

Botad NAGARPALIKA - BOTAD					
ELECTRICAL ESTIMATE FOR BOTAD PUMPING MACHINERY					
ABSTRACT SHEET					
No	Description	Qty	Rate	Unit	Amount
1	Auto transformer starter suitable for local & remote pump control application consisting of Auto Transformer(vacuum impregnated,air cooled having three(3) tappings at 50%,65% and 80%),incomer MCCB/MPCB,overload relay and contactors as per Type II coordination including digital MFM with RS 485 communication port,analogue type ammeter with selector switch,run hour meter,required protective relays & control accessories.A. T. S. from 46 to 50 HP	2.00	37804.00	No.	75608.00
2	Approved make Four Pole LT Heavy Duty Switch Disconnecter Fuse Unit Cubical type for panel mounting complete with operating mechanism suitable to operate on 415V A.C. With HRC fuses of suitable load confirming to IS. 13947(Part I & III). Of following capacities (e) 125 Amp Cat III	1.00	7221.50	EACH	7221.50
3	MEDIUM VOLTAGE CABLES : Supply,laying, testing & commissioning 1.1 kV grade, XLPE insulated , stranded Aluminium conductor, galvanised steel flat strip/round wire armoured,extruded PVC type ST2 sheathed, heavy duty cable (to be laid on wall surface with necessary clamps/in existing cable trench/ cable trays/ conduit / pipe sleeves at road crossing or floor as per site requirement) conforming to IS:7098 (Part-1)&IEC: 60502(Part-1)of following sizes:4Cx35 sqm	60.00	182.00	RMT	10920.00
4	Cable terminals (lugs): Providing & fitting crimping type Cable Terminals (Lugs) conforming to IS of following types and sizes Aluminium Reducer Terminals (in Sq.mm.) Size:- 35 sq mm	8.00	4.00	No.	32.00
5	Cable Gland: Providing and fitting heavy duty brass cable glands (nickel- plated) with washers & rubber ring conforming to IS, suitable for 3,3 1/2 & 4 core cables of following type and sizes. Single compressor Brass cable glands	8.00	49.00	No.	392.00
6	CHEMICAL EARTHING SYSTEM: Supplying & erecting in earthpit of minimum bore dia. 225mm size approved make Safe 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 80 mm having 80-200 Micron galvanising, Inner pipe dia of 40 mm having 200-250 Micron galvanising, connection terminal dia of 14 mm 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. (approved make OEM has to submit test certificate including value of earth resistane of installation. [B] For Electrical installation up to 11 KV located in other than normal soil i.e. Soft Rock, Marshy Soil etc.Length of Pipe:2 mtr -Back filling Compound :1 no. Bag of 25 Kg	1.00	9296.17	No.	9296.17
7	SITC of 50mm(w) x 6mm(T) etc. sizes as required, HOT deep GI Strip including supply & fixing using GI spacers, saddles when laid inside the building and inclusive of excavation & refilling of earth when laid outside the building & interconnection with earth pit & all electro-mechanical equipments.(50X6 G.I Strip wt.2.3 kg/m,2.3 x 30 Mt. = 69kg.)	69.00	77.77	KG	5366.13
8	CABLE TRAY:Supply & laying GI perforated type cable trays with returned edge/flange,fabricated from 2.0 mm thk sheet steel in the standard length of 2.5 mtrs,duly hot dipped galvanized after fabrication as per IS 2629-1989/IS 4759-1984 including accessories such as coupler plates/fish plates,bends,tees, reducers, elbows,covers and electro-galvanized hardware etc, erected on existing support as per specification and instruction of Engineer-in-charge. 150(W)x50mm(H)x2mm Thick-Ladder type	40.00	336.00	RMT	13440.00
9	Point wiring: Point winng for Light/ Bell with 2-1.5 sq mm & earthwire of 1.5 sq mm(Green) both are of ISImarked 1.1kV grade FRLS PVC insulated multistrand copper wrres, in following type of pipe to be erected concealed in/on surface on wall/ceiling complete with 6A Modular type switch/bell push & accessories and earth continuity of following type,erected on PVC/Metallic box,single mounting base frame covered With textured/metallic front plate modules erected on/in wall/ceiling as per pipe erected,with necessary Lamp holder/ceiling rose/HD. Connector as directed.a)with medium class Rigid PVC pipe and accessories.Cat. III	20.00	449.45	Pt	8989.00
10	PVC Pipes:Providing and erecting ISI mark Medium class RIGID PVC PIPES of following size complete to be erected on/ in wall or ceiling erected with necessary PVC fittings & Junction boxes fixed with adhesive solution & Clamps With following	60.00	24.24	Mtr	1454.40

	dia of pipes in approved manner as directed. a) 20mm				
11	Wires: SITC of Main & Outlet points wiring with 1.1KV Grade FRLS PVC insulated ISI marked flexible stranded copper conductor wires with medium class min. 25mm dia. Rigid PVC Pipe and accessories to be erected concealed in/to be run on surface /wall/ ceiling with following sizes as mentioned below. The unit rate wiring shall be with connector, PVC junction box, wire holder, ceiling rose, Angle holder, switch, switchboard brass chromium/cadmium plated machine screws, phase and neutral wires, green earth continuity wires etc. as required to complete wiring from LDB panel to the final outlet termination points. The wiring shall be as per IS :732, Is : 4648 and as per tender specification / IS (a) SITC of Main wiring with 3wire 1.5 Sq.mm (in existing pipe)	60.00	62.62	Mtr	3757.20
12	Indoor LED fitting: Supplying and erecting LED indoor Fittings with LED's of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housig used as a head sink shall be made of thick sheet steel confirming to IS 513 CRCAV/ aluminium die cast powder coated and high UV & corrosion resistance with diffuser with company mark/name 120 to 300 V. Power Factor more than 0.9, Tho<10%. c) 22-24 Watts, Surge -2KV, IP-20, 4 Feet, Cat-III	6.00	758.51	Nos	4551.06
13	LED Outdoor Fittings: 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>100lumens/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.)Street Light (IP-65),Surge protection -4KV integral and Light must have 440VAC line supply with over-voltage protection .Street Light (IP-65),Surge protection -4KV integral and Light must have 440VAC line supplywithover-voltageprotection.(iii)Above 60 watts to 90 Watts,Cat-III	4.00	5976.17	Nos	23904.68
14	B' class galvanised iron pipe 32 mm outside dia 45 cms long duly welded on 20 cmsx20cmsx3mm thick M.S. base plate, erected on wall or corner for mounting street light luminaire with necessary hardware materials duly painted.For wall mounting indoor & Outdoor Flood light Fixtures on wall of Buiding	2.00	343.40	Nos	686.80
15	SITC of Lighting Distribution Board(LDB)asunder:3 Phase 4 Wire FP,8 way Prewired LDB(One each for Indoor & Outdoor Lighting)Suitable to house: Incoming 25AFP,RCCB(30mA)Outgoing:20ASPMCB'C'curve (2nos.) & 16 ASPMCB 'C' curve(2nos.)(At Panel Room)	1.00	5463.09	Nos	5463.09
16	Providing and fixing printed instruction chart both in English and Gujarati and duly framed with front glasses, for treatment of person suffering from Electric shock with minimum 50" diagonally size.	1.00	130.29	No.	130.29
17	Supplying rubber matting of following thickness as per IS:15652/IEC 61111 (b)4 mm	2.00	1027.17	No.	2054.34
18	Supplying & erecting carbon dioxide (CO2) fire extinguisher user of following capacity with necessary clamps made from 50 x 6 mm M.S. Flat with nut & bolts grouted in wall complete. [B] For 5.5 / 6.5 KG Capacity	1.00	8671.86	No.	8671.86
19	Supplying stand first AID box with anticeptic cream, medicine for use on wounds due burn, crepe bandage, guage bandage, medicated ready to use bandage (Band-aid) adhesive tape for medicinal user, scissors, anticeptic solution (Savlon or similar) etc. (All above contents shall be of standard makes)	1.00	299.97	No.	299.97
		Total Rs.		182238.49	
		With GST 18%		32802.92	
		Say Rs.		215041.00	

Engineer
Botad Nagarpalika

Chief Officer
Botad Nagarpalika