

MIRA BHAYANDAR MUNICIPAL CORPORATION

BID DOCUMENT FOR

Design-Build and Operate Contract (Including Operations and Maintenance)

Under

Local Competitive Bidding

For

Underground Sewerage Scheme for MBMC

Section 5B: Form of Price Proposal,

Schedule of Prices

Schedule 7: Grand Summary



MIRA BHAYANDAR MUNICIPAL CORPORATION

BID DOCUMENT FOR

**Design-Build and Operate Contract
(Including Operations and Maintenance)**

Under

Local Competitive Bidding

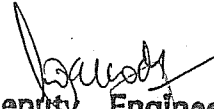
For

Underground Sewerage Scheme for MBMC

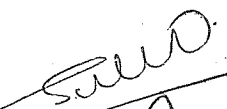
Section 5B: Form of Price Proposal,

Schedule of Prices

Schedule 1: Sewage Collection and conveyance system


Deputy Engineer
Mira-Bhayandar Municipal Corporation


Executive Engineer
Mira Bhayandar Municipal Corporation


City Engineer
Mira-Bhayandar Municipal Corporation

Miss D. J. Anderson, Municipal Corporation
Deputy Engineer

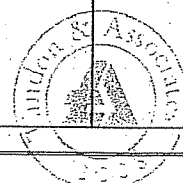
Miss D. J. Anderson, Municipal Corporation
Deputy Engineer
City Engineer
Miss D. J. Anderson, Municipal Corporation

Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount (Rs.)
				(Rs.)	
1	2	3	4	5	6.00
1	Excavation for foundation /pipe trench in soft rock and old cement and lime masonry foundation asphalt road including removing the excavated material up to a distance of 50 meters and lifts as below stacking and spreading as directed normal dewatering preparing the bed for foundation and excluding backfilling etc. complete.				
a	0 to 15 m	cum	79795.17	181.5	14482823.38
2	Excavation for foundation pipe trenches in earth, soils of all types, sand, gravel and soft murrum , including removing the excavated material up to a distance of 50 meters and lifts as below, stacking and spreading as directed, normal dewatering, preparing the bed for foundation and excluding backfilling etc complete.				
a	0 to 3 m	cum	123055.86	55	6768072.51
3	Excavation for foundation / pipe trenches in Hard murrum and boulders, W.B.M. road including removing the excavated material up to a distance of 50 meters and lifts as below, stacking and spreading as directed. normal dewatering. preparing the bed for foundation and excluding backfilling etc. complete.				
a	0 to 15 m	cum	121282	66	8004611.98
4	Excavation for foundation pipe trenches in slush Muddy/Marshy/slushy Soil including use of poclain labour for dewatering during execution including removing the excavated material up to a distance of 50 meters and lifts as below, stacking and spreading as directed. preparing the bed by cleaning the mud. labour REQUIREDs for execution for shuttering item excluding backfilling etc. complete, Providing and fixing shuttering shall be paid separately				
a	0 to 1.5 m	cum	74601.77	154	11488671.88
b	1.5 to 3.0 m	cum	279586.18	163.9	45824174.61

Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount
				(Rs.)	(Rs.)
c	3.0 to 4.5 m	cum	127509.26	173.8	22161109.47
d	4.5 to 6.0 m	cum	63439.61	183.7	11653855.89
e	6.0 to 7.5 m	cum	22628.84	193.6	4380943.05
f	7.5 to 9.0 m	cum	8829.32	203.5	1796767.24
5	Excavation for foundation pipe trenches in hard rock and concrete road by chiseling, wedging, line drilling, by mechanical means or by any other means other than blasting, including trimming and leveling the bed by chiseling where necessary and removing the excavated material up to a distance of 50m beyond the area and lifts as below, stacking as directed by engineering charge, normal dewatering excluding backfilling etc, complete by all means				
a	0 to 1.5 m	cum	12742.47	467.5	5957104.02
b	1.5 to 3.0 m	cum	46621.35	477.4	22257031.24
c	3.0 to 4.5 m	cum	19057.19	487.3	9286569.30
d	4.5 to 6.0 m	cum	9225.1	497.2	4586719.03
e	6.0 to 7.5 m	cum	9307.9	507.1	4720037.86
f	7.5 to 9.0 m	cum	1717.72	517	888058.99
6	Timbering, in trenches				
	Open timbering in trenches of depth more than 1.5m for shoring and strutting including use of and waste of all necessary timber works including walling, struts, open polling boards horizontal sheeting, runners, etc as may be necessary and fixing and removal complete for non water logged area				
a	0 to 1.5 m	sqm	358803.84	151.8	54466422.91
b	1.5 to 3 m	sqm	321200.4	163.9	52644745.06
c	3.0 to 4.5 m	sqm	109082.08	176	19198445.36
d	4.5 to 6 m	sqm	45824.91	188.1	8619664.83
e	6.0 to 7.5 m	sqm	16965.75	200.2	3396544.09
f	7.5 to 9.0 m	sqm	7068.99	212.3	1500747.61

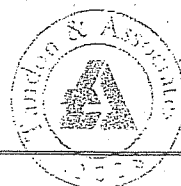
Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount
				(Rs.)	(Rs.)
7	Dewatering				
	Dewatering the excavated trenches and pools of water in the building trenches pipelines, as well works by using pumps and other devices including disposing off water to safe distance as directed by engineer-in-charge (including cost of machinery, labour, fuel) etc. complete.				
a	Rate of infiltration medium	bhp/hr	1998970.7	20.9	41778487.65
b	Rate of infiltration high	bhp/hr	975379.48	20.9	20385431.10
c	Rate of infiltration very high	bhp/hr	944316.48	20.9	19736214.43
8	Rubble Stone Soling				
	Providing dry trap/granite/quartzite/gneiss, rubble stone soling in 15 cm to 20 cm thick layers including hand packing and compacting etc. complete.	cum	64676.69	418	27034856.45
9	Transportation of earth				
a	Carting away the excavated material for a lead beyond 1km.	cum	354150.02	77.26	27361630.64
b	Carting away the excavated material for a lead beyond 3 km	cum	389375.05	89.51	34852960.90
c	Carting away the excavated material for a lead beyond 5 km	cum	504428.22	113.17	57086141.37
d	Carting away the excavated material for a lead beyond 10 km	cum	108686.22	170.28	18507089.24
10	Providing Pipes (RCC NP3 pipe)				
	Providing ISI standard RCC pipes in standard lengths of following class and diameter suitable for rubber ring joints, including all taxes (central and local), inspection charges, transport to stores-sites, unloading and stacking etc complete				
	one rubber ring should be supplied with each full length socketed pipe, cost including in rates below				
	Class NP III				
a	150 mm	RMT	10840	221	2395719.56
b	200 mm	RMT	9736	331	3222715.30
c	250 mm	RMT	8860	424	3756512.80

Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount (Rs.)
				(Rs.)	
d	300 mm	RMT	8516	434	3695865.88
f	400 mm	RMT	9736	1037	10096626.06
h	500 mm	RMT	7914	1303	10311446.86
l	600 mm	RMT	2495	1446	3607770.00
j	700 mm	RMT	2220	2136	4741535.52
j	800 mm	RMT	913	3675	3356010.00
k	900 mm	RMT	1362	2809	3825296.20
l	1000 mm	RMT	987	3292	3248545.60
m	1100 mm	RMT	1135	4161	4722943.05
n	1200 mm	RMT	552	4662	2571326.10
11	Providing Pipes (RCC NP4 pipe)				
	Providing ISI standard RCC pipes in standard lengths of following class and diameter suitable for rubber ring joints, including all taxes (central and local), inspection charges, transport to stores-sites, unloading and stacking etc complete				
	one rubber ring should be supplied with each full length socketed pipe, cost including in rates below				
	Class NP IV				
a	150 mm	RMT	3733	247	922130.04
b	200 mm	RMT	3429	347	1189911.58
c	250 mm	RMT	2518	476	1198672.72
d	300 mm	RMT	2617	556	1455018.64
f	400 mm	RMT	5429	1089	5912246.34
h	500 mm	RMT	3533	1490	5263872.00
l	600 mm	RMT	1851	1602	2964501.00
j	700 mm	RMT	763	2503	1909288.40
k	900 mm	RMT	357	3520	1257344.00
l	1000 mm	RMT	341	4522	1542002.00
m	1100 mm.	RMT	184	4905	900067.50
12	Lowering laying and jointing in proper grade and alignment R.C.C. pipes with socketed RCC pipes with rubber joints (excluding cost of rubber ring) including cost of conveyance from stores to site of work, cost of jointing material, labour, giving hydraulic testing etc. complete as directed by engineer-in charge				

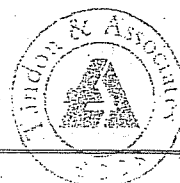


Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount
				(Rs.)	(Rs.)
a	150 mm	RMT	14574	24.2	352683.06
b	200 mm	RMT	13165	37.4	492387.46
c	250 mm	RMT	11378	49.5	563207.04
d	300 mm	RMT	11133	59.4	661285.94
f	400 mm	RMT	15165	68.2	1034283.01
h	500 mm	RMT	11446	74.8	856192.22
i	600 mm	RMT	4346	82.5	358503.75
j	700 mm	RMT	2983	102.3	305122.03
k	800 mm	RMT	913	126.5	115519.80
l	900 mm	RMT	1719	160.6	276071.40
m	1000 mm	RMT	1328	190.3	252680.34
n	1100 mm	RMT	1319	231	304585.05
o	1200 mm	RMT	552	282.7	155923.19
13	Lining with Polyurea 100% for RCC pipes Primer material- Polyprime or Nukote approved primer Thickness-DFT-Nominal 100 microns or 0.075 mm Coating material - Polyurea HTColour - Grey Thickness DFT- Nominal 1000 microns or 1.00 mm	sqm	100	1497.38	149737.50
14	Thickness of purethane 386/900 is 1.50mm for smooth RCC pipes .The RCC will be "sweep" blasted lightly to remove surface laitance ,primed with 100 microns of purethane P-IV , 100% solids polyurethane primer to a wet film thickness of 100 microns ,Followed by purethane ,100% solids pluyuthane coating at 1.5 mm	sqm	100	785.29	78529.00
15	Providing Pipes (DI K9 pipe)				
	Providing DI K-9 grade Pipe, with internal cement mortar lining including all taxes. insurance. railway freight, unloading from railway wagon. loading into truck, transport to departmental stores site, unloading- stacking etc complete. (IS 8329-2000 latest Version)				
a	150 mm	RMT	730	863.05	630382.08
b	200 mm	RMT	668	1178.75	786917.00
c	250 mm	RMT	551	1558	857898.05
d	300 mm	RMT	540	1866.53	1007937.13

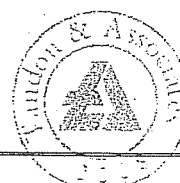
Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount
				(Rs.)	(Rs.)
f	400 mm	RMT	722	2829	2043003.94
h	500 mm	RMT	533	3959.58	2111429.91
i	600 mm	RMT	208	5249.03	1091091.21
j	700 mm	RMT	133	6762.95	898969.19
k	800 mm	RMT	46	8385.53	382883.30
l	900 mm	RMT	80	10084.98	808669.16
m	1000 mm	RMT	57	11938.18	686206.59
16	Lowering, laying and jointing with SBR rubber gaskets C.I S/s pipes of various classes with CI/MS specials of following diameter in proper position, grade and alignment as directed by engineer-in-charge including conveyance of material from stores to site of work including cost of jointing materials and rubber rings labour, giving hydraulic testing etc complete.				
a	150 mm	RMT	730	49.5	36155.39
b	200 mm	RMT	668	67.1	44795.02
c	250 mm	RMT	551	92.4	50879.19
d	300 mm	RMT	540	101.2	54648.74
f	400 mm	RMT	722	168.3	121540.32
h	500 mm	RMT	533	205.7	109688.83
i	600 mm	RMT	208	262.9	54647.84
j	700 mm	RMT	133	359.7	47813.34
k	800 mm	RMT	46	489.5	22350.57
l	900 mm	RMT	80	576.4	46218.92
m	1000 mm	RMT	57	682	39201.36



Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount (Rs.)
				(Rs.)	
17	Providing and Laying Pipes (HDPE pipes) Providing and supplying in standard lengths polyethelene pipes ,confirming to IS 4984 /14151 /12786 with necessary jointing material like mechanical connector i.e. thread /insert joint/ quick release coupler joint / compression fitting joint or flanged joint or flanged joint including all taxes (central and local), inspection charges, transportation and fright charges inspection charges ,conveyance to the departmental stores /site & stacking the same in closed shade duely protecting from sunrays & rains etc complete				
	PE 100- 6KG/SQCM				
a	160 mm	RMT	173	523	90374.40
b	200 mm	RMT	931	805	749777.00
c	250 mm	RMT	416	1268	527488.00
d	315 mm	RMT	400	2014	805600.00
f	400 mm	RMT	636	3399	2162103.90
18	Lowering, laying and jointing HDPE pipes with the help of teflon coated disc & hot flame blower to the required temperature and then pressing the ends together against each other to form monolithics & leak proof joint by thermosetting process the pressing may be required to be done with jig fixtures etc. complete with all materials labours as directed by engineer in charge including given satisfactory hydraulic testing etc complete.				
a	160 mm	Joint	35	27.5	950.40
b	200 mm	Joint	186	31.9	5942.33
c	250 mm	Joint	83	40.7	3386.24
d	315 mm	Joint	80	47.3	3784.00
f	400 mm	Joint	127	67.1	8536.46

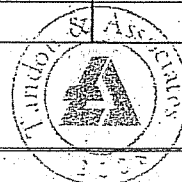


Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount (Rs.)
				(Rs.)	
19	Manholes				
a	Providing and constructing on sewer.R.C.C circular manhole concentric cone 1.2 m dia at bottom and 0.5 m dia at top and up to a depth of 2.0 M of Reinforced Cement Concrete (M-250) in CM 1:4 proportion excluding excavation including foundation concrete 250 mm thick and haunches and channels in C.C.1:2:4 proportion, finishing channel, in smooth rendering, providing C.I dapuri type steps each weighing 5.5 kg., 1:2:4 coping and providing and fixing approved make and quality SFRC frame and cover of 56 cm dia etc., complete as directed by engineer- in-charge.	No.	633	18144	11485152.00
	rebate for every decrease in depth of 50 cm or part thereof	50cm depth	180.7	1936	349839.77
b	Providing and constructing on sewer, R.C.C M200 circular manhole concentric cone 1.5m in dia at bottom and 0.5 m dia at top and up to a depth of 5.0 m with of Reinforced Cement Concrete (M-250) in CM 1:4 proportion excluding excavation including foundation concrete 250 mm thick and haunches and channels in C.C.1:2:4 proportion, finishing channels in smooth rendering, providing C.I. dapuri type steps each weighing 5.5 kg..1:2:4 coping and providing and fixing approved make and quality- SFRC frame and cover of 56 cm dia etc., complete as directed by engineer-in-charge.	No.			
			2117	40584	85916328.00
	rebate for every decrease in depth of 50 cm or part thereof	50cm depth	3837.39	3696	14182986.36



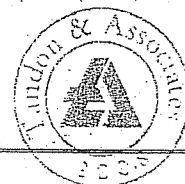
Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount
				(Rs.)	(Rs.)
c	Providing and constructing on sewer.R.C.C circular manhole concentric cone 1.2 m dia at bottom and 0.5 m dia at top and up to a depth of 9.0 M with of Reinforced Cement Concrete (M-250) in CM 1:4 proportion excluding excavation including foundation concrete 250 mm thick and haunches and channels in C.C.1:2:4 proportion, finishing channel, in smooth rendering, providing C.I dapuri type steps each weighing 5.5 kg., 1:2:4 coping and providing and fixing approved make and quality SFRC frame and cover of 56 cm dia etc., complete as directed by engineer- in-charge.	No.			
			545	82155.2	44774584.00
	rebate for every decrease in depth of 50 cm or part thereof	50cm depth	1461.75	4752	6946232.13
20	Drainage Drops				
a	Providing 150mm dia S.W. or R.C.C.pipes in vertical drop arrangement including providing 150 dia S.W. R.C.C. pipe fixed in R.C.C. M 200 of manhole at the REQUIREDd level including providing 150 mm dia double tee, bend up to the foundation of manhole jointing, cutting filleting including neat cement rendering plugging the opening with jungle wood knob complete as directed by Engineer-in-charge (0.60M depth) excluding cost of chamber.	No.	6	938.3	5629.80
	Extra for every 0.5 depth beyond initial depth of 0.60 M.	50cm depth	13	205.7	2674.10
b	As above but 200 mm dia pipes and depth 0.60M	No.	46	1452	66792.00
	Extra for every 0.5 depth beyond initial depth of 0.60 M	50cm depth	101	345.4	34885.40
c	As above but 250 mm dia pipes and depth 0.60M	No.	25	1833.7	47676.20
	Extra for every 0.5 depth beyond initial depth of 0.60 M	50cm depth	39	411.4	16044.60
d	As above but 300 mm dia pipes and depth 0.60M	No.	18	2148.3	38669.40
	Extra for every 0.5 depth beyond initial depth of 0.60 M	50cm depth	17	471.9	8022.30

Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount (Rs.)
				(Rs.)	
e	As above but 400 mm dia pipes and depth 0.60M	No.	60	2541	152460.00
	Extra for every 0.5 depth beyond initial depth of 0.60 M	50cm depth	37	580.8	21489.60
f	As above but 500 mm dia pipes and depth 0.60M	No.	18	2891.9	54946.10
	Extra for every 0.5 depth beyond initial depth of 0.60 M	50cm depth	12	641.3	7695.60
g	As above but 600 mm dia pipes and depth 0.60M	No.	4	3327.5	13310.00
	Extra for every 0.5 depth beyond initial depth of 0.60 M	50cm depth	8	738.1	5904.80
21	Bedding				
	Providing and laying in situ Cement concrete in proportion M20 of trap metal for foundation and bedding including bailing out water manually, from work, compacting and curing				
	PCC M20	cum	23156.15	2758.85	63884333.76
22	Providing and filling in the foundation trenches with sand of approved quality including watering compaction. etc complete	cum	3621.16	330	1194982.55
23	RCC				
	Providing and laying in situ Cement concrete of trap/granite/ quartzite / gneiss metal for RCC work in foundation like encasing, raft, grillage, strip foundation and footing of RCC columns and steel stanchions including dewatering, formwork, compaction finishing & curing etc, complete. (By wigh batching and mix design for M-250 and M-300 only.) Use of L&T, A.C.C., Ambuja, Birla Gold, Manikgad, Rajashree, etc. cement is permitted) (excluding M.S. or Tor reinforcement)				
	For RCC M-250 grade	cum	11293.79	3022.22	34132316.52



Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate (Rs.)	Amount (Rs.)
24	STEEL REINFORCEMENT Providing and fixing in position steel bar reinforcement of various daimeters for RCC piles caps ,footing foundations,slabs,beams,columns,canopies, staircases,newls ,chajjas lintels, pardies,copings ,fins arches ,etc. as per detailed designs,drawings and schedules including cutting bending ,hooking the bars ,binding with wires or tack welding and supporting as REQUIREDd etc.complete. (including cost of binding wire)				
		MT	1411.72	34823.8	49161583.37
25	Providing fusion bonded epoxy coating top reinforcement bars as per ASTM-755 specification for a thickness of 175 (± 50) microns including extra cost on account of touch-up material supplied by coating agency and repair work extra cost on account of transportation to and from steel yard at kamlboli to plat at Daman and plat at Daman to work site by trailer loading ,unloading ,including all taxes (central and local)_etc. complete.				
	For Reinforcement Diameterwise Rates				
	8mm to20 mm dia		1411.72	14619	20637988.60
26	Refilling in trenches				
A	Filling in plinth and floor / trenches with Contractor's murrum for bedding in 15cm to 20 cm layers including watering and compaction etc. complete (MJP /SR 2006-2007 Page no. 39) item no. 19	cum	313629.81	187	58648774.00
B	Geo Synthetic polymer solution	cum	300588	27.5	8266169.86
C	Refilling the trenches with available excavated stuff with soft material first over pipeline and then hard in 15cm layers with all leads and lifts including consolidation, surcharging etc.complete	cum	102773.76	22	2261022.64

Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount (Rs.)
				(Rs.)	
27 A	Road restoration Supplying-----trap / granite / quartzite / gneiss / laterite stone metal at the road side for metal including conveying & stacking etc. complete.				
	a) By Blasting (Hand broken)				
	i). 80 mm metal	cum	146479.46	423.24	61995967.75
	ii). 60 mm metal	cum	25493.71	444.24	11325323.80
	iii) 40 mm metal	cum	16995.8	486.24	8264038.00
B	Supplying----- crushed metal of trap / granite / quartzite / gneiss stone aggregate at the road side, including conveying and stacking etc. complete for use in bituminous road surface.				
	i) 6 mm	cum	2549.37	405.64	1034126.50
C	Spreading oversize 40mm / 60mm /80mm metal including sectioning etc. complete.	cum	138342.23	30.45	4212520.99
D	Compacting sub grade / gravel / oversize metal(200mm loose)layer 2 to 7 m wide with static roller, including necessary, labour, materials and artificial watering etc. complete.	sqm	647682.34	8	5181458.69
E	Spreading gravel / hard murum /soft murum & stone dust over the rubble soling, oversize and size metal layer / blandage on W.B.M. surface etc. complete.	cum	2549.37	16	40789.92
F	Compacting the size metal (150 mm loose) layer upto 2.00m width with static roller , including necessary labour, materials and artificial watering etc. complete.	sqm	647682.34	7.35	4760465.17



Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount
				(Rs.)	(Rs.)
G	Providing and laying bituminous tack coat, @ 50 Kg/100 m ² over B.T.surface by manual/mechanical sprayer including supplying all materials,preparing the existing surface,heating bitumen and applying tack coat evenly on the surface etc. complete. (using 60/70 grade)	sqm			
			240767.17	13.79	3320179.34
H	Providing and laying hot mix hot laid bituminous macadam 50/75 mm average thickness with 30/40 grade of bitumen by weight of total mix for levelling course to remove irregularities / Base course including diversion of traffic supply of all materials, heating bitumen and chips in drum mix plant, cleaning the road surface, laying bituminous macadam by paver finisher including compacting with static roller transportation and cost of all materials, bitumen from refinery etc. complete. (excluding tack coat)	sqm			
	I) 3% Base course		28717.75	2937.61	84361547.39
I	Providing 20 mm thick bituminous premix carpet of 30/40 grade of bitumen including supplying all materials, preparing and cleaning the base, heating bitumen mixing hot bitumen and chips, laying the carpet layer and compacting etc. complete.(using Bulk Asphalt.)	sqm			
			254937.01	87.98	22429358.41
			TOTAL		1254906491



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**Design-Build and Operate Contract
(Including Operations and Maintenance)**

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Underground Sewerage Scheme for MBMC

**Section 5B: Form of Price Proposal,
Schedule of Prices**

**Schedule 2: Sewage Pumping stations and
treatment Plants**



SCHEDULE 2 (Part-I) Sewage Treatment Plant

Sr.No.	ITEM OF WORK (Description)	UNIT	Total Quantity	RATE	Amount (Rs.)
1.	Designing, providing, constructing and commissioning and giving satisfactory performance test for modernized and fully automated package/modular Sewage Treatment Plant including cost of all equipments and civil/mechanical /electrical work required to provide/install such plant and providing necessary automation to enable unmanned operation and e-connectivity with control office inclusive of cameras of adequate resolution, computer hardware and modem to transmit data and images to control office suitable to land availability for each STP including providing necessary plant shade, providing beautification, providing de-odourization system, providing roads in STP premises for facilitating conveyance arrangement of de-hydrated sludge as per detailed specifications etc complete Note: Plant to be designed and tested for effluent standards of BOD < 10 ppm : TSS < 20 ppm Average flow for STP to be provided for each zone shall be as below				
a.	For Zone No 1 : 14 MLD	MLD	14	6807521	95305289.1
b.	For Zone No 2 : 8 MLD	MLD	8	6185021	49480165.2
c.	For Zone No 3 : 17 MLD	MLD	17	6807521	115727851.1
d.	For Zone No 4 : 12 MLD	MLD	12	6807521	81690247.8
e.	For Zone No 5 : 7 MLD	MLD	7	6185021	43295144.55
f.	For Zone No 6a : 13 MLD	MLD	13	6807521	88497768.45
g.	For Zone No 6b : 7 MLD	MLD	7	6185021	43295144.55
h.	For Zone No 6c : 11 MLD	MLD	11	6807521	74882727.15
i.	For Zone No 7 : 12 MLD	MLD	12	6807521	81690247.8
j.	For Zone No 8 : 9 MLD	MLD	9	6185021	55665185.85
	Total		110		729529771.5

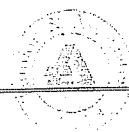


SCHEDULE 2 (Part-II) PUMPING STATIONS			
Item No	ITEM WORK (Description)	RATES	AMOUNT(Rs.)
1	Designing and constructing pumping stations (Civil work) including providing sumps with minimum water depth of 3.0 mtrs and pump houses diesel generator rooms as per detailed scope of work. Item to include		
	1.Necessary excavation in all sorts of strata such as soil inclusive of slushy/marshy/muddy soil, soft and hard murum and boulders, hard rock and old concrete structures by chieesseling, wedging drilling including necessary shoring, strutting, open/close timbering, dewatering upto completion of work, drilling piles for pile foundations to be provided as per detailed design etc complete.		
	2.Providing rubble soling, PCC and RCC (Not below M250 grade) for raft foundation with open/ pile foundation, vertical walls for sump and pump-house, beams, slabs, lintels and providing placing steel reinforcement with fusion bond epoxy coating as per detailed design etc complete.		
	3. Providing polished shahabad/IPS/Mossaic flooring for pumphouses		
	4. Providing doors, windows, ventilators, rolling shutters etc as per requirement		
	5. Providing internal waterproof plastering for sumps, 20mm internal plaster and 25 mm external plaster for structure above GL, providing oil bound distemper from inside and snowcem paint for pumphouse from outside etc complete.		
	6. Providing fixing internal ladders/staircases as per necessity		
	7. Providing necessary arrangement of gantry girders, chain pulley block etc for installation and repairs of pumps		
	8. Structure to be designed for uplift pressure		
	9. Givingsatisfactory hydraulic test for sumps		
a	For Zone No 1 with sump capacity 333 cum and FSL 7 mtr below GL,	Lump sum	13904581
b	For Zone No 2 with sump capacity 250 cum and FSL 6 mtr below GL,	Lump sum	10438874
c	For Zone No 3 with sump capacity 1042 cum and FSL8 mtr below GL,	Lump sum	43509228
d	For Zone No 4 with sump capacity 417 cum and FSL 5mtr below GL,	Lump sum	17412042
e	For Zone No 5 with sump capacity 292 cum and FSL 8 mtr below GL,	Lump sum	12192605
f	For Zone No 6a with sump capacity 417 cum and FSL 8 mtr below GL,	Lump sum	17412042
g	For Zone No 6b with sump capacity 292 cum and FSL 6 mtr below GL,	Lump sum	12192605

SCHEDULE 2 (Part-II) PUMPING STATIONS			
Item No	ITEM WORK (Description)	RATES	AMOUNT(Rs.)
h	For Zone No 6c with sump capacity 1354 cum and FSL 4 mtr below GL,	Lump sum	56536943
i	For Zone No 7 with sump capacity 833 cum and FSL 6 mtr below GL,	Lump sum	34782329
j	For Zone No 8 with sump capacity 1146 cum and FSL 10 mtr below GL,	Lump sum	47851800
2	Designing, providing, installing pumping machinery considering peak factor requirements with discharging capacity suitable for treating average daily flows with 2 pumps each capable to discharge 25% and 100% of average flow and 4 pumps capable to discharge 50% of average flow as mentioned below capable to operate in combination and head requirements based on FSLs of sumps as below and delivery level to be finalised as per STP design by the service provider, confirming to relevant IS standards, suitable flanges at suction and delivery side, suitable for working on 415 V +/- 10%, 3ph, 50 Hz AC supply with necessary foundation, providing and fixing sluice valve valves with valve actuators, non-return valves, Foot valves, Providing and erecting M.S Vertical/Horizontal pipes and specials, providing, installing panel boards with starters, change over switches, volt meters, ammeters etc, and electric cables for operating pumps, providing necessary earthing arrangements, commissioning the pumping machinery and giving satisfactory hydraulic test etc complete		
a	For Zone No 1 with average flow of 14 MLD and sump FSL 7 mtr below GL,	Lump sum	12878140
b	For Zone No 2 with average flow of 8.0 MLD and FSL 6 mtr below GL,	Lump sum	7358937
c	For Zone No 3 with average flow of 17.0 MLD and FSL 8 mtr below GL,	Lump sum	15637742
d	For Zone No 4 with average flow of 12.0 MLD and FSL of sump 5 mtr below GL,	Lump sum	11038406
e	For Zone No 5 with average flow of 7.0 MLD and FSL of sump 8 mtr below GL,	Lump sum	6439070
f	For Zone No 6a with average flow of 13.0 MLD and FSL of sump 8 mtr below GL,	Lump sum	11958273
g	For Zone No 6b with average flow of 7.0 MLD and FSL of sump 6 mtr below GL,	Lump sum	6439070
h	For Zone No 6c with average flow of 11.0 MLD and FSL of sump 4 mtr below GL,	Lump sum	10118539
i	For Zone No 7 with average flow of 12.0 MLD and FSL of sump 6 mtr below GL,	Lump sum	11038406
j	For Zone No 8 with average flow of 9.0 MLD and FSL of sump 10 mtr below GL,	Lump sum	8278804.5

SCHEDULE 2 (Part-II) PUMPING STATIONS			
Item No	ITEM WORK (Description)	RATES	AMOUNT(Rs.)
3	Designing, providing, installation, testing and commissioning diesel generators for operating pumps at all pumping stations as well as operation of STP plant during period of load shading/ power failure as specified in Item 2 above including necessary cable connections, change over switches etc complete		
a	For Zone No 1 with average flow of 14 MLD	682500	9555000
b	For Zone No 2 with average flow of 8.0 MLD	735000	5880000
c	For Zone No 3 with average flow of 17.0 MLD	682500	11602500
d	For Zone No 4 with average flow of 12.0 MLD	682500	8190000
e	For Zone No 5 with average flow of 7.0 MLD	735000	5145000
f	For Zone No 6a with average flow of 13.0 MLD	682500	8872500
g	For Zone No 6b with average flow of 7.0 MLD	735000	5145000
h	For Zone No 6c with average flow of 11.0 MLD	682500	7507500
i	For Zone No 7 with average flow of 12.0 MLD	682500	8190000
j	For Zone No 8 with average flow of 9.0 MLD	735000	6615000
		TOTAL	444120939

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MIRA BHAYANDAR MUNICIPAL CORPORATION

BID DOCUMENT FOR

**Design-Build and Operate Contract
(Including Operations and Maintenance)**

Under

Local Competitive Bidding

For

Underground Sewerage Scheme for MBMC

Section 5B: Form of Price Proposal,

Schedule of Prices

Schedule 3: Treated Sewage Outfalls

SCHEDULE 3 TREATED OUTFALL					
Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount (Rs.)
1	Excavation for foundation /pipe trench in soft rock and old cement and lime mansonary foundation asphalt road including removing the excavated material up to a distance of 50 meters and lifts as below stacking and spreading as directed normal dewatering preparing the bed for foundation and excluding backfilling etc. complete.				
a	0 to 1.5 m	Cum	594	181.5	107811
2	Excavation for foundation pipe trenches in earth, soils of all types, sand, gravel and soft murrum , including removing the excavated material up to a distance of 50 meters and lifts as below, stacking and spreading as directed, normal dewatering, preparing the bed for foundation and excluding backfilling etc complete.				
a	0 to 1.5 m	Cum	891	55	49005
3	Excavation for foundation / pipe trenches in hard murrum and boulders, w.b.m. road including removing the excavated material up to a distance of 50 meters and lifts as below, stacking and spreading as directed. normal dewatering. preparing the bed for foundation and excluding backfilling etc. complete.				
a	0 to 1.5 m	Cum	891	66	58806
4.	Excavation for foundation pipe trenches in slush Muddy/Marshy/slushy/Soil including use of poclain labour for dewatering during execution including removing the excavated material up to a distance of 50 meters and lifts as below, stacking and spreading as directed. preparing the bed by cleaning the mud, labour requires for execution for shuttering item excluding backfilling etc., complete, Providing and fixing shuttering shall be paid separately				
a	0 to 1.5 m	Cum	594.68	154	91580.27
5	Excavation for foundation pipe trenches in hard rock and concrete road by chiseling, wedging. line drilling , by mechanical means or by any other means other than blasting, including trimming and leveling the bed by chiseling where necessary and removing the excavated material up to a distance of 50m beyond the area and lifts as below, stacking as directed by engineering charge, normal dewatering excluding backfilling etc, complete by all means				
a	0 to 1.5 in	Cum	89.2	467.5	41701.73

SCHEDULE 3 TREATED OUTFALL					
Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount (Rs.)
6	Timbering, in trenches				
	Open timbering in trenches of depth more than 1.5m for shoring and strutting including use of and waste of all necessary timber works including walling, struts, open polling boards horizontal sheeting, runners, etc as may be necessary and fixing and removal complete for non water logged area				
a	0 to 1.5 m	Sq. M.	3.42	151.8	519.16
b	1.5 to 3 m	Sq. M.	0.9	163.9	147.97
7	Dewatering				
	Dewatering the excavated trenches and pools of water in the building trenches pipelines, as 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) etc. complete.				
a	Rate of infiltration medium	BHP/HR	1483.05	20.9	30995.67
b	Rate of infiltration high	BHP/HR	798.56	20.9	16689.96
8	Rubble Stone Soling				
	Providing dry trap/granite/quartzite/gneiss, rubble stone soling in 15 cm to 20 cm thick layers including hand packing and compacting etc. complete.	Cum	1.08	418	451.44
9	Providing Pipes (GRP pipe)				
	Providing GRP Pipe conforming to BIS 12709/BIS 14402 with double bell REKA GRP coupling EPDM rubber Gaskets for sealing of pressure dia and stiffness class including of all taxes. insurance. railway freight, unloading from railway wagon. loading into truck, transport to departmental stores site, unloading-stacking etc complete.				
a	400 mm	RMT	2000	2651.9	5303800
b	500 mm	RMT	3000	3481.05	10443150
10	Lowering laying Jointing GRP pipes by heating to the end of pipes with the help of teflon coated Electric mirror/heater, using Butt Fusion (With ED) 2.5 to 8.0 kg/Sq.cm.				
b	450 mm	RMT	2000	2651.9	5303800
c	560 mm	RMT	3000	3481.05	10443150



SCHEDULE 3 TREATED OUTFALL					
Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount (Rs.)
11	Valve				
	Providing ,double flanged short body pattern type manually operated Butterfly valve having body ,disc and end cover in graded cast iron to IS 210 Gr. CF 200 generally conforming in BS 5155,Synthetic rubber faced ring secured on disc by retaining ring with stainless steel screw stub shaft of stainless steel riding in Teflon bearings excluding C.C. foundation /structural steel support confirming to IS 13095 -1991				
a	400 mm	No.	6	65306.2	391837.2
b	500 mm	No.	12	88323.45	1059881
12	Lowering, laying and Jointing in Position following C.I.D./F Reflex valves, Butterfly valves and Sluice valves including cost of all labour join ting material, including nut bolts and giving satisfactory hydraulic testing etc. complete (rate for all class of Valves.)				
a	400 mm	No.	6	3109.7	18658.2
b	500 mm	No.	12	3654.2	43850.4
13	Valve Actuators				
	Providing ,erecting electric valve actuators totally enclosed ,weather-proof and dust proof construction with IP-67,protection class suitable for installation in any position without lubrication leakage or other operational difficulty with special grease filled gear box and hand wheel for emergency manual operation which will automatically disengage on restoration of power to motor and with 10 watt single phase space heater and continuous local mechanical position indicator and individually replaceable counter gear assembly and with two torque and four limit switches with S.S. flap and operated with gear driven cams and of rating 250 Volt,5 Amp AC/DC torque switchdial and with TEFC squirell cage induction motor working on 440 Volts +/- 10% ,3 phase ,50 Hz AC of intermittent duty rating S-2 insulation class " F " and temp rise restricted to class "B" with IP-67 protection class suitable for DOL Starting and with three thermostat and 30% over load margin. The torque rating of reduction gear box shall be atleast 1.5 times max. torque required for opening and closing of valve.				
a	400 mm	No.	6	88126.97	528761.8
b	500 mm	No.	12	155466.2	1865594
c	600 mm	No.	2	155466.2	310932.4

SCHEDULE 3 TREATED OUTFALL					
Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount (Rs.)
14	PCC				
	Providing and laying in situ Cement concrete in proportion M20 of trap metal for foundation and bedding including bailing out water manually, from work, compacting and curing.				
a	M20	cum	10	3273	32730
15	Providing and filling in the foundation trenches with sand of approved quality including watering compaction. etc complete	cum	10	330	3300
16	RCC				
	Providing and laying in situ Cement concrete of trap/granite/ quartzite / gneiss metal for RCC work in foundation like raft, grillage, strip foundation and footing of RCC columns and steel stanchions including dewatering, formwork, compaction finishing & curing etc, complete. (By wigh batching and mix design for M-250 and M-300 only.) Use of L&T, A.C.C., Ambuja, Birla Gold, Manikgad, Rajashree, etc. cement is permitted) (excluding M.S. or Tor reinforcement)				
a	For RCC M-250 grade	cum	167.9	4210.05	706846.3
17	Valve chamber with pre cast steel fibre reinforced concrete frame and covers (S.F.R.C. frame and covers.)				
	Providing and constructing B.B. masonry valve chamber with 15 cm thick 1:3:6 proportion PCC bedding, excluding excavation, B.B. masonry in C.M. 1 : 5 Proportion precast S.F.R.C. frame and cover etc. complete as directed by Engineer-in-charge. (Note : Wall thickness : 0.23 M for depth of 1.2 M and 0.35M for balance depth exceeding 1.2 M)				
	As above of 90 X 45 cm internal size and depth up to 1.2 M with S.F.R.C. frame and cover.				
	A .Add for every increase in depth 30 cm there of				
	Depth of 1.8	No.	20	6359.1	127182
18	STEEL REINFORCEMENT Providing and fixing in position steel bar reinforcement of various daimeters for RCC piles caps, footing foundations, slabs, beams, columns, canopies, staircases, newls, chajjas lintels, pardies, copings, fins arches, etc. as per detailed designs, drawings and schedules including cutting bending, hooking the bars, binding with wires or tack welding and supporting as required etc. complete. (including cost of binding wire)	MT	10.07	34823.3	350799.5
19	Refilling in trenches				

SCHEDULE 3 TREATED OUTFALL					
Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount (Rs.)
a	Refilling the trenches with available excavated stuff with soft material first over pipeline and then hard in 15cm layers with all leads and lifts including consolidation, surcharging etc. complete	Cum	1325.48	22	29160.48
20	Road restoration				
A	Supplying-----trap / granite / quartzite / gneiss / laterite stone metal at the road side for metal including conveying & stacking etc. complete.				
	a) By Blasting (Hand broken)				
	i) 80 mm metal	Cum	1782	407.29	725790.8
	ii) 60 mm metal	Cum	1425.6	444.24	633308.5
	ii) 40 mm metal	Cum	950.4	486.24	462122.5
B	Supplying----- crushed metal of trap / granite / quartzite / gneiss stone aggregate at the road side, including conveying and stacking etc. complete for use in bituminous road surface.				
	i) 6 mm	Cum	142.56	405.64	57828.04
C	Spreading oversize 40mm / 60mm metal including sectioning etc. complete.	Cum	4158	30.45	126611.1
D	Compacting sub grade / gravel / oversize metal (200mm loose) layer 2 to 7 m wide with static roller, including necessary, labour, materials and artificial watering etc. complete.	Sq. M.	106920	8	855360
E	Spreading gravel / hard murum / soft murum & stone dust over the rubble soling, oversize and size metal layer / bludge on W.B.M. surface etc. complete.	Cum	142.56	16	2280.96
F	Compacting the size metal (150 mm loose) layer upto 2.00m width with static roller, including necessary labour, materials and artificial watering etc. complete.	Sq. M.	106920	7.35	785862
G	Providing and laying bituminous tack coat, @50 Kg/100 m2 over B.T. surface by manual/mechanical sprayer. including supplying all materials, preparing the existing surface, heating bitumen and applying tack coat evenly on the surface etc. complete. (using 60/70 grade)	Sq. M.	35640	13.79	491475.6

SCHEDULE 3 TREATED OUTFALL					
Sr.No.	ITEM OF WORK (Description)	UNIT	TOTAL QUANTITY	Rate	Amount (Rs.)
H	Providing and laying hot mix hot laid bituminous macadam 50/75 mm average thickness with 30/40 grade of bitumen by weight of total mix for levelling course to remove irregularities / Base course including diversion of traffic supply of all materials, heating bitumen and chips in drum mix plant, cleaning the road surface, laying bituminous macadam by paver finisherr including compacting with static roller transportation and cost of all materials, bitumen from refinery etc. complete. (excluding tack coat)				
	I) 3% Base course	Sq. M.	8910	2937.61	26174105
I	Providing 20 mm thick bituminous premix carpet of 30/40 grade of bitumen including supplying all materials, preparing and cleaning the base, heating bitumen mixing hot bitumen and chips, laying the carpet layer and compacting etc. complete.(using Bulk Asphalt.)	Sq. M.	71280	87.98	6271214
			TOTAL		73947101

MIRA BHAYANDAR MUNICIPAL CORPORATION

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**Design-Build and Operate Contract
(Including Operations and Maintenance)**

Under

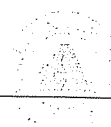
Local Competitive Bidding

For

Underground Sewerage Scheme for MBMC

**Section 5B: Form of Price Proposal,
Schedule of Prices**

Schedule 4: Miscellaneous Items



ABSTRACT OF SCHEDULE 4 MISCELLANEOUS ITEMS

Part No.	Description of Item	Amount Rs.
1	Construction of Compound Wall, Gates, Guard Room Etc.	4,896,523.00
2	Implementation of SewerCAD/SCADA for complete sewerage	27,733,333.00
3	Procurement of Computers, Printers, scanner, Plotter, GPS, Digitiser, DLP projector etc.	3,919,000.00
4	Shifting of utilities Existing network Rehabilitation works	8,004,865.50
5	Communication strategy, public awareness campaign	1,666,666.67
6	Cost of implementing Environment management plan	5,000,000.00
7	Providing In-Line Full Bore Electromagnetic Flow meters with Remote Sensing system – GSM based & Providing Portable Ultrasonic Flow meters with Accessories.	13,756,676.29
	Total	64,977,064.45

SCHEDULE 4: PART 1 Construction Of Compound Wall, Gates, Guard Room Etc.

Sr No	Subwork	Amount in Rs.
1	2	3
a	Compound Wall	4,253,920.00
b	Gates for Compound Wall	237,600.00
c	Guard Rooms	405,000.00
	Total	4,896,523.00

SCHEDULE 4: PART 1A Construction of Compound Wall at Pumping Station and STP sites

Quantity	Items	Rate in Rs.	Per	Amount in Rs.
1	2	3	4	5
2417.00 Rmt	Item No.1 Providing and Construction of compound wall in U.C.R. masonry in C.M. 1:6 upto plinth and in BB masonry above GL in CM 1:6 with 40mm thick cement plaster for both side including painting etc. complete	1760.00	Rmt	4,253,920.00
	Total			4,253,920.00

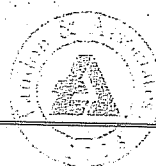
SCHEDULE 4: PART 1B Providing and fixing gates to Compound wall for STP sites.

Quantity	Items	Rate in Rs.	Quantity	Amount in Rs.
1	2	3	4	5
14	Item No.1 Providing and fixing M.S. gate 2.5 m wide for compound wall with 40 mm dia. G.I. Pipe approved grill work R.C.C. M150 side pillar of 25 cm X 40 cm, 2.5 m height including foundation, finishing, painting etc. completed	1394.00	113.62 sq.m	158,400.00
14	Item No.2 Providing and fixing Wicket gate 1.0 m wide for compound wall with 40 mm dia. G.I. Pipe approved grill work RCC M150 side pillar of 25 cm x 40 cm x 2.5 m height including foundation, finishing, painting etc. Completed	1394.00	56.81Sq.m	79,200.00

	<i>Total</i>		<i>237,600.00</i>
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SCHEDULE 4: PART 1C Construction of Guard Rooms

Quantity	Items	Rate In Rs.	Per	Amount
1	2	3	4	5
	Providing and constuctions Security Guards Room size 3.0x3.0x2.5 m height in B.B. Masonry with RCC Slab etc. complete as per drawings etc. complete. (9 Nos.)			
10 No.		40500		405,000.00
			Total	405,000.00



**SCHEDULE 4: PART 2 IMPLEMENTATION OF SEWERCAD/SCADA
FOR COMPLETE SEWERAGE NETWORK**

Quantity	Items	Rate in Rs.	Per	Amount in Rs.
1	2	3	4	5
2	Supply & Installation of CAD software (SEWER /WATER)with /SCADA licensed software as per instruction of Engineer's Representative.	5545000	No.	11090000
1	Required hard ware for implementing SCADA as per Volume 2 Sub Section 10	Lump sum		10000000
Lumsump	Implementation of sewer CAD/SCADA as per specifications as per instruction of Engineer's Representative.	2210000	Job	2210000
Lumsump	Training of MBMC Staff for implementation & operation of Systems	1000000	Job	1000000
Lumsump	Preparation of Multimedia information Software for the project as per instruction of Engineer's Representative.	100000	Job	100000
		Total		24400000



SCHEDULE 4: PART 3 PROCUREMENT OF COMPUTERS, PRINTERS, SCANNER, PLOTTER, GPS, DLP PROJECTOR ETC.

Quantity	Items	Rate in Rs.	Per	Amount in Rs.
1	2	3	4	5
4	1) Providing, supplying computer workstation etc. Complete including maintenance with license windows , license Microsoft office & license with AutoCAD	50,000.00	No.	200,000.00
1	2) Providing, supplying scanner etc. Complete	30,000.00	No.	30,000.00
1	3) Providing, supplying Plotter AO size etc. Complete	400,000.00	No.	400,000.00
1	4) Providing, supplying Lazer Colour Printer A3 size etc. Complete	250,000.00	No.	250,000.00
4	5) Providing, supplying Digital CAM Coders etc. Complete	30,000.00	No.	120,000.00
3	6) Providing, supplying GPS , Primavera software etc. Complete	108,000.00	No.	648,000.00
6	7) Providing, supplying GSM compatible Modem broadband connections, data cards etc. Complete	12,500.00	No.	75,000.00
1	8) Providing, supplying Info works Project wise etc. Complete	300,000.00	No.	300,000.00
1	9) Providing, supplying DLP projector with laptop, screen and sound system etc. Complete	500,000.00	No.	500,000.00
1	10) Providing, supplying spares and supplies of the above items etc. Complete	250,000.00	No.	250,000.00
1	11) Providing, supplying office, AC and furniture for above items etc. Complete	250,000.00	No.	250,000.00
2	12) Providing Supplying Server/Router and Wi-Fi enabled notebook PC	200,000.00	No.	400,000.00
1	13) Providing Supplying DAT Drive with Consumables	96,000.00	No.	96,000.00
4	14) Providing, supplying computer tablet PC etc. Complete license windows , license Microsoft office & license with AutoCAD	100,000.00		400,000.00
	Total			3,919,000.00



SCHEDULE 4: PART 4 COMMUNICATION STRATEGY, PUBLIC AWARENESS CAMPAIGN.

Quantity	Items	Rate in Rs.	Per	Amount in Rs.
Job	Preparation of advertising Campaign & mass communication strategy including design of creative , media planning for conservation of water & recycling , revision & collection of sewer charges etc:	500,000	Lump sum	500000
Job	Remuneration to professional agencies for dissipation of Information & educating citizens for observing BEST Sanitation practices	1000000	Lump sum	10,00,000.00
	Media purchase, production charges for publicity material etc	2,00,000	Lump sum	35,00,000.00
	Total			5000000

SCHEDULE 4: PART 5 COST OF IMPLEMENTING ENVIRONMENT MANAGEMENT PLAN

Quantity	Items	Rate in Rs.	Per	Amount in Rs.
1	2	3	4	5
Job	Implementation of Environment Management Plan during construction period as per scope of work section 4 sub section no 15* <i>*NOTE :- The contractor shall provide detailed Environment plan including payment schedule for this item approved by Engineer's representative.</i>	Lump sum	-	5,000,000.00
	Total			5,000,000.00

SCHEDULE 4: PART 5 PROVIDING IN-LINE FULL BORE ELECTROMAGNETIC FLOW METERS WITH REMOTE SENSING SYSTEM – GSM BASED & PROVIDING PORTABLE ULTRASONIC FLOW METERS WITH ACCESSORIES.

Qty.	Descriptions	Rate in Rs.	Unit	Amount in Rs.
	Item No. 1: Providing, fixing Full bore In-Line Electro-magnetic Flow meters including cost of testing 1 No. of meter of each dia at CWPRS / NPL / FCRI, providing fixing ancillary parts such as pressure transducers, uPVC duct, sensor / transmitter cables, panel cabinets, Hand held units for data download, including necessary excavation in all sorts of strata for fixing meters, cutting of pipe, installation of flowmeters, construction of chambers of size 1.80 x 1.80m of required depths, providing fixing necessary specials such as flanged / socket reducers / expanders, construction of meter room of size 1.5 x 1.5 x 2.1 with necessary windows, door etc., O&M of meters for period of 3 years and designing, manufacturing, installation & commissioning of remote monitoring system – GSM based.			
1	a) 150 mm	739,000.00	No.	739,000.00
1	b) 200 mm	778,000.00	No.	778,000.00
3	d) 300 mm	931,250.00	No.	2,793,750.00
1	e) 350 mm	1,013,600.00	No.	1,013,600.00
3	f) 400 mm	1,160,175.43	No.	3,480,526.29
4	g) 450 mm	1,150,450.00	No.	4,601,800.00
1	Item No. 2: Providing Installing and giving satisfactory Test and Trial of Ultrasonic Clamp on portable type (Single Channel) flow meter suitable for working conditions and specifications, calibration, inspection, testing, training, guarantee and manufactures test certificate and accessories including one pair of magnetic clamps and Alluminium carrying case conforming to IP 55 or above - 1 No. etc. complete.MJP DSR 04-05 Pg. No. 243 It.No. 3D(a)	350,000.00	No.	350,000.00
TOTAL				13,756,676.29

MIRA BHAYANDAR MUNICIPAL CORPORATION

BID DOCUMENT FOR

Design-Build and Operate Contract (Including Operations and Maintenance)

Under

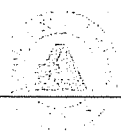
Local Competitive Bidding

For

Underground Sewerage Scheme for MBMC

Section 5B: Form of Price Proposal, Schedule of Prices

Schedule 5: Estimate Summary



SECTION 5B: SCHEDULE 5 ESTIMATE SUMMARY

Part	Type of Work	Description of Works	Amount (Rs.)
1	SEWERAGE COLLECTION AND CONVEYANCE SYSTEM	i. Supply and installation of 89 Kms of Np-4 & NP-3 RCC pipes having diameters ranging from 150 mm to 1200 mm and RCC manholes having depths ranging 1.5m to 9 meters along with the allied items & works.	1254900388
2	STPS & PUMPING STATIONS	i. Construction of 10 nos. of packaged sewage treatment plant of capacity Ranging from 7 Mld to 17 Mld, total capacity of 110 Mld. ii. Construction of 10 nos. of sewage pumping stations in each respective zones.	1173650711
3	OUT FALLS	i. Supply and installation of outfalls of GRP, diameter ranging from 400 mm to 600 mm, total length about 5 Km for disposal and reuse of treated water.	73947101.36
4	MISCELLANEOUS ITEMS	i. Shifting of utilities works, electro magnetic flow meters, Implementation of Centralise SCADA along with equipment like computers, scanners, plotters etc, Implementation of Environment Management, construction of Security Guard Rooms, Meter Rooms, Compound walls, etc. around STPs.	64,977,064.79
	Grand Total		256,74,75,264.95



MIRA BHAYANDAR MUNICIPAL CORPORATION

BID DOCUMENT FOR

**Design-Build and Operate Contract
(Including Operations and Maintenance)**

Under

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For

Underground Sewerage Scheme for MBMC

Section 5B: Form of Price Proposal,

Schedule of Prices

Schedule 6: Operation and Maintenance



SCHEDULE 6 OPERATION AND MAINTENANCE OF THE PLANT AND FACILITIES

Item	Description	Unit	Quantity	Unit Rate (a) (INR)	Total Price (INR)
	Operation and Maintenance including allied duties as per detailed specifications in Section IV, Employer's Requirements, for the entire sewerage system				
1	For Year 1 of O & M	Month	12		
2	For Year 2 of O & M	Month	12		
3	For Year 3 of O & M	Month	12		
4	For Year 4 of O & M	Month	12		
5	For Year 5 of O & M	Month	12		
6	For Year 6 of O & M	Month	12		
7	For Year 7 of O & M	Month	12		
8	For Year 8 of O & M	Month	12		
9	For Year 9 of O & M	Month	12		
10	For Year 10 of O & M	Month	12		

Total, Schedule 6 (Carry over to Grand Summary)	
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Note:

a: Include duties and taxes

Signature of Bidder

Name & Designation

Company



SCHEDULE 7 : GRAND SUMMARY*

Schedule	Description	Total Price
1	Sewage Collection and conveyance system	
2	Sewage Pumping stations and treatment Plants	
3	Treated Sewage Outfalls	
4	Miscellaneous Items	
6	Operation and Maintenance # # Note :- This cost is for evaluation purpose only.	
Grand Total		

Note:

a: Include duties and taxes

***This schedule is for evaluation purpose only.**

Signature of Bidder

Name & Designation

Company



MIRA BHAYANDAR MUNICIPAL CORPORATION

BID DOCUMENT FOR

**Design-Build and Operate Contract
(Including Operations and Maintenance)**

Under

Local Competitive Bidding

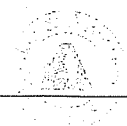
For

Underground Sewerage Scheme for MBMC

Section 5B: Form of Price Proposal,

Schedule of Prices

Schedule 8: Payment Schedule



SCHEDULE 8 : PAYMENT SCHEDULE

(The Bidder shall complete his estimated payment schedule along with his Price Proposal, based on payments being made on a periodic (monthly) basis according to the pre-estimated construction progress. The total amount of payments to be made shall not exceed the quoted Price. The Bidder should note that this is an estimate only, and that payments will be based on actual progress of the Works. The Employer and Contractor shall make necessary adjustments to the payment schedule as the work proceeds based on the actual progress of the Works.)

Payment	Month	Estimated Percent	Estimated Amount	Cumulative %	Milestone (Where Applicable)
1 st Payment					
2 nd Payment					
3 rd Payment					
Final Payment					
Total Payments				100%	

Signature of Bidder



