

URBAN DRAINAGE SYSTEM



Basin Code	Basin Name	Basin Area (km ²)	Number of Channels	Drainage Area (km ²)
A-1	CHATELAIN	1.1	1	1.1
A-2	CHATELAIN	1.1	1	1.1
A-3	CHATELAIN	1.1	1	1.1
A-4	CHATELAIN	1.1	1	1.1
A-5	CHATELAIN	1.1	1	1.1
A-6	CHATELAIN	1.1	1	1.1
A-7	CHATELAIN	1.1	1	1.1
A-8	CHATELAIN	1.1	1	1.1
A-9	CHATELAIN	1.1	1	1.1
A-10	CHATELAIN	1.1	1	1.1
A-11	CHATELAIN	1.1	1	1.1
A-12	CHATELAIN	1.1	1	1.1
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A-14	CHATELAIN	1.1	1	1.1
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A-97	CHATELAIN	1.1	1	1.1
A-98	CHATELAIN	1.1	1	1.1
A-99	CHATELAIN	1.1	1	1.1
A-100	CHATELAIN	1.1	1	1.1

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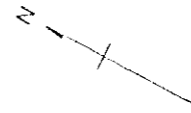
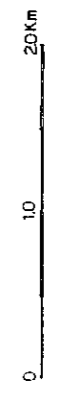
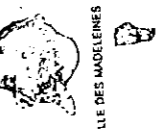
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 AND
 WASTEWATER SYSTEMS
 IN
 DAKAR CITY AND ITS SURROUNDINGS

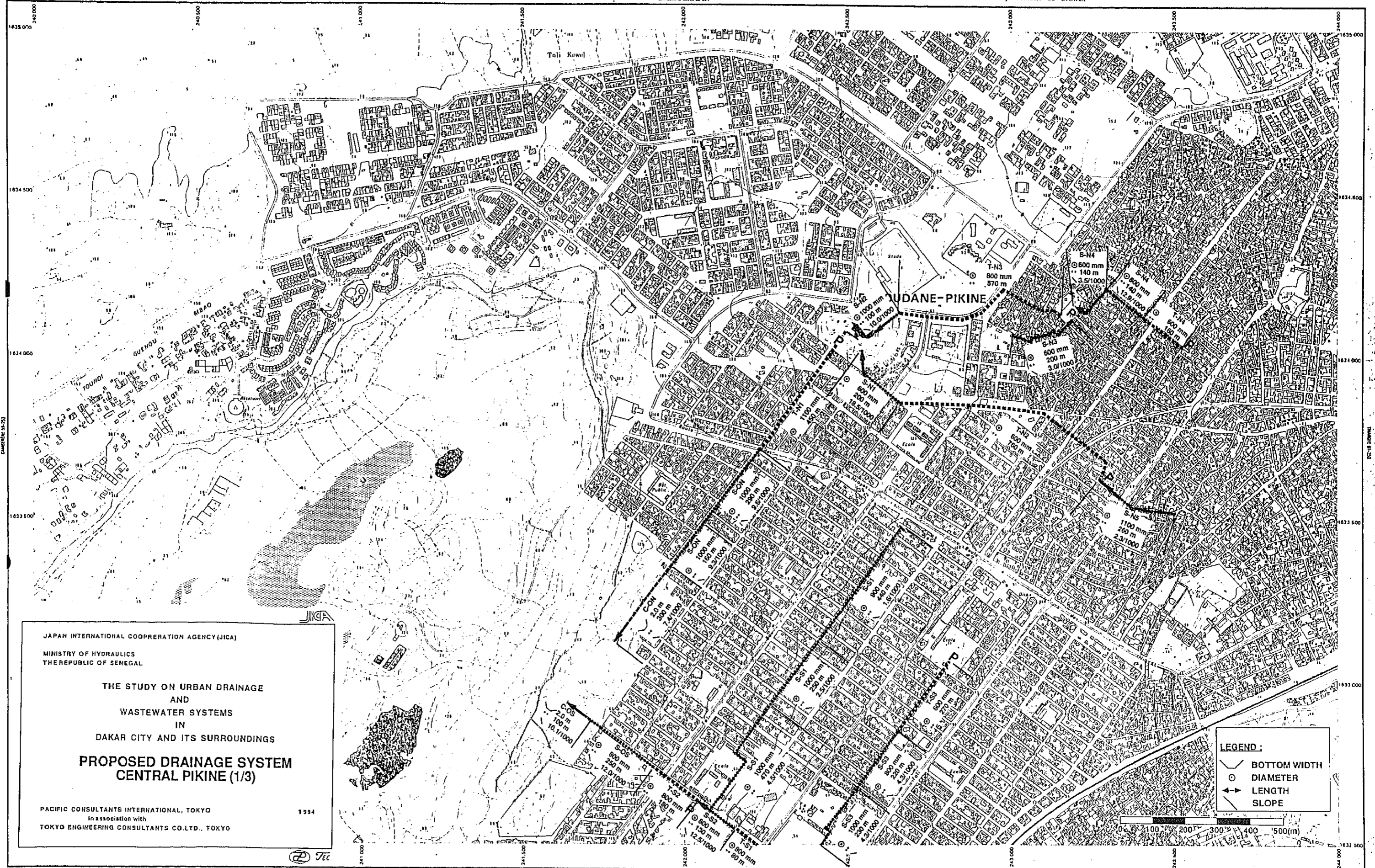
URBAN DRAINAGE MASTER PLAN (1/2)

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CAP MANUEL





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 DAKAR CITY AND ITS SURROUNDINGS

**PROPOSED DRAINAGE SYSTEM
 CENTRAL PIKINE (1/3)**

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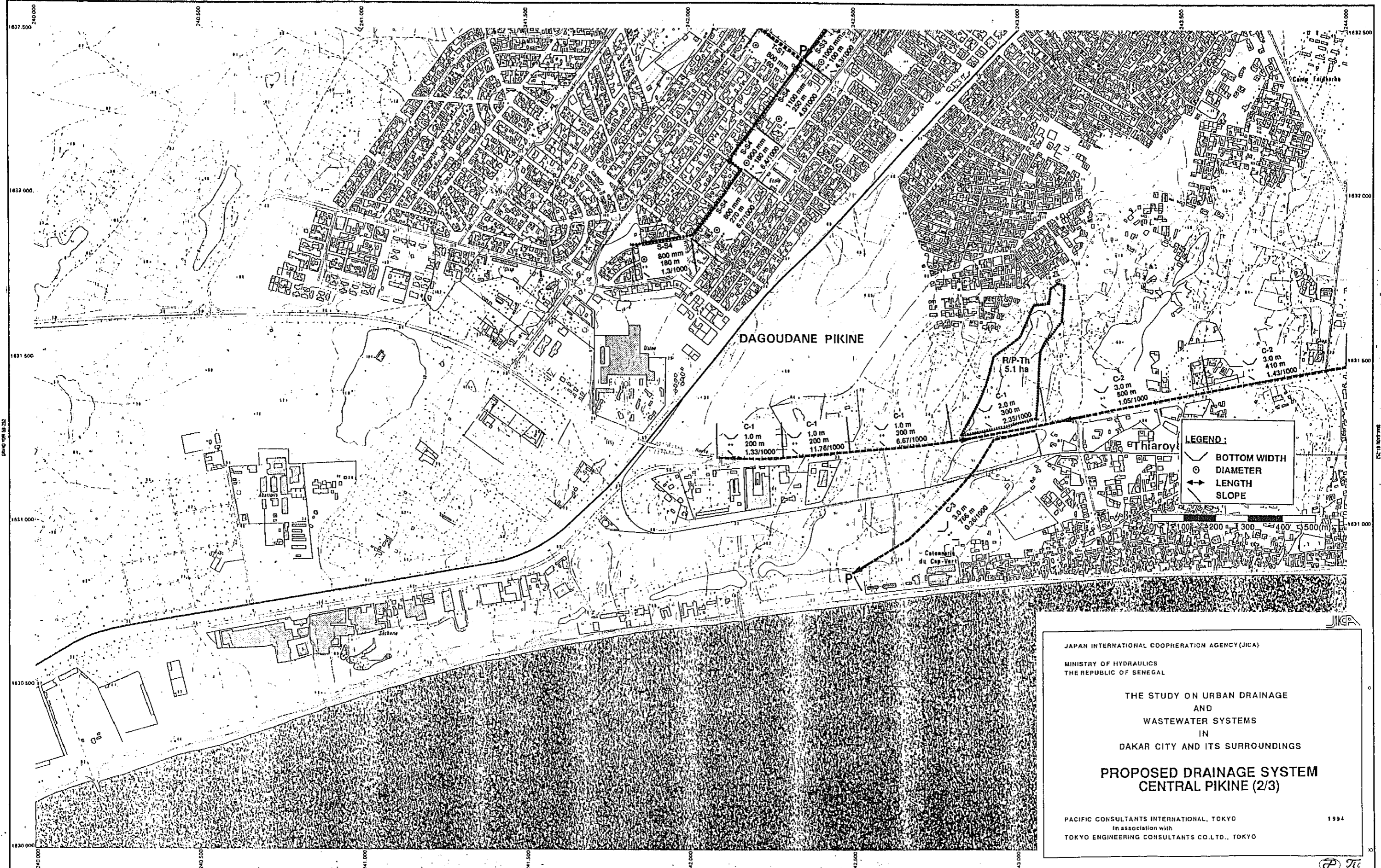
1984

LEGEND:

- BOTTOM WIDTH
- ⊙ DIAMETER
- ↔ LENGTH
- ▲— SLOPE

Leve photographique effectué par l'IGN FRANCE en 1981
 Restitution planimétrique et altimétrique
 des photographies aériennes de 1980 à l'échelle de 1:20 000
 Document non complet sur le terrain





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**PROPOSED DRAINAGE SYSTEM
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Lévé photogrammétrique effectué par l'IGN FRANCE en 1981
Restitution planimétrique et altimétrique
d'un photographique aérien de 1980 à l'échelle de 1:20 000
Document non complet sur le terrain



Projection UTM (Bouasse 26)
Carroyage sans déformations
Équivalence des courbes 2 mètres
Nivellement Général de l'Afrique de l'Ouest



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**PROPOSED DRAINAGE SYSTEM
 CENTRAL PIKINE (3/3)**

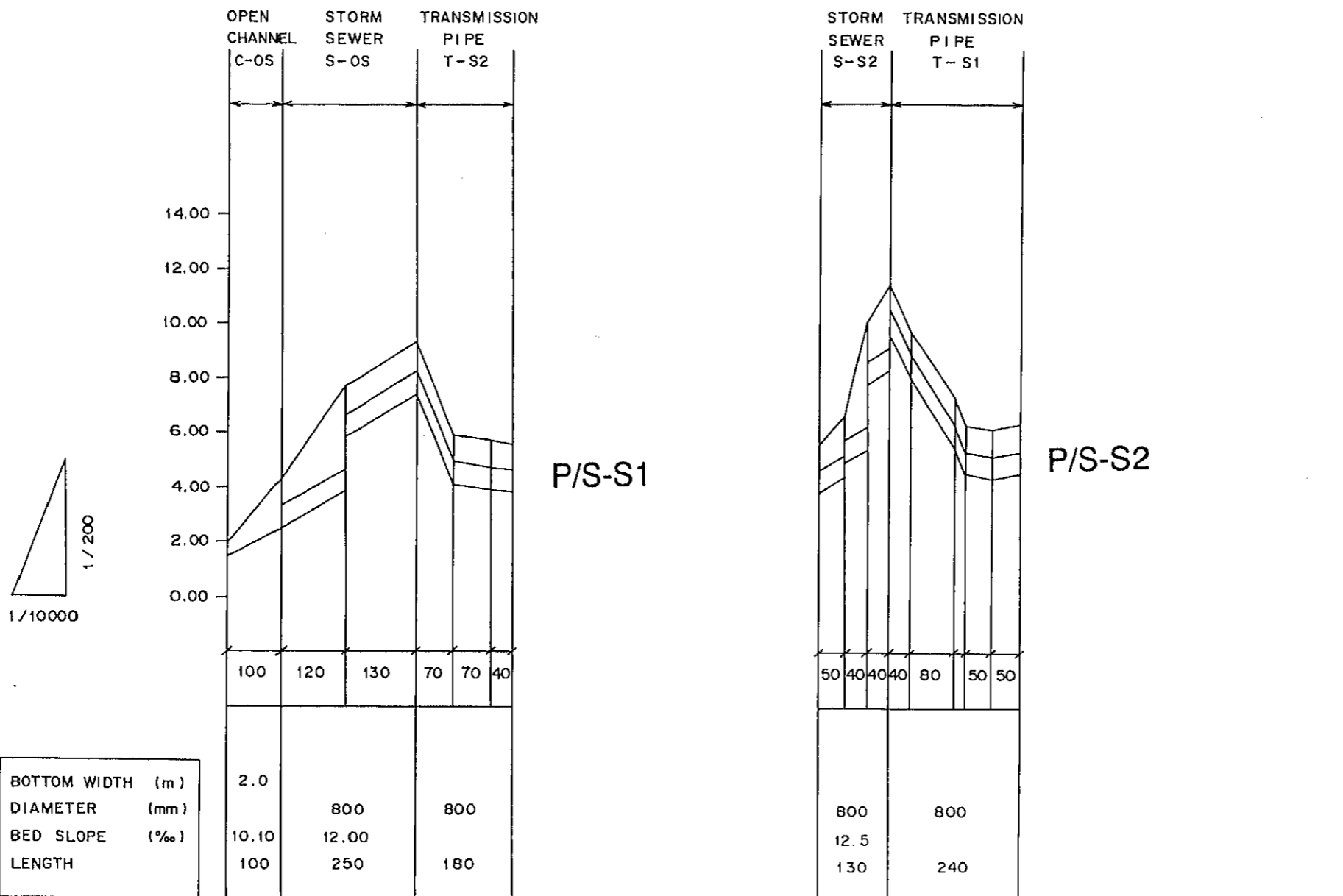
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Les photographies aériennes effectuées par l'IGN FRANCE en 1989
 ont été géométriquement et géométriquement
 corrigées et photographées aériennes de 1980 à l'échelle de 1:20 000
 ne sont pas conformes au terrain



Projection UTM Niveau 281
 Cartes géométriques
 Équidistance des courbes 2 mètres
 Nivellement Général de l'Afrique de l'Ouest



Parameter	0	100	220	350	420	490	530	550	570	600	630	670	700	730	770	800
ELEVATION (m) GROUND SURFACE	2.00	4.25	7.80	9.23	5.92	5.65	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61
EARTH COVERING (m)	-	1.00	3.11 1.13	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
BED ELEVATION (m)	1.44	2.45	3.89 5.87	7.43	4.12	3.85	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81
TOTAL LENGTH (m)	0	100	220	350	420	490	530	550	570	600	630	670	700	730	770	800

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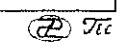
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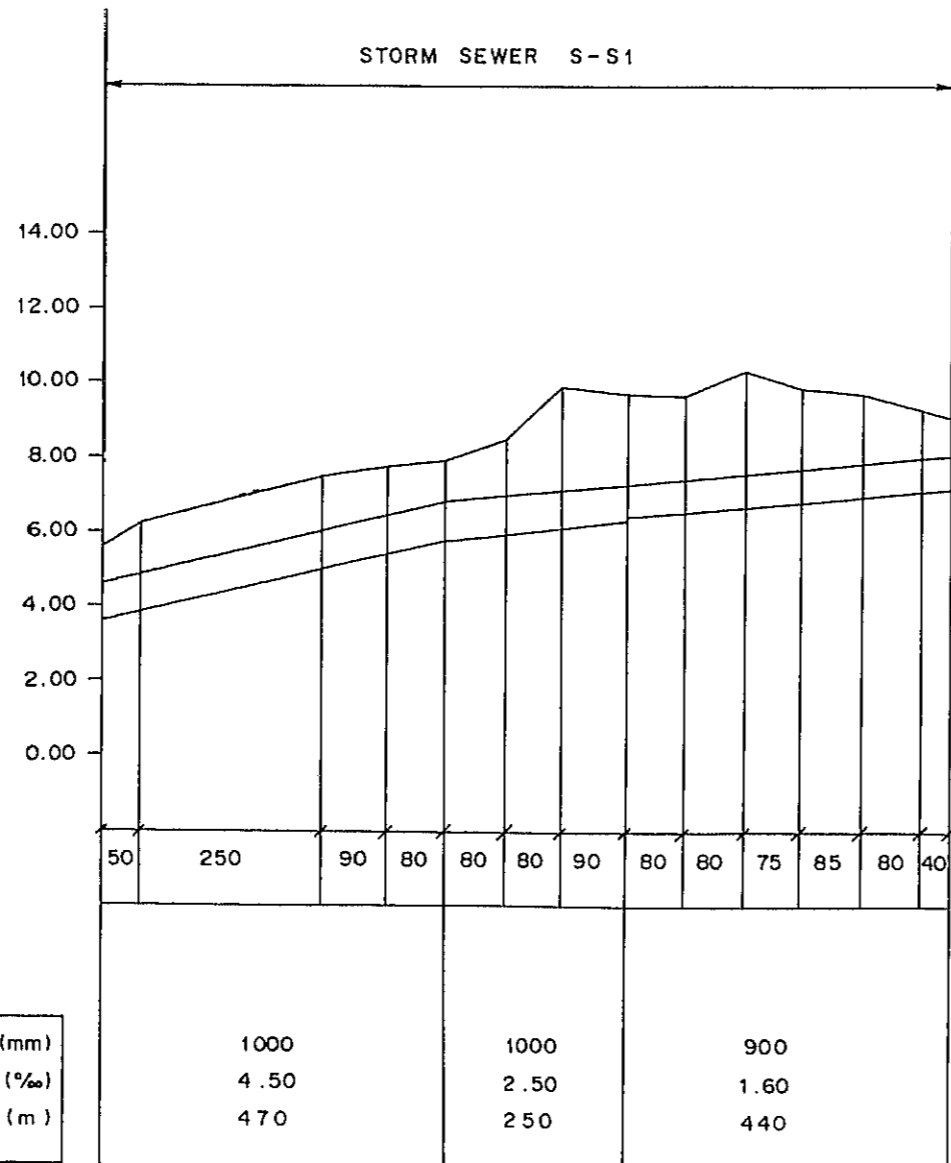
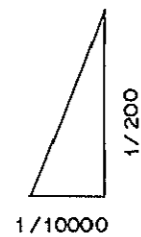
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 IN
 DAKAR CITY AND ITS SURROUNDINGS

**PROFILES OF DRAINAGE CHANNEL
 CENTRAL PIKINE (1/10)**

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DIAMETER	(mm)	1000
SLOPE	(‰)	4.50
LENGTH	(m)	470

ELEVATION	(m)	5.61
GROUND SURFACE		6.20

EARTH COVERING	(m)	1.00
		1.36

ELEVATION	(m)	3.61
SEWER INVERT		3.84

TOTAL LENGTH	(m)	0
		50
		300
		390
		470
		550
		630
		720
		800
		880
		955
		1040
		1120
		1160

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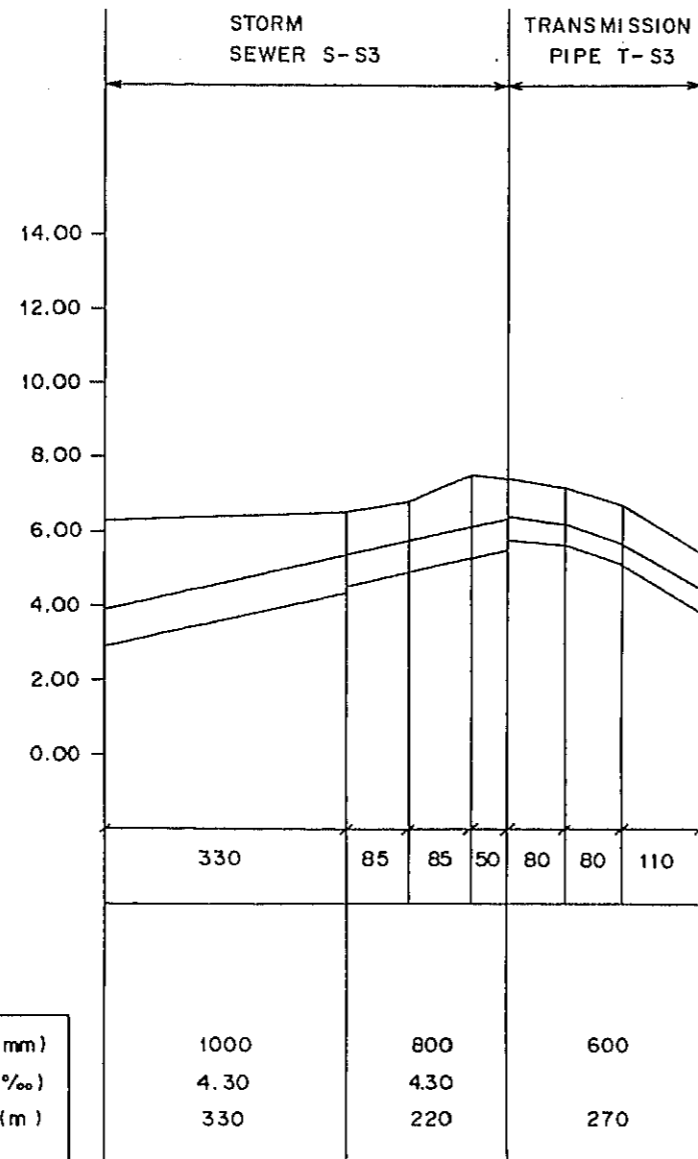
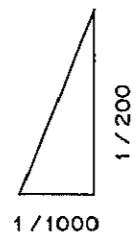
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**PROFILES OF DRAINAGE CHANNEL
 CENTRAL PIKINE (2/10)**

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DIAMETER	(mm)	
SLOPE	(‰)	
LENGTH	(m)	

ELEVATION	(m)	
GROUND SURFACE		

EARTH COVERING	(m)	

ELEVATION	(m)	
SEWER INVERT		

TOTAL LENGTH	(m)	

ELEVATION GROUND SURFACE	6.31	6.49	6.73	7.46	7.40	7.20	6.73	5.44
EARTH COVERING	2.38	1.14	1.01	1.37	1.11	1.00	1.00	1.00
ELEVATION SEWER INVERT	2.93	4.35	4.55	4.92	5.29	5.49	5.80	5.60
TOTAL LENGTH	0	330	415	500	550	630	710	820

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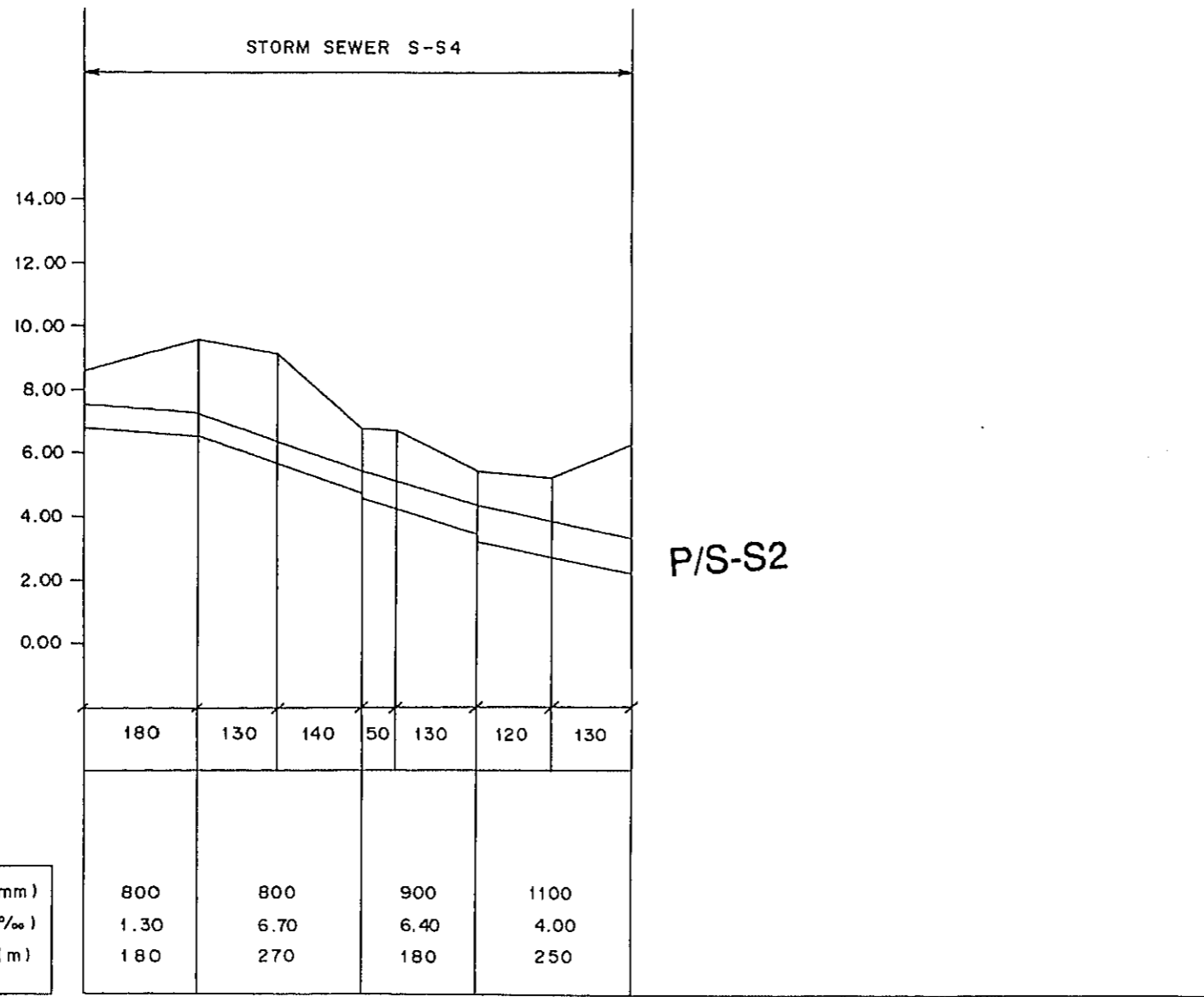
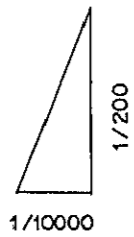
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THE REPUBLIC OF SENEGAL

THE STUDY ON URBAN DRAINAGE
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DAKAR CITY AND ITS SURROUNDINGS

PROFILES OF DRAINAGE CHANNEL
CENTRAL PIKINE (3/10)

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DIAMETER (mm)	800	800	900	1100
SLOPE (‰)	1.30	6.70	6.40	4.00
LENGTH (m)	180	270	180	250

ELEVATION (m) GROUND SURFACE	8.6	9.59	9.16	6.75	6.72	5.41	5.33	6.31
EARTH COVERING (m)	1.00	2.22	2.66	1.20	1.49	1.01	1.41	2.91
ELEVATION (m) SEWER INVERT	6.80	6.57	5.70	4.75	4.65	4.33	3.50	3.30
TOTAL LENGTH (m)	0	180	310	450	500	630	750	880

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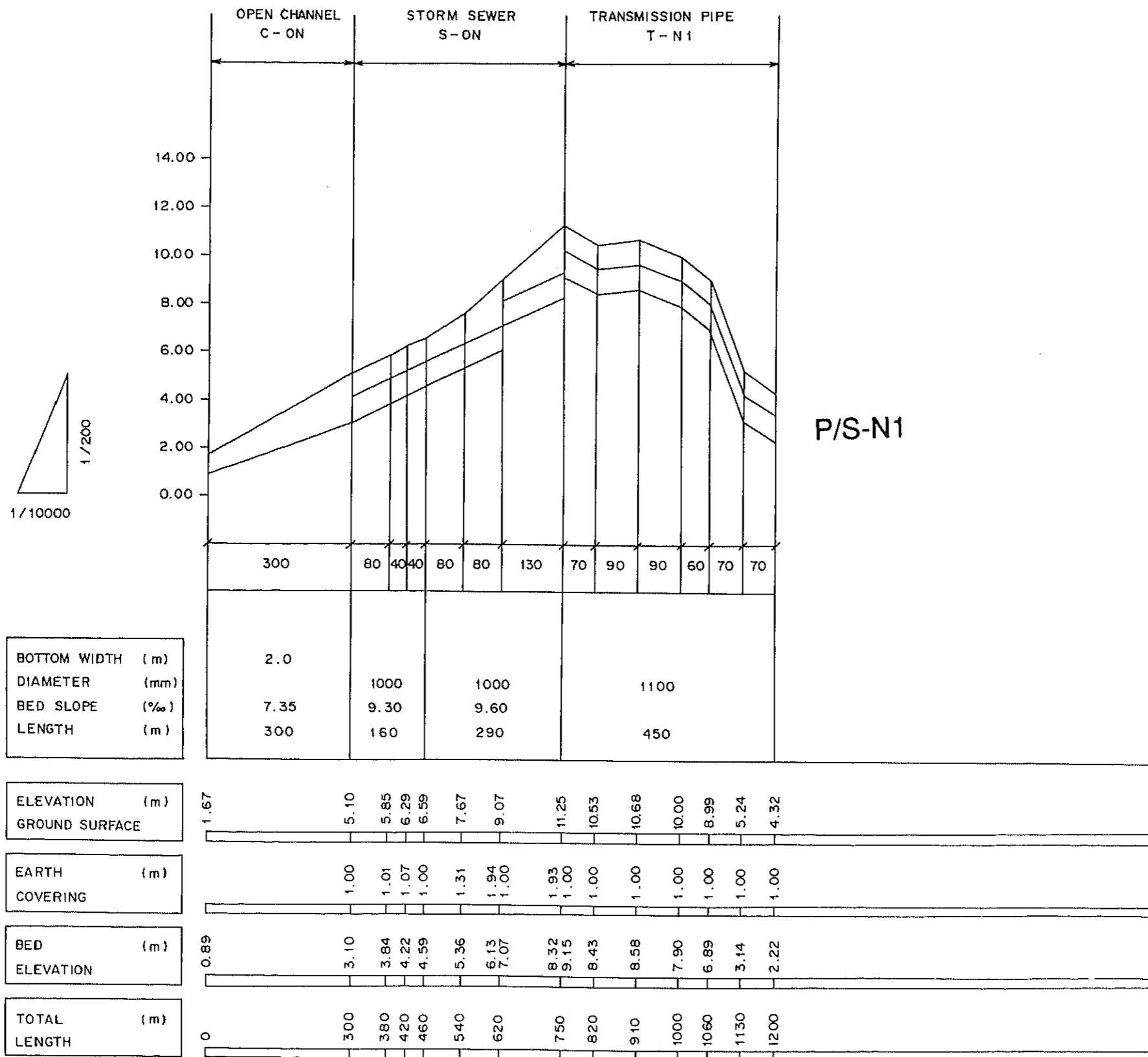
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THE STUDY ON URBAN DRAINAGE
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**PROFILES OF DRAINAGE CHANNEL
 CENTRAL PIKINE (4/10)**

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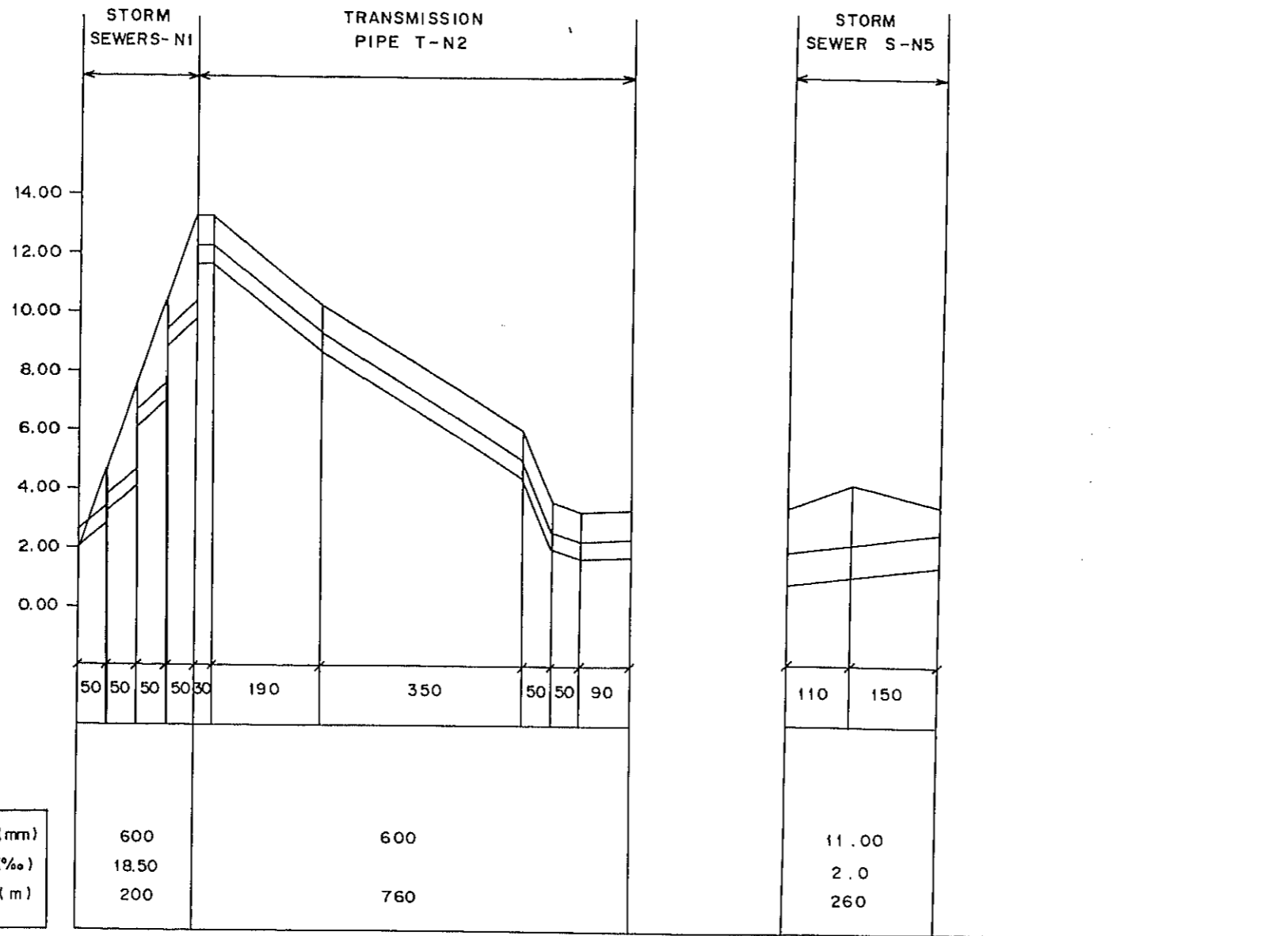
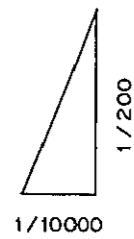
THE STUDY ON URBAN DRAINAGE
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**PROFILES OF DRAINAGE CHANNEL
 CENTRAL PIKINE (5/10)**

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DIAMETER	(mm)	600	600	11.00
SLOPE	(‰)	18.50		
LENGTH	(m)	200	760	260

ELEVATION (m)	GROUND SURFACE	2.00	4.86	7.67	10.46	13.25	13.25	10.28	6.00	3.62	3.28	3.36	3.36	4.20	3.50		
EARTH COVERING (m)		1.33	1.00	2.88	1.00	2.86	1.00	1.00	1.00	1.00	1.00	1.00	1.46	2.04	1.00		
ELEVATION (m)	SEWER INVERT	2.00	3.86	4.19	6.07	7.00	8.86	9.79	11.65	8.68	4.40	2.02	1.68	1.76	0.80	1.06	1.40
TOTAL LENGTH (m)		0	50	100	150	200	230	420	770	820	870	960	0	110	260		

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THE STUDY ON URBAN DRAINAGE
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**PROFILES OF DRAINAGE CHANNEL
 CENTRAL PIKINE (6/10)**

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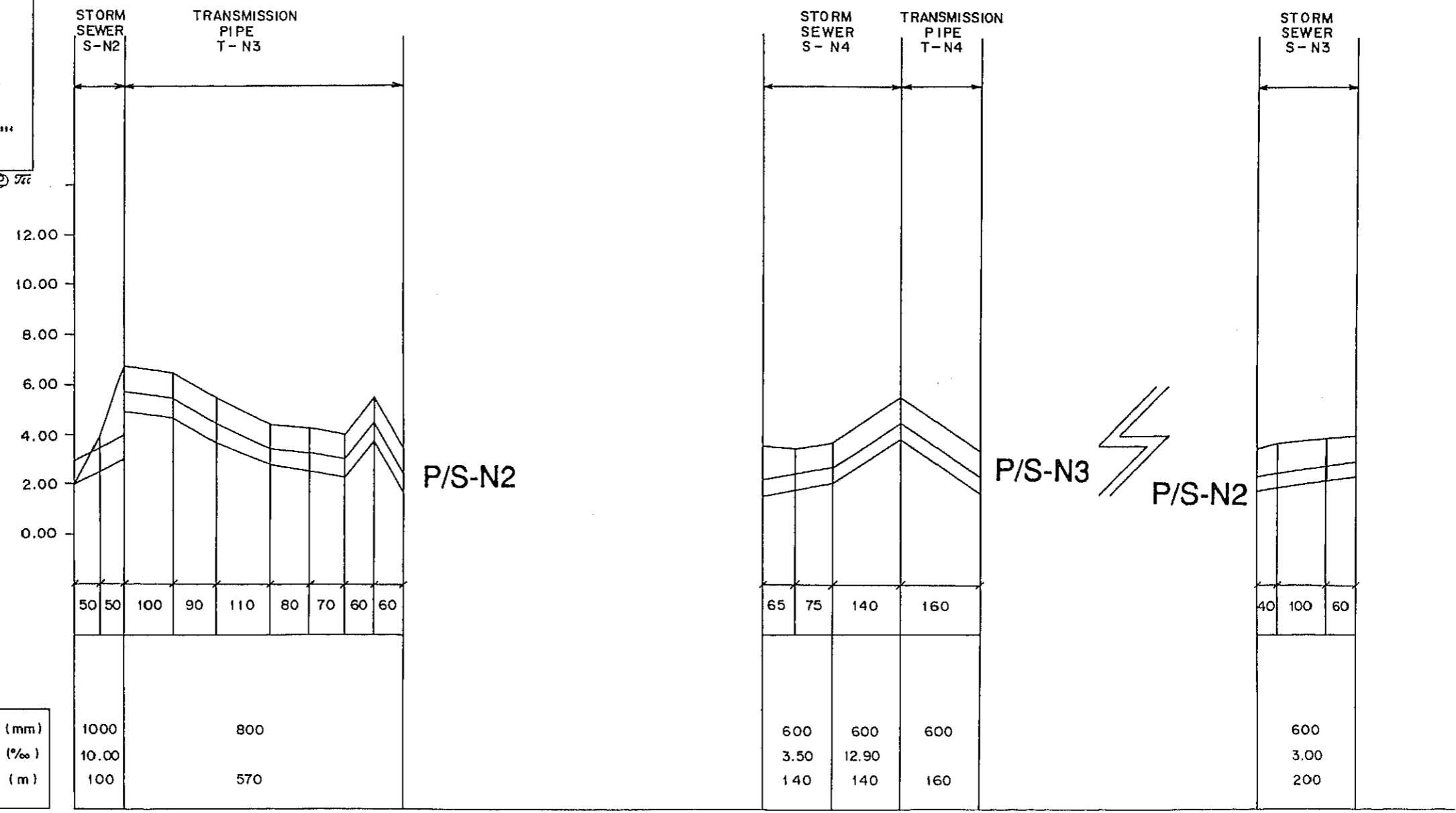
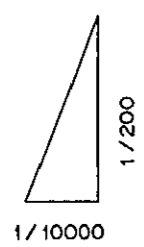
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PROFILES OF DRAINAGE CHANNEL
 CENTRAL PIKINE (7/10)

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DIAMETER	(mm)
SLOPE	(‰)
LENGTH	(m)

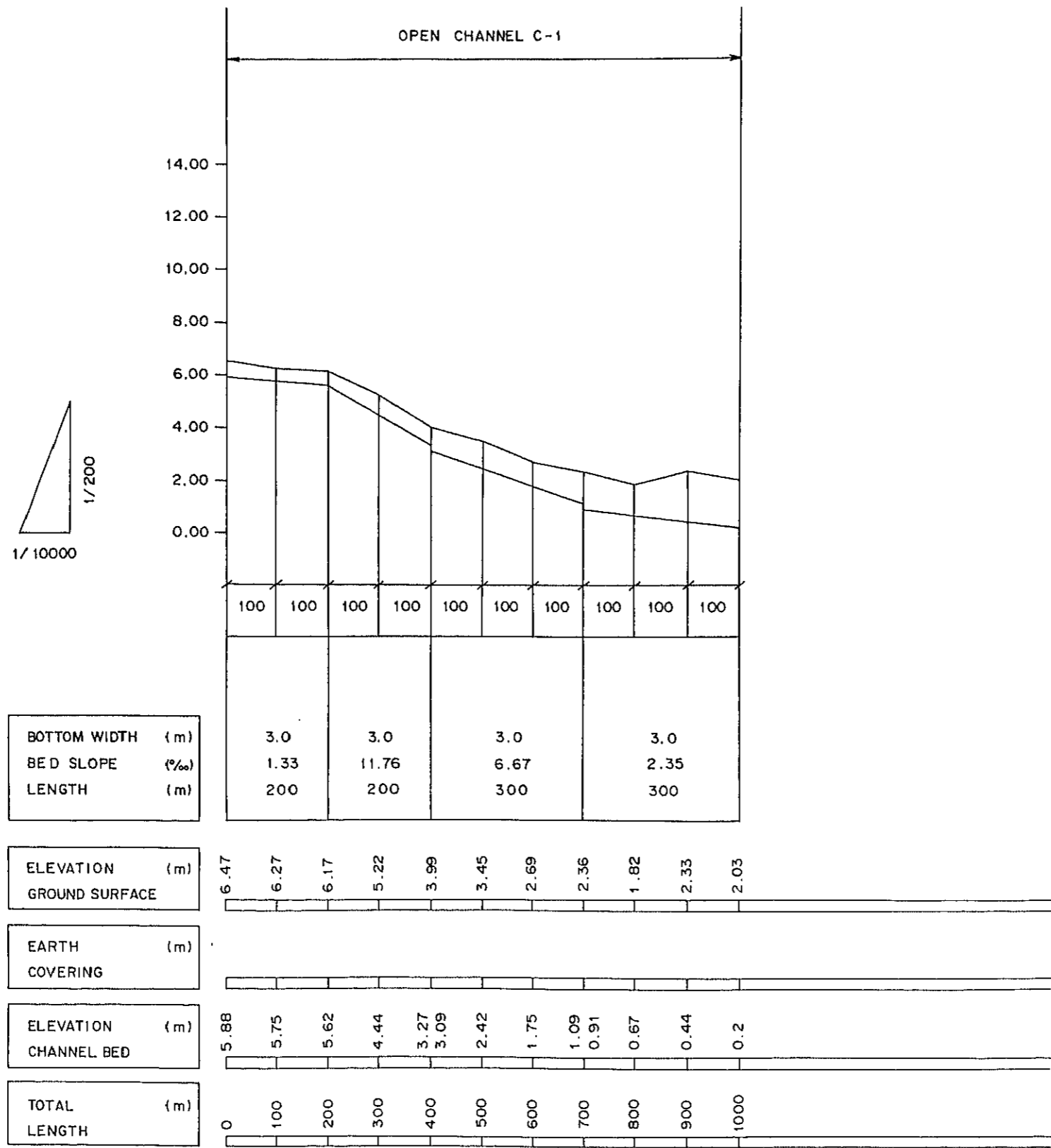
ELEVATION	(m)
GROUND SURFACE	

EARTH	(m)
COVERING	

ELEVATION	(m)
SEWER INVERT	

TOTAL	(m)
LENGTH	

ELEVATION GROUND SURFACE	2.00	4.00	6.72	6.56	5.47	4.58	4.32	4.02	5.49	3.50	3.50	3.43	3.69	5.50	3.30	3.50	3.66	3.90	4.00	
EARTH COVERING		0.50	2.72	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.30	1.00	1.00	1.00	1.00		1.10	1.14	1.08	1.00
ELEVATION SEWER INVERT	2.00	2.50	3.00	4.76	3.67	2.78	2.52	2.22	3.69	1.70	1.60	1.83	2.09	3.90	1.70		1.80	1.92	2.22	2.40
TOTAL LENGTH	0	50	100	200	290	400	480	550	610	670	0	65	140	280	440		0	40	140	200



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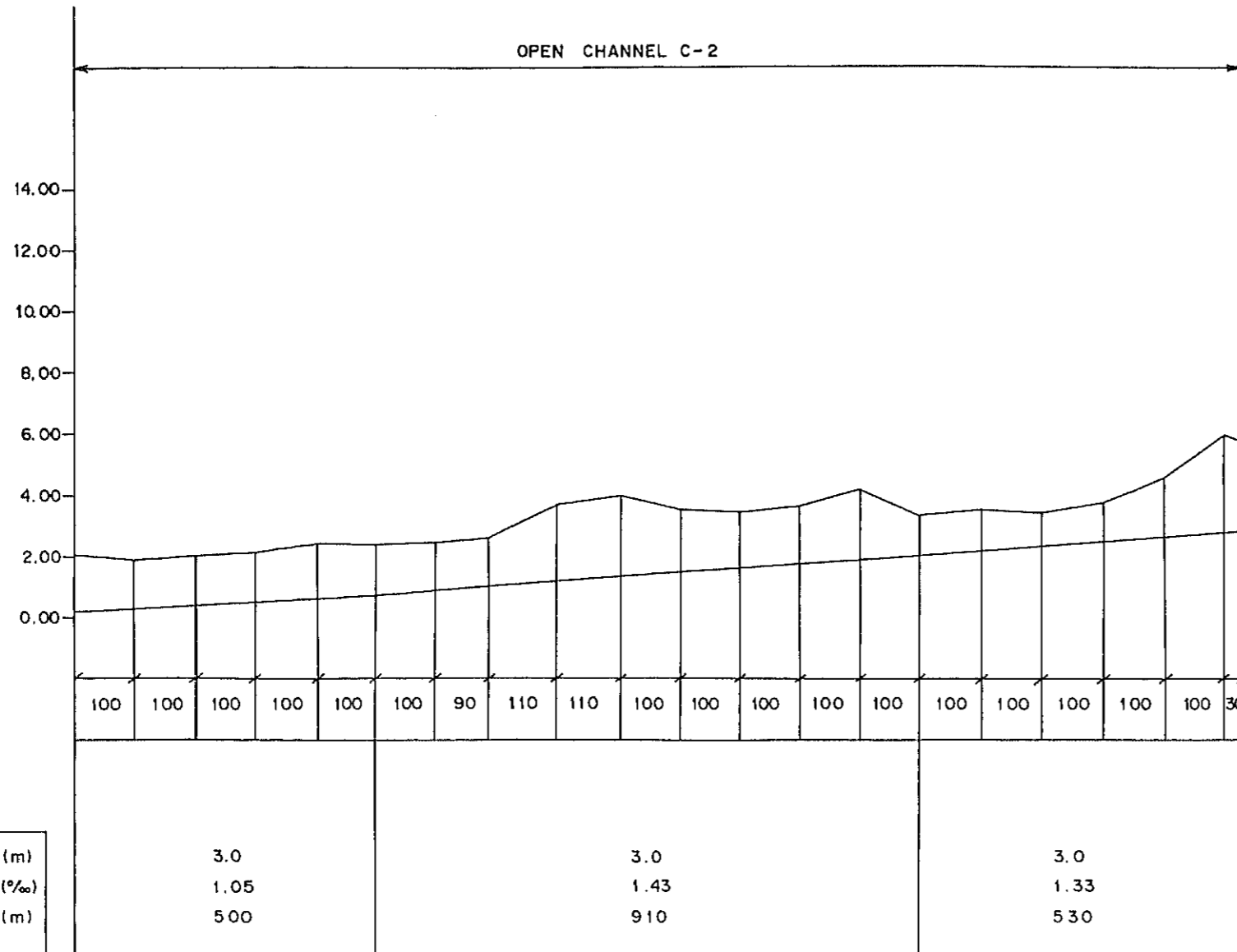
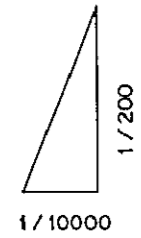
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PROFILES OF DRAINAGE CHANNEL
 CENTRAL PIKINE (8/10)

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ELEVATION (m)
GROUND SURFACE

2.03 1.94 2.01 2.11 2.40 2.37 2.39 2.52 3.63 3.97 3.53 3.44 3.61 4.17 3.33 3.43 3.40 3.63 4.54 5.87 5.74

EARTH COVERING (m)

ELEVATION (m)
CHANNEL BED

0.2 0.31 0.41 0.52 0.62 0.73 0.87 1.00 1.16 1.32 1.46 1.60 1.74 1.89 2.03 2.16 2.30 2.43 2.57 2.70 2.74

TOTAL LENGTH (m)

0 100 200 300 400 500 600 690 800 910 1010 1110 1210 1310 1410 1510 1610 1710 1810 1910 1940

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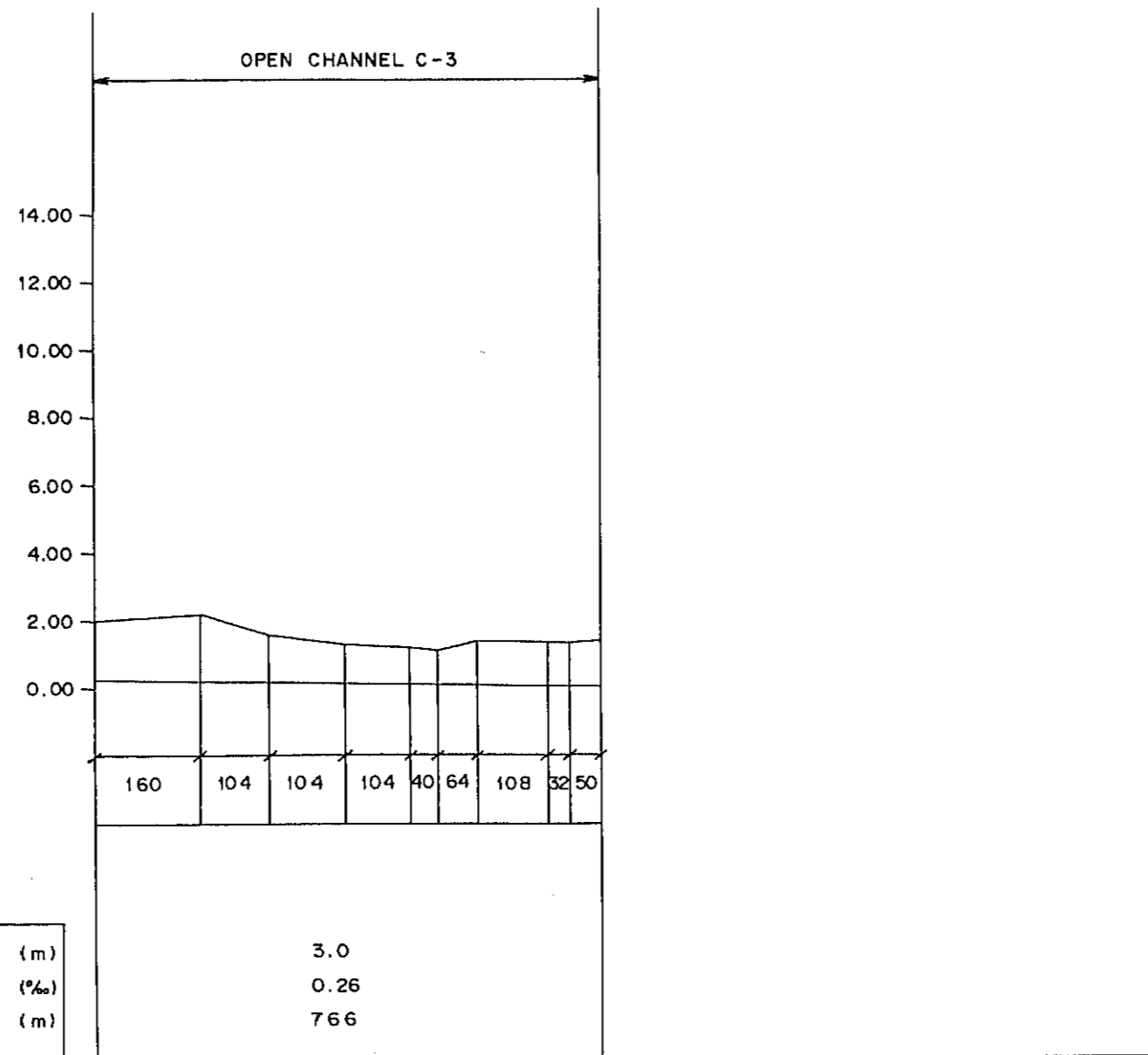
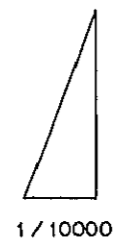
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**PROFILES OF DRAINAGE CHANNEL
 CENTRAL PIKINE (9/10)**

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1994



BOTTOM WIDTH (m)	3.0
BED SLOPE (‰)	0.26
LENGTH (m)	766

ELEVATION (m)	2.03	2.14	1.53	1.35	1.26	1.18	1.35	1.30	1.30	1.37
GROUND SURFACE										

EARTH COVERING (m)										
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ELEVATION (m)	0.20	0.16	0.13	0.10	0.08	0.07	0.05	0.02	0.01	0.00
CHANNEL BED										

TOTAL LENGTH (m)	0	160	264	368	472	512	576	684	716	766
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JICA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 MINISTRY OF HYDRAULICS
 THE REPUBLIC OF SENEGAL

THE STUDY ON URBAN DRAINAGE
 AND
 WASTEWATER SYSTEMS
 IN
 DAKAR CITY AND ITS SURROUNDINGS

**PROFILES OF DRAINAGE CHANNEL
 CENTRAL PIKINE (10/10)**

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