

**Maintanance work
At HSCC (I) Ltd.
E-6A, Sector - I, Noida**

Bill of Quantities

S. No.	Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
<u>PART I</u>						
1	Dismantling of P.C.C. of any grade including disposal of material from effected area inside/ outside periphery of the building.	20.00	Cum			
2	Demolishing brick work including stacking of serviceable material and disposal of unserviceable material within 500 metres lead:					
	In cement mortar	2.00	Cum			
3	Dismantling of old S.W. pipes including breaking of joints and bed concrete stacking of useful materials near the site within 500 m lead and disposal of unserviceable materials into municipal dumps:					
	i 150 mm diameter	30.00	Metre			
	ii 250 mm diameter	55.00	Metre			
	iii 450 mm diameter	5.00	Metre			

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4	Excavation in all kinds of soil including disposal/ backfilling up to required depth for treatment from outside of effected basement area. Care to be taken that no damage occurs to water supply/ sewage/drainage pipes, manholes, gully traps, road gully chambers, electric and telephone cables or any other service that are laid in that area. Proper shoring to be provided so that the earth does not collapse and there is no damage to any structures including boundary wall.	80.00	Cum			
5	Excavating trenches of required width for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m including getting out the excavated soil and then returning the soil as required, in layers not exceeding 20 cm in depth including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m.					
	All kinds of soil					
i	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia.	85.00	Metre			
ii	Pipes,cables etc. exceeding 300 mm dia but not excedding 600 mm	5.00	Metre			

S. No.	Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
6	<p>Providing water proofing treatment by chemical injection grout process on vertical surfaces like walls & other similar locations using 25mm dia. G.I. nozzles, minimum 1/4 th thickness of wall or 40mm(long) whichever is more inside the walls fixed @ 1.0m c/c in both the directions(staggered pattern) and @ 0.75 m c/c along construction joints(staggered pattern). The injection grout which consist of injection cement slurries of different viscosities & expansive plasticizing agent (a non shrinkage compensating grout @2% by wt. of cement or as per manufacturer's specifications) is to be pumped in to the nozzles under pressure with a pump. The nozzles to be sealed off after the injection operation with suitable admixture. Providing 25mm cement plaster of mix 1:4 (1 cement: 4 coarse sand) in two layers mixed with liquid waterproofing admixture and with chicken wire mesh , slurry etc complete as per specifications, drawings & as directed.</p> <p>(assuming cement upto 75 bags) (Work to be got executed through a specialized agency and covered by a 10 years guarantee by the main contractor).</p>	75.00	Sqm			
7	Extra over item no. 6 for every additional bag of cement slurry grout.	25.00	per bag of cement			

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8	Providing and laying cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level. 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size).	10.00	Cum			
9	Reinforced cement concrete work in walls (any thickness)including attached pilasters, buttresses, plinth and string courses, fillets, columns, columns, pilars, piers, abutments, posts and struts, etc. in basement & ground floorl excluding the cost of centring, shuttering, finishing and reinforcement . 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)-	15.00	Cum			
10	Reinforcement for RCC work including straightening, cutting, bending, binding and placing in position complete. Cold twisted bars/ Thermo mechanically treated bars as mentioned in the drawing.	1.50	Tonne			
11	Centring and shuttering including strutting, propping etc. and removal of form for:					
i	Foundations, footings, bases of columns, etc., for mass concrete.	5.00	Sqm			
ii	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	25.00	Sqm			

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12	Providing and laying cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) around S.W./RCC pipes including bed concrete as per standard design:					
i	150 mm diameter	30.00	Metre			
ii	250 mm diameter	55.00	Metre			
iii	450 mm diameter	5.00	Metre			
13	Providing and laying non-pressure NP2 class (light duty) S & S R.C.C. pipes jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete.					
i	150 mm dia. R.C.C. pipe	30.00	Metre			
ii	250 mm dia R.C.C pipe	55.00	Metre			
14	Providing and laying non-pressure NP3 class (light duty) R.C.C. 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. 450 mm dia. R.C.C. pipe.	5.00	Metre			
15	Constructing brick masonry gully chamber / catch basin with bricks of class designation 75 in cement mortar 1:5 (1 cement : 5 fine sand) including 500 x 450 mm pre-cast RCC horizontal grating with frame complete as per standard design. 50x45x45 cm	8.00	Each			

S. No.	Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
16	Constructing brick masonry manhole with 75 class designation bricks in cement mortar 1:4 (1 cement : 4 coarse sand), R.C.C. top slab with 1:2:4 mix (1cement : 2 coarse sand : 4graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 (1cement : 4 coarse sand : 8graded stone aggregate 40 mm nominal size), inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, and making necessary channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design.					
i	Inside size 90x80 cm and 60 cm deep including Precast RCC. cover and frame (LD 2.5), rectangular shape 450x600 mm internal dimensions	1.00	Each			
ii	Inside size 120x90 cm and 90 cm deep including Precast RCC. cover and frame (MD 10), circular shape 500 mm internal diameter	2.00	Each			

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17	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS:10910 on 12 mm dia steel bar conforming to IS 1786 having minimum cross section as 23mmx25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement :3 coarse sand:6 graded stone aggregate 20 mm nominal size) compelte as per design.	40.00	Each			
Total						

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<u>PART II</u>						
18	Dismantling windows and fixed glazing including disposal of unserviceable surplus material and stacking of serviceable material with in 500m lead as directed by Engineer-in-charge	10.00	Sqm			
19	Dismantling C.I. Or asbestos rain water pipe with fittings and clamps including stacking the material within 500 metres lead					
i	100 mm dia	170.00	Metre			
ii	75 to 80 mm dia pipe.	35.00	Metre			
20	Dismantling brick tile covering/existing treatment in terracing including water proofing, including stacking of serviceable and disposal of unserviceable material within 500 metres lead.	20.00	Sqm			

S. No.	Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
21	Providing and fixing powder coated aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular and other sections of approved make confirming to IS:733 and IS: 1285, powder coated to required shade . (Minimum powder coating of 50 micron), fixed with rawl plugs and screws or with fixing clips, or with expansion hold 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 `U'/snap beading for glazing/panelling, C.P. brass/ stainless steel screws, all complete as per architectural drawings and as directed. (Glazing and panelling to be paid for separately.)					
	(i) For fixed portions	40.00	Kg			
22	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions, curtain walls etc. with neoprene gasket etc. complete as per the architectural drawings and as directed. (Cost of aluminium snap beading shall be paid in basic item).					
a)	With glass panes of 4.0mm thickness (weight not less than 10.00 kg./sqm.)	10.00	Sqm			

S. No.	Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
23	Providing and filling polysulphide sealant around external windows and in affected area of staircase dome as per drawings, manufacturer's specifications including all cleaning, surface preparation etc. and as directed. (the measurement shall be made proportionate to the actual size provided)	110.00	Per cm width per cm depth per Metre length			
24	Making khurras 45 x 45 cm with average minimum thickness of 5cm cement concrete 1:2:4 (1:cement: 2 coarse sand: 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1m x 1m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement: 3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete.	1.00	Each			
25	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc, consisting of following operations. a) Applying and grouting a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with proprietary water proofing compound conformign to IS 2645 over the RCC slab including cleaning the surface before treatment.					

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	<p>(b) Laying cement concrete using broken bricks /brick bats 25 mm to 100 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound conforming to IS 2645 over 20 mm thick layer of cement mortar of mix 1:5 (1cement : 5 coarse sand) admixed with proprietary water proofing compound conforming to IS 2645 to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs.</p> <p>(c) After two days of proper curing applying a second coat of cement slurry admixed with proprietary water proofing compound conforming to IS 2645</p> <p>(d) Finishing the surface with 20 mm thick jointless cement mortar of Mix 1:4 (1 cement :4 coarse sand admixed with proprietary water proofing compound conforming to IS 2645 and finally finishing the surface with trowel with neat cement slurry and making of 300x300 mm square.</p> <p>(e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge.</p> <p>With average thickness of 120 mm and minimum thickness at khurra as 65 mm.</p>	20.00	Sqm			

S. No.	Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
26	Providing and fixing clips for UPVC pipe of approved design to unplasticised-PVC rain water pipes/laboratory pipes by means of 50x50x50 mm hard wood plugs,screwed with M.S screws of required length including cutting brick work and fixing in cement					
	110mm	10.00	Each			
	160mm	105.00	Each			
27	Providing and fixing on wall face unplasticised PVC (working pressure 4kg per sqm cm) rain water pipes conforming to IS: 4985 including jointing with seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion. (I) Single socketed pipes					
	110 mm diameter	15.00	Metre			
	160mm	190.00	Metre			
28	Providing and fixing on wall face unplasticised PVC moulded fittings/ accessories for unplasticised-PVC rain water pipes conforming to IS: 4985 including jointing with seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion.					
a)	Coupler					
	110mm	3.00	Each			
	160mm	40.00	Each			
b)	Bend 87.5o					
	110mm bend	2.00	Each			
	160mm	18.00	Each			

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c)	Shoe (plain)					
	110mm	1.00	Each			
	160mm	9.00	Each			
Rain Water Harvesting Pit						
29	Construction of soak pit cum perforated well 2.5mm dia. upto 4000mm deep, brick masonry work around with 75 class brick in cement mortar 1:4, 20 cm foundation concrete in 1:4:8 mix below brick work, 15 cm thick precast removable RCC top slab 300 X 2560 x80 mm with required steel reinforcement in cement concrete 1:2:4 mix, filled with coarse sand, boulders, gravels as shown in the drawing including centering and shuttering, as shown complete as per detailed drawings complete.	1.00	Each			
30	Drilling as per IS : 2800-1964 (with percussion or combination rig) from ground level in all kind of soils including boulders (excluding rock) diameter of bore 250mm.					
a)	0 to 20 m depth	40.00	Each			
31	Providing and lowering of 160 mm dia uPVC blank/ slotted pipe with ribs, special fittings, jointing conforming to IS 12818 - 1992.	50.00	Metre			

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32	Constructing settling tank, of sizes 2000x900 with suitable depth up to 1.0 m in 1: 4 Cement Mortar (one cement : 4 coarse sand) height as per site requirement, in brick masonry 350mm thick walls upto water level and 230mm thick walls above water level & upto ground level, including all excavation, 20 cm thick bed concrete in 1:4:8 (one cement 4 fine sand 8 stone aggregate 40 mm), cement plaster 1:3 (one cement :3 coarse sand) with a floating coat of neat cement as inside finish , top slab in RCC 1:2:4, including centring, shuttering and steel work, also providing and fixing C.I. manhole cover & frame of size 605mm x 450mm of weight not less than 38 kg (23 kg frame + 15 Kg cover) and cost of 100mm dia C.I. vent pipe with C.I. Ventilating Cowl and suitable wire mesh provision for inlet, 115mm baffle walls extending 2/3 the width spaced@500mm c/c including finishing with 1:3 cement plaster 15mm thick with floating coat of neat cement slurry , all complete in every respect as per drawing and as directed to suit site condition.	1.00	Each			
33	Welding of DG set exhaust pipe	1.00	each			
34	Changing of pole light fixture (crompton Greaves make MPT1/spt1/IPT or equivalent	6.00	each			
35	Re-Winding of exhaust fans	2.00	each			

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