



Name of Work:-Vertical extension of National Aerosol Test Facility Building for Academic Activities (SH: Civil Work).

SCHEDULE OF QUANTITY

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
1	CARRIAGE OF MATERIALS				
1.1	By Mechanical Transport including loading,unloading and stacking				
1.1.1	Earth Lead - 2 km	225	cum	149.43	33622.00
	Sub-Total				33622.00
2	EARTH WORK				
2.1	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including getting out and disposal of excavated earth upto 50 m and lift upto 1.5 m, as directed by Engineer-in- Charge:				
2.1.1	All kinds of soil	500	sqm	92.55	46275.00
2.2	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.				
2.2.1	All kinds of soil.	350	cum	252.30	88305.00
2.3	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :				
2.3.1	All kinds of soil				
2.3.1.1	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	30	metre	364.20	10926.00
2.4	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	125	cum	219.65	27456.00
2.5	Extra for every additional lift of 1.5 m or part thereof in excavation / banking excavated or stacked materials.				
2.5.1	All kinds of soil	300	cum	90.40	27120.00
2.6	Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m.				
2.6.1	All kinds of soil	500	sqm	24.35	12175.00
	Sub-Total				212257.00
3	CONCRETE WORK				
3.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
3.1.1	1:4:8 (1 Cement : 4 coarse sand (zone-III) derived from natural sources : 8 graded stone aggregate 40 mm nominal size derived from natural sources).	45	cum	5789.60	260532.00
3.2	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing :				
3.2.1	1:2:4 (1 Cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources)	8	cum	8554.50	68436.00
3.3	Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	10	per 50kg cement	56.55	566.00
	Sub-Total				329534.00
4	REINFORCED CEMENT CONCRETE				
4.1	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, ifnishing and reinforcement- All work up to plinth level :				
4.1.1	1:1.5:3 (1 cement: 1.5 coarse sand (zone-III) derived from natural sources: 3 graded stone aggregate 20 mm nominal size derived from natural sources).	12	cum	7718.25	92619.00
4.2	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement				
4.2.1	1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	28	cum	9306.00	260568.00
4.3	Centering and shuttering including strutting, propping etc. and removal of form for				
4.3.1	Foundations, footings, bases of columns, etc. for mass concrete	12	sqm	284.85	3418.00
4.3.2	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	305	sqm	609.30	185837.00
4.3.3	Suspended floors, roofs, landings, balconies and access platform	2760	sqm	693.05	1912818.00
4.3.4	Shelves (Cast in situ)	20	sqm	693.05	13861.00
4.3.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers	2200	sqm	552.05	1214510.00
4.3.6	Columns, Pillars, Piers, Abutments, Posts and Struts	1595	sqm	733.70	1170252.00
4.3.7	Stairs, (excluding landings) except spiral-staircases	170	sqm	622.35	105800.00
4.3.8	Small lintels not exceeding 1.5 m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like	60	sqm	284.85	17091.00
4.3.9	Small surfaces such as cantilever ends, brackets and ends of steps, caps and bases to pilasters and columns and the like	280	sqm	773.70	216636.00
4.4	Extra for additional height in centering, shuttering where ever				
4.4.1	Suspended floors, roofs, landing, beams and balconies (Plan area to be measured)	2500	sqm	287.50	718750.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
4.5	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.				
4.5.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	3500	kg	83.50	292250.00
4.6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
4.6.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	143817	kg	83.50	12008720.00
4.7	Add for plaster drip course/ groove in plastered surface or moulding to R.C.C. projections.	825	metre	58.90	48593.00
4.8	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using coarse aggregate as well as fine aggregate derived from natural sources and cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and 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. (Note:- Cement content considered in this item is @ 330 kg/cum."Excess/ less cement used as per design mix is payable/recoverable separately).				
4.8.1	All works upto plinth level	30	cum	7997.30	239919.00
4.8.2	All works above plinth level upto floor V level	132	cum	9400.85	1240912.00
4.9	Add for using extra cement in the items of design mix over and above the specified cement content therein.	450	quintal	673.30	302985.00
4.1	Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using coarse aggregate as well as fine aggregate derived from natural sources and cement content as per approved design mix, 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 reinforced cement concrete work, including pumping of R.M.C. from transit mixer to site of laying , excluding the cost of centering, shuttering finishing and reinforcement, including cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer-in-charge. (Note :- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately)				
4.10.1	All works above plinth level upto floor V level	969	cum	9802.20	9498332.00
4.11	Extra for R.C.C./ B.M.C/ R.M.C. work above floor V level for each four floors or part thereof.	1181	cum	280.95	331802.00
4.12	Extra for centering & shuttering including strutting, propping etc and removal of form for mullion for all height instead of shuttering & centering in column.	110	Sqm	637.70	70147.00
	Sub-Total				29945820.00
5	MASONRY WORK				

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
5.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
5.1.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	42.5	cum	6157.45	261692.00
5.2	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :				
5.2.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	610	cum	7590.45	4630175.00
5.3	Extra for brick work / AAC block masonry / Tile brick masonry in	660	cum	236.65	156189.00
5.4	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.				
5.4.1	Cement mortar 1:4 (1 cement :4 coarse sand)	587	sqm	932.10	547143.00
5.5	Extra for half brick masonry in superstructure, above floor V level for every four floors or part thereof by mechanical means.	587	sqm	20.95	12298.00
5.6	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry.	543	sqm	80.10	43494.00
	Sub-Total				5650991.00
6	CLADDING WORK				
6.1	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.				
6.1.1	Granite of any colour and shade				
6.1.1.1	Area of slab over 0.50 sqm	20	sqm	4007.65	80153.00
6.2	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.				
6.2.1	Granite work	400	metre	376.25	150500.00
6.3	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter and similar location in marble/ Granite/ stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	14	each	734.55	10284.00
6.4	Mirror polishing on marble work/Granite work/stone work where ever required to give high gloss finish complete.	400	sqm	368.00	147200.00
6.5	Providing and fixing cramps of required size & shape in RCC/ CC / Brick masonry backing with cement mortar 1:2 (1 cement :2 coarse sand), including drilling necessary hole in stones and embedding the cramp in the hole (fastener to be paid separately).				
6.5.1	Stainless steel cramps	100	kg	612.60	61260.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
6.6	Providing and fixing stone slab with table rubbed, edges rounded and polished, of size 75x50 cm deep and 1.8 cm thick, fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-in-charge and finished smooth.				
6.6.1	Granite Stone of approved shade	2.4	sqm	3216.90	7721.00
6.7	Providing and fixing machine cut, mirror/ eggshell polished , Marble stone work for wall lining (veneer work) including dado, skirting, risers of steps etc., in required design and pattern wherever required, stones of different finished surface texture, on 12 mm (average) thick cement mortar 1:3 (1 cement : 3 coarse sand) laid and jointed with white cement slurry @ 3.3 kg/sqm including pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing, polishing etc. all complete as per Architectural drawings, and as directed by the Engineer-in-Charge.				
6.7.1	18 mm thick Italian Marble stone slab,Perlato, Rosso verona, Fire Red or Dark Emperadore etc.	210	sqm	8823.75	1852988.00
6.8	Extra for stone work for wall lining on exterior walls of height more than 10 m from ground level for every additional height of 3 m or part there of.	2965	sqm	129.65	384412.00
6.9	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	590	sqm	1030.30	607877.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
6.1	Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building , for all heights and all levels etc. including: (a) Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design. (b) Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc. (c) The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing The item includes cost of all material & labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite	50	sqm	4309.80	215490.00
	Sub-Total				3517885.00
7	WOOD AND PVC WORK				
7.1	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:				
7.1.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	85	sqm	1886.70	160370.00
7.2	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured).	85	sqm	401.40	34119.00
7.3	Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors (cost of glass excluded) (overall area of door shutter to be measured):				
7.3.1	Rectangular or square	25	sqm	173.95	4349.00
7.4	Extra for cutting rebate in flush door shutters (Total area of the shutter to be measured).	10	sqm	93.65	937.00
7.5	Providing and fixing ISI marked oxidised M.S. sliding door bolts with nuts and screws etc. complete :				
7.5.1	250x16 mm	3	each	170.00	510.00
7.6	Providing and fixing ISI marked oxidised M.S. handles conforming to IS:4992 with necessary screws etc. complete :				
7.6.1	125 mm	8	each	34.85	279.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
7.7	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm), with necessary accessories and screws etc. complete.	95	each	1003.50	95333.00
7.8	Providing and fixing bright finished brass 100 mm mortice latch and lock, ISI marked, with six levers and a pair of anodised (anodic coating not less than grade AC 10 as per IS : 1868) aluminium lever handles of approved quality with necessary screws etc. complete.	32	each	748.65	23957.00
7.9	Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing of frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120 gms/sqm(both side inclusive), consisting of floor and ceiling channel 50mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts, including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete.				
7.9.1	75 mm overall thickness partition with 12.5 mm thick double skin fire rated Glass Reinforced Gypsum (GRG) plaster board conforming to IS: 2095: (part 3):2011 (Board with BIS certification marks)	50	sqm	1741.15	87058.00
7.1	Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt/ suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality.				
7.10.1	1.0 mm thick	170	sqm	717.65	122001.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
7.11	Providing and fixing fire resistant door frame of section 143 x 57 mm having built in rebate made out of 16 SWG G.I. sheet (zinc coating not less than 120 gm/sqm) duly filled with vermiculite based concrete mix, suitable for mounting 60 minutes fire rated door shutters. The frame is fitted with intumescent fire seal strip of size 10x4 mm (minimum) around the frame and fixing with dash fastener of approved size and make, including applying a coat of approved brand fire resistant primer etc. complete as per direction of Engineer-in-charge (Dash fastener to be paid for separately).	25	metre	1444.30	36108.00
7.12	Providing and fixing 50 mm thick glazed fire resistant door shutters of 60 minutes fire rating conforming to IS:3614 (Part-II), tested and certified as per laboratory approved by Engineer-in-charge, with suitable mounting on door frame, consisting of vertical styles, lock rail, top rail 100 mm wide, bottom rail 200 mm wide, made out of 16 SWG G.I.sheet (zinc coating not less than 120 gm/m ²) duly filled FR insulation material and fixing with necessary stainless steel ball bearing hinges of approved make, including applying a coat of approved fire resistant primer etc. all complete as per direction of Engineer-in-charge (panneling to be paid for separately).	15	sqm	6166.00	92490.00
7.13	Providing and fixing plain lining with necessary screws/nuts & bolts/ nails, including a coat of approved primer on one face, and fixed on wooden /steel frame work, complete as per direction of Engineer-in- charge (Frame work shall be paid for separately).				
7.13.1	12mm thick commercial ply conforming to IS : 1328 BWR type	5	sqm	1040.80	5204.00
7.14	Providing and fixing stainless steel brush/satin finish tower bolts of Make, Dorma :3200-2, Hafle 911.81.080 , GEZE : 98347009 or approved equivalent including necessary Stainless steel screws and other incidental charges complete.☑				
7.14.1	150 mm long	24	Nos	422.97	10151.00
7.14.2	300 mm long	105	Nos	770.01	80851.00
7.15	Providing and fixing satin stainless steel grade 304 pull handle of approved quality Make, Dorma : TGDI-D 150, Hafle:- 903.01.601, GEZE 98163089 or approved equivalent including necessary stainless steel screws and other incidental charges complete.				
7.15.1	19 mm dia x 200 mm long.	50	Pair	1109.08	55454.00
7.16	Providing and fixing Satin stainless steel Foot operated Door Stopper with rubber buffer of approved quality of Make, Dorma : 4017 or approved equivalent with necessary S.S. screws etc. all complete.☑	90	Nos	1288.11	115930.00
7.17	Providing and fixing of stainless steel grade 304 sliding door bolt satin S.S. finish including the cost of screws and other incidental charges as per the design approved by Engineer- In -charge 250X16mm.	28	Each	776.25	21735.00
7.18	Providing and fixing of stainless steel grade 304 sliding door bolt satin S.S. finish including the cost of screws and other incidental charges as per the design approved by Engineer- In -charge. 300X16mm.	4	Each	906.25	3625.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
7.19	Providing and fixing SS indicator bolt with necessary screws etc. complete.☒	16	Each	793.25	12692.00
7.2	Extra for Providing & fixing Ebco make aluminium handle for windows etc. powder coated in brown colour with necessary stainless steel screws etc. to the side hung windows as per directions of the Engineer-in-charge complete instead of aluminium window fastner.☒	120	Each	14.27	1712.00
7.21	Providing and fixing SS floor door silencer with necessary screws etc. complete.☒	30	Each	120.69	3621.00
7.22	Extra for Providing and fixing mirror polished 18 mm Granite for wall lining (veneer work) , in required design and pattern wherever required, stones of different finished surface texture, on 12 mm (average) thick cement mortar 1:3 (1 cement : 3 coarse sand) laid and jointed with white cement slurry @ 3.3 kg/sqm including pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing, polishing etc. all complete above 1.20 meter height up to 3.50 meter instead of skirting ,dado and pillars.hanger etc.☒	175	Sqm	393.90	68933.00
	Sub-Total				1037419.00
8	STEEL WORK				
8.1	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer.				
8.1.1	Using M.S. angels 40x40x6 mm for diagonal braces	12.7	sqm	4428.15	56238.00
8.2	Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitred and welded, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.				
8.2.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).	125	kg	106.45	13306.00
8.3	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
8.3.1	In stringers, treads, landings etc. of stair cases, including use of chequered plate wherever required, all complete	300	kg	93.65	28095.00
8.3.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	1350	kg	131.00	176850.00
8.4	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer.				
8.4.1	M.S. tube	150	kg	145.65	21848.00
8.5	Providing and fixing carbon steel galvanised (minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm ²), counter sunk head, comprising of 10 mm dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge.				
8.5.1	10 x 80 mm	264	each	109.00	28776.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
8.6	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	600	kg	575.45	345270.00
	Sub-Total				670383.00
9	FLOORING				
9.1	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete.				
9.1.1	40 mm thick with 20 mm nominal size stone aggregate	37	sqm	498.35	18439.00
9.2	Cement plaster skirting up to 30 cm height, with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement.				
9.2.1	18 mm thick	2	sqm	521.15	1042.00
9.3	Extra for pre finished nosing to treads of steps of marble stone.	190	metre	530.25	100748.00
9.4	Extra for marble stone flooring in treads of steps and risers using single length up to 2.00 metre.	130	sqm	622.75	80958.00
9.5	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :				
9.5.1	25 mm thick	400	sqm	1531.85	612740.00
9.6	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	52	sqm	1810.05	94123.00
9.7	40 mm thick rubbed stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement : 5 coarse sand) with joints 3 mm thick, side buttered with cement mortar 1:2 (1 cement : 2 stone dust) admixed with pigment to match the shade of stone and pointing with same mortar.				
9.7.1	Red sand stone	10	sqm	1165.20	11652.00
9.8	Extra for pre finished nosing in treads of steps of Kota stone/ sand stone slab.	760	metre	148.10	112556.00
9.9	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), Jointing with grey cement slurry @ 3.3 kg/sqm including pointing the joints with white cement and matching pigment etc., complete.	30	sqm	926.90	27807.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
9.1	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete.				
9.10.1	Size of Tile 600x600 mm	1965	sqm	1500.55	2948581.00
9.11	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joint with white cement & matching pigments etc. complete.				
9.11.1	Size of Tile 600x600 mm	100	sqm	1545.85	154585.00
9.12	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge.				
9.12.1	Size of Tile 500x500 mm	190	sqm	291.00	55290.00
9.13	Providing and laying Polished Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing , curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.				
9.13.1	Polished Granite stone slab jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	200	sqm	3526.60	705320.00
9.14	"Extra for making steps of stairs antiskid by making band of 3 Nos. grooves, 3 mm wide along the length of stone by stone cutting machine including grinding and polishing etc. complete (Length of band to measured for payment in running meter).				
		280	RM	159.00	44520.00
9.15	Providing & fixing machine-cut & machined polished 25 mm thick Kota Stone Stone in treads of steps, sill, copings, parapet top, window sill, planter top and such other locations, laid on 20 mm (average) thick cement mortar 1:4 (1cement:4coarse sand) and jointed with grey cement slurry mixed with pigment to match the shades of the slabs, including rubbing and polishing complete.The Stone used should be in one single piece of minimum 900 mm long & above and width as per requirement etc. complete, all as per drawing and direction of Engineer-in-charge.				
		280	Sqm	1873.45	524566.00
	Sub-Total				5492927.00
10	ROOFING				

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
10.1	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.				
10.1.1	0.63 mm thick with zinc coating not less than 275 gm/ m ²	22	sqm	915.00	20130.00
10.2	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :				
10.2.1	In 75x75 mm deep chase	225	metre	237.25	53381.00
10.3	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	12	each	244.05	2929.00
10.4	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.				
10.4.1	110 mm diameter	100	metre	305.05	30505.00
10.5	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.				
10.5.1	Coupler				
10.5.1.1	110 mm	24	each	117.80	2827.00
10.5.2	Bend 87.5°				
10.5.2.1	110 mm bend	12	each	129.85	1558.00
10.6	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.				
10.6.1	110 mm	36	each	288.80	10397.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
10.7	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification				
10.7.1	12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- (Part I) :2011 (Board with BIS certification marks)	580	sqm	1117.65	648237.00
10.8	Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch, including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured out of 2400 TEX panel rovigs incorporating minimum 0.3% ultra-violet stabiliser in resin system under approximately 2400 psi and hot cured. They shall be of				
10.8.1	2 mm thick corrugated (2.5" or 4.2" or 6") or step-down (2" or 3" or 6") as specified	10	sqm	1095.20	10952.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
10.9	Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge.				
10.9.1	12.5 mm thick square edge PVC Laminated Gypsum Tile of size 595x595 mm, made of Gypsum plasterboard, manufactured from natural gypsum as per IS 2095 part I and laminated with white 0.16mm thick fire retardant PVC film on the face side and 12micron metalized polyester on the back side with all edges sealed with the face side PVC film which goes around and wraps the edges and is bonded to the edges and the back side metalized polyester film so as to make the tile a completely sealed unit.	1745	sqm	1880.95	3282258.00
10.1	Providing and fixing thermal insulation with Resin Bonded Fibre glass wool conforming to IS: 8183 having density 24 kg/m ³ , 50 mm thick, wrapped in 200G Virgin Polythene Bags fixed to wall with screw, rawel plug & washers and held in position by criss crossing GI wire etc. complete as per directions of Engineer-in-Charge.	95	sqm	316.40	30058.00
10.11	Providing and fixing thermal insulation of ceiling (under deck insulation) with Resin Bonded Rockwool conforming to IS: 8183,density 48 kg/ m ³ , 50 mm thick, wrapped in 200 G Virgin Polythene bags fixed to ceiling with metallic cleats (50x50x3 mm) @ 60 cm and wire mesh of 12.5mm x 24 gauge wire mesh, for top most ceiling of building.	700	sqm	546.40	382480.00
	Sub-Total				4475712.00
11	FINISHING				
11.1	12 mm cement plaster of mix :				
11.1.1	1:6 (1 cement: 6 coarse sand)	2450	sqm	263.55	645698.00
11.2	15 mm cement plaster on rough side of single or half brick wall of mix:				
11.2.1	1:6 (1 cement: 6 coarse sand)	5900	sqm	303.90	1793010.00
11.3	12 mm cement plaster finished with a floating coat of neat cement of mix :				

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
11.3.1	1:3 (1 cement: 3 fine sand)	380	sqm	340.85	129523.00
11.4	15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix :				
11.4.1	1:4 (1 cement: 4 fine sand)	86	sqm	369.30	31760.00
11.5	6 mm cement plaster of mix :				
11.5.1	1:3 (1 cement : 3 fine sand)	3100	sqm	227.35	704785.00
11.6	Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.	2800	sqm	65.95	184660.00
11.7	Extra for plastering:				
11.7.1	Flewing soffits	300	sqm	88.35	26505.00
11.8	Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand) :				
11.8.1	Flush/ Ruled pointing	2800	sqm	285.40	799120.00
11.9	Extra for pointing on walls on the outside at height more than 10 m from ground level for every additional height of 3 m or part there of.	2965	sqm	7.15	21200.00
11.1	White washing with lime to give an even shade :				
11.10.1	New work (three or more coats)	1200	sqm	28.55	34260.00
11.11	Distempering with 1st quality acrylic distemper (ready mixed) having VOC content less than 50 gms/litre, of approved manufacturer, of required shade and colour complete, as per manufacturer's specification.				
11.11.1	Two or more coats on new work	6500	sqm	87.15	566475.00
11.12	Finishing walls with textured exterior paint of required shade :				
11.12.1	New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm	7350	sqm	232.00	1705200.00
11.13	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :				
11.13.1	Two or more coats on new work	300	sqm	128.65	38595.00
11.14	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :				
11.14.1	Two or more coats on new work	210	sqm	121.55	25526.00
11.15	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	10500	sqm	115.15	1209075.00
11.16	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	1500	sqm	18.25	27375.00
11.17	Providing and fixing approved galvanized chicken wire mesh (24 gauge 12 mm size) to junction of concrete and masonry work and other locations where called for at all the heights with necessary scaffolding etc. including cutting to required sizes, side laps of minimum 75 mm and fixing in position with galvanized wire nails etc. complete.	300	Sqm	144.58	43374.00
	Sub-Total				7986141.00
12	REPAIRS TO BUILDING				

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
12.1	Making the opening in brick masonry including dismantling in floor or walls by cutting masonry and making good the damages to walls, flooring and jambs complete, to match existing surface i/c disposal of mulba/ rubbish to the nearest municipal dumping ground, all complete as per direction of Engineer-in-Charge.				
12.1.1	For door/ window/ clerestory window	10	sqm	932.45	9325.00
12.2	Cutting holes of required size in brick masonry wall for fixing of exhaust fan including providing and fixing 300 mm dia PVC pipe conforming BIS-12818 and making good the same etc. complete as per direction of Engineer-in-charge.	10	each	220.40	2204.00
12.3	Hacking of CC flooring including cleaning for surface etc. complete as per direction of the Engineer-in-Charge.	800	sqm	2.50	2000.00
12.4	Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes (within 50 metres lead) as per direction of Engineer-in-Charge.	60	metre	2.70	162.00
	Sub-Total				13691.00
13	DISMANTLING AND DEMOLISHING				
13.1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.				
13.1.1	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	38	cum	1737.45	66023.00
13.2	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in - charge.	20	cum	2534.70	50694.00
13.3	Extra for cutting reinforcement bars manually/ by mechanical means in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work) as per direction of Engineer-in-charge.	8	sqm	863.35	6907.00
13.4	Extra for scrapping, cleaning and straightening reinforcement from R.C.C. or R.B. work.	300	kg	6.70	2010.00
13.5	Demolishing brick work 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.				
13.5.1	In cement mortar	16.5	cum	1469.90	24253.00
13.6	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :				
13.6.1	Of area 3 sq. metres and below	3	each	274.50	824.00
13.7	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 metres lead.	175	kg	4.15	726.00
13.8	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	35	sqm	190.30	6661.00
13.9	Demolishing brick tile covering in terracing including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	565	sqm	79.60	44974.00
13.1	Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of:				
13.10.1	G.S. Sheet	127	sqm	121.90	15481.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
13.11	Dismantling precast concrete or stone slabs in walls, partition walls etc. including stacking within 50 metres lead :				
13.11.1	Thickness above 40 mm up to 75 mm	5.4	sqm	312.25	1686.00
13.12	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	1300	sqm	39.00	50700.00
13.13	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	135	cum	138.85	18745.00
	Sub-Total				289684.00
14	ROAD WORK				
14.1	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earthwith lead upto 50 metres.	400	sqm	156.75	62700.00
14.2	Providing and laying design mix cement concrete of M-30 grade, in roads/ taxi tracks/ runways, using cement content as per design mix, using coarse sand and graded stone aggregate of 40 mm nominal size in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/ camber, finishing with required texture, including steel form work with sturdy M.S. channel sections, curing, making provision for contraction/ expansion, construction & longitudinal joints (10 mm wide x 50 mm deep) by groove cutting machine, providing and filling joints with approved joint filler and sealants, complete all as per direction of Engineer-in-charge (Item of joint fillers, sealants, dowel bars with sleeve/ tie bars to be paid separately). Note:- Cement content considered in M-30 is @ 340 kg/cum. Excess/ less cement used as per design mix is payable/ recoverable separately.				
14.2.1	Cement concrete prepared with batch mixing machine	50	cum	8752.35	437618.00
14.3	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	1.5	cum	8376.15	12564.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
14.4	Providing and erecting 2.00 metre high temporary barricading at site; each panel of size 2.50mx2.00m made of 40x40x6mm angle iron or 50x50x3mm hollow MS tube posts/horizontal members/bracings covered with 1.63mm thick MS sheet. The sheet shall be fixed with 30x5mm MS flat by suitable welding/riveting. The panels shall be made so that gap of 50cm above the ground is available making overall height as 2.5m. MS channel ISLC 75 @ 5.70 kg/m, 50cm long shall be provided at the bottom having oval shaped holes of size 50x25mm at both ends with 50cm long MS angle 40x40x6mm bracing. Suitable arrangement shall be made to fix the barricading to avoid from overturning by providing 250mm long expansion fasteners at both ends. The work shall be executed as per drawing/direction of Engineer-in-Charge which includes writing and painting, arrangement for traffic diversion such as traffic signals during construction at site for day and night, glow lamps, reflective signs, marking, flags, caution tape as directed by the Engineer-in-Charge. The barricading provided shall be retained in position at site continuously i/c shifting of barricading from one location to another location as many times as required during the execution of the entire work till its completion. Rate include its maintenance for damages, painting, all incidentals, labour materials, equipments and works required to execute the job. The barricading shall not be removed without prior approval of Engineer-in-Charge. (Note :- One time payment shall be made for providing barricading from start of work till completion of work i/c shifting. The barricading provided shall remain to be the property	200	metre	2566.70	513340.00
	Sub-Total				1026222.00
15	SANITARY INSTALLATIONS				
15.1	Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350 mm with white PVC automatic flushing cistern, with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS : 2556, C.I. trap with outlet grating and other couplings in C.P. brass, including painting of fittings and cutting and making good the walls and floors wherever required :				
15.1.1	Single half stall urinal with 5 litre P.V.C. automatic flushing cistern	8	each	9360.60	74885.00
15.2	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:				
15.2.1	White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar tap	4	each	2751.30	11005.00
15.3	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS:13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :				
15.3.1	Kitchen sink with drain board				
15.3.1.1	510x1040 mm bowl depth 250 mm	4	each	5155.95	20624.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
15.4	Providing and fixing white vitreous china laboratory sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P brass waste and 40mm C.P. brass trap with necessary C.P. brass unions complete, including painting of fittings and brackets, cutting and making good the wall wherever required :				
15.4.1	Size 600x450x200 mm	4	each	5460.45	21842.00
15.5	Providing and fixing CP Brass 32mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge.	28	each	883.05	24725.00
15.6	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.				
15.6.1	Flexible pipe				
15.6.1.1	32 mm dia	4	each	101.10	404.00
15.7	Providing and fixing toilet paper holder :				
15.7.1	C.P. brass	16	each	583.75	9340.00
15.8	Providing and fixing soil, waste and vent pipes :				
15.8.1	100 mm dia				
15.8.1.1	Centrifugally cast (spun) iron socket & spigot (S&S) pipe as per IS: 3989	400	metre	1092.20	436880.00
15.9	Providing and fixing M.S. holder-bat clamps of approved design to Sand Cast iron/cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including cost of cutting holes and making good the walls etc. :				
15.9.1	For 100 mm dia pipe	60	each	287.45	17247.00
15.1	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.				
15.10.1	100 mm dia				
15.10.1.1	Sand cast iron S&S as per IS - 3989	6	each	461.65	2770.00
15.11	Providing and fixing plain bend of required degree.				
15.11.1	100 mm dia				
15.11.1.1	Sand cast iron S&S as per IS : 3989	65	each	390.75	25399.00
15.12	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.				
15.12.1	100x100x100 mm				
15.12.1.1	Sand cast iron S&S as per IS - 3989	30	each	722.55	21677.00
15.13	Providing and fixing single equal plain junction of required degree :				
15.13.1	100x100x100 mm				
15.13.1.1	Sand cast iron S&S as per IS - 3989	55	each	667.70	36724.00
15.14	Providing and fixing single unequal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete :				
15.14.1	100x100x75 mm				
15.14.1.1	Sand cast iron S&S as per IS - 3989	4	each	916.55	3666.00
15.15	Providing and fixing terminal guard :				
15.15.1	100 mm				
15.15.1.1	Sand cast iron S&S as per IS - 3989	13	each	389.40	5062.00
15.16	Providing and fixing collar :				
15.16.1	100 mm				
15.16.1.1	Sand cast iron S&S as per IS - 3989	128	each	409.45	52410.00
15.17	Providing lead caulked joints to sand cast iron/centrifugally cast (spun) iron pipes and fittings of diameter :				

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
15.17.1	100 mm	700	each	481.45	337015.00
15.17.2	75 mm	12	each	407.90	4895.00
15.18	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :				
15.18.1	100 mm inlet and 100 mm outlet				
15.18.1.1	Sand cast iron S&S as per IS: 3989	68	each	1512.55	102853.00
15.19	Cutting chases in brick masonry walls for following diameter sand cast iron/centrifugally cast (spun) iron pipes and making good the same with cement concrete 1:3:6 (1 cement : 3 coarse sand :6 graded stone aggregate 12.5 mm nominal size), including necessary plaster and pointing in cement mortar 1:4 (1 cement : 4 coarse sand) :				
15.19.1	100 mm dia	50	metre	555.30	27765.00
15.2	Painting sand cast iron/ centrifugally cast (spun) iron soil, waste vent pipes and fittings with two coats of synthetic enamel paint of any colour such as chocolate grey, or buff etc. over a coat of primer (of approved quality) for new work :				
15.20.1	100 mm diameter pipe	400	metre	64.20	25680.00
15.21	Repainting sand cast iron/ centrifugally cast iron (spun) iron, soil, waste, vent pipes and fittings with one coat of synthetic enamel paint of any colour such as chocolate, grey or buff etc :				
15.21.1	100 mm diameter pipe	400	metre	30.95	12380.00
15.22	Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.	12	each	158.55	1903.00
15.23	Providing and fixing white vitreous china extended wall mounting water 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.	16	each	13852.45	221639.00
15.24	"Providing and fixing of white vitreous china under counter oval wash basin 560x450 mm , Hindware cat no. 10017 or approved equivalent with CP brass waste assembly, wall flanges and rubber adapters for waste connection complete including CI/MS brackets duly painted, nuts, washers, cutting and making good the walls floors wherever required as per direction of Engineer in charge. based on 2016 DAR item no 17.7.1 page no. 1079"	12	Each	2690.00	32280.00
15.25	Providing and fixing 6 mm thick beveled edge mirror of superior glass of Make : Modi Guard, Asahi, Saint Gobain with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete as per drawing.☒	16	Sqm	4915.17	78643.00
15.26	Providing and fixing health faucet with 1 m long flexible tube and wall hook of Make : Jaguar model No.ALD-573 or approved equivalent including all fittings etc. complete.☒	16	Each	1836.00	29376.00
15.27	Providing and fixing C.P. Flange 15 mm nominal bore.☒	150	Each	35.75	5363.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
	Sub-Total				1644452.00
16	WATER SUPPLY				
16.1	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work - Exposed on wall				
16.1.1	15 mm dia nominal bore	65	metre	284.90	18519.00
16.1.2	20 mm dia nominal bore	45	metre	344.10	15485.00
16.1.3	25 mm dia nominal bore	90	metre	438.00	39420.00
16.1.4	32 mm dia nominal bore	110	metre	529.70	58267.00
16.1.5	40 mm dia nominal bore	300	metre	639.60	191880.00
16.1.6	50 mm dia nominal bore	15	metre	786.75	11801.00
16.2	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall :				
16.2.1	15 mm dia nominal bore	90	metre	447.60	40284.00
16.2.2	20 mm dia nominal bore	55	metre	494.10	27176.00
16.3	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. External work				
16.3.1	25 mm dia nominal bore	30	metre	364.55	10937.00
16.3.2	32 mm dia nominal bore	30	metre	424.70	12741.00
16.3.3	40 mm dia nominal bore	30	metre	483.15	14495.00
16.4	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete :				
16.4.1	25 to 40 mm nominal bore	6	each	673.45	4041.00
16.4.2	50 to 80 mm nominal bore	4	each	1432.75	5731.00
16.5	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :				
16.5.1	25 mm nominal bore	7	each	497.15	3480.00
16.5.2	32 mm nominal bore.	4	each	581.25	2325.00
16.5.3	40 mm nominal bore	5	each	678.40	3392.00
16.5.4	50 mm nominal bore	2	each	869.20	1738.00
16.6	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :				
16.6.1	25 mm nominal bore	6	each	394.00	2364.00
16.7	Providing and fixing uplasticised PVC connection pipe with brass unions :				
16.7.1	45 cm length				
16.7.1.1	15 mm nominal bore	18	each	83.00	1494.00
16.8	Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work :				
16.8.1	25 mm diameter pipe	75	metre	23.70	1778.00
16.8.2	32 mm diameter pipe	90	metre	28.40	2556.00
16.8.3	40 mm diameter pipe	300	metre	33.40	10020.00
16.9	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :				
16.9.1	20 mm nominal bore	14	each	261.15	3656.00
16.9.2	25 mm nominal bore	24	each	340.10	8162.00
16.9.3	32 mm nominal bore	10	each	384.25	3843.00
16.9.4	40 mm nominal bore	18	each	452.50	8145.00
16.1	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.				
16.10.1	15 mm nominal bore	8	each	552.35	4419.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
16.11	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.				
16.11.1	15 mm nominal bore	4	each	606.25	2425.00
16.12	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931				
16.12.1	15mm nominal bore	42	each	532.00	22344.00
16.13	Cutting holes up to 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete so as to make it leak proof.				
		10	each	344.60	3446.00
	Sub-Total				536364.00
17	DRAINAGE				
17.1	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 :				
17.1.1	150 mm diameter	30	metre	500.20	15006.00
17.2	Providing and laying cement concrete 1:5:10 (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 :				
17.2.1	150 mm diameter S.W. pipe	30	metre	999.15	29975.00
17.3	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand (Zone-III) : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :				
17.3.1	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :				
17.3.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	2	each	10905.05	21810.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
17.4	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910, on 12 mm dia steel bar conforming to IS: 1786, having minimum cross section as 23 mmx25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	32	each	463.05	14818.00
17.5	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design :				
17.5.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	4	each	5209.10	20836.00
	Sub-Total				102445.00
18	ALUMINIUM WORK				
18.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :				
18.1.1	For fixed portion				
18.1.1.1	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	1800	kg	423.95	763110.00
18.1.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)				
18.1.2.1	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	3850	kg	513.40	1976590.00
18.2	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):				
18.2.1	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/sqm)	45	sqm	1296.40	58338.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
18.3	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.				
18.3.1	With stainless steel cover plate minimum 1.25 mm thickness	8	each	2412.50	19300.00
18.4	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.				
18.4.1	Upto 5mm depth and 5 mm width	750	metre	79.45	59588.00
18.5	Providing and fixing double glazed hermetically sealed glazing in aluminium windows, ventilators and partition etc. with 6 mm thick clear float glass both side, having 12 mm air gap, including providing EPDM gasket, perforated aluminium spacers, desiccants, sealant (Both primary and secondary sealant) etc. as per specifications, drawings and direction of Engineer-in-charge complete.	275	sqm	3905.35	1073971.00
18.6	Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineer-in-charge complete.				
18.6.1	355 X 19 mm	234	each	286.50	67041.00
18.7	Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0 mm thick & 2100 mm long with SS screws etc .complete as per direction of Engineer-in-Charge.				
18.7.1	Anodized (AC 15) aluminium tubular handle bar	100	each	512.30	51230.00
18.8	Providing and fixing Brass 100mm mortice latch and lock with 6 levers without pair of handles (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	8	each	458.55	3668.00
18.9	Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete.				
18.9.1	Anodized (AC 15) aluminium	120	each	67.55	8106.00
18.1	Providing and fixing aluminium round shape handle of outer dia 100 mm with SS screws etc. complete as per direction of Engineer-in-charge				
18.10.1	Polyester powder coated minimum thickness 50 micron aluminium	20	each	88.95	1779.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
18.11	Extra for Providing and fixing aluminium work for doors, windows and ventilators for louvers ventilation with extruded built up appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285 including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge instead of fixed portions :(based on DSR Item 21.1.1.)	325	Kg	90.75	29494.00
18.12	Providing and fixing 10 mm thick clear toughened glass in glazing partition with aluminium U clip as per manufacturer recommendation including all hardware all complete as per drawing and as directed by the architect.	140	Sqm	3072.80	430192.00
	Sub-Total				4542407.00
19	WATER PROOFING				
19.1	Providing and laying integral cement based treatment for water proofing on the vertical surface by fixing specified stone slab 22 mm to 25 mm thick with cement slurry mixed with water proofing compound conforming to IS:2645 in recommended proportions with a gap of 20 mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:3 (1 cement : 3 coarse sand) 20 mm thick with neat cement punning mixed with water proofing compound in recommended proportion complete at all levels and as directed by Engineer-in-charge :				
19.1.1	Using rough Kota stone	60	sqm	1738.00	104280.00
19.2	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	200	sqm	465.60	93120.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
19.3	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations: (a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300 mm height including cleaning the surface before treatment. (b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs. (c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge. (d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3 mm deep. (e) The whole terrace so finished shall be flooded with water for a				
19.3.1	With average thickness of 120 mm and minimum thickness at khurra as 65 mm.	715	sqm	1398.50	999928.00
19.4	Grading roof for water proofing treatment with				
19.4.1	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)	2.1	cum	6924.65	14542.00
	Sub-Total				1211870.00
20	RAIN WATER HARVESTING & TUBEWELLS				
20.1	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer-in-charge, upto 90 metre depth below ground level.				
20.1.1	All types of soil				
20.1.1.1	350 mm dia	32	metre	560.30	17930.00
20.2	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer -in-charge.				
20.2.1	150 mm nominal size dia	3	metre	690.75	2072.00
20.3	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge.				

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
20.3.1	150 mm nominal size dia	34	metre	746.15	25369.00
20.4	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	7	cum	1326.55	9286.00
20.5	Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	6.4	cum	1326.55	8490.00
20.6	Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer-in-charge.	6.4	cum	1326.55	8490.00
20.7	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge.	1	cum	1497.70	1498.00
20.8	Providing and fixing factory made precast RCC perforated drain covers, having concrete of strength not less than M-25, of size 1000 x 450x50 mm, reinforced with 8 mm dia four nos longitudinal & 9 nos cross sectional T.M.T. hoop bars, including providing 50 mm dia perforations @ 100 to 125 mm c/c, including providing edge binding with M.S. flats of size 50 mm x 1.6 mm complete, all as per direction of Engineer-in-charge.	2	each	1210.85	2422.00
20.9	Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete.				
20.9.1	150 mm clamp	1	each	1489.80	1490.00
20.1	Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I).				
20.10.1	150 mm dia	1	each	280.95	281.00
	Sub-Total				77328.00
21	CONSERVATION OF HERITAGE BUILDINGS.				

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
21.1	Providing and fixing double scaffolding system (cup lock type) on the exterior side of building/structure, upto 25 metre height, above ground level, including additional rows of scaffolding in stepped manner as per requirement of site, made with 40mm dia M.S. tube, placed 1.5 metre centre to centre, horizontal & vertical tubes joint with cup & lock system with M.S. Tubes, M.S. tube challis, M.S. clamps and staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for execution of work of cleaning and/ or pointing and/ or applying chemical and removing it thereafter. The scaffolding system shall be stiffened with bracings, runners, connecting with the building etc, wherever required, if feasible, for inspection of work at required locations with essential safety features for the workmen etc., complete as per directions and approval of Engineer-in-charge. Note:- (1) The elevational area of the scaffolding shall be measured for payment purpose. (2) The payment will be made once only for execution of all items for such works.	1800	sqm	257.95	464310.00
	Sub-Total				464310.00
22	NEW TECHNOLOGIES AND MATERIALS				
22.1	Providing, mixing and applying bonding coat of approved adhesive on chipped portion of RCC as per specifications and direction of Engineer-In-charge complete in all respect.				
22.1.1	SBR Polymer (@10% of cement weight) modified cementitious bond coat @ 2.2 kg cement per sqm of surface area mixed with specified proportion of approved polymer	1500	sqm	117.30	175950.00
22.2	Providing and fixing hard drawn steel wire fabric of size 75 x25 mm mesh or other suitable size wire mesh to be fixed & firmly anchored to the concrete surface by means of "L" shaped mild steel shear key welded with existing reinforcement including the cost of materials, labour, tool & plants as approved by Engineer-in-charge.	170	sqm	801.70	136289.00
22.3	Providing and fixing Scaffolding net of required width made of high density Polyethylene UV stabilized knitted on warp knitting machines having density 100grams/sqm and shading coefficient minimum 75% around the construction site/ for vertical extension as per requirement including fastening/tying with building/scaffolding pipes or with any other fixtures etc. complete as per direction of Engineer-in-Charge. (One time payment shall be made for providing Scaffolding net from start of work till completion of work including shifting if any. The Scaffolding net shall be the property of the contractor on completion of the work)	1500	sqm	24.20	36300.00
	Sub-Total				348539.00
23	MINOR CIVIL MAINTENANCE WORK:				
23.1	"Providing and laying in position cement concrete of 1:5:10 (1 Cement : 5 coarse sand (zone-III) : 10 graded brick aggregate 40 mm nominal size) excluding the cost of centring and shuttering "	25	Cum	4411.45	110286.00
23.2	"Providing and fixing C.P. grating with or without hole for waste pipe for floor/ nahani trap 100 mm dia. weight not less than 100 grams.	65	Each	66.90	4349.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
23.3	"Providing and fixing C.P. pillar cock 15 mm nominal bore (L&K make) for wash basin.	12	Each	722.50	8670.00
23.4	"Providing and fixing 15 mm nominal bore C.P brass two way bib cock of L&K or approved equivalent make.	16	Each	1157.50	18520.00
23.5	Providing and fixing SS COAT Hook of (Hindware cat no. F840007 approved equivalent)complete including consumable items, cutting and making good the walls where required.	16	Each	437.53	7000.00
23.6	Providing and laying 70 mm thick factory made RCC grass Grid paver blocks of M30 grade made by block making machine with strong vibratory compaction, of size 600 mm x 400 mm and of approved design, laid over and including 50 mm thick compacted bed of fine sand, filling the joints and holes with mix of 50 % available Earth and 50 % fine sand etc. all complete as per the direction of Engineer-in-charge.	200	Sqm	1750.50	350100.00
23.7	Providing fabricating and erecting steel structure staircase (dog legged) from ground level to terrace of 4th floor (up to 15.00 meter height) to make approach for workers. The work shall be executed as per drawing/ direction of Engineer-in-Charge and structural steel conforming to IS: 2062: Grade BR (yield strength = 350 MPa). Rate include its maintenance for damages, painting, all incidentals, labour materials, equipment's and works required to execute the job. The staircase shall not be removed without prior approval of Engineer-in-Charge. (Note: - Onetime payment shall be made for providing staircase from start of work till completion of work i/c dismantling of steel structure, removal from institute and clearance of ground surface and contractor has to be submitted vetted structural design & drawing before commencement of the work. The material provided in staircase shall remain to be the property of the contractor on completion of the work).	1	Each	938073.00	938073.00
23.8	Tile brick masonry in cladding with common burnt clay F.P.S. (non modular) tile bricks of class designation 10 and 55 mm average wide in superstructure above plinth level up to floor V level in cement mortar 1:4 (1 cement : 4 coarse sand).	2800	Sqm	1248.25	3495100.00
23.9	Providing & Fixing SS Grab Bar size 450mm/25MM in handicare toilet area complete as required. (Make Euronics - Cat No EGR01)."	4	Each	2423.75	9695.00
23.1	Disconnecting of existing Fire hydrant centrifugally pumping set, air vessel, control valve etc. from terrace of building and as well as shifting /reinstallation on another 4 floor above terrace including Commissioning and testing all complete.☒	1	par Job	9202.35	9202.00
23.11	Fixing of old avialable 150 mm dia MS black pipes HEAVY Class including cutting, welding etc. complete with fittings viz Tees, Elbows, Bends, flanges, reducer, clamps, hanger etc. including painting with one coat of primer and two coat of synthetic enamel paint of approved make and shad.	36	Rmt	667.20	24019.00
23.12	Providing and fixing C.P. Extension piece 50 mm average length.☒	150	Each	102.95	15443.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
23.13	Recovery of OLD polyethylene water storage tank after disconnection on terrace (at all floor levels) including cost of removal from terrace to dumping ground.☒	20000	Lt	-2.16	-43200.00
23.14	Extra for carriage of concrete by transit mixer beyond the initial lead of 10 Km from concrete plant to construction site. ☒	5814	Km	30.75	178781.00
23.15	Recovery of Hard drawn steel wire fabric of size 75 *25 mm including dismantling with necessary cleats ,battons including stacking the materials within 50 meter lead. ☒	170	Sqm	-160.00	-27200.00
	Sub-Total				5098838.00
24	Fire Fighting System				
24.1	Providing and fixing rubber expansion joints PN-16(to provide relief from stresses at pipe flanges) as per specification of the manufacturers. 150 mm dia	6	Each	4762.50	28575.00
24.2	Providing and fixing rubber expansion joints PN-16(to provide relief from stresses at pipe flanges) as per specification of the manufacturers. 80 mm dia	15	Each	4158.75	62381.00
24.3	Providing and fixing C.I double flanges suction strainer "Y" type including, nuts, bolts and 3mm thick rubber insertion complete "150mm dia	2	Each	26775.00	53550.00
24.4	Providing and fixing double flanged butterfly valves, wafer end type class PN 1.6 as per I.S:13095 - 1991 or BS:5155, including necessary nuts, bolts, gaskets etc. complete (without gear box) 150 mm dia.	6	Each	10422.50	62535.00
24.5	Providing and fixing C.I double flanged horizontal/vertical type non return valve including nuts, bolts, 3mm thick rubber insertions complete to I.S:5312, Part-I, swing type, class PN 1.6. 150mm dia .	4	Each	11012.50	44050.00
24.6	Providing and fixing gun metal two-way fire brigade inlet connection consisting of 63mm instantaneously male coupling and a check valve protected by cap scored with a chain glass bore etc. complete with one 150mm dia sluice valve and 150mm dia non-return valve (To be connected to GF riser / External Ring).	1	Each	13003.75	13004.00
24.7	Providing and fixing gun-metal 4-way fire brigade inlet connection of 4 nos. 63mm dia instantaneous type male coupling with built in check valves and 150mm dia flanged outlet complete with bolts, nuts and rubber insertions as per I.S:904. (to be connected to static tank).	1	Each	122272.00	122272.00
24.8	Providing and fixing gun metal fire brigade suction (draw out connection) with female coupling as per I.S:902-1974 complete and with 150mm dia. suction pipe and foot valve (To be connected to static tank).	1	Each	9652.50	9653.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
24.9	Supplying and fixing first-aid Hose Reel with MS construction spray painted in post office red, conforming to IS 884 complete with the following as required. 20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585 20 mm nominal internal dia gun metal globe valve & nozzle. Drum and brackets for fixing the equipments on wall. Connections from riser with 25 mm dia stop gun metal valve & M.S. Pipe and socket. 40 m	10	Set	10092.00	100920.00
24.1	Providing and fixing brass ball with wheel tested to 20 Kg/cm ² (I.S:778-1971, Class - II) of approved quality for hose reel "	10	Each	1056.00	10560.00
24.11	Providing and fixing Pressure gauge with isolation cock suitable with 'U' tube for maximum pressure of 7 Kg/cm ² . (0-14 Kg./cm ² ; dial size:100 mm dia.)	10	Each	1577.00	15770.00
24.12	Providing and fixing landing valve hydrants to type 'A' of I.S: 5290-1977 with 63mm dia S.S. instantaneous type single headed outlet, M.S. pipe, bend and flange of required size with blank caps and chain complete with instantaneous spring lock type G.M. female coupling of 63mm dia for connecting hose pipe.	14	Each	13117.50	183645.00
24.13	Providing and fixing standard short size S.S. branch pipe (IS:903) with S.S. nozzle 20mm nominal bore outlet with standard instantaneous type 63mm dia coupling in all respects.	10	Each	4718.75	47188.00
24.14	Providing and fixing 63mm dia 15m long rubberized fabric lined hose including S.S. male and female instantaneous type coupling, approved by fire authority, machine wound with copper. wire complete in all respects with hose conforming to IS:636 type-II and coupling conforming to IS: 903-1985 with ISI certification.	30	Each	12179.00	365370.00
24.15	"Providing and fixing pre fabricated weather proof lockable cabinet wall mounting or free standing type of size not less than 30" x 24" x 18" made out of MS sheet of 1.6 mm thickness and 4 mm thick glazed glass door. suitably marked on the outside with the letters ""FIRE HOSE"" including necessary locking arrangement and shall be painted with one coat of primer and two coats of synthetic enamel paint of approved shade complete in all respect. (For External Hydrants) "	16	Each	4856.00	77696.00
24.16	"Providing and fixing pre fabricated with 1.6mm thick MS Sheet 5 mm thick glass door (with MS frame) of size 2.1 m x 0.9 m. Suitably marked on the outside with the letters ""FIRE HOSE"" including locking arrangement. All MS work to be in Red P.O. colour over appropriate primer. The above item is only for masonry fire station.	10	Each	7193.00	71930.00
24.17	"Providing and fixing standard fire mans axe with heavy duty insulated rubber handle. "	10	Each	1398.75	13988.00

Item.No	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
24.18	"Providing and fixing MS black pipes as per IS 1239 (Part I) HEAVY Class including cutting, welding etc. complete with fittings viz Tees, Elbows, Bends, flanges, reducer, clamps, hanger etc. including painting with one coat of primer and two coat of synthetic enamel paint of approved make and shade. 150 mm dia	30	Rm	2217.00	66510.00
24.19	Providing and fixing MS black pipes as per IS 1239 (Part I) HEAVY Class including cutting, welding etc. complete with fittings viz Tees, Elbows, Bends, flanges, reducer, clamps, hanger etc. including painting with one coat of primer and two coat of synthetic enamel paint of approved make and shade	40	Rm	1508.00	60320.00
24.2	Providing and fixing MS black pipes as per IS 1239 (Part I) HEAVY Class including cutting, welding etc. complete with fittings viz Tees, Elbows, Bends, flanges, reducer, clamps, hanger etc. including painting with one coat of primer and two coat of synthetic enamel paint of approved make and shade 80 mm dia.	10	Rm	1041.00	10410.00
24.21	Providing and fixing electrically operated flow indicating switches with threaded connection for indicating water flow in sprinkler branch line with necessary junction box installed in accessible place. including cost of cable etc. complete. (Wiring from switches to panel and stair-case pressurisation not included).	1	Each	6041.25	6041.00
24.22	Providing and fixing 25mm dia inspecting & testing assembly with S.S. isolation valve, S.S. sight glass bypass valve & connected to line drain complete in all respect as per standard practice of code including pressure gauges of approved make.	1	Each	11881.25	11881.00
24.23	HAND APPLIANCES Providing and fixing ISI marked portable fire extinguishers including intial fill & wall suspension bracket of the following type." "CO2 type 4.5 Kg. capacity Fire Extinguisher .flat base including valve , discharge hose of not less than 10 mm dia 1 m long and complete in all respects including intial fill wall suspension bracket and conforming to IS: 15683.	12	Each	10289.00	123468.00
24.24	"HAND APPLIANCES Providing and fixing ISI marked portable fire extinguishers including intial fill & wall suspension bracket of the following type. Providing and fixing 5 kg capacity ABC Stored Pressure type fire extinguisher ISI marked under IS:15683 complete with imported Mono Ammonium Phosphate based ABC Powder suitable for all classes of fire. "	12	Each	5561.00	66732.00
	Sub-Total				1628449.00
	Total				76337290.00
	Estimated cost put to tender				66933178.00