

AFD: Civil: Enq: Civil: ARC: 2017-2018

August 16, 2017

To,

Dear Sir

Sub: - Inquiry for Annual Rate Contract for Miscellaneous Civil & Plumbing work at AmulFed Dairy, Gandhinagar.

We invite your most competitive offer, quoting your lowest rates considering minimum execution period for entering into Annual Rates Contract (ARC) for **Miscellaneous Civil & Plumbing work at AmulFed Dairy, Gandhinagar.**

Your offer must be sent in sealed reply envelope attached herewith by registered speed post / courier or by person. Mention "QUOTATION FOR ARC OF CIVIL & PLUMBING WORK" on top of the offer reply envelope.

Technical Specifications & Scope of Work are as per enclosed Annexure: I

Detail technical specifications book can be referred in our Civil Department

Last Date of Receipt of Quotation: 26th August 2017

TERMS & CONDITIONS

1. Eligibility Criteria: Contractors regularly engaged in civil and plumbing maintenance jobs of annual value not less than Rs 5 Lakh in a reputed organization, preferably in Pharmaceutical or food processing or Dairy industry shall be eligible. Non-eligible bids will be rejected and will not be considered for commercial evaluation
2. Contractors must quote rates considering work is to be carried out at AFD, Plot No. – 35, Village Bhat, Nr. Indira Bridge, Gandhinagar as well as Packaging Film Plant at Sector – 25, Gandhinagar.
3. Your rates should be including of all material cost, labour cost, Taxes, octroi, loading, unloading at AFD site landed and fully executed basis.
4. Contractors must specify applicable Taxes like GST, Service Tax, VAT, Work Contract Tax whatsoever and whether applicable or not. If taxes applicability is not specified your rates shall be considered as inclusive of all taxes.
5. Bidders must note that AFDG may distribute ARC to multiple contractors. In that case items rates will be made uniform for all the contractors to whom ARCs are awarded based on the lowest rates. Non-acceptance of this clause will make your bid liable to rejection.

6. Cement supply is in your scope and shall be 53 Grade, Make: - Ultratech, JK laxmi, Binani.
7. Reinforcement Steel FE 500 TMT Bar and structural steel supply is in your scope and Make: - TATA, Vaizag, SAIL/ reputed ISI mark makes pre-approved by AFDG.
8. No price variation or price adjustment will be applicable for supply of cement and steel
9. If cement is issued to you by AFDG it will be charged @Rs 325 per bag
10. If Reinforcement steel is issued to you by AFDG it will be charged @Rs 55 per kg
11. If Structural steel is issued to you by AFDG it will be charged @Rs 65 per kg
12. If work is to be carried out on emergency basis or during Shutdown period, contractor must carry out work on emergency basis, even during night with pre-approval, as per production schedule deploying more manpower to complete the job at the earliest.
13. Payment terms: Within 30 days after submission of bill. Rs 25,000/- will be retained (as a security deposit) first before making any payment and shall be released after one year of completion of ARC period
14. Annual Rate Contract letter will be issued approving the rates. Specific job-wise WO will be issued time to time as and when required. Quantity indicated in the specific job WO shall be estimated; it may vary on either side. However, payment shall be made as per the actual work executed at site.
15. If any extra item is to be executed as per site condition, this will be paid as per rate analysis Plus 15 % profits and overheads to contractor after rates approval is given.
16. All the legal/administrative records like muster roll, salary register, labour license, PF, ESI etc must be maintained & submitted as and when required and contractor is responsible for compliance of all labour laws and rules/regulations etc.
17. Cleaning of site is must after day-to-day work since jobs will be executed in running Dairy and high level of hygiene and cleanliness and disciplines must be maintained.
18. Your workmen should compulsorily wear the identity card and uniform of the company while executing jobs in AmulFed Dairy. Penalty is imposed for Rs. 1000/- for each case.
19. In case, any of your workmen get injured due to Accident, while working within premises of AFD, contractor must remain fully responsible for all medical treatments, compensation payment, compliance of all legal formalities and must keep AFDG fully indemnified on this.
20. If any damage to our equipment or property has taken place due to your workmen, you will remain fully responsible to make good/ pay for all the damages/losses.
21. AFDG is FSSC 22000, 14000, 9000 Integrated Management System (IMS) certified and also self certified OHSAS 18001 and ISO 50001 Asisa's largest Dairy plant and a model plant for the entire Amul setup and the nation.
22. We expect contractor must follow eco-friendly process in his Company and in his working in AFDG such as waste elimination, prevention of air and water pollution and soil Contamination etc and must maintain high level of hygienic condition with neatness and cleanliness day-to-day basis.
23. Chewing pan masala, tobacco & smoking is strictly prohibited in AFD premises and if any person is found then penalty will be Rs. 5000/- for each case.
24. You shall be working in running factory and ensure that the day to day operations of the factory are not hampered in any way due to your activities. Any damages occurred by you shall be recovered.
25. It is advisable to visit the site before quoting your rates.
26. Water and Electricity will be provided by AmulFed Dairy free of cost. But wastage will attract heavy penalty (10 times the cost of wasted resources – water and electricity and AFDG decision will be final in this respect)

27. During the work contractor must depute /appoint at least one year experienced one Diploma Civil Engineer as site engineer and shall remain responsible for the quality workmanship, timey execution the job as per the drawings and instructions of our engineers and liasioning with our engineers for satisfactory execution of the jobs in time and desired quality.
28. Contractor must follow the Safety rules and regulations including the use of personal protective equipments like Helmet, safety belt and other accessories as and when required. Please refer the attached safety guidelines.
29. If any of your person is found not following the safety rules and regulations penalty will be Rs. 1,000/- for each case of default.
30. After satisfactory completion of the work agency should give the self satisfaction certificate with the JMS.
31. All jobs executed must remain under one year defect liability period pertaining to defects due to bad workmanship, use of sub-standard materials, improper methods of application etc and must be attended free of charge during this period. If reworking is to be done due to use of facility before full curing or damage is caused by any means and fault is not attributable to the contractor, DL will not be applicable in such cases of reworking and will be allowed to bill as per items rates.
32. After Completion of the work agency should submit the bill within seven days based on the JMS only.
33. Contractor must submit the necessary material test certificate like MS structure whenever required for large quantity.
34. Annexure of Details Technical Specification will be enclosed at the time of Work order placed.
35. Contractor need to take the labour license and it is mandatory.

AmulFed Dairy shall not accept the offer, received later than the date mentioned above

Thanking you

Yours faithfully,
For AmulFed Dairy, Gandhinagar

Authorized Signatory

Annexure : I
Technical Specification and Schedule of Rates

Item No.	Item Description	UOM	RATE
A	CIVIL WORK		
1	Excavation in all kinds of soils upto 1.50mt depth for all type of foundations, trenches, roads, surface levelling etc. dressing sides and bottom of the excavated area battering or forming benches, pumping & bailing out of water, shoring and strutting sides of excavation, refilling including ramming watering, consolidating etc., including disposing of surplus earth upto 1500mts within/ outside the Mother Dairy site as directed.	Cmt	
2	- Do - as above item no - 1 but 1.50mt to 3.0 mt depth.	Cmt	
3	Filling the plinth, or any other area with available excavated earth within the site lead upto 1000 mts. in layers not exceeding 30 cm in depth including ramming, well watering & consolidating each layer as directed.	Cmt	
4	Filling the plinth, or any other area with earth brought from outside in layers not exceeding 30 cm in depth including ramming, well watering & consolidating each layer, loading, transportation, unloading etc. complete as directed.	Cmt	
5	Filling in foundations, plinth (under floors) etc. with good quality sand brought from outside including watering, ramming, consolidating etc. complete as directed.	Cmt	
6	Clearing of the site / surface dressing up to 300 mm depth, using mechanically operated device / manually including removal of the roots and disposing and stacking all debris within lead of 1000 m.	Sqmt	
7	Providing & laying Brick Bat Cement Concrete 1 : 5 : 10 mix (1 cement : 5 coarse sand : 10 Burnt Clay Brick Bats) in foundations and under floors including mixing, compacting, curing etc. complete as directed.	Cmt	
8	Providing & laying Cement Concrete 1 : 4 : 8 mix (1 cement : 4 coarse sand : 8 graded hard stone aggregate 40 mm nominal size) in foundations and under floors including mixing, compacting, curing etc. complete as directed.	Cmt	
9	Providing & laying 50 mm thick IPS - cement concrete pavement with 1 : 2 : 4 (1 cement : 2 coarse sand : 4 aggregate 20 mm. nominal size), including giving broom finish with a floating coat of 1:1:2 cement mortar using grit, curing etc. complete as directed.	Sqmt	
10	Providing & making 100mm X 100mm to 150mm X 150mm size vatas at wall corner, junction, connections, offsets etc. in cement + sand + grit mortar, curing etc. complete as directed.	Rmt	
11	Providing and laying machine mixed & machine vibrated reinforced cement concrete mix of M-20 grade for foundations, plinth, Columns beams, slabs, retaining walls, cantilever slabs & tie beams, lintels, chajjas, pardis, railings, rib beams, staircase slabs and landings (conventional folded & stringer), walls with or without pilasters / butt resses, fins, facias, gutters, waffles, pargola, over head & U. G. water tank, road kerbing etc. at all level below ground and up to 6.00 Mtrs. above ground as per design given by engineer incharge etc. complete as directed.	Cmt	
12	Providing form work using steel plates / ply woods including centering and shuttering, strutting and propping etc complete for all type of RCC work at all levels below ground and up to 7.00 mtrs. above plinth level as per design & drawing given by architect / engineer including subsequent removal complete as directed.	Sqmt	
13	Providing and fabricating approved make TMT reinforcement steel for RCC work including bending, binding and placing in position and tying the system with soft drawn annealed binding wire of diameter not less than 1.00 mm with 2 strands etc. complete as directed.	Kg.	
14	Providing & laying brick masonry using bricks having minimum compressive strength 35 kg / cm ² and fixed in to the cement mortar 1 : 5 (1 cement : 5 coarse sand) in foundations and upto all levels including racking of joints, scaffolding, curing etc. complete as directed.	Cmt	

Annexure : I
Technical Specification and Schedule of Rates

Item No.	Item Description	UOM	RATE
15	Providing and laying half brick / Brick on edge masonry using bricks having minimum compressive strength 35 kg / cm ² and fixed in to the cement mortar 1 : 4 (1 cement : 4 coarse sand) including cost of scaffolding, curing and hoop iron 6mm dia. Mild Steel reinforcement at every fourth coarse embedded in cement mortar in super structure etc. complete as directed.	Sqmt	
16	Providing & laying single coat 12 mm thick plaster in cement mortar 1 : 4 (1 cement : 4 fine sand) with cement mala finish (finish with steek trover) at all levels including necessary scaffolding, curing, making grooves, forming pattas and drip moulds etc. complete in all respect as directed.	Sqmt	
17	Providing and applying 20 mm thick sand face cement plaster in two coat at all heights with first coat of 12mm with cement mortar 1:4 (1 part cement : 4 part of sand) and second coat of 1:3, rough finish with using spronge, on all types of concrete/brick surfaces macking grooves, forming pattas and drip moulds as per the detail, including scaffolding, curring etc. complete as direceted.	Sqmt	
18	Prividng and fixing 24 gauge chicken wire mesh at the junction of masonry work and RCC work or on any other place as directed including fixing with nails, raw plugs etc. complete at all heights, before applying plaster.	Sqmt	
19	Providing 20 to 25 mm thick water proof cement plaster in double coat on any surface at all heights, finish even and smooth in CM 1 : 4 including providing and mixing water proofing material such as pidilite or equivalent as approved by engineer in cement mortar as proportion recommended by manufacture.	Sqmt	
20	Supplying water proofing chemical of approved make like pidilite / fairmate or equi.	Ltrs	
21	Providing and laying average 20 mm thick green polished kotah of approved quality, selected and sorted for uniform colour, in floor, otta, sill, skirting, dado, platform etc. in required size upto 600mm and as per design with normal pattern (Square / rectangular) as per drawings over 25mm (average) thick base of cement mortar 1 : 6 (1 cement : 6 coarse sand) joints and pointing as specified, three or more coats of polishing (with auxalic acid) upto mirror finish surfaces with different grades of Emery, curing, daily moking with water and kerosen as directed at least 15 days or upto the satisfaction of engineer in-charge etc. complete as directed.	Sqmt	
22	Do as above as per item no. 21 but provide 25mm thick single piece atone up to 1.5mt length for platform, staircase, sinks, shelves, facia patti, urinal divider etc. complete as diected.	Sqmt	
23	Providing and fixing avarage 20-25mm thich Redmandana stone for flooring or skirting or dado including fixing on average 37mm thick cement mortar bedding (1:4), in any shape, size, pattern, filling of joint with cement mix with colour pigment with cement mix with colour pigment to match with shade of stone, with three or more coats of machine polishing etc. complete as directed.	Sqmt	
24	Providing and fixing avarage 20-25mm thich Redmandana stone in epoxy mortaras under. Applying of two coats of Acid Alkali preventive primer at bottom, fixing on average 37mm thick cement mortar bedding (1:4) with Acid proof powder, keeping the joints 8mm to 10mm wide all around and filling the same with epoxy resin and hardener of approved make like Araldite / Chemiprotec or equivalent including machine polishing etc. complete as directed.	Sqmt	
25	Providing & filling Acid Alkali proof Epoxy joint of redmandana stone by using epoxy resin of approved make Araldite / Chemiprotec or equivalent including removing of decayed joint materials, surface prepration, opening & cleaning of the joints before re-filling the new apoxy mortar etc. complete as directed.	Rmt	

Annexure : I
Technical Specification and Schedule of Rates

Item No.	Item Description	UOM	RATE
26	Providing and laying approved quality mirror finish marble of approved shade having thickness 18 to 20 mm single piece up to 1.50mtr length at staircase, landings, platform, facia, column / wall cladding, flooring, sills of doors / windows,urinal divider etc as per design and required size / shape including necessary cement mortar bedding 1 : 4 Including joint filling with white/colour cement slurry, pigment to match the shade of marble, adhesive like aeralite or equivalent. making moulded edge and groove etc. (Basic Rate : Rs. 900/- per Sqmt)	Sqmt	
27	Providing and laying approved quality mirror finish granite of approved shade having thickness 18 to 20 mm. As per design and required size and shape including necessary cement mortar bedding 1 : 4 (only finished granite work shall be measured.) Including joint filling with white/colour cement slurry admixed with pigment to match the shade of granite, adhesive like aeralite or equivalent. making moulded edge and groove and providing protecting layer of plaster of paris during the entire execution period and removal the same. Granite fixing in staircase, landings, platform, facia, column / wall cladding, flooring, sills of doors and windwos, urinal divider etc will also be considered in this item for which edge polishing shall be inclusive in this item only. (Basic Rate : Rs. 2000/- per Sqmt.)	Sqmt	
28.a	Providing & fixing 10mm thick Johanson Endura or equivalent tiles in cement mortar 1 : 4 (1 cement : 4 coarse sand) 25mm thick bedding including filling the joints with white cement slurry mix with pigment to match the shade of tiles, line level, necessary curing, cleaning after laying etc. complete as directed. (Basic Rate : Rs. 700/- per Sqmt)	Sqmt	
28.b	- Do as above but 12mm thick tiles. (Basic Rate : Rs. 1200/- per Sqmt.)	Sqmt	
28.c	- Do as above but 15mm thick tiles. (Basic Rate : Rs. 1500/- per Sqmt.)	Sqmt	
29	Extra and over as per item no. 28.a, 28.b, 28.c but fixing the Endura Tiles keeping epoxy joints 8mm to 10mm wide all around and filling the same with epoxy resin and hardener of approved make like Araldite / Chemiprotec etc. complete as directed.	Sqmt	
30	Providing and laying in position ceramic/Glazed tiles for flooring, skirting and wall dado of approved make and colour for first quality of any size as per design fixing in cement slurry over 12-15mm thick cement mortar bedding (1 : 4) and laid to proper slope and level. Joints shall be filled with specified colour pigment to match the shade of tiles including curing and cleaning with mild auxalic acid etc. complete as directed. (Basic rate Rs. 400/- per sqmt) Note :- Rate should be inclusive of backing coat of plaster	Sqmt	
31	Applying mirror polish on existing kotah stone, marble, Granite, Redmandana stone, NL stone flooring with three or more coats of polishing with oxalic upto mirror finish surfaces with different grades of Emery (no waxing will be permitted) including cleaning of joints etc. completed as directed.	Sqmt	
32	Providing & laying 10mm thick first quality fully vitrified tiles of size 600mm X 600mm or 300mm X 300mm in flooring or wall dado in different colour combination as per design laid in floors, over and including a bed of 15 to 25 mm th. Cement mortar 1 : 4 (1 cement : 4 coarse sand) and jointed with white cement slurry mixed with pigment to match the shade of tiles complete as directed including different colour combination & pattern give by Architect / Engineer In-Charge. necessary cleaning, curing etc. complete as directed. (Basic rate Rs. 700/- per sqmt)	Sqmt	
33	Providing & fixing 20 / 25mm X 20 / 25mm X average 4mm thick approved make Glass Mosaic Tiles like Shon, Italia, Pixelglass, Bisaza, etc. or equivalent in mixed & colour variation pattern fixing with specified chemical grout / adhesive on painted wall surface including necessary surface preparation like removing of existing paint, dust, oil spots, pick stains etc., surface levelling, scaffolding, cleaning etc. complete as directed.	Sqmt	

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Technical Specification and Schedule of Rates

Item No.	Item Description	UOM	RATE
34	Providing & fixing 37mm X 37mm X average 4mm thick approved make Glass Mosaic Tiles like Shon, Italia, Pixelglass, Bisaza, etc. or equivalent in mixed & colour variation pattern fixing with specified chemical grout / adhesive on painted wall surface including necessary surface preparation like removing of existing paint, dust, oil spots, pick stains etc., surface levelling, scaffolding, cleaning etc. complete as directed.	Sqmt	
35	Providing and laying paver block of any shape fixing in sand including necessary line, level, curing etc. complete as directed (Basic Rate of Paver Block is Rs. 350/Sqmt)	Rmt	
36	Providing and fixing pre-cast RCC road kerbing of approved quality and size including necessary excavation, fixing in cement mortar 1:4, pointing, proper line and level, curing etc. complete as directed. (Basic Rate of kerbing stone Rs. 250/Rmt)	Rmt	
37	Providing and laying brick bat coba type (integrated cement based proprietary water proofing treatment of required thickness over the roof and sloping out terrace slabs with following specification laid to required slope not flatter than 1 : 80 (the thickness of water proofing treatment near rainwater outlet or the lowest point of the finished slope shall not be less than 75 mm), including treating the vertical surface of the parapet wall upto 30 cms. height above finished level of terracing including finishing the top with jointless water proofing plaster, curing, testing etc. complete. (No extra shall be paid for variation in thickness)	Sqmt	
38.0	Making and finishing cut-outs in bricks work upto thickness of 400mm for any height and following sizes including necessary dismantling, debries removing, finishing with plaster to match with existing surface in proper line & level, scaffolding, grouting of sleeves etc. complete as directed		
a.	size: up to 300mm	Nos.	
b.	size: 300mm to 600mm	Nos.	
c.	size: 600mm to 1000mm	Nos.	
39	Providing & fabricating MS Structural steel work in 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 for the work of monkey ladder, spiral staircase, railing, gate, insert plate, cattle trap, rain water spout etc. It should be including necessary plates, rolled joists, channels, angles, tees, flats, square / rectangular / tubular hollow sections, position hip and jack lifters, purlins, etc. confirming to latest IS 4923, IS 1161, IS 806 including cutting and welding the members as per detailed drawing and design. The rate shall include 2 coat of zinc chromate yellow oxide primer and 2 coats of synthetic enamel paint of approved make over all the surfaces of the steel sections. (Only standard measurements will be paid for as actual cut length used at site). Shop drawings for the connection details shall be prepared for the approval of the EIC. (Basic Rate of Structurl Steel Rs. 65 / Kg.)	Kg.	
40	Providing and fixing 1.20 m. high barbed wire fencing with 0.60 dia coil fenc fixing at top V/U portion and size as specified in detail drawing with horizontal lines and diagonals of galvanized steel barbed wire as shown in the drawing, weighing 9.38 Kg. per 100 m. (Min.), strained and fixed to posts with GI staples, including MS angle of 50x50x6 posts having Y/U Shape and size as specified in detail drawing and oil painting in 3 coats, fixed at 2.50 m. C/C., including fixing the post in compound wall with 0.23 x 0.23 x 0.3 m. block of C.C. 1:2:4 (1 cement : 2 sand : 4 aggregate, 20mm. nominal size) etc., complete as directed.	Rmt	
41	Dismantling R.C.C work including cutting reinforcement & removing debries within / outside the premises as & where directed.	Cmt	
42	Dismantling brick work including removing debries within / outside the premises as & where directed.	Cmt	

Annexure : I
Technical Specification and Schedule of Rates

Item No.	Item Description	UOM	RATE
43	Cutting of existing flooring using electric diamond cutter required size of blade, removing debris for providing strips pattern in the floor etc. complete as directed.	Rmt	
44	Removing any type of existing flooring & dado including removing debris outside the premises as & where directed	Sqmt	
45	Removing old doors, window and ventilator of any size including good the walls by CM 1:3 and handing over the old materials to client.	Sqmt	
46	Removing any type of plaster including removing debris outside the premises as & where directed.	Sqmt	
47	Tractor Trips from one site to another site including loading of any material, debris, earth, and unloading the same within MDG premises or outside without spillage of material and tyre marks on road. Spillage or marks if observed during transportation of material same shall be cleaned any contractor at his own cost and risk	Nos.	
48	Providing Electric Braker machine with operator & un skilled labor, on highred basis for miscellaneous dismantling, chipping etc work. including necessary debris removing, site cleaning etc. Time will be cosidered from work started at site till work is completed at site	Day	
49	Providing JCB machine on highred basis for miscellaneous excavation, site cleaning, dressing, garbase removal, loading of tractor/dumpers, earth levelling. Time will be cosidered from work started at site till work is completed at site.	Hrs.	
50	Supply of skilled Mason	Nos	
51	Supply of unskilled Labour	Nos	
52	Providing and applying APP polymeric water proofing membrane water proofing treatment at various expansion joints, terrace, roof sheet and trenches of approved make such as STP/ BITUMAT (Roof Seal P / G , Torch bond) / IWL (Hyperplas Polyester) or equivalent and grade including necessary surface cleaning with wire brush, removing / cleaning of all dust and loose particles, removing of existing water proofing coating, (wherever require) applying suitable bitumen primer, bonding agent etc. and apply membrane using IS / manufacturer installation manual / standard specified torch welding method, proper overlapping (Minimum overlapping shall be 150 mm), and overlaps area must be sealed by flame torch etc. complete as directed.	Sqmt	
53	Providing and applying acrylic water proofing treatment at RCC flat roof terrace covering parapet coving vata using approved make and grade such as STP/ BITUMAT (Synroof Hi-Build) / IWL (Liquithane liquid water proofing membrane) or equivalent including necessary surface cleaning with wire brush, removing / cleaning of all dust and loose particles, applying suitable bitumen primer, bonding agent etc. and applying water proofing compound using IS / manufacturer installation manual / standard specified method etc. complete as directed	Sqmt	
54	Providing, laying and filling the expansion joints of size 25 x 12 mm with poly sulphide sealent, including necessary cleaning, scrapping the expansion joint, removing old loose substance, filling back up material, Teflon tap etc. complete as directed.	Rmt	
55	Drilling and fixing reinforcement dowel / Rebare of any dia. And for any depth using epoxy grout of approved make like HILTI, Fisher or equivalent etc, complete as directed.	Nos.	
56	Charges for making holes in RCC wall, slabs or any other RCC members by diamond core cutting machine of HILTI or equivalent including disposing the debris. Measurement will be taken for the depth of holes in numbers. For, disposal of the debris as per the disposal item. For all floors / all levels / all heights. with necessary supporting frame structure.		
	A) Diameter of holes upto 100 mm clear	Nos.	
	B) Diameter of holes from 100 to 150 mm clear	Nos.	
	C) Diameter of holes from 150 to 300 mm clear	Nos.	

Annexure : I
Technical Specification and Schedule of Rates

Item No.	Item Description	UOM	RATE
57	Providing and fixing in position chemical anchor fastener of Hilti or equivalent approved make with HY-150 Chemical, including drilling holes in RCC elements at all floors / all levels / all heights / all places as per the drawings and direction of Engineer-in-charge. The rates quoted shall be inclusive of drilling holes, providing chemicals, providing anchors, fixing, tightening, etc complete including cost of scaffolding complete.		
	a) HY Chemical Anchor + HAS-E M10x90/21 (Bolt) - 10mm dia & 125 mm long	Nos.	
	b) HY Chemical Anchor + HAS-E M12x110/88 (Bolt) - 12mm dia & 213 mm long	Nos.	
	c) HY Chemical Anchor + HAS-E M16x125/108 (Bolt) - 16mm dia & 252 mm long	Nos.	
58	Providing and Filling road expansion joint with approved grade bitumen including necessary cutting to required size and shape, cleaning and scrapping of old damage joints etc. complete as directed		
	a) (8-10mm X 12-15mm)	Rmt	
	b) (10-25mm X 15-25mm)	Rmt	
59	Dismantling of MS structural steel work including dismantling like cutting, removing and stacking the materials with all leads and lifts etc. complete as directed.	Kg.	
60	Extra for carrying out vaccum dewatering in floor, well compacted, mechanically vibrated, finished to reqd lvls, floated with neat cement & power trowelled to get desired finish (smooth/broom), over a levelling course, incl. MS shuttering, curing for 7 days etc complete. The reinforcement for Tremix floor to be installed as shown, the suitable size of panel should be 3.5x20.0 m or as directed by Er. The Contraction/sawed joints to be formed at every 5m distance by grooving with mechanical saw within 48 hrs. Groove sawed joints of 5 mm width & 25 mm min depth (1/3 rd depth of the pavement) as shown in the drg & operation should be carried out as soon as conc. is ready to accept the saw cut w/o trowelling etc as directed by Er-in-charge. The joints should be filled with bitumen sealant for road & PU sealant-6X6 mm for floor pavement with backer road of adequate size. The construction joint is formed by square edge & painted with bitumen. The rate shall be incl. of labour, grooves & machinery cost. The rate of conc. & steel shall be paid in relevant items separately.	Sqmt	
61	Cutting of the reinforcement bar of any dia. with gas cutter including making the surface finished etc. complete.	Nos.	
62	Supplying and Spreading Ironite No 4 @ 3.5 Kgs/m² Non Metallic shall be sprinkled over green concrete 1/3rd of the dry shake shall be broadcasted in First Pass and same is floated with Power Float, remaining 2/3rd of dry shake is sprinkled in next pass thus the floor laid is floated & trowelled to acquire smooth finish. Etc., complete as per specifications and direction of engineer-in-charge for all floors / all heights / all levels.	Kg.	
63	Providing of Rapid hardening cement shall be from source like Gujarat High Tech, Ambuja, Birla or equivalent as approved by the Architect and Engineer-in-charge. It shall conform to IS : 8041. Test certificates showing that the cement complies to the specifications must be submitted to the Architect. (25 Kg Bag)	Bag	

Annexure : I
Technical Specification and Schedule of Rates

Item No.	Item Description	UOM	RATE
64	<p>Providing & Laying Cast iron tile flooring, Cast iron tiles of specified size shall be as per NDDDB's standard drawing top surface ground smooth and sides metered without any air or pin holes, casting burrs conforming to approved sample and the weight specified in the item specification. The contractor should get a sample of the tiles approved prior to manufacturing. When the tiles supplied by NDDDB, contractor to take the delivery at site from truck or take the delivery from site stores. Contractor to make arrangement for safe storage of the tiles and protect from any loss or damages. Any damage or loss shall be at the Contractor's cost. The tiles shall be laid over a bed of 30mm thick 1:2:4, 1 cement ; 2 coarse sand ; and 4 graded stone aggregate of nominal thickness 12mm and down in floor, treads or riser etc. The tiles shall be fixed in line, level and slope as per the drawing and as directed by the Engineer over bed concrete and tapped with wooden mallet so that 50% depth of the holes are filled in. The concrete to be compacted with multiple pronged tool When the bed concrete is green, the remaining 50% holes of the tiles shall be filled with rich concrete mix prepared out of 6 mm aggregates and fine sand. The joints shall be minimum, around 2 mm. The joint should than be cleaned with wire brush and grouted with cement mortar C:M 1:1 and top of the flooring be cleaned with soft cloth and coated with cement slurry. The surface to be cured. The floor to be polished with polishing machine with corundum stone of grit no. 80 followed by 120 / 150 smooth and area be cleaned off with water. Wherever machine polishing is not possible it should be polished by hand polishing. Curing shall be done at least for 15 days. The tiles shall be cut to suit site requirement with out any extra cost. Wastage if any shall be to the contractors account.</p>	Sqmt	
65	<p>Providing and fixing GALVALUME colour coated sheet for roofing, wall cladding. GALVALUME colour coated sheet made out of 0.5mm TCT:550 Mpa cold rolled sheet with hot dip metallic coating of aluminium zinc alloy 150 gms/sq.m with 20 microns on top with silicon modified polyester. necessary suitable imported galvanised carbon steel, self drilling & self tapping screws of HILT/ BOSCH of required diameter and length all complete with EPDM sealing washers with sealant. Rate should include cost of plastic caps of approved colour of UV resistance and button bolts, all as per manufacturers specification, ridge, piece, aprons, large boards, etc., all accessories, all complete as directed by the engineer. The rates shall include all materials, tools tackles, labour including handling and storage of the materials etc complete. Area laid shall be measured in Sq.m without overlaps.</p>	Sqmt	
66	<p>Providing, stacking and laying rubble soling, 23 cm. thick (compacted thickness), in a compact manner to required camber & gradient as per drawing, in subbase for road using 150 to 230 mm. hand broken black hard stones, covering and levelling the surface with a layer of murrum after filling the voids with smaller sized stones or stone chips, including watering, rolling well with power roller of 8 to 10 ton capacity and consolidating each layer, as directed.</p>	Cmt	
67	<p>Grouting the pockets of foundation bolts, gap between base plate and cated RCC foundation with ACC shrinkom ready mixed concrete including shrinkom grout cement complete with making holes if necessary in concrete as directed. The work shall be measured based on the size of pockets actually grouted or size of pocket shown in the aooroved drawing whichever is less. similarly in case of grouting bellow the base plate of machine / equipment, measurement shall be based on the area of grout and the thickness as per the drawing or as per actual whichever is less.</p>	Cmt	

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Technical Specification and Schedule of Rates

Item No.	Item Description	UOM	RATE
B	PLUMBING AND SANITARY WORK		
1	Providing and fixing first quality Hindustan/Neycer/M-cera or equivalent any colour shed glazed vitreous china orrissa pattern W.C. pan size 580mm with 100mm sand cast CI 'P' or 'S' type traod of approved ISI make in cement concrete 1:2:4 (1 part cement, 2 part coarse sand, 4 part of stone aggregate) and providing and fixing the 25mm dia half turn heavy duty ISI mark flush cock joint with brass unioun including cutting & making good the wall, floor and RCC including necessary brick work etc. complete as directed.	Nos	
2	Providing and fixing white glazed vitreous china wall hung type European WC pan intergrated 'P' or 'S' trap with or without vent (HUNDUSTAN Sanitary ware EWC or CERA or equivalent) with concealed pipes M.S. chair brackets including heavy duty plastic toilet sheet, jet spray and other accessories etc. complete as directed.	Nos	
3	Providing and fixing first quality approved ISI make heavy duty plastic EWC toilet sheet cover with necessary all specials like clamp, nut-bolt etc. complete as directed.	Nos	
4	Providing and fixing first quality approved ISI make brass chormium plated heavy duty jet spray including necessary all specials like heavy duty PVC connection pipe, clamp, nut-bolt etc. complete as directed.	Nos	
5	Providing and fixing Nelson / jequar / Esco / Delux or equivalent approved make heavy type concealed chromium plated brass 25mm dia Flush cock of approved quility including fixing in pipe line etc. complete with unions of ISI quality at end.	Nos	
6	Providing and fixing white glazed vitreous china wash basin of size 550 x 400 mm with central tap hole (Hindustan Sanitary ware No. 10016 or Cera or equivalent) counter type without rim, Swan Neck of Jaquar or equi. Make C. P. brass pillar cock 15 mm having minimum weight 525 grams 32 mm dia C. P. brass bottle trap with brass union and C. P. brass wall discharge pipe with flanges and cap, 32 mm dia G. I. waste pipe with fittings upto floor trap, 32 mm dia C. P. brass waste couplin with C. P. chain and rubber plug. 15 mm dia C. P. brass stop valves having minimum weight 400 gms 15 mm heavy quality flexible P.V.C. inlet connection of required length with brass union, washer and C. P. brass cap complete in all respects including cutting and making good the walls, RCC work and floors etc. complete as directed.	Nos	
7	-Do- as above item no. 10.04 but oval shape wash basin. 550 mm dia.	Nos	
8	Providing and fixing white glazed Vitreous China large flat back and Angular lipped front Urinal basin 610 mm high (Hindustan Sanitary ware No. 60.002 or equivalent)15 mm dia C. P. brass concealed stop cock having minimum weight 400 grams with heavy quality C. P. brass inlet connection of required length with brass union, washer and C. P. brass dome and spreaders with C. P. brass union and clamps, heavy quality c. p. brass bottle trap of Jaqyar or Nelson make and concealed connection 32 mm dia G. I. concealed waste pipe with fittings upto the floor trap / including constructing channel above finished floor level with required brick work & P. C. C. work complete including cutting and making good the walls, RCC work and floor etc. wherever required.	Nos	
9	Providing and fixing sand cast iron Nahni trap of self cleansing design with or without vent arm, lead caulked joint with refined pig lead caulked joint with refined pig lead and spun yarn in the sockets of H.C.I. pipe and fittings with 150 x 150 mm dia stainless steel grating including boxing the trap with 150 mm thick cement concrete 1 : 2 : 4 (1 cement : 2 coarse sand : 4 stone ballast 20 mm and down guage) including cutting and making good the walls R.C.C. work floors etc. wherever required. 100mm dia inlte and 75mm dia outlet	Nos	

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Item No.	Item Description	UOM	RATE
10	Providing and fixing PVC drain waste, vent pipes and fittings such as collars, junctions, bends, fittings with or without access doors, off sets, terminal guard, access pieces, M. S. holders bat heavy quality clamps, made out 12 mm wide & 5 mm thick M. S. flat, cutting chases holes in walls, RCC work, floors etc. and making good the same		
	a) 75 mm dia waste pipe	Rmt	
	b) 100 mm dia soil pipe	Rmt	
	c) 100 mm dia inlet and 75 mm dia outlet.	Rmt	
	d) 150mm dia	Rmt	
11	Providing and fixing G.I. tube(Medium grade Class B) of TATA or equivalent make including tube fittings such as sockets, unions, reducers, long or short bends, elbows, nipple, flanges, check-nuts, tees. etc in proper line and level with necessary supports viz. clamps. RCC or brick masonry pedestals and battens. if required jointing with screw joints using hold tight and jute for pipes and Teflon tape for fittings and fixtures. to wall ceiling and floor including making them good. testing and painting with 2 coats of approved paint etc. complete of following nominal bore size (NB) in open condition as directed		
	a) 15 mm dia	Rmt	
	b) 20 mm dia	Rmt	
	c) 25 mm dia	Rmt	
	d) 32 mm dia	Rmt	
	e) 50 mm dia	Rmt	
12	Providing and fixing 15 mm Chromium plated brass bib cock long body with C. P. brass cap of approved make like Essco/Ark/Gem having minimum weight of 525 grams. Etc. complete as directed	Nos	
13	Providing and fixing 15 mm Chromium plated brass heavy duty Pillar cock of approved make like Essco/Ark/Gem having minimum weight of 525 grams. Etc. complete as directed	Nos	
14	Providing and fixing 12 mm Chromium plated brass heavy duty stop cock of approved make like Essco/Ark/Gem with chromium plated disc etc. complete as directed	Nos	
15	Providing and fixing Chromium plated brass heavy duty brass angle valve of approved ISI quility or equivalent make like Essco/Ark/Gem with chromium plated disc etc. complete as directed	Nos	
16	Providing and fixing Chromium plated brass Urinal spreader with copper pipe of approved make Essco/Ark/Gem etc. complete as directed	Nos	
17	Providing, fixing and testing heavy duty gun metal / brass gate full way wheel valve with screwed / flange ends (20kg /sqm pressure on GI lines) of approved quality including providing and fixing unions of required size at ends etc. complete as directed.		
	a) 25 mm dia bore	Nos	
	b) 32 mm dia bore	Nos	
18	Providing and fixing an approved quality supreme make or equivalent heavy duty 6kg/sqcm of 110mm outer dia PVC pipes. Concealed complete jointing with rubberising and airtight joints. With necessary specials. Bends such as ' Y ' juncton. ' T ' junction (both single and double) including plugs shoes cowls. flange compression type fittings. wall clips. etc in proper line an level with necessary support like brackets clamps. clips. RCC or brick pedestals or battens. if necessary to wall ceiling and floor. lubricant or jointing material. including testing, cutting, making good the wall, ceiling and floor etc complete as directed	Rmt	
19	Providing and fixing S.S. kitchen sink of approved make such like Nirali / Krishna or equivalent of following size including necessary fixtures like waste couplin, waste pipe connected upto NT, chock stop couplin, elbow, flexible drainage pipe, drain board drainage couplin etc. complete as directed		
	a) Over all size 1070mm X 535mm, bowl size 500 mm X 400 mm X 180 mm deep	Nos	

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Item No.	Item Description	UOM	RATE
	b) Over all size 560mm X 460mm, bowl size 510 mm X 405 mm X 190 mm deep	Nos	
20	Providing and fixing two piece stainless steel jali over nanhi trap fixing with cement in proper position etc complete as directed.	Nos	
21	Providing, laying and jointing salt glazed stone ware pipes grade `A' jointed with stiff mixture of cement mortar in the proportion of 1 : 1 (1 cement : 1 fine sand) complete including cement concretes bedding 150 mm thick 1 : 5 : 10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) and necessary excavation upto a depth of 1.5 metres below natural ground level with all lifts, re filling in 150 mm thick layer, consolidating each deposited layer by ramming and watering etc., and disposal of all surplus soil to all leads as directed.		
	a) 100 mm dia meter	Rmt	
	b) 150 mm dia meter	Rmt	
	c) 230 mm dia meter	Rmt	
22	Providing and fixing square mouth 100 mm stone ware gully trap grade `A' with 150 mm x 150 mm C. I. grating excavation, refilling, building in all inlet / outlet pipes, brick masonry chamber and water tight C. I. cover with frame of 300 x 300 mm size (inside) the weight of cover to be not less than 4.53 kg and frame to be not less than 2.72 kg as per standard design including painting the cover and frame with 2 coats of coal tar complete.	Nos	
23	Constructing following sizes manholes (inside dimension). The rate includes excavation, 150 mm thick BBCC 1:4:8 in foundation 230 mm wide brick masonry walls in CM 1:6, 12 mm thick plastering in inside and outside of chamber in CM 1:4, channels, IPS flooring, making drain channel, CI/MS rungs with paint, steps, CI cover with frame 450 mm dia. Weighing 80 Kgs. painting the cover and frame with two coats of coal tar, and 150 mm thick RCC 1:2:4 slab with standard reinforcement etc complete as directed.		
	a) size 600 x 600 x 750 mm deep	Nos	
	b) size 1000 x 1000 mm X 1500 mm deep	Nos	
	c) size 1500 mm x 1500 mm x 2000 mm deep	Nos	
24	Removing sanitary fixtures like wash basin, W.C., Urinal etc including plumbing fixtures & handing over it to client & removing debris outside the premises as & where directed.	Nos	
25	Removing GI pipe line of any size with fixtures etc including plumbing fixtures & handing over it to client & removing debris outside the premises as & where directed.	Rmt	
26	Providing and fixing a cast iron grating frame and cover of specified clear size, shape and weight of NECO make including carting from store to site of work, fixing in CC and finishing with 3 coats of anti-corrosive paint etc complete to the satisfaction of FIC.	Kg.	
27	Providing and fixing Gully trap cover and frame giving clear opening of 165 mm dia. with combined weight of 9.5 kg. Including necessary cement vatta, plaster finishing, curing. etc. completed as directed.	Nos.	
28	Providing and fixing brass CP Pressmatic Pillar cock / bib cock with wall flange of approved make like Jaquar as per drawing and direction and satisfaction of Engineer in Charge with following or equivalent.	Nos.	
29	Providing & fixing pvc fixible wash out pipe for wash basin/sink including necessary socket, cutting and fitting etc. complete as directed.	Nos.	
30	Supply of skilled Plumber	No/Day	
31	Supply of unskilled Helper	No/Day	
	NOTE:		
	All plumbing and sanitary fittings are to be fixed with centre point fittings and nothing extra shall be paid. All GI pipe fittings shall be of "R" brand only.		