

NAME OF WORK:- CONSERVATION / RESTORATION OF OLD PUBLIC HEALTH (HQ) HERITAGE BUILDINGS AT THE MALL ROAD, PATIALA						
BILL OF QUANTITIES / PRICE SCHEDULE						
Name of Bidder						
Note: Being a percentage tender, the bidder shall quote its price as at par or percent above or percent below the estimated total cost in the Bill of Quantities as specified below.						
Unless otherwise specified, all items includes the cost of labour and materials, tools & plants, ladders, scaffolding, lead & lifts etc. complete in all respect. No additional amount to be paid to complete the job.						
S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
1	EARTH WORK					
1.01	6.2 (a)	Earth work excavation in ordinary soil, exclusive of compensation of earth:- Kassi work undressed involving an average horizontal throw up to 2.0 metres and an average vertical lift up to 0.5 metres including breaking of clods.	cum	1,150.13	77	88,560
1.02	32.4 c	Site clearance : Clearing jungle manually including uprooting rank vegetation, grass, woody vegetation up to 30 cm girth measured at height of 1 m above ground level and removal of rubbish up to distance of 50 m outside the periphery of the area cleared	sqm	9,041.74	7.96	71,972

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
1.03	6.6	Earth work in excavation in foundations trenches etc. in all kinds of soil where Pick-Jumper work is not involved and not exceeding 2.0 metres depth including dressing of bottom and sides of trenches, stacking the excavated soil clear from the edge of excavation and subsequent filling around masonry in 15 cm, layers with compaction including disposal of all surplus soil as directed within lead of 30 metres.	cum	132.25	182	24,070
2	DEMOLITION AND DISMANTLING					
2.01	8.6 (a)	Dismantling concrete - Lime concrete, cement concrete of 1:6:12 or leaner mix	cum	19.36	412	7,976
2.02	8.16	Dismantling cement conglomerate floors 25mm to 50mm thick including concrete base.	sqm	1,600.41	109	174,445
2.03	8.18	Dismantling brick or flagged stone flooring including concrete base.	sqm	647.95	85	55,076
2.04	8.39	Dismantling of brick work in cement sand mortar / lime mortar including T&P scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material & stacking the serviceable material with all lifts & lead of 100 metre.	cum	388.53	660	256,430
2.05	8.31e	Scraping bricks dismantled from brick work in lime or cement.	1000 Nos	93.25	1580	147,335
2.06	8.21	Dismantling plank ceiling and supporting timber	sqm	487.98	67	32,695
2.07	8.6 (e)	Dismantling Reinforced Cement concrete.	cum	51.31	2204	113,087
2.08	8.20	Dismantling plank flooring	sqm	23.44	53	1,242
2.09	8.44	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable material and stacking of serviceable material within 50 ms lead as directed by Engineer-in-charge	sqm	846.71	46	38,949

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
2.10	8.8 (f)	Dismantling jack arch roofing excluding joists or terraced roofing	sqm	767.90	64	49,146
2.11	8.9	Dismantling wood work from roof.	cum	17.62	1207	21,267
2.12	8.33	Dismantling reinforced brick work including cutting, cleaning and straightening of bars.	cum	3.55	1608	5,708
2.13	NS	Dismantling brick tile covering in terracing including stacking of serviceable material and disposal of unserviceable material within 50M lead.	sqm	2,173.61	49.44	107,463
2.14	NS	Dismantling mud phaska in terracing and disposal of material within 50 metres lead.	cum	163.02	412.34	67,220
2.15	8.31g	Scraping tiles dismantled from the work in lime or cement	1000 Nos	41.30	2073	85,615
2.16	SOR 16.15.3	Removal of plant/ficus growth by pulling out root system embedded in masonry, cutting stem and application of heeng/ gur/ lime formulation as specified by Engineer-in-charge or other patented chemical biocide treatment such as biocide 'Glycel' – (iso propylamine salt of glyphosate) or other chemical as specified by Engineer-in-charge and removal of ferrous fixings and nails embedded in the plaster and masonry of the exterior facades and making good with lime mortar mix 1:2 (1 lime, 2 Quartz sand/ sand), colour matched as per Engineer-in-charges specifications. The rates include the cost of all materials, labour, necessary tools, ladders, scaffolding etc complete in all respect.	each	40.00	137.78	5,511
2.17	8.46	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.	kg	13,339.96	5	66,700
3	CIVIL WORKS					

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
3.01	NS	Providing and fixing Sheesham wood (black) planking of 25 mm thick planed on the underside, tongued & grooved including iron screws. Item to include all mouldings, chamfers to be made as per original design indicated by the Engineer-in-charge. Contractor to ensure that moisture content is well within IS codes and in case the timber available is not naturally seasoned, Contractor to get it seasoned in seasoning plant at his own cost. Any timber found unseasoned shall be rejected. All timber to be free of knots, cracks etc. Item to include providing samples for approvals from Engineer-in-charge. Item to also include application of solignum on the wooden surface. The rates include the cost of all materials, labour, necessary tools, ladders, scaffolding etc complete in all respect	sqm	504.61	5779.81	2,916,550
3.02	17.6	Providing and fixing of sal wood wrought planed and fixed in position for beams / karis, lintel, wall plates etc. The rates include the cost of all materials, labour, necessary tools, ladders, scaffolding etc complete in all respect.	cum	43.16	104750	4,521,010
3.03	18.6	Structural steel work in girders or Stanchions built up of one joist / or channel section. Riveted including cutting and fixing old gusset plates bolts, Nuts, Rivets etc. complete with flange plates, head, sole plates, angle connections etc. with hoisting & erecting in position	qtl	411.06	6366	2,616,808
3.04	8.31 b	Scraping - Lime plaster	sqm	4,587.53	36	165,151
3.05	8.31 c	Scraping - Cement plaster	sqm	1,854.65	36	66,767
3.06	SOR 12.07	Raking out joints in lime or cement mortar from the stone masonry or all type of brick / brick tile masonry surface and preparing for repointing or replastering including disposal of the rubbish to the dumping ground at 100m lead. (Item to be executed specially ordered by Engineer-in-charge)	sqm	6,442.17	43.32	279,075

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
3.07	SOR 6.10	<p>Lime surkhi Plaster 1:2 (lime: 2 surkhi) on pillars and other decorative features including arches, motifs, cornices and bands.(thickness 20-25 mm) & Loi, tamping, beating, till the shrinkage cracks disappear. The work is done with all leads as the work is of restoration nature as per Punjab practice including using methi, gur, gugal, sam, jute, hemp, belgiri etc including adding gur,methi & gugal on old walls including removal of all old loose and decade plaster, each coat to be done after 3 days of previous coat. All surfaces to be plastered shall be thoroughly wetted for 24 hours before commencing plaster and shall be kept damp during the progress of work. At the same time the wall should not be too wet, as plaster is then likely to fall out . It is essential to maintain uniform suction of water by receiving surfaces, which shall be ensured by damping evenly all dry patches before applying plaster. The Engineer-in-charge will inspect and approve all preparatory work before the commencement of plastering work. Curing to be done for 21 days with help of water spray pump or any other necessary methods to avoid any surface cracks. In case of development of surface cracks, the same to be redone as part of rectification works to achieve the necessary level of finish as directed by Engineer-in-charge. Item to include all material, labour, necessary tools & scaffolding if required etc. complete in all respect.</p> <p style="text-align: right;">Mode of measurement:- Item to be paid only for the part of the design made in new plaster and not the entire panel.</p>	sqm	1,240.77	482	598,051

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
3.08	SOR 6.03.2	<p>Providing Lime Surkhi Sand Plaster 1:1:1 (1 Lime putty: 1 Surkhi : 1 Sand) including preparation of mortar by traditional practice (by grinding), 20-25 mm thick in 2 courses & Loi, tamping, beating, till the shrinkage cracks will disappear. The work is to be done with all leads as the work is of restoration nature as per Punjab practice including using methi, gur, gugal, sam, jute, hemp, belgiri etc on old walls including removal of all old loose and decade plaster, each coat to be done after 3 days of previous coat. All surfaces to be plastered shall be thoroughly wetted for 24 hours before commencing plaster and shall be kept damp during the progress of work. At the same time the wall should not be too wet, as plaster is then likely to fallout. It is essential to maintain uniform suction of water by receiving surfaces, which shall be ensured by damping evenly all dry patches before applying plaster. The Engineer-in-charge will inspect and approve all preparatory work before the commencement of plastering work. Curing to be done for 21 days with help of water spray pump. Item to include all material, labour, necessary tools & scaffolding, brick form work etc. complete in all respect.</p> <p>Mode of measurement:- For flat horizontal/vertical areas, the length multiplied by width/height shall be taken to calculate area.</p>	sqm	7,027.95	328	2,305,168

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
3.09	SOR 6.14.2	<p>Lime Surkhi plaster 1:1 (1lime: 1 Surkhi) at ceiling and curved surfaces (including vaults, arches, Domes etc.) 30mm-40 mm thickness as per existing at site including preparation of mortar by traditional practice including using methi, gur, gugal, sam, jute, hemp, belgiri etc (by grinding) in two courses of base course & finished course including tamping, beating, curing till the shrinkage cracks disappear. Work to be done with all leads & lifts, each coat to be done after 3 days of previous coat. Surfaces to be plastered shall be thoroughly cleaned of all dust, grease, oil & loose mortar. The entire surface shall then be thoroughly washed with nylon brush & clean water. All surfaces to be plastered shall be thoroughly wetted for 24 hours before commencing plaster & shall be kept damp during the progress of work. At the same time the wall should not be too wet, as plaster is then likely to fallout. It is essential to maintain uniform suction of water by receiving surfaces, which shall be ensured by damping evenly all dry patches before applying plaster. The Engineer-in-charge will inspect & approve all preparatory work before the commencement of plastering work. Curing to be done for 21 days with help of water spray pump. Item to include all materials, labour, necessary tools, hardware & scaffolding.</p> <p>Mode of measurement: For spherical areas such as domes,arches,squinches etc: surface area shall be taken to calculate the area.</p>	sqm	3,655.57	472.1	1,725,795
3.10	NS	Careful demolition of damaged portions of cornice bands, mouldings and other decorative features without causing any dust nuisance taking care to avoid any damages to the adjacent details which are in good condition. Item to include disposal of malba up to 100 metre lead & scaffolding etc. complete in all respect.	sqm	198.30	117.09	23,219

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
3.11	SOR 4.10.2	Ornamental traditional brick masonry in mouldings and cornices (not more than 30 cm in projection and 30 cm in depth as per Punjab practice) in lime mortar similar to the existing traditional lime mortar (lime putty - sand - Surkhi 1:1:1) after removing the damaged and out of plumb masonry from the vertical surfaces, including providing sufficient anchorage to the new cornice band in the wall and adjacent cornice band area using 8mm SS pins or any other method as directed by the Engineer-in-charge. The cornice bands to be finished with lime sand Surkhi plaster in proportion 1 lime :2 sand :1 surkhi, of required thickness and necessary carvings to achieve the details and design as per the original cornice band on site. Sample of the cornice band to be shown to be approved for before finishing the same on site. The cornice band to be finished using Lime sand plaster in proportion 1:2 of thickness not more than 10mm and finishing with 5mm thick Lime putty coat taking utmost care that the original details of the cornice band are not lost. Item to include all necessary materials, labour, carvings, tools, scaffolding if required etc. complete in all respect.	m	198.30	911.8	180,810
3.12	SOR 5.09	Lime concrete coping in ratio of 1:1:1:1 [1 lime : 1 coarse sand: 1 surkhi:1 brick aggregate nominal size] including consolidation, finishing and tampering complete until all shrinkage cracks will disappear.	cum	16.79	6088	102,218
3.13	SOR 5.13	Providing and laying lime concrete (for flooring base) in the ratio of 1:1:1:4 (1 lime: 1 Surkhi : 1 Coarse sand: 4 graded brick aggregate 20 mm nominal size) including ramming and watering complete in all respect as per direction of Engineer-in-charge.	cum	133.73	4217	563,939

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
3.14	SOR 5.06.2	Stitching the cracks in brick masonry using local brick & lime mortar matching the traditional lime mortar and bricks as existing in the historic structure after raking, cleaning and washing the cracks, as directed by Engineer-in-charge and including all leads, lifts and carriage. Mode of Measurement: For payment purpose only volume of the relaid portion shall be measured.	cum	4.64	7701	35,733
3.15	NS	Providing & laying first class brick tile on edge flooring in pattern work with tiles of size 22.86 X 11.43 X 3.81 cm laid in 20mm thick lime mortar (1 lime : 1 surkhi : 1 sand) over sub- base. The rate includes filling of joints of brick tile with lime mortar (1 lime : 1 surkhi : 1 sand) and post construction the exposed mortar joints in floor to be neatly scraped & raked with brush to bring neat finish.	sqm	524.84	1440.37	755,964
3.16	14.132	Providing and applying Anti Termite Treatment using post constructional chemical treatment measures as per IS - 6313 - 2001 (Part 3) & using Chemical containg chloropyrifos systemic insecticide diluted to manufacturer's specifications by drilling holes in the floor slab & along skirting 300 mm apart & 12 mm dia, drilling holes along all possible entry points such as junctions of floor and walls, door frames, sewage lines, entry points , etc. & injecting them with the chemical solution. Note:- The Engineer-in-charge will ensure consumption of chemical as per manufacturer's specifications & minimum 5 years warranty from the concerned dealer.	litre	50.00	1116	55,800
3.17	16.34	Burning old paint with blow Lamp	sqm	845.27	43	36,347
3.18	14.1	Providing and laying of Dry Brick Ballast 40 mm gauge for flooring.	cum	35.27	1456	51,353
3.19	5.2 A + 4.1 A	Carriage of earth, debris, building rubbish, malba, dismantled building materials etc. by manual or mechanical means including loading, unloading upto an average lead of 10km at dumping site.	cum	2,048.09	264.91	542,560

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
3.20	NS	Mouldings as per existing design in 1:1 lime mortar of size 50 mm x 50 mm around openings. The rates include the cost of all material, labour, necessary tools, ladders, scaffolding etc complete in all respect.	m	120.00	470.28	56,434
3.21	13.41	Providing and fixing cast iron 100mm dia rain water pipe with screw and wooden plugs fixed and wall face including filling joints with spun yarn and cement mortar 1:2 excluding head and shoes etc.	m	135.64	1154	156,529
3.22	13.42	Providing and fixing cast iron head for rain water pipe on wooden plugs fixed on wall face including filling the joints with spun yarn and cement mortar 1:2	each	32.00	774	24,768
3.23	13.43	Providing and fixing cast iron shoe for rain water pipe on wooden plugs fixed on wall face including filling the joints with spun yarn and cement mortar 1:2	each	32.00	774	24,768
3.24	NS	Stitching of brickwork by inserting sand stone of size 300 X 100 X 50 mm at identified locations by Engineer-in-charge and grouting the area with rich lime mortar 1:1:1 (1 lime: 1 Surkhi:1sand) including preparing like cutting out brickwork, teething, cleaning, grouting etc.For all heights and stacking of malba within 100 m lead. Item includes cost of shuttering, scaffolding, safety measure, all material & labour, all lead & lift, use of specified equipment for workers required to complete the work and as per direction of Engineer-in-charge.	each	73.00	444.96	32,482
3.25	11.12	First class burnt brick work with bricks of size 22.86 cm X 11.11 cm X 6.83cm laid in lime Surkhi, mortar 1:2 (1 lime : 2 Surkhi) in foundation and plinth.	cum	60.85	5164	314,229
3.26	11.13	First class burnt brick work bricks of size 22.86 cm X 11.11 cm X 6.83cm laid in lime Surkhi, mortar 1:2 (1 lime : 2 Surkhi) in first storey (upto 4 metres height) above plinth level.	cum	43.35	5301	229,798

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
3.27	14.134	Mandana stone tile flooring 15mm to 20 mm thick over 12.5mm thick base of cement mortar 1:3 (1 cement, 3 Sand) laid and jointed with neat cement slurry, mixed with pigment to match the shade of stone including rubbing and polishing.	sqm	598.47	1371	820,502
3.28	NS	Marble stone flooring with 18-20mm thick with Makrana white marble stone, as per sample approved by Engineer-in-charge, over 20mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with white cement slurry, including rubbing and polishing complete with: Makrana white marble slabs from 0.30 sqm to 0.50 sqm. Note: Basic rate of Makrana white marble to be provided shall be Rs. 365/- per sqft excluding GST.	sqm	293.01	6262.93	1,835,101
3.29	NS	Providing & laying flooring pattern in marble flooring with black marble strips of thickness 18-20mm and width up to 75mm as per approved pattern and jointed with white cement slurry mixed with pigment to match the shade of marble including rubbing and polishing complete in all respect and to the entire satisfaction of Engineer-in-charge. Note:(i) Basic rate of black marble is Rs. 160/- per sqft excluding GST. (ii) No deduction shall be made from marble flooring for area of flooring pattern with black marble	sqm	25.48	2838.6	72,328

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
3.30	NS	Makrana white marble stone with 18-20 mm thick for wall lining (veneer work), backing filled with a grout of average 12 mm thick in cement mortar 1:3 (1 cement : 3 coarse sand), including pointing with white cement mortar 1:2 (1 white cement : 2 marble dust) with an admixture of pigment to match the marble shade (To be secured to the backing by means of cramps, which shall be paid for separately). Makrana white marble slabs from 0.30 sqm to 0.50 sqm. Note: Basic rate of Makrana white marble to be provided shall be Rs. 365/- per sqft excluding GST.	sqm	30.85	6704.142971	206,823
3.31	14.86 a	Extra for pre finished nosing in treads of steps of Kota stone/ sand stone.	m	360.60	101	36,421
3.32	NS	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with nonwoven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ litre and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc, and preparing the surface complete. The vital physical and chemical params of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 650/ 450N/ 5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane.	sqm	504.61	345.82	174,504
3.33	13.45	Top Khurra 0.6mx0.6m for rain water pipe in 25mm thick cement concrete 1:2:4 over 50mm thick cement concrete 1:8:16	each	32.00	95	3,040

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
3.34	13.13 (i)	Terracing consisting of tiles 22.86x11.43x3.83cm laid over 25 mm mud plaster 7.5 cm mud filling on another layer of 25mm mud plaster including two coats of bitumen laid hot at 1.65 Kg. /sqm top of R.C.C. slab including grouting with cement sand mortar 1:4 and top surface to be left clean after wire brushing.	sqm	2,173.61	720	1,565,001
3.35	SOR 11.04	Providing silicone injection grout for rising dampness in brick masonry (Protection against rising dampness due to capillary action) by raking out lime mortar from brick work at least 25mm deep from both faces of wall at plinth height. The cavities formed must be cleaned of by flushing with clean water, the clean surface with open cavities are next treated with limewater to attempt to consolidate the friable areas. The consolidation treatment is followed by pressure grouting through a line of close - spaced drilling nipples(average 300 mm centres to centres) to be made and a silicone solutions mix with water at 1: 5 to 1:10 depending on wall condition (Dr Fixit DAMPFREE or equivalent) is pumped in under pressure not exceeding 1.5 kg/sq.cm @ approx. 300ml consumption per hole. Item to be paid by per litre of chemical consumed. The rates include the cost of all materials, labour, necessary tools and plants, ladders, scaffolding etc. complete in all respect.	litre	17.78	624	11,095
3.36	NS	Providing and fixing in position cast iron ornamental grill/ railing /gate as per drawing including cost of bolts and nuts, screws, welding rod etc fixed in position complete in all respect as per direction of Engineer-in-charge.	Kg	23,630.00	124	2,930,120

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
3.37	NS	Construction /redoing of jack arched slabs in brick in lime mortar as per matching details (thickness span height, etc) using M.S. sections in curved profile excluding the cost of MS section and labour for fixing of MS section in position but including zinc primer and 2 coats of epoxy paint etc. complete. Mode of Measurement: The item to be paid as per the area of slab work using the above system only, and not the entire area of the slab.	sqm	767.90	3296.15	2,531,114
3.38	14.15	40mm thick grey polished flooring cement concrete 1:2:4 topping finished with 3 mm thick neat coat of cement rubbed and polished using mechanical mixer for mixing of material.	sqm	1,431.27	472	675,559
3.39	3. M36 d ii	Extra for red oxide (Red chocolate orange buff or yellow paint (Red oxide of iron) Light shades.)	Kg	250.00	76.7	19,175
3.40	NS	Providing and fixing Dholpur stone bed plate as per existing design, shape and profile 200mm thick size 0.7 x 0.7 m including hoisting and placing in position in cement mortar 1:3 complete in all respect.	each	11.00	643.7436658	7,081
3.41	NS	Reconstruction of wooden skylight vent as per old design at terrace, including removal of multiple layer of enamel paint from the wooden surface /change of top lvl tin shade ,replacement /repair of decayed and damaged wooden members ,replacement of damage glass wherever required. Polishing of complete wooden skylight vent as per instruction of Engineer-in-charge. Item to include all material, labour, necessary tools & scaffolding if required etc. complete in all respect.	each	8.00	20019	160,152
3.42	11.32	Extra for burnt brick work in circular pillars constructed with dressed bricks including cost of dressing bricks	cum	26.33	1860	48,974
3.43	11.33 (b)	Extra for burnt brick work in arches excluding cost of shuttering more than 1.5 metres but less than 3 metres span	cum	6.19	634	3,924

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
3.44	NS	<p>Araish plaster 1:2 (1 lime : 2 Zikki) any colour on lime plaster or plane back ground on plain / decorative surface including preparation of lime for 6 months by slaking of lime with curd and changing the water every week. The Kara plaster of not more than 6mm thick is to be left the maximum of 3 months to appear the shrinkage & temperature cracks. Over the Kara plaster 2mm layer of grinded lime putty is to be done and is to be rubbed Gently by Akik stone. Then adding Khoppra & Ghee and inserting the design of colour boarder all round. this include cost of preparing base coat of lime kara and all materials etc.</p> <p style="text-align: center;">Mode of measurement:-</p> <p style="text-align: right;">(i) For</p> <p>flat horizontal/vertical areas, the length multiplied by width/height shall be taken to calculate area.</p> <p style="text-align: right;">(ii) For spherical areas such as</p>	sqm	260.10	1667	433,587
3.45	9.1	Shuttering for faces of concrete foundations and foundation beam & plinth beam (vertical or battering)	sqm	1.17	210	246
3.46	9.8	Centering and shuttering for flat surfaces such as suspended floors, roofs, landings, chajjas, shelves etc.	sqm	19.11	532	10,167
3.47	18.18	Cold twisted deformed (Ribbed/ Tor steel) Bars (Fe 500 grade as per IS 1786-2008) , for R.C.C works, where not including in the complete rate of RCC including bending and binding placing in position complete	qtl	1.20	6497	7,796
3.48	10.15	Reinforced cement concrete M-20 mechanically batch mixed using batch type concrete mixer as per IS:1791 and vibrated by needle vibrator but excluding steel reinforcement centring and shuttering in foundation and plinth.	cum	0.47	5158	2,424

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3.49	10.20	Reinforced cement concrete M-20 mechanically batch mixed using batch type concrete mixer as per IS:1791 and vibrated by needle vibrator but excluding steel reinforcement centring and shuttering in superstructure.	cum	3.85	5908	22,746
3.50	15.8	12.5 mm thick cement plaster 1:3	sqm	1,085.12	199	215,939
3.51	16.65	Preparation of plastered or concrete surface for painting (including sand papering the surface) using ready mixed cement based wall putty by applying two or more coats to get required finish	sqm	6,581.48	80	526,518
3.52	16.31	Applying priming coat with cement primer in all shade on newly plastered or concrete exterior surface.	sqm	3,688.90	21	77,467
3.53	16.63	Wall painting with plastic emulsion paint of approved brand and manufacturer to give an even shade (two or more coats).	sqm	3,688.90	89	328,312
3.54	16.58	Finishing walls with textured exterior paint of required shade with two or more coats applied @ 3.28 litre/10sqm over and including base coat of water proofing Cement Paint applied @ 2.20 Kg/10 sqm.	sqm	2,893.19	155	448,444
3.55	NS	Brick masonry with Lakhori / Nanakshahi bricks laid in lime mortar (1 lime: 1 sand: 1 Surkhi) or in lime mortar in proportion similar to the existing traditional lime mortar mixed with organic / chemical additives as per directions of the Engineer-in-charge complete in all respect including cost of all materials, labour, necessary tools and scaffolding etc. complete in all respect.	cum	137.26	9214.21	1,264,742
3.56	24.6 (b)	Excavation for Roadway (By Mechanical Means) Excavation for roadway in soil by mechanical means with dozer including cutting and pushing earth to embankment site with all lead and lifts up to 100m including trimming bottom and side slopes as per technical clause 301 of MORT&H specifications	cum	675.00	58	39,150

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
3.57	24.4 c	Compaction of Earth work: compaction of earth work & Preparation of sub grade including loosening, leveling of earth 225mm thick top layer, rough dressing of soil, final dressing of earth to give level, camber, watering, rolling with road roller, compacting the bed to achieve minimum dry density as given in the Table 300-2 as per Technical clause 305 of MORT&H specifications. (In case of link roads earth work to be done by villagers)	sqm	2,250.00	6	13,500
3.58	24.7	Granular Sub-Base: Construction of granular sub-base by providing material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per MORD technical specifications	cum	648.00	1473.75	954,990
3.59	24.13	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per technical clause 406 of MORT&H specifications	cum	337.50	2498.56	843,264
3.60	24.15	Prime Coat @ 0.85kg per sqm : Providing and applying primer coat with bitumen emulsion SS on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.85kg/sqm complete as per technical clause 502 of MORT&H specifications	sqm	2,250.00	32.11	72,248

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
3.61	24.16 (b)	Tack Coat @ 0.40kg per sqm: Providing and applying tack coat with penetration grade bitumen VG-10 using bitumen pressure distributor at the rate of 0.40 kg per sqm on the prepared bituminous surface/granular surface treated with prime coat after cleaning the surface complete as per technical specifications	sqm	6,360.00	14.76	93,874
3.62	24.20 (a)	Dense Graded Bituminous Macadam 50mm to 75mm thickness (Grading II): Providing and laying dense graded bituminous macadam 50mm to 75mm thick with batch type HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30 @ 4.5%, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete as per technical clause 505 of MORT&H specifications	cum	238.50	7524.5	1,794,593
3.63	24.23 (a)	Bituminous Concrete 30mm to 45mm thickness (Grading II) Providing and laying bituminous concrete 30mm to 45mm thick with batch type hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30 @ 5.4%, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete as per technical clause 507 of MORT&H specifications	cum	127.20	8389.19	1,067,105
3.64	24.42	Precast Cement Concrete Channel: Providing and laying factory made rubber moulded smooth finish cement concrete Channel M-20 grade 300mm wide and 75mm thick made over strong vibratory table and fixing with cement mortar 1:2 as per MORT&H specifications	m	1,060.00	233.73	247,754

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
3.65	14.72	Providing and laying Anti skid Ceramic floor tiles of size 300x300 mm x 10 mm thick of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on flooring skirting and dado in 12.5mm thick cement plaster 1:3 in base and jointed with @ 3.3 kg/sqm including pointing the joints with white cement and matching pigment etc., completewhite cement slurry in joints including corners angles and beading.	sqm	110.44	672	74,216
3.66	14.127	Providing and fixing 1st quality ceramic glazed wall tiles Matt/Semi Matt/Glosy/Highly Gloss finish/Highlighter/emboss conforming to IS : 15622 (thickness to be specified by the manufacture of approved make in all colours, shades except burgundy, bottle green, black of size 450 x 310 mm as approved by Engineer-in- Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:4 (1 cement: 4 fine sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	sqm	386.86	795	307,554
3.67	14.89 b	Providing and laying Polished Granite stone 18 mm thick 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. Polished granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent	sqm	3.60	2813	10,127
3.68	17.61 (i)	Providing & fixing teak wood top size 150mm x 75mm on stair railing including polishing complete in all respect.	m	31.05	1939	60,206
3.69	17.5	Teak wood wrought planed and fixed in position	cum	0.40	173182	69,273

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
3.70	NS	<p>Providing & applying Lime Kara 1:2 (1lime cream : 2 Zikki powder), grinding mortar in grinding mill/manually on lime base, on all flat surfaces, in two coats. First coat applying 3mm to 4mm thick and curing properly at least 7 days, Second finishing coat done after 7days of previous coat as per traditional practice.(thickness not more than 6 mm.) Sample to be approved on flat and decorative surface before job. Item to include all materials, labour, necessary tools and scaffolding complete to the entire satisfaction of Engineer-in-charge.</p> <p style="text-align: center;">Mode of measurement :-</p> <p>(i) For flat horizontal/vertical areas, the length multiplied by width/height shall be taken to calculate area.</p>	sqm	3,678.07	508.98	1,872,064
3.71	NS	Providing and laying lime Kara (thickness not more than 6 mm) on curved or decorative pillars, surfaces as per decorative ornamental designs as per old existing carving on surfaces in required shade approved by Engineer-in-charge.	sqm	649.07	891.71	578,782
3.72	14.137	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-35 grade machine made rubber moulded smooth finish with strong vibratory process or with vibrohydraulic compaction machine and of approved size and design / shape laid in Ordinary Grey and pattern over and including 40 mm thick compacted bed of coarse sand, filling the joints with fine sand etc, all complete as per directions of Engineer-in-charge.	sqm	1,784.00	645	1,150,680

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
4		DOOR AND WINDOW RESTORATION WORKS				
4.01	8.26	Removing Doors and Windows (Steel or wood) with chowkhats by making recesses in walls when the wall is not to be dismantled.				
4.01.1	a	Doors	each	37.00	223	8,251
4.01.2	b	Windows	each	34.00	142	4,828
4.01.3	c	Clerestory windows	each	11.00	71	781
4.02	SOR 10.01	Providing and fixing well seasoned Sheesham wood work in plain/designed pattern in frames/ chowkhats of doors, windows, clerestory windows and other frames, wrought framed and fixed in position including holdfasts and painting of holdfast etc all complete. Contractor to ensure that moisture content is well within IS codes and in case the timber available is not naturally seasoned, Contractor to get it seasoned in seasoning plant at his own cost. Any timber found unseasoned shall be rejected. All timber to be free of knots, cracks etc. Item to include coating/painting of section of embedded timber coming into contact with masonry with tar application/ solignum. The rates include the cost of all materials, labour, necessary tools, ladders, scaffolding etc complete in all respect.	cum	3.07	118481.89	363,739

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
4.03	SOR 10.15	<p>Providing and fixing 50mm thick 1st class Sheesham panelled/ Glazed Shutters for doors, window and ventilators including iodized fittings with necessary screws complete./ restoring damaged wood with well seasoned Sheesham wood openable panelled shutters for doors or windows as per the original design and pattern as instructed by the Engineer-in-charge including all necessary fittings like screws, nails, hinges, tower bolts, handles, chain and hook for locking of doors of the same design, size and weight etc. of original hardware found on site or as directed by Engineer-in-charge. Item to also include making all the mouldings and design of the panels as in the original detail with all beading patti as per size etc. Contractor to ensure that moisture content is well within IS codes and in case the timber available is not naturally seasoned, Contractor to get it seasoned in seasoning plant at his own cost. Any timber found unseasoned shall be rejected. All timber to be free of knots, cracks etc. Item to include coating/painting of section of embedded timber coming into contact with masonry with tar application/ solignumThe area of the shutters include the entire opening with all the leaves. However, the design of the same may alter as per site requirements as directed by Engineer-in-charge).</p> <p style="text-align: center;">Mode of measurement:</p> <p>Area of the door/window which is changed or made new in the entire door shall only be paid. Contractor to not charge the entire area of the shutter unless the entire shutter is made new.</p>	sqm	125.34	5509.85	690,605

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
4.04	SOR 10.18.1	<p>Providing and fixing new / Restoring damaged Sheesham wood with well seasoned Sheesham wood openable paneled shutters for doors or windows as per the original design and pattern as instructed by the Engineer-in-charge including all necessary fitting including iron hardware like screws, nails, hinges, tower bolts, handles, chain and hook for locking of doors of the same design, size and weight etc. of original hardware found on site or as directed by Engineer-in-charge. Item to also include making all the mouldings and design of the panels as in the original detail with all beading patti as per size etc. Contractor to ensure that moisture content is well within IS codes and in case the timber available is not naturally seasoned, Contractor to get it seasoned in seasoning plant at his own cost. Any timber found unseasoned shall be rejected. All timber to be free of knots, cracks etc. Item to include coating/painting of section of embedded timber coming into contact with masonry with tar application/ solignum The area of the shutters include the entire opening with all the leaves. However, the design of the same may alter as per site requirements as directed by Engineer-in-charge.</p> <p>Mode of Measurement:- Area of the door/window which is changed or made new in the entire door shall only be paid. Contractors to not charge the entire area of the shutter unless the entire shutter is made new.</p>	sqm	76.08	8893.82	676,642
4.05	17.26 b (iii)	Providing & Fixing glass panes with nails and putty or wooden strip complete in all respect. Glazing area above 0.09 sqm- 5.0mm thick Plate glass (INDIAN)	sqm	25.12	772	19,393
4.06	16.16	Applying pink primer or aluminum priming coat on wood work including preparation of surface knotting and stopping etc.	sqm	1,207.53	28	33,811
4.07	16.17	Painting two or more coats excluding priming coat with synthetic enamel paint in all shades on wood work, metallic or plastered, concrete surface to give an even shade.	sqm	156.74	66	10,345

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
4.08	16.75	Painting two or more coats Italian Pigmented PU white glossy or matt in all shades on wood work surface to give an even shade including	sqm	1,050.80	1359	1,428,037
5	LANDSCAPING WORKS					
5.01	24.41 (a)	Precast Cement Concrete Kerb - Providing and laying factory made rubber moulded smooth finish cement concrete Kerb M-20 grade 250mm high with bottom width 165mm and top width 115mm made over strong vibratory table and fixing with cement mortar 1:2 as per MORT&H specifications.	m	774.00	357.56	276,751
5.02	32.9 (a)	Fine grassing including uprooting rank vegetation and weeds by digging the area to a depth of 30 cm, removing all weeds and other growth with roots by forking repeatedly, breaking clods, rough dressing, flooding with water, uprooting fresh growth after 10 to 15 days, mixing fertilizer and then fine dressing for planting new grass, including disposal of all rubbish with all leads and lifts, watering, weeding and maintenance for 30 days or till thick lawn is formed. - Planting Selection each 1 grass roots in rows 5 cm apart in both directions.	sqm	26,384.20	69	1,820,510
5.03	32.34	Planting hedge including digging of trench 60 cm wide to 15 cm depth and mixing FYM, fertilizer and insecticides, planting of sapling at 30cm distance from plant to plant in two rows.	m	1,032.00	165	170,280
5.04	32.18	Supplying and planting permanent shrubs in prepared pits and watering	each	150.00	66	9,900
5.05	32.22 (a)	Planting seasonal flower in beds - Planting seedlings including digging of beds to 15 cm depth and mixing FYM, fertilizer and insecticides, planting of seedlings at 20cm distance from plant to plant and row to row.	sqm	100.00	259	25,900

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
5.06	32.1	Supplying and stacking at site of work well decayed farm yard manure from approved site of work including screening through sieve of I.S. designation 16 mm with 5 km lead. Note: Stacks of well decayed farm yard manure 32.5 cm in height, shall be measured and paid for 30 cm height.	cum	684.98	625	428,113
5.07	32.57	Supply and installation of garden bench - Cast Iron bench of 1800 mm length, 900 mm width, 450 mm seating height, sides made of cast iron. Seat and back shall be made of 10 strips of M.S. pipes 63 mm x 25 mm of 14 gauge with one M.S. Flat 25 x 10 mm welded at the centre, below and back of the seat and back rest. Spray painted with approved brand paint. Fixed by grouting with 1:2:4 cement concrete (Minimum weight of each bench 105 kg)	each	22.00	12518	275,396
5.08	32.75	Providing and fixing pair of Plastic dustbins 100 litre volume each, of two different colours, for dry and wet waste, made of virgin plastic to be mounted on MS rectangular hollow section 50 x 25 x 3 mm frames pivoted on 3 MS square hollow section verticals, 1 m above ground, one 35 cm RHS welded to each vertical member at base and grouted in 180 x 40 x 30 cm 1:2:4 cement concrete.	each	20.00	12753	255,060
5.09	NS	Providing and laying first class brick tile on edge flooring with tiles of size 22.86 X 11.43 X 3.81 cm laid in cement sand mortar 1:4 on 75mm thick cement concrete 1:6:12 and 100mm sand filling, Cement pointing 1:2 on top. Item to include cost of all materials to be used, Labour, necessary tools, scaffolding (if required) etc. in all leads & lifts complete as per direction of the Engineer-in-charge.	sqm	120.00	1377.54	165,305
5.10	5.2 A + 4.1 A	Carriage of good earth/ soil-less media and/or organic matter etc. by manual or mechanical means including loading, unloading with an average lead of 30km.	cum	2,054.94	431.48	886,666
5.11	6.4	Extra For compensation & royalty for Ordinary earth/ Ordinary clay taken from private land.	cum	2,054.94	60.22	123,748

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
6	PUBLIC HEALTH WORKS					
6.01	30.4	Providing and fixing in position Chinaware European type water closet P trap or S trap (to the approval of the Engineer-in-charge) suite-consisting of 10 ltr. PVC flushing cistern supported on angle iron bracket, short bend 32 mm dia including cost of solid white cover complete in all respect and to the entire satisfaction of Engineer-in-charge.	each	9.00	4780	43,020
6.02	30.8	Providing and fixing jet spray with 2'-6" long PVC pipe with C.P. Brass nut	each	9.00	476	4,284
6.03	30.13 e	Providing and fixing in position SS Grab Bar Grade 304 of approved make (to the approval of the Engineer-in-charge) fixed in to wall with brass screws complete in all respect.35mm dia 900mm (36") long	each	9.00	1740	15,660
6.04	30.17 B	Providing and fixing in position Vitreous Chinaware white urinal with concealed or in built P-trap (size 310x370x640 mm) with built in water seal, outlet to wall and water inlet from back of approved make (to the approval of Engineer-in-charge) complete in all respect	each	6.00	10544	63,264
6.05	30.32 ix	Providing and fixing in position vitreous chinaware white lavatory suites of approved make (to the approval of Engineer-in-charge) consisting of C.P. brass waste 32mm dia with one C.P. brass pillar tap including Rack Bolt Screw Pair 115mm long complete in all respect. Size 560mm x 450mm (Under counter oval)	each	8.00	4297	34,376
6.06	30.42 A	Providing and fixing in position 32 mm dia G.I waste pipe embedded in wall upto floor level including cost of fittings complete as required by the Engineer-in-charge.	each	8.00	619	4,952
6.07	30.19 a	Extra for providing and fixing G.I. 32mm waste pipe for urinal including elbow, reducer etc complete in all respect.	each	4.00	423	1,692

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
6.08	30.58 a	Providing and fixing in position towel rails / ring fixed in with rawl plugs embedded in walls with brass screws, complete in all respects including cutting and making good the walls etc. C.P. brass towel Rails size 15mm dia 610mm long	each	12.00	1539	18,468
6.09	30. 60	Providing and fixing in position C.P. Brass soap dish of approved make (to the approval of Engineer-in-charge) fixed into wall with rawl plugs and C.P brass screws complete in all respect.	each	16.00	843	13,488
6.10	30.61 (c)	Providing & Fixing in position 5mm thick bevelled edge mirror of superior glass (of approved make) complete with 4mm thick hard board backing fixed in with rawl plugs 50mm, C.P. brass screws and washers and S/S Studs on top complete in all respect (as required by the Engineer-in- Charge) Size 1500mmx600mm or any other size	each	6.00	2767	16,602
6.11	30.64 A	Providing & Fixing in position C.P. Brass flange Dome of approved make (to the approval of Engineer-in-charge) under various fixtures complete in all respect.	each	24.00	63	1,512
6.12	30.64 B (i)	Providing & Fixing in position C.P. Brass extension piece 25mm long to 100mm long of approved make (to the approval of Engineer-in-charge)with various fixtures complete in all respect. C.P. Brass extension piece, 25mm long to 50mm long	each	24.00	107	2,568
6.13	30.65 A (iii)	Providing & Fixing in postion 15 mm i/d bib cock of approved make (to the approval of Engineer-in-charge)complete in all respect. C.P. brass Bib cock self closing	each	20.00	524	10,480
6.14	30.66 c	Providing & Fixing in postion stop cock / Angle valve of approved make (to the approval of Engineer-in-charge) complete in all respect.. C.P.brass 15mm Angle valve without flange	each	20.00	826	16,520

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
6.15	30.74 iii B	Providing and fixing in position singel socket SWR UPVC soil waste or antisiphonage pipes as per IS 13592 of E.D.C manufacture or of any other reputed firm including cutting, jointing, wastage, but excluding cost of jointing.Single Socket Type B				
	b	110mm i/d SWR UPVC pipe lines laid complete	m	175.00	376.04	65,807
	d	75mm i/d SWR UPVC pipe lines laid complete	m	50.00	291.24	14,562
6.16	30.75	Providing and fixing in position C.I. gully trap cover weighing approximately 7.26 kg and frame for gully trap chamber clear opening size 300mm x 300mm and out side size 330mmx330mm including painting the exposed surface with 3 coats of black bitumastic superior paint of approved manufacture etc.	each	10.00	732.67	7,327
6.17	28.19	Concealed In Wall: Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes as per IS 15778 (ISI marked with the prior approva of Engineer-in-charge) having thermal stability for Hot and Cold water supply including all PVC plain & brass Fittings, with clamps at 1.00 m spacing including jointing of Pipes & fittings with one Step CPVC solvent cement & testing of Pipes complete as per direction of Engineer-in -Charge.				
	a	CPVC SDR 11 Pipe & fitting 16mm o/d	m	75.00	178.72	13,404
	b	SDR 11 CPVC pipes & fittings 20mm o/d	m	55.00	221.35	12,174
	c	CPVC SDR 11 Pipe & fitting 25mm o/d	m	45.00	285.75	12,859
	d	CPVC SDR 11 Pipes fittings 32 mm o/d	m	45.00	382.37	17,207
6.18	30.96	Providing and fixing in position automatic brass ball valves in tanks. Brass Ball Cock with rod and Plastic Ball. 25mm i/d	each	4.00	902.69	3,611
6.19	30.25 b	Providing & fixing in position Water Cooler without Stablizer of approved make (to the approval of Engineer-in-charge) including carriage complete in all respect. Water Cooler Full Steel Body 60/80 ltr Capacity without Stablizer	each	2.00	32935	65,870

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
6.20	30.97 A (i)	Providing & placing in position on terrace (at all floor levels) HDPE water storage tanks of approved make (to the approval of Engineer - in-charge) with cover with suitable locking arrangement and making necessary holes for inlet, outlet and over flo pipes but without fittings and base support for tank. Triple Layer Tanks	litre	10,000.00	10.8	108,000
6.21	28.43	Providing, fixing and jointing ISI markrd gun-metal peet valves(heavy pattern) as per IS 778 with hand wheels on GI pipe lines laid in the ground or inside buildings including all carriages complete.				
6.21.1	d	32mm i/d Gun Metal peet valve heavy pattern.	each	4.00	1181.93	4,728
6.21.2	f	50mm i/d Gun Metal peet valve heavy pattern.	each	4.00	2407.42	9,630
6.22	28.45	Making connection with the existing G.I. branch main up to 40mm size pipe including cutting of existing pipe line, threading of pipe lines from both ends and fixing of G.I Tee etc. in the pipe line (including cost of G.I Tee) complete in all respects.	each	2.00	375.31	751
6.23	28.66 a	Construction of masonry Sluice Valve Chamber excluding Sluice valve cover as per standard design & drawings of public health department. Size 0.6 m. x 0.6 m.	each	2.00	5305.96	10,612

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
6.24	29.55 b	Constructing brick masonry manhole in cement mortar 1:5 (1 cement : 5 coarse sand) R.C.C. top slab 20cm thick using M-20 mix by using mixer and vibrator, TMT Fe500 @ 80.00 kg/per cum, foundation concrete 1:4:8 mix (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 40mm thick benching in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement, Orange coloured PVC steps including RCC cover with frame complete as per standard design complete in all respects. Inside size 90x150 cm and 120 cm deep	each	8.00	29224	233,792
6.25	28.13 (iv)	Providing, Laying , fixing & jointing of P.V.C. Pipes as per ISI-4985 (ISI marked with the prior approval of Engineer-in-charge) along the Trenches and laying the same in Trenches to correct alignment and gradients, cutting, jointing and testing complete as per specifications. 110mm o/d pipe of 10 Kgf. / sqcm	m	20.00	429.42	8,588
6.26	29.60 a	Construction of brick masonry inspection chambers size as given below upto 0.60 metre average depth in 1:5 cement sand mortar, C.C.1:4:8 (150mm thick) in foundation, cement concrete 1:2:4 benching 12.50mm thick cement plaster 1:2 with a floating coat of 1mm thick of neat cement, R.C.C. 1:2:4 slabs 100mm thick cement concrete topping 50mm thick with 455mm x 455mm, 455mm x 610mm inside R.C.C. inspection chamber cover and frame (Weight as per I.S.I specifications) painted with 3 coats of black bitumastic paint conforming to I.S.I complete as per standard design. Size 450mm x 450mm inside with RCC 455mm x 455mm cover and frame light duty double seal	each	10.00	9931	99,310

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
6.27	29.43 d	Providing, laying in trenches to correct gradient and alignment and jointing of UPVC pipes having ISI specification IS:15328-2003 class-SN-8 marked make Supreme, Finolex, Kissan, Jain, Prince or equivalent good on them and laying the same in trenches to correct alignment and gradients, cutting and jointing, testing for water tightness and making good the leakages and defects including cost of specials (Specials and Solvent should be of same make as that of pipes) complete in all respects. 200mm o/d pipe	m	210.00	1180	247,800
6.28	NS	Supply and fixing of single phase 2 HP submersible motor with required power cable length, On-OFF starter and required plumbings fittings complete in all respect and entire satisfaction of Engineer-in-charge(with 60 mtr cable length).	each	2.00	30177.85	60,356
6.29	28.13 (i)	Providing, Laying , fixing & jointing of P.V.C. Pipes as per ISI-4985 (ISI marked with the prior approval of Engineer-in-charge) along the Trenches and laying the same in Trenches to correct alignment and gradients, cutting, jointing and testing complete as per specifications. 63mm o/d pipe of 10 Kgf. / sqcm	m	967.00	147.39	142,526
6.30	28.43 g	Providing, fixing and jointing ISI Marked Gun- Metal peet valves (Heavy Pattern) as per IS 778 with hand wheels, on G.I. Pipe lines laid in the ground or inside buildings including all carriages complete. 65mm i/d Gun Metal peet valve heavy pattern.	each	10.00	3790.38	37,904
7	RAIN WATER RECHARGE WELL					
7.01	28.51	Providing and placing in horizontal layers filtering media screened, washed and cleaned as described below and complete to the entire satisfaction of Engineer-in-charge. below :-				

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
7.01.1	28.51(a)	Top layer : Fine sand screened, cleaned and washed and graded (effective size 0.2 to 0.4mm with uniformity coefficient 2.00 to 3.00) all lead & lift etc. complete in all respect and to the entire satisfaction of Engineer-in-charge.	cum	8.75	1669.08	14,604
7.01.2	28.51(b)	Second Layer :Coursed sand screened, cleaned and washed and graded from 3mm to 6mm all lead & lift etc. complete in all respect and to the entire satisfaction of Engineer-in-charge.	cum	8.75	2037	17,824
7.01.3	28.51(c)	Third Layer :Bajri screened, cleaned and washed and graded from 6mm to 20mm all lead & lift etc. complete in all respect and to the entire satisfaction of Engineer-in-charge.	cum	8.75	1398.01	12,233
7.02	28.91 A (a)	Boring/drilling bore well of required dia for casing/stainer 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, up to 90 metre depth below ground level. 300mm dia.	m	174.00	468.53	81,524
7.03	28.93(c)	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, confirming to IS:12818, including hire & labour charges, fittings, and accessories etc. all complete, for all depths, as per direction by Engineer-in-charge. 200mm nominal size dia	m	174.00	2565.43	446,385
7.04	28.80 (C)	Providing and fixing of well cap having thread to fix on pipe complete in all respect including all necessary fittings etc to the entire satisfaction of the Engineer-in-charge. 200mm dia	each	4.00	738.23	2,953
7.05	15.9	12.5 mm thick cement plaster 1:4	sqm	144.00	189	27,216
7.06	10.9 b (ii)	Cement concrete 1:5:10 stone aggregate 40mm gauge mixing by mechanical means using concrete mixer volumetric type.	cum	2.63	3421	8,997

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
7.07	10.17	Reinforced cement concrete M-30 mechanically batch mixed using batch type concrete mixer as per IS:1791 and vibrated by needle vibrator but excluding steel reinforcement centring and shuttering in foundation and plinth	cum	2.63	5676	14,928
7.08	18.18	Cold twisted deformed (Ribbed/ Tor steel) Bars (Fe 500 grade as per IS 1786-2008) , for R.C.C works, where not including in the complete rate of RCC including bending and binding placing in position complete	qtl	6.56	6497	42,620
7.09	6.7 (a)	Earth work in excavation of foundations of bridges culverts, buildings including handling of material with a combined lead of 15 metres dressing of bed and sides stacking the excavated soil from the edge of excavation and subsequent filling around . For ordinary gravel soil involving pick work	cum	52.50	263	13,808
7.10	11.3 (i)	First class burnt brick work with bricks of size 22.86 cm X 11.11 cm X 6.83cm laid in cement sand mortar 1:6 in foundation and plinth	cum	32.40	4934	159,862
7.11	29.60 a	Construction of brick masonry inspection chambers size as given below upto 0.60 metre average depth in 1:5 cement sand mortar, C.C.1:4:8 (150mm thick) in foundation, cement concrete 1:2:4 benching 12.50mm thick cement plaster 1:2 with a floating coat of 1mm thick of neat cement, R.C.C. 1:2:4 slabs 100mm thick cement concrete topping 50mm thick with 455mm x 455mm, 455mm x 610mm inside R.C.C. inspection chamber cover and frame (Weight as per I.S.I specifications) painted with 3 coats of black bitumastic paint conforming to I.S.I complete as per standard design. Size 450mm x 450mm inside with RCC 455mm x 455mm cover and frame light duty double seal	each	4.00	9931	39,724

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
7.12	30.85 b	Cutting chase in brick walls in cement or in floor for embedding G.I. or C.I pipes line and making good the same to its original condition. Size 150 mm x 150 mm	m	4.00	114	456
7.13	13.74	Providing and fixing 110 mm dia . U.P.V.C Rain water pipe of 2.5 kgf./sqm as per IS:4985 including jointing during masonry complete as per specifications and to the entire satisfaction of Engineer-in-charge. (If fixed on wall face clamp to be paid separately as per respective item)	m	50.00	122	6,100
8	ELECTRICAL WORKS					
8.01	34.02	RECESSED PVC CONDUIT PIPE WIRING SYSTEM WITH MODULAR SWITCHES: Wiring in PVC insulated copper conductor single core FR cable (ISI marked) overall 1.5sq. mm, 1100volts grade to be laid in heavy gauge PVC conduit pipe 20mm/ 25mm dia. (ISI Marked) recessed in wall etc., complete with powder coated/anodized concealed metal boxes (1.6mm thick with Brass lugs) required for suitable number of modules (Modular accessories) for having Step type electronic fan regulators (two module) 100watts, bell push, 6Amp. 2/3 universal socket (shuttered), 16/20Amp. combined/ universal Socket (shuttered), 6/10Amp. Switches, 16/20Amp. switches with indicator etc. and covered with Frame Plate etc., PVC connector (For Fan Box and Call Bell), Steel Hooks, Sheet metal fan box (1.6mm thick shape hexagonal), Circular junction Boxes (Four way PVC 1½" deep for walls and CI 3" deep for ceiling), bonding to earth with PVC insulated copper conductor single core FR cable (ISI marked) 1sq. mm, 1100volts grade (For 6Amp. wall socket & plug control point) and other petty material etc., including the cost of above material, cutting and filling up of chases (with finishing the surface):-				
8.01.1	(i) a	Wiring fan point (without fan box)	each	144.00	829	119,376

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
8.01.2	(i) b	Wiring fan point with Fan Box	each	50.00	919	45,950
8.01.3	(ii)	Wiring light point	each	404.00	579	233,916
8.01.4	(iv)	Wiring 6Amp.wall socket point	each	126.00	282	35,532
8.01.5	(vi)	Wiring 16/20Amp. power plug control point	each	72.00	363	26,136
8.02		Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.				
8.02.1	NS	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	m	1,100.00	167	183,700
8.02.2	NS	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	m	1,600.00	200	320,000
8.03	34.07 (xi)	SURFACE TV, TELEPHONE & NETWORKING SOCKETS OUTLET POINTS (USED FOR HGW, PVC CONDUIT & HDPE PIPE WIRING SYSTEM WITH MODULAR ACCESSORIES): Wiring TV socket, Telephone socket and Networking socket points on surface etc., complete with PVC boxes (Plastic on surface boxes) required for suitable number of modules (Modular accessories) for having TV sockets, Telephone sockets RJ11 & Networking socket RJ45 (one module), covered with Frame Plate etc., & including the cost of above material and other petty material with necessary connections etc.:-				
8.03.1	(a)	Wiring TV socket point (one module)	each	6.00	230	1,380
8.03.2	(b)	Wiring Telephone socket point RJ11 (one module)	each	6.00	208	1,248
8.03.3	(c)	Wiring Networking socket point RJ45 (one module)	each	6.00	315	1,890

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
8.04	34.17 (viii)	SHEET METAL DOUBLE DOOR DISTRIBUTION BOARD FOR MCB/ RCBO/ RCCB's: Supply and erection of sheet metal Double Door Distribution Boards IP 43- IK09 metal door (dust protected) as per IS 8623-1&3, IEC 61439-1&3 suitable for flush mounting with fully insulated copper busbars, shrouded neutral bars, earth bars, cement spill protector, colorcoded interconnecting wire set, cable ties, blanking plates and circuit identifications label and of required no. of ways for mounting miniature circuit breakers/ RCBO's/ RCCB's in the distribution board (For SP&N distribution board with provision DP MCB's/ RCCB's/ RCBO's as incomer and SP MCB's as outgoing and for TP&N horizontal distribution board with provision TPN/ FP MCB's/ RCCB's/ RCBO's as incomer and SP MCB's as outgoing) as per PWD General specifications including connections with suitable size of thimbles and bonding to existing earth etc:- TP&N Horizontal Double Door Distribution Board 12 way each	each	3.00	4910	14,730
8.05	34.16 A	Supply and erection of Miniature Circuit Breaker MCB's for circuit protection against overload and short circuit current fault suitable for 240/ 415 volts 50cycles AC supply with breaking capacity of 10kA, Curve-C and low watt losses as per IS/IEC 60898-1, energy limitation class-3, true contact indication, label holder facility in the existing MCB distribution board as per PWD General Specifications including connections with suitable size of thimbles/lugs:-				
8.05.1	(ii)	MCB single pole 6 to 32amp. (10KA Curve - C)	each	90.00	134	12,060
8.05.2	(iii)	MCB single pole 40amp. (10KA Curve - C)	each	30.00	278	8,340

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
8.06	34.16 C xviii	Supply and erection of RCCB (Residual Current Circuit Breaker) for Earth leakage protection suitable for 240/415 volts 50 cycles AC supply with breaking capacity of 10kA as per IEC 61008-1 in the existing MCB distribution board as per PWD General Specifications including connections with suitable size of thimbles/lugs:- RCCB Four Pole 63amp., Sensitivity 300mA	each	6.00	2505	15,030
8.07	34.37 A (i)	DOUBLE WALLED CORRUGATED (DWC) HDPE PIPES: Supply and erection of Double Walled Corrugated (DWC) HDPE pipe to be laid 1mtr. below ground level including excavation placing the pipe in position and back filling with excavated soil etc. of the required size:- Double walled corrugated (DWC) HDPE pipe 50/ 38mm (outer/ inner dia.)	m	450.00	127	57,150
8.08	34.14 (i) (a)	COPPER EARTHING: 8 SWG COPPER EARTHING : Earthing with 8 SWG (4mm dia.) electrolytic copper wire thimbled (1No. copper thimble with suitable size steel bolt, washers & double nut) with 30cm x 60cm x 2mm thick copper plate (made cylindrical) burried below ground level in the hole of excavation having bore dia. 125mm and surrounded by salt & charcoal dust mixture (20 kg.) including fixing the copper wire run through 20mm dia. G.I. pipe (A-Class) recessed in wall and in floor etc., up to suitable Length in metre (including bore Length). G.I. pipe 20mm dia. (A-class) of suitable Length should be laid in the hole of excavation 1 feet below ground level and having GI Reducer 50mm x 20mm with PVC Cap (For pouring water) fixed on the top level of the pipe. 300mm x 300mm x 300mm deep haudi of First class bricks finished with 1:4 cement plaster and haudi covered with cast iron lid having size 300mm x 300mm (Heavy) around the hole of excavation:- Earthing with 8 SWG (4mm dia.) copper wire thimbled with 30cm x 60cm x 2mm thick copper plate burried 4.50 metre (14.76 feet) below ground level (up to 8metre in Length) with G.I. pipe 20mm dia. (A-class), 3metre long	each	6.00	5744	34,464

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
8.09	34.09 vi	PVC INSULATED FR COPPER CONDUCTOR CABLES: Supply and erection of PVC insulated FR single core Unsheathed copper conductor cable (ISI marked) suitable upto 1100 volts grade confirm to IS:694/1990 left bare in pipe or casing of suitable size complete in all respect as desired by the Engineer-in-charge:- Overall size	m	1,000.00	88	88,000
		LT PANELS & MCCB's (MOULDED CASE CIRCUIT BREAKERS): LT PANELS: Designing, Supply, Erection, Testing & commissioning of indoor Type LT cubical panel enclosure (dust, vermin and interchangeable modules with facilities for extensions or reduction as per the space or requirements). The Panel shall be suitable for operation at 415+6% Volts, 50HZ, 3 phase 4 wire & earth system. The assembly manufacturer should be ISO approved and CPR I tested for short circuit of (minimum 50kA) as well as IP degree of protection (IP 54/55). Fabrication:- Panel shall be made from 14/16 SWG CRCA sheet, conforming to IS 8623/1977-82. The sheet metal used for the fabrication of control panel will be 2mm for load bearing member's door and fittings plates etc. the partitions and other non load bearing members will be fabricated out of 1.6mm sheet, the sheet will be of mild steel CRCA type. The base channel will be made out of 75 x 40 x 5mm rolled channel.				

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
8.10	34.23 A	<p>The door should be double folded without edge and the gasket should be 'S' type puffed neutral rubber gasket for long life. The hinges of the door should be bolted type with double hole arrangement. The panel door lock should be quick openable type spring loaded. There should not be any special tool or key to open the lock. Minimum depth 400mm / wide 300 mm for busbar/ Cable ally at the front of the panel. The panel will be free standing floor mounting type having provision for cable entry from bottom/top with cable glands etc.</p>				
		<p>The fabrication should be such that all the member i.e. vertical/horizontal should be detachable type i.e. total bolted. In case of any changes required at site. it should be possible then and their self without any cutting or welding. The fabrication of the panel in 3B construction fully compartmentalized type i.e. bus bar chamber as well as the cable chamber should be totally isolated from the feeder chamber. Where there crossing of the wire or bus links. It should have proper rubber gourmets or non-hygroscopic material. No live part should be in visible condition.</p>				
		<p>Painting:- The sheet metal is sprayed with corrosion resistant etch Primer. The finishing treatment shall be applicable with air drying paint (7/9 tank Powder coated process should present in company pemises) after necessary putty work . Busbars:-The panel shall be provided with TPN aluminium busbar of suitable size according to the size of MCCB's. Busbar shall be of high conductivity (53% to 58%) E91-E Grade aluminium (1A/Sq.mm). All Busbar will be air insulated with codified in Red, Yellow, Blue & Black as per standard for cable termination with the help of extended busbar only with proper adjustable cable supports. The main busbar would be supported upon non-hygroscopic SMC/DMC supports.</p>				

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
		Metering:-The panel shall be completed with digital metering unit (with selector switches, voltmeter & ammeter) epoxy insulator, gasket, PVC sleeves, CT's & L.E.D. type indicator etc. Manufacturer of Panel should be CPRI Approved (Approval not older then 5 years) & ISO certified (Manufacturer workshop as per ISO 9001: 2015 standard) The Concerned contractor shall be approved the detailed drawing of panel with complete specification from the Engineer in charge at site. Detail of capacities of MCCB's to be installed in the cubical panel Enclosure (Excluding the cost of MCCB's) as per following:-				
8.10.1	(i)	LT Panel enclosure having space for 1No. Incomer MCCB 160Amp. and 4 Nos. outgoing MCCB's 40amp. to 100amp. according to the requirement at site (Approx. size 1825 x 900 x 300mm)	each	2.00	51684	103,368
8.11	NS	Supply and installation of 20 watt LED tube with make of WIPRO, PHILIPS, Havells etc. or equivalent.	each	200.00	1080	216,000
8.12	NS	Supply and fixing of 48" antidust Ceiling Fan with make of Crompton, Havels, Bajaj etc. or equivalent	each	120.00	3192	383,040
8.13	NS	Supply and fixing Exhaust Fan 250 mm dia with make of Bajaj havells etc. or equivalent	each	8.00	1445.28	11,562
8.14	NS	Supply and fixing of Big Handi Fixture 300 mm Local Make with LED Light and 2 metel chain length.	each	60.00	4964	297,840
8.15	NS	Supply , Installation , Testing and commissioning of interconnecting refrigerant pipe work with closed cell elastomeric nitrile rubber insulation between each set of indoor & outdoor units as per specifications.	m	400.00	1300	520,000
8.16	NS	Rigid PVC piping complete with fittings, supports as per specifications and duly insulated with 6 mm thick closed cell nitrile rubber insulation. 25 mm dia	m	200.00	120	24,000

S.No.	CSR / SOR/ NS	Description of items	Unit	Quantity	Rate (INR)	Amount (INR)
8.17	NS	Supply and fixing of heritage Black Matt finish tumbular metallic body switch 16 A 230 V with make of SSK. (Item Code HAF-701)	each	125.00	993	124,125
8.18	NS	Supply and fixing of heritage Black Matt finish tumbular metallic body step fan regulator for fan with make of SSK. (Item Code HAF-710)	each	25.00	1464	36,600
8.19	NS	Supply and fixing of heritage look cover frame 2 Module 5' x 3' Black Matt finish metallic body with make of SSK. (Item Code HAF-752)	each	25.00	1196	29,900
8.20	NS	Supply and fixing of heritage look cover frame 6 Module 8' x 6' Black Matt finish metallic body with make of SSK. (Item Code HAF-755)	each	17.00	3001	51,017
10		CREDIT OF DISMANTLED MATERIAL				
10.01	M-12 a	Brick after scraping	each	93,247	-4.8	-447586
10.02	M-12 d	Brick bat	cum	155.41	-472.5	-73431
10.03	M-12 c	Brick tile after scraping	each	41,298	-5	-206490
10.04	M-12 d	Brick tile bat	cum	34.78	-472.5	-16434
10.05	NS	MS Steel	Kg	13,340	-20	-266800
		GRAND TOTAL				55,463,081