

BILL OF QUANTITY- CUM - PRICE SCHEDULE**Name of Project****:Phase shifting transformer at KOTHAGUDEM****Name of Work****: Civil Works of Yard**

S.No.	Description of Item	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
1	Carriage of surplus excavated earth beyond initial lead of 50m by mechanical transport not necessarily all the time on pucca roads, for the following additional leads including loading, unloading, dressing of excavated material etc. completed as per specifications lead upto 1.0 km.				
(a)	Earth	cum	1000	49.42	49420.00
(b)	Excavated rock	cum	100	79.07	7907.00
2	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (Exceeding 30 cms in depth, 1.5 m in width as well as 10 sq mtrs on the plan) including disposal of the excavated earth, lead upto 100 m and lift upto 3.5 m, disposed earth to be levelled and neatly dressed:				
(a)	All kinds of soil	cum	2300	101.85	234255.00
(b)	Ordinary rock	cum	200	152.60	30520.00
(c)	Hard rock (blasting prohibited)	cum	50	325.25	16262.50
3	Earthwork in excavation by mechanical means (Hydraulic excavator)/manual means in foundation trenches or drains (not exceeding 1.5m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 3.5m, including getting out the excavated soil and disposal of surplus excated soil as directed, within a lead of 100m.				
(a)	All kinds of soil	cum	175	103.40	18095.00
(b)	Ordinary rock	cum	20	162.65	3253.00
(c)	Hard rock (blasting prohibited)	cum	5	332.45	1662.25
4	Filling available excavated earth (including rock) in trenches, plinth, sides of foundations etc in layers not exceeding 20cm in depth : consolidating each deposited layer by ramming and watering, for all lifts and all leads upto 100m and lift upto 3.5m	cum	1650	45.70	75405.00
5	Supplying & filling in plinth with local sand underfloors including watering, ramming, consolidating & dressing complete.	cum	10	301.50	3015.00
6	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	cum	10	3257.45	32574.50
(b)	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size	cum	85	2791.05	237239.25
(c)	1:4:8(1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)	cum	25	2449.00	61225.00

S.No.	Description of Item	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
7	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. - M25 grade reinforced cement concrete by using 410kg of cement per cum of concrete.				
(a)	All works upto floor V level	cum	750	4147.4	3110550.00
8	Centering and shuttering including strutting, propping etc and removal of form work for :				
(a)	Foundations, footings, bases of columns etc for mass concrete	sqm	1400	119.25	166950.00
(b)	RCC walls (any thickness) at all levels	sqm	800	180.40	144320.00
(c)	Suspended floors, roofs, landings, balconies and access platforms.	sqm	25	187.35	4683.75
(d)	Columns, pillars, Posts and Struts, pockets	sqm	25	238.40	5960.00
9	Reinforcement of RCC work including straightening, cutting, bending, placing in position and binding all complete.				
(a)	Cold twisted/ TMT bars (Fe 500, IS 1786)	Kg	65000	42.7	2775500.00
10	Providing and fixing (all dia & length) GI foundation bolts in position with help of proper templates including nuts and washers all complete as per specs, drawings & directions of Engr-in-Charge.	kg	2200	62.75	138050.00
11	Extra over item above for providing galvanised bolts, nuts and washer (Mass of zinc coating = 610gms/sqm)	kg	2200	8.00	17600.00
12	Fixing (all dia & length) foundation bolts in position with help of proper templates including nuts and washers all complete as per drawings & directions of Engr-in-Charge. (Bolts to be supplied by BHEL)	kg	250	7.00	1750.00
13	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.	kg	5500	46.35	254925.00
14	Steelwork welded in built up sections/framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc., as required.				
(a)	In transformer grating, ISMBs, ISMCs, rails and similar works.	kg	13500	51.20	691200.00

S.No.	Description of Item	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
15	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, and of following grade:				
(a)	M25	cum	18	6000.00	108000.00
16	Grouting of block outs, pockets, foundations, bolts holes and underside of base plates with ready mixed grout or grout consisting of 2 parts by weight of sand, 1 part by weight of cement including approved plasticizer, non-shrink admixture, in the required proportion as recommended by manufacturer/Engineer, 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.	cum	2	10000.00	20000.00
17	Supplying and laying 150mm thick crushed stone (20mm size) in the switchyard including dressing, levelling & compaction of switchyard area. Before laying of stone aggregate, the yard surface shall be treated with antiweed treatment all complete as per manufacturer's specification, relevant IS & directions of Engineer in Charge.	sqm	2400	125.00	300000.00
18	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	RM	20	202.85	4057.00
(b)	250mm dia. RCC pipe	RM	20	258.20	5164.00
19	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)	meter	150	386.75	58012.50
20	Filling of approved materials i/c cost of materials, labour and equipment for handling, transportation, placing and compacting as required to the required density and to the required elevations as per specification, drawings and directions of Engineer-in-Charge.				
	Broken/crushed/non crushed stone of size 40 to 60mm for placing over transformer grating.	cum	15	750.00	11250.00
21	Preparation and consolidation of subgrade with power road roller of 8 to 10 tonne capacity after excavating earth to an average of 22.5cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth lead upto 50m.	sqm	300	33.90	10170.00
22	Extra for compaction of earthwork in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (Proctor density)	cum	300	4.50	1350.00

S.No.	Description of Item	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
23	Supplying and stacking of graded stone aggregate at site of size range				
(a)	90mm to 45mm	cum	25	742.30	18557.50
(b)	63mm to 45mm	cum	25	768.45	19211.25
(c)	53mm to 22.4 mm	cum	10	810.55	8105.50
24	Laying spreading and compacting stone aggregate of specified sizes to WBM specifications including spreading in uniform thickness, hand picking, rolling with 3 wheeled road/vibratory roller 8-10tonne in stages to proper grade and camber, applying and brooming requisite type of screening/binding material to fill up interstices of coarse aggregate water and compacting to the required density (payment for stone aggregate, screenings, kankar, moorum and red bajri etc., to be made separately)	cum	60	192.55	11553.00
25	Supplying and stacking of stone screenings/chippings at site				
(a)	13.2 mm nominal size (Type A)	cum	10	892.25	8922.50
(b)	11.2 mm nominal size (Type B)	cum	6	979.40	5876.40
26	Supplying and stacking of moorum at site.	cum	50	421.85	21092.50
					8693644.40