

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. :- 097

E Sewer 600mm & 500mm Branch

9th R A BILL MEASUREMENTS

SEWER "E"

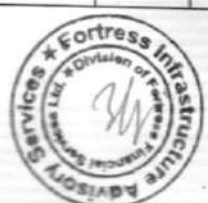
Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Branch of E Sewer-600mm Dia										
	Width of trench- For Bottom Lift 0.00-1.50m- 0.6+0.17+0.17+0.5=1.44m										
	From Bottom Lift 1.50-3.00m- 0.6+0.17+0.17+0.5+0.4=1.84m										
	From Bottom Lift 3.00-4.50m- 0.6+0.17+0.17+0.5+0.4+0.4 = 2.24m										
	From Bottom Lift 4.50-6.0m- 0.6+0.17+0.17+0.5+0.4+0.4+0.4 = 2.64m										
	CH605.70	557.820	554.990	554.790			3.030	3.210			
	CH615.70	558.250	555.060	554.860			3.390				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc										
	(a) For Lift 0 to 1.5m	1			10.00	2.240	1.500	33.600	0.000	33.600	
	(b) For Lift 1.5m to 3.0m	1			10.00	1.840	0.600	11.040	0.000	11.040	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			10.00	1.840	0.400	7.360	0.000	7.360	
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			10.00	1.840	0.500	9.200	0.000	9.200	
	(c) For Lift 3.0m to 4.5m	1			10.00	1.440	0.210	3.024	0.000	3.024	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)										
	(a) For Lift 0 to 1.5m	1			10.00	1.440	0.200	2.880	0.000	2.880	
	Item No 17 (d) :- Lowering & Laying RCC NP3 class pipe of 600mm Dia										
	(a) For Lift 0 to 1.5m	1			10.00			10.000	0.000	10.000	
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							64.224			
	Deduction										
	pipe area	1.00		0.785	10.00	0.770	0.770	4.65			
	soiling							0.00			
	PCC							0.00			
	Murrum bedding							2.88			
	Total = B							7.53			
	Net Qty = A - B							56.69	0.000	56.69	
	CH615.70	558.250	555.060	554.860			3.390	3.645			
	CH635.70	558.830	555.130	554.930			3.900				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc										
	(a) For Lift 0 to 1.5m	1			20.00	2.240	1.200	53.760	33.600	87.360	
	(b) For Lift 1.5m to 3.0m	1			20.00	1.840	1.100	40.480	11.040	51.520	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			20.00	2.240	0.150	6.720	0.000	6.720	
	(b) For Lift 1.5m to 3.0m	1			20.00	1.840	0.400	14.720	7.360	22.080	



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E Sewer 600mm & 500mm Branch

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	(c) For Lift 3.0m to 4.5m	1			20.00	1.440	0.200	5.760		0.000	5.760
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			20.00	2.240	0.150	6.720		0.000	6.720
	(c) For Lift 3.0m to 4.5m	1			20.00	1.440	0.445	12.816		3.024	15.840
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			20.00	1.440	0.200	5.760		2.880	8.640
	Item No 17 (d) :- Lowering & Laying RCC NP3 class pipe of 600mm Dia	1			20.00			20.000		10.000	30.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							140.976			
	Deduction										
	pipe area	1.00		0.785	20.00	0.770	0.770	9.31			
	soling							0.00			
	PCC							0.00			
	Murum bedding							5.76			
	Total = B							15.07			
	Net Qty = A - B							125.91		56.690	182.60
	CH635.70	558.830	555.130	554.930			3.900	3.950			
	CH646.30	558.990	555.190	554.990			4.000				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			9.00	2.240	1.500	30.240		87.360	117.600
	(b) For Lift 1.5m to 3.0m	1			9.00	1.840	1.400	23.184		51.520	74.704
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			9.00	1.840	0.100	1.656		22.080	23.736
	(c) For Lift 3.0m to 4.5m	1			9.00	1.440	0.500	6.480		5.760	12.240
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(c) For Lift 3.0m to 4.5m	1			9.00	1.440	0.450	5.832		15.840	21.672
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			9.00	1.440	0.200	2.592		8.640	11.232
	Item No 17 (d) :- Lowering & Laying RCC NP3 class pipe of 600mm Dia	1			10.00			10.000		30.000	40.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							67.392			
	Deduction										
	pipe area	1.00		0.785	9.00	0.770	0.770	4.19			
	soling							0.00			
	PCC							0.00			
	Murum bedding							2.59			
	Total = B							6.78			
	Net Qty = A - B							60.61		182.597	243.21
	E 19.12										
	CH646.30	558.990	555.790	555.590			3.400	3.300			
	CH679.40	558.860	555.860	555.660			3.200				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										



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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 Commissioning of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport). Providing, lowering, laying, jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to

E Sewer 600mm & 500mm Branch

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	(a) For Lift 0 to 1.5m	1			31.50	2.240	1.500	105.840		117.600	223.440
	(b) For Lift 1.5m to 3.0m	1			31.50	1.840	0.740	42.890		74.704	117.594
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			31.50	1.840	0.600	34.776		23.736	58.512
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			31.50	1.840	0.160	9.274		9.200	18.474
	(c) For Lift 3.0m to 4.5m	1			31.50	1.440	0.300	13.608		21.672	35.280
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			31.50	1.440	0.200	9.072		11.232	20.304
	Item No 17 (d) :- Lowering & Laying RCC NP3 class pipe of 600mm Dia	1			32.50			32.500		40.000	72.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							206.388			
	Deduction										
	pipe area	1.00		0.785	31.50	0.770	0.770	14.66			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							9.07			
	Total = B							23.73			
	Net Qty = A - B							182.66		243.208	425.86
	CH679.40	558.860	555.860	555.660			3.200				
	CH712.50	559.160	555.920	555.720			3.440	3.320			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc										
	(a) For Lift 0 to 1.5m	1			31.50	2.240	1.500	105.840		223.440	329.280
	(b) For Lift 1.5m to 3.0m	1			31.50	1.840	1.000	57.960		117.594	175.554
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			31.50	1.840	0.500	28.980		58.512	87.492
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(c) For Lift 3.0m to 4.5m	1			31.50	1.440	0.320	14.515		35.280	49.795
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			31.50	1.440	0.200	9.072		20.304	29.376
	Item No 17 (d) :- Lowering & Laying RCC NP3 class pipe of 600mm Dia	1			32.50			32.500		72.500	105.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							207.295			
	Deduction										
	pipe area	1.00		0.785	31.50	0.770	0.770	14.66			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							9.07			
	Total = B							23.73			
	Net Qty = A - B							183.56		425.863	609.43
	E 19.13										
	CH712.50	559.160	556.220	556.020			3.140				



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Book No. :- 109
Page No. :-

4

E Sewer 600mm & 500mm Branch

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
CH731.20		558.440	556.270	556.070			2.370				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc										
	(a) For Lift 0 to 1.5m	1			15.65	1.840	1.500	43.194		329.280	372.474
	(b) For Lift 1.5m to 3.0m	1			15.65	1.440	0.450	10.141		175.554	185.696
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			15.65	1.440	0.500	11.268		87.492	98.760
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			15.65	1.440	0.305	6.873		18.474	25.347
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			15.65	1.440	0.200	4.507		29.376	33.883
	Item No 17 (d) :- Lowering & Laying RCC NP3 class pipe of 600mm Dia	1			17.50			17.500		105.000	122.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							71.477			
	Deduction										
	pipe area	1.00		0.785	15.65	0.770	0.770	7.28			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							4.51			
	Total = B							11.79			
								Net Qty = A - B			
	E 19.14							59.69		609.426	669.11
CH731.20		558.440	556.570	556.370			2.070				
CH752.40		558.720	556.620	556.420			2.300	2.185			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc										
	(a) For Lift 0 to 1.5m	1			18.30	1.840	1.300	43.774		372.474	416.248
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			18.30	1.840	0.200	6.734		6.720	13.454
	(b) For Lift 1.5m to 3.0m	1			18.30	1.440	0.200	5.270		98.760	104.030
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			18.30	1.440	0.485	12.781		25.347	38.128
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			18.30	1.440	0.200	5.270		33.883	39.154
	Item No 17 (d) :- Lowering & Laying RCC NP3 class pipe of 600mm Dia	1			20.00			20.000		122.500	142.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							68.559			
	Deduction										
	pipe area	1.00		0.785	18.30	0.770	0.770	8.52			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							5.27			
	Total = B							13.79			



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E Sewer 600mm & 500mm Branch

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.17 (c) :- Lowering & Laying RCC NP3 class pipe of 500mm Dia	1			7.50			7.500		0.000	7.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							23.332			
	Deduction										
	pipe area	1.00									
	soling			0.785	5.65	0.650	0.650	1.87			
	PCC							0.00			
	Murrum bedding							0.00			
	Total = B							1.47			
								3.34			
	E 19.17							19.99		819.614	839.60
	CH794.80	560.320	557.620	557.420							
	CH811.00	560.860	557.660	557.460			2.900	3.150			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc										
	(a) For Lift 0 to 1.5m	1			13.00	2.100	1.200	32.760		498.095	530.855
	(b) For Lift 1.5m to 3.0m	1			13.00	1.700	0.800	17.680		187.165	204.845
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			13.00	2.100	0.150	4.095		31.023	35.118
	(b) For Lift 1.5m to 3.0m	1			13.00	1.700	0.200	4.420		114.661	119.081
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			13.00	2.100	0.150	4.095		6.720	10.815
	(b) For Lift 1.5m to 3.0m	1			13.00	1.700	0.500	11.050		68.882	79.932
	(c) For Lift 3.0m to 4.5m	1			13.00	1.300	0.150	2.535		49.795	52.330
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			13.00	1.300	0.200	3.380		49.493	52.873
	Item No.17 (c) :- Lowering & Laying RCC NP3 class pipe of 500mm Dia	1			15.00			15.000		7.500	22.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							76.635			
	Deduction										
	pipe area	1.00									
	soling			0.785	13.00	0.650	0.650	4.31			
	PCC							0.00			
	Murrum bedding							0.00			
	Total = B							3.38			
								7.69			
	E 19.18							68.94		839.603	908.55
	CH811.00	560.860	558.260	558.060							
	CH839.70	561.390	558.350	558.150			2.800	3.020			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc										
	(a) For Lift 0 to 1.5m	1			25.50	1.700	1.200	52.020		530.855	582.875
	(b) For Lift 1.5m to 3.0m	1			25.50	1.300	0.700	23.205		204.845	228.050
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			25.50	1.700	0.150	6.503		35.118	41.620
	(b) For Lift 1.5m to 3.0m	1			25.50	1.300	0.300	9.945		119.081	129.026



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E Sewer 600mm & 500mm Branch

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		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			21.50	1.700	1.200	43.860		666.035	709.895
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			21.50	1.700	0.150	5.483		52.015	57.498
	(b) For Lift 1.5m to 3.0m	1			21.50	1.300	1.000	27.950		145.856	173.806
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			21.50	1.700	0.150	5.483		27.713	33.195
	(b) For Lift 1.5m to 3.0m	1			21.50	1.300	0.300	8.385		124.557	132.942
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			21.50	1.300	0.200	5.590		0.000	5.590
	(c) For Lift 3.0m to 4.5m	1			21.50	1.300	0.095	2.655		0.000	2.655
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			21.50	1.300	0.200	5.590		68.083	73.673
	Item No.17 (c) :- Lowering & Laying RCC NP3 class pipe of 500mm Dia	1			22.50			22.500		85.000	107.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							99.405			
	Deduction										
	pipe area	1.00		0.785	21.50	0.650	0.650	7.13			
	soling							0.00			
	PCC							0.00			
	Murum bedding							5.59			
	Total = B							12.72			
	Net Qty = A - B							86.68		1184.740	1271.42
	CH899.00	562.280	559.290	559.090			3.190				
	CH922.10	562.560	559.370	559.170			3.390	3.290			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			21.50	2.100	1.200	54.180		709.895	764.075
	(b) For Lift 1.5m to 3.0m	1			21.50	1.700	0.200	7.310		267.320	274.630
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			21.50	2.100	0.150	6.773		57.498	64.270
	(b) For Lift 1.5m to 3.0m	1			21.50	1.700	1.200	43.860		173.806	217.666
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			21.50	2.100	0.150	6.773		33.195	39.968
	(b) For Lift 1.5m to 3.0m	1			21.50	1.700	0.100	3.655		132.942	136.597
	(c) For Lift 3.0m to 4.5m	1			21.50	1.300	0.290	8.106		60.286	68.392
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			21.50	1.300	0.200	5.590		73.673	79.263
	Item No.17 (c) :- Lowering & Laying RCC NP3 class pipe of 500mm Dia	1			22.50			22.500		107.500	130.000



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10

E Sewer 600mm & 500mm Branch

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	(c) For Lift 3.0m to 4.5m	1			35.50	1.300	0.225	10.384		68.392	78.775
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			35.50	1.300	0.200	9.230		81.993	91.223
	Item No.17 (c) :- Lowering & Laying RCC NP3 class pipe of 500mm Dia	1			37.50			37.500		142.500	180.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							212.734			
	Deduction										
	pipe area	1.00		0.785	35.50	0.650	0.650	11.77			
	soling							0.00			
	PCC							0.00			
	Murum bedding							9.23			
	Total = B							21.00			
	Net Qty = A - B							191.73		1446.000	1637.73
	E 19.23										
	CH974.50	563.550	560.750	560.550				3.000			
	CH1010.70	563.890	560.890	560.690				3.200			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			33.00	1.700	1.000	56.100		853.902	910.002
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			33.00	1.700	0.350	19.635		104.853	124.488
	(b) For Lift 1.5m to 3.0m	1			33.00	1.300	1.400	60.060		317.541	377.601
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			33.00	1.700	0.150	8.415		54.458	62.873
	(b) For Lift 1.5m to 3.0m	1			33.00	1.300	0.100	4.290		148.667	152.957
	(c) For Lift 3.0m to 4.5m	1			33.00	1.300	0.100	4.290		78.775	83.065
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			33.00	1.300	0.200	8.580		91.223	99.803
	Item No.17 (c) :- Lowering & Laying RCC NP3 class pipe of 500mm Dia	1			35.00			35.000		180.000	215.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							152.790			
	Deduction										
	pipe area	1.00		0.785	33.00	0.650	0.650	10.94			
	soling							0.00			
	PCC							0.00			
	Murum bedding							8.58			
	Total = B							19.52			
	Net Qty = A - B							133.27		1637.730	1770.99
	E 19.24										
	CH1010.70	563.890	561.290	561.090				2.800			
	CH1029.40	564.040	561.340	561.140				2.900			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			15.50	1.700	1.200	31.620		910.002	941.622
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										



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11 E Sewer 600mm & 500mm Branch

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	(a) For Lift 0 to 1.5m	1			15.50	1.700	0.150	3.953		124.488	128.440
	(b) For Lift 1.5m to 3.0m	1			15.50	1.300	1.350	27.203		377.601	404.803
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			15.50	1.700	0.150	3.953		62.873	66.825
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			15.50	1.300	0.200	4.030		99.803	103.833
	Item No.17 (c) :- Lowering & Laying RCC NP3 class pipe of 500mm Dia	1			17.50			17.500		215.000	232.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							66.728			
	Deduction										
	pipe area	1.00		0.785	15.50	0.650	0.650	5.14			
	soling							0.00			
	PCC							0.00			
	Murum bedding							4.03			
	Total = B							9.17			
	Net Qty = A - B							57.56		1770.995	1828.55
	E 19.25										
	CH1029.40	564.040	561.740	561.540			2.500				
	CH1058.10	564.610	561.810	561.610			3.000	2.750			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			25.50	1.700	1.200	52.020		941.622	993.642
	(b) For Lift 1.5m to 3.0m	1			25.50	1.300	0.300	9.945		279.985	289.930
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			25.50	1.700	0.150	6.503		128.440	134.943
	(b) For Lift 1.5m to 3.0m	1			25.50	1.300	0.950	31.493		404.803	436.296
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			25.50	1.700	0.150	6.503		66.825	73.328
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			25.50	1.300	0.200	6.630		103.833	110.463
	Item No.17 (c) :- Lowering & Laying RCC NP3 class pipe of 500mm Dia	1			27.50			27.500		232.500	260.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							106.463			
	Deduction										
	pipe area	1.00		0.785	25.50	0.650	0.650	8.46			
	soling							0.00			
	PCC							0.00			
	Murum bedding							6.63			
	Total = B							15.09			
	Net Qty = A - B							91.38		1828.552	1919.93
	E 19.26										
	CH1058.10	564.610	562.210	562.010			2.600				
	CH1074.30	564.860	562.260	562.060			2.800	2.700			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										



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12

E Sewer 600mm & 500mm Branch

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		GL	No		L	B	D		Page	Quantity	
			IL	EX.L							
	(a) For Lift 0 to 1.5m	1			13.00	1.700	1.200	26.520			
	(b) For Lift 1.5m to 3.0m	1			13.00	1.300	0.300	5.070	993.642	1020.162	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.								289.930	295.000	
	(a) For Lift 0 to 1.5m	1			13.00	1.700	0.150	3.315		138.258	
	(b) For Lift 1.5m to 3.0m	1			13.00	1.300	0.900	15.210	436.296	451.506	
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			13.00	1.700	0.150	3.315	73.328	76.643	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			13.00	1.300	0.200	3.380	110.463	113.843	
	Item No.17 (c) :- Lowering & Laying RCC NP3 class pipe of 500mm Dia	1			15.00			15.000	260.000	275.000	
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							53.430			
	Deduction										
	pipe area	1.00									
	soling		0.785		13.00	0.650	0.650	4.31			
	PCC							0.00			
	Murrum bedding							0.00			
	Total = B							3.38			
								7.69			
	E 19.27							45.74	1919.927	1965.67	
	CH1074.30	564.860	562.660	562.460							
	CH1113.00	565.515	562.800	562.600			2.400				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc						2.915	2.658			
	(a) For Lift 0 to 1.5m	1			35.50	1.700	1.200	72.420	1020.162	1092.582	
	(b) For Lift 1.5m to 3.0m	1			35.50	1.300	0.700	32.305	295.000	327.305	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			35.50	1.700	0.150	9.053	138.258	147.310	
	(b) For Lift 1.5m to 3.0m	1			35.50	1.300	0.458	21.137	451.506	472.642	
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			35.50	1.700	0.150	9.053	76.643	85.695	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			35.50	1.300	0.200	9.230	113.843	123.073	
	Item No.17 (c) :- Lowering & Laying RCC NP3 class pipe of 500mm Dia	1			37.50			37.500	275.000	312.500	
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							143.967			
	Deduction										
	pipe area	1.00									
	soling		0.785		35.50	0.650	0.650	11.77			
	PCC							0.00			
	Murrum bedding							0.00			
	Total = B							9.23			
								21.00			
	E 19.28							122.96	1965.665	2088.63	



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Name of work:- Development of Underground Sewerage Collection system for Zone 1 to VI and Zone Salim Ali, Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

Book No. 109
Page No. 109

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	CH1113.00	565.515	563.200	563.000			2.515	2.763			
	CH1143.60	566.090	563.280	563.080			3.010				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc										
	(a) For Lift 0 to 1.5m	1			29.00	1.700	1.200	59.160		1092.582	1151.742
	(b) For Lift 1.5m to 3.0m	1			29.00	1.300	0.700	26.390		327.305	353.695
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			29.00	1.700	0.150	7.395		147.310	154.705
	(b) For Lift 1.5m to 3.0m	1			29.00	1.300	0.563	21.225		472.642	493.868
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			29.00	1.700	0.150	7.395		85.695	93.090
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			29.00	1.300	0.200	7.540		123.073	130.613
	Item No.17 (c) :- Lowering & Laying RCC NP3 class pipe of 500mm Dia	1			30.00			30.000		312.500	342.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							121.565			
	Deduction										
	pipe area	1.00		0.785	29.00	0.650	0.650	9.62			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							7.54			
	Total = B							17.16			
	Net Qty = A - B							104.41		2088.628	2193.03
	CH1143.60	566.090	563.280	563.080			3.010	3.105			
	CH1174.20	566.380	563.380	563.180			3.200				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc										
	(a) For Lift 0 to 1.5m	1			29.00	1.700	1.200	59.160		1151.742	1210.902
	(b) For Lift 1.5m to 3.0m	1			29.00	1.300	1.200	45.240		353.695	398.935
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			29.00	1.700	0.150	7.395		154.705	162.100
	(b) For Lift 1.5m to 3.0m	1			29.00	1.300	0.300	11.310		493.868	505.178
	(c) For Lift 3.0m to 4.5m	1			29.00	1.300	0.105	3.958		15.243	19.202
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			29.00	1.700	0.150	7.395		93.090	100.485
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			29.00	1.300	0.200	7.540		130.613	138.153
	Item No.17 (c) :- Lowering & Laying RCC NP3 class pipe of 500mm Dia	1			30.00			30.000		342.500	372.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							134.459			
	Deduction										
	pipe area	1.00		0.785	29.00	0.650	0.650	9.62			
	soling							0.00			



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E Sewer 600mm & 500mm Branch

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	PCC							0.00			
	Murum bedding							7.54			
	Total = B							17.16			
	E 19.29	Net Qty = A - B						117.30		2193.035	2310.34
	CH1174.20	566.380	563.780	563.580			2.800				
	CH1200.40	566.395	563.850	563.650			2.745	2.773			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			23.00	1.700	1.200	46.920		1210.902	1257.822
	(b) For Lift 1.5m to 3.0m	1			23.00	1.300	0.270	8.073		398.935	407.008
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			23.00	1.700	0.150	5.865		162.100	167.965
	(b) For Lift 1.5m to 3.0m	1			23.00	1.300	1.000	29.900		505.178	535.078
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			23.00	1.700	0.150	5.865		100.485	106.350
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			23.00	1.300	0.200	5.980		138.153	144.133
	Item No.17 (c) :- Lowering & Laying RCC NP3 class pipe of 500mm Dia	1			25.00			25.000		372.500	397.500
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							96.623			
	Deduction										
	pipe area	1.00		0.785	23.00	0.650	0.650	7.63			
	soling							0.00			
	PCC							0.00			
	Murum bedding							0.00			
	Total = B							13.61			
	E 19.30	Net Qty = A - B						83.01		2310.335	2393.35
	CH1200.40	566.395	563.900	563.700			2.695				
	CH1229.10	566.420	563.950	563.750			2.670	2.683			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			25.50	1.700	1.200	52.020		1257.822	1309.842
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			25.50	1.700	0.150	6.503		167.965	174.468
	(b) For Lift 1.5m to 3.0m	1			25.50	1.300	1.183	39.216		535.078	574.294
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			25.50	1.700	0.150	6.503		106.350	112.853
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			25.50	1.300	0.200	6.630		144.133	150.763
	Item No.17 (c) :- Lowering & Laying RCC NP3 class pipe of 500mm Dia	1			27.50			27.500		397.500	425.000
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							104.241			



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Name of work:- Development of Underground Sewerage Collection system for Zone 1 to VI and Zone Salim Ali, Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying, jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

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	Particulars of work	DETAILS					Content of arrears	Last measurement		Total Upto Date Quantity	
		No			L	B		D	Page		Quantity
		GL	IL	EX.L							
	Deduction										
	pipe area	1.00		0.785	25.50	0.650	0.650	8.46			
	soling							0.00			
	PCC							0.00			
	Murum bedding							6.63			
	Total = B							15.09			
		Net Qty = A - B								2393.350	2482.50
	E 19.31	Connected to Vits Hotel Sewer at Manhole VH 1									
	CH1229.10	566.420	564.000	563.800			2.620	2.617			
	CH1252.80	566.463	564.050	563.850			2.613				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			20.50	1.700	1.200	41.820	1309.842	1351.662	
	(b) For Lift 1.5m to 3.0m	1			20.50	1.300	0.620	16.523	407.008	423.531	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			20.50	1.700	0.150	5.228	174.468	179.695	
	(b) For Lift 1.5m to 3.0m	1			20.50	1.300	0.497	13.245	574.294	587.539	
	(c) For Lift 3.0m to 4.5m	1			20.50	1.300	0.000	0.000	19.202	19.202	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			20.50	1.700	0.150	5.228	112.853	118.080	
	(b) For Lift 1.5m to 3.0m	1			20.50	1.300	0.000	0.000	152.957	152.957	
	(c) For Lift 3.0m to 4.5m	1			20.50	1.300	0.000	0.000	83.065	83.065	
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			20.50	1.300	0.000	0.000	5.590	5.590	
	(c) For Lift 3.0m to 4.5m	1			20.50	1.300	0.000	0.000	2.655	2.655	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete (bedding)	1			20.50	1.300	0.200	5.330	150.763	156.093	
	Item No.17 (c) :- Lowering & Laying RCC NP3 class pipe of 500mm Dia	1			22.50			22.500	425.000	447.500	
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A=							82.043			
	Deduction										
	pipe area	1.00		0.785	20.50	0.650	0.650	6.80			
	soling							0.00			
	PCC							0.00			
	Murum bedding							5.33			
	Total = B							12.13			
		Net Qty = A - B								2482.504	2552.42



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E Sewer 300mm DWC & RCC

9th R A BILL MEASUREMENTS

Sewer "E"

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE	
		GL	No			L	B		D	Page		Quantity
			IL	EX.L								
	DWC - 315mm Dia -At Bansilalnagar											
	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											
	E 19.24											
	CH0.00	563.890	561.300	561.100			2.790	2.77				
	CH19.30	563.910	561.370	561.170			2.740					
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc											
	(a) For Lift 0 to 1.5m	1			16.10	1.215	1.500	29.342	1351.662	1381.005		
	(b) For Lift 1.5m to 3.0m	1			16.10	0.815	1.270	16.664	423.531	440.195		
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			16.10	0.815	0.200	2.624	156.093	158.717		
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated							3.878	0.000	3.878		
	Item No. 13 :- (d) Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			18.00			18.000	0.000	18.000		
	Item No. 30 :- Refilling the excavated trenches ...											
	Total Excavation=							46.007				
	Deduction of 315mm dia pipe											
	pipe area	1.00		0.785	16.10	0.315	0.315	1.25				
	soling							0.00				
	PCC							0.00				
	Murrum bedding							2.62				
								3.88				
	300mm dia-RCC							42.13	2552.418	2594.546		
	Width of Trench - For Bottom Lift 0.00-1.50m- 0.3+0.08+0.08+0.5=0.96m											
	From Bottom Lift 1.50m-3.00m- 0.3+0.08+0.08+0.5+0.4=1.36m											
	From Bottom Lift 3.00m-4.50m- 0.3+0.08+0.08+0.5+0.4+0.4=1.76m											
	MH100.24.1											
	CH19.30	563.910	561.370	561.170			2.740	2.740				
	CH22.45	563.910	561.370	561.170			2.740					
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.											
	(a) For Lift 0 to 1.5m	1			1.55	1.360	1.500	3.162	1381.005	1384.167		
	(b) For Lift 1.5m to 3.0m	1			1.55	0.960	1.240	1.845	440.195	442.040		
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			1.55	0.960	0.200	0.298	158.717	159.015		
	Item No. : 11 Transportation of earth Transportation charges including							0.473	3.878	4.352		



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Name of work:- Development of Underground Sewerage Collection system for Zone 1 to VI and Zone Salim Ali, Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying, jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

Book No. - 37
Page No. - 113

2

E Sewer 300mm DWC & RCC

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE	
		No			L	B	D		Page	Quantity		
		GL	IL	EX.L								
	Extra item no.:-9. 4) Lowering & Laying RCC NP3 class pipe of 300mm Dia	1			2.50			2.500		0.000	2.500	
	Item No 30 :- Refilling the excavated trenches ...											
	Total Excavation= A							5.007				
	Deduction											
	pipe area	1		0.785	1.55	0.380	0.380	0.18				
	soling							0.00				
	PCC							0.00				
	Murum bedding							0.30				
	Total = B							0.47				
				Net Qty = A - B				4.53		2594.546	2599.080	
	E 28/22 to E 22.1			Connection at Rammandir to E-700mm Dia								
	CH0.00	557.225	554.030	553.830				3.395	3.498			
	CH31.50	557.550	554.150	553.950				3.600				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.											
	(a) For Lift 0 to 1.5m	1			28.30	1.760	1.500	74.712		1384.167	1458.879	
	(b) For Lift 1.5m to 3.0m	1			28.30	1.360	1.500	57.732		442.040	499.772	
	(c) For Lift 3.0m to 4.5m	1			28.30	0.960	0.498	13.530		0.000	13.530	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.											
	(a) For Lift 0 to 1.5m	1			28.30	1.760	0.000	0.000		179.695	179.695	
	(b) For Lift 1.5m to 3.0m	1			28.30	1.360	0.000	0.000		587.539	587.539	
	(c) For Lift 3.0m to 4.5m	1			28.30	0.960	0.000	0.000		19.202	19.202	
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.											
	(a) For Lift 0 to 1.5m	1			28.30	1.760	0.000	0.000		118.080	118.080	
	(b) For Lift 1.5m to 3.0m	1			28.30	1.360	0.000	0.000		152.957	152.957	
	(c) For Lift 3.0m to 4.5m	1			28.30	0.960	0.000	0.000		83.065	83.065	
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.											
	(a) For Lift 0m to 1.5m	1			28.30	1.760	0.000	0.000		0.000	0.000	
	(b) For Lift 1.5m to 3.0m	1			28.30	1.360	0.000	0.000		5.590	5.590	
	(c) For Lift 3.0m to 4.5m	1			28.30	0.960	0.000	0.000		2.655	2.655	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			28.30	0.960	0.200	5.434		159.015	164.449	
	Item No. : 11 Transportation of earth Transportation charges including							8.642		4.352	12.993	
	Extra item no.:-9. 4) Lowering & Laying RCC NP3 class pipe of 300mm Dia	1			30.00			30.000		2.500	32.500	
	Item No. 13 :- (d) Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			0.00			0.000		18.000	18.000	
	Item No 30 :- Refilling the excavated trenches ...											
	Total Excavation= A							145.974				
	Deduction											
	pipe area	1		0.785	28.30	0.380	0.380	3.21				
	soling							0.00				
	PCC							0.00				
	Murum bedding							5.43				
	Total = B							8.64				
				Net Qty = A - B				137.33		2599.080	2736.412	



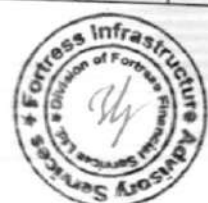
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E Sewer RCC 1.5m MH

9th R A BILL MEASUREMENTS

Sewer "E"

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Excavation of Chamber - For RCC 1.50m dia Manhole - 1.50+0.2+0.2+0.5+0.5=2.90m										
	Breadth for Manhole=2.90*2.90=8.41m										
	E-Branch Sewer										
	E 19.14										
	CH731.20	558.440	556.270	555.920			2.520				
	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	0.000	9.903	
	(b) For Lift 1.5m to 3.0m	1			0.785	8.410	0.450	2.971	0.000	2.971	
	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	0.500	3.301	0.000	3.301	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			0.785	8.410	0.070	0.462	0.000	0.462	
	Item No. : 11 Transportation of earth Transportation charges							7.678	0.000	7.678	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							16.637			
	Deduction										
	Wall	1		0.785	1.900	1.900	2.170	6.149			
	Raft	1		0.785	2.300	2.300	0.250	1.038			
	PCC	1		0.785	2.500	2.500	0.100	0.491			
								7.678			
								8.958	0.000	8.958	
	E 19.15										
	CH752.40	558.720	556.620	556.270			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			0.785	8.410	1.300	8.582	9.903	18.485	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	8.410	0.200	1.320	0.000	1.320	
	(b) For Lift 1.5m to 3.0m	1			0.785	8.410	0.200	1.320	3.301	4.621	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			0.785	8.410	0.750	4.951	0.462	5.414	
	Item No. : 11 Transportation of earth Transportation charges							7.480	7.678	15.158	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							16.175			
	Deduction										
	Wall	1		0.785	1.900	1.900	2.100	5.951			
	Raft	1		0.785	2.300	2.300	0.250	1.038			
	PCC	1		0.785	2.500	2.500	0.100	0.491			
								7.480			
								8.695	8.958	17.653	
	E 19.16										



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E Sewer 1.5m MH Excavation

9th RA BILL MEASUREMENTS

Sewer "E"

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Excavation of Chamber - For 1.50m dia Manhole (upto a depth of 2.0m to 5.0m)- 1.50+0.35+0.35+0.5+0.5=3.20m Breadth for Manhole=3.2*3.2=10.24m E 19.12										
	CH646.30	558.990	555.190	554.940			4.050				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	1.500	12.058	26.341	38.399	
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	1.400	11.254	2.971	14.225	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.100	0.804	5.876	6.679	
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.500	4.019	0.000	4.019	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft										
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.550	4.421	0.000	4.421	
	Item No. : 11 Transportation of earth Transportation charges							12.375	23.290	35.665	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							32.556			
	Deduction										
	Brick work	1			0.785	2.280	2.280	1.800	7.345		
	PCC	1			0.785	1.540	1.540	2.000	3.723		
	Soling	1			0.785	2.580	2.580	0.250	1.306		
								0.000			
								12.375			
	E 19.13							20.180	27.214	47.395	
	CH712.50	559.160	555.920	555.670			3.490				
	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	38.399	50.457	
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	1.000	8.038	14.225	22.263	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.500	4.019	6.679	10.699	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft										
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.490	3.939	4.421	8.360	
	Item No. : 11 Transportation of earth Transportation charges							10.090	35.665	45.755	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							28.054			
	Deduction										
	Brick work	1			0.785	2.280	2.280	1.240	5.060		
	PCC	1			0.785	1.540	1.540	2.000	3.723		
		1			0.785	2.580	2.580	0.250	1.306		



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

2

E Sewer 1.5m MH Excavation

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Soling	1		0.785	2.580	2.580	0.000	0.000			
								10.090			
				Net Qty = A - B				17.964		47.395	65.359
	E 19.17										
	CH794.80	560.320	557.320	557.070			3.250				
	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		50.457	62.514
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.200	1.608		22.263	23.871
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.300	2.412		10.699	13.110
	Item No. 4 :- Excavation for foundation/pipe trenches in soft										
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	1.000	8.038		11.949	19.988
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.250	2.010		8.360	10.370
	Item No. : 11 Transportation of earth Transportation charges							9.110		45.755	54.865
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							26.125			
	Deduction										
	Brick work	1		0.785	2.280	2.280	1.000	4.081			
		1		0.785	1.540	1.540	2.000	3.723			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Soling	1		0.785	2.580	2.580	0.000	0.000			
								9.110			
				Net Qty = A - B				17.014		65.359	82.373
	E 19.18										
	CH811.00	560.860	557.660	557.410			3.450				
	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	1.200	9.646		62.514	72.160
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.800	6.431		23.871	30.301
	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	0.150	1.206		3.367	4.573
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.200	1.608		13.110	14.718
	Item No. 4 :- Excavation for foundation/pipe trenches in soft										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.150	1.206		0.000	1.206
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.500	4.019		19.988	24.007
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.450	3.617		10.370	13.987
	Item No. : 11 Transportation of earth Transportation charges							9.927		54.865	64.792
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							27.732			
	Deduction										
	Brick work	1		0.785	2.280	2.280	1.200	4.897			
		1		0.785	1.540	1.540	2.000	3.723			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Soling	1		0.785	2.580	2.580	0.000	0.000			
								9.927			
				Net Qty = A - B				17.806		82.373	100.179



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3

E Sewer 1.5m MH Excavation

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
E 19.19											
CH839.70		561.390	558.350	558.100			3.290				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	1.200	9.646			
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.700	5.627	72.160	81.806	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.								30.301	35.928	
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.150	1.206	4.573	5.778	
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.300	2.412	14.718	17.129	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.150	1.206	1.206	2.412	
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.500	4.019	24.007	28.026	
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.290	2.331	13.987	16.318	
	Item No. : 11 Transportation of earth Transportation charges							9.274	64.792	74.065	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							26.446			
	Deduction										
	Brick work	1		0.785	2.280	2.280	1.040	4.244			
		1		0.785	1.540	1.540	2.000	3.723			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Soling	1		0.785	2.580	2.580	0.000	0.000			
								9.274			
								Net Qty = A - B			
								17.173	100.179	117.352	
E 19.20											
CH875.90		561.990	558.790	558.540			3.450				
	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	1.200	9.646	81.806	91.452	
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.700	5.627	35.928	41.555	
	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	0.150	1.206	5.778	6.984	
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.300	2.412	17.129	19.541	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.150	1.206	2.412	3.617	
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.500	4.019	28.026	32.045	
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.450	3.617	16.318	19.935	
	Item No. : 11 Transportation of earth Transportation charges							9.927	74.065	83.992	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							27.732			
	Deduction										
	Brick work	1		0.785	2.280	2.280	1.200	4.897			
		1		0.785	1.540	1.540	2.000	3.723			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Soling	1		0.785	2.580	2.580	0.000	0.000			
								9.927			
								Net Qty = A - B			
								17.806	117.352	135.158	
E 19.21											



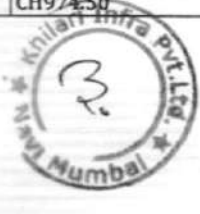
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Name of work:- Development of Underground Sewerage Collection System and Zone Salim Ali, Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden,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

4

E Sewer 1.5m MH Excavation

Date	Particulars of work	DETAILS					Content of arrears	Last measurement		Total Upto Date Quantity	
		No			L	B		D	Page		Quantity
		GL	IL	EX.L							
	CH922.10	562.560	559.370	559.120			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	1.200	9.646	91.452	101.099	
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.200	1.608	41.555	43.163	
	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	0.150	1.206	6.984	8.190	
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	1.200	9.646	19.541	29.187	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.150	1.206	3.617	4.823	
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.100	0.804	32.045	32.849	
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.440	3.537	19.935	23.472	
	Item No. : 11 Transportation of earth Transportation charges							9.886	83.992	93.878	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							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		
	Soling	1			0.785	2.580	2.580	0.000	0.000		
								9.886			
	Net Qty = A - B							17.766	135.158	152.924	
	E 19.22										
	CH935.80	563.090	559.840	559.590			3.500				
	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	1.200	9.646	101.099	110.745	
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.300	2.412	43.163	45.574	
	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	0.150	1.206	8.190	9.396	
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	1.200	9.646	29.187	38.833	
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.500	4.019	4.019	8.038	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.150	1.206	4.823	6.029	
	Item No. : 11 Transportation of earth Transportation charges							10.131	93.878	104.009	
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							28.134			
	Deduction										
	Brick work	1			0.785	2.280	2.280	1.250	5.101		
		1			0.785	1.540	1.540	2.000	3.723		
	PCC	1			0.785	2.580	2.580	0.250	1.306		
	Soling	1			0.785	2.580	2.580	0.000	0.000		
								10.131			
	Net Qty = A - B							18.004	152.924	170.928	
	E 19.23										
	CH974.50	563.550	560.350	560.100			3.450				



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E Sewer 1.5m MH Excavation

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. 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	0.850	6.833		110.745	117.577
	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	0.500	4.019		9.396	13.415
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	1.300	10.450		38.833	49.283
	Item No. 4 :- Excavation for foundation/pipe trenches in soft										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.150	1.206		6.029	7.235
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.200	1.608		32.849	34.457
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.450	3.617		23.472	27.089
	Item No. : 11 Transportation of earth Transportation charges							9.927		104.009	113.935
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							27.732			
	Deduction										
	Brick work	1			0.785	2.280	2.280	1.200	4.897		
		1			0.785	1.540	1.540	2.000	3.723		
	PCC	1			0.785	2.580	2.580	0.250	1.306		
	Soling	1			0.785	2.580	2.580	0.000	0.000		
								9.927			
								17.806		170.928	188.734
	E 19.24										
	CH1010.70	563.890	560.890	560.640				3.250			
	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	1.000	8.038		117.577	125.616
	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	0.350	2.813		13.415	16.228
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	1.400	11.254		49.283	60.537
	Item No. 4 :- Excavation for foundation/pipe trenches in soft										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.150	1.206		7.235	8.440
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.100	0.804		34.457	35.261
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.250	2.010		27.089	29.099
	Item No. : 11 Transportation of earth Transportation charges							9.110		113.935	123.046
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							26.125			
	Deduction										
	Brick work	1			0.785	2.280	2.280	1.000	4.081		
		1			0.785	1.540	1.540	2.000	3.723		
	PCC	1			0.785	2.580	2.580	0.250	1.306		
	Soling	1			0.785	2.580	2.580	0.000	0.000		
								9.110			
								17.014		188.734	205.748
	E 19.25										
	CH1029.40	564.040	561.340	561.090				2.950			
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										



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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.

Book No. :-
Page No. :-

124

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

E Sewer 1.5m MH Excavation

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		GL	No		L	B	D		Page	Quantity	
			IL	EX.L							
	Brick work	1		0.785	2.280	2.280	0.470	1.918			
	PCC	1		0.785	1.540	1.540	2.000	3.723			
	Soling	1		0.785	2.580	2.580	0.250	1.306			
				0.785	2.580	2.580	0.000	0.000			
								6.948			
	E 19.24.1			Net Qty = A - B				14.917		301.343	316.260
	CH19.30	563.910	561.370	561.120			2.790				
	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	10.240	1.500	12.058		193.138	205.196
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	1.290	10.370		67.841	78.210
	Item No. : 11 Transportation of earth Transportation charges							7.233		177.964	185.197
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							22.427			
	Deduction										
	Brick work	1		0.785	2.280	2.280	0.540	2.204			
	PCC	1		0.785	1.540	1.540	2.000	3.723			
	Soling	1		0.785	2.580	2.580	0.250	1.306			
				0.785	2.580	2.580	0.000	0.000			
								7.233			
	E 22.1			Net Qty = A - B				15.194		316.260	331.454
	CH31.50	557.550	554.150	553.900			3.650				
	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		205.196	217.253
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	1.500	12.058		78.210	90.268
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.650	5.225		0.000	5.225
	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	0.000	0.000		24.669	24.669
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.000	0.000		116.886	116.886
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.000	0.000		10.450	10.450
	Item No. 4 :- Excavation for foundation/pipe trenches in soft										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.000	0.000		16.881	16.881
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.000	0.000		35.261	35.261
	(c) For Lift 3.0m to 4.5m	1			0.785	10.240	0.000	0.000		29.099	29.099
	Item No. : 11 Transportation of earth Transportation charges							10.743		185.197	195.940
	Item No. 30 :- Refilling the excavated trenches ...										
	Total Excavation=							29.340			
	Deduction										
	Brick work	1		0.785	2.280	2.280	1.400	5.713			
	PCC	1		0.785	1.540	1.540	2.000	3.723			
	Soling	1		0.785	2.580	2.580	0.250	1.306			
				0.785	2.580	2.580	0.000	0.000			
								10.743			
	E 22.1			Net Qty = A - B				18.597		331.454	350.051



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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.

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

1

E Sewer Disposal qty

9th R A BILL MEASURMENTS

E Sewer

Item No. 11

Disposal of excavated material including loading the excavated material in trucks / tractors and unloading the same at a distance of 10 KMS as directed by engineer-in-charge.

SR.NO.	Particulars of work	UNIT	DETAILS							Total Qty. Of Disposal
			Chainage		NO	L	B	D	QTY	
			From	To						
1	E Branch- 600 mm Dia		0.00	252.90						
	Pipe volume	Cum			0.785	252.90	0.770	0.770	117.71	190.54
	Murum bedding	Cum				252.90	1.440	0.20	72.84	
2	E Branch- 600 mm Dia		605.70	786.10						
	Pipe volume	Cum			0.785	180.40	0.770	0.770	83.96	135.92
	Murum bedding	Cum				180.40	1.440	0.20	51.96	
3	E Branch- 500 mm Dia		786.10	1252.80						
	Pipe volume	Cum			0.785	466.70	0.650	0.650	154.79	276.13
	Murum bedding	Cum				466.70	1.300	0.200	121.34	
4	800 mm Dia		0.00	863.00						
	Pipe volume	Cum			0.785	863.00	0.990	0.990	663.97	953.94
	Murum bedding	Cum				863.00	1.680	0.20	289.97	
5	700 mm Dia		863.00	1394.80						
	Pipe volume	Cum			0.785	531.80	0.870	0.870	315.98	479.77
	Murum bedding	Cum				531.80	1.540	0.20	163.79	
Total										2036.302



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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.

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

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

1

E Sewer Manhole

9th R A BILL MEASURMENTS
SEWER "E"

ip to
e

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		731.20	E 19.14	560.720	556.270	4.450	0.950	2.950	5.900
2		752.40	E 19.15	561.220	556.620	4.600	1.100		
3		786.10	E 19.16	561.390	556.990	4.400	0.900		

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	Reference (MB no. & Page no.)	Chainage	MH No	MTL	IL	Depth	Depth Difference than 5 m	Total Difference	Rebate/Add for Excess height (per 50 cm)
1		646.30	E 19.12	558.990	555.190	3.80	-1.20	-35.55	-71.10
2		712.50	E 19.13	559.160	555.920	3.24	-1.76		
3		794.80	E 19.17	560.320	557.320	3.00	-2.00		
4		811.00	E 19.18	560.860	557.660	3.20	-1.80		
5		839.70	E 19.19	561.390	558.350	3.04	-1.96		
6		875.90	E 19.20	561.990	558.790	3.20	-1.80		
7		922.10	E 19.21	562.560	559.370	3.19	-1.81		
8		935.80	E 19.22	563.090	559.840	3.25	-1.75		
9		974.50	E 19.23	563.550	560.350	3.20	-1.80		
10		1010.70	E 19.24	563.890	560.890	3.00	-2.00		
11		1029.40	E 19.25	564.040	561.340	2.70	-2.30		
12		1058.10	E 19.26	564.610	561.810	2.80	-2.20		
13		1074.30	E 19.27	564.860	562.260	2.60	-2.40		
14		1113.00	E 19.28	565.515	562.800	2.72	-2.28		
15		1174.20	E 19.29	566.380	563.380	3.00	-2.00		
16		1200.40	E 19.30	566.395	563.850	2.54	-2.46		
17		1229.10	E 19.31	566.420	563.950	2.47	-2.53		
18		31.50	E 22.1	557.650	554.150	3.50	-1.50		



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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

Book No. :-

Page No. :-

127

1

E Sewer Extra Work

9th R A BILL MEASUREMENTS
SEWER "E"

Obstacles Removing/Breaking and Reconstruction

Sr.No.	Description	Unit	No.	Length	Width	Height	Quantity
A	ITEM NO. 2 :-Excavation for foundation / pipe trenches in hard murum and Boulders,WBM road including removing the excavated material upto a distance of 50 M and lifts as below, stacking and spreading as directed by Engineer-in-charge, normal dewatering, preparing the bed for foundation and excluding backfilling etc.complete.						
	Breaking of BBM Work of RTO Compound Wall	Cum	1	7.60	0.23	1.44	2.517
		Cum	1	12.90	0.44	1.71	9.596
		Cum	1	12.90	0.23	1.24	3.679
							15.792
B	Item No. 4 :-Excavation for foundation/pipe trenches in soft rock and old cement and lime masonry foundation asphalt road manually or by using mechanical means including & removing the excavated materials, up to a distance of 50.0 m beyond the area, and lifts as below. Stacking and spreading as directed,						
	Pipe Culvert at Bansilalnagar	Cum	1	15.00	3.91	1.02	59.823
	Breaking of UCR Work of RTO Compound Wall	Cum	1	7.60	0.45	0.60	2.052
							61.875
C	Item No 15:- Supply of RCC Pipes						
	1 Supply of RCC Pipes of 600mm dia NP3 pipe for Pipe culvert at Bansilalnagar	Rmt	18	2.50			45.000
D	Item No 17:- Laying of RCC Pipes Item						
	1 Laying of RCC Pipes of 600mm dia NP3 pipe for Pipe culvert at Bansilalnagar	Rmt	18	2.50			45.000
E	Extra item no.-4. a) Construction of BBM Masonry work in 1:6 CM						
	Construction of BBM Work of RTO Compound Wall	Cum	1	7.60	0.23	1.44	2.517
		Cum	1	12.90	0.44	1.71	9.596
		Cum	1	12.90	0.23	1.24	3.679
							15.792
F	Extra item no.-4. c) External cement plaster 20mm thk.						
	Plaster of RTO Compound Wall	Sqm	2	7.60		1.44	21.888
		Sqm	2	7.60		0.60	9.120
		Sqm	2	12.90		1.71	44.118
		Sqm	2	12.90		1.24	31.992
							107.118
G	Extra item no.-5. b) Providing & casting M 15 Grade Concrete						
	Pipe Culvert at Bansilalnagar						
	Concrete for PCC	Cum	1	15.20	4.11	0.10	6.247
	Concrete for Incasing of Pipes	Cum	1	14.00	2.91	0.92	37.481
	Deduction for Pipes	Cum	-3	14.00	0.79	0.59	-19.548
	Coping	Cum	1	3.91	0.50	0.05	0.098
	Coping for RTO Compound wall	Cum	1	7.60	0.23	0.10	0.175
		Cum	1	7.60	0.45	0.10	0.342
		Cum	1	12.90	0.44	0.10	0.561
		Cum	1	12.90	0.23	0.10	0.297
	Road Concreting near RTO office	Cum	1	75.00	2.64	0.10	19.763
							45.415
H	Extra item no.-5. c) Construction of UCR Masonry work in 1:6 CM						
	Pipe Culvert at Bansilalnagar	Cum	2	3.91	0.50	0.97	3.793
	Deduction for Pipes	Cum	-6	1.00	0.79	0.59	-2.793
	Construction of UCR Work of RTO Compound Wall	Cum	1	7.60	0.45	0.60	2.052
							3.052



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E Sewer Quantity Node Abstract

9th R A BILL MEASUREMENTS

Main Sewer " E "

SR NO	Description	MB/PG	ITEM 1			ITEM 2			ITEM 4			ITEM 5		ITEM 7	ITEM 11
			0-1.5	1.5-3.0	3.0-4.5	0-1.5	1.5-3.0	3.0-4.5	0-1.5	1.5-3.0	3.0-4.5	3-4.5	4.5-6		
1	For Pipe		1,458.879	499.772	13.530	195.487	587.539	19.202	179.955	152.957	83.065	5.590	2.655	164.449	2,049.296
2	For Manhole		217.253	90.268	5.225	24.669	116.886	10.450	16.881	35.261	29.099				195.940
	Total		1,676.132	590.040	18.755	220.156	704.425	29.651	196.836	188.218	112.164	5.590	2.655	164.449	2,245.235



CLIENT

Authorized Signatory

Project Engineer

Project Manager

Jr. Engineer

Dy Engineer

Ex. Engineer

Total up to Date

10

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. :-

129

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

Authori

Date of Measu-
re-ment

E Sewer Quantity Node Abstract

9th R A BILL MEASUREMENTS

Main Sewer "E"

SR NO	Description	MB/PG	ITEM 13		ITEM 17		ITEM 23	ITEM 23.1	ITEM 30	EIRL 1	EIRL 1.a	EIRL 4			EIRL 5			EIRL 9.4	
			315mm	18.000	500mm	447.500	600mm	220.000	2-5 m	18.00	Rebato	3.5m	Rebate	a	b	c	a	b	c
1	For Pipe		18.000	447.500	220.000				2,736.41			15.792	107.118						32.50
2	For Manhole		18.000	447.500	220.000		(71.100)	350.051	3.000		5.900	15.792	107.118						32.50
Total			18.000	447.500	220.000	18.00	(71.100)	3,086.46	3.000	5.900	15.792	107.118							32.50



Authorized Signatory



Project Engineer



Project Manager

PMC

CLIENT

Signature
Jr. Engineer

Signature
Dy. Engineer

Ex. Engineer

up to
te

Name
Auth

Date
Meas
reme

E Sewer Quantity Node Abstract

9th R A BILL MEASUREMENTS

Main Sewer " E "

SR NO	Description	MB/PG	ITEM 1			ITEM 2			ITEM 4				ITEM 5		ITEM 7	ITEM 11
			0-1.5	1.5-3.0	3.0-4.5	0-1.5	1.5-3.0	3.0-4.5	0-1.5	1.5-3.0	3.0-4.5	3.0-4.5	4.5-6	5.590		
1	For Pipe		1,458.879	499.772	13.530	195.487	587.539	19.202	179.955	152.957	83.065	5.590	2.655	164.449	2,049.296	
2	For Manhole		217.253	90.268	5.225	24.669	116.886	10.450	16.881	35.261	29.099				195.940	
	Total		1676.132	590.040	18.755	220.156	704.425	29.651	196.836	188.218	112.164	5.590	2.655	164.449	2245.235	

CONTRACTOR
Kharati Infra Pvt. Ltd. ★
Authorized Signatory

Fortress Infrastructure Advisory Services
Project Engineer

Fortress Infrastructure Advisory Services
Project Manager

Jr. Engineer

CLIENT

Ex. Engineer

Total up to Date

10

Name of Authority

Date of Measurement

E Sewer Quantity Node Abstract

9th R A BILL MEASUREMENTS

Main Sewer " E "

SR NO	Description	MB/PG	ITEM 12		ITEM 13		ITEM 17		ITEM 23		ITEM 23.1		ITEM 30		EIRL 4			EIRL 5		EIRL 9.3		EIRL 9.4	
			315mm	315mm	315mm	500mm	600mm	2-5 m	Rebate	ITEM 30	3.5m	EIRL 1.a	Rebate	a	b	c	a	b	c	300mm	300mm	300mm	300mm
1	For Pipe		18,000	18,000	18,000	447,500	220,000	18,000	18,000	18,000	(71,100)	350,051	3,000	5,900	15,792	107,118	45,415	3,052	32,500	32,500	32,500	32,500	32,500
2	For Manhole																						
	Total		18,000	18,000	18,000	447,500	220,000	18,000	18,000	18,000	-71,100	3086,463	3,000	5,900	15,792	107,118	45,415	3,052	32,500	32,500	32,500	32,500	32,500

CONTRACTOR



PMC



CLIENT



[Signature]
Ex. Engineer

[Signature]
Dy. Engineer

al up to Date

10

Development of Underground Sewerage Collection System for Zone I to VI
Constructing, Erecting, Testing and Commissioning of Sewer Treatment
modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth
Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission
pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward
CIDCO (Airport), Providing, lowering, laying jointing and testing rising main
pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to
STP for Aurangabad City.

Name of Agency:- M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Venture)
Authority No. AMC/Ward B&C/UIDSSM1/2014/184 Date 01.07.2014

9th RA BILL MEASUREMENTS
Branch Sewer at Kokanwadi

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	400mm Dia Branch at Kokanwadi										
	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										
	KW 1 to KW 2	400mm RCC									
	CH0.00	571.020	567.870	567.670			3.350	2.960			
	CH23.65	571.140	568.770	568.570			2.570				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			20.720	1.600	1.350	44.755	0.000	44.755	
	(b) For Lift 1.5m to 3.0m	1			20.720	1.200	1.460	36.301	0.000	36.301	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			20.720	1.600	0.150	4.973	0.000	4.973	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			20.720	1.200	0.200	4.973	0.000	4.973	
	Item No. 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead up to 10km average rate							9.893	0.000	9.893	
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			22.500			22.500	0.000	22.500	
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A							86.029			
	Deduction										
	pipe area	1		0.785	20.720	0.550	0.550	4.92			
	soling							0.00			
	PCC							0.00			
	Murum bedding							4.97			
	Total = B							9.89			
		Net Qty = A - B									
								76.14	0.000	76.136	
	KW 2 to KW 3										
	CH23.65	571.140	568.770	568.570			2.570	2.500			
	CH42.15	571.200	568.970	568.770			2.430				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			15.840	1.600	1.350	34.214	44.755	78.970	
	(b) For Lift 1.5m to 3.0m	1			15.840	1.200	1.000	19.008	36.301	55.309	



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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.

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

Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
(a) For Lift 0 to 1.5m	1			15.840	1.600	0.150	3.802		4.973	8.774
Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			15.840	1.200	0.200	3.802		4.973	8.774
Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead up to 10km average rate							7.563		9.893	17.456
Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			17.500			17.500		22.500	40.000
Item No 30 :- Refilling the excavated trenches ...										
Total Excavation= A							57.024			
Deduction										
pipe area	1		0.785	15.840	0.550	0.550	3.76			
soling							0.00			
PCC							0.00			
Murrum bedding							3.80			
Total = B							7.56			
				Net Qty = A - B			49.46		76.136	125.597
KW 3 to KW 4										
CH42.15	571.200	568.970	568.770				2.430			
CH65.65	571.620	569.320	569.120				2.500	2.465		
Item No. 1 :- Excavation for foundation/pipe trenches in all typesof soil & soft murrum etc complete.										
(a) For Lift 0 to 1.5m	1			20.840	1.600	1.350	45.014		78.970	123.984
(b) For Lift 1.5m to 3.0m	1			20.840	1.200	0.965	24.133		55.309	79.442
Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
(a) For Lift 0 to 1.5m	1			20.840	1.600	0.150	5.002		8.774	13.776
Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			20.840	1.200	0.200	5.002		8.774	13.776
Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead up to 10km average rate							9.950		17.456	27.406
Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			22.500			22.500		40.000	62.500
Item No 30 :- Refilling the excavated trenches ...										
Total Excavation= A							74.149			
Deduction										
pipe area	1		0.785	20.840	0.550	0.550	4.95			
soling							0.00			
PCC							0.00			
Murrum bedding							5.00			
Total = B							9.95			



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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 Commissioning of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main GRP DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

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

3 of 11

Kokanwadi 400mm

				Net Qty = A - B				64.20	125.597	189.796
KW 4 to KW 5										
CH65.65	571.620	569.320	569.120				2.500	2.430		
CH89.15	572.030	569.870	569.670				2.360			
Item No. 1 :- Excavation for foundation/pipe trenches in all typesof soil & soft murum etc complete.										
(a) For Lift 0 to 1.5m	1			20.840	1.600	1.350	45.014		123.984	168.998
(b) For Lift 1.5m to 3.0m	1			20.840	1.200	0.930	23.257		79.442	102.700
Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
(a) For Lift 0 to 1.5m	1			20.840	1.600	0.150	5.002		13.776	18.778
Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)										
	1			20.840	1.200	0.200	5.002		13.776	18.778
Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead up to 10km average rate										
							9.950		27.406	37.357
Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia										
	1			22.500			22.500		62.500	85.000
Item No 30 :- Refilling the excavated trenches ...										
Total Excavation= A							73.273			
Deduction										
pipe area	1		0.785	20.840	0.550	0.550	4.95			
soling							0.00			
PCC							0.00			
Murrum bedding							5.00			
Total = B							9.95			
				Net Qty = A - B				63.32	189.796	253.119
KW 5 to KW 6										
CH89.15	572.030	569.870	569.670				2.360	2.280		
CH95.15	572.120	570.120	569.920				2.200			
Item No. 1 :- Excavation for foundation/pipe trenches in all typesof soil & soft murum etc complete.										
(a) For Lift 0 to 1.5m	1			3.340	1.600	1.350	7.214		168.998	176.213
(b) For Lift 1.5m to 3.0m	1			3.340	1.200	0.780	3.126		102.700	105.826
Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
(a) For Lift 0 to 1.5m	1			3.340	1.600	0.150	0.802		18.778	19.579
Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)										
	1			3.340	1.200	0.200	0.802		18.778	19.579
Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead up to 10km average rate										
							1.595		37.357	38.951



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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.

Book No. :- 136
Page No. :-

5 of 11

Kokanwadi 400mm

(a) For Lift 0 to 1.5m	1			17.090	1.600	0.150	4.102		25.781	29.882
Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			17.090	1.200	0.200	4.102		25.781	29.882
Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead up to 10km average rate							8.160		51.289	59.449
Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			18.750			18.750		117.500	136.250
Item No 30 :- Refilling the excavated trenches ...										
Total Excavation= A							57.115			
Deduction										
pipe area	1		0.785	17.090	0.550	0.550	4.06			
soling							0.00			
PCC							0.00			
Murum bedding							4.10			
Total = B							8.16			
				Net Qty = A - B			48.95		336.531	385.486
KW 8 to KW 9										
CH143.40	572.780	570.770	570.570				2.210	2.130		
CH166.90	573.080	571.230	571.030				2.050			
Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
(a) For Lift 0 to 1.5m	1			20.840	1.600	1.150	38.346		268.942	307.287
(b) For Lift 1.5m to 3.0m	1			20.840	1.200	0.330	8.253		146.111	154.364
Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
(a) For Lift 0 to 1.5m	1			20.840	1.600	0.200	6.669		29.882	36.551
Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
(a) For Lift 0 to 1.5m	1			20.840	1.600	0.150	5.002		0.000	5.002
(b) For Lift 1.5m to 3.0m	1			20.840	1.200	0.300	7.502		0.000	7.502
Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			20.840	1.200	0.200	5.002		29.882	34.884
Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead up to 10km average rate							9.950		59.449	69.399
Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			22.500			22.500		136.250	158.750
Item No 30 :- Refilling the excavated trenches ...										
Total Excavation= A							65.771			
Deduction										
pipe area	1		0.785	20.840	0.550	0.550	4.95			
soling							0.00			
PCC							0.00			



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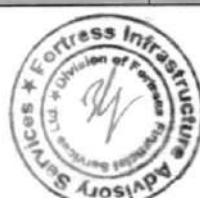
Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali/Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), 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

Book No. :- 133
Page No. :-

7 of 11

Kokanwadi 400mm

Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			10.840	1.200	0.200	2.602		38.086	40.687
Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead up to 10km average rate							5.176		75.769	80.944
Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			12.500			12.500		173.750	186.250
Item No 30 :- Refilling the excavated trenches ...							35.512			
Total Excavation= A							35.512			
Deduction										
pipe area	1		0.785	10.840	0.550	0.550	2.57			
soling							0.00			
PCC							0.00			
Murram bedding							2.60			
Total = B							5.18			
Net Qty = A - B							30.34		477.038	507.375
KW 11 to KW 12										
CH196.40	573.330	571.280	571.080				2.250	2.325		
CH222.40	573.630	571.430	571.230				2.400			
Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
(a) For Lift 0 to 1.5m	1			23.340	1.600	0.875	32.676		54.348	87.024
Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
(a) For Lift 0 to 1.5m	1			23.340	1.600	0.625	23.340		20.691	44.031
(b) For Lift 1.5m to 3.0m	1			23.340	1.200	0.525	14.704		17.898	32.602
Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.										
(b) For Lift 1.5m to 3.0m	1			23.340	1.200	0.300	8.402		3.902	12.305
Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			23.340	1.200	0.200	5.602		40.687	46.289
Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead up to 10km average rate							11.144		80.944	92.088
Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			25.000			25.000		186.250	211.250
Item No 30 :- Refilling the excavated trenches ...							79.123			
Total Excavation= A							79.123			
Deduction										
pipe area	1		0.785	23.340	0.550	0.550	5.54			
soling							0.00			
PCC							0.00			
Murram bedding							5.60			
Total = B							11.14			
Net Qty = A - B							67.98		507.375	575.353



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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.

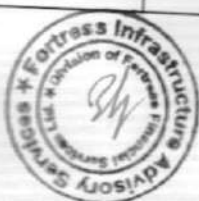
Book No. :-

Page No. :- 141

10 of 11

Kokanwadi 400mm

Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			8.340	1.200	0.200	2.002		55.294	57.295
Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead up to 10km average rate							3.982		110.003	113.985
Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			10.000			10.000		253.750	263.750
Item No 30 :- Refilling the excavated trenches ...										
Total Excavation= A							25.921			
Deduction										
pipe area	1			0.785	8.340	0.550	0.550	1.98		
soling								0.00		
PCC								0.00		
Murum bedding								2.00		
Total = B								3.98		
								21.94		
Net Qty = A - B									683.420	705.359
KW 16 to KW 17										
CH278.90	574.310	572.330	572.130				2.180			
CH287.40	574.440	572.830	572.630				1.810	1.995		
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									
(b) For Lift 1.5m to 3.0m	1			5.840	1.600	0.350	3.270		331.833	335.103
Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.				5.840	1.200	0.495	3.469		159.646	163.115
(a) For Lift 0 to 1.5m	1									
Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.				5.840	1.600	1.000	9.344		168.493	177.837
(a) For Lift 0 to 1.5m	1									
Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			5.840	1.600	0.150	1.402		72.626	74.028
Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead up to 10km average rate				5.840	1.200	0.200	1.402		57.295	58.697
Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			7.500			7.500		263.750	271.250
Item No 30 :- Refilling the excavated trenches ...										
Total Excavation= A										
Deduction								17.485		
pipe area	1			0.785	5.840	0.550	0.550	1.39		
soling								0.00		
PCC								0.00		
Murum bedding								1.40		
Total = B								2.79		



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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

11 of 11

Kokanwadi 400mm

		Net Qty = A - B					14.70	705.359	720.055	
KW 17 to KW 18										
CH287.40		574.440	572.830	572.630		1.810	1.780			
CH298.40		574.480	572.930	572.730		1.750				
Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.										
(a) For Lift 0 to 1.5m	1				8.340	1.600	1.150	15.346	335.103	350.449
(b) For Lift 1.5m to 3.0m	1				8.340	1.200	0.280	2.802	163.115	165.917
Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
(a) For Lift 0 to 1.5m	1				8.340	1.600	0.200	2.669	177.837	180.506
Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
(a) For Lift 0 to 1.5m	1				8.340	1.600	0.150	2.002	74.028	76.029
(b) For Lift 1.5m to 3.0m	1				8.340	1.200	0.000	0.000	67.838	67.838
(c) For Lift 3.0m to 4.5m	1				8.340	1.200	0.000	0.000	0.000	0.000
(d) For Lift 4.5m to 6.0m	1				8.340	1.200	0.000	0.000	0.000	0.000
Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.										
(b) For Lift 1.5m to 3.0m	1				8.340	1.200	0.000	0.000	18.907	18.907
Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)										
	1				8.340	1.200	0.200	2.002	58.697	60.698
Item No. : 11 Transportation of earth Transportation charges including loading & unloading excavated material for a lead beyond initial lead up to 10km average rate								3.982	116.773	120.755
Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia		1			10.000			10.000	271.250	281.250
Item No 30 :- Refilling the excavated trenches ...										
Total Excavation= A								22.818		
Deduction										
pipe area	1			0.785	8.340	0.550	0.550	1.98		
soling								0.00		
PCC								0.00		
Murrum bedding								2.00		
Total = B								3.98		
					Net Qty = A - B			18.84	720.055	738.892



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4 of 17

Kokanwadi Meas. DWC

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. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete. (a) For Lift 0 to 1.5m	1			11.470	0.750	0.150	1.290		4.318	5.608	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete. (a) For Lift 0 to 1.5m	1			11.470	0.750	0.150	1.290		4.318	5.608	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			12.470	0.750	0.100	0.935		2.257	3.192	
	Item No. : 11 Transportation of earth Transportation charges							1.547		4.414	5.961	
	Item No. 13 :- (c)Lowering & Laying of Polyethylene DWC pipe of 250mm Dia	1			12.970			12.970		0.000	12.970	
	Item No. 30 :- Refilling the excavated trenches ...											
	Total Excavation=							12.689				
	Deduction of 250mm dia pipe											
	pipe area	1.000		0.785	12.470	0.250	0.250	0.612				
	soling							0.000				
	PCC							0.000				
	Murrum bedding							0.935				
								1.547				
								Net Qty = A - B		11.142	41.251	52.392
	KW 17.2 to KW 17.3											
	CH346.20	575.130	573.850	573.750				1.380				
	CH348.40	575.190	573.940	573.840				1.350		1.365		
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete. (a) For Lift 0 to 1.5m	1			0.200	0.750	1.065	0.160		44.648	44.808	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete. (a) For Lift 0 to 1.5m	1			0.200	0.750	0.150	0.022		5.608	5.630	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete. (a) For Lift 0 to 1.5m	1			0.200	0.750	0.150	0.022		5.608	5.630	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			0.800	0.750	0.100	0.060		3.192	3.252	
	Item No. : 11 Transportation of earth Transportation charges							0.099		5.961	6.060	
	Item No. 13 :- (c)Lowering & Laying of Polyethylene DWC pipe of 250mm Dia	1			1.300			1.300		12.970	14.270	
	Item No. 30 :- Refilling the excavated trenches ...											
	Total Excavation=							0.205				
	Deduction of 250mm dia pipe											
	pipe area	1.000		0.785	0.800	0.250	0.250	0.039				



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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.

5 of 17

Kokanwadi Meas. DWC

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	soling							0.000			
	PCC							0.000			
	Murum bedding							0.060			
								0.099			
		Net Qty = A - B						0.105	52.392	52.498	
	KW 17.3 to KW 17.4										
	CH348.40	575.190	573.940	573.840			1.350				
	CH355.10	575.370	574.090	573.990			1.380	1.365			
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			4.700	0.750	1.065	3.754	44.808	48.562	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			4.700	0.750	0.150	0.529	5.630	6.159	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			4.700	0.750	0.150	0.529	5.630	6.159	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)										
	(a) For Lift 0 to 1.5m	1			5.300	0.750	0.100	0.397	3.252	3.649	
	Item No. : 11 Transportation of earth Transportation charges							0.658	6.060	6.717	
	Item No. 13 :- (c)Lowering & Laying of Polyethylene DWC pipe of 250mm Dia										
	(a) For Lift 0 to 1.5m	1			5.800			5.800	14.270	20.070	
	Item No. 30 :- Refilling the excavated trenches --										
	Total Excavation=-							4.812			
	Deduction of 250mm dia pipe pipe area	1.000		0.785	5.300	0.250	0.250	0.260			
	soling							0.000			
	PCC							0.000			
	Murum bedding							0.397			
								0.658			
		Net Qty = A - B						4.154	52.498	56.652	
	KW 17.4 to KW 17.5										
	CH355.10	575.370	574.090	573.990			1.380				
	CH357.90	575.450	574.140	574.040			1.410	1.395			
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.800	0.750	1.095	0.657	48.562	49.219	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.800	0.750	0.150	0.090	6.159	6.249	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			0.800	0.750	0.150	0.090	6.159	6.249	



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