

**BILL OF QUANTITY-CUM-PRICE SCHEDULE****Name of Project** : 66KV GIS FOR OPAL DAHEJ.**Name of Work** : CIVIL WORKS OF GIS BUILDING

S.No.	Description of Item	Quantity	Unit	Unit Rate(Rs)	Amount(Rs)
1	Earthwork in excavation by mechanical means(Hydraulic excavator)/manual means over areas (exceeding 30cm in depth 1.5m in width as well as 10sqm on plan) including dewatering as necessary of rain water/subsoil seepage water and disposal of excavated earth upto 100m and lift upto 3.5m, disposed earth to be levelled and neatly dressed.				
(a)	All kinds of soil .	1600	cum	101.85	162960.00
2	Earthwork in excavation by mechanical means (Hydraulic excavator )/manual means in foundation trenches or drains (not exceeding 1.5m in width as well as 10sqm on plan) including dewatering as necessary of rain water/subsoil seepage water and dressing of sides and ramming of bottoms, lift upto 3.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 100m.				
(a)	All kinds of soil .	650	cum	103.40	67210.00
3	Filling available excavated earth (including rock) in trenches, plinth, sides of foundations, etc., in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead upto 100m and lift upto 3.5m.	650	cum	45.70	29705.00
4	Supplying and filling CNS in layers not exceeding 20 cm in depth ,consolidating each deposited layer by ramming and watering etc all complete as per direction of Engineer in Charge.	780	cum	250.00	195000.00
5	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 3.0 m including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth including consolidating each deposited layer by ramming,watering etc.and disposing of surplus excavated soil as directed within a lead of 100m.				
(a)	All kinds of soil .				
5.1	Pipes, cables etc, not exceeding 80mm dia.	10	Meter	70.45	704.50

<b>5.2</b>	Pipes, cables etc. exceeding 80mm dia. but not exceeding 300 mm dia.	10	Meter	115.05	1150.50
<b>5.3</b>	Pipes, cables etc. exceeding 300mm dia but not exceeding 600mm	10	Meter	179.65	1796.50
<b>6</b>	Carriage & disposal of surplus excavated earth/rock beyond initial lead by mechanical means not necessarily all the times on pucca roads, including loading, unloading, dressing of excavated material, etc., complete as per specifications -.				
<b>(a)</b>	Lead upto 1 km.	1100	cum	49.42	54362.00
<b>(b)</b>	Lead upto 3 km.	900	cum	63.32	56988.00
<b>(c)</b>	Lead upto 5 km.	200	cum	76.48	15296.00
<b>7</b>	Supplying and filling local/jamuna sand in plinth ,cable trench ,plinth protection and under floors etc. including watering, ramming, consolidating and dressing complete.	1100	cum	301.50	331650.00
<b>8</b>	Supplying chemical emulsion in sealed containers including delivery as specified.				
	Chloropyriphos emulsifiable concentrate of 20%	100	litre	174.30	17430.00
<b>9</b>	Diluting & injecting chemical emulsion for PRE-CONSTRUCTIONAL ANTI-TERMITE treatment and creating a continuous chemical barrier under and all around the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall & floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth on which apron is to be laid , surroundings of pipes and conduits, etc complete as per specifications (Plinth area of the building at ground floor only shall be measured for payment).	1100	sqm	48.70	53570.00
<b>10</b>	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level.				
<b>(a)</b>	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40mm nominal size)	20	cum	3194.10	63882.00
<b>(b)</b>	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size)	20	cum	2713.05	54261.00
<b>(c)</b>	1:4:8(1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)	20	cum	2449.00	48980.00
<b>(d)</b>	1:5:10(1 cement : 5 coarse sand : 10 graded stone aggregate 40mm nominal size)	200	cum	2237.75	447550.00
<b>11</b>	Providing and laying damp proof course 40mm thick cement concrete M20.	100	sqm	145.00	14500.00
<b>12</b>	Applying two coat of residual petroleum bitumen of penetration 80/100 of approved quality using 1.7 kg per sqm on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	100	sqm	58.60	5860.00

<b>13</b>	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for RCC work 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 in grade specified.				
<b>(a)</b>	M30 grade reinforced cement concrete : -All works upto floor V level	1900	cum	4201.95	7983705.00
<b>14</b>	Providing and laying M20 reinforced cement concrete in ground floor grade slab excluding the cost of centring,shuttering,finishing and reinforcement.	210	cum	3732.00	783720.00
<b>15</b>	Providing and fixing in position 12mm thick bitumen impregnated fibre board conforming to IS:1838 including cost of primer, sealing compound in expansion joints.	230	per cm depth per 100m	334.55	76946.50
<b>16</b>	Providing ,laying and compacting 200mm thick boulder soling under the floors over compacted earth fill as per direction of Engineer-in-Charge.	1100	sqm	100.00	110000.00
<b>17</b>	Centering and shuttering including strutting, propping, etc., and removal of forms at all heights for.				
<b>(a)</b>	Foundations, footings, bases of columns, etc., for mass concrete.	1100	sqm	119.25	131175.00
<b>(b)</b>	Columns, Pillars, Piers, Posts and Struts .	1700	sqm	238.40	405280.00
<b>(c )</b>	RCC walls (any thickness).	1800	sqm	180.40	324720.00
<b>(d)</b>	Suspended floors, roofs, landings, balconies,chajjas and access platforms at all levels.	2400	sqm	187.35	449640.00
<b>(e)</b>	Lintels,beams,plinth beams and cantilevers.	3000	sqm	162.65	487950.00
<b>(f)</b>	Stairs.	100	sqm	204.00	20400.00
<b>18</b>	Extra for additionla height in centering, shuttering where ever required with adequate bracing, propping etc. including cost of de-shuttering and decentering at all levels, over a height of 3.5m, foe every additional height of 1 meter or part thereof (Plan area to be measured)				
<b>(a)</b>	Suspended floors, roofs, landing, beams and balconies (Plan area to be measured)	5500	sqm	106.20	584100.00
<b>19</b>	Steel reinforcement -Cold twisted bars /TMT/HCR, preferabally SAIL,TISCO,IISCO and RINL				
<b>(a)</b>	Including supply and bending, binding (i/c cost of binding wire), placing in position, etc., all labour & material, complete.	284000	kg	42.70	12126800.00

20	Providing and applying two layers of residual petroleum bitumen of penetration 85/25 of approved quality using 1.7 kg per sqm on the faces of foundations after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.(For all lifts and leads).	950	sqm	106.00	100700.00
21	Brickwork with F.P.S.bricks of class designation 75 in foundation and plinth in:				
	Cement mortar 1:6 (1 cement : 6 coarse sand)	75	cum	2121.75	159131.25
22	Brickwork with F.P.S bricks of class designation 75 in superstructure above plinth level upto V level in all shapes and sizes:Cement mortar 1:6 (1 cement : 6 coarse sand)	650	cum	2357.40	1532310.00
23	Half brick masonry with F.P.S.bricks of class designation 75 in foundation and plinth in:				
	Cement mortar 1:4 (1 cement : 4 coarse sand)	65	sqm	270.35	17572.75
24	Half brick masonry with F.P.S. bricks of class designation 75 in superstructure above plinth upto floor V level.				
	Cement mortar 1:4 (1 cement : 4 coarse sand)	65	sqm	302.80	19682.00
25	Extra for providing and placing in position 2 Nos 8mm dia bars at every fourth course of half brick masonry (with FPS bricks).	65	sqm	47.80	3107.00
26	18mm cement plaster on external face of walls in two coats with under layer 12mm thick cement plaster 1:4 (1 cement :4 coarse sand ) finished with a top layer of 6mm thick 1:4 (1cement:4 coarse sand).	2600	sqm	111.15	288990.00
27	15mm cement plaster in 1:4 (1 cement :4 coarse sand ) on uneven sides of internal walls and RCC surfaces as required.	110	sqm	96.35	10598.50
28	12mm cement plaster on even side of the walls and on RCC surfaces as required in the mix:				
	1:4 (1cement :4coarse sand)	2700	sqm	82.55	222885.00
29	Extra for providing and mixing water proofing material in cement plaster work in proportion as per specification.	210	per bag of cement	28.85	6058.50
30	2mm thick plaster of paris punning over the plastered surfaces on wall surfaces as directed by engineer-in-charge.	1100	sqm	47.20	51920.00
31	6mm cement plaster to ceiling of mix.				

	1:3 (1 cement : 3 fine sand)	2400	sqm	62.15	149160.00
<b>32</b>	Forming groove of uniform size from 12X12mm and upto 25X15mm in plastered surface and joints of ceiling and wall as per approved pattern using wooden battens, nailed to the underlayer including removal of wooden battens, repairs to the edges of plaster panel and finishing the groove complete as per specifications and directions of the Engineer-in-charge.	1100.00	RM	13.30	14630.00
<b>33</b>	Add or deduct plaster drip course /groove in plastered surface or moulding to RCC projections:	230	meter	11.95	2748.50
<b>34</b>	Applying priming coat				
<b>(a)</b>	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works.	370	sqm	12.65	4680.50
<b>(b)</b>	One coat of cement primer of approved brand and manufacture on wall surface.	2600	sqm	17.20	44720.00
<b>35</b>	Providing and fixing 18mm thick mirror polished, machine cut for floors, column facia, kitchen platforms, vanity counters and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement: 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing etc. complete at all levels.				
	Granite of any colour and shade				
<b>(a)</b>	Area of slab upto 0.5 sqm	20	sqm	2480.20	49604.00
<b>(b)</b>	Area of slab over 0.5 sqm	210	sqm	2543.65	534166.50
<b>36</b>	Providing and fixing pressed steel door frames confirming to IS:4351 manufactured from commercial mild steel sheet of 1.25mm thickness including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50X25mm, or base ties of 1.25mm pressed mild steel welded or rigidly fixed together by mechanical means, adjustable lugs with spit end tail to each jamb including steel butt hinges 2.5mm thick with mortar guards, lock strike plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-Charge:				
	Profile C	160	RM	271.65	43464.00

37	Structural steelwork welded in built up sections like edge protection angles,insert plates with lugs & framed work including providing, cutting, hoisting, fixing in position/ embedding in concrete and applying a priming coat of approved steel primer all complete.	15000	kg	46.35	695250.00
38	Steelwork welded in built up sections/framed work including providing ,cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc., as required.				
(a)	In covering of floors/trenches inside the buildings with chequered plates, stringers, treads, landings etc of staircases involving use of chequered plates, wherever required, all complete.	17000	kg	48.95	832150.00
(b)	In gantry girder(beams,channels etc),mono rails, ladders, staircase railing and similar works.	25000	kg	51.20	1280000.00
39	Providing & fixing 45mm steel door made of double sheet 18G steel suitably reinforced and filled with mineral wool/PU foam , including frame,fittings and accessories etc., all complete as per specification and instruction of Engineer -in-Charge.	65	sqm	600.00	39000.00
40	52mm thick CC flooring with concrete hardner topping under layer 40mm thick CC 1:2:4 (1cement:2 coarse sand: 4 stone aggregate 20mm nominal size) and top layer 12 mm thick Hardcrete cement hardner consisting of mix 1:2 (1 cement hardner mix: 2 stone aggregate 6mm nominal size) by volume with which hardening compound of approved quality is mixed @ 2 liter per 50 Kg of cement including cement slurry, but excluding the cost of nosing of steps etc., complete.	210	sqm	286.55	60175.50
41	Cement plaster skirting (upto 30cm height) with cement mortar 1:3 (1cement: 3 coarse sand) finished with a floating coat of neat cement.				
	18mm thick	55	sqm	168.50	9267.50
42	Providing & fixing 10mm thick acid and or alkali resistant tiles of approved make and colour using acid and or alkali resisting mortar bedding and joints filled with acid and or alkali resisting cement as per IS : 4457 complete as per the direction of Engineer-in-charge.				
	In flooring on a bed of 10mm thick mortar 1:4 ( 1 acid proof cement: 4 coarse sand). Acid and alkali resistant tile.	20	sqm	873.00	17460.00
	In dado/skirting on 12mm thick mortar 1:4 (1 acid proof cement :4 coarse sand). Acid and alkali resistant tile.	20	sqm	909.15	18183.00

<b>43</b>	Providing and fixing 1st quality ceramic glazed tiles conforming to IS:15622 of minimum thickness 5 mm of approved make and colours in skirting, risers of steps and dados over 12 mm thick bed of Cement mortar 1:3 (1 Cement:3 coarse sand ) and jointing with grey cement slurry @3.3 kg/sqm including pointing in white cement mixed with pigment of matching shade complete.	40	sqm	556.60	22264.00
<b>44</b>	Providing and laying 1st quality ceramic glazed tiles 300X300 mm conforming to IS:15622 of minimum thickness 7 mm of approved make and colours laid over 20 mm thick bed of Cement mortar 1:4 (1 Cement:4 coarse sand ) including pointing in white cement mixed with pigment of matching shade complete.	20	sqm	598.65	11973.00
<b>45</b>	Providing and laying of minimum 7 mm thick pre-polished vitrified tiles conforming to IS 15622 in different sizes of approved make and colours laid over 20 mm thick bed of Cement mortar 1:4 (1 Cement:4 coarse sand) including pointing in white cement mixed with pigment of matching shade complete as per direction of Engineer-in charge.				
<b>(a)</b>	Size of Tile 50X50 cm.	65	sqm	1308.05	85023.25
<b>(b)</b>	Size of Tile 60X60 cm.	65	sqm	1448.55	94155.75
<b>46</b>	Providing and fixing pre polished vitrified tiles minimum thickness 7 mm of approved make and colours in skirting, risers of steps and dados over 12 mm thick bed of Cement mortar 1:3 (1 Cement:3 coarse sand ) and jointing with grey cement slurry @3.3 kg/sqm including pointing in white cement mixed with pigment of matching shade complete.	40	sqm	1214.47	48578.80
<b>47</b>	Kota stone slab flooring over 20mm (average) thick base, laid over and jointed with grey cement slurry mixed with pigment to match the shade of slab including rubbing and polishing complete with base of cement mortar. 1:4 (1 cement: 4 coarse sand).				
	25 mm thick .	100	sqm	694.40	69440.00
<b>48</b>	Kota stone slabs 25 mm thick in riser of steps, skirting, dado and pillars laid on 12mm (average) thick cement mortar 1:3 ( 1 cement : 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	65	sqm	676.75	43988.75

<b>49</b>	Providing and fixing dry cladding upto 10 metre heights with 30mm thick gang saw cut stone with (machine cut edges) of uniform colour and size upto 1mx1m, fixed to structural steel frame work and / or with the help of cramps, pins etc. and sealing the joints with approved weather sealant as per Architectural drawing and direction of Engineer-in-charge. (The steel frame work, stainless steel cramps and pins etc. shall be paid for separately.)				
	Red sand stone	320	sqm	1323.40	423488.00
	White sand stone	320	sqm	1382.35	442352.00
<b>50</b>	Providing and fixing adjustable stainless steel cramps of approved quality and of required shape and size adjustable with stainless steel nuts bolts and washer (total weight not less than 260 gms) for dry cladding fixed on frame work at suitable location including making necessary recesses in stone slab, drilling required holes etc complete as per direction of the Engineer-in-charge.	210	each	272.50	57225.00
<b>51</b>	Providing and fixing ISI marked flush door shutters decorative type ,core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.				
	35 mm thick including ISI marked Stainless Steel butt hinges with nessary screws.	160	sqm	1473.50	235760.00
<b>52</b>	Providing and fixing anodised aluminium work for doors, windows, ventilators and partitions with extruded builtup standard tubular/appropriate Z section and other sections of approved make conforming to IS: 733 and IS:1285, anodised transparent or dyed to required shade according to IS: 1868. (Minimum anodic coating of grade AC 15), fixed with rawl plugs and screws or with fixing clips or with expansion fasteners including necessary filling up of gaps at junctions at top , bottom and sides with required PVC/neoprene felt, etc. Aluminium sections shall be smooth , rust free, straight, mitred and jointed mechanically wherever required including cleat angle, aluminium snap beading for glazing/panelling, CP brass/stainless steel screws, all complete as per architectural drawings and direction of Engineer-in-charge. (Glazing and panelling to be paid for separately).				
<b>(a)</b>	For fixed portion	1800	kg	290.45	522810.00
<b>(b)</b>	For shutters of doors, windows & ventilators including providing and fixing hinges/pivots and fittings wherever required including the cost of PVC/neoprene gasket required .	5200	kg	310.45	1614340.00



53	Providing and fixing of Fibre Glass Reinforced plastic (FRP) Door Frames of three legged of cross-section 90mmx45mm having single rebate of 32mmx 15mm to receive shutter of 30mm thickness. The laminated doorframe molded with fire resistant grade unsaturated polyester resin and chopped mat. Doorframe laminated shall be 2mm thick and shall be filled with suitable wooden block in all the three legs. The frame shall be covered with fibreglass from all sides. M.S stay shall be provided at the bottom to steady the frame.	25	metre	398.40	9960.00
54	Providing and fixing to existing door frames.				
	30mm thick fibreglass reinforced plastic (F.R.P) flush door shutter in different plain and wood finish made with fire retardant grade unsaturated polyester resin, moulded to 3mm thick FRP laminated all around, with suitable wooden blocks inside at required places for fixing of fittings and polyurethane foam (PUF)/ Polystyrene foam to be used as filler material throughout the hollow panel, casted monolithically with testing parameters of F.R.P laminate conforming to table -3 of IS: 14856:2000, complete as per direction of Engineer-in-charge.	10	sqm	2362.00	23620.00
55	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions, etc., with PVC/neoprene gasket, etc., complete as per the architectural drawings and directions of Engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item).				
	With float glass panes of 5.5mm thickness.	320	sqm	673.55	215536.00
56	Providing and fixing double action hydraulic floor spring of approved brand and manufacture (conforming to IS:6315) for aluminium door including cost of cutting floors as required, embedding in floors and cover plates with brass pivot and single piece MS sheet outer box with slide plate etc., complete as per the directions of Engineer-in-charge. ( SS cover plate.)	20	each	1733.50	34670.00
57	Providing and fixing aluminium sliding door bolts anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc., complete.				
(a)	300 X 16mm	11	each	79.60	875.60
(b)	250 X 16 mm	6	each	69.65	417.90
58	Providing and fixing aluminium tower bolts anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with necessary screws etc., complete.				
(a)	300 X 10mm	11	each	71.45	785.95
(b)	250 X 10 mm	6	each	62.20	373.20

59	Providing and fixing aluminium handles anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with necessary screws etc., complete.				
	125mm	32	each	48.80	1561.60
60	Providing and fixing IS:3564 marked aluminium die cast body tubular type universal door closer of approved quality and make with accessories and screws complete.	16	each	610.60	9769.60
61	Supplying and fixing rolling shutters of approved make, made of required size MS laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with mechanical arrangement for operation complete including the cost of providing and fixing necessary 27.5cm long wire springs grade no. 2 and MS top cover of required thickness for rolling shutters.				
	80X1.25 mm MS laths with 1.25mm thick top cover.	55.00	sqm	1208.45	66464.75
62	Providing and fixing ball bearing for rolling shutters.	11	each	365.50	4020.50
63	Providing and fixing M.S. grills of required pattern in frames of windows etc. with MS flats, square or round bars etc. all complete.	2100	kg	59.25	124425.00
64	Whitewashing with lime to give an even shade				
	New work (3 or more coats)	1100	sqm	6.75	7425.00
65	Distemping with oil bound washable distemper of approved brand and manufacture two or more coats over and including priming coat with cement primer.	2000	sqm	41.55	83100.00
66	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade.				
	Two or more coats on new work.	1100	sqm	40.05	44055.00
67	Finishing walls with water proofing cement paint of required shade :				
	New work : Two or more coats applied @3.84kg/10sqm.	3700	sqm	30.80	113960.00
68	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade:				
	Two or more coats on new work.	1000	sqm	33.25	33250.00
69	Painting with acid proof paint of approved brand and manufacture of required colour to give an even shade.				
	Two or more coats on new work.	230	sqm	32.40	7452.00
70	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preperation of surface, etc. complete.				

	On concrete work	600	sqm	77.75	46650.00
71	Providing and applying two coats of fire retardant paint unthinned on cleaned wood/ply surface @ 3.5 sqm per litre per coat including preparation of base surface as per recommendation of manufacturer to make the surface fire retardant.	55	sqm	229.80	12639.00
72	Providing and fixing white vitreous china water closet squatting pan ( Indian type W.C. pan) with 100 mm sand cast iron P or S trap, 10 litre low level P.V.C. flushing cistern ( of approved make ) with fittings, C.I./M.S. brackets, 32 mm diameter flush pipe with fittings and clamps, overflow arrangement with specials and mosquito proof coupling of approved municipal design including painting of fittings and brackets, cutting and making good the walls and floors wherever required.				
	Orissa pattern W.C. Pan of size 550 x 440 mm with integral type foot rests flush pipe and overflow arrangement.	1	each	2304.65	2304.65
73	Providing and fixing white vitreous china pedestal type water closet ( European type W.C. Pan) with seat and lid, C.P. Brass hinges and rubber buffers, 10 litre low level flushing cistern with fittings & CI/MS brackets 40mm dia flush bend , overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete including painting of fittings and brackets, cutting and making good the walls and floors wherever required :				
	W.C. pan with black solid plastic seat and lid with white vitreous china flushing cistern and CP flush bend.	1	each	2123.45	2123.45
74	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430 x260x 350 mm and 340 x 410 x 265 mm sizes respectively with automatic photo cell operated flushing cistern with C.I./ M.S brackets standard flush pipe and C.P. brass spreaders with brass unions and G.I. clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required:				
	One urinal basin with 5 litre P.V.C automatic flushing cistern of approved make.	2	each	2018.70	4037.40
75	Providing and fixing vitreous china under counter wash basin in oval shape of approved colour and size with 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings etc. cutting and making good the walls wherever required:				
	Size of wash basin 600mm X 480mm.	2	each	1149.45	2298.90

<b>76</b>	Providing and fixing white vitreous china laboratory sink with C.I. Brackets CP brass chain and rubber plug 40 mm CP brass waste and 40mm CP brass trap with necessary brass unions complete including painting of fittings and brackets, cutting and making good the walls wherever required.				
	Size 600 X 450 X 200 mm	1	each	2149.95	2149.95
<b>77</b>	Providing and fixing 100 mm sand cast iron grating for gully, floor or Nahani trap.	10	each	16.45	164.50
<b>78</b>	Providing and fixing 600 x 450 x5.5 mm bevelled edge mirror of float glass ( of approved quality ) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. Brass screws and washers complete.	2	each	493.65	987.30
<b>79</b>	Providing and fixing 600 x 120 x 5 mm glass shelf with edges rounded off supported on anodised aluminium angle frame with C.P. Brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc. complete.	1	each	218.80	218.80
<b>80</b>	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with C.P. Brass screws with concealed fitting arrangement of approved quality and make.				
	600 mm long towel rail with total length of 645mm,width 78mm and effective height 88mm,weighing not less than 190gms.	1	each	329.50	329.50
<b>81</b>	Providing and fixing PTMT liquid soap container 109mm wide,125mm high and 112mm distance from wall of standard shape with bracket of same materials with snap fittings of approved quality ,colour and make ,weighing not less than 105 gm (Prayag or equivalent).	1	each	164.60	164.60
<b>82</b>	Providing and fixing Hand drier electrically operated with photo voltaic control with all fittings etc. all complete as per direction of engineer-in-charge.	1	each	6000.00	6000.00
<b>83</b>	Providing and fixing toilet paper holder.				
	CP brass.	1	each	147.10	147.10
<b>84</b>	Providing and fixing soil, waste and vent pipes:				
	100 mm dia.				
	Sand cast iron S & S pipe.	65	RM	451.00	29315.00

<b>85</b>	Providing and fixing M.S holder-bat clamps of approved design to Sand Cast iron/ cast iron ( spun ) pipe embedded in and including cement concrete blocks 10 x 10 cm of 1:2:4 mix ( 1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including cost of cutting holes and making good the walls etc.				
	For 100 mm dia pipe	20	each	65.35	1307.00
<b>86</b>	Providing lead caulked joints to SCI pipes and fittings of diameter				
	100mm	11	each	126.50	1391.50
<b>87</b>	Providing and fixing SCI trap of self cleansing design with SCI screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors:				
	100mm inlet and 100mm outlet.	2	each	544.30	1088.60
<b>88</b>	Providing and fixing G.I. Pipes (medium grade) complete with G.I. Fitting and clamps , including cutting and making good the walls etc. ( internal work).				
(a)	15 mm dia nominal bore.	20	RM	105.85	2117.00
(b)	20 mm dia nominal bore.	20	RM	133.85	2677.00
(c)	25 mm dia nominal bore.	20	RM	179.65	3593.00
<b>89</b>	Providing and fixing G.I. Pipes (medium grade) complete with G.I. Fitting and clamps , including trenching and refilling, etc. ( external work).				
(a)	15 mm dia nominal bore.	20	RM	94.05	1881.00
(b)	20 mm dia nominal bore.	20	RM	116.60	2332.00
©	40 mm dia nominal bore.	20	RM	219.60	4392.00
<b>90</b>	Making connection of GI distribution branch with GI main of following sizes by providing and fixing tee, including cutting and threading the pipe etc., complete.				
	25 to 40mm nominal bore.	2	each	166.05	332.10
<b>91</b>	Providing and fixing C.P. brass bib cock of approved quality				
	15mm nominal bore	2	each	207.00	414.00
<b>92</b>	Providing and fixing C.P.brass stop cock of approved quality				
	15mm nominal bore	2	each	262.55	525.10
<b>93</b>	Providing and fixing gun metal gate valve with CI wheel of approved quality (screwed end)				
(a)	25mm nominal bore	1	each	285.50	285.50
(b)	32mm nominal bore	1	each	358.00	358.00
<b>94</b>	Providing and fixing ball valve (brass) of approved quality , high or low pressure with plastic floats complete.				
	15mm nominal bore	2	each	228.35	456.70

<b>95</b>	Providing, laying and jointing glazed stoneware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 ( 1 cement : 1 fine sand) including testings of joints etc. complete.				
<b>(a)</b>	100 mm diameter.	20	RM	105.90	2118.00
<b>(b)</b>	150 mm diameter.	20	RM	151.65	3033.00
<b>(c)</b>	200 mm diameter.	20	RM	247.15	4943.00
<b>96</b>	Providing and fixing square-mouth S.W. Gully trap grade 'A' complete with C.I. Grating brick masonry chamber with bricks of class designation 75 and water tight C.I. Cover with frame of 300 x 300 mm size ( inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as standard design.:				
	100 x 100 mm size P type				
	With F.P.S bricks	2	each	935.15	1870.30
<b>97</b>	Making khurras 45X45cm with average minimum thickness of 5cm cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate of 20mm nominal size) over PVC sheet 1mX1mX400micron, finished with 12mm 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.	35	Each	108.00	3780.00
<b>98</b>	Providing gola 75X75 mm in cement concrete 1:2:4(1 cement:2coarse sand: 4 stone aggregate 10mm and down size)including finishing with cement mortar 1:3 (1 cement:3 fine sand) as per standard design : 75X75 mm deep chase.	210	meter	67.35	14143.50
<b>99</b>	Providing and placing on terrace ( at all floor levels ) polyethylene water storage tank of approved brand and manufacture with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank. The tank should be ISI marked .	1100	per litre capacity	5.25	5775.00

<b>100</b>	Providing and laying in situ seven course water proofing treatment with APP (Atactic poly-propylene) modified Polymeric memberane over roof consisting of first coat of bitumen promer @ 0.4kg per sqm, 2nd, 4th & 6th course of bounding material @ 1.2kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, 3rd and 5th layers of roofing memberane APP modified Polmeric memberane 1.5mm thick of 2.25 kg/sqm weight cosisting of five layers prefabricated with centre core as 20micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 100 grouted with cement mortar 1:3 (1 cement: 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12mm layer of cement mortar 1:3 (1 cement:3 fine sand) and finished neat which shall be paid seperately.	1200	sqm	283.25	339900.00
<b>101</b>	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.: Single socketed pipes .				
<b>(a)</b>	75mm diameter	210	meter	95.00	19950.00
<b>(b)</b>	110 mm diameter.	320	meter	163.40	52288.00
<b>102</b>	Providing and fixing at all height false ceiling including providing and fixing of frame work made of special sections power pressed from M.S sheet and galvanised in accordance with zinc coating of grade 350 as per IS : 277 and consisting of angle cleats of size 25mm wide x 1.6mm thick with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with dash fastener 12.5mm diax40mm long with 6mm dia bolts to the angle hanger of 25x25x0.55mm of required length, and other end of angle hanger being fixed with nut and bolts to G.I channels 45x15x0.9mm running at the rate of 1200mm centre to centre to which the ceiling section 0.5mm thick button wedge of 80mm with tapered flange of 26mm each having clips of 10.5mm at 450mm centre to centre shall be fixed on a direction perpendicular to G.I channel with connecting clips made out of 2.64mm diax 230mm long G.I wire at				

	every junction including fixing the gypsum board with ceiling section and perimeter channels 0.5mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450mm centre to centre with 25mm long drive-all screws @ 230mm interval including jointing and fixing to a flush finish of tapered and square edges of the board with recommended filler, jointing tapes, finisher and two coats of primer suitable for board as per manufactures specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed all complete as per drawings and specification and direction of the Engineer in Charge but excluding the cost of painting with:				
	12.5mm thick tapered edge gypsum board coforming to IS:2095-Part-I	250	sqm	502.10	125525.00
103	Providing & fixing 0.5mm thick precast Al-Lineal false ceiling in approved pattern all complete including fixing ,leaving cut out etc required for completion of works as per direction of Engineer-in -Charge.	200	sqm	1600.00	320000.00
104	Providing and fixing thermal insulation of ceiling (under deck insulation) with Resin Bonded Fibre wool conforming to IS: 8193 density 24kg/cum, 50mm thick, wrapped in 200 G Virgin Polythene gabs fixed to ceiling with metallic cleats (50x50x3 mm) @ 60cm and wire mesh of 12.5mm x 24g wire and mesh, for top most ceiling of building.	550	sqm	310.10	170555.00
105	Constructing brick masonry manhole with 75 class designation bricks in cement mortar 1:4 (1 cement: 4 coarse sand) RCC top slab with 1:2:4 mix(1 cement:2 coarse sand: 4 graded stone aggregate 20mm nominal size) foundation concrete 1:4:8 (1 cement: 4 coarse sand: 8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 mix(1 cement:2 coarse sand: 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design.				
	Inside size 90X80cm and 45cm deep including CI cover with frame (light duty) 455X610mm internal dimensions total weight of cover and frame to be not less than 38kg (weight of cover 23kg and weight of frame 15kg)				
	With FPS bricks	2	each	5383.70	10767.40



<b>106</b>	Extra for depth for manholes				
	Size 90X80cm				
	With FPS bricks	2	RM	2654.00	5308.00
<b>107</b>	Making soak pit 2.5m diameter 3m deep with 45X45cm dry brick honeycomb shaft with bricks of class designation 75 and SW drain pipe 100mm diameter, 1.8m long complete as per standard design and specification.				
	With FPS bricks	1	each	9938.65	9938.65
<b>108</b>	Providing and laying non-pressure NP2 class (light duty) RCC pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement: 2 fine sand) including testing of joints etc., complete.				
(a)	150mm dia. RCC pipe	10	RM	202.85	2028.50
(b)	250mm dia. RCC pipe	10	RM	258.20	2582.00
©	300mm dia. RCC pipe	10	RM	338.75	3387.50
<b>109</b>	Providing and placing in position suitable PVC water stops conforming to IS 12200 for construction/expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete.				
	Serrated with central bulb(225mm wide,8-11mm thick)	100	meter	386.75	38675.00
<b>110</b>	Grouting of block outs, pockets, foundations, bolts holes and underside of base plates with ready mixed grout or grout consisting of 2 parts by weight of sand, 1 part by weight of cement including approved plasticizer, non-shrink admixture, in the required proportion as recommended by manufacturer/Engineer, including placing, curing, cleaning, surface preparation, testing, etc. complete with labour, materials, equipment, handling, testing, etc. all complete as per specifications, drawings and instructions of the Engineer.	2	cum	10000.00	20000.00
<b>111</b>	Supplying and fixing 20G chicken wire mesh on brick/stone masonry and RCC joints and fixed with GI type nails etc. all complete	120	sqm	99.97	11996.40
<b>112</b>	Boring, providing and installing bored cast-in-situ reinforced cement concrete pile of specified diameter and length below the pile cap M30 in cement concrete, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including cost of concreting, cost of boring with, bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of pile to be embedded in the pile cap etc. all complete, including removal of excavated earth with all lifts and leads (Length of pile for payment shall be measured upto bottom of pile cap).				
(a)	500mm dia piles	2700	metre	1997.00	5391900.00

<b>113</b>	Vertical load testing of pile in accordance with IS 2911 (Part IV) including installation of loading platform and preparation of pile head or construction of test cap and				
	Single pile upto 50 tonne capacity				
<b>(a)</b>	Routine test	3	per test	13357.20	40071.60
<b>114</b>	Lateral load testing of single pile in accordance with IS Code of practice IS:2911 (Part IV) for determining safe lateral load on pile:				
<b>(a)</b>	Upto 50 tonne capacity pile.	3	per test	13357.20	40071.60
<b>115</b>	Providing and mixing approved Bipolar Concrete Penetrating Corrosion Inhabiting admixture in concrete as per specification and direction of Engineer-in-charge.all complete.	7500	kg	37.50	281250.00
<b>116</b>	Stripping pile head to cut off level and exposing pile reinforcement for embedment in pile cap including cleaning, brushing, disposing the material all complete as per direction of Engineer-in-charge.	40	cum	500.00	20000.00
SUM					<b>42842565.25</b>