**P R O F O R M A**

**Request for Market Information (“RFI”) for   
Supply of Laundry Equipment**

**for the Chinese Medicine Hospital of Hong Kong (“CMHHK”)**

**(CMHPO Ref. : HHB/H/24/17/3/4/6)**

To : Project Director (CMHPO)

(Attn. Ms. Florence CHAN)

[by fax: 2127 4795 or email: flhchan@healthbureau.gov.hk]

Your ref: (1) in L/M to HHB/H/24/17/3/4/6

In response to the RFI of the CMHHK, my/our company, with contact details provided in Part 1 below, would like to provide the information and relevant supporting documents in Parts 2 to 9 of this Proforma.

**Part 1 – Supplier’s Contact Details**

From:

(Name of the Supplier): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(please fill in)

Name and Post of Contact person: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(please fill in)

Email:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Telephone no.:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(please fill in) (please fill in)

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*This document does not constitute any offer or invitation / solicitation of any offer in connection with the exercise described herein. Neither this document nor any activities in connection therewith shall create any legal obligations or liabilities in any way on the part of the Health Bureau (HHB) or the Government of Hong Kong Special Administrative Region. Neither this document nor anything contained herein shall form the basis of any contract or commitment whatsoever. In responding to the RFI, a respondent shall be deemed to have agreed to all the terms of this Request for Market Information.*

**Purpose and Background Information of the RFI**

1. Purpose

Chinese Medicine Hospital Project Office (“**CMHPO**”) of the Health Bureau (“**HHB**”) of the Government intends to invite a tender for the supply and installation of Laundry Equipment (hereinafter refers as the “**System**”) for the Chinese Medicine Hospital of Hong Kong (“**opCMHHK**”) located at Pak Shing Kok in Tseung Kwan O. The CMHPO therefore wishes to collect market information on the System.

1. Background of the CMHHK Project

The Chief Executive announced in the 2014 Policy Address that the Government had decided to reserve a site in Tseung Kwan O for setting up a CMH. The 2017 Policy Address stated that the Government decided to finance the construction of the CMHHK and identify by way of tender a suitable non-profit-making organisation (“NPMO”) to operate the CMHHK. CMHHK will be owned by the Government and the selected NPMO will operate the CMHHK. The CMHHK would be positioned as a flagship Chinese Medicine (“CM”) institution leading the development of CM services and Chinese medicines in Hong Kong. It will be a change driver, promoting service development, education and training, innovation and research, and facilitating collaboration with both local and international parties.

The CMHHK with provision of 400 beds will provide a comprehensive range of CM services. Service types include pure CM services, services with CM playing the predominant role in collaboration with Western Medicine (“WM”) and Integrated Chinese-Western Medicine (“ICWM”) services. The scope of service to be provided in the CMHHK covers inpatient, day-patient, outpatient and community outreach services.

To take forward the planning and development of the project on CMHHK, a designated office i.e. CMHPO, was established under the Health Bureau (the former Food and Health Bureau) on 2 May 2018. Hong Kong Baptist University (HKBU) was selected as the Contractor for the CMHHK operation. HKBU, as the Contractor, has incorporated a company limited by guarantee, namely HKBU Chinese Medicine Hospital Company Limited as the Operator to manage, operate and maintain the CMHHK. The CMHHK project has proceeded to the commissioning stage in 2021. It is targeted to commence hospital services by phases from 2025.

More information on the services provision and design of the CMHHK can be found in the following link:

<https://www.healthbureau.gov.hk/en/press_and_publications/otherinfo/200900_cmhp/index.html>

**Note to Suppliers**

1. If your company have more than one Laundry Equipment that may meet the requirements of the System stated in this Proforma, **please complete and return, together with relevant supporting documents, one set of Proforma for each different Laundry Equipment**.

**Part 2 – General Information of the System**

**Item 1: Washer Extractor System**

|  |  |
| --- | --- |
| Item 1.1 Barrier Washer Extractor 120kg |  |
| 1. Place of origin |  |
| 1. Name of manufacturer |  |
| 1. Address of the manufacturer’s factory or plant (“Manufacturing Plant”) |  |
| 1. Product name of the System |  |
| 1. Model number/ name/ version number of the System |  |
| 1. Authorised agent or distributor of the manufacturer in Hong Kong |  |
| 1. Packing (if applicable) |  |
| 1. Delivery method and route (where the place of origin is outside Hong Kong) |  |
| 1. Warranty period of the System   (*Please refer to section G in Part 3 for details of the warranty service requirements*) | \_\_\_\_\_\_\_\_\_\_\_\_ months from Acceptance of the System  (*Should not be less than 12 months*) |
| 1. Expected serviceable life (*Please specify any components of the System that cannot meet the serviceable life*) | The System shall have a serviceable life of \_\_\_\_\_\_\_ years from its date of acceptance except the following components:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (*Please also provide the expected life of these excluded components*) |
| 1. \*Total weight of the proposed System | \_\_\_\_\_\_\_\_\_\_\_\_kg |
| 1. \*Floor loading requirement for the proposed System | \_\_\_\_\_\_\_\_\_\_\_ kPa |

|  |  |
| --- | --- |
| Item 1.2 Barrier Washer Extractor 90 kg |  |
| 1. Place of origin |  |
| 1. Name of manufacturer |  |
| 1. Address of the manufacturer’s factory or plant (“Manufacturing Plant”) |  |
| 1. Product name of the System |  |
| 1. Model number/ name/ version number of the System |  |
| 1. Authorised agent or distributor of the manufacturer in Hong Kong |  |
| 1. Packing (if applicable) |  |
| 1. Delivery method and route (where the place of origin is outside Hong Kong) |  |
| 1. Warranty period of the System   (*Please refer to section G in Part 3 for details of the warranty service requirements*) | \_\_\_\_\_\_\_\_\_\_\_\_ months from Acceptance of the System  (*Should not be less than 12 months*) |
| 1. Expected serviceable life (*Please specify any components of the System that cannot meet the serviceable life*) | The System shall have a serviceable life of \_\_\_\_\_\_\_ years from its date of acceptance except the following components:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (*Please also provide the expected life of these excluded components*) |
| 1. \*Total weight of the proposed System | \_\_\_\_\_\_\_\_\_\_\_\_kg |
| 1. \*Floor loading requirement for the proposed System | \_\_\_\_\_\_\_\_\_\_\_ kPa |

|  |  |
| --- | --- |
| Item 1.3 Barrier Washer Extractor 50 kg |  |
| 1. Place of origin |  |
| 1. Name of manufacturer |  |
| 1. Address of the manufacturer’s factory or plant (“Manufacturing Plant”) |  |
| 1. Product name of the System |  |
| 1. Model number/ name/ version number of the System |  |
| 1. Authorised agent or distributor of the manufacturer in Hong Kong |  |
| 1. Packing (if applicable) |  |
| 1. Delivery method and route (where the place of origin is outside Hong Kong) |  |
| 1. Warranty period of the System   (*Please refer to section G in Part 3 for details of the warranty service requirements*) | \_\_\_\_\_\_\_\_\_\_\_\_ months from Acceptance of the System  (*Should not be less than 12 months*) |
| 1. Expected serviceable life (*Please specify any components of the System that cannot meet the serviceable life*) | The System shall have a serviceable life of \_\_\_\_\_\_\_ years from its date of acceptance except the following components:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (*Please also provide the expected life of these excluded components*) |
| 1. \*Total weight of the proposed System | \_\_\_\_\_\_\_\_\_\_\_\_kg |
| 1. \*Floor loading requirement for the proposed System | \_\_\_\_\_\_\_\_\_\_\_ kPa |

**Item 2: Tumble Dryer 60kg**

|  |  |
| --- | --- |
| 1. Place of origin |  |
| 1. Name of manufacturer |  |
| 1. Address of the manufacturer’s factory or plant (“Manufacturing Plant”) |  |
| 1. Product name of the System |  |
| 1. Model number/ name/ version number of the System |  |
| 1. Authorised agent or distributor of the manufacturer in Hong Kong |  |
| 1. Packing (if applicable) |  |
| 1. Delivery method and route (where the place of origin is outside Hong Kong) |  |
| 1. Warranty period of the System   (*Please refer to section G in Part 3 for details of the warranty service requirements*) | \_\_\_\_\_\_\_\_\_\_\_\_ months from Acceptance of the System  (*Should not be less than 12 months*) |
| 1. Expected serviceable life (*Please specify any components of the System that cannot meet the serviceable life*) | The System shall have a serviceable life of \_\_\_\_\_\_\_ years from its date of acceptance except the following components:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (*Please also provide the expected life of these excluded components*) |
| 1. \*Total weight of the proposed System | \_\_\_\_\_\_\_\_\_\_\_\_kg |
| 1. \*Floor loading requirement for the proposed System | \_\_\_\_\_\_\_\_\_\_\_ kPa |

**Item 3: Flatwork Ironing System**

|  |  |
| --- | --- |
| 1. Place of origin |  |
| 1. Name of manufacturer |  |
| 1. Address of the manufacturer’s factory or plant (“Manufacturing Plant”) |  |
| 1. Product name of the System |  |
| 1. Model number/ name/ version number of the System |  |
| 1. Authorised agent or distributor of the manufacturer in Hong Kong |  |
| 1. Packing (if applicable) |  |
| 1. Delivery method and route (where the place of origin is outside Hong Kong) |  |
| 1. Warranty period of the System   (*Please refer to section G in Part 3 for details of the warranty service requirements*) | \_\_\_\_\_\_\_\_\_\_\_\_ months from Acceptance of the System  (*Should not be less than 12 months*) |
| 1. Expected serviceable life (*Please specify any components of the System that cannot meet the serviceable life*) | The System shall have a serviceable life of \_\_\_\_\_\_\_ years from its date of acceptance except the following components:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (*Please also provide the expected life of these excluded components*) |
| 1. \*Total weight of the proposed System | \_\_\_\_\_\_\_\_\_\_\_\_kg |
| 1. \*Floor loading requirement for the proposed System | \_\_\_\_\_\_\_\_\_\_\_ kPa |

**Item 4: Tunnel Finishing System**

|  |  |
| --- | --- |
| 1. Place of origin |  |
| 1. Name of manufacturer |  |
| 1. Address of the manufacturer’s factory or plant (“Manufacturing Plant”) |  |
| 1. Product name of the System |  |
| 1. Model number/ name/ version number of the System |  |
| 1. Authorised agent or distributor of the manufacturer in Hong Kong |  |
| 1. Packing (if applicable) |  |
| 1. Delivery method and route (where the place of origin is outside Hong Kong) |  |
| 1. Warranty period of the System   (*Please refer to section G in Part 3 for details of the warranty service requirements*) | \_\_\_\_\_\_\_\_\_\_\_\_ months from Acceptance of the System  (*Should not be less than 12 months*) |
| 1. Expected serviceable life (*Please specify any components of the System that cannot meet the serviceable life*) | The System shall have a serviceable life of \_\_\_\_\_\_\_ years from its date of acceptance except the following components:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (*Please also provide the expected life of these excluded components*) |
| 1. \*Total weight of the proposed System | \_\_\_\_\_\_\_\_\_\_\_\_kg |
| 1. \*Floor loading requirement for the proposed System | \_\_\_\_\_\_\_\_\_\_\_ kPa |

**Item 5: Trolley Washer**

|  |  |
| --- | --- |
| 1. Place of origin |  |
| 1. Name of manufacturer |  |
| 1. Address of the manufacturer’s factory or plant (“Manufacturing Plant”) |  |
| 1. Product name of the System |  |
| 1. Model number/ name/ version number of the System |  |
| 1. Authorised agent or distributor of the manufacturer in Hong Kong |  |
| 1. Packing (if applicable) |  |
| 1. Delivery method and route (where the place of origin is outside Hong Kong) |  |
| 1. Warranty period of the System   (*Please refer to section G in Part 3 for details of the warranty service requirements*) | \_\_\_\_\_\_\_\_\_\_\_\_ months from Acceptance of the System  (*Should not be less than 12 months*) |
| 1. Expected serviceable life (*Please specify any components of the System that cannot meet the serviceable life*) | The System shall have a serviceable life of \_\_\_\_\_\_\_ years from its date of acceptance except the following components:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (*Please also provide the expected life of these excluded components*) |
| 1. \*Total weight of the proposed System | \_\_\_\_\_\_\_\_\_\_\_\_kg |
| 1. \*Floor loading requirement for the proposed System | \_\_\_\_\_\_\_\_\_\_\_ kPa |

**Item 6: Linen Trolley**

|  |  |
| --- | --- |
| 1. Place of origin |  |
| 1. Name of manufacturer |  |
| 1. Address of the manufacturer’s factory or plant (“Manufacturing Plant”) |  |
| 1. Product name of the System |  |
| 1. Model number/ name/ version number of the System |  |
| 1. Authorised agent or distributor of the manufacturer in Hong Kong |  |
| 1. Packing (if applicable) |  |
| 1. Delivery method and route (where the place of origin is outside Hong Kong) |  |
| 1. Warranty period of the System   (*Please refer to section G in Part 3 for details of the warranty service requirements*) | \_\_\_\_\_\_\_\_\_\_\_\_ months from Acceptance of the System  (*Should not be less than 12 months*) |
| 1. Expected serviceable life (*Please specify any components of the System that cannot meet the serviceable life*) | The System shall have a serviceable life of \_\_\_\_\_\_\_ years from its date of acceptance except the following components:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (*Please also provide the expected life of these excluded components*) |
| 1. \*Total weight of the proposed System | \_\_\_\_\_\_\_\_\_\_\_\_kg |
| 1. \*Floor loading requirement for the proposed System | \_\_\_\_\_\_\_\_\_\_\_ kPa |

**Part 3 – Indicative Technical Requirements**

*Notes to Suppliers for Completion of Part 3*

1. *Unless specified otherwise, the “****System****” in this Part 3* ***refers to section A1.1 below****.*
2. *The indicative technical requirements are for the purpose of collecting market information only. They are subject to changes and do not represent the final technical requirements of the intended tender.*
3. *Please indicate, as a point by point compliance statement, whether your proposed System “****Comply****” or “****Not Comply****” with an indicative technical requirement stated in Column II by ticking (🗸) in the appropriate box under* ***Column III*** *and* ***Column IV*** *respectively.*
4. ***Where applicable****, please quote the value of your proposed System in either Column III (if “****Comply****”) or Column IV (if “****Not Comply****”) respectively against corresponding indicative technical requirement (use additional sheet(s) if space is insufficient*
5. *Please provide supporting documents (such as catalogues, user manual and/or operation manual, DICOM conformance statement, etc.) to illustrate the features of your proposed computed tomography system against the corresponding indicative technical requirements.*

| **Column**  **I** | **Column**  **II** | **Column**  **III** | **Column**  **IV** |
| --- | --- | --- | --- |
| **Section** | **Technical Specification** | **Tick (🗸) the Appropriate Box**  *(For aspects “Not Comply”, please also provide alternative proposal, if any)* | |
| **Comply** | **Not Comply** |
| **A** | **Technical Requirements** | | |
| **1** | **Overall Requirements** | | |
| 1.1 | This tender calls for the design, supply and installation of one lot of laundry equipment including the followings in the Chinese Medicine Hospital Laundry ( CMHL): |  |  |
|  | 1. One (1) of Hygienic Type Washer Extractor system as detailed in section A2 below; |  |  |
|  | 1. One (1) set of Tumble Dryer system as detailed in section A3 below; |  |  |
|  | 1. One (1) set of Flatwork Ironing System with Large and Small Sheet Feeder, Flatwork Ironer and Autoamtic Folder with Stacker for Large Sheet and Small Sheet as detailed in section A4 below; |  |  |
|  | 1. One (1) set of Tunnel Finishing System with Automatic Farment Folder as detailed in section A5 below; |  |  |
|  | 1. One (1) set of Trolley Washer as detailed in section A6 below; and |  |  |
|  | 1. Sixty-five (65) sets of Linen Trolley as detailed in section A7. |  |  |
| 1.2 | The Laundry Equipment shall be capable of handling the hospital laundry washing capacity of 3,900 kg per day in 10 working hours per day, 6 working days per week. Future expansion of handling capacity shall be achieved by extension of operation hours. |  |  |
| 1.3 | The contractor shall supply and install the electrical and mechanical services provisions to the newly installed items of equipment, and conduct additional building provision works if required. |  |  |
| 1.4 | Overall design of the system shall fit for the existing site condition (refer to Appendix I (Composite Drawing)). Contractor shall submit layout drawing during tender submission. |  |  |
| 1.5 | The Contractor shall supply all necessary parts and labour for any necessary piping, exhaust ducting, accessories and modification works including but not limited to plinth, safety fences / guards and maintenance platform. The Contractor shall also supply and install necessary hoisting facilities for safe operation and maintenance of the equipment. |  |  |
| 1.6 | The Conrtactor shall be responsible for the provision of the Implementation Services for the System as stipulated in section B below. |  |  |
| 1.7 | The Contractor shall be responsible for the provision of the Training for the System as stipulated in section C below. |  |  |
| 1.8 | The successful tenderer shall be responsible for the supply of Documentation for the System as stipulated in section D below. |  |  |
| 1.9 | The successful tenderer shall be responsible for the  performance of Acceptance Tests as stipulated in section E below. |  |  |
| 1.10 | Serviceable Life | | |
| 1.10.1 | The System shall have a serviceable life of not less than ten (10) years from its Final Acceptance Date (“**Serviceable Life**”). |  |  |
| 1.11 | Power Supply Requirement |  |  |
| 1.11.1 | The System (including its accessories, if any, to the extent that they are electric operated), including also necessary electrical work and wiring work, shall comply with the power supply requirements stipulated in sections A2.1.8, 3.1.3, 4.1.3, 5.2.1.3, 5.4.1.18 and 5.5.1.1 below. |  |  |
| 1.11.2 | All the equipment (including its accessories) of the System shall remain in full operation within the specification throughout the following supply voltage range, where appropriate: |  | |
|  | 1. Three phases using a 4-wire system: 380V AC ± 6%, 50 Hz ± 2%, 4-wire earthed neutral. |  |  |
|  | 1. Single phase: 220V AC ± 6%, 50 Hz ± 2%. |  |  |
| 1.11.3 | All necessary power supply equipment (such as the switchgear, feeder cable, transformers, protection devices, voltage regulator/stabilisers and line filters) shall be provided and properly installed to ensure the System work safely and satisfactorily. |  |  |
| 1.11.4 | All necessary harmonic filters and power factor correction device shall be provided and properly installed. |  |  |
| 1.11.5 | All cables for power supply of the System shall be protected by proper means, e.g. conduit and trunking. The cable containment shall comply with requirements of the latest edition of the General Specification for Electrical Installation in Government Buildings of the Hong Kong Special Administrative Region issued by the Architectural Services Department. |  |  |
| 1.11.6 | All installation work of the System shall be performed in full compliance with the local and international, national and other recognised electrical standards or certifications (where appropriate) and requirements. |  |  |
| 1.11.7 | All electrical work and wiring work required for providing sufficient power supply to the System shall be performed in full compliance with relevant statutory requirements, such as the Code of Practice for the Electricity (Wiring) Regulations. |  |  |
| 1.11.8 | Adequate overload protective device shall be provided for the System where applicable. |  |  |
| 1.11.9 | All the equipment of the System shall be equipped with over-current protective cutout device. |  |  |
| 1.12 | The heating element of the equipment shall be equipped with overheat protective cutout device. |  |  |
| 1.13 | All equipment item which generate or utilize steam shall be equipped with suitable steam over-pressure relief valves. |  |  |
| 1.14 | All exposed components of the equipment shall be free of burrs, sharp edges, protrusions and other defects which may cause hazard to the operator or materials being processed. All surfaces and edges shall be smooth and non-abrasive. |  |  |
| 1.15 | All motors, gears, chains and belts of the equipment, if equipped, shall be enclosed in protective covers and shall not be accessible by users during normal operation of the equipment. Interlocking mechanism shall be implemented so that the equipmemnt cannot be operated unless the protective covers is closed. |  |  |
| 1.16 | The thermal insulation material of the equipment shall contain no asbestos or other flammable materials. |  |  |
| **2** |  | | |
| 2.1 | General |  |  |
| 2.1.1 | The Contractor shall provide, design supply and install of the following: |  |  |
|  | 1. One (1) set of the 120 kg hygienic type Washer Extractor; |  | Please specify: |
|  | 1. Two (2) sets of 90 kg hygienic type Washer Extractor; |  | Please specify: |
|  | 1. Two (2) sets of 50 kg hygienic type washer extractor. |  | Please specify: |
| 2.1.2 | The Washer Extractor shall be steam heated. |  |  |
| 2.1.3 | The Contractor shall coordinate with the following system with the Washer Extractor System: |  |  |
|  | 1. Laundry chemical dispensing system; |  |  |
|  | 1. Other accessories equipment as deemed necessary |  |  |
| 2.1.4 | The Washer Extractors shall be installed through the barrier wall between dirty zone and clean zone with adequate space for maintenance. The Contractor shall be responsible for the sealing of barrier wall or other works required for installation of the Washer Extractors, including but not limited to drilling holes on wall (utilities detection with proper detection equipment (e.g. metal detector) shall be performed to avoid the damage of utilities (e.g. pipline, ducts, wiring) inside the wall). |  |  |
| 2.1.5 | Power Supply Requirement |  |  |
|  | 1. 1 x 63A TPN Isolator (IP65 & Essential) |  |  |
|  | 1. 4 x 63A TPN Isolator (IP65 & Normal) |  |  |
| 2.1.6 | The Contractor shall also coordinate with the design and build contractor or CMHHK representative(s) to ensure compliance with the existing building service provisions with reference to Appendix I (Composite drawing). |  |  |
| 2.2 | Functional Specifications |  |  |
| 2.2.1 | Capacity |  |  |
|  | 1. For 120 kg Washer Extractor: 120 kg or above with at least two (2) inner drum compartments; |  | Please specify: |
|  | 1. For 90 kg Washer Extractor: 90 kg or above with at least two (2) inner drum compartments; |  | Please specify: |
|  | 1. For 50 kg Washer Extractor: 50 kg or above with at least one (1) inner drum compartment. |  | Please specify: |
| 2.2.2 | The operation of the Washer Extractor shall be controlled by the microprocessor controller which controls duration, temperature, water level, water inlet, drain, drum rotation speed & direction and dispensing of laundry chemicals |  |  |
| 2.2.3 | Display panel shall be provided on the door side to show the parameters, including but not limited to washing temperature, pH value, weight of linen and cycling time. |  |  |
| 2.2.4 | Not less than five (5) automatic flushing liquid detergent dispenser or liquid valve inlet(s) shall be provided. |  |  |
| 2.2.5 | The Washer Extractor shall be capable for holding not less than ninety (90) programmable washing formulae. |  | Please specify: |
| 2.2.6 | Two (2) water inlet valves shall be provided, one (1) hot water inlet and one (1) cold water inlet. |  |  |
| 2.2.8 | Drain valve |  |  |
|  | 1. For 120kg Washer Extractor, the drain valve shall not be less than 150mm; |  | Please specify: |
|  | 1. For 90kg Washer Extractor, the drain valve shall not be less than 75mm; |  | Please specify: |
|  | 1. For 50kg Washer Extractor, the drain valve shall not be less than 75mm. |  | Please specify: |
| 2.2.9 | The equipment shall be gravity drain type. |  |  |
| 2.2.10 | Temperature sensor shall be provided for each Washer Extractor to detect the inner temperature. |  |  |
| 2.2.11 | pH monitoring device shall be provided for each Washer Extractor to monitor the pH value of the water. |  |  |
| 2.2.12 | Built-in automatic weighing system shall be provided to measure the weight of linen in the drum of Washer Extractor. |  |  |
| 2.2.13 | Sampling cock shall be provided to facilitate collection of water sample. |  |  |
| 2.2.14 | Air cushion or equivalent shall be provided to absorb the vibration. |  |  |
| 2.3 | Performance Specifications |  |  |
| 2.3.1 | The ﬁlling ratio for each Washer Extractor shall not be less than 10 litres drum volume for every 1 kg of linen. |  |  |
| 2.3.2 | Inner drum volume |  |  |
|  | 1. For 120 kg Washer Extractor, the inner drum volume shall not be less than 1200 liters; |  | Please specify: |
|  | 1. For 90 kg washer extrawctor, the inner drum volume shall not be less than 800 liters; |  | Please specify: |
|  | 1. For 50 kg Washer Extractor, the inner drum volume shall not be less than 400 liters. |  | Please specify: |
| 2.3.3 | G force |  |  |
|  | 1. For 120kg Washer Extractor, the G force for moisture extraction shall not be less than 350G. |  | Please specify: |
|  | 1. For 90kg Washer Extractor, the G force for moisture extraction shall not be less than 360G. |  | Please specify: |
|  | 1. For 50kg Washer Extractor, the G force for moisture extraction shall not be less than 360G. |  | Please specify: |
| 2.4 | Material Requirement |  |  |
| 2.4.1 | The equipment shall be of substantial construction suitable for heavy industrial use and adequately protected from operation stress and corrosion attack during normal usage in a hot and humid environment. |  |  |
| 2.4.2 | The inner drum of Washer Extractor shall be made of stainless steel grade 304 or equivalent. |  |  |
| 2.4.3 | The shaft of the equipment shall be made of grade 304 stainless steel or equivalent. |  |  |
| 2.4.4 | All parts coming into contact with the wash water shall be made of corrosion resistant materials. |  |  |
| 2.5 | Safety Features |  |  |
| 2.5.1 | Each Washer Extractor shall be equipped with not less than two (2) emergency stops of domed top projection push button type in hand touch distance position easily accessible by the operator under any emergency circumstances. The postition includes but not limited to both sides of loading or unloading door. |  |  |
| 2.5.2 | Safety interlocking device shall be provided to disable all operations of the Washer Extractor when the door is open. |  |  |
| 2.5.3 | The Washer Extractor shall be fitted with a direct-on-line starter incorporated with overload protection and a low-volt release unit. |  |  |
| 2.5.4 | The equipment shall be equipped with an out-of-balance switch to avoid unbalance during extraction. |  |  |
| 2.5.5 | The Washer Extractor shall conform to C.E. Regulations and the Supplier shall provide relevant certificate/ documentary proof. |  |  |
| 2.5.6 | The Washer Extractor shall comply with the latest edition of safety standard IEC 60335-2-7 ‘requirement for washing machines intended for washing textile material, with or without means for water heating, water extraction or drying’ issued by International Electrotechnical Commission (IEC) or equivalent standards. |  |  |
| 2.5.7 | The degree of protection provided by the enclosure of electric motors shall not be lower than the latest edition of IP 54 (Ingress Protection) to IEC 60529 issued by International Electrotechnical Commission (IEC) or equivalent standards. |  |  |
| 2.5.8 | All rotating parts and moving parts of the Washer Extractor shall be equipped with suitable guards in compliance with the Factories and Industrial Undertakings (Guarding and Operation of Machinery) Regulations, Chapter 59Q of the Laws of Hong Kong or the latest Regulation. |  |  |
| **3** | **Tumble Dryer System** |  |  |
| 3.1 | General |  |  |
| 3.1.1 | The Contractor shall provide, design, supply and install the six (6) sets of steam heated Tumble Dryers. |  |  |
| 3.1.2 | Each dryer shall perform the function of fully drying the linen coming out from the Washer Extractor with moisture retention of not greater than 50% for 100% cotton linens for continuous operation for twelve (12) hours per day and six (6) days per week. |  |  |
| 3.1.3 | Power Supply Requirement |  |  |
|  | 1. 1 x 63A TPN Isolator (Essential) |  |  |
|  | 1. 5 x 63A TPN Isolator (Normal) |  |  |
| 3.1.4 | The Contractor shall also coordinate with the design and build contractor or CMHHK representative to ensure compliance with the existing building service provisions with reference to Appendix I (Composite drawing). |  |  |
| 3.2 | Functional Specifications |  |  |
| 3.2.1 | The loading and unloading of linen shall be performed manually at the front door. |  |  |
| 3.2.2 | The operation of the Tumble Dryers shall be controlled by the microprocessor which has the following functions: |  |  |
|  | 1. The microprocessor shall be able to program drying and cooling time. |  |  |
|  | 1. Manual selection shall be provided for reversing or non-reversing process. |  |  |
|  | 1. Pre-installed programmes shall be provided for different types hospital linens including patient linens and staff uniforms / working clothes. |  |  |
|  | 1. Timer control and temperature control shall be provided to monitor the drying process. |  |  |
| 3.2.3 | Transparent viewing window shall be provided with larger door for loading and unloading. |  |  |
| 3.2.4 | The body of the dryer shall be insulated to reduce the radiant heat to the environment and to improve the thermal efficiency. Thermal insulation shall be provided, where appropriate with the equipment for preventing the operator from injury by direct contact with hot spots during operation. |  |  |
| 3.2.5 | Control and display panel shall be equipped on the dryer for viewing the drying programme data such as temperature and time elapsed. |  |  |
| 3.2.6 | The dryer shall be fitted with an automatic lint filter for filtering air before exhausting to atmosphere. The lint filter shall be easily accessible for cleansing and servicing. The lint filter door shall be interlocked when it opens the drum stops for safety. |  |  |
| 3.3 | Performance Specifications |  |  |
| 3.3.1 | The capacity of each dryer shall not be less than 60 kg per load for dry weight volume. |  |  |
| 3.3.2 | The filling ratio of each dryer shall not be less than 1 kg linen per 25 drum volume. Drum volume shall not be less than 1500 litres. |  |  |
| 3.3.3 | Air flow rate shall not be less than 660 litre per second or 1400 cfm. |  |  |
| 3.3.4 | The cycling time for input linen at 50% moisture retention of 100% cotton shall not be more than fourty-five (45) minutes including drying and cooling processes. Cooling process shall not be less than five (5) minutes. |  |  |
| 3.3.5 | The dryers shall operate on radial heated air current through the entire drum. |  |  |
| 3.3.6 | The dryer shall be equipped with moisture sensor to detect the residual moisture level and high temperature limit. |  |  |
| 3.3.7 | The dryers shall be equipped with energy saving features such as automatic damper for cooling. |  |  |
| 3.3.8 | The cooling time can be manually adjusted between 0 – 10 mins. |  |  |
| 3.3.9 | The contractor shall supply two textile digital moisture meters with roller probe for fabric and calibration kit for moisture control. The digital moisture shall have USB output and measuring range between 0.3 – 26% moisture content with 1% accuracy. |  |  |
| 3.3.10 | The Tumble Dryers shall have their own control unit to handle not less than twenty (20) distinct drying programs. |  |  |
| 3.3.11 | The drying programs of the control unit shall include functions as follows: |  |  |
|  | 1. Dryer-on; |  |  |
|  | 1. Program selection; |  |  |
|  | 1. Programming reverse; |  |  |
|  | 1. Inlet and outlet temperature selection; |  |  |
|  | 1. Drying time selection; and |  |  |
|  | 1. Cooling time selection, etc. |  |  |
| 3.4 | Material Requirement |  |  |
| 3.4.1 | The Tumble Dryer shall be made of substantial construction which is suitable for heavy industrial use and adequately protected from operational stress and corrosion attack during normal usage in a hot and humid environment. |  |  |
| 3.4.2 | The inner drum shall be fabricated entirely of fully perforated stainless-steel grade 304 to AISI standard or equivalent standard. Continuous welding shall be used throughout and no spot or tack welds shall be used. |  |  |
| 3.4.3 | All steel surfaces shall be thoroughly cleaned of all dust, oil, grease, scale, rust, or other contaminants. |  |  |
| 3.4.4 | The door of the Tumble Dryer shall be made of steel with transparent viewing window sealed on rubber gasket. |  |  |
| 3.4.5 | All parts coming in contact with water shall be made of stainless steel. |  |  |
| 3.4.6 | The Tumbler Dryer shall conform to CE Regulation and the Contractor shall provide relevant certificate/ documentary proof. |  |  |
| 3.5 | Safety Requirements |  |  |
| 3.5.1 | Interlock devices shall be equipped on all doors including lint ﬁlter door to prohibit operation of dryer with the door open. |  |  |
| 3.5.2 | Each Tumble Dryer shall be equipped with emergency stop button(s) at hand-reachable position easily accessible by the operator under emergency circumstances. |  |  |
| **4** | **Flatwork Ironing System** |  |  |
| **4.1** | **General** |  |  |
| 4.1.1 | The Contractor shall provide, design, supply and install one (1) set of Flatwork Ironing System for large and small sheets consists of the following components   1. One (1) set of Large and Small Sheet Feeder (hereinafter referred to as “Sheet Feeder”), 2. One (1) set Flatwork Ironer (hereinafter referred to as “Ironer”), 3. One (1) set of Automatic Folder with Stacker |  |  |
| 4.1.2 | The Contractor shall be responsible for design, construction and installation of the exhaust air duct system to optimize Flatwork Ironer’s efﬁciency. |  |  |
| 4.1.3 | Power Supply Requirement for item 4.2, 4.3 and 4.4 |  |  |
|  | 1. 1 x 100A TPN Isolator (Essential) |  |  |
| 4.1.4 | The Contractor shall also coordinate with the design and build contractor or CMHHK representative to ensure compliance with the existing building service provisions with reference to Appendix I (Composite drawing) for installation of item 4.2, 4.3 and 4.4 |  |  |
| 4.1.5 | The large sheet feeder shall be capable to synchronise with Flatwork Ironer and Automatic Folder to control the speed through microprocessor control panels on the feeders. |  |  |
| 4.1.6 | The throughput of the flatwork ironing system for large sheet shall not be less than 500 pieces of bed sheet per hour. |  | Please specify: |
| 4.1.7 | The system shall be able to handle the following situations: |  |  |
|  | 1. When Large and Small Sheet Feeder stops, both Flatwork Ironer and folder shall keep running; |  |  |
|  | 1. When Flatwork Ironer stops, the Large and Small Sheet Feeder shall stop but the folder shall keep running; |  |  |
|  | 1. When folder stops, both Large and Small Sheet Feeder and Flatwork Ironer shall stop running. |  |  |
| 4.1.8 | The entire Flatwork Ironer system shall be able to handle not less than ninety-nine (99) programmes. All programmes can be edited by the supervisor or selected by operators. |  | Please specify: |
| 4.1.9 | The emergency stop/door switch of every piece of machinery within the entire Flatwork Ironing Line shall be interlocked. Whenever any of the emergency stop or door switch is activated, all the machinery within the entire ironing line stops for safety. |  |  |
| **4.2** | **Large and Small Sheet Feeder** |  | |
| 4.2.1 | Functional Requirement |  | |
| 4.2.1.1 | The Large and Small Sheet Feeder shall be able to feed large and small sheets edge to edge up to the speed matching with the manual feeding into the Flatwork Ironer. |  |  |
| 4.2.1.2 | A pair of feeding clamps shall be equipped in front of each feeding belt of the Sheet Feeder for manual feeding. |  |  |
| 4.2.1.3 | The height of the feeder shall be designed and adjustable that all sheets shall be processed without touching the floor surface during automatic feeding to meet with hygienic requirement. |  |  |
| 4.2.1.4 | The Sheet Feeder shall be installed the laser positioning light to help the operators to position the small pieces correctly on the feeding table for high quality purpose. |  |  |
| 4.2.1.5 | The design of Sheet Feeder shall facilitate to position a trolley in front of operators for sheet feeding. |  |  |
| 4.2.1.6 | The Sheet Feeder shall be capable to spread lightweight items such as bed sheet and draw sheet and heavy weight item such as coverlet and blanket cellular. |  |  |
| 4.2.1.7 | The Large and Small Sheet Feeder shall be driven by A.C. variable speed motors capable to spread and feed large sheets with width of about 2900 mm automatically and feed small sheets about 600 mm x 600 mm manually. |  |  |
| 4.2.1.8 | Surface speed of the transfer belt shall be capable to be adjusted from 15 to 60 meters per minute. |  |  |
| 4.2.1.9 | Emergency stop buttons shall be installed in a hand touch distance for use under any emergency circumstances. |  |  |
| **4.3** | **Flatwork Ironer** |  | |
| 4.3.1 | Functional Requirement |  | |
| 4.3.1.1 | The Contractor shall provide, design, supply and install Flatwork Ironers. The Ironer shall have at least two (2) ventilated and perforated rollers with a roller diameter of at least 1200 mm and a working width of not less than 3300mm. It shall be designed for steam heated with operation pressure on site and suitable for working with linen with 50% of moisture retention. |  | Please specify: |
| 4.3.1.2 | Each Ironer shall be ﬁtted with individual ironing pressure regulator on each roll and individual exhaust fans with adjustable airﬂow system. |  |  |
| 4.3.1.3 | The covering of the roller shall be spring padding with a constant spring pressure at all times compensating for padding wear. |  |  |
| 4.3.1.4 | All chests and steam heated gap pieces, condensate, and exhaust pipes shall be fully insulated. The whole Ironer including the upper part shall be completely enclosed to reduce the radiant heat to the environment. The top cover shall have an air gap insulation and shall open up by manual when the rollers are lifted. |  |  |
| 4.3.1.5 | The motor shall be automatically disconnected in case of thermal or mechanical overload. At the feeding table, large ﬁnger guard should be provided for instant stopping the motor and an emergency brake shall stop roller movement immediately to ensure safe operation. |  |  |
| 4.3.1.6 | The lifting of the rollers should be by simple device, which does not require additional power unit. Once the rollers are lifted, they should be locked mechanically in the upper position for safe maintenance. In addition, the lifting height shall be adequate for easy maintenance. All rolls shall be lifted at emergency stop. The emergency stop shall be equipped with push-lock / turn-reset switch. |  |  |
| 4.3.1.7 | The Contractor should also be responsible for the provision of an equipment exhaust system. The design of the exhaust system shall be subject to the approval of the CMHHK’s Representative. |  |  |
| 4.3.1.8 | The ﬂatwork Ironer shall be able to fully integrate with the associated feeder and folder so that a smooth transfer of linen from the feeder to the folder can be achieved and no bottleneck will occur during the whole process. If jamming of linen occurs at the folder, the feeder shall immediately stop the feeding process. |  |  |
| 4.3.1.9 | The Contractor shall be responsible for the survey and successful registration of the Ironer under the Boilers and Pressure Vessels Ordinance (Cap. 56) for the steam containers and shall include the following:- |  |  |
|  | 1. Employing an Appointed Examiner to survey, certify, prepare and submit all necessary documents to Labour Department for the registration of the steam containers. |  |  |
|  | * 1. Design, supply and installing steam pressure safety valves, pressure gauges, pressure reducing valves, name plates, and accessories to fulﬁl the requirements of the Labour Department for the registration of steam containers. |  |  |
|  | * 1. Carrying out all modification works to fulfil the requirements of the Labour Department for the registration of steam containers. |  |  |
|  | * 1. Carrying out all tests as required by the Labour Department for the registration of steam containers. |  |  |
|  | * 1. Testing and commissioning of the concerned laundry equipment before and after the Works. |  |  |
| 4.3.1.10 | The contractor shall supply one (1) set of belting as spare item. |  |  |
| 4.3.2 | Performance Requirement |  |  |
| 4.3.2.1 | The Ironer shall be flexible chest design. |  |  |
| 4.3.2.2 | Chest pay thickness shall not more than 8mm. The steam pressure shall be adjustable from 5 bar to 12 bar at the display panel. The flexible chest shall be elastic for expansion or closure. |  |  |
| 4.3.2.3 | The Ironer should be designed for quiet and smooth operation with a maximum noise level of 75 dBA measured at a distance of 1m from the equipment and 1.5 m above the ﬂoor level. |  |  |
| 4.3.2.4 | The steam beds of the roller calendar should be capable of being at a steam pressure of not less than 12 bars. |  |  |
| 4.3.2.5 | The Flatwork Ironer shall be capable of processing and drying 100% cotton bed sheet with edge of double layer, having not less than 40 % moisture retention to a moisture retention of about 2%, at a minimum surface speed of 40 meters per minute. |  |  |
| 4.3.2.6 | The temperature of the ﬂat work Ironer shall be capable to be operated at 175°C under a steam pressure of ranged from 5 to 12 bars. |  |  |
| 4.3.2.7 | The steam beds should be properly insulated and covered to minimize heat loss. |  |  |
| 4.3.2.8 | The contact angle between the rollers and steam beds should not be less than 175° to achieve the highest contact for ironing. |  |  |
| 4.3.2.9 | Speed range of the rollers can be adjusted from 15 to 60 m/minute to suit different types of linen. The variable speed is to be achieved through frequency inverter motor drive. |  |  |
| 4.3.2.10 | The Flatwork Ironer should be equipped with local microprocessor control device or digital controller to monitor and maintain the temperature of the steam beds as a preset level. The preset temperature can be adjusted to sort different types of sheeting. |  |  |
| 4.3.2.11 | All the production and processing parameters data should be able to be exported in report formats. |  |  |
| 4.3.2.12 | Remote control on separation of rollers from steam beds and forward / backward movement of rollers should be available to facilitate maintenance such as change of padding and tapes. |  |  |
| 4.3.2.13 | Individual tape tensioning device should be provided for adjustment of the tape tension. |  |  |
| **4.4** | **Autoamtic Folder with Stacker for Large Sheet and Small Sheet** |  | |
| 4.4.1 | Functional Requirement |  | |
| 4.4.1.1 | The Contractor shall provide, design, supply and install large sheet folder with twin stacker for large sheet and unit of three (3) lanes folder and stacker for small pieces. The folder shall fold sheets automatically up to two length folds (primary folds) and three cross-fold single lane, and fold small pieces up to two (2) length folds and one cross-fold up to three (3) lanes operation. |  |  |
| 4.4.1.2 | The primary fold shall be done by air blast mechanism. For large sheet folding, the ﬁrst cross-fold shall be done by a knife movement and the third cross-fold shall be combined with stacking movement. |  |  |
| 4.4.1.3 | The folder shall equip a scanning system to detect holes, stains and deformed sheets. Statistical data shall be stored and retrieved for management reports. |  |  |
| 4.4.1.4 | Linen with stains and holes shall be identified by the scanning system and automatically rejected for rewash or mending. |  |  |
| 4.4.1.5 | The folder shall be controlled by a Programmable Logic Controller (PLC) microprocessor. |  |  |
| 4.4.1.6 | The folder shall follow the speed of the Ironer automatically. |  |  |
| 4.4.1.7 | The folder shall be equipped with anti-static bar system with two (2) bars to eliminate electrostatics. |  |  |
| 4.4.1.8 | The control panel shall have, but shall not limited to, the following items:- |  | |
|  | 1. Production counter in single lane and in four lanes |  |  |
|  | 1. A maintenance test programme for the operator to go through the cycle step by step. |  |  |
|  | 1. A test programme for inputs and outputs. |  |  |
|  | 1. Fault indication lamps. |  |  |
|  | 1. Folding programmes selective switches. |  |  |
| 4.4.1.9 | The folders shall be protected by security code or by key operation to prevent unauthorized access or alteration of programmes. |  |  |
| 4.4.1.10 | The folder shall conform to CE Regulation and the Contractor shall provide relevant certificate/ documentary proof. |  |  |
| 4.4.2 | Performance Requirement |  | |
| 4.4.2.1 | The folder shall be designed for folding of linen of various dimensions from 200 mm to 2000 mm in length, and a width of 800 mm per lane or 3000 mm single lane. |  |  |
| 4.4.2.2 | The emergency stop buttons shall be equipped with pushlock/ turn-reset switch. |  |  |
| 4.5 | Safety Requirement |  | |
| 4.5.1 | The equipment of the Flatwork Ironing System as specified in Section 4.2, 4.3 and 4.4 shall each be equipped with emergency stop button(s) at hand-reachable position easily accessible by the operator under emergency circumstances. |  |  |
| **5.** | **Tunnel Finishing System** |  | |
| 5.1 | General |  | |
| 5.1.1 | The Tunnel Finishing System shall consist of the following equipment to form a close loop tunnel finishing system with the Automatic Feeding Garment Folders: |  |  |
|  | 1. One (1) set of Tunnel Finisher; |  |  |
|  | 1. four (4) sets of feeding stations; |  |  |
|  | 1. One (1) set of monorail transport system with multi-level RFID sorting system; |  |  |
|  | 1. Two (2) sets of Automatic Feeding Garment Folders |  |  |
|  | 1. All associated accessories including but not limited to motor(s), connection equipment, control and monitoring devices for Tunnel Finishing System |  |  |
| 5.1.2 | The monorail transport system shall be designed with multi-level RFID sorting system. |  |  |
| 5.1.3 | The tunnel finishing system shall be able to handle hospital garments with various fabric mix including cotton and polycotton. Hospital garment shall include but not limited to patient clothing, working clothes and uniforms. |  |  |
| 5.1.4 | The Contractor shall supply all necessary parts and labour for any necessary modification works including but not limited to safety fences / guards and maintenance platform as deemed necessary. |  |  |
| 5.1.5 | The Contractor shall provide other equipment and temporary works (e.g. scaffolding, framework, temporary system support, etc.) for installation, testing, commissioning, storage and access for operation and maintenance of the works. |  |  |
| **5.1.6** | **Control and Monitoring System** |  |  |
| 5.1.6.1 | The control system shall be fully integrated with the tunnel finishing system to ensure seamless operation starting from feeding station, Tunnel Finisher, garment folder and empty hanger return rail. |  |  |
| 5.1.6.1 | The control system shall be controlled with programmes and able to control the following: |  |  |
|  | 1. Garment call off sequence; |  |  |
|  | 1. Sorting rail allocation; |  |  |
|  | 1. Online monitoring; |  |  |
|  | 1. Garment full notification. |  |  |
| 5.1.7 | The corresponding RFID equipment offered shall comply with HKTA 1049 “Performance Specification for Radio Frequency Identification (RFID) Equipment Operating In The 865-868 MHz And/Or 920-925 MHz Bands” issued by the Office of the Communications Authority (OFCA) and other applicable standards, specifications and requirements as issued by OFCA. |  |  |
| **5.2** | **Feeding Stations** |  |  |
| 5.2.1 | Functional Requirement |  |  |
| 5.2.1.1 | Each tunnel finishing system shall have two (2) sets feeding stations for continuous feeding of garment items to the tunnel ﬁnishers. |  |  |
| 5.2.1.2 | Each feeding station shall be able to handle garments with or without RFID. |  |  |
| 5.2.1.3 | For garment with RFID, the garment is scanned by the feeding station automatically when the garment is put on the hanger. |  |  |
| 5.2.1.4 | For garment without RFID, garment information shall be able to input manually at the location console of feeding station. |  |  |
| 5.2.1.5 | The user interface of the control system shall allow input and display not limited to the followings: |  |  |
|  | * Information of garment including but not limited to hospital, types and sizes of garment; |  |  |
|  | * Special destination including but not limited to rewash, mending and depose; |  |  |
|  | * Hanger type choice; |  |  |
|  | * Station status; |  |  |
|  | * Emergency stop; and |  |  |
|  | * Help menu. |  |  |
| 5.2.1.6 | Each hanger shall be secured at the loading station in a perfect and distortion-free position by a locking device integrated into the loader. |  |  |
| 5.2.1.7 | The feeding stations shall be equipped with clamps convenient for loading and unloading of the hangers on the feeding stations. |  |  |
| 5.2.2 | Performance Requirement |  |  |
| 5.2.2.1 | Each feeding station shall be able to handle minimum 500 pieces of garment item per hour. |  |  |
| 5.2.2.2 | The height of the feeding station shall be designed and adjusted to suit Asian operator’s ergonomics design. |  |  |
| 5.2.2.3 | User-friendly industrial touch and RFID scanner(s) shall be provided for operator to input garment information (e.g. customer code, item code, etc.) for garment without or with RFID. |  |  |
| 5.3 | **Tunnel Finisher** |  |  |
| 5.3.1 | Functional Requirement |  |  |
| 5.3.1.1 | The dimension of tunnel ﬁnisher shall be suitable for the site. The Contractor should submit layout drawings with reference to the Appendix I Composite drawing. |  |  |
| 5.3.1.2 | The Tenderer shall submit the proposed tunnel finishing system design including layout plan showing all Tunnel Finishers, garment sorting monorails, garment folders before close of tender submission. |  |  |
| 5.3.1.3 | Electrical Requirement |  |  |
|  | 1. Power: 1 x 63A TPN Isolator (Essential) |  |  |
| 5.3.1.4 | The Contractor shall also coordinate with the design and build contractor or CMHHK representative to ensure compliance with the existing building service provisions with reference to Appendix I (Composite drawing) for installation of item 4.2, 4.3 and 4.4. |  |  |
| 5.3.1.5 | The Tunnel Fnisher shall be steam-heated type. |  |  |
| 5.3.1.6 | The Tunnel Fnisher shall be designed with different zones including steam zone, hot air drying / conditioning and cool down zones. |  |  |
| 5.3.1.7 | The Tunnel Fnisher shall be designed to recycle warm exhaust air from drying zone to inlet zone for preheating garment. |  |  |
| 5.3.1.8 | The Tunnel Fnisher shall be provided with an adjustable automatic temperature control for various types of garment. The Tunnel Fnisher and the transport system shall be controlled by PLC microprocessor with touch screen. |  |  |
| 5.3.1.9 | The control panel of the Fnisher shall have, but not limited to, the following items:-   1. Production counter 2. Throughput speed 3. Steam injection   The control system should be able to handle no less than ninety-nine (99) distinct programmes. |  |  |
| 5.3.1.10 | Steam injection shall be adjustable and the steam shall circulate over the whole length of the garment. Steam injection shall only be operated when there are garments in the Tunnel Fnisher. |  |  |
| 5.3.1.11 | The Tunnel Fnisher shall be sufﬁciently heat insulated to achieve a minimal heat loss. |  |  |
| 5.3.1.12 | A dust ﬁlter or a set of coarse and ﬁne ﬁlters shall be equipped with the Tunnel Fnisher. The coarse and ﬁne ﬁlters shall be used to trap any clothes that fall down and the dust respectively. |  |  |
| 5.3.1.13 | The Tunnel Fnisher shall be equipped with an auto cut-off Energy Saving Feature to ensure that if the machine is left running with no garments passing through, the steam spray and air heater will automatically switch to standby, turning the spray off and the main heat down to a preset minimum heat level. |  |  |
| 5.3.1.14 | The Tunnel Finisher should be equipped with an automatic lint filter cleaning system. |  |  |
| 5.3.1.15 | In each drying zone a large proportion of the air is re-cycled to conserve energy, the remaining hot air and steam vapor is extracted from the machine and discharged to atmosphere by means of the built-in exhaust system. |  |  |
| 5.3.2 | Performance Requirement |  | |
| 5.3.2.1 | Each tunnel ﬁnisher shall be able to handle minimum 800 pieces per hour with 400g garment in dry weight and 35% moisture retention. The tunnel ﬁnisher shall achieve this performance with steam pressure 12 bar on site and compressed air not less than 6 bars. The garment shall be fully dry with no more than 3% moisture content when coming out from the tunnel ﬁnisher. |  |  |
| 5.3.2.2 | The temperature of hot air drying / conditioning zone shall not be less than 150oC with steam pressure on site (not more than 12 bars). |  |  |
| 5.3.2.3 | The drying zone and the fan air circulation system of the tunnel ﬁnisher shall be sufﬁciently noise insulated. The noise level shall not be higher than 75dBA. |  |  |
| 5.3.2.4 | Stainless steel shall be used for all components coming into contact with warm air and steam. |  |  |
| **5.4** | **Monorail transport system with Automatic Garment Sorting System** |  | |
| 5.4.1 | General |  | |
| 5.4.1.1 | The Contractor shall design, supply, deliver and install a monorail transport system with Automatic Garment Sorting System which shall be connected to the tunnel ﬁnisher, feeding stations and automatic garment folder.  The design of the system shall show the integration of a Garment Sorting, Storage and Call-off transport system integrated with automatic garment finishing line. |  |  |
| 5.4.1.2 | At least three (3) level sorting shall be achieved by the Automatic Garment Sorting System. Sorting shall be done by RFID technology (including but not limited to customer code, item code, sizes, wearer). |  |  |
| 5.4.1.3 | Monorails shall be ceiling mounted. Structural support of all monorails being mounted on the floor shall be minimised. The Contractor shall provide the structural design, which shall be certified by a Hong Kong Registered Structural Engineer (RSE) and endorsed by an Independent Checking Engineer (ICE) with RSE qualification prior to the approval from the CMHHK’s Representative for the monorail system. |  |  |
| 5.4.1.4 | The control of the monorail transport system shall be by PLC control. |  |  |
| 5.4.1.5 | System hangers shall be suitable for monorail system, Tunnel Finisher and automatic uniform folder in which they shall be used for a variey range of hospital and workwears. |  |  |
| 5.4.1.6 | The Contractor shall provide the design detail of mechanism to prevent the falling of hangers from the monorail. |  |  |
| 5.4.1.7 | Hanged garment items shall be fed into the tunnel ﬁnisher by the monorail transport system automatically. |  |  |
| 5.4.1.8 | Through the monorail system, tunnel ﬁnished garments shall be transported to in-feed section of garment folder. Garment shall be fed automatically onto the garment folder for garment folding. |  |  |
| 5.4.1.9 | With signal from garment folder, the empty hanger shall be transported to feeding station through empty hanger return device automatically. |  |  |
| 5.4.1.10 | Automatic Garment Sorting System shall be able to: |  |  |
|  | 1. Perform sorting of tunnel finished garments including staff and patient clothing by size, type, specialty or hospitals; & |  |  |
|  | 1. Present full history of tagged items, operator’s productivity and discrepancy. |  |  |
|  | 1. The installation of sorting rail shall not block the passage |  |  |
| 5.4.1.11 | Automatic Garment Sorting System shall be designed with contingency to prevent single point of failure. The system shall maintain seamless operation during the breakdown at any points of rails. |  |  |
| 5.4.1.12 | The Automatic Garment Sorting System shall integrate with the RFID Receiving and Dispatching System provided by the Contractor. |  |  |
| 5.4.1.13 | The Automatic Garment Sorting System shall integrate with the local consoles of feeding stations for operators to input the information of garment and special destinations (including but not limited to rewash, mending and dispose). |  |  |
| 5.4.1.14 | The Automatic Garment Sorting System shall allow user to customise the configuration and parameters of the system. The parameters shall include but not limited to the followings:- |  |  |
|  | 1. Sorting Routes |  |  |
|  | 1. Customers |  |  |
|  | 1. Sorting levels |  |  |
|  | 1. Inputs available for each sorting level |  |  |
| 5.4.1.15 | The Automatic Garment Sorting System shall display the system information, including but not limited to system overview, system layout, system status and sorting queue. |  |  |
| 5.4.1.16 | The Automatic Garment Sorting System shall be displayed in Traditional Chinese and English. |  |  |
| 5.4.1.17 | Electrical Requirement: |  | |
|  | 1. Power: 1 x 32A TPN Isolator (Essential) |  |  |
| 5.4.2 | Performance Requirement |  | |
| 5.4.2.1 | The Automatic Garment Sorting System shall have minimum throughput of 4000 pieces per hour. |  |  |
| 5.4.2.2 | Automatic Garment Sorting System shall have minimum storage capacity based on the 1-hour throughput of Tunnel Finishers. |  |  |
| 5.4.2.3 | The capacity of each sorting rail shall be at least 120 pieces. |  |  |
| 5.4.2.4 | Automatic Garment Sorting System shall consist of at least twenty (20) sorting rails. |  |  |
| 5.4.2.5 | The storage capacity of the monorail system shall not be less than 2400pcs. |  |  |
| **5.5** | **Automatic Feeding Garment Folder** |  | |
| 5.5.1 | General |  | |
| 5.5.1.1 | Electrical Requirement |  | |
|  | 1. Power: 1 x 32A TPN Isolator (Essential) |  |  |
| 5.5.1.2 | The Contractor shall also coordinate with the design and build contractor or CMHHK representative to ensure compliance with the existing building service provisions with reference to Appendix I (Composite drawing). |  |  |
| 5.5.2 | Functional Requirement |  | |
| 5.5.2.1 | The Contractor shall provide, design, supply and install Automatic Feeding Garment Folders for the tunnel ﬁnishing system in compliance to the operation requirement. |  |  |
| 5.5.2.2 | The garment folder shall be a universal folder for garments especially for folding and stacking a large variety of hospital linens and uniforms such as nurse uniforms, gowns, working clothes, trousers (including trousers with waist rope), etc. |  |  |
| 5.5.2.3 | The operation of garment feeding, folding, sorting and stacking shall be done automatically. |  |  |
| 5.5.2.4 | The Automatic Feeding Garment Folders shall have manual feeding mode. |  |  |
| 5.5.2.5 | Each folder shall be equipped with at least two (2) stackers and a transport conveyor for sorting of at least 2 types of garment at one time. |  |  |
| 5.5.2.6 | The folder shall be controlled by PLC. The control panel shall have at least 99 folding programmes. |  |  |
| 5.5.2.7 | The control panel shall have, but not limited to, the following:   * Production counter; * No. of stacked linen; * Test programme for inputs and outputs * Fault indication |  |  |
| 5.5.2.8 | The Automatic Feeding Garment Folder shall sort the pieces on length automatically. Every piece will be folded in the right way and sorted to one (1) of the two (2) available stackers. |  |  |
| 5.5.2.9 | The Garment Folder shall be able for half folding, French folding and Quarter folding. |  |  |
| 5.5.2.10 | In case of jamming, the jammed linen shall be able to be released by reversing the conveyors. |  |  |
| 5.5.2.11 | The folder shall be made of substantial construction suitable for heavy industrial use with adequately protection from operational stress and corrosion attached in a hot and humid environment. |  |  |
| 5.5.2.12 | The folder shall have at least four (4) hold-down bolt holes for fastening. It shall be provided with a set of hold-down bolts. |  |  |
| 5.5.2.13 | All parts coming into contact with the water and laundry chemicals shall be made of corrosion resistant materials. |  |  |
| 5.5.2.14 | The folder shall be equipped fully with safety guards, interlocks and emergency stop buttons. |  |  |
| 5.5.2.15 | Adequate overload protective device and over-current protect device shall be provided for the motors. |  |  |
| 5.5.2.16 | An ‘Emergency Stop’ domed top projecting push button shall be equipped in a hand touch distance for use under any emergency circumstances. |  |  |
| 5.5.2.17 | Contractor shall offer as an optional feature, an RFID reader in the garment folder to sort out garments with RFID chips and without RFID chips using the stackers. |  |  |
| 5.5.2.18 | The design and operation of folders shall integrate with conveyor belts. |  |  |
| 5.5.3 | Performance Requirement |  |  |
| 5.5.3.1 | Each folder shall be able to handle garment up to at least 1000 pieces per hour. |  |  |
| 5.5.3.2 | The garment folder shall be designed for folding linen of various dimensions mixed up to a length of 1,750mm and up to a width of 900 mm. |  |  |
| **5.6** | **Automatic Hanger** |  |  |
| 5.6.1 | General |  |  |
| 5.6.1.1 | The Contractor shall supply at least 500 pieces of automatic hanger for Automatic Feeding Farment Folder, including those in operation and back-up. |  |  |
| 5.6.1.2 | The Automatic Hanger shall be able for all kind of hospital garments. |  |  |
| 5.6.1.3 | The Hanger shall have manual spreading function of hanger arms, allowing feeding of garments with narrow collar. |  |  |
| 5.6.1.4 | Each Hanger shall equip with RFID chips integrable with the Garment Feeding stations. |  |  |
| 5.7 | Safety Requirement |  |  |
| 5.7.1 | The equipment of the Tunnel Finishing System in specified in Section 5.2 to 5.6 shall each be equipped with emergency stop button(s) at hand-reachable position easily accessible by the operator under emergency circumstances. |  |  |
| **6.** | **Trolley Washer** |  |  |
| 6.1 | General |  |  |
| 6.1.1 | The Contractor shall provide, design, supply and install one (1) set of Trolley Washer. |  |  |
| 6.1.2 | The Trolley Washer shall comply with the requirements of ISO 15883-6. |  |  |
| 6.1.3 | The Trolley Washer shall be installed through the barrier wall between dirty zone and clean zone according to the layout in Appendix I Composte Drawing, with adequate space for maintenance. The Contractor shall be responsible for the sealing of barrier wall or other works required for installation of the Trolley Washer, including but not limited to drill holes on wall (utilities detection with proper detection equipment (e.g. metal detector) shall be performed to avoid the damage of utilities (e.g. pipline, ducts, wiring) inside the wall ). |  |  |
| 6.1.4 | The Contractor shall coordinate with the Building Contractor for design, supply and installation of the electrical and mechanical services provisions to the installed items of equipment. |  |  |
| 6.1.5 | The Contractor shall coordinate with the Laundry Chemical Dispensing System Contractor to facilitate the cleansing process of Trolley Washers. |  |  |
| 6.2 | Functional Specifications |  |  |
| 6.2.1 | The Contractor shall design, supply and provide automatic trolley loading and unloading conveyor(s) with ramps to facilitate automatic loading and unloading of Linen Trolley. |  |  |
| 6.2.4 | With a steam supply at about 12 bars, cleansing cycle including cleansing & disinfecting, rinsing and drying shall be completed in not more than 15 minutes. |  |  |
| 6.2.5 | The control system shall be able to modify setting of the washing process include but not limited to the followings: |  |  |
|  | 1. Washing time; |  |  |
|  | 1. Drying time; |  |  |
|  | 1. Cooling time; |  |  |
|  | 1. Thermal or chemical disinfection; |  |  |
|  | 1. Washing temperature; |  |  |
|  | 1. Chemical dosage; and |  |  |
|  | 1. Water consumption |  |  |
| 6.2.6 | The Trolley Washer shall be a closed cabin design sealed with loading and unloading doors at both sides to ensure no water and steam leakage during washing and disinfection processes. |  |  |
| 6.2.9 | The loading and unloading doors shall be double-walled stainless steel (or equivalent/superior material) wing door with special inﬂatable door seals which can withstand high temperature up to 100°C. |  |  |
| 6.2.10 | The loading and unloading doors shall be equipped inspection glasses and automatic locking device to prevent simultaneously opening of both loading side and unloading side. |  |  |
| 6.2.11 | The Trolley Washer shall be equipped with a nozzle system with double nozzle bar on each side of the chamber walls, top nozzle and bottom nozzle inside the chamber to ensure fast and all-round disinfection on the Linen Trolley. |  |  |
| 6.2.12 | The Trolley Washer shall be equipped with trolley tilting system that operate during drying process to properly drain flat surfaces of cart to ensure the trolleys can be fully dried. |  |  |
| 6.2.13 | Emergency trigger line or equivalent emergency stop device shall be equipped inside the Trolley Washer chamber. |  |  |
| 6.2.14 | Emergency stop buttons shall be equipped on both loading and unloading side of the Trolley Washer in hand touch position and can be easily accessed by operator. The emergency stop shall be push-lock or turn reset switch design. |  |  |
| 6.3 | Performance Specifications |  |  |
| 6.3.1 | The Trolley Washer shall be steam operated. |  |  |
| 6.3.2 | The Trolley Washer shall perform thermal disinfection, thermo-chemical disinfection with temperature not less than 75°C, and thermo-chemical disinfection by steam and chemical agent, and drying with hot air for Linen Trolley with mesh, metal, stainless steel and plastic. |  |  |
| 6.3.3 | The Trolley Washer shall accommodate the linen trolley offered in Section B7 in terms of dimensions (i.e. width, length, height). |  |  |
| 6.3.4 | The Trolley Washer shall able to handle three (3) trolleys for each cycle. |  |  |
| 6.3.5 | Door opening shall not be less than 1000 mm in width. |  |  |
| **7.** | **Linen Trolley** |  |  |
| 7.1 | The successful tenderer shall provide document certifying the compliance of stainless steel materials or or other equivalent document upon delivery. |  |  |
| 7.2 | The dimensions of each Linen Trolley shall be: |  |  |
|  | 1. Overall length: not greater than 900mm; |  |  |
|  | 1. Overall width: not greater than 900mm; |  |  |
|  | 1. Overall height: not greater than 1800mm. |  |  |
| 7.3 | The Linen Trolley shall consist of the major components as listed below: |  |  |
|  | 1. Four (4) sets of side panels; |  |  |
|  | 1. One (1) set of base plate assembly; |  |  |
|  | 1. Four (4) sets of swivel castors. |  |  |
| 7.4 | Each set of linen trolleys shall consist of accessories including but note limited to: |  |  |
|  | 1. Door latch(s); |  |  |
|  | 1. Fastening device(s) for door panels; |  |  |
|  | 1. Panel hinge(s) |  |  |
|  | 1. Door hinge(s); |  |  |
|  | 1. Pushing handle(s); |  |  |
|  | 1. Bumper(s); |  |  |
|  | 1. Square logo plates; |  |  |
|  | 1. RFID tag(s); |  |  |
|  | 1. QR code plate(s). |  |  |
| 7.5 | All side panels of the Linen Trolley shall be tubular panels. |  |  |
| 7.7 | The main frame of the trolley shall be made of stainless steel with SUS304/AISI304 or equivalent. |  |  |
| 7.8 | All parts of the Linen Trolley shall be able to tolerate thermal washing with temperature not less than 75°C and thermo-chemical disinfection by steam and chemical agent, and drying with hot air. |  |  |
| 7.7 | Functional Requirements |  |  |
| 7.7.2 | The loading capacity of each Linen Trolley shall be at least 500kg. Certificates/ test reports on the complicance of minimum load of 500 kg shall be provided upon request and before delivery. |  |  |
| 7.7.5 | The Linen Trolley with full loading (with a minimum loading of 500kg) shall be suitable for Manual Transportation and Automatic Transportation by Autonomous Mobile Robot (AMR) as described in 7.7.5.1 and 7.7.5.2 below: |  |  |
| 7.7.5.1 | Maunal Tranportation |  |  |
|  | 1. The Linen Trolley shall have pushing handles on both left and right side panel resepectively to allow users to move the Linen Trolley by pushing and pulling. |  |  |
| 7.7.5.2 | Automatic Transportation by AMR |  |  |
|  | 1. To insert the fork of AMR from the front/ rear side of Linen Trolley to the space under the base plate assembly. |  |  |
|  | 1. To lift up or lower the Linen Trolley on the floor with the fork of AMR under the base plate assembly of Linen Trolley |  |  |
|  | 1. AMR then transport the Linen Trolley |  |  |
| 7.7.6 | The minimum clearance between the swivel castors shall be capable for AMR to insert its fork from the front or rear side of Linen Trolley underneath the base plate assembly. |  |  |
| 7.7.7 | The Trolley shall be able to stand vertically and maintain stability under the following scenarios: |  |  |
|  | 1. Fully loaded (i.e. at least 500 kg) |  |  |
|  | 1. Folded (i.e. not in use) |  |  |
|  | 1. During Manual Transportation; and |  |  |
|  | 1. During Automatic Transportation (by AMR) |  |  |
| 7.7.8 | Safety Requirements |  |  |
| 7.7.8.1 | The Linen Trolley shall no have no sharp edge and no sharp corner that may cause injury hazard to users. |  |  |
| 7.7.8.2 | All accessible part of the Linen Trolley shall be hazard free to users. |  |  |
| 7.7.8.3 | Foot-controlled braking system shall be equipped on at least two (2) castor(s)./ The castors of the trolley shall be equipped with lockable devices. |  |  |
| 7.7.9 | The size of castors and trolleys shall match the rail / conveyor and chamber size of Trolley Washer. |  |  |
| 7.7.10 | CMHHK reserves the right to revise the design and/or make adjustment to the setting out of the components of the Linen Trolley to the operational needs. The Successful Tenderer shall agree and confirm with CMHHK representatives for the final design before mass production of the required items. No extra charge shall be incurred for the above change(s). |  |  |
| 7.7.11 | Successful Tenderer shall provide a sample of Linen Trolley for approval before mass production within thirty (30) calendar days after tender award. |  |  |
| 7.7.12 | Two (2) sets of operation manual shall be delivered together with the trolleys which shall include information such as operation guidelines, safety precautions for operation and maximum loading capacity of Linen Trolley. |  |  |
| **B** | **Implementation Services** | | |
| 1 | The System shall be installed, tested and become ready for use by the timeline specified with all costs included. |  |  |
| 2 | All necessary drawings, calculations and documents providing details on all the works to be carried out shall be provided. |  |  |
| **3** | **Installation of the Goods** |  |  |
| 3.1 | The Contractor shall coordinate with the design and build contractor and other Government contractors for the installation of the Goods. |  |  |
| 3.2 | All installation work shall be carried out by suitably qualified persons including without limitation registered electrical worker(s) with valid registration under relevant legislation |  |  |
| 3.3 | The equipment and installation shall be in compliance with the relevant requirements of the latest edition of “Electrical Products (Safety) Regulation” under Electricity Ordinance, Chapter 406 and “Code of Practice for the Electricity (Wiring) Regulations” enforced by Electrical and Mechanical Services Department (EMSD). |  |  |
| 3.4 | The equipment shall be fitted with suitable power supply cables in compliance with BS EN 50525‐1:2011 or an equivalent international standard. A suitably fused plugs or terminal connection unit in compliance with the relevant requirements of the latest edition of “Code of Practice for the Electricity (Wiring) Regulations”, enforced by EMSD shall be provided as well. |  |  |
| 3.5 | The equipment shall be effectively bonded to earth unless it is double insulated. |  |  |
| 3.6 | The equipment shall be equipped with an over-current protective cut out device. |  |  |
| 3.7 | The electrical and electronic equipment shall be designed for operation operating in the following environmental conditions: |  |  |
|  | 1. Temperature: 0 degree Celsius to 40 degree Celsius; |  |  |
|  | 1. Relative humidity 10% to 95%. |  |  |
| 3.8 | The Contractor shall be responsible for provision of building service installations in relation to the installation of the System, including but not limited to electrical cabling / wiring works, exhaust duct works, etc.. The building service installations provided by the Contractor shall comply with requirements of the General Specification for Building Service Installations in Government Buildings of the HKSAR (and any corrigendum) issued by the Architectural Services Department. |  |  |
| 3.9 | The Contractor shall be responsible for the builder’s works in relation to the installation of the System, including but not limited to sealing of the gap between the Goods and wall opening, provision of plinth, etc. The builder’s works provided by the Contractor shall comply with requirements of the General Specification for Building (and any corrigendum) issued by the Architectural Services Department. |  |  |
| **6** | **Installation of the System** | | |
| 6.1 | Coordination with the Design and Build Contractor and other Government contractors for the installation of the System. |  |  |
| 6.2 | Inclusion of installation work which shall be carried out by suitably qualified persons including without limitation registered electrical worker(s) with valid registration under relevant legislation. |  |  |
| **C** | **Training** | | |
| 1 | The supplier shall provide two (2) sessions of on-site free of charge comprehensive equipment operation, maintenance and overhaul training course for the user and the CMHHK representative(s). The training shall cover safety precautions, operation instructions, preventive maintenance procedures, trouble-shooting technique, alignment and calibration of the equipment. |  |  |
| 2 | The schedule of local operational training shall be closely matched with the equipment installation and commissioning. The final schedule shall be agreed by the CMHHK Operator; |  |  |
| 3 | The training shall be conducted by the specialist(s) or qualified person fully conversant with the operation. |  |  |
| 4 | The instructor(s) shall be fully conversant in Cantonese and English. All training and training materials provided shall be in Traditional Chinese or English. |  |  |
| 5 | The course of training shall include all materials such as notes, charts for the participants. These materials shall be available in hardcopy at the time of training to each attendee; |  |  |
| 6 | The CMHHK is allowed to take video and audio recordings during the delivery of the training course for future in-house training. |  |  |
| 7 | The CMHHK is allowed to copy any training documentation and materials for in-house training purpose. |  |  |
| **D** | **Documentation** | | |
| 1 | Two (2) original hardcopies of the manufacturer’s operation manual and two original hardcopies of maintenance and service manual for each item shall be submitted with the delivery of the Goods. The maintenance and service manual shall include the contents of safety precautions, operation instructions, preventive maintenance procedures, trouble-shooting technique, alignment and calibration procedures, and full parts list. The supplied documentation shall be in Traditional Chinese or English. |  |  |
| 2 | The Contractor shall provide all necessary passcodes or passwords for enbling the Government’s representatives to carry out servicing and maintenance for the System. If service cards or dongles are required, two (2) sets of such service cards or dongles shall be provided to Government within one month after the commencement of the warranty period. |  |  |
| 3 | The CMHHK is allowed to make copies of the manuals for training or operational purposes. |  |  |
| **E** | **Acceptance Tests** | | |
| 1 | Once completion of delivery or installation on site of the equipment by the successful tenderer, the equipment shall be tested for acceptance at site carried out by the successful tenderer and witness by a representative from CMHHK. The acceptance tests shall include checking on materials used, safety device or feature, structure strength, functional tests and performance. |  |  |
| 2 | The successful tenderer shall provide all testing instruments to conduct site acceptance tests. All testing instruments to be used for the acceptance tests shall be calibrated and copies of calibration certificates or other supporting documents shall be forwarded to the CMHHK and concerned parties for records. |  |  |
|  | Full functional tests for demonstration of compliance of the equipment or system with operational and reliability requirements shall be provided by the successful tenderer to the satisfaction of the CMHHK representative. In the event that the equipment fails to conform to the requirements specified in section A of Part 3, the successful tenderer is required to carry out appropriate remedial measures and/or any rectification works, including replacement of the entire equipment, where deemed necessary. |  |  |
| **F** | **Desirable Features** | | |
| 1 | The external coating of the System should not contain any of the restricted substances exceeding the following concentrations:   1. Lead: 0.1% by weight 2. Cadmium: 0.01% by weight 3. Mercury: 0.1% by weight 4. Hexavalent chromium: 0.1% by weight 5. PBBs: 0.1% by weight 6. PBDEs: 0.1% by weight |  |  |
| 2 | Any of the plastic parts should be manufactured without chlorinated paraffins flame retardants. |  |  |
| **G** | **Indicative Warranty Service** | | |
| 1 | The successful tenderer shall provide at least one-year warranty period for the section A of this part mentioned equipment supplied, or any part or portion thereof, starting from the acceptance of the Goods. During warranty period, all services which include replacement of faulty parts, breakdown services by qualified maintenance personnel who received training from manufacturer, shall be provided free of charge to the CMHHK. The successful tenderer shall provide relevant documents to prove that the maintenance personnel processes adequate skill for repair or replacement. |  |  |
| 2 | The successful tenderer shall replace all faulty parts with no additional costs to the CMHHK Operator, the replacement unit/component, if acceptable to the CMHHK Operator, shall be treated as a part of the Goods. |  |  |
| 3 | Any replacement parts provided by the successful tenderer shall become the property of the Government / the CMHHK Operator. Parts removed shall become the property of the successful tenderer provided always that the Government / the CMHHK Operator shall be entitled to retain any part which is to be replaced if the successful tenderer is unable to erase all the information stored in any form in such parts of the Goods. The successful tenderer shall, before removal of any such part, certify to the Government / the CMHHK Operator in writing that all information stored in such part has been completely erased and shall be liable for any loss or damage caused by the possession or use of any information remaining in any part of the faulty part(s) so removed. |  |  |
| 4 | The warranty period shall only commence after satisfactory completion of the acceptance and functional testing. |  |  |
| 5 | Any defects found in the section A of this part mentioned equipment within the warranty period shall be fixed free of charge to the CMH. |  |  |
| 6 | Repairs / replacement shall be provided within 48 hours after notification of fault by telephone or fax upon request. The successful tenderer should provide fault reporting hotline or fax number during the warranty period. |  |  |
| **H** | **Indicative Maintenance Service** | | |
| 1 | All services which include replacement of faulty parts, breakdown services shall be provided by qualified maintenance personnel who received training from the manufacturer. The successful tenderer shall provide relevant documents to prove that the maintenance personnel processes adequate skill for repair or replacement. |  |  |
| 2 | Upon notification of a defect in the operation of the equipment, or part thereof, the successful tenderer shall attend to the fault within 48 hours. This service shall include all necessary repairs and replacement of parts to restore the equipment to its normal operation conditions within 3 working days once the fault is attended. |  |  |
| 3 | The normal working hours shall be defined as 0900 – 1800 hours Monday to Friday, excluding public holidays. The successful tenderer shall accept this as the criterion for providing maintenance service. |  |  |
| 4 | The following shall be provided free of overtime charges to the CMH by the successful tenderer: |  |  |
|  | 1. All maintenance works carried out during normal working hours as defined above. |  |  |
|  | 1. All repair works carried out even beyond normal working hours as defined above shall also be free of overtime charges, if the Supplier is notified of the equipment fault during the defined period of normal working hours. |  |  |
| 5 | All reports of maintenance service shall be documented and provided to the CMHHK representative as appropriate and filed with the equipment history file. Service records for services conducted during the period, irrespective the service/part being chargeable or not shall be provided. Photocopies of service reports are acceptable provided that they are legible and contain the following information: |  |  |
|  | 1. Nature of service (Scheduled or Corrective maintenance); |  |  |
|  | 1. Equipment location; |  |  |
|  | 1. Arrival time on site; |  |  |
|  | 1. Fault reported (date & time); |  |  |
|  | 1. Fault corrected (date & time); |  |  |
|  | 1. Response time; |  |  |
|  | 1. Down time; |  |  |
|  | 1. Reinstatement (date & time); |  |  |
|  | 1. Action taken; |  |  |
|  | 1. Spare parts used; |  |  |
|  | 1. Current price of spare parts used; |  |  |
|  | 1. Consumable items used; |  |  |
|  | 1. Current price of consumable items used. |  |  |
| **I** | **Spare Parts** |  |  |
| 1 | The Contractor shall guarantee the availability of maintenance spare parts for the anticipated life of the System.  Sufficient spare parts shall be held by the supplier to cater for the maintenance during the warranty period. |  |  |

**Part 4 – Implementation Plan**

*(Note to Suppliers: Please provide the estimated time periods required for the completion of the following tasks, counting from the date of issue an order (“Order Date”). Both the start and end date of the Order Date is referenced as* ***Month 0****. The System should be* ***Ready for Use in the last month of the Implementation Plan.****)*

|  |  |  |  |
| --- | --- | --- | --- |
| **Tasks of the Implementation Plan** | | **Estimated Time Period for**  **Performing the Tasks**  (The Order Date is set as Month **0**) | |
| **Start** (Month) | **End** (Month) |
|  | Order Date *(i.e. the date of order placed by the Government, if any)* | **0** | **0** |
|  | Submission of Site Preparation Information (if applicable) |  |  |
|  | Design of the System (if applicable) |  |  |
|  | Delivery of the System |  |  |
|  | Installation of the System |  |  |
|  | Implementation Services (*Please refer to* ***section B in Part 3*** *for details*) |  |  |
|  | Delivery of Documentation (*Please refer to* ***section D in Part 3*** *for details*) |  |  |
|  | Training (*Please refer to* ***section C in Part 3*** *for Details*) |  |  |
|  | Acceptance Tests |  |  |
|  | Any other tasks considered necessary by your company *(Please provide details, use separate sheet if space is insufficient)*: |  |  |
|  | System Ready for Use *(i.e. the date when the System has passed all acceptance tests and accepted by the Government)* | **0** |  |

**Part 5 – Information on Compliance with International, National and other Recognised Standards** **or Certifications (if applicable)**

(*Note to Suppliers: Please indicate in the box below whether the proposed Laundry Equipment can meet with the standards stated in Column I* ***by inserting a tick in an appropriate box under Column III****. If your proposed Laundry Equipment does not meet the standards stated in Column I, please indicate the equivalent standards met by your proposed Laundry Equipment in Column IV. In any case,* ***please attach copies of relevant valid certificates to prove compliance with such standards****.*)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column I** | **Column II** | **Column III** | | **Column IV** |
| International, National and other Recognised Standards or Certifications | Requirements | Comply with the Standard in Column I? | | Comply with the following equivalent standard  (*If “****No****” in Column III*) |
| Yes | No |
|  |  |  |  |  |
|  |  |  |  |  |
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|  |  |  |  |  |
|  |  |  |  |  |
| Compliance with other international, national and recognised standard(s) or certification(s) in addition to the above (*please specify*) | | | | |
|  |  |  |  |  |

**Part 6 – Indicative Price Information**

(*Note* *to Suppliers: The price information provided in this Part 6 is for Government’s consideration only and shall not constitute any commitment on the part of the Government or your company. Nevertheless, please provide the information as accurate as possible.*)

**(a) Indicative Price Information for the System**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item** | **Description** | **Estimated**  **Quantity** | **Unit Price** | **Estimated Goods Price** |
| **One-time Unit Price (HK$)** | **Estimated Goods Price for the Item specified opposite**  **(HK$)** |
|  |  | **(a)** | **(b)** | **(c) = (a) x (b)** |
| 1 | Supply, delivery, installation, testing and commissioning of the System and related accessories, as more particularly specified in **section A1.1 in Part 3**, including the provision of a minimum 12-months warranty period: |  |  | ***(Please also provide breakdown cost for key components of the System, if any)*** |
| 1.1 | Washer Extractor System | (as detailed in 1.1.1-1.1.3) |  |  |
| 1.1.1 | Washer Extractor 120kg | 1 set |  |  |
| 1.1.2 | Washer Extractor 90kg | 2 sets |  |  |
| 1.1.3 | Washer Extractor 50kg | 2 sets |  |  |
| 1.2 | Tumble Dryer System | (as detailed in 1.2.1) |  |  |
| 1.2.1 | Tumber Dryer 60kg | 6 sets |  |  |
| 1.3 | Flatwork Ironing System | 1 set |  |  |
| 1.4 | Tunnel Finishing System | 1 set |  |  |
| 1.5 | Trolley Washer | 1 set |  |  |
| 1.6 | Linen Trolley | 65 nos. |  |  |
| 2 | Provision of implementation services as detailed in **section B in Part 3** | 1 lot |  |  |
| 3 | Provision of training services as detailed in **section C in Part 3** | 2 courses |  |  |
| 4 | Documentation as detailed in **section D in Part 3** | 1 lot |  |  |
| 5 | Other (please specify) | (please specify) |  |  |
| **Total One-time Charge**  (i.e. Sum of Estimated Goods Prices of Item 1- 5) | | | |  |

**(b) Indicative Price Information for Selected Desirable Features (if applicable)**

|  |  |  |
| --- | --- | --- |
| **Aspect** | **Description of Selected Desirable Features** | **Any Additional Charge to  Total One-time Charge  as Specified in Part 7(a)** (Please tick whichever is applicable) |
| Examples: | | |
|  | The System shall be capable of operating continuously for the below duration with a fully charged battery without the assistance of other power supply:  1 hour < continuous operation ≤ 2 hours | □ No additional charge  □ Require additional charge: HK$ \_\_\_\_\_\_\_\_\_ |
| 1 |  |  |
| 2 |  |  |

**Part 7 – Indicative Maintenance Charges and Spare Parts Price**

(Notes to Suppliers for completion of Part 7)

1. *Pursant to item 1 of Part 6(a) above, the proposed System shall have a warranty period of not less than 12 months. The indicative warranty service requirements are stipulated in* ***section G in Part 3****, which are subject to changes at the sole discretion of the Government.*
2. *Indicative maintenance service requirements after the free warranty period are stipulated in* ***section H in Part 3****, which are subject to changes at the sole discretion of the Government*
3. *It is expected that the maintenance services shall be comprehensive, all inclusive and shall cover all parts, components, labour and software support services. If your company considers that any components of the System may not be covered by the maintenance services (****saving that the labour shall always be covered by the maintenance services****) and may need to be charged separately, please indicate replacement costs of these components and their replacement frequency.*
4. *The annual maintenance charge within the serviceable life of the proposed System* ***is adjustable in accordance with the consumer price index (B) upon the expiry of each 12-months period of maintenance service****.*
5. **Indicative Maintenance Prices of the Proposed System**

| **Year** | **Annual Maintenance Charge**  **(HK$ per annum)** |
| --- | --- |
| First 12-months period of maintenance service after the end of warranty period |  |

1. **Indicative Replacement Prices of System’s Components not covered by the Maintenance Services (if applicable) (***Leave the following table blank if not applicable***)**

(*Note to Suppliers:* ***The labor costs for replacement of these components shall always be covered by the maintenance charges for the provision of the maintenance services*** *regardless whether the prices for the supply of these components are covered by the maintenance services or not.)*

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Name of Items | Indicative  Replacement Price (HK$/no.) | Indicative Replacement Frequency (*e.g. once every 3 years*) |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |

1. **Indicative overtime charges for provision of maintenance services after office hours (if applicable)**

(*Office hours mean 9 am to 6 pm from Monday to Friday excluding public holidays*)

|  |  |  |
| --- | --- | --- |
| (a) | Rates of overtime charges for maintenance service outside the office hours | HK$ per hour |
| (b) | Minimum service hour(s) per call | service hour(s) per call |

1. **Indicative Prices for Replacement of Other Spare Parts (if applicable)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Name of Items | Price (HK$/no.) | Indicative Replacement Frequency (*e.g. once every 3 years*) | Expected time for delivery  (weeks) |
| 1 |  |  |  |  |
| 2 |  |  |  |  |
| 3 |  |  |  |  |
| 4 |  |  |  |  |
| 5 |  |  |  |  |
| 6 |  |  |  |  |

1. **Indicative Price for Annual Support Services of Software (if applicable)**

(*Note to Suppliers:* Please provide below annual charge for support services of the System’s software during the serviceable life of the System for the CMHHK Operator’s consideration. *The support services should include but not limited to:*

1. *provision and renewal of software toolkits, access codes, passwords, software keys and hardware keys, etc. necessary for all kinds of adjustments, in-depth diagnosis and trouble shooting of the System; and*
2. *version upgrade of the software.)*

|  |  |
| --- | --- |
|  | (a) Free of charge during serviceable life |
|  |  |
|  | (b) Yearly cost at $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**Part 8 – Supplementary Information**

1. Number of proposed System Already Installed (leave blank if information is not available)

In Hong Kong : \_\_\_\_\_\_\_\_\_\_ sets

Globally : \_\_\_\_\_\_\_\_\_\_ sets

1. Year of Launch of the Proposed System (leave blank if information is not available)

My/our proposed System was first launched in the market in Year \_\_\_\_\_\_\_\_\_\_\_\_\_

1. Pre-Installation Requirements of the Proposed System (if any)

*(Pre-installation requirements may include any preparation work and provisions that are necessary for the installation of the System, such as the requirements of ceiling mount support, power supply requirements, etc.)*

**END**