

**BILL OF QUANTITY**

Name of Project:		400/110kV Substation at Thappagundu			
Name of Work:		Construction of RCC Cable Duct, Retaining Wall and Compound Wall			
Sr. No.	Particulars	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1 a	Earth work excavation for foundation in hard gravelly soil with initial lead and lift of etc., complete.	m3	1200		
2	Plain cement concrete M 10 using 12 to 20mm (machine crushed) hard broken stone without form work including cost of all materials, labour, lead lift etc complete."	m3	125		
3	RCC 1:1.5:3 using 20mm to 12mm down graded HBG metal with form work including cost of all materials, labour, lead, lift, etc., but excluding cost of steel reinforcement for rafts				
a)	Raft	m3	120		
b)	side walls	m3	170		
e	Cast in situ slab	m3	5		
f	Pre cast slab	m3	92		
4	Labour rate for fabricating and placing in position of steel reinforcement(supplied by BHEL) including cost of binding wire,labour for cutting,bending and tying in position etc. complete.	MT	30		
5	Supplying, fabricating and fixing in position of G.I angles for cable duct including cost of steel labour lead and lift and hot tip of galvanizing charges etc complete	MT	19		
6	Drilling suitable holes using power drilling machine to the required depth to fix the angle without disturbing the strength of the concrete including hire charges for drilling machine cable lead lift etc complete	Nos	11000		
7	Fly ash brick work in CM 1:6 for wall 23 cm thick including cost of all materials leads lift and curing etc complete	m3	1		
8	Plastering with CM 1:3 12 mm thick for wall sides including cost of all materials labour etc complete	m2	200		
9	Painting with 2 coats of approved colour cement paint over priming coat of white cement including cost including cost of all materials, labour, lead, lift etc complete for exterior faces of walls.	m2	200		
10	Refilling with excavated soil complying with standard specification for filling sides of cable duct including cost of labour, lead, lift, watering consolidation etc. complete.	m3	500		
11	Removal of surplus earth away from site to lift and spreading wherever necessary with std specification etc. complete	m3	1000		
12	Providing weep holes using PVC pipes including cost of all materials, PVC pipes, fixing charges etc., complete	Nos.	200		
13	Providing opening for cable,Exhaust fan AC duct, water pipe line etc in brick work/RCC in building and retaining wall& cable duct including cost of machinaries labour etc complete				
a)	Brick wall	Nos	5		
b)	RCC work	Nos	5		
14	Supplying and fixing PVC pipes for the cable entry for inside the cable duct including cost of PVC pipes fixing charges etc complete				
a)	75mm PVC pipe	RM	344		
b)	110mm PVC pipe	RM	44.4		
15	Providing recharge pits for rain water harvesting including cost of excavation 1m to 2.m wide 2m depth back filled with boulders / gravel /coarse sand / etc as directed by department officials	Nos	20		
16	Supplying and laying fo PVC pipe line reputed make and approved quality including cost of all materials,labour for fixing with all leads and lifts etc.,compelte				
a)	40mm dia Pipe line 10kg/cm 2	RM	800		
b)	32mm dia Pipe line 10kg/cm 2	RM	800		
C)	25mm dia Pipe line 10kg/cm 2	RM	1000		
d)	20mm dia Pipe line 10kg/cm 2	RM	700		
e)	15 mm 1.00 m length with cap for dripping arrangements	Nos	200		
17	Supplying and fixing in position of various sizes of quality and approved variety of gun metal gate/ wheel value of the following sizes with ISI mark,cost of shellac, thread etc. including labour for cutting, therading, jointing, clamps, screws, lead, lift etc. complete complying with standard specification for both internal and external water supply arrangements.				
a)	40 mm dia GM Gate/Wheel valve	Nos	5		
b)	32mm dia GM gate / Wheel valve	Nos.	7		
c)	25mm dia GM gate / Wheel valve	Nos.	7		
d)	20mm dia GM gate / Wheel valve	Nos.	7		
18	Fixing of borewell point	No.	1		
19	Drilling of 150 mm Dia bore well up to 200 M depth in all soils using power drilling machine	RM	100		
20	Supply and providing Heavey duty 180 mmPVC casing pipe with ISI make to suitable 150 mm Dia borewell 6 KG/ cm2 pressure including cost of all materials labour lead lift etc, complete	RM	12		

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21	Supply & Fixing 40 mm Dia HDPE suction pipe (pressure 10 KG/cm2) of approved best quality of ISI make for delivery pipe including cost of all materials labour, lead lift, fixing charges etc complete.	RM	180		
22	Supply & Fixing 20 mm Dia HDPE Air pipe (pressure 10 KG/cm2) of approved best quality of ISI make inside the borewell including cost of all materials labour, lead lift, fixing charges etc complete.	RM	180		
23	Supply & Providing and fixing of 15 mm Dia GI pipe of B Class of approved ISI make drain pipe to borewell including cost of all materials labour, lead lift, fixing charges etc complete.	RM	40		
24	Supply & Fixing 160 mm Dia PVC End Cap approved best quality of ISI make including cost of all materials labour, lead lift etc complete.	No	1		
25	Supply and erection of 5 HP capacity reputed make compressor with reputed make motor 5 HP starter with cutler and Hammer make including cost of materials C. W Board, fixing of starter, indicator bulb, Switch, Holders, Earth Plate IC Aerial fuse carrier, Copper wire reputed make wiring labour, lead, lift, Etc, Complete	No	1		
26	Supply & fixing of 25 mm Dia GI pipe of B Class service connection pipe of approved best quality with necessary including cost of all materials labour, lead lift, fixing charges etc complete.	RM	60		
27	Providing Three phase service connection using PVC unsheathed 7/20 copper cable of reputed make from EB post to meter board including cost of labour, lead, lift, Etc, Complete.	RM	30		
28	Supply & Fixing of ISI make 4 way triple pole and natural MCB Distribution Board with 1 No. 32 Amps DPIC switch of 500 V as in coming 6 No 32 Amps SPMCB out going necessary hug with wall and making good of concealed portion with earthy etc, complete as per standard specification.	No	1		
29	Supply and fixing of 32 A, Ariel fuse connection with clamp including cost of all materials labour, lead, lift, etc, complete.	No	1		
30	Providing and fixing of 40 mm Dia M S collar for outer hose connection including cost of all materials labour, lead, lift, etc, complete.	No	1		
31	Providing and fixing of 20 mm Dia M S collar for Air hose connection including cost of all materials labour, lead, lift, etc, complete.	No	1		
32	Supply and fixing of 53 mm Dia G I elbow for water connection above ground level including cost of all materials labour, lead, lift, etc, complete.	No	3		
33	Supply & Fixing of G I Cover box to required size to accommodate for temporary supply including meter board IC Carrier etc with necessary clam, bolts, nuts etc, complete	No	1		
34	Supply and fixing of 53 mm Dia G I union for water connection above ground level including cost of all materials labour, lead, lift, etc, complete.	No	2		
35	Providing Platform of RR 1:5 for compressor motor fixing with necessary bed bolt required masonry including cost of base concrete PCC 1:4:8, cement and all materials labour, lead, lift, curing etc, complete as per standard specification.	No	1		
36	Water divining charges for fixing of bore point including cost of transporting of instrument lead, lift, etc, complete.	No	1		
37	Labour rate for Lifting, cartage, placing in position precast cable trench covers of various sections. Precast covers are stacked in yard and required to be placed over cable trenches in 400/110 KV yard. Utmost care shall be taken to avoid cracking/breaking of covers. (Cost including replacing the cracked/ broken covers by new one)	Nos	4500		
38	Modification/ repair in cable trench wall including all necessary works to maintain top of wall to true line as per drawing. Work includes casting of approximately 150 mm wall with RCC 1:1.5:3, cost of labour, material, shuttering lead lift etc complete.	RM	100		
	<b>Total Amount (Rs.)</b>				