



AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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.

Book No. **045**
Page No.

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M Sewer 400,300mm, 300mmDWC, 200mm SW

Date	Particulars of work	DETAILS					Content of area	Last measurement		TOTAL TO DATE
		GL	No IL	EXL	L	B		D	Page	
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.									
	(a) For Lift 0 to 1.5m	1			28.44	1.360	1.500	58.018	387.969	445.987
	(b) For Lift 1.5m to 3.0m	1			28.44	0.960	0.780	21.296	239.475	260.771
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			28.44	0.960	0.200	5.460	35.454	40.915
	Item No. : 11 Transportation of earth Transportation charges including loading							8.684	61.457	70.141
	Extra Item no.:-9. 4) Lowering & Laying RCC NP3 class pipe of 300mm Dia	1			30.00			30.000	126.000	156.000
	Item No 30 :- Refilling the excavated trenches ...									
	Total Excavation= A							79.313		
	Deduction									
	pipe area	1		0.785	28.44	0.380	0.380	3.22		
	soling							0.00		
	PCC							0.00		
	Murum bedding							5.46		
	Total = B							8.68		
					Net Qty = A - B			70.63	592.345	662.975
	DWC - 315mm Dia -At MH 185									
	Width of Trench - For Lift 0 to 1.50m-0.315+0.5=0.815m									
	For Lift 1.5 to 3.00m- 0.315+0.5+0.4=1.215m									
	For Lift 3.0 to 4.5m- 0.315+0.5+0.4+0.4=1.615m									
	MH 185									
	CH0.00	603.305	601.675	601.475			1.830	1.65		
	CH16.10	603.250	601.990	601.790			1.460			
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc									
	(a) For Lift 0 to 1.5m	1			13.32	1.215	1.500	24.276	445.987	470.262
	(b) For Lift 1.5m to 3.0m	1			13.32	0.815	0.150	1.628	260.771	262.399
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			13.32	0.815	0.200	2.171	40.915	43.086
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated							3.209	70.141	73.350
	Item No. 13 :- (d) Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			15.00			15.000	0.000	15.000
	Item No. 30 :- Refilling the excavated trenches ...									
	Total Excavation=							25.904		
	Deduction of 315mm dia pipe									
	pipe area	1.00		0.785	13.32	0.315	0.315	1.04		
	soling							0.00		
	PCC							0.00		
	Murum bedding							2.17		
								3.21		
					Net Qty = A - B			22.70	662.975	685.670
	MH 185.1									
	CH16.10	603.250	601.990	601.790			1.460	1.36		
	CH29.00	603.300	602.250	602.050			1.250			



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Book No. :- **C45**

Page No. :-

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

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M Sewer 400,300mm, 300mmDWC, 200mm SW

Date	Particulars of work	DETAILS					Content of area	Last measurement		TOTAL TO DATE	
		No						Page	Quantity		
		GL	IL	EX.L	L	B					D
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc										
	(a) For Lift 0 to 1.5m	1			10.54	0.815	1.360	11.683	470.262	481.945	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			10.54	0.815	0.200	1.718	43.086	44.804	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated							2.539	73.350	75.889	
	Item No. 13 :- (d) Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			12.00			12.000	15.000	27.000	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							11.683			
	Deduction of 315mm dia pipe										
	pipe area	1.00		0.785	10.54	0.315	0.315	0.82			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							1.72			
								2.54			
								Net Qty = A - B	9.14	685.670	694.814
	200mm dia-SW										
	Width of Trench - For										
	Bottom Lift 0.00-1.50m- 0.2+0.02+0.02+0.5=0.74m										
	From Bottom Lift 1.50m-3.00m- 0.2+0.02+0.02+0.5+0.4=1.14m										
	From Bottom Lift 3.00m-4.50m- 0.2+0.02+0.02+0.5+0.4+0.4=1.54m										
	MH 193										
	CH0.00	603.915	602.405	602.305			1.610	1.510			
	CH13.30	603.940	602.630	602.530			1.410				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			10.79	0.740	1.500	11.977	481.945	493.922	
	(b) For Lift 1.5m to 3.0m	1			10.79	0.740	0.010	0.080	262.399	262.479	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			10.79	0.690	0.100	0.745	44.804	45.548	
	Item No. : 11 Transportation of earth Transportation charges including loading							0.989	75.889	76.878	
	Extra Item no 9.2 :- Lowering & Laying SW pipe of 200mm Dia	1			12.30			12.300	0.000	12.300	
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A							12.057			
	Deduction										
	pipe area	1		0.785	10.79	0.170	0.170	0.24			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							0.74			
	Total = B							0.99			
								Net Qty = A - B	11.07	694.814	705.881
	MH 194										
	CH0.00	604.110	603.205	603.105			1.005	0.952			
	CH13.50	604.150	603.350	603.250			0.900				



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Book No. :-

Page No. :- **047**

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

Authority No. AMC/Ward R&C/HDSSMT/2014/184 Date 01.07.2014

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M Sewer 400,300mm, 300mmDWC, 200mm SW

Date	Particulars of work	DETAILS					Content of area	Last measurement		TOTAL TO DATE
		GL	No IL	EX.L	L	B		D	Page	
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.									
	(a) For Lift 0 to 1.5m	1			10.99	0.740	0.952	7.742		
	(b) For Lift 1.5m to 3.0m	1			10.99	0.740	0.000	0.000	493.922	501.664
	(c) For Lift 3.0m to 4.5m	1			10.99	0.740	0.000	0.000	262.479	262.479
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.								13.799	13.799
	(a) For Lift 0 to 1.5m	1			10.99	0.740	0.000	0.000		
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.								10.048	10.048
	(a) For Lift 0 to 1.5m	1			10.99	0.740	0.000	0.000		
	Item No. 7 :- Filling in plinth and floors/trenches etc complete.(bedding)	1			10.99	0.690	0.100	0.758	2.512	2.512
	Item No. : 11 Transportation of earth							1.008		
	Transportation charges including loading								76.878	77.886
	Extra Item no 9.2 :- Lowering & Laying SW pipe of 200mm Dia	1			12.50			12.500	12.300	24.800
	Item No 30 :- Refilling the excavated trenches ...									
	Total Excavation= A							7.742		
	Deduction									
	pipe area	1		0.785	10.99	0.170	0.170	0.25		
	soling							0.00		
	PCC							0.00		
	Murrum bedding							0.76		
	Total = B							1.01		
	Net Qty = A - B							6.73	705.881	712.616



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Book No. :- **C43**
Page No. :-

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

Authority No. AMCO/AV/1D&C/HHNSM/2014/181 Date 01.07.2014

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M Sewer 1.5m MH Excavation

9th RA BILL MEASUREMENTS

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Excavation of Chamber - For 1.50m dia Manhole (upto a depth of 2.0m to 5.0m)- 1.50+0.35+0.35+0.5+0.5=3.20m										
	Breadth for Manhole=3.2*3.2=10.24m										
	MH 192										
	CH11295.05	604.105	601.285	601.035			3.070				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	1.500	12.058	0.000	12.058	
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	1.500	12.058	0.000	12.058	
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.070	0.563	0.000	0.563	
	Item No. : 11 Transportation of earth Transportation charges							8.376	0.000	8.376	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							24.678			
	Deduction										
	Brick work	1		0.785	2.280	2.280	0.820	3.346			
		1		0.785	1.540	1.540	2.000	3.723			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Soling	1		0.785	2.580	2.580	0.000	0.000			
								8.376			
	Net Qty = A - B							16.302	0.000	16.302	
	MH 193										
	CH11326.35	603.915	601.405	601.155			2.760				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	1.500	12.058	12.058	24.115	
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	1.260	10.128	12.058	22.186	
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.000	0.000	0.563	0.563	
	Item No. : 11 Transportation of earth Transportation charges							7.111	8.376	15.487	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							22.186			
	Deduction										
	Brick work	1		0.785	2.280	2.280	0.510	2.081			
		1		0.785	1.540	1.540	2.000	3.723			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Soling	1		0.785	2.580	2.580	0.000	0.000			
								7.111			
	Net Qty = A - B							15.075	16.302	31.377	



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Book No. :- 049

Page No. :-

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M Sewer 1.2 & 0.9m MH Excavation

9th RA BILL MEASUREMENTS (Excavation of Manhole)

Sewer "M"

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		GL	IL	EX.L	L	B	D		Page	Quantity	
	Excavation of Chamber - For 1.20m dia Manhole (upto a depth of 2.0m)- 1.20+0.23+0.23+0.5+0.5=2.66m										
	Breadth for Manhole=2.66*2.66=7.0756m										
	MH 194										
	CH11367.55	604.110	602.005	601.755			2.355				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	7.076	1.500	8.332	24.115	32.447	
	(b) For Lift 1.5m to 3.0m	1			0.785	7.076	0.855	4.749	22.186	26.935	
	Item No. : 11 Transportation of earth Transportation charges							3.931	15.487	19.418	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							13.080			
	Deduction										
	Brick work	1			0.785	1.390	1.390	2.105	3.193		
	PCC	1			0.785	1.940	1.940	0.250	0.739		
	Soling	1			0.785	1.940	1.940	0.000	0.000		
								3.931			
	Net Qty = A - B							9.149	31.377	40.526	
	MH 195										
	CH11383.65	604.110	602.070	601.820			2.290				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	7.076	1.500	8.332	32.447	40.778	
	(b) For Lift 1.5m to 3.0m	1			0.785	7.076	0.790	4.388	26.935	31.323	
	Item No. : 11 Transportation of earth Transportation charges							3.833	19.418	23.251	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							12.719			
	Deduction										
	Brick work	1			0.785	1.390	1.390	2.040	3.094		
	PCC	1			0.785	1.940	1.940	0.250	0.739		
	Soling	1			0.785	1.940	1.940	0.000	0.000		
								3.833			
	Net Qty = A - B							8.887	40.526	49.413	
	Excavation of Chamber - For 0.9 m dia chamber up to Depth of 1.5 mt.-0.9+0.5+0.3+0.3=2.0m										
	Breadth for chamber up to Depth of 1.5m= 2 * 2=4m										
	MH 185.1										
	CH16.10	603.250	601.990	601.740			1.510				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	1.500	4.710	40.778	45.488	
	(b) For Lift 1.5 to 3.0m	1			0.785	4.000	0.010	0.031	31.323	31.354	



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Book No. :-

Page No. :-

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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

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M Sewer 1.2 & 0.9m MH Excavation

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		GL	No IL	EX.L	L	B	D		Page	Quantity	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							1.809		23.251	25.059
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							4.741			
	Deduction										
	Brick work	1.00		0.785	1.16	1.16	1.260	1.33			
	PCC	1.00		0.785	1.56	1.56	0.25	0.48			
	Soling							0.00			
								1.81			
		Net Qty = A - B						2.933		49.413	52.346
	MH 185.2										
	CH29.00	603.300	602.250	602.000			1.300				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	1.300	4.082		45.488	49.570
	(b) For Lift 1.5 to 3.0m	1			0.785	4.000	0.000	0.000		31.354	31.354
	(c) For Lift 3.0m to 4.5m	1			0.785	4.000	0.000	0.000		0.563	0.563
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							1.587		25.059	26.646
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							4.082			
	Deduction										
	Brick work	1.00		0.785	1.16	1.16	1.050	1.11			
	PCC	1.00		0.785	1.56	1.56	0.25	0.48			
	Soling							0.00			
								1.59			
		Net Qty = A - B						2.495		52.346	54.841
	MH 193.1										
	CH13.30	603.940	602.630	602.380			1.560				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	1.500	4.710		49.570	54.280
	(b) For Lift 1.5 to 3.0m	1			0.785	4.000	0.060	0.188		31.354	31.543
	(c) For Lift 3.0m to 4.5m	1			0.785	4.000	0.000	0.000		0.563	0.563
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							1.861		26.646	28.507
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							4.898			
	Deduction										
	Brick work	1.00		0.785	1.16	1.16	1.310	1.38			
	PCC	1.00		0.785	1.56	1.56	0.25	0.48			
	Soling							0.00			
								1.86			
		Net Qty = A - B						3.037		54.841	57.878



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Book No. :-

Page No. :- **051**

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

1 of 1

M Sewer 0.9 X 0.6

9th RA BILL MEASURMENTS (Excavation of Manhole)

Sewer "M"

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Excavation of Chamber - For 0.9 X 0.6 m Manhole (upto a depth of 2.0m)-										
	Length for Manhole=0.9+0.23+0.23+0.5+0.5=2.36m										
	Breadth for Manhole=0.6+0.23+0.23+0.5+0.5=2.06m										
	MH 194.1										
	CH13.50	604.150	603.350	603.100			1.050				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			2.360	2.060	1.050	5.105	54.280	59.385	
	(b) For Lift 1.5m to 3.0m	1			2.360	2.060	0.000	0.000	31.543	31.543	
	(c) For Lift 3.0m to 4.5m	1			2.360	2.060	0.000	0.000	0.563	0.563	
	Item No. : 11 Transportation of earth Transportation charges							1.863	28.507	30.370	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							5.105			
	Deduction										
	Brick work	1			1.440	1.140	0.800	1.313			
	PCC	1			1.640	1.340	0.250	0.549			
	Soling	1			1.640	1.640	0.000	0.000			
								1.863			
	Net Qty = A - B							3.242	57.878	61.120	



Jan



AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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.

Book No. :-

052

Page No. :-

1 of 2

M Sewer Dewatering RA9

9th R A BILL MEASUREMENTS

Sewer "M" - Dewatering

Sr.No.	Date	Pump Capacity in Hp	No.of Pumps	Time		Total Hrs	Bhp/Hr
				From	To		
D-400mm MAYUR PARK							
1	15/02/2016	5	1	9:00	10:15	1:15	6:15:00
				10:20	10:45	0:25	2:05:00
				11:00	12:00	1:00	5:00:00
				13:05	13:30	0:25	2:05:00
2	17/02/2016	5	1	9:00	10:00	1:00	5:00:00
				10:00	11:05	1:05	5:25:00
				11:10	11:50	0:40	3:20:00
				12:00	13:30	1:30	7:30:00
				14:00	14:30	0:30	2:30:00
3	20/02/2016	5	1	9:00	9:30	0:30	2:30:00
				9:45	10:00	0:15	1:15:00
				10:05	10:35	0:30	2:30:00
				10:45	11:45	1:00	5:00:00
				12:00	13:30	1:30	7:30:00
				14:00	14:50	0:50	4:10:00
4	22/02/2016	5	1	9:00	10:00	1:00	5:00:00
				10:00	10:15	0:15	1:15:00
				10:30	11:30	1:00	5:00:00
				11:45	12:45	1:00	5:00:00
				13:30	14:00	0:30	2:30:00
				14:10	14:50	0:40	3:20:00
5	23/02/2016	5	1	9:15	10:20	1:05	5:25:00
				10:30	11:20	0:50	4:10:00
				11:25	12:25	1:00	5:00:00
				13:00	13:30	0:30	2:30:00
				13:35	14:15	0:40	3:20:00
				14:30	15:30	1:00	5:00:00
				17:00	17:45	0:45	3:45:00
6	24/02/2016	5	1	9:00	10:30	1:30	7:30:00
				10:45	11:45	1:00	5:00:00
				11:55	12:55	1:00	5:00:00
				13:05	14:05	1:00	5:00:00
7	25/02/2016	5	1	9:10	10:10	1:00	5:00:00
				10:15	11:15	1:00	5:00:00



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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.

Book No. :- **053**
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

2 of 2

M Sewer Dewatering RA9

Sr.No.	Date	Pump Capacity in Hp	No.of Pumps	Time		Total Hrs	Bhp/Hr
				From	To		
		5	1	11:30	12:30	1:00	5:00:00
		5	1	12:45	13:15	0:30	2:30:00
		5	1	13:30	14:30	1:00	5:00:00
8	26/02/2016	5	1	10:00	11:30	1:30	7:30:00
		5	1	11:45	12:30	0:45	3:45:00
		5	1	12:45	13:45	1:00	5:00:00
		5	1	14:00	15:00	1:00	5:00:00
Total						36:25:00	182:05:00
							182.083



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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 Venture)

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

1 of 1

M Sewer MANHOLE

9th RA BILL MEASUREMENTS (Excavation of Manhole) SEWER " M "

Item No. : 23 Providing and constructing on sewer BBM manhole 1.5 m dia at bottom and 0.5 m dia at top and up to a depth of 2 to 5.0 M

Sr.No.	MB/ Page No	Chainage	MH No	MTL	IL	Depth	Depth Difference than 5 m	Total Difference	Rebate/Add for Excess height (per 50 cm)
1		11295.05	MH 192	604.105	601.285	2.82	-2.18	-4.67	-9.340
2		11326.35	MH 193	603.915	601.405	2.51	-2.49		

Item No. : 21 Providing and constructing on sewer BBM manhole 1.2 m dia at bottom and 0.5 m dia at top and up to a depth of 2 M

Sr.No.	MB/ Page No	Chainage	MH No	MTL	IL	Depth	Depth Difference than 2 m	Total Difference	Rebate/Add for Excess height (per 50 cm)
1		11367.55	MH 194	604.110	602.005	2.11	0.11	0.145	0.290
2		11383.65	MH 195	604.110	602.070	2.04	0.04		

Extra Item. No.02: Providing and constructing on sewer.BBM manhole 0.9 m dia at bottom and 0.5 m dia at top and up to a depth of 1.5 M etc., complete

Sr.No.	MB/ Page No	Chainage	MH No	MTL	IL	Depth	Depth Difference than 1.5 m	Total Difference	Rebate/Add for Excess height (per 30 cm)
1		16.10	MH 185.1	603.250	601.990	1.26	-0.24	-0.880	-2.933
2		29.00	MH 185.2	603.300	602.250	1.05	-0.45		
3		13.30	MH 193.1	603.940	602.630	1.31	-0.19		

Extra Item. No.03: Providing and constructing on sewer.BBM Square manhole 0.9m X 0.6m up to a depth of 1.5 M etc., complete

Sr.No.	MB/ Page No	Chainage	MH No	MTL	IL	Depth	Depth Difference than 1.5 m	Total Difference	Rebate/Add for Excess height (per 30 cm)
1		13.50	MH 194.1	604.150	603.350	0.80	-0.70	-0.700	-2.333



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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.

Book No. :-

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Page No. :-

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

M Sewer Quantity Node Abstract

9th R A BILL MEASUREMENTS

Main Sewer M

SR NO	Description	MB/PG	ITEM 1			ITEM 2	ITEM 4	ITEM 7	ITEM 10	ITEM 11	ITEM 12	ITEM 13	ITEM 17	ITEM 21	ITEM 21.1
			0-1.5	1.5-3.0	3.0-4.5										
1	For Pipe		501.664	262.479	13.799	10.048	2.512	46.307	182.083	77.886	27.000	55.800			
2	For Manhole		59.385	31.543	0.563					30.370				2.000	0.290
Total			561.049	294.022	14.361	10.048	2.512	46.307	182.083	108.256	27.000	55.800		2.000	0.290



Authorized Signatory



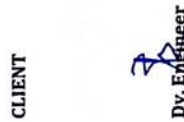
Project Engineer



Project Manager



Jr Engineer



Dy. Engineer

CLIENT



Ex. Engineer

Item	Quantity	Total up to Date
9		10

AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

Name of work:- Development of Underground Sewerage Collection system for Zone 1 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.

Book No. :- **C56**

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

M Sewer Quantity Node Abstract																		
9th R A BILL MEASUREMENTS																		
Main Sewer M																		
SR NO	Description	MB/PG	ITEM 23 2-5 m	ITEM 23.1 Rebate	ITEM 30	EIRL 2		EIRL 3.a Rebate	EIRL 9.1			EIRL 9.2		EIRL 9.3		EIRL 9.4		
						Full Rate	Rebate		200mm	200mm	200mm	200mm	300mm	300mm	300mm	300mm	300mm	300mm
1	For Pipe				712.62				24.800	24.800	24.800	24.800	24.800	156.000	156.000			
2	For Manhole		2.00	(9.340)	61.120	3.000	(2.933)	(2.333)										
	Total		2.00	(9.340)	773.74	3.000	(2.933)	(2.333)	24.800	24.800	24.800	24.800	24.800	156.000	156.000			

Authorized Signatory	Project Engineer	Project Manager

PMC	Jr. Engineer	Ex. Engineer

	Total up to Date
	10



AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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

Book No. :- **057**
Page No. :-

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		GL	IL	EXL	L	B	D		Page	Quantity	
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			20.50	1.600	1.500	49.200		324.900	374.100
	(b) For Lift 1.5m to 3.0m	1			20.50	1.200	1.180	29.028		240.033	269.061
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			20.50	1.200	0.200	4.920		29.880	34.800
	Item No. : 11 Transportation of earth Transportation charges							9.788		59.444	69.232
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			22.50			22.500		130.000	152.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							78.228			
	Deduction										
	pipe area	1		0.785	20.50	0.550	0.550	4.87			
	soling							0.00			
	PCC							0.00			
	Murum bedding							4.92			
	Total = B							9.79			
								68.44		524.649	593.089
	MH166/168.4										
	CH10648.80	600.580	598.180	597.980			2.60	2.530			
	CH10666.90	600.500	598.240	598.040			2.46				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			16.50	1.600	1.500	39.600		374.100	413.700
	(b) For Lift 1.5m to 3.0m	1			16.50	1.200	1.030	20.394		269.061	289.455
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			16.50	1.200	0.200	3.960		34.800	38.760
	Item No. : 11 Transportation of earth Transportation charges							7.878		69.232	77.110
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			17.50			17.500		152.500	170.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							59.994			
	Deduction										
	pipe area	1		0.785	16.50	0.550	0.550	3.92			
	soling							0.00			
	PCC							0.00			
	Murum bedding							3.96			
	Total = B							7.88			
								52.12		593.089	645.205
	CH10666.90	600.500	598.240	598.040			2.46	2.535			
	CH10682.50	600.700	598.290	598.090			2.61				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			14.00	1.600	1.500	33.600		413.700	447.300
	(b) For Lift 1.5m to 3.0m	1			14.00	1.200	1.035	17.388		289.455	306.843



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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, Erecting, 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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11th Ghrushneswar Nagar 400mm-(M Branch Mayur Park)-Ghrushneswar Nagar 400mm-MB(2)

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		GL	No IL	EX.L	L	B	D		Page	Quantity	
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			14.00	1.200	0.200	3.360		38.760	42.120
	Item No. : 11 Transportation of earth Transportation charges							6.684		77.110	83.795
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			15.00			15.000		170.000	185.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							50.988			
	Deduction										
	pipe area	1		0.785	14.00	0.550	0.550	3.32			
	soling							0.00			
	PCC							0.00			
	Murum bedding							3.36			
	Total = B							6.68			
								Net Qty = A - B		645.205	689.509
	MH166/168.5										
	CH10682.50	600.700	598.400	598.200			2.50	2.490			
	CH10703.70	600.750	598.470	598.270			2.48				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			18.00	1.600	1.500	43.200		447.300	490.500
	(b) For Lift 1.5m to 3.0m	1			18.00	1.200	0.990	21.384		306.843	328.227
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			18.00	1.200	0.200	4.320		42.120	46.440
	Item No. : 11 Transportation of earth Transportation charges							8.594		83.795	92.389
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			20.00			20.000		185.000	205.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							64.584			
	Deduction										
	pipe area	1		0.785	18.00	0.550	0.550	4.27			
	soling							0.00			
	PCC							0.00			
	Murum bedding							4.32			
	Total = B							8.59			
								Net Qty = A - B		689.509	745.498
	MH166/168.6										
	CH10703.70	600.750	598.520	598.320			2.43	2.430			
	CH10734.90	600.850	598.620	598.420			2.43				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			28.00	1.600	1.500	67.200		490.500	557.700
	(b) For Lift 1.5m to 3.0m	1			28.00	1.200	0.990	33.264		328.227	361.491
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			28.00	1.200	0.200	6.720		46.440	53.160
	Item No. : 11 Transportation of earth Transportation charges							13.369		92.389	105.758



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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

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Page 6 of 7 11th Ghrushneswar Nagar 400mm-(M Branch Mayur Park)-Ghrushneswar Nagar 400mm-MB(2)

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			30.00			30.000		205.000	235.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							#####			
	Deduction										
	pipe area	1		0.785	28.00	0.550	0.550	6.65			
	soling							0.00			
	PCC							0.00			
	Murum bedding							6.72			
	Total = B							13.37			
					Net Qty = A - B			87.10		745.498	832.593
	MH166/168.7										
	CH10734.90	600.850	598.620	598.420			2.43	2.440			
	CH10753.60	600.900	598.650	598.450			2.45				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			15.50	1.600	1.500	37.200		557.700	594.900
	(b) For Lift 1.5m to 3.0m	1			15.50	1.200	0.940	17.484		361.491	378.975
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			15.50	1.200	0.200	3.720		53.160	56.880
	Item No. : 11 Transportation of earth Transportation charges							7.401		105.758	113.159
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			17.50			17.500		235.000	252.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							54.684			
	Deduction										
	pipe area	1		0.785	15.50	0.550	0.550	3.68			
	soling							0.00			
	PCC							0.00			
	Murum bedding							3.72			
	Total = B							7.40			
					Net Qty = A - B			47.28		832.593	879.877
	MH166/168.8										
	CH10753.60	600.900	598.650	598.450			2.45	2.635			
	CH10774.20	601.300	598.680	598.480			2.82				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			19.00	1.600	1.500	45.600		594.900	640.500
	(b) For Lift 1.5m to 3.0m	1			19.00	1.200	1.135	25.878		378.975	404.853
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			19.00	1.200	0.200	4.560		56.880	61.440
	Item No. : 11 Transportation of earth Transportation charges							9.072		113.159	122.230
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			20.00			20.000		252.500	272.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							71.478			



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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.

Book No. :- **067**
Page No. :-

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

Authority No. AMC/Ward B&C/UIDSSM1/2014/184 **Date** 01.07.2014

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11th Ghrushneswar Nagar 400mm-(M Branch Mayur Park)-Ghrushneswar Nagar 400mm-MB(2)

Date	Particulars of work	DETAILS					Content of area	Last measurement		TOTAL TO DATE	
		No			L	B		D	Page		Quantity
		GL	IL	EX.L							
	Deduction										
	pipe area	1		0.785	19.00	0.550	0.550	4.51			
	soling							0.00			
	PCC							0.00			
	Murum bedding							4.56			
	Total = B							9.07			
				Net Qty = A - B							
								62.41			
									879.877	942.283	
	CH10774.20	601.300	598.680	598.480			2.82	2.910			
	CH10792.30	601.500	598.700	598.500			3.00				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			16.50	1.600	1.500	39.600	640.500	680.100	
	(b) For Lift 1.5m to 3.0m	1			16.50	1.200	1.410	27.918	404.853	432.771	
	(c) For Lift 3.0m to 4.5m	1			16.50	1.200	0.000	0.000	19.160	19.160	
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			16.50	1.200	0.200	3.960	61.440	65.400	
	Item No. 11 Transportation of earth Transportation charges							7.878	122.230	130.109	
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			17.50			17.500	272.500	290.000	
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							67.518			
	Deduction										
	pipe area	1		0.785	16.50	0.550	0.550	3.92			
	soling							0.00			
	PCC							0.00			
	Murum bedding							3.96			
	Total = B							7.88			
				Net Qty = A - B							
								59.64			
									942.283	1001.923	



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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 CIDCO (Airport).

Book No. :- **061**

Page No. :-

1 of 4

11th Ghrushneswar Nagar 400mm-(M Branch Mayur Park) 1.5m MH BBM 10th

11th RA BILL MEASUREMENTS

Ghrushneswar Nagar (M Branch Sewer)

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Excavation of Chamber - For 1.50m dia Manhole (upto a depth of 2.0m to 5.0m)- 1.50+0.35+0.35+0.5+0.5=3.20m										
	Area for Manhole=3.2*3.2=10.24m										
	MH166/168. 1	Ghrushneswar Nagar 400mm-MB									
	CH 10537.70	600.100	596.995	596.745			3.355				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	1.500	12.058	0.000	12.058	
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	1.500	12.058	0.000	12.058	
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.355	2.854	0.000	2.854	
	Item No. : 11 Transportation of earth Transportation charges							10.532	0.000	10.532	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							26.969			
	Deduction										
	Brick work	1		0.785	2.280	2.280	1.553	6.335			
		1		0.785	1.540	1.540	1.553	2.890			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Soling	1		0.785	2.580	2.580	0.000	0.000			
								10.532			
	Net Qty = A - B							16.437	0.000	16.437	
	MH166/168. 2										
	CH 10581.40	600.200	597.370	597.120			3.080				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	1.500	12.058	12.058	24.115	
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	1.500	12.058	12.058	24.115	
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.080	0.643	2.854	3.497	
	Item No. : 11 Transportation of earth Transportation charges							9.715	10.532	20.247	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							24.758			
	Deduction										
	Brick work	1		0.785	2.280	2.280	1.415	5.774			
		1		0.785	1.540	1.540	1.415	2.634			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Soling	1		0.785	2.580	2.580	0.000	0.000			
								9.715			
	Net Qty = A - B							15.043	16.437	31.480	
	MH166/168. 3										
	CH 10625.10	600.450	597.840	597.590			2.860				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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.

Book No. :-
Page No. :-

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

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14th Ghrushneswar Nagar 400mm-(M Branch Mayur Park) 1.5m MH BBM 10th

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	(a) For Lift 0 to 1.5m	1			0.785	10.240	1.500	12.058			
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	1.360	10.932		24.115	36.173
	Item No. : 11 Transportation of earth Transportation charges							9.061		24.115	35.047
	Item No. 30 :- Refilling the excavated trenches ...									20.247	29.308
	Total Excavation=							22.990			
	Deduction										
	Brick work	1		0.785	2.280	2.280	1.305	5.325			
		1		0.785	1.540	1.540	1.305	2.430			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Soling	1		0.785	2.580	2.580	0.000	0.000			
								9.061			
								Net Qty = A - B			
								13.929		31.480	45.409
	MH166/168.4										
	CH 10648.80	600.580	598.080	597.830			2.750				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	1.500	12.058		36.173	48.230
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	1.250	10.048		35.047	45.095
	Item No. : 11 Transportation of earth Transportation charges							8.734		29.308	38.042
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							22.106			
	Deduction										
	Brick work	1		0.785	2.280	2.280	1.250	5.101			
		1		0.785	1.540	1.540	1.250	2.327			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Soling	1		0.785	2.580	2.580	0.000	0.000			
								8.734			
								Net Qty = A - B			
								13.371		45.409	58.780
	MH166/168.5										
	CH 10682.50	600.700	598.290	598.040			2.660				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	1.500	12.058		48.230	60.288
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	1.160	9.325		45.095	54.420
	Item No. : 11 Transportation of earth Transportation charges							8.467		38.042	46.509
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							21.382			
	Deduction										
	Brick work	1		0.785	2.280	2.280	1.205	4.917			
		1		0.785	1.540	1.540	1.205	2.243			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Soling	1		0.785	2.580	2.580	0.000	0.000			
								8.467			
								Net Qty = A - B			
								12.915		58.780	71.695
	MH166/168.6										
	CH 10703.70	600.750	598.470	598.220			2.530				



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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.

Book No. :-

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Page No. :-

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

Authority No. AMC/Ward B&C/UIDSSM1/2014/184 Date 01.07.2014

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14th Ghrushneswar Nagar 400mm-(M Branch Mayur Park) 1.5m MH BBM 10th

Date	Particulars of work	DETAILS						Content of arrears	Last measurment		Total Upto Date
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	MH166/168.9										
	CH 10792.30	601.500	598.700	598.450			3.050				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	1.500	12.058	96.461	108.518	
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	1.500	12.058	78.616	90.673	
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.050	0.402	3.497	3.899	
	Item No. : 11 Transportation of earth Transportation charges							9.626	70.514	80.140	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							24.517			
	Deduction										
	Brick work	1			0.785	2.280	2.280	1.400	5.713		
		1			0.785	1.540	1.540	1.400	2.606		
	PCC	1			0.785	2.580	2.580	0.250	1.306		
	Soling	1			0.785	2.580	2.580	0.000	0.000		
								9.626			
	Net Qty = A - B							14.891	108.059	122.951	



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(From No.52)

Measurement Book

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Book No. :- **065**
Page No. :-

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

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

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1 of 1

11th Ghrushneswar Nagar 400mm-(M Branch Mayur Park), Manhole Details

11th R A BILL MEASURMENTS Ghrushneswar Nagar (M Branch Sewer)

Sr No	MB No	Chainage	CHAMBER NUMBER	DETAILS			Rebate up to Depth of 5.0 mtr For per 50 cm	Total Rebate Qty for 50 cm
				No	MTL	IL		
A	Item No. : 23 Providing and constructing on sewer.BBM manhole 1.5 m dia at bottom and 0.5 m dia at top and up to a depth of 5.0 M etc., complete							
Ghrushneswar Nagar 400mm-MB								
1	CH10537.70	MH166/168.1	600.100	596.995	3.105	5.000	-1.89	-43.97
2	CH10581.40	MH166/168.2	600.200	597.370	2.830	5.000	-2.17	
3	CH10625.10	MH166/168.3	600.450	597.840	2.610	5.000	-2.39	
4	CH10648.80	MH166/168.4	600.580	598.080	2.500	5.000	-2.50	
5	CH10682.50	MH166/168.5	600.700	598.290	2.410	5.000	-2.59	
6	CH10703.70	MH166/168.6	600.750	598.470	2.280	5.000	-2.72	
7	CH10734.90	MH166/168.7	600.850	598.620	2.230	5.000	-2.77	
8	CH10753.60	MH166/168.8	600.900	598.650	2.250	5.000	-2.75	
9	CH10792.30	MH166/168.9	601.500	598.700	2.800	5.000	-2.20	
TOTAL							-21.98	-43.97



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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.

Book No. :- **C66**

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

1 of 1
12th Ghrushneswar Nagar 400mm-(M Branch Mayur Park) Quantity Node Abstract

12th R A BILL MEASUREMENTS

Ghrushneswar Nagar (M Branch Sewer)

SR NO	Description	MB/PG	ITEM 1			ITEM 7	ITEM 11	ITEM 17		ITEM 23		ITEM 30	
			0-1.5	1.5-3.0	3.0-4.5			400mm	2-5 m	23.1	Rebate		
1	For Pipe		680.10	432.77	19.16	65.40	130.11	290.00					1001.92
2	For Manhole		108.52	90.67	3.90		80.14		9.00		-43.97		122.95
Total			788.62	523.44	23.06	65.40	210.25	290.00	9.00	-43.97			1124.87



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