

BILL OF QUANTITY CUM PRICE SCHEDULE**Name of Project****: 400KV SUB-STATION EXTN AT DURGAPUR****Name of Work****: CIVIL WORKS FOR SWITCHYARD**

S.No.	Description of Item	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
1	Earthwork in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30cm in depth 1.5m in width as well as 10sqm on plan) including dewatering as necessary of rain water/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.	360	cum	129.35	46566.00
(b)	Ordinary rock	5	cum	197.75	988.75
(c)	Hard rock (blasting prohibited)	5	cum	490.10	2450.50
2	Earthwork in excavation by mechanical means (Hydraulic excavator)/manual means in foundation trenches or drains (not exceeding 1.5m in width as well as 10sqm on plan) including dewatering as necessary of rain water/subsoil seepage water and dressing of sides and ramming of bottoms, lift upto 3.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 100m.				
(a)	All kinds of soil.	120	cum	130.80	15696.00
(b)	Ordinary rock	5	cum	212.00	1060.00
(c)	Hard rock (blasting prohibited)	5	cum	491.95	2459.75
3	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, lead upto 100m and lift upto 3.5m.	210	cum	83.80	17598.00
4	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 3.0 m including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth including consolidating each deposited layer by ramming,watering etc.and disposing of surplus excavated soil as directed within a lead of 100m.				
(a)	All kinds of soil				
4.1	Pipes, cables etc, not exceeding 80mm dia.	5	meter	101.40	507.00
4.2	Pipes, cables etc. exceeding 80mm dia. but not exceeding 300 mm dia.	5	meter	165.60	828.00
4.3	Pipes, cables etc. exceeding 300mm dia but not exceeding 600mm	5	meter	258.55	1292.75
5	Carriage & disposal of surplus excavated earth/rock 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 1 km.	185	cum	82.78	15314.30
(b)	Lead upto 3 km.	5	cum	104.98	524.90
(c)	Lead upto 5 km.	5	cum	125.92	629.60
6	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level.				

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(a)	1:2:4 (1 cement : 2coarse sand : 4 graded stone aggregate 20mm nominal size)	40	cum	4514.05	180562.00
(b)	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size)	5	cum	3888.20	19441.00
(c)	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)	46	cum	3593.30	165291.80
7	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for RCC structural elements including roads excluding the cost of centering, shuttering, finishing and reinforcement including admixtures in recommended proportions (as per IS 9103) to accelerate, retrard setting of concrete, improve workability without impairing strength and durability. - M25 grade reinforced cement concrete by using minimum 330kg of cement per cum of concrete.				
(a)	All works upto plinth level	115	cum	5242.15	602847.25
(b)	All works above plinth level upto floor V level	5	cum	5781.50	28907.50
8	Centering and shuttering including strutting, propping, etc., and removal of form for:				
(a)	Foundations, footings, bases of columns, etc., for mass concrete.	175	sqm	166.90	29207.50
(b)	RCC walls at all levels (any thickness).	490	sqm	285.15	139723.50
(c)	Columns, Pillars, Piers, Posts and Struts .	195	sqm	365.60	71292.00
9	Steel reinforcement -Cold twisted bars /TMT- Fe 500 (To be procured from SAIL, TISCO, IISCO and RINL only)				
(a)	Including supply and straightening, cutting,bending, binding, (i/c cost of binding wire), placing in position, etc., all labour & material, complete.	4000	kg	62.25	249000.00
10	Brickwork with F.P.S.bricks of class designation 75 in foundation and plinth in:				
	Cement mortar 1:6 (1 cement : 6 coarse sand)	2	cum	3316.55	6633.10
11	Brickwork with F.P.S.bricks of class designation 75 in superstructure above plinth level to floor V level in all shapes and sizes in:				
	Cement mortar 1:6 (1 cement : 6 coarse sand)	2	cum	3876.15	7752.30
12	Structural steelwork welded in built up sections like edge protection angles, pipes, insert plates with lugs & framed work and grating including providing, cutting, hoisting, fixing in position/ embedding in concrete and applying a priming coat of approved steel primer all complete.	2900	kg	59.90	173710.00
13	Steelwork welded in built up sections/framed work including providing, cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc., as required.				
(a)	In covering of floors/trenches of control room building with chequered plates, stringers, treads, landings, etc., of staircases involving use of chequered plates, wherever required, all complete.	100	kg	67.20	6720.00

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14	Applying priming coat				
(a)	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works.	50	sqm	20.70	1035.00
15	Providing and laying light duty hume pipe (NP3) as per drawing and specification all complete excluding concrete and reinforcement.				
a	250mm dia	10	RM	376.00	3760.00
b	300mm dia	10	RM	522.00	5220.00
c	450mm dia	10	RM	760.00	7600.00
16	Antiweed treatment in switchyard area including micro leveling, dressing etc as per Technical Specification.	1600	Sqm	17.50	28000.00
17	Supplying and spreading stone in switchyard as per drawing and specification all complete but excluding micro leveling, dressing & antiweed treatment as per Technical Specification.	10	Sqm	104.50	1045.00
18	Removal, cleaning & washing of existing stone and relaying of stone in switchyard including supply of extra matching gravel but excluding micro leveling, dressing & antiweed treatment as per Technical Specification.	1600	Sqm	70.00	112000.00
19	Supplying & fixing (all dia & length) foundation bolts in position with help of proper templates including nuts, washers and template all complete as per drawings & directions of Engr-in-Charge.	880	Kg	86.55	76164.00
20	Extra over Item above for providing galvanised bolts (Mass of zinc coating = 610gms/sqm), nuts & washer .	880	kg	5.00	4400.00
21	Fixing (all dia & length) foundation bolts in position with help of proper templates including nuts, washers and template (to be supplied by contractor) all complete as per drawings & directions of Engr-in-Charge.	150	Kg	6.50	975.00
22	Providing & fixing in position precast cement concrete trench covers or perforated covers wherever necessary 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	7.5	Cum	5900.00	44250.00
23	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.	1	cum	10000.00	10000.00
TOTAL (Rs)					2081453