

MUNICIPAL CORPORATION OF GREATER MUMBAI			
Proposed MCGM General Hospital and Staff Quarters, Village Chandivali, Sangharsha Nagar, Kurla, Mumbai, 400072			
CIVIL WORK - SECTION SUMMARY (STAFF QUARTERS)			
SR. NO.	SECTION	DESCRIPTION	AMOUNT
1	A	EARTH WORK	1,201,828.00
2	B	RCC WORK	57,594,774.00
3	C	MASONARY WORK	52,607,129.00
4	D	PLASTER WORK	26,742,185.00
5	E	PAINTING WORK	25,561,314.00
6	F	FLOORING WORK	59,679,675.00
7	G	FALSE CEILING WORK	9,558,952.00
8	H	WATERPROOFING WORK	48,970,207.00
9	I	DOORS & WINDOWS	42,647,688.00

10	J	STEEL WORK	6,796,887.00
11	K	STRUCTURAL STEEL WORKS	178,371,948.00
12	L	MISCELLANEOUS	641,630.00
13	Q	PILING WORK	13,051,634.00
14	M	PLUMBING	38,578,098.00
		TOTAL COST FOR RESIDENTIAL CIVIL WORK	562,003,949.00

MUNICIPAL CORPORATION OF GREATER MUMBAI						
Proposed MCGM General Hospital and Staff Quarters,						
RESIDENTIAL BUILDING BILL OF QUANTITY						
SR.NO	ITEM NO.	DESCRIPTION	QTY	UNIT	Rate	AMOUNT
		SECTION - 'A' EARTHWORK				
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 than 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.	1262	Cum	307	387,434.00
2	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.	120	Cum	183	21,960.00
3	R2-CS-EW-12	Filling in plinth, floors, trenches, pits with approved contractor's murum 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. The rate includes necessary soil testing charges at laboratory & field as per relevant I.S. codes, royalty, octroi and other taxes if any. (Note: Borrow areas selected by CONTRACTOR shall be got approved from Engineer In Charge, before executing the work) 1) The rate includes the royalty and other taxes if any.	25	Cum	1244	31,100.00
		ANTI TERMITE TREATMENT				
4	R2-CS-AT-1	Providing Pre-constructional anti-termite treatment conforming to IS- 6313 (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-In-Charge covering 10 years guaranty. (plinth)	1547	Sqm	159	245,973.00

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)	231	Cum	2231	515,361.00
TOTAL FOR EARTHWORK						1,201,828.00
SECTION -'B' RCC WORK						
Plain Cement Concrete RMC						
	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,				
6	R2-CS-CW-2- a-2	M-15 grade plain cement concrete (cement content considered @ 240 kg/cum).	71	Cum	6,764.00	480,244.00
7	R2-CS-CW- 62	Providing & Laying Plum concrete consisting of 80% P.C.C. mix (1:3:6) and 20% Rubble stone of maximum size of 150 mm laid in layers with ramming consolidating,watering including dewatering cost,seigniorage & conveyance of all materials,labour charges,machine mixing,finishing the surface etc. complete.	25	Cum	5,901.00	147,525.00
RCC RMC Concrete						
8	R2-CS-CW-24	Providing and laying C.C. floor of mix M-20 with ready mixed concrete from RMC. The ready mixed concrete shall be laid and vibrated with a poker vibrator and finished with screed board vibrator , vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-in-charge. The channel shuttering spaced 4m apart shall be included in this item.)	10	Cum	7132	71,320.00
9	R2-CS-CW-7- a	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 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 recovered on account of variation of cement in mix design as per specifications for All works (including Centering & Shuttering) Foundations, footings, bases of columns, rafts, pilecap	315	Cum	7,515.00	2,367,225.00
10	R2-CS-CW-7- b	Walls (any thickness) including attached butteresses, ,retaining wall, shear wall, diaphragm wall , trench,pit walls, etc	40	Cum	10,518.00	420,720.00
11	R2-CS-CW-7- c	Slabs, Suspended floors, roofs, landings, balconies, canopy and access platform	1417	Cum	11,790.00	16,706,430.00
12	R2-CS-CW-7- d	Lintels, beams, plinth beams, girders,floor beam, coping.	670	Cum	9,556.00	6,402,520.00

13	R2-CS-CW-7- e	Columns, Pillars, Piers, Posts and Stru	440	Cum	11,184.00	4,920,960.00
14	R2-CS-CW-7- f	Stairs (waist slab), folded slab, inclined slab	10	Cum	11,059.00	110,590.00
15	R2-CS-CW-7- i	cantilever beam, etc., including edges.	212	Cum	12,329.00	2,613,748.00
16	R2-CS-CW- 18	Extra and over for providing richer RMC of M-35 grade cement concrete instead of M20 (Note :- Cement content considered in this item is @ 350 kg/cum as per IS 456 table showing minimum	2916	Cum	798.00	2,326,968.00
17	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.)	179	Cum	1,064.00	190,456.00
18	R2-CS-CW- 35-e	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,Corrosion Resistant Steel (500 CRS D)	253.00	TO	82,356.00	20,836,068.00
TOTAL OF SECTION 'B'						57,594,774.00
SECTION - 'C' BRICK MASONRY						
19	R2-CS-MW- 33	Providing and laying autoclaved aerated (cellular) cement blocks masonry with more than 100 mm thick AAC blocks in cement mortar 1:4 (1 cement : 4 coarse sand)including RCC stiffeners.The rate includes providing and placing in position 2 Nos 6 mm dia M.S. bars at every third course of masonry work, racking of joints,scaffolding and curing,etc. completed as directed by Engineer-in-Charge.	7,243	Cum	6,911.00	50,056,373.00
20	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.	6,474	Cum	394.00	2,550,756.00
TOTAL FOR MASONARY WORK						52,607,129.00
SECTION - 'D' PLASTERING						
21	R2-CS-PL-05	Providing and applying 12 mm thick internal plaster in cement mortar 1:3 with neeru finish at all heights and locations in one coat for masonry (except stone masonry) and concrete surfaces including racking out joints, hacking of concrete surface, watering, finishing, curing, scaffolding etc. complete.	42,300	Sqm	361	15,270,300.00
22	R2-CS-PL-21	Providing and applying 25 mm thick external plaster with sea gravel finish upto 10m from ground level and at all locations in cement mortar 1:3 in two coats for masonry (except stone masonry) and concrete surfaces as directed including, providing water proofing 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. Min. time lag between two coats shall be 24 hours.(as per IS 2402 of 1963.)	8,176	Sqm	380	3,106,880.00
23	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.	56,540	Sqm	55	3,109,700.00

24	R2-CS-PL-08- c	Providing and applying 20 mm thick internal sand faced cement plaster 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. In cement mortar 1:4	1,297	Sqm	437	566,789.00
25	R2-CS-PL-43	Providing and applying Plaster of Paris punning to walls, beams, ceilings, columns in perfect line and level over the base of single coat cement plaster including roughening of existing surface making 6 mm groove at skirting and door, window jamb, sill, lintel, etc. complete. The rate is exclusive of base coat cement plaster.	1,297	Sqm	298	386,506.00
26	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.	15,910.00	Sqm	248	3,945,680.00
27	R2-CS-PL-30	Extra for 12 to 20mm wide and 6 to 12mm in depth forming groove in 20 to 25 mm thick plaster including scaffolding, finishing, curing etc complete as directed By Engineer In Charge.	6852.50	Rmt	52	356,330.00
TOTAL PLASTER WORK						26,742,185.00
Note : Rates of all the items in painting are inclusive of staging or scaffolding wherever necessary for any height.						
SECTION - 'E' PAINTING WORKS						
28	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.	5,661	Sqm	46.00	260,427.00
29	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.	6,100	Sqm	98.00	597,800.00
30	R2-CS-PN-5	Providing and applying first single coat of approved primer and two coats of acrylic plastic emulsion paint 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 by any approved means etc. complete as directed by Engineer-in-charge.	36,594	Sqm	126.00	4,610,854.00
31	R2-CS-PL-44	Providing & applying synthetic plaster " Renova " in metallic finish in 4 coats , base coat to be applied using trowel and the remaining three coats to be applied by brush as per manufacturer specifications on backing coat of 16mm cement plaster (16 mm cement plaster will be paid under separate item) including cost & conveyance of all materials, labour charges, preparing the surface, scaffolding etc. complete all as directed by Engineer - in - Charge.	9,403	Sqm	2099	19,735,903.00
32	R2-CS-PL-30	Extra for 12 to 20mm wide and 6 to 12mm in depth forming groove in 20 to 25 mm thick plaster including scaffolding, finishing, curing etc complete as directed By Engineer In Charge.	6852.50	Rmt	52	356,330.00
TOTAL SECTION OF 'E'						25,561,314.00
SECTION - 'F' FLOORING						

		NOTE:- The bedding mortar thickness varies from 20 mm to 35 mm. Contractor should make note & quote their rates/percentage accordingly. Nothing extra shall be paid on this account.				
	R2-CS-FL-01	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.				
33	R2-CS-FL-01- c	25 to 30 mm thk. Kota stone of size 0.430 m x 0.56 m (17"x22")	1,168.59	Sqm	1179	1,377,765.00
		NOTE:- In the above item joint filling should be carried out with colour pigment cement to match the colour of flooring.				
34	R2-CS-FL-78	Providing and laying 20-25mm average thick granite stone laid with knife edge joints over c.m. bedding of 1:6, for flooring / skirting / dado , with cement float and grout of same colour of the stone. The granite flooring shall be mirror polished. Basic rate to be considered @ Rs.2000/- per sq.m. for cut size.	1,689.60	Sqm	4,259.00	7,196,007.00
35	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.	1,689.60	Sqm	61.00	103,066.00
	R2-CS-FL-21	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 porportion 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,				
36	R2-CS-FL-21- d	15 to 20mm thk. Kota stone for height upto 150 mm	775.00	MTR	234.00	181,350.00
37	R2-CS-FL-9- c	Light coloured antiskid / matt vitrified tiles	6,282.10	Sqm	1,762.00	11,069,061.00
38	R2-CS-FL-81	Providing & fixing skirting of Vitrified mirror finish size of 100x10mm thick (Nitco,Euro,Bell)of approved make & shade and pattern forflooring in required position laid on CM: 1:4 including neat cement slurry,filling joints with colour pigments of matching shade, curingand cleaning etc.complete.	5,651.51	MTR	265.00	1,497,651.00
39	R2-CS-FL-82	Providing & fixing Vitrified tile dado for toilet of size 600x300x10mm thick (Nitco,Euro,Bell) of approved make & shade in required position including backing coat plaster in CM:1:4 including neat cement paste curing,filling the joints with white cement & colour pigmentto match the shade of cladding and cleaning etc.complete. (Basic rate of Vitrifide tile Rs.800/-per Sq.M)	5,807.13	Sqm	1,991.00	11,561,996.00
	R2-CS-FL-13	Providing and laying Indian patent stone flooring 40 mm thick with M-15 grade concrete using 6 mm to 20 mm metal over bedding laid in proper grade and slope or over the slab, including compaction, marking lines, to give appearance of tiles as per the approved pattern, finishing smooth with cement slurry as mentioned below, curing etc. complete.				
40	R2-CS-FL-13- a	In plain natural/ grey colours.	504.9	Sqm	437.00	220,642.00
	R2-CS-FL-07	Providing and laying 8mm 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.				

41	R2-CS-FL-07-c	Light coloured antiskid / matt ceramic	829.40	Sqm	1,701.00	1,410,810.00
	R2-CS-FL-32	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.				
42	R2-CS-FL-32-a	Light coloured glazed ceramic tiles	4,126.50	Sqm	1,770.00	7,303,905.00
43	R2-CS-FL-46-c	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 champhered/ 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 Ruby red / jet black / Hasan green Granite slab at top and facia.	1164	MTR	3949	4,596,636.00
44	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.)	8,277.22	MTR	1590	13,160,786.00

		TOTAL FOR SECTION G				59,679,675.00
		SECTION -FALSE CEILING WORKS				
45	R2-CS-PL-45	P&F in position Gypsum board false ceiling with 12.5mm th. Gypsum boards, screwed/ fixed to the under struct of suspended G.I. Grid const & suspended from the main ceiling of ceiling sectn at max c to c distance of 450 mm perimeter channel and intermediate channels at max c to c distance 1200 mm galvanised grid should be fixed to RF CC slab.The gypsum board should be fixed to galvanised iron grid with necessary screws.The boards should be taped and filled from underside to give smooth, seamless ceiling.The rate should include necessary additional ceiling sections and intermediate channels to be provided at openings for light fixtures, asbestos cement ducts, vertical drops, offsets etc. Additional intermediate channels should be fixed to strap hangers for additional support to prevent strapping at every 1200 mm item to be comp in all respect.(G.I. perimeter channel size- 27mmx0.5mm &30mm,intermediate channel. size- thk.,flange-20mm	9062	Sqm	839.00	7,603,018.00
46	R2-CS-WW-21-a	With Armstrong Orcal Lay in metal ceiling System consisting of 600x600mm Lay in tiles of pre coated galvanised steel in 0.5/0.4 mm thickness in white colour with standard perforation of 2.5mm dia & open area of 16%. The back of the tile should have black acoustical fleece with NRC of 0.70 & CAC 36 with life time warrantee against sag in module size 595 mm X 595 mm at required height above FFL.	1032.7	Sqm	1894.00	1,955,934.00
		TOTAL FALSE CEILING				9,558,952.00
		SECTION - 'H' WATERPROOFING				
47	Fair Item	Surface preparation for waterproofing work				
			402	Sqm	137	55,074.00
48	Fair Item	working:-i) Making the grooves of size 15 mm x 15 mm along the line of construction joints. ii) Drilling holes in concrete upto 75 mm depth at regular intervals of approx. 1.0 Mtr. c/c Cleaning the surface of construction joints with clean water. iii) Providing and fixing PVC grouting socket of 20mm dia and sealing the periphery of sockets by providing and laying waterproof mortar in ratio of 1:4 admixed with Waterproofing Compound @ 150 ml per bag of cement . And filling the grooves by providing and laying polymer mortar properly, curing etc. complete. iv) Carrying out grouting with cement slurry grout admixed with expandable grout additives Non shrink W/P compound @ 125 ml per cement bag of 50 kg additives to full saturation of grout etc. Complete.	77	No	445	34,265.00
49	Fair Item	UG /STP, Lift pit & OH Tanks internal waterproofing				
		Providing and applying Vandex BB 75 / Ecorender Plus or approved equivalent waterproofing system in two coats @ 3 kg / sqm by trowelling method by Design Engineer. The 1st coat shall be applied to the prepared surface. Whilst the 1st coat is still "green" a second coat comprising of slurry coatings shall be applied with a stiff masonry brush or stiff broom and worked into every irregularity on the surface shall be done by means of trowelling or by spray only. Treatment to shall be carried out by trowel application using a steel trowel into hardened concrete slab surface including curing, cleaning etc complete as per manufacturers specifications.	402	Sqm	2022	812,844.00
50	Fair Item	UG /STP/lift pit & OH Tanks internal waterproofing				

<p>Sealing/Packing joints in Outlets Pipes: (Considered upto 150mm dia) - Sealing / packing all joints of outlet pipes, etc. with a non-shrink cementitious grout or microconcrete and topping it with waterproofing membrane including providing necessary formwork for packing the bore & applying a bonding coat to enhance adhesion between the packing material and other surfaces.</p>	29	NOS.	960	27,840.00
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51	Fair Item	<p>Ramp Waterproofing</p>				
		<p>Providing & applying High Performance, Odourless , moisture tolerant car parking flooring system based on Xoludex™ technology consisting of Scratch coat and Body coat of minimum 1.5-2 mm thickness to have a Texture & even matt finish. Application shall be done by an authorised applicator of the manufacturer in accordance to the application guidelines provided by the manufacturer. Surface Preparation: Remove cement laitance and weak concrete by grinding followed by vacuum cleaning. The bond strength of the substrate must be at least 1.5 Mpa. The compressive strength of the floor concrete must be atleast 25 Mpa. The moisture content of the substrate should not be more than 5-7%. Anti Skid Car Park coating using XoluTech Technology: First Layer :- Odorless high performance & durable self-smoothing flooring system MasterTop BC 920 of Master Builders / Flowcoat HTS of Flowcrete / ACT Color of Cemcrete based on Xoludex technology shall be applied at a consumption rate of 0.80 kg/sqm consisting of One pack of resin(PTA) + One pack of Hardener (PTB), Two pack of Filler (PTC) and One pack of colour pigment (PTD) as a primer/scratch coat to seal the pores in the substrate. Second Layer :- The cured scratch coat is followed by another coat of mix consisting of One pack of Each (PTA+PTB+PTC+PTD) at a consumption of 0.80 kg/sqm. The product must have the following properties. > Scratch Resistance > Compressive Strength (EN ISO 604) - 45 Mpa @7 Days > Tensile Strength (ISO 527) - 12 Mpa @7 Days > Flexural Strength (EN ISO 178) - 15 Mpa @7 Days > Abrasion Resistance (EN ISO 7784, C17 Wheels) - 65mg loss in mass > Impact Resistance - 30 Joules This coat is immediately followed with special sand broadcasted in the entire area at a consumption of 0.8-1.0 kg/sqm. Third Layer :- Excess sand is removed and Top coat shall again be applied at a consumption rate of 0.4 kg/sqm (excluding the filler component Part C) over the cured sand sprinkled surface.</p>	50	Sqm	5,277	263,850.00

52	Fair Item	Toilet,kitchen,Service and Refuge Area and Pantry waterproofing (Sunken)				
		Flooring & WALLS				
		All surface area should cleaned up to visible of hair cracks / aggregate texture. Cleaning of RCC member should be done by hacking tool, wire brush, wire grinder & air blower etc. Open cracks & construction joints should be sealed with cement mortar with additive Conplast WL / Cebex 100 / repair mortar or equivalent as per manufacturers specification etc complete. All clean & treated area should tested for water tighness by flooding water. All wet spots & water leakage area should mark for treatment. Providing and applying primer in one coat at coverage of 6-7 Sqm per Ltr using brush or long nap roller prior to application. Allow the surface to dry completely. Providing and applying single / two component WPM 002 / Blueguard / Revestidan @2.2 kgs / sqm in two coats by Design Engineer, advanced acrylic cementitious modified, fast drying, tough, uniquely formulated with synthetic micro fibers to increase its strength, applying first coat of WPM 002 / Blueguard / Revestidan, sandwiching Deck Web / Chopstrand mat on wet first coat at internal and external corners, allowing it to dry completely, after 4 Hrs time gap, applying second coat of WPM 002 / Blueguard / Revestidan in perpendicular direction to the applied first coat and allowing it to dry completely, etc and complete as per manufacturer's specification. [The membrane shall confirm to:-Elongation at Break : > 150 %; Tensile Strength : > 1 MPa; Water Absorption : 4.3%; Shore A hardness - > 80]	5695	Sqm	1,680	9,567,600.00
53	Fair Item	Providing & laying of avg. 10-12mm thick, CM 1:4 protective screed admixed with Conplast WL or equivalent Integral waterproofing compound of approved make as per manufacturers specification.	4001	Sqm	617	2,468,617.00
54	Fair Item	Toilet, KITCHEN, and Pantry waterproofing (Sunken) & Terrace / LMR / Staircase & OHT Top Waterproofing over Structural Steel & Service and Refuge Area Waterproofing				
		Supply and installing of coving bandage strip (sealing tape) at junction of horizontal & vertical surface.	1505	MTR	480	722,400.00
55	Fair Item	Toilet,and Pantry waterproofing (Sunken)				
		Sunken Portion:- Providing and laying brick bat waterproofing treatment to deck slab of 400mm sunk. The slab shall be laid over with well burnt brick bats coba laid & joints filled in with cement mortar 1:4 in true lines & levels gradient with minimum 50mm at outlet / nahani trap (for easy flow of water/rain water). Finally the top surface of brick bat coba shall be laid over and joints finished with 20mm waterproofing layer with CM 1:4 and admixture finished rough to receive further finishes. The treated surface after 12 to 15 hrs. shall be kept ponded for continuous period of 10 days to detect any seepage/ leakage/ dampness if any, the surface then shall be cleaned.	122	CUM	13,020	1,588,440.00
		Treatment for Core Cutout Area (Upto 150mm dia) IN KITCHEN & Toilet area				
56	Fair Item	Grouting & Sealing around the periphery joints of pipes passing through on the floor & walls by filling B30 / Powergrout microconcrete in the gap between the cut cuts in the slab & the pipe surface.	2196	KG.	137	300,852.00
57	Fair Item	Collar Treatment providing and fixing drain collar of required size around the pipe sandwiched with waterproofing membrane.	1098	NOS.	480	527,040.00
58	Fair Item	Threshold For Toilets Providing and making barrier bund in micro concrete at door sill outside wet areas. (100MM X 25 MM)	328	MTR.	788	258,464.00
59	Fair Item	Providing & laying of avg. 25mm thick, CM 1:4 protective screed admixed with Conplast WL or equivalent Integral waterproofing compound of approved make as per manufacturers specification.	185	SQM	754	139,490.00

60	Fair Item	Service and Refuge Area Waterproofing				
		<p>Providing and filling brick / block bat coba waterproofing treatment to specified areas viz terrace, canopies, chajjas, exposed slabs etc. The slab shall be laid over with brick / block bats coba laid & joints filled in with cement mortar 1:5 in true lines & levels gradient with avg thickness of 110mm and required slope at rain over let (for easy flow of water/rain water) Finally the top surface of brick / block bat coba shall be laid over and joints finished with waterproofing layer with CM 1:4 and admixture finished smooth with cement slurry. The treated surface after 12 to 15 hrs. thereafter shall be kept ponded for continuous period of 7 days to detect any seepage/ leakage/ dampness if any, the surface then shall be cleaned to withstand weather and domestic use.</p> <p>(Max avg. 110mm thick and above 110mm shall be charged extra.)</p>	1694	Sqm	1,576	2,669,744.00

61	Fair Item	Terrace / LMR / Staircase & OHT Top Waterproofing over Structural Steel				
		Surface Preparations: First Part Cleaning of Deck slab to ensure there is no sharp objects or protrusions over the membrane. To be handed over after removing all scaffolding and other material at site , removing of muck etc.	1135	SQM	206	233,810.00
62	Fair Item	Providing and applying " Blueshield PMB / Masterseal M 860 / Bluesil 580 " two component hybrid polyurea polyurethane waterproofing liquid membrane over uniform surface of slab to achieve the required minimum DFT of 2.5 mm and minimum consumption of 4 kg/sqm. It shall have following minimum properties: a) Shore A hardness - 60 b) Tensile Strength - > 8 Mpa c) Elongation - > 500% d) Chemical Resistance - Excellent shall be applied as per manufacturer specification.	1135	SQM	5,208	5,911,080.00
63	Fair Item	Providing & laying of protective Geotextile fabric 120GSM over the entire membrane with proper overlaps.	1828	SQM.	171	312,588.00
64	Fair Item	Supply and laying of modified polyolefin TPO synthetic membrane of 1.2mm obtained by coextrusion reinforced by a polyester mesh. Membrane to have top white colour and a high solar reflection index (SRI) of 99. Furthermore the membrane to have a very high resistance to weather agents and UV rays. TPO membrane shall be asbestos free, and should exceed /meet specifications of EN 13956:2012. Flagon TPO Roof Membrane is a modified polyolefin membrane that accepts roof movement and thermal shock. It should be mechanically fixed to the substrate by independent plates and screws. It is necessary to fix around the perimeter with a pre-drilled flagon bar. The bar can be mechanically fixed on the horizontal or vertical surface at the base of the upstand on the perimeter of the roof. Flagon TPO Roof Membrane should be lapped and seamed using hot air heat welding equipment. Control tests of the welds with Welding tester, and test of triple points with vacuum cap. TPO membrane shall be asbestos free, and should have CE marking. Flagon Energy Plus EP/PR TPO membrane shall have following minimum properties , (i) Thickness : 1.2 mm as per EN 1849-2, (ii) Tensile Strength > 1100 N/5 cm as per EN 12311-2 (iii) Elongation of > 15 % as per en 12311-2 (iv) Tear Strength ≥ 300 N/mm as per EN 12310-2, and Cold bending of minimum ≤ -40 deg as per EN 495-5 (v) Fire classification – Class E as per En 13501-1 & EN ISO 11925-2, (vi) Static Puncture Resistance - ≥ 20 kg as per EN 12730. Approved makes - Flagon EP/PR / BMI Everguard TPO / Sikaplan TPO	1135	SQM	2,741	3,111,035.00
65	Fair Item	Termination of TPO Membrane: Waterproofing shall be taken minimum 300mm above FFL. Fully adhered to walls with adhesive approved by manufacturer and Terminated with aluminium strip & sealed with PU adhesive.	441	MTR	1,508	665,028.00

66	R2-CS-WP-24	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 flooring (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). Do with broken China mosaic flooring instead of IPS set in cement mortar (1:4) 40 mm thick.	635	SQM	1,187	753,745.00
67	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.	64	SQM.	8,575	544,513.00
68	FAIR ITEM	100% Slab Area All surface area should cleaned up to visible of hair cracks / aggregate texture. Cleaning of RCC member should be done by hacking tool, wire brush, wire grinder & air blower etc. Open minor cracks & construction joints should be sealed with cement mortar with additive. All clean & treated area should tested for water tightness by flooding water. All wet spots & water leakage area should mark for treatment.				
		Providing and applying proprietary 100% water based elastomeric Polyisoprene membrane waterproofing with minimum elongation 400% UV Resistance with one coat of primer in dilution followed by three coats of polyisoprene Membrane Blue Deck / Formak 629 waterproofing membrane (1.8 Kgs/Sqm) sandwiched with one layer of fibremesh or equivalent waterproofing system. Membrane should have following minimum properties: i) Solid % Vol: 68.03% (ASTM G 53) ii) Tensile Strength: 2.5N/mm ² (ASTM D412 - 2006a) iii) Elongation : 400% (ASTM D412 - 2006a) iv) Shore A Hardness - 53 (ASTM D2240-05) v) UV Resistance - Excellent (ASTM C-822) shall be applied as per manufacture specification.	9051	Sqm	1234	11,168,934.00
		Providing & laying of avg. 25mm thick, CM 1:4 protective screed admixed with Conplast WL or equivalent Integral waterproofing compound of approved make as per manufacturers specification.	9051	Sqm	754	6,824,454.00
		Epoxy Grout				
69	R2-CS-RM-107	Injecting approved low viscous epoxy grout into concrete slab, stone masonry cracks, columns etc. by suitable gun/ pump (using Araldite GY-257 & Aradur -21 in 1:0.21 prop.) at required pressures by providing necessary scaffolding, drilling and inserting 12mm dia. Brass grouting multiperforated nipples upto 30mm to 40mm depth, using M Seal, Quartz sand around the nipple, cutting of nipples after curing, cleaning etc. complete. (This item shall be paid on actual consumption of epoxy used in Kgs.) Epoxy injection grout in between baseplate & pedestal / concrete/RCC work of approved make	50	kg	170	8,500.00
TOTAL FOR SECTION H					TOTAL	48,970,207.00
SECTION - 'I' DOORS & WINDOWS						

70	R2-CS-WW- 32	Providing & fixing in position 35 mm thick 1st quality water proof Single Leaf Flush Door for w.c. with 1.5mm thick laminate on both sides with 12x35 mm lipping patti on all egdes. Rate is inclusive of s.s.fixtures & fittings, such as handles on both sides, tower bolts, locking arrangement,, door stopper of make (ozone,Hettich,Hafle) 450 x 150mm aluminum ventilation grill powder coated, as per architect's detailed drg.and design complete.Door D6, D10 & D11	717.49	Sqm	10,533.00	7,557,336.00
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71	R2-CS-WW- 33	Providing and fixing in position, Double leaf flush door of required size including providing & fixing T.W. frame 60mm x 150mm., 45mm thick solid code hard wood block board shutters with 25mm x 45mm lipping patti, allround the shutter & finished with 1mm thick approved textured laminates on either sides, finishing all exposed surfaces of wood with approved shade french polish, treating all the surfaces of wood in contact with masonry with tar paint (Black Japan), chrominum plated brass fittings & fastenings, S.S.	304.92	Sqm	14,117.00	4,304,556.00
72	R2-CS-WW- 39	Frame Type F2 Providing and fixing 1st quality Burma T.W. door frame of size 75 x 150mm with required groove and chamfer including M.S.hold-fast of size and make. Door Type D5-ED as per architect's detailed drg. And design and as instructed by the Engineer-in-charge. D6,D10,D11 & GL-D9	954.80	MTR	4,711.00	4,498,063.00
73	R2-CS-WW-37	Fire rated Single leaf Door - Laminate Finish: Providing & Fixing of Wooden Fire door without Panic Bar of approved make and of required size, 120 minutes fire rating, integrity and insulation in accordance with the criteria of BS 476 ; Part 22 : 1987 and report 212 (1)/FR/2003; Insulation on door leaf only. Tested at Fire Research Laboratory, Central Building Research Institute, Roorkee with standard heating conditions as specified in IS : 3809-1979 and BS : 476 part 20 & 22, 1987 to achieve the required integrity & insulation (i.e. to restrict the heat radiation, temperature rise on the non fire side to the maximum of 140 degree Centigrade above the ambient(Imported) to take care of Hot and cold smoke of size 10mm x 2mm x 2Nos. Concealed in the grove of the frame and 55mm thick single leaf shutter made out of perimeter railing of Red Mirranti wood of size 100mm x 29mm and promina 60.9mm thick Calcium Silicate Board Fire Retardant compound on each side coated with Intumescent sealant and faced with 4mm thick marine ply with Fire and smoke Intumescent Seal of size 20mm x 2mm x 1 No., mounted in the grooves in the shutter on all sides except bottom with 10mm thick Hardwood beading on all side. The Fire Doors with frame will be as per IS: 3614 part 2 and BS: 476 part 20 at FRL CBRI Roorkee with standard heating conditions as specified in IS: 3809 - 1979 and BS: 476 part 20 & 22 1987. The door shall be finished with 1 mm thick fire retardent laminate on both side etc. all	1,043.13	Sqm	15,556.00	16,226,931.00
74	R2-CS-AW- 03	Providing and fixing in position four track aluminum window of extruded modular and anodized aluminum sections of approved make and of size 122.2 mm x 45.5 mm x 1.3 mm thk (wt 1.829 kg/Rm) for bottom and 122.2 mm x 31.75 mm x 1.2 mm thk. (wt 1.093 kg/Rm) for top and sides mounted on anodized aluminum rectangular frame of size 127mm x 25.4mm x 1.3mm(1.052 kg/m) The shutter comprising of bearing bottom and top of size 40mm x 18 mm x 1.25 mm thk (wt. 0.417 Kg/Rm) Interlocking section of size 40mm x 26.7 mm x 1.10 mm thk. (Wt. 0469 kg./Rm) and hand sides of 40mm x 18mm x 1.25 mm thk (wt. 0.417kg/Rm) with 5 mm thick plain / frosted / tinted glass fixed in shutter including approved quality neoprene gasket, fixtures, fastenings and accessories like PVC	1,298.81	Sqm	5,258.00	6,829,133.00

75	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.)	1,298.81	Sqm	1,453.00	1,887,169.00
76	R2-CS-PV-12	Design, fabrication & Installation of FRP LOUVERS with 30 mm clear space including aluminium EURO support system for accommodating FRP louvers consist of aluminium angle brackets of 50 x 50 x 5 mm with EPDM gaskets & anchor fastners (HILTY make) etc. Louvers as design including 60 mm x 30 mm section UPVC FINS & . as per Architect/Engineer incharge.	500.00	Sqm	2689.00	1,344,500.00
TOTAL FOR I SECTION						42,647,688.00
SECTION - 'K' STEEL WORK						
	R2-CS-SL- 12	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.				
77	R2-CS-SL- 12-c	Grill weighing 20 to 25 kg / sqm	1298.80	Sqm	2,828.00	3,673,007.00
78	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,grindi the welded portion smooth,buffering, protecting the railing members by means of wrappers during construction etc. complete as directed.	850.00	MTR	3,394.00	2,884,900.00
79	R2-CS-SL-13	Providing and Fixing Decorative / Ornamental grills as per design for compound wall / Fencing 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.	1298.80	Kg	184	238,980.00
TOTAL FOR K SECTION						6,796,887.00

	R2-CS-SS	L -STRUCTURAL STEEL WORKS				
80	R2-CS-SS-02	Providing, detailing, fabricating and fixing built up sections at desired location using 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), 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 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.	111	TO	80216	8,903,976.00
81	FAIR ITEM	Same as item No. 1 above using built up sections of Structural steel of grade 350	626.00	TO	177000	110,802,000.00
82	R2-CS-SS-05	Providing and Fixing of Foundation Bolts and nuts in RCC column / pedestal / beam at any level including maintaining the accuracy towards line, level & position including making and using the template etc. complete as directed by Engineer In Charge. (Contractor will take due care for its threads and rusting by applying grease and cotton waste.	0.58	TO	271126	157,254.00
83	R2-CS-SS-08	Providing, detailing, fabricating and fixing at desired location using M.S. chequered Plates of any thickness and of grade Fe 250 as per specifications and approved fabrication drawings (which are to be prepared by Contractor and got approved from Engineer), including transportation of the same to site, erection at all heights and levels, provision of necessary erection bolts, fixing bolts, nuts, washers, cleats, stiffeners, and all necessary 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.	23.79	TO	83713	1,991,709.00
84	R2-CS-SS-30-d	Providing and fixing structural Profile decking sheet as per particular specification, with GI sheet, zinc coating not less than 275 GSM as per IS 277 and of yield strength 500 Mpa of approved make with specified Base Metal Thickness. The profile shall be structural decking profile having ribs & pitch as per the drawing referred with the embossments (shear groove) on top and side of the ribs for better composite action. The decking sheet shall be fabricated to required form as per the slab design and fixed with Galvanised Iron fasteners, self drilling screws, shear studs as per IS 1367, connectors etc. complete as per design, drawing and direction of Engineer-in-Charge. (Refer typical drwg). The sheet shall be filled with 75mm thick M25 grade concrete reinforced with 8mm dia. HYSD bars placed 150mm C/C both ways. Plan area of the sheeting shall be measured and paid. Structural steel frame work shall be paid separately. With Base Metal Thickness (BMT) (excluding Zinc coat thickness) 1.00 mm thick Profile decking sheet.	12888.33	Sqm	1720	22,167,876.00

85	FAIR ITEM	<p>Fire Protection using Cement based Spray Vermiculite for beam</p> <p>Supplying & installing of non-corrosive, Spray Applied Cementitious Fireproofing Vermiculite consisting of factory controlled premixed cement with minimum dry density of 350 kg/cum. Spray shall be done in one or more coats of approved make for two hour fire protection rating on structural steel members/sections of different shapes and sizes at all locations. The coating should be asbestos free & non-gypsum based (gypsum based fire proofing material not acceptable). The thickness of fireproofing to be dependent on Hp/A or W/D or A/P as case may be & as calculated by manufacturer & approved by Engineer Incharge. Minimum thickness of fire protection coating to be applied on structural steel of different shape and sizes shall be 17 mm and above irrespective of as calculated by manufacturer to achieve two hour fire protection and to withstand thermal shocks upto 550 Degree Centigrade .Structural steel surface members shall be manually cleaned by wire brush to ensure all it is free of oil, grease, loose mill scale, dirt, dust or other materials that would imp to the surface before the application of the fire protection coating. The fire protection coating of specified thickness shall be achieved by applying the material to structural steel surface by spraying method after mixing the material in recommended quantity of water to achieve the targeted density. The material shall confirm to fire protection requirements of either UL 263 or ASTM E119 or EN. The contractor shall furnish test report from International Test Laboratory of material before execution of work. Item includes cost of all tools, tackles, machineries; scaffolding, proper storage of material etc. required to complete activity & nothing shall be paid extra. Actual surface area of structural steel members shall only be measured for payment. Contractor shall furnish certificate for material & workmanship and fire protection rating for two hours. Approved makes: Bovia 279 Soprema, M II of Isolatek Newkem, Monokote Z146 of Grace, P400 of Promat or equivalent. Minimum performance characteristics of materials shall be as under Physical Properties Requirement Dry Density - 350 Kg/m³ (minimum) ASTM E605 Bond Strength - >400 K Pa (minimum) ASTM E736 Air Erosion - 0.02 g/m² (max ASTM E859 Compressive Strength - >1750 KPa (minimum) ASTM E761</p>	14741.00	Sqm	1713	25,251,333.00
86	FAIR ITEM	<p>Fire Protection using Intumescent Paint.</p> <p>Providing & applying Fire Proof Intumescent Paint System having Low VOC to structural steel work at all heights & levels including double scaffolding at all heights and applied in accordance to Manufacturer's Specifications & as directed by Engineer-In-Charge. 1) Surface Tolerant Epoxy Primer Anti-corrosive Primer typically a two component high build surface tolerant / self priming epoxy primer to 100 microns DFT and not exceeding 125 microns having minimum solid content of 70% 2) Water based Intumescent having 70% minimum Volume Solids and Thickness to achieve a 2 Hour Fire Rating in accordance with BS 476 Part 20/21/UL 263. The product packaging must bear a UL/Certifire marking & label (Product Name : Nullfire SA 801 / CAFCO WB3) For Column</p>	1475.00	Sqm	6168	9,097,800.00
		TOTAL FOR STRUCTURAL WORKS				178,371,948.00

SECTION - 'N' MISCELLANEOUS ITEMS							
87	R2-CS-RM- 129	Making holes in 110 mm to 150 mm brick/concrete/rubble walls for drainage pipes, fittings, etc. and making good the same in cement mortar 1:3 or cement concrete 1:2:4 & finishing on both sides with cement plaster and 3 coats of white or colour wash as directed.	100	Sqm	163.00		16,300.00
88	R2-CS-DD-1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.	25	Cum	1314		32,850.00
89	R2-CS-DD-3	Demolishing brick work in lime or cement mortar including plaster, paint, etc. 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.	25	Cum	484		12,100.00
Epoxy Grout							
90	R2-CS-RM-107	Injecting approved low viscous epoxy grout into concrete slab, stone masonry cracks, columns etc. by suitable gun/ pump (using Araldite GY-257 & Aradur -21 in 1:0.21 prop.) at required pressures by providing necessary scaffolding, drilling and inserting 12mm dia.Brass grouting multiperforated nipples upto 30mm to 40mm depth, using M Seal,Quartz sand around the nipple, cutting of nipples after curing, cleaning etc. complete. (This item shall be paid on actual consumption of epoxy used in Kgs.)Epoxy injection grout in between baseplate & pedestal / concrete/RCC work of approved make	50	Kg	170		8,500.00
91	FA-18-BCCT-24	Name Boards & Signages : Providing & fixing Aluminium profile basedName boards as per required sizes with 3mm foam base & vynil letters, as per sample approved by Architects etc. all complete and asper fire exit norms & as per the design & instructions of Architect.	100	Sqm	2278		227,800.00
92	FA-18-BCCT-25	Signage Type 1- Providing & fixing signage plates made of anodized aluminium sections with computergrade vinyl lettering and polycarbonate sheet on top for protection of size 300 x 100 mm complete asper insructions and as directed and necessary graphic diagrams, symbols or matter, fastners etc of Engineer Incharge.	374	Nos	920.00		344,080.00
TOTAL OF SECTION 'N'							641,630.00
A	R2-CS-PLG	Section Q-PILING WORKS					
93	R2-CS-PLG-1-1-b	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/m ³ 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 : Cost of temporary casing shall be incurred by the Contractor. 600 mm	1690.00	MTR	5125		8,661,250.00
94	R2-CS-PLG-2-2-d	Extra over rate for items CS-PLG-1 & 2 for using M30 instead of M 25 :-600 mm	1690.00	MTR	75		126,750.00
95	R2-CS-PLG-3.0	Empty boring through over burden including road crust upto the bottom of pile cap for all diameters of piles.	241.00	MTR	1990		479,590.00

96	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)	33.00	TO	64518	2,129,094.00
		Pile Test				
97	R2-CS-PLG-16.5	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 (installation of pile shall be paid separately) etc.all complete as per the specification, drawing and as directed by the Engineer in charge for the following 600 mm	1	No	590000	590,000.00
98	R2-CS-PLG-14.3	Carrying out low strain pile integrity test on 300mm / 350 mm / 400mm 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 separately as per relevant items)all complete as per specification and as directed by the engineer-in-charge. 600 mm	169.00	No.	2950	498,550.00
99	R2-CS-PLG-21.5	Carrying out high strain Dynamic load test on bored reinforced concrete cast-in-situ piles as per ASTM D 4945 and Institution of Engineers code to evaluate the pile capacity and structural integrity of pile including net and total settlement of under displacement the measured capacity along with other related tests and submission of report, including cost of all necessary excavation, back filling, disposal of material, equipment & labour, and chipping of piles with surface preparation to the complete satisfaction of the Consultant.(on 2% piles)	3.00	No.	188800	566,400.00
TOTAL PILING WORKS						13,051,634.00

A		SANITARY FIXRURES & FITTING				
		NOTE: 1) Wherever single brand is mentioned in sanitary fixtures & fittings the same should be rNod as "or approved equivalent" 2) All vertical and suspended drainage , sewer, water supply pipes should be fixed on horrrizontal/ vertical siface on sutably design bracket as approved by Engineer in charge. No seprate payment shall be made for this acount. The contractor should note this while quoting the tender.				
	R2-CS-PS-1	with 100mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :				
100	R2-CS-PS-244	Providing and fixing JAQUAR MAKE metropole flush valve Dual Flow ConcNoled type with control cock operation plate 40 mm size etc. Complete	200.00	Nos	7,929.00	1,585,800.00
101	R2-CS-PS-76	closet 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.	198.00	EA	15,556.00	3,080,088.00
102	R2-CS-PS-221	Providing and fixing cast iron Pan connectors with or without vent holes straight/ bend including providing & jointing with drip sNol joints.	198.00	Nos	1,359.00	269,082.00
103	R2-CS-PS-264	Providing & fixing 2-way Bib cock JAQUAR MAKE, ORNAMIX Model No. 10041etc. complete.	198.00	Nos	2,578.00	510,444.00
104	R2-CS-PS-260	Providing & fixing in position `Jacquar Continental' make CP Jet Spray with flexible CP supply pipe, and all other accessories, complete	198.00	Nos	2,113.00	418,374.00
105	R2-CS-PS-254	Providing and fixing JAQUAR MAKE, HOTELIER series Model No. 1551 Toilet Paper Holder Recessed type (S.Steel) including cutting and making goodthe wall wherever required etc complete	198.00	Nos	1,842.00	364,716.00
106	R2-CS-PS-257	Providing and fixing GLITTERS MAKE, SLOPE series Robe hook etc complete	198.00	Nos	788.00	156,024.00
107	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.)	221.00	Nos	8,192.00	1,810,432.00
108	R2-CS-PS-251	P/f Hindustan make white glazed Northen ware,wash basin constallation model (10032) of 55cmx43cm OR consider equivalent make	2.00	Nos	3,939.00	7,878.00
109	R2-CS-PS-8	Providing and fixing white vitreous china pedestal for wash basin completely recessed at the back for the reception of pipes and fittings.	2.00	Nos	1,177.00	2,354.00
110	R2-CS-PS-252	Providing and fixing stainless steel sink 600 mm x 450 mm and 200mmdeep including 32mm dia. galvanised iron waste pipe, 32mm dia. C.P.brass waste coupling, one C.P. brass screw down tap, caste ironbrackets, rubber plugs with chain etc. complete.(Kitchen Sink)	194.00	Nos	8,215.00	1,593,710.00
111	R2-CS-PS-263	WASTE COUPLING :JAQUAR : NO. 705 (FULL THRNOD)	2.00	Nos	655.00	1,310.00
112	R2-CS-PS-262	Providing & fixing chromium plated 32mm Jaguar make Series allied modelno. 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 necessaryfittings and fixtures, etc. complete and as directed by The Engineer incharge.	2.00	Nos	1,913.00	3,826.00
113	R2-CS-PS-247	Providing and fixing JAQUAR MAKE, PRESSMATIC Taps Model No. 031 Pillarcock Auto closing system etc complete	221.00	Nos	2,834.00	626,314.00
114	R2-CS-PS-261	Providing and fixing ISI marked make CP brass liquid soap dispensers with CP brass bracket capacity 250 ml.	419.00	Nos	2,645.00	1,108,255.00

115	R2-CS-PS-250	P/F Jaquar make shower , necessary accessories shower arm with flange continental series sr. no. 483	194.00	Nos	1,437.00	278,778.00
116	R2-CS-PS-249	Providing and fixing heavy ISI marked single lever concealed diverter for bath & shower system Rain shower & its accessories. (Mixer Cat. No. CON- 421 Jaquar make OR consider equivalent make)	194.00	Nos	11,203.00	2,173,382.00
117	R2-CS-PS-258	Providing and fixing GLITTERS MAKE, SLOPE sereis Towel Rack etccomplete	194.00	Nos	1,448.00	280,912.00
118	R2-CS-PS-256	Providing and fixing JAQUAR MAKE,CONTINENTAL Model No. 1121 Towel ring including cutting and making good the wall wherever required etccomplete	194.00	Nos	1,281.00	248,514.00
119	R2-CS-PS-265	Providing and fixing brass CP angle cock for mini geyser of Metro,seiko or other equivalent approved make.	620.00	Nos	721.00	447,020.00
120	FA-BMH-21-41	Supplying and erecting storage / pressure type horizontal / vertical water heater 25 litres with BEE 5 star rating of mild steel body, on wall / loft complete duly tested and marking sr. no. and date of erection.specification no. AP-WH/STWH	194.00	Nos	6,912.75	1,341,073.50
TOTAL SECTION 'A'						16,308,286.50
B		WATER SUPPLY				
	R2-CS-PS-86	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, multi-layer having thermal stability for hot & cold water supply, including all CPVC plain & brass thrNoded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge.				
		Concealed work, including cutting chases and making good the alls etc.				
121	R2-CS-PS-86-A	15 mm nominal outer dia Pipes	750.00	MTR	346.00	259,500.00
122	R2-CS-PS-86-B	20 mm nominal outer dia Pipes	800.00	MTR	405.00	324,000.00
123	R2-CS-PS-86-C	25 mm nominal outer dia Pipes	700.00	MTR	429.00	300,300.00
124	R2-CS-PS-86-D	32 mm nominal outer dia Pipes	400.00	MTR	531.00	212,400.00
	R2-CS-PS-85	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes,.having thermal stability for hot & cold water supply, including all CPVC plain & brass thrNoded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.				
		Internal work - Exposed on wall in Shaft Piping				
125	R2-CS-PS-85-A	15 mm nominal outer dia Pipes	200.00	MTR	206.00	41,200.00
126	R2-CS-PS-85-B	20 mm nominal outer dia Pipes	600.00	MTR	261.00	156,600.00
126	R2-CS-PS-85-C	25 mm nominal outer dia Pipes	800.00	MTR	279.00	223,200.00
127	R2-CS-PS-85-D	32 mm nominal outer dia Pipes	1,200.00	MTR	374.00	448,800.00
127	R2-CS-PS-85-E	40 mm nominal outer dia Pipes	600.00	MTR	567.00	340,200.00
128	R2-CS-PS-85-F	50 mm nominal outer dia Pipes	300.00	MTR	810.00	243,000.00
	R2-CS-PS-87	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes,having thermal stability for hot & cold water supply including all CPVC plain & brass thrNoded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement ,trenching ,refilling & testing of joints complete as per direction of Engineer in Charge.				
		External work ,Terrace Loops & Header				
129	R2-CS-PS-87-G	62.50 mm nominal inner dia Pipes	600.00	MTR	1,698.00	1,018,800.00
130	R2-CS-PS-87-H	75 mm nominal inner dia Pipes	600.00	MTR	2,313.00	1,387,800.00
131	R2-CS-PS-87-I	100 mm nominal inner dia Pipes	200.00	MTR	3,275.00	655,000.00
132	R2-CS-PS-87-J	150 mm nominal inner dia Pipes	200.00	MTR	5,827.00	1,165,400.00

	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 CPVC. 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, cInoning old paint and preparing surfaces for painting by any approved mNons etc. complete as directed by Engineer-in-charge (use color of Domestic pipe skay blue & Flushing pipe green)				
133	R2-CS-PN-18-A	For pipe upto 25mm dia.	200.00	MTR	14.00	2,800.00
134	R2-CS-PN-18-B	For pipe upto 50mm dia.	1,200.00	MTR	17.00	20,400.00
135	R2-CS-PN-18-C	For pipe more than 50mm dia. and upto 75mm	300.00	MTR	20.00	6,000.00
136	R2-CS-PN-18-D	For pipe more than 75mm dia. and upto 100mm	200.00	MTR	26.00	5,200.00
137	R2-CS-PN-18-E	For pipe more than 100mm dia. and upto 150mm	20.00	MTR	35.00	700.00
	R2-CS-PS-90	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.				
		External work				
138	R2-CS-PS-90-A	15 mm dia nominal bore	20.00	MTR	199.00	3,980.00
139	R2-CS-PS-90-B	20 mm dia nominal bore	20.00	MTR	226.00	4,520.00
140	R2-CS-PS-90-C	25 mm dia nominal bore	20.00	MTR	281.00	5,620.00
141	R2-CS-PS-90-D	32 mm dia nominal bore	20.00	MTR	331.00	6,620.00
142	R2-CS-PS-90-E	40 mm dia nominal bore	20.00	MTR	376.00	7,520.00
143	R2-CS-PS-90-F	50 mm dia nominal bore	200.00	MTR	470.00	94,000.00
144	R2-CS-PS-90-G	65 mm dia nominal bore	300.00	MTR	590.00	177,000.00
145	R2-CS-PS-90-H	80 mm dia nominal bore	200.00	MTR	719.00	143,800.00
146	R2-CS-PS-223	Providing,fixing and jointing including testing heavy quality MildSteel pipes conforming to IS: 1239 or IS: 3589 7mm thick including cutting, threaded or conforming to IS: 1239 or IS: 3589 7mm thick including cutting, thrNoded or welded (all type) joints as per detailed specifications and providing suitable flanges wherever required complete with necessary fittings viz bends, tees, reducers etc.required including fixing the pipes on wall/ ceiling/ bNom/ floor with suitable hangers, clamps and painting the pipe of following sizes complete. Pipes upto 50mm dia thrNoded joints with holdite, 65mm and above should be welded joint (All types of welded joints). A100 mm dia.	20.00	MTR	423.00	8,460.00
147	R2-CS-PS-224	Supplying, installing, testing and commissioning of MS Pipes conforming to IS 1239 Pt - I Heavy grade 'C' Class with threaded / welded fittings such as flanges, elbows, tees, reducers etc laid above ground according to the technical specifications and drawings. Rates shall be inclusive of painting, rigid structural supports, anchor fasteners, bolts, nuts (Galvanised), clamps, "U" bolts, etc. complete. - 150 mm nominal dia	20.00	MTR	2,540.00	50,800.00
148	R2-CS-PS-96-A	Providing and fixing ball Cock (brass) of approved quality, High pressure, with plastic floats complete :(Note: Presure should be 10 KG/Sq.Cm) 15 mm nominal bore	20.00	Nos	393.00	7,860.00
149	R2-CS-PS-96-B	Providing and fixing ball Cock (brass) of approved quality, High pressure, with plastic floats complete :(Note: Presure should be 10 KG/Sq.Cm) 20 mm nominal bore	40.00	Nos	520.00	20,800.00
150	R2-CS-PS-96-C	Providing and fixing ball Cock (brass) of approved quality, High pressure, with plastic floats complete :(Note: Presure should be 10 KG/Sq.Cm) 25 mm nominal bore	40.00	Nos	585.00	23,400.00
151	R2-CS-PS-281-a	Providing and fixing ball Cock (brass) of approved quality, High pressure, with plastic floats complete :(Note: Presure should be 10 KG/Sq.Cm) 50 mm (2') dia.	20.00	Nos	6,241.00	124,820.00
152	R2-CS-PS-281-b	Providing and fixing ball Cock (brass) of approved quality, High pressure, with plastic floats complete :(Note: Presure should be 10 KG/Sq.Cm) 40 mm (1 1/2") dia.	20.00	Nos	4,936.00	98,720.00

153	R2-CS-PS-95-A	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :25 mm nominal bore	2.00	Nos	578.00	1,156.00
154	R2-CS-PS-95-B	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :32 mm nominal bore.	2.00	Nos	886.00	1,772.00
155	R2-CS-PS-95-C	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :40 mm nominal bore	2.00	Nos	1,221.00	2,442.00
156	R2-CS-PS-95-D	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :50 mm nominal bore	2.00	Nos	2,021.00	4,042.00
157	R2-CS-PS-95-E	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :65 mm nominal bore	2.00	Nos	3,752.00	7,504.00
158	R2-CS-PS-95-F	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :80 mm nominal bore	2.00	Nos	8,013.00	16,026.00
159	R2-CS-PS-225-a	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines 15 mm (1/2") dia.	2.00	Nos	545.00	1,090.00
160	R2-CS-PS-225-b	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines 20 mm (3/4") dia.	2.00	Nos	678.00	1,356.00
161	R2-CS-PS-225-c	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines 25 mm (1") dia.	2.00	Nos	944.00	1,888.00
162	R2-CS-PS-225-d	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines 32 mm (1 1/4") dia.	2.00	Nos	1,499.00	2,998.00
163	R2-CS-PS-225-e	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines 40 mm (1 1/2") dia.	2.00	Nos	2,108.00	4,216.00
164	R2-CS-PS-225-f	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines 50 mm (2") dia.	2.00	Nos	2,906.00	5,812.00
165	R2-CS-PS-235	Supplying and installing cast iron Butterfly valves PN 16 complete with both sides including flanges on receiving pipes with nuts, bolts, 1.5mm thick compressed asbestos gasket insertion as required. 65 mm dia.	30.00	Nos	4,113.00	123,390.00
166	R2-CS-PS-234	Supplying and installing cast iron Butterfly valves PN 16 complete with both sides including flanges on receiving pipes with nuts, bolts, 1.5mm thick compressed asbestos gasket insertion as required. 80 mm dia.	65.00	Nos	4,246.00	275,990.00
167	R2-CS-PS-233	Supplying and installing cast iron Butterfly valves PN 16 complete with both sides including flanges on receiving pipes with nuts, bolts, 1.5mm thick compressed asbestos gasket insertion as required. 100 mm dia.	20.00	Nos	5,576.00	111,520.00
168	R2-CS-PS-232	Supplying, installing, testing and commissioning CI butterfly valves (PN 16) slim seal standard lever operated type conforming to IS 13039 with required flanges, nuts, bolts etc. complete. - 150 mm dia.	16.00	Nos	9,873.00	157,968.00
169	R2-CS-PS-231	Providing & fixing of CI wafer type butterfly valve (suitable for test pressure of 15 kg / sqm) with flanges, nut bolts, gaskets and necessary pad locking arrangement complete required. - 200 mm dia	2.00	Nos	16,420.00	32,840.00
170	R2-HE-7-19-D	Providing and fixing gun metal ISI mark non-return valve Screwed End vertical type of following diameters etc complete in all respect etc. complete in all respect as directed by Engineer in Charge (Note: Pressure should be 10 KG/Sq.Cm) 32 mm nominal bore	2.00	Nos	1,928.00	3,856.00

171	R2-HE-7-19-E	Providing and fixing gun metal ISI mark non-return valve Screwed End vertical type of following diameters etc complete in all respect etc. complete in all respect as directed by Engineer in Charge (Note: Pressure should be 10 KG/Sq.Cm) 40 mm nominal bore	2.00	Nos	2,358.00	4,716.00
172	R2-HE-7-19-F	Providing and fixing gun metal ISI mark non-return valve Screwed End vertical type of following diameters etc complete in all respect etc. complete in all respect as directed by Engineer in Charge (Note: Pressure should be 10 KG/Sq.Cm) 50 mm nominal bore	2.00	Nos	3,769.00	7,538.00
173	R2-HE-7-19-G	Providing and fixing gun metal ISI mark non-return valve Screwed End vertical type of following diameters etc complete in all respect etc. complete in all respect as directed by Engineer in Charge (Note: Pressure should be 10 KG/Sq.Cm) 65 mm nominal bore	6.00	Nos	6,974.00	41,844.00
174	R2-HE-7-19-H	Providing and fixing gun metal ISI mark non-return valve Screwed End vertical type of following diameters etc complete in all respect etc. complete in all respect as directed by Engineer in Charge (Note: Pressure should be 10 KG/Sq.Cm) 80 mm nominal bore	6.00	Nos	11,085.00	66,510.00
175	R2-CS-PS-282	Providing and fixing single acting air release valve with Screwed inlet 25mm dia	20.00	Nos	1,315.00	26,300.00
176	R2-CS-PS-242	Supplying & Fixing & Testing Pressure reducing Valve of Diaphragm type & inbuilt SS strainer type with necessary connectors. f) PROVIDING & FIXING 25MM PRESSURE REDUCING VALVE ON DOWN TAKE WATER SUPPLY	8.00	Nos	4,005.00	32,040.00
177	R2-CS-PS-241	Supplying & Fixing & Testing Pressure reducing Valve of Diaphragm type & inbuilt SS strainer type with necessary connectors. e) PROVIDING & FIXING 32MM PRESSURE REDUCING VALVE ON DOWN TAKE WATER SUPPLY (Diaphragm type with inbuilt ss strainer)	8.00	Nos	5,243.00	41,944.00
178	R2-CS-PS-240	Supplying & Fixing & Testing Pressure reducing Valve of Diaphragm type & inbuilt SS strainer type with necessary connectors. d) PROVIDING & FIXING 40MM PRESSURE REDUCING VALVE ON DOWN TAKE WATER SUPPLY PIPES (Diaphragm type with inbuilt ss strainer)	6.00	Nos	6,548.00	39,288.00
179	R2-CS-PS-239-c	Supplying & Fixing & Testing Pressure reducing Valve of Diaphragm type & inbuilt SS strainer type with necessary connectors. c) 50 mm (2") dia.	8.00	Nos	10,221.00	81,768.00
180	R2-CS-PS-239-b	Supplying & Fixing & Testing Pressure reducing Valve of Diaphragm type & inbuilt SS strainer type with necessary connectors. b) 65 mm (2 1/2") dia.	24.00	Nos	17,034.00	408,816.00
181	R2-CS-PS-239-a	Supplying & Fixing & Testing Pressure reducing Valve of Diaphragm type & inbuilt SS strainer type with necessary connectors. a) 75 mm (3") dia.	12.00	Nos	25,628.00	307,536.00
182	R2-CS-PS-226-a	Supplying & fixing 600 mm (24") to 750 mm (2'-6") long screwed G.I. C class pipe with 3 mm thick M.S. bar flange (plate) welded on it: Flanges should be of Table E of approved make. (Puddle Flange) a) 65 mm (2 1/2")dia pipe 5 mm thick with 150X 150(6" X 6") plate, Both ends Flanged	20.00	Nos	2,785.00	55,700.00
183	R2-CS-PS-226-b	Supplying & fixing 600 mm (24") to 750 mm (2'-6") long screwed G.I. C class pipe with 3 mm thick M.S. bar flange (plate) welded on it: Flanges should be of Table E of approved make. (Puddle Flange) b) 75 mm (3")dia pipe 5 mm thick with 200 X 200 (8" X 8") plate, Both ends Flanged	20.00	Nos	3,035.00	60,700.00

184	R2-CS-PS-226-c	Supplying & fixing 600 mm (24") to 750 mm (2'-6") long screwed G.I. C class pipe with 3 mm thick M.S. bar flange (plate) welded on it: Flanges should be of Table E of approved make. (Puddle Flange) c) 100 mm (4") dia pipe 5 mm thick with 250 X 250 (10" X 10") plate, Both ends Flanged	20.00	Nos	3,764.00	75,280.00
185	R2-CS-PS-226-d	Supplying & fixing 600 mm (24") to 750 mm (2'-6") long screwed G.I. C class pipe with 3 mm thick M.S. bar flange (plate) welded on it: Flanges should be of Table E of approved make. (Puddle Flange) d) 150 mm (6") dia pipe 7 mm thick with 300 X 300 (12" X 12") plate, Both ends Flanged	10.00	Nos	5,803.00	58,030.00
186	R2-CS-PS-226-e	Supplying & fixing 600 mm (24") to 750 mm (2'-6") long screwed G.I. C class pipe with 3 mm thick M.S. bar flange (plate) welded on it: Flanges should be of Table E of approved make. (Puddle Flange) e) 200 mm (8") dia pipe 7 mm thick with 350 X 350 (14" X 14") plate, Both ends Flanged	4.00	Nos	8,047.00	32,188.00
187	R2-CS-PS-227-a	Providing and fixing brass screwed/flanged type mosquito proof grating for under ground suction tank/Over HNode tank, over flow and vent of the following diameters. 50mm dia a) 50 mm (2") dia.	36.00	Nos	778.00	28,008.00
188	R2-CS-PS-228	Providing & fixing C.I. Manhole covers with frames / rings for R.C.C., underground water storage tanks/Over HNode tank, sizes of covers. (600mm dia.) NOTE:-should be provided with locking arrangement	36.00	Nos	4,604.00	165,744.00
189	R2-CS-PS-230	Supporting and installing cast iron dual plate wafer type PN 16 doubleflanged type non-return valve including nuts bolts 1.6 mm thick compressed asbestos gasket including matching flanges complete. 65 mm dia	1.00	Nos	5,218.00	5,218.00
190	HE-7-19-H	Providing and fixing gun metal ISI mark non-return valve Screwed End of following diameters etc. complete in all respect etc. complete in all respect as directed by Engineer in Charge. 80mm dia	2.00	Nos	5,837.00	11,674.00
191	R2-CS-PS-229	Supporting and installing cast iron dual plate wafer type PN 16 doubleflanged type non-return valve including nuts bolts 1.6 mm thick compressed asbestos gasket including matching flanges complete. 100 mm dia	2.00	Nos	7,545.00	15,090.00
192	R2-CS-PS-138-A	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): 80mm dia nominal bore	1.00	Nos	20,876.00	20,876.00
193	R2-CS-PS-139-A	Providing and fixing C.I. dirt box strainer for bulk type water meter with nuts, bolts, rubber insertions etc. complete conforming to IS:2373: 80mm dia	3.00	Nos	6,830.00	20,490.00
TOTAL SECTION 'B'						9,952,384.00
C	SOIL, WASTE & VENT					
194	R2-CS-PS-259	Providing & Fixing 100mm diameter Nahani trap Jali in steel finish with necessary fixing required to make the item well functional.	198.00	Nos	356.00	70,488.00
195	FA-18-SIC-AV-12	P&I Upvc nahani trap 75 mm outlet	221.00	Nos	381.00	84,201.00
196	R2-CS-PS-219	Providing & Supplying & Fixing 100 mm dia. CI 'P' trap Suspended type floor Drain of standard design. with EPDM rubber gasket jointing as per DIN- 19543, ASTM C 1277-4.	10.00	Nos	2,109.00	21,090.00
197	R2-CS-PS-220-b	Supplying & Fixing Agricultural PVC 10 kg class pipe as 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 Chicken wire mesh etc. complete b) 40 mm (1 1/4") dia.	600.00	MTR	206.00	123,600.00
198	R2-CS-PS-220-a	Supplying & Fixing Agricultural PVC 10 kg class pipe as 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 Chicken wire mesh etc. complete a) 50 mm (1 1/2") dia.	200.00	MTR	240.00	48,000.00

199	R2-CS-PS-191	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 75 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed. (All fittings and accessories like clamps, etc. should be of same brand. No separate payment shall be made for fittings and accessories).	750.00	MTR	314.00	235,500.00
200	R2-CS-PS-192	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 110 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories	2,700.00	MTR	478.00	1,290,600.00
201	R2-CS-PS-202	Type-B 160 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).(Rain water)	1,100.00	MTR	1,134.00	1,247,400.00
	R2-CS-PS-218	Supplying & Fixing screwed cast brass cleanout plug with suitable inset keys & opening, male thrNoded joint with EPDM rubber gasket jointng as pe DIN- 19543, ASTM C 1277-4.				
202	R2-CS-PS-218-a	a) 80 mm (3") dia	100.00	Nos	1,477.00	147,700.00
203	R2-CS-PS-218-b	b) 100 mm (4") dia.	250.00	Nos	1,843.00	460,750.00
204	R2-CS-PS-218-c	C) 150 mm (6") dia.	50.00	Nos	4,004.00	200,200.00
205	R2-CS-RM-105	Drilling with core cutting machine in RCC slabs, walls etc.wherever required in buildings, manholes,ducts, water tanks, pits etc. for laying pipes,sleeves and making good the same to give an even finish . The rate shall include the cost of drilling core, providing EPOXY based water proofing compound for sNoling the joints around the pipes, nominal reinforcement wherever required,scaffolding and labour charges for working at all levels ,INods and heights . (Maximum thickness of RCC members shall be 300mm) and as directed by Engineer-In-Charge. g) Above 150 mm to 200mm dia	300.00	Nos	990.00	297,000.00
206	R2-WSP-4-39	Providing and fixing in position M.S. angles, tees, plates, rolled steel bNoms, joist and stachions, M.S. covers on valve chambers etc. including all labour and material, hoisting, fixing with bolts and nuts or by welding, painting will be primer & 3 coats of Synthetic Enamel paint etc. complete welding, painting with primer & 3 coats of Synthetic Enamel paint etc. complete	2.00	MT	83,749.00	167,498.00
TOTAL SECTION 'C'						4,394,027.00
D		DRAINAGE				
207	R2-CS-PS-208-a	Supplying, laying, jointing & testing UPVC Drainage class pipes of Foamcore Astral(SN 8) or equivalent make in solvent cement joint including leveling with cutting the pipe to required length, roughining of pipe at wall joint including socket as directed:150 mm pipe	60.00	MTR	862.00	51,720.00
208	R2-CS-PS-208-b	Supplying, laying, jointing & testing UPVC Drainage class pipes of Foamcore Astral(SN 8) or equivalent make in solvent cement joint including leveling with cutting the pipe to required length, roughining of pipe at wall joint including socket as directed:200 mm pipe	100.00	MTR	1,271.00	127,100.00
209	R2-CS-PS-208-c	Supplying, laying, jointing & testing UPVC Drainage class pipes of Foamcore Astral(SN 8) or equivalent make in solvent cement joint including leveling with cutting the pipe to required length, roughining of pipe at wall joint including socket as directed:250 mm pipe	20.00	MTR	2,218.00	44,360.00
210	R2-CS-PS-163-A	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete : 100 mm diameter S.W. pipe	40.00	MTR	323.00	12,920.00

211	R2-CS-PS-164-A	Providing and laying cement concrete 1:4:8 (1 cement : 5 coarse sand :10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design : 100 mm diameter	40.00	MTR	785.00	31,400.00
212	R2-CS-PS-164-B	Providing and laying cement concrete 1:4:8 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :150 mm diameter	200.00	MTR	960.00	192,000.00
213	R2-CS-PS-164-C	Providing and laying cement concrete 1:4:8 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :200 mm diameter	20.00	MTR	1,119.00	22,380.00
214	R2-CS-PS-164-D	Providing and laying cement concrete 1:4:8 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :250 mm diameter	80.00	MTR	1,294.00	103,520.00
215	R2-CS-PS-166-A-1	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 300 x300 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 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	20.00	Nos	2,564.00	51,280.00
216	R2-SE-8-1	Constructing brick masonry inspection chamber rectangular 0.9M x 0.45M and 0.6M deep on sewer with 230mm brick walls in cement mortar 1:3 plastered both inside & outside with 20 mm thick cement mortar 1:2 and not cement rendering so as to give a smooth surface including 230mm cement concrete bedding (M 15) and cement concrete (M 15) in haunches and channels finished smooth with 20 mm thick cement mortar (1:1) and fixing C.I. extra heavy duty airtight rectangular frame & cover of size 0.9M x 0.45M weighing minimum 225Kg. resting on 300 mm high c.c. cap M 20 with (1:1) cement plaster on both the sides & necessary C.I. steps (weighing 5.4 kg each) staggered at 300mm c/c. including 75 mm wide vata all round the external portion of the chamber and the foundation concrete in C.M. 1:1 etc. complete as per plan in Dy.Ch.E.(SP)P&D's office(without excavation).	10.00	Nos	40,697.00	406,970.00
217	R2-SE-8-1-a	Extra over above for every additional metre depth upto 2.5M--do--do etc. complete as specified and directed.	5.00	MTR	13,531.00	67,655.00
218	R2-SE-8-2	Constructing brick masonry inspection chamber rectangular 0.9M x 0.6M and 0.6M deep -do- including M 20, 30 cm thick cap c.c. Bedding & including C.I. extra heavy duty air tight frame and cover weighing minimum 270kg complete as per description in item No. SE-8-1 with necessary centering etc. all complete as per plan and directed.	3.00	Nos	49,457.00	148,371.00
219	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 inside and outside with 20 mm thick cement mortar 1:2 and not cement rendering so as to give a smooth surface, including 300 mm thick M.15 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 300 mm. 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 230 Kg.) with hinge/chain resting on 30 cm high cement concrete M.20 cap with necessary centering etc. all complete as per standard specifications and directions including finishing the cap	6.00	Nos	62,019.00	372,114.00
		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 Dy. Ch.E. (Sewerage) P&D's office without excavation depth upto 1.5 M.(Depth of Manhole measured from top of manhole cover to Invert level of manhole				

220	R2-SE-6-1-A	Extra over above per metre depth above 1.5 M. and upto 2.3 M. depth - do- -do -	2.00	MTR	18,654.00	37,308.00
221	R2-SE-6-2-B	Constructing on sewer brick masonry conical manhole 1.5 M. dia. at bottom and 0.56 M dia. at top including C.I. Extra.HNovy Duty circular air tight frame and cover etc. complete as per description in item No.SE-6-1 depth upto 2.3 M.	2.00	Nos	90,305.00	180,610.00
222	R2-SE-6-2-C	Extra for above manhole per metre depth above 2.3 M and upto 5 M including safety chain and extra C.I steps on other side of benching -do- -do	6.00	MTR	34,099.00	204,594.00
223	R2-CS-PS-209	Providing fixing testing and commissioning 0.9m x 1.25m x 1.0m deep GrNOe trap (0.60m liquid height) constructed out of 230 mm brick masonry with PVC Tee connection for inlet outlet & vent, DI MD Manhole cover and frame (Cover size 0.9 x 0.45 m wide 2 NO.) , 40 mm thick Kaddappa baffle wall situated across the chamber. Trap shall be internally smooth plastered with internal & externally Complete with 2 NO 0.4 M x 0.85 M x 0.1 M high SS 304. perforated trey's with handles on both side including all accessories mounting. complete as specified in drawing	1.00	Nos	48,831.00	48,831.00
224	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 North, soft murum, running sand, shingle, turf clay, loam, pNot, ash, shale, slag, chalk, garbage, muddy/ marshy/ slushy soil, marine clay, reclaimed land etc. for depths/lifts upto 1.5M mNOured 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 than 97% Modified Proctor density conforming to relevant IS, stacking the selected material in meaurable heaps for future use within owners space or disposing within an initial INod 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 applicable if any.	450.00	Cum	307.00	138,150.00
225	R2-CS-EW-26	Providing & Laying dry stone Rubble Soling with average 230mm size hard stone setin regular lines,hand packed and interstices thoroughly filled with small chips including filling in with good quality murum brought from outside ,compacting with iron rammers, watering,sand sprNoding 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)	20.00	Cum	2,231.00	44,620.00
226	R2-CS-PS-212	Providing & fixing Potable SS GrNOe separator Trap of Aco make model FSS50,Part.No.402614 size 600 x 520 x 440 of 2 L/S flow.	1.00	Nos	39,953.00	39,953.00
TOTAL SECTION 'D'						2,325,856.00
E	RAIN WATER					
227	R2-CS-PS-215-a	Supplying & Fixing 3 mm thick lead flashing in single piece of lead sheet all around the rain water outlet mouth on a layer of cold bitmen including hNovy duty 5 mm thick C.I. grating, a) 150 x 150 (6" x 6") square or dia outlet for 100 mm (4") pipe.	10.00	Nos	495.00	4,950.00
228	R2-CS-PS-215-b	Supplying & Fixing 3 mm thick INod flashing in single piece of INod sheet all around the rain water outlet mouth on a layer of cold bitmen including hNovy duty 5 mm thick C.I. grating, b) 230 x 230 (9" x 9") square or dia outlet for 150 mm (6") pipe.	15.00	Nos	668.00	10,020.00
229	R2-CS-PS-215-c	Supplying & Fixing 3 mm thick INod flashing in single piece of INod sheet all around the rain water outlet mouth on a layer of cold bitmen including hNovy duty 5 mm thick C.I. grating, c) 300 x 300 (12" x 12") square or dia outlet for 200 mm (8") pipe.	5.00	NOs	738.00	3,690.00
230	R2-CS-PS-215-d	Supplying & Fixing 3 mm thick INod flashing in single piece of INod sheet all around the rain water outlet mouth on a layer of cold bitmen including hNovy duty 5 mm thick C.I. grating, d) 150 x 150 (6" x 6") square or dia outlet for 75 mm (3") pipe.	1.00	Nos	495.00	495.00

231	R2-HE-1-3-D	Supplying, lowering, laying and jointing in trenches C.I. Class 'LA' , S/S pipes conforming to IS:1536 with CI / MS specials of following diameter including chamfering cut edges of pipes for specials and fixing with Styrene Butadiene Rubber (SBR) gaskets conforming to IS:5382 & IS:12820 in proper position, grade and alignment etc complete in all respect and as directed by Engineer in Charge including conveyance of material from any municipal stores in GrNoter Mumbai to site of work, including cost of jointing materials and rubber rings labour, giving hydraulic testing upto 6 kg/sqm pressure etc complete as directed by Engineer in Charge 250 mm dia pipe	100.00	MTR	3,163.00	316,300.00
232	R2-HE-1-3-E	Supplying, lowering, laying and jointing in trenches C.I. Class 'LA' , S/S pipes conforming to IS:1536 with CI / MS specials of following diameter including chamfering cut edges of pipes for specials and fixing with Styrene Butadiene Rubber (SBR) gaskets conforming to IS:5382 & IS:12820 in proper position, grade and alignment etc complete in all respect and as directed by Engineer in Charge including conveyance of material from any municipal stores in GrNoter Mumbai to site of work, including cost of jointing materials and rubber rings labour, giving hydraulic testing upto 6 kg/sqm pressure etc complete as directed by Engineer in Charge 300 mm dia pipe	200.00	MTR	4,199.00	839,800.00
233	R2-CS-RW-16-B	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.(Make to be use Supreme / Astral / Aquafit) 100 mm dia	150.00	MTR	406.00	60,900.00
234	R2-CS-RW-16-C	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.(Make to be use Supreme / Astral / Aquafit) 150 mm dia	150.00	MTR	756.00	113,400.00
TOTAL SECTION 'E'						1,349,555.00
F	STORM WATER					
235	R2-CS-PS-213-a	Supplying & fixing 40 mm thick DI heavy Rain water grating over storm water channel of heavy duty. a) 600 x 300 MM(300wide)	100.00	Nos	8,460.00	846,000.00
236	R2-CS-PS-213-b	Supplying & fixing 40 mm thick DI heavy Rain water grating over storm water channel of hNovy duty. b) 600 x 450 MM (450wide)	20.00	Nos	9,657.00	193,140.00
237	R2-CS-PS-213-c	Supplying & fixing 40 mm thick DI heavy Rain water grating over storm water channel of heavy duty. c) 600 x 600 MM (600wide)	200.00	Nos	14,378.00	2,875,600.00
238	R2-WSP-4-39	Providing and fixing in position M.S. angles, tees, plates, rolled steel bNoms, joist and stachions, M.S. covers on valve chambers etc. including all labour and material, hoisting, fixing with bolts and nuts or by welding, painting will 3 coats of Synthetic Enamel paint etc. complete welding, painting with primer & 3 coats of Synthetic Enamel paint etc. complete.	1.00	MT	83,749.00	83,749.00

239	R2-CS-PS-214	Constructing brick masonry valve & meter/RWH chambers in 250mm thick brick masonry in cement mortar 1 : 5 using first class bricks constructed over a bed of 150mm thick cement concrete 1:2:4 plastering inside outside and all exposed surface with 20mm thick cement mortar 1.3, finishing inside with a floating coat of nNot cement providing & fixing CI frame & cover size, weight mentioned below painting all CI items with 3 coats of approved bitumastic paint etc. complete. Chamber 600 x 600mm cINor inside with 600 x 600 CI frame & cover weighting not less than 72kg. Depth of chamber not exceeding 1000mm	8.00	Nos	17,500.00	140,000.00
240	R2-CS-PS-168-B	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) 150 mm dia. R.C.C. pipe	100.00	MTR	473.00	47,300.00
241	R2-CS-PS-168-C	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) 250 mm dia. R.C.C. pipe	10.00	MTR	813.00	8,130.00
242	R2-CS-PS-168-D	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) 300 mm dia. R.C.C. pipe	10.00	MTR	866.00	8,660.00
243	R2-CS-PS-168-E	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) 450 mm dia. R.C.C. pipe	10.00	MTR	1,197.00	11,970.00
244	R2-CS-PS-168-F	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) 500 mm dia. R.C.C. pipe	10.00	MTR	1,536.00	15,360.00
245	R2-CS-PS-168-G	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) 600 mm dia. R.C.C. pipe	10.00	MTR	1,808.00	18,080.00
		TOTAL SECTION 'F'				4,247,989.00
		GRAND TOTAL (A+B+C+D+E+F)				38,578,097.50
			Say			38,578,098.00