Tender Validity Period”).

4 Tender Prices

- 4.1 The prices to be quoted by the Tenderer are to be in Hong Kong currency and must only be shown on the Schedule. Such prices shall be net prices allowing for all trade and cash discounts and inclusive of all cost and expense to be incurred by the Tenderer in the performance of the Contract. Prices must remain valid for the duration of the Contract and for the provision of all of the Services.
- 4.2 Prices quoted in other currencies will be considered and if accepted, payment will be made in the quoted currency. All bank charges incurred by the Successful Tenderer will be borne by the Successful Tenderer.
- 4.3 For price comparison purposes, any prompt payment discount offered by the Tenderers will not be taken into consideration in assessment of Tender Prices.
- 4.4 Tenderers are reminded to ensure the accuracy of their Tender prices quoted in the Price Proposal. Under no circumstance will CUHKMC accept any request for price adjustment on grounds that a mistake has been made in the Tender prices quoted by a Tenderer.
- 4.5 CUHKMC reserves the right to negotiate with any Tenderer on the terms of the offer.

5 Acceptance and Award of Contract

The Successful Tenderer will receive a letter of acceptance from CUHKMC as an indication of acceptance of the offer submitted by the Tenderer. The letter of acceptance, together with the Requirements, the Terms of Tender and the Conditions of Contract set forth herein, the submitted proposal of the Successful Tenderer (or parts thereof as accepted by CUHKMC), the Offer to be Bound signed by the Successful Tenderer, and all other negotiated terms (if any) as agreed between CUHKMC and the Successful Tenderer shall constitute a binding contract between CUHKMC and the Successful Tenderer. Tenderer who do not receive any notification

within one-hundred-and-twenty (120) days from the Tender Closing Date may assume that its Tender has not been accepted.

6 Presentation

Tenderer may be invited to provide a brief presentation.

7 Product / Service Information

Tenderer shall submit with the Tender a sufficient and valid product / service information, e.g. catalogues, technical specifications, brochures, etc. Additional copies may be requested from CUHKMC to facilitate easy reference and ordering.

8 New Information Relevant to Qualified Status

Tenderer shall inform CUHKMC in writing immediately of any circumstance or information which may affect its qualification to tender in this Tender. CUHKMC reserves the right to review its qualified status in the light of any new information relevant to its qualification.

9 Cancellation of Tender

Without prejudice to CUHKMC's right to cancel this Invitation to Tender at any time before acceptance of any Tender, where there are changes of requirements after the Tender Closing Date, for operational or any other reasons, CUHKMC is not bound to accept any conforming Tender and reserves the right to cancel this Invitation to Tender.

10 Destruction of Unsuccessful Tender

- 10.1 CUHKMC will return the unsuccessful tender submissions upon one-hundred-and-twenty (120) days of Tender closing. The unsuccessful Tenderer(s) should contact CUHKMC to collect its/their tender submissions. If any unsuccessful Tenderer fails to collect its tender submissions within ten (10) days after the one-hundred-and-twenty (120) days of Tender closing, CUHKMC will dispose of its tender documents without notifying such Tenderer.
- 10.2 Where this Invitation to Tender is cancelled, all tender submissions under this Invitation to Tender can be destroyed any time after such cancellation without further notice to the Tenderers.

11 Microsoft Windows Support

- 11.1 Tenderer has the responsibility to plan and take appropriate actions on the equipment or system to safeguard against the risks of Windows desktop Operating System obsolescence, including to upgrade the computers to a supported Windows desktop Operating System version to ensure the continued support and avoid security risks of the equipment or system provided to CUHKMC.

12 Personal Data

- 12.1 Tenderer's Personal data (as defined in the Personal Data (Privacy) Ordinance (Cap. 486 of the laws of Hong Kong) ("Personal Data") of Tenderer and/or its personnel (collectively, ("Tenderer's Personal Data")) may be requested for purposes related to evaluation of offer. When Tenderer's Personal Data is provided, please make sure that the data is accurate and complete. If Tenderer fails to provide the information required or if the information provided is inaccurate or incomplete, the evaluation of the Tenderer's offer will be affected.
- 12.2 Personal Data may be made available to:
- a. CUHKMC Representative.
 - b. Any other relevant parties who require it for matters related to evaluation and (if applicable) acceptance of Tenderer's offer.
- 12.3 CUHKMC Representative will only use, disclose or transfer the Tenderer's Personal Data provided:
- a. For the purposes relating to evaluation and (if applicable) acceptance of offer or directly related purposes; or
 - b. Where permitted by law.
- 12.4 CUHKMC Representative will obtain the Tenderer's consent before using Tenderer's Personal Data for any other purposes.

13 Commitment to Environmentally Responsible Purchasing

- 13.1 CUHKMC is sensitive to the environmental impact of purchasing decisions and takes account of legitimate environmental concerns while continuing to achieve best value for money in its purchasing functions.
- 13.2 CUHKMC identifies products/ services which present environmental concerns and addresses these concerns in the approval of the tender specifications and in the tender evaluation process.

14 Environmental Friendly Measure

The following environment friendly measures are recommended in the preparation of the Tender documents:

- 14.1 All documents should preferably be printed on both sides and on recycled paper. Papers exceeding 80 gsm are not recommended.
- 14.2 Excessive use of plastic laminates, glossy covers or double covers should be avoided as far as possible. Use of recyclable non-glossy art board paper as document covers is recommended.
- 14.3 Single line spacing should be used and excessive white space around the borders and in between the paragraphs should be avoided.

15 Consent to Disclosure

CUHKMC shall have the right to disclose whenever it considers appropriate, or upon request (verbal or written) by any third party (including unsuccessful tenderer(s)) information of the Contract, such as the name and address of the Successful Tenderer, product description/brand/model/country of origin (if applicable), description of the relevant services (if applicable) and the value of the Contract, without reference to or consent from the Successful Tenderer. Unsuccessful tenderer may also enquire as to the reason for the rejection of their tender submissions.

16 Offering Gratuities

Tenderer shall not, and shall assure that its employees, agents and sub-contractors shall not, offer, solicit or accept an advantage as defined in the Prevention of Bribery Ordinance (Cap. 201 of the laws of Hong Kong) in connection with this Tender.

17 Tender Submission

- 17.1 The documents attached herewith should only be used for the submission of a tender in response to this invitation. The “Submission of Tender” should be completed by Tenderer with signature and company chop. The submission may be accompanied by documents containing additional explanations, amplifications or specifications, which should be stapled securely to the form.
- 17.2 This tender shall be conducted in a two-envelope bidding process. **Technical Proposal and Price Proposal should be submitted separately.**
- 17.3 The Tenderer shall submit the Technical Proposal and the Price Proposal under its Tender submission in two separate sealed plain envelopes, each containing one set of original, three sets of duplicate, and one soft copy in CD-ROM/USB of the relevant proposal. Both the envelope for Technical Proposal and the envelope for Price Proposal should clearly state the subject of this Tender and the tender reference number. In the event of conflict between any hardcopy version and the softcopy version, the original hardcopy version shall prevail.
- 17.4 Each proposal (and any accompanying document(s)), properly completed and enveloped, must be placed in the Tender Box by **12:00 noon on 12 January 2024 (HK Time)**. The Tender box is situated at the following address:

Address: CUHK Medical Centre Limited
12/F, CUHK Medical Centre
9 Chak Cheung Street
Shatin, New Territories
Hong Kong

The office hours of CUHKMC are 9:00 am to 12:30 pm and 2:30 pm to 5:00 pm, Monday to Friday (except public holidays). **Late Tender will not be considered.**

- 17.5 The Tender Closing Time and Tender Closing Date will be extended to 12:00 noon of the next working day in Hong Kong (i.e. any day from Monday to Friday which is not a public holiday) under the following situations:
- a. A black rainstorm signal or tropical cyclone warning signal No. 8 or above issued by the Hong Kong Observatory is still in force between 9:00 am and 12:00 noon on the Tender Closing Date;
 - b. A black rainstorm signal or tropical cyclone warning signal No. 8 or above is announced to be hoisted shortly by the Hong Kong Observatory between 9:00 am and 12:00 noon on the Tender Closing Date; or
 - c. The post-super typhoon “extreme conditions” is announced by the Hong Kong Government between 9:00 am and 12:00 noon on the Tender Closing Date; or
 - d. The post-super typhoon “extreme conditions” as announced by the Hong Kong Government exist between 9:00 am and 12:00 noon on the Tender Closing Date.

18 Tenderer’s Enquiries

- 18.1 All enquiries relating to the tender must be made before **2:30 p.m. on 21 December 2023 (HK Time)** in written by email to procurement@cuhkmc.hk.
- 18.2 The answers / responses to Tenderer’s enquires will be posted on the website of CUHK Medical Centre (www.cuhkmc.hk) before Tender Closing Date.

19 Site Visit Session

- 19.1 To ensure compliance with the Tender requirements, Tenderers are strongly advised to attend the site visit session prior to the submission of Tender. The site visit session will be arranged with details as below:

Date: 13 December 2023

Time: Afternoon Session
(Exact gathering time will be confirmed after registration)

Gathering Venue: LG Entrance Lobby
CUHK Medical Centre
9 Chek Cheung Street
Shatin, New Territories
Hong Kong

- 19.2 Each interested party will be allowed to send not more than two representatives to attend the site visit session. Prior registration for the site visit session by **11 December 2023, 12:00 noon** is required by email (procurement@cuhkmc.hk), providing the company name, name(s) of participants, title(s) and contact phone number of the representatives.
- 19.3 The representatives attending the site visit shall wear appropriate personal protective equipment and take all necessary precautionary and safety measures for the site visit. CUHK Medical Centre shall not be liable for any loss, damage, injuries whatsoever for or arising from the site visit claimed by the tenderer(s) or his persons.

PART III
CONDITIONS OF CONTRACT

1 Conditions of Supply

These conditions shall apply to the supply of the Services by the Successful Tenderer under the Contract.

2 General Requirements

- 2.1 The Successful Tenderer shall be responsible for providing, in accordance with the provisions of the Contract, the Services for the duration of the Term, and CUHKMC shall pay to the Successful Tenderer all sums due to the Successful Tenderer for the performance of the Services.
- 2.2 The Successful Tenderer shall diligently, promptly and properly provide and co-ordinate the provision of the Services to CUHKMC and comply with its duties and obligations in the Contract to the satisfaction of CUHKMC.
- 2.3 The Successful Tenderer shall exercise in the performance of the Services the same reasonable skill, care and diligence expected of a professional consultant who is qualified, competent and experienced in carrying out the duties and services of the nature described in the Contract for projects of a similar size, type, scope, complexity and purpose of the work at all relevant times.
- 2.4 The Successful Tenderer shall ensure that at all times it has, and will assign, adequate staff, tools and equipment to efficiently and properly fulfil its obligations under the Contract.
- 2.5 The Successful Tenderer will provide the Services in a satisfactory and skillful manner and shall meet to the satisfaction of CUHKMC any complaints and criticisms that may be made.
- 2.6 The Successful Tenderer shall, and shall procure its employees, agents and subcontractors to, comply with:-
 - a. all laws, rules and regulations applicable to its provision of Services;
 - b. the most current version or edition of all codes and standards that are relevant and applicable to its provision of Services; and
 - c. if applicable, clinical governance, policies, procedures, norms, and house rules of CUHKMC as provided by CUHKMC.
- 2.7 The Successful Tenderer shall provide all necessary assistance and all information on all matters in relation to the Services requested by CUHKMC and/or the CUHKMC Representative.
- 2.8 The Successful Tenderer shall obey all instructions and comply with all reasonable requests that may be put forth by CUHKMC and/or the CUHKMC Representative.
- 2.9 CUHKMC may issue warnings to the Successful Tenderer on all matters relating to the provision of the Services and the Successful Tenderer shall immediately take all remedial actions which may reasonably be required.

- 2.10 The Successful Tenderer and its staff shall not perform any duties and obligations under the Contract in such a way that may cause disturbance to patients, staff or visitors of CUHKMC or disruption to the normal routines and operations of CUHKMC.
- 2.11 The Successful Tenderer shall not use any materials in the provision of the Services in any way that may cause harm, discomfort or detriment to the health of the patients, staff, or visitors of CUHKMC.
- 2.12 The Successful Tenderer acknowledges that the time, dates and period shall be of the essence with respect to the performance of the Services specified to be subject to such requirement under the Contract as well as any times, dates, or periods that may by agreement between CUHKMC and the Successful Tenderer be substituted for any of them.
- 2.13 CUHKMC reserves the right to reject any part of the Services which does not comply with the Requirements, and the Successful Tenderer must carry out the necessary remedial work or replacement without extra charge or delay.

3 Successful Tenderer's Acknowledgement

The Successful Tenderer acknowledges it has been supplied with sufficient information to enable it to provide the Services which comply fully with the Requirements and the requirements of the Contract. The Successful Tenderer shall not be entitled to any additional payment nor be excused from any liability under the Contract as a consequence of any misinterpretation by the Successful Tenderer of any matter or fact relating to the Requirements, the said requirements or any other provisions of the Contract.

4 Acceptance

- 4.1 All Services delivered / deliverables shall be subject to review by CUHKMC and shall be deemed to have been accepted only when the CUHKMC Representative or any person duly authorised by him, furnishes the Successful Tenderer with an acceptance note.
- 4.2 The date of acceptance of the Services shall be determined by CUHKMC based upon the satisfactory completion of the Services.
- 4.3 The details of acceptance of the Services are annexed in Part VI - Tender Brief.

5 Delays

- 5.1 The Successful Tenderer shall provide the Services on or before the applicable Completion Date or service delivery date (as applicable). The exact contract period will be specified in the letter of acceptance of Tender.
- 5.2 If the Successful Tenderer fails to provide the Services by the applicable Completion Date or service delivery date, then the Successful Tenderer shall pay to CUHKMC as and by way of liquidated damages for any loss or damages sustained by CUHKMC.

6 Terms of Payment

- 6.1 Invoice and correspondence concerning payment must be forwarded to CUHKMC after service delivery. CUHKMC shall not be held responsible for any delay in payment if invoices and correspondence concerning payment are not properly addressed.
- a. Unless otherwise agreed by CUHKMC, no payment shall be made until service delivery has been accepted within the meaning of clause 4 of this part.
 - b. The payment shall be made within 30 clear working days from the date of receipt of invoice or acceptance of the Services by CUHKMC, whichever is the later.

7 Warranties and Representations

- 7.1 The Successful Tenderer warrants, represents and undertakes that:
- a. the Successful Tenderer, and its employees, agents and subcontractors shall have the necessary training, skill, experience, qualifications and expertise to provide the Services on the terms and conditions set out in the Contract;
 - b. the Successful Tenderer shall carry out the Services with all due diligence and in a timely, safe, proper, skillful and workmanlike manner;
 - c. the Services shall conform in all respects the service specifications and conditions under the Contract;
 - d. the Successful Tenderer has been duly organised and validly existing in the jurisdiction of its incorporation;
 - e. the Successful Tenderer has the full power, capacity, authority to enter into the Contract and to perform its obligations hereunder;
 - f. all authorisations, approvals, consents, licences, exemptions and other requirements of any government authorities or body in any relevant jurisdiction which are required to authorise the Successful Tenderer and its employees, agents and subcontractors to execute, deliver and perform the Successful Tenderer's obligations under the Contract have been duly and unconditionally obtained and are in full force and effect during the term of the Contract;
 - g. all information supplied, statements and representations made by or on behalf of the Successful Tenderer are true, accurate and complete;
 - h. it owns, has obtained and is able to obtain, valid licences for all intellectual property rights that are necessary for the performance of its obligations under the Contract; and
 - i. the Successful Tenderer or its employees, agents and subcontractors are not bound by or subject to any court order, agreement, or undertaking which will or might have a material adverse effect on the Successful Tenderer's ability to perform its obligations under the Contract,
- (collectively, the "Warranties", and each a "Warranty").
- 7.2 Each of the Warranties shall be separate and independent and without prejudice to any other Warranty, and shall not be limited by reference to or inference from any other Warranty or any other provision of the Contract.

- 7.3 Unless otherwise expressly excluded from or provided to the contrary in the Contract, the rights, duties and liabilities imposed on a service provider and the rights conferred on the party contracting the service provider under the Supply of Services (Implied Terms) Ordinance (Chapter 457 of the Laws of Hong Kong) apply to bind the Successful Tenderer and CUHKMC.

8 Liability and Indemnities

- 8.1 CUHKMC and its employees or agents shall not be under any liability whatsoever for or in respect of:
- a. Any loss of or damage to any of the Successful Tenderer's property or that of its employees or agents however caused (whether by any negligence of CUHKMC or any of its employees or agents or otherwise); or
 - b. Any injury to or death of any of the Successful Tenderer's employees or agents save and except any such injury or death was caused by negligence of CUHKMC or any of its employees or agents.
- 8.2 The Successful Tenderer shall indemnify each of CUHKMC, its employees or agents (each an "Indemnified Person") against any claims, demands, actions, arbitrations, or proceedings made against, or any liabilities, losses, damage, costs, charges, or expenses incurred or suffered by an Indemnified Person of whatsoever nature (including, but not limited to, legal costs and disbursements) arise directly or indirectly in connection with, out of or in relation to:
- a. the performance or breach of any provisions of the Contract by the Successful Tenderer or any of its employees, agents or representative ("Successful Tenderer Representatives");
 - b. the negligence, recklessness, tortious acts or willful omission of the Successful Tenderer or any of the Successful Tenderer Representatives;
 - c. any default, unauthorised act or willful misconduct of the Successful Tenderer or any of the Successful Tenderer Representatives;
 - d. any claim that the use or possession of the deliverables under the Contract infringes the intellectual property rights of any person; or
 - e. the non-compliance by the Successful Tenderer, or any Successful Tenderer Representatives with any applicable laws, or regulations, orders or requirements of any government authorities.
- 8.3 In the event of any of the Successful Tenderer's employees or agents suffering any injury or death in the course of or arising out of the Contract and whether there be a claim for compensation or not, the Successful Tenderer shall within 7 clear working days give notice in writing of such injury or death to CUHKMC.
- 8.4 The Successful Tenderer shall indemnify CUHKMC for all costs and damages arising from the delay or failure in the delivery and / or Rejection of the Services or any part thereof.
- 8.5 The Successful Tenderer shall, and (as applicable) shall procure its subcontractor to, indemnify CUHKMC against all claims arising at any time that the sale, use or possession of the deliverables under the Contract infringes any patent rights, copyrights

or registered design or other intellectual property rights of any third party, or on account of any claims for royalties arising from the sale, use or possession of the deliverables. The Successful Tenderer shall be liable for all costs and damages suffered or incurred by CUHKMC that may arise from any such claims.

- 8.6 Where required by CUHKMC, the Successful Tenderer shall take out and maintain insurance with a reputable insurer in such manner as it is agreed with CUHKMC to cover its legal liabilities (including, but not limited to, legal liabilities arising out of loss or damage to property and injury or death to persons) as a result of or arising from the performance of the Contract by the Successful Tenderer.
- 8.7 For the purpose of this clause “negligence” shall have the same meaning as that assigned to it in Section 2(1) of the Control of Exemption Clause Ordinance (Cap. 71 of the Laws of Hong Kong).

9 Corrupt Gifts

If the Successful Tenderer or any employee, agent, or subcontractor of the Successful Tenderer shall be found to have committed an offence under the Prevention of Bribery Ordinance (Cap. 201 of the Laws of Hong Kong) for the time being in force or any subsidiary legislation made thereafter or under any law of a similar nature in relation to the Contract or any other CUHKMC contract, CUHKMC shall have the right to terminate the Contract, without entitling the Successful Tenderer to any compensation therefor and the Successful Tenderer shall indemnify CUHKMC against all costs (including, but not limited to, legal costs and disbursements), claims, damages, losses, and expenses incurred or suffered as a result by CUHKMC in accordance with clause 8.2 of this part.

10 Applicable Law and Dispute Resolution

- 10.1 The validity and interpretation of the Contract shall be governed in all respects by the laws of Hong Kong.
- 10.2 The Successful Tenderer shall, and shall procure its employees, agents and subcontractors to, comply with all applicable international and local laws, rules and regulations pertinent to its obligations under the Contract.
- 10.3 For any dispute, controversy, difference, or claim arising out of or relating to the Contract (each a “Dispute”), CUHKMC and the Successful Tenderer shall attempt in good faith to resolve such Dispute by negotiation. If a Dispute cannot be resolved by good faith negotiation between CUHKMC and the Successful Tenderer within 30 days after such negotiation is first initiated by either or both of them, such Dispute shall be referred to and finally resolved by arbitration administered by the Hong Kong International Arbitration Centre (“HKIAC”) under the HKIAC Administered Arbitration Rules in force when the notice of arbitration is submitted. The seat of arbitration shall be Hong Kong. The number of arbitrators shall be one.

11 Data Protection

- 11.1 The Successful Tenderer shall comply with the Personal Data (Privacy) Ordinance (Cap. 486 of the Laws of Hong Kong) (“PDPO”) and any applicable codes and

guidelines issued by the Office of the Privacy Commissioner for Personal Data, Hong Kong and/or other relevant regulatory or professional bodies (as may be amended from time to time).

- 11.2 Without prejudice to the generality of clause 11.1 of this part, the Successful Tenderer shall only use personal data (as defined in PDPO) received or collected pursuant to the Contract for the purpose of performing its obligations under the Contract.

12 Publicity

- 12.1 The Successful Tenderer shall submit to CUHKMC for its review, comment, and consent all advertising or other publicity material relating to the Contract or the Goods/Services supplied or other work done in connection with the Contract wherein the name of CUHKMC or CUHK Medical Centre is mentioned or referred to or any name, trade name, trade mark, service mark, logo, or other proprietary business designation of CUHKMC or CUHK Medical Centre (collectively, “Marks”) is shown, or from which a connection with CUHKMC can reasonably be inferred or implied, before the final production of such material.
- 12.2 The Successful Tenderer shall not publish or use any advertising or other publicity material referred to in clause 12.1 of this part for any promotion or marketing purposes, or otherwise refer to CUHKMC or CUHK Medical Centre or use any Marks in any manner, without the prior written consent of CUHKMC. The Successful Tenderer shall not otherwise refer to CUHKMC or CUHK Medical Centre or use any Marks in any manner without the prior written consent of CUHKMC and complying with CUHKMC’s guidelines concerning making reference and use of Marks.
- 12.3 Nothing in the Contract expressly or impliedly constitutes an approval or endorsement by CUHKMC of any goods or services supplied by the Successful Tenderer, and the Successful Tenderer agrees not to conduct itself in such a way as to imply or express any such approval or endorsement. Nothing in the Contract shall confer on the Successful Tenderer any ownership rights in any Marks.

13 Confidential Information

The Successful Tenderer shall ensure that its employees, agents, and subcontractors should treat any oral or written information which they obtain under the Contract or accidentally overhear or encounter when carrying out their work in CUHKMC premises as confidential and they should not disclose such information to any third party.

14 Performance Monitoring

Tenderers should note that in the event a Tenderer is awarded the Contract, the Successful Tenderer’s performance under the Contract shall be monitored and taken into account in evaluating the Successful Tenderer’s tenders in response to invitations for tenders issued by CUHKMC in the future. If in the sole opinion of CUHKMC, the performance of the Successful Tenderer under the Contract is unsatisfactory, CUHKMC may in its absolute discretion disqualify the Successful Tenderer, its holding company and subsidiaries from participation in any future tenders issued by CUHKMC, for such period as CUHKMC may in its entire discretion consider appropriate. Tenders

from any tenderer who has been so disqualified from Tendering by CUHKMC shall be rejected.

15 Code of Conduct

Having due regard to the corporate image and reputation of CUHKMC and the need to uphold corporate social responsibilities, the Successful Tenderer shall, and procure its employees, agents and subcontractors to, comply with the code of conduct of suppliers titled “Responsible Sourcing Guideline of CUHKMC”, which is applicable to all suppliers of CUHKMC. The Responsible Sourcing Guideline of CUHKMC can be obtained from the website of CUHKMC at the following link :-

https://www.cuhkmc.hk/f/page/374/15410/Responsible%20Sourcing%20Guidelines%20of%20CUHKMC_230918.pdf

16 Occupational Safety and Health (“OSH”)

16.1 The Successful Tenderer shall, so far as is reasonably practicable, take all reasonable steps to ensure the health and safety at work of all its employees, agents, and subcontractors performing the Successful Tenderer's obligations under the Contract. The Successful Tenderer shall for the purpose of the Contract where applicable:

- a. Provide and maintain plant and systems of work that are safe and without risks to health;
- b. Conduct regular work safety risk assessment exercises and make arrangements to ensure the safety and absence of risks to the health of its employees, agents, and subcontractors in connection with the use, handling, storage and transportation of plant or substances;
- c. Provide adequate information, instructions, training and supervision to its employees, agents, and subcontractors on work safety;
- d. Maintain the workplace, including ingress and egress thereto, as far as is within its control, safe and without risks to health;
- e. Conduct and monitor OSH compliance;
- f. Keep and provide proper documentation of training records, duty rosters, incident reports, audit and inspection records and personal particulars of staff, if required by CUHKMC; and
- g. Ensure that the its employees, agents, and subcontractors take care of the safety and health of other persons who may be affected by their act or omission and co-operate with the CUHKMC representatives and such other persons to ensure compliance with any applicable statutory requirements.

17 Intellectual Property Right

17.1 CUHKMC shall be the exclusive owner of all deliverables, information, reports, documents, software, data, and materials created, supplied, or produced under the Contract, as well as the copyrights and intellectual property rights therein. The appointment of the Successful Tenderer and payment by CUHKMC of the Prices/fees in accordance with the Contract shall operate to assign to CUHKMC automatically the

entire copyright and intellectual property rights mentioned above without further act by either party to the Contract being necessary. The Successful Tenderer agrees upon demand by CUHKMC (whether during or after the Term) to execute such additional documentation as CUHKMC may require to provide evidence and confirm the assignment of such copyrights and intellectual property rights to CUHKMC. Upon completion of the Services, the Successful Tenderer will be required to deliver to CUHKMC all working papers, computer disks, tapes, or other materials and documents provided to or prepared by the Successful Tenderer pursuant to the Contract.

- 17.2 The Successful Tenderer shall ensure that no intellectual property rights of any third party have been and/or will be infringed in the provision of the Services or the performance of the Contract, and shall indemnify CUHKMC against any claims for breach of intellectual property rights.

18 Termination

- 18.1 The Contract may be terminated by CUHKMC by giving the Successful Tenderer thirty (30) days' prior notice in writing to terminate the Contract.

18.2 If:

- a. the Successful Tenderer is in breach of any of its warranties and undertakings under the Contract;
- b. the Successful Tenderer is in breach of any of the terms of the Contract, if the breach is remediable but the Successful Tenderer fails to remedy such breach within thirty (30) days after the service of a notice from CUHKMC giving particulars of such breach and requiring its remedy;
- c. the Successful Tenderer is in breach of any of the terms of the Contract which in the opinion of CUHKMC is non-remediable;
- d. the Successful Tenderer has made a material misrepresentation during the tendering process of the Contract; or
- e. CUHKMC is given the right to terminate the Contract under any other terms of the Contract,

CUHKMC may at its discretion terminate the Contract forthwith without prejudice to its right and entitlement to claim damages for the breach.

- 18.3 CUHKMC may terminate the Contract forthwith without notice if:

- a. a proposal is made for a voluntary arrangement or any other composition, scheme or arrangement with, or assignment for the benefit of, the Successful Tenderer's creditors;
- b. if the Successful Tenderer is a body incorporated, the shareholder(s) of the Successful Tenderer has/have resolved to wind up the Successful Tenderer (other than voluntarily for the purpose of bona fide reconstruction or solvent amalgamation);
- c. the Successful Tenderer is subject to a winding-up/bankruptcy petition against it/him;
- d. a winding up/bankruptcy order has been made against the Successful Tenderer by a court;

- e. the Successful Tender is subject to receivership/administration or a receiving order/order for administration;
 - f. the Successful Tenderer is subject to any investigation or proceedings which could reasonably be expected to have adverse impact on the reputation of CUHKMC as a provider of medical and/or healthcare services in association with the Successful Tenderer; or
 - g. there is a change of control in the Successful Tenderer (for this purpose, “control” means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a corporate, whether through the direct or indirect ownership of voting securities, by contract, or otherwise).
- 18.4 Expiry or termination of the Contract shall be without prejudice to the rights and obligations of CUHKMC or the Successful Tenderer accrued prior to such expiry or termination.
- 18.5 All provisions of the Contract which in order to give effect to their meaning need to survive expiry or termination of the Contract shall remain in full force and effect after such expiry or termination.

19 No Partnership

Nothing in the Contract shall be taken to constitute a partnership, a joint venture or the relationship of principal and agent between CUHKMC and the Successful Tenderer.

20 No Assignment

- 20.1 The Successful Tenderer may not assign any right or transfer any obligation under the Contract without CUHKMC’s prior written consent. Without prejudice to the aforementioned prohibition, the Successful Tenderer shall be responsible for all acts, omissions and defaults of its employees, agents, and subcontractors, and the employees of any of the aforesaid agent and subcontractors as if they were the Successful Tenderer’s own.
- 20.2 Failure to comply with this clause shall constitute a material breach of the Contract.

21 Contracts (Rights of Third Parties) Ordinance

The application of the Contracts (Rights of Third Parties) Ordinance is expressly excluded and no person who is not a party to the Contract shall be entitled to enforce any right or term of the Contract pursuant to the Contracts (Rights of Third Parties) Ordinance (Cap. 623 of the Laws of Hong Kong).

22 Term

The Contract shall take effect from the award of the Contract (i.e. the date of the letter of acceptance issued by CUHKMC) or such other commencement date of the Contract as set out in the letter of acceptance issued by CUHKMC (the “Commencement Date”), and shall continue in force thereafter until the end of the period of 24 months from tentatively 8 February 2024 to 7 February 2026 (the “Service Term”). The period of time from the Commencement Date to the end of the Service Term is referred to as the “Term”.

23 Order of Precedence

In the event that there is any conflict, contradiction or ambiguity between any documents which form part of the Contract, the following order of precedence shall be applied in order to resolve any such conflict, contradiction or ambiguity:

- 23.1 Letter of Acceptance
- 23.2 Conditions of Contract
- 23.3 Tender Brief
- 23.4 Schedule of Submissions
- 23.5 Terms of Tender

PART IV
SPECIAL CONDITIONS OF CONTRACT

1. Definitions and interpretation

“Business Day” means a day (other than a Saturday or Sunday or public holiday or a day on which banking institutions in Hong Kong are authorised to close by law or regulation) in Hong Kong;

“Business Hour” means 09:00 to 18:00 on a Business Day;

“Confidential Information” means any information or data which is furnished or disclosed by or on behalf of CUHKMC and/or any of its affiliates and that is (a) is by its nature confidential or proprietary, (b) is designated as confidential or proprietary, or (c) the Contractor knows or ought reasonably to know is confidential or proprietary information, whether such information is acquired directly or indirectly such as in the course of discussions or other investigations by the Contractor, including, but not limited to, trade secrets and technical, financial or business information, customer information, business processes, personal information, commercial activities, supplier information, intellectual property, documentation, designs, drawings, specifications, hardware, computer programs and other technologies, databases, data, ideas, concepts and know-how, which in each case is not publicly available; Confidential Information disclosed in tangible or electronic form may be identified as confidential with conspicuous markings, or otherwise identified with a legend as being confidential, but in no event shall the absence of such a mark or legend preclude disclosed information which would be considered confidential by the Contractor exercising reasonable business judgment from being treated as Confidential Information by CUHKMC;

“Contractor” means the person, persons or company to whom this Order is addressed;

“Corrective Maintenance” has the meaning ascribed to such term in Clause 2.3;

“CUHKMC” means CUHK Medical Centre Limited;

“Emergency Maintenance” has the meaning ascribed to such term in Clause 2.4;

“Equipment” means the equipment, hardware and/or system covered by the Order including any spare parts or components thereof;

“Fix Time” means the fix time as set out in the Order;

“Good Industry Practice” means standards, practices, methods and procedures conforming to the law and the degree of skill and care, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced person or body engaged in a similar type of undertaking under the same or similar circumstances;

“Good Working Order” means the Equipment operates in accordance with the Operating Manual;

“Location” means CUHK Medical Centre, 9 Chak Cheung Street, Shatin, New Territories, Hong Kong;

“Maintenance Services” means Routine Maintenance, Corrective Maintenance and Emergency Maintenance as provided by the Contractor to CUHKMC;

“Operating Manuals” means all operating manuals and specifications relating to the Equipment;

“Order” means the purchase order issued by CUHKMC and placed with the Contractor;

“Response Time” means the response time as set out in the Order;

“Routine Maintenance” has the meaning ascribed to such term in Clause 2.1;

“Service Failure” means Routine Maintenance, Corrective Maintenance or Emergency Maintenance could not be completed within the target Fix Time as designated by CUHKMC;

“Service Levels” means the service levels (if applicable) to which the Maintenance Services are to be provided, as set out in the Order; and

“Work Permit” means the work permit form as designated by CUHKMC to be completed and submitted by the Contractor to CUHKMC prior to the commencement of Maintenance Services.

2. Maintenance Services

The Contractor shall provide CUHKMC with Maintenance Services for the Equipment in accordance with the Service Levels and Good Industry Practice to maintain the equipment in Good Working Order. In the event of a conflict or inconsistency between the Service Levels and Good Industry Practice, the Service Levels shall prevail.

A. Routine Maintenance

- 2.1 The Contractor shall attend the Location at a frequency as set out in the Order and perform Routine Maintenance at such times and in such manner as may be agreed in advance between CUHKMC and the Contractor. The Contractor shall provide Routine Maintenance to CUHKMC by:
- (a) testing that the Equipment is functional and operates in Good Working Order;
 - (b) making any adjustments as may be required to ensure the Equipment remains in Good Working Order; and
 - (c) replacing any spare parts, consumables or any other components of the Equipment that require replacing.
- 2.2 If the Contractor discovers that the Equipment is defective or is malfunctioning or otherwise in Good Working Order during the course of the Routine Maintenance, the Contractor shall repair it during that visit at the Location with no additional cost from CUHKMC. Only if that is not reasonably practicable, the Contractor shall arrange for a further visit to the Location to complete the repair at a time as mutually agreed by CUHKMC and the Contractor. For the avoidance of doubt, no additional charge shall be incurred by CUHKMC for any repair and/or replacement carried out by the Contractor during the Routine Maintenance.

B. Corrective Maintenance

- 2.3 Upon CUHKMC informing the Contractor that the Equipment is defective or is malfunctioning or has failed to work in Good Working Order, the Contractor shall attend the Location within the relevant Response Time to repair or make any adjustment to the Equipment and/or replace any parts or components of the Equipment in restoring the Equipment to Good Working Order (“**Corrective Maintenance**”) and complete the Corrective Maintenance within the relevant Fix Time.

C. Emergency Maintenance

- 2.4 Upon CUHKMC informing the Contractor that (a) the Equipment is defective or is malfunctioning or has failed to work in Good Working Order, and requires repair outside Business Hours or (b) the Equipment is defective or malfunctioning and the nature of such defect is critical to the proper functioning of the Equipment (“**Emergency Maintenance Request**”), the Contractor shall promptly respond to the Emergency Maintenance Request and attend the Location within the relevant Response Time to repair or make any adjustment to the Equipment and/or replace any parts or components of the Equipment in restoring the Equipment to Good Working Order (“**Emergency Maintenance**”) and complete the Emergency Maintenance within the relevant Fix Time.
- 2.5 The Contractor shall conduct risk assessments on work safety, pollution control, fire safety and submit supporting documents together with the Work Permit to CUHKMC prior to the carrying out of Maintenance Services.
- 2.6 The Contractor shall be responsible for all working platforms, testing equipment, tools and accessories necessary for the provision of the Maintenance Services.
- 2.7 The Contractor shall submit all documentation as requested by CUHKMC, including but not limited to maintenance schedule, test/inspection forms, checklist, drawings, certificates and service reports in both hardcopy and softcopy after the performance of Maintenance Services by a deadline to be fixed by CUHKMC.
- 2.8 The Contractor shall ensure that the working areas shall be kept tidy and clean after the performance of Routine Maintenance, Corrective Maintenance or Emergency Maintenance.

3. **Further Site Visits**

Where it is not reasonably practicable for the Contractor’s representatives to complete Routine Maintenance, Corrective Maintenance or Emergency Maintenance at the Location on their first visit, the Contractor shall arrange for a further visit to the Location at a time agreeable to CUHKMC for completing the Routine Maintenance, Corrective Maintenance or Emergency Maintenance.

4. Service Levels

- 4.1 The Contractor shall ensure that the Maintenance Services meet or exceed the Service Levels at all times.
- 4.2 The Contractor shall provide CUHKMC with a report on an annual basis in setting out the Contractor's performance against the Service Levels in the immediately preceding year.

5. Service Failure

If there is a Service Failure, the Contractor shall notify CUHKMC immediately of the Service Failure and arrange additional resources necessary to perform the Routine Maintenance, Corrective Maintenance or Emergency Maintenance in accordance with the Service Levels as soon as possible and at no additional charge to CUHKMC. If Contractor fails to rectify the Service Failure within a reasonable time as determined by CUHKMC, CUHKMC shall be entitled to recover the portion of the Service Fee that corresponds to the incomplete Maintenance Services and CUHKMC shall have the right to terminate this Order wholly or in part by notice at any time.

6. Spare Parts and Consumables

The Contractor shall supply and fit such spare parts, components and consumables as required to maintain the Equipment in Good Working Order at a price as stipulated in the Order and/or at its listed price as it customarily charges. CUHKMC reserves the right to request the Contractor to submit to CUHKMC supporting information to the satisfaction of CUHKMC in setting out the cost in sourcing the relevant spare parts, components and consumables and other related items from the manufacturer or supplier. All spare parts, components and consumables shall be new standard parts of equal quality. The Contractor shall transfer to CUHKMC with full title guarantee and free from all third party rights all the spare parts, components and consumables that it provides to CUHKMC, and the spare parts, components and consumables shall become part of the Equipment upon their installation in the Equipment.

7. Services Fees

- 7.1 In consideration of the Maintenance Services performed by the Contractor, CUHKMC shall pay the Contractor Service Fees at a rate as set out in the Order.
- 7.2 The Contractor shall invoice CUHKMC at intervals as stated in the Order for the Maintenance Services performed during that period.
- 7.3 CUHKMC shall pay each invoice within 60 days of receipt of invoice, save for any amount which CUHKMC disagrees with. In the event CUHKMC disagrees with any of the amount stated in an invoice, CUHKMC shall notify the Contractor in writing and the Parties shall discuss the matter in good faith. CUHKMC shall pay within 60 days after (i) resolution of the dispute on invoice or (ii) the date of issue of the revised invoice (if any).

8. Warranties

8.1 The Contractor represents and warrants that:

- (a) it has the requisite power, authority and capacity to enter into and perform its obligations as set out herein;
- (b) it holds all relevant governmental, statutory and/or regulatory consents, approvals, licences and authorisations required to empower it to enter into and/or perform the obligations as set out herein;
- (c) the Maintenance Service will be performed in accordance with terms of this Order, Good Industry Practice and in compliance with all applicable laws and regulations;
- (d) the Maintenance Service will be performed by properly trained and certified personnel;
- (e) It abides to the Occupational Safety and Health Ordinance (Cap. 509) and regulations of the Hong Kong SAR in ensuring that the safety and health at work of its employees and representatives are properly taken care of during the performance of Maintenance Services;
- (f) no claim is being asserted and no litigation, arbitration or administrative proceeding is presently in progress or, to the best of its knowledge and belief, pending or threatened against it or any of its assets which will or might have a material adverse effect on its ability to perform its obligations under this Order; and
- (g) It abides to the relevant legal requirements and regulations in order to restrict and reduce the adverse effects on environment as a result of the provision of Maintenance Services.

9. Insurance

The Contractor declares that it has maintained in full force and effect adequate insurance with one or several reputedly solvent international insurance company(ies) and ensures that the insurance policies be on such terms acceptable to CUHKMC. The Contractor shall provide, at CUHKMC's request, an insurance certificate and shall ensure that any subcontractor engaged will also have all necessary insurances in place. The Contractor shall, at all times, subscribe and maintain in effect such insurance policies as required under any applicable laws and acceptable to CUHKMC. If the Contractor cancels any such insurance policy, it shall provide to CUHKMC prior notice on cancelling such insurance policy and shall promptly replace such insurance policy in accordance with this Clause 9, without lapse in coverage.

10. Corrupt Gifts

If the Contractor or any employee or agent of the Contractor shall be found to have committed an offence under the Prevention of Bribery Ordinance in relation to the Maintenance Services, CUHKMC may terminate the Order without entitling the Contractor to any compensation therefor and the Contractor shall indemnify CUHKMC against all costs, claims, damages, losses and expenses incurred by CUHKMC.

11. Indemnity

The Contractor shall indemnify and hold harmless CUHKMC, their respective directors, employees and agents (“**Indemnitees**”) from and against any and all losses, damages, liabilities, penalties, costs and expenses incurred by or imposed upon the Indemnitees or any one of them in connection with any claims, suits, actions, demands, or judgments arising out of or connected with the provision of Maintenance Services. The Contractor shall also be liable for all costs and damages suffered or incurred by CUHKMC that may arise from any such claims.

12. Performance Monitoring

The Contractor shall note that its performance shall be monitored and taken into account in evaluating the Contractor’s quotations in response to invitations for quotations by CUHKMC in the future. If in the sole opinion of CUHKMC that the performance of the Contractor under this Order is unsatisfactory, CUHKMC may in its absolute discretion disqualify the Contractor, its holding company and subsidiaries from participation in any future quotations issued by CUHKMC, for such period as CUHKMC deems appropriate.

13. Transfer and Sub-Contracting

- 13.1 The Contractor shall not assign, sub-contract or in any other way dispose of the Order or any part of it without prior written consent of CUHKMC. Subcontracting any part of the Order shall not relieve the Contractor of any of its obligations or duties under the Order. Subcontracting shall not involve the transfer of Confidential Information of CUHKMC to any third party unless the subcontracted party shall enter into a confidentiality agreement with the Contractor containing confidentiality provisions no less restrictive than those in Clause 14.
- 13.2 The Contractor shall be responsible for the acts and omissions of its sub-contractors as though they are its own, including but not limited to any breach of the confidentiality obligations contained herein by the sub-contractor and shall indemnify CUHKMC against all losses, liabilities, claims and demands which CUHKMC or its directors or employees may suffer as a result of the acts or omission of the sub-contractor or any breach of the provisions contained herein by the sub-contractor.
- 13.3 Where CUHKMC has consented to the placing of sub-contracts, copies of each sub-contracts shall, at the request of CUHKMC, be sent by the Contractor to CUHKMC as soon as reasonably practicable.

14. Confidentiality

- 14.1 The Contractor shall keep in strict confidence all Confidential Information and the terms and conditions, unless (i) with prior written consent of CUHKMC, or (ii) for the purposes and as required for the proper performance; or disclosure of any term or condition is (iii) required by law or any governmental or regulatory authority, or (iv) necessary for the purpose of dispute resolution. The Contractor undertakes to fully comply with and procure all its employees, agents, officers and sub-contractors to fully comply with this Clause 14.

- 14.2 Where any disclosure is made pursuant to Clause 14.1(i) or Clause 14.1 (ii) above, it shall be done subject to obligations equivalent to those set out herein. The Contractor shall be responsible to CUHKMC in respect of any disclosure or use of such Confidential Information by the recipient.

15. Publicity

The Contractor shall submit to CUHKMC all advertising or other publicity material relating to the Order or the Maintenance Services in connection with the Order wherein the name of CUHKMC is mentioned or from which a connection with CUHKMC can reasonably be inferred or implied. The Contractor shall not publish or use any advertising or other publicity material relating to the CUHKMC or otherwise use or mention the name of the CUHKMC for any promotion or marketing purposes without the prior written consent of CUHKMC. Nothing in this Order expressly or impliedly constitutes an endorsement of the Maintenance Services and each party agrees not to conduct itself in such a way as to imply or express any such approval or endorsement.

16. Liability and Indemnity

- 16.1 CUHKMC and its employees or agents shall not be under any liability whatsoever for or in respect of:
- (a) Any loss of or damage to any of the Contractor's property or that of its employees or agents however caused (whether by any negligence of the CUHKMC or any of its employees or agents or otherwise).
 - (b) Any injury to or death of any of the Contractor's employees or agents save and except any such injury or death was caused by the negligence of CUHKMC or any of its employees or agents.
- 16.2 The Contractor shall indemnify CUHKMC and its employees or agents against any claim or demand made against or liability incurred (including all costs, charges or expenses whatsoever) by CUHKMC or any of its employees or agents in respect of:
- (a) Any loss, damage, injury or death referred to in sub-clause 16.1 of this clause (save and except injury or death caused by the negligence of CUHKMC or any of its employees or agents).
 - (b) Any loss or damage sustained by or any injury to or death of any third party in consequence of any negligence of the Contractor or any of its employees or agents.
- 16.3 In the event of any of the Contractor's employees or agents suffering any injury or death in the course of or arising out of this Order and whether there be a claim for compensation or not, the Contractor shall within 7 clear working days give notice in writing of such injury or death to CUHKMC.

17. Acknowledgement of Order

To make sure this Order has been received, the Contractor is requested acknowledge receipt of this Order by sending an acknowledgement to the CUHKMC by e-mail within one (1) week after the date of this Order.

18. Order of Precedence

The Contractor hereby agrees that the terms and conditions set out herein shall supersede the terms in any quotation, sales documents or correspondences and/or documents between CUHKMC and the Contractor relating to the Maintenance Services, including but not limited to all documents and correspondences between CUHKMC and the Contractor prior to and after the issuing of the Order (“Procurement Documents”). In case of any inconsistency, conflict, or ambiguity between the terms and conditions set out herein and the Procurement Documents, the terms and conditions set out herein shall prevail. Any terms and conditions imposed by the Contractor which are inconsistent with or additional to the terms and conditions stated herein shall not be binding upon CUHKMC unless expressly accepted in writing by CUHKMC.

19. Amendment

No revision to this Order or any variation of or addition to the terms of purchase will be accepted by the CUHKMC unless expressly confirmed in writing by the CUHKMC referring explicitly to such revision, variation or addition.

20. Cancellation

CUHKMC reserves the right to cancel this Order wholly or in part by notice at any time if the Contractor failed to comply with any of the terms and conditions herein without prejudice to any right CUHKMC may have to claim damages for breach of contract.

21. Occupational Safety and Health (“OSH”)

- 21.1 The Contractor shall, so far as is reasonably practicable, take all reasonable steps to ensure the health and safety at work of all its employees performing the Contractor's obligations under this Order. The Contractor shall for the purpose of this Order where applicable:
- (a) Provide and maintain plant and systems of work that are safe and without risks to health;
 - (b) Conduct regular work safety risk assessment exercises and make arrangements to ensure the safety and absence of risks to staff's health in connection with the use, handling, storage and transportation of plant or substances;
 - (c) Provide adequate information, instructions, training and supervision to its employees on work safety;
 - (d) Maintain the workplace, including ingress and egress thereto, as far as is within its control, safe and without risks to health;
 - (e) Conduct and monitor OSH compliance;
 - (f) Keep and provide proper documentation of training records, duty rosters, incident reports, audit and inspection records and personal particulars of staff, if required by CUHKMC; and
 - (g) Ensure that the Contractor's employees take care of the safety and health of other persons who may be affected by their act of omission and co-operate with CUHKMC Representatives and such other persons to ensure compliance with any applicable statutory requirements.

21.2 The Contractor shall fully indemnify CUHKMC from and against all claims, actions, proceedings, demands and suits brought against and/or fines and penalties imposed on CUHKMC arising directly or indirectly out of or in connection with the failure of the Contractor to comply with part or any other obligations imposed under any applicable statutory requirements, including the Occupational Safety and Health Ordinance (Cap 509) and all costs and expenses in connection therewith.

22. Contractor's Status

The Contractor shall be an independent contractor and nothing in the Order shall create a contract of employment, a relationship of agency or partnership or a joint venture between the parties and accordingly neither party shall be authorised to act in the name of, or on behalf of, or otherwise bind the other party save as expressly permitted by the terms of the Order.

23. Rights of Third Parties

No person other than CUHKMC and the Contractor shall have any right under the Contracts (Rights of Third Parties) Ordinance (Cap 623 of the Laws of Hong Kong) to enforce any of the terms and conditions and/or the Order.

24. Dispute Resolution

Any dispute, controversy, difference or claim arising out of or relating to the provision of Maintenance Services by the Contractor to CUHKMC shall be referred to and finally resolved by arbitration administered by the Hong Kong International Arbitration Centre (HKIAC) under the HKIAC Administered Arbitration Rules in force when the Notice of Arbitration is submitted. The seat of arbitration shall be Hong Kong. The number of arbitrators shall be one.

25. Governing Law

The terms and conditions set out herein shall be governed by, subject to and construed in accordance with the laws of Hong Kong.

PART V
OFFER TO BE BOUND

1 I/We, do hereby bind myself/ourselves to execute orders for any or all of the services specified in the Schedule, which may during the period or periods specified in the Schedule be placed by CUHKMC Representative at the prices quoted in the Schedule free of all other charges, subject to and in accordance with the Terms of Tender and Conditions of Contract.

2 I/We, also certify that the particulars given by me/us below, are correct:

2.1 The number of my/our/the Company's Business Registration Certificate is _____

2.2 The date of expiry of my/our/the company's Business Registration Certificate is _____

2.3 I/We/the Company is/are covered by an Employees' Compensation Insurance Policy, the particulars of which are as follows:

Policy No. _____

Name of Insurance Company _____

Period covered by the Policy is from _____

Brief particulars of the cover provided and any special conditions are as follows:

3 I am the Secretary / Managing Director of the Limited company hereinafter mentioned and duly authorised to bind the said Company by my signature.

I am a partner / We are partners in the firm hereinafter mentioned and duly authorized to bind the said firm and the partners therein for the time being.

The Tender is submitted with the authority and on behalf of _____

Company Limited whose registered office is situated at _____ Hong Kong.

- or -

This Tender is submitted on behalf of myself / ourselves and the firm known as _____ of _____

Hong Kong and other partners hereof namely; (state names and residential addresses of all other partners):

4 In the event of any queries relating to our offer please contact _____ Tel. No. _____.

5 Name(s) and address(es) of person(s) signing:

Signature (s): _____

Dated this _____ day of _____

Notes (1) All the particulars required above must be provided. (ii) Strike out clearly alternatives which are not applicable.

PART VI

TENDEREE'S BRIEF

This Tenderer's Brief aims at providing Tenderers with general understanding of CUHK Medical Centre Limited ("CUHKMC" or "we", and "our" and "us" shall be construed accordingly) and should be read in conjunction with this Invitation to Tender issued by CUHKMC. The information contained herein is prepared to the best of our knowledge and should not be seen as binding.

Hospital at a Glance

CUHK Medical Centre Limited ("CUHKMC"), which operates CUHK Medical Centre ("Hospital"), a non-profit, private teaching hospital, is indirectly wholly owned by The Chinese University of Hong Kong ("CUHK").

CUHKMC is committed to provide innovative and patient-centered healthcare services, with package fees offered for inpatient services. This will bridge the service gap between private and public healthcare sectors by providing high-quality medical services with transparent and affordable pricing to middle-class families, so alleviating the pressure on the public healthcare system.

For more information about CUHK Medical Centre, please click into the hospital website: www.cuhkmc.hk

PART VII

TENDER BRIEF

1. Background

- 1.1 CUHK Medical Centre Limited (“CUHKMC” or “the Company”), which operates CUHK Medical Centre (“the Hospital”), a non-profit, private teaching hospital, is indirectly wholly owned by The Chinese University of Hong Kong (“CUHK”). With a social mission to bridge the service gaps between private and public healthcare in Hong Kong, CUHKMC is dedicated to offering quality healthcare service at affordable and transparent package prices.

2. Scope of Services

- 2.1 The Contractor shall carry out the works when ordered by CUHKMC. The works as stipulated in Part IX Annex – Technical Specifications for the Maintenance Services for MVAC System of CUHK Medical Centre include:
- (a) Preliminaries as detailed in Section 2 and relevant Appendixes;
 - (b) Preventive maintenance as detailed in Section 3;
 - (c) Corrective maintenance as detailed in Section 4;
 - (d) Overhaul as detailed in Section 5;
 - (e) All other works as stipulated in Technical Specifications and other documents forming part in Part IX Annex.

3. Term of the Contract

- 3.1 The Contract shall take effect from the award of the Contract (i.e. the date of the letter of acceptance issued by CUHKMC) or such other commencement date of the Contract as set out in the letter of acceptance issued by CUHKMC (the “Commencement Date”), and shall continue in force thereafter until the end of the period of 24 months from tentatively 8 February 2024 to 7 February 2026 (the “Service Term”). The period of time from the Commencement Date to the end of the Service Term is referred to as the “Term”.
- 3.2 CUHKMC has the right to terminate the Contract by giving not less than thirty (30) days advance written notice to contractor.

4. Other Information

- 4.1 Tenderer is requested to supply any information which the tenderer considers relevant to the proposal to CUHKMC.

5. Submission of Tender

- 5.1 Two-Envelope Bidding
- (a) This Tender shall be conducted in a two-envelope bidding process. Tenderer must submit the technical and price information in two separate sealed envelopes, one

marked with the word “Technical Proposal” and the other with “Price Proposal” in the following manner:-

- (i) Technical Proposal – contains the complete set of tender documents, except Schedule 5 – Price and all supplementing quotations.
- (ii) Price Proposal – contains the Schedule 5 – Price and all supplementing quotations.

(Note: Tender reference number; Description and Closing Date shall be marked on the envelopes for easy identification.)

- (b) CUHKMC will complete the technical assessment first by evaluating the technical proposals of the Tenders according to the requirements, pre-determined criteria and tenderer’s presentation (if required). The price proposals of those Tenders which can pass technical assessment will be evaluated further based on the price proposal.
- (c) The CUHKMC will not accept the Tender proposals if the Tenderer fail to submit the technical & price proposal in two separate sealed envelopes.

5.2 Interested Tenderers must provide the following information in their tender submission:

(a) **Schedule 1 – Company / Organisation Profile**

- (i) Name and address of the company/business organisation.
- (ii) Organisation charts of the company/business organisation.
- (iii) Length and nature of business experience including without limitation experience in the performance and/or provision of the Services.
- (iv) A copy of its Articles of Association or other documents evidencing its business statutes.
- (v) Copies of current business registration certificate.
- (vi) Copies of all current licence(s) or permit(s) issued in favour of the Tenderer by the relevant authorities that are required to legally perform and/or provision of the Services.
- (vii) Documentary evidence of any agency claimed by the Tenderer in relation to the Tender, whether on a sole or exclusive basis or otherwise.
- (viii) Relevant experience in local and overseas market in providing the services in relation to the Tender, including client/project credentials, range and scope of services, etc.
- (ix) If the Tenderer wishes to fulfil its obligations under this proposal through subcontracting or partnership with third parties, details including name of the subcontracting or partnership organisation and responsibilities should be stated.

(b) **Schedule 2 – Compliance to the Technical Specifications**

The Tenderer should indicate the compliance of the technical specifications point-by-point for the Part IX Annex. If Tenderer wishes to include counter-proposal in their Tender reply, the CUHKMC reserves the right to accept or

reject any such offer.

(c) **Schedule 3 – Composition of the Maintenance Team**

The names, roles, proven qualifications, relevant experience, language proficiency of the maintenance personnel to be assigned to provide the Services, percentage of his/her time allocated to the services, and the place of residence of persons nominated to undertake the Services.

(d) **Schedule 4 – Operational Experience**

Tenderer shall provide full details of proven track records for recent 5-year experience in Hong Kong health care setting with MVAC maintenance services contract sum over HK\$ 3 million per year. Tenderer shall provide 2 best client records in relation to maintenance services in this schedule to allow the company to conduct reference checking.

(e) **Schedule 5 – Price**

A quotation which should include fees relating to the services listed in clause 2 above (quoted fees should be all inclusive, e.g., fees for the maintenance involved, fees for other materials as required, and other incidentals, etc. as applicable) and payment terms;

(f) **Schedule 6 – Duly completed and signed Consent to Disclosure**

(g) **Schedule 7 – Duly completed and signed Non-Collusion Certificate**

(h) **Schedule 8 – Personal Data (Privacy) (Amendment) Ordinance**

The offer without full submission of the above will not be considered.

6. Payment Terms

6.1 The Tenderer shall specify the proposed payment terms in Schedule 5 – Price.

6.2 Payment shall be made within 60 clear working days from the date of receipt of invoice or acceptance of the Services / deliverables by CUHKMC, whichever is the later.

7. Selection Criteria

7.1 **Mandatory Requirements Assessment**

Full compliance with the tender requirements as stipulated in clause 2 above (Scope of Services) are required. Tenderer should provide the compliance details in each schedule. Tender proposals will not be considered further if the Tender requirements cannot be fully satisfied.

- 7.2 A marking scheme with weighting of 40% on Technical Assessment and 60% on Price Assessment will be adopted. Scoring distribution is as follows:

Selection Criteria	Weighting
Technical Assessment	40%
(a) Proven track records for recent 5-year experience in Hong Kong health care setting with MVAC maintenance services.	20%
(b) Expertise and Experience of the proposed Maintenance Team.	20%
Price Assessment	60%

7.3 Technical Assessment

The weighted technical assessment score of a proposal shall be determined in accordance with the following formula:

$$40 \times \frac{\text{Total technical score of the conforming proposal being assessed}}{\text{The highest total technical score among all the conforming proposals}}$$

Any offer which scores less than 20 marks in the Technical Assessment will be considered disqualified and shall not proceed to Price Assessment.

7.4 Price Assessment

The price assessment is calculated as follows:

$$60 \times \frac{\text{Lowest Tender price among the conforming proposals}}{\text{Tender price of the proposal being assessed}}$$

- 7.5 The offer obtained the highest combined score, i.e. technical score plus price score, would be recommended for acceptance.

8. Intellectual Property Right

CUHKMC shall be the exclusive owner of all deliverables, information, reports, documents, software, data and materials created, supplied or produced under the contract formed with the Successful Supplier (the “Contract”), as well as the copyrights and intellectual property rights therein. The appointment of the Successful Supplier and payment by CUHKMC of the Prices in accordance with the Contract shall operate to assign to CUHKMC automatically the entire copyright and intellectual property rights mentioned above without further act by either party being necessary. The Successful Supplier agrees upon demand by CUHKMC (whether during or after the Term) to execute such additional documentation as CUHKMC may require to provide evidence and confirm the assignment of such copyrights and intellectual property rights.

Upon completion of the Services, the Successful Supplier will be required to deliver to CUHKMC all working papers, computer disks, tapes or other materials and documents provided to or prepared by the Successful Supplier pursuant to the Contract.

The Supplier shall ensure that no intellectual property rights of any third party have been and/or will be infringed in the performance of the Services and shall indemnify CUHKMC against any claims for breach of intellectual property rights.

Part VIII
SCHEDULE OF SUBMISSIONS

Schedule 1 - Company / Organisation Profile

Schedule 2 - Compliance to the Technical Specifications

Schedule 3 - Composition of the Maintenance Team

Schedule 4 - Operational Experience

Schedule 5 - Price

Schedule 6 - Consent to Disclosure

Schedule 7 - Certificate of Non-Collusion

Schedule 8 - Personal Data (Privacy) (Amendment) Ordinance

Schedule 1: Company / Organisation Profile

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

Telephone:

Email:

Authorized Signature:

Date:

Schedule 2 – Compliance to the Technical Specifications

<p>The Contractor shall carry out the works when ordered by CUHKMC. The works as stipulated in <u>Part IX Annex – Technical Specifications for the Maintenance Service for MVAC System at CUHK Medical Centre</u> include:</p>	<p>Sellers must indicate below, point by point whether their offered service complies fully with <u>Part IX Annex – Technical Specifications</u>. Details must be given should the offered service differ from the specifications. (Please tick as appropriate)</p>	
	<u>Yes</u>	<u>No</u> (Provide details)
1. Preliminaries as detailed in <u>Section 2</u> and relevant Appendixes		
2. Preventive maintenance as detailed in <u>Section 3</u>		
3. Corrective maintenance as detailed in <u>Section 4</u>		
4. Overhaul as detailed in <u>Section 5</u>		
5. All other works as stipulated in Technical Specifications and other documents forming part in <u>Part IX Annex</u>		

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

Telephone:

Email:

Authorized Signature:

Date:

Schedule 3 – Composition of the Maintenance Team

No.	Name	Role (Team leader / Core team member, etc.)	Responsibilities	Curriculum Vitae (including academic qualifications, professional qualifications, language proficiency, length of experience in similar services, client/project credentials with detailed description on the scope of services provided, etc.)	Place of residence	Percentage of his / her time allocated to the services	Contact Information
1.							
2.							
3.							
4.							
5.							

Note:

1. Please nominate only ONE team leader.
2. Tenderer is required to attach the detailed profile of the maintenance team in separate sheet.

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

Telephone:

Email:

Authorized Signature:

Date:

Schedule 4 – Operational Experiences

1. Tenderer shall provide full details of proven track records for recent 5-year experience in Hong Kong health care setting with MVAC maintenance services contract sum over HK\$ 2 million per year.
2. Tenderer shall provide 2 best client records in relation to maintenance services in this schedule to allow the company to conduct reference checking.

Client Record 1

Name of Contract Awarded by Client		
Name of Client		
Servicing Period	From:	To:
Contract Value (Must be over HK\$ 3 million per year)	HK\$	
Description of Service		
Contract copy attached	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

Telephone:

Email:

Authorized Signature:

Date:

Schedule 4 – Operational Experiences (Con't)

Client Record 2

Name of Contract Awarded by Client		
Name of Client		
Servicing Period	From:	To:
Contract Value (Must be over HK\$ 3 million per year)	HK\$	
Description of Service		
Contract copy attached	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Note:

1. Tenderer is required to attach the details of proven track records and client records with supporting document in separate sheet.
2. The Tenderer shall authorize CUHKMC to contact its clients for reference checks, and for its clients to disclose information in relation to the Tenderer to CUHKMC without reference to or approval from the Tenderer.

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

Telephone:

Email:

Authorized Signature:

Date:

Schedule 5 – Price
(To be submitted separately in the envelope of the Price Proposal)

A. Basic Requirements

Item	Description	Quantity	Unit Price (HK\$)	Total Amount (HK\$)
1.	Maintenance Services for MVAC air side systems including AHU / PAU, jet fan, ventilation fan, fan coil unit, split type unit, VRV, air curtain as stipulated in Technical Specifications.	24 months		
2.	Maintenance Services for MVAC water side systems including chilled / heat water pump, heat exchanger, sump / sewage / retention pump as stipulated in Technical Specifications.	24 months		
3.	Maintenance Services for Electrical Installations for Air-conditioning Plants and Equipment including Motor Control Centre (MCC) for Chillers / General Lighting and Electrical Installations in Air-conditioning Plant Rooms and Workshops as stipulated in Clause C.13 of Appendix C of Technical Specifications.	24 months		
4.	Provide labour, working platforms and necessary tools with all statutory & calibration certification for all preventive and corrective maintenance works as stipulated in Technical Specifications.	24 months		
5.	Provide coordination/interfaces with other services contractors such as CCMS, FS, etc for all preventive and corrective maintenance works as stipulated in Technical Specifications.	24 months		
6.	Provide annual inspections and tests for statutory submissions including Annual Inspection Certificate according to Building (Ventilating Systems) Regulations as stipulated in Section 3.3 of Technical Specifications.	2 lot		
7.	Provide annual compliance check and report for all special ventilation area such as Operation Theatre, Laboratory, Isolation Room, etc.	2 lot		

Item	Description	Quantity	Unit Price (HK\$)	Total Amount (HK\$)
8.	Engage professional and provide labour to conduct site survey and submit MVAC services energy saving proposal. Part of the energy cost saving would become profit to Contractor under energy saving incentive scheme.	1 lot		
9.	Emergency calls under non-office hours as stipulated in Section 4.2 of Technical Specifications.	12 times		
Total Amount for Item 1 to Item 9 (HK\$) :				

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

Telephone:

Email:

Authorized Signature:

Date:

Schedule 5 – Price (Con’t)
(To be submitted separately in the envelope of the Price Proposal)

B. Provisional Requirements

The quantity specified below is only an estimation and there is no contractual commitment. The required quantity is subject to the actual operational needs of CUHKMC.

Item	Description	Provisional Quantity	Unit Price (HK\$)	Total Amount (HK\$)
10.	Additional emergency calls under non-office hours as stipulated in Section 4.2 of Technical Specifications.	20 times		
11.	Man-hour charge of Site Supervisor rank under non-office hours as stipulated in Section 2.2 of Technical Specifications.	12 hours		
12.	Man-hour charge of Technician rank under non-office hours as stipulated in Section 2.2 of Technical Specifications.	20 hours		
Total Amount for Item 10 to Item 12 (HK\$) :				
Total Tender Sum [Total Amount for Item 1 to Item 12] (HK\$) :				

Note:

1. The offer shall be comprehensive without hidden costs. All possible costs shall be clearly stated in the price proposal for consideration.
2. Tenderer is required to attach the price breakdown of the Services with detailed description in separate sheet.
3. All prices of optional items, if any, must be quoted separately and submitted with the Price Proposal.

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

Telephone:

Email:

Authorized Signature:

Date:

Schedule 6 - Consent to Disclosure

To: CUHK Medical Centre Limited (CUHKMC)

**Re: Provision of 24 months Maintenance Services for MVAC System
of CUHK Medical Centre**

We, [](the name of the consulting firm), hereby irrevocably authorise, consent and agree that if CUHKMC agrees to engage us to carry out the Provision of 24 months Maintenance Services for MVAC System of CUHK Medical Centre, CUHKMC may, whenever it considers appropriate or upon request by any person (written or otherwise) and without any further reference to us, disclose to any person in such form and manner as CUHKMC deems fit:

- (a) the fees, costs and expenses payable by CUHKMC for engaging us; and
- (b) the fee proposal submitted by us on / _____ / (the relevant date).

We hereby waive and forego our right, if any, to make any claims against CUHKMC for any losses, damages, costs, charges, liabilities, demands, proceedings and actions that may arise out of or in consequence of such disclosure by CUHKMC.

Dated this _____ day of _____

SIGNED by *[insert the name(s) of the signator(ies)]*,)
the *[insert the post(s) of the signator(ies)]* of the)
[insert the name of the company])
in the presence of : -

Signature of Witness

Name of Witness:

Occupation:

Address:

Schedule 7 - Certificate of Non-Collusion

We certify that this is a bona fide tender, and that we have not fixed or adjusted the amount of the Tender by or under or in accordance with any agreement or arrangements with any other person. We also certify that we have not done and we undertake that we will not do at any time before the hour and date specified for the return of this Tender any of the following acts:

- (a) Communicate to any person other than the person calling for those Tenders the amount or approximate amount of the proposed Tender, except where the disclosure, in confidence, of the approximate amount of the Tender was necessary to obtain insurance premium quotations required for the preparation of the Tender;
- (b) Enter into agreement or arrangements with any other person that he shall refrain from tendering or as to the amount of any Tender to be submitted;
- (c) Offer or pay or give or agree to pay or give any sum of money or valuable consideration directly or indirectly to any person for doing or having done in relation to any other tender or proposed Tender any act or thing of the sort described above.

In this certificate, the word “person” includes any person and any body or association, corporation or unincorporated, and “any agreement or arrangement” includes any such transaction, formal or informal, and whether legally binding or not.

We expressly acknowledge and agree that, without prejudice to any other rights of CUHKMC, if this certification is in anyway incorrect, or becomes incorrect prior to the award of this Tender, CUHKMC may:

- (i) disqualify our Tender from consideration;
- (ii) withdraw any confirmation of award of tender already made, without penalty or liability;
- (iii) disqualify us, our holding company and subsidiaries from participation in any future tenders issued by CUHKMC for such period as CUHKMC may in its entire discretion consider appropriate;
- (iv) take such other actions, including reporting us to the government or regulatory authorities in Hong Kong or elsewhere, as CUHKMC considers appropriate.

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

Telephone:

Email:

Authorized Signature:

Date:

Schedule 8 - Personal Data (Privacy) (Amendment) Ordinance

The new provisions on data processors under the Amendment Ordinance had come into effect on 1 October 2012 and as such, I/we certify the following:

- a. I shall/We will and shall/will procure my/our employees, agents or representatives to comply with the provisions of the Personal Data (Privacy) Ordinance (the “Ordinance”) (including any amendments thereon from time to time), and any applicable codes of practice, guidance notes or regulations in the handling of personal data (as defined in the Ordinance from time to time) (“Personal Data”) collected by and provided to me/us for the purpose of this Tender/Agreement.
- b. I/We shall not keep Personal Data longer than is necessary for the fulfilment of the purpose (including any directly related purpose) for which the same are or to be used. I shall/we will:
 - i. return, destroy or permanently erase all such Personal Data;
 - ii. destroy or permanently erase all copies of such Personal Data made by me/us; and
 - iii. use all reasonable endeavors to ensure that anyone who has received any such Personal Data destroys or permanently erases such Personal Data and any copies made by it or him,

in each case, save to the extent that I am/we or the recipients are required to retain any such Personal Data by any applicable law, rule or regulation or by any competent judicial, governmental, supervisory or regulatory body.
- c. I shall/We will take all practical steps and have in place and maintain appropriate security measures to prevent unauthorized or accidental access, processing erasure, loss or use of Personal Data collected by or transferred to it having particular regard to:
 - i. the kind of Personal Data and the harm that could result if any of those things should occur;
 - ii. the physical location where the Personal Data are stored;
 - iii. any security measures incorporated (whether by automated means or otherwise) into any Goods in which the Personal Data are stored;
 - iv. any measures taken for ensuring the integrity, prudence and competence of persons having access to Personal Data; and
 - v. any measures taken for ensuring the secure transmission of Personal Data.

Person Authorized to Sign Tender

Name of Company with Company Chop: Name and Title:

Telephone:

Email:

Authorized Signature:

Date:

PART IX
ANNEX - TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS
FOR THE
Maintenance Service for MVAC System of CUHK Medical Centre

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Appendix C	Requirements on Preventive Maintenance
Appendix D	Requirements on Overhaul
Appendix E	Guidance Notes for Contractors on Occupational Health and Safety
Appendix F	Schedule of Rates for Term Contracts

Section 1 : General

1.1 General

- (a) This Technical Specification sets out the requirements on the preventive maintenance, corrective maintenance, overhaul, and other associated works of the air-conditioning, ventilation, heating, power supply and other related installations for the CUHK Medical Centre (CUHKMC) (hereinafter referred to as the “Installations”).
- (b) The Installations include, but are not limited to, the following:
 - (i) Chilled water pumps;
 - (ii) Air handling units, primary air handling units, Variable Air Volume (VAV) boxes, fan coil units, and Fresh Air Pre-conditioner (FAP) units;
 - (iii) Packaged, split-type and Variable Refrigerant Volume (VRV) air-conditioning units and room coolers;
 - (iv) Ventilation, extraction and exhaust fans and air curtains;
 - (v) Dehumidifiers, humidifiers and duct heaters;
 - (vi) Chilled water pipeworks;
 - (vii) Air ductworks, thermal insulation and fire dampers;
 - (viii) Ventilation and air-conditioning control systems;
 - (ix) Power supply installations for the air-conditioning plants and equipment as well as general lighting and electrical installations inside air-conditioning plant rooms;
 - (x) Acoustic enclosures for air-conditioning/ ventilation plants and equipment;
 - (xi) Lifting appliances and lifting gears inside the air-conditioning plant rooms and workshops;
 - (xii) Accessories associated with the above installations including, but not be limited to, valves, sensors, gauges, motor starters, controllers, switchgears, protection devices, power and control wirings, conduits, trunking, support, fixture, etc.
 - (xiii) The power supply installations for air-conditioning plants and equipment include the low-voltage cubicle switchboards, distribution boards, switchgears and all power supply components used solely for supplying power to the air-conditioning plants, equipment and/or accessories, and include all electrical wiring and accessories between the low-voltage cubicle switchboards and the plants, equipment and/or accessories.
- (c) A summary of the major parts of the Installations included in this Contract is shown in Appendix A.

1.2 Contract Period

- (a) The Contract period shall be of two year (hereinafter referred to as “the Contract Period”).
- (b) The Contract shall commence within 1 month upon the award of contract or anytime as required by CUHKMC.

1.3 Scope of the Works

- (a) The Contractor shall carry out the works when ordered by CUHKMC. The works include:
 - (i) Preliminaries as detailed in Section 2 and relevant Appendixes;
 - (ii) Preventive maintenance as detailed in Section 3;
 - (iii) Corrective maintenance as detailed in Section 4;
 - (iv) Overhaul as detailed in Section 5;
 - (v) All other works as stipulated in this Technical Specifications and other documents forming part of the Contract.

1.4 Ownership of Information

- (a) All information including reports, data, drawings, software packages, etc. as developed by or prepared by the Contractor in the execution of the Works shall be surrendered by the Contractor to CUHKMC and become the property of CUHKMC upon certified completion of the relevant works by CUHKMC. The Contractor shall not use any such information without the prior written consent of the CUHKMC.

1.5 Nuisance Abatement Measures

The Contractor shall provide the following nuisance abatement measures for the Works:

- (a) For air pollution control
 - (i) Provide covering and containment of dusty materials;
 - (ii) Where the public is affected by the dust or exhaust fumes from a plant, provide screens or enclosures for the dusty and smoky operations;
 - (iii) Provide vacuum cleaners for dusty operations
- (b) For noise pollution control
 - (i) Provide acoustic screens or enclosures for noisy operations; and
 - (ii) Wrap up the tips of the percussion breaker for hard rock and concrete breaking works by excavators.

1.6 Waste Management

- (a) The Contractor shall take the following measures to reduce and minimize generation of construction and demolition (C&D) materials associated with the Works:
 - (i) Sort and dispose of paper and cardboard packaging to recycling contractors;
 - (ii) Properly handle and dispose of chemical waste by a specialist contractor; and
 - (iii) Conduct thorough sorting of demolition waste for recovering broken concrete, reinforcement bars, mechanical and electrical fittings, hardware etc., and deliver to proper recycling outlets.

Section 2 : Preliminaries

2.1 General Specifications, Statutory Requirements and Standing Instruction

The Contractor shall comply with all applicable requirements under and be deemed to have examined the latest edition / version (as on the tender closing date) of following ordinances and their subsidiary regulations:

- (i) Air Pollution Control Ordinance (Cap. 311);
- (ii) Building Ordinance (Cap. 123);
- (iii) Construction Workers Registration Ordinance (Cap. 583);
- (iv) Electricity Ordinance (Cap. 406);
- (v) Factories and Industrial Undertakings Ordinance (Cap. 59);
- (vi) Occupational Health and Safety Ordinance (Cap. 509);
- (vii) Ozone Layer Protection Ordinance (Cap. 403);
- (viii) Place of Public Entertainment Ordinance (Cap. 172);
- (ix) Pneumoconiosis (Compensation) Ordinance (Cap. 360);
- (x) Public Health and Municipal Services Ordinance (Cap. 132);
- (xi) Waste Disposal Ordinance (Cap. 354); and
- (xii) Code of Practice for Energy Efficiency of Air Conditioning Installations; and
- (xiii) Any other applicable laws of Hong Kong.

2.2 Contractor's Staff and Superintendence

The Contractor shall comply with the following requirements:

- (a) Contract Manager
 - (i) The Contractor shall employ a Contract Manager, who shall be in charge of all administration and overall supervision of the Works and liaise with the CUHKMC during the Contract Period and the Defects Liability Period.
- (b) Safety Officer
 - (i) The Contractor shall employ a Safety Officer to carry out the duties of a Safety Officer as specified in the Contract, Appendix E and duties specified in the Factories and Industrial Undertakings (Safety Officers and Safety Supervisors) Regulations FIU(SO&SS)R.
- (c) Contractor Staff
 - (ii) Unless otherwise specified elsewhere in the Contract, the Contractor shall provide sufficient number of staff to fill in the following minimum numbers of posts to carry out the daily operation, preventive maintenance, minor corrective maintenance and overhaul during the Contract Period.

The organization and minimum staff level and normal working hours of the posts are set out in Appendix B of this Technical Specification.

- (ii) The numbers of the posts as specified in Appendix B above are the minimum numbers, and the Contractor shall, as and when necessary, increase the actual number of posts deployed for this Contract for the satisfactory completion of the Works.
- (iii) The Supervisor (A/C) shall act as the gang leader and site safety supervisor in respect of any of the Works in the corresponding venue. He / she shall be delegated by the Contractor with powers to receive instructions from the CUHKMC.

(d) Supporting Resources

- (i) As and when necessary, the Contractor shall provide sufficient numbers of supporting staff of the appropriate trades (e.g. clerical support) and with adequate qualifications as well as specialist contractors (e.g. LV cubicle switchboard specialist contractor for PITC) to support the execution of the Works.
- (ii) The Contractor's costs on the supporting staff as specified in sub-clause (i) above shall be deemed to be included in the unit rates entered by the Contractor in the Schedule of Rates.

(e) Qualifications and Experience of Contractor's Staff

The Contractor staff should have the following minimum qualification and experience:-

(i) Contract Manager

- a. A Degree / Higher Diploma in Building Services / Electrical / Mechanical / Air-conditioning Engineering issued by a recognized university or equivalent; or
An Associate Membership of the Hong Kong Institution of Engineers in the building services / electrical / mechanical discipline; and
- b. At least FIVE (5) years' experience in supervisory level in engineering services contract management of which at least TWO (2) years' experience in supervisory level in the operation and maintenance of HVAC installations in hospitals in Hong Kong; and
- c. Good command of spoken and written English and Chinese.

(ii) Safety Officer

- a. Safety Officer shall be a person registered as a safety officer in accordance with the Factories and Industrial Undertakings (Safety Officers and Safety Supervisors) Regulations (FIU(SO&SS)R) and employed by the Contractor to carry out the duties of a Safety Officer as specified in the Contract, Appendix E and duties specified in the FIU(SO&SS)R.

(iii) Site Supervisor

- a. Either (I) A Certificate or above in Building Services / Electrical / Mechanical / Air-conditioning Engineering issued by an Institute of Vocational Education or equivalent, and at least five (5) year's post-qualification supervisory experience in the operation and maintenance of HVAC installation; OR (II) At least ten (10) year's post-apprenticeship supervisory experience in the operation and maintenance of HVAC installation; and
- b. At least TWO (2) year's supervisory experience in the operation and maintenance of HVAC installations in hospitals in Hong Kong.
- c. Possess a valid Construction Industry Safety Training Certificate; and
- d. Registered Skilled Worker in relevant trade under the Construction Workers Registration Ordinance (Chapter 583) (the "CWRO"); and
- e. A registered electrical worker under the category of Grade B(0) electrical or above; and
- f. Good command of spoken and written English and Chinese.

(iv) Technician

- a. EITHER (I) An apprenticeship in related field, and at least five (3) years' post-apprenticeship experience; OR (II) At least six (6) years' experience in the operation and maintenance of medium to large air-conditioning installations; and
- b. At least TWO (2) year's experience in the operation and maintenance of HVAC installations in hospitals in Hong Kong is preferred; and
- c. Possess a valid Construction Industry Safety Training Certificate; and
- d. Registered Skilled Worker in relevant trade under the Construction Workers Registration Ordinance (Chapter 583) (the "CWRO"); and
- e. Registered electrical worker of Grade R, Grade A or above; and
- f. Basic spoken and written English and Chinese.

(f) Direct Employment

- (i) The Contractor's staff as specified in Clause 2.2 shall be the direct employees of the Contractor.
- (ii) When ordered by the CUHKMC, the Contractor shall submit the monthly MPF Employer Payment Record in respect of the staff specified in the sub-clause (i) above to support his payment claims.

(g) Provision of Services During Bad Weather Conditions

- (i) The Contractor shall continue the Works during the hoisting of Tropical Cyclone Warning Signal No. 8 or above, or Black Rainstorm Signal, including the provision of Contractor Staff.
- (ii) The Contractor's costs on the provision of sub-clause (i) above shall be deemed to be included in the unit rates entered by the Contractor in the Schedule of Rates.

(h) Acceptance of Contractor's Staff

- (i) The Contractor shall submit within two (2) weeks after tender acceptance the résumé of his proposed staff for the posts to CUHKMC for approval. For the additional staff, the Contractor shall submit the résumé of the proposed staff as soon as practicable after receiving the order from the CUHKMC.
- (ii) In respect of the Contract Manager, the CUHKMC may conduct an interview to assess the suitability of the proposed staff of the Contractor.
- (iii) In respect of each of the proposed staff for any posts of Site Supervisor, Safety Officer or Craftsman, the CUHKMC may conduct interviews and/or skill tests to assess the suitability of the proposed staff of the Contractor.

(i) Transfer or Replacement of Staff

- (i) The Contractor shall transfer or replace any of his staff specified in Clause 2.2 who is/are considered unsuitable by the CUHKMC. Such transfer or replacement shall be effective within one (1) week after the issue of request by the CUHKMC.

(j) Staff Identification Card

- (i) The Contractor shall provide a staff identification card for each of his staff and his sub-contractors' staff deployed for this Contract. Every staff shall carry the staff identification card prominently while working at the Site. Each of the staff identification card shall bear the name and company chop of the Contractor and shall contain the name, passport photograph, post and staff number of the staff concerned. The format of the staff identification card shall be subject to the approval by the CUHKMC.

2.3 Uniform for Site Personnel

- (a) The Contractor shall provide uniform for his direct staff and sub-contractors' staff.

2.4 Tools, Equipment and Instruments

- (a) The Contractor shall provide all of his staff with sufficient numbers of tools, equipment and instruments and with sufficient and convenient means of transportation for the efficient and satisfactory completion of the Works.
- (b) In particular, the Contractor shall provide sufficient numbers (at least one (1) set for each item) of the following tools, equipment and instruments:
 - (i) Hand tool kits,
 - (ii) Heavy tool sets;
 - (iii) Electric drills;
 - (iv) Electric grinders;
 - (v) Grease guns;
 - (vi) Pressure washers;
 - (vii) Vacuum cleaners;
 - (viii) Chain blocks;
 - (ix) Grip pullers;
 - (x) Folding ladders;
 - (xi) Thermometers;

- (xii) Infrared temperature sensing guns/testers;
 - (xiii) Sling psychrometers;
 - (xiv) AVO testers; and
 - (xv) Clip-on tong testers.
- (c) In addition, the Contractor shall provide at least the following tools, equipment and instruments for the execution of the Works:
- (i) Electric welding machines;
 - (ii) Steam cleaners;
 - (iii) Vacuum pumps;
 - (iv) Refrigerant recovery and recycling units;
 - (v) Oxyacetylene torches;
 - (vi) Aluminium scaffoldings;
 - (vii) Anemometers;
 - (viii) Manometers;
 - (ix) Sound level meters;
 - (x) Temperature and humidity recorders;
 - (xi) Refrigerant leakage detectors;
 - (xii) Insulation and continuity testers;
 - (xiii) Earth fault loop impedance testers;
 - (xiv) Velocity flow meters; and
 - (xv) Vibration analysers.
- (d) All measurement and testing instruments shall have precise accuracy and shall be properly calibrated and identified.
- (e) All of the tools, equipment and instruments provided by the Contractor shall be maintained in good working orders.
- (f) The Contractor shall maintain a register of all the tools, equipment and instruments as specified in sub-clause (b) and (c) above and the calibration certificates of all instruments as specified in the same sub-clause. The Contractor shall produce the registers of all the tools, equipment and instruments and the calibration certificates for inspection upon request of the CUHKMC.

2.5 Site Security

- (a) The Contractor shall comply with all requirements on security set out by the management of CUHKMC.
- (b) Upon completion of the works in a plant room, workshop, etc., the Contractor shall ensure that all doors have been locked. When leaving the Site, the Contractor shall keep all tools, equipment, materials, etc., in safe places.
- (c) Failure to comply with the requirements of this Clause may render the Contractor liable to all losses or damages subsequently incurred.

2.6 Provision of Consumables and Minor Parts Installations

- (a) The Contractor shall provide labour, working platforms and necessary tools with all statutory & calibration certification such as Form 5 for working platform as its own cost for the satisfactory completion of any of the Works, provide all necessary consumable and minor part installations. Such consumables and minor parts shall include, but not be limited to, the following:

Table 2.6(a) – Consumables and Minor Parts to be Included

Item	Consumable / Minor Part	Unit
(i)	Air filters, HEPA filters (excluded installation in Laminar Flow Operating Theatre Ceiling), oil filters, strainers, dryers, air cleaners, oil separators, air registers / diffusers / grilles, “O” rings, gaskets, seals, sight glasses, oval spirals, pump packing, screws, bolts, nuts, washers, pins, locks, zinc anodes, bearings, belts, valves, actuators, dampers, pipe/tube fittings, heaters, thermostats, sensors, transmitters, gauges, temperature cut-outs, temperature / humidity controllers, electronic boards / cards / components, motors, distribution boards, protective devices, switches, isolators, fuses, buttons, indicators, control / protective relays, meters, contactors, current transformers, lighting fittings, fluorescent tubes, lamp bulbs, lighting control gear, socket outlets, wiring fittings and accessories and battery cells/chargers, etc.	No.
(ii)	Refrigerant and cotton waste, etc.	Kilogram
(iii)	Lubricating oil, grease, paints, coatings, chemical solutions and contact cleaners, etc.	Litre
(iv)	Pipes, tubes, hoses, thermal insulation materials, claddings, power/ control cables and conduits / trunking / cable trays and fittings, etc.	Meter

- (b) The unit of a consumable or a minor part not mentioned above shall be the smallest unit of that consumable or minor part commonly adopted in the air-conditioning engineering trade in Hong Kong.
- (c) The unit cost of a consumable(s) or a minor part(s) quoted by Contractor shall not include the costs of delivery and related assembling, fixing and/or installation works. The unit cost of a consumable or a minor part shall be priced according to the Schedule of Rates for Term Contracts in Appendix F (hereinafter abbreviated to as the “Rate Book”).
- The Contractor shall take cognizance of the fact that CUHKMC reserves the right not to accept any offer and may opt to provide the replacement parts/materials instead.
- (d) The Contractor shall maintain the adequate stock of the consumables and minor parts with a view to ensuring that the Installations are fully operative at all times during the Contract Period.
- (e) All consumables and minor parts provided by the Contractor shall be brand-new and be fully compatible to the existing plants, equipment or accessories, etc. Unless otherwise approved by the CUHKMC, all consumables and minor parts shall be, whenever applicable, the genuine products of the original manufacturers of the existing plants, equipment or accessories.
- (f) The Contractor shall, at its own costs, obtain consumables and minor parts from

overseas suppliers (by air freight as and when necessary) when the local stocks are not available.

- (g) All consumables and minor parts supplied by the Contractor shall be subject to the approval of the CUHKMC.
- (h) All necessary replacement parts other than the aforesaid “minor and consumable parts” for the satisfactory performance of engineering installations. The cost of such replacement parts shall be paid to the Contractor in accordance with the procedures specified elsewhere in the Specification. The Contractor shall submit to the CUHKMC of full justifications to support that the need for the replacement of the parts is not due to any negligence or default of the Contractor in execution of the Works. All the provision of parts must have a guarantee period of 1 year for its normal operation except vandalism or other indirect damage to subject parts offer and may opt to provide the replacement parts/materials instead.

2.7 Provision of Materials and Parts by the CUHKMC

- (a) The CUHKMC reserves the right to supply any materials or parts for the assembly, fixing and/or installation by the Contractor in relation to any of the Works. The Contractor shall collect these materials and parts from the designated locations in Hong Kong and deliver them to the Site as instructed by the CUHKMC. The Contractor shall return any surplus materials and parts supplied by the CUHKMC to the designated locations as instructed by the CUHKMC.
- (b) The Contractor shall be responsible for the delivery, temporary storage and safe custody of all materials and parts collected from the CUHKMC.
- (c) The Contractor shall carry out necessary inspections and/or tests for the materials and parts collected from the CUHKMC, and shall ensure that the same are fully compatible with the existing plants, equipment or accessories, etc. prior to assembly or installation.

2.8 Records of Works

(a) Job Cards

- (i) The Contractor shall prepare a job card for each work activity. The job card shall contain the details of works carried out, details of Contractor’s staff involved, time of work commencement and completion.

(b) Monthly Reports

- (i) Prior to the 10th calendar day of each month, the Contractor shall submit to the CUHKMC a monthly report for the preceding month for each of the venues. The monthly reports shall include at least the following:
 - a. Record of operation and maintenance activities conducted during the month with essential running parameters of equipment;
 - b. Register of Works Orders received, progress of the works concerned and payment claims;

(c) Fault Reports

- (i) The Contractor shall submit fault reports in accordance with the requirements set out in Clause 4.3 of this Technical Specification.

2.9 Taking Over of the Installations

- (a) When ordered by CUHKMC, the Contractor shall take over the operation and maintenance works on any part of the Installations regardless of whether or not there is any handover exercise.
- (b) Upon taking over a part of the Installations, the Contractor shall examine the working conditions of the part and shall report to CUHKMC within one (1) week after the examination any defects or abnormalities found. Failure to report so shall render the Contractor liable for the full costs of necessary repairs and improvement works.

2.10 Handover of the Installations

- (a) Within one (1) month before the end of the Contract Period or at an earlier time as determined by CUHKMC, the Contractor shall carry out a handover exercise for the Installations. When so requested, the handover exercises shall be carried out in the presence of CUHKMC.
- (b) During the handover exercise, the Contractor shall thoroughly check and test the conditions of those parts of the Installations as requested by CUHKMC. Such tests shall include, but not be limited to the following:
 - (i) Functional tests for all protective and control devices of the air-conditioning equipment;
 - (ii) Functional tests for the control system including automatic on/off control and sequencing control;
 - (iii) Functional tests for the direct digital control system / building management system / building automation system;
 - (iv) Electrical tests for motors such as insulation test, earth continuity loop resistance test for motor starter, starter overload, etc.; and
 - (v) Performance tests including the measurement and record of air-conditioning equipment.
- (c) The Contractor shall record all results of the handover exercise and tests and shall submit, within two (2) weeks after the completion of each handover exercise and tests, a report to CUHKMC. The report shall include, but not be limited to, the test results, defects and abnormalities found and recommended follow-up actions. The format of the report shall be submitted to CUHKMC for approval prior to the commencement of the handover exercise or tests.
- (d) The Contractor shall, at his own costs, carry out all necessary repair and/or improvement works in respect of any defects and abnormalities found during the course of the handover exercise. Such repair and improvement works shall be completed within one (1) month after the completion of the handover exercise concerned.

2.11 Records of Plants and Equipment Details

- (a) The CUHKMC will provide a record on the details of all plants and equipment of the Installations to the Contractor in the commencement of the Contract Period.
- (b) During the Contract Period, the Contractor shall update the above record at least once every two (2) weeks or whenever circumstances demand (e.g. immediately after the replacement of an equipment).
- (c) The Contractor shall, upon request by CUHKMC, update any records in relation to the Installations, e.g. operation and maintenance manuals and as-fitted drawings.

2.12 Notification for Works

- (a) Prior to the commencement of any of the Works, the Contractor shall notify and obtain approval from CUHKMC for the works commencement, unless otherwise agreed.
- (b) The CUHKMC may stop any of the Works being carried out if he is in any of the following opinions. The Contractor shall be responsible for any claims arising from its default.
 - (i) A part of the Installations may be damaged by poor workmanship, poor or incorrect materials or incorrect methods of works of the Contractor, etc.;
 - (ii) The safety of a person is in concern; or
 - (iii) A property at the Site may be damaged.
- (c) The Contractor shall report, immediately subsequent to the completion of any of the Works, the completion of works to CUHKMC, unless otherwise agreed.

2.13 Site Safety and Occupational Health and Safety

- (a) The Contractor shall implement precautionary measures, including the provision of appropriate protective devices / equipment and a safe and healthy environment, to ensure the safety and health of persons at work in accordance with all relevant statutory requirements such as the Factories and Industrial Undertakings Ordinance, Cap 59, and the Occupational Safety and Health Ordinance, Cap 509.
- (b) The Contractor shall provide his workers and any persons working at the workplace with adequate and appropriate Personal Protective Equipment (PPE) as stipulated in the Factories and Industrial Undertakings Ordinance, Cap 59, and shall take reasonable steps to ensure that the workers or persons working at the workplace make full and proper use of the same.
- (c) The Contractor shall provide his workers and any persons working in any Confined Spaces and those working at height with adequate and appropriate Personal Protective Equipment (PPE) and shall strictly comply with all statutory requirements in relation to work safety as stipulated in the Factories and Industrial Undertakings Ordinance, Cap 59.

2.14 Third Party Insurance

- (a) Third party insurance for the whole Contract period (including the Defects Liability Period) shall be procured by the Contractor before the date for commencement of the Works.

2.15 Fees and Charges to Utilities Companies, etc.

- (a) The Contractor shall, at his own costs, pay all necessary fees and charges to all utilities companies, Government departments, authorities, etc., in the execution of the Works.

Section 3: Preventive Maintenance

3.1 General

- (a) The Contractor shall provide preventive maintenance services to the air-conditioning installations specified in the contract and Appendix C.
- (b) Under all circumstances the Contractor shall liaise with CUHKMC and particularly note that the disturbance to the operation and occupants of the venue must be kept at minimum during the execution of the works, or otherwise shall the works be arranged after office hours.

3.2 Schedules of Preventive Maintenance

- (a) The Contractor shall prepare the maintenance schedules for all preventive maintenance works for the Installations. The maintenance schedules shall be submitted to CUHKMC for approval within two (2) weeks after tender acceptance.
- (b) The approved maintenance schedules will be subject to revision from time to time as required by CUHKMC. In such cases, the Contractor shall revise and re-submit the maintenance schedules and re-schedule the preventive maintenance works promptly and accordingly. No claim whatsoever shall be made by the Contractor for such revision/re-scheduling.

3.3 Annual Inspections and Tests

- (a) The Contractor shall arrange for all relevant parts of the Installations to be inspected, examined, tested and certified annually in accordance with the statutory requirements and with the applicable requirements set out in the relevant codes of practices by authorized/registered persons and/or contractors. One of them is Annual Inspection Certificate according to Building (Ventilating Systems) Regulations.
- (b) The applicable ordinances, regulations and codes of practices as well as the relevant parts of the Installations shall include, but not be limited, to the following:

Table 3.3(b) – Annual Inspections and Tests

Item	Ordinances / Regulations / Codes of Practices	Relevant Parts
A	Boilers and Pressure Vessels Ordinance (Cap. 56)	Air receivers and safety valves of pneumatic control systems for VAV boxes
B	Building (Ventilating Systems) Regulations (Cap.123J), and Public Health and Municipal Services Ordinance (Cap. 132)	Fire dampers, filters and precipitators (electrostatic filters)
C	Factories and Industrial Undertakings (Lifting Appliances and Lifting Gear) Regulations (Cap. 59J)	Lifting appliances and lifting gear in air-conditioning plant rooms and workshops

Item	Ordinances / Regulations / Codes of Practices	Relevant Parts
D	Fire Services Ordinance, (Cap. 95), and Codes of Practice for Minimum Fire Service Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment	Ventilation and air-conditioning control systems
E	Electricity (Wiring) Regulations (Cap. 406E), and Code of Practice for the Electricity (Wiring) Regulations	Mains / Sub-mains power supply system serving the Installations.
F	Technical Memorandum for the Assessment of Noise from Places other than Domestic Premises, Public Places or Construction Sites	Annual noise assessment for nearby noise sensitive receivers of the Installations
G	Environmental Protection Department, Indoor Air Quality (IAQ) Certification Scheme	Indoor Air Quality (IAQ) survey and renewal of certificate(s)
H	Fire Service (Installation and Equipment) Regulations (Regulation 9(1)), Certificate of Fire Service Installation and Equipment (FS 251)	Ventilation and air-conditioning control systems

- (c) The Contractor shall carry out all necessary works with a view to ensuring that all relevant parts of the Installations meet all statutory requirements and all requirements set out in the relevant codes of practices for necessary certification.
- (d) The Contractor shall ensure that the most recent certificates are displayed at the prominent positions of or near the parts of the Installations concerned.
- (e) In respect of each fire damper, the Contractor shall clean the fire damper during the inspection, and shall ensure that the date of inspection is marked at a prominent position of the fire damper immediately after the inspection.
- (f) The Contractor shall arrange for any relevant parts of the Installations to be inspected, examined, tested and certified every time after the re-erection, rectification or replacement of that part.
- (g) The Contractor shall carry out all necessary works with a view to ensuring that each of the parameters of the water in each chilled water systems and heating water systems of the Installations meets the above value / concentration.
- (h) Within two (2) weeks after the completion of each of the inspections, examinations and tests mentioned above, the Contractor shall submit the relevant test reports/certificates to CUHKMC for record and retention.

3.4 Technical Assessment

- (a) Within One (1) months after the commencement of the Contract, the Contractor shall conduct a technical assessment for all parts of the Installations and submit the reports to CUHKMC.

- (b) The Contractor shall submit the working programme for the technical assessment within two (2) weeks after the commencement of the Contract for the approval of CUHKMC.
- (c) The technical assessment shall include, but not be limited to, the following:
 - (i) Functional tests of all protective and control devices of the air-conditioning plants such as no-flow switch, high temperature trip, low temperature trip, low oil pressure trip, etc.;
 - (ii) Functional tests of the control systems including automatic on/off control and sequencing control;
 - (iii) Functional tests of the direct digital control systems / building management systems / building automation systems;
 - (iv) Electrical tests for motors such as Megger test, earth continuity loop resistance test for motor starter, and starter overload as wholly or selectively performed according to the instruction of CUHKMC or his site supervisory staff; and
 - (v) Performance tests including measurement and recording of the performance of the Installations.
- (d) The report of technical assessment shall include, but not be limited to, all the results of the technical assessment and any faults and/or deficiencies together with any recommendation for improvement and/or rectification that are deemed to be necessary for the high reliability and efficiency of the installations for the consideration of CUHKMC.
- (e) Operation and maintenance manuals of the Installations may be provided on loan to the Contractor subject to availability.

Section 4: Corrective Maintenance

4.1 General

- (a) The Contractor shall carry out corrective maintenance that provides labour, working platforms and necessary tools with all statutory & calibration certification such as Form 5 for working platform as its own cost for any part of the Installations in accordance with the requirements set out in this Section. The Contractor shall submit corrective maintenance proposal with material related cost only with reference to the Schedule of Rates for Term Contracts in Appendix F.
- (b) The Contractor shall, at any time during the Contract Period and all Defects Liability Period, attend fault calls and carry out all necessary repair works for any part of the Installations with a view to meet with the Performance Targets set out in Clause 4.2 of this Particular Specification.
- (c) Within two (2) weeks after tender acceptance, the Contractor shall provide a telephone hotline for fault reporting at any time.
- (d) The phrase "at any time" shall cover 24 hours a day, 7 days a week, 365/366 days a year including Sunday, public holidays and any time during the typhoon, rainstorm and/or other adverse-climate periods.
- (e) The Contractor shall be equipped with sufficient numbers of service vehicles for speedy transportation of parts, materials, tools and labour, etc., for carrying out the corrective maintenance.
- (f) In the event of breakdown of an associated motor of any plant or equipment of the Installations, the Contractor shall, repair the motor including rewinding as necessary or as instructed. The Contractor shall supply, deliver to site, install, test and commission a suitable temporary motor for the continual operation of the plant or equipment concerned.
- (g) The Contractor shall provide all necessary consumables and minor parts as specified in Clause 2.6. For replacement of parts other than those specified in Clause 2.6, the Contractor shall obtain the prior acceptance of CUHKMC.
- (h) Under all circumstances the Contractor shall liaise with CUHKMC and particularly note that the disturbance to the operation of the venue or to the occupants of the venue must be kept to a minimum during the execution of the works, or otherwise shall the works be arranged after office hours.

4.2 Performance Targets

- (a) Upon receipt of an emergency call, the Contractor shall arrive at the Site and endeavour to resume the operation of any breakdown plant or equipment within the following time limits from the time the emergency call (12 times in this contract) is received:

Table 4.2(a) – Response Time to Emergency call

<u>Equipment & Installation</u>	<u>Response Time to Emergency call</u>
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Complete heating, ventilation and air-conditioning system including related power supply system and other accessories	≤ 2 hour (12 times)
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Table 4.2 (b) - Time for Fault Rectification

<u>Nature of Fault</u>	<u>Target Time</u>
Urgent Fault	< 24 hours
Non-urgent Fault	< 7 working days

i) Emergency Call:

Emergency call means that the fault call is outside service hours as stipulated in Appendix B.

ii) Urgent fault:

System or equipment failure bearing safety implication or seriously affecting the operation of the whole system or venue, e.g. breakdown of AHU or breakdown of that part of the installation which may cause interruption to the air conditioning service or serious disturbance to the venue's operation.

iii) Non-urgent fault:

Minor deviations of system performance which do not lead to interruption of air-conditioning service or serious disturbance to the venue's operation, e.g. complaint of high room temperature/humidity and abnormality of equipment operation.

- (b) When it is expected that the breakdown plant or equipment may not be able to be resumed within 24 hours, the Contractor shall report immediately to CUHKMC about the nature of fault and the course of actions being/to be taken. In any cases, the plant or equipment concerned must be put back to normal operational status within the above time limits unless otherwise agreed by CUHKMC.

4.3 Fault Reports

- (a) Whenever a fault occurs, the Contractor shall submit a fault report to CUHKMC as soon as practicable, but in any case, no later than five (5) working days from the day of the incident.
- (b) Each of the fault reports shall consist, but not be limited to, information on the dates and times of receiving and rectifying the faults, suspected/proved causes of the faults, affected service areas and users, conditions of the plant and equipment concerned, actions taken, recommended follow-up actions, supporting photos and personnel involved.

4.4 Addition of Installations

- (a) CUHKMC shall have the right during the Contract Period to include additional air-

conditioning installations into this Contract and the Contractor shall execute the works for the additional installations in accordance with the Scope of Works specified in Section 1 to 5 of this Particular Specification. The cost of adjustment shall be agreed between the Contractor and CUHKMC.

4.5 Deletion of Installations

- (a) CUHKMC shall have the right during the Contract Period to delete from the Contract any of the Installations and/or venues which shall include the Installations included at the commencement of Contract and/or those subsequently added during the course of the Contract Period. The cost adjustment shall be mutually agreed by the Contractor and CUHKMC.

Section 5: Overhaul

5.1 General

- (a) The Contractor shall carry out overhaul works for Installations in accordance with the requirements set out in this Section and in Appendix D.
- (b) Within two (2) weeks after the completion of the overhaul works for equipment, the Contractor shall submit an overhaul report to CUHKMC. Each of the overhaul reports shall consist, but not be limited to, information on the details of all works carried out, conditions of the plant/equipment before and after the overhaul works, parts/materials replaced and recommended follow-up actions.
- (c) The Contractor may be required to carry out the overhaul works outside the normal working hours (including Sundays and public holidays) without any cost implication.
- (d) Under all circumstances the Contractor shall liaise with CUHKMC and particularly note that the disturbance to the operation and occupants of the venue must be kept at minimum during the execution of the works, or otherwise shall the works be arranged after office hours.

5.2 Schedules of Overhaul

- (a) The Contractor shall perform overhaul for the types of equipment specified in the following table. The number of overhaul of each equipment shall be as specified in the same table unless other specified elsewhere in the Specification.
- (b) The Contractor shall prepare the overhaul schedules for all equipment specified in Appendix D taking into account the operational needs of each venue and the seasonal usage pattern. The overhaul schedules shall be submitted to CUHKMC for approval within One (1) month after tender acceptance.

Section 6: Alterations, Additions and Improvement

6.1 General

- (a) During the Contract Period, the Contractor shall carry out alterations, additions and/or improvement for the Installations and any associated engineering systems upon request by CUHKMC.
- (b) During the Contract Period, the Contractor may recommend to CUHKMC for his consideration where in his opinion alterations, additions and/or improvement are considered necessary during daily operation, preventive maintenance and corrective maintenance of the Installations.
- (c) The Contractor shall make his own arrangement for the temporary provisions for works such as temporary electricity, air conditioning and water supply if there are no such provision available on site. The Contractor shall also be responsible for the removal of all temporary facilities after installation is completed.

6.2 Placement of Orders

- (a) The repair, replacement, alterations, additions and/or improvement works shall be priced according to the Schedule of Rates for Term Contracts in Appendix F (hereinafter abbreviated to as the "Rate Book").
- (b) Where a supply only rate is required, this will be calculated by the subtraction of the "Fix Only" rate from the "Supply and Fix Only" rate for the particular item.
- (c) The printed Rate Book shall include the following costs:
 - (i) All incident labour, cartage, tools and equipment for cleaning, inspection, repair, re-conditioning, dismantling, reassembling, testing, setting, adjustment and painting.
 - (ii) Accurately calibrated instruments required for the works stipulated in this Contract.
 - (iii) Collecting and transporting to Site any required material and spare parts supplied by the CUHKMC from the delegated Stores.
 - (iv) All consumable materials such as waste cotton, grease, paint, etc.
 - (v) Preparation and submission of records, inspection and test reports.
 - (vi) All incident labour, transportation, tools and equipment, etc. for the on call (emergency or fault) maintenance and repair services.
 - (vii) Provision of temporary replacement parts, components or equipment such that suitable illumination level can be provided while the fittings are on maintenance/repair work exceeding one day overnight.

- (viii) The provision of design and the bearing of design responsibility and liability.
 - (ix) Executing work at any position, location and height unless otherwise stated.
 - (x) All superintendence, establishment charges, overhead expenses and profit.
 - (xi) Labeling, testing and commissioning including submission of test records and certificates.
- (d) No claims for payment will be entertained in respect of any works carried out by the Contractor without Works Orders.
 - (e) Under all circumstances the Contractor shall liaise with CUHKMC and particularly note that the disturbance to the operation of the venue or to the occupants of the venue must be kept to a minimum during the execution of the improvement works and the provision of air-conditioning installations, electrical installations, miscellaneous installations and other related installations shall be maintained, as far as possible, during the course of the works, or otherwise shall the works be arranged after office hours.

6.3 Rate for Items Not Mentioned in the Rate Book

- (a) Where such rates are not available in the Rate Book, CUHKMC will inform the Contractor of the extent of alterations, additions and/or improvement for the Installations and will request the Contractor to prepare a quotation for the works. The Contractor shall then submit, for the acceptance by the Engineer, a quotation together with sufficient and satisfactory documentary evidence in support of his quotation. Upon approval by the Engineer, a Works Order will be issued to the Contractor for the works.
- (b) The quotation mentioned in sub-clause (a) above shall be calculated on the basis of the net labour wages paid by the Contractor for the work and the net cost of material to the Contractor.

6.4 Defects Liability Period

- (a) Unless otherwise explicitly stated to be excluded, a 24-month Defects Liability Period is deemed to be included in every Works Order for the repair, replacement, alterations, additions and improvement works. The Defects Liability Period for a particular Works Order shall commence on the following day of the certified completion of the works concerned.

Appendix A: Summary of Major Equipment of the Installation

A.1 General

- (a) The details of the equipment listed in this Appendix are based on the existing contract and do not necessarily represent all the equipment to be maintained as required in this Contract. The quantities, particulars and types of the equipment to be maintained under this Contract shall be all those relating to the Installations actually installed on Site.
- (b) The quantities of equipment as stated in this Appendix are given for facilitating estimation of the maintenance works. The Tenderers shall visit the site to ascertain the extent of work.

A.2 Equipment List

Equipment List: [Link to document](#)

Appendix B: Service Hours and Minimum Manpower Requirements

The Contractor's staff to be deployed to this Contract shall be on full-time basis for Contractor Maintenance Team.

Contractor's Team	Type/Minimum Quantity of Contractor's Staff		Service Hours	Remarks
	Post	Minimum Quantity (Nos. of staff)		
Contractor Maintenance Teams	1. Supervisor	x 1	8:00 - 18:00 with 1-hour lunch break from Monday to Saturday	In order to keep the disturbance to the operation and occupants of the venue or to the occupants of the venue must at minimum, the Contractor is required to provide the stated type and minimum number of staff during non-office hours* for equipment stated in <u>Appendix A</u> , without any change of the rates entered into the <u>Schedule 5 - Price</u> or any other claim by the Contractor, to meet works requirements during Contract period.
	2. Technician	x 4	8:00 - 18:00 with 1-hour lunch break from Monday to Saturday.	

Remark:

* Non-office hours mean that other than the service hours as specified above (i.e. 18:00 - 08:00 from Monday to Saturday, 00:00 - 24:00 on Sunday and Public Holiday.)

Appendix C: Requirements on Preventive Maintenance

C.1 General

- (a) The Contractor shall carry out all necessary preventive maintenance for any part of the Installations with a view to ensuring that the plants, equipment and accessories, etc., the plant rooms and the servicing areas, etc. are operated in safe, reliable, efficient and effective conditions.
- (b) The Contractor may be required to carry out the preventive maintenance works outside the normal working hours (including Sundays and public holidays) without any cost implication.
- (c) The preventive maintenance for a plant, equipment or accessory shall include, but not be limited to, the following whenever applicable:
 - (i) To clean the plants, equipment, accessories, etc. at least quarterly;
 - (ii) To check for leakage of refrigerant circuits and water circuits at least monthly;
 - (iii) To carry out tests and record the test results as necessary;
 - (iv) To investigate and prepare report for breakdowns and/or incident involving any part of the Installations;
 - (v) To repair, clean, renew, refurbish or replace defective or deficient parts as necessary or instructed by CUHKMC;
 - (vi) To report for conditions of plant, equipment and accessories, etc. subsequent to checking or inspections and for any defects found;
 - (vii) To check all labels, nameplates, identifiers and markers at least quarterly and clean / renew / replace them as necessary or instructed;
 - (viii) To lubricate bearings and other rotary and sliding contact parts at least monthly;
 - (ix) To check the external parts for rust or corrosion at least quarterly; and re-paint them with approved paints as necessary or instructed;
 - (x) To ensure, at least quarterly, that plants, equipment and accessories, etc. are securely fixed in positions and effectively earthed, and that all power, control and communication wiring connections are securely fixed. To re-fix connections as necessary or as instructed;
 - (xi) To carry out all necessary preventive maintenance as recommended by the manufacturers of the Installations and in accordance with good trade practices; and

- (d) For any plants, equipment or accessories, the Contractor shall carry out the quarterly and yearly routines as specified in this Appendix once for:
 - (i) Every cumulative period of 3 and 12 months, respectively, for which preventive maintenance is required (whether the works are required continuously or discontinuously); and
 - (ii) The period before the end of the Contract Period if preventive maintenance are required for that period and the length of that period is not less than 2 and 6 months, respectively.
- (e) The works as specified in this Appendix are not exhaustive. The Contractor shall, at its own costs, add any necessary works to meet the objectives as stated in sub-clause (a) above.
- (f) “Check conditions” as stated in this Appendix means “Check and record the operating conditions (including loading conditions), functions, looseness, presence of cracks and other damages and deterioration, etc.” whenever applicable.

C.2 Pumps - Particular Requirements

- (a) Monthly Routines:
 - (i) To check and record the conditions of pumps and their components such as motors, couplings, external driving shafts, universal joints, valves, flow switches, strainers, bearings, glands and guards, etc. and the associated pipeworks, power and control wiring and accessories and remote flooding alarm systems;
 - (ii) To check and record suction, discharge and pump total pressures;
 - (iii) To check and maintain a small quantity of water leaking from glands; and to re-adjust/renew packing, if any;
 - (iv) To vent pumps as necessary or instructed;
 - (v) To rotate the operations of pumps alternatively at the convenient shutdown period;
 - (vi) To check for and re-tighten any loosen screws, bolts and nuts, etc.;
 - (vii) To inspect and clean pump drain;
 - (viii) To open up and clean suction strainers; and
 - (ix) To check any abnormal noise and vibration
 - (x) To check packing and seals, and to repack, adjust or replace as necessary
 - (xi) To check drain pipes to ensure no choking
 - (xii) To check and test flow switch for normal operation
 - (xiii) To check and record the voltage of power supply

- (xiv) To check and record the motor current
- (xv) To check and record the operating frequency of VSD
- (xvi) Check flexible joints for leaks
- (xvii) Check all valves for leaks and service glands as necessary

(b) Quarterly Routines:

- (i) To check and record the temperature of bearings, if accessible;
- (ii) To check the drain pipes for blockage;
- (iii) To check pump flow from the pump curves against the actual motor running currents;
- (iv) To record and report any abnormalities;
- (v) To check and record chilled water and cooling water makeup circuits;
- (vi) To actuate valves and pumps once when pumps are stationary; and
- (vii) To open up and clean suction strainers.
- (viii) Check the operation of circuit breakers thermals and all other electrical controls and interlock
- (ix) Check and inspect all flexible conduit connections are sound and all terminal nuts secure
- (x) Clean and lubricate all lubrication points
- (xi) Clean off any corrosion and touch-up paintwork as necessary

(c) Yearly Routines:

- (i) To lubricate bearings and replace as necessary;
- (ii) To conduct and record Megger tests (not less than 1 M Ω at 1,000 V);
- (iii) To check and clean the cooling fan;
- (iv) To check and record the conditions of non-return valves;
- (v) To open up and clean the suction strainer;
- (vi) Overhaul motors and controls including removal of dust and oil or grease from motor windings and interior of motors, checking winding insulation, cable terminations and cables for damage or deterioration, replace as necessary.

- (vii) Tighten-up connections for contactor and wiring
- (viii) Check bearings condition, replace as necessary

C.3 Air Handling Units (“AHUs”) / Primary Air Handling Units (“PAU”) - Particular Requirements

(c) Monthly Routines:

- (i) To check and record the conditions of AHUs / PAUs / Unit coolers and their components such as fan wheels, shafts, belts, motors, distribution manifolds, butterfly balancing dampers, air dampers, valves, inlet guide vanes, air filters, filter-clog indicators, electrostatic filters (precipitators), UV lamps, UV and CO₂ sensors, heaters and heat pipes, etc. as well as associated pipeworks, variable speed drives, power/control wiring and accessories and pneumatic control systems, if any;
- (ii) To clean the supply and return air louvers and diffusers; Record any abnormalities;
- (iii) To check the water temperature drop across cooling coils; Record any abnormalities;
- (iv) To check the drain conditions for choke; Record any abnormalities;
- (v) To clean the cooling coils with approved chemical solutions as necessary or instructed;
- (vi) To actuate isolating and control valves once;
- (vii) To re-adjust air dampers as necessary or instructed;
- (viii) To check and record the operation of airflow control boxes, damper actuators, velocity reset controllers in response to room thermostats between maximum and minimum flow settings;
- (ix) To fine tune variable speed drives as necessary or instructed; and
- (x) To test and record the functions of smoke detection systems.
- (xi) Check and inspect the motor, blower, actuator valve and all accessories condition to ensure they are working properly
- (xii) Check associated controls, terminal connections
- (xiii) Check and inspect any abnormal sound and vibration

- (xiv) Check and clean the condensate water drain pipes and glass trap to ensure no choking
- (xv) Check the local control panel with light bulbs, control buttons, selectors, buzzer and meter
- (xvi) Check all filter condition, renew as necessary with filter media
- (xvii) Check motorized, fire and smoke damper
- (xviii) Examine fans and drive alignment, lubricate and adjust as necessary
- (xix) Check fan and motor bearings and lubricate according to manufacturer's recommendation
- (xx) Check and inspect the coils to ensure no choking
- (xxi) Check all electric motors for excessive noise or temperature
- (xxii) Check and inspect all standby motor, spun a few turns by hand or electrically
- (xxiii) Check and record the voltage of power supply
- (xxiv) Check and record the motor current
- (xxv) Check and record the operating frequency of VSD
- (xxvi) Check operating of PCO
- (d) Half yearly Routines:
 - (i) Inspect the cleanliness of both cooling and heating coils, remove dirt and clogging by jet-washer
 - (ii) Check and clean all motors with compressed air or hand bellows to remove dust and dirt
 - (iii) Check and clean fan wheels, casing and enclosure
 - (iv) Check the operation of circuit breakers thermals and all other electrical controls and interlock
 - (v) Check and inspect all flexible conduit connections are sound and all terminal nuts secure
- (e) Yearly Routines:
 - (i) Examine units casing and accessories or paint chipping or corrosion, repaint as necessary
 - (ii) Check damper linkage, set-screws and blade adjustment for proper operation

- (iii) Overhaul fan motors and controls including removal of dust and oil or grease from motor windings and interior of motors, checking winding insulation, cable terminations and cables for damage or deterioration, replace as necessary
- (iv) Clean and lubricate all lubrication points
- (v) Tighten-up connections for contactor and wiring
- (vi) Check and inspect the thermal insulation for ductworks
- (vii) Check bearings condition, replace as necessary
- (viii) Check and clean all Y-Strainer

C.4 Fan Coil Units (“FCU”) - Particular Requirements

- (a) Monthly Routines:
 - (i) To check and record the conditions of FCU and its components such as motors, fan wheels, valves and heaters, etc. as well as associated pipeworks and power/control wiring and accessories;
 - (ii) To clean the cooling coils with approved chemical solutions as necessary or instructed;
 - (iii) To check and record the conditions of air filters; and clean them with approved chemical solutions or replace them as necessary or instructed; and
 - (iv) To clean supply and return air grilles and diffusers.
- (b) Yearly Routines:
 - (i) To clean the condensate drain pans and drain pipes to ensure no choking and flooding. Record any abnormalities;
 - (ii) To clean exterior and interior parts of FCU; and
 - (iii) To carry out all applicable works outlined in Clause **C.20** of this Section.

C.5 Ventilation, Extraction and Exhaust Fans; Hydro-vent and Air Curtains - Particular Requirements

- (a) Monthly Routines:
 - (i) Check any abnormal noise and vibration
 - (ii) Check all fixings are properly supports fixings, fitted and tight
 - (iii) Check and inspect airduct connection and any air leaks
 - (iv) Check and record the voltage of power supplies
 - (v) Check and record the motor current
 - (vi) Check and record the operating frequency of VSD
 - (vii) Check the motorized, fire and smoke damper
 - (viii) Check for drive belt
- (b) Half-yearly Routines:
 - (i) To check and record the conditions of fans and air curtains, parts such as motors, fan blades and wheels, filters, air grilles and louvers, etc. and associated air ductworks and power/control wiring and accessories; and
 - (ii) To clean parts and associated control panels.
 - (iii) Check the operation of circuit breakers thermals and all other electrical controls and interlock
 - (iv) Check and inspect all flexible conduit connections are sound and all terminal nits secure
 - (v) Check Fan Belt tension and adjust/ replace as necessary
- (c) Yearly Routines:
 - (i) Examine units casing and accessories or paint chipping or corrosion, repaint as necessary.
 - (ii) Check damper linkage, set-screws and blade adjustment for proper operation.
 - (iii) Overhaul fan motors and controls including removal of dust and oil or grease from motor windings and interior of motors, checking winding insulation, cable terminations and cables for damage or deterioration, replace as necessary.
 - (iv) Clean and lubricate all lubrication points.

- (v) Tighten-up connections for contactor and wiring.
- (vi) Check and inspect the thermal insulation for ductworks.
- (vii) Check bearings condition, replace as necessary.

C.6 Packaged / Split-type / VRV Air-conditioning Units and Room Coolers - Particular Requirements

(a) Monthly Routines:

- (i) To check and record the conditions of packaged air-conditioning units / split-type air-conditioning units / room coolers, parts such as compressors, evaporators, condensers, motors, fan blades and wheels, belts, air filters and air grilles, etc. and associated power/control wiring and accessories;
- (ii) To clean the air filters, supply and return air grilles and diffusers, condensate drain pans and drain pipes; and
- (iii) To check all electric wires for loose connections, refix as necessary or instructed. To check motor starter, temperature controls, sensor, repair/adjust if necessary or instructed.

(b) Yearly Routines:

- (i) To examine and record the operating conditions of the unit, i.e. noise, vibration, running current and refrigerant pressure etc.;
- (ii) To isolate electric power supply and remove all electric motor for the work. Dismantle electric motor for cleaning and checking. Megger test the motor winding insulation. Clean with motor cleaner, dry out and re varnish if required. Check anti condensation heater (if fitted) for proper function. Lubricate or renew bearings if necessary;
- (iii) To thoroughly clean the cooling coil and the air-cooled condenser coil, and comb the fins in proper order;
- (iv) To clean and remove rust from the metal frame and structure of the air-cooled condenser, and repaint all metal work with proper paint after drying out;
- (v) To check fan bearings, renew or lubricate if required;
- (vi) To reassemble all motors and fans and re install with correct alignment;
- (vii) To check fan belts, renew/re adjust if required;

- (viii) To perform leakage test, rectify and replenish refrigerant as required;
- (ix) To check and repair contactor, relay and other electric control devices. Re fix loose electrical connections;
- (x) To clean filter and replace if necessary;
- (xi) To clean supply and return air grilles and replace if necessary;
- (xii) To check and perform functional test of all control and protection devices;
- (xiii) To check thermal insulation on refrigerant piping and repair/renew if necessary; and
- (xiv) To re start the unit, test for normal operation and record another set of operation readings.

C.7 Dehumidifiers / Humidifiers - Particular Requirements

- (a) Monthly Routines:
 - (i) To check and record the conditions of dehumidifiers and humidifiers, parts such as compressors, evaporators, condensers, motors, fan blades and wheels, belts, air filters, air grilles and dryer elements, etc. and associated pipeworks, air ductworks and power/control wiring and accessories;
 - (ii) To clean the drain pans and pipes to ensure no choking and flooding;
 - (iii) To check, adjust and record the settings of controllers as necessary or instructed; and
 - (iv) To clean or replace filters and dryer elements as necessary or instructed.

C.8 Duct Heaters - Particular Requirements

- (a) Yearly Routines:
 - (i) To check and record the conditions of duct heaters and associated power/control wiring and accessories;
 - (ii) To clean duct heaters with approved chemical solutions; and
 - (iii) To check/test overheat cutout devices and circuits.

C.9 Sump/ Sewage Pumps - Particular Requirements

(a) Quarterly Routines:

- (ix) To check and record the operating condition of the sump pump including, but not be limited to, noise, vibration, bearing temperature, running current, inlet and outlet pressures, etc.;
- (x) To remove the pump set from sump pit for general cleaning;
- (xi) To check and clean the strainer and pit grating;
- (xii) To tighten the flange adaptors, piping coupling, non-return valve, flow switch, etc., as necessary;
- (xiii) To check and clean the contactors, relays and other power and control devices;
- (xiv) To re-fix loose electrical connections;
- (xv) To re-adjust the water level switches and carry out functional test.

(b) Ad-hoc basis:

To remove waste solids from sewage sump pit to land fill site as request by Engineer's Representative.

C.10 Chilled Water / Heating Water Pipeworks - Particular Requirements

(a) Yearly Routines:

- (i) To check and record the conditions of accessible chilled-water, cooling water, seawater and heating water pipeworks including, but not be limited to, pipes, fittings, couplings, joints, valves, pressure gauges, headers, insulation materials, claddings, fixings and supports, etc; and
- (ii) To clean the chilled water, cooling water, seawater and heating water pipeworks; and to re-paint them with approved paints as necessary or instructed.

C.11 Air Ductworks - Particular Requirements

(a) Monthly Routines:

- (i) To clean air louvers, air grilles and air diffusers.

- (b) Yearly Routines:
 - (i) To check and record the conditions of air ductworks including, but not be limited to, air ducts and fittings, air louvers, air grilles and air diffusers.

C.12 Electric Motors Associated with Plants and Equipment - Particular Requirements

- (a) Bi-monthly Routines:
 - (i) To check and record the conditions of motors and parts such as motor casings, windings, stators, rotors, shafts, couplings and bearings, etc.; and
 - (ii) To check and record the temperature of bearings.
- (b) Yearly Routines:
 - (i) To clean all parts with approved chemical solutions;
 - (ii) To check and record the balancing and clearance between stators and rotors; and
 - (iii) To test and record the insulation of motors and cables.

C.13 Electrical Installations for Air-conditioning Plants and Equipment including Motor Control Centre (MCC) for Chillers / General Lighting and Electrical Installations in Air-conditioning Plant Rooms and Workshops - Particular Requirements

- (a) Monthly Routines:
 - (i) To check and record the conditions of electrical installations for air-conditioning plants and equipment including Motor Control Centre (MCC) for Chillers as well as general lighting and electrical installations in air-conditioning plant rooms (e.g. AHU rooms) and workshops including, but not be limited to, circuit breakers, switches, switch disconnectors, fuse switches, isolators, power factor correction equipment, busbars, protection relays, measuring instruments, meters, current transformers, selectors, push buttons, indicators, contactors, starters, auto-transformers, timers, battery cells and chargers, cables, bus-ducts, lighting fittings, socket outlets, wiring fittings and accessories as well as conduits, trunking and cable trays, etc. and enclosures of switchboards, distribution boards and control panels, etc.;

- (ii) To check and record the temperature rise of circuit breakers, switch disconnectors, fuse switches, isolators and busbars, etc. in LV switchboards and of sub-main cables and bus-ducts, etc. from LV switchboards;
 - (iii) To check and clean the exteriors of LV switchboards, distribution boards and control panels, etc.; and
 - (iv) To replace defective fluorescent tubes, lamp bulbs and ballasts, etc.;
- (b) Yearly Routines:
- (i) LV Cubicle Switchboards including Motor Control Centre (MCC) for Chillers, Distribution Boards and Control Panels:
 - a. To vacuum clean and clean with approved chemical solutions all interior parts; and to check such parts for damages or any other abnormalities;
 - b. To check/test and record all terminals and internal electrical connections; and to tighten up connection plugs, sockets, screws, bolts and nuts, etc. as necessary;
 - c. To clean/test and record contacts of all circuit breakers, switch disconnectors, fuse switches, isolators, relays and contactors, etc. with approved chemical solutions; and renew/replace such contacts as necessary or instructed;
 - d. To check/test and record all functions/mechanisms of circuit breakers, switch disconnectors, fuse switches, isolators, protection relays, measuring instruments, selectors, push buttons, indicators, contactors, starters, timers and battery chargers, etc.;
 - e. To check and record the operation of latch-locks;
 - f. To carry out and record contact resistance tests (Ductor Tests) on all busbar joints and main contacts of all circuit breakers, switch disconnectors, fuse switches and isolators, etc. in LV cubicle switchboards;
 - g. To carry out and record insulation resistance tests (Meggar Tests) on all busbars and all circuit breakers, switch disconnectors, fuse switches and isolators, etc.;
 - h. To carry out and record secondary injection tests on all overcurrent and earth fault protection relays; and
 - i. To carry out and record earth fault loop impedance tests.

- (ii) Others:
 - a. To check/test and record earthing and bonding of all plants, equipment and accessories, etc.; and
 - b. To check and record the conditions of local isolators and termination units.
- (iii) To carry out and record insulation resistance tests (Meggar Tests) on all electrical wiring after LV cubicle switchboards;
- (iv) To certify electrical installations for air-conditioning plants and equipment on the Periodic Test Certificates (EMSD Form WR2) in compliance with the Electricity Ordinance, Cap. 406; to submit the certificates to the Engineer or the Engineer's Representative within two (2) weeks after works completion (the Contractor will not be required to submit the certificates to the Electricity Legislation Division of EMSD for endorsement.); and to display the certificates at prominent positions of the switchrooms concerned.

C.14 Precipitator – Particular Requirement

- (a) Bi-monthly Routines:
 - (i) To carry out a functional check for power pack.
 - (ii) To carry out a functional check for ceramic insulators.
 - (iii) To carry out a functional check for all limit switches and on-off switches.
 - (iv) To carry out a functional check for collecting cell.
 - (v) To carry out a functional check for ionizer.
 - (vi) To clean filters for electrostatic precipitator.
 - (vii) To provide and refill chemical solutions for electrostatic precipitator.
 - (viii) To clean thoroughly the electrostatic precipitator
- (b) Half-yearly Routines:
 - (i) To check and clean associated air duct works.
 - (ii) To inspect the emission and submit an inspection report.

- (c) Yearly Routines:
 - (i) Carry out inspection by a registered specialist contractor and issue annual certificate in accordance with Building (Ventilating Systems) Regulations, Cap. 123J; and
 - (ii) Carry out inspection by a registered specialist contractor and issue annual certificate for scheduled premises in accordance with Ventilation of Scheduled Premises Regulation, Cap. 132CE.
- (d) Ad-hoc basis:
 - (i) To provide and refill chemical solutions for electrostatic precipitator when the chemical tank are low level.

When the emissions from the electrostatic precipitator causing any objectionable odour noticeable at any sensitive receptor in the vicinity or creating other forms of pollution, the contractor shall carry out preventive and corrective measure according the guideline on “Control of Oily Fume and Cooking Odour from Restaurants and Food Business” issued by Environment Protection Department.

C.15 Expansion Tanks and Cooling Water Storage Tanks - Particular Requirements

- (a) Bi-monthly Routines
 - (i) Inspect each of the expansion tanks and cooling water storage tanks, report the condition of each tank, and carry out the maintenance works as listed below.
 - (ii) Check the incoming fresh water supply if available.
 - (iii) Check the operation of the float ball valve.
 - (iv) Operate all the isolating valves once.
 - (v) Check for blockage of vent.
 - (vi) Check for sign of corrosion. Work to bare metal and repaint with approved paint if necessary or instructed

C.16 Air Compressors and Accessories - including motors - Particular Requirements

- (a) Bi-monthly Routines:
 - (i) Inspect each air compressor and its accessories, report the condition of each compressor and its accessories, and carry out the maintenance works as listed below.

- (ii) Drain the compressor vessels at least once.
 - (iii) Observe any abnormal operating conditions, e.g. vibration, current and noise etc. Rectify if necessary or instructed.
 - (iv) Change over the operation of air compressor if available.
 - (v) Oil and grease the compressors and check for lubricating condition and oil level.
 - (vi) Oil and grease the motors if possible.
 - (vii) Check the bearing temperatures, etc.
 - (viii) Check the conditions of air filter, wash and clean if necessary or instructed with approved chemicals and replace if required or instructed with approved type.
 - (ix) Check driving belt tension, adjust and replace if necessary or instructed.
 - (x) Check the air compressor and refrigerated drier for normal operation.
 - (xi) Clean the compressor set, remove corrosion and rust and touch-up with paint if necessary or instructed.
 - (xii) Renew the lubricating oil in accordance with the manufacturers' recommendation.
 - (xiii) Check the operation of pressure switch and adjust if necessary or instructed.
 - (xiv) Check the operation of auto start/stop and alarm.
 - (xv) Check the condition of starters, contacts, electrical control devices and wirings.
 - (xvi) Check regulating valve of air receiver and re-adjust if necessary or instructed.
 - (xvii) Check the start/stop unloader condition.
- (b) Half-yearly Routines:
- (i) Check the conditions of wiring and re-fix if necessary or instructed.
 - (ii) Check the condition of relays and starter contactors and repair and replace if necessary or instructed.

C.17 Heat Exchanger - Particular Requirements

- (a) Bi-monthly Routines:
 - (i) Examine the conditions of all valves, covers and seal for leakage.
 - (ii) Inspect for bent or deformed plate edges, hanging eyes and gasket extrusion if required or instructed, and check the pressure drop across the water boxes afterwards.
 - (iii) Clean plate hanging strip and lubricate with thin coat of graphite, grease each time the unit is opened.
 - (iv) Check for thickness of fixing bolts of top bar, deposit and corrosion. If required or instructed, remove scaling deposits on the plates by suitable cleaning agent, either by total immersion or by application of a bristle or plastic brush. Repaint head, followers and supporter if required or instructed.
 - (v) Clean and replace the plate and gasket if necessary or instructed.

C.18 Dampers - Particular Requirements

- (a) Half-yearly Routines:
 - (i) Carry out inspection, maintenance, rectification and repair work of the ventilation system (associated with the air conditioning installations) and fire dampers.
- (b) Yearly Routines:
 - (i) The Contractor shall repeat the work which has been done to the ventilation system (associated with the air conditioning installations) and fire dampers during the Half-yearly Routine or at the instruction by the Engineer or his representatives on ad hoc basis and produce a yearly maintenance certificate to the Engineer or his representatives for each system according to Government regulations. Each fire damper shall be marked with the date of the most recent test as directed by the Engineer or his representatives.
 - (ii) Carry out inspection, maintenance, rectification and repair work by a registered specialist contractor and issue annual certificate in accordance with Building (Ventilating Systems) Regulations, Cap. 123J;
 - (iii) Carry out inspection, maintenance, rectification and repair work by a registered specialist contractor and issue annual certificate for scheduled premises in accordance with Ventilation of Scheduled Premises Regulation, Cap. 132CE;

- (iv) Carry out inspection, maintenance, rectification and repair work by a registered fire services contractor and issue FSI 251 for fire/smoke/smoke & fire dampers in accordance to FSD requirement; and
- (v) Mark the date of latest inspection date on the damper after each inspection.

C.19 Air-conditioning System and Mechanical Ventilation System Interfaced with Fire Services System - Particular Requirements

- (a) General:

The Contractor shall co-ordinate with other contractors, e.g. fire services contractor in particular, for the preventive maintenance of the following systems interfaced with fire services installations at the Site:-

- (i) Ventilation/air conditioning control system

C.20 General Yearly Routine of Preventive Maintenance for Major Equipment

- (a) The yearly routine of preventive maintenance in each time for a plant, equipment or accessory shall include, but not be limited to, the following works whenever applicable:
 - (i) To check, test and record all conditions before and after the yearly preventive maintenance;
 - (ii) To repair, clean, renew or replace defective or deficient parts as necessary or instructed;
 - (iii) To disconnect couplings and remove motors from positions; to dismantle motors, clean all parts with approved chemical solutions; to check all parts; carry out insulation tests on motor winding insulation; to clean winding with motor cleaner and dry out and re-varnish as necessary or instructed; to check anti-condensation heaters, if any; to lubricate/replace bearings as necessary or instructed; to check balancing; check clearance between stators and rotors; to re-wind motors as necessary or instructed; to re-assemble the motors after works completion; and to re-install and re-align the motors;
 - (iv) To check/test for and record any leakage in refrigerant circuits; to check the conditions of refrigerant and replace/replenish refrigerant as necessary or instructed; and to replace refrigerant filters and driers as necessary or instructed;

- (v) To clean cooling coils, tubes and fins with approved means and with approved chemical solutions; to comb fins in proper order; and to re-paint coils as necessary or instructed;
- (vi) To replace lubricating oil;
- (vii) To replace air, oil and other filters, air grilles and dryer cartridges;
- (viii) To replace “O” rings, gaskets, seals, bearings, belts, joints, screws, bolts, nuts and washers;
- (ix) To re-adjust/re-align all moving parts;
- (x) To check/test and record all power and control equipment, instruments, devices, fittings and accessories such as wiring, indicators, switches, push buttons, isolators, contactors, relays, starters, timers and protective devices, etc.;
- (xi) To check/test and record valves, gauges, flow switches, strainers, couplings, piping and drains;
- (xii) To check/test and record all sensors such as temperature and humidity sensors, CO₂ sensors, UV sensors and fusible links, etc.;
- (xiii) To check and record all pipes, piping fittings, hangers, supports, ducts, and louvers;
- (xiv) To check all thermal insulation materials;
- (xv) To remove dusts, dirt, rust and foreign objects and clean all parts with approved chemical solutions;
- (xvi) To re-paint all exterior and interior parts with approved paints as necessary or instructed;
- (xvii) To check and record the conditions of equipment casings;
- (xviii) To carry out re-commissioning tests; and
- (xix) To carry out any other works as specified in this Appendix and the Specification whenever applicable and any other works as recommended by the manufacturers.
- (xx) **Renew HEPA filters yearly (excluded installations in Laminar Flow Operating Theatre Ceiling) as stipulated in Appendix A HEPA filter Schedule Item 6 & 7.**

Appendix D: Requirements on Overhaul

D.1 General

- (a) The Contractor shall carry out overhaul for the installations specified in Section 5.2 of this Particular Specification with a view to ensuring that the plants, equipment and accessories, etc., the plant rooms and the servicing areas, etc. are operated in safe, reliable, efficient and effective conditions.
- (b) The overhaul works in each time for a plant, equipment or accessory shall include, but not be limited to, the following works whenever applicable:
 - (i) All preventive maintenance works as specified in Appendix D (once for each of all specified works);
 - (ii) To check, test and record all conditions before and after the overhaul works;
 - (xvi) To repair, clean, renew or replace defective or deficient parts as necessary or instructed;
 - (xvii) To disconnect couplings and remove motors from positions; to dismantle motors, clean all parts with approved chemical solutions; to check all parts; carry out insulation tests on motor winding insulation; to clean winding with motor cleaner and dry out and re-varnish as necessary or instructed; to check anti-condensation heaters, if any; to lubricate/replace bearings as necessary or instructed; to check balancing; check clearance between stators and rotors; to re-wind motors as necessary or instructed; to re-assemble the motors after works completion; and to re-install and re-align the motors;
 - (xviii) To check/test for any leakage in refrigerant circuits; to check the conditions of refrigerant and replace/replenish refrigerant as necessary or instructed; and to replace refrigerant filters and driers as necessary or instructed;
 - (xix) To clean cooling coils, tubes and fins with approved means and with approved chemical solutions; to comb fins in proper order; and to re-paint coils as necessary or instructed;
 - (xx) To replace lubricating oil;
 - (xxi) To replace air, oil and other filters, air grilles and dryer cartridges;
 - (xxii) To replace bearings, “O” rings, gaskets and seals;
 - (xxiii) To re-adjust/re-align all moving parts;

- (xxiv) To check/test all power and control equipment, instruments, devices, fittings and accessories such as wiring, indicators, switches, push buttons, isolators, contactors, relays, starters, timers and protective devices, etc.;
 - (xxv) To check/test valves, gauges, flow switches, strainers, couplings, piping and drains;
 - (xxvi) To check/test all sensors such as temperature and humidity sensors, CO₂ sensors, UV sensors and fusible links, etc.;
 - (xxvii) To check all pipes, piping fittings, hangers, supports, ducts, and louvers;
 - (xxviii) To check all thermal insulation materials;
 - (xxix) To remove dusts, dirt, rust and foreign objects and clean all parts with approved chemical solutions;
 - (xxx) To re-paint all exterior and interior parts with approved paints as necessary or instructed;
 - (xxxi) To check the conditions of equipment casings;
 - (xxxii) To carry out re-commissioning tests; and
 - (xxxiii) To carry out any other works as specified in this Appendix and the Specification whenever applicable and any other works as recommended by the manufacturers.
- (c) The works as specified in this Appendix are not exhaustive. The Contractor shall, at its own costs, add any necessary works to meet the objectives as stated in sub-clause (a) above.
 - (d) “Check conditions” as stated in this Appendix means “Check operating conditions (including loading conditions) and functions and check for looseness, presence of cracks and other damages and deterioration, etc.” whenever applicable.

D.2 Pumps - Particular Requirements

- (a) To dismantle pumps; to check and clean all parts such as pump casings, shafts, impellers, bearings, mechanical seals, sleeves, wear rings and casings, etc.; to check and adjust for allowable clearances; renew gland packing and gaskets; and to re-assemble the pumps after works completion;
- (b) To lubricate bearings and replace as necessary;
- (c) To conduct and record Megger tests (not less than 1 MΩ at 1,000 V);

- (d) To check and clean the cooling fan;
- (e) To check and record the conditions of non-return valves;
- (f) To open up and clean the suction strainer; and
- (g) To check water drain lines and ensure no clogging.

D.3 Air Handling Units (“AHUs”) / Primary Air Handling Units (“PAUs”) / Unit Coolers - Particular Requirements

- (a) To check and record the operating conditions including, but not be limited to, abnormal noise, excessive vibration, bearing temperature, running current, etc;
- (b) To isolate the power supply, dismantle the supply / return air fan motors; To clean the motor winding with motor cleaner, dry out and re-varnish; To lubricate the motor bearings;
- (c) To lubricate the fan bearings and replace as necessary;
- (d) To clean and de-rust the fan wheels, housings, metal frame, dampers and louvers; To repair worn out parts and re-paint all metal parts with proper paints;
- (e) To thoroughly clean and flush the cooling / heating coils and comb the fins properly;
- (f) To thoroughly clean the drain pan and drain pipe;
- (g) To clean the primary filters and replace the high-efficiency filters;
- (h) To reassemble the motor and re-install it in the proper position;
- (i) To check and re-adjust the alignment of fans, motors and the tension of “V”-belts;
- (j) To check the power and control wirings and re-fix any loose connections;
- (k) To check, clean and dress the contacts of the motor contactors and relays;
- (l) To check and test the functions of automatic and manual controls;
- (m) To check, clean, adjust, re-paint and grease the vibration isolators;
- (n) To check the conditions of and clean door seals, air-tight locking devices and hinges; To carry out leakage test for water seepage as requested; To replace the parts for water tightness as required; and

- (o) To re-start the AHU / PAU;
- (p) To check and record the operating conditions.
- (q) Yearly Routines:
 - (iii) To check/test and record air dampers and examine flexible connections;
 - (iv) To check and clean static pressure sensors in ducts and all temperature sensors;
 - (v) To check and record the operation of temperature controls and test temperature sensors; and

D.4 Fan Coil Units (“FCUs”) - Particular Requirements

- (a) To check and record the operating conditions of fan coil units including abnormal noise, excessive vibration, running current, etc.
- (b) To isolate the power supply, remove air filters and disconnect the motor and blower fan assembly;
- (c) To check and clean the cooling coil and the condensate drain pan and drain pipe; Repair and/or re-paint as necessary or as instructed;
- (d) To check, clean and remove rust and old paints from the blower fan assembly and repaint after cleaning.
- (e) To dismantle, check and clean the electric motor, replace bearings and re-paint motor casing;
- (f) To check and record the motor insulation and control devices;
- (g) To repair and/or renew parts as necessary or as instructed. To check and re-fix loose electrical connections;
- (h) To re-install the motor and blower fan assembly;
- (i) To check and clean the heater elements, if any;
- (j) To check and clean fan speed controller and thermostat;
- (k) To check the function of the three-way valves and isolating valves;
- (l) To clean and re-install the supply and return air grilles and air filters;
- (m) To re-start the unit, test for normal operation and record another set of operation readings;

- (n) To check and record the room temperature; and
- (o) To re-adjust the temperature control as necessary or as instructed.

D.5 Packaged / Split-type Air Conditioning Units - Particular Requirements

- (a) To check and record the operating conditions of the unit including abnormal noise, excessive vibration, running currents, etc.
- (b) To carry out refrigerant leakage test; To rectify as necessary or as instructed;
- (c) To disconnect and remove all electric motors and fans
- (d) To dismantle, remove and clean the motor and fan; To carry out insulation test for the motor winding; To clean the motor winding with motor cleaner, dry out and re-varnish as necessary or as instructed;
- (e) To clean and examine all motors and fan bearings; To replace as necessary or as instructed;
- (f) To re-assemble the motor and reinstall the motor and fan;
- (g) To check the fan belts; To replace as necessary or as instructed;
- (h) To check and clean the cooling coil and the condenser coil with washer and/or steam washer; To comb the fins as necessary or as instructed;
- (i) To clean and remove rust from the metal frame and structure of the condenser and re-paint the metal work with proper paint after drying out;
- (j) To check all electric wires for loose connections; To re-fix loose connections;
- (k) To clean and dress the contacts of the motor contactors and relays;
- (l) To clean the filter and the supply and return air grilles;
- (m) To carry out function tests for all control and protection devices and record the result;
- (n) To check the thermal insulation of refrigerant pipes;
- (o) To repair as necessary or as instructed; and
- (p) To re-start the unit, test for normal operation and record another set of operation readings.

Appendix E: Guidance Notes for Contractors on Occupational Health and Safety

Occupational Health and Safety Policy

We strictly adhere to our occupational health and safety policy and provide a safe working environment to our employees. We require all our contractors to observe the following requirements:

1. Comply with all relevant local occupational health and safety legislation (i.e. Factory and Industrial Undertaking Ordinance and Regulations, Occupational Safety and Health Ordinance and Regulations, etc.) and other requirements;
2. Conduct job hazard analysis and risk assessment on hazardous activities and take appropriate risk control measures to protect the employees;
3. Provide appropriate personal protective equipment to employees as a last resort where engineering control methods are not feasible;
4. Provide training to equip staff with knowledge to work safely and without risk to health;
5. Establish and implement safety rules to provide instruction for safe working;
6. Supervise the employees to ensure that safety rules are observed and personal protective equipment are used and maintained properly; and
7. Report and investigate accidents and incidents to find out the causes and to develop prompt arrangements to prevent recurrence.

In particular, contractors should endeavour to provide a safe working environment to their employees and related parties for achieving high standard of occupational health and safety.

Appendix F - Schedule of Rates for Term Contract

[Link to Document](#)