

Proposed construction of 'Centenary Tower no. 01' on plot bearing C.S. No. 7/74 of parel division in the premises of KEM hospital in F/S ward.

VOLUME-II CIVIL BILL OF QUANTITIES

Sr. No.	SOR Item No.	Description	Unit	Qty	Rates	Amount
		Earth Work				
1	R2-CS-EW-1	Excavation for foundations, substructures, basements, tanks, sumps, walls, chambers, manholes, trenches, poles, pits & general building works in all types of soils, vegetable earth, soft murum, running sand, shingle, turf clay, loam, peat, ash, shale, slag, chalk, garbage, muddy/ marshy/ slushy soil, marine clay, reclaimed land etc. for depths/lifts upto 1.5M measured from the ground level, including dressing/ trimming the sides, leveling and ramming of bottoms, manual dewatering, removing rank vegetation, backfilling in layers not more than 200mm thickness, watering, consolidating, compacting to achieve not less then 97% Modified Proctor density conforming to relevant IS, stacking the selected material in measurable heaps for future use within owners space or disposing within an initial lead of 150m as directed, loading, unloading, leveling excluding shoring, strutting etc. complete as directed by Engineer- in-Charge. Note: 1) The rate includes the handling/supporting the existing utilities such as cables, drains, pipes, water mains etc. 2) It also includes the royalty and other taxes if any.	Cum	1489.00	307.00	4,57,123.00
2	R2-CS-EW-2-a	Extra over above item CS-EW-1 for lift from 1.5m to 3.0m.	Cum	593.00	71.00	42,103.00
3	R2-CS-EW-2-b	Extra over above item CS-EW-1 for lift from 3.0m to 4.5m.	Cum	47.00	106.00	4,982.00
4	R2-CS-EW-11	Filling in plinth, floors, trenches, pits with approved excavated materials, murum / good earth in layers not exceeding 200mm including breaking of clods, watering, consolidating each layer in filled up area by rolling and compacting with roller/ plate compactor as required to achieve not less than 97% modified proctor density conforming to relevant IS etc. complete as directed by Engineer In charge. Note: 1) The rate includes the royalty and other taxes if any.	Cum	344.00	183.00	62,952.00
5	R2-CS-EW-26	Providing & Laying dry stone Rubble Soling with average 230 mm size hard stone set in regular lines, handpacked and interstices thoroughly filled with small chips including filling in with good quality murum brought from outside, compacting with iron rammers, watering, sand spreading 12mm thk. layer of grit on top etc complete as directed by Engineer In Charge. (Note: The rate includes the royalty and other taxes if any)	Cum	290.00	2,231.00	6,46,990.00
		Shoring and Shuttering				

6	R2-SE-1-4	Providing and removing close shoring and strutting in the trenches / pits for all depths as per specifications/ drawings and or as directed by Engineer-in-charge by including walling, struts, open poling boards, horizontal sheeting, runners, dog spikes by using timber etc. complete.	Sqm	268.00	715.00	1,91,620.00
7	R2-SE-1-6	Providing and fixing M.S plate shoring in trench consisting of 12mm thick M.S sheet, 1.5m wide MS channel 150x75mm,at 1.5m center to centre including removal after laying sewer	Sqm	268.00	2,798.00	7,49,864.00
Concrete Work						
	R2-CS-CW-1	Providing and laying in position plain cement concrete of specified grade with trap/granite/quartzite/gneiss metal mixing in concrete mixer including bailing out water, compacting, finishing surface, curing and including the cost of centering and shuttering at all level :Nominal Mix of 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)				
8	R2-CS-CW-1-b	Nominal Mix of 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	Cum	10.00	6,821.00	68,210.00
	R2-CS-CW-2	Providing and laying in position ready mixed plain cement concrete, using fly ash and cement content as per approved design mix from Engineer-in-charge and fly ash conforming to grade I of IS 3812 (Part- 1) only be used as part replacement of OPC as per IS 456 and uniform blending with cement is to be ensured in accordance with clauses 5.2 and 5.2.1 of IS: 456-2000 in the items of ready mixed concrete and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, including the cost of centering, shuttering and finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge.All works upto plinth level.M-20 grade plain cement concrete (cement content considered @ 260 kg/cum). All works upto plinth level				
9	R2-CS-CW-2-a-1	M-20 grade plain cement concrete (cement content considered @ 260 g/cum).	Cum	171.00	6,963.00	11,90,673.00
10	R2-CS-CW-2-a-2	M-15 grade plain cement concrete (cement content considered @ 240 kg/cum)	Cum	10.00	6,764.00	67,640.00
	R2-CS-CW-6	Providing precast cement concrete Jali of Nominal Mix 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6mm nominal size) reinforced with 1.6 mm dia mild steel wire including centering and shuttering, roughening cleaning, fixing and finishing in cement mortar 1:3 (1 cement: 3 fine sand) etc. complete excluding plastering of the jambs, sills and soffits.				

11	R2-CS-CW-6-a	100 mm thick	Sqm	110.00	2,734.00	3,00,740.00
	R2-CS-CW-7	Providing and laying in position ready mixed design mix M-20 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying and the cost of centering, shuttering, finishing and excluding reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. The Mix design as per particular specifications shall be got approved by Engineer-in-Charge before execution of the item. The rate shall include cost of all specified materials and operations at all levels and heights, including the cost of centering, shuttering and excluding reinforcement which shall be paid under relevant item. (Note :- Cement content considered in this item is @ 300 kg/cum as per IS 456 table showing minimum cement content. No extra will be paid nor any amount will be recovered on account of variation of cement in mix design as per specifications for controlled concrete).				
12	R2-CS-CW-7-a	Foundations, footings, bases of columns, rafts, pilecap	Cum	971.00	7,515.00	72,97,065.00
13	R2-CS-CW-7-b	Walls (any thickness) including attached butteresses, retaining wall, shear wall, diaphragm wall, trench, pit walls, etc (As per Consultant)	Cum	1882.00	10,518.00	1,97,94,876.00
14	R2-CS-CW-7-c	Slabs, Suspended floors, roofs, landings, balconies, canopy and access platform (As per Consultant)	Cum	993.00	11,790.00	1,17,07,470.00
15	R2-CS-CW-7-d	Lintels, beams, plinth beams, girders, floor beam, coping. (As per Consultant)	Cum	1897.00	9,556.00	1,81,27,732.00
16	R2-CS-CW-7-e	Columns, Pillars, Piers, Posts and Struts.	Cum	602.00	11,184.00	67,32,768.00
17	R2-CS-CW-7-f	Stairs (waist slab), folded slab, inclined slab (As per Consultant)	Cum	325.00	11,059.00	35,94,175.00
18	R2-CS-CW-7-i	Weather shade, Chajjas, corbels, cantilever beam, etc., including edges. (As per Consultant)	Cum	81.00	12,329.00	9,98,649.00
19	R2-CS-CW-19	Extra and over for providing richer RMC of M-40 grade cement concrete instead of M20 (Note :- Cement content considered in this item is @ 360 kg/cum as per IS 456 table showing minimum cement content.)	Cum	6751.00	1,064.00	71,83,064.00
		self compacted concrete for decorative work				

	R2-CS-CW-22	Designing, providing and laying in any position, without usage of vibrator, ready mixed design mix Self Compacting Cement Concrete (SCC) of required grade for Form Finished reinforced cement concrete work in super structure at all floor levels, using cement & fly ash, content as required including transportation of concrete through transit mixer to site of laying for all leads, all floor levels, pumping of concrete to site of laying but excluding the cost of centering, shuttering, including admixtures conforming to IS 9103 as per designed proportions to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. The Mix design as per particular specifications shall be got approved by Engineer-in-Charge before execution of the item. The rate shall include cost of all specified materials and operations, but exclude the cost of centering, shuttering and reinforcement which shall be paid under relevant item.				
20	R2-CS-CW-22-a	M-30 Grade SCC	Cum	28.00	9,266.00	2,59,448.00
		Architectural Form Finished Concrete Shuttering for Decorative work				
21	R2-CS-CW-31	Centering and shuttering including strutting, propping etc. and removal of form for Architectural Form finished concrete work using water proof ply 12mm thick conforming to IS:710. The water proof ply shall be used for only 2(two) repetitions after first use, and any repetition after the first usage shall be taken up only after prior approval for water proof ply material for suitability for use in form finish concrete (Architectural finishes) by the Engineer-in-Charge in walls (any thickness) including attached pilasters, buttersesses, plinth and string courses, Suspended floors, roofs, landings, balconies and access platform, Shelves (Cast in situ), Columns, Pillars, Piers, Abutments, Posts and Struts, Stairs, (excluding landings) except spiral-staircases with water proof ply 12mm thick.	Sqm	275.00	774.00	2,12,850.00
22	R2-CS-CW-33	Centering and shuttering including strutting, propping etc. and removal of form for Architectural Form finished concrete work using water proof ply 12mm thick conforming to IS:710. The water proof ply shall be used for only 2(two) repetitions after first use, and any repetition after the first usage shall be taken up only after prior approval for water proof ply material for suitability for use in form finish concrete (Architectural finishes) by the Engineer-in-Charge in shuttering in circular work for column in plan with water proof ply 12mm thick.	Sqm	138.00	968.00	1,33,584.00

23	BM-FA-19-AR-25	Designing, providing & fixing theme & conception based Architectural Feature work made up of GRC 25 to 30 mm thk (composite Mixture of white cement, alkali resistant fiber, silica sand, water with admixtures, pigmented cured with acrylic thermal plastic) arch /artistic pillars / window sill / keystone / cornice band / pediment / curved atrium ceiling of museum building etc. Any pattern as per conception design including preparing the moulds for casting , making the grc composite material , applying the material in moulds , demoulding the cured GRC elements from moulds,grinding and finishing the demoulded GRC elements, fixing at site using ss screws, anchors viz a viz, finishing the groves , and joints with GRC mixture.	Sqm	253.00	10,276.00	25,99,828.00
24	BM-FA-19-AR-06	Application of water, oil and dirt repellent, breathable, low VOC Fluorinated copolymer and alkylacoxysilane based Protectguard CE Special Concrete of Killickguard or equivalent with brush/roller on GRC (clear) in two coats . Applications to be done strictly as per manufacturers specification.	Sqm	253.00	596.00	1,50,788.00
25	BM-FA-19-AR-07	Application of water, oil and dirt repellent, breathable, low VOC aqueous phase fluorinated acrylic copolymer based Protectguard Colour of Killickguard or equivalent with brush/roller on GRC (color) in two coats . Applications to be done strictly as per manufacturers specification.	Sqm	253.00	737.00	1,86,461.00
26	R2-CS-CW-35-c	Providing and fixing in position steel bars reinforcement of various diameters for R.C.C. pile, pile caps, footings,raft,retaining wall,shear wall, lift wall, foundations, slabs, beams, columns, canopies,staircases, newels, chajjas, lintels, pardies,coping, fins, arches, etc. as per detailed designs,drawings and bar bending schedules, including straightening, cutting, bending, hooking the bars, binding with wires or tack welding, supporting as required etc. all complete at all levels Thermo-Mechanically Treated steel bars. (Fe 500 D)	MT	876.00	76,770.00	6,72,50,520.00
		water sealant for water tank				
27	R2-CS-CW-52	Providing and fixing hydrophilic water sealing materials (20mm x 10mm) of assorted profiles of approved make at construction joints at different locations during the construction of Basement Raft RCC and peripheral RCC Retaining wall, construction joints and at other water retaining structures like UG and OH tanks including creating necessary nominal trapezoidal key shape in the formwork finish or by mason's finish, including applying suitable adhesives and sealants as per particular specification and as recommended, supplied by the approved manufacturer for proper and highly secure bonding with substrate, rough / smooth and wet / dry, proper splicing and jointing at corners, T, L and X junctions using suitable glue, at all such locations, and as directed by Engineer in-charge.	mtr	93.00	226.00	21,018.00

28	R2-CS-CW-58	Extra for spreading broken glass pieces under pavement 0.12 cu.m. Of broken glass pieces per 10 sq.m. of area.	Sqm	211.00	45.00	9,495.00
		Masonry Work				
		Brick work				
		Brick work with clay flyash F.P.S. (non modular) brick of class designation 7.5 in superstructure above plinth level up to floor five level in :				
29	R2-CS-CS-MW-16-a	Cement mortar 1:4 (1 cement : 4 coarse sand)	Cum	2834.00	6,511.00	1,84,52,174.00
		Extra for brickwork				
30	R2-CS-MW-6	Extra for brick work / AAC block masonry / Tile brick masonry in superstructure all level, for each four floors or part thereof by mechanical means.	Cum	4000.00	394.00	15,76,000.00
		Plastering work				
		Ceiling Plastering				
31	R2-CS-PL-07	Providing and applying 12 mm thick internal ceiling plaster with neeru finish by using ready-mix Roofit mortar as per manufacturers recommendations at all heights and locations for masonry (except stone masonry) and concrete surfaces including racking out joints, hacking of concrete surface, finishing, curing, scaffolding etc. complete	Sqm	8123.00	473.00	38,42,179.00
		Internal Plastering				
		Providing and applying 20 mm thick internal plaster with neeru finish at all heights and locations in cement mortar specified below in two coats for masonry (except stone masonry) and concrete surfaces including racking out joints, hacking of concrete surface, watering, finishing, curing, scaffolding etc complete as directed By Engineer In Charge.				
32	R2-CS-PL-09-b	In cement mortar 1:3	Sqm	58449.00	538.00	3,14,45,562.00
		Chajja Plastering				
	R2-CS-PL-14	Providing and applying 12 mm thick sand faced external cement plaster for soffit of slabs & stair, beams, columns, chajja etc. upto 10m from ground level and at all locations in cement mortar as specified below including providing water proofing compound to the first coat of plaster as per manufacturers specification, hacking of concrete surface, finishing, curing, scaffolding etc complete as directed By Engineer In Charge.				
33	R2-CS-PL-14-c	In cement mortar 1:3	Sqm	2478.00	283.00	7,01,274.00
		External Plastering				
		Providing and applying 20 mm thick external sandfaced cement plaster upto 10m from ground level and at all locations in cement mortar proportion specied below in two coats for masonry (except stone masonry) and concrete surfaces including providing waterproofing compound to the first coat of plaster as per manufacturers specification,racking out joints, hacking of concrete surface, finishing, curing, scaffolding, etc complete as directed By Engineer In Charge.				

34	R2-CS-PL-15-a	In cement mortar 1:3	Sqm	7146.00	462	33,01,452.00
35	R2-CS-PL-25	Extra for every additional height of 3 m or part thereof above 10m from ground level for all types of external plastering. From (10 m to 13 m) & From (13 m to 16 m)	Sqm	71649.00	55.00	39,40,695.00
36	R2-CS-PL-34	Providing & Fixing bird wired mesh/wired fabric (12.5mm x 24 SWG) in strips of 200 mm width or as required over junctions of concrete & brick / block masonry or any other specified location at all heights including minimum 200mm overlap at all joints / junction prior to plastering, drilling, nailing etc. complete as directed By Engineer In Charge.	Sqm	21647.00	248.00	53,68,456.00
37	R2-CS-PL-35	Extra for providing and mixing polypropylene fibers in mortar of internal and external plaster. The dose of 6mm long fibers shall be 125gms per 50 kg of cement bag or as per the manufactures specifications etc complete as directed by Engineer In Charge	kg	2143.00	65.00	1,39,295.00
		Damp proof course				
38	R2-CS-WP-20	Providing and laying damp-proof course 50mm thick with cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 12.5mm nominal size) including water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	Sqm	63.00	160.00	10,080.00
		Water-proofing Treatment				
		Terrace Water-proofing				
		Waterproofing the terrace slabs with average 100 mm thick, brick bats laid in cement mortar bed 1:4 filled with mortar 1:4 of total thickness 100 mm, laid to slope (1:100) with vata 15 cm, at the junction of walls and IPS (CHINA MOISAC) (1:2:3) 40 mm thick with admixture, of approved water proofing compound, as per manufacturers specification laid after grouting the slab, finishing curing etc. complete as directed and specified. (Horizontal measurement clear between walls will be paid for).				
39	R2-CS-WP-24	Do with broken China mosaic flooring instead of IPS set in cement mortar (1:4) 40 mm thick	Sqm	738.00	1,187.00	8,76,006.00
		Water-proofing of Tank				

40	R2-CS-WP-25	Providing and installing crystalline waterproofing treatment to inside surfaces of the water retaining structures VERTICAL SURFACES : a) Treatment shall consist of preparation of surfaces including 'V' grooves at junctions and joints, pressure grouting the same and curing for specified period. b) Applying two coats of approved crystalline waterproofing compound at specified intervals as recommended by manufacturer and as directed by Engineer-in charge and allowed to cure. c) Plastering of walls and finishing smooth with 15 mm thick cement mortar 1:4 (1 cement : 4 fine sand) admixed with approved waterproofing compound in recommended proportions. HORIZONTAL SURFACES : d) Laying of 30 mm average thick cement concrete of mix 1:2:4 (1 cement : 2 coarse sand : 4 coarse aggregate of 12.5mm nominal size) admixed with approved waterproofing compound in recommended proportions, on floors to required gradient, including rounding of corners / junctions with walls and floors etc., and finished smooth and cured. Tank shall be tested by filling with water for required depth and maintaining it for 72 hrs. for checking the leakages. The rate includes giving 10 year	Sqm	335.00	2,537.00	8,49,895.00
41	R2-CS-WP-31	Extra for providing additional thickness of brickbats over 100 mm in 1:5 c.s. either due to location of rain water pipes or due to increase in the travel length of flow of rain water or brick bats required in the sunk portion of baths, W.C.s nahani etc. The rate includes for fixing brickbats in C.M., with waterproofing compound as per specification as directed.	Cum	56.00	8,575.00	4,80,200.00
42	R2-CS-WP-33	Providing waterproofing treatment from outside to basement lift-pits and other under ground structures during construction. The treatment shall be started after the P.C.C. bedding for the base slab or raft slab is laid. On the P.C.C. bedding a waterproofing layer based on cement with rough shahabad stones of 20 to 25 mm thick well pointed in the joints with 1:3 C.S. 40 mm thick for floors and 20 mm thick for sides with cement float and water proofing compound as per specifications shall be laid. Then the surface shall be superimposed by regular R.C.C. raft or base slab as per design. After completion of the raft / base slab and side walls the treatment of waterproofing layer shall be continued along the outer surface of the walls upto a height of 30 cm above the adjacent ground level. (The excavation of the side around the walls shall be filled with soft earth by the contractor). The total thickness of the treatment shall be 65 mm to 75 mm for floors and 32 mm to 38 mm for walls.	Sqm	299.00	1,336.00	3,99,464.00
		Toilet water-proofing				

43	R2-CS-WP-37	Providing waterproofing treatment through specialized agencies as per their specifications to the flooring of water closets, bathrooms, kitchen, nahanies, washing places, sanitary blocks etc. by giving INJECTIONS with cement solution with water proofing compound into the floor slab so as to make it consistent, homogeneous and impervious against leakage, seepage etc. The sunk portion shall then be covered with brickbat waterproof coba in 1:5 c.s. of required thickness with necessary gradient for easy flow of water. Finally the floor shall be covered with joint less waterproof cement plaster in 1:3 c.s. 12 mm to 15 mm thick finished rough for receiving tiles. The average thickness of complete treatment shall not be less than 100 mm. The soil pan area will not be deducted. (After completion of work leakage test shall be carried out after impounding the water for 7 days without any extra cost. The actual treated area will be measured and paid for).	Sqm	809.00	512.00	4,14,208.00
		Dado water-proofing				
	R2-CS-WP-38-a	Providing waterproofing treatment through specialized agencies to the dado portion of the R.C.C. side walls upto 1.5 m height from floor area of water closets, bath-rooms, kitchens, washing places, sanitary blocks etc. by giving „INJECTIONS“ treatment with waterproofing compound and cement solution. The walls will then be plastered with waterproof cement plaster in 1:4 c.s. 12 mm to 15 mm thk. Finally the walls shall be covered with jointless waterproof plaster in 1:3 c.s. 12 to 15 mm thick finished rough for receiving tiles. The average thickness of complete treatment shall not be less than 25 mm. (The actual treated area will be measured and paid for).				
44	R2-CS-WP-38-b	Do- -Do- brickwall without injection treatment.	Sqm	2915.00	464.00	13,52,560.00
		Chajja waterproofing				
45	R2-CS-WP-49	Providing & Making Waterproofing Treatment to the Chajja by finishing top surface with 20 mm thick 12 C.M. plaster with addition of approved water proofing compound as per manufacturers specifications and neat cement finish,including drip moulding at edge ,at bottom of chajja & cement vatta above chajja along the junction with wall etc complete. as per FMB item No. 5.22 but for new surfaces & as directed by the Engineer-In-Charge.	Sqm	1074.00	503.00	5,40,222.00
		Painting work				
		White/colour wash Lift shaft				

46	R2-CS-PN-1	Providing and applying three coats of White/colour wash to any surface with lime wash prepared from quick lime of best quality by adding blue/colour pigments and glue of approved colour, quality in required quantities at all height and locations as directed including scaffolding, cleaning and preparing surfaces for painting with broom, coir and sand paper if necessary or by any other approved means etc. complete as directed by Engineer-in-charge.	Sqm	2424.00	46.00	1,11,504.00
		Ceiling				
47	R2-CS-PN-3	Providing and applying first single coat of approved primer and two coats of acrylic distemper (oil bound distemper) of an approved make and colour as per manufacturers specifications to any surface, at all height and locations as directed including scaffolding, cleaning and preparing surfaces for painting with broom by any approved means, etc. complete as directed by Engineer-in-charge.	Sqm	8123.00	98.00	7,96,054.00
		Internal				
	R2-CS-PN-4	Providing and applying first single coat of approved primer and two coats of synthetic enamel paint/flat oil paint of an approved make and colour as per manufacturers specifications to surfaces specified below, at all height and locations as directed including scaffolding, cleaning and preparing surfaces for painting by any approved means etc. complete as directed by Engineer-in-charge.				
48	R2-CS-PN-4-a	For plastered wall surface	Sqm	58449.00	153.00	89,42,697.00
		External				
	R2-CS-PN-12	Providing and applying first single coat of approved primer and two coats of anti-algal, anti-fungal, exterior paint as specified below of an approved make and colour as per manufacturers specifications to any surface, upto 10m height from ground level and at all locations as directed including preparing surfaces for painting by any approved means, watering, scaffolding, cleaning and curing etc. complete as directed by Engineer-in-charge.				
49	R2-CS-PN-12-a	By using acrylic based exterior paint	Sqm	8305.00	177.00	14,69,985.00
50	R2-CS-PN-15	Extra over item no. CS-PL-7 to CS-PL-12 on exterior painting work of height more than 10 m from ground level for additional height of 3m or part thereof.	Sqm	62438.00	19.00	11,86,322.00
51	R2-CS-PN-24	Providing and laying 2 mm thick antifungal self levelling Epoxy flooring on concrete substrate including coving at floor wall junction & including necessary surface preparation using cleaning, dedusting, applying suitable primer including Aisle or zone marking in different colours etc. complete as per manufacturers specifications and as directed by Engineer In Charge.	Sqm	491.00	1,086.00	5,33,226.00
		Flooring				
		Kota Stone Flooring				

		Providing and laying polished natural stone as specified below (Machine cut) of an approved quality and size for paving /flooring in plain and/or diamond /approved pattern including cement mortar bedding of 25 mm thick in 1:4 proportion, cement float, machine cutting, dressing, leveling, jointing, filling the joints with neat cement slurry or with required pigment, machine polishing at site, curing, finishing, etc complete as directed by Engineer In Charge.				
52	R2-CS-FL-01-c	25 to 30 mm thk. Kota stone of size 0.430m x0.56m (17"x22")	Sqm	1626.00	1,179.00	19,17,054.00
53	R2-CS-FL-01-k	18 mm thk. Ruby red, jet black, Hasan green Granite tiles/slab	Sqm	1661.00	2,275.00	37,78,775.00
		Providing and laying polished natural stone strips upto 100mm wide as specified below (Machine cut) 25-30 mm. thick of an approved quality and size for paving /flooring including cement mortar bedding of 25 mm thick in 1:4 proportion, cement float, machine cutting, dressing, leveling, jointing, filling the joints with neat cement slurry or with required pigment, machine polishing at site, curing, finishing, etc complete as directed by Engineer In Charge.				
54	R2-CS-FL-02-g	18 mm thk. Jaisalmer Stone	Rmt	167.00	167.00	27,889.00
		Providing and laying polished natural stone strips upto 100 mm wide as specified below (Machine cut) 25-30 mm. thick of an approved quality and size for paving /flooring including cement mortar bedding of 25 mm thick in 1:4 proportion, cement float, machine cutting, dressing, leveling, jointing, filling the joints with neat cement slurry or with required pigment, machine polishing at site, curing, finishing, etc complete as directed by Engineer In Charge.				
55	R2-CS-FL-02-j	18 mm thk. Ruby red, jet black, Hasan green Granite tiles/slab	Rmt	33.00	696.00	22,968.00
		Ceramic Flooring				
		Providing and laying 8 mm thk. ceramic tiles as specified below conforming to I.S.15622-2006 for flooring of an approved, quality, make, size and pattern /design, for flooring including cement mortar bedding of 25 mm thick in 1:4 proportion, neat cement float, cutting, leveling, jointing, filling the joints by neat cement slurry or approved colour grout,curing, finishing etc complete as directed by Engineer In Charge.				
56	R2-CS-FL-07-c	Light coloured antiskid / matt ceramic tiles	Sqm	718.00	1,701.00	12,21,318.00
		Vitrified Flooring				

		Providing and laying 800 x 800 x 10 mm thk. vitrified tiles as specified below conforming to I.S.15622-2006 with water absorption less than 0.08% for flooring of an approved, quality, make, pattern and size for flooring including cement mortar bedding of 25 mm thick in 1:4 proportion, cutting, leveling, jointing, filling the joints by neat cement slurry or approved colour grout, curing, finishing etc complete as directed by Engineer In Charge.				
57	R2-CS-FL-9-c	Light coloured antiskid / matt vitrified tiles	Sqm	3593.00	1,762.00	63,30,866.00
58	R2-CS-FL-9-d	Dark coloured antiskid / matt vitrified tiles	Sqm	512.00	1,762.00	9,02,144.00
		Interlocking Paving Block				
59	R2-CS-FL-15	Providing and fixing 50 mm thick precast concrete interlocking paving block of concrete grade M30 for non traffic areas like footpath, paving etc. and as per the approved size, pattern, shape, colour, make, conforming to IS 15658, including 30mm thick sand bedding and edge confinements in cement mortar 1:3, laying in perfect line and grade etc. complete.	Sqm	246.00	531.00	1,30,626.00
		Risers of staircase				
		Providing and fixing polished natural stone tiles /slab as specified below of approved quality, pattern and colour for flush/projected skirting and risers including preparing the surface and levelling in the desired line, backing of 20 thk. cement mortar in proportion 1:3, square cut top edge or chamfered top edge in cement mortar 1:3, cement float, machine cutting, leveling, jointing, filling the joints with neat cement or pigment mixed with cement, polishing, finishing, curing etc complete as directed by Engineer In Charge.				
60	R2-CS-FL-21-d	R2-CS-FL-21-d 15 to 20mm thk. Kota stone for height upto 150 mm	Rmt	1133.00	234	2,65,122.00
61	R2-CS-FL-21-j	15 to 20 mm thk. Ruby red, jet black, Hasan green Granite tiles/slab for height upto 150 mm	Rmt	159.00	377	59,943.00
		Skirting over Dado (Granite) bottom+mid+top				
		Providing and fixing polished natural stone tiles /slab as specified below of approved quality, pattern and colour for flush/projected skirting and risers including preparing the surface and levelling in the desired line, backing of 20 thk. cement mortar in proportion 1:3, square cut top edge or chamfered top edge in cement mortar 1:3, cement float, machine cutting, leveling, jointing, filling the joints with neat cement or pigment mixed with cement, polishing, finishing, curing etc complete as directed by Engineer In Charge.				
62	R2-CS-FL-21-k	15 to 20 mm thk. Steel Gray Granite for height upto 150mm	Rmt	1342.00	377.00	5,05,934.00
		Ceramic Dado				

		Providing and fixing 8 mm thk. ceramic tiles as specified below conforming to I.S. 15622-2006 of approved quality, pattern and colour for dado in the wet area including preparing the surface and levelling in the desired line, backing of 20 thk. cement mortar in porportion 1:3 with approved waterproofing compound, square cut top edge or chamfered top edge in cement mortar 1:3, cement float, machine cutting, leveling, jointing, filling the joints with neat cement slurry or approved colour grout, finishing, curing etc complete as directed by Engineer In Charge.				
63	R2-CS-FL-32-a	Light coloured glazed ceramic tiles	Sqm	10517.00	1,770.00	1,86,15,090.00
		Treads of Staircase				
	R2-CS-FL-39	Providing and fixing rough natural stone slab as specified below of approved quality, pattern and colour for treads including preparing the surface and levelling in the desired line, in cement mortar 1:4, cement float, machine cutting, leveling, jointing, smooth cement plastering along the sides to match the existing surface in cement mortar 1:3, filling the joints with neat cement or pigment mixed with cement, polishing, finishing, curing etc complete as directed by Engineer In Charge.				
64	R2-CS-FL-39-c	Kota stone for width upto 300 mm	Rmt	990.00	654	6,47,460.00
65	R2-CS-FL-39-e	Ruby red, jet black, Hasan green Granite for width upto 300 mm	Rmt	159.00	1016	1,61,544.00
		Door Granite Frame				
	R2-CS-FL-44	Providing and fixing all sides polished natural stone as specified below of approved quality, pattern, colour and thickness for door and window frames / architraves including preparing the surface and levelling in the desired line, machine cutting, jointing in approved adhesives, leveling, smooth cement plastering along the sides to match the existing surface in cement mortar, filling the joints with pigment mixed with cement, cleaning, finishing, curing etc complete as directed by Engineer In Charge.				
66	R2-CS-FL-44-d	With Ruby red, jet black, Hasan green Granite	Rmt	853.00	566.00	4,82,798.00
		Stone architraves for windows				
	R2-CS-FL-44	Providing and fixing all sides polished natural stone as specified below of approved quality, pattern, colour and thickness for door and window frames / architraves including preparing the surface and levelling in the desired line, machine cutting, jointing in approved adhesives, leveling, smooth cement plastering along the sides to match the existing surface in cement mortar, filling the joints with pigment mixed with cement, cleaning, finishing, curing etc complete as directed by Engineer In Charge.				
67	R2-CS-FL-44-d	With Ruby red, jet black, Hasan green Granite	Rmt	7802.00	566.00	44,15,932.00
		Wash basin counter + Kitchen Platform				

		Providing and constructing raised platform of 750 mm wide and 600 to 750mm high using minimum 40mm thick polished kadappa stone slab base with minimum 15mm thk. polished stone top as specified below of approved quality, colour and texture, supported by both side polished, 40mm thk. and minimum 700mm wide kadappa spaced at not more than 1200mm clear, including polished facia of min. 100mm height as specified below with chamfered/rounded at the top edges, jointing in approved adhesives, machine cutting, making opening for sink and fixing the same in position, leveling, smooth cement plastering along the sides to match the existing surface in cement mortar, filling the joints with pigment mixed with cement, cleaning, finishing, curing etc complete as directed by Engineer In Charge. (The cost of providing the sink shall be paid extra as per plumbing items)				
68	R2-CS-FL-46-c	Ruby red / jet black / Hasan green Granite slab at top and facia	Rmt	74.00	3,949.00	2,92,226.00
		Kitchen Shelf				
		Providing and fixing the both face polished natural stone as specified below for shelf including making the slots for support, cutting, jointing in approved adhesives or any other approved means, filling the joints with neat cement motar with neat smooth plastering as required etc. complete as directed by Engineer-In-Charge.				
69	R2-CS-FL-47-d	18mm thk. Ruby red / jet black / Hasan green Granite	Sqm	33.00	1,876.00	61,908.00
		Granite stone plaque for inauguration				
70	R2-CS-FL-50	Providing and fixing 20mm to 25 mm thk. polished jet black granite stone plaque for inauguration of approved quality including preparing the surface and levelling in the desired line, cement float, machine cutting, leveling, jointing, filling the joints with neat cement, finishing, curing etc complete as directed by Engineer In Charge.	Sqm	4.00	3,636.00	14,544.00
		Engraving the letters of sizes specified below in golden or any other approved colour on granite stone etc. complete as directed by Engineer In Charge.				
71	R2-CS-FL-51-a	Letters upto 30mm in any language as directed.	Nos	220.00	33.00	7,260.00
72	R2-CS-FL-51-b	Letters above 30mm and upto 50mm in any language as directed.	Nos	220.00	39.00	8,580.00
73	R2-CS-FL-51-c	Border line upto 12mm thk.	Rmt	550.00	224.00	1,23,200.00
74	R2-CS-FL-55	Mirror Polishing on marble work/ granite work/ stone work to give high gloss finish including levelling the surface neat, cleaning etc. complete as directed by Engineer In Charge	Sqm	3748.00	61.00	2,28,628.00
		Rounding/moulding				
75	R2-CS-FL-57	Rounding the edge in half round shape of the stonework specified below including high gloss machine polishing as directed by Engineer In Charge. Shahbad stone/ Kadappa stone/ Tandur stone/ Kota stone/ Any type of marble/ Any type of Granite stone	Rmt	2075.00	204.00	4,23,300.00

		Champhering				
76	R2-CS-FL-58	Champhering the edge of the stone work specified below including high gloss machine polishing as directed by Engineer In Charge. Shahbad stone/Kadappa stone/ Tandur stone/ Kota stone/ Any type of marble/ Any type of Granite stone	Rmt	15768.00	76.00	11,98,368.00
		Skirting				
77	R2-CS-FL-81	Providing & fixing skirting of Vitrified mirror finish size of 100x10 mm thick (Nitco, Euro, Bell) of approved make & shade and pattern for flooring in required position laid on CM: 1:4 including neat cement slurry, filling joints with colour pigments of matching shade, curing and cleaning etc. complete.	Rmt	2132.00	265.00	5,64,980.00
		Jams and Sills				
78	R2-CS-FL-84	Providing & fixing 20+2mm thick machine cut mirror polish 1st quality Granite window sill (black galaxy or approved shade) including edge polishing, backing coat of 1:4 cement plaster / mortar/cement paste, cleaning etc. complete as per Architects details drawing and design. (Basic rate of granite is Rs.185/-Sq.ft.) (Staircase Pardi) + (window sills & jams) NOTE: The window sills shall be laid in stepped manner with external sill level lower than internal sill level. However No separate payment shall be considered for stepped sill laying.	Rmt	7967.00	1,590.00	1,26,67,530.00
		Urinal Partitions				
79	R2-CS-FL-93	Providing & fixing 20mm +/- 2mm thick both side mirror polished approved colour Granite Urinal partitions of 600 mm wide & 1550 mm high with round edges moulding and fixed in C.M. 1:2 and filling joints in white cement mixed with pigment to match the colour of granite including curing, cleaning etc. complete. (Basic Rate 210/Sft.)	Each	75.00	5,344.00	4,00,800.00
		Wood Work				
80	R2-CS-WW-41	Providing and fixing on site VENEER FINISH WALL PANELING made by using approved quality seasoned T.W. framing of 38 x 25 mm at approximately 600 x 450 mm center to center or as per site conditions and covered by 12 mm thick marine ply generally conforming to I.S.303 /I.S.710-1980 finished with 3 mm thick group match veneer of approved quality with groove pattern including all necessary end mouldings, moulding pattern, and melamine polish. Antitermite treatment to plywood and woodwork etc. including all leads & lifts complete as per Architects detailed drg. & design and as instructed by The Engineer In Charge (Basic Veneer Rate Rs.75/-per sft)	Sqm	1115.00	4882.00	54,43,430.00
		Carriageway Interlocking				

81	R2-RW-3-20	Providing & Fixing in the carriageway interlocking 100 mm thick gray cement concrete unishape pavers in Red (Terra Cotta), Black, Brown or any colour unishape (monolithic-single layer precast concrete blocks) with pigment @ 3% by weight of cement having average crushing strength of 50 N/sq.m.m., placed on uniformly graded river sand cushioning of average compacted thickness 25 mm with proper compacting with mechanical compactor with the proper level, grade and camber etc. complete as specified and as directed by the Engineer.	Sqm	605.00	1,213.00	7,33,865.00
		MS Safety grill				
		Providing and Fixing MS Safety grill of weight specified below for windows as per design including fabricating the grill using M.S. square / round bar, flats and angles including painting with one coat of red oxide zinc chromate primer and two coats of synthetic enamel paint of approved colour and brand etc complete as directed.				
82	R2-CS-SL-12-c	Grill weighing 20 to 25 kg / sqm	Sqm	3495.00	2,828.00	98,83,860.00
		Providing, fabricating and fixing M.S. grill work as per approved design and as per weight specified below to fencing / compound made out of square / round bars, M.S. flats, angles, with necessary holdfast including painting with one coat of red oxide zinc chromate primer and two coats of approved synthetic enamel paint etc. complete as directed by Engineer In Charge.8				
83	R2-CS-SL-14-b	Mild steel grill of weight 15 to 20 Kg/sq. m	Sqm	314.00	2,306.00	7,24,084.00
		Steel works				
84	R2-CS-SS-01	Providing, detailing, fabricating and fixing at desired location using hot rolled sections and MS Plates of grade Fe 250 as per specifications and approved fabrication drawings (which are to be prepared by Contractor and got approved from Engineer), transporting to site and erecting structural steel members for all heights & at all levels including provision of necessary erection bolts, fixing bolts, nuts, washers, cleats, stiffeners, gussets, base plate, and all necessary fixtures and operations like preheating as per specifications, straightening, bending, cutting, drilling, grinding, machining if specified, welding, grinding and removing the welding burr and preparing surface for painting with wire brush cleaning and applying two coats of epoxy red oxide zinc phosphate primer of 30 microns each and two coats of Epoxy Corrosion Resistant Enamel paint of 30 microns after fabrication including touching up with spray painting after erection etc complete as directed by Engineer In Charge. (The qty. for this item shall be measured for gusset plates, base plates, bolts in M.T.)	MT	2.00	80,088.00	1,60,176.00
		GI cold formed sections				

85	R2-CS-SS-03	Providing, detailing, fabricating and fixing erecting GI cold formed sections (GSM 120 Min), confirming to the physical specifications of ASTM A-607 (Grade 50) having minimum yield strength of 345 N/mm ² and as per specifications and approved fabrication drawings (which are to be prepared by Contractor and got approved from Engineer) for all heights & at all levels including transportation of the same to site, erection, provision of necessary erection bolts, fixing bolts, nuts, washers, cleats, and all necessary operations like straightening, cutting, drilling as specified, welding, cleaning, grinding and removing the welding burr etc. complete as directed by Engineer In Charge.	MT	1.00	65,795.00	65,795.00
		Entrance Gates				
86	R2-CS-SS-15	Providing, detailing, and fabricating as per specifications, transporting to site and erecting MS Openable / Sliding / Ornamental Entrance Gates including track and wheel, locking arrangement, fixing bolts, nuts, washers, cleats, stiffeners, gussets decorative balusters, arrow heads etc. and all necessary operations like straightening, bending, cutting, drilling, grinding, machining if specified, welding etc. complete weighing 25 to 30 kg/Sqm, including cleaning, Grinding and removing the welding burr and preparing surface and applying one coat of red oxide zinc chromate primer and one coat of Synthetic Enamel paint after fabrication and second coat of Synthetic Enamel paint after erection, with approved colour, shade and brand etc. including touching up with primer etc. complete as directed by Engineer In Charge.	Sqm	36.00	3,740.00	1,34,640.00
		Ladder for OHWT				
87	R2-CS-SS-22	Providing, detailing, and fabricating as per specifications, transporting to site and erecting M.S.ladder using hot rolled sections, hollow pipes (Hollow pipes conforming to IS1239 part1 and2) including, fixtures and fastenings ,cleats, stiffeners, gussets, etc. and all necessary operations like straightening, bending, cutting, drilling, grinding, machining if specified, welding, removing the welding burr, cleaning etc., fixing incement concrete block of grade M15, and preparing surface, applying one coat of redoxide zinc chromate primer and one coat of Synthetic Enamel paint after fabrication and second coat of synthetic enamel paint at erection ,with approved colour,shade and brand etc.complete as directed by Engineer In Charge. (Storage tank)	Kg	4665.00	120.00	5,59,800.00
		SS pipe Handrailing				

88	R2-CS-SS-31	Providing, fabricating & fixing in position S.S. 304 grade pipe railing for staircase consisting of 18 gauge 50 mm dia. S.S. pipe as top rail, 18 gauge 40 mm dia S.S. pipe as verticals, 18 gauge 25 mm dia as secondary rails, including fixing the verticals to the staircase pardi by means of base plate with socket & anchor fasteners, grinding the welded portion smooth, buffing, protecting the railing members by means of wrappers during construction etc. complete as directed by the Engineer in charge.	Rmt	210.00	3,394.00	7,12,740.00
		Wooden Works				
		Door Architrave				
89	R2-CS-WW-11	Providing and fixing 38 mm x 12mm thick teak wood decorative cover moulding around frame of doors, windows and cupboards etc. completed as directed.	Rmt	846.00	142.00	1,20,132.00
90	R2-CS-WW-13	Providing and fixing vision panel of size 300mm x 300mm in any type of door with 6mm thick glass including T.W. beading etc. complete as directed bt Engineer in charge.	Nos	150.00	254.00	38,100.00
		Door Shutters (single shutter)				
		Providing and fixing superior quality factory made phenol bonded solid core single leaf flush commercial door shutter of thickness as mentioned below and of approved make conforming to IS: 2202 (Part I, II) with 12mm thk. teak wood lipping all around, 3mm thk. commercial veneer on external face with three coats of french polish and 150mm x 60 mm or 125 mm x 75 mm C.P. teak wood frame with glazed fanlight with 4mm thk. glass including bright finished or black enameled mild steel butt hinges, approved fixtures, fastening, hooks, eyes, screws and painting the frame and interior side with one coat of primer, putty and two coats of synthetic enamel paint of approved make and colour etc. complete as directed by Engineer in charge.				
91	R2-CS-WW-17-c	35mm thick shutter	Sqm	66.00	7,032.00	4,64,112.00
		Door Shutters (Double shutter)				
		Providing and fixing superior quality factory made phenol bonded solid core double leaf flush commercial door shutter of thickness as mentioned below and of approved make conforming to IS: 2202 (Part I, II) with 12mm thk. teak wood lipping all around, 3mm thk. commercial veneer on external face with three coats of french polish and 150mm x 60 mm or 125 mm x 75 mm C.P. teak wood frame without fanlight including including bright finished or black enameled mild steel butt hinges, approved fixtures, fastening, hooks, eyes, screws and painting the frame and interior side with one coat of primer, putty and two coats of synthetic enamel paint of approved make and colour etc. complete as directed by Engineer in charge.				
92	R2-CS-WW-18-d	40mm thick shutter	Sqm	19.00	8,666.00	1,64,654.00
		False Ceiling				

	R2-CS-WW-21	Providing & Fixing False Ceiling comprising of following material including fixing in galvanized steel sections with white color coated cap comprised of main tee 34 mm x 24 mm (heavy duty as per ASTM C - 635 standard tested) with pre-punched cross tee slots (at every 100 mm c/c) to be placed at 1200 mm c/c, suspended with 4 mm GI (TATA MAKE) straightened wire at every 1.2 mtr, other end of the wire provided with GI J hook & nut. All the false ceiling panels around the perimeter of the false ceiling & around the RCC columns shall rest on the perimeter G.I. molding of size 19 mm x 19 mm which is fixed to the walls with help of rawal plug & GI screw at the same level as false ceiling. The cross tee of 1200 mm length (26 mm x 24 mm wide Heavy duty) shall be locked in main tee at every 600 mm c/c. to form grid of 600 x 1200 mm. Further 600 mm long tee need to be locked in to 1200 mm tee to make the final grid of 600 mm X 600 mm, including making provision for cutouts and / or trap door for electrical and mechanical systems, etc complete as directed by Engineer In charge.				
93	R2-CS-WW-21-b	With India Gypsum PVC laminated 9.5 mm thk 'POLYSHIELD' tiles having metal polyester backing with Humidity Resistance of 99% RH, Average NRC 0.55, dncw 34dB, Light Reflectance >80%, Thermal Conductivity k = 0.052 – 0.057 Colour White, Fire Performance Class 0/Class 1 (BS - 476) with life time warrantee against sag in module size 595 mm X 595 mm X 9 mm thick at required height above FFL.	Sqm	149.00	1,511.00	2,25,139.00
94	R2-CS-WW-23	Providing and fixing trap door in the Gypsum board / POP ceiling system for electrical and mechanical utilities with 18mm thk. plywood shutter and 12mm thk. teak wood lipping all around including wooden / G.I. frame with supports, fixtures, fastenings etc. complete as directed.	Sqm	3.00	6,440.00	19,320.00

95	R2-CS-WW-31	Providing and fixing fire doors with 2 hour fire rating conforming to IS: 3614 (Part 2), BS 476(Parts 20 & 22), ISO 834 ; 45 mm thick fully flush, double skin door shell with lock seam joints at stile edges made from 1.25 mm thick galvanized steel sheet including door frames made from 1.6 mm thick galvanized steel sheet formed to double rebate profile of size 143 mm x 57mm as per manufacturer's instructions, door frames and shutter primed with Zinc Phosphate stoving Primer and finished with Polyurethane Aliphatic grade or epoxy paint including ironmongery consisting of stainless steel ball bearing butt hinges 3 mm thick fixed flush to the frame and shutter, full width horizontal handles (panic bar), concealed flush bolts, door closers, other standards fixtures and fasteners, etc. complete for the following clear opening sizes: Item to include all necessary fixtures and fastenings [fire rated] including heavy duty SS hinges min 4 per shutter, tower bolts, door stoppers, handles, mortise lock, push plates, kick plates, door closers, etc. Complete. Single leaf shutter without glass vision panel.	Sqm	384.00	24564.00	94,32,576.00
		Aluminum Window				
		Aluminum Louvered Window				
96	R2-CS-AW-04	Providing and fixing in position aluminum louvered window with anodised aluminum frame of approved make and of size 40mm x 20mm x 2.0mm (wt. 0.605 kg/Rm) including adjustable aluminum frame, 4 to 6mm thk. frosted glass, fixtures and fastenings etc. complete as directed by by Engineer In Charge.	Sqm	53.00	4,246.00	2,25,038.00
		Mosquito net for Louvered Window				
97	R2-CS-AW-16	Providing and fixing SS Mosquito mesh in anodised (anodic film must not be less than 15 microns i.e. AC-15 as per IS, the anodising must be scaleted by keeping the anodized section in boiling de-anodized water for a period of one hour) aluminium shutter fixed in sliding / openable / fixed windows conforming to IS:1948-1961 as per drawing and directed by Engineer In Charge. (Note: For Aluminum Sections, total weight shall be upto 3.5 kg/sq.m.)	Sqm	53.00	1,453.00	77,009.00
		Window				

98	R2-CS-AW-06	Providing and fixing in position side hung window with friction hinges, made up of extruded modular and anodised aluminum section of approved make and of size 38.10 mm x 25.40 mm x 1.44 mm thk (wt. 0.471 kg/Rm) for outer rectangular tube, 40 mm x 31.5 mm x 1.5 mm (wt. 0.549 kg/Rm) for outer frame, 40 mm x 31.50 mm x 1.50 mm thk (wt. 0.502 kg/Rm) for central mullion, 40 mm x 31.50 mm x 1.50 mm thk (wt. 0.549 kg/Rm) for shutter frame and 16.50 mm x 14.50 mm x 1.20 mm thk (wt. 0.157 kg/Rm) for glazing clip with 5 mm thick plain / frosted / tinted glass including neoprene gasket, fixtures, fastenings and accessories like handles, hinges, locking arrangement etc. complete as directed by Engineer In Charge. (Note: anodic film must not be less than 15 microns i.e. AC-15 as per IS, the anodizing must be sealed by keeping the anodized section in boiling de-anodized water for a period of one hour)	Sqm	1688.00	6,549.00	1,10,54,712.00
		Hardwares / Door Accessories				
		Mortise lock				
		Providing and fixing mortise lock of approved make manufactured as per IS:2209 and 6607 and as described below for doors with necessary fixtures and materials and labour etc. complete.				
99	R2-CS-HW-01-b	Chromium plated Brass mortice latch and lock	Nos	150.00	980.00	1,47,000.00
		Door Stopper				
	R2-CS-HW-03	Providing and fixing door stopper as described below of approved make manufactured as described below and as per IS:1823- 1992 for doors with necessary materials and labour cost etc. complete.				
100	R2-CS-HW-03-c	Stainless steel door stopper	Nos	150.00	99.00	14,850.00
		Butt Hinges				
	R2-CS-HW-04	Providing and fixing butt hinges as described below, manufactured as per relevant IS for door & windows with necessary materials and labour costs etc. complete.				
		Standard Stainless Steel hinge				
101	R2-CS-HW-04-d-2	100 mm Long	Nos	898.00	72.00	64,656.00
		Aldrops				
	R2-CS-HW-06	Providing and fixing aldrops of 16 mm diameter bars manufactured as per IS:2681-1991, wherever they apply for doors and windows with necessary materials and labour etc. complete.				
		Standard Stainless Steel make Aldrop				
102	R2-CS-HW-06-d-2	300 mm long.	Nos	150.00	381.00	57,150.00
		Tower Bolt				
	R2-CS-HW-08	Providing and fixing tower bolts as described below conforming to IS:204- 1992 (Part I,II) for doors & windows with necessary materials and labour etc. complete.				
		C] Standard stainless steel				
103	R2-CS-HW-08-c-1	100 mm long.	Nos	29.00	184.00	5,336.00

104	R2-CS-HW-08-c-2	150 mm long.	Nos	126.00	239.00	30,114.00
		Handles				
	R2-CS-HW-09	Providing and fixing handles as described below, manufactured as per IS:208-1992 for doors and windows and with necessary materials and fixtures like screws etc. and all labour etc. complete.				
		DJ Standard Stainless Stee				
105	R2-CS-HW-09-d-2	150 mm long.	Nos	29.00	91.00	2,639.00
106	R2-CS-HW-09-d-3	200 mm long.	Nos	126.00	113.00	14,238.00
		Door Closer				
	R2-CS-HW-11	Providing and fixing hydraulic door closer of approved make manufactured as per IS:3564 for doors with necessary materials and labour cost etc. complete.				
107	R2-CS-HW-11-b	Medium (for shutter weighting from 36 – 60kg)	Nos	126.00	822.00	1,03,572.00
		Magnetic Door stopper				
108	R2-CS-HW-13	Providing and fixing magnetic type floor door stopper of approved make including necessary screws, fixtures, materials and labour etc. complete.	Nos	29.00	84.00	2,436.00
		Hooks for fans				
109	R2-CS-RM-12	Providing and fixing 16 mm M.S. Fan clamps of standard shape and size in existing R.C.C. slab including cutting chase, anchoring clamp to reinforcement bar, including cleaning, refilling, making good the chase with matching concrete, plastering and painting the exposed portion of the clamps complete.	Nos	330.00	634.00	2,09,220.00
110	R2-CS-RM-17	Pumping out water caused by springs, tidal or river seepage, broken water mains or drains and the like.	kilo litre	3000.00	186.00	5,58,000.00
		Curtain Rods				
111	R2-CS-RM-109	Providing and fixing in position Curtain rod of aluminium colour anodized circular tubular section including the fixing sockets on both sides.	Rmt	7.00	600.00	4,200.00
		Curtains				
112	R2-CS-RM-110	Stitching of Curtains for windows and doors and fixing the same with approved fabric and buttons, accessories, etc complete.	Sqm	35.00	206.00	7,210.00
113	R2-CS-RM-117	Providing and constructing discharge ring well of 1.5m dia and depth upto 6m made of RCC pipe collar including excavation and stacking the soil and disposing as per the instructions of engineer-in-charge, pumping of water, lowering the collars by means of lifting tackles and filling with gravels and boulders from outside of the circumference of the collar so as to allow infiltration of ground water inside the well through the gap between the collars.	Each	2.00	1,44,850.00	2,89,700.00
		Kick plate				
114	R2-CS-RM-123	P/F 1.50mm thick SS 304 kick plates to all surface in approved design with ss screws /araldite with buffing etc. complete	Sqm	55.00	7,034.00	3,86,870.00
		PVC Door				

115	R2-CS-PV-08	Providing and fixing 30mm thick factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mm x 19mm for styles and 15x15mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture . M.S. frame covered with 5mm thick heat moulded PVC 'C' channel of size 30mm thickness, 70mm width out of which 50mm shall be flat and 20mm shall be tapered in 45degree angle on either side forming styles; and 5mm thick, 95mm wide PVC sheet out of which 75mm shall be flat and 20mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115mm wide PVC sheet out of which 75mm shall be flat and 20mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided either side of the panel. 10mm (5mm x 2) thick, 20mm wide cross PVC sheet to be provided as gap insert for top rail & bottom rail. panof 5mm thick both side PVC sheet to be fitted in the M.S. frame welded/ sealed to the styles & rails with 7mm (5mm+2mm) thick x 15mm wide PVC sheet beading on inner side, and joined together with solvent cement adhesive. An additional 5mm thick PVC strip of 20mm width	Sqm	296.00	1,805.00	5,34,280.00
		Polycarbonate corrugated sheet Roofing for Duct area				
116	R2-CS-RW-08	Providing and fixing in position UV resistant, fire retardant, virtually unbreakable and temperature resistant (-40° C to +130° C) Polycarbonate corrugated sheet of 2mm thickness for roof of approved make to match the roof profile at any height with G.I. J hooks bolts of G.I. clamps nuts & bolts or with self drilling fastener and EPDM washer etc. complete as directed.	Sqm	9.00	1473	13,257.00
		Rain Water Harvesting Pipe				
	R2-CS-RW-16	Providing and fixing UV resistant selffit UPVC pipes of approved make for Rainwater downtakes confirming to IS 13592:1992 Type A suitable for 4kg/sqcm pressure for following pipe diameters including rain water receiving recess with pvc plug bend necessary fittings such as offsets shoes, fixing the pipes on wall with clips filling the joints with solvent/cement and necessary scaffolding etc. complete as directed by Engineer In Charge.				
117	R2-CS-RW-16-a	75mm dia	Rmt	123.00	246.00	30,258.00
118	R2-CS-RW-16-b	100mm dia	Rmt	123.00	406.00	49,938.00
119	R2-CS-RW-16-d	200mm dia	Rmt	62.00	373.00	23,126.00
	R2-CS-PS-88	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work - Exposed on wall				-
120	R2-CS-PS-88-f	50 mm nominal outer dia Pipes	Rmt	123.00	649.00	79,827.00

121	R2-CS-RW-15	Providing and fixing box type gutter of width 350 mm and depth 250 mm clear inside, made of 22 gauge G.I.sheets with socket type opening on top to receive ferrules from longitudinal truss gutters and ferrules at end, with all the fixtures and fastenings and three coats of synthetic enamel paint, gutters to be supported on M.S. flat hangers 750 MM C/C which are fixed on top as directed and laid to proper slope, as specified including making necessary connections with rain water pipes etc complete and as directed. (Rate includes cost of hangers, the fixing charges, 3 coats of synthetic enamel paint, and welding if required).	Rmt	80.00	1,325.00	1,06,000.00
122	R2-CS-RM-117	Providing and constructing discharge ring well of 1.5m dia and depth upto 6m made of RCC pipe collar including excavation and stacking the soil and disposing as per the instructions of engineer-in-charge, pumping of water, lowering the collars by means of lifting tackles and filling with gravels and boulders from outside of the circumference of the collar so as to allow infiltration of ground water inside the well through the gap between the collars.	Each	2.00	1,44,850.00	2,89,700.00
123	R2-CS-PS-274	Providing & fixing C.I. Manhole covers with frames / rings for R.C.C., underground water storage tanks, sizes of covers. (600mm dia.) NOTE:- should be provided with locking arrangement	Nos	2.00	4131.00	8,262.00
124	R2-CS-RM-17	Pumping out water caused by springs, tidal or river seepage, broken water mains or drains and the like.	Kilolitre	100.00	186.00	18,600.00
125	R2-CS-PS-126	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI : 12701 marked, 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.	per litre	10000.00	4.00	40,000.00
126	R2-CS-PS-267	Providing and fixing in any position 160 mm dia PVC ball valve with all required fittings and labours for rainwater downtake pipe for the purpose of first flush	Nos	2.00	13,147.00	26,294.00
127	R2-CS-PS-271	Providing & fixing Rainy online filter at any location comprising of 200 mm dia three layer PP-R pipe PN-10 (SDR11) class including filter media of graded sand of size 4.75 mm to 12 mm with synthetic/noncorrosive metallic mesh with necessary bracketing, with 160 mm dia PVC ball valves, 2 nos. of 100 mm dia PVC ball valves for backwash with 2 no. od plastic D joint to facilitate separation of filter assembly for maintenance, wit hall necessary fittings such as reducers, tees, fittings, and necessary fasteners etc. complete as directed	Nos	2.00	3,38,322.50	6,76,645.00
		Kerb stone				

128	R2-RW-10-50	Providing and fixing of cement concrete Kerb Stone of various grades of size: 500mm width x 325 height x 165mm thick (Half Batter, Bull Nose / Full Batter) manufactured in wet press vacuum dewatering technology plant / equivalent with face pimple finish for high visibility with excellent quality and finish and edges perfect and sharp. Grade – M-25. Including excavation in any soil except rock, laying a leveling course of M 15 grade RMC 100mm. thick, to required slope (inclusive of form work) jointing in C.M.1:2 proportion flush to concrete surface, painting exposed surface with one coat of primer and two coats of 1st grade road marking paint in the yellow/white/black or any shade as directed. (Kerbstones shall be procured from MCGM registered agencies).	Rmt	117.00	1116	1,30,572.00
129	R2-CS-AT-1	Providing Pre-constructional anti-termite treatment conforming to IS6313 (part II) using chloropyrifos EC 20 Emulsion or equivalent of 1% concentration by weight for creating barrier under and all around foundation pits, wall trenches, basement excavation, backfill in immediate contact with foundation and treating the top surface of plinth filling, junction of wall & floor, along the external perimeter of building, expansion joints, surrounding of pipes, water conduits and at places suggested and as directed by Engineer-InCharge covering 10 years guaranty. (plinth area should be considered for measurement and payment.)	Sqm	573.00	159.00	91,107.00
130	R2-CS-AT-4	Providing anti termite treatment conforming to IS- 6313 (part-III) to the wooden frames of doors / windows of the Existing building by drilling the 3 mm dia. holes at 150mm c/c and at the junction of wood work and masonry work to downward angle of 45 degree and injecting 500 ml per hole or until refusal with oil / kerosene based chloropyrifos EC 20 emulsion or equivalent of 1% concentrate, sealing the holes by filling the putty etc complete as directed by Engineer-In-Charge with 2 years guaranty	Rmt	846.00	295.00	2,49,570.00
131	R2-CS-AT-6	Providing general pest control service to the buildings to control the nuisance of cockroaches, lizards, bed bugs and other insects etc. by minimum four operation as and when directed in a year including monthly check up with additional operations if required and as directed by Engineer-In-Charge.	Sqm	9727.00	33.00	3,20,991.00
132	R2-CS-AT-8	Providing general pest control service to small sizes (Volume less than 1 Cum) of inspection chamber to control the nuisance of cockroaches and other insects etc by minimum four operations in a year and monthly check up with additional operations if required and as directed by Engineer-In-Charge.	Each	11.00	136.00	1,496.00

133	R2-CS-DD-84	Cutting down small tree upto 230 mm. dia of girth (measured at a height of 1 m above ground level) including cutting of branches and trunks, removing of roots completely, disposal of unserviceable material and depositing the serviceable or cut- materials to respective Ward Office as directed.	Plant	2.00	467.00	934.00
134	R2-CS-DD-85	Cutting down small tree over 230 mm. dia. of girth (measured at a height of 1m above ground level) including cutting of branches and trunks, removing of roots completely, disposal of unserviceable material and depositing the serviceable or cut- materials to respective Ward Office as directed.	Plant	19.00	1,447.00	27,493.00
135	R2-CS-DD-3	Cutting down masonry work in lime or cement mortar including plaster etc. complete.	Cum	18.00	484.00	8,712.00
		Demolishing stone rubble masonry manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :				-
136	R2-CS-DD-2	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.away the debris.	Cum	67.00	1837.00	1,23,079.00
137	R2-CS-DD-56	(Breaking and) Removing any existing (the) water proofing layers of I. P. S. with bituminous joints and brick bat concrete over the existing terrace floor including cement vata and exposing R.C.C. slab top complete.	SQM	17.00	218.00	3,706.00
138	R2-CS-DD-53	Disposal of building rubbish / malba / similar unserviceable, dismenteled or Waste materials by mechanical means including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer - in - Charge, Beyond 50 meters innitial lead, for all loads including all lifts involved.	Cum	101.00	191.00	19,291.00
139	R2-CS-DD-71	Removing existing door or windows with frame and shutters and making good etc. to the existing surface	Nos	1.00	563.00	563.00
		Piling work				

	R2-CS-PLG-1	Providing and Casting RCC bored cast in-situ Vertical as per IS 2911 (Part 1, Section 2) by boring through all kinds of soils/ Sand /Rock by rotary hydraulic rigs using temporary casing up to stable strata / bentonite mud circulation as specified, from tip to cut-off elevation of piles. Reinforced Cement Concrete work of filling the bore (after placement of reinforcement cage as per drawing) with M25 grade Ready Mix Concrete using 43 Grade Ordinary Portland Cement confirming to IS : 8112, of approved make and brand with minimum cement content of 400 kg/m3 and with water -cement ratio, including the water contained in aggregates (10mm to max 20mm size), not exceeding 0.45, with approved plasticizer as specified, including placing of concrete from tip to minimum of 600mm above the specified cut-off level, breaking pile head to cutoff level and exposing pile reinforcement for embedment in pile cap, Disposing & levelling of bored/excavated material suitably at locations approved by the local authorities including all lead and lifts, all complete for piles having diameter of (Pile will be measured for payment for length between pile tip to cut-off level along the pile axis. Reinforcement shall be paid separately) Note :				
140	R2-CS-PLG-1-1-c	750 mm	Rmt	1812.00	7,341.00	1,33,01,892.00
	R2-CS-PLG-2	Providing and Casting RCC bored cast in-situ Vertical piles as per IS 2911 (Part 1, Section 2) by boring through all kinds of soils/ Sand by Tripod, Winch and Chisel using temporary casing up to stable strata / bentonite mud circulation as specified, from tip to cut-off elevation of piles. Reinforced Cement Concrete work of filling the bore (after placement of reinforcement cage as per drawing) with M25 grade Ready Mix Concrete using 43 Grade Ordinary Portland Cement confirming to IS : 8112, of approved make and brand with minimum cement content of 400 kg/m3 and with water - cement ratio, including the water contained in aggregates (10mm to max 20mm size), not exceeding 0.45, with approved plasticizer as specified, including placing of concrete from tip to minimum of 600mm above the specified cut-off level, breaking pile head to cutoff level and exposing pile reinforcement for embedment in pile cap, and including disposing & levelling of bored/excavated material suitably at locations approved by the local authorities including all lead and lifts, all complete for piles having diameter of (Pile will be measured for payment for length between pile tip to cut-off level along the pile axis. Reinforcement shall be				
		Extra over rate for items CS-PLG-1 & 2 for using M45 instead of M 25				
141	R2-CS-PLG-2-5-e	750 mm	Rmt	1812.00	470.00	8,51,640.00

142	R2-CS-PLG-5.0	Supply and placing in position high strength deformed steel bars reinforcement of grade Fe-500 conforming to IS:1786 (latest version) for RCC Cast-in-situ piles for full length of pile including transporting the same from source to site of work, straightening, cleaning, decoiling, cutting, bending to required shape and lengths as per details, binding with 16 SWG black soft annealed binding wire, supplying and placing with proper cover blocks, supports, chairs, spacers, welding, if required, to form a grid cage etc., complete as per instruction of the Engineer-in-Charge (steel supplied by contractor at his own cost and duly approved by Engineer in charge)	MT	87.00	64,518.00	56,13,066.00
143	R2-CS-PLG-5.1	Providing and installing in position permanent M.S. liners for piles of specified diameter and fabricated from 6.0mm to 8.0mm thick plates as per detailed drawings and designs including cutting, bending to required shape, welding, painting with Red Oxide paint etc. complete as specified and directed.	MT	42.00	79,777.00	33,50,634.00
	R2-CS-PLG-14	Carrying out low strain pile integrity test on 300mm / 350 mm/ 400 mm / 450 mm diameter pile including all arrangements for test, equipments/accessories, materials, labour, submission of test report etc but excluding the cost of installation of job pile (installation of pile shall be paid seperately as per relevent items) all complete as per specification and as directed by the engineer-in-charge.				
144	R2-CS-PLG-14.4	750 mm	Nos	138.00	4,130.00	5,69,940.00
	R2-CS-PLG-16	Conducting Initial Load Test (Compression) up to maximum test load of 2.5 times the safe load capacity on single pile as specified in accordance with IS 2911 part-4 including preparation of pile head for testing, necessary excavation, jacks, kentledge, accessories, measuring devices, recording of results, labour, submission of test report etc. complete, but excluding the cost of installation of pile (insallation of pile shall be paid seperately) etc.all complete as per the specification, drawing and as directed by the Engineer in charge for the following for vertical compression test by cyclic load method				
145	R2-CS-PLG-16.13	750 mm	Nos	3.00	6,37,200.00	19,11,600.00

	R2-CS-PLG-17	Carrying out Initial Lateral Load Test on vertical (Initial/test) piles up to maximum test load of 2.0 times the safe lateral load capacity on single pile as specified in accordance with IS 2911 part-4 including all necessary arrangements such as jacks, measuring devices, etc. complete as required. (For this test if adjoining piles is used for drawing support for test then the arrangements shall be made to record deflection, submission of test report etc. of both the piles. However, testing both these piles will be considered as one test only. Providing and installing test piles measured separately)				
146	R2-CS-PLG-17.6	750 mm	Nos	3.00	4,72,000.00	14,16,000.00
	R2-CS-PLG-18	For Tension / Uplift test (Pull Out) on vertical (initial / test) piles as per IS 2911 part-4 up to maximum test load of two times the safe load capacity as specified including all necessary arrangements such as jacks, supports, measuring devices, etc. complete as required. Arrangements shall be made to record uplift movement, submission of test report etc.(Providing and installing test piles measured separately)		0.00		
147	R2-CS-PLG-18.6	750 mm	Nos	3.00	5,31,000.00	15,93,000.00
	R2-CS-PLG-21	Conducting routine vertical load test for 1.5 times safe load carrying capacity by means of High Strain Dynamic Load Test including provision and erection of crane- hammer-drop mechanism, acceleration and displacement velocity transducers to record both force and velocity including excavation, dewatering, preparation of pile head including building up of pile, additional reinforcement if any etc. all complete as per approved method (ASTM D4945-89), submission of test report, specifications and instructions of the Engineer for piles of following diameter :				
148	R2-CS-PLG-21.6	750 mm	Nos	3.00	2,06,500.00	6,19,500.00
Total Civil and Strctural Works BOQ Amount						36,64,86,331.00
(A) SAY						36,64,86,400.00

S.No	Code	Description	Unit	Rate	Qty	Amount
1.0		Sanitary Fixtures & CP Brass Fittings				
1.1	R2-CS-PS-76	Providing and fixing <i>white vitreous china extended wall mounting water closet</i> of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/6 litre (adjustable to 4 litre/8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete.	Each	15556.00	125	1944500.00
1.2	R2-CS-PS-7	Providing and fixing <i>wash basin with C.I. brackets</i> , 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require :				

1.2.1	R2-CS-PS-7-a	White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps.	Each	3645.00	78	284310.00
1.3	R2-CS-PS-248	White Vitreous China of 'Hindustan & Parryware' make or equivalent under counter type Oval wash basin of size 550 x 480mm with CI brackets suitable for mounting below granite counter including waste fitting with CP brass bottle trap, angle valve with CP connection etc as specified. Oval Wash Basin Model No.10051 OR consider equivalent make.)	Each	8192.00	37	303104.00
1.4	R2-CS-PS-78	Providing and fixing white vitreous china battery based infrared sensor operated Urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	Each	21317.00	57	1215069.00
1.5	R2-CS-PS-10	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required :				
1.5.1	R2-CS-PS-10-a	Kitchen sink with drain board				
1.5.1.1	R2-CS-PS-10-a-1	510x1040 mm bowl depth 250mm.	Each	12128.00	1	12128.00
1.6	R2-CS-PS-262	Providing & fixing chromium plated 32mm Jaguar make Series allied model no. ALD-769 B Bottle trap (with internal partition) for Wash Basins including Waste Coupling fixed in required position with 250mm long wall connection pipes and wall flange with all necessary fittings and fixtures, etc. complete and as directed by The Engineer in Charge.	Nos	1913.00	173	330949.00
1.7	R2-CS-PS-30	Providing and fixing 600x450 mm beveled edge mirror of superior 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	1580.00	115	181700.00
1.8	R2-CS-PS-33	Providing and fixing toilet paper holder :				
1.8.1	R2-CS-PS-33-a	C.P. brass	Each	1462.00	124	181288.00
1.9	R2-CS-PS-263	WASTE COUPLING : JAQUAR : NO. 705 (FULL THREAD)	Each	655.00	1	655.00
1.10	R2-CS-PS-261	Providing and fixing ISI marked make CP brass liquid soap dispensers with CP brass bracket capacity 250 ml.	Each	2645.00	115	304175.00
1.11	R2-CS-PS-71	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fitting arrangement of approved quality and colour.				
1.11.1	R2-CS-PS-71-b	600mm long towel rail with total length of 645mm, width 78mm and effective height of 88mm, weighing not less than 190gms.	Each	1321.00	115	151915.00
1.12	R2-CS-PS-204	Providing and fixing Health Faucet with one Mtr long easy flex tube in chrome finish and wall flange	Each	1513.00	125	189125.00

1.13	R2-CS-PS-203	Providing and fixing C.P. Brass <i>two way bib cock</i> with flange of approved quality and make.	Each	1246.00	125	155750.00
1.14	R2-CS-PS-129-a	Providing and fixing C.P. brass <i>long body bib cock</i> of approved quality conforming to IS standards and weighing not less than 690 gms.	Each	742.00	4	2968.00
1.15	R2-CS-RM-130	Providing & fixing stainless steel 20 mm dia,600 mm long grab bar for physically handicapped toilet etc complete as directed.	Each	1161.00	17	19737.00
1.0		Total C/F to Summary			(B)	5277373.00
2.0		Soil, Waste, Vent & Rain Water Pipes				
2.1	R2-CS-RW-18	Supplying and Fixing 100 mm internal dia. 4.0 mm thk. (weight approx. 10.0 Kg/Rm.) centrifugally cast C. I. pipes Confirming to IS 3989, sockets spigots type pipe <i>for rain water</i> with all fittings including scffolding, 1:1 CM jointing proper embedding and fixing on wall & column etc complete as directed.	Rmt	1671.00	780	1303380.00
2.2	R2-CS-RW-20	Providing and fixing 0.6mm thk Colour <i>Galvalume 90mm Square pipe for Rainwater down takes</i> including all fittings etc complete as directed.	Rmt	1180.00	12	14160.00
2.3	R2-CS-PS-215-a	Supplying & Fixing 3 mm thick <i>lead flashing</i> in single piece of lead sheet all around the rain water outlet mouth on a layer of cold bitmen including heavy duty 5 mm thick C.I. grating, a) 150 x 150 (6" x 6") square or dia outlet <i>for 100 mm (4") pipe.</i>	Nos	495.00	12	5940.00
2.4	R2-CS-RW-18	Supplying and Fixing 100 mm internal dia. 4.0 mm thk. (weight approx. 10.0 Kg/Rm.) centrifugally cast C. I. pipes Confirming to IS 3989, sockets spigots type pipe <i>for vertical soil</i> with all fittings including scffolding, 1:1 CM jointing proper embedding and fixing on wall & column etc complete as directed.	Rmt	1671.00	836	1396956.00
2.5	R2-CS-RW-18	Supplying and Fixing 100 mm internal dia. 4.0 mm thk. (weight approx. 10.0 Kg/Rm.) centrifugally cast C. I. pipes Confirming to IS 3989, sockets spigots type pipe <i>for vertical Wastewater</i> with all fittings including scffolding, 1:1 CM jointing proper embedding and fixing on wall & column etc complete as directed.	Rmt	1671.00	1000	1671000.00
2.6	R2-CS-PS-55	Providing and fixing <i>terminal guard</i> :				
	R2-CS-PS-55-a-2	100 mm Dia Sand C.I. S&S as per IS - 3989	Each	414.00	25	10350.00
2.7	R2-CS-PS-220-a	Supplying & Fixing Agricultural PVC 10 kg class pipe <i>for Vent Pipe</i> as per IS 4985-2000 of Approved make with P.V.C. fittings including Chasing of Brick wall & making good the same with 1:3 cement sand plaster using Chiken wire mesh etc. complete a) 50 mm (1 1/2") dia.	Rmt	240.00	520	124800.00
		G.I.(Galvanised Iron)				
	R2-CS-PS-88	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc.				
		Internal work - Exposed on wall				
2.8	R2-CS-PS-88-e	40 mm dia nominal bore	Rmt	499	102	50898.00
2.9	R2-CS-PS-88-f	50 mm dia nominal bore	Rmt	649	85	55165.00

	R2-CS-PS-59	Providing and fixing trap of self cleansing design with screwed down or hinged with or without vent arm complete, including cost of cutting and making good the walls and floors.				
	R2-CS-PS-59-a	100 mm inlet and 100 mm outlet				
2.1	R2-CS-PS-59-a-1	Centrifugally cast (spun) Iron S&S as per IS: 3989	Each	1499	34	50966.00
2.11	R2-CS-PS-222	75 mm C.I nahani trap with grating with 75 mm C.I. bend with cleaning caps fixed complete.	Each	2649.00	544	1441056.00
2.12	R2-CS-RW-17	Supplying and Fixing 75 mm internal dia. 3.5 mm thk. (weight approx. 6.66 Kg./Rm.) centrifugally cast C. I. pipes Confirming to IS 3989, sockets spigots type pipe for rain water/soil waste and ventilation with all fittings including scffolding, 1 : 1 CM jointing proper embedding and fixing on wall & column etc complete as directed.	Rmt	1367.00	272	371824.00
2.13	R2-CS-RW-18	Supplying and Fixing 100 mm internal dia. 4.0 mm thk. (weight approx. 10.0 Kg/Rm.) centrifugally cast C. I. pipes Confirming to IS 3989, sockets spigots type pipe for rain water with all fittings including scffolding, 1:1 CM jointing proper embedding and fixing on wall & column etc complete as directed.	Rmt	1671.00	136	227256.00
2.0		Total C/F to Summary			(C)	6723751.00
3.0		Sewerage & Storm Water Drainage				
3.1	R2-SE-1-1	Excavation in all types of soils (for sewerage works),such as Earth, Marine clay, Marshy land, Running sand, Garbage, Slush, Murum, Rock boulders etc as directed by the engineer. The rate includes dewatering, backfilling, removing the rank vegetation and removing the excavated materials within a lead of 150M as directed including levelling, ramming,etc complete, and measured from the edge of cutting including all lifts and stacking in layers and removing the surplus excavated materials as directed for lift upto 2M (Records to be maintained properly).The rate also includes supporting public utilities such as cables,drains,pipe water mains, but shall not include the cost of shoring etc as specified and directed.				
		Note:				
		1) The rate includes the handling/supporting the existing utilities such as cables, drains, pipes, water mains etc.				
		2) It also includes the royalty and other taxes if any.	Cum	468.00	100	46800.00
3.2	R2-CS-CW-1	Providing and laying in position plain cement concrete of specified grade cement with trap/ granite/ quartzite/ gneiss metal mixing in concrete mixer including bailing out water, compacting, finishing surface, curing and including the cost of centering and shuttering at all level :				
3.2.1	R2-CS-CW-1-c	Nominal Mix of 1:3:6 (1 Cement OPC: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).	Cum	6236.00	10	62360.00

3.3	R2-SE-5-9	Providing, Laying and Jointing HDPE pipes of PE-80 grade and PN-6 class with butt joints etc.complete as specified and directed.				
3.3.1	R2-SE-5-9-a	160 mm dia (OD)	m	983.00	75	73725.00
3.4	R2-CS-PS-166	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300x300 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 per standard design :				
3.4.1	R2-CS-PS-166-c	180x150 mm size P type				
3.4.1.1	R2-CS-PS-166-c-1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	3026	10	30260.00
3.5	R2-SE-8-1	Constructing brick masonry inspection chamber rectangular 0.9Mx0.45M and 0.6M deep on sewer with 230mm brick walls in cement mortar 1:3 plastered both inside & outside with 20mm thick cement mortar 1:2 and neat cement rendering so as to give a smooth surface including 230mm cement concrete bedding (M15) and cementconcrete (M15) in haunches and channels finished smooth with 20mm thick cement mortar (1:1) and fixing C.I. extra heavy duty airtight rectangular frame & cover of size 0.9Mx0.45M weighing minimum 225Kg. resting on 300mm high c.c.cap M20 with (1:1) cement plaster on both the sides & necessary C.I.steps (weighing5.4kgeach) staggered at 300 mmc/c. including 75mm wide vata all round the external portion of the chamber and the foundation concrete in C.M.1:1etc.complete as per plan in Dy.Ch.E.(SP) P&D's office (without excavation.)	Each	40697.00	14	569758.00
3.7	R2-SE-8-2	Constructing brick masonry inspection chamber rectangular 0.9 Mx0.6M and 0.6 M deep-do-including M20, 30 cm thick cap c.c. Bedding & including C.I. extra heavy duty air tight frame and cover weighing minimum 270 kg complete as per description in item No. SE-8-1 with necessary centering etc. all complete as per plan and directed.	Each	49457.00	3	148371.00
3.8	R2-SE-8-2-a	Extra over above for every additional Mtr depth upto 2.5 M- do--do - etc. complete as specified and directed.	M depth	15442.00	3	46326.00

3.9	R2-SE-6-1	Constructing on sewer brick masonry conical manholes 1.2M dia. at bottom 0.56 M. dia. at top, built in brick masonry in cement mortar 1:3, plastered both in side and outside with 20mm thick cement mortar 1:2 and neat cement rendering so as to give a smooth surface, including 300mm thick M15 cement concrete in foundation and in haunches and channels finished smooth with 20mm thick cement plaster in cement mortar 1:1 and providing C.I. steps (weighing 5.4 kg each) staggered at 300mm. c/c including 75mm wide vata all round the external portion of the manhole and the foundation concrete in cement mortar 1:1 and supporting the incoming pipes with brick masonry wherever necessary including C.I. extra heavy duty (EHD) air-tight circular frame & cover (minimum 230Kg.) with hinge/chain resting on 30cm high cement concrete M20 cap with necessary centering etc. all complete as per standard specifications and directions including finishing the cap with cement plaster on both sides 1:2 and neat cement rendering so as to give a smooth surface in line and level with the brick masonry surface and as per drawing in DyCh.E.(Sewerage) P&D's office without excavation depth upto 1.5 m.				
3.10	R2-SE-6-1-a	Extra for above manhole per Mtr depth above 1.5M and upto 2.3M. Depth -do - do -	M depth	18654.00	3	55962.00
3.11	R2-SWD-142	Constructing single water entrance of internal size 0.50m x 0.60m with cast-in-situ coping in M-20 grade, fixing of grating in M -20 as per standard drawings (Dwg No. MCGM/ SWD/ 2013-14), etc complete as specified and as directed by Engineer in Charge. (excluding excavation, providing and fixing of gratings and frame)	Each	11641.00	9	104769.00
3.12	R2-SWD-73	Providing and laying 250mm dia NP2 Class R.C.C. Hume pipes with Collar joints conforming to IS 458:2003 and laid on approved bedding as per IS 783:1985 (reaff. 2010) including jointing the pipes and filleting with hemp and stiff mix of cement mortar 1:2, including testing of pipes at contractors costs (in presence of municipal staff) as per IS 3597 etc. complete as specified & as directed by Engineer in Charge. (excluding necessary earthwork & bedding).	Mtr.	1008.00	18	18144.00
3.13	R2-SE-8-2	Constructing brick masonry inspection chamber rectangular 0.9 Mx0.6M and 0.6 M deep-do-including M20, 30 cm thick cap c.c. Bedding & including C.I. extra heavy duty air tight frame and cover weighing minimum 270 kg complete as per description in item No. SE-8-1 with necessary centering etc. all complete as per plan and directed.	Each	49457.00	13	642941.00
3.14	R2-SE-8-2-a	Extra over above for every additional Mtr depth upto 2.5 M- do--do - etc. complete as specified and directed.	M depth	15442.00	13	200746.00

3.15	R2-SWD-74	Providing and laying 300mm dia NP2 Class R.C.C. Hume pipes with Collar joints conforming to IS 458:2003 and laid on approved bedding as per IS 783:1985 (reaff. 2010) including jointing the pipes and filleting with hemp and stiff mix of cement mortar 1:2, including testing of pipes at contractors costs (in presence of municipal staff) as per IS 3597 etc. complete as specified & as directed by Engineer in Charge. (excluding necessary earthwork & bedding).	Mtr.	1180.00	110	129800.00
3.0		Total C/F to Summary			(D)	2129962.00
4.0		Water Supply System				
4.1	R2-CS-PS-89	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall :				
		Concealed work, including cutting chases and making good the wall				
4.1.1	R2-CS-PS-89-a	15 mm dia nominal bore	Mtr	359.00	355	127445.00
4.1.2	R2-CS-PS-89-b	20 mm dia nominal bore	Mtr	391.00	170	66470.00
4.2	R2-CS-PS-88	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc.				
		Internal work - Exposed on Wall in Ducts				
4.2.1	R2-CS-PS-88-a	15 mm dia nominal bore	Mtr	231.00	20	4620.00
4.2.2	R2-CS-PS-88-b	20 mm dia nominal bore	Mtr	274.00	200	54800.00
4.2.3	R2-CS-PS-88-c	25 mm dia nominal bore	Mtr	337.00	200	67400.00
4.2.4	R2-CS-PS-88-d	32 mm dia nominal bore	Mtr	412.00	25	10300.00
4.2.5	R2-CS-PS-88-e	40 mm dia nominal bore	Mtr	499.00	40	19960.00
4.2.6	R2-CS-PS-88-f	50 mm dia nominal bore	Mtr	649.00	100	64900.00
3.3	R2-CS-PS-94	Providing and fixing brass stop cock of approved quality :				
3.3.1	R2-CS-PS-94-a	15 mm dia nominal bore	Each	313.00	34	10642.00
3.3.2	R2-CS-PS-94-b	20 mm dia nominal bore	Each	449.00	68	30532.00
3.4	R2-CS-PS-95	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :				
3.4.1	R2-CS-PS-95-a	25 mm dia nominal bore	Each	578.00	10	5780.00
3.4.2	R2-CS-PS-95-b	32 mm dia nominal bore	Each	886.00	1	886.00
3.4.3	R2-CS-PS-95-c	40 mm dia nominal bore	Each	1221.00	1	1221.00
3.4.4	R2-CS-PS-95-d	50 mm dia nominal bore	Each	2021.00	6	12126.00
3.4.5	R2-CS-PS-95-e	65 mm dia nominal bore	Each	3752.00	2	7504.00

3.4.6	R2-CS-PS-95-f	80 mm dia nominal bore	Each	8013.00	6	48078.00
3.5	R2-CS-PS-90	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.				
		External trench work				
3.5.1	R2-CS-PS-90-g	65 mm dia nominal bore	Mtr	590.00	25	14750.00
3.5.2	R2-CS-PS-90-h	80 mm dia nominal bore	Mtr	719.00	25	17975.00
3.6	R2-CS-PS-110	Constructing masonry Chamber 30x30x50 cm inside, in brick work in cement mortar 1:4 (1 cement :4 coarse sand) for stop cock, with C. I.surface box 100x100 x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick, finished with a floating coat of neat cement complete as per standard design :				
3.6.1	R2-CS-PS-110-a	With common burnt clay F.P.S.(non modular) bricks of designation 7.5class	Each	1488.00	1	1488.00
3.7	R2-CS-PS-111	Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :				
3.7.1	R2-CS-PS-111-a	With common burnt clay F.P.S.(non modular) bricks of designation 7.5class	Each	8468.00	1	8468.00
3.8	R2-CS-PS-115	Constructing masonry Chamber 60x45x50 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for water meter complete with C.I. double flap surface box 400x200x200 mm (inside) with locking arrangement and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:4:8 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :				
3.8.1	R2-CS-PS-115-a	With common burnt clay F.P.S.(non modular) bricks of designation 7.5class	Each	7491.00	1	7491.00
3.90	R2-CS-PS-119	Providing and filling sand of grading zone V or coarser grade, allround the G.I. pipes in external work :				

3.9.1	R2-CS-PS-119-f	50 mm dia nominal bore	Mtr	263.00	25	6575.00
3.9.2	R2-CS-PS-119-g	65 mm dia nominal bore	Mtr	415.00	25	10375.00
3.9.3	R2-CS-PS-119-h	80 mm dia nominal bore	Mtr	428.00	75	32100.00
3.10	R2-CS-PS-138	Providing and fixing enclosed type water meter (bulk type) conforming to IS : 2373 and tested by Municipal Board complete with bolts, nuts, rubber insertions etc. (The tail pieces if required will be paid separately) :				
3.10.1	R2-CS-PS-138-a	80 mm dia nominal bore	Each	20876.00	1	20876.00
3.11	R2-CS-PS-139	Providing and fixing C.I. dirt box strainer for bulk type water meter with nuts, bolts, rubber insertions etc. complete conforming to				
3.11.1	R2-CS-PS-139-a	80 mm dia	Each	6830.00	1	6830.00
3.13	R2-CS-PN-18	Providing and applying first single coat of approved primer and two coats of synthetic enamel paint/flat oil paint of an approved make and colour as per manufacturers specifications to the W.I / G.I. or M.S. pipes of electric, gas or roof rain water down takes and fittings etc. as specified below, at all height and locations as directed including scaffolding, scraping, cleaning old paint and preparing surfaces for painting by any approved means etc. complete as directed by Engineer-in-charge.				
3.13.1	R2-CS-PN-18-a	For pipe upto 25mm dia.	Mtr	14.00	420	5880.00
3.13.2	R2-CS-PN-18-b	For pipe upto 50mm dia.	Mtr	17.00	163	2771.00
3.13.3	R2-CS-PN-18-c	For pipe more than 50mm dia. and upto 75mm	Mtr	20.00	73	1460.00
3.13.4	R2-CS-PN-18-d	For pipe more than 75mm dia. and upto 100mm	Mtr	26.00	225	5850.00
3.14	R2-CS-PS-242	Providing & fixing 25mm Pressure Reducing Valve on downtake water supply	Each	4005.00	14	56070.00
3.17	R2-CS-PS-176	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 23 mmx25 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 each 547 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) complete as per design.	Each	547.00	30	16410.00

3.18	R2-CS-PS-178-II	500 mm diameter <i>C.I. cover (medium duty)</i> the weight of the cover to be not less than 58 kg.	Each	2164.00	12	25968.00
Total C/F to Summary					(E)	774001.00
TOTAL OF PLUMBING WORKS						14905087.00
Total Amount for Civil, Structural, plumbing works and RWH works (Rs)						381391487.00
A+B+C+D+E					SAY	Rs. 381391500
Total CSMC charges RAIN WATER HARVESTING for 4 years						Rs. 431568.00

Sr. No. in civil BOQ	Revised USOR Item No.	Description	Unit	Qty	Rates	Revised USOR Amount
Seperate Rain Water Harvesting Works BOQ (ITEMS ALREADY CONSIDERED IN ABOVE CIVIL BOQ)						
		Providing and fixing UV resistant selffit UPVC pipes of approved make for Rainwater downtakes confirming to IS 13592:1992 Type A suitable for 4kg/sqcm pressure for following pipe diameters including rain water receiving recess with pvc plug bend necessary fittings such as offsets shoes, fixing the pipes on wall with clips filling the joints with solvent/cement and necessary scaffolding etc. complete as directed by Engineer In Charge.				
117	R2-CS-RW-16-a	75mm dia	Rmt	123.00	246.00	30258.00
118	R2-CS-RW-16-b	100mm dia	Rmt	123.00	406.00	49938.00
119	R2-CS-RW-16-d	200mm dia	Rmt	62.00	373.00	23126.00
		Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work - Exposed on wall				
120	R2-CS-PS-88-f	50 mm nominal outer dia Pipes	Rmt	123.00	649.00	79827.00
121	R2-CS-RW-15	Providing and fixing box type gutter of width 350 mm and depth 250 mm clear inside, made of 22 gauge G.I.sheets with socket type opening on top to receive ferrules from longitudinal truss gutters and ferrules at end, with all the fixtures and fastenings and three coats of synthetic enamel paint, gutters to be supported on M.S. flat hangers 750 MM C/C which are fixed on top as directed and laid to proper slope, as specified including making necessary connections with rain water pipes etc complete and as directed. (Rate includes cost of hangers, the fixing charges, 3 coats of synthetic enamel paint, and welding if required).	Rmt	80.00	1325.00	106000.00

122	R2-CS-RM-117	Providing and constructing discharge ring well of 1.5m dia and depth upto 6m made of RCC pipe collar including excavation and stacking the soil and disposing as per the instructions of engineer-in-charge, pumping of water, lowering the collars by means of lifting tackles and filling with gravels and boulders from outside of the circumference of the collar so as to allow infiltration of ground water inside the well through the gap between the collars.	Each	2.00	144850.00	289700.00
123	R2-CS-PS-274	Providing & fixing C.I. Manhole covers with frames / rings for R.C.C., underground water storage tanks, sizes of covers. (600mm dia.) NOTE:- should be provided with locking arrangement	Nos	2.00	4131.00	8262.00
124	R2-CS-RM-17	Pumping out water caused by springs, tidal or river seepage, broken water mains or drains and the like.	kilo litre	100.00	186.00	18600.00
125	R2-CS-PS-126	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI : 12701 marked, 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.	per litre	10000.00	4.00	40000.00
126	R2-CS-PS-267	Providing and fixing in any position 160 mm dia PVC ball valve with all required fittings and labours for rainwater downtake pipe for the purpose of first flush	Nos	2.00	13147.00	26294.00
127	R2-CS-PS-271	Providing and fixing online filter of 200 mm dia three layer PPR pipe PN.10(SDR11) class including filter media of graded sand of size 4.75 mm to 12.00mm with synthetic/noncorrosive metallic mesh with necessary bracketing with 160 mm dia pvc ball valve, 2 nos of 100 dia pvc ball valves for backwash with 2 nos of plastic 'O' joint to facilitate separation of filter assembly for maintenance with all necessary fitting such as reducer, tees, fitting necessary fasteners etc. complete directed. Collection Tank (6 x 6 x 4 m) (Included in civil tender)	Nos	2.00	338322.50	676645.00
						1348650.00
		Rain Water Harvesting Works				
		CSMC charges @ 8% of total cost (for 1 yr)			8%	107892.00
		Total CSMC charges for 4 years			4.00	431568.00