

4.

MAPS
FOR
EXISTING DRAINAGE PIPES
WITH CAPACITY CALCULATION TABLE



LEGEND

- Existing Drain
- 600 Pipe Diameter (mm)
- 1200x1000 Box Culvert
- 1200x1200 Box Culvert

Index

	1	7
	2	8

(MAP. No. 1) EXISTING DRAINAGE PIPES



LEGEND

- Existing Drain
- 600 Pipe Diameter (mm)
- 1200x1000 Box Culvert
- 1000mm
- 1200mm

① No. of Drain
Refer to Capacity Calculation Table (P □)

Index

1	7
2	8
3	9

(MAP No 2)
EXISTING DRAINAGE PIPES



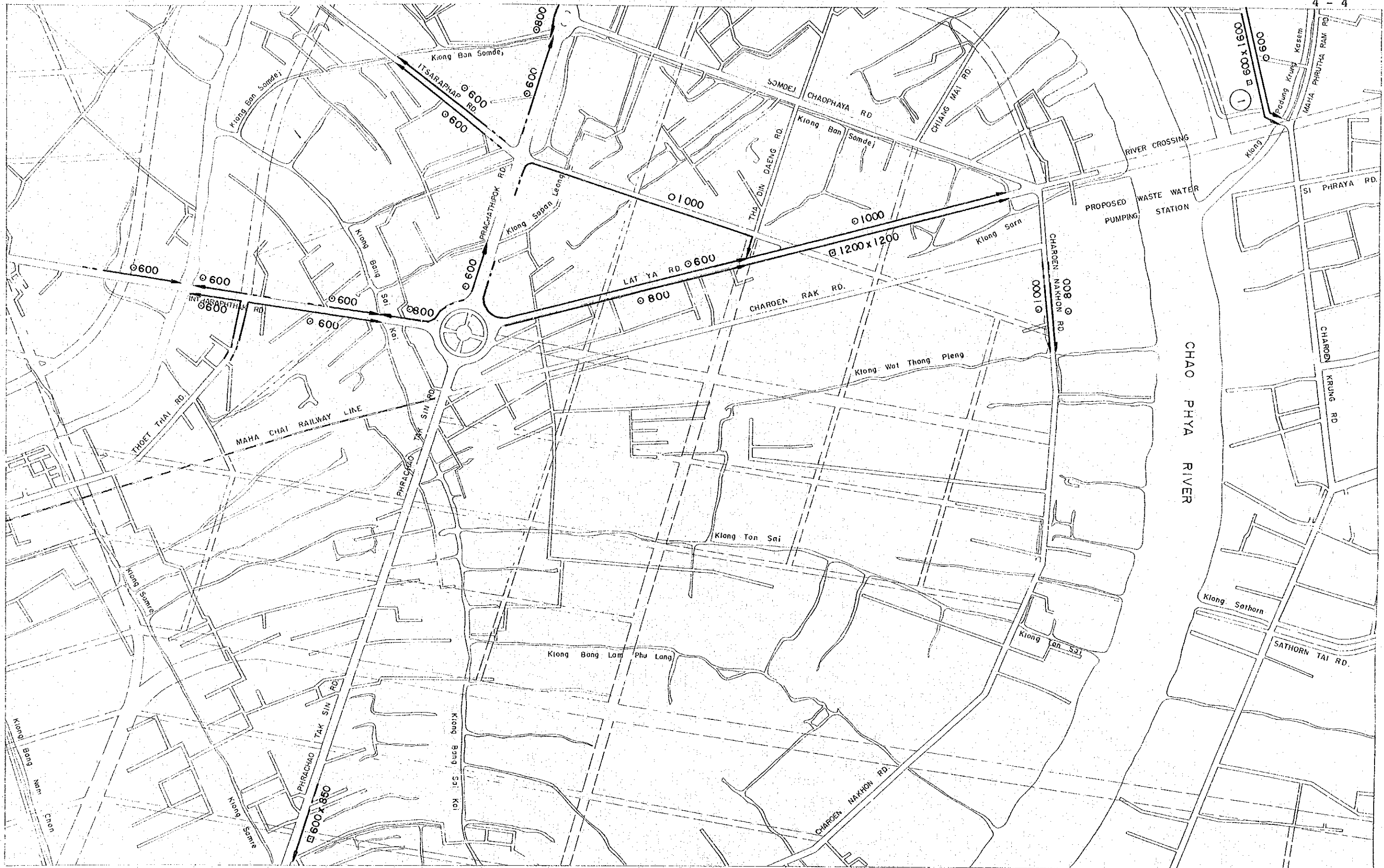
LEGEND

- Existing Drain
- 600 Pipe Diameter (mm)
- 1200x1000 Box Culvert
- 1000mm
- 1200mm
- ① No. of Drain
- Refer to Capacity Calculation Table (P□)

Index

2	8
3	9
4	10

EXISTING DRAINAGE PIPES (MAP No. 3)



LEGEND

- Existing Drain
- 600 Pipe Diameter (mm)
- 1200x1000 Box Culvert
- ① No. of Drain Refer to Capacity Calculation Table (P. □)

Index

3	9
4	10
5	11

(MAP. No. 4)
EXISTING DRAINAGE PIPES



LEGEND

- Existing Drain
- 600 Pipe Diameter (mm)
- 1200 x 1000 Box Culvert
- 1000 mm / 1200 mm

Index

4	10
5	11

(MAP. No. 5)
EXISTING DRAINAGE PIPES



LEGEND

- Existing Drain
- 600 Pipe Diameter (mm)
- 1200 x 1000 Box Culvert
- 1000 mm
- 1200 mm

Index

1	7
2	8

(MAP. No. 7)
EXISTING DRAINAGE PIPES



LEGEND

- Existing Drain
- 600 Pipe Diameter (mm)
- 1200 x 1000 Box Culvert
- 1000 mm
- 1200 mm

Index

1	7	
2	8	
3	9	

(MAP. No. 8)
EXISTING DRAINAGE PIPES



LEGEND

- Existing Drain
- 600 Pipe Diameter (mm)
- 1200 x 1000 Box Culvert
- 1000 mm
- 1200 mm

Index

2	8	
3	9	
4	10	14

(MAP. No. 9)

EXISTING DRAINAGE PIPES



LEGEND

- Existing Drain
- 600 Pipe Diameter (mm)
- 1200 x 1000 Box Culvert
- 1000 mm / 1200 mm
- A 1 Point Name Refer to Profile

Index

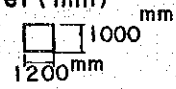
3	9	
4	10	14
5	11	

(MAP. No 10)
EXISTING DRAINAGE PIPES



LEGEND

- Existing Drain
- $\phi 600$ Pipe Diameter (mm)
- $\square 1200 \times 1000$ Box Culvert



Index

4	10	14
5	11	

(MAP. No.11)
EXISTING DRAINAGE PIPES



LEGEND

- Existing Drain
- 600 Pipe Diameter (mm)
- 1200 x 1000 Box Culvert
- 1000 mm
- 1200 mm

Index

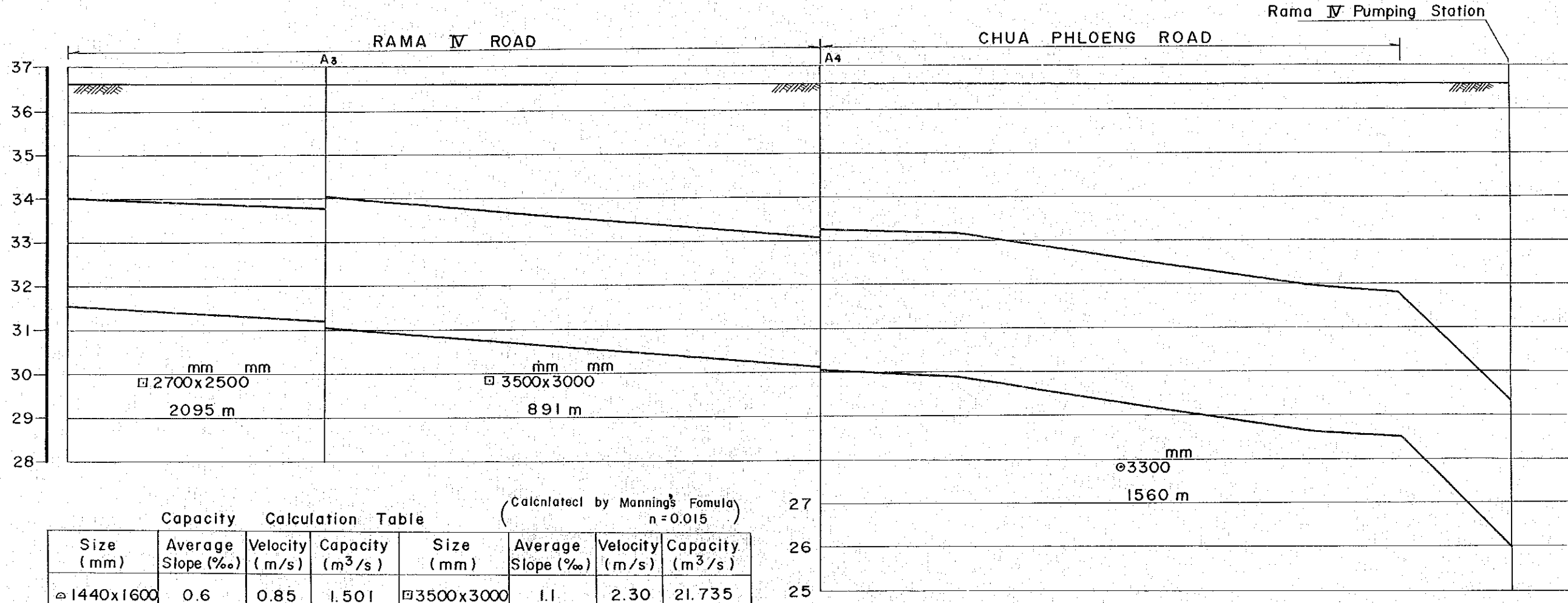
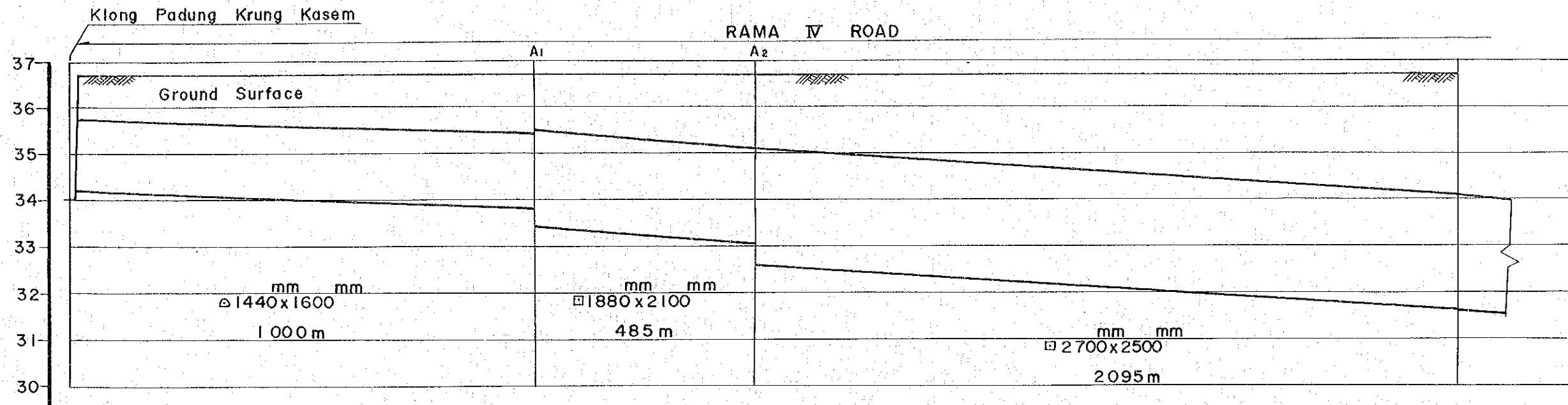
9		
10	14	
11		

(MAP. No.14)
EXISTING DRAINAGE PIPES

Capacity Calculation Table for Evaluation of Existing Drain

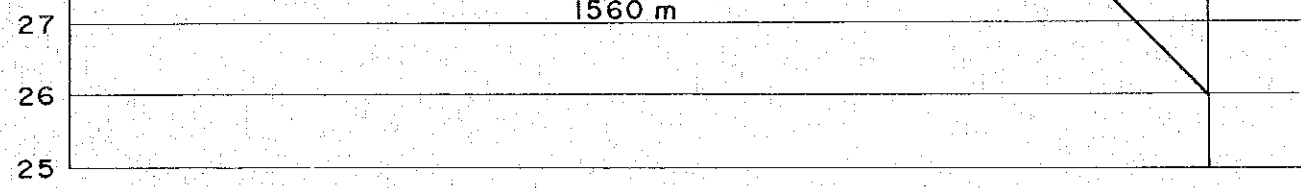
Drain NO	Diameter (mm)	Slope (‰)	Velocity (Full Flow) (m/s)	Capacity (Full Flow) (m ³ /s)	Drain NO	Diameter (mm)	Slope (‰)	Velocity (Full Flow) (m/s)	Capacity (Full Flow) (m ³ /s)	Drain NO	Diameter (mm)	Slope (‰)	Velocity (Full Flow) (m/s)	Capacity (Full Flow) (m ³ /s)
1	□600x1600	1.0	0.83	0.717	25	∅800	0.3	0.40	0.199	49	∅500	4.6	1.13	0.222
2	□400x1200	1.0	0.64	0.276	26	∅600	1.5	0.73	0.206	50	∅600	0.7	0.50	0.141
3	∅600	4.3	1.23	0.348	27	∅600	1.9	0.82	0.232	51	∅800	4.4	1.51	0.759
4	∅600	0.5	1.33	0.376	28	∅600	0.1	0.19	0.054	52	∅600	1.0	0.60	0.168
5	∅1000	0.7	0.70	0.550	29	□800x1250	1.3	1.07	0.963	53	∅1200	—	—	—
6	∅800	1.5	0.88	0.444	30	□400x500	1.3	0.64	0.115	54	∅1000	1.0	0.84	0.657
7	∅1000	3.2	1.50	1.178	31	∅600	0.8	0.53	0.151	55	∅1000	10.0	2.65	2.078
8	∅800	2.6	1.16	0.584	32	∅1200	0.7	0.79	0.894	56	∅600	1.3	0.68	0.192
9	∅1200	3.3	1.70	1.923	33	∅1200	1.6	1.20	1.352	57	∅600	1.5	0.73	0.206
10	□400x600	0.5	0.41	0.089	34	∅800	1.6	0.91	0.458	58	∅600	1.2	0.65	0.184
11	∅800	1.3	0.82	0.413	35	∅600	0.2	0.27	0.076	59	∅600	0.3	0.33	0.093
12	∅600	1.3	0.70	0.192	36	∅600	0.4	0.38	0.106	60	∅800	1.7	0.94	0.473
13	∅600	1.2	0.65	0.184	37	∅800	4.0	1.44	0.725	61	∅800	0.2	0.32	0.162
14	∅600	1.4	0.70	0.199	38	∅1000	1.2	0.92	0.720	62	∅800	3.9	1.44	0.725
15	∅600	1.5	0.73	0.206	39	∅1200	0.7	0.79	0.894	63	∅600	0.4	0.38	0.106
16	∅600	2.5	0.94	0.266	40	∅1200	1.1	0.99	1.121	64	∅800	2.5	1.14	0.573
17	∅600	1.3	0.68	0.192	41	∅800	1.1	0.76	0.380	65	∅800	3.1	1.25	0.628
18	∅500	0.7	0.44	0.087	42	∅1500	1.4	1.34	2.373	66	∅600	1.0	0.60	0.168
19	∅600	0.8	0.53	0.151	43	∅1200	0.5	0.67	0.756	67	∅800	1.4	0.85	0.429
20	∅600	0.3	0.33	0.093	44	□400x800	1.0	0.61	0.176	68	∅800	0.9	0.68	0.344
21	∅600	0.3	0.33	0.093	45	□400x600	1.0	0.58	0.125	Note : Refer to Maps from NO.1 to NO.14 Calculations were Performed by Manning's Formula with n = 0.015				
22	∅600	0.9	0.57	0.160	46	∅1500	2.9	1.87	3.299					
23	∅1000	4.9	1.85	1.452	47	∅600	1.7	0.78	0.219					
24	∅600	0.9	0.57	0.160	48	∅1000	3.6	1.59	1.249					

5. PROFILE AND CALCULATION TABLE
OF
RAMA IV DRAIN



Capacity Calculation Table (Calculated by Mannings Formula
n = 0.015)

Size (mm)	Average Slope (‰)	Velocity (m/s)	Capacity (m ³ /s)	Size (mm)	Average Slope (‰)	Velocity (m/s)	Capacity (m ³ /s)
⊖ 1440x1600	0.6	0.85	1.501	⊖ 3500x3000	1.1	2.30	21.735
⊠ 1880x2100	1.0	1.55	5.507	⊙ 3300	1.4	2.19	18.769
⊠ 2700x2500	0.7	1.58	9.599				



LEGEND

- ⊖ Semielliptic Sump
- ⊠ Box Culvert
- ⊙ Round Sump
- A: Point Name
- Refer to Maps for Existing Drainage Pipes No. 10

SCALE VERTICAL 1:100
HORIZONTAL 1:10,000

PROFILE AND CALCULATION TABLE OF RAMA IV DRAIN

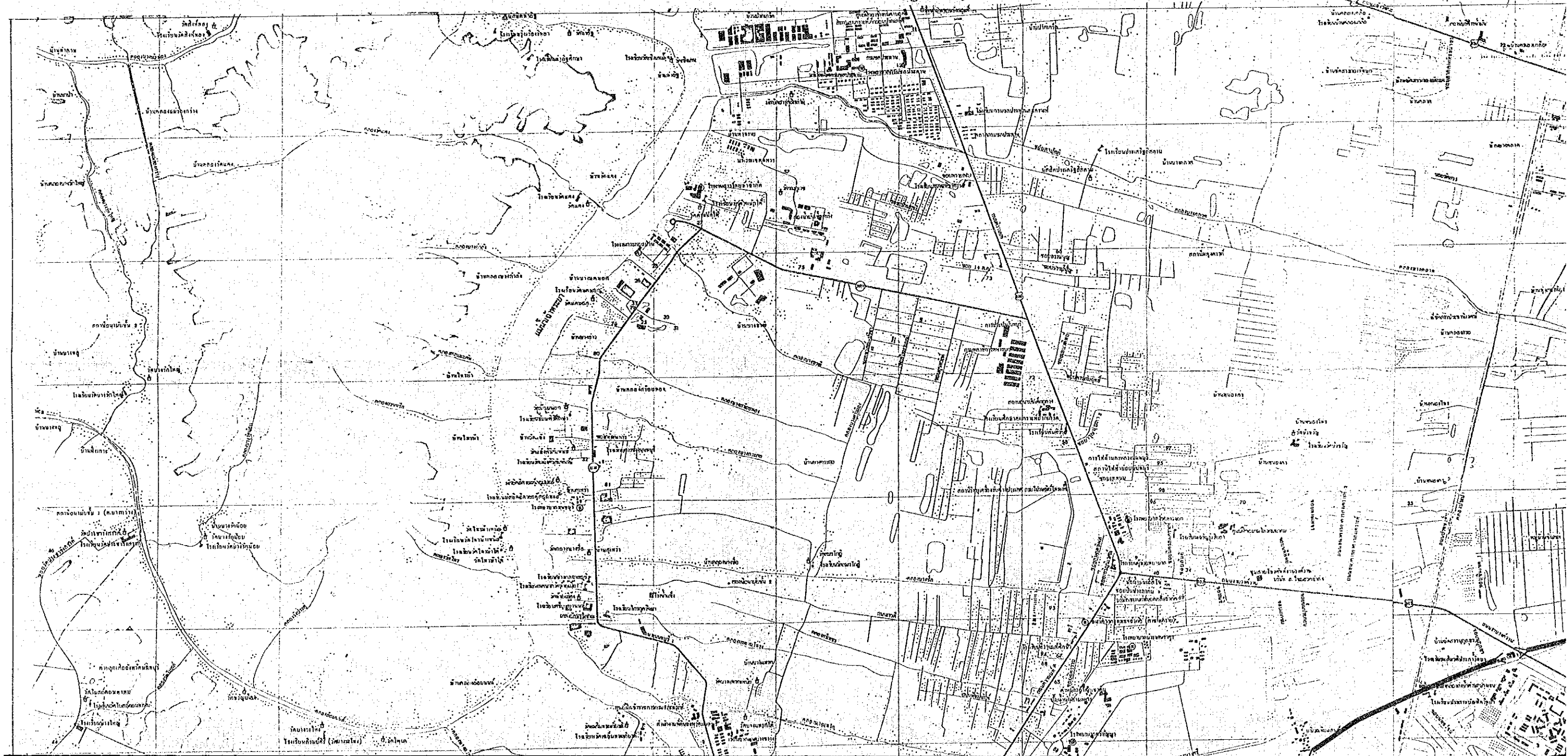
6.

PLAN

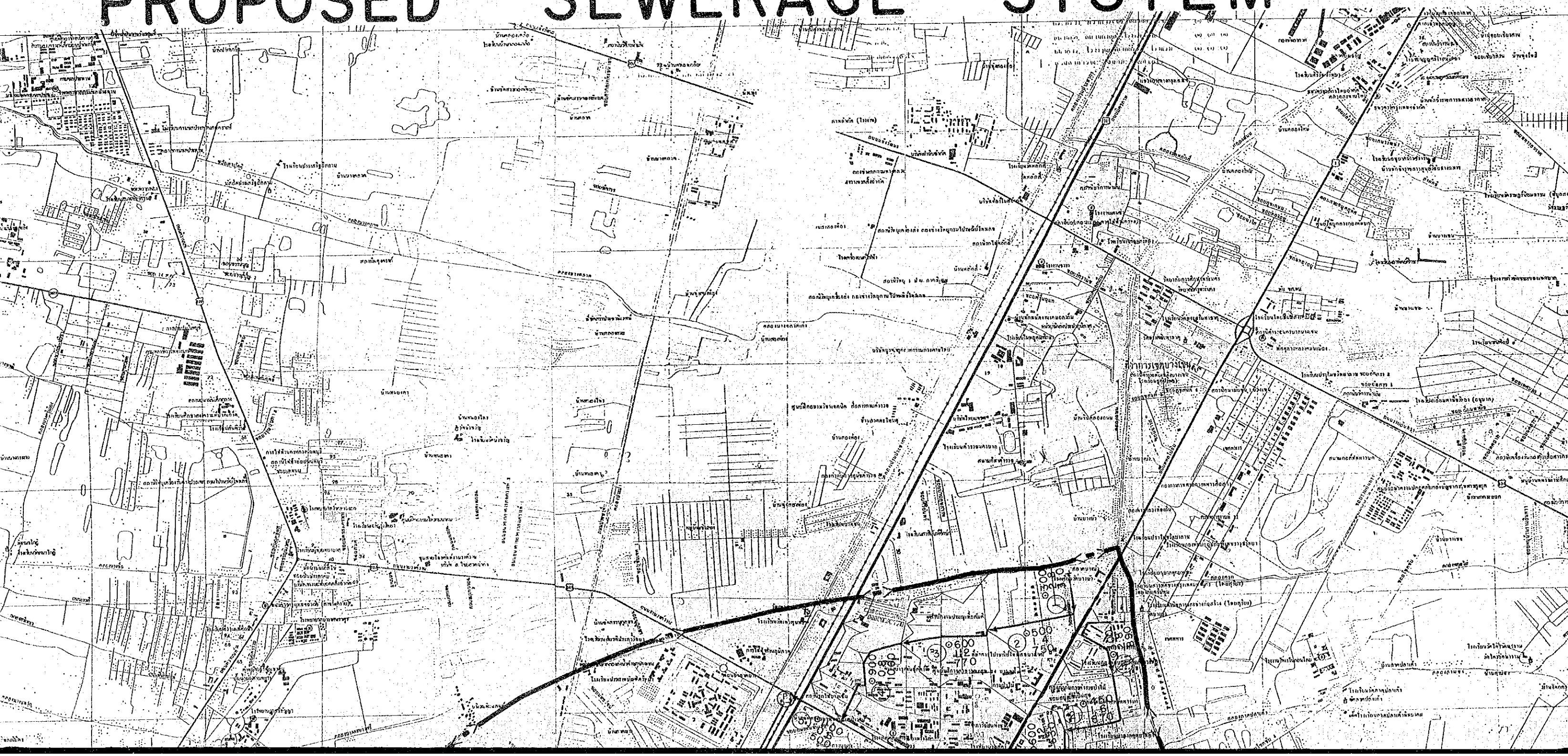
FOR

PROPOSED SEWERAGE SYSTEM

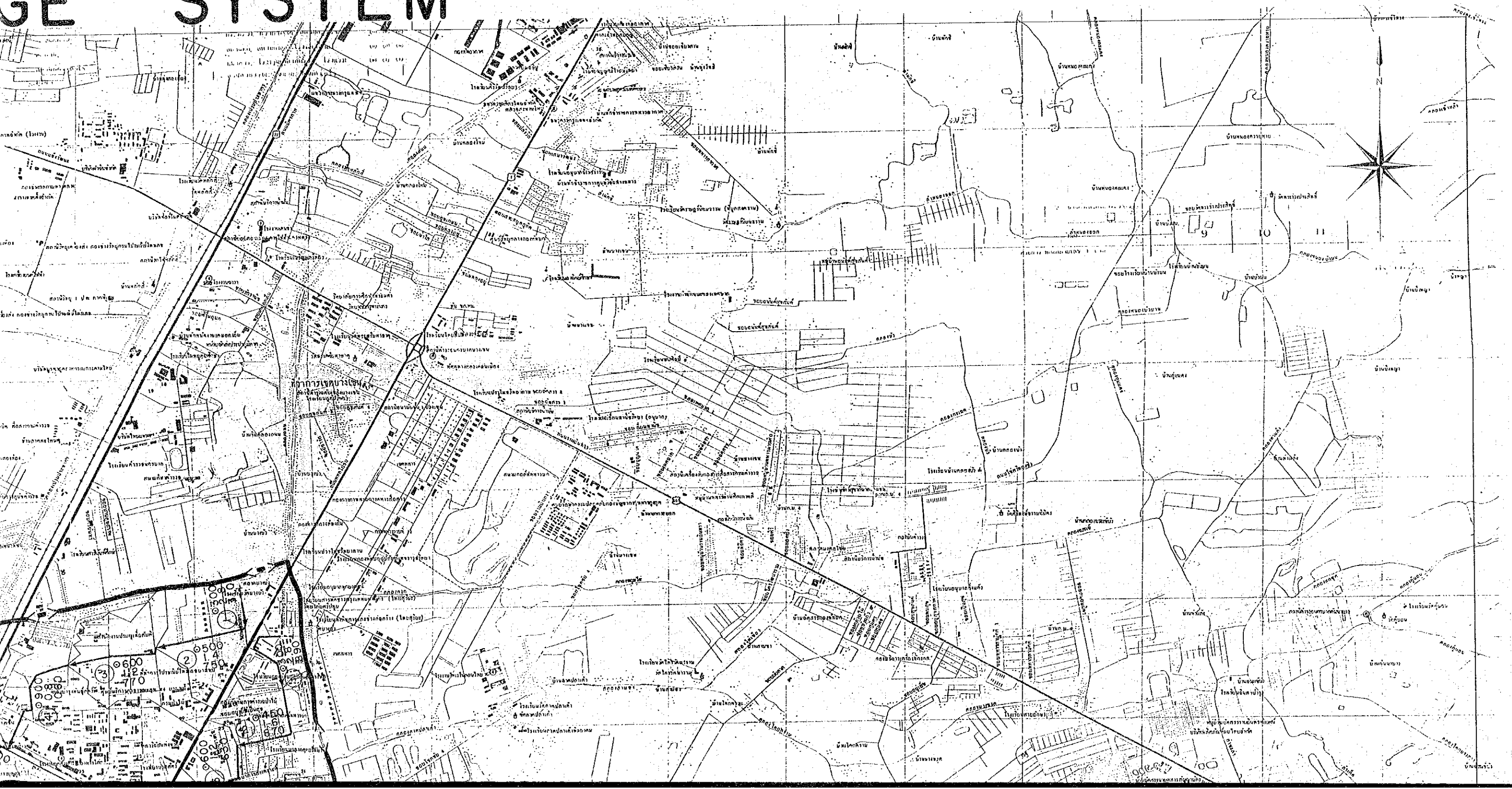
BANG PROPOSED SEWE



BANGKOK PROPOSED SEWERAGE SYSTEM



K GE SYSTEM





Klong Bang Kheng

ZONE 5

Map containing numerous small text labels in Thai script, including street names, building identifiers, and geographical markers. Some legible labels include 'โรงเรียน' (school), 'วัด' (temple), and 'ถนน' (road).

01800
01500
0.5
820
01700
01600
01500
01400
01300
01200
01100
01000
0900
0800
0700
0600
0500