

付録J 排水路の疎通能力

表 J. 1 排水路の既存能力

Catchment Code No.	Proposed Line No.	Point	Existing Drain		Proposed Design Storm Discharge (m ³ /sec)
			Width(m)× Height (m)	Capacity (m ³ /sec)	
N-1	9	1	E TA 27.6 × 1.7	15.94	98.14 (10.6)
		2	E TA 21.1 × 1.8	13.00	
		3	E TA 16.6 × 1.7	9.29	
		4	E TA 7.7 × 1.3	2.72	
	8	5	E TZ $\frac{12.1}{4.6} \times 1.3$	7.32	102.55 (34.9)
		6	E TA 6.8 × 1.5	2.94	
	3	7	E TA 7.1 × 1.6	3.46	88.88 (25.7)
	1	8	E TA 8.0 × 1.3	2.82	87.28 (28.9)
		9	E TA 9.5 × 2.2	6.16	
		10	E TA 7.9 × 1.4	3.12	
		11	TZ $\frac{9.5}{0.9} \times 1.7$	3.02	
N-2	5	1	E TA 5.6 × 1.3	1.71	17.84 (10.4)
		2	E TA 5.6 × 1.3	1.71	
		3	E TZ $\frac{4.4}{2.0} \times 1.0$	3.63	
	2	4	C TZ $\frac{6.3}{3.9} \times 1.7$	7.34	12.40 (6.5)
		5	C TZ $\frac{5.8}{0.4} \times 1.8$	1.22	
		6	E TZ $\frac{3.6}{1.6} \times 0.9$	1.90	
	1	7	E TZ $\frac{3.8}{0.6} \times 1.2$	2.18	11.11 (2.5)
		8	C TZ $\frac{3.9}{2.4} \times 1.4$	9.59	
		9	C TZ $\frac{4.0}{1.9} \times 1.3$	4.62	

Note 1; E : Earth TZ : Trapezoidal C : Concrete

TA : Triangle CB : Concrete Block

2; Figures in parentheses is a ratio of proposed design storm discharge to existing drain capacity

3; Point is shown in Fig.2.10, Proposed line No. is shown in Figs.5.8 to 5.10 of Vol.VI.

Catchment Code No.	Proposed Line No.	Point	Existing Drain		Proposed Design Storm Discharge (m ³ /sec)
			Width(m)×Height (m)	Capacity (m ³ /sec)	
N-2	1	10	C TZ 3.5 × 1.0	4.40	
		11	C TA 3.8 × 0.6	1.23	
N-4	3	1	C TZ 7.0 × 2.7	17.57	14.98 (2.1)
		2	C TZ 8.0 × 1.6	9.19	
		3	C TZ 6.4 × 2.1	9.24	
		4	C TZ 6.9 × 1.4	7.42	
	2	5	C TZ 7.5 × 2.0	21.21	10.71 (1.4)
		6	C TZ 6.7 × 1.6	14.14	
		7	C TZ 5.6 × 1.3	7.48	
	1	8	C TZ 4.5 × 1.1	7.71	8.60 (3.8)
		9	C TZ 1.8 × 0.6	2.28	
		10	C TZ 2.9 × 1.2	7.52	
N-5	6	1	C TZ 7.9 × 3.0	49.56	13.43 (0.8)
		2	C TZ 6.0 × 1.9	17.22	
	3	3	C TA 3.8 × 1.4	3.57	7.08 (2.0)
		4	C TZ 4.0 × 1.4	4.78	
	2	5	C TA 3.0 × 1.1	1.98	4.52 (2.3)
		6	C TA 2.2 × 1.0	1.93	
	1	7	C TZ 3.0 × 1.1	8.14	2.35 (0.3)

Catchment Code No.	Proposed Line No.	Point	Existing Drain		Proposed Design Storm Discharge (m ³ /sec)
			Width(m)×Height (m)	Capacity (m ³ /sec)	
N-6	11,12,13	1	(i=1.9°/∞) ϕ 1,200	1.47	10.85 (7.4)
	4	2	C TA 1.3 × 1.2	0.70	3.63 (5.2)
	3	3	C TZ 1.6 × 1.0 0.4	1.07	3.12 (2.9)
		4	C TA 1.8 × 1.2	1.15	
		5	C TA 1.2 × 0.7	0.32	
	2	6	C TA 2.0 × 1.1	1.15	2.18 (1.9)
	1	7	C TA 2.9 × 0.9	1.42	2.11 (1.5)
N-7	5	1	E TZ 4.3 × 0.9 2.9	2.22	5.04 (2.4)
		2	CBTZ 2.5 × 0.9 2.2	2.08	
	3	3	CBTZ 1.5 × 0.8 1.2	0.56	2.87 (5.1)
N-8	6	1	E TZ 12.5 × 2.1 1.6	7.48	26.36 (24.6)
		2	E TZ 10.6 × 1.4 4.1	4.56	
		3	E TZ 4.6 × 0.9 2.8	1.14	
		4	E TZ 4.4 × 1.0 1.9	1.07	
	1	5	E TZ 4.9 × 0.9 0.8	1.05	9.22 (8.8)
		6	E TZ 4.2 × 1.5 1.3	2.29	
		7	E TZ 4.6 × 1.1 1.1	1.47	
		8	E TZ 2.3 × 0.7 1.2	0.46	
		9	E TZ 3.4 × 0.8 1.3	0.75	

Catchment Code No.	Proposed Line No.	Point	Existing Drain		Proposed Design Storm Discharge (m ³ /sec)			
			Width(m)×Height (m)	Capacity (m ³ /sec)				
		10	E TZ	3.2 × 0.7 1.8	0.70	7.10 (6.2)		
		11	E TZ	1.8 × 0.6 0.5	0.21			
	2	12	C TZ	2.9 × 1.3 1.6	3.59			
		13	E TZ	4.8 × 1.3 1.9	0.94			
		14	E TZ	4.3 × 1.1 1.8	2.08			
		15	E TZ	3.8 × 0.9 1.1	1.14			
		16	E TZ	2.3 × 1.2 1.0	1.05			
		17	E TZ	4.7 × 1.3 0.9	2.18			
		18	C TA	1.5 × 1.0	0.54			
	19	C TZ	2.9 × 0.7 0.8	1.11				
	N-9	8	1	E TZ	6.6 × 1.7 1.1		3.77	25.59 (6.7)
			2	E TA	9.5 × 1.7		4.60	
		7	3	E TZ	3.5 × 1.2 2.2		1.75	25.29 (14.5)
			5	4	E TZ		5.8 × 2.4 1.3	
		5		E TZ	4.6 × 1.2 1.6		1.96	
		6		E TZ	4.0 × 1.1 1.5		1.47	
		7		E TA	2.8 × 1.5		0.92	
		8		E TZ	4.1 × 1.3 1.3		1.77	
		9		E TZ	3.2 × 0.8 1.1		0.67	
10		E TZ	2.9 × 1.0 0.7	0.75				

Catchment Code No.	Proposed Line No.	Point	Existing Drain		Proposed Design Storm Discharge (m ³ /sec)	
			Width(m)×Height (m)	Capacity (m ³ /sec)		
N-9	4	11	E TZ	4.4 × 1.0 0.9	1.17	13.22 (38.9)
		12	E TZ	2.5 × 0.5 1.7	0.34	
	2	13	E TZ	4.5 × 1.5 0.3	2.25	9.86 (4.4)
		14	E TZ	4.9 × 1.5 1.1	3.06	
		15	E TZ	3.5 × 1.0 0.6	1.05	
		16	E TZ	4.4 × 1.3 1.2	2.32	
		17	C TA	2.6 × 0.9	0.95	
S-1	3	1	E TZ	5.8 × 1.3 1.1	2.36	8.17 (3.5)
		2	E TZ	5.7 × 1.7 1.7	3.12	7.45 (3.0)
	2	3	E TZ	4.5 × 1.3 1.3	1.96	
		4	E TZ	5.0 × 1.5 1.0	2.48	
	1	5	E TZ	3.2 × 0.8 1.3	1.60	6.21 (4.8)
		6	E TZ	3.8 × 1.3 0.5	2.97	
		7	E TA	3.1 × 0.9	1.09	
		8	E TA	2.8 × 1.1	1.29	
S-2	4	1	E TZ	12.5 × 1.6 3.1	13.23	17.39 (1.3)
		2	CBTA	2.9 × 1.2	1.72	12.56 (7.3)
	2	3	CBTZ	2.4 × 1.0 1.2	1.88	
		4	CBTZ	2.2 × 1.2 0.4	1.30	
		5	CBTZ	3.4 × 1.6 0.3	3.00	

Catchment Code No.	Proposed Line No.	Point	Existing Drain		Proposed Design Storm Discharge (m ³ /sec)
			Width(m)xHeight (m)	Capacity (m ³ /sec)	
S-2	1	6	E TZ 3.8 × 0.9	0.63	12.56 (15.9)
		7	E TZ 2.9 × 0.6	0.79	
		8	E TZ 3.2 × 0.7	1.38	
S-3	1	1	CBTZ 1.6 × 1.7	4.91	3.45 (1.9)
		2	CBTZ 1.5 × 1.4	2.14	
		3	CBTZ 1.5 × 1.2	1.78	
S-4	1	1	CBTZ 1.6 × 3.0	1.69	10.67 (6.3)
		2	CBTZ 2.7 × 1.4	2.57	
		3	CBTZ 2.8 × 1.0	2.57	
		4	CBTZ 1.5 × 1.4	0.57	
S-5	3	1	CBTZ 2.8 × 0.6	0.36	11.98 (10.8)
		2	CBTZ 2.7 × 1.2	1.11	
		3	E TZ 4.1 × 1.5	1.59	
		4	E TZ 3.2 × 0.8	0.57	
	2	5	E TZ 4.3 × 1.0	2.60	6.84 (2.6)
		6	E TZ 2.6 × 1.2	1.40	
		7	E TZ 3.0 × 1.1	2.65	
	1	8	E TZ 1.0 × 0.8	0.51	2.93 (5.7)
		9	E TZ 3.5 × 1.3	6.21	
	4	10	E TZ 10.7 × 1.1	1.75	

Catchment Code No.	Proposed Line No.	Point	Existing Drain		Proposed Design Storm Discharge (m ³ /sec)		
			Width(m)×Height (m)	Capacity (m ³ /sec)			
S-5	4	11	E TA	9.4 × 1.1	1.15	5.96 (7.2)	
		12	E TZ	3.6 × 0.8	0.33		
		13	E TZ	4.8 × 0.8	0.55		
		14	E TZ	4.0 × 1.2	0.83		
		15	E TZ	4.4 × 1.2	1.03		
		16	E TZ	3.0 × 1.2	0.56		
		17	E TZ	3.8 × 1.2	0.56		
		18	E TZ	4.1 × 1.0	0.56		
	(New S-8)	7	19	E TZ	4.5 × 1.1	3.23	15.80 (7.8)
			20	E TZ	4.0 × 1.5	1.44	
			21	E TZ	1.0 × 0.8	1.01	
			22	E TZ	3.2 × 0.8	2.03	
	S-6	1	1	E TZ	4.7 × 1.5	2.85	7.38 (14.5)
			2	E TA	5.2 × 1.7	3.06	
			3	E TA	0.3 × 1.7	0.51	
			4	E TA	0.8 × 1.6	0.38	
			5	E TA	2.9 × 0.7	0.09	
			6	E TA	2.5 × 0.3	0.33	
S-7	2	1	E TZ	3.9 × 0.5	2.24	9.98 (15.8)	
		2	E TZ	7.0 × 1.3	1.81		
		3	E TZ	0.7 × 0.4	0.14		
		4	E TA	3.7 × 0.4	0.63		
					0		

Catchment Code No.	Proposed Line No.	Point	Existing Drain		Proposed Design Storm Discharge (m ³ /sec)
			Width(m)×Height (m)	Capacity (m ³ /sec)	
S-7	1	5	E TZ 3.2 × 0.7 1.2	0.23	3.47 (23.1)
		6	E TA 2.7 × 0.6	0.04	
		7	E TA 2.2 × 0.5	0.04	
		8	E TA 2.7 × 0.4	0.15	
S-8	9	1	E TZ 10.7 × 1.1 6.4	3.91	40.91 (21.8)
		2	E TA 7.5 × 1.4	1.88	
	8	3	E TA 5.8 × 0.9	0.71	42.61 (60.0)
		4	E TA 5.5 × 1.5	1.46	
	5	5	E TA 4.1 × 0.8	0.40	32.19 (80.5)
	3	6	E TZ 5.3 × 1.0 2.3	1.63	28.29 (23.8)
		7	E TA 5.1 × 1.2	1.19	
	2	8	E TZ 5.6 × 0.9 1.8	1.29	29.55 (13.4)
		9	E TZ 3.8 × 1.9 1.1	2.36	
		10	E TZ 6.2 × 2.1 1.6	3.11	
		11	E TZ 5.1 × 2.1 1.0	2.21	
		12	E TZ 7.8 × 2.0 4.7	5.14	
		13	E TZ 5.2 × 1.8 1.2	1.40	
		14	E TZ 6.8 × 2.0 1.1	2.40	
	1	15	E TA 4.8 × 1.7	1.36	
		16	E TA 5.4 × 1.8	2.32	

Catchment Code No.	Proposed Line No.	Point	Existing Drain		Proposed Design Storm Discharge (m ³ /sec)
			Width(m)×Height (m)	Capacity (m ³ /sec)	
S-8	1	17	E TZ 3.8 × 1.2	1.12	30.84 (20.8)
		18	E TZ 4.6 × 1.5	1.92	
		19	E TZ 3.6 × 1.6	1.59	
		20	C TA 5.2 × 1.2	1.48	
S-9	3	1	E TA 4.7 × 2.0	1.83	15.09 (8.2)
	1	2	E TA 10.5 × 1.5	2.98	4.40 (4.9)
		3	E TZ 3.4 × 0.8	0.98	
		4	E TZ 2.2 × 0.8	0.89	
		5	E TZ 2.5 × 0.6	0.66	
		6	E TZ 5.7 × 1.1	3.02	
	2	7	E TA 9.8 × 1.5	5.85	5.59 (1.9)
		8	E TA 8.9 × 1.7	6.52	
		9	E TA 1.0 × 0.8	0.15	
		10	E TZ 8.2 × 1.4	5.48	
	4	11	E TZ 5.5 × 0.8	1.51	6.18 (4.1)
		12	E TA 5.2 × 0.5	0.45	
		13	E TZ 5.3 × 0.8	1.67	
14		E TZ 2.0 × 0.8			
S-10	3	1	E TZ 6.9 × 1.6	2.47	17.04 (6.9)
	1	2	E TZ 3.2 × 2.3	1.64	
		3	E TZ 3.5 × 1.1	0.47	

Catchment Code No.	Proposed Line No.	Point	Existing Drain		Proposed Design Storm Discharge (m ³ /sec)		
			Width(m)×Height (m)	Capacity (m ³ /sec)			
S-10	1	4	E TZ	5.8 × 1.4 1.8	1.54	8.53 (5.5)	
		5	GBTZ	4.1 × 1.2 1.0	1.11		
		6	GBTZ	3.4 × 1.1 1.1	0.87		
		7	CBTA	3.5 × 1.0	0.50		
		8	GBTZ	2.0 × 0.7 1.0	0.24		
	2	9	E TZ	1.4 × 0.5 0.6	0.23	4.80 (9.1)	
		10	E TZ	1.7 × 0.6 0.6	0.17		
		11	E TZ	3.1 × 1.4 0.5	1.53		
		12	E TZ	2.0 × 0.6 0.8	0.24		
		13	C TZ	3.4 × 1.1	3.30		
		14	C TZ	1.5 × 0.8 0.3	0.53		
		A-1	8	1	E TA		2.8 × 0.9
	2			E TZ	3.6 × 0.7 0.9	0.38	
	3			E TZ	2.9 × 0.9 1.3	0.41	
4	E TZ			2.7 × 0.7 2.2	0.75		
6	5		E TZ	2.6 × 1.1 2.0	1.31	33.83 (29.7)	
	6		E TZ	2.8 × 1.1 1.7	1.33		
	7		E TA	1.8 × 0.8	0.27		
	8		E TZ	2.8 × 1.0 1.7	1.14		
	9		E TZ	3.0 × 1.3 1.6	1.67		
	10		E TZ	2.7 × 1.5 1.4	1.76		
	11		E TZ	2.0 × 0.9 0.5	0.44		

Catchment Code No.	Proposed Line No.	Point	Existing Drain		Proposed Design Storm Discharge (m ³ /sec)		
			Width(m)×Height (m)	Capacity (m ³ /sec)			
A-1	6	12	E TZ	2.7 0.8 × 1.0	0.79		
	5	13	E TZ	4.7 1.6 × 1.2	2.20	28.27 (12.9)	
	3	14	E TZ	3.2 1.8 × 1.3	1.95	25.72 (13.2)	
		15	E TZ	4.6 1.8 × 1.4	2.76		
	1	16	E TZ	3.3 0.8 × 0.7	0.58	17.67 (30.5)	
	7		17	E TA	8.8 × 1.9	5.68	7.18 (1.6)
			18	E TZ	9.5 1.2 × 1.7	6.28	
			19	E TZ	7.0 1.0 × 1.5	3.79	
			20	E TZ	7.0 3.9 × 1.4	5.42	
			21	E TZ	6.1 2.2 × 1.4	3.82	
			22	E TZ	8.0 3.5 × 1.2	4.40	
			23	E TZ	6.1 2.0 × 1.5	4.03	
			24	E TZ	6.4 3.4 × 1.2	3.81	
			25	E TZ	5.7 3.4 × 0.9	2.27	
		9		26	C TA	4.6 × 0.7	
			27	C TZ	6.1 1.0 × 2.3	5.57	
			28	C TZ	2.8 1.6 × 1.8	3.18	
			29	C TZ	3.4 1.0 × 1.8	2.97	
			30	C TZ	4.1 1.9 × 1.8	3.69	
			31	E TZ	4.2 1.2 × 1.3	1.27	
			32	E TZ	3.2 1.8 × 0.9	1.01	
			33	E TZ	2.7 1.1 × 0.8	0.60	

Catchment Code No.	Proposed Line No.	Point	Existing Drain		Proposed Design Storm Discharge (m ³ /sec)		
			Width(m)×Height (m)	Capacity (m ³ /sec)			
A-2	4	1	E TA	5.1 × 1.1	1.04	15.53 (26.8)	
		2	E TA	5.0 × 1.4	0.58		
	2	1	3	E TA	5.7 × 1.4	1.69	5.36 (3.2)
			4	E TZ	4.4 × 1.1	0.78	
			5	E TZ	4.5 × 1.3	1.61	
			6	E TZ	5.6 × 1.4	1.94	
			7	E TZ	3.9 × 1.4	1.44	
			8	E TA	5.7 × 1.5	1.87	
			9	E TZ	5.1 × 0.9	1.19	
	10		E TA	8.0 × 1.6	5.57	9.41 (3.8)	
	11		E TA	7.4 × 2.0	2.26		
	12	E TA	4.7 × 1.5	1.78			
	13	E TZ	5.4 × 1.1	2.78			
	14	E TA	5.2 × 1.4	2.79			
	15	E TA	5.7 × 1.2	2.45			
	16	E TA	1.4 × 1.3	0.54			
A-3	7	1	E TZ	8.7 × 0.6	1.19	13.70 (16.5)	
		2	E TZ	5.9 × 0.6	0.83		
		3	E TZ	9.7 × 2.0	7.62	10.03 (11.3)	
		4	E TZ	4.0 × 0.8	0.91		
		5	E TZ	4.4 × 0.8	0.86		

Catchment Code. No.	Proposed Line No.	Point	Existing Drain		Proposed Design Storm Discharge (m ³ /sec)		
			Width(m)×Height (m)	Capacity (m ³ /sec)			
A-3	4	6	E TZ	3.4 1.0 × 0.8	0.70	2.15 (3.7)	
		7	E TA	3.1 × 1.0	0.57		
		8	E TZ	2.8 0.9 × 0.8	0.57		
		9	E TZ	3.5 1.1 × 0.9	0.87		
		10	E TA	3.1 × 1.0	0.58		
	3	11	E TZ	10.3 2.4 × 1.1	3.50	5.76 (3.0)	
		12	E TZ	8.5 2.8 × 0.8	1.92		
		13	E TZ	9.0 2.5 × 1.5	5.36		
		14	E TZ	8.9 4.4 × 1.3	5.38		
		15	E TA	5.8 × 1.2	1.56		
	2	16	E TA	7.6 × 2.1	5.03	4.11 (4.8)	
		17	E TA	3.8 × 1.1	0.85		
		18	E TA	5.1 × 1.4	1.62		
		19	C TA	1.4 × 0.9	0.11		
		20	C TA	0.8 × 0.4	0.05		
	A-4	9	1	E TA	7.2 × 0.5	0.58	7.99 (13.8)
		4	2	CBTA	3.7 × 1.2	1.71	4.78 (4.2)
			3	CBTZ	2.7 1.9 × 0.7	1.14	
	3	4	CBTZ	0.6 0.4 × 0.5	0.09	3.87 (43.0)	
	A-5	4	1	E TZ	7.0 3.8 × 1.8	10.98	13.91 (1.3)
-		2	φ	1.2 (i=0.2°/∞)	0.48		

付録K 施 設 計 画
(フイージビリティスタディ)

表 K. 1. N-5 排水区水理計算

Name of Catchment	Line No.	Inflow No.	in Year 2000										Existing Condition			Remarks						
			Area		Length		Time of Flow in the Drain		Runoff		Design Runoff		Runoff		Proposed Drain		Existing Drain					
			Each (ha)	Total (ha)	Each (m)	Total (m)	Each (min)	Total (min)	Concentration (min)	Runoff Coefficient	Storage Coefficient	Per ha (m ³ /s)	Total (m ³ /s)	Major Storm (m ³ /s)	Size (m)		Slope (‰)	Velocity (m/s)	Capacity (m ³ /s)	Size (m)	Capacity (m ³ /s)	
N-5	①		3.29		370		6.2	6.2	16.2	0.75	0.64	0.271	0.89	1.22		1.1x1.1	1.0	1.05	1.15			R1 = 3.24 R2
	②	①	2.24	5.53	195	565	2.5	8.7	18.7	0.75	0.61	0.248	1.37	1.89		1.2x1.2	1.5	1.37	1.77			R1 = 2.24
	③		2.93		260		3.0	3.0	13.0	0.75	0.90	0.312	0.91	1.24		0.9x0.9	2.7	1.52	1.10			R1 = 2.93
	④	②	2.07	10.53	155	720	1.8	10.5	20.5	0.71	0.80	0.223	2.35	3.24		1.4x1.4	1.5	1.52	2.67			R1 = 1.73 C = 0.94
	⑤	③	3.96		420		5.5	5.5	15.5	0.70	0.85	0.260	1.03	1.41		1.0x1.0	1.8	1.33	1.19			R1 = 3.76 S = 0.80
	⑥	④	8.11	22.60	400	1120	4.5	15.0	25.0	0.72	0.77	0.200	4.52	6.26		2.0x2.0	1.0	1.57	5.65			R1 = 7.43 R2 = 0.46 C = 0.22
	⑦	⑤	7.82		540		6.4	6.4	16.4	0.78	0.84	0.281	2.20	3.02		1.4x1.4	1.4	1.46	2.58			R1 = 7.82 R2 = 2.32 C = 4.48
	⑧	⑥	1.39		240		5.4	5.4	15.4	0.79	0.85	0.294	0.31	0.56		0.9x0.9	0.8	0.82	0.60			R2 = 0.43 C = 0.98
	⑨	⑦	0.35	9.56	115	655	1.4	7.8	17.8	0.85	0.82	0.290	2.77	3.81		1.6x1.6	1.2	1.48	3.42			R2 = 0.35
	⑩	⑧	7.18	39.34	400	1520	4.2	19.2	29.2	0.72	0.75	0.180	7.08	9.85		2.3x2.3	0.9	1.64	7.79			R2 = 7.09 C = 0.69
	⑪	⑨	1.20		220		4.6	4.6	14.6	0.80	0.86	0.307	0.37	0.51		0.8x0.8	1.0	0.85	0.49			R2 = 0.35 S = 0.85 C = 0.74
	⑫	⑩	0.74	4.128	75	1595	0.8	20.0	30.0	0.71	0.75	0.175	7.22	10.05		2.4x2.4	0.9	1.68	8.72			C = 3.06
	⑬	⑪	3.06		535		10.4	10.4	20.4	0.80	0.80	0.282	0.87	1.20		1.1x1.1	0.7	0.88	0.96			C = 4.47
	⑭	⑫	4.47		310		3.9	3.9	13.9	0.90	0.88	0.359	1.60	2.19		1.2x1.2	1.5	1.37	1.77			C = 4.47
	⑮	⑬	0.09	7.62	40	575	0.5	10.9	20.9	0.69	0.79	0.274	2.09	2.88		1.4x1.4	1.3	1.41	2.49			C = 0.09
	⑯	⑭	1.78		340		7.5	7.5	17.5	0.53	0.62	0.182	0.32	0.44		0.8x0.8	1.0	0.85	0.49			R2 = 1.61 C = 0.17 C = 0.06
	⑰	⑮	0.06	9.46	25	600	0.3	11.2	21.2	0.82	0.79	0.251	2.37	3.27		1.5x1.5	1.3	1.48	2.99			C = 0.06
	⑱	⑯	0.77	5.151	170	1765	1.7	21.7	31.7	0.79	0.75	0.175	2.02	2.57		2.6x2.6	0.8	1.68	10.18			C = 0.77

Legend : { C : Commercial Area (High Density)
R1 : Residential Area (High Density)
R2 : Residential Area (Medium Density)
S : Institutional Area
I : Industrial Area
O : Open Space

Name of Catchment	Line No.	Inflow No.	in Year 2000															Existing Condition			Remarks						
			Area		Length		Time of Flow in the Drain		Runoff Coefficient	Storage Coefficient	Per ha (m ³ /s)	Design Runoff		Major Storm (m ³ /s)	Proposed Drain			Existing Drain									
			Each (ha)	Total (ha)	Each (m)	Total (m)	Each (min)	Total (min)				Time of Concentration (min)	Runoff (m ³ /s)		Runoff Coefficient	Each (m)	Total (m)	Slope (%s)	Velocity (m/s)	Capacity (m ³ /s)		Runoff (m ³ /s)	Size (m)	Capacity (m ³ /s)			
			Each (ha)	Total (ha)	Each (m)	Total (m)	Each (min)	Total (min)	Time of Concentration (min)	Runoff (m ³ /s)	Runoff Coefficient	Per ha (m ³ /s)	Total Runoff (m ³ /s)	Major Storm (m ³ /s)	Size (m)	Slope (%s)	Velocity (m/s)	Capacity (m ³ /s)	Runoff (m ³ /s)	Size (m)		Capacity (m ³ /s)					
N-5	(14)			2.25		285		5.1	5.1	15.1	0.85	0.86	0.322	0.72	0.99	0.99	0.89										C = 2.05 ha O = 0.20
	(6)			4.17	57.99	165	1930	1.7	23.4	33.4	0.72	0.74	0.166	9.62	13.43	1.72	11.26		6.0 x 1.3	13.17							R ₂ = 2.31 C = 0.84 O = 0.22 S = 0.60
	(15)			8.37		635		11.5	11.5	21.5	0.56	0.79	0.170	1.42	1.96		1.69										R ₂ = 2.08 C = 0.29 C = 3.20
	(7)			3.20	69.50	60	1980	0.6	24.0	34.0	0.71	0.74	0.162	11.26	15.72		13.16		7.6 x 2.7	57.05							

表 K. 2. N-6 排水区水理計算

Name of Catchment	Line No.	Inflow No.	Year 2000										Existing Condition			Remarks							
			Area		Length		Time of Flow in the Drain		Runoff		Storage		Design		Proposed Drain		Runoff		Capacity				
			Each (ha)	Total (ha)	Each (m)	Total (m)	Each (min)	Total (min)	Concentration (min)	Time of	Runoff Coefficient	Storage Coefficient	Per ha (m ³ /s)	Total (m ³ /s)	Major Storm (m ³ /s)		Size (m)	Slope (%)	Velocity (m/s)	Capacity (m ³ /s)	Runoff (m ³ /s)	Size (m)	Capacity (m ³ /s)
N-6	1	1	5.88		755		10.8	10.8	20.8	0.74	0.79	0.228	1.34	1.85		W 1.2x1.2	1.2	1.22	1.39				R1 = 4.17 C = 1.78 O = 0.34 R2
	2		1.63		280		4.3	4.3	14.3	0.75	0.87	0.293	0.48	0.66		W 0.8x0.8	2.0	1.21	0.69				R1 = 1.63
	3		1.79	3.42	75	355	1.1	5.4	15.4	0.75	0.85	0.279	0.95	1.30		W 1.0x1.0	1.5	1.21	1.09				R1 = 1.79
	1	1	0.26	9.56	120	875	1.6	12.4	22.4	0.75	0.78	0.221	2.11	2.92		W 1.5x1.5	1.0	1.30	2.62				C = 0.26
	2		0.66	10.22	160	1035	2.0	14.4	24.4	0.76	0.77	0.213	2.18	3.02		W 1.5x1.5	1.2	1.42	2.88				C = 0.66
	4		1.20		120		1.6	1.6	11.6	0.86	0.94	0.387	0.46	0.63		W 0.7x0.7	2.0	1.35	0.60				R1 = 0.30 C = 0.90
	3	2	5.13	16.55	625	1660	7.7	22.1	32.1	0.80	0.74	0.188	3.12	4.35		W 1.7x1.7	1.0	1.42	3.67				R2 = 0.29 C = 4.04
	4		3.72	20.27	340	2000	4.0	26.1	36.1	0.82	0.73	0.179	3.63	5.08		W 1.8x1.8	1.0	1.45	4.27				C = 3.72
	5		2.82		320		5.3	5.3	15.3	0.72	0.85	0.269	0.76	1.04		W 1.0x1.0	1.2	1.08	0.98				R1 = 2.54 C = 0.00 O = 0.20
	5	5	2.92	5.74	270	590	4.1	9.4	19.4	0.76	0.80	0.244	1.40	1.93		W 1.3x1.3	1.0	1.18	1.79				R1 = 1.92 C = 1.00
	6		0.95	6.69	175	765	2.6	12.0	22.0	0.72	0.79	0.217	1.45	2.00		W 1.3x1.3	1.0	1.18	1.79				S = 0.95
	6		2.60		325		6.2	6.2	16.2	0.69	0.84	0.249	0.65	0.89		W 0.9x0.9	1.5	1.13	0.82				R1 = 2.25 O = 0.35
	7		3.76	6.36	285	680	4.3	10.5	20.5	0.80	0.189	1.20	1.66	1.66		W 1.2x1.2	1.1	1.17	1.52				R2 = 2.81 O = 0.22 S = 2.73 O = 0.88
	7	6	0.88	12.82	205	970	2.9	14.9	24.9	0.64	0.77	0.178	2.48	3.44		W 1.6x1.6	0.8	1.21	2.79				O = 0.88
	8		3.94		315		6.2	6.2	16.2	0.30	0.84	0.108	0.43	0.59		W 0.8x0.8	1.1	0.89	0.51				O = 3.94
	8	7	6.06	23.83	230	1200	2.7	17.6	27.6	0.55	0.76	0.144	3.45	4.79		W 1.7x1.7	1.1	1.48	3.84				S = 6.06
	9		1.79	25.72	320	1520	3.7	21.3	31.3	0.57	0.75	0.138	3.55	4.95		W 1.8x1.8	1.1	1.54	4.48				C = 1.40 S = 0.39
	9		4.18		425		5.0	5.0	15.0	0.86	0.86	0.327	1.37	1.88		1.1x1.1	2.0	1.49	1.62				C = 3.82 O = 0.09 S = 0.27
	10	4, 9	0.45	50.02	225	2125	1.1	27.2	37.2	0.69	0.73	0.148	7.49	10.48		W 2.1x2.1	1.9	1.82	8.33				C = 0.07 O = 0.36 C = 0.46 O = 0.61
	11		1.07	51.69	35	2160	0.3	27.5	37.5	0.69	0.73	0.147	7.60	10.64		W 2.1x2.1	1.9	1.89	8.33				O = 0.61
	12																						

Name of Catchment	Line No.	Inflow No.	in Year 2000														Existing Condition				Remarks		
			Area		Length		Time of Flow in the Drain		Time of Concentration (min)	Runoff Coefficient	Storage Coefficient	Design Runoff		Runoff Major Storm (m ³ /s)	Proposed Drain			Existing Drain					
			Each (ha)	Total (ha)	Each (m)	Total (m)	Each (min)	Total (min)				Per ha (m ³ /s)	Total (m ³ /s)		Size (m)	Slope (%o)	Velocity (m/s)	Capacity (m ³ /s)	Runoff (m ³ /s)	Size (m)		Capacity (m ³ /s)	
N-6	(10)		1.29		190		2.6	2.6	12.6	0.82	0.91	0.349	0.45	6.14	0.7x0.7	2.8	1.30	0.58					c = 1.12 ha
	(12)	(11)	0.89	53.87	295	2455	2.7	30.2	40.2	0.69	0.73	0.142	7.65	10.73	2.1x2.1	1.9	1.89	8.33					c = 0.17
	(13)																						c = 0.33
	(11)		2.23		280		4.9	4.9	14.9	0.90	0.86	0.343	0.76	1.04	1.0x1.0	1.0	0.99	0.89					c = 0.56
	(12)	(13)	1.01		280		5.2	5.2	15.2	0.90	0.85	0.337	0.61	0.84	0.9x0.9	1.0	0.92	0.67					c = 2.23
	(13)	(11)	0.61	4.65	120	400	1.9	7.1	17.1	0.90	0.83	0.315	1.47	2.02	1.4x1.4	0.8	1.11	1.95					c = 1.87
	(15)																						c = 0.67
	(14)	(15)	1.88		210		3.8	3.8	12.8	0.90	0.88	0.360	0.68	0.93	1.0x1.0	1.0	0.99	0.89					c = 1.88
	(15)	(13)	2.56	9.09	200	600	2.4	9.5	19.5	0.86	0.80	0.226	2.51	3.46	1.5x1.5	1.3	1.48	2.99					c = 2.00
	(13)																						c = 0.56
	(16)	(13)	3.56		260		3.7	3.7	13.7	0.90	0.88	0.361	1.29	1.76	1.2x1.2	1.2	1.22	1.59					c = 3.56
	(17)		2.92	6.48	250	510	3.4	7.1	17.1	0.90	0.83	0.315	2.04	2.80	1.5x1.5	1.0	1.30	2.62					c = 2.92
	(13)	(12) (15)	2.86	72.30	85	2540	0.7	30.9	40.9	0.74	0.73	0.150	10.85	15.22	2.4x2.4	1.9	2.07	11.92					c = 2.86

表 K. 3. N-7 排水区水理計算

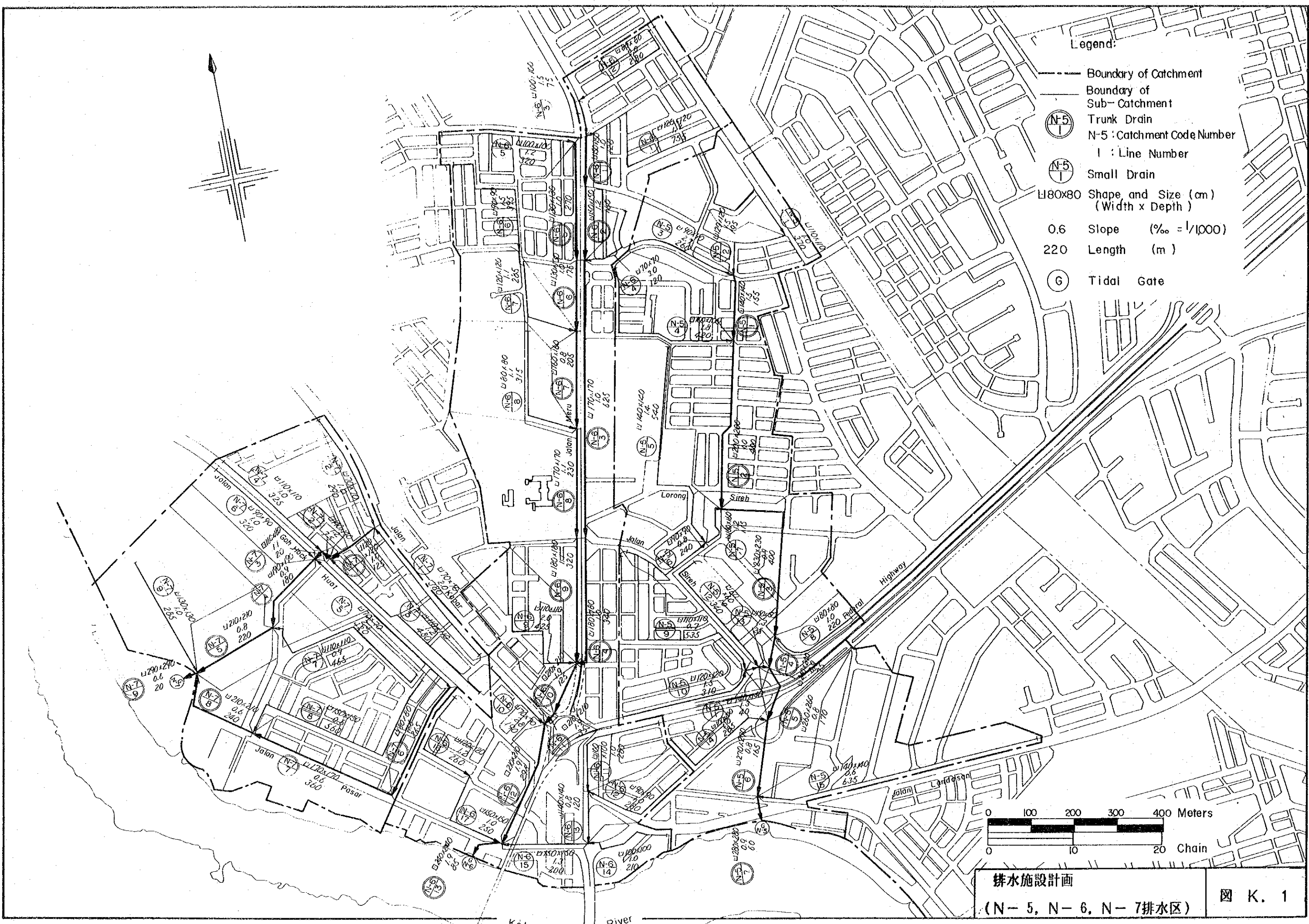
Name of Catchment	Line No.	Inflow No.	in Year 2000												Existing Condition			Remarks		
			Area		Length		Time of Flow in the Drain		Time of Concentration (min)	Runoff Coefficient	Storage Coefficient	Design Runoff		Major Storm Runoff (m ³ /s)	Proposed Drain		Runoff (m ³ /s)		Size (m)	Capacity (m ³ /s)
			Each (ha)	Total (ha)	Each (m)	Total (m)	Each (min)	Total (min)				Per ha (m ³ /s)	Total Runoff (m ³ /s)		Size (m)	Slope (% ₆₀₀)				
N-7	①		1.28		380		6.0	6.0	16.0	0.90	0.84	0.327	0.42	0.50	W 0.7x0.7	2.0	1.10	0.49	C = 1.20 I = 0.40	
	②		1.24		290		6.0	16.8	0.57	0.83	0.201	0.25	0.34	W 0.7x0.7	1.0	0.78	0.34	R ₁ = 0.16 C = 0.40 Q = 0.65		
	①	①	1.70	4.22	125	505	2.0	8.8	18.8	0.79	0.81	0.260	1.10	1.51	W 1.2x1.2	1.0	1.12	1.45	R ₁ = 0.32 C = 1.38	
	③	②	3.38		480		7.3	7.3	17.3	0.87	0.83	0.303	1.02	1.40	W 1.1x1.1	1.2	1.15	1.26	R ₁ = 0.72 C = 2.66	
	②	①	0.09	2.69	25	530	0.3	9.1	19.1	0.83	0.81	0.272	2.09	2.88	W 1.4x1.4	1.2	1.36	2.39	R ₁ = 0.09	
	④	③	4.61		325		5.5	5.5	15.5	0.52	0.85	0.193	0.89	1.22	W 1.1x1.1	1.0	1.05	1.15	R ₁ = 2.26 C = 2.35	
	③	②	0.05	12.35	20	550	0.2	9.3	19.3	0.71	0.81	0.232	2.87	3.95	W 1.6x1.6	1.1	1.42	3.27	R ₁ = 0.05	
	⑤	④	1.97		420		6.1	6.1	16.1	0.65	0.84	0.235	0.46	0.63	W 0.7x0.7	2.3	1.18	0.52	C = 0.74 S = 1.23	
	⑥	⑤	2.35		320		6.1	6.1	16.1	0.65	0.84	0.235	0.55	0.75	W 0.9x0.9	1.0	0.92	0.87	I = 2.35	
	④	③	2.93	19.40	180	730	2.2	11.5	21.5	0.69	0.79	0.210	4.07	5.62	W 1.9x1.9	0.9	1.44	4.68	I = 2.73	
	⑦	⑥	3.49		465		8.0	8.0	18.0	0.81	0.82	0.275	0.96	1.32	W 1.1x1.1	0.9	1.00	1.09	C = 2.72 S = 0.77 I = 2.67	
	⑤	④	2.67	25.56	220	950	2.6	14.1	24.1	0.70	0.77	0.197	5.04	6.98	W 2.1x2.1	0.8	1.45	5.76	I = 2.35	
	⑥	⑤	1.25		265		4.5	4.5	14.5	0.90	0.87	0.350	0.44	0.60	W 0.8x0.8	1.6	1.08	0.62	C = 1.25 C = 6.44	
	⑦	⑥	6.44	7.69	360	825	5.9	10.4	20.4	0.90	0.80	0.283	2.18	3.01	W 1.7x1.7	0.6	1.09	2.84	C = 5.70 I = 3.15	
	⑧	⑦	5.70		560		9.7	9.7	19.7	0.90	0.80	0.287	1.71	2.36	W 1.5x1.5	0.6	1.00	2.03	I = 6.10	
	⑧	⑦	3.15	16.54	240	865	3.4	13.8	23.8	0.85	0.78	0.244	4.04	5.57	W 2.1x2.1	0.6	1.26	4.99	I = 3.15	
	⑨	⑧	6.10		285		4.2	4.2	14.2	0.65	0.87	0.255	1.55	2.12	W 1.3x1.3	1.0	1.18	1.79	I = 6.10	
	⑨	⑧	48.20		20	970	0.2	14.3	24.3	0.75	0.77	0.211	10.17	14.08	W 2.9x2.9	0.6	1.56	11.79	I = 6.10	

表 K. 4. N-8 排水区水理計算

Legend
 C : Commercial Area (High Density)
 R1 : Residential (Medium Density)
 R2 : Institutional
 S : Industrial
 I : Open Space

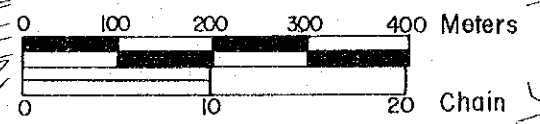
Name of Catchment	Line No.	Inflow No.	In Year 2000										Existing Condition				Remarks			
			Area		Length		Time of Flow in the Drain		Concentration	Runoff Coefficient	Storage Coefficient	Per ha (m ³ /s)	Total Runoff (m ³ /s)	Major Storm (m ³ /s)	Proposed Drain			Existing Drain		
			Each (ha)	Total (ha)	Each (m)	Total (m)	Each (min)	Total (min)							Size (m)	Slope (%)		Velocity (m/s)	Capacity (m ³ /s)	Size (m)
A-4	1		0.98		200		5.3	5.3	15.3	0.90	0.85	0.336	0.33	0.45	0.6	0.66	0.38			C = 0.98 ha
	2	1	0.52		110		2.7	2.7	12.7	0.90	0.90	0.378	0.20	0.27	1.0	0.70	0.22			C = 0.52
	1	1	1.26	2.76	190	390	3.4	8.7	18.7	0.90	0.81	0.297	0.82	1.13	0.9	1.00	1.09			C = 1.26
	3	2	1.95		175		3.1	3.1	13.1	0.90	0.89	0.370	0.72	0.98	1.0	0.99	0.89			C = 1.95
	2	1	2.51	7.22	235	625	3.6	12.3	22.3	0.90	0.78	0.266	1.92	2.65	0.8	1.16	2.35			C = 2.51
	4		1.00		275		6.0	6.0	16.0	0.90	0.84	0.327	0.32	0.44	1.0	0.85	0.49			C = 1.00
	5	3	2.18	3.18	300	575	6.3	12.3	22.3	0.90	0.78	0.266	0.04	1.16	0.6	0.87	1.12			C = 2.18
	6	6	0.52		190		4.9	4.9	14.9	0.90	0.86	0.343	0.18	0.25	1.0	0.70	0.23			C = 0.52
	7		1.02		125		3.4	3.4	13.4	0.90	0.89	0.367	0.37	0.51	0.5	0.65	0.48			C = 1.02
	8	6	2.77	4.31	200	390	4.0	8.9	18.9	0.90	0.81	0.296	1.28	1.76	0.5	0.88	1.54			C = 2.77
	3	2	0.08	14.79	50	675	0.7	13.0	23.0	0.90	0.78	0.262	3.87	5.35	0.6	1.22	4.38	2.26	2.26	R1 = 0.08
	4																			
	9		3.61		270		4.6	4.6	14.6	0.62	0.86	0.298	0.86	1.18	1.1	1.05	1.15			R1 = 1.75 S = 1.86
	4	3	3.44	21.84	255	930	3.4	16.4	26.4	0.82	0.76	0.219	4.78	6.63	0.6	1.30	5.65	3.47	3.47	R1 = 2.30 S = 1.14
	5																			
	10		5.00		310		4.2	4.2	14.2	0.75	0.87	0.294	1.47	2.01	1.3	1.27	1.65			R1 = 5.00
	5	4	0.75	27.59	35	965	0.4	16.8	26.8	0.81	0.76	0.215	5.93	8.23	0.6	1.36	7.12			R1 = 0.75
	9																			
	11		4.29		285		7.0	7.0	17.0	0.80	0.83	0.281	1.21	1.66	0.3	0.71	1.44			R2 = 1.24 C = 3.05
	6		2.41	6.70	365	650	7.5	14.5	24.5	0.84	0.77	0.235	1.57	2.17	0.4	0.86	1.97			C = 2.41
	7																			
	12		2.61		260		4.0	4.0	14.0	0.90	0.88	0.328	0.93	1.27	1.0	1.05	1.15			C = 2.61

Name of Catchment	Line No.	Inflow No.	in Year 2000												Existing Condition			Remarks					
			Area		Length		Time of Flow in the Drain		Time of Concentration	Runoff Coefficient	Storage Coefficient	Design Per ha Runoff (m ³ /s)	Total Runoff (m ³ /s)	Major Storm Runoff (m ³ /s)	Proposed Drain				Existing Drain				
			Each (ha)	Total (ha)	Each (m)	Total (m)	Each (min)	Total (min)							Size (m)	Slope (%)	Velocity (m/s)		Capacity (m ³ /s)	Runoff (m ³ /s)	Size (m)	Capacity (m ³ /s)	
A-4	7	6	0.13	9.44	60	710	1.0	15.5	25.5	0.85	0.77	0.234	2.21	3.06	17x17	0.5	1.00	2.59				C = 0.13 ha	
	8		2.68	12.12	305	1015	4.6	20.3	30.3	0.86	0.75	0.211	2.56	3.56	17x17	0.6	1.09	2.84				R1 = 0.62 C = 2.06	
	9	5	0.65	40.36	80	1085	1.0	21.3	31.3	0.82	0.75	0.198	7.99	11.13	27x27	0.5	1.36	8.90				R1 = 0.65	
	10																						
	13		1.17		240		5.7	5.7	15.7	0.55	0.85	0.203	0.24	0.33	07x07	1.0	0.78	0.34					L = 0.83 C = 0.34
	14		1.03		200		4.3	4.3	14.3	0.9	0.87	0.352	0.36	0.49	08x08	1.0	0.85	0.49					C = 1.03
	15	13	4.04	8.24	305	545	4.6	10.3	20.3	0.61	0.80	0.192	1.20	1.65	12x12	1.1	1.17	1.52					R1 = 2.28 C = 1.76
	17																						
	16		5.07		270		3.6	3.6	13.6	0.82	0.88	0.249	1.26	3.10	11x11	1.5	1.29	1.41					L = 4.67 C = 0.80
	17	15	0.83	12.14	125	670	1.7	12.0	22.0	0.82	0.79	0.187	2.27	3.14	15x15	1.0	1.30	2.62					R1 = 0.83
	18	9	—	52.50	20	1115	0.2	21.5	31.5	0.77	0.75	0.186	9.77	13.62	29x29	0.5	1.42	10.77					

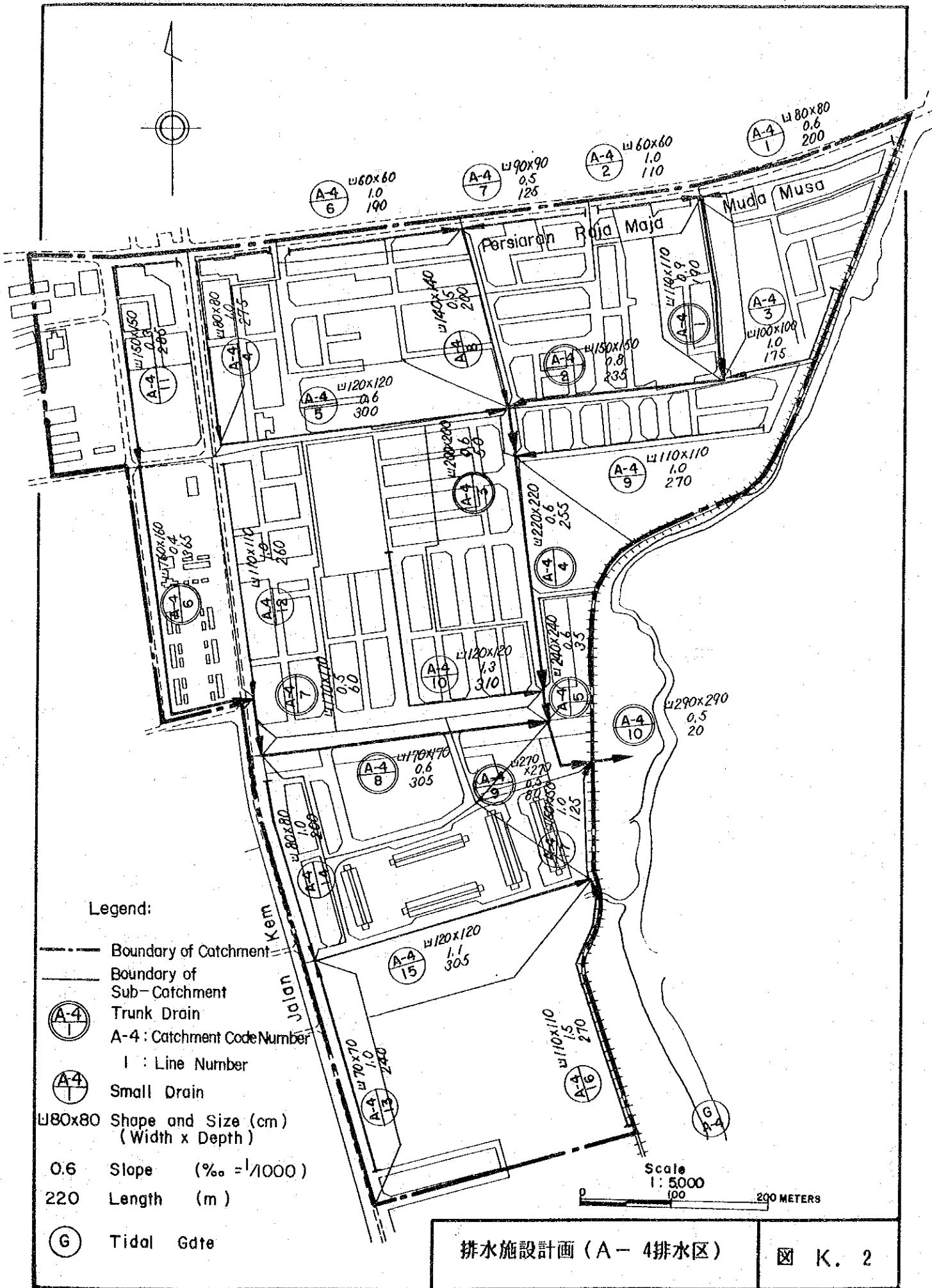


Legend:

- Boundary of Catchment
- Boundary of Sub-Catchment
- ⊙ N-5 Trunk Drain
N-5 : Catchment Code Number
| : Line Number
- ⊙ N-5 Small Drain
W180x80 Shape and Size (cm)
(Width x Depth)
- 0.6 Slope (‰ = 1/1000)
- 220 Length (m)
- ⊙ G Tidal Gate

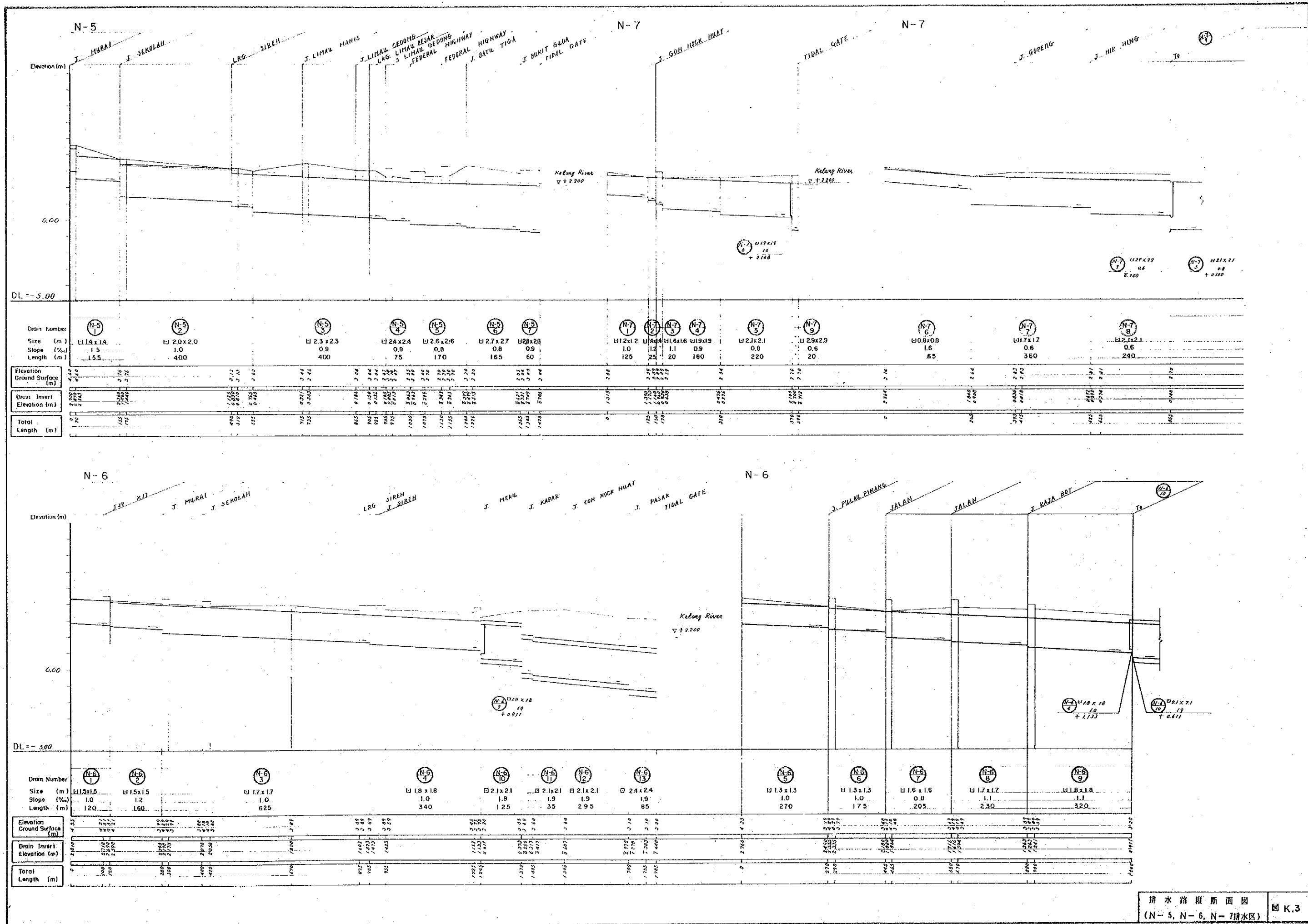


排水施設計画
(N-5, N-6, N-7排水区) 図 K. 1



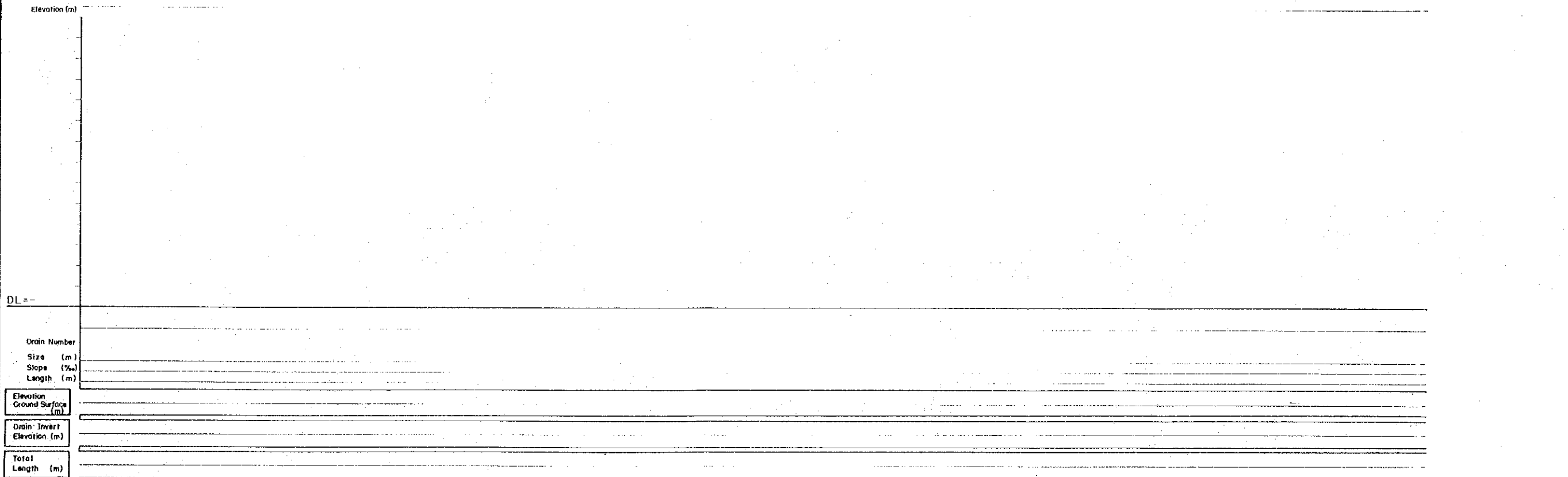
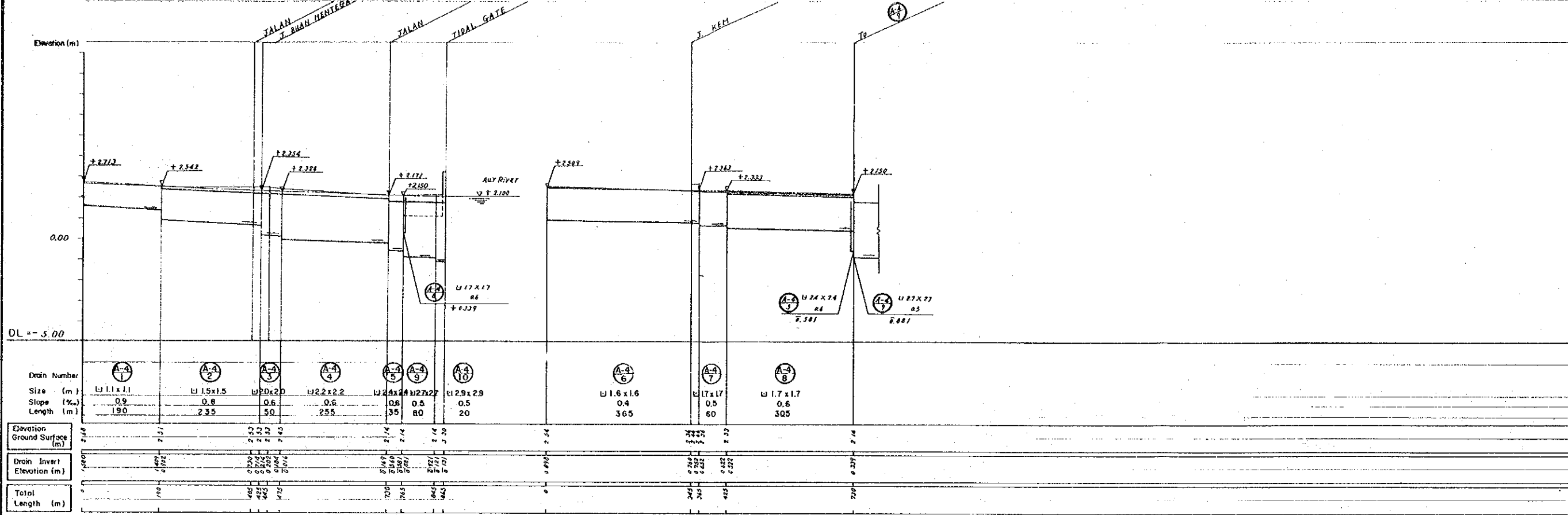
Legend:

- Boundary of Catchment
- Boundary of Sub-Catchment
- Trunk Drain
- A-4 : Catchment Code Number
- I : Line Number
- Small Drain
- $\square 80 \times 80$ Shape and Size (cm) (Width x Depth)
- 0.6 Slope (% = 1/1000)
- 220 Length (m)
- Tidal Gate



排水路断面图
(N-5, N-6, N-7排水区) 图 K.3

A-4



排水路横断面图 (A-4排水区) 图.K.4

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