

學校檔號：HCSMS/2122/提供通風檢測及優化措施/T06

**招 標**  
**承投「提供全校通風檢測及優化措施服務」**

敬啟者：

本校現誠邀 貴公司承投「提供全校通風檢測及優化措施服務」，有意承投者請向本校作出投標。詳情如下：

1. 投標表格必須填具一式兩份，連同投標書放置信封內封密。信封面不可顯示 貴公司名稱及應清楚註明：「提供全校通風檢測及優化措施服務」投標書。
2. 請將投標書於二零二二年五月三十日(星期一)中午十二時前，送達九龍長沙灣東沙島街150號，香港扶幼會許仲繩紀念學校之校務處。若截標時間前四小時(上午8時至中午12時)，天文台發出八號或以上熱帶氣旋，或黑色暴雨警告信號，截標日期及時間將順延至下一個工作日的中午12時，逾期的投標概不受理。
3. 貴公司的投標書有效期為90天，由上述截止日期起計。如在該90天內仍未接獲訂單，則是次投標可視作落選論。另外亦請注意， 貴公司必須填妥投標表格及附表，否則標書概不受理。擬投標公司請於標書中加入以往相關之服務經驗供本校參考。
4. 學校招標承投所需服務時，會以「整批」形式考慮接受供應商的投標，及以檢測服務質量(50%)、投標價格的合理程度(40%)及公司經驗(10%)為評選準則。
5. 本校保留所有權利，因應投標商所提供的服務及價格而揀選合適的中標商，而非單以價低者得作準。
6. 若服務供應商未能履行服務承諾或應負責任，校方有權即時終止其提供的服務，而無需作出任何賠償。
7. 倘 貴公司未能或不擬投標，亦煩請盡快把本函及投標表格寄回上述地址，並列明不擬投標的原因。

如有查詢或有需要到校視察場地，請致電 2778 8061 與鄺慶堂老師或本校行政主任聯絡。

此致

貴公司

陳慧芝 校長

謹啟

二零二二年五月六日

**香港扶幼會許仲繩紀念學校**  
**承投「提供全校通風檢測及優化措施服務」**  
**服務條件及細則**

本校現正進行提供通風檢測及優化措施服務的招標工作，特此誠邀 貴公司依以下服務條件及細則提交投標書。

1. 服務要求：

- 1.1. 是次招標合約之有效期由 2022 年 6 月 30 日起至 2022 年 8 月 31 日止。
- 1.2. 為學校進行通風檢測服務，獲委任的註冊承辦商須：
  - (a) 根據所提供的「直資／按位津貼學校通風系統清單」(下稱「清單」，只有英文版) (Checklist on Ventilation System for DSS/ Caput Schools) (附件 I) 為校舍所有佔用空間進行全面通風檢測；
  - (b) 以指定表格 (只有英文版) (附件 II) 預備通風檢測報告，報告須包括清單 (以附件形式) 及建議採取的必要措施；及
  - (c) 以指定表格 (只有英文版) (附件 III) 發出證明書，以確認學校已根據註冊承辦商在通風檢測報告提供的建議作出相應的補救措施。
- 1.3. 根據所提供的 Service Specifications (只有英文版) (附件 IV) 要求行事。
- 1.4. 承辦商在檢測期間，須對檢測範圍提供適當保護措施，以免造成損壞。如有任何損毀，承辦商須負責全部有關賠償。
- 1.5. 協助學校採購空氣淨化機及／或安裝抽氣扇及／或進行其他小型改善工程以符合註冊承辦商所建議的通風要求。

2. 與校方之配合：

- 2.1. 承辦商不設任何租賃、贊助、捐獻或餽贈方式輸送金錢或禮物等利益予學校。
- 2.2. 承辦商須接受校方的安排及政策，於各方面與校方衷誠合作。
- 2.3. 本校不接受佣金回贈。

3. 投標商需要遞交的文件：

- 3.1. 已填妥的投標表格 (一式兩份)
- 3.2. 已備的 (附件 IV) (一式兩份)
- 3.3. 須附貴公司註冊資料及商業登記證副本。
- 3.4. 須附貴公司背景及過往十八個月承辦學校工程項目的相關資料 (包括但不止於學校名稱及工程名稱)。

4. 評審標書準則及注意事項

- 4.1. 投標商須於投標前已領取有效營業牌照。
- 4.2. 校方會以「整批」形式考慮接受供應商的投標。

4.3. 評審比重：

檢測服務質量	50%
投標價格的合理程度	40%
公司經驗	10%

4.4. 投標者若被選中，本校會另行通知。中標者在收到通知後，須草擬合約，並與校方協議進行簽署。

5. 《防止賄賂條例》

5.1. 根據《防止賄賂條例》，在學校採購過程中，如學校員工接受供應商和承辦商提供的利益，或供應商和承辦商向學校員工提供利益，均屬違法。學校不容許供應商和承辦商透過任何形式的利益（包括捐贈）影響學校的選擇。

5.2. 學校員工或供應商和承辦商任何一方或雙方如有干犯上述違法行為，有關投標書將不獲考慮；即使已獲委聘，所簽訂的有關合約亦會被宣告無效。

6. 提交投標書：

6.1. 有意承投的供應商請於 2022 年 5 月 30 日中午 12 時或以前，以機密文件形式將標書投進設於本校校務處的投標箱內，封面須清楚標明「提供全校通風檢測及優化措施服務」投標書。逾期的投標，概不受理。

6.2. 提交投標書地址：

九龍長沙灣東沙島街 150 號

香港扶幼會許仲繩紀念學校

「提供全校通風檢測及優化措施服務投標書」

7. 終止合約：

7.1. 若服務供應商未能履行服務承諾或應負責任，校方有權即時終止其提供的服務，而無需作出任何賠償。

承投「提供全校通風檢測及優化措施服務」投標表格

(須填具一式兩份)

學校名稱及地址： 香港扶幼會許仲繩紀念學校 九龍長沙灣東沙島街 150 號

學校檔號： HCSMS/2122/提供通風檢測及優化措施/T06

截標日期／時間： 2022 年 5 月 30 日中午 12 時

第I部份

下方簽署人願意按照校方所提出的細則，提供投標附表上所列項目的服務。下方簽署人知悉，所有未經特別註明的項目，均須按照該細則的規定提供服務；投標書由上述截標日期起計 90 天內仍屬有效；校方不一定採納索價最低的投標書或任何一份投標書，並有權在投標書的有效期內，採納某份投標書的全部或部分內容。下方簽署人亦保證其公司的商業登記及僱員補償保險均屬有效，而其公司所提供的服務不會損壞學校的校舍。

下方簽署人知悉根據防止賄賂條款，其公司、其公司之僱員及代理人不得向學校僱員、校董會/法團校董會成員，或負責考慮與本合約相關事宜的有關委員會的任何家長或學生代表提供利益(香港法例第 201 章《防止賄賂條例》所界定的「利益」)其公司、其公司之僱員或代理人向有關人士提供任何利益，根據《防止賄賂條例》可構成罪行，並可導致合約無效。校方亦可取消批出的合約，而其公司須為學校所蒙受的任何損失或損害負上法律責任。

第II部分

再行確定投標書的有效期

有關本投標書的第I部分，現再確定本公司的投標書有效期由2022年5月30日起計為90天。

下方簽署人亦同意，投標書的有效期一經再行確定，其公司就該事項註明於投標表格內的預印條文，即不再適用。

日期：\_\_\_\_\_年\_\_\_\_\_月\_\_\_\_\_日

公司印章

姓名(請以正楷填寫)：\_\_\_\_\_ 簽署：\_\_\_\_\_

職銜：\_\_\_\_\_ (請註明職位，例如董事、經理、秘書等)

上方簽署人已獲授權，代表：

\_\_\_\_\_公司簽署投標書，該公司在香港註冊的辦事處地址為

\_\_\_\_\_。

電話號碼：\_\_\_\_\_ 傳真號碼：\_\_\_\_\_

投標書

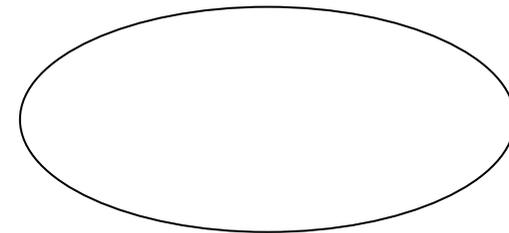
(1) 項目	(2) 描述	(3) 數量	(4) 總價格
1	<u>根據附件 IV 的服務規格提供全校通風檢測及優化措施服務</u>	1 整項	

本公司/本人明白，如收到學校訂單後未能供應投標書上所列物料或服務，本公司/本人須負責賠償學校從另處採購上述物料或服務的差價。

姓名(請以正楷填寫)：\_\_\_\_\_ 簽署：\_\_\_\_\_

職銜：\_\_\_\_\_ (請註明職位，例如董事、經理、秘書等)

上方簽署人已獲授權，代表：



公司印章

\_\_\_\_\_ 公司簽署投標書。

日期：\_\_\_\_\_年\_\_\_\_\_月\_\_\_\_\_日

## 不擬投標通知書

致：香港扶幼會許仲繩紀念學校

學校檔號編號：HCSMS/2122/提供通風檢測及優化措施/T06

截標的日期和時間：2022年5月30日中午12時正

有關 貴校邀請本公司承投上述服務，現因以下理由未能承投，特此回覆。

- 未能提供書面報價所列的服務
- 未能達到書面報價所列的要求或規格
- 未能於截止日期及時間前遞交投標書
- 其他（請註明）： \_\_\_\_\_  
\_\_\_\_\_

（請在適當的  內加上  號）

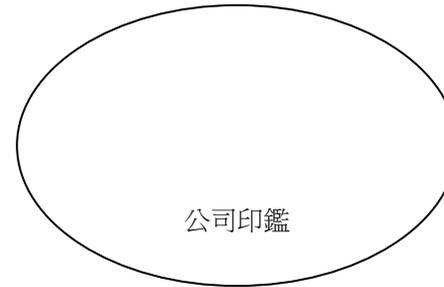
供應商名稱：

\_\_\_\_\_

獲授權簽署投標書的代表的姓名及署名

姓名（請以正楷填寫）： \_\_\_\_\_

日期： \_\_\_\_\_



簽署： \_\_\_\_\_



**Checklist on Ventilation System for  
Direct Subsidy Scheme (DSS) / Caput Schools**

School Name: \_\_\_\_\_ (School No.: \_\_\_\_\_)

<b>2</b>	<b>Classroom / Function Room / Laboratory / Staff Room</b> <i>(please add supplementary sheet if necessary)</i>		
<b>2.1</b>	<b>Room number:</b>		
<b>2.2</b>	<b>Size of room:</b>	(meter) _____ W _____ D _____ H	(Volume = _____ m <sup>3</sup> )
<b>2.3</b>	<b>Capacity:</b>	_____ Students + _____ Teachers = _____ Persons	
<b>2.4</b>	<b>Air-conditioning system:</b>	Window-type <input type="checkbox"/>	Split-type <input type="checkbox"/> VRV <input type="checkbox"/> Central A/C <input type="checkbox"/>
<b>2.5</b>	<b>Natural ventilation:</b>	Cross-ventilating <input type="checkbox"/>	Ventilation Path = _____ metres Single-side <input type="checkbox"/> Room Depth / Headroom = _____
<b>2.6</b>	<b>Mechanical ventilation:</b>	Mechanical ventilation system Exhaust <input type="checkbox"/> OAP <input type="checkbox"/> FAP <input type="checkbox"/> Central A/C <input type="checkbox"/> Fresh air supply for room/ Flowrate (estimated / measured <sup>#</sup> ) _____ litres / second <ul style="list-style-type: none"> <li>• Fresh air supply per person _____ litres / second / person</li> <li>• Meet the fresh air requirement of 10L/second/person Yes <input type="checkbox"/> No <input type="checkbox"/></li> <li>• Air change per hour (fresh air)<sup>1</sup> _____</li> </ul> Distance between fresh air inlet and contaminated exhaust outlet _____ metres <ul style="list-style-type: none"> <li>• Meet the 5 metres separation distance Yes <input type="checkbox"/> (default / operation<sup>#</sup>) No <input type="checkbox"/></li> <li>• Discharge point of mechanical ventilation Open air <input type="checkbox"/> Semi-open air <input type="checkbox"/></li> </ul> Remarks: _____	
<b>2.7</b>	<b>Air filtration:</b>	<ul style="list-style-type: none"> <li>• Brand &amp; Model of air purifiers _____</li> <li>• Type of air purifiers HEPA filter <input type="checkbox"/> UV-C device <input type="checkbox"/> HEPA filter cum UV-C <input type="checkbox"/> Others (please specify): _____</li> <li>• Location Standalone at floor level <input type="checkbox"/> Ceiling-mounted <input type="checkbox"/> Wall-mounted or standalone at middle level <input type="checkbox"/></li> <li>• Number of air purifier _____</li> <li>• Serving area per air purifier (m<sup>2</sup>) _____ (No. of Air Purifier / Floor area)</li> <li>• Air change per hour (recirculated air) _____</li> </ul>	
<b>2.8</b>	<b>Recommended Improvement works:</b> (e.g. Additional exhaust fans / Re-fix existing exhaust fans / Additional FAPs / Re-fix existing FAPs) (e.g. Additional OAP / Air balancing / Increase the capacity of PAU )		

<sup>1</sup> Calculated air change rate using formula: ACH = Room Volume / Total Air Flow Rate (i.e. (L x W x H)/(Quantity x flowrate))

**Checklist on Ventilation System for  
Direct Subsidy Scheme (DSS) / Caput Schools**

School Name: \_\_\_\_\_ (School No.: \_\_\_\_\_)

<b>3 Hall</b> <i>(please add supplementary sheet if necessary)</i>	
<b>3.1 Size of Hall:</b>	(meter) ____ W ____ D ____ H (Volume = ____ m <sup>3</sup> )
<b>3.2 Capacity:</b>	____ Persons <i>(if available)</i>
<b>3.3 Air-conditioning system:</b>	Split-type <input type="checkbox"/> VRV <input type="checkbox"/> Packaged A/C unit <input type="checkbox"/> Central A/C <input type="checkbox"/>
<b>3.4 Natural ventilation:</b>	Cross-ventilating <input type="checkbox"/> Ventilation Path = _____ metres Single-side <input type="checkbox"/> Room Depth / Headroom = _____
<b>3.5 Mechanical ventilation:</b>	<p>Mechanical ventilation system Exhaust <input type="checkbox"/> OAP <input type="checkbox"/> Packaged A/C unit <input type="checkbox"/> Central A/C <input type="checkbox"/></p> <p>Fresh air supply for room/ Flowrate (estimated / measured<sup>#</sup>) _____ litres / second</p> <ul style="list-style-type: none"> <li>• Meet the fresh air requirement of 10L/second/person Yes <input type="checkbox"/> No <input type="checkbox"/></li> <li>• Allowable capacity based on 10L/s/person _____ persons</li> <li>• Air change per hour (fresh air)<sup>1</sup> _____</li> </ul> <p>Distance between fresh air inlet and contaminated air outlet _____ metres</p> <ul style="list-style-type: none"> <li>• Meet the 5 metres separation distance Yes <input type="checkbox"/> (default / operation<sup>#</sup>) No <input type="checkbox"/></li> <li>• Discharge point of mechanical ventilation Open air <input type="checkbox"/> Semi-open air <input type="checkbox"/></li> </ul> <p>Remarks:</p>
<b>3.6 Recommended Improvement works:</b>	

**Checklist on Ventilation System for  
Direct Subsidy Scheme (DSS) / Caput Schools**

School Name: \_\_\_\_\_ (School No.: \_\_\_\_\_)

<b>4 Toilet (Student / Staff<sup>#</sup>)</b> <i>(please add supplementary sheet if necessary)</i>	
<b>4.1 Toilet number:</b>	
<b>4.2 Size of toilet:</b> Volume = _____ m <sup>3</sup>	
<b>4.3 Mechanical ventilation:</b>	
Exhaust System	Exhaust Fan <input type="checkbox"/> Central Exhaust <input type="checkbox"/>
Exhaust Flow Rate (estimated / measured <sup>#</sup> )	_____ m <sup>3</sup> / hr
• Air change per hour <sup>1</sup>	_____
• Meet the 15 ACH requirement	Yes <input type="checkbox"/> No <input type="checkbox"/>
• Discharge point of mechanical ventilation	Open air <input type="checkbox"/> Semi-open air <input type="checkbox"/>
• Do the exhaust air discharge to play area or assembly area?	Yes <input type="checkbox"/> No <input type="checkbox"/> (toilet no. __)
• Do the toilets have door louvre or window/louvre at opposite side?	Yes <input type="checkbox"/> No <input type="checkbox"/> (toilet no. __)    N/A <input type="checkbox"/>
Remarks:	
<b>4.4 Recommended Improvement works:</b>	
(e.g. Additional exhaust fans / Re-fix existing exhaust fans)	

*Note: Site layout plan with exhaust fans / FAPs / package a/c unit indicated are attached at the end of this report.*

~ End ~

**Assessment Report on Ventilation System for Direct Subsidy Scheme (DSS)/ Caput Schools**

**Part A - Background Information**

<b>School Name:</b>	
<b>School No.:</b>	
<b>Address:</b>	
<b>District:</b>	
<b>Type of School:</b>	Primary / Secondary / Primary-cum-Secondary <sup>#</sup>
<b>Consultant:</b>	
<b>Inspection Team Member:</b>	(1)(TC)
	(2)(MTC)
	(3)(MTC)
<b>Inspection Date:</b>	
<b>Inspection Time:</b>	

**Part B - Assessment Findings**

Details of the assessment findings are given in the attached Checklists (*Annex A*) [Please refer to Annex I of EDB’s letter to DSS / caput schools dated 1 March 2022 on *One-off Grant to Direct Subsidy Scheme Schools and Caput Schools for Ventilation Assessment and Improvement Works.*] . The assessment findings are tabulated below. *The relevant site photos and school layout plans are shown in Annex B and Annex C respectively.*

Room No.	Room Type <sup>1</sup>	Findings (☒ indicates irregularity)				
		Insufficient mechanical ventilation <sup>2</sup>	Insufficient separation between fresh air inlet & other sources of contamination	Equipment Malfunction of ventilation equipment	Improper Installation / Location of ventilation equipment <sup>3</sup>	Others (please specify)
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> _____

<sup>1</sup> Classroom, function room, laboratory, staff room, hall, toilet, etc.

<sup>2</sup> For example, lack of air grilles / transfer air grilles, resulting in ineffective operation of ventilation equipment.

<sup>3</sup> For example, exhaust fans and fresh air intake grilles on the same side of a wall / window, resulting in unsatisfactory cross ventilation.

**Assessment Report on Ventilation System for  
Direct Subsidy Scheme (DSS)/ Caput Schools**

						_____
		<input type="checkbox"/>				
						_____
						_____

**Part C – Recommendations**

Based on the site inspection conducted, the following improvement work is recommended, with illustration of drawings and photos in the attached Checklists (*Annex A*).

<b>Room No.</b>	<b>Room Type<sup>1</sup></b>	<b>Recommended Improvement Works</b>

**Assessment Report on Ventilation System for  
Direct Subsidy Scheme (DSS)/ Caput Schools**

**Part D – Copyright Notice**

The \_\_\_\_\_ (name of school) \_\_\_\_\_ reserves the copyright of this document. It may not be reproduced, distributed, transmitted, displayed, published or disclosed any content without consent from the copyright owner.

**Part E – CAVEAT**

This report is confidential to the \_\_\_\_\_ (name of school) \_\_\_\_\_ for the specific purposes to which it refers. It might be disclosed to the Education Bureau and / or other professional advisers assisting the \_\_\_\_\_ (name of school) \_\_\_\_\_ in respect of that purpose.

This report is based on the condition of mechanical ventilation system in the inspected area on the date of inspection. No liability can be accepted for any deterioration / change in condition of the premises after this date.

- END OF REPORT-

\_\_\_\_\_  
Chop of Registered Specialist Contractor  
(Ventilation Works Category)  
and signature of Authorized Signatory

\_\_\_\_\_  
Date (dd/mm/yy)

\_\_\_\_\_  
Name of Registered Specialist Contractor  
(Ventilation Works Category):

\_\_\_\_\_  
Name of Authorized Signatory:

\_\_\_\_\_  
Registration Number:

\_\_\_\_\_  
Date of Expiry of Registration (dd/mm/yy):

\_\_\_\_\_  
Registered Address:

\_\_\_\_\_  
Contact Tel. No.:

\_\_\_\_\_  
Fax No. :

**Assessment Report on Ventilation System for  
Direct Subsidy Scheme (DSS)/ Caput Schools**

**Part F – Acknowledgement**

I / We (Representative of the School) agree to carry out the proposed improvement works as recommended in Part C of this report.

Signed: \_\_\_\_\_

Name: \_\_\_\_\_

_____ (School Chop)
------------------------

**Checklist on Ventilation System for  
Direct Subsidy Scheme (DSS)/ Caput Schools**

**Annex A**

**Inspection Report on Ventilation System for  
Direct Subsidy Scheme (DSS)/ Caput Schools**

**Annex B**

<b>Inspection photo</b>	
Photo no. 1 Item: 1 Problem finding:	Photo no. 2 Item: 2 Problem finding:
Photo no. 3 Item: 3 Problem finding:	

**Inspection Report on Ventilation System for  
Direct Subsidy Scheme (DSS)/ Caput Schools**

**Annex C**

**Layout Plan**

**Certificate on Ventilation System for Direct Subsidy Scheme (DSS)/ Caput Schools**

<b>School Name:</b>	
<b>School No.:</b>	
<b>Address:</b>	

I have inspected the above school premises on \_\_\_\_\_ (dd/mm/yy) (inspection date) and certify the particulars in respect of the above premises as follows and in the Ventilation Assessment Report and Checklist on Ventilation System for DSS/ Caput Schools:

<b>Type of Occupied Spaces Assessed</b>	<b>Classroom</b>	<b>Function Room</b>	<b>Laboratory</b>	<b>Hall</b>	<b>Staff Room</b>	<b>Toilet</b>	<b>Others (please specify)</b>
<b>Number of Occupied Spaces Assessed</b>							

I confirm that the ventilation of the abovementioned occupied spaces have been assessed, improvement work has been done according to the recommendations as written in the Ventilation Assessment Report

I understand that the matters and information stated herein and the related documents submitted (if any) are subject to further checking, vetting and verification by officers of Education Bureau (EDB) or authorized officers if deems necessary by EDB.

**Note:**       **If separate sheet is necessary, every page should be signed by the Authorized Signatory of the Registered Specialist Contractor (Ventilation Works Category).**

\_\_\_\_\_  
Chop of Registered Specialist Contractor  
(Ventilation Works Category)  
and signature of Authorized Signatory

\_\_\_\_\_  
Date(dd/mm/yy)

Name of Registered Specialist Contractor  
(Ventilation Works Category):

Name of Authorized Signatory:

\_\_\_\_\_

\_\_\_\_\_

Registration Number:

Date of Expiry of Registration(dd/mm/yy):

\_\_\_\_\_

\_\_\_\_\_

Registered  
Address:

\_\_\_\_\_

Contact Tel. No.: \_\_\_\_\_

Fax No. : \_\_\_\_\_

**Provision of Ventilation Assessment Services for  
Direct Subsidy Scheme (DSS)/ Caput Schools**

**Service Specifications**

- Notes: (a) Tenderers shall note that **all the specifications stated in these Service Specifications are essential** requirements.
- (b) Tenderers shall provide documentary evidence thereto wherever requested in the Service Specifications to show compliance of their offered ventilation assessment services with all the requirements.

## Service Specifications

### 1. General

#### 1.1. Introduction

1.1.1. This Invitation to Tender calls for the provision of ventilation assessment services for Society of Boys' Centres Hui Chung Sing Memorial School (the School).  
(Name of school)

1.1.2. The information of the School as stated in Clause 1.1.1, including names, addresses, school size and estimated number of rooms are provided below.

Address	150 Pratas Street, Cheung Sha Wan, Kln
School Size (m <sup>2</sup> )	1800 m <sup>2</sup>
Estimated number of occupied spaces (including classroom, function room, Hall, library, laboratory, staff room, toilets, etc.)	82

#### 1.2. Scope of Services

1.2.1. The scope of services under these Service Specifications is to call for provision of ventilation assessment services to the School in accordance with the below guiding principle.

Items	Suggested Standard
Fresh Air Supply at occupied space <sup>1</sup>	6 Air Change per Hour in enclosed rooms or 10L/s/person whichever is greater
Toilet Ventilation	15 Air Change per Hour (Exhaust)
Distance between fresh air intake and other sources of contamination	5 metres
Air Flow Pattern	Maintain the air flow direction from clean zones to dirty zones

Note:

1. This fresh air requirement should cover all occupied space, including but not limited to classrooms, function rooms, staff rooms and the school hall. (The School shall specify other occupied space e.g. laboratories, theatre(s), etc, as appropriate.) The number of persons per room shall follow the permitted accommodation.

1.2.2. Reference should also be made to “*A Supplement on Ventilation – Guidelines on Prevention of Communicable Diseases in Schools/ Kindergartens/ Kindergartens-cum-Child Care Centres/ Child Care Centres*” and the relevant guidelines / regulations as set out by the Buildings Department and the Fire Services

## Service Specifications

Department.

- 1.2.3. The ventilation assessment services as set out in section 2 of the Service Specifications shall be provided to the School during the contract period.
- 1.2.4. The ventilation assessment services shall be conducted by an **engineering team**. The engineering team shall comprise a team of technical competent persons which is led by a professional engineer as stated in Clause 3.1.
- 1.2.5. The engineering team leader (professional engineer) shall provide a report on the ventilation assessment findings and the shortcomings of ventilation system based on the guiding principle stated in Clause 1.2.1 and also provide the remedial action plan. The plan shall include the short-term modification/housekeeping proposal and long-term improvement plan.

1.3. Contract Period

- 1.3.1. This contract commence from 30 June 2022 to 31 Aug 2022  
inclusive

## **Service Specifications**

### **2. Ventilation Assessment Services**

#### **2.1. Collection of Operation Data**

2.1.1. The engineering team shall collect information on operation and technical characteristics of the ventilation system of the School. The collection method shall include, but not limit to, site visits, interviews, surveys, and reviews on building layouts, drawings, schematic diagrams, operation and maintenance records.

2.1.2. The operation data of the ventilation system shall include, but not limit to, the following items:

- (i) Operation days and hours of ventilation system;
- (ii) Estimated internal floor area, categories and number of individual rooms;
- (iii) Records on all ventilation system installation as far as reasonably practicable;
- (iv) Equipment list of ventilation system as well as operation and maintenance status; and
- (v) Ventilation performance in accordance with the guiding principle as stated in Clause 1.2.1 under mechanical ventilation with air-conditioning or mixed mode of natural and mechanical ventilation.

2.1.3. The engineering team shall bear any cost to collect and retrieve operation data from the building management system or similar system(s), with no additional cost to the School.

2.1.4. If some of the building data are not available, the engineering team shall conduct measurement at representative instant and intervals in order to reasonably predict the operation data with no additional cost to the School.

#### **2.2. Site Inspection**

2.2.1. The engineering team shall study the collected building data and conduct site inspections as far as practicable according to the guiding principle as stated in Clause 1.2.1.

2.2.2. The site inspection shall include, but not limit to, verification of equipment data, air flow (L/s) measurement, smoke test, CO<sub>2</sub> measurement and visual inspection of the ventilation system.

2.2.3. The engineering team shall identify any abnormalities of the ventilation system

## **Service Specifications**

installation and take photo record of any abnormalities found. The engineering team shall also examine their effects according to the guiding principle as stated in Clause 1.2.1.

### **2.3. Analysis and Recommendations**

2.3.1. With the analysis of site inspection result, the engineering team shall be able to advise the School and the School Sponsoring Body (SSB) / School Management Committee (SMC) / Incorporated Management Committee (IMC) of the School of the followings: -

- Condition of the existing ventilation system;
- Fresh air supply status to different rooms in the School;
- Air change rate of toilets;
- Dead air zone / area;
- Distance between fresh air intake and other sources of contamination; and
- Proposed short-term modification/housekeeping proposal and long-term improvement plan.

2.3.2. For each item mentioned in Clause 2.3.1, the engineering team shall provide the root cause and propose remedial action plan with illustration of drawings and photos, which include a short-term modification/housekeeping proposal and a long-term improvement action plan.

### **2.4. Number of Ventilation Assessment Service Provided**

2.4.1. The engineering team shall at least provide one full ventilation assessment and a follow-up visit to the School during the Contract Period. As the exact number of the on-site visits to school may vary, the engineering team shall also bear the cost of all on-site visits with no additional cost to the School.

2.4.2. The engineering team shall visit the School and complete the first ventilation assessment (including submission of an assessment report as specified in Section 4) within 1 month upon award of contract. The follow-up visit shall be provided to the School within 1 month after the improvement measures have been put in place to check and advise the School again on the ventilation condition.

## Service Specifications

### **3. Staffing Requirement**

- 3.1. The engineering team shall at least comprise of 4 members, 2 sub-team heads and a team leader. Their qualification requirements are listed as follows: -

<b>Grade of Staff</b>	<b>Role</b>	<b>Qualification</b>
Professional Engineer	Team Leader	<ul style="list-style-type: none"><li>• Member of HKIE in Building Services Engineering or Mechanical Engineering or equivalent; and</li><li>• 3 years' experience in air-conditioning design or 6 years' experience in maintenance of air-conditioning installations</li></ul>
Inspector	Sub-team head	<ul style="list-style-type: none"><li>• Higher diploma / higher certificate in Building Services Engineering or Mechanical Engineering or equivalent; and</li><li>• 3 years' experience in supervision of air-conditioning projects or 6 years' experience in maintenance of air-conditioning installations</li></ul>
Work Supervisor	Team member	<ul style="list-style-type: none"><li>• Diploma /Ordinary certificate in Building Services Engineering or Mechanical Engineering or equivalent; and</li><li>• 3 years' experience in supervision of air-conditioning projects or 6 years' experience in maintenance of air-conditioning installations</li></ul>

## Service Specifications

### **4. Ventilation Assessment Report**

- 4.1. The engineering team shall complete the ventilation assessment report in a specified form in **Appendix 1** [Please refer to Annex II of EDB's letter to DSS/ caput schools dated 1 March 2022 on *One-off Grant to Direct Subsidy Scheme Schools and Caput Schools for Ventilation Assessment and Improvement Works.*] with Check list on Ventilation System for the School as an appended annex upon the full ventilation assessment, and the Certificate on Ventilation System for School in a specified form in **Appendix 2** [Please refer to Annex III of EDB's letter to DSS/ caput schools dated 1 March 2022 on *One-off Grant to Direct Subsidy Scheme Schools and Caput Schools for Ventilation Assessment and Improvement Works.*] upon the follow-up visit, taking into account the guiding principle as stated in Clause 1.2.1 and such report shall be approved and issued by the engineering team leader.
  
- 4.2. If the School is recommended to procure air purifier(s) and/or air disinfection equipment(s) as the remedial action plan, the engineering team shall be responsible to vet the model of such equipment(s) proposed/submitted by the School to ensure the specification compliance.

## **Service Specifications**

### **5. Briefing on Ventilation Assessment Report**

- 5.1. Upon completion of the ventilation assessment service for the School, the engineering team leader shall conduct a briefing to explain the report to the School. The presentation shall cover the following items:
- (i) detailed description of the ventilation assessment;
  - (ii) findings and results of the ventilation assessment;
  - (iii) short-term proposal; and
  - (iv) long-term improvement plans if necessary.
- 5.2. The presentation shall normally include questions and answers.