Appurtanances of Water Supply

Sr No.	Name of Road	Length of Pipe	Length of Pipe Line							Sluice Valves						
			100 mm i/d	150 mm i/d	200 mm i/d	250 mm i/d	300 mm i/d	350 mm i/d	400 mm i/d	100 mm i/d	150 mm i/d	200 mm i/d	250 mm i/d	300 mm i/d	350 mm i/d	400 mm i/d
		m	m	m	m	m	m	m	m	No.	No.	No.	No.	No.	No.	No.
411	D18-D3	128	128							1						
412	D18-D19	129	129							1						
	-															
413	D18-D'22	44		44							1					
414	D'22-D5	37	37							1						
415	D'22-D21	166		166							1					
416	D21-D7	22	22							1						
	-															
417	D7-D23	74	74							1						
418	D23-A'7	92	92							1						
419	A'7-E1	59	59							1						
420	E1-E2	22	22							1						
421	E2-E3	50	50							1						
422	E2-E4	30	30							1						
	-															
423	D7-D20	90	90							1						
424	D20-D19	143	143							1						
425	D19-D2	108	108							1						
426	D2-A2	61	61							1						
427	A2-D1	27	27							1						
428	A2-A'2	62	62							1						
429	A2-A1	53	53							1						
430	84A1-84A11	153	153							1						
431	A11-A12	53	53							1						
432	A12-A'12	53	53							1						
433	84A12-84A'13	18	18													
	Total Length	31372	7695	1558	167	737	200	237	507	98	21	3	12	1	2	5
	Road Length	36006	22033	4093	1501	1853	665	517	710	301	59	21	30	6	5	10

For VATIKA LIMITED

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DESIGN STATEMENT OF SEWER

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Detail of Area Residential Vatica India Next,Gurgaon							Daily Water Requirement			Anticipated Waste Water
Sr.	Description	Size of Plot		Area of each Unit / Plot	Total Area		Water Allowance	Water Require-ment	Net Water Require-ment	Average Value at 75% of water contributing to waste water
1	Residential (Plotted)									
	Category of Plots	Width	Depth							
		m	m	Sq.m.	Sq.m.	Acres	Ltrs./Capital/ Day	Ltrs./Day	Ltrs./Day	Ltrs./Day
1.11	A	4.50	12.50	56.25	27956	6.91	135	603855	603855	452891
1.12	A1	5.00	10.00	50.00	2600	0.64	135	63180	63180	47385
1.13	B	8.20	18.40	150.88	21576	5.33	172.5	333011	333011	249758
1.14	C	10.54	19.04	200.68	24483	6.05	172.5	284108	284108	213081
1.15	D	8.20	18.40	150.88	54468	13.46	172.5	840679	840679	630509
1.16	E	10.60	19.04	201.82	54291	13.42	172.5	626434	626434	469825
1.17	F	10.60	24.00	254.40	33326	8.24	172.5	305066	305066	228800
1.18	F1	11.40	22.00	250.80	43388	10.72	172.5	402874	402874	302155
1.19	G	12.30	24.00	295.20	63763	15.76	172.5	503010	503010	377258
1.20	H	14.13	23.36	330.07	52481	12.97	172.5	370271	370271	277703
	H1	12.98	25.77	334.49	31442	7.77	172.5	218903	218903	164177
1.22	H2	13.68	25.00	342.00	4788	1.18	172.5	32603	32603	24452
1.23	I	15.80	25.90	409.22	29464	7.28	172.5	167670	167670	125753
1.24	I1	14.50	28.80	417.60	418	0.10	172.5	2329	2329	1747
1.25	J	15.90	25.90	411.81	9060	2.24	172.5	51233	51233	38424
1.26	K	14.40	23.60	339.84	9516	2.35	172.5	65205	65205	48904
1.27	L	11.62	25.91	301.07	1806	0.45	172.5	13973	13973	10479
1.28	M	9.99	20.56	205.39	13967	3.45	172.5	158355	158355	118766
	Sub Total				478793	118.31		5042756	5042756	3782067
2	Area under Group Housing				113311	28.00	172.5	1449000	1449000	1086750
3	Commercial Area			Sqm	Sq.m	Acres				
3.1	Commercial Area				52083	12.87	25000	321750	321750	241313
3.2	Nursing Home	2.21		1127	8943	2.21	5000	40000	40000	30000
4	Community Area			Acres	Sq.m	Acres				
4.1	High School		16.76	5.00	67825	16.76	150000	450000	450000	337500
4.2	Primary School		4.22	1.00	17078	4.22	50000	200000	200000	150000
4.3	Nursery School		1.54	0.20	6232	1.54	10000	60000	60000	45000
4.4	Creche		0.75	0.20	3035	0.75	10000	30000	30000	22500
4.5	Dispensary		2.26	1.25	9146	2.26	25000	56500	56500	42375
4.6	Club / Community		4.11	2.00	16632	4.11	25000	102750	102750	77063
4.7	Religious Building		0.59	0.20	2388	0.59	10000	20000	20000	15000
4.8	Taxi Stand		3.1605	0.50	12790	3.16	5000	30000	30000	22500
4.9	Police Post		1.02	1.02	4128	1.02	25000	25500	25500	19125
4.10	Health Centre		2.63	2.63	10643	2.63	25000	65750	65750	49313
	Sub Total				149896	37.04		1040500	1040500	224438
5	Undetermined use				138644	34.26	25000	856500	856500	642375
5	Green Area									
5.1	Organised Green - Area under Green			13.16	53256.2	13.16	25000	329000		
5.2	Incidental Green -			8.6	34762.2	8.59	25000	214750		
	Sub Total				88018	21.750		543750		
6	Area under Master Roads				75676	18.700	10000	187000		
7	Area under Roads				486485	120.214	10000	1202140		
	Total Area / Total Demand				1591850	393.358		10683396	8750506	6006942
	Fire Demand Plotted					550.52		9234396	7301506	4920192

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Sheet No:-1

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Abstract of Sewer Pipe Line

	STP 1			STP 2			STP 3				
	Length	Average Depth	Manhole	Length	Average Depth	Manhole	Length	Average Depth	Manhole	Total Length	Total ManHoles
200	5018	1.69	254	10688	1.74	535	4962	1.91	253	20668	1042
250	570	2.27	27	920	3.61	47	745	3.41	38	2235	112
300	944	3.96	48	923	3.09	46	666	3.49	34	2533	128
350	0	0	0	879	4.80	43	457	3.28	23	1336	66
400	0	0	0	787	3.94	39	0	0	0	787	39
450	67	4.22	3	0	0	0	15	4.45	1	82	4
500	0	0	0	408	4.67	21	0	0	0	408	21
700	46	4.34	3	94	5.19	5			0	140	8
	6645		335	14699		736	6845		349	28189	1420

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Design Statement of Waste Water Collection System

Sr. No	Line No.	Length of Sewer Line	Quantity waste water generation	Quantity of Waste Water generated			Quantity of Waste Water flow during peak hours	Discharge		Velocity	Flow	Size of sewer line	Slope	Fall	Formation Level		Invert Level			Depth		
				Self	Branch	Total	Total discharge @ 3 times Average Flow								Upper end	Lower end	Upper end	Lower end		Upper end	Lower end	Avg
			L	KLD	KLD	KLD	KLD	MLD	Cu.m.	M/sec	Cu.m.	mm		M	M	M	M	M	M	M	M	M
1	2	2	3	4	5	6	7	8	9	10	11	12	13	15	16	17	18	19	20	21	22	23
1	83A2-83A5	40	62625.00	62.63	0.00	62.63	187.88	0.19	0.0022	0.70	0.011	200	220	0.18	235.790	235.241	234.590	234.408		1.20	0.83	1.02
2	A5-A4	193	37535.63	37.54	62.63	100.16	300.48	0.30	0.0035	0.70	0.011	200	220	0.88	235.241	235.530	234.408	233.531		0.83	2.00	1.42
3	A'8-A4	41	6108.75	6.11	0.00	6.11	18.33	0.02	0.0002	0.70	0.011	200	220	0.19	235.544	235.530	234.344	234.158		1.20	1.37	1.29
4	A'4-A4	41	49312.50	49.31	0.00	49.31	147.94	0.15	0.0017	0.70	0.011	200	220	0.19	235.536	235.530	234.336	234.149		1.20	1.38	1.29
5	A4-A7	52	8201.25	8.20	155.58	163.78	491.35	0.49	0.0057	0.70	0.011	200	220	0.24	235.530	235.137	233.531	233.294		2.00	1.84	1.92
6	A'20-A7	48	8201.25	8.20	0.00	8.20	24.60	0.02	0.0003	0.70	0.011	200	220	0.22	235.150	235.137	233.950	233.732		1.20	1.41	1.30
7	A'7-A7	105	19698.75	19.70	0.00	19.70	59.10	0.06	0.0007	0.70	0.011	200	220	0.48	235.160	235.137	233.960	233.483		1.20	1.65	1.43
8	A7-A10	56	8201.25	8.20	191.68	199.88	599.65	0.60	0.0069	0.70	0.011	200	220	0.25	235.137	234.893	233.294	233.040		1.84	1.85	1.85
	-																					
9	A'3-A3	40	9616.88	9.62	0.0	9.6	28.9	0.03	0.0003	0.70	0.011	200	220	0.18	235.829	235.818	234.629	234.447		1.20	1.37	1.29
10	A3-A6	53	4100.63	4.10	9.6	13.7	41.2	0.04	0.0005	0.70	0.011	200	220	0.24	235.818	235.529	234.447	234.206		1.37	1.32	1.35
11	A20-A6	48	12217.50	12.22	0.0	12.2	36.7	0.04	0.0004	0.70	0.011	200	220	0.22	235.540	235.529	234.340	234.121		1.20	1.41	1.30
12	A6-A9	56	4100.63	4.10	25.9	30.0	90.1	0.09	0.0010	0.70	0.011	200	220	0.25	235.529	235.247	234.121	233.867		1.41	1.38	1.39
	-																					
13	A18-A15	18	2733.75	2.73	0.0	2.7	8.2	0.01	0.0001	0.70	0.011	200	220	0.08	234.675	234.669	233.475	233.394		1.20	1.28	1.24
14	A16-A15	40	4046.25	4.05	0.0	4.0	12.1	0.01	0.0001	0.70	0.011	200	220	0.18	234.679	234.669	233.479	233.297		1.20	1.37	1.29
15	A15-A12	53	4100.63	4.10	6.8	10.9	32.6	0.03	0.0004	0.70	0.011	200	220	0.24	234.669	234.972	233.297	233.057		1.37	1.91	1.64
16	A19-A12	58	11576.25	11.58	0.0	11.6	34.7	0.03	0.0004	0.70	0.011	200	220	0.26	234.985	234.972	233.785	233.521		1.20	1.45	1.33
17	A12-A9	54	4100.63	4.10	22.5	26.6	79.7	0.08	0.0009	0.70	0.011	200	220	0.25	234.972	235.247	233.057	232.811		1.91	2.44	2.18
	-																					
18	A9-A10	175	25970.63	25.97	56.6	82.6	247.7	0.25	0.0029	0.70	0.011	200	220	0.80	235.247	234.893	232.811	232.016	231.991	2.44	2.88	2.66
19	A13-A10	30	8201.25	8.20	0.0	8.2	24.6	0.02	0.0003	0.70	0.011	200	220	0.14	234.903	234.893	233.703	233.567		1.20	1.33	1.26
	-																					
20	A10-A11	175	24495.00	24.50	290.6	315.1	945.4	0.95	0.0109	0.61	0.015	250	400	0.44	234.893	234.638	231.991	231.553		2.90	3.09	2.99
21	A'11-A11	23	0.00	0.00	0.0	0.0	0.0	0.00	0.0000	0.70	0.011	200	220	0.10	234.723	234.638	233.523	233.419		1.20	1.22	1.21
22	A11-A14	53	11497.50	11.50	315.1	326.6	979.9	0.98	0.0113	0.61	0.015	250	400	0.13	234.638	234.336	231.553	231.421		3.09	2.92	3.00
	-																					
23	A60-A59	73	8788.13	8.79	0.0	8.8	26.4	0.03	0.0003	0.70	0.011	200	220	0.33	234.586	234.566	233.386	233.054		1.20	1.51	1.36
24	A59-A14	101	24386.25	24.39	8.8	33.2	99.5	0.10	0.0012	0.70	0.011	200	220	0.46	234.566	234.336	233.054	232.595		1.51	1.74	1.63
	-																					
25	A14-E25	110	4929.38	4.93	359.8	364.7	1094.2	1.09	0.0127	0.61	0.015	250	400	0.28	234.336	233.846	231.421	231.146		2.92	2.70	2.81
26	E25-E23	45	4125.00	4.13	364.7	368.9	1106.6	1.11	0.0128	0.61	0.015	250	400	0.11	233.846	233.954	231.146	231.033	231.008	2.70	2.92	2.81
	-																					
27	E30-E29	27	4980.94	4.98	0.0	5.0	14.9	0.01	0.0002	0.70	0.011	200	220	0.12	233.116	233.148	231.916	231.793		1.20	1.35	1.28
28	E29-E27	85	10935.00	10.94	5.0	15.9	47.7	0.05	0.0006	0.70	0.011	200	220	0.39	233.148	233.259	231.793	231.407		1.35	1.85	1.60
29	E33-E27	84	13437.02	13.44	0.0	13.4	40.3	0.04	0.0005	0.70	0.011	200	220	0.38	233.285	233.259	232.085	231.703		1.20	1.56	1.38
	-																					
30	E28-E26	77	30628.13	30.63	0.0	30.6	91.9	0.09	0.0011	0.70	0.011	200	220	0.35	233.152	233.217	231.952	231.602		1.20	1.61	1.41
31	E26-E27	68	3054.38	3.05	30.6	33.7	101.0	0.10	0.0012	0.70	0.011	200	220	0.31	233.217	233.259	231.602	231.293		1.61	1.97	1.79
	-																					
32	E27-E31	83	15247.50	15.25	63.0	78.3	234.8	0.23	0.0027	0.70	0.011	200	220	0.38	233.259	233.270	231.293	230.916		1.97	2.35	2.16
33	E31-E21	92	116250.00	116.25	78.3	194.5	583.6	0.58	0.0068	0.70	0.011	200	220	0.42	233.270	233.279	230.916	230.498		2.35	2.78	2.57
34	E21-E22	44	3331.88	3.33	194.5	197.9	593.6	0.59	0.0069	0.70	0.011	200	220	0.20	233.279	233.519	230.498	230.298		2.78	3.22	3.00
35	E22-A22	84	0.00	0.00	197.9	197.9	593.6	0.59	0.0069	0.70	0.011	200	220	0.38	233.519	233.889	230.298	229.916		3.22	3.97	3.60
36	A22-E23	19	0.00	0.00	197.9	197.9	593.6	0.59	0.0069	0.80	0.023	200	220	0.09	233.889	233.954	229.916	229.829	229.779	3.97	4.12	4.05
	-																					
37	E23-A21	91	11733.75	11.73	566.7	578.5	1735.4	1.74	0.0201	0.69	0.044	300	500	0.18	233.954	233.971	229.779	229.597		4.17	4.37	4.27

For VATIKA LIMITED

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Sheet No:-1

Ky Consultants Pvt Ltd

Design Statement of Waste Water Collection System

Sr. No	Line No.	Length of Sewer Line	Quantity waste water generation	Quantity of Waste Water generated			Quantity of Waste Water flow during peak hours	Discharge		Velocity	Flow	Size of sewer line	Slope	Fall	Formation Level		Invert Level			Depth		
				Self	Branch	Total	Total discharge @ 3 times Average Flow								Upper end	Lower end	Upper end	Lower end		Upper end	Lower end	Avg
			L	KLD	KLD	KLD	KLD	MLD	Cu.m.	M/sec	Cu.m.	mm		M	M	M	M			M	M	M
1	2	2	3	4	5	6	7	8	9	10	11	12	13	15	16	17	18	19	20	21	22	23
38	A21-A35	181	0.00	0.00	578.5	578.5	1735.4	1.74	0.0201	0.69	0.044	300	500	0.36	233.971	231.810	229.597	229.235		4.37	2.57	3.47
39	A35-A28	17	0.00	0.00	578.5	578.5	1735.4	1.74	0.0201	0.69	0.044	300	500	0.03	231.810	231.805	229.235	229.201		2.57	2.60	2.59
40	A28-A31	57	14739.38	14.74	578.5	593.2	1779.6	1.78	0.0206	0.69	0.044	300	500	0.11	231.805	231.766	229.201	229.087		2.60	2.68	2.64
41	A'32-A31	44	75.00	0.08	0.0	0.1	0.2	0.00	0.0000	0.80	0.023	200	220	0.20	231.754	231.766	230.554	230.354		1.20	1.41	1.31
42	A31-A34	69	2250.00	2.25	593.3	595.5	1786.6	1.79	0.0207	0.69	0.044	300	500	0.14	231.766	231.781	230.354	230.216	230.179	1.41	1.56	1.49
43	83A34-83A29	108	56812.50	56.81	595.5	652.3	1957.0	1.96	0.0227	0.62	0.030	350	600	0.18	231.781	231.797	230.179	229.999		1.60	1.80	1.70
44	83A29-82E24	98	0.00	0.00	652.3	652.3	1957.0	1.96	0.0227	0.62	0.030	350	600	0.16	231.797	233.319	229.999	229.835		1.80	3.48	2.64
45	82E24-82E	13	0.00	0.00	652.3	652.3	1957.0	1.96	0.0227	0.62	0.030	350	600	0.02	233.319	233.337	229.835	229.814		3.48	3.52	3.50
	-																					
	SECTOR 82A-																					
46	82A31-82A33	60	20958.75	20.96	0.0	21.0	62.9	0.06	0.0007	0.70	0.011	200	220	0.27	237.546	237.479	236.346	236.073		1.20	1.41	1.30
47	A34-A33	6	5239.69	5.24	0.0	5.2	15.7	0.02	0.0002	0.70	0.011	200	220	0.03	237.484	237.479	236.284	236.257		1.20	1.22	1.21
48	A33-A35	50	3246.56	3.25	26.2	29.4	88.3	0.09	0.0010	0.70	0.011	200	220	0.23	237.479	237.441	236.073	235.846		1.41	1.59	1.50
	-																					
49	A37-A36	7	3750.00	3.75	0.0	3.8	11.3	0.01	0.0001	0.70	0.011	200	220	0.03	236.644	236.774	235.444	235.412		1.20	1.36	1.28
50	A36-A35	50	7736.25	7.74	3.8	11.5	34.5	0.03	0.0004	0.70	0.011	200	220	0.23	236.774	237.441	235.412	235.185		1.36	2.26	1.81
	-																					
51	A35-A32	71	9295.31	9.30	40.9	50.2	150.7	0.15	0.0017	0.70	0.011	200	220	0.32	237.441	236.811	235.185	234.862		2.26	1.95	2.10
	-																					
52	A49-A31	5	4993.13	4.99	0.0	5.0	15.0	0.01	0.0002	0.70	0.011	200	220	0.02	237.816	237.546	236.616	236.593		1.20	0.95	1.08
53	A31-A32	50	6986.25	6.99	5.0	12.0	35.9	0.04	0.0004	0.70	0.011	200	220	0.23	237.546	236.811	236.593	236.366		0.95	0.44	0.70
	-																					
54	A32-A6	40	3493.13	3.49	62.2	65.7	197.1	0.20	0.0023	0.70	0.011	200	220	0.18	236.811	236.501	234.862	234.680		1.95	1.82	1.88
55	A6-A5	61	0.00	0.00	65.7	65.7	197.1	0.20	0.0023	0.70	0.011	200	220	0.28	236.501	236.327	234.680	234.403		1.82	1.92	1.87
	-																					
56	A21-A20	2	3493.13	3.49	0.0	3.5	10.5	0.01	0.0001	0.70	0.011	200	220	0.01	236.174	236.149	234.974	234.965		1.20	1.18	1.19
57	A20-A15	26	5239.69	5.24	3.5	8.7	26.2	0.03	0.0003	0.70	0.011	200	220	0.12	236.149	236.125	234.965	234.846		1.18	1.28	1.23
58	A15-A16	85	12225.94	12.23	8.7	21.0	62.9	0.06	0.0007	0.70	0.011	200	220	0.39	236.125	236.371	234.846	234.460		1.28	1.91	1.59
59	A20'-A16	50	10479.38	10.48	0.0	10.5	31.4	0.03	0.0004	0.70	0.011	200	220	0.23	236.149	236.371	234.949	234.721		1.20	1.65	1.42
60	A16-A17	23	5239.69	5.24	31.4	36.7	110.0	0.11	0.0013	0.70	0.011	200	220	0.10	236.371	236.357	234.460	234.355		1.91	2.00	1.96
61	A17-A5	61	16232.81	16.23	36.7	52.9	158.7	0.16	0.0018	0.70	0.011	200	220	0.28	236.357	236.327	234.355	234.078		2.00	2.25	2.13
	-																					
62	A5-A'60	81	10479.38	10.48	118.6	129.1	387.3	0.39	0.0045	0.70	0.011	200	220	0.37	236.327	236.199	234.078	233.710		2.25	2.49	2.37
63	A'60-A'59	64	10736.25	10.74	129.1	139.8	419.5	0.42	0.0049	0.70	0.011	200	220	0.29	236.199	235.999	233.710	233.419		2.49	2.58	2.53
64	A'59-A14	69	1875.00	1.88	139.8	141.7	425.1	0.43	0.0049	0.70	0.011	200	220	0.31	235.999	236.011	233.419	233.105		2.58	2.91	2.74
65	A14-A10	95	10479.38	10.48	141.7	152.2	456.5	0.46	0.0053	0.70	0.011	200	220	0.43	236.011	236.044	233.105	232.674		2.91	3.37	3.14
	-																					
66	A'28-A'27	84	15729.38	15.73	0.0	15.7	47.2	0.05	0.0005	0.70	0.011	200	220	0.38	236.180	236.161	234.980	234.598		1.20	1.56	1.38
67	A'27-A'26	73	0.00	0.00	15.7	15.7	47.2	0.05	0.0005	0.70	0.011	200	220	0.33	236.161	236.147	234.598	234.266		1.56	1.88	1.72
68	A'26-A'25	101	19212.19	19.21	15.7	34.9	104.8	0.10	0.0012	0.70	0.011	200	220	0.46	236.147	236.129	234.266	233.807		1.88	2.32	2.10
69	A'25-A'24	60	20309.06	20.31	34.9	55.3	165.8	0.17	0.0019	0.70	0.011	200	220	0.27	236.129	236.117	233.807	233.534		2.32	2.58	2.45
70	A'24-A'23	86	7500.00	7.50	55.3	62.8	188.3	0.19	0.0022	0.70	0.011	200	220	0.39	236.117	236.097	233.534	233.143		2.58	2.95	2.77
71	A'23-A'22	102	2871.56	2.87	62.8	65.6	196.9	0.20	0.0023	0.70	0.011	200	220	0.46	236.097	236.070	233.143	232.680		2.95	3.39	3.17
72	A'22-A10	98	29861.25	29.86	65.6	95.5	286.5	0.29	0.0033	0.70	0.011	200	220	0.45	236.070	236.044	232.680	232.234		3.39	3.81	3.60
	-																					
73	A10-A9	56	10479.38	10.48	247.7	258.1	774.4	0.77	0.0090	0.70	0.011	200	220	0.25	236.044	235.218	232.234	231.980		3.81	3.24	3.52
74	A9-A'58	103	20958.75	20.96	258.1	279.1	837.3	0.84	0.0097	0.70	0.011	200	220	0.47	235.218	235.369	231.980	231.511		3.24	3.86	3.55
75	A'58-A'3	50	3750.00	3.75	279.1	282.9	848.6	0.85	0.0098	0.70	0.011	200	220	0.23	235.369	235.464	231.511	231.284		3.86	4.18	4.02

For VATIKA LIMITED

Authorised Signatory

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Design Statement of Waste Water Collection System

Sr. No	Line No.	Length of Sewer Line	Quantity waste water generation	Quantity of Waste Water generated			Quantity of Waste Water flow during peak hours	Discharge		Velocity	Flow	Size of sewer line	Slope	Fall	Formation Level		Invert Level			Depth		
				Self	Branch	Total	Total discharge @ 3 times Average Flow								Upper end	Lower end	Upper end	Lower end		Upper end	Lower end	Avg
			L	KLD	KLD	KLD	KLD	MLD	Cu.m.	M/sec	Cu.m.	mm		M	M	M	M	M		M	M	M
															16	17	18	19	20	21	22	23
1	2	2	3	4	5	6	7	8	9	10	11	12	13	15						4.18	4.22	4.20
76	A'3-A2	22	0.00	0.00	282.9	282.9	848.6	0.85	0.0098	0.70	0.011	200	220	0.10	235.464	235.402	231.284	231.184		4.22	4.22	4.22
77	A2-A1	56	3493.13	3.49	282.9	286.3	859.0	0.86	0.0099	0.70	0.011	200	220	0.25	235.402	235.153	231.184	230.930	230.905	4.22	4.22	4.22
78	82A'55-82A1	136	58125.00	58.13	0.0	58.1	174.4	0.17	0.0020	0.80	0.023	200	220	0.62	235.878	235.153	234.678	234.059		1.20	1.09	1.15
79	82A1- 82E'10	73	0.00	0.00	372.0	372.0	1116.1	1.12	0.0129	0.61	0.015	250	400	0.18	235.153	234.614	230.905	230.722		4.25	3.89	4.07
	-																					
80	82E'10-	220	26149.69	26.15	372.0	398.2	1194.6	1.19	0.0138	0.61	0.015	250	400	0.55	234.614	234.274	230.722	230.172		3.89	4.10	4.00
81	E16-E17	69	5062.50	5.06	398.2	403.3	1209.8	1.21	0.0140	0.61	0.015	250	400	0.17	234.274	234.300	230.172	230.000	229.975	4.10	4.30	4.20
82	E'17-E11	138	40299.38	40.30	403.3	443.6	1330.7	1.33	0.0154	0.61	0.022	300	500	0.28	234.300	234.347	229.975	229.699		4.33	4.65	4.49
83	E27-E11	16	1746.56	1.75	0.0	1.7	5.2	0.01	0.0001	0.70	0.011	200	220	0.07	234.521	234.347	233.321	233.248		1.20	1.10	1.15
84	E'11-E11	75	24955.31	24.96	0.0	25.0	74.9	0.07	0.0009	0.70	0.011	200	220	0.34	234.445	234.347	233.245	232.904		1.20	1.44	1.32
85	E11- E12	58	13972.50	13.97	470.3	484.2	1452.7	1.45	0.0168	0.61	0.022	300	500	0.12	234.347	234.052	229.699	229.583		4.65	4.47	4.56
86	E'18- E12	125	27945.00	27.95	0.0	27.9	83.8	0.08	0.0010	0.70	0.011	200	220	0.57	233.835	234.052	232.635	232.067		1.20	1.99	1.59
87	E3'- E12	73	17465.63	17.47	0.0	17.5	52.4	0.05	0.0006	0.70	0.011	200	220	0.33	234.216	234.052	233.016	232.684		1.20	1.37	1.28
88	E12- E14	55	13972.50	13.97	529.6	543.6	1630.9	1.63	0.0189	0.61	0.022	300	500	0.11	234.052	233.765	229.583	229.473	229.448	4.47	4.29	4.38
89	E4'-E14	73	24451.88	24.45	0.0	24.5	73.4	0.07	0.0008	0.70	0.011	200	220	0.33	233.933	233.765	232.733	232.401		1.20	1.36	1.28
	-																					
90	E5'-E15	70	8732.81	8.73	0.0	8.7	26.2	0.03	0.0003	0.70	0.011	200	220	0.32	233.618	233.462	232.418	232.100		1.20	1.36	1.28
91	E'20-E15	150	20465.63	20.47	0.0	20.5	61.4	0.06	0.0007	0.70	0.011	200	220	0.68	233.197	233.462	231.997	231.315		1.20	2.15	1.67
92	E15-E14	54	13972.50	13.97	29.2	43.2	129.5	0.13	0.0015	0.70	0.011	200	220	0.25	233.462	233.765	231.315	231.070		2.15	2.70	2.42
	-																					
93	E14-E19	189	77195.63	77.20	611.2	688.4	2065.3	2.07	0.0239	0.62	0.030	350	600	0.32	233.765	233.405	229.448	229.133		4.32	4.27	4.29
94	82E19-82E	49	0.00	0.00	688.4	688.4	2065.3	2.07	0.0239	0.62	0.030	350	600	0.08	233.405	233.337	229.133	229.051	229.001	4.27	4.29	4.28
	-																					
95	82E-STP 3	15	0.00	0.00	1340.8	1340.8	4022.3	4.02	0.0466	0.63	0.050	450	800	0.02	233.337	233.539	229.001	228.982		4.34	4.56	4.45
	-	6607	1313202.969	1313.203	393.96																	
	-																					
96	82A46-82A63	47	15719.06	15.72	0.00	15.72	47.16	0.05	0.0005	0.80	0.023	200	220	0.21	235.248	235.236	234.048	233.834		1.20	1.40	1.30
97	82A63-82A62	71	3000.00	3.00	15.72	18.72	56.16	0.06	0.0006	0.80	0.023	200	220	0.32	235.236	235.222	233.834	233.511		1.40	1.71	1.56
98	82A44-82A62	70	6986.25	6.99	0.00	6.99	20.96	0.02	0.0002	0.80	0.023	200	220	0.32	235.239	235.222	234.039	233.720		1.20	1.50	1.35
99	82A62-82A43	15	1875.00	1.88	25.71	27.58	82.74	0.08	0.0010	0.80	0.023	200	220	0.07	235.222	235.220	233.511	233.443		1.71	1.78	1.74
100	82A43-	35	0.00	0.00	27.58	27.58	82.74	0.08	0.0010	0.80	0.023	200	220	0.16	235.220	235.220	233.443	233.284		1.78	1.94	1.86
	-	238	27580.3125	27.58031																		
	SECTOR 82-																					
101	82B21-82B22	95	23394.38	23.39	0.00	23.39	70.18	0.07	0.0008	0.70	0.011	200	220	0.43	235.012	234.893	233.812	233.380		1.20	1.51	1.36
102	B22-B27	60	0.00	0.00	23.39	23.39	70.18	0.07	0.0008	0.70	0.011	200	220	0.27	234.893	234.834	233.380	233.108		1.51	1.73	1.62
103	B28- B27	92	15598.13	15.60	0.00	15.60	46.79	0.05	0.0005	0.70	0.011	200	220	0.42	234.857	234.834	233.657	233.239		1.20	1.60	1.40
104	B27- B26	49	5842.50	5.84	38.99	44.84	134.51	0.13	0.0016	0.70	0.011	200	220	0.22	234.834	234.660	233.108	232.885		1.73	1.77	1.75
105	B34- B26	102	21810.00	21.81	0.00	21.81	65.43	0.07	0.0008	0.70	0.011	200	220	0.46	234.820	234.660	233.620	233.156		1.20	1.50	1.35
106	B26-B25	5	0.00	0.00	66.65	66.65	199.94	0.20	0.0023	0.70	0.011	200	220	0.02	234.660	234.632	232.885	232.862		1.77	1.77	1.77
107	B23'- B25	82	15035.63	15.04	0.00	15.04	45.11	0.05	0.0005	0.70	0.011	200	220	0.37	234.842	234.632	233.642	233.270		1.20	1.36	1.28
108	B25-B32	51	9568.13	9.57	81.68	91.25	273.75	0.27	0.0032	0.70	0.011	200	220	0.23	234.632	234.454	232.862	232.630		1.77	1.82	1.80
109	B35- B32	95	21253.13	21.25	0.00	21.25	63.76	0.06	0.0007	0.70	0.011	200	220	0.43	234.601	234.454	233.401	232.969		1.20	1.48	1.34
110	B32- B31	5	0.00	0.00	112.50	112.50	337.51	0.34	0.0039	0.70	0.011	200	220	0.02	234.454	234.435	232.630	232.608		1.82	1.83	1.83
111	B33- B31	45	2733.75	2.73	0.00	2.73	8.20	0.01	0.0001	0.70	0.011	200	220	0.20	234.445	234.435	233.245	233.040		1.20	1.40	1.30
112	B31- B30	40	2050.31	2.05	115.24	117.29	351.86	0.35	0.0041	0.70	0.011	200	220	0.18	234.435	234.281	232.608	232.426		1.83	1.86	1.84
113	B29- B30	95	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	0.70	0.011	200	220	0.43	234.509	234.281	233.309	232.878		1.20	1.40	1.30
114	B30- B9	34	2050.31	2.05	117.29	119.34	358.01	0.36	0.0041	0.70	0.011	200	220	0.15	234.281	234.226	232.426	232.271		1.86	1.95	1.91
115	B9- B10	56	9405.00	9.41	119.34	128.74	386.22	0.39	0.0045	0.70	0.011	200	220	0.25	234.226	234.415	232.271	232.017		1.95	2.40	2.18

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Design Statement of Waste Water Collection System

Sr. No	Line No.	Length of Sewer Line	Quantity waste water generation	Quantity of Waste Water generated			Quantity of Waste Water flow during peak hours	Discharge		Velocity	Flow	Size of sewer line	Slope	Fall	Formation Level		Invert Level			Depth		
				Self	Branch	Total	Total discharge @ 3 times Average Flow								Upper end	Lower end	Upper end	Lower end		Upper end	Lower end	Avg
	-		L	KLD	KLD	KLD	KLD	MLD	Cu.m.	M/sec	Cu.m.	mm	-	M	M	M	M	M	M	M	M	M
1	2	2	3	4	5	6	7	8	9	10	11	12	13	15	16	17	18	19	20	21	22	23
	-																					
116	C'4-C2	34	15163.13	15.16	0.00	15.16	45.49	0.05	0.0005	0.80	0.023	200	220	0.15	233.553	233.811	232.353	232.198		1.20	1.61	1.41
117	C2-F35	42	1125.00	1.13	15.16	16.29	48.86	0.05	0.0006	0.70	0.011	200	220	0.19	233.811	234.195	232.198	232.008		1.61	2.19	1.90
118	F35-F'32	33	937.50	0.94	16.29	17.23	51.68	0.05	0.0006	0.70	0.011	200	220	0.15	234.195	234.237	232.008	231.858		2.19	2.38	2.28
119	F'32-B10	87	6780.00	6.78	17.23	24.01	72.02	0.07	0.0008	0.70	0.011	200	220	0.40	234.237	234.415	231.858	231.462		2.38	2.95	2.67
	-																					
120	B10-B11	66	12301.88	12.30	152.75	165.05	495.15	0.50	0.0057	0.70	0.011	200	220	0.30	234.415	234.430	231.462	231.162		2.95	3.27	3.11
121	B'12-B11	95	44763.75	44.76	0.00	44.76	134.29	0.13	0.0016	0.70	0.011	200	220	0.43	234.563	234.430	233.363	232.932		1.20	1.50	1.35
122	B11-C1	54	5467.50	5.47	209.81	215.28	645.84	0.65	0.0075	0.70	0.011	200	220	0.25	234.430	234.105	231.162	230.917		3.27	3.19	3.23
123	C1-C21	158	34260.94	34.26	215.28	249.54	748.62	0.75	0.0087	0.70	0.011	200	220	0.72	234.105	234.319	230.917	230.198		3.19	4.12	3.65
124	C'21-C21	8	1746.56	1.75	0.00	1.75	5.24	0.01	0.0001	0.70	0.011	200	220	0.04	234.322	234.319	233.122	233.085		1.20	1.23	1.22
125	C21-C22	68	5239.69	5.24	251.29	256.53	769.58	0.77	0.0089	0.70	0.011	200	220	0.31	234.319	234.055	230.198	229.889		4.12	4.17	4.14
126	C22-C24	29	1875.00	1.88	256.53	258.40	775.21	0.78	0.0090	0.70	0.011	200	220	0.13	234.055	233.746	229.889	229.758		4.17	3.99	4.08
127	C'24-C42	100	12423.75	12.42	258.40	270.83	812.48	0.81	0.0094	0.70	0.011	200	220	0.45	233.746	233.778	229.758	229.303	229.278	3.99	4.47	4.23
	-																					
128	C'43-C43	39	6739.69	6.74	0.00	6.74	20.22	0.02	0.0002	0.70	0.011	200	220	0.18	233.814	233.796	232.614	232.436		1.20	1.36	1.28
129	C43-C42	54	0.00	0.00	6.74	6.74	20.22	0.02	0.0002	0.70	0.011	200	220	0.25	233.796	233.778	232.436	232.191		1.36	1.59	1.47
	-																					
130	C42-C44	78	17653.13	17.65	277.57	295.22	885.66	0.89	0.0103	0.61	0.015	250	400	0.20	233.778	233.598	229.278	229.083		4.50	4.51	4.51
131	C44-C45	34	562.50	0.56	295.22	295.78	887.34	0.89	0.0103	0.61	0.015	250	400	0.09	233.598	233.495	229.083	228.998		4.51	4.50	4.51
132	C45-C26	51	1687.50	1.69	295.78	297.47	892.41	0.89	0.0103	0.61	0.015	250	400	0.13	233.495	233.355	228.998	228.871		4.50	4.48	4.49
133	C27-C26	29	6986.25	6.99	0.00	6.99	20.96	0.02	0.0002	0.70	0.011	200	220	0.13	233.365	233.355	232.165	232.033		1.20	1.32	1.26
134	C26-C'25	65	8732.81	8.73	304.46	313.19	939.56	0.94	0.0109	0.61	0.015	250	400	0.16	233.355	233.321	228.871	228.708		4.48	4.61	4.55
135	C'25-C47	126	3375.00	3.38	313.19	316.56	949.69	0.95	0.0110	0.61	0.015	250	400	0.32	233.321	232.988	228.708	228.393		4.61	4.59	4.60
136	C47-C7	90	16114.69	16.11	316.56	332.68	998.03	1.00	0.0116	0.68	0.031	250	400	0.23	232.988	233.040	228.393	228.168		4.65	4.82	4.73
137	82C7-82C48	14	1746.56	1.75	332.68	334.42	1003.3	1.00	0.0116	0.68	0.031	250	400	0.04	233.040	232.907	228.168	228.133	228.108	4.87	4.77	4.82
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	-																					
138	82C'30-82C30	27	1366.88	1.37	0.00	1.37	4.10	0.00	0.0000	0.70	0.011	200	220	0.12	232.959	232.954	231.759	231.636		1.20	1.32	1.26
139	C49-C30	60	10288.13	10.29	0.00	10.29	30.86	0.03	0.0004	0.70	0.011	200	220	0.27	232.973	232.954	231.773	231.500		1.20	1.45	1.33
140	C30-C31	55	4100.63	4.10	11.66	15.76	47.27	0.05	0.0005	0.70	0.011	200	220	0.25	232.954	232.726	231.500	231.250		1.45	1.48	1.46
141	C32-C31	43	6913.13	6.91	0.00	6.91	20.74	0.02	0.0002	0.70	0.011	200	220	0.20	232.740	232.726	231.540	231.344		1.20	1.38	1.29
142	C31-C34	58	0.00	0.00	22.67	22.67	68.01	0.07	0.0008	0.70	0.011	200	220	0.26	232.726	232.518	231.250	230.987		1.48	1.53	1.50
	-																					
143	81'2-B'7	85	56250.00	56.25	0.00	56.25	168.75	0.17	0.0020	0.70	0.011	200	220	0.39	232.574	232.540	231.374	230.988		1.20	1.55	1.38
144	81'1-B'7	27	56250.00	56.25	0.00	56.25	168.75	0.17	0.0020	0.70	0.011	200	220	0.12	232.552	232.540	231.352	231.229		1.20	1.31	1.26
145	B'7-82C34	87	37500.00	37.50	112.50	150.00	450.00	0.45	0.0052	0.70	0.011	200	220	0.40	232.540	232.518	230.988	230.592		1.55	1.93	1.74
	-																					
146	C34-C50	77	4922.22	4.92	172.67	177.59	532.77	0.53	0.0062	0.70	0.011	200	220	0.35	232.518	232.619	230.592	230.242		1.93	2.38	2.15
	-																					
147	C14-C36	154	31565.63	31.57	0.00	31.57	94.70	0.09	0.0011	0.70	0.011	200	220	0.70	232.410	232.239	231.210	230.510		1.20	1.73	1.46
148	C36-C35	75	0.00	0.00	31.57	31.57	94.70	0.09	0.0011	0.70	0.011	200	220	0.34	232.239	232.216	230.510	230.169		1.73	2.05	1.89
149	C'12-C35	161	43843.13	43.84	0.00	43.84	131.53	0.13	0.0015	0.70	0.011	200	220	0.73	232.592	232.216	231.392	230.660		1.20	1.56	1.38
150	C35-C50	69	0.00	0.00	75.41	75.41	226.23	0.23	0.0026	0.70	0.011	200	220	0.31	232.216	232.619	230.169	229.855		2.05	2.76	2.41
	-																					
151	C51-C50	98	16693.13	16.69	0.00	16.69	50.08	0.05	0.0006	0.70	0.011	200	220	0.45	232.713	232.619	231.513	231.067		1.20	1.55	1.38
	-																					
152	C50-C33	93	0.00	0.00	269.69	269.69	809.08	0.81	0.0094	0.70	0.011	200	220	0.42	232.619	232.934	229.855	229.432		2.76	3.50	3.13

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Design Statement of Waste Water Collection System

Sr. No	Line No.	Length of Sewer Line	Quantity waste water generation	Quantity of Waste Water generated			Quantity of Waste Water flow during peak hours	Discharge		Velocity	Flow	Size of sewer line	Slope	Fall	Formation Level		Invert Level			Depth		
				Self	Branch	Total	Total discharge @ 3 times Average Flow								Upper end	Lower end	Upper end	Lower end		Upper end	Lower end	Avg
			- L	KLD	KLD	KLD	KLD	MLD	Cu.m.	M/sec	Cu.m.	mm		M	M	M	M	M	M	M	M	M
1	2	2	3	4	5	6	7	8	9	10	11	12	13	15	16	17	18	19	20	21	22	23
153	82C33-82C48	147	7663.13	7.66	269.69	277.36	832.07	0.83	0.0096	0.70	0.011	200	220	0.67	232.934	232.907	229.432	228.764		3.50	4.14	3.82
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154	82C48-82C8	38	1746.56	1.75	611.78	613.53	1840.6	1.84	0.0213	0.61	0.039	300	500	0.08	232.907	232.845	228.108	228.032		4.80	4.81	4.81
155	F29-C8	41	11979.38	11.98	0.00	11.98	35.9	0.04	0.0004	0.70	0.011	200	220	0.19	232.860	232.845	231.660	231.474		1.20	1.37	1.29
156	C8- F'30	72	3000.00	3.00	625.51	628.51	1885.5	1.89	0.0218	0.69	0.044	300	500	0.14	232.845	232.733	228.032	227.888	227.863	4.81	4.85	4.83
157	F31-F'30	6	3434.06	3.43	0.00	3.43	10.30	0.01	0.0001	0.70	0.011	200	220	0.03	232.669	232.733	231.469	231.442		1.20	1.29	1.25
158	82F'30-82D'20	40	4500.00	4.50	631.94	636.44	1909.3	1.91	0.0221	0.62	0.030	350	600	0.07	232.733	232.705	227.863	227.796		4.87	4.91	4.89
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159	82B17-82B16	34	8989.69	8.99	0.00	8.99	26.97	0.03	0.0003	0.70	0.011	200	220	0.15	235.406	235.401	234.206	234.052		1.20	1.35	1.27
160	B16-B15	123	16715.21	16.72	8.99	25.70	77.11	0.08	0.0009	0.70	0.011	200	220	0.56	235.401	235.377	234.052	233.492		1.35	1.88	1.62
161	B15-B37	188	5239.69	5.24	25.70	30.94	92.83	0.09	0.0011	0.70	0.011	200	220	0.85	235.377	234.542	233.492	232.638		1.88	1.90	1.89
162	B37- B36	46	0.00	0.00	30.94	30.94	92.83	0.09	0.0011	0.70	0.011	200	220	0.21	234.542	234.536	232.638	232.429		1.90	2.11	2.01
163	B1-B36	69	32573.44	32.57	0.00	32.57	97.72	0.10	0.0011	0.70	0.011	200	220	0.31	234.633	234.536	233.433	233.119		1.20	1.42	1.31
164	B36- E'2	45	1125.00	1.13	63.52	64.64	193.93	0.19	0.0022	0.70	0.011	200	220	0.20	234.536	234.485	232.429	232.224		2.11	2.26	2.18
165	E'2-E3	29	3493.13	3.49	64.64	68.14	204.41	0.20	0.0024	0.70	0.011	200	220	0.13	234.485	234.216	232.224	232.092		2.26	2.12	2.19
	-																					
166	B24'- B4	157	20958.75	20.96	0.00	20.96	62.88	0.06	0.0007	0.70	0.011	200	220	0.71	234.833	233.783	233.633	232.920		1.20	0.86	1.03
167	B4-B3	54	13972.50	13.97	20.96	34.93	104.79	0.10	0.0012	0.70	0.011	200	220	0.25	233.783	234.019	232.920	232.674		0.86	1.34	1.10
	-																					
168	B24-B23	29	14486.25	14.49	0.00	14.49	43.46	0.04	0.0005	0.70	0.011	200	220	0.13	234.833	234.842	233.633	233.501		1.20	1.34	1.27
169	B23- B3	208	68056.88	68.06	14.49	82.54	247.63	0.25	0.0029	0.70	0.011	200	220	0.95	234.842	234.019	233.501	232.556		1.34	1.46	1.40
	-																					
170	B3-B2	55	13972.50	13.97	117.47	131.45	394.34	0.39	0.0046	0.70	0.011	200	220	0.25	234.019	234.299	232.556	232.306		1.46	1.99	1.73
171	B6-B2	46	17933.94	17.93	0.00	17.93	53.80	0.05	0.0006	0.70	0.011	200	220	0.21	234.592	234.299	233.392	233.183		1.20	1.12	1.16
172	B2-E3	61	3493.13	3.49	149.38	152.87	458.62	0.46	0.0053	0.70	0.011	200	220	0.28	234.299	234.216	232.306	232.029		1.99	2.19	2.09
	-																					
173	E3- E4	55	12225.94	12.23	221.01	233.24	699.71	0.70	0.0081	0.70	0.011	200	220	0.25	234.216	233.938	232.029	231.779		2.19	2.16	2.17
174	E4- E5	54	12225.94	12.23	233.24	245.46	736.39	0.74	0.0085	0.70	0.011	200	220	0.25	233.938	233.618	231.779	231.533		2.16	2.08	2.12
175	E5-E6	19	0.00	0.00	245.46	245.46	736.39	0.74	0.0085	0.70	0.011	200	220	0.09	233.618	233.553	231.533	231.447		2.08	2.11	2.10
176	E'7- E6	67	53979.38	53.98	0.00	53.979	161.94	0.16	0.0019	0.70	0.011	200	220	0.30	233.246	233.553	232.046	231.741		1.20	1.81	1.51
177	E6- B5	64	0.00	0.00	299.44	299.44	898.32	0.90	0.0104	0.70	0.011	200	220	0.29	233.553	233.671	231.447	231.156	231.131	2.11	2.52	2.31
178	F9-B5	33	13972.50	13.97	0.00	13.97	41.92	0.04	0.0005	0.70	0.011	200	220	0.15	233.545	233.671	232.345	232.195		1.20	1.48	1.34
179	B5- B7	197	17465.63	17.47	313.41	330.88	992.64	0.99	0.0115	0.61	0.015	250	400	0.49	233.671	233.980	231.131	230.638		2.54	3.34	2.94
	-																					
180	F33-B8	30	10993.13	10.99	0.00	10.99	32.98	0.03	0.0004	0.70	0.011	200	220	0.14	234.070	234.030	232.870	232.734		1.20	1.30	1.25
181	B8- B7	59	20625.00	20.63	10.99	31.62	94.85	0.09	0.0011	0.70	0.011	200	220	0.27	234.030	233.980	232.734	232.465		1.30	1.51	1.41
	-																					
182	B7- F1	55	10479.38	10.48	362.50	372.98	1118.9	1.12	0.0130	0.61	0.015	250	400	0.14	233.980	233.884	230.638	230.501	230.476	3.34	3.38	3.36
183	F9'- F1	159	59452.50	59.45	0.00	59.45	178.4	0.18	0.0021	0.70	0.011	200	220	0.72	233.545	233.884	232.345	231.622		1.20	2.26	1.73
184	F1- F2	57	12564.34	12.56	432.43	444.99	1335.0	1.33	0.0155	0.61	0.022	300	500	0.11	233.884	233.801	230.476	230.362		3.41	3.44	3.42
	-																					
185	F19-F18	18	6986.25	6.99	0.00	6.99	20.96	0.02	0.0002	0.70	0.011	200	220	0.08	233.550	233.523	232.350	232.268		1.20	1.25	1.23
186	F18-F16	13	0.00	0.00	6.99	6.99	20.96	0.02	0.0002	0.70	0.011	200	220	0.06	233.523	233.490	232.268	232.209		1.25	1.28	1.27
187	F11-F16	93	13569.58	13.57	0.00	13.57	40.71	0.04	0.0005	0.70	0.011	200	220	0.42	233.323	233.490	232.123	231.700		1.20	1.79	1.49
188	F16-F15	53	5239.69	5.24	20.56	25.80	77.39	0.08	0.0009	0.70	0.011	200	220	0.24	233.490	233.266	231.700	231.459		1.79	1.81	1.80
189	F15-F14	55	5239.69	5.24	25.80	31.04	93.11	0.09	0.0011	0.70	0.011	200	220	0.25	233.266	233.515	231.459	231.209		1.81	2.31	2.06

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Design Statement of Waste Water Collection System

Sr. No	Line No.	Length of Sewer Line	Quantity waste water generation	Quantity of Waste Water generated			Quantity of Waste Water flow during peak hours	Discharge		Velocity	Flow	Size of sewer line	Slope	Fall	Formation Level		Invert Level			Depth		
				Self	Branch	Total	Total discharge @ 3 times Average Flow								Upper end	Lower end	Upper end	Lower end		Upper end	Lower end	Avg
			L	KLD	KLD	KLD	KLD	MLD	Cu.m.	M/sec	Cu.m.	mm		M	M	M	M	M	M	M	M	M
1	2	2	3	4	5	6	7	8	9	10	11	12	13	15	16	17	18	19	20	21	22	23
190	F14- F2	176	33184.69	33.18	31.04	64.22	192.66	0.19	0.0022	0.70	0.011	200	220	0.80	233.515	233.801	231.209	230.409		2.31	3.39	2.85
	-																					
191	F2-F3	54	5239.69	5.24	509.21	514.45	1543.4	1.54	0.0179	0.69	0.044	300	500	0.11	233.801	233.552	230.362	230.254		3.44	3.30	3.37
192	F15'-F3	147	45410.63	45.41	0.00	45.41	136.2	0.14	0.0016	0.70	0.011	200	220	0.67	233.266	233.552	232.066	231.398		1.20	2.15	1.68
193	F3-F4	6	1746.56	1.75	559.86	561.61	1684.8	1.68	0.0195	0.69	0.044	300	500	0.01	233.552	233.472	230.254	230.242		3.30	3.23	3.26
194	F12- F4	40	5239.69	5.24	0.00	5.24	15.72	0.02	0.0002	0.70	0.011	200	220	0.18	233.551	233.472	232.351	232.169		1.20	1.30	1.25
195	F4- F5	27	3493.13	3.49	566.85	570.34	1711.0	1.71	0.0198	0.69	0.044	300	500	0.05	233.472	233.364	230.242	230.188		3.23	3.18	3.20
	-																					
196	F21'-F20	81	12354.38	12.35	0.00	12.35	37.06	0.04	0.0004	0.70	0.011	200	220	0.37	233.109	233.321	231.909	231.540		1.20	1.78	1.49
197	F20-F5	19	3136.54	3.14	12.35	15.49	46.47	0.05	0.0005	0.70	0.011	200	220	0.09	233.321	233.364	231.540	231.454		1.78	1.91	1.85
	-																					
198	F5- F6	89	37500.00	37.50	585.83	623.33	1870.0	1.87	0.0216	0.69	0.044	300	500	0.18	233.364	233.031	230.188	230.010		3.18	3.02	3.10
199	F21-F6	43	6986.25	6.99	0.00	6.99	20.96	0.02	0.0002	0.70	0.011	200	220	0.20	233.109	233.031	231.909	231.713		1.20	1.32	1.26
	-																					
200	F24-F23	98	22705.31	22.71	0.00	22.71	68.12	0.07	0.0008	0.70	0.011	200	220	0.45	233.271	233.121	232.071	231.625		1.20	1.50	1.35
201	F23- F6	59	5239.69	5.24	22.71	27.95	83.84	0.08	0.0010	0.70	0.011	200	220	0.27	233.121	233.031	231.625	231.357		1.50	1.67	1.58
	-																					
202	F6- F7	129	26198.44	26.20	658.27	684.46	2053.39	2.05	0.0238	0.69	0.044	300	500	0.26	233.031	232.443	230.010	229.752		3.02	2.69	2.86
203	F26- F7	75	24687.81	24.69	0.00	24.69	74.06	0.07	0.0009	0.70	0.011	200	220	0.34	232.549	232.443	231.349	231.008		1.20	1.44	1.32
204	F25- F7	29	8529.30	8.53	0.00	8.53	25.59	0.03	0.0003	0.70	0.011	200	220	0.13	232.502	232.443	231.302	231.171		1.20	1.27	1.24
205	F7- F8	66	0.00	0.00	717.68	717.68	2153.0	2.15	0.0249	0.69	0.044	300	500	0.13	232.443	232.315	229.752	229.620		2.69	2.69	2.69
206	D'1- F8	37	9177.19	9.18	0.00	9.18	27.53	0.03	0.0003	0.53	0.015	200	500	0.07	232.211	232.315	231.011	230.937		1.20	1.38	1.29
207	F8- F27	43	3493.13	3.49	726.86	730.35	2191.1	2.19	0.0254	0.69	0.044	300	500	0.09	232.315	232.380	229.620	229.534		2.69	2.85	2.77
	-																					
208	F34-F36	43	10361.25	10.36	0.00	10.36	31.1	0.03	0.0004	0.70	0.011	200	220	0.20	232.871	232.861	231.671	231.476		1.20	1.39	1.29
209	F36-F28	73	750.00	0.75	10.36	11.11	33.3	0.03	0.0004	0.70	0.011	200	220	0.33	232.861	232.669	231.476	231.144		1.39	1.53	1.46
210	F28-F27	174	43664.06	43.66	11.11	54.78	164.3	0.16	0.0019	0.70	0.011	200	220	0.79	232.669	232.380	231.144	230.353		1.53	2.03	1.78
	-																					
211	F27-D'22	36	12375.00	12.38	785.13	797.50	2392.5	2.39	0.0277	0.69	0.044	300	500	0.07	232.380	232.846	229.534	229.462		2.85	3.38	3.11
212	D'22- D38	53	8989.69	8.99	797.50	806.49	2419.5	2.42	0.0280	0.69	0.044	300	500	0.11	232.846	232.772	229.462	229.356		3.38	3.42	3.40
	-																					
213	D40- D39	40	13291.88	13.29	0.00	13.29	39.88	0.04	0.0005	0.70	0.011	200	220	0.18	232.794	232.782	231.594	231.412		1.20	1.37	1.28
214	D39- D38	62	0.00	0.00	13.29	13.29	39.88	0.04	0.0005	0.70	0.011	200	220	0.28	232.782	232.772	231.412	231.131		1.37	1.64	1.51
	-																					
215	82D38-	152	31438.13	31.44	819.78	851.22	2553.7	2.55	0.0296	0.69	0.044	300	500	0.30	232.772	232.705	229.356	229.052		3.42	3.65	3.53
	-																					
	-																					
216	82D'20-82D'23	69	1875.00	1.88	1487.7	1489.5	4468.6	4.47	0.0517	0.70	0.061	350	600	0.12	232.705	232.774	227.796	227.681		4.91	5.09	5.00
217	D24-D'23	49	9568.13	9.57	0.0	9.6	28.7	0.03	0.0003	0.70	0.061	350	600	0.08	232.793	232.774	231.593	231.511		1.20	1.26	1.23
218	82D'23-	150	1312.50	1.31	1499.1	1500.4	4501.3	4.50	0.0521	0.70	0.061	350	600	0.25	232.774	232.338	227.681	227.431		5.09	4.91	5.00
	-																					
	-																					
219	82C'53-82C53	140	32883.75	32.88	0.00	32.88	98.65	0.10	0.0011	0.70	0.011	200	220	0.64	232.042	231.993	230.842	230.206		1.20	1.79	1.49
220	C53-C52	60	0.00	0.00	32.88	32.88	98.65	0.10	0.0011	0.70	0.011	200	220	0.27	231.993	231.969	230.206	229.933		1.79	2.04	1.91
	-																					
221	C40-C38	8	3054.38	3.05	0.00	3.05	9.16	0.01	0.0001	0.70	0.011	200	220	0.04	231.772	231.952	230.572	230.536		1.20	1.42	1.31
222	C38-C52	40	0.00	0.00	3.05	3.05	9.16	0.01	0.0001	0.70	0.011	200	220	0.18	231.952	231.969	230.536	230.354		1.42	1.62	1.52
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Design Statement of Waste Water Collection System

Sr. No	Line No.	Length of Sewer Line	Quantity waste water generation	Quantity of Waste Water generated			Quantity of Waste Water flow during peak hours	Discharge		Velocity	Flow	Size of sewer line	Slope	Fall	Formation Level		Invert Level			Depth		
				Self	Branch	Total	Total discharge @ 3 times Average Flow								Upper end	Lower end	Upper end	Lower end		Upper end	Lower end	Avg
			L	KLD	KLD	KLD	KLD	MLD	Cu.m.	M/sec	Cu.m.	mm		M	M	M	M	M	M	M	M	M
1	2	2	3	4	5	6	7	8	9	10	11	12	13	15	16	17	18	19	20	21	22	23
223	C52-C16	214	39821.25	39.82	35.94	75.76	227.28	0.23	0.0026	0.70	0.011	200	220	0.97	231.969	232.281	229.933	228.960		2.04	3.32	2.68
	-																					
224	C41-C54	89	12138.75	12.14	0.00	12.14	36.42	0.04	0.0004	0.70	0.011	200	220	0.40	231.662	231.882	230.462	230.058		1.20	1.82	1.51
225	C54-C20	81	0.00	0.00	12.14	12.14	36.42	0.04	0.0004	0.80	0.023	200	220	0.37	231.882	232.018	230.058	229.689		1.82	2.33	2.08
226	C20-C'18	82	0.00	0.00	12.14	12.14	36.42	0.04	0.0004	0.80	0.023	200	220	0.37	232.018	232.191	229.689	229.317		2.33	2.87	2.60
227	C'18-C16	30	3991.88	3.99	12.14	16.13	48.39	0.05	0.0006	0.80	0.023	200	220	0.14	232.191	232.281	229.317	229.180		2.87	3.10	2.99
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228	82C16-82D'26	28	0.00	0.00	91.89	91.89	275.67	0.28	0.0032	0.70	0.011	200	220	0.13	232.281	232.338	228.960	228.833		3.32	3.50	3.41
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229	82D'26-	48	2437.50	2.44	1592.3	1594.7	4784.2	4.78	0.0554	0.70	0.061	350	600	0.08	232.338	232.318	227.431	227.351		4.91	4.97	4.94
230	D'27-D'28	219	0.00	0.00	1594.7	1594.7	4784.2	4.78	0.0554	0.70	0.061	350	600	0.37	232.318	232.245	227.351	226.986		4.97	5.26	5.11
231	D'28- D29	103	14545.31	14.55	1594.7	1609.3	4827.9	4.83	0.0559	0.70	0.061	350	600	0.17	232.245	232.775	226.986	226.815		5.26	5.96	5.61
232	D25- D29	69	14029.51	14.03	0.0	14.0	42.1	0.04	0.0005	0.70	0.011	200	220	0.31	232.822	232.775	231.622	231.308		1.20	1.47	1.33
233	D29- D32	66	6986.25	6.99	1623.3	1630.3	4890.9	4.89	0.0566	0.70	0.061	350	600	0.11	232.775	232.723	226.815	226.705		5.96	6.02	5.99
234	D'31- D32	10	8555.63	8.56	0.00	8.56	25.67	0.03	0.0003	0.70	0.011	200	220	0.05	232.621	232.723	231.421	231.376		1.20	1.35	1.27
235	D32- D33	70	11496.56	11.50	1638.9	1650.4	4951.1	4.95	0.0573	0.70	0.061	350	600	0.12	232.723	231.383	226.705	226.588		6.02	4.79	5.41
236	D34- D33	48	21354.38	21.35	0.00	21.35	64.06	0.06	0.0007	0.70	0.011	200	220	0.22	231.395	231.383	230.195	229.977		1.20	1.41	1.30
237	82D33-	65	562.50	0.56	1671.7	1672.3	5016.8	5.02	0.0581	0.70	0.061	350	600	0.11	231.383	231.339	226.588	226.480	226.455	4.79	4.86	4.83
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238	82D'3- 82D'2	50	8225.63	8.23	0.00	8.23	24.68	0.02	0.0003	0.80	0.023	200	220	0.23	232.098	232.178	230.898	230.671		1.20	1.51	1.35
239	D'2-D6	77	3246.56	3.25	8.23	11.47	34.42	0.03	0.0004	0.70	0.011	200	220	0.35	232.178	231.618	230.671	230.321		1.51	1.30	1.40
240	D'5-D6	11	8180.63	8.18	0.00	8.18	24.54	0.02	0.0003	0.70	0.011	200	220	0.05	231.626	231.618	230.426	230.376		1.20	1.24	1.22
241	D6-D7	53	16146.03	16.15	19.65	35.80	107.40	0.11	0.0012	0.70	0.011	200	220	0.24	231.618	231.542	230.321	230.080		1.30	1.46	1.38
242	D8-D7	134	42667.50	42.67	0.00	42.67	128.00	0.13	0.0015	0.70	0.011	200	220	0.61	231.360	231.542	230.160	229.551		1.20	1.99	1.60
243	D7-D11	53	6986.25	6.99	78.47	85.45	256.36	0.26	0.0030	0.70	0.011	200	220	0.24	231.542	231.401	229.551	229.310		1.99	2.09	2.04
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244	D'14-D10	10	7805.63	7.81	0.00	7.81	23.42	0.02	0.0003	0.70	0.011	200	220	0.05	231.295	231.291	230.095	230.050		1.20	1.24	1.22
245	D10-D11	84	12225.94	12.23	7.81	20.03	60.09	0.06	0.0007	0.70	0.011	200	220	0.38	231.291	231.401	230.050	229.668		1.24	1.73	1.49
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246	D11- D'15	73	10232.81	10.23	105.48	115.72	347.15	0.35	0.0040	0.70	0.011	200	220	0.33	231.401	231.380	229.310	228.979		2.09	2.40	2.25
247	D'15- D16	59	6937.50	6.94	115.72	122.65	367.96	0.37	0.0043	0.70	0.011	200	220	0.27	231.380	231.362	228.979	228.710		2.40	2.65	2.53
248	D'18- D16	41	8732.81	8.73	0.00	8.73	26.20	0.03	0.0003	0.70	0.011	200	220	0.19	231.512	231.362	230.312	230.125		1.20	1.24	1.22
249	D16-D'19	43	2062.50	2.06	131.39	133.45	400.35	0.40	0.0046	0.70	0.011	200	220	0.20	231.362	231.351	228.710	228.515		2.65	2.84	2.74
250	D'19- D17	57	8732.81	8.73	133.45	142.18	426.55	0.43	0.0049	0.70	0.011	200	220	0.26	231.351	231.343	228.515	228.256		2.84	3.09	2.96
251	D41- D17	74	16222.50	16.22	0.00	16.22	48.67	0.05	0.0006	0.70	0.011	200	220	0.34	231.523	231.343	230.323	229.986		1.20	1.36	1.28
252	82D17-82D'21	16	7875.00	7.88	158.41	166.28	498.84	0.50	0.0058	0.70	0.011	200	220	0.07	231.343	231.339	228.256	228.183		3.09	3.16	3.12
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253	82D'21-82D'25	63	0.00	0.00	1838.6	1838.6	5515.7	5.52	0.0638	0.71	0.081	400	700	0.09	231.339	231.293	226.455	226.365		4.88	4.93	4.91
254	82D'25-X'	17	0.00	0.00	1838.6	1838.6	5515.7	5.52	0.0638	0.71	0.081	400	700	0.02	231.293	231.303	226.365	226.340		4.93	4.96	4.95
255	X'-X	81	0.00	0.00	1838.6	1838.6	5515.7	5.52	0.0638	0.71	0.081	400	700	0.12	231.303	230.469	226.340	226.225		4.96	4.24	4.60
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256	85C12-85C11	26	1125.00	1.13	0.00	1.13	3.38	0.00	0.0000	0.70	0.011	200	220	0.12	229.613	229.606	228.713	228.595		0.90	1.01	0.96
257	C21-C11	19	7155.00	7.16	0.00	7.16	21.47	0.02	0.0002	0.80	0.023	200	220	0.09	229.615	229.606	228.715	228.628		0.90	0.98	0.94

For VATIKA LIMITED

Authorised Signatory

Design Statement of Waste Water Collection System

Sr. No	Line No.	Length of Sewer Line	Quantity waste water generation	Quantity of Waste Water generated			Quantity of Waste Water flow during peak hours	Discharge		Velocity	Flow	Size of sewer line	Slope	Fall	Formation Level		Invert Level			Depth		
				Self	Branch	Total	Total discharge @ 3 times Average Flow								Upper end	Lower end	Upper end	Lower end		Upper end	Lower end	Avg
			L	KLD	KLD	KLD	KLD	MLD	Cu.m.	M/sec	Cu.m.	mm		M	M	M	M	M	M	M	M	M
1	2	2	3	4	5	6	7	8	9	10	11	12	13	15	16	17	18	19	20	21	22	23
258	C11-C10	55	3750.00	3.75	8.28	12.03	36.09	0.04	0.0004	0.80	0.023	200	220	0.25	229.606	229.598	228.595	228.345		1.01	1.25	1.13
259	C17-C10	61	20503.13	20.50	0.00	20.50	61.51	0.06	0.0007	0.70	0.011	200	220	0.28	229.642	229.598	228.442	228.164		1.20	1.43	1.32
260	C14-C10	103	23236.88	23.24	0.00	23.24	69.71	0.07	0.0008	0.61	0.015	250	400	0.26	229.617	229.598	228.417	228.160		1.20	1.44	1.32
261	C10-C9	58	0.00	0.00	55.77	55.770	167.31	0.17	0.0019	0.61	0.015	250	400	0.15	229.598	229.587	228.160	228.015		1.44	1.57	1.51
262	C7-C9	110	15035.63	15.04	0.00	15.036	45.11	0.05	0.0005	0.70	0.011	200	220	0.50	229.394	229.587	228.194	227.694		1.20	1.89	1.55
263	C9-C6	49	0.00	0.00	70.81	70.81	212.42	0.21	0.0025	0.61	0.015	250	400	0.12	229.587	229.577	227.694	227.571	227.546	1.89	2.01	1.95
264	C6-C5	65	5672.80	5.67	70.81	76.48	229.44	0.23	0.0027	0.61	0.022	300	500	0.13	229.577	229.737	227.546	227.416	227.366	2.03	2.32	2.18
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265	B39-B38	92	27590.63	27.59	0.00	27.591	82.77	0.08	0.0010	0.70	0.011	200	220	0.42	229.789	229.771	228.589	228.171		1.20	1.60	1.40
266	B38-B37	27	0.00	0.00	27.59	27.591	82.77	0.08	0.0010	0.70	0.011	200	220	0.12	229.771	229.760	228.171	228.048		1.60	1.71	1.66
267	B37-C5	140	17465.63	17.47	27.59	45.06	135.17	0.14	0.0016	0.70	0.011	200	220	0.64	229.760	229.737	228.048	227.412		1.71	2.33	2.02
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268	C5-C4	17	0.00	0.00	121.53	121.53	364.60	0.36	0.0042	0.63	0.039	400	700	0.02	229.737	229.777	227.366	227.342		2.37	2.44	2.40
269	C20-C4	90	30204.38	30.20	0.00	30.20	90.61	0.09	0.0010	0.70	0.011	200	220	0.41	229.798	229.777	228.598	228.189		1.20	1.59	1.39
270	C4-C3	20	TRUE	0.00	151.74	151.74	455.22	0.46	0.0053	0.63	0.039	400	700	0.03	229.777	229.822	227.342	227.313		2.44	2.51	2.47
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271	B41-B40	141	46308.75	46.31	0.00	46.31	138.93	0.14	0.0016	0.70	0.011	200	220	0.64	230.892	229.972	229.692	229.051		1.20	0.92	1.06
272	B42-B40	185	54271.88	54.27	0.00	54.27	162.82	0.16	0.0019	0.70	0.011	200	220	0.84	230.002	229.972	228.802	227.961		1.20	2.01	1.61
273	B40-C3	18	0.00	0.00	100.58	100.58	301.74	0.30	0.0035	0.80	0.023	200	220	0.08	229.972	229.822	227.961	227.879		2.01	1.94	1.98
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274	C3-C2	33	0.00	0.00	252.32	252.32	756.96	0.76	0.0088	0.63	0.039	400	700	0.05	229.822	229.895	227.313	227.266		2.51	2.63	2.57
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275	C17-C16	37	9568.13	9.57	0.00	9.57	28.70	0.03	0.0003	0.70	0.011	200	220	0.17	229.642	229.730	228.442	228.273		1.20	1.46	1.33
276	C18-C16	34	6834.38	6.83	0.00	6.83	20.50	0.02	0.0002	0.70	0.011	200	220	0.15	229.739	229.730	228.539	228.384		1.20	1.35	1.27
277	C16-C15	49	8201.25	8.20	16.40	24.60	73.81	0.07	0.0009	0.70	0.011	200	220	0.22	229.730	229.828	228.273	228.051		1.46	1.78	1.62
278	C19-C15	42	15598.13	15.60	0.00	15.60	46.79	0.05	0.0005	0.70	0.011	200	220	0.19	229.839	229.828	228.639	228.448		1.20	1.38	1.29
279	C15-C2	25	0.00	0.00	40.20	40.202	120.61	0.12	0.0014	0.70	0.011	200	220	0.11	229.828	229.895	228.051	227.937		1.78	1.96	1.87
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280	C2-C1	40	750.00	0.75	292.52	293.27	879.82	0.88	0.0102	0.63	0.039	400	700	0.06	229.895	229.973	227.266	227.209		2.63	2.76	2.70
281	C1-B36	67	375.00	0.38	293.27	293.65	880.94	0.88	0.0102	0.71	0.081	400	700	0.10	229.973	230.873	227.209	227.113		2.76	3.76	3.26
282	B36-B15	177	48213.75	48.21	293.65	341.86	1025.6	1.03	0.0119	0.63	0.039	400	700	0.25	230.873	231.227	227.113	226.860		3.76	4.37	4.06
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283	B25-B21	75	11643.75	11.64	0.00	11.64	34.9	0.03	0.0004	0.70	0.011	200	220	0.34	231.343	231.328	230.143	229.803		1.20	1.53	1.36
284	B29-B21	45	12808.13	12.81	0.00	12.81	38.4	0.04	0.0004	0.70	0.011	200	220	0.20	231.248	231.328	230.048	229.844		1.20	1.48	1.34
285	B21-B20	48	0.00	0.00	24.45	24.45	73.4	0.07	0.0008	0.70	0.011	200	220	0.22	231.328	231.337	229.803	229.584		1.53	1.75	1.64
286	B24-B20	53	20958.75	20.96	0.00	20.96	62.9	0.06	0.0007	0.70	0.011	200	220	0.24	231.347	231.337	230.147	229.907		1.20	1.43	1.32
287	B30-B20	85	36095.63	36.10	0.00	36.10	108.3	0.11	0.0013	0.70	0.011	200	220	0.39	231.197	231.337	229.997	229.610		1.20	1.73	1.46
288	B20-B19	40	0.00	0.00	81.51	81.51	244.5	0.24	0.0028	0.70	0.011	200	220	0.18	231.337	231.345	229.584	229.403		1.75	1.94	1.85
289	B31-B19	118	54725.63	54.73	0.00	54.73	164.2	0.16	0.0019	0.70	0.011	200	220	0.54	231.152	231.345	229.952	229.416		1.20	1.93	1.56
290	B19-B18	39	0.00	0.00	136.23	136.23	408.7	0.41	0.0047	0.70	0.011	200	220	0.18	231.345	231.353	229.403	229.225		1.94	2.13	2.04
291	B23-B18	57	22123.13	22.12	0.00	22.12	66.4	0.07	0.0008	0.70	0.011	200	220	0.26	231.376	231.353	230.176	229.917		1.20	1.44	1.32
292	B33-B18	152	83955.00	83.96	0.00	83.96	251.9	0.25	0.0029	0.70	0.011	200	220	0.69	230.846	231.353	229.646	228.955		1.20	2.40	1.80
293	B18-B17	42	1575.31	1.58	242.31	243.89	731.7	0.73	0.0085	0.70	0.011	200	220	0.19	231.353	231.359	228.955	228.765		2.40	2.59	2.50
294	B34-B17	146	72191.25	72.19	0.00	72.19	216.6	0.22	0.0025	0.70	0.011	200	220	0.66	230.806	231.359	229.606	228.942		1.20	2.42	1.81
295	B17-B16	49	0.00	0.00	316.08	316.08	948.2	0.95	0.0110	0.70	0.011	200	220	0.22	231.359	231.369	228.765	228.542	228.492	2.59	2.83	2.71
296	B22-B16	68	25616.25	25.62	0.00	25.62	76.8	0.08	0.0009	0.70	0.011	200	220	0.31	231.247	231.369	230.047	229.738		1.20	1.63	1.42
297	B35-B16	174	78013.13	78.01	0.00	78.01	234.0	0.23	0.0027	0.70	0.011	200	220	0.79	230.776	231.369	229.576	228.785		1.20	2.58	1.89
298	B16-B15	36	8150.63	8.15	419.71	427.86	1283.6	1.28	0.0149	0.61	0.022	300	500	0.07	231.369	231.227	228.492	228.420		2.88	2.81	2.84

For VATIKA LIMITED

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Design Statement of Waste Water Collection System

Sr. No	Line No.	Length of Sewer Line	Quantity waste water generation	Quantity of Waste Water generated			Quantity of Waste Water flow during peak hours	Discharge		Velocity	Flow	Size of sewer line	Slope	Fall	Formation Level		Invert Level			Depth		
				Self	Branch	Total	Total discharge @ 3 times Average Flow								Upper end	Lower end	Upper end	Lower end		Upper end	Lower end	Avg
			L	KLD	KLD	KLD	KLD	MLD	Cu.m.	M/sec	Cu.m.	mm		M	M	M	M	M	M	M	M	M
1	2	2	3	4	5	6	7	8	9	10	11	12	13	15	16	17	18	19	20	21	22	23
	-																					
299	B15-B14	46	562.50	0.56	769.72	770.28	2310.8	2.31	0.0267	0.63	0.039	400	700	0.07	231.227	231.218	226.860	226.795		4.37	4.42	4.39
300	B14-B7	50	13668.75	13.67	770.28	783.95	2351.8	2.35	0.0272	0.63	0.039	400	700	0.07	231.218	231.208	226.795	226.723		4.42	4.48	4.45
301	B12-B7	46	6834.38	6.83	0.00	6.83	20.5	0.02	0.0002	0.70	0.011	200	220	0.21	231.217	231.208	230.017	229.808		1.20	1.40	1.30
302	B7-B6	64	0.00	0.00	790.78	790.78	2372.4	2.37	0.0275	0.63	0.039	400	700	0.09	231.208	231.195	226.723	226.632		4.48	4.56	4.52
303	B11-B6	39	10935.00	10.94	0.00	10.94	32.8	0.03	0.0004	0.70	0.011	200	220	0.18	231.206	231.195	230.006	229.829		1.20	1.37	1.28
304	B6-B5	35	0.00	0.00	801.72	801.72	2405.2	2.41	0.0278	0.71	0.081	400	700	0.05	231.195	231.162	226.632	226.582		4.56	4.58	4.57
305	B10-B5	47	13668.75	13.67	0.00	13.67	41.0	0.04	0.0005	0.70	0.011	200	220	0.21	231.171	231.162	229.971	229.758		1.20	1.40	1.30
306	B5-B4	49	0.00	0.00	815.39	815.39	2446.2	2.45	0.0283	0.71	0.081	400	700	0.07	231.162	231.113	226.582	226.512		4.58	4.60	4.59
307	B9-B4	47	6834.38	6.83	0.00	6.83	20.5	0.02	0.0002	0.70	0.011	200	220	0.21	231.126	231.113	229.926	229.713		1.20	1.40	1.30
308	B4-B3	28	1366.88	1.37	822.22	823.59	2470.8	2.47	0.0286	0.71	0.081	400	700	0.04	231.113	231.098	226.512	226.472	226.397	4.60	4.63	4.61
309	B8-B3	10	4100.63	4.10	0.00	4.10	12.3	0.01	0.0001	0.70	0.011	200	220	0.05	231.103	231.098	229.903	229.858		1.20	1.24	1.22
310	B3-B2	154	40875.00	40.88	827.69	868.56	2605.7	2.61	0.0302	0.69	0.123	500	1000	0.15	231.098	231.017	226.397	226.243		4.70	4.77	4.74
311	B2-B1	28	0.00	0.00	868.56	868.56	2605.7	2.61	0.0302	0.69	0.123	500	1000	0.03	231.017	231.237	226.243	226.215		4.77	5.02	4.90
312	85B1-85A1	156	14896.88	14.90	868.56	883.46	2650.4	2.65	0.0307	0.69	0.123	500	1000	0.16	231.237	230.613	226.215	226.059		5.02	4.55	4.79
313	A1-A2	50	0.00	0.00	883.46	883.46	2650.4	2.65	0.0307	0.69	0.123	500	1000	0.05	230.613	230.422	226.059	226.009		4.55	4.41	4.48
	-																					
314	A6-A5	49	12301.88	12.30	0.00	12.30	36.91	0.04	0.0004	0.70	0.011	200	220	0.22	230.243	230.232	229.043	228.820		1.20	1.41	1.31
315	A5-A4	97	0.00	0.00	12.30	12.30	36.91	0.04	0.0004	0.70	0.011	200	220	0.44	230.232	230.213	228.820	228.380		1.41	1.83	1.62
316	A4-A2	37	18750.00	18.75	12.30	31.05	93.16	0.09	0.0011	0.70	0.011	200	220	0.17	230.213	230.422	228.380	228.211		1.83	2.21	2.02
	-																					
317	A2-X	20	39000.00	39.00	914.51	953.51	2860.5	2.86	0.0331	0.69	0.123	500	1000	0.02	230.422	230.469	226.009	225.989	225.839	4.41	4.48	4.45
	-																					
	-																					
318	X-STP 2	54	0.00	0.00	2792.1	2792.1	8376.2	8.38	0.0969	0.73	0.255	700	1400	0.04	230.469	231.161	225.839	225.800	INTERNA	4.63	5.36	5.00
	STP2-HUDA	40		0.00	2792.1	2792.1	8376.2	8.38	0.0969	0.73	0.255	700	1400	0.03	231.161	231.161	225.800	225.772	226.478	5.36	5.39	5.38
	-	14736	2792066.659	2792.068	837.62																	
	-																					
319	83A'36-83A37	75	26606.25	26.61	0.00	26.61	79.82	0.08	0.0009	0.70	0.011	200	220	0.34	231.890	232.012	230.690	230.349		1.20	1.66	1.43
320	83A37-83E7	23	2304.38	2.30	26.61	28.91	86.73	0.09	0.0010	0.70	0.011	200	220	0.10	232.012	231.909	230.349	230.245		1.66	1.66	1.66
321	E7-A41	32	4100.63	4.10	28.91	33.01	99.03	0.10	0.0011	0.70	0.011	200	220	0.15	231.909	231.750	230.245	230.099		1.66	1.65	1.66
	-																					
322	A38-A40	40	4421.25	4.42	0.00	4.42	13.26	0.01	0.0002	0.70	0.011	200	220	0.18	231.849	231.659	230.649	230.467		1.20	1.19	1.20
323	A40-A'51	24	0.00	0.00	4.42	4.42	13.26	0.01	0.0002	0.70	0.011	200	220	0.11	231.659	231.698	230.467	230.358		1.19	1.34	1.27
324	A'51-A41	129	16106.25	16.11	4.42	20.53	61.58	0.06	0.0007	0.70	0.011	200	220	0.59	231.698	231.750	230.358	229.772		1.34	1.98	1.66
	-																					
325	A41-E6	17	4100.63	4.10	53.54	57.64	172.92	0.17	0.0020	0.70	0.011	200	220	0.08	231.750	231.631	229.772	229.695		1.98	1.94	1.96
326	E'6-E6	122	20890.31	20.89	0.00	20.89	62.67	0.06	0.0007	0.70	0.011	200	220	0.55	230.877	231.631	229.677	229.122		1.20	2.51	1.85
327	E6-A42	36	5038.13	5.04	78.53	83.57	250.70	0.25	0.0029	0.70	0.011	200	220	0.16	231.631	231.464	229.122	228.958		2.51	2.51	2.51
	-																					
328	A'48-A'49	25	15000.00	15.00	0.00	15.00	45.00	0.05	0.0005	0.70	0.011	200	220	0.11	232.260	232.098	231.060	230.947		1.20	1.15	1.18
329	A'49-A'50	182	20250.00	20.25	15.00	35.25	105.75	0.11	0.0012	0.70	0.011	200	220	0.83	232.098	231.768	230.947	230.119		1.15	1.65	1.40
330	A'50-A42	150	15114.38	15.11	35.25	50.36	151.09	0.15	0.0017	0.70	0.011	200	220	0.68	231.768	231.464	230.119	229.438		1.65	2.03	1.84
	-																					
331	A42-A56	13	2733.75	2.73	133.93	136.67	410.00	0.41	0.0047	0.70	0.011	200	220	0.06	231.464	231.408	228.958	228.899		2.51	2.51	2.51
332	E3-A56	104	16801.88	16.80	0.00	16.80	50.41	0.05	0.0006	0.70	0.011	200	220	0.47	231.427	231.408	230.227	229.755		1.20	1.65	1.43
333	A56-A43	43	4100.63	4.10	153.47	157.57	472.71	0.47	0.0055	0.70	0.011	200	220	0.20	231.408	231.221	228.899	228.704		2.51	2.52	2.51
334	A58-A43	27	8358.75	8.36	0.00	8.36	25.08	0.03	0.0003	0.70	0.011	200	220	0.12	231.300	231.221	230.100	229.977		1.20	1.24	1.22

For VATIKA LIMITED

Authorised Signatory