

SABARMATI RIVER FRONT DEVELOPMENT CORPORATION LTD (SRFDCL)					
BILL OF QUANTITIES					
Name of Work :- ANNUAL RATE MAINTENANCE OF VARIOUS CIVIL COMPONENTS OF SRFD PROJECT ON WEST BANK OF RIVER SABARMATI FOR SABARMATI RIVER FRONT PROJECT					
SUMMARY SHEET					
Sr. No.	Sub Section				Amount in Rs
1	Sub Section : A- Civil Maintenance Works				17586260.49
	I / We am / are willing to carry out work at % above / below* percent (should				
	Note : * Please strike out above or below, whichever is not applicable.				
	1. No extra payment shall be paid for material testing, soil testing and any other tests as required.				
	2. The unidentified utilities shall be shifted or reconstructed as per prevailing S.O.R rates of Ahmedabad Municipal Corporation/ R & B SOR/MR				
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	Section A				
It. No.	Item	Per	Quantity estimated but may be more or less	Rate	Amount in Rs
	EARTH WORK				
1	Earth work in excavation by mechanical means / manual means in foundation trenches, drains, manholes, soak wells etc. including necessary shoring & strutting, dewatering, getting out the excavated soil up to 1 km. lead, sorting and stacking of useful material, For all civil, electrical and plumbing works. All kinds of soil.				
	(A) Up to 1.50 Mt. Depth	Cu.M.	100.00	149.00	14900.00
	(B) 1.5 to 3.0 Mt. Depth	Cu.M.	50.00	162.00	8100.00
2	Supply and Filling in foundation and plinth with murrum or selected soil in layers of 30 cm. thickness including watering, ramming and consolidating etc. Complete.	Cu.M.	50.00	225.00	11250.00
3	Disposing/ transporting of the surplus excavated earth or debris etc. including loading at site, transporting by mechanical or manual means & disposal, unloading, etc. complete as directed beyond the initial lead of 50 mt with all lift.				
	A)lead up to 5.0 k.M	Cu.M.	400.00	235.51	94204.00
4	Spreading excavated earth materials and leveling to camber and gradient as directed by engineer in charge in controlled lift thickness of 300mm.	Cu.M.	50.00	192.00	9600.00
5	Rolling and consolidation of soling in controlled lift thickness of 300mm including filling in depression which occurs during the process with power roller 8Tonne to 12 Tonne.	Cu.M.	50.00	73.80	3690.00
6	Filling in plinth with sand under floors, in trenches etc. including watering ramming, consolidating and dressing complete as directed by engg. In charge.	Cmt	50.00	455.63	22781.50
7	Provding and filling the expansion joint for 25 mm width and 12 mm depth with polysulphide sealant with application of primeer including scraping/removing the expansion filler materials from joints, cleaning, repairing of the edges with epoxy mortar of approved color and make, fixing of abro tapes on the edges to prevent the adjoining surface etc. complete as directed by engineer in charge.	Rmt	25.00	273.00	6825.00
	PCC & RCC WORK				
8	Providing and laying in position Plain Cement Concrete (PCC) of M15 Grade including finishing, curing, formwork (if required) etc. complete as directed by the engineer-in-charge. For All works up to Plinth level, Roads, Pavements, Plinth Protection, stone flooring, tree pit etc as per drawing.	Cu.M.	21.00	4763.00	100023.00
9	Providing and fixing TMT-Fe-500 ISI make reinforcement bar for R.C.C. work including bending binding and placing in position complete up to any level.	M.T	1.00	94000.00	94000.00
10	Construction of unreinforced, dowel jointed, M25 grade plain cement concrete flooring (broom finish) for promenade flooring, cycle track, footpath, side walk, central verge etc. as per Specifications and in conformity with the lines, grades and cross sections shown on the drawings. The work shall include furnishing of all plant and equipment, materials and labour and performing all operations in connection with the work, as approved by the Engineer. The unit rate also includes full costs of contraction, expansion, construction and longitudinal joints. It shall also includes joint filler, keys, caulking rod, debonding strip, sealant primer, joint sealant, dowel bar and tie rod. And it shall also includes cutting and making of groove in cement concrete floor as per the drawing. For construction of concrete flooring TRIMIX vacuum dewatering system shall be used.	Cu.M.	25.00	6740.00	168500.00
11	Providing . & laying for control concrete in cement concrete M-25 and curing complete including cost of form work for reinforced concrete work Including the cost of centering, shuttering for all height and lift but excluding the cost of reinforcement.	Cu.M.	35.00	7814.00	273490.00
12	Providing . & laying for exposed finish control concrete in M-25 for wall of any thickness and height and curing complete including cost of form work centering, shuttering for all height and lift but excluding the cost of reinforcement. For Retiaing wall / Boundary wall as per instruction of engineer incharge .	Cmt	20.00	7255.00	145100.00

13	Repairing of promanade concrete surface (PQC) including dismantling with breaker/ Scarping of surface to 3" to 4", removing and repairing surface with M-25 grade concrete including necessary bonding agent like SBR including necessary brooming, watering and curing completed. (cutting of groove before concrete dismanteling will paid in seperate item)	Sqm.	40.00	2076.00	83040.00
	BRICK WORK				0.00
14	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg/Sq. cm. in foundations and plinth in cement mortar 1:5 (1 cement : 5 fine sand)	Cu.M.	25.00	5198.00	129950.00
15	Brick in super structure above plinth level up to floor two level. using common burnt clay building bricks having crushing strength not less than 35 kg/Sq. cm. in cement mortar 1:4 (1 cement : 4 fine sand) i.e. Superstructure	Cu.M.	20.00	5398.00	107960.00
16	Half brick masonry in common burnt clay building bricks having crushing strength note less than 35 Kg/Sq. Cm. in cement mortar 1:4 (1 cement : 4 coarse sand) in Super Structure up to floor two level	Smt	50.00	593.90	29695.00
	PLASTER				
17	Providing & laying average 12-15 mm thick Single coat mala finish cement plaster on sides of masonry work / block wall / RCC wall, first coat 14mm thick CM 1:4 (1 cement : 4 coarse sand) by spraying , second coat up to 6 mm of CM 1:3 (1 cement : 3 fine sand) with mala finish plaster (finished with steel trowel) at all floors, all shapes and all height including hacking to RCC surface, scaffolding, curing, making grooves, forming pattas and drip mould, etc. complete as directed by engineer-in-charge.	Smt	300.00	296.44	88932.00
18	Providing and laying average 18-20 mm. thick Sand faced cement plaster on masonry work / RCC wall up to any height above ground level and for all shapes consisting of first coat (backing coat) average 13-15 mm. thick with CM 1:3 (1 cement: 3 coarse sand) rough wired finish and second coat of average 6 mm. thick uniform grained textured by using sponge, in CM 1:1 (1 cement: 1 sand), including scaffolding, hacking to RCC surface, forming grooves, drip moulds, pattas, curing etc. complete as directed by engineer-in-charge.	Smt	50.00	297.68	14884.00
19	Providing & doing Rendering to the existing concrete surface with required proportion of grey and white cement including needed curing as per specification and making the surface finish acceptable to the satisfaction of the Client/ Consultants. The cost includes chipping out concrete, all labour and material, making the surface finish up to desired level in conformity with existing concrete wall as well as filling the tie rod holes in the concrete with arrangement of required scaffolding at any level and curing as per the instruction by Engineer in charge.	Smt	3000.00	317.00	951000.00
20	Additional for providing & fixing 15 cm wide chicken mesh jali with nails & in any type of plaster on R.C.C.& masonry joints as per dir.of engg.in charge	Smt	5.00	182.20	911.00
21	Providing and applying external finish of average 2 to 2.5mm thick acrylic polymer based texture and pattern with standard tool and applicator as specified bymanufacturer on exterior surfaces at all heights including scaffolding to give evenshades including thoroughly brushing the surfaces free from mortar dropping and otherforeign matter and sand paper smoothed etc. complete as per the manufacture specifications and up to the satisfaction of Engineer in-charge/ Architect. The rate includes making of grooves, pattas and finishing as directed by Architect/ EIC. Paint shall be measured and paid in seperate tender item.	Smt	50.00	356.00	17800.00
22	Polymer mortar for replacement of spalled concrete Providing and applying primer coat by Nylon brush at the spalled out concrete location. Applying prepacked polymer mortar by trowels & float over the spalled concrete for diaphragm wall. Including scaffolding, shuttering, supplying required material including polymer etc., complete as per the specification & as directed by the Engineer.	Smt	200.00	1500.00	300000.00
23	Providing and laying for Terrazzo finish natural stone chips flooring for coping, seating, to be granolithic finish with under layer of 10 to 12 mm thick cement plaster(1:4) and top layer 10 to 12 mm thick with white, black, chocolate, grey, red, yellow or green marble chips of sizes from 7 mm to 10 mm nominal size, laid in cement marble powder mix 3:1 (3 cement : 1 marble powder by weight) in proportion of 4:7 (4 cement marble powder mix : 7 marble chips by volume) with any shade of pigment in ordinary and/or white cement of required praporsion to achieve desire shade, including rubbing & polishing, coating etc. complete. Rate shall be inclusive of base coat, casting of terrazzo, rounding edges, curing, mirror polishing, finishing, etc. complete.	Smt	50.00	2323.00	116150.00
	DOOR WINDOW WORK				0.00
24	Providing & fixing dead lock with 60/55 mm Euro profile Pin Cylinder of Kitch or equivalent with both side key /one side key -one side knob with one pair of rose for wooden /aluminium doors with necessary head screws etc. complete as per EIC. Rate shall be for all heights ,all floors and all places.	No	5.00	2454.00	12270.00
25	Providing & fixing 19 mm diameter SS 316 satin (brush) finish push-pull handles square/rectangular shape in pair of DORMA or equivalent with necessary screws etc. complete, as per drawing as approved by Architect and Engineer-in-charge. Rate shall be for all heights ,all floors and all places . a) 200 mm long	Pair	3.00	1405.00	4215.00
	b) 300 mm long	Pair	3.00	1636.00	4908.00

26	Providing & fixing hydraulic rack and pinion door closer with screws to pivoted/ hinged door of approved make like Dorma or equivalent for specified door width with minimum one year guarantee. Rate shall be inclusive of fixing with using the template as per supplier's specification & maintaing in good working condition until defect liability period.	No	10.00	3432.00	34320.00
27	Providing & Fixing 75-100mm white PVC door Buffer with necessary screws etc. complete as approved by Engineer-in-charge.	No	5.00	41.00	205.00
28	Providing & fixing 150 mm satin nickel finish brass or SS 316 brush finish tower bolt of EPPW or equivalent in wooden doors/Aluminum doors, with necessary screws etc. complete as approved by Engineer-in-charge.	No	8.00	234.00	1872.00
29	Providing & fixing 200 mm satin nickel finish brass or SS 316 brush finish tower bolt of EPPW or equivalent in wooden doors/aluminum doors with necessary screws etc. complete as approved by Engineer-in-charge.	No	3.00	276.00	828.00
30	Providing & fixing Door Stopper of EPPW, magnum, Kich or equivalent with necessary screws etc. complete as approved by Engineer-in-charge inCharge.	Each	5.00	227.00	1135.00
31	Providing and fixing roller mounted curtains of blackout type of approved make and shade as directed by the Architect/EIC. Rate to be inclusive of locking arrangement for the blinds per one blind. The rate shall be applicable for all floors and for all heights etc. complete as directed.	Smt.	10.00	2461.00	24610.00
32	Providing and fixing glazing in aluminum door, window, ventilator shutters and partitions etc. Including EPDM rubber on the periphery of the glass, snap beading, glazing clips, neutral cure weather Silicone sealant of Dow corning 789 etc. complete for all height / all levels / all floor in all shapes as per the architectural drawings and directions of engineer-in-charge. Clear visible area of glass shall be measured and paid and without any wastage.				0.00
a	6 mm thick fully tampered glass	Smt.	5.00	1277.11	6385.54
b	8 mm thick fully tampered glass	Smt	5.00	1702.81	8514.05
c	10 mm thick fully tampered glass	Smt	5.00	2050.93	10254.65
d	6 mm thick wired glass	Smt	5.00	855.00	4275.00
33	Providing fixing 6mm thick frame less mirror of approve make in any shape and sizes. Mirror shall be fixed on 6mm thick cement bonded particle board (Bison panel) backing. Cement bonded particle board shall be fixed to wall with approved fastener. All edges of glass shall be sharp grinded, cute corner and polished. Glass shall be fixed with silicon sealant/ 3M tape etc complete at all floors/ all levels/ all heights as directed by engineer in charge. Installed area of mirror shall be considered for payment without wastage.	Smt	5.00	1726.00	8630.00
34	Providing & fixing hydraulic floor spring with SS cover plate & adjustable concealed casted top pivot (two piece) and bottom strap of approved make like Dorma or as per approved make for wooden/aluminium doors of specified capacity with minimum one year guarantee. Rate shall be inclusive of cutting of floor neatly, grouting the floor spring & cleaning / polishing the floor & maintaining in good working condition up till defect liability period. In case of Aluminium shutter bottom arm of floor spring & top pivot shall be firmly fixed in the aluminium members using required size of teak wood by making rabbet in the wood. a) Hold open having weight up to 100 kg and width 1200mm - Floor Spring of Dorma BTS-75V with std. spindle and cover plate.	Each	2.00	18889.00	37778.00
35	AluminiumWork: Providing and fixing in position frames / shutter for any type of aluminium work like aluminium door, composite door-window, window (sliding, openable, sidehung, tophung, fixed etc.), casement window, aluminium partition, aluminium fixed louvers, fixed window with any type of aluminium sections of make Jindal/ Indal/ Hindalco as per approved make having minimum 50 micron pure polyester powder coating of approved shade, texture & colour of approved make for all floors/ all levels/ all heights/ all shapes/ all sizes including cutting, bending, crimping, CNC cutting, fabri cating in best work man ship manner etc as per the drawing, specification and as directed by Architect or Engineer-in-Charge.Rate shall be inclusive of providing aluminium sections (conventional and/ or Euro-profile sections), cutting, fabrication, erection and fixing to the best work man ship manner, including 1) Sheet metal screws and casted solid aluminium corner cleats fixed with external byttins with a spring for rapid and secure joint assembly for casement and sliding shutter and frame; 2) Glazing clips for receiving infill panel; 3) Best quality wool pile where ever shutter touches the frame and compatible microwave cured EPDM rubber; 4) Dash Anchor fasteners of HILTI or equivalent for fixing the frame assembly to the RCC or masonry surfaces. Minimum 1 anchor fastener shall be used for every 600 mm length of section for stability of frame. 5) 10mm GI tie rod for connecting vertical stile at top and bottom for aluminium door shutter and 4mm thick solid	K.G	50.00	522.00	26100.00
b	Providing &fixing 10" long (minimum rod size shall be 15 mm)"J" typesatinnickel finishnickel plated brush finished brass or SS brush finish Aldrop of EPPW ,Arch, Magnum or equivalent with necessary screws, pins, bolts etc. complete as approved by Engineer in Charge.	Nos.	25.00	386.00	9650.00
c	Providing &fixing 8" long (minimum rod size shall be 12 mm) sat in nickel finish brass or SS 304 brush finish round Tadi of EPPW, Arch, Magnum make with necessary screws, pins, bolts etc. complete as approved by Engineer in Charge.	Nos.	25.00	244.00	6100.00
d	Providing and fixing chromium plated brass/ SS304 grade handles 150 mm long'D' shape rod handle with both end bracket with necessary screw setc.complete as directed by engineer in charge.	Nos.	50.00	223.00	11150.00
	FLOORING WORK				0.00

36	Providing and laying Ceramics flooring tiles 6mm thick in flooring, treads of steps and dedo on 10 mm. thick cement plaster 1:3 (1 cement : 3 coarse sand) and jointed with white cement slurry.	Smt	25.00	960.47	24011.75
37	Providing and laying Cement concrete flooring for I.P.S. 1:2:4 (for Indian Patent Stones) (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm. nominal size) lain in layer finished with a floating coat of net cement.(50 mm th.)	Smt	50.00	250.00	12500.00
38	Providing & laying average (25 to 30 mm thick) machined/hand cut green Rough kota (river wash) of approved quality, selected and sorted for uniform color & texture, in floor, otta, landing, tread, riser, ramp, sill, skirting, channel etc., in following sizes as per design (normal pattern straight or staggered joint with square or rectangular shaped stone) and drawings (with grooves of 10mm wide or without grooves). Kota stone is to be laid over cement mortar 1:4 bedding of average 20 to 30 mm thickness as per drawing with joints, pointing and finishing and filling the grooves with CM 1:2 including curing and cleaning with wire brush to remove excess cement on the sides of stone up to the satisfaction of the Architect & Engineer-in-charge. The rate shall also include necessary chamfer/ rounding the edge as per requirement				0.00
	a) Upto 600 mm X 600 mm (River Wash)	Smt	500.00	1422.00	711000.00
	b) Upto 900 mm x 600mm (River Wash)	Smt	200.00	1730.00	346000.00
	c) Upto 1200 mm x 300mm (River Wash)	Smt	25.00	1560.00	39000.00
39	Polished Kota Stone Providing & laying average (25to30mm) thick machined cut Green Polished Kotalstone of approved quality, selected and sorted for uniform color& texture, infloor, otta, sill, skirting, tread, riseretc., in required sizes up to 600 mm. as per design normal pattern (straight or staggered joint with square or rectangular shaped stone) and drawings (with grooves of 10 mm wide or with out grooves). Kota stone is to be laid over cement mortar 1:6 bedding of average 40 mm thickness with joints, pointing and finishing and filling the grooves with CM1:2 as sample approved, including curing and cleaning with wire brush to remove excess cement on the sides of stone up to the satisfaction of the Architect & Engineer-in-chargesetc.complete.(NO WAXING WILL BE PERMITTED).				0.00
	A) Upto 600 mm X 600 mm	Smt	20.00	1339.00	26780.00
	B) Up to 1200 mm x 300 mm for tread and riser with champhering and edge polishing on exposed edges	Smt	10.00	1339.00	13390.00
40	Providing and fixing 80 mm thick abrasion resistant interlocking or Brick type paver blocks of approved make and colour as per design including average 50 mm coarse sand bedding over compacted sub-base (in required slope and of specified thickness). Rate shall be exclusive of sub-base. 1) 50 mm thick coarse sand shall be laid as cushioning layer for arranging the paver blocks. Joints of the paver blocks shall be filled with the sand 2) The paver blocks shall be laid properly on the prepared sub-base as per manufacturer's specification and as per Engineer-in-charge's instruction. a)M-40grade - 80mm thick - shot blasted	Smt	50.00	1196.00	59800.00
41	Providing and fixing 60 mm thick abrasion resistant interlocking or Brick type paver blocks of approved make and colour as per design including average 50 mm coarse sand bedding over compacted sub-base (in required slope and of specified thickness). Sample to be approved by the Architect & Engineer-in-charge. Rate shall be exclusive of sub-base. 1) 50 mm thick coarse sand shall be laid as cushioning layer for arranging the paver blocks. Joints of the paver blocks shall be filled with the sand 2) The paver blocks shall be laid properly on the prepared sub-base as per manufacturer's specification and as per Architect and Engineer-in-charge's instruction.				0.00
	a) M-40 grade - 60 mm thick - shot blasted	Smt	100.00	1515.00	151500.00
42	Providing and laying 600mm x 600 mm vitrified tiles of required surface (Matt, Satin, Glossy, Non skid, Rustic) and shade as per design in floor and Dedo with residue and skirting of desired colors and size of first quality over a minimum 20 mm. thick cement mortar 1:3 bedding on 40 mm wired finish screed 1:2:4 and laid to proper slope and level. Finishing to be done with flush pointing in white cement and approved pigment including curing and cleaning with mild oxalic acid etc. complete as directed by Engineer-in-charge.	Smt	25.00	1141.00	28525.00
43	Providing & laying machined cut/ hand cut natural rough finish 25 to 30 mm Red Mandana Stone of approved quality, selected and sorted for uniform color & texture, in external work, pavement, pathway, tread, riser, ramp etc as per drawings of size upto 900mm in any shape, any pattern. Red Mandana stone is to be laid over cement mortar 1:6 bedding of average 20 mm thickness with joints, pointing with cement mortar and matching pigment and finishing including curing and cleaning with wire brush to remove excess cement on the sides of stone, chemphering of exposed edges having polishing etc complete as directed by engineer in charge.	Smt	50.00	1509.00	75450.00
44	Providing & laying approved quality machine cut mirror polished/flame finish (river wash) granite of approved shade, thickness 18-20 mm., in Basin top , floor, otta, sill, skirting, dado etc. in required sizes and shapes, including average 45 mm thick cement mortar bedding in 1:3 laid and jointed with white cement and matching pigment including rubbing, re-polishing after fixing to remove any undulation between the joints (if required) with different grades of Emery, refilling of open joints, curing, daily cleaning and mopping, as directed for at least 15 days or up to the satisfaction of the EIC (Only finished work will be measured.)	Smt	100.00	3764.00	376400.00

45	Providing & laying broken china mosaic flooring, comprising of 12 to 20 mm. size broken pieces of glazed/ ceramic tiles (one or more in colours as suggested by Architect), laid over cement mortar 1:3 (1 cement: 3 coarse sand), with joints not exceeding 5 mm, including filling the gaps with ordinary cement mixture & mixing with synthetic polyester fibre, triangular in shape having specific gravity of 1.34 to 1.40, cross section size ranging from 10 to 40 micron & length upto 6 mm, mixing fibre @ 125 grams per 50 kg of cement in cement mortar, including providing and mixing water proofing material in mortar @ 1 kg per 50 kg of cement on terrace and fillet area, including rounding of the junctions and extending them upto 15 cm. along the parapet wall. The rate shall include any type of bands, vata, any colour, any pattern or design as per drawing, curing, cleaning with water and oxalic acid etc. complete as sample approved by Architect/ EIC. (Only plan area shall be measured and paid). Rates should be inclusive of acid washing and vata.	Smt	10.00	938.00	9380.00
46	Providing and fixing Modular Concrete Cobble block in different sizes with 60mm thickness, in required finish, grey/ coloured, of Vyara (Beganit) make or equivalent as per design. Top coat/ wear coat (not less than 5mm) shall have using UV resistant colour pigments from Lanxess, compressive strength 400kg/ cm2. Including providing and laying 50 to 80 mm thick average bedding layer of coarse sand below cobble block as per required grading and specification. Laid cobble block shall be mechanically compacted. Cutting of paver block by machine cut only and laying to be done by skilled flooring mason. cobbles shall be compacted and shall be re-laid if necessary. Sample to be approved by the Architect & Engineer-in-charge.	Smt	10.00	1515.00	15150.00
STRUCTURAL STEEL WORK					0.00
47	Structural steel work in riveted, bolted or welded in built up sections, trusses and framed work including supplying, fabricating, cutting, assembling, hoisting and fixing in position at all heights of all shapes and size with all leads and lifts . It should be including necessary rolled joists, channels, angles, tees, flats, angle cleats, gusset plates, position hip and jack lifters, purling, etc. including cutting and welding the members as per detailed drawing and design. The rate shall include dry sanding, degreasing (wet cleaning) & preparation of rust free surface manually or mechanically, metal putty to make the surface even and smooth, 1 coat of PU primer and 2 coats of PU Painting Etc. complete	Kg.	3000.00	158.00	474000.00
48	Providing, Fabricating and fixing SS hand rail / railing, gratings, ladder, corner guard of 304 grade made out of round pipes, square or rectangle sections, angle, plate, flatinsatin/ brushfinish including supporting fittings made out of SS304 grade solid rods ,flanges, compatible SS anchor fastener (mechanicalorchemical) of Hilti or as per approved make as per manufacturer' s specifications, SS connecting bolts of required size with washers, SS base plate, lath work, argon arc welding, buffing, bending and bends as per the detail drawing with best (high) quality finish & as per the a sample approved by Architect and as directed by engineer-in-charge. Rate shall be inclusive of all material, labour wastage and for all floors/ all levels/ all heights. Railings hall be measured in KG & paid accordingly. Actual consumable length of member shall be measured and no extra shall be paid for consumable fasteners.	Kg.	100.00	661.00	66100.00
49	Providing and fixing dustbins of structural steel work in sections and frame work at all heights and all shapes and size with all leads and lifts .Item includes supplying,fabricating,assembling, cutting and welding the members as per detailed drawing and design.complete as per the direction of engg. Incharge.(only for dustbin),One coat of PU primer and 2 coats of PU Painting Etc. complete	Kg.	50.00	150.00	7500.00
50	Chemical Anchor: Supplying, Drilling/ Cleaning hole and injecting grouting chemical with the help of dispenser, into a hole of dia & depth as per manufacturer/ structural consultant's specification and fixing rebar of the required diameter subsequently. Fixing methodology shall be followed as per manufacturer's guidelines. Steel will be paid under relevant item. Manufacturer to submit Rebar Depth Calculation based on design loads & other parameters as provided by consultant and in accordance with EOTATR- 023/029 "guidelines for post installed rebar connections" for approval. Rate shall be inclusive of all material, labour, necessary scaffolding etc complete for all height as directed by engineer in charge.				0.00
	(A) 10mm x 150mm depth	Nos	10.00	400.00	4000.00
	(B) 12 mm dia. and 180 mm depth	Nos	10.00	575.00	5750.00
	(C) 16 mm dia. and 240 mm depth	Nos	5.00	880.00	4400.00
	(D) 20 mm dia. and 300 mm depth	Nos	5.00	1475.00	7375.00
	(E) 25 mm dia. and 375 mm depth	Nos	5.00	1940.00	9700.00
51	Only Labour charges for fixing/ repairing of existing Structural steel like Seater back rest, ghat railing, cycle track railing or any steel structure with riveted, bolted or welded etc. completed. Rate includes all material ,power supply and machinery required for fixing work.	K.G	500.00	25.00	12500.00

52	Providing and fixing chainlink fencing/barbed wire G I fencing wherever required including structural steel framework and all fixing material, clamps , two coat oil paint color with primer etc. with foundation of size 450 mm x 450mm x600 mm deep for vertical supports in cement concrete etc. complete as directed by engineer incharge. One coat of PU primer and 2 coats of PU Painting Etc. complete	Kg.	100.00	150.00	15000.00
53	Providing and fixing decorative architectural weld mesh system using post size of 50 mm x 200 mm box with wire diameter of 4.50 mm to 5.00 mm Aesthetic appeal of these fence are greatly enhanced by pattern of wire .V-bend attractive colors and specials profile post use for fittings. fencing where ever required including structural steel framework and all fixing material, clamps etc. with foundation of vertical supports in cement concrete foundation size 450 mm x 450 mm x600 mm deep etc. complete as directed by engineer incharge. One coat of PU primer and 2 coats of PU Painting Etc. complete	K.G	100.00	300.00	30000.00
54	Providing, supplying and fixing heavy duty GI anchor bolt for the fixing of MS railing, hand rail, light pole, display panel, bracket, other street furniture etc. with injection adhesive (chemical grouting) of HILTI / Fischer or equivalent as approved by the Engineer / Architect for fixing in wet/Dry conditions of following dia. The installation and the setting instructions should be strictly followed as per the manufacturer's recommendations. The rate shall include making required drilling hole, all labour, scaffolding and other incidentals necessary to complete the work as per the drawing and specification.				
	(a) 12 mm dia & 153 mm long	No	250.00	199.00	49750.00
	(b) 16 mm dia & 252 mm long	No	5.00	372.00	1860.00
55	Providing and fixing Cast Iron cover and frame of any size including fixing at site with all required material and labour etc. complete as directed.	K.G	25.00	80.00	2000.00
56	Providing and fixing in position, interlocking mechanical operated rolling shutter of approved make, of 18 gauge, 75mm wide cold rolled MS lath interlocked, including top cover, spring, axles, guide rails, tees, iron pulleys, bearings, handles, holding down bolts embedded in CC 1:2:4 including 1 coat of PU primer and 2 coats of PU paint of approved make and shade, etc. as directed by engineer in charge. (Measurements considered for payments shall be clear size of opening plus guide channels on both the sides for width and 450mm on top for drum height).	SMT	25.00	3459.00	86475.00
	PAINT				
57	Providing and applying easy clean, washable interior 100% acrylic paint (Premium plastic paint) of approved make (first one coat with brush and final one coat with roller) like premium emulsion of Asian or easy clean Rangoli of Berger or as per approved make, color and shade dry interior plastered surface at an even shade, including preparing the surface even and sand papered smooth etc. complete as per the manufacture's specification and to the satisfaction of engineer incharge. The rate shall also include the cost of filler for cracks on the surfaces. Actual surface area shall be measured and considered without multiplying any coefficient for payment	Smt	1500.00	100.00	150000.00
58	Providing & applying External 100% Acrylic Paint "Apex" of desired shed from Asian paint or equivalent in minimum three coats (first coat with external primer & balance two coat with apex or equivalent paint as per supplier's specification) with brush on exterior sand faced plastered surfaces / mala plastered surfaces with a minimum one coat of external cement based putty of Birla or equivalent at all heights / all floors / all heights & all places including scaffolding to give even shades including thoroughly brushing the surfaces free from mortar dropping and other foreign matter and sand papered smooth etc complete as per the manufacture's specification & to the satisfaction of Engineer in charge Newly plastered surfaces requires minimum three coats - first coat with exterior primer with 1 : 1 ratio or as per supplier's specifications & balance coats with with 40% dilution). The rate shall also include the cost of filler for cracks on the surfaces.	Smt	500.00	146.00	73000.00
59	Painting two coats (excl. priming coat) on previously painted steel & other Metal surface with enamel paint to give an even shade incl. cleaning the surface of all dirt, dust and other foreign matter.	Smt	5000.00	74.00	370000.00
60	Painting one coat on previously painted steel & other Metal surface like electric pole, railing, Back rest railing etc. with P.U. paint to give an even shade incl. cleaning the surface of all dirt, dust and other foreign matter with applications of spray.	Smt	250.00	350.00	87500.00
61	Providing & applying Coal Tar Epoxy of approved make like Dr. Fixit (Pidilite), Fosroc, clean coats, Sika, two component epoxy coating in two coats as per the mixing and application procedure suggested by manufacturer on the concrete surfaces. Coverage recommended is 3.0 – 4.0 m ² Per ltr for two coat application at the coverage rate of approx. 250 - 300 micron DFT.	Smt	100.00	143.00	14300.00
62	Providing and applying One coat of oil paint of Asian paints/Nerolac/Berger/Nippon/Indigo company on existing curb of previously painted of central Verge and foot path as directed	Smt	10000.00	58.00	580000.00
	DEMOLITION & DISMANTLING WORKS				0.00
63	Scraping/chipping of existing RCC structure up to 25 mm to 75 mm depth with all tools and tackles including finishing/rendering (with required proportion of grey and white cement and bonding agent of pidilite/fosrock or equivalent) at any height including scaffolding, curing of the surface up to line and level etc. complete as per the direction of engg. Incharge.	Smt.	100.00	79.28	7927.50

64	Dismantling existing plain or reinforced concrete by Vibration free cutting to shape and size for RCC wall, thickness may vary as per drawing using "Hydraulic Wall saw system or wire saw system " with complete mechanical, electrical and control system including site inspection, planning as per approved working method; executing work at site by authorized and trained applicator of the manufacturer of the above equipment, applicator guaranteeing successful execution of work, including all necessary tools and tackles; checking for safety of all working men and existing structures all complete as per direction of engineer-in-charge. The mode of measurement for Dismantling will be actual cross section of cut made by the hydraulic wall saw system.(Length x Thickness of piece which has been cut by blade).Rate shall also include lifting of concrete without effecting / disturbing the existing retaining wall and unloading the concrete piece within the range of 100mtrs from the cutting area as per directions of engineer in charge. Minimum weight for lifting is 2.5 Ton.	Sqmt.	5.00	14959.00	74795.00
Precast wall					
65	Supply of Fuji Silvertch or equivalent approved make Precast Boundary Wall units of height as per drawing. Product should be confirming to IS requirements, by using advanced precast technology having High Performance Self Compacting Concrete of M-40 grade cylinder strength / M-50 cube strength and using Fe 500D reinforcement bar. The product should have flange coupling jointing arrangements, one each at bottom & both the side walls, at appropriate location for shear connection between two units. The Precast boundary wall should have special provisions at appropriate location for mechanical installation. The rate is including supply, transportation, loading, unloading and installing at site. The rate is inclusive of labor and machinery required for installation, average 10 mm thick dry cement mortar (CM 1:6) but excluding the plain cement concrete (PCC) M-15 Grade foundation and excavation The cost of M15 Grade PCC and Excavation for foundation shall be paid in relevant tender item. a) 1800 mm height	Rmt.	30.00	12500.00	375000.00
	b) 2000 mm height	Rmt.	30.00	14500.00	435000.00
66	Providing & fixing precast wall (50 mm thick) as directed by engineer in charge.	Smt	500.00	984.00	492000.00
Water Supply and Sanitary Installations					
67	WATER SUPPLY PIPING Providing, fixing, testing & commissioning of CPVC SDR-13.5 pipes & fittings according to ASTM D-2846 with solvent weld socket joints and necessary fittings of brass threaded such as socket, elbows, bends, tees etc. The work shall include cutting jointing & hydraulic testing the joints & pipes for as mention in the specification etc. making holes including chasing in solid block masonry walls with groove cutting machine to required width and depth, making holes in wall as applicable clearing the debris, grouting of concealed pipes, making good the chase by using 1:3 cement mortar, brackets / support for fixing pipes and making good the wall and floors to satisfaction of engr / arch with proper care, protecting fittings & pipes till the final handing over etc as directed by E-I-C complete as per specifications				
	A) 20 mm	Rmt	50.00	182.00	9100.00
	B) 25 mm	Rmt	100.00	266.00	26600.00
	C) 32 mm	Rmt	25.00	430.00	10750.00
	D) 40 mm	Rmt	25.00	590.00	14750.00
	E) 50 mm	Rmt	35.00	975.00	34125.00
68	Providing, laying and jointing intrueline and level U.P.V.C. pipe (SCH-40) of following dia. including fittings of standard make as approved by Engineer-in-charge. Pipe shall be fixed on the wall with the help of clamp at every 2000 mm center to center or shall be concealed as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.				
	A) 20 mm	Rmt	75.00	170.00	12750.00
	B) 25 mm	Rmt	50.00	250.00	12500.00
	C) 32 mm	Rmt	25.00	362.00	9050.00
	D) 40 mm	Rmt	25.00	415.00	10375.00
	E) 50 mm	Rmt	50.00	555.00	27750.00
69	Providg. & fixing Gun metal check or nonreturn full wheel valve/Angle valve.				
	(A) 15 mm dia	Nos	5.00	201.00	1005.00
	(B) 20 mm dia	Nos	5.00	266.00	1330.00
	(C) 25 mm dia	Nos	5.00	408.00	2040.00
	(D) 32 mm dia	Nos	5.00	546.00	2730.00
	(E) 40 mm dia	Nos	5.00	862.00	4310.00
	(F) 50 mm dia	Nos	5.00	979.00	4895.00

70	Providing, laying and jointing in true line and level 160 diameter U.P.V.C (Type 'B') conforming to IS 13592-1992 with one end plain and other end socketed with rubber ring, & fittings conforming to ISI 14735-1999 if approved make for drainage system pipe line, pipe shall be jointed with each other with rubber lubricant, pipe shall be fixed on wall using of PVC clamp of the size 160 mm diameter X 210 mm length X 196 mm height at every 2000 mm center to center or shall be concealed in walls as directed including necessary fittings such as bends, shoes etc. including testing of pipes and joints with adhesive solvent cement including cost of all materials.				
	A) 160 mm	Rmt	50.00	1331.00	66550.00
	B) 75 mm	Rmt	50.00	530.00	26500.00
	C) 110 mm	Rmt	50.00	691.00	34550.00
71	Providing and fixing C.P brass waste coupling for wash basin or sink (A) 32 mm diameter (full thread). Make: Cera	Each	35.00	391.00	13685.00
72	Providing and fixing C.P brass waste pipe or bottle trap for wash basin or sink as directed by engineer incharge.	No.	150.00	1285.00	192750.00
73	Providing and fixing pvc waste pipe (flexible pipe) for sink ,urinal and wash basin etc.	Each	75.00	70.00	5250.00
74	Providing and fixing 15 mm dia x 450 mm long PVC Connections with ABS Nuts-Chrome Plated including O-Ring & Rubber Washer (Suitable for Wash Basin, Kitchen Sink etc) as per specification and conforming to Manufacturers Standards. Make: Prayag / PolyTUF / WaterTECH / Equivalent.	Each	150.00	184.00	27600.00
75	Providing and fixing brass Urinal spreader for urinal as approved and directed by the Engineer-in-charge, including all necessary materials required for fixing.	Each	35.00	500.00	17500.00
76	Providing and Fixing PTMT Prismatic Urinal cock 15 mm connection as per approved quality and colour.	Each	150.00	250.00	37500.00
77	Providing and fixing PTMT Angular stop cock / Flush cock as per specification and conforming to Manufacturers Standards. Make: Prayag / PolyTUF / WaterTECH / Equivalent.	Each	175.00	298.00	52150.00
78	Providing and fixing PTMT Jet spray (health faucet) with flexible tube up to 1.5 meter long of approved make and quality and as approved by Engineer - In - Charge. Make: Prayag / PolyTUF / WaterTECH / Equivalent.	Each	50.00	424.00	21200.00
79	Providing and fixing Jet Spray (health faucet) with 1.0 Meter Tube of approved quality and colour. (a) Cera/Jaquar make	Each	15.00	1200.00	18000.00
80	Providing & fixing 15mm C.P. bib cock with all nuts, washer and brass flange complete as per drawings & specification (a) JAQUAR, CERA or equivalent	Nos	15.00	800.00	12000.00
	(b) Bib tap other then cera/jaquar make	Nos	25.00	377.00	9425.00
	(c) 2-Way Brass Bib Tap in Polished Chrome of approved quality and conforming to manufacturers standards. 2 Way Bib Tap. JAQUAR, CERA or equivalent	Nos	15.00	1705.00	25575.00
	(d) 2-Way Brass Bib Tap Other than Hindware, Cera, Jaqur	Nos	25.00	571.00	14275.00
	(e) Providing and fixing PTMT 2-Way Bib Tap s per specification and conforming to Manufacturers Standards. Make: Prayag / PolyTUF / WaterTECH / Equivalent.	Nos.	25.00	400.00	10000.00
81	Providing and Fixing in position CP brass Pressmatic Pillar cock lift type including 450mm long braided hose of approved make and quality, and as approved and directed by the Engineer-in-charge, including all necessary materials required for fixing.(a) HINDWARE, CERA, JAQUR OF Equivalent.	Nos	8.00	1776.00	14208.00
	(b) other then cera/jaquar make	Nos	13.00	500.00	6500.00
	(c) Providing and Fixing PTMT pillar cock as per specification and conforming to Manufacturers Standards. Make: Prayag / PolyTUF / WaterTECH / Equivalent.	Nos	35.00	400.00	14000.00
	(D) Providing and Fixing in position CP brass Pressmatic cartridge (spindal) approved make and quality, and as approved and directed by the Engineer-in-charge, including all necessary materials required for fixing.(a) HINDWARE, CERA, JAQUR OF Equivalent.	Nos	25.00	950.00	23750.00
82	Providing and fixing SS grating (jali) of size 150 x 150 mm as directed by engg. Incharge.	Nos.	25.00	200.00	5000.00
83	Service work for flush tank including necessary labour and material like acid etc. as per direction of engg. Incharge. (a)	Each	52.00	370.00	19240.00
	(b) Providing and fixing syphone set other then cera/jaquar make	Each	25.00	450.00	11250.00
(c)	Providing and fixing syphone set of approved make and quality, and as approved and directed by the Engineer-in-charge, including all necessary materials required for fixing.(a) HINDWARE, CERA, JAQUR OF Equivalent.	Each	50.00	930.00	46500.00
84	Providing and fixing wash down Floor mounting ORISSA PAN TUB of approved shade with P or S trap, SWR Selfit Soil pipe and plug bend as per specifications; rubber gaskets, connecting PVC 110mm dia soil pipe with PVC coupling, and cutting and making jari work etc. complete. Orissa Pan: HINDWARE, CERA, JAQUR or equivalent.	Nos	4.00	6197.00	24788.00
85	Providing & fixing of first quality white vitreous china Wash basin as per product detail, including specially fabricated M.S. / C.I. brackets with studs painted with two or three coats of enamel paint of approved shade over a coat of primer, 32mm CP brass half waste coupling as per product detail, Bottle Trap & Pipe to wall with CP brass flange & rubber adopter for waste connection, 1 no of 15mm nominal bore heavy rating CP brass inlet connection with unions at end for connection of angular valve to basin as per product detail complete including filling gap between counter and wash basin with approved sanitary grade material, cutting & making good the walls where required.: HINDWARE, CERA, JAQUR OF Equivalent.	Nos	4.00	3751.00	15004.00

86	Providing & fixing vitreous china ware URINAL in one sleek supported by CI / MS bracket (duly painted with 2 coats of paints over a coat of primer) with CP brass heavy quality spreaders, CP brass waste coupling grating, CP brass bottle trap with extension piece, pipe to wall with C.P. flange, CP urinal auto closing system with wall flange white vitreous china large urinal partition with concealed CI bracket etc. with all necessary connection complete including cutting and making good the walls to the satisfaction of project manager / Arch. and floors wherever required. HINDWARE, CERA, JAQUR Or Equivalent.	Nos	5.00	6645.00	33225.00
87	Providing & fixing specified Divisional plate of approved make & color with all necessary, concealed clamps, brassed screws & filling the gape wall & divisional plate with sanitary grade silicon sealant etc. complete to the satisfaction of project manager / Arch. DIVISION PLATE: HINDWARE CERA, JAQUR Or Equivalent.	Nos	5.00	4000.00	20000.00
88	Supply and installation of urinal modesty panels of make Merino or equivalent as per approved make with width and depth as per specifications with 1200 mm height x 450 mm depth with Solid Grade 304 Satin Finish Stainless Steel Accessories, the modular shall possess 100% resistant properties towards: Water, Moisture chemicals, & bacteria. The partition will be made of Phenolic Base Compact Boards as per IS-2046 (Indian Standards). The partition panel shall be of one continuous panel without any joint. The compact laminate shall be impregnated with phenolic resin based on thermosetting technology, homogeneously reinforced with cellulose fibers and Décor on both sides with Suede finish and having melamine coating on its surface. Performance of the panel shall possess the characteristics of color, scratch & impact resistance. The sheets shall be bonded at high pressure greater than 110Kg/cm2 at temperature of about 150°C.	Nos.	5.00	3570.00	17850.00
89	Providing and fixing wash down water closet (European type W.C pan (wall/floor mounted) as required with integral P or S-trap including jointing the trap with soil pipe in cement mortar 1:1 (1 cement : 1 fine sand) (seat and cover to be measured and paid for separately) (A) Vitreous China : Hindware, Cera, Jaqur	Each	3.00	10000.00	30000.00
	(B) Other than Hindware, Cera, Jaqur	Each	10.00	3000.00	30000.00
90	Providing and fixing urinal as per specification including connection with trap and with integral longitudinal flush pipe (A) Squatting pattern white Cera/Jaquar/Hindware make	Each	5.00	4500.00	22500.00
	(b) other than Hindware/Cera/Jaquar make	Each	10.00	2000.00	20000.00
91	Providing and fixing plastic seat & cover for wash down water closet with CP brass hinges & rubber buffers of any colour as per direction of engineer incharge. (a) cera/jaquar make	Nos	14.00	4000.00	56000.00
	(b) other than cera/jaquar make	Nos	5.00	2000.00	10000.00
92	Providing & fixing of open cistern with dual flush facility comprising of actuator button fascia assembly, lid, valve, PVC siphon, fittings in built including brass / SS screws & washer complete, providing protection cover over cistern, flush pipe, bend connecting cistern to WC etc. including cutting & making good the walls wherever required with all accessories. The scope include following items: a) COMMANDER EGRET Dual flush OR EQ.	Nos	7.00	2034.00	14238.00
93	Providing and fixing chromium plated brass half turn flush cock of approved quality including fixing in pipe line etc. complete	Nos	20.00	361.00	7220.00
94	Providing & fixing PVC MFT of self cleansing design having water seal not less than 50mm with necessary distance piece & making connection with grating, making necessary slab / wall holes & cutting walls, grouting with M-15 CC all around with brick masonry support of 350x350 mm up to bottom of trap etc. complete as per specifications & drawing provided at all places, all levels & all height a) 110 mm inlet and 75 mm outlet	Nos	5.00	516.00	2580.00
	Drainage and Sewerage Items				0.00
95	Providing F.R.C. MH seat cover incl. carting to the work site etc. comp. Directed.				0.00
a	F.R.C. Extra Heavy Duty (EHD-35) Manhole Covers & Frame with Cover of size 710 dia. of 100 mm thickness 35.00 MT load design, 100x2mm MS flat all-round, 16mm ø plain round bar for lifting the cover & should be fitted with plastic cups. Cover : 560 mm ø clear opening, Frame outer size- 750x750x175 mm. On the upper periphery of frame 25 x 3 mm wide MS flat should be well embed in concrete to protect the edges of frame. FRC E.H.D.-35 manhole cover & frame described as above	Nos	4.00	5200.00	20800.00
	Same as above for only cover	Nos	2.00	2652.00	5304.00
	Same as above for only frame	Nos	2.00	2548.00	5096.00
b	F.R.C. Extra Heavy Duty (HD-20) Manhole Covers & Frame with Cover of size 710 dia. of 85 mm thickness 20.00 MT load design, 85x2mm MS flat all-round, 16mm ø plain round bar for lifting the cover & should be fitted with plastic cups. Cover : 560 mm ø clear opening, Frame outer size- 750x750x165 mm. On the upper periphery of frame 25 x 3 mm wide MS flat should be well embed in concrete to protect the edges of frame. FRC H.D.-20 manhole cover & frame described as above	Nos	4.00	4660.00	18640.00
	Same as above for only cover	Nos	2.00	2380.00	4760.00
	Same as above for only frame	Nos	2.00	2280.00	4560.00
c	FRC medium duty Catchpit cover with frame of overall size 750 mm X 750 X 125 mm with cover of size 600 x 600 x 75 mm with 10 M.T. load design 75 X 2 mm MS flat around for clear opening and outer side of frame.	Nos	4.00	3155.00	12620.00
	Same as above for only cover	Nos	2.00	1610.00	3220.00
	Same as above for only frame	Nos	2.00	1545.00	3090.00

d	FRC medium duty Chamer cover with frame of overall size 750 mm X 750 X 125 mm with cover of size 600 x 600 x 75 mm with 10 M.T. load design 2 mm MS flat around for clear opening and outer frame .	Nos	4.00	3025.00	12100.00
	Same as above for only cover	Nos	2.00	1545.00	3090.00
	Same as above for only frame	Nos	2.00	1480.00	2960.00
e	FRC medium duty Chamer cover with frame of overall size 750 mm X 600 mm X 125 mm with cover of size 600 x 450 x 75 mm with 10 M.T. load design 2 mm MS flat around for clear opening and outer side of frame.	Nos	4.00	2800.00	11200.00
	Same as above for only cover	Nos	2.00	1428.00	2856.00
	Same as above for only frame	Nos	2.00	1372.00	2744.00
96	Job work for removing choking of manholes , chambers , drainage lines and desilting the same if required with labours , hand bucket , lari & other tools i.e. Trikam , Pavda , Rassa , Battery , G.T. Salia etc.with disposing silt as shown places. Nothing extra to be paid for any insurance or depreciation of tools etc. (Rate is for 8 hour shift with minimum 3 labours with mukadam to be provided .) or in case of pollution/ pre. monsoon action plan / drainage desilting work / min 7 nos of MH or 14 NOS of chamber Should be Desilted.)				0.00
	(a) Manhole for storm water	Shift	75.00	1475.00	110625.00
	(b) in SWD Chennel for RCC block/MS greating chennal	Rmt.	30.00	500.00	15000.00
	MISCELLENOUS WORK				0.00
97	Providing and supplying departmental labour for all type of work including all tools and tackles.	Nos	2325.00	512.50	1191562.50
98	Providing and supplying departmental supervisor/mason/carpenter/ fabricator/ Plumber for all type of work including all tools and tackles.	Nos	750.00	1288.00	966000.00
99	Re-fixing of Trafic Bollard of any size and shape at different locations of SRFDCL Road Junctions.	NO	50.00	500.00	25000.00
100	Labour work for fixing any kind of paving with cement pointing in CM 1:2, including watering, ramming etc comp. as directed For pavement				
(a)	(A) Laying on Sand bedding as per requirement to fix the C.C. Paver Block in Line & Level.	Smt	1000.00	150.00	150000.00
(b)	(B) For Water Table & Kerb on Cement bedding/Concrete as per requirement to fix the C.C.Block / Nibhada Stone in Line & Level.	Rmt	100.00	250.00	25000.00
101	Providing & fixing minimum M25 grade of customized concrete factory-made precast exposed concrete finish kerb of approved make and as per sample approved of specified sizes, specified shape etc. complete. (finish of precast element shall be upto the satisfaction of the engineer in charge & Architect.) Kerb shall have chamfered type/ pencil corner edges. Kerbs shall be fixed on the base PCC with cement mortar 1:2 including flush pointing in CM (1:2) or suitable approved make adhesive for all joints of the kerbstones, curing, etc, complete. The rate shall also include erecting and fixing in position all varieties/ shapes of kerbs (i.e. radius kerbs, comer kerb, quadrant kerbs, drain out kerb, flat kerb, parking edge kerb, ramp kerb or other any type of kerb with any shape as per drawing/design intent etc) as per drawing. Precast kerb shall be protected with good quality plastic sheet for protection against bituminous/ concrete work. The rate shall include the joining, curing, finishing, protection etc complete as directed by the engineer in charge. Actual installed kerb volume shall be measured in payment.				
	The rate shall include the cost of base excavation, base PCC M15 grade, joining, curing, protection etc complete as directed by engineer in charge. Rate shall be unit of One Cum. For the payment kerb volume shall be considered. (Sample must be approved). Sample and Mock-up shall be carried out as suggested by the Architect and as directed by the Engineer in charge. Sample and mock shall not be payable if rejected.	Cmt	5.00	19490.00	97450.00
102	Providing, supplying and operating required vehicals/mashinaries on riverfront for diff. maintainance work including diesel, driver etc. all complete for working 8 hrs. Shift as directed by engg. Incharge.				0.00
	(A) For Dumper	Shift	10.00	8000.00	80000.00
	(B) For JCB	Shift	25.00	6400.00	160000.00
	(C) JCB Breaker	Shift	25.00	10400.00	260000.00
	(D) Welding machine including welder	Shift	10.00	2500.00	25000.00
	(E) Electric Breacker with operator	Shift	150.00	1800.00	270000.00
	(F) For Tractor with Trolly	Shift	300.00	1500.00	450000.00
	(G) Tractor Breaker	Shift	10.00	7000.00	70000.00
	(H) Rent of DG Set per shift in (with diesal)	Shift	100.00	1695.00	169500.00
	(I)Excavator	Shift	5.00	20000.00	100000.00
103	(J)Tractor Pavdi	Shift	10.00	5000.00	50000.00
	Providing & Supplying hydra carne Machine of 12 tone capacity on rental basis in case of emergency situation and break down type work & also during unavoidable condition as per instruction of engg.incharge , rate includes all nece. shifting, fuel and operating charges . (No payment should be allowed for non working condition of machinery) (Based on central work shop rate)	Shift	20.00	8000.00	160000.00
104	Manufacturing testing, supplying, loading, transporting to site, unloading, ,lowering in trenches, laying on bedding as per drawing and jointing NP3 class RCC pipes with SRC cement as per IS 458-1986 with socket and spigot with rubber ring joint incl all materials .				
	b) 300 mm dia	Rmt	10.00	1115.00	11150.00
	c) 450 mm dia	Rmt	10.00	2294.00	22940.00
	d) 600 mm dia	Rmt	10.00	3897.00	38970.00

105	Cutting and making of groove at specified distance as per the drawing by mechanical saw. Groove/sawed joints shall be made of 6 mm width and 25 to 50 mm depth as shown in the drawing. The sawing operation should be carried out as directed by Architect and Engineer-in-charge. The rate shall be inclusive of labour, grooves, machinery cost and clearing of all debris & loose material from the site and the groove shall be made in concrete members like RCC wall/PQC/asphalt pavement etc as directed by Engineer in charge	Rmt	3000.00	80.00	240000.00
106	Cutting and making of groove up to depth of 100 to 125 mm for repairing of cracks in RCC floors with cutter mashine and operator etc. complete as directed by engineer in charge.	Rmt.	100.00	250.00	25000.00
107	Cleaning and Washing of kerbing of existing road and footpath with high jet water pressure pump including tractor/tanker/pump etc.all as per direction of engg. Incharge	Rmt.	40000.00	2.50	100000.00
108	Making pipe connection to existing R.C.C manhole in running sewer of following dia pipe at any depth, ie making hole to R.C.C wall of any thickness ,fixing pipe in hole to flush the wall, filling gap around pipe with rich concrete of M20 ,finishing it with 15 mm thick plaster(1:3). Rate include removing debris from M.H cutting extra reinforcement in hole to connect the pipe with all tools and tackles as directed by engineer in charge.				0.00
	150 to 300 mm	Nos	2.00	1500.00	3000.00
	400 to 600 mm	Nos	2.00	2500.00	5000.00
109	Charges for making holes in RCC walls, slabs or any other RCC member by core cutting machine of HILTI or equivalent including disposing the debris. Measurement will be taken for the depth of holes in running meter for specified diameter. For disposal of the debris specification of relevant items shall be followed. (a) Holes of 52 mm, 67 mm, 77mm clear diameter (b) Holes of 102mm to 152 mm clear diameter (c) Holes of 152 mm to 202 mm clear diameter	Rmt	2.00	4000.00	8000.00
		Rmt	10.00	4500.00	45000.00
		Rmt	15.00	5000.00	75000.00
110	Labour work for pushing below existing R.C.C/ Bituminous road for cable /pipe crossing at any location as directed by engineer in charge . (Size of pipe from 100 mm to 200 mm)				0.00
	(b) Hole size up to 100 mm	Rmt	5.00	1000.00	5000.00
	(c) Hole size up to 200 mm	Rmt	5.00	1400.00	7000.00
111	Extra rate over item of excavation of earth for excavation of asphalt pavement / RCC of thickness up to 0.20 meter including demolishing the asphalt carpet,metal,soiling/cutting Reinforcement etc.comp. with stacking the material as directed. (Based on Previously approved rate by C E sir) up to 0.20 meter thickness (By Manual)	Smt	150.00	80.00	12000.00
112	Providing and laying stone pitching 22.5 cm thick in cement mortar 1:4 (1 cement : 4 Sand) including supply of stones and preparing surface complete as directed by engineer in charge. Base layer of stone pitching shall be paid in relevant tender item.	Smt	10.00	1000.00	10000.00
113	GSB:-Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density,complete as per clause 401	Cmt	25.00	1857.00	46425.00
114	Providing and laying spreading and compacting graded stone aggregates to wet mixmacadam (WMM) 250mm thick specification including premixing material with water at OMC in mechanical mix plant, carriage of mix material by tippers to site, laying in uniform layers with paver in subbase /base course on well prepared surface and compacting with vibratory roller to achieve the desired density.	Cmt	300.00	2250.00	675000.00
115	Providing and laying of Dry Lean Concrete (DLC) of M15 grade below concrete pavement, cycle track and foot path and compacting the same with 8 to 10 Tone vibratory roller as per the specifications and as per drawing and as directed by the Engineer. Rate shall include cost of formwork if any.	Cmt	5.00	5050.00	25250.00
116	Providing and fixing approved quality flexible spring post rubber bollard of height 0.80 meter with reflective taps .Rate including for all material used for fixing .	No	40.00	1200.00	48000.00
117	Providing and laying wooden polish as per the specifications and as per drawing and as directed by the Engineer. Rate shall include cost of formwork if any.	Smt	94.32	110.00	10375.00
118	Aluminium door repairing	Sft	50.00	450.00	22500.00
119	Providing & fixing switches for pelini system curtain riverside faced of riverfront house with labour etc.complete	Nos	50.00	690.00	34500.00
120	Electrician for pelini system	Day	25.00	2400.00	60000.00
121	Loose Furniture Works				0.00

	1.1 Providing and Fixing in position bought out Loose furniture as sample approved by Architect and Engineer In charge and as per below specifications. The work shall be measured and paid in Nos. The rates shall be inclusive of Veneer/wood Surfaces, laminates, fabric, MS, etc. and all materials, labour, wastages, taxes, transportation, loading, unloading, fixing in position, etc. complete to the satisfaction of the Architect and EIC. The contractor shall get the photograph and one sample of each category. as per finish specified, approved with the Architect, client and Engineer in charge before purchase and installation. In case of veneer finish furniture, the veneer shall be 4mm thick having base of IS 303 BWR ply of greenply or approved make and monocoat polish over the surface as per manufacturer's specifications. Laminate shall be 1 mm thick of approved shade as per selection of Architect. All the hardware like handles, hinges, channels for drawers, etc. shall of Hettich, Haffele, Dorma, Kich or as per approved make of grade SS304/SS316 as per relevant manufacturer's specifications. In case of brass hardware shall be of EPPW, Magnum, etc. as per drawing. All storage units shall have shutters with hinges and adjustable shelves with lock and handles as per manufacturer's specification and as approved by Architect. The furniture in all rooms shall be having laminate/veneer finish of approved shade as per selection of Architect and Engineer in charge. The dimensions of all the furniture may vary by 10-20% based on actual site conditions and relevant manufacturer's specifications. Sample to be approved by Architect/Engineer in Charge before execution and mass production.				
(A)	Storage Units Workstation area-SU4- Storage Unit of Size 1200/1050 mm W x 450 mm D x 900 mm H having shutters with auto closing hinges and adjustable shelves with lock and handles. All specifications mentioned in above items are also applicable.	Nos	3.00	19500.00	58500.00
(B)	Storage Unit - SU2 - Storage unit of Size 1200 mm W x 450 mm D x 1200 mm H having shutters with auto closing hinges and adjustable shelves with lock and handles. All specifications mentioned in above items are also applicable.	Nos	3.00	22500.00	67500.00
(C)	Storage Unit -side Table Storage unit of Size 450 mm W x 380 mm D x 600 mm H having shutters with auto closing hinges and adjustable shelves with lock and handles. All specifications mentioned in above items are also applicable.	Nos	3.00	15250.00	45750.00
122	Providing and fixing approved quality FRP (Fibre Reinforced Plastic) sheets of 2 mm to 3 mm thickness, including necessary MS (Mild Steel) supporting structure, complete. The rate shall include drilling of required holes, cutting, fitting, fastening with suitable nuts, bolts, washers and accessories, all labour, scaffolding, tools and plants, transportation, and all other incidental charges necessary to complete the work in accordance with the drawings, specifications, and as directed by the Engineer-in-Charge.	Smt	100.00	3273.72	327372.00
123	13.52 mm [6+1.52 PVB+6] thick Straight Laminated Toughened 1 Glass (Up to 755mm height) including Transportation and Installation of Glass	No	5.00	9195.00	45975.00
124	Wooden templates cost [Procurement of wooden ply, transport of wooden ply till site, labour cost of making wooden template, transport of wooden ply till glass factory]	No	5.00	3800.00	19000.00
125	Providing and fixing in 25mm expansion joints, SILFLEX/Capcell HD 100 Supreme or equivalent (Polyurethane foam filler) of the best quality, including in all shapes and all levels etc. complete as directed by Engineer-in-Charge and as per specification.	Smt	10.00	785.00	7850.00
126	Chair Repairing work				0.00
(a)	Chair top	No	10.00	1450.00	14500.00
(b)	Handel S S	No	25.00	950.00	23750.00
(c)	Hydraulic cylinder	No	10.00	600.00	6000.00
(d)	Side stand	No	10.00	1100.00	11000.00
(e)	Chair Wheel	No	50.00	60.00	3000.00
(f)	Labour charge for chair service	No	70.00	50.00	3500.00
(g)	Chair Handel cover	Pair	200.00	200.00	40000.00
127	Supplying Chairs with SS Base and castors Type - 1 - Low back Chair with fixed arms and leather seat and back and relevant specifications as per the manufacturer. Basic Rate - Rs. 9,205/no	No			0.00
	Type - 2 - High back chair with multilock mechanism and two way adjustable arms with leather seat and back and relevant specifications as per the manufacturer. Basic Rate - Rs. 12,700/no	No	3.00	32500.00	97500.00
	Type - 3 - Medium back chair with multilock mechanism and Aluminium Buffed arms with leather seat and back without head rest and relevant specifications as per the manufacturer. Basic Rate - Rs. 28,614/no	No	25.00	14500.00	362500.00

128	Providing and laying, exterior grade wooden deck flooring (Series: IPE, Type: Brazilian Walnut, Colour: Natural manufactured by Xylos Arteriors India Pvt. Ltd. or approved equivalent) in 1500mm x 90mm size & 19mm thick sized planks, air dried to moisture content not exceeding 12%, tested for strength as per ASTM-D143 & for slip resistance as per ASTM C-1028-89 and laid in approved pattern and in required position on base frame work made out of salwood battens of 60mm x 30mm size at 450mm c/c (one way) drilling & fixing to the floor base using concrete screws with rawl plug or any other approved fixing arrangements. The salwood frame work shall be treated with approved wood preservative. The IPE decking shall be fixed to the base battens by drilling counter sunk wooden screws or any other approved fixing arrangements and the sides of the planks shall be joined by approved clipping arrangements including providing joints of 2 to 3mm, finished with linseed oil, all accessories for fixing, cleaning the base of the floor etc. complete including providing 10 years performance guarantee on approved proforma for the entire installed system all as per manufacturer's specifications, detailed shop drawings and as directed by the Engineer. The rate shall include cleaning the surface, supply & fixing the base frame work, supply & installation of wooden plank flooring, polishing etc complete.	Smt	20.00	6700.00	134000.00
129	Sealing of crack / porous concrete with Epoxy Grout by injection through nipples complete as per MORTH Clause 2803.1	Kg.	100.00	1500.00	150000.00
130	Guniting concrete surface with cement mortar applied with compressor after cleaning surface and spraying with epoxy complete as per Technical specification. (Reference to MORT&H's specification 2807)	Smt	100.00	1290.00	129000.00
131	Barricading the entire break down or excavated area on rental basis using wooden ballies / M.S.angles at max. 2.00 meter centre to centre, C.G.I. Sheet, reflective paint / Board out side to avoid accident & for smooth traffic diversion & movement including cautionary board etc. Item also includes for making temporary sufficient nos of lighting arrangement through out the work with necessary required arrangement...The same shall be removed after completion of work. (Only for break down work from start to complete)	Rmt	200.00	79.99	15998.00
132	Providing and carry out waterproofing treatment to sound concrete surface of toilets, sunken slabs, corridors, wet areas etc. after proper surface preparation to remove loose dust, dirt etc., repairing of cracks (if any) using polymer modified mortar, carry out cementitious injection grouting at leakage points modified with Plasticized Expansive Grout Admixture @ 225 gms per bag of cement, carry out 50 mm thick cement mortar (1:3) vatta/ corner modified with Styrene Butadiene Polymer bonding agent at dosage of 2.5 Ltr per 50kg cement, Pre-dampening concrete surface, mixing and application of two coats of Elastomeric Polymer modified cementitious waterproofing coating by incorporating 45 gsm glass fibremesh between 1st and 2nd coat using suitable brush or roller as per coverage etc. complete including all tools and tackles as per manufacturer's specification. Cured Polymer modified cementitious waterproofing coating shall comply with ASTM D4060, ASTM D4541, ASTM D638, ASTM C836 and possess below properties: Mixed density: 1.68 g/cc, Adhesion to concrete-> 1 N/mm2, Non-toxic, Static crack accommodation-1 mm Water proofing system shall be executed by only approved applicator of approved brand and under strictly supervision of technical fellow of manufacturer. The rate includes giving 10 year guarantee for waterproofing on a Rs.100/- stamp paper in approved proforma.	Smt	50.00	516.00	25800.00
133	Providing and laying Pavit vitrified tile 100x100x12mm as floor tiles with water absorption's less than 0.08% and conforming to IS : 15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc., complete.	Smt	75.00	1300.00	97500.00
134	Providing and fixing VYARA-PEBBLINO or equivalent Tiles 300 x 300 mm with exposed pebbled aggregate great for landscaping and decorative application pabble may be natural or machine made 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 cement, including curing, etc. complete at all levels.	Smt	50.00	2600.00	130000.00
135	Supplying chhota hathi (Light Weight vehicle) with driver at shown site incl. necessary oil, diesel, petrol for vehicle and all other charges Work done as per inst. of incharge etc. comp. as directed (8 hours)	Shift	25.00	1000.00	25000.00
136	Providing and fixing pre-coated GI (PPGI) 0.45-0.50 mm roofing sheet of approved profile and colour, manufactured from minimum 240 MPa steel grade GI sheet conforming to IS 14246:1995, having minimum 120 GSM zinc coating as per IS 277, epoxy primer coating of 5-7 microns on both sides and polyester top coat of 15-18 microns, including 25 micron protective guard film, fixed with self-drilling screws with EPDM washers and complete with all necessary accessories, overlaps, flashings, and sealants as required.(excluding structural steel work)	Smt	75.00	1250.00	93750.00
137	Providing and laying 80 mm thick grass paver blocks of approved quality, manufactured from high-strength cement concrete, laid over prepared base/sub-base with proper alignment, joint filling, compaction and finishing complete as per specification and instructions of Engineer-in-Charge.	Smt	75.00	1200.00	90000.00
Total Amount in Rs.					17586260.49