





REPUBLIC OF KENYA

MINISTRY OF TRANSPORT AND COMMUNICATIONS

THE NAIROBI BYPASS CONSTRUCTION PROJECT FEASIBILITY STUDY FINAL REPORT

VOLUME 3 (APPENDIX)

FEBRUARY 1988



JAPAN INTERNATIONAL COOPERATION AGENCY







REPUBLIC OF KENYA

MINISTRY OF TRANSPORT AND COMMUNICATIONS

THE NAIROBI BYPASS CONSTRUCTION PROJECT FEASIBILITY STUDY FINAL REPORT

VOLUME 3 (APPENDIX)

FEBRUARY 1988

JAPAN INTERNATIONAL COOPERATION AGENCY

国際協力事	業团
受入 '88.4. 7	407
月日	73.7
登録 17464 No.	SDF

.

List of Tables (Appendix)

Table A-II-1	Annual Rainfall	A-II-1
Table A-II-2	Population Projections of Nairobi	A-11-2
Table A-II-3	Share of Gross Domestic Product	A-11-3
Table AII4	Key Economic and Social Indicators, (1981-1985)	A-11-4
Table A-II-5	Analysis of Key Fiscal Trends, 1981/82-1985/86	A-11-6
Table A-11-6	Government Revenue and Expenditure	A-II - 7
Table A-III-1	Roads Inventory by Type	A-III-1
Table A-III-2	Amounts and Ratios of Government Account among Government Expenditure	A-III-2
Table A-III-3	Government Financial Source for Development and Investment Account	A-III-3
Table A-III-4	Road Vehicles, Registered with Growth Rate	A-III-4
Table A-III-5	Central Government Revenue from Road Vehicle, (1976 - 1984)	A-III-5
Table A-IV-1	Zone Correspondence between Nairobi City Planning and Nairobi Bypass Project	A-1V-3
Table A-IV-2	Target Growth Rates by Sector	A-IV-4
Table A-IV-3	Irrigation Potential Area and Proposed Implementation Scheme	A-IV-5
Table A-IV-4	Population at Residence by Zone in Nairobi at Present, 1986 and Future, 2000 with Growth Rates	A-IV-6
Table A-IV-5	Population at Residence and Employment at job Site by Zone at 2000	A-IV-7
Table A-IV-6	Employment Population at Job Site by Zone in Nairobi at Present, 1986 and 2000 with Growth Rates	A-1V-8
Table A-IV-7	Population at Residence by Zone except Nairobi at Present, 1986 and Future, 2000 and 2006	A-IV-9
Table A-IV-8	Employment Population at Job Site by Zone except Nairobi at Present, 1986 and Future 2000 and 2006	A-1V-11
Table A-IV-9	Projection of Manufacturing Sector Production	A-IV-13
Table A-IV-10	Projection of Kenya's Economy	A-IV-14
Table A-IV-11	Sub-Divisional Names in Each Zone	A-IV-15

.

		· · · ·
Appendix V.1	Flow Chart of Collection and Analysis of Traffic Survey Data	A-V-1
Table A-V-1 (1)	Assignment Schedule and Location by Type of Survey, Location Number of Survey Sites	A-V-9
Table A-V-1 (2)	Standard Hourly Shift by Type of Survey, Excluding Intersection Counting	A-V-10
Table A-V-1 (3)	Road Side O-D Questionnarie	A-V-11
Table A-V-2	Average Annual Daily Traffic on the Survey Stations	A-V-12
Table A-V-3	Traffic Capacity of Present Road Net-works	A-V-36
Appendix V.4	Traffic Capacity Calculation Formula	A-V-40
Appendix V.5	Present Road Inventory	A-V-44
Table A-V-5-3	Present Road Inventory, Region: C.B.D	A-V-47
Table A-V-4	Present Road Inventory, Region: City & Outskirts	A-V-50
Appendix V.6	Present O-D Table of Total Vehicles	A-V-54
Appendix VI.1	Future O-D Table of Total Vehicle	A-VI-1
Appendix VI.3	Traffic Capacity of Link by Alternative Network	A-VI-15
Appendix VI.5	Converted O-D Trips to the Bypass	A-VI-27
Table A-VI-5 (1)	Converted O-D Trips on the Bypass (link-1) in 2000	A-V1-27
Table A-VI-5 (2)	Converted O-D Trips on the Bypass (link-2) in 2000	A-VI-29
Table A-VI-5 (3)	Converted O-D Trips on the Bypass (link-3) in 2000	A-VI-31
Table A-VI-5 (4)	Converted O-D Trips on the Bypass (link-3) in 2000	A-VI-33
Table A-VI-5 (5)	Future O-D Table by Aggregated Zone in 2000	A-VI-35
Table A-VI-5 (6)	Aggregated Zone	A-VI-37
Appendix VIII.1	Principle of Junction Design	A-VIII-1
Appendix VIII.2	Rough Estimate of Additional Construction Cost of Mombasa Junction Layout	A-VIII-7
Table A-VIII-3	Temperature and Wind Speed	A-VIII-9
Table A-VIII-6	Detailed Construction Cost	A-VIII-15
		. · ·

	. •		
	Appendix IX-1	Calculation of Vehicle Operation Cost	A-1X-1
	Table A-IX-1	Fuel Cost Per Km by Speed	AIX2
	Table A-IX-2	Lubricating Oil Cost	A-1X-3
	Table A-IX-3	Tyre Cost	A-IX-4
	Table A-IX-4	Maintenance Cost	A IX-6
	Table A-IX-5	Depreciation Cost	A-IX-7
	Table A-IX-6	V.O.C. by Types of Vehicle and by Speed	A-1X-8
	Table A-IX-7	Adjustment Factor by Slope	A-1X-9
	Table A-IX-8	Characteristics of Representative Vehicle	A-IX-11
	Table A-IX-9	Economic Cost of Transport Materials	A-IX-12
	Appendix IX-2	Detailed Procedure of Benefit Calculation	A-IX-13
	Appendix X-1	Scope of Work for the Feasibility Study on Nairobi Bypass Construction Project in the Republic of Kenya agreed upon between the Ministry of Transport & Communications and the Japan International Cooperation Agency, Nairobi, 4th July, 1986	A-X-1
	Appendix X-2	Minutes of Meeting on Scope of Work for the Feasibility Study on the Nairobi Bypass Construction Project in the Republic of Kenya, Nairobi, July 4, 1986	A-X-10
	Appendix X-3	Minutes of Meeting on the Inception Report for Feasibility Study on the Nairobi Bypass Construction Project in the Republic of Kenya, 7th November, 1986	A-X-15
	Appendix X-4	Minutes of Meeting on the Progress Report for the Feasibility Study on the Nairobi Bypass Construction Project in the Republic of Kenya, Nairobi, 20th March, 1987	A-X-22
	Appendix X-5	Minutes of Steering Committee Meeting on the Interim Report for the Feasibility Study on the Nairobi Bypass Construction Project in the Republic of Kenya, Nairobi 31st, August, 1987	A-x-25
. •	Appendix X-6	Minutes of Steering Committee Meeting on Revised Interim Report on Feasibility Study for Nairobi Bypass Road held on 14th October, 1987 in Engineers Resistration Boardroom, MOTC Hq	A-X-29
	Appendix X-7	Memorandum for the Steering Committee Meeting on Revised Interim Report on Feasibility Study for Nairobi Bypass Road held on 14th October, 1987 in Engineers Registration	
		Boardroom MOTC, Hq., 19th October, 1987	A-X-33

					1.0	
_						
Appendix X-8	Minutes of Steering the Draft Final Rep			•		
	Study on the Nairob	i Bypass Const	truction			
	Project in the Repu 10th November, 1987				A-X-35	
Appendix X-9	Letter Ref. No. R73 18th November, 1987 comments for the Dr Feasibility Study o	regarding Off aft Final Repo n the Nairobi	ficial ort of Bypass			• • •
Appendix X-10	Road Project Letter Ref. No. 11	· · · · · · · · · · · · · · · · · · ·	• • • • • • • • • • • •	••••	A-X-38	
and the second s			SWAT TO			
sebourger in TO	7th January, 1988 r the Official commen					
opponden n 10	7th January, 1988 r the Official commen dated November, 198	ts Ref. No. R7	305/P.124	••••	A-X-40	
arround a do	the Official commen	ts Ref. No. R7	305/P.124	••••	A-X-40	
	the Official commen	ts Ref. No. R7	305/P.124	••••	A-X-40	
	the Official commen	ts Ref. No. R7	305/P.124	• • • •	A-X-40	•
	the Official commen	ts Ref. No. R7	305/P.124		A-X-40	•
	the Official commen	ts Ref. No. R7	305/P.124		A-X-40	· · · · · · · · · · · · · · · · · · ·
	the Official commen	ts Ref. No. R7	305/P.124		A-X-40	
	the Official commen	ts Ref. No. R7	305/P.124		A-X-40	
	the Official commen	ts Ref. No. R7	305/P.124		A-X-40	
	the Official commen	ts Ref. No. R7	305/P.124		A-X-40	

List of Figures (Appendix)

	e e e e e e e e e e e e e e e e e e e	
Fig. A-III-1	Organization Chart of the MOTC	A-III-7
Fig. A-III-2	Organization Chart of Principal Parastatals	A-111-8
Fig. A-IV-1	Zoning Outside Nairobi	A-IV-1
Fig. A-IV-2	Zoning in Nairobi	A-1V-2
Fig. A-V-5-1	Survey and Measure Points of Present Conditions of Road (C.B.D.)	A-V-45
Fig. A-V-5-2	Survey and Measure Points of Present Conditions of Road (City and Outskirts)	A-V-46
Appendix V1.2		
Fig. A-VI-2 (1)	Future Desired Line by Type of Vehicle (Car)	A-VI-9
(2)	Future Desired Line by Type of Vehicle (Light)	A-VI-10
(3)	Future Desired Line by Type of Vehicle (Medium)	A-VI-11
(4)	Future Desired Line by Type of Vehicle (Heavy)	A-VI-12
(5)	Future Desired Line by Type of Vehicle (Matatu)	A-VI-13
(6)	Future Desired Line by Type of Vehicle (Bus)	A-VI-14
Fig. A-VI-3 (1)	Future Road Network for A-3-4	A-VI-20
Appendix VI.4	Future Traffic Volume by Alternative Networks	
Fig. A-VI-4 (1)	Future Traffic Volume for A-0 in 2000	A-VI-21
Fig. A-VI-4 (2)	Future Traffic Volume for A-3-4 in 2000	A-VI-22
Fig. A-VI-4 (3)	Future Traffic Volume for A-3-2 in 2000	A-VI-23
Fig. A-VI-4 (4)	Future Traffic Volume for A-1-4 in 2000	A-VI-24
Fig. A-VI-5 (5)	Future Traffic Volume for A-1-2 in 2000	A-VI-25
Fig. A-VI-4 (6)	Assigned Traffic Volume for A-1-2 in 1986	A-VI-26
Fig. A-VII-5.1	Test Pit Results (1)	A-VII-1
Fig. A-VII-5.2	Test Pit Results (2)	A-VII-2
Fig. A-VII-5.3	Geological Section (1)	A-VII-3
Fig. A-VII~5.4	Geological Section (2)	A-VII-4

Fig. A-VII-5.5	Geological Section (3)	
Fig. A-VII-5.6	Geological Section (4)	A-VII-6
Fig. A-VII-5.7	Geological Section (5)	
Fig. A-VII-5.8	Geological Section (6)	
Fig. A-VII-5.9	Geological Section (7)	A-VII-9

Fig. A-VII-5

. .

Appendix II

Socio-Economic Profile

```
Annual Rainfall
```

Unit: mm

District	1978	1979	1980	1981	1982	1983	1984	Annual Mean
Kiambu	1,472	876	959	1,126	988	771	184	980
Nyeri	1,018	1,255	675	.	1,137	997	660	831
Kitale	1,583	1,360	982	1,445	1,688	1,223	886	1,363
Kisumu	1,767	1,454	1,100	1,038	1,474	1,122	1,235	1,352
Kisii	2,272	1,558	1,716	1,752	1,869	1,954	1,691	1,931
Kilifi	1,563	1,304	912	1,006	-	951	281	891
Kericho	2,354	1,723	-	-	-	2,183	1,168	1,146
Garissa	724	531	102	303	433	120	497	390
Kajiado	5 7 3		350	_	467	346	222	346
Mombasa	1,227	1,523	798	1,063	1,694	1,071	627	1,142
Eldoret	1,060	1,142	884	1,209	1,053	1,088	419	1,063
Nakuru	1,245	960	833	937	1,071	926	571	975

Source: Meteorological Department, Statistical Abstruct 1985

				Unit: 1,000	Persons
Institute	1979	1984	1985	1990	2000
Metropolitan Growth Strategy	989	1,326	1,396		
Study			a de la composición d		
Central Bureau			L.1,078	L.1,343	1,999
of Statistics		·	H.1,109	H.1,416	2,199
Ministry of	-	1,104	1,162	1,505	2,525
Finance and		11 - A	14 a		4 M 1
Planning				de la la c	(1975) (1975)
Nairobi City	. .	L.1,041	, . .	L.1,395	2,272
Commission, City Planning		M.1,110 H.1,168			
Department	·. ·		.*	· · · · · · · · · · · · · · · · · · ·	
Census	828 1/	1,100 ² /	1,150	<u>2</u> / 1,200 <u>2</u> /	- - -

Table A - II - 2 Population Projections of Nairobi

Remarks:

L; Low, M; Medium, H; High <u>1</u>: Census, Central Bureau of Statistics <u>2</u>: Provisional Estimate

		fable	A	-11	***	3
Share	of	Gross	I	Domest	ic	Product

						Unit:	Percentage
Industry	1979	1980	1981	1982	1983	1984 ^{_1}	J Growth Rate, %
Agriculture	33.1	32.2	32.1	33.0	33.3	31.8	2.4
Manufacture	13.7	13.8	13.5	13.6	13.7	14.2	4.0
Electricity/Water	1.6	1.5	1.7	1.7	1.7	1.8	5.0
Transport/Communication	5.8	8.9	5.6	5.9	5.9	5.9	3.8
Building/Construction	4.8	5.0	5.1	4.4	3.9	3.6	△ 2.9 <u>2</u> /
Wholesale/Retail etc.	12.4	12.5	11.9	10.9	10.8	11.2	1.1
Finance etc.	7.0	6.7	8.2	7.5	8.5	9. <u>1</u>	8.8
Producers of Government Services	15.6	15.9	15.7	16.1	16.2	16.5	3.2
Others	6.0	6.5	6.2	6.9	6.0	5.9	n.a.

Remarks;

Source Central Bureau of Statistics, at 1982 constant price.

Provisioanal Minus

1/ : 2/ :

A-11-3

Table A - II - 4

Key Economic and Social Indicators, 1981 - 1985

	Description	Unít	1981	1982	1983	1984	1985
	Population	Mill. Person	17.3	18.0	18.8	19.5	20.2
<u>.</u>	Growth of GDP at constant prices	Per Cent	6.0	2.4	3.1	0.9	Ţ.4
	GDP at markat prices	K£ . Mill.	3,023	3,411	3,826	4,016	4,763
¢.	Net cost of petroleum products	KE . Mill.	200	179	214	185	257
2.	Trade balance	K£ . Mill.	-479	-430	-313	-373	-445
6.	Money supply	K£ . Mill.	918	1,066	1,118	1,262	1,346
	Balance of payments (current account)	Kf. Mill.	-336	-253	-89	-147	-159
8.	Coffee marketed production	1,000 Ton	91	88	95	119	67
9.	Tea marketed production	1,000 Ton	16	96	119	116	147
10.	Maize marketed centrally	1,000 Ton	473	571	636	261	583
11.	Wheat marketed centrally	1,000 Ton	203	235	242	135	194
12.	Sugar-cane production	1,000 Ton	3,822	3,108	3,286	3,611	3,463
13.	Manufacturing output	K£ . Mill.	1,804	2,054	2,426	2,957	3,536
14.	Construction output	K£ . Mill.	403	402	411	457	461
15.	Cement consumption	1,000 Ton	653	579	511	541	610
16.	Petroleum consumption	1,000 Ton	1,585	1,491	1,373	1,482	1,479
17.	Electricity	Mill. Kwh	1,663	1,701	1,747	1,845	2,014
18.	Tourism earning	K£ . Mill.					
19.	New registration of vehicles	Number	18,115	15,061	13,940	15,694	16,320
20.	Rail freight	Mill Ton.Km	2,241	2,097	2,091	2,034	1,858
21.	Wage employment	1.000 Person	1 024	1 046	1 002	1 1 26	171

Table A - II - 4 (cont'd) -

Key Economic and Social Indicators, 1981 - 1985

Description	זדתט	+ 00 - +	7027	C071	1 Y 0 4	004	
Export volumes	82	103	100	96	95	66	-0.3
Import volumes	84	118	100	79	93	86	-4.9
Terms of trade	64	105	100	94	011	92	2.7
Real wages	2-3	112	100	63	94	16	3.1
Agricultural terms of trade	₽4	104	100	98	94	94	2.1

Annual % Rate of change 1982 - 1985 Source, Economic Survey 1986

> •• **---**1

A-11-5

Analysis of Key Fiscal Trends. 1981/82 - 1985/86

8% 1985/86 Unit -7.6 28.6 -34.0 -32.9 50.0 35.4 -21.7 Fiscal year data have been related to G.D.P. by averaging G.D.P.'s for two successive calendar years, e.g. 1984/85 has been related to the average 1983/84 1984/85 22.9 33.6 27.0 -45.8 -31.2 70.6 25.8 -15.6 -50.3 External grants are excluded from revenue in these calculations. 31.5 62.8 23.1 24.1 -8.7 -34.2 -35.1 -25.7 76.1 Net short-term borrowing less increases in cash balances. 1982/83 22.8 32.9 19.2 84.5 -42.9 -17.2 -41.4 -28.7 -63.6 1981/82 -44.5 45.8 26.4 60.5 -21.1 -30.2 -8-2 ł I External grants and loans as % of development plus Net short-term borrowing as % of development plus G.D.P. at current market G.D.P. at Ratio of development expenditure to current Total deficit as % of total expenditures development plus ч О Current surplus as % current revenue 8 Total deficit as % current revenue Total Government expenditure as Description Provisional surplus as % of investment expenditures Current revenue as % of investment expenditure investment expenditure current market prices Remarks : expenditure Current prices ŝ 4. <u>б</u> 4 ഹ് ۍ و တ်

Economic Survey, 1986

Source :

G.D.P. of 1984 and 1985.

A-II-6

Government Revenue and Expenditure

1073.8 1010.2 371.7 463.1 502.0 519.6 516.4 578.3 904.0 142.0 630.3 1023.4 233.8 327.6 586.4 766.5 868.2 951.5 1044.2 1081.7 1208.4 253.9 271.7 299.3 Total Investment 31.8 46.4 33.6 40.8 88.0 97.5 93.5 72.9 78.0 51.8 20.2 18.7 23.4 33.7 44.1 61.7 55,4 21.1 86.1 Expenditure 256.6 262.2 278.2 298.2 į Development 182.6 216.0 44.6 87.8 115.5 118.9 125.5 149.5 198.9 207.4 254.5 24.9 38.6 110.6 108.2 123.1 28.1 31.1 59.1 Recurrent 803.9 731.8 787.6 363.8 910.2 251.2 278.9 357.8 360.0 367.4 416.8 407.9 519.5 788.4 819.5 188.7 207.1 219.5 237.3 328.7 397.7 623.2 721.3 592.1 Recurrent 366.4 393.6 706.9 738.5 722.0 .84.6 244.0 384.2 435.5 613.2 636.4 707.3 795.3 345.3 64.2 211.5 264.3 426.7 454.7 458.7 696.7 902.3 963.1 299.7 Revenue 79/80 82/83 85/86 86/87 65/66 68/69 69/70 71/72 77/78 78/79. 81/82 84/85 67/68 72/73 75/76 1983/84 87/87 1964/65 66/67 73/74 74/75 76/77 1980/81 1970/71 Year

Future Prospects are based on ii Development Plan, 1984-88"

Source: "The Study of National Transport Plan, JICA"

. .

Appendix III

Transport Sector Analysis

Roads Inventory by Type

	1981		1982	5	1983	~	i i i	1984
Catergory	Length (km)	Paved (%)	Length (km) Paved (%)	Paved (%)	Length (km) Paved (%)	Paved (%)	Length (km) Paved (%)	Paved (%)
International Trunk	3,594.2	65.0	3,594.2	65.0	3,594.2	65.0	3,594.2	65.0
National Trunk	2,786.1	41.1	2,786.1	41.3	2,786.1	41.4	2,786.1	41.4
Primary	7,750.8	23.2	7,750.8	23.2	7,897.1	25.5	7,897.1	25.5
Secondary	11,066.0	6.5	11,058.7	6.2	10,960.1	6.5	10,960.1	6.5
Minor	20,868.4	1.1	25,775.6	1.1	26,595.4	1.4	26,576.4	1.4
Special purpose	15,751.5	2.5	12,756.0	4.9	27,769.0	5.0	2,770.3	5.0
Total	53,577.0	12.0	53,788.7	11.9	54,583.7	12.3	54,584.2	12.3

Source : Statistical abstract, 1985, pp 180.

A-III-1

Amounts and Ratios of Government Account

among Government Expenditure

•	07 GG 98	Provisional Figure Based on the figure of Fornomic Survey 1096 DD 60		ure Are Are	Provisional Figure	Provis		
3.1	51.6	2.7	39-0	3.8	47.7	4.2	49.9	Development Account of Road
0.4	7.5	0.6	9.6	1.6	19.6	6 3	16.1	Current Accounts of Road
3.5	59.0	ຕ ຕ	48.6	5.4	67.4	5.5	66.0	Road Sector
5.1	85.6	4.1	60.4	6.3	78.8	6.5	77.9	Transport and Communications
100.0	100.0 1,665.1	100.0	100.0 1,483.2	100.0	100.0 1,242.4	100.0	1,190.7	Total Government Expenditure
Ratio %	Amounts Ratio	Ratio %	Amounts	Amounts Ratio % Amounts	Amounts	Ratio Z	Amounts	
1985/86	1985	/85	1984/85	/84	1983/84	83	1982/83	Description
Uint: Million K£	Uint: N							
				מייטייט אסאריזיייראיר העלפוותדרתים		0		

Government Financial Source for

Development and Investment Account

		•	Unit:	Unit: Million KE
Description	1982/83	1983/84	1984/85	1985/86
Development & Investment Expenditure	223.1	251.1	313.5	409.8
Financial Sources				
Surplus on Current Account	A 142.0	۵ 79.3	▲ 157.7	▲ 89.1
External Loans	165.4	166.0	213.2	102.7
External Grants	23.2	10.6	78.6	102.0
Long Term Domestic Borrowing	272.2	21.4	53.2	50.0
Treasury Bills	△ 36.4	109.2	34.1	214.1
Short Term Borrowing	7.8	36.4	4 . 1	Δ 68.9
Cash Balances	۵ ده.ا	△ 13.2	∆ 45.4	0.66
Total	223.1	251.1	313.5	409.8

Remarks : Provisional

Source : Based on the figures of Economic Survey, 1986, PP.68

Δ : Minus

Road Vehicles, registered with Growth Rate

Growth Rate, % (1980 - 84)	1.9	3.9	1.2	8.4	4.0	2.5	1.2	2.6	
1985	122,300	64,805	24,769	7,001	17,944	18,454	11,337	266,613	
1984	116,852	59,618	23,335	5,959	16,823	17,493	10,839	250,919	
1983	115,316	59,358	23,634	5,724	16,870	17,367	10,893	249,162	
1980	114,197	57,969	23,956	5,432	16,345	17,318	10,915	246,132	
1980	113,629	55,524	23,594	5,075	15,343	16,703	10,567	240,435	
Catergory	Motor Car	Utility, Panel Van	Lorry, Truck, Heavy Van	Bus, Mini-bus	Motor & Auto Cycle	Other motor vehicle	Trailer	Total	

Source : Statistical Abstract, 1985, pp 181

A-111-4

Central Government Revenue from Road Vehicle, 1976 - 1984

•					1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	Unit	Unit : 1,000 K£	
Description	1976	1977	1978	1979	1980	1981	1982	1983	1984
Licences a)Licenses under traffic ordinance	2,860.7	3,222.8	3,503.9	4,488.3	5,238.4	5,524.7	6,649.2	7,197.8	7,558.3
b)Motor-car Drivers' Licences	256.2	539.6	608.2	728.4	803.6	875.6	1,037.7	1,168.3	1,159.7
Tctal	2,116.9	3,762.4	4,112.1	5,216.7	6,042.0	6,400.3	7,636.9	8,366.1	8,718.0
Petrol and Diesel Oil Taxes		•							
a) Consumption Tax	7,819.0	11,010.0	17,313.3	21,031.7	29,976.2	41,710.0			
<pre>b) Import Duty (i) Motor Spirits</pre>	8,338.8	118.9	11,897.4	9,960.8	762.1	12,605.3	10,958.2	10,626.0	10,404.6
(ii) Diesel Oil	6,816.1	122.7	7,232.5	6,127.9	490.7	8,567.5	7,382.5	7,422.4	8,207.3
Total	22,973.9	11,251.6	36,443.l	37,120.4	31,229.0	42,572.7			
Other Import Duties									
(1) Passenger Cars	4,332.3	6,862.6	9,192.3	5,919.4	9,074.5	3,926.5	4,783.6	4,241.4	4,371.0
and Trucks	2,607.9	3,689.8	4,279.9	5,253.7	9,074.5	10,219.4	9,898.4	10,054.2	10,855.5
Total	6,940.2	10,552.4	13,472.1	11,173.1	17,916.4	14,145.9	14,682.0	14,295.6	15,226.3

A-III-5

Table A-III-5 (Cont'd)

Central Government Revenue from Road Vehicle, 1976 - 1984.

							Unit : 1,000 Kf	100 KE	
Description	1976	1977	1978	1979	1980	1981	1982	1983	1984
<pre>b) Chassis with Engines (i) Passenger Motor</pre>									
Cars (ii) Buses, Lorries.	1	1	185.7	432.2	271.8	217.2	153.3	37.6	52.2
etc.	968.5	l,044.4	304.2		l	86.7	110.2	239.5	1,084.8
Total	968.5	1,044.4	489.9	432.2	271.8	303.9	263.5	277.1	1,137.0
c) Bodies and parts for Motor Vehicles	1,328.3	1,177.1	1,847.2	1,350.9	I,140.7	2,488.2	2,808.5	2,375.2	3,335.7
u) motor venicies, lyres and Tubes	154.1	154.1	824.7	405.8	1,140.7	329.0	91.4	60.5	470.0
Total Other Import Duties	9,396.6	12,927.9	16,633.9	13,362.0	20,469.6	17,267.0	17,845.4	17,008.4	20,169.0
Total	35,487.4	27,941.9	57,189.1	55,699.1	57,740.6	66,358.8			:
					-				

Source : Central Bureau of Statistics, 1986

A-111-6

Fig. A-III-1

Organization Chart of the M.O.T.C.

M 312 M M

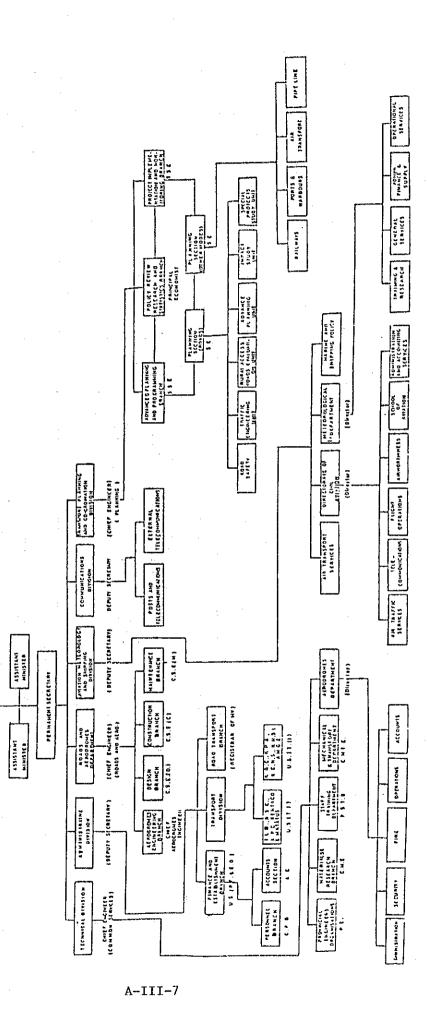
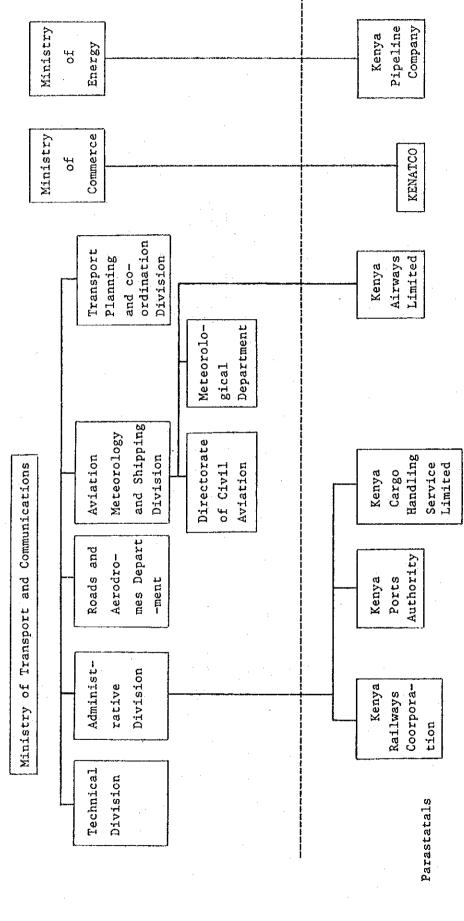


Fig. A-III-2

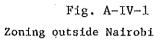
Organisation Chart of Principal Parastatals

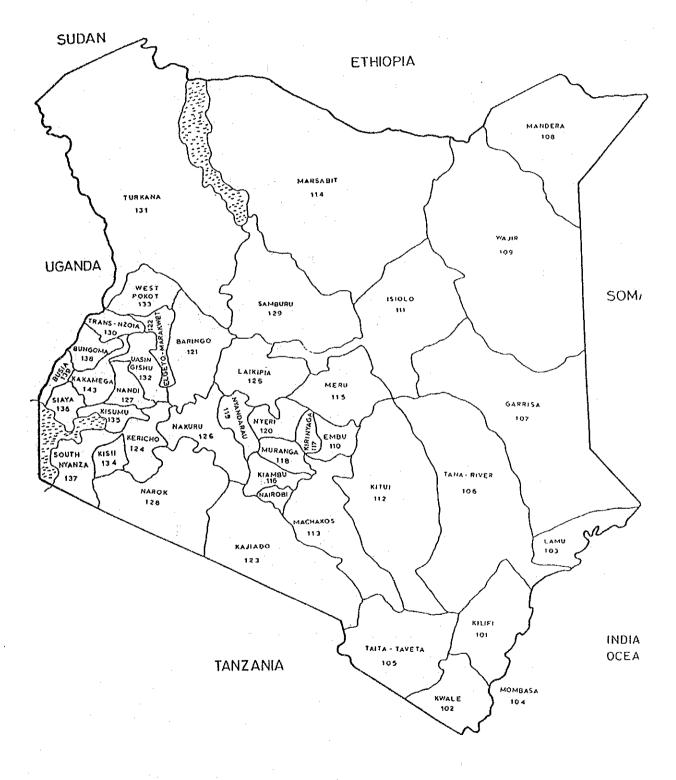


A-III-8

Appendix IV

Project Formation





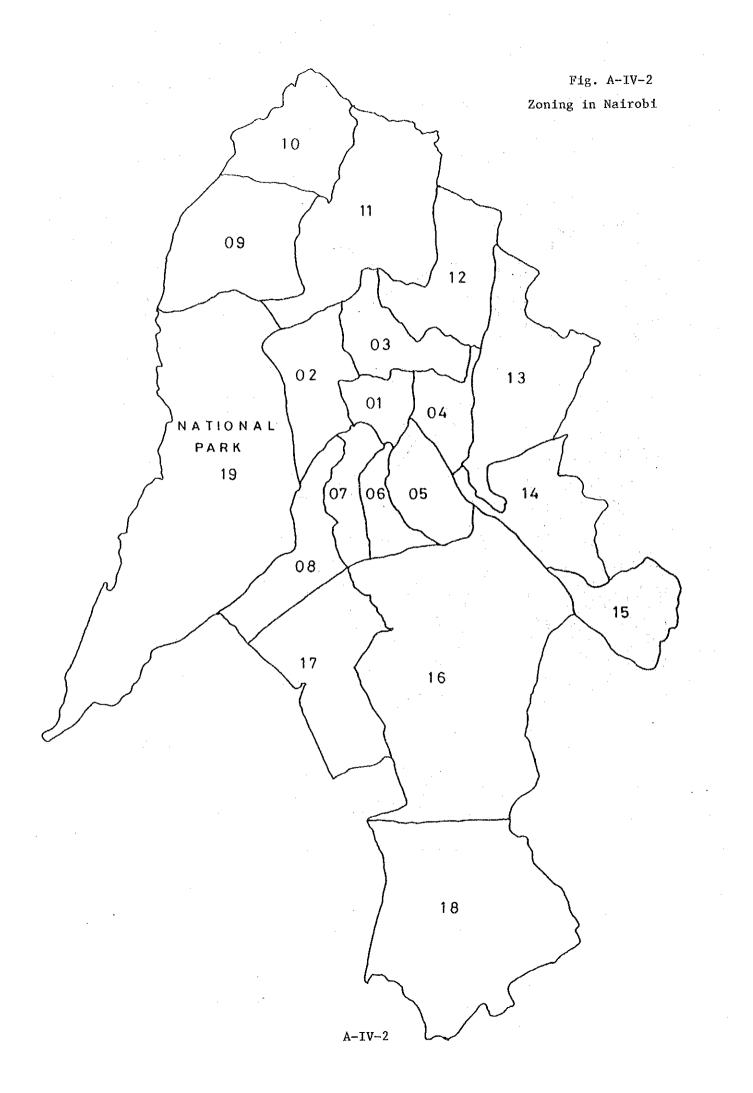


Table A-IV-1

Zone Correspondence between Nairobi

City Planning and Nairobi Bypass Project

Nairobi Bypass Project	Nairobi City Planning
1	(1)
2	(10) · 0.38 (11)
3	(4), (6)
4	(3)
5	(2), (7)
6	(8)
. 7	(9)
8	(10) • 0.24
9	(12) • 0.53
10	(12) 0.47
11	(15)
12	(5)
13	(13)
14	(14)
15	(17)
16	(16), (18)
17	$(10) \cdot 0.38, (20)$
18	(19)
19	n.a.
n.a.	(20)

Table A-IV-2

	. (GDP at factor o	ost,% per a
Item	1984-1988	1988-2000	1984-2000
Non-monetary GDP	3,5	3.5	3.5
Agriculture	4.2	5.3	5.0
Manufacturing	6.5	7.5	7.2
Trade	5.0	5.5	5.4
Government Services	3.7	5.4	5.0
Other Sectors	5.2	6.7	6.3
GDP at factor cost	4.8	5.9	5.6
Population	3.8	3.7	3.7
GDP per capita	1.0	2.1	1.8

Target Growth Rates by Sector

Source: Economic Management for Renewed Growth, 1986

Table A-IV-3 Irrigation Potential Area and Proposed Implementation Scheme

Area	Irrigation Scale (ha)	Proposed Implementation Schedule
Athi River Basin	· · ·	
Kibwezi	13,200	Phase I 87/88-90/91
		Phase II 91/92-93/94
Taita/Taveta	3,780	84/85-91/92
Muka/Kukuu	500	n.a
Sabaki	15,000	as irrigation
		potential area
Thanantu Valley	6,500	Phase 1 82/83-91/92
		Phase 11 n.a
Rubingazi	3,600	82/83-91/92
Tana River Basin	·	. .
Bura West	6,700 6,000	phase I phase II
Lower Tana	10,000	Phase 82/83-92/83
· · ·	6,800	Phase 11 n.a
	· .	as irrigation
Baringo	2,391	potential area
Kerio Valley		
Elgeyo Markwet	2,750	- do -
West Pokot	2,485	- do ~
Turkana	11,510	- do -
Nzoia	65,000	- do -
Yala	15,000	- do -
Sondu/Kiriu/Kibos	60,000	- do -
Victroria Lake Basi		
Kuja/Migori	25,000	- do -
Mara	20,000	- do -
Other	15,000	- do -

Source;

" Forward Planning 1982 - 1992", T & ARDA " General Development Plan for the Kerio Valley Basin", KVDA. " Five Year Development Plan 1983 - 1988", LBDA

Table A-IV-4

Population at Residence by Zone in Nairobi

at Present, 1986 and Future, 2000 with Growth Rates

			Unit: 1,000 Person
Zone	1986	2000	Growth Rate
No.			(1986 - 2000),%
1	52	54	0.3
2	100	132	2.0
3	55	61	0.7
4	.57	63	0.7
5	234	247	0.4
. 6	171	189	0.7
7	10	10	0
8	22	34	3.2
9	9	29	8.7
10	8	26	8.4
11	143	225	5.3
12	- 26	39	2.9
13	11	29	7.2
14	52	81	3.2
15	32	65	5.2
16	182	387	5.5
17	36	55	3.1
18 1	-	108	n.a
19 ²	-	-	-
n.a 3	-	396	n.a
Total	1,200	2,300	4.7

1:

Outside Nairobi City Boundary at present with Zone No., possible to be inside Nairobi.

2: National Park

3: Outside Nairobi at present, possible to be inside Nairobi.

Table A-IV-5

Population at Residence and Employment at Job Site by Zone at 2000

		Unit: 1,000 Person
Zone No.	Population at Residence	Employment at Job Site
1	55	262
2	147	37
3	64	42
4	66	43
5 .	253	55
6	197	11
7	10	156
8	41	18
9	34	2
10	31	1
11	3.52	26
12	46	2
13	35	3
14	97	6
15	78	11
16	462	125
17	58	46
18	129	16
19	n.a.	n.a.
n.a.	473	n.a.
Total	2,628	862

P2006 = P2000(1+0.03)⁶ adopted the rate till 2000 in case the Zonal growth rate being less than 3% E2006 = E2000(1+0.03)⁶ adopted 1% for Zone 1

Table A-	V-6	
Employment Population at		
Nairobi at Present, 1986 a	nd 2000 with	Growth Rates

Cone No.	1986	2000	Growth Rate (1986 - 2000) %
1	197,106	247,025	1.6
2	10,457	30,714	8
3	11,888	34,917	8
4	9,394	35,674	10
5	12,094	45,927	10
6	3,197	9,390	8
7	75,267	130,338	4
8	1,154	14,816	20
9	. 453	1,720	10
10	248	942	10
11	5,833	22,151	10
12	1,050	1,818	4
13	1,559	2,700	4
14	3,128	5,417	4
15	2,496	9,479	10
16	8,172	104,922	20
17	3,025	38,839	20
18	3,479	13,211	10
19	0	0	0
Total	350,000	700,000	1.5

Table A-IV-7

Population at Residence by Zone except

Nairobi at Present, 1986 and Future, 2000 and 2006

		<u></u>	Unit: 1,000 Persor
Zone No.	1986	2000	2006
20	10	20	2.7
21	10	20	27
22	45	80	97
23	45	80	97
24	45	80	97
25	45	80	97
26	45	80	97
101	590	1,168	1,395
102	395	782	934
103	58	114	136
104	467	924	1,103
105	202	399	476
106	126	249	297
107	177	350	418
108	145	287	343
109	191	378	451
110	361	528	630
111	60	88	105
112	636	929	1,110
113	1,391	2,032	2,427
114	132	193	223
115	1,127	1,647	1,968
116	705	1,030	1,231
117	399	584	697
118	887	1,296	1,548
119	320	468	559
120	666	973	1,163
121	204	337	402
123	184	303	362
124	867	1,431	1,709
125	184	304	349

Unit: 1.000 Person

Table A-IV-7 (Cont'd)

Population at Residence by Zone except

Nairobi at Present, 1986 and Future, 2000 and 2006

Unit: 1,000 Person

2006		2000	• •	1986	Zone No.
1,410		1,181		716	126
808		677		410	127
567		475		288	128
207	. ⁵	173	. N	105	129
701		587		356	130
386		323		196	131
812		680		412	132
427		358		217	133
2,439		2,043		1,181	134
1,365		1,143		661	135
1,342		1,124		650	136
2,292		1,920		1,110	137
1,424		1,193		690	138
841		706	1. A.	408	139
2,895		2,425		1,402	140
n.a.		n.a.		n.a.	141
39,046		32,700		19,800	Total

Employment Population at Job Site by Zone

except Nairobi at Present, 1986 and Future 2000 & 20006

	·		Unit:	1,000 Person
Zone No.	1986	2000	2006	:
20	4	9	11	
21	4	9	11	
22	18	31	37	
23	18	31	.37	
24	18	31	37	
25	18	31	37	
26	18	31	37	
101	231	474	566	
102	155	318	380	
103	23	47	56	
104	183	376	449	
105	79	161	192	
106	49	100	119	
107	69	141	168	
108	57	117	140	
109	75	154	184	
110	141	203	243	
111	24	34	42	
112	249	359	428	
113	545	783	935	
114	52	75	91	
115	442	632	756	
116	276	396	473	
117	156	224	267	
118	348	499	596	
119	125	180	217	
120	261	375	448	·
121	109	187	223	
122	80	137	164	
123	72	123	147	

Table A-IV-8

Table A-IV-8 (Cont'd)

Employment Population at job Site by Zone except Nairobi at Present, 1986 and Future 2000 & 2006

		1	· .	
Zone No.	1986	2000	2006	
124	340	582	695	. :
125	72	123	147	
126	281	482	576	
127	161	276	330	
128	113	194	232	
129	41	70	84	·
130	140	240	287	
131	77	132	158	
132	161	276	330	1 - A
133	85	146	174	
134	463	1,048	1,251	
135	259	465	555	
136	255	458	547	
137	435	781	933	
138	270	485	579	
139	160	287	343	: *
140	549	984	1,175	· .
141	n.a.	n.a.	n.a.	
Tota1	7,760	13,300	15,881	

	Projectic	of Manufe	Projection of Manufacturing Sector Production	tor Product.	ion		
		Average		Average	-	Average	
· ·	1981	Annual	1988	Annual	1983	Annual	2000
Commodíty		Growth	·	Growth		Growth	:
	(K 000)	Rate	(K 000)	Rate	(K 000)	Rate	(K 000)
Food Beverages	110,198	4.3%	147,967	3.6%	176,589	2.97	215,710
Textiles Clay and Glass Tlon Matallic	•		• .		·		
Material	37,008	5.0%	52,074	6.0%	69,687	6.0%	104,783
Paper	16,844	10.0%	32,824	5.0%	41,893	5.0%	58,948
Clothing Wood	:						
Furniture	21,079	4.2%	28,114	4.9%	35,711	5.0%	50,249
Fertilizer	1	3	4,650	3.6%	5,549	2.9%	6,778
Steel	I	I	ı		15,000	ł	30,000
Petroleum	25,082	2.2%	29,209	2.6%	33,209	3.0%	40,000
Other	128,909	3.5%	163,575	7.5%	253,822	8.4%	415,106
Total	339,120	4.4%	458,413	6.0%	613,460	6.0%	922,417

Table A-IV-9

I: Estimated Gross Products Source: National Transport Plan, 1984, JICA

.

Table A - IV - 10 Projection of Kenya's Economy Unit Million K£, 1981

346.9 361.4 382.4 388.2 381.3 373.2 373.2 358.8" 393.5 403.7 414.2 434.1 444.3 244.5 293.4 336.1 363.1 424.1 Foreign Funds Investiments Source of 1,081.6 511,9 494.5 520.0 547.8 577.8 610.9 645.8 682.5 721.9 763.9 808.7 856.6 907.5 962.4 1,146.8 1,215.9 ,020.1 Domestic Savings National Transport Plan, Japan International Coorporation Agency, 1984. Formation 739.0 939.2 883.9 1,181.9 1,215.4 1,301.0 l,434.3 1,506.0 1,581.2 1,660.2 858.8 813.4 I,034.0 1,063.8 L;127.0 1,366.1 1,003.3 1,095.1 Capital Sectors 3,572 1,979 2,562 2,707 2,862 3.,025 3,199 3,773 Other 1,463 I,665 2,084 2,195 2,312 2,434 3,381 1,591 1,755 1,857 Manufac-Distribution by turing 510 540 573 644 682 723 813 913 968 342 396 416 436 456 607 7.67 861 481 Sectors Culture 1,506 1,464 1,550 1,225 1,269 1,306 1,344 1,383 I,423 Agri-792 899 937 978 1,020 1,063 1,182 1,101 1,141 GDP at Factor 5,175 3,695 3,876 4,266 4,475 4,695 4,929 5,435 5,706 2,886 3,018 3,169 3,335 3,523 4,067 5,991 6,291 2,597 Cost GDP at 6,632 7,312 3,039 3,355 4,266 4,506 4,959 5,729 6,015 6,316 6,963 5,457 3,683 3,864 4,095 4,727 5,201 3,05 d.n Source: Calender 2000 Year 1989 1996 1998 1999 1984 1985 1986 1988 1990 1991 1992 1993 1994 1995 1997 1987 1981

:	- - :	Sub-divisional Names in Each Zone	· · · · · · · · · · · · · · · · · · ·
	Zone No.	Name of Road, Street and Avenue	Names of Estate, Factory, Building etc.
	01.	Aboretum Rd, Uhuru H.w, State House Rd, Dorobo Rd, Mamlaka Rd, Nyerere Rd, Milimani Rd, Valley Rd, Kenyatta Ave., Bishop Rd, Ngong Rd, Haille	Muthurwa, Railway Yd, City Square.
		Sallaise Ave, Hospital Kd, Kagati Kd, Chyulu Kd, Mara Rd, Elgon Rd. Kiambere Rd, Uasara Rd, Tom Mboya St., Moi Ave, Muindí Mbingu St., Koinange St., Parliament Rd, Harambee Ave.	
	03	Ngong Rd, Forest, Karanja Rd, Kibera Rd, Mucai Drive Rd, Kabaranet Lane, Masava Rd,	Otiende. Kibera Dríve Inn, Kibera, Woodlv, Jamhuri, Kibera, Otinde
		Kinoo Rd, Langata Rd, Mbagathi Rd, Mucia Drive, Kibera Rd, Karanja Rd.	
	03	Muranga Rd, Kilungy Rd, Elgeyo Marakwet Rd, Oloodumo Pd, Dioni Pd, Voecolo Pd, Weellerd, Pd	Kenton College, Kileleshwa Police Station St Coorcele Drimory

Table A - IV - 11

A-IV-15

Oleodume Rd, Diani Rd, Korosho Rd, Hendred Rd, Kunde Rd, Makindi Rd, Kingara Rd. Gitanga Rd, Ginge Rd, Argwing Kodhek Rd. Kindaruma Rd,

School, Kilimani Police Station, Parkland Kilimani, Upper Hill, Station, St. George's Primary

Table A - IV - 11 (Cont'd)

Sub-divisional Names in Each Zone

		Name of Estate, Factory, Buildings etc
	nguru Rd, Kieni Rd, oodland Rd,	Thompson, Woodley, Kileleshwa
Wanga Pala Rd, Iregi Rd, Githuri Rd, Ngao Rd, Suswa Rd, Ita Rd, Butabute I Masari Rd, Shivachi Rd, Mpaka Rd, Rin Muthithi Rd, Westlands Rd, Mogotio R Tarifa Rd, Muhugu Rd, Laikipia Rd, T Kiambu Rd, Old Kiambu Rd, Mau Park R	nga Rd, yakit Rd,	National, Museum, Hockey Stadium, Chiromo,
Masari Rd, Shivachi Rd, Mpaka Rd, Ri Muthithi Rd, Westlands Rd, Mogotio R Tarifa Rd, Muhugu Rd, Laikipia Rd, T Kiambu Rd, Old Kiambu Rd, Mau Park R	Mwambao Rd, d,	Westlands, Highridge, City Park, Muthaiga Golf Club,
Tarifa Rd, Muhugu Rd, Laikipia Rd, Tl Kiambu Rd, Old Kiambu Rd, Mau Park Ro	g Rd, Ojijo Rd, , Mukinduri Rd,	Muthaiga Police Station, Muthaiga Primary Sch., War
	ika Rd,	War Memorial, Lucania Day
		Nursery Sch. Gertrudes Garden
Serengeti Ave, Muthaiga Kd, Mutundu Kd, Tchui Rd,	d, Tchui Rd,	Children Hospital, Karura
Naivasha Ave., Sergoit Lane, Wambui Rd, Twiga Rd,	d, Twiga Rd,	Health Centre.

Table A - IV - 11 (Cont'd)

Sub-divisional Names in Each Zone

Zone	Name of Road, Street and Avenue	Name of Estate, Factory
No.		Buildings etc.
05	Ngara Rd, Race Course Rd, Lumbwa St, Kianyanjui St.	Bondeni, Gorofani, Eastleign,
	Waruingi St, Marimbi St, Meru Rd, Galole Rd,	Kariokor, Starehe, Ziwani,
	Second st, Third St, Fourth St, Fifth St, Sixth	Pumwani Sec. School, Pumwani
	St, Seventh St. Eighth St, Ninth St, Tenth St.	Maternity Hosp, Christian
	Eleventh St, Wood St, Twelveth St, Thirteenth	Industrial Training Centre,
	Fourteenth St, SGT Kahende St, SGT Major	Starehe Boys Centre, Eastleigh
	Kamugombe St, Mungai St, Major Kinyanjui	Primary Sch, Answorth St,
	St, Muranga Rd, Huruma Rd, Nduro-Runo, Outer	Primary Sch, St. John Community
	Ring Rd, Juja Rd, Thika Rd,	Centre, Mathari Mental Hosp.
		Mathari Police Depot, Drive
		In Cinema, Police Traffic
	·	Operation Headquarters,
		Mathari Primary Sch, E.A.P and L
		Training Sch, Utalii College
		and Hotel, Huruma, New Mathare
06		Mumias Rd, Laiboni Rd, Rubai Rd,

Mumias Rd, Laiboni Rd, Rubai Rd,

Outering Rd, Buru-Buru. Buru Buru Primary Sch.

Table A - IV - II (cont'd) Sub-divisional Names in Each Zone

No.	Name OI NOAU, SLIEEL and AVEILLE	Name of Estate, factory, Buildings etc.
07	Workshop Rd, Bunyala Rd, Commercial St, Lusaka Rd,	Mines and Geological Dept,
	Enterprises Rd, Factory St, AddiS Ababa Rd, Bamburi	Cement Works, Railway Yd,
	Rd, Changamwe Rd, Dakar Rd, Funzi Rd, Gilgil Rd,	P/T. Nairobí, South Stores,
	Homabat Rd, Isiolo Rd, Jilore Rd, Kitui Rd, Kampala	Mobil Kenya Ltd, Total
	Rd, Likoni Road, Lunga Lunga Rd, Olkarau Rd,	Nairobi Dep, Esso Nairobi Dep.
	Patel Rd, Tanga rd, Wundanyi Rd, Nanyuki Rd,	Shell Filling Plant, Agip
		Nairobi Dep, Railway Mech.
		Eng. Dep, Vehicle Inspection,
		National Youth Service,
		Nairobi Holdings, Railway
		Quaters
08	Mombasa Rd.	Villa Franca Farm, Motor Racing/
		Club, Firestone Tyre Factory.
60	Ndege Rd, Langata Park Rd, Bongani Rd, Maasai Lane, Kiho Tane Masai Rd Tamuia Rd Tanion Park Pd	Haddy, Petrol Station, Petrol Station Dominion Number
		station, pominican wurs, St. Thomas A.Q. Seminary

		Name of Estate, Factory, Builings etc.		Kabeter Veterinary Sch, Kavindin Market, Dagoreti Market, Kawangware Market.	Lavington, Bernhard, Spring Valley, City, Kianda College, Salvation Army, Kinder Garden, Strethmore College, St. Mary's School, Apostolic Delegation, Muthangari Police Station, Mts. Carmel Covent, Lavington Primary School	Highridge, Mathare, K/I/A, Agriculture Dep, Verterinary Coffee Fact. Kabete, Spring Valley, Kihingo,Clos Burn, Loresho, Parklands, St. Benoist, Barton, Kyuna, Kitisuru
Table A - IV - II (Cont'd)	Sub-divisional Names in Each Zone	Name of Road, Street and Avenue	Marua Lane, Forest Lane, Cut Line	Ngong Rd, Naivasha Rd, Wanjee Rd, Kavandin Rd, Macharia Rd, Kawangare Rd, Muthiora Rd, Kiarie Muchai Rd, Hinga Rd.	Mzima Spring Rd, Njumbi Rd, Isaak Gathanju Rd, Ndoto Rd, Mageta Rd, Othaya Rd, Maji Mazuri Rd, Mbabane Rd, St. Austins Rd, Muthangari Rd, Owashika Rd, Mugumo Rd, Munyani Rd, Kolloh Rd, Gedi Rd.	Parklands Rd, Kitisuru Rd, Redhill Rd, Taylors Rd, Marlborough Rd, Lower Kabete Rd, Peponi Rd, Waiyaki Rd, Wangapala Rd, Ring Rd, Eldamaving Rd, Ngao Rd, Suswa Rd, Mpaka Rd, Masari Rd, Shivach Rd, Spring Valley Rd, Shanzu Rd, Kyuna Rd,
		Zone No.	10	11	12	13

A-IV-19

Zone No. 15 16	Name of Road, Street and Avenue Kiambu Rd, Wambuthie Rd, Kamiti Rd. Kahawa Rd, Outering Rd, Kamiti Rd, Thika Rd Thika Rd, Outering Rd, Baba Dogo Ad, Komarock Rd. Lolwe Rd, Outering Rd, Baba Dogo Ad, Komarock Rd. Krapf Rd, Njiwa Rd, Ngiri Rd, Mwea Rd, Maseno Rd.	Name of Estate, Factory, Buildings etc. Buildings etc. Utalii Staff Quarters, Wandera Club. Kenyatta College, M/O/W Camp, Mathari Mental Hosp., Kasarani Disp, Prison, E.A.Enterprise Ltd, Concrete Pipes Ltd, Liala, Aintree, Kigwa, Ridgeway, Marurui Ruaraka P. Station, Admin. Centre, Primary School, Dawa Pharmaceuticals, Kenya Breweries Ltd, Nairobi Airport, Doonholm
17	Taxi-Way, Run-Way	Kayole, Riverside, Kahu, Njiru Embakasi Village, Doonholm,
		Embakasi Airport, Fire Fighting Training, Adm. Police Train.
		School, Chief's Camp/Sewage

Table A - IV - 11 (Cont'd)

Sub-divisional Names in Each Zone

l, Thika Rd, Baba Dogo Rd, Kamunde Rd. Street Road Avenue Highway Yard			Buildings etc.
St., Rd., Ave., H.W., Yd.,	Outering Rd, Thika I	Rd, Baba Dogo Rd, Kamunde Rd.	Dandora, Ruaraka, Karíobangi, Kamuru, Ruaraka Police Station, Dawa Pharmaceuticals, Kenya Breweries
~ ~ ~ ~	Remark:		
	St.,	et	
		ue	
		Way	
		×	
•		01	

Appendix V.

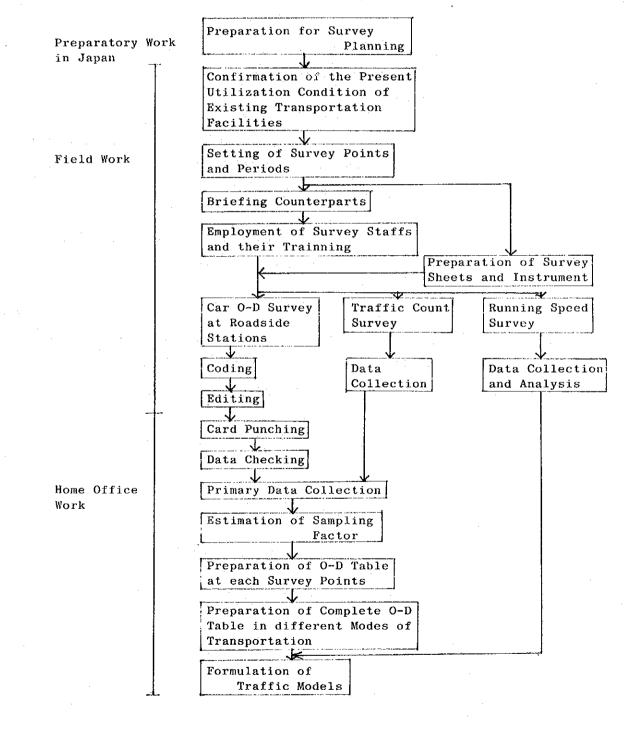
Present Traffic Survey

Appendix Collection and analysis of traffic survey data V.1

> The flow-chart of a traffic survey and the analysis is illustrated

(1)

Flow Chart of Collection and Analysis of Traffic Survey Data



(2)

Traffic Count Survey

Generally speaking, a traffic count survey aims at estimating direction, hourly and vehicle type-wise volumes of traffic, but the following four surveys are particularly proposed under this project:

(a)

d)

One-Week Traffic Count Survey

It will be conducted to investigate typical patterns of daily traffic variation.

b) 0-D Survey at Roadside Stations

It will be conducted to estimate the total traffic volumes, as the O-D survey is of sampling type.

c) Traffic Volume Survey

Volume counts are additionally made at necessary counting locations to complete the O-D survey.

Traffic Volume Survey at Intersections

It will be conducted to obtain volume data in different directions of traffic movements at major intersections of central business districts.

(3) Survey Sites

•

Site No.	Site Location	Type of Survey	No.of Date
1 .	At the Agakhan High School (104)	0.D Survey and 24 hours counts	l day
2.	At Ruaka Trading Centre (C62) (A2)	0.D Survey and Traffic Counts	- do -
3.	Thika Road at Safari Park Hotel (A2)	0.D Survey and Traffic Counts	- do -
4.	Towards Airport on C59 at the junction of C98 and C59 (C59)	0.D Survey and Traffic Counts	- do -
5.	Lusaka/Uhuru Highway Round about at Lusaka Road near the Roundabout	0.D Survey and Traffic Counts	- do -
6.	Mombasa Road Drive in Cinema	0.D Survey and Traffic Counts	- do -
7.	At Wilson Airport on (C58)	0.D Survey and Traffic Counts	- do -
8.	On Ngong Road at Kenya Science Teachers College (C61)	0.D Survey and Traffic Counts	- do -
9.	Mombasa Road and at Resort Clubs Hotel (A104)	24 hours traffic Counts only	7 days
10.	Ongata Rongai Road at the junction of C58 and C63 (C58)	0.D. Survey and Traffic Counts	l day
11.	Ngong Road C60 between Windy Ridge Road and Tree Lane	0.D Survey and Traffic Counts	l day
12.	Naivasha Road at the former Zambezi Motel (AlO4)	0.D. Survey and Traffic Counts	- do -
13.	Kiambu Road C64 at Muthaiga Golf Club (C64)	Traffic Counts Only	- do -
14.	Dagoretti Road C63 at the Bus stop on Karen Health Centre	Traffic Counts Only	- do -

Site No.	Site Location	Type of Survey	No of Date
15.	Koma Rock Road C98 (C98/ C59 junct.) at Kayole Estate Sign Board	O.D Survey and Traffic Counts	- do -
16.	At the Esso Petrol Station (C63) Langata Road C63 after C58	Traffic Counts Only	- do -
	Junction.	enterio de la composición de la composi La composición de la c	
17.	At the Uhuru-Kenyatta Roundabout	Traffic Counts Only	- do -
18.	At Kikuyu Junction C63/ A104	Traffic Counts Only	- do -

and a second second

and a second second

· · · ,

and a second second

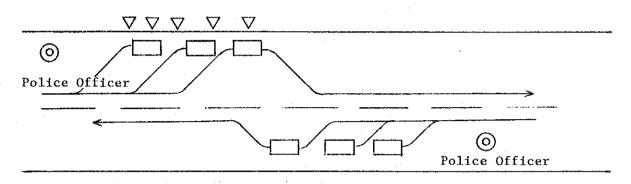
A-V-4

Arrangment of Traffic Survey Staffs

a) Roadside O-D Survey Staff

(4)

(2 parties / 10 persons)

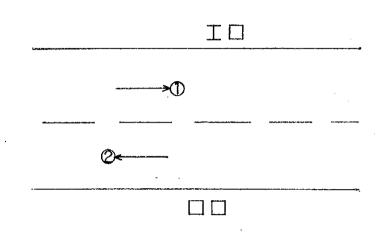


(2 parties / 10 persons)

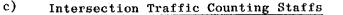
One party consists of five members of staff. All five members of staff are engaged in the interview during the peak hours, while one of these takes a rest during the off peak hours.

Selection of sample cars is made by police officers to make direct inquiry of car drivers. Two police officers at each one O-D survey points are required all the time during the O-D survey.

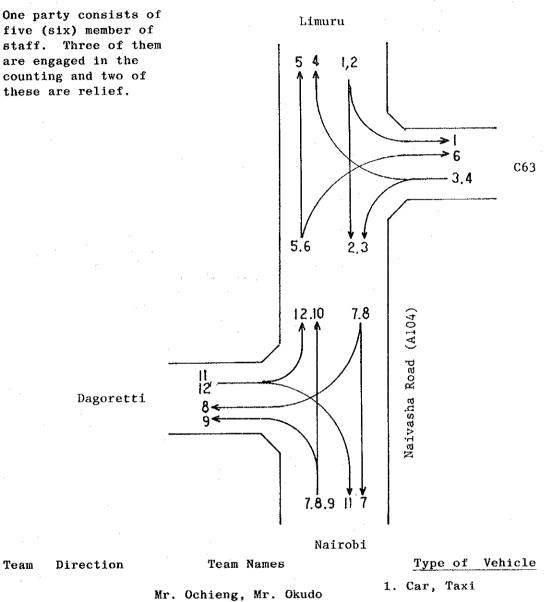
b) Traffic Count Staffs (1 parties / 2 persons)



One party consists of Two members of staff. One of them are engaged in the counting and one of these is relief.



2/12/86



1. Car, Taxi

- 2. Light goods (Include Mini-Bus, Matatu)
- 3. Medium goods
- 4. Heavy goods
- 5. Buses

Mr. Mayabi, Mr. Wanyeki Mr. Katiku, Miss Muthondu D 10 11 12 Miss Kamuhu (5)

А

(6)

в

(5)

С

(6)

 $\mathbf{2}$ 3

1

4 5 6

7 8 9 Mr. Mbari, Mr. Onyango

Mr. Mugo, Mr.Njoroge

Mr. Kuria, Mr. Alouch Mr. Otieno, Mr. Gichubi

Mr. Muga, Mr. Gichuru

Mr. Musyoki, Mr. Kamuhu

Mr. Muriu, Mr. Juma

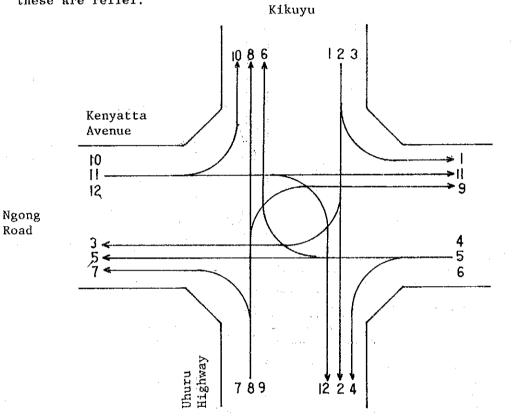
Mr. Mugo

d) Intersection Traffic Count Staffs

3/12/86

Centre

One party consists of five (six) member of staff. Three of them are engaged in the conting and two of these are relief.



Airport

Team	Direction	Team Names	Type of Vehicle
A (6)	123	Mr. Ochieng, Mr. Okudo Mr. Mbari, Mr. Onyango Mr. Mugo, Mr. Njoroge	1. Car, Taxi 2. Light goods (Include
B (5)	456	Mr. Kuria, Mr. Alouch Mr. Otieno, Mr. Gichubi Mr. Mugo	Mini-Bus, Matatu) 3. Medium goods 4. Heavy goods
C (6)	789	Mr. Muga, Mr. Gichuru Mr. Muriu, Mr. Juma Mr. Musyoki, Mr. Kamuhu	5. Buses
D (5)	10 11 12	Mr. Mayabi, Mr. Wanyeki Mr. Katiku, Miss Muthondu Miss Kamuhu	

Table A-V-1(1)

Assignment Schedule and Location by Type of Survey

Location Number of Survey Sites

Type of Survey	Team Number	umber							N	November	mbe;	் ப									Dec	December	er		
Direction	Name of Membe	of ⁻ Members	14 17	9	9	17	18	19	20	21 (0	0	24 2	25 2	26 2	27 2	28 @	6		7	m	4	ŝ	0	\odot
O-D Survey (Up)	4 A	υ N	~ ~	1 1	. 1 1	υ υ ν	00 00			 ოო			2 2	60 74	~ ~	22	נו 	ł	0101	11	ιi	11	1 1	1-1	11
O-D Survey (Down)	υA	ιΩ VΩ	~ ~	1 1	1 1	ылы́	 	9 9		 ოო	1 1	E .I	77	44	ы 9 9	1 1	 	1 1	010	11	ΕI	1 1	1-1	1-1	1 1
Traffic Counting at the O-D Point (Up)	يت ب	2	~ ~	1 1	4 1	ы С	~ - ∞ ∞	99		 ოო		1 1	5 7	44	60	12 1 12 1		1 1	10		1 1	I ł	1-1	1-1	1 1
Traffic Counting at the O-D point (Down)	Гч	7	~ ~	t I	E I	ഗഗ	 	<u>`</u> 0 0		 ოო			20	44	66	12 1 12 1	11 	11	10	· I I	Т, Т	11	. 1 - 1	1-1	13
Other Traffic Counting (Up)	U	2		11			r=4 r =4	~ ~		1 1		~ ~	51 19 19	515	ן ו סס			1 1	16 16	11	I I	11	I I	, I - I	11
Other Traffic Counting (Down)	ш	7		1 1	1 1			~~~~		1 1			្តដូ	5.0	00 00		14 - 14 -	1 1	16 16	1 1	1 1	1 1	1 1	I I	ιı
Intersection Traffic Counting	W	20	I	i	i	Ĩ	Ì	I	I	ł	1		· .	ı I	3 [1	1	I	I	18	3 17	I N	I.	I	1
Coding	N	80	ı.	I	I	1	· ·	1	1	, I				י ו	1	1	i	ł	ŧ	I	I	1	ł	1	ł
No. of Police, Officers			Ś	ı	ı	ŝ	ц	ŝ	ഹ		1		μ	ŝ	ч, M	ŝ	1	1	Ś	ł	I	ł	Т	I	1

A-V-9

Table A-V-1 (2)

Standard Hourly Shift by Type of Survey Excluding Intersection Counting

														1
Type of Survey Direction	Tean Name	Number of Team Memb er	- 7 - 7	⊳ 8 I	8 9 -9 -10	-11 -11	11 -12	12 -13	-14 -14	14 -15	-16 -16	16 -17	17 -18	I
OD Survey	A	Ś	1		I	I		J		1		ł	I	
(up)	ф	Ń		ł	1		I		ı		1		I	
O-D Survey	U	IO	I		ı	۱		I		. 1		I	ł	
(Down)	A	IJ		* I	I		1 ⁻		ł		- 1		I	
Traffic Counting at the O-D Piont (Up)	도리	N	L	i	I	I .	ч н - ч	i .	1	1	. 1	. 3	I	
Ditto (Down)	ſ Ŀ ŧ		I 	1 I I	1	I	I	1	ŧ.	ļ	. 1	1	e di le	
Other Traffic Counting(Up)	ტ	8	l	I		I	1	I	1	ļ	. 1	ł	. 1	
Ditto (Down)	щ	N N 	₽] 1 - 1	· 1	1 	₽ .	!	I	ł	: 1	I	I	I	
			-											

A-V-10

Table A - V - I (3)

Road Side O.D Questionnaire

DIALITUL NO.	Sheet	Time õf	l Type of vehicle		2 Origin		3 Destination	uo	
	No.	Interview	l Car, Taxi	5 Bus	Where	Where did the	Where will this	I this end?	1,
			2 Light Goods Vehicle	(nôn KBS)		trip begin?			-
Interviewer			3 Medium Goods Vehicles	6 Matatu	Street/To District.	Street/Town District.	Street/Town District.	цм	
			4 Heavy Goods Vehicles						
	5 Mojor		6 Trip purpose	8	epresenta	Representative passenger	6	Trúcks	
Travel Time	Points	uo	1 Go to office/working place	ing place 7	Age	8 Occupation	No. of	10	11
or time inter	route		2 Go to school			l Employer	Passenger	Loading	Type of
Spend to	Name of		3 Come back to home			2 Employer	Aboard	Capacity	Capacity Commo -
	route or		4 Business			3 Student		(tons)	dities.
	Municipality	•••••• •••••	5 Others			4 House Keeper			Carried
2 Origin	3 D	3 Destination	4 Travel 5 Major	or 6 Trip	4	8 9 No. 10		11	
Street/Town District.		Street/Town District.	Time Poi	Points Purpose	se Age	Occu. of pass	Capacity	Ме:	Weight.

Table A-V-2-1

Average Annual Daily Traffic on the Survey Stations

Station No. No. 1 Date. Time Sunday to Saturday 11-66 Date. Time Sunday to Saturday 11-66 Date. Time Sunday to Saturday 11-66 Date. Time Sunday to Saturday 11-66 Road/Inter- At Aga Khan Al04 Ratio Correction Ratio Road/Inter- At Aga Khan Al04 Factor Ratio Correction Road/Inter- At Aga Khan Al04 Ratio Correction Ratio Direction Limitu - NBB NRB - Limutu -do- -do- -do- -do- Type of Vehicle 3541 1.21 1.33 1 1 1 1.07 4585 4669 9254 To ary Taxi 3541 1.21 1.33 1 1 1 0.7 487 To ary Taxi 3541 1.26 1.21 1.33 1 1 266 9254 To ary Taxi 3541 1.26 1.20 1 1 267 267 522 To ary Weicle 195 1.466 1 <th>1</th> <th>-</th> <th></th> <th>1</th> <th></th>	1	-											1	
Direction Limuru - NRB NRB - Limuru -do- 1194 1.26 1.21 1 1 1 -do- -do- <t< th=""><th>St Da Ro se</th><th></th><th>No. 1 Sunday to 14-11-86 t 11-86 At Aga Kha High Schoo</th><th>Saturday to 23- an Al04 ol</th><th>Daily Ra</th><th>/day Time tio</th><th>Weekly Rat</th><th>Variation</th><th>Seasona Correcti Factor</th><th></th><th>7erage ≜</th><th>nnual Daily (AADT)</th><th>Traffic</th><th></th></t<>	St Da Ro se		No. 1 Sunday to 14-11-86 t 11-86 At Aga Kha High Schoo	Saturday to 23- an Al04 ol	Daily Ra	/day Time tio	Weekly Rat	Variation	Seasona Correcti Factor		7erage ≜	nnual Daily (AADT)	Traffic	
of Vehicle of Vehicle Car, Taxi 3541 3241 1.21 1.33 1 1 1 1.07 4585 4669 Light Good 1307 1194 1.26 1.21 1 1 1 -do- 1762 1564 Vehicle 185 208 1.29 1.20 1 1 1 -do- 255 267 Heavy Goods 155 164 1.39 1.46 1 1 1 -do- 231 256 Vehicle 280 1.51 1.36 1 1 1 -do- 231 256 Watatu Mini 521 537 1.19 1.29 1 1 1 -do- 663 730 bus Matatu Mini 521 537 1.2 1.53 1 1 1 -do- 58 74 Notorcycle 45 45 1.2 1.32 1 1 -do- 58 74 Sicycle 49 46 1.07 1.32 1 1 1 -do- 58 74 Others Others 6083 575 1.24 1.30 8805 8014			Limuru - N	NRB NRB - Limurı	-op- n	- do-	-op-	-do-	ł	Limuru	1 - NRB	NRB - Limuru	ı Both Di	rection
Car, Taxi354132411.211.33111.0745854669Light Good130711941.261.21111-do-17621546VehicleNehicle1852081.261.21111-do-255267Medium Vehicle1852081.291.201111-do-255267Medium Vehicle1551641.391.46111-do-231256Webicle1551641.391.46111-do-231256Bus2802801.511.391.46111-do-633730Matatu Mini5215371.191.29111-do-66374Matatu Mini5215371.191.29111-do-5874Motorcycle45451.21.32111-do-5874Bicycle49461.071.3211-do-5665Others508357551.241.3080628014	Typ	e of Vehicle												
Light Good130711941.261.2111-do-17621546VehicleVehicle1852081.291.2011267Medium Vehicle1852081.291.2011267Heavy Goods1551641.391.4611231256Vehicle1551641.391.46111260407Vehicle2802801.511.36111-do-455407Bus2802801.511.29111-do-453730Matatu Mini5215371.191.29111-do-66374busMotorcycle451.271.32111-do-5874Motorcycle49461.071.32111-do-5665Others57551.241.3080628014	• ~~1	Car, Taxi	3541	3241	1.21	1.33		1	1.07	458	35	4669	9254	* I
Medium Vehicle 185 208 1.29 1.20 1 1 -do- 255 267 Heavy Goods 155 164 1.39 1.46 1 1 -do- 231 256 Vehicle 280 280 1.51 1.36 1 1 -do- 452 407 Bus 280 280 1.51 1.36 1 1 -do- 452 407 Matatu Mini 521 537 1.19 1.29 1 1 -do- 663 730 Motorcycle 45 1.2 1.53 1 1 1 -do- 58 74 Bicycle 49 46 1.07 1.32 1 1 -do- 56 65 Others 6083 575 1.24 1.30 - - - 8062 8014	2.	Light Good Vehicle	1307	1194	1.26	1.21		FT.	-do -	176	52	1546	3308	
Heavy Goods1551641.391.4611-do-231256VehicleVehicle1111-do-452407Bus2802801.511.36111-do-452407Matatu Mini5215371.191.2911-do-663730Matatu Mini5215371.191.2911-do-653730Motorcycle451.21.53111-do-5874Bicycle49461.071.32111-do-5665Others50357551.241.3080628014		Medium Vehicle	185	208	1.29	1.20	H	Ц	-do-	25	55	267	522	
Bus2802801.511.36111-do-452407Matatu Mini5215371.191.29111-do-663730Matatu Mini5215371.191.29111-do-663730busMotorcycle451.21.53111-do-5874Motorcycle49461.071.32111-do-5665Dithers608357551.241.3080628014	4	Heavy Goods Vehicle	1.55	164	1.39	1.46	Ē	щ	-qo -	23	31	256	487	
Matatu Mini5215371.191.2911-do-663730busbus451.21.53111-do-5874Motorcycle451.21.53111-do-5665Bicycle49461.071.321115665Others608357551.241.3080628014	5	Bus	280	280	1.51	1.36	,i	•• ••	-qo-	4	52	407	859	•
Motorcycle 45 1.2 1.53 1 1 -do- 58 74 Bicycle 49 46 1.07 1.32 1 1 65 65 Dithers 6083 5755 1.24 1.30 - - 8062 8014	• •	Matatu Mini bus	521	537	1.19	1.29	rf		-do -	Ę,	23	730	1393	
Bicycle 49 46 1.07 1.32 1 1 -do- 56 65 Others 0thers 1.24 1.30 - - 8062 8014	7.	Motorcycle	45	45	1.2	1.53		Ч	-op-	: :. 1	38	74	132	
6083 5755 1.24 1.30 8062 8014	8	Bicycle Others	64	46	1.07	i			-op-		26	65	121	:
		Total	6083	5755	1.24	1.30	•			- 806	52 -	8014	16076	

A-V-12

No.No.2No.No.2The Monday 24-11-86,12 hrsNo.No.2The Monday 24-11-86,12 hrsNonday 24-11-86,12 hrsNumber ContreeC 62 At RuarakaC 62 At RuarakaAt 1Number ContreeC 62 At RuarakaAt 28Nonday 24Nonday 24Nonday 24Nonday 24Nonday 24Nonday 251.121.111.121.121.121.121.121.121.121.1	Average Annual Daily Traffic Calculation Sheet No.2 Sonday 24-11-86,12 hrs Daily/day Time Katio Ratio Ratio Ratio Ratio Sold Factor Correction Factor Antige Centre Ratio Ratio Ratio Sold araka - NRB NRB - Ruaraka Antil 100 Ratio Tata 121 121 121 121 123 124 125 127 128 129 129 129			Table A-V-2-2	-V-2-2					
No.2 No.2 Monday 24-11-86,12 hrs Daily/day Time Weekly Variation Seasonal Average Annual Daily Traffi C 62 At Ruaraka Ratio Correction (AADT) Trading Centre Ratio Correction (AADT) Trading Centre Ratio Ratio Correction (AADT) Ruaraka NNB - Ruaraka -do- -do- -do- -do- Ruaraka - NRB NRB - Ruaraka -do- -do- -do- -do- -do- -do- Ruaraka - NRB NRB - Ruaraka -do- <	No.2 No.2 Gonday 24-11-86,12 hrs Daily/day Time Weekly Variation Seasonal Average Annual Daily Traffic 6 2 At Ruaraka Ratio Correction Factor 1 2 6 2 At Ruaraka Ratio Correction Average Annual Daily Traffic reding Centre Ratio Ratio Ratio Correction radia NRB - Ruaraka -do- -do- -do- -do- araka - NRB NRB - Ruaraka -do- -do- -do- -do- -do- -do- 34 581 1.22 1.21 1/1.1 1/1.1 1.01 822 651 1,4 471 368 1.21 1.21 1/1.1 1/1.1 1.01 822 651 1,4 471 368 1.27 1.21 1/1.1 1.01 62 46 1 129 107 1.21 1.21 1/0.7 1/0.1 1.01 127 25 1 70 78 1.21 1.21 1/1.1 1.01 193 175 3 158 143 1.21 <th>No.2 Ionday 24-11-86,12 hrs : 62 At Ruaraka</th> <th>Annual</th> <th>ily Trai</th> <th>ffic Cal</th> <th>culation</th> <th>Sheet</th> <th></th> <th>**</th> <th></th>	No.2 Ionday 24-11-86,12 hrs : 62 At Ruaraka	Annual	ily Trai	ffic Cal	culation	Sheet		**	
Ruaraka - NRB NRB - Ruaraka -do- -do- -do- -do- -do- -do- ruaraka - NRB NRB - Ruaraka Both 734 581 1.22 1.22 1.22 1.22 1.21 1/1.1 1/1.1 1/1.1 375 1, 471 368 1.21 1.21 1/1.1 1/1.2 1.01 822 651 1, 471 368 1.21 1.21 1/1.1 1/1.2 1.01 375 375 cle 129 1.21 1/1.1 1/1.1 1.01 140 127 34 25 1.27 1/27 1/0.7 1/0.7 1/01 62 46 70 78 1.15 1.12 1/1.1 1.01 68 82 158 143 1.21 1.21 1/0.1 1/0.1 1.01 193 175	araka - NRB NRB - Ruaraka - do- -do- 1,4 1,4 127 1,4 127 127 127 127 127 127 127 127 127 127 127 127 127 127 127 127 127 127 127 126 146 127 126 146 127 126 <t< th=""><th></th><th></th><th>1</th><th>ekly Va Ratio</th><th>riation { Cc</th><th>Seasonal prrection Factor</th><th>Average .</th><th></th><th></th></t<>			1	ekly Va Ratio	riation { Cc	Seasonal prrection Factor	Average .		
734 581 1.22 1.22 1.22 1.11 1.11 1.01 822 651 1 471 368 1.21 1.21 1.21 1.21 1.21 1.21 375 471 368 1.21 1.21 1.11 1/1.1 1/1.2 375 cle 129 107 1.29 1.29 1/1.2 1/1.1 1.01 140 127 34 25 1.27 1/0.7 1/0.7 1.01 62 46 70 78 1.15 1.12 1/1.0 1/0.1 1.01 68 82 158 143 1.21 1.21 1/1.0 1/0.1 1.01 193 175	734 581 1.22 1.22 1.22 1.11 1/1.1 1/1.1 1.01 822 651 471 368 1.21 1.21 1.21 1.21 1.21 375 129 107 1.29 1.29 1/1.1 1/1.1 1.01 140 127 34 25 1.27 1.27 1/0.7 1/0.7 1.01 62 46 70 78 1.15 1.12 1/1.1 1.01 63 82 158 143 1.21 1.110 1/0.1 1.01 193 175 13 30 1.00 1.00 1/0.5 1/1.2 1.01 193 175 17 20 1.00 1.005 1/1.2 1.01 1.01 193 175 1626 1,352 - - - - - 25 179 1626 1,352 - - - - - 1,798 179	- NRB NRB -	5		-op-	-do-		1 I -	NRB -	Both
Taxi7345811.221.221.221/1.11/1.11.018226511c Gods4713681.211.211/1.11/1.21.018226511cle1071.211.211/1.11/1.11/1.21.01127m Vehicle1291071.291.291/291/1.21/1.11.01r Goods34251.271.271/0.71/0.746cle70781.151.151.121/1.11.016882cu Mini1581431.211.211/1.01/0.11.01193175	734 581 1.22 1.22 1/1.1 1/1.1 1/1.1 101 822 651 471 368 1.21 1.21 1.21 1.21 1/1.1 1/1.2 375 129 107 1.29 1.29 1/27 1/1.1 1/1.1 1.01 140 127 34 25 1.27 1.27 1/0.7 1/0.7 1/01 62 46 70 78 1.15 1.12 1/1.1 1.01 68 82 70 78 1.21 1.21 1/1.0 1/0.1 1.01 62 46 158 143 1.21 1.121 1/1.0 1/0.1 1.01 193 175 13 30 1.00 1/0.5 1/1.2 1.01 193 175 1626 1.352 - - - - - 17 1626 1.352 - - - - 1.01 193 17									
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	471 368 1.21 1.21 1.21 1/1.1 1/1.2 1.01 375 129 107 1.29 1.29 1/29 1/1.2 1/1.1 1.01 127 34 25 1.27 1.27 1/0.7 1/0.7 1.01 62 46 70 78 1.15 1.12 1/1.0 1/0.1 1.01 68 82 158 143 1.21 1.21 1/1.0 1/0.1 1.01 193 175 158 143 1.21 1.01 1/0.1 1.01 193 175 13 30 1.00 1.00 1/0.5 1/1.2 1.01 193 175 17 20 1.00 1.00 1/0.5 1/1.2 1.01 34 17 1626 1.352 - - - - - 1798 1798		Γ.		/1.1		1.01	822	651	1,473
Im Vehicle 129 1.29 1.29 1/1.2 1/1.1 1.01 140 127 7 Goods 34 25 1.27 1.27 1/0.7 1/0.7 1.01 62 46 cle 70 78 1.15 1.12 1/1.1 1.01 68 82 cu Mini 158 1.43 1.21 1.21 1/1.0 1/0.1 1.01 193 175	129 107 1.29 1.29 1/1.2 1/1.1 1.01 140 127 34 25 1.27 1.27 1/0.7 1/0.7 1.01 62 46 70 78 1.15 1.15 1.1.2 1/1.1 1.01 68 82 158 143 1.21 1.21 1/1.0 1/0.1 1.01 193 175 13 30 1.00 1.00 1/0.5 1/1.2 1.01 193 175 17 20 1.00 1.00 1/0.5 1/1.2 1.01 34 17 1626 1.352 - - - - - 1/498		ч.			1/1.2	1.01		375	898
Heavy Goods 34 25 1.27 1.07 1/0.7 1.01 62 46 Vehicle Nehicle 46 Bus 70 78 1.15 1.1.2 1/1.1 1.01 68 82 Matatu Mini 158 143 1.21 1.21 1/1.0 1/0.1 1.01 193 175	25 1.27 1.27 1/0.7 1/0.7 1.01 62 46 78 1.15 1.15 1.1.2 1/1.1 1.01 68 82 143 1.21 1.21 1/1.0 1/0.1 1.01 193 175 30 1.00 1.00 1/0.9 1/1.2 1.101 193 175 20 1.00 1.00 1/0.5 1/1.2 1.01 34 17 1,352 - - - - - 1.857 1498		٦.			1/1.1	1.01	140	127	267
70 78 1.15 1.1.2 1/1.1 1.01 68 82 cu Mini 158 1.43 1.21 1/1.0 1/0.1 1.01 193 175	78 1.15 1.1.2 1/1.1 1.01 68 82 143 1.21 1.21 1/1.0 1/0.1 1.01 193 175 30 1.00 1.00 1/0.9 1/1.2 1.01 15 25 20 1.00 1.00 1/0.5 1/1.2 1.01 34 17 1,352 - - - - - 1.857 1498	÷	1.		:	1/0.7	1.01	62	46	108
158 143 1.21 1.21 1/1.0 1/0.1 1.01 193 175	143 1.21 1.21 1/1.0 1/0.1 1.01 193 175 30 1.00 1.00 1/0.9 1/1.2 1.01 15 25 20 1.00 1.00 1/0.5 1/1.2 1.01 34 17 1,352 - - - - 1.857 1498					1/1.1	1.01	68	82	150
Sng	30 1.00 1.00 1/0.9 1/1.2 1.01 15 25 20 1.00 1.00 1/0.5 1/1.2 1.01 34 17 1,352 1.857 1498		• • ·			1/0.1	1.01	193	175	368
30 1.00 1.00 1/0.9 1/1.2 1.01 15	20 1.00 1.00 1/0.5 1/1.2 1.01 34 17 1,352 1.857 1498		-			1/1.2	1.01	15	25	40
20 1.00 1.00 1/0.5 1/1.2 1.01 34	1,352 1.857 1498		•			1/1.2	I.01	34	17	51
1,352 1.857 1498						1	I	1.857	1498	3,355

A--V-13

Table A-V-2-3

Average Annual Daily Traffic Calculation Sheet

St Da Ro Se	Station No. Date, Time Road/Inter- section	No. 3 Friday 21-1	No. 3 Friday 21-11-86,12 hrs	Daily/de Ratic	Daily/day Time Ratio		Weekly Variation Ratio	Seasonal Correction Factor		Average Annual Daily Traffic (AADT)	Traffic
	Direction	Thika - NRB	NRB - Thika	l op !	ndon	нор Р	- do-		Thika - NRB	NRB - Thika	Both Direction
$\mathbf{T}_{\mathbf{y}\mathbf{p}}$	Type of Vehicle			·							
• r-1	Car, Taxi	2,437	2,561	I.25	1.25	1/1.1	1/1.1	1.07	2,963	3,114	6,077
2.	Light Goods Vehicle	1,966	1,835	1.14	1.14	1/1.2	1/1.3	1.07	1,998	1,722	3,720
	Medium Vehicle	:le 618	601	1.10	1.10	1/1.1	1/1.2	1.07	661	589	1,250
4.	Heavy Goods Vehicle	150	159	1.09	1.09	1/1.2	1/1.1	1.07	146	169	315
ທີ	Bus	294	286	l.16	1.16	1/1.0	1/1.0	1.07	365	355	720
6.	Matatu Mini Bus	748	610	1.14	1.14	1/1.0	1/1.0	1.07	912	744	1656
7.	Motorcycle	48	. 60	1.00	1.00	1/0.8	1/1.2	1.07	64	54	118
80	Bicycle Others	37	30	1.00	1.00	1/0.6	1/0.8	1.07	99	52	118
	Total	6,290	6,151	• 1 ,	I	I	1.	. 1	7,175	6,799	13,974
						-					

A-V-14

	:									
· .		·				·				
				Table	Table A-V-2-4				-	
• .		Averag(e Annual	Daily T	raffic Cé	Average Annual Daily Traffic Calculation Sheet	n Sheet			
Station No. Date, Time Road/Inter-	No. 4 Tuesday 25-11-86,12 hrs A2/Thika Road		Daily/day Time Ratio	y Time	WeekLy ¹ Rat	y Variation Ratio	WeekLy Variation Seasonal Ratio Correction Factor		Average Annual Daily Traffic (AADT)	lraffic
Direction	Airport - A2	A2 - Airport	-op-	-qo -	op -	-op-	- B	Airport - A2	A2 - Airport	Both Directon
Type of Vehicle			1			*.				
Car, Taxí	935	1.201	1.45	1.45	1/1.1	1/1.1	1.01	1,245	1,954	3,199
Light Goods Vehicle	763	749	1.26	1.26	1/1.3	1/1.1	1.01	747	867	1,614
Medium Vehicle	Le 673	661	1.21	1.21	1/1.3	1/1.1	1.01	633	734	1,367
Heavy Goods Vehicle	155	136	1 - 16	1.16	1/0.9	1/1.3	1.01	202	123	325
Bus	54	51	1.52	1.52	1/1.1	1/1.1	1.01	75	71	146
Matatu Mini Bus	293	284	1.26	1.26	1/1.3	1/0.9	1.01	287	402	689
Motorcycle	20	27	1.00	1.00	1/1.8	1/0.9	1.01	r r	30	17
Bicycle Others	53	57	1.00	1.000	1/1.5	1/0.9	1.01	36	84	120
Total	2,946	3,184	I	I	I	I	ŧ	3,236	4,265	7,501

Average Annual Daily Traffic Calculation Sheet

Station No.	No. 5									
Date, Time	Monday 17-11-86,12 hrs	86,12 hrs	Daily/da	lay Time	Weekly Va	ariation	Weekly Variation Seasonal	Average A	Average Annual Daily Traffic	raffic
Road/Inter	Lusaka Road		Rat:	io	Ratio	io	Correction		(ADT)	
section							Factor			÷.,
Direction	Industrial Area - Al04	Al04 - Industrial Area	-do-	- do L	-do-	1 40 1	·1	Industrial Area - AlO4	Al04 - Industríal Area	Both Direction
Type of Vehicle										
1. Car, Taxi	4,515	5,606	1.11	1.25	1/1.1	1/1.1	1.07	5,358	6,816	12,174
2. Light Goods Vehicle	2,756	3,209	1.24	1.27	1/1.2	1/1.1	1.07	3,047	3,964	7,011
3. Medium Vehicle	cle 405	402	1.18	1.12	1/1.1	1/1.2	1.07	465	401	866
4. Heavy Goods Vehicle	211	157	1.35	1.07	1/0.7	1/0.7	1.07	435	257	692
5. Bus	60	32	1.31	1.40	1/1.1	1/1.2	1.07	76	40	116
6. Matatu Mini Bus	138	245	1.17	1.13	1/1.0	1/1.0	1.07	173	296	469
7. Motorcycle	167	192	1.10	1.10	1/1.2	1/0.9	1.07	164	151	415
8. Bicycle Others	169	174	1.00	1.05	1/1.2	1/0.5	1.07	151	391	542
Total	8,421	10,017	1	1	1	ľ	1	9,869	12,416	22,285

Refer to (Al04/No.9 Cont'd)

	Sheet		-
V-2-6	Average Annual Daily Traffic Calculation Sheet		
Table A-V-2-6	r Traff		
Ĥ	Daily		
	Annual		
	Average		
		1	,

Date, Time Wednesday Road/Inter- 12 h section A104 Mon Direction MBA - NRB Type of Vehicle 4,031 1. Car, Taxi 4,031 2. Light Goods 1,635 Vehicle	Wednesday 19-11-86,							: ; ;	
WB	12 hrs	Daily/day Ratio	ay Time io	Weekly Ra	Weekly Variation Seasonal Ratio Correctio	Seasonal Correction	Average Annual Daily Traffic (AADT)	T VILA LAILY T (AADT)	raffic
	AlO4 Mombasa Road		-	·		Factor			•
	B NRB – MBA	-op-	нор-	-do -	Р	E	MBA – NRB	NRB – MBA	Both Direction
s C									
	4,540	1.25	1.22	1/0.9	1/1.2	1.07	5,991	4,939	10,930
	1,710	1.27	1.24	1/1.2	1/1.1	1.07	1,852	2,063	3,915
Medium Vehicle 489	445	1.12	1.18	1/1.2	1.1.0	1.07	488	562	1,050
Heavy Goods 207 Vehicle	182	1.07	l.35	1/1.3	1/0.9	1.07	176	292	468
Bus 54	69	1.40	1.31	1/1.0	1/1.1	1.07	81	80	169
Matatu Mini 413 Vehicle	318	1.13	1.17	1/1.0	1/1.2	1.07	499	332	831
Motorcycle 39	76	1.10	1.10	1/1.1	1/1.5	1.07	42	60	102
Bicycle 42 Others	36	1.05	1.00	1/1.5	1/1.2	1.07	31	32	63
Total 6,910	7,376	1	ł	1	ġ	l	9,160	8,368	17,528

A-V-17

Refer to (Al04/No. 9)

Average Annual Daily Traffic Calculation Sheet

Date, T: Road/Int section	NO. Ler-	No. / riday 14-1 58/ At Wil	No. / Friday 14-11-86 12 hrs C58/ At Wilson Airport	Daily/day Rati	ay Time :io	Weekly Variation Ratio	Variation Ratio	Seasonal Correction Factor		Average Annual Daily Traffic (AADT)	Traffic
Dir	Direction La	Langata - NR	NRB NRB - Langata -do-	zata -do-	-op-	- do-	qo 	1	Langata - NRB	NRB	- Langata Both Direction
Type o	Type of Vehicle									-	
l. Ça	Car, Taxi	3,099	2,405	1.31	1.31	1/1.1	1/1.1	1.07	3,949	3,065	7,014
2. Li Ve	Light Goods Vehicle	1,293	1,184	1.20	1.20	1/1.2	1/1.3	1.07	1,386	1,169	2,555
3. Me	Medium Vehicle	239	239	1.22	1.22	1/1.1	1/1.2	1.07	284	260	544
4. He Ve	Heavy Goods Vehicle	33	26	1.09	1.09	1/1.2	1/1.1	1.07	32	28	60
5. Bus	Ŵ.	134	141	1.31	1.31	1/1.0	1/1.0	1.07	188	198	386
6. Ma Bu	Matatu Mini Bus	302	293	1.20	1.20	1/1.1	1/1.0	1.07	353	376	729
7. Mo	Motorcycle	24	29	1.00	1.00	1/0.8	1/1.2	1.07	32	26	58
8. Bi	Bicycle Others	12	6	1.00	1.00	1/0.6	1/0.8	1.07	21	12	33
To	Total	5,136	4,326	• 1	I	• 1	:	: F	6,245	5,134	11,379

Refer to (C58/2)

Average Annual Daily Traffic Calculation Sheet

	NDRØ	Station No. Date, Time Road/Inter- section	No. 8 Tuesday 18-11-8 C61/ Ngong Road	No. 8 Tuesday 18-11-86, 12 hrs C61/ Ngong Road	Daily/ Ra	y/day Time Ratio	Weekly V Rat	Daily/day Time Weekly Variation Ratio	Seasonal Correction Factor	Average A	Average Annual Daily Traffic (AADT)	raffic
2,289 2,189 1.23 1.23 1.23 1/1.1 1/0.9 1.07 1,088 998 1.24 1.24 1/1.4 1/1.1 1/0.1 1,088 998 1.24 1.24 1/1.3 1/1.1 1.07 21 1/17 1.17 1/1.1 1/1.1 1.07 31 21 1.17 1.17 1/1.3 1/0.7 300 195 1.22 1.22 1/1.1 1/0.9 1.07 338 273 1.24 1.24 1/1.3 1/0.9 1.07 338 273 1.24 1.24 1/1.3 1/0.9 1.07 113 80 1.00 1.00 1/1.6 1.07 1.07 4,386 4,057 -		Direction		NRB - Dagoretti	- фо т	-do-	-op-	-op-	1	Dagoretti - NRB	NRB - Dagoretti	Both Direction
Car, Taxi2,2892,1891.231.231/1.11/0.91.07Light Goods1,0889981.241.241.241/1.31/1.11.07Vehicle1701491.241.241/1.31/1.11.07Medium Vehicle1701491.241.241/1.31/1.11.07Heavy Goods31211.171.171/171/1.31/0.9Bus3001951.221.221/241/1.31/0.91/07Bus3001951.241.241/1.31/0.91/07Bus3382731.241.241/1.31/0.91.07BusMotorcycle57521.001.001.091.07Bicycle113801.001.001/1.51/0.91.07Chers4,057	TY	e of Vehicle										
Light Goods1,0889981.241.241/1.31/1.11.07VehicleVehicle1701491.241.241/1.31/1.11.07Medium Vehicle1701491.241.241/1.31/1.11.07Heavy Goods31211.171.171/1.31/0.91/1.1Nehicle3001951.221.221/1.11/1.11/07Bus3001951.241.241/1.31/0.91/07Matatu Mini3382731.241.241/1.31/0.91/07BusMotorcycle57521.001.001/0.91.07Bicycle113801.001.001/1.51/0.91.07Cteal4,3864,057	Τ.	Car, Taxi	2,289	2,189	1.23	1.23	1/1.1	1/0.9	1.07	2,739	3,201	5,940
Medium Vehicle1701491.241.241/1.31/1.11.07Heavy Goods31211.171.171/0.91/1.31.07Vehicle3001951.221.221/1.11/1.11.07Bus3001951.221.221/1.11/1.11.07Matatu Mini3382731.241.241/1.31/0.91.07Bus3382731.241.241/1.31/0.91.07BusMotorcycle57521.001.001.001.07Bicycle113801.001.001/1.51/0.91.07Cthers1134,3864,057	2	Light Goods Vehicle	1,088	668	1.24	1.24	1/1.3	1/1.1	1.07	1,110	1,204	2,314
Heavy Goods31211.171.171.171/1.31.07Vehicle3001951.221.221/1.11/1.11.07Bus3382731.241.241/1.31/0.91.07Matatu Mini3382731.241.241/1.31/0.91.07BusMotorcycle57521.001.001/0.91.07Bicycle113801.001.001/1.51/0.91.07Others7521.001.001/1.51/0.91.07Total4,3864,057	ς. Γ	Medium Vehicl		149	1.24	1.24	1/1.3	1/1.1	1.07	174	180	354
Bus3001951.221.221/1.11/1.11.07Matatu Mini3382731.241.241/1.31/0.91.07BusMotorcycle57521.001.001/0.91.07Bicycle113801.001.001/1.51/0.91.07Chers113801.001.001/1.51/0.91.07Total4,3864,057	4	Heavy Goods Vehicle	31	21	1.17	1.17	1/0.9	1/1.3	1.07	43	20	63
Matatu Mini 338 273 1.24 1.13 1/0.9 1.07 Bus Bus 57 52 1.00 1.00 1.09 1.07 Motorcycle 57 52 1.00 1.00 1/1.8 1/0.9 1.07 Bicycle 113 80 1.00 1.00 1/1.5 1/0.9 1.07 Dithers 4,386 4,057 -	ъ.	Bus	300	195	1.22	1.22	1/1.1	1/1.1	1.07	356	350	706
57 52 1.00 1.00 1/1.8 1/0.9 1.07 113 80 1.00 1.00 1.00 1/1.5 1/0.9 1.07 4,386 4,057 - - - - - -		Matatu Mini Bus	338	273	1.24	1.24	1/1.3	1/0.9	1.07	354	402	747
<pre>le 113 80 1.00 1.00 1/1.5 1/0.9 1.07 s 4,386 4,057</pre>	7.	Motorcycle	57	52	1.00	1.00	1/1.8	1/0.9	1.07	34	62	96
4,386 4,057	α	Bicycle Others	113	80	1.00	1.00	1/1.5	1/0.9	1.07	81	- 56	176
		Total	4,386	4,057	ı	ł	1	ŝ	ı	4,882	5,514	10,396

A-V-19

Refer to (C61/3)

Average Annual Daily Traffic Calculation Sheet.

Station No. Date, Time Road/Inter- section	No. 9 26-11-86 to 27-11-86 AlO4 at the Resort C	No. 9 26-11-86 to 27-11-86 A104 at the Resort Club	Daily/ R	/day Time Ratio	Daily/day Time Weekly Variation Ratio Ratio		Seasonal Correction Factor	Average	Average Annual Daily Traffic (AADT)	ly Traffic
Direction	Athiriver - NRB	NRB - Athiriver	-do-	-op-	-do-	-do-	a a	Athiriver - NRB	NRB - Athiriver	Both Direction
Type of Vehicle			-							
<pre> Car, Taxi </pre>	801	741	1.25	1.22	1/0.9	1/1.2	1.01	1,124	761	1,885
5	442	437	1.27	1.24	1/1.2	1/1.1	1.01	472	496	968
3. Medium Vehicle	460	374	1.12	1.18	1/1.2	1/1.0	1.01	434	977	880
4. Heavy Goods Vehicle	309	228	T.07	1.13	1/1.3	1/0.9	1.01	257	345	602
5. Bus	82	102	1.40	1.31	1/1.0	1/1.1	1.01	116	123	239
6. Matatu Mini	130	121	1.13	1.17	1/1.0	1/1.2	1.01	155	119	274
Bus							•			

27

'n

~

20 16

1.01

1/1.2 1.01

1/1.5 1/1.5

1.10 1.00

1.10

30.

20

Motorcycle

7. Mou---8. Bicycle Others

4,894

ŧ

ŧ

1.01

i

I

1.23

1.19

2,016

22,272

Total

Average Annual Daily Traffic Calculation Sheet

Average Annual Daíly Traffic (AADT)	Ongata Rongai - NRB Both Direction - NRB Ongata Rongai		911 930 1,641	392 306 698	96 123 219	9 17 26	42 42 84	131 105 236	11 8 19	32 14 46	1,624 1,345 2,969
Seasonal Correction Factor	- Оп <u></u>		1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	I
	do		1/1.1	1/1.1	1/1.1	1/0.7	1/1.0	1/1.0	1/1.2	1/1.2	1
Weekly Variation Ratio	-do-		1/1.1	1/1.2	1/1.2	1/0.7	1/1.0	1/1.0	1/0.9	1/1.2	ł
Daily/day Time Ratio	-do-		1.27	1.16	1.06	1.00	1.31	1.16	1.00	1.00	i
Daily/day Ratio	-do- ti		1.27	1.16	1.06	1.00	1.31	1.16	1.00	1.00	Ι.
86,12 hrs t C58 and C63)	- NRB Ongata Rongai	• •	626	313	126	12	35	90	10	17	1,229
No. 10 Monday 1-12-86,12 hrs (Junction at C58 and C58 and C63)	Ongata Rongai - NRB		781	368	108	Q	38	112	10	16	1,439
Station Date, Time M Road/Inter- (section	Direction On	Type of Vehicle	Car, Taxi	Light Goods Vehicle	Medium Vehicle	Heavy Goods Vehicle	Bus	Matatu Mini Bus	Motorcycle	Bicycle Others	Total

A-V-21

Refer to C58/3

Average Annual Daily Traffic Calculation Sheet

S R D A S R D A	Station No. Date, Time Road/Inter- section	No. 11 Friday 20-11-8 C60 Ngong Road	No. 11 Friday 20-11-86 12 hrs C60 Ngong Road	Daily/da Rat	Daily/day Time Ratio	Weekly Variation Ratio	ariation io	Seasonal Correction Factor		Average Annual Daily Traffic (AADT)	y Traffic
	Direction	Ngong - NRB	NRB – Ngong	opı	-do-	l ob I	-op-	ł	Ngong - NRB	NRB - Ngong	Both Direction
Typ	Type of Vehicle					-	-	-			
	Car, Taxi	978	590	1.45	1.45	1/1.1	1/1.1	1.01	1,302	786	2,088
∾ ₩-22	Light Good Vehicle	515	607	1.63	1.63	1/1.2	1/1.3	1.01	707	518	1,225
ę	Medium Vehicle	le 119	116	1.50	1.50	1/1.1	1/1.2	1.01	164	146	310
4.	Heavy Goods Vehicle	10	4	1.00	1.00	1/1.2	1/1.1	1.01	co	Υ Π	1
ς.	Bus	47	6.7	1.37	1.37	1/1.0	1/1.0	1.01	65	68	133
.	Matatu Mini Bus	95	103	1.63	1.63	1/1.1	1/1.0	1.01	142	170	312
7.	Motorcycle	20	. 14	1.00	1.00	1/0.8	1/1.2	1.01	25	12	37
ω.	Bicycle Others	37	31	1.00	1.00	1/06	1./0.8	1.01	62	39	101
	Total	1,821	1,316	1	ł	t	I	ł	2,475	1,742	4,217
				-							

A-V-22

Refer to C60/1

٠

Station No. Date, Time Road/Inter- section	No. 12 Thrusday 27-11-86, AlO4 Naívasha Road	No. 12 Thrusday 27-11-86,12 hrs AlO4 Naívasha Road	Daily/day Ratio		Time Weekly Variation Ratio		Seasonal Correction Factor	Average Annaul Daily Traffic (AADT)	aul Daily ¹ (AADT)	raffic
Direction	Limuru - NR	Limuru - NRB NRB - Limuru	-do-	- qo -	-qo-	- do -	ł	Limuru - NRB NRB -	- Limuru Bo	Limuru Both Direction
Type of Vehicle	e									
. Car, Taxi	510	496	1.12	1.33	1/1.2	1/1.0	1.01	519	654	1.193
. Light Goods Vehicle	ls 425	418	1.26	1.21	1/1.0	1/1.1	1.01	541	464	I,005
. Medium Vehicle	nicle 194	207	1.29	1.20	1/1.1	1/1.3	1.01	320	193	423
 Heavy Goods Vehicle 	ls 109	162	1.39	1.46	1/1.1	1/1.1	1.01	216	217	433
5. Bus	127	112	1.51	1.36	1/1.0	1/1.2	1.01	194	128	322
6. Matatu Mini Bus	ii 178	124	1.19	1.27	1/1.2	1/1.4	1.01	178	114	292
. Motorcycle	6	14	1.20	1.53	1/1.2	1/1.2	1.01	თ	18	27
8. Bicycle Others	15	11	1.07	1.32	1/1.4	1/1.0	1.01	12	15	27
Total	1,627	1,544	I	I	, I	ł	, I	1,899	1,803	3.702

Refer to No. 1

Average Annual Daily Traffic Calculation Sheet

Date, Time Road/Inter- section	Monday 24-11-86,12 hrs (At Muthaiga C64 Golf- Club)	-11-86,12 hrs .ga C64 Golf- Club)	Daily/day Ratio	ay time io	Weekly Ra	Weekly Varíation Seasonal Ratio Correctio Factor	Seasonal Correction Factor	Average	Annual Daily Traffic (AADT)	r Traffic
Direction	Kiambu - NRB	NRB - Kiambu -do-	-op- nc	-op-	-qo-	-op-	• 1	Kiambu - NRB NRB	<pre>8 - Kiambu Both Direction</pre>	th Direction
Type of Vehicle						-				
l. Car, Taxi	1,408	973	1.22	1.11	1/1.1	1/1.1	1.01	1.277	1.090	2,667
 Light Goods Vehicle 	5 783	492	1.21	1.21	1/1.1	1/1.2	1.01	870	501	1,371
3. Medium Vehicle	icle 102	71	1.29	1.29	1/1.2	1/1.1	1.01	111	84	, 195
4. Heavy Goods Vehicle	ŝ	œ	1.27	1.27	1/0.7	1/0.7	1.01	6	5	24
5. Bus	107	92	1.15	1.15	1/1.2	1/1.2	1.01	104	97	201
6. Matatu Mini Bus	L 205	153	1.21	1.21	1/1.0	1/1.0	1.01	251	187	438
7. Motorcycle	Ф	10	1.00	1.00	1/0.9	1/1.2	1.01	10	œ	18
8. Bicycle Other	17	14	1.00	1.00	1/0.5	1/1.2	1.01	34	12	46
Total	2,636	1,813	1	Ľ	ł	T	I	2,966	1,994	4,960

A-V-24

Refer to C62/11

Average Annual Daily Traffic Calculation Sheet

	Station No.	No. 14									-
	Date, Time Road/Inter-	Friday 28-11-86, 1 C63/Dagoretti Road	Friday 28-11-86, 12 hrs C63/Dagoretti Road	Daily/day Ratio	ay time io	Weekly Ra	y Variatio Ratio	Weekly Variation Seasonal Ratio Correction	Avera	Average Annual Daily Traffic (AADT)	<pre>[1y Traffic])</pre>
l	Direction	Dagoretti - Karen	Karen - Dagoretti	нр -	- qo -	-op-	I do I	ſ	Dagoretti - Karen	Karen - Dagoretti	Both Direction
$\mathbf{T}_{\mathbf{y}}$	Type of Vehicle										
.	Car, Taxi	351	280	1.30	1.30	1/1.1	1/1.1	1.01	419	334	753
~. A-V-	Light Goods Vehicle	191	212	1.13	1.13	1/1.2	1/1.3	1.01	182	186	368
ຕ່ -25	Medium Vehicle	55	53	1.03	1.03	1/1.1	1/1.2	1.01	52	46	98
4.	Heavy Goods Vehicle	ω	4	1.00	1.00	1/1.2	1/1.1	1.01	7	4	P4 P4
ς.	Bus	.12	16	1.19	1.19	1/1.0	1/1.0	1.01	14	23	37
6.	Matatu Mini Bus	13	15	1.13	1.13	1/1.1	1/1.0	1.01	13	17	30
7.	Motorcycle	ŝ	4	1.00	1.00	1/0.8	1/1.2	1.01	v	, M	6
÷.	Bicycle Others	18	47	1.00	1.00	1/0.6	1/0.8	1.01	30	59	89
	Total	653	631	I	I	Ĩ	I	I	723	672	1,395

Refer to C63/2

Average Annual Daily Traffic Calculation Sheet

Weekly Variation Seasonal Average Annual Daily Traffic Ratio Correction Factor	-dodo Kangundo - C59 - Both Direction C59 Kangundo		1/1.1 1/0.9 1.01 1.210 1.150 2.360	1/1.1	1/1.3 1/1.1 1.01 504 689 1.193		1/1.1 1/1.1 1.01 60 65 125	1/1.3 1/0.9 1.01 182 266 448	1/1.8 1/1.9 1.01 12 26 38	1/1.5 1/0.9 1.01 7 18 25	
Daily/day Time Week Ratio	-do-		1.22	1.18	1.07	1.00	1.29	1.18	1.000	1.00	1
	C59do- Kangundo		840 1.22	646 1.18	641 1.07	54 1.00	55 1.29	201 1.18	23 1.00	16 1.00	2.476 -
No. 15 Tuesday 25-11-86,12 hrs C98/Komo Rock Road	Kangundo - C59 1		1.080	599	cle 606	64	51	199	22	11	2.632
Station No. Date, Time Road/Inter- section	Direction	Type of Vehicle	l. Car, Taxí	 Light Goods Vehicle 	3. Medium Vehicle	4. Heavy Goods Vehicle	5. Bus	6. Matatu Mini Bus	7. Motorcycle	8. Bicycle Others	Total

Refer C98/1

	•									
Station No. Date, Time Road/Inter- section	No. 16 Monday 1-12- Langata Road	No. 16 Monday 1-12-86, 12 hrs Langata Road	Daily/day Rati	//day Time Ratio	Weekly Var Ratio	Weekly Variation Ratio	Seasonal Correction Factor		Average Annual Daily Traffic (AADT)	ily Traffic)
Direction	Dagorettí - Wílson Airport	Wilson Airport - Dagoretti	г Чо г	- do -	- qo -	н фо т	I	Dagoretti - Wilson Airport	Wilson Airport - Dagoretti	Both Direction
Type of Vehicle										
Car, Taxi	1,180	1,026	1.31	1.31	1/1.1	1/1.1	1.01	1.419	1.234	2,653
Light Goods Vehicle	502	667	1.19	1.19	1/1.1	1/1.2	1.01	549	500	1,049
Medium Vehicle	e 79	06	1.15	1.15	1/1.2	1/1.1	1.01	76	56	171
Heavy Goods Vehicle	20	20	2.00	1.00	1/0.7	1/0.7	1.01	58	58	116
Bus	29	27	1.19	1.19	1/1.0	1/1.1	1.01	29	30	59
Matatu Mini Bus	20	27	1.19	1.19	1/1.0	1/1.1	1.01	24	30	54
Motorcycle	16	22	1.00	1.00	1/0.9	1/1.2	1.01	18	19	37
Bicycle Others	17	15	1.00	1.00	1/0.5	1/1.2	1.01	34	13	47
Total	1,863	1,726	I	I	ı	ł	ı	2.207	1.979	4.186

A-V-27

Refer C63/24

Average Annual Daily Traffic Calculation Sheet

Direction pe of Vehicle Car, Taxi	Round-about to South	t ture	Daily/day Ratio	ky Tíme	Weekly Var Ratio	ariation io C	Daily/day Time Weekly Variation Seasonal Ratio Ratio Faction Factor		Average Annual Daily Traffic (AADT)	/ Traffic
Type of Vehicle 1. Car, Taxi	Airport - NRB NRB - Airport	(B - Airport	- qo-	-op-	-do-	lop i		Airport - NRB	NRB - Airport Both	t Both Direction
	4,739	10,810	1.25	1.22	1/0.9	1/1.2	1.01	6,648	11,100	17,748
 Light Goods Vehicle 	2,997	2,997	1.22	1.22	1/1.1	1/1.1	1.01	3,357	2,776	6,133
3. Medium Vehicle	398	495	1.12	1.18	1/1.2	1/1.0	1.01	375	590	965
4. Heavy Goods Vehicle	137	157	1.07	1.35	1/1.3	1/0.9	1.01	114	238	352
5. Bus	92	63	1.40	1.17	1/1.0	1/1.1	1.01	130	68	198
6. Matatu Mini Bus	1	ł	je je	1	I	I	1 · .	I	I	:
7. Motorcycle	. I	I	I	t	I	J	1	İ.	1	ì
8. Bicycle Others	: 1.	I			2. 1	t	a Mali	I	1 1 1 1 1 1 1	ł
Total	I :	. I .	•	1	ŧ.		ş	1	1	25,396

Average Annual Daily Traffic Calculation Sheet

•

St Da Se	Station No. Date, Time Road/Inter- section	No. 17 Wednesday Kenyatta Avenue toEast	nue toEast	Daily/de Rat	/day Time Ratio	Weekly V. Ra	· Variation Ratio	Daily/day Time Weekly Variation Seasonal Ratio Ratio Correction Factor	Average	Average Annual Daily Traffic (AADT)	Traffic
3	Directin	Centre - Ngong	Ngong - Centre	-qo-	-do-	- qo -	-op-	3	Centre - Ngong	Ngong - Centre	Both Direction
Typ	Type of Vehicle										
	Car, Taxi	10,202	11,481	1.25	1.22	1/0.9	1/1.2	1.01	14,311	11,789	ł
ณ์ 20	Light Goods Vehicle	27,738	3,845	1.22	1.22	1/1.1	1/1.1	1.01	3,037	4,307	I
÷.	Medium Vehicle	95	164.	1.12	1.18	1/1.2	1/1.0	1.01	06	195	1
4.	Heavy Goods Vehicle	592	753	1.40	1.17	1/1.0	1/1.1	1.01	837	809	ł
ۍ. ۲	Bus	I	ı	I	ł	1	ł	1	I	ł	ı
6.	Matatu Mini Bus	!	I	1	I .	I	I	I	L ·	I	I
7	Motorcycle	ł	ł	I	ł	I	ł	ł		I	ł
8°.	Bicycle Others	I	I	I	J	ŧ	1	I	1	1	. 1
	Total	13,638	16,265	ł	I.	I	I	ł	18,284	17,133	I

A--V--29

Average Annual Daily Traffic Calculation Sheet

		Wednesday Uhuru Highway to Nairobi	Daily/day Rati	day Time Ratio	Weekly ' I	Variation Ratio	Weekly Variation Seasonal Ratio Correction Factor		Average Annual Daily Traffic (AADT)	y Traffic
Direction L	Limuru - NRB NRB - Limuru -do-	IRB - Limuru	-op-	=do=	-op-	-op-	9	Limuru - NRB	Limuru - NRB NRB - Limuru Both Direction	oth Direction
Type of Vehicle								-		
1. Car, Taxi	13,614	8,990	1.21	1.33	1/0.9	1/1.2	1.01	18,486	10,064	ţ
 Light Goods Vehicle 	3,054	2,496	1.24	1.23	1/1.1	1/1.1	1.01	3,477	2,819	4
3. Medium Vehicle	e 455	336	1.29	1.20	1/1.2	1/1.0	1.01	767	407	ŀ
4. Heavy Goods Vehicle	149	120	1.39	1.46	1/1.3	1/0.9	10.1	161	197	ا .
5. Bus	122	41	1.51	1.36	1/1.0	1/1.1	1.01	186	51	
6. Matatu Mini	ł	ł	I	I	I	I		ı	I	ł
Bus	•				-					
7. Motorcycle	ł	1	ł	: f .	1		ļ	I	I .	ļ
8. Bicycle Others	I	i	ł	I	1	1	1]	2	2
Total	17,394	11,983	I,	ľ	1	1	ŧ,	22,804	13,538	ł

.

Average Annual Daily Traffic Calculation Sheet

Station No. Date, Time Road/Inter. section	No. 17 - Kenyatta Ave	No. 17 - Kenyatta Avenue to West	Daily/d R	day Time Ratio	Daily/day Time Weekly Variation Ratio Ratio	aríation io	Seasonal Correction Factor		Average Annual Daily Traffic (AADT)	ffic
Direction	Ngong – NRB	NRB - Ngong -do-	-op-	-do-	- do -	-do-	I	Ngong - NRB	NRB - Ngong Both Direction	Direction
Type of Vehicle										
. Car, Taxi	8,564	10,574	1.21	1.31	1/0.9	1/1.2	1.01	11,629	11,837	I
 Light Goods Vehícle 	2,880	2,850	1.24	1.23	1/1.1	1/1.1	do	3,279	3,219	ł
. Medium Vehicle	le 125	78	1.29	1.20	1/1.2	1/1.0	qo	136	95	<u>,</u> I
. Heavy Goods Vehicle	26	24	1.39	1.46	1/1.3	1/0.9	do	28	68	I
. Bus	694	643	1.51	1.36	1/1.0	1/1.1	qo	1,058	803	i
6. Matatu Mini Bus	I	I	ł	٤	I	I	· 1	I	I	I
. Motorcycle	I	ł	I	ł	ı	}	I	đ	. 1	I
8. Bicycle Others	I	1	I	I	ı	i	i	I	I	I
Total	12.289	14.169	ı		I	:		16 100		

Average Annual Daily Traffic Calculation Sheet

Road/Inter- section	C63 to East		Ratio	, ,	, Ratio		Correction Factor	·	(AADT)	
ion	Kiambu - Al04 Al04 - Kiambu -do-	A104 - Ki	ambu -do-	н ор 1	-op-	н ор н	ł	Kiambu - AlO4	Kiambu - AlO4 AlO4 - Kiambu I	Both Direction
Type of Vehicle										
Car, Taxi	147	116	1.30	1.30	1/1.0	1/1.0	1.01	193	152	345
Light Goods Vehicle	061	155	1.13	1.13	1/1.1	1/1.1	1.01	197	161	358
Medium Vehicle	e 39	25	1.00	1.00	1/1.1	1/1.1	1.01	37	24	61
Heavy Goods Vehicle	12	Ϋ́	1.00	1.00	1/1.1	1/1.1	1.01	11	13	14
Bus	. 27	14	1.15	1.15	1/1.1	1/1.1	1.01	29	15	77
Matatu Mini Bus	I	- I		1	2	E.	1 -			₽
Motorcycle	• I	E	I	I	ł	1	I	I		1
8. Bicycle Others	I	1 · ·	f	1	Ϊ.	ан (,	1	t	1	1 1
Total	415	312	ł	1	1	1	I .		1	822

Average Annual Daily Traffic Calculation Sheet

S	Station No.	No. 18			.*	- - -		- - - -			
Å Å Å	Date, Time Road/Inter-	 Al04 To North		Daily/day Ratic	Time	Weekly Variation Ratio	Variation Ratio	Cor	Average Annual Daily Traffic (AADT)	al Daily T (AADT)	raffic
ā	tion	Limuru - NRB NRB - Limuru -do-	- Limuru	-qo-	-qo-	do	-do-	r acror	Limuru - NRB NRB - Limuru Both Direction	- Limuru B	oth Direction
Ty ₁	:le	-									
Ι.	Car, Taxi	686	604	1.21	1.33	1/1.1	1/0.9	1.01	762	902	1,664
~ ∧-V-	Light Goods Vehicle	806	729	1.24	I.23	1/1.3	1/1.0	1.01	776	906	1,682
	Medium Vehicle	233	213	1.29	1.20	1/1.3	1/1.1	1.01	234	235	469
4	Heavy Goods Vehicle	154	177	1.39	1.46	1/0.9	1/1.1	1.01	240	201	441
5.	Bus	124	63	1.51	1.36	1/1.1	1/1.1	1.01	176	116	292
6.	Matatu Míní Vehicle	1	I	I	I	I	ł	I	I	I	ł
7.	Motorcycle	i.	ł	I	i	I	ı	I	. 1	I	ŧ.
°.	Bicycle Others	ł	1	I	I	1 ·	I	 I	I	I	1.
	Total	2,006	1,816	ł	1	ł	1	I	⁻ 1	t	4,548
							-				

(Cont'd From No. 18 - 1)

Average Annual Daily Traffic Calculation Sheet

Section with C63 Factor Factor Direction Limuru - NRB NRB - Limuru - Go- -do- - Limuru - NRB NRB - Limuru Both Direction ype of Vehicle 681 1.21 1.33 1/1.1 1/0.09 1.01 743 943 1,686 . Nehicle 182 212 1.29 1.20 1/1.3 1/1.1 1.01 220 204 424 Vehicle 182 212 1.39 1/1.1 1.01 220 204 424 Vehicle 118 113 1.51 1.36 1/1.1 1.01 205 204 424 Natau Mini - - - - - - - - - - - - - - -	ertion	Tuesday 2-12-86,12 hrs Al04 At Kikuyu Junc	hrs	Daily/day Rati	day Time Ratio	Weekly Var Ratio	ariation io	Time Weekly Variation Seasonal O Ratio Correction		Average Annual Daily Traffic (AADT)	Traffic
Limuru - NRB NRB - Limuru - do- -do- -do- -do- -do- -do- -do- Limuru - NRB NRB - Limuru - NRB NRB - cle cle		with C63						Factor			
638 681 1.21 1.33 1/1.1 1/0.9 1.01 709 1,016 771 759 1.24 1.23 1/1.3 1/1.0 1.01 743 943 cle 182 212 1.29 1.20 1/1.3 1/1.1 1.01 743 943 cle 182 212 1.29 1.20 1/1.3 1/1.1 1.01 743 943 cle 182 212 1.29 1.20 1/1.3 1/1.1 1.01 220 204 118 113 1.51 1.36 1/1.1 1/1.1 1.01 220 204 118 113 1.51 1.36 1/1.1 1/1.1 1.01 220 204 - - - - - - - - - - - - - 118 113 1.51 1.36 1/1.1 1.01 164 141 - - - - - - - - - -		Limuru - NRB NRB	- Limuru	-op-	-op-	-do-	-do-	L		ł	3oth Direction
638 631 1.21 1.33 1/1.1 1/0.9 1.01 709 1.016 s 771 759 1.24 1.23 1/1.3 1/1.0 1.01 743 943 icle 182 212 1.29 1.20 1/1.3 1/1.1 1.01 743 943 icle 182 212 1.29 1.20 1/1.3 1/01 234 s 141 180 1.39 1.46 1/0.9 1/1.1 1.01 220 204 i 1 180 1.39 1.46 1/0.9 1/1.1 1.01 220 204 i -	pe of Vehicle										
s 771 759 1.24 1.23 1/1.3 1/1.0 1.01 743 943 icle 182 212 1.29 1.20 1/1.1 1.01 182 234 s 141 180 1.39 1.46 1/0.9 1/1.3 1.01 220 204 i 118 113 1.51 1.36 1/1.1 1/1.1 220 204 i - - - - - - - - - i 1 1.3 1.51 1.36 1/1.1 1/1.1 200 204 i - - - - - - - - - - - i - <t< td=""><td>Car, Taxí</td><td>638</td><td>681</td><td>1.21</td><td>1.33</td><td>1/1.1</td><td>1/0.9</td><td>1.01</td><td>209</td><td>1,016</td><td>1,725</td></t<>	Car, Taxí	638	681	1.21	1.33	1/1.1	1/0.9	1.01	209	1,016	1,725
icle 182 212 1.29 1.20 1/1.3 1/1.1 1.01 182 234 s 141 180 1.39 1.46 1/0.9 1/1.3 1.01 220 204 118 113 1.51 1.36 1/1.1 1/1.1 1.01 164 141 i	Light Goods Vehicle	771	759	1.24	1.23	1/1.3	1/1.0	1.01	743	943	1,686
s 141 180 1.39 1.46 1/0.9 1/1.3 1.01 220 204 1 118 113 1.51 1.51 1.36 1/1.1 1/1.1 1.01 164 141 1 - - - - - - - - 1 - - - - - - - - 1 - - - - - - - - - 1 - - - - - - - - - - - 1 -	Medium Vehicl		212	1.29	1.20	1/1.3	$1/1 \cdot 1$	1.01	182	234	416
118 113 1.51 1.51 1.64 141 - - - - - - - - - - - - - - - - - - - - - - - - - - - - </td <td>Heavy Goods</td> <td>141</td> <td>180</td> <td>1.39</td> <td>1.46</td> <td>1/0.9</td> <td>1/1.3</td> <td>1.01</td> <td>220</td> <td>204</td> <td>424</td>	Heavy Goods	141	180	1.39	1.46	1/0.9	1/1.3	1.01	220	204	424
	VEILLLE	118	113	1.51	1.36	1/1.1	1/1.1	1.01	164	141	305
	Matatu Míní b	t	I	1	l	I	I		1	1	
	Motorcycle	I	í		I	I	I	1	I		
	Bicycle Others	I	I	I	ŀ	1	I		: - 1	Ť	⊧.)
	Total	8	•	I	ł	ł		ł	I	I	ł

Average Annual Daily Traffic Calculation Sheet

	Average Annual Daily Traffic (AADT)		ti A104 - Both Direction 4 Dagoretti		2 309 621	3 320 652	70 72 142	12 17 29	I3 5 I8	1	ł	I	- 1,463
:	d	Factor	- Dagoretti - AlO4		1.01 1,312	1:01 333	1.01	1.01	1.01 1	i	1	1	1
	Weekly Variation Seasonal Ratio Correctio		-dodo-			1/1.1 1/1.1	1/1.1 1/1.1	1/1.1 1/1.1	1/1.1 1/1.1		1	I	ł
	Daily/day Time 1 Ratio		-do		1.30 1.30	1.13 1.13	1.03 1.00	1.00 1.00	1.15 1.15	1	ŧ	1	I
	ůt		A104 - Dagoretti		235	308	76	19	Ŋ	ł	I	I	643
No. 18	Tuesday C63 To West		Dagoretti - A104		238	321	:le 74	13	12	I	ł	I	658
Station No.	Date, Time Road/Inter-	section	Direction	Type of Vehicle	l. Car, Taxi	 Light Goods Vehicle 	3. Medium Vehicle	4. Heavy Goods Vehicle	5. Bus	6. Matatu Mini Bus	7. Motorcycle	8. Bicycle Others	Total

(Cont'd From No. 18 -1,2, & 3)

Table A- V-3(1)

.

			Traff	Taffic Capacity of	Tab.L. city of	Table A- V-3(1 ty of Present Road	A- V-3(1) Present Road Not-works -	-		·		•		Apper V.3
LINK NAME	No. of Lane (N)	Lane vídth (H)	(r1)	(rc)	(r _N)	(r ₁)	<pre>(2 lane) (2 lane) C=2,500xrLxrC xrWrT (4 lane 6 more) (4 lane 5 more) C=2,500xrLxrC xrNrIx</pre>	(r _p)	ч со к с с х с т т с с с с с	~	A	(2 lane) $C_{12}^{\mu}C_{D} \times \frac{100}{K}$ (4 lane more) $C_{12}^{\mu}C_{D} \times \frac{5000}{K-D}$	Remark	ndix
A104-1	2	3.5	1.0	1.0	1.0	6.0	2,250	0.75	1,687	15.2	1	11,100		
A104-2	4	3.5	1.0	1.0	1.0	0.8	7,040	0.80	5,630	15.2	53	34,900		
A104-3	7	3.5	1.0	1.0	1.0	0.8	7,040	0.80	5,630	15.2	53	34,900		
A104-4	. 4	3.6	1.0	0.8	1.0	0.7	4,930	0.80	3,940	12.3	53	30,300		
A104-5	Ŷ	3.0	0.85	0.8	1.0	0.7	6,280	0.80	5,030	12.3	53	38,500		
A104-6	¢	3.25	0.94	0.8	1.0	0.7	6,950	0.80	5,560	12.3	53	42,600		
A104-7	vo	3.20	0.94	0.8	1.0	0.7	6,950	0.80	5,560	12.3	53	42,600		
A104-8	9	3.20	0.94	0.8	1.0	0.7	6,950	0.80	5,560	12.3	53	42,600		
A104-9	\$	3.0	0.85	0.8	1.0	0.7	6,280	0.80	5,030	12.3	53	38,500		
A104-10	2	4.25	1.0	1.0	1.0	0.8	2,000	0.80	1,600	12.9	t .	12,400		
A104-11	4	3.25	0.94	0.8	1.0	0.8	5,290	0.80	4,240	12.9	60	27,400		
A104-12	2	3.25	0.94	1.0	1.0	0.8	1,880	0.8	1,504	13.3	J	11,300		
A104-13	2	3.50	1.0	1.0	1.0	0.8	2,000	0.75	1,500	14.1	i	10,600		
A104-14	2	3.50	1.0	1.0	1.0	0.9	2,250	0.75	1,687	15.2	I	11,100		
A2-1	4	5.0	1.0	1.0	1.0	0.7	6,160	0.80	4,930	11.3	56	38,900		
A2-2	4	3.25	0.94	1.0	1.0	0.8	6,620	0.80	5,290	11.3	56	41,800		
A2-3	7	3.25	0.94	1.0	1.0	0.8	6,620	0.80	5,290	11.3	56	41,800		
8-10	~	3.0	0.85	1.0	1.0	0.7	1,488	06.0	1,339	15	ł	9,300		
C-58	2	3.5	1.0	0.7	1.0	0.7	1,225	0.9	1,103	. 15	ł	7,400		
C58-2	7	3.0	0.85	1.0	1.0	0.8	1,700	0.9	1,530	12.8		12,000		
C58-3	2	2.75	0.77	1.0	1.0	0.8	1,540	0.9	1,386	19.0	ı	7,300		·
C59-1	7	3.5	1.0	1.0	1.0	0.7	1,750	0.9	1,575	13.0	· 1	12,100		•
C59-2	7	3.25	0.94	1.0	1.0	0.7	1,645	6.0	187"1	13.0	ı	11,400		
C59-3	5	3.25	0.94	1.0	1.0	0.7	1,645	0.9	1,481	13.0	-1	11,400		
C59-4	64	3,5	1.0	1.0	1.0	0.7	1,750	0.9	1,575	13.0	ł	12,100		·
C59-5	2	3.25	0.94	1.0	1.0	0.7	1,645	0.9	1,481	13.0	ı	11,400		

	·			•			(2 lane)					(2 lane)	
LINK NAME	No. of Lane (N)	Lane width (M)	(11)	(r _C)	(r _N)	(L1)	C=2,500×tr×t ×rN×t (4 lane 6 more) C=2,500×tr×t ×rN*t×N	(<i>t</i> ^b)	CD •C×rP	×	p'	C ₁₂ ^{mC} D ^x <u>K</u> (4 lane more) C ₁₂ ^{mC} D ^x <u>K</u> 000	Remark
C60-1	2	3.0	0.85	1.0	1.0	0.8	1,700	0.9	1,530	13.9		11,000	
C60-2	2	2.75	0.77	1.0	1.0	0.8	1,540	0.9	1,386	13.9	t	10,000	
C61-1	5	3.50	1.00	0.85	1.0	0.7	1,488	0.9	1,339	15.7	ł	8,500	
C61-2	5	3.50	1.00	0.85	1.0	0.7	1,488	0.9	1,339	15.7	ı	8,500	
C61-3	2	3.25	0.94	1.0	1.0	0.8	1,880	0.9	1,692	15.7	1	10,800	
C61-4	2	3.00	0.85	1.0	1.0	0.7	1,488	0.9	1,339	15.7	ı	8,500	
C62-1	5	3.50	1.0	1.0	1.0	0.7	1,750	0.9	1,575	15	ł	10,500	
C62-2	2	3.00	0.85	1.0	1.0	0.8	1,700	0.9	1,530	15	1	10,200	
C62-3	2	3.50	1.0	1.0	1.0	0.9	2,250	0.85	1,913	15	1	12,800	
C62-4	2	3.50	1.0	1.0	1.0	6 0	2,250	0.85	1,913	15	ı	12,800	
C63-1	~	2.75	0.77	1.0	1.0	0.8	1,540	0.9	1,386	17.5	ł	2,900	
C63-2	2	3.50	1.0	0.95	1.0	0.8	006'1	0.9	1,710	15.0	ı	11,400	
C63-3	2	3.25	0.94	1.0	1.0	6 0	2,115	0.85	1,798	15.0	4	12,000	
C63-4	2	3.25	0.94	1.0	1.0	0.9	2,115	0,85	1,798	15.0	i	12,000	
C63-5	2	3.00	0.85	1.0	1.0	0.9	I,913	0.85	1,626	15	ı	10,800	
C63-6	2	3.25	0.94	0.95	1.0	6 0	2,009	0.85	1,708	15	ı	11,400	
C63-7	77	2.75	0.77	06.0	1.0	0.8	1,386	0.85	1,178	15	1	006'4	
C63-8	5	3.00	0,85	0.90	1.0	6.0	1,721	0.85	1,463	15	1	9,800	
C63-9	2	2.75	0.77	0.9	1.0	0.9	1,559	0.85	1,325	15 .	1	8,800	
C63-10	2	2.75	0.77	1.0	1.0	0.9	1,733	0.85	1,473	15	1	9,800	
C63-11	2	3.25	0.94	0.95	1.0	0.9	2,009	0.85	1,708	15	ı	11,400	
C63-12	7	3.0	0.85	0.95	1.0	0.9	1,817	0.85	1,544	15	t	10,300	
C64-1	2	2.75	0.77	1.0	1.0	0.9	1,733	0.85		15	I	6,800	
C64-2	2	2.75	0.77	6-0	1.0	0.9	1,559	0.85	1,325	15	1	8,800	
C64-3	- 7	2.75	0.77	6.0	1.0	0.9	1,559	0.85	1,325	15	1	8,800	
	•		•										

1
Net-works
Road
Present
of
Capacity
Traffic

ń

Z 3.50 1.0 1.0 0.8 2,000 0.85 1,700 12.2 - 1 Z 3.50 1.0 1.0 1.0 0.8 2,000 0.85 1,700 12.2 - 1 Z 3.50 1.0 1.0 1.0 0.8 1,700 0.85 1,700 12.2 - 1 Z 3.50 0.77 1.0 1.0 0.8 1,700 0.85 1,700 15.2 - 1 Z 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,1309 15 - Z 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - Z 2.755 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - Z 2.275 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15	LINK NAME	No. of Lane (N)	Lane width (M)	(دار)	(rc)	(^N)	(L1)	<pre>(2 lane) C=2,500xrLxrC xrNxr1 (4 lane & more) C=2,500xrLxrC xrNr1xN</pre>	(لا ^ل)	CD *C×rP	м	A	(2 lane) $C_{12}^{-}C_{0}^{-} \times \frac{100}{K}$ (4 lane more) $C_{12}^{-}C_{0}^{-} \times \frac{5000}{K \cdot D}$	Remark
Z 3.50 1.0 1.0 1.0 0.8 2,000 0.85 1,700 12.2 - 1 Z 3.50 1.0 1.0 1.0 1.0 0.8 1,700 0.85 1,700 12.2 - 1 Z 3.50 1.0 1.0 1.0 0.8 1,700 0.85 1,300 15 - 1 Z 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - Z 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - Z 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - Z 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - Z 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 <td>C98-1</td> <td>2</td> <td>3.50</td> <td>1.0</td> <td>1.0</td> <td>1.0</td> <td>0.8</td> <td>2,000</td> <td>0 85</td> <td>1,700</td> <td>12.2</td> <td> .</td> <td>13,900</td> <td></td>	C98-1	2	3.50	1.0	1.0	1.0	0.8	2,000	0 85	1,700	12.2	.	13,900	
Z 3.50 1.0 1.0 0.8 2,000 0.85 1,700 12.2 - 1 Z 3.0 0.85 1.0 1.0 0.8 1,700 0.85 1,45 15 - 15 Z 2.75 0.77 1.0 1.0 0.8 1,500 0.85 1,700 15 - Z 2.75 0.77 1.0 1.0 0.8 1,560 0.85 1,700 15 - Z 2.2.75 0.77 1.0 1.0 0.8 1,560 0.85 1,309 15 - 3 2 2.75 0.77 1.0 1.0 0.8 1,450 0.85 1,309 15 - 3 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - 2 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,78	C98-2	7	3.50	1.0	1.0	1:0	0.8	2,000	0.85	1,700	12.2	ł	13,900	
2 3.0 0.85 1.0 1.0 0.8 1,700 0.85 1,909 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,708 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,708 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,708 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - 2 2.070 0.85 1.0 1.0 0.8 1,463 0.85 1,700 1,540 0.95 1,718 <	C98-3	7	3.50	1.0	1.0	1.0	0.8	2,000	0.85	1 700	12.2	ı	13,900	
2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,138 1.5 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,138 1.5 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,138 1.5 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,290 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,290 15 - 2 2.775 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - 2 2.775 0.77 1.0 1.0 0.8 1,540 0.85 1,708 15 - 2 2.775 0.77 1.0 1.0 0.8 1,190 0.9 1,718 15 - 2<	n378-1	7	3.0	0.85	1.0	1.0	0.8	1,700	0.85	1,445	15	ı	9,600	
2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,738 5 - 2 2.75 0.77 0.9 1.0 0.8 1,540 0.85 1,73 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,244 15 - 2 2.275 0.77 1.0 1.0 0.8 1,540 0.85 1,244 15 - 2 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,599 15 - 2 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,73 15 - 2 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,73 15 - 2 2 2.75 0.77 1.0 1.0 0.8 1,1360 0.9 1,173	D378-2	8	2.75	0.77	1.0	1.0	0.8	1,540	0.85	1,309	15	ı	8,700	
2 2.75 0.77 1.0 1.0 0.8 1,366 0.85 1,178 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - 2 2.75 0.77 1.0 1.0 0.8 1,309 15 - 2 2.75 0.77 1.0 1.0 0.8 1,190 0.9 1,178 15 - 2 3.00 0.85 1.0 0.8 1,190 0.9 1,178 15 - 2 2.75 0.77 1.0 1.0 0.8 1,309 15 - - - - - <td< td=""><td>D400</td><td>2</td><td>2.75</td><td>0.77</td><td>1.0</td><td>1.0</td><td>0.8</td><td>1,540</td><td>0.85</td><td>1,309</td><td>15</td><td>1</td><td>8,700</td><td></td></td<>	D400	2	2.75	0.77	1.0	1.0	0.8	1,540	0.85	1,309	15	1	8,700	
2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - 2 2.75 0.77 0.95 1.0 0.8 1,540 0.85 1,309 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - 2 2.75 0.77 1.0 1.0 0.8 1,396 0.85 1,190 0.85 1,718 15 - 2 2.75 0.77 1.0 1.0 0.8 1,399 0.9 1,190 0.9 1,118 15 - 2 2.00 0.85 0.7 1.0 1.0 0.8 1,399 15 - - 2 2.75 0.77 1.0 1.0 0.8 1,399 15 - - - - - - - - - - -	D400-2	2	2.75	0.77	0.9	1.0	0.8	1,386	0.85	1,178	15	ı	7,900	
2 2.75 0.77 1.0 0.8 1,463 0.85 1,244 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - 2 2.75 0.77 1.0 1.0 0.8 1,306 0.9 1,071 15 - 2 2.75 0.77 1.0 1.0 0.8 1,309 0.9 1,971 15 - 2 2.75 0.77 1.0 0.8 1,309 0.9 1,971 15 - 2 2.75 0.77 1.0 1.0 0.8 1,309 0.9 1,971 15 - 2 2.75 0.77 1.0 1.0 0.8 1,445 0.9 1,911 1 - -	D407-1	2	2.75	0.77	1.0	1.0	0.8	1,540	0.85	1,309	15	i	8,700	
2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,70 15 - 2 3.00 0.85 0.9 1.0 0.8 1,940 0.85 1,718 15 - 2 3.00 0.85 0.7 1.0 0.8 1,190 0.9 1,718 15 - 2 2.755 0.77 1.0 1.0 0.8 1,309 15 - 2 2.755 0.77 1.0 1.0 0.8 1,309 15 - 2 2.755 0.77 1.0 1.0 0.8 1,240 0.95 1,011 15 - 2 2.755 0.77 1.0 1.0 0.8 1,240 0.9 1,241 15 - 2 2.755 <td>D407-2</td> <td>2</td> <td>2.75</td> <td>0.77</td> <td>0.95</td> <td>1.0</td> <td>0.8</td> <td>1,463</td> <td>0.85</td> <td>1 244</td> <td>15</td> <td>÷</td> <td>8,300</td> <td></td>	D407-2	2	2.75	0.77	0.95	1.0	0.8	1,463	0.85	1 244	15	÷	8,300	
Z 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,309 15 - Z 2.75 0.77 1.0 1.0 0.8 1,340 0.85 1,309 15 - Z 3.00 0.85 0.9 1.0 0.8 1,190 0.85 1,71 15 - Z 3.00 0.85 0.7 1.0 1.0 0.8 1,190 0.9 1,071 15 - Z 2 2.75 0.77 1.0 1.0 0.8 1,540 0.9 1,178 15 - Z 2 2.75 0.77 1.0 1.0 0.8 1,540 0.9 1,178 15 - Z 2 2.75 0.77 1.0 1.0 0.8 1,540 0.9 1,301 15 - Z 2 2.75 0.77 0.90 1.0 0.9 1,240 0.9 1,301 15 - SIIN 2 2.077 0.90 1.0	D407-3	2	2.75	0.77	1.0	1.0	0.8	1,540	0.85	1,309	15	ï	8,700	
2 2.75 0.77 1.0 1.0 0.8 1,540 0.85 1,70 15 - 2 3.00 0.85 0.9 1.0 0.8 1,190 0.9 1,718 15 - 2 3.00 0.85 0.7 1.0 0.8 1,190 0.9 1,178 15 - 2 3.00 0.85 0.77 1.0 1.0 0.8 1,309 0.9 1,178 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.9 1,386 15 - 2 2.75 0.77 1.0 1.0 0.8 1,299 0.9 1,386 15 - 2 2.75 0.77 1.0 1.0 0.8 1,299 0.9 1,316 15 - 2 2.75 0.77 0.90 1.0 0.8 1,445 0.9 1,301 15 - 8TIN 2 2 2.75 0.77 0.90 1,446 0.9 1,447 <td>D407-4</td> <td>2</td> <td>2.75</td> <td>0.77</td> <td>1.0</td> <td>1.0</td> <td>0.8</td> <td>1,540</td> <td>0.85</td> <td>1 309</td> <td>15</td> <td>ı</td> <td>8,700</td> <td></td>	D407-4	2	2.75	0.77	1.0	1.0	0.8	1,540	0.85	1 309	15	ı	8,700	
Z 3.00 0.85 0.7 1.0 0.8 1,136 0.85 1,718 15 - Z 3.00 0.85 0.7 1.0 0.8 1,190 0.9 1,071 15 - Z 2.755 0.77 0.85 1.0 0.8 1,540 0.9 1,178 15 - Z 2.755 0.77 1.0 1.0 0.8 1,540 0.9 1,78 15 - Z 2.755 0.77 1.0 1.0 0.8 1,540 0.9 1,386 15 - Z 2.755 0.77 1.0 1.0 0.8 1,445 0.9 1,386 15 - ROAD 2 2.775 0.77 0.90 1.0 0.8 1,445 0.9 1,361 15 - ROAD 2 2.775 0.77 0.90 1.0 0.8 1,445 0.9 1,247 15 - ROAD 2 2.775 0.77 0.90 1.0 1.0 <t< td=""><td>D409-1</td><td>2</td><td>2.75</td><td>0.77</td><td>1.0</td><td>1.0</td><td>0.8</td><td>1,540</td><td>0.85</td><td>1,309</td><td>15</td><td>ł</td><td>8,700</td><td></td></t<>	D409-1	2	2.75	0.77	1.0	1.0	0.8	1,540	0.85	1,309	15	ł	8,700	
2 3.00 0.85 0.7 1.0 0.8 1,190 0.9 1,071 15 - 2 2.75 0.77 0.85 1.0 0.8 1,309 0.9 1,178 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.9 1,178 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.9 1,386 15 - 2 2.75 0.77 1.0 1.0 0.8 1,445 0.9 1,361 15 - 2 2.755 0.77 0.90 1.0 0.8 1,445 0.9 1,361 15 - ROAD 2 2.755 0.77 0.90 1.0 0.8 1,345 0.9 1,361 15 - ROAD 2 2.755 0.77 0.90 1.0 0.8 1,345 0.9 1,247 15 - ROAD 2 2.755 0.77 0.90 1.0 0.9	D409-2	2	3.00	0.85	6 0	1.0	0.8	1,386	0.85	1,178	15	1	7,900	
2 2.75 0.77 0.85 1.0 0.8 1,309 0.9 1,178 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.9 1,386 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.9 1,386 15 - 2 2.75 0.77 0.75 1.0 0.9 1,299 0.95 1,361 15 - 2 2.75 0.77 0.77 0.90 1.0 0.8 1,445 0.9 1,316 15 - ROAD 2 2.75 0.77 0.90 1.0 0.8 1,445 0.9 1,311 15 - ROAD 2 2.75 0.77 0.90 1.0 0.8 1,386 0.9 1,311 15 - ROAD 2 2.75 0.77 0.90 1.0 1.0 1.445 0.9 1,247 15 - ROAD 2 3.5 1.0 1.0 1.	D410-1	7	3.00	0.85	0.7	1.0	0.8	1,190	0.9	1,071	15	Ļ	7,100	
-3 2 2.75 0.77 1.0 1.0 0.8 1,540 0.9 1,386 15 - 2 2.75 0.77 1.0 1.0 0.8 1,540 0.9 1,386 15 - AUSTIN 2 2.75 0.77 1.0 1.0 0.8 1,540 0.9 1,386 15 - AUSTIN 2 2.755 0.77 0.75 1.0 0.8 1,445 0.9 1,301 15 - AN ROAD 2 2.755 0.77 0.90 1.0 0.8 1,445 0.9 1,247 15 - AN ROAD 2 2.755 0.77 0.90 1.0 0.8 1,386 15 - AN ROAD 2 2.755 0.77 0.90 1.0 0.8 1,386 15 - AN ROAD 2 2.1.0 1.0 1.0 1.0 1.23 15 - KARD 4 3.5 1.0 1.0 1.0 0.7 6,160 0.9	D410-2	2	2.75	0.77	0.85	1.0	0.8	1,309	0.9	1,178	15	ì	2,900	
2 2.75 0.77 1.0 1.0 0.8 1,540 0.9 1,386 15 - AUSTIN 2 2.75 0.77 0.75 1.0 0.9 1,299 0.85 1,104 15 - HA ROAD 2 3.00 0.85 0.85 1.0 0.8 1,445 0.9 1,301 15 - HA ROAD 2 2.75 0.77 0.90 1.0 0.8 1,445 0.9 1,301 15 - SSIE AVE 4 3.5 1.0 1.0 0.8 1,386 0.9 1,247 15 - SSIE AVE 4 3.5 1.0 1.0 1.0 0.7 6,160 0.9 5,540 12.3 53 KA ROAD FAST 4 3.5 1.0 1.0 1.0 0.7 6,160 0.9 5,540 12.3 53 KA ROAD FAST 4 3.5 1.0 0.7 6,160 0.9 12.3 53 " WEST 2 3.5 1.0	D410-3	2	2.75	0.77	1.0	1.0	0.8	I,540	0.9	1,386	15	ŧ	9,200	
Z 2.75 0.77 0.75 1.0 0.9 1,299 0.85 1,104 15 - AUSTIN Z 3.00 0.85 0.05 1.0 0.8 1,445 0.9 1,301 15 - AN ROAD Z 3.00 0.85 0.09 1.0 0.8 1,445 0.9 1,301 15 - AN ROAD Z 2.75 0.77 0.90 1.0 0.8 1,386 0.9 1,247 15 - SSIE AVE 4 3.5 1.0 1.0 0.7 6,160 0.9 5,540 12.3 53 HIES ROAD 4 3.5 1.0 1.0 0.7 6,160 0.9 5,540 12.3 53 KA ROAD FAST 4 3.5 1.0 1.0 1.0 0.7 6,160 0.9 5,540 12.3 53 "WEST 2 3.5 1.0 0.7 6,160 0.9 1,2.3 53 "WEST 2 3.5 1.0 0.7 4,9310 <td>D412</td> <td>2</td> <td>2.75</td> <td>0.77</td> <td>1.0</td> <td>1.0</td> <td>0.8</td> <td>1,540</td> <td>0.9</td> <td>1,386</td> <td>15</td> <td>ŧ</td> <td>9,200</td> <td>•</td>	D412	2	2.75	0.77	1.0	1.0	0.8	1,540	0.9	1,386	15	ŧ	9,200	•
2 3.00 0.85 0.85 1.0 0.8 1,445 0.9 1,301 15 - 2 2.75 0.77 0.90 1.0 0.8 1,386 0.9 1,247 15 - 4 3.5 1.0 1.0 1.0 0.7 0.01 0.0 5,540 12.3 53 6 16.0 0.9 5,540 12.3 53 4 3.5 1.0 1.0 0.7 6,160 0.9 5,540 12.3 53 6 3.5 1.0 1.0 1.0 0.7 6,160 0.9 5,540 12.3 53 6 3.5 1.0 1.0 1.0 0.7 4,930 0.9 4,440 12.3 53 5 3.5 1.0 0.7 1,487 0.9 1,338 12.3 53 5 3.5 1.0 1.0 1.0 0.8 1,338 12.3 53 5 3.5 1.0 1.0 0.8 0.9 1,800 12.3 </td <td>E433</td> <td>2</td> <td>2.75</td> <td>0.77</td> <td>0.75</td> <td>1.0</td> <td>0.9</td> <td>1,299</td> <td>0.85</td> <td>1,104</td> <td>15</td> <td>ı</td> <td>7 ,400</td> <td></td>	E433	2	2.75	0.77	0.75	1.0	0.9	1,299	0.85	1,104	15	ı	7 ,400	
2 2.75 0.77 0.90 1.0 0.8 1,386 0.9 1,247 15 - 4 3.5 1.0 1.0 1.0 0.7 6,160 0.9 5,540 12.3 53 6 3.5 1.0 1.0 1.0 0.7 6,160 0.9 5,540 12.3 53 1ST 4 3.5 1.0 1.0 0.7 6,160 0.9 5,540 12.3 53 1ST 4 3.5 1.0 1.0 0.7 4,930 0.9 4,440 12.3 53 1ST 2 3.5 1.0 0.8 1.0 0.7 1,487 0.9 1,038 12.3 53 1ST 2 3.5 1.0 1.0 0.8 1,036 12.3 53 53 2 3.5 1.0 1.0 0.8 2,000 0.9 1,900 12.3 53 2 3.5 1.0 1.0 0.8 2,000 0.9 1,800 12.3 53 53 <td>ST. AUSTIN</td> <td>5</td> <td>3.00</td> <td>0.85</td> <td>0.85</td> <td>1.0</td> <td>0.8</td> <td>1,445</td> <td>0.9</td> <td>1,301</td> <td>15 .</td> <td>I</td> <td>8,700</td> <td></td>	ST. AUSTIN	5	3.00	0.85	0.85	1.0	0.8	1,445	0.9	1,301	15 .	I	8,700	
4 3.5 1.0 1.0 1.0 0.7 6,160 0.9 5,540 12.3 53 AST 4 3.5 1.0 1.0 1.0 0.7 6,160 0.9 5,540 12.3 53 AST 4 3.5 1.0 1.0 1.0 0.7 6,160 0.9 5,540 12.3 53 AST 4 3.5 1.0 1.0 0.7 4,930 0.9 4,440 12.3 53 SST 2 3.5 1.0 0.7 4,930 0.9 1,338 12.3 53 Z 3.5 1.0 1.0 0.8 1.0 0.9 1,338 12.3 53 Z 3.5 1.0 1.0 0.8 2,000 0.9 1,800 12.3 5 Z 3.5 1.0 1.0 0.8 2,000 0.9 1,800 12.3 5	NGECHA ROAD	2	2.75	0.77	06.0	1.0	0.8	1,386	0.9	1,247	15	1	8,300	
4 3.5 1.0 1.0 1.0 0.7 6,160 0.9 5,540 12.3 53 IST 4 3.5 1.0 0.8 1.0 0.7 4,930 0.9 4,440 12.3 53 IST 2 3.5 1.0 0.8 1.0 0.7 4,930 0.9 4,440 12.3 53 IST 2 3.5 1.0 0.85 1.0 0.7 1,487 0.9 1,338 12.3 - IST 2 3.5 1.0 1.0 0.8 2,000 0.9 1,800 12.3 - IST 2 3.5 1.0 1.0 0.8 2,000 0.9 1,800 12.3 - IST 1.0 1.0 1.0 0.8 2,000 0.9 1,800 12.3 -	SELASSIE AVE	4	3.5	1.0	1.0	1.0	0.7	6,160	6-0	5,540		53	42,500	
NST 4 3.5 1.0 0.8 1.0 0.7 4,930 0.9 4,440 12.3 53 SST 2 3.5 1.0 0.85 1.0 0.7 1,487 0.9 1,338 12.3 - Z 3.5 1.0 0.85 1.0 0.7 1,487 0.9 1,338 12.3 - Z 3.5 1.0 1.0 1.0 0.8 2,000 0.9 1,800 12.3 - Z 3.5 1.0 1.0 1.0 0.8 2,000 0.9 1,800 12.3 - Z 3.5 1.0 1.0 1.0 0.8 2,000 0.9 1,800 12.3 -	LANDHIES ROAD	4	3.5	1.0	1.0	1.0	0.7	6,160	6.0	5,540	12.3	53	42,500	
25T 2 3.5 1.0 0.85 1.0 0.7 1,487 0.9 1,338 12.3 - 2 3.5 1.0 1.0 1.0 0.8 2,000 0.9 1,800 12.3 - 2 3.5 1.0 1.0 1.0 0.8 2,000 0.9 1,800 12.3 - 2 3.5 1.0 1.0 1.0 0.8 2,000 0.9 1,800 12.3 -	LUSAKA ROAD FAST	4	3.5	1.0	0.8	1:0	0.7	4,930	0.9	4,440	12.3	53	34,100	·
2 3.5 1.0 0.8 2,000 0.9 1,800 12.3 - 2 3.5 1.0 1.0 1.0 0.8 2,000 0.9 1,800 12.3 -	" WEST	7	3.5	1.0	0.85	1.0	0.7	1,487	6.0	1,338	12.3	ı	10,100	
2 3.5 1.0 1.0 0.8 2,000 0.9 1,800 12.3 ~	NBAGATHI ROAD	2	3.5	1.0	1.0	1.0	0.8	2,000	0.9	1,800	12.3	ı	14,600	
	VALLY ROAD	7	3.5	1.0	1.0	1.0.	0.8	2,000	0.9	1,800			14,600	

Traffic Capacity of Present Road Net-works - 4

LINK NAME	No. of Lane (N)	Lane width (M)	(rl)	(r _L) (r _C) (r _N)	(r _N)	(I,I)	<pre>(2 lane) C=2,500xrLxrC xrNxrI (4 lane 6 more) C=2,500xrLxrC xrNrIxN</pre>	(rp)	CD CD C	м	P	(2 lane) C ₁₂ ^m C _D x <u>100</u> (4 lane more) C ₁₂ ^m C _D x <u>8.0</u>	Remark
UNIVERSITY ROAD	4	3.25	0.94	6.0	1.0	0.8	5,960	6.0	5,360	12.3	53	41,100	
MURANGA ROAD	*	3.5	1.0	0.9	1.0	0.8	6,340	0.9	5,700	12.3	53	43,740	
RING ROAD	2	3.5	1.0	0.7	1.0	0.8	1,400	0.9	1,260	12.3	ı	10,200	
JULA EAST ROAD	5	3.5	1.0	1.0	1.0	0.8	2,000	0.9	1,800	12.3	ı	14,600	
EASTLEIGH FIRST AV.	4	3.0	0.85	0.95	1.0	0.8	5,680	0.9	5,120	12.3	53	41,600	
JOCOO ROAD EAST	3	3.5	1.0	6.0	1.0	0.8	1,800	0.9	1,620	12.3	T	13,200	
" CENTER	4	3.5	1.0	1.0	1.0	0.8	7 ,040	0.9	6.340	12.3	53	48,600	
" WEST	4	3.5	1.0	0.95	1.0	0.8	6,690	0.9	6,020	12.3	53	46,200	
LIKONI ROAD	2	3.5	1.0	1.0	1.0	0.8	2,000	0.9	1,800	12.3	ι	14,600	
ENTERPRISE ROAD	10	3.0	0.85	1.0	1.0	0.8	1,360	0.9	1,224	12.3	ı	9,600	
								-		:			
									·				
	.												
												÷	
	<u> </u>												

Appendix V.4

Traffic Capacity Calculation Formula

The method of calculations are shown the following formula applied the Road Capacity Manual of Japan.

- 1. Possible Capacity
 - 1) a single carriageway $C = 2,500 r_{I} \cdot r_{C} \cdot r_{N} \cdot r_{I} (p.c.u/h)$

2) a dual carriageway

 $C = 2,200 r_L \cdot r_C \cdot r_N \cdot r_I \times N (p.c.u/h)$

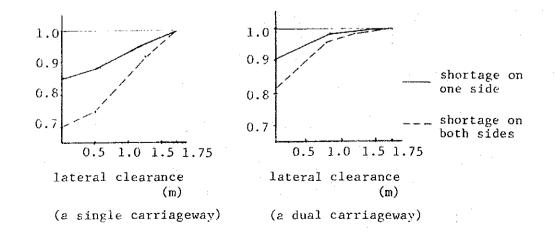
C : possible capacity

$\mathbf{r}_{\mathbf{L}}$:	adjustment	factor	of	lane width	
$\mathbf{r}_{\mathbf{C}}$:	11		of	lateral clearance	
r _N	:	n			including motor cycle and ycle	
rı	:	Ĥ		of	roadside conditions	
N	:	No. of lane	25.			

- Adjustment for lane width (r_L)

lane width (m)	(r _L) Adjustment Factor
3.50	1.00
3.25	0.94
3.00	0.85
2.75	0.77

- Adjustment for lateral clearance (r_C)



- Adjustment for mixing of motorcycle and bicycle (r_N)

$$r_{N} = \frac{100}{100 + \alpha P_{m} + \beta \cdot P_{B}}$$

 $r_{\rm N}$: adjustment factor for including motor cycle and bicycle α : conversion factors for passenger car in motor cycle

 P_m : percentage of motor cycle (%)

 $\boldsymbol{\beta}$: conversion factors for passenger car in bicycle

 P_{β} : percentage of bicycle (%)

- Adjustment for roadside condition (r₁)

No. of lanes Roadside conditions	2 lanes	Multi-lane
• free way	1.00	1.00
• mountainous area	0.90	0.95
• level terrain	0.85	0.90
• urban area	0.70	0.75

(1) Adjustment Factor for roadside conditions

(2) Adjustment Factor for roadside conditions

Degree of urbanaization	adjustment
Rural area	1.0 ~ 0.9
Suburb	0.9 0.8
Urban area	0.8 % 0.7

2. Design Capacity

 $C_{D} = C \times r_{p}$

C_D : Design Capacity (p.c.u./h)

C : Possible Capacity (p.c.u./h)

 \mathbf{r}_{D} : reduced ratio for Level of Service

Level of	Adjustment factor f	or Level of Service
Service	rural area	urban area
1	0.75	0.80
2	0.85	0.90
3	1.00	1.00

3. Calculation of Daytime 12 hours Traffic Capacity

(Multi-lane road)

$$C_{12} = \frac{C_D/2}{(K/100) \times (D/100)} = C_D \times \frac{5,000}{K \times D}$$

(Single carriageway road)

$$C_{12} = \frac{C_D}{K/100} = C_D \times \frac{100}{K}$$

where

C12: Daytime 12 hrs traffic capacity

C_D : Design Capacity (p.c.u./h)

- K : Percentage of 30th hourly volume in yea within average daytime 12 hrs traffic.
- D : Percentage of heavy direction in peak hour traffic

<u>K-value</u>

$$K = \frac{a \times Q_p + b}{Q_{12}} \times 100$$

where K

 K : Percentage of 30 th hourly volume in Average Annual Daytime 12 hrs. Traffic
 Q_p : Peak hour traffic (p.c.u./h)
 Q₁₂ : Daytime 12 hrs. traffic (p.c.u./l2 hrs)

12

a,b : parameter

Roadside condition	а	ь
Urban area	1.12	20.4
Level terrain	1.06	167.5
Mountainous terrain	1.01	377.6

D-value

$$D = \frac{\max (P_u, P_d)}{P_u + P_d} \times 100$$

where D

: Percentage of heavy direction in peak hour traffic

 $P_{\mathbf{U}}$: Up-stream traffic in peak hour (p.c.u./h)

 P_d : Down-stream traffic in peak hour (p.c.u./h)

Appendix V.5

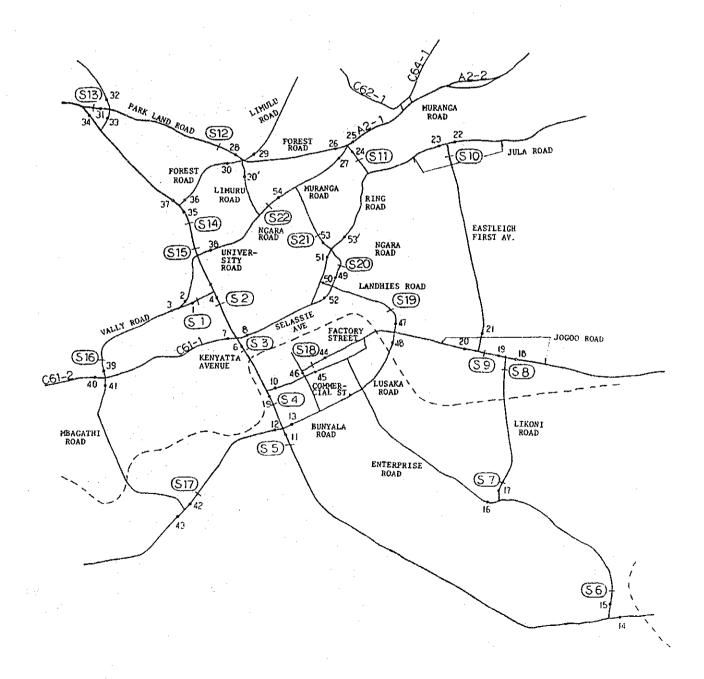
Present Road Inventory

The present road condition in the Nairobi area were surveied at 22 points in the central area of the Nairobi and at 31 points in and around the Nairobi area as shown in the next Figure.

The detail condition of the roads are shown in the next table of the present road inventory.

Survey and Measure Points of Present Conditions of Road (C.B.D.)

Fig A- V-5.1



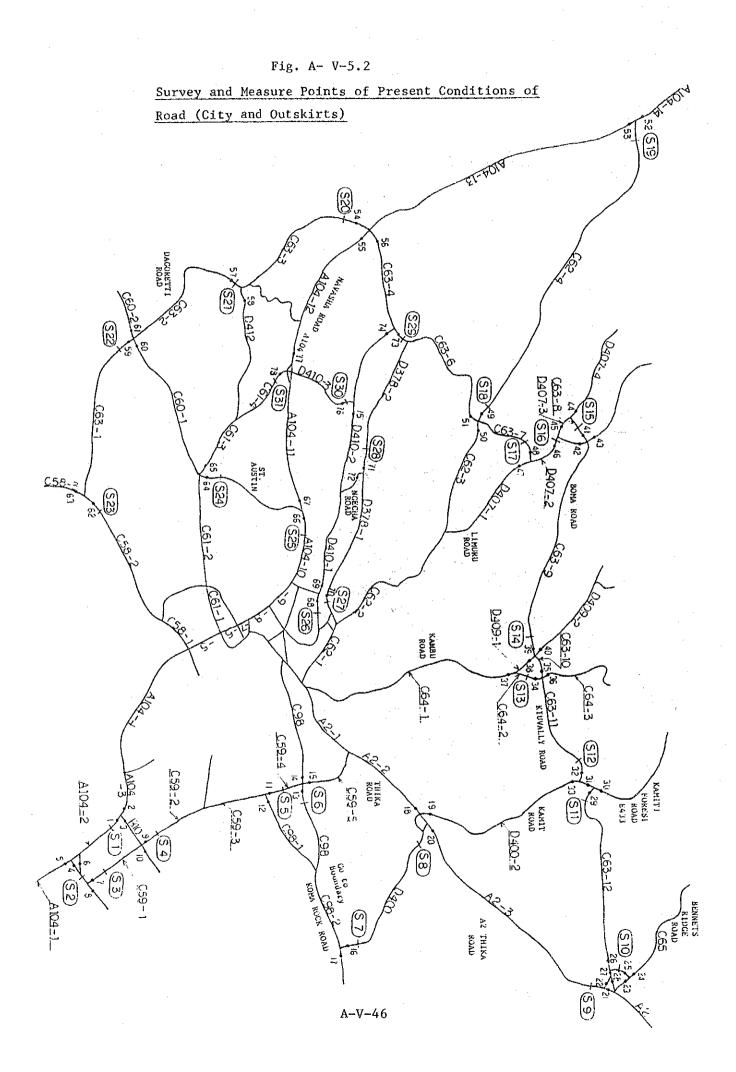


Table A- V-5.3

Present Road Inventory

REGION: C.B.D.

, • • •

		Remarks	· · ·		Up - 3 lanes Down - 2 lanes	Ditection S1+SI5 (one way)	Single catriageway - 2 way	Dual carriageway S2→S3	™	Dual carriageway	I¢ = 31 0¢ = 60	No.7 - single carriageway - 2 way	Single carriageway - 2 way	Dual carriageway	Ib = 43.5 Ob = 65.5	S5+S18 single c. way - 2 way	Dual carriageway	Single c.way 2 way	$I\phi = 43.0 O\phi = 77$	Dual carriageway	Síngle c. way		90.0m	Elliptical $I\phi_1 = 90.0, 0\phi_1 = 108$	34.5 $I\phi_2 = 34.5, C\phi_2 = 50.4$	Reserve onleft = 4.0m
 ©			1	Pedest- rian	2M	2	1.5	4.5	5.0	2M	2.0	1.5	2.0	4.5		4.0	3.0	2.0		1	1	,	1	3.0		4.0
() () ()			E Đ	Pedest- rian	1 MOL	 m	1.5	4.5	4.5	6.0	1.5	2.0	1.5	4 ° 0	• =	5.0 ;	4.0	None			1	1		2.0 1	 ·	
g up central reserve		96	2 2 2	Shoul-		•	•	r . r	i. T	1	 1	-	1	1		1	t		-	3.0	3.0	4.0	2.0	1.0	•	1.0
5	ງ]]] ຊື		5	Shoul- der	,	 I			1		1	, , 	· ·			1	1	– ۱		3.0	3.0	3 0	3.0	1.0		I
. (1)	E of		-	Central Reserve	IM	1	I	5.5	5,5	0.7	ł	6.0	ł	0.6		ı	13.0	J		28.5	1	1	F	6.0		1
	No. of	lanae			5	2	4	ę	Ŷ	Q	4	9	2	6.0		2.0	4	2		4	6	м	7	4	-	0
	Width of	i.	way (m)		16M	6.5	13.5	19	19.5	21.0	0.11	19.0	0.6	38	-	0.6	14.5	7.0		14.0	6.0	6.0	7.0	16		8.0
	Name of	the road			Kenyatta. Av.	Nyerere Rd.	Valley Rd.	Ξ.	1	H. Sellas-	=	Uhuru Rgw.	Commercial	Uhuru Hgw.		Lusaka Rd.	Uhuru Hgw.	Langaku Rd		A104	Enterprise Rd.	=	Likoni Rd.	Jogoo Rd.		:
	Measured				-	7	e	ŝ	4	ω	7	• •9	10	6		13	11	12		14	15	16	17	19	:	18
ction		T	round	about	1		. <u>. </u>	o		¢			0			c				1	4	1	1	٥		с
Intersection		<u> </u>	with	signal	o			0		¢			c			c				۱	i	۱ 	,	I		1
	Survey				SI			S2		S3	_		S4			S5				S6		S7		S8		

Table-

REGION: C.B.D.

No.2				Remarks				$\begin{bmatrix} 5.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1$	$0\phi_2 = 43.5$	Shoulder within 10m carriageway Right reserve 5m	No reserve on left; Right reserve≖5m	Reserve on fight 7m, reserve on left=11.5	Reserve on left∞9m, Roundabout I¢ = 59,0 0¢ = 73.0	Left reserve = 22m (Including pedestrian) Right " = 8m		Left reserve = 7.0m, Right reserve = 3.0m	Right reserve =13.5m, Left reserve = 9.0m	Roundabout Ith1 = 24.5m 00, = 40.5	Right reserve * 8, Left reserve = 6m	Left reserve = 3m	<pre>Parking = 3 (Right)</pre>	3.0 including R.	Rd. reserve of right = 4.5	Right reserve = 4m, Left reserve = 4.0m		
	(ll Berne Berne	er	ж	Pedest-	rian			, 3.0	3.0	3.0	1.0	1.5	3.0	6.5	. I		Ē	ŝ	9.5	1.0	3.0 Inclu	5	۱ 	2.0	-
		reserve 3 mm	shoulder	H Ø	Pedest-		- -	4	3.0	3.0	1.5	3.5	2.0	1	5.5	1		₩0- €	1.5	1	4 5	3.5		1	1.0	
	сі л фан	central res	carriage way	ē	Shoul-	der	 -		0.7	I 	1	1		1	0.5	1.5	1.0	1	1.0	1.0	1.0	1.0	1.0	73 -	ı	
	(3		N O	· Shoul-	der			. I.O	، ــــــ	1	1	1 	، 	- 0.5	, I.5	1.0		1.0	1.0	0	0 -1	1 3.0		۲ 	
) () ()	pedes- trian	ē	Central	Reserve		ı	8.5	1	ì	4.0	1.5		• 1	I	1	0.6	1		. !	1	·1	ł	2.5	
			No. of	lanes			Ÿ	,	4	2	2	ব	4	7	4	7	7	4	10	5	171	7	7	<u>رم</u>	¢	
		utath of	carriage	way (m)			¢ ¢		15	10	10	14	20	7.0	14.0	6.0	7.5	14.0	7.5	7.0	7.0	6.0	6.5	8,0	18.0	·
			Name of	the road				- COM 1911-40	Jogoo Rd.	Juja Rd.	Juja Rd.	Forest Rd.	Muranga Rd.	Ring Rd.	Muranga Rd	Forest Rd.		Forest Rd.	Limuni Rd.	Parklands Rd.	Parkland "	Lonce Kab	Ring Rd Westlands	Waiyalc1		
			Measured	point			16	17	20	22	23	26	25	24	27	30	8	56	29	28	31	32	33	34	37.	-
		ection		-	punoi	about		>	c	1	1	c	c	0	0	c	с 	0	0	0	0	0	0		0	
		Intersection			wî th	signal		1	I	I		,	1	1	1	1	!	1	ا .	۱	1	ı	I		ł	
			Survey	point			000			S10	_	S11				S12				a A	S13				S14	

1	C.B.D.	

. No.3				Keeatks		Left reserve=6.0 = Right reserve Roundabout: I\$ = 54 0\$ = 70	Right reserve = 5m, Left reserve = 10m	Left reserve + pedestrian = 6m	Left reserve = 10 = Right reserve	" " = 3m Roundabout I∳=53.5 0¢ = 67.5m	Reserve on Right = 3.0m	Reserve on each side 10.0m	Reserve on right = $5m$, on left = $7m$	Left reserve =4.0 = Right reserve Roundabout = I¢ = 30, 0¢ = 44	Left reserve = 5.5 = Right reserve	Left & right reserve = 2.5m	Left reserve = 8m Right reserve = 10m Roundabout I		Roundabout not circular	Left reserve = 4.5		Reserve on right = 9m	$I\phi = 46 O\phi = 62$	1		
	(Shim -	1 1 2	®	? Pedest-	4.5			2.0	ı	5	3 0	ι	1	4	1.0	4.0	3.0	m	Ś	4.0	4.0	4.0	3.0	3.0	
		reserve 3	shoulder	щ	Pedest-7 rian	4.5	3.0		2.5	2.0	2.0	3.5	5.0	1	3°0	1.5	0.E	5.0	m	m	5.0	1	1.5	3.0	1.5	-
		central res	age	õ	Shoul- der	1	2.0	8	1.0	2.5	1.0		3.0	1.0	1.0	I 	1	1.5	57	1.0	2.5	۱ 	1.0	, 	- 2	-
	. (2	carriage()	Э Ж	Shoul- der			۱ 	1.0	- T	1.0	•	ı 	1.5	1.0	1 	I	1.5	3	1-0	5	1 	1.5	1	2.0	
	6		pedes- trian	ж Ю	Central Reserve	5.5	н	ı	I	7.0	ł	ı	ł	ł	ı	;	11.5	4.0	è	1.5	7.5	. F	<u>م</u>	1.0	9.5	
			10 .01	lanes		ę	2	4	73	7	2	2	2	5	2	2	4	4	17	4	4	5	7	4	4	
	-	Width of	carriage	way (m)		19.0	0.6	13.0	7.0	14.0	11.5	7.5	7.0	6.5	7.0	7.5	14.0	17	14.0	12	14.0	7.0	12	14.0	15.0	
			Name of the road			Սիսrս	Meuseum ₁₁	Univ. way	Ngong Rd.	Mbaguth1 Rd.	Valley Rd.	Langath Rd	=	W/shop Rd.	Commercial	Factory St			Hallese-		Ngara	Ngara	Ring Rd.		Muranga	
			neasurea	point		35	36	38	40	41	39	42	¢3	46	45	77	48	47	52	50	65	23	53	51	54	
	7	CCLION		round	about	0	0	0	0	o	c	I	i	o	¢	0	0	D	c	c	0	0	0	•	1	
		Intersection		with	signal	1	t	I	1	1	1	1	1	1	I	1	I	1	1	I	I	1	I	1	1	
	·		autvey	point		S14		S 15	S16			817		S18			S19		S20			S21			S22	

Table A-V-5.4

REGION: CITY & OUTSKIRTS

	Remarks			· · ·						I.D. = ,138.5,89 , 0.D. = ,154.5,105	יחר הדרתומו /	out I.D. = 79.5 0.D. = 93.5	4 to S5	Reserve on the left	Reserves Roundabout I.D.=21.5 0.D.=36.5		Reserve on the left to fence			Point 18 already done during	0.D. survey.	(not curcular) $OD = 196,150m$					
•		÷.					One-way	One-way			I.D. = 1	י 	Roundabout	Direction	Reserve	Reserves	AZ to S6	Reserve		S8 to S7		<pre>> 0.D. survey > pointerpoint</pre>	(not		•		
©	(14	۳G.	' Pedest-	1	· 1	1	1	- ,	ı 	1	\$ 	 1	,	1		8.5	10				-				1		
erve	shoulder	म. (च)	Pedest- rian	,	1	}	1	1	•	1	J		1	1	10:0	7.0	10	5.0				Ĩ			F		
central res	ase ()	9	Shoul- der	m		2.6	1 2.5	1.0	3.0	1 2.5	2.5	2.0	5.5	1 4.0	3.0	4.5	3.0	3.0	3.0	1 2.5	2-0	4.0		1 2.5	4.0		
<u>ه</u>	carriage way	H CO	Shoul- der	3.0	1 2.5	4.0	1.7	1 2.0	1 3.0	1 2.5	2.5	2.5	2.5	3.0	2.5	3.0	. 3.0	3.0	2.0	2.5	1 2.5	3.5	_	. 2.0	0 * · 0		-
	pedes- trian	Ψ	Central Reserve	26.0	1	30.5	I	ı	ı	40.5	1	1	1	i	I	1	I			1		2.0		-	18		
•	No. of	Lanes		-7	2	4	2	77	2	4	5	2	2	5	2	7	7	~	2	2	2	4		2	4		
Width of	carriage	way (m)		14.0	sc.	14.0	6.5	6.7	7.0	14.0	7.0	6.5	6.5	7.0	7.0	6.0	6.5	7.5	0.6	5.5	6.0	13.0		6.5	14.0		
	Name of	the road	-	A104	B10	A104			A104		C59	c59	D100	C59		C98	C59	C98	C98	0070	D400	A2			A2		
	Measured	point		2	e	I	9	4	5	80	7		10	11	12	13	15	14	17	16	61	20		22	21		
		round	about	-	1	1	ı			с	o	0	0	ı		0	٥	0	c	1	¢	c		1	1		_
Intersection		with	signal	I	1	1	1							I					I	.:		<u>.</u>	<u> </u>	1	1		
	Survey	polnt		sı			S2			S3 .		S4		S5		S6			S7		S8			6S		-	

RECION: CITY AND OUTSKIRTS

$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$													
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		Inters	ection	,		utdeb of		Ē	ନ	tral res	:rve	0	
vith round point the round way (m) Janues $\overline{\mathbb{O}}$ H	vey			Measured	Name of	cartlage	No. of	pedes- trian	03	∥ - œ ∎ *	should	er	
signal about central Shoul- Release- rian rian - - 27 C63 6.0 2 - 1.0 2.0 - - Acc. Jane = 3.0m - - 28 6.0 2 - 1.0 2.0 - - Acc. Jane = 3.0m - - 28 6.0 2 - 1.0 2.0 - - Acc. Jane = 3.0m - - 28 6.0 2 - 1.0 1.0 - - Acc. Jane = 3.0m - - 28 6.0 2 - 1.0 1.0 - - Acc. Jane = 3.0m - - 28 6.0 2 - 1.0 1.0 - Acc. Jane = 3.0m - - 28 6.0 2 2 1.0 1.0 - Acc. Jane	nt	with	round	point	the road	way (m)	lanes	щ		1		ы	Remarks
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		signal	about					Central. Reserve	Shoul- der	Shoul- der	Pedest- rian	Pedest- rian	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	10	1	1	27	C63	6.0	2.0		2.5	2.0	1	- -	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		1	1	28	C63	6.0	5	1	1.0	2.0		,	Acc. lane = 3.0π
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		1	1	26	C63	6.0	2			1 1.5	ı	۰	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		1	1	23	C63	6.0	3	1	2.5	2.0	7.0	1	A2 - C65 (pt 23 + 24)
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		I	1	24	C63	6.1	2	1	2.5	2.0	7.0	, -	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	115	1	1	29	C63	6.0	2		1.0	0	1	,	Direction S10 + S11
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		۱	1	30	E433	5.5	2	1	1		•	'	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		1	1	31	C63	6.5	2	1	1.5	2.0	1	'	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	12	1	1	32	C63	6.5	2	1	1.5	1.5	,	ı _	s13 + S12
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		1	ı 	33	D6400	5.5	8		I.0	5.0	1	ı 	A2 + S12
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	13	I	1	37	C64	5.5	2	1	2.0	 1.5	1	,	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		1	0	34		5.5	2	1	1.0	1.0	1	,	Pt 37 → 34
- 0 36 C64 5.0 2 - 1.5 1.0 - - Pt 34+36 - - 40 D409 6.0 2 - 1.0 1.5 - - - - - 38 C64 5.0 2 - 1.0 1.5 - <td></td> <td>1</td> <td>¢</td> <td>35</td> <td>C63</td> <td>5.0</td> <td>2</td> <td>1</td> <td>2.0</td> <td>2.0</td> <td>I</td> <td>t </td> <td>S12 + S14 direction</td>		1	¢	35	C63	5.0	2	1	2.0	2.0	I	t 	S12 + S14 direction
- 40 $b409$ 6.0 2 - 1.0 1.5 - - - - 38 $C64$ 5.0 2 - 2.5 2.0 - - - - 38 $C64$ 5.0 2 - 1.5 1.0 - - - - 38 $C64$ 5.0 2 - 1.5 -		1	с 	36	C64	5.0	2	1	1.5	0.1	ŧ	1	Pt 34 → 36
- $ -$	14	ł	I	40	0409	6.0	7	1	1.0	1.5	I	,	
- -		، 	1	38	C64	5.0	5	¥	2.5	2.0	;	1	
- - 42 E427 6.0 2 - 1.5 1.5 1.5 - - - Pt - - - 41 C63 6.0 2 - 1.5 1.5 - - Pt - - 41 C63 6.0 2 - 1.0 1.5 - - Pt - - 43 E427 6.0 2 - 1.5 2.0 - - Pt - - 44 D407 5.5 2 - 3.0 3.0 - - Pt - - 45 D407 5.5 2 - 1.0 2.0 - - - Pt - - 45 D407 5.5 2 - 2.0 2.0 - - - Dir		1	1	39	C63	5.5	7	1	1.5	0.1	1	1	Steep horizontal slope to Kiambay from Intersection.
- - 41 C63 6.0 2 - 1.0 1.5 - - Ft - - - 43 E427 6.0 2 - 1.5 2.0 - - Ft - - - 43 E427 6.0 2 - 1.5 2.0 - - Ft - - 46 D407 5.5 2 - 3.0 3.0 + - - Ft - - 45 D407 5.5 2 - 1.5 2.0 - 0.1 - - 45 D407 5.5 2 - 2.0 2.0 - - D11	:15	1	 	42	E427	6.0	2	1	1.5	1 1.5	1	1	
- - 4.3 E427 6.0 2 - 1.5 2.0 - <t< td=""><td></td><td>'</td><td>۱ </td><td>15</td><td>C63</td><td>6.0</td><td>3</td><td>į</td><td>1.0</td><td>1.5</td><td>1</td><td>1</td><td></td></t<>		'	۱ 	15	C63	6.0	3	į	1.0	1.5	1	1	
44 D407 5.5 2 - 3.0 3.0 + 46 D407 5.5 2 - 1.5 2.0		r 	! 	43	E427	6.0	5	1	1.5	1 2.0	1	۱ 	Pt 43+42 direction
46 0407 5.5 2 - 1.5 2.0		1 	!	44	D407	5.5	2	1	3.0	3.0	•	+ _	45+44
- 45 7407 5.5 2 - 2.0 2.0	16	1	•	46	D407	5.5	2	1	1.5	. 2.0	`ı 	، 	Direction. Pt 45-46
		t	1	45	10407	5.5	7	1	. 2.0	2.0			
										<u>.</u> .			

A-V-51

No.2

REGION: CITY AND OUTSKIRTS

														entre		tentre	00 = 35.5		·			-		te = 7m		
		Remarks				Direction D407+C63	Direction Pt 50 → 49	Direction S18+S19	Direction Pt 51 + 56	Direction 52 + 53 pt.	Direction 52 + 53 pt.	Direction S20+S18	Direction pt. 54 ~ 56	Direction pt. 54 + City centre	Direction S21 + S22	Direction pt. 58 + City centre	Direction S22 + S23 Roundabout I.¢ = 21.5 Od	Direction S22+S23	Direction pt. 61+60	Direction pt. 63+62	S23 + A104	Roundabout (K.S.T.C.)	Direction S24+S25 Right reserve - 3m	Road reserve on each site = 7m	Reserve on right = 7m left = 2m	
		er Su	5	1 Pedest- 1 rian	1	, 		1	ı 	1	1	1	1	 1		۱ -	ł 	ļ	 1	; ;	1	, , ,	1.5	1 2.5	1.5	•
1		shoulder	5	Pedest- rian	1	1	1	1	ı -	؛ 	,	1	ر 	1	، 	1	. 1	1	1	ı		+	1	1 2.0	· · ·	
dn 🗱	central reserve	carriage vay Nu : Ou :	5	Shoul- der	2.0	1.0	4.0	1 2.5	2.0	2.5	1.5	3.0	3.5	2.5	1.0	3°0'	2.5	Ê.	3.0	2.5	2.5	3.0	 I 	1) 1) 2)	1.0	ر بوج بوج مد ب
ĺ	ລ∜	0	5	Shoul- der	2.0	1.5	2.5	2.5	1 1.5	3.0	3.5	3.0	3.5	2.0	1 2.5	2.0	2.0	÷۲	2.0	2.5	1 3.0	3.0	1.0	*. 	8	
		pedes- trian	Ð	Central Reserve	1	ı	ı	i	1		ı	1	1	ł	ł	ı	1 1	ł	ł	1		1	I	0.6	1	
	No. of	lanes	C LIDT		2	5	2	2	2	2	2	3	2	2	2	5	2	5	5	2	2	~	~	4	7	
	Width of	carriage	way (m)		5.5	5.0	7.0	7.0	6.5	7.0	7.0	6.5	6.5	6.0	7.0	5.0	5.0	6.0	5.5	5.5	. 0.9	6.5	6.0	13	5°8	:
	Name of	the road			0407	C63	C62	C62	C63	A104	A104	C63	C63	A104	C63.	D412	C63	C60	C60	c58	C58	C61		A104	A104	
	Mencered		- + # + or		47	87	50	67	51	52	53	56	54	55	57	58	59	60	61	63	62	65	79	67	66	·
	ection		round	about	1	1	ŀ	1	1	I	1	1	1	,	1	T	0	0	0	1		c	<u>o</u>	i	1 	
	Intersection		with	signal	1	1	1	1	ł	F	I	1	1	1	1	1	I	1	ı 	i	1	l.		ı 	.!	
	verces	out vey	burnd		s17		S18			819		S20			S21		S22			S23		S24		\$25		

No. 3

OUTSKIRTS
AND
CITY
REGION:

No.4			Remarks		Left reserve = 10.0. r[ohr = 2 0m	Left & right reserves * 5m each	Reserve on left = 2m to fence	Direction pt. 72 + Githathuni Rd	Direction S28 + S29	Direction S29+S30			Direction E422 → Kahete cammus	Direction S31 + City centre	Reserve on right = $13.0m$ on left = $9.5m$									
	- Com	er	ЭM	Pedest- ' Pedest- rian ' rian	1	0.5	. <u>.</u>	1	1	<u>,</u>	(+	۰ 		I 	 								
	up reserve 3	shoulder	н Ф		2.5	3.0	1	ı	ı	I	ł	. 1	1	• •	1		_ /	 -			_	. .		
	t up central res	carriage way	Ō	Shoul-	2.5		2.0		, , ,	2.0	4.0	- 3.5 -	5.0	3.0	5.5	 		 					-	
	ଜା	Γ	й Ю	Shoul- der		1	2.0	1.1.5	3.0	2.5		۱ 	3.0	1 3.0	4.0	 		 				-		
	() () () () () () () () () () () () () (pedes- trian	Ð	Central Reserve	ł	ł	ı	F.	ł	ı		. 1	T	ł	Ŀ			 						
		No. of	lanes		2	2	2	2	5	2	2	8	7	2	7	 _								
	Width of	carriage	way (m)		5.5	6.0	6.0	5.0	5.0	6.0	6.0	5.5	4.5	6.0	6.5				·					
		Name of	the road		Ioner	1000	Peponi Rd.	Naecha Rd.	Githathuni	Ioner Kabete gd	C63 (1724)	E422	D410		A104									
	•	Measured	point		68	69	70	72	11	- 74	73	75	76	78	27	 							,	
	Intersection		round		ţ	1	1	1	1	1	I	1	1	0	1	 <u></u>								
	Inters		vith	signal	t	I	ł	ı	1	1	!	1	ł		1	 		 						
ſ		Survey	point		S26			528		S29		s30		S31						·				

A--V-53

Present OD table of total vehicles

,

																																	4	
			(20)	- 19	15487	8969	4451	1355	1349	3127	11038	3225	1430	160	5181	4303	149	280	1586	3850	3621	33	133	69727	955	1227	1210	1208	971	874	1600	8045		
			(19)	19 *	о М	Ś	ø	0	0	0	¢	iبر ا	4	0	0	ŝ	0	•	0	0	0	0	0	\$9	~	0	0	0	0	0	0	Ņ	•	
		٥.	18)	18	o	3 2	0	0	0	0	N	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	ò	0	0		
		UNIT: TRIP	17)	7	570	447	238	124	149	122	302	72	25	o	137	104	18	0	32	310	N	o	0	604	12	8	20	20	31	17	оñ М	188		
							126										•		66					590° 3.			31,	63	30	58	45	65		
	•		~													4	ŝ	o	م	N	0	0		6.2 35										
			35	15	68	5	112									7				-				16										
			(11)	14	ζ γ	0	ŝ	0	\$	0	18	0	0	0	0	0	0	0	0	15	0	0	0	89	0	0	o	0	N	0	0	N		
			(13)	13	~	σ	•	0	o	N	v	0	13	N	10	28	2	Ŷ	0	•== 9==	0	Q	0	105	80	2	0	0	¢	ŝ	0	21		
			(12)	12	1681	205	833	191	59	79	260	26	32	2	78	150	32	ŝ	9 9	S 9	-111-	0	14	3901	ň	94	о ,	0 M	62	11	32	171		
			(11)	11	2925	398	750	108	527	212	678	100	88	10	190	101	18	19	34	223	132	4	Ň	6121	79	190	11	12	56	20	50	405		
е С = + Н = + С = +			(10)	10	28	20	10	M	0	0	2	~	22	N	45	4	0	0	0	10	N	0	N	157	0	~	n	¢	0	ö	14	19		
1H3> 4	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		6	o	196	151	88	28	14	41	272	11	5	32	116	61	•	0	21	51	32	0	ŝ	1162	12	35	m	~	0	0	ŝ	57		
(2) 'YPE O	T01AL T01AL T01AL		ŝ	æ	720	285	36	22	พา	68 89	339	\$9	0	0	28	ŝ	0	0	212	124	89	Ś	0	886	ŝ	4	m	12	19	Ś	21	65		
SHUUKE1 ALE BY 1	с Г С С	ł	2,	~	843	961	1014	544	293	472	690	770	163	38 3	526	240	17	23	239	934	707	~	6	182	104	92	270	231	131	164	4.47	439		
4	NO. ON VEHI																							242 14	-			اب	Ś	~	o	**. 0		
***** ENT 00	STATION DIRECTI TYPE OF		~		n.																	0		15 22	~	ጉ. ው	0	\$ • 9	. 5	53	54	56 1		
* * * * * * * * * * * * * * * * * * *	NOF		~ ·																	÷				2								N		
																								1112										
			ŝ	n	161	431	297	1.9	- - -	26	758	160	132	ŝ	599	938	80	ŝ	74	189	269	0	ŝ	4186	δ£	53	113	66	45	20	5	389		
			2	N	1910	813	.127	135	311	372	1389.	080	122	28	318	274	13	° 20	Р	386	347	ŝ	22	7309	06	85	53	35	6 5	27	49	367		
			2	çul	276	2977	299	54	60 7	987	2764	1379	615	54	2695	1803	19	150	272	766	1590	~		7290	533	652	600	588	473	137	672	3955		
																								+ -		-								
					**1	~	ħJ	4	Ś	Ŷ	~	œ	о	10	11	75	13	14	15	15	2	60	19	510	20	21	22	2	54	25	n,	126		
					-	2	m.	, ,	ч Ч	،	. ~	°.	°.	0	11.	ŝ	m	4	15.	Ś		18.	19.	20.*	21.	22.	23.	- 72	25.	26.	27.	28. *		

A-V-54

		(20)	, 1	;5	0	349	~	27	0	Ň	271	24	133	061	٥	503	140	85	526	104	411	60	क्ष्म क्ष्म	333	72	88 88	309	2	202	0	5 C	⊃ ç	2	9 M M	14	0	o	ŝ	54	7.8	125	1.1	321
		01 6 0	•					0	0	0																				0	00		> c	> c	o c	0	0	0	0	0		••	56 84
		5.5	4		_		-	_	_			_	-		_		~		_	_	-	-	_	-		_	•	_		_	•					_	_	•			~		č
	AIP AIP	8	2	00		0	0	0	¢	o	0	0	0	0	0	0	0	¢	C	o	0	0	0	Ç	0	0	Q	¢	ç	0	00							Ű	Ő		0		5
		66		• o	0	~	0	0	0	0	ŝ	0	0	11	0	Ŷ	2	•-1	17	N	0	0	0	0	Ŷ	0	44	0	Ö	0	0 0	þ Ç	4 C) C	• c	0	0	0	0	0	0	113	3905
		35)	•	, o	0	- 00	0	0	0	o	۲ì	0	0	124	0	0	15	0	18	4	ŝ	0	v	13	¢,	2	5	0	0	01	~ (5,₩	n c	> 0) C	0	0	0	÷	ŝ	м	245	4100
		155		• o	0	ŝ	0	0	0	0	Ś	0	~	21	0	Þ	0	0	0	0	0	0	0	\$	0	0	ω	0	0	0	0 0	2 4	00	C	. c	0	0	0	0	0	0	65	1752
		(14)	Ċ	0	o	0	¢	0	¢	o	0	0	0	m	0	0	0	0	0	0	0	0	0	0	0	0	m	0	0	0	00	> c	> c	> c	• c	0	0	0	0	0	0	Ŷ	26
		б С	, с	s un	0	0	0	0	0	0	0	•	o	m	0	0	0	0	0	0	o	0	0	0	0	0	0	¢	0	0	0 0	5 C	00	0	• c	0	0	0	0	0	o	90	134
		<u>6</u> 2	; c	• •		N	0	0	0	0	o	0	0	50	0	18	0	0	ŝ	0	¢	0	0	0	0	Ś	<u>م</u>	0	0	0 (0	,	• c	> ~	0	0	0	0	0	0	0	100	4172
			. c	, o	0	32	0	0	0	N	0	0	N	70	0	0	0	0	11	0	0	0	0	~	0	4	ň	0	0	0	50	o c	> c	• C	• 0	0	0	0	0	0	0	136	6666
		10)	2	0	0	0	o	0	0	•	0	0																			-											~	178
0TAL > 0TAL > 0TAL >	•	6 o	c	0	0	0	o	0	0	0	0	0	0	10	0	0	0	0	0	0	•	0	•	0	0	0	~		∾ •	0	-	òc	¢	• c	0	0	0	0	0	N	¢		1235
		ົສ	, c	0	¢	\$	0	0	0	0	¢	0	0	50 80	0	0	-	•	o	0	0	o	0	¢	0	0	οŭ (o e	0	o 0	> <	ò	Ċ	0	0	0	0	0	0	0	11	87	2038
CLE		~ ~	c	0	0	129	Ģ	ហ	0	0	77	Ð,	٠.	327	0	46	5	9 19	75	ç	113	¢	¢	2	∾ 28	131	5 8 7 5 8 7	э ·	3 I 2	^ •		• •	Ċ		5	0	0	ŝ	Ś	54	62	481	102
ND. 0N VEHI		~ 6~0		0	0	0	ç	, ,	0	0	15	o	9	11	0	0	ŝ	0	89	0	36	0	0	69	4	0	• •	, c	0 0	> c	, c	• ¢	c	0	00	Ð	0	0	αÚ	00	0	.75	07 17
ATION RECTI		~	_	0	_			-		0	0	4	0	N O	0	ŝ	~	0	0	0	÷	0	0	Ŷ	0	0.	<u>د</u>	. .	0 0	,		, c	0	. 0	N	0	0	0	0	0	Ŷ	N N	5
101			•								•	_		~		_	_	_	~	~	-	_			•				~ .	~ •				~		~	•	~	10	~		÷	4
		9 4 -												4													-				00											÷	144
		ົາ ກ ~	o	0	0	15	0	v	o	0	¢	0		100	0	0	2	Υ	11	ŝ	¢	0	0	101	in 1	0	~ (2 (0) (> c	0	0	0	rv;	0	0	0	0	o		ĩ	~
		ริ ณ	0	0	0	56	0	÷	0	0	51	ŝ		127	0	7	28	o	18	~	17	0	0	17	0		2 C		- C	- -) c	0	0	0	ŝ	0	o	0	0	0		m	
		- - -	Þ	ŝ	0	113	N	р.	0	0	162	9	<u> </u>	882	0	105	58.2	43	312	82	198	αÓ	5 I	178	27	οι Νι 1	5 C 5 7		ሳ ሀ ታ	. .	n C	36	0	22	105	•	0	0	0	95	~	0	Å.
			101	102	103	104	105	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	221	071	- 0	100	140	131	132	133	134	135	136	137	138	139	140	141	-141	JTAL
			•	30.	-	D 2	s a		۰. ۱۰				: 		•	, N 1		•	•	•		,														M	· •	,	•			* : o	

,

********** SHUKEI (2) *********** Present od table by type of vehicle

A-V-55

			~		5		0	N	ю	~	¢	\$	~	.+	m	\$	0	0	ŝ	N		0	o	\$	ы	ŝ	۲'n	5	M	0	2	• •	
								62	M	ō.	44	v			ñ	26	Ť		51		सं		Ū	1586			m	e -4	- M	-	4	117	
			(39)	112	14	12	\$	0	4	ಖ	12	0	0	0	0	0	0	0	0	0	0	Ö	0	56	0	0	0	0	Ö	0	0	0	
		d I H	ŝ	111.				`	v	0	12	0	4	0	ы	0	0	0	¢	2	0	0	0	77	0	0	0	0	0	0	0	0	
			(37)			¢	ŝ	2	20	37	36	0	0	ø	~	0	0	0	0	9	0	0	0	219	o	4	0	0	N	0	0	Ŷ	
		หก	(36) (0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	•0	0	0	0	o	o	0	0	0	
					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ŝ	0	0	ŝ	0	0	0	0	0	0	0	0	
			(32)		~	0	80	0	4	و	4	0	0	0	0	80	0	0	0	0	0	ö	0	4	0	0	0	0	0	0	0	0	
			(36)	10																													
	-		(33)					0				0	0	0	0														0	0	0	0	
			(32)	101	102	26	0	11	 	~	56	0	0	0	0	•	o	0	0	2	0	0	0	228	•~1	¢	ۍ، ۱	10	2	€ -1	36.	63	•
	• .		(31)	103	0	0	0	0	0	0	0	0	0	0	0	0	¢	o	0	0	0	•	0	<u>.</u>	0	0	0	0	0	0	0	0	
* * * 10 * 11			(30)	102	o	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	P	0	o	0	0	0	0	0	
***** VEHIC	~~~	•	(53)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ò	0	
2) PE 0F	TOTAL TOTAL TOTAL		(28) (3		36	72	77	13	52	52	81	29	. 87	0	03	54	76	14	27	98	00	¢	∾ ฺ	47	54	55	00 7	44 19	54	9	27	60	
ΕI Υ	ົ້ມມີມ																							v								∾ 0	
SHUUK ABLE B	ND. Jn Vehicle																														0		
*** 00 T	ECTION NO.		(26)	25	274	17	¢.	60	ž	£Ε	120	23	o	¢	20	S	0	~	°.	17	24	•	•	656	0	\$	Ę.	<u>.</u>	Ś	0	0	22	
***** PEGENT	STAT DIRE 3410 3475		(52)	54	331	M. N	52	26	27	41	50 50	12	ŝ	0	δ	77	£ 7	0	N	47	26	°,	0	122	N.	¢	ĉ	0	2	0	0	30	
÷ 4			(32)	₹ 2	353	37	40	38	5	27	216	12	0	0	4	ñ	16	~	19	۲ 9	<u>ө</u> М	0	0	726	Š,	•	7	~	1 2	0	ø	46	
			(23)	22	640	73	111	ŝ	24	36	247	19	~	o	0	D	4	0	0	74	44	ò	ò	1318	4	- 7 	o	0	o	0	28	55	
																															'n		
			-	0	28	ь С	æ																								0		
			2																														
					۳d	~	ň	4	ŝ	Ŷ	~	æ	o	0	11	47	5	14	5	16	17	18	6	611	0 ~	21	22	23	54	25	26	• -26	

	(40)		0	0	0	0	0	0	0	11	0	0	16	0	0	11	æ	16	0	12	5 0	о с	0	0	51	5 0) o	0	0	0 0	0 0	ວທ	0	0	o	0	> c		1803
	(39)	, c	00	0	o	0	0	0	0	0	0	0	0	0	o	0	0	0	O I	0 0	. .	00	0	0	0	9 H	00	¢	0	0 0	0 0	00	0	0	o	0 1	ə c		1 O S
	(38)	ब । न	0	0	0	0	ð	0	0	0	•	0	0	0	o	0	0	0	0	0 0	, ,	> c	0	¢	0 0	> c		0	0	0 0	50	00	0	0	0	0 (> c	> (5 T
11 N T T 2 T R	37)	4	0	0	20	0	0	ò	0	0	0	ø	20	0	•	o	o	0	0	0 0	5 c	ò	0	0	0 0	5 0	0	0	0	0 0	5 c	00	0	0	0	0 0	> c		265
-	(36)	•	0	o	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 (50	0	0	0	0 0	5 0	> 0	0	0	0 0	00	• •	Ð	Ð	0	0 0	5 C		o o
	(35)	5	0	0	o	0	0	0	o	0	0	0	0	0	0	0	0	0	0	00	s d	> c	0	0	0 0	20	> C	0	0	0	00	00	0	0	o	0 0	> c	> <	2 10
	(34)	5	0	0	0	0	0	0	0	o	o	0	Ś	o	0	0	o	0	Ö	0 0	> <	o c	o o	0	0	50	> 0	0	0	0 (0 0	00	0	0	0	0 0	э с		0 7
	(33)		0	0	0	0	0	0	0	~	0	-	-																								>		35
	(32)	>	00	0	o	•	Ô	o	0	~	0					• •									·							150					7	۳	787
	(31)	•	00	D	0	•	•	•	0	•	•			_	-		°															00							50
-	(30)	4 4		-			0	0		°																						00							_
TOTAL STOTAL	(29)	\$	•	0 0	-	- -		õ	~ ~	0												~ ~	0	ħ	"													.	าณ
) (28 + -26	2			4	0	ç	0	0	0	0		11									*1			~	Ŧ	-		0	00	עכ	n o	0	0	0	00		ſ	00 699
ND. ND. VEHICL	(27	, ,			0				0																							00					- c	.	4 15
TION TECTIO	126			_		~	•	~	_	_	_	_	**	_	~		~		~ .	~ ~			0	-				<u> </u>	<u> </u>	~ ^				0	0	.			5 69
818 19 17	(22)		.0	0		Ų	Ű	0					•	U	Ű	Ű	Ŭ	0					Ū					Ŭ					-	-	-			[°]	3 EQ 80
	(72)	,			***								M																			00						4	1031
	(23)	,	0	D	m	o	0	0	0	0	0	0	22	c	•	C	o	Ċ,	0 0	00	> 0) O	¢	¢,	00	> c	00	0	0		- C	00	¢	0	0	00	> c	2	1407
	(22)		0	0	N	0	0	0	0	0	0	0	ŝ	0	0	-7	0	0	00	þ¢	> c	- M	0	e -4 (n c	o c	00	0	0	0 (> c	0	0	0	0	0 0	> c	200	919
	(21)	•	0	0	N	0	0	0	0	0	0	0	m	•	o	m	NJ I	N.	0 0	00	о с	t- 1	0	N	in c	^ ^	0	0	0	00	00	00	¢	¢	0	00) C		6 7 6
		101	102	103	104	105	107	108	109	110	111	112	113	114	115	116	117	118	611	140	101	123	124	125	126	871	129	130	131	156	201	135	136	137	60 FT	571	111		10146
		29.	~		32.	33.	. 7 M	• • •	36.	37.	.85	n .	* 0,	-	ה ו ו	in ا	44.	n i	0.0	- <i>n</i>	n 0	0	-1	N 1	 	1 10	v	5	ω	ъc	> +	62.	m.	64.	65 .	٥N	- 29		

			(60)	133	0	~	0	0	0	¢	¢	o	0	0	Ö	¢	0	0	0	0	0 0	o c	> (JC	> (ڊ د	0	0.	0	Ð	0	D.	
			(29)	ŀ٩	ň	0	¢	0	11	4	40	¢	0	0	o	0	Q ·	o	8	e4	0 0		2	n.e	> (5.0	0	0	0	0	0	0	
	<i>.</i> ,	e L	(38)	[31	¢	0	0	0	0	Ņ	ณ	o	o	Ð	0	0	Q.	o	0	0	0	<u>,</u> c	.	s c	5 0	~	0	0	0	o	0	N	
<u>.</u>		5	(57)		17	1	0	ഓ	Ŵ	0	14	¢	₽.	0	N	0	N	0	0	<u>ь</u>	0	o c	> (ь с 0	> +	N I	0	0	0	0	0	N	
		N G	56) (0		0	0	0	0	0	0	0	o	0	0	0	0	0	0	0	¢,	0 0	> (00	> :	0	o	0	0	0	0	0	
			50 <	er 60	80	0	ŝ	0	0	0	40	0	0	0	0	0	~	0	0	ο.	64	0.0	5	5.0 2	5	0	0	0	~	0	ŝ	~	
			~		2	0	o.	ŝ	0	o	o	ø	0	0	0	0	0	o	0	0	0	0	5 <u>(</u>	<u>ب</u> م	5	0	ο.	0	0	0	0	0	
			(54	~																													
				126	~																										ſ		
																															ю		
																															0	0	
*** ℃℃			(20)	123	217	16	10	ŝ	Ŷ	19	28	0	~	0	4	4	0	o	¢	~	ŝ	0	0	326	<u>ო</u> .	10	0	रू. द	5	<u>o</u>	~	46	
* * * V E H I A H	ممہ بابابا		(67	122	0	0	o	o	0	0	N	0	0	0	0	0	¢	0	0	o	o	0.	0	N,	0	0	0	ò	0	0	0	0	
(2) YPE OF	TOTAL TOTAL FOTAL	2	~	121	ŝ	o	0	.0	0	ŝ	. 9	0	0	0	0	0	0	0	<u>0</u>	0	0	0	ο.	n) N	0.	0	0	o	0	0	Ģ	o	
ц,	U U U		.7.)	0	96	16	Ť	13	50	34	2,5	0	0	0	10	0	0	0	ί	1.S	17	0	0.	5	0	0	0	0	ò	0	0	0	
SHUUK TABLE B	N NO. 10N 5 VEHTC		-																												0		
* * * * NT 00	ATION RECTION	r S	Ŭ																												0		
8 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	110	-	_	118																													
			(77)	117	3.5	5 -) C	~	C	5				9 4C		.0		. 0		- -	Ç	Ű	121		Ű	Š		U	Ŭ	0	U	
			(27)	1 1 5	2	, t.	; 0) C	× •	۱ C	26		00	• C	o c	• C	• C	C	12	80	0	¢	0	105	2	12		C	0	C	00	18	
			1621		ò		Ċ	> <	2 N 1	. C 3	5 6	5	• c	o c	v	• c	• c	o c	်ဝ	60	0	0	0	220	0	P	0	0	0	Ċ) C	0	
			(1)	114		J ~J	, с	• c) 0	• c	o c	, ç	• c	• c	o c	> c) C	• c	o o	0	0	O,	0	v	0	0	Ģ	¢	C	, c	òc	0	
			-																														
						- r	u P	^ •	3 U	•	9 1	- 0	00	• •) • •		4 4) v 	t. U 1. ਦ	\ \		18	19	- 19	20			i M	10	10	2.5	9 - 5 	

. .

ł

2

e sa d

		133	0	0	0	0	o	0	0	G	¢	o	0	0	0	0	0	0	¢	0	¢	0	0	0	0	0	0	0 1	-		0	0	0	0	0	0	0	0	0 0	ə (
		132	0	0	0	17	ø	0	o	¢	Ċ	o	o	ð	0	0	•	0	0	0	o	0	0	0	o	o	.	0 0	5 c	, c	0	0	0	0	0	0	0 4	0 0	5 0	. .	2	121	
	a. 1	131	i	o	0	0	¢	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 1	0 0	. .	> c	0	0	0	0	0	0	D (00	, ,	5 C	• •	\$	
	1:1	130	0	0	0	0	0	0	o	0	0	0	0	0	0	0	0	0	0	0	0	0	0	o	•	0	0	.		o e	0	0	•	•	0	0	0 0	ə c	> <	ə c	0	71	
		129		0	o	o	0	0	0	0	¢	¢	0	0	0	0	0	0	0	0	0	0	0	o	0	0	0	0	,	00	0	0	0	0	0	0	0	00		00	0	80	
	1	128		0	0	0	¢	o	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	00	,	• c	0	0	0	0	0	0	0 0	0 0	o c	5 6	0 00	145	
	;	127		0	Ö	o	0	0	0	0	0	ø	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	э с	,) C	0	0	0	0	0	0 (0 0	э ¢	,	5 C	00	13	
	1	126		0	0	37	1	0	0	0	. 14	0	0	36	0	0	0	0	0	0	0	0	0	31	0	0	40	- c	> c) o	0	¢	0	0	0	0 (0 (5 0		> c	138	1017	
		125		0	0	0	0	0	0	0	0	0	O	œ	o	Ċ	Ð	o	0	0	0	0	0	0	Ð	0	~ <	5 0		00	0	0	0	0	0 0	0 0	э с	ə 6	5 0		<u></u>	98	
		124		0	•	14	0	o	0	¢	0	0	0	¢	•	0	0	0	0	ò		0	¢	0	•	0	0 0	2 <		0	0	¢	o	0	0 0	0 (2 4	5 0	> <	o c	24	117	
		123	0	0	•	•	¢	0	C	0	0	0	0	2	•	•	C2	•	20	0	m	0	0	~	0	0	00	5 0	20	0	0	0	0	0	00	50	50	> <	> c	00	42	717	
OTAL > Otal > Otal >	4	122		•	0	0	0	0	ġ	0	¢	0	0	0	•	0	¢.	0	0	0	0	0	0	0	0	0	50	00) C	00	0	0	0	0	0 (50	- C	> <	00	o c	0	~	
555 500	•	121	-	0	0	•	0	o	0	0	0	0	0	0	0	0	0																								0	~	
0. EHÍCLE	•	120	0	0	0	80	o	0	0	0	0		0	4			¢,																									22	
TION NO ECTION E CF VE	-	119		0																																					10	19	
STA DIA TYP	3	118											•	-									1	N																	4	é l	
	~	117																																								13	
		116																																							2 12	14	
	2	115				•							•	-																											~	5	
	7	116	0		، ن						<i>.</i> , ,																			~	-		~ '	- .						5	0	~	
-										~	-			~		~			-		- -			a -	• •	• •		~	~	~	_	o, .	~				~	. ~	~				
			101	0	2	0		È.	õ	6				-	-1				2	2						1 F	1	128	:2:	13(1	ì				13	136	130	1-1	141	171-		

*********** SHUUKEI (2) ********** Present od table by type of vemicle

******** EHICLE)	~ ~	(22) (T A	2096	975	8 5046	179	177	383	1309	336	150	16	5 562	0 452	4 24	29	6 165	1 445	3 391	м	0	1 8220	466 7	9 132	2 131	4 128	6 107	3 89	5 173	3 860
7A L **	OTAL Otal	(69)	-14	r	41	21	20	£ ∼	41	107	**	ŝ		14	~	N		4	5	¢			603	-	ю	Š	4	~	-	o	30
I (2) ТҮРЕ (Т	~~ 2 2	- 🗸	141 *		0	v	0	0		80 7	0	0	0	0	0	0	o	0	0.	0	0	0	108	0	0	0	0	0	Ô	0	0
SHUUKE BLE 3Y	HICLE	•	140.		0	0	o	N	17	0	0	0	0	0	¢	0	0	0	0	0	0	0	37	O,	0	0	0	0	0	0	0
* 0 + 4 N N 0 +	T10N 0F VE	~	139	~	¢	o	N	0	0	0	0	0	0	0	0	0	0	0	¢.	c	0	0	16	0	o	0	0	0	0	0	0
ENT TAT	DIRE	••	138.	o	o	o	0	0	0	80	0	0	0	0	0	0	0	0	0	ا م	0	0	0 ∾	0	0;	0,	0	0	0	0	o
÷d		(99)	137	14	0	0	0	0	Ś	rv	o	0	0	0	¢	0	0	¢	Ö	0	0	0	30	0	¢	0	¢	0	0	0	0
		~ 0	136		0	0	0	¢	Q	¢	0	0	0	¢	0	0	o	0	~	0	0	0	N	c	Ċ	0	0	0	0	0	0
		- 0	135	~	15	•	14	0	11	58	0	0	0	0	0	0	ŝ	0	Ŷ	С	¢		192	0	0	0	0	0	0	0	0
		- •0	134		o	o	o	o	~	14	~	0	o	o	0	¢	0	0	0	0	¢	0	5 S	0	0	•	0	0	o	0	¢
				-	N	ħ	7	Ś	Ŷ	~	60	6	10	11	12	13	14	15	16	17	18	19	61.	50	21	22	23	35	25	26	
					2.	т.	د .	۰. ۲	¢.	7.	80	0	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	50. *	21.	22.	23.	24.	2 2 .	26.	27.	28.

۰, ٠.

UNIT: TRIP

.

:

-

, •

TOTAL >	TOTAL >	TOTAL >
~	v	~
STATION ND.	DIRECTION	TYPE OF VEHICLE

		TOTAL	54	10			17		0				M		م	-	~	0	*	104	۰M	•			¢	16		N		10			106		-1		0	0				18	M	55
TAL >		5	0	0		251		5	5		0 ,	0		183	0	r.		17		0	26		0		10	20	62	0	ŝ	0	o	0	27	0		53	0	Ð	ю	¢	4	ŝ	8	ED -
2	võ	141 *	0	0	0	89	0	5	> '	0	0	0	0	2	0	0	o	0	0	о	0	0	0	o	0	0	¢	o	0	o	¢	o	•	Þ	0	0	00	э ·	0	0	0	0	o.	199
HICLE		140	0	0	0	0	D (,	0	ò	0	0	Ś	0	0	0	0	¢	e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	.	0	o	0	0	Ś	27
OF VEH		139	0	0	0	~	0 0	5 0	5 1	0	0	0	0	0	•	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5 (50		0	0	0	0	~	18
TYPE	(92)	m	0	0	0	M I	0 0	- (э «	0	0	0	0	m	0	0	0	0	0	0	0	o	0	0	0	0	0	0	0	0	0	0	0	э (0 1	0 (- c		0	0	0	0		9 2
	(99)	24	0	0	0	in i	5 0	- c	> 0	.	Ð	0	Ð	0	Ð	0	0	0	0	0	0	0	0	o	0	0	0	0	0	0	0	0	0	5 (0 0		> <	> <	0	0	0	0		M M
	(63)	36	0	0	0	-7 (> c	> <	> (5 1	0	0	0	o	0	0	0	¢	0	0	0	0	0	•	0	0	o	0	o	0	0	0	0	2 (5 (> <	່ດ	•	0 1	0	0	0	3	÷C
	(82)	ኮጉ	4	0	•	ы (5) (> <	-	> •	0	0	0	•0	Þ	N	o	c	0	0	0	0	0	0	0	0	o	0	¢	0	0	0	0	.	- C	n c	> c	.	0	5	0	0	n	872
	(61)	ň	0	0	01	•) (00	0 0) (5 (0	0	0	ĊV -	ø	0	0	0	0	0	0	0	o	0	0	0	0	0	0	0	0	0	00	0	20) (,	ə (0	0	01	ν.	34

29. 101
332.
333.
333.
333.
333.
333.
335.
107
335.
107
338.
108
475.
1113
400
1114
45.
1114
46.
1114
46.
1114
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
1134
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
113
46.
11

UNIT:TRIP

.

Appendix VI

Traffic Demand Forcast

															•					0 12484										0 3242	4 18131
	TRIP	(18	18	N N N	m	Ň	<u>ज</u>	4	in et	24	÷.	00 +-1		4	17	4-4	ιn	25	76	27	31		426	i Na	~	'n	ŝ	Ŷ	17	-0	502
	UNIT:	(17)	17	2003	2236	587	005	431	319	383	378	705	0	2380	026	106	C	507	3540	14	1112	0	15937	137	327	872	370	223	n n	303	2266
	-	(16)	16	757	1004	224	155	158	444	786	669	589	60	1316	571	17	161	191	3212	2467	1008	•	14361	32	232	26	253	204	547	194	1609
		(12)	54	782	319	182	137	296	323	178	225	102	o	168	174	17	¢	67	775	225	247	0	4199	4-4 4-4	o	53	23	10	0	8	109
		(14)	14	. 68	0	Ś	0	ø	0	18	0	0	0	0	0	0	0	0	25	•	~	•	¶33	¢	¢	¢	0	11	0	0	11
	;	(13)	13	11	51	0	ō	0	m	v	0	28	n	0£	106	~	¢	0	14	Þ	4	0	246	7 m	~	0	0	~	ŝ	0	53
		(12)	22	1792	327	1128	307	: * 8	175	322	62	110	13	267	353	72	භ	251	277	563	87	6 10	6237	49	125	0	41	91	18	110	434
		(11)	11	3351	1079	1420	236	371	808	1031	1137	.734	129	1233	331	26	37	198	1289	1332	406	ŝ	15153	415	956	с 5	51	185	52	372	2.091
		(10)	10	ň	07	23	¢	0	0	0	6	26	12	247	14	0	0	0	20	4	22	Ś	589	0	4	₽~.	0	o	¢	32	н 7
LAL >		(6) (6)	¢	241	431	179	ŝ	33	36	549	3	878	68	726	267	2	•	16	119	267	89 10	17	4138	104	213	0	33	0	o	14	373
< T01		8	R)	851	1329	230	87	£9 ₽	144	979	830	399	0	403	80	0	0	263.	839	1048	265	o	7415	10	ŝ	യ	21	124	78	66	312
IICLE		(2)	~	3907	2435	1067	620	327	529	2786	1690	967	159	1076	347	17	5	417	1394	981	435	14	18730	278	212	420	383	190	236	732	5449
0F VE		(9)	v	55.8	249	134	2	57	090	. 346	396	.111	0	533	92	0	10	153	630	169	131	ŝ	3755	109	80	25	91	5 7	41	55	975
TYPE		3	5	29	240	v	0	20	27	176	230	26	0	175	105	~	14	230	102	271	5	12	2037	34	21	115	174	86	82	115	638
		G .	-7	2 6	185	4	0	ŝ	23	198	85	100	2	299	444	•1	¢	5	107	239	22	0	1888	56	2	23	110	5	53	129	416
		Ê	m	166	512	315	51	97	108	802	503	316	11	1169	1222	11	ŝ	150	347	761	109	2	6229	м 6-	115	200	109	114	50	104	770
		2	2	1965	1168	506	185	£07	687	1533	1104	482	152	876	477	14	44	293	1069	1337	9 H M M	5 7 2	12550	386	256	26	110	<u>с</u>	16	195	1151
			-1	275	3134	304	54	63	1003	2779	1728	811	85	3227	1903	20	162	516	693	2024	215	67	19415	613	767	5 S S	179	517	506	752	6777
				F-1	N 1		4	S	v 0 ·		8	0	0		2	m	4		•	~	0 0 '	с. ·	<u>,</u>	0	(~	FO -	4	5	Ŷ	Ŷ
									•		-		÷	,		,	ń	-1	÷.	- 1	-	~		Ň	∿ i	~	∾	54	~	Ň	nv I

Appendix VI.1

A-VI-1

~~~~~~

.

•

TYPE OF VEHICLE ( TOTAL )

|      |          |                       |        |          |     |        |        |     |         |     |       |     |          |            |     |     |     |     |        |              |          |        |         |          |             |             |         |      |        |            |       |          |          | ÷     |         |          |         |               |     |        |          |                            |             |
|------|----------|-----------------------|--------|----------|-----|--------|--------|-----|---------|-----|-------|-----|----------|------------|-----|-----|-----|-----|--------|--------------|----------|--------|---------|----------|-------------|-------------|---------|------|--------|------------|-------|----------|----------|-------|---------|----------|---------|---------------|-----|--------|----------|----------------------------|-------------|
|      | 6        | ò                     | ь<br>5 | 26       | 0   | 126    | М      | 99  | 0       | N   | 04    | 77  | 187      | 20         | 0   | 20  | 50  | 17  | M<br>T | 154          | 50       | থ<br>শ | 27      | 560      | ň           | 8           | 71      | N    | 70     | 5          | 72    | 0 (      | b c      | ,<br> | 8       | 0        | 0       | v             | 48  | 24     | 17       | n t<br>Q t                 | n<br>o      |
|      | S        | <del>بر</del> ما<br>ا |        |          |     | ¢      |        |     |         | •   | 4     |     | <b>.</b> | 0          | į.  | м   | Ņ   | -1  | ¢.     | e-1          | Ŷ        |        |         | ŝ        | <b>**1</b>  | <b>9</b> ~1 | m<br>H  |      | м      |            |       |          |          |       | N       |          |         |               |     |        | N        | 202                        | 500         |
|      | 39)      | *                     | 0      | 0        | 0   | 0      | 0      | 0   | 0       | 0   | 0     | 0   | o        | 0          | 0   | Ö   | 0   | 0   | 0      | 0            | Ö        | 0      | 0       | ¢        | 0           | 0           | o       | 0    | 0      | Ø.         | 0     | 0.0      | o c      | 00    | 0       | •        | Ó       | 0             | 0   | 0      | 0        | •                          | -<br>       |
|      | ű        | ~                     |        |          |     |        |        |     |         |     |       |     | •        |            |     |     |     |     |        |              |          |        | • .     |          |             |             |         |      |        |            | •     | •        |          | . •   | :       | •        |         | 1             |     |        |          |                            |             |
|      | 18)      | 8                     | 0      | ¢        | 0   | ¢      | 0      | 0   | 0       | 0   | m     | 0   | 0        | <b>9</b> 6 | 0   | 0   | 5   | 0   | 7 M    | 4            | ęч       | 0      | Ś       | 22       | <b>e</b> ~1 | -           | 18      | 0    | 0      | 0          | ivi - | 0 1      | 0 C      | 0     | 0       | 0        | 0       | 0             | Ś   | N      | ų.       | 262                        | ŝ           |
| dla. | 5        | 474                   |        |          |     |        |        |     |         |     | ÷     |     |          |            |     |     | -   | •   |        |              |          |        |         |          |             |             |         |      |        |            |       | :        | ÷        |       |         |          |         |               |     |        |          | i                          | ì           |
| 1:13 | 17)      | ~                     | 0      | 0        | 0   | 223    | 0      | 0   | 0       | 0   | Ŷ     | 0   | 0        | 79         | 0   | ¢   | ю   | 2   | 36     | 17           | 0        | 0      | 0       | C        | 16          | 0           | 235     | 0    | 0      | 0          | 0     | 0        | ) t<br>0 | 0     | 0       | 0        | 0       | <b>ب</b><br>ا | 0   | 0      | 0        | 680                        | 1<br>2<br>0 |
| (N)  | ç        | <b></b>               |        |          |     |        |        |     |         |     |       |     |          |            |     | •   |     |     |        |              |          | :      |         |          |             | 5           |         |      | -      |            | •     | -        |          |       |         |          |         |               |     |        |          | -                          | 4           |
|      | (16)     | 2                     | 0      | ¢        | 0   | 127    | 0      | 0   | 0       | 0   | ŝ     | 0   | 0        | 305        | 0   | 0   | 65  | Ö   | 108    | 14           | 4        | 0      | τ.<br>γ | 69       | ŝ           | m           | 53      | 0    | 0      | 0          | ~     | 0        | 20       | 0     | 0       | 0        | 0       | 0             | 1   | ω      | 4        | 500                        | 202         |
|      | U        | •                     |        |          |     |        |        |     |         |     |       |     |          |            |     | , · | 2   |     |        |              |          |        | •       | • •      |             |             |         |      |        |            | •     |          |          |       |         | •        | , e     |               |     | _      |          |                            | )<br>*      |
|      | 153      | 15                    | ¢      | 0        | 0   | Ч<br>Ч | 0      | ¢   | 0       | 0   | • • • | 0   | €.       | 74         | 0   | 0   | Ò   | 0   | ø      | 0            | 0        | 0      | 0       | \$       | 0           | 0           | 20      | 0    | °.     | 0          | 0     | 0 (      | > c      | 000   | Ö       | o        | 0       | 0             | ¢   | 0      | 0        | 80 v                       | 2           |
|      | ÷        |                       |        |          |     |        |        |     |         |     |       |     |          |            |     |     | . : | i.  | •      | د<br>بر<br>ب | •        |        |         |          | -           |             |         | <br> |        | · _ ·      |       | <u>.</u> |          |       | -       | : .<br>_ |         | _             | _   |        | _        |                            | ,           |
|      | 14)      | 75                    | 0      | 0        | 0   | 0      | 0      | 0   | 0       | o   | 0     | 0   | 0        | ŝ          | 0   | 0   | 0   | о   | ¢      | <b>°</b>     | 0        | o      | 0       | 0        | ¢           | 0           | m       | 0    | 0      | о<br>      | 0     | 00       | > c      | 0     | 0       |          | 0       | ç             | 0   | 0      | 0        | 00                         |             |
|      | č        |                       | _      |          | _   | ~      | ~      | _   | ~       | _   |       |     | ~        |            | ~   | ~   |     | ~   | ~      | ~            | ~        |        | _       | .'.<br>~ |             | ~           | ~       | ~    | ~      | ~          |       | ~ ⁄      |          |       | 0       | <u> </u> |         |               | ~   | ~      | ~        | ~ •                        | n           |
|      | 133      | ň                     | 0      | 5        | 0   | ¢      | 0      | 0   | Q       |     | .0    | 0   | 0        | 4          | 0   |     | Č   | ;   | 0      |              | Ĵ        | Ċ      | Ö       |          |             | Ű           |         | Ŭ    | ÿ      | 0          | 0     | 0.       |          | , 0   | U       | č        | Č       | Ŷ             | Ŭ.  | Č      | Č        | ***                        | 1           |
|      | ž        |                       | ~      | ~        |     | •      | ~      | ~   | ~       | ~   | 0     | 0   | 0        | N          | 0   | •   | ÷   | 0   | 60     | 0            | N        |        | 0       | 0        | j<br>o      | :<br>•0     | ю       | 0    | ò      | 0          | 0     | 00       | ) c      |       | 0       | 0        | ं.<br>० | 0             | 0   | 0      | 0        | <b>м</b> ,                 | ‡           |
|      | (12)     | 2                     | Č      | Ŭ        | Č   |        | -      | Ť   | ļ       | Ū   | Ū     | Ĩ   | •        | <b>6</b> 0 | -   | Ñ   | -   |     |        |              |          |        |         |          | Ξ.          |             |         | _    |        |            |       | -        |          | 2     |         | -        |         |               |     |        |          | 5.5                        | 3           |
|      | ~        |                       | 0      | 0        | 0   | 0      | 0      | 0   | 0       | ~   | 0     | 0   | N        | N          | 0   | 0   | 0   | 0   | ,<br>M | 0            | 0        | 0      | 0       | 4        | 0           | 0           | m       | 0    | 。<br>。 | 0          | 0     | 0 0      | 5 c      |       | 0       | 0        | 0       | 0             | 0   | 0      | 0        | n c                        |             |
|      | C11      | 11                    | -      | •        | -   | 80     |        | •   |         |     |       |     |          | 11         |     |     |     |     | -9     |              |          | • . •  |         |          |             |             | m       | ,    |        |            |       |          |          |       |         |          |         |               |     |        |          | 2<br>2<br>2<br>2<br>2<br>2 |             |
|      | ~        |                       | 0      | 0        | 0   | 0      | 0      | 0   | ं.<br>0 | 0   | 0     | 0   | 0        | 0          | 0   | 0   | 0   | 0   | 0      | •            | 0        | 0      | 0       | 0        | 0           | ò           | 'n      | õ    | ò      | 0          | 0     | 0        | > c      | ò     | 0       | 0        | 0       | 0             | 0   | 0      | 0        |                            | *           |
|      | (10)     | 20                    |        |          |     |        |        |     |         |     |       |     |          |            |     |     |     |     |        |              |          |        |         |          |             |             |         |      |        |            |       |          |          |       | •       |          |         |               |     |        |          | 14                         | 5           |
|      | ~        | _                     | 0      | 0        | o   | 0      | 0      | 0   | 0       | ¢   | 0     | 0   | o        | 4          | 0   | 0   | 0   | 0   | o      | ¢            | 0        | o      | 0       | 0        | 0           | 0           | ŝ       | 0    | 00     | ¢          | 0     | 0 0      | > c      | 0     | o       | ¢        | 0       | ¢             | 0   | m      | 0        | ġ.                         | 4           |
|      | ŝ        | ¢                     |        |          |     |        |        |     |         |     |       |     |          |            |     | 1   |     |     |        |              | ·        |        | . •     | •        |             |             |         | :    |        |            |       |          | ι.       |       |         |          | 2       |               |     |        |          | , N                        | ,<br>r.     |
|      | <u></u>  | _                     | 0      | 0        | o   | 8      | 0      | 0   | 0       | o   | 0     | 0   | 0        | õ          | 0   | 0   | ŝ   | o   | ¢      | ò            | 0        | 0      | 0       | 0        | 0           | 0           | 0       | ö    | ¢      | 0          | 0     | 0 0      | , c      | 0     | 0       | ø        | 0       | 0             | o   | ¢      | \$       |                            | -           |
|      | е<br>С   | æ                     |        |          |     |        |        |     |         | ۰.  |       |     |          | ÷          |     |     | ۰.  | e.  |        | •••          | •        |        |         |          |             |             |         |      |        |            |       |          |          |       |         |          |         |               |     |        | Ĩ        | M c                        | j<br>J      |
|      | <u>.</u> |                       | 0      | 0        | 0   | 23     | 0      | m   | 0       | 0   | 6     | o,  | 0        | 31         | 0   | 5   | 57  | 22  | ò      | 11           | 80       | 0      | 0       | 52       |             | M           | 11      | o    | 78     | <b>6</b> 0 | 80    | 0 #      | n c      |       | 57      | o        | 0       | ÷             | ŝ   | 54     | 6        | -<br>-<br>-<br>-           | 2           |
|      | ~        | r~                    |        |          |     | 202    |        | •   |         |     | ŝ     |     | ۍ<br>۲   | 4          |     | ž   |     |     | ž      |              | ĩ        |        |         | -1       |             |             | r)      |      |        |            |       |          | -        |       |         |          |         |               |     | •      | -        |                            | j<br>V      |
|      | ŝ        | ~                     | 0      | 0        | 0   | Þ      | 0      | •** | 0       | 0   | 35    | 0   | ~        | 07         | 0   | 14  | 80  | Ö   | 20     | 0            | 62.0     | ő      | 0       | 02       | Ś           | 0           | ~       | ò    | ö      | 0          | ö     | 0 0      | > c      | ó     | 53      | 0        | 0       | 0             | 12  | N<br>N | o        | 80. g                      |             |
|      | č        | Č                     |        |          |     |        |        |     |         |     | •     |     |          | ň          |     | ÷   | ۰.  | ۰.  | +      |              |          |        | ۰.      | e-t      |             | ť           |         |      |        |            |       |          |          |       |         |          |         |               |     |        |          | ~ 0                        | кі<br>Р.,   |
|      | 3        | ŝ                     | 0      | 0        | ¢   | Ŷ      | 0      | 0   | o       | 0   | 50    | ~   | 0        | 26         | 0   | ю   | m   | 0   | 76     | 0            | 0<br>E   | 0      | 0       | 6        | 0           | •           | 77      | ¢    | ¢      | ø          | ¢.    | 0 0      | o c      | 0     | ~       | o        | 0       | 0             | 0   | 0      | æ        | 000                        | •           |
|      | ~        |                       |        |          |     |        |        |     | -       |     | .±    | ÷.  | •        |            |     | ;   |     | •   |        | •            |          |        |         | . •      |             |             |         | -    | ÷      | ÷          | :     | ĩ        |          |       |         |          |         |               |     | 5      |          |                            |             |
|      | 3        | 3                     | 15     | 0        | 0   | 0      | 0      | 0   | 0       | 0   | 0     | 0   | 60       | 67         | 20  | •   | ~   | 0   | 0      | 0            | <b>%</b> | 0      | 0       | ¢        | ò           | 0           | 29      | N    | 0      | ¢          | 0     | 0 0      | ~ C      | 0     | 9       | •        | •       | ¢             | o,  | 0      |          | 214                        | -           |
|      | -        |                       |        |          |     |        |        |     | •       |     | •     |     | • .      |            |     |     |     |     |        | -            |          | ,      | 13      |          |             |             |         |      |        |            |       |          |          |       |         |          |         |               |     |        |          | , ,                        | ì           |
|      | ŝ        | ۳î                    | 0      | 0        | 0   | 52     | 0      | 27  | ¢       | o   | 12    | 0   | 0        | 117        |     | 0   | N   | v   | 16     | ¢            | 7<br>1   | 0      | 0       | 12       | ~           | 0           | 202     | 0    | 0      | 0          | 0     | 00       | > 0      | 0     | m       | ¢        | 0       | 0             | 0   | 0      |          | 287                        | 5           |
|      | ~        |                       |        |          |     |        |        |     | •       | 1   |       |     |          | ·          |     |     |     |     |        |              |          |        |         |          | 2           | •           |         |      |        |            |       | 5.       |          |       | •       |          |         | _             | _   | _      |          | r                          |             |
|      | \$       | N                     | 0      | 0        | 0   | 77     | 0      | ~   | 0       | 0   | 5     | 0   | þ        | 204        | ¢   | 47  | 43  | 0   | 36     | 4            | ŝ        | 0      | 0       | ñ        | 0           | 79          | 5 2     | 0    | లు     | 0          | 0     | 0 0      | 00       |       | 17      | 0        | 0       | 0             | ¢   | o      | 4        | 619                        |             |
|      | ~        |                       |        |          |     |        |        |     |         |     |       |     |          |            |     |     |     |     |        |              | •        |        | •       | _        |             |             | 1       |      | 2      |            |       |          |          |       | -       | _        |         | _             | _   |        |          |                            | •           |
|      | ÷        | <b>-</b> -1           | 24     | ł)<br>ei | 0   | 131    | ħ      | 18  | 0       | 0   | 202   | •   | 0        | 919        |     | 137 | ŝ   | ŝ   | 339    | ዮ            | 23       |        |         | 8        | 4           | m           | ň       |      | Ň      | ~          | M     | 9        | t<br>t   | 10    | 150     | O        | 0       | 0             | Ų   | 4      | v        | 3571                       | ,           |
|      | ~        |                       |        |          |     |        |        |     |         |     |       |     |          |            |     |     |     |     |        | •            | 2        |        |         |          |             |             |         |      |        |            |       | •        |          | •     |         |          |         |               |     |        |          | - 1 (P                     | ì           |
|      |          |                       |        |          |     |        |        |     |         |     |       |     |          |            |     |     |     |     |        |              |          |        |         |          |             | •           |         |      |        |            |       |          |          |       |         |          |         |               |     |        |          |                            |             |
|      |          |                       |        |          |     |        |        |     | _       | _   |       |     |          |            |     |     |     |     | ~      | ~            | :_       |        | ~       | **       |             |             | <i></i> | ~    |        | r.         | ~     |          |          |       |         | Ś        |         | <b>6</b> 77   | •   | ~      |          | _ =                        | J           |
|      |          |                       | 101    | 102      | 103 | 104    | 105    | 107 | 108     | 109 | 110   | 111 | 112      | 113        | 114 | 115 | 116 | 117 | 118    | 119          | 120      | 121    | 122     | 121      | 124         | 125         | 126     | 127  | 128    | 123        | ň     |          |          | ň     | 5.5     | 136      | 13.     | 138           | 13  | 14(    | 14       | -141                       |             |
|      |          |                       |        |          |     |        | • .    |     |         |     |       |     |          |            | -   |     |     |     |        |              |          |        |         |          |             |             |         | •    |        |            | •     |          |          |       |         |          |         |               |     |        |          | *                          |             |
|      |          |                       | 29.    | 30.      | 31. | 32.    | ю<br>М | 34. | γ<br>Ν  | 36. | i M   | ~   | ŝ.       | 0          |     | ~   | ×۵. | .+  | 10     | 46           | ē.       | 87     | Dh.     | 0        | ÷           | Ω.          | м       | 54   | 525    | 56.        | 5     | 000      |          | 61.   | 29<br>9 | 63       | \$      | 5°.           | 6 Q | 67.    | 80<br>90 | 6 C                        | 2           |
|      |          |                       |        |          |     |        |        |     |         |     |       |     |          |            |     |     |     |     |        |              |          |        |         |          | 2           |             | •       | •.   |        |            |       |          |          |       |         |          |         |               |     |        |          |                            |             |
|      |          |                       |        |          |     |        |        |     |         |     |       |     |          |            |     |     |     |     |        |              | _        |        |         |          |             |             |         |      |        |            |       |          |          |       |         |          |         |               |     |        |          |                            |             |

л водоосоосоосоосоосоо мин м ус , ( 0.22 0.22 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 200 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2000 2 

\*\*\*\*\*\*

( TOTAL )

TYPE OF VEHICLE

| ******                      |              |
|-----------------------------|--------------|
| NALROBI ROAD-USER-INTERVIEW | PE 0         |
| ********                    | FUTURE OD T/ |

# TYPE OF VEHICLE ( TOTAL )

|     | (40) | 20     | c     | o        | c      | > c  | > c  |            | 5   | 0   | 14  | 0   | 0   | 28  | ¢   | o   | 1    | 12  | €0<br>€1 | 0          |     | ļ   | ò             | 5 C        | > (            | Ċ   | o          | 57         | o      | 0   | 0   | 0   | 0   | Ð.  | 0   | 0        | ው   | o   | 0   | 0   | 0   | 0   | o   | 165   | 2397     |
|-----|------|--------|-------|----------|--------|------|------|------------|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|----------|------------|-----|-----|---------------|------------|----------------|-----|------------|------------|--------|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|-----|-----|-------|----------|
|     | (39) | 0      | 0     | o        | C      |      | ) с  |            | 2   | ¢   | 0   | 0   | ¢   | 0   | 0   | 0   | 0    | a   | 0        | 0          | 0   | o c | o c           | > c        | 5. (           | o   | 0          | 0          | o      | м   | 0   | 0   | 0   | •   | o   | 0        | 0   | 0   | 0   | .0  | 0   | 0   | 0   | м     | 81       |
| ЯIР | (38) |        | 0     | 0        | c      | ) C  | ò    | • c        | 2   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | o    | 0   | 0        | 0          | 0   | • c | > c           | <b>,</b> c | > (            | Þ   | 0          | 0          | 0      | 0   | 0   | 0   | 0   | 0   | ¢   | 0        | 0   | 0   | b   | 0   | 0   | 0   | 0   | 0     | 52       |
| 7:7 | (37) | , o    | 0     | 0        | м с    | ) C  | Ċ    | <b>,</b> , |     | 0   | •   | 0   | 0   | 25  | o   | °.  | 0    | 0   | Ö        | 0          | 0   | • c | 00            | 5·¢        | ) (            | 0   | 0          | 0          | 0      | 0   | 0   | O,  | 0   | 0   | c   | 0        | O   | •   | 0   | 0   | 0   | 0   | 0   | 48    | 672      |
|     | (36) | 0      | 0     | 0        | c      | ¢    |      |            | 3   | 0   | 0   | o   | 0   | 0   | o   | •   | 0    | 0   | 0        | 0          | 0   |     | • c           | > <        | 2              | 0.  | 0          | 0          | Ö      | 0   | 0   | 0   | 0   | •   | o   | 0        | 0   | •   | 0   | 0   | 0   | 0   | 0   | 0     | 13       |
|     | (32) | 0      | 0     | ¢        | c      | o c  | 0    | •          | 2   | O.  | 0   | 0   | 0   | 0   | 0   | 0   | o    | 0   | 0        | 0          | 0   | , c | • •           | > c        | > (            | Ð   | <b>O</b> . | <b>O</b> . | o      | 0   | 0   | 0   | 0   | Þ,  | 0   | •        | 0   | ¢   | 0   | 0   | 0   | 0   | •   | 0     | 10       |
|     | (34) | 0      | 0     | 0        | C      |      |      |            | 5   | •   | 0   | 0   | 0   | 10  | 0   | 0   | 0    | 0   | 0        | 0          | 0   | • c | > <           | > <        | > (            | 0   | 0          | O.         | o      | 0   | 0   | 0   | 0   | 0   | 0   | 0        | 0   | 0   | •   | 0   | 0   | 0   | 0   | 10    | 67       |
|     | (33) | 0      | C     | 0        | C      | e ic | • c  |            | 2   | 0   | 13  | 0   | 0   | 0   | ¢   | 0   | 0    | 0   |          | 0          | .0  |     | • c           | 2          |                | 0   | 0          | 14         | 0      | 0   | 0   | ¢   | ¢   | 0   | 0   | •        | 0   | °   | 0   | ¢   | 0   | 0   | 0   | 27    | . 84     |
|     | (32) | ~      |       |          |        |      | •    |            |     |     |     |     |     |     |     |     |      |     |          |            |     |     |               |            |                |     |            |            |        |     | 0   |     |     |     |     |          |     |     |     | · . |     |     | 66  | 4+1   | 812      |
|     | (31) | 0      | 0     | 0        | c      | • c  | • c  | •          |     | ø   | 0   | 0   | 0   | •   | 0   | 0   | 0    | 0   | 0        | 0          | .0  |     | > c           | > <b>c</b> | <b>&gt;</b> .( | D   | •          | 0          | ò      | o   | 0   | ò   | 0   | 0   | 0   | 0        | 0   | •   | °   | 0   | 0   | 0   | 0   | 0     | <b>°</b> |
| ÷   | (30) | 0      | C     | 0        | c      |      |      | 0          | S   |     |     |     |     |     |     |     |      |     |          |            |     |     |               |            |                |     |            |            |        |     |     |     |     |     |     |          |     |     |     | ÷   |     | 0   |     |       |          |
|     | (29) | •      | 0     | 0        | 2      |      | o c  | •          | 2   |     |     |     |     |     |     |     |      |     |          |            |     |     |               |            |                |     |            |            |        |     |     |     |     |     |     |          |     |     | -   |     |     | 0   |     |       | -        |
|     | (28) | •      |       |          |        |      |      |            |     |     |     |     |     |     |     |     |      |     |          |            |     | , . | •••           |            |                |     |            |            |        |     |     |     |     |     |     |          |     |     |     |     |     | 0   |     |       | 12       |
|     | (22) | , °    | 0     | 0        | đ<br>C | 3 0  |      | <b>)</b> ( |     | 0   | 0   | Ð   | 0   | 31  | 0   | 22  | •    | •   | 0        | 0          | Ċ   |     | > <b>&lt;</b> | ⊃ ⊧<br>*   | 11             | ¢   | ¢          | 11         | ¢      | 36  | •   | m   | °.  | 0   | D   | <u>،</u> | 0   | •   | Ó   | 0   | 0   | 0   | 0   | 166   | 2483     |
|     | (26) | ,<br>, |       | • •      |        |      |      |            |     |     |     |     |     | F   | • . |     |      | 1   |          |            |     |     |               |            |                |     |            |            |        |     |     |     |     | :   |     |          |     |     |     |     |     | 0   |     |       | 1140     |
|     | (52) | J      |       |          |        |      |      |            |     |     |     |     |     |     |     |     |      |     |          |            |     | •   |               |            |                |     |            |            |        |     |     |     |     |     |     |          |     |     |     |     |     | 0   |     |       | ÷        |
|     | (24) | Ĵ      |       |          | ſ      | U    |      |            |     |     |     |     |     | 1.1 |     |     |      |     |          |            |     |     |               | •          |                |     |            |            |        |     |     |     |     |     |     |          |     |     |     |     |     | 0   |     |       | 18       |
|     | (23) | •      |       |          |        |      |      |            |     |     |     |     |     | -   |     |     |      | •   |          |            |     |     |               |            |                |     |            |            |        |     |     |     |     |     |     | -        |     |     |     |     |     | 0   |     |       | 4        |
|     | (22) | v      |       |          |        |      |      |            |     |     |     |     |     |     |     |     |      |     |          |            |     |     |               | •          | v              |     |            |            |        |     |     |     |     |     |     |          |     |     | -   |     |     | 0   |     | •     | 40       |
|     | (21) | •      | ) C   | o c      | * (    | ሳረ   | 00   |            | 0   | 0   | 0   | 0   | 0   |     | 0   | 0   | . 10 | 1   | α        | о <b>с</b> | o c | , c |               | <b>-</b>   | 0              | 0   | 7          | ~          | °.     | ~   | 0   | ¢   | o   | 0   | 0   | o        | 0   | •   | 0   | 0   | 0   | 0   | 0   | 87    | 1339     |
|     |      | 101    |       |          | •••    |      |      | 101        | 108 | 109 | 110 | 111 | 112 |     | 114 | 115 | 915  | 117 |          | 0          |     |     |               | 221        | 165            | 124 | 125        | 126        | 127    | 128 | 129 | 130 | 131 | 132 | 133 | 134      | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 171-* |          |
|     |      | 0      | • • • | •<br>• • |        |      | •••• |            | 35. | 36. | ~   | 0   | 0   | 707 |     | .23 | 1    | 44. | v        | 1.4        |     | < 0 |               | 5 7 7      | 0              | 51. | 52.        | 53.        | - 24 - | 55. | 56. | 57. | 58. | 59. | ¢   | -        | N   | 63. | 4   | 65. | -0  | 67. | 63. | 0     | 0        |

TYPE OF VEHICLE < TOTAL )

|          | (60) | 133 | 0   | M       | 0  | C  | 0   | 0  | 0       | 0           | 0  | 0  | Ö  | C            | 0   | 0 | 0  | c   | 0  | 0       | 0        | n, M | ð  | 0  | C  | 0      | C  | 0  | C  | 0        |
|----------|------|-----|-----|---------|----|----|-----|----|---------|-------------|----|----|----|--------------|-----|---|----|-----|----|---------|----------|------|----|----|----|--------|----|----|----|----------|
| •        | (65) | 132 | 16  | ¢       | 14 | 0  | 18  | 1  | 40      | 0           | 0  | 0  | 0  | o            | 0   | Ċ | 0  | 2   | 0  | ~       | 0        | 142  | 0  | 0  | o  | 0      | Ċ  | 0  | 0  | 0        |
| dI       | (58) | 131 | 0   | 0       | 0  | o  | 0   | m  | i ni    | 0           | 0  | °. | 0  | 0            | 0   | 0 | 0  | Ó   | 0  | 0       | 0        | S    | 0  | m  | 0  | 0      | 0  | 0  | 0  | ы        |
| INIT: TE | (22) | 130 | 20  | N       | 0  | 0  | 13  | 0  | 15      | o           | ŝ  | 0  | N  | 0            | ~   | ¢ | 0  | 0   | Ó  | цų      | 0        | 94   | Ö  | 4  | 0  | ¢      | 0  | 0  | 0  | 4        |
|          | (95) | 129 | 12  | 0       | 0  | 0  | 0   | 0  | 0       | 0           | 0  | 0  | o  | 0            | 0   | 0 | 0  | 0   | 0  | 0       | D        | 12   | 0  | Ð  | 0  | 0      | 0  | 0  | 0  | 0        |
|          |      |     |     |         |    |    |     |    | 20      |             |    |    |    |              |     |   |    |     |    |         |          |      |    |    |    |        |    |    |    |          |
|          | (34) | 127 | N   | ò       | 12 | v  | 0   | 0  | 0       | 0           | 0  | 0  | 0  | 0            | 0   | 0 | 0  | 0   | 0  | 0       | 0        | 20   | 0  | 0  | 0  | 0      | 0  | 0  | 0  | 0        |
|          | (23) | 126 | 456 | 54      | 79 | 81 | 102 | 38 | 230     | i<br>1<br>1 | 0  | 0  | 37 | · <b>r</b> . | 67  | 0 | 28 | 119 | 02 | с.<br>Г | 0        | 1379 | 0  | N  | 0  | ò      | 0  | 0  | 0  | 8        |
|          | (52) | 125 | 10  | 9       | 18 | 80 | 23  | o  | 33      | o           | 10 | 0  | 16 | 0            | 0   | 0 | 0  | 4   | 0  | -       | 0        | 129  | 0  | 0  | 0  | 0      | 0  | 10 | 0  | 10       |
|          | (12) | 124 | 81  | è<br>n  | 11 | 0  | 0   | 21 | 'n      | 0           | 0  | 0  | 0  | 0            | 0   | 0 | 0  | 0   | 0  | 0       | 0        | 155  | o  | 0  | 0  | 0      | 0  | 0  | 0  | 0        |
|          | (20) | 123 | 235 | 4 3     | 40 | 18 | ٥   | 28 | 39      | o           | m  | 0  | 17 | -9 e         | 0   | 0 | 0  | 15  | භ  | ŝ       | 0        | 474  | 21 | 31 | o  | 31     | 16 | 0  | 10 | 109      |
|          | (67) | 122 | 0   | •       | 0  | ¢  | ¢   | ò  | m       | 0           | 0  | 0  | ¢  | 0            | o   | 0 | •  | ¢   | 0  | 0       | 0        | ۴'n  | ¢  | 0  | 0  | 0      | 0  | 0  | 0  | 0        |
|          | (87) | 121 | ŝ   | ò       | 0  | 0  | 0   | Ð  | ŝ       | 0           | 0  | 0  | 0  | Ö.           | ò   | 0 | o  | 0   | 17 | 0       | 0        | ŝ    | 0  | Ö  | 0  | 0      | 0  | 0  | 0  | c        |
| ÷        | (42) | 120 | 341 | 38<br>1 | ~  | 27 | 20  | 52 | 67      | 0           | 18 | •  | 25 | 0            | 0   | 0 | n  | 22  | 44 | ~       | 0        | 686  | 0  | ¢  | o  | 0      | 0  | 0  | 0  | 0        |
|          | (97) | 119 | 167 | ŝ       | e¢ | ç  | Ň   | m  | 8<br>28 | ¢,          | 0  | 0  | ¢  | 0            | 11. | 0 | 0  | 0   | o  | 0       | o        | 233  | 0  | 0  | 0  | ~<br>₹ | \$ | 0  | 0  | 18<br>18 |
|          | (42) | 118 | 211 | 6.      | 22 | 68 | 46  | 92 | 771     | •           | 10 | 0  | 15 | 19           | 0   | • | 0  | 57  | 12 | 14      | <b>0</b> | 277  | ~  | N  | 27 | 0      | 4  | 0  | 0  | 07       |
|          | (77) | 117 | 40  | 26      | 12 | 0  | ¢   | 0  | 32      | •           | 0  | ò  | \$ | ö            | 0   | 0 | 0  | 17  | 29 | ŝ       | Ð        | 195  | 0  | 0  | 0  | 0      | 0  | 0  | 0  | 0        |
|          | -    | •   |     |         |    |    |     |    | 24      |             |    |    |    |              |     |   |    |     |    |         |          |      |    |    |    |        |    |    |    |          |
|          |      |     |     |         |    |    |     |    | 07      |             |    |    |    |              |     |   |    |     |    |         |          |      |    |    |    |        |    |    |    |          |
|          | (1)  | 114 | N   | \$      | 0  | •  | 0   | o  | o       | •           | 0  | ¢  | o  | o            | 0   | 0 | 0  | 0   | 0  | ø       | 0        | ¢    | 0  | ¢  | 0  | 0      | 0  | 0  | ¢  | ø        |
|          |      |     |     |         |    |    |     |    |         |             |    |    |    |              |     |   |    |     |    |         |          |      |    |    |    |        |    |    |    |          |

## TYPE OF VEHICLE ( TOTAL )

|    |             | _        |     | _   |     |     |     |     | _   |     | _   |      |               |     |     |     |            | ~ .           | _          | ~        | ~          |     | _   | _          |     |          | _   |     |     |     | -   | ~        | ~   | _    | ~   | _        |          |               | ~   |     |     |          |     |              |     |
|----|-------------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|---------------|-----|-----|-----|------------|---------------|------------|----------|------------|-----|-----|------------|-----|----------|-----|-----|-----|-----|-----|----------|-----|------|-----|----------|----------|---------------|-----|-----|-----|----------|-----|--------------|-----|
|    | (09)        | ì        | 0   | o   | o   | 0   | ç   | o   | 0   | 0   |     |      | , .           |     | , . |     |            |               | Ű          | 0        | Ő          | 0   |     |            |     |          |     |     | , с |     |     |          |     |      |     |          |          |               |     |     | , , |          | ,   | ) M          |     |
|    | (59)        | 3        | 0   | 0   | 23  | 0   | 0   | 0   | 0   | 0   | . 6 |      | 1.            | ; с | • c | Ċ   |            | 5             | ö          | 0        | Ð          | 0   | o   | 0          | Ċ   | 0        | 0   | Ċ   |     | • • | 0   | 0        | 0   | 0    | ¢   |          |          | 0             | C   | C   | 0   |          | 707 | 182          | 1   |
| G. | (58)        |          | 0   | o   | o   | 0   | 0   | 0   | 0   | 0   | 0   | o c  | o c           | C   |     | o ⊂ | > <        | > <           | 0          | C        | 0          | 0   | 0   | 0          | 0   | 0        | 0   | 0   | 0   | 0   | 0   | 0        | 0   | o    | 0   | 0        | o        | 0             | 0   | c   | 0   | o o      | 0   | 0            |     |
| -  | 130         | 2        | o   | o   | 0   | ¢   | Ó   | 0   | 0   | 0   | 0   | • c  | 0             | , c | òc  | > c | •          | <b>,</b>      | 0          | 0        | 0          | 0   | o   | 0          | Ċ   | 0        | 0   | 0   | 0   | 0   | Ó   | 0        | 0   | 0    | 0   | 0        | 0        | 0             | 0   | 0   | 0   | 0        | 0   | 80           |     |
| _  | (56)        | J        | 0   | 0   | 0   | 0   | 0   | o   | 0   | 0   | 0   | o c  | 0             | ) C | ) c | • c | > (        |               | Ð          | 0        | 0          | 0   | 0   | 0          | o   | 0        | ø   | 0   | 0   | 0   | 0   | ò        | 0   | 0    | 0   | 0        | Ģ        | •             | •   | 0   | 0   | 0        | 0   | • ~ <b>₽</b> | • . |
|    | (55)        | 5.<br>v  | 0   | 0   | 0   | o   | 0   | 0   | 0   | 0   | 0   | , c  | . 0           | • c | e e | • c | > <        |               | 5          | 0        | 0          | ¢   | 0   | 0          | Ø   | 0        | 0   | 0   | 0   | 0   | 0   | 0        | 0   | 0    | 0   | 0        | 0        | 0             | 0   | 0   | 0   | 14       | 4   | 208          | •   |
|    | (24)        | 0        | 0   | 0   | 0   | 0   | 0   | 0   | ¢   | 0   | C   | ċ    | 0             | • c | Ċ   | • c | > c        | > 0           | 5          | 0        | 0          | 0   | 0   | 0          | C   | 0        | ò   | 0   | 0   | 0   | 0   | 0        | 0   | 0    | 0   | 0        | 0        | 0             | 0   | 0   | 0   | o        | 0   | 50           |     |
|    | 233         | ~        | 0   | 0   | 59  | 16  | 0   | 0   | 0   | 33  | 0   | 0    | 37            | , c | • • | ) C | • •        | > <           | 5          | 0        | 0          | 0   | 0   | 59         | 0   | 0        | ۲.  | 0   | 0   | 0   | •   | 0        | 0   | 0    | 0   | o        | 0        | <b>0</b><br>: | 0   | 0   | 0   | 0        |     | 1609         |     |
|    | (52) (      | <u>۱</u> | 0   | o   | 0   | o   | 0   | 0   | 0   | 0   | 07  | • •  | 18            | 0   | c   | c   |            | <b>,</b>      | ə •        | 0        | ¢          | 0   | 0   | 0          | 0   | 0.       | ň   | 0   | ø   | 0   | •   | ¢        | 0   | ¢    | 0   | 0        | 0        | •<br>•        | •   | 0   | 0   | 0        | 21  | 160          |     |
|    | 51)<br>34   | 0        | 0   |     | 21  | 0   | ō   | 0   | ö   | 0   | 0   | - TO | 12            | 0   | c   | ¢   | эс         | <b>.</b>      | 5 (        | о.       | ~          | 0   | 0   | 0          | ¢   | 0        | 0   | 0   | 0   | 0   | ò   | 0        | 0   | ¢    | 0   | 0        | 0        | •             | 0   | 0   | 0   | 0        | 5   | 190          |     |
|    | 50)         | 0        | 0   | ¢   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0    | 12            | 0   | 0   |     | 4 C        | ).c<br>r      | , i        | 0.       | Ś          | 0   | 0   | 44         | 0.  | 0        | ø   | 0   | 0   | 0   | 0   | 0        | 0   | 0    | þ   | 0        | 0        | 0             | 0   | 0   | 0   | 0        | 55  | 638          | f . |
|    | <u>ج</u>    | -<br>0   | ¢   | 0   | 0   | 0   | 0   | 0   | ¢   | 0   | 0   | 0    | 0             |     | Ċ   |     | <b>,</b> , | > <b>c</b>    | <b></b> c  | о.       | 0          | 0   | .0  | 0          | 0   | 0        | 0   | 0   | 0   | 0   | 0   | 0        | 0   | 0    | o   | 0        | 0        | 0             | 0   | 0   | 0   | 0        | 0   | 'n           | ж   |
|    |             | •        |     |     |     |     |     |     |     |     |     |      |               |     |     |     |            |               |            |          |            |     |     |            |     |          |     |     |     |     | •   |          | _   |      | _   | _        |          | •             |     | _   |     |          |     | •            | •   |
|    | (48)        | •        | 0   | 0   | 0   | Ċ   | 0   | ¢   | 0   | 0   | 0   | 0    | Ö             |     | ¢   |     | ) (C       | >.<           | 2.0        | o        | <b>O</b> · | ç   | o   | ¢          | ¢   | ¢        | 0   | 0   | 0   | 0   | 0   | 0        | 0   | ç    | ç   | 0        | ¢        | 0             |     | 0   | 0   | <u>0</u> | C   | 5£           | -   |
|    | (27)        | •        | 0   | o   | 11  | 0   | 0   | 0   | Ö   | 0   | 0   | 0    |               | 0   |     | ) C |            | <b>,</b>      | 5          | 0        | 0          | ¢   | 0   | 28         | 0   | 0        | 0   | 0   | 0   | 0   | 0   | <b>.</b> | 0   | Ð    | 0   | <b>0</b> | .0<br>:, | 0             | •   | 0   | 0   | Ģ        | 51  | 737          |     |
|    | (46)        | •        | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |      | 11            | 0   | Ċ   | ).C |            | <b>.</b>      | 5          | 0        | Ö          | 0   | 0   | . <b>™</b> | ò   | <u>o</u> | ¢   | 0   | 0   | 0   | 0   | 0        | 0   | 0    | ò   | 0        | 0        | 0             | •   | 0   | 0   | ò        | 14  | 265          | -   |
|    | (45)<br>118 |          | 0   | 0   | ~   | ¢   | 0   | 0   | 0   | 0   | o   | • 0  | 0             | Ċ   |     | • c | <b>,</b>   | >. ¢          |            | 0        | 0          | 0   | Ð   | 22         | D   | O        | 0   | 0   | M   | 0   | 0   | 0        | •   | Þ    | o   | 0        | 0        | 0             | 0   | 0   | 0   | o        | 67  | 866          |     |
|    | (77)        |          | 0   | •   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | • c  | - <b>5</b> -7 | ı c | · c | • c | > (        | <b>&gt;</b> < | 0          | 0        | 0          | 0   | 0   | Ö          | 0   | 0        | 0   | 0   | 0   | 0   | 0   | 0        | 0   | o    | Ö   | 0        | 0        | 0             | 0   | 0   | •   | 0        | 12  | 207          |     |
|    | (43)        | 2        | 0   | 0   | 0   | о   | 0   | ¢   | o   | 0   | 0   | • c  | 'n            | • C | Ċ   | • c | <b>,</b>   | > 0           | 0          | c        | 0          | ¢   | 0   | 0          | 0   | 0        | 00  | 0   | 0   | ¢   | 0   | 0        | 0   | o    | 0   | 0        | 0        | 0             | 0   | 0   | o   | 0        | 51  | 200          |     |
|    | (42)        | n<br>H   | 0   | 0   | 10  | 0   | 0   | 0   | 0   | 0   | 0   | o c  | 1             | 10  | , c | о с | <b>)</b> ( | > 0           | <b>•</b> • | <b>0</b> | 0          | 0   | 0   | Þ          | 0   | 0        | 0   | 0   | 0   | 0   | o   | 0        | o   | ¢    | 0   | 0        | o        | ¢             | 0   | ¢   | 0   | 0        | 25  | 336          |     |
|    | (41)        | 1<br>    | 0   | ¢   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | , c  | , c           | • c | • c | • c | <b>,</b>   | <b>&gt;</b> ( | 0          | 0        | 0          | 0   | 0   | D          | 0   | 0        | 0   | 0   | 0   | 0   | 0   | 0        | 0   | 0    | 0   | 0        | 0        | 0             | ,o  | 0   | 0   | 0        | 0   | ¢            |     |
|    | ·           |          |     |     |     |     |     |     |     |     |     |      |               |     |     |     |            |               |            |          |            |     |     |            |     |          |     |     |     |     |     |          |     |      |     |          |          |               |     |     |     |          |     |              |     |
|    |             | 101      | 102 | 103 | 107 | 105 | 107 | 108 | 109 | 110 | 111 |      |               |     |     |     | 1 0        | ~ (           | 815        | 119      | 120        | 121 | 122 | 123        | 124 | 125      | 126 | 127 | 128 | 129 | 130 | 131      | 132 | 133. | 134 | 135      | 136      | 137           | 138 | 139 | 140 | 141      | 141 | OTAL         |     |

\*\*\*\*\*\*\*\*\* NAIROBI ROAD-USER-INTERVIEW FUTURE OD TABLE BY TYPE OF VEHICLE

\*\*\*\*\*\*\*

TYPE OF VEHICLE ( TOTAL )

| (70)<br>10141 | Ē              | 696 | \$2 | 5  | 20 | 5  | 530 | 23 | 33       | ~   | 8 | - <b>1</b> | ÷              | œ      | 22 | 650 | 65  | 25 | <b>N</b> | 2   | 35  | 5  | -   | \$ | ~4<br>09 | 86 | 5 | 8   |
|---------------|----------------|-----|-----|----|----|----|-----|----|----------|-----|---|------------|----------------|--------|----|-----|-----|----|----------|-----|-----|----|-----|----|----------|----|---|-----|
| (69)<br>- 141 | 315            | 35  | ŝ   | 60 | ŝ  | 2  |     |    |          | .•0 | æ | 131        | 88             | 10     | 76 | ŝ   | 179 | ~  | 0        | -   | ¢ 5 | 78 | 117 | 83 | 76       | 19 | ÷ | 582 |
| (68)<br>141 * | 8              | 0   | 10  | Ģ  | ¢  | 0  | 53  | •  | •        | 0   | 0 | 0          | 0              | 0      | 0  | 0   | 0   | 0  | o        | 147 | 0   | ¢  | 0   | •  | o        | 0  | 0 | 0   |
| (67)          | -              | 0   | 0   | 0  | 'n | 40 | 0   | 0  | 0        | 0   | 0 | 0          | •              | 0      | 0  | D   | ¢   | o  | 0        | 61  | •   | 0  | 0   | •  | 0        | 0  | 0 | 0   |
| (66)<br>139   | ŝ              | 0   | 0   | m  | 0  | 0  | •   | 0  | <b>o</b> | 0   | • | o          | 0              | 0      | 0  | 0   | P   | o  | 0        | 2   | 0   | ¢  | 0   | 0  | 0        | 0  | 0 | ¢   |
| (65)<br>138   |                | 1.8 | 0   | 0  | 0  | 0  | 11  | 0  | 0        | 0   | 0 | 0          | 0              | 0      | 0  | 0   | \$  | 0  | 0        | 35  | 0   | 0  | 0   | 0  | 0        | ō  | o | 0   |
| (64)          | , <del>-</del> | 0   | 0   | 0  | 0  | 10 | 2   | 0  | <b>o</b> | 0   | 0 | 25         | o <sub>.</sub> | 0      | 0  | 0   | 0   | 0  | 0        | 53  | 0   | 0  | 0   | 0  | 0        | ¢  | 0 | 0   |
| (63)<br>136   | •              | 0   | 0   | 0  | 0  | 0  | 0   | 0  | 0        | 0   | o | 0          | 0              | 0      | 0  | ۴N  | 0   | -1 | o        | ~7  | 0   | 0  | 0   | 0  | 0        | 0  | 0 | 0   |
| (62)<br>135   | ្ព             | 31  | 9   | 22 | 0  | 21 | 80  | 0  | o        | 0   | ¢ | 0          | 0              | 9<br>7 | 0  | 14  | 0   | Ċ, | 0        | 296 | 0   | 0  | 0   | 0  | 0        | 0  | 0 | 0   |
| (61)          |                | O,  | ò   | o  | o  | 12 | 14  | ~  | <b>.</b> | o   | ¢ | 0          | o              | 0      | 0  | •   | °.  | o  | 0        | 37  | 0   | 0  | 0   | 0  | 0        | 0  | 0 | 0   |

4 W ON 00 0 ្ឋ 1115. 1115. 1116. 1116. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. 1117. NM

UNIT:TRIP

TYPE OF VEHICLE ( TOTAL )

UNIT:TRIP

| (70)<br>TOTAL    | Ś | 26 | 0   | 1354 | Ň  | 81 | 0 |   | 478 | 12  | ¢.  | 3365 | -   | 326 | 0   | 144 | õ   | Ň   | 668 |     |   | 2.18 |     | Ŵ      | .vri |     |     | 15       |     | 0   | 1,98 |          | ň   | 32.6    | ·   | 0   |     | 61  | - 1 | 297 |            | 89897          |
|------------------|---|----|-----|------|----|----|---|---|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|---|------|-----|--------|------|-----|-----|----------|-----|-----|------|----------|-----|---------|-----|-----|-----|-----|-----|-----|------------|----------------|
| 9<br>7<br>7<br>1 | - |    | 0   |      | ** |    | 0 | ¢ | 71  | 0   | 0   | 247  |     | ~   | 36  | 23. | 50, | .ò  | 11  | 0   | ō | 133  | 14  | °<br>· | 150  | 0   | ۰¢  | 0        | •   |     | 87   | ¢        | ÷.  | ×4<br>1 | Ö   | 0   | 5   | 13  | ~   | 80  | 9 E        |                |
| (68)<br>141 *    |   | 0  | 0   | 132  |    | 0  | 0 | 0 | ò   | o   | 0   | N    | 0   | ò   | o   | 0   | 0   | ò   | o   | Ó   | 0 | 0    | ¢   | 0      | 0    | O,  | 0   | o        | ò   | ¢   | 0    | °        | •   | ò       | 0   | 0   | 0   | 0   | 0   | 0   | m          | 281            |
| (67)<br>140      | - | 0  | 0   | 0    | ¢  | 0  | 0 | Ö | 0   | 0   | 0   | ŝ    | Ö   | 0   | 0   | 0   | 0   | ò   | o   | ō   | o | ò    | ò   | ю      | 0    | Ö   | o   | 0        | 0   | o   | 0    | •        | o   | 0       | 0   | 0   | 0   | 0   | 0   | 0   | ţΩ.        | 99             |
| (66)<br>139      |   | 0  | 0   | ۶'n  | 0  | 0  | 0 | 0 | ō   | Ó   | 0   | Ö    | ò   | 0   | o   | 0   | 0   | 0   | 0   | 0   | o | ò    | o   | 0      | 0    | 0   | 0   | 0        | Þ   | 0   | ¢    | ō        | 0   | 0       | 0   | ¢   | 0   | 0   | 0   | 0   | m          | <b>9</b><br>72 |
| (65)<br>138      | ÷ | 0  | 0   | ~*   | 0  | 0  | o | Q | 0   | ò   | 0   | м    | 0   | ¢   | 0   | 0   | 0   | ò   | o   | 0   | 0 | 0    | þ   | ò      | Ð    | o   | 0   | 0        | 0   | o   | 0    | 0        | 0   | ò       | 0   | 0   | 0   | 0   | 0   | 0   | ~          | 4              |
| (64)             |   |    | b   | 7    | 0  | 0  | 0 | Ö | 0   | Ó   | 0   | ò    | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | ¢ | ò    | 0   | •      | ò    | 0   | 0   | •        | o   | •   | 0    | 0        | 0   | 0       | 0   | 0   | 0   | 0   | 0   | 0   | - <b>3</b> | 57             |
| (63)<br>136      |   | 0  | 0   | 5    | 0  | 0  | o | 0 | 0   | C   | 0   | 0    | 0   | 0   | ò   | 0   | ¢   | ¢   | 0   | 0   | ¢ | 0    | 0   | Ģ      | 0    | 0   | o   | 0        | ò   | 0   | 0    | ò        | 0   | 0       | 0   | 0   | 0   | 0   | 0   | 0   | Ś          | ٥              |
| (62)<br>135      |   | 0  | 0   | 54   |    | ¢  | o | o | 0   | C   | 0   | 17   | o   | N   | o   | 0   | 0   | 0   | •   | 0   | 0 | 0    | ¢   | 0      | 0    | 0   | 0   | <b>0</b> | o   | 0   | •    | 0        | 0   | m       | 0   | 0   | 0   | 0   | 0   | 0   |            | 377            |
| (61)<br>134      | 0 | 0  | 0   | ŝ    | 0  | 0  | 0 | 0 | o   | Ċ   | 0   | 4    | 0   | 0   | ō   | 0   | 0   | °   | 0   | ò   | o | 0    | 0   | 0      | 0    | 0   | 0   | Ō        | 0.  | •   | 0    | <b>0</b> | 0   | 0       | •   | 0   | 0   | 0   | o   | Ð   | ¢          | 46             |
|                  |   |    | 103 |      |    |    |   |   |     | 111 | 112 | 113  | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 |   | 123  | 124 | 125    | 126  | 127 | 128 | 129      | 130 | 131 | 132  | 133      | 134 | 135     | 136 | 137 | 138 | 139 | 140 | 141 | *-141      |                |

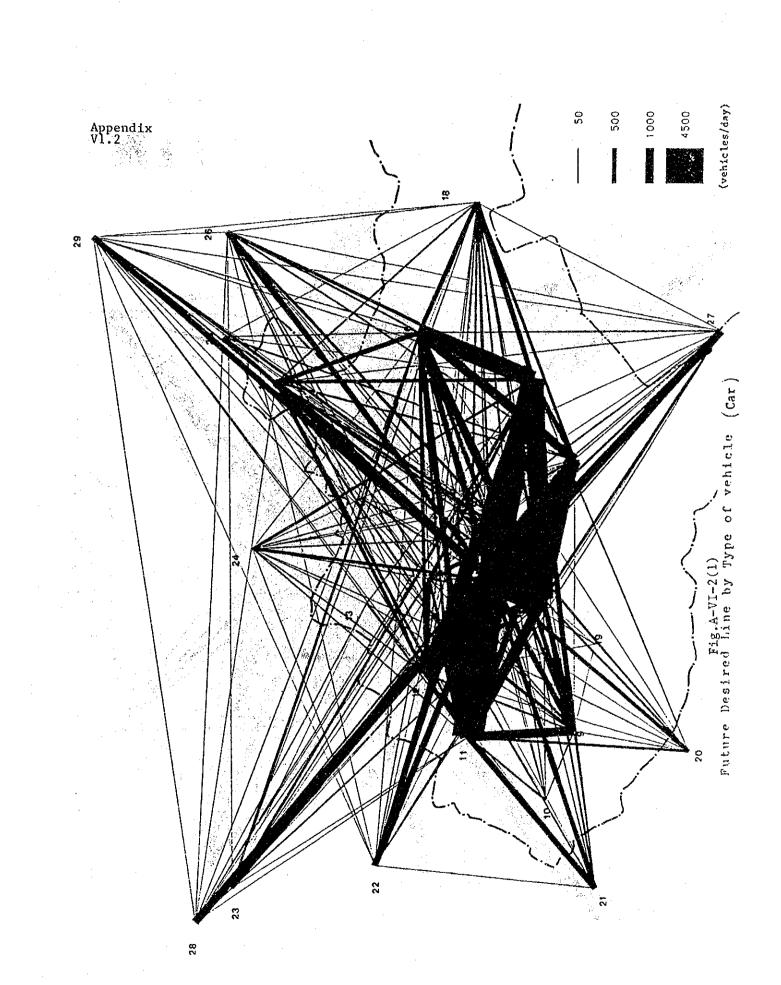
.

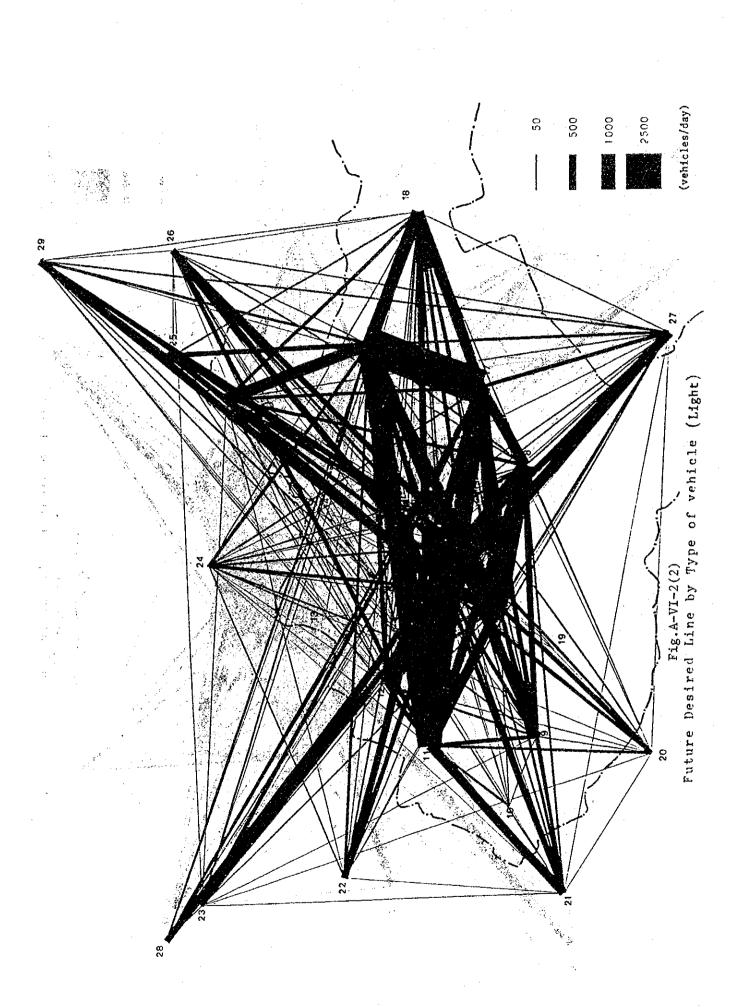
890

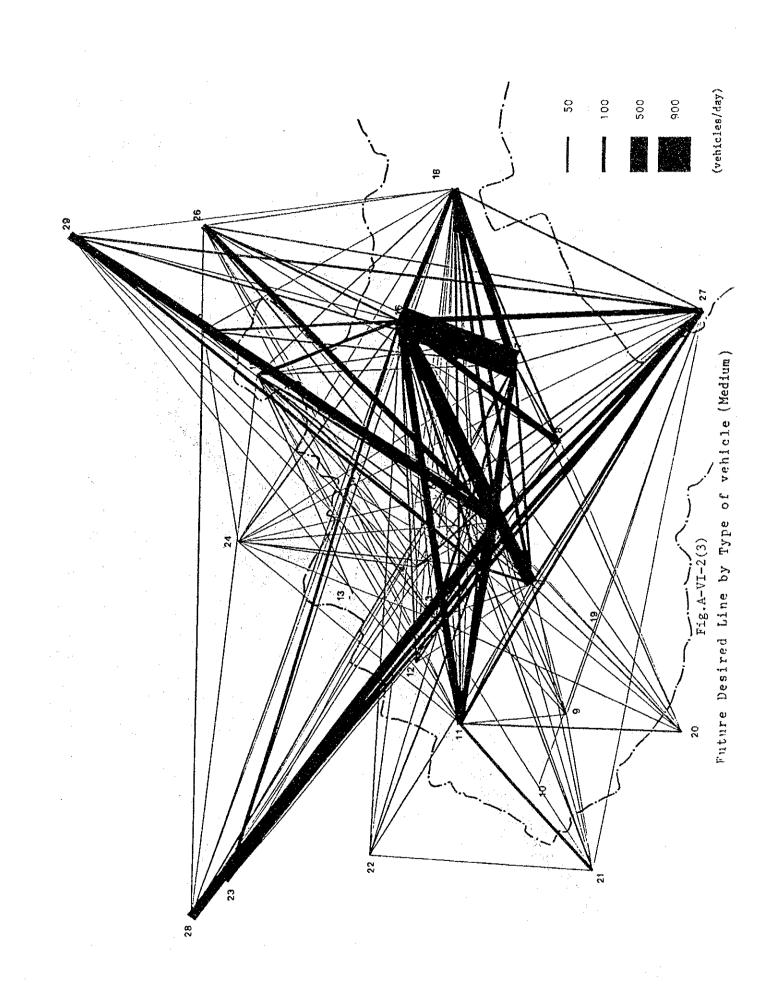
1000

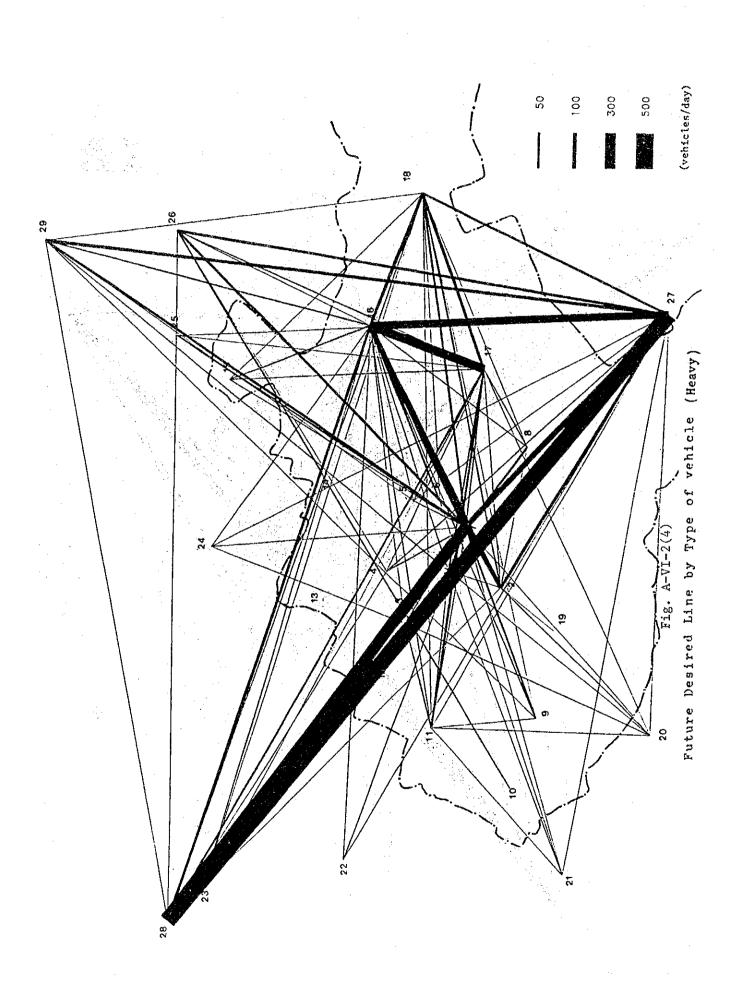
665. 665. 768. 700.

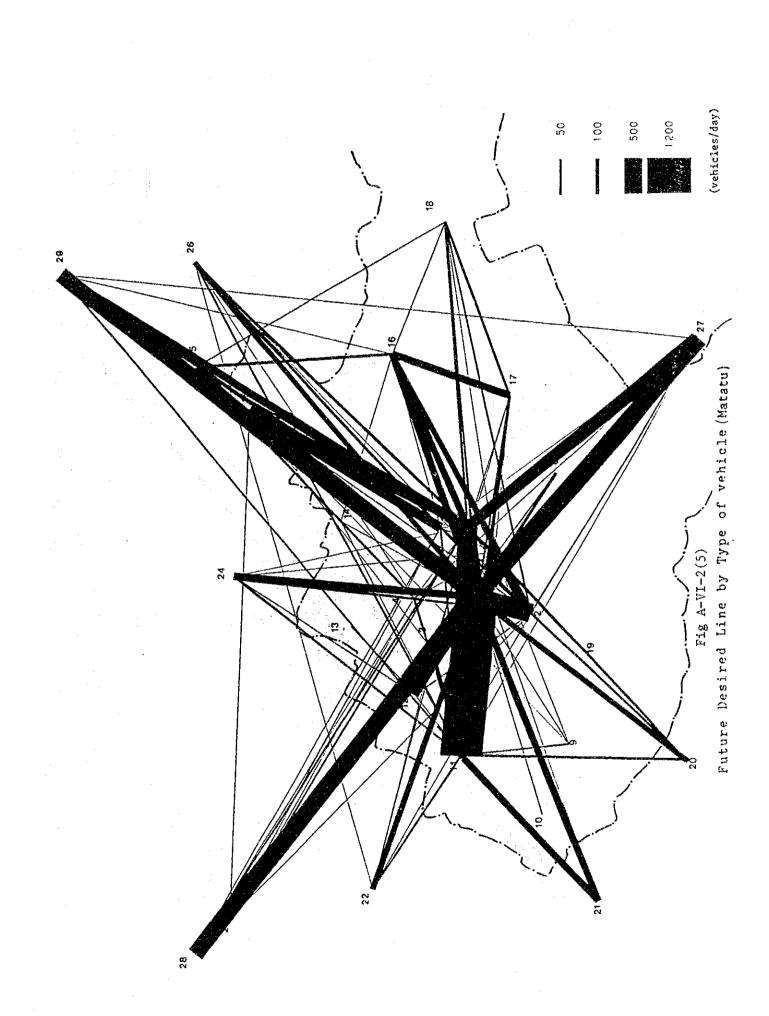
62. 63.

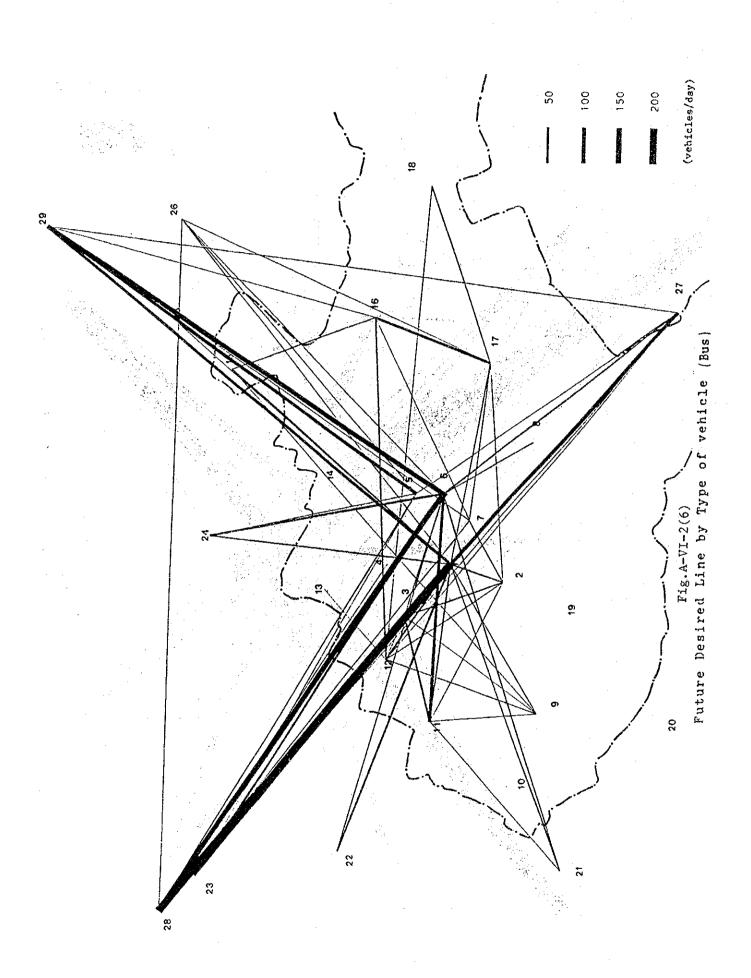












## Appendix

.

VI.3

## Traffic Capacity by Link by Alternative Network

|      |          |          |                  |                          | (A -      | 0)              |
|------|----------|----------|------------------|--------------------------|-----------|-----------------|
| Link | A - Node | B - Node | Distance<br>(km) | Capacity<br>(P.C.U./day) | Road Name | Carriage<br>way |
| 1001 | 1        | 107      | 1.40             | 12,000                   | A104      | Dual            |
| 1002 | 107      | 1        | 1.40             | 12,000                   | - do -    | - do -          |
| 1003 | 131      | 8        | 4.90             | 18,000                   | - do -    | - do -          |
| 1004 | 8        | 131      | 4.90             | 18,000                   | - do -    | - do -          |
| 1005 | 130      | 121      | 10.20            | 14,000                   | - do -    | Single          |
| 1006 | 121      | 28       | 280.00           | 14,000                   | - do -    | - do -          |
| 1007 | 29       | 121      | 50.00            | 14,000                   | - do -    | - do -          |
| 1008 | 101      | 1        | 1.30             | 12,000                   | - do -    | Dua1            |
| 1009 | 1        | 101      | 1.30             | 12,000                   | - do -    | - do -          |
| 1010 | 102      | 101      | 0.90             | 22,000                   | - do -    | - do -          |
| 1011 | 101      | 102      | 0.90             | 22,000                   | - do -    | - do -          |
| 1012 | 103      | 102      | 1.70             | 22,000                   | - do -    | - do            |
| 1013 | 102      | 103      | 1.70             | 22,000                   | - do -    | - do -          |
| 1014 | 104      | 103      | 1.30             | 20,000                   | - do -    | - do -          |
| 1015 | 12       | 104      | 2.00             | 20,000                   | - do -    | – do –          |
| 1016 | 125      | 12       | 6.20             | 16,000                   | - do -    | - do -          |
| 1017 | 12       | 125      | 6.20             | 16,000                   | - do -    | - do -          |
| 1018 | 22       | 125      | 7.10             | 20,000                   | - do -    | - do -          |
| 1019 | 127      | 22       | 2.40             | 20,000                   | - do -    | - do -          |
| 1020 | 126      | 127      | 2.10             | 20,000                   | - do -    | - do -          |
| 1021 | 23       | 126      | 7.70             | 20,000                   | - do -    | - do -          |
| 1022 | 30       | 23       | 250.00           | 14,000                   | - do -    | Single          |
| 1023 | 101      | 105      | 2.70             | 16,000                   | А2        | Dual            |
| 1024 | 105      | 101      | 2.70             | 16,000                   | - do -    | - do            |
| 1025 | 105      | 106      | 1.10             | 16,000                   | - do -    | - do -          |
| 1026 | 106      | 105      | 1.10             | 16,000                   | ~ do -    | <b>-</b> do -   |
| 1027 | 106      | 112      | 3.40             | 20,000                   | - do -    | - do -          |
| 1028 | 112      | 106      | 3.40             | 20,000                   | - do      | - do -          |
| 1029 | 112      | 113      | 1.40             | 20,000                   | - do -    | - do -          |
| 1030 | 113      | 112      | 1.40             | 20,000                   | - do -    | - do -          |

Link Value Table

|      |          |             |                  | · · · ·                  | (A-0)     |                 |
|------|----------|-------------|------------------|--------------------------|-----------|-----------------|
| Link | A - Node | B – Node    | Distance<br>(km) | Capacity<br>(P.C.U./day) | Road Name | Carriage<br>way |
| 1031 | 113      | 114         | 2.70             | 24,000                   | A2        | Dual            |
| 1032 | 114      | 113         | 2.70             | 24,000                   | - do -    | - do -          |
| 1033 | 114      | 115         | 6.10             | 24,000                   | - do -    | - do - '        |
| 1034 | 115      | 114         | 6.10             | 24,000                   | – do –    | - do -          |
| 1035 | 115      | 116         | 5.60             | 24,000                   | - do -    | - do -          |
| 1036 | 116      | 115         | 5.60             | 24,000                   | - do -    | - do -          |
| 1037 | 116      | 117         | 0.90             | 24,000                   | - do -    | - do -          |
| 1038 | 117      | 116         | 0.90             | 24,000                   | - do -    | - do -          |
| 1039 | 117      | 31          | 200.00           | 24,000                   | - do -    | - do -          |
| 1040 | 31       | 117         | 200.00           | 24,000                   | - do -    | - do -          |
| 1041 | 8        | 130         | 4.00             | 18,000                   | A104      | – do <b>–</b>   |
| 1042 | 130      | 8           | . 4.00           | 18,000                   | - do -    | - do -          |
| 1043 | 107      | 131         | 2.70             | 18,000                   | - do -    | - do -          |
| 1044 | 131      | 107         | 2.70             | 18,000                   | - do -    | – do –          |
| 1055 | 123      | 136         | 3.60             | 12,000                   | New Road  | Single          |
| 1056 | 103      | 104         | 1.30             | 20,000                   | A104      | Dual            |
| 1057 | 104      | 12          | 2.00             | 20,000                   | - do -    | - do -          |
| 1058 | 125      | 22          | 7.10             | 20,000                   | - do -    | - do -          |
| 1059 | 22       | 1 <b>27</b> | 2.40             | 20,000                   | - do -    | - do -          |
| 1060 | 127      | 126         | 2.10             | 20,000                   | - do -    | - do -          |
| 1061 | 126      | 23          | 7.70             | 20,000                   | A104      | - do -          |
| 2001 | 108      | 1           | 2.20             | 18,000                   | C60       | - do -          |
| 2002 | 109      | 108         | 1.50             | 18,000                   | - do -    | - do -          |
| 2002 | 110      | 136         | 2.00             | 18,000                   | - do -    | - do -          |
| 2004 | 11       | 110         | 3.00             | 10,000                   | C61       | Single          |
| 2005 | 11       | 125         | 3.00             | 10,000                   | - do -    | - do -          |
| 2005 | 133      | 110         | 4.00             | 12,000                   | C60       | - do            |
| 2007 | 10       | 134         | 5.40             | 12,000                   | C63       | - do -          |
| 2008 | 22       | 124         | 6.90             | 12,000                   | - do -    | - do -          |

Link Value Table

|      |          | <u> </u> |                  |                          | (         | A-0)            |
|------|----------|----------|------------------|--------------------------|-----------|-----------------|
| Link | A - Node | B - Node | Distance<br>(km) | Capacity<br>(P.C.U./day) | Road Name | Carriage<br>way |
| 2009 | 21       | 10       | 8.00             | 8,000                    | C60       | Single          |
| 2010 | 9        | 122      | 1.90             | 10,000                   | C63       | - do -          |
| 2011 | 10       | 9        | 5.50             | 10,000                   | do        | - do -          |
| 2012 | 122      | 123      | 1.90             | 22,000                   | C58       | Dual            |
| 2013 | 132      | 2        | 2.20             | 20,000                   | - do -    | - do -          |
| 2014 | 2        | 107      | 1.90             | 20,000                   | - do -    | - do -          |
| 2015 | 107      | 7        | 1.30             | 16,000                   | Lusaka Ro | ad Single       |
| 2016 | 129      | 114      | 7.50             | 10,000                   | D400      | - do -          |
| 2017 | 22       | 111      | 10.80            | 10,000                   | C63       | - do -          |
| 2018 | 23       | 111      | 15.00            | 10,000                   | C62       | - do -          |
| 2019 | 128      | 24       | 10.30            | 10,000                   | C63       | - do -          |
| 2020 | 111      | 128      | 5.50             | 10,000                   | - do -    | - do -          |
| 2021 | 111      | 13       | 9.10             | 10,000                   | C62       | - do -          |
| 2022 | 13       | 106      | 5.30             | 10,000                   | - do -    | - do -          |
| 2023 | 24       | 106      | 10.50            | 10,000                   | C64       | - do -          |
| 2024 | 24       | 129      | 6.00             | 12,000                   | C63       | - do -          |
| 2025 | 25       | 116      | 0.50             | 12,000                   | - do -    | - do -          |
| 2026 | 120      | 16       | 7.80             | 16,000                   | C98       | - do -          |
| 2027 | 16       | 18       | 15.00            | 10,000                   | - do -    | - do -          |
| 2028 | 114      | 16       | 7.20             | 10,000                   | D400      | - do -          |
| 2029 | 112      | 120      | 4.70             | 12,000                   | C59       | - do -          |
| 2030 | 119      | 120      | 2.20             | 12,000                   | - do -    | - do -          |
| 2031 | 118      | 119      | 3,20             | 12,000                   | - do -    | - do -          |
| 2032 | 20       | 122      | 16.70            | 8,000                    | C58       | - do -          |
| 2033 | 129      | 25       | 9.70             | 12,000                   | C63       | - do -          |
| 2034 | 118      | 130      | 5.60             | 12,000                   | C59       | - do -          |
| 2035 | 107      | 2        | 1.90             | 20,000                   | C58       | Dual            |
| 2036 | 2        | 132      | 2.20             | 20,000                   | - do      | - do -          |
| 2037 | 123      | 132      | 2.00             | 22,000                   | C58       | - do -          |
| 2038 | 132      | 123      | 2.20             | 22,000                   | - do -    | - do -          |
| 2039 | 123      | 122      | 1.90             | 22,000                   | - do -    | - do -          |
| 2040 | 1        | 108      | 2.20             | 18,000                   | C60       | - do -          |

Link Value Table

|      |          | · .      |                  |                          | (A-0)      |                 |
|------|----------|----------|------------------|--------------------------|------------|-----------------|
| Link | A - Node | B - Node | Distance<br>(km) | Capacity<br>(P.C.U./day) | Road Name  | Carriage<br>way |
| 2041 | 108      | 109      | 1.50             | 18,000                   | C60        | Dual            |
| 2042 | 136      | 109      | 1.20             | 18,000                   | - do       | - do -          |
| 2043 | 109      | 136      | 1.20             | 18,000                   | - do -     | - do -          |
| 2044 | 136      | 110      | 2.00             | 18,000                   | - do -     | - do -          |
| 2045 | 10       | 133      | 2.60             | 12,000                   | C60        | Single          |
| 2046 | 124      | 134      | 1.20             | 12,000                   | C63        | - do -          |
| 3001 | 104      | 3        | 1.00             | -                        | Access Lin | k Nil           |
| 3002 | 27       | 109      | 1.00             | -                        | - do -     | - do -          |
| 3003 | 105      | 5        | 2.70             | · <u> </u>               | - do -     | - do -          |
| 3004 | 5        | 6        | 2.00             | <del></del> ·            | - do -     | - do -          |
| 3005 | 7        | . 6      | 2.00             | —                        | - do -     | - do -          |
| 3006 | 6        | 119      | 3.80             |                          | - do -     | - do -          |
| 3007 | 8        | 118      | 2.40             | -                        | - do -     | - do -          |
| 3008 | 118      | 17       | 3.00             | -                        | - do -     | - do -          |
| 3009 | 123      | 19       | 0.60             | <del></del>              | - do -     | - do -          |
| 3010 | 102      | 4        | 1.20             | + · · ·                  | - do -     | - do -          |
| 3011 | 4        | 105      | 1.60             | <b>-</b>                 | - do -     | - do -          |
| 3012 | 14       | 113      | 1.60             | -                        | - do -     | - do -          |
| 3013 | 15       | 115      | 0.90             | -                        | - do -     | - do -          |
| 3014 | 117      | 26       | 3.00             | _                        | - do -     | – do –          |

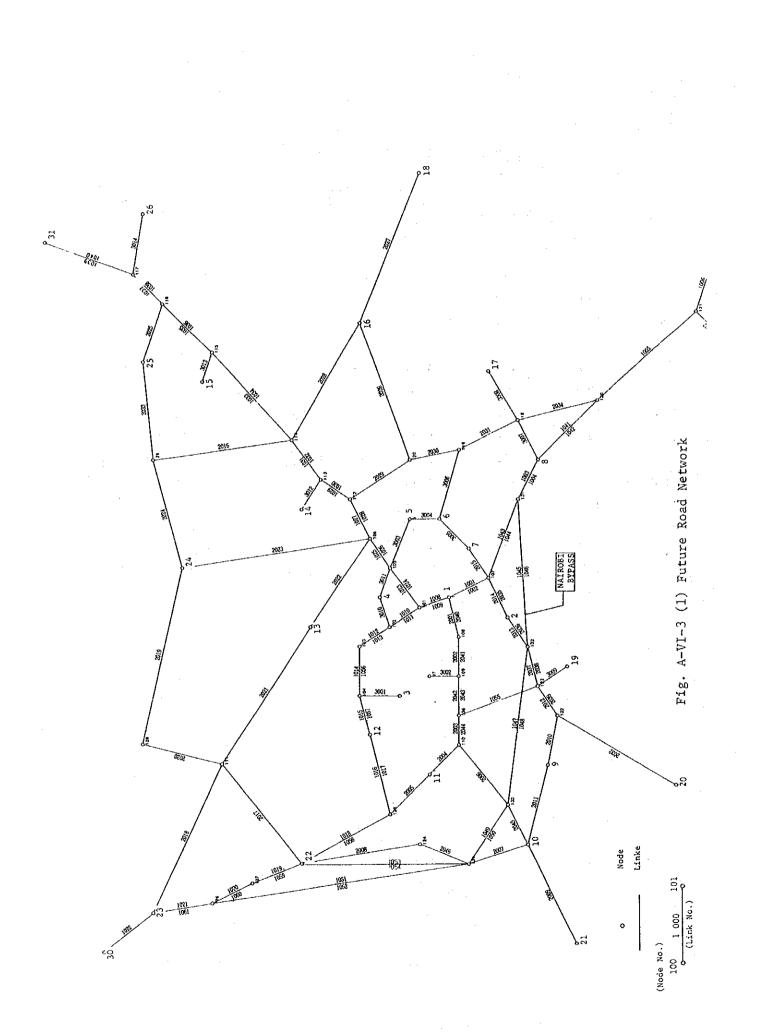
Link Value Table

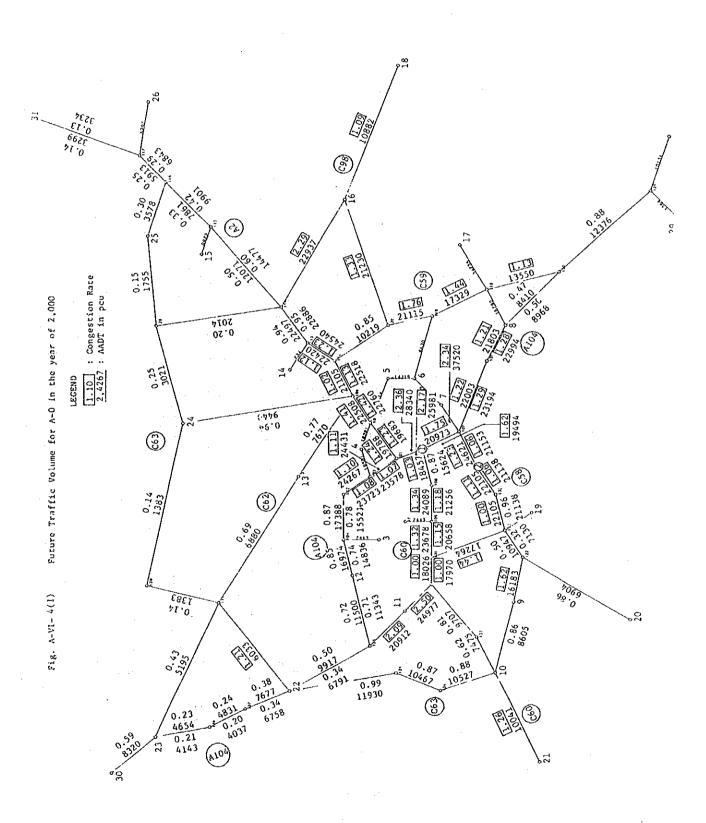
A-VI-18

.

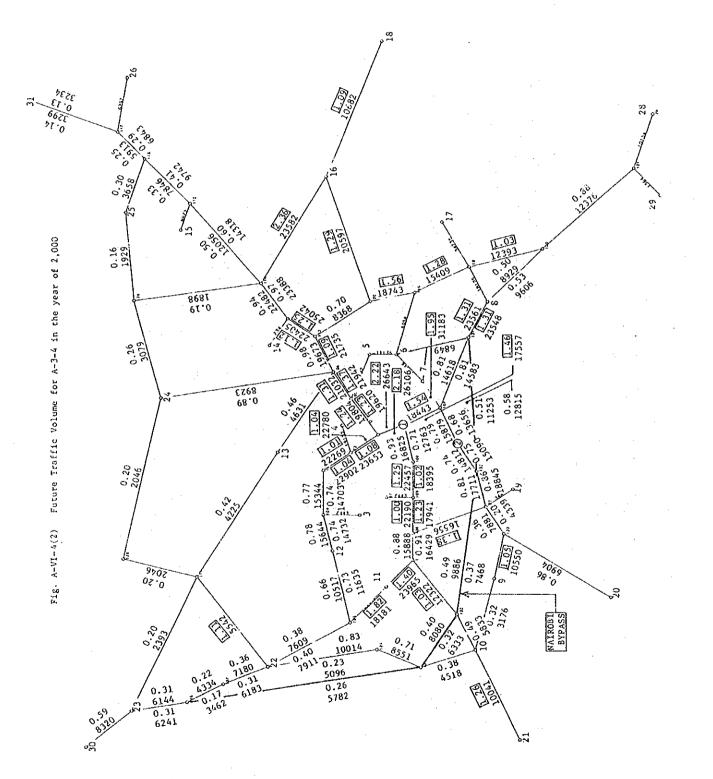
|      |          |          | · .              |                          |                             |
|------|----------|----------|------------------|--------------------------|-----------------------------|
| Link | A - Node | B – Node | Distance<br>(km) | Capacity<br>(P.C.U./day) | Carriage<br>Alternative way |
| 1045 | 132      | 131      | 5.70             | 22,000                   | A-3-4, A-1-4 Dual           |
| 1046 | 131      | 132      | 5.70             | 22,000                   | - do do -                   |
| 1047 | 133      | 132      | 8.70             | 20,000                   | - do do -                   |
| 1048 | 132      | 133      | 8.70             | 20,000                   | - do do -                   |
| 1049 | 134      | 133      | 5.10             | 20,000                   | - do do -                   |
| 1050 | 133      | 134      | 5.10             | 20,000                   | - do do -                   |
| 1051 | 126      | 134      | 9.50             | 22,000                   | A-3-4 - do -                |
| 1052 | 134      | 126      | 9.50             | 22,000                   | - do do -                   |
| 1053 | 22       | 134      | 6.90             | 22,000                   | A-1-4 - do -                |
| 1054 | 134      | 22       | 6.90             | 22,000                   | - do do -                   |
| 1062 | 131      | 132      | 5.70             | 11,000                   | A-3-2, A-1-2 Single         |
| 1063 | 132      | 133      | 8.70             | 11,000                   | - do do -                   |
| 1064 | 133      | 134      | 5.10             | 11,000                   | - do do -                   |
| 1065 | 134      | 126      | 9.50             | 11,000                   | A-3-2 - do -                |
| 1066 | 134      | 22       | 6.90             | 11,000                   | A-1-2 - do -                |
|      |          |          |                  |                          |                             |

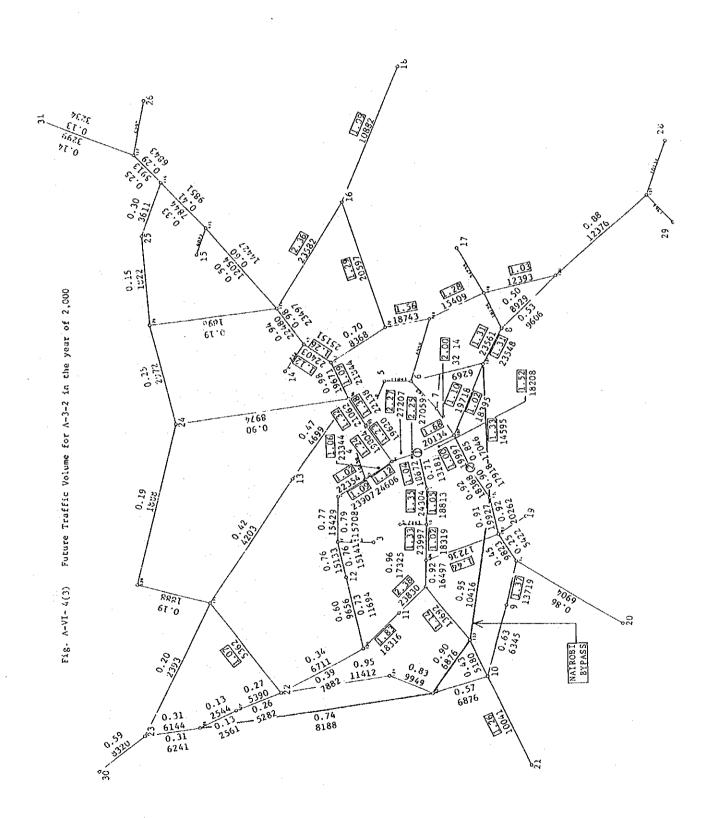
Link Value Table of Nairobi By-pass

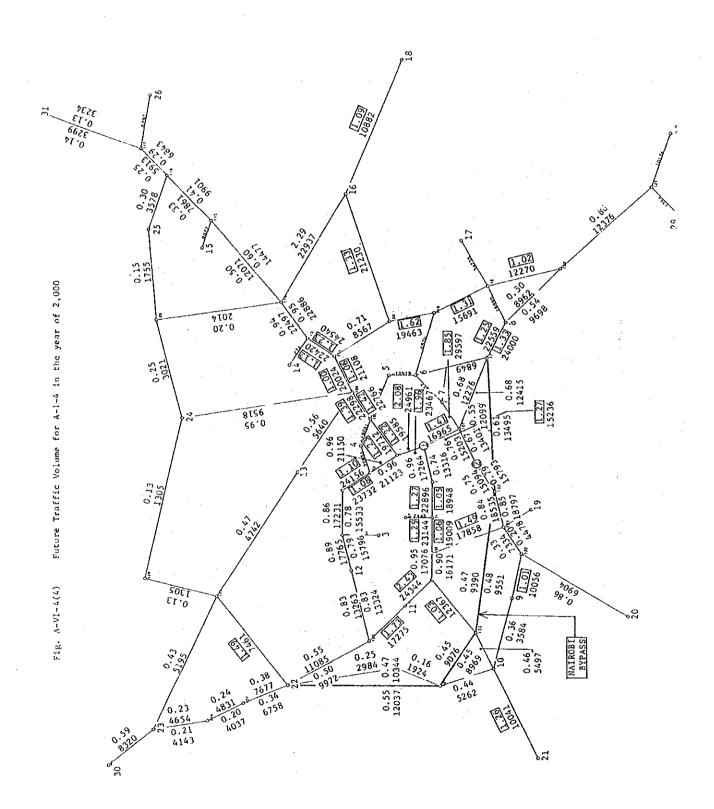




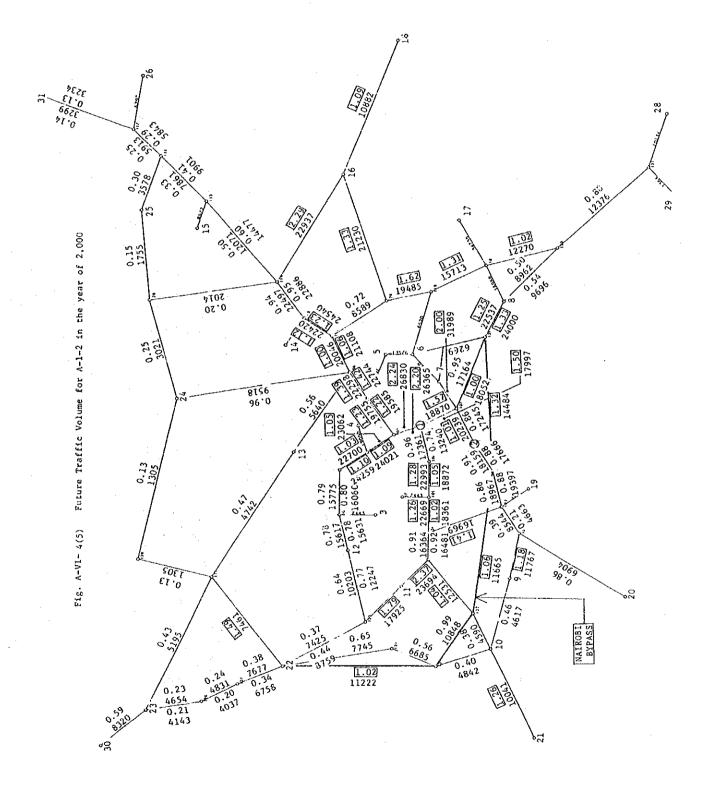
Appendix VI.4 Future Traffic Volume by Alternative Networks

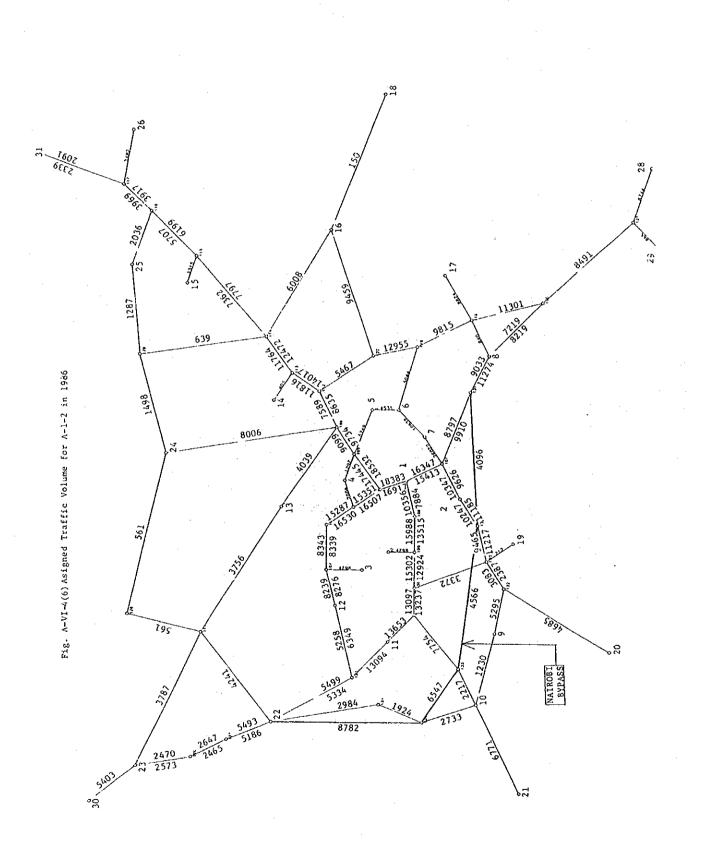






A-V1-24





Appendix VI.5 Converted OD trips to the Bypass

| $\hat{G} = \hat{G} = $                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| ୍ଚିନ୍ଦ୍ର୍ଚିଚ୍ଚିଚ୍ଚିଚ୍ଚିଚ୍ଚିଚ୍ଚିଚ୍ଚିଚ୍ଚିଚ୍ଚିଚ୍ଚ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| $\sim$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| $\sim$ or or contration exception or contration exception exception and $\sim$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| $\Box$ in the two production production in the productin the production in the produc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 00-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| $\mathcal{L}_{\mathcal{M}} = \mathcal{L}_{\mathcal{M}} = $ |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| $\mathbb{R}^{\mathrm{H}}_{\mathrm{H}}$ is seeded a seeded of seeded with secondary model is seeded as $\mathbb{R}^{\mathrm{H}}_{\mathrm{H}}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| ္ခ်္ခမ္မွာပင္စစ္စံ ဘာဘာခ်က္ပ်င့္စစ္စစ္စံ ဘာဗီစစ္စံ စစ္စံ စစ္စံ စစ္စံ စစ္စံ စစ္စံ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| $\begin{array}{c c} \square \\ \blacksquare \\$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 0     0     0     0     0     0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| $ = \begin{bmatrix} 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 \\ 0 & 0 &$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| $\hat{\mu}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| A 66666 66666 66666 66666 66666 6666 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Table A. VI-5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| T <sup>2</sup><br>20NE <sub>40</sub><br>11<br>11<br>12<br>13<br>13<br>13<br>13<br>14<br>13<br>15<br>15<br>15<br>15<br>15<br>15<br>15<br>15<br>15<br>15<br>15<br>15<br>15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| ← VIIDE NAIROBI × IBOBI A N VIIDE NAIROBI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

•

|                                                                    |                  |                                        |          |                                              |              |            |                 |               |                         |             |            |               |          |                        |                   |               |        |               |                    | 4        |               | 1.1      | r                                       |                    |                                   | ٦. |
|--------------------------------------------------------------------|------------------|----------------------------------------|----------|----------------------------------------------|--------------|------------|-----------------|---------------|-------------------------|-------------|------------|---------------|----------|------------------------|-------------------|---------------|--------|---------------|--------------------|----------|---------------|----------|-----------------------------------------|--------------------|-----------------------------------|----|
| •                                                                  |                  |                                        |          |                                              |              |            |                 |               |                         |             |            |               |          |                        |                   |               |        |               |                    |          |               |          |                                         | ŝ                  | 2                                 | ľ  |
|                                                                    |                  |                                        |          |                                              |              |            |                 |               |                         |             |            |               |          |                        |                   |               |        |               |                    |          |               |          |                                         | . Ħ .              | A104                              |    |
|                                                                    |                  |                                        |          |                                              |              |            |                 |               |                         |             |            |               |          |                        |                   |               |        |               | •                  |          |               |          |                                         | OD TRIPS           | CONVERSION RATE<br>TED TRIPS FROM |    |
|                                                                    |                  |                                        |          |                                              |              |            |                 |               |                         |             |            |               |          |                        |                   |               |        |               |                    |          |               |          |                                         | 8.5                | 7 E                               | Į  |
|                                                                    |                  |                                        |          |                                              |              |            |                 |               |                         |             |            |               |          |                        |                   |               |        |               |                    |          |               |          |                                         | CONVERTED          | TRIPS                             |    |
|                                                                    |                  |                                        |          |                                              |              |            |                 |               |                         |             |            |               |          |                        |                   |               |        |               |                    |          |               |          | LECEND                                  | ER S               | E E                               |    |
|                                                                    |                  |                                        |          |                                              |              |            |                 |               |                         |             |            |               |          |                        |                   | •             |        |               |                    |          |               | ÷.,      | 3                                       | IN I               | z o                               |    |
|                                                                    |                  |                                        |          |                                              |              |            |                 |               |                         |             |            |               |          |                        |                   |               | •      |               |                    |          |               | -        |                                         |                    |                                   |    |
|                                                                    |                  |                                        | ·        |                                              | •            |            |                 |               |                         |             |            |               |          |                        |                   |               |        |               | 11                 |          |               |          |                                         | UPPER : NO, OF     | δĒ                                | ł  |
|                                                                    | • •              |                                        |          |                                              |              |            |                 |               |                         | •           | 1.1        |               |          |                        | •                 |               |        | ÷             |                    |          |               |          | 1                                       | 8.5                | s S                               |    |
|                                                                    |                  |                                        |          |                                              |              |            |                 | -             |                         |             |            |               | •        | ÷ .                    |                   |               |        |               |                    |          |               |          |                                         |                    | 1 H<br>1 H                        |    |
|                                                                    |                  |                                        |          |                                              |              | ۰.         |                 |               | :                       |             | · .        |               |          |                        |                   |               |        |               | 19 - 19<br>19 - 19 |          |               | 5 A.     |                                         | UPPER              | ž ×                               |    |
| 0                                                                  |                  |                                        |          |                                              |              |            |                 |               |                         |             |            | ÷             |          |                        |                   |               |        |               |                    | ÷        | •.            | : · ·    | - (* - +                                |                    | Ĵ,                                |    |
| 0                                                                  |                  |                                        |          |                                              |              |            |                 |               |                         |             |            |               |          |                        |                   |               |        |               |                    |          |               |          |                                         |                    |                                   | ļ  |
| 0                                                                  |                  |                                        |          |                                              | - · ·        |            |                 |               |                         |             |            |               |          | 1                      | Ť.,               | . •           | ÷.,    |               | 2                  |          | •             |          |                                         |                    |                                   |    |
| ~                                                                  |                  | -                                      |          |                                              |              |            |                 |               |                         |             | ·          |               |          | ×.,                    |                   |               |        |               |                    |          | 5             | : 1      | $\{ e_{1}, e_{2} \}$                    |                    |                                   |    |
| z                                                                  |                  |                                        |          | ÷.,                                          |              |            |                 |               |                         |             |            |               |          |                        |                   |               |        |               |                    |          |               |          |                                         |                    |                                   |    |
|                                                                    | _                | ~ ~                                    | $\sim$   | ~~~                                          |              | ~~         | ~               | ~ ~           |                         |             | -          | ~ ~           |          |                        | 20                |               |        |               | ~                  | ~ ~      |               |          | ~ ~                                     | ~ ~                |                                   | ~  |
| ~                                                                  | TOTAL            | 200<br>700                             | ~?       |                                              |              | G          | ିଳ              | 6.9           | 2                       | പ           | <u> </u>   | 6 6<br>000    | 6        |                        | ر<br>مربع<br>مربع | 50 K          |        | <u> </u>      | 6                  | 88       |               | 5 F-     | ء<br>مىنىدە                             | ( 23.0)            | 23308 m                           | Ē  |
|                                                                    | ្តភ្ន            | ිසිං                                   | 44       | <u> </u>                                     | <u>.</u>     | මුල්ද      | 36              |               | ୍ଟିଟ୍                   | <u>ത</u> ്. | ~~~        | 000           | ្តន្តអ   | Š                      | 377-C             | 8 88          |        | - <u>S</u>    | So.                | ي جي جي  |               | 300      |                                         | n                  | gg c                              | 2  |
| Ś.                                                                 |                  | $\sim \sim$                            | ~        | <u> </u>                                     |              | ~~~        | ~~-             |               | $\sim$                  | ~           | <u> </u>   |               |          | ~~~                    | <u> </u>          | - · · · ·     |        |               | <u> </u>           |          |               | 10       |                                         | - `                | <ul><li></li></ul>                | ~  |
| Z                                                                  |                  |                                        |          | 1 .                                          |              |            |                 |               |                         |             | ÷.,        |               | •        |                        |                   |               |        |               |                    |          | - 1 - Nr<br>- | <br>     |                                         |                    |                                   |    |
| <u>,</u>                                                           |                  |                                        |          |                                              |              |            |                 |               |                         |             |            |               |          |                        |                   |               |        | 11.           | · . ·              |          |               |          |                                         |                    |                                   |    |
| CLE: TOTAL                                                         |                  |                                        |          |                                              |              |            |                 |               |                         | ÷           |            | ·             |          |                        |                   | _             |        |               |                    |          |               |          |                                         | •                  | 2                                 |    |
| ν÷                                                                 | Ĩ.               | <u></u>                                | ି        | -e e                                         | : e          | ; e        | ą               | ခုခဲ့         | ୍                       | ୍           | ି କ        | 8°8           | ିର       | e,                     | 6.6               |               |        | 9 9           | 6 8                | 6 6      | 2             | 9 6      | ୍ ଚ୍ରା ସ                                |                    | <u>3</u> - 8                      | ŝ  |
| NO                                                                 | 15               |                                        | $\sim$   |                                              | $\sim$       | $\sim$     | 200             | 000           | 00                      | 000         | 000        | 000           | 00       | $-\infty$              | 200               |               |        |               | $\sim \sim \sim$   | ဘဲ့တဲ့   | i oc          | òcòc     | $\infty$                                | 5 00               | $\sim \infty$                     | Š, |
| <⊱                                                                 | Ŭ                | $\sim$ $\sim$                          | $\sim$   | $\sim$                                       | · `          | · •        | ن<br>ب          | -             | <u> </u>                | $\sim$      | $\sim$ .   |               |          | <u> </u>               | $\sim$ $\sim$     | - · ~         | ت م    |               | <u> </u>           | ب ب      | • ~           | ~ ~      | <u>с</u> с                              |                    | <u> </u>                          |    |
| רש∼<br>שר                                                          | _                | 88                                     |          | 8 8                                          |              | ×8         | ex <sub>x</sub> | 88            | 6                       | 6           | 8 3        | ခုံခြ         | ିତ       | S.x                    | 8 8               | 3 8           | s e    | 6 6           | 8 8                | 5 6      | ਂ ਵ           | ×8.      | ,8 S                                    | 8 8                | 5 - 6                             | Э  |
| <u>n</u>                                                           | ୍ବାଚ୍ଚି          | 2000                                   |          |                                              | . 000        | ΩQ.        | θÖC             | ്റ്           | ം                       | ಂದಂ         | òò         | 000           | òò       | ŝ                      | $\sim$            | 5 00          | $\sim$ | $\sim$        | òòò                | ്റ്റ     | 00            | Ŷ        | ĝgoo                                    |                    |                                   | ġ  |
| <u></u> 0                                                          | $\sim$           | - $-$                                  | $\sim$   | $\sim \sim$                                  | · ·          | E AI       | 610             | $\cup$ $\cup$ | <u> </u>                | $\smile$    | $\sim$ .   |               | <u>ت</u> | đ                      | $\sim$ $\sim$     |               | . U    | رت ارد        | 0.                 | ں ر      | · · ·         | 10       | ē.                                      | <u>،</u> ر         | - H                               | 2  |
| 11-<br>7                                                           |                  | 66                                     | പ        | 88                                           | 6            | ŝ          | 8               | 66            | ି ଛେ                    | ର           | ຣ່ະ        | ຣ່ອ           | 6        | ିଚ                     | ର ଶ               | 3 8           | Ś      | ×°,           | ×8 3               | 3 8      | ່ອ            | 8 8      | 8,2                                     | s ∶e               | ຣີຊ                               |    |
|                                                                    | କ୍ଥିକ            | ×<br>×                                 | <u>~</u> | ಂದರ                                          |              | • •        | $\sim$          | gooj          | 20                      | <u></u> -   | Ś          | 000           | 00       | 000                    | $\sim \infty$     | 5             | $\sim$ | XOO-          | -00                | 500      | · òc          | ÷        |                                         | 2 00               | 181<br>                           | -  |
| нн<br>Ш<br>->                                                      | 19               | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | -2       | <u>,                                    </u> | . L          | . Ú        | $\overline{}$   | ਰ ਹ           |                         | ~~~~        | <u> </u>   | ت ت           | - U      | ال :                   | U .               |               | 000    |               | Ξ.                 | 」 し      |               | ت ز      | 500                                     |                    | ्र <u>भ</u> ्                     | 2  |
| Z<br>Din                                                           | Η.               | 8 9                                    | ଜ        | 8 8                                          | 8            | 8          | 6               | ່ອ ອ          | 0                       | Ω.          | <u>a</u> 3 | ຣ່ວ           | . 8      | 6                      | 8 8               |               |        |               | <u>م</u> ا         | э a      | e e           | 8 8      |                                         |                    |                                   | 2  |
| Dia.                                                               | 2000             | 6.9<br>XXXXX                           | ۵ř       | $\sim \sim \sim$                             |              | 000        | ∞i≁             | 66            | 0-3)<br>0-3)            | Nox         | $\sim$     | 500           | 00       |                        | $\sim$            |               | 600    | $\sim \sim$   | $\frac{1}{2}$      | 6        |               | $\sim$   | 6,26                                    |                    |                                   | -  |
| 20                                                                 | 200              | ුසු                                    | 20       | $\overline{}$                                |              |            |                 | 10<br>10      | r-0                     | 400         | ~ `        | 10            |          |                        | <u> </u>          | , <b>-</b> 9  | 2 2    | æΞ.           | 9                  |          |               |          | _ <b>≫</b> ⊆                            | 3                  | <u> </u>                          | 2  |
| ъш                                                                 |                  | ~ ~                                    | ~        | ~ ~                                          |              |            |                 | 22            | Ä                       | ~           | ~ ~        | <u> </u>      | ~        |                        | 22                |               |        |               |                    |          |               |          | 22                                      |                    |                                   |    |
| 7 7 7<br>7 7<br>7 7<br>7 7<br>7 7<br>7 7<br>7 7<br>7 7<br>7 7<br>7 | <u>≺</u> ∼       |                                        | ~~~      | <u> </u>                                     | 8            | ୍          | <u>.</u>        | <u>e e</u>    | e.<br>A                 | <u> </u>    |            | 3.6           |          | <u> </u>               | 9.6               |               |        |               |                    | <u> </u> | E             |          | 9.6                                     |                    |                                   | 2  |
| <u> </u>                                                           | 4 <u>8</u>       | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |          | ~~~                                          | ~            | ~~~        |                 | ~~~           | ~~                      | ~~          | ~~~        |               | ~        |                        | ~~~~              | $\gamma \sim$ |        | ~~~           |                    |          |               |          |                                         |                    |                                   | ,  |
|                                                                    | ല                | ~ ~                                    | ~        | ~ ~                                          |              | ~          | ~               | ~ ~           | ~                       | Š           | <u> </u>   |               | ~        | ~                      |                   |               |        |               | $\sim$             |          | · `           |          | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | <u> </u>           |                                   |    |
| n<br>D                                                             | 0                | 88                                     | 0        | 8.8                                          | 0            | <u> </u>   | <u> </u>        | <u>e</u> e    | - 6                     | 6           | <u> </u>   | 9.9           |          | ିତ୍                    | ୍ରୁ               | ) <u> </u>    |        | 28            | <u>e</u> (         | 9.9      | 6             | <u>8</u> | ຣູຣ                                     | 9 S                | è a                               | 5  |
| 5                                                                  | 500              | ~~~~                                   | ~~       |                                              |              | <u>ج</u>   | بب              |               | 0                       |             |            | 000           | 00       |                        |                   |               |        | ~~~~~~        |                    | 000      | 00            | xxx      |                                         |                    |                                   | >  |
| 2                                                                  | F                |                                        | <u> </u> | $\frac{1}{2}$                                |              | <u> </u>   | č               | $\sim$        | <u> </u>                | . U         | <u> </u>   |               |          |                        | <u> </u>          | 1             |        |               | $\sim$             |          | ·             |          | $\sim$                                  | · ~                | · `                               | 1  |
| CONVERTED                                                          | D<br>S<br>S<br>S | 88                                     | 8        | 8.8                                          | 6            | 8          | 9               | ອຸອຸ          | - S                     | <u>e</u> .  | 6          | <u>6</u> 6    | 6        | 8                      | 6 6               |               |        | 6             | ຸຣຸຊ               | 9 8      | _ e           | 99       | 8.6                                     |                    | 3 6                               |    |
|                                                                    | <u>69</u> -      |                                        | $\infty$ | 200                                          | 00           | 000        | 200             | 000           | 000                     | $\sim c$    | xxxx       | 000           | $\infty$ | 000                    | $\infty$          | $\sim \infty$ | $\sim$ | $\sim \sim$   | <u> </u>           | $\sim$   | 00            | 000      | $\infty \infty$                         | 5 00               | ်ခင                               | >  |
| ደ<br>1)                                                            |                  | $\overline{}$                          | $\sim$   | -                                            | <u> </u>     | <u> </u>   | $\sim$          | $\sim$        | <u>ب</u>                | $\sim$      | $\sim$     | $\sim$ $\sim$ | $\sim$   | $\sim$                 | $\sim$            | <li></li>     | · . •  | · •           | $\sim$             | - · ·    | ÷             | · · ·    | $\sim$                                  | · ·                |                                   | -  |
| >                                                                  |                  | 6 6                                    | 6        | 6 6                                          | _ ⊗          | *°>        | 6               | 6.6           | 8                       | 6           | 6          | ခုခ           | 6        | ×8                     | 63                |               |        | 9             | 8,8                | 9 8      | 2             | ye,      | 8 8 S                                   |                    | ) a                               | 3  |
| Z.                                                                 | 8                |                                        |          | 0000                                         | $\mathbb{C}$ | 5<br>S     | 380             | 000           | $\infty$                | $\sim$      |            | 000           | $\sim$   | 88-                    | 000               | $\sim$        |        | $\dot{\circ}$ |                    | 500      |               | 18       |                                         | $\sim \infty$      | 88                                | Ś. |
| 2                                                                  | 1                | $\sim$                                 | $\sim$   | $\sim \sim$                                  |              | . O        | 0               | $\sim$        | <u> </u>                | $\sim$      | $\sim$     | $\sim$        | $\sim$   | 5                      | $\sim$            | / ~           | · · ·  | $\sim$        |                    | $\sim$   | · -           | 9        | $\sim$ $\sim$                           | <ul><li></li></ul> | ر هر                              |    |
| <u>,</u>                                                           |                  | 88                                     | 8        | 6.6                                          | ~            | *8         | 6               | 8 8           | 6                       | 8           | 6 6        | 6 6           | 6        | 8%                     | 6 6               |               | 6      | 6             | 6 6                | 3 6      | e             | x6,      | (8) E                                   | 6 6                | B F                               | 2  |
| ~                                                                  | 2                |                                        | $\sim$   | boood                                        | 36           | 83         |                 | 000           | $\overline{\mathbf{o}}$ | 000         | $\sim$     | ာတ            | 00       | $\infty \simeq \infty$ | $\sim \sim$       | 00            |        | $\sim$        | $\sim \sim \sim$   | 500      | 00            | 28-      | 200                                     | $i \circ c$        |                                   | ŝ  |
| -i -                                                               | $\sim$           | $\sim$ $\sim$                          | $\sim$   | - $-$                                        | ت ا          | <u></u>    | 9               | -             | $\sim$                  | . U         | $\sim$ .   | <u>ں</u> ب    | ∵ U      | 53                     | $\sim$ .          | ~             | · •    | ت م           |                    |          | · •           | , C      | 0 J                                     | ~ _                | , ω <u>΄</u>                      |    |
| ñ                                                                  | 1                | 88                                     | 6        | 8 8                                          | 6            | 8          | 8               | 88            | 8                       | 8           | 6 6        | 8 8           | പ        | 6                      | ଳିବ               | 3 8           | 6      | 6             | 8 8                | 6 6      | ં દ           | 8        | 8 8                                     | 3 6                | A 6                               | 2  |
| 1                                                                  | 120              |                                        |          |                                              | 12           | 1<br>Coxis | 20              | 6 6<br>6      | $\sim$                  |             | Ś          | 200           | ച്ച      | <u>s</u>               | 200               | 3 00          |        | $\sim$        | 000                | 000      | 00            | $\sim$   | goo                                     |                    |                                   |    |
| +<br>><br>•                                                        | 19               | -                                      | $\sim$   | $\sim \sim$                                  | 5            | - C-       | ĕ               | $\sim \sim$   | <u> </u>                | $\sim$      | <u> </u>   | じし            | <u> </u> | ē                      | υu                |               | · ~    | - U           | <u> </u>           |          |               |          | ਰ ਪ                                     | ÷ -                | ಸ್                                | -  |
| *                                                                  |                  | 66                                     | 6        | 6 6                                          | 6            | 6          | 6               | 6 6           | 6                       | 6           | 8 8        | 8 8           | ര        | 6                      | ର ର               | s a           | 6      | 6             | 8 8                | 3 8      | e             | 8        | 6 6                                     | 5 8                | 5                                 | 3  |
| G                                                                  | VQ=              | ~~~~                                   | 000      | 0000                                         | 5288         |            | 20              | 66            | ō                       | 200         | $\sim$     | 000           | 222      | ωœ                     | 200               | 5 00          | 00     |               |                    |          | 00            | r de     | 200                                     | · ~~               |                                   |    |
| บ                                                                  | 3                |                                        | $\sim$   | -                                            | . uc         |            | g               | 00            |                         | $\smile$    | <u> </u>   | <u>ں ا</u> ر  | Ĵ        | 9                      | Ξ.                | ノー            |        |               | <u> </u>           |          |               | , ĕ      |                                         | , L                | ` ಜಿ                              |    |
| ante                                                               | _                |                                        |          |                                              |              |            |                 |               |                         |             |            |               |          |                        |                   |               |        |               |                    |          |               |          |                                         |                    |                                   |    |
| ช<br>-                                                             | а<br>Н           |                                        |          |                                              |              |            |                 |               |                         |             |            |               |          |                        |                   |               |        |               |                    |          |               |          |                                         |                    | TH.                               |    |
| ·                                                                  | Ϊĝ-              | - 01 0                                 | ∽ <      | t 10                                         | çe           | r- c       | 0 0             | 2             | = 9                     | 2 2         | 21         | 5             | 19       | 11 12<br>11            | រ គ្ន             | ຊ             | 31     | ខ្លួន         | 3 হ                | ស្ល      | 8             | 88       | 3 8                                     | 31                 | TOTAL                             |    |
|                                                                    |                  |                                        |          |                                              |              |            |                 |               |                         |             |            |               |          | -                      |                   | 1             |        |               |                    |          |               |          |                                         |                    |                                   |    |
|                                                                    |                  |                                        |          | , · · ·                                      |              | ~          |                 |               | 0 V                     |             |            |               |          |                        |                   | J             |        |               |                    | 00       |               | 00       |                                         |                    |                                   |    |
|                                                                    |                  | <u> </u>                               |          | -7 3                                         | ւլ           | J          | 1               | <u>ି</u> ଷ (  | υа                      | I           | v 1        | v             |          |                        |                   |               | 18     | UBO I         | ٨N                 | яа       | 1211          | 10-      |                                         | >                  |                                   |    |
|                                                                    |                  |                                        |          |                                              |              |            |                 |               |                         |             |            |               |          |                        |                   |               |        |               |                    |          |               |          |                                         |                    |                                   |    |

Table A.VI-5(1) CONVERTED OD TRIPS ON THF BYPASS (FINK-1) IN 2000

| 6666666666                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6 86888 8888                                                                           | 6 6 6 6 6 6 6 6 6 6 6                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <br>ලි<br>ල                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~                                                |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 8 88888 8888                                                                           |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        | ବ୍ର୍ର୍ର୍ର୍ ର୍ର୍ର୍ର୍ ର୍                                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6 66666 6666                                                                           |                                                                                     |
| $\sim$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                        | විට විට විස්විත්වර්ග විත්වර්ගත්ව                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |                                                                                     |
| 2 8888000000000000000000000000000000000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                        |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |                                                                                     |
| 63666666666<br>∞∞∞∞∞∞∞∞∞∞∞∞∞∞∞∞∞∞∞∞∞∞∞∞∞∞∞                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                        |                                                                                     |
| KU COCCO COCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                        |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |                                                                                     |
| Contraction in the second seco                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                        |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 8888888888                                                                             | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        | $\frac{1}{2}$ in the interaction interaction of $M_{\rm eff}$                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | $\sim$                                                                                 |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |                                                                                     |
| $\begin{bmatrix} -\frac{1}{2}, & 0 \\ 0 \end{bmatrix} \otimes \begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix} \otimes \begin{bmatrix} 0 $ | ට ට ට ට ට ට ට ට බ බ බ<br>ංංංංංංංං ංංංංංං                                               |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        | $\hat{n} \in \hat{o}_{x} \hat{o} \hat{o} \hat{o} \hat{o} \hat{o} \hat{o} \hat{o} o$ |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ଚ ମ୍ଚ୍ଚ୍ଚ୍ଚ ଚ୍ଚ୍ଚ୍ଚ୍                                                                   |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        | $\begin{array}{cccccccccccccccccccccccccccccccccccc$                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 8 8 8 8 8 8 8 8 8 8 8 8                                                                | 8888888888888                                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 000000000 00000000000000000000000000000                                                | $\sim$                                                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6 66666 6666<br>6 66666 6666                                                           |                                                                                     |
| $\frac{1}{2}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                        | $\overline{\mathbf{b}}$ o be bebabado bobabadoco                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |                                                                                     |
| 7 0000000000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | d $d$ $d$ $d$ $d$ $d$ $d$ $d$ $d$ $d$                                                  |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        | $\Box \cup \Box \cup \Box \cup \Box \cup \Box \cup \Box \cup \neg \neg \Box$        |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | $\begin{array}{cccccccccccccccccccccccccccccccccccc$                                   |                                                                                     |
| -3 M U U U U U U U U U U U U U U                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                        |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                        |                                                                                     |
| · · · · · · · · · · · · · · · · · · ·                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                        |                                                                                     |
| 2 0 0 1 0 0 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 13 12 12 12 13 13 13 13 13 13 13 13 13 13 13 13 13                                     | 2 3 8 8 8 8 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8                                           |
| Table<br>2010<br>2010<br>2010<br>2010<br>2010<br>2010<br>2010<br>201                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 11<br>12<br>13<br>13<br>13<br>13<br>13<br>13<br>13<br>13<br>13<br>13<br>13<br>13<br>13 | 4 3 3 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | аояі <b>м</b> и                                                                        | ← I8091AN 3012TUO                                                                   |
| • ••                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                        |                                                                                     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                             | LEGEND<br>UPPER :NO.OF CONVERTED OD TRIPS<br>(LOMER):% OF CONVERTED ATE<br>* :CONVERTED TRIPS FROM A104                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0<br>0<br>2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | n<br>An Anna Anna Anna Anna<br>An Anna Anna An              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| - ¥<br>X<br>Z                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ·                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                             | 6 6 6 6 6 6 6 6 6 6 6 6 6 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| $\begin{array}{c} 0^{\text{rescale}}_{\text{Z}} \\ \text{S} \\ \text{Z} \\$ | 00000000000000000000000000000000000000                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 8 99999 9999                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| HHM CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| $\begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 $                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3                                                           | $\begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | $\begin{array}{c} 6 & 6 & 6 & 6 & 6 & 6 & 6 \\ 6 & 6 & 6 &$ |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 5 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | $\begin{array}{cccccccccccccccccccccccccccccccccccc$        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                             | 3 $3$ $3$ $3$ $3$ $3$ $3$ $3$ $3$ $3$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <sup>&gt;</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 6 6 6 6 6 6 6 6 6 6 6 6                                     | 6 6 6 6 6 6 6 6 6 6 6 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                             | $\begin{array}{c} \begin{array}{c} \hline \end{array} \\ \\ \hline \end{array} \\ \\ \hline \end{array} \\ \\ \hline \end{array} \\ \hline \end{array} \\ \\ \\ \hline \end{array} \\ \\ \hline \end{array} \\ \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \\ \end{array} \\ \\ \\ \\ \\ \\ \end{array} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$ |
| Table 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 11 12 12 12 13 13 13 13 13 13 13 13 13 13 13 13 13          | 10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| BI CIL <i>X</i> >                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 10311 A N                                                   | ←───OUTSIDE NAIROBI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

A-VI-30

.