



AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

Book No. :- 110
Page No. :-

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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12th Pruthvinagar Padegaon Meas.

12th RA BILL MEASUREMENTS BRANCH SEWER AT " PRUTHVINAGAR PADEGAON"

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No							Page	Quantity	
		GL	IL	EX.L	L	B	D				
BRANCH SEWER AT " PRUTHVINAGAR PADEGAON" (Width of Trench -0.4+0.15+0.15+0.5=1.2m)											
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	0.000		1.200	1.600						
	For Lift 3.0m to 4.5m	0.000		0.000	1.200						
	PP.8	255M GAP FROM PADEGAON BRIDGE									
10/09/2016	CH255.00	557.825	554.470	554.270			3.56	3.473			
	CH308.80	557.775	554.585	554.385			3.39				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			50.60	2.000	1.500	151.800	0.000	151.800	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			50.60	1.600	1.500	121.440	0.000	121.440	
	(c) For Lift 3.0m to 4.5m	1			50.60	1.200	0.473	28.721	0.000	28.721	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			50.60	1.200	0.200	12.144	0.000	12.144	
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks /							24.160	0.000	24.160	
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			52.5			52.500	0.000	52.500	
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							301.961			
	Deduction										
	pipe area	1		0.785	50.60	0.550	0.550	12.02			
	soling							0.00			
	PCC							0.00			
	Murum bedding							12.14			
	Total = B							24.16			
								Net Qty = A - B			
10/12/2016	PP.9							277.80	0.000	277.801	
	CH308.80	557.775	554.585	554.385			3.39				
	CH347.40	558.595	554.665	554.465			4.13	3.760			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			35.40	2.000	1.500	106.200	151.800	258.000	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			35.40	2.000	0.000	0.000	0.000	0.000	
	(b) For Lift 1.5m to 3.0m	1			35.40	1.600	1.500	84.960	121.440	206.400	
	(c) For Lift 3.0m to 4.5m	1			35.40	1.200	0.760	32.285	28.721	61.005	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			36.40	1.200	0.200	8.736	12.144	20.880	



B.K. Pardesi
B. K. Pardesi
Sectional Engineer



AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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

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12th Pruthvinagar Padegaon Meas.

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 /							17.380		24.160	41.539
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			37.2			37.150		52.500	89.650
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							223.445			
	Deduction										
	pipe area	1		0.785	36.40	0.550	0.550	8.64			
	soling							0.00			
	PCC							0.00			
	Murum bedding							8.74			
	Total = B							17.38			
								Net Qty = A - B			
								206.07		277.801	483.866
23-10-2016	PP.10										
	CH347.40	558.595	554.665	554.465				4.13			
	CH413.90	558.940	554.895	554.695				4.25	4.198		
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			63.30	2.000	0.500	63.300		258.000	321.300
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			63.30	2.000	1.000	126.600		0.000	126.600
	(b) For Lift 1.5m to 3.0m	1			63.30	1.600	1.500	151.920		206.400	358.320
	(c) For Lift 3.0m to 4.5m	1			63.30	1.200	0.480	36.461		61.005	97.466
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(c) For Lift 3.0m to 4.5m	1			63.30	1.200	0.708	53.780		0.000	53.780
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			64.30	1.200	0.200	15.432		20.880	36.312
	Item No: 11 Disposal of excavated material including loading the excavated material in trucks /							30.701		41.539	72.240
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			65.1			65.050		89.650	154.700
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							432.060			
	Deduction										
	pipe area	1		0.785	64.30	0.550	0.550	15.27			
	soling							0.00			
	PCC							0.00			
	Murum bedding							15.43			
	Total = B							30.70			
								Net Qty = A - B		483.866	885.226
11/03/2016	PP.11										
	CH413.90	558.940	555.395	555.195			3.75				
	CH464.90	558.775	555.490	555.290			3.49	3.615			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			47.80	2.000	1.200	114.720		321.300	436.020
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										



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Measurement Book

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12th Pruthvinagar Padegaon Meas.

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE	
		No	GL	IL	EX.L	L	B		D	Page		Quantity
	(a) For Lift 0 to 1.5m	1				47.80	2.000	0.300	28.680		126.600	155.280
	(b) For Lift 1.5m to 3.0m	1				47.80	1.600	1.500	114.720		358.320	473.040
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.											
	(c) For Lift 3.0m to 4.5m	1				47.80	1.200	0.615	35.276		53.780	89.056
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1				48.80	1.200	0.200	11.712		36.312	48.024
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks /								23.300		72.240	95.540
	Item No.17 (a):- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1				49.6			49.550		154.700	204.250
	Item No 30 :- Refilling the excavated trenches ...											
	Total Excavation = A								293.396			
	Deduction											
	pipe area	1			0.785	48.80	0.550	0.550	11.59			
	soling								0.00			
	PCC								0.00			
	Murum bedding								11.71			
	Total = B								23.30			
	Net Qty = A - B								270.10		885.226	1155.322
11/07/2016	PP.12											
	CH464.90	558.775	555.490	555.290				3.49	2.832			
	CH521.50	557.550	555.570	555.370				2.18				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc											
	(a) For Lift 0 to 1.5m	1				53.40	1.600	1.200	102.528		436.020	538.548
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.											
	(a) For Lift 0 to 1.5m	1				53.40	1.600	0.300	25.632		155.280	180.912
	(b) For Lift 1.5m to 3.0m	1				53.40	1.200	1.332	85.355		473.040	558.395
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1				54.40	1.200	0.200	13.056		48.024	61.080
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks /								25.974		95.540	121.514
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1				55.2			55.150		204.250	259.400
	Item No 30 :- Refilling the excavated trenches ...											
	Total Excavation = A								213.515			
	Deduction											
	pipe area	1			0.785	54.40	0.550	0.550	12.92			
	soling								0.00			
	PCC								0.00			
	Murum bedding								13.06			
	Total = B								25.97			
	Net Qty = A - B								187.54		1155.322	1342.863
11/08/2016	PP.13											
	CH521.50	557.550	555.570	555.370				2.18	2.292			
	CH543.00	557.805	555.600	555.400				2.40				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc											



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(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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24th Pruthvinagar Padegaon Meas.

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			18.30	1.600	1.200	35.136		538.548	573.684	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.											
	(a) For Lift 0 to 1.5m	1			18.30	1.600	0.300	8.784		180.912	189.696	
	(b) For Lift 1.5m to 3.0m	1			18.30	1.200	0.792	17.392		558.395	575.787	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			19.30	1.200	0.200	4.632		61.080	65.712	
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks /							9.215		121.514	130.729	
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			20.1			20.050		259.400	279.450	
	Item No 30 :- Refilling the excavated trenches ...											
	Total Excavation = A							61.312				
	Deduction											
	pipe area	1		0.785	19.30	0.550	0.550	4.58				
	soling							0.00				
	PCC							0.00				
	Murrum bedding							4.63				
	Total = B							9.22				
								Net Qty = A - B		52.10	1342.863	1394.960
11/10/2016	PP.14											
	CH543.00	557.805	555.600	555.400			2.40	2.395				
	CH579.60	557.855	555.670	555.470			2.39					
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc											
	(a) For Lift 0 to 1.5m	1			33.40	1.600	1.000	53.440		573.684	627.124	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.											
	(a) For Lift 0 to 1.5m	1			33.40	1.600	0.500	26.720		189.696	216.416	
	(b) For Lift 1.5m to 3.0m	1			33.40	1.200	0.895	35.872		575.787	611.658	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			34.40	1.200	0.200	8.256		65.712	73.968	
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks /							16.425		130.729	147.154	
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			35.2			35.150		279.450	314.600	
	Item No 30 :- Refilling the excavated trenches ...											
	Total Excavation = A							116.032				
	Deduction											
	pipe area	1		0.785	34.40	0.550	0.550	8.17				
	soling							0.00				
	PCC							0.00				
	Murrum bedding							8.26				
	Total = B							16.42				
								Net Qty = A - B		99.61	1394.960	1494.567
14-11-2016	PP.15											
	CH579.60	557.855	555.670	555.470			2.39	2.578				
	CH611.20	558.300	555.730	555.530			2.77					
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc											



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(From No.52)

Measurement Book

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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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15th Pruthvinagar Padegaon Meas.

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			28.40	1.600	0.800	36.352		627.124	663.476
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			28.40	1.600	0.700	31.808		216.416	248.224
	(b) For Lift 1.5m to 3.0m	1			28.40	1.200	1.078	36.738		611.658	648.397
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			29.40	1.200	0.200	7.056		73.968	81.024
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks /							14.037		147.154	161.191
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			30.2			30.150		314.600	344.750
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							104.898			
	Deduction										
	pipe area	1		0.785	29.40	0.550	0.550	6.98			
	soiling							0.00			
	PCC							0.00			
	Murrum bedding							7.06			
	Total = B							14.04			
								Net Qty = A - B		1494.567	1585.428
	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										
	For Lift 3.0 to 4.5m- 0.315+0.5+0.4+0.4=1.615m										
15-11-2016	PP.16										
	CH611.20	558.300	555.730	555.530			2.77	2.988			
	CH667.90	558.940	555.835	555.735			3.21				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc										
	(a) For Lift 0 to 1.5m	1			53.50	1.215	0.800	52.002		663.476	715.478
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			53.50	1.215	0.700	45.502		248.224	293.726
	(b) For Lift 1.5m to 3.0m	1			53.50	0.815	1.488	64.881		648.397	713.277
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			54.50	0.815	0.100	4.442		81.024	85.466
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks /							8.687		161.191	169.878
	Item No. 13 :- (d) Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			55.2			55.200		0.000	55.200
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							162.384			
	Deduction										
	pipe area	1		0.785	54.50	0.315	0.315	4.25			
	soiling							0.00			
	PCC							0.00			
	Murrum bedding							4.44			



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11th Pruthvinagar Padegaon Meas.

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Total = B										
							8.69				
	Net Qty = A - B						153.70		1585.428	1739.125	
15-11-2016	PP.17										
	CH667.90	558.940	555.835	555.735							
	CH722.00	560.045	555.985	555.885			3.21				
							4.16	3.683			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			50.90	1.615	0.700	57.542		715.478	773.020
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			50.90	1.615	0.800	65.763		293.726	359.489
	(b) For Lift 1.5m to 3.0m	1			50.90	1.215	1.500	92.765		713.277	806.042
	(c) For Lift 3.0m to 4.5m	1			50.90	0.815	0.683	28.333		97.466	125.799
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			51.90	0.815	0.100	4.230		85.466	89.696
	Item No: 11 Disposal of excavated material including loading the excavated material in trucks /							8.272		169.878	178.151
	Item No. 13 :- (d) Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			52.6			52.600		55.200	107.800
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							244.404			
	Deduction										
	pipe area	1		0.785	51.90	0.315	0.315	4.04			
	soling							0.00			
	PCC							0.00			
	Murum bedding							4.23			
	Total = B							8.27			
	Net Qty = A - B							236.13		1739.125	1975.256
15-11-2016	PP.18										
	CH722.00	560.045	555.985	555.885							
	CH763.60	560.350	556.190	556.090				4.16			
								4.26	4.210		
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			38.40	1.615	0.300	18.605		773.020	791.625
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			38.40	1.615	1.200	74.419		359.489	433.908
	(b) For Lift 1.5m to 3.0m	1			38.40	1.215	1.500	69.984		806.042	876.026
	(c) For Lift 3.0m to 4.5m	1			38.40	0.815	1.210	37.868		125.799	163.668
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			39.40	0.815	0.100	3.211		89.696	92.907
	Item No: 11 Disposal of excavated material including loading the excavated material in trucks /							6.280		178.151	184.431
	Item No. 13 :- (d) Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			40.1			40.100		107.800	147.900
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							200.876			
	Deduction										
	pipe area	1		0.785	39.40	0.315	0.315	3.07			
	soling							0.00			



B. K. Pardeshi
B. K. Pardeshi
Sectional Engineer



AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

116

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. :-

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11th Pruthvinagar Padegaon Meas.

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	PCC								0.00		
	Murum bedding								3.21		
	Total = B								6.28		
									Net Qty = A - B		
									194.60	1975.256	
17/11/16	PP.19										
	CH763.60	560.350	556.590	556.490			3.86				
	CH819.10	559.905	556.790	556.690			3.22	3.538			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			52.30	1.615	0.800	67.572	791.625	859.197	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			52.30	1.615	0.700	59.125	433.908	493.033	
	(b) For Lift 1.5m to 3.0m	1			52.30	1.215	1.500	95.317	876.026	971.343	
	(c) For Lift 3.0m to 4.5m	1			52.30	0.815	0.538	22.932	163.668	186.600	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			53.30	0.815	0.100	4.344	92.907	97.251	
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks /							8.496	184.431	192.926	
	Item No. 13 :- (d) Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			54.0			54.000	147.900	201.900	
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							244.945			
	Deduction										
	pipe area	1		0.785	53.30	0.315	0.315	4.15			
	soling							0.00			
	PCC							0.00			
	Murum bedding							4.34			
	Total = B							8.50			
									Net Qty = A - B		
									236.45	2169.852	
17/11/16	PP.20										
	CH819.10	559.905	556.790	556.690			3.22	2.948			
	CH868.50	559.580	557.000	556.900			2.68				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			46.20	1.215	0.800	44.906	859.197	904.103	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			46.20	1.215	0.700	39.293	493.033	532.326	
	(b) For Lift 1.5m to 3.0m	1			46.20	0.815	1.448	54.522	971.343	1025.865	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			47.20	0.815	0.100	3.847	97.251	101.097	
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks /							7.523	192.926	200.449	
	Item No. 13 :- (d) Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			47.9			47.900	201.900	249.800	
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							138.721			
	Deduction										
	pipe area	1		0.785	47.20	0.315	0.315	3.68			



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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 (Kanehanwadi), 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 (Kanehanwadi) 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 Vencture)

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12th Pruthvinagar Padegaon Meas.

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE		
		No			L	B	D		Page	Quantity			
		GL	IL	EX.L									
	soling									0.00			
	PCC									0.00			
	Murrum bedding									3.85			
	Total = B									7.52			
		Net Qty = A - B									131.20	2406.302	2537.500
18/11/16	PP.21												
	CH868.50	559.580	557.000	556.900			2.68			2.185			
	CH919.20	558.935	557.345	557.245			1.69						
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc												
	(a) For Lift 0 to 1.5m	1					47.95	1.215	0.800	46.607		904.103	950.711
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.												
	(a) For Lift 0 to 1.5m	1					47.95	1.215	0.700	40.781		532.326	573.107
	(b) For Lift 1.5m to 3.0m	1					47.95	0.815	0.685	26.769		1025.865	1052.634
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1					48.75	0.815	0.100	3.973		101.097	105.071
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks /									7.770		200.449	208.220
	Item No. 13 :- (d) Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1					49.4			49.350		249.800	299.150
	Item No 30 :- Refilling the excavated trenches ...												
	Total Excavation = A									114.158			
	Deduction												
	pipe area	1		0.785	48.75	0.315	0.315			3.80			
	soling									0.00			
	PCC									0.00			
	Murrum bedding									3.97			
	Total = B									7.77			
		Net Qty = A - B									106.39	2537.500	2643.888
18/11/16	PP.22												
	CH919.20	558.935	557.345	557.245			1.69			1.753			
	CH928.20	559.075	557.360	557.260			1.82						
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc												
	(a) For Lift 0 to 1.5m	1					6.70	1.215	0.700	5.698		950.711	956.409
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.												
	(a) For Lift 0 to 1.5m	1					6.70	1.215	0.800	6.512		573.107	579.620
	(b) For Lift 1.5m to 3.0m	1					6.70	0.815	0.253	1.382		1052.634	1054.016
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1					7.30	0.815	0.100	0.595		105.071	105.666
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks /									1.164		208.220	209.383
	Item No. 13 :- (d) Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1					7.8			7.800		299.150	306.950
	Item No 30 :- Refilling the excavated trenches ...												
	Total Excavation = A									13.592			
	Deduction												
	pipe area	1		0.785	7.30	0.315	0.315			0.57			



Sp. No. 47



AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

Book No. :- **118**
Page No. :-

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

12th Pruthvinagar Padegaon Meas.

Date	Particulars of work	DETAILS					Content of area	Last measurement		TOTAL TO DATE			
		No			L	B		D	Page		Quantity		
		GL	IL	EX.L									
	soling									0.00			
	PCC									0.00			
	Murum bedding									0.59			
	Total = B									1.16			
		Net Qty = A - B									12.43	2643.888	2656.317
19/11/16	PP.23												
	CH928.20	559.075	557.360	557.260			1.82			2.035			
	CH961.70	559.615	557.460	557.360			2.26						
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc												
	(a) For Lift 0 to 1.5m	1			30.75	1.215	0.700	26.153			956.409	982.562	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.												
	(a) For Lift 0 to 1.5m	1			30.75	1.215	0.800	29.889			579.620	609.509	
	(b) For Lift 1.5m to 3.0m	1			30.75	0.815	0.535	13.408			1054.016	1067.423	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			31.55	0.815	0.100	2.571			105.666	108.237	
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks /							5.029			209.383	214.412	
	Item No. 13 :- (d) Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			32.2			32.150			306.950	339.100	
	Item No 30 :- Refilling the excavated trenches ...												
	Total Excavation = A							69.450					
	Deduction												
	pipe area	1			0.785	31.55	0.315	0.315	2.46				
	soling									0.00			
	PCC									0.00			
	Murum bedding									2.57			
	Total = B							5.03					
		Net Qty = A - B									64.42	2656.317	2720.738
19/11/16	PP.24												
	CH961.70	559.615	557.460	557.360			2.26			2.378			
	CH976.70	559.900	557.500	557.400			2.50						
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc												
	(a) For Lift 0 to 1.5m	1			11.80	1.215	0.700	10.036			982.562	992.598	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.												
	(a) For Lift 0 to 1.5m	1			11.80	1.215	0.800	11.470			609.509	620.978	
	(b) For Lift 1.5m to 3.0m	1			11.80	0.815	0.877	8.434			1067.423	1075.857	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			12.80	0.815	0.100	1.043			108.237	109.280	
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks /							2.040			214.412	216.452	
	Item No. 13 :- (d) Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			13.6			13.550			339.100	352.650	
	Item No 30 :- Refilling the excavated trenches ...												
	Total Excavation = A							29.940					
	Deduction												
	pipe area	1			0.785	12.80	0.315	0.315	1.00				



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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

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Name of Contractor: M/s. Khilari Infrastructure Pvt. Ltd. & GFCPL (Joint Venture)

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12th Pruthvinagar Padegaon Meas.

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		GL	No IL	EXL	L	B	D		Page	Quantity	
	soling							0.00			
	PCC							0.00			
	Murum bedding							1.04			
	Total = B							2.04			
		Net Qty = A - B									
19/11/16	PP.25							27.90		2720.738	2748.637
	CH976.70	559.900	557.500	557.400			2.50	2.400			
	CH996.20	559.800	557.600	557.500			2.30				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			16.30	1.215	0.700	13.863		992.598	1006.461
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			16.30	1.215	0.800	15.844		620.978	636.822
	(b) For Lift 1.5m to 3.0m	1			16.30	0.815	0.900	11.956		1075.857	1087.814
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			17.30	0.815	0.100	1.410		109.280	110.690
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks /							2.757		216.452	219.210
	Item No. 13 :- (d) Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			18.0			18.000		352.650	370.650
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							41.663			
	Deduction										
	pipe area	1		0.785	17.30	0.315	0.315	1.35			
	soling							0.00			
	PCC							0.00			
	Murum bedding							1.41			
	Total = B							2.76			
		Net Qty = A - B									
20/11/16	PP.26							38.91		2748.637	2787.542
	CH996.20	559.800	557.600	557.500			2.30	2.375			
	CH1020.00	560.100	557.750	557.650			2.45				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			20.60	1.215	0.700	17.520		1006.461	1023.981
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			20.60	1.215	0.800	20.023		636.822	656.845
	(b) For Lift 1.5m to 3.0m	1			20.60	0.815	0.875	14.690		1087.814	1102.504
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete (bedding)	1			21.60	0.815	0.100	1.760		110.690	112.450
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks /							3.443		219.210	222.653
	Item No. 13 :- (d) Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			22.3			22.300		370.650	392.950
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation = A							52.234			
	Deduction										
	pipe area	1		0.785	21.60	0.315	0.315	1.68			



Paul



AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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

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Page No. :-

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

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

Date of Measurement	Particulars of Work	Details					Last Measurement		Total up to Date
		No.	L	B	D	Contents of Arrears	Page No.	Quantity	

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12th Pruthvinagar Padegaon Meas.

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	soling									0.00	
	PCC									0.00	
	Murum bedding									1.76	
	Total = B									3.44	
		Net Qty = A - B						48.79		2787.542	2836.333
20/11/16	PP.27										
	CH1020.00	560.100	557.750	557.650			2.45				
	CH1057.70	561.025	557.830	557.730			3.29		2.873		
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			34.50	1.215	0.800	33.534		1023.981	1057.545
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			34.50	1.215	0.700	29.342		656.845	686.188
	(b) For Lift 1.5m to 3.0m	1			34.50	0.815	1.373	38.605		1102.504	1141.109
	(c) For Lift 3.0m to 4.5m	1			34.50	0.815	0.000	0.000		186.600	186.600
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(c) For Lift 3.0m to 4.5m	1			34.50	0.815	0.000	0.000		89.056	89.056
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			35.50	0.815	0.100	2.893		112.450	115.344
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks /							5.658		222.653	228.311
	Item No. 13 :- (d) Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			36.2			36.200		392.950	429.150
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia									344.750	344.750
	Item No 30 :- Refilling the excavated trenches ...							101.482			
	Total Excavation = A										
	Deduction										
	pipe area	1		0.785	35.50	0.315	0.315	2.77			
	soling									0.00	
	PCC									2.89	
	Murum bedding									5.66	
	Total = B							95.82		2836.333	2932.156
		Net Qty = A - B									



B. K. Pardeshi
B. K. Pardeshi
Sectional Engineer



AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

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11th Pruthvinagar Padegaon 1.5,1.2m MH Excavation

12th RA BILL MEASUREMENTS (Excavation of Manhole)

BRANCH SEWER AT "PRUTHVINAGAR PADEGAON"

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Excavation of Chamber - For 1.50m dia Manhole (upto a depth of 2.0m to 5.0m)- 1.50+0.35+0.35+0.5+0.5=3.20m										
	Breadth for Manhole=3.2*3.2=10.24m										
	Excavation of Chamber - For 1.20 dia chamber (upto 2.0m depth)-1.20+0.50+0.3+0.3=2.30m										
	Area for chamber upto 2m=2.26*2.26=5.290m										
	PP.9										
	CH308.80	557.775	554.585	554.335			3.440				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	1.500	12.058	0.000	12.058	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(b) For Lift 1.5 to 3.0m	1			0.785	10.240	1.500	12.058	0.000	12.058	
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.440	3.537	0.000	3.537	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							9.886	0.000	9.886	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							27.652			
	Deduction										
	Brick work	1			0.785	2.280	2.280	1.190	4.856		
		1			0.785	1.540	1.540	2.000	3.723		
	PCC	1			0.785	2.580	2.580	0.250	1.306		
	Total (B)							9.886			
	Net Qty = A - B							17.766	0.000	17.766	
	PP.10										
	CH347.40	558.595	554.665	554.415			4.180				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	1.500	12.058	12.058	24.115	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(b) For Lift 1.5 to 3.0m	1			0.785	10.240	1.500	12.058	12.058	24.115	
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	1.180	9.485	3.537	13.022	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							12.906	9.886	22.791	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							33.601			
	Deduction										
	Brick work	1			0.785	2.280	2.280	1.930	7.876		
		1			0.785	1.540	1.540	2.000	3.723		
	PCC	1			0.785	2.580	2.580	0.250	1.306		
	Total (B)							12.906			



Paik
B. K. Pardeshi
Sectional Engineer



AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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11th Pruthvinagar Padegaon 1.5,1.2m MH Excavation

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=						19.574				
	Deduction										
	Brick work	1		0.785	2.280	2.280	0.985	4.020			
		1		0.785	1.540	1.540	1.200	2.234			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Total (B)						7.560				
		Net Qty = A - B						12.014	101.049	113.062	
	PP.16										
	CH611.20	558.300	555.730	555.480			2.820				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.800	6.431	65.111	71.542	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.700	5.627	19.292	24.919	
	(b) For Lift 1.5 to 3.0m	1			0.785	10.240	1.320	10.611	69.291	79.902	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							9.131	68.364	77.495	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							22.668			
	Deduction										
	Brick work	1		0.785	2.280	2.280	1.370	5.591			
		1		0.785	1.540	1.540	1.200	2.234			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Total (B)						9.131				
		Net Qty = A - B						13.537	113.062	126.600	
	PP.17										
	CH667.90	558.940	555.835	555.585			3.355				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.800	6.431	71.542	77.972	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.700	5.627	24.919	30.546	
	(b) For Lift 1.5 to 3.0m	1			0.785	10.240	1.500	12.058	79.902	91.959	
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.355	2.854	16.881	19.734	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							9.539	77.495	87.034	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							26.969			
	Deduction										
	Brick work	1		0.785	2.280	2.280	1.105	4.509			
		1		0.785	1.540	1.540	2.000	3.723			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Total (B)						9.539				
		Net Qty = A - B						17.430	126.600	144.029	
	PP.18										
	CH722.00	560.045	555.985	555.735			4.310				



Jada



AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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Book No. :-
Page No. :- **125**

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

5

17th Pruthvinagar Padegaon 1.5,1.2m MH Excavation

Date	Particulars of work	DETAILS					Content of arrears	Last measurement		Total Upto Date	
		No			L	B		D	Page		Quantity
		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			0.785	10.240	0.700	5.627	77.972	83.599	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.800	6.431	30.546	36.977	
	(b) For Lift 1.5 to 3.0m	1			0.785	10.240	1.500	12.058	91.959	104.017	
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	1.310	10.530	19.734	30.265	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							13.436	87.034	100.470	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							34.646			
	Deduction										
	Brick work	1		0.785	2.280	2.280	2.060	8.406			
		1		0.785	1.540	1.540	2.000	3.723			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Total (B)							13.436			
								Net Qty = A - B	21.209	144.029	
	PP.19									165.239	
	CH763.60	560.350	556.190	555.940			4.410				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.300	2.412	83.599	86.011	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	1.200	9.646	36.977	46.623	
	(b) For Lift 1.5 to 3.0m	1			0.785	10.240	1.500	12.058	104.017	116.074	
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	1.410	11.334	30.265	41.599	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							13.844	100.470	114.315	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							35.449			
	Deduction										
	Brick work	1		0.785	2.280	2.280	2.160	8.814			
		1		0.785	1.540	1.540	2.000	3.723			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Total (B)							13.844			
								Net Qty = A - B	21.605	165.239	
	PP.20									186.844	
	CH819.10	559.905	556.790	556.540			3.365				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.800	6.431	86.011	92.442	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.700	5.627	46.623	52.250	
	(b) For Lift 1.5 to 3.0m	1			0.785	10.240	1.500	12.058	116.074	128.132	
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.365	2.934	41.599	44.533	



B.K. Pardesi
B. K. Pardesi
Sectional Engineer



AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

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11th Pruthvinagar Padegaon 1.5, 1.2m MH Excavation

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date
		GL	IL	EX.L	L	B	D		Page	Quantity	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							9.580		114.315	123.894
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							27.049			
	Deduction										
	Brick work	1		0.785	2.280	2.280	1.115	4.550			
		1		0.785	1.540	1.540	2.000	3.723			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Total (B)							9.580			
								17.469		186.844	204.313
	Net Qty = A - B										
	PP.21										
	CH868.50	559.580	557.000	556.750			2.830				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.800	6.431		92.442	98.872
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.700	5.627		52.250	57.876
	(b) For Lift 1.5 to 3.0m	1			0.785	10.240	1.330	10.691		128.132	138.823
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							8.506		123.894	132.400
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							22.749			
	Deduction										
	Brick work	1		0.785	2.280	2.280	1.080	4.407			
		1		0.785	1.540	1.540	1.500	2.793			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Total (B)							8.506			
								14.243		204.313	218.556
	Net Qty = A - B										
	PP.22										
	CH919.20	558.935	557.345	557.095			1.840				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	5.290	0.800	3.322		98.872	102.194
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	5.290	0.700	2.907		57.876	60.783
	(b) For Lift 1.5 to 3.0m	1			0.785	5.290	0.340	1.412		138.823	140.235
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							2.896		132.400	135.296
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							7.641			
	Deduction										
	Brick work	1.00		0.785	1.31	1.31	1.590	2.14			
	soling							0.00			
	PCC	1.00		0.785	1.96	1.96	0.25	0.75			
	Murrum bedding							0.00			
	Total (B)							2.90			
								4.745		218.556	223.301
	Net Qty = A - B										
	PP.23										



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AURANGABAD MUNICIPAL CORPORATION.

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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

Date of Measurement	Particulars of Work	Details					Last Measurement		Total up to Date
		No.	L	B	D	Contents of Arrears	Page No.	Quantity	
1	2	3	4	5	6	7	8	9	10

9

22th Pruthvinagar Padegaon 1.5,1.2m MH Excavation

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date
		No			L	B	D		Page	Quantity	
		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			0.785	10.240	0.800	6.431	127.609	134.040	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.700	5.627	89.828	95.455	
	(b) For Lift 1.5 to 3.0m	1			0.785	10.240	1.500	12.058	175.164	187.221	
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.445	3.577	44.533	48.110	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.000	0.000	10.852	10.852	
	Item No. 11 Transportation of earth Transportation charges including loading & unloading							9.906	170.090	179.996	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation(A)=							27.692			
	Deduction										
	Brick work	1			0.785	2.280	2.280	1.195	4.876		
	PCC	1			0.785	1.540	1.540	2.000	3.723		
	Total (B)	1			0.785	2.580	2.580	0.250	1.306		
	Net Qty = A - B							9.906			
								17.786	277.896	295.682	



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

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

Date of Measurement	Particulars of Work	Details					Last Measurement		Total up to Date
		No.	L	B	D	Contents of Arrests	Page No.	Quantity	
									10

1 of 1

12th Pruthvinagar Padegaon MANHOLE

12th RA BILL MEASUREMENTS (Excavation of Manhole) BRANCH SEWER AT " PRUTHVINAGAR PADEGAON"

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

Sr.No.	MB/ Page No	Chainage	MH No	MTL	IL	Depth	Depth Difference than 2 m	Total Difference	Rebate/Add for Excess height (per 50 cm)
1		919.20	PP.22	558.935	557.345	1.59	-0.41	-0.695	-1.390
2		928.20	PP.23	559.075	557.360	1.72	-0.28		

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

Sr.No.	MB/ Page No	Chainage	MH No	MTL/GL	IL	Depth	Depth Difference than 5 m	Total Difference	Rebate/Add for Excess height (per 50 cm)
1		308.80	PP.9	557.775	554.585	3.19	-1.81	-37.29	-74.580
2		347.40	PP.10	558.595	554.665	3.93	-1.07		
3		413.90	PP.11	558.940	554.895	4.05	-0.95		
4		464.90	PP.12	558.775	555.490	3.28	-1.72		
5		521.50	PP.13	557.550	555.570	1.98	-3.02		
6		543.00	PP.14	557.805	555.600	2.20	-2.80		
7		579.60	PP.15	557.855	555.670	2.19	-2.81		
8		611.20	PP.16	558.300	555.730	2.57	-2.43		
9		667.90	PP.17	558.940	555.835	3.11	-1.89		
10		722.00	PP.18	560.045	555.985	4.06	-0.94		
11		763.60	PP.19	560.350	556.190	4.16	-0.84		
12		819.10	PP.20	559.905	556.790	3.12	-1.88		
13		868.50	PP.21	559.580	557.000	2.58	-2.42		
14		961.70	PP.24	559.615	557.460	2.15	-2.85		
15		976.70	PP.25	559.900	557.500	2.40	-2.60		
16		996.20	PP.26	559.800	557.600	2.20	-2.80		
17		1020.00	PP.27	560.100	557.750	2.35	-2.65		
18		1057.70	PP.28	561.025	557.830	3.19	-1.81		



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AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

Measurement Book

Book No. :- **132**

Page No. :-

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

1 of 4

Nandanvan Colony, RCC Pipe 250mm

12th RA BILL MEASUREMENTS PIPE NANDANVAN COLONY

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
RCC PIPE - 250 mm Dia (Width of Trench-0.250+0.06+0.06+0.5=0.87m)											
		For Depth			0.0m to 1.5m		0.0m to 3.0m	0.0m to 4.5m			
	For Width of Trench Calculation	For Lift 0.0m to 1.5m			0.870		1.270	1.670			
	Outer dia of Pipe + 0.50 for Bottom and Add 0.4 for Subsequent upper Lifts.	For Lift 1.5m to 3.0m					0.870	1.270			
		For Lift 3.0m to 4.5m						0.870			
	Nalla to NC 1										
	CH0.00	572.740	570.600	570.500			2.240	2.345			
	CH32.00	575.120	572.770	572.670			2.450				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			30.400	1.270	1.500	57.912	0.000	57.912	
	(b) For Lift 1.5m to 3.0m	1			30.400	0.870	0.845	22.349	0.000	22.349	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			31.400	0.870	0.100	2.732	0.000	2.732	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							5.101	0.000	5.101	
	Extra Item 9.4 (b) :-Lowering & Laying of RCC NP3 Class pipe of 250mm Dia	1			32.150			32.150		32.150	
	Item No. 30 :- Refilling the excavated trenches ...							80.261			
	Total Excavation=										
	Deduction							2.369			
	pipe area	1		0.785	31.400	0.310	0.310	0.000			
	soling							0.000			
	PCC							2.732			
	Murrum bedding							5.101			
	Net Qty = A - B							75.160	0.000	75.160	
	NC 1 to NC 2										
	CH32.00	575.120	572.770	572.670			2.450	2.388			
	CH51.30	575.460	573.235	573.135			2.325				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			16.100	1.270	0.600	12.268	57.912	70.180	
	(b) For Lift 1.5m to 3.0m	1			16.100	0.870	0.888	12.438	22.349	34.787	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			16.100	1.270	0.600	12.268	0.000	12.268	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			16.100	1.270	0.300	6.134	0.000	6.134	



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Sectional Engineer

