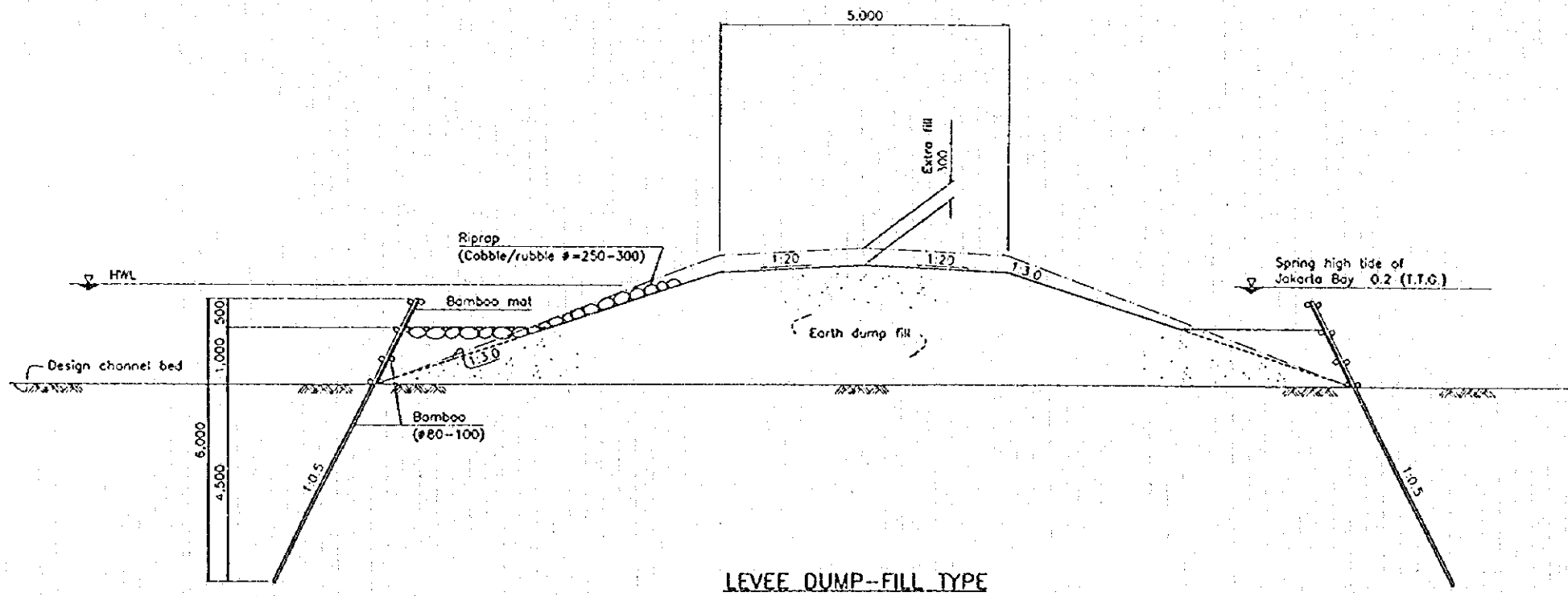


LEVEE EARTH TYPE

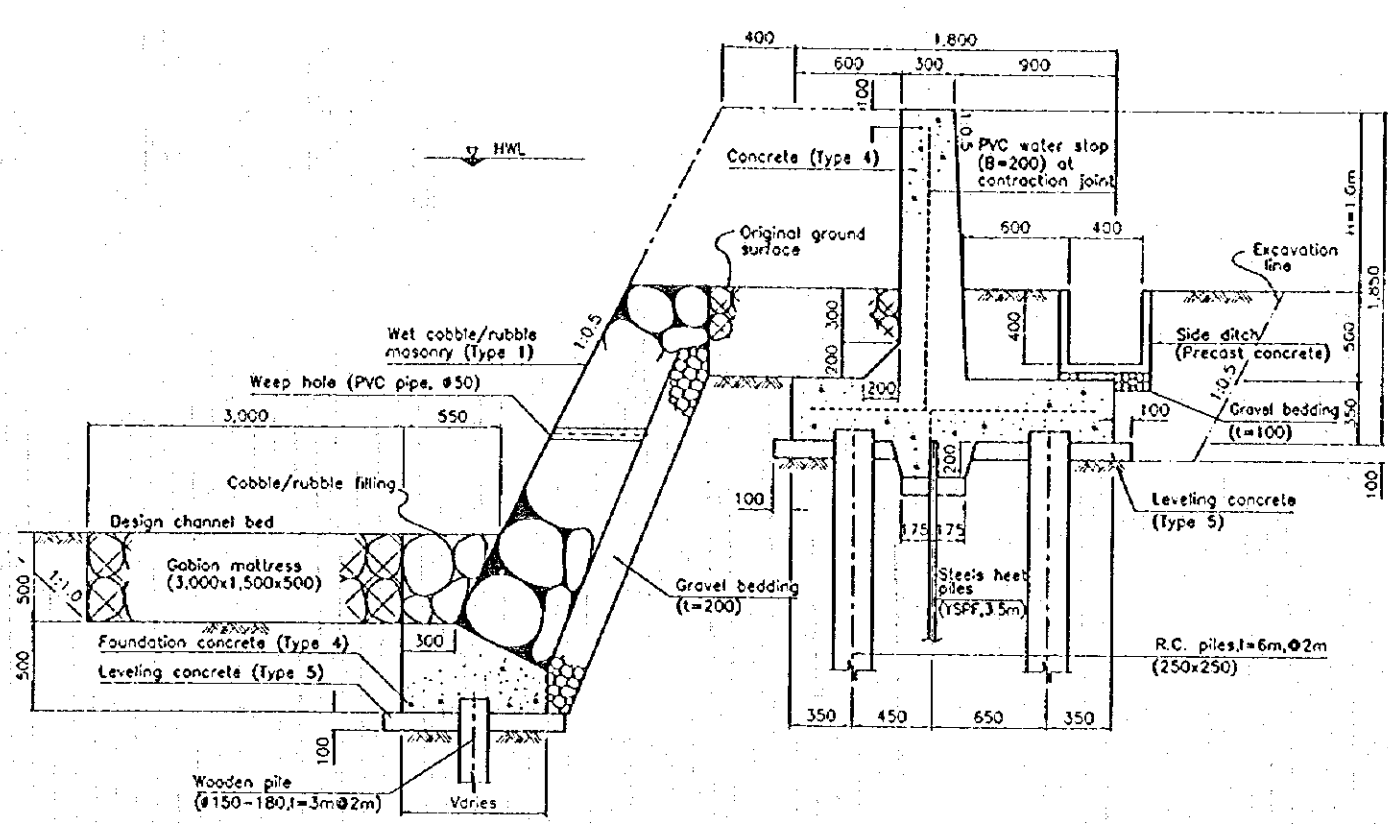
PAVEMENT



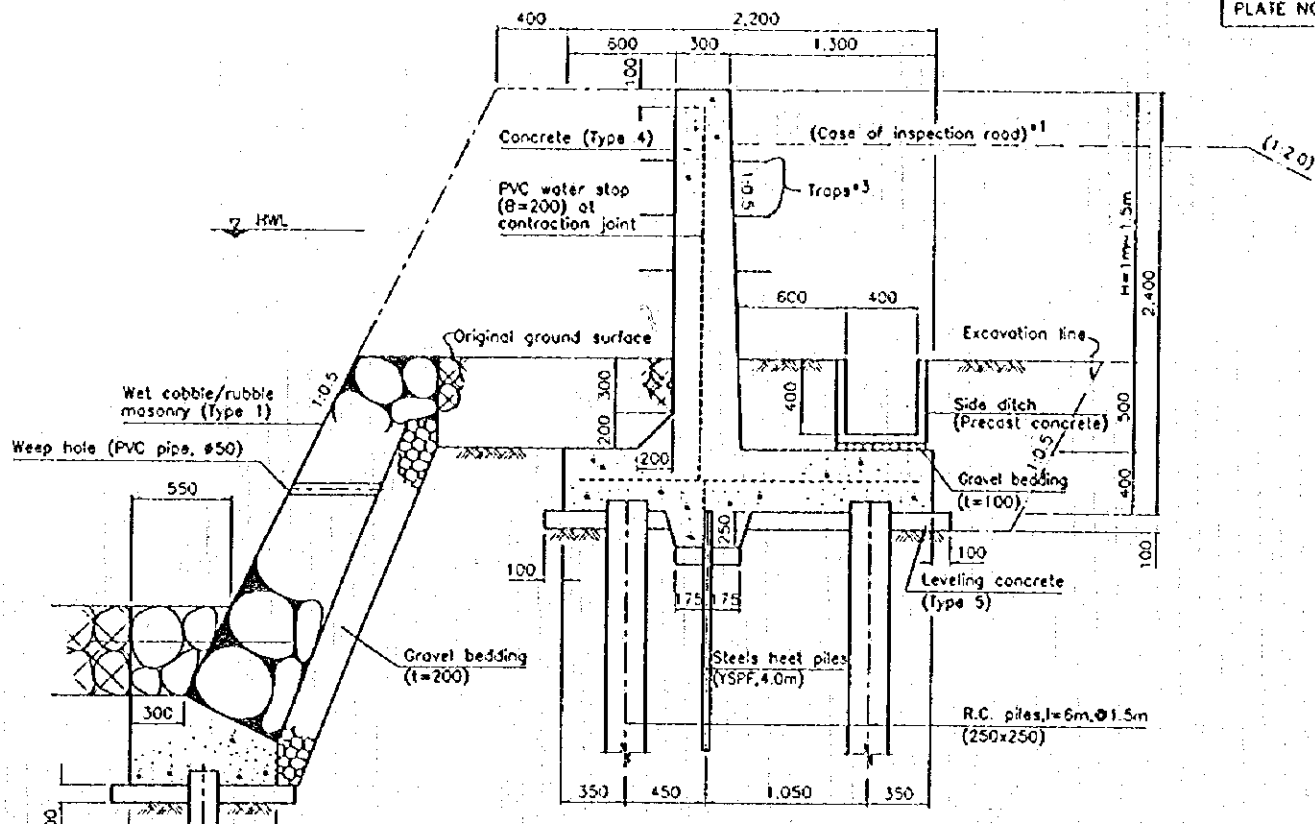
LEVEE DUMP-FILL TYPE

Fig. 6 Typical Sections of Levee

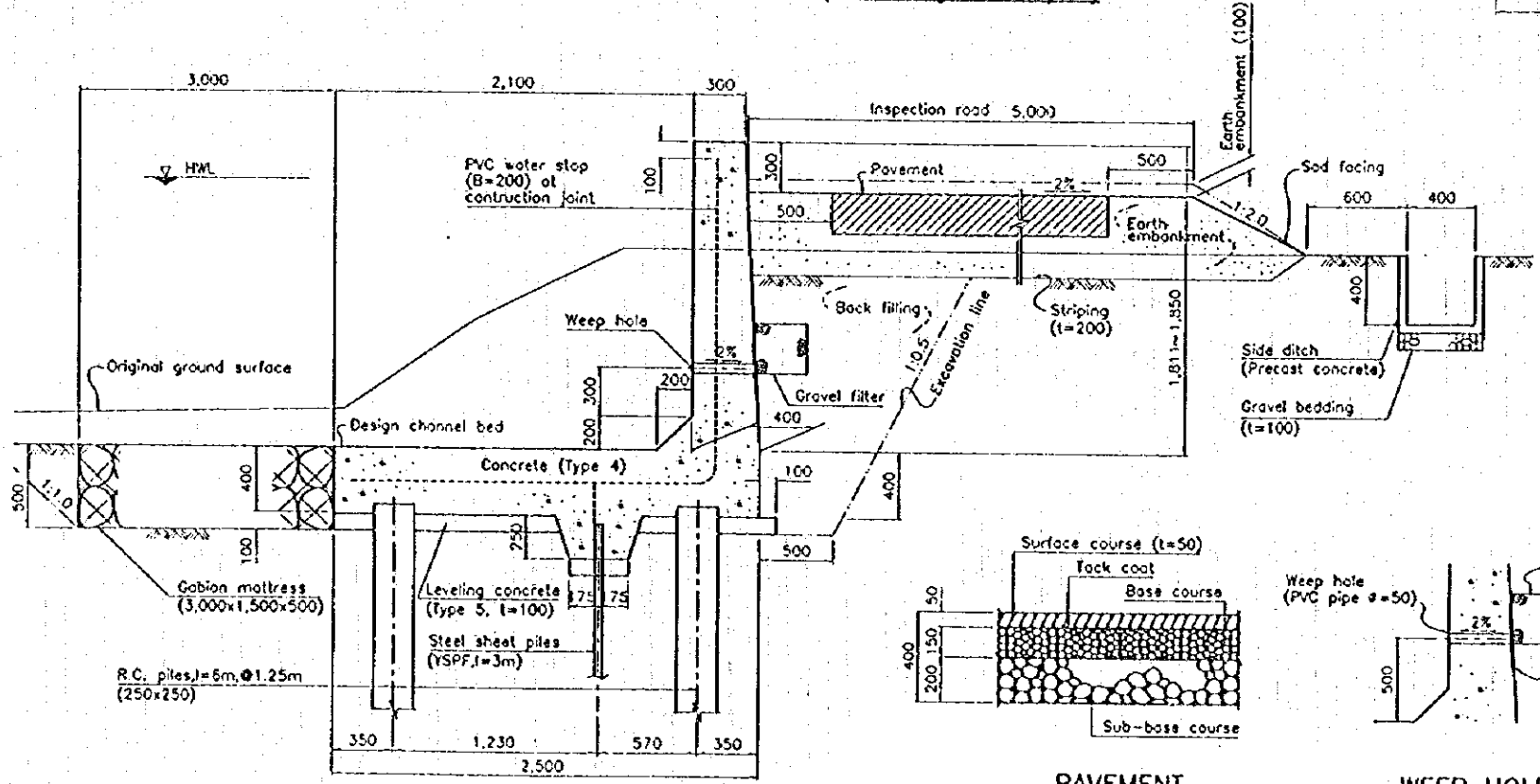
		PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING	APPROVED
		CHECKED.....		CHANNEL STRUCTURES, LEVEE, TYPICAL CROSS SECTIONS	
		SUBMITTED.....		DWG NO.	
REFERENCE	DWG NO.	DATE.....	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	J-20-10-001	DATE



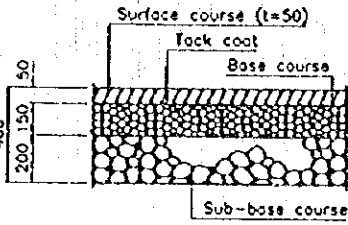
REVERSE T-TYPE WALL (Wall Height H=1/m)



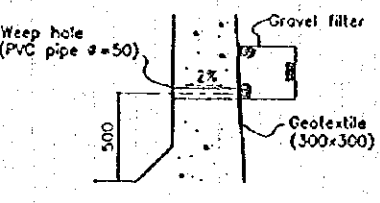
REVERSE T-TYPE WALL (H=1m~1.5m)



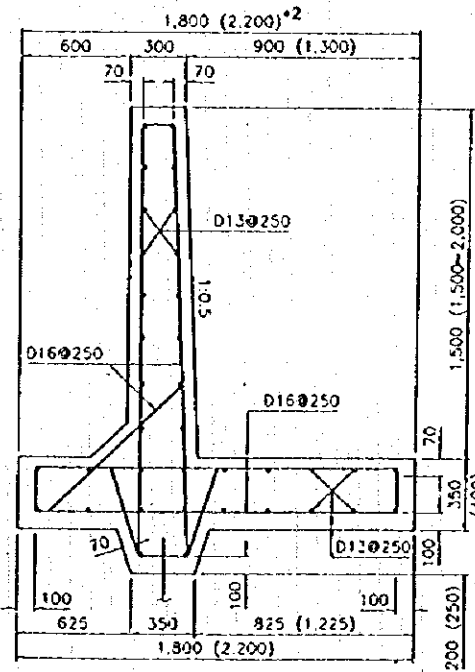
L-TYPE WALL



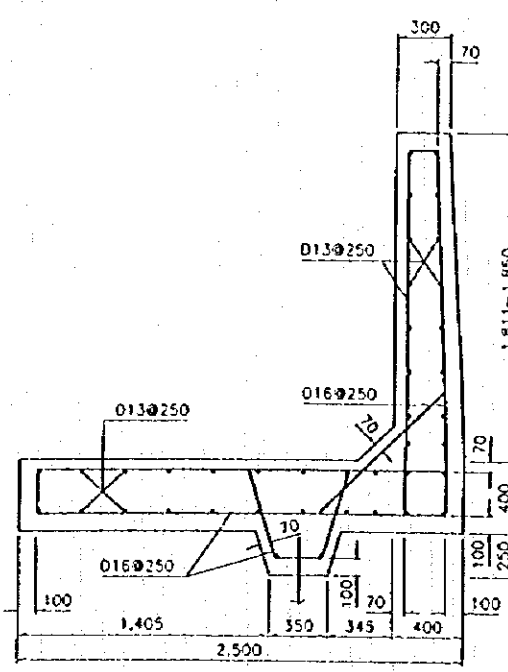
PAVEMENT



WEEP HOLE



REVERSE T-TYPE WALL



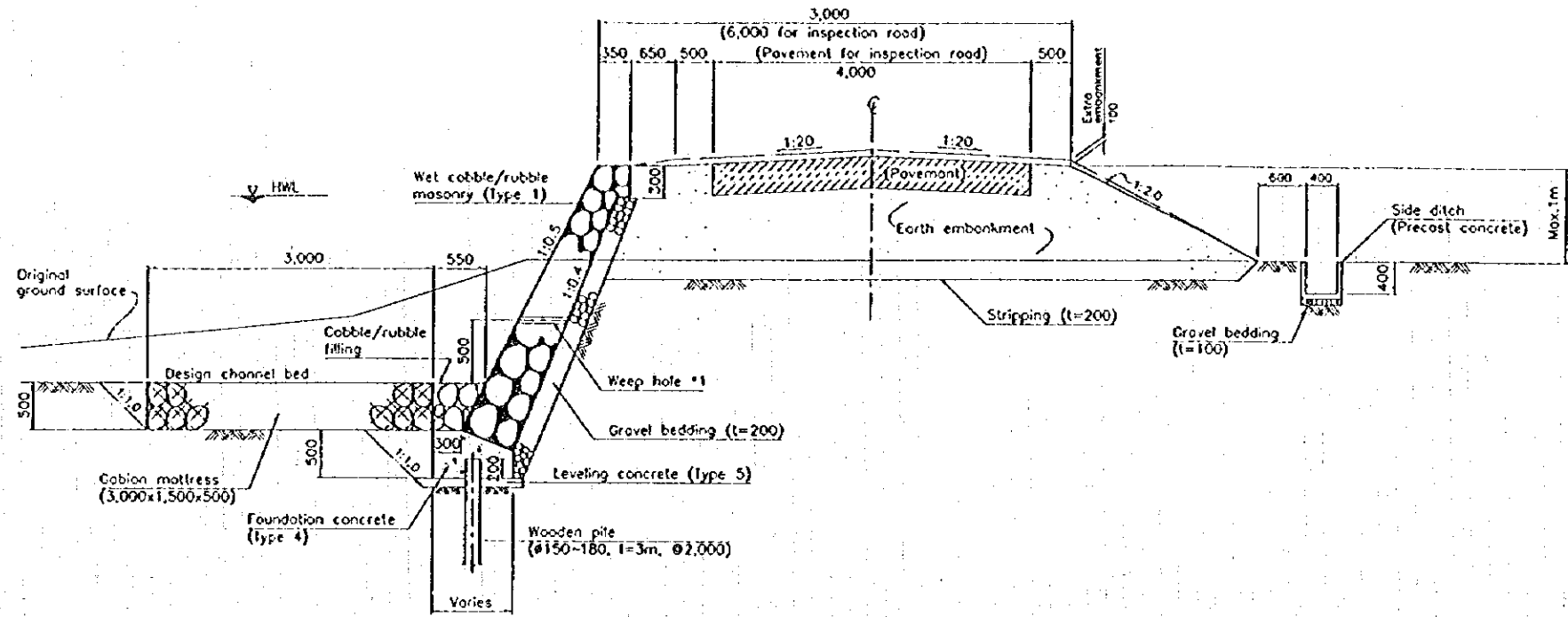
L-TYPE WALL

REINFORCING BAR ARRANGEMENT

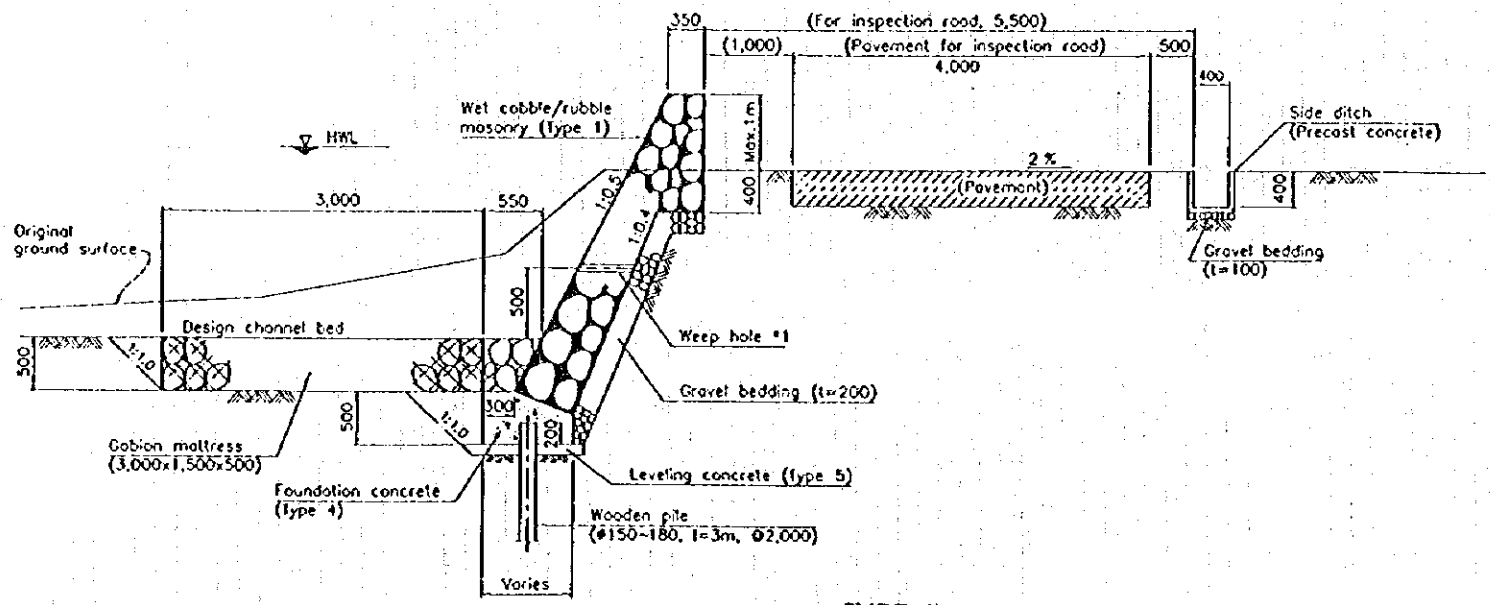
- NOTES :
- (1) *1 In case of the inspection road, refer to that of "L-TYPE WALL".
 - (2) *2 Figures in parentheses show dimensions of "Wall weight H=1m~1.5m".
 - (3) *3 Traps shall be provided at a 100m interval.

Fig. 7 Typical Sections of Concrete Wall

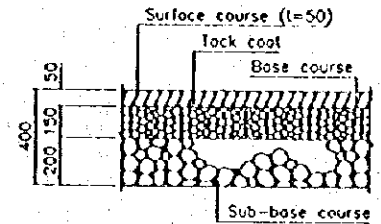
PREPARED		MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING CHANNEL STRUCTURES, PARAPET WALL TYPICAL CROSS SECTIONS	APPROVED
CHECKED				
SUBMITTED				
REFERENCE	DWG NO.	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	DWG NO. J-20-20-001	DATE



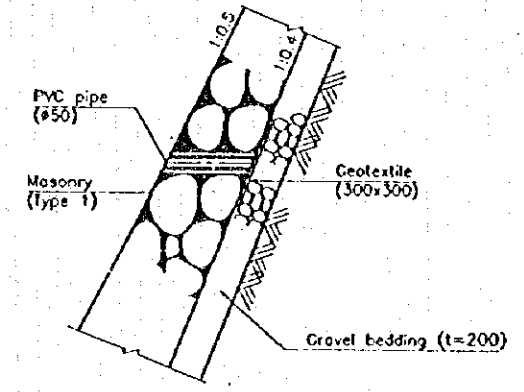
TYPE I



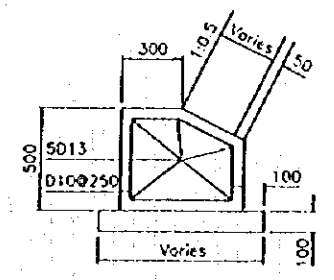
TYPE II



PAVEMENT



WEEP HOLE

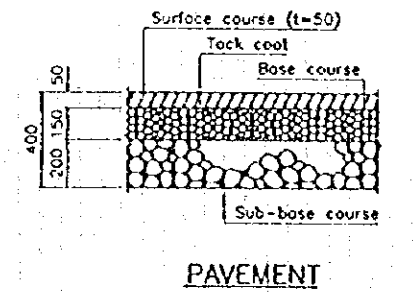
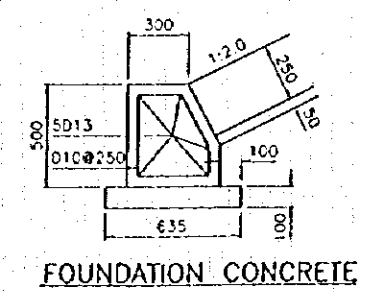
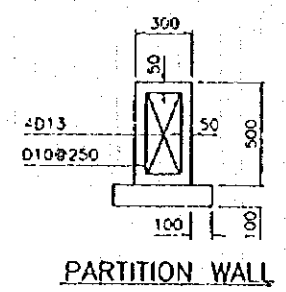
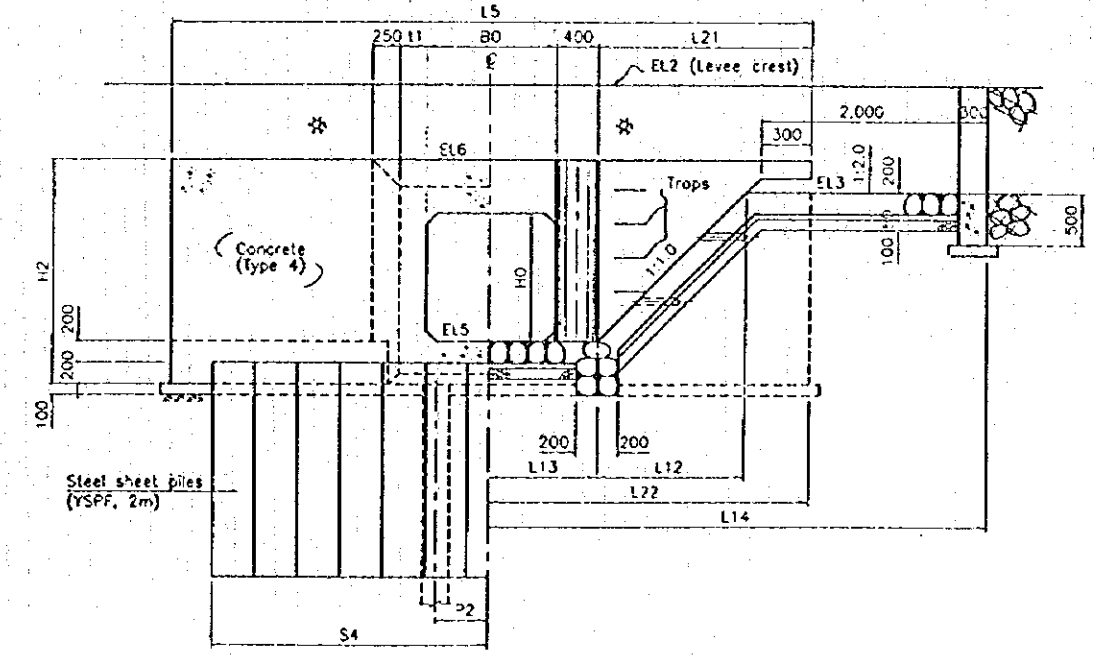
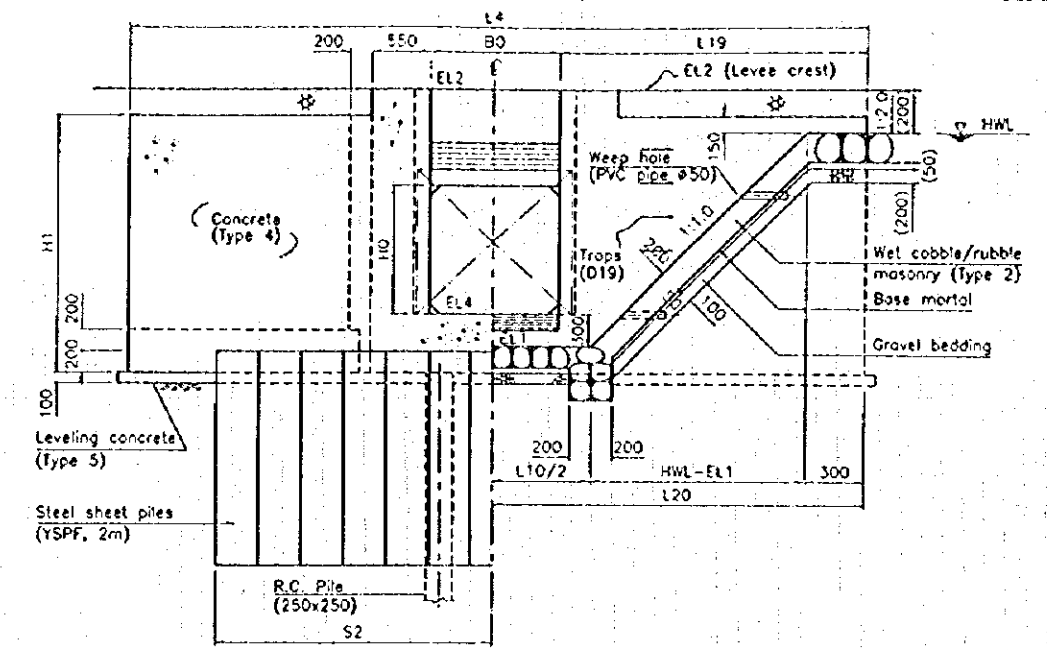
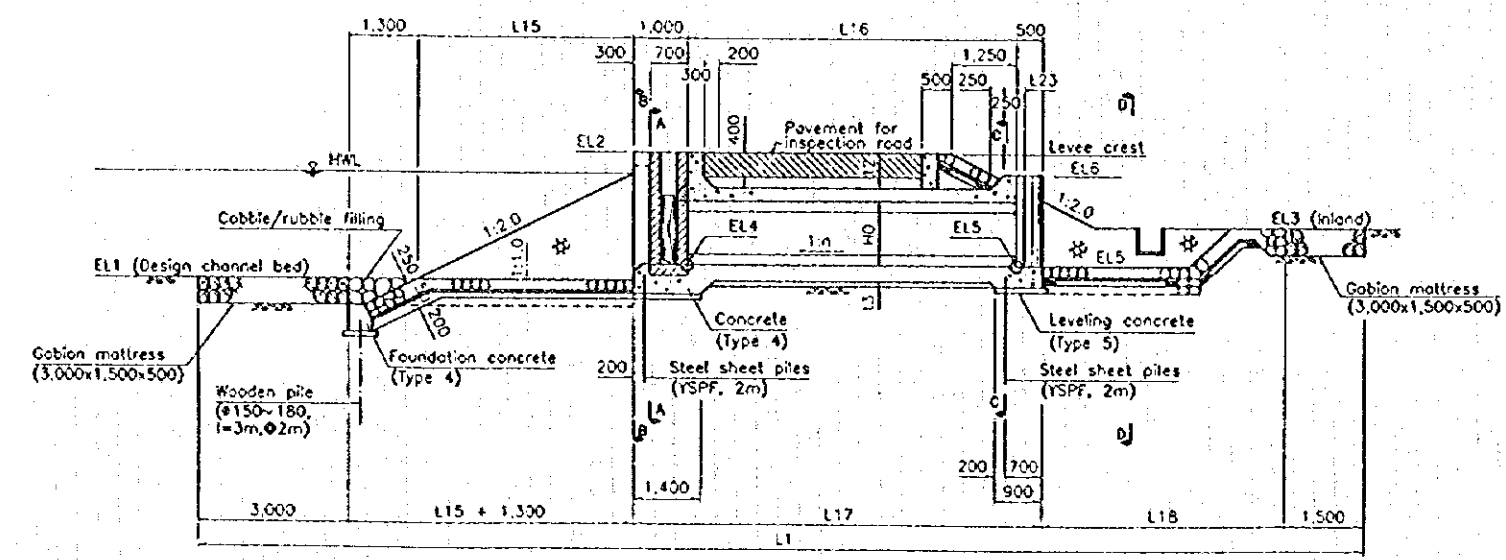
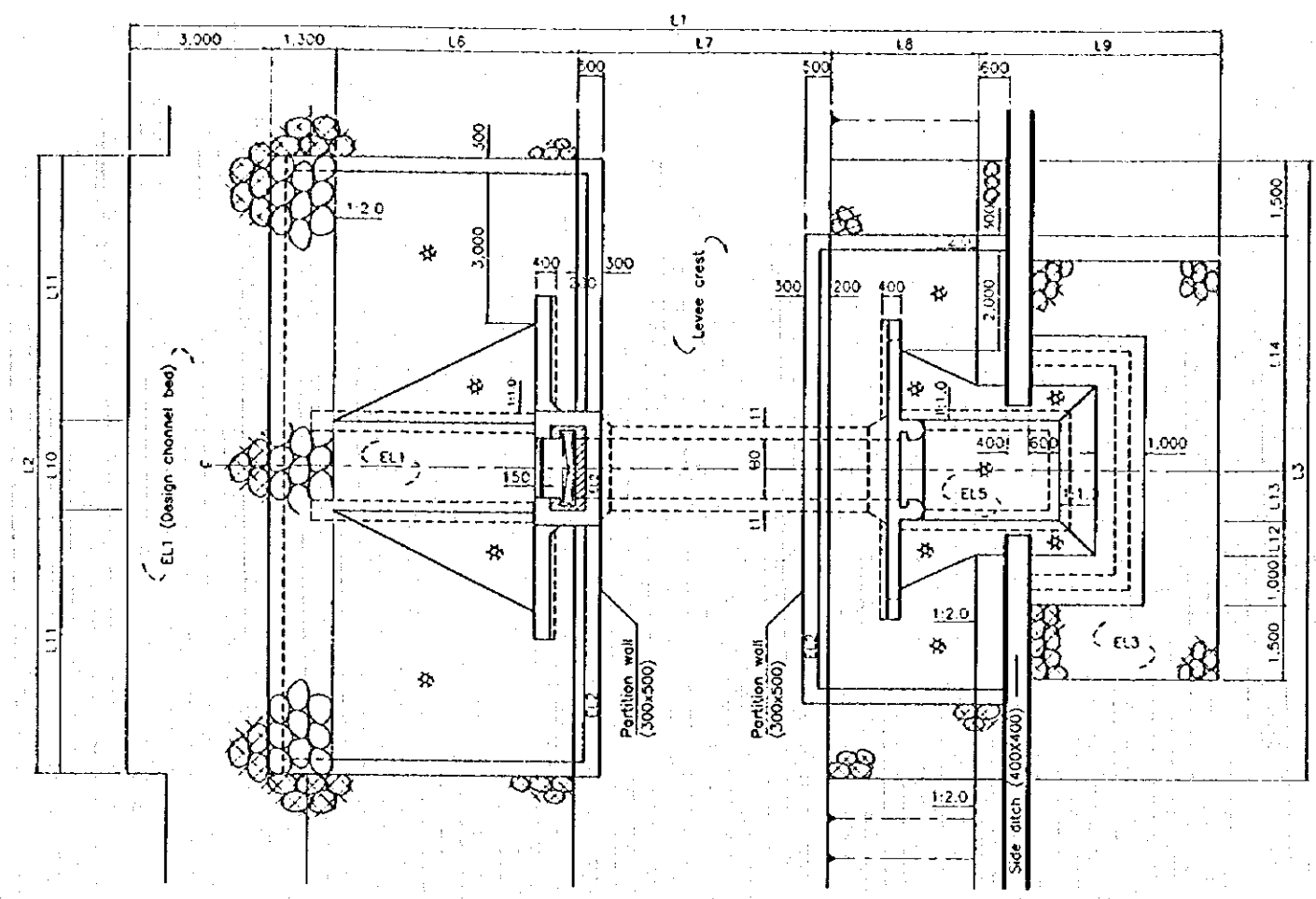


FOUNDATION CONCRETE

NOTE: *1 One weep hole shall be provided every 4m² of the masonry surface.

Fig. 8 Typical Sections of Revetment

REFERENCE	DWG NO.	DATE	PREPARED.....	MINISTRY OF PUBLIC WORK DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING CHANNEL STRUCTURES, REVETMENT TYPICAL CROSS SECTIONS	APPROVED
			CHECKED.....		DWG NO.	DATE
			SUBMITTED.....		J-20-30-001	

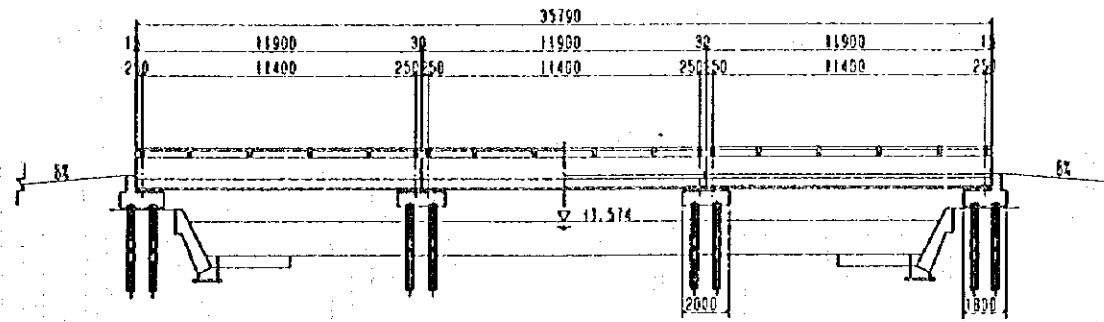


NOTE :
- For the specific dimensions, see the drawings titled "DRAINAGE FACILITIES, SLUICWAY, DIMENSION TABLES".

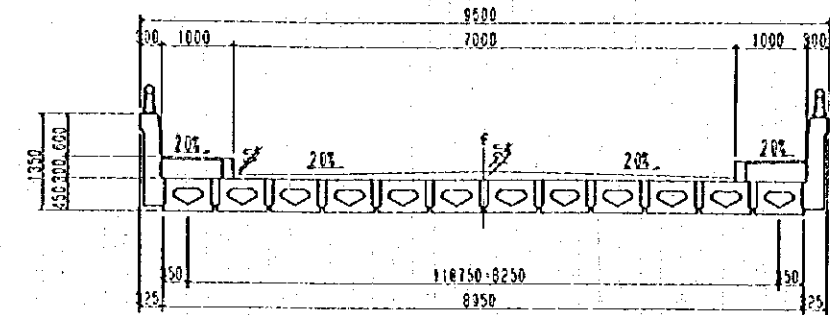
Fig. 9 Typical Sections of Sluiceway

PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING DRAINAGE FACILITIES, SLUICWAY, LEVEE EARTH TYPE SITE (1/2)	APPROVED
CHECKED.....	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	DWG NO. J-30-10-101	DATE
SUBMITTED.....			
REFERENCE	DWG NO.		

SIDE VIEW SCALE A



CROSS SECTION SCALE B



GROUND						
PROPOSED	3.716	3.716	3.893	3.716	1.882	0.278
GROUND	1.000	2.700	-0.104	2.700	2.280	2.280
GROUND TO PROPOSED DISTANCE		17.880	5.065	0.000	5.995	17.880
SPRINKLE DISTANCE	0.250	11.685	5.065	0.000	5.995	11.685
STATION					30.500	40.440
PLANE CURVE	R=∞					

DESIGN CONDITION

BRIDGE NAME	BKM11(KM23-2)
LIVE LOAD	BM 70
GIRDER LENGTH	11.90 m
SPAN LENGTH	11.40 m
WIDTH	9.60 m
BRIDGE ANGLE	90°

REACTION

	ABUTMENT(1)	PIER(1)
DEAD LOAD	80.3	160.6
LIVE LOAD	40.0	40.0
TOTAL	120.3	204.2

MATERIAL TABLE

KIND OF MATERIAL		UNIT	VOLUME	DESCRIPTION	
MAIN GIRDER	NUMBER	no	36	BM70-05	
	DESIGN STRENGTH	m	18.3		
FORMING	CONCRETE	m ³	28.6	ROADWAY	
	FORM	m ²	249.9		
MISCEL-LANEWAYS	PAVEMENT	m ²	56.4	SIDE WALK	
	PAVEMENT	m ²	15.2		
	SUB-CONCRETE	m ²	71.4	FILLING MORTAR	
	SIDE BLOCK	m	0.750		
	CONCRETE	m ³	24.4	GUARD RAIL	
	FORM	m ²	181.1		
	RE-BAR	tt	1.150	STEEL-RAILING	
	STEEL-RAILING	m	71.4		
	DRAINAGE	NUMBER		12	EXPANSION
	NUMBER	m	38.4		
CROSS GIRDER	NUMBER		78	PC-TENDON	
	LENGTH	m	8.830		
	TOTAL LENGTH	m	688.740		
	TOTAL WEIGHT	tt	1.138	SHEATH	
	SHEATH	m	171.6		
GROUT	m	688.7			

PLAN SCALE A

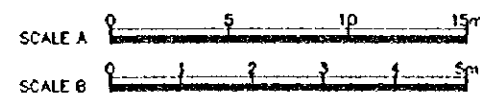
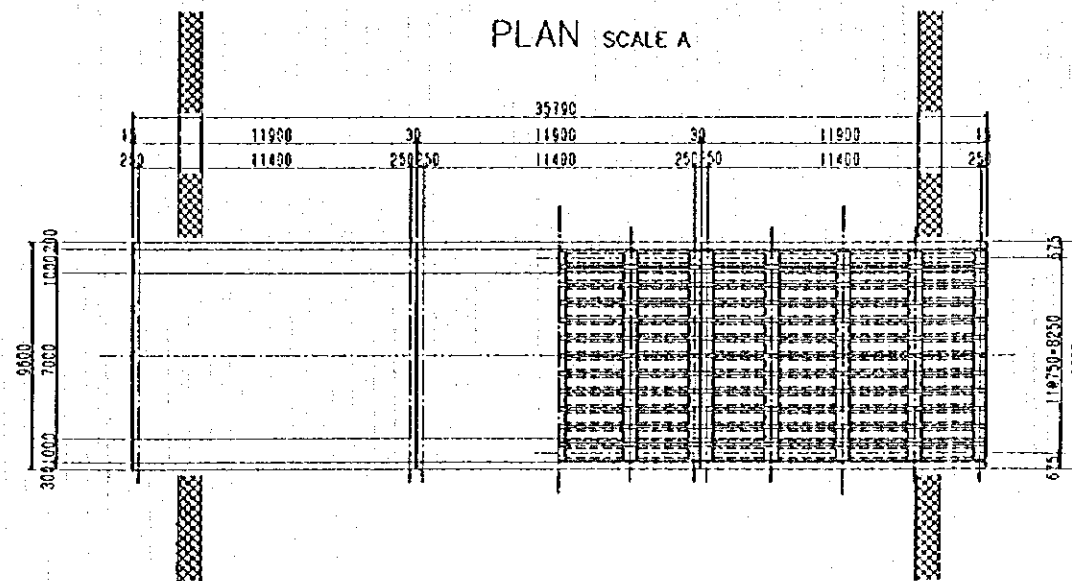
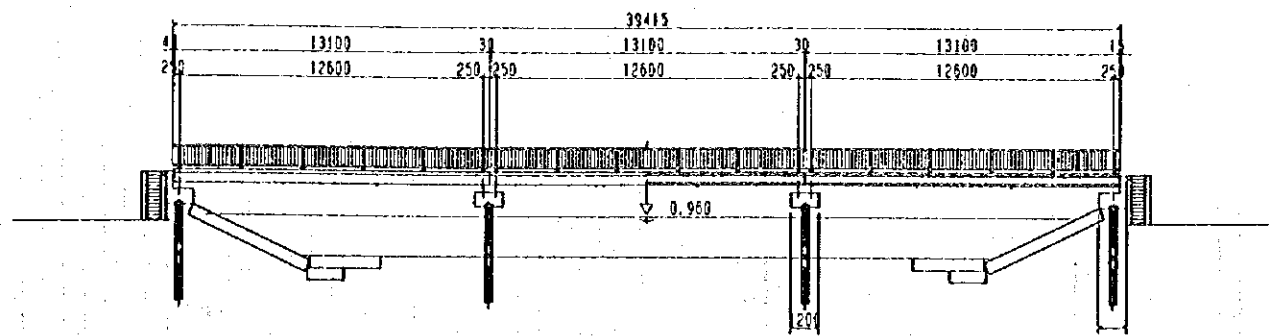


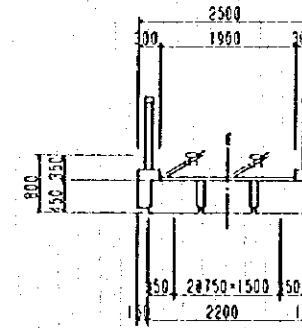
Fig. 10 Typical Sections of Road Bridge

PREPARED.....	MINISTRY OF PUBLIC WORKS	TITLE OF DRAWING	APPROVED
CHECKED.....	DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	GENERAL PLAN OF BRIDGE BKM11(KM23-2)	
SUBMITTED.....	JAPAN INTERNATIONAL COOPERATION AGENCY	DWG NO.	DATE
DATE.....	THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT	J-70-10-109	
REFERENCE	IN THE CITY OF JAKARTA		

SIDE VIEW SCALE A



CROSS SECTION SCALE B



GRADIENT	1.5% 18.000		1.5% 18.000		1.5% 18.000		1.5% 18.000	
PROPOSED HEIGHT	0.870	2.870	2.900	2.010	2.000	2.000	2.000	2.000
EXISTING HEIGHT	0.870	1.000	0.714	1.000	0.750	1.000	0.750	0.750
ACCUMULATED DISTANCE	39.805	12.830	0.565	0.000	0.565	19.430	19.680	22.755
STATION	21.300	0.835	0.565	0.000	0.565	12.895	0.250	4.500
STATION								

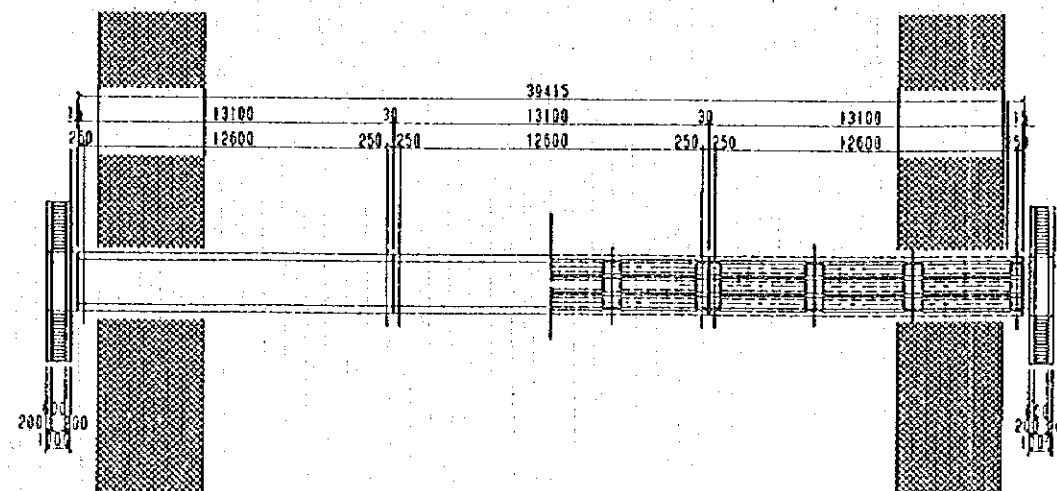
DESIGN CONDITION

BRIDGE NAME	BKM4(KM15)
LIVE LOAD	HUMAN/ANIMALS
GIRDER LENGTH	13.10 m
SPAN LENGTH	12.60 m
WIDTH	2.50 m
BRIDGE ANGLE	90°

REACTION

	ABUTMENT(I)	PIER(I)
DEAD LOAD	20.1	43.2
LIVE LOAD	4.0	8.1
TOTAL	24.1	48.3

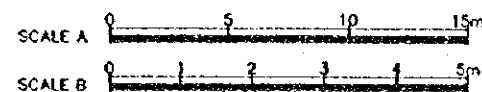
PLAN SCALE A



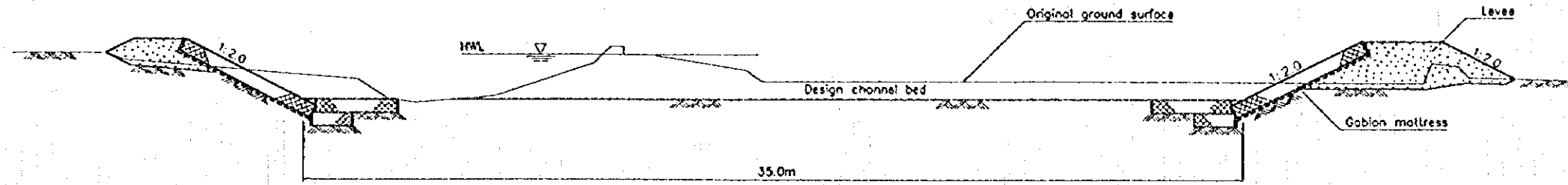
MATERIAL TABLE

KIND OF MATERIAL	NUMBER	UNIT	VOLUME	DESCRIPTION
MAIN GIRDER	9	m	3.4	PB-04
FORMING CONCRETE	5.3	m ²	5.3	
FORM	69.3	m ²	69.3	
ROADWAY PAVEMENT	---	m ²	---	
PAVEMENT	---	m ²	---	
SUB-CONCRETE	---	m ²	---	
SIDE WALK	---	m	---	
SIDE BLOCK	---	m	---	
FILLING MORTAR	---	m ²	---	
CONCRETE	12.6	m ²	12.6	
GUARD RAIL FORM	91.7	m ²	91.7	
RE-BAR	0.594	tf	0.594	
STEEL-RAILING	72.9	m	72.9	
DRAINAGE NUMBER	8		8	
EXPANSION	10.0	m	10.0	
CROSS GIRDER	NUMBER		36	
	LENGTH	m	2.080	
	TOTAL LENGTH	m	74.860	
	TOTAL WEIGHT	tf	0.124	
	SHEATH	m	14.4	
CROUT	m	74.9		

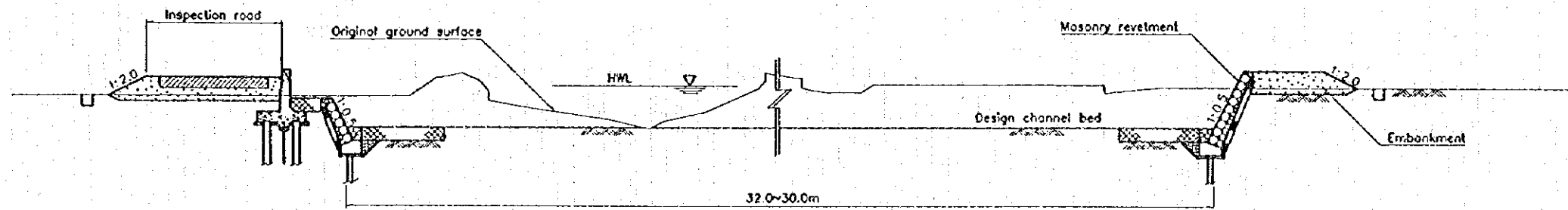
Fig. 11 Typical Sections of Pedestrian Bridge



PREPARED.....	MINISTRY OF PUBLIC WORKS	TITLE OF DRAWING	APPROVED
CHECKED.....	DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	GENERAL PLAN OF BRIDGE BKM4(KM15)	
SUBMITTED.....	JAPAN INTERNATIONAL COOPERATION AGENCY	DWG NO.	DATE
DATE.....	THE DETAIRED DESIGN FOR URBAN DRAINAGE PROJECT	J-70-10-103	
REFERENCE	IN THE CITY OF JAKARTA		

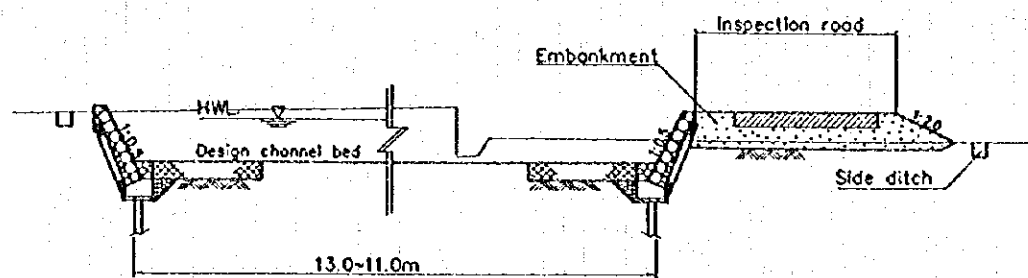


(a) Downstream of Jl. Tol Prof. Sedyotmo

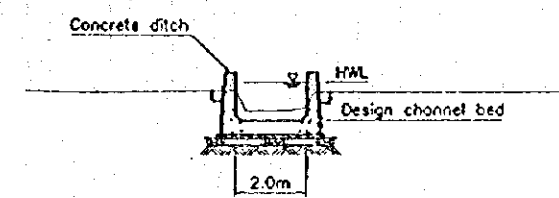


(b) Upstream of Jl. Tol Prof. Sedyotmo

(1) Kamal Drainage Channel (Main)



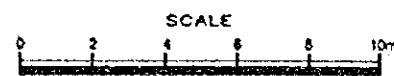
(a) Downstream Stretch



(b) Upstream Stretch

(2) Kamal Drainage Channel (Branch)

Fig. 12 Typical Cross Sections of Kamal Drainage Channels



PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING DRAINAGE CHANNEL, TYPICAL CROSS SECTION (1/3)	APPROVED	
CHECKED.....		DWG NO.	DATE	
SUBMITTED.....		J-10-30-001		
DATE.....				
REFERENCE	DWG NO.			

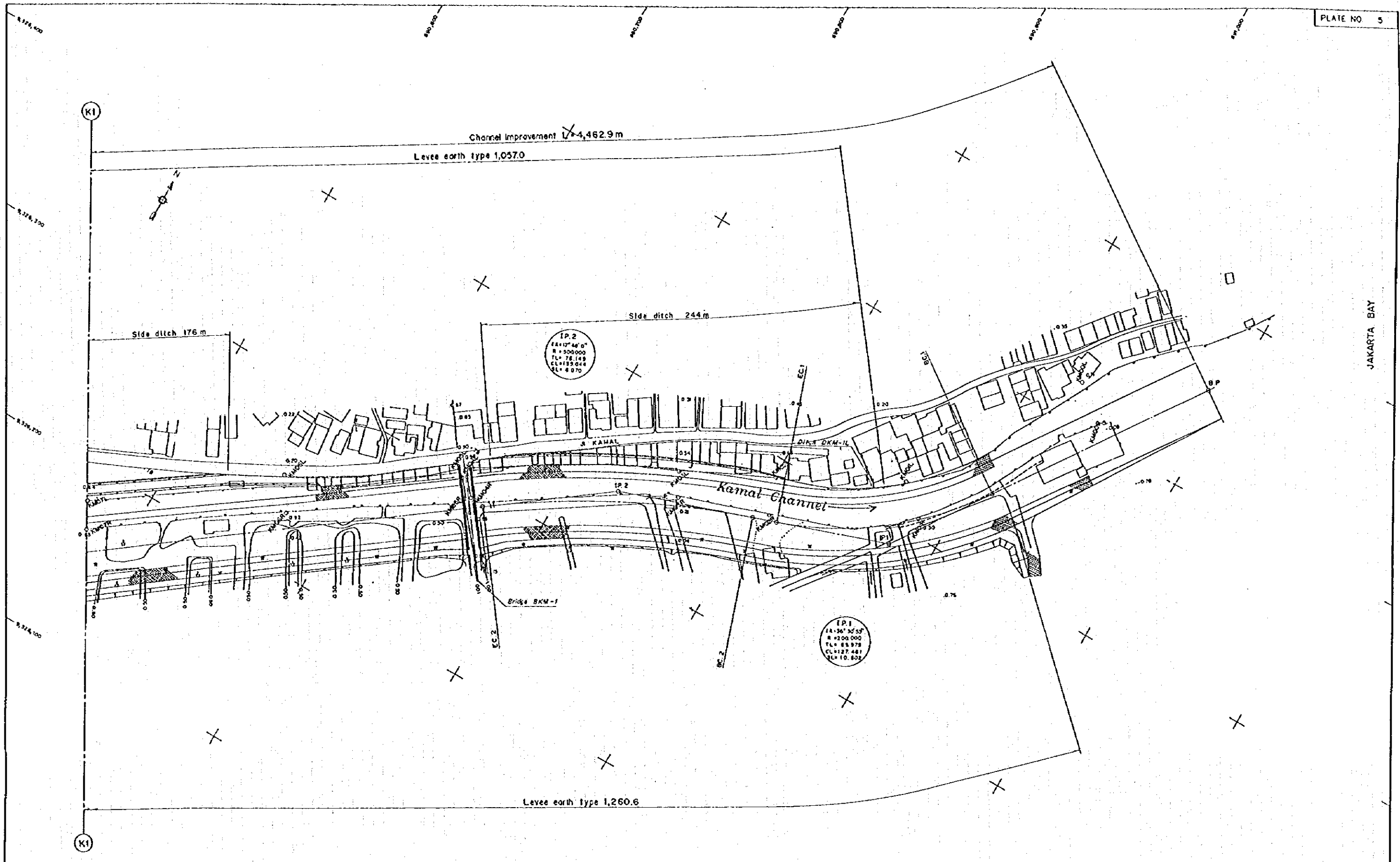
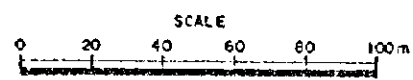
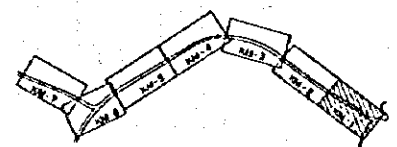


Fig. 13 Plan of Kamal Drainage Channel, Main (1)



REFERENCE	DWG NO.	DATE	PREPARED..... CHECKED..... SUBMITTED..... DATE.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT BY THE CITY OF JAKARTA	TITLE OF DRAWING DRAINAGE CHANNEL, PLAN, KAMAL DRAINAGE CHANNEL (MAIN) (1/7)	DWG NO. J-10-10-101	APPROVED DATE
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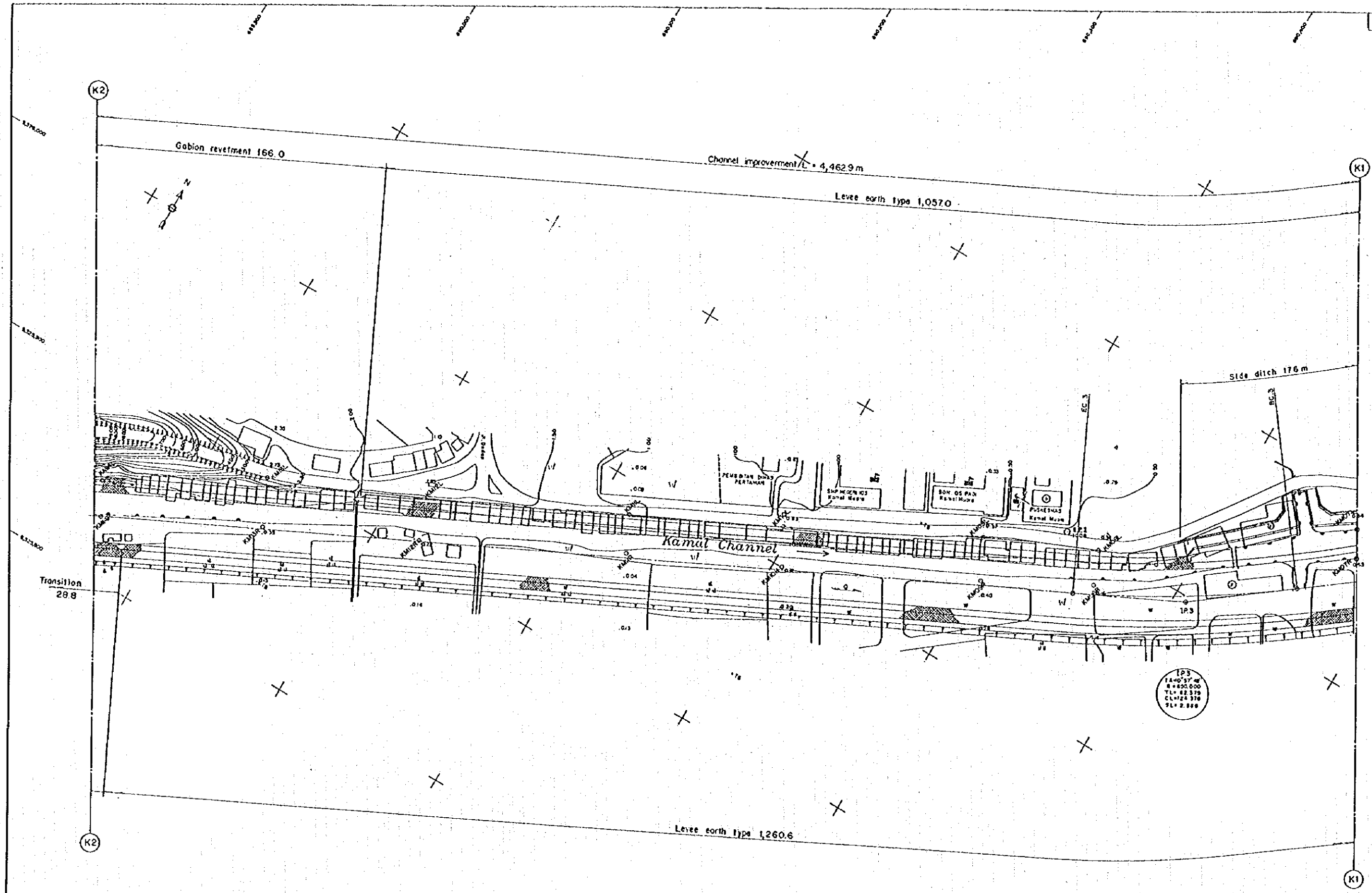
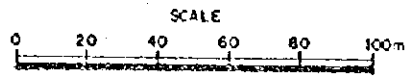
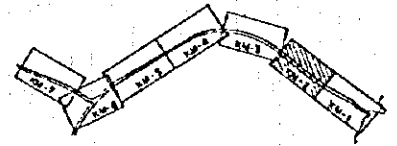


Fig. 14 Plan of Kamal Drainage Channel, Main (2)



PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING DRAINAGE CHANNEL, PLAN, KAMAL DRAINAGE CHANNEL (MAIN) (2/7)	APPROVED
CHECKED.....	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	DWG NO.	DATE
SUBMITTED.....		J - 10 - 10 - 102	
DATE.....	REFERENCE	DWG NO.	

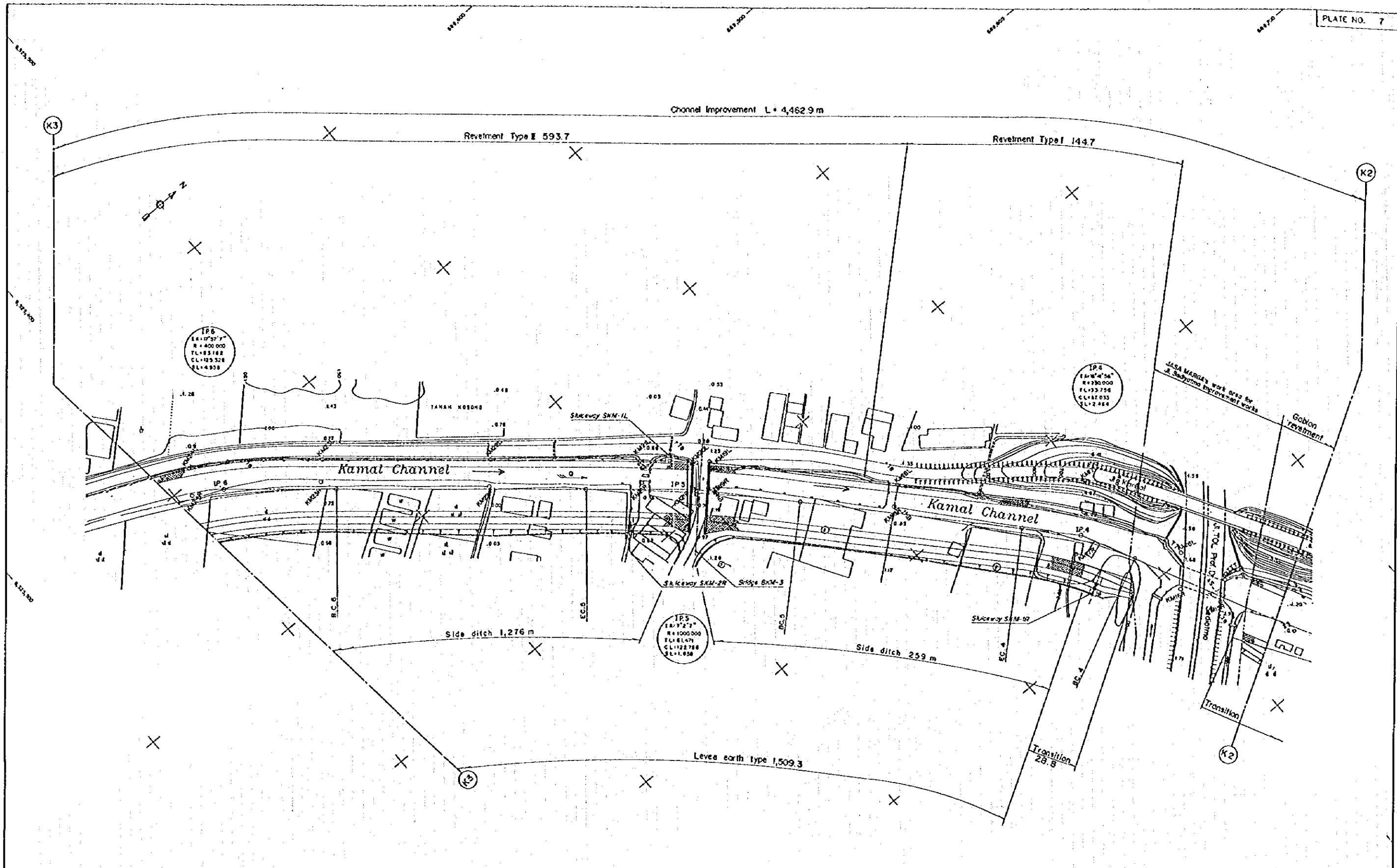
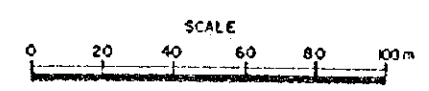
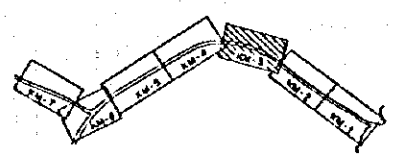


Fig. 15 Plan of Kamal Drainage Channel, Main (3)



REFERENCE	DWG NO.	DATE	PREPARED..... CHECKED..... SLOTTED..... DATE.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING DRAINAGE CHANNEL, PLAN, KAMAL DRAINAGE CHANNEL (MAIN) (3/7) DWG NO. J-10-10-103	APPROVED DATE
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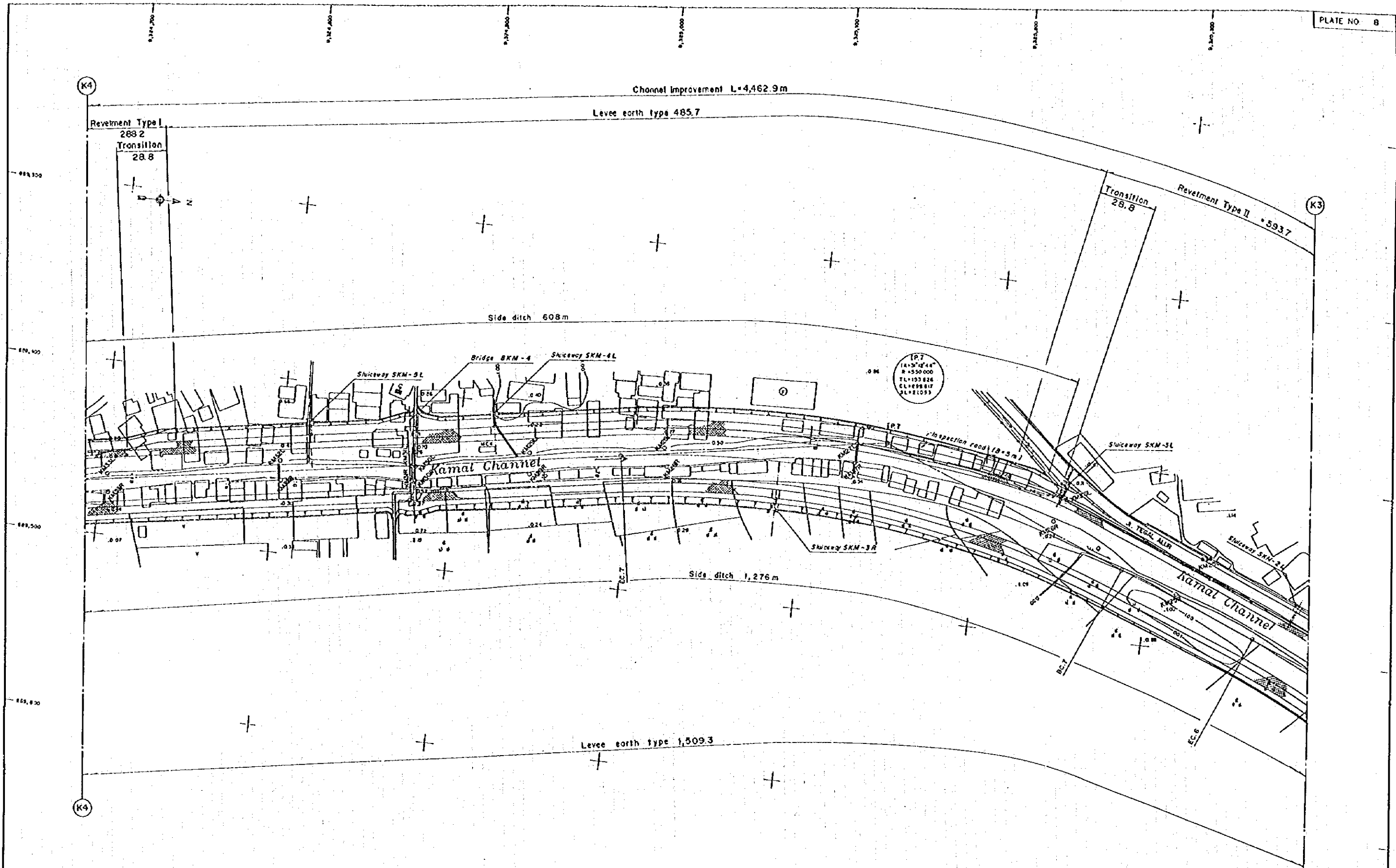
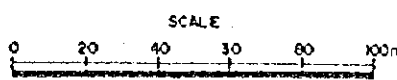
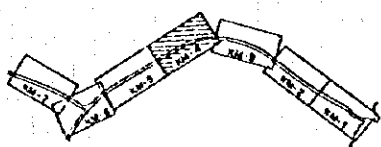


Fig. 16 Plan of Kamal Drainage Channel, Main (4)



REFERENCE	DWG NO.	PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING DRAINAGE CHANNEL, PLAN, KAMAL DRAINAGE CHANNEL (MAIN) (4/7)	APPROVED
		CHECKED.....	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	DWG NO. J-10-10-104	DATE
		SUBMITTED.....			
		DATE.....			

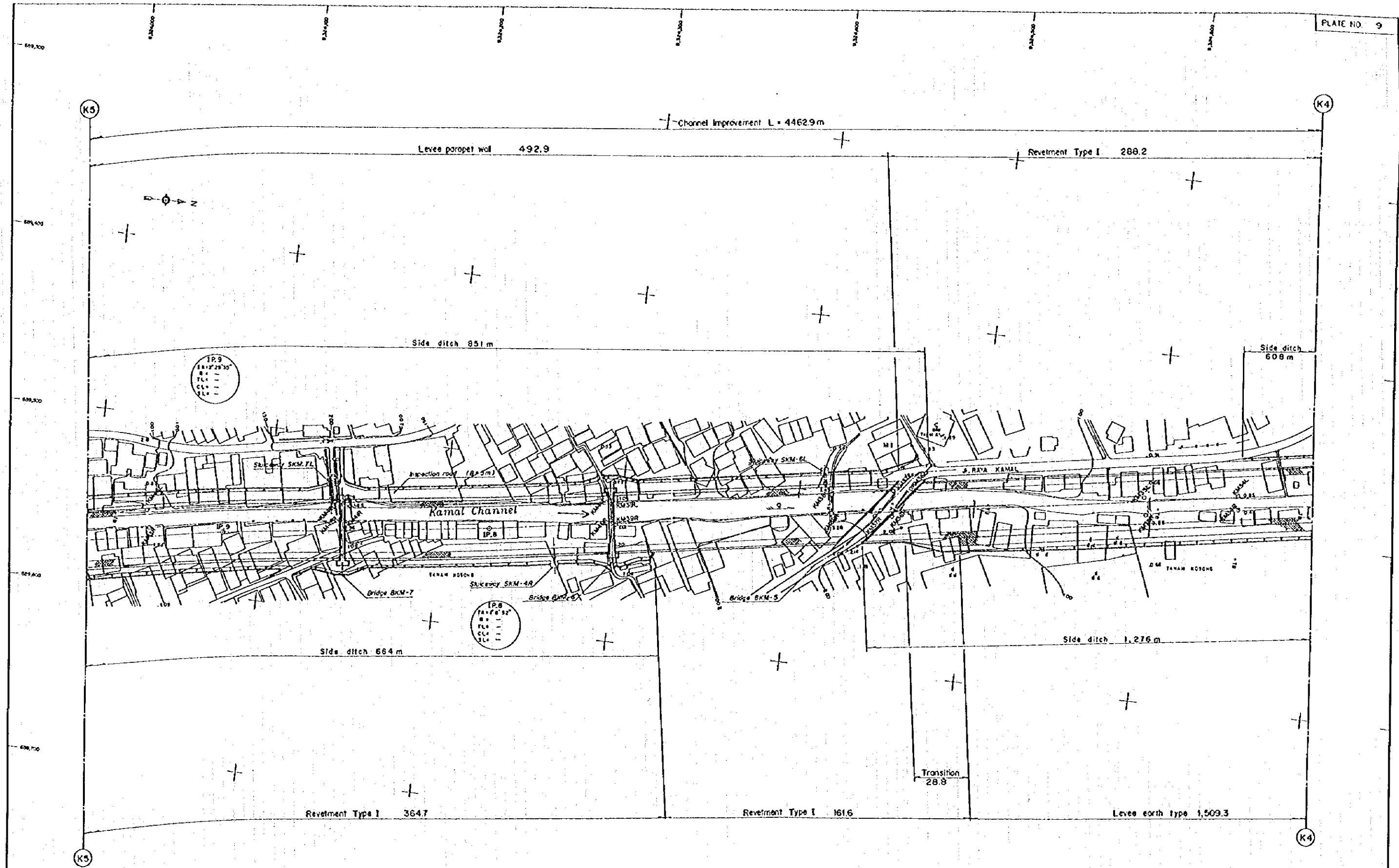
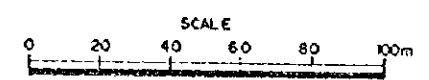
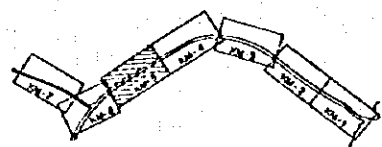


Fig. 17 Plan of Kamal Drainage Channel, Main (5)



REFERENCE	DWG NO.	PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING	APPROVED	
		CHECKED.....		DRAINAGE CHANNEL, PLAN, KAMAL DRAINAGE CHANNEL (MAIN) (5/7)		
		SUBMITTED.....		DWG NO.		DATE
		DATE.....		J-10-10-105		

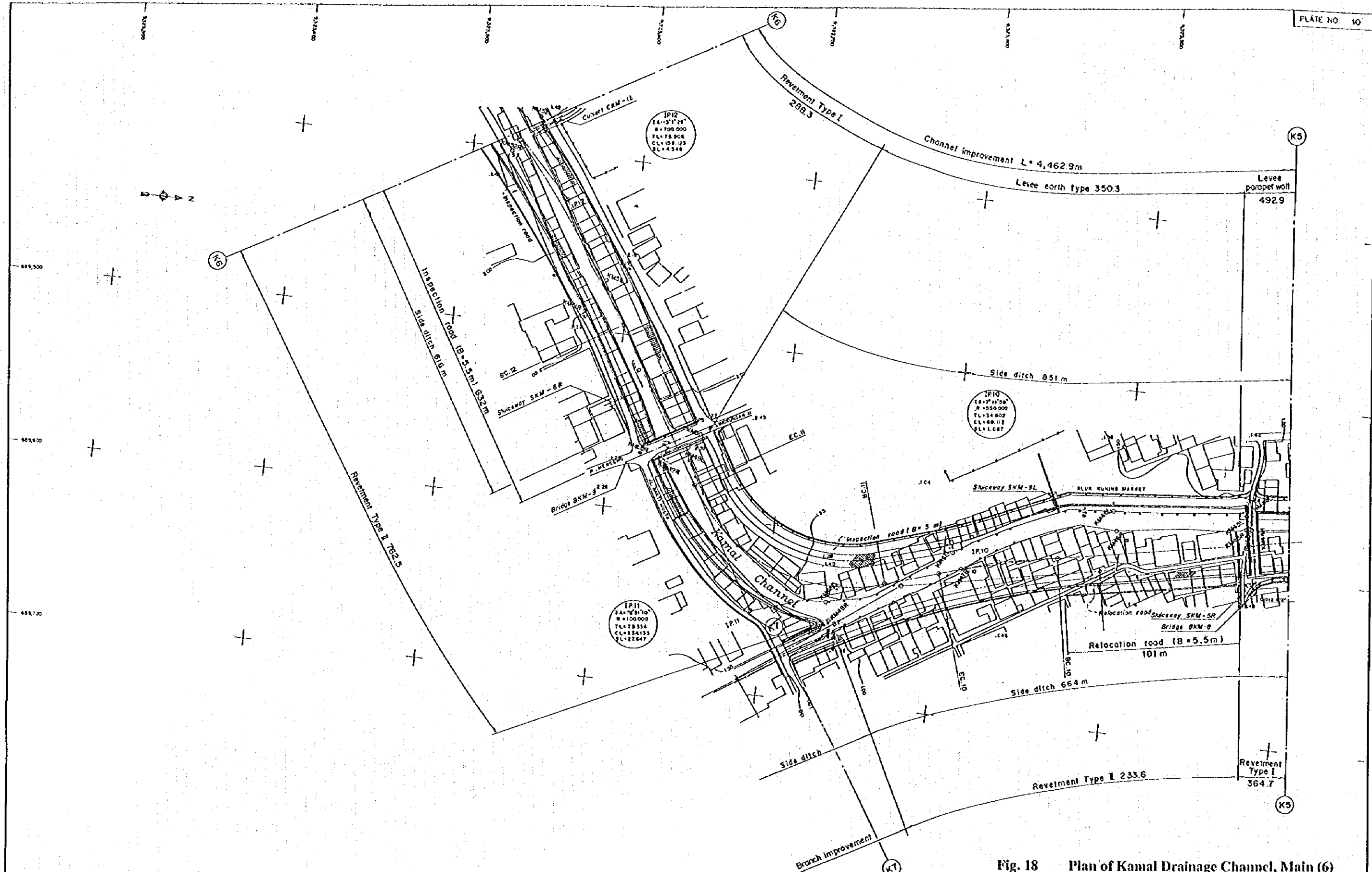
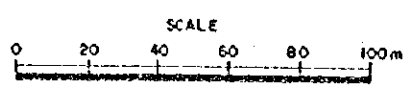
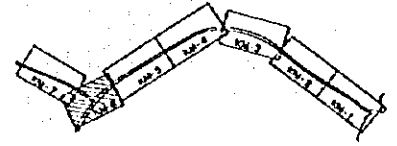


Fig. 18 Plan of Kamal Drainage Channel, Main (6)



REFERENCE	OWG NO.	DATE	PREPARED..... CHECKED..... SUBMITTED..... DATE.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	TITLE OF DRAWING DRAINAGE CHANNEL, PLAN, KAMAL DRAINAGE CHANNEL (MAIN) (6/7) DWG NO. J-10-10-106	APPROVED DATE
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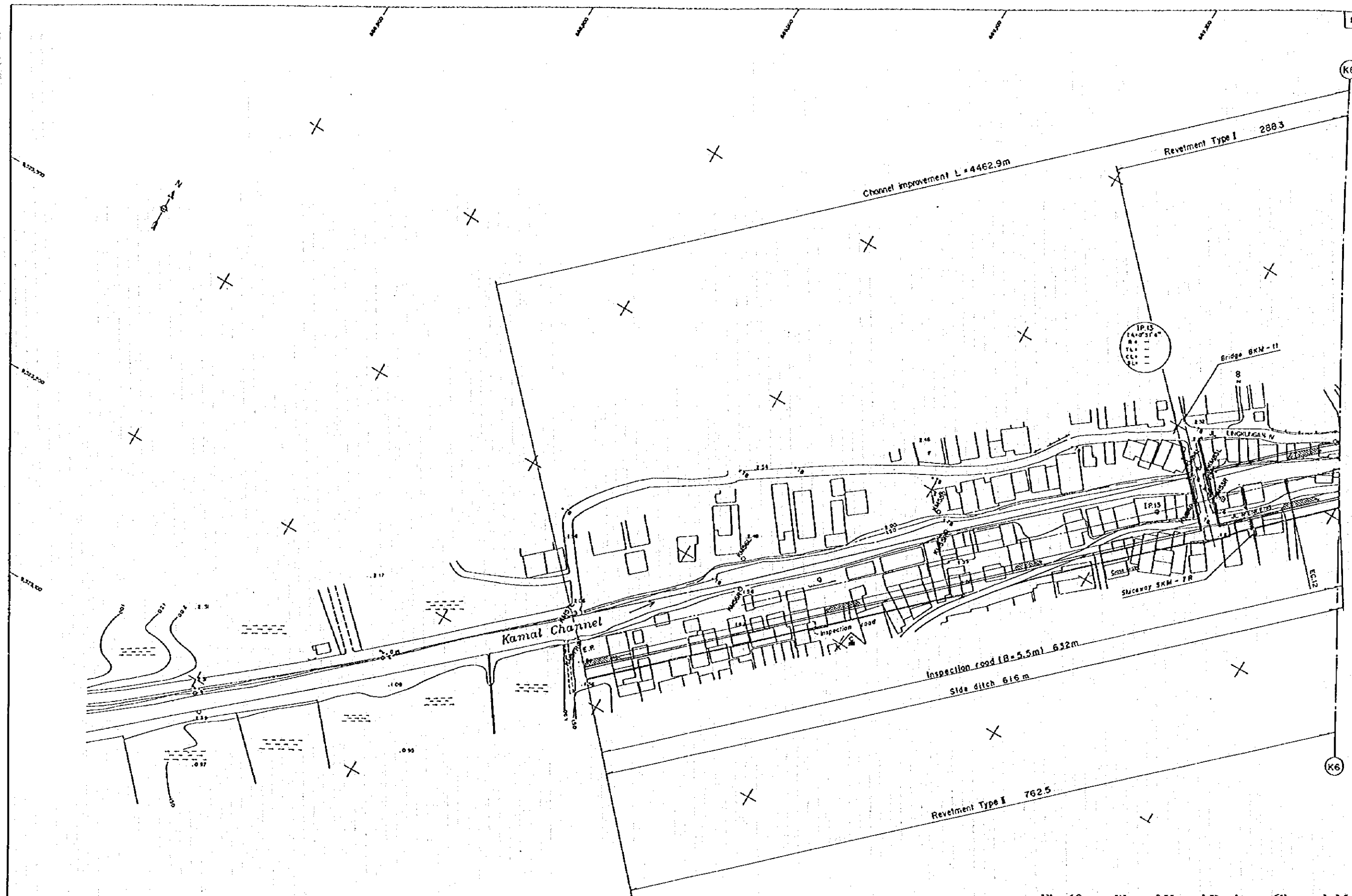
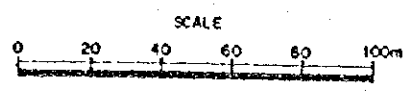
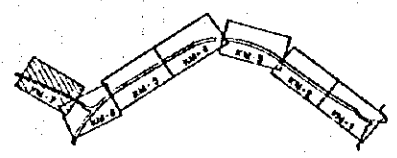


Fig. 19 Plan of Kamal Drainage Channel, Main (7)



PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING DRAINAGE CHANNEL, PLAN, KAMAL DRAINAGE CHANNEL (MAIN) (7/7)	APPROVED
CHECKED.....	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT BY THE CITY OF JAKARTA	DWG NO. J - 10 - 10 - 107	DATE
SUBMITTED.....			
DATE.....			
REFERENCE	DWG NO.		

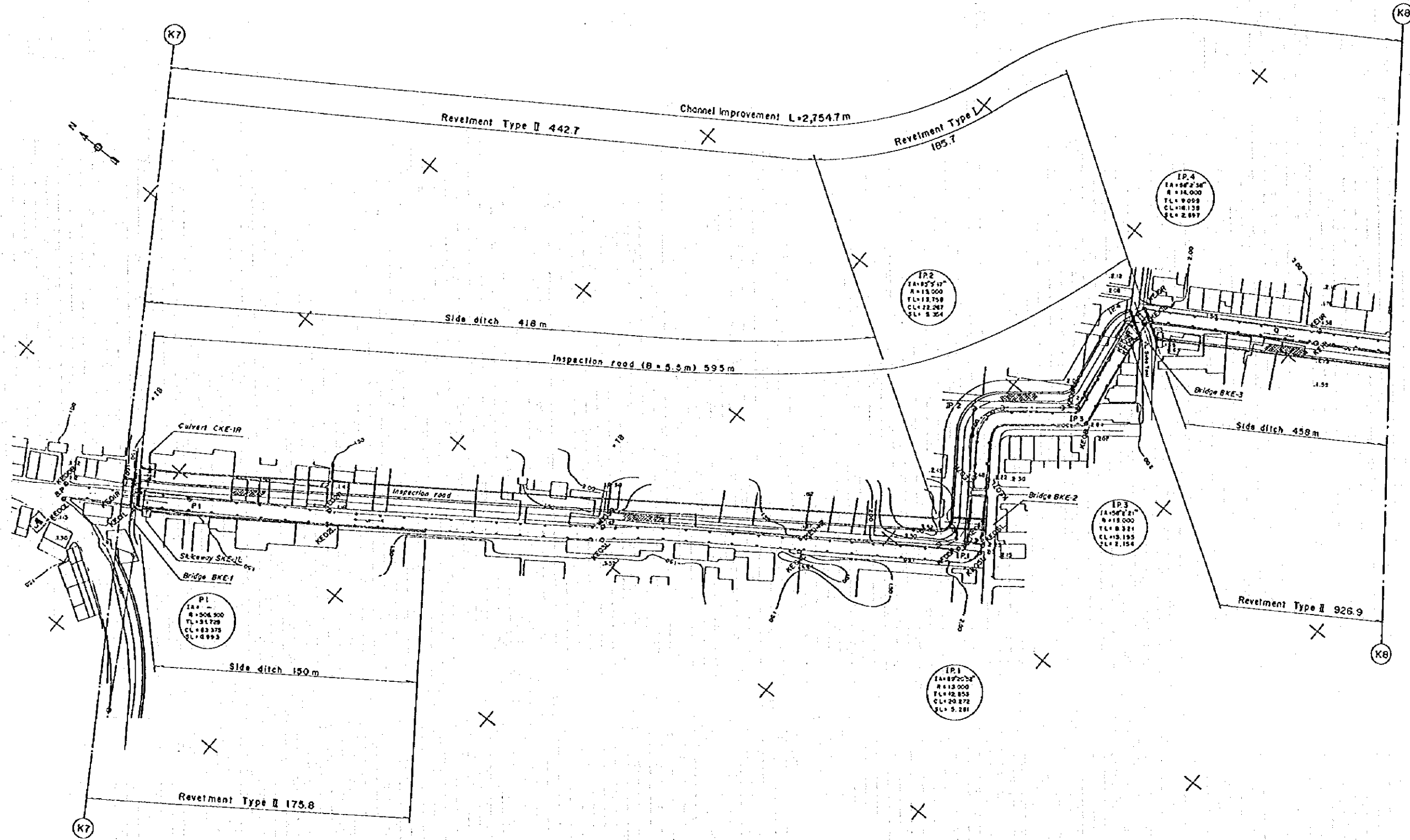
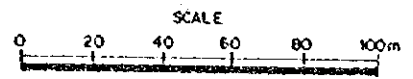
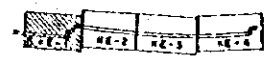


Fig. 20 Plan of Kamal Drainage Channel, Branch (1)



PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING DRAINAGE CHANNEL, PLAN, KAMAL DRAINAGE CHANNEL (BRANCH) (1/4)	APPROVED
CHECKED.....		DWG NO. J-10-10-201	DATE
SUBMITTED.....			
DATE.....			
REFERENCE	DWG NO.		

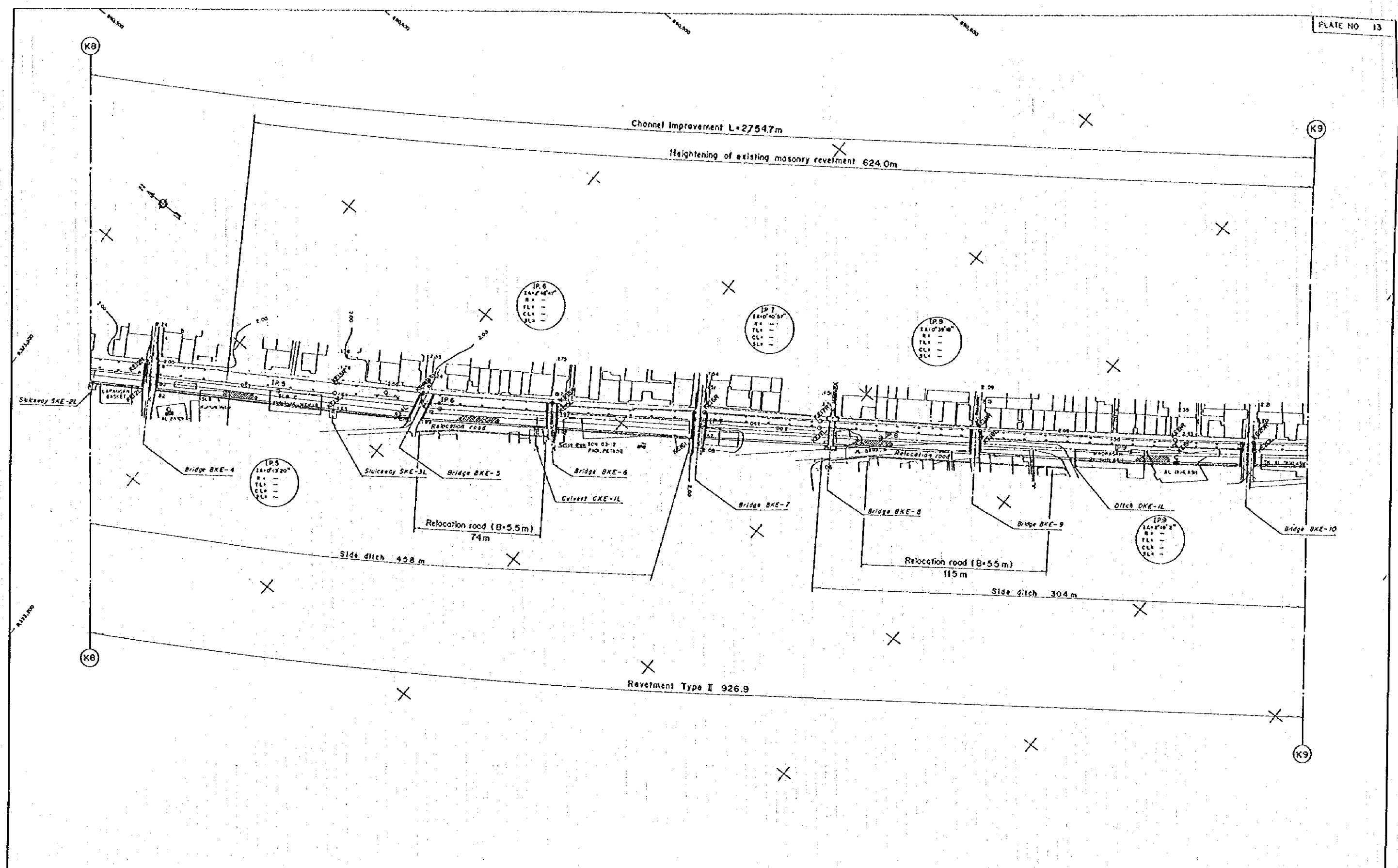
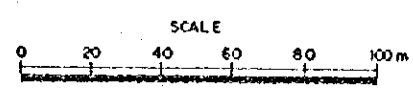
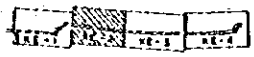


Fig. 21 Plan of Kamal Drainage Channel, Branch (2)



PREPARED.....	MINISTRY OF PUBLIC WORKS	TITLE OF DRAWING	APPROVED
CHECKED.....	DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	DRAINAGE CHANNEL, PLAN,	
SUBMITTED.....	JAPAN INTERNATIONAL COOPERATION AGENCY	KAMAL DRAINAGE CHANNEL (BRANCH) (2/4)	DATE
DATE.....	THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT	DWG NO.	
REFERENCE	IN	J-10-10-202	
DWG NO.	THE CITY OF JAKARTA		

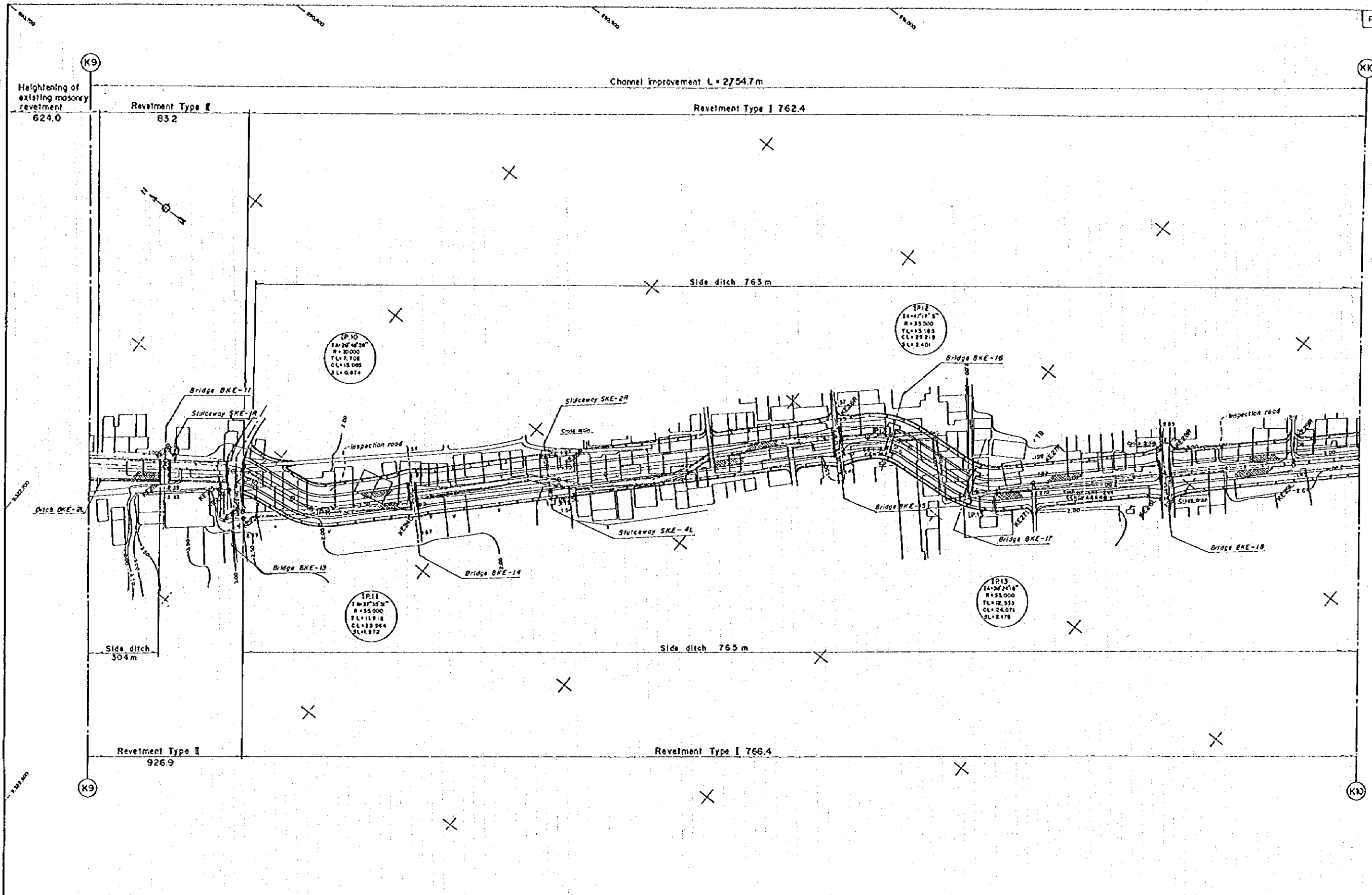
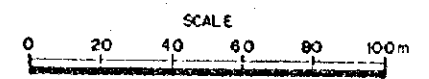
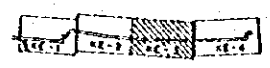


Fig. 22 Plan of Kamal Drainage Channel, Branch (3)



PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING DRAINAGE CHANNEL, PLAN, KAMAL DRAINAGE CHANNEL (BRANCH) (3/4)	APPROVED
CHECKED.....	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT BY THE CITY OF JAKARTA	DWG NO. J-10-10-203	DATE
SUBMITTED.....			
DATE.....			
REFERENCE	DWG NO.		

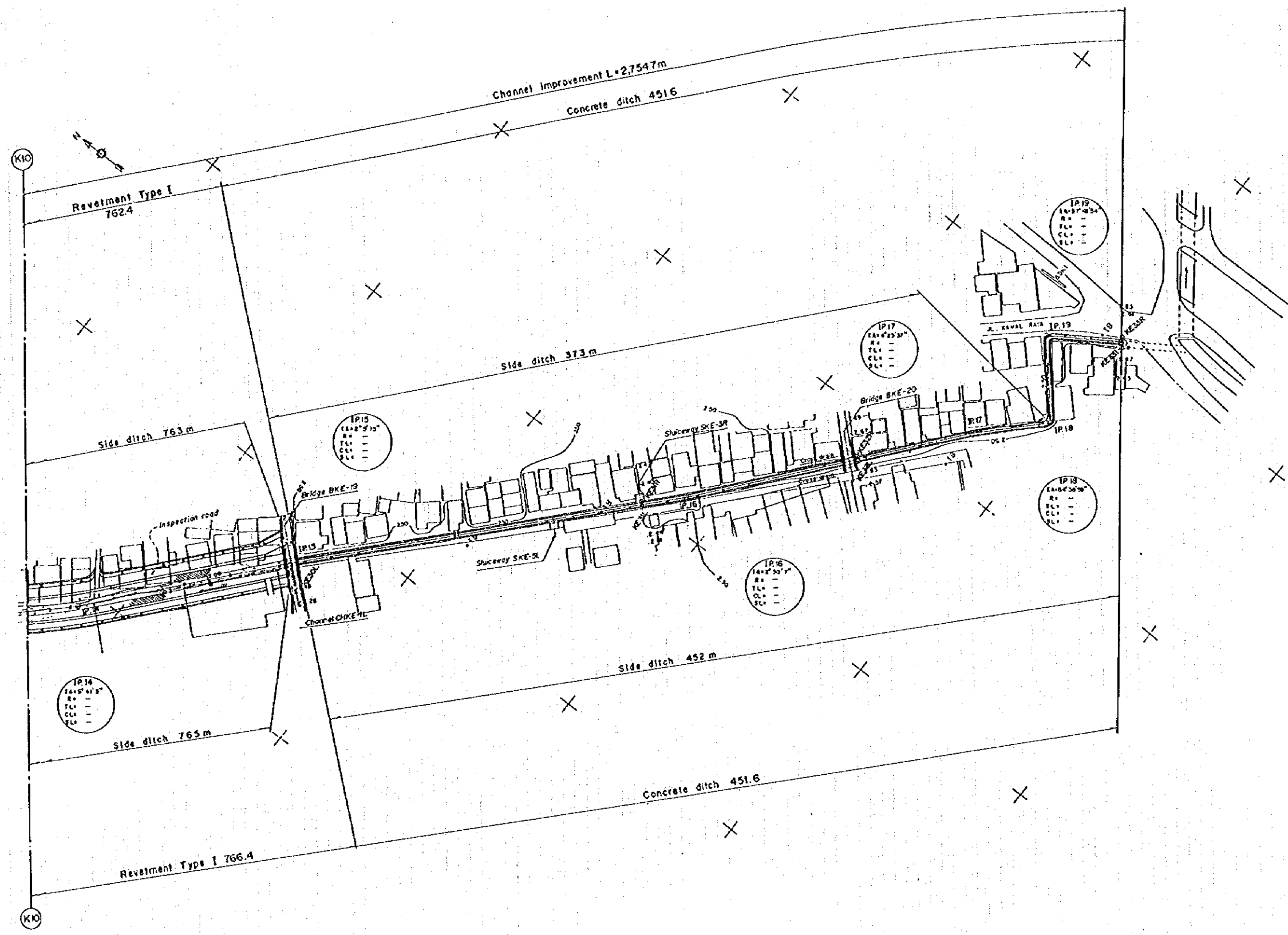
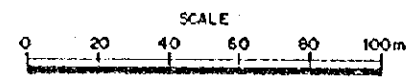
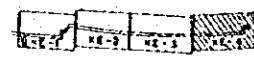


Fig. 23 Plan of Kamal Drainage Channel, Branch (4)



REFERENCE	DWG NO.	PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING	APPROVED
		CHECKED.....		DRAINAGE CHANNEL, PLAN, KAMAL DRAINAGE CHANNEL (BRANCH) (4/4)	
		SUBMITTED.....	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	DWG NO.	DATE
		DATE.....		J-10-10-204	

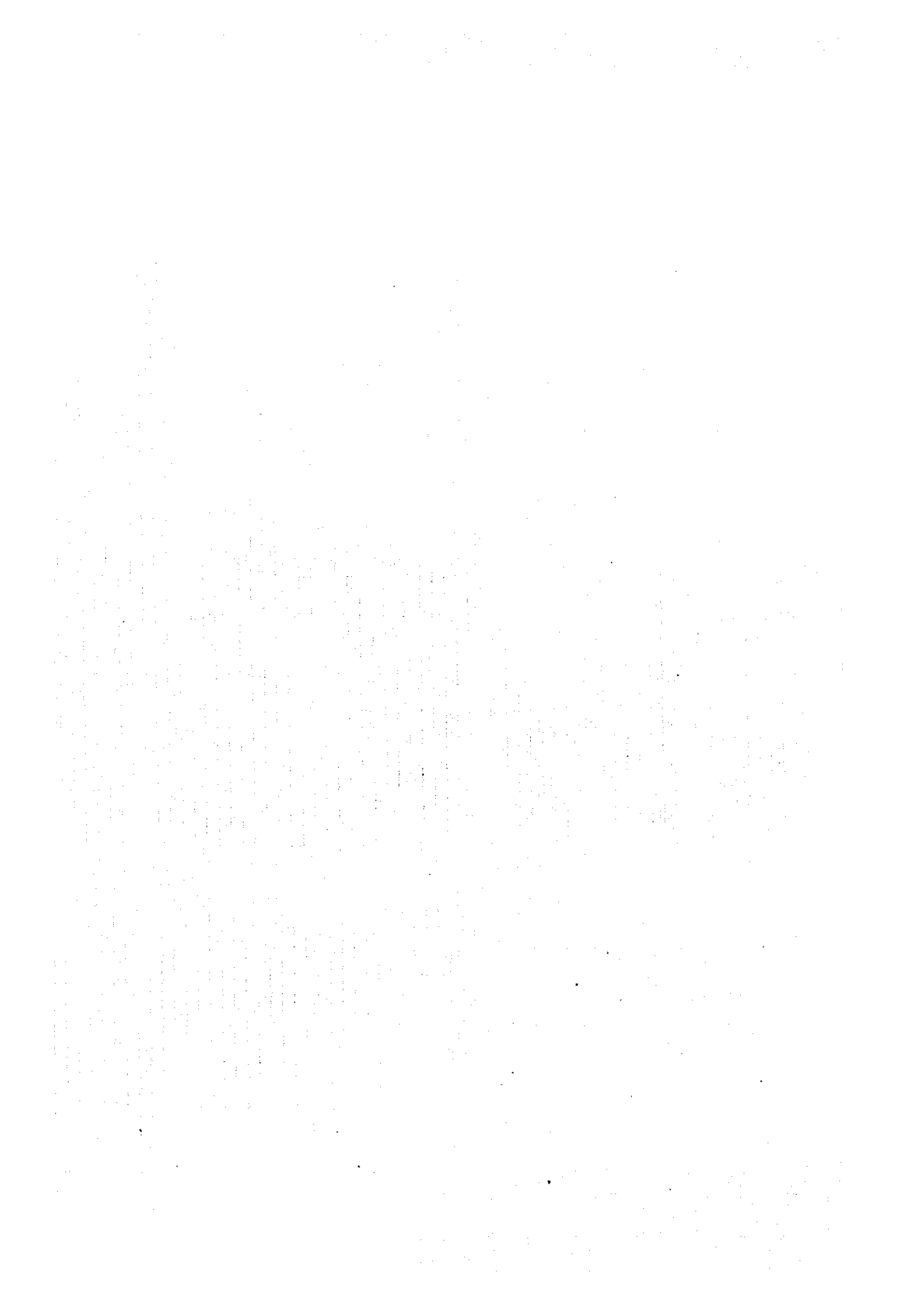


Fig. 10.2 Overall Implementation Schedule

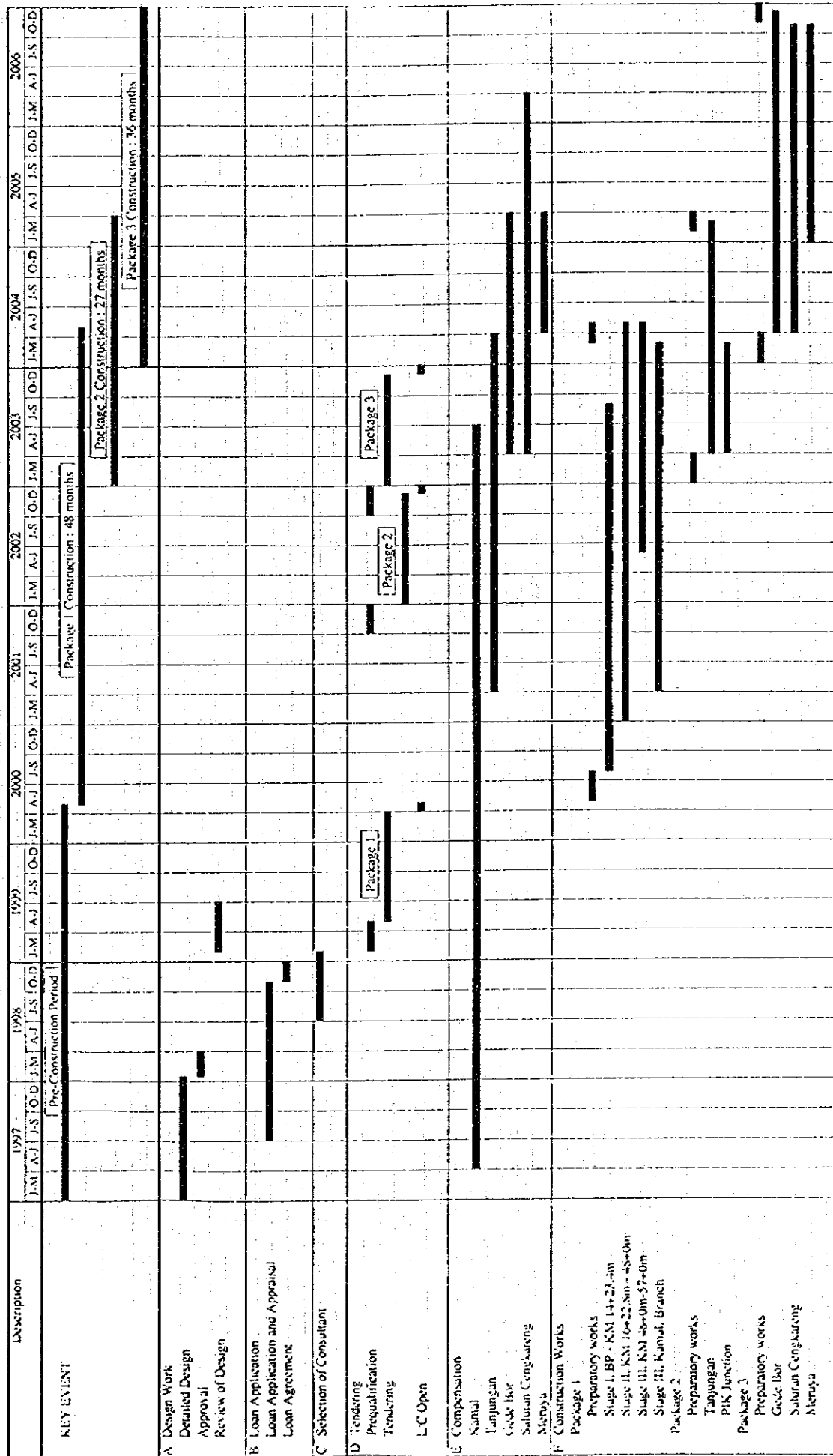


Fig. 24 Project Implementation Schedule







