PROJECT AD-3

RT. 4 KHOK KLOY - PHANGNGA CHANGWAT: PHANGNGA

3.9 Route No. 4 Kok Kloi - Phangnga (AD-3)

1) Summary

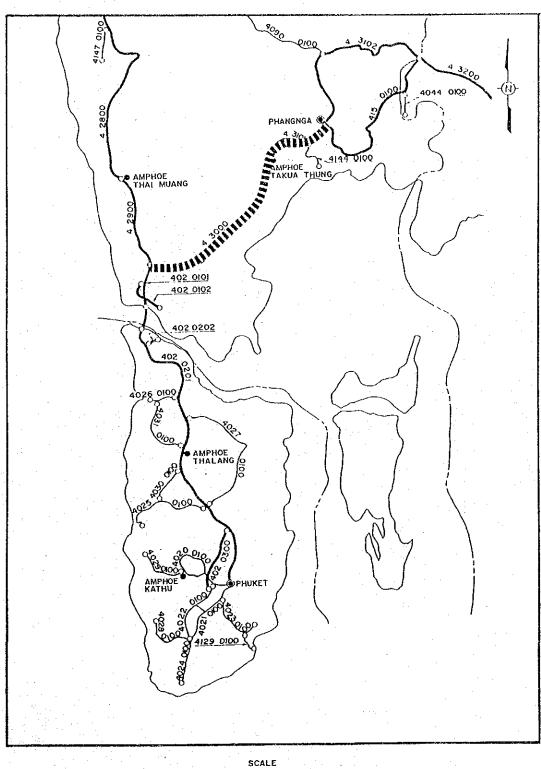
The aim of the project is to facilitate inter regional traffic flow between Phuket and Surat Thani/Krabi.

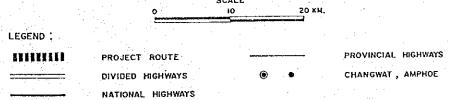
The existing highway is "P3" standard with carriageway width of 6.0 meters and shoulders of 2.0 meters on both sides. Additional two lane highway with 7.0 meter carriageway is to be constructed on a separated embankment along the existing highway which will constitute another two lanes for opposite direction.

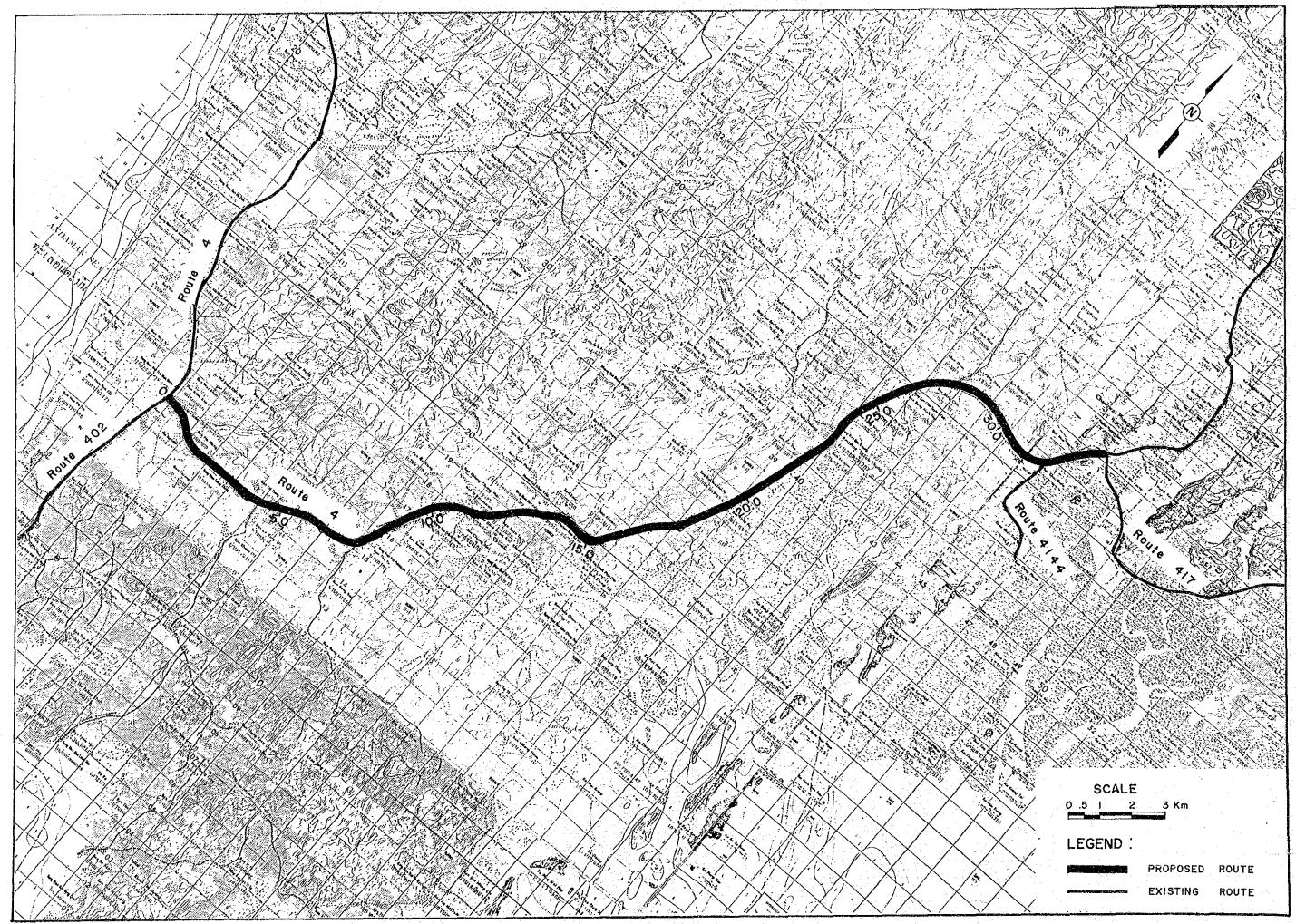
The project starts from Amphoe Kok Kloi at the intersection with Route 402 and ends at Amphoe Phangnga at the intersection with Route 417. The total length amounts to 35.6 kilometers. The project is situated in hilly terrain for about 70 % and in flat terrain for the remaining 30 %. Land use along the highway is mostly rubber plantation.

AD-3	Description
Name or Location Road Class Cross Section (m)	: <2.5+7.0+1.5>x2 (2.0+7.0+2.0) : SA /ASC/SA (SA /ASC/SA) : (G and G/F) : 35.6 km
AADT<'96/'01/'06>	: 6,300 / 9,600 / 14,100
Financial Cost NPV B/C EIRR	: 273.9 million baht : 1,496 million baht (12% discount rate) : 12.4 (12% discount rate) : 51.0 %

2) ROUTE MAP

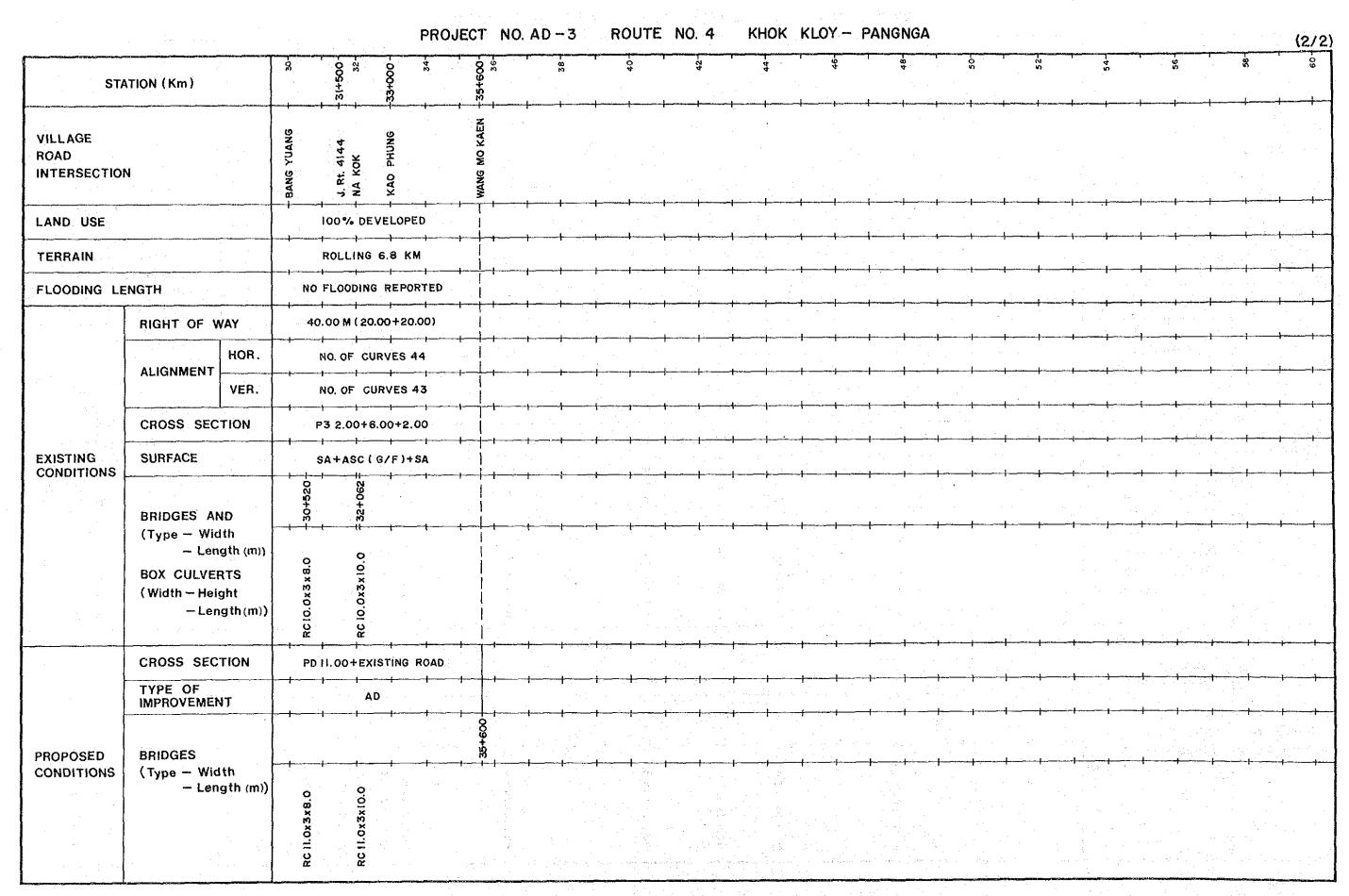




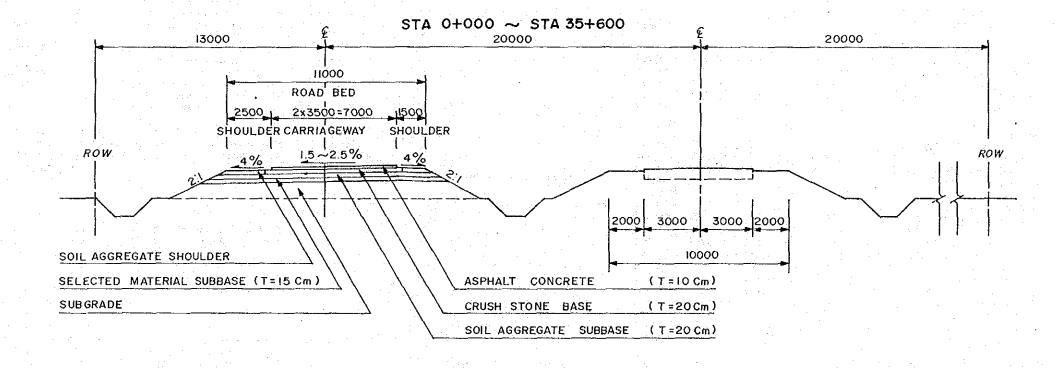


4) PROFILE OF PROJECT

			÷			PRO	JECT	NO. A	D - 3	F	ROUTE	E NO.	. 4	KHO	K KLO	Y -	PANGN	IGA										(1/2
ST.	ATION (Km)		0	- N		4+500	(.	ω		ō	-	1	4		+16+200-	<u></u>		502	-20+500-	-21+500-	-22+500-		24+500	- 26. - 26.4500-		- 28+500-	8
VILLAGE ROAD INTERSECTIO	N		KHOK KLOY			LO YOUNG				THA YOU			CHANG MAI	- KARAI		KUAN KARAI				KAO PO	KAO PO	BANG LUK		KASOM TAKUATUNG	PRN PRU YAI		TAM	BANG YUANG
LAND USE				 		· · · · · · · · · · · · · · · · · · ·	-1		RUBBEI	R, RICE	, 24 KI	M (95%	/ ₆) ALR	READY D	EVELOPE	ΞD	· -				 				RUB	BER, C	THERS	
TERRAIN							•	· · · · · · · · · · · · · · · · · · ·	·	FLAT	: 7.0 K	M ROLL	LING :	17.8 KM			 			-	·		:		FL	AT 4.	O KM	
FLOODING LI	ENGTH			11				 		N	O FLOC	DING R	REPORT	ED		1	 	-		1					NO FL	OODING	REPO	RTED
	RIGHT OF V	VAY		 			·	· • · · · · · · · · · · · · · · · · · ·		4	0.00 M	(20.00	0+20.00	0)						 -					40.00	M (20.0	00+20.0)0)
	ALIGNMENT	HOR.		 				 				NA	 	· · · · · · · · · · · · · · · · · · ·											NO O	F CUR	VES 44	
	ALIGNMENI	VER.									1	NA													NO O	F CUR	VES 43	
	CROSS SEC	TION	P3 2.00+6.00+2.00 = 10.00 M											P3 2.00+6.00+2.00														
EXISTING CONDITIONS	SURFACE			:		SA+ASC (GOOD)+SA										SA+ASC(G/F)+SA												
CONDITIONS	BRIDGES AND (Type — Width — Length (m)) BOX CULVERTS (Width — Height — Length (m))					1	44992	1	1 1 00 10 10 10	1	10+032		12 + 13 34			16+133	1 - 1	(19+916	0 2 4		22+159	······································	24+464			-28+247	29+825
						9	. RC 9.2 x 3 x 9. 3		C 20 20 20 20 20 20 20 20 20 20 20 20 20		- RC9.2×3×7.0		RC9.2x3x9.3			RC8.0x3x6.0		(RC9.2x3x8.3	K 6 * K * 6 6 0 0		RC 9.2×3×7.3		RC 9.2 x 7 x 9.7			RC7.0x5x9.2	RCII.0x5x12.0
	CROSS SEC	TION							Pl	0 (2.50	+7.00+	-1.50)+	EXIST	ING ROA	\D													
	TYPE OF IMPROVEMEN	NT .		{		- 	+	 	†	 	AD	35.60	1 00 M			· 	1								 	1		,
PROPOSED	BRIDGES		- 0000+0	 				 		- 		•	1 - 1	.			 			-4				•				
PROPOSED CONDITIONS	(Type - Wid	ith gth (m))		* · · · · · ·			RCII.Ox3x9.3		0 4 3 4 3 0 10 0		RC11.0x3x7.0		RCII.0x3x9.3			RC 11.0x3x6.0			RC 11.0x3x8.3	4 / 3 / 3 / 3 / 3 / 3 / 3 / 3 / 3 / 3 /		RCII.0x3x7.3		RC11.0x7x9.7			RC11.0x5x9.2) (C



5) TYPICAL CROSS SECTION



6) CONSTRUCTION QUANTITIES AND COSTS

CONSTRUCTION QUANTITIES AND COSTS
(Project AD -3 Length = 35.600 Km)
(Improved Length 35.600 Km)

		1-					· .	
*********************************	::::::::::::::::::::::::::::::::::::::	rinancial				omic cost		iual Value
ITEM	Unit	Unit Cost Baht		Total cost- 1000 Baht	%	1000 Baht	*	1000 Baht
*******************************	=======			*********				********
EARTH WORK	200			12	83		90	
Clearing & Grubbing	SQ.M	_1	605,200	605				-
Roadway Excavation(Unclassified)	CU.M	30	-					
Embankment(Borrowed Material)	CU.M	100						
Slope Protection(Stripe Sodding)	SQ.M	6		1,433				
Sand Hat (t=0.5m)	SQ.M	50	0	0		•		•
Excavate Existing								
Surface	SQ.M	. 2	0	0				
Thickness Over 10Cm (2 Lay)	SQ.M	14	. 0	.0				•
SUB TOTAL				48,336	* .	40,119		36,107
SUBBASE AND BASE	Ž. 6				83	·	50	
Subbase(Selected Material)	CU.H	190	72,624	13,799				
Subbase(Soil Aggregate)	CU.N	190		18,398				
Base Coarses(Crush Stone)	CU.M	280	•	15,151				
Shoulder(Soil Aggregate)	CU.M	190						
SUB TOTAL	00.11	170	24,200	51,948		43,116		21,558
SURFACE					83	•	50	
	SQ.M	13	249,200	3,240	03		30	
Asphaltic Prime coat				•				
Asphaltic Tack coat	SQ.M	7						
Asphalt concrete Surfacing SUB TOTAL	CU.H	1,900	24,920	47,348 52,332		43,436		21,718
<u>a</u>		:			. 07		50	
STRUCTURES(Equivalent)		4 400	, /ac	507	.83	•	30	
RC Pipe Culvert(D= 600 m)	M	1,380		587				
(D= 800 m)	М	1,950		762				
(D=1000 m)	М	2,650		1,982				
(D=1200 m)	M	3,850						
RC Box Culvert(2-2.40*2.40 m)	М	11,400		0				
RC Bridge Wideing	SQ.M	9,600		0				
RC Bridge (W=13.0 m)	М	83,200	452	37,631		100		4.5
PC Bridge (W= m)	M	:	. 0	, , , 0				
SUB TOTAL				41,028		34,053		17,027
TOTAL (a)				193,643		160,724		96,409
Miscellaneous Works [(a)*7%]	Ls	1		13,555		11,251		6,749
CONTRACT AMOUNT (b)		· ·		207,198		171,975		103,158
PHYSICAL CONTINGENCIES [(b)*10%] (c)	Ls	. i		20,720	•	17,197		10,316
ENGINEERING & SUPERVISION	Ls.	1		22,792	85	19,373	. 0	0
[((b)+(c))*10%] (d) LAND ACQUISITION(Average) (e)	sq.M	50	462,800	23,140	100	23,140	100	23,140
TUID VOGOTOTITOUTVACIONES (E)								
PROJECT COST [(b)+(c)+(d)+(e)]				273,850		231,685		136,614
AVERAGE COST PER KM				7,692				1.1

	ect Road No, AD -3 sting Road) Lengtl	Ne≃ Km≃ h =	8,200 1.001 35,600	Baht/Km/year	•
Asph	alt Pavement		•		*
6222	======================================	*****	Existing	222222222	t .
	1 TEMS				•
			Condition	Factor	
1.	Surface /Base Type	X1	.AC	0.00	
2.	Subgrade CSR	X2	4 %	0.50	
3.	A.D.T	Х3	6,300	2.25	
4.	Service Life (year)	X4	10	1.40	
5.	Pavement Width (m)	Х5	6 m	0.05	
6.	R-O-W Width (m)	· Y1	40 m	0.00	•
7.	Shoulder,Access,Median Width (m)	YZ	2.0 m	0.00	
8.	Traffic Service Operation Topography	Y3	0 - 3 %	0.00	
9.	Drainage Topography	Y4	0 - 3 %	0.00	•
10.	Bridge Quantity (m/Km)	Y5	12	0.00	
11.	NO. Of Lenes		. 2		
Maint	<pre>cisting) =1+0.5(X1+X2+X3+X4+X5 tenance cost + Overhead= Ka ' L Cost(Existing) =Length</pre>	Km * i *(Be Fina	Na *1.28 = ht/Km/year)= ncial Cost =	1,159,497 1,159,000	Baht/year Baht/year
Maint	tenance cost + Overhead= Ka '	Km * i *(Be Fina	Na *1.28 = ht/Km/year)≈	32,570 1,159,497 1,159,000 962,000	Baht/year Baht/year Baht/year
Maint	tenance cost + Overhead= Ka '	Km * i *(Be Fina	Na *1.28 = ht/Km/year)= ncial Cost = nomic Cost =	32,570 1,159,497 1,159,000 962,000	Baht/year Baht/year Baht/year
Haint Total	tenance cost + Overhead= Ka '	Km * i *(Be Fina	Na *1.28 = ht/Km/year)= ncial Cost = nomic Cost = (32,570 1,159,497 1,159,000 962,000	Baht/year Baht/year Baht/year)Baht/yea
Maint Total Proje	tenance cost + Overhead≕ Ka ¹ l Cost(Existing) =Lengti	Km * n *(Be Fina Econ	Na *1.28 = ht/Km/year)= ncial Cost = nomic Cost = (32,570 1,159,497 1,159,000 962,000 961,970	Baht/year Baht/year Baht/year)Baht/yea
Maint Total Proje	tenance cost + Overhead= Ka ³ I Cost(Existing) =Length ect Road No, AD -3	Km * Km * Fina Econ Na= Km=	Na *1.28 = ht/Km/year)= ncial Cost = comic Cost = (32,570 1,159,497 1,159,000 962,000 961,970 Baht/Km/year	Baht/year Baht/year Baht/year)Baht/yea
Maint Total Proje (Prop	tenance cost + Overhead= Ka s Cost(Existing) = Length ect Road No, AD -3 cosed Road) Length alt Pavement	Km * * (Be Fine Econ Na= Km=	Na *1.28 = sht/Km/year)≈ uncial Cost = somic Cost = (8,200 1.001 35.600	32,570 1,159,497 1,159,000 962,000 961,970 Baht/Km/year	Baht/year Baht/year Baht/year)Baht/yea
Maint fotal Proje (Prop	tenance cost + Overhead= Ka s Cost(Existing) = Length ect Road No, AD -3 cosed Road) Length alt Pavement	Km * * (Be Fine Econ Na= Km=	Na *1.28 = ht/Km/year)= ncial Cost = comic Cost = (8,200 1.001	32,570 1,159,497 1,159,000 962,000 961,970 Baht/Km/year	Baht/year Baht/year Baht/year)Baht/yea
Maint fotal Proje (Prop	tenance cost + Overhead= Ka s Cost(Existing) = Length ect Road No, AD -3 cosed Road) Length alt Pavement	Km * * (Be Fine Econ Na= Km=	Na *1.28 = sht/Km/year)≈ uncial Cost = somic Cost = (8,200 1.001 35.600	32,570 1,159,497 1,159,000 962,000 961,970 Baht/Km/year	Baht/year Baht/year Baht/year)Baht/yea
Maint Total Proje (Prop Aspha	tenance cost + Overhead= Ka state Cost(Existing) = Length ect Road No, AD -3 cosed Road) Length alt Pavement	Km * *(Be Fina Econ Na= Km= 1 =	Na *1.28 = int/Km/year)= incial Cost = iomic Cost = (8,200 1.001 35.600 Proposed Road Condition	32,570 1,159,497 1,159,000 962,000 961,970 Baht/Km/year Km	Baht/year Baht/year Baht/year)Baht/yea
Maint fotal Proje (Prop Aspha	tenance cost + Overhead= Ka * Cost(Existing) = Length Cost(Existing) = Length Cost(Existing)	Km * *(Be Fine Econ Na= Km= ** ** ** ** ** ** ** ** **	Na *1.28 = sht/Km/year)= uncial Cost = comic Cost = (8,200 1.001 35.600 Proposed Road Condition	32,570 1,159,497 1,159,000 962,000 961,970 Baht/Km/year Km	Baht/year Baht/year Baht/year)Baht/yea
Maint Total Proje (Prop Aspha	tenance cost + Overhead= Ka state Cost(Existing) = Length ect Road No. AD -3 cosed Road) Length alt Pavement ITEMS Surface / Base Type Subgrade CBR	Km * * (Be Fine Econ Na= Km= * * * * * * * * * * * * *	Na *1.28 = sht/Km/year) = sncial Cost = somic Cost =	32,570 1,159,497 1,159,000 962,000 961,970 Baht/Km/year Km	Baht/year Baht/year Baht/year)Baht/yea
Maint Total Proje (Prop Aspha	tenance cost + Overhead= Ka 3 Cost(Existing) = Length ect Road No, AD -3 cosed Road) Length alt Pavement ITEMS Surface /Base Type Subgrade CBR A.D.T	Km * * Km * * Km * * Fina Econ Na= Km= X1 X2 X3	Na *1.28 = sht/Km/year) = sht/Km/yea	32,570 1,159,497 1,159,000 962,000 961,970 Baht/Km/year Km Factor	Baht/year Baht/year Baht/year)Baht/yea
Maint Total Proje (Prop Aspha	tenance cost + Overhead= Ka 1 Cost(Existing) = Length ect Road No, AD -3 cosed Road) Length alt Pavement ITEMS Surface / Base Type Subgrade CBR A.D.T Service Life (year)	Km * 1 * 1 * 1 * 1 * 1 * 1 * 1 * 1 * 1 *	Na *1.28 = sht/Km/year)≈ incial Cost = somic Cost = 1.001	32,570 1,159,497 1,159,000 962,000 961,970 Baht/Km/year Km Factor 0.00 0.50 1.14 0.40	Baht/year Baht/year Baht/year)Baht/yea
Maint Total Proje (Prop Aspha	tenance cost + Overhead= Ka * I Cost(Existing) = Length ect Road No, AD -3 cosed Road) Length alt Pavement ITEMS Surface / Base Type Subgrade CBR A.D.T Service Life (year) Pavement Width (m)	Km * (Be Fine Econ Ne = Km = 1	Na *1.28 = sht/Km/year)≈ mcial Cost = somic Cost = 1.001	32,570 1,159,497 1,159,000 962,000 961,970 Baht/Km/year Km Factor 0.00 0.50 1.14 0.40 0.38	Baht/year Baht/year Baht/year)Baht/yea
Maint Total Proje (Prop Aspha	tenance cost + Overhead= Ka * I Cost(Existing) = Length ect Road No, AD -3 cosed Road) Length alt Pavement ITEMS Surface / Base Type Subgrade CBR A.D.T Service Life (year) Pavement Width (m) R-O-W Width (m)	Km * (Be Fine Econ Ne = Km = X1 X2 X3 X4 X5 Y1	Na *1.28 = sht/Km/year) = sht/Km/yea	32,570 1,159,497 1,159,000 962,000 961,970 Baht/Km/year Km Factor 0.00 0.50 1.14 0.40 0.38 0.05	Baht/year Baht/year Baht/year)Baht/yea
Maint Total Proje (Prop Aspha	cct Road No, AD -3 cosed Road) Length Length	Km * (Be Fina Econ Na = Km = X1 X2 X3 X4 X5 Y1 Y2	**Na *1.28 = sht/Km/year) = sht/Km/y	32,570 1,159,497 1,159,000 962,000 961,970 Baht/Km/year Km Factor 0.00 0.50 1.14 0.40 0.38 0.05 0.10	Baht/year Baht/year Baht/year)Baht/yea
Maint Total Proje (Prop Aspha	tenance cost + Overhead= Ka * Cost(Existing) = Length ect Road No, AD -3 cosed Road) Length alt Pavement ITEMS Surface / Base Type Subgrade CBR A.D.T Service Life (year) Pavement Width (m) R-O-W Width (m) Shoulder, Access, Median	Km * (Be Fine Econ Ne = Km = X1 X2 X3 X4 X5 Y1	Na *1.28 = sht/Km/year) = sht/Km/yea	32,570 1,159,497 1,159,000 962,000 961,970 Baht/Km/year Km Factor 0.00 0.50 1.14 0.40 0.38 0.05	Baht/year Baht/year Baht/year)Baht/yea
Maint Total Proje (Prop Aspha	cct Road No, AD -3 cosed Road) Length Length	Km * (Be Fina Econ Na = Km = X1 X2 X3 X4 X5 Y1 Y2	**Na *1.28 = sht/Km/year) = sht/Km/y	32,570 1,159,497 1,159,000 962,000 961,970 Baht/Km/year Km Factor 0.00 0.50 1.14 0.40 0.38 0.05 0.10	Baht/year Baht/year)Baht/yea
Maint Total Proje (Prop Aspha	tenance cost + Overhead= Ka * Cost(Existing) = Length ect Road No, AD -3 cosed Road) Length alt Pavement ITEMS Surface / Base Type Subgrade CBR A.D.T Service Life (year) Pavement Width (m) R-O-W Width (m) Shoulder, Access, Median Width (m) Traffic Service Operation Topography	Km * * Km * * Km * * Km * * Fina Econ Na= Km= ** ** ** ** ** ** ** ** **	**Na *1.28 = sht/Km/year) = sht/Km/y	32,570 1,159,497 1,159,000 962,000 961,970 Baht/Km/year Km Factor 0.00 0.50 1.14 0.40 0.38 0.05 0.10 0.00	Baht/year Baht/year Baht/year)Baht/yea

7) Construction Schedule

Project AD-3 Route No. 4 Kok Kloi - Phangnga

year and Month	First Year	Second	Second Year									
Jork Items	1 2 3 4 5 6 7 8 9	10 11 12 1 2 3 4 5 6	7 8 9 10 11 12 1 2	2 3 4 5 6 7 8 9 10 11 12								
Land Acquisition	************************	*		:======================================								
reparatory Works			e e									
arth Works	*******	****************		en de la companya de Manda de la companya								
avement Works		======	=037555555555555555555555555555555555555	*********								
ridge Works	=======================================	*************	azzzzzzzzzzzzz									
iscellaneous Works		******	#===###	= =====								
learing -Up				-=======								
ercentage Of isbursement (%)	20			29 %								

8) Economic Evaluation

Project AD-3 Route No. 4 Kok Kloi - Phangnga

					(unit ; 100	0 Baht)		=
Year	Const- ruction Cost	Mainte- nance Cost	Total Cost	VOC Saving	Time Saving	Balance	Benefit= Cost=	Sensi. Analysis 0.8 1.2
1990 1991 1992 1993 1994 1995 1996 1997 1998 2000 2001 2002 2003 2004 2005 2006 2007 2008	0 0 0 60,543 113,424 57,719 0 0 0 0 0 0	0 0 0 0 0 (159) (159) (159) (159) (159) (159) (159) (159) (159) (159) (159)	0 0 60,543 113,424 57,719 (159) (159) (159) (159) (159) (159) (159) (159) (159) (159) (159) (159)	17,693 31,944 46,196 60,447 74,698 123,430 172,162 220,895 269,627 318,359 318,359	504,958 610,753 716,547 822,341 822,341 822,341	0 0 0 (60,543) (113,424) (57,719) 44,925 199,585 174,246 238,906 303,567 368,227 522,753 677,280 831,806 986,333 1,140,859 1,140,859		0 0 0 (72,652) (136,108) (69,262) 36,004 87,732 139,460 191,189 242,917 294,645 418,266 541,887 665,509 789,130 912,751 912,751
2009 2010	0 0	(159) (159)	(159) (159)	318,359 318,359	822,341 822,341	1,140,859 1,140,859		912,751 912,751
Total	231,686		229,301 IRR =	2,612,329	7,347,209	9,730,238 50,96%	·	7,692,470 42.39%

EIRR = 50.96% NPV (i;12%) = 1,496,134 B/C (i;12%) = 12.37

PROJECT AD-4

RT. 4 / 43 PHATTHALUNG - HAT YAI CHANGWAT: PHATTHALUNG, SONGKHLA

3.10 Route No. 4 and 43 Phatthalung - Hat Yai (AD-4)

1) Summary

The project is a part of the highway development policy of the Government that the whole stretch of the highway from Bangkok to the Malaysian border should be developed into a four lane highway by the end of the Seventh Five Year Plan period. The aim of the policy is to boost the Southern economy by way of facilitating international as well as inter-regional traffic to and from the Southern Region.

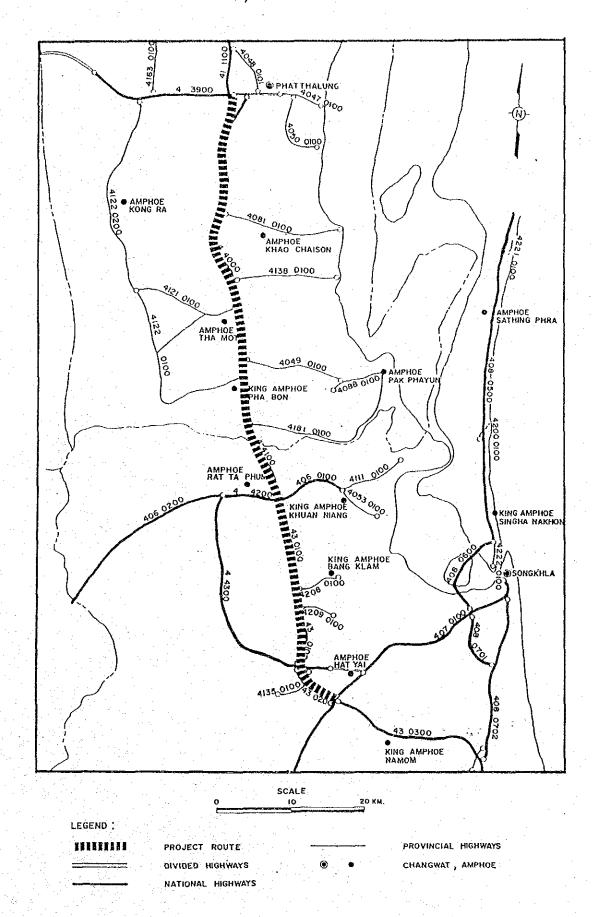
The existing highway condition is "P2" and "P3" standards with carriageway width of more than 6 meters. Of whole section of the project, surface condition over a distance of 65.2 kilometers from Phatthalung side is judged "fair to poor". This part needs improvement when additional two lanes are constructed. Surface condition of the remaining part is judged "good to fair", so that no particular improvement works will be needed. Additional two lanes of 7.0 meter wide carriageway is to be constructed on a separated embankment along the existing highway.

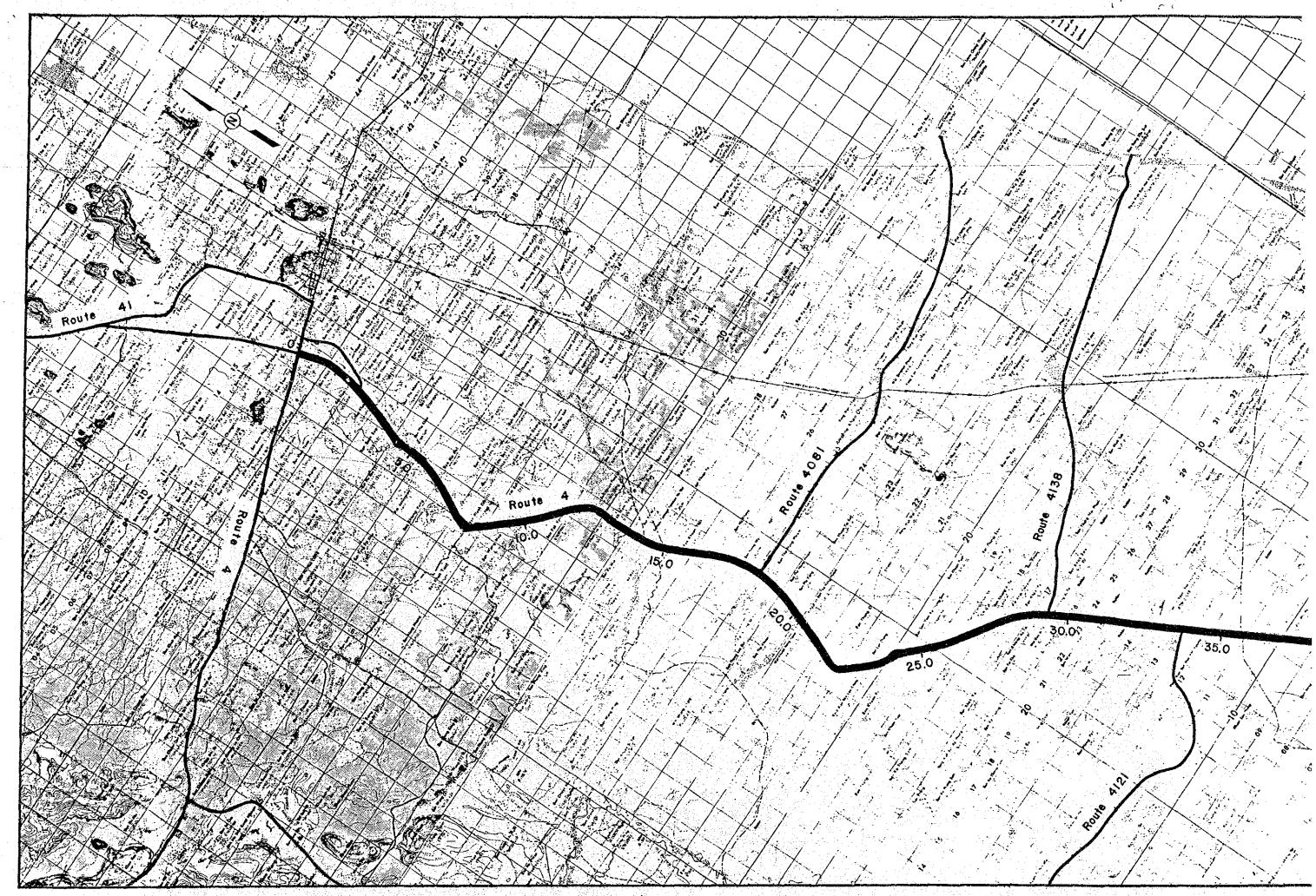
The project starts from the junction with Route 41 near Phatthalung and ends at the intersection of Route 43 and 4 directing to the Malaysian border. The total length is 95.4 kilometers. The project lies in flat terrain for about 80 % and in hilly terrain for the remaining. The corridor area of the highway has been well developed, mainly used for rubber plantation and paddy field.

AD-4	Description
Changwat Name or Location Road Class Cross Section (m) Surface Type Surface Condition Length: Total DOH Road	: SA /ASC/SA (SA/UPM/SA) : (F/P and G/F) : 95.5 km
AADT<'96/'01/'06>	: 10,600 / 15,500 / 21,400
Financial Cost NPV B/C EIRR	: 994.0 million baht : 1,785 million baht (12% discount rate) : 4.8 (12% discount rate) : 42.9 %

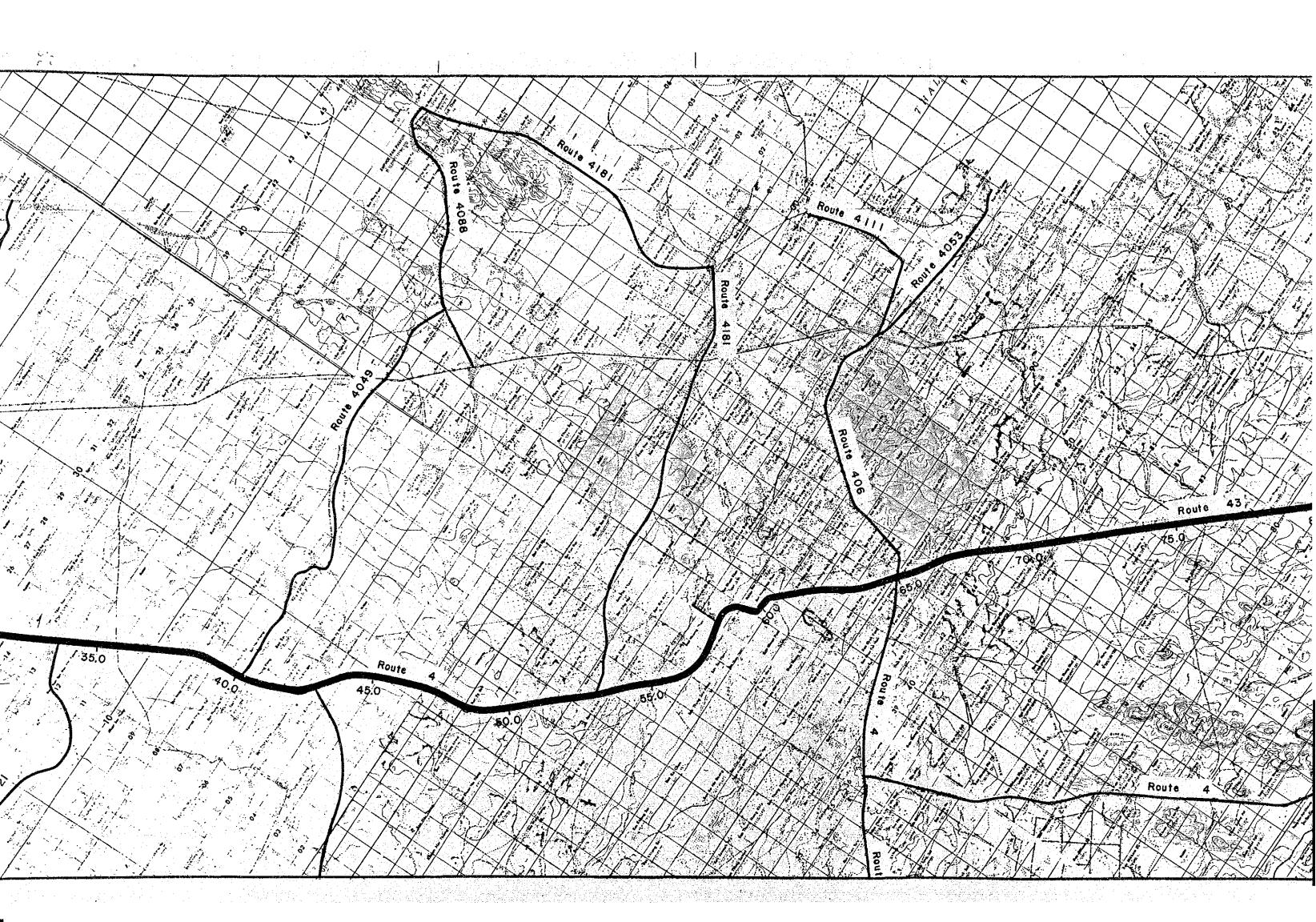
(): Existing Condition or Value

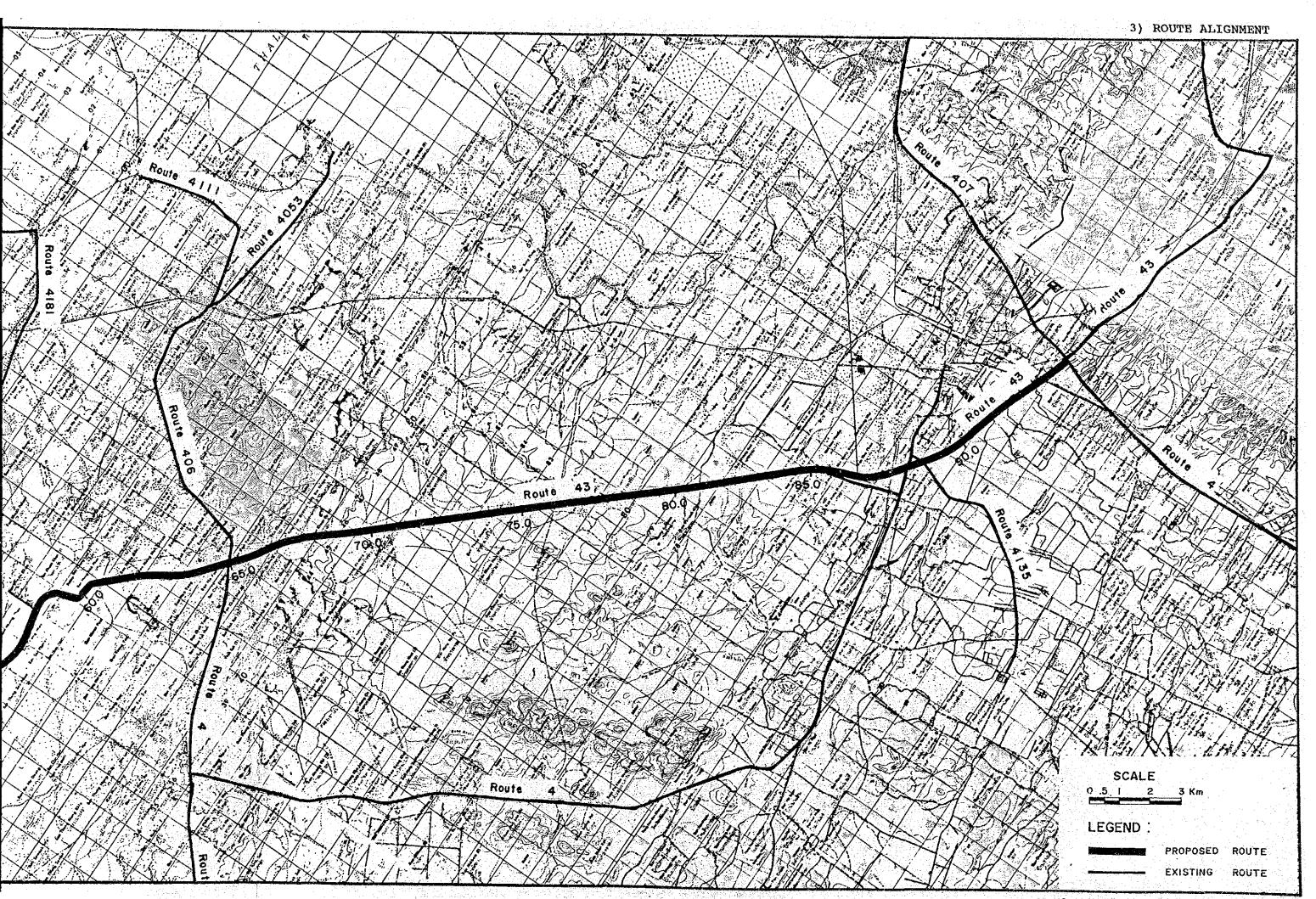
2) ROUTE MAP





그는 이는 그는 그를 들고 하는 것은 분들까는 이 생활을 들을 맞아 있는데 모든 사람들은 학교들은 하는 그는 그는 것이 하는데 보고 하는데 그는 것이 그는 것이 그는 것이 그는 것은 것이다. 그는





4) PROFILE OF PROJECT

:				PR	ROJECT	NO.	AD -	4	ROUTI	E NO.	4 AN	ID 43		PHAT	THALUN	IG —	HAT	YAI							(1/4
STA	ATION (Km)		0+728			4	5+228		8+228		<u> </u>	- 12		13+728 1c- 14+628-	<u>θ</u>		18+278 -16+428	20+228	- 22	-23+228-	24	-58-		80 83	0,
VILLAGE ROAD INTERSECTION	N		PHATTHALUNG KHUAN PRONG				ТНАКНАЕ		PLUAKLON					NAMTOK			LINA 4081	HUARANG		LANCHANG					
TERRAIN												F	RUBBE	R, RICE, 8	0% DEV	ELOPED			11			l	·	· · · · · · · · · · · · · · · · · · ·	· .
										1				FLAT	40.0 KM							l	·		
FLOODING LE	NGTH			1				7.	FLO	ODING	REPOR	TED AT	10 L	OCATIONS (OF 14.1 KI	d IN 1	OTAL	LENGTH		,	- 	· · · · · · · · · · · · · · · · · · ·	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	· · · · · · · · · · · · · · · · · · ·	<u> </u>
	RIGHT OF	WAY											4	0.00 M (20	.00+20.0	0)	,			· ·					
	ALIONISCHIT	HOR.		 	 -		-1 1					NU	MBEF	OF HORIZ	ONTAL C	URVES	52]· · · · · · · · · · · · · · · · · · ·	1		1
	ALIGNMENT	VER.		 					1			N	UMBE	R OF VERT	ICAL CUR	VES O	 								
	CROSS SEC	CTION	1	 							 		P3 2	.00+6.00+	2.00 = 10.	DO M			- -						
EXISTING	SURFACE			 		***	-1			**************************************			SA+	UPM (FAIR.	/POOR)+5	À	 			- 		1 -			
CONDITIONS	BRIDGES A	ND	0+578	 -	· ·		4+942			0 + 0 80 + 0	10+661	11+207	12+476+ 12+868+		15+429	16+948 17+138 - 17+684	-18+078	-20+050-			-24+238 -24+528	1 1	26+631		-29+300
	BOX CULVE	ngth (m)) RTS	BX3-2.4 x 2.4 x 12.0 -				AC6.0×4×9.0			RC8.0x1x10.0	BX3-2.4×2.1×10.0	2.4×2.4	RC8.0x7x6.0		RCB.0x3x6.0	OXX	BX3-2.4x2.4x12.0	RC8.0x3x8.7			BX3-2.4x2.4x10.0 -		RC8.0x3x8.0		RC8.0×5×9.2
	CROSS SEC	TION		 	-	1	, , +	 	 		 			(2.50+7.00)+1.50)×2	- 	 		+-			++			
	TYPE OF	NT		 			1			- 	 			AD (1) 40,	038 M	 -	 					11-	- -		
PROPOSED	BRIDGES		0000+0	!		****		·		+	 			- 		- 	 			· · · · · · · · · · · · · · · · · · ·		+ • • • • • • • • • • • • • • • • • • •		···	1·····
CONDITIONS	(Type - Wi	dth ngth (m))		 - - - - - - - -			ACII.Ox 4 x 9.0			C11.0×1×10.0			RCII.0x7x8.0 RCII.0x4x9.0		RCII.0×3×6.0	RCII.0×3×7.0		RCII.0x3x8.7				1	RC11.0x3x8.0		RCII.0x5x9.2

(3/4)64+728-65+228-65+828-65+828-76+228 76+388 77+350 77+728 88+228 88+728 81+532 STATION (Km) 4208 BANGSAKOB VILLAGE B. PHAEK SU KHU HA 1 Rt. 406 . KHU HA KHUAN. õ ROAD NONG INTERSECTION J. Rt. B.PAK குப் ⊸ப் பெர் LAND USE RUBBER, RICE, 80% DEVELOPED RICE, RUBBER, 80% DEVELOPED TERRAIN FLAT 7.0 KM ROLLING 4.1 KM FLAT 5.0 KM ROLLING 6.8 KM FLOODING LENGTH NO FLOODING REPORTED NO FLOODING REPORTED RIGHT OF WAY 80.00 M (50.00+30.00) 80.00 M (50.00+30.00) HOR. NUMBER OF CURVES 3 NUMBER OF CURVES 3 **ALIGNMENT** VER. NUMBER OF CURVES 27 NUMBER OF CURVES 30 **CROSS SECTION** P2 2.25+6.50+2.25 = 11.00 M P2 2.25+7.00+2.25 = 11.50 M **EXISTING** SURFACE SA + ASC (GOOD/FAIR)+SA BT + ASC (GOOD) + BT CONDITIONS 79+790 76+148 64+117 64+827 BRIDGES AND (Type - Width x 16.0 x 16.0 O RC8.0x3x10.0 BX !-1.2x1.5x15.0 BX3-2.1x2.1x11.0 - Length (m)) RC8.0x8x10.0 BOX CULVERTS (Width -- Height - Length (m)) **CROSS SECTION** PD 11.00 + EXISTING ROAD PD II.00 + EXISTING ROAD PD 11.00 x 2 TYPE OF AD(5) AD (4) 11,840 M AD (2) AD (3) 11,160 M IMPROVEMENT **PROPOSED BRIDGES** CONDITIONS (Type - Width - Length (m))