Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 2	2,030	1,570	3,600	229 persons/ha	823,800 persons	201 l/c/d	116 $m^3/ha/d$	7.6 $m^3/ha/d$

No. of Sewers	Area by Land Use: Residential Area Increment	Residential Area Total	Commercial Area Increment	Commercial Area Total	Area Increment	Area Total	Total Population	Domestic Wastewater Flow: Residential (Ave.)	Commercial (Ave.)	Total	Peaking Factor	Peak Flow	Other Flow: Industrial	Infiltration	Total Design Flow	Designed Sewer: Diameter	Length	Slope	Velocity (Full)	Capacity (Full)	Ground Surface Elevation	Sewer Invert Elevation	Remarks
	ha	ha	ha	ha	ha	ha	persons	m^3/s	m^3/s	m^3/s		m^3/s	m^3/s	m^3/s	m^3/s	mm	m	‰	m/s	m^3/s	m	m	
(127)	0.00		10.35	43.66	10.35	43.66	10,000	0.023	0.059	0.082	3.2	0.262		0.004	0.266	⊙ 800	70.00	0.8	0.65	0.324		32.29	
																						32.23	
(128)	0.00		10.12	53.78	10.12	53.78	12,320	0.029	0.072	0.101	3.1	0.313		0.005	0.318	⊙ 800	290.00	0.8	0.65	0.324		32.23	
																						32.00	
(129)	0.00		8.93	62.71	8.93	62.71	14,360	0.033	0.084	0.117	3.1	0.363		0.006	0.369	⊙ 900	310.00	0.8	0.70	0.444		31.90	
																						31.65	
(130)	0.00		21.29	84.00	21.29	84.00	19,240	0.045	0.113	0.158	2.9	0.458		0.007	0.465	⊙1000	495.00	0.6	0.65	0.509		31.55	
																						31.25	
(131)	0.00		15.73	212.26	15.73	212.26	48,610	0.113	0.285	0.398	2.4	0.955		0.019	0.974	⊙1350	645.00	0.5	0.72	1.034		30.78	
																						30.46	
(132)	0.00		9.36	221.62	9.36	221.62	50,750	0.118	0.298	0.416	2.4	0.998		0.019	1.017	⊙1350	40.00	0.5	0.72	1.034		30.46	
																						30.44	
(133)	0.00		12.66	234.28	12.66	234.28	53,650	0.125	0.315	0.440	2.4	1.056		0.021	1.077	⊙1500	550.00	0.5	0.78	1.370		30.29	
																						30.01	
(134)	0.00		24.23	258.51	24.23	258.51	59,200	0.138	0.347	0.485	2.3	1.116		0.023	1.139	⊙1500	300.00	0.5	0.78	1.370		30.01	
																						29.86	
(135)	0.00		8.27	266.78	8.27	266.78	61,090	0.142	0.358	0.500	2.3	1.150		0.023	1.173	⊙1500	750.00	0.5	0.78	1.370		29.86	
																					37.00	29.49	
	to (150)																						
																						34.80	
(140)	6.03				6.03		1,380	0.003		0.003	4.8	0.014		0.003	0.017	⊙ 200	500.00	4.5	0.61	0.019		32.55	
																						32.45	
(141)	5.07	11.10	0.77		5.84	11.87	2,720	0.006	0.001	0.007	4.8	0.034		0.004	0.038	⊙ 300	285.00	2.8	0.63	0.044		31.65	
																						31.55	
(142)	8.79	19.89	0.00	0.77	8.79	20.66	4,730	0.011	0.001	0.012	4.7	0.056		0.005	0.061	⊙ 400	150.00	1.9	0.63	0.079		31.27	
																						31.27	
(143)	7.38	27.27	0.00	0.77	7.38	28.04	6,420	0.015	0.001	0.016	4.4	0.070		0.005	0.075	⊙ 400	145.00	1.9	0.63	0.079		31.00	
(P)																							Pumping Station
(144)	21.06	48.33	0.00	0.77	21.06	49.10	11,240	0.026	0.001	0.027	3.9	0.105		0.007	0.112	⊙ 500	520.00	1.4	0.62	0.122		34.50	
																						33.77	
(145)	5.94	54.27	0.00	0.77	5.94	55.04	12,600	0.029	0.001	0.030	3.9	0.117		0.008	0.125	⊙ 600	390.00	1.2	0.65	0.184		33.67	
																						33.20	
(146)	30.91	85.18	7.45	8.23	38.37	93.41	21,390	0.050	0.011	0.061	3.3	0.201		0.011	0.212	⊙ 700	420.00	1.0	0.66	0.254		33.10	
																						32.68	
(147)	61.53	146.71	7.72	15.95	69.25	162.66	37,250	0.087	0.021	0.108	3.1	0.335		0.017	0.352	⊙ 900	30.00	0.8	0.70	0.444		32.48	
																						32.46	
(148)	30.00	176.71		15.95	30.00	192.66	44,120	0.103	0.021	0.124	3.0	0.372		0.020	0.392	⊙ 900	450.00	0.8	0.70	0.444		32.46	
																						32.10	

Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 2	2,030	1,570	3,600	229 persons/ha	823,800 persons	201 l/c/d	116 m^3/ha/d	7.6 m^3/ha/d

No. of Sewers	Area by Land Use: Residential Area Increment	Residential Area Total	Commercial Area Increment	Commercial Area Total	Area Increment	Area Total	Total Population	Domestic Wastewater Flow: Residential (Ave.)	Commercial (Ave.)	Total	Peaking Factor	Peak Flow	Other Flow: Industrial	Infiltration	Total Design Flow	Designed Sewer: Diameter	Length	Slope	Velocity (Full)	Capacity (Full)	Ground Surface Elevation	Sewer Invert Elevation	Remarks
	ha	ha	ha	ha	ha	ha	persons	m^3/s	m^3/s	m^3/s		m^3/s	m^3/s	m^3/s	m^3/s	mm	m	‰	m/s	m^3/s	m	m	
(149)	13.71	190.42		15.95	13.71	206.37	47,260	0.110	0.021	0.131	2.9	0.380		0.021	0.401	⊙ 900	420.00	0.8	0.70	0.444		32.10	
																						31.76	
(150)	8.93	383.42		1262.87	8.93	1646.29	377,000	0.877	1.696	2.573	1.8	4.631		0.145	4.776	⊙ 2600	470.00	0.4	1.00	5.312		29.33	
																						29.14	
(151)	34.49	417.91		1262.87	34.49	1680.78	384,900	0.895	1.696	2.591	1.8	4.664		0.148	4.812	⊙ 2600	480.00	0.4	1.00	5.312		29.14	
																						28.95	
(152)	31.02	448.93		1262.87	31.02	1711.80	392,000	0.912	1.696	2.608	1.8	4.694		0.151	4.845	⊙ 2600	40.00	0.4	1.00	5.312		28.95	
																						28.93	
(153)	6.46	455.39		1262.87	6.46	1718.26	393,480	0.915	1.696	2.611	1.8	4.700		0.151	4.851	⊙ 2600	525.00	0.4	1.00	5.312		28.93	
																						28.72	
	to	(161)																					
(154)	5.72				5.72		1,310	0.003		0.003	4.8	0.014		0.001	0.015	⊙ 200	395.00	4.5	0.61	0.019		34.80	
																						33.02	
(155)	5.18	10.90			5.18	10.90	2,500	0.006		0.006	4.8	0.029		0.001	0.030	⊙ 250	970.00	3.5	0.62	0.031		32.97	
																						29.58	
(P 2-5)																							Pumping Station
(156)	11.66	22.56			11.66	22.56	5,170	0.012		0.012	4.7	0.056		0.002	0.058	⊙ 350	565.00	2.2	0.62	0.059	37.00	34.65	
																						33.41	
(157)	11.34	33.90			11.34	33.90	7,760	0.018		0.018	4.3	0.077		0.003	0.080	⊙ 450	290.00	1.6	0.62	0.099		33.31	
																						32.85	
(158)	28.39	62.29			28.39	62.29	14,260	0.033		0.033	3.8	0.125		0.005	0.130	⊙ 600	370.00	1.2	0.65	0.184		32.70	
																						32.26	
(159)	20.12	82.41			20.12	82.41	18,870	0.044		0.044	3.6	0.158		0.007	0.165	⊙ 600	470.00	1.2	0.65	0.184		32.26	
																						31.70	
(160)	31.05	113.46			31.05	113.46	25,980	0.060		0.060	3.4	0.204		0.010	0.214	⊙ 700	570.00	1.0	0.66	0.254		31.60	
																						31.23	
(161)	29.34	598.19		1262.87	29.34	1861.06	426,180	0.991	1.696	2.687	1.8	4.837		0.164	5.001	⊙ 2600	490.00	0.4	1.00	5.317		28.72	
																						28.52	
(162)	26.16	2 030.00		1570.00	26.16	3 600.00	824,400	1.918	2.108	4.026	1.7	6.844		0.317	7.161	⊙ 3000	20.00	0.4	1.10	7.780		28.12	
																						28.11	
	to	Treatment	Facilities																				

Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 3	2,500	——	2,500	200 persons/ha	499,600 persons	201 l/c/d	116 m^3/ha/d	7.6 m^3/ha/d

No. of Sewers	Area by Land Use: Residential Area Increment	Residential Area Total	Commercial Area Increment	Commercial Area Total	Area Increment	Area Total	Total Population	Domestic Wastewater Flow: Residential (Ave.)	Commercial (Ave.)	Total	Peaking Factor	Peak Flow	Other Flow: Industrial	Infiltration	Total Design Flow	Designed Sewer: Diameter	Length	Slope	Velocity (Full)	Capacity (Full)	Ground Surface Elevation	Sewer Invert Elevation	Remarks
	ha	ha	ha	ha	ha	ha	persons	m^3/s	m^3/s	m^3/s		m^3/s	m^3/s	m^3/s	m^3/s	mm	m	‰	m/s	m^3/s	m	m	
①	2.94				2.94		590	0.001		0.001	4.8	0.005		0.001	0.006	⊙ 200	200.00	4.5	0.61	0.019		34.80	
																						33.90	
②	8.49	11.43			8.49	11.43	2,290	0.005		0.005	4.8	0.024		0.001	0.025	⊙ 250	165.00	3.5	0.62	0.031		33.85	
																						33.27	
③	5.88	17.31			5.88	17.31	3,460	0.008		0.008	4.8	0.038		0.002	0.040	⊙ 300	280.00	2.8	0.63	0.044		33.22	
																						32.44	
④	4.30	21.61			4.30	21.61	4,320	0.010		0.010	4.8	0.048		0.002	0.050	⊙ 350	280.00	2.2	0.62	0.059		32.39	
																						31.77	
⑤	11.14	32.75			11.14	32.75	6,550	0.015		0.015	4.5	0.068		0.003	0.071	⊙ 400	380.00	1.9	0.63	0.079		31.72	
																						31.00	
⑥	14.70	47.45			14.70	47.45	9,490	0.022		0.022	4.2	0.092		0.004	0.096	⊙ 450	380.00	1.6	0.62	0.099		30.95	
																						30.90	
⑦	8.79	56.24			8.79	56.24	11,250	0.026		0.026	4.0	0.104		0.005	0.109	⊙ 500	300.00	1.4	0.62	0.122		30.85	
																						30.43	
(P S-1)																							Pumping Station
																					37.00	34.40	
⑧	46.92	103.16			46.92	103.16	20,630	0.048		0.048	3.6	0.173		0.009	0.182	⊙ 600	350.00	1.2	0.65	0.184		33.98	
																						33.78	
⑨	61.18	164.34			61.18	164.34	32,870	0.076		0.076	3.3	0.251		0.014	0.265	⊙ 800	55.00	0.8	0.65	0.324		33.73	
																						33.73	
⑩	8.17	172.51			8.17	172.51	34,500	0.080		0.080	3.3	0.264		0.015	0.279	⊙ 800	175.00	0.8	0.65	0.324		33.59	
																						33.59	
⑪	5.51	178.02			5.51	178.02	35,600	0.083		0.083	3.2	0.266		0.016	0.282	⊙ 800	90.00	0.8	0.65	0.324		33.52	
																						33.52	
⑫	14.42	192.44			14.42	192.44	38,490	0.090		0.090	3.2	0.288		0.017	0.305	⊙ 800	275.00	0.8	0.65	0.324		33.30	
																						33.30	
⑬	5.22	197.66			5.22	197.66	39,530	0.092		0.092	3.2	0.294		0.017	0.311	⊙ 800	40.00	0.8	0.65	0.324		33.27	
																						33.27	
⑭	4.39	202.05			4.39	202.05	40,410	0.094		0.094	3.2	0.301		0.018	0.319	⊙ 800	50.00	0.8	0.65	0.324		33.23	
																						33.13	
⑮	10.93	212.98			10.93	212.98	42,600	0.099		0.099	3.1	0.307		0.019	0.326	⊙ 900	80.00	0.8	0.70	0.444		33.07	
																						33.07	
⑯	5.63	218.61			5.63	218.61	43,720	0.102		0.102	3.1	0.316		0.020	0.336	⊙ 900	160.00	0.8	0.70	0.444		32.94	
																						32.94	
⑰	5.44	224.05			5.44	224.05	44,810	0.104		0.104	3.1	0.322		0.020	0.342	⊙ 900	120.00	0.8	0.70	0.444		32.84	
																						32.84	
⑱	26.24	250.29			26.24	250.29	50,060	0.116		0.116	3.1	0.360		0.022	0.382	⊙ 900	200.00	0.8	0.70	0.444		32.68	
																						32.48	
⑲	210.09	460.38			210.09	460.38	92,080	0.216		0.216	2.7	0.583		0.040	0.583	⊙1 100	355.00	0.6	0.73	0.828		32.27	

Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 3	2,500	——	2,500	200 persons/ha	499,600 persons	201 l/c/d	116 m^3/ha/d	7.6 m^3/ha/d

No. of Sewers	Area by Land Use				Area		Total Population	Domestic Wastewater Flow					Other Flow		Total Design Flow	Designed Sewer							Remarks
	Residential Area		Commercial Area					Residential (Ave.)	Commercial (Ave.)	Total	Peaking Factor	Peak Flow	Industrial	Infiltration		Diameter	Length	Slope	Velocity (Full)	Capacity (Full)	Ground Surface Elevation	Sewer Invert Elevation	
	Increment	Total	Increment	Total	Increment	Total																	
	ha	ha	ha	ha	ha	ha	persons	m^3/s	m^3/s	m^3/s		m^3/s	m^3/s	m^3/s	m^3/s	mm	m	‰	m/s	m^3/s	m	m	
(20)	36.85	497.23			36.85	497.23	99,450	0.231		0.231	2.7	0.624		0.044	0.624	⊙ 1100	370.00	0.6	0.73	0.828		32.27	
																						32.05	
(21)	43.40	540.63			43.40	540.63	108,130	0.252		0.252	2.7	0.680		0.048	0.728	⊙ 1200	280.00	0.6	0.73	0.828		31.95	
																						31.78	
(22)	71.78	612.41			71.78	612.41	122,480	0.285		0.285	2.6	0.741		0.054	0.795	⊙ 1200	50.00	0.6	0.73	0.828		31.78	
																						31.75	
(23)	83.07	695.48			83.07	695.48	139,100	0.324		0.324	2.5	0.810		0.061	0.871	⊙ 1350	335.00	0.5	0.72	1.034		31.60	
																						31.43	
(24)	235.90	931.38			235.90	931.38	186,280	0.433		0.433	2.4	1.039		0.082	1.121	⊙ 1500	440.00	0.5	0.78	1.370		31.28	
																						31.06	
(25)	23.69	955.07			23.69	955.07	191,010	0.444		0.444	2.4	1.066		0.084	1.150	⊙ 1500	755.00	0.5	0.78	1.370		31.06	
																						30.68	
(26)	45.87	1000.94			45.87	1000.94	200,190	0.466		0.466	2.3	1.072		0.088	1.160	⊙ 1500	515.00	0.5	0.78	1.370		30.68	
																						30.42	
(27)	119.26	1120.20			119.26	1120.20	224,040	0.521		0.521	2.3	1.198		0.099	1.297	⊙ 1500	40.00	0.5	0.78	1.370		30.42	
																						30.40	
(28)	84.71	1204.91			84.71	1204.91	240,980	0.561		0.561	2.3	1.290		0.106	1.396	⊙ 1650	210.00	0.4	0.74	1.580		30.25	
																						30.17	
(29)	3.51	1208.42			3.51	1208.42	241,680	0.562		0.562	2.3	1.293		0.106	1.399	⊙ 1650	55.00	0.4	0.74	1.580		30.17	
																						30.15	
	to (52)																						
(30)	11.20				11.20		2,240	0.005		0.005	4.8	0.024		0.001	0.025	⊙ 250	450.00	3.3	0.62	0.031		34.75	
																						33.18	
(31)	9.90	21.10			9.90	21.10	4,220	0.010		0.010	4.8	0.048		0.002	0.050	⊙ 350	285.00	2.2	0.62	0.059		33.08	
																						32.45	
(32)	12.73	33.83			12.73	33.83	6,770	0.016		0.016	4.4	0.070		0.003	0.073	⊙ 400	360.00	1.9	0.63	0.079		32.40	
																						31.71	
(33)	22.35	56.18			22.35	56.18	11,240	0.026		0.026	4.0	0.104		0.005	0.109	⊙ 500	290.00	1.4	0.62	0.122		31.61	
																						31.20	
(34)	5.45	61.63			5.45	61.63	12,330	0.029		0.029	3.9	0.113		0.005	0.118	⊙ 500	170.00	1.4	0.62	0.122		31.20	
																						30.96	
(35)	8.97	70.60			8.97	70.60	14,120	0.033		0.033	3.8	0.125		0.006	0.131	⊙ 600	30.00	1.2	0.65	0.184		30.86	
																						30.82	
(36)	22.09	92.69			22.09	92.69	18,540	0.043		0.043	3.6	0.155		0.008	0.163	⊙ 600	440.00	1.2	0.65	0.184		30.82	
																						30.29	
(37)	28.19	120.88			28.19	120.88	24,180	0.056		0.056	3.4	0.190		0.011	0.201	⊙ 700	240.00	1.0	0.66	0.254		30.19	
																						29.95	
(P 3-2)																					37.00		Pumping Station

Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 3	2,500	—	2,500	200 persons/ha	499,600 persons	201 l/c/d	116 m^3/ha/d	7.6 m^3/ha/d

No. of Sewers	Area by Land Use: Residential Area Increment (ha)	Residential Area Total (ha)	Commercial Area Increment (ha)	Commercial Area Total (ha)	Area Increment (ha)	Area Total (ha)	Total Population (persons)	Domestic Wastewater Flow: Residential (Ave.) (m^3/s)	Commercial (Ave.) (m^3/s)	Total (m^3/s)	Peaking Factor	Peak Flow (m^3/s)	Other Flow: Industrial (m^3/s)	Infiltration (m^3/s)	Total Design Flow (m^3/s)	Designed Sewer: Diameter (mm)	Length (m)	Slope (‰)	Velocity (Full) (m^3/s)	Capacity (Full) (m^3/s)	Ground Surface Elevation (m)	Sewer Invert Elevation (m)	Remarks
(38)	27.52	148.40			27.52	148.40	29,680	0.069		0.069	3.3	0.228		0.031	0.241	⊙ 700	465.00	1.0	0.66	0.254		34.30	
																						33.84	
(39)	48.99	197.39			48.99	197.39	39,480	0.092		0.092	3.2	0.294		0.017	0.311	⊙ 800	490.00	0.8	0.65	0.324		33.74	
																						33.34	
(40)	163.00	360.39			163.00	360.39	72,080	0.168		0.168	2.9	0.487		0.032	0.519	⊙1100	30.00	0.6	0.69	0.656		33.04	
																						33.02	
(41)	77.45	437.84			77.45	437.84	87,570	0.204		0.204	2.8	0.571		0.039	0.610	⊙1100	730.00	0.6	0.69	0.656		33.02	
																						32.58	
(42)	46.59	484.43			46.59	484.43	96,890	0.225		0.225	2.7	0.608		0.043	0.651	⊙1100	360.00	0.6	0.69	0.656		32.58	
																						32.36	
(43)	35.33	519.76			35.33	519.76	103,950	0.242		0.242	2.7	0.653		0.046	0.699	⊙1200	380.00	0.6	0.73	0.828		32.26	
																						32.03	
(44)	62.07	581.83			62.07	581.83	116,370	0.271		0.271	2.6	0.765		0.051	0.756	⊙1200	560.00	0.6	0.73	0.828		32.03	
																						31.69	
(45)	15.79	597.62			15.79	597.62	119,520	0.278		0.278	2.6	0.723		0.053	0.776	⊙1200	400.00	0.6	0.73	0.828		31.69	
																						31.45	
(46)	190.80	788.42			190.80	788.42	157,680	0.367		0.367	2.4	0.881		0.069	0.950	⊙1350	410.00	0.5	0.72	1.034		31.30	
																						31.10	
(47)	53.26	841.68			53.26	841.68	168.340	0.392		0.392	2.4	0.941		0.074	1.015	⊙1350	100.00	0.5	0.72	1.034		31.10	
																						31.05	
(48)	10.80	852.48			10.80	852.48	170,500	0.397		0.397	2.4	0.953		0.075	1.028	⊙1350	240.00	0.5	0.72	1.034		31.05	
																						30.93	
(49)	25.38	877.86			25.38	877.86	175,570	0.408		0.408	2.4	0.979		0.077	1.056	⊙1500	260.00	0.5	0.78	1.370		30.78	
																						30.65	
(50)	44.32	922.18			44.32	922.18	184,440	0.429		0.429	2.4	1.030		0.081	1.111	⊙1500	250.00	0.5	0.78	1.370		30.65	
																						30.53	
(51)	78.55	1000.73			78.55	1000.73	200,150	0.466		0.466	2.3	1.072		0.088	1.166	⊙1500	450.00	0.5	0.78	1.370		30.53	
																						30.31	
(52)	290.85	2500.00			290.85	2500.00	500,000	1.163		1.163	2.1	2.442		0.220	2.662	⊙2100	50.00	0.4	0.87	3.005		29.71	
																						29.69	
	to Treatment Facilites																						
																					37.00		

Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 5	3,100	—	3,100	148 persons/ha	457,300 persons	201 l/c/d	116 m^3/ha/d	7.6 m^3/ha/d

No. of Sewers	Area by Land Use: Residential Area Increment	Residential Area Total	Commercial Area Increment	Commercial Area Total	Area Increment	Area Total	Total Population	Domestic Wastewater Flow: Residential (Ave.)	Commercial (Ave.)	Total	Peaking Factor	Peak Flow	Other Flow: Industrial	Infiltration	Total Design Flow	Designed Sewer: Diameter	Length	Slope	Velocity (Full)	Capacity (Full)	Ground Surface Elevation	Sewer Invert Elevation	Remarks
	ha	ha	ha	ha	ha	ha	persons	m^3/s	m^3/s	m^3/s		m^3/s	m^3/s	m^3/s	m^3/s	mm	m	‰	m/s	m^3/s	m	m	
①	20.47				20.47		3,030	0.007		0.007	4.8	0.034		0.002	0.036	⊙ 300	310.00	2.8	0.63	0.044		34.70	
																						33.83	
②	46.98	67.45			46.98	67.45	9,980	0.023		0.023	4.1	0.094		0.006	0.100	⊙ 500	750.00	1.4	0.62	0.122		33.63	
																						32.58	
③	63.92	131.37			63.92	131.37	19,440	0.045		0.045	3.6	0.162		0.012	0.174	⊙ 600	770.00	1.2	0.65	0.184		32.48	
																						31.56	
④	153.48	284.85			153.48	284.85	42,160	0.098		0.098	3.1	0.304		0.025	0.329	⊙ 900	1060.00	0.8	0.70	0.444		31.26	
																						30.41	
⑤	334.58	619.43			334.58	619.43	91,680	0.213		0.213	2.7	0.575		0.054	0.629	⊙1100	500.00	0.6	0.69	0.656		30.21	
																						29.01	
P S-1																							Pumping Station
⑥	59.97	679.40			59.97	679.40	100,550	0.234		0.234	2.7	0.632		0.072	0.704	⊙1200	2830.00	0.6	0.73	0.828		33.80	
																						32.10	
⑦	640.30	1319.70			640.30	1319.70	195,320	0.454		0.454	2.3	1.044		0.128	1.172	⊙1500	670.00	0.5	0.78	1.370		31.80	
																						31.47	
⑧	157.24	1476.94			157.24	1476.94	218,590	0.502		0.502	2.3	1.155		0.131	1.286	⊙1500	820.00	0.5	0.78	1.370		31.47	
																						31.06	
⑨	765.18	2242.12			765.18	2242.12	331,830	0.772		0.772	2.2	1.698		0.187	1.885	⊙1800	500.00	0.4	0.78	1.992		30.76	
																						30.56	
	to	⑭																					
⑩	38.67				38.67		5,720	0.013		0.013	4.8	0.062		0.003	0.065	⊙ 400	670.00	1.9	0.63	0.079		34.60	
																						33.33	
⑪	113.82	152.49			113.82	152.49	22,570	0.053		0.053	3.4	0.180		0.013	0.193	⊙ 700	1000.00	1.0	0.66	0.254		33.03	
																						32.03	
⑫	149.76	302.25			149.76	302.25	44,730	0.104		0.104	3.1	0.322		0.037	0.359	⊙ 900	980.00	0.8	0.70	0.444		31.83	
																						31.05	
⑬	100.37	402.62			100.37	402.62	59,590	0.139		0.139	3.0	0.417		0.046	0.463	⊙1000	760.00	0.6	0.65	0.509		30.95	
																						30.49	
⑭	63.93	2708.67			63.93	2708.67	400,880	0.933		0.933	2.0	1.866		0.238	2.104	⊙1900	410.97	0.4	0.81	2.301		29.59	
																						29.43	
⑮	156.90	2865.57			156.90	2865.57	424,100	0.987		0.987	2.0	1.974		0.252	2.226	⊙1900	610.00	0.4	0.81	2.301		29.43	
																						29.19	
⑯	234.43	3100.00			234.43	3100.00	458,800	1.067		1.067	2.0	2.134		0.273	2.407	⊙2000	300.00	0.4	0.84	2.639		29.09	
																						28.97	
	to	Treatment	Facilities																				

37.00

Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 6	2,600	—	2,600	95 persons/ha	245,600 persons	201 l/c/d	116 m^3/ha/d	7.6 m^3/ha/d

No. of Sewers	Area by Land Use: Residential Area Increment	Residential Area Total	Commercial Area Increment	Commercial Area Total	Area Increment	Area Total	Total Population	Domestic Wastewater Flow: Residential (Ave.)	Commercial (Ave.)	Total	Peaking Factor	Peak Flow	Other Flow: Industrial	Infiltration	Total Design Flow	Designed Sewer: Diameter	Length	Slope	Velocity (Full)	Capacity (Full)	Ground Surface Elevation	Sewer Invert Elevation	Remarks
	ha	ha	ha	ha	ha	ha	persons	m^3/s	m^3/s	m^3/s		m^3/s	m^3/s	m^3/s	m^3/s	mm	m	‰	m/s	m^3/s	m	m	
(1)	36.14				36.11		3,430	0.008		0.008	4.8	0.038		0.003	0.041	⊙ 300	890.00	2.8	0.63	0.044		34.70	
																						32.39	
(2)	48.26	84.37			48.26	84.37	8,020	0.019		0.019	4.2	0.080		0.007	0.087	⊙ 450	870.00	1.6	0.62	0.099		32.24	
																						30.85	
(3)	46.04	130.41			46.04	130.41	12,390	0.029		0.029	3.9	0.113		0.011	0.124	⊙ 600	630.00	1.2	0.65	0.184		30.70	
																						29.94	
(P 6-1)																							Pumping Station
(4)	44.53	174.94			44.53	174.94	16,620	0.039		0.039	3.7	0.144		0.015	0.159	⊙ 600	340.00	1.2	0.65	0.184		34.40	
																						33.99	
(5)	77.97	252.91			77.97	252.91	24,030	0.056		0.056	3.4	0.190		0.022	0.212	⊙ 700	390.00	1.0	0.66	0.254		33.89	
																						33.50	
(6)	144.50	397.41			144.50	397.41	37,750	0.088		0.088	3.2	0.282		0.035	0.317	⊙ 800	1280.00	0.8	0.65	0.324		33.40	
																						32.38	
(7)	64.19	461.60			64.19	461.60	43,850	0.102		0.102	3.1	0.316		0.041	0.357	⊙ 900	840.00	0.8	0.70	0.444		32.28	
																						31.61	
(8)	140.68	602.28			140.68	602.28	57,220	0.133		0.133	2.9	0.386		0.053	0.439	⊙ 900	1340.00	0.8	0.70	0.444		31.61	
																						30.54	
	to	(27)																			37.00		
(9)	32.78				32.78		3,110	0.007		0.007	4.8	0.034		0.003	0.037	⊙ 300	960.00	2.8	0.63	0.044		34.70	
																						32.01	
(10)	57.15	89.93			57.15	89.93	8,540	0.020		0.020	4.2	0.084		0.008	0.092	⊙ 450	570.00	1.6	0.62	0.099		31.86	
																						30.95	
(11)	88.79	178.72			88.79	178.72	16,980	0.040		0.040	3.7	0.148		0.016	0.164	⊙ 600	640.00	1.2	0.65	0.184		30.80	
																						30.03	
(P 6-2)																							Pumping Station
(12)	64.00	242.72			64.00	242.72	23,060	0.054		0.054	3.4	0.184		0.021	0.205	⊙ 700	1700.00	1.0	0.66	0.254		34.30	
																						32.60	
	to	(16)																					
(13)	87.49				87.49		8,310	0.019		0.019	4.2	0.080		0.008	0.088	⊙ 450	870.00	1.6	0.62	0.099		34.55	
																						33.16	
(14)	53.55	141.04			53.55	141.04	13,400	0.031		0.031	3.8	0.118		0.012	0.130	⊙ 600	280.00	1.2	0.65	0.184		33.01	
																						32.67	
(15)	164.09	305.13			164.09	250.13	23,780	0.055		0.055	3.4	0.187		0.022	0.209	⊙ 700	1560.00	1.0	0.66	0.254		32.57	
																						31.01	
(16)	234.45	782.30			234.45	782.30	74,320	0.173		0.173	2.8	0.484		0.069	0.553	⊙ 1100	730.00	0.6	0.69	0.656		30.61	
																						30.17	

Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 6	2,600	—	2,600	95 persons/ha	245,600 persons	201 l/c/d	116 m^3/ha/d	7.6 m^3/ha/d

No. of Sewers	Area by Land Use: Residential Area Increment	Residential Area Total	Commercial Area Increment	Commercial Area Total	Area Increment	Area Total	Total Population	Domestic Wastewater Flow: Residential (Ave.)	Commercial (Ave.)	Total	Peaking Factor	Peak Flow	Other Flow: Industrial	Infiltration	Total Design Flow	Designed Sewer: Diameter	Length	Slope	Velocity (Full)	Capacity (Full)	Ground Surface Elevation	Sewer Invert Elevation	Remarks
	ha	ha	ha	ha	ha	ha	persons	m^3/s	m^3/s	m^3/s		m^3/s	m^3/s	m^3/s	m^3/s	mm	m	‰	m/s	m^3/s	m	m	
(17)	158.18	940.48			158.18	940.48	89,350	0.208		0.208	2.7	0.562		0.083	0.645	⊙ 1100	1750.00	0.6	0.69	0.656		30.17	
																						29.12	
	to	(27)																					
(18)	34.67				34.64		3,290	0.008		0.008	4.8	0.038		0.003	0.041	⊙ 300	840.00	2.8	0.63	0.044		34.70	
																						32.35	
(19)	172.67	207.31			172.67	207.31	19,690	0.046		0.046	3.5	0.161		0.018	0.179	⊙ 600	780.00	1.2	0.65	0.184		32.05	
																						31.11	
(20)	89.17	296.48			89.17	296.48	28,170	0.066		0.066	3.3	0.218		0.026	0.244	⊙ 700	740.00	1.0	0.66	0.254		31.01	
																						30.27	
(P 6-3)																							Pumping Station
(21)	84.28	380.76			84.28	380.76	36,170	0.084		0.084	3.2	0.269		0.033	0.302	⊙ 800	710.00	0.8	0.65	0.324		34.20	
																						32.63	
(22)	115.88	496.64			115.88	496.64	47,180	0.110		0.110	3.1	0.341		0.044	0.385	⊙ 900	960.00	0.8	0.70	0.444		33.53	
																						32.76	
	to	(26)																					
(23)	46.49				46.49		4,420	0.010		0.010	4.8	0.048		0.004	0.052	⊙ 350	920.00	2.2	0.62	0.059	37.00	34.65	
																						32.63	
(24)	138.75	185.24			138.75	185.24	17,600	0.041		0.041	3.6	0.148		0.016	0.164	⊙ 600	1350.00	1.2	0.65	0.184		32.38	
																						30.76	
(25)	98.15	283.39			98.15	283.39	26,920	0.063		0.063	3.3	0.208		0.025	0.233	⊙ 700	670.00	1.0	0.66	0.254		30.66	
																						29.99	
(26)	277.21	1057.24			277.21	1057.24	100,440	0.234		0.234	2.6	0.608		0.093	0.701	⊙ 1200	1190.00	0.6	0.73	0.828		29.49	
																						28.78	
(27)	0.00	2600.00			0.00	2600.00	247,000	0.575		0.575	2.2	1.265		0.229	1.494	⊙ 1650	40.00	0.4	0.74	1.580		28.33	
																						28.31	
	to	Tratment	Facilities																				

Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 7	6,400	—	6,400	116 persons/ha	742,200 persons	201 l/c/d	116 m^3/ha/d	7.6 m^3/ha/d

No. of Sewers	Area by Land Use: Residential Area Increment	Residential Area Total	Commercial Area Increment	Commercial Area Total	Area Increment	Area Total	Total Population	Domestic Wastewater Flow: Residential (Ave.)	Commercial (Ave.)	Total	Peaking Factor	Peak Flow	Other Flow: Industrial	Infiltration	Total Design Flow	Designed Sewer: Diameter	Length	Slope	Velocity (Full)	Capacity (Full)	Ground Surface Elevation	Sewer Invert Elevation	Remarks
	ha	ha	ha	ha	ha	ha	persons	m^3/s	m^3/s	m^3/s		m^3/s	m^3/s	m^3/s	m^3/s	mm	m	‰	m/s	m^3/s	m		
①	45.61				45.61		5,290	0.012		0.012	4.7	0.056		0.001	0.057	⊙ 350	570.00	2.2	0.62	0.062		34.65	
																						33.40	
②	286.99	332.60			286.99	332.60	38,580	0.090		0.090	3.2	0.288		0.003	0.291	⊙ 800	770.00	0.8	0.65	0.324		32.95	
																						32.33	
③	22.43	355.03			22.43	355.03	41,180	0.096		0.096	3.1	0.298		0.005	0.303	⊙ 800	970.00	0.8	0.65	0.324		32.33	
																						31.55	
P 1-1																							Pumping Station
④	202.60	577.63			202.60	557.63	64,690	0.150		0.150	2.9	0.435		0.032	0.467	⊙ 1000	1040.00	0.6	0.65	0.509		34.00	
																						33.38	
⑤	242.68	800.31			242.68	800.31	92,840	0.216		0.216	2.7	0.583		0.070	0.653	⊙ 1100	1560.00	0.6	0.69	0.656		33.28	
																						32.34	
⑥	189.74	990.05			189.74	990.05	114,850	0.267		0.267	2.6	0.694		0.087	0.781	⊙ 1200	820.00	0.6	0.73	0.828		31.80	
																						31.31	
⑦	126.85	1116.90			126.85	1116.90	129,560	0.301		0.301	2.5	0.753		0.098	0.851	⊙ 1350	1710.00	0.5	0.72	1.034		31.16	
																						30.31	
⑧	167.22	1284.12			167.22	1284.12	148,960	0.347		0.347	2.4	0.833		0.113	0.946	⊙ 1350	300.00	0.5	0.72	1.034		30.31	
																						30.16	
P 1-2																							Pumping Station
⑨	136.20	1420.32			136.20	1420.32	164,760	0.383		0.383	2.4	0.919		0.125	1.044	⊙ 1500	1700.00	0.5	0.78	1.370		33.50	
																						32.65	
⑩	180.56	1600.88			180.56	1600.88	185,700	0.432		0.432	2.3	0.994		0.141	1.135	⊙ 1500	560.00	0.5	0.78	1.370		32.65	
																						32.37	
⑪	193.19	1794.07			193.19	1794.07	208,110	0.484		0.484	2.3	1.113		0.158	1.271	⊙ 1500	1350.00	0.5	0.78	1.370		32.37	
																						31.70	
⑫	229.33	2023.40			229.33	2023.40	234,110	0.546		0.546	2.2	1.201		0.178	1.379	⊙ 1650	380.00	0.4	0.74	1.580		30.95	
																						30.80	
	to	(30)																					
⑬	52.05				52.05		6,040	0.014		0.014	4.6	0.064		0.005	0.069	⊙ 400	1370.00	1.9	0.63	0.079		34.60	
																						32.00	
⑭	128.98	181.03			128.98	181.03	21,000	0.049		0.049	3.5	0.172		0.016	0.188	⊙ 700	590.00	1.0	0.66	0.254		31.70	
																						31.11	
⑮	77.01	258.04			77.01	258.04	29,930	0.070		0.070	3.3	0.231		0.023	0.254	⊙ 700	820.00	1.0	0.66	0.254		31.11	
																						30.29	
⑯	361.62	619.66			361.62	619.66	71,880	0.167		0.167	2.8	0.468		0.055	0.523	⊙ 1100	420.00	0.6	0.69	0.656		29.90	
																						29.64	
⑰	170.22	789.88			170.22	789.88	91,630	0.213		0.213	2.7	0.575		0.069	0.644	⊙ 1100	630.00	0.6	0.69	0.656		29.64	
																						29.26	

37.00

Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 7	6,400	—	6,400	116 persons/ha	742,200 persons	201 l/c/d	116 m^3/ha/d	7.6 m^3/ha/d

No. of Sewers	Area by Land Use: Residential Area Increment (ha)	Residential Area Total (ha)	Commercial Area Increment (ha)	Commercial Area Total (ha)	Area Increment (ha)	Area Total (ha)	Total Population (persons)	Domestic Wastewater Flow: Residential (Ave.) (m^3/s)	Commercial (Ave.) (m^3/s)	Total (m^3/s)	Peaking Factor	Peak Flow (m^3/s)	Other Flow: Industrial (m^3/s)	Infiltration (m^3/s)	Total Design Flow (m^3/s)	Designed Sewer: Diameter (mm)	Length (m)	Slope (‰)	Velocity (Full) (m/s)	Capacity (Full) (m^3/s)	Ground Surface Elevation (m)	Sewer Invert Elevation (m)	Remarks
P 13																							Pumping Station
18	200.72	990.60			200.72	990.60	114,910	0.267		0.267	2.6	0.694		0.087	0.781	⊙ 1200	2050.00	0.6	0.73	0.628		33.80	
																						32.57	
19	713.55	1704.15			713.55	1704.15	197,680	0.460		0.460	2.3	1.058		0.150	1.208	⊙ 1500	1060.00	0.5	0.78	1.370		32.27	
																						31.74	
20	351.52	2055.67			351.52	2055.67	238,460	0.555		0.555	2.2	1.221		0.181	1.402	⊙ 1650	810.00	0.4	0.74	1.580		31.59	
																						31.27	
21	270.15	2325.82			270.15	2325.82	269,800	0.628		0.628	2.2	1.382		0.205	1.587	⊙ 1800	1140.00	0.4	0.78	1.992		31.12	
																						30.66	
	to	(28)																					
22	83.28				83.28		9,660	0.022		0.022	4.1	0.090		0.007	0.097	⊙ 450	1500.00	1.6	0.62	0.099		34.55	
																						32.15	
23	61.58	144.86			61.58	144.86	16,800	0.039		0.039	3.7	0.144		0.013	0.157	⊙ 600	1030.00	1.2	0.65	0.184		32.00	
																						30.76	
24	123.10	267.96			123.10	267.96	31,080	0.072		0.072	3.2	0.230		0.024	0.254	⊙ 700	910.00	1.0	0.66	0.254		30.66	
																						29.75	
P 14																							Pumping Station
25	220.25	488.21			220.25	488.21	36,630	0.132		0.132	2.9	0.383		0.043	0.426	⊙ 900	820.00	0.8	0.70	0.444		34.10	
																						33.44	
26	190.66	678.87			190.66	678.87	78,750	0.183		0.183	2.7	0.494		0.060	0.554	⊙ 1100	1140.00	0.6	0.69	0.656		33.24	
																						32.56	
27	87.79	766.66			87.79	766.66	88,930	0.207		0.207	2.7	0.559		0.067	0.626	⊙ 1100	1240.00	0.6	0.69	0.656		32.56	
																						31.82	
28	211.81	3304.29			211.81	3304.29	383,300	0.892		0.892	2.1	1.873		0.291	2.164	⊙ 1900	920.00	0.4	0.81	2.301		30.56	
																						30.19	
29	96.34	3400.63			96.34	3400.63	394,470	0.918		0.918	2.0	1.836		0.299	2.135	⊙ 1900	1060.00	0.4	0.81	2.301		30.19	
																						29.77	
30	30.29	5454.32			30.29	5454.32	632,700	1.472		1.472	1.9	2.797		0.480	3.277	⊙ 2200	280.00	0.4	0.90	3.402		29.47	
																						29.36	
	to	(37)																					
31	51.74				51.74		6,000	0.014		0.014	4.6	0.064		0.005	0.069	⊙ 400	300.00	1.9	0.63	0.079		34.60	
																						34.03	
32	94.67	146.41			94.67	146.41	16,980	0.040		0.040	3.7	0.237		0.013	0.250	⊙ 700	760.00	1.0	0.66	0.254		33.73	
																						32.97	
33	127.90	274.31			127.90	274.31	31,820	0.074		0.074	3.2	0.237		0.024	0.261	⊙ 800	1110.00	0.8	0.65	0.324		32.87	
																						31.98	

37.00

Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 7	6,400	—	6,400	116 persons/ha	742,200 persons	201 l/c/d	116 m^3/ha/d	7.6 m^3/ha/d

No. of Sewers	Area by Land Use				Area		Total Population	Domestic Wastewater Flow					Other Flow		Total Design Flow	Designed Sewer							Remarks
	Residential Area		Commercial Area					Residential (Ave.)	Commercial (Ave.)	Total	Peaking Factor	Peak Flow	Industrial	Infiltration		Diameter	Length	Slope	Velocity (Full)	Capacity (Full)	Ground Surface Elevation	Sewer Invert Elevation	
	Increment	Total	Increment	Total	Increment	Total																	
	ha	ha	ha	ha	ha	ha	persons	m^3/s	m^3/s	m^3/s		m^3/s	m^3/s	m^3/s	m^3/s	mm	m	‰	m/s	m^3/s	m	m	
(34)	125.05	399.36			125.05	399.36	46,330	0.108		0.108	3.1	0.335		0.035	0.370	⊙ 900	900.00	0.8	0.70	0.444		31.88	
																						31.16	
(35)	91.81	499.17			91.81	491.17	56,980	0.133		0.133	2.9	0.386		0.043	0.429	⊙ 900	1020.67	0.8	0.70	0.444		31.16	
																						30.34	
(36)	86.36	577.53			86.36	577.53	66,990	0.156		0.156	2.8	0.437		0.051	0.488	⊙ 1000	2240.00	0.6	0.69	0.656		30.24	
																					37.00	28.90	
(37)	49.19	6081.04			49.19	6081.04	705,400	1.641		1.641	1.9	3.118		0.535	3.653	⊙ 2300	990.00	0.4	0.92	3.831		27.60	
																						27.20	
(38)	318.96	6400.00			318.96	6400.00	742,400	1.727		1.727	1.9	3.281		0.563	3.844	⊙ 2400	800.00	0.4	0.95	4.291		27.10	
																						26.78	
	to	Treatment	Facilities																				

Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 8	4,195	5	4,200	80 persons/ha	336,700 persons	201 l/c/d	116 m^3/ha/d	7.6 m^3/ha/d

No of Sewers	Area by Land Use: Residential Area Increment	Residential Area Total	Commercial Area Increment	Commercial Area Total	Area Increment	Area Total	Total Population	Domestic Wastewater Flow: Residential (Ave.)	Commercial (Ave.)	Total	Peaking Factor	Peak Flow	Other Flow: Industrial	Infiltration	Total Design Flow	Designed Sewer: Diameter	Length	Slope	Velocity (Full)	Capacity (Full)	Ground Surface Elevation	Sewer Invert Elevation	Remarks
	ha	ha	ha	ha	ha	ha	persons	m^3/s	m^3/s	m^3/s		m^3/s	m^3/s	m^3/s	m^3/s	mm	m	‰	m/s	m^3/s	m	m	
(1)	17.72		5.00		22.72		1,820	0.004	0.007	0.011	4.8	0.052		0.002	0.054	⊙ 350	470.00	2.2	0.62	0.059		34.65	
																						33.62	
(2)	57.28	75.00		5.00	57.28	80.00	6,400	0.015	0.007	0.022	4.2	0.092		0.007	0.099	⊙ 450	670.00	1.6	0.62	0.099		33.52	
																						32.45	
(3)	73.63	148.63		5.00	73.63	153.63	12,290	0.029	0.007	0.036	3.7	0.133		0.014	0.147	⊙ 600	790.00	1.2	0.65	0.184		32.30	
																						31.35	
(4)	60.36	208.99		5.00	60.36	213.99	17,120	0.040	0.007	0.047	3.6	0.169		0.019	0.188	⊙ 700	450.00	1.0	0.66	0.254		31.25	
																						30.80	
(5)	177.37	386.36		5.00	177.37	391.36	31,310	0.073	0.007	0.080	3.3	0.264		0.034	0.298	⊙ 800	1100.00	0.8	0.65	0.324		30.70	
																						29.81	
(P 8-1)																							Pumping Station
(6)	132.14	518.50		5.00	132.14	523.50	41,880	0.097	0.007	0.104	3.1	0.322		0.046	0.368	⊙ 900	780.00	0.8	0.70	0.444		34.10	
																						33.48	
(7)	569.42	1087.92		5.00	569.42	1092.92	87,430	0.203	0.007	0.210	2.7	0.567		0.096	0.663	⊙ 1200	1470.00	0.6	0.73	0.828		33.18	
																						32.30	
(8)	340.79	1428.71		5.00	340.79	1433.71	114,700	0.267	0.007	0.274	2.6	0.712		0.126	0.838	⊙ 1350	1010.00	0.5	0.72	1.034		32.15	
																						31.65	
(9)	93.91	1522.62		5.00	93.91	1527.62	122,210	0.284	0.007	0.291	2.6	0.757		0.134	0.891	⊙ 1350	990.00	0.5	0.72	1.034		31.65	
																						31.16	
(10)	329.56	1852.18		5.00	329.56	1857.18	148,570	0.346	0.007	0.353	2.4	0.847		0.163	1.010	⊙ 1350	1020.00	0.5	0.72	1.034		31.16	
																						30.65	
(11)	639.94	2492.12		5.00	639.94	2497.12	199,770	0.465	0.007	0.472	2.3	1.086		0.220	1.306	⊙ 1500	1900.00	0.5	0.78	1.370		30.50	
																						29.55	
	to	(19)																					
(12)	43.99				43.99		3,520	0.008		0.008	4.8	0.038		0.004	0.042	⊙ 300	800.00	2.8	0.63	0.044		34.70	
																						32.46	
(13)	88.27	132.26			88.27	132.26	10,580	0.025		0.025	4.0	0.100		0.012	0.112	⊙ 500	790.00	1.4	0.62	0.122		32.26	
																						31.15	
(14)	167.73	299.99			167.73	299.99	24,000	0.056		0.056	3.4	0.190		0.026	0.216	⊙ 700	570.00	1.0	0.66	0.254		30.95	
																						30.38	
(15)	285.01	585.00			285.01	585.00	46,800	0.109		0.109	3.1	0.338		0.041	0.379	⊙ 900	970.00	0.8	0.70	0.444		30.18	
																						29.40	
(P 8-2)																							Pumping Station
(16)	73.21	658.21			73.21	658.21	52,660	0.123		0.123	3.0	0.369		0.058	0.427	⊙ 900	1100.00	0.8	0.70	0.444		34.10	
																						33.22	
(17)	237.55	895.76			237.55	895.76	71,660	0.167		0.167	2.8	0.468		0.079	0.468	⊙ 1000	1230.00	0.6	0.65	0.509		33.12	
																						32.38	

37.00

Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 8	4,195	5	4,200	80 persons/ha	336,700 persons	201 l/c/d	116 m^3/ha/d	7.6 m^3/ha/d

No. of Sewers	Area by Land Use				Area		Total Population	Domestic Wastewater Flow					Other Flow		Total Design Flow	Designed Sewer							Remarks
	Residential Area		Commercial Area					Residential (Ave.)	Commercial (Ave.)	Total	Peaking Factor	Peak Flow	Industrial	Infiltration		Diameter	Length	Slope	Velocity (Full)	Capacity (Full)	Ground Surface Elevation	Sewer Invert Elevation	
	Increment	Total	Increment	Total	Increment	Total																	
	ha	ha	ha	ha	ha	ha	persons	m^3/s	m^3/s	m^3/s		m^3/s	m^3/s	m^3/s	m^3/s	mm	m	‰	m/s	m^3/s	m	m	
(18)	387.93	1283.69			387.93	1 283.69	102,700	0.239		0.239	2.7	0.645		0.113	0.758	⊙ 1200	1030.00	0.6	0.73	0.828		32.18	
																						31.56	
(19)	43.66	3819.47		5.00	43.66	3824.47	305,960	0.712	0.007	0.719	2.2	1.582		0.336	1.918	⊙ 1800	690.00	0.4	0.79	1.992	37.00	29.25	
																						28.97	
(20)	375.53	4195.00		5.00	375.53	4 200.00	336,000	0.782	0.007	0.789	2.1	1.657		0.369	2.026	⊙ 1900	410.00	0.4	0.81	2.301		28.87	
																						28.71	
	to Treatment Facilities																						

Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 9	4,595	5	4,600	80 persons/ha	368,100 persons	201 l/c/d	116 m^3/ha/d	7.6 m^3/ha/d

No. of Sewer	Area by Land Use: Residential Area Increment	Residential Area Total	Commercial Area Increment	Commercial Area Total	Area Increment	Area Total	Total Population	Domestic Wastewater Flow: Residential (Ave.)	Commercial (Ave.)	Total	Peaking Factor	Peak Flow	Other Flow: Industrial	Infiltration	Total Design Flow	Designed Sewer: Diameter	Length	Slope	Velocity (Full)	Capacity (Full)	Ground Surface Elevation	Sewer Invert Elevation	Remarks
	ha	ha	ha	ha	ha	ha	persons	m^3/s	m^3/s	m^3/s		m^3/s	m^3/s	m^3/s	m^3/s	mm	m	‰	m/s	m^3/s	m	m	
(1)	26.46		5.00		31.46		2,520	0.006	0.007	0.013	4.6	0.060		0.003	0.063	⊙ 400	530.00	1.9	0.63	0.079		34.60	
																						33.59	
(2)	46.97	73.43		5.00	46.97	78.43	6,280	0.015	0.007	0.022	4.0	0.088		0.007	0.095	⊙ 450	510.00	1.6	0.62	0.099		33.54	
																						32.05	
(3)	376.24	449.67		5.00	376.24	454.67	36,370	0.085	0.007	0.092	3.1	0.285		0.040	0.325	⊙ 900	830.00	0.8	0.70	0.444		31.60	
																						30.94	
(4)	172.18	621.85		5.00	172.18	626.85	50,150	0.117	0.007	0.124	3.0	0.372		0.055	0.427	⊙ 900	640.00	0.8	0.70	0.444		30.94	
																						30.43	
(5)	68.11	689.96		5.00	68.11	694.96	55,600	0.129	0.007	0.136	2.9	0.394		0.061	0.455	⊙1 000	350.00	0.6	0.65	0.509		30.33	
																						30.12	
(6)	96.22	786.18		5.00	96.22	791.18	63,290	0.147	0.007	0.154	2.8	0.431		0.070	0.501	⊙1 000	740.00	0.6	0.65	0.509		30.12	
																						29.68	
P 9-1																							Pumping Station
(7)	295.41	1082.59		5.00	296.41	1087.59	87,010	0.202	0.007	0.209	2.7	0.564		0.096	0.660	⊙1200	1820.00	0.6	0.73	0.828		33.80	
																						32.71	
(8)	249.51	1332.10		5.00	249.51	1337.10	106,970	0.249	0.007	0.256	2.6	0.666		0.118	0.784	⊙1200	1280.00	0.6	0.73	0.828		32.71	
																						31.94	
(9)	585.11	1917.21		5.00	585.11	1922.21	153,780	0.358	0.007	0.365	2.4	0.876		0.169	1.045	⊙1500	1180.00	0.5	0.78	1.370		31.64	
																						31.05	
(10)	402.20	2319.41		5.00	402.20	2324.41	185,960	0.433	0.007	0.440	2.3	1.012		0.204	1.216	⊙1500	1730.00	0.5	0.78	1.370		31.05	
																						30.19	
(11)	1078.64	3398.05		5.00	1078.64	3403.05	272,240	0.633	0.007	0.640	2.2	1.408		0.299	1.707	⊙1800	510.00	0.4	0.78	1.992		29.89	
																						29.69	
	to (20)																						
(12)	75.36				75.36		6,030	0.014		0.014	4.5	0.063		0.007	0.070	⊙ 400	1230.00	1.9	0.63	0.079		34.60	
																						32.26	
(13)	100.24	175.60			100.24	175.60	14,050	0.033		0.033	3.8	0.125		0.015	0.140	⊙ 600	280.00	1.2	0.65	0.184		32.06	
																						31.72	
(14)	135.66	311.26			135.66	311.26	24,900	0.058		0.058	3.4	0.197		0.027	0.224	⊙ 700	510.00	1.0	0.66	0.254		31.62	
																						31.11	
(15)	56.08	367.34			56.08	367.34	29,390	0.068		0.068	3.3	0.224		0.032	0.256	⊙ 800	440.00	0.8	0.65	0.324		31.01	
																						30.66	
(16)	215.91	583.25			215.91	583.25	46,660	0.109		0.109	3.1	0.338		0.051	0.389	⊙ 900	690.00	0.8	0.70	0.444		30.56	
																						30.01	
P 9-2																							Pumping Station
(17)	115.50	698.75			115.50	698.75	55,900	0.130		0.130	3.0	0.390		0.061	0.451	⊙1000	900.00	0.6	0.65	0.509	37.00	34.00	
																						33.46	

Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 9	4,595	5	4,600	80 persons/ha	368,100 persons	201 l/c/d	116 m^3/ha/d	7.6 m^3/ha/d

No. of Sewers	Area by Land Use				Area		Total Population	Domestic Wastewater Flow					Other Flow		Total Design Flow	Designed Sewer							Remarks
	Residential Area		Commercial Area					Residential (Ave.)	Commercial (Ave.)	Total	Peaking Factor	Peak Flow	Industrial	Infiltration		Diameter	Length	Slope	Velocity (Full)	Capacity (Full)	Ground Surface Elevation	Sewer Invert Elevation	
	Increment	Total	Increment	Total	Increment	Total																	
	ha	ha	ha	ha	ha	ha	persons	m^3/s	m^3/s	m^3/s		m^3/s	m^3/s	m^3/s	m^3/s	mm	m	‰	m/s	m^3/s	m	m	
(18)	171.40	870.15			171.40	870.15	69,610	0.162		0.162	2.8	0.454		0.077	0.531	⊙1100	780.00	0.6	0.73	0.826	37.00	33.36	
																						32.89	
(19)	42.60	912.75			42.60	912.75	73,020	0.170		0.170	2.8	0.476		0.080	0.556	⊙1100	900.00	0.6	0.73	0.828		32.89	
																						32.35	
(20)	284.20	4595		5.00	284.20	4600.00	368,000	0.856	0.007	0.863	2.1	1.812		0.405	2.217	⊙1900	500.00	0.4	0.81	2.301		29.58	
																						29.39	
	to Treatment Facilities																						

Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 10	5,355	145	5,500	197 persons/ha	1,085,000 persons	201 l/c/d	116 m^3/ha/d	7.6 m^3/ha/d

No. of Sewers	Area by Land Use: Residential Area Increment (ha)	Residential Area Total (ha)	Commercial Area Increment (ha)	Commercial Area Total (ha)	Area Increment (ha)	Area Total (ha)	Total Population (persons)	Domestic Wastewater Flow: Residential (Ave.) (m^3/s)	Commercial (Ave.) (m^3/s)	Total (m^3/s)	Peaking Factor	Peak Flow (m^3/s)	Other Flow: Industrial (m^3/s)	Infiltration (m^3/s)	Total Design Flow (m^3/s)	Designed Sewer: Diameter (mm)	Length (m)	Slope (‰)	Velocity (Full) (m/s)	Capacity (Full) (m^3/s)	Ground Surface Elevation (m)	Sewer Invert Elevation (m)	Remarks
①	61.36				61.36		12,090	0.028		0.028	3.9	0.109		0.005	0.114	⊙ 500	1200.00	1.4	0.62	0.122		34.50	
																						32.82	
②	89.05	150.41			89.05	150.41	29,630	0.069		0.069	3.3	0.228		0.013	0.241	⊙ 700	800.00	1.0	0.66	0.254		32.62	
																						31.82	
③	86.23	236.64			86.23	236.64	46,620	0.108		0.108	3.1	0.335		0.021	0.356	⊙ 900	650.00	0.8	0.70	0.444		31.62	
																						31.10	
④	68.33	304.97			68.33	304.97	60,080	0.140		0.140	2.9	0.406		0.030	0.436	⊙ 900	680.00	0.8	0.70	0.444		31.10	
																						30.56	
⑤	76.11	381.08			76.11	381.08	75,070	0.175		0.175	2.8	0.490		0.034	0.514	⊙1100	380.00	0.6	0.69	0.656		30.36	
																						30.13	
⑥	281.65	662.73			281.65	662.73	130,560	0.304		0.304	2.5	0.760		0.058	0.818	⊙1200	1020.00	0.6	0.73	0.828		30.03	
																						29.42	
⑦	112.93	775.66			112.93	775.66	152,810	0.355		0.355	2.4	0.852		0.068	0.920	⊙1350	860.00	0.5	0.72	1.034		29.27	
																						28.84	
⑨ (P)																							Pumping Station
⑧	156.62	932.28			156.62	932.28	183,660	0.427		0.427	2.3	0.982		0.082	1.064	⊙1500	1340.00	0.5	0.78	1.370	37.00	33.50	
																						32.83	
⑨	216.96	1149.24			216.94	1149.24	226,400	0.527		0.527	2.2	1.159		0.101	1.260	⊙1500	260.00	0.5	0.78	1.370		32.83	
																						32.70	
⑩	209.55	1358.79			209.55	1358.79	267,680	0.623		0.623	2.2	1.371		0.120	1.491	⊙1650	1300.00	0.4	0.74	1.580		32.55	
																						32.03	
⑪	79.80	1438.59			79.80	1438.59	283,400	0.659		0.659	2.1	1.384		0.127	1.511	⊙1650	680.00	0.4	0.74	1.580		32.03	
																						31.76	
⑫	133.06	1571.65			133.06	1571.65	309,620	0.720		0.720	2.1	1.512		0.138	1.650	⊙1800	1220.00	0.4	0.78	1.992		31.61	
																						31.12	
	to ⑯																						
⑬	24.41				24.41		4,810	0.011		0.011	4.7	0.053		0.002	0.055	⊙ 350	560.00	2.2	0.62	0.059		34.65	
																						33.42	
⑭	118.64	143.05			118.64	143.05	28,180	0.066		0.066	3.3	0.218		0.013	0.231	⊙ 700	550.00	1.0	0.66	0.254		33.07	
																						32.52	
⑮	50.94	193.99			50.94	193.99	38,220	0.089		0.089	3.2	0.285		0.017	0.302	⊙ 800	1020.00	0.8	0.65	0.324		32.42	
																						31.60	
⑯	50.57	1816.21			50.57	1816.21	357,790	0.832		0.832	2.1	1.747		0.160	1.907	⊙1800	990.00	0.4	0.78	1.992		30.60	
																						30.20	
⑰	364.32	2180.53			364.32	2180.53	429,560	0.999		0.999	2.1	2.098		0.192	2.290	⊙1900	1380.00	0.4	0.81	2.301		30.10	
																						29.55	
⑱	190.17	2370.70			190.17	2370.70	467,030	1.086		1.086	2.0	2.172		0.209	2.381	⊙2000	1480.00	0.4	0.84	2.639		29.45	
																						28.86	

Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 10	5,355	145	5,500	197 persons/ha	1,085,000 persons	201 l/c/d	116 m^3/ha/d	7.6 m^3/ha/d

No. of Sewers	Area by Land Use: Residential Area Increment	Residential Area Total	Commercial Area Increment	Commercial Area Total	Area Increment	Area Total	Total Population	Domestic Wastewater Flow: Residential (Ave.)	Commercial (Ave.)	Total	Peaking Factor	Peak Flow	Other Flow: Industrial	Infiltration	Total Design Flow	Designed Sewer: Diameter	Length	Slope	Velocity (Full)	Capacity (Full)	Ground Surface Elevation	Sewer Invert Elevation	Remarks
	ha	ha	ha	ha	ha	ha	persons	m^3/s	m^3/s	m^3/s		m^3/s	m^3/s	m^3/s	m^3/s	mm	m	‰	m/s	m^3/s	m	m	
(19)	101.97	2472.67			101.97	2472.67	487,120	1.133		1.133	2.0	2.266		0.218	2.484	⊙2000	1160.00	0.4	0.84	2.639		28.86	
																						28.40	
	to	(38)																					
(20)	70.03				70.03		13,800	0.032		0.032	3.8	0.122		0.006	0.128	⊙ 600	860.00	1.2	0.65	0.184		34.40	
																						33.37	
(21)	55.19	125.22			55.19	125.22	24,670	0.057		0.057	3.4	0.194		0.011	0.205	⊙ 700	870.00	1.0	0.66	0.254		33.27	
																						32.40	
(22)	90.57	215.79			90.57	215.79	42,510	0.099		0.099	3.1	0.307		0.019	0.326	⊙ 900	410.00	0.8	0.70	0.444		32.20	
																						31.87	
(23)	78.59	294.38	82.61		161.20	376.99	74,270	0.173	0.111	0.284	2.5	0.710		0.033	0.743	⊙1200	1050.00	0.6	0.73	0.828		31.57	
																						30.94	
(24)	88.13	382.51	48.50	131.11	136.63	513.62	101,180	0.235	0.176	0.411	2.3	0.945		0.045	0.990	⊙1350	1570.00	0.5	0.72	1.034		30.79	
																						30.01	
(25)	290.50	673.01	13.89	145.00	304.39	818.01	161,150	0.375	0.195	0.570	2.2	1.254		0.072	1.326	⊙1500	900.00	0.5	0.78	1.370		29.86	
																						29.41	
(26)	157.59	830.60		145.00	157.59	975.60	192,190	0.447	0.195	0.642	2.2	1.412		0.086	1.498	⊙1650	1340.00	0.4	0.74	1.580		29.26	
																						28.72	
(27)	85.18	915.78		145.00	85.18	1060.78	208,970	0.486	0.195	0.681	2.1	1.430		0.093	1.523	⊙1650	1130.00	0.4	0.74	1.580		28.72	
																						28.27	
(28)	155.70	1071.48		145.00	155.70	1216.48	239,650	0.558	0.195	0.753	2.1	1.581		0.107	1.688	⊙1800	1150.00	0.4	0.78	1.992		28.12	
																						27.66	
	to	(38)																					
(29)	50.98				50.98		10,040	0.023		0.023	4.1	0.094		0.004	0.098	⊙ 450	710.00	1.6	0.62	0.099		34.55	
																						33.41	
(30)	67.76	118.74			67.76	118.74	23,390	0.054		0.054	3.4	0.184		0.010	0.194	⊙ 700	510.00	1.0	0.66	0.254		33.16	
																						32.65	
(31)	92.41	211.15			92.41	211.15	41,600	0.097		0.097	3.1	0.301		0.019	0.320	⊙ 800	770.00	0.8	0.65	0.324		32.55	
																						31.93	
(32)	96.33	307.48			96.33	307.48	60,570	0.141		0.141	2.9	0.409		0.027	0.436	⊙ 900	720.00	0.8	0.70	0.444		31.83	
																						31.25	
(33)	170.28	477.76			170.28	477.76	94,120	0.219		0.219	2.7	0.591		0.042	0.633	⊙1100	800.00	0.6	0.69	0.656		31.05	
																						30.57	
(34)	459.64	937.40			459.64	937.40	184,670	0.430		0.430	2.3	0.989		0.082	1.071	⊙1500	1150.00	0.5	0.78	1.370		30.17	
																						29.60	
(35)	166.48	1103.88			166.48	1103.88	217,460	0.506		0.506	2.2	1.113		0.097	1.210	⊙1500	880.00	0.5	0.78	1.370		29.60	
																						29.16	
(36)	270.17	1374.05			270.17	1374.05	270,690	0.630		0.630	2.2	1.386		0.121	1.507	⊙1650	1080.00	0.4	0.74	1.580	37.00	29.01	
																						28.58	

Name of Zone	Area (ha)			Population Density	Population	Unit Flow		
	Residential	Commercial	Total			Per Capita	Commercial	Infiltration
ZONE 10	5,355	145	5,500	197 persons/ha	1,085,000 persons	201 l/c/d	116 m^3/ha/d	7.6 m^3/ha/d

No. of Sewers	Area by Land Use				Area		Total Population	Domestic Wastewater Flow					Other Flow		Total Design Flow	Designed Sewer							Remarks
	Residential Area		Commercial Area					Residential (Ave.)	Commercial (Ave.)	Total	Peaking Factor	Peak Flow	Industrial	Infiltration		Diameter	Length	Slope	Velocity (Full)	Capacity (Full)	Ground Surface Elevation	Sewer Invert Elevation	
	Increment	Total	Increment	Total	Increment	Total																	
	ha	ha	ha	ha	ha	ha	persons	m^3/s	m^3/s	m^3/s		m^3/s	m^3/s	m^3/s	m^3/s	mm	m	‰	m/s	m^3/s	m	m	
(37)	122.26	1496.31			122.26	1496.31	294,770	0.686		0.686	2.1	1.441		0.132	1.573	⊙1650	480.00	0.4	0.74	1.580	37.00	28.58	
																						28.39	
(38)	314.54	5355.00		145.00	314.54	5500.00	1083,500	2.521	0.195	2.716	1.8	4.889		0.484	5.373	⊙2700	1100.00	0.4	1.03	5.874		26.76	
																						26.32	
	to Tratment Facilities																						