

Appendix 5.37 THE RESULT OF FIELD INVESTIGATION
ON PRIORITY LINK (1)
FOR IMPROVEMENT AND NEW CONSTRUCTION

PRIORITY LINKS SELECTED IN 3.3 (IDENTIFICATION FOR IMPROVEMENT AND NEW CONSTRUCTION)

BLOCK NO.	STUDY LINK NO. SEQ.	PROV.	RURAL	LINK LENG. (KM)	LINK VALUE T.DEV.	SHORT CONN.	ACT. CENTER	REMARKS	LENGTH OF PROPOSED ROUTE (KM)
83	9	2261		31.0	0.96			(a) 0 (b) 0 (c) - (d) - Connecting Rt 214 with Rt 2080, good road network is formed.	31.1
	10		10083	19.0	0.44		#	(a) 0 (b) 0 (c) X (d) X Deleted - A. Sanon is small and connected with Rt 2079 with good laterite road by only 5.0km in distance.	-
96	11	2124		9.0	3.85		#	(a) 0 (b) 0 (c) 0 (d) - Deleted - Section under DOH is to be paved in 1983.	-
	12	2157		11.0	0.25			(a) X (b) X (c) - (d) - Deleted - Related area is cultivable, but almost forest at present. Immediate development is unexpected.	-
	13	2201		4.3	1.99			(a) X (b) X (c) - (d) - Deleted - do -	-
	17	2128		10.5	0.74			(a) 0 (b) 0 (c) - (d) - Deleted - A road for security purpose is planned by other agency, near by the link.	-
53	18	2050		55.1	2.97			(a) 0 (b) 0 (c) X (d) - Altered to 67.1 km to connect K.A. Phosai with the link. Connecting paved section, whole section of Rt 2050 is to be paved road.	65.3
	21	2232 +	2197	42.4	-0.10		#	(a) 0 (b) 0 (c) X (d) - Altered to 18.9km - Improvement of only Rt 2197 is considered to be enough because A. Kut Khopum is small.	17.2
	22	2252		9.0	1.38			(a) 0 (b) X (c) - (d) - Deleted - Because Rt 2197 is to be improved.	-
87	24	2078 +	10087	50.1	2.87		#	(a) 0 (b) 0 (c) 0 (d) X Altered to 30.0km as some section is already paved. Important link connecting C. Surin and C. Buri Ram.	42.0
	25	2208		35.0	1.05			(a) 0 (b) 0 (c) - (d) - Important link passing through center part in developed area.	48.0
	26	2265		23.0	1.35		#	(a) 0 (b) 0 (c) 0 (d) - Deleted - Because Rt 2078 + 10087 and Rt 2208 adjacent to the link are to be improved. A.Krasang is connected by them.	-

Note

(a) Present condition and future prospect of the related area

(b) Number of settlement along the link

(c) Scale of activity center connected by the link

(d) Difficulty of acquisition of Right of Way on the link under other agencies

0 : well developed or expected

0 : many

0 : large or medium

0 : not difficult

X : underdeveloped or unexpected

X : few

X : small

X : difficult

THE RESULT OF FIELD INVESTIGATION
ON PRIORITY LINK
FOR IMPROVEMENT AND NEW CONSTRUCTION

(2)

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BLOCK NO.	STUDY LINK NO. SEQ.	PROV. RURAL	LINK LENG. (KM)	LINK VALUE T.DEV.	SHORT CONN.	ACT. CENTER	REMARKS	LENGTH OF PROPOSED ROUTE (KM)
113	27	2160 + 10113	41.9	0.51			(a) 0 (b) 0 (c) - (d) X Good road network between Rt 2 and Rt 201 is formed and whole section of Rt 2160 is to be paved road.	48.0
59	28	2166	59.6	1.03			(a) 0 (b) 0 (c) - (d) - Passing through center part in developed area.	59.7
	29	2162	22.5	2.13		#	(a) 0 (b) 0 (c) 0 (d) - Important link for connection between C. Nakhon Ratchasima and C. Buri Ram.	25.0
75	30	2076	30.0	5.37			(a) 0 (b) 0 (c) - (d) - Passing through center part in developed area and good network between Rt 214 and 2080 is formed.	39.5
	32	10075	12.0	2.66		#	(a) 0 (b) X (c) X (d) X Deleted - Difficult to acquisition of right-of-way. A. Bung Bun is small.	-
91	34	10091	18.0	-0.38		#	(a) 0 (b) 0 (c) - (d) X Deleted - Already paved by RID.	-
90	35	2072	21.0	0.39			(a) 0 (b) 0 (c) - (d) - Deleted - A paved irrigation road exists closely.	-
	36	2238	9.4	3.21			(a) 0 (b) 0 (c) - (d) - Deleted - More than half of section is already paved.	-
	37	10090 extension of Route 24	20.0	2.70			(a) 0 (b) 0 (c) - (d) X Altered to 45.0km regarding as the link for extension of Rt 24.	51.5
15	38	10015	27.0	0.36			(a) 0 (b) 0 (c) - (d) X Two DOH roads, Rt 2313 and 2316 are connected and good road network is formed.	24.0
	39	9066	21.6	-0.39		#	(a) X (b) X (c) - (d) - Two DOH roads, Rt 2109 and 2146 are connected and good road network is formed between Rt 2 and 210.	20.3
68	40	10068	30.0	0.52			(a) 0 (b) 0 (c) - (d) X Deleted - Difficult to acquisition of right-of-way.	-

Note

- (a) Present condition and future prospect of the related area
- (b) Number of settlement along the link
- (c) Scale of activity center connected by the link
- (d) Difficulty of acquisition of Right of Way on the link under other agencies

- 0 : well developed or expected
- 0 : many
- 0 : large or medium
- 0 : not difficult
- X : underdeveloped or unexpected
- X : few
- X : small
- X : difficult

THE RESULT OF FIELD INVESTIGATION
ON PRIORITY LINK (3)
FOR IMPROVEMENT AND NEW CONSTRUCTION

BLOCK NO.	STUDY LINK NO.		LINK LENG. (KM)	LINK VALUE T.DEV.	SHORT CONN.	ACT. CENTER	REMARKS	LENGTH OF PROPOSED ROUTE (KM)
	SEQ.	PROV. RURAL						
43	42	10043	67.5	0.54		#	(a) X (b) X (c) X (d) X Deleted - Immediate development is unexpected passing through hilly and rolling area. A. Na Hon is connected by following Rt 11043.	-
	43	11043 +	0	37.0	2.78	##	(a) 0 (b) 0 (c) 0 (d) X Important link, two medium size of Amphoes. A. Na Hon and A. Pho Chai are connected.	50.7
109	44	2199	36.5	0.81		#	(a) 0 (b) 0 (c) 0 (d) - Passing through well developed area and connects big size of A. Wang Yai.	35.3
14	47	11014	25.1	2.11			(a) 0 (b) 0 (c) - (d) X Deleted - Difficult to acquisition of right-of-way.	-
107	49	10107	41.0	0.29			(a) X (b) X (c) - (d) 0 Deleted - Passing through mountainous area, immediate development is unexpected.	-
8	53	10008	39.0	1.30		#	(a) (b) (c) (d) Deleted - Sensitive area.	-
	54	11008	22.5	0.69		#	(a) (b) (c) (d) Deleted - Sensitive area.	-
31	55	10031	33.0	0.52			(a) 0 (b) 0 (c) - (d) X Passing through well developed area and many villages exist along the link.	33.4
48	56	2259	46.0	1.88			(a) 0 (b) 0 (c) - (d) - - do -	46.0
35	57	2289	25.0	0.97		#	(a) 0 (b) 0 (c) - (d) - Deleted - No need as adjoining Rt 2253 is to be studied and Rt 2023 closely located was already committed.	-
70	58	10070	8.0	4.42		#	(a) 0 (b) X (c) X (d) X Deleted - Difficult to acquisition of right-of-way and A. Kae Dam is small.	-
67	59	2297	15.0	2.25		#	(a) 0 (b) 0 (c) 0 (d) - Altered to 35.0km - Good road network is formed by extending up to Rt 219.	30.6
	60	2061	19.0	2.48			(a) 0 (b) X (c) 0 (d) X Altered to 10.0km - Only connection with A. Napho is planned, as Rt 207 passes closely.	9.4

Note

- (a) Present condition and future prospect of the related area
- (b) Number of settlement along the link
- (c) Scale of activity center connected by the link
- (d) Difficulty of acquisition of Right of Way on the link under other agencies

- 0 : well developed or expected
- 0 : many
- 0 : large or medium
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- X : few
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THE RESULT OF FIELD INVESTIGATION
ON PRIORITY LINK
FOR IMPROVEMENT AND NEW CONSTRUCTION

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BLOCK NO.	STUDY LINK NO. SEQ.	PROV.	RURAL	LINK LENG. (KM)	LINK VALUE T.DEV.	SHORT CONN.	ACT. CENTER	REMARKS	LENGTH OF PROPOSED ROUTE (KM)
16	62	2312		29.2	0.15			(a) 0 (b) 0 (c) - (d) - Deleted - Under study by other project.	-
40	63	2203		9.4	2.37			(a) 0 (b) X (c) - (d) - Deleted - Other roads with good condition exist closely.	-
29	64	2183		26.5	-1.14	#		(a) 0 (b) X (c) 0 (d) - Altered to 31.5km to form good road network by extending up to Rt 209. A Nam Phong is big.	29.1
17	70		10018	47.0	-2.03	#		(a) X (b) X (c) 0 (d) 0 Few paved road exist in the area, important road network is formed by connection between Rt 212 and 2022.	48.1
30	75	2025		14.2	1.47			(a) 0 (b) 0 (c) - (d) - Passing through well developed area.	16.7
46	76	2101		5.0	3.96	#		(a) 0 (b) 0 (c) - (d) - Passing through highly developed area. Good road network is formed with the section paved already of the same route.	5.4
	77	2291		30.0	0.03	#		(a) 0 (b) 0 (c) 0 (d) - A Khao Wang is big. Good road network is formed with the above link.	25.0
	79		10046	9.0	0.15	#		(a) 0 (b) X (c) X (d) X Important link to connect A. Whan Yai located along border line of Kingdom.	9.1
	80	2102		6.1	2.11			(a) 0 (b) X (c) - (d) - Deleted - Other roads with good condition exist.	-
10	86		10010	22.0	0.40			(a) (b) (c) (d) Deleted - Sensitive area.	-
36	87	2268		32.0	0.04			(a) 0 (b) 0 (c) - (d) - Deleted - Rt 2152 located closely is already committed.	-
101	91	2164		15.0	0.36			(a) 0 (b) 0 (c) - (d) - Deleted - Rt 2256 of paved road exists closely.	-

Note

- (a) Present condition and future prospect of the related area
(b) Number of settlement along the link
(c) Scale of activity center connected by the link
(d) Difficulty of acquisition of Right of Way on the link under other agencies

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X : small
X : difficult

THE RESULT OF FIELD INVESTIGATION
ON PRIORITY LINK (5)
FOR IMPROVEMENT AND NEW CONSTRUCTION

BLOCK NO.	STUDY LINK NO. SEQ.	PROV.	RURAL	LINK LENG. (KM)	LINK VALUE T.DEV.	SHORT CONN.	ACT. CENTER	REMARKS	LENGTH OF PROPOSED ROUTE (KM)
95	93		10095	25.0	0.47			(a) Deleted - Sensitive area (b) (c) (d)	-
32	96	9071		17.0	2.47		#	(a) 0 (b) 0 (c) 0 (d) - Passing through well developed area. A Song Dad is big.	18.1
97	97	2213		13.7	2.02			(a) 0 (b) X (c) - (d) - Developed area but few roads exist.	14.5
	98	2172		44.7	1.08			(a) 0 (b) 0 (c) - (d) - Passing near by border line of Kingdom and forms good road network by connecting Rt 217 and 2186.	44.8
76	99		10076	10.0	2.40		#	(a) 0 (b) X (c) 0 (d) X Altered to 30.0km to connect A.Kho Wang with Rt 2083 as this Amphoe belongs to C. Yasathon.	38.2
50	100	2105		12.4	-0.14		#	(a) X (b) 0 (c) 0 (d) - Good road network is formed with Rt 2276 + 10050 to be studied and connects A.Reou Nakhon.	12.4
	101	2276 + 10050		26.6	-1.65		#	(a) X (b) 0 (c) 0 (d) X Good road network is formed between Rt 22 and Rt 212 with the above link.	27.7
63	104	2162		25.5	1.05		#	(a) 0 (b) 0 (c) - (d) - Important link connecting between C. Nakhon Ratchasima and C. Buri Ram with the same link included in Block No. 59.	26.0
81	106	2234		21.0	3.22		#	(a) 0 (b) 0 (c) - (d) - Deleted - No need as whole section of Rt 2167 is committed recently.	-
71	107	2269		42.0	-1.19		#	(a) 0 (b) X (c) X (d) - Deleted - Rt 202 exists closely, and A. Pathum Rat is small.	-
54	108		10054	27.0	3.76		#	(a) 0 (b) 0 (c) X (d) X Deleted - Difficult to acquisition of right-of-way especially on the section passing through inhabitant area near C. Uhon Ratchathani	-
47	111		10047	20.0	1.14		#	(a) 0 (b) 0 (c) X (d) X Deleted - Difficult to acquisition of right-of-way and A. Meywade is small.	-

Note

(a) Present condition and future prospect of the related area

(b) Number of settlement along the link

(c) Scale of activity center connected by the link

(d) Difficulty of acquisition of Right of Way on the link under other agencies

O : well developed or expected X : underdeveloped or unexpected

O : many X : few

O : large or medium X : small

O : not difficult X : difficult

THE RESULT OF FIELD INVESTIGATION
ON PRIORITY LINK (6)
FOR IMPROVEMENT AND NEW CONSTRUCTION

BLOCK NO.	STUDY LINK NO. SEQ.	PROV.	RURAL	LINK LENG. (KM)	LINK VALUE T.DEV.	SHORT CONN.	ACT. CENTER	REMARKS	LENGTH OF PROPOSED ROUTE (KM)
23	118	2185 +	9232	45.3	-1.08		#	(a) X (b) X (c) X (d) - Altered to 23.5km - Improvement of only Rt 2185 is considered to be enough because A. Na Wha is not so big.	19.8
44	119		10044	10.0	1.89		#	(a) O (b) O (c) O (d) O A. Tao Ngai is big and area is well developed.	12.0
92	126	2309		25.0	1.20			(a) O (b) X (c) - (d) - Some section is already paved. Good road network is formed between Rt 24 and Rt 2119.	29.0
34	127	2253 +	2093	18.0	-0.76		#	(a) O (b) O (c) O (d) X Deleted - No need as whole section of Rt 2253 is committed recently.	-
19	135	2318		7.0	1.29		#	(a) O (b) X (c) O (d) - Passing through well developed area and A.Thung Fou is rather big.	8.3

SUB TOTAL 66 1662.5

SUB TOTAL
LENGTH OF PROPOSED ROUTES : 1061.2 KM
(35 LINKS)
LENGTH OF OMITTED ROUTES : 671.0 KM
(31 LINKS)

PRIORITY LINKS SELECTED IN 3.4 (IDENTIFICATION OF PRIORITY LINKS BY FUNCTIONAL ANALYSES OF NATIONAL HIGHWAY)

HIGH-WAY NO.	STUDY LINK NO. SEQ.	PROV.	RURAL	LINK LENG. (KM)	REMARKS	LENGTH OF PROPOSED ROUTE (KM)
N14	N4	2112 +	2173	95.0	(a) O (b) X (c) - (d) - Passing along the border line of Kingdom.	122.4

TOTAL 67 1757.5

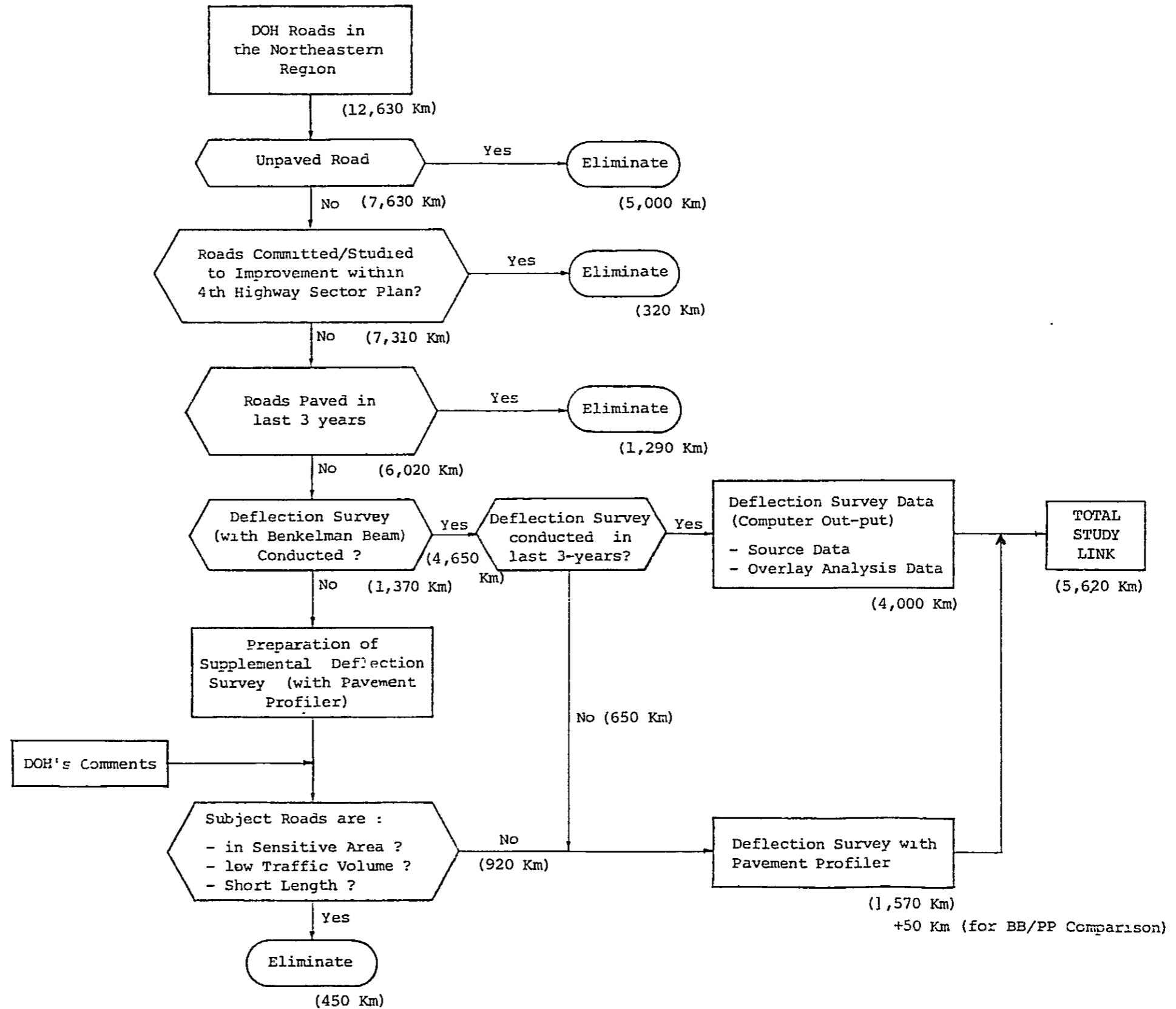
TOTAL
LENGTH OF PROPOSED ROUTES : 1183.6 KM
(36 LINKS)
LENGTH OF OMITTED ROUTES : 671.0 KM
(31 LINKS)

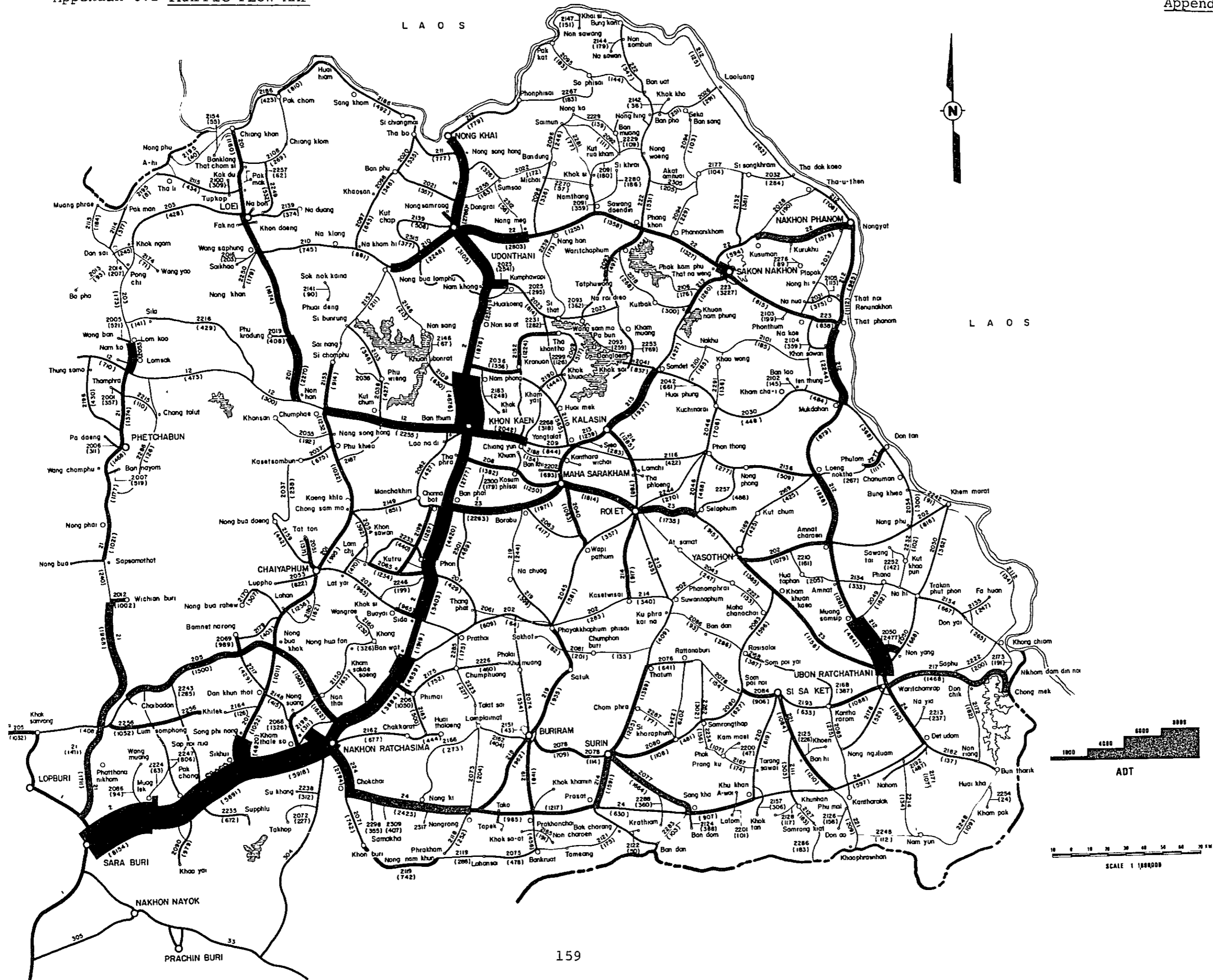
Note

- (a) Present condition and future prospect of the related area
- (b) Number of settlement along the link
- (c) Scale of activity center connected by the link
- (d) Difficulty of acquisition of Right of Way on the link under other agencies

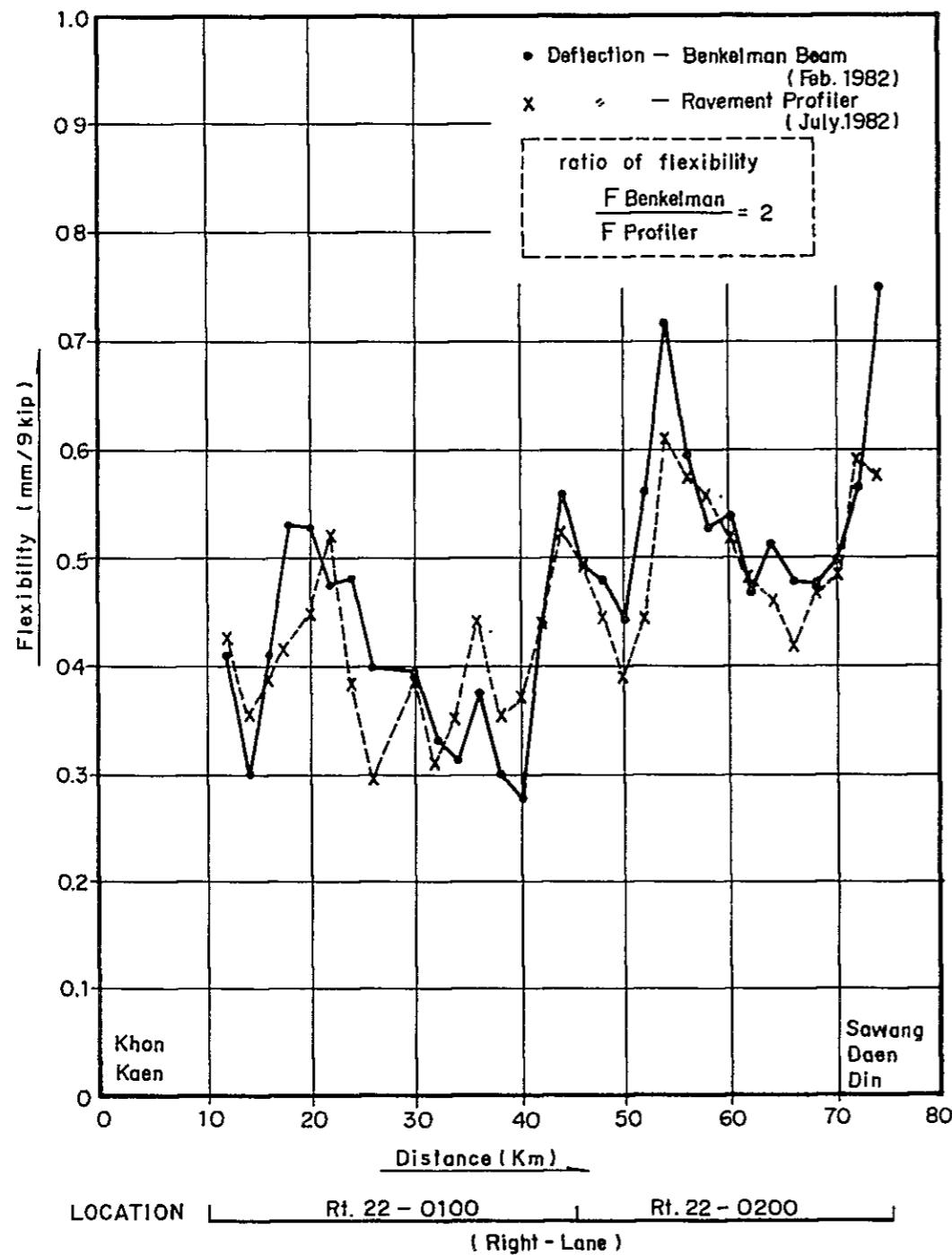
- O : well developed or expected
- X : underdeveloped or unexpected
- O : many
- X : few
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- X : small
- O : not difficult
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Appendix 6.1 STUDY LINK FOR REHABILITATION





Appendix 6.3 COMPARISON OF DEFLECTION
(Benkelman Beam/Pavement Profiler)



No.	Section (Km)	Pavement Profiler			Benkelman Beam	
		Air Temp. (°C)	Pavement Temp. (°C)	Pavement Temp. (°F)	Flexibility (mm/9 kip)	
1	11 - 12	33	42	107.6	0.4245	0.4115
2	13 - 14	33	40	104.0	0.3553	0.3023
3	15 - 16	34	43	109.4	0.3870	0.4140
4	17 - 18	34	41	105.8	0.4150	0.5309
5	19 - 20	34	44	111.2	0.4494	0.9283
6	21 - 22	34	41	105.8	0.5228	0.4775
7	23 - 24	34	44	111.2	0.3886	0.4801
8	25 - 26	34	44	111.2	0.2950	0.4039
9	29 - 30	34	44	111.2	0.3867	0.3962
10	31 - 32	33	42	107.6	0.3105	0.3302
11	33 - 34	33	42	107.6	0.3538	0.3150
12	35 - 36	33	43	109.4	0.4427	0.3784
13	37 - 38	33	43	109.4	0.3561	0.3099
14	39 - 40	33	42	107.6	0.3741	0.2794
15	41 - 42	33	41	105.8	0.4432	0.4420
16	43 - 44	32	39	102.2	0.5243	0.5613
17	45 - 46	31	39	102.2	0.4996	0.4978
18	47 - 48	35	44	111.2	0.4477	0.4826
19	49 - 50	36	47	116.6	0.3902	0.4445
20	51 - 52	36	46	114.8	0.4435	0.5664
21	53 - 54	35	49	120.2	0.6129	0.7188
22	55 - 56	36	48	118.4	0.5744	0.5969
23	57 - 58	36	49	120.2	0.5592	0.5283
24	59 - 60	36	47	116.6	0.5157	0.5410
25	61 - 62	36	45	113.0	0.4853	0.4699
26	63 - 64	37	45	113.0	0.4615	0.5156
27	65 - 66	34	45	113.0	0.4226	0.4801
28	67 - 68	34	45	113.0	0.4712	0.4801
29	69 - 70	34	44	111.2	0.4873	0.5029
30	71 - 72	34	43	109.4	0.5927	0.5690
31	73 - 74	33	43	109.4	0.5792	0.7493

Appendix 6.4 IDENTIFICATION OF LINKS FOR REHABILITATION (1)

(BAD DEFLECTION : \geq 0.6 MM)

SEQ. NO.	ROUTE NO.	LINK NO.	TYPE	LINK LENGTH (KM)	NO. OF DATA	AVERAGE OF DEFLECTION	B & T	BAD SECT. COUNT	REMARKS	LIST OF BAD SECTION NO
1	2	200	AC	22	22	0.3045	1341	1		1
2		301	AC	1	1	0.2792	3860	0		
3		302	AC	44	44	0.3288	3860	5	****	7 9 22 25 28
4		401	AC	12	12	0.2660	3770	0		
5		402	AC	26	26	0.4402	3770	3		16 22 23
6		403	AC	8	8	0.6011	3770	3		5 6 8
7		501	AC	1	1	0.6195	2889	1		1
8		502	AC	49	49	0.5358	2889	17	****	5 6 7 8 22 35 36 37 38 39 41 42 43 44 45 46 47
9		600	AC	36	35	0.5263	944	10	****	5 7 8 10 11 13 22 30 31 34
10		701	AC	1	1	0.4323	1679	0		
11		702	AC	30	30	0.3384	1679	1		1
12		800	AC	30	30	0.2702	1854	0		
13		901	AC	32	19	0.4580	1209	2		4 14
14		902	AC	14	14	0.6521	1208	9	****	4 5 6 9 10 11 12 13 14
15	12	1101	DT	30	32	0.5734	90	11		6 16 21 22 24 25 26 27 28 30 31
16		1102	AC	13	22	0.4436	637	1		11
17	22	101	AC	32	31	0.4507	1028	1		21
18		102	AC	2	2	0.4017	1028	0		
19		103	PM	2	3	1.0199	735	3		1 2 3
20		104	AC	6	6	0.3829	1028	0		
21		105	AC	1	1	0.5049	1028	0		
22		201	AC	31	14	0.5837	539	4		8 10 11 14
23		202	AC	2	1	0.5286	539	0		
24		204	AC	2	16	0.5360	539	2		11 16
25		205	AC	1	1	0.6422	539	1		1
26		207	AC	2	2	0.6267	539	1		2
27		301	AC	22	14	0.6127	538	9	****	3 6 7 8 9 10 11 12 13
28		302	AC	3	4	0.6471	539	2		3 4
29		304	AC	5	5	0.6346	539	4		1 2 3 5
30		401	AC	14	14	0.7194	484	10	****	2 3 4 5 6 7 8 9 10 11
31		402	AC	2	2	0.6251	484	1		1
32		403	PM	2	2	0.5909	484	1		1
33		404	AC	17	17	0.6932	484	15	****	1 2 3 4 5 6 7 8 9 10 11 12 13 14 16
34		405	AC	2	2	0.6724	484	2		1 2
35		406	PM	3	3	0.5447	484	1		1
36		407	AC	14	14	0.4937	484	1		5
37		501	AC	34	33	0.5278	380	6	***	5 11 25 27 30 31
38		502	AC	1	1	0.5984	380	0		
39		600	AC	24	23	0.6085	207	15	**	2 3 4 5 6 7 10 14 15 16 17 18 19 20 21
40		700	AC	29	29	0.5775	299	13	**	2 3 6 7 8 9 15 17 19 20 21 22 29
41	23	101	AC	5	5	0.3975	704	0		
42		102	DT	5	5	0.6525	704	3		2 3 4
43		103	AC	37	32	0.7853	704	20	****	1 2 3 4 5 7 8 9 10 11 15 17 19 20 21 22 23 25 29 30
44		104	AC	3	3	0.5338	704	1		1

IDENTIFICATION OF LINKS FOR REHABILITATION (2)

(BAD DEFLECTION : ≥ 0.6 MM)

SEQ. NO.	ROUTE NO.	LINK NO.	LINK TYPE	LINK LENGTH (KM)	NO. OF DATA	AVERAGE OF DEFLECTION	B & T	BAD SECT. COUNT	REMARKS	LIST OF BAD SECTION NO
45	23	105	DT	4	4	0.5392	704	1		3
46		200	AC	32	24	0.6697	727	12	****	2 3 4 7 9 11 12 14 16 17 23 24
47		202	AC	22	22	0.2613	689	1		14
48		300	AC	33	32	0.5103	696	8	****	2 3 15 16 18 20 22 23
49		302	AC	8	8	0.4199	696	2		2 3
50		303	AC	44	42	0.4743	696	0		
51		401	AC	12	12	0.5367	271	4		1 2 3 7
52		402	AC	3	3	0.6083	628	1		1
53		403	DT	33	33	0.4868	627	2		19 23
54		505	DT	40	40	0.4327	268	6	**	32 33 34 35 36 38
55		600	DT	22	22	0.5916	308	10	***	10 11 13 16 17 18 19 20 21 22
56		701	DT	41	42	0.4763	422	3		2 4 5
57		702	ST	3	3	0.4084	258	0		
58		703	PM	2	2	0.3522	258	0		
59		802	AC	36	14	2.7713	331	4		2 4 5 14
60	24	200	AC	43	43	0.4092	1296	6	****	7 26 28 29 30 31
61		300	AC	32	32	0.5191	1253	10	****	1 4 5 7 8 10 19 29 31 32
62		400	AC	28	28	0.6821	517	20	****	1 2 3 8 9 11 12 13 14 15 16 17 18 19 20 21 22 23 24 27
63		500	AC	37	31	0.4816	484	5	****	1 2 3 5 25
64		600	AC	50	25	0.8421	202	22	**	1 2 3 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 23 24
65		700	AC	38	38	0.5379	482	10	****	1 19 21 25 31 32 33 34 37 38
66		801	AC	18	18	0.4763	475	2		3 18
67		802	AC	51	35	0.4811	475	5	****	6 13 19 21 26
68		803	AC	1	1	0.4519	475	0		
69		900	AC	49	49	0.5115	241	8	**	2 14 16 20 26 28 32 46
70		1001	DT	40	40	0.5211	2358	10	****	6 26 27 28 30 31 32 34 35 38
71		1002	AC	17	17	0.6769	1296	11	****	1 3 5 6 7 8 9 10 11 12 13
72		1002	AC	1	1	0.2340	400	0		
73		1003	AC	1	1	0.2405	2067	0		
74		1004	AC	2	2	0.2053	2067	0		
75	201	100	DT	40	40	0.3671	1068	0		
76		200	DT	25	25	0.4897	448	6	****	7 17 18 20 22 25
77		300	DT	17	17	0.3977	397	1		1
78		400	DT	38	38	0.3968	397	0		
79		500	AC	50	42	0.3382	338	2		5 8
80		600	AC	27	32	0.3345	420	2		6 22
81		700	AC	20	22	0.3075	428	1		22
82		800	AC	13	12	0.4929	415	2		9 12
83		900	AC	23	23	0.5683	415	9	****	1 4 5 9 11 12 13 18 22
84		1001	AC	7	7	0.3660	412	0		
85		1002	DT	11	3	0.5644	412	1		1
86		1003	AC	13	13	0.3805	412	0		
87		1100	AC	49	33	0.5007	412	3		7 16 29

IDENTIFICATION OF LINKS FOR REHABILITATION (3)

(BAD DEFLECTION : ≥ 0.6 MM)

SEQ. NO.	ROUTE NO.	LINK NO.	TYPE	LINK LENGTH (KM)	NO. OF DATA	AVERAGE OF DEFLECTION	B & T	BAD SECT. COUNT	REMARKS	LIST OF BAD SECTION NO
88	201	1201	AC	1	1	0.5343	412	0		
89		1202	AC	3	3	0.6986	412	3		1 2 3
90		1203	DT	3	3	0.5447	412	1		2
91		1204	AC	20	20	0.4739	412	4		1 2 6 17
92		1300	DT	28	28	0.4085	148	3		2 17 18
93	202	100	DT	17	17	0.8157	200	11	**	1 2 3 5 6 7 8 9 10 11 13
94		200	AC	32	32	0.7098	200	20	**	2 4 5 7 12 13 14 15 16 18 19 20 21 22 23 24 26 27 28 30
95		301	PM	16	17	0.4522	425	1		8
96		400	PM	19	17	0.4851	263	2		13 16
97		500	ST	49	36	0.6580	263	27	**	1 2 7 8 11 12 13 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 34 35 36
98		600	DT	20	11	0.6099	112	7	*	3 4 5 8 9 10 11
99		700	DT	30	15	0.5670	112	6	*	1 2 3 4 5 9
100		900	PM	34	34	0.5010	184	9	*	1 2 3 6 20 22 27 29 34
101		1100	AC	49	49	0.4456	278	3		16 17 18
102		1200	AC	23	23	0.4197	278	2		22 24
103	203	200	DT	23	23	0.6505	59	14		10 11 12 13 14 15 16 17 18 19 20 21 22 23
104		300	DT	37	36	0.6404	80	18		1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 22 34
105		400	DT	30	28	0.6731	107	17	*	1 6 7 8 9 10 11 19 20 21 22 23 24 25 26 27 28
106	205	600	DT	30	18	0.4334	337	2		12 17
107		702	DT	35	35	0.4245	477	2		15 30
108		800	DT	28	28	0.4664	524	3		5 15 28
109	206	100	AC	11	11	0.5576	362	6	***	1 2 3 4 7 8
110	207	100	DT	37	37	0.6168	194	20	*	1 2 3 4 5 6 8 13 16 17 18 21 25 26 27 28 29 33 36 37
111		202	DT	35	35	0.6025	131	20	*	1 4 5 6 7 9 11 12 14 15 16 17 18 19 20 23 24 25 26 35
112		300	DT	23	23	0.5832	131	12	*	2 4 8 9 10 12 13 14 15 16 17 23
113	208	100	DT	31	31	0.7702	402	29	****	1 2 3 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
114		200	DT	30	27	1.0662	310	25	***	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 20 21 22 23 24 25 26
115	210	101	AC	49	41	0.2043	691	0		
116		102	PM	1	1	0.3794	691	0		
117		201	AC	41	41	0.2718	216	0		
118		300	AC	37	37	0.2409	203	0		
119	211	100	PM	30	30	0.4214	256	0		
120		200	AC	15	15	0.5054	267	1		15
121	212	100	DT	45	39	0.4585	288	0		
122		200	DT	44	44	0.4042	148	5	*	6 16 40 47 48
123		300	DT	29	29	0.5303	111	6	*	22 23 25 26 27 28
124		400	DT	18	18	0.5330	111	3		5 20 21
125		500	DT	34	34	0.4655	45	4		1 26 30 32

IDENTIFICATION OF LINKS FOR REHABILITATION (4)

(BAD DEFLECTION : >= 0.6 MM)

SEQ. NO.	ROUTE NO.	LINK NO.	TYPE	LINK LENGTH (KM)	NO. OF DATA	AVERAGE OF DEFLECTION	B & T	BAD SECT. COUNT	REMARKS	LIST OF BAD SECTION NO
126	212	600	DT	39	30	0.5387	45	7		17 18 19 20 21 24 25
127		702	DT	19	19	0.4288	45	2		12 13
128		800	DT	19	19	0.4466	67	2		4 10
129		900	AC	11	11	0.9077	67	10		1 2 3 4 5 6 7 9 10 11
130		901	DT	18	18	0.3916	67	2		11 13
131		1000	AC	26	26	0.4534	163	5	*	1 3 10 19 20
132		1100	AC	45	44	0.6715	157	23	*	3 4 7 12 13 15 20 21 22 23 24 25 26 29 36 37 38
133		1200	AC	26	26	0.5455	134	7	*	39 40 41 42 43 44
134		1203	DT	2	2	0.5534	234	1		7 8 10 13 14 20 21
135		1300	DT	35	36	0.4435	186	1		1
136		1400	DT	48	51	0.4655	339	4		27
137		1501	DT	42	43	0.4946	761	4		15 34 39 41
138	213	100	DT	43	42	1.4284	463	40	****	1 8 37 42
139		200	DT	42	42	0.7122	518	28	****	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 41 42
140		300	PM	54	57	0.6528	175	37	*	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 21 24 35 36 37 41 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57
141		400	PM	33	33	0.5978	320	19	***	1 2 3 4 5 6 7 10 16 24 25 26 27 28 29 30 31
142		9100	DT	1	1	0.9494	175	1		32 33
143	214	100	DT	28	28	0.8838	321	25	***	1 4 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
144		200	DT	19	19	1.1389	321	18	***	1 2 3 4 5 6 7 8 9 10 11 13 14 15 16 17 18 19
145		300	AC	48	48	0.2998	238	0		
146		400	AC	30	15	0.2782	157	0		
147		500	AC	39	40	0.5526	175	14	*	3 4 8 14 16 18 19 20 21 22 23 24 27 32
148		600	AC	24	28	0.4916	527	0		
149		700	AC	28	22	0.4342	470	1		10
150		800	PM	29	29	0.8088	622	27	****	1 3 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
151		900	PM	40	38	0.6137	112	22	*	12 13 14 15 16 17 18 19 20 21 23 24 27 28 29 30 31 32 33 34 35 36
152	217	100	AC	43	43	0.2433	428	2		2 4
153		201	AC	44	17	0.2472	428	1		17
154	218	100	PM	25	25	0.5581	359	8	***	10 14 18 19 20 21 22 24
155		200	AC	27	27	0.4443	359	0		
156	219	100	PM	19	15	0.6238	208	5	**	1 2 3 4 5
157		200	PM	25	24	0.4542	207	5	**	18 19 20 21 22
158		302	DT	2	2	1.4139	410	2		1 2
159		303	DT	29	29	0.6926	410	19	****	3 4 5 6 9 11 13 14 15 16 19 21 22 23 24 25 26 27 28

IDENTIFICATION OF LINKS FOR REHABILITATION (5)

(BAD DEFLECTION : >= 0.6 MM)

SEQ. NO.	ROUTE NO.	LINK NO.	TYPE	LINK LENGTH (KM)	NO. OF DATA	AVERAGE OF DEFLECTION	B & T	BAD SECT. COUNT	REMARKS	LIST OF BAD SECTION NO
160	219	400	DT	38	38	0.7486	410	29	****	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 28 29 30 35
161	220	100	DT	57	57	0.5402	197	12	*	11 16 38 40 41 47 50 52 53 54 55 56
162	221	100	DT	32	32	0.7518	329	28	***	2 3 4 5 6 7 8 9 10 11 12 13 14 16 17 18 19 20 1 2 3 4 6 8 9 10 11 12
163	222	200	DT	32	32	0.5102	415	7	****	1 2 3 4 6 8 9
164	222	100	DT	31	31	0.4627	168	2		22 24
165		200	DT	32	32	0.4081	168	0		
166		300	DT	20	20	0.4938	129	2		14 16
167		400	DT	45	45	0.5747	129	22	*	1 2 3 7 9 15 16 17 18 19 29 30 31 32 33 34 35 37 38 39 41 43
168	223	100	AC	6	6	0.6417	470	5	****	1 3 4 5 6
169		102	AC	35	35	0.5015	129	5	*	1 5 7 12 13
170		200	AC	16	16	0.4016	129	0		
171		300	AC	20	19	0.4029	269	0		
172	224	100	AC	29	29	0.3032	1336	0		
173	304	800	AC	45	45	1.0438	539	39	****	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 25 26 27 28 29 30 32 33 34 35 36 37 38 39 42 43 44
174		902	AC	5	5	0.8995	236	5	**	1 2 3 4 5
175		903	PM	5	5	0.9595	236	5	**	1 2 3 4 5
176		904	AC	26	26	0.4650	681	7	****	1 2 3 5 10 12 13
177	2015	100	DT	4	4	1.3851	53	4		1 2 3 4
178	2017	100	PM	2	3	1.4520	205	3		1 2 3
179	2019	102	DT	5	5	0.6867	135	2		1 4
180	2021	100	DT	43	43	0.3830	179	0		
181	2022	101	DT	15	14	0.6495	82	6		5 6 7 8,10 14
182		102	DT	15	15	0.5345	82	4		1 2 10 15
183		201	DT	34	34	0.5527	43	11		1 5 6 7 8 12 17 21 28 29 31
184	2023	100	PM	8	8	4.9918	582	8	****	1 2 3 4 5 6 7 8
185		200	DT	28	28	0.4584	312	0		
186	2024	100	AC	5	5	0.5654	117	1		1
187	2034	100	ST	49	47	0.4125	77	1		37
188		200	ST	31	31	0.4164	99	0		
189	2038	100	DT	31	31	0.5803	127	14	*	1 2 3 4 5 6 12 14 15 17 19 21 25 27
190	2039	101	DT	16	16	0.8318	539	14	****	1 2 3 4 7 8 9 10 11 12 13 14 15 16
191		102	DT	17	16	1.0247	539	16	****	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
192	2040	101	DT	35	35	0.5408	234	13	**	1 22 23 24 25 27 28 29 30 31 33 34 35
193	2045	200	DT	41	41	0.4312	119	1		5
194	2050	100	DT	46	46	0.7906	114	45	*	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46
195	2051	100	DT	10	10	0.6225	237	5	**	1 2 3 4 9
196	2054	100	DT	34	34	0.3952	156	0		
197	2057	100	AC	23	23	0.4534	247	5	**	3 4 8 16 22

IDENTIFICATION OF LINKS FOR REHABILITATION (6)

(BAD DEFLECTION : >= 0.6 MM)

SEQ. NO.	ROUTE NO.	LINK NO.	TYPE	LINK LENGTH (KM)	NO. OF DATA	AVERAGE OF DEFLECTION	B & T	BAD SECT. COUNT	REMARKS	LIST OF BAD SECTION NO
198	2058	100	AC	1	1	0.3729	530	0		
199	2062	100	DT	44	44	0.5371	180	16	*	1 2 3 4 5 6 8 9 12 13 17 18 22 26 39 40
200	2063	101	DT	37	37	1.4968	68	35		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 32 33 34 35 37
201	2065	101	DT	32	23	0.4121	579	1		8
202	2066	100	DT	6	6	0.7793	1306	4		3 4 5 6
203	2067	100	DT	10	10	0.4383	38	0		
204	2068	100	DT	20	20	0.5282	407	4		2 13 16 19
205	2069	100	DT	7	6	0.6795	221	3		4 5 6
206	2070	100	AC	1	1	0.2540	403	0		
207	2071	100	DT	28	28	0.5124	282	9	**	1 2 15 22 24 25 26 27 28
208	2074	200	DT	29	21	0.5626	136	5	*	3 10 11 12 14
209	2075	100	DT	25	20	0.4624	153	0		
210	2077	100	DT	50	47	0.6130	441	30	****	1 2 3 4 5 6 7 12 14 15 16 17 18 20 28 29 30 31 32 34 35 36 38 40 41 42 44 45 46 47
211	2078	100	DT	11	11	0.8340	218	8	**	1 2 3 4 5 6 7 8
212	2080	100	DT	32	32	0.9066	351	32	***	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
213		200	DT	21	21	0.7816	193	21	*	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
214		300	DT	26	29	0.4882	201	2		27 28
215	2084	100	DT	19	19	0.4906	228	0		
216	2090	100	PM	50	24	0.6351	88	11		1 2 3 5 6 7 8 18 21 22 24
217	2093	100	DT	19	17	0.5157	135	4		3 5 9 17
218	2099	100	DT	12	10	0.7572	57	7		1 2 4 5 6 8 10
219	2100	100	DT	5	5	1.0196	49	5		1 2 3 4 5
220	2109	100	DT	24	22	0.8600	222	19	**	1 2 3 4 7 8 9 10 11 12 14 15 16 17 18 19 20 21 22
221	2111	100	DT	39	39	0.5221	117	9	*	1 2 27 29 35 36 37 38 39
222	2115	101	DT	39	39	0.8110	109	37	*	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 37 38 39
223		201	DT	4	3	1.0994	61	3		1 2 3
224	2130	100	DT	3	3	0.6225	433	1		1
225		200	DT	2	2	0.9123	151	2		1 2
226	2140	100	DT	2	2	1.2390	7	2		1 2
227	2149	100	DT	30	30	0.4837	251	7	**	9 10 11 12 14 17 19
228	2154	100	DT	1	1	0.7933	4	1		1
229	2159	100	DT	41	43	0.4852	102	11	*	1 6 7 12 13 14 15 16 17 27 31
230	2160	100	DT	20	19	0.8416	121	14	*	1 2 4 5 9 10 11 12 13 14 15 16 17 19
231	2161	100	DT	5	5	0.3148	218	0		
232	2175	100	DT	34	34	0.6737	167	20	*	2 4 6 7 14 15 16 17 18 19 21 22 23 24 25 26 31 32 33 34

IDENTIFICATION OF LINKS FOR REHABILITATION (7)

(BAD DEFLECTION : ≥ 0.6 MM)

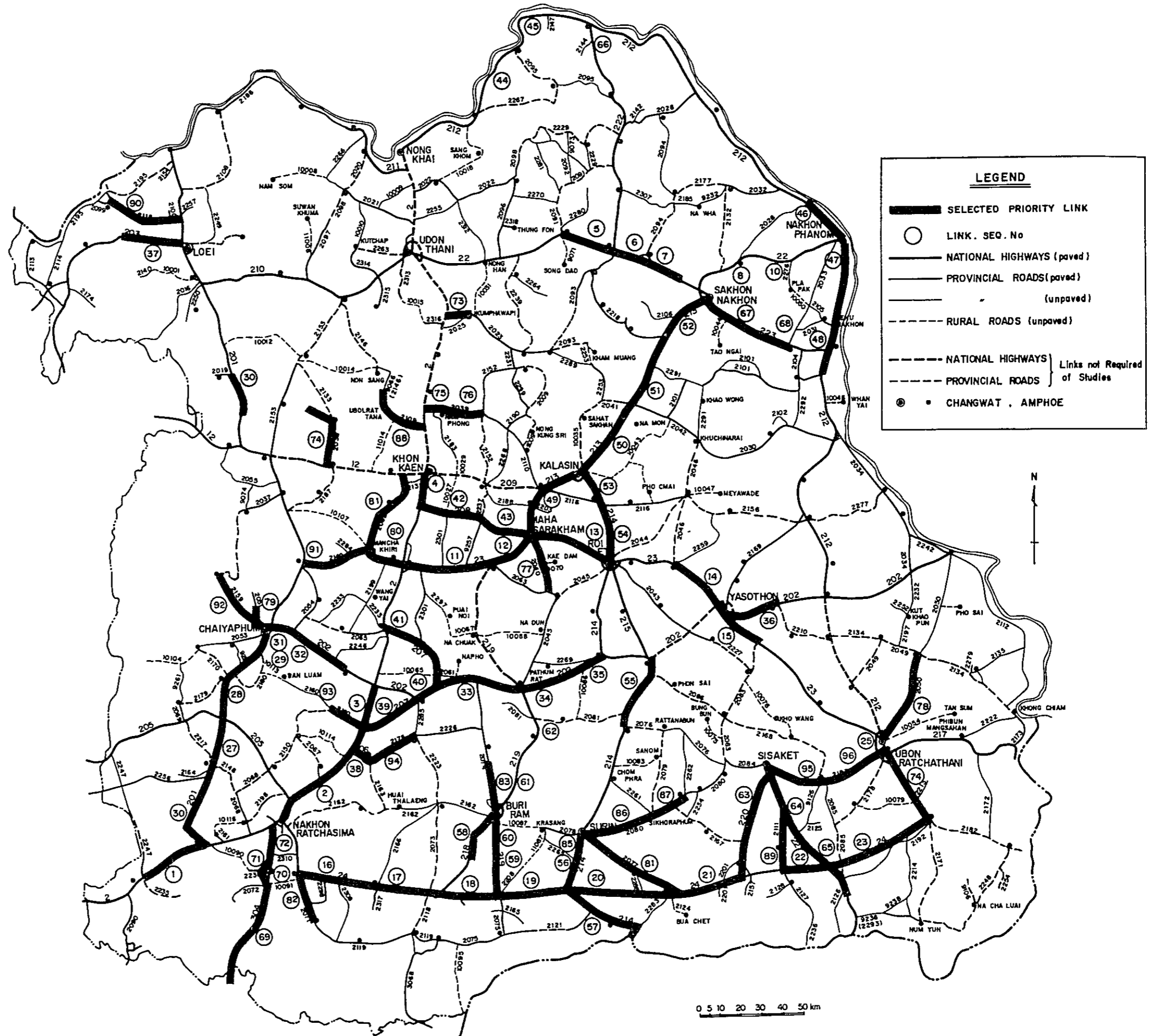
SEQ. NO.	ROUTE NO.	LINK NO.	TYPE	LINK LENGTH (KM)	NO. OF DATA	AVERAGE OF DEFLECTION	B & T	BAD SECT. COUNT	REMARKS	LIST OF BAD SECTION NO
233	2186	400	DT	41	41	0.7250	42	35		1 4 5 6 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 35 36 37 40 41
234	2193	100	DT	24	29	0.6141	227	16	**	1 2 3 4 5 6 8 9 10 11 12 14 20 21 22 23
235		201	DT	35	30	0.6781	392	22	***	1 2 3 4 5 6 7 9 10 11 12 14 15 16 18 19 20 21 22 23 24 25
236	2238	100	DT	5	5	0.6561	21	2		1 3
237	2242	100	DT	7	7	0.4884	23	0		
TOTAL				5574	5266			1717		

BAD SECTION LENGTH (≥ 0.6 MM).

	TRAFFIC VOLUME	LINK LENGTH	NO. OF DATA	BAD SECTION COUNT
* :	≥ 100	2867	2735	1369
** :	≥ 200	1874	1774	928
*** :	≥ 300	1345	1286	704
**** :	≥ 400	1044	994	505

Appendix 6.5 SELECTED PRIORITY LINKS FOR REHABILITATION

Appendix 6.5



DEFINITION OF TERMS

(1) BAD SECTION : DEFLECTION \geq 0.6 MM

(2) BAD LINK : BAD SECTION COUNT \geq 5

CONDITION OF SELECTION : BAD LINK WITH TRAFFIC VOLUME \geq 100

SEQ. NO.	ROUTE NO.	LINK NO.	LINK TYPE	LINK LENG. (KM)	SECT. COUNT	AVE. DEF-LECTION	B & T	BAD SECT. COUNT	DEF-LECTION	SURFACE CONDI.	REMARKS	LENGTH OF PROPOSED ROUTE (KM)
1	2	302	AC	44	44	0.3288	3860	5	0	X	Only 10 Km of bad section.	-
2		502	AC	49	49	0.5358	2889	17	0	0	Included in the DOH's overlay plan in 1983.	-
3		600	AC	36	35	0.5263	944	10	0	X	Included in the DOH's overlay plan in 1983.	-
4		902	AC	14	14	0.6521	1208	9	X	0	Partially sealed.	-
5	22	301	AC	22	14	0.6127	538	9	X	X	Included in the DOH's overlay plan in 1983.	-
6		401	AC	14	14	0.7194	484	10	X	0	Partially sealed. Included in the DOH's overlay plan in 1983.	-
7		404	AC	17	17	0.6932	484	15	X	0	Partially overlaid or sealed. Included in the DOH's overlay plan in 1983.	-
8		501	AC	34	33	0.5278	380	6	0	X	Included in the DOH's overlay plan in 1983.	-
9		600	AC	24	23	0.6085	207	15	X	X	Included in the DOH's overlay plan in 1983.	-
10		700	AC	29	29	0.5775	299	13	0	X	Included in the DOH's overlay plan in 1983.	-
11	23	103	AC	37	32	0.7853	704	20	X	0	Fair surface condition.	-
12		200	AC	32	24	0.6697	727	12	X	0	Fair surface condition.	-
13		300	AC	33	32	0.5103	696	8	0	0		-
14		505	DT	40	40	0.4327	268	6	0	0		-
15		600	DT	22	22	0.5916	308	10	0	0		-

NOTE

AVERAGE OF DEFLECTION SURFACE CONDITION

0 : < 0.6 MM
0 : GOOD

X : \geq 0.6 MM
X : POOR

PROPOSED LINKS FOR REHABILITATION (2)

SEQ. NO.	ROUTE NO.	LINK NO.	LINK TYPE	LINK LENG. (KM)	SECT. COUNT	AVE. DEF-LECTION	B & T	BAD SECT. COUNT	DEF-LECTION	SURFACE CONDI.	REMARKS	LENGTH OF PROPOSED ROUTE (KM)
16	24	200	AC	43	43	0.4092	1296	6	0	0		-
17		300	AC	32	32	0.5191	1253	10	0	0		-
18		400	AC	28	28	0.6821	517	20	X	X		28
19		500	AC	36	31	0.4816	484	5	0	X	Very poor surface with many patchings and ruttings.	36
20		600	AC	50	25	0.8421	202	22	X	X		50
21		700	AC	38	38	0.5379	482	10	0	0		-
22		802	AC	51	35	0.4811	475	5	0	0		-
23		900	AC	49	49	0.5115	241	8	0	0		-
24		1001	DT	40	40	0.5211	2358	10	0	X	L = 23 Km (K.p 0 - 8, K.p 25 - 40), especially bad surface.	40
25		1002	AC	17	17	0.6769	1296	11	X	0	Bypass Ubon Ratchathani. Overlay planning in 1983.	-
26	201	100	DT	39	40	0.3671	1068	0	0	X	Very poor surface condition.	39
27		200	DT	25	25	0.4897	448	6	0	X	Very poor surface condition.	25
28		300	DT	17	17	0.3977	397	1	0	X	Very poor surface condition.	17
29		400	DT	38	38	0.3968	397	0	0	X	Very poor surface condition.	38
30		900	AC	23	23	0.5683	415	9	0	0		-
31	202	100	DT	17	17	0.8157	200	11	X	0	Fair surface condition.	-
32		200	AC	32	32	0.7098	200	20	X	0	Fair surface condition.	-

NOTE

AVERAGE OF DEFLECTION SURFACE CONDITION
 0 : < 0.6 MM
 0 : GOOD
 X : ≥ 0.6 MM
 X : POOR 170

Note: **: These links were selected owing to the notable surface deterioration.

PROPOSED LINKS FOR REHABILITATION (4)

SEQ. NO.	ROUTE NO.	LINK NO.	TYPE	LINK LENG. (KM)	SECT. COUNT	AVE. DEF-LECTION	B & T	BAD SECT. COUNT	DEF-LECTION	SURFACE CONDI.	REMARKS	LENGTH OF PROPOSED ROUTE (KM)
50	213	200	DT	42	42	0.7122	518	28	X	0	Partially sealed.	-
51		300	PM	54	57	0.6528	175	37	X	0	Partially sealed/Low traffic volume.	-
52		400	PM	33	33	0.5978	320	19	0	0		-
53	214	100	DT	28	28	0.8838	321	25	X	X		28
54		200	DT	19	19	1.1389	321	18	X	X		19
55		500	AC	39	40	0.5526	175	14	0	0	Partially poor surface condition/Low traffic volume.	-
56		800	PM	30	29	0.8088	622	27	X	X		30
57		900	PM	40	38	0.6137	112	22	X	0	Sealed already/Low traffic volume.	-
58	218	100	PM	25	25	0.5581	359	8	0	0	Bad section, 9 Km. Scheduled to be improved by District Office.	-
59	219	100	PM	19	15	0.6238	208	5	X	0	Bad section, 6 Km. Scheduled to be improved by District Office.	-
60		200	PM	25	24	0.4542	207	5	0	0		-
61		303	DT	29	29	0.6926	410	19	X	X	Included in the DOH's overlay plan in 1983.	-
62		400	DT	38	38	0.7486	410	29	X	X	Included in the DOH's overlay palan in 1983.	-
63	220	100	DT	57	57	0.5402	197	12	0	0		-
64	221	100	DT	32	32	0.7518	329	28	X	X	Included in the DOH's overlay plan in 1983.	-
65		200	DT	32	32	0.5102	415	7	0	0	Bad section, 7 Km. Scheduled to by improved by District Office.	-
66	222	400	DT	45	45	0.5747	129	22	0	0		-

NOTE

AVERAGE OF DEFLECTION SURFACE CONDITION 0 : < 0.6 MM X : >= 0.6 MM
 0 : GOOD X : POOR

PROPOSED LINKS FOR REHABILITATION (5)

SEQ. NO.	ROUTE NO.	LINK NO.	LINK TYPE	LINK LENG. (KM)	SECT. COUNT	AVE. DEF-LECTION	B & T	BAD SECT. COUNT	DEF-LECTION	SURFACE CONDI.	REMARKS	LENGTH OF PROPOSED ROUTE (KM)
67	223	100	AC	6	6	0.6417	470	5	X	0	Fair to good surface condition.	-
68		102	AC	35	35	0.5015	129	5	0	0		-
69	304	800	AC	46	45	1.0438	539	39	X	X	Very poor surface conditon with many patchings and uneven profile.	46
70		902	AC	6	5	0.8995	236	5	X	X	Bypass. Very poor surface condition with many patchings and ruttings.	6
71		903	PM	5	5	0.9595	236	5	X	X	Included in the DOH's overlay plan in 1983.	-
72		904	AC	26	26	0.4650	681	7	0	X	Poor surface condition/High traffic volume.	26
73	2023	100	PM	36	8	4.9918	312	8	X	X		8
74	2038	100	DT	36	31	0.5803	127	14	0	0		-
75	2039	101	DT	16	16	0.8318	539	14	X	X		16
76		102	DT	17	16	1.0247	539	16	X	X		17
77	2040	101	DT	35	35	0.5408	234	13	0	0		-
78	2050	100	DT	46	46	0.7906	114	45	X	0	Bad section, 3 Km./ Low traffic volume.	-
79	2051	100	DT	10	10	0.6225	237	5	X	0	Bad section, 6 Km.	-
80	2057	100	AC	23	23	0.4534	247	5	0	0		-
81	2062	100	DT	44	44	0.5371	180	16	0	0		-
82	2071	100	DT	28	28	0.5124	282	9	0	X	Very poor surface conditon./ Narrow width. Reconstruction is recommended.	28
83	2074	200	DT	29	21	0.5626	136	5	0	0		-

NOTE

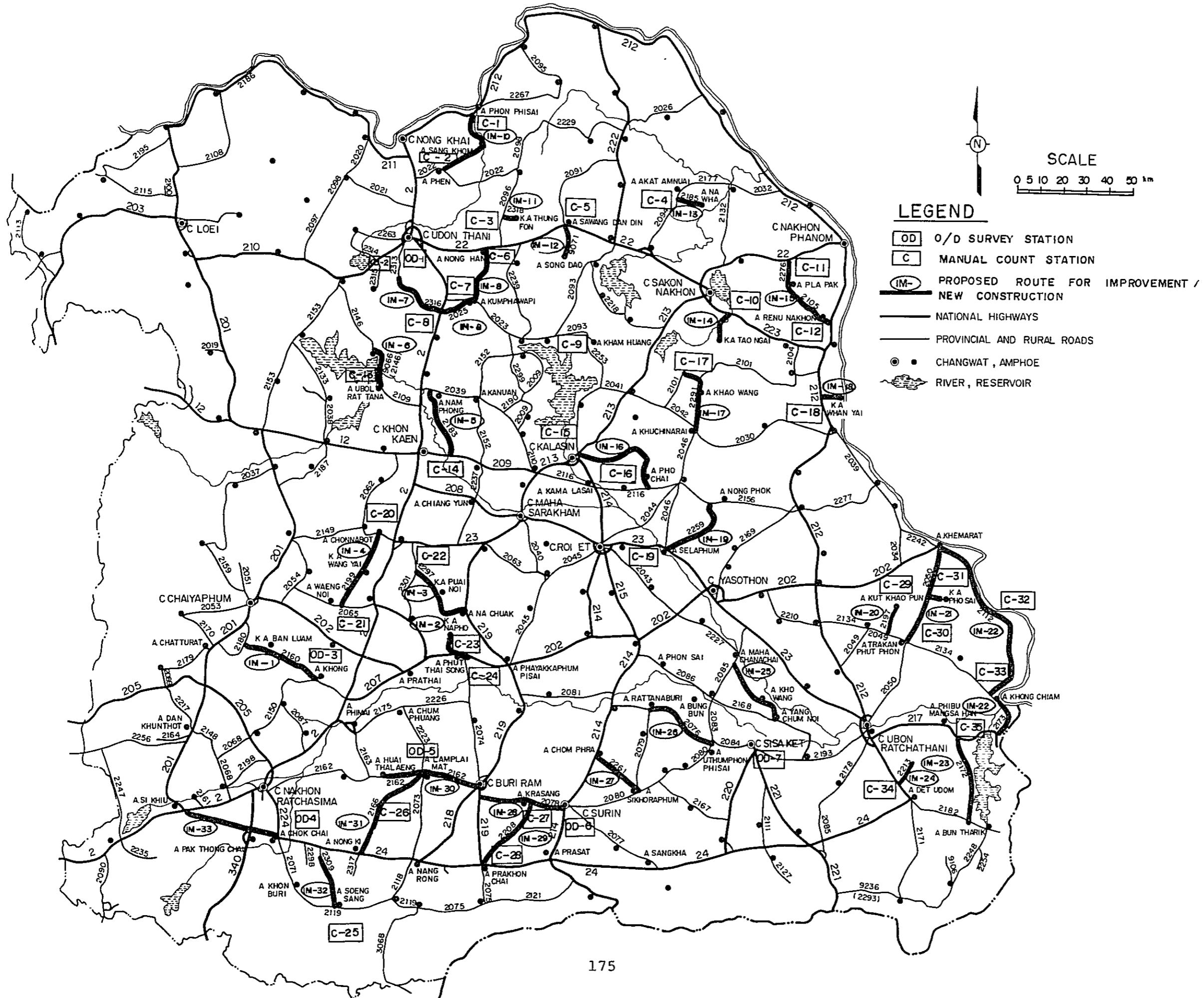
AVERAGE OF DEFLECTION SURFACE CONDITION 0 : < 0.6 MM X : >= 0.6 MM
 0 : GOOD X : POOR 173

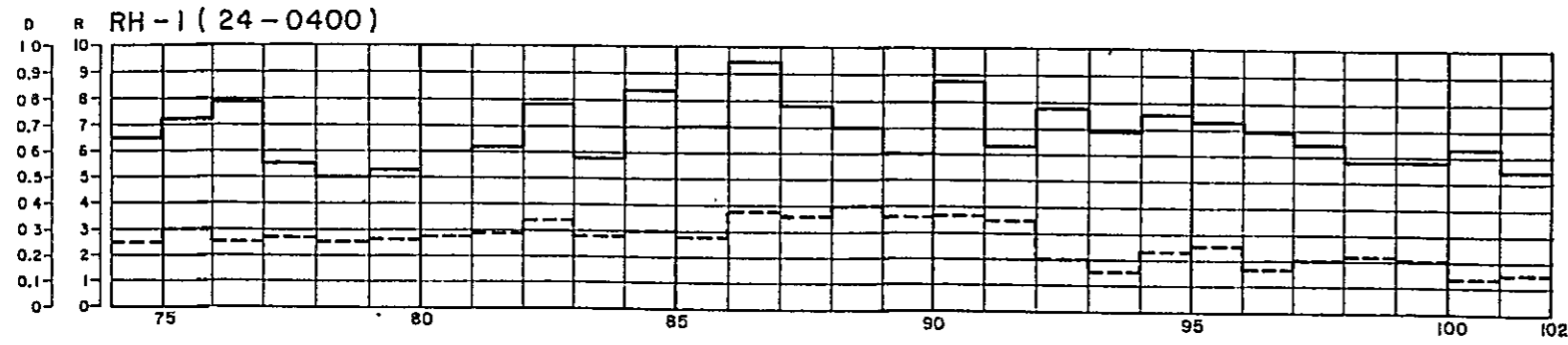
PROPOSED LINKS FOR REHABILITATION (6)

SEQ. NO.	ROUTE NO.	LINK NO.	LINK TYPE	LINK LENG. (KM)	SECT. COUNT	AVE. DEF-LECTION	B & T	BAD SECT. COUNT	DEF-LECTION	SURFACE CONDI.	REMARKS	LENGTH OF PROPOSED ROUTE (KM)
84	2077	100	DT	50	47	0.6130	441	30	X	0	Good surface condition.	-
85	2078	100	DT	11	11	0.8340	218	8	X	X	Included in overlay plan in 1982 - 83.	-
86	2080	100	DT	32	32	0.9066	351	32	X	0	Fair surface condition.	-
87		200	DT	21	21	0.7816	193	21	X	0	Fair surface condition.	-
88	2109	100	DT	24	22	0.8600	222	19	X	X		24
89	2111	100	DT	39	39	0.5221	117	9	0	0		-
90	2115	101	DT	39	39	0.8110	109	37	X	0	Fair to good surface condition.	-
91	2149	100	DT	30	30	0.4837	251	7	0	0		-
92	2159	100	ST	41	43	0.4852	102	11	0	0		-
93	2160	100	DT	20	19	0.8416	121	14	X	X	Very poor surface condition. Reconstruction is recommended.	20
94	2175	100	DT	34	34	0.6737	167	20	X	X		34
95	2193	100	DT	24	29	0.6141	227	16	X	X	Planned to be overlayed in 1982 - 83.	-
96		201	DT	35	30	0.6781	392	22	X	X	Planned to be overlayed in 1982 - 83.	-
TOTAL				2987								774

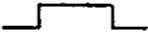

NOTE

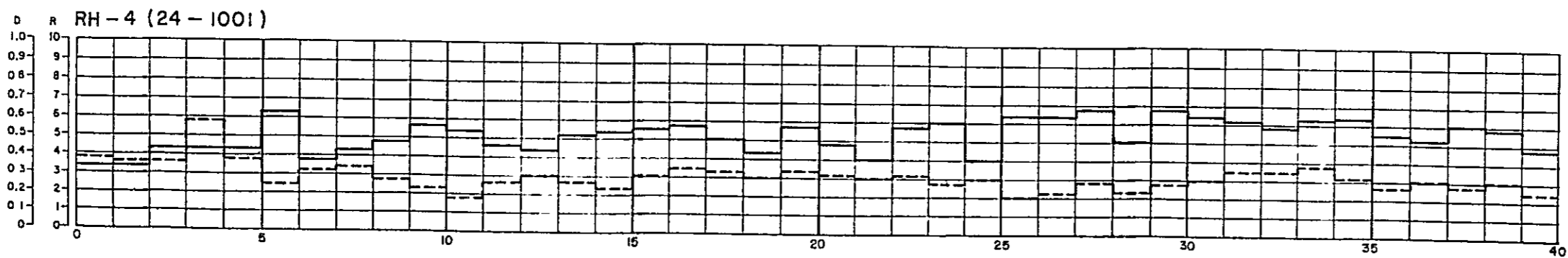
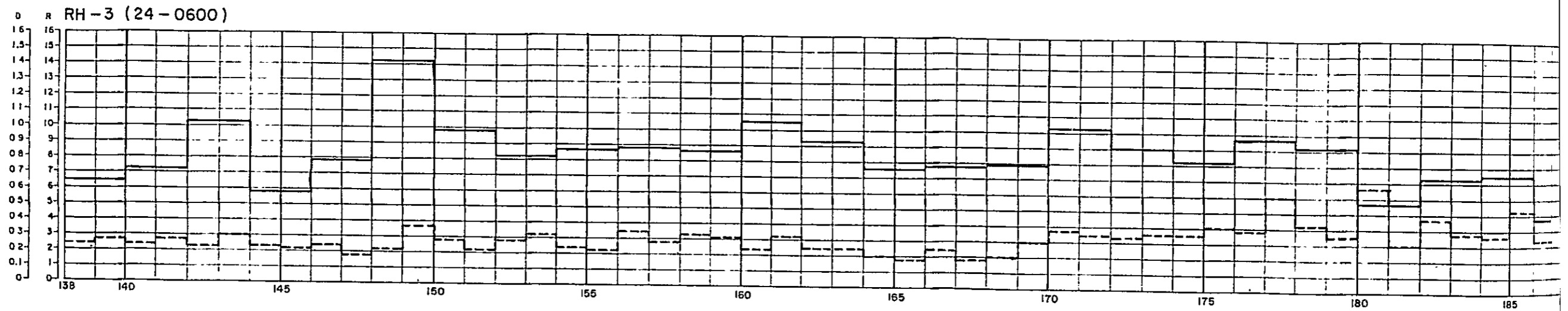
AVERAGE OF DEFLECTION SURFACE CONDITION 0 : < 0.6 MM X : ≥ 0.6 MM
0 : GOOD X : POOR



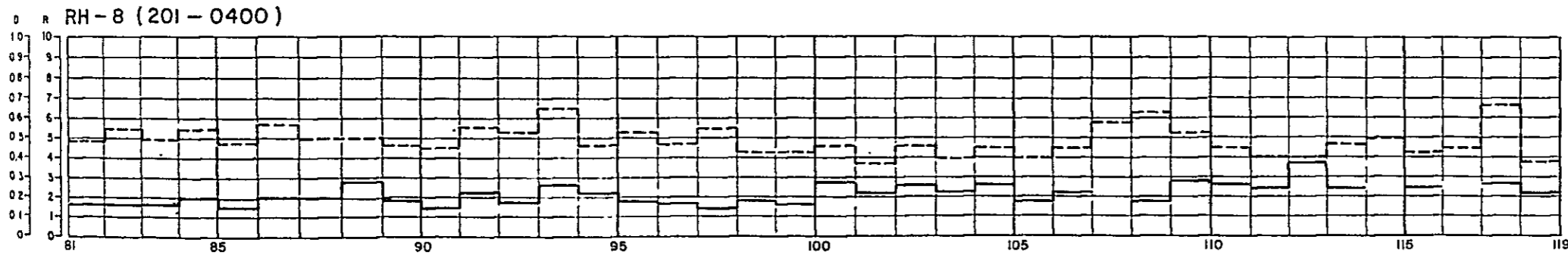
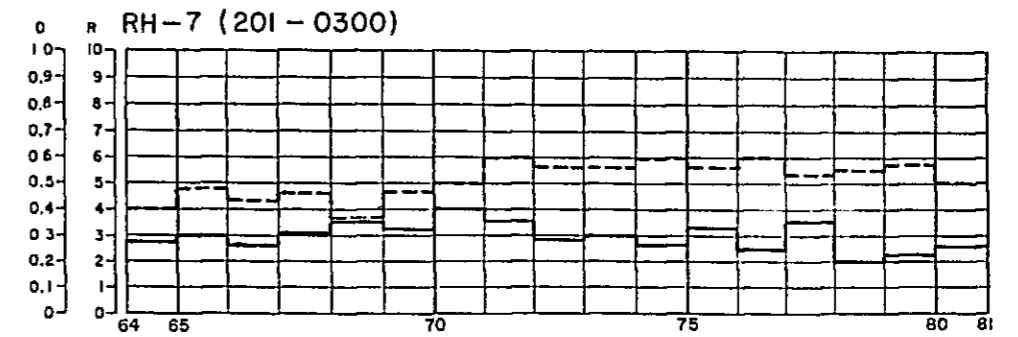
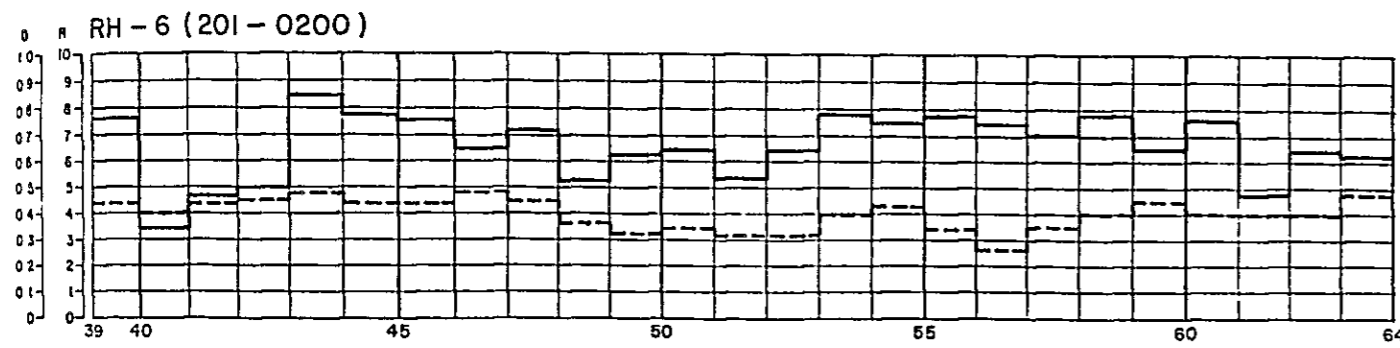
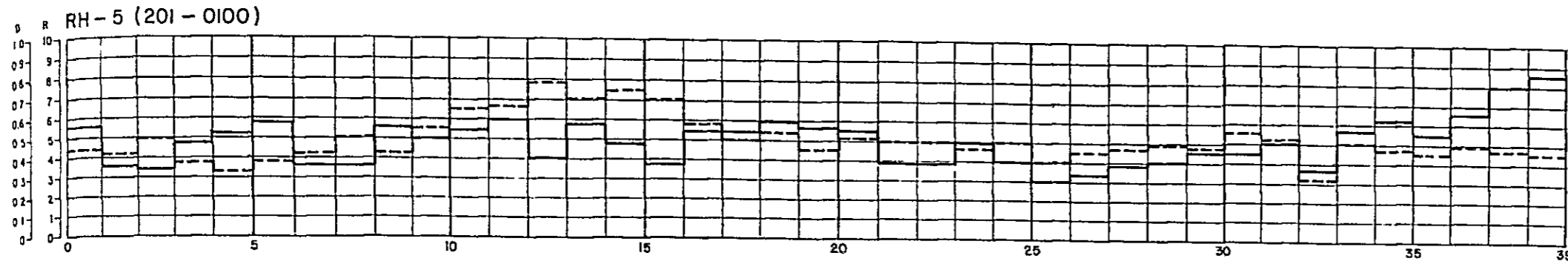


Legend :

-  D : Average Deflection (mm)
-  R : Roughness Count (10^3 mm/km)



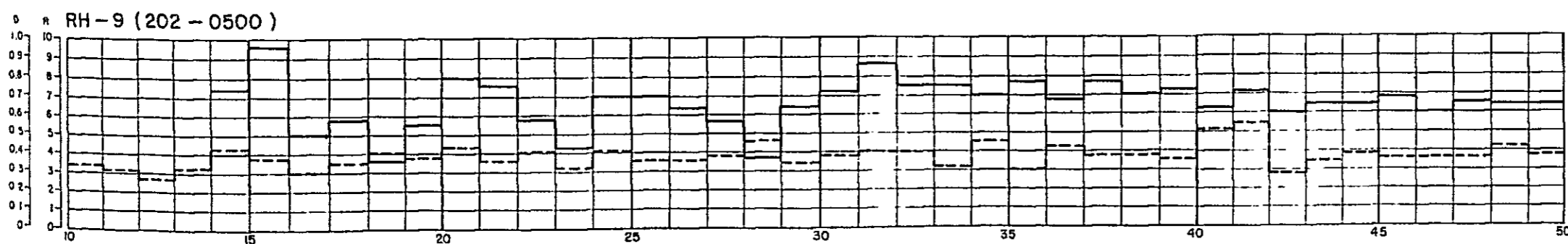
MEASURED ROUGHNESS AND PAVEMENT DEFLECTION (2)



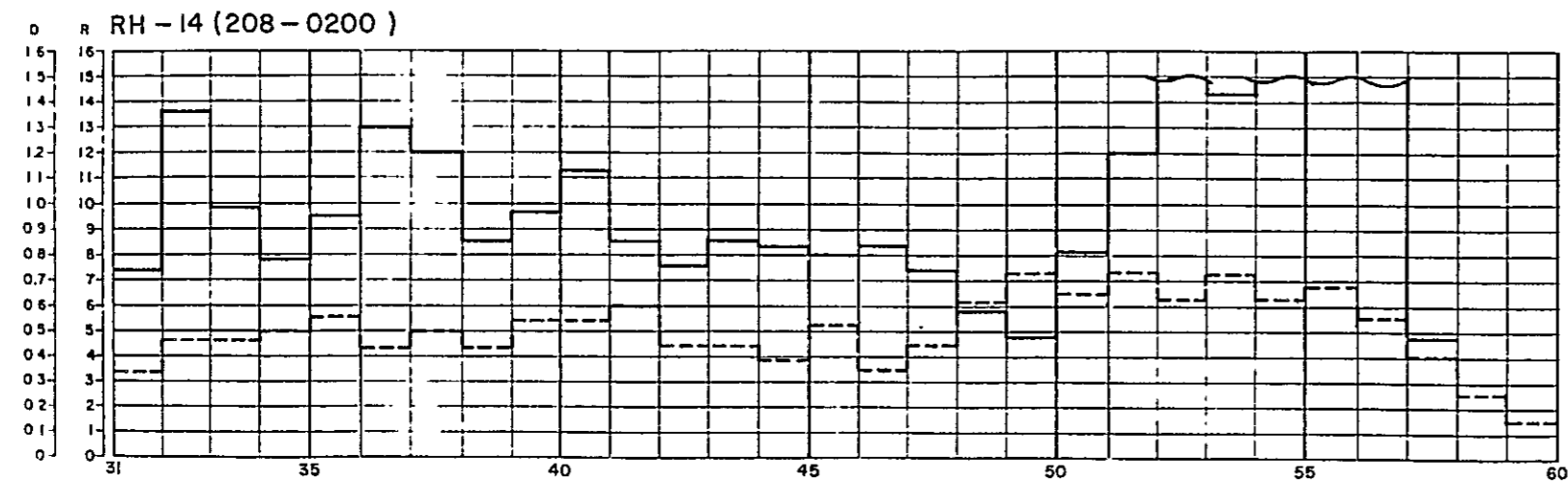
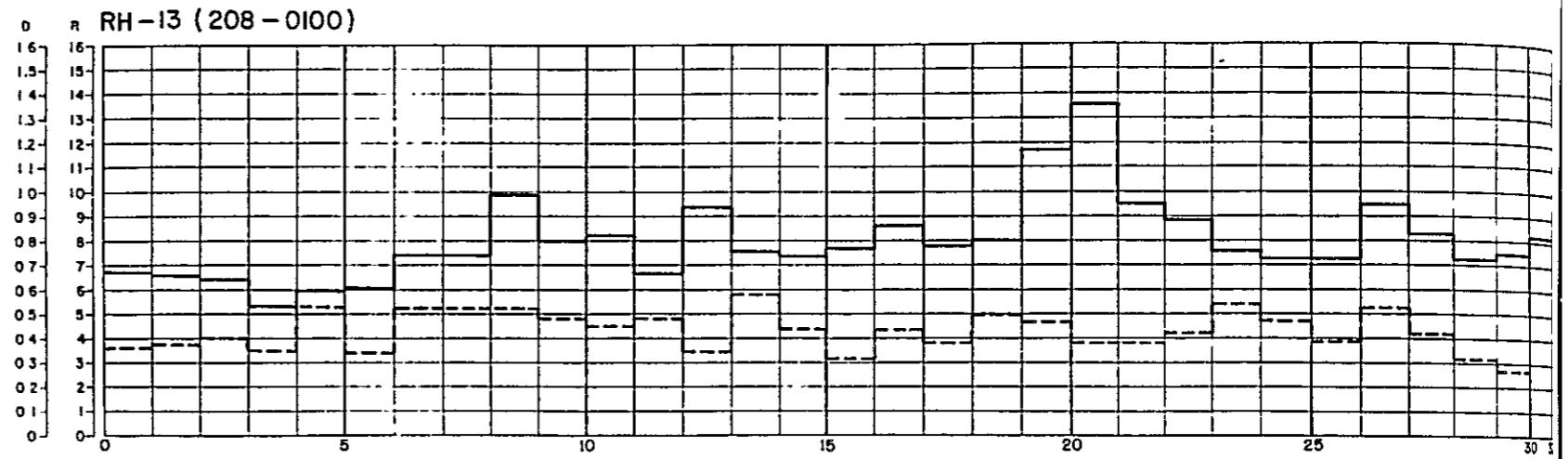
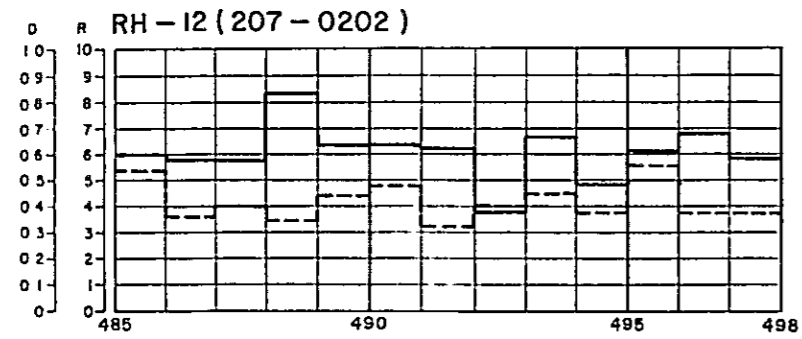
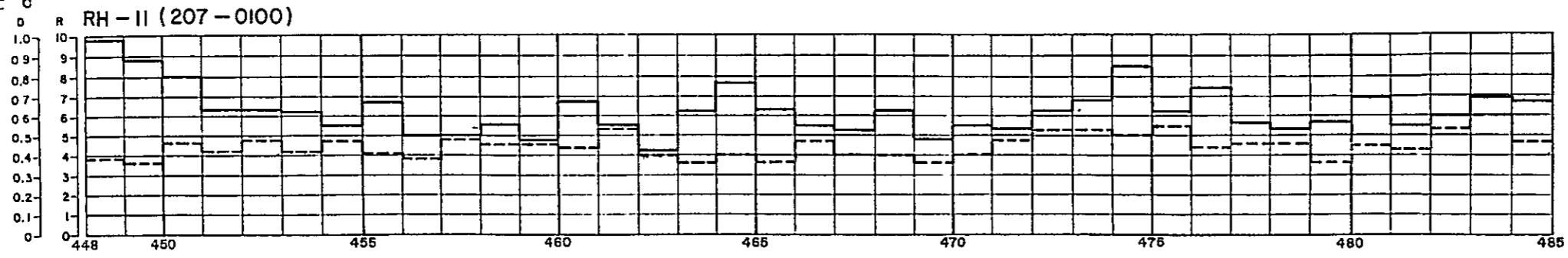
Legend :

— Average Deflection (mm.)



- - - Roughness Count (10^3 mm/km.)

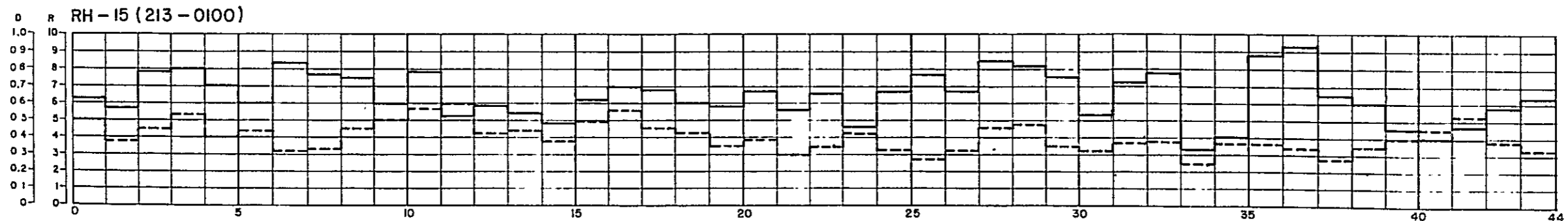


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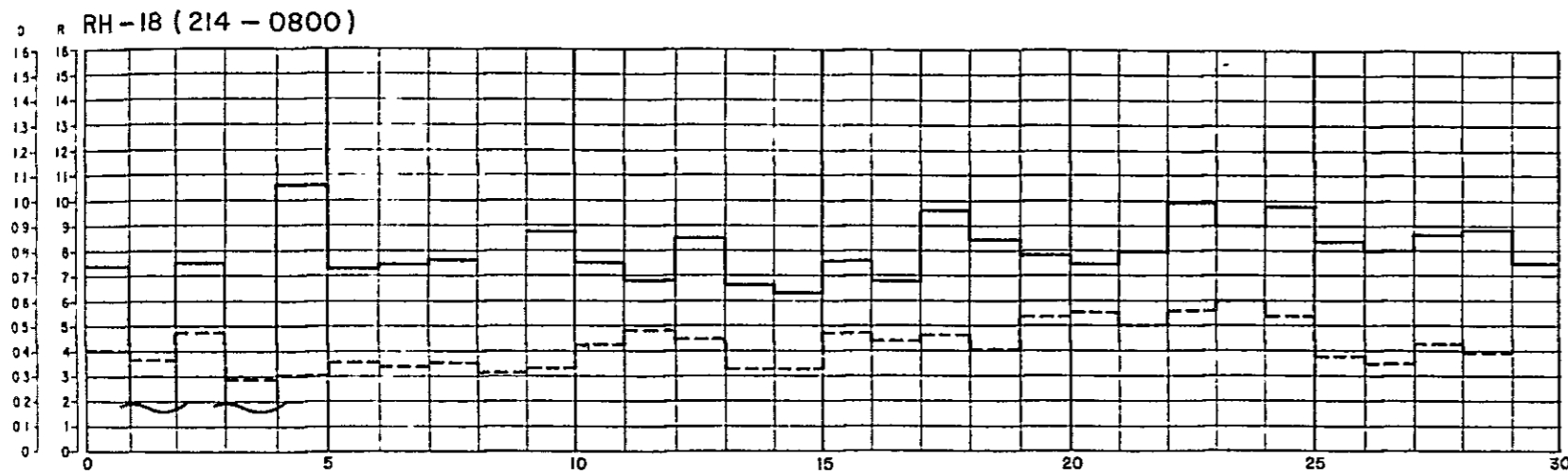
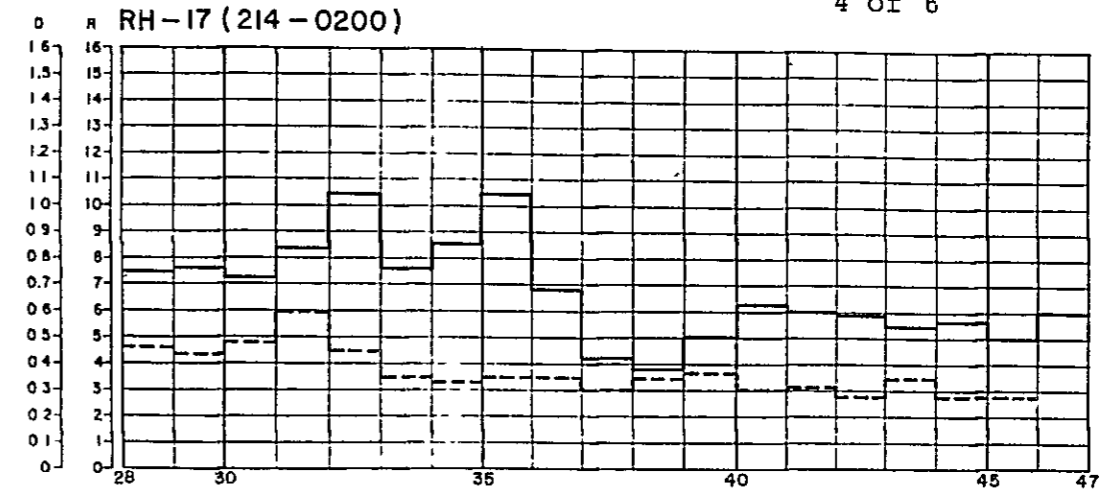
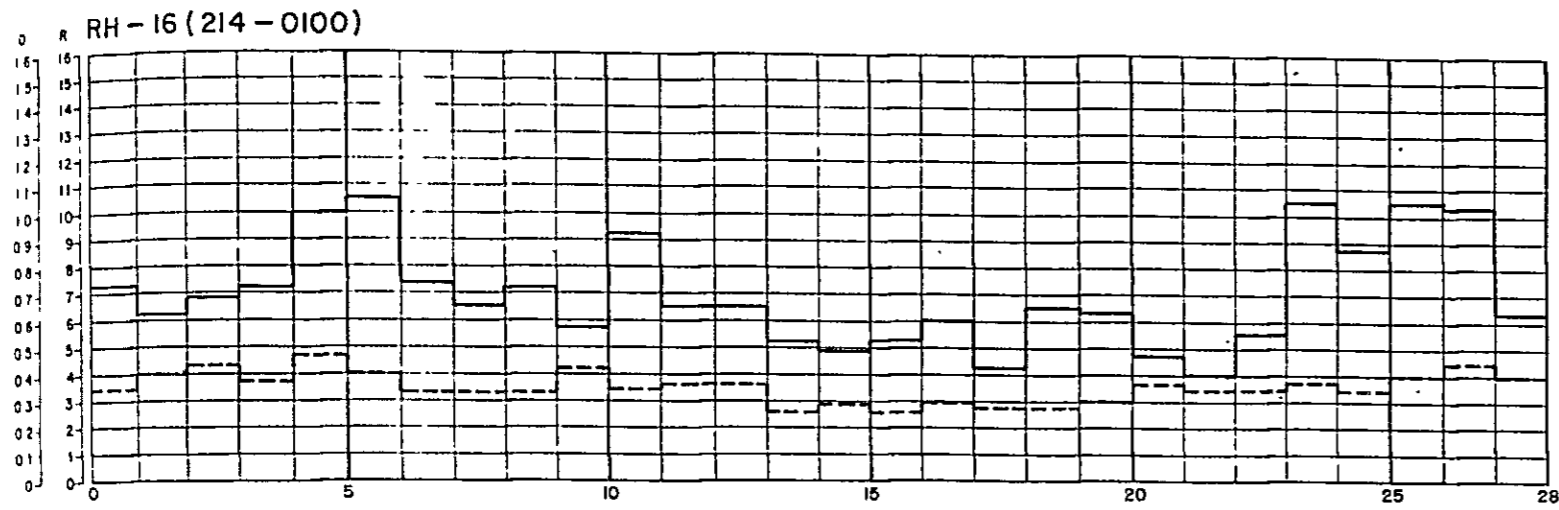


Legend :

-  D : Average Deflection (mm.)
-  R : Roughness Count (10^3 mm/km.)

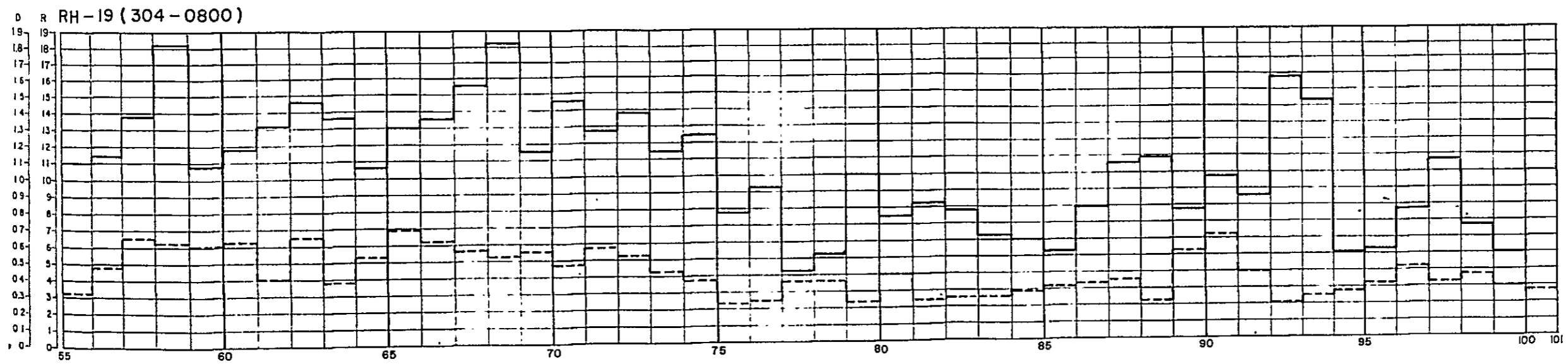


MEASURED ROUGHNESS AND PAVEMENT DEFLECTION (4)

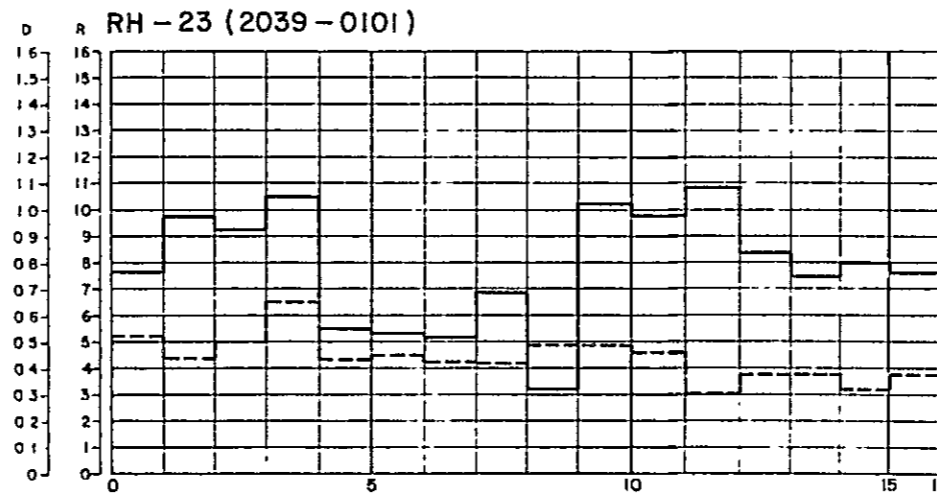
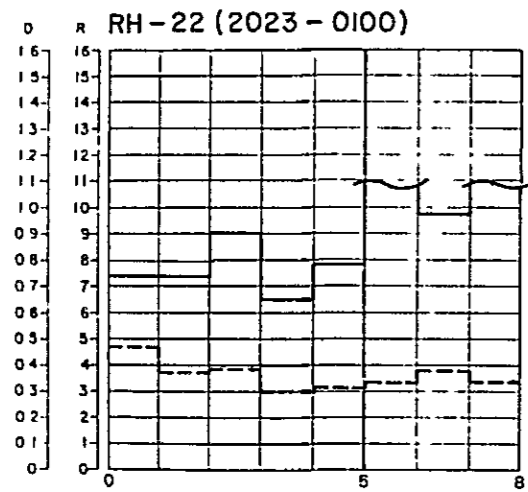
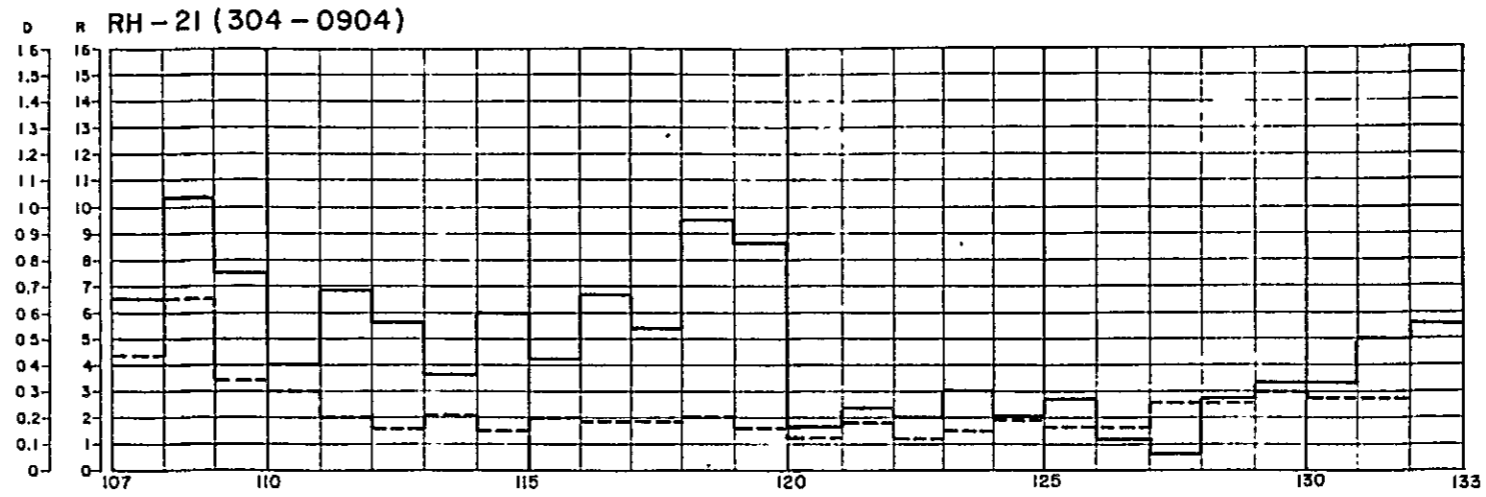
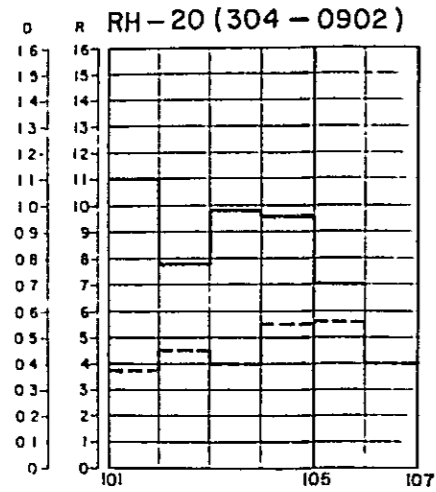


Legend :

- D : Average Deflection (mm.)
- R : Roughness Count (10^3 mm/km.)

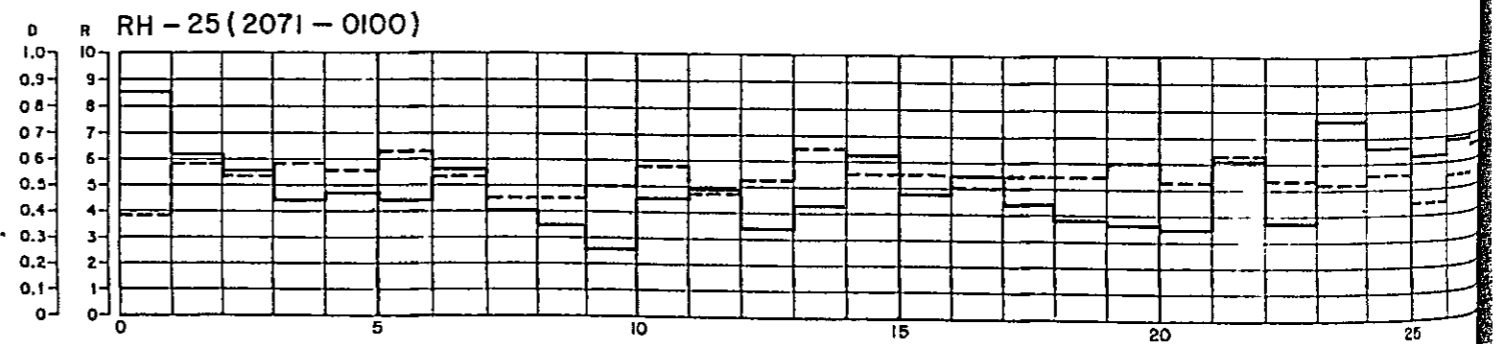
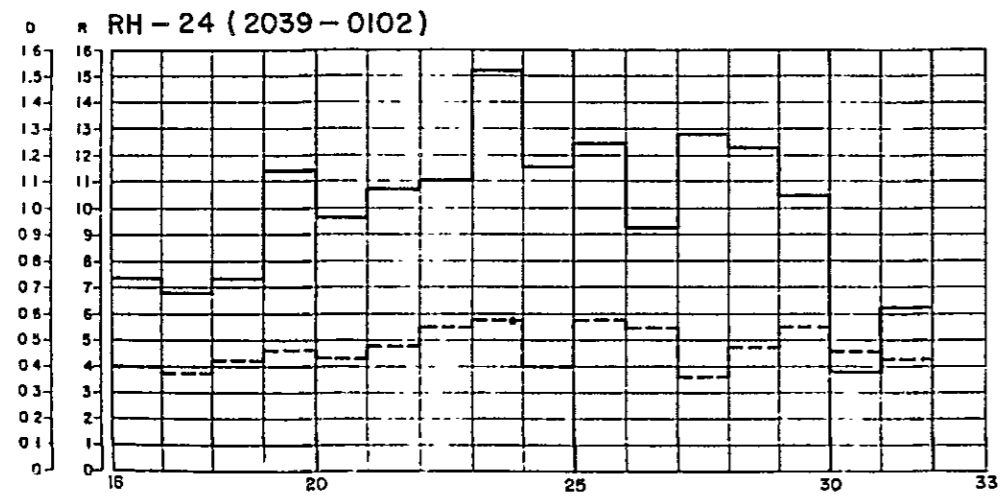


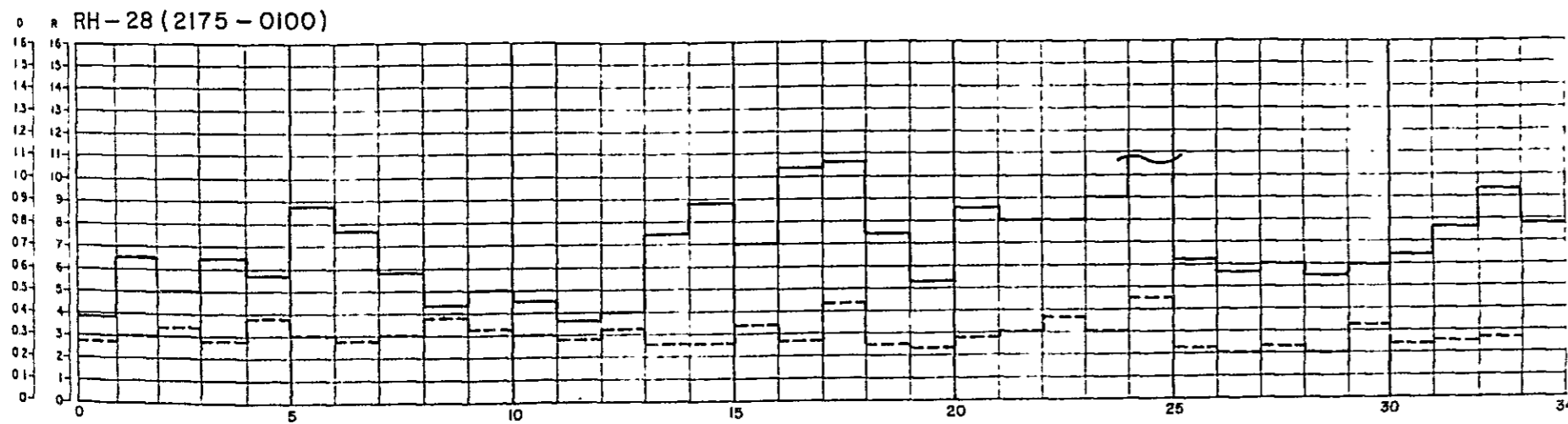
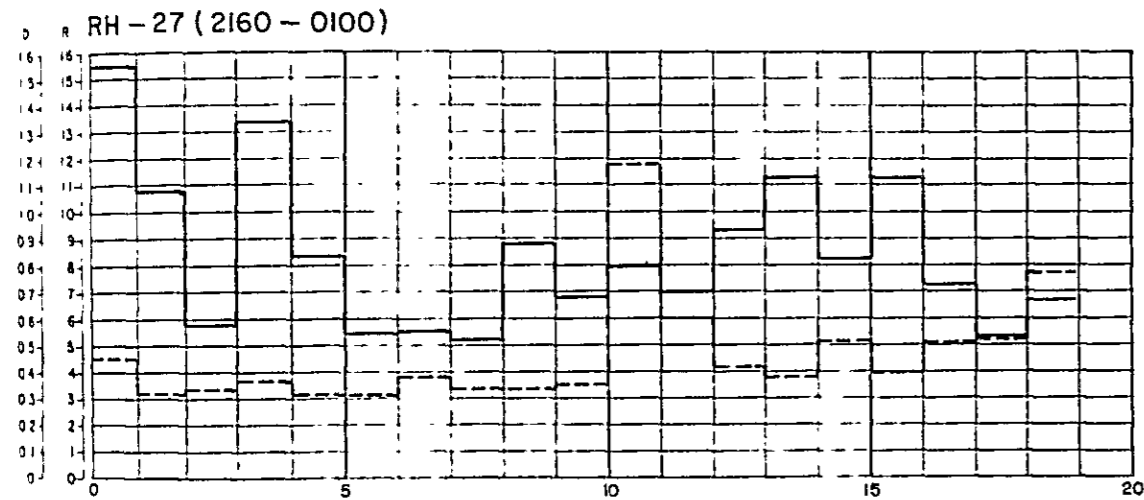
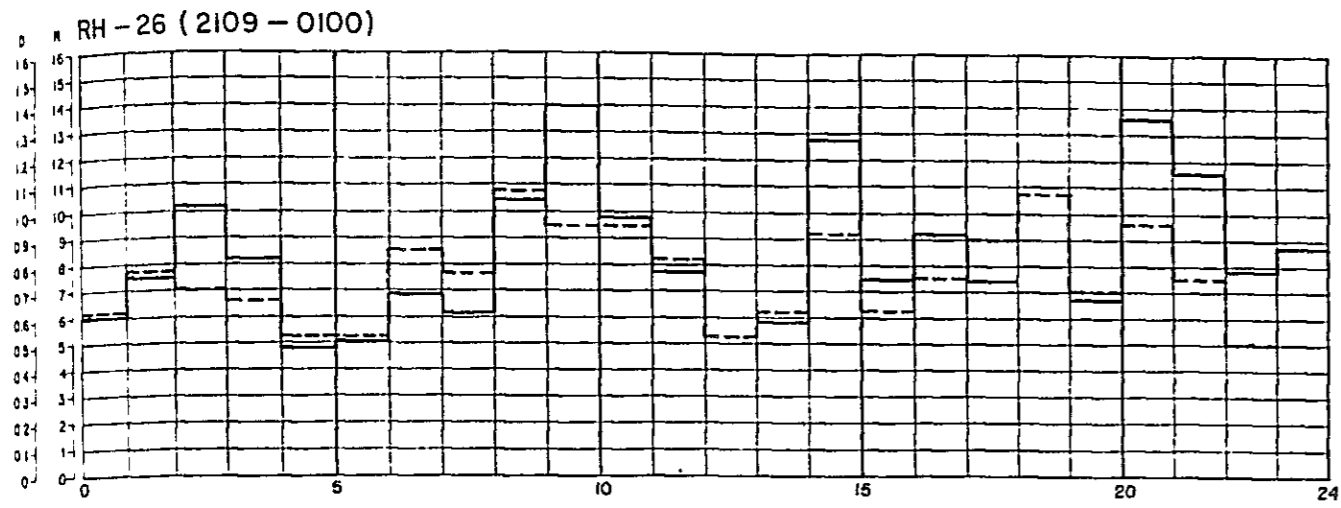
MEASURED ROUGHNESS AND PAVEMENT DEFLECTION (5)



Legend :

- D : Average Deflection (mm.)
- R : Roughness Count (10³ mm/km.)





Legend :

- D : Average Deflection (mm.)
- R : Roughness Count (10^3 mm/km.)

Appendix 8.2 FORECASTED TRAFFIC VOLUME BY PROPOSED LINK (1)

PROPOSED LINK NO. RH - 1

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	235	62	120	171	146	251	517	985
1982	244	64	125	179	153	263	541	1029
1983	253	67	129	188	161	276	566	1074
1984	263	69	134	197	169	290	592	1122
1985	273	72	139	207	177	304	620	1172
1986	283	75	145	217	185	319	649	1224
1987	294	78	150	228	195	334	679	1278
1988	305	80	156	239	204	351	711	1335
1989	317	84	162	248	212	364	738	1386
1990	329	87	168	258	220	378	766	1439
1991	341	90	174	267	228	392	795	1493

PROPOSED LINK NO. RH - 2

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	270	197	156	265	133	196	485	1217
1982	280	204	162	278	140	206	507	1270
1983	291	212	168	292	146	216	530	1325
1984	302	220	174	306	154	226	554	1382
1985	313	229	181	321	161	237	579	1442
1986	325	237	188	337	169	249	606	1505
1987	338	246	195	353	177	261	634	1571
1988	351	256	203	370	186	274	662	1639
1989	364	265	210	384	193	284	688	1701
1990	378	276	218	399	200	295	714	1766
1991	392	286	227	414	208	306	741	1833

PROPOSED LINK NO. RH - 3

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	105	157	65	165	58	80	203	630
1982	109	163	67	173	61	84	212	657
1983	113	169	70	182	64	88	222	686
1984	117	176	73	190	67	92	232	715
1985	122	182	75	200	70	97	243	747
1986	127	189	78	210	74	102	254	779
1987	131	196	81	220	77	107	265	813
1988	136	204	84	231	81	112	277	848
1989	142	212	88	239	84	116	288	880
1990	147	220	91	248	87	120	299	914
1991	152	228	94	258	91	125	310	948

PROPOSED LINK NO. RH - 4

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	297	171	153	248	174	147	474	1190
1982	308	177	159	260	183	154	496	1241
1983	320	184	165	273	191	162	518	1295
1984	332	191	171	286	201	170	542	1351
1985	345	199	178	300	211	178	566	1410
1986	358	206	184	315	221	187	592	1471
1987	371	214	191	330	232	196	619	1535
1988	386	222	199	347	243	205	647	1602
1989	400	230	206	360	252	213	672	1662
1990	415	239	214	373	262	221	697	1726
1991	431	248	222	388	272	230	724	1791

PROPOSED LINK NO. RH - 5

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	375	152	102	149	137	137	376	1052
1982	389	158	106	157	144	144	394	1098
1983	404	164	110	165	152	152	413	1146
1984	419	170	114	173	160	160	433	1196
1985	435	176	118	182	168	168	454	1248
1986	452	183	123	192	177	177	476	1303
1987	469	190	128	202	186	186	499	1360
1988	487	197	132	212	195	195	523	1420
1989	505	205	137	221	203	203	543	1474
1990	525	213	143	229	210	210	564	1530
1991	545	221	148	238	218	218	585	1588

PROPOSED LINK NO. RH - 6

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	281	117	123	164	154	172	449	1011
1982	292	121	128	173	162	181	471	1056
1983	303	126	133	181	170	190	493	1104
1984	314	131	138	191	179	200	517	1153
1985	326	136	143	201	189	211	542	1205
1986	339	141	148	211	198	222	568	1259
1987	351	146	154	222	209	233	596	1316
1988	365	152	160	234	220	245	625	1375
1989	379	158	166	243	228	255	648	1427
1990	393	164	172	252	237	264	673	1482
1991	408	170	179	262	246	274	698	1538

FORECASTED TRAFFIC VOLUME BY PROPOSED LINK (2)

PROPOSED LINK NO. RH - 7

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	169	65	173	604	49	176	398	1236
1982	175	67	180	635	52	185	416	1295
1983	182	70	186	668	54	195	435	1356
1984	189	73	193	703	57	205	455	1420
1985	196	75	201	740	60	216	476	1488
1986	204	78	208	778	63	227	498	1559
1987	211	81	216	819	66	239	521	1633
1988	219	84	225	861	70	251	545	1711
1989	228	88	233	894	73	261	566	1776
1990	236	91	242	928	75	270	588	1843
1991	245	94	251	963	78	281	610	1913

PROPOSED LINK NO. RH - 8

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	169	65	173	604	49	176	398	1236
1982	175	67	180	635	52	185	416	1295
1983	182	70	186	668	54	195	435	1356
1984	189	73	193	703	57	205	455	1420
1985	196	75	201	740	60	216	476	1488
1986	204	78	208	778	63	227	498	1559
1987	211	81	216	819	66	239	521	1633
1988	219	84	225	861	70	251	545	1711
1989	228	88	233	894	73	261	566	1776
1990	236	91	242	928	75	270	588	1843
1991	245	94	251	963	78	281	610	1913

PROPOSED LINK NO. RH - 9

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	158	102	138	86	54	71	263	609
1982	164	106	143	90	57	75	275	635
1983	170	110	149	95	60	79	287	662
1984	177	114	154	100	63	83	300	691
1985	183	118	160	105	66	87	313	720
1986	190	123	166	111	70	91	327	751
1987	198	128	173	117	73	96	342	784
1988	205	132	179	123	77	101	357	818
1989	213	137	186	127	80	105	371	849
1990	221	143	193	132	83	109	385	881
1991	229	148	200	137	86	113	400	914

PROPOSED LINK NO. RH - 10

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	124	58	58	506	178	126	362	1050
1982	129	60	60	532	187	133	380	1101
1983	134	62	62	560	197	139	399	1155
1984	139	65	65	589	207	147	419	1211
1985	144	67	67	620	218	154	440	1271
1986	149	70	70	652	229	162	462	1333
1987	155	73	73	686	241	171	485	1398
1988	161	75	75	722	254	180	509	1467
1989	167	78	78	749	263	186	528	1522
1990	173	81	81	777	273	194	548	1580
1991	180	84	84	807	284	201	569	1640

PROPOSED LINK NO. RH - 11

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	166	56	93	82	53	48	194	498
1982	172	58	97	86	56	50	203	519
1983	179	60	100	91	59	53	212	542
1984	186	63	104	95	62	56	222	565
1985	193	65	108	100	65	59	232	590
1986	200	67	112	106	68	62	242	615
1987	208	70	116	111	72	65	253	642
1988	216	73	121	117	76	68	265	670
1989	224	75	125	121	78	71	275	695
1990	232	78	130	126	81	74	285	722
1991	241	81	135	131	85	77	296	749

PROPOSED LINK NO. RH - 12

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	127	83	44	88	43	44	131	429
1982	132	86	46	93	45	46	137	448
1983	137	89	47	97	48	49	144	467
1984	142	93	49	102	50	51	150	488
1985	147	96	51	108	53	54	158	509
1986	153	100	53	113	55	57	165	532
1987	159	104	55	119	58	60	173	555
1988	165	108	57	125	61	63	181	579
1989	171	112	59	130	64	65	188	601
1990	178	116	62	135	66	68	195	624
1991	184	121	64	140	69	70	203	648

FORECASTED TRAFFIC VOLUME BY PROPOSED LINK (3)

PROPOSED LINK NO. RH - 13

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	650	200	158	130	127	117	402	1382
1982	675	208	164	137	134	123	421	1440
1983	700	215	170	144	141	129	440	1500
1984	727	224	177	151	148	136	461	1563
1985	755	232	183	159	156	143	482	1628
1986	783	241	190	168	164	151	505	1697
1987	813	250	198	176	172	159	528	1768
1988	844	260	205	185	181	167	553	1842
1989	876	270	213	192	188	173	574	1912
1990	909	280	221	200	195	180	596	1985
1991	944	290	229	207	203	187	619	2060

PROPOSED LINK NO. RH - 14

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	675	137	158	128	85	67	310	1250
1982	701	142	164	135	89	70	324	1301
1983	727	148	170	142	94	74	338	1355
1984	755	153	177	149	99	78	354	1411
1985	784	159	183	157	104	82	370	1469
1986	813	165	190	165	110	86	386	1530
1987	844	171	198	174	115	91	404	1593
1988	876	178	205	183	121	96	422	1659
1989	910	185	213	189	126	99	438	1722
1990	944	192	221	197	131	103	455	1787
1991	980	199	229	204	136	107	472	1855

PROPOSED LINK NO. RH - 15

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	375	154	165	247	92	206	463	1239
1982	389	160	171	260	97	217	485	1294
1983	404	166	178	273	102	228	508	1351
1984	419	172	185	288	107	240	531	1411
1985	435	179	192	303	113	252	557	1473
1986	452	186	199	318	119	265	583	1538
1987	469	193	206	335	125	279	610	1607
1988	487	200	214	352	131	294	639	1678
1989	505	208	222	366	136	305	663	1742
1990	525	215	231	379	141	316	689	1808
1991	545	224	240	394	147	329	715	1877

PROPOSED LINK NO. RH - 16

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	400	288	133	275	152	37	322	1285
1982	415	299	138	289	160	39	337	1340
1983	431	310	143	304	168	41	352	1398
1984	447	322	149	320	177	43	369	1458
1985	464	334	154	337	186	45	386	1521
1986	482	347	160	354	196	48	404	1587
1987	500	360	166	373	206	50	423	1656
1988	519	374	173	392	217	53	442	1728
1989	539	388	179	407	225	55	459	1793
1990	560	403	186	423	234	57	476	1861
1991	581	418	193	439	242	59	495	1932

PROPOSED LINK NO. RH - 17

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	160	96	110	210	156	56	322	788
1982	166	100	114	221	164	59	337	824
1983	172	103	119	232	173	62	353	861
1984	179	107	123	244	182	65	370	901
1985	186	111	128	257	191	69	387	942
1986	193	116	133	271	201	72	406	985
1987	200	120	138	285	211	76	425	1030
1988	208	125	143	299	222	80	445	1077
1989	216	129	148	311	231	83	462	1118
1990	224	134	154	323	240	86	480	1160
1991	232	139	160	335	249	89	498	1204

PROPOSED LINK NO. RH - 18

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	364	273	164	332	193	265	622	1591
1982	378	283	170	349	203	279	652	1663
1983	392	294	177	367	214	293	684	1737
1984	407	305	183	387	225	309	717	1816
1985	423	317	190	407	236	325	751	1897
1986	439	329	198	428	249	341	788	1983
1987	455	341	205	450	262	359	826	2073
1988	473	354	213	473	275	378	866	2166
1989	491	368	221	491	286	392	899	2249
1990	509	382	229	510	297	407	933	2334
1991	529	396	238	529	308	423	969	2423

FORECASTED TRAFFIC VOLUME BY PROPOSED LINK (4)

PROPOSED LINK NO. RH - 19

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	245	309	87	552	245	207	539	1645
1982	254	321	90	581	258	218	566	1722
1983	264	333	94	611	271	229	594	1802
1984	274	346	97	643	285	241	624	1886
1985	284	359	101	676	300	254	655	1974
1986	295	372	105	711	316	267	687	2066
1987	306	386	109	748	332	281	721	2163
1988	318	401	113	787	349	295	757	2264
1989	330	416	117	817	363	306	786	2350
1990	343	432	122	848	376	318	816	2439
1991	356	449	126	880	391	330	847	2532

PROPOSED LINK NO. RH - 20

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	377	353	201	509	220	261	682	1921
1982	391	366	209	535	231	275	715	2008
1983	406	380	217	563	243	289	749	2099
1984	422	395	225	593	256	304	785	2194
1985	438	410	233	623	269	320	822	2293
1986	454	425	242	656	283	336	862	2397
1987	472	442	251	690	298	354	903	2506
1988	489	458	261	726	314	372	947	2620
1989	508	476	271	753	326	386	983	2720
1990	527	494	281	782	338	401	1020	2823
1991	547	513	292	812	351	416	1059	2931

PROPOSED LINK NO. RH - 21

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	377	353	201	509	220	261	682	1921
1982	391	366	209	535	231	275	715	2008
1983	406	380	217	563	243	289	749	2099
1984	422	395	225	593	256	304	785	2194
1985	438	410	233	623	269	320	822	2293
1986	454	425	242	656	283	336	862	2397
1987	472	442	251	690	298	354	903	2506
1988	489	458	261	726	314	372	947	2620
1989	508	476	271	753	326	386	983	2720
1990	527	494	281	782	338	401	1020	2823
1991	547	513	292	812	351	416	1059	2931

PROPOSED LINK NO. RH - 22

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	585	833	51	541	285	246	582	2541
1982	624	888	54	565	298	257	609	2686
1983	665	947	58	591	311	269	638	2840
1984	709	1009	62	617	325	281	668	3003
1985	755	1076	66	645	340	293	699	3175
1986	805	1147	70	674	355	307	732	3358
1987	858	1222	75	705	371	320	766	3552
1988	915	1303	80	736	388	335	802	3757
1989	965	1375	84	763	402	347	833	3936
1990	1019	1450	89	790	416	359	864	4123
1991	1075	1530	94	819	431	372	897	4320

PROPOSED LINK NO. RH - 23

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	156	200	79	461	208	252	539	1356
1982	166	213	84	482	217	263	565	1426
1983	177	227	90	503	227	275	592	1500
1984	189	242	96	526	237	288	621	1578
1985	201	258	102	550	248	301	651	1660
1986	215	275	109	574	259	314	682	1747
1987	229	293	116	600	271	328	715	1838
1988	244	313	124	627	283	343	750	1934
1989	257	330	130	650	293	355	779	2016
1990	272	348	138	673	304	368	809	2103
1991	287	367	145	698	315	381	841	2193

PROPOSED LINK NO. RH - 24

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	156	200	79	461	208	252	539	1356
1982	166	213	84	482	217	263	565	1426
1983	177	227	90	503	227	275	592	1500
1984	189	242	96	526	237	288	621	1578
1985	201	258	102	550	248	301	651	1660
1986	215	275	109	574	259	314	682	1747
1987	229	293	116	600	271	328	715	1838
1988	244	313	124	627	283	343	750	1934
1989	257	330	130	650	293	355	779	2016
1990	272	348	138	673	304	368	809	2103
1991	287	367	145	698	315	381	841	2193

FORECASTED TRAFFIC VOLUME BY PROPOSED LINK (5)

PROPOSED LINK NO. RH - 25

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	144	46	69	270	152	61	282	742
1982	154	49	74	282	159	64	296	781
1983	164	52	78	295	166	67	311	822
1984	174	56	84	308	173	70	327	865
1985	186	59	89	322	181	73	343	910
1986	198	63	95	336	189	76	360	958
1987	211	67	101	352	198	79	379	1009
1988	225	72	108	367	207	83	398	1062
1989	238	76	114	381	214	86	414	1108
1990	251	80	120	394	222	89	431	1156
1991	264	84	127	409	230	92	449	1207

PROPOSED LINK NO. RH - 26

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	118	118	59	172	93	70	222	630
1982	126	126	63	180	97	73	233	665
1983	134	134	67	188	102	76	245	701
1984	143	143	71	196	106	80	257	740
1985	152	152	76	205	111	83	271	780
1986	162	162	81	214	116	87	284	824
1987	173	173	87	224	121	91	299	869
1988	185	185	92	234	127	95	314	917
1989	195	195	97	242	131	99	327	959
1990	205	205	103	251	136	102	341	1003
1991	217	217	108	260	141	106	355	1049

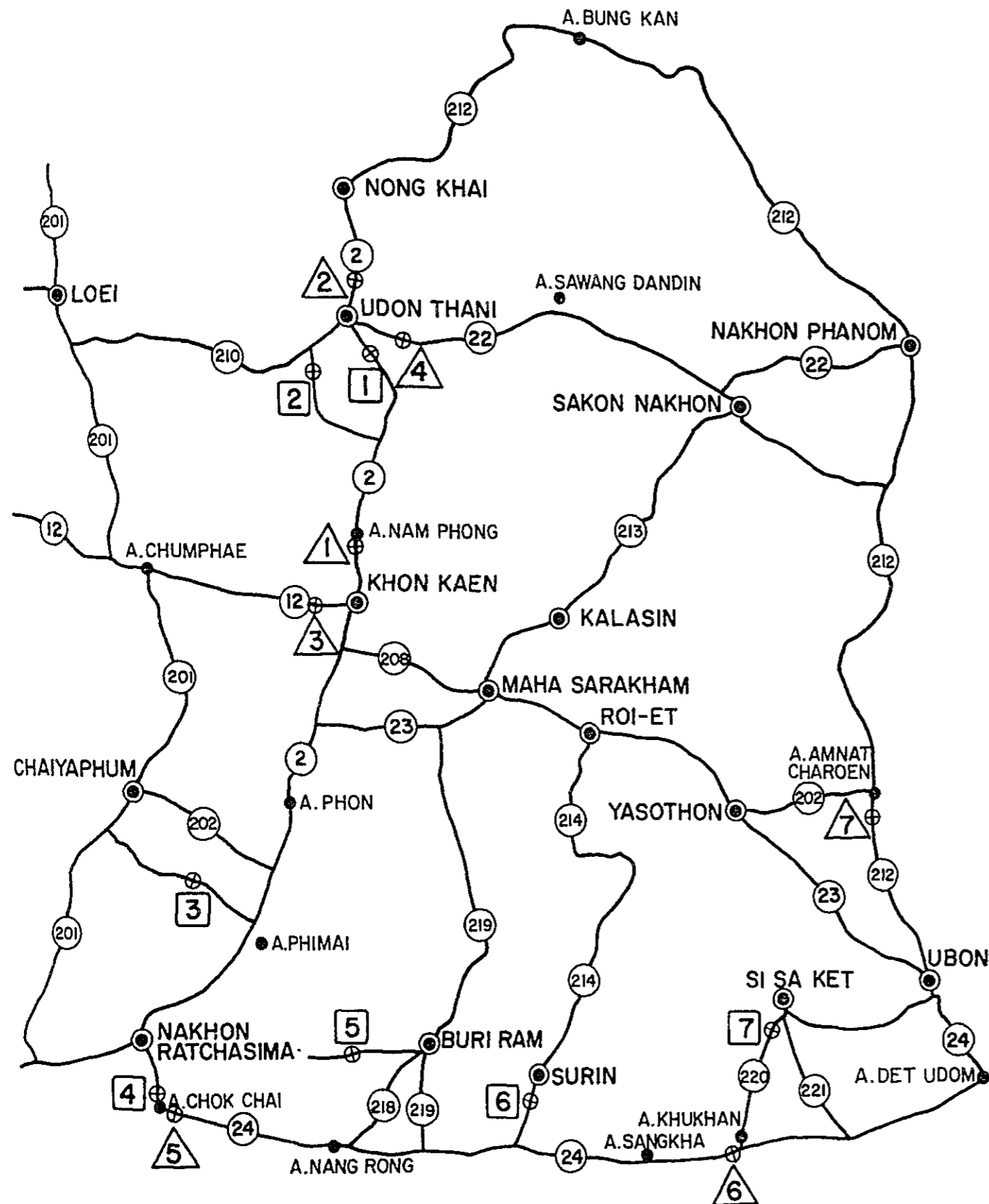
PROPOSED LINK NO. RH - 27

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	62	35	29	74	67	25	121	292
1982	66	37	31	77	70	26	127	308
1983	70	40	33	81	73	27	133	324
1984	75	42	35	84	76	29	140	342
1985	80	45	37	88	80	30	147	361
1986	85	48	40	92	83	31	155	380
1987	91	51	43	96	87	33	162	401
1988	97	55	45	101	91	34	171	423
1989	102	58	48	104	94	35	178	442
1990	108	61	50	108	98	37	185	462
1991	114	64	53	112	101	38	192	483

PROPOSED LINK NO. RH - 28

YEAR	PC	LB	HB	LT	MT	HT	HV	AADT
1981	67	69	45	448	72	51	168	752
1982	71	74	48	468	75	53	177	790
1983	76	78	51	489	79	56	185	829
1984	81	84	55	511	82	58	195	871
1985	87	89	58	534	86	61	205	915
1986	92	95	62	558	90	64	215	961
1987	98	101	66	583	94	66	226	1009
1988	105	108	70	610	98	69	238	1060
1989	111	114	74	632	102	72	248	1104
1990	117	120	78	654	105	74	258	1149
1991	123	127	83	678	109	77	269	1196

Appendix 8.3 LOCATION OF VEHICLE GROSS WEIGHT SURVEY



Location No.	Route	Location
△1	2	Khon Kaen - Udon Thani STA 479 + 0
△2	2	Udon Thani - Nong Khai 572 + 200
△3	12	Khon Kaen - A. Chumpae 8 + 0
△4	22	Udon Thani - A. Sawan D.D. 10 + 800
△5	24	A. Chokchai - A. Nang Rong 6 + 500
△6	24	A. Sangkha - A. Det Udom 225 + 800
△7	212	Ubon - A. Amnat C. 68 + 800

Surveyed by DOH

Location No.	Route	Location	Surface
□1	12	near Udon Thani	Paved
□2	2313		un-paved
□3	2160		"
□4	224	near Chok Chai	Paved
□5	2162		un-paved
□6	214		Paved
□7	220		"

Surveyed by JICA TEAM

(6-Wheel Trucks)

Gross Weight (Ton)	Location \int							Total (No.)	Share (%)
	1	2	3	4	5	6	7		
3.5 ~ 4.5	4	1						1	0.29
4.5 ~ 5.5	5	3	5	1				9	2.62
5.5 ~ 6.5	6	3	7	4	1	2		17	4.96
6.5 ~ 7.5	7	9	2	5	8	3	3	30	8.75
7.5 ~ 8.5	8	12	2	3	13	7	2	41	11.95
8.5 ~ 9.5	9	11	6	1	13	9	1	43	12.54
9.5 ~ 10.5	10	13	8	4	15	9	3	54	15.74
10.5 ~ 11.5	11	9	3	5	15	1	3	38	11.08
11.5 ~ 12.5	12	5	7	1	13	1	2	31	9.04
12.5 ~ 13.5	13	3	5	3	4	4		21	6.12
13.5 ~ 14.5	14	4	4	2	10	12	1	36	10.50
14.5 ~ 15.5	15	6		2	2	2		12	3.50
15.5 ~ 16.5	16	2	2	1	2	1		8	2.33
16.5 ~ 17.5	17		1		1			2	0.58
Total Loaded	81	40	39	101	50	17	15	343	
Total Loaded + Empty	305	256	274	421	336	64	62	1718	
Empty Rate (%)	73	84	86	76	85	73	76	80	

(10-Wheel Trucks)

Gross Weight (Ton)	Location \int							Total (No.)	Share (%)
	1	2	3	4	5	6	7		
7.5 ~ 8.5	8	1						1	0.08
8.5 ~ 9.5	9	1	1				1	3	0.25
9.5 ~ 10.5	10	2	1	2				6	0.50
10.5 ~ 11.5	11	3	1	1		4	2	11	0.92
11.5 ~ 12.5	12	5	2	2	3	1	1	14	1.17
12.5 ~ 13.5	13	8	3	2	1	1	1	17	1.42
13.5 ~ 14.5	14	10	2	1	3	1	2	20	1.67
14.5 ~ 15.5	15	13	2	2	1	9	1	29	2.42
15.5 ~ 16.5	16	16	5	6	1	3	7	39	3.25
16.5 ~ 17.5	17	22	8	9	7	16	9	73	6.08
17.5 ~ 18.5	18	37	12	9	16	42	25	144	12.00
18.5 ~ 19.5	19	68	22	8	27	76	28	233	19.42
19.5 ~ 20.5	20	70	20	6	20	69	49	238	19.83
20.5 ~ 21.5	21	31	9	2	9	15	31	100	8.33
21.5 ~ 22.5	22	11	4	3	1	15	1	36	3.00
22.5 ~ 23.5	23	7	3	5	3	21	1	42	3.50
23.5 ~ 24.5	24	8	4	3	3	9	8	37	3.08

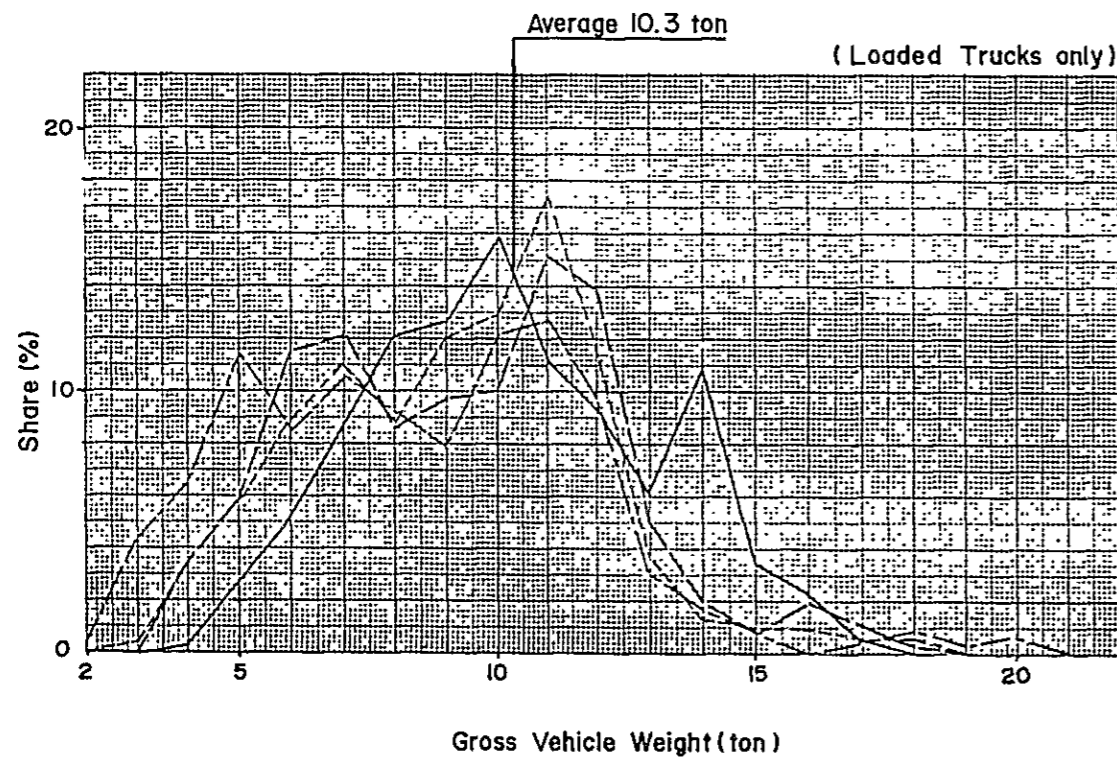
Gross Weight (Ton)	Location \int							Total (No.)	Share (%)	
	1	2	3	4	5	6	7			
24.5 ~ 25.5	25	10	4	2	3	16	6	1	42	3.50
25.5 ~ 26.5	26	12	4	2	6	15	9	1	49	4.08
26.5 ~ 27.5	27	9	5	1	9	6	5		35	2.91
27.5 ~ 28.5	28	5	6	1	1	1	4		18	1.50
28.5 ~ 29.5	29	2	3	1		1	1		8	0.67
29.5 ~ 30.5	30	1	1	1			1		4	0.33
30.5 ~ 31.5	31						1		1	0.08
Total Loaded	352	121	70	114	316	195	32	1200		
Total Loaded + Empty	475	232	207	218	692	258	71	2153		
Empty Rate (%)	26	48	66	48	54	24	55	44		

Note \int : Locations of Survey are shown in Appendix C-1.

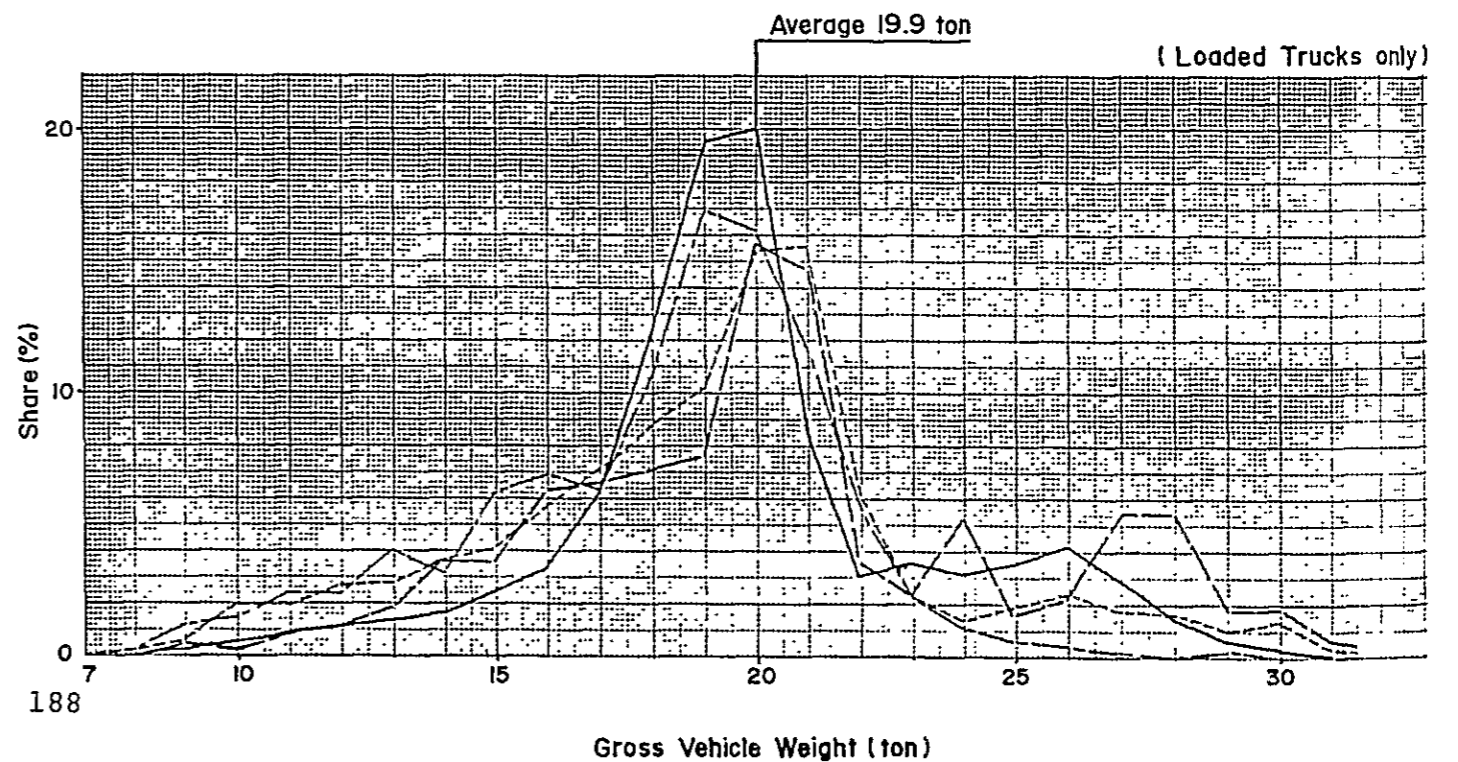
Legend

- Northeastern Region
- North Region
- - - Phitsanulok Division
- Phrae Division
- Chiang Mai Division

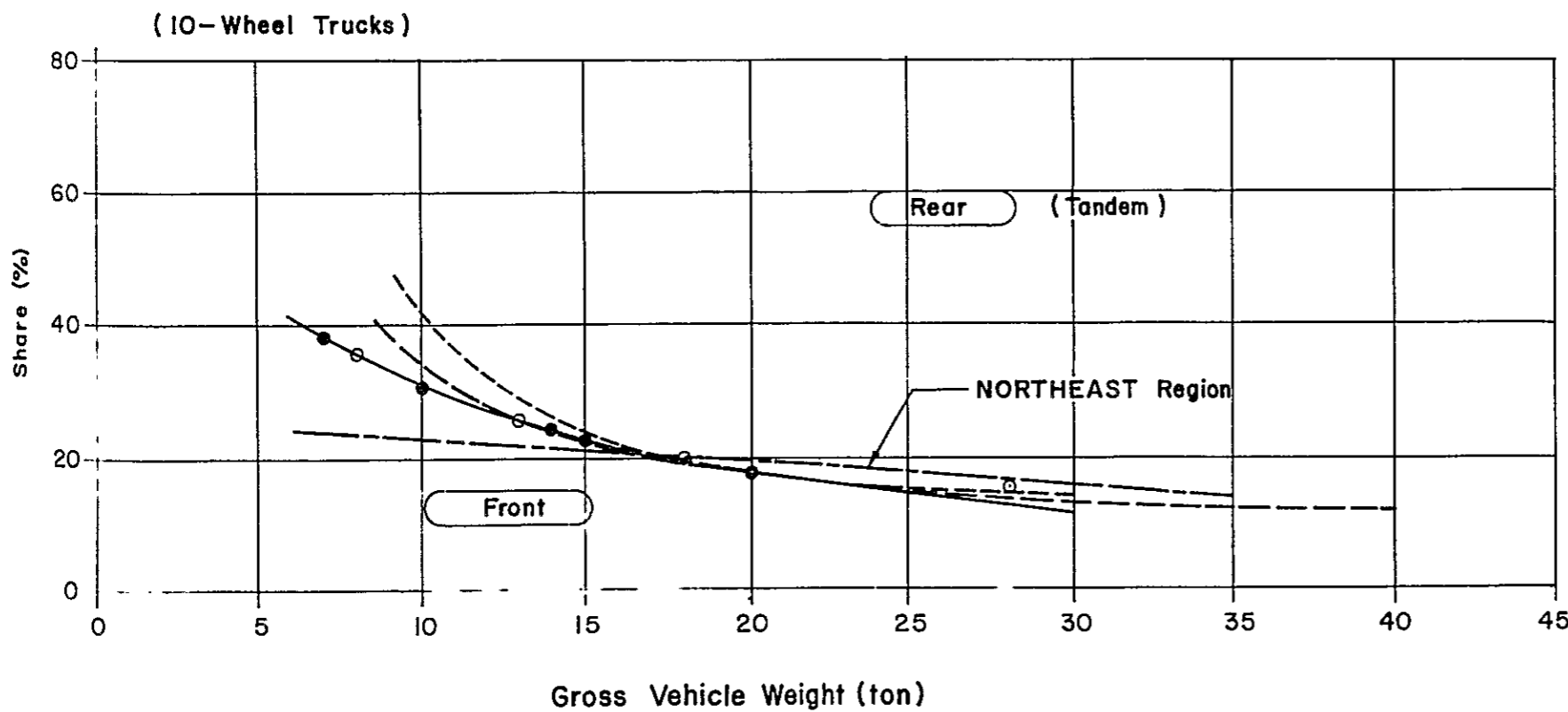
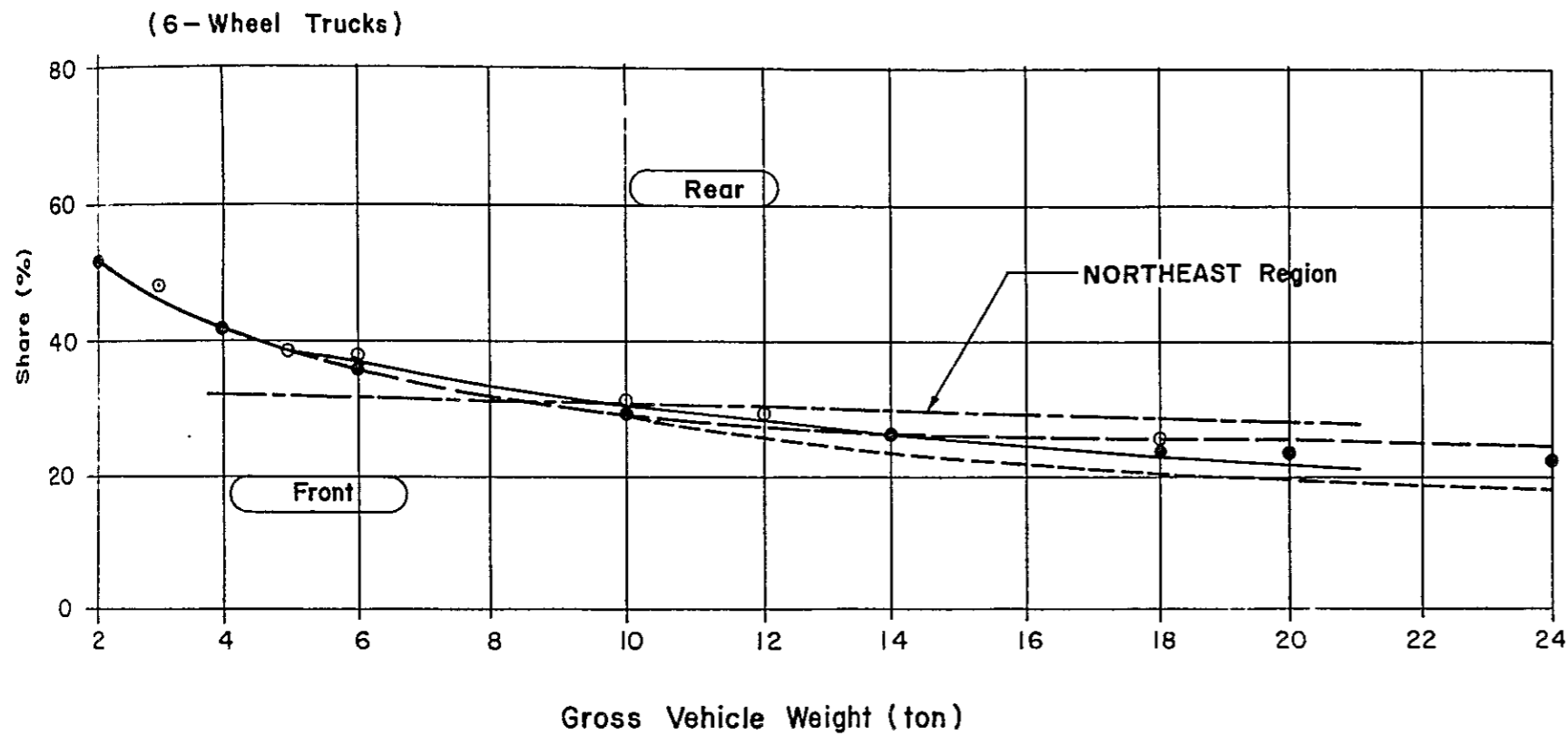
Loading Conditions (6-Wheel)



Loading Conditions (10-Wheel)



Appendix 8.5 AXLE LOAD DISTRIBUTION



Axle Load Distribution(%)

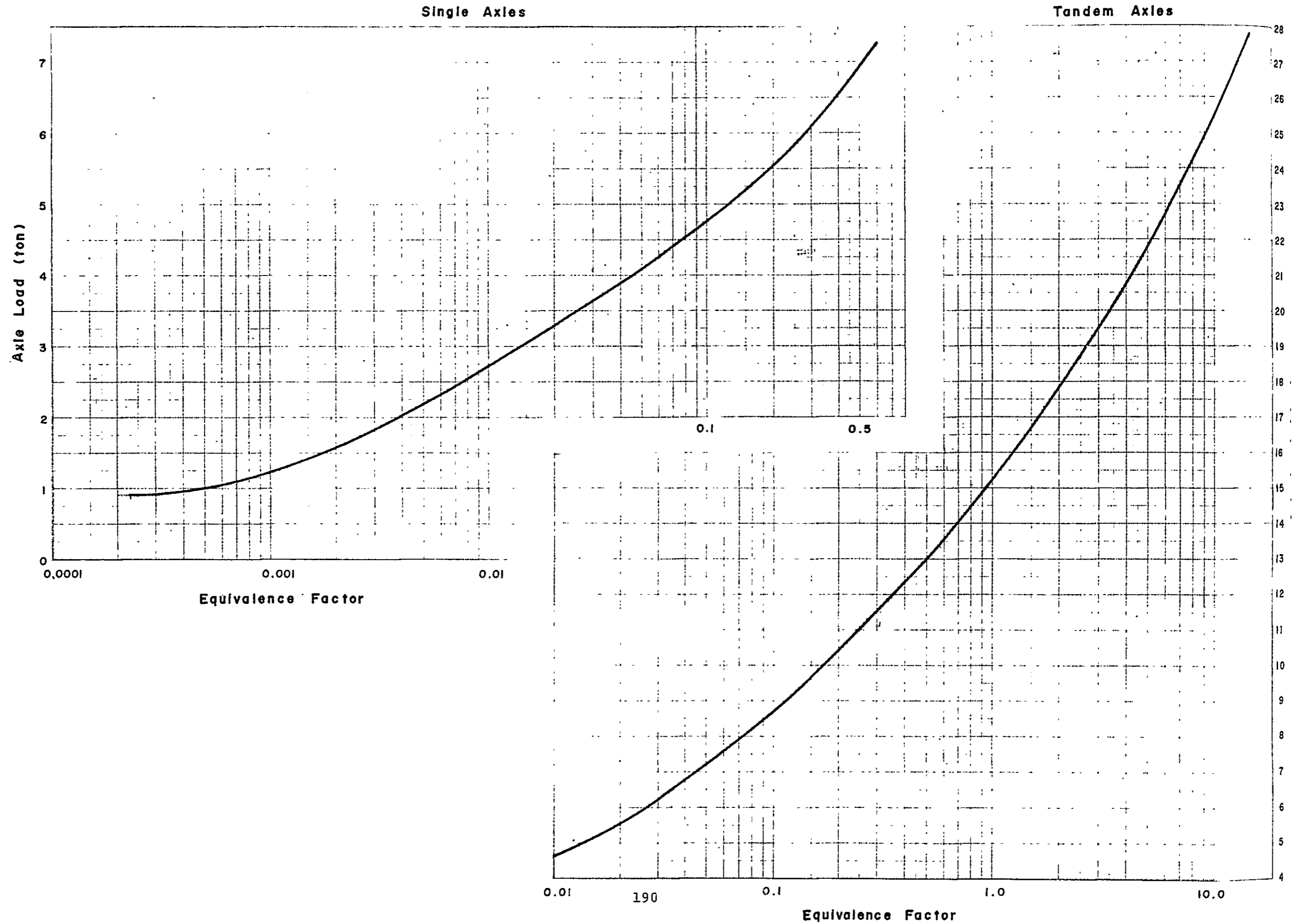
Gross Weight (ton)	6-Wheel		10-Wheel		Gross Weight (ton)	6-Wheel		10-Wheel	
	F	R	F	R		F	R	F	R
2	52.8	47.2			21	22.2	77.8	16.7	83.3
3	46.2	53.8			22	21.8	78.2	16.0	84.0
4	42.0	58.0			23	21.4	78.6	15.4	84.6
5	39.0	61.0			24	21.0	79.0	14.8	85.2
6	36.0	64.0	41.0	5.90	25			14.4	85.6
7	34.0	66.0	38.2	61.8	26			14.0	86.0
8	32.0	68.0	35.4	64.6	27			13.8	86.2
9	30.5	69.5	33.1	66.9	28			13.6	86.4
10	29.0	71.0	30.8	69.2	29			13.3	86.7
11	28.0	72.0	28.9	71.1	30			13.0	87.0
12	27.0	73.0	27.0	73.0	31			12.7	87.3
13	26.5	73.5	25.5	74.5	32			12.4	87.6
14	26.0	74.0	24.0	76.0	33			12.2	87.8
15	25.1	74.9	22.7	77.3	34			12.0	88.0
16	24.2	75.8	21.4	78.6	35			11.9	88.1
17	23.6	76.4	20.3	79.7	36			11.8	88.2
18	23.0	77.0	19.2	80.8	37			11.6	88.4
19	22.8	77.2	18.3	81.7	38			11.4	88.6
20	22.6	77.4	17.4	82.6	39			11.3	88.7
					40			11.2	88.8

Note

F : Front Axle
R : Rear Axle (s)

LEGEND

- North Region
- Phitsanulok Division
- Phrae Division (National Road)
- - - Phrae Division (Provincial Road)
- Chiang Mai Division
- Average in North Region



Appendix 8.7 CUMULATIVE NUMBERS OF ESA (1)

ROUTE / LINK 24 - 400
 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1971
 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE
 HB : 0.610
 MT : 0.810
 HT : 1.280

YEAR	PASSENGER	FREIGHT
- 1982	3.8	4.9
1982 - 1987	3.8	4.9
1988 - 2001	3.8	3.8

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
1972	174	103	98(11)	107	115(17)	246(57)	459	843
73	174	103	98(11)	107	115(17)	246(57)	459	843
74	147	98	106(12)	112	107(16)	198(46)	411	768
75	138	77	119(13)	135	117(17)	186(43)	422	772
76	167	78	118(13)	152	129(19)	263(61)	510	907
77	220	101	124(14)	174	109(16)	362(85)	595	1,090
78	277	162	141(16)	191	218(32)	330(77)	689	1,319
79	264	114	152(17)	140	156(23)	448(105)	756	1,274
80	236	58	122(14)	145	95(14)	415(97)	632	1,071
81	235	62	120(13)	171	146(22)	251(59)	513	985
82	244	64	125(14)	179	153(23)	263(61)	541	1,029
Total	-	-	(148)	-	(216)	(748)	-	(1,112)
83			(14)		(24)	(65)		
84			(15)		(25)	(68)		
85			(16)		(26)	(71)		
86			(16)		(27)	(74)		
87			(17)		(29)	(78)		
88			(17)		(30)	(82)		
89			(18)		(31)	(85)		
Total			(113)		(192)	(523)		(828)

(): ESA (10³)
(1,940)

ROUTE / LINK 24 - 500
 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1971
 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE
 HB : 0.610
 MT : 0.810
 HT : 1.280

YEAR	PASSENGER	FREIGHT
- 1982	3.8	4.9
1982 - 1987	3.8	4.9
1988 - 2001	3.8	3.8

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
1972	157	133	93(10)	96	78(12)	109(26)	280	666
73	157	133	93(10)	96	78(12)	109(26)	280	666
74	169	127	103(11)	100	69(10)	72(17)	244	640
75	139	149	107(12)	152	98(15)	34(8)	239	679
76	121	142	113(13)	206	80(12)	101(24)	294	762
77	159	151	113(13)	244	70(10)	117(27)	300	854
78	164	175	139(15)	217	78(12)	114(27)	331	887
79	209	172	120(13)	228	89(13)	168(39)	377	986
80	231	179	128(14)	221	115(17)	181(42)	424	1,055
81	270	197	156(17)	265	133(20)	196(46)	485	1,217
82	280	204	162(18)	278	140(21)	206(48)	508	1,270
Total	-	-	(146)	-	(154)	(330)	-	(630)
83			(19)		(22)	(50)		
84			(19)		(23)	(53)		
85			(20)		(24)	(55)		
86			(21)		(25)	(58)		
87			(22)		(26)	(61)		
88			(23)		(27)	(64)		
89			(23)		(29)	(66)		
Total			(147)		(176)	(407)		(730)

(): ESA (10³)
(1,360)

CUMULATIVE NUMBERS OF ESA (2)

ROUTE / LINE 24 - 600 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1971 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE HB : 0.610
 MT : 0.810
 HT : 1.280

YEAR	PASSENGER	FREIGHT
- 1982	3.8	4.9
1982 - 1987	3.8	4.9
1988 - 2001	3.8	3.8

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
1972	99	92	64(7)	74	62(9)	69(16)	195	460
73	99	92	64(7)	74	62(9)	69(16)	195	460
74	106	103	64(7)	79	55(8)	51(12)	170	458
75	101	101	59(7)	125	47(7)	43(10)	149	476
76	110	100	55(6)	161	62(9)	57(13)	174	556
77	92	145	63(7)	142	51(8)	71(17)	185	564
78	68	201	50(6)	142	46(7)	62(15)	158	569
79	73	176	54(6)	140	51(8)	84(20)	189	578
80	93	148	55(6)	121	55(8)	85(20)	195	557
81	105	157	65(7)	165	58(9)	80(19)	203	630
82	109	163	67(7)	173	61(9)	84(20)	212	657
Total	-	-	(73)	-	(91)	(178)	-	(342)
83			(8)		(9)	(21)		
84			(8)		(10)	(22)		
85			(8)		(10)	(23)		
86			(9)		(11)	(24)		
87			(9)		(11)	(25)		
88			(9)		(12)	(26)		
89			(10)		(12)	(27)		
Total			(61)		(75)	(168)		(304)

(): ESA (10³) (646)

ROUTE / LINE 24 - 1001 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1975 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE HB : 0.610
 MT : 0.810
 HT : 1.280

YEAR	PASSENGER	FREIGHT
- 1982	3.8	4.9
1982 - 1987	3.8	4.9
1988 - 2001	3.8	3.8

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
1972	67	23	92(10)	68	146(22)	16(4)	254	412
73	154	85	141(16)	92	143(21)	57(13)	341	672
74	145	118	145(16)	95	90(13)	55(13)	290	646
75	176	145	149(17)	109	86(13)	35(8)	270	700
76	296	272	187(21)	231	151(22)	115(27)	453	1,253
77	291	232	168(19)	183	125(19)	111(26)	404	1,110
78	389	292	241(27)	251	176(26)	131(31)	548	1,480
79	365	272	233(26)	224	214(32)	181(43)	628	1,489
80	285	195	164(18)	179	147(22)	101(24)	412	1,072
81	297	171	153(17)	248	174(26)	147(34)	474	1,190
82	308	177	159(18)	260	183(27)	154(36)	496	1,241
Total	-	-	(146)	-	(174)	(221)	-	(541)
83			(18)		(28)	(38)		
84			(19)		(30)	(40)		
85			(20)		(31)	(42)		
86			(21)		(33)	(44)		
87			(21)		(34)	(46)		
88			(22)		(36)	(48)		
89			(23)		(37)	(50)		
Total			(144)		(229)	(308)		(681)

(): ESA (10³) (1,222)

CUMULATIVE NUMBERS OF ESA (3)

ROUTE / LINK 201 - 100 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1969 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE

YEAR	PASSENGER	FREIGHT
- 1982	3.8	5.2
1982 - 1987	3.8	5.2
1988 - 2001	3.8	3.8

HB : 0.610
 MT : 0.810
 HT : 1.280

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
1970			41(5)		63(9)	54(13)	158	
71			41(5)		63(9)	54(13)	158	
72	103	149	41(5)	74	63(9)	54(13)	158	484
73	123	196	43(5)	92	75(11)	68(16)	186	598
74	172	165	76(8)	82	92(14)	76(18)	244	663
75	168	226	54(6)	110	141(21)	69(16)	264	768
76	292	228	66(7)	139	107(16)	52(12)	225	886
77	312	199	68(8)	202	110(16)	84(20)	262	975
78	292	228	77(9)	164	138(20)	101(24)	316	1,000
79	407	290	97(11)	125	130(19)	144(34)	371	1,112
80	351	172	121(13)	166	153(23)	154(36)	428	1,117
81	375	152	102(11)	149	137(20)	137(32)	376	1,052
82	389	158	106(12)	157	144(21)	144(34)	394	1,098
Total	-	-	(95)	-	(208)	(281)	-	(584)
83			(12)		(22)	(35)		
84			(13)		(24)	(37)		
85			(13)		(25)	(39)		
86			(14)		(26)	(41)		
87			(14)		(27)	(43)		
88			(15)		(29)	(46)		
89			(15)		(29)	(47)		
Total			(96)		(183)	(288)		(567)

(): ESA (10³)

(1 151)

ROUTE / LINK 201 - 200 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1969 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE

YEAR	PASSENGER	FREIGHT
- 1982	3.8	5.2
1982 - 1987	3.8	5.2
1988 - 2001	3.8	3.8

HB : 0.610
 MT : 0.810
 HT : 1.280

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
1970			31(3)		39(6)	53(12)	123	
71			31(3)		39(6)	53(12)	123	
72	108	75	31(3)	46	39(6)	53(12)	123	352
73	112	74	34(4)	59	46(7)	55(13)	135	380
74	128	93	50(6)	53	51(8)	43(10)	144	418
75	147	107	57(6)	80	40(6)	54(13)	151	485
76	189	112	63(7)	121	57(8)	62(15)	182	604
77	208	101	64(7)	104	65(10)	68(16)	197	610
78	199	106	73(8)	129	93(14)	72(17)	238	672
79	241	110	96(10)	160	120(18)	114(27)	330	841
80	191	229	92(10)	95	175(26)	126(29)	393	908
81	281	117	123(14)	164	154(23)	172(40)	449	1,011
82	292	121	128(14)	173	162(24)	181(42)	471	1,056
Total	-	-	(95)	-	(162)	(258)	-	(515)
83			(15)		(25)	(44)		
84			(15)		(27)	(47)		
85			(16)		(28)	(49)		
86			(17)		(29)	(52)		
87			(17)		(31)	(54)		
88			(18)		(32)	(57)		
89			(18)		(34)	(59)		
Total			(116)		(206)	(362)		(684)

(): ESA (10³)

(1,199)

CUMULATIVE NUMBERS OF ESA (4)

ROUTE / LINK		201 - 300		DESIGN LANE FACTOR		0.5			
YEAR OF PAVING		1968		ESA CONVERSION FACTOR					
TRAFFIC GROWTH RATE				HB : 0.610					
				MT : 0.810					
				HT : 1.280					
YEAR	PASSENGER	FREIGHT							
- 1982	3.8	5.2							
1982 - 1987	3.8	5.2							
1988 - 2001	3.8	3.8							
DAILY TRAFFIC NUMBER and ESA									
Year	PC	LB	HB	LT	MT	HT	HV	ADT	
1970			129(14)		116(17)	71(17)	316		
71			129(14)		116(17)	71(17)	316		
72	162	62	129(14)	158	116(17)	71(17)	316	698	
73	158	21	133(15)	251	116(17)	81(19)	330	760	
74	149	60	127(14)	284	102(15)	83(19)	312	805	
75	153	77	151(17)	316	79(12)	98(23)	328	874	
76	166	103	164(18)	389	84(12)	110(26)	358	1,016	
77	201	87	149(17)	522	71(11)	107(25)	327	1,137	
78	192	91	151(17)	508	95(14)	106(25)	352	1,143	
79	187	77	175(19)	589	87(13)	142(33)	404	1,257	
80	164	69	165(18)	528	114(17)	127(30)	406	1,167	
81	169	65	173(19)	604	49(7)	176(41)	398	1,236	
82	175	67	180(20)	635	52(8)	185(43)	417	1,295	
Total	-	-	(216)	-	(177)	(335)	-	-	(728)
83			(21)		(8)	(46)			
84			(22)		(8)	(48)			
85			(22)		(9)	(50)			
86			(23)		(9)	(53)			
87			(24)		(10)	(56)			
88			(25)		(10)	(59)			
89			(26)		(11)	(61)			
Total			(163)		(65)	(373)			(601)

(): ESA (10³)

(1,329)

ROUTE / LINK		201 - 400		DESIGN LANE FACTOR		0.5			
YEAR OF PAVING		1968		ESA CONVERSION FACTOR					
TRAFFIC GROWTH RATE				HB : 0.610					
				MT : 0.810					
				HT : 1.280					
YEAR	PASSENGER	FREIGHT							
- 1982	3.8	5.2							
1982 - 1987	3.8	5.2							
1988 - 2001	3.8	3.8							
DAILY TRAFFIC NUMBER and ESA									
Year	PC	LB	HB	LT	MT	HT	HV	ADT	
1970			129(14)		116(17)	71(17)	316		
71			129(14)		116(17)	71(17)	316		
72	162	62	129(14)	158	116(17)	71(17)	316	698	
73	158	21	133(15)	251	116(17)	81(19)	330	760	
74	149	60	127(14)	284	102(15)	83(19)	312	805	
75	153	77	151(17)	316	79(12)	98(23)	328	874	
76	166	103	164(18)	389	84(12)	110(26)	358	1,016	
77	201	87	149(17)	522	71(11)	107(25)	327	1,137	
78	192	91	151(17)	508	95(14)	106(25)	352	1,143	
79	187	77	175(19)	589	87(13)	142(33)	404	1,257	
80	164	69	165(18)	528	114(17)	127(30)	406	1,167	
81	169	65	173(19)	604	49(7)	176(41)	398	1,236	
82	175	67	180(20)	635	52(7)	185(43)	417	1,295	
Total	-	-	(216)	-	(176)	(335)	-	-	(727)
83			(21)		(8)	(46)			
84			(22)		(8)	(48)			
85			(22)		(9)	(50)			
86			(23)		(9)	(53)			
87			(24)		(10)	(56)			
88			(25)		(10)	(59)			
89			(26)		(11)	(61)			
Total			(163)		(65)	(373)			(601)

(): ESA (10³)

(1,328)

CUMULATIVE NUMBERS OF ESA (5)

ROUTE / LINK 202 - 500 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1975 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE HB : 0.610
 MT : 0.810
 HT : 1.280

ROUTE / LINK 206 - 100 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1975 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE HB : 0.610
 MT : 0.810
 HT : 1.280

YEAR	PASSENGER	FREIGHT
- 1982	3.8	5.2
1982 - 1987	3.8	5.2
1988 - 2001	3.8	3.8

YEAR	PASSENGER	FREIGHT
- 1982	3.8	5.2
1982 - 1987	3.8	5.2
1988 - 2001	3.8	3.8

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
77	41	53	12(1)	52	68(10)	13(3)	93	239
78	91	62	22(2)	58	81(12)	48(11)	151	362
79	103	79	75(8)	197	118(17)	5(1)	198	577
80	-	-	106(12)	-	86(13)	38(9)	230	-
81	158	102	138(15)	86	54(8)	71(17)	262	609
82	164	106	143(16)	90	57(8)	75(18)	275	635
Total	-	-	(54)	-	(68)	(59)	-	(181)
83			(17)		(9)	(18)		
84			(17)		(9)	(19)		
85			(18)		(10)	(20)		
86			(19)		(10)	(21)		
87			(19)		(11)	(22)		
88			(20)		(11)	(24)		
89			(21)		(12)	(25)		
Total			(131)		(72)	(149)		(352)

(): ESA (10³) (533)

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
72	251	121	70(8)	64	105(+16)	107(25)	282	718
73	449	173	85(9)	84	121(18)	75(18)	281	987
74	255	128	114(13)	115	143(21)	103(24)	360	858
75	433	123	77(9)	105	170(25)	113(26)	360	1021
76	297	125	66(7)	259	157(23)	105(25)	328	1009
77	283	165	74(8)	443	193(29)	98(23)	365	1256
78	211	139	84(9)	438	213(31)	104(24)	401	1189
79	309	103	67(7)	452	245(36)	149(35)	668	1325
80	416	93	70(8)	365	232(34)	218(51)	520	1395
81	124	58	58(6)	506	176(26)	126(29)	362	1050
82	129	60	60(7)	532	187(28)	133(31)	380	1101
Total	-	-	(91)	-	(287)	(311)	-	(689)

83			(7)		(29)	(33)		
84			(7)		(31)	(34)		
85			(7)		(32)	(36)		
86			(8)		(34)	(38)		
87			(8)		(36)	(40)		
88			(8)		(38)	(42)		
89			(9)		(39)	(44)		
Total			(54)		(239)	(267)		(560)

(): ESA (10³) (1,249)

CUMULATIVE NUMBERS OF ESA (6)

ROUTE / LINK 207 - 100 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1977 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE HB : 0.610
 MT : 0.810
 HT : 1.280

YEAR	PASSENGER	FREIGHT
- 1982	3.8	5.2
1982 - 1987	3.8	5.2
1988 - 2001	3.8	3.8

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
1972	23	37	69()	48	57()	30()	146	264
73	18	17	47()	18	30()	18()	95	148
74	16	17	36()	40	37()	20()	93	166
75	35	23	61()	20	41()	28()	130	206
76	44	29	58()	26	48()	25()	131	231
77	66	52	58(6)	50	83(12)	42(10)	183	351
78	108	55	58(6)	55	49(7)	30(7)	137	355
79	135	51	82(9)	74	59(9)	52(12)	193	453
80	166	38	82(9)	76	45(7)	40(9)	167	447
81	166	56	93(10)	82	53(8)	48(11)	194	498
82	172	58	97(11)	86	56(8)	50(12)	203	519
Total	-	-	(51)	-	(51)	(61)	-	- (163)

83	(11)	(9)	(12)	
84	(12)	(9)	(13)	
85	(12)	(10)	(14)	
86	(12)	(10)	(14)	
87	(13)	(11)	(15)	
88	(13)	(11)	(16)	
89	(14)	(12)	(17)	
Total	(87)	(72)	(101)	(260)

() : ESA (10³) (423)

ROUTE / LINK 207 - 202 DESIGN LANE FACTOR
 YEAR OF PAVING 1977 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE HB : 0.610
 MT : 0.810
 HT : 1.280

YEAR	PASSENGER	FREIGHT
- 1982	3.8	5.2
1982 - 1987	3.8	5.2
1988 - 2001	3.8	3.8

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
1972	24	50	43()	20	28()	19()	90	183
73	40	70	60()	33	29()	28()	117	260
74	73	131	147()	49	81()	35()	263	516
75	41	79	70()	33	32()	23()	125	278
76	63	72	85()	35	33()	17()	135	306
77	92	139	126(14)	101	73(11)	51(12)	250	582
78	109	131	107(12)	97	57(8)	29(7)	193	530
79	74	78	45(5)	74	29(4)	24(6)	98	524
80	91	76	56(6)	62	44(7)	19(4)	119	348
81	127	83	44(5)	88	43(6)	44(10)	131	429
82	132	86	46(5)	93	45(7)	46(11)	137	448
Total	-	-	(47)	-	(43)	(50)	-	- (140)

83	(5)	(7)	(11)	
84	(5)	(7)	(12)	
85	(6)	(8)	(13)	
86	(6)	(8)	(13)	
87	(6)	(9)	(14)	
88	(6)	(9)	(15)	
89	(7)	(9)	(15)	
Total	(41)	(57)	(93)	(191)

() : ESA (10³) (331)

CUMULATIVE NUMBERS OF ESA (7)

ROUTE / LINK 208 - 100 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1967 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE HB : 0.610

YEAR	PASSENGER	FREIGHT
- 1982	3.8	5.2
1982 - 1987	3.8	5.2
1988 - 2001	3.8	3.8

MT : 0.810
 HT : 1.280

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
1972	452	120	126 (14)	115	183 (27)	112 (26)	421	1,108
73	371	182	135 (15)	188	180 (27)	153 (36)	468	1,209
74	358	173	145 (16)	178	145 (21)	116 (29)	406	1,115
75	411	168	133 (15)	180	147 (22)	100 (23)	380	1,139
76	582	229	161 (18)	211	198 (29)	239 (56)	598	1,620
77	525	196	179 (20)	200	166 (25)	130 (30)	475	1,396
78	556	243	190 (21)	223	155 (23)	78 (18)	423	1,445
79	693	266	186 (21)	229	203 (30)	50 (12)	439	1,627
80	-	-	172 (19)	-	165 (24)	84 (20)	421	-
81	650	200	158 (18)	130	127 (19)	117 (27)	402	1,382
82	675	208	164 (18)	137	134 (20)	123 (29)	421	1,440
Total	-	-	(251)	-	(375)	(408)	-	(1,034)
83			(19)		(21)	(30)		
84			(20)		(22)	(32)		
85			(20)		(23)	(33)		
86			(21)		(24)	(35)		
87			(22)		(25)	(37)		
88			(23)		(27)	(39)		
89			(24)		(28)	(40)		
Total			(149)		(170)	(246)		(565)

(1,599)

(): ESA (10³)

ROUTE / LINK 208 - 200 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1967 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE HB : 0.610

YEAR	PASSENGER	FREIGHT
- 1982	3.8	5.2
1982 - 1987	3.8	5.2
1988 - 2001	3.8	3.8

MT : 0.810
 HT : 1.280

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
1972	359	270	122 (14)	222	190 (28)	170 (40)	482	1,333
73	295	258	141 (16)	206	161 (24)	138 (32)	440	1,199
74	403	216	161 (18)	166	139 (21)	116 (27)	416	1,201
75	597	175	142 (16)	136	125 (19)	98 (23)	365	1,273
76	571	191	128 (14)	124	123 (18)	97 (23)	348	1,235
77	627	177	135 (15)	99	91 (13)	78 (18)	304	1,207
78	825	242	174 (19)	111	90 (13)	88 (21)	352	1,530
79	742	133	145 (16)	99	83 (12)	83 (19)	311	1,285
80	-	-	152 (17)	-	84 (12)	75 (18)	311	-
81	137	137	158 (17)	128	85 (13)	67 (16)	310	1,250
82	142	142	164 (18)	135	89 (13)	70 (16)	323	1,301
Total	-	-	(237)	-	(298)	(413)	-	(948)
83			(19)		(14)	(17)		
84			(20)		(15)	(18)		
85			(20)		(15)	(19)		
86			(21)		(16)	(20)		
87			(22)		(17)	(21)		
88			(23)		(18)	(22)		
89			(24)		(19)	(23)		
Total			(149)		(114)	(140)		(403)

(): ESA (10³)

(1,351)

CUMULATIVE NUMBERS OF ESA (8)

ROUTE / LINK 213 - 100									ROUTE / LINK 214 - 100										
DESIGN LANE FACTOR 0.5									DESIGN LANE FACTOR 0.5										
YEAR OF PAVING 1965									YEAR OF PAVING 1976										
ESA CONVERSION FACTOR									ESA CONVERSION FACTOR										
TRAFFIC GROWTH RATE									TRAFFIC GROWTH RATE										
HB : 0.610									HT : 1.280										
MT : 0.810									MT : 0.810										
HT : 1.280									HB : 0.610										
YEAR			PASSENGER			FREIGHT			YEAR			PASSENGER			FREIGHT				
- 1982			3.8			5.2			- 1982			3.8			5.2				
1982 - 1987			3.8			5.2			1982 - 1987			3.8			5.2				
1988 - 2001			3.8			3.8			1988 - 2001			3.8			3.8				
DAILY TRAFFIC NUMBER and ESA									DAILY TRAFFIC NUMBER and ESA										
Year	PC	LB	HB	LT	MT	HT	HV	ADT	Year	PC	LB	HB	LT	MT	HT	HV	ADT		
1972	213	135	75 (8)	160	70(10)	36(8)	181	689	1972	94	263	17()	83	36()	12()	65	505		
73	211	215	126(14)	146	111(16)	62(15)	299	871	73	103	237	178()	102	68()	62()	308	750		
74	205	205	156(17)	143	96(14)	62(15)	314	867	74	137	269	237()	117	118()	3()	358	881		
75	398	339	302(34)	210	218(32)	117(27)	637	1,584	75	151	263	205()	118	205()	6()	416	948		
76	337	302	169(19)	111	190(28)	91(21)	450	1,203	76	130	214	172()	138	138()	40()	350	834		
77	365	290	222(25)	114	178(25)	122(29)	522	1,285	77	195	373	209(23)	362	166(25)	24(6)	399	1,329		
78	369	234	176(20)	172	205(30)	167(39)	548	1,323	78	337	405	192(21)	329	164(24)	51(12)	407	1,488		
79	370	192	182(20)	178	164(24)	141(33)	487	1,227	79	408	298	104(12)	206	116(17)	75(18)	295	1,207		
80	-	-	175(19)	-	128(19)	174(41)	477	-	80	-	-	119(13)	-	134(20)	56(13)	309	-		
81	375	154	165(18)	247	92(14)	206(48)	463	1,239	81	400	288	133(15)	275	152(25)	37(9)	322	1,285		
82	389	160	171(19)	260	97(14)	217(51)	485	1,234	82	415	299	138(15)	289	160(24)	39(9)	337	1,340		
Total	-	-	(261)	-	(286)	(375)	-	-	(922)	Total	-	-	(99)	-	(135)	(67)	-	-	(301)
83			(20)		(15)	(53)			83			(16)		(25)	(10)				
84			(21)		(16)	(56)			84			(17)		(26)	(20)				
85			(21)		(17)	(59)			85			(17)		(28)	(11)				
86			(22)		(18)	(62)			86			(18)		(29)	(11)				
87			(23)		(18)	(65)			87			(19)		(30)	(12)				
88			(24)		(19)	(69)			88			(19)		(32)	(12)				
89			(25)		(20)	(71)			89			(20)		(33)	(13)				
Total			(156)		(123)	(435)		(714)	Total			(126)		(203)	(79)		(408)		
(): ESA (10 ³)									(): ESA (10 ³)										
(1,636)									(709)										

CUMULATIVE NUMBERS OF ESA (9)

ROUTE / LINK 214 - 200
 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1977
 TRAFFIC GROWTH RATE

YEAR	PASSENGER	FREIGHT
- 1982	3.8	5.2
1982 - 1987	3.8	5.2
1988 - 2001	3.8	3.8

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
77	136	116	104(12)	139	122(18)	19(4)	245	636
78	190	145	109(12)	176	104(15)	17(4)	230	741
79	138	102	92(10)	249	71(11)	69(17)	232	721
80	-	-	101(11)	-	164(9)	63(15)	228	-
81	160	96	110(12)	210	156(23)	56(13)	322	788
82	166	100	114(13)	221	164(24)	59(14)	337	834
Total	-	-	(70)	-	(100)	(67)	-	(237)
83			(13)		(26)	(14)		
84			(14)		(27)	(15)		
85			(14)		(28)	(16)		
86			(15)		(30)	(17)		
87			(15)		(31)	(18)		
88			(16)		(33)	(19)		
89			(17)		(34)	(19)		
Total			(104)		(209)	(118)		(431)
								(668)

(): ESA (10³)

ROUTE / LINK 214 - 800
 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1970
 TRAFFIC GROWTH RATE

YEAR	PASSENGER	FREIGHT
- 1982	3.8	5.2
1982 - 1987	3.8	5.2
1988 - 2001	3.8	3.8

ESA CONVERSION FACTOR
 HB : 0.610
 MT : 0.810
 HT : 1.280

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
1971			155(17)		136(20)	177(41)		
72	205	266	155(17)	138	136(20)	177(41)	468	1,077
73	279	277	153(17)	209	159(24)	133(31)	445	1,210
74	333	255	124(14)	150	223(33)	83(19)	430	1,168
75	276	244	123(14)	297	112(17)	170(40)	405	1,222
76	279	254	145(16)	350	204(30)	159(37)	508	1,391
77	351	302	165(18)	411	216(32)	256(60)	637	1,701
78	339	339	173(19)	361	205(30)	169(40)	547	1,586
79	267	358	158(18)	543	240(36)	270(63)	668	1,936
80	226	304	148(16)	489	230(35)	173(40)	560	1,579
81	364	273	164(18)	332	193(29)	265(62)	622	1,591
82	378	283	170(19)	349	203(30)	279(65)	542	1,662
Total	-	-	(203)	-	(336)	(539)	-	(1,078)
83			(20)		(32)	(69)		
84			(20)		(33)	(72)		
85			(21)		(35)	(76)		
86			(22)		(37)	(80)		
87			(23)		(39)	(84)		
88			(24)		(41)	(88)		
89			(25)		(42)	(92)		
Total			(155)		(259)	(561)		(975)

(): ESA (10³)

(2,053)

ROUTE / LINK 304 - 800 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1968 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE HB : 0.610
 MT : 0.810
 HT : 1.280

YEAR	PASSENGER	FREIGHT
- 1982	3.8	5.2
1982 - 1987	3.8	5.2
1988 - 2001	3.8	3.8

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT	
1972	215	185	119 (13)	110	312 (46)	264 (62)	695	1,195	
73	206	248	123 (14)	164	337 (50)	80 (19)	540	1,158	
74	238	303	159 (18)	293	525 (78)	118 (28)	802	1,636	
75	292	360	165 (18)	341	493 (73)	76 (18)	734	1,727	
76	302	338	142 (16)	342	402 (59)	65 (15)	609	1,591	
77	141	250	94 (10)	390	277 (41)	11 (3)	382	1,163	
78	340	252	173 (19)	454	441 (65)	20 (5)	634	1,680	
79	215	282	86 (10)	361	197 (29)	268 (63)	551	1,409	
80	209	289	90 (10)	466	149 (22)	260 (61)	499	1,463	
81	245	309	87 (10)	552	245 (36)	207 (48)	539	1,645	
82	254	321	90 (10)	581	258 (38)	218 (51)	566	1,722	
Total	-	-	(187)	-	(675)	(559)	-	-	(1,421)

83	(10)	(40)	(54)	
84	(11)	(42)	(56)	
85	(11)	(44)	(59)	
86	(12)	(47)	(62)	
87	(12)	(49)	(66)	
88	(13)	(52)	(69)	
89	(13)	(54)	(72)	
Total	(82)	(328)	(438)	(848)

(): ESA (10³) (2,269)

ROUTE / LINK 304 - 902 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1972 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE HB : 0.610
 MT : 0.810
 HT : 1.280

YEAR	PASSENGER	FREIGHT
- 1982	3.8	5.2
1982 - 1987	3.8	5.2
1988 - 2001	3.8	3.8

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT	
1972	423	138	153 (17)	191	171 (25)	311 (73)	635	1,387	
73	504	192	168 (19)	232	179 (26)	228 (53)	575	1,503	
74	475	204	169 (19)	310	195 (29)	237 (55)	601	1,590	
75	428	189	201 (22)	458	179 (26)	198 (46)	578	1,651	
76	417	238	194 (22)	511	215 (32)	197 (46)	606	1,772	
77	417	252	202 (22)	578	158 (23)	215 (50)	575	1,822	
78	531	223	261 (29)	701	307 (45)	402 (94)	970	2,425	
79	533	155	206 (23)	634	278 (41)	269 (63)	753	2,075	
80	385	287	200 (22)	499	273 (40)	219 (51)	692	1,863	
81	377	353	201 (22)	509	220 (33)	261 (61)	682	1,921	
82	391	366	209 (23)	535	231 (34)	275 (64)	715	2,008	
Total	-	-	(291)	-	(429)	(875)	-	-	(1,595)

83	(24)	(36)	(67)	
84	(25)	(38)	(71)	
85	(26)	(40)	(75)	
86	(27)	(42)	(79)	
87	(28)	(44)	(83)	
88	(29)	(46)	(87)	
89	(30)	(48)	(90)	
Total	(189)	(294)	(552)	(1,035)

(): ESA (10³) (2,630)

CUMULATIVE NUMBERS OF ESA (11)

ROUTE / LINK 304 - 904 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1968 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE HB : 0.610
 MT : 0.810
 HT : 1.280

YEAR	PASSENGER	FREIGHT
- 1982	3.8	5.2
1982 - 1987	3.8	5.2
1988 - 2001	3.8	3.8

ROUTE / LINK 2023 - 100 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1972 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE HB : 0.610
 MT : 0.680
 HT : 0.990

YEAR	PASSENGER	FREIGHT
- 1982	6.6	4.5
1982 - 1987	6.6	4.5
1988 - 2001	5.5	3.6

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
1972	423	138	153 (17)	191	171 (25)	311 (73)	635	1,387
73	504	192	168 (19)	232	179 (26)	228 (53)	575	1,503
74	475	204	169 (19)	310	195 (29)	237 (55)	601	1,590
75	428	189	201 (22)	458	179 (26)	198 (46)	578	1,651
76	417	238	194 (22)	511	215 (32)	197 (46)	606	1,772
77	417	252	202 (22)	578	158 (23)	215 (50)	575	1,822
78	531	223	261 (29)	701	307 (45)	402 (94)	970	2,425
79	533	155	206 (23)	634	278 (41)	269 (63)	753	2,075
80	385	287	200 (22)	499	273 (40)	219 (51)	692	1,863
81	377	353	201 (22)	509	220 (33)	261 (61)	682	1,921
82	391	366	209 (23)	535	231 (34)	275 (64)	715	2,008
Total	-	-	(291)	-	(429)	(875)	-	(1,595)

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
1972	330	815	70 (8)	133	254 (31)	115 (21)	439	1,717
73	396	857	72 (8)	130	418 (52)	152 (28)	642	2,027
74	434	910	62 (7)	144	241 (30)	149 (27)	452	1,940
75	227	864	62 (7)	411	283 (35)	121 (22)	466	1,968
76	231	890	61 (7)	514	282 (35)	152 (28)	495	2,130
77	247	881	56 (6)	507	208 (26)	198 (36)	462	2,097
78	421	930	56 (6)	540	233 (29)	255 (46)	544	2,435
79	444	933	59 (7)	552	244 (30)	229 (41)	539	2,461
80	469	807	49 (5)	510	231 (29)	211 (38)	491	2,277
81	585	833	51 (6)	541	285 (35)	246 (445)	582	2,541
82	624	888	54 (6)	565	298 (37)	257 (47)	609	2,686
Total	-	-	(73)	-	(369)	(379)	-	(821)

83	(24)	(36)	(67)
84	(25)	(38)	(71)
85	(26)	(40)	(75)
86	(27)	(42)	(79)
87	(28)	(44)	(83)
88	(29)	(46)	(87)
89	(30)	(48)	(90)
Total	(189)	(294)	(552)

83	(6)	(39)	(49)
84	(7)	(40)	(51)
85	(7)	(42)	(53)
86	(8)	(44)	(55)
87	(8)	(46)	(58)
88	(9)	(48)	(60)
89	(9)	(50)	(63)
Total	(54)	(309)	(389)

(): ESA (10³)

(2,630)

(): ESA (10³)

(1,573)

CUMULATIVE NUMBERS OF ESA (12)

ROUTE / LINK	203 ^a - 101	DESIGN LANE FACTOR	0.5
YEAR OF PAVING	1963	ESA CONVERSION FACTOR	
TRAFFIC GROWTH RATE		HB : 0.610	
		MT : 0.680	
		HT : 0.990	

YEAR	PASSENGER	FREIGHT
- 1982	6.6	4.5
1982 - 1987	6.6	4.5
1988 - 2001	5.5	3.6

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
1972	375	81	121 (13)	104	163 (20)	164 (30)	448	1,008
73	475	157	132 (15)	106	173 (21)	208 (38)	513	1,251
74	265	136	89 (10)	107	109 (14)	69 (12)	267	775
75	318	133	88 (10)	136	98 (12)	59 (11)	245	832
76	339	135	84 (9)	141	124 (15)	74 (13)	282	897
77	362	135	93 (10)	285	144 (18)	95 (17)	332	1,114
78	338	134	85 (9)	145	124 (15)	75 (14)	284	901
79	465	329	199 (22)	389	411 (51)	369 (67)	979	2,162
80	198	170	87 (10)	463	166 (21)	144 (26)	397	1,228
81	156	200	79 (89)	461	208 (26)	252 (46)	539	1,356
82	166	213	84 (9)	482	217 (27)	263 (48)	564	1,426
Total	-	-	(230)	-	(400)	(562)	-	(1,192)

83	(10)	(28)	(50)	
84	(11)	(29)	(52)	
85	(11)	(31)	(54)	
86	(12)	(32)	(57)	
87	(13)	(34)	(59)	
88	(14)	(35)	(62)	
89	(15)	(36)	(64)	
Total	(86)	(225)	(398)	(709)

(): ESA (10³) (1,901)

ROUTE / LINK	203 ^a - 102	DESIGN LANE FACTOR	0.5
YEAR OF PAVING	1963	ESA CONVERSION FACTOR	
TRAFFIC GROWTH RATE		HB : 0.610	
		MT : 0.680	
		HT : 0.990	

YEAR	PASSENGER	FREIGHT
- 1982	6.6	4.5
1982 - 1987	6.6	4.5
1988 - 2001	5.5	3.6

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
1972	375	81	121 (13)	104	163 (20)	164 (30)	448	1,008
73	475	157	132 (15)	106	173 (21)	208 (38)	513	1,251
74	265	136	89 (10)	107	109 (14)	69 (12)	267	775
75	318	133	88 (10)	136	98 (12)	59 (11)	245	832
76	339	135	84 (9)	141	124 (15)	74 (13)	282	897
77	362	135	93 (10)	285	144 (18)	95 (17)	332	1,114
78	338	134	85 (9)	145	124 (15)	75 (14)	284	901
79	465	329	199 (22)	389	411 (51)	369 (67)	979	2,162
80	198	170	87 (10)	463	166 (21)	144 (26)	397	1,228
81	156	200	79 (89)	461	208 (26)	252 (46)	539	1,356
82	166	213	84 (9)	482	217 (27)	263 (48)	564	1,426
Total	-	-	(230)	-	(400)	(562)	-	(1,192)

83	(10)	(28)	(50)	
84	(11)	(29)	(52)	
85	(11)	(31)	(54)	
86	(12)	(32)	(57)	
87	(13)	(34)	(59)	
88	(14)	(35)	(62)	
89	(15)	(36)	(64)	
Total	(86)	(225)	(398)	(709)

(): ESA (10³) (1,901)

CUMULATIVE NUMBERS OF ESA (13)

ROUTE / LINK 2071 - 100
 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1976
 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE
 HB : 0.610
 MT : 0.680
 HT : 0.990

YEAR	PASSENGER	FREIGHT
- 1982	6.6	4.5
1982 - 1987	6.6	4.5
1988 - 2001	5.5	3.6

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
1972	86	21	32 ()	32	31 ()	28 ()	91	230
73	87	23	33 ()	36	41 ()	30 ()	104	250
74	107	41	43 ()	62	77 ()	63 ()	183	393
75	136	135	54 ()	124	106 ()	70 ()	230	625
76	143	60	53 ()	172	82 ()	63 ()	198	573
77	120	39	57 (6)	269	115 (14)	62 (11)	234	662
78	125	39	55 (6)	298	162 (20)	60 (11)	277	739
79	102	82	63 (7)	280	247 (31)	65 (12)	375	839
80	127	59	59 (7)	332	267 (33)	100 (18)	426	944
81	144	46	69 (8)	270	152 (19)	61 (11)	282	742
82	154	49	74 (8)	282	159 (20)	64 (11)	297	781
Total	-	-	(42)	-	(137)	(74)	-	(253)

83	(9)	(21)	(12)	
84	(9)	(22)	(13)	
85	(10)	(22)	(13)	
86	(11)	(24)	(14)	
87	(11)	(25)	(14)	
88	(12)	(26)	(15)	
89	(13)	(27)	(16)	
Total	(75)	(167)	(97)	(339)

(): ESA (10³) (592)

ROUTE / LINK 2109 - 100
 DESIGN LANE FACTOR 0.5
 YEAR OF PAVING 1963
 ESA CONVERSION FACTOR
 TRAFFIC GROWTH RATE
 HB : 0.610
 MT : 0.680
 HT : 0.990

YEAR	PASSENGER	FREIGHT
- 1982	6.6	4.5
1982 - 1987	6.6	4.5
1988 - 2001	5.5	3.6

DAILY TRAFFIC NUMBER and ESA

Year	PC	LB	HB	LT	MT	HT	HV	ADT
1972	120	114	124 (14)	114	94 (12)	17 (3)	235	583
73	139	121	124 (14)	126	88 (11)	28 (5)	240	626
74	98	107	101 (11)	132	69 (9)	32 (6)	202	539
75	85	58	74 (8)	115	45 (6)	11 (2)	130	388
76	137	122	155 (17)	124	52 (6)	23 (4)	230	613
77	140	118	77 (9)	205	64 (8)	15 (3)	156	619
78	180	146	122 (14)	194	97 (12)	43 (8)	262	782
79	78	104	62 (7)	138	58 (7)	21 (4)	141	461
80	71	98	53 (6)	129	50 (6)	2 (0)	105	403
81	118	118	59 (7)	172	93 (12)	70 (13)	222	630
82	126	126	63 (7)	180	97 (12)	73 (13)	233	665
Total	-	-	(226)	-	(85)	-	-	(508)

83	(7)	(13)	(14)	
84	(8)	(13)	(14)	
85	(8)	(14)	(15)	
86	(9)	(14)	(16)	
87	(10)	(15)	(16)	
88	(10)	(16)	(17)	
89	(11)	(16)	(18)	
Total	(63)	(101)	(110)	(274)

(): ESA (10³) (782)

CUMULATIVE NUMBERS OF ESA (14)

ROUTE / LINK		2160 - 100		DESIGN LANE FACTOR		0.5			
YEAR OF PAVING		1977		ESA CONVERSION FACTOR					
TRAFFIC GROWTH RATE				HB : 0.610					
				MT : 0.680					
				HT : 0.990					
YEAR	PASSENGER	FREIGHT							
- 1982	6.6	4.5							
1982 - 1987	6.6	4.5							
1988 - 2001	5.5	3.6							
DAILY TRAFFIC NUMBER and ESA									
Year	PC	LB	HB	LT	MT	HT	HV	ADT	
73	14	14	24()	14	19()	10()	53	95	
74	9	9	20()	15	16()	7()	43	76	
75	30	12	29()	13	24()	5()	58	113	
76	44	16	32()	28	20()	9()	61	149	
77	35	22	31()	26	53()	11()	95	178	
78	54	38	30(3)	38	40(5)	20(4)	130	220	
79	66	45	40(4)	55	43(5)	15(3)	98	264	
80	106	37	30(3)	95	56(7)	65(12)	151	388	
81	62	35	29(3)	74	67(8)	25(5)	121	292	
82	66	37	31(3)	77	70(9)	26(5)	127	308	
Total	-	-	(16)	-	(34)	(29)	-	(79)	
83			(4)		(9)	(5)			
84			(4)		(9)	(5)			
85			(4)		(10)	(5)			
86			(4)		(10)	(6)			
87			(5)		(11)	(6)			
88			(5)		(11)	(6)			
89			(5)		(12)	(6)			
Total			(31)		(72)	(39)		(142)	

(): ESA (10³)

(221)

ROUTE / LINK		2175 - 100		DESIGN LANE FACTOR		0.5			
YEAR OF PAVING		1978		ESA CONVERSION FACTOR					
TRAFFIC GROWTH RATE				HB : 0.610					
				MT : 0.680					
				HT : 0.990					
YEAR	PASSENGER	FREIGHT							
- 1982	6.6	4.5							
1982 - 1987	6.6	4.5							
1988 - 2001	5.5	3.6							
DAILY TRAFFIC NUMBER and ESA									
Year	PC	LB	HB	LT	MT	HT	HV	ADT	
73	73	49	56()	42	161()	22()	239	403	
74	52	78	37()	118	156()	22()	215	463	
75	112	73	27()	180	202()	73()	302	667	
76	163	155	76()	314	301()	103()	480	1,112	
77	75	88	65()	389	200()	65()	330	882	
78	57	109	76()	431	183()	102()	361	958	
79	220	107	80(9)	392	174(22)	201(36)	455	1,174	
80	381	103	68(8)	142	91(11)	55(10)	214	840	
81	67	69	45(5)	448	72(9)	51(9)	168	752	
82	71	74	58(5)	468	75(9)	53(10)	176	790	
Total	-	-	(27)	-	(51)	(65)	-	(143)	
83			(6)		(10)	(10)			
84			(6)		(10)	(11)			
85			(6)		(11)	(11)			
86			(7)		(11)	(11)			
87			(7)		(12)	(12)			
88			(8)		(12)	(13)			
89			(8)		(13)	(13)			
Total			(48)		(79)	(81)		(208)	

(): ESA (10³)

(351)

Appendix 8.8 CALCULATED OVERLAY THICKNESS (1)

Date of deflection Survey

19/2/1982

AC Surface	70 mm
Crushed Stone Base	150
Soil Subbase	150

RH-1(24-0400)

Section (Km.) - (Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X} + 1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)					Remarks.	
				0	2	4	6	8	10	A1	A2	B	C	D		E
74 - 75	0.6433	0.2704	1.0490							28	45	12	32	30	31	Note; A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$) A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$) B; TRRL Method C; TRRL in the Tropics Method D; Ruiz's Formula E; California Method * Pavement failure within design period is not foreseen.
75 - 76	0.7241	0.2095	1.0383							26	40	0	31	28	30	
76 - 77	0.7881	0.2606	1.1790							44	57	30	47	44	49	
77 - 78	0.5560	0.2330	0.9056							0	23	*	13	13	14	
78 - 79	0.5040	0.1922	0.7922							0	0	*	0	0	3	
79 - 80	0.5394	0.2037	0.8449							0	3	*	3	4	8	
80 - 81	0.5970	0.2038	0.9027							0	19	*	12	12	14	
81 - 82	0.6136	0.1564	0.8483							0	0	*	3	4	8	
82 - 83	0.7940	0.1665	1.0437							27	38	10	32	28	31	
83 - 84	0.5625	0.1367	0.7675							0	0	*	0	0	0	
84 - 85	0.8525	0.1415	1.0648							30	39	12	34	31	34	
85 - 86	0.7019	0.1961	0.9960							18	34	0	25	21	24	
86 - 87	0.9562	0.1740	1.2171							48	56	33	51	47	57	
87 - 88	0.7802	0.1445	0.9969							18	31	0	25	22	24	
88 - 89	0.7038	0.1146	0.8758							0	0	*	8	9	11	
89 - 90	0.6090	0.1342	0.8103							0	0	*	0	0	4	
90 - 91	0.8868	0.1801	1.1570							42	51	26	45	42	46	
91 - 92	0.6376	0.0953	0.7806							0	0	*	0	0	2	
92 - 93	0.7700	0.1607	1.0110							20	34	0	27	25	26	
93 - 94	0.6913	0.1150	0.8638							0	0	*	7	7	10	
94 - 95	0.7548	0.1105	0.9205							0	13	0	14	13	15	
95 - 96	0.7370	0.3539	1.2678							53	67	39	56	53	67	
96 - 97	0.6917	0.1160	0.8658							0	0	*	7	8	10	
97 - 98	0.6559	0.1147	0.8279							0	0	*	0	0	7	
98 - 99	0.5870	0.1466	0.8068							0	0	*	0	0	4	
99 - 100	0.5817	0.1526	0.8107							0	0	*	0	0	5	
100 - 101	0.6327	0.1687	0.8857							0	11	*	9	10	12	
101 - 102	0.5470	0.0602	0.6373							0	0	*	*	0	0	

CALCULATED OVERLAY THICKNESS (2)

Date of deflection Survey

17/3/1981

AC Surface	50 mm
Crushed Stone Base	150
Laterite Subbase	150

RH-2(24 - 0500) (1)

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)					Remarks.	
				0	2	4	6	8	10	A1	A2	B	C	D		E
102 - 103	0.7775	0.1184	0.9551							0	16	*	16	16	15	Note; A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$) A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$) B; TRRL Method C; TRRL in the Tropics Method D; Ruiz's Formula E; California Method * Pavement failure within design period is not foreseen.
103 - 104	0.8238	0.0672	0.9246							0	0	*	12	12	12	
104 - 105	0.3889	0.0411	0.4505							0	0	*	*	0	0	
105 - 106	0.6152	0.0625	0.7089							0	0	*	*	0	0	
106 - 107	0.3260	0.0682	0.4284							0	0	*	*	0	0	
107 - 108	0.4092	0.0637	0.5048							0	0	*	*	0	0	
108 - 109	0.4764	0.0851	0.6041							0	0	*	*	0	0	
109 - 110	0.5446	0.0574	0.6306							0	0	*	*	0	0	
110 - 111	0.3606	0.1148	0.5328							0	0	*	*	0	0	
111 - 112	0.4071	0.0684	0.5097							0	0	*	*	0	0	
112 - 113	0.6008	0.0718	0.7085							0	0	*	*	0	0	
113 - 114	0.6948	0.0823	0.8183							0	0	*	0	0	2	
114 - 115	0.6476	0.2151	0.9703							4	28	*	18	17	17	
115 - 116	0.5116	0.1343	0.7130							0	0	*	*	0	0	
116 - 117	0.5387	0.1025	0.6925							0	0	*	*	0	0	
117 - 118	0.4789	0.1016	0.6313							0	0	*	*	0	0	
118 - 119	0.3825	0.1018	0.5352							0	0	*	*	0	0	
119 - 120	0.2643	0.0897	0.3988							0	0	*	*	0	0	
120 - 121	0.4562	0.0647	0.5532							0	0	*	*	0	0	
121 - 122	0.4370	0.0947	0.5790							0	0	*	*	0	0	
122 - 123	0.5259	0.0948	0.6681							0	0	*	*	0	0	
123 - 124	0.4817	0.0671	0.5824							0	0	*	*	0	0	
124 - 125	0.4579	0.0950	0.6004							0	0	*	*	0	0	
125 - 126	0.3768	0.1451	0.5945							0	0	*	*	0	0	
126 - 127	0.4033	0.0827	0.5274							0	0	*	*	0	0	
127 - 128	0.4443	0.0447	0.5113							0	0	*	*	0	0	
128 - 129	0.5384	0.1082	0.7007							0	0	*	*	0	0	
129 - 130	0.4448	0.0779	0.5616							0	0	*	*	0	0	
130 - 131	0.5732	0.1341	0.7744							0	0	*	*	0	0	

CALCULATED OVERLAY THICKNESS (3)

RH-2 (24 -0500) (2)

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
131 - 132	0.6208	0.0476	0.6921							0	0	*	*	0	0	Note; A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$) A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$) B; TRRL Method C; TRRL in the Tropics Method D; Ruiz's Formula E; California Method * Pavement failure within design period is not foreseen.
132 - 133	0.3805	0.0626	0.4744							0	0	*	*	0	0	
133 - 134	0.4667	0.0583	0.5542							0	0	*	*	0	0	
134 - 135	0.3341	0.1428	0.5483							0	0	*	*	0	0	
135 - 136	0.5290	0.0664	0.6286							0	0	*	*	0	0	
136 - 137	0.3552	0.0820	0.4782							0	0	*	*	0	0	
137 - 138	0.4168	0.0856	0.5452							0	0	*	*	0	0	

CALCULATED OVERLAY THICKNESS (4)

Date of deflection Survey

10/11/1980

RH-3 (24 - 0600)

AC Surface	50 mm
Crushed Stone Base	150
Laterite Subbase	150

Section (Km.) - (Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X} + 1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
138 - 140	0.6494	0.0900	0.7843							0	0	*	*	0	0	
140 - 142	0.7152	0.1591	0.9538							0	0	*	0	0	3	Note;
142 - 144	1.0357	0.2330	1.3852							30	40	0	42	39	46	A1; Asphalt Institute Method
144 - 146	0.5876	0.1040	0.7437							0	0	*	*	0	0	(Design Def. $\bar{X} + 1.5\sigma$)
146 - 148	0.7984	0.2657	1.1970							0	22	*	23	21	24	A2; Asphalt Institute Method
148 - 150	1.4101	0.4881	2.1423							74	81	60	87	92	155	(Design Def. $\bar{X} + 2.0\sigma$)
150 - 152	0.9665	0.1453	1.1844							0	10	*	22	20	23	B; TRRL Method
152 - 154	0.8219	0.1560	1.0558							0	0	*	7	7	11	C; TRRL in the Tropics Method
154 - 156	0.8590	0.0938	0.9997							0	0	*	0	0	6	D; Ruiz's Formula
156 - 158	0.8730	0.1367	1.0780							0	0	*	9	9	13	E; California Method
158 - 160	0.8693	0.2049	1.1767							0	14	*	21	20	22	
160 - 162	1.0579	0.1619	1.3008							19	29	0	33	32	35	* Pavement failure within
162 - 164	0.9309	0.2168	1.2562							11	27	0	29	28	31	design period is not
164 - 166	0.7557	0.2982	1.2030							0	25	*	23	22	25	foreseen.
166 - 168	0.7879	0.1872	1.0688							0	0	*	8	9	12	
168 - 170	0.7881	0.3686	1.3409							24	43	0	37	36	40	
170 - 172	1.0374	0.3358	1.5412							44	54	13	55	52	68	
172 - 174	0.9016	0.1745	1.1633							0	9	*	19	18	21	
174 - 176	0.8113	0.1929	1.1006							0	0	*	11	11	7	
176 - 178	0.9667	0.2132	1.2865							17	30	0	33	30	33	
178 - 180	0.9195	0.2160	1.2434							7	26	0	28	25	29	
180 - 182	0.5776	0.2532	0.9574							0	0	*	0	0	3	
182 - 184	0.7376	0.1982	1.0348							0	0	*	4	4	8	
184 - 186	0.7549	0.2080	1.0670							0	0	*	9	8	11	
186 - 187	0.4401	0.2278	0.7819							0	0	*	*	0	0	

CALCULATED OVERLAY THICKNESS (5)

RH04 (24 - 1001) (1)

Date of deflection Survey

21/3/1982

DBST	25 mm
Crushed Stone Base	150
Laterite Subbase	150

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)					Remarks.	
				0	2	4	6	8	10	A1	A2	B	C	D		E
0 - 1	0.3290	0.1223	0.5124							0	0	*	*	0	0	
1 - 2	0.3329	0.1281	0.5251							0	0	*	*	0	0	
2 - 3	0.4300	0.1303	0.6254							0	0	*	*	0	0	Note;
3 - 4	0.4257	0.1156	0.5991							0	0	*	*	0	0	A1; Asphalt Institute Method
4 - 5	0.4367	0.0869	0.5670							0	0	*	*	0	0	(Design Def. $\bar{X} + 1.5\sigma$)
5 - 6	0.6343	0.1001	0.7845							0	0	*	0	0	0	A2; Asphalt Institute Method
6 - 7	0.3719	0.1342	0.5732							0	0	*	*	0	0	(Design Def. $\bar{X} + 2.0\sigma$)
7 - 8	0.4367	0.0940	0.5776							0	0	*	*	0	0	B; TRRL Method
8 - 9	0.4795	0.1425	0.6933							0	0	*	*	0	0	C; TRRL in the Tropics Method
9 - 10	0.5571	0.1065	0.7169							0	0	*	*	0	0	D; Ruiz's Formula
10 - 11	0.5290	0.0758	0.6428							0	0	*	*	0	0	E; California Method
11 - 12	0.4540	0.1141	0.6252							0	0	*	*	0	0	* Pavement failure within
12 - 13	0.4419	0.0844	0.5685							0	0	*	*	0	0	design period is not
13 - 14	0.5186	0.0919	0.6565							0	0	*	*	0	0	foreseen.
14 - 15	0.5286	0.0890	0.6620							0	0	*	*	0	0	
15 - 16	0.5586	0.1320	0.7566							0	0	*	0	0	0	
16 - 17	0.5590	0.1352	0.7618							0	0	*	0	0	0	
17 - 18	0.4971	0.0903	0.6327							0	0	*	*	0	0	
18 - 19	0.4243	0.1331	0.6239							0	0	*	*	0	0	
19 - 20	0.5855	0.1024	0.7390							0	0	*	0	0	0	
20 - 21	0.4737	0.0915	0.6110							0	0	*	*	0	0	
21 - 22	0.3989	0.1150	0.5714							0	0	*	*	0	0	
22 - 23	0.5895	0.1520	0.8175							0	0	*	0	0	2	
23 - 24	0.5938	0.1158	0.7675							0	0	*	0	0	0	
24 - 25	0.3868	0.2174	0.7129							0	0	*	*	0	0	
25 - 26	0.6157	0.1152	0.7885							0	0	*	0	0	0	
26 - 27	0.6290	0.1160	0.8031							0	0	*	0	0	1	
27 - 28	0.6729	0.1903	0.9583							0	21	*	12	14	15	
28 - 29	0.4899	0.1101	0.6550							0	0	*	*	0	0	
29 - 30	0.6743	0.1234	0.8593							0	0	*	0	0	6	

CALCULATED OVERLAY THICKNESS (6)

RH-4 (24 - 1001) (2)

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
30 - 31	0.6270	0.1753	0.8899							0	0	*	4	4	8	
31 - 32	0.6167	0.1077	0.7782							0	0	*	0	0	0	
32 - 33	0.5800	0.2536	0.9604							0	26	*	13	14	15	Note;
33 - 34	0.6225	0.1718	0.8801							0	6	*	3	3	7	A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$)
34 - 35	0.6281	0.1530	0.8576							0	0	*	0	0	5	A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$)
35 - 36	0.5552	0.1262	0.7446							0	0	*	*	0	0	B; TRRL Method
36 - 37	0.5005	0.1420	0.7134							0	0	*	*	0	0	C; TRRL in the Tropics Method
37 - 38	0.6071	0.1541	0.8384							0	0	*	*	0	0	D; Ruiz's Formula
38 - 39	0.5838	0.1092	0.7477							0	0	*	*	0	0	E; California Method
39 - 40	0.4695	0.1179	0.6464							0	0	*	*	0	0	

* Pavement failure within
design period is not
foreseen.

CALCULATED OVERLAY THICKNESS (7)

Date of deflection Survey

8/10/1982

DBST	25 mm
Soil Cement Base	150
Laterite Subbase	150

RH-5(201 - 0100) (1)

Section (Km.) - (Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X} + 1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
0 - 1	0.5414	0.2432	0.9062							0	0	*	0	0	8	
1 - 2	0.3500	0.1064	0.5097							0	0	*	*	0	0	
2 - 3	0.3371	0.1436	0.5526							0	0	*	*	0	0	Note;
3 - 4	0.4719	0.2045	0.7786							0	0	*	0	0	0	A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$)
4 - 5	0.5348	0.2162	0.4590							0	0	*	0	0	4	A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$)
5 - 6	0.5800	0.2540	0.9611							0	15	*	8	8	13	
6 - 7	0.3590	0.1188	0.5373							0	0	*	*	0	0	B; TRRL Method
7 - 8	0.3457	0.1730	0.6052							0	0	*	*	0	0	C; TRRL in the Tropics Method
8 - 9	0.5552	0.2572	0.9411							0	11	*	6	5	11	D; Ruiz's Formula
9 - 10	0.4905	0.2277	0.8320							0	0	*	0	0	2	E; California Method
10 - 11	0.5305	0.2441	0.8967							0	0	*	0	0	7	
11 - 12	0.5910	0.2545	0.9727							0	17	*	10	10	14	* Pavement failure within design period is not foreseen.
12 - 13	0.3929	0.2200	0.7228							0	0	*	*	0	0	
13 - 14	0.5710	0.2464	0.9405							0	10	*	5	5	11	
14 - 15	0.4790	0.2602	0.8694							0	0	*	0	0	5	
15 - 16	0.3771	0.2223	0.7106							0	0	*	*	0	0	
16 - 17	0.5300	0.1430	0.7445							0	0	*	*	0	0	
17 - 18	0.5224	0.1906	0.8082							0	0	*	0	0	0	
18 - 19	0.5938	0.2223	0.9273							0	0	*	3	4	10	
19 - 20	0.5557	0.1921	0.8439							0	0	*	0	0	3	
20 - 21	0.5510	0.2638	0.9467							0	14	*	6	5	12	
21 - 22	0.3800	0.1832	0.6548							0	0	*	*	0	0	
22 - 23	0.3862	0.1572	0.6220							0	0	*	*	0	0	
23 - 24	0.4848	0.1962	0.7791							0	0	*	*	0	0	
24 - 25	0.4071	0.2007	0.7082							0	0	*	*	0	0	
25 - 26	0.3100	0.1313	0.5070							0	0	*	*	0	0	
26 - 27	0.3224	0.1590	0.5608							0	0	*	*	0	0	
27 - 28	0.3810	0.1264	0.5706							0	0	*	*	0	0	

CALCULATED OVERLAY THICKNESS (8)

RH-5 (201 - 0100) (2)

Section (Km.) - (Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X} + 1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
28 - 29	0.4019	0.1795	0.6711							0	0	*	*	0	0	Note; A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$) A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$) B; TRRL Method C; TRRL in the Tropics Method D; Ruiz's Formula E; California Method * Pavement failure within design period is not foreseen.
29 - 30	0.4481	0.1478	0.6697							0	0	*	*	0	0	
30 - 31	0.4462	0.1744	0.7078							0	0	*	*	0	0	
31 - 32	0.5000	0.1581	0.7372							0	0	*	*	0	0	
32 - 33	0.3924	0.1972	0.6881							0	0	*	*	0	0	
33 - 34	0.5676	0.3243	1.0541							5	34	0	20	20	22	
34 - 35	0.6243	0.2883	1.0568							6	32	0	20	20	22	
35 - 36	0.5510	0.1735	0.8111							0	0	*	0	0	0	
36 - 37	0.6600	0.2557	1.0436							0	29	0	18	18	21	
37 - 38	0.8224	0.2431	1.1871							30	44	0	35	33	40	
38 - 39	0.8614	0.3068	1.3216							44	57	28	49	46	62	

CALCULATED OVERLAY THICKNESS (9)

RH - 6 (201 - 0200)

Date of deflection Survey
13/10/1982

DBST	25 mm
Soil Cement Base	150
Laterite Subbase	150

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
39 - 40	0.7624	0.2966	1.2072							42	55	9	43	42	73	
40 - 41	0.3462	0.1205	0.5270							0	0	*	*	0	0	
41 - 42	0.4690	0.0945	0.6108							0	0	*	*	0	0	
42 - 43	0.4924	0.1918	0.7801							0	0	*	0	0	0	
43 - 44	0.8586	0.4715	1.5658							68	82	46	79	73	113	
44 - 45	0.7843	0.2388	1.1425							34	47	0	36	34	37	
45 - 46	0.7652	0.3441	1.2815							49	61	20	51	48	60	
46 - 47	0.6652	0.1453	0.8832							0	0	*	4	4	7	
47 - 48	0.7167	0.2475	1.0880							26	42	0	30	28	28	
48 - 49	0.5314	0.2196	0.8608							0	0	*	0	0	5	
49 - 50	0.6300	0.2523	1.0085							9	33	*	19	18	19	
50 - 51	0.6571	0.3773	1.2231							43	58	13	45	43	50	
51 - 52	0.5410	0.2249	0.8784							0	6	*	3	4	7	
52 - 53	0.6681	0.2882	1.1005							34	46	0	31	30	30	
53 - 54	0.7814	0.3058	1.2401							45	57	13	47	44	52	
54 - 55	0.7519	0.3066	1.2118							42	55	12	45	42	47	
55 - 56	0.7690	0.3234	1.2541							46	58	18	49	46	54	
56 - 57	0.7571	0.2371	1.1128							30	44	0	33	31	33	
57 - 58	0.7043	0.2526	1.0832							25	42	0	30	28	28	
58 - 59	0.7819	0.2481	1.1540							36	48	0	38	36	39	
59 - 60	0.6667	0.3148	1.1389							34	50	0	36	34	36	
60 - 61	0.7624	0.2630	1.1569							36	49	0	38	36	38	
61 - 62	0.4805	0.2621	0.8737							0	8	*	3	3	6	
62 - 63	0.6452	0.1592	0.8840							0	0	*	3	3	7	
63 - 64	0.6285	0.1729	0.8878							0	0	*	4	4	7	

Note;
A1; Asphalt Institute Method
(Design Def. $\bar{X} + 1.5\sigma$)
A2; Asphalt Institute Method
(Design Def. $\bar{X} + 2.0\sigma$)
B; TRRL Method
C; TRRL in the Tropics Method
D; Ruiz's Formula
E; California Method
* Pavement failure within
design period is not
foreseen.

CALCULATED OVERLAY THICKNESS (10)

Date of deflection Survey

7/10/1982

DBST	25 mm
Soil Aggregate Base	150
Soil Subbase	150

RH - 7 (201 - 0300)

Section (Km.) - (Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X} + 1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)					Remarks.	
				0	2	4	6	8	10	A1	A2	B	C	D		E
64 - 65	0.2830	0.1224	0.4665							0	0	*	*	0	0	Note; A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$) A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$) B; TRRL Method C; TRRL in the Tropics Method D; Ruiz's Formula E; California Method * Pavement failure within design period is not foreseen.
65 - 66	0.3105	0.2716	0.7179							0	0	*	*	0	0	
66 - 67	0.2767	0.1239	0.4625							0	0	*	*	0	0	
67 - 68	0.3210	0.2005	0.6217							0	0	*	*	0	0	
68 - 69	0.3538	0.1652	0.6015							0	0	*	*	0	0	
69 - 70	0.3271	0.1161	0.5012							0	0	*	*	0	0	
70 - 71	0.3938	0.1751	0.6564							0	0	*	*	0	0	
71 - 72	0.3586	0.2259	0.6975							0	0	*	*	0	0	
72 - 73	0.2900	0.1185	0.4677							0	0	*	*	0	0	
73 - 74	0.3010	0.0861	0.4301							0	0	*	*	0	0	
74 - 75	0.2781	0.1408	0.4893							0	0	*	*	0	0	
75 - 76	0.3100	0.1911	0.5967							0	0	*	*	0	0	
76 - 77	0.2471	0.0967	0.3922							0	0	*	*	0	0	
77 - 78	0.3433	0.1243	0.5298							0	0	*	*	0	0	
78 - 79	0.2000	0.0476	0.2715							0	0	*	*	0	0	
79 - 80	0.2343	0.0588	0.3225							0	0	*	*	0	0	
80 - 81	0.2695	0.1127	0.4385							0	0	*	*	0	0	

CALCULATED OVERLAY THICKNESS (11)

Date of deflection Survey

9/10/1982

DBST	25 mm
Crushed Stone Base	150
Soil Subbase	150

RH-8 (201 - 0400) (1)

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)					Remarks.	
				0	2	4	6	8	10	A1	A2	B	C	D		E
81 - 82	0.1700	0.0675	0.2713							0	0	*	*	0	0	
82 - 83	0.1729	0.0503	0.2483							0	0	*	*	0	0	
83 - 84	0.1765	0.0543	0.2580							0	0	*	*	0	0	Note;
84 - 85	0.2001	0.0835	0.3248							0	0	*	*	0	0	A1; Asphalt Institute Method
85 - 86	0.1414	0.0442	0.2077							0	0	*	*	0	0	(Design Def. $\bar{X} + 1.5\sigma$)
86 - 87	0.2024	0.0572	0.2881							0	0	*	*	0	0	A2; Asphalt Institute Method
87 - 88	0.2050	0.0588	0.2932							0	0	*	*	0	0	(Design Def. $\bar{X} + 2.0\sigma$)
88 - 89	0.2748	0.0815	0.3970							0	0	*	*	0	0	B; TRRL Method
89 - 90	0.1859	0.1127	0.3549							0	0	*	*	0	0	C; TRRL in the Tropics Method
90 - 91	0.1495	0.0531	0.2291							0	0	*	*	0	0	D; Ruiz's Formula
91 - 92	0.2148	0.1172	0.3905							0	0	*	*	0	0	E; California Method
92 - 93	0.1762	0.0755	0.2894							0	0	*	*	0	0	* Pavement failure within
93 - 94	0.2442	0.1233	0.4297							0	0	*	*	0	0	design period is not
94 - 95	0.2129	0.0635	0.3081							0	0	*	*	0	0	foreseen.
95 - 96	0.1900	0.0700	0.2950							0	0	*	*	0	0	
96 - 97	0.1824	0.0731	0.2921							0	0	*	*	0	0	
97 - 98	0.1652	0.0800	0.2853							0	0	*	*	0	0	
98 - 99	0.1886	0.1472	0.4094							0	0	*	*	0	0	
99 - 100	0.1700	0.0641	0.2662							0	0	*	*	0	0	
100 - 101	0.2662	0.2256	0.6046							0	0	*	*	0	0	
101 - 102	0.2224	0.0905	0.3581							0	0	*	*	0	0	
102 - 103	0.2567	0.2542	0.6380							0	0	*	*	0	0	
103 - 104	0.2124	0.1000	0.3624							0	0	*	*	0	0	
104 - 105	0.2589	0.0883	0.3914							0	0	*	*	0	0	
105 - 106	0.1942	0.0985	0.3420							0	0	*	*	0	0	
106 - 107	0.2119	0.0616	0.3043							0	0	*	*	0	0	
108 - 109	0.1967	0.0871	0.3273							0	0	*	*	0	0	
109 - 110	0.2900	0.1449	0.5073							0	0	*	*	0	0	
110 - 111	0.2738	0.1141	0.4450							0	0	*	*	0	0	
111 - 112	0.2581	0.0911	0.3948							0	0	*	*	0	0	

CALCULATED OVERLAY THICKNESS (12)

RH - 8 (201 - 0400) (2)

Section (Km.) - (Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X} + 1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
112 - 113	0.3742	0.1945	0.6659							0	0	*	*	0	0	Note; A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$) A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$) B; TRRL Method C; TRRL in the Tropics Method D; Ruiz's Formula E; California Method * Pavement failure within design period is not foreseen.
113 - 114	0.2548	0.1768	0.5200							0	0	*	*	0	0	
115 - 116	0.2524	0.0995	0.4016							0	0	*	*	0	0	
117 - 118	0.2690	0.1470	0.4895							0	0	*	*	0	0	
118 - 119	0.2324	0.0945	0.3781							0	0	*	*	0	0	

CALCULATED OVERLAY THICKNESS(13)

Date of deflection Survey
3/6/1981

DBST	25 mm
Crushed Stone Base	150
Laterite Subbase	150

RH-9 (202 - 0500) (1)

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
14 - 15	0.7476	0.1102	0.9129							0	0	*	0	0	1	
15 - 16	0.9838	0.3104	1.4494							41	52	13	52	47	59	Note;
16 - 17	0.5262	0.1596	0.7656							0	0	*	*	0	0	A1; Asphalt Institute Method
17 - 18	0.5971	0.1475	0.8184							0	0	*	*	0	0	(Design Def. $\bar{X} + 1.5\sigma$)
18 - 19	0.3714	0.0639	0.4673							0	0	*	*	0	0	A2; Asphalt Institute Method
19 - 20	0.5548	0.1468	0.7750							0	0	*	*	0	0	(Design Def. $\bar{X} + 2.0\sigma$)
20 - 21	0.8133	0.1038	0.9690							0	0	*	0	0	5	B; TRRL Method
21 - 22	0.7724	0.1895	1.0566							0	0	*	10	10	11	C; TRRL in the Tropics Method
22 - 23	0.5867	0.1967	0.8817							0	0	*	*	0	0	D; Ruiz's Formula
23 - 24	0.4214	0.2071	0.7321							0	0	*	*	0	0	E; California Method
24 - 25	0.6929	0.1292	0.8866							0	0	*	*	0	0	
25 - 26	0.6950	0.1010	0.8465							0	0	*	*	0	0	* Pavement failure within
26 - 27	0.6305	0.1785	0.8982							0	0	*	*	0	0	design period is not
27 - 28	0.5700	0.1533	0.8000							0	0	*	*	0	0	foreseen.
28 - 29	0.3681	0.0710	0.4746							0	0	*	*	0	0	
29 - 30	0.6395	0.1626	0.8834							0	0	*	*	0	0	
30 - 31	0.7138	0.1125	0.8825							0	0	*	*	0	0	
31 - 32	0.8586	0.2895	1.2928							25	40	0	37	33	36	
32 - 33	0.7500	0.1281	0.9421							0	0	*	0	0	3	
33 - 34	0.7562	0.2569	1.1416							0	22	*	20	19	19	
34 - 35	0.7005	0.0767	0.8155							0	0	*	*	0	0	
35 - 36	0.7576	0.1558	0.9913							0	0	*	2	2	6	
36 - 37	0.6743	0.0925	0.8130							0	0	*	*	0	0	
37 - 38	0.7560	0.1866	1.0359							0	0	*	8	7	10	
38 - 39	0.6952	0.1233	0.8802							0	0	*	*	0	0	
39 - 40	0.7071	0.0701	0.8123							0	0	*	*	0	0	
40 - 41	0.6205	0.0944	0.7621							0	0	*	*	0	0	
41 - 42	0.7043	0.1632	0.9490							0	0	*	0	0	3	
42 - 43	0.6048	0.0758	0.7185							0	0	*	*	0	0	
43 - 44	0.6319	0.0951	0.7746							0	0	*	*	0	0	

CALCULATED OVERLAY THICKNESS (14)

RH-9 (202 - 0500) (2)

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
44 - 45	0.6286	0.1506	0.8544							0	0	*	*	0	0	Note; A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$) A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$) B; TRRL Method C; TRRL in the Tropics Method D; Ruiz's Formula E; California Method * Pavement failure within design period is not foreseen.
45 - 46	0.6676	0.2433	1.0325							0	0	*	8	7	10	
46 - 47	0.5814	0.0879	0.7132							0	0	*	*	0	0	
47 - 48	0.6400	0.0704	0.7455							0	0	*	*	0	0	
48 - 49	0.6345	0.0724	0.7430							0	0	*	*	0	0	
49 - 50	0.6360	0.0605	0.7267							0	0	*	*	0	0	

CALCULATED OVERLAY THICKNESS(15)

Date of deflection Survey

21/12/1982

RH-10 (206 - 0102)

AC Surface	50 mm
Crushed Stone Base	150
Laterite Subbase	180

Section (Km.) - (Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
0 - 1	0.3443	0.1524	0.5729							0	0	*	*	*	0	Note; A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$) A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$) B; TRRL Method C; TRRL in the Tropics Method D; Ruiz's Formula E; California Method * Pavement failure within design period is not foreseen.
1 - 2	0.5628	0.2945	1.0046							0	30	0	22	20	23	
2 - 3	0.6363	0.4558	1.3201							50	65	15	57	53	65	
3 - 4	0.5436	0.2702	0.9490							0	0	0	13	13	15	
4 - 5	0.3420	0.1453	0.5600							0	0	*	*	*	0	

CALCULATED OVERLAY THICKNESS (16)

Date of deflection Survey

4/2/1981

RH-11 (207 - 0100) (1)

DBST	25 mm
Crushed Stone Base	150
Laterite Subbase	120

Section (Km.) - (Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X} + 1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)					Remarks.	
				0	2	4	6	8	10	A1	A2	B	C	D		E
448 - 449	0.9860	0.1800	1.2560							0	16	*	26	25	26	
449 - 450	0.8629	0.1123	1.0312							0	0	*	0	0	7	Note;
450 - 451	0.8114	0.1118	0.9791							0	0	*	0	0	3	A1; Asphalt Institute Method
451 - 452	0.6252	0.0741	0.7364							0	0	*	*	0	0	(Design Def. $\bar{X} + 1.5\sigma$)
452 - 453	0.6243	0.0738	0.7350							0	0	*	*	0	0	A2; Asphalt Institute Method
453 - 454	0.6100	0.1232	0.7947							0	0	*	*	0	0	(Design Def. $\bar{X} + 2.0\sigma$)
454 - 455	0.5510	0.0664	0.6506							0	0	*	*	0	0	B; TRRL Method
455 - 456	0.6771	0.3064	1.1367							0	5	*	13	13	15	C; TRRL in the Tropics Method
456 - 457	0.5038	0.0451	0.5715							0	0	*	*	0	0	D; Ruiz's Formula
457 - 458	0.4933	0.0827	0.6173							0	0	*	*	0	0	E; California Method
458 - 459	0.5548	0.0843	0.6812							0	0	*	*	0	0	
459 - 460	0.4762	0.0537	0.5568							0	0	*	*	0	0	* Pavement failure within
460 - 461	0.6886	0.0685	0.7913							0	0	*	*	0	0	design period is not
461 - 462	0.5567	0.1157	0.7302							0	0	*	*	0	0	foreseen.
462 - 463	0.4114	0.1484	0.6340							0	0	*	*	0	0	
463 - 464	0.6386	0.1508	0.4648							0	0	*	*	0	0	
464 - 465	0.7671	0.1177	0.9436							0	0	*	*	0	1	
465 - 466	0.6393	0.0991	0.7880							0	0	*	*	0	0	
466 - 467	0.5525	0.0734	0.6626							0	0	*	*	0	0	
467 - 468	0.5281	0.0745	0.6398							0	0	*	*	0	0	
468 - 469	0.6238	0.0578	0.7106							0	0	*	*	0	0	
469 - 470	0.4881	0.0789	0.6065							0	0	*	*	0	0	
470 - 471	0.5581	0.0705	0.6638							0	0	*	*	0	0	
471 - 472	0.5395	0.0638	0.6352							0	0	*	*	0	0	
472 - 473	0.6267	0.1081	0.7888							0	0	*	*	0	0	
473 - 474	0.6981	0.1497	0.9226							0	0	*	*	0	0	
474 - 475	0.8533	0.1237	1.0390							0	0	*	0	0	7	
475 - 476	0.6111	0.772	0.7268							0	0	*	*	0	0	
476 - 477	0.7467	0.1799	1.0166							0	0	*	0	0	6	
477 - 478	0.5795	0.0847	0.7066							0	0	*	*	0	0	

CALCULATED OVERLAY THICKNESS (17)

RH-11 (207 - 0100) (2)

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
478 - 479	0.5267	0.0725	0.6355							0	0	*	*	0	0	Note; A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$) A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$) B; TRRL Method C; TRRL in the Tropics Method D; Ruiz's Formula E; California Method * Pavement failure within design period is not foreseen.
479 - 480	0.5724	0.0595	0.6616							0	0	*	*	0	0	
480 - 481	0.6905	0.1104	0.8561							0	0	*	*	0	0	
481 - 482	0.5529	0.1446	0.7697							0	0	*	*	0	0	
482 - 483	0.5957	0.0601	0.6859							0	0	*	*	0	0	
483 - 484	0.6938	0.1221	0.8769							0	0	*	*	0	0	
484 - 485	0.6762	0.1292	0.8700							0	0	*	*	0	0	

CALCULATED OVERLAY THICKNESS (18)

Date of deflection Survey
21/5/1981

DBST	30 mm
Crushed Stone Base	150
Soil Subbase	150

RH-12 (207 - 0200)

Section (Km.) - (Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X} + 1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)					Remarks.	
				0	2	4	6	8	10	A1	A2	B	C	D		E
485 - 486	0.6071	0.1712	0.8640							0	0	*	*	0	0	
486 - 487	0.5957	0.1450	0.8132							0	0	*	*	0	0	Note;
487 - 488	0.5938	0.1264	0.7835							0	0	*	*	0	0	A1; Asphalt Institute Method
488 - 489	0.8324	0.2142	1.1537							0	0	*	18	17	18	(Design Def. $\bar{X} + 1.5\sigma$)
489 - 490	0.6467	0.2064	0.9562							0	0	*	*	0	3	A2; Asphalt Institute Method
490 - 491	0.6481	0.3466	1.1649							0	0	*	19	18	19	(Design Def. $\bar{X} + 2.0\sigma$)
491 - 492	0.6210	0.2220	0.9539							0	0	*	*	0	3	B; TRRL Method
492 - 493	0.3715	0.1120	0.5395							0	0	*	*	0	0	C; TRRL in the Tropics Method
493 - 494	0.6710	0.2077	0.9825							0	0	*	*	0	5	D; Ruiz's Formula
494 - 495	0.4843	0.1735	0.7446							0	0	*	*	0	0	E; California Method
495 - 496	0.6157	0.2052	0.9235							0	0	*	*	0	0	* Pavement failure within
496 - 497	0.6914	0.1247	0.8785							0	0	*	*	0	0	design period is not
497 - 498	0.5876	0.0983	0.7351							0	0	*	*	0	0	foreseen.

CALCULATED OVERLAY THICKNESS (19)

RH - 13 (208 - 0100)

Date of deflection Survey

12/3/1981

DBST	25 mm
Soil Aggregate Base	150
Laterite Subbase	200

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.	
				0	2	4	6	8	10	A1	A2	B	C	D	E		
0 - 1	0.6720	0.1362	0.8763								0	0	*	0	0	0	
1 - 2	0.6624	0.1397	0.8720								0	0	*	0	0	0	
2 - 3	0.6571	0.0907	0.7932								0	0	*	0	0	0	Note;
3 - 4	0.5395	0.0998	0.6892								0	0	*	*	0	0	A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$)
4 - 5	0.5905	0.0546	0.6724								0	0	*	*	0	0	A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$)
5 - 6	0.6033	0.1166	0.7782								0	0	*	0	0	0	
6 - 7	0.7300	0.0782	0.8473								0	0	*	0	0	0	B; TRRL Method
7 - 8	0.7381	0.1535	0.9683								0	0	0	9	9	15	C; TRRL in the Tropics Method
8 - 9	0.9810	0.2154	1.3040								42	51	10	49	44	73	D; Ruiz's Formula
9 - 10	0.7967	0.2521	1.1748								28	42	0	36	32	54	E; California Method
10 - 11	0.8176	0.1200	0.9975								0	5	0	13	12	21	
11 - 12	0.6635	0.1519	0.8914								0	0	*	0	0	0	* Pavement failure within design period is not foreseen.
12 - 13	0.8433	0.1196	1.0227								0	12	0	16	15	27	
13 - 14	0.7452	0.0943	0.8866								0	0	*	0	0	0	
14 - 15	0.7290	0.0910	0.8656								0	0	*	0	0	0	
15 - 16	0.7557	0.0948	0.8979								0	0	*	0	0	0	
16 - 17	0.8543	0.2164	1.1788								29	40	0	35	33	54	
17 - 18	0.7830	0.2132	1.1028								17	33	0	26	25	41	
18 - 19	0.8057	0.0812	0.9274								0	0	*	3	4	8	
19 - 20	1.1700	0.2701	1.5751								62	70	36	73	67	104	
20 - 21	1.3486	0.6341	2.2997								97	109	80	108	113	155	
21 - 22	0.9635	0.4648	1.6607								67	79	42	80	73	111	
22 - 23	0.8971	0.1046	1.0540								5	18	0	20	19	32	
23 - 24	0.7629	0.0911	0.8994								0	0	*	0	0	0	
24 - 25	0.7229	0.1405	0.9336								0	0	*	5	5	10	
25 - 26	0.7210	0.1026	0.8748								0	0	*	0	0	0	
26 - 27	0.9567	0.2161	1.2808								40	49	6	46	42	70	
27 - 28	0.8229	0.1838	1.0986								16	31	0	26	24	40	
28 - 29	0.7438	0.1885	1.0266								0	20	0	17	16	27	
29 - 30	0.7595	0.1436	0.9750								0	0	0	10	10	17	
30 - 31	0.8190	0.2106	1.1350								22	36	0	30	28	47	

CALCULATED OVERLAY THICKNESS (20)

Date of deflection Survey
18/3/1981

DBST	25 mm
Soil Aggregate Base	150
Laterite Subbase	200

RH - 14 (208 - 0200)

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
31 - 32	0.7310	0.2275	1.0722							0	15	0	16	13	14	Note; A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$) A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$) B; TRRL Method C; TRRL in the Tropics Method D; Ruiz's Formula E; California Method * Pavement failure within design period is not foreseen. ** Thickness chart in not available.
32 - 33	1.3695	0.4343	2.0210							75	86	60	90	89	148	
33 - 34	0.9905	0.3537	1.5210							50	61	25	62	54	74	
34 - 35	0.7810	0.1061	0.9401							0	0	*	0	0	4	
35 - 36	0.9376	0.2036	1.2431							23	38	0	36	30	32	
36 - 37	1.2952	0.4697	1.9998							75	84	0	90	88	145	
37 - 38	1.1976	0.7484	2.3203							89	102	80	100	105	175	
38 - 39	0.8652	0.2017	1.1678							10	28	0	27	23	23	
39 - 40	0.9771	0.3543	1.5087							49	60	25	60	53	73	
40 - 41	1.1490	0.4240	1.7850							65	75	45	78	75	118	
41 - 42	0.8662	0.1497	1.0908							0	11	0	18	15	16	
42 - 43	0.6647	0.1499	0.8896							0	0	*	0	0	0	
43 - 44	0.8555	0.2042	1.1618							8	27	0	27	23	23	
44 - 45	0.8271	0.1544	1.0588							0	3	0	14	12	13	
45 - 46	0.8062	0.2971	1.2518							25	49	0	36	32	34	
46 - 47	0.8193	0.1702	1.0747							0	9	0	17	13	15	
47 - 48	0.7414	0.1349	0.9437							0	0	*	0	0	4	
48 - 49	0.6081	0.0717	0.7157							0	0	*	*	0	0	
49 - 50	0.4914	0.1497	0.7159							0	0	*	*	0	0	
50 - 51	0.8181	0.1866	1.0980							0	16	0	19	16	17	
51 - 52	1.2180	0.3348	1.7202							61	70	40	75	70	108	
52 - 53	2.0280	0.8717	3.3355							122	133	**	**	148	**	
53 - 54	1.4590	0.5017	2.2115							84	94	75	98	100	169	
54 - 55	2.0852	0.7435	3.2005							117	127	**	**	143	**	
55 - 56	2.0419	0.9344	3.4435							124	136	**	**	152	**	
56 - 57	1.6743	0.7993	2.8733							105	122	**	**	131	**	
57 - 58	0.4893	0.1845	0.7661							0	0	*	0	0	0	

CALCULATED OVERLAY THICKNESS (21)

RH-15 (213 - 0100) (1)

Date of deflection Survey

24/9/1982

DBST	25 mm
Soil Cement Base	150
Laterite Subbase	270

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
0 - 1	0.6243	0.2695	1.0286							18	39	0	25	23	23	
1 - 2	0.5742	0.1951	0.8668							0	0	*	3	2	6	
2 - 3	0.7924	0.1044	0.9490							0	13	0	13	13	13	Note;
3 - 4	0.8014	0.1471	1.0221							17	31	0	24	22	22	A1; Asphalt Institute Method
4 - 5	0.7038	0.1528	0.9329							0	13	0	12	10	12	(Design Def. $\bar{X} + 1.5\sigma$)
5 - 6	0.5911	0.0973	0.7371							0	0	*	0	0	0	A2; Asphalt Institute Method
6 - 7	0.9324	0.2273	1.2733							49	59	0	53	48	58	(Design Def. $\bar{X} + 2.0\sigma$)
7 - 8	0.7724	0.1973	1.0683							25	40	0	30	27	26	B; TRRL Method
8 - 9	0.7643	0.1707	1.0203							16	32	0	24	22	21	C; TRRL in the Tropics Method
9 - 10	0.5940	0.2028	0.8982							0	13	*	7	6	8	D; Ruiz's Formula
10 - 11	0.7833	0.2216	1.1158							33	46	0	36	33	33	E; California Method
11 - 12	0.5248	0.1944	0.8163							0	0	*	0	0	2	* Pavement failure within
12 - 13	0.5862	0.2557	0.9697							2	30	0	17	15	16	design period is not
13 - 14	0.5524	0.1387	0.7604							0	0	*	0	0	0	foreseen.
14 - 15	0.4914	0.1757	0.7550							0	0	*	0	0	0	
15 - 16	0.6124	0.1447	0.8294							0	0	*	0	0	3	
16 - 17	0.6990	0.2059	1.0079							13	32	0	23	20	19	
17 - 18	0.6867	0.1554	0.9197							0	13	0	10	8	11	
18 - 19	0.6148	0.1896	0.8992							0	11	*	8	7	9	
19 - 20	0.5900	0.0834	0.7150							0	0	*	0	0	0	
20 - 21	0.6781	0.1688	0.9313							0	16	0	12	10	12	
21 - 22	0.5657	0.1517	0.7932							0	0	*	0	0	0	
22 - 23	0.6510	0.1041	0.8072							0	0	*	0	0	1	
23 - 24	0.4662	0.1275	0.6574							0	0	*	*	0	0	
24 - 25	0.6538	0.1572	0.8896							0	3	*	6	5	7	
25 - 26	0.7467	0.1372	0.9525							0	17	0	14	14	14	
26 - 27	0.6767	0.1020	0.8297							0	0	*	0	0	3	
27 - 28	0.8119	0.1165	0.9866							8	22	0	18	18	17	
28 - 29	0.8057	0.0786	0.9237							0	0	0	10	10	11	
29 - 30	0.7419	0.1452	0.9597							0	19	0	14	14	14	

CALCULATED OVERLAY THICKNESS (22)

RH - 15 (213 - 0100) (2)

Section (Km.) - (Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X} + 1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
30 - 31	0.5195	0.1157	0.6931							0	0	*	*	0	0	Note; A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$) A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$) B; TRRL Method C; TRRL in the Tropics Method D; Ruiz's Formula E; California Method * Pavement failure within design period is not foreseen.
31 - 32	0.7100	0.1688	0.9633							0	22	0	15	15	15	
32 - 33	0.7667	0.2859	1.1956							42	55	12	45	40	45	
33 - 34	0.3262	0.1005	0.4770							0	0	*	*	0	0	
34 - 35	0.3952	0.1086	0.5581							0	0	*	*	0	0	
35 - 36	0.8862	0.1673	1.1372							35	45	0	38	34	36	
36 - 37	0.9105	0.0994	1.0595							24	32	0	29	27	26	
37 - 38	0.6333	0.1005	0.7840							0	0	*	0	0	0	
38 - 39	0.5905	0.1546	0.8224							0	0	*	0	0	3	
39 - 40	0.4406	0.1645	0.6873							0	0	*	*	0	0	
40 - 41	0.3971	0.1612	0.6389							0	0	*	*	0	0	
41 - 42	0.4789	0.1588	0.7171							0	0	*	0	0	0	
42 - 43	0.5862	0.1913	0.8731							0	3	*	3	3	6	
43 - 44	0.6268	0.1741	0.8880							0	5	*	6	4	8	

CALCULATED OVERLAY THICKNESS (23)

RH - 16 (214 - 0100)

Date of deflection Survey

6/8/1982

DBST	25 mm
Soil Cement	150
Soil Subbase	100

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
0 - 1	0.7250	0.1312	0.9219							0	0	*	0	0	3	
1 - 2	0.6305	0.1124	0.7991							0	0	*	*	0	0	
2 - 3	0.6719	0.1149	0.8443							0	0	*	*	0	0	Note;
3 - 4	0.7148	0.1487	0.9378							0	0	*	0	0	4	A1; Asphalt Institute Method
4 - 5	1.0148	0.2428	1.3790							40	49	13	50	45	52	(Design Def. $\bar{X} + 1.5\sigma$)
5 - 6	1.0567	0.2764	1.4713							47	55	20	57	52	66	A2; Asphalt Institute Method
6 - 7	0.7200	0.1121	0.8882							0	0	*	0	0	0	(Design Def. $\bar{X} + 2.0\sigma$)
7 - 8	0.6619	0.0977	0.8085							0	0	*	*	0	0	B; TRRL Method
8 - 9	0.7148	0.1234	0.8999							0	0	*	0	0	0	C; TRRL in the Tropics Method
9 - 10	0.5757	0.1020	0.7287							0	0	*	*	0	0	D; Ruiz's Formula
10 - 11	0.9276	0.1907	1.2136							19	33	0	33	30	28	E; California Method
11 - 12	0.6576	0.2693	1.0615							0	17	*	15	14	13	* Pavement failure within
12 - 13	0.6484	0.1214	0.8306							0	0	*	*	0	0	design period is not
13 - 14	0.5262	0.0723	0.6346							0	0	*	*	0	0	foreseen.
14 - 15	0.4990	0.0701	0.6043							0	0	*	*	0	0	
15 - 16	0.5357	0.1027	0.6898							0	0	*	*	0	0	
16 - 17	0.5990	0.0874	0.7301							0	0	*	*	0	0	
17 - 18	0.4348	0.1347	0.6368							0	0	*	*	0	0	
18 - 19	0.6557	0.1310	0.8536							0	0	*	0	0	0	
19 - 20	0.6367	0.1901	0.9218							0	0	*	0	0	2	
20 - 21	0.4786	0.1720	0.7365							0	0	*	*	0	0	
21 - 22	0.4081	0.0603	0.4985							0	0	*	*	0	0	
22 - 23	0.5419	0.1278	0.7336							0	0	*	*	0	0	
23 - 24	1.0571	0.2587	1.4451							45	54	20	56	50	62	
24 - 25	0.8748	0.2137	1.1953							16	32	0	30	27	26	
25 - 26	1.0548	0.3516	1.5821							53	63	35	68	60	85	
26 - 27	1.0324	0.1494	1.2565							26	36	0	38	33	34	
27 - 28	0.6262	0.1332	0.8260							0	0	*	*	0	0	

CALCULATED OVERLAY THICKNESS (24)

RH - 17 (214 - 0200)

Date of deflection Survey

10/8/1982

DBST	25 mm
Crushed Stone Base	150
Soil Subbase	100

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
28 - 29	0.7453	0.2138	1.0659							0	15	*	16	15	17	Note; A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$) A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$) B; TRRL Method C; TRRL in the Tropics Method D; Ruiz's Formula E; California Method * Pavement failure within design period is not foreseen.
29 - 30	0.7500	0.2497	1.1246							3	28	*	24	21	23	
30 - 31	0.7233	0.2071	1.0340							0	7	*	12	10	14	
31 - 32	0.8395	0.2735	1.2498							28	43	0	37	34	40	
32 - 33	1.0540	0.2960	1.4981							51	60	22	62	55	80	
33 - 34	0.7671	0.2263	1.1066							0	24	*	22	20	21	
34 - 35	0.8510	0.1711	1.1076							0	19	*	22	20	21	
35 - 36	1.0567	0.2290	1.4001							44	52	15	53	47	62	
36 - 37	0.6952	0.1400	0.9053							0	0	*	0	0	3	
37 - 38	0.4219	0.0852	0.5496							0	0	*	*	0	0	
38 - 39	0.3881	0.0829	0.5125							0	0	*	*	0	0	
39 - 40	0.5181	0.1042	0.6744							0	0	*	*	0	0	
40 - 41	0.6333	0.0802	0.7536							0	0	*	*	0	0	
41 - 42	0.6171	0.0797	0.7367							0	0	*	*	0	0	
42 - 43	0.6005	0.0468	0.6707							0	0	*	*	0	0	
43 - 44	0.5481	0.1355	0.7514							0	0	*	*	0	0	
44 - 45	0.5571	0.0854	0.6853							0	0	*	*	0	0	
45 - 46	0.5019	0.1194	0.6809							0	0	*	*	0	0	
45 - 46	0.5000	0.1196	0.6794							0	0	*	*	0	0	
46 - 47	0.6037	0.0921	0.7419							0	0	*	*	0	0	

CALCULATED OVERLAY THICKNESS (25)

RH - 18 (214 - 0800)

Date of deflection Survey

21/10/1981

Penetration Macadam	60 mm
Crushed Stone Base	150
Laterite Subbase	150

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)					Overlay Thickness (mm)					Remarks.		
				0	2	4	6	8	10	A1	A2	B	C		D	E
0 - 1	0.7400	0.1655	0.9882							23	36	0	28	26	25	
1 - 2	0.0650	0.0092	0.0789							0	0	0	0	0	0	
2 - 3	0.7520	0.1463	0.9715							20	33	0	27	24	22	Note;
3 - 4	0.0711	0.0100	0.0861							0	0	0	0	0	0	A1; Asphalt Institute Method
4 - 5	1.0629	0.1723	1.3212							62	68	50	67	61	83	(Design Def. $\bar{X} + 1.5\sigma$)
5 - 6	0.7230	0.2756	1.1365							44	58	28	47	43	47	A2; Asphalt Institute Method
6 - 7	0.7581	0.1331	0.9577							17	29	0	25	24	22	(Design Def. $\bar{X} + 2.0\sigma$)
7 - 8	0.7643	0.1215	0.9466							15	25	0	22	21	18	B; TRRL Method
8 - 9	NO DATA	NO DATA	NO DATA							0	0	0	0	0	0	C; TRRL in the Tropics Method
9 - 10	0.8795	0.1740	1.1405							45	54	28	48	44	48	D; Ruiz's Formula
10 - 11	0.7581	0.2013	1.0601							35	47	17	38	35	34	E; California Method
11 - 12	0.6829	0.1502	0.9081							4	22	0	18	16	15	* Pavement failure within
12 - 13	0.8400	0.2039	1.1458							46	56	30	49	44	48	design period is not
13 - 14	0.6648	0.1225	0.8484							0	4	*	9	8	9	foreseen.
14 - 15	0.6314	0.1515	0.8586							0	12	*	10	11	10	
15 - 16	0.7629	0.1143	0.9343							12	24	0	22	20	18	
16 - 17	0.6957	0.0890	0.8293							0	0	*	7	8	7	
17 - 18	0.9495	0.2891	1.3832							67	76	54	73	68	95	
18 - 19	0.8319	0.1597	1.0715							36	46	18	40	37	36	
19 - 20	0.7971	0.1102	0.9624							18	28	0	25	25	21	
20 - 21	0.7576	0.1012	0.9094							4	18	0	18	17	15	
21 - 22	0.7952	0.1076	0.9567							17	27	0	25	25	22	
22 - 23	0.9876	0.1573	1.2236							53	60	38	57	52	62	
23 - 24	0.9086	0.1120	1.0766							37	44	20	40	37	37	
24 - 25	0.9705	0.2390	1.3290							62	71	52	67	63	85	
25 - 26	0.8157	0.1287	1.0088							26	37	0	33	30	27	
26 - 27	0.8014	0.0837	0.9270							9	19	0	20	20	18	
27 - 28	0.2652	0.1507	1.0913							39	48	22	42	39	40	
28 - 29	0.8829	0.1336	1.0833							38	46	20	41	38	38	
29 - 30	0.7600	0.1467	0.9800							21	34	0	28	27	24	

CALCULATED OVERLAY THICKNESS (26)

RH - 19 (304 - 0800) (1)

Date of deflection Survey

3/12/1980

AC Surface	75 mm
Crushed Stone Base	150
Spo; Subbase	200

Section (Km.) - (Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X} + 1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)					Remarks.	
				0	2	4	6	8	10	A1	A2	B	C	D		E
55 - 56	1.1073	0.2697	1.5118							72	80	52	79	76	113	
56 - 57	1.1443	0.2554	1.5274							73	80	52	80	77	115	
57 - 58	1.3874	0.3410	1.8990							93	99	76	103	103	167	Note;
58 - 59	1.8324	0.5856	2.7108							126	137	**	**	145	**	A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$)
59 - 60	1.0562	0.3071	1.5168							72	81	52	80	76	114	A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$)
60 - 61	1.1851	0.4222	1.8184							89	97	73	100	98	157	B; TRRL Method
61 - 62	1.3297	0.3682	1.8819							92	100	75	102	102	165	C; TRRL in the Tropics Method
62 - 63	1.4629	0.3205	1.9436							95	100	78	105	105	**	D; Ruiz's Formula
63 - 64	1.3562	0.2853	1.7842							87	93	69	97	95	154	E; California Method
64 - 65	1.0627	0.2490	1.4362							67	75	52	73	69	100	
65 - 66	1.3033	0.5173	2.0793							101	110	85	111	114	**	* Pavement failure within design period is not foreseen.
66 - 67	1.3541	0.2720	1.7621							86	92	68	96	94	150	** Thickness chart is not available
67 - 68	1.5474	0.3285	2.0402							98	107	82	109	112	**	
68 - 69	1.8190	0.5855	2.6972							126	136	**	**	143	**	
69 - 70	1.1582	0.2229	1.4926							71	77	50	78	73	110	
70 - 71	1.4757	0.3322	1.9740							96	104	80	106	107	**	
71 - 72	1.2889	0.3417	1.8014							88	95	70	98	96	**	
72 - 73	1.3898	0.3963	1.9843							96	107	80	107	108	**	
73 - 74	1.1514	0.2388	1.5097							72	79	50	78	75	114	
74 - 75	1.2462	0.2273	1.5871							77	83	58	85	82	126	
75 - 76	0.7755	0.2030	1.0800							33	45	0	37	36	34	
76 - 77	0.9251	0.2633	1.3200							58	67	38	62	59	77	
77 - 78	0.4186	0.1577	0.6551							0	0	*	*	0	0	
78 - 79	0.5163	0.2113	0.8333							0	0	*	3	5	6	
79 - 80	0.8814	0.2234	1.2165							49	58	25	51	49	57	
80 - 81	0.7229	0.1689	0.9762							14	29	0	23	22	22	
81 - 82	0.7981	0.1837	1.0736							32	43	0	35	33	34	
82 - 83	0.7717	0.2565	1.1565							42	54	17	45	43	46	
83 - 84	0.6286	0.2415	0.9909							17	36	0	25	24	23	
84 - 85	0.6048	0.3210	1.0863							34	51	0	37	35	36	

CALCULATED OVERLAY THICKNESS (27)

RH - (304 - 0800) (2)

Section (Km.) - (Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X} + 1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
85 - 86	0.5279	0.1800	0.7979							0	0	*	0	0	3	Note; A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$) A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$) B; TRRL Method C; TRRL in the Tropics Method D; Ruiz's Formula E; California Method * Pavement failure within design period is not foreseen. ** Thickness chart is not available
86 - 87	0.7894	0.2094	1.1035							36	47	10	39	38	39	
87 - 88	1.0559	0.2071	1.3665							62	69	40	66	63	85	
88 - 89	1.0817	0.3514	1.6088							78	87	60	88	83	130	
89 - 90	0.7700	0.4120	1.3880							63	77	42	69	64	90	
90 - 91	0.9736	0.3993	1.5725							76	86	58	84	80	124	
91 - 92	0.8562	0.3684	1.4088							65	77	43	70	67	94	
92 - 93	1.6660	0.5673	2.5169							121	130	**	**	135	**	
93 - 94	1.4719	0.6340	2.4229							117	128	**	**	131	**	
94 - 95	0.5037	0.1794	0.7727							0	0	*	0	0	1	
95 - 96	0.5211	0.1931	0.8107							0	0	*	0	0	4	
96 - 97	0.7938	0.3358	1.2975							56	68	35	60	56	73	
97 - 98	1.0694	0.4791	1.7880							88	97	70	97	95	155	
98 - 99	0.6876	0.2639	1.0835							34	48	0	37	35	35	
99 - 100	0.5008	0.0584	0.5884							0	0	*	*	0	0	
100 - 101																

CALCULATED OVERLAY THICKNESS (28)

Date of deflection Survey

26/11/1980

RH - 20 (304 - 0902)

AC Shurface	75 mm
Crushed Stone Base	150
Soil Subbase	150

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
101 - 102	1.0925	0.5129	1.8619							96	109	87	106	105	170	Note; A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$) A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$) B; TRRL Method C; TRRL in the Tropics Method D; Ruiz's Formula E; California Method * Pavement failure within design period is not foreseen.
102 - 103	0.7829	0.4142	1.4041							71	84	58	76	72	104	
103 - 104	0.9724	0.4623	1.6658							86	98	75	96	92	147	
104 - 105	0.9681	0.3816	1.5405							79	90	68	88	82	128	
105 - 106	0.6814	0.4453	1.3495							67	82	55	71	66	94	
106 - 107		*														

CALCULATED OVERLAY THICKNESS (29)

RH - 21 (304 - 0904)

Date of deflection Survey

27/11/1980

AC Surface	75 mm
Crushed Stone Base	150
Soil Subbase	200

Section (Km.) - (Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X} + 1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
107 - 108	0.6599	0.2538	1.0407							36	51	20	37	34	35	Note; A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$) A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$) B; TRRL Method C; TRRL in the Tropics Method D; Ruiz's Formula E; California Method * Pavement failure within design period is not foreseen.
108 - 109	1.0465	0.3362	1.5507							80	89	70	87	83	130	
109 - 110	0.7563	0.3441	1.2725							60	73	48	62	58	77	
110 - 111	0.4148	0.2175	0.7410							0	0	*	0	0	0	
111 - 112	0.6924	0.4734	1.4025							70	85	58	74	71	105	
112 - 113	0.5527	0.2786	0.9706							23	44	0	27	27	26	
113 - 114	0.3682	0.1691	0.6219							0	0	*	*	0	0	
114 - 115	0.5932	0.1257	0.7817							0	0	*	0	0	4	
115 - 116	0.4278	0.2342	0.7791							0	4	*	0	0	4	
116 - 117	0.6551	0.1703	0.9105							9	28	0	18	20	18	
117 - 118	0.5395	0.1361	0.7436							0	0	*	0	0	0	
118 - 119	0.9319	0.1939	1.2228							56	64	42	56	53	67	
119 - 120	0.8578	0.3288	1.3509							67	78	55	70	66	93	
120 - 121	0.1738	0.1017	0.3263							0	0	*	*	0	0	
121 - 122	0.2370	0.0775	0.3532							0	0	*	*	0	0	
122 - 123	0.1979	0.0811	0.3195							0	0	*	*	0	0	
123 - 124	0.3000	0.1459	0.5189							0	0	*	*	0	0	
124 - 125	0.2160	0.0745	0.3278							0	0	*	*	0	0	
125 - 126	0.2770	0.0859	0.4058							0	0	*	*	0	0	
126 - 127	0.1292	0.1100	0.2942							0	0	*	*	0	0	
127 - 128	0.0679	0.0502	0.1432							0	0	*	*	0	0	
128 - 129	0.2808	0.1203	0.4613							0	0	*	*	0	0	
129 - 130	0.3322	0.1527	0.5612							0	0	*	*	0	0	
130 - 131	0.3325	0.1814	0.6046							0	0	*	*	0	0	
131 - 132	0.5009	0.0929	0.6403							0	0	*	0	0	0	
132 - 133	0.5495	0.1096	0.7139							0	0	*	0	0	0	

CALCULATED OVERLAY THICKNESS(30)

RH - 22 (2023 - 0100)

Date of deflection Survey
20/11/1980

Penetration Macadam	50 mm
Crushed Stone Base	100
Soil Subbase	100

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
0 - 1	0.7300	0.1395	0.9392							0	16	*	16	15	18	Note; A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$) A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$) B; TRRL Method C; TRRL in the Tropics Method D; Ruiz's Formula E; California Method * Pavement failure within design period is not foreseen. ** Thickness chart is not available
1 - 2	0.7305	0.1440	0.9465							0	18	*	16	15	18	
2 - 3	0.9095	0.1991	1.2081							45	54	13	48	46	60	
3 - 4	0.6429	0.1728	0.9021							0	12	*	10	10	14	
4 - 5	0.7882	0.2391	1.1469							38	51	0	40	38	48	
5 - 6	18.7791	5.9257	27.6676							**	**	**	**	**	**	
6 - 7	0.9648	0.1172	1.1405							38	44	0	39	38	48	
7 - 8	16.3890	5.8572	25.1749							**	**	**	**	**	**	

CALCULATED OVERLAY THICKNESS (31)

PH - 23 (2039 - 0101)
RH - 24 (2039 - 0102)

Date of deflection Survey
20/10/1980

DBST	25 mm
Soil Aggregate Base	100
Soil Subbase	150

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.	
				0	2	4	6	8	10	A1	A2	B	C	D	E		
0 - 1	0.7644	0.2997	1.2139								43	57	14	47	42	47	
1 - 2	0.9671	0.5226	1.7510								79	92	58	92	86	140	
2 - 3	0.9368	0.3778	1.5035								65	77	40	75	68	102	Note;
3 - 4	1.0400	0.5685	1.8927								86	100	70	98	95	159	A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$)
4 - 5	0.5530	0.4371	1.2087								43	61	14	47	42	47	
5 - 6	0.5315	0.1897	0.8161								0	0	*	0	0	3	A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$)
6 - 7	0.6119	0.3250	1.0994								29	49	0	34	30	32	
7 - 8	0.6908	0.2524	1.0693								25	43	0	31	27	27	B; TRRL Method
8 - 9	0.8203	0.3791	1.3890								58	27	34	64	58	80	C; TRRL in the Tropics Method
9 - 10	1.0205	0.2477	1.3920								58	68	34	65	58	80	D; Ruiz's Formula
10 - 11	0.9470	0.3888	1.5571								69	80	48	79	73	110	E; California Method
11 - 12	1.0644	0.6078	1.9762								90	104	72	103	101	168	* Pavement failure within design period is not foreseen.
12 - 13	0.8476	0.2389	1.2060								43	54	10	47	41	47	
13 - 14	0.7433	0.2417	1.1058								30	46	0	35	31	32	** Thickness chart is not available
14 - 15	0.7983	0.1044	0.9548								0	14	0	14	14	14	
15 - 16	0.7609	0.3567	1.2960								51	65	25	55	49	62	
16 - 17	0.7340	0.2334	1.0841								27	43	0	32	28	29	
17 - 18	0.6894	0.2002	0.9897								8	29	0	19	18	18	
18 - 19	0.7455	0.1723	1.0040								11	29	0	23	20	20	
19 - 20	1.1390	0.4762	1.8534								84	96	68	96	93	153	
20 - 21	0.9586	0.3404	1.4692								63	75	40	73	65	94	
21 - 22	1.0773	0.3615	1.6195								73	83	53	84	77	120	
22 - 23	1.1036	0.2409	1.4651								63	71	40	73	65	94	
23 - 24	1.5186	0.2708	1.9248								88	94	70	100	98	162	
24 - 25	1.1740	0.3453	1.6918								76	86	56	88	82	132	
25 - 26	1.2335	0.5274	2.0246								92	105	75	105	104	**	
26 - 27	0.9282	0.2691	1.3319								54	64	30	59	53	68	
27 - 28	1.2917	0.5004	2.0423								98	105	75	106	105	**	
28 - 29	1.2428	0.4304	1.8885								86	98	70	98	95	157	
29 - 30	1.0479	0.2165	1.3727								56	65	32	64	58	77	
30 - 31	0.8962	0.2727	1.3052								52	61	28	57	51	64	
31 - 32	0.6146	0.6200	1.5446								68	86	45	77	71	110	

CALCULATED OVERLAY THICKNESS (32)

Date of deflection Survey

26/10/1981

RH - 25 (2071 - 0100)

DBST	25 mm
Crushed Stone Base	150
Soil Subbase	150

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)					Overlay Thickness (mm)						Remarks.	
				0	2	4	6	8	10	A1	A2	B	C	D		E
0 - 1	0.8552	0.1746	1.1172							0	12	*	23	20	16	
1 - 2	0.6171	0.1741	0.8783							0	0	*	*	0	0	
2 - 3	0.5448	0.2446	0.9117							0	0	*	0	0	0	Note;
3 - 4	0.4543	0.1975	0.7431							0	0	*	*	0	0	A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$)
4 - 5	0.4765	0.1263	0.6659							0	0	*	*	0	0	A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$)
5 - 6	0.4316	0.1387	0.6397							0	0	*	*	0	0	
6 - 7	0.5624	0.1280	0.7543							0	0	*	*	0	0	B; TRRL Method
7 - 8	0.4005	0.1255	0.5887							0	0	*	*	0	0	C; TRRL in the Tropics Method
8 - 9	0.3610	0.1373	0.5669							0	0	*	*	0	0	D; Ruiz's Formula
9 - 10	0.2762	0.0676	0.3776							0	0	*	*	0	0	E; California Method
10 - 11	0.4524	0.1393	0.6614							0	0	*	*	0	0	
11 - 12	0.4929	0.1705	0.7485							0	0	*	*	0	0	* Pavement failure within design period is not foreseen.
12 - 13	0.3643	0.1084	0.5269							0	0	*	*	0	0	
13 - 14	0.4386	0.1312	0.6354							0	0	*	*	0	0	
14 - 15	0.6310	0.2684	1.0336							0	0	*	13	11	9	
15 - 16	0.4638	0.1204	0.6445							0	0	*	*	0	0	
16 - 17	0.5476	0.1850	0.8252							0	0	*	*	0	0	
17 - 18	0.4390	0.1094	0.6032							0	0	*	*	0	0	
18 - 19	0.3905	0.1050	0.5479							0	0	*	*	0	0	
19 - 20	0.3819	0.0919	0.5198							0	0	*	*	0	0	
20 - 21	0.3667	0.1022	0.5200							0	0	*	*	0	0	
21 - 22	0.6190	0.2876	1.0505							0	9	*	14	13	11	
22 - 23	0.3757	0.1599	0.6156							0	0	*	*	0	0	
23 - 24	0.7643	0.1812	1.0360							0	0	*	13	11	0	
24 - 25	0.6562	0.0884	0.7888							0	0	*	*	0	0	
25 - 26	0.6214	0.1434	0.8365							0	0	*	*	0	0	
26 - 27	0.6929	0.1180	0.8698							0	0	*	*	0	0	
27 - 28	0.6682	0.1178	0.8449							0	0	*	*	0	0	

CALCULATED OVERLAY THICKNESS(33)

RH - 26 (2109 - 0100)

Date of deflection Survey

14/10/1980

DBST	25 mm
Soil Aggregate Base	150
Soil Subbase	100

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
0 - 1	0.6232	0.3005	1.0740							0	0	*	5	6	8	
1 - 2	0.7536	0.2066	1.0635							0	0	*	4	4	7	
2 - 3	1.0122	0.2946	1.4542							32	44	10	45	42	49	Note;
3 - 4	0.8444	0.2965	1.2892							8	30	0	29	28	28	A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$)
4 - 5	0.4944	0.2035	0.7997							0	0	*	*	0	0	A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$)
5 - 6	0.5109	0.2124	0.8296							0	0	*	*	0	0	
6 - 7	0.6916	0.3603	1.2321							0	27	0	23	22	23	
7 - 8	0.6110	0.2743	1.0225							0	0	*	0	0	5	B; TRRL Method
8 - 9	1.0473	0.4226	1.6812							49	59	28	63	59	85	C; TRRL in the Tropics Method
9 - 10	1.4153	0.8971	2.7609							91	103	**	**	120	**	D; Ruiz's Formula
10 - 11	0.9816	0.5386	1.7894							55	67	34	67	66	100	E; California Method
11 - 12	0.7679	0.2805	1.1887							0	16	0	17	17	17	* Pavement failure within design period is not foreseen.
13 - 14	0.5971	0.1716	0.8545							0	0	*	0	0	0	
14 - 15	1.2855	0.8720	2.5935							84	100	**	**	112	**	** Thickness chart is not available
15 - 16	0.7527	0.3640	1.2987							10	35	0	30	28	29	
16 - 17	0.9302	0.5508	1.7563							53	66	33	66	65	95	
17 - 18	0.7548	0.2552	1.1376							0	4	*	13	12	14	
19 - 20	0.6871	0.2334	1.0373							0	0	*	2	2	6	
20 - 21	1.3579	0.3603	1.8984							60	68	45	73	73	115	
21 - 22	1.1460	0.5250	1.9336							62	71	47	75	75	121	
22 - 23	0.7829	0.2314	1.1299							0	0	*	12	13	13	
23 - 24	0.8732	0.1951	1.1658							0	0	0	16	16	16	

CALCULATED OVERLAY THICKNESS (34)

RH - 27 (2160 - 0100)

Date of deflection Survey

24/9/1981

DBST	25 mm
Crushed Stone Base	150
Soil Subbase	200

Section (Km.)-(Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X}+1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
0 - 1	1.5467	0.4990	2.2951							62	71	**	74	85	141	
1 - 2	1.0798	1.0866	2.7097							75	91	**	**	106	**	
2 - 3	0.5890	0.1909	0.8754							0	0	*	*	0	0	Note;
3 - 4	1.3338	0.3609	1.8751							44	52	**	60	60	89	A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$)
4 - 5	0.8324	0.3055	1.2907							0	0	*	15	14	17	A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$)
5 - 6	0.5429	0.1705	0.7986							0	0	*	*	0	0	B; TRRL Method
6 - 7	0.5462	0.5156	1.3196							0	23	*	17	16	19	C; TRRL in the Tropics Method
7 - 8	0.5243	0.1618	0.7670							0	0	*	*	0	0	D; Ruiz's Formula
8 - 9	0.8824	0.3045	1.3391							0	11	*	21	19	21	E; California Method
9 - 10	0.6867	0.1825	0.9605							0	0	*	*	0	0	
10 - 11	0.7982	0.1710	1.0547							0	0	*	*	0	0	
11 - 12	0.6933	0.4387	1.3514							0	22	*	22	20	22	* Pavement failure within design period is not foreseen.
12 - 13	0.9362	0.1131	1.1059							0	0	*	0	0	4	
13 - 14	1.1257	0.2377	1.4823							10	26	*	35	32	35	** Thickness chart is not available
14 - 15	0.8138	0.2766	1.2287							0	0	*	9	8	12	
15 - 16	1.1224	0.5177	1.8989							46	57	**	62	62	92	
16 - 17	0.7276	0.2200	1.0577							0	0	*	*	0	0	
17 - 18	0.5452	0.1451	0.7628							0	0	*	*	0	0	
18 - 19	0.6633	0.1988	0.9615							0	0	*	*	0	0	

CALCULATED OVERLAY THICKNESS(35)

RH - 28 (2175 - 0100) (1)

Date of deflection Survey

7/9/1981

DBST	25 mm
Crushed Stone Base	150
Laterite Subbase	150

Section (Km.) - (Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X} + 1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
0 - 1	0.3933	0.1962	0.6877							0	0	*	*	0	0	
1 - 2	0.6524	0.3926	1.2413							0	19	*	18	18	19	
2 - 3	0.5033	0.1662	0.7526							0	0	*	*	0	0	Note;
3 - 4	0.6476	0.1699	0.9025							0	0	*	*	0	0	A1; Asphalt Institute Method
4 - 5	0.5838	0.1707	0.8399							0	0	*	*	0	0	(Design Def. $\bar{X} + 1.5\sigma$)
5 - 6	0.8838	0.2843	1.3103							0	21	*	24	25	26	A2; Asphalt Institute Method
6 - 7	0.7676	0.8608	2.0589							59	75	**	75	79	130	(Design Def. $\bar{X} + 2.0\sigma$)
7 - 8	0.5819	0.1757	0.8454							0	0	*	*	0	0	B; TRRL Method
8 - 9	0.4343	0.0920	0.5723							0	0	*	*	0	0	C; TRRL in the Tropics Method
9 - 10	0.4914	0.1172	0.6672							0	0	*	*	0	0	D; Ruiz's Formula
10 - 11	0.4519	0.1098	0.6166							0	0	*	*	0	0	E; California Method
11 - 12	0.3710	0.0718	0.4786							0	0	*	*	0	0	* Pavement failure within
12 - 13	0.4000	0.0811	0.5216							0	0	*	*	0	0	design period is not
13 - 14	0.7438	0.1634	0.9889							0	0	*	0	0	0	foreseen.
14 - 15	0.8943	0.3109	1.3606							0	29	**	30	29	32	** Thickness chart is not
15 - 16	0.6905	0.1632	0.9353							0	0	*	*	0	0	available
16 - 17	1.0343	0.6423	1.9977							57	71	**	73	80	121	
17 - 18	1.0529	0.2822	1.4761							22	38	**	41	39	45	
18 - 19	0.7462	0.1940	1.0371							0	0	*	0	0	4	
19 - 20	0.5210	0.1268	0.7111							0	0	*	*	0	0	
20 - 21	0.8600	0.3596	1.3994							10	35	**	34	32	36	
21 - 22	0.8057	0.3037	1.2613							0	15	*	20	20	22	
22 - 23	0.8030	0.3841	1.3792							5	34	**	32	31	33	
23 - 24	0.8974	0.2633	1.2924							0	16	*	23	22	24	
24 - 25	34.2295	12.0713	52.3364							**	**	**	**	**	**	
25 - 26	0.6095	0.0836	0.7350							0	0	*	*	0	0	
26 - 27	0.5633	0.1397	0.7729							0	0	*	*	0	0	
27 - 28	0.5929	0.1182	0.7702							0	0	*	*	0	0	
28 - 29	0.5529	0.0691	0.6566							0	0	*	*	0	0	
29 - 30	0.5914	0.0908	0.7276							0	0	*	*	0	0	

CALCULATED OVERLAY THICKNESS (36)

RH - 28 (2175 - 0100) (2)

Section (Km.) - (Km.)	Average Deflection \bar{X} (m.m.)	Standard Deviation σ (m.m.)	Design Deflection $\bar{X} + 1.5\sigma$ (m.m.)	Roughness (10^3 mm/Km.)						Overlay Thickness (mm)						Remarks.
				0	2	4	6	8	10	A1	A2	B	C	D	E	
30 - 31	0.6148	0.1186	0.7927							0	0	*	*	0	0	Note; A1; Asphalt Institute Method (Design Def. $\bar{X} + 1.5\sigma$) A2; Asphalt Institute Method (Design Def. $\bar{X} + 2.0\sigma$) B; TRRL Method C; TRRL in the Tropics Method D; Ruiz's Formula E; California Method * Pavement failure within design period is not foreseen.
31 - 32	0.7790	0.1485	1.0018							0	0	*	0	0	0	
32 - 33	0.9310	0.1241	1.1170							0	0	*	3	5	10	
33 - 34	0.7844	0.2003	1.0848							0	0	*	0	0	7	