

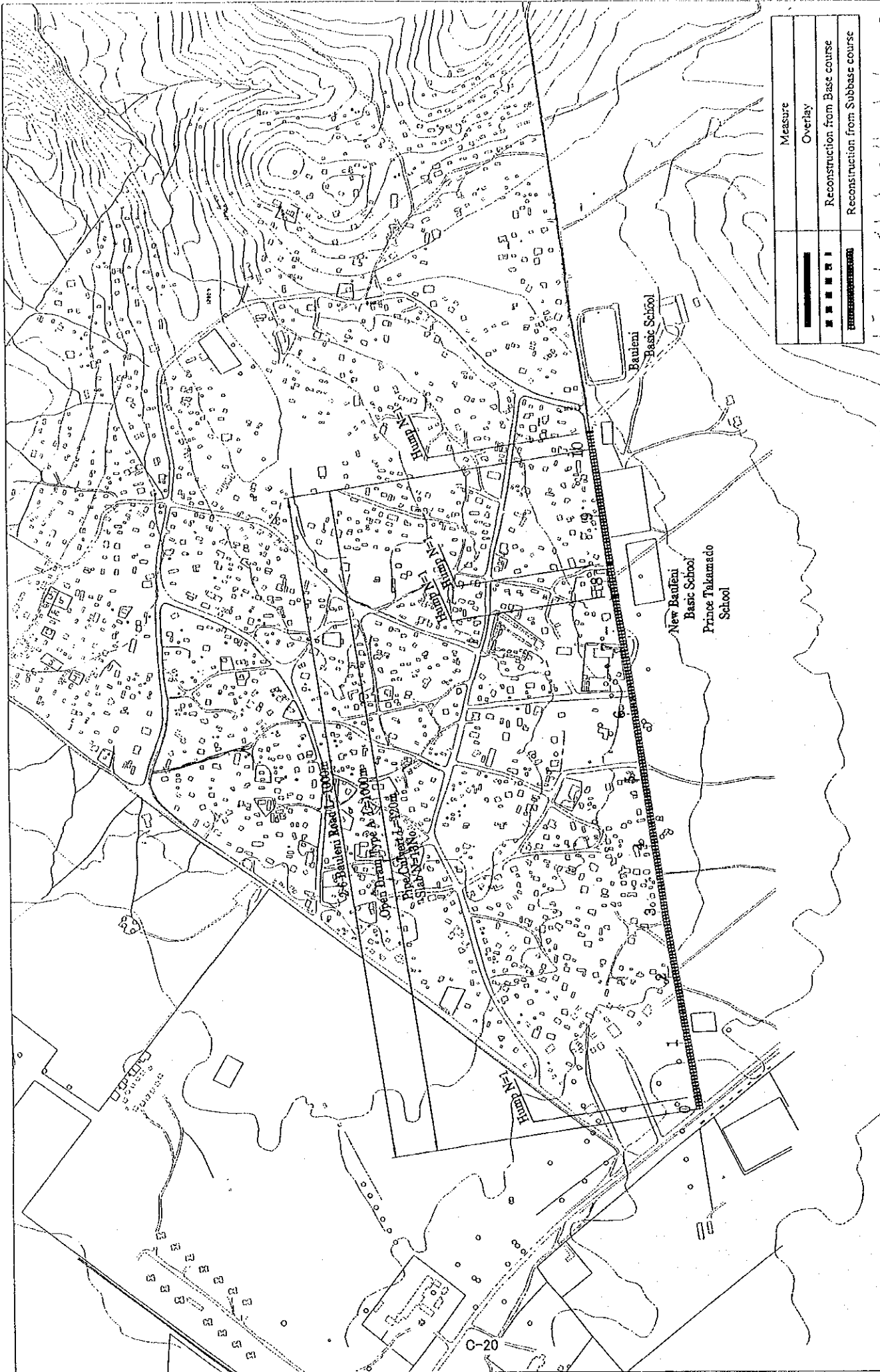
	Measure
	Overlay
	Reconstruction from Base course
	Reconstruction from Subbase course

2+4 Kwana Nkhosho Road
 PLAN (Collector Road)
 DATE: April, 2000
 SHEET NO. 19

JAPAN INTERNATIONAL
 COOPERATION AGENCY

THE ROAD DESIGN STUDY ON
 THE PROJECT FOR IMPROVEMENT AND MAINTENANCE
 OF URBAN CITY ROADS (SECOND STAGE)

THE PEOPLE OF ZAMBIA
 LUSAKA CITY COUNCIL



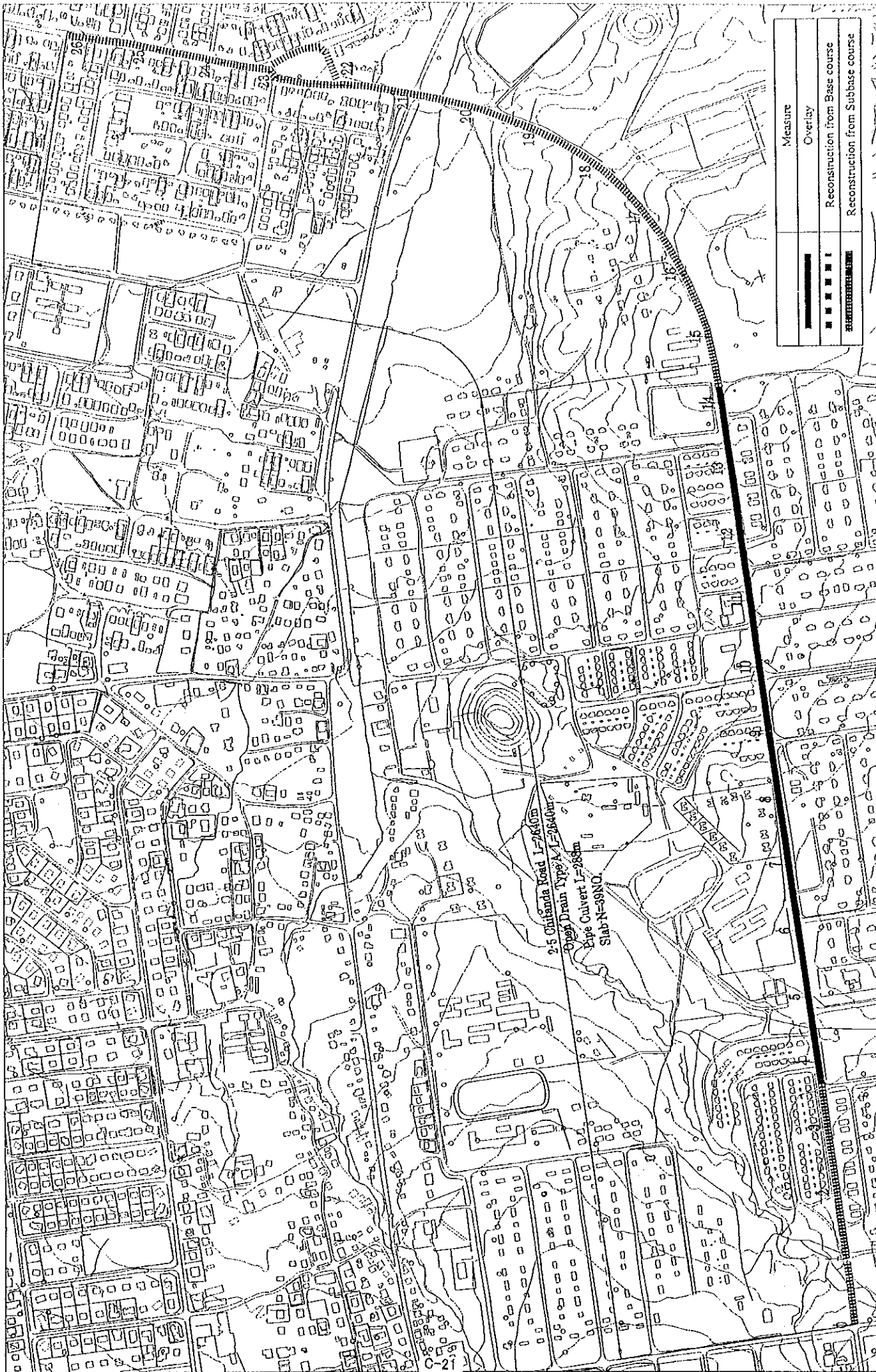
Measure	(Solid line)
Overlay	(Dashed line)
Reconstruction from Base course	(Line with diagonal hatching)
Reconstruction from Subbase course	(Line with cross-hatching)

2-6 Bauleni Road
 PLAN(Collector Road)

JAPAN INTERNATIONAL
 COOPERATION AGENCY

THE ROAD DESIGN STUDY OF
 THE BULGARIAN ROAD AND BRIDGE
 OF USUMBA CITY COUNCIL (1004-2142)

THE PUBLIC OF ZAMBIA
 USUMBA CITY COUNCIL



Measure	Symbol
Overlay	—
Reconstruction from Base course	— — — — —
Reconstruction from Subbase course	- - - - -

2.5 Chikanda Road L=2640m
 Open Drain Type A L=2640m
 Pipe Culvert L=268m
 Slab N=99NO.

JAPAN INTERNATIONAL
 COOPERATION AGENCY

THE BASIC DESIGN STUDY ON
 THE PROJECT FOR IMPROVEMENT AND MAINTENANCE
 OF USAKA CITY ROADS (SECOND STAGE)

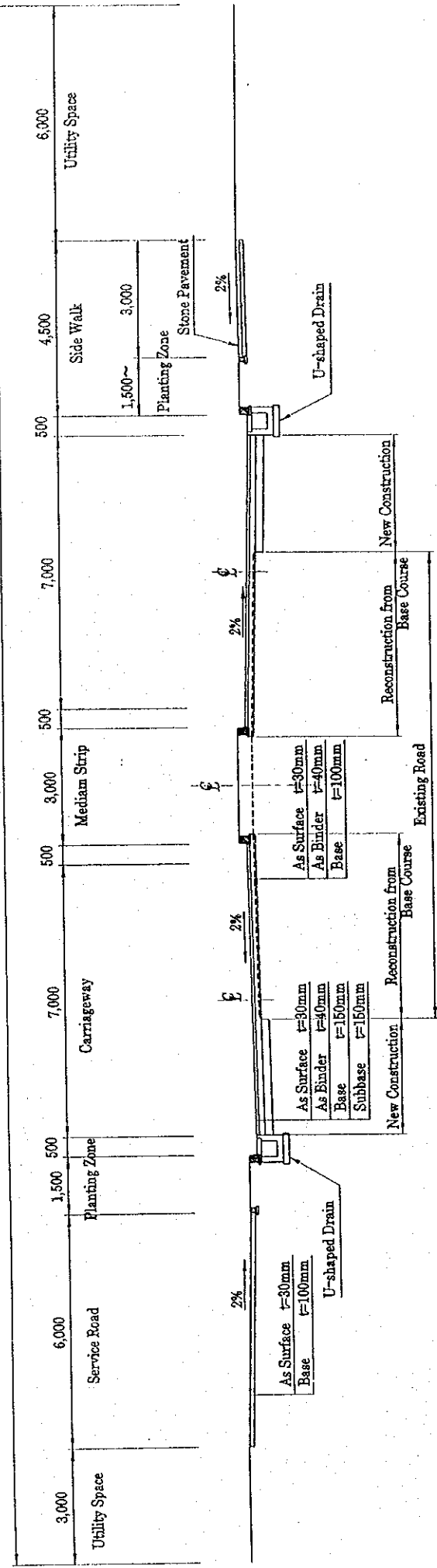
THE PUBLIC OF ZAMBIA
 LUSAKA CITY COUNCIL

2-3 Chikanda Road
 PLAN (Collector Road)

DATE: April, 2000
 SHEET NO: 21

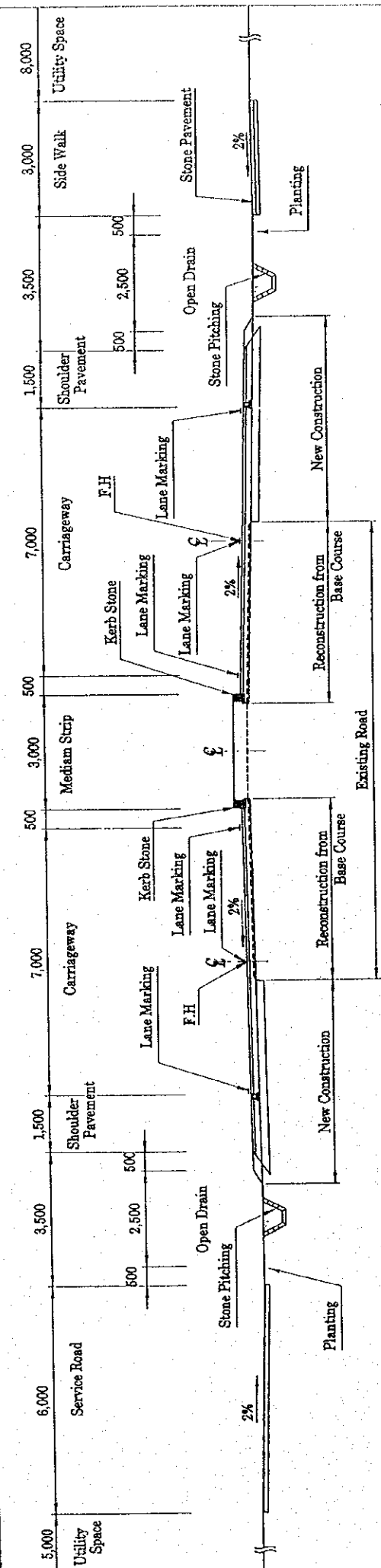
Typical Cross Section of Great East Road(1/2)

40,000



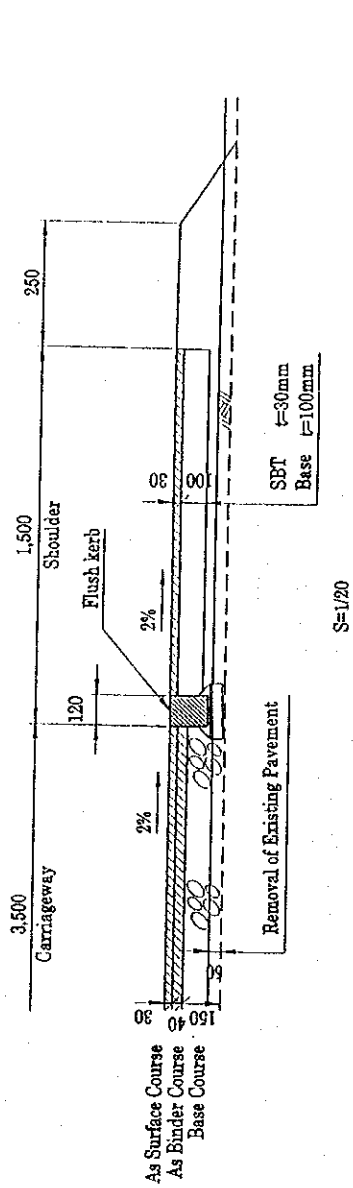
O-22

50,000



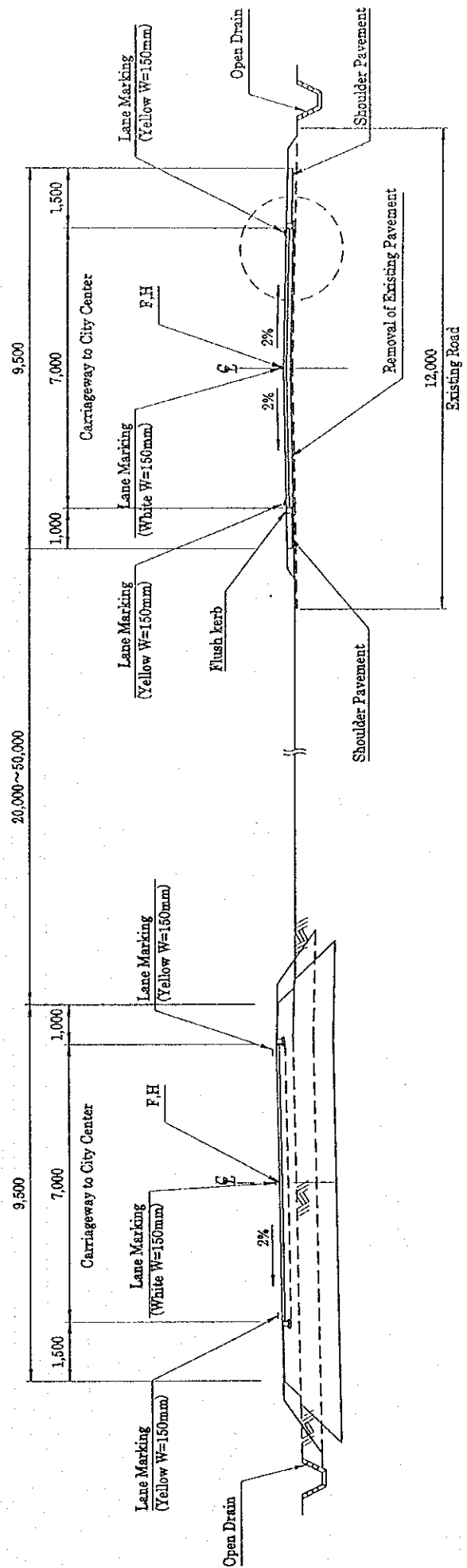
THE PUBLIC OF ZAMBIA LUSAKA CITY COUNCIL	THE ENGINEERING STUDY ON THE PROJECT FOR THE IMPROVEMENT OF LUSAKA CITY ROADS (SIS/06/214E1)		JAPAN INTERNATIONAL COOPERATION AGENCY	GREAT EAST ROAD TYPICAL CROSS SECTION(1/2)	DATE	SHEET NO
	APPL. 2000	22				

Typical Cross Section of Great East Road (2/2)

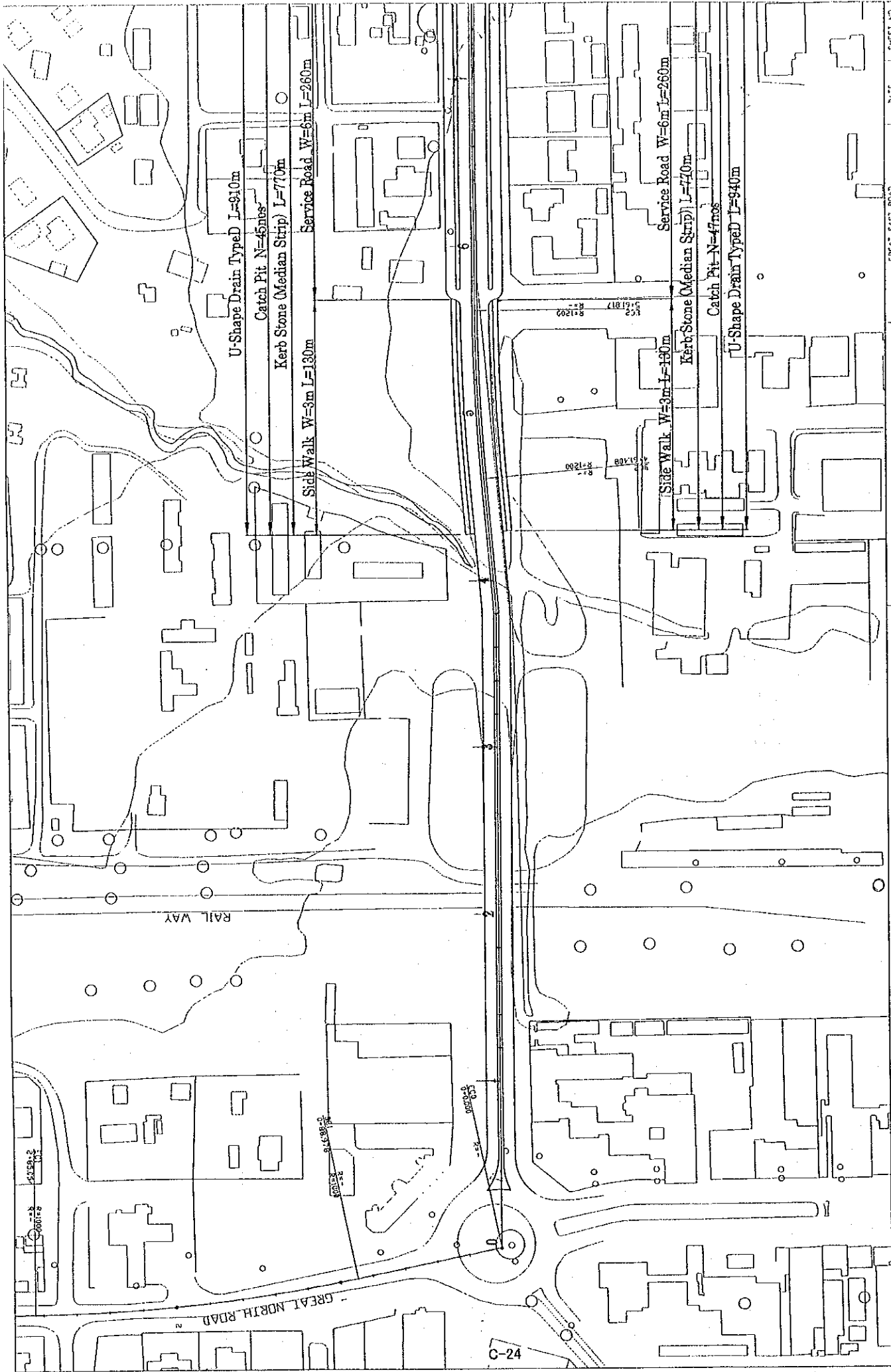


New Construction
To Airport

Reconstruction from Base Course
To City Center

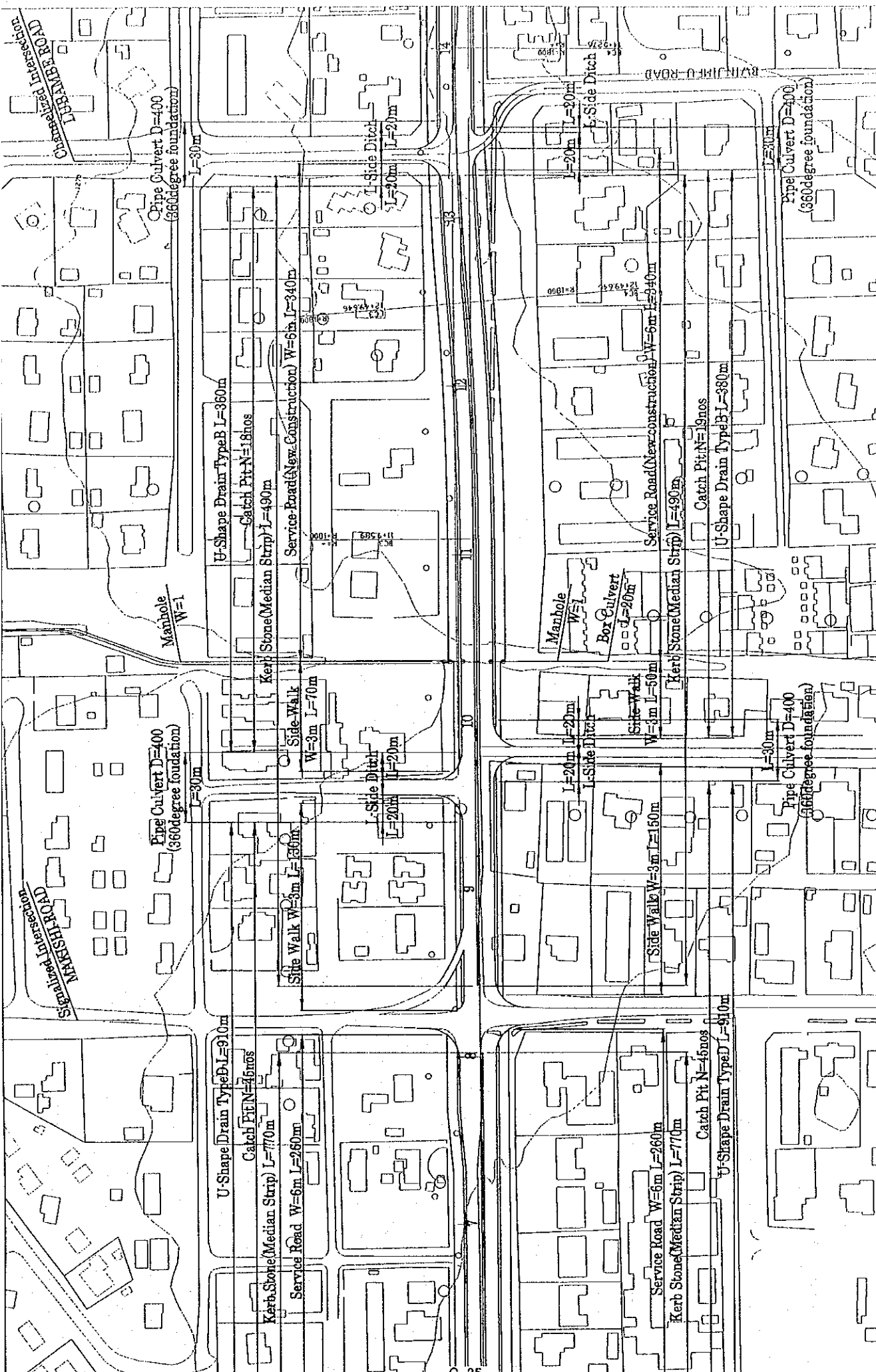


<p>THE PUBLIC OF ZAMBIA LUSAKA CITY COUNCIL</p>	<p>THE BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT AND MAINTENANCE OF LUSAKA CITY ROADS (SECOND STAGE)</p>	<p>ASIAN INTERNATIONAL COOPERATION AGENCY</p>	<p>GREAT EAST ROAD TYPICAL CROSS SECTION (2)</p> <p>DATE APR. 2000</p> <p>SHEET NO 23</p>
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<p>DATE: 4th 2000</p> <p>SHEET NO: 24</p>	<p>PLAN (1/20)</p> <p>CREAT EAST ROAD</p>	<p>JAPAN INTERNATIONAL COOPERATION AGENCY</p>	<p>THE PUBLIC OF ZAMBIA LUSAKA CITY COUNCIL</p>
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THE BASIC DESIGN STUDY ON
 THE PROJECT FOR IMPROVEMENT AND MAINTENANCE
 OF LUSAKA CITY ROADS (SECOND STAGE)



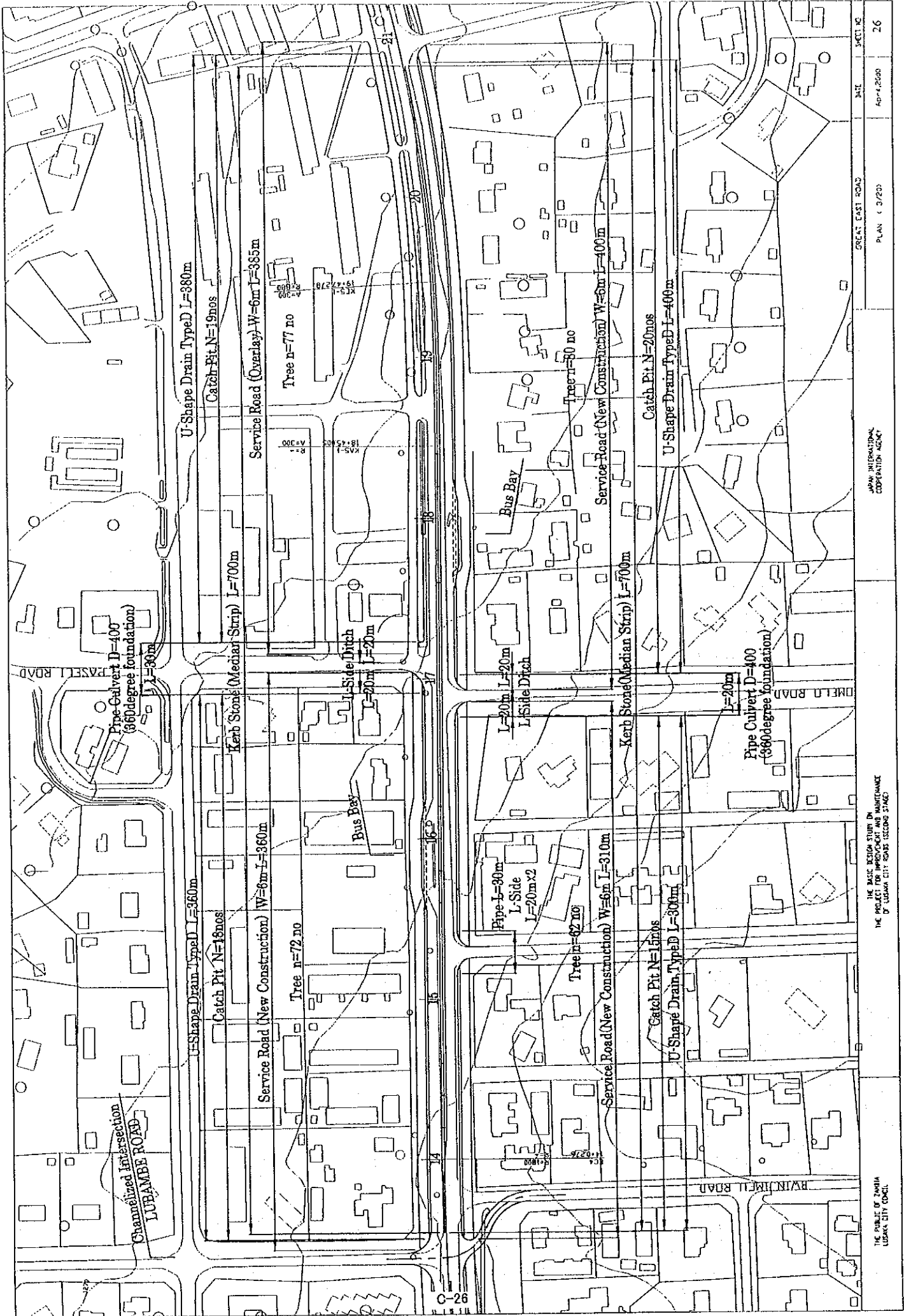
THE PUBLIC OF ZAMBIA
LUSAKA CITY COUNCIL

THE BASIC DESIGN STUDY FOR
THE PROJECT FOR IMPROVEMENT AND MAINTENANCE
OF LUSAKA CITY ROADS (SECOND STAGE)

JAPAN INTERNATIONAL
COOPERATION AGENCY

GREAT EAST ROAD
PLAN (2/25)

DATE
APRIL 2000
SHEET NO
25



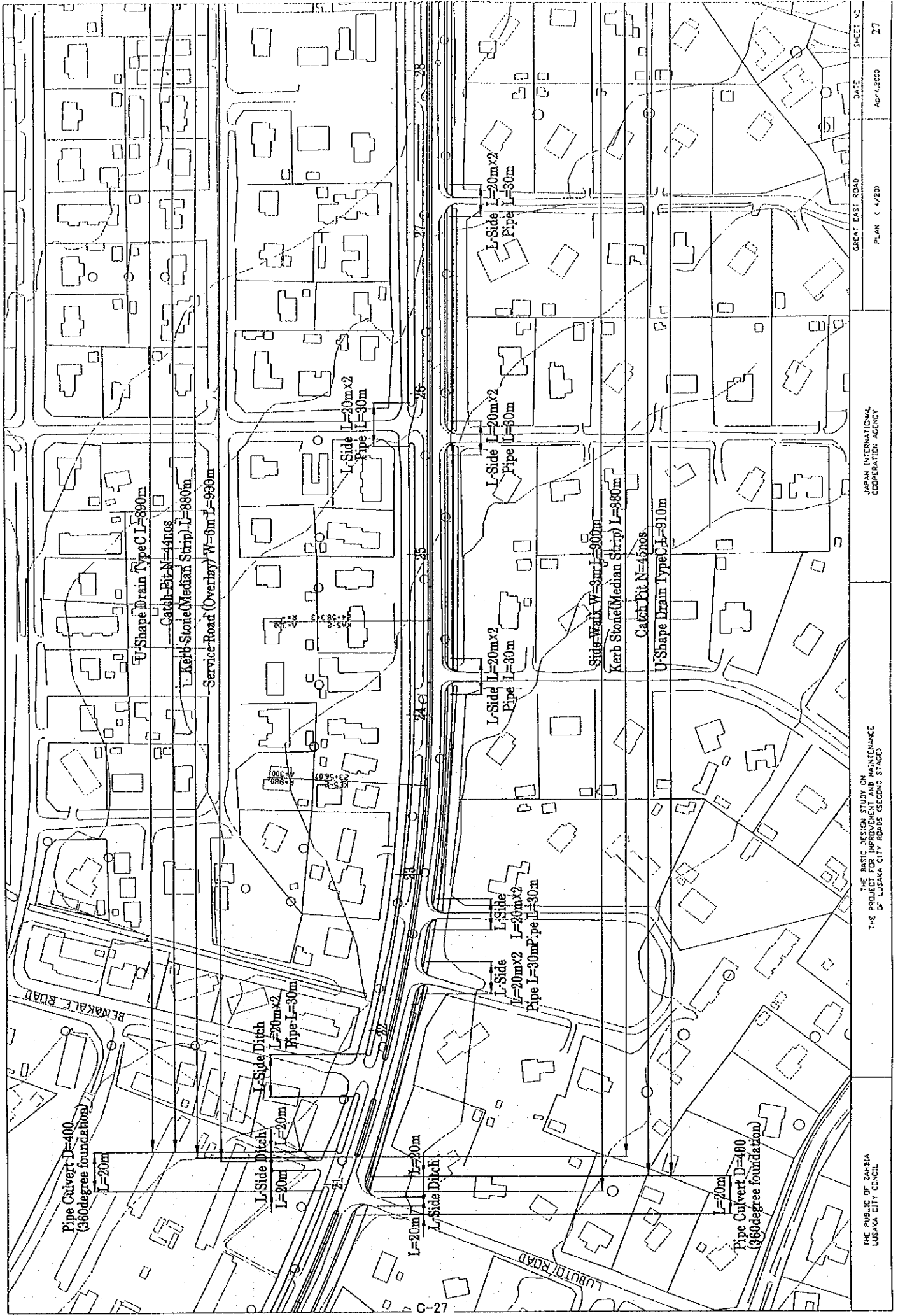
DATE: 04-02-2008
 PLAN: (3/20)
 SHEET NO: 26

JAWA INTERNATIONAL
 CORPORATION AGENT

THE BASIC DESIGN STUDY OF
 THE PROJECT FOR IMPROVEMENT AND MAINTENANCE
 OF URBAN CITY ROADS (SECOND STAGE)

THE GOVERNMENT OF ZAMBIA
 URBAN CITY COUNCIL

C-26



THE PUBLIC OF ZAMBIA
LUSAKA CITY COUNCIL

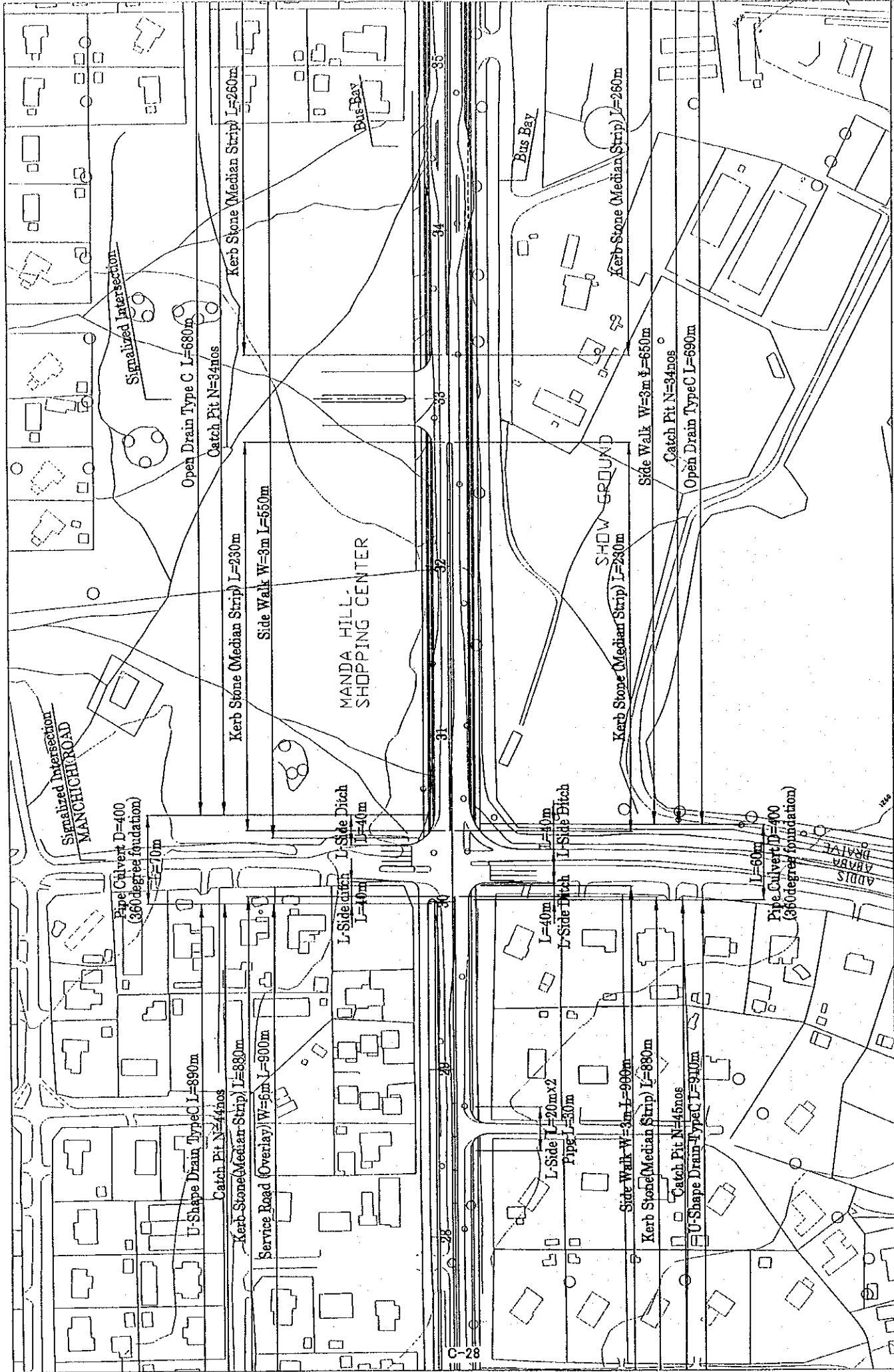
THE BASIC DESIGN STUDY ON
THE PROJECT FOR IMPROVEMENT AND MAINTENANCE
OF LUSAKA CITY ROADS (SECOND STAGE)

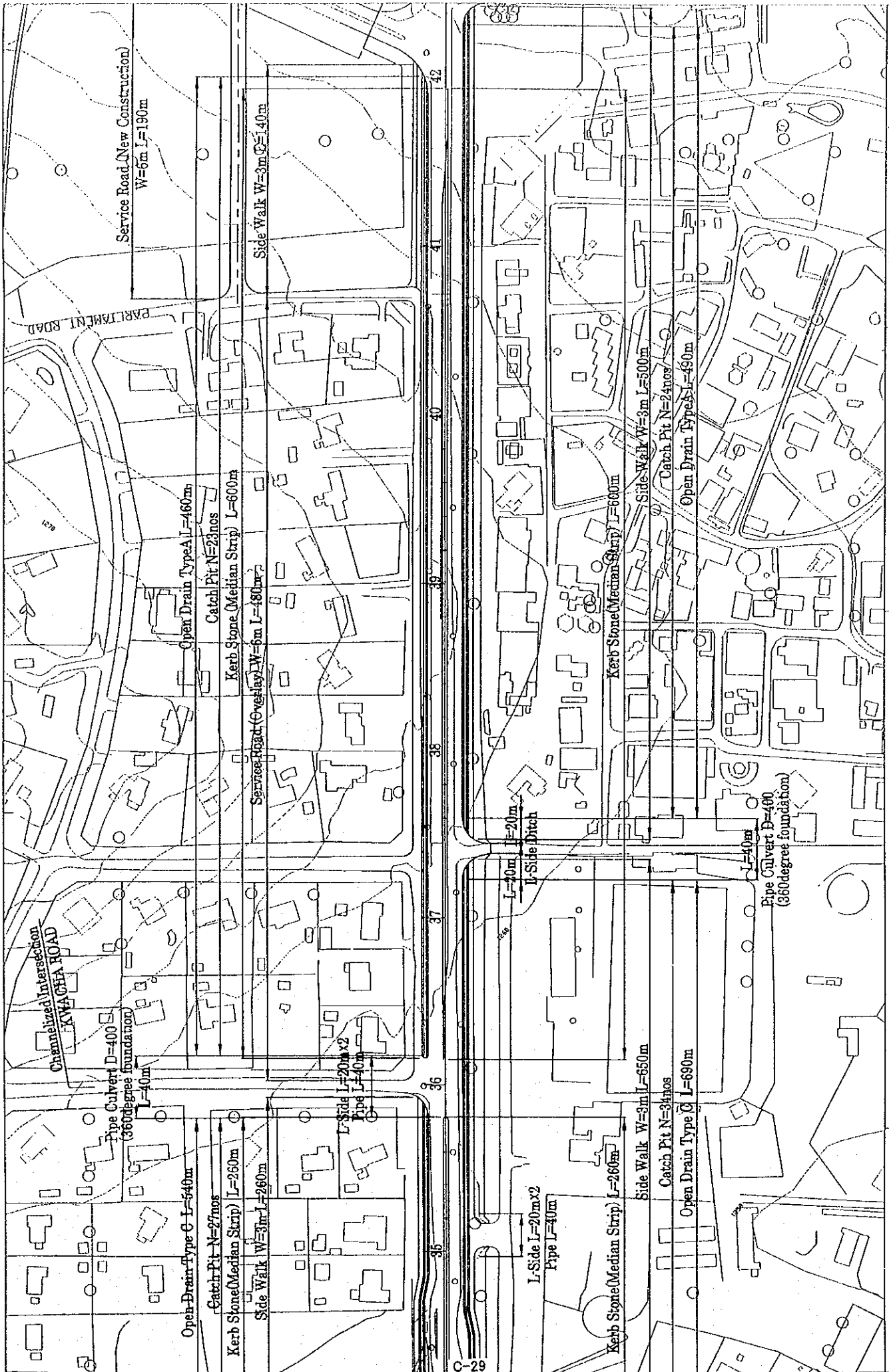
JAPAN INTERNATIONAL
COOPERATION AGENCY

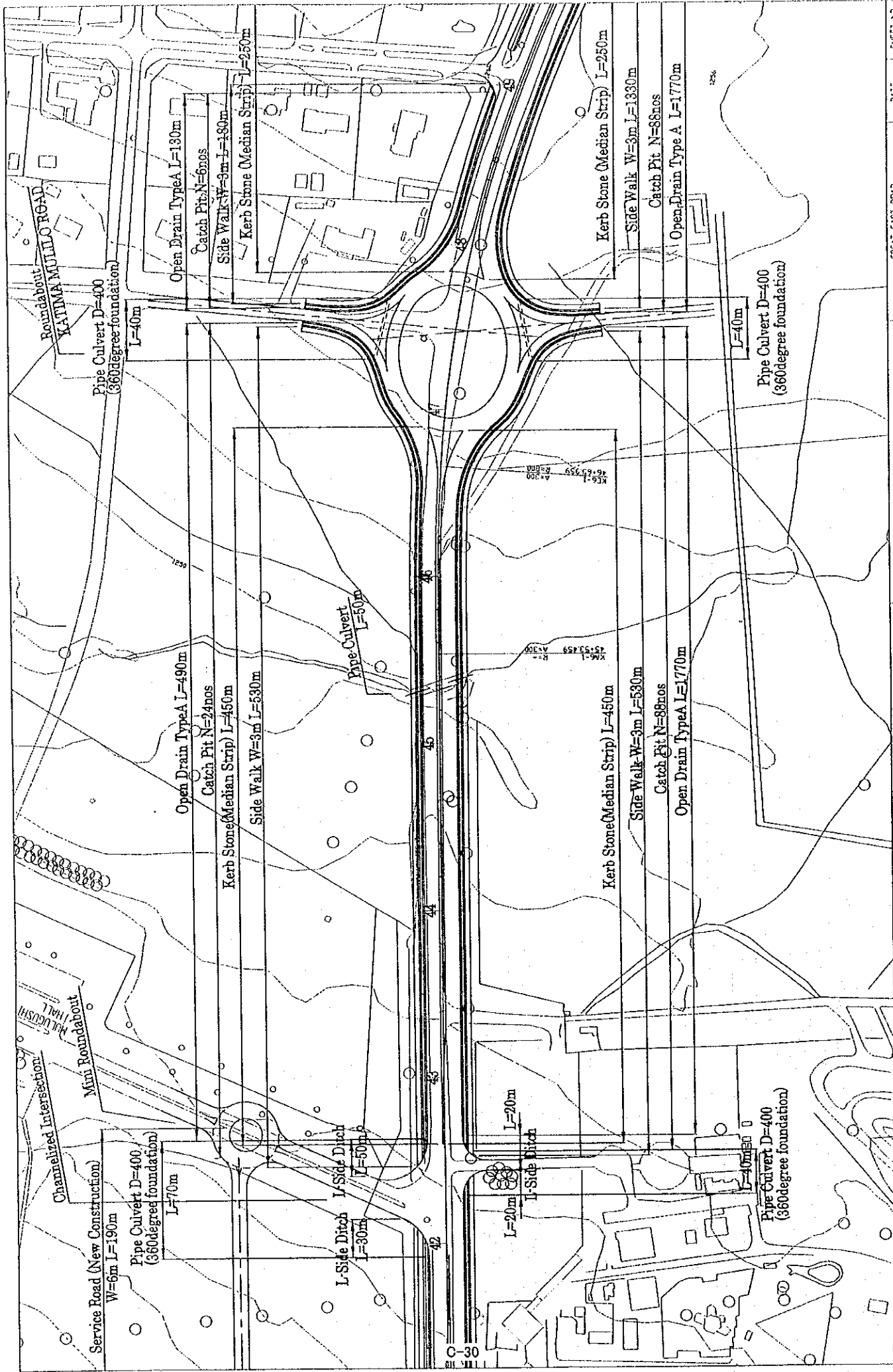
GREAT EAST ROAD
PLAN (4/20)

DATE
APR-1980

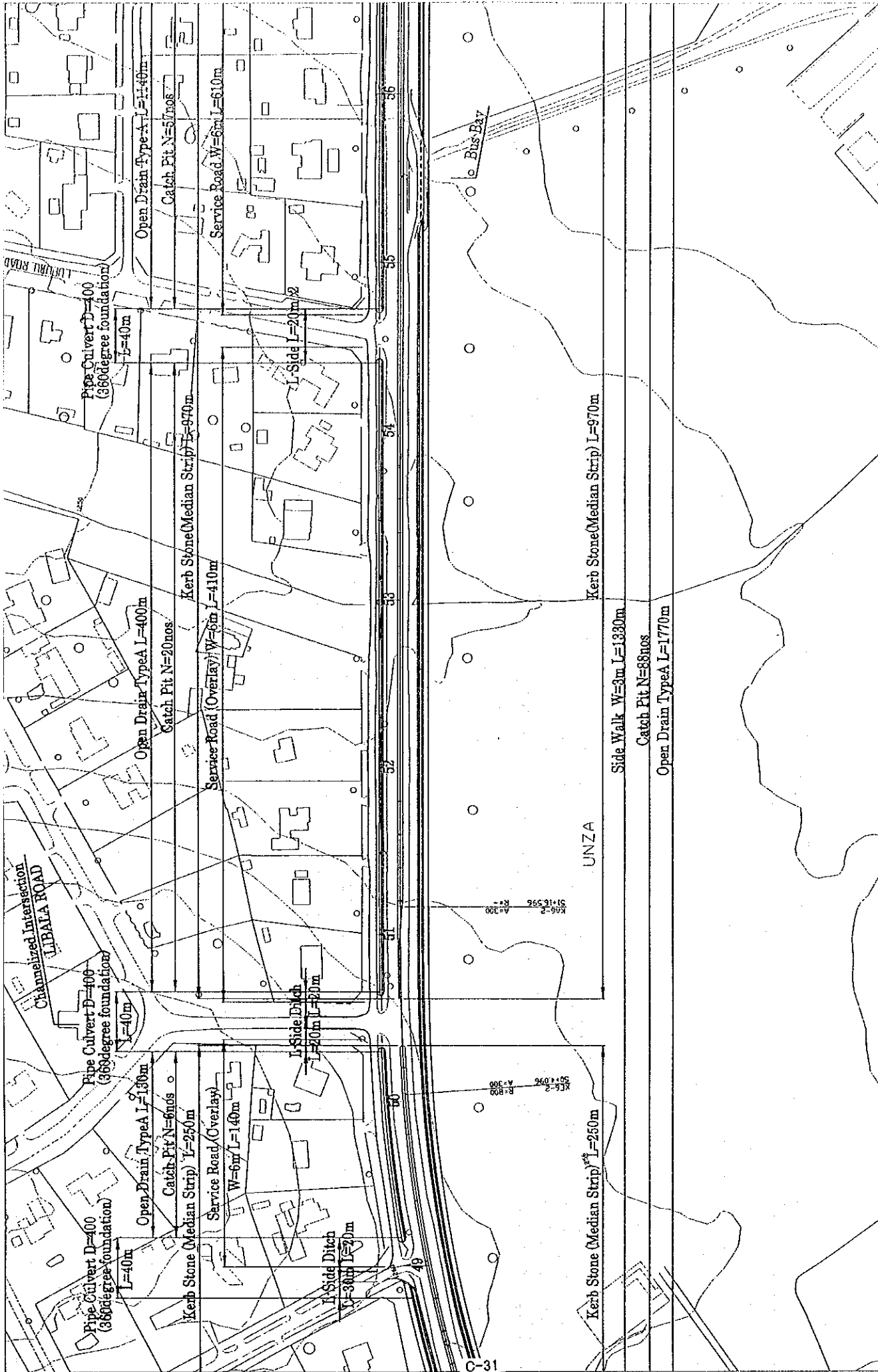
SHEET NO
27



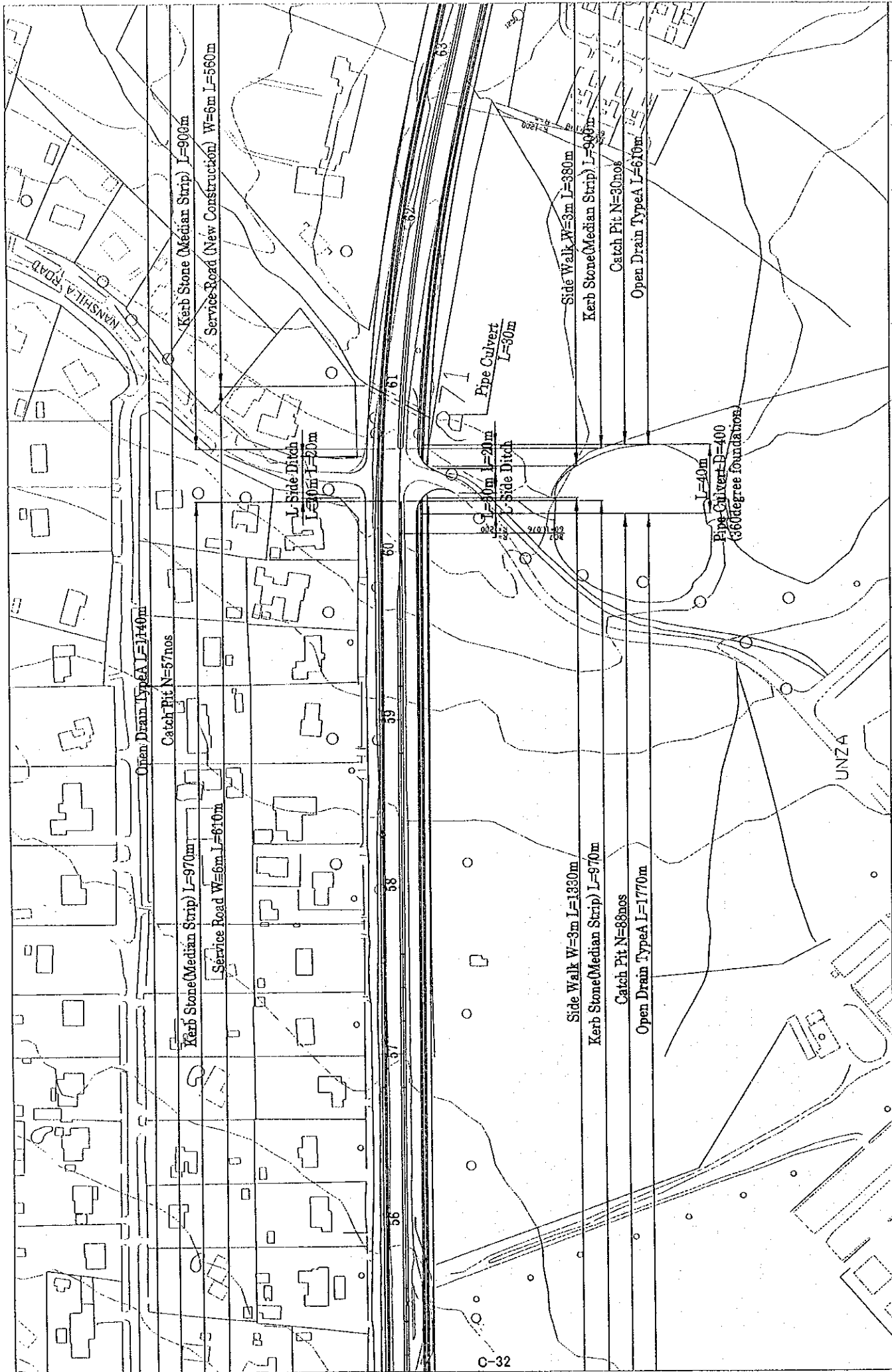




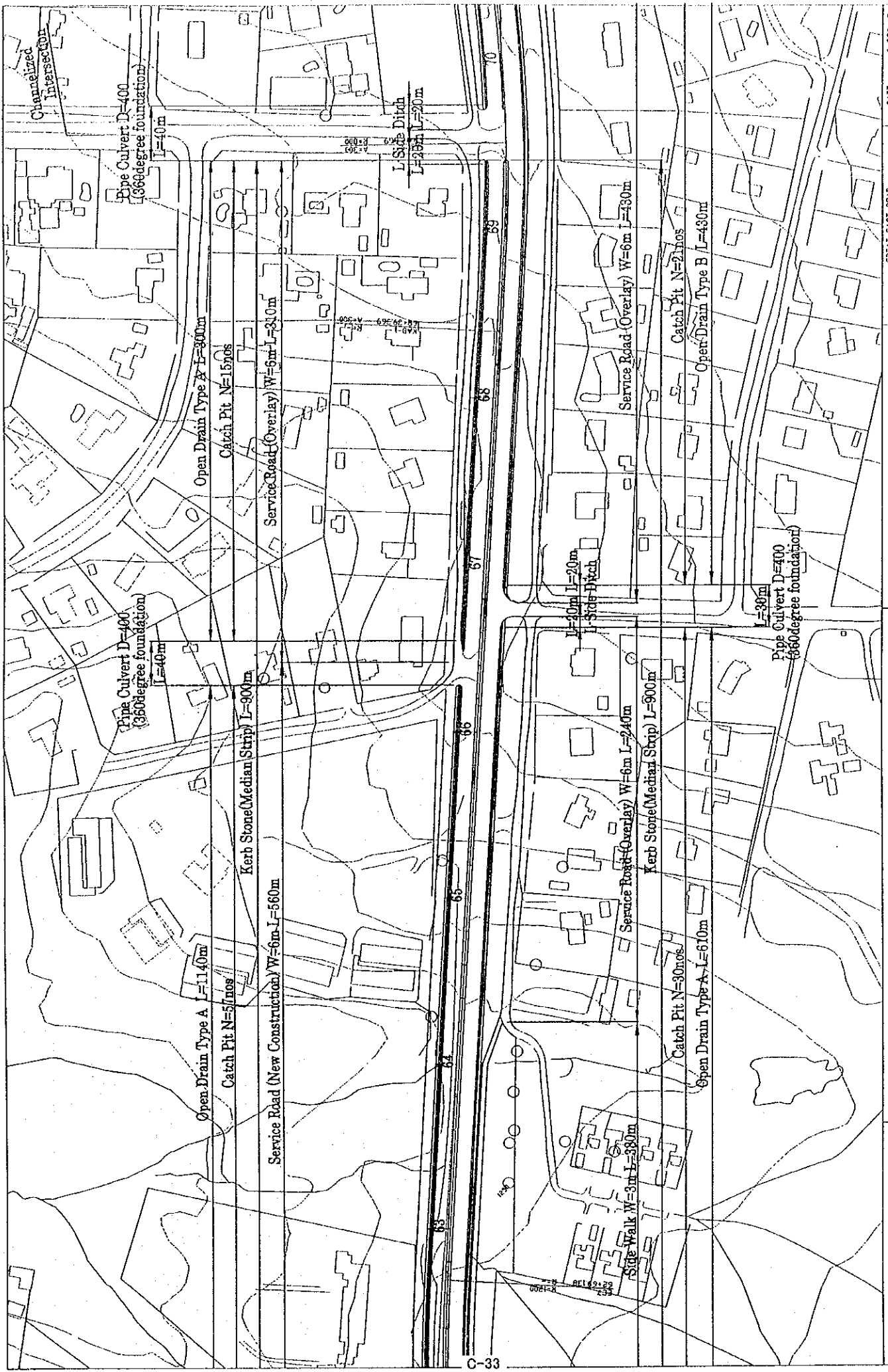
SHEET NO	30
SCALE	As per drawing
PLAN	G 7/20
GREAT EAST ROAD	
JAPAN INTERNATIONAL COOPERATION AGENCY	
THE BASIC DESIGN STUDY ON THE PROPOSAL FOR THE MAINTENANCE OF LUSAKA CITY ROADS (SECOND STAGE)	
THE PUBLIC OF ZAMBIA LUSAKA CITY COUNCIL	



GREAT EAST ROAD	DATE	SHEET NO
PLAN (8/23)	4-1-2000	31
JAPAN INTERNATIONAL COOPERATION AGENCY		
THE PUBLIC OF ZAMBIA LUSAKA CITY COUNCIL		
THE BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT AND MAINTENANCE OF LUSAKA CITY ROADS (SECOND STAGE)		

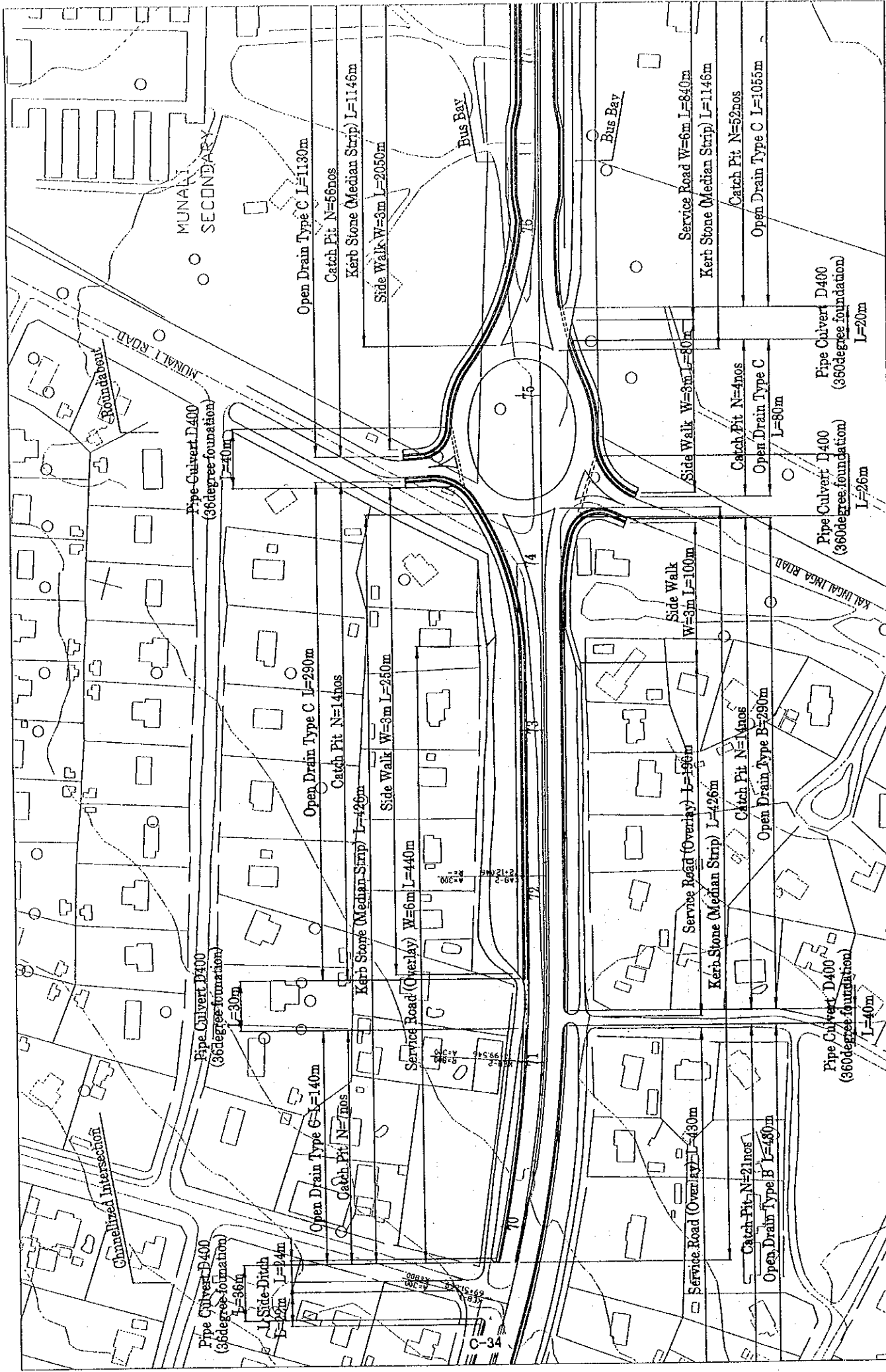


C-32

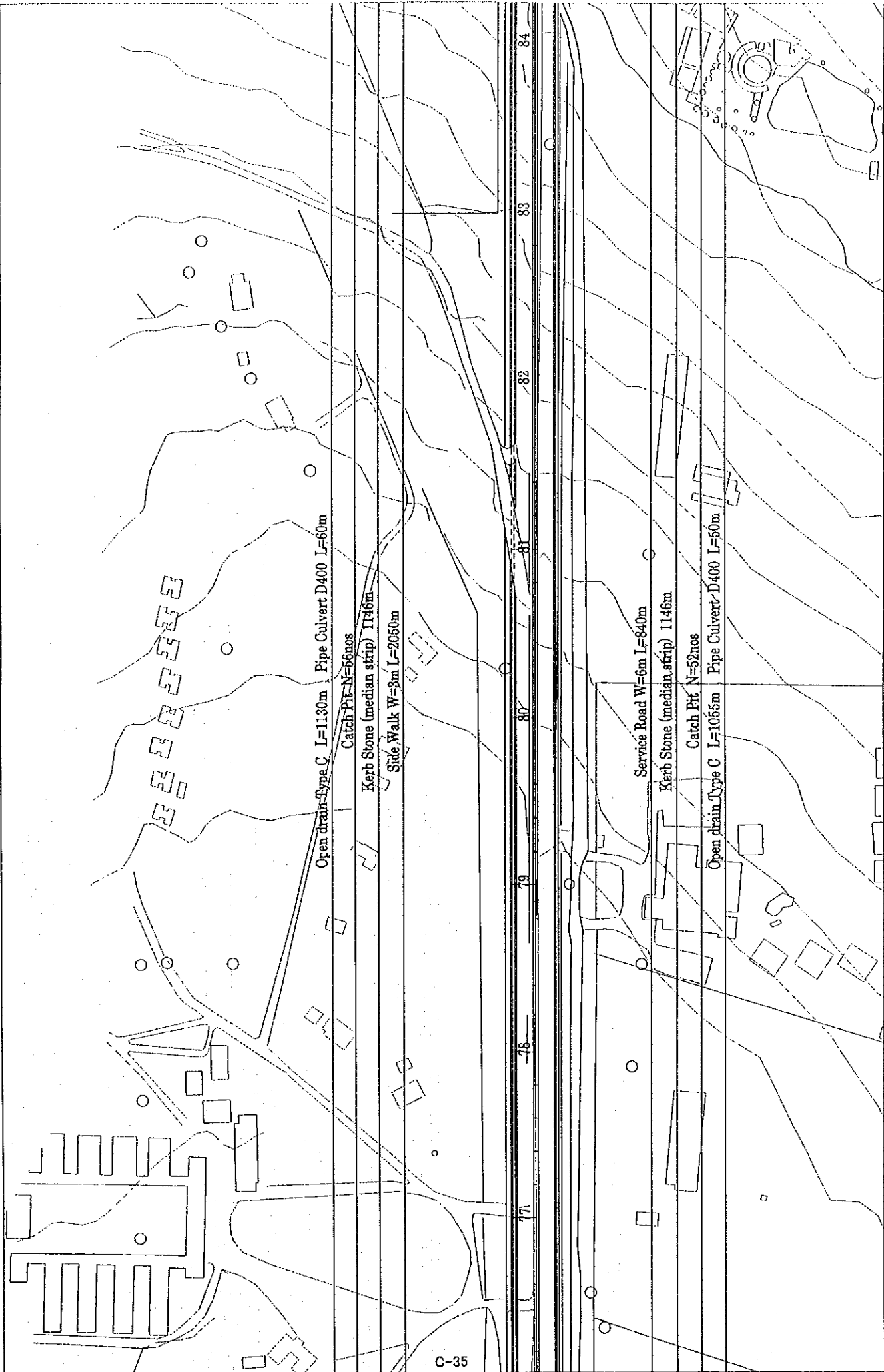


O-33

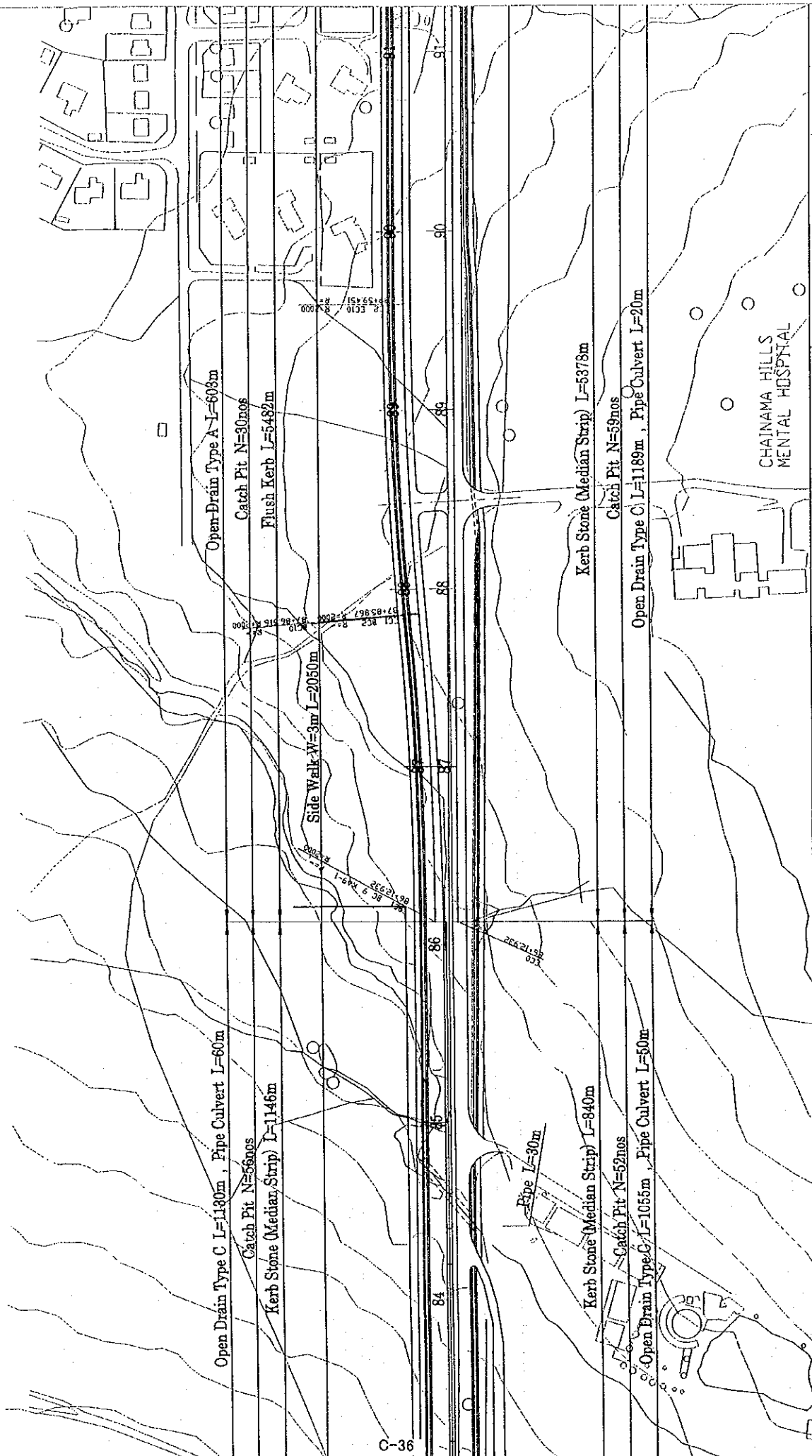
THE PUBLIC OF BARBUDA LUSAKA CITY COUNCIL	THE BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT AND MAINTENANCE OF LUSAKA CITY ROADS (SECOND STAGE)
JAPAN INTERNATIONAL COOPERATION AGENCY	GREAT EAST ROAD PLAN 01/210
DATE : 04/2/2010	SHEET NO : 33



THE PUBLIC OF ZAMBIA LUSAKA CITY COUNCIL	THE BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT AND MAINTENANCE OF LUSAKA CITY ROADS (SECOND STAGE)	JAPAN INTERNATIONAL COOPERATION AGENCY	GREAT EAST ROAD PLAN 41/2D DATE: APR 1, 2000 SHEET NO: 34
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C-35

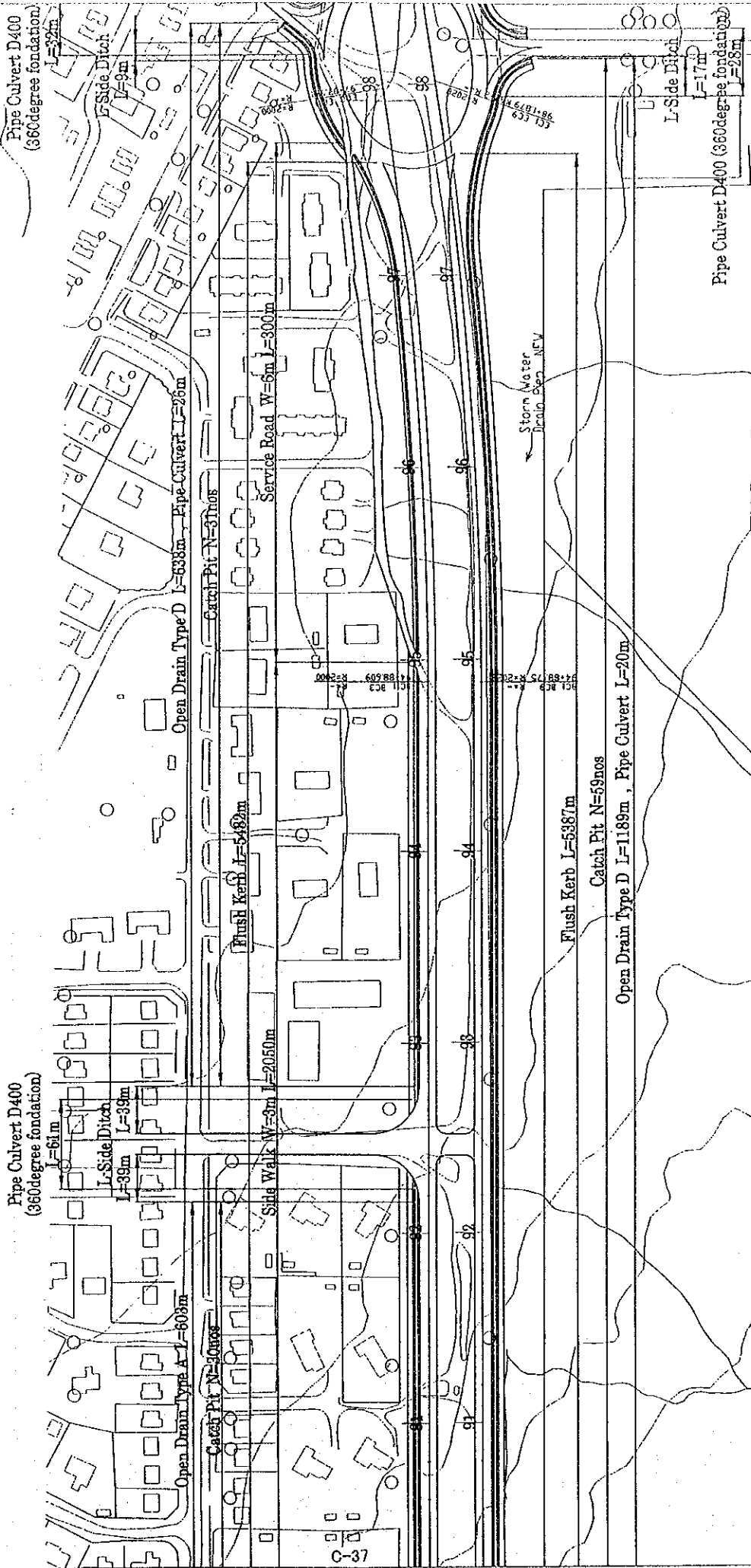


C-36

THE PUBLIC OF ZAMBIA LUSAKA CITY COUNCIL	THE BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT AND MAINTENANCE OF LUSAKA CITY ROADS (SECOND STAGE)	JAPAN INTERNATIONAL COOPERATION AGENCY	GREAT EAST ROAD PLAN 012/203 DATE APR-1990	SHEET NO 36
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Channelized Intersection

Roundabout
CHONGWE ROAD



Pipe Culvert D400
(360degree foundation)
L=61m

Pipe Culvert D400
(360degree foundation)
L=32m

L-Side Ditch
L=39m

L-Side Ditch
L=9m

Open Drain Type A L=603m

Open Drain Type D L=638m

Catch Pit N=3nos

Catch Pit N=31nos

Side Walk W=3m L=205.0m

Flush Kerb L=54.82m

Service Road W=6m L=300m

C-37

Flush Kerb L=536.7m

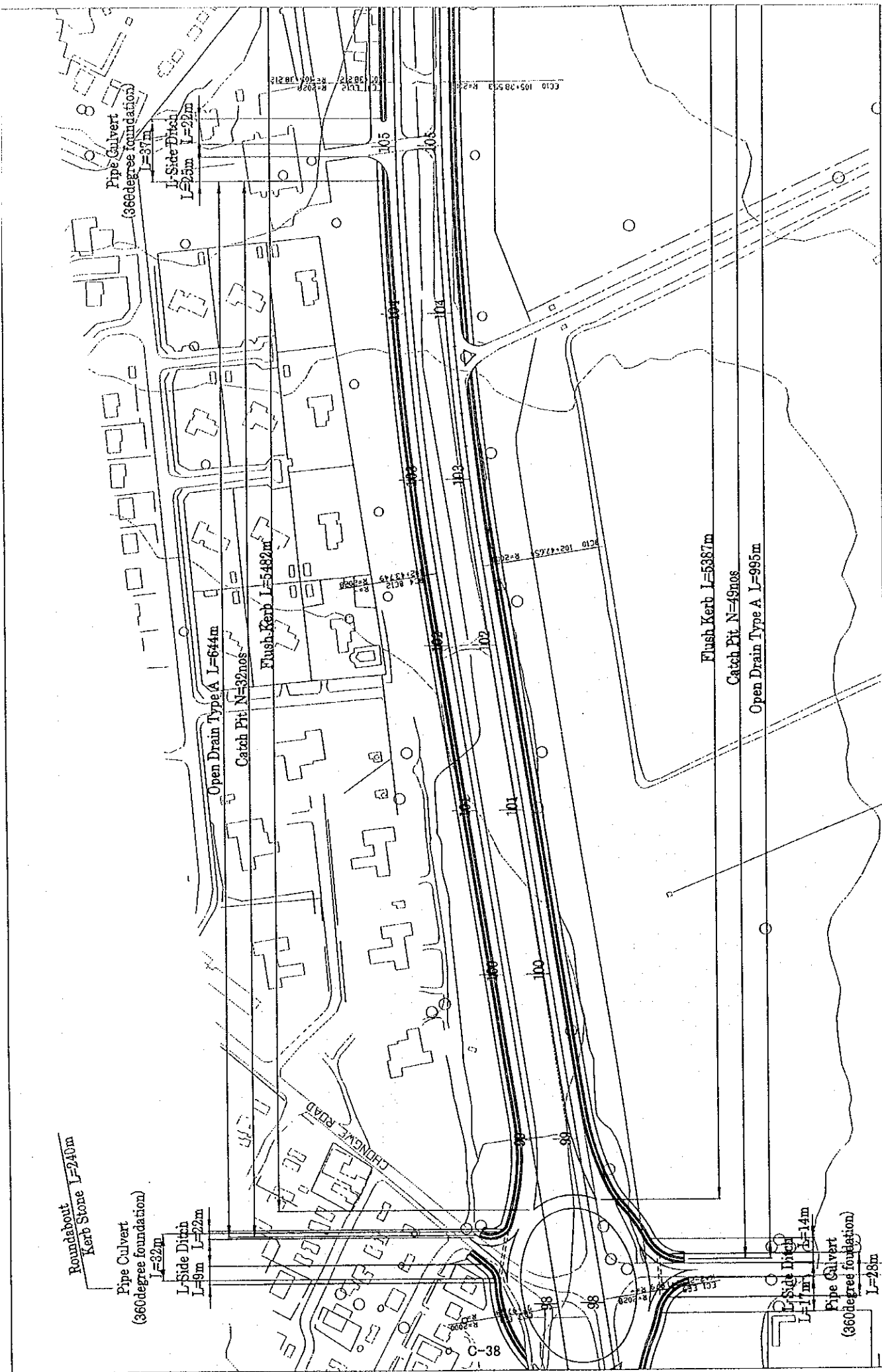
Catch Pit N=59nos

Open Drain Type D L=1189m , Pipe Culvert L=20m

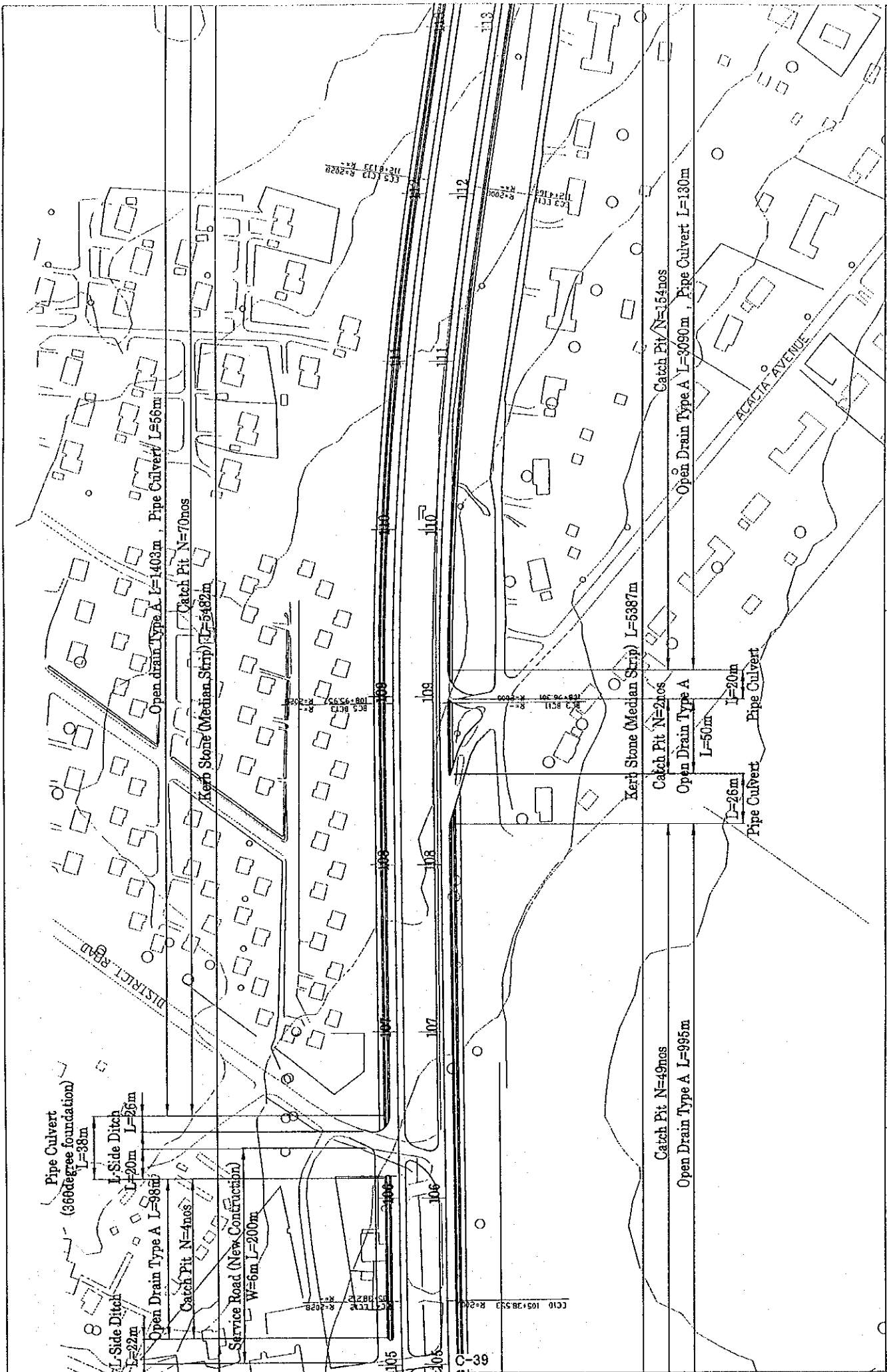
Storm Water
Drain 900mm PVC

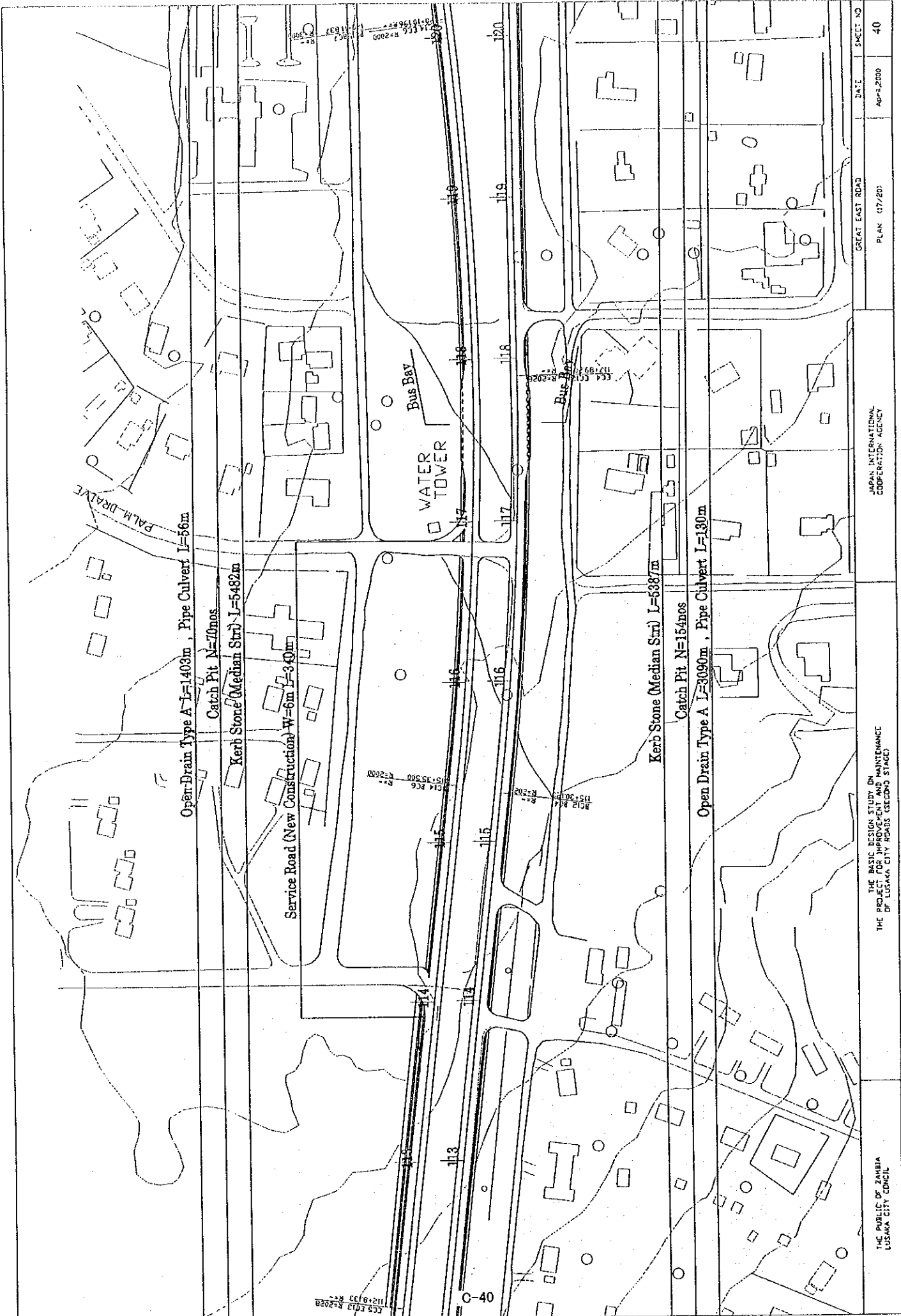
L-Side Ditch
L=17m

Pipe Culvert D400 (360degree foundation)
L=28m



THE PUBLIC OF ZAMBIA LUSAKA CITY COUNCIL	THE BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT AND MAINTENANCE OF LUSAKA CITY ROADS (SECOND STAGE)	JAPAN INTERNATIONAL COOPERATION AGENCY	GREAT EAST ROAD PLAN: C15/200 DATE: APR 4, 2000 SHEET NO: 38
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THE BASIC DESIGN STUDY ON
 THE PROJECT FOR IMPROVEMENT AND MAINTENANCE
 OF LUSAKA CITY ROADS (SECOND STAGE)

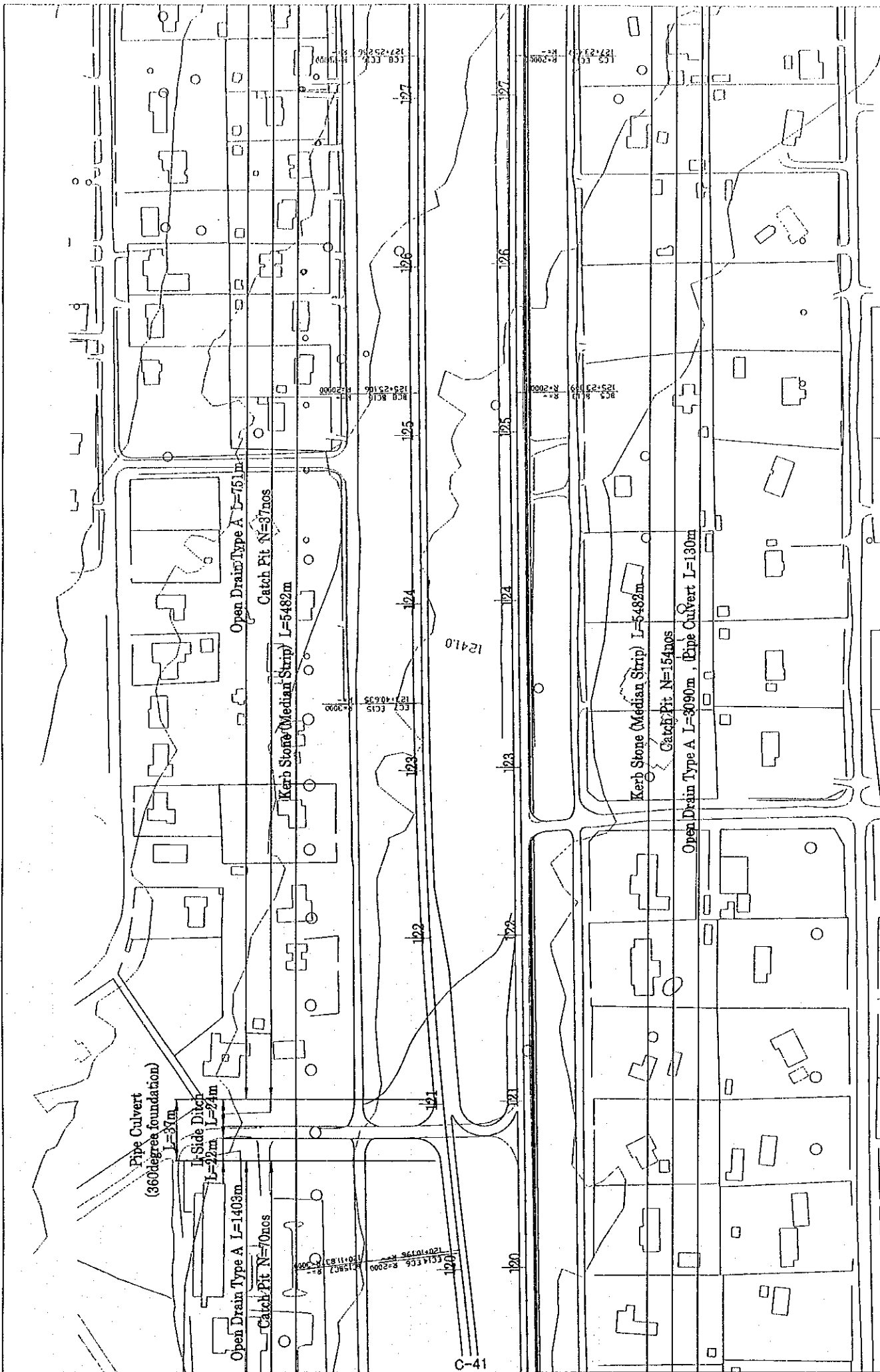
THE PUBLIC OF ZAMBIA
 LUSAKA CITY COUNCIL

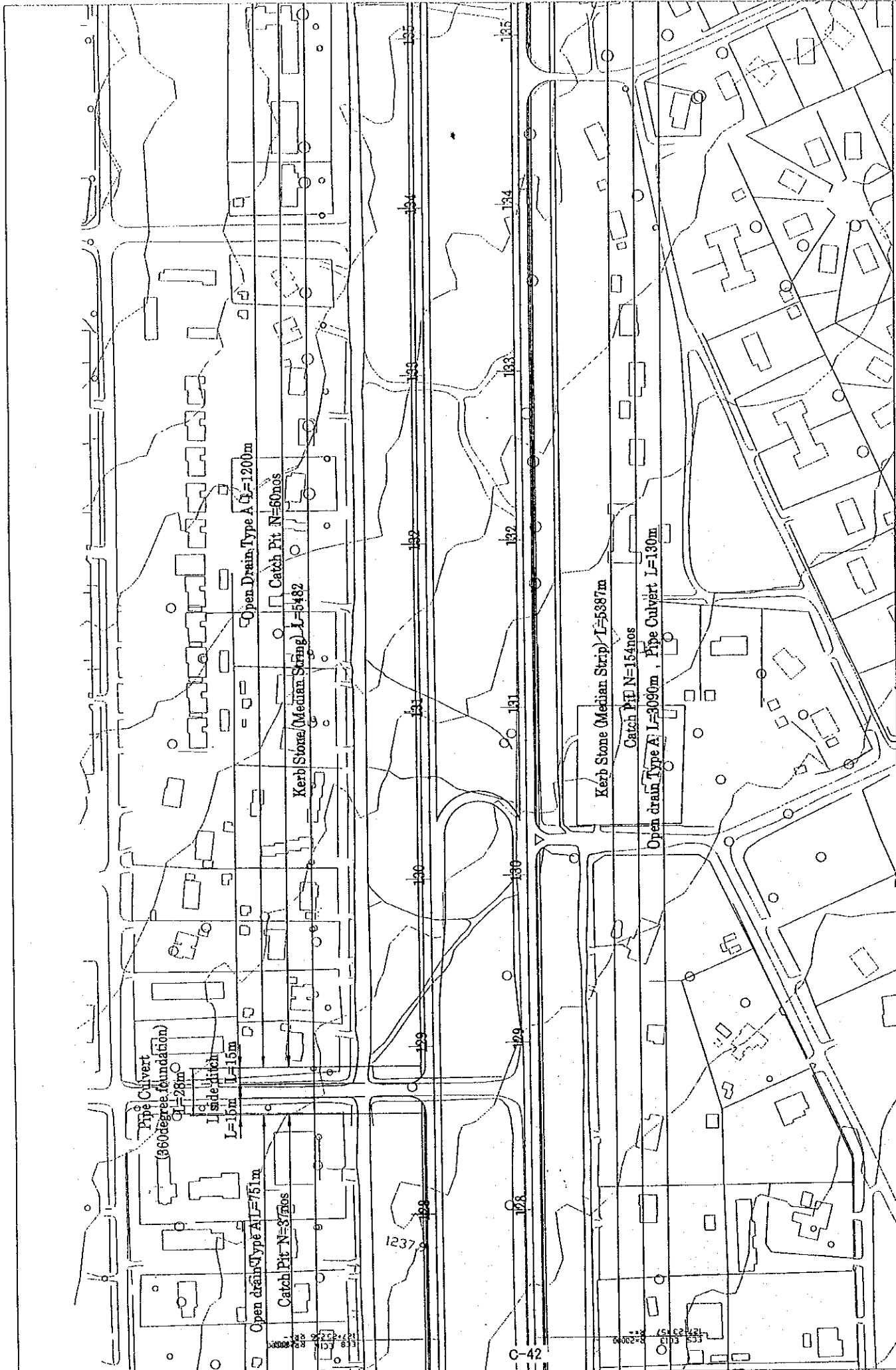
JAPAN INTERNATIONAL
 COOPERATION AGENCY

PLAN 07/203

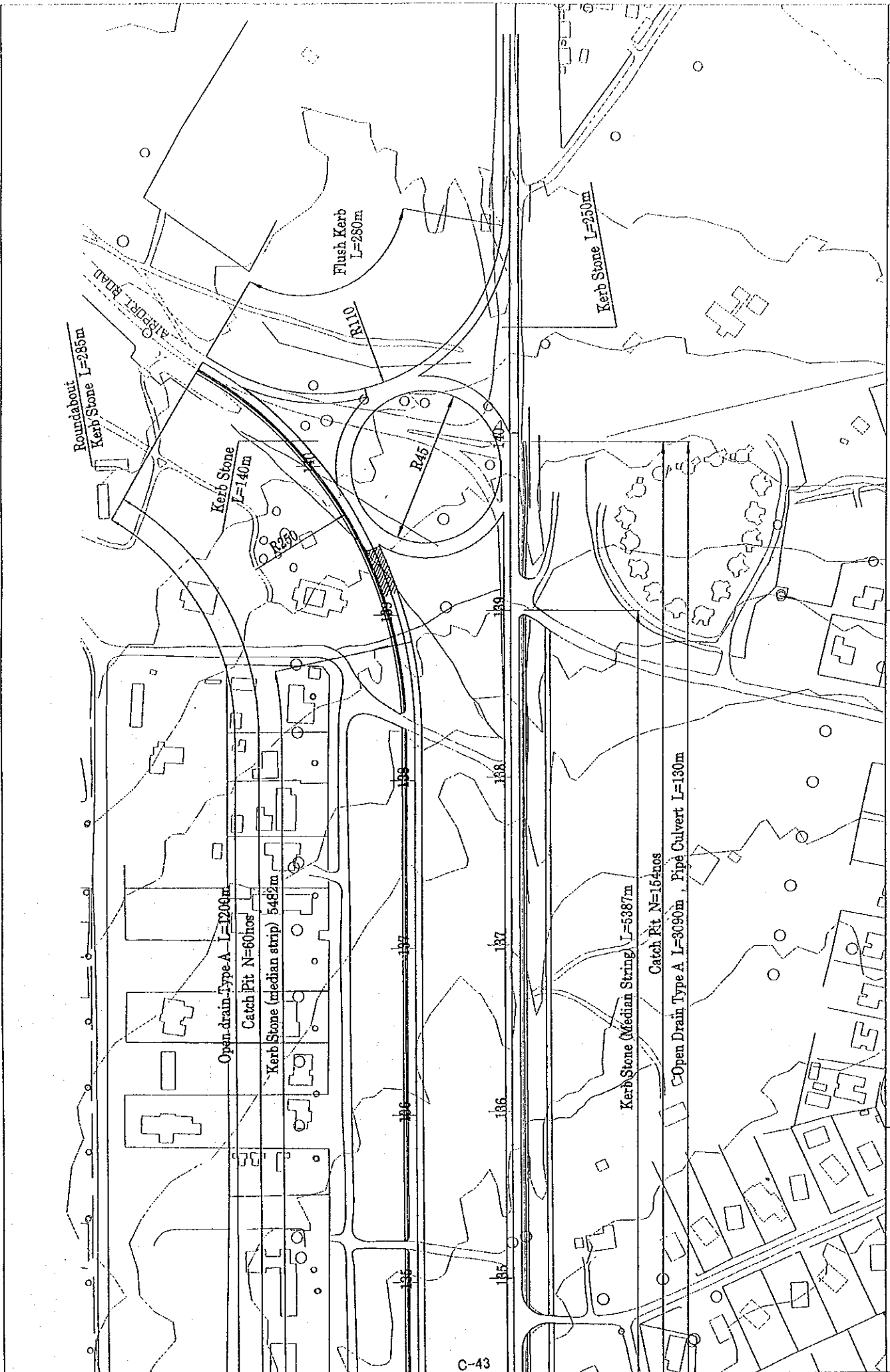
DATE: Apr-2,2009

SHEET NO: 40



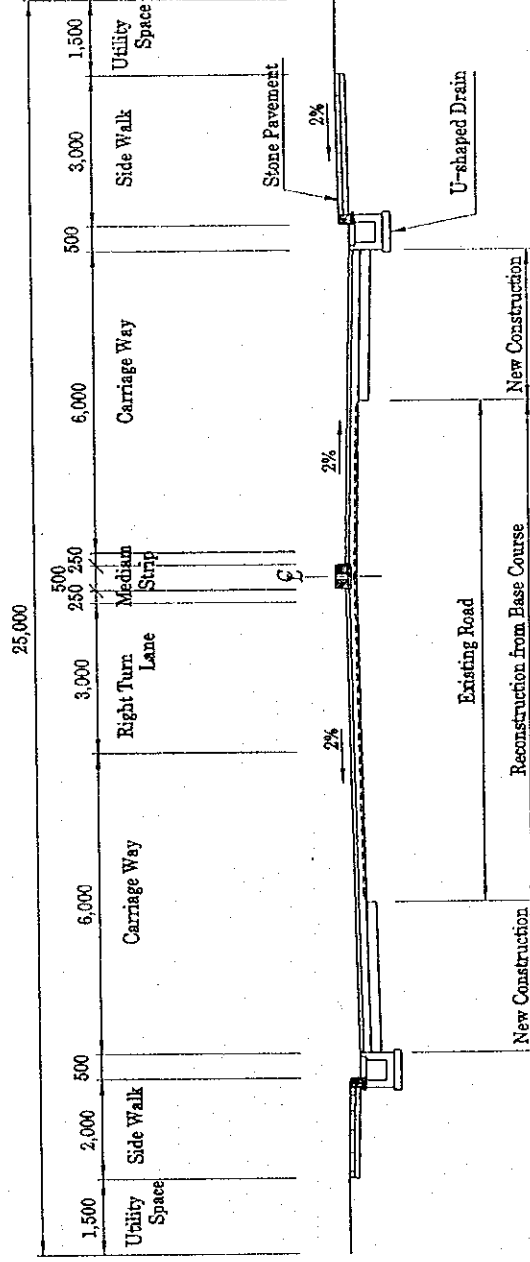
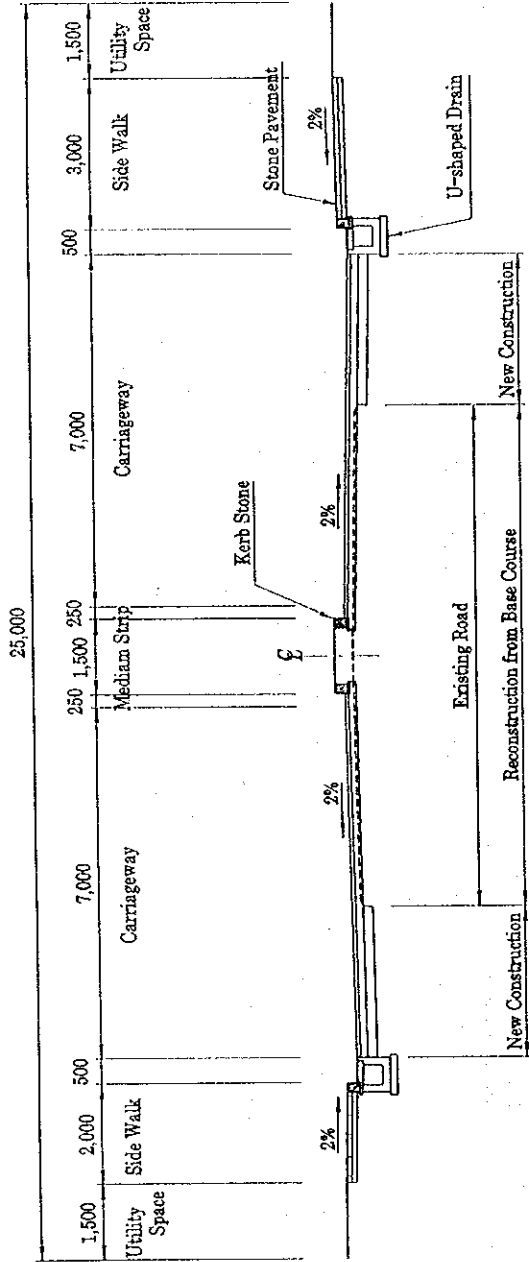


C-42

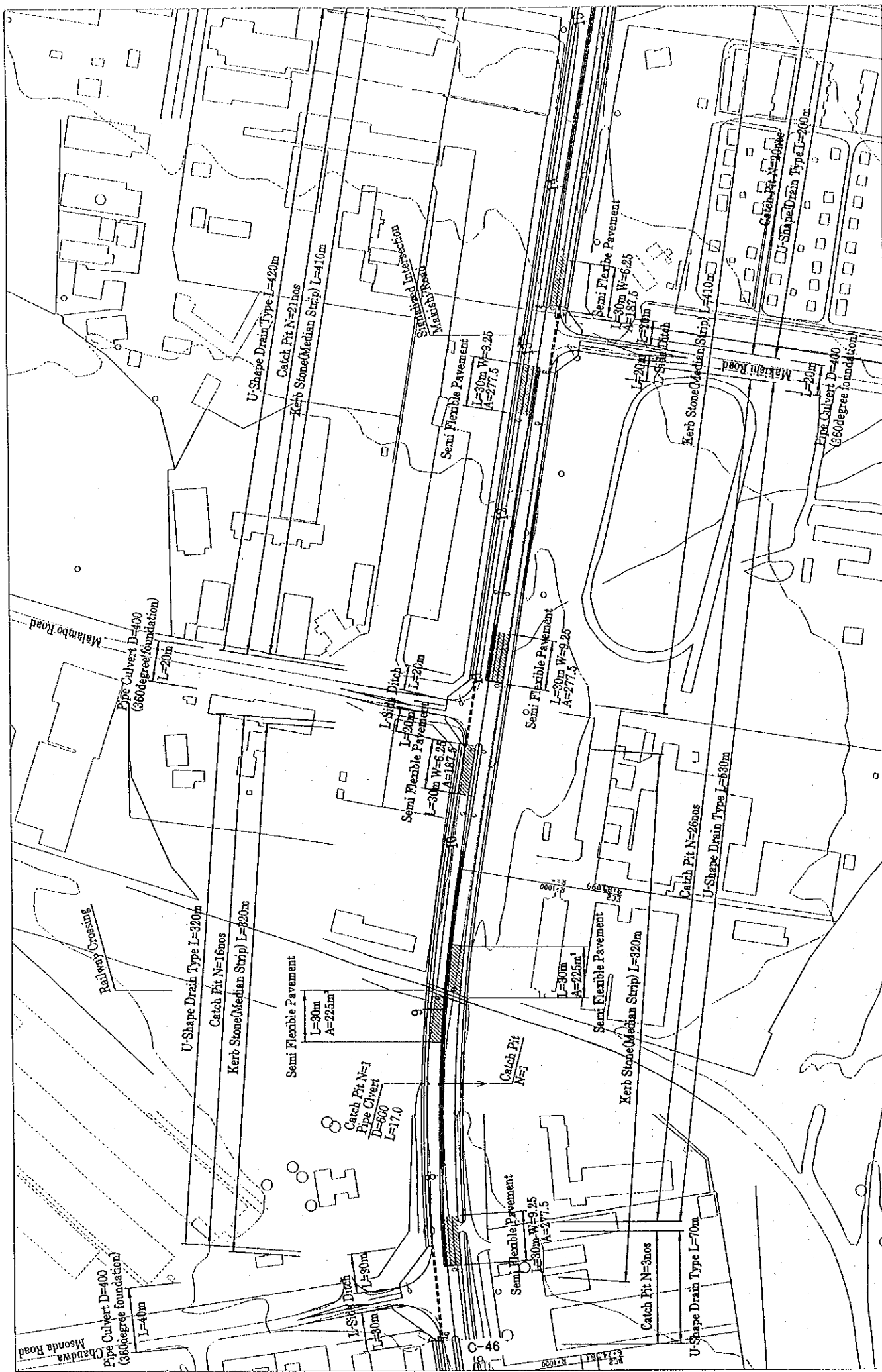


<p>THE PUBLIC OF ZAMBIA LUSAKA CITY COUNCIL</p>	<p>THE BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT AND MAINTENANCE OF LUSAKA CITY ROADS (SECOND STAGE)</p>	<p>JAPAN INTERNATIONAL COOPERATION AGENCY</p>	<p>GREAT EAST ROAD PLAN (20/20) DATE APP-1-2000 PAGE NO 43</p>
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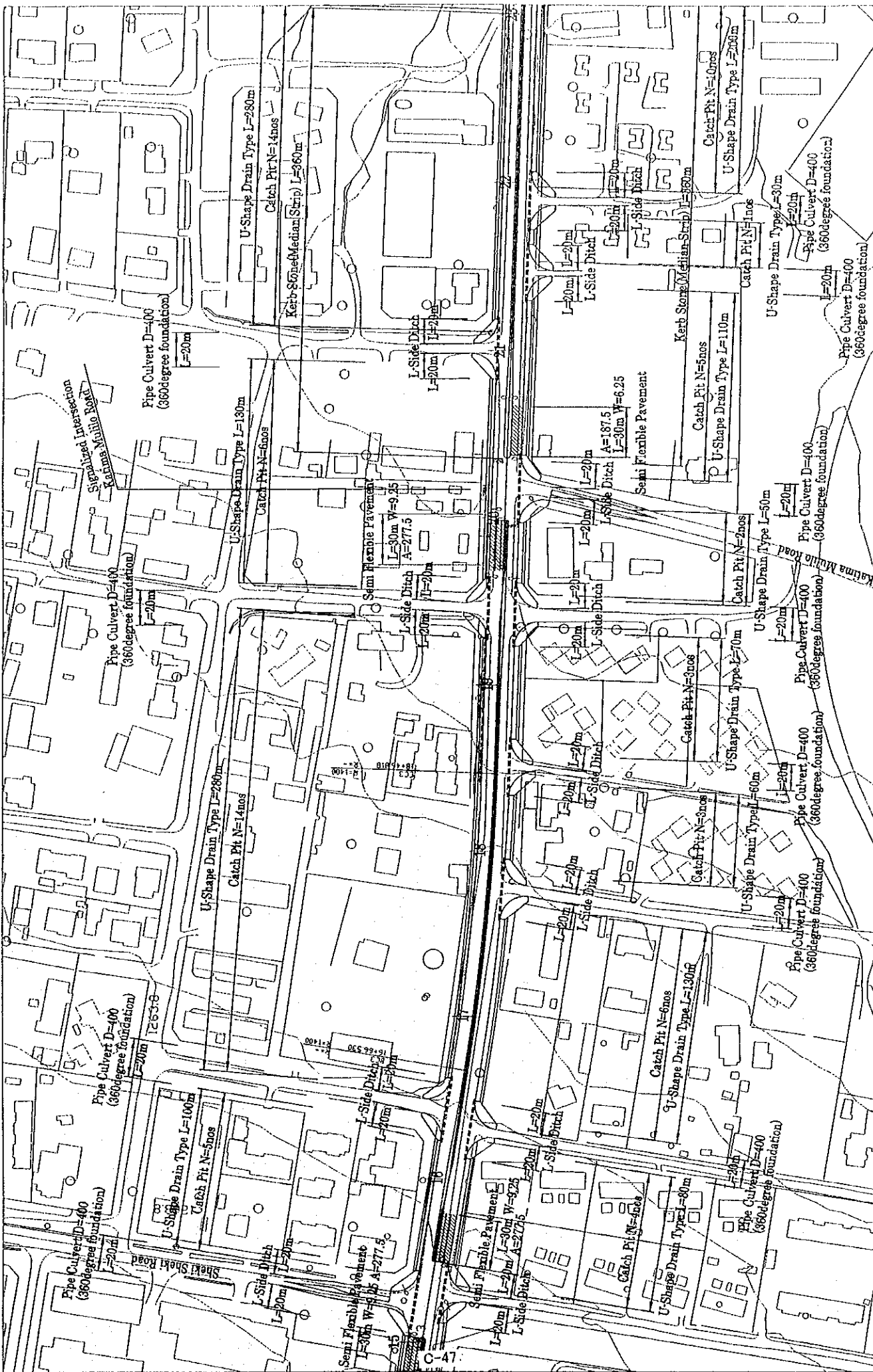
Typical Cross Section of Great North Road







THE PUBLIC OF JAMAICA URBAN CITY COUNCIL	THE BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT AND MAINTENANCE OF LUSAKA CITY ROADS (SECOND STAGE)	JAPAN INTERNATIONAL COOPERATION AGENCY	East North Road PLAN (2/43)	DATE APR. 2006	SHEET NO 46



THE PUBLIC OF ZAMBIA
LUSAKA CITY COUNCIL

THE BASIC DESIGN STUDY IN
THE PROJECT FOR IMPROVEMENT AND MAINTENANCE
OF LUSAKA CITY ROADS (SECOND STAGE)

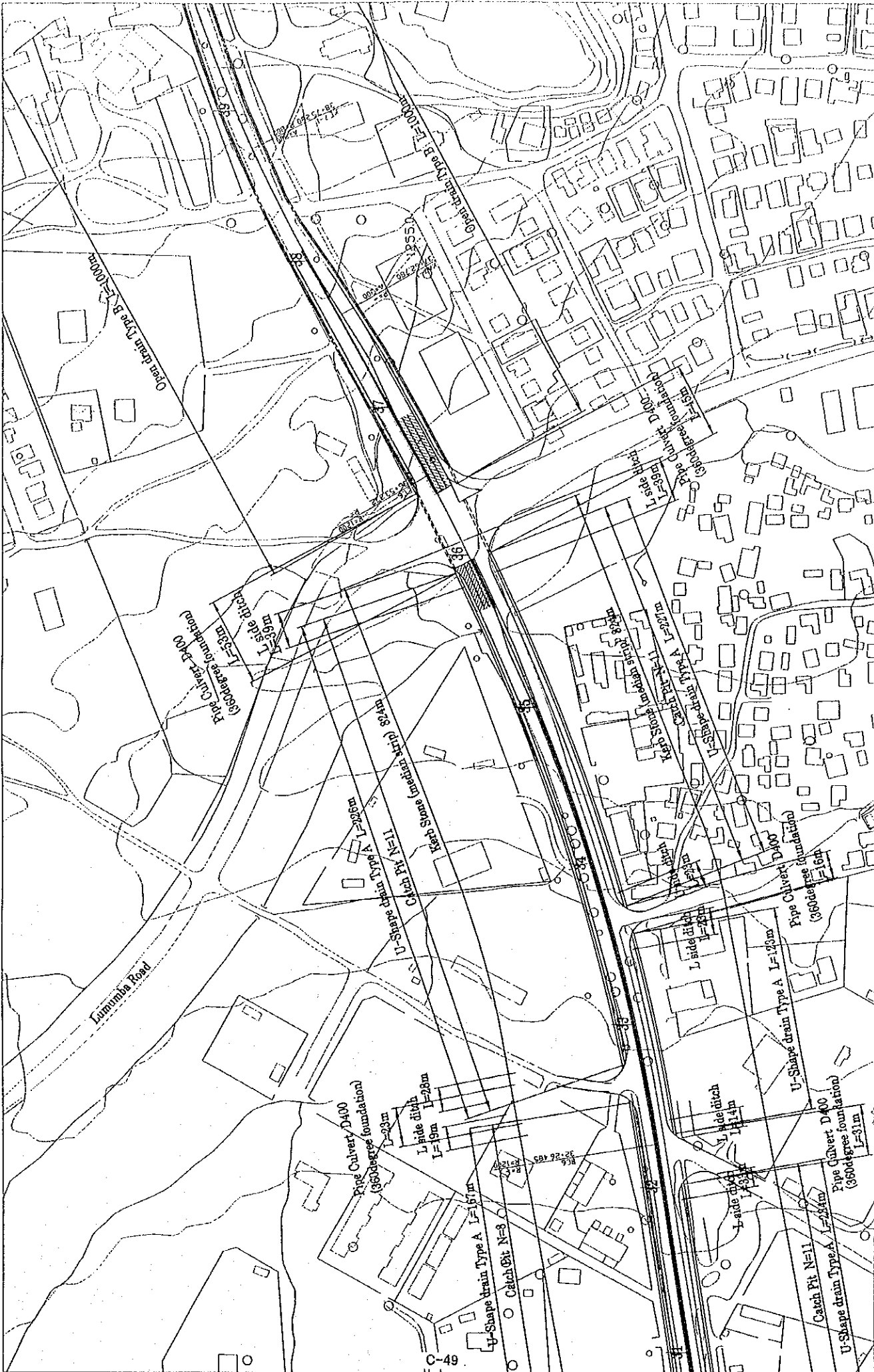
WORKS INTERNATIONAL
CORPORATION AGENT

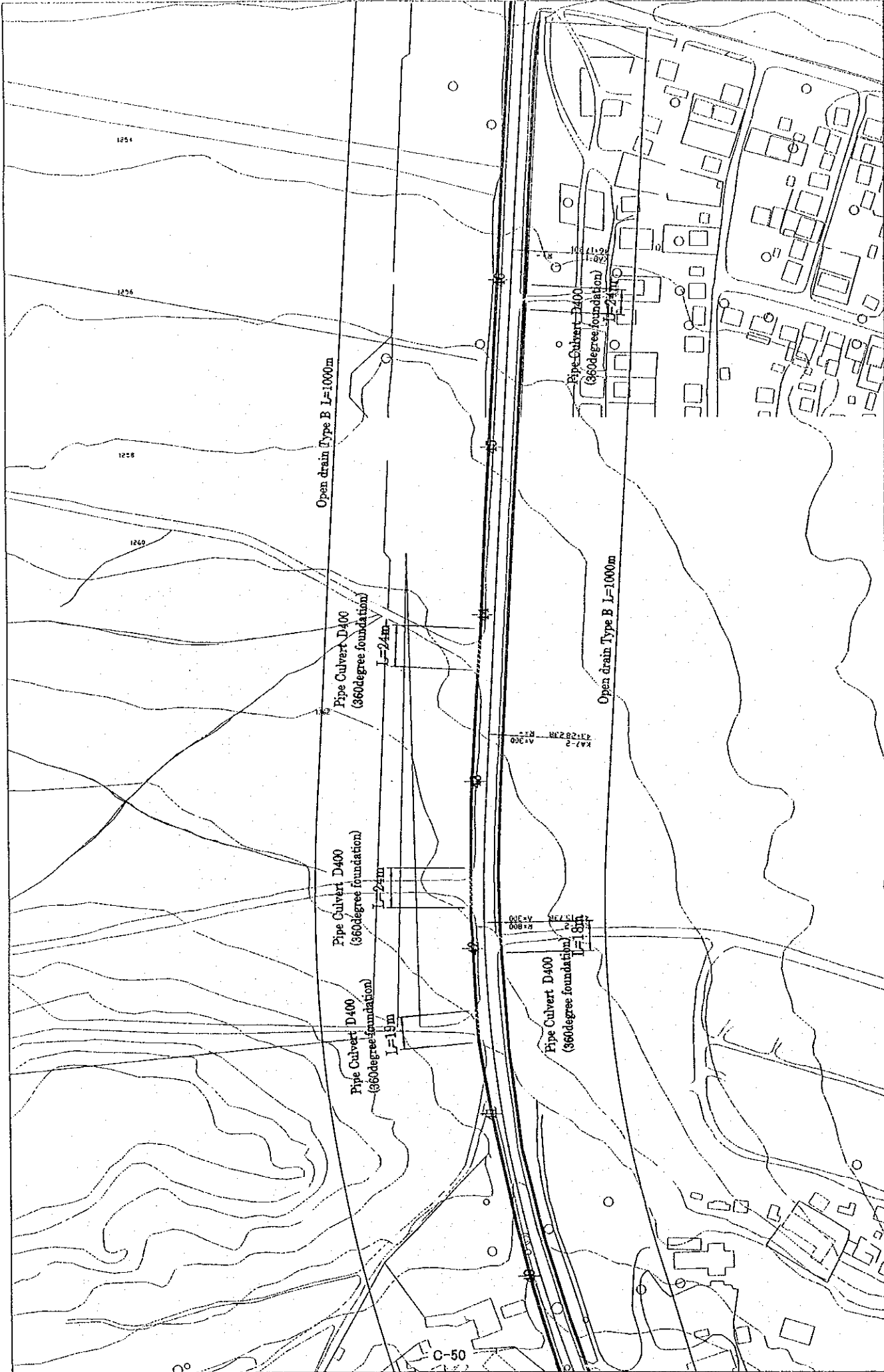
PLAN (1/5)

DATE
APRIL 2003

SHEET NO
47

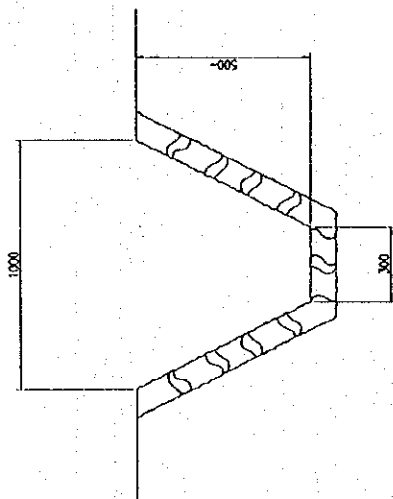




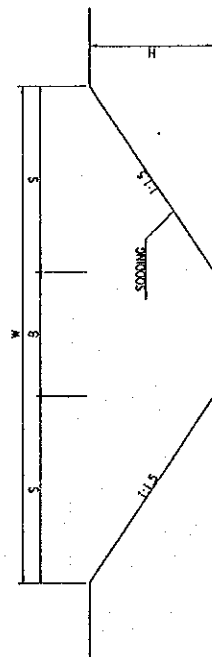


SHEET NO	50
DATE	APRIL 2000
PLAN (6/6)	East North Road
JAPAN INTERNATIONAL COOPERATION AGENCY	
THE BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT AND MAINTENANCE OF LUSAKA CITY ROAD (SECOND STAGE)	
THE PUBLIC OF ZAMBIA LUSAKA CITY COUNCIL	

OPEN DRAIN (STONE PITCHING)

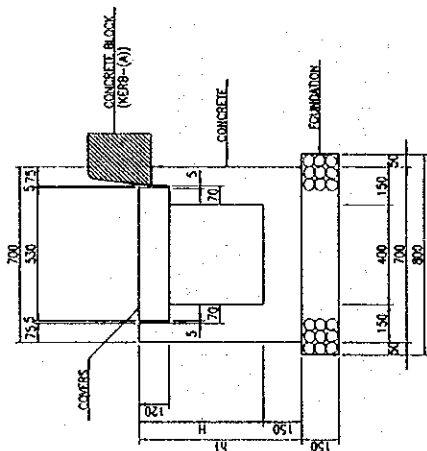


OPEN DRAINAGE, SODDING



H	B	S	W
500	500	500	2,000
800	500	1,200	2,500

U-SHAPED DRAIN S=1:20



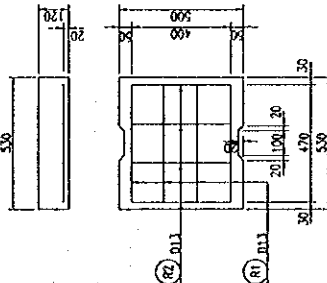
DIMENSION TABLE (U-S.D.-(B,G))

TYPE-B	H	REMARKS
750	600	
750-850	600-700	

MATERIALS LIST (U-S.D.-(A-F))

CLASSIFICATION	STANDARD	UNIT	QUANTITY	REMARKS
CONCRETE	1:1:20	cu.m	2,832	TYPE-B
FORM	1:1:20	sq.m	31,000	TYPE-C
FOUNDATION	1:1:20	cu.m	1,200	TYPE-D
COVER	1:1:20	sq.m	20.0	TYPE-E
CONCRETE BLOCK	100 X 250 X 600	no.	18.5	TYPE-F

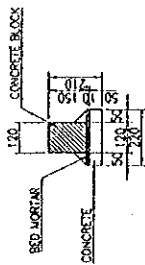
COVER



MATERIALS LIST (COVER)

CLASSIFICATION	STANDARD	UNIT	QUANTITY	REMARKS
CONCRETE	1:1:20	cu.m	0.032	
REINFORCEMENT BAR	10	kg	3.463	
FORM		sq.m	0.247	

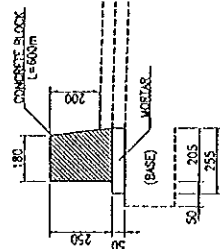
FLUSH KERB TYPE A S=1:20



MATERIALS LIST (BUS STOP ROOF)

CLASSIFICATION	STANDARD	UNIT	QUANTITY	REMARKS
CONCRETE BLOCK	150 X 120 X 600	no.	186.667	
MORTAR	1:3	cu.m	0.470	RED MORTAR
CONCRETE	CLASS 20/20	sq.m	1.100	
FORM		sq.m	10.000	

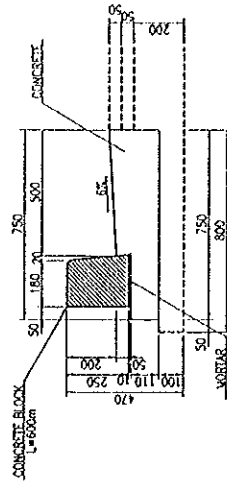
KERB-(A) S=1:20



MATERIALS LIST

CLASSIFICATION	STANDARD	UNIT	QUANTITY	REMARKS
CONCRETE BLOCK	100 X 250 X 600	no.	18.5	
MORTAR	1:3	cu.m	0.128	RED MORTAR

L-SIDE DITCH S=1:20

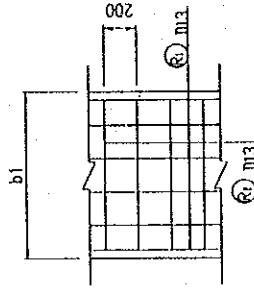
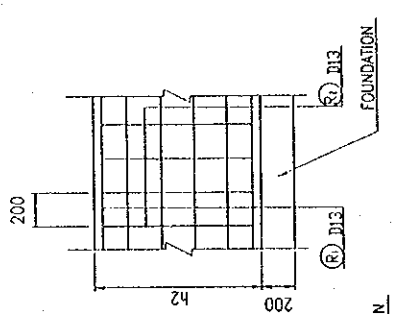
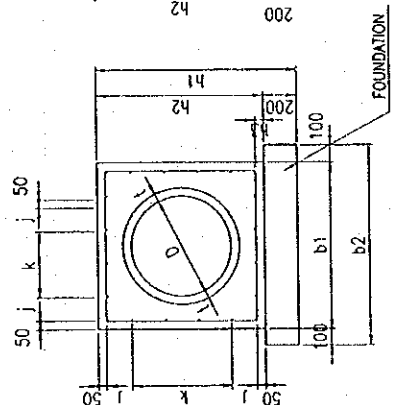
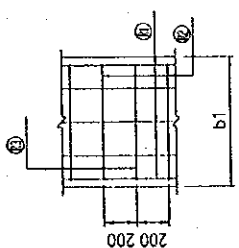
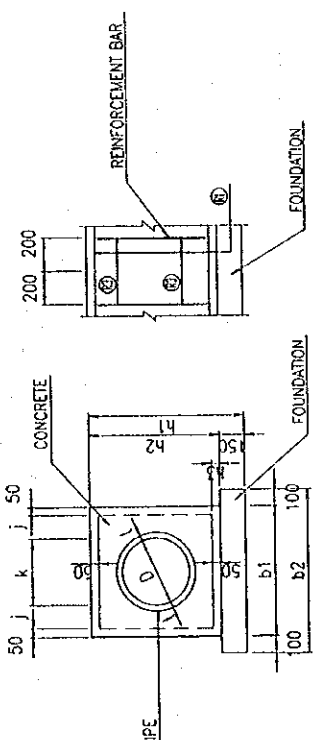


MATERIALS LIST

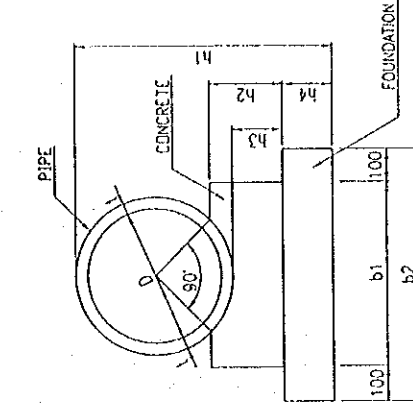
CLASSIFICATION	STANDARD	UNIT	QUANTITY	REMARKS
CONCRETE BLOCK	100 X 250 X 600	no.	18.5	
MORTAR	1:3	cu.m	0.021	RED MORTAR
CONCRETE		sq.m	1.198	
MORTAR		sq.m	3.10	

PIPE CULVERT S=1:30

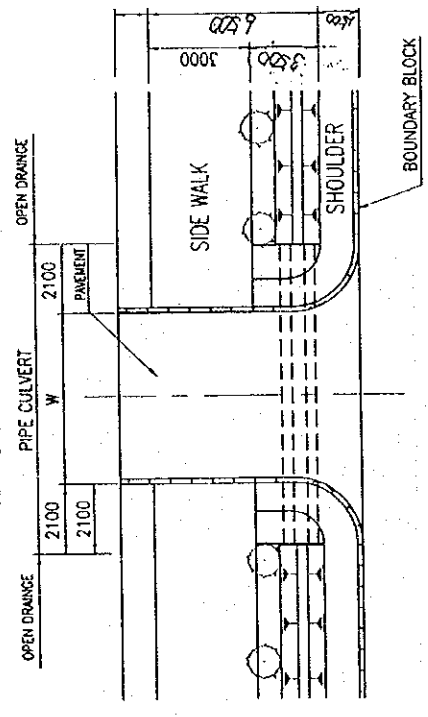
P.C.-(A) D600,800



P.C.-(B) D400,600,800,1000



APPROACH ROAD S=1:150



DIMENSION TABLE

TYPE	D	h1	b1	b2	h1	h2	h3	j	k	REMARKS
D400	400	35	280	380	930	780	150	140	400	(2100)
D600	600	50	1000	1200	1200	1000	150	150	600	(2100)
D800	800	66	1340	1540	1340	1200	200	170	1000	(5200)

DIMENSION TABLE (B)

D	h1	b1	b2	h1	h2	h3	h4	REMARKS	
D400	400	35	550	750	770	220	150	150	18
D600	600	50	750	950	1000	280	150	150	24
D800	800	66	950	1150	1250	340	200	150	
D1000	1000	82	1200	1400	1564	380	200	200	47

MATERIALS LIST (P.C.-(A))

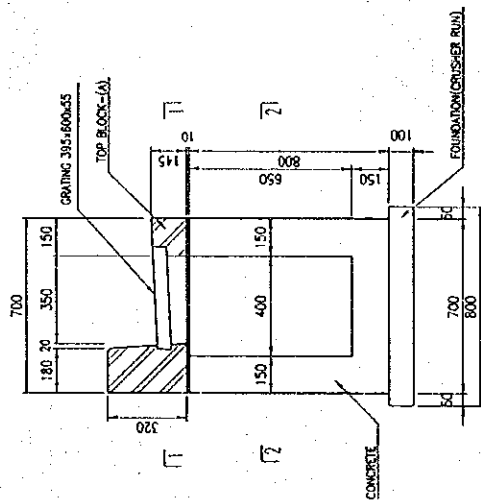
CLASSIFICATION	STANDARD	UNIT	QUANTITY		REMARKS
			PER 100M	PER 10M	
REINFORCEMENT BAR	D13	kg	276.86	428.84	736.30
CONCRETE	1:2=210kg/cum	cum	4.35	6.15	11.13
FOUNDATION	CONCRETE (1:2)	m ²	1.47	2.40	3.08
PIPES		no.	4.1	4.1	4.1
FORM		sq.m	15.60	20.00	26.80
EXTERNAL PRESSURE		kg/m	1600	2000	2400

MATERIALS LIST (P.C.-(B))

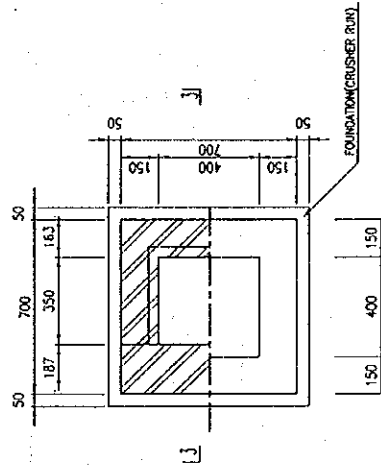
CLASSIFICATION	STANDARD	UNIT	QUANTITY		REMARKS
			PER 100M	PER 10M	
CONCRETE	1:2=180kg/cum	cum	1.05	1.56	2.61
FOUNDATION	CONCRETE (1:2)	m ²	1.13	1.43	1.75
PIPES	1:2	no.	4.1	4.1	4.1
FORM		sq.m	4.40	5.20	6.80
EXTERNAL PRESSURE	1	kg/m	3000	3700	4500

CATCH PIT S=1:20

3-3



1-1

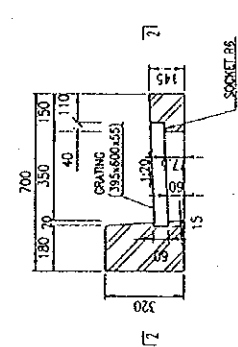


MATERIALS LIST (CATCH PIT-(A))

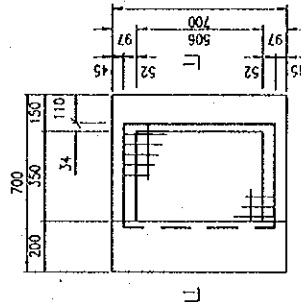
CLASSIFICATION	STANDARD	UNIT	QUANTITY	REMARKS
CONCRETE	σ c/c=160kg/cm ²	cu.m	0.264	
FOUNDATION	CRUSHER RUN (C-40)	*	0.054	
FORM		sq.m	3.264	
TOP BLOCK		no.	1	

TOP BLOCK-(A) S=1:20

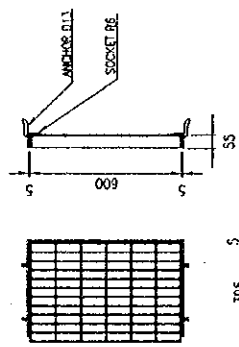
1-1



2-2



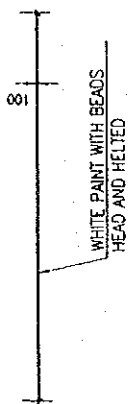
GRATING



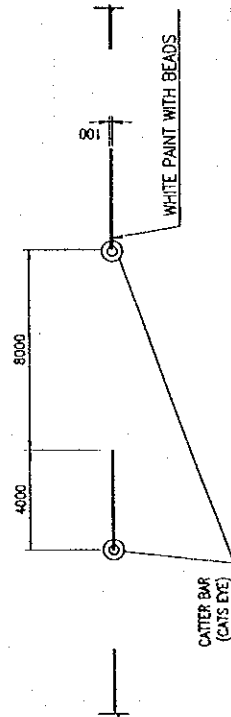
MATERIALS LIST (TOP BLOCK-(A))

CLASSIFICATION	STANDARD	UNIT	QUANTITY	REMARKS
CONCRETE	σ c/c=160kg/cm ²	cu.m	0.007	
MORTAR	1:3	*	0.003	
FORM		sq.m	0.935	
GRATING		no.	4 (DS-565-45)	

OUTER-BOUNDARY LINE S=1:200



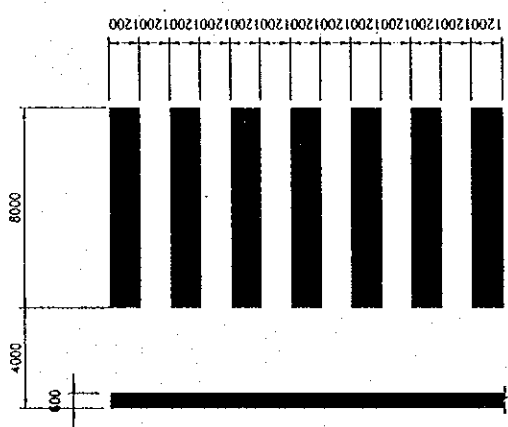
CENTER LINE S=1:200
TYPE-A (DASHED LINE)



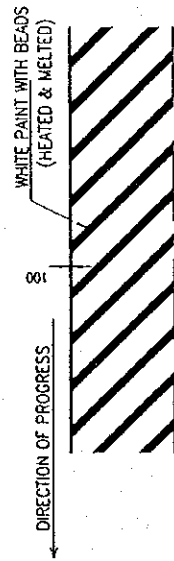
CENTER LINE S=1:200
TYPE-B (SOLID LINE)



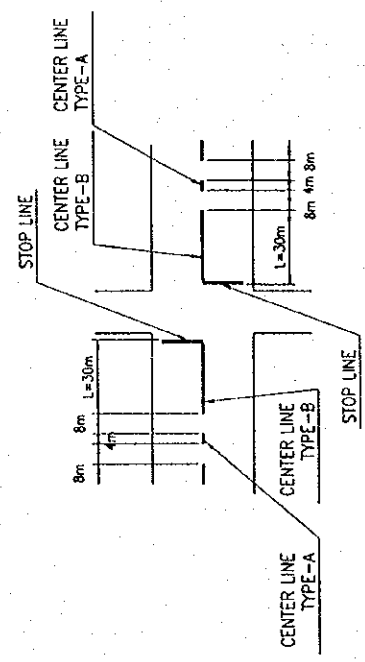
PEDESTRIAN CROSSING S=1:200



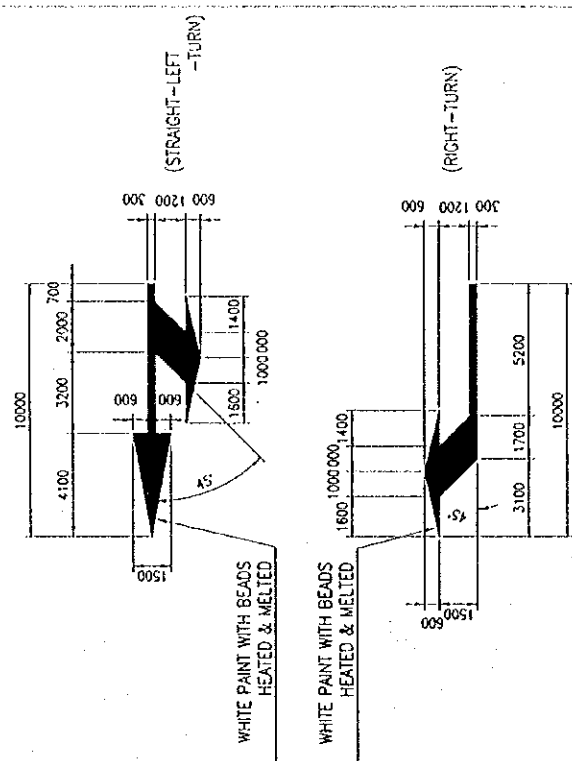
ZEBRA MARKS S=1:200



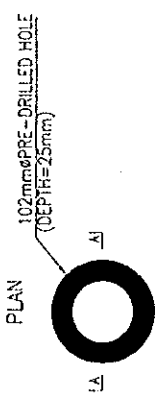
GENERAL PLAN OF MARKING IN INTERSECTION



ARROW MARK S=1:200



CATER BAR (CATS EYE) S=1:5



STOP LANE S=1:50

