

**BILL OF QUANTITY- CUM -PRICE SCHEDULE**

Name of Project : 400/220kV Substation Extension at Bellary .  
Name of Work : Civil Works of Yard.

S.No.	Description of Item	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
1	Earthwork in excavation over areas (exceeding 30cm in depth 1.5m in width as well as 10sqm on plan) including dewatering as necessary of rainwater/subsoil seepage water and disposal of excavated earth upto 100m and lift upto 3.5m, disposed earth to be levelled and neatly dressed.				
(a)	All kinds of soil.	3000	cum	91.50	274500.00
(b)	Ordinary rock	2150	cum	139.3	299495.00
(c)	Hard rock(requiring blasting)	3450	cum	188.2	649290.00
2	Earthwork in excavation in foundation trenches or drains (not exceeding 1.5m in width as well as 10sqm on plan) including dewatering as necessary of rainwater/subsoil seepage water, dressing of sides and ramming of bottoms, lift upto 3.5m and including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 100m.				
(a)	All kinds of soil.	665	cum	93.55	62210.75
(b)	Ordinary rock.	475	cum	153.90	73102.50
(c)	Hard rock(requiring blasting)	760	cum	209.95	159562.00
3	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations, etc., in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead upto 100m and lift upto 3.5m.	6500	cum	30.25	196625.00
4	Carriage & disposal of surplus excavated earth beyond initial lead by mechanical means not necessarily all the times on pucca roads, including loading, unloading, dressing of excavated material, etc., complete as per specifications .				
(a)	Lead upto 1km.	500	cum	34.77	17385.00
(b)	Lead upto 5km.	3300	cum	52.61	173613.00
5	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level.				
(a)	1:2:4 (1 cement : 2coarse sand : 4 graded stone aggregate 20mm nominal size	335	cum	1843.00	617405.00
(b)	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size	10	cum	1549.15	15491.50
(c)	1:4:8(1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)	10	cum	1404.70	14047.00

**ANNEXURE-I**

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Rev 03

S.No.	Description of Item	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
<b>6</b>	Centering and shuttering including strutting, propping, etc., and removal of form for:				
(a)	Foundations, footings, bases of columns, etc., for mass concrete.	2000	sqm	61.10	122200.00
(b)	Columns, pillars, piers, posts and struts,	4400	sqm	135.80	597520.00
©	Walls (any thickness).	2200	sqm	106.40	234080.00
(d)	Suspended floors.	50	sqm	111.20	5560.00
<b>7</b>	Steel reinforcement .				
(a)	Including supply and bending, binding (i/c cost of binding wire), placing in position, etc., all labour & material, complete.	10000	Kg	21.85	218500.00
(b)	Excluding supply but including bending, binding (i/c cost of binding wire), placing in position, etc., all labour & material, complete. (See Note No:1)	200000	Kg	3.00	600000.00
<b>8</b>	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for RCC structural elements excluding the cost of centering, shuttering, finishing and reinforcement including admixtures in recommended proportions (as per IS 9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability. - <b>M25</b> grade				
(a)	All works (rafts, columns ,walls & plinth beams) upto plinth level.	2000	cum	2368.05	4736100.00
<b>9</b>	Extra for providing and mixing water proofing material 'Impermo' or equivalent in cement concrete work in the proportion recommended by the manufacturer.	4000	kg	19.25	77000.00
<b>10</b>	Providing & fixing in position precast cement concrete trench covers, coping, roof units, fascia, RCC grills, etc., at various elevations in all kinds of work including moulding, formwork, mixing, laying out, compacting and curing, storing, transportation, erection without damage, setting in position with cement and sand mortar, grouting etc all as per specs, drawings and directions of Engr-in-Charge but excluding the cost of reinforcement, inserts, edge angles, etc.				
	Grade of concrete shall be M25.	80	cum	3500.00	280000.00
<b>11</b>	Structural steelwork welded in built up sections like edge protection angles, insert plates with lugs & framed work including providing, cutting, hoisting, fixing in position/ embedding in concrete and applying a priming coat of approved steel primer all complete.	4000	kg	24.30	97200.00

**ANNEXURE-I**

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S.No.	Description of Item	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
12	Grouting of block outs, pockets, foundations, bolts holes and underside of base plates with cement, sand aggregate ( of size 6 mm and down) grout 1:1:2 with non-shrink additive and shall be of strength not less than M30 including placing, curing, cleaning, surface preparation, testing, etc. complete with labour, materials, equipment, handling, testing, etc. all complete as per specifications, drawings and instructions of the Engineer.	10	cum	10000.00	100000.00
13	Providing and fixing (all dia & length) GI foundation bolts in position with help of proper templates including supply of templates ,nuts and washers all complete as per specs, drawings & directions of Engr-in-Charge. (Mass of zinc coating = 610gms/sqm)	9500	kg	45.00	427500.00
14	Fixing (all dia & length) foundation bolts in position with help of proper templates(to be supplied by contractor) including nuts and washers all complete as per drawings & directions of Engr-in-Charge. (Bolts to be supplied by BHEL)	1000	kg	3.00	3000.00
15	Providing and laying non-pressure NP2 class (light duty) RCC pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement: 2 fine sand) including testing of joints etc., complete.				
(a)	150mm dia. RCC pipe	10	RM	154.75	1547.50
(b)	250mm dia. RCC pipe	10	RM	191.70	1917.00
(c)	300mm dia. RCC pipe	10	RM	259.45	2594.50
(d)	450mm dia. RCC pipe	10	RM	379.05	3790.50
16	Providing and laying non-pressure NP3 class (light duty) RCC pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement: 2 fine sand) including testing of joints etc., complete.				
(a)	250mm dia. RCC pipe	10	RM	200.00	2000.00
(b)	300mm dia. RCC pipe	10	RM	300.00	3000.00
(c)	450mm dia. RCC pipe	10	RM	425.00	4250.00
17	Providing and placing in position suitable PVC water stops conforming to IS 12200 of Deep-Jyoti or equivalent for construction/expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete.				
	Serrated with central bulb(225mm wide,8-11mm thick)	25	meter	368.90	9222.50
	<b>Total Amount</b>				<b>10079708.75</b>
<b>Note</b>					
1	Reinforcement steel for Item No 7(b) shall be supplied by BHEL <u>free of cost</u> as per norms indicated in conditions of contract.				