Fixed Schedule of Rates

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NOTES ON PRICES CONTAINED HEREIN

- 1. All rates shown against every item in the Fixed Schedule of Rates II and III subject to the Tender Rate shall be fixed throughout the whole duration of the Contract and any extension thereof and no amendments whatsoever shall be made to such rates.
- 2. The rates so set against each and every item shall be held to include the supply, delivery and installation as specified, all labour and materials establishment charges, profit preliminaries and generally all other consequential requirements unless otherwise stated.
- 3. The rates shall be used as the basic for progress payments and as the basis for calculating the cost of any variation which may be ordered in accordance with the terms of this Contract.
- 4. The Contractor shall be deemed to have made a close study of this Fixed Schedule of Rates, and duly understood their implication in this Contract.
- 5. The term "as specified" shall mean all that is written in this Requirement Specifications.

NON-SCHEDULE RATES

Where any item of material or equipment required is not listed in the Fixed Schedule of Rates, the same shall be supplied and installed by the Contractor as directed by Superintending Officer and shall be paid at **cost plus 10%**, i.e. Star Rate. The Contractor shall submit the original invoices of cost price obtained from agents/suppliers/specialists for the purpose of payment valuation.

SECTION A - BASIC WIRING POINTS

NOTES:

- 1. For the purpose of this Section, the rate for **PVC SURFACE** installation of wiring points shall be taken as the **BASE RATE**.
- 2. PVC trunking are PVC conduit will be taken as equivalent cost.
- 3. **Star rates will not be considered** for RED TOGGLES or SWITCHES instead of conventional WHITE TOGGLES or switches or for neon indicators.

- 4. For PVC and GI conduits, no increase over the Fixed Schedules of Rates will be allowed for the cost of primer coat and enamel painting to any colour by the Superintending Officer.
- 5. The following wire sizes shall apply:

Fire Alarm Point - 1.5 mm sq 5A lighting or fan point - 1.5 mm sq 13A socket outlet point - 2.5 mm sq 15A socket outlet point - 2.5 mm sq 20A Equipment points - 4.0 mm sq

- 6. All wiring points shall be considered not to exceed 15 metres run from the source of supply to the first immediate wiring point. For subsequent points wiring distance shall be considered as distance between wiring point on the same circuit.
- 7. For multiple wiring points on 2-way switch circuits, only one 2-way switch rate will be payable. The rest of the points will be treated as that of unswitched circuits.
- 8. All socket outlets shall be ivory white for base rate c/w spring shutters on both Live and Neutral openings.
- 9. For wiring point with corresponding metal clad switch or socket plate c/w the necessary metal-clad box as appropriate, no increase over the Fixed Schedule of Rates will be allowed.

DEFINITIONS:

- 1. "Full concealed" means that the trunking or conduit protecting the cables are considered within walls, floor throughout the whole length of the wiring point. Normally it would have been necessary to chase and make good (at least rough patching) of walls, floors, etc. New cast-in-situ conduit wiring will be treated as "full-concealed".
- 2. "Part concealed" means that only part of the trunking or conduit protecting the cables are encased within walls, floor within the whole wiring point. This applies to the following cases:
 - i) Concealed installation below false ceiling but surface installation above false ceiling.
 - ii) Installation within dry light-weight partition walls.
- 3. "Surface" means that the entire length of the trunking or conduit is mounted on the surface including the case of entire wiring length within false ceiling.

SECTION A – BASIC WIRING POINTS

NOTE:

All wiring points (pt) shall be considered not to exceed 15 metre run. For additional length of cables installed, additional cost shall be paid accordingly to the rates set out in the Section B.

Item No	Description	Unit	Rate (S\$)
1	Ceiling /Pendant/Bracket/Wall light pt c/w 5	Each	\$55.00
	amp SP moulded switch plate and moulded		
	box.		
2	As item 1 – but without switch	Each	\$50.00
3	As item 1 – but with weatherproof switch	Each	\$60.00
4	Spotlight pt c/w 5 amp SP moulded switch and	Each	\$55.00
	moulded box		
5	As item 4 - but without switch	Each	\$50.00
6	Bracket/Exhaust/Wall fan pt c/w 5 amp	Each	\$55.00
	moulded switch plate and moulded box		
7	As item 6 - but without switch	Each	\$50.00
8	Ceiling fan pt c/w 5 amp SP moulded switch	Each	\$55.00
	and moulded box, regulator.		
9	As item 8 - but without switch	Each	\$50.00
10	Power socket outlet pt c/w 5 amp single gang	Each	\$55.00
	switch socket outlet and moulded box.		
11	Power socket outlet pt c/w 13 amp single gang	Each	\$57.00
	switch socket outlet and moulded box		
12	As item 11- but c/w 13 amp twin gang	Each	\$62.00
13	Weatherproof socket outlet pt c/w 13 amp	Each	\$80.00
	single gang switch socket outlet complete set.		

NOTE: For items 10 and 11 ring circuits, additional cost is allowed for return cabling from maximum distance of the last socket to source of supply.

SECTION A – BASIC WIRING POINTS (cont'd)

Item No	Description	Unit	Rate (S\$)
14	As item 11 - but c/w 15 amp round pin single gang for higher capacity equipment for airconditioner.		
	i) without DOL starter	Each	\$60.00
15	ii) with DOL starter Water heater/equipment point c/w 20A DP switch with neon indicator light, fused connection unit or 3-plate ceiling rose 20A.	Each Each	\$85.00 \$80.00
16	Power socket outlet point c/w 20A DP switch and neon indicator, 15A switched socket outlet adjacent to air-conditioner.	Each	\$75.00
17	Power socket outlet pt c/w 20A DP with neon indicator, 15A switched socket outlet and 3-way connector on teak block (180 mm x 200mm x 32 mm) block without starter.	Each	\$85.00
18	Fire alarm point with 2 lengths 2.5mm sq PVC cables in GI conduit up to 15 metres.	Each	\$70.00
19	Additional neon light for any moulded socket outlet plate or switch plate.	Each	\$ 5.00
20	Red toggle or switch instead of white toggle or switch (Additional cost).	Each	\$ 4.00
21	Hand-dryer, Hair-dryer point c/w moulded fused connection unit.	Each	\$55.00
22	Sensor point for urinal and WC but without switch, c/w recessed junction box /inspection box.	Each	\$45.00

NOTE: Additional rates chargeable for deviation from standard accessories or fittings (Adjustments are not applicable for item 14, 15, 16 and 17).

SECTION B - WIRING CABLES IN CONDUIT ON METAL/PVC TRUNKING

Supply and install in conduit or metal/PVC trunking or cable trays or underground if required for the following (excluding conduit or trunking or cable trays:-

Item No	Description	Unit	Rate (S\$)
I	PVC insulated cable to Singapore Standard, SS 5 grade.	50: 1981 4	50/750V
1	1 x 1.0 mm2 PVC	Per m run	0.40
2	1 x 1.5 mm2 PVC	"	0.60
3	1 x 2.5 mm2 PVC	"	0.80
4	1 x 4.0 mm2 PVC	"	1.00
5	1 x 6.0 mm2 PVC	"	2.00
6	1 x 10.0 mm2 PVC	"	2.80
7	1 x 16.0 mm2 PVC	"	4.10
8	1 x 25.0 mm2 PVC	"	5.40
9	1 x 35.0 mm2 PVC	"	6.70
10	1 x 50.0 mm2 PVC	"	8.20
11	1 x 70.0 mm2 PVC	"	10.20
12	1 x 95.0 mm2 PVC	"	13.30
13	1 x 120.0 mm2 PVC	"	15.40
14	1 x 150.0 mm2 PVC	"	19.60
15	1 x 185.0 mm2 PVC	"	25.50
16	1 x 240.0 mm2 PVC	"	31.50

<u>SECTION B - WIRING CABLES IN CONDUIT ON METAL/PVC TRUNKING</u> (cont'd)

Item No	Description	Unit	Rate (S\$)
II	PVC/PVC insulated cable to Singapore Standard 450/750V grade.	, SS 50: 1	981
1	1 x 1.0 mm2 PVC/PVC	Per m run	0.80
2	1 x 1.5 mm2 PVC/PVC	"	1.00
3	1 x 2.5 mm2 PVC/PVC	"	1.50
4	1 x 4.0 mm2 PVC/PVC	"	1.70
5	1 x 6.0 mm2 PVC/PVC	"	2.20
6	1 x 10.0 mm2 PVC/PVC	"	3.50
7	1 x 16.0 mm2 PVC/PVC	"	4.60
8	1 x 25.0 mm2 PVC/PVC	"	6.10
9	1 x 35.0 mm2 PVC/PVC	"	7.50
10	1 x 50.0 mm2 PVC/PVC	"	9.20
11	1 x 70.0 mm2 PVC/PVC	"	11.50
12	1 x 95.0 mm2 PVC/PVC	=	15.10
13	1 x 120.0 mm2 PVC/PVC	"	17.30
14	1 x 150.0 mm2 PVC/PVC	"	22.00
15	1 x 185.0 mm2 PVC/PVC	"	28.80
16	1 x 240.0 mm2 PVC/PVC	"	35.70

SECTION B - WIRING CABLES IN CONDUIT ON METAL/PVC TRUNKING (cont'd)

Item No	Description	Unit	Rate (S\$)
III	Fire Resistant and Flame Retardant Cable to IEC 600/1000V Grade.	331/332	of
1	1 x 1.0 mm2	Per m run	3.50
2	1 x 1.5 mm2	"	4.50
3	1 x 2.5 mm2	"	5.40
4	1 x 4.0 mm2	"	6.00
5	1 x 6.0 mm2	"	6.80
6	1 x 10.0 mm2	"	9.10
7	1 x 16.0 mm2	"	12.10
8	1 x 25.0 mm2	"	17.10
9	1 x 35.0 mm2	"	22.30
10	1 x 50.0 mm2	"	28.40
11	1 x 70.0 mm2	"	37.00
12	1 x 95.0 mm2	"	40.00

SECTION B - WIRING CABLES IN CONDUIT ON METAL/PVC TRUNKING (cont'd)

Item No	Description	Unit	Rate (S\$)
IV	Flexible Cords to SS CP5 1998		
1	2C 23/0076 (Red & Black)	Per m run	0.50
2	2C x 7/029 (Flat Cable) (~2.5mm2)	"	0.70
3	3C x 23/0076 (~1.0mm2)	"	0.90
4	3C x 40/0076 (~1.5mm2)	"	1.20
5	3C x 70/0076 (~2.5mm2)	"	1.50
6	3C x 110/0076 (~4.0mm2)	"	2.10
7	3C x 162/0076 (~6.0mm2)	"	2.70
8	4C x 110/0076 (~4.0mm2)	"	3.10
9	4C x 162/0076 (~6.0 mm2)	"	3.60

Item	Description	T1:4	Rate
No		Unit	(S \$)
V	Neoprene Cable to SS CP5 1998		
1	3C x 2.5mm2	Per m run	2.70
2	3C x 6.0mm2	11	5.70
3	5C x 6.0mm2	=	8.30
4	5C x 10.0mm2	=	15.00
5	5C x 16.0mm2	=	26.00

<u>SECTION C – STEEL / PVC TRUNKING, METAL CONDUIT, CABLE TRAY AND PVC CONDUIT</u>

Supply labour and material to install the followings including fixing, making of the concrete work, painting of steel trunking, and metal conduit (to any colour) per metre run.

1. <u>Steel Trunking c/w removable cover and bracket (not exceeding 1 metre spacing) including copper link and screws per metre run.</u>

Sizes (mm)	Item No	20 Gauges \$	Item No	18 Gauges (\$)
50 x 25	1.1	3.80	1.2	4.50
50 x 50	1.3	4.70	1.4	5.60
75 x 50	1.5	5.60	1.6	6.80
100 x 50	1.7	6.90	1.8	7.60
100 x 75	1.9	8.40	1.10	9.50
100 x 100	1.11	10.00	1.12	11.00
150 x 50	1.13	8.60	1.14	10.00
150 x 75	1.15	9.30	1.16	10.80
150 x 100	1.17	10.70	1.18	12.10
200 x 100	1.19	11.30	1.20	13.20
250 x 150	1.21	12.80	1.22	14.20
300 x 150	1.23	13.50	1.24	14.90

<u>SECTION C – STEEL / PVC TRUNKING, METAL CONDUIT, CABLE TRAY AND PVC CONDUIT (cont'd)</u>

2. PVC trunking complete with cover per metre run:

Item No	Size (mm)	Rate (\$)
2.1	12 x 6	1.50
2.2	25 x 12	2.00
2.3	40 x 20	2.90
2.4	50 x 25	3.50
2.5	50 x 50	6.30
2.6	75 x 50	6.80
2.7	100 x 50	7.30
2.8	100 x 75	7.80
2.9	150 x 100	8.30

3. <u>Galvanised Iron Conduit c/w saddles/clamps (not exceeding 2 metre spacing) conduit boxes per metre run:</u>

Size	On Surface		
Size	Item No	\$	
20mm (3/4")	3.1	4.70	
25mm (1")	3.2	5.20	
32mm(1 1/2")	3.3	6.70	
40mm(1 3/4")	3.4	9.70	

4. Flexible Conduit (metal type) per metre run

Size	Itom No	¢	Brass Termination Gland (eac	
Size	Item No.	\$	Item No.	\$
18/20mm	4.1	3.30	4.2	1.80
25mm	4.3	4.70	4.4	2.00

<u>SECTION C – STEEL / PVC TRUNKING, METAL CONDUIT, CABLE TRAY AND PVC CONDUIT (cont'd)</u>

5. Flexible Conduit (PVC high impact weatherproof type) per metre run

C:	Itam Na	ø	PVC Termination Gland (each)	
Size	Item No.	•	Item No.	\$
20mm	5.1	2.40	5.2	1.50
25mm	5.3	2.80	5.4	1.80

6. Cable Tray

Item No.	Description	Unit	Rate (\$)
6.1	Supply and install 1.2mm thick 50mm hot-dipped galvanised cable tray fixed onto walls or ceiling including all factory fabricated bends, junctions, joints and brackets, etc.	Per m	9.00
6.2	- do - 1.2 thick 75mm - do -	"	9.30
6.3	- do - 1.2 thick 100mm - do -	:	10.30
6.4	- do - 1.2 thick 150mm - do -	:	12.50
6.5	- do - 1.6mm thick 200mm - do -	"	15.50
6.6	- do - 1.6mm thick 300mm - do -	:	22.30

7. PVC Conduit complete with Saddles, Elbows, Sockets, Inspection Boxes, per metre run

	On Surface		
Size	Item No.	\$	
20mm (3/4")	7.1	2.40	
25mm (1")	7.2	2.80	
32mm(1 1/4")	7.3	3.60	

SECTION D: SWITCHES, SOCKET-OUTLETS, DIMMER, FAN SPEED CONTROL, ETC (EXCLUDING WIRING POINT BUT INCLUDE CABLE TERMINATIONS)

Supply all material, labour and install in surface or concealed in wall/column including mounted PVC box or metal box.

	Description		Rat	e (\$)
Item No		Unit	For Surface Only	For Concealed Only
1	5 amp, 1 way, 1 gang, single pole, plate switch complete with moulded PVC box or metal box:	Each	6.00	8.00
2	As item 1 - but 2 way	Each	7.70	9.70
3	As item 1 - but 2 gang	Each	9.70	11.70
4	As item 1 - but 3 gang	Each	11.30	13.30
5	As item 1 - but 4 gang	Each	13.00	15.00
6	As item 1 - but 5 gang	Each	14.00	16.00
7	5 amp, 3-pin lighting/fan switch socket (shuttered type)	Each	4.00	6.00
8	13 amp, 3-pin switch socket-outlet c/w moulded PVC box or metal box	Each	5.50	7.50
9	As item 8 - but 2 gang	Each	12.00	15.00
10	15 amp, 3-pin round switch socket-outlet c/w moulded PVC box or metal box	Each	18.00	20.00
11	5 amp metalclad switch SP c/w metal box	Each	5.00	7.00
12	As item 11 - but 2 gang	Each	9.00	11.00
13	As item 11 - but 3 gang	Each	12.00	14.00
14	As item 11 - but 4 gang	Each	14.00	16.00
15	5 amp weatherproof SP c/w box for surface mounting	Each	12.00	-
16	As item 15- but 2 gang	Each	17.00	-
17	13 amp, 3-pin metal clad switch socket outlet c/w metal box	Each	9.60	11.60
18	As item 17 - but 2 gang	Each	15.50	17.50

SECTION D: SWITCHES, SOCKET-OUTLETS, DIMMER, FAN SPEED CONTROL, ETC (EXCLUDING WIRING POINT BUT INCLUDE CABLE TERMINATIONS) (cont'd)

			Rate	e (\$)
Item No	Description	Unit	For Surface Only	For Concealed Only
19	15 amp 3-pin metal clad switch socket outlet c/w box.	Each	12.00	14.00
20	13 amp, 3-pin weatherproof switch socket outlet c/w box	Each	50.00	-
21	15 amp, 3-pin weatherproof switch socket outlet c/w box	Each	60.00	-
22	Light control dimmer plate c/w box	Each		
	a) 500W	Each	30.00	-
	b) 1000W	Each	60.00	-
23	Ceiling/wall fan speed control plate c/w box & 5 amp SP switch	Each	20.00	22.00
24	Exhaust/Supply fan speed control plate c/w box & 5 amp switch	Each	20.00	22.00
25	5 amp plug top 3-pin type	Each	3.20	-
26	13 amp Plug top 3-pin type	Each	4.00	-
27	15 amp Plug top 3-pin type	Each	6.80	-
28	Push button switch plate c/w box	Each	20.00	-

SECTION E

LIGHTNING AND SURGE PROTECTION (See Note Below)

Items listed below shall comply with SS 555: 2010 (or formerly CP33:1996)

Item	Degarintien	Unit	Rate (\$)	
No	Description	Unit	Copper	Aluminium
1	Supply and install lightning finial 300mm x 16mm diameter c/w base plate including connecting up to interconnecting tape.	Each	31.00	15.50
2	Supply and install lightning finial 500mm x 16mm diameter c/w base-plate including connecting up to interconnecting tape.	Each	35.00	22.50
3	Supply and install 20mm x 3.25mm tape using purpose made brass saddles cement blocks at one meter intervals.	Per metre run	10.50	6.30
4	As item 3, but using 25mm x 3.25mm tape	Per metre Run	15.50	9.30
5	Supply and install square test clamp for forming straight through, cross or tee joint.	Each	8.00	5.00

Notes:

T or square clamps are payable only where there is a need for the lightning conductor tape to change direction. Mere straight through joints are not allowed to be claimed by the Contractor.

SECTION E (cont'd)

Item No	Description	Unit	Rate (\$)
6	Supply and install brass test clamp bolt or ramset onto wall.	Each	15.00
7	Supply and install lightning earth electrode 3.6m x 16mm diameter solid copper made clamps and galvanised inspection pit fitted with heavy duty hinged cover and fibre glass PVC base with riveted traffolyte labelling "Lightning Earth Electrode Do Not Remove"	Each	140.00
8	Supply and install additional solid copper rod 1.8m x 16mm	Each	20.00
9	Supply and install Bi-metallic connector for jointing aluminium to copper tape including connecting up copper/aluminium tapes and saddles.	Each	25.00
10	Supply and install lightning finial 25cm x 35cm diameter each fabricated from galvanised sheet steel, including connecting up to interconnecting GI	Per metre run	3.00
11	Supply and install 7/14 GI wire testes or finials	Each	3.00
12	Supply and install of A clamp	Each	40.00
13	Supply and install of copper rod coupling/skim	Each	15.00
14	To take down of existing GI wires, tape or finials & etc.	Per m	2.00
15	Construct concrete base for the earth chamber	Each	40.00

NOTE: Rates for scaffolding are set out inSection Q of this schedule.

SECTION E (cont'd)

Item No	Description	Unit	Rate (\$)
16	Supply earth tester and labour for testing of earth electrodes resistance value.	First Rod	20.00
17	As item 16, for subsequent rod test.	Each	5.00

SURGE PROTECTORS

<u>Supply and install the following lightning/high voltage surge protective devices list enclosures</u>

Item No	Description	Unit	Rate (\$)
18	Highly non-linear single phase surge protection of characteristic {a>30}, as OBO V20C or equivalent, 0.8 KV impulse breakdown voltage, 20/75 KA current capacity (8/20 characteristic) for DIN-rail mounting.	Per Set (2 nos.)	160.00
19	As item 18 but with audio & visual monitoring.	Per Set	320.00
20	Highly non-linear 3 phase surge protection of characteristic {a>30}, as OBO V20C or equivalent, 0.8 KV impulse breakdown voltage, 75 KA current capacity (8/20 characteristic). Modular design with one base and 4 modules.	Per Set (4 nos.)	320.00
21	As item 20 but with audio & visual monitoring	Per Set	559.00
22	13A surge protective plug top, impulse breakdown voltage 0.6 KV, 2.5 KA current capacity (8/20 characteristics).	Nos.	41.40
23	As item 22 but for 15A.	Nos.	68.00

SURGE PROTECTORS (cont'd)

Item No	Description	Unit	Rate (\$)
24	Surge protection modules for modem lines, PZ-024-HA or equivalent, impulse breakdown voltage <58.5 V DC, current capacity 10 KA (8/20 characteristics).	Pair	68.00
25	Single phase surge protection module for DB board DIN rail mounting as SP-200-2D or equivalent, impulse breakdown voltage < 1KV, current capacity 20 KA (8/20 characteristics) with thermal fault indications as an integral unit with Live, Neutral and Earth connections.		104.00
26	Supply and install surface moulded box c/w 4-6 way DIN rail and teak block for connection of surge arrestors or MCBs/RCCBs & etc.	Each	30.00

SECTION F - EARTHING

Items listed below shall comply with SS 551:2009 (or formerly CP 16:1995)

Item No	Description	Unit	Rate (\$)
1	Supply and install alternative mains "earth" electrode 16mm dia x 3.6m solid copper rod c/w brass or copper made clamps and galvanized inspection pit fitted with heavy duty hinged cover and fibre glass PVC base with riveted traffolyte labeling: SAFETY EARTH ELECTRODES "DO NOT REMOVE"	Each	140.00
2	Supply and install alternative mains "earth" electrode 16mm dia x 5.4m solid copper rod c/w brass or copper made clamps and galvanized inspection pit fitted with heavy duty hinged cover and fibre glass base with riveted traffolyte labeling: SAFETY EARTH ELECTRODES "DO NOT REMOVE"	Each	160.00

SECTION F - EARTHING (cont'd)

Item No	Description	Unit	Rate (\$)
3	Supply and lay in prepared trench, 300mm depth (this shall include the excavating in ground, backfilling and re-turfing).		
	i) 20mm x 3.20mm copper tape	per m run	25.00
	ii) 25mm x 3.20mm copper tape	per m run	28.00
4	Earth clip sizes 19mm to 50mm	per m run	1.50
5	Earth pit c/w 1m x 1m x 3mm thick copper plate. 5 nos 16mm dia x 3.6 m long copper earth electrode connecting to concrete inspection pit as per attached drawing. (Sketch F1)		
	i) 2m deep	per set	1,242.00
	ii) 4m deep	per set	1,470.00
6	i) Supply and install galvanised pit fitted with heavy duty hinged cover and fibre glass base.	Each	40.00
	ii) As item 6(i), but with riveted traffolyte labeling:	Each	60.00
	SAFETY EARTH ELECTRODES "DO NOT REMOVE"		
7	Supply and install additional copper rod 16mm x 1.8m	Each	20.00
8	Supply earth tester and labour for testing of earth electrode resistance value.	Each	20.00
9	As item 8: but for subsequent rod test.	Each	5.00

<u>SECTION G - RESIDUAL CURRENT CIRCUIT BREAKER (RCCB)</u>

Supply labour, materials and install the following RCCB/ELR to Singapore Standard SS 97-1:2005 less enclosure:

Item No	Type (PSB Approved)	Unit	Rate (\$)
1	40/0.03A or 0.1, 2-pole, 230V	Each	58.00
2	40/0.03A or 0.1, 4-pole, 400V	Each	82.80
3	63A/0.03A or 0.1, 2-pole, 230V	Each	67.30
4	63/0.03A or 0.1, 4-pole, 400V	Each	124.20
5	100A/0.1A, 4-pole, 400V	Each	155.30
6	63A/0.2A to 0.5, 2-pole, 230V	Each	67.30
7	63A/0.2A to 0.5A, 4-pole, 400V	Each	124.20
8	100A/0.2A to 0.5A, 4-pole, 400V	Each	155.30
9	Combined RCCB/MCB in-one as follows:- RCCB - 10mA 0.1 sec trip 30A MCB - 5-30A (Type 2-4) M6 duty	Each	120.00

SECTION G - RESIDUAL CURRENT CIRCUIT BREAKER (RCCB) (cont'd)

Item No.	Type (PSB Approved)	Unit	Rate (\$)
10	Combined RCCB/13A socket in-one installed into 2 gang box as follows:- RCCB - 10mA 0.1 sec. trip 30A Socket outlet: 13A rectangular pin on ivory plate.	Each	70.00
11	Supply and install earth leakage relay of current ratings sensitivity 0.2A to 3A and time setting of 0.2 sec to 0.5sec 240v/415v c/w zero current transformer of cable entry size from 40 to 80mm2 including all short cable terminations.	Each	300.00

<u>SECTION H – DISTRIBUTION BOARDS, SWITCHBOARDS & ACCESSORIES</u>

1. Supply and install in conduit, surface on PVC trunking wiring system, including all necessary accessories, bolts and nuts, cutting of holes, mounting short length of cables, etc and ready to operate the following:-

Item No	Description	Unit	Rate (\$)		
I	Supply and install 500V moulded case type distribution MCB board only c/w moulded cover and neutral earth connectors with the facilities for mounting the following No of way of circuit breaker including short lengths of appropriately sized cables to adjacent existing distribution board not exceeding 2m in length.				
1.1	8, 12 & 14ways single pole	Each	65.00		
1.2	16, 20 & 24 ways single pole	Each	104.00		
1.3	28, 32, & 36 ways single pole	Each	130.00		
1.4	4 ways triple pole	Each	75.00		
1.5	8 ways triple pole	Each	115.00		
1.6	12 ways triple pole	Each	180.00		
1.7	16 ways triple pole	Each	240.00		
1.8	18 ways triple pole	Each	270.00		
II	As item I but for metal-clad distribution	on type distribut	ion MCB board.		
1.9	8, 12 & 14 ways single pole	Each	90.00		
1.10	16, 20 & 24 ways single pole	Each	140.00		
1.11	28, 32, & 36 ways single pole	Each	202.00		
1.12	8 ways triple pole	Each	140.00		

Item No	Description	Unit	Rate (\$)		
II	As item I but for metal-clad distribution type distribution MCB board. (cont'd)				
1.13	12 ways triple pole	Each	210.00		
1.14	16 ways triple pole	Each	290.00		
1.15	18 ways triple pole	Each	320.00		
III	Supply and install the following MCE MCB boards	3 for mounting at	distribution		
1.16	6A to 32A SP	Each	9.30		
1.17	40A to 60A SP M9 Type B, C & D	Each	18.60		
1.18	10A to 63A DP M9 Type B, C & D	Each	42.00		
1.19	10A to 63A TP M9 Type B, C & D	Each	82.80		
1.20	100A TP M9 Type B, C & D	Each	134.60		
1.21	32A to 63 4P M9 Type B, C & D	Each	94.00		
1.22	100A 4P M9 Type B, C & D	Each	114.00		
IV	Supply and install the following isola MCB boards	tors for mounting	g at distribution		
1.23	6-32A SP isolator	Each	10.00		
1.24	60A SP isolator	Each	13.10		
1.25	100A single pole isolator	Each	20.60		
1.26	30A double pole isolator	Each	12.40		
1.27	60A double pole isolator	Each	26.90		

Item No	Description	Unit	Rate (\$)			
IV	Supply and install the following isolators for mounting at distribution MCB boards (cont'd)					
1.28	100A double pole isolator	Each	41.40			
1.29	30A triple pole isolator	Each	33.40			
1.30	60A triple pole isolator	Each	49.50			
1.31	100A triple pole isolator	Each	82.80			
1.32	160A triple pole isolator	Each	120.00			
V	Supply and install the following isolate	tor c/w HRC swi	tch fuse			
1.33	15A TPN metalclad isolator	Each	37.80			
1.34	30A TPN metalclad isolator	Each	56.00			
1.35	60A TPN metalclad isolator	Each	98.00			
1.36	100A TPN metalclad isolator	Each	172.20			
1.37	160A TPN metalclad isolator	Each	311.50			
1.38	200 A TPN metalclad isolator	Each	455.80			
1.39	15A metalclad cut-out c/w rewireable fuse	Each	8.40			
1.40	30A metalclad cut-out c/w rewireable fuse	Each	9.80			
1.41	60A metalclad cut-out c/w rewireable fuse	Each	18.20			
1.42	15A multiway connector (BI)	Each	3.90			
1.43	30A multiway connector (BI)	Each	4.90			

Item No	Description	Unit	Rate (\$)			
V	Supply and install the following isolator c/w HRC switch fuse (cont'd)					
1.44	60A multiway connector (BI)	Each	6.90			
1.45	100A multiway connector (BI)	Each	16.10			
1.46	150A - 300A multiway connector (BI)	Each	30.00			
1.47	Earth/Neutral Brass connector multi-way up to 10 ways	Each	3.20			
1.48	Earth/Neutral Brass connector multi-way from 11 up to 20 ways	Each	5.00			
1.49	IDC 12-20 way multi-way connector	Each	30.00			
1.50	Clip-on bakelite connectors 6-32A	Each	2.50			
1.51	Connector, 600V 80A Legrand or equivalent	Each	6.00			
1.52	Single way contactor, Kasuga or equivalent	Each	10.00			
1.53	4-ways connector, 600v, TC30 Kasuga or equivalent	Each	15.00			
1.54	4-ways connector, 600v, TC60 Kasuga or equivalent	Each	20.00			
1.55	4-ways connector, 600v, TC100 Kasuga or equivalent	Each	30.00			
1.56	230V Contactor i) 20A, 2-pole ii) 20A, 4 pole iii) 40A, 4 pole iv) 63A, 4 pole	Each Each Each Each	35.00 50.00 75.00 100.00			

Item No	Description	Unit	Rate (\$)		
V	Supply and install the following isolator c/w HRC switch fuse (cont'd)				
1.57	Analog/Mechanical Time Switch motor operated 230V, 50 Hz, 1350w, Grasslin V86/1 QRTU or equivalent.	Each	80.00		
1.58	Digital Time Switch motor operated 230V, 50 Hz, 1,350w, HAGER EG170 or equivalent.	Each	120.00		
1.59	Digital Time Switch, motor operated 230V, 50HZ, 1,350W HAGER EG 270 or equivalent.	Each	200.00		
1.60	Timer Relay c/w Terminal Block, 230V AC; Time: 0.6S to 24 hr	Each	95.00		
1.61	OMRON ZEN V2 24hrs/weekly Timer Switch 230V,50 Hz	Each	260.00		
1.62	MCB Link Bus-bar for all types up to 200mm In length	Each	10.00		

2 <u>Moulded Case Circuit Breaker (MCCB)</u>

Supply and installation or moulded case circuit breaker with or w/o shunt trip Coil to IEC 439 Pt2 c/w metal/heavy duty insulated enclosures c/w traffolyte labeling.

Item	Description	Unit	(a) 22/36KA (\$)	(b) 43/50KA (\$)
2.1	30A to 32A DP	Each	101	166
2.2	45A to 60A DP	Each	130	166
2.3	100A to 150A DP	Each	170	240
2.4	30A to 32A TPN	Each	190	250
2.5	45A to 60A TPN	Each	240	290
2.6	100A to 125A TPN	Each	310	350
2.7	150A to 160A TPN	Each	430	500
2.8	200A to 225A TPN	Each	520	680
2.9	250A to 300A TPN	Each	680	750
2.10	400A TPN	Each	750	880

3 Mechanical Linkage Manual Transfer Switch MCCB

Supply & install of the following 30KA Mechanical Linkage Manual Transfer Switch MCCB:

3.1	4 pole 60A	1 pair	150.00
3.2	4 Pole 160A	1 pair	650.00
3.3	4 Pole 250 A	1 pair	792.00
3.4	4 Pole 400 A	1 pair	1050.00

4 TAP-OFFS

NOTES: Cost of metal enclosures and teak block inclusive for set of 4 or of 4 or more line taps (sketch I6)

Supply and install line tap c/w teak block and mounting box for the following cable sizes:

Item No	Description	Unit	Rate (\$)
4.1	10 mm2 – 16 mm2	Each	30.00
4.2	25 mm2 – 50 mm2	Each	40.00
4.3	70 mm2 – 120 mm2	Each	50.00

Supply and install riser 5-bar appropriate sized bus -bar tap-off 16 SWG metal box c/w bus-bar support, bolts and nuts and termination & etc as per Sketch I6. (Actual size of box to SO's details):

Item No	Description	Unit	Rate (\$)
4.4	For 60A	Each	150.00
4.5	For 100A	Each	200.00
4.6	For 160A	Each	250.00
4.7	For 200A	Each	300.00
4.8	For 300A	Each	400.00
4.9	For 400A	Each	550.00

5 Supply and install the following switchboard accessories:

Item No	Description	Unit	Rate (\$)
5.1	Kasuga or equivalent DTL Earth Fault relay c/w 105 Deg C small wiring	set	311.00
5.2	Kasuga or equivalent DTL Over Current relay for 3 phase c/w 105 deg C small wiring	set	621.00
5.3	GEC or equivalent IDMTL Earth Fault relay c/w 105 Deg C small wiring	set	932.00
5.4	GEC or equivalent IDMTL Over Current relay for 3 phase c/w105 deg C small wiring	set	2,070.00
5.5	IDMTL combine Over Current & Earth Fault Relay including minor modifications	set	1750.00
5.6	Indicator lights c/w low voltage transformer & cover, holder	set of 3	80.00
5.7	Fuse holders c/w 2A HRC cartridge fuses and wiring	set of 3	63.00
5.8	Supply and install Class 1 Ammeter, size 96mm x 96mm flush mounted Instantaneous type	Nos.	65.00
5.9	Supply and install Class 1 Ammeter, size 96mm x 96mm flush mounted (8 min) Maximum demand type	Nos.	156.00
5.10	Supply and install Class 1 Ammeter, size 96mm x 96mm flush mounted combined (8 min) Maximum demand and instantaneous type (2 dial)	Nos.	260.00
5.11	Supply and install Class 1, 500V Voltmeter size 96mm x 96mm flush mounted c/w 7 way selector switch and wiring	Each	80.00
5.12	Castell keys	Each	104.00
5.13	Ronis key c/w lock for MCCB	Each	30.00

6 Supply and installation of Current Transformer (minimum 15VA):

Item	Description	Unit	Rate
No			(\$)
6.1	5P10 up To 400A/5A Protection	Nos.	125.00
6.2	5P10 500A - 1000A/5A Protection	Nos.	187.00
6.3	5P10 1200A - 2500A/5A Protection	Nos.	238.00
6.4	5P5 up To 400A/5A Protection	Nos.	100.00
6.5	5P5 500A - 1000A/5A Protection	Nos.	160.00
6.6	5P5 1200A - 2500A/5A Protection	Nos.	200.00
6.7	Class 1 Up to 400A/5A Metering	Nos.	105.00
6.8	Class 1 500A - 1000A/5A Metering	Nos.	156.00
6.9	Class 1 1200A - 2500A/5A Metering	Nos.	207.00

SECTION I - LIGHT FITTINGS & BRACKETS

1 Supply and install including supplying necessary lengths of flexible cords, downrods (up to 2 x 1m length), conduits, boxes, expansion bolts, screws or ramset of sizes to suit plugs & etc and connecting up ready to function the following:-

Item	Description	Unit	Rate	Offered
No			(\$)	Make
1.1a	Pole top fitting 400mm diameter spherical	Each	228.00	
	opal/clear diffuser c/w 70w sodium lamp,			
	integral control gear and mounting arm (see			
	Sketch No. J1)			
1.1b	Pole top fitting 450mm diameter spherical	Each	270.00	
	opal/clear diffuser c/w 70W sodium lamp,			
	integral control gear and mounting arm (see			
	Sketch No. J1)			
1.1c	Pole top fitting 500mm diameter spherical	Each	330.00	
	opal/clear diffuser c/w 70W sodium lamp,			
	integral control gear and mounting arm (see			
	Sketch No. J1)			
1.2a	GS spotlight fitting c/w 60/80/120/150 watt	Each	51.00	
	PAR 38 reflector lamp, mounting base or			
	spike.(see Sketch No. J2)			

Item No	Description	Unit	Rate (\$)	Offered Make
1.2b	As item 1.2a but with 100watt Par 38 Halogen lamp	Each	60.00	
1.3	High bay fitting with rugged, heavy duty die cast aluminium housing and either upright or direct high purity heavy gauge aluminium reflector c/w control gear and mounting arm and chain. (see Sketch No. J3) I) For 150W sodium lamp			
	No. J3) I) For 150W sodium lamp II) For 250W sodium lamp	Each Each	300.00 350.00	
1.4	Street light fitting with reinforced polyester housing in blue-grey and high purity anodized aluminium mirrors. (The bowl hinges automatically on the housing when the clip has been unfastened) c/w control gear and mounting arm.			
	i) For 70W sodium lamp (see Sketch No. J4)	Each	275.00	
	ii) For 150W sodium lamp (see Sketch No. J5)	Each	347.00	
	iii) For 250W Sodium lamp (see Sketch No. J5)	Each	420.00	
1.5	Wall mount fitting with removable one piece injection molded polycarbonate door and prismatic lens hinges for full front access. (Lens is UV stabilised and interior door surface finished in bronze). One piece, heavy duty die cast aluminium housing c/w 80/125W mercury lamp and control gear. (see Sketch No. J.6)	Each	330.00	

Item No	Description	Unit	Rate (S\$)	Offered Make
1.6	Wall mount fitting with prism glass reflector mounted on hinged frame with weatherproof gasket (IP 55 protection) c/w 70W sodium lamp and control gear housed in aluminium beige finished base. (See Sketch No. J7)	Each	296.00	
1.7	Heavy duty dust-tight jet proof bulkhead fitting complies with BS 4533-102.1 IP65 c/w 80W mercury lamp and control gear. (See Sketch No. J8)	Each	198.00	
1.8	Pole top fitting black c/w 13W PL lamp and ballast with aluminium reflector, gasket. (See Sketch No. J9)	Each	170.00	
1.9	Halogen Floodlights Fittings c/w tube, brackets :- (see Sketch No. J19)			
a	100/150W	Each	40.00	
b	300/500W	Each	60.00	
С	1000 W	Each	110.00	
d	1500W	Each	120.00	
1.10	Sodium Floodlights Fitting c/w Control Gears, lamps, brackets & etc. (see Sketch No. J 20 & 21)			
	a) 70w/100w b) 150w c) 250w d) 400w	Each Each Each Each	325.00 347.00 362.00 423.00	
1.11	Metal-Halide Floodlights Fitting c/w Control Gears Lamps, Brackets & etc.			
	a) 70w b) 150w c) 250w d) 400w	Each Each Each Each	325.00 340.00 358.00 390.00	

Description	Unit	Rate (\$)	Offered Make
 a) 2 channel & 3 wire rope light 13mm diameter, 2.78cm bulb spacing, 2m cutting unit, 33.12W/unit, 230V. b) Controller WL- 3C c) Controller WL - 5C 	Per M Each Each	9.00 85.00 100.00	
Accessories for item 1.12 i) Power cord c/w male & female connector(C1 & C2) ii) Pin connector(C9) iii) End cap(C4)	Each Each Each	6.00 2.50 0.50	
SBP MYRA 21 Pole Top Fitting c/w SL 20/25W lamp (see Sketch No. J6)	Each	250.00	
Mercury Floodlight Fitting c/w control Gear, Lamps, Brackets, etc. a) 80W b) 125W c) 250W d) 400W	Each Each Each Each	240.00 260.00 280.00 320.00	
Fluorescent Light Fittings Type: Batten Fluorescent Luminaire 1 x 18W, 625mm in length c/w tubes 1 x 36W,1235mm in length-c/w tubes 2 x 36W, 1235mm in length-c/w tubes 1 x 58W, 1540mm in length-c/w tubes	Each Each Each Each	25.00 30.00 38.00 40.00	
Batten Fluorescent Luminaire with Metal Reflector 1 x 36W, 1235mm in length-c/w tubes 2 x 36W,1235mm in length-c/w tubes	Each Each	40.00 50.00	
	a) a) 2 channel & 3 wire rope light 13mm diameter, 2.78cm bulb spacing, 2m cutting unit, 33.12W/unit, 230V. b) Controller WL- 3C c) Controller WL - 5C Accessories for item 1.12 i) Power cord c/w male & female connector(C1 & C2) ii) Pin connector(C9) iii) End cap(C4) SBP MYRA 21 Pole Top Fitting c/w SL 20/25W lamp (see Sketch No. J6) Mercury Floodlight Fitting c/w control Gear, Lamps, Brackets, etc. a) 80W b) 125W c) 250W d) 400W Fluorescent Light Fittings Type: Batten Fluorescent Luminaire 1 x 18W, 625mm in length c/w tubes 1 x 36W,1235mm in length-c/w tubes 2 x 36W, 1235mm in length-c/w tubes 1 x 58W, 1540mm in length-c/w tubes 1 x 58W, 1540mm in length-c/w tubes	a) a) 2 channel & 3 wire rope light 13mm diameter, 2.78cm bulb spacing, 2m cutting unit, 33.12W/unit, 230V. b) Controller WL - 3C c) Controller WL - 5C Accessories for item 1.12 i) Power cord c/w male & female connector(C1 & C2) ii) Pin connector(C9) iii) End cap(C4) SBP MYRA 21 Pole Top Fitting c/w SL 20/25W lamp (see Sketch No. J6) Mercury Floodlight Fitting c/w control Gear, Lamps, Brackets, etc. a) 80W b) 125W c) 250W d) 400W Each Fluorescent Light Fittings Type: Batten Fluorescent Luminaire 1 x 18W, 625mm in length c/w tubes 1 x 36W, 1235mm in length-c/w tubes 2 x 36W, 1235mm in length-c/w tubes 1 x 58W, 1540mm in length-c/w tubes Batten Fluorescent Luminaire with Metal Reflector 1 x 36W, 1235mm in length-c/w tubes Each	a) a) 2 channel & 3 wire rope light 13mm diameter, 2.78cm bulb spacing, 2m cutting unit, 33.12W/unit, 230V. b) Controller WL- 3C c) Controller WL - 5C Accessories for item 1.12 i) Power cord c/w male & female connector(C1 & C2) ii) Pin connector(C9) iii) End cap(C4) SBP MYRA 21 Pole Top Fitting c/w SL Each 2.50 20/25W lamp (see Sketch No. J6) Mercury Floodlight Fitting c/w control Gear, Lamps, Brackets, etc. a) 80W b) 125W c) 250W d) 400W Each 260.00 Each 260.00 Each 260.00 Each 320.00 Fluorescent Light Fittings Type: Batten Fluorescent Luminaire 1 x 18W, 625mm in length c/w tubes 1 x 36W, 1235mm in length-c/w tubes 2 x 36W, 1235mm in length-c/w tubes Each 40.00 Batten Fluorescent Luminaire with Metal Reflector 1 x 36W, 1235mm in length-c/w tubes Each 40.00

Item	Description	Unit	Rate	Offered
No			(\$)	Make
4	Batten Fluorescent Luminaire with Plastic			
	Reflector			
4.1	1 x 36W, 1235mm in length-c/w tubes	Each	42.00	
4.2	2 x 36W,1235mm in length-c/w tubes	Each	50.00	
4.3	1 x 58W, 1540mm in length-c/w tubes	Each	62.00	
	Detter Florence Level and a social Well on			
5	Batten Fluorescent Luminaire with Wall or			
	surface mounting with Angle Reflector, Open			
	End Backboard Type			
5.1	1 x 36W, 1235mm in length-c/w tubes	Each	29.40	
5.2	1 x 58W, 1540mm in length-c/w tubes	Each	34.00	
8.2	The com, to remain an arangua of m two co	20011		
6	Batten Fluorescent Luminaire with Wire-			
	Guard and Hinge Lockable type			
6.1	1 x 18W, 625mm in length-c/w tubes lock &	Each	32.00	
	master keys			
6.2	1 x 36W, 1235mm in length-c/w tubes lock &	Each	37.00	
	master keys			
7	Weatherproof Fluorescent Luminaire with			
/	IP55 Protection			
	<u>II 33 Totection</u>			
7.1	1 x 18W, 677mm in length-c/w tube	Each	50.00	
7.2	2 x 18W ,677mm in length-c/w tube	Each	60.00	
7.3	1 x 36W, 1267mm in length-c/w tube	Each	75.00	
7.4	2 x 36W, 1267mm in length-c/w tubes	Each	90.00	
8	Recessed Mounting for Suspended Ceiling			
	Board. Type with Hinge aluminium frame and			
	prismatic acrylic diffuser for batwing light			
	distribution			
8.1	2 x 18W, 625mm in length-c/w tubes	Each	70.00	
8.2	3 x 18W, 625mm in length-c/w tubes	Each	95.00	
8.3	2 x 36W, 1245mm in length-c/w tubes	Each	120.00	
0.5	2 A 30 W, 12 TJIIIII III ICII gui -C/W tubes	Lacii	120.00	

SECTION I - LIGHT FITTINGS & BRACKETS (cont'd)

Item No	Description	Unit	Rate (\$)	Offered Make
8.4	3 x 36W, 1245mm in length-c/w tubes	Each	130.00	
8.5	4 x 36W, 1245mm in length-c/w tubes	Each	160.00	
8.6	Down rods not exceeding 2 lengths x 1 m	Each	10.00	
8.7	Additional length of down rods	Each	5.00	
	(for fluorescent fitting)			
9	Surface Mounting Fluorescent Luminaire			
	with Prismatic acrylic diffuser and 2 end caps			
9.1	1 x 18W, 625mm in length-c/w tubes	Each	42.00	
9.2	2 x 18W, 625mm in length-c/w tubes	Each	52.00	
9.3	1 x 36W, 1235mm in length-c/w tubes	Each	65.00	
9.4	2 x 36W, 1235mm in length-c/w tubes	Each	69.00	
10	Reed prismatic diffuser fitting with 2 metal			
10	end cap			
10.1	1 x 18W, c/w tubes	Each	35.00	
10.2	2 x 18W, c/w tubes	Each	44.00	
10.3	1 x 36W, c/w tubes	Each	56.00	
10.4	2 x 36W, c/w tubes	Each	72.00	
11	Recessed mounting for suspended ceiling			
	board type, M2 mirror optic diffuser			
11.1	2 x 18W, (300mm x 600mm) c/w tubes	Each	88.00	
11.2	3 x 18W, (600mm x 600mm) c/w tubes	Each	115.00	
11.3	2 x 36W, (300mm x 1200mm) c/w tubes	Each	95.00	
11.4	3 x 36W, (600mm x 1200mm) c/w tubes	Each	128.00	
12	Surface or pendant mounting type, M2 mirror			
	optic diffuser			
12.1	2 x 18W, (300mm x 600mm) c/w tubes	Each	68.00	
12.2	3 x 18W, (600mm x 600mm) c/w tubes	Each	95.00	
12.3	2 x 36W, (300mm x 1200mm) c/w tubes	Each	88.00	
12.4	3 x 36W, (600mm x 1200mm) c/w tubes	Each	122.00	

SECTION I - LIGHT FITTINGS & BRACKETS (cont'd)

Item No	Description	_	ate \$)	Offere	ed Make
13	EXIT LIGHT with self contained unit c/w LED indicating light and test button (slimline design) to FSB requirement	Concealed mounted (Bracket and control gear above false ceiling)		Surface Mounted	
13.1	1 x 8-10W exit light	(a) Rate (S\$) 125.00	Offered Make	(b) Rate (S\$) 110.00	Offered Make
13.1	(single face) with fluorescent lamp or LED Type Fittings & nickel cadmium battery pack	123.00		110.00	
13.2	1 x 8-10W exit light (double face) with fluorescent lamp or LED Type Fittings & nickel cadmium battery pack	135.00		120.00	
13.3	1 x 8-10W exit light (single face with arrow) with fluorescent lamp or LED & nickel cadmium battery pack	135.00		120.00	
13.4	1 x 8-10W exit light (double face with arrow) with fluorescent lamp or LED & nickel cadmium battery pack	145.00		130.00	
14	Non-maintained and maintained emergency lighting luminaires c/w minimum 2 hours duration nickel cadmium batteries, LED indicating light and test button				
14.1 14.2 14.3 14.4	1 x 8-10W (opal diffuser) 1 x 18W (acrylic prismatic diffuser) 1 x 36W (acrylic prismatic diffuser) 2 x 10W tungsten halogen PAR 36 c/w antiglare glass			112.50 159.00 190.00 100.00	
14.5	1x10W,6V Halogen recessed fit	ting		98.50	

SECTION I - LIGHT FITTINGS & BRACKETS (cont'd)

Item No	Description	Unit	Rate (\$)	Offered Make
15	Supply and install including wiring and connecting up ready to function the following:-			
15.1	Power pack suitable for fluorescent tube c/w minimum 2 hours duration nickel cadmium batteries			
	a) 1 x 8W	Each	40.00	
	b) 1 x 18W	Each	50.00	
	c) 1 x 36W	Each	73.00	
15.2	High Abuse Flour fitting c/w 1 x 18W lamp surface mounted (kenall or approved equivalent)	Each	200.00	
15.3	High Abuse Flour fitting c/w 1 x 36W lamp surface mounted (kenall or approved equivalent)	Each	290.00	
15.4	High Abuse Flour fitting c/w 2 x 36W lamp surface mounted (kenall or approved equivalent)	Each	320.00	
16	Supply, fabricate and install standard make-to measure brackets for floodlights including painting.			
	a) 70W/150W	Each	20.00	
	b) 250W/400W	Each	30.00	
17	Supply, fabricate and install standard make-to measure wire mesh housing for floodlights including painting.			
	a) 250/400W	Each	10.00	

SECTION I - LIGHT FITTINGS & BRACKETS (cont'd)

Item No	Description	Unit	Rate (S\$)	Offered Make
18	Supply, fabricate and install 6" PVC pipe 400mm length c/w painting for spotlight.		(34)	
	a) 60/80/100/120/150W	Each	25.00	
19	Supply, fabricate and install anti-glare louvres for floodlights including painting:			
	a) 100/150/300/500W Halogen fitting	Each	20.00	
	b) 1000/1500W Halogen fitting, 70-150w Sodium/Metal-Halide/Mercury fitting	Each	30.00	
	c) 250/400W Sodium/Metal- Halide/Mercury fitting	Each	40.00	
20	LED Floodlights Fittings c/w all necessary accessories & brackets			
	a) 10 - 50W	Each	125.00	
	b) 60 - 100W	Each	230.00	
21	LED Light Fittings with Double Parabolic/Mirror Optic Louver			
21.1	2 X 20W, 1235mm in length c/w tubes,T8/T5	Each	218.00	
21.2	2 X 20W, 625mm in length c/w tubes, T8/T5	Each	160.00	

<u>SECTION J – REMOVALS</u> Supply labour, tools, materials and accessories for the removal of the following:-(See Note below)

Item No	Description	Unit	Rate (S\$)
1	To remove one lighting point including wiring conduits etc and make good wall or ceiling surface.	Each	6.20
2	To remove one power point, etc as item (1) Including socket outlet	Each	6.20
3	To remove bracket, supply, exhaust or ceiling oscillating fan pt including wiring, conduits, mounting block and make good wall surface, ceiling surface & etc.	Each	5.40

SECTION J - REMOVALS (cont'd)

Supply labour, tools, materials and accessories for the removal of the following:-(See Note below)

Item No	Description	Unit	Rate (S\$)
4	To remove ceiling fan pt including wiring, conduit, fan/hook and regulator and make good as item (1)	Each	5.20
5	To take down ceiling fan, wall bracket fan, oscillating fan, supply fan, exhaust fan & etc	Each	2.50
6	To take down fluorescent SL lamp, PL lamp, LED light fitting or any other type (ceiling, wall, pendant or recessed)	Each	2.50
7	To take down one tungsten, mercury sodium halogen light fitting or any other type (ceiling, wall, pendant or recessed)	Each	2.50
8	To touch up one light point or power point including plastering and painting, etc to match existing wall surface	Each	2.50
9	To take down Perimeter/roof/flag pole and pole top fitting c/w arm or bracket (any type)	Each	6.80
10	To remove consumer unit of any type	Each	7.00
11	To remove Distribution Board (DB/OG), complete with accessories and concrete plinth if any.	Each	20.00
12	To remove MCB (single, double, triple poles & 4 poles), ELCB (double-pole, 4-pole) MCCB (double-pole, 4-pole) & timer.	Each	2.00
13	To remove underground PVC/SWA/PVC cables of any size.	Per m	2.00
14	To remove conduit pipes of any size.	Per m	2.00

SECTION J - REMOVALS (cont'd)

Supply labour, tools, materials and accessories for the removal of the following:-(See Note below)

Item No	Description	Unit	Rate (S\$)
15	To remove flexible cable, PVC, PVC/PVC, fire resistant & flame retardant, neoprene cables of any sizes.	per m	0.50
16	To remove weatherproof junction box of any sizes and terminate existing underground/surface cabling.	Each	2.50

NOTE: Contractors are not allowed to claim for cost where the removal of a particular fitting/accessory/wiring is for the purpose of shifting, adjustment or replacement (not applicable to re-wiring works).

SECTION K-INSTALLATION

Supply labour, tools and materials to install only, including connecting up to existing wiring or supply point (excluding supply of fittings).

Item No	Description	Unit	Rate (S\$)
1	Light fitting of any type (ceiling, wall pendant or recessed or tree).	Each	5.10
2	1.5m or 1.2m sweep ceiling fan c/w speed regulator.	Each	6.70
3	Wall bracket, supply or exhaust fan (All sizes).	Each	5.10
4	Ceiling oscillating fan (All sizes) complete with mounting brackets.	Each	5.10
5	Perimeter and pole top light fitting c/w bracket and/or arm	Each	8.30

SECTION K-INSTALLATION (cont'd)

Supply labour, tools and materials to install only, including connecting up to existing wiring or supply point (excluding supply of fittings).

Item No	Description	Unit	Rate (S\$)
6	Light fitting of any type (on roof/flag pole)	Each	8.30
7	Down light fitting of any type (recessed including opening of ceiling board, brackets etc).	Each	9.50
8	Tape light and Rope light up to 10 metres including transformer.	per length	5.00
9	Christmas Light.(SISIR Approved) (100 bulbs per length)	per length	10.00
10	Bulbs/lamp holders/starters/ballasts.	per set	2.00
11	Lamp-pole c/w pole top fitting, control gear & mounting arm (up to 4 metre)	per set	25.00
12	Lamp-pole c/w pole top fitting, control gear & mounting arm (above 4 to 8 metre)	per set	45.00
13	Lamp-pole c/w pole top fitting, control gear & Mounting arm (above 8 to 12 metre)	per set	75.00
14	Construct concrete footing for lamp pole		
	i) for lamp pole < 2 metre / earth or lightning pit	per no	30.00
	ii) for lamp pole up to 4 metre	per no	60.00
	iii) for lamp pole up to 8 to 10 metre	per no	110.00
	iv) for lamp pole up to 12 metre	per no	150.00

SECTION K-INSTALLATION (cont'd)

NOTE:

- 1) For item 14 incur additional charge of <u>\$80.00</u> subject to Tender Rate for using Hot-dipped Galvanised J-bolts and nuts including end caps, silicon & all necessary accessories.
- 2) For item 14 incur additional charge of <u>\$100.00</u> subject to Tender Rate for using Stainless Steel 316 J-bolts and nuts including end caps, silicon & all necessary accessories.

SECTION L- SHIFTING

Shift the following to not exceeding 5 metres including wiring, junction box conduits and other materials all ready to operate.

Item No	Description	Unit	Rate (S\$)
1	Any Floodlight pt complete with simple shade fitting (Globe, Triangular, Rectangular or any type)	Each	8.00
2	Any Floodlight pt complete with enclosed glass fitting (Globe, Triangular, Rectangular or any type)	Each	7.00
3	Fluorescent, LED, Spotlight pt with fitting of any type	Each	6.70
4	(i) Ceiling fan pt and fan c/w fan hook, regulator and teak block	Each	16.70
	(ii) Ceiling fan pt and fan c/w regulator and teak block	Each	17.00
5	Bracket/wall/supply/exhaust fan pt c/w fan mounting block and fan	Each	9.20
6	Switch points c/w switch and teak block/metal block	Each	5.90
7	13A or 15A switch socket outlet pt including socket outlet	Each	7.50
8	Switch point complete with switch	Each	6.70

SECTION L- SHIFTING (cont'd)

Shift the following to not exceeding 5 metres including wiring, junction box conduits and other materials all ready to operate.

Item No	Description	Unit	Rate (S\$)
9	Weatherproof or indoor termination junction box and bracket of any type	Each	6.70
10	Supply labour and material to excavate, backfill and shifting of lamp pole c/w pole top fitting & concrete foundation to new position (excluding lorry crane)		
	(i) up to 4 metres	Each	60.00
	(ii) above 4 to 12 metres	Each	100.00

SECTION M - Cleaning, Replacement of Accessories and Lamps

Item No	Description	Unit	Rate (S\$)	Offered Make
1	5 amp SP tumbler switch c/w teak block or moulded switch c/w box	Each	2.50	
2	5 amp 2-gang switch as item 1	Each	3.00	
3	15 amp SP tumbler switch c/w teak block or moulded switch c/w box	Each	5.30	
4	5A combined switch-socket outlet c/w moulded box/teak block	Each	4.50	

SECTION M - Cleaning, Replacement of Accessories and Lamps (cont'd)

Item No	Description	Unit	Rate (S\$)	Offered Make
5	13 amp -do-	Each	10.00	
6	15 amp -do-	Each	12.00	
7	13 amp twin combined switch-socket outlet c/w teak block/moulded box	Each	15.00	
8	5 amp metalclad switch outlet c/w box	Each	8.00	
9	13 amp -do-	Each	12.00	
10	15 amp -do-	Each	14.00	
11	15 to 40 watt filament lamp/bulb	Each	1.60	
12	60 to 75 watt -do-	Each	1.70	
13	100 watt -do-	Each	1.80	
14	150 watt -do-	Each	3.20	
15a	15 to 25 watt PAR 38 LED lamp	Each	85.00	
15b	80 to 100 to 120 watt PAR 38 Halogen 30° Hi- Spot lamp	Each	12.00	
15c	125 to 150 watt PAR 38 Halogen 30° Hi-Spot lamp	Each	23.00	
16	18 watt 600mm energy saving fluorescent tube (T5 or T8)	Each	7.00	
17	36 watt 1200mm energy saving fluorescent tube (T5 or T8)	Each	7.00	

SECTION M - Cleaning, Replacement of Accessories and Lamps (cont'd)

Item No	Description	Unit	Rate (S\$)	Offered Make
18	58 watt 600/1540mm energy saving fluorescent tube (T5 or T8)	Each	7.00	
19	Fluorescent starter any sizes	Each	1.50	
20	Fluorescent lamp capacitor 20 to 80 watts	Each	4.50	
21	6.5W loss ballast for 18watt fluorescent lamp	Each	7.20	
22	6.5W loss ballast for 36 watt fluorescent lamp	Each	9.00	
23	11.0W loss ballast for 58 watt fluorescent lamp	Each	16.00	
24	Cartridge fuse 10-20 amp to suit make of gear	Each	4.00	
25	Cartridge fuse 30 amp to suit make of gear	Each	6.00	
26	Cartridge fuse 60 amp to suit make of gear	Each	8.00	
27	Cartridge fuse 100 amp to suit make of gear	Each	18.00	
28	Cartridge fuse 160 amp to suit make of gear	Each	20.00	
29	Cartridge fuse 200 amp to suit make of gear	Each	35.00	
30	Ceiling rose with 3-plate	Each	3.60	
31	(a) Batten holder/lamp holder	Each	2.70	
	(b) Porcelain lamp holder	Each	3.10	
32	Capacitor for .1.2 metres or 1.5 metres ceiling fan	Each	9.00	

SECTION M - Cleaning, Replacement of Accessories and Lamps (cont'd)

Item No	Description	Unit	Rate (S\$)	Offered Make
33	Ceiling fan regulator of any type and make	Each	16.50	
34	5 amp SP waterproof switched/unswitched socket Outlet	Each	17.30	
35	As item 34, but twin gang	Each	24.00	
36	(a) 13 amp SP weatherproof switched or unswitched socket Outlet	Each	25.80	
	(b) As item 36(a), but 2-gang	Each	30.00	
37	15 amp SP waterproof switched /unswitched socket outlet	Each	65.00	
38	8-10W fluorescent lamp (for exit lights, etc)	Each	3.00	
39	18W Low pressure sodium lamp	Each	37.50	
40	35W -ditto-	Each	45.00	
41	18W ballast for LPSV lamp	Each	36.80	
42	35W ballast for LPSV lamp	Each	46.40	
43	70W High pressure sodium lamp with E27 base	Each	36.00	
44	100W - do –	Each	40.00	
45	150W - do –	Each	43.00	
46	250W - do –	Each	46.00	

SECTION M - Cleaning, Replacement of Accessories and Lamps (cont'd)

Item No	Description	Unit	Rate (S\$)	Offered Make
47	400W -do -	Each	57.00	
48	70/100W ballast for high pressure sodium lamp	Each	49.00	
49	150W - do -	Each	67.20	
50	250W - do -	Each	76.00	
51	400W - do –	Each	84.00	
52	50 to 80W Mercury vapour lamp (any type) with E27 Base	Each	13.50	
53	125W - do -	Each	13.50	
54	250W - do -	Each	25.00	
55	400W - do –	Each	32.00	
56	50W / 125W ballast for high pressure mercury vapour lamp	Each	32.00	
57	250W - do -	Each	43.00	
58	400W - do -	Each	61.00	
59	70/250W metal Halide lamp	Each	95.00	
60	400W metal Halide lamp	Each	105.00	
61	70/250W ballast for metal Halide lamp	Each	70.00	

SECTION M - Cleaning, Replacement of Accessories and Lamps (cont'd)

Item No	Description	Unit	Rate (S\$)	Offered Make
62	400W ballast for metal Halide lamp	Each	86.00	
63a	Ignitor for 70 to 150 watt metal Halide lamp	Each	30.00	
63b	Ignitor for 250 to 400 watt metal Halide lamp	Each	32.00	
64	Ignitor for 18 to 35W low pressure sodium lamp	Each	36.00	
65	Ignitor for 70/100W high pressure sodium lamp	Each	34.00	
66	Ignitor for 150W high pressure sodium lamp	Each	40.00	
67	Ignitor for 250W high pressure sodium lamp	Each	52.00	
68	Ignitor for 400W high pressure sodium lamp	Each	56.00	
69	18 to 56W fluorescent lamp	Each	6.50	
70	18W High Frequency (HF) fluorescent lamp	Each	7.00	
71	36W High Frequency (HF) fluorescent lamp	Each	9.00	
72	58W High Frequency (HF) fluorescent lamp	Each	11.00	
73	18W electronic ballast for HF tubes	Each	50.00	
74	36W electronic ballast for HF tubes	Each	90.00	
75	58W electronic ballast for HF tubes	Each	110.00	

SECTION M - Cleaning, Replacement of Accessories and Lamps (cont'd)

Item No	Description	Unit	Rate (S\$)	Offered Make
76	(a) 9W SL lamp (bayonet / screw type or approved make)	Each	12.00	
76	(b) 18 or 25W SL lamp (bayonet / screw type or approved make)	Each	15.00	
76	(c) 65 – 105W SL Lamp (bayonet / screw type or approved make)	Each	30.00	
77	7 to 9 Watt PL lamp (Approved make)	Each	6.00	
78	(a) 11 Watt PL lamp	Each	7.50	
78	(b) 13 Watt PL lamp	Each	9.00	
78	(c) 18 Watt PL lamp	Each	18.00	
79	(a) 10/13 Watt PLC lamp	Each	10.00	
79	(b) 18 Watt PLC lamp	Each	10.50	
79	(c) 26 Watt PLC lamp	Each	15.00	
80	(a) 9 Watt PLCE lamp	Each	10.00	
80	(b) 11 /15 Watt PLCE lamp	Each	12.00	
80	(c) 20 /23 Watt PLCE lamp	Each	15.00	
81	(a) 500 Watt PAR 64 MFL	Each	40.00	
81	(b) 300 Watt PAR 56 MFL	Each	35.00	

SECTION M - Cleaning, Replacement of Accessories and Lamps (cont'd)

Item No	Description	Unit	Rate (S\$)	Offered Make
81	(c) 200 Watt PAR 46 MFL	Each	35.00	
81	(d) 75 Watt PAR 16 NFL	Each	8.00	
81	(e) 50 Watt PAR 20 NFL	Each	12.00	
82	Arc stream 3000k 150 watts lamp	Each	130.00	
83	Arc stream 4000k 150 watts lamp	Each	130.00	
84	Tape light bulb 24V 0.065A	Per m	1.00	
85	Tape light 24V 0.065A 50mm apart	Per m	25.00	
86	Christmas light 100 lights any Colour (100 lights per length)	Per length	18.00	
87	2 Channel and 3 Wires Rope light	Per m	9.00	
88	300 to 500 Watt Halogen Lamp	Each	8.00	
89	1000 to 1500 Watt Halogen Lamp	Each	12.00	
90	LED 18W-130W A67 E27 230V GLS (2000K-6500K)	Each	20.00	
91	Transformer 230V / 12V as for lightings			
91	(a) 50VA	Each	20.00	
91	(b) 100VA	Each	40.00	
91	(c) 150/200VA	Each	60.00	
91	(d) 250VA	Each	80.00	

SECTION M - Cleaning, Replacement of Accessories and Lamps (cont'd)

Remove faulty accessories as fitted and disposal including necessary transport. These rates are **ONLY** applicable to the installations that can be accessed by normal means such as use of 'Fireman', 'A' ladder, scaffold, lorry crane & etc. Supply and replace/install including connecting up the following:-

Item No	Description	Unit	Rate (S\$)	Offered Make
92	Supply Labour to replace of blown bulbs, holders, ballasts & any other components & etc.(Any type)	Each	2.00	
93	(a) Prismatic Acrylic diffuser 600 x 600 mm	Each	11.00	
93	(b) Prismatic Acrylic diffuser 600 x 1200 mm	Each	20.00	
94	Male & female connector for lighting point	Per set	5.00	

SECTION N - UNDERGROUND CABLES

Excavate backfill and reinstate trench for power cable complete with protective slab as follows:-

Underground cable must be laid at least 750mm below the finished ground level unless specified. After the cable is laid, the first earth filling shall be soft earth/sand free from stones and other sharp objects. The filling shall be compacted around the cables and finished off level 150mm above the longest cables. Cable protection/Warning cable slabs (Yellow Colour) shall be laid end to end on top of the first earth filling. The second earth filling shall extend to 300mm above the cable slab and shall not contain stones of dimension 75mm. The filling shall be compacted by means of hand hammer. After the second earth filling, the trench shall be filled soil in layer of not exceeding 300mm in depth. Each layer being rammed by means of mechanical rammer before the next layer is placed over.

Item No	Description	Unit	Rate (S\$)
1	Excavate cable pit for fault location on ground including backfilling, compacting, make good and returfing		
	i) 1.0m x 1.0m x 1.0m ii) 1.5m x 1.5m x 1.5m	Each Each	80.00 100.00
2	Excavate trench 300mm width on turf include backfilling, compacting, make good and returfing i) 750mm depth ii) 450mm depth iii) 300mm depth	" Per m Run	14.00 10.00 8.00
3	As item 2 but on beach/sandy area i) 750mm depth ii) 350mm depth iii) 200mm depth	Per m Run	6.00 4.00 2.50
4	 (i) Excavate trench 750mm depth x 300mm width on Asphalt road including re-instatement works c/w identification cable slabs. (ii) As item 4 (i)but 350mm depth 	Per m run	120.00 80.00
	(iii) As item 4(i) but on concrete by using diamond cutter	"	130.00
	(iv) As item 4(iii), but 350mm depth	"	90.00
5	Cutting of concrete groove to chase in PVC conduits, U-channel and others etc, including making good.	Per m run	16.00
6	Supply and lay in prepared trench 100mm dia UPVC pipe with 300mm x 300mm concrete hunching.	Per m run	25.90

Item No	Description	Unit	Rate (S\$)
7	As for item 6, but for 150mm dia. UPVC pipe with 450mm x 450mm concrete haunching.	Per m run	36.20
8	Supply and lay cable protection/warning slabs (yellow colour)	Per m run	6.80
9	Supply and lay cast iron cable markers (with engraving and painting (150mm x 100mm x 5mm)	Per m run	52.00
Supply	and lay heavy duty PVC pipe in prepared trench c/w fitti	ngs:	
10	50.0mm diameter	Per m run	5.00
11	75.0mm diameter	Per m run	6.20
12	100.0mm diameter	Per m run	7.00
13	150.0mm diameter	Per m run	10.00
Supply	and lay galvanised iron pipe in prepared trench c/w fitting	igs:	
14	50.0 mm diameter	Per m run	13.50
15	75.0mm diameter	Per m run	16.50
16	100.0mm diameter	Per m run	18.00
17	150.0mm diameter	Per m run	21.00

Item No	Description	Unit	Rate (S\$)
	Supply and lay 2 core PVC/SWA/PVC cable to BS 6346 600/1000V grade:-		
18	1.5mm ²	Per m run	4.40
19	2.5mm ²	Per m	5.80
20	4.0mm ²	Per m	7.10
21	6.0mm ²	Per m run	10.00
22	10.0mm ²	Per m run	12.80
23	16.0mm ²	Per m run	17.50
24	25.0mm ²	Per m run	20.25
25	35.0mm ²	Per m run	26.85
26	50.0mm ²	Per m run	35.40
27	70.0mm ²	Per m run	44.30
28	95.0mm ²	Per m run	59.15
29	120.0mm ²	Per m run	68.65
30	150.0mm ²	Per m	77.55
31	185.0mm ²	Per m	91.95
32	240.0mm ²	per m run	115.20

Item No	Description	Unit	Rate (S\$)
	Supply and lay 3 core PVC/SWA/PVC cable to BS 6346 Grade :-	600/1000)V
33	1.5mm ²	Per m run	6.60
34	2.5mm ²	Per m run	8.60
35	4.0mm ²	Per m run	10.80
36	6.0mm ²	Per m run	15.00
37	10.0mm ²	Per m run	19.00
38	16.0mm ²	Per m run	25.80
39	25.0mm ²	Per m run	35.70
40	35.0mm ²	Per m run	49.50
41	50.0mm ²	Per m run	64.40
42	70.0mm ²	Per m run	88.60
43	95.0mm ²	Per m run	106.70
44	120.0mm ²	Per m run	121.20
45	150.0mm ²	per m run	146.20
46	185.0mm ²	Per m run	175.00

Item No	Description	Unit	Rate (S\$)
	Supply and lay 4 core PVC/SWA/PVC cable to BS 6346 Grade :-	5 600/1000)V
47	2.5mm ²	Per m run	9.90
48	4.0mm ²	Per m	13.00
49	6.0mm ²	Per m	16.75
50	10.0mm ²	Per m	27.10
51	16.0mm ²	Per m	39.60
52	25.0mm ²	Per m	54.10
53	35.0mm ²	Per m	73.00
54	50.0mm ²	Per m	95.70
55	70.0mm ²	Per m	115.10
56	95.0mm ²	Per m	133.40
57	120.0mm ²	Per m	142.00
58	150.0mm ²	Per m	167.90
59	185.0mm ²	per m run	202.20
60	240.0mm ²	Per m	237.60
61	300.0mm ²	Per m	277.20

Item No	Description	Unit	Rate (S\$)
	Supply and lay 5 core PVC/SWA/PVC cable to BS 6346 Grade :-	600/1000	V
62	4.0mm^2	Per m run	16.50
63	6.0mm ²	Per m run	20.00
64	10.0mm ²	Per m run	29.00
65	16.0mm ²	Per m run	41.50
66	25.0mm ²	Per m run	58.00
	Supply all labour and jointing materials to make up the following including supply of boxes c/w mounting accessories and connection to circuits:		
67	10.0mm ² , 2 or 4-core end joints for PLYST & S cable	Each	120.00
68	16.0mm ² , 2 or 4-core end joints for PLYST & S cable	Each	120.00
69	25.0mm ² - do -	Each	150.00
70	35.0mm ² to 70.0mm2 4 core end joints	Each	168.00
71	120.0mm ² to 185.0mm2 4 core end joints	Each	216.00
72	16.0mm ² , 2 core or 4-core straight through joints c/w lead inner sleeves for PLYST & S cable	Each	90.00
73	25/35mm ² - do -	Each	200.00

Item No	Description	Unit	Rate (S\$)
74	50/70mm ² - do -	Each	250.00
75	90/120mm ² - do -	Each	300.00
76	150/185mm ² - do -	Each	350.00
77	240/300mm ² - do -	Each	400.00
78	Pot end c/w lead inner sleeves any sizes of cable	Each	39.00
79	Supply all labour, remove and break up cable and box and connections	Each	60.00
80	Supply and install brass glands termination for (i) up to 4mm ² 2C/3C/4C/PVC/SWA/PVC or XLPE cable	Each	7.00
	(ii) for 6mm ² to 16mm ² 2C/3C/4C/PVC/SWA/ PVC or XLPE cable	Each	15.00
81	- do - 25mm ² to70mm ² 3C/4C/5C/PVC/SWA/ PVC or XLPE cable	Each	20.00
82	- do - 95mm ² to 240mm ² 3C/4C/5C/PVC/SWA/ PVC or XLPE cable	Each	80.00
83	Supply & fix the following cables socket/lug including jointing up to the cables for the following:-		
	(i) For 1.0mm ² to 1.5mm ² conductor	Each	2.00
	(ii) For 2.5mm ² to 4mm ² conductor	Each	3.00
	(iii) For 6mm ² to 10mm ² conductor	Each	4.00
	(iv) For 16mm ² conductor	Each	5.00
84	" 25/50 " mm sq conductor	Each	7.50
85	"70/150" mm sq conductor	Each	12.00

Item No	Description	Unit	Rate (S\$)
86	" 185/240 " mm sq conductor	Each	18.00
	Supply all labour and joining materials to make up the following sizes of underground cables, using coldpour dry Cast Rasin including cost of attendance by jointer.		
87	(i) Up to 4mm ² , 2C/3C/4C/ straight through joint-	Each	80.00
	(ii) 6mm sq to 10mm sq - do -	Each	120.00
88	16 mm sq - do -	Each	140.00
89	25mm sq to 35 mm sq - do -	Each	170.00
90	50 mm sq to 95mm sq - do -	Each	280.00
91	120mm sq to 185mm sq - do -	Each	650.00
92	240mm sq to 300mm sq - do -	Each	900.00
93	Supply and lay 25mm sq/4C XLPE/SWA/PVC cable to 600/1000V grade	per m	54.10
94	Supply and lay 35mm sq/4C XLPE/SWA/PVC cable to 600/1000V grade	per m	75.00
95	Supply and lay 50mm sq/4C XLPE/SWA/PVC cable to 600/1000V grade	per m	98.00
96	Supply and lay 70mm sq/4C XLPE/SWA/PVC cable to 600/1000V grade	per m	119.00
97	Supply and lay 95mm sq/4C XLPE/SWA/PVC cable to 600/1000V grade	per m	130.00

SECTION N - UNDERGROUND CABLES (cont'd)

Item No	Description	Unit	Rate (S\$)
98	Supply and lay 120m sq/4C XLPE/SWA/PVC cable to 600/1000V grade	per m	149.00
99	Supply and lay 150 mm sq/4C XLPE/SWA/PVC cable to 600/1000V grade	per m	175.00
100	Supply and lay 185mm sq/4C XLPE/SWA/PVC cable to 600/1000V grade	per m	212.30
101	Supply and lay 240mm sq/4C XLPE/SWA/PVC cable to 600/1000V grade	per m	249.50
102	Supply and lay 300mm sq/4C XLPE/SWA/PVC cable to 600/1000V grade	per m	291.50

SECTION O- FANS

Supply all materials and labour and install including connection up to fan point and ready to operate the following:

Item No	Description	Unit	Rate (S\$)	Offered Make
1	Ceiling fan 1.5 metres sweep c/w up to 1.5 metres down rod, safety wire and speed regulator c/w certification (see notes bellow and sketch S1)	Each	134.60	
2	Bracket wall fan 300mm oscillating	Each	135.00	
3	Bracket wall fan 400mm oscillating	Each	207.00	
4	Bracket wall fan 500mm oscillating	Each	380.00	
5	Industrial wall/stand fan 600mm oscillating	Each	414.00	

SECTION O- FANS (cont'd)

Supply all materials and labour and install including connection up to fan point and ready to operate the following:

Item No	Description	Unit	Rate (S\$)	Offered Make
6	Ceiling oscillating fan 400mm c/w bracket	Each	248.00	
7	Additional length of down rod for ceiling fan	Per m	6.20	
8	Box fan 300 m diameter c/w mounting bracket	Each	93.00	
9	Supply and install safety wire, bolts and nuts assembly c/w safety pins and washers (spring and non-spring type) to Requirement Specifications. This rate shall also be applicable to existing ceiling fans.	Each	12.70	
10	Rental of 300/400mm pedestal stand fan per day	Each	13.80	
11	Wall/Window/Ceiling Mount Ventilating Fan.			
	i) 15cm/6"	Each	80.00	
	ii) 20cm/8"	Each	120.00	
	iii) 25cm/10"	Each	140.00	
	iv) 30cm/12"	Each	160.00	
12	Fan hook welded on galvanised plate c/w expansion bolt mounting and safety anchor point (see Sketch S3)	Each	51.80	
13	Fan hook above beam c/w through bolt and safety anchor point (see Sketch S2)	Each	20.00	
14	Wall/Window/Ceiling Mount Extract Fan			
	i) 203mm dia	Each	130.00	
	ii) 242mm dia	Each	180.00	
	iii) 270mm dia	Each	230.00	

NOTE: \$20.00 will be deducted from this schedule in case of failure of the Contractor to supply necessary certification for the safety of the fans as specified.

SECTION P- PAINTING

Supply labour to paint (Paint supplied by SDC) the following:-

Item No	Description	Unit	Rate (S\$)
1	Paint ceiling fan 1.5 metres or 1.2 metres sweep c/w downrod (sand down and clean before painting)	Each	10.00
2	Paint fluorescent fitting c/w downrods if any (sand down and clean before painting)	Each	6.00
3	Paint 300mm oscillating fan or any other type (sand down and clean before painting)	Each	7.00
4	Paint 400mm oscillating fan or any other type (sand down and clean before painting)	Each	8.50
5	Paint 500mm oscillating fan or any other type (sand down and clean before painting)	Each	9.50
6	Paint 600mm oscillating fan or any other type (sand down and clean before painting)	Each	11.00
7	Paint Wall /Flood/Spot/Roof/Ceiling Light Fittings (or any other type) including brackets, bolts and nuts & junction boxes & etc.	Each	6.00
8	Scrapping & Repainting of distribution board, (one undercoat of anti-rust paint and two coats of approved finishing paint).	Each	20.00
9	Scrapping and Repainting of O/G box or feeder pillar (one undercoat of anti-rust paint and two (2) coats of approved finishing paint).	Each	30.00

SECTION P- PAINTING (cont'd)

Supply labour to paint (Paint supplied by SDC) the following:-

Item No	Description	Unit	Rate (S\$)
10	Scrapping and repainting street lighting, perimeter/roof/flag lighting pole (one undercoat of anti-rust paint and two coats of approved finishing paint) including numbered accordingly.	Each	35.00
11	As item 10, but for outdoor park/garden/footpath lighting pole.	Each	25.00

SECTION Q- MISCELLANEOUS

Item No	Description	Unit	Rate (S\$)
1	Supply and install ramset bolt and nut (this item does not apply to new installation)	Each	3.00
2	Arrange for Power Grid/SP Services testing and installation of lighting/power KWH meter for first consumer unit.	Each	78.00
3	- do - for subsequent consumer unit within the same premises.	Each	10.00
4	(i) Supply all labour and materials to break concrete foundation, excavate, backfill, remove of lighting pole c/w pole top fitting and return to SDC/disposal as instructed.		
	a) Lamp post 4 metre & below	Each	50.00
	b) Lamp post above 4 metre	Each	75.00
	(ii) As item 4(i)/a but without breaking concrete	Each	25.00
	(iii) As item 4 (i)/b but without breaking concrete	Each	45.00

SECTION Q- MISCELLANEOUS (cont'd)

Item No	Description	Unit	Rate (S\$)
5	Supply all labour and materials to break the concrete foundation, excavate, backfill, remove of lamp post & reinstate to new position including provision of transport.	Each	150.00
6	Break up concrete foundation, excavate, backfill & straighten street light pole, remake concrete foundation.	Each	100.00
7	Supply and install 20-80A 1 phase kwhr meter (Analog) c/w teak block	Each	104.00
8	Supply and install 20-80A 1 phase kwhr meter (Digital) c/w teak block	Each	180.00
9	Supply and install 30-60A 3 phase kwhr meter (Analog) c/w teak block	Each	140.00
10	Supply and install 3Ph 100A Kwhr meter (Analog) c/w teak block	Each	238.00
11	Supply and install 30-100A 3 phase kwhr meter (Digital) c/w teak block	Each	214.50
12	Supply and installation of AC 3phase 4 Wire 100-800A kwh Meter c/w MCTs Class 1, 5VA& 3x32A fuse holder c/w 2Afuse cartridge with metal enclosure teak wood, all the internal cabling / wiring including modification work.	Per set	900.00
13	Read kwh meter	Each	4.00
14	Check electrical loading at the incoming/Sub mains of electrical switchboard using current recorder, hooking up and recording the 24 hours ampere reading and removal of recorder.	Each	120.00
15	Supply and install and subsequent removal of metal scaffolding/ staging work for the following height ranges:		
	(a) 5-8m (indoors/outdoors)	1 lot	150.00
	(b) more than 8m (indoors/outdoors) per metre height	per	120.00
		metre	30.00
16	Dismantling & reinstallation of scaffolding as in item 15	1 lot	80.00

SECTION Q- MISCELLANEOUS (cont'd)

Item No	Description	Unit	Rate (S\$)
NOTE	For item 15 to 16: Contractor can only claim for multiple erections due to need to remove and reinstall metal scaffoldings/stagings provided there exists in the work site a necessity to do so. No multiple claims can be made for merel shifting erected scaffolding or staging on site.		
17	Rental of elevated platform (minimum 4 hrs) for access to high places including all necessary e.g. fuel, operator/driver, parking, ALS & etc.	per hr	70.00
18	As item 17, on per day basis	per day	400.00
19	Supply and install the following at the switchroom:-		
	i) Danger/Safety signboard (Aluminum, yellow background black lettering)	Each	26.50
	ii) Fire Extinguisher signboard	Each	15.00
	iii) Danger sticker in 4 languages (A4 size single or multiple)	Each	12.70
	iv) Single Line Diagram	Each	30.00
	v) Rubber Mat (up to 2 m sq) vi) Fire Extinguisher (ABC dry chemical)c/w mounting bracket and PSB label	Each	130.00
	a) 2.5 kg	Each	65.00
	b) 4.5 kg	Each	80.00
	c) 9.0 kg	Each	95.00
20	Installation of ripple control receiver	Each	80.00
21	Arranging with Power Grid/SP Services or LEW (approved by EMA) for primary or secondary injection testing of switchboard including of circuit breaker & protection relays (this shall include all materials, transport, labour charges & etc necessary for the test).	Each	1,000.00
22	Rental of mobile generator (min 10 KVA) for testing of item 21.	Each	250.00

SECTION Q- MISCELLANEOUS (cont'd)

Item No	Description	Unit	Rate (S\$)
23	Supply and riverting or traffolyte labels (Engraved with black/white letterings on background)	Each	5.00
24	Supply and install of 5/8" Aluminium U channel (for rope light)	Per m run	5.00
25	Supply and install of earth tag for brass gland termination		
	i) < 35 sq mm	Each	2.50
	ii) > 35 sq mm	Each	4.00
26	Rental of Lorry Crane service		
	i) 3 ton ii) 5 ton iii) 10 to 12 ton iv) 17 ton v) 20 ton	Per day	330.00 380.00 575.00 805.00 1035.00
27	Servicing of Fire Extinguisher (any type/weight) including renewal of expiry label, pressurizing with Nitrogen & etc & replacement of inner valve control pin.	Each	20.00

SECTION R- INDUSTRIAL PLUG, CONNECTOR, WEATHERPROOF ISOLATOR

Supply and install industrial plugs and connectors to BS 4343, IEC 309 AND CEE 17 including cable terminations

T4	Description	Unit	Rate (S\$)	
Item No			Socket only	Plug only
1.1	16A 2 pole and earth	1	26.00	21.00
1.2	16A 3 pole and earth	1	29.00	24.00
1.3	16A 3 pole + N + earth	1	36.00	42.00
1.4	32A 2P and earth	1	28.00	21.00
1.5	32A 3 pole and earth	1	35.00	28.00
1.6	32A 3 pole + N + earth	1	59.00	49.00
1.7	63A 2P and earth	1	80.00	29.00
1.8	63A 3 pole and earth	1	83.00	43.00
1.9	63A 3 pole + N + earth	1	86.00	58.00
1.10	125A 3 pole and earth	1	140.00	110.00
1.11	125A 3 pole + N + earth	1	170.00	130.00
2	Supply and install weather-proof isolator with minimum protection of IP 55 c/w box			
2.1	20A DP - do -	Each	35.00	
2.2	32A DP - do -	Each	38.00	
2.3	45A DP - do -	Each	42.00	
2.4	60A DP - do -	Each	45.00	
2.5	20A TPN - do -	Each	49.00	
2.6	32A TPN - do -	Each	52.00	
2.7	45A TPN - do -	Each	56.00	
2.8	60A TPN - do -	Each	59.00	
2.9	100A TPN - do -	Each	80.00	

SECTION S- DRAWING

Supply all materials, labour and transport to provide the following:

Item No	Description	Unit	Rate
			(S\$)
1	Service charge for drawing (tracing, drafting etc) on AO size (1189mm x 841mm) negative	Each	117.00
2	Service charge for drawing (tracing, drafting etc) on AO/A1 size (841mm x 594mm) negative	Each	85.00
3	Service charge for drawing (tracing, drafting etc) on A2 size (594mm x 420mm) negative	Each	65.00
4	Service charge for drawing (tracing, drafting etc) on A3 size (420mm x 297mm) paper	Per work 2 copies	52.00
5	Service charge for drawing (tracing, drafting etc) on A4 size (297mm x 210mm) paper	Per work 2 copies	33.00
6	Provide AO size paper print of drawing	Each	3.50
7	Provide A1 size paper print of drawing	Each	2.50
8	Provide AO size paper polyester negative of drawing	Each	25.00
9	Provide A1 size paper polyester negative of drawing	Each	17.00
10	Provide AO size linen-back prints of drawing	Each	14.00
11	Provide A1 size linen-back prints of drawing	Each	11.00

NOTE: The size of negative or paper prints to be used is dependent on the extent of the diagram to be traced. The size of the letterings and diagrams shall be reasonably big to be legible but not too big so as to occupy more space. When in doubt, the Ccontractor isadvised to consult the SO concerned.

SECTION T - POLES

Supply and install the following lamp-poles including end caps & all necessary accessories

Item No	Description	Unit	Rate (S\$)
1	Hot-dipped Galvanised Planted Type Octagonal Tapered Street Lighting Column for the following Nominal Mounting Height c/w Single Bracket Arm (see Sketch J27 or J28)		
1.1	6 metre	Each	470.00
1.2	7 metre	Each	513.00
1.3	8 metre	Each	578.00
1.4	9 metre	Each	647.00
1.5	10 metre	Each	711.00
1.6	11 metre	Each	781.00
1.7	12 metre	Each	867.00
2	Hot-dipped Galvanised Planted Type Octagonal Column for Floodlight for the following Nominal I Height.	-	
2.1	6 metre	Each	380.00
2.2	7 metre	Each	480.00
2.3	8 metre	Each	555.00
2.4	9 metre	Each	640.00
2.5	10 metre	Each	740.00
2.6	12 metre	Each	825.00
3	Hot-dipped Galvanised Planted Type Octagonal Tapered Column for Floodlight for Garden/ Footpath Lighting for the following Nominal Mounting Height.		
3.1	3.0 metre	Each	240.00
3.2	3.5 metre	Each	265.00
3.3	4.0 metre	Each	300.00
3.4	4.5 metre	Each	330.00
3.5	5.0 metre	Each	380.00

SECTION T - POLES (cont'd)

Supply and install the following lamp-poles including end caps & all necessary accessories

Item No	Description	Unit	Rate (S\$)
3.6	5.5 metre	Each	420.00
4	Hot-dipped Galvanised Planted Type Octagonal Tapered Mid-Hinged Column c/w Single Bracket Arm for mounting 4 nos. of floodlights (see Sketch No. J 29) for the following Nominal Mounting Height		
4.1	8.0 metre	Each	2,500.00
4.2	10.0 metre	Each	2,750.00
5	Hot-dipped Galvanised Planted Type Tubular Swaged Pole for the following Nominal Mounting height c/w Single Bracket Arm (see Sketch No. J 30)		
5.1	6.0 metre	Each	460.00
5.2	8.0 metre	Each	580.00

NOTE: 1) For items -1, 2, 3 4 & 5 incur additional charge of \$40.00 subject to Tender Rate for Flange Mounted Type.

- 2) For items 1 & 5 incur additional charge of **\$160.00** subject to Tender Rate for Double Bracket Arm
- 3) All lamp poles (Flange Mounted or Planted) supplied have to apply with a layer of **Bitumen Coating** for the section to be buried in the ground and 100 mm above of ground level. The thickness is minimum 2 mm.

SECTION U- WOOD BLOCKS

Supply and install the following:-

Item No	Description	Unit	Rate (S\$)
1	75mm x 25mm round block	Each	2.40
2	75mm x 25mm x 32mm teak block	Each	2.40
3	75mm x 100mm x 32mm " "	Each	3.20
4	75mm x 150mm x 32mm " "	Each	4.80
5	75mm x 225mm x 32mm " "	Each	6.60
6	100mm x 150mm x 32mm " "	Each	9.00
7	150mm x 150mm x 32mm " "	Each	12.00
8	150mm x 225mm x 32mm " "	Each	18.00
9	150mm x 300mm x 32mm " "	Each	20.00
10	225mm x 225mm x 32mm " "	Each	25.00
11	225mm x 300mm x 32mm " "	Each	38.00
12	Teak block up to 0.1msq., 38mm thick	Each	50.00
13	Teak block in access of 0.1 sq. m. up to 0.3 sq. m.	Each	60.00
	38mm thick		
14	Teak block in access of 0.3m2 up to 0.4m2 38mm	Each	70.00
	thick		
15	Teak block in access of 0.4m2 up to 0.5m2 38mm	Each	80.00
	thick		
16	Teak block in access of 0.5m2 up to 0.6m2 38mm	Each	90.00
	thick		
17	Teak block in access of 0.6m2 up to 0.7m2 38mm	Each	100.00
	thick		
18	Teak block in access of 0.7m2 up to 0.8m2 38mm	Each	110.00
	thick		
19	Teak block in access of 0.8m2 up to 0.9m2 38mm	Each	120.00
	thick		100.00
20	Teak block in access of 0.9m2 up to 1.0m2 38mm	Each	130.00
	thick		

SECTION V- ENCLOSURES

1. Supply and install the following enclosures (Pvc/Polyester/Gal. Mild Steel) with minimum protection of IP 55 c/w PVC connectors, brackets & etc.

Item No	Description	Unit	Rate (\$) (PVC / Polyester)	Rate (\$) (Gal. Mild Steel)
1.1	85mm x 85mm x 45mm	Each	15.00	-
1.2	105mm x 105mm x 55mm	Each	20.00	-
1.3	155mm x 110mm x 70mm	Each	30.00	_
1.4	180mm x 140mm x 80mm	Each	45.00	80.00
1.5	220mm x 170mm x 80mm	Each	65.00	100.00
1.6	220mm x 175mm x 140mm	Each	80.00	130.00
1.7	310mm x 240mm x 124mm	Each	100.00	160.00
1.8	310mm x 240mm x 160mm	Each	110.00	180.00
1.9	300mm x 400mm x 200mm	Each	250.00	-
1.10	400mm x 500mm x 200mm	Each	280.00	_
1.11	400mm x 600mm x 200mm	Each	310.00	-
1.12	400mm x 500mm x 250mm	Each	350.00	-
1.13	400mm x 600mm x 250mm	Each	400.00	_
1.14	500mm x 700mm x 250mm	Each	450.00	_
1.15	800mm x 1000mm x 300mm	Each	1,100.00	-
1.16	Concrete base for item 1.9 to 1.15	Each		50.00
1.17	Fibre boards			
i)	0.04m ² and below	Each		20.00
ii)	above 0.04 m ² up to 0.12 m ²	Each		30.00
iii)	above 0.12m ² up to 0.24m ²	Each		50.00
iv)	above 0.24m ² up to 0.46m ²	Each		70.00
v)	above 0.46m ² up to 1.08m ²	Each		100.00

SECTION V- ENCLOSURES (cont'd)

Supply and install the following enclosures (Pvc/Polyester/Gal. Mild Steel) with minimum protection of IP 55 c/w PVC connectors, brackets & etc.

Item No	Description	Unit	Rate (\$)
1.18	Galvanised steel junction box to IP 55 and of dimension 160 x 160mm c/w ringed door, cum lock and key	Each	50.00
1.19	3 or 4 ways MCB enclosure	Each	10.00

2. Supply and install the following mild steel 16 SWG OG Box cabinet c/w necessary purpose made clamps, bolts and nuts, hinged door, ventilation Louvre and netting, watertight gasket, locks ,teak wood block epoxy powder coated paint,etc.

Item No	Description	Unit	Rate (S\$)
2.1	0.024 cu metre to 0.035 cu metre	Each	330.00
2.2	In access of 0.035 cu metre to 0.05 cu metre	Each	380.00
2.3	- do - 0.05 cu metre to 0.075 cu metre	Each	430.00
2.4	- do - 0.075 cu metre to 0.1 " "	Each	480.00
2.5	- do - 0.1 cu metre to 0.125 " "	Each	550.00
2.6	- do - 0.125 cu metre to 0.2 " "	Each	620.00
2.7	Concrete collar and foundation for OG Box		
	i) for item 2.1 to 2.3	Each	70.00
	ii) for item 2.4 to 2.6	Each	100.00
2.8	In access of		
	0.2 cu metre to 0.25 cu metre	Each	850.00
2.9	Concrete collar and foundation for OG Box to		
	item 2.8	Each	150.00
2.10	OG Box (size 400mm x 800mm x 1000mm) on	Each	1,000.00
	new concrete plinth inclusive		

3. Supply and install the following sizes of ventilated OG Box enclosures complete with hinged door, handles and padlock sets including transparent openings for PowerGrid meter reading if necessary.

Item No	Description	Unit	Rate (S\$)
3.1	0.08 cub meter up to 0.1125 cu metre on existing plinth	Each	530.00
3.2	As item 3.1 but on new concrete plinth	Each	690.00
3.3	More than 0.1125 cub metre up to 0.1688 cub metre on existing plinth	Each	610.00
3.4	As item 3.3 but on new concrete plinth	Each	770.00
3.5	More than 0.1688 cub metre up to 0.225 cub metre on existing plinth	Each	720.00
3.6	As item 3.5 but on new concrete plinth	Each	870.00
3.7	More than 0.225 cub metre up to 0.3 cub metre on existing plinth	Each	800.00
3.8	As item 3.7 but on new concrete plinth	Each	930.00
3.9	More than 0.3 cub metre up to 0.35 cub metre twin door on existing plinth	Each	810.00
3.10	As item 3.9 but on new concrete plinth	Each	960.00
3.11	More than 0.35 cub metre up to 0.375 cub metre twin door on existing plinth	Each	900.00
3.12	As item 3.11 but on new concrete plinth	Each	1,060.00
3.13	14 SWG Aluminium OG Box single door on new concrete plinth, size of OG Box : 805 x 575 x 200mm	Each	1,110.00
3.14	14 SWG Aluminium OG Box two door on new concrete plinth, size of OG Box : 1300 x 700 x 350mm	Each	1,510.00
3.15	14 SWG Aluminium OG Box two door on new concrete plinth, size of OG Box : 1300 x 1120 x 350mm	Each	2,180.00
3.16	14 SWG Aluminium OG Box two door on new concrete plinth, size of OG Box : 1540 x 1650 x 450mm	Each	3,470.00

SECTION W-LABOUR RATES

(See Note Below)

Item No	Description	Unit	Rate (S\$)		
I	Labour charges for attending electrical work during				
	normal working day.		20.00		
1	(i) Electrician time (between 8 am to 6 pm)	Per	30.00		
	(ii) General Worker time (between 8 am to 6 pm)	hour	24.00		
2	(i) Electrician time (between 6 pm to midnight,12am)	Per	35.00		
	(ii) General Worker time (between 6 pm to	hour	26.00		
	midnight,12am)				
3	(i) Electrician time (between midnight, 12am to 8 am)	Per	40.00		
	(ii) General Worker time (between midnight,12am to 8	hour	28.00		
	am)				
design	(II) Labour charges for providing standby service to attend to functions at designated locations, including attendance to breakdown and emergency calls:				
1. Electrician time (between 8 am to 6pm) Per hour 30.00					
2 do	2 do - (between 6pm to midnight,12am) " 35.00				
3 do	- (between midnight,12am to 8 am) " 40.00				

NOTE:

- 1. For Sunday and Public Holidays, the rates are 2 times the stated rates.
- 2. These rates are chargeable when urgent or emergency works (without schedule of rates) are executed. These rates are not applicable for items where the installation cost has been included.

SECTION X - FIRE ALARM SYSTEM

(See Note below)

Supply and install the following include connecting up and ready to function.

Item No	Description	Unit	Rate (S\$)	Offered Make
1	PSB Batch Tested Main/Sub Fire Alarm			
	Panel c/w Charger and Battery			
	 a) 4 - Zones b) 6 - Zones c) 8 - Zones d) 10 - Zones e) 12 - Zones f) 16 - Zones g) 20 - Zones 	Each Each Each Each Each Each	880.00 940.00 1,600.00 1,750.00 1,900.00 2,300.00 3,000.00	
2	Red Alert Call Point	Each	35.00	
3	Red Alert Alarm Bell	Each	45.00	
4	Ionization Smoke Detectors complete with/without LED Indicators	Each	115.00	
5	Heat Detectors (fixed temp. cum rate of rise type) complete with/without LED Indicators	Each	72.50	

Note:

It is the obligation of the successful tenderer to undertake the above **Section X – Fire Alarm System** works under this Contract.

SECTION Y- SCHEDULE OF TECHNICAL SUPERVISORY AND SERVICE FACILITIES

Schedule of Particulars of Electrical Workers

1.	Licensed Elec	ctrical Workers				
List he	List here the number of qualified electrical workers, qualification and experience:					
<u>S/N</u>	<u>Name</u>	EMA License	<u>No</u>	Grade of <u>License</u>	Year or Experience	
				Engineer		
				Technician		
2	Camina Facili	4 :		Electrician		
2.	Service Facili	<u>ties</u>				
	Dedicated tele	ephone line to b	e mann	ned 24 hours da	ily.	
				Person Conta		
a)	Normal work (8.00 am - 6.0	•	Tel No	0		
			Handp	phone No		
b)	After office h (6.00 pm - 8.0		Tel No	0		

Note

- a) The Contractor shall fill in all particulars in Section Y and to be submitted together with the tender submissions for evaluation. If any tenderer fails to submit the particulars as required, the SDC shall not be bound to require the tenderer to submit the missing particulars and shall also reserve the sole discretion to preclude his tender from further evaluation.
- b) The Contractor shall inform the S.O. as soon as possible in writing of any changes in the above within 10 days of the changes made failing which the penalty clauses shall apply.

SECTION Z - SCHEDULE OF LEW SERVICES

The rates for the LEW services cover for the duration of the project / work and 1 year defects liability period (including the submission of all applications, drawings & etc to EMA / SP Services / PowerGrid & etc and all necessary license fees. These rates shall also include attendance to all SP Services/PowerGrid/regulation requirements such as turn on of installations & etc).

Item No.	Size of Installation	Rate
1	Not exceeding 45 KVA	\$ 400.00
2	Not exceeding 150 KVA	\$ 800.00
3	Not exceeding 300 KVA	\$1,000.00
4	Not exceeding 500 KVA	\$1,200.00
5	Not exceeding 800 KVA	\$1,600.00
6	Not exceeding 1 MVA	\$2,000.00
7	Exceeding 1 MVA	\$3,000.00

<u>Note:</u> These rates are only chargeable for those projects/works which require the submission of drawings, etc to EMA / SP Services / PowerGrid for approval and subsequent licensing of the installation as required by EMA.

These rates are not applicable for the purpose of submission of Form C after repair or rewiring works have been completed.

SECTION Z1- SCHEDULE OF SERVICING FOR MAIN LOW TENSION (LT) SWITCHBOARDS

Supply labour and all consumable items such as anti-rust cleaner for bus-bars, greaser for bolts and nuts, sand papers, bolts and nuts, cloths & all necessary tools & accessories to carry out the servicing of main low tension (LT) switchboards including submission of test reports to SDC for the retention for the following electrical installations' capacity:-

C/NI	Degavintion	Umit Data	Amount
S/N	Description	Unit Rate	(S\$)
1	The scope of servicing of main LT switchboard shall be in conjunction of the yearly servicing as specified in Requirement Specifications, Page RS23/46, Clause 2.1(b) as follows:-		
a	3-phase, 60A, 400V, switchboard	Lump Sum	80.00
b	3-phase, 100A to 150A, 400V, switchboard	"	120.00
С	3-phase, 200A, 400V, switchboard	"	150.00
d	3-phase, 250A, 400V, switchboard	"	150.00
e	3-phase, 300A, 400V, switchboard	"	200.00
f	3-phase, 400A, 400V, switchboard	"	200.00
g	3-phase, 500A, 400V, switchboard	"	250.00
h	3-phase, 600A, 400V, switchboard	"	300.00
i	3-phase, 800A, 400V, switchboard	"	350.00
j	3-phase, 1000A, 400V, switchboard		400.00
k	3-phase, 1200A to 1800A 400V, switchboard		450.00
1	3-phase, 2000A, 400V, switchboard	"	500.00

FOR MAINTENANCE SERVICE TO LOCATION SCHEDULES I-A

Item	Description	Rate	Amount (S\$)
1	Provide maintenance service for the following areas as		
	stated in Schedule I-A according to the Requirement		
	Specifications for 1 year		
1.1	The Wings of Time – Outdoor Lighting	Sum	12,000
1.2	Imbiah Terrace / Merlion Plaza	Sum	12,000
1.3	Herbs & Scented Garden & Outdoor Lighting at Arches	Sum	4,000
1.4	Merlion Walk / Merlion Moat / Merlion Linkway	Sum	12,000
	(excluding main board in Merlion Tower)		
1.5	Waterfront Promenade 5	Sum	4,000
1.6	Gateway Avenue Street Lighting Including Flag Poles at	Sum	6,000
	Gantry and Main Gantry Lightings		
1.7	Causeway Bridges	Sum	12,000
1.8	Boardwalk, Cycle Tracks	Sum	13,500
1.9	Imbiah Lookout & Walkways / Cable Car Areas / IOS	Sum	15,500
	Forecourt / Sky Tower Areas / Imbiah Carpark / SND		
	Service Road Lightings		
1.10	Fort Siloso Gateway	Sum	4,000
1.11	Siloso Beach	Sum	18,000
1.12	Palawan Beach (including all Linkway Lightings)	Sum	16,000
1.13	Port of Lost Wonder – Outdoor Lighting	Sum	4,000
1.14	Tanjong Beach	Sum	8,000
1.15	Bus-stops (Island wide) including Coach Bay, Palawan	Sum	8,500
	Green, Palawan Carpark, Tanjong Carpark & all Shelters		

TERM CONTRACT FOR MINOR WORKS, SERVICING, MAINTENANCE AND REPAIR OF EXISTING ELECTRICAL INSTALLATIONS AT SENTOSA FOR THREE (3) YEARS

FIXED SCHEDULE OF RATES III

Item	Description	Rate	Amount (S\$)
1.16	Ramp from Merlion Walk to Siloso Beach & Commons Areas	Sum	5,000
1.17	Beach Carpark Complex (including Basement Carpark) –	Sum	20,500
	Public Lightings, Power Pts, POB & Walkways		
1.18	Street Lighting Point 1, Siloso Road	Sum	8,000
1.19	Street Lighting Point 2, Artillery Avenue	Sum	8,000
1.20	Street Lighting Point 3, Allanbrooke Road,	Sum	8,000
1.21	Street Lighting at Facility Complex	Sum	4,000
1.22	2 nd Roundabout & Corporate Office Walkway & Carpark Lightings	Sum	2,000
1.23	Ex-SDC Office Carpark & Ficus Tree Lightings	Sum	2,000
1.24	FEC Outdoor & Landscape Lightings	Sum	2,500
1.25	Siloso Point Cableway Walkways & Skywalk Outdoor Lightings	Sum	2,000
1.26	Flower Terrace Cableway Walkways	Sum	1,000
1.27	Imbiah Lookout Cableway Walkways	Sum	1,000
1.28	North Cove Residential Common Areas including Signage's Lights & Show Bungalow, Coral Island, Paradise Island, Treasure Island, open Spaces, 14 nos. of Marina Lights at North Lock Gate, etc.	Sum	17,700
1.29	North Cove Foreshore Common Areas Includes 8 nos. of OG Boxes, 17 nos. of DBs & etc.	Sum	14,600
1.30	South Cove Residential Common Areas including Signage's Lights, Sandy Island, Pearl Island & 9 nos. of OG Boxes at Open Spaces, Pavilion & etc.	Sum	21,200

TERM CONTRACT FOR MINOR WORKS, SERVICING, MAINTENANCE AND REPAIR OF EXISTING ELECTRICAL INSTALLATIONS AT SENTOSA FOR THREE (3) YEARS

FIXED SCHEDULE OF RATES III

1.31	South Foreshore Common Areas including 17 nos. of New	Sum	6,800
	OG Boxes comprises of 2 nos. 200A OG Boxes & etc.		
1.32	Central Cove including Marina Promenade lightings & etc	Sum	12,300
1.33	Sentosa Cove Village (SCV) including Signage's Lights,	Sum	35,100
	DBs at SCRM Office at L2 & L3, Cisco Offices, Ranger		
	Offices & etc.		
Total amount for maintenance service (One Year)			
(Subject to Tender Rate to be inserted by tenderer in GeBIZ)			\$321,200.00

Note:

Payment (subject to Tender Rate) for maintenance services shall be paid on monthly basis upon satisfactory of service rendered. The payments for maintenance services also include twice lorry crane services for maintenance of lamp poles and signages islandwide per month.

(*Monthly payment shall be based on total amount per year divided by 12 months i.e. \$321,200.00 divided by 12 months which equal to \$26,766.67 per month or monthly payment divided by actual number of days per month x number of days i.e. \$26,766.67 divided by 31 days {May 17} which equal to \$863.44 per day x number of days). Subject to Tender Rate inserted by tenderer in GeBIZ.