

NATIONAL INSTITUTE FOR RESEARCH IN REPRODUCTIVE HEALTH

Indian Council of Medical Research

Jehangir Merwanji Street, Parel, Mumbai – 400012

Enquiry Letter

Ref: Inst/ Civil/ Paint & rep/Annual Rate Contract/2018

Date: 30th Nov 2018

To,

Sub: Invitation of sealed quotations for “Annual Rate Contract of civil repairing and maintenance work at NIRRH Institute building, Worli Hostel cum Staff Quarters, Borivali Staff Quarter, Goral Staff Quarter, Dahisar Staff Quarter and NIRRH Clinics, NIRRH, Parel, Mumbai”

Dear Sir/Madam,

Sealed quotations are invited from the competent civil contractors registered with CPWD, PWD, IIT, PSU and other competent agencies for the work of Annual Rate Contract for NIRRH Institute building, Worli Hostel cum Staff Quarters, Borivali Staff Quarter, Goral Staff Quarter, Dahisar Staff Quarter, MRHRU and NIRRH Clinics, NIRRH, Parel, Mumbai. The essential details/ specification are given in BOQ.

The contractors are required to submit their **Price Bid**, in the annexed format, in a sealed envelope, (Super scribing the name of the work and address of the contractor) addressed to the **Director, National Institute for Research in Reproductive Health, Jehangir Merwanji Street, Parel, Mumbai – 400012** during office hours on or before 21st Dec 2018. Contractors may visit the site if they so desire before submission of bid.

The contractors should abide the following terms and conditions:

- i. Quoted rate should be valid at least for one year period.
- ii. Supplied material, if not found as per the specification as annexed, will be rejected.
- iii. There will be a defect liability period of six months. The contractors are required to rectify the defects during this defect liability period.
- iv. Taxes should be quoted separately.
- v. The quantities shown in the price bid may vary as per the actual requirement at site. The final billing will be made as per the actual executed quantities after joint measurement/ inspection.
- vi. The work should be carried out as per norms of CPWD.
- vii. CPWD terms and conditions should be adhered to this contract.
- viii. Price bid can be downloaded through NIRRH website: www.nirrh.res.in

Sr Technical Officer-1 (Civil)
For Director, NIRRH

**Name of Work: Annual Rate Contract of civil repairing and maintenance work at
NIRRH Institute building, Worli Hostel cum Staff Quarters, Borivali Staff
Quarter, Gorai Staff Quarter, Dahisar Staff Quarter, MRHRU and NIRRH
Clinics, NIRRH, Parel, Mumbai**

Sr. No.	Item Description	Unit	Qty	Rate	Amount
A	Plaster repairing work				
1	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground within 50 metres lead : With cement mortar 1:4 (1 cement: 4 coarse sand)	Sqm	1		
2	6 mm cement plaster 1:3 (1 cement: 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of R.C.C. slabs and beams with neat cement punning	Sqm	1		
3	15 mm cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement on the rough side of single or half brick wall.	Sqm	1		
4	20 mm cement plaster Cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement.	Sqm	1		
5	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement: 5 coarse sand) and a top layer 6mm thick cement plaster 1:3 (1 cement: 3 coarse sand) finished rough with sponge.	Sqm	1		
6	Rough cast plaster upto 10m height above ground level with a mixture of sand and gravel or crushed stone from 6mm to 10mm nominal size, dashed over and including the fresh plaster in two layers, under layer 12mm cement plaster 1:4 (1 cement: 4 coarse sand) and top layer 10mm cement plaster 1:3 (1 cement: 3 fine sand) mixed with 10% finely grounded hydrated lime by volume of cement. Ordinary cement finish using ordinary cement	Sqm	1		
7	Pebble dash plaster upto 10m height above ground level with a mixture of washed pebble or crushed stone 6mm to 12.5mm nominal size, dashed over and including fresh plaster in two layers under layer 12mm cement plaster 1:4 (1 cement: 4 coarse sand) and top layer 10mm cement plaster with cement mortar 1:3 (1 cement: 3 fine sand) mixed with 10% finely grounded hydrated lime by volume of cement.	Sqm	1		

8	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers.	Per bag of 50 kg .	1		
9	Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.	Sqm	1		
B	Structural repairing work of RCC members				
10	Dismantling / chipping the loose / weak / unsound / honey combed concrete, gunited layer, cover concrete etc. or RCC member upto the required depth as approved by the Engineer - in - Charge including dismantling the plaster, smooth finishing, skirting etc. at all floors and all levels and cleaning the exposed concrete surface with wire brush, dry oil free air blast etc. including required scaffolding complete as per direction of the Engineer-In-Charge (For payment purpose only the area of the exposed/ chipped concrete surface after dismantling operation shall be measured)	Sqm	1		
11	Cleaning the reinforcement of total rust to give it totally rust free finish steel surface by manual methods using wire brushes chiseling, sand papering etc. and by sand blasting wherever possible including providing and applying a coat of alkaline chemical rust remover rusticide of M/s Sunanda specialty coating pvt. ltd. or equivalent brand as approved by engineer - in - charge. Applying @ 0.04 litre per 10 Sqm of exposed concrete surface with help of painting brush and then cleaning the surface of reinforcement after 24 Hours of its application by removing loose particle from reinforcement with wire brush and thoroughly washing with water and allowing it to dry, complete as per the direction of engineer - in - charge. (For the purpose of payment area of the face of the RCC member where reinforcement is exposed shall be measured)	Sqm	1		
12	Applying a bond coat consisting of acrylic polymer modified cement slurry of brushable consistency @ 2.2 kg cement polymer mixture per sqm of concrete surface in two coats and admixed with acrylic polymer in the specified proportion of 1:4 (1 polymer : 4 cement) by weight by adding clean water in the required proportion to achieve the required water cement ratio. as per directed by Engineer in Charge over the exposed / chipped surface of the RCC unit at all floor and all levels etc. complete as per the direction of Engineer in Charge. The concrete surface shall be dirt free by blowing air and then saturated with water (but not excess water). Then first coat of bonding coat shall be applied followed by the second coat of the after 15 to 20 minutes of	Sqm	1		

	application of the first coat. (Rate shall include cost of providing and fixing scaffolding etc. but shall be exclusive of the cost of polymer. Area of exposed RCC surface shall be measured for the purpose of payment)				
13	Plastering the RCC / Concrete surface by providing, mixing and applying polymer modified cement mortar in layers each not exceeding 12mm thick admixed with emulsified acrylic polymer in proportion @ 3 kg. of acrylic polymer per 50 kg. of cement or as approved by Engineer - In - Charge using appropriate quantity of water for achieving the required water cement ratio specified and approved by engineer - in - charge. The cement shall be 43 grade and sand shall be washed graded river sand. (Rates shall be exclusive of the cost of polymer which shall be paid for separately under.	Sqm	1		
14	Extra for providing and laying in position cement concrete of specified grade including the required centering and shuttering 1:1½:3 (1 Cement: 1½ coarse sand: 3 graded stone aggregate 20 mm nominal size)	Cum	1		
15	Supplying and stacking at site of the work emulsified acrylic polymer Resikon 400 or equivalent in sealed containers in packing as directed by Engineer - In - Charge.	Kg	1		
C	Painting work				
i)	Old works				
16	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete	Sqm	1		
17	Distemping with dry distemper of Asian approved brand and manufacture (one or more coats) and of required shade on old work to give an even shade.	Sqm	1		
18	Distemping with oil bound washable distemper of Asian approved brand and manufacture to give an even shade : Old work (one or more coats)	Sqm	1		
19	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	Sqm	1		
20	Wall painting with plastic emulsion paint of Asian approved brand and manufacture to give an even shade : One or more coats on old work.	Sqm	1		
21	Painting with synthetic enamel paint of Asian approved brand and manufacture of required colour to give an even shade : One or more coats on old work.	Sqm	1		
22	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content. With ready mixed red oxide zinc chromatic on steel /iron works having VOC content less than	Sqm	1		

	250 grams/litre.				
23	Finishing walls with water proofing cement paint of required shade and Snowcem make only : Old work (one or more coats applied @ 2.20 kg/10 sqm) over priming coat of primer applied @ 0.80 litres/10 sqm complete including cost of Priming coat.	Sqm	1		
24	Finishing walls with Acrylic Smooth exterior paint of required shade and Asian approved make only. Old work (Two or more coat applied @ 1.67 ltr/ 10 sqm) on existing cement paint surface).	Sqm	1		
ii)	New Work				
25	Distempering with dry distemper of approved brand and manufacture (two or more coats) of required shade on new work, over and including water thinnable priming coat to give an even shade.Work should be carried out as per manufacturer specifications.	Sqm	1		
26	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade. New work (two or more coats) over and including water thinnable priming coat with cement primer. Work should be carried out as per manufacturer specifications.	Sqm	1		
27	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete	Sqm	1		
28	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	Sqm	1		
29	Finishing walls with Acrylic Smooth exterior paint of required shade and Asian make : New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm). Work should be carried out as per manufacturer specifications.	Sqm	1		
30	Royal paint/ antifungal of approved brand and manufacture to give an even shade. New work (two or more coats) over and including water thinnable priming coat with cement primer. Work should be carried out as per manufacturer specifications.	Sqm	1		
31	Velvet touch paint of approved brand and manufacture to give an even shade. New work (two or more coats) over and including water thinnable priming coat with cement primer. Work should be carried out as per manufacturer specifications.	Sqm	2		
32	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete. Work should be carried				

	out as per manufacturer specifications.				
a	On steel work	Sqm	1		
b	On concrete work	Sqm	1		
33	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade: Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture.	Sqm	1		
34	Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with synthetic enamel paint of Asian approved brand and manufacture and required colour over a priming coat of approved steel primer on new work.				
a	100 mm diameter pipes	Mtr	1		
b	150 mm diameter pipes	Mtr	1		
35	Wall painting with acrylic emulsion paint of Asian approved brand and manufacture to give an even shade :Two or more coats on new work including removing dry or oil bound distemper, water proofing cement paint, palstic paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches and application putty as per manufacturer specifications etc. complete.	Sqm	1		
36	Supplying and applying of Dr Fixit/ Futura 5 of Choksey/ Asian make over Masonary /RCC wall:- The surface must be clean and free of dirt, paint, oil, grease, sludge, blistered & loose plaster, fungus & moisture etc. thorough wire brushing as recommended . By washing to remove all loosely adhered coating and other contaminants. Fill existing cracks with Paintex-4 (Acrylic latex Caulk) Paintable sealant. Apply Futura sealer coat depending on the porosity of the concrete/ masonry wall/ plastered wall at spread rate of 80-100 sq.ft./ltr./coat. APPLICATION OF Dr Fixit/ Futura 5 of Choksey/ Asian can be applied by airless spray, roller or brush. Coating can be diluted with water. After thinning with 10-20% water, apply first coat at spread rate of 8-8.5 sq.mt./ltr./coat. Allow to dry for 4 hrs.(preferably 24 hrs.). apply second coat at a spread rate of 8-8.5 sq.mt./ltr./coat. After thinning with 10-20% water (works to be carried out as per manufacturer specifcations only). With necessary sacffolding for the work up to 1st floor level (External side) Works to be carried as per direction of Enginner-in-charge.	Sqm	1		
37	Polishing on wood work with ready mixed wax polish of approved brand and manufacture :	Sqm	1		
38	Providing and fixng of tarpauling sheet or platsic sheet as per requirement over the wall or terrcae with necessay fitting and including labour charges. All works to be carried as per	Sqm	1		

	direction of Engineer-in-charge.				
D	Bathroom/ Toilet door				
	New Work				
39	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead : Of area 3 sq. metres and below	each	1		
40	Dismantling wood work in frames, trusses, purlins and rafters up to 10 metres span and 5 metres height including stacking the material within 50 metres lead : Of sectional area 40 square centimetres and above	cum	1		
41	Providing and fixing factory made P.V.C. door frame of size 50x47 mm with a wall thickness of 5 mm, made out of extruded 5mm rigid PVC foam sheet, mitred at corners and joined with 2 Nos of 150 mm long brackets of 15x15 mm M.S. square tube, the vertical door frame profiles to be reinforced with 19x19 mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size, complete as per manufacturer's specification and direction of Engineer-in-charge.	Mtr	1		
42	Providing and fixing factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19 mm x 19 mm for styles and 15x15 mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame covered with 5 mm thick heat moulded PVC 'C' channel of size 30 mm thickness, 70 mm width out of which 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on both side forming styles and 5 mm thick, 95 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided both side of the panel. 10 mm (5 mm x 2) thick, 20 mm wide cross PVC sheet be provided as gap insert for top rail & bottom rail, paneling of 5 mm thick both side PVC sheet to be fitted in the M.S. frame welded/ sealed to the styles & rails with 7 mm (5 mm+2 mm) thick x 15 mm wide PVC sheet beading on inner side, and joined together with solvent cement adhesive. An additional 5 mm thick PVC strip of 20 mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive etc. complete as per direction of Engineer-in-charge, manufacturer's specification & drawing.				
	30 mm thick plain PVC door shutters	Sqm	1		

43	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	Cum	1		
44	Providing and fixing Fiber Glass Reinforced plastic (FRP) Door Frames of cross-section 90 mm x 45 mm having single rebate of 32 mm x 15 mm to receive shutter of 30 mm thickness .The laminate shall be moulded with fire resistant grade unsaturated polyester resin and chopped mat. Door frame laminate shall be 2 mm thick and shall be filled with suitable wooden block in all the three legs. The frame shall be covered with fiber glass from all sides. M.S. stay shall be provided at the bottom to steady the frame.	Mtr	1		
45	Providing and fixing to existing door frames. 30 mm thick Glass Fibre Reinforced Plastic (FRP) panelled door shutter of required colour and approved brand and manufacture, made with fire - retardant grade unsaturated polyester resin, moulded to 3 mm thick FRP laminate for forming hollow rails and styles, with wooden frame and suitable blocks of seasoned wood inside at required places for fixing of fittings, cast monolithically with 5 mm thick FRP laminate for panels conforming to IS: 14856, including fixing to frames.	Sqm	1		
	Old work				
46	Providing and fixing to existing door frames. 30 mm thick factory made Polyvinyl Chloride (PVC) door shutter made of styles and rails of a UPVC hollow section of size 60x30 mm and wall thickness 2 mm (± 0.2 mm), with inbuilt decorative moulding edging on one side. The styles and rails mitred and joint at the corners by means of M.S. galvanised/plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a UPVC hollow section of size 100x30 mm and 2 mm (± 0.2 mm) wall thickness fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a UPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness . The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge.	Sqm	1		

E	Wooden door/ frame				
47	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length. Second class teak wood.	Cum	1		
a	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters. 35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.	Sqm	1		
b	Providing and fixing bright finished brass door latch with necessary screws etc. complete: 300x16x5 mm	each	1		
c	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete : 250x10 mm	each	1		
d	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles with necessary screws etc. complete (best make of Godreg approved quality).	each	1		
e	Providing and fixing bright finished brass handles with screws etc. complete : 125 mm	each	1		
f	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete.	each	1		
g	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer of Hyper make (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm) with double speed adjustment with necessary accessories and screws etc. complete.	each	1		
F	Grills and Safety Doors				
48	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. Fixed to openings /wooden frames with rawl plugs screws etc.	Kg	1		
19	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete:	Kg	1		
50	Steel work welded in built up sections/ framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required. In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	Kg	1		

G	Flooring work				
51	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead. For thickness of tiles 10 mm to 25 mm	Sqm	1		
52	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacturer) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	Sqm	1		
53	Providing and laying Ceramic glazed floor tiles 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand) including pointing the joints with white cement and matching pigment etc., complete.	Sqm	1		
54	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) 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.				
a	Size of Tile 600x600 mm	Sqm	1		
b	Size of Tile 800x800 mm	Sqm	1		
c	Size of Tile 1000x1000 mm	Sqm	1		
55	Providing and fixing 20-25 mm kadappa stone thick gang saw cut machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels. Including breaking of existing kitchen platform and removing outside the campus. Area of platform slab over 0.50 sqm.	Sqm	1		

56	Providing and fixing 18mm thick gang saw cut mirror polished premoulded and prepolished) machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels. Granite of any colour and shade. Area of slab over 0.50 sqm.	Sqm	1		
57	Providing edge moulding to 18mm thick marble stone counters, Vanities etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. Granite work.	Mtr	1		
58	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels. Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble: Area of slab over 0.50 sqm	Sqm	1		
H	Cast Iron line work				
59	Dismantling C.I. or asbestos rain water pipe with fittings and clamps including stacking the material within 50 metres lead :				
a	100	Mtr	1		
b	150	Mtr	1		
60	Dismantling C.I. pipes including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes & lead at site within 50 metre lead as per direction of Engineer-in-charge: Up to 150 mm diameter	Mtr	1		
61	Providing and fixing soil, waste and vent pipes : 100 mm dia Sand cast iron S&S pipe as per IS: 1729	Mtr	1		
62	Providing and fixing soil, waste and vent pipes : 75 mm dia Sand cast iron S&S pipe as per IS: 1730	Mtr	1		
63	Providing and fixing M.S. holder-bat clamps of approved design to Sand Cast iron/cast iron (spun) pipe embedded in and ncluding cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including cost of cutting holes and making good the walls etc. :				

a	For 100 mm dia pipe	each	1		
b	For 75 mm dia pipe	each	1		
64	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.				
a	100 mm dia Sand cast iron S&S pipe as per IS: 1729	each	1		
b	75 mm dia Sand cast iron S&S pipe as per IS: 1730	each	1		
65	Providing and fixing plain bend of required degree.				
a	100 mm dia Sand cast iron S&S pipe as per IS: 1729	each	1		
b	75 mm dia Sand cast iron S&S pipe as per IS: 1730	each	1		
66	Providing lead caulked joints to sand cast iron/centrifugally cast (spun) iron pipes and fittings of diameter :				
a	100 mm	each	1		
b	75 mm	each	1		
67	Providing and filling the joints with spun yarn, cement slurry and cement mortar 1:2 (1 cement : 2 fine sand) in S.C.I./ C.I. Pipes :				
a	75 mm dia pipe	each	1		
b	100 mm dia pipe	each	1		
	Chambers and line				
68	Dismantling of road gully chamber of various sizes including C.I. grating with frame including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead including refilling the excavated gap.	each	1		
69	Dismantling of old S.W. pipes including breaking of joints and bed concrete stacking of useful materials near the site within 50 m lead and disposal of unserviceable materials into municipal dumps:				
a	100 mm diameter	Mtr	1		
b	150 mm diameter	Mtr	1		
c	200 mm diameter	Mtr	1		
70	Constructing masonry Chamber 30x30x50 cm inside, in brick work in cement mortar 1:4 (1 cement :4 coarse sand) for stop cock, with C. I. surface box 100x100 x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement :2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement :5 fine sand:10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement :3 coarse sand) 12mm thick finished with a floating coat of neat cement complete as per standard design : With common burnt clay F.P.S.(non modular) bricks of class designation 7.5.	each	1		

71	Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm. top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design : With common burnt clay F.P.S.(non modular) bricks of class designation 7.5.	each	1		
72	Constructing masonry Chamber 90x90x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm. top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design :	each	1		
73	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :				
a	100 mm diameter	Mtr	1		
b	150 mm diameter	Mtr	1		
c	200 mm diameter	Mtr	1		
74	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design:				
a	100 mm diameter	Mtr	1		
b	150 mm diameter	Mtr	1		
c	200 mm diameter	Mtr	1		
75	Cleaning of the existing sewer chamber alongwith sewer lines (100 mm to 23 mm) by passing ropes, bamboos splits, cloths tied to ropes, cleaning the sewage line, manholes with water including removal and disposal of rubbish outside the compound including the cost of pumping the sewage if necessary measurements will be per number of chmabers. The distance between gully traps, chmaber and manholes will not be measured for payment. All work should be carried out as per direction of Engineer-in-Charge	Nos	1		

76	Providing and laying Non Pressure NP-3 class (Medium duty) R.C.C. pipes including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete: 300 mm	Mtr	1		
	CPVC pipe line and plumbing fittings work				
77	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement ,trenching ,refilling & testing of joints complete as per direction of Engineer in Charge.				
	External work				
a	25 mm nominal outer dia .Pipes.	Mtr	1		
b	32 mm nominal outer dia .Pipes.	Mtr	1		
c	50 mm nominal outer dia .Pipes.	Mtr	1		
d	75 mm nominal outer dia .Pipes.	Mtr	1		
e	100 mm nominal outer dia .Pipes.	Mtr	1		
f	110 mm nominal outer dia .Pipes.	Mtr	1		
78	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc.				
	Internal work – Exposed on wall.				
a	15 mm nominal outer dia .Pipes.	Mtr	1		
b	20 mm nominal outer dia .Pipes.	Mtr	1		
c	25 mm nominal outer dia .Pipes.	Mtr	1		
e	32 mm nominal outer dia .Pipes.	Mtr	1		
79	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps i/c making good the walls etc. concealed pipe including painting with anti corrosive bitumastic paint, cutting chases and making good the wall				
a	15 mm nominal outer dia .Pipes.	Mtr	1		
b	20 mm nominal outer dia .Pipes.	Mtr	1		
c	25 mm dia nominal bore	Mtr	1		
d	32 mm dia nominal bore	Mtr	1		
e	40 mm dia nominal bore	Mtr	1		
f	50 mm dia nominal bore	Mtr	1		
80	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:				
a	White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps of approved make only Cera/ Hindware/ Parryware/ Nirali etc complete	Each	1		
b	White Vitreous China Flat back wash basin size 450x 300 mm with single 15 mm C.P. brass pillar tap approved make only Cera/ Hindware/ Parryware etc complete Cera/ Hindware/ Parryware/ Nirali etc complete	Each	1		

81	Providing and fixing white vitreous china wash basin including making all connections but excluding the cost of fittings : Cera/ Hindware/ Parryware/ Nirali etc complete				
a	Flat back wash basin of size 550x400 mm	Each	1		
b	Flat back wash basin of size 450x300 mm	Each	1		
82	Providing and fixing PTMT Waste Coupling for wash basin and sink, of approved quality and colour. Waste coupling 38 mm dia of 83 mm length and 77mm breadth, weighing not less than 60 gms	Each	1		
83	Providing and fixing PTMT Bottle Trap for Wash basin and sink. Bottle trap 38 mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 263 gms	Each	1		
84	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS: 13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required of Nirali or approved make : Kitchen sink with drain board				
a	610x460 mm bowl depth 200 mm	Each	1		
b	470x420 mm bowl depth 178 mm	Each	1		
85	Providing and fixing kitchen sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P. brass waste complete, including painting the fittings and brackets, cutting and making good the walls wherever required Nirali or approved make: White glazed fire clay kitchen sink of size 600x450x 250 mm	Each	1		
86	Providing and fixing controlled flush, low level cistern made of vitreous china with all fittings complete of approved make only. 10 litre (full flush) capacity-white	Each	1		
87	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 : 15 mm nominal bore of Plumber/ Seiko make only	Each	1		
88	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931. Plumber/ Seiko make only	Each	1		
89	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 a) 15 mm nominal bore 15mm nominal bore Plumber/ Seiko make only	Each	1		
90	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) : Plumber/ Seiko make only				
	25 mm nominal bore	Each	1		
	32 mm nominal bore.	Each	1		
	40 mm nominal bore	Each	1		
	50 mm nominal bore	Each	1		
I	Aluminium work				

91	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :				
	For fixed portion: Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	Kg	1		
92	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately).				
	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	Kg	1		
93	Providing and fixing 12mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on both sides.	Sqm	1		
94	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item): With float glass panes of 5.50 mm thickness	Sqm	1		
95	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete. Upto 5mm depth and 5 mm width	Rmt	1		
96	Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineer-in-charge complete. 355 X 19 mm	Each	1		

97	Providing and fixing aluminium round shape handle of outer dia 100mm with SS screws etc. complete as per direction of Engineer-in-charge. Anodized (AC 15) aluminium	Each	1		
98	Providing and fixing bright finished brass handles with screws etc. complete : 300 mm	Each	1		
99	Providing and fixing bright finished brass handles with screws etc. complete : 125 mm	Each	1		
J	Existing windows repairing work				
100	Repairing and refixing of the existing aluminum openable window. Including the removing the window shutter with existing hinges. The existing single shutter will be made with two shutter. For this providing and fixing aluminium work of Jindal make only for windows with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete. By providing the mullion section with existing section for one side shutter and for other shutter shutter section will be used. It includes cutting the existing glazing in two part and shall be fixed in two shutters with required materials. With Powder coated aluminium (minimum thickness of powder coating 50 micron) to the newly fixed members. Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineer-in-charge complete. 355 X 19 mm (4 nos for two shutters). Providing and fixing aluminium powder coated handle and 150 mm long with SS screws (2 Nos for two shutters). Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete and having size 200x10 mm and 2 nos. All work should be carried out as per the directions of Engineer-in-charge.	Nos	1		

101	Repair and preparing the existing damaged window frames of the kadappa stone. Dismantling frame work in window/ door laid in cement mortar including stacking material within 50 metres lead. Repairs to plaster of thickness 12mm to 20mm in patches with cement mortar 1:4 including using approved polymer or bonding coat before plastering and to applying to the existing damaged plastering surface as per requirement. Providing and fixing 20-25 mm kadappa stone thick gang saw cut machine cut for kitchen window sills/ jams similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment complete at all levels. Including removing and refixing the existing sliding window shutters and frames. All work should be carried out as per the directions of engineer-in-charge .	Nos	1		
102	Dismantling existing broken/ damaged glazing of the sliding window and including disposal of unserviceable surplus material and stacking of serviceable material within 50 meters lead as directed by Engineer-in-charge. Providing and fixing glazing in window etc. with EPDM rubber / neoprene gasket etc. complete. With float glass panes of 4.0 mm thickness of saint gobain make only. Including removing and refixing the existing sliding window shutters and frames. All work should be carried out as per the directions of engineer-in-charge .	Sqm	1		
103	Providing and fixing ball bearing of sliding window shutter and approved eebco make and other approved make with screws etc. complete. Including removing and refixing the existing sliding window shutters and frames. All work should be carried out as per the directions of engineer-in-charge.	Nos	1		
K	Bathroom repairing work (1.2 x 1.8 Mtr)				
104	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead. For thickness of tiles 10 mm to 25 mm. Dismantling existing WC pan with all fittings				
a	Dismantling of flushing cistern of all types (C.I./PVC/Vitrious China) including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.				
b	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge. Nominal concrete 1:3:6 or leaner mix (i/c equivalent design mix)				

c	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours. b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry. The water proofing to be done 300mm above the flooring level to the adjacent wall.				
d	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :White Vitreous china Orissa pattern W.C. pan of size 580x440mm with integral type foot rests. The WC pan should be approved make only				
e	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).				
f	Providing and laying Ceramic glazed floor tiles 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand) including pointing the joints with white cement and matching pigment etc., complete.				
g	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all loads including all lifts involved. All work should be carried out as per direction of Engineer-in-Charge.	No	1		
L	Toilet repairing work (1.0 x 1.2 Mtr)				
105	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.For thickness of tiles 10 mm to 25 mm. Dismantling existing WC pan with all fittings				

a	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.Nominal concrete 1:3:6 or leaner mix (i/c equivalent design mix)				
b	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours. b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry. The water proofing to be done 300mm above the flooring level to the adjacent wall.				
c	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).				
d	Providing and laying Ceramic glazed floor tiles 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand) including pointing the joints with white cement and matching pigment etc., complete.				
e	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all loads including all lifts involved. All work should be carried out as per direction of Engineer-in-Charge.	No	1		
106	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :	Each	1		

107	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required : White Vitreous china Orissa pattern W.C. pan of size 580x440mm with integral type foot rests.	Each	1		
108	Replacing of the existing damaged nahani trap with Prince make PVC nahani trap. Including dismantling existing trap with floor area. Providing and laying water proofing treatment in sunken portion etc., by applying cement slurry mixed with water proofing cement compound. Making the proper connection of nahani trap to the existing outlet and finishing the same. Finishing the surface of flooring as original. All work should be carried out as per Direction of Engineer-in-Charge.	No	1		
M	Miscellaneous				
109	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed. All kind of soils	Cum	1		
110	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with : 7.1.1 Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	1		
111	Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand) : Raised and cut pointing	Sqm	1		
112	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	Sqm	1		
113	Laying old cement concrete interlocking paver blocks of any design/ shape laid in required line, level, curvature, colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost).	Sqm	1		

114	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in charge.Made of G.I. wire of dia. 4 mm, PVC coated to achieve outer dia not less than 5 mm in required colour and shade	Sqm	1		
115	Cutting and removing of trees (small and big) from top of chajjas walls, parapet and terraces at all levels and cleaning the surface and putting then repair the same with cement mortar plaster 1:3 (1 cement: 3 fine sand) whenever necessary as per direction of Engineer-in-Charge	Nos	1		
116	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level : 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	Cum	1		
117	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. Thermo-Mechanically Treated bars	Kg	1		
118	Providing and fixing bamboo scaffolding system on the exterior side, up to seven story height made with 40/ 50 mm dia. bamboo as per requirement horizontal & vertical bamboo joining with rassi (Katha) cup & and working platform system in the scaffolding for working etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer-in-charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding.	Sqm	1		
119	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level. Cement mortar 1:3 (1 cement :3 coarse sand)	Sqm	1		
120	Brick work with common burnt clay modular bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:4 (1 cement : 4 coarse sand)	Cum	1		
121	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	Cum	1		

122	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	Sqm	1		
123	Providing and fixing tiled false ceiling of approved materials of size 595x595 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38mm made from 0.30mm thick (minimum) sheet, spaced at 1200mm center to center and cross "T" of size 24x25mm made of 0.30mm thick (minimum) sheet, 1200mm long spaced between main "T" at 600mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600mm panel to form grids of 600x600mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, wherever, required, cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x 1.6 x mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer-in-charge.				
a	GI Metal Ceiling Lay in plain Tegular edge Global white color tiles of size 595x595 mm, and 0.5mm thick with 8mm drop; made of G I sheet having galvanizing of 100 gms/sqm (both sides inclusive) and electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending.	Sqm	1		
124	Making the aluminium frame with fixing of PVC jali including necessary fittings for size 1.30 x 2.55 m with following details:				

a	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws. The section should be used for framing of size 25 x 40 mm and L section of 25x25 for fixing the PVC jali. All complete as per directions of Engineer-in-charge.				
b	Providing and fixing PVC jali of required width in mesh size 18x18mm and having thickness 3mm. The PVC jali sandwiched in aluminium section (i.e. box and L section) as required complete as per the direction of Engineer-in-charge.				
c	Providing and fixing IS : 12817 marked stainless steel butt hinges with stainless steel screws etc. complete : 100X58X1.90 mm				
d	Providing and fixing aluminium sliding door bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete :250x16 mm				
e	Providing and fixing ISI marked oxidised M.S. handles conforming to IS:4992 with necessary screws etc. complete :125 mm				
f	All work should be carried out including all above materials and required labour charges for the fixing of the aluminum frame to the existing windows. All above work should be carried as per director of Engineer-in-Charge.	Nos	1		
125	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required. 1.00 mm thick with zinc coating not less than 275 gm/m ²	Sqm	1		

126	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineerin- charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	Sqm	1		
N Water proofing					
127	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of: (i) Ist course of applying cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface. (ii) IInd course of 20 mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface. (iii) IIIrd course of applying blown or residual bitumen applied hot at 1.7 kg. per sqm of area. (iv) IVth course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 kg/ sqm).	Sqm	1		
128	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	Sqm	1		

129	<p>Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces, tanks etc consisting of following operations:</p> <p>(a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300 mm height including cleaning the surface before treatment.</p> <p>(b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs.</p> <p>(c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge.</p>				
	<p>(d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3 mm deep.</p> <p>(e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge : With average thickness of 120 mm and minimum thickness at khurra as 65 mm.</p>	Sqm	1		

130	Providing and fixing APP (Atactic Polypropylene Polymer) modified prefabricated five layer 2 mm thick water proofing membrane, black finished reinforced with glass fibre 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 parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 350/300 N/ 5 cm. Tear strength in longitudinal and transverse direction as 60/80N. 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 manufacture of membrane.	Sqm	1		
131	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	Sqm	1		
132	Providing precast cement concrete Jali 1:2:4 (1 cement : 2 coarse and(zone-III) : 4 graded stone aggregate 6mm nominal size), reinforced with 1.6 mm dia mild steel wire, including centering and shuttering, roughening cleaning, fixing and finishing with cement mortar 1:3 (1cement: 3 fine sand) etc. complete, excluding plastering of the jambs, sills and soffits. 50 mm thick	Sqm	1		
133	Cleaning of terrace/loft water storage tank (inside surface area) upto 2000- 5000 litre capacity at all heights with coconut brushes, duster etc., removal of silt, rubbish from the tank and cleaning the tank with fresh water disinfecting with bleaching powder @ 0.5gm per litre capacity of tank, including marking the date of cleaning on the side of tank body with the help of stencil and paint and disposing of malba, all complete as per direction of Engineer-in-Charge. (The old date already written on tank should be removed with paint remover or black paint and if date is not written with the stencil or old date is not removed deduction will be made @ Rs. 0.10 per litre if during cleaning any GI fittings or ball cock is damaged that is to be repaired by contractor at his own cost and nothing extra will be paid on this account)	No	1		
134	Cleaning and desilting of gully trap chamber, including removal of rubbish mixed with earth etc. and disposal of same, all as per the	No	1		

	direction of Engineer-in-charge.				
135	Cleaning of under ground sump, Over Head R.C.C. Tank (independent staging) including disposal of slit and rubbish, all as per direction of Engineer-in-Charge. The cleaning shall consist following operations:- (i) Tank shall be emptied of water by pumping & bottom shall be cleaned of slit and other deposits. (ii) Entire surface area of the sump shall then scrubbed thoroughly with wire brush etc. and pressure washed with water. (iii) Chlorination of RCC internal surface by liquid chlorine. (iv) The treated surface shall be dried using air jetting and all loose particles shall be removal from the surface. (v) Finally the surface shall be treated with ultraviolet radiation etc. as per direction of Engineer-in-Charge.	No	1		
136	Cutting holes of required size in brick masonry wall/ RCC wall for fixing of exhaust fan or AC outlet and other purposes and making good the same etc. complete as per direction of Engineer-in-charge.	No	1		
137	Supplying of plumber for plumbning related works	Day	1		
138	Supplying of mason for civil related works	Day	1		
139	Supplying of labour for civil and miscellaneous related works	Day	1		
140	Supplying of painter for the work	Day	1		
141	Supplying of carpenter for the work	Day	1		
142	Item which are not covered under the scope; will be carried out as per CPWD item with latest cost index in Mumbai				
	Add Service GST %				
	Add Service CGST %				
	Other any taxes				

Seal and sign of contractor