

<u>VAGODIYA NAGARPALIKA</u>					
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Name Of Work :- Providing, Supplying & Erecting Street Light Pole with LED Lights From Ramjabhai Mansinghbhai House To Haresh Bhai House at Vagodiya .					
<u>SCHEDULE-B</u>					
No	Description	Quantity	Total Rate	Per	Amount
	ELECTRICAL				
1	Supplying & erecting Steel tubular pole (Swaged) confirming to IS - 2713 (Part-II) 1980. Manufacturing process of steel tubular pole should be as per IS specification. Basic steel tube should be ISI Marked. Pole should be painted by one coat of Zinc comet Primer and two coat of Aluminium /approved paint to be erected on / in existing Foundation. The length of poles are as below.				
	(A) 7.5 mtr. Long Swaged Steel tubular pole				
	(i) pole as per IS code 410-SP-4 with 300 X 300 X 4 mm base plate with necessary G.I. J Bolts (Approximate Pole weight 67 Kg) For burial erection	19.00	7246.75	NO.	137688.25
	(ii) Add Extra for M.S. Base plate 300 X 300 X 16 mm for pole, Suitable for mounting on surface of foundation with GI foundation bolts, with required stiffeners welded with pole.	19.00	982.73	NO.	18671.87
	(iii) Add Extra for PU base primer and PU Paint on pole.	19.00	386.83	NO.	7349.77
2	Supplying and erecting street light pole bracket comprising main B Class GI pipe of 4.2 cm/require outside dia. complete with suitable B Class GI sleeve tubing of approx. 45cms.length and suitable for 76.5mm/80mm or require size pole top having sufficient fastners for fixing the brackets and having suitable rise as per site condition as directed and spread of 2 mtr.with suitable welded stiffener reducer and with lock nut complete painted with one coat of Red oxide / PU base primer and two coats of Aluminium / PU paint. Suitable for side entry fitting brackets of following nos of arms.				
	[A] Single Arm Bracket 1.5 Mtr	19.00	683.77	NO.	12991.63
3	Supplying & erecting approved make SMC press moulded composite FRP. loop-in, loop-out approx. 2mm thick box complete with Bakelite connector strip 5way(3P+N+E),DIN rail for mounting mob & hinged doors as per requirement having locking arrangements with mounting clamp with nuts, bolts & washers suitable for erection on pole with cable clamps& earth bolt of following size of box.				
	(B) 250mm x 200mm x 100mm [deep]	19.00	515.10	Nos.	9786.90

4	Supplying and erecting LED street light / Flood light fittings with High power White LEDs wattage of 3 Watt and above assembled on single MCPCB, efficiency more than 130 lm/w and corrosion free High pressure die cast aluminum housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics/ lenses, with toughened glass with company mark/name engraved or embossed 160 to 270 V,Power Factor more than 0.95, THD < 10 %, CCT 3000 K to 5700K,Uniformity ratio >0.45, Luminaire efficacy> 100 lumens/watt . LED driver efficiency > 85 %.(fittings required LM-79 & LM-80 certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.)				
	(A) Street Light (IP-65), Surge protection -4KV integral and ,Light must have 440VAC line supply with over-voltage protection.				
	(iii) above 60 to 90 Watts Cat III	19.00	5976.17	NO.	113547.23
5	Supplying and erecting Flexible PVC insulated multistrand multicore 1.1 kv grade ISI marked copper wires of following size to be erected as directed.				
	e) 1.50 Sq.mm 3 core round PVC sheathed	418.00	31.31	Rmt.	13087.58
6	Providing and erecting XLPE (IS:7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables				
	(A) 4 core 16 Sq. mm	912.00	153.52	Rmt.	140010.24
7	Supplying and erecting B class Galvanized iron pipe having smooth finished bore of the pipe on both ends erected nuts and bolts along the pole / wall shaping the pipe as per site requirement. Pipe dia as following.				
	(c) 40 mm dia.	76.00	249.47	Rmt.	18959.72
8	Providing and erecting Pipe type earthing having 150 cms.long and 2.5 cms. dia. galvanised iron pipe with coupling and buch buried in specially prepared earth pit complete with necessary 8 SWG earth wire.	19.00	368.65	Nos.	7004.35
9	For using salt and charcoal / coke as required for pipe type earthing.	19.00	171.70	Nos.	3262.30

10	Supplying & erecting earth pit of minimum bore dia.150mm size approved make Earthing Electrode consisting Pipe-in-Pipe Technology as per IS 3043-1987 made of corrosion free hot dipped G.I.Pipes having Outer pipe dia of 50mm having 80-200 Micron galvanising, Inner pipe dia of 25 mm having 200-250 Micron galvanising, connection terminal dia of 12mm with constant ohmic value surrounded by highly conductive compound with high charge dissipation suitable for following type of applications with chamber and heavy duty cover. (A)(approved make OEM has to submit test certificate including value of earth resistance of installation duly stamped and signed by agency and officer Incharge has to ensure the value of earthing resistance mentioned in test Certificate) & having back filling compound of (B) Inner chemical (CCM Compound)- Resistivity:- 0.2 ohm / meter testing as per IEC 62561-2017, Voltage drop:- < 1 volt at no load & dry form, Sulphur content:- <2%(C) Back fill Compound :- Earthing compound should be capable to retain moisture for long time Necessary test report must be submitted by Agency				
	(a) For Electrical Installation up to 440V in normal soil Length of pipe - 1 Mtr Back filling compound - 1 Nos Bag of 15 Kg.	2.00	4591.46	Nos.	9182.92
11	Making trench in Hard Murrum / Tar Road of suitable width of 90 cms or required depth for laying any size of cable or locating the fault all over the run and back filling the same and making the surface as normal ground.	200.00	74.74	Rmt.	14948.00
12	Making trench in Hard Murrum / Tar Road of suitable width of 90 cm or required depth for laying any size of cable or locating the fault all over the run and back filling the same and making the surface as normal ground. (B) If additional machinery like hammer driller or JCB use [Add]	180.00	357.54	Rmt.	64357.20
13	Providing & laying approved make Double walled corrugated pipes (DWC) of polyethylene(conforming to IS 14930 II)with necessary connecting accessories of same material at required depth for laying of cable. below ground / road surface for enclosing cable and back filling the same to make ground as per original.				
	(A) 50 mm dia	912.00	62.62	Rmt.	57109.44
14	Providing and fixing Terminal board of size 5.0 x 127 x 152.4 mm.bakelite sheet with suitable brass studs with nuts, washers and clamps of size 25mm x 3mm suitable for pole painted with one coat of red lead paint.	19.00	146.45	Nos.	2782.55
15	Providing 1:2:4 cement concrete foundation & 70 % PCC from bottom including excavation for the pole of size 60 x 60 x 120 cm. Deep in below ground level with plinth of 45 cm x 45 cm(or 45 cm dia x 45 cm) high upper ground level with necessary curing and finishing in approved manner. (for 7.5 & 8/8.5 mtr pole)	19.00	1292.80	Nos.	24563.20
16	Providing and, fixing heavy duty flange type brass cable gland with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables.				
	(B) 2 to 4 core 6 Sq. mm	76.00	38.38	Nos.	2916.88

	(D) 2 to 4 core 16 Sq. mm	38.00	47.47	Nos.	1803.86
17	Solderless crimping type Aluminium lugs conforming to IS suitable for cable of following size evenly crimped with high pressure tool & connected to switchgear terminals with brass/cadmium plated nut bolts in an approved manner.				
	(C) 16 Sq.mm.	152.00	15.15	Nos.	2302.80
18	Supplying & erecting IP 55 grade following size section pillar fabricated from joint less M.S. Sheet with angle iron legs made from jointless M.S. Angle with cable clamps to be buried in ground to have appropriate erection to work uniform until erected with cement concrete foundation and 45 cm high bricks work finishing with plaster etc. hinged double door internally supported on both side, with internal and outside looking arrangement with lock and keys in duplicate 35 x 35 x 5 mm M.S. Angle of Two Nos. one is welded and other with nut and bolt for erecting Bakelite sheet. Painting the Section Pillar inside and out side with three tank powder coated paint. section pillar roof should be without joint with water leakage proof & tested as per IP 55 test & followed by IS 2147 of 1962	1.00	1884.66	Nos.	1884.66
	(C) 60 X 30 X 45 cm section pillar fabricated from 16 Gauge MS Sheet with angle iron legs 45 cm long made from 35 X 35 X 5 mm thick MS angle.				
19	Supplying and erecting HYLAM sheet on existing angle iron frame.for following thickness (F) 12mm	1.00	2311.89	Smt.	2311.89
20	Supplying & erecting approved make Digital time switch having lithium cell 6 years operative and operate battery backup 1 channel day clock with 14 memory programme, suitable to operate on 240V + 5%, 16A with, floating contacts Minimum switching setup time 1 minimum & LCD display. Also comprised permanent ON/OFF switching. Programming switches & housed in fire proof thermoplastic enclosure & transparent cover erected as required with necessary connection erected as directed.	1.00	3168.37	Nos.	3168.37
21	Supplying and erecting Ammeter / Voltmeter selector switch for 3 phase AC Supply 500 V on existing panel board with necessary connections.	1.00	317.14	Nos.	317.14
22	Supplying and erecting approved make panel mounting type Digital Ammeter having 3 digits LED display, external CT operated, calibrated for 0 to 1000 Amps suitable to operate on 500 Volt AC , erected on existing panel board with all connection, wiring etc .with manufacturers calibration certificate.	1.00	1558.43	Nos.	1558.43
23	Supplying and erecting approved make panel mounting type Digital Voltmeter having 3 digits LED display, 0 to 750 AC Volts range erected on existing panel board with all connection, wiring etc .with manufacturers calibration certificate.	1.00	1275.63	Nos.	1275.63
24	Supplying and erecting approved make suitable panel indicator LED type lamp, lens cover, complete erected with necessary connections.	1.00	43.43	Nos.	43.43
25	Providing & erecting L.T. Current Transformer with bar primary 50/5 to 1000/5 ratio 15 VA burden erected in existing CRCA box duly secured with insulating materials connected to the meter	1.00	274.72	Nos.	274.72

26	Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 25 KA. at 415 V, having normal current rating up to 25 A to 100A. with Fixed thermal & magnetic release suitable to work on A.C. supply 50 c/s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S. housing.				
	ICS=100% of ICU only Cat III	1.00	6173.12	Nos.	6173.12
27	providing and erecting Miniature circuit breaker single pole 0.5A to 2A system and having breaking capacity 10 KA to be erected in existing box. confirming to IS 8828/1996 with ISI Mark Cat.III	19.00	270.68	Nos.	5142.92
28	Providing & erecting 415V MCB Four Pole Switch for Lighting Load (B curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity (A) 6 to 32 Amp. Cat.III	1.00	578.73	Nos.	578.73
				Total :	685055.73
			Add 18% GST :-		123310.03
					808365.76
			Add 3 % Cont. & Superv. :		24250.97
					832616.73
				Say :-	832617.00