

BILL OF QUANTITIES - CUM - PRICE SCHEDULE FOR CIVIL WORKS**Name of Project****: +- 800KV 600 MW NE-AGRA HVDC****Name of Work****: CIVIL WORKS OF SITE OFFICE BUILDING AT NE-AGRA HVDC**

S.No.	Description of Item	Unit	Quantity	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 .	cum	165	101.85	16805.25
2	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.	cum	70	45.70	3199.00
3	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.	cum	95	49.42	4694.90
4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level.				
(a)	1:4:8(1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)	cum	50	2449.00	122450.00
5	Providing and laying damp proof course 50mm thick cement concrete 1:2:4 (1 Cement:2 coarse sand : 4 graded stone aggregate 20 mm nominal size) .	sqm	35	178.05	6231.75
6	Applying coat of residual petroleum bitumen of penetration 80/100 of approved quality using 1.7 kg per sqm on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	sqm	35	58.60	2051.00
7	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth.	sqm	34	222.65	7570.10

S.No.	Description of Item	Unit	Quantity	Unit Rate(Rs)	Amount(Rs)
8	Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement - All works up to plinth level				
(a)	1:1.5:3 (1 cement: 1.5 coarse sand: 3 graded stone aggregate 20mm nominal size)	cum	45	3732.00	167940.00
9	Reinforcement cement concrete work in walls (any thickness) including attached pilasters, buttresses, plinth and string courses, fillets, columns , pillars, piers, abutments, posts and struts etc. up to floor five level excluding cost of centering, shuttering, finishing and reinforcement				
(a)	1:1.5:3 (1 cement: 1.5 coarse sand: 3 graded stone aggregate 20mm nominal size)	cum	16	4092.35	65477.60
10	Centering and shuttering including strutting, propping, etc., and removal of form at all heights for.				
(a)	Foundations, footings, bases of columns, etc., for mass concrete.	sqm	145	119.25	17291.25
(b)	Lintels, beams, plinth beams, chajjas and cantilevers.	sqm	170	162.65	27650.50
(c)	Columns, Pillars, Piers, Posts and Struts.	sqm	70	238.40	16688.00
11	Steel reinforcement - Cold twisted bars /TMT/HCR				
(a)	Including supply and bending, binding (i/c cost of binding wire), placing in position, etc., all labour & material, complete.	kg	3200	42.70	136640.00
12	Brick work with FPS bricks of class designation 75 in foundation and plinth in:				
	Cement mortar 1:6 (1 cement:6 coarse sand)	cum	5	2121.75	10608.75
13	Brick work with FPS bricks of class designation 75 in superstructure above plinth level upto V level in all shapes and sizes in:				
	Cement mortar 1:6 (1 cement:6 coarse sand)	cum	78	2357.40	183877.20
14	Half brick masonry with F.P.S. bricks of class designation 75 in foundation and plinth in:				
	Cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	10	270.35	2703.50
15	Half brick masonry with F.P.S. bricks of class designation 75 in superstructure above plinth upto floor V level.				
	Cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	10	302.80	3028.00
16	Extra for providing and placing in position 2 Nos 8mm dia bars at every third course of half brick masonry (with FPS bricks).	sqm	10	47.80	478.00

S.No.	Description of Item	Unit	Quantity	Unit Rate(Rs)	Amount(Rs)
17	Structural Steel work rivetted , bolted or welded in built up section ,i/c tubular trusses and framed work , including cutting , hoisting , fixing in position and applying a priming coat of approved steel primer all complete	kg	6900	46.35	319815.00
18	Providing and fixing 20mm thick mirror polished, machine cut for column facia, kitchen platforms, vanity counters and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement: 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing etc. complete at all levels. (over 0.50 sqm area of slab).				
	Granite black.	sqm	4	2543.65	10174.60
19	Providing and fixing ISI marked flush door shutters decorative type ,core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.				
	35 mm thick including ISI marked Stainless Steel butt hinges with nessary screws.	sqm	32	1473.5	47152.00
20	Providing and fixing aluminium sliding door bolts anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc., complete.				
(a)	300 X 16mm	each	26	158.50	4121.00
21	Providing and fixing aluminium handles anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with necessary screws etc., complete.				
	125mm	each	74	48.80	3611.20
22	Providing and fixing IS:3564 marked aluminium die cast body tubular type universal door closer of approved quality and make with accessories and screws complete.	each	8	610.60	4884.80
23	Providing and fixing M.S. grills of required pattern in frames of windows etc. with MS flats,square or round bars etc. all complete.	kg	400	59.25	23700.00

S.No.	Description of Item	Unit	Quantity	Unit Rate(Rs)	Amount(Rs)
24	Providing and fixing pressed steel door frames conforming to IS:4351 manufactured from commercial mild steel sheet of 1.25mm thickness including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50X25mm, or base ties of 1.25mm pressed mild steel welded or rigidly fixed together by mechanical means, adjustable lugs with spit end tail to each jamb including steel butt hinges 2.5mm thick with mortar guards, lock strike plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-Charge:				
	Profile C	RM	86	271.65	23361.90
25	Providing and fixing 1st quality ceramic glazed tiles conforming to IS:15622 of minimum thickness 5 mm of approved make and colours in skirting, risers of steps and dados over 12 mm thick bed of Cement mortar 1:3 (1 Cement:3 coarse sand) and jointing with grey cement slurry @3.3 kg/sqm including pointing in white cement mixed with pigment of matching shade complete.	sqm	45	556.60	25047.00
26	Providing and laying 1st quality ceramic glazed tiles 300X300 mm conforming to IS:15622 of minimum thickness 7 mm of approved make and colours laid over 20 mm thick bed of Cement mortar 1:4 (1 Cement:4 coarse sand) including pointing in white cement mixed with pigment of matching shade complete.	sqm	120	598.65	71838.00
27	Providing and laying of minimum 7 mm thick pre-polished vitrified tiles conforming to IS 15622 in different sizes of approved make and colours laid over 20 mm thick bed of Cement mortar 1:4 (1 Cement:4 coarse sand) including pointing in white cement mixed with pigment of matching shade complete as per direction of Engineer-in charge.				
(a)	Size of Tile 50X50 cm.	sqm	56	1308.05	73250.80
28	Kota stone slab flooring over 20mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of cement mortar 1:4 (1 cement : 4 coarse sand)				
	25 mm thick .	sqm	90	694.40	62496.00
29	Kota stone slabs 25 mm thick in riser of steps, skirting, dado and pillars laid on 12mm (average) thick cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	sqm	15	676.75	10151.25

S.No.	Description of Item	Unit	Quantity	Unit Rate(Rs)	Amount(Rs)
30	Providing non -asbestos high impact Polypropylene reinforced cement 6 mm thick corrugated sheets (as per IS 14871) roofing upto any pitch and fixing with polymer coated J or L hooks , bolts and nuts 8 mm dia . G.I plain and bitumen washers or with self drilling fasteners and EPDM washers etc. complete excluding the cost of the purlins , rafters and shape wherever required .	sqm	230	294.95	67838.50
31	Providing and fixing ridges and hips in non - asbestos fibre cement high impact polypropylene reinforced roofing with suitable fixing accessories or self drilling fasteners and EPDM washers etc. complete				
	Corrugated serrated adjustable ridges	m	25	263.15	6578.75
32	Extra for straight cutting in non-asbestos polypropylene reinforced cement corrugated , semi-corrugated 6 mm thick sheet roofing for making openings of area exceeding 40 square for chimneys stacks , skylights	m	20	13.30	266.00
33	Providing & fixing all heights false ceiling including providing and fixing of frame work made of special sections power pressed from M.S sheet and galvanised in accordance with zinc coating of grade 350 as per IS 277 and consisting of angle cleats of size 25mm wide X 1.6 mm thick with flanges of 22mm and 37 mm at centre to centre one flange fixed to the ceiling with the dash fastener of 12.5 mm dia X 40 mm long with 6 mm bolts to the angle hangers of 25X 25X .55 mm of required length and the other end of the angle hanger being fixed with nut and bolts to G. I channels 45X15X.9 running at the rate of 1200mm centre to centre to which the ceiling section .5 mm thick button wedge of 80 mm with tapered flanges of 26 mm each having clips of 10.5 mm at 450 mm centre to centre shall be fixed in a direction perpendicular to G.I . 12.5 mm thick tapered edge gypsum board conforming to IS 2095 - Part I	sqm	300	502.10	150630.00
34	12mm cement plaster of mix 1:6 (1 cement :6 coarse sand) on internal walls as required.	sqm	570	72.70	41439.00
35	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade.				
	Two or more coats on new work.	sqm	150	40.05	6007.50
36	18mm cement plaster on external face of walls in two coats with under layer 12mm thick cement plaster 1:5 (1 cement :5 coarse sand) finished with a top layer of 6mm thick 1:6 (1cement:6 fine sand).	sqm	180	111.15	20007.00
37	15mm cement plaster on rough side of the single or half brick wall of mix 1:6 (1 cement: 6 coarse sand)	sqm	390	84.55	32974.50

S.No.	Description of Item	Unit	Quantity	Unit Rate(Rs)	Amount(Rs)
38	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete	sqm	150	47.20	7080.00
39	Whitewashing with lime to give an even shade				
	New work (3 or more coats)	sqm	100	6.75	675.00
40	Distempering with oil bound washable distemper of approved brand and manufacture two or more coats over and including priming coat with cement primer.(Work to be carried as per relevant IS codes.)	sqm	500	41.55	20775.00
41	Finishing walls with water proofing cement paint of required shade :				
	New work : Two or more coats applied @3.84kg/10sqm.	sqm	300	30.80	9240.00
42	Applying priming coat				
(a)	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works.	sqm	55	12.65	695.75
43	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade:				
	Two or more coats on new work.	sqm	55	51.30	2821.50
44	Providing and fixing white vitreous china water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast iron P or S trap, 10 litre low level P.V.C. flushing cistern (of approved make) with fittings, C.I./M.S. brackets, 32 mm diameter flush pipe with fitting s and clamps, overflow arrangement with specials and mosquito proof coupling of approved municipal design including painting of fittings and brackets, cutting and making good the walls and floors wherever required.				
	Orissa pattern W.C. Pan of size 580 x 440 mm with integral type foot rests flush pipe and overflow arrangement.	each	2	2304.65	4609.30
45	Providing and fixing white vitreous china pedestal type water closet (European type W.C. Pan) with seat and lid, C.P. Brass hinges and rubber buffers, 10 litre low level flushing cistern with fittings & CI/MS brackets 40mm dia flush bend , overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design compete including painting of fittings and brackets, cutting and making good the walls and floors wherever required :				
	W.C. pan with black solid plastic seat and lid with white vitreous china flushing cistern and CP flush bend.	each	1	2152.50	2152.50

S.No.	Description of Item	Unit	Quantity	Unit Rate(Rs)	Amount(Rs)
46	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430 x260x 350 mm and 340 x 410 x 265 mm sizes respectively with automatic flushing cistern with C.I./ M.S brackets standard flush pipe and C.P. brass spreaders with brass unions and G.I. clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required:				
	One urinal basin with 5 litre P.V.C automatic flushing cistern of approved make.	each	3	2018.70	6056.10
47	Providing and fixing SCl trap of self cleansing design with SCl screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors:				
	100mm inlet and 100mm outlet.	each	6	544.30	3265.80
48	Providing and fixing wash basins with C.I brackets 15mm C.P brass pillar taps , 32 mm C.P brass waste of standard pattern , includinf paintings of fittings and brackets , cutting and making good the walls wherever required , size 630X 450 mm with a pair of 15mm brass pillar taps	each	3	1332.90	3998.70
49	Providing and fixing 100 mm sand cast iron grating for gully, floor or Nahani trap.	each	4	16.45	65.80
50	Providing and fixing 600 x 450 x5.5 mm bevelled edge mirror of float glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. Brass screws and washers complete.	each	3	493.65	1480.95
51	Providing and fixing 600 x 120 x 5 mm glass shelf with edges rounded off supported on anodised aluminium angle frame with C.P. Brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc. complete.	each	3	218.80	656.40
52	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with C.P. Brass screws with concealed fitting arrangement of approved quality and make.				
	600 mm long towel rail with total length of 645mm,width 78mm and effective height 88mm,weighing not less than 190gms.	each	3	329.50	988.50
53	Providing and fixing PTMT liquid soap container 109mm wide,125mm high and 112mm distance from wall of standard shape with bracket of same materials with snap fittings of approved quality ,colour and make ,weighing not less than 105 gm (Prayag or equivalent).	each	3	164.65	493.95

S.No.	Description of Item	Unit	Quantity	Unit Rate(Rs)	Amount(Rs)
54	Providing and fixing toilet paper holder.				
	CP brass.	each	3	147.10	441.30
55	Providing and fixing soil, waste and vent pipes:				
	100 mm dia.				
	Sand cast iron S & S pipe.	RM	50	17.85	892.50
56	Providing and fixing M.S holder-bat clamps of approved design to Sand Cast iron/ cast iron (spun) pipe embedded in and including cement concrete blocks 10 x 10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including cost of cutting holes and making good the walls etc.				
	For 100 mm dia pipe	each	12	65.35	784.20
57	Providing lead caulked joints to SCI pipes and fittings of diameter				
	100mm	each	8	126.50	1012.00
58	Providing and fixing G.I. Pipes (medium grade) complete with G.I. Fitting and clamps , including cutting and making good the walls etc. (internal work).				
(a)	15 mm dia nominal bore.	RM	50	105.85	5292.50
(b)	20 mm dia nominal bore.	RM	10	133.85	1338.50
(c)	25 mm dia nominal bore.	RM	10	179.65	1796.50
59	Providing and fixing G.I. Pipes (medium grade) complete with G.I. Fitting and clamps , including trenching and refilling, etc. (external work).				
(a)	15 mm dia nominal bore.	RM	10	94.04	940.40
(b)	20 mm dia nominal bore.	RM	15	116.60	1749.00
(c)	40 mm dia nominal bore.	RM	25	219.60	5490.00
60	Making connection of GI distribution branch with GI main of following sizes by providing and fixing tee, including cutting and threading the pipe etc., complete.				
	25 to 40mm nominal bore.	each	2	166.05	332.10
61	Providing and fixing C.P. brass bib cock of approved quality				
	15mm nominal bore	each	6	207.00	1242.00
62	Providing and fixing C.P.brass stop cock of approved quality				
	15mm nominal bore	each	3	262.55	787.65
63	Providing and fixing gun metal gate valve with CI wheel of approved quality (screwed end)				
(a)	25mm nominal bore	each	1	285.50	285.50
(b)	32mm nominal bore	each	1	358.00	358.00

S.No.	Description of Item	Unit	Quantity	Unit Rate(Rs)	Amount(Rs)
64	Providing and fixing ball valve (brass) of approved quality , high or low pressure with plastic floats complete.				
	15mm nominal bore	each	2	228.35	456.70
65	Providing and placing on terrace (at all floor levels) polyethylene water storage tank of approved brand and manufacture with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank. The tank should be ISI marked .				
		per litre	2000	5.25	10500.00
66	Providing, laying and jointing glazed stoneware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testting of joints etc. complete.				
(a)	100 mm diameter.	RM	2	105.90	211.80
(b)	150 mm diameter.	RM	2	151.65	303.30
67	Providing and fixing square-mouth S.W. Gully trap grade 'A' complete with C.I. Grating brick masonry chamber with bricks of class designation 75 and water tight C.I. Cover with frame of 300 x 300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as standard design.:				
	100 x 100 mm size P type				
	With F.P.S bricks	each	4	935.15	3740.60
68	Constructing brick masonry manhole with 75 class designation bricks in cement mortar 1:4 (1 cement: 4 coarse sand) RCC top slab with 1:2:4 mix(1 cement:2 coarse sand: 4 graded stone aggregate 20mm nominal size) foundation concrete 1:4:8 (1 cement: 4 coarse sand: 8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 mix(1 cement:2 coarse sand: 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design.				
	Inside size 90X80cm and 45cm deep including CI cover with frame (light duty) 455X610mm internal dimensions total weight of cover and frame to be not less than 38kg (weight of cover 23kg and weight of frame 15kg)				
	With FPS bricks	each	2	5383.70	10767.40
69	Extra for depth for manholes				

S.No.	Description of Item	Unit	Quantity	Unit Rate(Rs)	Amount(Rs)
	Size 90X80cm				
	With FPS bricks	RM	2	2654.00	5308.00
70	Making soak pit 2.5m diameter 3m deep with 45X45cm dry brick honeycomb shaft with bricks of class designation 75 and SW drain pipe 100mm diameter, 1.8m long complete as per standard design and specification.				
	With FPS bricks	each	1	9938.65	9938.65
71	Providing and fixing anodised aluminium work for doors, windows, ventilators and partitions with extruded builtup standard tubular/appropriate Z section and other sections of approved make conforming to IS: 733 and IS:1285, anodised transparent or dyed to required shade according to IS: 1868. (Minimum anodic coating of grade AC 15), fixed with rawl plugs and screws or with fixing clips or with expansion fasteners including necessary filling up of gaps at junctions at top, bottom and sides with required PVC/neoprene felt, etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, aluminium snap beading for glazing/panelling, CP brass/stainless steel screws, all complete as per architectural drawings and direction of Engineer-in-charge. (Glazing and panelling to be paid for separately).				
(a)	For fixed portion	kg	215	290.45	62446.75
(b)	For shutters of doors, windows & ventilators including providing and fixing hinges/pivots and fittings wherever required including the cost of PVC/neoprene gasket required.	kg	430	310.45	133493.50
72	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions, etc., with PVC/neoprene gasket, etc., complete as per the architectural drawings and directions of Engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item).				
	With float glass panes of 5.5mm thickness.	sqm	55	673.55	37045.25
73	Providing and fixing pre polished vitrified tiles minimum thickness 7 mm of approved make and colours in skirting, risers of steps and dados over 12 mm thick bed of Cement mortar 1:3 (1 Cement:3 coarse sand) and jointing with grey cement slurry @3.3 kg/sqm including pointing in white cement mixed with pigment of matching shade complete.	sqm	8	1214.47	9715.76
				Total =	2172454.7