

Fig.15 DESIGN LONGITUDINAL PROFILE OF MAIN TRIBUTARIES (1/3)

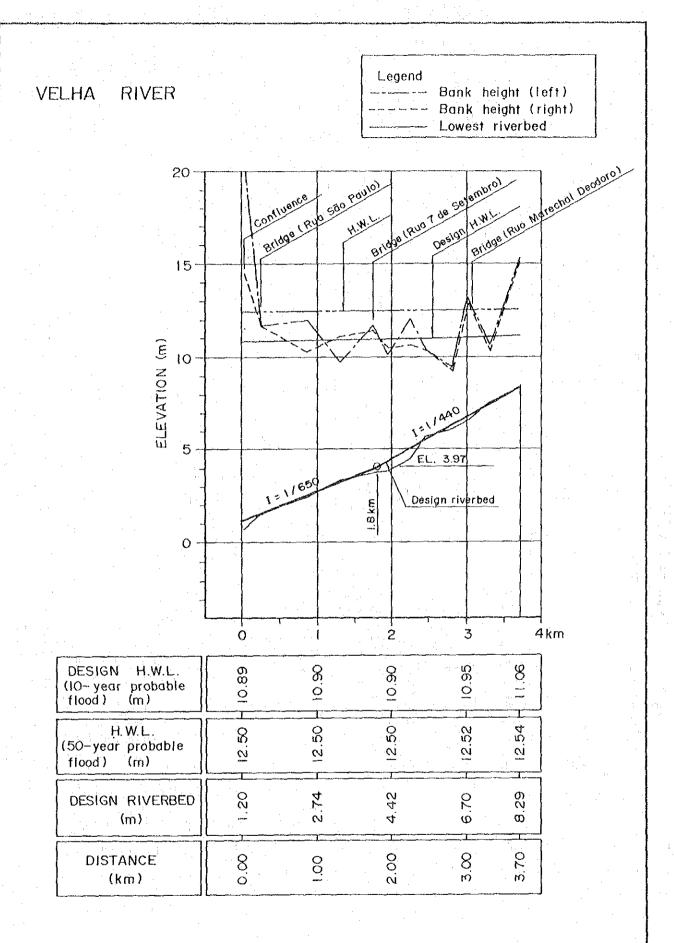


Fig.15 DESIGN LONGITUDINAL PROFILE OF MAIN TRIBUTARIES (2/3)

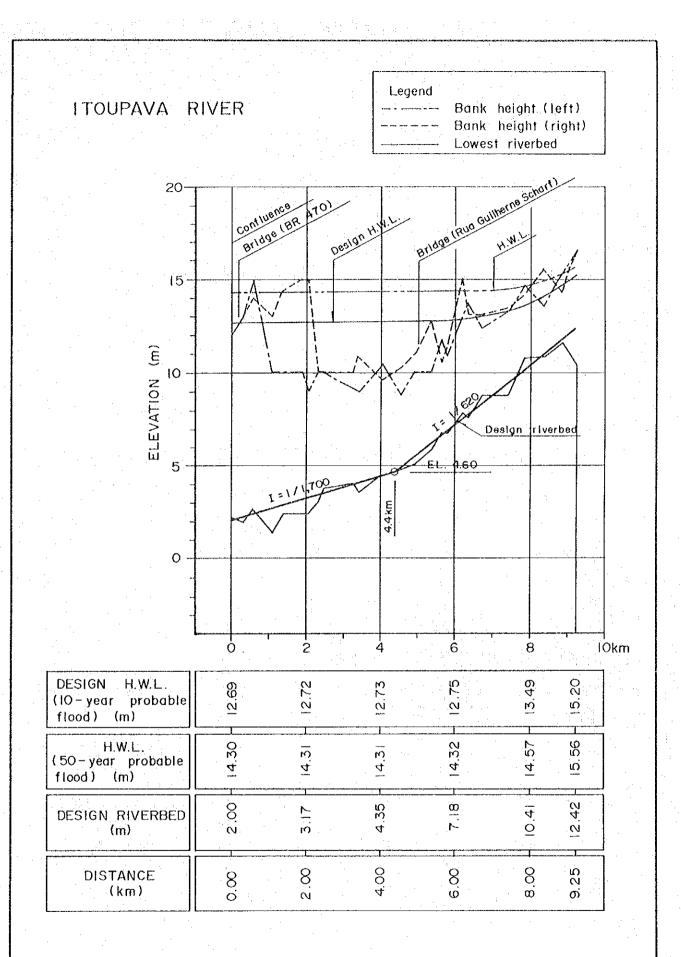
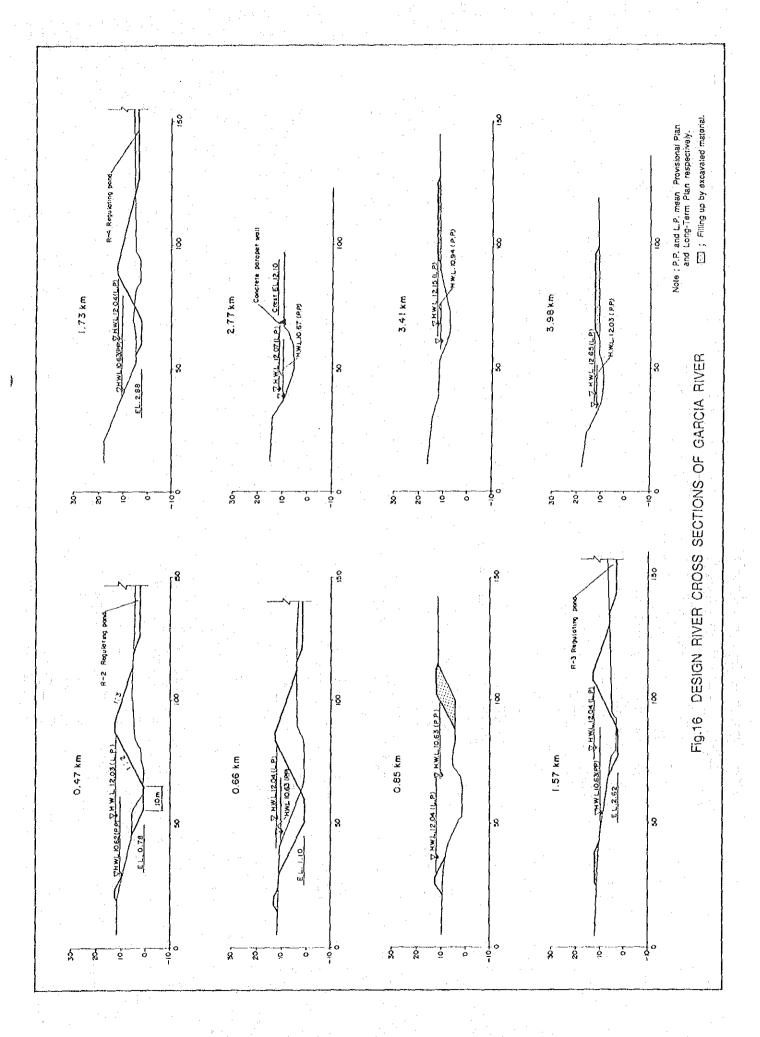
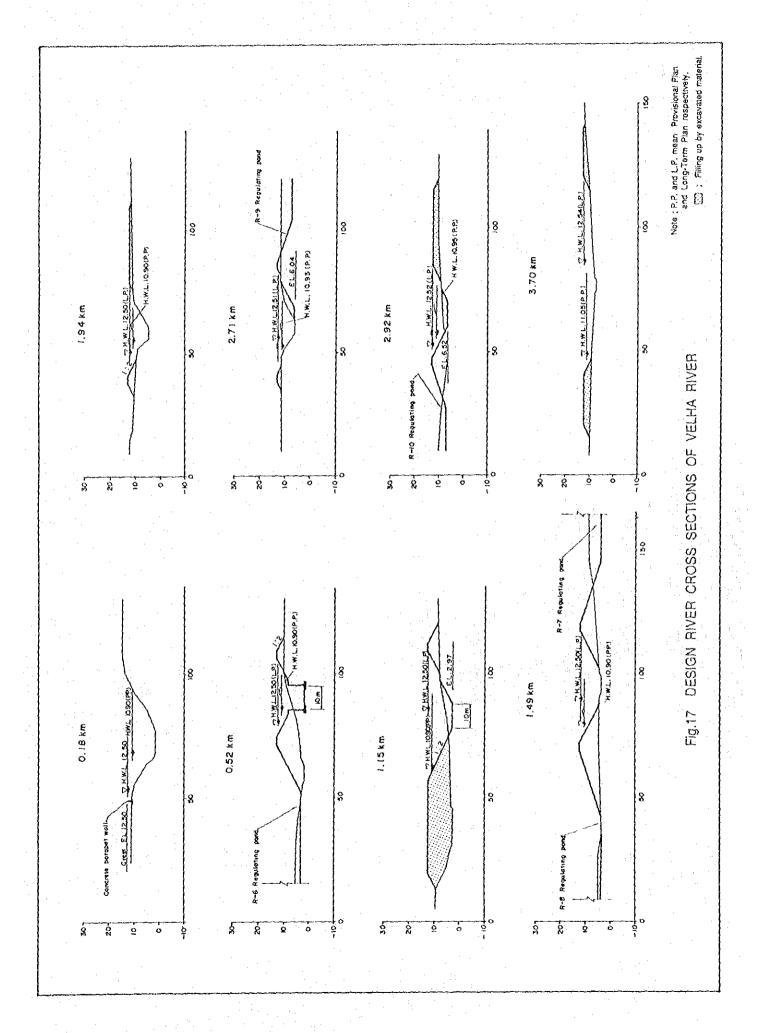
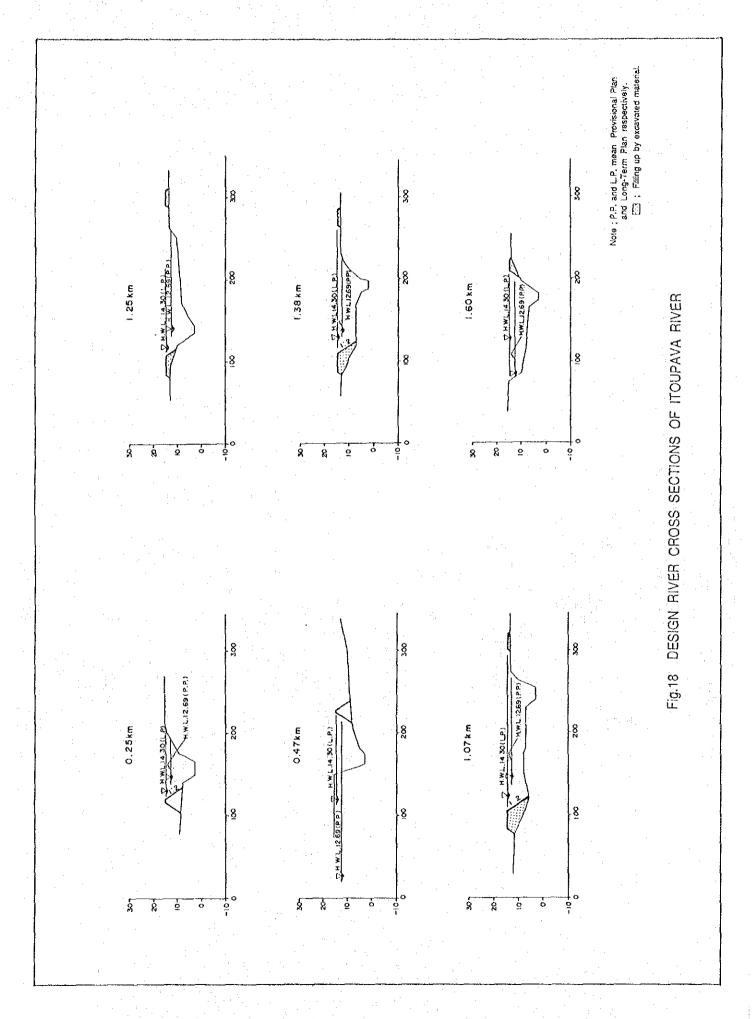
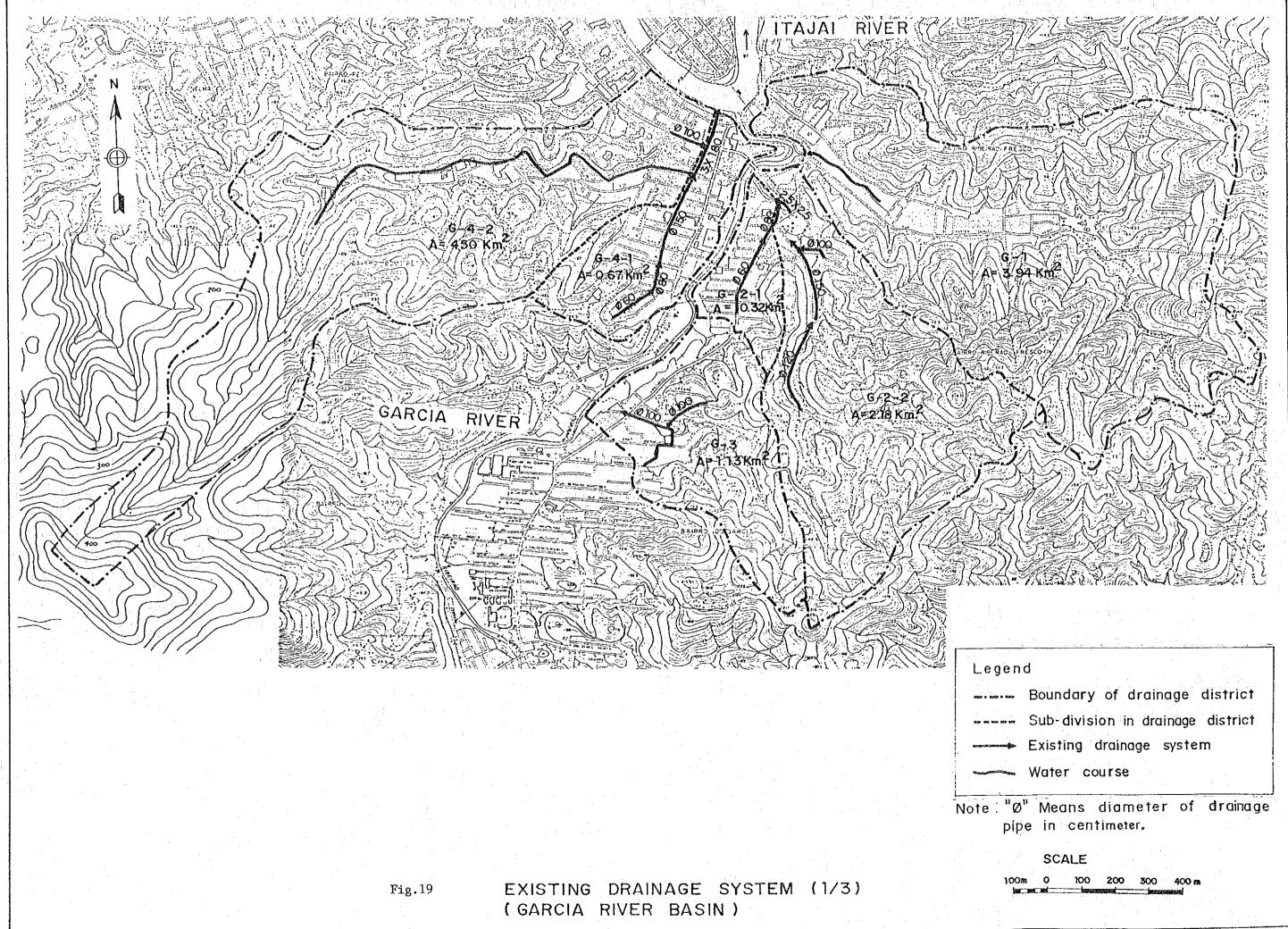


Fig.15 DESIGN LONGITUDINAL PROFILE OF MAIN TRIBUTARIES (3/3)









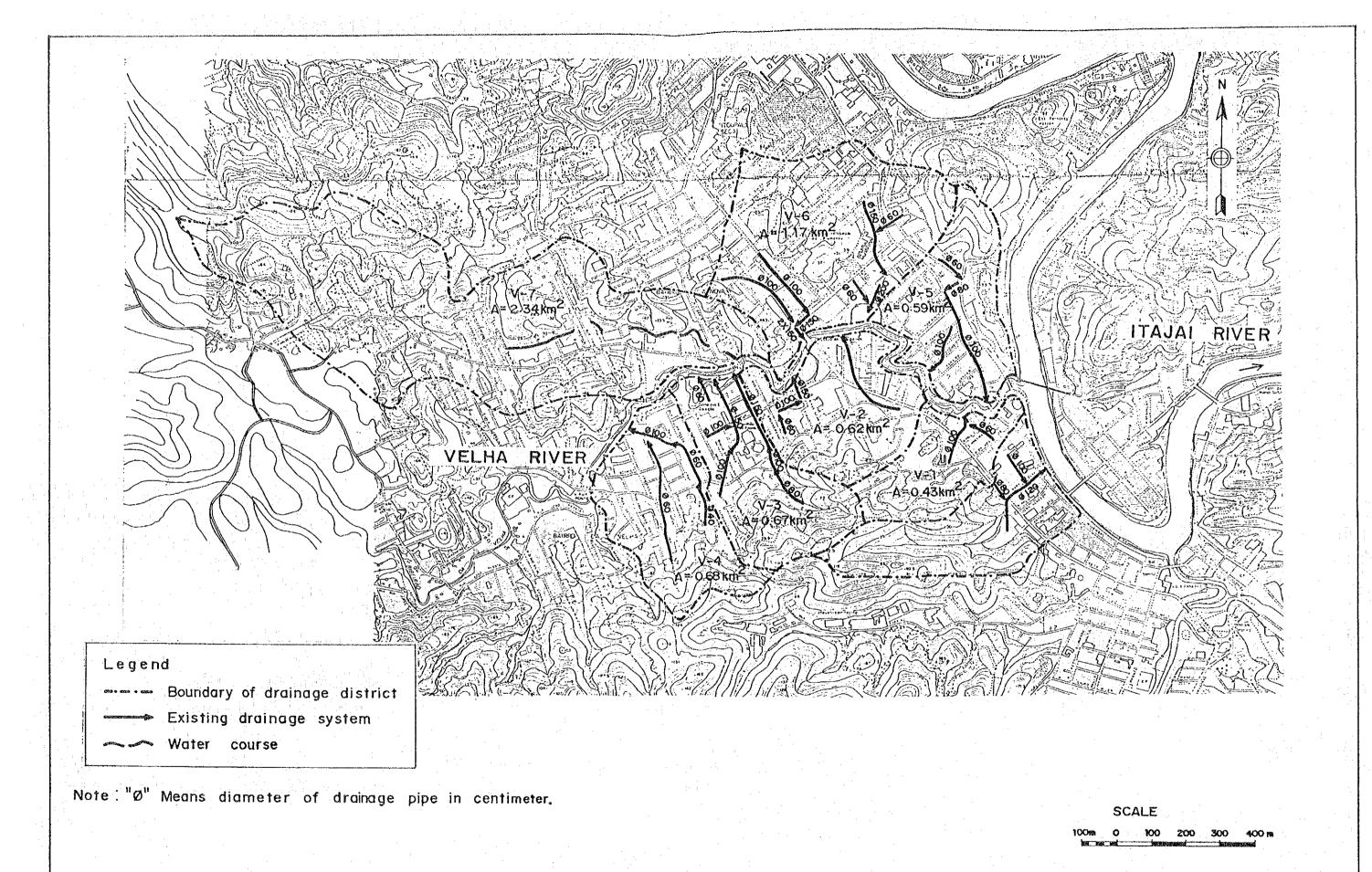
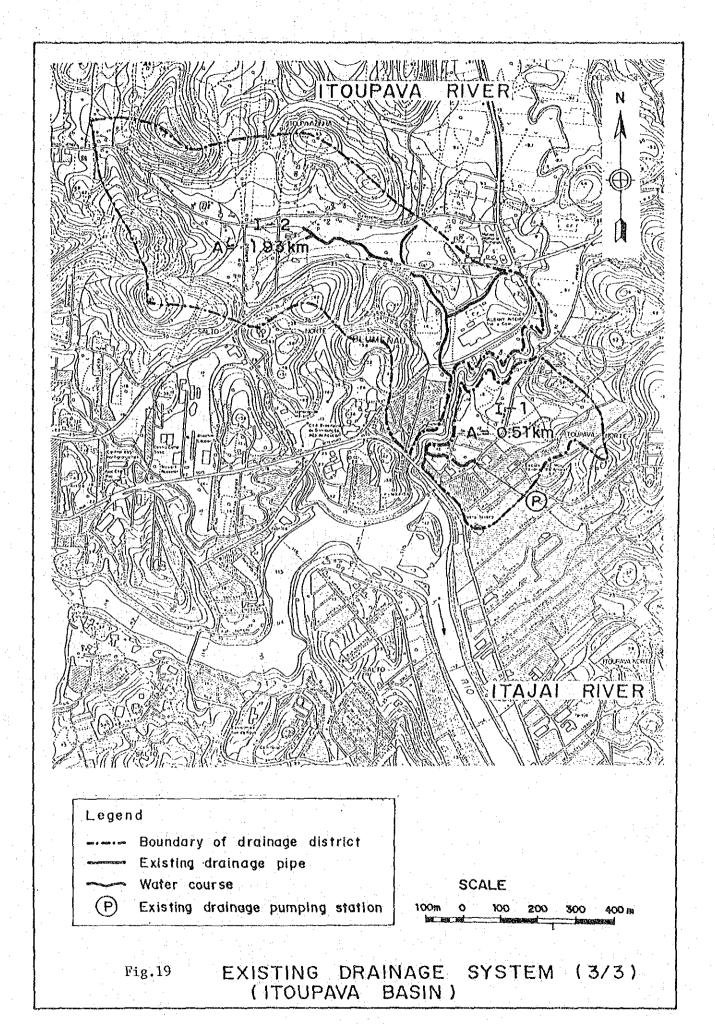
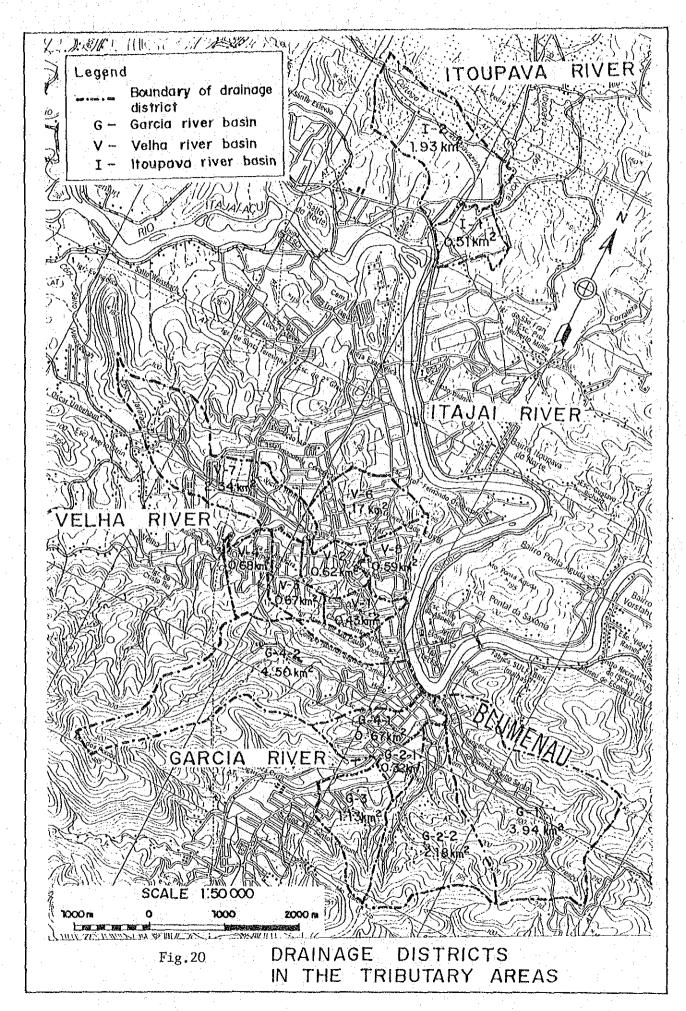
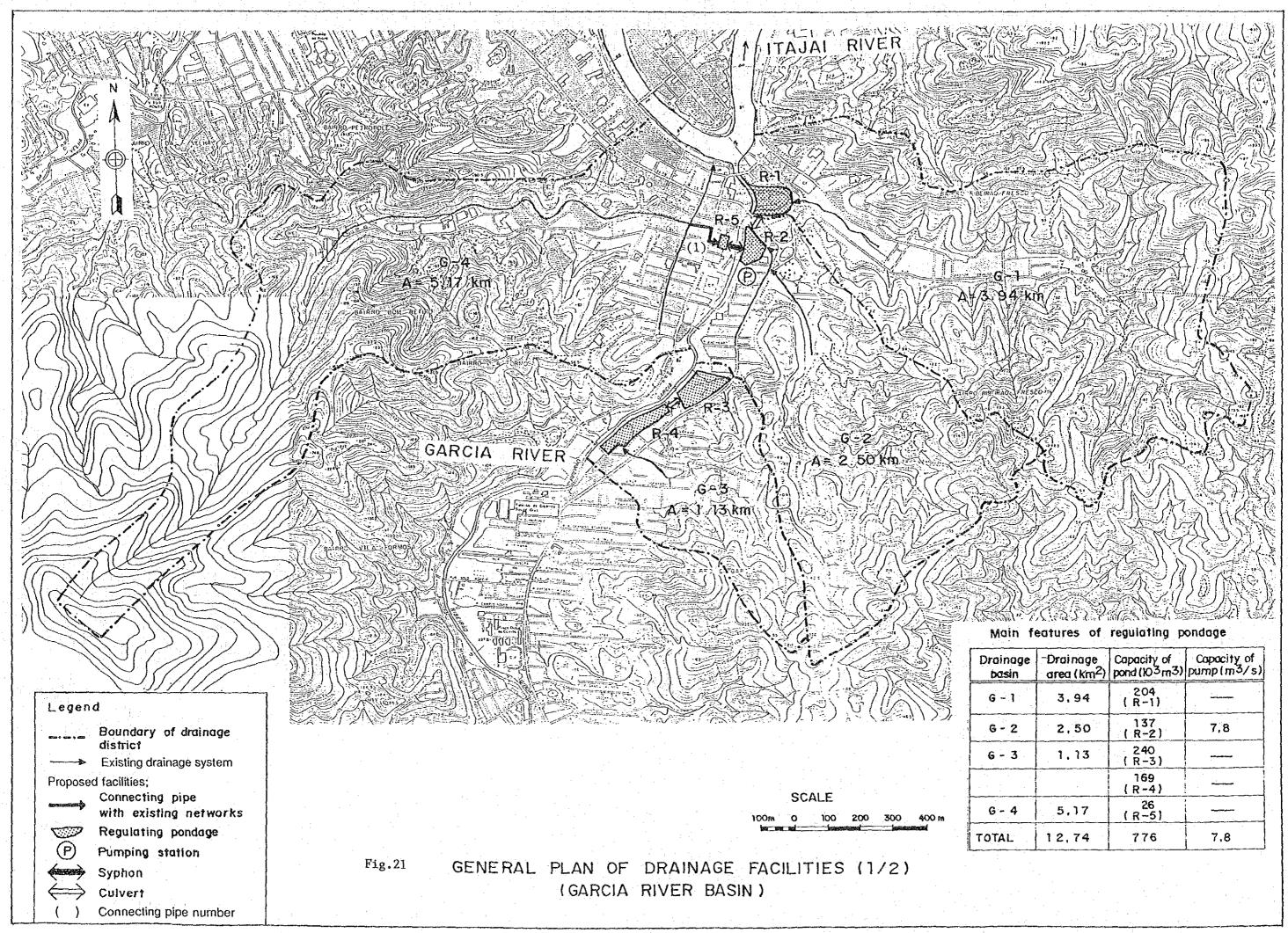
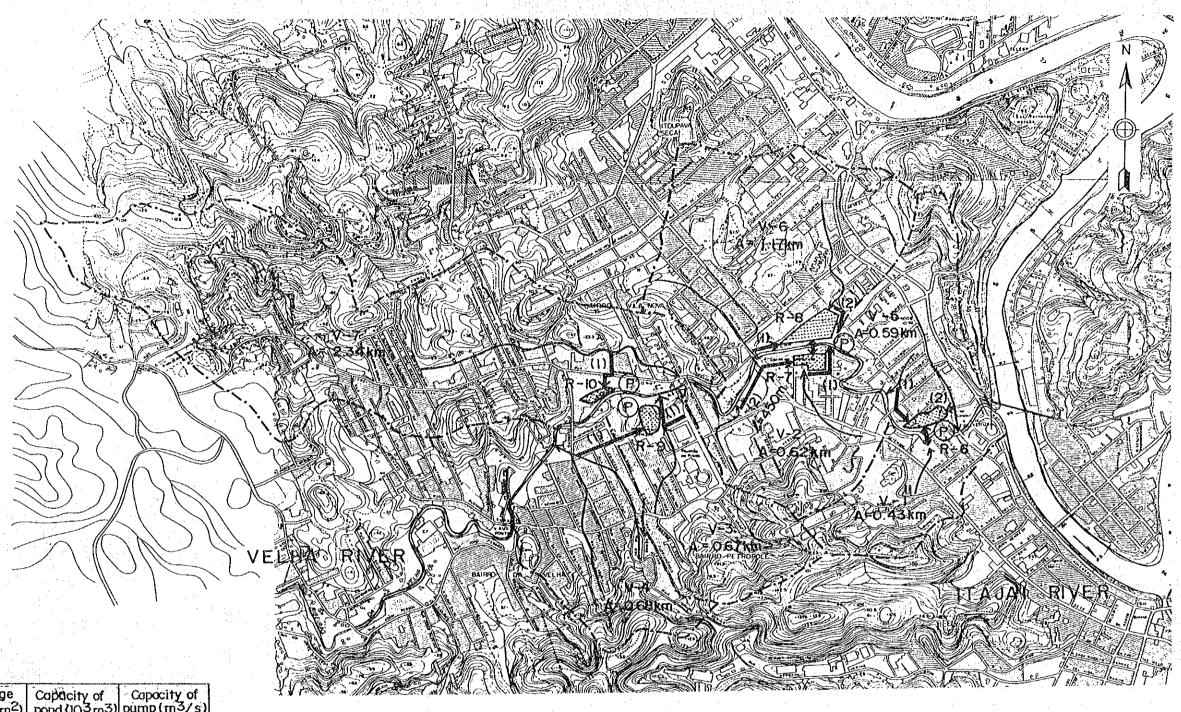


Fig.19 EXISTING DRAINAGE SYSTEM (2/3) (VELHA RIVER BASIN)





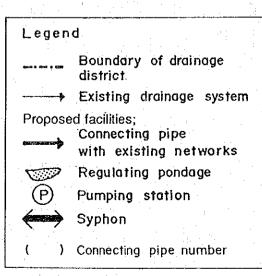


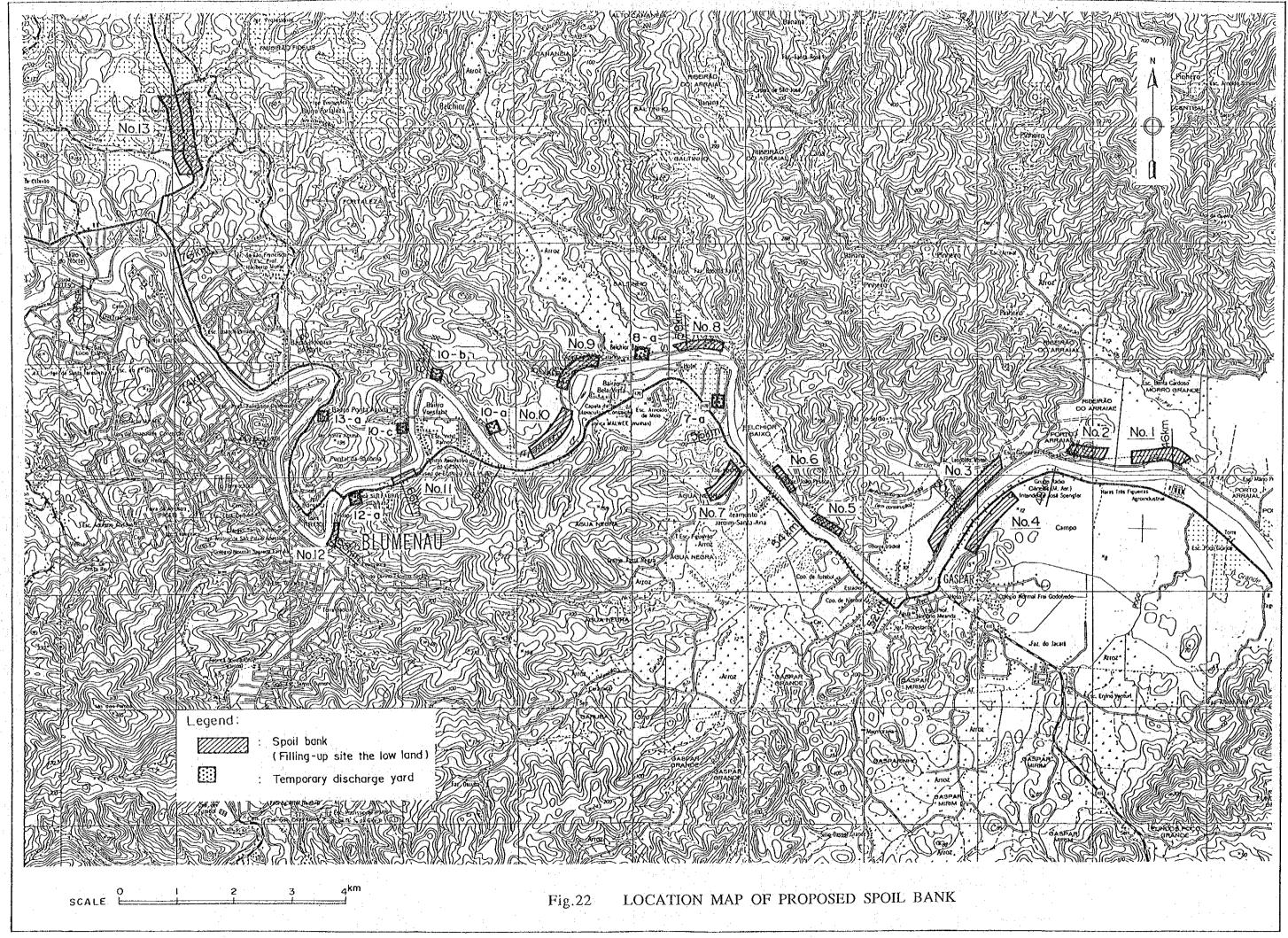


Drainage basin	Drainage area (km²)	Capacity of pond (103 m3)	Capacity of pump (m3/s)
V - I	0.43	descriptions	
V-2	0.62	101 (R-7)	
V-3	0.67	57 (R-9)	1.0
V-4	0.68		
V - 5	0.59	50 (R-6)	0.7
V-6	1.17	57 (R-8)	0.7
V - 7	2.34	(R-10)	4.0
Total	6.50	280	6.4

SCALE 100m 0 100 200 300 400 m

Fig.21 GENERAL PLAN OF DRAINAGE FACILITIES (2/2) (VELHA RIVER BASIN)





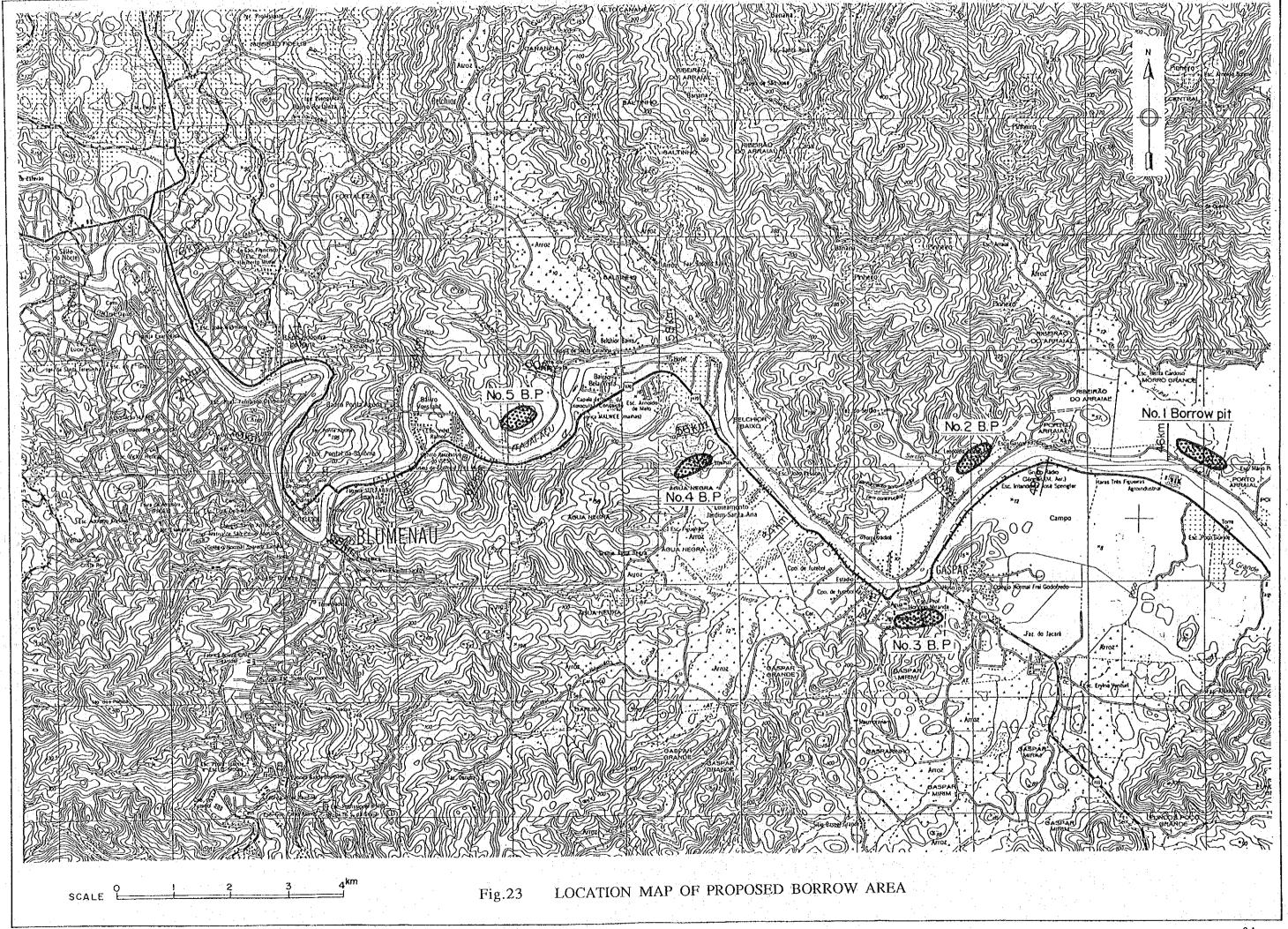


Fig.24 CONSTRUCTION TIME SCHEDULE

CONSTRUCTION ITEMS	UNIT	QUANTITY	1 ST YEAR						<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	2 ND YEAR									3 RD YEAR									4 TH YEAR											
			;	3	4 5	6	7	9 B	10	1 12	١	2 3	4	5	,	8	9	10	12		2	3	4 5	6	7	8	9	0 11	12	1 2	3	4	5	6	6	9	10	11	,
Prepareatory works			SCHOOL SEC	XX					:																									$oldsymbol{ol}}}}}}}}}}}}}}}}}}$					
. River improvement works																																							
<u>Itajai river</u>																																							
1. Dredging, channel	Cu·m	2,100,000					100		F05-23	5 650		22.49	C ASS	25.00	00 S	-			M 424	200		802E-02	455	W-2013	KEZ-	NEW 25	23.23		XEAR.		<b>100 TO</b>	200		-	and the same	<b>23353</b>	A55		
2. Excavation, channel	Cu·m	2,200,000	1 18	90.70	22002		2276	e e e e e		335 STATE		2200		75. T.	134135	200	(SAS)		68 PM S				<b>70.2</b> 752	<b>1969</b>	7773		123		247.0	-	200	2555	acers	2220	200		200	<u> </u>	
3. Levee embankment	Cu·m	130,000									П		7653		17.00		2262		2050			95500		6 22 3	848	62	1	$\top$	П	$\top$								Г	
4. Concrete parapet, 2 sites	m	620				65 FE			39	200	1000						$\Box$									:				$\Box$					I				_
5. Sodding	Sq·m	666,000					35	<b>49</b> 25533									5500 A			ANSE!		rree e		1000		33.A		<b>1</b>		SHEET ST	2000	COLUMN TO	1200				3343	eser.	4
6. Flood diversion channel	m	2,550		922				30							es kius			<b>111</b>	12,000		3 T S					22.00			000	1935		П			$\perp$			L	_[
7. Bridge, $L = 100m$ , $W = 9m$	Set	1		West.	16 P. 18 P.		1112		- SEE		1657.46			<b>572.33</b>	AND THE	455E	53.0k	90 B	87 PAN					<u> </u>									$\perp$		$\perp$			L	٠
8. New road. W = 4m	m	3,850		2500	2200		<b>3227</b>	83							$\perp$				$\perp$				1			Ŀ							1		1		Ш	L	
9. Relocation road. W = 4m	m	1,500						222		22.0									1	Ш	$\perp$			1_			⅃				$\perp$	$\sqcup$				<u> </u>	Ш	_	
<u>Tributaries</u>																			.   1.1											. :	1								
10. Channel excavation	Cu·m	55,000								+		+			+		-	1	+	H	十	+	+	+	$\vdash$	1	+	$\dagger$			+-		+	+	+-	+	H	一	1
11. Levee embankment	Cu·m	150,000	1-1-	-1							2020		2 22	- S-27 S2		028	35.33	200	X (200)			1		†	$\Box$	1	$\top$	$\top$	$\Box$	-	1		十		+				-
12. Filling-up, low bank	Cu·m	290,000				520000		F 25		<b>128</b> 282		420 64				<b>SOURCE</b> 1		633957	52000		-	7		1		1	十	1			1	$\Box$		-	1		П	Г	
13. Concrete parapet, 2 sites	m	290		11		1		11	$\top$		П	十				S 270	1			П	寸	┰	十	†			$\top$	1							1	$\Box$		Г	1
14. Sodding	Sn·m	95,000				1		11									1			1	478.4	220			<b>16.35</b>		7	1	П	7	1								1
15. Sluice	Site	2			$\top$			11							$\top$		-			2000	<b>E</b>		12.01	1				1		$\top$	1			1	1				1
16. Revetment	Salm	710			1	$\top$		$\top$				$\top$			1			1		П			B)234	<b>199</b>	23263			:									11		1
17. Heightening of existing bridges	Site	11			$\top$			77		$\top$	****	<b>5.1 2.3</b>				1			12.53				22		200	200		5025			T	$\sqcap$			T	П	П	F	I
					T						П				7		$\neg$	7		Π				Τ	П	$\top$	T			T				Т	T		П	Γ	I
II. Urban drainage Works															1					П														$\Box$	I				I
Regulating pond	Place	10								2425				557007	12		13133		0.65		9992	923										$\Box$	$\perp$		I				I
2. Inverted syphon	Place	3											100	100	15 55 52	35 a 17																	$\perp$	$\perp$					I
3. Connecting pipe the ponds	Place	2				1											<b>7</b>		<b>28</b>																				1
4. Drainage pipe	Place	3							$\perp$										2939			300				L				$\perp$					$\perp$			L	1
5. T-wall, reversed	Place	1			225	20.11 m	200	<b>35</b>											. [ :														Ŀ					_	1
6. Pumping station	1.4																														'	<u></u>							1
1) Civil work	Lot .	1																<b>10</b> 23						322		<b>S</b>		Ш					$\perp$			Ш		<u> </u>	1
2) Hydro-mechanical Work	Lot	1								$\perp$							$\perp$				$\Box$						$\perp$		<b>339</b> 8	20.03	***	200	200	<b>S</b>		$\sqcup$	Ш	<u> </u>	1
3) Building Work	Lot	1		$\perp \perp$		$\perp$			1	$\perp$														273	200	#24 772 					Ψ'	$\perp \perp$			1_			<u> </u>	1
7. Revetment	Sq·m	13,540		$\perp \perp$	$\bot$			44		$\perp \downarrow$												82	13/44		0.5	***			03513 E		<b>2</b>		<b>277</b>	# CO	Marie 1				1
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