

**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

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Page No. :-

**Name of Agency:-** M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Vencture)

**Authority No.** AMC/Ward B&C/UIDSSMT/2014/184 Date 01.07.2014

**Measurements of Nineth Running Account Bill**

SCHEDULE B - FOR PART B - B 1 (Percentage Rate Contract)						
<b>1.4 Sewage Pumping Station and Pump House at Padegaon</b>						
<b>I PRELIMINARY WORK PAYMENT SCHEDULE (AS per billing Breakup) @ 4.00 %</b>						
Item 1	Submittal Description				Submission Letter No.	
Date of Measurement	Item No. 1.Submission of RCC, Mechanical, Electrical & Instrumentation Design @ 2%					
	Submission of RCC Design & Drawing				KIPL/A'bad/743/2016	
Quantity executed upto RA Bill 08		0.000		Quantity executed in RA Bill 09		1.000
Total Quantity		1.00		Quantity executed upto date		1.000
Percentage work done upto date						100.00%
Date of Measurement	Item No. 2.Approval of RCC, Mechanical, Electrical & Instrumentation Design @ 2%					
Item 2	Submittal Description				Submission Letter No.	
	Approval of RCC Design & Drawing					
Quantity executed upto RA Bill 08		0.000		Quantity executed in RA Bill 09		1.000
Total Quantity		1.00		Quantity executed upto date		1.000
Percentage work done upto date						100.00%
<b>II CONSTRUCTION WORK PAYMENT SCHEDULE</b>						
<b>1 Civil Work @ 96%</b>						
<b>Water Retaining Structure</b>						
<b>Item 1.1 Excavation Work</b>						
<b>a Excavation and dressing Complete</b>						
Date of Measurement	Particulars of work	No.	L (m)	B (m)	H (m)	Totals (m <sup>3</sup> )
	Excavation for SPS Part I	1.00	0.785	169.00	3.80	504.13
	Excavation for SPS Part II	1.00	0.785	121.00	3.75	356.19
	Excavation for SPS Part III (For Pit)	1.00	3.500	11.00	1.00	38.50
Quantity executed upto RA Bill 08		0.00		Quantity executed in RA Bill 09		898.82
Total Quantity		898.82		Quantity executed upto date		898.82
Percentage work done upto date						100.0%
<b>Item 1.2 Raft Slab including PCC</b>						
<b>1.2.1 PCC M15 for Bed Concrete / Levelling Course Complete</b>						
Date of Measurement	Particulars of work	No.	L (m)	B (m)	H (m)	Totals (m <sup>3</sup> )
	PCC M15 for Bed Concrete / Levelling Course Complete	1	0.785	112.36	0.15	13.23
Quantity executed upto RA Bill 08		0.00		Quantity executed in RA Bill 09		13.23
Total Quantity		13.23		Quantity executed upto date		13.230
Percentage work done upto date						100.0%
<b>1.2.2 Raft Slab</b>						
Date of Measurement	Particulars of work	No.	L (m)	B (m)	H (m)	Totals (m <sup>3</sup> )
	Raft Slab of grade M 30 Part I	1	0.785	106.09	0.550	45.80
	Raft Slab of grade M 30 Part II for wall in Pit Area	1	8.230	0.550	1.000	4.53
Quantity executed upto RA Bill 08		0.00		Quantity executed in RA Bill 09		50.33
Total Quantity		50.33		Quantity executed upto date		50.331
Percentage work done upto date						100.0%
Percentage of (PCC + Raft slab) work done upto date						100.0%



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Tampure Anil  
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# Measurement Book

(From No. 52)

Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport). Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport). Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

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Name of Agency:- M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Venture)  
Authority No. AMC/Ward B&C/UIDSSMT/2014/184 Date 01.07.2014

Item 1.3 RCC Walls and Column Structures, staircase Walkways up to Floor level						
Date of Measurement	Particulars of work	No.	L (m)	B (m)	H (m)	Totals (m <sup>3</sup> )
	RCC W1 Wall	1	10.430	0.300	1.000	3.13
		1	29.202	0.300	3.050	26.72
		1	28.982	0.230	3.800	25.33
	RCC W2 Wall	1	6.218	0.250	7.350	11.43
	C5,8,9	3	0.230	0.380	8.350	2.19
	C6,7,10,11	4	0.230	0.380	7.350	2.57
Quantity executed upto RA Bill 08		0.00	Quantity executed in RA Bill 09			71.36
Total Quantity		103.70	Quantity executed upto date			71.364
			Percentage work done upto date			68.8%

Item 1.4 Coarse Screen Chambers						
Date of Measurement	Particulars of work	No.	L (m)	B (m)	H (m)	Totals (m <sup>3</sup> )
	Beam B1	1	2.260	0.300	0.330	0.23
	Screen Slab S1	1	3.260	5.200	0.200	3.39
	Beam SB1	2	5.200	0.200	1.500	3.12
	Beam SB2	2	5.200	0.200	1.500	3.12
	Screen Slab S2	1	3.260	5.000	0.150	2.45
	Deductions	-2	1.200	0.820	0.150	-0.30
	Deductions	-1	1.310	0.820	0.150	-0.16
	WS1	1	1.100	0.900	0.150	0.15
Quantity executed upto RA Bill 08		0.00	Quantity executed in RA Bill 09			12.00
Total Quantity		12.00	Quantity executed upto date			12.00
			Percentage work done upto date			100.0%



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Name of Agency:- M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Vencture)

Authority No. AMC/Ward B&C/UIDSSMT/2014/184 Date 01.07.2014

Date of Measurement

PART B - ABSTRACT OF COST												
Name of Work :- Development of Underground Sewerage Collection system for Zone I to VI & Zone Salim Ali, Construction of sewage Treatment Plants, Construction of sewage												
Date of Commencement - 01-07-2014												
Stipulated Date of Completion - 01-07-2017												
A & F Sanction No. & Date :												
Technical Sanction No. & Date :												
Serial No. of this Bill - 9 R.A. Bill Dt : 15.06.2016												
Name of Contractor - M/s. Khilari Infrastructure Pvt Ltd.												
Contract No., & Date - /AMC/WARD(B&C)/UIDSSMT/2014/184 Dt. 01.07.2014												
Quantity as per BOQ	Upto date quantity	Upto last bill	Quantity Since Previous	Item No.	Description of Item	MB page No.	Unit	Rate			Payment on the basis of actual measurements (	
								Full Rate	Part rate	Upto date Amount	Amount Upto last bill	Since Previous
1	2	3	4	4	A) Civil Work Cost Item No 1 : - Designing, Constructing, Erecting and Commissioning and giving satisfactory Performance test of seven numbers (6 Terminal + 1 Intermediate) Sewage pumping stations and pump house including cost of all equipments such as Pumps, Motors, necessary piping, valves, Starters, Change over switches, panel board, Cables, DG set, Mechanical and Manual Coarse Screen, gates, Civil/ Mechanical/Electrical work required to provide/installation of equipments as specified in detailed scope of work etc complete.	6	7	8	9	10	11	12
					Items to include 1) Carrying out contour survey of pumping station site, and collection of data such as foundation strata, water table level, HPL levels, etc, necessary for design of Pumping station 2) The design shall be in accordance with various relevant I.S. specification (I.S.456/2000, I.S. 875-1987, I.S. 3370, 1965, or revised) 3) Designing of Pumping stations comprising of Sump to adequate capacity for ultimate stage flow and pump house of required size with floor level 1.0 m above the HFL to accommodate pumps required to be installed as specified in details scope of work, designing of pumping machinery as specified and approved by Engineer in Charge etc complete.							

  
 Signature: *Tamir Aml*  
 Date: 01.07.2014

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Name of Agency:- M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Vencture)

Authority No. AMC/Ward B&C/UIDSSMT/2014/184 Date 01.07.2014

Quantity as per BOQ	Upto date quantity	Quantity Upto last bill	Quantity Since Previous	Item No.	Description of Item	MB page No.	Unit	Rate		Payment on the basis of actual measurements (	
								Full Rate	Part rate	Upto date Amount	Amount Upto last bill
					4) Excavation for foundation and construction of RCC sump of required capacity in all types of strata such as soil, marshy, Slushy/muddy soil, sand, gravel, murum, soft rock, hard rock, old cement and lime masonry foundation etc by chiselling, wedging line drilling by mechanical means or by any other means including well sinking works for all lifts including necessary shoring strutting, open timbering wherever necessary, removing, the excavated material up to safe distance and stacking and spreading, carting back for refilling, disposal of surplus excavated stuff up to 5 km lead as directed by, necessary dewatering for excavation and construction and necessary backfilling with compaction etc						
					5) Providing and laying in situ cement concrete in proportion M30 of trap metal for foundation and bedding, vertical walls, slabs, flooring, roof, columns stairs including bailing out water necessary formwork, compaction and curing etc complete						
					6) Providing and fixing in position steel bar reinforcement of various diameters for RCC piles, Pile Caps, footing, foundations, slabs, beams, columns, canopies, staircase newels, chajis lintels, etc as per detailed design, 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)						
					7) providing, erecting and giving test of raw sewage pumping machinery for each pumping station as specified in detailed scope of work conforming to IS 9070 operating at 2900 RPM with necessary piping, valves, starters, panel board, cables and wiring, with CL impeller, priming funnel, cock, suitable flanges at suction and delivery side motor shall be suitable for working on 415 V → 10% 3Ph, 50 A.C Supply, motor shall be TEFC (energy efficient motor) at suction and delivery side motor shall be						



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								Full Rate	Part rate	Upto date Amount	Amount Upto last bill	Since Previous
					8) providing, erecting electric valve actuators totally enclosed weather-proof and dust proof construction for each pumping station as specified in detailed scope of work 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 W 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 SS flap and operated with gear driven cams and of rating 250 Volt, 5 Amp AC/DC torque switch-dial and with TEFC squirrel 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 at least 1.5 times max torque required for opening and closing of valve etc complete							
					9) Providing Erecting EOT/chain pulley box for each pumping stations as specified in detail scope of work with 6m lift complete with load chain and hand chain suitable for above lift tested to 50% over load as per IS 3832-carving ISL mark							
					10) Providing and fixing steel rolling shutters, doors, windows, ventilators, providing and fixing polished kota flooring with False flooring as and when required, providing necessary electrification inside and outside plaster, providing and applying oil bound distemper from inside and snow cement paint to external exposed walling of the pump house for each of the pumping stations as specified in detailed scope of work etc complete							
					11) Providing necessary automation to enable unmanned operation							



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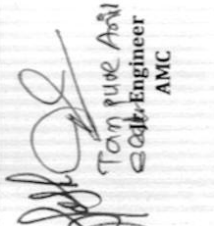
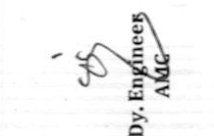
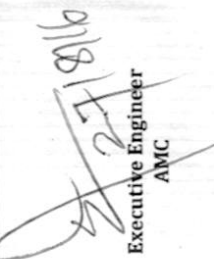
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Name of Agency:- M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Veneture)

Authority No. AMC/Ward B&C/UIDSSMT/2014/184 Date 01.07.2014

Date of Measurement	
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Quantity as per BOQ	Upto date quantity	Quantity Upto last bill	Quantity Since Previous	Item No.	Description of Item	MB page No.	Rate		Upto date Amount	Payment on the basis of actual measurements (	
							Full Rate	Part rate		Amount Upto last bill	Since Previous
				1.4	Sewage Pumping Station and Pump House at Padegaon		No	2407598			
				I	PRELIMINARY WORK PAYMENT SCHEDULE @ 4%						
50.00%	50.00%	0.00%	50.00%	1	Submission of RCC Design & Drawing			48152	48152	0	48152
50.00%	50.00%	0.00%	50.00%	2	Approval of RCC Design & Drawing			48152	48152	0	48152
100.00%	100.00%	0.00%	100.00%	I	Total			96304	96304	0	96304
				II	CONSTRUCTION WORK PAYMENT SCHEDULE						
				1	Civil Works - Total 96%			2311294			
16.67%	16.667%	0.000%	16.667%	1.1	Excavation work			385223	385223	0	385223
6.67%	6.670%	0.000%	6.670%	1.2	Raft Slab including FCC			154071	154163	0	154163
13.33%	0.000%	0.000%	0.000%	1.3	RCC Walls and Column Structures, staircase Walkways up to Floor level			308165	0	0	0
10.00%	0.00%	0.00%	0.00%	1.4	Coarse Screen Chambers			231129	0	0	0
23.33%	0.00%	0.00%	0.00%	1.5	RCC works for pump House			539294	0	0	0
16.67%	0.00%	0.00%	0.00%	1.6	Brick Masonary, Doors and Windows			385223	0	0	0
6.67%	0.00%	0.00%	0.00%	1.7	Plastering and Flooring, Painting, Railing, misc works etc			154094	0	0	0
6.67%				1.8	Hydraulic Test of Water Retaining Structures Completion			154094			
100.00%	23.34%	0.00%	23.34%	I	Total			2311294	539387	0	539386
					Total For SPS			2407598	635691	0	635690
					After Above 21.69%			522208	137881	0	137881
					Total Amount			2929806	773572	0	773571

  
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 Dy. Engineer AMC  
  
 Executive Engineer AMC  
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ment	Quantity	Total up to Date
	9	10