

**BRIHANMUMBAI MUNICIPAL CORPORATION  
MUMBAI SEWAGE DISPOSAL PROJECT  
STAGE – II PRIORITY WORKS**



**UPGRADATION OF GHATKOPAR INFLUENT PUMPING  
STATION & CARRYING CAPACITY OF RISING MAIN TO  
DESIGN PFF CAPACITY OF 699 MLD**

**VOLUME - VI**

**PRICE PACKET C AND SCHEDULE OF BILL OF QUANTITIES**

**OCTOBER 2022**

**EMPLOYER**

**Brihanmumbai Municipal Corporation  
Municipal Head Office Building,  
Mahapalika Marg, Fort, Mumbai India.**

**CONSULTANT**

**Tata Consulting Engineers Limited,  
15th Floor, Empire Tower, Thane-  
Belapur Road, Airoli, Navi Mumbai  
400 708 India.**



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

### Volume VI PRICE PACKET C

Sr. No.	ITEM DESCRIPTION	TOTAL PRICE (₹)
1.	Total Price for Civil items as described in Volume VI – Schedule of Bill of Quantities	<b>THIS SHOULD BE FILLED ON-LINE ONLY</b>
2.	Total Price for Mechanical items as described in Volume VI – Schedule of Bill of Quantities	<b>THIS SHOULD BE FILLED ON-LINE ONLY</b>
3.	Total Price for Electrical items as described in Volume VI – Schedule of Bill of Quantities	<b>THIS SHOULD BE FILLED ON-LINE ONLY</b>
4.	Total Price for Instrumentation and Control items as described in Volume VI – Schedule of Bill of Quantities	<b>THIS SHOULD BE FILLED ON-LINE ONLY</b>
5.	Total Price for Operation and Maintenance for 36 months as described in Volume VI – Schedule of Bill of Quantities	<b>THIS SHOULD BE FILLED ON-LINE ONLY</b>
6.	Price for Tools and Test equipment as described Total in Volume IV - Sr. No. 15 – Schedule O - Tools and Test equipment.	<b>THIS SHOULD BE FILLED ON-LINE ONLY</b>
7.	Total [(1) + (2) + (3) + (4) + (5) + (6)]	<b>THIS WILL BE CALCULATED AUTOMATICALLY IN e-TENDER</b>
8.	Less Buyback value (as described in Volume I – Instructions to Tenderers and General Conditions of Contract, 4. Special Conditions of Contract – Sr.No.13)	<b>This will be taken from Declaration form for buyback as mentioned in Volume I – ITT and GCC, Appendix-C: Tenderer Qualification Forms, 6.1 - Declaration form for buyback</b>
9.	Grand Total [(7) - (8)]	<b>THIS WILL BE CONSIDERED FOR EVALUATION</b>
	<b>Total Amount in words:</b>	<b>NOT TO BE FILLED</b>

#### Notes:

1. Bidder shall not submit the hard copy of this Schedule VI – Price Packet C. If Bidder does not comply with this, their bid will be disqualified from the tender process.
2. Items mentioned at Sr. No. 1 to 6 will be put in the online in e-tender system. Contractor shall fill these items online.



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PPF CAPACITY OF 699 MLD

For item no 1 to 5 above, the figures shall be the sub-totals of the concerned items mentioned in Schedule of Bill of Quantities and Rates, Volume VI.

For item no. 6 above, the figures shall be the total mentioned in Sr. No. 15 – Schedule of Tools and Test equipment, Volume IV – Schedules. This shall be taken from the duly filled scan copy submitted in Folder 'C'.

In case of discrepancy, if any, the same will be corrected as per Volume I – ITT and GCC, 2. ITT, Clause no.35. Errors and Corrections.

3. The item mentioned in Sr. No. 8 i.e. Buyback value which will be taken from Declaration form for buyback as mentioned in Volume I – Instructions to Tenderers and General Conditions of Contract, Appendix-C: Tender Qualification Forms, 6.1 - Declaration form for buyback.

This buyback value shall not be less than INR 6,60,86,500 (INR Six Crore Sixty Lakh Eighty Six Thousand Five Hundred only).

This item is not mentioned in the online Packet C. However, the same will be considered in the evaluation.



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

### SCHEDULE OF BILL OF QUANTITIES FOR MECHANICAL, ELECTRICAL, INSTRUMENTATION AND CONTROLS, CIVIL AND OPERATION AND MAINTENANCE



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b

1. MECHANICAL						
1.	Mechanical Specification; Clause no: 1	Supply, installation, testing and commissioning of main Submersible Dry Pit Sewage Pump and Motor Set – 5825 m <sup>3</sup> /hr, 36 MWC 6.6 KV rating motor as per Tender Documents complete with SS316 (Fasteners), gaskets and integral temperature indicators to each pump set for bearing temperature service and for each motor set for winding and bearing temperature service.  Companion Flanges Shall be provided by Vendor.	Nos.	6		



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		Material of Construction shall be as follows; Impeller- Duplex alloy stainless steel (ASTM A 890 Gr, 1A CD-4MCu) / (ASTM A 890 Gr, 4A J92205 Shaft - AISI 431 Stainless steel Casing - Grey Cast Iron-ASTM A-48 Class 35B.				
2		Dismantling of existing pump and motor set	Nos.	5		
3	Mechanical Specification; Clause no: 3	Supply, installation, testing and commissioning of Motorized Knife Gate Valve With Rising Spindle for Pump Suction and Discharge Line As Per AWWA C520-14 / MSS SP 81 with	.			



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		<p>Flanged End Connection. Flange Drilling Standard shall be as per BSEN 1092 PN 10 / PN 6 (Type 1).</p> <p>Mating Flanges shall be provided by Vendor.</p> <p>Material of Construction shall be as follows; Body: Ductile Iron Epoxy Coated Gate (Blade): Stainless Steel ASTM A 240 Gr. 316L Stem: Stainless Steel ASTM A 276 Gr. 316 Seat: EPDM (Bi directional)</p>				



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
a		1200 mm PN 6	Nos.	6		
b		1000 mm PN 10	Nos.	6		
c		1800 mm PN 6	Nos.	5		
4		Dismantling of Existing plug valves in Discharge line	Nos.	5		
5		Dismantling of Existing Knife Gate valves in Suction line	Nos.	6		
6	Mechanical Specification; Clause no: 5	<p>Multi Door Check Valve: Type : Multi Door Check Valve at Pump Discharge as per IS 5312 Part – 2 with Flanged End Connection.</p> <p>Flange Drilling Standard shall be as per BSEN 1092 PN 10. Mating Flanges shall be provided by Vendor. Material of Construction shall be</p>				





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(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		as follows; Body, Disc: SG Iron IS 1865 Gr 400/15 Door Face Rings: Bronze IS 318 LTB 2 Hinge/Hinge Pin: SS ASTM A 276 Type 410				
a		1000NB Multi Door Non-Return Valve	Nos.	6		
7		Dismantling of existing Non-Return valves in discharge line	Nos.	5		
8	Mechanical Specification; Clause no: 7	Supply, installation, testing and commissioning of Dismantling Joint with Flange Drilling as per BS EN 1092 PN6 / PN10 (Type 1), complete Jointing Hardware, gaskets and dismantling of existing ones. Material of Construction shall be				



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		as follows Body: IS:2062 / BS EN 10025 Grade S275 Flanged Sleeve/Flanged Collar/Loose Flange: IS:2062 / BS EN 10025 Grade S275 Tie Rods, Bolts and Nuts: SS 316 Coating: Epoxy Inside and Outside				
a		1200 mm PN 6	Nos.	6		
b		1000 mm PN 10 (near 1000 mm NRV and near flow meter)	Nos.	12		
c		1800 mm PN 6	Nos.	5		
9		Supply, installation, testing and commissioning of EPDM gaskets as per BSEN 1514-1 and complete jointing hardware of SS316 on 1200NB suction	Sets	6		



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		line and dismantling* of existing on suction side piping.				
10		Supply, installation, testing and commissioning of EPDM gaskets as per BSEN 1514-1 and complete jointing hardware of SS316 on 1000NB delivery line and dismantling* of existing on delivery side piping and delivery line.	Sets	6		
11		Supply, installation, testing and commissioning of EPDM gaskets as per BSEN 1514-1 and complete jointing hardware of SS316 on 700NB suction line and dismantling* of existing on suction side piping and suction bend.	Sets	6		
12		CS SOFF Flange: 1000 NB	Nos.	108		



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		Plate Flange Drilling as per EN 1092-1 PN 10 (Type 1) OD : 1230mm, ID :1019mm, No of Holes : 28, Bolt Hole Diameter : 36mm, PCD : 1160mm, Flange Thickness : 70mm- Plate shall be as per IS 2062 Grade E250				
13		CS SOFF Flange: 1200 NB Plate Flange Drilling as per EN 1092-1 PN 6 (Type 1) OD : 1405mm, ID :1224mm, No of Holes : 32, Bolt Hole Diameter : 33mm, PCD : 1340mm, Flange Thickness :	Nos.	22		



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		60mm- Plate shall be as per IS 2062 Grade E250				
14		CS SOFF Flange: 700 NB Plate Flange Drilling as per EN 1092-1 PN 6 (Type 1) OD : 860mm, ID :714.2mm, No of Holes : 24, Bolt Hole Diameter : 26mm, PCD : 810mm, Flange Thickness : 40mm- Plate shall be as per IS 2062 Grade E250	Nos.	24		
15	Mechanical Specification; Clause no: 2	EOT Crane Supply, Installation, Testing and Commissioning of Double Girder fully electrically operated EOT				



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		crane with electrically operated hoist class II duty geared travelling trolley with 32 mtr. lift complete with long travel rail track moving or cross girder, all three motions electrically operated by suitable rating motor IP 54, control panel & down pendant control block, brake, safety device, cable from motor to starter panel & other required accessories & tested to 25% overload etc. complete as per site requirement including dismantling* of existing one.				
a		20.0 Ton capacity (Span-	Nos.	1		



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(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		9.975m, Long Travel-34m)				
b		7.5 Ton capacity (Span-4.62m, Long Travel-34m)	Nos.	1		
c		Rail for 20 Ton EOT	Mtrs.	68		
d		Rail for 7.5 Ton EOT	Mtrs.	68		
16	Mechanical Specification; Clause no: 6	Supply, installation, testing and commissioning of 40mm Automatic vertical 90 Degree Multi-rake Mechanical Coarse Bar Screens 19.1 meters deep and 1.5 meters wide channel along with control panel (PLC based) and dismantling* of existing one.  Material of Construction:	Nos.	3		



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		SS 316L				
a		Supply, installation, testing and commissioning of Belt conveyer mechanism designed as per IS 11592 (Motor Driven Endless Belt Conveyor) with a minimum belt width of 600 mm with MOC of belt : Two ply nylon with minimum 3 mm neoprene covering on carrying side and Spacing of idlers shall be of 1200 mm on carrying run and 2400 mm on return run, Cost shall be inclusive of with Geared motor, Control Panel, necessary cabling, Dog Box, Chute, SS316	Nos.	1		





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(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		Hardware etc., and inclusive of dismantling* of old belt conveyor.				
17	Mechanical Specification; Clause no: 4	Supply, installation, testing and commissioning of Class 3 Sluice Gates with electric actuator for isolation of bar screen channels and at Outlet of Surge Tank including dismantling* of existing one.  Material of Construction: Wall Thimble, Frame, Wedge Block: Cast Iron IS: 210 Gr FG 260 Stem Block, Spindle: ASTM A				



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		240 Type SS 316				
a		4 nos. at Inlet of Screens and 3 nos. at outlet of Screens 1500mm X 1500mm, PL (29.9m), CL (10.9m)	Nos.	7		
b		Outlet of Screens Chamber 1300mm X 1300mm, PL (29.9m), CL (10.8m)	Nos.	2		
c		Wet well partition 1500mm X 1500mm, PL (29.9m), CL (8.75m)	Nos.	2		
d		Inlet of new Surge Chamber 2200mm X 2200mm, PL (41.5m), CL (26.8m)	Nos.	1		
18	Mechanical Specification; Clause	Electric Hoist Supply, Installation, Testing and	Nos.	1		



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
	no: 9	Commissioning of Electric Hoist of 1 Ton Capacity with Mono Rail, Clear Lift of 10m and Dismantling* of Existing Hoist.				
19	Mechanical Specification; Clause no: 10	Elevators Supply, Installation, Testing and Commissioning of Elevators of Capacity 884 kg. Operating Elevation 15.54m. and Dismantling* of Existing Elevator	Nos.	1		
20	Mechanical Specification; Clause no: 8	Supply, installation, testing and commissioning of Belt Driven Centrifugal Blowers: 7650m <sup>3</sup> /hr @ 30mm (Side Discharge) at Inlet and Exhaust of Riser Chamber for Ventilation	Nos.	4		



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		Purpose including Dismantling* and Replacing of Existing One with Following Accessories. Channel Base Frame, Belt Guard. Companion Flanges, Drain Plug. Material of Construction shall be as follows: Body: Mild Steel Epoxy Coated Impeller Blade: SS 304 Shaft : EN8				
21	Mechanical Specification; Clause no: 12	FRP Ducting Supply, Installation, Testing and Commissioning of FRP duct and fittings at the supply and exhaust of blowers near Screen				



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		and Riser chamber including dismantling* of the existing ones.				
a		FRP Duct (21 meters for supply and 21 meters for exhaust in Riser Chamber)- 650mm	Mtr.	42		
b		FRP Equal Tee (650mm)	Nos.	6		
c		FRP 90 degree Elbows- 650mm	Nos.	2		
d		FRP Duct (4 meters for exhaust in Riser Chamber and 4 meters for exhaust in screen chamber)- 900mm	Mtr.	8		
e		FRP 90 degree miter joint (1 nos. for Riser Chamber and 1 nos. for Screen chamber) - 900mm	Nos.	2		



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
f		Flanges for 650mm dia pipe	Nos.	50		
g		FRP Duct (for supply and exhaust common header)-450mm	Mtr.	40		
h		FRP Duct (for supply and exhaust individual line)- 300mm	Mtr.	45		
i		FRP Reducing Tee (450 X 450 X 300mm)	Nos.	6		
22	Mechanical Specification; Clause no: 14	Supply, Installation Testing and Commissioning of Ductable split Air conditioning system of 66 TR and 26400 CFM with minimum 50% standby capacity as per tender specifications to complete all the network in VFD panel room of size 19 m X 6.9 m	Lumps um	1		



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
23		Supply, Installation Testing and Commissioning 2 Tons each Split Air Conditioning units with outdoor and indoor units mounted for Control room of size 9.7 m X 6.9 m	Nos.	2		
24		Supply, installation, testing and commissioning Supply and Exhaust Propeller fans Material of Construction: Casing: Carbon steel/ Galvanized steel Shaft: EN 8				
a		Flow (CMH): 4000, Differential pressure: 15 mmwg Exhaust fan in Cable cellar	Nos.	4		



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
b		Flow (CMH): 4000, Differential pressure: 15 mmwg supply fan in Cable cellar	Nos.	4		
c		Flow (CMH): 2500, Differential pressure: 15 mmwg Exhaust fan in 22kV Panel room	Nos.	2		
d		Flow (CMH): 2500, Differential pressure: 15 mmwg Supply fan in 22kV panel room	Nos.	1		
25		Ultrasonic testing of all the field welded joints of M.S. Pipeline.	Rmt.	2300		
26	R2-WSP-5-26	Providing, fabricating, M.S. pipes including short pipes (shorter than one strake length) as per specification of required diameters and shell thicknesses given below. The rate to include				





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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		procurement of MS plates, transport, cutting the plates to the required size rolling, tack welding , assembling in desired lengths to form pipes, welding on automatic welding machine forming 'V edge with or without shoulder cut/root face on both the ends of pipe. The rate should also include hydraulic testing of pipes to the required pressure as per the specifications, transporting pipes with or without stiffener rings mounted on it as required by adopting suitable transporting means without any damage, from the fabrication factory to the laying site of work intact ,				



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		including loading and unloading at the site, stacking them as directed, fixing of accrow type props etc'.complete as specified and directed by Engineer-in -Charge. The shop paint shall be paid separately as per quoted rates and shall not be included under this item.				
a	R2-WSP-5-26-B-1	1000 NB, 1016 mm OD (8.8 mm Thick)	RM	36		
b	R2-WSP-5-26-B-2	1200 NB, 1220 mm OD (10 mm Thick)	RM	12		
c	R2-WSP-5-26-A-3	700 NB, 716 mm OD (8 mm Thick)	RM	1		
27	R2-WSP-	Providing and fabricating, M.S.				



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
	5-27	composite bends of required diameter and shell thickness. The rate to include procurement of M.S. plates, transport, cutting the plates to the required size, rolling, tack welding, assembling in desired lengths to form composite bend, welding on automatic welding machine or manually and forming `V' edge with or without shoulder cut/root face to both ends of the composite bend. The rate shall also include transporting composite bends with or without stiffener rings mounted on it, as required, by adopting suitable transporting means without any damage, from the fabrication				



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b

		factory to the site of work intact, including all loading and unloading fixing of accrow type props etc. complete as specified and directed by Engineer-in - Charge The shop paint shall be paid separately as per quoted rates and shall not be included under this item.				
a	R2-WSP-5-27	1000 NB, 22.5 degree Mitre Bend (8 Nos.)	MT	2.2		
b	R2-WSP-5-27	1000 NB S type bend at discharge of Pump (P6) (1.Nos.)	MT	0.6		
c	R2-WSP-5-27	1000 NB S type bend at discharge of Pump (P5) (1.Nos.)	MT	0.8		
d	R2-WSP-5-27	1200 NB S type bend at suction of Pump (P6) (1.Nos.)	MT	1.1		
e	R2-WSP-	1200 NB, 45 degree elbow as	MT	1.1		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
	5-27	per ASME B16.5 latest edition at suction of Pump (P3) (2.Nos.)				
f	R2-WSP-5-27	1000 NB, 90 degree elbow as per ASME B16.5 latest edition at suction of Pump (P3) (8.Nos.)	MT	5.1		
g	R2-WSP-5-27	700 NB, 90 degree elbow as per ASME B16.5 latest edition at suction of Pump (P3) (6.Nos.)	MT	1.3		
28	R2-WSP-5-28	Providing and fabricating, M. S. tapers of required diameter and shell thickness. The rate to include procurement of M.S. plate, transport, cutting the plates to the required size, rolling, tack welding assembling in desired lengths to form tapers, welding on automatic welding machine or manually and forming 'V' edge with				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		or without shoulder cut/ root face to both ends of the taper. The rate also includes providing and welding stiffener rings of required size as directed. The rate also include transporting specials and fixtures by adopting suitable means without any damage, intact to the site of work including all loading and unloading, fixing of accrow type props etc. complete as specified and directed by Engineer-in - Charge. The shop paint shall be paid separately as per quoted rates and shall not be included under this item.				
a	R2-WSP-5-28	1200 X 700 mm Essentric Reducer (6 Nos.)	MT	4.1		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
b	R2-WSP-5-28	700 X 1000 mm Concentric Expander (6 Nos.)	MT	1.8		
29	R2-WSP-2-7	Field welding in all position with required number of runs, for M.S. pipes internally and/or externally including gausing wherever necessary, fixing appurtenances and other accessories in connection of pipe laying work as directed by Engineer-in -Charge				
	R2-WSP-2-7-A	A)Butt Joints				
a	R2-WSP-2-7-A-1	h) 14 mm (Welding of all pipe and flange items inside pump house)	Rmt	765		
30	R2-WSP-5-15	Blast cleaning the surface of the pipes at factory / Site internally to remove all rust etc. complete	Sqm	345		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		as directed by Engineer-in - Charge				
31	R2-WSP-5-16	Blast cleaning the surface of the pipes at factory / Site externally to remove all rust etc as directed by Engineer-in -Charge	Sqm	351		
32	R2-WSP-5-19	Providing & applying one coat of Zinc Rich Epoxy Primer, to the internal surface of pipes at factory / Site as per specifications and as directed by Engineer-in -Charge				
a	R2-WSP-5-19	50 microns thick to internal surface	Sqm	345		
b	R2-WSP-5-19	50 microns thick to external surface	Sqm	351		
33	R2-WSP-3-3	Providing and applying two component high build epoxy barrier/tie coat after curing of				





## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		previous epoxy primer coat on external surface of water trunkmain, ring girders, stools and roller cover etc. using best quality brush / roller and spray with best workmanship and in approved manner as per detailed technical specification and directions at site to get uniform film with Dry film thickness of 125 micron through out exterior surface.etc. complete as per specifications and as directed by Engineer-in - Charge				
a	R2-WSP-3-3	On Internal surface	Sqm	345		
b	R2-WSP-3-3	On External surface	Sqm	351		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
34	R2-WSP-2-18	a) Hydraulic testing of M.S. Pipeline to the specified pressure for the length upto 1 km. using reciprocating type pumps which should be able to provide specified test pressure, pressure gauges, & other necessary equipments labour, operation charges, etc. required testing. The rate under this item shall also include cost of re-testing if necessary. Water will be made available free of cost by BMC for first testing and water charges will be borne by contractor for retesting.				
	R2-WSP-2-18-A	Dia of pipeline				
a	R2-WSP-	700 mm dia	km	0.012		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
	2-18-A-2					
b	R2-WSP-2-18-A-4	1000 mm dia	km	0.036		
c	R2-WSP-2-18-A-5	1200 mm dia	km	0.012		
35	R2-WSP-2-1	Transporting within 500 m., laying in position to the correct line and level, M.S. Pipes with/without any out- coating on pedestals or chairs upon prepared formation. The rate to include loading, unloading, hoisting, marginal cutting wherever required, assembling and tack-welding complete as directed by Engineer-in -Charge. The diameter mentioned below shall be considered as clear internal diameter of pipe.				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
	R2-WSP-2-1-B	b) Above 8 mm. upto 12 mm. thick plate				
a	R2-WSP-2-1-B-1	i) 700 mm dia pipe, 8.8 mm thick	Rmt	1		
b	R2-WSP-2-1-B-1	i) 1000 mm dia pipe, 8.8 mm thick	Rmt	36		
c	R2-WSP-2-1-B-2	ii) 1200 mm dia pipe, 10 mm thick	Rmt	12		
36	R2-WSP-2-2	Transporting within 500 mtrs. and laying in position to the correct line and level, M.S. specials with/without any out coating such as distance pieces, straps, bends, tapers, etc.as per specification on pedestals or chairs upon formation. The rate to include loading, unloading, hoisting, marginal cutting wherever required, assembling				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		and tackwelding, complete directed by Engineer-in - Charge. The diameter mentioned below shall be considered as clear internal diameter of pipe				
	R2-WSP-2-2-B	b) Above 8 mm. upto 12 mm. thick plate.				
a	R2-WSP-2-2-B-1	i) 700 mm elbows	Rmt	0.012		
b	R2-WSP-2-2-B-1	i) 1000 mm bends & tapers	Rmt	0.040		
c	R2-WSP-2-2-B-2	ii) 1200 mm bends & tapers	Rmt	0.020		
			<b>SUB-TOTAL MECHANICAL</b>			

“ \* ” indicates “dismantling of existing equipment including removal from site and disposal”



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b

2. ELECTRICAL						
1.	Electrical specifications; Clause 2	<b>Indoor High Voltage Switchgear and Control Gear Assembly</b>				
1.1		Supply, Installation, Testing and commissioning to complete all the works of 22kV Main Switchgear Panel (Location – 22kV Panel Room in Pump house.). a) Incomer: 800A, 31.5kA, 22kV VCB - 2 Nos. b) Bus-Coupler: 800A, 31.5kA, 22kV VCB - 1 No. c) Outgoing: 800A, 31.5kA, 22kV VCB - 4 Nos.		1 Set		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		d) Bus PT – 2nos. , 22kV/√3/110V/√3/110V/√3 (Refer SLD :- TCE.11710A-EL-4002-AU-40000)				
1.2		Supply, Installation, Testing and commissioning to complete all the works of 6.6kV Main Switchgear Panel (Location – 6.6kV Panel room in Control Bldg.) a) Incomer: 800A, 31.5kA, 6.6kV VCB -2Nos. b) Bus-Coupler: 800A, 31.5kA, 6.6kV VCB - 1 Nos. c) Outgoing: 800A, 31.5kA,6.6kV VCB - 7 Nos. d)Bus PT -2nos, 6.6kV/√3/110V/√3/110V/√3 (Refer SLD :- TCE.11710A-EL-		1 set		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		4002-AU-40000)				
2.	Electrical specifications; Clause 4	<b>Power Transformers</b> Supply, Installation, testing and commissioning to complete all the works of 22kV / 6.6kV, 6.3MVA, ONAN ,Oil type, Power Transformer complete with all fittings and accessories with OLTC and RTCC panel.	Nos.	2		
3.	Electrical specifications; Clause 4	<b>Distribution Transformers</b> Supply, Installation, testing and commissioning to complete all the works of 22 kV / 0.433 kV, 800kVA ONAN Distribution Transformer complete with all fittings and accessories with OCTC and all complete works	Nos.	2		
4.	Electrical	<b>VFD Panels</b>	Nos.	6		





## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
	specifications; Clause 5	Supply, Installation, Testing and commissioning to complete all the works of VFD Panels for 6.6 kV Motors				
5.	specifications; Clause 5	Supply, Installation, Testing and Commissioning of Reactive Power Compensation suitable to improve power factor from 0.95 to 0.995 using modular capacitor banks and APFC in two units each of 50% of total kVAR. Rating 6.6 kV, 215 kVAR x 6 units = 1290 kVAR along with necessary Series Reactors, Fuses, Vacuum contactors, APFC relays, Surge suppressors and standard accessories.	Set	2		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
6.	Electrical specifications; Clause 3	<b>415V Low Voltage Switchgear and Control gear Assembly</b>				
5.1		Supply, Installation, testing and commissioning of 415V, 50 Hz, 3 PH, 4 wire, TPN, 50 kA for 1 sec, switchgear consisting of incoming and outgoing feeders with metering and protection as per specification and single line diagram including all the necessary power, lighting DBs, terminations etc. to complete the work in all respect.(Refer SLD :- TCE.11710A-EL-4002-AU-40000)				
(a)		MCC-1 (Double Front Type)	Nos.	1		
(b)		MCC-2	Nos.	1		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
(c)		MCC-3	Nos.	1		
(d)		APFC (200 kVAR)	Nos.	2		
(e)		Main Lighting Distribution Board	Nos.	1		
(f)		Lighting DBs as per O/Gs of MLDB in SLD	Nos.	14		
(g)		15A SP MCB Decorative Receptacle with switch & socket	Nos.	90		
(h)		20A SP MCB Industrial Receptacle with 20A ray roll type, 3pin plug & socket with cap & chain etc.	Nos.	65		
(i)		32Amp TPN MCB with 32A ray roll type, 5pin plug & socket with cap & chain etc.	Nos.	6		
(j)		415V MOV DB-1	Nos.	1		
(k)		415V MOV DB-2	Nos.	1		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
(l)		415V MOV DB-3	Nos.	1		
(m)		415V Exhaust Fan DB (22kV Panel Room)	Nos.	1		
(n)		415V Exhaust Fan DB (Cable Cellar Room)	Nos.	1		
5.2		Distribution board single door of various sizes on wall/ Column/ floor mounting, with required hardware & fasteners. All MCBs shall be rated for 10kA, 'C' curve type. All the DBs are readymade DBs inclusive of MCCB, MCB, terminal connectors, earth bus, neutral bus, undrilled gland plate and earth terminals (2Nos.) Cost of DBs include rates of DB, MCB, MCCB & other accessories. IP for enclosure shall be IP30. DB shall be as				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		per IS8623-1 & 3 / IEC 61439- 1 & 3IP 42 Wall/column Mounted distribution board with one Nos of 100A 4P MCCB and 6 Noss 32A TP MCB as outgoing (6 way TPN MCCB DB)				
(a)		ACDB (in 22kV Panel Room)	Nos.	1		
(b)		ACDB (in 6.6kV Panel Room)	Nos.	1		
(c)		ACDB (in Admin Area)	Nos.	2		
(d)		ACDB (in Lab Building)	Nos.	1		
(e)		ACDB (in Control Room)	Nos.	2		
(f)		ACDB (in Sub office)	Nos.	1		
(g)		ACDB (in VFD Room)	Nos.	2		
(h)		ACDB (in Store Building)	Nos.	1		
7.	Electrical specifications; Clause 10	Supply, Laying, Installation, Testing and commissioning to complete all the works of 6.6kV Power Cables and Terminations				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		kits				
(a)		6.6kV 3 C x 400 sq. mm Cables	Meter	2300		
(b)		Cable Termination for 6.6 KV (UE grade) power cables, with all accessories	Nos.	32		
8.	Electrical specifications; Clause 10	Supply, Laying, Installation, Testing & Commissioning to complete all the works of 22kV Power Cables and Terminations kits				
(a)		22kV 3 C x 400 sq. mm Cables	Meter	1000		
(b)		Cable Termination for 22kV (UE grade) power cables, with all accessories	Nos.	12		
9.	Electrical	Supply, Installation, Testing &				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b

	specifications; Clause 10	Commissioning to complete all the works of 1.1kV Power & Control Cables and Terminations kits				
8.1		<b>for 1.1kV Power Cables</b>				
(a)		3.5C x 400sq mm Al. Ar. cable	Meter	1600		
(b)		3.5C x 95sq mm Al. Ar. cable	Meter	200		
(c)		3.5C x 35sq mm Al. Ar.cable	Meter	2400		
(d)		4C x 25sq mm Al. Ar.cable	Meter	2420		
(e)		4C x 16sq mm Al. Ar.cable	Meter	16270		
(f)		4C x 4sq mm Al. Ar.cable	Meter	920		
(g)		4C x 2.5sq mm Cu. Ar.cable	Meter	8500		
(h)		4C x 10sq mm Al. Ar. cable	Meter	3120		
(i)		3.5C x 300sq mm Al. Ar.cable	Meter	120		
(j)		3.5C x 185sq mm Al. Ar.cable	Meter	1940		
(k)		3.5C x 120sq mm Al. Ar.cable	Meter	50		
(l)		3.5C x 50sq mm Al. Ar.cable	Meter	900		
(m)		4C x 6sq.mm Al. Ar.cable	Meter	80		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
(n)		4C x 4sq mm Cu. Ar.cable	Meter	800		
8.2		<b>for 1.1kV Cable Terminations</b>				
(a)		3.5C x 400sq mm Al. Ar. cable	Nos.	16		
(b)		3.5C x 95sq mm Al. Ar. cable	Nos.	4		
(c)		3.5C x 35sq mm Al. Ar.cable	Nos.	34		
(d)		4C x 25sq mm Al. Ar.cable	Nos.	32		
(e)		4C x 16sq mm Al. Ar.cable	Nos.	330		
(f)		4C x 4sq mm Al. Ar.cable	Nos.	22		
(g)		4C x 2.5sq mm Cu. Ar.cable	Nos.	144		
(h)		4C x 10sq mm Al. Ar. cable	Nos.	50		
(i)		3.5C x 300sq mm Al. Ar.cable	Nos.	6		
(j)		3.5C x 185sq mm Al. Ar.cable	Nos.	10		
(k)		3.5C x 120sq mm Al. Ar.cable	Nos.	4		
(l)		3.5C x 50sq mm Al. Ar.cable	Nos.	12		
(m)		4C x 6sq.mm Al. Ar.cable	Nos.	4		
(n)		4C x 4sq mm Cu. Ar.cable	Nos	600		
8.3		Cable Glands	Lumps um	1		





## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
10.	Electrical specifications; Clause 12	Supply, Installation, Testing & Commissioning to complete all the works of Lighting System (LUX level has to be maintained as per specifications and complete works to be done with minimum quantity as mentioned below) & ceiling fans with all complete works				
9.1		<b>Indoor Lighting</b>				
(a)		LED Bulkhead Fixtures at riser chamber area (Staircase)- 15nos, store area- 5 nos, Lab & Admin building (Staircase) - 5 nos and Sub Office, Pump House & Security Guard Cabin area - 5 nos	Nos.	30		
(b)		LED Industrial Fixtures at Riser chamber area (MCC Area, Lift	Nos.	151		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		Machine area, Lift Entrance)- 17 nos, screen chamber area- 4 nos, ventilation area(Terrace Walkway, Lift Machine Room, Lift car)-5 nos ,cable celler area- 18 nos, store area -14 nos , substation lighting -1 no, Lab & Admin building (Library, Laboratory, Kitchen, Toilet, Classroom, Store, Asst. Engr. Room, Dy. Ch. Engr. Room etc.)- 62 nos ,Sub Office, Pump House & Security Guard Cabin area-30 nos				
(c)		LED Flood Light in Riser Chamber- 6 nos , In Screen Chamber 6 nos, pumping station Area Lighting-8 nos, LED Flood Light ( pump house)-6 nos,	Nos.	33		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		substation lighting (Outdoor Transformer Area)-4 nos, Laboratory & admin building(Building Exterior for Area Illumination)- 3nos				
(d)		LED Post Top Lantern (Top of Screen Chamber)	Nos.	9		
(e)		Medium Bay LED fixture (Ventilation Room area)- 10 nos pumping station – 18 nos	Nos.	28		
(f)		Decorative LED fixture at pumping station (Office Area, Toilet, Store room & Entrance of store room, Area around Lift Entrance & Staircase)-30 nos, Laboratory & Admin building-24 nos, Sub Office, Pump House & Security Guard Cabin-6 nos	Nos.	60		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
(g)		LED Troffer light (Control Room, VFD Room, 6.6kV Panel Room)-52 nos , Substation lighting (22kV Panel Room)-12 nos	Nos.	64		
(h)		High Bay LED Fixture (Loading Area & Dry Well Area)	Nos.	17		
(i)		Ceiling fan of 1400 mm sweep with all accessories including Electronic Regulator for completing installation at Laboratory & Admin building, Sub Office, Pump House and Security Guard Cabin.	Nos.	64		
9.2		<b>Outdoor Lighting</b>				
(a)		<b>Outdoor Lighting Poles:</b> Supply, Installation, Testing and commissioning to complete all the works of LED type Solar	Nos.	45		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		street light fixtures with heat sink for LED, crystalline/ polycrystalline silicon solar PV modules, suitable size of maintenance free battery, charger, Controller, junction box, Light dome fixed in a single pole itself, along with 7 mtr , 70mm dia GI pole with civil foundation, base plate, nut , bolts etc and all accessories required for completing installation as per the specification.				
(b)		Supply, Installation, Testing and commissioning to complete all the works of LED Post Top Lantern on Entrance Gate.	Nos.	2		
(c)		Point wiring by using FR insulated copper conductors	Set	1		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		(along with same size of FR insulated copper conductor for earthing & 3 plate ceiling rose) using G.I. conduit with all complete works: (a)All lighting indoor, outdoor (b)All switchboard including wiring for Fan also				
	(d)	Junction Box Complete with Earthing terminal, Interconnection & wiring as per the specification.	Set	1		
11.	Electrical specifications; Clause 7	<b>110V DC Battery System</b> Supply, Installation, Testing and commissioning to complete all the works of 110V DC Battery, Battery charger with float cum boost charger and DCDB for following:				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

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(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
(a)		110V DC, 100 AH Ni-Cd Battery with Battery Charger and DCDB (in 6.6kV Panel Room)	Nos.	1		
(b)		110V DC, 54AH Ni-Cd Battery set with Battery Charger and DCDB (in 22kV Panel Room)	Nos.	1		
12.	Electrical specifications; Clause 10	Supply, Installation, Testing and commissioning to complete all the works of Cable carrier system: G.I. cable tray with all other accessories and cable tray supports				
11.1		G.I. Cable tray with all other accessories and cable tray supports: Perforated Type: Cable tray of perforated types and the associated accessories such as coupler plates, tees, elbows etc. shall be hot dip				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		galvanized fabricated from mild steel sheets with galvanization thickness of 86 microns minimum				
(a)		150 x 25 mm (W x H) - (16SWG - 1.6mm)	Meter	250		
(b)		300 x 50mm (W x H) - (16SWG - 1.6mm)	Meter	500		
(c)		450 x 75 mm (W x H) - (14SWG - 2mm)	Meter	500		
(d)		600 x 75 mm (W x H) - (14SWG - 2mm)	Meter	1000		
11.2		G.I. Cable tray with all other accessories and cable tray supports : Ladder Type: Cable tray of ladder types and the associated accessories such as coupler plates, tees, elbows etc. shall be hot dip galvanized				





## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		fabricated from 12 gauge (2.5 mm thick) mild steel sheets with galvanization thickness of 86 microns minimum.				
(a)		450 x 75 mm (W x H) - (12SWG - 2.5mm)	Meter	1000		
(b)		600 x 75 mm (W x H) - (12SWG - 2.5mm)	Meter	1000		
13.	Electrical specifications; Clause 3	Local Push Button Stations with On, Off Indication, Start, Stop Push Button, Emergency Push Button, Local/Remote Switch Material of construction for enclosure of Local Control stations shall be of cast aluminium LM 6 alloy enclosure. "Emergency Stop" buttons shall be of the "Stay Put" type, twist or pull to release, in accordance	Nos.	70		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		with IEC 60947.				
14.	Electrical specifications; Clause 11	<b>Earthing &amp; Lightning Protection System</b>				
13.1a		Earthing station with 600 mm x 600 mm x 6 mm galvanised iron plate & 50 mm dia. G.I. pipe, 3000 mm long GI pipe (Class B or better) earth pit as per IS 3043. The earth pit shall be provided with watering pipe (Class B) with wire messed funnel, 25 x 3 GI strip/ / 2 X 8 SWG G.I. wire up to chamber (wire or strip size as per fault level), disconnecting links with 600 x 600 mm (clear) RCC chamber & heavy duty 3 mm	Nos.	35		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		thick CI chequered plate cover with hinge & stainless steel bolts. Bentonite/ Charcol & Salt shall be provided for earth pits. Excavation, back filling, removal of excess soil is included in the scope				
13.1b		Supply & installation of Earth conductor of the following sizes to be cleated on wall / columns with nuts & bolts or laid in cable tray / buried in ground including cutting, drilling, tapping, jointing by welding, connecting to equipment's, painting to welded portion by black bitumen paint and with all necessary GI hardware & accessories to complete the work	Mtr	1200		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

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(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
13.1c		Bare G.I. Conductor size 10 SWG	Mtr	300		
13.2a		Lightning Protection of 5 pronged air terminal as per of technical specification. Earth continuity conductor as per requirement & rate. Earth station as per above specification & rate.	Nos.	3		
13. 2b		Supply and installation of following size Test Links with required wiring and other accessories to complete the work.				
		50 x 6 mm Cu(300 mm)	Nos.	50		
13.2c		Earth Continuity Conductor				
		Supply & installation of Earth conductor of the following sizes to be cleated on wall / columns				



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		with nuts & bolts or laid in cable tray / buried in ground including cutting, drilling, tapping, jointing by welding, connecting to equipments, painting to welded portion by black bitumen paint and with all necessary GI hardware & accessories to complete the work				
		50 x 6 mm GI	Mtr	1000		
15.	Electrical specifications; Clause 12	<b>Emergency Luminaries</b> Supply, Installation of Emergency LED Type light fitting with complete accessories (LUX level has to be maintained as per specifications and complete works to be done with minimum quantity as mentioned below)				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
14.1		Wall mounted LED emergency light fitting with M.F. SLA rechargeable battery with minimum 2 hrs of back up.	Nos.	30		
14.2		Emergency Exit Light LED with minimum 2 hrs of back up	Nos.	20		
16.	Electrical specifications; Clause 6	Supply, Installation, Testing and commissioning to complete all the works of Neutral Grounding Resistor NGR of rating 6.6kV, 551.1 A, 6.91 Ohms, 30 sec suitable for 6.3MVA 22/6.6 kV Transformers	Nos.	2		
17.	Electrical specifications; Clause 10	Supply and Installation to complete all the works of RCC Hume pipes for road crossing or below plinth beam of the following diameters:				
16.1		300mm Dia	Meter	450		



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(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
16.2		150mm Dia	Meter	150		
16.3		100mm Dia	Meter	200		
18.	Electrical specifications; Clause 10	Supply and laying of Heavy duty half circle RCC Hume pipe ( for buried cable) of following size as to be laid 1.2m below ground with sand bedding across the road crossing or on floor with necessary material in an approved manner and making the ground as per original. <b>150 mm dia</b>	Meter	1500		
19.		<b>Electrical works to complete all the works of Elevator as per vendor requirement</b> Provision of electrical power supply, including 230 V Single phase, 5A socket and 415 V three phase 50 Hz AC with earth	LOT	1		



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		leakage circuit breaker (ELCB) of required capacity as per GAD within 5 meters of each elevator/escalator controller for installation, testing and commissioning, Effective double earthing from a separate (independent from other power equipment) earth pit exclusively for elevator(s)/escalator(s) Lightning arrestor and other electrical protective devices necessary to meet local regulatory/statutory requirement.  Shaft lighting should be independent of main switch provided for control board. Provision and maintenance of				





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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		adequate light points/ lighting and lux level inside elevator shaft (including at each landing, machine room and the elevator pit)/ escalator pit.				
20.	Electrical specifications; Clause 13	Safety Equipment: Supplying & mounting of insulating mats (22 kV,6.6kV,), CO2 fire extinguishers, Sand Bucket Extinguisher, stand, first aid box, danger board , shock treatment charts, etc., to complete all the works of safety accessories required for all electrical equipment.		1 LOT		
21.		Dismantling of following Existing items: 22 kV cable,22kV Switchgear	LOT	1		



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		Panel in Pump house, 2 nos. of 22/6.6 kV, 3.5MVA transformers, 6.6 kV HT switchgear panel, 3.3kV Rotor Resistance Panel for motors, 6.6 kV HT cables & cable trays, 2 nos. of 22/0.433 kV, 630 kVA transformers, LT switchboard, cable ducts, LT power cables, control & signal cables & cable trays, which are not in good condition, all indoor & outdoor lighting system, battery charger & DCDB, Capacitor bank, Safety Equipment, Power and Industrial Sockets, Unit Control Panels, Alarm Annunciation Panels and any other items which are required to be dismantled not				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		mentioned above				
22.		Electrical and Safety Audit		1 LOT		
			<b>SUB-TOTAL ELECTRICAL</b>			

Note : For all types of cable length, it shall be noted that their quantities indicated are indicative only and Contractor shall be paid only for the actual laid cable lengths and unit rates shall be applicable for the same.



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b

3. INSTRUMENTATION & CONTROL						
	Technical Specification (TS) Instrumentation	<b>INSTRUMENTATION &amp; CONTROL SYSTEM</b> Notes: 1. The prices shall be inclusive of accessories & installation hardware. 2. Refer Vol II Technical Specification (I&C)				
1	Vol. IV- Technical Datasheet (I&C)	<b><u>Flow Instruments</u></b>				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
(a)	IC05	Full Bore Electromagnetic Flowmeter 1000 mm diameter	Nos.	6		
(b)		1000 mm, 10 Bar Companion Flanges (a set for inlet and outlet connection) complete with SS316 Jointing Hardware (considered in Mechanical)	Nos.	6		
(c)		1000 mm diameter, 10 bar rated Dismantling Joint complete with SS316 Jointing Hardware (considered in Mechanical)	Nos.	6		
2	Vol. IV- Technical Datasheet (I&C)	<b><u>Level Instruments</u></b>				
(a)	IC04	Radar level measuring system (0 to 40) mtr	Nos.	2		
(b)	IC03	Ultrasonic Differential Level	Nos.	3		



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		Transmitter (with 2 Nos. level sensors) for mechanical bar screens (0 to 25) mtr				
(c)	IC07	Conductivity type Level Switch (0 to 20) mtr	Nos.	4		
3	Vol. IV- Technical Datasheet (I&C)	<b><u>Pressure Instruments</u></b>				
(a)	IC02	Pressure Transmitter (0 to 10) kg/cm <sup>2</sup>	Nos.	7		
(b)	IC01	Pressure Gauge (-1 to 2.5) kg/cm <sup>2</sup>	Nos.	6		
(c)	IC01	Pressure Gauge (0 to 10) kg/cm <sup>2</sup>	Nos.	7		
4	Vol. IV- Technical	<b>Temperature Instruments</b> Temperature Scanner for (12)	Nos.	6		



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(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
	Datasheet (I&C)	channel				
5	Vol. IV- Technical Datasheet (I&C) IC06	<b>Vibration Instruments</b> Vibration Sensors at each pump and motor DE-NDE X-Y axis and Vibration Monitoring System comprising of interfacing cards, power supply units, interfacing cables and panel etc.	sets	6		
6	Vol. IV- Technical Datasheet (I&C) IC11	<b>Supply, Installation, Testing and Commissioning of PLC Panel</b>				
(a)		PLC panel consisting of Programmable Logic Controller along with PLC programming software, Microprocessor based redundant processor, power and	set	1		



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(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		communication modules, communication equipment, Modbus cable as per requirement, Panel Mounted HMI 12 inch size, PLC I/Os as per tender specified minimum requirements (typical I/O list) considering DI module channel density - 32 max.; DO module channel density - 16 max.; AI module channel density - 8 max.; AO module channel density - 8. System/ marshalling cabinet with SS tag plate and all internal cabling, wiring with ferrules, cable raceways with covers, SMPS, MCBs, fused terminals, DIN rails, relay cards, marshalling terminal blocks,				





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(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		ethernet switches, accessories, devices, door switch operated tube light & fan, louvers with filters, thermostat, panel front door mounted power supply status indicators, reset & acknowledge push buttons, separate electrical & electronic earthing busbars, auxiliary 230V AC single phase receptacle, nameplate/ tag adhesive printed stickers for each component, drawing pocket, base mounting bracket channel, bolts, lifting lugs, etc. required for smooth and seamless operation of entire system.				
(b)		Lightning Protection Unit (LPU)	Lot	1		
(c)		Alarm annunciator on PLC panel	No.	1		



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
7	Vol. IV- Technical Datasheet (I&C)	<b>Supply, Installation, Testing and Commissioning of SCADA SYSTEM</b>				
(a)		Operator Station 22" (OS) with CD/DVD R/W, 2 TB HD, keyboard, optical mouse, mousepad, preloaded latest original Windows & MS office softwares, Acrobat pdf, printer software, min. 8 USB ports, 1 HDMI, 1 serial port, RJ-45 port	No.	1		
(b)		Database Server with integral Web Server 22" with CD/DVD R/W, 2 TB HD, keyboard, optical mouse, mousepad, preloaded latest original Windows & MS	No.	1		



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		office software, acrobat pdf, printer software, min. 8 USB ports, 1 HDMI, 1 serial port, RJ-45 port				
(c)		Historian Server 22" with CD/DVD R/W, 2 TB HD, keyboard, optical mouse, mousepad, preloaded latest original Windows & MS office softwares, acrobat pdf, printer software, min. 8 USB ports, 1 HDMI, 1 serial port, RJ-45 port	No.	1		
(d)		17"(Full HD) Laptop configured with SCADA operator and engineering software, other necessary ancillary softwares as Operator cum Engineering Station (OES) along with CD/DVD R/W, 2 TB HD & min.	No.	1		



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		256GB SSD, keyboard, optical mouse, mousepad, preloaded latest original Windows & MS office software, acrobat pdf, printer software, min. 4 USB ports, 1 HDMI, 1 serial port				
(e)		SCADA software and ancillary software with operator license-2 nos and engineering license – 1no, with OPC compatibility for third party integration	set	1		
(f)		Communication equipment, gateways and Ethernet switches, Cat-6 cable, LAN software	Lot	1		
(g)		A3 size colour laser printer (multi-function type)	No.	1		
(h)		High quality furniture/ operator desk with wooden surface,	set	1		



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Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		doors and drawers for mounting SCADA, printer, etc. hardware along with swiveling chairs - 2 nos				
(i)		Any specific software (as necessary)	Lot	1		
(j)		Suitable cable for establishing communication link between SCADA system and PLC/RTU system	mtr	20		
(k)		External Hard disk 1 TB for Back up	No.	1		
(l)	IC12	Complete UPS system of rating 5 kVA, 230 V AC, 50 Hz, 1 Phase including lead acid SMF batteries (for PLC SCADA at Central Control Room) and communication equipment for 120 minutes back-up time.	set	1		



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(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
(m)	IC13	UPS AC Distribution Box including MCBs, Fuses, etc.	Nos.	4		
(n)		Earthing system for SCADA, power supply and communication systems	Lot	1		
(o)		Training of Instrumentation & Control, SCADA and Communication systems to the Corporation's personnel as mentioned under Employer's Requirements	Lumps um	1		
8	Vol. IV- Technical Datasheet (I&C)	Junction Boxes (min. 24 terminals) minimum 2.5 sq.mm. conductor, including earth plate, tag plate etc.	Nos.	10		
9	Vol. IV- Technical Datasheet (I&C) IC14	Instrumentation cables				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
(a)		1 Pair x 1.0 sq.mm.	mtr	600		
(b)		4 Pair x 1.0 sq.mm.	mtr	3500		
(c)		8 Pair x 1.0 sq.mm.	mtr	800		
(d)		10 Pair x 1.0 sq.mm.	mtr	2800		
(e)		4 Triad x 1.0 sq.mm.	mtr	450		
(f)		4 Core x 1.0 sq.mm.	mtr	700		
10	Vol. IV- Technical Datasheet (I&C) IC14	Control cables				
(a)		3 Core x 2.5 sq.mm.	mtr	700		
(b)		3 Core x 4.0 sq.mm.	mtr	500		
11		Cable Glands and Plugs	Lumsu m	1		
12		GI Perforated Type Cable Tray	Lot	1		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		of standard length, prefabricated tray from MS sheet and then hot dip galvanised, of following sizes and associated accessories such as coupler plates, tees, elbow, bolts, nuts and washer etc. Galvanisation thickness shall be minimum 86 Micron. Bidder to specify any other items required for completeness of the system for smooth and seamless functioning of the plant.)				
(a)		450 x 75 mm (W x H) - (14SWG - 2mm)	mtr.	150		
(b)		300 x 50mm (W x H) - (16SWG - 1.6mm)	mtr.	1500		
(c)		100mm x 25mm (W x H) - (16SWG - 1.6mm)	mtr.	800		





## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
(d)		75mm x 25mm (W x H) - (16SWG - 1.6mm)	mtr.	700		
13		Instrument Hook-up material (tubing, valves, pipe nipples, connectors, adapters, manifolds etc.) with nut-bolts, fixtures, supports, etc. erection hardware	Lot	1		
14	TS-Section-E	Gas Monitoring System: Portable Multi-gas detector system shall have integral sampling pump and shall be versatile and capable of detecting H <sub>2</sub> S, CH <sub>4</sub> , O <sub>2</sub> , CO, SO <sub>2</sub> and NO <sub>x</sub> gases. CO range: 0-1000 ppm in 1 ppm increments H <sub>2</sub> S range: 0-100 ppm in 1	set	1		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

Sr. No.	Clause no. in Tech. specifications and Schedules	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
(1)	(2)	(3)	(4)		(5)	(6)
			(a)		(b)	(c) = a x b
		ppm increments O2 range: 0-30% volume in 0.1% increments CH4 range: 0-100% LEL in 1% increments SO2 range: 0-100 ppm in 1 ppm increments NOx range: 0-100 ppm in 1 ppm increments LEL (lower explosive limit) over-range protection."				
			<b>SUB-TOTAL INSTRUMENTATION &amp; CONTROL SYSTEM</b>			



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

<b>4.CIVIL</b>					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
1	Removing cement plaster of any finish from the wall, complete with racking out the joints to a depth of 20 mm.	Sqm	9987		
2	Chipping /removing loose concrete up to reinforcement bars, without damaging the reinforcement, removing all the loose materials and to make all the exposed surfaces free from oil, dust and all impurities etc. complete.	Sqm	3204		
3	Surface Preparation: Chipping off and removing loose concrete from damaged concrete portion of columns, beams & slabs etc manually by using chisel and low impact hammer, breaker to expose the sound concrete. Use the portable air blowers to make the surface free from loose material, dirt etc.	Sqm	562		
4	Providing and fixing in vertical position telescopic M.S. prop under deflected beam/lintel/slab/chajjas by using teak wood battens of size 1000 x 80 x 80 for packing between prop plate and the beam/lintel/slab/chajjas bottom surface as per the directions of engineer- in-charge.	Nos	1451		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
5	Demolishing cement concrete manually/ by mechanical means including disposal of unserviceable material within premises at a suitable stacking location at ground level including all lead & lifts as per direction of Engineer-in-charge without disturbing the other structural elements.	Cum	65.8		
6	Demolishing R.C.C. slab, R.C.C. wall of any thickness, R.C.C. beams, joists, R.C.C. columns, piles, pile caps etc., in any thickness and size manually/ by mechanical means including stacking of steelbars and disposal of unserviceable material within 50 meters lead as per direction of Engineer - in- charge.	Cum	855		
7	Demolishing brick work in lime or cement mortar including plaster, paint, etc. manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 meters lead as per direction of Engineer-in-charge.	Cum	639.5		
8	Dismantling doors, windows, fanlight and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 meters lead :-of area 3 sq. meters and below- Doors & Windows	each	93		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

<b>4.CIVIL</b>					
<b>Sr.No</b>	<b>Item Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate including taxes and duties in ₹</b>	<b>Total Price in ₹ Including taxes and duties</b>
9	Removing or destroying plants etc. growing on walls, drainage pipes, destroying roots by applying approved weedicide & reinstating the wall surface by plaster to the damage surface of the building	Sqm	233		
10	Removing existing door or windows with frame and shutters and making good etc. to the existing surface.	Nos	125		
11	Dismantling steel work in built up sections in angles, tees, flats and channels of rolling shutters, grills, gates, fencing, hoardings, including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50metres lead.	Kg	44312		
12	Dismantling steel work in built up sections in angles, tees, flats and channels of rolling shutters, grills, gates, fencing, hoardings, including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50metres lead. Including dismantling trusses members, rafters, purlins etc. of steel work for every additional span of one meter or part thereof beyond 10 meters & dismantling trusses members, rafters, purlins etc. of steel work for every additional height of one meter or part thereof beyond 5 meters.	Kg	50168		
13	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 meters lead. For thickness of	Sqm	469.6		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	tiles 10 mm to 25 mm				
14	Breaking and removing the water proofing layers of I. P. S. with bituminous joints and brick bat concrete over the existing terrace floor, chajja, top of headroom slab and canopy including cement vata and exposing R.C.C. slab top complete.	Sqm	1512.6		
15	Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 meters lead of -Asbestos sheet	Sqm	2007		
16	Dismantling barbed wire or flexible wire rope in fencing including making rolls and stacking within 50 meters lead.	Kg	768		
17	Dismantling C.I., UPVC and asbestos vent pipes and shaft, soil, waste, rain water pipe, mild steel, GI and asbestos gutters, ridge and hips with fittings and clamps including stacking the material within 50 meters lead : 100 mm dia pipe	Rmt	223		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

<b>4.CIVIL</b>					
<b>Sr.No</b>	<b>Item Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate including taxes and duties in ₹</b>	<b>Total Price in ₹ Including taxes and duties</b>
18	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	Rmt	30		
19	Removing mosaic, cement marble, granites non-slippery, tandur, kotah, shahabad stone or Indian Pattern stone, glazed tiles in flooring and dado including bedding brick bat coba etc., and delivering materials in Ward Office and carting away unserviceable materials.	Sqm	382		
20	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means including loading, transporting, unloading to contractor identified dumping ground for all loads including all lifts involved	Cum	2497		
21	Application of Rust Converter: Providing & applying One coat of Alkaline Rust converting primer conforming to ASTM- B-117, to exposed existing rebars after removing & cleaning loose rust by wire brush and leave it for 6- 8 hours.	Sqm	3204		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
22	Removing corrosion of steel reinforcement by mechanical means like wire brushing, chipping to remove loose rust and then applying rust removal solution by using brush application, leaving the surface for at least 15 to 30 minutes, then removing loose materials by scrubbing or with brush and applying polymer bond to the old concrete surface before applying Polymer mortar.	Sqm	3204		
23	Anti Corrosive coating to exposed reinforcement: Providing & applying Two coats of Anti Corrosive protective coating (CBRI / CSIR technology) for reinforcement bars by brush. Sprinkle dry sand when second coat is tacky so as to get rough surface.	MT	12.35		
24	Application of Corrosion Inhibitor: Providing & applying One coat of Concrete Penetrating Corrosion Inhibitor (Surface applied) which works on Bipolar Inhibition Mechanism on entire concrete surface to be repaired by using brush or spray at 250 ml per Sq.Mt./Coat or as per manufacturer's specification and prior to application of first coat of anti corrosive coating to reinforcement.	Sqm	3204		





## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
25	Providing Micro Concrete jacketing to walls or beams of thickness upto 75 mm using Polymer modified cement premixed quartz sand aggregate packed in bags of standard manufacture, for high early strength of 40 N/mm sq.cm of approved brand. The dry product is to be mixed with 12.5% water by weight, along with washed and poured into rigid form work moulds & tamped properly, & cured for 3 days. [Payment is to be made by weight premixed of micro concrete product consumed as per site register	Kg	65074		
26	Providing and applying Polymer modified cement mortar of average thickness 15-20mm using Polymer in one or more layers in proportion 1:5:15 of Polymer Cement Quartz Sand as manufacturer's specifications in specific layers, curing the surface after 72 hours of application with wet gunny bags etc and by finishing the surface with 12mm thick (1:3) Cement sand plaster.	Sqm	1910		
27	Providing and applying Polymer modified cement mortar of average thickness 30-40mm using Polymer in two layers in proportion 1:5:15 of Polymer Cement Quartz Sand as manufacturer's specifications in specific layers, curing the surface after 72 hours of application with wet gunny bags etc and by finishing the surface with 12mm thick (1:3) Cement sand plaster.	Sqm	904		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
28	Bond Coat: Providing & applying One coat of structural grade epoxy bond coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened. This is applied prior to the application of polymer repair mortar / epoxy mortar / Micro concrete to have monolithic action between old concrete surface and new concrete surface.	Sqm	3209		
29	Shear Connectors: Make 10/12 mm dia holes using heavy duty electrically operated hammer drills in the concrete of RCC members to a depth of about 75 mm at 500 mm c/c or at suitable grid in zig-zag fashion, clean the holes using air jet and fix pre-fabricated 100 x 50 mm L- shape 8 mm dia rebar using Anti Corrosive protective coating so that 75 mm out of 100 mm is inserted inside the concrete and 25 mm remain outside along with 50 mm bend. The shear connectors are used to tie the additional reinforcement bars.	Nos	6057		
30	Additional Reinforcement: Cutting, bending and fixing in position steel reinforcement of specified/required sizes and shapes in the form or main rebars, stirrups & rings, distribution rebars etc., and tying them to shear connectors using GI binding wire. The additional rebars should be coated with TWO coats of Anti Corrosive protective coating & dry sand to be sprinkled on second coat.	M.T	12.99		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
31	Injection Grouting of Super low Viscosity Epoxy Grout System: Pressure grouting Super low viscosity epoxy resin using injector till nozzles refused to accept the grout under pressure of 3-4 Kg/cm <sup>2</sup> . Grout the material through pre-fixed nozzles in the structural elements and subsequently cutting /removal of nozzles and sealing of holes with putty Monitor the leakages through other nozzles while grouting and seal them as per the requirement.	Cum	0.4		
32	Providing and laying in position plain cement concrete of specified grade cement with trap/granite/quartzite/gneiss metal mixing in concrete mixer including bailing out water, compacting, finishing surface, curing and including the cost of centering and shuttering at all level : Nominal Mix of 1:2:4 (1 cement OPC: 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	Cum	16.5		
33	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 3.5 and above in foundation and plinth in: Cement mortar 1:3 (1 cement : 3 coarse sand)	Cum	19		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
34	Brick work with common burnt clay modular bricks of class designation 3.5 and above in superstructure above plinth level upto floor five level in all shapes and sizes in : Cement mortar 1:4 (1 cement : 4 coarse sand)	Cum.	44.5		
35	Providing and applying 12 mm thick internal plaster with neeru finish by using ready-mix mortar as per manufacturers recommendations at all heights and locations for masonry (except stone masonry) and concrete surfaces including racking out joints, hacking of concrete surface, finishing, curing, scaffolding etc. complete.	Sqm.	1971		
36	Providing and applying 20 mm thick external sand faced cement plaster by using ready-mix mortar upto all heights and at all locations in two coats for masonry (except stone masonry) and concrete surfaces including racking out joints, hacking of concrete surface, finishing, curing, scaffolding etc. complete.	Sqm.	4358		
37	Providing and applying first single coat of approved primer and two coats of synthetic enamel paint/flat oil paint of an approved make and colour as per manufacturers specifications to surfaces specified below, at all height and locations as directed including scaffolding, cleaning and preparing surfaces for painting by any approved	Sqm.	20082		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	means etc. complete as directed by Engineer-in charge. For plastered wall surface.				
38	Providing and applying first single coat of approved primer and two coats of anti-algal, anti-fungal, exterior paint as specified below of an approved make and colour as per manufacturers specifications to any surface, upto all heights and at all locations as directed including preparing surfaces for painting by any approved means, scaffolding, cleaning and curing etc. complete as directed by Engineer-in-charge. By using acrylic based exterior paint For plastered wall surface	Sqm.	8764		
39	Providing and laying damp-proof course 50mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5mm nominal size) including water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	Sqm	157		
40	Water proofing treatment to the chajja after removing old plaster and roughening the surface and finishing the top surface with 20mm thk. 1:2 c.s. plaster with approved water proofing compounds and neat cement finish, the rate also includes for 1:3 c.s. facia of chajja	Sqm.	220		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	to match the new surface(actual area treated will be paid).				
41	Providing and fixing superior quality factory made phenol bonded solid core single leaf flush commercial door shutter of thickness as mentioned below and of approved make conforming to IS: 2202 (Part I, II) with 12mm thk. teak wood lipping all around, 3mm thk. commercial veneer on external face with three coats of french polish and 150mm x 60 mm or 125 mm x 75 mm C.P. teak wood frame without fanlight including, approved fixtures and fastening hooks, eyes, screws and painting the frame and interior side with one coat of primer, putty and two coats of synthetic enamel paint of approved make and colour etc. complete as directed by Engineer in charge. 25mm thick shutter	Sqm	45		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
42	Providing waterproofing treatment with Broken China mosaic flooring to the existing terrace/top slab at any floor level (including slab portion beneath overhead water tank) by 1. Removing the existing top layer of the terrace/top slab upto the top of existing brick bat coba without causing any damage to any of the structural member and cleaning the same of any loose material etc. complete as directed. 2. Dividing the total slab area by marking grid at a spacing of 1.2m. c/c in either direction and form square panels of the size 1.2 m. x 1.2 m. and drilling the holes (by using machine) 37 mm. to 50 mm. dia upto required depth in the R.C.C. slab in staggered form at the junction of the above marked grid as specified and directed by an Engineer in charge.3. Filling the holes only at bottom portion with 10 mm size metal, inserting the grouting nozzle in the drilled hole for grouting and making the hole watertight by filling the gap between nozzle and the hole with cement mortar 1:1 or any other suitable material as a sealant.	Sqm	1174.7		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	<p>4. Injecting the cement grout admixed with waterproofing compound (one part of cement to 2 parts of water is recommended; initially richer mix which is possible but for further grouting leaner mix is required for filling smaller voids, mix should not be leaner than 1 cement:5 water) with required pressure (as per site conditions) by grout pump so as to seal all inherent holes, honey combs, cavities and voids and making the whole structures consistent and homogeneous solid mass resistant to seepage, dampness, moisture and leakage of water, allowing the grout to overflow from the vent holes ( i.e. holes at diagonally opposite corners), to ensure no pockets left. 5. Taking holes one by one in the staggered form for grouting purposes and in each case holes at the diagonally opposite end will be acting as vent holes. 6. Filling the entire area by 15 cm. deep water for ponding test. The ponding test shall be checked after 7 days by the officer of the rank not below Executive Engineer along with Zonal Executive Engineer to ensure that there is no leakage found. The certificate to this effect shall be given by the concerned engineer. 7. Repeating step 4 to 6 until the entire structure is found completely waterproof, if any leakage is found</p>				
	8. Laying the flooring of broken China- mosaic (broken pieces of				





## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

### 4.CIVIL

Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	<p>China glazed tiles) of approved colour set in 25 mm. average bed of C.M. 1:3 with waterproofing compound to correct level and slope (1:100) well compacted and finished; such that minimum coverage of China mosaic chips is about 90% of the total area of slab. The above treatment shall continue along the inner side of parapet or the adjoining wall upto 30 cm. high as per the above specifications regarding cement mortar in shape of round vata with necessary groove etc. complete. 9. Curing the flooring continuously for minimum ten days so as to render the surface hard and tough to withstand weather and normal domestic use. 10. Cleaning the slab and removing and carting the debris; cleaning the top of all dust, loose material, stains etc. complete as directed. NOTES : 1. No extra payment will be made for brickbat concrete if any, required to fill up the voids which are developed in the process of removing top layer. If there are any such voids; the same shall be filled up with brick bat concrete so that levelled surface is at a correct level and slope is available for laying China mosaic flooring. 2. The finished terrace surface shall be paid for the actual area treated including cement vata.</p>				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
43	Waterproofing the terrace slabs with average 100 mm thick, brick bats laid in cement mortar bed 1:4 filled with mortar 1:4 of total thickness 100 mm, laid to slope (1:100) with vata 15 cm, at the junction of walls and IPS flooring (1:2:3) 40 mm thick with admixture, of approved water proofing compound, as per manufacturers specification laid after grouting the slab, finishing curing etc. complete as directed and specified. (Horizontal measurement clear between walls will be paid for). Do with broken China mosaic flooring instead of IPS set in cement mortar (1:4) 40 mm thick	Sqm	115		
44	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	Sqm.	4		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	pipes and masonry with polymer mixed slurry.				
45	Providing and fixing in position alluminum door fully panelled with 6mm thick Novapan BSL and made up of extruded and anodised aluminium sections of approved make and of size 63.5 mm x 38.10 mm x 2.0 mm thk, 47.62 mm x 10.16 mm x 1.74 mm thk (wt. 0.881kg./Rm) for outer frame, 47.62 mm x 10.16 mm x 1.74 mm thk (wt. 0.881 kg/Rm) for top rail, 95.25 mm x 25.40 mm x 2.0 mm thk (wt. 1.519 kg/Rm) for bottom rail, 25.0 mm x 44.45 mm x 2.40 mm thk (wt. 0.918 kg/Rm) for lock rail, 47.62 mm x 44.45 mm x 1.88 mm thk (wt. 0.943 kg/Rm) for vertical shutter (hinge side), 47.52 mm x 44.45 mm x 1.95 mm thk (wt. 0.936 kg/Rm) for vertical shutter (latch side), clip weighing 0.097/kg/Rm., including neoprene gasket, fixtures, fastenings and accessories like hinges, locking arrangement, door closer etc. complete as directed by Engineer In Charge. (Note: anodic film must not be less than 15 microns i.e. AC-15 as per IS, the anodizing must be scaleted by keeping the anodized section in boiling de- anodized water for a period of one hour)	Sqm	25		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
46	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 75 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps etc. should be of same brand. No separate payment shall be made for fittings and accessories).	Rmt	72		
47	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 110 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps etc. should be of same brand. No separate payment shall be made for fittings and accessories).	Rmt	241		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
48	Providing anti-termite treatment around the periphery of the existing building conforming to IS-6313 (part III) by excavating trenches of 20cm width and exposing the sides of the columns, plinth beams and wall upto a depth of 300mm, rodding for the holes of 300mm deep and at 150m c/c in the trenches, treating with chloropyrifos EC 20 Emulsion or equivalent of 1% concentration by weight at the total rate of 2.25 Liters per meter including backfilling the trenches etc. complete as directed by Engineer-in-Charge covering 2 years guaranty.	Rmt	406.2		
49	Providing and fixing in position two track aluminum window of extruded modular an anodized aluminum sections of approved make and of size 61.85 mm x 45.5 mm x 1.3 mm thk (wt 1.055 kg/Rm) for bottom, 61.85 mm x 31.75 mm x 1.3 mm thk. (wt 0.659 kg/Rm) for top & sides, mounted on anodized aluminum rectangular frame of size 63mm x 38mm x 2.0mm(1.054). The shutter comprising of bearing bottom and top of size 40mm x 18 mm x 1.25 mm thk (wt. 0.417 Kg/Rm) Interlocking section of size 40mm x 26,7 mm x 1.10 mm thk. (Wt. 0469 kg./Rm) and hand sides of 40mm x 18mm x 1.25 mm thk (wt. 0.417kg/Rm) with 5 mm thick plain / frosted / tinted glass fixed in shutter including approved quality	Sqm	29		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	neoprene gasket, fixtures, fastenings and accessories like PVC rollers, PVC weep holes, locks, handles etc. complete as directed by Engineer In Charge. (Note: anodic film must not be less than 15 microns i.e. AC-15 as per IS, the anodizing must be scaleted by keeping the anodized section in boiling de- anodized water for a period of one hour)				
50	Providing and fixing in position aluminum louvered window with anodised aluminum frame of approved make and of size 40mm x 20mm x 2.0mm (wt. 0.605 kg/Rm) including adjustable aluminum frame, 4 to 6mm thk. frosted glass, fixtures and fastenings etc. complete as directed by Engineer In Charge.	Sqm	22		
51	Providing and fixing in position side hung window with friction hinges, made up of extruded modular and anodised aluminum section of approved make and of size 38.10 mm x 25.40 mm x 1.44 mm thk (wt. 0.471 kg/Rm) for outer rectangular tube, 40 mm x 31.5 mm x 1.5 mm (wt. 0.549 kg/Rm) for outer frame, 40 mm x 31.50 mm x 1.50 mm thk (wt. 0.502 kg/Rm) for central mullion, 40 mm x 31.50 mm x 1.50 mm thk (wt. 0.549 kg/Rm) for shutter frame and 16.50 mm x 14.50 mm x 1.20 mm thk (wt. 0.157 kg/Rm) for glazing clip with 5 mm thick plain / frosted / tinted glass including	Sqm	138		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	neoprene gasket, fixtures, fastenings and accessories like handles, hinges, locking arrangement etc. complete as directed by Engineer In Charge. (Note: anodic film must not be less than 15 microns i.e. AC- 15 as per IS, the anodizing must be scaleted by keeping the anodized section in boiling de-anodized water for a period of one hour)				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
52	Providing and laying in position ready mixed design mix M-20 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying and the cost of centering, shuttering, finishing and excluding reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. The Mix design as per particular specifications shall be got approved by Engineer-in-Charge before execution of the item. The rate shall include cost of all specified materials and operations at all levels and heights, including the cost of centering, shuttering and excluding reinforcement which shall be paid under relevant item.(Note :- Cement content considered in this item is @ 300 kg/cum as per IS 456 table showing minimum cement content. No extra will be paid nor any amount will recovered on account of variation of cement in mix design as per specifications for controlled concrete). -Slabs, Foundations, footings, bases of columns, rafts, pile cap	Cum	152.35		





## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

### 4.CIVIL

Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
53	Providing and laying in position ready mixed design mix M-20 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying and the cost of centering, shuttering, finishing and excluding reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. The Mix design as per particular specifications shall be got approved by Engineer-in-Charge before execution of the item. The rate shall include cost of all specified materials and operations at all levels and heights, including the cost of centering, shuttering and excluding reinforcement which shall be paid under relevant item.(Note :- Cement content considered in this item is @ 300 kg/cum as per IS 456 table showing minimum cement content. No extra will be paid nor any amount will recovered on account of variation of cement in mix design as per specifications for controlled concrete). -Columns, Pillars, Piers, Posts and Struts.	Cum	1.8		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
54	Providing and laying in position ready mixed design mix M-30 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying and the cost of centering, shuttering, finishing and excluding reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. The Mix design as per particular specifications shall be got approved by Engineer-in-Charge before execution of the item. The rate shall include cost of all specified materials and operations at all levels and heights, including the cost of centering, shuttering and and excluding reinforcement which shall be paid under relevant item.(Note :- Cement content considered in this item is @ 340 kg/cum as per IS 456 table showing minimum cement content. No extra will be paid nor any amount will recovered on account of variation of cement in mix design as per specifications for controlled concrete). Slabs, Suspended floors, roofs, landings, balconies, canopy and access platform	Cum	3.5		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
55	Providing and laying in position ready mixed design mix M-30 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying and the cost of centering, shuttering, finishing and excluding reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. The Mix design as per particular specifications shall be got approved by Engineer-in-Charge before execution of the item. The rate shall include cost of all specified materials and operations at all levels and heights, including the cost of centering, shuttering and excluding reinforcement which shall be paid under relevant item.(Note :- Cement content considered in this item is @ 340 kg/cum as per IS 456 table showing minimum cement content. No extra will be paid nor any amount will recovered on account of variation of cement in mix design as per specifications for controlled concrete). Foundations, footings, bases of columns, rafts, pile cap	Cum	77		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
56	Providing and fixing in position steel bars reinforcement of various diameters for R.C.C. pile, pile caps, footings, raft, retaining wall, shear wall, lift wall, foundations, slabs, beams, columns, canopies, staircases, newels, chajjas, lintels, pardies, coping, fins, arches, etc. as per detailed designs, drawings and bar bending schedules, including straightening, cutting, bending, hooking the bars, binding with wires or tack welding, supporting as required etc. all complete at all levels. Corrosion Resistant Steel (500 CRS D)	MT	317.677 5		
57	Hilti Make or equivalent confirming to IS 1367 (Part 3) at required locations and level including drilling the hole, cleaning with blow pump and anchoring the bolt with chemical as per manufacturers specifications etc. complete as directed by Engineer In Charge.				
A	M24 x 210 foil capsule (HVU) & M24 x 290 Rod	Nos	1038		
B	M12 x 120 foil capsule (HVU)	Nos	44		
58	Providing and erecting two legged metal tubular scaffolding (cup lock type) of width 1200 to 1500mm largely free standing using H frames of tubular pipes of minimum 40mm diameter, with base plates fixed or adjustable with necessary clamps, coulders, brackets for projections, joint pins, pulleys and other accessories including steel angle or	Sqm	120		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	tubular pipe bracings at adequate intervals, access platforms of metal or timber planks of span not exceeding 1.5 meter center to center, horizontal & vertical tubes joint with cup & lock system with M.S. Tubes, M.S. tube challis, M.S. clamps and staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for execution of work including provision of rubber inserts to pipe ends at point of contact with structure to avoid damage, including access ladders with intermediate platforms. the scaffolding to be suitably braced and anchored to the building using support systems created temporarily at the opening in walls using vertical and horizontal adjustable propson the exterior side of building structure, upto 25 meter height, above ground level . The rate includes provision of high density plastic sheets covering to protect architectural details on the entire building face a nylon net to prevent all debris falling onto the pavement required and the safety platform at ground level covering the pedestrian walkways. etc. complete.(The elevational area of the scaffolding shall be measured for payment purpose. The payment will be made once only for execution of all items for such works.				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
59	Providing and applying three coats of White/colour wash to any surface with lime wash prepared from quick lime of best quality by adding blue/colour pigments and glue of approved colour, quality in required quantities at all height and locations as directed including scaffolding, cleaning and preparing surfaces for painting with broom, coir and sand paper if necessary or by any other approved means etc. complete as directed by Engineer-in-charge.	Sqm	163		
60	Providing and applying first single coat of approved primer and two coats of synthetic enamel paint/flat oil paint of an approved make and colour as per manufacturers specifications to the metal purlins not more the 150mm in height, at all height and locations as directed including removing the existing paint by burning, cleaning, preparing the surface for painting etc. complete as directed by Engineer-in-charge.	Rmt	509		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
61	Providing anti termite treatment conforming to IS- 6313 (part-III) to the sides of flooring of the Existing building by punching/ drilling the holes of 16 mm dia at a distance of 300mm center to center and injecting 150 ml untill refusal or to a maximum of 1 Lit. per hole with chloropyrifos EC 20 Emulsion or equivalent of 1% concentration by weight, sealing the hole by filling the putty etc. complete as directed by Engineer-In-Charge with 2 years guaranty.	Per Hole	664		
62	Providing and Fixing MS Safety grill of weight specified below for windows as per design including fabricating the grill using M.S. square / round bar, flats and angles including painting with one coat of red oxide zinc chromate primer and two coats of synthetic enamel paint of approved colour and brand etc complete as directed.(Grill weighing 20 to 25 kg / sqm)	Sqm	137		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
63	Providing, detailing, fabricating and fixing at desired location using hot rolled sections and MS Plates of grade Fe 250 as per specifications and approved fabrication drawings (which are to be prepared by Contractor and got approved from Engineer), transporting to site and erecting structural steel members for all heights & at all levels including provision of necessary erection bolts, fixing bolts, nuts, washers, cleats, stiffeners, gussets, base plate, and all necessary fixtures and operations like preheating as per specifications, straightening, bending, cutting, drilling, grinding, machining if specified, welding, grinding and removing the welding burr and preparing surface for painting with wire brush cleaning and applying two coats of epoxy red oxide zinc phosphate primer of 30 microns each and two coats of Epoxy Corrosion Resistant Enamel paint of 30 microns after fabrication including touching up with spray painting after erection etc complete as directed by Engineer In Charge. (The qty. for this item shall be measured for gusset plates, base plates, bolts in M.T.)	MT	61.64		





## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
64	Providing and Fixing of Foundation Bolts and nuts in RCC column / pedestal / beam at any level including maintaining the accuracy towards line, level & position including making and using the template etc. complete as directed by Engineer In Charge. (Contractor will take due care for its threads and rusting by applying grease and cotton waste.	MT	0.2		
65	Providing, detailing, and fabricating as per specifications, transporting to site and erecting ladder / railing using stainless steel hollow pipes of grade 304 including, S.S. fixtures and fastenings, cleats, stiffeners, gussets etc. and all necessary operations straightening, bending, like cutting, drilling, welding, grinding and removing the welding burr, machining if specified, finishing, cleaning etc. complete as directed by Engineer In Charge.	Kg	23641		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
66	Providing and applying first single coat of approved primer and two coats of synthetic enamel paint/flat oil paint of an approved make and colour as per manufacturers specifications to surfaces specified below, at all height and locations as directed including scaffolding, cleaning and preparing surfaces for painting by any approved means etc. complete as directed by Engineer-in-charge. <b>For steelwork</b>	Sqm	592		
67	Providing and laying polished 18 mm thk. Steel Gray Granite tiles/slab as specified below (Machine cut) of an approved quality and size for paving /flooring in plain and/or diamond /approved pattern including cement mortar bedding of 25 mm thick in 1:4 proportion, cement float, machine cutting, dressing, leveling, jointing, filling the joints with neat cement slurry or with required pigment, machine polishing at site, curing, finishing, etc complete as directed by Engineer In Charge.	Sqm	28		
68	Providing and laying 25 to 30 mm thk. Kota stone tiles 25 mm to 30 mm thick of an approved quality and size for paving / flooring including cement mortar bedding of 25 mm thick in 1:4 proportion, cement float, pointing in cement mortar 1:3, cutting, dressing,	Sqm	282		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	leveling, jointing, pointing, curing, finishing etc complete as directed by Engineer In Charge.				
69	Providing and laying 8mm thk. ceramic tiles as specified below conforming to I.S.15622-2006 for flooring of an approved, quality, make, size and pattern /design, for flooring including cement mortar bedding of 25 mm thick in 1:4 proportion, neat cement float, cutting, leveling, jointing, filling the joints by neat cement slurry or approved colour grout, curing, finishing etc complete as directed by Engineer In Charge. Dark coloured antiskid / matt vitrified tiles	Sqm	172		
70	Providing and laying 10 to 13mm thk. heavy duty, scratch resistant, high abrasion resistant vitrified tiles (Durastone or equivalent) conforming to I.S.15622 with special hard wearing layer and water absorption less than 0.08% for flooring of an approved, quality, make, pattern and size for flooring including cement mortar bedding of 25 mm thick in 1:4 proportion, cutting, leveling, jointing, filling the joints by neat cement slurry or approved colour grout, curing, finishing etc complete as directed by Engineer In Charge.	Sqm	300		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
71	Providing and laying 18 mm thk., heavy duty metallic topping for flooring in cement mortar 1:2, with 4 Kg / Sqmt ironite or equivalent over existing concrete bed and as per manufacturers specifications including leveling, curing, finishing etc complete as directed by Engineer In Charge.	Sqm	50		
72	Providing and fixing 10mm thk. Light coloured glazed vitrified tiles for height upto 150mm as specified below conforming to I.S. 15622-2006 of approved quality, pattern and colour for flush/projected skirting and risers including preparing the surface and levelling in the desired line, backing of 20 thk. cement mortar in proportion 1:3, square cut top edge or chamfered top edge in cement mortar 1:3, cement float, machine cutting, leveling, jointing, filling the joints with neat cement slurry or pigments mixed with cement, finishing, curing etc complete as directed by Engineer In Charge.	Rmt	140		
73	Providing and fixing polished 18mm thk. Steel gray Granite tiles/slab as specified below of approved quality, pattern and colour for dado including preparing the surface and levelling in the desired line, backing of 20 thk. cement mortar in proportion 1:3, square cut top edge or chamfered top edge in cement mortar 1:3, cement float, machine cutting, leveling, jointing, filling the joints with neat cement or	Sqm	69		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	pigment mixed with cement, polishing, finishing, curing etc complete as directed by Engineer In Charge.				
74	Providing and fixing 8mm thk. ceramic tiles as specified below conforming to I.S. 15622-2006 of approved quality, pattern and colour for dado in the wet area including preparing the surface and levelling in the desired line, backing of 20 thk. cement mortar in proportion 1:3 with approved waterproofing compound, square cut top edge or chamfered top edge in cement mortar 1:3, cement float, machine cutting, leveling, jointing, filling the joints with neat cement slurry or approved colour grout, finishing, curing etc complete as directed by Engineer In Charge.-Light coloured antiskid / matt ceramic tiles	Sqm	168		
75	Providing and fixing 8mm thk. ceramic tiles as specified below conforming to I.S. 15622-2006 of approved quality, pattern and colour for dado in the dry area including preparing the surface and levelling in the desired line, backing of 20 thk. cement mortar in proportion 1:3, square cut top edge or chamfered top edge in cement mortar 1:3, cement float, machine cutting, levelling, jointing, filling the joints with neat cement slurry or approved colour grout, finishing, curing etc. complete as directed by Engineer In Charge. - Light coloured glazed ceramic tiles	Sqm	47		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
76	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	339		
77	P&F in position Gypsum board false ceiling with 12.5mm th. Gypsum boards, screwed/ fixed to the under struct of suspended G.I. Grid const & suspended from the main ceiling of ceiling sectn at max c to c distance of 450 mm perimeter channel and intermediate channels at max c to c distance 1200 mm galvanised grid should be fixed to RF CC slab. The gypsum board should be fixed to galvanised iron grid with necessary screws.The boards should be taped and filled from underside o give smooth, seamless ceiling. The rate should include necessary additional ceiling sections and intermediate channels to be provided at openings for light fixtures, asbestos cement ducts, vertical drops, offsets etc. Additional intermediate channels should be fixed to strap hangers for additional support to prevent strapping at every 1200 mm item to be comp in all respect.(G.I. perimeter channel size-27mmx0.5mm thk.,flange-20mm & 30mm, intermediate channel. size-45mm & 0.9mm thk., hanger size-25mmx0.5mm thk.)complete.	Sqm	339		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
78	Providing & fixing TRAP DOOR with T.W. frame work and shutter made from 19mm marine plywood and exposed surface finished with 1.5mm laminate and internal surface finished with flat oil paint with s.s. fittings & fixtures of make (ozone, Hettich, Hafle) as per Architects detailed drg. and design.	Sqm	40		
79	Providing & fixing factory made Fiberglass Reinforced plastics (F.R.P.) chajja 4 mm thick of required colour, size and design made by Resin Transfer Moulding (RTM) Machine Technology, resulting in void free compact laminate in single piece, having smooth gradual slope curvature for easy drainage of water and duly reinforced by 2 nos vertically and 1 nos horizontally 50x2 mm thick M.S. flat with 12 mm in built hole for grouting on the existing wall along with the 50 mm flanges duly inserted and sealed in the wall complete in one single piece casted monolithically, including all necessary fittings. The FRP chajja should be manufactured using unsaturated Polyester resin as per IS:6746, duly reinforced with fibre glass chopped strand mat (CSM) as per IS:11551 complete with protective gel coat U/V coating on top for complete resistance from the extreme of temperature, weather and sunlight.	Sqm	150		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
80	Providing and fixing rolling shutters made out of 18 gauge steel sheets for curtains, including bottom rail, 100 mm wide guide channels for opening width up to 4.0m and 150mm wide guide channel for opening width more than 4.0m, lock plates, locking arrangement on both sides, fixing bolts, pulling handles, MS hood of appropriate size, rolling arrangement, standard make springs in brackets etc. including fixing of frames with rag bolts, grouting of parts in position etc. and also including two coats of red oxide zinc chromate primer and two coats of synthetic enamel paint of approved colour, shade and brand, providing ball bearing wherever required and directed etc complete and providing mechanical device for operating rolling shutters. Complete as per IS:6248 / specifications and as directed by Engineer In Charge. The shutter should withstand wind pressure of 47meters per second.	Sqm	62		
81	Providing & fixing in the footpath , 80mm thick Lacquer coated (Reflective) interlocking white cement concrete pavers in red (TerraCotta)Black, Brown, Lemon Yellow or any colour with vermeticular or any anti skid texture on top surface of approved pattern /shape and colour having average crushing strength not less than 50N/mm <sup>2</sup> as per technical specifications and IS CODE	Sqm	344		





## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	15658:2006; manufactured in double layer precast concrete blocks . The top layer of paver block should be 12 to 15 mm thick and consisting of cubical shape stone aggregate 8mm size sieve 100% passing and retained on 4.75 mm size sieve, silica sand and with pure iron oxide ultra violet stabilized pigment @5%by weight of white cement and should be coated with lacquer having hard, high abrasive resistance and water repellent. The bottom layer in grey cement should be 65 to 68mm thick having 12mm size sieve 100%passing aggregates as per technical specifications, placed on average compacted thickness of 25mm well graded sand cushioning uniformly compacted with proper capacity mechanical compact or with required level, grade and camber etc. complete as specified and as directed by the Engineer.				
82	Providing & Fixing kerb stones 30 cm.to 40 cm. long., 15 cm. wide, 38 cm. deep medium dressed in all exposed surfaces, set in cement mortar 1:2 on a 15 cm. thick and 25 cm. wide RMC M-20 C.C. bed including filling the joints with 1:2 C.M. pointing, curing etc. complete.	Rmt	211		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
83	Providing & fixing water tables of stone of size 30 cm. wide and 10 cm. thick, fairly dressed on a R.M.C. M-20 cement concrete bed 15 cm. thick, including filling in the joints, with cement mortar 1:2 cement pointing, curing etc. complete as specified and as directed by the Engineer.	Rmt	211		
84	Providing and fixing 6 mm thick Non- asbestos high impact Polypropylene reinforced cement corrugated sheet of approved make conforming to IS: 14871-2000 laying the same in position as per the stipulation in IS: 3007-1991 using 8m dia polymer coated iron L or J hook bolts, galvanized iron & bituminous washers, or self drilling fasteners and EPDM washers, galvanized iron clamps, nuts and bolts etc. complete and as directed. (Net Area covered by sheeting will be measured. Laps will not be paid separately)	Sqm	475.5		
85	Providing and fixing non-asbestos fiber cement high impact polypropylene reinforced roofing accessories in all colours with polymer coated J or L hooks, bolts and nuts and or G.I. seam bolts and nuts, G.I. plain and bitumen washers or with self drilling fastener and EPDM washer etc. complete as directed. Corrugated serrated adjustable ridges	Rmt	173		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
86	Providing & Laying dry stone Rubble Soling with average 230 mm size hard stone set in regular lines, handpacked and interstices thoroughly filled with small chips including filling in with good quality murum brought from outside, compacting with iron rammers, watering, sand spreading 12mm thk. layer of grit on top etc complete as directed by Engineer In Charge.(Note: The rate includes the royalty and other taxes if any)	Cum	1483		
87	Providing and laying in position M-15 grade plain cement concrete (cement content considered @ 240 kg/cum as per IS 456 table, with cement content as per approved design mix by and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, including the cost of centering, shuttering and finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer.	Cum	369.25		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
88	Providing and laying in position ready mixed design mix M-35 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying and the cost of centering, shuttering, finishing and excluding reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. The Mix design as per particular specifications shall be got approved by Engineer-in-Charge before execution of the item. The rate shall include cost of all specified materials and operations at all levels and heights, including the cost of centering, shuttering and excluding reinforcement which shall be paid under relevant item.(Note :- Cement content considered in this item is @ 350 kg/cum as per IS 456 table showing minimum cement content. No extra will be paid nor any amount will recovered on account of variation of cement in mix design as per specifications for controlled concrete).				
A	Foundations, footings, bases of columns, rafts, pile cap	Cum	499.5		
B	Walls (any thickness) including attached buttresses, retaining wall, shear wall, diaphragm wall , trench, pit walls, etc.	Cum	453		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
C	Slabs, Suspended floors, roofs, landings, balconies, canopy and access platform	Cum	11		
D	Lintels, beams, plinth beams, girders, floor beam, coping.	Cum	11		
E	Columns, Pillars, Piers, Posts and Struts	Cum	144		
89	FRP Fencing Made Using GI Structure and FRP Gratings 12 X 50 X 50 MM with provision of Door FRP Flat sheet thickness 4 MM to be used instead of Grating in the top 2000 MM to block rain water during monsoon. GI Structure should have average 100 Micron Coating MOC of FRP : Glass fiber reinforced Isophthalic Polyester Resin, Flame Retardant, UV Resistant, Color : RAL 7040 GI Structure to be mounted with wall using M12 X 100 SS304 Anchore & Fastener at every 2000 MM all hardware should be SS304. GI Structure to be made using Angle frame 65 X 65 X 8 MM and Tee 130 X 65 X 8 MM minimum.	Sqm	256		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
90	<p>Providing and applying 100 % solid , flexible , elastomeric , UV stable, 2- component , water proof , fast setting (within 45 seconds) , specific grade Polyurea Coating at 1.2 mm nominal thickness on concrete surface on inner side of reservoir forming a seamless &amp; monolithic membrane over compatible epoxy primer . The coating should have been tested and conform to various standards as mentioned in Data Sheet of the manufacturer. The coating shall be carried out in a single application with multiple passes using high pressure plural component reactor strictly as per manufacturers specifications including all necessary tools , tackles , high pressure spray machine , primer application , surface cleaning by sweep blasting/ grinding and filling up opened up bug holes etc using epoxy primer mixed with fine silica sand ( FQ 75). Application to be carried out by trained applicator certified by the principal. Necessary safety gadgets for worker using high pressure equipment &amp; spray painting such as Boiler suit, helmet , safety shoes, nose mask, goggles, hand gloves to be provided by the painting contractor . Testing of the coating for DFT, Adhesion , Hardness and finally by filling water in the tank ( water filling not in the scope of painting applicator ) and checking against any leakage. The coating to carry a warranty for 10 year against material and application fault. Surface to be coated with Poloyurea to be handed over to Painting Contractor by Civil Contractor should be bone dry ( with surface moisture preferably below 5% and maximum limit at localized area up to 8% ) and repaired of construction surface blemishes if any with suitable repairing compound ( polymeric mortar / epoxy mortar) etc. complete as directed.</p>	Sqm	676		125



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
91	Providing, detailing, fabricating and fixing at desired location using M.S. chequered Plates of any thickness and of grade Fe 250 as per specifications and approved fabrication drawings (which are to be prepared by Contractor and got approved from Engineer), including transportation of the same to site, erection at all heights and levels, provision of necessary erection bolts, fixing bolts, nuts, washers, cleats, stiffeners, and all necessary operations like preheating as per specifications, straightening, bending, cutting, drilling, grinding, machining if specified, welding, grinding and removing the welding burr and preparing surface for painting with wire brush cleaning and applying two coats of epoxy red oxide zinc phosphate primer of 30 microns each and two coats of Epoxy Corrosion Resistant Enamel paint of 30 microns after fabrication including touching up with spray painting after erection etc complete as directed by Engineer In Charge.	M.T	1.29		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
92	Excavation in all types of soils (for sewerage works),such as Earth, Marine clay, Marshy land, Running sand, Garbage, Slush, Murum, Rock boulders etc as directed by the engineer. The rate includes dewatering, backfilling, removing the rank vegetation and removing the excavated materials within a lead of 150M as directed including levelling, ramming, etc complete, and measured from the edge of cutting including all lifts and stacking in layers and removing the surplus excavated materials as directed for lift upto 2M{Records to be maintained properly}.The rate also includes supporting public utilities such as cables, drains, pipe water mains, but shall not include the cost of shoring etc as specified and directed.1) The rate includes the handling/supporting the existing utilities such as cables, drains, pipes, water mains etc. 2) It also includes the royalty and other taxes if any.- Lift from 0 m to2m	cum	9419		





## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
93	Excavation in all types of soils (for sewerage works),such as Earth, Marine clay, Marshy land, Running sand, Garbage, Slush, Murum, Rock boulders etc as directed by the engineer. The rate includes dewatering, backfilling, removing the rank vegetation and removing the excavated materials within a lead of 150M as directed including levelling, ramming, etc complete, and measured from the edge of cutting including all lifts and stacking in layers and removing the surplus excavated materials as directed for lift upto 2M-4M{Records to be maintained properly}.The rate also includes supporting public utilities such as cables, drains, pipe water mains, but shall not include the cost of shoring etc as specified and directed.1) The rate includes the handling/supporting the existing utilities such as cables, drains, pipes, water mains etc. 2) It also includes the royalty and other taxes if any.- Lift from 2 m to 4m	Cum	7517		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
94	Excavation in all types of soils (for sewerage works),such as Earth, Marine clay, Marshy land, Running sand, Garbage, Slush, Murum, Rock boulders etc as directed by the engineer. The rate includes dewatering, backfilling, removing the rank vegetation and removing the excavated materials within a lead of 150M as directed including levelling, ramming, etc complete, and measured from the edge of cutting including all lifts and stacking in layers and removing the surplus excavated materials as directed for lift upto 4M-6M{Records to be maintained properly}.The rate also includes supporting public utilities such as cables, drains, pipe water mains, but shall not include the cost of shoring etc as specified and directed.1) The rate includes the handling/supporting the existing utilities such as cables, drains, pipes, water mains etc. 2) It also includes the royalty and other taxes if any.- Lift from 4 m to 6m	Cum	1248.9		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
95	Excavation in all types of soils (for sewerage works),such as Earth, Marine clay, Marshy land, Running sand, Garbage, Slush, Murum, Rock boulders etc as directed by the engineer. The rate includes dewatering, backfilling, removing the rank vegetation and removing the excavated materials within a lead of 150M as directed including levelling, ramming, etc complete, and measured from the edge of cutting including all lifts and stacking in layers and removing the surplus excavated materials as directed for lift upto 6M-8M{Records to be maintained properly}.The rate also includes supporting public utilities such as cables, drains, pipe water mains, but shall not include the cost of shoring etc as specified and directed.1) The rate includes the handling/supporting the existing utilities such as cables, drains, pipes, water mains etc. 2) It also includes the royalty and other taxes if any.- Lift from 6 m to 8m	Cum	285.6		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
96	Excavation in all types of soils (for sewerage works),such as Earth, Marine clay, Marshy land, Running sand, Garbage, Slush, Murum, Rock boulders etc as directed by the engineer. The rate includes dewatering, backfilling, removing the rank vegetation and removing the excavated materials within a lead of 150M as directed including levelling, ramming, etc complete, and measured from the edge of cutting including all lifts and stacking in layers and removing the surplus excavated materials as directed for lift upto 8M-10M{Records to be maintained properly}.The rate also includes supporting public utilities such as cables, drains, pipe water mains, but shall not include the cost of shoring etc as specified and directed.1) The rate includes the handling/supporting the existing utilities such as cables, drains, pipes, water mains etc. 2) It also includes the royalty and other taxes if any.- Lift from 8 m to 10m	Cum	229		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
97	Excavation in all types of soils (for sewerage works),such as Earth, Marine clay, Marshy land, Running sand, Garbage, Slush, Murum, Rock boulders etc as directed by the engineer. The rate includes dewatering, backfilling, removing the rank vegetation and removing the excavated materials within a lead of 150M as directed including levelling, ramming, etc complete, and measured from the edge of cutting including all lifts and stacking in layers and removing the surplus excavated materials as directed for lift upto 10M-12M{Records to be maintained properly}.The rate also includes supporting public utilities such as cables, drains, pipe water mains, but shall not include the cost of shoring etc as specified and directed.1) The rate includes the handling/supporting the existing utilities such as cables, drains, pipes, water mains etc. 2) It also includes the royalty and other taxes if any.- Lift from 10 m to 12m	Cum	50		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
98	Excavation in soft/disintegrated rock, road carriageway, sand stone, stiff clay, gravel, cobblestone, hard laterite, water bound macadam, wet mix macadam, asphalt mix carpet of any type, pitching, soling, paths and hardcore, lime concrete, plain cement concrete, stone masonry and all types of brick/ block masonry below ground level. The rate includes dewatering, backfilling, removing the rank vegetation and removing the ematerial within a lead of 150m as directed including levelling ramming etc complete. and measured from the edge of cutting including all lifts and stacking in layers and removing the surplus excavated material as directed for lift upto 2m (Records to be maintained properly) The rate also includes supporting public utilities such as cables, drains, pipe water mains, but shall not include the cost of shoring and as specified and directed 1) The rate includes the handling/supporting the existing utilities such as cables, drains, pipes, water mains etc. 2) It also includes the royalty and other taxes if any.	Cum	6198		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
99	Excavation in hard rock and reinforced concrete by chiseling for sewerage works by manual operations, pneumatic breaker, hammer, driller, compressor breaker, etc. including dressing/trimming the sides, leveling of bottoms. The rate includes dewatering, backfilling, removing the rank vegetation and removing the ematerial within a lead of 150m as directed including levelling ramming etc complete. and measured from the edge of cutting including all lifts and stacking in layers and removing the surplus excavated material as directed for lift upto 2m (Records to be maintained properly) The rate also includes supporting public utilities such as cables, drains, pipe water mains, but shall not include the cost of shoring and as specified and directed 1) The rate includes the handling/supporting the existing utilities such as cables, drains, pipes, water mains etc. 2) It also includes the royalty and other taxes if any.	Cum	2763		
100	Excavated surplus earth shall be carted away to contractors dumping ground. Tenderers/Bidders shall be instructed to make the declaration of the dumping plot at the time of submission of Bid.	Cum	5358		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
101	Supply & filling sand metal ,GRAVELLY SAND, corresponded to CLASSII / CLASSIII GRADING of TABLE 100 .1 of BMC road specifications for road works in trenches upto required depth & watering , ramming etc. complete as directed.	Cum	1274		
102	Providing and Casting RCC bored cast in-situ Vertical pile as per IS 2911 (Part 1, Section 2) by boring through all kinds of soils/ Sand /Rock by rotary hydraulic rigs using temporary casing up to stable strata / bentonite mud circulation as specified, from tip to cut-off elevation of piles. Reinforced Cement Concrete work of filling the bore (after placement of reinforcement cage as per drawing) with M25 and above grade Ready Mix Concrete using 43 Grade Ordinary Portland Cement confirming to IS : 8112, of approved make and brand with minimum cement content of 400 kg/m <sup>3</sup> and with water - cement ratio, including the water contained in aggregates (10mm to max 20mm size), not exceeding 0.45, with approved plasticizer as specified, including placing of concrete from tip to minimum of 600mm above the specified cut-off level, breaking pile head to cutoff level and exposing pile reinforcement for embedment in pile cap, Disposing & levelling of bored/excavated material suitably at locations approved by the local authorities including all lead and lifts, all complete for	Rmt	433		





## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	piles having diameter of (Pile will be measured for payment for length between pile tip to cut-off level along the pile axis. Reinforcement shall be paid separately) -600 diameter pile				
103	Providing and installing in position permanent M.S. liners for piles of specified diameter and fabricated from 6.0mm to 8.0mm thick plates as per detailed drawings and designs including cutting, bending to required shape, welding, painting with Red Oxide paint etc. complete as specified and directed. -6mm thick	MT	24.1		
104	Supply and placing in position high strength deformed steel bars reinforcement of grade Fe-500 conforming to IS:1786 (latest version) for RCC Cast-in-situ piles for full length of pile including transporting the same from source to site of work, straightening, cleaning, decoiling, cutting, bending to required shape and lengths as per details, binding with 16 SWG black soft annealed binding wire, supplying and placing with proper cover blocks, supports, chairs, spacers, welding, if required, to form a grid cage etc., complete as per instruction of the Engineer-in-Charge (steel supplied by contractor at his own cost and duly approved by Engineer in charge)	MT	16.5		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
105	<p>Providing &amp; laying 1.6mm THK SBS modified self adhesive, cross laminated HDPE valeron lining waterproofing membrane, conforming to IS 16471:2017 Type A, requirements of UG waterproofing structures, over the solvent based bituminous primer @ 4 sqm/litre. The lap with Hydroflex membrane shall be 100mm treated with double sided tape. This shall includes Surface Preparation by cleaning work, removal of loose concrete and filling cracks with polymer modified mortar &amp; treatment of tie rod holes, bracing angle etc with plugging mortar Hydroblok 300 or equivalent, which are anchored in shuttering for holding the same and other projections as per manufacturers' recommendation, followed by the installation of 8mm THK polyethylene dimpled drainboard having compressive strength &gt; 400kN/m<sup>2</sup> (as per ISO 25619-2) and puncture resistance of 1250N as per ISO 12236 over the waterproofing membrane for vertical surface stuck to the membrane by spot bonding method, using synthetic adhesive with butt joints to protect the membrane from damages from back-filling materials, all followed by termination of the membrane minimum 200mm above FGL with aluminum termination bar shall be fixed with non corrosive fastener @ 4 nos per RM, sealing of termination bar with PU Sealant / epoxy mortar / putty, as per manufacturer specification, etc. complete.</p>	Sqm	1066		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
106	<p>Providing and installing 2mm thick preformed pre-applied fully bonded Keyed Preformed Hydroflex synthetic based sheet membrane with T-key spacing 70 - 75mm c/c, conforming to IS 16471:2017 Type A, requirements of UG waterproofing structures, as per manufacturer's recommendation, with end laps of 60mm including heat welding with leister machine of all the joints and electrical spark testing of joints for water-tightness. All overlaps and joints should be welded using hot air welding with leister machine and the membrane should get bonded to the raft/grade slab bottom after pouring the concrete. The flexible pre-lock membrane having T height minimum of 8mm shall be loosely laid onto the PCC surface and shall be capable of receiving the structural reinforcement &amp; concrete directly over the membrane without any protection layers/screed. The membrane shall be laid as per the manufacturer's specification and shall be turned up on the vertical surfaces to minimum 300mm height from the bottom of the raft / foundation within the shutter of the raft / foundation sides to ensure no joint/overlap in the membrane at the corner. The cost shall include necessary surface cleaning, removal of sharp objects, preparing the P.C.C. Substrate for laying of waterproofing system, etc, complete.</p>	Sqm	98.6		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
107	Providing and applying first coat of approved waterproof cement paint and one coat of textured exterior paint of an approved make and colour as per manufacturers specifications to textured sand faced or other surfaces, upto 10m height from ground level and at all locations as directed including preparing surfaces for painting by any approved means, scaffolding, cleaning and curing etc. complete as directed by Engineer-in-charge.	Sqm	943.7		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
108	<p>Cleaning the surface of the internal concrete surface of the floor as well as walls thoroughly by wire brushing and washing with high pressure water jet, to remove any loose laitance as well as contaminates, thereafter inspecting the concrete surface to identify any honeycombs, crack, voids or defects in the concrete such as cracks, construction joints etc., and sealing all such locations with solvent free epoxy mortar all as per manufacturer's recommendation. Thereafter providing and applying Hydro-shield EP containment membrane system consisting of combination of epoxy and polysulphide formulation, which shall be applied in 2 coats by way of spray or roller to provide a minimum wet film thickness of 0.25 mm per coat with material consumption of approx. 0.3 Kg per Sq.Mt. per coat so as to achieve a total system thickness of 0.5mm (500 micron) DFT, all as per manufacturer's recommendation etc. complete. Tropical membrane shall be applied on the entire horizontal surface as well as on the vertical surface upto full height &amp; shall have resistance to Acids &amp; Alkalis.</p>	Sqm	654		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
109	All inlet/outlet/cutouts, etc, shall be treated with Liquid Applied flashing of Flexi PU with reinforcing polyester mesh embedded between the two coats of Flexi PU, at the junction of the inlet/outlet/cutlout and RCC surface, including proper cleaning of the junctions and sealing the junction with PU sealant conforming to ASTM C-920-S, NS, 25 & BS EN ISO—11600: 2003 Type F & G as per manufacturers' specification, etc, complete.	No.s	4		
110	Providing and Placing in position suitable PVC water stops conforming to IS:12200 for construction/ expansion joints between two RCC members and fixed to the reinforcement with binding wire before-Serrated with central bulb (225 mm wide, 8-11 mm thick)	Rmt	204		
111	Providing and Placing in position suitable PVC water stops conforming to IS:12200 for construction/ expansion joints between two RCC members and fixed to the reinforcement with binding wire before-Kickers (320 mm wide, 5 mm thick)	Rmt	9		
112	Providing and Placing in position suitable PVC water stops conforming to IS:12200 for construction/ expansion joints between two RCC members and fixed to the reinforcement with binding wire before-Dumb bell with central bulb (180 mm wide, 8 mm thick)	Rmt	75		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
113	Dewatering the excavated trenches/pits, pools of water, well works by using pumps and other devices including disposing off water to safe distance as directed by Engineer-in-charge including cost of machinery, labour, fuel, pipe and it's accessories etc. complete.	HP/Hr	120		
114	Providing and laying in position ready mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying and the cost of centering, shuttering, finishing and excluding reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. The Mix design as per particular specifications shall be got approved by Engineer-in-Charge before execution of the item. The rate shall include cost of all specified materials and operations at all levels and heights, including the cost of centering, shuttering and excluding reinforcement which shall be paid under relevant item.(Note :- Cement content considered in this item is @ 330 kg/cum as per IS 456 table showing minimum cement content. No extra will be paid nor any amount will recovered on account of variation of cement in mix design as per specifications for				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	controlled concrete).				
A	Foundations, footings, bases of columns, rafts, pile cap	Cum	3031		
B	Walls (any thickness) including attached buttresses, retaining wall, shear wall, diaphragm wall , trench, pit walls, etc.	Cum	71		
115	Supplying Hot Rolled steel sheet piles having properties described in respective specifications or/ and shown in drawings (Z or U type with sectional modulus of minimum 2500 cm <sup>3</sup> , steel grade S430 GP with minimum yield strength of 430 MPa, minimum thickness 12.0 mm thickness, with Larssen interlocks and applying recommended sealant for complete watertightness (if required) & using suitable corner sections as per site condition) .Installing the same to line and level including making reformed steel sheet piles at required positions as corners, junction, wedges etc. as per approved drawing and specification in single or group jointing by welding properly, installing vertically along the alignment with the help of equipment's like air compressors, excavator mounted / crane mounted vibro hammers / Impact Hammers / Hydraulic Pressing Hammers / vibrating drives powered by electric or hydraulic motor or combination of both based on the site requirements through the grooves to interlock together,	Sqm	472		





## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	wedges to make up for the permissible deviation of piles from the plumb lines caused during pile driving, slipped piles with the adjacent ones are found or loosened or dislocated during or after installation , sheet piles shall be pulled out and replaced with new ones or redone including necessary modification to the sheet pile to suit the groove of existing sheet piles , including cost and conveyance of all materials, hire charges of equipment's,				
	hire charges of crane/rigs, cost of electrodes, mobilisation and demobilisation charges, all labour, other incidentals etc complete. ( No extra payment shall be made for cost of extraction and replacement for installing of sheet pile deviating the specification or rejected by Engineer -in-charge. The rate is inclusive of providing guide frames, cost of installation pit, formation and removal of earthen bund etc.). Payment shall be made on actual depth of sheet pile installation. For permanently keeping the sheet pile in position				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
116	Supplying Hot Rolled steel sheet piles having properties described in respective specifications or/ and shown in drawings (Z or U type with sectional modulus of minimum 2500 cm <sup>3</sup> , steel grade S430 GP with minimum yield strength of 430 MPa, minimum thickness 12.0 mm thickness, with Larssen interlocks and applying recommended sealant for complete watertightness (if required) & using suitable corner sections as per site condition) .Installing the same to line and level including making reformed steel sheet piles at required positions as corners, junction, wedges etc. as per approved drawing and specification in single or group jointing by welding properly, installing vertically along the alignment with the help of equipment's like air compressors, excavator mounted / crane mounted vibro hammers / Impact Hammers / Hydraulic Pressing Hammers / vibrating drives powered by electric or hydraulic motor or combination of both based on the site requirements through the grooves to interlock together, wedges to make up for the permissible deviation of piles from the plumb lines caused during pile driving, slipped piles with the adjacent ones are found or loosened or dislocated during or after installation , sheet piles shall be pulled out and replaced with new ones or redone including necessary modification to the sheet pile to suit the grove of existing sheet piles , including cost and conveyance of all materials, hire charges of equipment's, hire charges of crane/rigs, cost of electrodes, mobilisation and demobilisation charges, all labour, other incidentals etc complete. ( No extra payment shall be made for cost of extraction and replacement for installing of sheet pile deviating the specification or rejected by Engineer -in-charge. The rate is inclusive of providing guide frames, cost of installation pit, formation and removal of earthen bund etc.). Payment shall be made on actual depth of sheet pile installation. -Sheet pile to be reused upto 3 times_for pipe	Sqm	9767		145



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
117	P/L earth work in embankments & /filling low-lying ground in layers not exceeding 25cm in loose thickness & compacting each layer with a 10/12 tonnes power roller including levelling, watering etc. complete inconformity with there quired lines, grades & cross sections & also cleaning & grubbing the ground etc. Complete as per prevailing BMC specifications	Cu.m	3900		
118	Scarifying the existing bituminous road surface to a depth of 150mm, removing the scarified material, including transportation anywhere & bringing the existing road to proper grade, level & camber & /as per super elevation, rolling with 10/12Tonnes power roller & binding the scarified layer with stone dust /grit / sand, watering ,brushing ,rolling ,etc. complete as specified and directed by the Engineer.	Sqm	2000		
119	Providing & laying, spreading & compacting specified crushed stone in granular subbase course including premixing the material in mechanical mixer (pug mill or approved type), spreading of mixed material in uniform layer of 100mm to 75mm (compacted thickness each) with motor grader or paver on prepared murum surface & compacting with 10 tonne vibratory roller to achieve desired density including all material, labour, machinery, lighting barricading to all lifts & lead maintenance of diversion etc. complete	Cum	1840		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
120	Providing and laying Dry Lean Concrete base including providing coarse and fine aggregate to the specified gradation using minimum cement content 150kg/cum of concrete with OPC 43 grade cement, mixing of concrete as per approved design mix using mechanised batch mix plant of appropriate capacity, transporting and laying and compacting with vibratory roller of minimum 80-100KN static weight to give desired compacted density and average compressive strength of 10MPa at 7 days and curing with liquid curing compound and sprinkling water and covering with moist hessian cloth or ponding of water for 7 days including providing construction joints, including all material, labour, machinery with all leads and lifts etc. complete as specified and as directed by the Engineer. A) Laying by manually.	Cum	300		
121	Providing & laying water proof paper of 40GSM including overlap (to be not less than 10cm) etc. complete as specified as directed.	Sqm	2000		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
122	Providing & laying M-40 cement concrete having avg. compressive strength 45Mpa, flextural strength 4.8 Mpa including formwork, mixing in non-tilting mechanical mixer (with Weigh Batchter), compacting by internal & surface vibrator, finishing, curing & tarring the sides of slabs with hot bitumen / black Japan Paint as specified and as directed (cement mortar vata will be paid separately). Contractor shave to make their own arrangement for potable water for construction / curing, etc. & will be not paid separately.	Cum	391		
123	Cutting of construction & dummy joints of M-35C.C.& above slab by mechanical means within 10 to16 hrs of casting of bay / slab as directed. A)transverse dummy joints 100mm deep or 1/3 thickness of concrete pavement & 6 mm wide.	Rmt	800		
124	Cutting of construction & dummy joints of M-35 C.C.& above slab by mechanical means within 10 to 16 hrs of casting of bay / slab as directed. B) Longitudinal construction joints 100mm deep or 1/3 rd thickness of slab & 6 mm wide	Rmt	800		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
125	Dressing of M-35& above new C.C. pavement, dummy, transverse, longitudinal & expansion joints with hot rubberised sealing compound confirming to IS1834-1984 after proper cleaning with compressed air, applying required primer & providing a layer of lime powder over hot sealing compound etc. complete as directed. A)Sealing 6mm wide dummy / transverse joints with a depth of 100mm or 1/3 rd thickness of concrete pavement.	Rmt	800		
126	Dressing of M-35 & above new C.C. pavement, dummy, transverse, longitudinal & expansion joints with hot rubberised sealing compound conforming to IS1834-1984 after proper cleaning with compressed air, applying required primer & providing a layer of lime powder over hot sealing compound etc .complete as directed .B)Sealing of 6mm wide longitudinal joint with depth of 100 mm or1/3rd thickness of concrete pavement.	Rmt	800		
127	Levelling, watering and rolling to 95% Standard Proctor Density with a power roller weighing not less than 10 tonnes and preparing the ground to the required grade and camber as specified as directed by the Engineer.	Sqm	4800		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
128	Providing & laying, spreading & compacting graded crushed stone aggregate to wet mix macadam satisfaction including premixing the material with water to OMC in mechanical mix (pug mill) carriage of mix material by tipper to site laying in uniform layer of 75mm to 100mm (compacted thickness each) with sensor paver finisher on prepared subbase & compacting with vibratory roller (10 tonne) to achieve desired density including lighting, guarding barricading & maintenance of diversion etc. as directed by the Engineer,	Cum	960		
129	Providing and applying PRIME COAT with CATIONIC BITUMEN EMULSION (SS) @ 12 to 15 Kg. of 10 Sqmt. over prepared surface to receive bituminous mix by applying PRIMER with mechanical spray bitumen, including cleaning of road surface etc. completed, as directed For High Porosity surface & the primed surface shall be allowed to cure for at least 24 hours or any other higher period, as is found to be necessary to allow all the moisture or volatiles to evaporate before any subsequent bituminous surface treatment or mix is laid.	Sqm	4800		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
130	Providing and applying TACK COAT with CATIONIC BITUMEN EMULSION (RS) @ 0.25 to 0.30 Kg. of Sq.mt. over prepared surface to receive bituminous mix by applying TACK COAT with mechanical spray bitumen, including cleaning of road surface etc. completed, as directed For DRY & HUNGRY BITUMINOUS SURFACES	Sqm	4800		
131	P/L Premix Bituminous concrete with 6.00% content by weight of mix with polymer modified bitumen (surface coat to thickness of about 40mm(compact thickness) using new material to the required grade, level & camber rolling with vibratory roller & power roller, pneumatic roller & using sensor paver etc. complete as specified as directed with addition of lime filler etc. complete.(bitumen of grade PMB-40).	Sqm	4800		
132	P/L hot Premix Dense bituminous macadam with 4.50% bitumen content of grade VG-40 to the required line, level, and camber rolling with 10/12 M.T.power ,vibratory roller & sensor paver etc. complete as specified and as directed to thickness of 75 mm. with antistripping agent at 1% by weight of bitumen using grading II of "MORTH"	Sqm	4800		





## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

### 4.CIVIL

Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
133	Providing and fixing 750mm dia concertina barbed razer type coil of 19mm wide ribbon with thickness 5 SWG and central core wire of 12 SWG with anti rust coating, supported over 5 rows of barbed wires of 14 SWG having two ply four points at 75 mm c/c, fixed to Y shape angle bracket placed at 2.5m c/c (leg of Y should be 0.51 m long and 0.23 m embedded in concrete, wing of Y should be 0.475 m long having a distance of 0.58 m between the two wing on the top) made up of 50mm x 6 mm M.S. angle embedded in cement concrete bed block of size 300mm x 300mm x 300mm. The concertina coil should be fixed to angle with M.S. Flat 25mm x 5mm thick on both the sides as runner all steel work shall be applied with one coat of red oxide zinc chromate primer and two coat of Synthetic Enamel paint etc. complete as directed by Engineer In Charge.	Rmt	630		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
134	Providing, detailing, and fabricating as per specifications, transporting to site and erecting MS Openable / Sliding / Ornamental Entrance Gates including track and wheel, locking arrangement, fixing bolts, nuts, washers, cleats, stiffeners, gussets decorative balusters, arrow heads etc. and all necessary operations like straightening, bending, cutting, drilling, grinding, machining if specified, welding etc. complete weighing 60 to 65 kg/Sqm, including cleaning, Grinding and removing the welding burr and preparing surface and applying one coat of red oxide zinc chromate primer and one coat of Synthetic Enamel paint after fabrication and second coat of Synthetic Enamel paint after erection, with approved colour, shade and brand etc. including touching up with primer etc. complete as directed by Engineer In Charge.	Sqm	21		
135	Providing and removing close shoring and strutting in the trenches / pits for all depths as per specifications/drawings and or as directed by Engineer-in-charge by including walling, struts, open poling boards, horizontal sheeting, runners, dog spikes by using timber etc .complete.	Sqm	100		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

### 4.CIVIL

Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
136	Constructing cofferdams of puddle bags completely new with clay/silt/impervious materials core including diversion of flow removing and pumping out water etc. complete to keep working space dry as specified and as directed. (This item includes maintenance during the work in progress and removal of the same after completion of work.).	Cum	1300		
137	Providing, hoisting and fixing at all level precast reinforced cement concrete work in cable trench drain covers, including the cost of required centering, shuttering and reinforcement, of Nominal Mix 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20mm nominal size).	Cum	13.75		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
138	Excavation for Transplanting Trees on Soft surface: Excavating the ground in the earth / murum / sand for transplanting the tree to the desired location, with required machinery. Tree to be lifted with roots & replaced in fresh soil. Making trench at suitable distance away from the stem based on age of the plant in a circular fashion to a sufficient depth to remove the ball of earth & applying fungicide on cut portion.- Tree Girth upto 0.3 M	Nos	40		
139	Excavation for Transplanting Trees on Soft surface: Excavating the ground in the earth / murum / sand for transplanting the tree to the desired location, with required machinery. Tree to be lifted with roots & replaced in fresh soil. Making trench at suitable distance away from the stem based on age of the plant in a circular fashion to a sufficient depth to remove the ball of earth & applying fungicide on cut portion- Tree Girth upto 0.6 M or more	Nos	10		
140	Excavation for planting Transplanted Trees: Excavating the ground for planting individual Tree (Transplanted tree) in the area demarcated making trench based on age of the plant.	Nos	50		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
141	Planting Trees on Soft/Hard surface (Individual): Filling of Red Hill Earth, Cow Dung Manure & good earth from excavated pit in the excavated pits mixing in 2:1:1 proportion, watering & providing well grown trees with minimum average girth of 2" and minimum height of 10' above finished level after plantation of specified variety , at desired location & at specified distances. Achieving finished grade level. Planting the tree with appropriate anchoring, leveling the top soil surface as specified after plantation, staking to balance the tree. Including transport to the site & planting , preparation of tree basin, watering & maintaining for 1 month after completion of plantation and replacement of casualties till 1 month. Filling good garden soil mixed with manure (fine dressing)	Nos	50		
142	Transplanting of Trees: Planting the tree in the pit filled with good soil, pressed down layer by layer, insecticide to be sprayed before planting, broken limbs to be removed. tree to be supported by three strong stakes driven into the ground meter away from the stem, transport to the site & planting , preparation of tree basin, watering & maintaining for 1 month after completion of plantation and replacement of casualties till 1 month. Filling good garden soil mixed with manure (fine dressing)	Nos.	50		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
143	Felling, logging, fashioning of timber and billeting of trunks and branches, stacking the material neatly nearby as directed, including removal of roots, etc. complete:-Trees with girth above 30 cm Upto 100 cm	Nos.	10		
144	P/F in position Western WC, 'Hindware' make, starwhite, Studio EWC Cat. No.: 20041, with 10 lit. cap. DUAL Flush Tank with C.P. Bolts, nut's. Fixing at toilet floor, fixing Solid plastic seat cover, C.I. Flush pipe with clamps rubble joints including cutting and making good the walls, floors where required. The item also includes providing and fixing health faucet (hindware make) with necessary plumbing arrangements etc. complete.	Nos.	5		
145	P/F Wash Basin counter in Jet Black Granite platform clear 600 mm. wide for fixing oval shape under-counter wash basin, with necessary kadappa supports, with granite fascia of 75 mm. ht., 50 mm. skirting on three sides, necessary granite verticals at least 300 mm above counter on one side as per drawings & details , incl. edge chamfer & edge polishing etc., fixing in cm (1:4), curing etc. complete.	Nos.	5		
146	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm or 340x410x265mm	Nos.	6		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	sizes respectively.				
147	Providing and fixing Granite Urinal partition with concealed CI bracket, cutting and making good.	Nos.	6		
148	Providing and fixing C.P. brass Urinal flush valve/flush cock (Flowrate as 3.8 Lit per Flush) for urinal with all accessories complete.	Nos.	6		
149	Providing and fixing PTMT pillar cock of approved quality and colour, 15 mm nominal bore, 107 mm long, weighing not less than 110 gms	Nos.	3		
150	Providing and fixing 6 mm thick mirror of approved quality with all accessories complete.	Each	3		
151	Providing and fixing C.P brass Towel hook with all accessories complete.	Nos.	3		
152	Providing and fixing PTMT soap Dish Holder having length of 138mm,breadth 102mm, height of 75mm with concealed fitting arrangements,	Nos.	3		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

<b>4.CIVIL</b>					
<b>Sr.No</b>	<b>Item Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate including taxes and duties in ₹</b>	<b>Total Price in ₹ Including taxes and duties</b>
153	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.- 15 mm nominal outer dia Pipes	Rmt	40		
154	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.- 20 mm nominal outer dia Pipes	Rmt	40		
155	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.- 25 mm nominal outer dia Pipes	Rmt	40		





## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
156	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :- 20mm nominal bore	Nos.	3		
157	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :- 25mm nominal bore	Nos.	3		
158	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.- 32 mm dia	Rmt	45		
159	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.- 40 mm dia	Rmt	45		
160	Providing & Fixing 100mm diameter Nahani trap Jali in steel finish with necessary fixing required to make the item well functional.	Nos.	6		
161	To carry out total station survey of open plot with reference to existing co-ordinate system by establishing control stations by establishing temporary bench mark from permanent bench mark, marking the traverse on open plot by nails, carrying out detailed levelling at a longitudinal and lateral interval of 10m(i.e. forming grid of 10mx10m), plotting cross sections, cross distance, preparing drawings on Auto cad to the scale of 1:500, mentioning all the dimensions on the plan, super imposing CTS plan/DP remarks/demarcation plan and supplying 3 hard copies and 1 soft	upto 1000 Sqm	1		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	copy in C.D. form.. etc.-upto 1000sqm				
162	To carry out total station survey of open plot with reference to existing co-ordinate system by establishing control stations by establishing temporary bench mark from permanent bench mark, marking the traverse on open plot by nails, carrying out detailed levelling at a longitudinal and lateral interval of 10m(i.e. forming grid of 10mx10m), plotting cross sections, cross distance, preparing drawings on Auto cad to the scale of 1:500, mentioning all the dimensions on the plan, super imposing CTS plan/DP remarks/demarcation plan and supplying 3 hard copies and 1 soft copy in C.D. form.. etc.- for every additional 1000sqm area or part thereof	each 1000 Sqm	27		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
163	Clearing the land of all vegetation, stumps, removal of roots, cutting and disposal of the trees upto 30 cms. in girth.	Sqm	7000		
164	Site office, Temporary Storage Shed for Equipments and Materials, Testing Laboratory, etc	lumpsum			
165	Liasoning and documentation charges for various permissions and licenses to be obtained (as applicable) from statutory authorities	lumpsum			
166	Geotechnical Investigation	lumpsum			
167	General Cost (Site office accessories including PCs, Laptops, Printer, Scanner, camera, etc), transportation, fire safety (CO2 cylinders etc) and fire safety inspection as per clause 11.3 Volume II	lumpsum			
168	Providing and fabricating dished closures such as domes of required size and shape from M. S. Plates and other structural steel. The rate to include procurement of plates and other structural steel, transport, cutting the plates and structural steel to the required size, shape and thickness rolling, bending, tack welding, assembling in desired size and shape, welding on automatic welding machine or manually and forming `V' edge with or without shoulder cut/root face to both ends wherever required. The rate shall also include transporting specials				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	and fixtures by adopting suitable means without any damage, intact to the site of work including all loading and unloading etc. complete as specified and directed by Engineer-in -Charge. The rate to include cold pressing etc. complete. The M.S. Plates shall confirm to IS 2062 Grade E250				
A	1800 NB, Domes (4 Nos.) for surge tank isolation	MT	2.77		
B	600 NB, Dome (1 Nos.) for Manhole	MT	0.03		
C	2200 NB, Dome (1 Nos.) for pipeline near WwTF	MT	0.85		
169	Providing, fabricating, M.S. pipes including short pipes (shorter than one strake length) as per specification of required diameters and shell thicknesses given below. The rate to include procurement of MS plates, transport, cutting the plates to the required size rolling, tack welding , assembling in desired lengths to form pipes, welding on automatic welding machine forming 'V edge with or without shoulder cut/root face on both the ends of pipe. The rate should also include hydraulic testing of pipes to the required pressure as per the specifications, transporting pipes with or without stiffener rings mounted on it as required by adopting suitable transporting means without any damage, from the fabrication factory to the laying site of				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	work intact , including loading and unloading at the site, stacking them as directed, fixing of accrow type props etc'.complete as specified and directed by Engineer-in -Charge. The shop paint shall be paid separately as per quoted rates and shall not be included under this item. The M.S. Plates shall confirm to IS 2062 Grade E250				
A	1800 NB, 1829 mm OD (14.2 mm Thick)	Rmt	1000		
B	2200 NB, 2235 mm OD (17.5 mm Thick)	Rmt	50		
C	600 NB, 610 mm OD (5.8 mm Thick)	Rmt	1		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
170	Providing and fabricating, M.S. composite bends of required diameter and shell thickness. The rate to include procurement of M.S. plates, transport, cutting the plates to the required size, rolling, tack welding, assembling in desired lengths to form composite bend, welding on automatic welding machine or manually and forming `V' edge with or without shoulder cut/root face to both ends of the composite bend. The rate shall also include transporting composite bends with or without stiffener rings mounted on it, as required, by adopting suitable transporting means without any damage, from the fabrication factory to the site of work intact, including all loading and unloading fixing of accrow type props etc. complete as specified and directed by Engineer-in -Charge The shop paint shall be paid separately as per quoted rates and shall not be included under this item. The M.S. Plates shall confirm to IS 2062 Grade E250				
A	2200 NB, 90 degree Miter Bend (1 Nos.)	MT	6.1		
B	1800 NB, 45 degree Miter Bend (5 Nos.)	MT	5.6		
C	1800 NB, 90 degree Miter Bend (6 Nos.)	MT	13.4		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
171	Providing and fabricating, T-junctions and Y- junctions of required size and shape from M. S. Plates and other structural steel. The rate to include procurement of plates and other structural steel, transport, cutting the plates and structural steel to the required size, rolling, bending, tack welding, assembling in desired size and shape, welding on automatic welding machine or manually and forming `V' edge with or without shoulder cut/root face to both ends wherever required. The rate shall also include transporting specials with or without stiffener rings, fixtures mounted on it, as required, by adopting suitable means without any damage, intact to the site of work including all loading and unloading, fixing of accrow type props etc. complete as specified and directed by Engineer-in -Charge. The M.S. Plates shall conform to IS 2062 Grade E250				
B	1800 NB Equal Tees (2 Nos.)	MT	6		
b	1800 X 1800 X 2200 NB Tees (1 Nos.)	MT	3.8		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
172	Providing and fabricating, M. S. tapers of required diameter and shell thickness. The rate to include procurement of M.S. plate, transport, cutting the plates to the required size, rolling, tack welding assembling in desired lengths to form tapers, welding on automatic welding machine or manually and forming 'V' edge with or without shoulder cut/ root face to both ends of the taper. The rate also includes providing and welding stiffener rings of required size as directed. The rate also include transporting specials and fixtures by adopting suitable means without any damage, intact to the site of work including all loading and unloading, fixing of accrow type props etc. complete as specified and directed by Engineer-in -Charge. The shop paint shall be paid separately as per quoted rates and shall not be included under this item. The M.S. Plates shall confirm to IS 2062 Grade E250				
A	1800 X 2200 NB Concentric Expander (1 Nos.)	MT	0.89		





## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
173	Making 600 mm. dia. manhole access opening on all sizes of underground pipeline. The work includes excavation, shoring, dewatering, providing doublers of required size but includes cutting pipes, welding back the pipe pieces, and painting with one coat of zinc rich epoxy primer and 3 coats of inertol of 49 W thick or equivalent approved paint internally as per specification and direction complete as directed by Engineer's Representative.	Nos.	1		
174	Providing and Applying Cement mortar lining of specified thickness with proportion of cement-sand ratio (1:1) by weight for underground and aboveground pipeline by mechanical troweling i.e. with the use of mortar lining machine and including curing etc. complete as per specification and as directed by Engineer-in -Charge				
A	10 mm thick inside all the rising main piping works	Sqm	7156		
175	Providing Cement mortar lining of specified thickness of 12mm on the internal surface of the pipeline with proportion of cement sand ratio (1: 1) by weight for underground and aboveground pipeline such as bends, tapers, cross connections, dipping where machine lining is not possible, by hand lining including curing etc.as per specification and as directed by Engineer's Representative.				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

<b>4.CIVIL</b>					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
A	Inside all the fittings	Sqm	735		
176	Blast cleaning the surface of the pipes at factory/ Site externally to remove all rust etc as directed by Engineer's Representative	Sqm	7271		
177	Blast cleaning the surface of the pipes at factory / Site internally to remove all rust etc as directed by Engineer's Representative.	Sqm	7156		
178	Providing & applying one coat of Zinc Rich Epoxy Primer of 50 microns thick, to the external surface of pipes at factory / Site as per specifications and as directed by Engineer's Representative.	Sqm	7271		
179	Providing & applying one coat of Zinc Rich Epoxy Primer of 50 microns thick, to the internal surface of pipes at factory / Site as per specifications and as directed by Engineer's Representative.	Sqm	230		
180	Providing and applying two component high build epoxy barrier/tie coat after curing of previous epoxy primer coat on internal surface of water trunk main, ring girders, stools and roller cover etc. using best quality brush / roller and spray with best workmanship and in approved manner as per detailed technical specification and directions at site to get uniform film with Dry film thickness of 125 micron throughout exterior surface. etc. complete as per	Sqm	230		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	specifications and as directed by Engineer's Representative.				
181	Field welding in all position with required number of runs, for M.S. pipes internally and/or externally including gausing wherever necessary, fixing appurtenances and other accessories in connection of pipe laying work as directed by Engineer-in -Charge				
A	A)Butt Joints				
B	i) 16 mm (for 1800 NB pipe)	Rmt	1615		
C	j) 18 mm (for 2200 NB pipe)	Rmt	100		
182	Field welding in all position with required number of runs, for M.S. pipes internally and/or externally including gausing wherever necessary, fixing appurtenances and other accessories in connection of pipe laying work as directed by Engineer-in -Charge	Rmt	10		
183	Hydraulic testing of M.S. Pipeline to the specified pressure for the length upto 1 km. using reciprocating type pumps which should be able to provide specified test pressure, pressure gauges, & other necessary equipment labour, operation charges, etc. required testing. The rate under this item shall also include cost of re-testing if necessary. Water to be arranged by the contractor and water charges				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	for first testing and retesting shall be borne by contractor.				
A	1800 NB dia.	Km	1		
B	2200 NB dia.	Km	0.05		
184	Transporting within 500 m., laying in position to the correct line and level, M.S. Pipes with/without any out- coating on pedestals or chairs upon prepared formation. The rate to include loading, unloading, hoisting, marginal cutting wherever required, assembling and tack-welding complete as directed by Engineer's Representative. The diameter mentioned shall be considered as clear internal diameter of pipe.				
A	1800 NB, 1829 mm OD (14.2 mm Thick)	Rmt	1000		
B	2200 NB, 2235 mm OD (17.5 mm Thick)	Rmt	50		
C	600 NB, 610 mm OD (5.8 mm Thick)	Rmt	1		
185	Transporting within 500 mtrs. and laying in position to the correct line and level, M.S. specials with/without any out coating such as distance pieces, straps, bends, tapers, etc.as per specification on pedestals or chairs upon formation. The rate to include loading, unloading, hoisting, marginal cutting wherever required, assembling and tack				



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
	welding, complete directed by Engineer's Representative. The diameter mentioned shall be considered as clear internal diameter of pipe				
A	1800 NB (14.2 mm Thick) Fittings	Rmt	40		
B	2200 NB (17.5 mm Thick) (1800 X 2200 NB Expander)	Rmt	2		
186	Providing and fabricating ring girder supports (stools) as per drawing and specifications complete with top plates, base plates, side flats for fixing rollers wherever necessary, grease box covers, rack bolts, guide rods etc. Including welding wherever necessary. The rate to include procurement of plates and other structural steel, transport, cutting to the required size and shape, tack welding, assembling in desired size and shape, welding either on automatic welding machine or manually. The rate shall also include transporting stools by using suitable means without any damage, intact to the site of work inclusive of loading and unloading etc. complete as directed by Engineerin-Charge. The Material shall confirm to IS 2062 Grade E250				
A	Supports for 1800 NB rising main near creek supported over the bridge (20 Nos.)	MT	9.76		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

4.CIVIL					
Sr.No	Item Description	Unit	Qty	Rate including taxes and duties in ₹	Total Price in ₹ Including taxes and duties
		SUB-TOTAL CIVIL			



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

### 5. OPERATION AND MAINTENANCE SERVICES

Sr. No.	Clause no. in Technical specifications and Schedules	Item Description	Unit	Quantity	Amount Rs
1	TS-15 in Mech Spec	Upon successful commissioning of Ghatkopar IPS, Operation and maintenance of the same as per specifications for 36 months by providing all the necessary staff and material as required	Month	36	
			<b>SUB-TOTAL OPERATION AND MAINTENANCE SERVICES</b>		



## UPGRADATION OF GHATKOPAR INFLUENT PUMPING STATION & CARRYING CAPACITY OF RISING MAIN TO DESIGN PFF CAPACITY OF 699 MLD

### Notes:

1. Scan copy of the Price Schedule - 1 to 5, duly filled and signed by the Bidder shall be submitted in Folder named C in the on-line e-tender. **Hard copies of this Price Schedule shall NOT be submitted in any case.** If Bidder does not comply with this, their bid will be disqualified from the tender process.
2. In case of arithmetic errors, the same will be corrected as per Volume I – ITT and GCC, 2. ITT, Clause no.34 Evaluation and comparison of bids.
3. Bidders shall quote the prices for individual items as indicated in the schedules. No clubbing together of Items is acceptable.
4. Subtotals of 1. Mechanical, 2. Electrical, 3. Instrumentation and Control, 4. Civil, 5. Operation and Maintenance Services, 6. Specified Spares and 7. Tools and Test Equipment shall be filled in online Price Packet C of e-tender system as mentioned Volume VI.

Signature of Bidder: \_\_\_\_\_

Business address: \_\_\_\_\_

Place:

Date: