
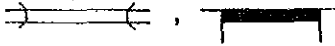

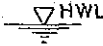



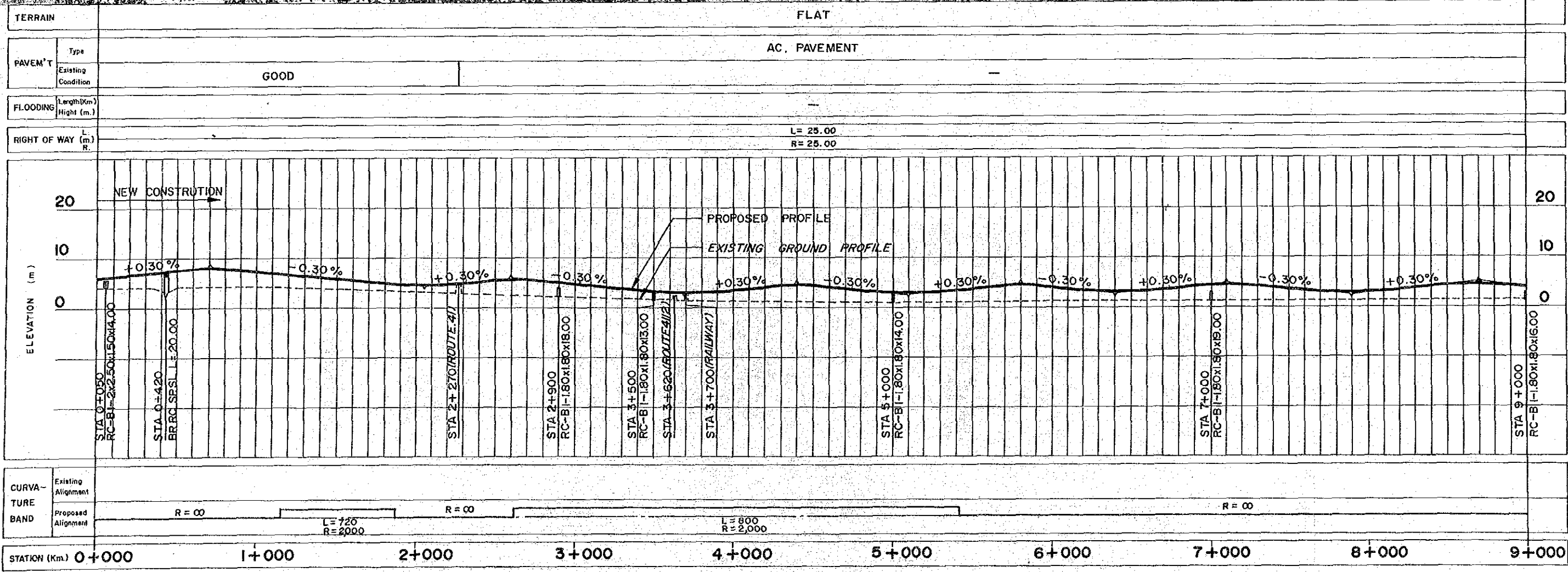
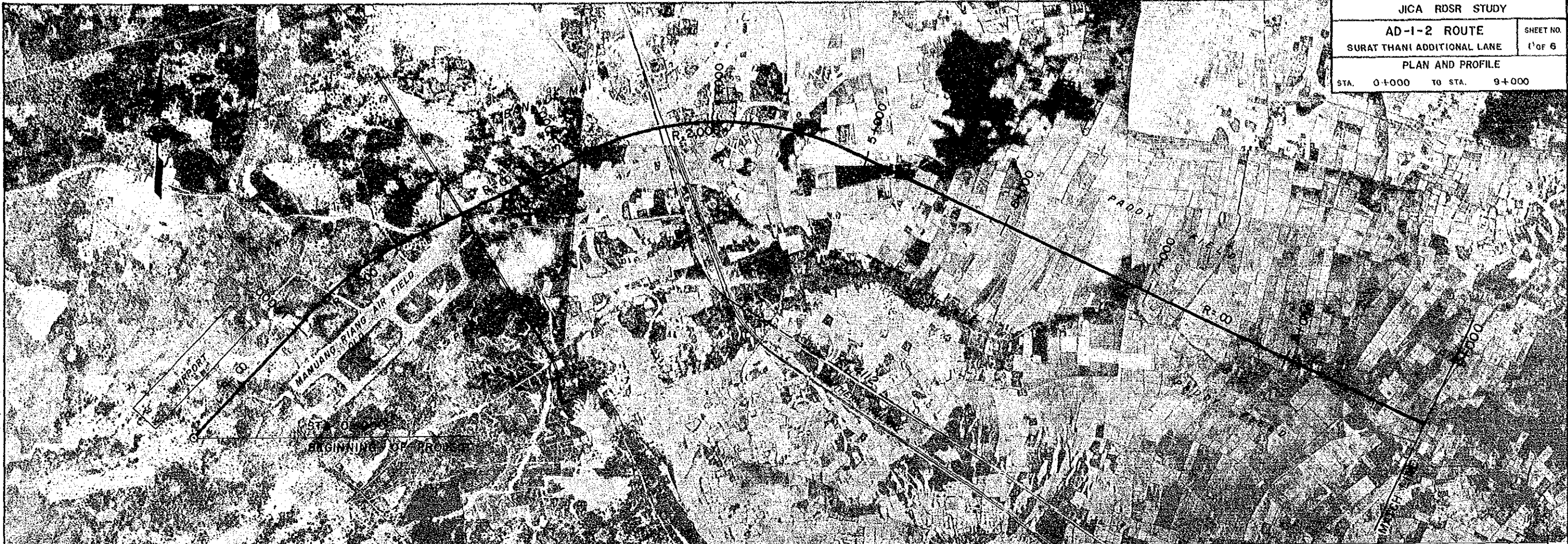
2) AD-1-2
Drawing

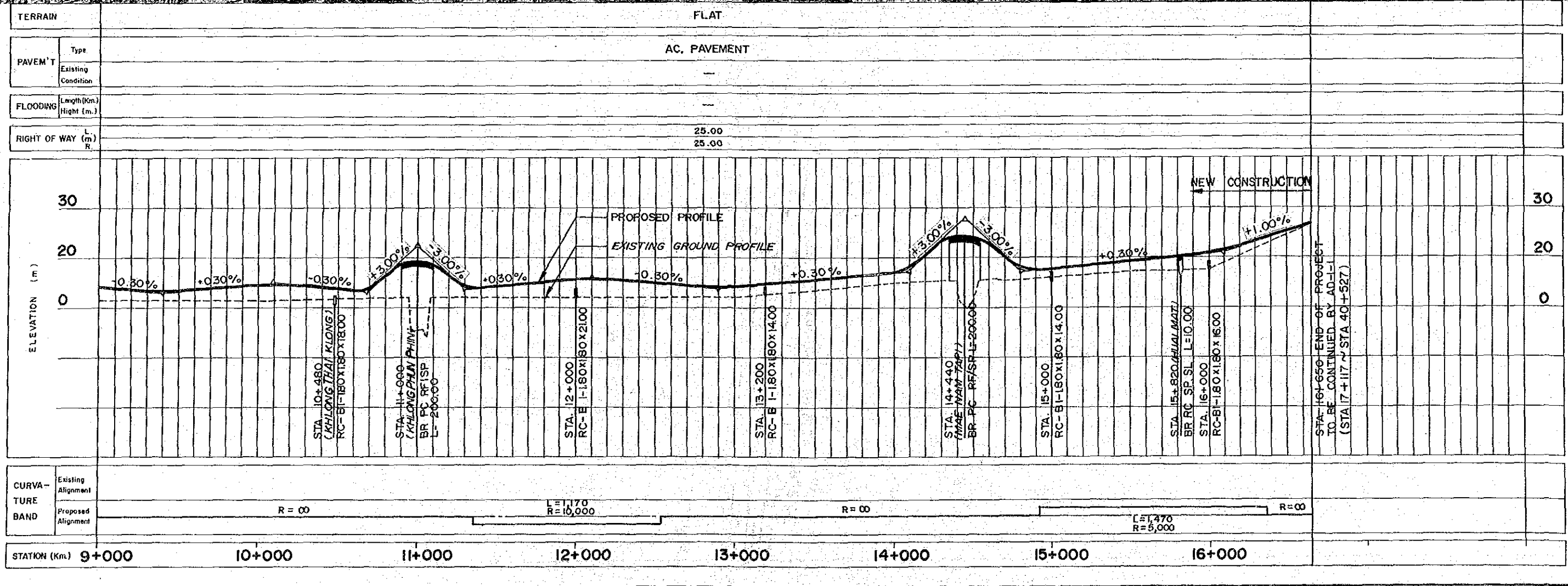
SHEET NO. LIST OF DRAWINGS

- 1. - 2. Plan and Profile
- 3. Plan of Intersection
- 4. (A) Reinforced Concrete Slab Bridge
- 5. (B) Bridge for Khlong Phunphin
- 6. (C) Bridge for Ma Nam Ta Pi

ABBREVIATION AND SYMBOLS FOR PROFILE AND PLAN

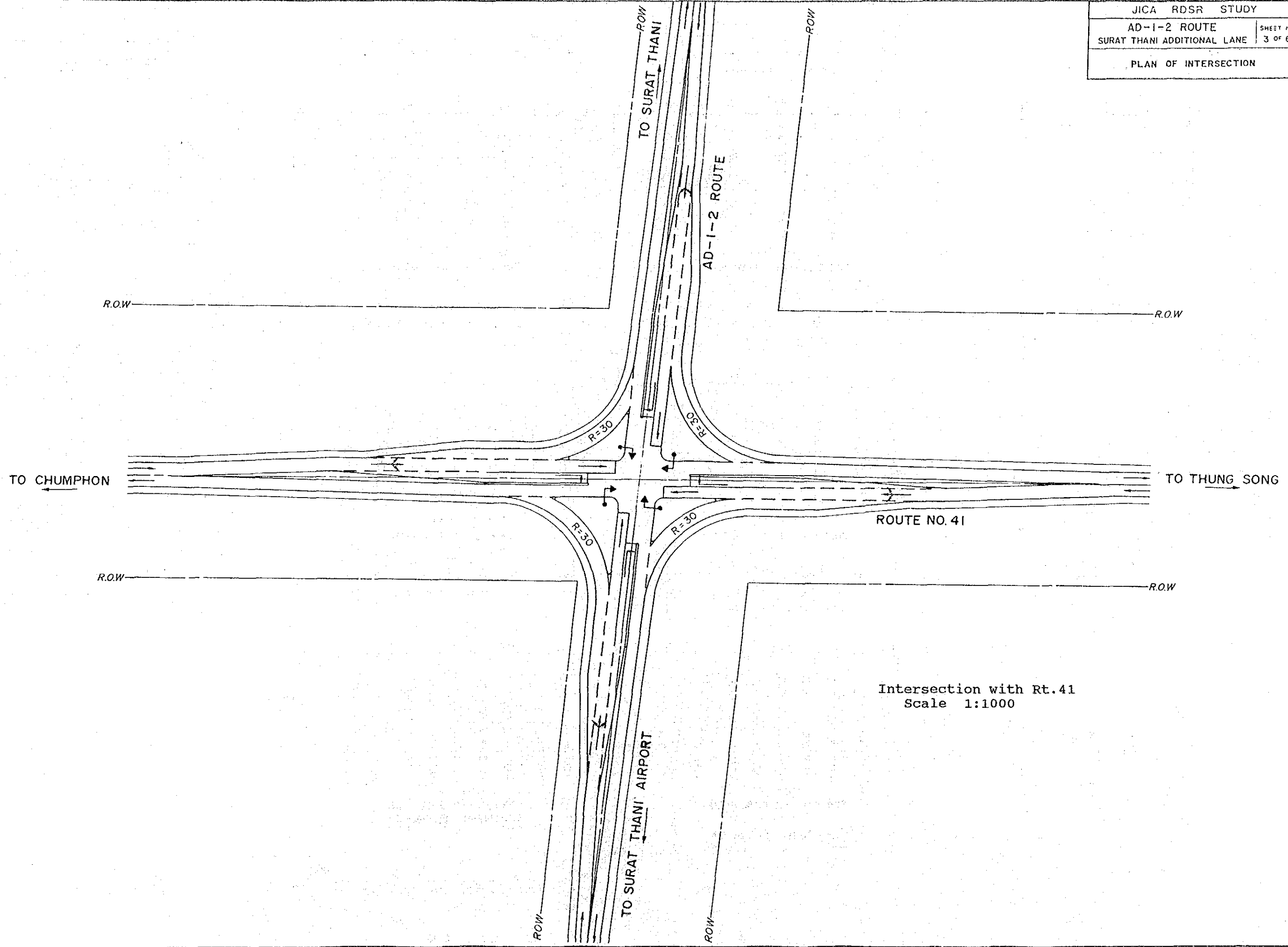
-  : Alignment of Proposed Route
-  : Proposed Bridge
-  : Proposed Box Culvert
-  : High Water Level
-  : Water Level
- No. : Number
- R : Radius of Curvature
- L : Length of Curve
- BR.RC.SP.SL L : Reinforced Concrete Bridge (Bridge Length)
- BR.PC.GRDR L : Prestressed Concrete Bridge (Bridge Length)
- BR.ST.SP.TR L : Steel Bridge (Bridge Length)
- RC-B m - n x a x b x i : Box Culvert (No. of Locations - No. of Cells x Clear Span x Depth x Length)



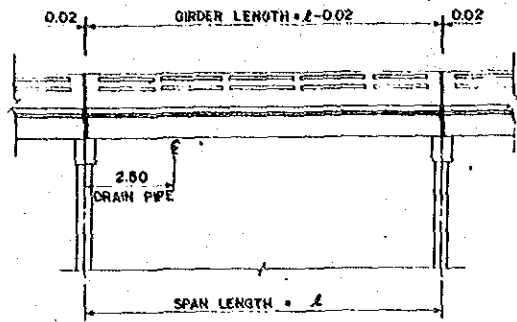


STA 16+650 END OF PROJECT TO BE CONTINUED BY AD-1-1 (STA 17+117 ~ STA 40+527)

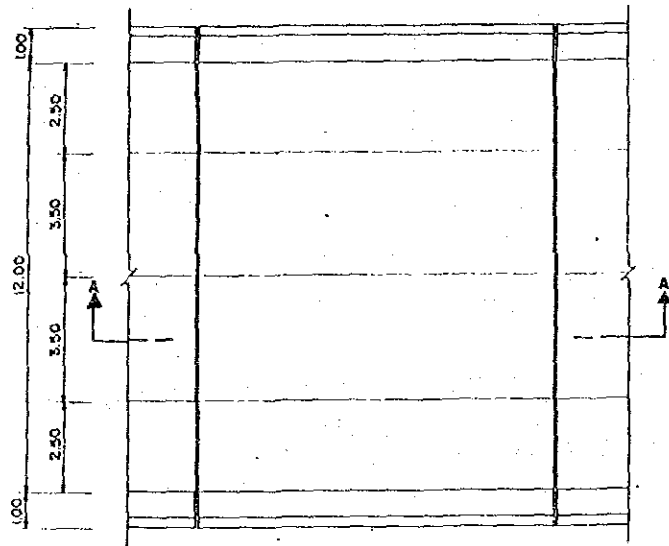
JICA RDSR STUDY	
AD-1-2 ROUTE	SHEET NO
SURAT THANI ADDITIONAL LANE	3 OF 6
PLAN OF INTERSECTION	



Intersection with Rt.41
Scale 1:1000

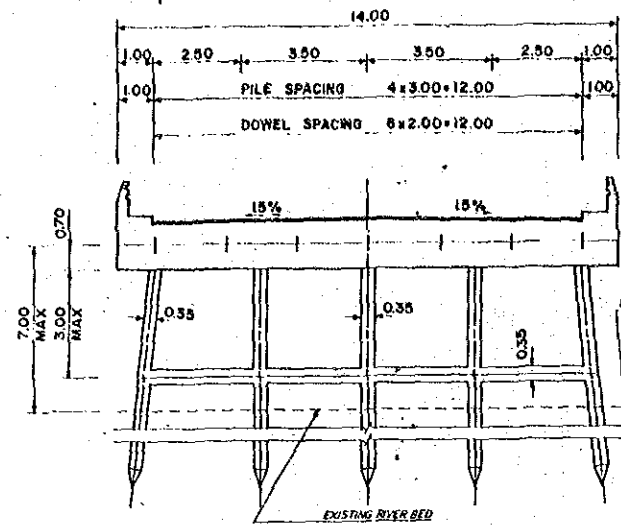


SECTION A-A
 SCALE 1:200

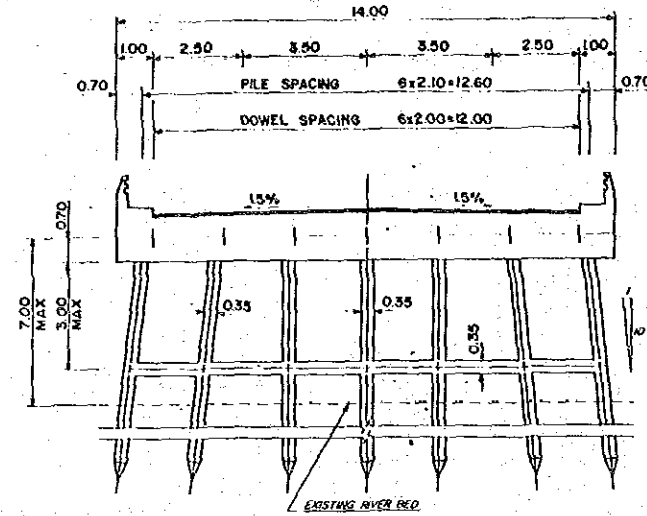


PLAN
 SCALE 1:200

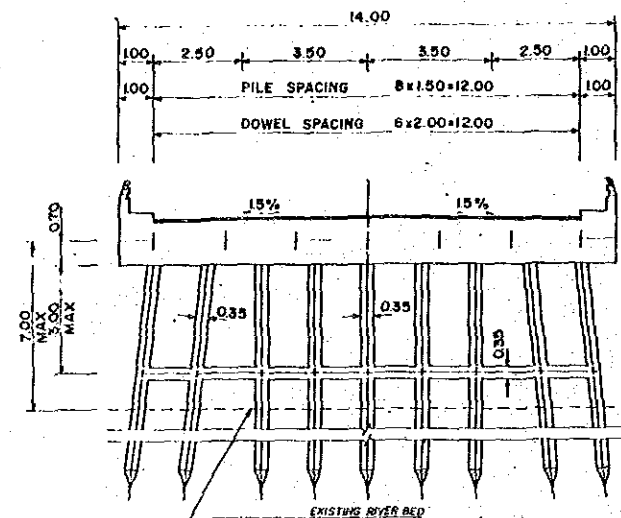
LIST OF BRIDGES	
STATION	SPAN AND LENGTH (m)
0+420	3 x 7.00 = 21.00
15+820	1 x 10.00 = 10.00



FOR 5.00-6.00M. SPAN

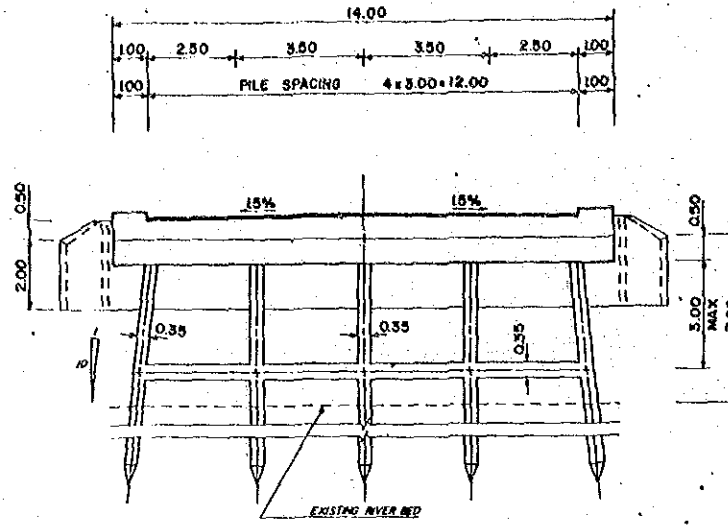


FOR 7.00-8.00M. SPAN

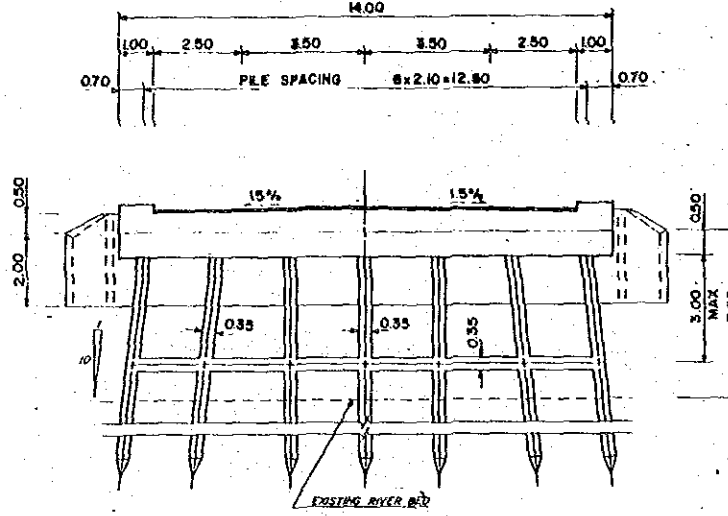


FOR 9.00-10.00M. SPAN

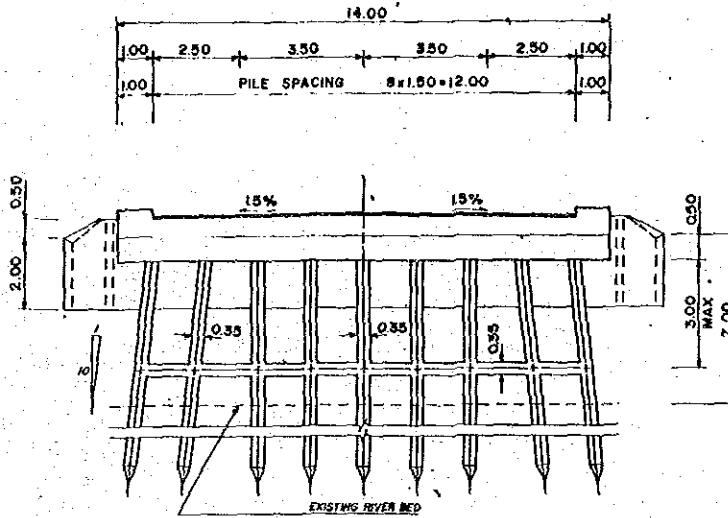
PILE BENT ELEVATION
 SCALE 1:200



FOR 5.00-6.00M. SPAN

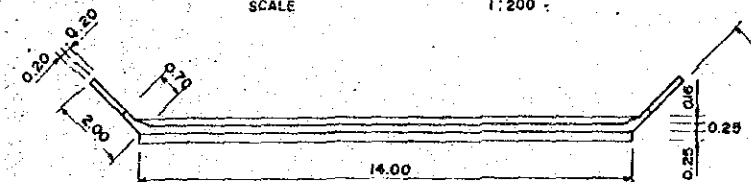


FOR 7.00-8.00M. SPAN



FOR 9.00-10.00M. SPAN

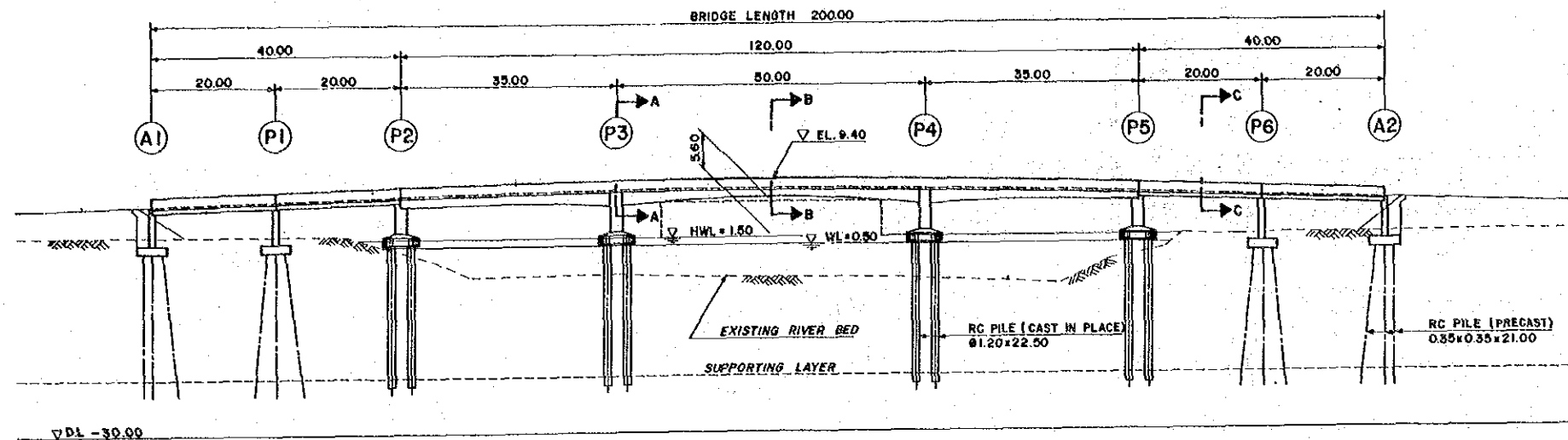
ABUTMENT ELEVATION
 SCALE 1:200



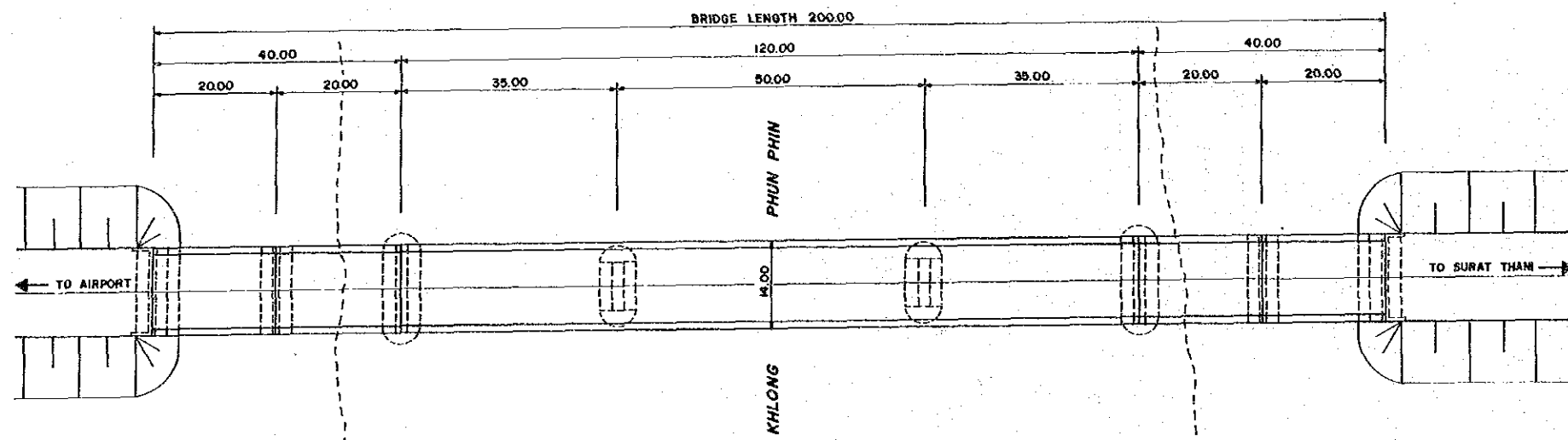
PLAN
 SCALE 1:200

NOTES :

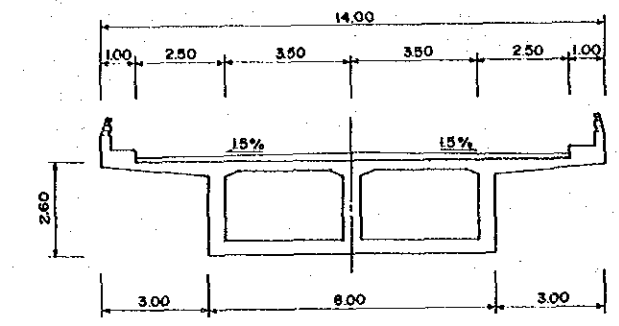
- DESIGN STRESSES :
 a) CONCRETE, $f_c = 70$ KSC.
 b) STEEL, $f_s = 1,400$ KSC. (INTERMEDIATE GRADE)
 $f_s = 1,200$ KSC. (STRUCTURAL GRADE)
- CONCRETE SHALL HAVE MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 210 KG/CM^2 FOR $.15 \times .15 \times .15$ CUBE AT 28 DAYS. AND APPROXIMATE MIX DESIGN PER CUBIC METER IS SUGGESTED AS FOLLOWS :
 PORTLAND CEMENT, MIN. 350 KG.
 SAND 0.43 M³
 CRUSHED ROCK OR GRAVEL 0.86 M³
 CONCRETE SLUMP, MAX 10 CM.
- CLEAR CONCRETE COVER FOR TOP REINFORCEMENT IN SLAB BRIDGE SHALL BE 3.5 CM. ELSEWHERE OF SLAB BRIDGE AND SIDEWALK SHALL BE 2.5 CM.
- ALL CONCRETE EXPOSED CORNERS SHALL HAVE 2 CM. CHAMFER UNLESS OTHERWISE INDICATED.
- REBARS #4 OR LARGER SHALL BE INTERMEDIATE GRADE DEFORMED BARS, OTHERS SHALL BE STRUCTURAL GRADE PLAIN BARS UNLESS OTHERWISE INDICATED.
- LOCATIONS OF LAP SPICE OF REBARS SHALL BE APPROVED BY THE ENGINEER.
- LAP LENGTH SHALL NOT BE LESS THAN 40 DIAMETERS OF BIGGER BAR IN CASE OF PLAIN BARS AND 24 DIAMETERS OF BIGGER BAR FOR DEFORMED BARS.
- IN CASE OF SALINE PROTECTION, HIGH SULPHATE RESISTANT PORTLAND CEMENT TYPE 3 CONFORMED TO AASHIIO SPECIFICATIONS SHALL BE USED AND ADDITIONAL CONCRETE COVER OF 2.5 CM. FROM NORMAL CASE ALL AROUND SHALL BE PROVIDED WITHOUT ALTERING THE LOCATIONS OF REBARS.
- ALL MATERIALS SHALL BE USED UNDER THE APPROVAL OF THE ENGINEER.
- PAINTING SHALL BE PROVIDED ON ALL SURFACES AT BRIDGE ENDS WHICH EXPOSED TO TRAFFIC. WHITE AND BLACK COLOUR SHALL BE PAINTED ALTERNATELY. WHITE COLOUR SHALL BE LIGHT REFLECTED TYPE.
- ALL DIMENSIONS SHOWN ARE IN METERS UNLESS OTHERWISE INDICATED.
- BAR MARK #101 MAY BE TAKEN OUT ONE BAR ON EACH SIDE OF THE BRIDGE WHEREVER THEY PASS THROUGH DRAIN PIPES. IF THE LOCATIONS OF THESE BARS ARE NEAR V-DROP SUCH THAT CONCRETE COVER IS NOT ADEQUATE, THEY SHALL BE PLACED ON TOP OF ST 101. OTHER BARS WHICH PASS THROUGH DRAIN PIPES SHALL BE BENT ALONG THE PIPES.
- ALL PIERS WHICH DO NOT HAVE LOG PROTECTION WALLS SHALL BE HAUNCH UNDER THE TOP CROSS BRACING.
- IF ANY NOTES ON THE DRAWINGS OF PIERS CONTRADICT THE NOTES ON THIS DRAWING, THEY WILL BE SUPERSEDED BY THESE NOTES.
- THIS DRAWING IS ADAPTED FROM DOH DWG NO. 3 AUS-106-14/JA IN CASE OF ANY DISCREPANCY BETWEEN SUCH DRAWINGS ARISES, THE DOH STANDARD DRAWING WILL PREVAIL UNDER THE APPROVAL OF THE ENGINEER.



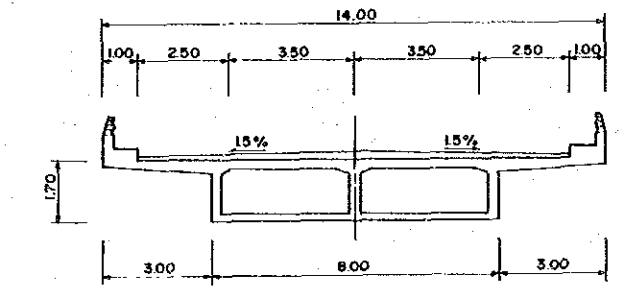
ELEVATION
 SCALE 1:1,000



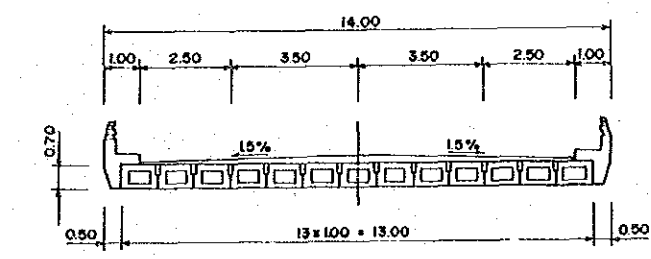
PLAN
 SCALE 1:1,000



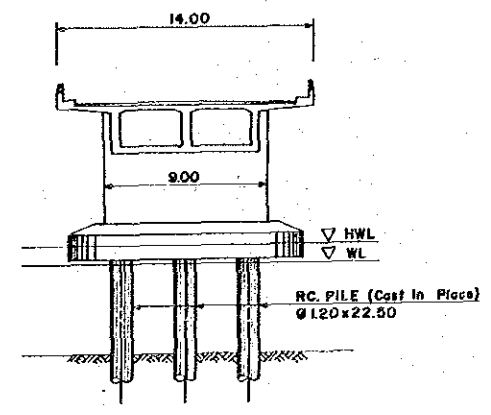
SECTION A-A
 SCALE 1:200



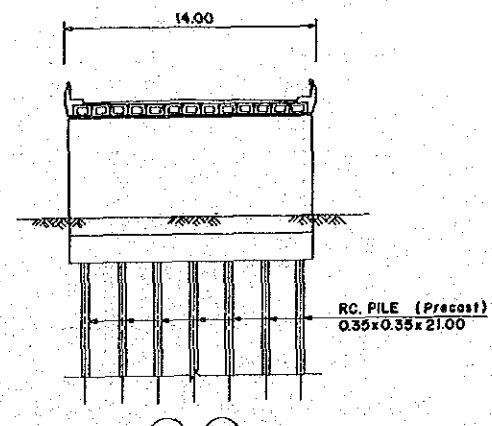
SECTION B-B
 SCALE 1:200



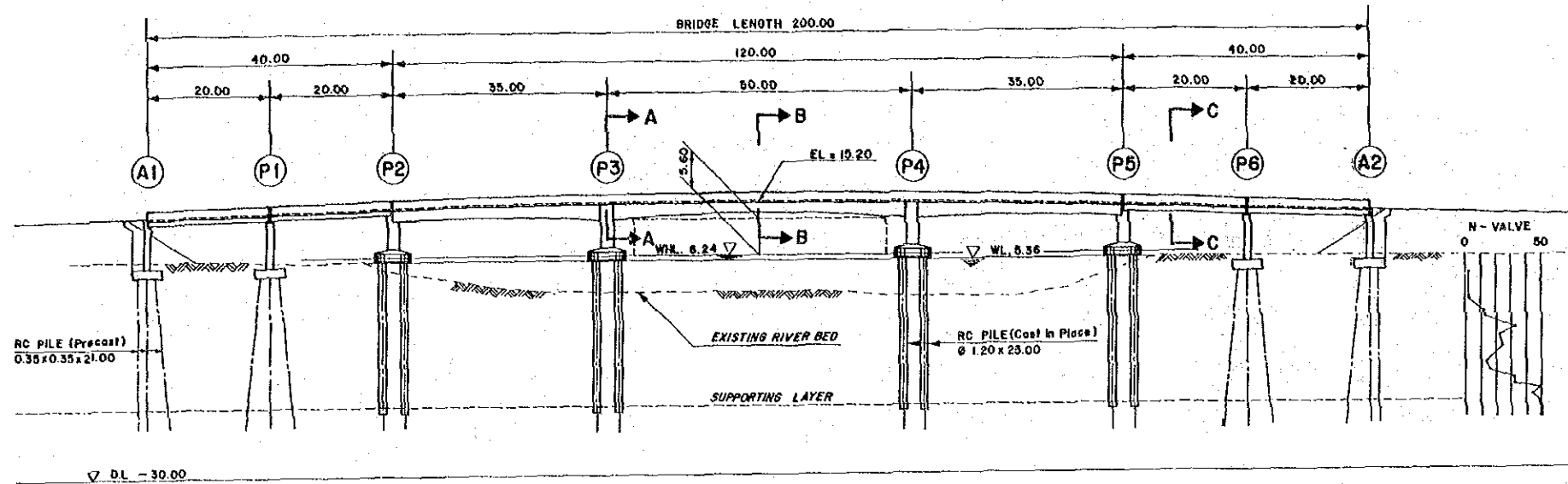
SECTION C-C
 SCALE 1:200



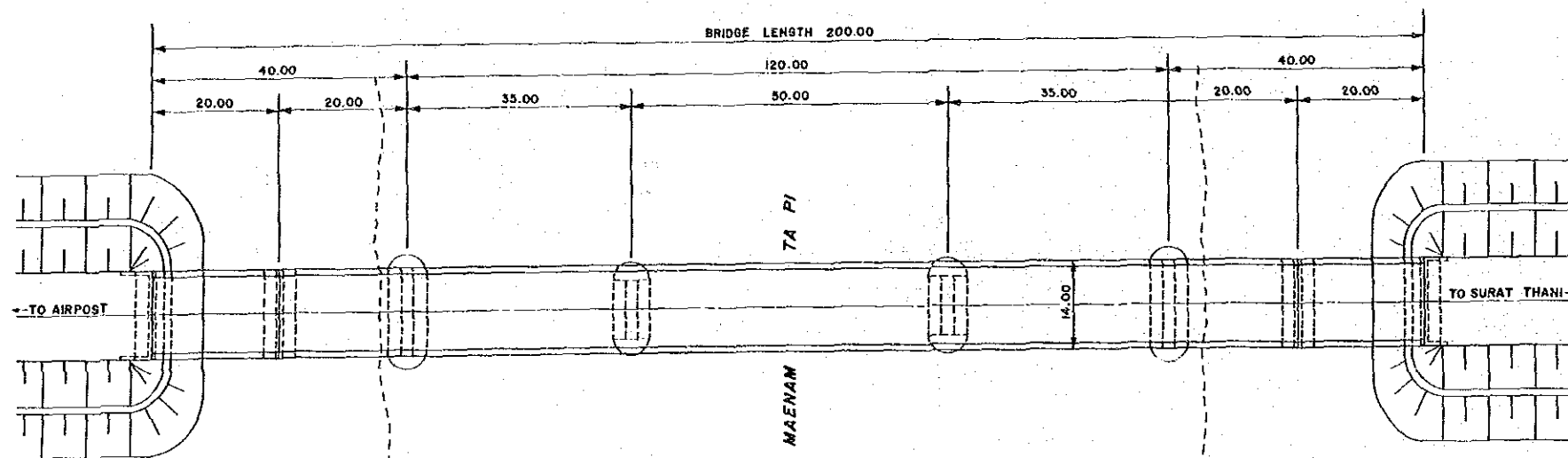
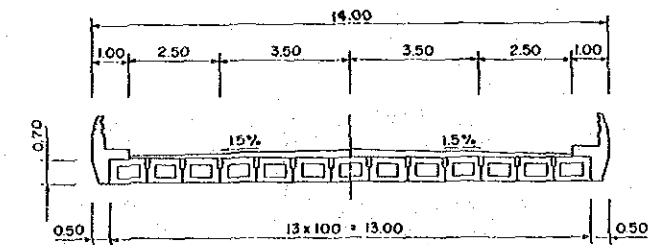
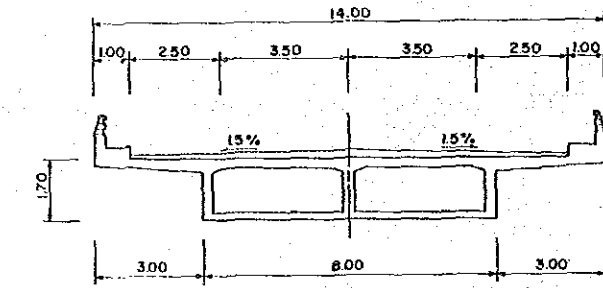
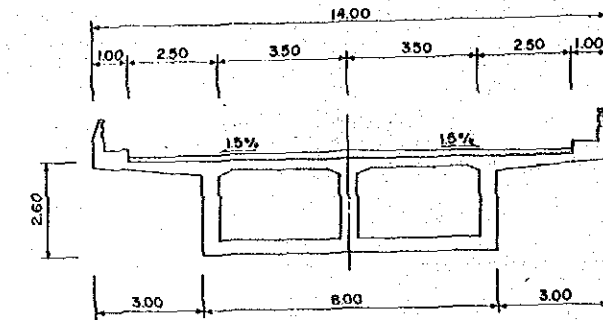
(P3), (P4)
 FRONT ELEVATION
 SCALE 1:400



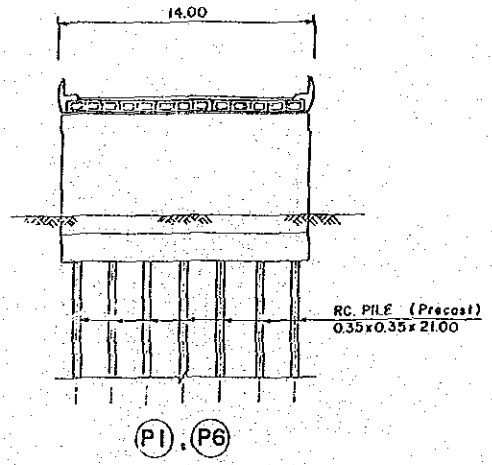
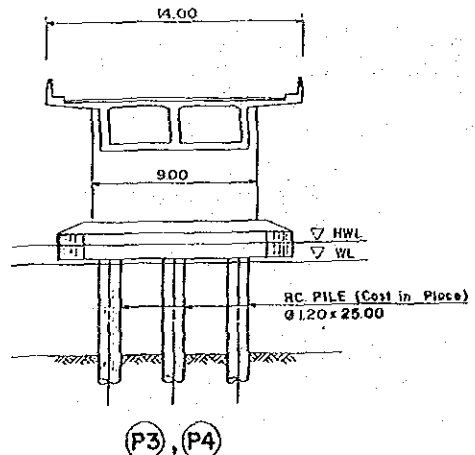
(P1), (P6)
 FRONT ELEVATION
 SCALE 1:400



ELEVATION
 SCALE 1:1,000



PLAN
 SCALE 1:1,000



FRONT ELEVATION
 SCALE 1:400

FRONT ELEVATION
 SCALE 1:400

List of culvert

LIST OF BOX AND PIPE CULVERT

STATION	CULVERT TYPE	CULVERT SIZE (m)		NO. of LOCATIONS	CULVERT LENGTH (m)		
		PIPE	BOX		EXISTING	EXTENDED CONST-RUCTION	NEW CONST-RUCTION
		NO. of ROW x DIAMETER	NO. of CELLS (CLEAR SPAN x DEPTH)				
0+000-2+250	Pipe	1xØ0.60		11			19.0
0+050	Box		2(2.50x1.50)	1			14.0
2+250-3+600	Pipe	1xØ1.00		2			20.0
	Pipe	1xØ0.60		3			20.0
2+900	Box		1(1.80x1.80)	1			18.0
3+500	Box		1(1.80x1.80)	1			13.0
3+600-9+850	Pipe	1xØ1.00		10			24.0
	Pipe	1xØ0.80		9			24.0
	Pipe	1xØ0.60		8			24.0
	Pipe	1xØ1.20		2			24.0
5+000	Box		1(1.80x1.80)	1			14.0
7+000	Box		1(1.80x1.80)	1			19.0
9+000	Box		1(1.80x1.80)	1			16.0
9+850-10+950	Pipe	1xØ1.00		1			18.0
	Pipe	1xØ0.60		4			18.0
10+480	Box		1(1.80x1.80)	1			18.0
11+050-14+400	Pipe	1xØ1.20		2			20.0
	Pipe	1xØ1.00		8			20.0
	Pipe	1xØ0.60		5			20.0
12+000	Box		1(1.80x1.80)	1			21.0
13+200	Box		1(1.80x1.80)	1			14.0
14+500-16+700	Pipe	1xØ1.00		4			20.0
	Pipe	1xØ0.80		5			20.0
15+000	Box		1(1.80x1.80)	1			14.0
16+000	Box		1(1.80x1.80)	1			16.0
17+192	Pipe	1xØ0.60		2	20.0	1.0	19.0
17+192	Pipe	1xØ0.60		2	22.0	1.0	21.0
17+295	Pipe	2xØ1.00		2	25.0	1.0	25.0
17+573	Pipe	1xØ1.00		2	24.0	1.0	23.0
17+817	Pipe	1xØ0.80		2	19.0	1.0	18.0
18+255	Pipe	1xØ0.60		2	18.0	1.0	17.0
18+469	Pipe	1xØ0.80		2	19.0	1.0	18.0
18+768	Pipe	1xØ0.60		2	17.0	1.0	16.0
18+967	Pipe	1xØ0.60		2	19.0	1.0	18.0

STATION	CULVERT TYPE	CULVERT SIZE (m)		NO. of LOCATIONS	CULVERT LENGTH (m)		
		PIPE	BOX		EXISTING	EXTENDED CONST-RUCTION	NEW CONST-RUCTION
		NO. of ROW x DIAMETER	NO. of CELLS (CLEAR SPAN x DEPTH)				
19+095	Pipe	1xØ0.80		2	19.0	1.0	18.0
19+387	Pipe	1xØ0.80		2	19.0	1.0	18.0
19+752	Pipe	1xØ1.00		2	23.0	1.0	22.0
19+896	Pipe	2xØ1.00		2	23.0	1.0	22.0
20+293	Pipe	1xØ0.60		2	19.0	1.0	18.0
21+732	Pipe	1xØ1.00		2	21.0	1.0	20.0
22+214	Pipe	1xØ1.00		2	22.0	1.0	21.0
22+448	Pipe	1xØ1.00		2	21.0	1.0	20.0
22+968	Pipe	1xØ1.00		2	21.0	1.0	20.0
25+125	Pipe	1xØ1.00		2	17.0	1.0	16.0
25+417	Pipe	1xØ1.00		2	20.0	1.0	19.0
25+722	Pipe	1xØ1.00		2	20.0	1.0	19.0
27+430	Pipe	2xØ1.00		2	14.0	1.0	13.0
27+651	Pipe	2xØ0.60		2	16.0	1.0	15.0
28+092	Pipe	1xØ0.60		2	16.0	1.0	15.0
30+042	Pipe	1xØ0.80		2	18.0	1.0	17.0
31+161	Box		1(1.80x1.00)	2	11.0	1.0	17.0
33+462	Box		2(2.10x2.10)	2	17.0	1.0	17.0
36+342	Pipe	3xØ1.00		2	21.0	1.0	20.0
38+142	Pipe	2xØ1.00		2	17.0	1.0	16.0
38+442	Pipe	1xØ0.60		2	20.0	1.0	19.0
38+858	Box		2(2.40x2.70)	2	11.0	1.0	17.0

List of Bridge

LIST OF BRIDGES (AD-1-2:S1/SD)

Station	Materials	Structural System	Width (a+b+c+d+e:m)	Span and Length (m)	Remarks	(Fig.)
=====						
<<Airport Link:S1>>						
0+420	RC	SP.SL	0.3+0.7+12.0+0.7+0.3=14.0	3*7.0=21.0	New construction	(A)

11+000	PC	RF.BX/SP.SL	0.3+0.7+12.0+0.7+0.3=14.0	2*20.0+35.0+50.0 +35.0+2*20.0=200.0	New construction	(B)

14+440	PC	RF.BX/SP.SL	0.3+0.7+12.0+0.7+0.3=14.0	2*20.0+35.0+50.0 +35.0+2*20.0=200.0	New construction	(C)

15+820	RC	SP.SL	0.3+0.7+12.0+0.7+0.3=14.0	1*10.0=10.0	New construction	(A)
=====						
<<Surat Thani Bypass:SD>>						
20+712	PC/RC	SP.T/SP.SL	0.3+1.2+9.0+1.2+0.3=12.0	2*10.0+6*20.0 +2*10.0=160.0	Used as existed	

	PC/RC	SP.T/SP.SL	0.3+1.2+11.0+0.0+0.5=13.0	2*10.0+6*20.0 +2*10.0=160.0	New construction	

29+650	PC/RC	SP.T/SP.SL	0.3+1.2+9.0+1.2+0.3=12.0	4*10.0+3*30.0 +4*10.0=170.0	Used as existed	

	PC/RC	SP.T/SP.SL	0.3+1.2+11.0+0.0+0.5=13.0	4*10.0+3*30.0 +4*10.0=170.0	New construction	

33+666	RC	SP.SL	0.3+1.2+8.0+1.2+0.3=11.0	3*8.0=24.0	Used as existed	

	RC	SP.SL	0.3+1.2+11.0+0.0+0.5=13.0	3*8.0=24.0	New construction	

36+737	RC	SP.SL	0.3+1.2+8.0+1.2+0.3=11.0	8.0+2*10.0+8.0=36.0	Used as existed	

	RC	SP.SL	0.3+1.2+11.0+0.0+0.5=13.0	8.0+2*10.0+8.0=36.0	New construction	
=====						

- Note: (1) Materials
 RC: Reinforced Concrete Bridge
 PC: Prestressed Concrete Bridge
- (2) Structural System
 SP.SL: Simply Supported Slab
 SP.T : Simply Supported T-shape Girder
 RF.BX: Continuously Supported Box Girder
- (3) Drawings of bridges on Surat Thani bypass are common to that of AD-1-1 Project.

