



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. :- 137

Page No. :-

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

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

1 of 5

RA 12 Sanjay Nagar-04 - MB-250mm

14th RA BILL MEASUREMENTS PIPE BRANCH SEWER 'D'- AT " SANJAY NAGAR-04"

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	SW PIPE - 250 mm Dia										
	250mm dia (Width of Trench -0.250+0.02+0.02+0.5=0.79m)										
	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				0.790		1.190		1.590 ✓	
		For Lift 1.5m to 3.0m						0.790		1.190✓	
		For Lift 3.0m to 4.5m								0.790 ✓	
	SNA 14 To SNAC 14.1										
	CH0.00	583.824	582.824	582.724			1.100	1.100			
	CH4.268	583.924	582.924	582.824			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			3.568	0.790	1.100	3.101		0.000	3.101
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			3.868	0.790	0.100	0.306		0.000	0.306
	Item No. : 11 Transportation of earth Transportation charges							0.527		0.000	0.527
	Extra Item 9.2 (d) :-Lowering & Laying of Polyethylene SW pipe of 250mm Dia	1			4.118			4.118			4.118
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							3.101			
	Deduction										
	pipe area	1		0.785	3.868	0.270	0.270	0.221			
	Murrum bedding							0.306			
								0.527			
		Net Qty = A - B						2.574		0.000	2.574
	SNA 20 To SNAC 20.1										
	CH0.00	585.137	584.137	584.037			1.100	1.100			
	CH4.268	585.237	584.237	584.137			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			3.568	0.790	1.100	3.101		3.101	6.201
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			3.868	0.790	0.100	0.306		0.306	0.611
	Item No. : 11 Transportation of earth Transportation charges							0.527		0.527	1.054



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Book No. :- **133**
Page No. :-

2 of 5

RA 14 Sanjay Nagar-04 - MB-250mm

Date	Particulars of work	DETAILS						Content of arrears	Last measurment		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Extra Item 9.2 (d) :-Lowering & Laying of Polyethylene SW pipe of 250mm Dia	1			4.118			4.118		4.118	8.236
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							3.101			
	Deduction										
	pipe area	1		0.785	3.868	0.270	0.270	0.221			
	Murrum bedding							0.306			
								0.527			
		Net Qty = A - B						2.574		2.574	5.147
	SNA 24 To SNAC 24.1										
	CH0.00	585.930	584.930	584.830			1.100	1.100			
	CH6.097	586.030	585.030	584.930			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			5.397	0.790	1.100	4.690		6.201	10.891
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			5.697	0.790	0.100	0.450		0.611	1.061
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.776		1.054	1.830
	Extra Item 9.2 (d) :-Lowering & Laying of Polyethylene SW pipe of 250mm Dia	1			5.947			5.947		8.236	14.183
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							4.690			
	Deduction										
	pipe area	1		0.785	5.697	0.270	0.270	0.326			
	Murrum bedding							0.450			
								0.776			
		Net Qty = A - B						3.914		5.147	9.061
	SNA 24 To SNAC 24.2										
	CH0.00	585.930	584.930	584.830			1.100	1.100			
	CH3.040	586.030	585.030	584.930			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			2.340	0.790	1.100	2.033		10.891	12.925
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			2.640	0.790	0.100	0.209		1.061	1.270
	Item No. : 11 Transportation of earth Transportation charges							0.360		1.830	2.190



Signature



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Book No. 137

Page No. :-

3 of 5

RA 14 Sanjay Nagar-04 - MB-250mm

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Extra Item 9.2 (d) :-Lowering & Laying of Polyethylene SW pipe of 250mm Dia	1			2.890			2.890		14.183	17.073
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							2.033			
	Deduction										
	pipe area	1		0.785	2.640	0.270	0.270	0.151			
	Murrum bedding							0.209			
								0.360			
		Net Qty = A - B						1.674		9.061	10.735
	SNA 25 To SNAC 25.1										
	CH0.00	585.980	584.980	584.880			1.100	1.100			
	CH3.658	586.080	585.080	584.980			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			2.958	0.790	1.100	2.571		12.925	15.495
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			3.258	0.790	0.100	0.257		1.270	1.527
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.444		2.190	2.633
	Extra Item 9.2 (d) :-Lowering & Laying of Polyethylene SW pipe of 250mm Dia	1			3.508			3.508		17.073	20.581
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							2.571			
	Deduction										
	pipe area	1		0.785	3.258	0.270	0.270	0.186			
	Murrum bedding							0.257			
								0.444			
		Net Qty = A - B						2.127		10.735	12.862
	SNA 26 To SNAC 26.1										
	CH0.00	586.120	585.120	585.020			1.100	1.100			
	CH4.268	586.220	585.220	585.120			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			3.568	0.790	1.100	3.101		15.495	18.596
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			3.868	0.790	0.100	0.306		1.527	1.833
	Item No. : 11 Transportation of earth Transportation charges							0.527		2.633	3.160



Sanjay *Sanjay*

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Book No. :- 147

Page No. :-

4 of 5

RA 12 Sanjay Nagar-04 - MB-250mm

Date	Particulars of work	DETAILS						Content of arrears	Last measurment		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Extra Item 9.2 (d) :-Lowering & Laying of Polyethylene SW pipe of 250mm Dia	1			4.118			4.118		20.581	24.699
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							3.101			
	Deduction										
	pipe area	1		0.785	3.868	0.270	0.270	0.221			
	Murum bedding							0.306			
								0.527			
								2.574		12.862	15.435
	SNA 28 To SNAC 28.1										
	CH0.00	586.300	585.300	585.200			1.100	1.100			
	CH4.268	586.400	585.400	585.300			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			3.568	0.790	1.100	3.101		18.596	21.696
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			3.868	0.790	0.100	0.306		1.833	2.138
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.527		3.160	3.687
	Extra Item 9.2 (d) :-Lowering & Laying of Polyethylene SW pipe of 250mm Dia	1			4.118			4.118		24.699	28.817
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							3.101			
	Deduction										
	pipe area	1		0.785	3.868	0.270	0.270	0.221			
	Murum bedding							0.306			
								0.527			
								2.574		15.435	18.009
	SNA 28 To SNAC 28.2										
	CH0.00	586.300	585.300	585.200			1.100	1.100			
	CH3.658	586.400	585.400	585.300			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			2.958	0.790	1.100	2.571		21.696	24.267
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			3.258	0.790	0.100	0.257		2.138	2.396
	Item No. : 11 Transportation of earth Transportation charges							0.444		3.687	4.131



[Signatures]



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Book No. :-
Page No. 141

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

5 of 5

RA 14 Sanjay Nagar-04 - MB-250mm

Date	Particulars of work	DETAILS						Content of arrears	Last measurment		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Extra Item 9.2 (d) :-Lowering & Laying of Polyethylene SW pipe of 250mm Dia	1			3.508			3.508		28.817	32.325
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							2.571			
	Deduction										
	pipe area	1		0.785	3.258	0.270	0.270	0.186			
	Murrum bedding							0.257			
								0.444			
		Net Qty = A - B						2.127		18.009	20.136
	SNA 29 To SNAC 29.1										
	CH0.00	586.400	585.400	585.300			1.100	1.100			
	CH3.658	586.500	585.500	585.400			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			2.958	0.790	1.100	2.571		24.267	26.837
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			3.258	0.790	0.100	0.257		2.396	2.653
	Item No. : 11 Transportation of earth Transportation charges							0.444		4.131	4.575
	Extra Item 9.2 (d) :-Lowering & Laying of Polyethylene SW pipe of 250mm Dia	1			3.508			3.508		32.325	35.833
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							2.571			
	Deduction										
	pipe area	1		0.785	3.258	0.270	0.270	0.186			
	Murrum bedding							0.257			
								0.444			
		Net Qty = A - B						2.127		20.136	22.262



Signature



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Book No. :- 142

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 7

RA 12 Sanjay Nagar-04 - MB-300mm

14th RA BILL MEASUREMENTS PIPE BRANCH SEWER 'D'- AT " SANJAY NAGAR-04"

Date	Particulars of work	DETAILS						Content of arrears	Last measurment		Total Up to Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	SW PIPE - 300 mm Dia										
	300mm dia (Width of Trench -0.300+0.02+0.02+0.5=0.84m)										
	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				0.840		1.240		1.640 /	
		For Lift 1.5m to 3.0m						0.840		1.240 /	
		For Lift 3.0m to 4.5m								0.840/	
	SNA 4 To SNAC 4.1										
	CH0.00	582.577	581.577	581.477			1.100	1.100			
	CH1.829	582.677	581.677	581.577			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.029	0.840	1.100	0.951		26.837	27.788
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			1.329	0.840	0.100	0.112		2.653	2.765
	Item No. : 11 Transportation of earth Transportation charges							0.218		4.575	4.793
	Extra Item 9.2 (e) :-Lowering & Laying of Polyethylene SW pipe of 300mm Dia	1			1.829			1.829		0.000	1.829
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							0.951			
	Deduction										
	pipe area	1		0.785	1.329	0.320	0.320	0.107			
	Murrum bedding							0.112			
								0.218			
		Net Qty = A - B						0.732		22.262	22.995
	SNA 4 To SNAC 4.2										
	CH0.00	582.577	581.577	581.477			1.100	1.100			
	CH2.439	582.677	581.677	581.577			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.639	0.840	1.100	1.514		27.788	29.303
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			1.939	0.840	0.100	0.163		2.765	2.928
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.319		4.793	5.112



Signature



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Book No. :-

Page No. :-

143

2 of 7

RA 12 Sanjay Nagar-04 - MB-300mm

Date	Particulars of work	DETAILS						Content of arrears	Last measurment		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Extra Item 9.2 (e) :-Lowering & Laying of Polyethylene SW pipe of 300mm Dia	1			2.439			2.439		1.829	4.268
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							1.514			
	Deduction										
	pipe area	1		0.785	1.939	0.320	0.320	0.156			
	Murum bedding							0.163			
								0.319			
		Net Qty = A - B						1.196		22.995	24.190
	SNA 7 To SNAC 7.1										
	CH0.00	583.157	582.157	582.057			1.100	1.100			
	CH2.439	583.257	582.257	582.157			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.639	0.840	1.100	1.514		29.303	30.817
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			1.939	0.840	0.100	0.163		2.928	3.090
	Item No. : 11 Transportation of earth Transportation charges Including loading & unloading							0.319		5.112	5.431
	Extra Item 9.2 (e) :-Lowering & Laying of Polyethylene SW pipe of 300mm Dia	1			2.439			2.439		4.268	6.707
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							1.514			
	Deduction										
	pipe area	1		0.785	1.939	0.320	0.320	0.156			
	Murum bedding							0.163			
								0.319			
		Net Qty = A - B						1.196		24.190	25.386
	SNA 9 To SNAC 9.1										
	CH0.00	583.797	582.797	582.697			1.100	1.100			
	CH2.439	583.897	582.897	582.797			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches In earth soils, Soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.639	0.840	1.100	1.514		30.817	32.331
	Item No. 7 :- Filling in plnth and floors/ trenches etc complete.(bedding)	1			1.939	0.840	0.100	0.163		3.090	3.253
	Item No. : 11 Transportation of earth Transportation charges							0.319		5.431	5.750
	Extra Item 9.2 (e) :-Lowering & Laying of Polyethylene SW pipe of 300mm Dia	1			2.439			2.439		6.707	9.146



Signature

Signature

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Book No. :- 144
Page No. :-

RA 11.Sanjay Nagar-04 - MB-300mm

3 of 7

3 of 7

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 ...							1.514			
	Total Excavation=										
	Deduction							0.156			
	pipe area	1		0.785	1.939	0.320	0.320	0.163			
	Murum bedding							0.319			
								1.196	25.386	26.582	
		Net Qty = A - B									
	SNA 11 To SNAC 11.1										
	CH0.00	584.467	583.467	583.367			1.100	1.100			
	CH2.439	584.567	583.567	583.467			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.639	0.840	1.100	1.514	32.331	33.846	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			1.939	0.840	0.100	0.163	3.253	3.416	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.319	5.750	6.068	
	Extra Item 9.2 (e) :-Lowering & Laying of Polyethylene SW pipe of 300mm Dia	1			2.439			2.439	9.146	11.585	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							1.514			
	Deduction										
	pipe area	1		0.785	1.939	0.320	0.320	0.156			
	Murum bedding							0.163			
								0.319			
		Net Qty = A - B						1.196	26.582	27.778	
	SNA 13 To SNAC 13.1										
	CH0.00	583.807	582.807	582.707			1.100	1.100			
	CH1.829	583.907	582.907	582.807			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.129	0.840	1.100	1.043	33.846	34.889	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			1.429	0.840	0.100	0.120	3.416	3.536	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.235	6.068	6.303	
	Extra Item 9.2 (e) :-Lowering & Laying of Polyethylene SW pipe of 300mm Dia	1			1.679			1.679	11.585	13.264	
	Item No. 30 :- Refilling the excavated trenches ...										



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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 CDD in side line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to

Book No. :-

Page No. :- 145

4 of 7

RA 12 Sanjay Nagar-04 - MB-300mm

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Total Excavation=							1.043			
	Deduction										
	pipe area	1		0.785	1.429	0.320	0.320	0.115			
	Murrum bedding							0.120			
								0.235			
		Net Qty = A - B						0.808		27.778	28.586
	SNA 15 To SNAC 15.1										
	CH0.00	584.007	583.007	582.907			1.100	1.100			
	CH2.439	584.107	583.107	583.007			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.739	0.840	1.100	1.607		34.889	36.496
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			2.039	0.840	0.100	0.171		3.536	3.708
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.335		6.303	6.638
	Extra Item 9.2 (e) :-Lowering & Laying of Polyethylene SW pipe of 300mm Dia	1			2.289			2.289		13.264	15.553
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							1.607			
	Deduction										
	pipe area	1		0.785	2.039	0.320	0.320	0.164			
	Murrum bedding							0.171			
								0.335			
		Net Qty = A - B						1.272		28.586	29.857
	SNA 15 To SNAC 15.2										
	CH0.00	584.007	583.007	582.907			1.100	1.100			
	CH2.439	584.107	583.107	583.007			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.739	0.840	1.100	1.607		36.496	38.103
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			2.039	0.840	0.100	0.171		3.708	3.879
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.335		6.638	6.974
	Extra Item 9.2 (e) :-Lowering & Laying of Polyethylene SW pipe of 300mm Dia	1			2.289			2.289		15.553	17.842
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							1.607			
	Deduction										



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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

Book No. :- 146
Page No. :-

RA 17-Sanjay Nagar-04 - MB-300mm

5 of 7

5 of 7

Date	Particulars of work	DETAILS						Content of arrears	Last measurment		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	pipe area	1		0.785	2.039	0.320	0.320	0.164			
	Murrum bedding							0.171			
								0.335			
		Net Qty = A - B						1.272		29.857	31.129
	SNA 17 To SNAC 17.1										
	CH0.00	584.787	583.787	583.687			1.100	1.100			
	CH2.439	584.887	583.887	583.787			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.739	0.840	1.100	1.607		38.103	39.710
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			2.039	0.840	0.100	0.171		3.879	4.050
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.335		6.974	7.309
	Extra Item 9.2 (e) :-Lowering & Laying of Polyethylene SW pipe of 300mm Dia	1			2.289			2.289		17.842	20.131
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							1.607			
	Deduction										
	pipe area	1		0.785	2.039	0.320	0.320	0.164			
	Murrum bedding							0.171			
								0.335			
		Net Qty = A - B						1.272		31.129	32.401
	SNA 19 To SNAC 19.1										
	CH0.00	585.487	584.487	584.387			1.100	1.100			
	CH2.439	585.587	584.587	584.487			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.739	0.840	1.100	1.607		39.710	41.316
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			2.039	0.840	0.100	0.171		4.050	4.221
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.335		7.309	7.644
	Extra Item 9.2 (e) :-Lowering & Laying of Polyethylene SW pipe of 300mm Dia	1			2.289			2.289		20.131	22.420
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							1.607			
	Deduction										
	pipe area	1		0.785	2.039	0.320	0.320	0.164			
	Murrum bedding							0.171			



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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 G.P.D.I nine line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to

Book No. :- **147**
Page No. :-

6 of 7

RA 12 Sanjay Nagar-04 - MB-300mm

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
								0.335			
		Net Qty = A - B						1.272		32.401	33.672
	SNA 19 To SNAC 19.2										
	CH0.00	585.487	584.487	584.387			1.100	1.100			
	CH2.439	585.587	584.587	584.487			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.739	0.840	1.100	1.607		41.316	42.923
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			2.039	0.840	0.100	0.171		4.221	4.393
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.335		7.644	7.979
	Extra Item 9.2 (e) :-Lowering & Laying of Polyethylene SW pipe of 300mm Dia	1			2.289			2.289		22.420	24.709
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							1.607			
	Deduction										
	pipe area	1		0.785	2.039	0.320	0.320	0.164			
	Murrum bedding							0.171			
								0.335			
		Net Qty = A - B						1.272		33.672	34.944
	SNA 21 To SNAC 21.1										
	CH0.00	585.487	584.487	584.387			1.100	1.100			
	CH4.268	585.587	584.587	584.487			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			3.568	0.840	1.100	3.297		42.923	46.220
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			3.868	0.840	0.100	0.325		4.393	4.718
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.636		7.979	8.615
	Extra Item 9.2 (e) :-Lowering & Laying of Polyethylene SW pipe of 300mm Dia	1			4.118			4.118		24.709	28.827
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							3.297			
	Deduction										
	pipe area	1		0.785	3.868	0.320	0.320	0.311			
	Murrum bedding							0.325			
								0.636			
		Net Qty = A - B						2.661		34.944	37.605



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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 Nakshirawadi (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 Nakshirawadi (Kanchanwadi) SFP and Ward No.98 to SFP for Aurangabad City.

Book No. :- 143

Page No. :-

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

Authority No. AMC/Water & Sewerage/2014/191 Date 01.07.2014

7 of 7

RA 11 Sanjay Nagar-04 - MB-300mm

Date	Particulars of work	DETAILS						Content of arrears	Last measurment		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	SNA 22 To SNAC 22.1										
	CH0.00	585.630	584.630	584.530			1.100	1.100			
	CH3.658	585.730	584.730	584.630			1.100				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			2.958	0.840	1.100	2.733		46.220	48.953
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			3.258	0.840	0.100	0.274		4.718	4.991
	Item No. : 11 Transportation of earth Transportation charges							0.536		8.615	9.151
	Extra Item 9.2 (e) :-Lowering & Laying of Polyethylene SW pipe of 300mm Dia	1			3.508			3.508		28.827	32.335
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							2.733			
	Deduction										
	pipe area	1		0.785	3.258	0.320	0.320	0.262			
	Murrum bedding							0.274			
								0.536			
		Net Qty = A - B						2.198		37.605	39.803



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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. :- 147

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

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

1 of 3

RA 12 Sanjay Nagar-04 MB-315mm

12th R A BILL MEASUREMENTS

BRANCH SEWER 'D'- AT " SANJAY NAGAR-04"

BRANCH SEWER D - A1 SANJAY NAGAR-04											
Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	DWC 315mm										
	315mm dia (Width of Trench -0.315+0.5=0.815m)										
	For Width of Trench Calculation Outer dia of Pipe + 0.50 for Bottom and Add 0.4 for Subsequent upper Lifts.	For Depth				0.0m to 1.5m		0.0m to 3.0m		0.0m to 4.5m	
		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	
	SNA 26 TO SNA 27										
	CH334.30	586.120	584.820	584.620			1.50	1.600			
	CH347.40	586.440	584.940	584.740			1.70				
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			10.440	1.215	0.900	11.416		0.000	11.416
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			10.440	1.215	0.600	7.611		0.000	7.611
	(b) For Lift 1.5m to 3.0m	1			10.440	0.815	0.100	0.851		0.000	0.851
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			10.440	0.815	0.100	0.851		4.991	5.842
	Item No.: 11 Disposal of excavated material including loading the excavated material in trucks / tractors							1.664		9.151	10.815
	Item No.13 (d) :- Lowering & Laying Polyethylene DWC pipe of 315mm Dia	1			12.000			12.000		0.000	12.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							19.878			
	Deduction										
	pipe area	1		0.785	10.440	0.315	0.315	0.81			
	Murrum bedding							0.85			
	Total = B							1.66			
					Net Qty = A - B			18.21		39.803	58.016
	SNA 27 TO SNA 28										
	CH347.40	586.440	584.940	584.740			1.70	1.600			
	CH360.50	586.300	585.000	584.800			1.50				
	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			10.440	1.215	0.400	5.074		48.953	54.027
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			10.440	1.215	0.700	8.879		11.416	20.295



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

Book No. :- 157
Page No. :-

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

2 of 3

RA 12-Sanjay Nagar-04 MB-315mm

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. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			10.440	1.215	0.400	5.074		7.611	12.685
	(b) For Lift 1.5m to 3.0m	1			10.440	0.815	0.100	0.851		0.851	1.702
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			10.440	0.815	0.100	0.851		5.842	6.693
	Item No.: 11 Disposal of excavated material including loading the excavated material in trucks / tractors							1.664		10.815	12.479
	Item No.13 (d) :- Lowering & Laying Polyethylene DWC pipe of 315mm Dia	1			12.000			12.000		12.000	24.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							19.878			
	Deduction										
	pipe area	1		0.785	10.440	0.315	0.315	0.81			
	Murum bedding							0.85			
	Total = B							1.66			
		Net Qty = A - B						18.21		58.016	76.230
	SNA 28 TO SNA 29										
	CH360.50	586.300	585.000	584.800			1.50	1.500			
	CH373.60	586.400	585.100	584.900			1.50				
	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			10.440	0.815	0.600	5.105		54.027	59.132
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			10.440	0.815	0.450	3.829		20.295	24.124
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			10.440	0.815	0.450	3.829		12.685	16.513
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			10.440	0.815	0.100	0.851		6.693	7.544
	Item No.: 11 Disposal of excavated material including loading the excavated material in trucks / tractors							1.664		12.479	14.143
	Item No.13 (d) :- Lowering & Laying Polyethylene DWC pipe of 315mm Dia	1			12.000			12.000		24.000	36.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A										
	Deduction							12.763			
	pipe area	1		0.785	10.440	0.315	0.315	0.81			
	Murum bedding							0.85			
	Total = B							1.66			
		Net Qty = A - B						11.10		76.230	87.360



Signature

Signature

AURANGABAD MUNICIPAL CORPORATION.

(From No.52) (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. **151**
Page No. **151**

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

3 of 3

RA 12 Sanjay Nagar-04 MB-315mm

Date	Particulars of work	DETAILS						Content of area	Last measurment		TOTAL TO DATE
		No	L	B	D				Page	Quantity	
	SNA 29 TO SNA 30										
	CH373.60	586.400	585.300	585.100			1.30	1.300			
	CH386.70	586.500	585.400	585.200			1.30				
	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			10.440	0.815	0.400	3.403		59.132	62.536
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			10.440	0.815	0.500	4.254		24.124	28.379
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			10.440	0.815	0.400	3.403		16.513	19.917
	(b) For Lift 1.5m to 3.0m	1			10.440	0.815	0.000	0.000		1.702	1.702
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete (bedding)	1			10.440	0.815	0.100	0.851		7.544	8.395
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks / tractors							1.664		14.143	15.807
	Item No.13 (d) :- Lowering & Laying Polyethylene DWC pipe of 315mm Dia	1			12.000			12.000		36.000	48.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							11.061			
	Deduction										
	pipe area	1			0.785	10.440	0.315	0.315		0.81	
	Murum bedding									0.85	
	Total = B							1.66			
	Net Qty = A - B							9.40		87.329	96.726



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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 station 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. **152**
Page No. :-

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

1 of 9

RA 11-Sanjay Nagar-04 MB-400mm

11th RA BILL MEASUREMENTS BRANCH SEWER 'D'- AT " SANJAY NAGAR-04"

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	RCC 400mm										
	400mm dia (Width of Trench -0.400+0.15+0.15+0.5=1.20m)										
	For Width of Trench Calculation Outer dia of Pipe + 0.50 for Bottom and Add 0.4 for Subsequent upper Lifts.										
	For Depth						0.0m to 1.5m		0.0m to 3.0m		0.0m to 4.5m
	For Lift 0:0m to 1.5m						1.200		1.600		2.000
	For Lift 1.5m to 3.0m								1.200		1.600
	For Lift 3.0m to 4.5m										1.200
	Width of Trench -										
	For Bottom Lift 0:00-1.50m- 0.4+0.15+0.15+0.5=1.2m										
	From Bottom Lift 1.50m-3.00m- 0.4+0.15+0.15+0.5+0.4=1.6m										
	From Bottom Lift 3.00m-4.50m- 0.4+0.15+0.15+0.5+0.4+0.4=2.0m										
	SNA 12 TO SNA 13										
	CH161.30	584.652	581.857	581.657			3.00	2.548			
	CH172.50	583.807	581.907	581.707			2.10				
	Item No. 1 :- Excavation for foundation/pipe trenches in all typesof soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			8.270	1.600	0.950	12.570		62.536	75.106
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			8.270	1.600	0.300	3.970		28.379	32.348
	(b) For Lift 1.5m to 3.0m	1			8.270	1.200	0.700	6.947		0.000	6.947
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			8.270	1.600	0.250	3.308		19.917	23.225
	(b) For Lift 1.5m to 3.0m	1			8.270	1.200	0.100	0.992		1.702	2.694
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			8.270	1.200	0.248	2.461		0.000	2.461
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			8.270	1.200	0.200	1.985		8.395	10.379
	Item No.: 11 Disposal of excavated material including loading the excavated material in trucks / tractors							3.949		15.807	19.755
	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										
	Deduction							30.248			
	pipe area										
	Murrum bedding	1			0.785	8.270	0.550	0.550	1.96		
	Total = B								1.98		
									3.95		
	Net Qty = A - B							26.30		96.726	123.026



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MUMBAI 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

Book No. 153

Page No. 2

2 of 9

RA M. Sanjay Nagar-04 MB-400mm

Date	Particulars of work	DETAILS					Content of area	Last measurement		TOTAL TO DATE
		No	L	B	D			Page	Quantity	
	SNA 13 TO SNA 14									
	CH172.50	583.807	582.207	582.007		1.80	1.784			
	CH186.10	583.824	582.257	582.057		1.77				
	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			10.940	1.600	0.300	5.251	75.106	80.357
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.									
	(a) For Lift 0 to 1.5m	1			10.940	1.600	0.950	16.629	32.348	48.977
	(b) For Lift 1.5m to 3.0m	1			10.940	1.200	0.284	3.728	6.947	10.675
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.									
	(a) For Lift 0 to 1.5m	1			10.940	1.600	0.250	4.376	23.225	27.601
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			10.940	1.200	0.200	2.626	10.379	13.005
	Item No.: 11 Disposal of excavated material including loading the excavated material in trucks / tractors						5.223		19.755	24.979
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			12.500		12.500		10.000	22.500
	Item No 30 :- Refilling the excavated trenches ...									
	Total Excavation = A						29.984			
	Deduction									
	pipe area	1			0.785	10.940	0.550	0.550	2.60	
	Murum bedding								2.63	
	Total = B						5.22			
	Net Qty = A - B						24.76		123.026	147.787
	SNA 14 TO SNA 15									
	CH186.10	583.824	582.357	582.157		1.67	1.733			
	CH197.20	584.007	582.407	582.207		1.80				
	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			8.440	1.600	0.600	8.102	80.357	88.460
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.									
	(a) For Lift 0 to 1.5m	1			8.440	1.600	0.650	8.778	48.977	57.755
	(b) For Lift 1.5m to 3.0m	1			8.440	1.200	0.233	2.360	10.675	13.035
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.									
	(a) For Lift 0 to 1.5m	1			8.440	1.600	0.250	3.376	27.601	30.977
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			8.440	1.200	0.200	2.026	13.005	15.031
	Item No.: 11 Disposal of excavated material including loading the excavated material in trucks / tractors						4.030		24.979	29.009



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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. :- 155
Page No. :-

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

4 of 9

RA 11.Sanjay Nagar-04 MB-400mm

Date	Particulars of work	DETAILS						Content of area	Last measurment		TOTAL TO DATE
		GL	No IL	EX.L	L	B	D		Page	Quantity	
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			8.440	1.600	0.250	3.376		34.353	37.729
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			8.440	1.200	0.200	2.026		17.056	19.082
	Item No.: 11 Disposal of excavated material including loading the excavated material in trucks / tractors							4.030		33.038	37.068
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			10.000			10.000		42.500	52.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							23.801			
	Deduction										
	pipe area	1		0.785	8.440	0.550	0.550	2.00			
	Murum bedding							2.03			
	Total = B							4.03			
								Net Qty = A - B		185.637	205.408
	SNA 17 TO SNA 18							19.77			
	CH219.40	584.787	583.387	583.187			1.60	1.775			
	CH233.00	585.187	583.437	583.237			1.95				
	Item No. 1 :- Excavation for foundation/pipe trenches in all typesof soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			10.940	1.600	0.300	5.251		100.613	105.865
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			10.940	1.600	0.950	16.629		79.361	95.990
	(b) For Lift 1.5m to 3.0m	1			10.940	1.200	0.275	3.610		19.618	23.228
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			10.940	1.600	0.250	4.376		37.729	42.105
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			10.940	1.200	0.200	2.626		19.082	21.707
	Item No.: 11 Disposal of excavated material including loading the excavated material in trucks / tractors							5.223		37.068	42.292
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			12.500			12.500		52.500	65.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							29.866			
	Deduction										
	pipe area	1		0.785	10.940	0.550	0.550	2.60			
	Murum bedding							2.63			
	Total = B							5.22			
								Net Qty = A - B		205.408	230.051
								24.64			



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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 Nakshirawadi (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 Nakshirawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

Book No. :- 156
Page No. :-

1 of 9

RA 11-Sanjay Nagar-04 MB-400mm

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	SNA 18 TO SNA 19										
	CH233.00	585.187	583.737	583.537			1.65	1.775			
	CH244.10	585.487	583.787	583.587			1.90				
	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			8.440	1.600	0.500	6.752		105.865	112.617
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			8.440	1.600	0.750	10.128		95.990	106.118
	(b) For Lift 1.5m to 3.0m	1			8.440	1.200	0.275	2.785		23.228	26.014
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			8.440	1.600	0.250	3.376		42.105	45.481
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			8.440	1.200	0.200	2.026		21.707	23.733
	Item No.: 11 Disposal of excavated material including loading the excavated material in trucks / tractors							4.030		42.292	46.321
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			10.000			10.000		65.000	75.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							23.041			
	Deduction										
	pipe area	1		0.785	8.440	0.550	0.550	2.00			
	Murum bedding							2.03			
	Total = B							4.03			
		Net Qty = A - B						19.01		230.051	249.063
	SNA 19 TO SNA 20										
	CH244.10	585.487	583.787	583.587			1.90	1.700			
	CH257.70	585.137	583.837	583.637			1.50				
	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			10.940	1.600	0.500	8.752		112.617	121.369
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			10.940	1.600	0.300	5.251		106.118	111.369
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			10.940	1.600	0.700	12.253		45.481	57.734
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			10.940	1.200	0.200	2.626		2.461	5.087
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			10.940	1.200	0.200	2.626		23.733	26.359



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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. 157

6 of 9

RA 12 Sanjay Nagar-04 MB-400mm

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. 11 Disposal of excavated material including loading the excavated material in trucks / tractors							5.223	46.321	51.545
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			12.500			12.500	75.000	87.500
	Item No 30 :- Refilling the excavated trenches ...									
	Total Excavation = A							28.882		
	Deduction									
	pipe area	1		0.785	10.940	0.550	0.550	2.60		
	Murum bedding							2.63		
	Total = B							5.22		
	Net Qty = A - B							23.66	249.063	272.721
	SNA 20 TO SNA 21									
	CH257.70	585.137	584.137	583.937			1.20			
	CH271.30	585.487	584.187	583.987			1.50	1.350		
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.									
	(a) For Lift 0 to 1.5m	1			10.940	1.200	0.700	9.190	111.369	120.559
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.									
	(a) For Lift 0 to 1.5m	1			10.940	1.200	0.650	8.533	57.734	66.267
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			10.940	1.200	0.200	2.626	26.359	28.984
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks / tractors							5.223	51.545	56.768
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			12.500			12.500	87.500	100.000
	Item No 30 :- Refilling the excavated trenches ...									
	Total Excavation = A							17.723		
	Deduction									
	pipe area	1		0.785	10.940	0.550	0.550	2.60		
	Murum bedding							2.63		
	Total = B							5.22		
	Net Qty = A - B							12.50	272.721	285.220
	SNA 21 TO SNA 22									
	CH271.30	585.487	584.187	583.987			1.50			
	CH284.90	585.630	584.230	584.030			1.60	1.550		
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.									
	(a) For Lift 0 to 1.5m	1			10.940	1.200	0.800	10.502	120.559	131.061
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.									
	(a) For Lift 0 to 1.5m	1			10.940	1.200	0.700	9.190	66.267	75.457
	(b) For Lift 1.5m to 3.0m	1			10.940	1.200	0.050	0.656	2.694	3.351
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			10.940	1.200	0.200	2.626	28.984	31.610



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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

Book No. :-
Page No. :- 153

7 of 9

RA 11 Sanjay Nagar-04 MB-400mm

Date	Particulars of work	DETAILS						Content of area	Last measurment		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Item No.: 11 Disposal of excavated material Including loading the excavated material in trucks / tractors							5.223		56.768	61.992
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			12.500			12.500		100.000	112.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A										
	Deduction							20.348			
	pipe area	1		0.785	10.940	0.550	0.550	2.60			
	Murum bedding							2.63			
	Total = B							5.22			
		Net Qty = A - B						15.12		285.220	300.345
	SNA 22 TO SNA 23										
	CH284.90	585.630	584.330	584.130			1.50				
	CH298.50	585.730	584.380	584.180			1.55	1.525			
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			10.940	1.200	0.900	11.815		131.061	142.876
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			10.940	1.200	0.600	7.877		75.457	83.333
	(b) For Lift 1.5m to 3.0m	1			10.940	1.200	0.025	0.328		3.351	3.679
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			10.940	1.200	0.200	2.626		31.610	34.235
	Item No.: 11 Disposal of excavated material including loading the excavated material in trucks / tractors							5.223		61.992	67.215
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			12.500			12.500		112.500	125.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A										
	Deduction							20.020			
	pipe area	1		0.785	10.940	0.550	0.550	2.60			
	Murum bedding							2.63			
	Total = B							5.22			
		Net Qty = A - B						14.80		300.345	315.142
	SNA 23 TO SNA 24										
	CH298.50	585.730	584.380	584.180			1.55				
	CH312.10	585.930	584.430	584.230			1.70	1.625			
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			10.940	1.600	1.000	17.504		142.876	160.380
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			10.940	1.600	0.500	8.752		83.333	92.085
	(b) For Lift 1.5m to 3.0m	1			10.940	1.200	0.125	1.641		3.679	5.320
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			10.940	1.200	0.200	2.626		34.235	36.861



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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 Sahm 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. :- 157

8 of 9

RA 12 Sanjay Nagar-04 MB-400mm

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.: 11 Disposal of excavated material including loading the excavated material in trucks / tractors							5.223		67.215	72.439
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			12.500			12.500		125.000	137.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							27.897			
	Deduction										
	pipe area	1		0.785	10.940	0.550	0.550	2.60			
	Murrum bedding							2.63			
	Total = B							5.22			
		Net Qty = A - B						22.67		315.142	337.815
	SNA 24 TO SNA 25										
	CH312.10	585.930	584.430	584.230			1.70	1.700			
	CH325.70	585.980	584.480	584.280			1.70				
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			10.940	1.600	0.900	15.754		160.380	176.134
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			10.940	1.600	0.600	10.502		92.085	102.588
	(b) For Lift 1.5m to 3.0m	1			10.940	1.200	0.200	2.626		5.320	7.945
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			10.940	1.200	0.200	2.626		36.861	39.487
	Item No.: 11 Disposal of excavated material including loading the excavated material in trucks / tractors							5.223		72.439	77.662
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			12.500			12.500		137.500	150.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							28.882			
	Deduction										
	pipe area	1		0.785	10.940	0.550	0.550	2.60			
	Murrum bedding							2.63			
	Total = B							5.22			
		Net Qty = A - B						23.66		337.815	361.474
	SNA 25 TO SNA 26										
	CH325.70	585.980	584.480	584.280			1.70	1.750			
	CH334.30	586.120	584.520	584.320			1.80				
	Item No. 1 :- Excavation for foundation/pipe trenches in all typesof soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			5.940	1.600	0.000	0.000		121.369	121.369
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			5.940	1.600	0.900	8.554		176.134	184.687
	(b) For Lift 1.5m to 3.0m	1			5.940	1.200	0.000	0.000		26.014	26.014



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