

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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Sewer Ward 98.9th RA Near STP-5Part-400mm-MB

**9th RA BILL MEASUREMENTS**

**Ward No. 98**

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	<b>400mm Dia-At Near STP Part-5th</b>										
	<b>Width of Trench -</b> 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										
	WN 43										
	CH2095.80	543.060	540.290	540.090			2.97	2.990			
	CH2116.40	543.210	540.400	540.200			3.01				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			19.150	1.600	0.600	18.384	0.000	18.384	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			19.150	1.600	0.900	27.576	0.000	27.576	
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			19.150	1.200	0.850	19.533	0.000	19.533	
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			19.150	1.200	0.640	14.707	0.000	14.707	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			19.150	1.200	0.200	4.596	0.000	4.596	
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			20.000			20.000	0.000	20.000	
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							<b>80.200</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	19.150	0.550	0.550	4.55			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							4.60			
	<b>Total = B</b>							<b>9.14</b>			
	<b>Net Qty = A - B</b>							<b>71.06</b>	<b>0.000</b>	<b>71.057</b>	
	CH2116.40	543.210	540.400	540.200			3.01	2.985			
	CH2129.50	543.280	540.520	540.320			2.96				
	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			11.650	1.600	0.800	14.912	18.384	33.296	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			11.650	1.600	0.700	13.048	27.576	40.624	
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			11:650	1.200	0.950	13.281	19.533	32.814	



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Name of work:- Deposition of Underground 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.

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. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			11.650	1.200	0.535	7.479		14.707	22.186
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			11.650	1.200	0.200	2.796		4.596	7.392
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			12.500			12.500		20.000	32.500
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							<b>48.720</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	11.650	0.550	0.550	2.77			
	soling							0.00			
	PCC							0.00			
	Murum bedding							2.80			
	<b>Total = B</b>							<b>5.56</b>			
					<b>Net Qty = A - B</b>			<b>43.16</b>		<b>71.057</b>	<b>114.215</b>
	<b>WN 44</b>										
	CH2129.50	543.280	540.520	540.320				2.96			
	CH2145.10	543.110	540.610	540.410				2.70		2.830	
	Item No. 1 :- Excavation for foundation/pipe trenches in all typesof soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			14.150	1.600	0.960	21.734		33.296	55.030
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			14.150	1.600	0.540	12.226		40.624	52.850
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			14.150	1.200	0.710	12.056		32.814	44.870
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			14.150	1.200	0.620	10.528		22.186	32.714
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			14.150	1.200	0.200	3.396		7.392	10.788
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			15.000			15.000		32.500	47.500
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							<b>56.543</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	14.150	0.550	0.550	3.36			
	soling							0.00			
	PCC							0.00			
	Murum bedding							3.40			
	<b>Total = B</b>							<b>6.76</b>			
					<b>Net Qty = A - B</b>			<b>49.79</b>		<b>114.215</b>	<b>164.002</b>
	CH2145.10	543.110	540.610	540.410				2.70			
	CH2165.10	543.250	540.790	540.590				2.66		2.680	
	Item No. 1 :- Excavation for foundation/pipe trenches in all typesof soil & soft murum etc complete.										



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Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Sahim Afi. 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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Sewer Ward 98.9th RA Near STP-5Part-400mm-MB

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	(a) For Lift 0 to 1.5m	1			20.000	1.600	0.500	16.000		55.030	71.030
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			20.000	1.600	1.000	32.000		52.850	84.850
	(b) For Lift 1.5m to 3.0m	1			20.000	1.200	0.180	4.320		0.000	4.320
	<b>Item No. 4:-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			20.000	1.200	0.200	4.800		44.870	49.670
	<b>Item No. 5 :-</b> Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			20.000	1.200	0.800	19.200		32.714	51.914
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			20.000	1.200	0.200	4.800		10.788	15.588
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			20.000			20.000		47.500	67.500
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							76.320			
	<b>Deduction</b>										
	pipe area	1		0.785	20.000	0.550	0.550	4.75			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							4.80			
	<b>Total = B</b>							9.55			
	<b>Net Qty = A - B</b>							66.77		164.002	230.773
	<b>CH2165.10</b>	543.250	540.790	540.590			2.66	2.700			
	<b>CH2182.60</b>	543.400	540.860	540.660			2.74				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all typesof soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			17.500	1.600	0.340	9.520		71.030	80.550
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			17.500	1.600	1.160	32.480		84.850	117.338
	<b>Item No. 4:-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			17.500	1.200	0.990	20.790		49.670	70.460
	<b>Item No. 5 :-</b> Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			17.500	1.200	0.210	4.410		51.914	56.324
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			17.500	1.200	0.200	4.200		15.588	19.788
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			17.500			17.500		67.500	85.000
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							67.200			
	<b>Deduction</b>										
	pipe area	1		0.785	17.500	0.550	0.550	4.16			
	soling							0.00			
	PCC							0.00			





**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali, Constructing, Erecting, Testing and Commissioning of Sewer 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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Sewer Ward 98.9th RA Near STP-5Part-400mm-MB

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No							Page	Quantity	
		GL	IL	EX.L	L	B	D				
	Murum bedding							4.20			
	<b>Total = B</b>							<b>8.36</b>			
		<b>Net Qty = A - B</b>						<b>58.84</b>		<b>230.773</b>	<b>289.617</b>
	CH2182.60	543.400	540.860	540.660							
	CH2198.20	542.900	540.920	540.720			2.74	2.460			
							2.18				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			14.150	1.600	1.200	27.168		80.550	107.718
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			14.150	1.600	0.300	6.792		117.330	124.122
	<b>Item No. 4 :-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			14.150	1.200	0.660	11.207		70.460	81.667
	<b>Item No. 5 :-</b> Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			14.150	1.200	0.300	5.094		56.324	61.418
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			14.150	1.200	0.200	3.396		19.788	23.184
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			15.000			15.000		85.000	100.000
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							<b>50.261</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	14.150	0.550	0.550	3.36			
	soling							0.00			
	PCC							0.00			
	Murum bedding							3.40			
	<b>Total = B</b>							<b>6.76</b>			
		<b>Net Qty = A - B</b>						<b>43.50</b>		<b>289.617</b>	<b>333.122</b>
	WN 45										
	CH2198.20	542.900	541.020	540.820			2.08	2.015			
	CH2236.90	542.900	541.150	540.950			1.95				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			35.800	1.600	1.200	68.736		107.718	176.454
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			35.800	1.600	0.300	17.184		124.122	141.306
	<b>Item No. 4 :-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			35.800	1.200	0.515	22.124		81.667	103.791
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			35.800	1.200	0.200	8.592		23.184	31.776
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			37.500			37.500		100.000	137.500
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										



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Name of work: Development of Underground Sewage 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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Sewer Ward 98.9th RA Near STP-5Part-400mm-MB

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	<b>Total Excavation = A</b>										
	<b>Deduction</b>						<b>108.044</b>				
	pipe area	1		0.785	35.800	0.550	0.550	8.50			
	soling							0.00			
	PCC							0.00			
	Murum bedding							8.59			
	<b>Total = B</b>							<b>17.09</b>			
								<b>Net Qty = A - B</b>			
								<b>90.95</b>			
	<b>WN 46</b>								333.122	424.073	
	CH2236.90	542.900	541.200	541.000			1.90	1.990			
	CH2293.10	543.160	541.280	541.080			2.08				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			53.300	1.600	1.000	85.280	176.454	261.734	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			53.300	1.600	0.500	42.640	141.306	183.946	
	<b>Item No. 4:-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			53.300	1.200	0.490	31.340	103.791	135.131	
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			53.300	1.200	0.200	12.792	31.776	44.568	
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			55.000			55.000	137.500	192.500	
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							<b>159.260</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	53.300	0.550	0.550	12.66			
	soling							0.00			
	PCC							0.00			
	Murum bedding							12.79			
	<b>Total = B</b>							<b>25.45</b>			
								<b>Net Qty = A - B</b>			
								<b>133.81</b>	424.073	557.885	
	<b>WN 47</b>										
	CH2293.10	543.160	541.340	541.140			2.02	2.455			
	CH2364.30	544.180	541.490	541.290			2.89				
	<b>Item No. 4:-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			68.300	1.600	0.500	54.640	0.000	54.640	
	<b>Item No. 5 :-</b> Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(a) For Lift 0m to 1.5m	1			68.300	1.600	1.000	109.280	0.000	109.280	
	(b) For Lift 1.5m to 3.0m	1			68.300	1.200	0.955	78.272	61.418	139.690	
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			68.300	1.200	0.200	16.392	44.568	60.960	
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			70.000			70.000	192.500	262.500	
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							<b>242.192</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	68.300	0.550	0.550	16.22			



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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 STP for Aurangabad City.

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Sewer Ward 98.9th RA Near STP-5Part-400mm-MB

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	soling							0.00			
	PCC							0.00			
	Murum bedding							16.39			
	<b>Total = B</b>							<b>32.61</b>			
		Net Qty = A - B							209.58	557.885	767.466
	<b>WN 48</b>										
	CH2364.30	544.180	541.960	541.760			2.42	3.260			
	CH2418.00	546.180	542.280	542.080			4.10				
	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			50.800	2.000	1.200	121.920	261.734	383.654	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			50.800	2.000	0.300	30.480	183.946	214.426	
	(b) For Lift 1.5m to 3.0m	1			50.800	1.600	1.500	121.920	4.320	126.240	
	(c) For Lift 3.0m to 4.5m	1			50.800	1.200	0.260	15.850	0.000	15.850	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			50.800	1.200	0.200	12.192	60.960	73.152	
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			52.500			52.500	262.500	315.000	
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							<b>290.170</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	50.800	0.550	0.550	12.06			
	soling							0.00			
	PCC							0.00			
	Murum bedding							12.19			
	<b>Total = B</b>							<b>24.26</b>			
		Net Qty = A - B							265.91	767.466	1033.380
	<b>WN 49</b>										
	CH2418.00	546.180	542.610	542.410			3.77	4.395			
	CH2458.60	547.550	542.730	542.530			5.02				
	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			39.150	2.000	0.500	39.150	383.654	422.804	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			39.150	2.000	1.000	78.300	214.426	292.726	
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			39.150	1.600	1.500	93.960	135.131	229.091	
	(c) For Lift 3.0m to 4.5m	1			39.150	1.200	1.395	65.537	0.000	65.537	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			39.150	1.200	0.200	9.396	73.152	82.548	
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			40.000			40.000	315.000	355.000	
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							<b>276.947</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	39.150	0.550	0.550	9.30			



*J*

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. :- 102

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

7 of 7

Sewer Ward 98.9th RA Near STP-5Part-400mm-MB

Date	Particulars of work	DETAILS					Content of area	Last measurement		TOTAL TO DATE	
		No			L	B		D	Page		Quantity
		GL	IL	EX.L							
	soling						0.00				
	PCC						0.00				
	Murum bedding						9.40				
	<b>Total = B</b>						<b>18.69</b>				
		Net Qty = A - B						<b>258.25</b>	<b>1033.380</b>	<b>1291.635</b>	
	CH2458.60	547.550	542.730	542.530							
	CH2504.20	547.100	542.990	542.790			4.665				
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc complete.										
	(a) For Lift 0 to 1.5m	1			44.150	2.400	0.300	31.788	0.000	31.788	
	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			44.150	2.400	0.200	21.192	422.804	443.996	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			44.150	2.400	1.000	105.960	292.726	398.686	
	(b) For Lift 1.5m to 3.0m	1			44.150	2.000	0.000	0.000	126.240	126.240	
	(c) For Lift 3.0m to 4.5m	1			44.150	1.600	0.000	0.000	15.850	15.850	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			44.150	2.400	0.000	0.000	54.640	54.640	
	(b) For Lift 1.5m to 3.0m	1			44.150	2.000	1.500	132.450	229.091	361.541	
	(c) For Lift 3.0m to 4.5m	1			44.150	1.600	1.500	105.960	65.537	171.497	
	(d) For Lift 4.5m to 6.0m	1			44.150	1.200	0.165	8.742	0.000	8.742	
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(a) For Lift 0m to 1.5m	1			44.150	2.400	0.000	0.000	109.280	109.280	
	(b) For Lift 1.5m to 3.0m	1			44.150	2.000	0.000	0.000	139.690	139.690	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			44.150	1.200	0.200	10.596	82.548	93.144	
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			45.000			45.000	355.000	400.000	
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							<b>406.092</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	44.150	0.550	0.550	10.48			
	soling							0.00			
	PCC							0.00			
	Murum bedding							10.60			
	<b>Total = B</b>							<b>21.08</b>			
		Net Qty = A - B						<b>385.01</b>	<b>1291.635</b>	<b>1676.647</b>	



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2 of 4

Sewer Ward 98.9th RA Walmi CSMSS-400mm-MB

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	<b>Item No.17 (a) :- Lowering &amp; Laying RCC NP3 class pipe of 400mm Dia</b>	1			45.0			45.000		417.500	462.500
	<b>Item No 30 :- Refilling the excavated trenches ...</b>										
	<b>Total Excavation = A</b>							<b>150.164</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	43.30	0.550	0.550	10.28			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							10.39			
	<b>Total = B</b>							<b>20.67</b>			
								<b>129.49</b>			
										<b>1729.775</b>	<b>1859.265</b>
	<b>WNC 22</b>										
	CH1042.70	537.020	534.890	534.690			2.33	2.695			
	CH1081.40	537.820	534.960	534.760			3.06				
	<b>Item No. 1 :- Excavation for foundation/pipe trenches in all typesof soil &amp; soft murum etc complete.</b>										
	(a) For Lift 0 to 1.5m	1			35.80	1.600	1.200	68.736		565.052	633.788
	<b>Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.</b>										
	(a) For Lift 0 to 1.5m	1			35.80	1.600	0.300	17.184		419.470	436.654
	(b) For Lift 1.5m to 3.0m	1			35.80	1.200	0.345	14.821		142.292	157.114
	<b>Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.</b>										
	(b) For Lift 1.5m to 3.0m	1			35.80	1.200	0.850	36.516		414.485	451.001
	<b>item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)</b>	1			35.80	1.200	0.200	8.592		107.328	115.920
	<b>Item No.17 (a) :- Lowering &amp; Laying RCC NP3 class pipe of 400mm Dia</b>	1			37.5			37.500		462.500	500.000
	<b>Item No 30 :- Refilling the excavated trenches ...</b>										
	<b>Total Excavation = A</b>							<b>137.257</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	35.80	0.550	0.550	8.50			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							8.59			
	<b>Total = B</b>							<b>17.09</b>			
								<b>120.16</b>		<b>1859.265</b>	<b>1979.429</b>
	<b>WNC 23</b>										
	CH1081.40	537.820	534.980	534.780			3.04	3.165			
	CH1130.10	538.180	535.090	534.890			3.29				
	<b>Item No. 1 :- Excavation for foundation/pipe trenches in all typesof soil &amp; soft murum etc complete.</b>										
	(a) For Lift 0 to 1.5m	1			45.80	2.000	1.000	91.600		633.788	725.388
	<b>Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.</b>										
	(a) For Lift 0 to 1.5m	1			45.80	2.000	0.500	45.800		436.654	482.454
	(b) For Lift 1.5m to 3.0m	1			45.80	1.600	0.600	43.968		157.114	201.082
	<b>Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.</b>										
	(b) For Lift 1.5m to 3.0m	1			45.80	1.600	0.900	65.952		451.001	516.953



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**Measurement Book**

**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalga, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalga, 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. :- 106  
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

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Sewer Ward 98.9th RA Walmi CSMSS-400mm-MB

Date	Particulars of work	DETAILS					Content of area	Last measurement		TOTAL TO DATE	
		No			L	B		D	Page		Quantity
		GL	IL	EX.L							
	(b) For Lift 1.5m to 3.0m	1			58.30	1.600	1.500	139.920		313.018	452.938
	<b>Item No. 4:-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			58.30	1.600	0.000	0.000		544.937	544.937
	(c) For Lift 3.0m to 4.5m	1			58.30	1.200	0.930	65.063		226.739	291.802
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			58.30	1.200	0.200	13.992		140.904	154.896
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			60.0			60.000		607.500	667.500
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							379.883			
	<b>Deduction</b>										
	pipe area	1		0.785	58.30	0.550	0.550	13.84			
	soling							0.00			
	PCC							0.00			
	Murram bedding							13.99			
	<b>Total = B</b>							27.84			
	<b>Net Qty = A - B</b>							352.05		2547.107	2899.154





1 of 2

Sewer Ward 98.9th RA Hindustan AwasII-400mm-MB

**9th R A BILL MEASUREMENTS**

**Ward No. 98**

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	<b>400mm Dia-Hindustan Awas Part II</b>										
	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										
	<b>Balance Part Beetwen WNH 38 To WNH 39 from CH 1687.00</b>										
	<b>CH1687.00</b>	542.070	538.770	538.570			3.50	3.580			
	<b>CH1710.10</b>	542.860	539.400	539.200			3.66				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all typesof soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			21.65	2.000	1.500	64.950	1063.528	1128.478	
	(b) For Lift 1.5m to 3.0m	1			21.65	1.600	1.100	38.104	0.000	38.104	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			21.65	1.600	0.400	13.856	452.938	466.794	
	(c) For Lift 3.0m to 4.5m	1			21.65	1.200	0.580	15.068	15.850	30.918	
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			21.65	1.200	0.200	5.196	154.896	160.092	
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			22.50			22.500	667.500	690.000	
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							<b>131.978</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	21.65	0.550	0.550	5.14			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							5.20			
	<b>Total = B</b>							<b>10.34</b>			
		<b>Net Qty = A - B</b>									
								<b>121.64</b>	2899.154	3020.795	
	<b>WNH 39</b>										
	<b>CH1710.10</b>	542.860	539.930	539.730			3.13	3.095			
	<b>CH1741.30</b>	543.050	540.190	539.990			3.06				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all typesof soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			28.30	2.000	1.500	84.900	1128.478	1213.378	
	(b) For Lift 1.5m to 3.0m	1			28.30	1.600	1.000	45.280	38.104	83.384	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			28.30	1.600	0.500	22.640	466.794	489.434	
	(c) For Lift 3.0m to 4.5m	1			28.30	1.200	0.095	3.226	30.918	34.144	
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			28.30	1.200	0.200	6.792	160.092	166.884	
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			30.00			30.000	690.000	720.000	
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										



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# Measurement Book

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

Book No. :-

Page No. :-

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

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

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Sewer Ward 98.9th RA Hindustan Awasthi-400mm-MB

Date	Particulars of work	DETAILS					Content of area	Last measurement		TOTAL TO DATE	
		No			L	B		D	Page		Quantity
		GL	IL	EX.L							
	<b>Total Excavation = A</b>										
	<b>Deduction</b>						<b>156.046</b>				
	pipe area	1		0.785	28.30	0.550	0.550	6.72			
	soling							0.00			
	PCC							0.00			
	Murum bedding							6.79			
	<b>Total = B</b>							<b>13.51</b>			
		<b>Net Qty = A - B</b>									
	<b>WNH 40</b>							<b>142.53</b>			
	<b>CH1741.30</b>										
	<b>CH1785.00</b>	543.050	540.300	540.100			2.95	3.140			
		543.650	540.520	540.320			3.33				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			40.80	2.000	1.500	122.400			
	(b) For Lift 1.5m to 3.0m	1			40.80	1.600	0.340	22.195	1213.378	1335.778	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			40.80	2.000	0.000	0.000	494.114	494.114	
	(b) For Lift 1.5m to 3.0m	1			40.80	1.600	1.160	75.725	489.434	565.158	
	(c) For Lift 3.0m to 4.5m	1			40.80	1.200	0.140	6.854	34.144	40.999	
	<b>Item No. 4:-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			40.80	1.600	0.000	0.000	544.937	544.937	
	(c) For Lift 3.0m to 4.5m	1			40.80	1.200	0.000	0.000	291.802	291.802	
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			40.80	1.200	0.200	9.792	166.884	176.676	
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			42.50			42.500	720.000	762.500	
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							<b>227.174</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	40.80	0.550	0.550	9.69			
	soling							0.00			
	PCC							0.00			
	Murum bedding							9.79			
	<b>Total = B</b>							<b>19.48</b>			
		<b>Net Qty = A - B</b>									
								<b>207.69</b>			
									<b>3163.329</b>	<b>3371.023</b>	



*J*

Name of work:- Development of Underground Sewerage Collection system for Zone 1 to 4 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.

**9th RA BILL MEASUREMENTS**

**Ward No. 98**

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	<b>500mm Dia-Hindustan Awas Part I</b>										
	<b>Width of Trench - For</b>										
	Bottom Lift 0.00-1.50m- 0.5+0.15+0.15+0.5=1.3m										
	From Bottom Lift 1.50m-3.00m- 0.5+0.15+0.15+0.5+0.4=1.7m										
	From Bottom Lift 3.00m-4.50m- 0.5+0.15+0.15+0.5+0.4+0.4=2.1m										
	<b>WNH 10</b>										
11/12/2015	CH485.80	534.515	530.700	530.500			4.01	3.968			
	CH503.90	534.520	530.800	530.600			3.92				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			16.65	2.100	1.000	34.965	1335.778	1370.743	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			16.65	2.100	0.350	12.238	494.114	506.351	
	(b) For Lift 1.5m to 3.0m	1			16.65	1.700	1.350	38.212	565.158	603.370	
	<b>Item No. 4:-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			16.65	2.100	0.150	5.245	54.640	59.885	
	(b) For Lift 1.5m to 3.0m	1			16.65	1.700	0.150	4.246	544.937	549.183	
	(c) For Lift 3.0m to 4.5m	1			16.65	1.300	0.060	1.299	291.802	293.101	
	<b>Item No. 5 :-</b> Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(c) For Lift 3.0m to 4.5m	1			16.65	1.300	0.908	19.654	0.000	19.654	
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			16.65	1.300	0.200	4.329	176.676	181.005	
	<b>Item No.17 (c) :-</b> Lowering & Laying RCC NP3 class pipe of 500mm Dia	1			17.50			17.500	0.000	17.500	
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							115.857			
	<b>Deduction</b>										
	pipe area	1		0.785	16.65	0.650	0.650	5.52			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							4.33			
	<b>Total = B</b>							9.85			
	<b>Net Qty = A - B</b>							106.01	3371.023	3477.029	
15/12/2015	CH503.90	534.520	530.800	530.600			3.92	4.320			
	CH532.00	535.370	530.850	530.650			4.72				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			26.65	2.100	0.300	16.790	1370.743	1387.533	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			26.65	2.100	1.200	67.158	506.351	573.509	
	(b) For Lift 1.5m to 3.0m	1			26.65	1.700	1.100	49.836	603.370	653.206	



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# Measurement Book

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

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

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

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Sewer Ward 98.9th RA Hindustan Awas I-500mm-MB

Date	Particulars of work	DETAILS					Content of area	Last measurement		TOTAL TO DATE	
		No			L	B		D	Page		Quantity
		GL	IL	EX.L							
	<b>Item No. 3 :-</b> Excavation for foundation/pipe trenches in slush etc complete.										
	(a) For Lift 0 to 1.5m	1			23.30	2.100	0.000	0.000		31.788	31.788
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			23.30	2.100	0.300	14.679		1402.747	1417.426
	(b) For Lift 1.5m to 3.0m	1			23.30	1.700	0.000	0.000		105.579	105.579
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			23.30	2.100	1.200	58.716		634.367	693.083
	(b) For Lift 1.5m to 3.0m	1			23.30	1.700	1.100	43.571		698.366	741.937
	(c) For Lift 3.0m to 4.5m	1			23.30	1.300	0.000	0.000		40.999	40.999
	<b>Item No. 4:-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			23.30	2.100	0.000	0.000		59.885	59.885
	(b) For Lift 1.5m to 3.0m	1			23.30	1.700	0.400	15.844		583.727	599.571
	(c) For Lift 3.0m to 4.5m	1			23.30	1.300	0.000	0.000		293.101	293.101
	(d) For Lift 4.5m to 6.0m	1			23.30	1.300	0.000	0.000		8.742	8.742
	<b>Item No. 5 :-</b> Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(a) For Lift 0m to 1.5m	1			23.30	2.100	0.000	0.000		109.280	109.280
	(b) For Lift 1.5m to 3.0m	1			23.30	1.700	0.000	0.000		139.690	139.690
	(c) For Lift 3.0m to 4.5m	1			23.30	1.300	1.500	45.435		112.792	158.227
	(d) For Lift 4.5m to 6.0m	1			23.30	1.300	0.295	8.936		0.000	8.936
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			23.30	1.300	0.200	6.058		194.213	200.271
	<b>Item No.17 (c) :-</b> Lowering & Laying RCC NP3 class pipe of 500mm Dia	1			25.00			25.000		70.000	95.000
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							<b>187.181</b>			
	<b>Deduction</b>										
	pipe area	1			0.785	23.30	0.650	0.650		7.73	
	soling									0.00	
	PCC									0.00	
	Murum bedding									6.06	
	<b>Total = B</b>							<b>13.79</b>			
	<b>Net Qty = A - B</b>							<b>173.39</b>		<b>3829.671</b>	<b>4003.065</b>



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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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Sewer Ward 98.9th RA RCC 1.5m MH Excn

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>						<b>18.815</b>				
	<b>Deduction</b>										
	Wall	1		0.785	1.900	1.900	2.500	7.085			
	Raft	1		0.785	2.300	2.300	0.250	1.038			
	PCC	1		0.785	2.500	2.500	0.100	0.491			
							<b>8.613</b>				
		<b>Net Qty = A - B</b>						<b>10.202</b>		34.176	44.378
	<b>WNC 16</b>	536.360	532.950	532.600			3.760				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	8.410	1.500	9.903	43.506	53.409	
	(b) For Lift 1.5m to 3.0m	1			0.785	8.410	1.325	8.747	8.582	17.330	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			0.785	8.410	0.175	1.155	9.441	10.596	
	(c) For Lift 3.0m to 4.5m	1			0.785	8.410	0.760	5.017	0.000	5.017	
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>						<b>24.823</b>				
	<b>Deduction</b>										
	Wall	1		0.785	1.900	1.900	3.410	9.663			
	Raft	1		0.785	2.300	2.300	0.250	1.038			
	PCC	1		0.785	2.500	2.500	0.100	0.491			
							<b>11.192</b>				
		<b>Net Qty = A - B</b>						<b>13.631</b>		44.378	58.008
	<b>WNC 17</b>	536.970	533.530	533.180			3.790				
	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	8.410	1.500	9.903	53.409	63.312	
	(b) For Lift 1.5m to 3.0m	1			0.785	8.410	1.450	9.573	17.330	26.903	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			0.785	8.410	0.050	0.330	10.596	10.926	
	(c) For Lift 3.0m to 4.5m	1			0.785	8.410	0.790	5.215	5.017	10.233	
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>						<b>25.021</b>				
	<b>Deduction</b>										
	Wall	1		0.785	1.900	1.900	3.440	9.748			
	Raft	1		0.785	2.300	2.300	0.250	1.038			
	PCC	1		0.785	2.500	2.500	0.100	0.491			
							<b>11.277</b>				
		<b>Net Qty = A - B</b>						<b>13.744</b>		58.008	71.752
	<b>WNC 18</b>	537.220	534.310	533.960			3.260				
	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	8.410	1.500	9.903	63.312	73.215	
	(b) For Lift 1.5m to 3.0m	1			0.785	8.410	1.500	9.903	26.903	36.805	
	(c) For Lift 3.0m to 4.5m	1			0.785	8.410	0.260	1.716	0.000	1.716	



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Sewer Ward 98.9th RA RCC 1.5m MH Excn

Date	Particulars of work	DETAILS					Content of arrears	Last measurement		Total Upto Date Quantity	
		No			L	B		D	Page		Quantity
		GL	IL	EX.L							
	<b>Item No. 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation=</b>						21.522				
	<b>Deduction</b>										
	Wall	1		0.785	1.900	1.900	2.910	8.247			
	Raft	1		0.785	2.300	2.300	0.250	1.038			
	PCC	1		0.785	2.500	2.500	0.100	0.491			
								9.775			
	<b>Net Qty = A - B</b>							11.747	71.752	83.499	
	<b>WNC 19</b>	537.260	534.620	534.270			2.990				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	8.410	1.500	9.903	73.215	83.117	
	(b) For Lift 1.5m to 3.0m	1			0.785	8.410	1.490	9.837	36.805	46.642	
	<b>Item No. 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							19.740			
	<b>Deduction</b>										
	Wall	1		0.785	1.900	1.900	2.640	7.481			
	Raft	1		0.785	2.300	2.300	0.250	1.038			
	PCC	1		0.785	2.500	2.500	0.100	0.491			
								9.010			
	<b>Net Qty = A - B</b>							10.729	83.499	94.228	
	<b>WNC 20</b>	537.490	534.740	534.390			3.100				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	8.410	1.500	9.903	83.117	93.020	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			0.785	8.410	0.600	3.961	10.926	14.887	
	<b>Item No. 4 :-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			0.785	8.410	0.900	5.942	0.660	6.602	
	(c) For Lift 3.0m to 4.5m	1			0.785	8.410	0.100	0.660	0.000	0.660	
	<b>Item No. 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							20.466			
	<b>Deduction</b>										
	Wall	1		0.785	1.900	1.900	2.750	7.793			
	Raft	1		0.785	2.300	2.300	0.250	1.038			
	PCC	1		0.785	2.500	2.500	0.100	0.491			
								9.322			
	<b>Net Qty = A - B</b>							11.144	94.228	105.372	
	<b>WNC 21</b>	537.090	534.840	534.490			2.600				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	8.410	1.200	7.922	93.020	100.942	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	8.410	0.300	1.981	0.000	1.981	



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Date	Particulars of work	DETAILS						Content of arrears	Last measurment		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Raft	1		0.785	2.300	2.300	0.250	1.038			
	PCC	1		0.785	2.500	2.500	0.100	0.491			
								9.634			
		Net Qty = A - B						11.558	123.440	134.998	
	<b>WNH 35</b>	540.250	536.600	536.250			4.000				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(c) For Lift 3.0m to 4.5m	1			0.785	8.410	1.000	6.602	1.716	8.318	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	8.410	1.500	9.903	7.262	17.165	
	(b) For Lift 1.5m to 3.0m	1			0.785	8.410	1.500	9.903	21.720	31.623	
	<b>Item No. 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							26.407			
	<b>Deduction</b>										
	Wall	1		0.785	1.900	1.900	3.650	10.344			
	Raft	1		0.785	2.300	2.300	0.250	1.038			
	PCC	1		0.785	2.500	2.500	0.100	0.491			
								11.872			
		Net Qty = A - B						14.535	134.998	149.533	
	<b>WNH 36</b>	540.500	537.050	536.700			3.800				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(c) For Lift 3.0m to 4.5m	1			0.785	8.410	0.800	5.281	8.318	13.600	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	8.410	1.500	9.903	17.165	27.068	
	(b) For Lift 1.5m to 3.0m	1			0.785	8.410	1.300	8.582	31.623	40.205	
	<b>Item No. 4 :-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			0.785	8.410	0.200	1.320	23.404	24.724	
	<b>Item No. 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							25.087			
	<b>Deduction</b>										
	Wall	1		0.785	1.900	1.900	3.450	9.777			
	Raft	1		0.785	2.300	2.300	0.250	1.038			
	PCC	1		0.785	2.500	2.500	0.100	0.491			
								11.306			
		Net Qty = A - B						13.781	149.533	163.315	
	<b>WNH 37</b>	540.805	537.400	537.050			3.755				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	8.410	0.600	3.961	115.466	119.427	
	(c) For Lift 3.0m to 4.5m	1			0.785	8.410	0.755	4.984	13.600	18.584	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	8.410	0.900	5.942	27.068	33.009	



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# Measurement Book

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

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

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

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Sewer Ward 98.9th RA MANHOLE

## 9th R A BILL MEASURMENTS

### Sewer "Ward No. 98"

Extra Item No. 1: Construction of RCC circular Manhole of 1.5m dia & 3.5m depth

Sr.No.	Reference (MB no. & Page no.)	Chainage	MH No	MTL	IL	Depth	Depth Difference than 3.5 m	Total Difference	Rebate/Add for Excess height (per 50 cm)
1		557.00	WNC 11	534.870	531.120	3.75	0.25		
2		608.20	WNC 12	535.990	531.790	4.20	0.70		
3		639.40	WNC 13	536.510	532.310	4.20	0.70		
4		683.10	WNC 14	536.730	532.530	4.20	0.70		
5		746.80	WNC 15	536.820	532.770	4.05	0.55		
6		785.50	WNC 16	536.950	532.950	4.00	0.50		
7		841.70	WNC 17	537.730	533.530	4.20	0.70		
8		907.90	WNC 18	538.510	534.310	4.20	0.70		
9		939.10	WNC 19	538.820	534.620	4.20	0.70	11.35	22.70
10		977.80	WNC 20	538.890	534.740	4.15	0.65		
11		996.50	WNC 21	539.040	534.840	4.20	0.70		
12		1042.70	WNC 22	539.040	534.890	4.15	0.65		
13		1081.40	WNC 23	539.160	534.960	4.20	0.70		
14		1505.30	WNH 35	540.800	536.600	4.20	0.70		
15		1551.50	WNH 36	541.250	537.050	4.20	0.70		
16		1585.20	WNH 37	541.900	537.400	4.50	1.00		
17		1621.40	WNH 38	542.215	537.965	4.25	0.75		



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