

ADVANCE - PAYMENT FOR			Item No. as per accepted agrmt and /or Estimate	Description of items of work executed	Quantity executed up to date as per measurement book	Unit	Rate	PAYMENT ON THE BASIS OF ACTUAL		Remarks
Total as per previous bill	Since previous bill	Total up to date						Up to date	Since previous bill	
1	2	3	4	4 (a)	5.00	6	7	8	9	10
ABSTRACT (4th & FINAL BILL)										
			1	Supply of 3 1/2 core armoured PVC/XLPE insulated, PVC sheathed aluminium conductor cable of 1.1 KV grade with ISI mark conforming to IS:1554(Part I), IS:7098(Part I) with latest amendments of following size. Make:						
		1.01		3 1/2 Core 25 sq.mm	270.00	Metre	235.00	63,450.00	-	
		1.02		3 1/2 Core 120 sq.mm	900.00	Metre	806.00	7,25,400.00	-	
			2	Supply of 4 core armoured PVC/XLPE insulated, PVC sheathed aluminium conductor cable of 1.1 KV grade with ISI mark conforming to IS:1554(Part I), IS:7098(Part I) with latest amendments of following size Make:						
		2.01		4 Core 16 sq.mm	2320.00	Metre	204.00	4,73,280.00	-	
			3	Laying of one number PVC insulated and PVC sheathed/XLPE power cable of 1.1 KV grade of size not exceeding 25 sq.mm direct in ground including excavation in the form of a trench as per Cable Trench Drawing provided by the Engineer-Incharge, sand cushioning with screened sand bed of 20mm thick , protective covering with bricks placed breadth-wise on top of cable all over the run(the brick protection shall cover the cable and project atleast 5 cms over the sides of the cable) and backfilling the excavated earth without stones or hard material and making the surface proper with 15 cm crown on the top complete as required.						
		3.01		(b) In rocky strata	1604.00	Metre	396.00	6,35,184.00	-	
			4	Laying of one number PVC insulated and PVC sheathed/XLPE power cable of 1.1 KV grade of size exceeding 25 sq.mm but not exceeding 120 sq.mm direct in ground including excavation in the form of a trench as per Cable Trench Drawing provided by the Engineer-Incharge, sand cushioning with screened sand bed of 20mm thick , protective covering with bricks placed breadth-wise on top of cable all over the run(the brick protection shall cover the cable and project atleast 5 cms over the sides of the cable) and backfilling the excavated earth without stones or hard material and making the surface proper with 15 cm crown on the top complete as required.						
		4.01		(b) In rocky strata	506.00	Metre	396.00	2,00,376.00	-	
			5	Supplying and making cable end terminations with brass compression gland and copper lugs for following sizes of 3 1/2 Core PVC insulated PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade, complete as required.						
		5.01		(1) 3 1/2 x 25 Sq. mm.	10.00	Each	300.00	3,000.00	-	
		5.02		(6) 3 1/2 x 120 Sq. mm.	10.00	Each	650.00	6,500.00	-	
			6	Supplying and making cable end terminations with brass compression gland and copper lugs for following sizes of 4 Core PVC insulated PVC sheathed/XLPE aluminium conductor cable of 1.1 KV grade, complete as required.						
		6.01		(5) 4 x 16 Sq. mm.	157.00	Each	250.00	39,250.00	5,500.00	
			7	Providing and fixing 6 SWG GI wire on surface or in recess for loop earthing along with existing surface/recessed conduit/submain wiring/ cable as required.	5140.00	Each	36.00	1,85,040.00	-	
			8	Supplying and erecting Annealed bare copper wire of high purity of different sizes used for earthing on wall with necessary copper clamps fixed on wall/cable/conduit with screws in an approved manner along 4x2.5sqmm Cu cable	1.00	Each	1000.00	1,000.00	-	
			9	Providing & erecting 8 m high (clear height) galvanised octagonal pole with foundation bolts having bottom of 135 mm A/F, top 70 mm A/F on provided foundation as per specification no. OH-PL/OPL	66.00	Each	16000.00	10,56,000.00	-	
			10	Providing and erecting galvanised 1000mm single arm sword type bracket with FRP dome and ball as per specification no. OH-PL/PBKT	66.00	Each	2000.00	1,32,000.00	-	
			11	Supplying and erecting LED street light fitting suitable for 100W lamp, including lamp, with PF > 0.95 class IP 65 and above housing of pressure die cast aluminium alloy and heat sink extruded aluminium complete per specification No. FG-ODF/FLS2 Make: Wipro	81.00	Each	5000.00	4,05,000.00	-	
			12	Making cement concrete foundation including excavation (60 x 60 x 150) cm deep in 1:3:6 cement concrete 20 x 25 mm stone metal, (45 x 45 x 45) cm /45 cm dia. x 45 cm height plinth duly plastered, with necessary curing and finishing complete. (above 6 m to 9 m poles)	66.00	Each	1950.00	1,28,700.00	-	
			13	Supplying and erecting UPVC reinforced flexible conduit 38/40 mm in dia. conforming to I.S. with required number of couplings, PVC bushes, check nuts etc. Complete Conduit in pole foundation for cables as above	171.60	Meter	140.00	24,024.00	-	

			14	Supplying and drawing following sizes of FRLS PVC insulated copper conductor single core cable in the existing surface/ recessed steel PVC conduit or casing capping, including dismantling, removing old wires as required.						
			14.01	{(12) 3 x 2.5 sq.mm	780.00	Meter	150.00	1,17,000.00	-	
			15	Supplying and fixing B series SP MCB, 240 V, suitable for lighting and other loads of following poles in the existing MCB DB complete with connections testing and commissioning etc as required*						
			15.01	{(c) 5 A to 32 A, Cat B	81.00	Each	300.00	24,300.00	4,500.00	
			16	Supplying & laying (including excavation) 25 cm dia RCC Hume pipe of standard thickness at required depth up to 90 cms. below road / ground surface, for covering provided cable & necessary back filling with light ramming to make the road/ground surface as it was (Except bitumen carpet).	68.00	Meter	700.00	47,600.00	-	
			17	Supply and fixing of cable route marker 15 cms diameter of GI plate 6mm thick with inscription thereon bolted or welded to 25mm x 25mm x 5mm angle iron 60 cms long and fixing the same in ground with PCC etc. complete as required.	47.00	Each	500.00	23,500.00	23,500.00	
			18	Supplying and Installing following size perforated type 16 SWG, M.S.cable tray of GI pregalvanised/hot dip galvanised/ powder coated finish, in convenient sections, joined with connectors, suspended from the ceiling with suitable MS suspenders including bolts and nuts, painting suspenders etc., complete as required. 100mm width x 50mm depth	11.00	Meter	546.00	6,006.00	-	
			21	Earthing with GI earth pipe 2 mtrs long 40 mm dia medium class with ISI mark, of approved brands, including accessories and providing masonry enclosure with CI/RCC cover having locking /lifting arrangement and watering pipe etc. with charcoal or coke and salt) as required as per the Earthing Drawing provided by the Engineer-Incharge.The scope of work includes the following: a) Excavation of pit of size 1.0x1.0x 2.0 mtrs(min) and disposal of excavated soil. b) Class B GI pipe, 40mm diameter as per specifications. c) Charcoal/salt as per specs (paid separately). d) Refilling the pit of size 1.0x1.0x 2.0 mtrs(min) with soft black soil of minimum resistivity i/c transportation. e)Masonry chamber with proper foundation, cover plate and locking arrangement. f) Testing of earth value with earth megger and certifications of its value. Aluminium tag with embossed earthing value to be attached to pipe. g)watering arrangement(plumbing will be paid separately). {(b) In rocky strata	18.00	Set	7700.00	1,44,000.00	-	
			22	Extra for using salt and charcoal for pipe earth electrode as required(65 Kgs of Charcoal and 5 Kgs of Salt).	18.00	Set	1500.00	27,000.00	-	
			24	Earthing with GI earth plate 600 mm x 600 mm x 6 mm thick including accessories and providing masonry enclosure with CI/RCC cover having locking/lifting arrangement and watering pipe etc. (but without charcoal or coke and salt) as required as per the Earthing Drawing provided by the Engineer-Incharge.The scope of work includes the following: a) Excavation of pit of size 1.0x1.0x 3.0 Metres(min) and disposal of excavated soil. e)Watering GI pipe, 20 mm Class B, with funnel as per specs. d) Charcoal/salt as per specs (paid separately). e) Refilling the pit of size 1.0x1.0x 3.0 Metres(min) with soft black agriculture soil of minimum resistivity i/c transportation. e)Masonry chamber with proper foundation, cover plate and locking arrangement. f) Testing of earth value with earth megger and certifications of its value. g)watering arrangement(plumbing will be paid separately). {(b) In rocky strata	2.00	Set	12000.00	24,000.00	-	
			25	Extra for using salt and charcoal for GI or Copper plate earth electrode as required (96kgs of charcoal and 5kgs of salt)	2.00	Set	2400.00	4,800.00	-	
			26	Providing and fixing 25 mm x 6 mm GI strip at 0.5m below ground on surface or in recess including soldering etc. as required	87.00	Metre	200.00	17,400.00	-	

		27	Design, Supply, Erection, Testing and Commissioning of outdoor double door fully compartmentalized type Feeder pillar panel, single front ,with proper ventilation design, each MCCB/SDF with rotary handle, floor mounted, with danger plates of approved design on front and rear, two earthing terminals for 50x6mm GI strip, fabricated with 2mm CRCA sheets. All sheet steel work shall undergo a process of degreasing, pickling in acid, cold-rinsing, phosphating, passivating and then sprayed with a high corrosive resistant primer. The finishing treatment shall be by application of two coats of synthetic enamel paint or powder coating RED. Suitable for 2x31/2x300sqmm AYYF incoming cables, complete with a base frame GI 75x75x6mm channel and a suitable GI 75x6mm angle stand for mounting the pillar at suitable height such that the pillar is installed minimum 400mm above finished ground floor, complete with necessary excavation, cement concrete , making good etc. and comprising of following complete with interconnections including disconnecting existing panel , removal of existing foundation etc.						
			Incomer						
			1 no 100A FOUR POLE MCCB 25KA suitable						
			2x31/2cx120 sqmm AYYF cable						
			RYB Indicating lamps set						
			1 set of 200A , 4P 25KA bus bars						
			Outgoings						
			5 no 63A TPN mcb, each suitable for 31/2cx25 sqmm AYYF cable						
			1 set 5A SP MCB with Socket and CFL lamp						
			1set 15A SP MCB with 15A 3pin socket						
			1set of space heater with thermostat						
			Feeder Pillar panel for C and D quarters as above	1.00	Each	67500.00	67,500.00		
		28	Design, Supply, Erection, Testing and Commissioning of outdoor double door, fully compartmentalized type Feeder pillar panel, single front ,with proper ventilation design, each MCCB/SDF with rotary handle, floor mounted, with danger plates of approved design on front and rear, two earthing terminals for 50x6mm GI strip, fabricated with 2mm CRCA sheets. All sheet steel work shall undergo a process of degreasing, pickling in acid, cold-rinsing, phosphating, passivating and then sprayed with a high corrosive resistant primer. The finishing treatment shall be by application of two coats of synthetic enamel paint or powder coating RED, suitable for 2x31/2cx95sqmm AYYF incoming cables, complete with a base frame GI 75x75x6mm channel and a suitable GI 75x6mm angle stand for mounting the pillar at suitable height such that the pillar is installed minimum 400mm above finished ground floor ,complete with necessary excavation, cement concrete , making good etc. and comprising of following complete with interconnections including disconnecting existing panel, removal of existing foundation etc.						
			Incomer						
			63A 25KA MCCB suitable for 31/2cx95 sqmm AYYF cable						
			RYB Indicating lamps set						
			1 set of 200A , 4P 25KA bus bars						
			Outgoings						
			4 no 32A TPN mcb each suitable for 31/2cx25sqmm AYYF cable						
			1 set 5A SP MCB with Socket and CFL lamp						
			1set 15A SP MCB with 15A 3pin socket						
			1set of space heater with thermostat						
			Feeder Pillar panel for hostel quarters as above	1.00	Each	54000.00	54,000.00		
		29	Design , supply ,installation testing and commissioning of 200A FP MCCB 35KA with thermal magnetic releases, rotary handle complete with CRCA sheet steel enclosure with necessary angle frame, wall mounting type in the ground floor of HRD building with, ammeter and voltmeter with selecttable switch with necessary CTs suitable for 2x31/2cx 120sqmm AYYF incoming, 400A busbar chamber and 4 nos of outgoing cables of 2x31/2cx50sqmm AYYF cables and earthing terminals suitable for 25x3mm GI strip Steel sheets used in the construction shall be 2 mm thick. All sheet steel work shall undergo a process of degreasing, pickling in acid, cold-rinsing, phosphating, passivating and then sprayed with a high corrosive resistant primer. The finishing treatment shall be by application of two coats of synthetic enamel paint or powder coating RAL7032. Complete with disconnecting the existing connections and with minimum planned panel shutdown.						
			Incomer mains for HRD building as above	1.00	Each	55000.00	55,000.00		

			30	Design , supply ,installation testing and commissioning of 100A IP MCCB 35KA with thermal magnetic releases, rotary handle complete with CRCA sheet steel enclosure with necessary angle frame, wall mounting type , in the ground floor of ADMIN building with, RYB lampset, suitable for 31.2x50sqmm AYFY incoming, 200A busbar chamber and 4 nos of outgoing cables of 31/2x35sqmm AYFY cables and earthing terminals suitable for 25x3mm GI strip Steel sheets used in the construction shall be 2 mm thick. All sheet steel work shall undergo a process of degreasing, pickling in acid, cold-rinsing, phosphating, passivating and then sprayed with a high corrosive resistant primer. The finishing treatment shall be by application of two coats of synthetic enamel paint or powder coating RAL 7032. Complete with disconnecting the existing connections and with minimum planned panel shutdown.						
				Internal Subincomer mains for ADMIN building as above	2.00	Each	40000.00	80,000.00		
			31	Supplying, erecting & terminating XLPE armoured cable 3½ core 50 sq. mm. copper conductor with continuous 5.48 sq. mm. (12 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specification no. CB-L/T/AL.	60.00	Meter	2500.00	1,50,000.00		
			32	Supplying, erecting & terminating XLPE armoured cable 4 core 10 sq. mm. copper conductor continuous 5.48 sq. mm. (12 SWG) G.I. earth wires complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specification no. CB-L/T/CI)	180.00	Meter	700.00	1,26,000.00		
			33	Supplying & erecting water tight terminal box of cast iron of size 300 x 200 x 150 mm complete on pole as per specification no. CB-SII	15.00	Each	710.00	10,650.00	10,650.00	
			E.1.1	Supply of 3 1/2 core armoured PVC/XLPE insulated,PVC sheathed aluminium conductor cable of 1.1 KV grade with ISI mark conforming to IS:1554(Part I),IS:7098(Part I) with latest amendments of followingsize.						
				3 1/2 Core 50 sq.mm	90.00	Meter	382.00	34,380.00		
			E.1.2	Earthing with copper earth plate 600 mm x 600 mm x 3 mm thick including accessories and providing masonry enclosure with CI/RCC cover having locking/lifting arrangement and watering pipe etc. (but without charcoal or coke and salt) as required as per the Earthing Drawing provided by the Engineer-in-charge.The scope of work includes the following: a)Excavation of pit of size 1.0x1.0x 3.0 mtrs(min) and disposal of excavated soil, c)Watering GI pipe, 20 mm Class B, with funnel as per specs. d) Charcoal/salt as per specs (paid seperately). e) Refilling the pit of size 1.0x1.0x 3.0 mtrs(min) with soft black agriculture soil of minimum resistivity i/e transportation. c)Masonry chamber with proper foundation, cover plate and locking arrangement. f) Testing of earth value with earth megger and certifications of its value. g)watering arrangement(plumbing will be paid seperately). (b) In rocky strata	2.00	Set	16006.00	32,012.00		
			E.1.3	Supplying and laying 25 mm x 5 mm copper strip in 40 mm dia GI pipe from earth electrode as required	8.00	Meter	588.00	4,704.00		
			E.1.4	Supplying and laying 8 SWG copper wire at 0.5 m below ground level for conductor earth electrode including soldering etc. as required	130.00	Meter	136.00	17,680.00		
			E.1.5	Supplying and fixing of following sizes of rigid PVC conduit alongwith accessories in surface(medium)/recess(heavy) including cutting the wall and making good the same in case of recessed conduit as required.	60.00	Meter	116.00	6,960.00		
			E.1.6	Laying of one number additional PVC insulated and PVC sheathed/XLPE power cable of 1.1 KV grade of size not exceeding 25 sq.mm direct in ground in the same trench in one tier horizontal formation including excavation in the form of a trench as per Cable Trench Drawing provided by the Engineer-Incharge,sand cushioning with screened sand bed of 20mm thick , protective covering with bricks placed breadth-wise on top of cable all over the run the brick protection shall cover the cable and project atleast 5 cms over the sides of the cable) and backfilling the excavated earth without stones or hard material and making the surface proper with 15 cm crown on the top complete as required.						
				(b) In rocky strata	455.00	Meter	261.00	1,18,755.00		

		E.1.7	Laying of one number additional PVC insulated and PVC sheathed/XLPE power cable of 1.1 KV grade of size exceeding 25 sq.mm but not exceeding 120 sq.mm direct in ground in the same trench in one tier horizontal formation including excavation in the form of a trench as per Cable Trench Drawing provided by the Engineer-Incharge, sand cushioning with screened sand bed of 20mm thick , protective covering with bricks placed breadth-wise on top of cable all over the run the brick protection shall cover the cable and project atleast 5 cms over the sides of the cable) and backfilling the excavated earth without stones or hard material and making the surface proper with 15 cm crown on the top complete as required (b) In rocky strata	418.00 ✓	Metre	259.00 ✓	1,08,262.00 ✓			
		E.1.8	Laying of one number PVC insulated and PVC sheathed/XLPE power cable of 1.1 KV grade of size not exceeding 25 sq.mm in the existing RCC/HUME/STONEWARE Metal pipe, etc. complete as required.	385.60 ✓	Meter	39.00 ✓	15,038.40 ✓			
		E.1.9	Laying of one number PVC insulated and PVC sheathed/XLPE power cable of 1.1 KV grade of size not exceeding 25 sq.mm on surface, etc. complete as required.	420.00 ✓	Meter	68.00 ✓	28,560.00 ✓			
		E.1.10	Laying of one number PVC insulated and PVC sheathed/XLPE power cable of 1.1 KV grade of size exceeding 25 sq.mm but not exceeding 120 sq.mm in the existing masonry open duct, etc. complete as required	64.00 ✓	Meter	105.00 ✓	6,720.00 ✓			
							TOTAL AMOUNT	54,30,031.40 ✓		
							Less paid 3rd RA bill	53,85,881.40 ✓		
							Total	44,150.00 ✓	44,150.00 ✓	
							Add GST 18%	7,947.00 ✓	7,947.00 ✓	
							Payable Amount	52,097.00 ✓	52,097.00 ✓	

Saish Amble
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(D) (B)
Figures (D) in words

Total value of work done to date (A).....
Deduct value of work of work on previous bill.....
Net value of work since previous bill (F).....
Figures (F) in words Rupees...

COMPLETION CERTIFICATE

Certified that work has been physically completed on 13/09/2023 & that no defects are apparent & that the contractor has removed from the premises on which the work was being executed, all scaffoldings, surplus material, rubbish, cleaned all dirt from all parts of the building in upon or about within which the work was executed.

CERTIFICATE AND SIGNATURES

The measurement on which are based on the entries in columns 1 to 8 of the bill were made by Saish Amble on September 2023 and are recorded at page 064 of measurement Book No. 304
Signature: *Saish Amble* Rank: JUNIOR ENGINEER

Wherever there is an entry in column 9 on the basis of actual measurement the amount of the amount previously paid without detailed measurement should be adjusted by a minus entry in column 2 equivalent to the amount

When there are two or more entries in column 9 relating each sub-head of estimate they should in the case of works the accounts of which are kept by sub-heads be totalled and the total recorded in column 10 for posting the work Abstract.

RE
RAM
13/09/2023
JUNIOR ENGINEER
GOA UNIVERSITY