



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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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

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Manhole Details Anand Apartment

12th R A BILL MEASUREMENTS CHEMBER DETAILS ANAAND APARTMENT

SR NO	CHIANAGE	CHEMBER NUMBER	DETAILS			Rebate up to Depth of 1.5 mtr	Total Rebate Qty for 30 cm
			No				
			GL	IL	DEPTH	For per 30 cm	
B	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						
1	ANAAND APARTMENT						
1	CH15.80	AND 11	578.238	577.428	0.810	-0.690	-64.933
2	CH29.40	AND 12	578.508	577.508	1.000	-0.500	
3	CH32.10	AND 13	578.258	577.598	0.660	-0.840	
4	CH48.30	AND 14	578.558	577.648	0.910	-0.590	
5	CH65.00	AND 15	578.658	577.798	0.860	-0.640	
6	CH77.80	AND 16	578.748	577.968	0.780	-0.720	
7	CH91.20	AND 17	578.758	577.998	0.760	-0.740	
8	CH103.20	AND 18	578.878	578.078	0.800	-0.700	
9	CH113.50	AND 19	579.108	578.588	0.520	-0.980	
10	CH120.80	AND 20	579.348	578.858	0.490	-1.010	
11	CH127.60	AND 21	579.608	579.058	0.550	-0.950	
12	CH137.50	AND 22	579.958	579.368	0.590	-0.910	
13	CH146.10	AND 23	580.058	579.468	0.590	-0.910	
14	CH21.70	AND 11.1	578.178	577.088	1.090	-0.410	
15	CH35.50	AND 11.3	578.098	576.978	1.120	-0.380	
16	CH44.30	AND 11.4	578.148	576.688	1.460	-0.040	
17	CH9.60	AND 13.1	578.138	577.438	0.700	-0.800	
18	CH14.50	AND 13.2	578.178	577.498	0.680	-0.820	
19	CH20.50	AND 13.3	578.128	577.538	0.590	-0.910	
20	CH25.40	AND 13.4	578.128	577.598	0.530	-0.970	
21	CH30.10	AND 13.5	578.118	577.558	0.560	-0.940	
22	CH34.40	AND 13.6	578.088	577.548	0.540	-0.960	
23	CH40.90	AND 13.7	578.128	577.658	0.470	-1.030	
24	CH44.60	AND 13.8	578.218	577.768	0.450	-1.050	
25	CH52.50	AND 13.9	578.248	577.738	0.510	-0.990	
	TOTAL					-19.480	-64.933



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Qty Anand Apartment

QUANTITY ABSTRACT ANAND APARTMENT

QUANTITY ABSTRACT																					
ANAAND APARTMENT																					
Sr. No.	Discription	MB/PG	ITEM 1		ITEM 2	ITEM 4		ITEM 7	ITEM 11	ITEM 12			ITEM 13			ITEM 30	ITEM 35	Extra Item 2 0-1.5 m	Extra Item 2.a Rebate	EIRL 9.1 200mm	EIRL 9.2 200mm
			0-1.5	1.5-3.0		0-1.5	0-1.5			200mm	315mm	200mm	315mm	200mm	315mm						
1	For Pipe		117.797	0.000	10.203	4.217	16.024	25.964		200mm	115.500	64.200	115.500	64.200	106.252	0.229					
2	For Manhole		67.133	0.659	5.966	2.449		30.974							45.233		25.000	-64.933			
	Total		184.930	0.659	16.169	6.666	16.024	56.939		115.500	115.500	64.200	115.500	64.200	151.485	0.229	25.000	-64.933	49.500	49.500	

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**Total up to
Date**

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

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Kailash Nagar-02-200mm DWC, Measurement

12th RA BILL MEASUREMENTS

KAILASH NAGAR

Date	Particulars of work	DETAILS						Content of arrears	Last measurment		Total Upto Date Quantity
		No			L	B	D		Page	Qty.	
		GL	IL	EX.L							
	DWC - 200mm Dia										
	200mm dia (Width of Trench -0.200+0.5=0.70m)										
	For Width of Trench Calculation	For Depth					0.0m to 1.5m	0.0m to 3.0m	0.0m to 4.5m		
	Outer dia of Pipe + 0.50 for	For Lift 0.0m to 1.5m					0.700	1.100	1.500 ✓		
	Bottom and Add 0.4 for	For Lift 1.5m to 3.0m						0.700	1.100 ✓		
	Subsequent upper Lifts.	For Lift 3.0m to 4.5m							0.700 ✓		
	KAI OLD TO KAI1										
	CH0.00	569.740	568.810	568.710			1.030	1.010			
	CH14.80	569.750	568.860	568.760			0.990				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			13.100	0.700	0.700	6.419		0.000 6.419	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			13.100	0.700	0.250	2.293		0.000 2.293	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			13.100	0.700	0.060	0.550		0.000 0.550	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			13.400	0.700	0.100	0.938		0.000 0.938	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							1.359		0.000 1.359	
	Item No. 13 :- (b)Lowering & Laying of Polyethylene DWC pipe of 200mm Dia	1			13.900			13.900		0.000 13.900	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							9.262			
	Deduction of 200mm dia pipe										
	pipe area	1.00		0.785	13.400	0.200	0.200	0.42			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							0.94			
								1.36			
		Net Qty = A - B						7.903		0.000 7.903	
	KAI1 TO KAI2										
	CH14.80	569.750	568.860	568.760			0.990				
	CH34.60	570.245	569.290	569.190			1.055	1.023			
	Item No. 1 :- Excavation for foundation/pipe trenches In earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			17.800	0.700	0.713	8.878		6.419 15.297	



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Kailash Nagar-02-200mm DWC, Measurement

ate	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Qty.	
		GL	IL	EX.L							
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			17.800	0.700	0.250	3.115		2.293	5.408
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			17.800	0.700	0.060	0.748		0.550	1.298
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			18.400	0.700	0.100	1.288		0.938	2.226
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							1.866		1.359	3.225
	Item No. 13 :- (b)Lowering & Laying of Polyethylene DWC pipe of 200mm Dia	1			18.900			18.900		13.900	32.800
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							12.740			
	Deduction of 200mm dia pipe										
	pipe area	1.00		0.785	18.400	0.200	0.200	0.58			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							1.29			
								1.87			
		Net Qty = A - B						10.875		7.903	18.778
	KAI2 TO KAI3										
	CH34.60	570.245	569.290	569.190			1.055				
	CH45.00	570.370	569.385	569.285			1.085	1.070			
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			8.400	0.700	0.760	4.469		15.297	19.766
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			8.400	0.700	0.250	1.470		5.408	6.878
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			8.400	0.700	0.060	0.353		1.298	1.651
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			9.000	0.700	0.100	0.630		2.226	2.856
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.913		3.225	4.137
	Item No. 13 :- (b)Lowering & Laying of Polyethylene DWC pipe of 200mm Dia	1			9.500			9.500		32.800	42.300
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							6.292			
	Deduction of 200mm dia pipe										



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

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Kailash Nagar-02-200mm DWC, Measurement

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Qty.	
		GL	IL	EX.L							
	pipe area	1.00		0.785	9.000	0.200	0.200	0.28			
	soling							0.00			
	PCC							0.00			
	Murum bedding							0.63			
								0.91			
		Net Qty = A - B						5.379		18.778	24.157
	KAI3 TO KAI4										
	CH45.00	570.370	569.385	569.285			1.085	1.118			
	CH54.80	570.560	569.510	569.410			1.150				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			7.800	0.700	0.808	4.409		19.766	24.175
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			7.800	0.700	0.250	1.365		6.878	8.243
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			7.800	0.700	0.060	0.328		1.651	1.978
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			8.400	0.700	0.100	0.588		2.856	3.444
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.852		4.137	4.989
	Item No. 13 :- (b)Lowering & Laying of Polyethylene DWC pipe of 200mm Dia	1			8.900			8.900		42.300	51.200
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							6.102			
	Deduction of 200mm dia pipe										
	pipe area	1.00		0.785	8.400	0.200	0.200	0.26			
	soling							0.00			
	PCC							0.00			
	Murum bedding							0.59			
								0.85			
		Net Qty = A - B						5.250		24.157	29.406
	Item No :35 Shifting of Existing Utilities Length considered up to 400mm Including all and as				0.051					0.000	0.051



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Kailash Nagar-02-200mm DWC, Chamber Measurement

12th R A BILL MEASUREMENTS

KAILASH NAGAR											
Date	Particulars of work	DETAILS						Content of arrears	Last measurment		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	DWC - 200mm Dia (Chamber Detail)										
	Excavation of Chamber - For 0.9 mt.Dia of chamber up to Depth of 1.5mt- 0.9+0.5+0.3+0.3=2.0m										
	Area for chamber up to Depth of 1.5m= 2 * 2=4m										
	KAI1										
	CH14.80	569.750	568.860	568.610			1.140				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.830	2.606		0.000	2.606
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.250	0.785		0.000	0.785
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.060	0.188		0.000	0.188
	Item No. : 11 Transportation of earth Transportation charges							1.508		0.000	1.508
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							3.580			
	Deduction										
	Brick work	1.00		0.785	1.200	1.200	0.890	1.01			
	soling							0.00			
	PCC	1.00		0.785	1.600	1.600	0.250	0.50			
	Murrum bedding							0.00			
	Total (B)							1.51			
		Net Qty =A - B						2.071		0.000	2.071
	KAI2										
	CH34.60	570.245	569.290	569.040			1.205				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.895	2.810		2.606	5.417
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.250	0.785		0.785	1.570
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.060	0.188		0.188	0.377
	Item No. : 11 Transportation of earth Transportation charges							1.582		1.508	3.090



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Measurement Book

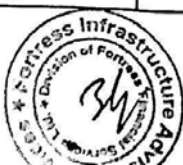
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Kailash Nagar-02-200mm DWC, Chamber Measurement

Date	Particulars of work	DETAILS						Content of arrears	Last measurment		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							3.784			
	Deduction										
	Brick work	1.00		0.785	1.200	1.200	0.955	1.08			
	soling							0.00			
	PCC	1.00		0.785	1.600	1.600	0.250	0.50			
	Murum bedding							0.00			
	Total (B)							1.58			
		Net Qty = A - B						2.202		2.071	4.273
	KAI3										
	CH45.00	570.370	569.385	569.135			1.235				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.925	2.905		5.417	8.321
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.250	0.785		1.570	2.355
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.060	0.188		0.377	0.565
	Item No. : 11 Transportation of earth Transportation charges							1.616		3.090	4.706
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							3.878			
	Deduction										
	Brick work	1.00		0.785	1.200	1.200	0.985	1.11			
	soling							0.00			
	PCC	1.00		0.785	1.600	1.600	0.250	0.50			
	Murum bedding							0.00			
	Total (B)							1.62			
		Net Qty = A - B						2.262		4.273	6.535
	KAI4										
	CH54.80	570.560	569.510	569.260			1.300				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.990	3.109		8.321	11.430
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.250	0.785		2.355	3.140
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.060	0.188		0.565	0.754
	Item No. : 11 Transportation of earth Transportation charges							1.689		4.706	6.396



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Kailash Nagar-02-200mm DWC, Chamber Measurement

Date	Particulars of work	DETAILS						Content of arrears	Last measurment		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							4.082			
	Deduction										
	Brick work	1.00		0.785	1.200	1.200	1.050	1.19			
	soling							0.00			
	PCC	1.00		0.785	1.600	1.600	0.250	0.50			
	Murrum bedding							0.00			
	Total (B)							1.69			
		Net Qty = A - B						2.393		6.535	8.928
	KAIS										
	CH0.00	571.370	569.880	569.630			1.740				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	1.190	3.737		11.430	15.166
	(b) For Lift 1.5 to 3.0m	1			0.785	4.000	0.240	0.754		0.000	0.754
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.250	0.785		3.140	3.925
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.060	0.188		0.754	0.942
	Item No. : 11 Transportation of earth Transportation charges							2.187		6.396	8.582
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							5.464			
	Deduction										
	Brick work	1.00		0.785	1.200	1.200	1.490	1.68			
	soling							0.00			
	PCC	1.00		0.785	1.600	1.600	0.250	0.50			
	Murrum bedding							0.00			
	Total (B)							2.19			
		Net Qty = A - B						3.277		8.928	12.205



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

me of work:- Development of Underground Sewerage Collection system for Zone I to VI 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 Commissioning 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 PDI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to 2 for Aurangabad City.

Book No. :- 99
Page No. :-

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

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

14th R A BILL CHAMBER DETAILS

KAILASH NAGAR

SR NO	CHAINAGE	CHAMBER NUMBER	DETAILS			Rebate up to Depth of 1.5 mtr		Total Rebate Qty for 30 cm
			No			For per 30 cm		
			GL	IL	DEPTH			
A	Extra Item No. :2 Providing and constructing on sewer.BBM manhole 0.9 m dia up to a depth of 1.5 M etc., complete							
1	CH14.80	KAI1	569.750	568.860	0.890	1.5	-0.610	-7.100
2	CH34.60	KAI2	570.245	569.290	0.955	1.5	-0.545	
3	CH45.00	KAI3	570.370	569.385	0.985	1.5	-0.515	
4	CH54.80	KAI4	570.560	569.510	1.050	1.5	-0.450	
5	CH0.00	KAI5	571.370	569.880	1.490	1.5	-0.010	
		Total					-2.130	-7.100



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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, CHDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CHDCO (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. :- 100

Page No. :-

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

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

Date of Measurement

QUANTITY ABSTRACT Nagar-02-200mm DW, Quantity Abstract.															
KAILASH NAGAR															
SR NO	Discription	MB/PG	ITEM 1		ITEM 2	ITEM 4	ITEM 7	ITEM 11	ITEM 12		ITEM 13	ITEM 30	ITEM 35	Extra Item 2	Extra Item 2.a
			0-1.5	1.5-3.0					0-1.5	200mm					
1	For Pipe		24.175	0.000	8.243	1.978	3.444	4.989	51.200	51.200	29.406	0.051			
2	For Manhole		15.166	0.754	3.925	0.942		8.582			12.205			5.00	-7.10
		Total	39.341	0.754	12.168	2.920	3.444	13.571	51.200	51.200	41.611	0.051		5.00	-7.10





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 GRP DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

Book No. :-

101

Page No. :-

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

A

1 of 10

12th D Branch near Hari Masjid, DWC-MB

12th R A BILL MEASUREMENTS

D'BRANCH NEAR HARRI MASJID

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Qty.	
		GL	IL	EX.L							
	DWC - 315 mm Dia (Used for connections)										
	315mm dia (Width of Trench -0.315+0.5=0.815m)										
	For Width of Trench	For Depth					0.0m to 1.5m	0.0m to 3.0m	0.0m to 4.5m		
	Calculation Outer dia of Pipe + 0.50 for Bottom and Add 0.4 for Subsequent upper Lifts.	For Lift 0.0m to 1.5m					0.815	1.215	1.615 ✓		
		For Lift 1.5m to 3.0m						0.815	1.215 ✓		
		For Lift 3.0m to 4.5m							0.815 ✓		
	DBR3 TO DBR3.1										
	CH0.00	578.546	577.486	577.386			1.160	1.060			
	CH3.40	578.546	577.686	577.586			0.960				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			2.050	0.815	0.460	0.769		0.000	0.769
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			2.050	0.815	0.300	0.501		0.000	0.501
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			2.050	0.815	0.300	0.501		0.000	0.501
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			2.550	0.815	0.100	0.208		0.000	0.208
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.406		0.000	0.406
	Item No. 13 :- (d)Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			2.800			2.800		0.000	2.800
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							1.771			
	Deduction of 315mm dia pipe										
	pipe area	1.000		0.785	2.550	0.315	0.315	0.199			
	soling							0.000			
	PCC							0.000			
	Murrum bedding							0.208			
								0.406			
	Net Qty = A - B							1.365		0.000	1.365
	DBR5 TO DBR5.1										
	CH0.00	578.506	577.706	577.606			0.900	0.800			
	CH2.30	578.506	577.906	577.806			0.700				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.950	0.815	0.200	0.155		0.769	0.923



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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 STP for Aurangabad City.

Book No. :-102

Page No. :-

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11th D Branch near Harl Masjid, DWC-MB

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Qty.	
		GL	IL	EX.L							
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.950	0.815	0.300	0.232		0.501	0.734
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			0.950	0.815	0.300	0.232		0.501	0.734
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			1.450	0.815	0.100	0.118		0.208	0.326
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.231		0.406	0.638
	Item No. 13 :- (d)Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			1.700			1.700		2.800	4.500
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							0.619			
	Deduction of 315mm dia pipe										
	pipe area	1.000		0.785	1.450	0.315	0.315	0.113			
	soling							0.000			
	PCC							0.000			
	Murrum bedding							0.118			
								0.231			
		Net Qty = A - B						0.388		1.365	1.753
	DBR6 TO DBR6.1										
	CH0.00	578.616	577.786	577.686			0.930	0.805			
	CH1.50	578.616	578.036	577.936			0.680				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.650	0.815	0.205	0.109		0.923	1.032
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.650	0.815	0.300	0.159		0.734	0.892
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			0.650	0.815	0.300	0.159		0.734	0.892
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			0.650	0.815	0.100	0.053		0.326	0.379
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.104		0.638	0.741
	Item No. 13 :- (d)Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			0.900			0.900		4.500	5.400
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							0.426			



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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. :- 103
Page No. :-

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

At

3 of 10

12th D Branch near Hari Masjid, DWC-MB

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		GL	IL	EX.L	L	B	D		Page	Qty.	
	Deduction of 315mm dia pipe										
	pipe area	1.000		0.785	0.650	0.315	0.315	0.051			
	soling							0.000			
	PCC							0.000			
	Murum bedding							0.053			
								0.104			
								0.323		1.753	2.076
	Net Qty = A - B										
	DBR7 TO DBR7.1										
	CH0.00	578.686	577.686	577.586			1.100	1.025			
	CH3.10	578.686	577.836	577.736			0.950				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			2.250	0.815	0.425	0.779		1.032	1.811
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			2.250	0.815	0.300	0.550		0.892	1.443
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			2.250	0.815	0.300	0.550		0.892	1.443
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			2.250	0.815	0.100	0.183		0.379	0.562
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.359		0.741	1.100
	Item No. 13 :- (d) Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			2.500			2.500		5.400	7.900
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							1.880			
	Deduction of 315mm dia pipe										
	pipe area	1.000		0.785	2.250	0.315	0.315	0.175			
	soling							0.000			
	PCC							0.000			
	Murum bedding							0.183			
								0.359			
	Net Qty = A - B							1.521		2.076	3.597
	DWC - 250mm Dia										
	Width of Trench -										
	For Lift 0 to 1.50m- 0.25+0.5=0.75m										
	For Lift 1.5 to 3.00m- 0.25+0.5+0.4=1.15m										
	For Lift 3.0 to 4.5m- 0.25+0.5+0.4+0.4=1.55m										
	DBR7 TO DBR7.2										
	CH0.00	578.686	578.236	578.136			0.550	0.450			
	CH4.40	578.686	578.436	578.336			0.350				



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

104

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

Book No. :-

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12th D Branch near Hari Masjid, DWC-MB

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Qty.	
		GL	IL	EX.L							
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			3.050	0.750	0.050	0.114		1.811	1.926
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			3.050	0.750	0.100	0.229		1.443	1.671
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			3.050	0.750	0.300	0.686		1.443	2.129
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			3.550	0.750	0.100	0.266		0.562	0.829
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.440		1.100	1.540
	Item No. 13 :- (c)Lowering & Laying of Polyethylene DWC pipe of 250mm Dia	1			3.800			3.800		0.000	3.800
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							1.029			
	Deduction of 250mm dia pipe										
	pipe area	1.000		0.785	3.550	0.250	0.250	0.174			
	soling							0.000			
	PCC							0.000			
	Murrum bedding							0.266			
								0.440			



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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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12th D Branch near Hari Masjid, DWC-MB

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		GL	No IL	EX.L	L	B	D		Page	Qty.	
	Item No. 13 :- (c) Lowering & Laying of Polyethylene DWC pipe of 250mm Dia	1			2.700			2.700		3.800	6.500
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							0.592			
	Deduction of 250mm dia pipe										
	pipe area	1.000		0.785	2.450	0.250	0.250	0.120			
	soling							0.000			
	PCC							0.000			
	Murum bedding							0.184			
								0.304			
	Net Qty = A - B							0.288		4.186	4.474
	DBR9 TO DBR9.1										
	CH0.00	578.876	578.416	578.316			0.560	0.420			
	CH2.40	578.876	578.696	578.596			0.280				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.050	0.750	0.020	0.016		1.933	1.949
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.050	0.750	0.100	0.079		1.818	1.896
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			1.050	0.750	0.300	0.236		2.568	2.804
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			1.550	0.750	0.100	0.116		1.012	1.129
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.192		1.844	2.036
	Item No. 13 :- (c) Lowering & Laying of Polyethylene DWC pipe of 250mm Dia	1			1.800			1.800		6.500	8.300
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							0.331			
	Deduction of 250mm dia pipe										
	pipe area	1.000		0.785	1.550	0.250	0.250	0.076			
	soling							0.000			
	PCC							0.000			
	Murum bedding							0.116			
								0.192			
	Net Qty = A - B							0.138		4.474	4.612
	DWC - 315 mm Dia										
	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										



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

ame 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 Commissioning 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 RP DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to CIDCO (Airport).

Book No. :- 106
Page No. :-

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11th D Branch near Hari Masjid, DWC-MB

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		GL	IL	EX.L	L	B	D		Page	Qty.	
	For Lift 3.0 to 4.5m- 0.315+0.5+0.4+0.4=1.615m										
	DBR10 TO DBR10.1										
	CH0.00	579.056	578.036	577.936							
	CH9.00	579.056	578.156	578.056			1.120	1.060			
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.						1.000				
	(a) For Lift 0 to 1.5m	1			7.650	0.815	0.460	2.868		1.949	4.817
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			7.650	0.815	0.300	1.870		1.896	3.767
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			7.650	0.815	0.300	1.870		2.804	4.674
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			8.150	0.815	0.100	0.664		1.129	1.793
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							1.299		2.036	3.336
	Item No. 13 :- (d)Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			8.400			8.400		7.900	16.300
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							6.609			
	Deduction of 315mm dia pipe										
	pipe area	1.000		0.785	8.150	0.315	0.315	0.635			
	soling							0.000			
	PCC							0.000			
	Murrum bedding							0.664			
								1.299			
	Net Qty = A - B							5.310		4.612	9.922
	PVC - 160 mm Dia										
	Width of Trench -										
	For Lift 0 to 1.50m- 0.160+0.5=0.66m										
	For Lift 1.5 to 3.00m- 0.16+0.5+0.4=1.06m										
	For Lift 3.0 to 4.5m- 0.16+0.5+0.4+0.4=1.46m										
	DBR12 TO DBR12.1										
	CH0.00	579.556	579.056	578.956			0.600	0.400			
	CH6.00	579.556	579.456	579.356			0.200				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			4.650	0.660	0.050	0.153		4.817	4.970
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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

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12th D Branch near Hari Masjid, DWC-MB

Date	Particulars of work	DETAILS						Content of arrear	Last measurment		Total Upto Date Quantity
		GL	No IL	EX.L	L	B	D		Page	Qty.	
	(a) For Lift 0 to 1.5m	1			4.650	0.660	0.200	0.614		3.767	4.381
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			4.650	0.660	0.150	0.460		4.674	5.135
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			5.150	0.660	0.100	0.340		1.793	2.133
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.443		3.336	3.779
	Extra Item No.9.6 :- Lowering & Laying of PVC pipe of 160mm Dia	1			5.400			5.400		0.000	5.400
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							1.228			
	Deduction										
	pipe area	1.000		0.785	5.150	0.160	0.160	0.103			
	soling							0.000			
	PCC							0.000			
	Murum bedding							0.340			
								0.443			
								0.784		9.922	10.706
	DBR14 TO DBR14.1										
	CH0.00	579.646	579.286	579.186			0.460	0.360			
	CH2.50	579.646	579.486	579.386			0.260				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.150	0.660	0.010	0.008		4.970	4.978
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.150	0.660	0.200	0.152		4.381	4.532
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			1.150	0.660	0.150	0.114		5.135	5.248
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			1.650	0.660	0.100	0.109		2.133	2.242
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.142		3.779	3.921
	Extra Item No.9.6 :- Lowering & Laying of PVC pipe of 160mm Dia	1			1.900			1.900		5.400	7.300
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							0.273			
	Deduction										
	pipe area	1.000		0.785	1.650	0.160	0.160	0.033			
	soling							0.000			
	PCC							0.000			
	Murum bedding							0.109			



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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

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13th D Branch near Hari Masjid, DWC-MB

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		GL	No IL	EX.L	L	B	D		Page	Qty.	
								0.142			
								0.131		10.706	10.838
	DBR14 TO DBR14.2										
	CH0.00	579.856	579.436	579.336			0.520	0.370			
	CH2.50	579.856	579.736	579.636			0.220				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.150	0.660	0.020	0.015		4.978	4.993
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.150	0.660	0.200	0.152		4.532	4.684
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			1.150	0.660	0.150	0.114		5.248	5.362
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			1.650	0.660	0.100	0.109		2.242	2.351
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.142		3.921	4.063
	Extra Item No.9.6 :- Lowering & Laying of PVC pipe of 160mm Dia	1			1.900			1.900		7.300	9.200
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							0.281			
	Deduction										
	pipe area	1.000		0.785	1.650	0.160	0.160	0.033			
	soling							0.000			
	PCC							0.109			
	Murrum bedding							0.142			
								0.139		10.838	10.976
	DBR15 TO DBR15.1										
	CH0.00	579.886	579.526	579.426			0.460	0.335			
	CH2.50	579.886	579.776	579.676			0.210				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.650	0.660	0.035	0.038		4.993	5.031
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.650	0.660	0.150	0.163		4.684	4.847
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			1.650	0.660	0.150	0.163		5.362	5.526
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			1.650	0.660	0.100	0.109		2.351	2.459



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

me of work:- Development of Underground Sewerage Collection system for Zone I to VI
I Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment
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rden, Zalta, Padegaon, CIDCO (Airport). Construction, Erection, Testing and Commission
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98 and CIDCO (Airport). Providing, lowering, laying jointing and testing rising main
P DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to

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12th D Branch near Harl Masjid, DWC-MB

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		GL	No IL	EX.L	L	B	D		Page	Qty.	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.142		4.063	4.205
	Extra Item No.9.6 :- Lowering & Laying of PVC pipe of 160mm Dia	1			1.900			1.900		9.200	11.100
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							0.365			
	Deduction										
	pipe area	1.000		0.785	1.650	0.160	0.160	0.033			
	soling							0.000			
	PCC							0.000			
	Murum bedding							0.109			
								0.142			
	Net Qty = A - B							0.223	10.976	11.199	
	DBR15 TO DBR15.2										
	CH0.00	579.886	579.526	579.426			0.460	0.310			
	CH1.20	579.886	579.826	579.726			0.160				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.350	0.660	0.010	0.002		5.031	5.033
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.350	0.660	0.150	0.035		4.847	4.882
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			0.350	0.660	0.150	0.035		5.526	5.560
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			0.350	0.660	0.100	0.023		2.459	2.483
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.030		4.205	4.235
	Extra Item No.9.6 :- Lowering & Laying of PVC pipe of 160mm Dia	1			0.600			0.600		11.100	11.700
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							0.072			
	Deduction										
	pipe area	1.000		0.785	0.350	0.160	0.160	0.007			
	soling							0.000			
	PCC							0.000			
	Murum bedding							0.023			
								0.030			
	Net Qty = A - B							0.041	11.199	11.241	
	DBR17 TO DBR17.1										
	CH0.00	580.246	580.000	579.900			0.346	0.200			
	CH3.00	580.246	580.291	580.191			0.055				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc										



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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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Name of Agency:- M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Veneture)**Authority No.** AMC/Ward B&CA/UDSSMT/2014/184 **Date** 01.07.2014

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12th D Branch near Hari Masjid, DWC-MB

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		GL	IL	EX.L	L	B	D		Page	Qty.	
	(a) For Lift 0 to 1.5m	1			2.150	0.660	0.000	0.001		5.033	5.034
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			2.150	0.660	0.000	0.000		4.882	4.882
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			2.150	0.660	0.200	0.284		5.560	5.844
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			2.150	0.660	0.100	0.142		2.483	2.624
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.185		4.235	4.420
	Extra Item No.9.6 :- Lowering & Laying of PVC pipe of 160mm Dia	1			2.400			2.400		11.700	14.100
	Item No. 13 :- (c)Lowering & Laying of Polyethylene DWC pipe of 250mm Dia									8.300	8.300
	Item No. 13 :- (d)Lowering & Laying of Polyethylene DWC pipe of 315mm Dia									16.300	16.300
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							0.285			
	Deduction										
	pipe area	1.000		0.785	2.150	0.160	0.160	0.043			
	soling							0.000			
	PCC							0.000			
	Murrum bedding							0.142			
								0.185			
	Net Qty = A - B							0.099		11.241	11.340
	DWC - 200mm Dia										
	Used for Storm water line										
	Item No. 12:-Providing and supplying ISI standard DWC pipes for non pressure UGD										
	b)200mm	1			6.000			6.000		0.000	6.000
	Item No :35 Shifting of Existing Utilities Length considered up to 400mm Including all and as directed by Engineer in-Charge				0.060						0.060

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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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Na Page 1 of 12

12th D Branch near Hari Masjid- 400mm-MB

12th RA BILL MEASUREMENTS D'BRANCH NEAR KHAIRATI MASJID

Date
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ren

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
	400mm Dia-Near Hari Masjid	GL	IL	EX.L							
	400mm dia (Width of Trench -0.400+0.15+0.15+0.5=1.20m)										
	For Width of Trench Calculation	For Depth			0.0m to 1.5m			0.0m to 3.0m		0.0m to 4.5m	
	Outer dia of Pipe + 0.50 for Bottom	For Lift 0.0m to 1.5m			1.200			1.600		2.000	
	and Add 0.4 for Subsequent upper Lifts.	For Lift 1.5m to 3.0m						1.200		1.600	
		For Lift 3.0m to 4.5m								1.200	
	DBR0										
	CH0.00	578.500	576.736	576.536			1.96				
	CH11.20	578.696	576.786	576.586			2.11	2.037			
	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			8.500	1.600	0.400	5.440		5.034	10.474
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			8.500	1.600	0.800	10.880		4.882	15.762
	(b) For Lift 1.5m to 3.0m	1			8.500	1.200	0.100	1.020		0.000	1.020
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			8.500	1.600	0.300	4.080		5.844	9.924
	(b) For Lift 1.5m to 3.0m	1			8.500	1.200	0.437	4.457		0.000	4.457
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			8.500	1.200	0.200	2.040		2.624	4.664
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							4.058		4.420	8.479
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			10.000			10.000		0.000	10.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							25.877			
	Deduction										
	pipe area	1		0.785	8.500	0.550	0.550	2.02			
	soling							0.00			
	PCC							0.00			
	Murum bedding							2.04			
	Total = B							4.06			
	Net Qty = A - B							21.82		11.340	33.159
	DBR1										
	CH11.20	578.696	576.786	576.586			2.11				
	CH34.90	578.576	576.816	576.616			1.96	2.035			
	Item No. 1 :- Excavation for foundation/pipe trenches in all										
	(a) For Lift 0 to 1.5m	1			21.000	1.600	0.300	10.080		10.474	20.554
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			21.000	1.600	0.900	30.240		15.762	46.002
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			21.000	1.600	0.300	10.080		9.924	20.004



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AURANGABAD MUNICIPAL CORPORATION.

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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

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12th D Branch near Hari Masjid- 400mm-MB

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		GL	IL	EX.L	L	B	D		Page	Quantity	
	(b) For Lift 1.5m to 3.0m	1			21.000	1.200	0.535	13.482		4.457	17.939
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			21.000	1.200	0.200	5.040		4.664	9.704
	Item No. : 11 Transportation of earth Transportation charges							10.027		8.479	18.505
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			22.500			22.500		10.000	32.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							63.882			
	Deduction										
	pipe area	1		0.785	21.000	0.550	0.550	4.99			
	soling							0.00			
	PCC							0.00			
	Murum bedding							5.04			
	Total = B							10.03			
	Net Qty = A - B							53.86		33.159	87.014
	DBR2										
	CH34.90	578.576	576.816	576.616			1.96				
	CH57.10	578.546	576.886	576.686			1.86	1.910			
	Item No. 1 :- Excavation for foundation/pipe trenches in all										
	(a) For Lift 0 to 1.5m	1			19.500	1.600	0.400	12.480		20.554	33.034
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			19.500	1.600	0.800	24.960		46.002	70.962
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			19.500	1.600	0.300	9.360		20.004	29.364
	(b) For Lift 1.5m to 3.0m	1			19.500	1.200	0.410	9.594		17.939	27.533
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			19.500	1.200	0.200	4.680		9.704	14.384
	Item No. : 11 Transportation of earth Transportation charges							9.311		18.505	27.816
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			21.000			21.000		32.500	53.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							56.394			
	Deduction										
	pipe area	1		0.785	19.500	0.550	0.550	4.63			
	soling							0.00			
	PCC							0.00			
	Murum bedding							4.68			
	Total = B							9.31			
	Net Qty = A - B							47.08		87.014	134.098
	DBR3										
	CH57.10	578.546	576.886	576.686			1.86				
	CH83.30	578.456	577.006	576.806			1.65	1.755			
	Item No. 1 :- Excavation for foundation/pipe trenches in all										
	(a) For Lift 0 to 1.5m	1			23.500	1.600	0.400	15.040		33.034	48.074
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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15th D Branch near Hari Masjid- 400mm-MB

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	(a) For Lift 0 to 1.5m	1			23.500	1.600	0.800	30.080		70.962	101.042
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			23.500	1.600	0.300	11.280		29.364	40.644
	(b) For Lift 1.5m to 3.0m	1			23.500	1.200	0.255	7.191		27.533	34.724
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			23.500	1.200	0.200	5.640		14.384	20.024
	Item No. : 11 Transportation of earth Transportation charges							11.220		27.816	39.036
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			25.000			25.000		53.500	78.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							63.591			
	Deduction										
	pipe area	1		0.785	23.500	0.550	0.550	5.58			
	soling							0.00			
	PCC							0.00			
	Murum bedding							5.64			
	Total = B							11.22			
	Net Qty = A - B							52.37		134.098	186.468
	DBR4										
	CH83.30	578.456	577.006	576.806			1.65	1.575			
	CH91.00	578.506	577.206	577.006			1.50				
	Item No. 1 :- Excavation for foundation/pipe trenches in all										
	(a) For Lift 0 to 1.5m	1			5.000	1.200	0.400	2.400		48.074	50.474
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			5.000	1.200	0.800	4.800		101.042	105.842
	(b) For Lift 1.5m to 3.0m	1			5.000	1.200	0.075	0.450		1.020	1.470
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			5.000	1.200	0.300	1.800		40.644	42.444
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			5.000	1.200	0.200	1.200		20.024	21.224
	Item No. : 11 Transportation of earth Transportation charges							2.387		39.036	41.424
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			6.500			6.500		78.500	85.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							9.450			
	Deduction										
	pipe area	1		0.785	5.000	0.550	0.550	1.19			
	soling							0.00			
	PCC							0.00			
	Murum bedding							1.20			
	Total = B							2.39			
	Net Qty = A - B							7.06		186.468	193.531
	DBR5										
	CH91.00	578.506	577.206	577.006			1.50	1.515			
	CH113.70	578.616	577.286	577.086			1.53				



Signature