

Tender No.: 2023-2024/T07

29 April 2024

Dear Sir/Madam,

**INVITATION TO TENDER
FOR THE SUPPLY/SERVICE OF THE
NEW NETWORK, RELOCATION AND REMOVAL OF PROJECTION SYSTEM**

1. You are invited to tender for the supply and/or undertaking services of the items as specified in the enclosed tender schedule. If you are not prepared to accept a partial order, please state this clearly on the tender schedule.
2. Your sealed tender, in duplicate, should be clearly marked on the outside envelope: **“TENDER FOR THE SUPPLY/SERVICE OF THE NEW NETWORK, RELOCATION AND REMOVAL OF PROJECTION SYSTEM”**. The envelope should be addressed to **S.K.H. HOLY TRINITY CHURCH SECONDARY SCHOOL, No. 2 HAU MAN STREET, HOMANTIN, KOWLOON** and forwarded to arrive not later than **12:00 Noon 20 May 2024**. Late tenders will not be accepted. Your tender will remain open for 90 days from the above closing date, and you may consider your tender to be unsuccessful if no order is placed with you within these 90 days. You are requested to note that unless Part II of the tender form is completed, the tender will not be considered.
3. If you are unable or do not wish to tender, it would be appreciated if you would return this letter and the tender forms to the above address at your earliest convenience.
4. Tenders will be accepted on a group basis. Should you have any queries, please feel free to contact Mr. Law Yiu Ting at 2714-4137.

Yours faithfully,

(WONG Lai-shan)
Principal

S.K.H. HOLY TRINITY CHURCH SECONDARY SCHOOL
TENDER OBJECTIVES AND DETAILS (TO BE COMPLETED IN DUPLICATE)

PART I
SCOPE OF WORKS

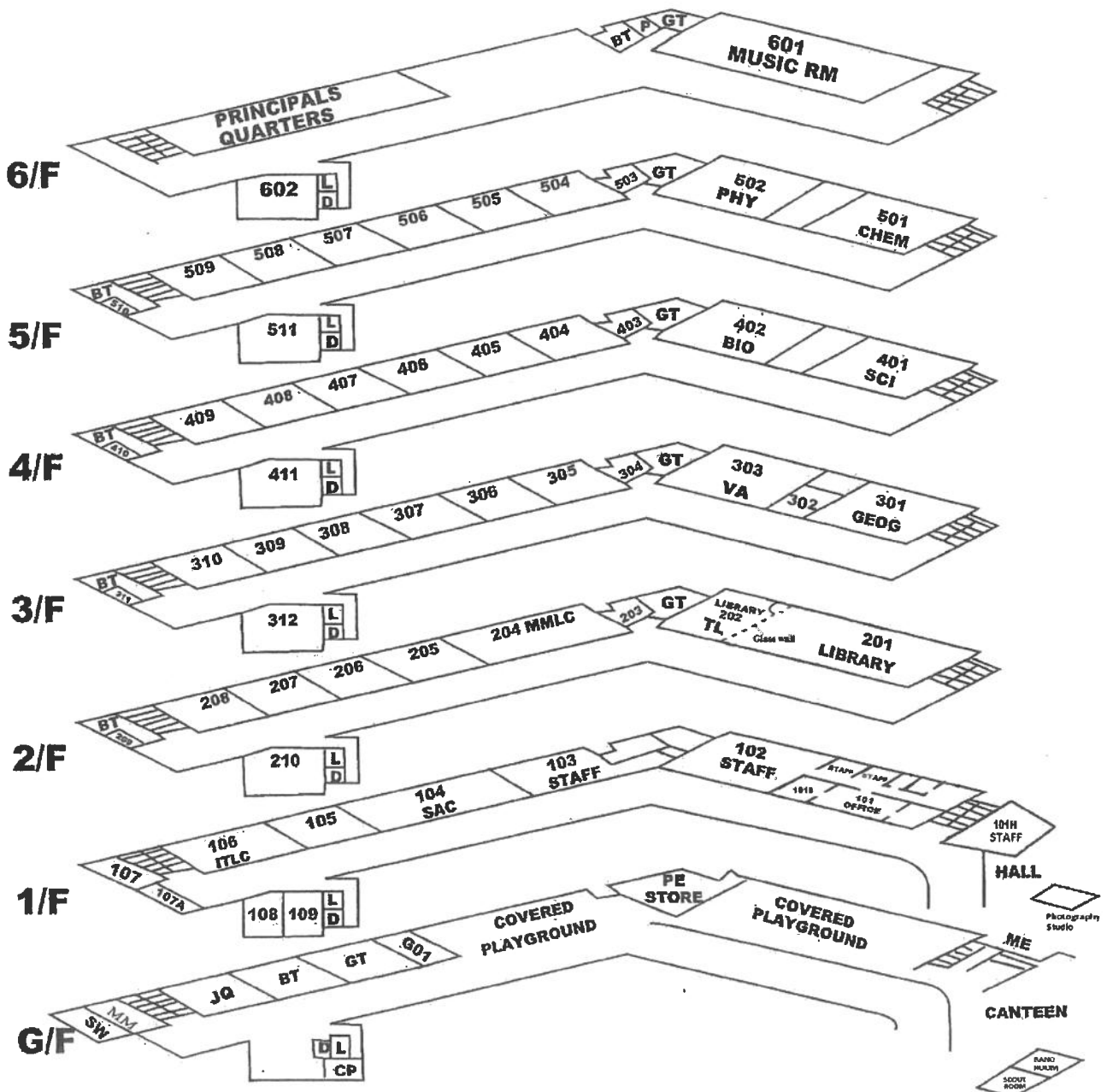
1 Introduction

The Tenderer is invited to

- Remove specific parts of the existing LAN cables, optical fiber cables and cable enclosures.
- Build up an new optical fiber network in S.K.H. HOLY TRINITY CHURCH SECONDARY SCHOOL (The school);
- Repatch existing UTP cables at points of UTP patch panel in cabinets for good manageable outlook and sustainable development;
- Build up new UTP nodes at new location;
- Provide configuration service for existing networked switches for all network equipment directly connected;
- Build up electricity supply points at room 203 for server cabinets and room 204s;
- Provide relocation service of server cabinets including with servers and I.T. equipment placed into cabinets;
- Remove old projection system including projectors and white screens with its mounting kit, signal cables, electrical cables and its conduits.

2 Existing Network Design

2.1 Campus Floor Plan



Remark

D: DISABLED TOILET
 L: LIFT
 P: PUMP ROOM
 ME: MAIN ENTRANCE
 GT: GIRLS' TOILET
 BT: BOYS' TOILET
 JQ: JANITORS' QUARTER
 MM: MAIN METER ROOM

SAC: STUDENTS ACTIVITIES CENTRE
 MMLC: MULTIMEDIA LEARNING CENTRE
 ITLC: INFORMATION TECHNOLOGY LEARNING CENTRE
 TL: TEACHING AND LEARNING ROOM
 GEOG: GEOGRAPHY ROOM
 VA: VISUAL ARTS ROOM
 SCI: SCIENCE LABORATORY
 BIO: BIOLOGY LABORATORY
 CHEM: CHEMISTRY LABORATORY
 PHY: PHYSICS LABORATORY

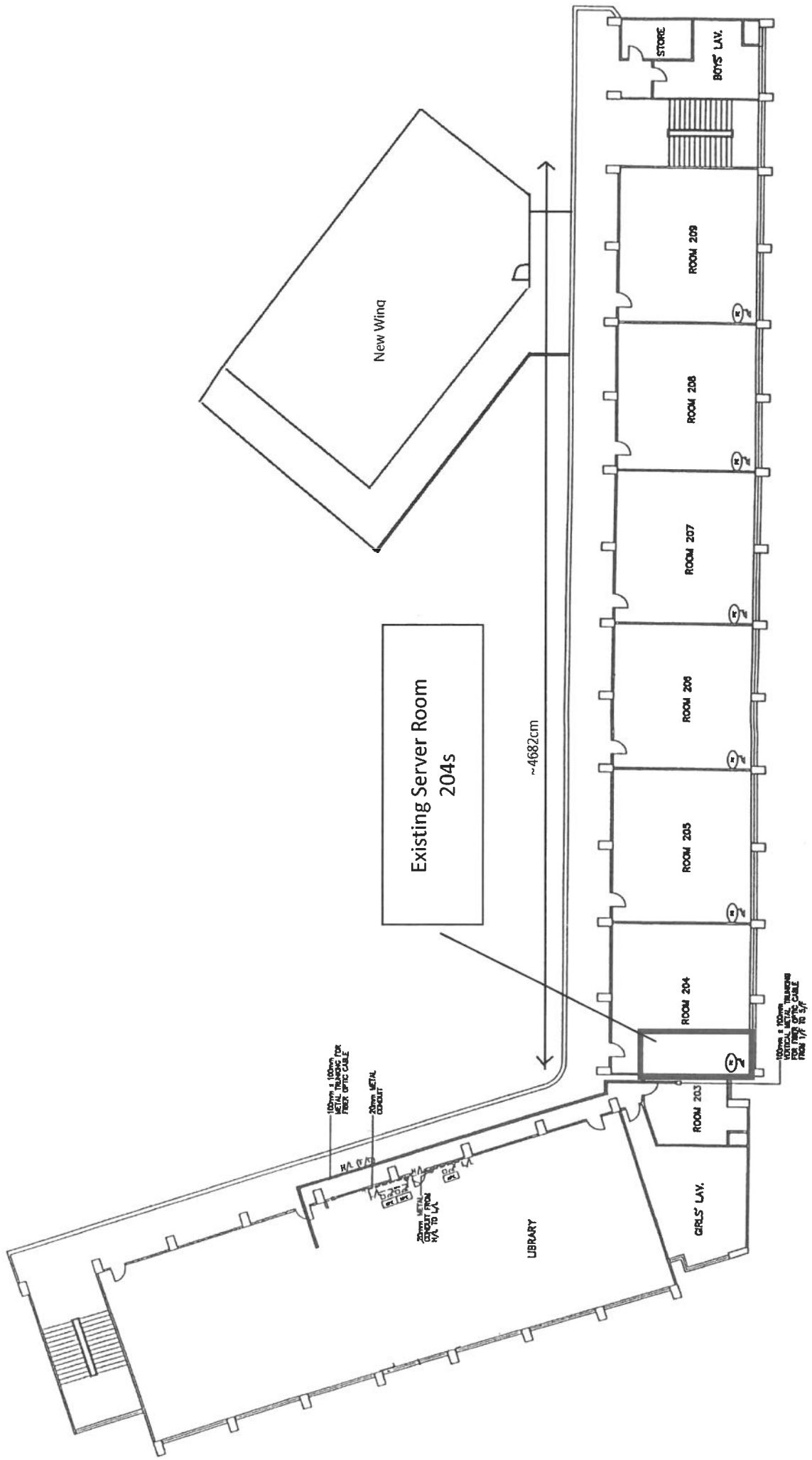
2.2 Centralized Network Location (MDF):

- 204s

2.3 Access Layer Switch connected core switch of 204s with optical fiber cables deployed location:

Floor	Room	Total
6/F	601, 602	2
5/F	501, 502, 504, 505, 506, 507, 508, 509, 511	9
4/F	401, 402, 404, 405, 406, 407, 408, 409, 411	9
3/F	301, 303, 305, 306, 307, 308, 309, 310, 312	9
2/F	201, 202, 204, 205, 206, 207, 208, 210	8
1/F	Hall, 101H, 101, 103, 104, 105, 106, 107, 108	9
G/F	Canteen, Janitors' Quarter, Covered Playground, G01	4
	Grand-total	50
	x 4 cores	200

2.4 Campus Floor Plan (2nd Floor)



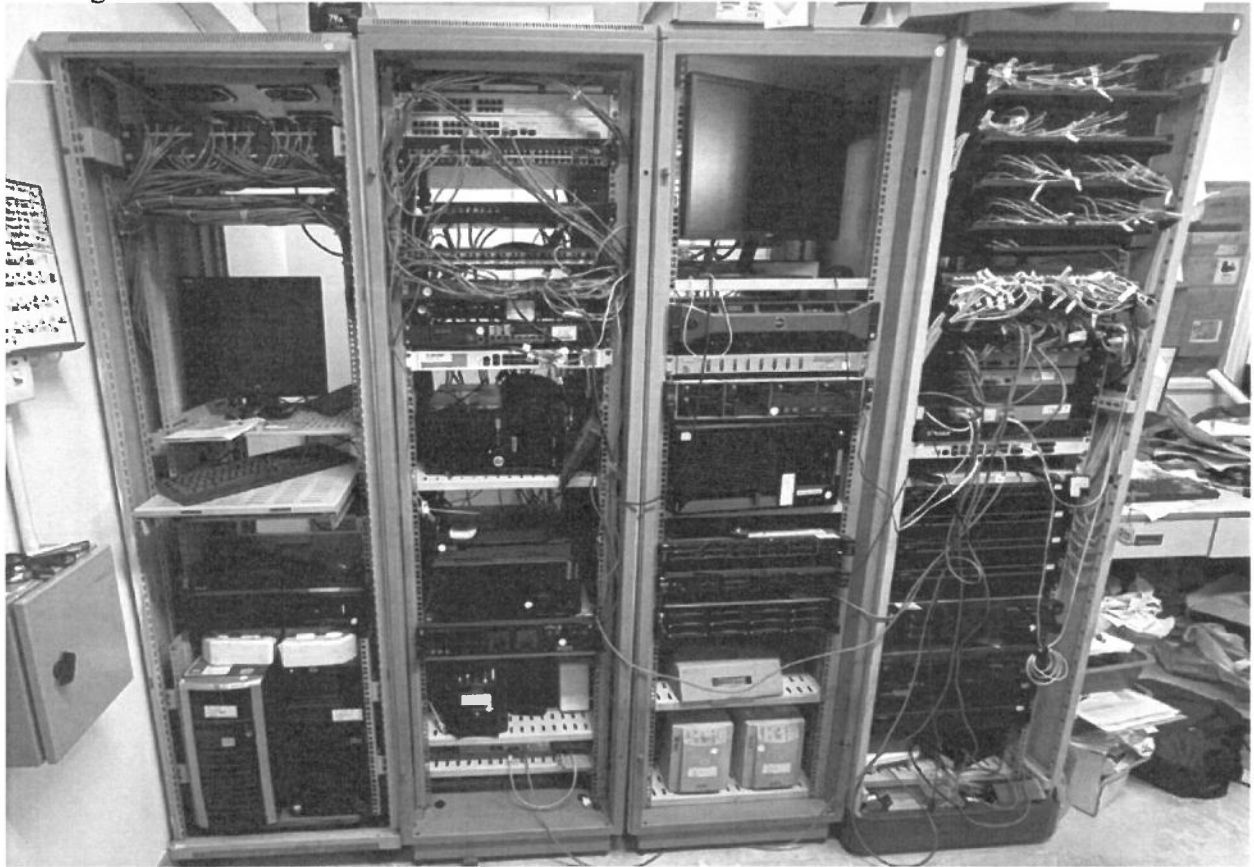
2.5 Existing Campus Conduit Layout

	ED	New Wing	Stair						ED			Stair	
6/F		602 (A)								601 (A)			
5/F		511 (A)		509 (A)	508 (A)	507 (A)	506 (A)	505 (A)	504 (A)	503	502 (A)	501 (A)	
4/F		411 (A)		409 (A)	408 (A)	407 (A)	406 (A)	405 (A)	404 (A)	403	402 (A)	401 (A)	
3/F		312 (A)		310 (A)	309 (A)	308 (A)	307 (A)	306 (A)	305 (A)	304	303 (A)	302 (A)	301 (A)
2/F		210 (A)		208 (A)	207 (A)	206 (A)	205 (A)	204 (A)	204s (C)	203	202 (A)	201 (Library) (A)	
1/F		109 (A)	108 (A)	107 (A)	106 (A)	105 (A)	104 (A#)		103 (A)		102	101 (A#)	101H (A)
G/F				JQ (A)	Toilet (B) (A)	Toilet (G) (A)	G01 (A)	CP			CP (A)		Hall (A#)
													Canteen (A)

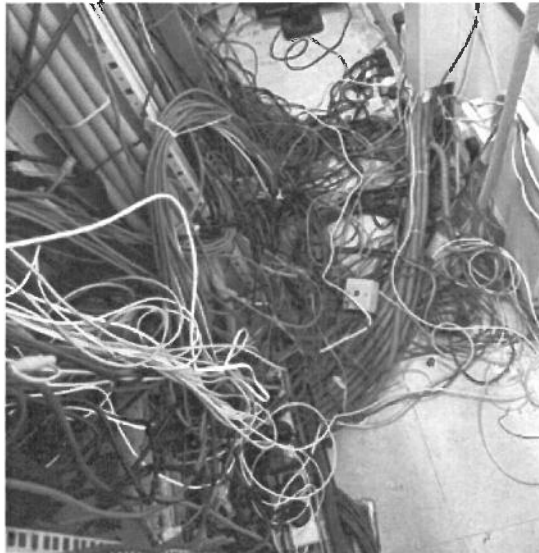
Remarks:

(A) : 1Gbps Access Switch with PoE and VLAN support	JQ: Janitors' Quarter
(A#) : 10Gbps Access Switch with PoE and VLAN support	ED: Electric Duct Room
(C) : Core Switch installed in server room 204s	PR: Preparation Room
— : Conduit/Trunk for Fiber Cabling	CP: Covered Playground

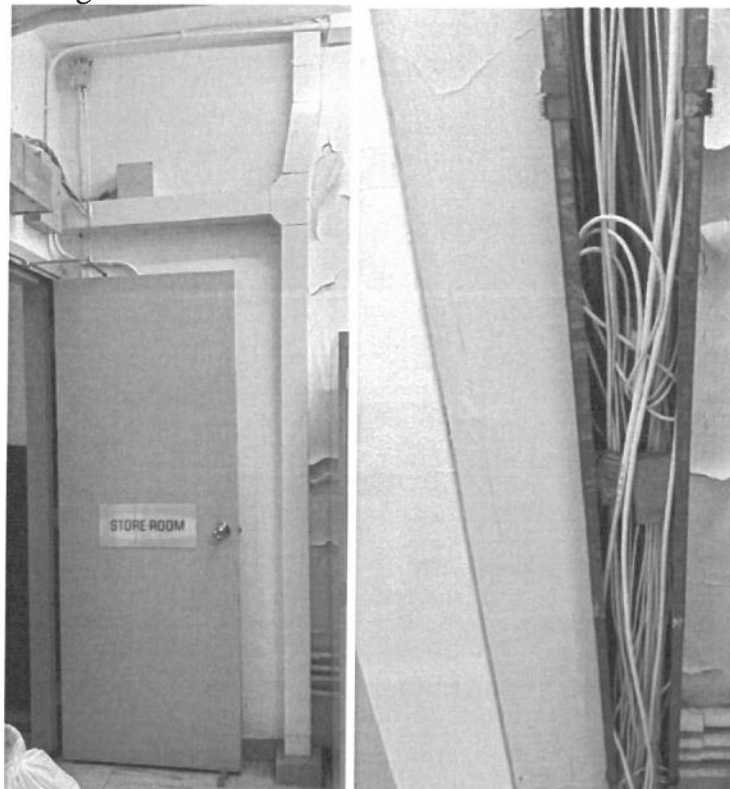
2.6 Existing Server Room



2.7 Fiber Optical Cables and UTP in Room 204s



2.8 Existing the backbone trunk in Room 203



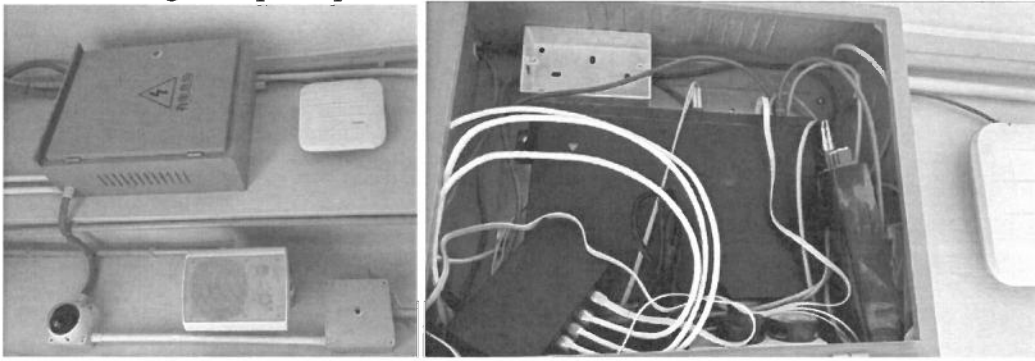
2.9 Existing optical fiber cables in the campus: GJXH-2B6A 2 Core Single model fiber



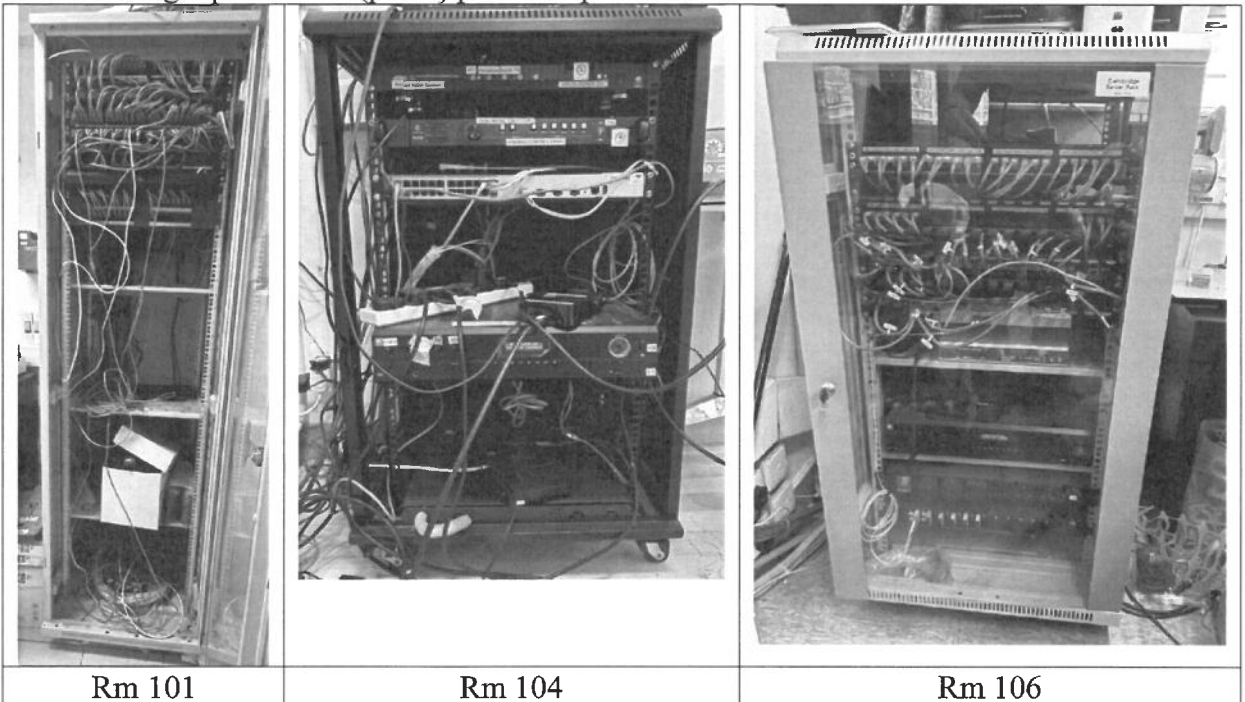
2.10 Existing optical transceiver used in the school

<p>P/N: 02315200 Rev: Qty: 1 PCS</p> <p>Model: SFP-GE-LX-SM1310 SN: EA172600100898</p> <p>描述: 光模块-sSFP-GE-单模模块(1310nm,10km,LC)</p> <p>Desc.: Optical Transceiver, sSFP, GE, Single-mode Module(1310nm, 10km, LC)</p> <p>EAN: 6 920702 724520 UPC: 8 86598 80573 9</p> <p>Remark: MADE IN CHINA</p>	<p>P/N: 02318170 Rev: Qty: 1 PCS</p> <p>Model: OSX010000 SN: 1HG510013231</p> <p>描述: 光模块-SFP+-10G-单模模块(1310nm,10km,LC)</p> <p>Desc.: Optical Transceiver, SFP+, 10G, Single-mode Module(1310nm, 10km, LC)</p> <p>EAN: 6 920702 724520 UPC: 8 86598 83317 0</p> <p>Remark: MADE IN CHINA</p>
Huawei SFP-GE-LX-SM1310	Huawei OSX010000

2.11 Existing fiber patch panel and switch installed in enclosure of classroom



2.12 Existing Optical fiber (patch) panel in special room



2.13 Existing Optical fiber conduit at Rm 601 from Rm 502



- 2.14 All nodes at Library, Room 201 directly connected with the access layer switch in Room 204s where will be demolished
- 2.15 All nodes directly connected with the core switch at Room 204s where will be demolished
- 2.16 A node at the Principal's quarters, 6/F, directly connected to the switch at Room 602
- 2.17 One or two node(s) at Room 304 directly connected to the switch at Room 305
- 2.18 Two nodes for the copiers at Room 101H directly connected to the switch
- 2.19 All smartboards no any connection with switches
- 2.20 The school network has been divided into different VLAN/ subnets including CCTV , IP Phone, Servers, Cable network, AP, Wireless Device. The firewall appliance of the school is central point of network.

3 Specification of new network establishment

The Centralized Network Location (MDF) will be relocated to Room 203 from 204s. All Fiber Optical Cables, the servers, network equipment and cabinets in Room 204s will be redeployed to the new location, Room 203. Tenderer shall provide/ re-cable optical fiber cables/ UTP cables in the school.

This section specifies the user requirements of the School of the New Fiber Network.

3.1 Standard Provision of new optical fiber network

- (i) Disconnect, remove or cutting existing optical fiber cables which can be replaced by the new Network.
- (ii) Disconnect and remove existing unnecessary enclosures, racks/ cabinets, switches, optical fibers cables, UTP cables and electricity power of all dedicated location excluding room 106.
- (iii) Dismount existing enclosure of all dedication location excluding room 106.
- (iv) Install new 100mm x 100mm G.I. trunks provided by tenderer in white color paint for Backbone Network Cabling System at 2/F.
- (v) Install new 32mm main PVC Conduits provided by tenderer for Floor Level Cabling System on each floor (except 2/F), and new 2 vertical 32mm main PVC conduit on new wing (See diagram below).
- (vi) Install new 20mm PVC Conduits provided by tenderer to cable rack/ cabinet of classrooms from main PVC conduit on each floor. (See diagram below).
- (vii) Install new cable rack/ cabinets provided by tenderer shall be mounted on wall at all dedication location excluding room 106.
- (viii) Install new (15U) rack/ cabinet and provided by tenderer mounted on wall at Room 101. Disconnect and reconnect all stuff including with all optical fiber cables, fiber (patch) panels, UTP cables, UTP (patch) panel and I.T. equipment in the cabinet.
- (ix) Install new cabinets provided by tenderer to the dedicated locations (49 QTY). The height of all cabinets is proposed as 6U except room 101 and CGPLAYD. The size of cabinets is tentative. The cabinet in Room 106 shall be excluded but fiber (patch) panel and cable management shall be included.
- (x) Install necessary conduits/ trunks and its accessories provided by tenderer on the dedicated locations.
- (xi) All optical fiber cables and nodes accessories provided by tenderer are OS2 with 8 cores in designated brand approved by the school. (see following requirement)
- (xii) Cabling work of optical fiber cables to each cabinet of the dedicated locations (50 QTY) from Room 203.
- (xiii) Install new optical fiber panels provided by tenderer to each cabinet of the dedicated locations (50 QTY) and room 203.
- (xiv) Install new cable management provided by tenderer to each cabinet of the dedicated locations (50 QTY) and room 203.
- (xv) Remount and reconnect all existing access layer switches excluding room 106.
- (xvi) Connect drop cables of optical fiber cables provided by tenderer to the dedicated switches from the dedicated optical fiber panels.
- (xvii) Check placement order of all stuff in cable cabinets according to the school requirements.
- (xviii) Label all nodes on fiber patch panel.
- (xix) Label all drop cables of optical fiber connected to switches.
- (xx) Cabinet relocation may be needed if existing location is not good enough.

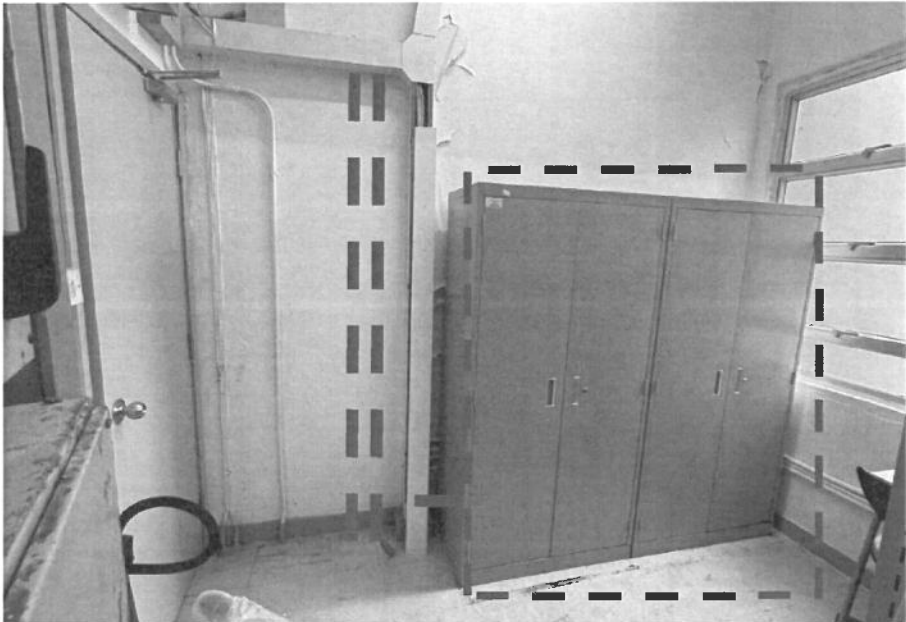
3.3 New (tentative) Fiber Network Connectivity

	ED	New Wing	Stair						ED			Stair	
6/F		602 (A)								601 (A)			
5/F		511 (A)							503 (A)	502 (A)	501 (A)		
4/F		411 (A)							403 (A)	402 (A)	401 (A)		
3/F		312 (A)							304 (A)	303 (A)	302 (A)		
2/F		210 (A)							203 (C)	202 (A)	201 (Library) (A)		
1/F		109 (A)								102 (A)	101 101(Office) (A#)	101H (A)	Hall (A#)
G/F											CP (A)		Canteen (A)

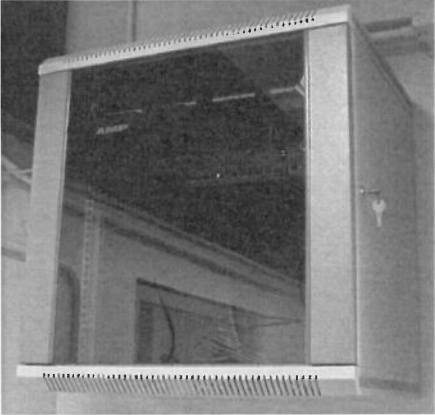
Remarks:

(A) : 1Gbps Access Switch with PoE and VLAN support	
(A#) : 10Gbps Access Switch with PoE and VLAN support	
(C) : Core Switch installed in 203	
— : Original Backbone Conduit/ Trunk	
..... : New 32mm PVC Conduit for Optical Fiber Cables on each floor (except 2/F), new vertical PVC conduit on new wing and New 20mm PVC Conduit for Optical Fiber Cables to classrooms	
■ : New 100mm x 100mm G.I. Trunk with white color paint for Optical Fiber Cables	
	ED: Electric Duct Room
	JQ: Janitors' Quarter
	PR: Preparation Room
	CP: Covered Playground

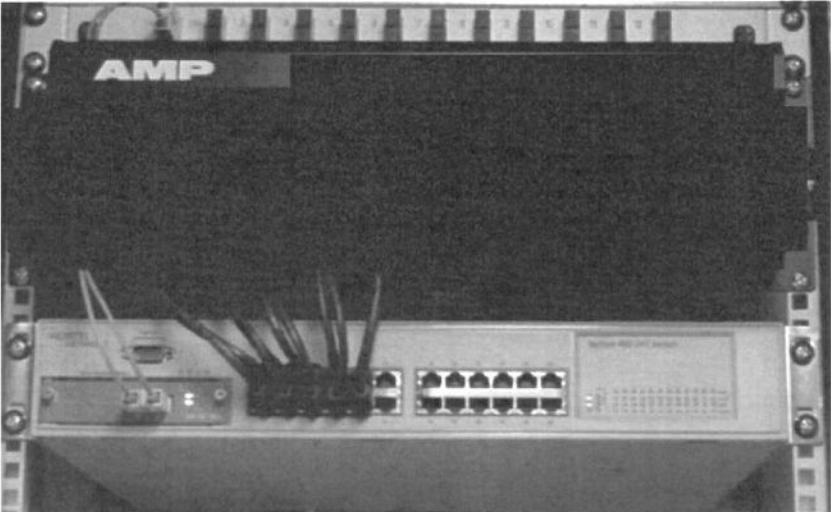
3.4 New server cabinets location and new Vertical G.I. trunk establishment



3.5 New cable rack/ cabinet (reference)



3.6 New order of stuff in cable cabinet



Fiber Panel with label

Cable Management for Optical Fiber Cable

Switch

3.7 Standard Provision of UTP network and configuration service of all location (Room 101 and 106 excluded)

- (i) Remain UTP panel, cables and nodes in room 101 and 106 as usual. Tenderer shall be responsible for reinstalling UTP (patch) panel into new cabinet in room 101.
- (ii) Disconnect all UTP cables in all enclosure.
- (iii) Disconnect and remove existing unnecessary enclosure, racks/ cabinets, switches and optical fibers cables and UTP cables and electricity power of all dedicated location if needed. Cutting existing UTP cables may be required.
- (iv) Reconnect/ re-patching existing Cat.5/Cat.5e/Cat.6 cables from the existing network equipment of all dedicated locations (excluding room 101 and room 106) to the newly installed UTP (patch) panel provided by tenderer.
- (v) Check placement order of all stuff in cable cabinets according to the school requirements.
- (vi) Connect UTP drop cables, provided by the tenderer to the dedicated switches from the dedicated UTP patch panels.
- (vii) Label all nodes on UTP (patch) panel.
- (viii) Label all drop cables of UTP connected to switches.
- (ix) Label all outlet of nodes.
- (x) Cabinet relocation may be needed if existing location is not good enough.
- (xi) All UTP cables and nodes accessories provided by tenderer are Cat. 6 in designated brand approved by the school. (see following requirement)
- (xii) Install new trunk/conduit, socket boxes, faceplates, RJ45 Modular Jack and Plug, junction box, pipe joints, pipe bracket and its accessories provided by the tenderer, if needed for existing UTP cables connected to the existing switches. (Disconnection and reconnection/ re-patching of the UTP cables may be required.)
- (xiii) All devices which are in production shall be connected to network nodes. The numbers of devices in production excluding Room 101, 102, 106, 201, 204, and 204s shall be as follows:

PC	AP	IP Phone	IP CAM	Total
41	53	33	168	295

3.8 Tenderer/ Network Engineer shall provide following service:

- (i) Evaluate and investigate the network environment, especially I.T. equipment including with firewall appliance(s), servers, switches, wireless controllers with AP, IP PBX with IP Phone, CCTV with IP CAM of the school before network change
- (ii) Configure network equipment may be required by the school while network change or occurrence of network failure.
- (iii) Set up VLANs (especially IP CAM x 170 QTY on switch x 52 QTY) on the school network .
- (iv) Configure order of Port VLAN on ports of each switch. Network Engineer shall make the most of ports connected to I.T. equipment directly, without any connection to low level switch. The sorting order should be as follows:
PC, AP, IP Phone, IP CAM
- (v) Set up DHCP services for IP CAM (if applicable)
- (vi) Propose and implement configuration for the school devices after the school network change
- (vii) Inform any network change to the school in advance
- (viii) Configure and recover any network failure as soon as possible
- (ix) Troubleshoot and fix any network connectivity problem caused from network and servers transition.
- (x) Be responsible for making good, and/or performing other necessary remedial tasks to rectify any network and server failure resulting from network change.
- (xi) Test network operation after completion of the project.
- (xii) Deliver network operation report (template from the school) within 7 days after testing.

(xiii) Switches (Enterprise grade managed switch) operating within the campus

Location	UTP Port QTY	Nodes QTY on UTP Panel	Remarks
601	8		
602	8		
501	8		
502	8		
504	8		
505	8		
506	8		
507	8		
508	8		
509	8		
511	8		
401	8		
402	8		
404	8		
405	8		
406	8		
407	8		
408	8		
409	8		
411	8		
301	8		
303	8		
305	8		
306	8		
307	8		
308	8		
309	8		
310	8		
312	8		
201	8		
202	8		
204s	8		
205	8		
206	8		
207	8		
208	8		
210	8		
101	48 x 2		
101H	8		
103	8		
104	24		
105	8		
106	8		
107	8		
108	8		
IHall	24		
GJQ	8		
G01	8		
GCP	8		
GCAN	24		

3.9 Add-on Provision for all smartboards of the classrooms

- (i) Follow the above standard provision requirement
- (ii) Install conduits, socket boxes, faceplates, RJ45 Modular Jack and Plug, Junction box provided by the tenderer on 31 dedicated locations (Rm 104,105,109,204,205-210,303,305-312,404-411,504-511)
- (iii) Cabling work of Cat.6 Ethernet cable (to be confirmed during site visit)

Smartboard
31

3.10 Add-on Provision for all AP of the classrooms

- (iv) Follow the above standard provision requirement
- (v) Install conduits, socket boxes, faceplates, RJ45 Modular Jack and Plug, Junction box provided by the tenderer on 53 dedicated locations
- (vi) Cabling work of Cat.6 Ethernet cable (to be confirmed during site visit)

AP
53

3.11 Add-on Provision at Room 101H

- (i) Follow the above standard provision requirement
- (ii) Install conduits, socket boxes, faceplates, RJ45 Modular Jack and Plug, Junction box provided by the tenderer on 2 dedicated location
- (iii) Cabling work of Cat.6 Ethernet cable (to be confirmed during site visit)

PC	AP	IP Phone	Copier	IP CAM	Total
0	0	0	2	0	2

3.12 Add-on Provision at Room 201, Library

- (iv) Follow the above standard provision requirement
- (v) Install conduits, socket boxes, faceplates, RJ45 Modular Jack and Plug, Junction box provided by the tenderer on 12 dedicated location
- (vi) Cabling work of Cat.6 Ethernet cable (to be confirmed during site visit)

PC	AP	IP Phone	Copier	IP CAM	Total
10	0	0	2	0	12

3.13 Add-on Provision at Room 204s and 204

- (i) Follow the above standard provision requirement
- (ii) Install a new cable rack cabinet provided by tenderer on the dedicated location
- (iii) Install conduits, socket boxes, faceplates, RJ45 Modular Jack and Plug, Junction box provided by the tenderer on 22 dedicated location in Room 204s and Room 204
- (iv) Cabling work of Cat.6 Ethernet cable (to be confirmed during site visit)

PC	AP	IP Phone	Copier	IP CAM	Total
16	2	1	1	2	22

3.14 Add-on Provision at room 303

- (i) Follow the above standard provision requirement
- (ii) Install conduits, socket boxes, faceplates, RJ45 Modular Jack and Plug, Junction box provided by the tenderer on 1 dedicated location in room 303
- (iii) Cabling work of Cat.6 Ethernet cable (to be confirmed during site visit)

PC	AP	IP Phone	Smartboard	Copier	IP CAM	Total
0	0	0	0	1	0	1

3.15 Add-on Provision at Hall

- (i) Follow the above standard provision requirement
- (ii) Install conduits, socket boxes, faceplates, RJ45 Modular Jack and Plug, Junction box provided by the tenderer on 11 dedicated location in Hall
- (iii) Cabling work of Cat.6 Ethernet cable (to be confirmed during site visit)
- (iv) Install AP provided by the school

PC	AP	IP Phone	Copier	Copier	IP CAM	Total
10	1	0	0	0	0	11

3.16 Add-on Provision at room 109 (connected switch at room 108)

- (i) Follow the above standard provision requirement
- (ii) Install conduits, socket boxes, faceplates, RJ45 Modular Jack and Plug, Junction box provided by the tenderer on 3 dedicated location in 109
- (iii) Cabling work of Cat.6 Ethernet cable (to be confirmed during site visit)
- (iv) Dismount AP, its mounting kit and any conduit and its accessories at Room 108
- (v) Install AP provided by the school (previous installed in Room 108)

PC	AP	IP Phone	Smartboard	Copier	IP CAM	Total
2	1	0	0	0	0	3

3.17 Add-on Provision at security room (nearby the school front door), G/F (connected switch at covered playground)

- (i) Follow the above standard provision requirement
- (ii) Install conduits, socket boxes, faceplates, RJ45 Modular Jack and Plug, Junction box provided by the tenderer on 3 dedicated location in security room
- (iii) Cabling work of Cat.6 Ethernet cable (to be confirmed during site visit)
- (iv) Install AP provided by the school

PC	AP	IP Phone	Smartboard	Copier	IP CAM	Total
2	1	0	0	0	0	3

3.18 Existing Node numbers

No.	Floor	Location	PC	AP	IP Phone	Smartboard	Copier	IP CAM	Sub-Total
1	6/F	601	1	0	0			7	8
2		602	0	0	0			4	4
3	5/F	501	2	0	0			5	7
4		502	1	0	0			4	5
5		504	1	0	1			2	4
6		505	1	0	1			2	4
7		506	1	0	1			2	4
8		507	1	0	1			3	5
9		508	1	0	1			2	4
10		509	1	0	1			2	4
11		511	1	0	1			5	7
12	4/F	401	2	0	0			4	6
13		402	1	0	0			4	5
14		404	1	0	1			2	4
15		405	1	0	1			2	4
16		406	1	0	1			2	4
17		407	1	0	1			3	5
18		408	1	0	1			2	4
19		409	1	0	1			2	4
20		411	1	0	1			4	6
21	3/F	301	2	0	1			4	7
22		303	1	0	1			4	6
23		305	1	0	1			2	4
24		306	1	0	1			2	4
25		307	1	0	1			2	4
26		308	1	0	1			3	5
27		309	1	0	1			2	4
28		310	1	0	1			2	4
29		312	1	0	1			4	6
30	2/F	202	1	0	1			4	6
31		205	1	0	1			3	5
32		206	1	0	1			3	5
33		207	1	0	1			2	4
34		208	1	0	1			2	4
35		210	1	0	1			4	6
36	1/F	101	0	0	0			0	0
37		101H	0	0	0		0	6	6
38		103	0	0	1			0	1
39		104	0	0	1			0	1
40		105	1	0	1			7	9
41		106	0	0	0			0	0
42		107	0	0	0			0	0

43	1/F	108	0	0	0			2	2
44	G/F	GJQuarter	0	0	0			5	5
45		G01	1	0	1			0	2
46		GCPLAYD	3	0	0			37	40
47		GCANTEEN	0	0	0			0	0
48	1/F	1Hall	0	0	0			0	0
49	2/F	201	0	0	0		0	5	5
50	2/F	204s and 204	0	0	0		0	0	0
		Total:	42	0	33		0	168	243

3.19 New Node numbers

No.	Floor	Location	PC	AP	IP Phone	Smartboard	Copier	IP CAM	Sub-Total
1-50	All Classrooms					31			31
1-50	All Classrooms			53					53
37	1/F	101H					2		2
48	1/F	1Hall	10	1	0			0	11
49	2/F	201	10	0	0		2	0	12
50	2/F	204s and 204	16	2	1		1	2	22
	1/F	108 (to 109)	2	1					3
	3/F	303					1		1
	G/F	Security Room	2	1					3
		Total:	40	58	1	31	4	2	138

3.20 Node numbers after completion of the work

No.	Floor	Location	PC	AP	IP Phone	Smartboard	Copier	IP CAM	Sub-Total	Height of Rack
1	6/F	601	1	1	0			7	9	
2		602	0	1	0			4	5	
3	5/F	501	2	1	0			5	8	
4		502	1	1	0			4	6	
5		504	1	1	1	1		2	6	
6		505	1	1	1	1		2	6	
7		506	1	1	1	1		2	6	
8		507	1	1	1	1		3	7	
9		508	1	1	1	1		2	6	
10		509	1	1	1	1		2	6	
11		511	1	1	1	1		5	9	
12		4/F	401	2	1	0			4	7
13	402		1	1	0			4	6	
14	404		1	1	1	1		2	6	
15	405		1	1	1	1		2	6	
16	406		1	1	1	1		2	6	
17	407		1	1	1	1		3	7	
18	408		1	1	1	1		2	6	
19	409		1	1	1	1		2	6	

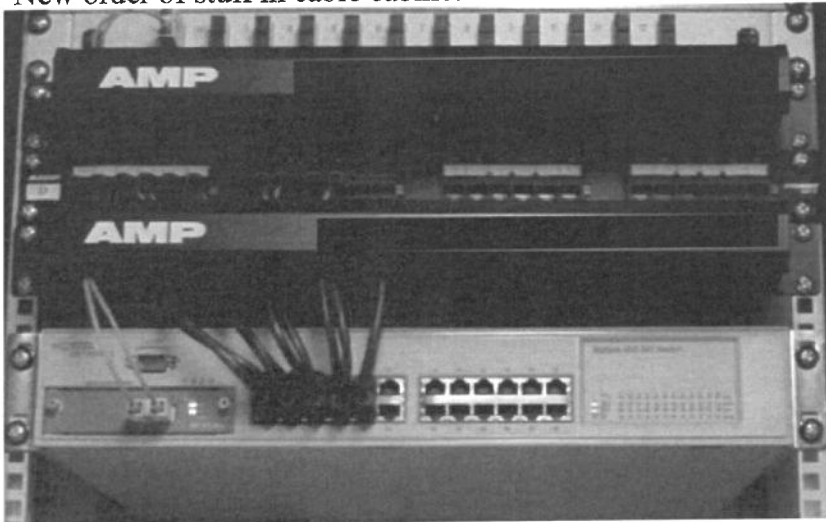
20		411	1	1	1	1		4	8	
21	3/F	301	2	1	1			4	8	
22		303	1	1	1	1	1	4	9	
23		305	1	1	1	1		2	6	
24		306	1	1	1	1		2	6	
25		307	1	1	1	1		2	6	
26		308	1	1	1	1		3	7	
27		309	1	1	1	1		2	6	
28		310	1	1	1	1		2	6	
29		312	1	1	1	1		4	8	
30		2/F	202	1	1	1			4	7
31	205		1	1	1	1		3	7	
32	206		1	1	1	1		3	7	
33	207		1	1	1	1		2	6	
34	208		1	1	1	1		2	6	
35	210		1	1	1	1		4	8	
36	1/F		101	0	0	0	0		0	0
37		101H	0	0	0	0	2	6	8	
38		103	0	1	1	0		0	2	
39		104	0	2	1	1		0	4	
40		105	1	1	1	1		7	11	
41		106	0	0	0	0		0	0	
42		107	0	1	0	0		0	1	
43		108	2	1	0	1		2	6	
44	G/F	GJQuarter	0	1	0	0		5	6	
45		G01	1	1	1	0		0	3	
46		GCPLAYD	5	4	0	0		37	46	9U
47		GCANTEEN	0	2	0	0		0	2	
48	1/F	1Hall	10	4	0			0	14	
49	2/F	201	10	1	0	0	2	5	18	
50	2/F	204s and 204	16	2	1	1	1	2	23	
		Total:	82	56	34	31	6	170	379	

The height of all cabinets is proposed as 6U except Room 101 and GCPLAYD. The size of cabinets is tentative. The cabinet in Room 106 shall be excluded but fiber (patch) panel and cable management shall be included.

3.21 General Requirement of new optical fiber and UTP network

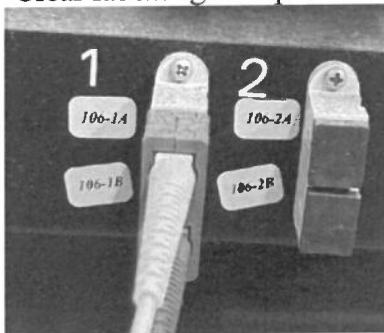
- (i) All contractors shall have all licenses required for works in the project.
- (ii) Installation should fit with the requirement of HKSAR Laws, and tenderer/ contractors shall be responsible all their labours' insurance and third party liability insurance (no less than \$20,000,000). A cover note may be produced before beginning of the project.
- (iii) The school will totally monitor quality of work. All tenderer/ contractors shall be co-operated with the school monitoring work.
- (iv) Any information provided by the school is for reference only. Tenderer shall be responsible for investigating site carefully in order to avoid any risk caused from inaccurate information.
- (v) The successful tenderer shall be responsible for the total management and shall assign a person to act as the single contact point to the school regarding all related activities of the contract.
- (vi) Cabling workers who are responsible for on-site cabling work have at least 5 years working experience in cabling works. The school shall inform related qualification of workers with tenderer/contractor before and in progress of the work/ project.
- (vii) Network Engineer who is responsible for on -site configuring network equipment have at least 5 years working experience in network and server support and at least have CCNA and MCSE qualifications.
- (viii) The materials/ stuff for Optical fiber (patch) panel, optical fiber cable, fiber patch cord, UTP (patch) panel, patch/ drop cable, management panel with cover, faceplate, RJ45 modular jack and plug, and CAT 6 UTP distribution cable, shall be one of following brand: AMP/Commscope/Systimax/Panduit. Only these brands of products have been approved by the school and can be used in the project. Materials/ stuff listed above which are not one of the above dedicated brands shall not be allowed to use without the school permission in advance.
- (ix) Tenderer shall be required to perform other necessary remedial tasks to rectify any network incompatibility issue. Network Compatibility Testing in depth shall be recommended.
- (x) Tenderer shall submit to the school for approval in advance any subsequent changes to the cable/accessories proposed in this tender for the cabling work.
- (xi) The contractor shall make sure that the actual environment is suitable for the installation and operation of equipment with school agreement in advance, and make necessary suggestions, if any.
- (xii) For construction work that make dirt or peel off of school paint, contractor need to paint back the paint with same color tone.
- (xiii) Tenderer/ contractors shall be responsible for making good, and/or performing other necessary remedial tasks to rectify, any damages resulting from the installation work.
- (xiv) All nodes including Optical Fiber and UTP shall be labelled with an identifiable ID.
- (xv) All cables shall be labelled with name of connected port from UTP (patch) panel.
- (xvi) Switches and/or other appliances shall be properly installed into cabinet/rack (with key lock) with appropriate ventilation.
- (xvii) All conduits and fittings must comply with the relevant British Standards.
- (xviii) Cable length shall not be excessive or too short in which preventing door opening or closing. Cable length between cabinet (mounted on wall) and fiber (patch) panel should at least 3 meters buffer whereas cable length between cabinet (located on floor) and fiber (patch) panel should at least 6 meters for movement of cabinet.
- (xix) Cable shall be properly set up onto appropriate cable management (guide).
- (xx) 13A power cord(s) shall be bundled with appliance(s) if needed.
- (xxi) The contractor shall provide 5 years whole network maintenance and support.
- (xxii) Dispose of dismantled cables, enclosure and cabinets

(xxi) New order of stuff in cable cabinet

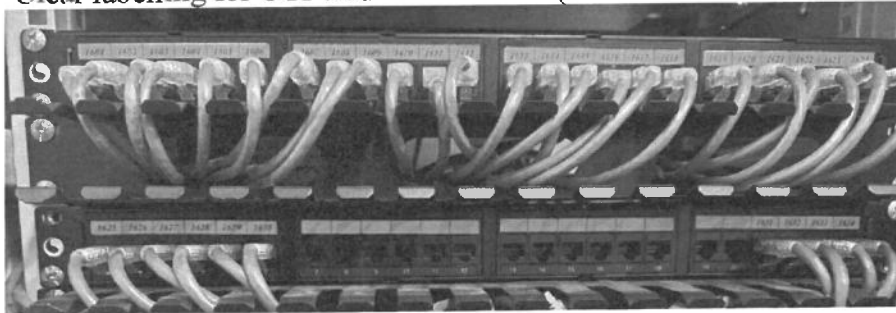


- Fiber Panel with label
- Cable Management for Optical Fiber Cable
- UTP Panel with label
- Cable Management for UTP Cable
- Switch

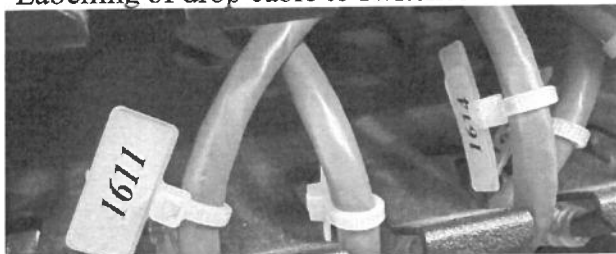
(xxii) Clear labelling for optical fiber node



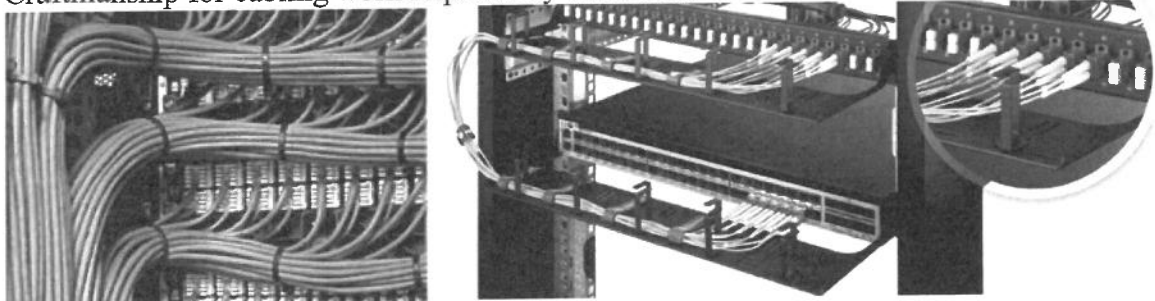
(xxiii) Clear labelling for UTP node in each row (24 nodes/ row: labels on top, nodes at bottom)



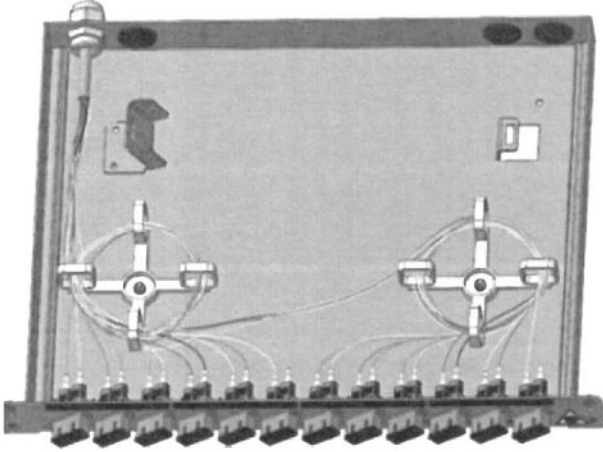
(xxiv) Labelling of drop cable to switches from UTP / optical fiber panel



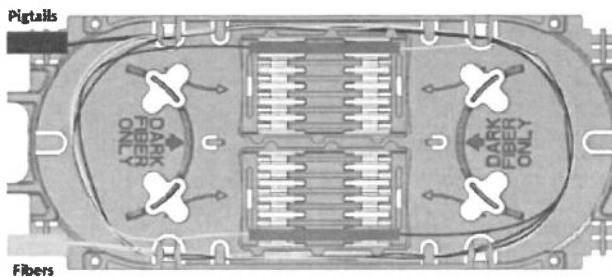
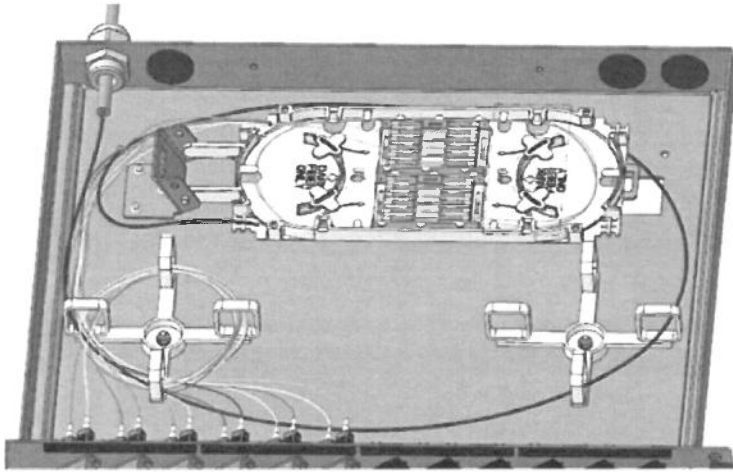
(xxv) Craftmanship for cabling work required by the school



(xxvi) Direct termination (For empty shelf, no splicing tray and pigtail) in optical fiber (patch) panel



(xxvii) Termination cable and pigtails in optical fiber (patch) panel



(Reference only)

3.22 Network stuff requirement

(i) Cable Rack cabinet

- (i) detachable front glass door with key lock in front of cabinet
- (ii) 4 fans on the top of cabinet with power cords
- (iii) detachable two sides of removable steel cover with coating
- (iv) detachable back steel door with coating
- (v) baying hardware
- (vi) leveling feet
- (vii) pre-installed casters
- (viii) mounting hardware
- (ix) 6U / 9U/ 12U/ 15U/ 24U/ 36U/ 42U available in same brand

(ii) OS 2 Single Mode with 8 cores Optical Fiber Cables

Optical fiber cable comply with the following standard shall be used:

- (i) Single mode Optical fiber cables must equal or exceed all ITU-T G.652C/D requirements.
- (ii) 9 / 125 micron single-mode optical fiber
- (iii) Loose tube
- (iv) Distance: 200 km
- (v) Operating Wavelength: 1310nm /1550nm
- (vi) Maximum Attenuation: at least 0.35 dB/Km @ 1310nm/ 1550nm
- (vii) UL listed.

(iii) Optical Fiber (Patch) Panel

- (i) be rack mounted with standard 475mm dimensions
- (ii) sliding panel type
- (iii) available in 48-port configuration on 1U rack height
- (iv) accommodate LC adapters
- (v) allow cable termination on the front of the patch panel
- (vi) be provided with strain relief lugs for the Optical fiber cable entering the unit from the side or back
- (vii) be provided with label identifying the source and destination of the fiber ports

(iv) Optical Fiber (Patch) Cords

- (i) Fiber patch cords shall be used for optical fiber cross-connects and interconnects. The single-mode fiber patch cord and multi-mode fiber patch cord shall consist of two single, buffered, graded-index fibers with a 9-micrometer core and 125-micrometer cladding
- (ii) The fiber patch cord shall be terminated with LC connector plugs on each end
- (iii) be available in factory made standard lengths of 1, 2, 3, 5 meters
- (iv) utilize simplex or duplex fiber cable that is 9/125 micron single -mode, OFNR riser grade, and meets the requirements of UL 1666/901
- (v) the connectors shall be LC
- (vi) operating temperature : -40 to +85°C

(v) UTP Cable

- (i) The horizontal cable used for links between RJ45 patch panel and field devices shall be CAT 6 UTP.
- (ii) The Network shall utilize Unshielded Twisted Pair (UTP) cabling for the copper cabling and must satisfy or exceed the performance requirements of Category 6 of the EIA/TIA-568B standard. The requirements of these must be satisfied for the channel, permanent link and all components. The specified procedures for laboratory and field testing, installation

practices etc. in EIA/TIA-568B as at the date of installing the Structured Cabling System shall be met.

(iii) Guaranteed Worst-case Performance Requirement (db/100Meter)

<i>Frequency Range</i>	<i>1 – 250 MHz</i>
<i>Propagation Delay</i>	<i>536 ns @ 100 MHz</i> <i>536 ns @ 250 MHz</i>
<i>Delay Skew</i>	<i>45 ns</i>
<i>Attenuation</i>	<i>19.8 db @ 100 MHz</i> <i>32.8 db @ 250 MHz</i>
<i>Return Loss</i>	<i>28.1 db @ 100 MHz</i> <i>25.3 db @ 250 MHz</i>
<i>NEXT</i>	<i>50.0 db @ 100 MHz</i> <i>41.0 db @ 250 MHz</i>
<i>PSNEXT</i>	<i>47.0 db @ 100 MHz</i> <i>41.0 db @ 250 MHz</i>
<i>ELFEXT</i>	<i>31.0 db @ 100 MHz</i> <i>23.0 db @ 250 MHz</i>
<i>PSELFEXT</i>	<i>27.0 db @ 100 MHz</i> <i>19.0 db @ 250 MHz</i>
<i>Powersum ACR</i>	<i>27.4 db @ 100 MHz</i> <i>8.3 db @ 250 MHz</i>

(vi) RJ45 faceplate and pluggable jack

- (i) All faceplate shall be available in single or duplex arrangement in a single gang box configuration
- (ii) Faceplate shall be available in fourplex arrangement in dual gang box configuration
- (iii) All outlets and modular cords shall be backward compatible with lower performing categories, such as Cat 5 / Cat 5 Enhanced standards
- (iv) Unless otherwise noted, all copper network points shall :
 - be RJ45 type modular jack
 - be 8-conductor modular outlets
 - be capable of terminating 100 Ohm 22-24 solid copper wire UTP cable
 - RJ45 modular jack be UL listed
 - RJ45 modular jack be durable up to 750 mating cycles
 - RJ45 modular jack be guaranteed worse case performance

<i>Frequency Range</i>	<i>1 – 250 MHz</i>
<i>Insertion Loss</i>	<i>0.06 db @ 100 MHz</i> <i>0.10 db @ 250 MHz</i>
<i>Return Loss</i>	<i>33.2 db @ 100 MHz</i> <i>17.4 db @ 250 MHz</i>
<i>NEXT</i>	<i>57.7 db @ 100 MHz</i> <i>47.9 db @ 250 MHz</i>
<i>FEXT</i>	<i>48.7 db @ 100 MHz</i> <i>40.1 db @ 250 MHz</i>

(vii) UTP Patch Cords

(i) The copper patch cord shall :

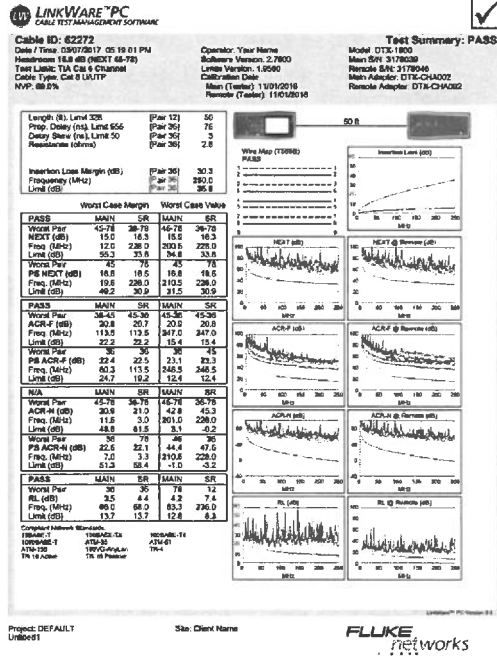
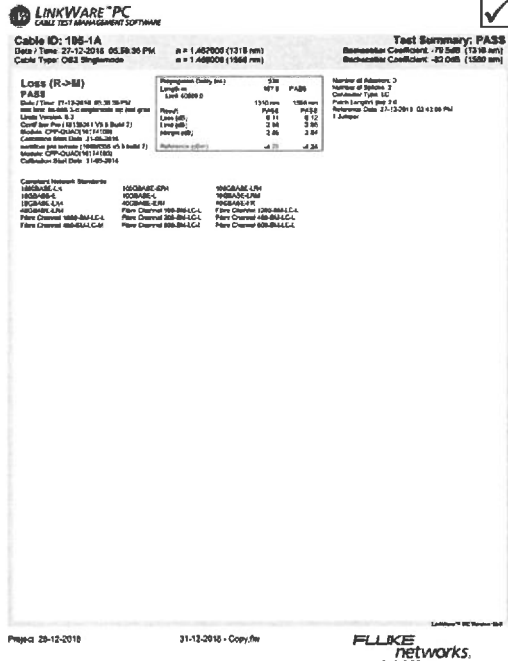
- be factory assembled using Category 6 compliant 50-micro gold-plated modular plug with stranded category 6 cable and snagless cable boots
- consist of eight insulated 24 AWG 7/32 stranded copper conductor, arranged in four colour coded twisted-pairs within a flame-retardant jacket
- be available in factory made standard lengths of 1, 2, 3, 5, 7 and 9 meters
- be comply with electrical specifications :
 - Impedance : 100 Ohm +15%, 1 MHz to 100 MHz
 - Capacitance : 13.5 Pf/ Ft. at 1 MHz
- be guaranteed Worst-case Performance Requirement

<i>Frequency Range</i>	<i>1 – 250 MHz</i>
<i>Propagation Delay</i>	<i>536 ns @ 100 MHz 536 ns @ 250 MHz</i>
<i>Delay Skew</i>	<i>45 ns</i>
<i>Attenuation</i>	<i>19.8 db @ 100 MHz 32.8 db @ 250 MHz</i>
<i>Return Loss</i>	<i>28.1 db @ 100 MHz 25.3 db @ 250 MHz</i>
<i>NEXT</i>	<i>50.0 db @ 100 MHz 41.0 db @ 250 MHz</i>
<i>PSNEXT</i>	<i>47.0 db @ 100 MHz 41.0 db @ 250 MHz</i>
<i>ELFEXT</i>	<i>31.0 db @ 100 MHz 23.0 db @ 250 MHz</i>
<i>PSELFEXT</i>	<i>27.0 db @ 100 MHz 19.0 db @ 250 MHz</i>
<i>Powersum ACR</i>	<i>27.4 db @ 100 MHz 8.3 db @ 250 MHz</i>

3.23 Deliverables

Tenderer/ contractor is required to provide the following deliverables for the the project

- (i) User Acceptance Test Plan consented with the school in meeting before beginning of work whereas User Acceptance Test after completion of the project
- (ii) Network Test Result Report generated only from Fluke Networks cable analyzer DSX series for each optical fiber node and UTP CAT 6 node with unique name (sample report shown below)



- (iii) Network Operation Report (template provided from the school) after completion of the project
- (iv) Training on configuration change of the network setting (if any) by school IT admin
- (v) Delivery notes/ warranty card (if exists) of devices from manufacturers/ sole distributor in HKSAR
- (vi) Floor plan of nodes locations
 - (i) The tenderer is required to provide the floor plan for nodes locations
 - (ii) The tenderer shall illustrate clearly all nodes locations (including existing and new nodes) on the floor plan
- (vii) Network diagram
 - (i) The tenderer is required to provide the network diagram no matter if the same or different from school's diagram.
 - (ii) The tenderer is required to provide detail devices/accessories list the requirement for setting up the above optical fiber network.
 - (iii) The tenderer is required to state the function of each device/accessory listed and included them as much as possible as legend in the network diagram to be provided.
 - (iv) The tenderer is required to state the type of cables used and includes them as much as possible as legend in the network diagram to be provided.
 - (v) The tenderer is required to illustrate network equipment such as AP, access controllers, firewall and Switch in the network diagram.
- (viii) Panel nodes number list for each cabinet
 - (i) The tenderer is required to provide panel nodes location list for each cabinet. All nodes numbers mapped with floor plan of nodes locations shall be recorded in panel node number list.
- (ix) Port VLAN configuration for each switch
 - (i) The tenderer is required to provide VLAN configuration for each switch. All port VLAN configuration shall be recorded in configuration document.

4 Provision of new electricity work

The Centralized Network Location (MDF) will be relocated to Room 203 from 204s. All appliances in cabinets of Room 204s will be redeployed to the new location, Room 203. Tenderer shall provide electrical power to server rack cabinets.

This section specifies the user requirements of the new electricity work at Room 203

4.1 Existing main switches and electrical trunks at Room 203



4.2 Proposed 6-way triple phase MCB Board and power sockets x 12 QTY at Room 203



4.3 Standard Provision of Room 203

- (i) install a new 60Ampere 6-way Triple phase miniature circuit breaker (MCB) board (confirmed by the school later) into existing main switch of the dedicated location
- (ii) install 2 new G.I. conduits from new MCB board independently from new MCB board
- (iii) install 12 new 13A power sockets (confirmed by the school later) at the dedicated location from 2 new G.I. conduits to new MCB Board independently
- (iv) Install any G.I. conduits/ trunks, socket boxes, faceplates, 13A socket outlets, junction box, pipe joints, pipe bracket and its accessories provided by the tenderer if necessary

4.4 Standard Provision of Room 204s

- (i) install a new MCB in existing MCB board located at Room 204s
- (ii) install a new G.I. conduits from existing MCB board
- (iii) install a new 13A power sockets (confirmed by the school later) at the dedicated location from existing MCB board
- (iv) Install any G.I. conduits/ trunks, socket boxes, faceplates, 13A socket outlets, junction box, pipe joints, pipe bracket and its accessories provided by the tenderer if necessary.

4.5 Service Requirement of new electricity work

- (i) The contractor shall have all licenses required for works in the project.
- (ii) Installation should fit with the requirement of HKSAR Laws, and tenderer/ contractors shall be responsible all their labours' insurance and third party liability insurance (no less than \$20,000,000). A cover note may be produced before beginning of the project.
- (iii) The school will totally monitor quality of work. The contractor shall be cooperated with the school monitoring work.
- (iv) Any information provided by the school is for reference only. Tenderer shall be responsible for investigating site carefully in order to avoid any risk caused from inaccurate information.
- (v) The contractor shall be responsible for the total management and shall assign a person to act as the single contact point to the school regarding all related activities of the contract.
- (vi) The contractor shall make sure that the actual environment is suitable for the installation and operation of equipment with school agreement in advance, and make necessary suggestions, if any.
- (vii) be provided with label identification of the electrical outlets and MCB Board
- (viii) For construction work that make dirt or peel off of school paint, contractor need to paint back the paint with same color tone.
- (ix) Tenderer/ contractors shall be responsible for making good, and/or performing other necessary remedial tasks to rectify, any damages resulting from the installation work.
- (x) All conduits and fittings must comply with the relevant British Standards.
- (xi) Cabling workers who are responsible for on-site cabling work should have at least 5 years working experience in electricity works. The school shall inform related qualification of workers with contractor.
- (xii) Dispose of dismantled cables.

4.6 Deliverables

The tenderer shall submit Work Completion Certificate (Form WR1 shown as below) signed by registered electrical worker (REW) and by registered electrical contractor (REC) to the school for future reference. Registered Electrical Contractor carry out any alteration, addition and improvement of the electrical installation within the school and certify the work upon the completion in accordance with the requirements of the Electricity Ordinance and Electricity (Wiring) Regulations.



FORM WR1
THE GOVERNMENT OF THE HONG KONG
SPECIAL ADMINISTRATIVE REGION
ELECTRICITY ORDINANCE (CAP. 406)
ELECTRICITY (WIRING) REGULATIONS
WORK COMPLETION CERTIFICATE

此項電力裝置須由
To the Owner of the Electrical Installation.

第1部：設計方面的詳情 Part 1 (For Certification of DESIGN)	
<p>1. 本人 職銜(註冊電工人員、檢驗員(電力條例) (第406章)第52條下獲准(第71條)第4)第4)註冊的師傅、註冊專業師傅或電力裝置工程師(第406章)第22條下獲准) 特此聲明如下：</p> <p>I, _____ a registered electrical worker (REW), pursuant to regulation 19(1) of the Electricity (Wiring) Regulations made under section 52 of the Electricity Ordinance, Chapter 406, hereby certify that the Fixed Electrical Installation depicted in Part 3 of this certificate has been designed in accordance with the Ordinance.</p>	<p>註冊電工人員簽署： _____ Signature of REW</p> <p>註冊編號 Registration No. _____</p> <p>有效期至 Expiry Date: _____</p> <p>導師 Guide: _____</p> <p>獲准工作 Permitted Works: _____</p> <p>聯絡電話 Contact Tel. No. _____</p> <p>簽署日期 Date Signed: _____</p>
<p>2. 本人 職銜(註冊電工人員、檢驗員(電力條例) (第406章)第52條下獲准(第71條)第4)第4)註冊的師傅、註冊專業師傅或電力裝置工程師(第406章)第22條下獲准) 特此聲明如下：</p> <p>I, _____, on behalf of _____ (a registered electrical contractor (REC) in accordance with section 34(1) of the Electricity Ordinance, Chapter 406</p>	<p>註冊專業師傅簽署： _____ Signature of REC</p> <p>註冊編號 Registration No. _____</p> <p>有效期至 Expiry Date: _____</p> <p>聯絡電話 Contact Tel. No. _____</p> <p>簽署日期 Date Signed: _____</p>

註：此項電力裝置須由
NOTE: This is the appropriate box

第2部：安裝、檢查及測試方面的詳情 Part 2 (For Certification of INSTALLATION, INSPECTION & TESTING)	
<p>3. 本人 職銜(註冊電工人員、檢驗員(電力條例) (第406章)第52條下獲准(第71條)第4)第4)註冊的師傅、註冊專業師傅或電力裝置工程師(第406章)第22條下獲准) 特此聲明如下：</p> <p>I, _____ a REW, pursuant to regulation 19(1) of the Electricity (Wiring) Regulations made under section 52 of the Electricity Ordinance, Chapter 406, hereby certify that (subject to the appropriate paragraph by ticking the appropriate box below):</p> <p><input type="checkbox"/> 本人已對 _____ 的 _____ 目檢閱本證書所載之電力裝置之電力裝置，本人認為該電力裝置符合第406章第22條下獲准(第71條)第4)第4)註冊的師傅、註冊專業師傅或電力裝置工程師(第406章)第22條下獲准) 特此聲明如下。</p> <p>I have inspected the Fixed Electrical Installation depicted in Part 3 of this certificate on _____, I am satisfied that the Fixed Electrical Installation complies with the Ordinance and is safe to be used under _____.</p> <p><input type="checkbox"/> 本人已對 _____ 的 _____ 目檢閱本證書所載之電力裝置之電力裝置，本人認為該電力裝置符合第406章第22條下獲准(第71條)第4)第4)註冊的師傅、註冊專業師傅或電力裝置工程師(第406章)第22條下獲准) 特此聲明如下。</p> <p>I have inspected only part of the Fixed Electrical Installation depicted in Part 3 of this certificate on _____, however in respect of those parts of the Fixed Electrical Installation which I have not inspected, I have equivalent valid certificates from WR1(A) certified by REW for the individual parts as required under regulation 21(2) of the Electricity (Wiring) Regulations. I am satisfied that the Fixed Electrical Installation complies with the Ordinance and is safe to use under _____.</p>	<p>註冊電工人員簽署： _____ Signature of REW</p> <p>註冊編號 Registration No. _____</p> <p>有效期至 Expiry Date: _____</p> <p>導師 Guide: _____</p> <p>獲准工作 Permitted Works: _____</p> <p>聯絡電話 Contact Tel. No. _____</p> <p>簽署日期 Date Signed: _____</p>

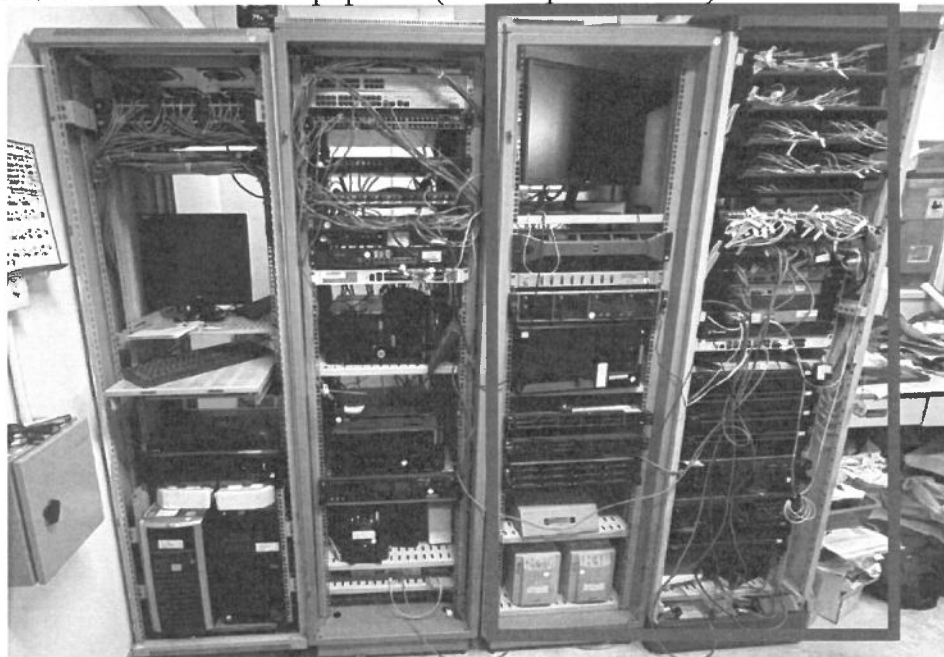
註：此項電力裝置須由
NOTE: This is the appropriate box

第3部：電力裝置詳情 Part 3 (Particulars of the Fixed Electrical Installation)	
<p>1. 電力裝置詳情 Address of the Fixed Electrical Installation</p> <p>電力裝置所有人姓名或名稱 Name of Occupant of the Owner of the Fixed Electrical Installation</p> <p>電力裝置所有人詳情(如與上列不同) Concomitant Address of the Owner of the Fixed Electrical Installation (if different from the above)</p> <p>描述： _____ Description: _____</p> <p>電力裝置詳情(如與上列不同) (註：此項電力裝置詳情須與電力裝置詳情表(第406章)第22條下獲准(第71條)第4)第4)註冊的師傅、註冊專業師傅或電力裝置工程師(第406章)第22條下獲准) 特此聲明如下。 Brief description of Fixed Electrical Installation and/or Schematic Diagrams (Additional No. of _____ drawings and _____ description charts attached)</p> <p>單張詳情 Single sheet chart(s): _____</p>	
<p>2. 電力裝置詳情 Location & description of respective part of the Fixed Electrical Installation.</p> <p>電力裝置詳情 Location & description of respective part of the Fixed Electrical Installation</p>	

5 Relocation of the server racks including all servers and network equipment to Rm 203 from Rm 204s

- 5.1 The contractor shall have all licenses required for works in the project.
- 5.2 Installation should fit with the requirement of HKSAR Laws, and tenderer/ contractors shall be responsible all their labours' insurance and third party liability insurance (no less than \$20,000,000). A cover note may be produced before beginning of the project.
- 5.3 Dismount all existing server-racks/cabinets, switch-racks/cabinets, switches, servers, workstations and I.T. equipment in the dedicated cabinets
- 5.4 Deliver existing equipment and cabinets to room 203 from room 204s
- 5.5 Re-install the equipment at the location specified by the school representative.
- 5.6 Re-order the equipment sorting order of the cabinets
- 5.7 Perform the User Acceptance Tests for each relocated items and ensure all the items are in good condition and no data are lost during the process.
- 5.8 The tenderer shall submit the User Acceptance Tests Record to the School Representative within 3 working days upon commissioning the Relocation Services.
- 5.9 The tenderer shall insure against the risk of Property Damage in transit of all the items including appliances and computer systems, computer system records, documents such as deed, tape, file, document or transparency. The tenderer shall bear all cost for acquiring such insurance policy.
- 5.10 The tenderer perform data and/or configuration backup and restore if the school requires.
- 5.11 The tenderer shall be responsible for making good, and/or performing other necessary remedial tasks to rectify any network and server failure resulting from relocation.
- 5.12 Upon receipt of a request from the school the inspection testing and diagnosing by the contractor of any fault reported in any of the hardware; and the carrying out by the contractor such repairs, adjustments and replacement of parts as may be necessary to restore the Hardware to proper working order.

5.13 Relocated cabinets and equipment (See the photo below)



5.14 Relocation Requirement

	Cabinet	Servers	Appliance	UPS	Others
Qty	42U x 2	Rack mounted x 9 Tower x 4	IP PBX x 1 Switch x 2 Firewall x 1 Surveillance System x 6 Wi-Fi Controller x 2	4	KVM x 2 Monitor x 2 KB and mouse x 2 NAS x 2

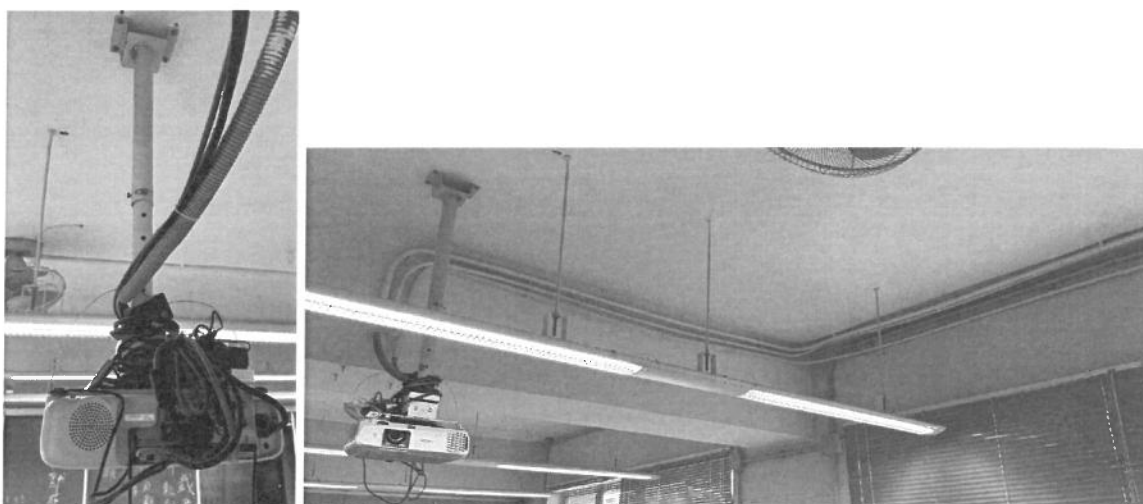
6 Removal of old projection system

- 6.1 The contractor shall have all licenses required for works in the project.
- 6.2 Installation should fit with the requirement of HKSAR Laws, and tenderer/ contractors shall be responsible all their labours' insurance and third party liability insurance (no less than \$20,000,000). A cover note may be produced before beginning of the project.
- 6.3 Dismount projectors, ceiling mount kit and projection screen with its mount kit
- 6.4 Disconnect signal cables and electrical cables from source point may be required
- 6.5 Remove or cut any electrical cables and signal cables from its conduits
- 6.6 Uninstall any electrical conduit and signal conduit including with existing cables for old projection system
- 6.7 Deliver all dismantled stuff to dedicated location according to the school instruction
- 6.8 Dispose of dismantled cables.
- 6.9 Fill holes (after dismantling white screen, projector mount kit and clamps & clips) with cement and paint back existing color of wall
- 6.10 For construction work that make dirt or peel off of school paint, contractor need to paint back the paint with same color tone.
- 6.11 Tenderer/ contractors shall be responsible for making good, and/or performing other necessary remedial tasks to rectify, any damages resulting from the installation work.

6.12 Numbers of old projection system in the school

Floor	Room	Total
6/F		0
5/F	501, 504, 505, 506, 507, 508, 509, 511	8
4/F	401, 402, 404, 405, 406, 407, 408, 409, 411	9
3/F	301, 305, 306, 307, 308, 309, 310, 312	8
2/F	202, 204 (x 2), 205, 206, 207, 208, 210	8
1/F	105, 106 (x 2), 107, 108, 109	6
	Grand-total	39

Hall, Rm 303, 502 and 601 excluded



7 Price Proposal

- 7.1 The Contractor is required to provide a breakdown on the service charges for each of the service items as set out in the Price Proposal at **PART II - PRICE SCHEDULE**. Failure in complying with this requirement will render the quotation disqualified.
- 7.2 Please note that, the school has the absolute discretion to accept the whole of the Services or just part of the Services as listed out by items in the Price Proposal.

8 Invitation for Quotations

- 8.1 Quotations are invited for the execution of the whole of the Services as described in this document. Quotations for part but not all of the Services will not be considered.
- 8.2 Please provide two sets of quotation documents for processing of the quotation.

9 Site Visit Arrangement

- 9.1 Site visit will be arranged at 16:30 on 3rd May 2024 at room 204.

10 Selection and Payment

- 10.1 School is looking for a contractor based on the following criteria

- Proposed pricing
- Proposed solution (if applicable)
- Case reference
- Other useful information

- 10.2 Terms of Payment is subjected to school budget before the works are completely done.

11 Schedule of Work

- 11.1 The successful tenderer shall provide the service according to the following tentative schedule. Working on Sunday and/or Public holiday(s) may be required by the school's request.
- 11.2 The successful tenderer only work on half days between 3rd June and 7th July.
- 11.3 Tenderer who accept the part of build up of new optical fiber and UTP network of the tender should finish the works on floor by floor basis and comply with the school acceptance days.

Phase	Items	Ending Date
I	Meeting with the school representative	2 nd June 2024
II	Build up of electricity work	12 th June 2024
III	Build up of New Optical Fiber (2/F)	According to the school instructions on floor by floor basis
	Build up of New Optical Fiber (1/F)	
	Build up of New Optical Fiber (3/F)	
	Build up of New Optical Fiber (4/F)	
	Build up of New Optical Fiber (5/F)	
	Build up of New Optical Fiber (Others floors)	
	Build up of UTP Network	10 th August 2024
IV	Testing of new optical fiber Network and UTP Network	10 th August 2024
V	Relocation service	14 th August 2024
VI	Removal of old projection system	15 th August 2024
VII	End Day of the project	15 th August 2024

12 Delays

12.1 If the Contractor shall fail to provide the System ready for use by the Completion Date, the Contractor shall pay to the School as and by way of liquidated damages for any loss or damages sustained by the School resulting from delay during the period from the Completion Date to the date on which the Contractor provides such System ready for use the sum of 0.2% of the price for each day.

13 Opening hours for the work

13.1 Opening hours of the school are 8:00 a.m to 4:30 p.m. on Monday to Friday, 8:00 a.m. to 12:30 p.m. on Saturday. The school is closed on Sunday and public holidays.

14 Enquiry

14.1 For enquiry, please contact the school project manager, Mr. Law at lyt@skhhtcss.edu.hk or by phone at 27144137.

PART II

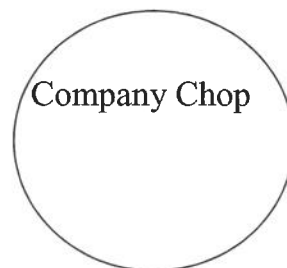
PRICE SCHEDULE (to be completed in duplicate)

Price details for new network, relocation and removal of projection system

Column 2-3 to be completed by Tenderer

(1) Part	(2) Price (HKD)	(3) Remark	School's choice on confirmation
1. Standard Provision and testing of Optical Fiber Single Mode (OS 2 w 8 cores) at 50 Location and new cabinet (49 QTY) and network configuration support (52 QTY) (finishing the work floor by floor)			
2. Standard Provision and testing UTP (Cat. 6) Network (243 QTY) and network configuration service (379 Ports on 52 switches)			
i. Add-on Provision, testing and configuration service for all Smartboards (31 QTY)			
ii. Add-on Provision, testing and configuration service for all AP (53 QTY)			
iii. Add-on Provision, testing and configuration service at Hall (11 QTY)			
iv. Add-on Provision, testing and configuration service at Room 201 (12 QTY)			
v. Add-on Provision, testing and configuration service at Room 204s and 204 (22 QTY)			
vi. Add-on Provision, testing and configuration service at Room 101H, 109, 303, Security Rm (9 QTY)			
3. Electricity work of Room 203 (MCBB and Power outlets x 12 QTY) and 204s (Power outlets and MCB x 1 set)			
4. Relocation Service			
5. Removal of old projection system (39 QTY)			
6. Any Other Costs (please specify)			

We/I understand that if we/I fail to supply the stores or services as offered in our/my tender upon accepting school's order, we are/I am prepared to pay the price difference to the school if such stores or services are obtained from elsewhere.



Name of Tenderer: _____

Name and Signature of Person authorized to sign Tender

Name (in block letters): _____

Signature: _____ Date: _____

PART III
No Bid Confirmation Form

If after assessing this opportunity you have made the determination not to submit you bid, we would appreciate if you could return this form indicating your reasons for non-participation.

To: S.K.H. Holy Trinity Church Secondary School

To the related tender invitation, we have no intention to bid the tender. The reason(s) is/are stated as below. And related tender materials will be destroyed after tender closing date.

Insert an x where applicable	Reason
	The requested goods/ services are not within our range of supply
	The requested products are not available at the moment
	We cannot meet the requested specifications
	Other (Please provide reason(s): _____ _____

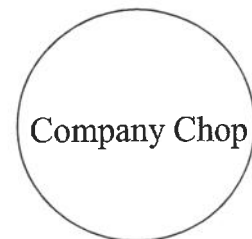
Name of Tenderer: _____

Name and Signature of Person authorized to sign Tender

Name (in block letters): _____

Signature: _____

Date: _____



S.K.H. Holy Trinity Church Secondary School
TENDER FORM FOR
NEW NETWORK, RELOCATION AND REMOVAL OF PROJECTION SYSTEM
(to be completed in duplicate)

Name of School : SKH Holy Trinity Church Secondary School
Address of School : 2 Hau Man Street, Homantin, Kowloon
Telephone No. : 2714 4137
School Ref. No. : 2023-2024/T07 (New network, relocation and removal of projection system)
Tender Closing Date : 12:00 noon on 20 May 2024

PART I

The undersigned hereby offers to undertake the service as described in the tender schedule within the period of time as specified therein from the date of a firm order placed by the school at the price or prices quoted in the tender schedule including labour, materials, all other charges and in accordance with the details provided by the school. In so doing, the undersigned acknowledges that all items not otherwise specified shall be provided in accordance with such details; tenders shall REMAIN OPEN FOR 90 DAYS after the Closing Date; and the school is not bound to accept the lowest or any tender and reserves the right to accept all or any part of any tender within the period during which the tenders remain open. The undersigned also warrants that his Company's Business Registration and Employees' Compensation Insurance Policy are currently in force and that the service which his Company offers to undertake will not cause any damage to the school's premises.

PART II
RECONFIRMATION OF TENDER VALIDITY

With reference to Part I of this tender form, it is reconfirmed that the validity of tender offered by this company remains open for 90 days from 20 May 2024.

The undersigned also agrees to accept the fact that once the validity of tender is reconfirmed, the pre-printed clause specified in the Company's tender forms in regard to this nature shall NOT apply.

PART III
SAFEGUARDING NATIONAL SECURITY

The undersigned acknowledges that notwithstanding anything to the contrary in the quotation/tender documents, the school reserves the right to disqualify this company on the grounds that this company has engaged, is engaging, or is reasonably believed to have engaged or be engaging in acts or activities that are likely to cause or constitute the occurrence of offences endangering national security or otherwise the exclusion is necessary in the interest of national security, or is necessary to protect the public interest of Hong Kong, public morals, public order or public safety.

The undersigned also acknowledges that the school may immediately terminate the contract upon the occurrence of any of the following events:

- (a) this company has engaged or is engaging in acts or activities that are likely to

cause or constitute the occurrence of offences endangering national security or which would otherwise be contrary to the interest of national security;

- (b) the continued engagement of this company or the continued performance of the contract is contrary to the interest of national security; or
- (c) the school reasonably believes that any of the events mentioned above is about to occur.

Dated this _____ day of _____ 20_____.

Name (in block letters) : _____

Signature : _____ in the capacity of _____ (state official position e.g. Director, Manager, Secretary)

Duly authorised to sign tenders for and on behalf of : -

whose registered office is situated at _____

_____ Hong Kong.

Telephone No. : _____

Fax No. : _____



聖公會聖三一堂中學
S.K.H. Holy Trinity Church Secondary School

Letter to Suppliers/Contractors regarding Offering Gifts to School Staff

29 April 2024

Dear Sir/Madam,

Offering Gifts to School Staff

I am pleased to inform you that our school has formulated a clear policy on the solicitation and acceptance of gifts by staff in their official dealings.

In order to maintain a team of clean and honest school staff, it is stipulated in our school policy that no staff shall solicit or accept gifts, money or any other form of advantages in their course of duty without the special permission of the Incorporated Management Committee.

Our staff has understood the policy in which any breach will result in disciplinary action and the school is ready to report all offences to the Independent Commission Against Corruption (ICAC).

We therefore earnestly request your support to our commitment of managing our school in a fair and just way. Should any member of our staff approach you for an advantage, please report to me immediately.

Thank you for your cooperation.

Yours faithfully,

(WONG Lai-shan)
Principal