

**Schedule 3 - E&M Works**

**3.1 Electrical Works**

Item	Code		Qty	Unit	Unit Price	Amount (HK\$)
		<b>Electrical works</b>				
1		Provide labour and material to dismantle and cartaway: All existing electrical installation including but not limited to cables, conduits, trunkings, distribution boards, outlet port, etc. Including all construction waste disposal charging from Hong Kong Government		lot		
		<b>Main Power Distribution</b>				
2		Supply and install 100A TPN main power supply				
a		100A TPN heavy duty meter front protection switch c/w IDMT relay, current transformer, meter board & accessories inside meter room		set		
b		35mm <sup>2</sup> TPN cable & 25mm <sup>2</sup> earth cable form meter room to main switch board inside office area		lm		
c		Issue WR1a with drawing, standby CLP inspection		lot		
3		Supply and install 30A TPN temporary power supply with 30A TPN residual current device, power cable & accessories from meter room to office area		lot		
4		Supply and install MCB distribution board				
a		_____ ways		no(s).		
b		_____ ways		no(s).		
c		_____ ways		no(s).		
d		_____ ways		no(s).		
5		Supply and install MCCB unit				
a		100A TPN		no(s).		
b		80A TPN		no(s).		
c		63A TPN		no(s).		
d		40A TPN		no(s).		
6		Supply and install MCB unit				
a		10A/20A/30A SP MCB unit		no(s).		
b		20A RCBO unit		no(s).		
c		40A TPN MCB unit		no(s).		
7		Supply and install sub-main 1/C PVC Cu. cable				
a		25mm <sup>2</sup>		m		
b		16mm <sup>2</sup>		m		
c		10mm <sup>2</sup>		m		
8		Supply and install metal power/ lighting trunking complete with trunking fittings removable covers, reducers, tees, mounting support and accessories				
a		_____ mm x _____ mm		lm		
b		_____ mm x _____ mm		lm		
c		_____ mm x _____ mm		lm		
9		Supply and install power point including switched outlets, cables, wiring accessories, all necessary metal boxes surface mounted cover plate and/or concealed G.I. conduit, flexible conduit, circuit protective conductor and mounting accessories				
a		13A single socket		no(s).		
b		13A twins socket		no(s).		
c		13A twins socket with 2 no. USB charge		no(s).		
d		13A fuse spur unit		no(s).		
e		20A connection unit		no(s).		
f		32A connection unit		no(s).		
g		100A TPN isolator		no(s).		
h		63A TPN isolator		no(s).		
10		Supply and install Desktop Power Module with 2 UN power, 1 PD65W, 1 UBS, 2M UK Power Cord		no(s).		

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Item	Code		Qty	Unit	Unit Price	Amount (HK\$)
11		Supply and install supplementary bonding cable to the extraneous conductive parts with plastic warning label		lot		
12		Supply and install ELV trunking complete with trunking fittings removable covers, reducers, tees, mounting support and accessories				
a		_____ mm x _____ mm		lm		
b		_____ mm x _____ mm		lm		
c		_____ mm x _____ mm		lm		
13		Supply and install TV point connect to base building connection point including TV outlets, cables, wiring accessories, all necessary metal boxes surface mounted cover plate and/or concealed G.I. conduit, flexible conduit, amplifier and mounting accessories		no(s).		
14		Supply and install conduit point connected trunking including all necessary metal boxes surface mounted cover plate and/or concealed G.I. conduit, flexible conduit, circuit protective conductor and mounting accessories, computer outlet box, draw wires and blank plate				
a		computer point		no(s).		
b		telephone point		no(s).		
c		security point		no(s).		
d		AV point		no(s).		
		<b>Lighting Fitting</b>				
15		Supply and install lighting fittings as per lighting schedule c/w all necessary accessories				
a		L1		no(s).		
b		L2		no(s).		
c		L3		no(s).		
d		L4		no(s).		
e		L5 (Dia 400mm, Dia 600mm and Dia 800mm)		no(s).		
f.		L6		no(s).		
g.		L7		no(s).		
h.		L7a		no(s).		
i.		L8 (Logo wall)		lm		
j.		L8 (Light trough)		lm		
k.		L8A (Reception Table)		lm		
l.		L8B (Cabinet)		lm		
m.		L9		no(s).		
n.		L10		no(s).		
		(Remarks: S&I of Emergency Light, Exit Sign & Directional Sign should be included in SOR3.3_FS)				
16		Supply and install lighting point including <b>lighting switches</b> , cables, wiring accessories, all necessary metal boxes surface mounted cover plate and/or concealed G.I. conduit, flexible conduit, circuit protective conductor and mounting accessories (Remarks: S&I of lighting point for Emergency Light should be included in SOR3.3_FS)		no(s).		

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**3.1 Electrical Works**

Item	Code		Qty	Unit	Unit Price	Amount (HK\$)
17		<b>Sundries</b> Provision of sample submission, shop drawing, as-fitted drawings, operation instruction and maintenance manuals		sum		
18		Training and instructing the employer's staff in the operating, maintenance, preventive maintenance and services of the electrical services installation for period of twelve (12) months from the date of certification of completion		sum		
19		Painting and labelling for all pipes, control panels, switch board and other instructed by Project Manager		sum		
20		Testing and commissioning for whole electrical services installation		sum		
21		Issue WR1		sum		
22		Those items (if any) not mentioned above but necessary for completion the whole system properly under the intent of the Works (Please specified).				
		Remark: Tenderer/ Contractor should check and include hereunder any other outstanding items and works in accordance with the drawings, specifications, site visit, etc. for complete tender. NO CLAIMS relating to the works will be allowed afterward				
					Sub-total of Schedule 3.1 :	

**Schedule 3**  
**3.2 MVAC Works**

Item	Code	Description 內容	Qty	Unit	Unit Price	Amount (HK\$)
		<b><u>MVAC Works</u></b>				
		<b><u>General Office</u></b>				
1		Provide labour and material to dismantle and cartaway: All existing unused MVAC installation including but not limited to FCUs, pipes, air ducts, air grilles, cables, conduits, etc. Including all construction waste disposal charging from Hong Kong Government		lot		
2		Supply and install new air duct with 25mmthk fibre glass insulation.		m <sup>2</sup>		
3		Supply and install new return air plenum.		m <sup>2</sup>		
4		Supply and install new supply air square diffuser (size: 600mm x 600mm).		no(s).		
5		Supply and install new hinged type return air diffuser c/w aluminium filter				
a		Size : 600mm x 600mm		no(s).		
b		Size : 600mm x 1200mm		no(s).		
6		Supply and install 150mm width linear grilles.		m		
7		Supply and install new fresh air duct with 25mmthk fibre glass insulation.		m <sup>2</sup>		
8		Supply and install new FCU with supporting frame and all necessary accessories work:				
a		1200CFM		no(s).		
b		1000CFM		no(s).		
c		800CFM		no(s).		
d		600CFM		no(s).		
9		Supply and install V.C.D. with frame all necessary accessories.		no(s).		
10		Supply and install black steel (medium class) chiller water pipe with phenolic foam isolation (comply with BEC requirement), supporting frame and all necessary accessories.				
a		Dia 65mm		m		
b		Dia 50mm		m		
c		Dia 40mm		m		
d		Dia 32mm		m		
e		Dia 25mm		m		
11		Main Dia. 80mm Chilled Water Pipe Supply and install black steel (medium class) chiller water pipe with phenolic foam isolation (comply with BEC requirement), supporting frame and all necessary accessories.		m		
12		Supply and install G.I. drain pipe with supporting frame and all necessary accessories.		m		
13		Supply and install new On/Off motorized control valve with connection work and all necessary accessories (brand: Johnson Control or equivalent).		no(s).		
14		Supply and install new digital touch screen fan coil thermostats (brand: Johnson Control or equivalent).		no(s).		

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**3.2 MVAC Works**

Item	Code	Description 內容	Qty	Unit	Unit Price	Amount (HK\$)
15		Supply and install duct type temperature sensor connect to thermostats		no(s).		
16		Supply and install new conduit and wiring cable for fan coil unit.		m		
17		Supply and install air boot with 150mmDia flexible 25mmthk fibreglass insulation work with supporting frame and all necessary accessories.		no(s).		
18		Exhausted air fan for toilets.				
a		Supply and install exhausted fan (in-line fan ; Max Q: 1090 ; RPM 1,380 m³/h).		no(s).		
b		Supply and install air duct with 25mmthk fibre glass insulation.		m²		
c		Supply and install exhaust air grille (300mm x 300mm)		no(s).		
d		Wall opening and touchup.		job		
		<b>Sundries</b>				
19		Provision of sample submission, shop drawing, as-fitted drawings, operation instruction and maintenance manuals		sum		
20		Training and instructing the employer's staff in the operating, maintenance, preventive maintenance and services of the MVAC services installation for period of twelve (12) months from the date of certification of completion		sum		
21		Painting and labelling for all pipes, control panels, switch board and other instructed by Project Manager		sum		
22		Testing and commissioning for whole MVAC services installation		sum		
23		Chilled water pipe pressure test, flushing test and water sampling		sum		
24		Those items (if any) not mentioned above but necessary for completion the whole system properly under the intent of the Works (Please specified).				
		Remark: Tenderer/ Contractor should check and include hereunder any other outstanding items and works in accordance with the drawings, specifications, site visit, etc. for complete tender. NO CLAIMS relating to the works will be allowed afterward				
Sub-total of Schedule 3.2 :						

**Schedule 3 - E&M Works**  
**3.3 Fire Services**

Item	Code	Description 內容	Qty	Unit	Unit Price	Amount (HK\$)
		<b>Fire Services</b>				
1		Provide labour and material to relocate existing sprinkler head c/w assoicated drop pipe works.		no(s).		
2		Supply and install additional sprinkler head c/w assoicated drop pipe works.		no(s).		
3		Supply and replace pendant type sprinkler head c/w assoicated drop pipe works.		no(s).		
4		Supply and replace concealed type sprinkler head c/w assoicated drop pipe works.		no(s).		
5		Modification of sprinkler head & G. I. pipe under A/C or others.		no(s).		
6		Supply and install 32mm dia. G. I. pipe.		m		
7		Supply and install 40mm dia. G. I. pipe.		m		
8		Provide labour to drain and refill of sprinkler system.		job		
9		Provide labour and material to relocate existing breakglass unit.		no(s).		
10		Provide labour to isolate and resume of MFA and AFA panel.		job		
11		Supply and install of emergency light (excluded electrical power).		no(s).		
12		Supply and install of exit sign (excluded electrical power).		no(s).		
13		Supply and install of directional exit sign (excluded electrical power).		no(s).		
14		Supply and install power supply for emergency light, exit sign and directional exit sign.		no(s).		
15		Supply and install additional 2 kg dry powder type fire extinguisher.	3	no(s).		
16		<b>Sundries</b> Provision of sample submission, shop drawing, as-fitted drawings, operation instruction and maintenance manuals		sum		
17		Training and instructing the employer's staff in the operating, maintenance, preventive maintenance and services of the fire services installation for period of twelve (12) months from the date of certification of completion		sum		
18		Painting and labelling for all pipes, control panels, switch board and other instructed by Project Manager		sum		
19		Testing and commissioning for whole fire services installation		sum		
20		Issue of Form 314A & F. S. drawing to HKFSD.		sum		
21		Issue FS251 Certificate to HKFSD.		sum		
22		Those items (if any) not mentioned above but necessary for completion the whole system properly under the intent of the Works (Please specified).				
		Remark: Tenderer/ Contractor should check and include hereunder any other outstanding items and works in accordance with the drawings, specifications, site visit, etc. for complete tender. NO CLAIMS relating to the works will be allowed afterward				
					<b>Sub-total of Schedule 3.3 :</b>	

**Schedule 3 - E&M Works**  
**3.4 Plumbing and Drainage Works**

Item	Code	Description 內容	Qty	Unit	Unit Price	Amount (HK\$)
		<b><u>P&amp;D Works</u></b>				
		<b><u>Plumbing system</u></b>				
1		Supply and install copper pipe and fittings for potable water supply complete with all necessary accessories				
a		19mmdia		m		
b		28mmdia		m		
2		Supply and install copper gate valve with wheel head complete with all necessary accessories				
a		25mmdia		no(s).		
b		32mmdia		no(s).		
		<b><u>Drainage system</u></b>				
3		Supply and install 32mmdia galvanized iron pipe and fittings for pump pipe complete with all necessary accessories (class medium).		m		
4		Supply and install stainless steel water storage tank complete with 2 no. submersible pump and all necessary accessories.				
a		316 steel water storage tank, size: 20" x 16" x 16"		no(s).		
b		submersible pump (speed 3000 / 3600 min <sup>-1</sup> )		no(s).		
c		Control panel for submersible pump		no(s).		
5		Supply and install water leakage detector and solenoid valve for emergency shut off.		no(s).		
6		Supply and install check valve.		no(s).		
7		Replace existing drainage pipe at 17/F (low level) and 16/F (high level) c/w all necessary accessories and floor slab opening to 16/F		m		
		<b><u>Installation of sanitary ware and machine</u></b>				
8		Install sanitary ware and machine complete with all pipe connection and necessary accessories				
a		Water dispenser machine		no(s).		
b		wash basin and faucet at toilets		no(s).		
c		water closet at toilets		no(s).		
d		urinal at toilets		no(s).		
		<b><u>Sundries</u></b>				
9		Provision of sample submission, shop drawing, as-fitted drawings, operation instruction and maintenance manuals		sum		
10		Training and instructing the employer's staff in the operating, maintenance, preventive maintenance and services of the plumbing and drainage installation for period of twelve (12) months from the date of certification of completion		sum		
11		Painting and labelling for all pipes, control panels, switch board and other instructed by Project Manager		sum		
12		Testing and commissioning for whole plumbing and drainage services installation		sum		
13		Laboratory test for water sampling of new potable water system.		sum		
14		Those items (if any) not mentioned above but necessary for completion the whole system properly under the intent of the Works (Please specified).				
		Remark: Tenderer/ Contractor should check and include hereunder any other outstanding items and works in accordance with the drawings, specifications, site visit, etc. for complete tender. NO CLAIMS relating to the works will be allowed afterward				
					<b>Sub-total of Schedule 3.4 :</b>	