

Appendix Table 4.5.5 Volume and Capacity of Intersections in 1987 and 1992, Taiz

Link	-- Node --		Dir.	Leng. (10m)	Sect. Lane	Int. Lane	Wid.	Adj. Factor	Cap. /hr.	Link Volume		LV87/Cap.		LV92/Cap.	
	From	To								1987	1992	LV/C	TOT	LV/C	TOT
151	53	10	2	30	1	1	12.9	0.96	1390	576	774	0.414	0.414	0.557	0.557
145	53	18	1	17	1	1	9.7	0.97	1400	476	639	0.340	0.340	0.456	0.456
343	57	25	1	16	1	1	10.3	0.97	1398	398	535	0.285	0.285	0.383	0.383
201	60	42	1	39	2	2	16.9	0.95	2756	580	779	0.210	0.210	0.283	0.283
131	45	44	2	17	1	1	13.0	0.96	1390	1086	1459	0.781	0.781	1.050	1.050
131	44	45	1	17	1	1	13.0	0.96	1390	704	946	0.506	-	0.681	-
301	63	45	1	27	1	2	0.0	0.94	2714	300	400	0.111	-	0.147	-
121	65	45	2	76	1	1	11.4	0.97	1395	1011	1358	0.725	1.342	0.973	1.801
23	53	52	2	48	2	2	17.5	0.95	2753	998	1341	0.363	0.363	0.487	0.487
151	10	53	1	30	1	1	12.9	0.96	1390	790	1061	0.568	-	0.763	-
145	18	53	2	17	1	1	9.7	0.97	1400	427	574	0.305	-	0.410	-
23	52	53	1	48	2	2	17.5	0.95	2753	1114	1496	0.405	-	0.543	-
22	54	53	2	20	2	2	18.2	0.95	2750	840	1128	0.305	1.583	0.410	2.127
22	53	54	1	20	2	2	18.2	0.95	2750	1075	1444	0.391	-	0.525	-
21	55	54	2	13	2	2	18.0	0.95	2750	840	1128	0.305	-	0.410	-
511	104	54	1	22	1	1	0.0	0.94	1357	150	200	0.111	-	0.147	-
505	105	54	1	22	1	1	0.0	0.94	1357	150	200	0.111	0.917	0.147	1.230
21	54	55	1	13	2	2	18.0	0.95	2750	1075	1444	0.391	-	0.525	-
20	56	55	2	10	2	2	18.0	0.95	2750	1502	2017	0.546	-	0.733	-
221	103	55	1	24	0	0	0.0	0	0	0	0	0.000	0.937	0.000	1.259
20	55	56	1	10	2	2	18.0	0.95	2750	1585	2129	0.576	-	0.774	-
19	57	56	2	10	2	2	18.0	0.95	2750	1502	2017	0.546	1.123	0.733	1.508
222	103	56	1	24	2	2	0.0	0.94	2714	300	400	0.111	-	0.147	-
343	25	57	2	16	1	2	10.3	0.97	2796	780	1048	0.279	-	0.375	-
19	56	57	1	10	2	2	18.0	0.95	2750	1585	2129	0.576	-	0.774	-
18	58	57	2	25	2	2	18.0	0.95	2750	995	1336	0.362	1.328	0.486	1.782
18	57	58	1	25	2	2	18.0	0.95	2750	2169	2913	0.789	-	1.059	-
17	59	58	2	24	2	2	17.4	0.95	2753	1448	1945	0.526	1.315	0.707	1.766
17	58	59	1	24	2	2	17.4	0.95	2753	1520	2042	0.552	-	0.742	-
16	60	59	2	46	2	2	17.4	0.95	2753	1356	1821	0.493	1.045	0.661	1.403
201	42	60	2	39	2	2	16.9	0.95	2756	467	627	0.169	-	0.228	-
16	59	60	1	46	2	2	17.4	0.95	2753	1892	2541	0.687	-	0.923	-
15	61	60	2	10	2	2	23.4	0.94	2712	1537	2064	0.567	-	0.761	-
202	77	60	1	28	2	2	14.9	0.95	2768	800	1075	0.289	1.712	0.388	2.300
15	60	61	1	10	2	2	23.4	0.94	2712	2425	3257	0.894	-	1.201	-
14	62	61	2	19	2	2	20.0	0.95	2738	1537	2064	0.561	1.456	0.754	1.955
14	61	62	1	19	2	2	20.0	0.95	2738	2425	3257	0.886	-	1.190	-
13	63	62	2	34	2	2	20.0	0.95	2738	1439	1923	0.526	1.411	0.702	1.892
301	45	63	2	27	1	2	0.0	0.94	2714	300	400	0.111	-	0.147	-
13	62	63	1	34	2	2	20.0	0.95	2738	1780	2391	0.650	-	0.873	-
12	64	63	2	47	2	2	20.0	0.95	2738	1435	1927	0.524	-	0.704	-
302	71	63	1	20	1	2	0.0	0.94	2714	300	400	0.111	1.395	0.147	1.872
12	63	64	1	47	2	2	20.0	0.95	2738	1157	1554	0.423	-	0.568	-
11	65	64	2	26	2	2	16.1	0.96	2762	926	1244	0.335	0.758	0.450	1.018
121	45	65	1	76	1	2	11.4	0.97	2790	681	915	0.244	-	0.328	-
11	64	65	1	26	2	2	16.1	0.96	2762	884	1187	0.320	-	0.430	-
31	66	65	2	26	2	2	16.1	0.98	2816	1729	2322	0.614	1.178	0.825	1.582
31	65	66	1	26	2	2	16.1	0.98	2816	1387	1586	0.493	0.493	0.563	0.563
302	63	71	2	20	1	1	0.0	0.94	1357	300	400	0.221	0.221	0.295	0.295
202	60	77	2	28	2	2	14.9	0.95	2768	188	253	0.068	0.068	0.091	0.091
221	55	103	2	24	2	2	0.0	0.94	2714	300	400	0.111	-	0.147	-
222	56	103	2	24	0	0	0.0	0	0	0	0	0.000	0.111	0.000	0.147
511	54	104	2	22	1	1	0.0	0.94	1357	150	200	0.111	0.111	0.147	0.147
505	54	105	2	22	1	1	0.0	0.94	1357	150	200	0.111	0.111	0.147	0.147

Appendix Table 4.5.6 Volume and Capacity of Intersections in 1987 and 1992, Hodeidah

Link	-- Node --		Dir.	Leng. (10m)	Sect. Lane	Int. Lane	Wid.	Adj. Factor	Cap. /hr.	Link Volume		LV87/Cap.		LV92/Cap.	
	From	To								1987	1992	TOT	TOT	TOT	TOT
214	10	7	1	50	2	2	0.0	0.94	2714	150	200	0.055	0.055	0.074	0.074
117	12	8	2	50	2	2	18.5	0.95	2747	505	683	0.184	0.184	0.249	0.249
47	10	9	1	17	2	2	0.0	0.94	2714	70	100	0.026	0.026	0.037	0.037
214	7	10	2	50	2	2	0.0	0.94	2714	150	200	0.055	-	0.074	-
47	9	10	2	17	2	2	0.0	0.94	2714	70	100	0.026	-	0.037	-
46	12	10	1	140	2	2	17.7	0.95	2751	309	418	0.112	-	0.152	-
213	61	10	1	100	2	2	0.0	0.94	2714	220	300	0.081	0.274	0.111	0.373
117	8	12	1	50	2	2	18.5	0.95	2747	502	680	0.183	-	0.248	-
46	10	12	2	140	2	2	17.7	0.95	2751	273	369	0.099	-	0.134	-
45	15	12	1	270	2	2	17.7	0.95	2751	386	522	0.140	-	0.190	-
116	42	12	2	70	2	2	18.5	0.95	2747	721	976	0.262	0.685	0.355	0.927
21	14	13	2	80	1	2	11.4	0.97	2790	353	478	0.127	0.127	0.171	0.171
21	13	14	1	80	1	2	11.4	0.97	2790	371	502	0.133	-	0.180	-
44	15	14	2	22	2	2	17.7	0.95	2751	341	462	0.124	-	0.168	-
43	30	14	1	50	3	3	25.3	0.94	4059	569	872	0.140	-	0.215	-
232	34	14	2	70	2	2	18.0	0.95	2750	446	956	0.162	0.559	0.348	0.910
45	12	15	2	270	2	2	17.7	0.95	2751	341	462	0.124	-	0.168	-
44	14	15	1	22	2	2	17.7	0.95	2751	386	522	0.140	-	0.190	-
243	36	15	2	38	2	2	18.0	0.95	2750	706	604	0.257	0.521	0.220	0.577
11	32	29	2	50	2	2	22.0	0.94	2726	750	1015	0.275	0.275	0.372	0.372
43	14	30	2	50	3	3	25.3	0.94	4059	644	770	0.159	-	0.190	-
42	31	30	2	60	3	3	25.3	0.94	4059	644	872	0.159	0.317	0.215	0.405
42	30	31	1	60	3	3	25.3	0.94	4059	569	770	0.140	-	0.190	-
41	32	31	2	60	3	3	25.3	0.94	4059	644	872	0.159	0.299	0.215	0.405
11	29	32	1	50	2	2	22.0	0.94	2726	864	1161	0.317	-	0.426	-
41	31	32	1	60	3	3	25.3	0.94	4059	569	770	0.140	-	0.190	-
121	33	32	2	21	2	2	22.0	0.94	2726	1559	2110	0.572	-	0.774	-
31	56	32	2	90	2	2	17.2	0.95	2754	732	991	0.266	-	0.360	-
131	58	32	1	50	2	2	11.0	0.97	2792	376	509	0.135	1.429	0.182	1.932
121	32	33	1	21	2	2	22.0	0.94	2726	1698	2298	0.623	-	0.843	-
122	35	33	2	27	2	2	22.0	0.94	2726	1559	2110	0.572	-	0.774	-
261	49	33	2	115	1	1	8.0	0.97	1405	326	441	0.232	1.427	0.314	1.931
232	14	34	1	70	2	2	18.0	0.95	2750	742	1004	0.270	-	0.365	-
231	35	34	2	60	2	2	18.0	0.95	2750	706	956	0.257	0.527	0.348	0.713
122	33	35	1	27	2	2	22.0	0.94	2726	1698	2298	0.623	-	0.843	-
231	34	35	1	60	2	2	18.0	0.95	2750	742	1004	0.270	-	0.365	-
123	50	35	2	38	2	2	22.0	0.94	2726	1837	2486	0.674	1.567	0.912	2.120
243	15	36	1	38	2	2	18.0	0.95	2750	550	744	0.200	-	0.271	-
242	37	36	2	30	2	2	18.0	0.95	2750	446	604	0.162	0.362	0.220	0.490
242	36	37	1	30	2	2	18.0	0.95	2750	550	744	0.200	-	0.271	-
241	50	37	2	68	2	2	18.0	0.95	2750	446	604	0.162	0.362	0.220	0.490
311	44	38	2	82	2	2	18.9	0.95	2744	400	541	0.146	0.146	0.197	0.197
322	43	39	2	20	1	1	0.0	0.94	1357	220	300	0.162	0.162	0.221	0.221
114	41	40	2	20	2	2	18.5	0.95	2747	1201	1625	0.437	-	0.592	-
115	42	40	1	15	2	2	18.5	0.95	2747	1196	1619	0.435	0.873	0.589	1.181
114	40	41	1	20	2	2	18.5	0.95	2747	1196	1619	0.435	-	0.589	-
126	43	41	1	39	3	3	12.4	0.96	4175	1580	2138	0.378	-	0.512	-
113	45	41	2	0	0	0	0.0	0	0	0	0	0.000	0.814	-	1.101
116	12	42	1	70	2	2	18.5	0.95	2747	718	972	0.261	-	0.354	-
115	40	42	2	15	2	2	18.5	0.95	2747	1201	1625	0.437	0.699	0.592	0.945
322	39	43	1	20	1	1	0.0	0.94	1357	248	336	0.183	-	0.248	-
126	41	43	2	39	0	0	0.0	0	0	0	0	0.000	-	-	-
125	44	43	1	40	2	2	22.0	0.94	2726	1528	2068	0.561	-	0.759	-
211	45	43	2	30	2	2	8.8	0.97	2804	1206	1632	0.430	-	0.582	-
321	47	43	2	56	1	1	0.0	0.94	1357	308	417	0.227	1.400	0.307	1.896

Appendix Table 4.5.6 Volume and Capacity of Intersections in 1987 and 1992, Hodeidah

Link	Node		Dir.	Leng. (10m)	Sect. Lane	Int. Lane	Wid.	Adj. Factor	Cap. /hr.	Link Volume		LV87/Cap.		LV92/Cap.	
	From	To								1987	1992	LV/C	TOT	LV/C	TOT
311	38	44	1	82	2	2	18.9	0.95	2744	350	474	0.128	-	0.173	-
125	43	44	2	40	2	2	22.0	0.94	2726	1458	1973	0.535	-	0.724	-
301	47	44	2	50	1	2	8.0	0.97	2808	260	352	0.093	-	0.125	-
124	50	44	1	40	2	2	22.0	0.94	2726	1891	2559	0.694	1.449	0.939	1.961
113	41	45	1	42	2	2	14.2	0.96	2772	823	1114	0.297	-	0.402	-
211	43	45	1	0	0	0	0.0	0	0	0	0	0.000	-	-	-
212	61	45	2	75	2	2	0.0	0.94	2714	220	300	0.081	0.378	0.111	0.512
321	43	47	1	56	1	1	0.0	0.94	1357	300	400	0.221	-	0.295	-
301	44	47	1	50	0	0	0.0	0	0	0	0	0.000	0.221	-	0.295
252	49	48	1	25	2	2	18.5	0.95	2747	374	506	0.136	0.136	0.184	0.184
261	33	49	1	115	0	0	0.0	0	0	0	0	0.000	-	-	-
352	48	49	2	25	2	2	18.5	0.95	2747	681	922	0.248	-	0.336	-
251	50	49	1	68	2	2	18.5	0.95	2747	374	506	0.136	0.384	0.184	0.520
123	35	50	1	38	2	2	22.0	0.94	2726	1738	2352	0.638	-	0.863	-
241	37	50	1	68	2	2	18.0	0.95	2750	550	744	0.200	-	0.271	-
124	44	50	2	40	2	2	22.0	0.94	2726	1547	2094	0.567	-	0.768	-
251	49	50	2	68	2	2	18.5	0.95	2747	355	481	0.129	1.534	0.175	2.077
31	32	56	1	90	2	2	17.2	0.95	2754	779	1054	0.283	0.283	0.383	0.383
131	32	58	2	50	2	2	11.0	0.97	2792	228	309	0.082	0.082	0.111	0.111
213	10	61	2	100	2	2	0.0	0.94	2714	220	300	0.081	-	0.111	-
212	45	61	1	75	2	2	0.0	0.94	2714	220	300	0.081	0.162	0.111	0.221

APPENDIX TO CHAPTER 5

Appendix Table 5.1.1.1 Selected Results of the Traffic Count, Sana'a

Location NO.	Name	Direction	Total	Large Veh. Trips	Large V-Rate (%)	Peak Veh. Trips	Peak V-Rate (%)	Peak Hour
1	Air Port Rd.	1	15369	325	2.11	1318	8.58	13
		2	16042	522	3.25	1597	9.96	8
		Total	31411	847	2.70	2833	9.02	8
2	Al Giyada	1	13709	420	3.06	1223	8.92	12
		2	12502	376	3.01	1245	9.96	10
		Total	26211	796	3.04	2311	8.82	10
3	Sadah Road	1	11047	367	3.32	993	8.99	10
		2	9114	240	2.63	812	8.91	12
		Total	20161	607	3.01	1760	8.73	10
4	Marib Road	1	8176	314	3.84	733	8.97	9
		2	9573	390	4.07	897	9.37	11
		Total	17749	704	3.97	1547	8.72	12
5	Taiz Road	1	10702	240	2.24	930	8.69	12
		2	11385	262	2.30	940	8.26	17
		Total	22087	502	2.27	1812	8.20	12
6	Taiz Road	2	13336	418	3.13	1070	8.02	10
		2	13756	384	2.79	1161	8.44	11
		Total	27092	802	2.96	2177	8.04	11
7	Hadda Road	1	11546	440	3.81	1005	8.70	11
		2	12001	255	2.12	1042	8.68	11
		Total	23547	695	2.95	2047	8.69	11
8	Hadda Road	2	9393	164	1.75	895	9.53	12
		2	10480	206	1.97	916	8.74	10
		Total	19873	370	1.86	1802	9.07	10
9	Az Zubayri	1	14144	369	2.61	1250	8.84	11
		2	13760	535	3.89	1202	8.74	8
		Total	27904	904	3.24	2245	8.05	11
10	Az Zubayri	2	17391	322	1.85	1398	8.04	10
		2	23170	877	3.79	1964	8.48	11
		Total	40561	1199	2.96	3296	8.13	11
11	Wadi Dahr	1	7926	473	5.97	877	11.06	11
		2	8203	549	6.69	883	10.76	12
		Total	16129	1022	6.34	1681	10.42	11
12	Wadi Dahr	2	2334	79	3.38	276	11.83	12
		2	7983	155	1.94	772	9.67	8
		Total	10317	234	2.27	963	9.33	10
13	Ring Road	1	8452	375	4.44	739	8.74	9
		2	8107	304	3.75	703	8.67	12
		Total	16559	679	4.10	1384	8.36	12
14	Ring Road	2	8022	424	5.29	695	8.66	14
		2	8430	318	3.77	751	8.91	12
		Total	16452	742	4.51	1312	7.97	12
15	Ring Road	3	8755	237	2.71	770	8.79	15
		2	7913	217	2.74	724	9.15	13
		Total	16668	454	2.72	1440	8.64	15

Location NO.	Name	Direction	Total	Large Veh. Trips	Large V-Rate (%)	Peak Veh. Trips	Peak V-Rate (%)	Peak Hour
16	Ring Road	4 1	7580	290	3.83	625	8.25	10
		2	8360	287	3.43	710	8.49	12
		Total	15940	577	3.62	1313	8.24	8
17	Ring Road	5 1	14610	645	4.41	929	6.36	11
		2	13373	408	3.05	900	6.73	11
		Total	27983	1053	3.76	1829	6.54	11
18	Ziraah St.	1	7379	146	1.98	632	8.56	11
		2	4752	110	2.31	454	9.55	13
		Total	12131	256	2.11	1052	8.67	12
20	Old Airport	1	13277	271	2.04	1177	8.86	12
		2	12147	234	1.93	1064	8.76	8
		Total	25424	505	1.99	2079	8.18	12
21	Ali Abdul	1 1	26368	410	1.55	1663	6.31	11
		2	21510	367	1.71	1600	7.44	11
		Total	47878	777	1.62	3263	6.82	11
22	Ali Abdul	1	24349	482	1.98	2261	9.29	10
		2	21623	410	1.90	1864	8.62	12
		Total	45972	892	1.94	4008	8.72	10
24	Bawniyah St.	1	4503	67	1.49	493	10.95	12
		2	0	0	0.00	0	0.00	
		Total	4503	67	1.49	493	10.95	12
25	26th Septemb	1	6477	144	2.22	619	9.56	11
		2	0	0	0.00	0	0.00	
		Total	6477	144	2.22	619	9.56	11
26	Shuub St.	1	5816	202	3.47	532	9.15	15
		2	6416	166	2.59	569	8.87	12
		Total	12232	368	3.01	1019	8.33	15
27	Sadah Road	2 1	9511	317	3.33	858	9.02	12
		2	7552	146	1.93	632	8.37	9
		Total	17063	463	2.71	1474	8.64	12
28	Marib Road	2 1	4120	41	1.00	393	9.54	15
		2	3085	42	1.36	288	9.34	12
		Total	7205	83	1.15	638	8.85	12
29	Wadi Al Qasr	1	6051	175	2.89	615	10.16	12
		2	5346	118	2.21	443	8.29	12
		Total	11397	293	2.57	1058	9.28	12
30	Qasr Gamdan	1	9511	193	2.03	892	9.38	14
		2	6635	145	2.19	592	8.92	10
		Total	16146	338	2.09	1365	8.45	12
31	Az Zubayri	3 1	23573	337	1.43	1964	8.33	11
		2	22745	340	1.49	1899	8.35	9
		Total	46318	677	1.46	3705	8.00	9
32	Al Salam St.	1	10717	180	1.68	999	9.32	15
		2	0	0	0.00	0	0.00	
		Total	10717	180	1.68	999	9.32	15

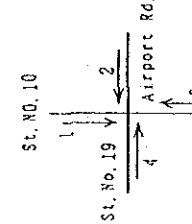
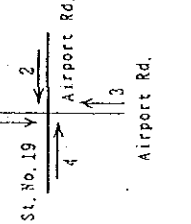
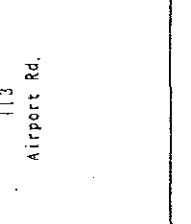
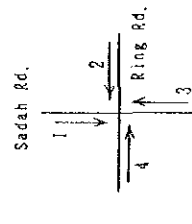
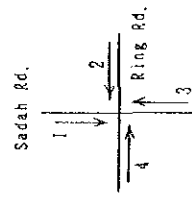
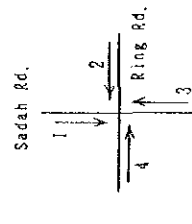
Location NO.	Name	Direction	Total	Large Veh. Trips	Large V-Rate (%)	Peak Veh. Trips	Peak V-Rate (%)	Peak Hour
33 St.	NO.23.	1	0	0	0.00	0	0.00	
		2	10331	235	2.27	853	8.26	12
		Total	10331	235	2.27	853	8.26	12
34	Talz Road	1	9145	110	1.20	1424	15.57	18
		2	11204	214	1.91	912	8.14	18
		Total	20349	324	1.59	2336	11.48	18
35	Talz Road	1	8287	875	10.56	934	11.27	10
		2	6898	673	9.76	632	9.16	8
		Total	15185	1548	10.19	1472	9.69	10

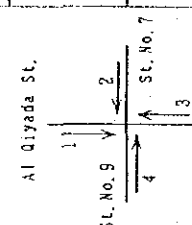
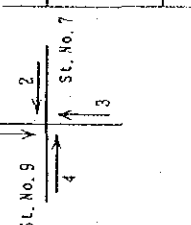
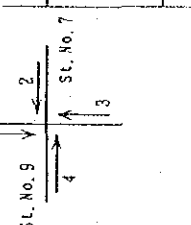
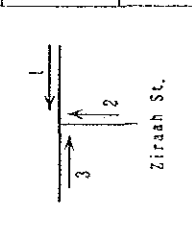
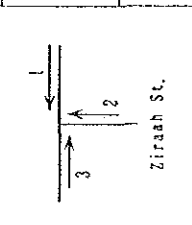
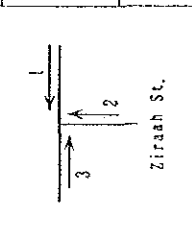
Note: Direction 1 --- N → S and E → W
2 --- S → N and W → E

Appendix Table 5.1.1.2 Results of Turning Movement Count, Sana'a

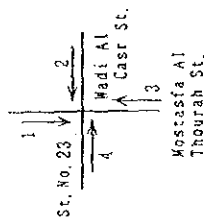
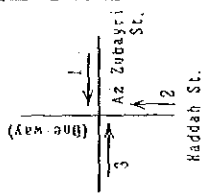
Location No.	Direction	Time				Direction	Time					
		9:00-10:00	10:00-11:00	11:00-12:00	12:00-13:00		9:00-10:00	10:00-11:00	11:00-12:00	12:00-13:00		
①	<p>Airport Rd. Ring Rd.</p>	R	480 (451)	412 (454)	386 (415)	343 (373)	<p>Az Zubayri St. Old Airport Rd.</p>	R	361 (391)	362 (397)	350 (382)	235 (241)
		S	584 (756)	714 (755)	716 (771)	741 (804)		S	546 (591)	534 (694)	558 (714)	843 (904)
		L	118 (146)	116 (129)	98 (105)	110 (119)		L	654 (709)	549 (601)	612 (667)	667 (704)
		R	111 (124)	129 (144)	131 (148)	125 (138)		R	571 (651)	508 (580)	554 (621)	501 (567)
	2	S	340 (381)	415 (453)	346 (391)	389 (435)	S	666 (759)	655 (731)	780 (872)	711 (806)	
		L	191 (215)	162 (180)	146 (166)	143 (160)	L	145 (166)	177 (200)	153 (171)	231 (261)	
		R	129 (144)	172 (184)	157 (172)	154 (166)	R	205 (224)	236 (255)	240 (258)	293 (315)	
		S	733 (811)	751 (799)	766 (843)	679 (734)	S	669 (731)	697 (657)	580 (733)	548 (587)	
	3	L	106 (118)	104 (110)	110 (121)	113 (123)	L	155 (169)	170 (185)	160 (172)	147 (157)	
		R	168 (180)	161 (176)	177 (188)	156 (166)	R	224 (252)	313 (349)	549 (602)	394 (434)	
		S	358 (406)	399 (448)	423 (468)	447 (482)	S	720 (808)	778 (868)	707 (782)	595 (656)	
		L	448 (493)	484 (538)	481 (518)	469 (516)	L	550 (618)	690 (769)	872 (966)	638 (756)	
②	<p>Ring Rd. Wadi Dahr Rd.</p>	R	353 (396)	269 (300)	313 (355)	367 (409)	<p>Ring Rd. Az Zubayri St.</p>	R	197 (221)	234 (267)	279 (306)	209 (229)
		S	668 (746)	625 (696)	571 (759)	720 (805)		S	351 (396)	339 (388)	415 (457)	379 (416)
		L	162 (182)	125 (138)	158 (178)	160 (179)		L	384 (377)	351 (402)	565 (403)	311 (342)
		R	430 (447)	550 (563)	547 (574)	477 (499)		R	337 (364)	371 (414)	378 (427)	310 (340)
	2	S	150 (156)	220 (227)	240 (251)	251 (262)	S	487 (553)	559 (626)	694 (783)	497 (544)	
		L	114 (119)	133 (137)	143 (150)	147 (154)	L	97 (112)	85 (95)	122 (139)	76 (84)	
		R	217 (250)	232 (264)	295 (224)	242 (272)	R	159 (185)	123 (143)	111 (131)	109 (125)	
		S	748 (848)	651 (732)	885 (973)	866 (996)	S	372 (438)	355 (409)	427 (500)	433 (464)	
	3	L	211 (239)	227 (256)	244 (268)	298 (336)	L	160 (487)	189 (218)	188 (221)	194 (218)	
		R	213 (252)	188 (218)	215 (235)	240 (261)	R	170 (195)	163 (179)	183 (201)	181 (199)	
		S	197 (232)	180 (209)	161 (176)	184 (198)	S	737 (847)	697 (766)	682 (782)	563 (620)	
		L	236 (277)	265 (306)	253 (278)	269 (288)	L	194 (181)	203 (221)	231 (254)	203 (224)	

Figures in () are volumes in pcu.

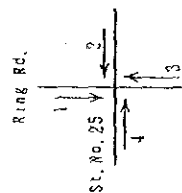
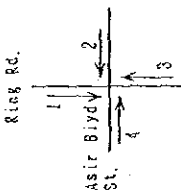
Location No	Direction	Time				
		9:00-10:00	10:00-11:00	11:00-12:00	12:00-13:00	
⑤	St. No. 10 	R	271 (299)	262 (291)	263 (283)	245 (256)
		S	299 (331)	238 (266)	264 (285)	234 (254)
		L	34 (38)	31 (35)	48 (52)	37 (41)
		R	34 (39)	53 (58)	33 (36)	25 (26)
	St. No. 19 	S	188 (208)	163 (183)	178 (191)	232 (252)
		L	741 (817)	589 (658)	754 (822)	809 (879)
		R	706 (802)	769 (875)	753 (828)	655 (722)
		S	178 (203)	185 (210)	190 (199)	253 (279)
	Airport Rd. 	L	281 (321)	321 (366)	325 (357)	355 (391)
		R	79 (136)	80 (90)	104 (111)	214 (233)
		S	280 (309)	303 (340)	331 (357)	383 (416)
		L	279 (308)	221 (247)	242 (260)	379 (411)
⑥	Sadah Rd. 	R	96 (107)	95 (107)	74 (83)	65 (70)
		S	700 (792)	603 (680)	667 (748)	700 (752)
		L	100 (113)	92 (104)	104 (116)	103 (111)
		R	79 (91)	93 (103)	81 (88)	75 (82)
	Sadah Rd. 	S	358 (418)	374 (410)	359 (390)	319 (347)
		L	128 (149)	113 (125)	108 (118)	83 (90)
		R	123 (138)	145 (163)	155 (176)	114 (127)
		S	563 (627)	529 (598)	686 (763)	559 (619)
	Sadah Rd. 	L	56 (62)	56 (64)	51 (57)	54 (61)
		R	120 (136)	105 (118)	149 (163)	116 (126)
		S	310 (352)	346 (388)	309 (345)	374 (403)
		L	109 (123)	138 (155)	125 (137)	133 (143)

Location No	Direction	Time				
		9:00-10:00	10:00-11:00	11:00-12:00	12:00-13:00	
⑦	Al Diyada St. 	R	236 (253)	149 (161)	185 (194)	211 (224)
		S	754 (809)	775 (844)	765 (805)	687 (730)
		L	78 (85)	64 (70)	57 (71)	93 (99)
		R	73 (78)	102 (109)	102 (108)	115 (119)
	St. No. 9 	S	290 (312)	283 (302)	282 (298)	250 (253)
		L	277 (297)	241 (250)	240 (254)	234 (247)
		R	109 (121)	106 (112)	126 (139)	129 (140)
		S	820 (907)	793 (845)	850 (935)	679 (734)
	St. No. 7 	L	449 (497)	495 (526)	495 (544)	405 (438)
		R	223 (240)	176 (191)	215 (227)	209 (219)
		S	291 (311)	277 (300)	268 (282)	300 (318)
		L	56 (60)	88 (97)	59 (73)	84 (88)
⑧	Wadi Dahr Rd. 	R	-- (-)	-- (-)	-- (-)	-- (-)
		S	139 (143)	110 (113)	155 (162)	146 (141)
		L	534 (553)	463 (470)	548 (535)	562 (545)
		R	152 (158)	110 (112)	138 (144)	77 (81)
	Zirrah St. 	S	-- (-)	-- (-)	-- (-)	-- (-)
		L	705 (734)	735 (756)	866 (907)	760 (797)
		R	192 (202)	74 (77)	231 (240)	153 (160)
		S	351 (366)	267 (279)	271 (281)	240 (253)
	Zirrah St. 	L	-- (-)	-- (-)	-- (-)	-- (-)

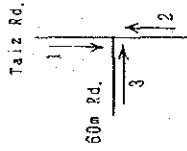
Location No.	Direction	Time				
		9:00-10:00	10:00-11:00	11:00-12:00	12:00-13:00	
①	1	R	128 (145)	122 (136)	91 (103)	132 (144)
		S	916 (1,042)	1,079 (1,206)	1,074 (1,213)	873 (935)
		L	384 (438)	416 (468)	379 (429)	356 (390)
		R	391 (426)	480 (525)	401 (441)	270 (291)
		S	194 (212)	218 (238)	198 (218)	203 (218)
		L	391 (426)	390 (427)	311 (342)	415 (449)
	3	R	276 (310)	334 (373)	355 (393)	304 (334)
		S	989 (1,110)	1,148 (1,280)	942 (1,044)	901 (998)
		L	150 (168)	156 (173)	161 (177)	176 (196)
		R	— (—)	— (—)	— (—)	— (—)
		S	811 (859)	757 (810)	768 (806)	801 (822)
		L	26 (28)	39 (41)	47 (51)	69 (71)
②	2	R	590 (624)	501 (536)	469 (493)	521 (533)
		S	— (—)	— (—)	— (—)	— (—)
		L	30 (32)	10 (11)	12 (13)	3 (3)
		R	335 (381)	405 (451)	418 (473)	467 (499)
		S	580 (659)	638 (712)	595 (674)	507 (543)
		L	— (—)	— (—)	— (—)	— (—)
	4	R	335 (268)	294 (327)	247 (278)	194 (207)
		S	278 (316)	315 (352)	266 (315)	434 (464)
		L	90 (102)	124 (138)	122 (137)	99 (105)



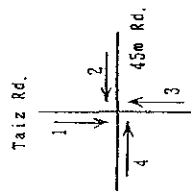
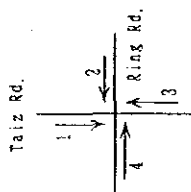
Location No.	Direction	Time				
		9:00-10:00	10:00-11:00	11:00-12:00	12:00-13:00	
③	1	R	80 (88)	60 (69)	80 (88)	96 (105)
		S	987 (1,115)	1,021 (1,168)	1,024 (1,127)	1,136 (1,248)
		L	59 (78)	46 (53)	53 (59)	57 (63)
		R	28 (31)	36 (40)	37 (40)	5 (6)
		S	82 (71)	76 (87)	84 (93)	97 (107)
		L	100 (114)	113 (129)	179 (197)	147 (163)
	3	R	121 (137)	139 (155)	130 (143)	175 (197)
		S	1,030 (1,166)	969 (1,089)	1,140 (1,254)	1,123 (1,255)
		L	53 (60)	40 (44)	58 (64)	59 (57)
		R	37 (42)	42 (47)	44 (49)	43 (48)
		S	47 (53)	65 (73)	62 (70)	51 (57)
		L	63 (72)	57 (63)	46 (52)	41 (46)
④	2	R	84 (107)	102 (117)	107 (119)	111 (122)
		S	743 (839)	810 (874)	859 (946)	806 (886)
		L	30 (33)	43 (49)	40 (44)	45 (50)
		R	60 (88)	58 (82)	75 (82)	77 (84)
		S	129 (146)	168 (166)	154 (169)	240 (264)
		L	77 (87)	100 (114)	101 (112)	124 (139)
	3	R	106 (120)	98 (110)	97 (107)	131 (147)
		S	789 (894)	785 (881)	829 (910)	843 (949)
		L	76 (87)	88 (98)	99 (109)	126 (141)
		R	103 (116)	92 (105)	81 (89)	116 (131)
		S	106 (121)	90 (103)	95 (104)	110 (125)
		L	59 (67)	61 (70)	49 (54)	78 (87)



Location No.	Direction	Time					
		9:00-10:00	10:00-11:00	11:00-12:00	12:00-13:00	13:00-14:00	14:00-15:00
⑤	1	R	59 (33)	64 (77)	75 (87)	35 (42)	
		S	L.059(1.238)	1.074(1.275)	337 (980)	1.326(1.567)	
		L	-- (-)	-- (-)	-- (-)	-- (-)	
	2	R	-- (-)	-- (-)	-- (-)	-- (-)	
		S	810 (954)	743 (884)	778 (931)	769 (903)	
		L	241 (954)	265 (316)	310 (372)	310 (365)	
	3	R	377 (473)	403 (458)	420 (492)	482 (571)	
		S	-- (-)	-- (-)	-- (-)	-- (-)	
		L	49 (61)	92 (104)	45 (54)	58 (66)	



Location No.	Direction	Time					
		9:00-10:00	10:00-11:00	11:00-12:00	12:00-13:00	13:00-14:00	14:00-15:00
⑤	1	R	305 (371)	386 (453)	425 (504)	480 (576)	
		S	575 (698)	736 (870)	598 (711)	924(1.112)	
		L	51 (61)	102 (120)	77 (91)	87 (105)	
	2	R	75 (86)	92 (107)	88 (103)	61 (69)	
		S	334 (384)	384 (443)	320 (372)	399 (447)	
		L	128 (148)	188 (216)	168 (195)	145 (163)	
	3	R	180 (212)	165 (195)	158 (190)	242 (284)	
		S	538 (657)	526 (625)	521 (623)	581 (681)	
		L	132 (155)	123 (146)	145 (174)	179 (212)	
	4	R	200 (229)	201 (231)	191 (216)	173 (191)	
		S	264 (300)	320 (367)	320 (363)	358 (392)	
		L	320 (364)	333 (383)	311 (353)	319 (349)	
1	R	93 (111)	93 (111)	72 (84)	92 (109)		
	S	650 (782)	614 (728)	694 (812)	722 (854)		
	L	10 (13)	17 (25)	11 (14)	12 (14)		
2	R	25 (30)	18 (22)	26 (30)	20 (24)		
	S	126 (152)	158 (189)	180 (211)	184 (218)		
	L	282 (339)	250 (297)	214 (252)	230 (272)		
3	R	254 (299)	246 (292)	248 (294)	219 (258)		
	S	773 (910)	855(1.016)	639 (765)	568 (667)		
	L	118 (140)	106 (127)	102 (122)	75 (89)		
4	R	68 (83)	77 (91)	65 (77)	69 (82)		
	S	122 (148)	135 (161)	116 (137)	131 (156)		
	L	93 (111)	67 (81)	50 (58)	71 (84)		



Appendix Table 5.1.2.1 Selected Results of Traffic Count, Taiz

Location NO.	Name	Direction	Total	Large Veh. Trips	Large V-Rate (%)	Peak Veh. Trips	Peak V-Rate (%)	Peak Hour
1	Jamal St.	1	10858	910	8.38	970	8.93	17
		2	11775	1024	8.70	1223	10.39	17
		Total	22633	1934	8.55	2193	9.69	17
2	Jamal St.	1	18730	1008	5.38	1619	8.64	17
		2	12860	671	5.22	1175	9.14	11
		Total	31592	1679	5.32	2520	7.98	11
3	Jamal St.	1	16821	668	3.97	1329	7.90	11
		2	14574	650	4.46	1277	8.76	11
		Total	31395	1318	4.20	2606	8.30	11
4	Jamal St.	1	10948	585	5.35	965	8.81	10
		2	9414	689	7.32	731	7.77	10
		Total	20362	1274	6.26	1696	8.33	10
5	Al Jaynai St.	1	6294	323	5.13	728	11.57	18
		2	6068	255	4.20	751	12.38	19
		Total	12362	578	4.68	1419	11.48	18
6	26th Sept. St. 1	1	—	—	—	—	—	—
		2	10217	298	2.91	871	8.52	18
		Total	10217	298	2.91	871	8.52	18
7	26th Sept. St. 2	1	—	—	—	—	—	—
		2	6172	171	2.78	514	8.33	9
		Total	6172	171	2.78	514	8.33	9
8	Suq As Samit St.	1	3449	258	7.49	376	10.90	19
		2	4445	130	2.92	398	8.95	11
		Total	7894	388	4.91	704	8.91	19

Note: Direction 1 --- N → S and E → W
 2 --- S → N and W → E

Appendix Table 5.1.1.2.2 Results of Turning Movement Count, Taiz

Location No.	Direction	Time							
		9:00-10:00	10:00-11:00	11:00-12:00	12:00-13:00	10:00-11:00	11:00-12:00	12:00-13:00	
①	<p>Al Jaynai St.</p>	R	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	
		S	603 (712)	172 (200)	701 (816)	496 (568)	— (—)	— (—)	— (—)
		L	38 (46)	51 (60)	57 (66)	44 (51)	— (—)	— (—)	— (—)
		R	45 (50)	41 (46)	47 (52)	25 (28)	— (—)	— (—)	— (—)
		S	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)
		L	343 (380)	355 (391)	362 (399)	360 (396)	— (—)	— (—)	— (—)
	<p>Al Jaynai St.</p>	R	392 (448)	558 (651)	363 (429)	399 (466)	— (—)	— (—)	
		S	575 (655)	558 (653)	396 (467)	460 (537)	— (—)	— (—)	
		L	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	
		R	324 (370)	502 (566)	632 (730)	765 (880)	— (—)	— (—)	
		S	0 (0)	0 (0)	0 (0)	0 (0)	— (—)	— (—)	
		L	107 (122)	149 (167)	136 (157)	225 (251)	— (—)	— (—)	
②	<p>Tahrir St.</p>	R	138 (178)	131 (148)	182 (210)	157 (175)	— (—)	— (—)	
		S	1,266 (1,449)	1,410 (1,593)	1,367 (1,578)	1,406 (1,580)	— (—)	— (—)	
		L	0 (0)	0 (0)	0 (0)	0 (0)	— (—)	— (—)	
		R	222 (256)	280 (318)	187 (216)	496 (563)	— (—)	— (—)	
		S	3 (3)	1 (1)	3 (3)	5 (6)	— (—)	— (—)	
		L	13 (16)	40 (47)	15 (17)	98 (110)	— (—)	— (—)	
	<p>Tahrir St.</p>	R	540 (630)	710 (805)	399 (460)	541 (612)	— (—)	— (—)	
		S	1,086 (1,284)	1,164 (1,361)	1,271 (1,467)	840 (951)	— (—)	— (—)	
		L	0 (0)	0 (0)	0 (0)	0 (0)	— (—)	— (—)	
		R	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	
		S	880 (1,008)	999 (1,112)	1,343 (1,495)	993 (1,097)	— (—)	— (—)	
		L	285 (327)	273 (305)	354 (406)	354 (391)	— (—)	— (—)	
③	<p>Central Bank St.</p>	R	427 (481)	286 (319)	358 (407)	561 (629)	— (—)	— (—)	
		S	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	
		L	638 (726)	551 (616)	730 (823)	1,137 (1,271)	— (—)	— (—)	
		R	12 (14)	19 (22)	8 (10)	13 (17)	— (—)	— (—)	
		S	783 (907)	783 (867)	602 (684)	932 (1,045)	— (—)	— (—)	
		L	2 (2)	6 (7)	9 (10)	6 (7)	— (—)	— (—)	
	<p>Central Bank St.</p>	R	— (—)	— (—)	— (—)	— (—)	— (—)		
		S	— (—)	— (—)	— (—)	— (—)	— (—)		
		L	182 (203)	209 (256)	329 (366)	74 (78)	— (—)	— (—)	
		R	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	
		S	484 (539)	480 (535)	569 (635)	531 (672)	— (—)	— (—)	
		L	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	

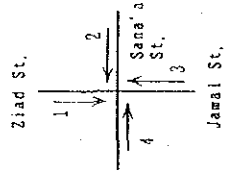
Appendix Table 5.1.3.1 Selected Results of Traffic Count, Hodeidah

Location NO.	Name	Direction	Total	Large Veh. Trips	Large V-Rate (%)	Peak Veh. Trips	Peak V-Rate (%)	Peak Hour
1	Sanaa St. 1	1	7918	1041	13.14	791	9.99	10
		2	7823	1132	14.47	671	8.58	12
		Total	15741	2173	13.80	1418	9.01	12
2	Sanaa St. 2	1	13700	173	1.26	1451	10.59	12
		2	11369	422	3.71	1319	11.60	12
		Total	25069	595	2.37	2770	11.05	12
3	Port Road	1	11267	29	0.25	1172	10.40	10
		2	7064	114	1.62	761	10.70	11
		Total	18331	143	0.78	1879	10.25	10

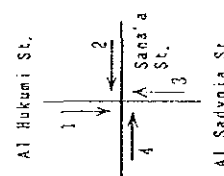
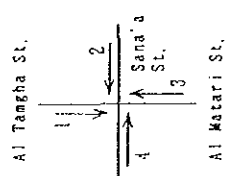
Note: Direction 1 --- N → S and E → W
 2 --- S → N and W → E

Appendix Table 5.1.3.2 Results of Turning Movement Count, Hodeidah

Location No.	Direction	Time				
		9:00-10:00	10:00-11:00	11:00-12:00	12:00-13:00	
①	1	R	152 (185)	122 (186)	167 (189)	167 (177)
		S	139 (159)	135 (151)	145 (156)	150 (159)
		L	166 (189)	151 (169)	145 (165)	140 (148)
	2	R	303 (344)	363 (396)	314 (348)	354 (390)
		S	634 (720)	700 (763)	667 (743)	731 (863)
		L	6 (7)	3 (4)	3 (3)	5 (5)
	3	R	162 (167)	91 (94)	115 (124)	90 (99)
		S	168 (171)	139 (144)	129 (141)	191 (211)
		L	387 (397)	345 (360)	323 (350)	319 (351)
	4	R	448 (457)	571 (576)	473 (512)	452 (500)
		S	559 (574)	755 (757)	591 (640)	647 (715)
		L	0 (0)	0 (0)	0 (0)	0 (0)



Location No.	Direction	Time				
		9:00-10:00	10:00-11:00	11:00-12:00	12:00-13:00	
②	1	R	34 (34)	30 (32)	50 (52)	75 (80)
		S	199 (204)	146 (149)	103 (109)	168 (176)
		L	14 (14)	16 (18)	13 (14)	13 (16)
	2	R	1 (1)	10 (10)	9 (10)	1 (1)
		S	1,165(1,192)	1,163(1,186)	1,066(1,126)	1,376(1,449)
		L	121 (124)	113 (114)	177 (186)	165 (173)
	3	R	145 (135)	49 (52)	112 (121)	131 (145)
		S	52 (54)	64 (67)	50 (54)	80 (88)
		L	114 (118)	139 (143)	143 (158)	139 (154)
	4	R	34 (35)	34 (36)	40 (44)	36 (40)
		S	882 (902)	1,006(1,054)	979(1,058)	873 (966)
		L	329 (337)	431 (451)	374 (392)	343 (379)
1	R	120 (122)	135 (138)	158 (166)	160 (115)	
	S	154 (157)	154 (157)	210 (222)	296 (312)	
	L	112 (114)	111 (113)	123 (130)	105 (111)	
2	R	129 (132)	112 (115)	171 (180)	160 (169)	
	S	1,349(1,380)	1,377(1,403)	1,265(1,338)	1,291(1,360)	
	L	3 (3)	2 (2)	1 (1)	7 (7)	
3	R	227 (233)	173 (181)	238 (257)	239 (264)	
	S	167 (172)	172 (179)	219 (238)	325 (359)	
	L	132 (136)	124 (129)	116 (126)	180 (200)	
4	R	115 (118)	61 (64)	112 (122)	117 (130)	
	S	1,905(1,029)	1,275(1,332)	1,142(1,233)	1,210(1,336)	
	L	0 (0)	0 (0)	0 (0)	0 (0)	



Appendix Table 5.2.1.1. Travel Speed Survey

Check Point	Dist (km)	Pass T. Min	Ave-Speed Sec	Stop-T	%										Total							
					K/H	R-1	R-2	R-3	R-4	R-5	R-6	R-7	R-8	R-9		R-10						
S-N(4)	1	0.00	0	0	0																	
	2	0.80	1	4	45	14																100
	3	0.27	1	27	41																	0
	4	0.32	1	50	50																	0
	5	0.25	2	15	35																	0
	6	0.65	3	43	27	38	100															100
	7	0.37	4	16	40																	0
	8	0.17	4	33	35																	0
	9	0.18	4	43	43																	0
	10	0.21	5	9	35																	0
	11	0.45	5	40	52																	0
	12	0.40	6	15	35																	0
	13	0.70	8	27	10	77	100															100
	14	0.78	9	22	51																	0
	15	0.23	9	40	55																	0
	16	0.75	12	2	19	22	9															100
NO 2 AZ ZURAYRI ST.																						
W-E(2)																						
1	0.00	0	0																			0
2	1.65	1	55	52																		100
3	0.13	2	10	30																		0
4	0.33	2	41	33																		0
5	0.20	4	24	7	66	100																100
6	0.45	5	13	33																		0
7	0.21	5	40	23																		100
8	0.14	6	50	5	51	100																100
9	0.30	6	6	72																		100
10	0.44	10	15	23																		100
11	0.25	15	34	3	265	100																100
12	0.27	16	7	29	5	100																100
13	0.66	17	0	40																		0
14	0.14	17	16	30																		0
E-W (2)																						
14	0.00	0	0																			0
13	0.14	0	51	10																		100
12	0.63	1	45	23	17																	100
11	0.27	3	1	13	44																	100
10	0.25	3	38	24																		100
9	0.44	4	30	26	11																	100
8	0.30	5	15	30																		0
7	0.14	5	45	17																		100
6	0.21	6	9	32																		0
5	0.45	8	12	13	72	100																100
4	0.20	8	33	14																		0
3	0.33	9	4	38																		0
2	0.13	9	22	36																		0
1	1.65	10	55	64																		0
W-E(5)																						
1	0.00	0	0																			0
2	1.65	1	37	61																		0

Appendix Table 5.2.1.1 Travel Speed Survey

Check Points	Dist.(Km)	Pass	T. Min	Ave-Speed Sec	Stop-T	%										Total				
						R-1	R-2	R-3	R-4	R-5	R-6	R-7	R-8	R-9	R-10					
	3	0.13	1	46	50															0
	4	0.53	2	6	50															0
	5	0.20	2	34	36	4														4
	6	0.45	3	15	40															0
	7	0.21	3	30	50															0
	8	0.14	4	10	13	22														22
	9	0.30	4	39	37															0
	10	0.44	5	12	47															0
	11	0.25	6	22	13	36														36
	12	0.27	7	0	25															0
	13	0.63	7	57	43															0
	14	0.14	8	23	19		5													5
E-W(5)	14	0.00	0	0																0
	13	0.14	0	10	20															0
	12	0.68	1	13	45															0
	11	0.27	2	35	12	51														51
	10	0.25	3	10	26			4												4
	9	0.44	3	53	38															0
	8	0.30	4	34	26	15														15
	7	0.14	4	50	32															0
	6	0.21	5	9	40															0
	5	0.43	6	47	17	60														60
	4	0.20	7	3	34															0
	3	0.33	7	30	54															0
	2	0.13	7	43	36															0
	1	1.65	0	20	61															0
NO E TAIL RD																				
S-N(1)	1	0	0	0																0
	2	0.11	0	14	20															0
	3	1.47	2	54	33	11														11
	4	1.48	6	10	27		12													12
	5	0.34	8	15	24	15														15
	6	0.50	9	13	31															0
	7	0.39	10	50	33															0
	8	0.05	11	3	14			2												2
	9	0.24	12	35	9	58														58
N-S(1)	9	0.00	0	0																0
	8	0.24	0	19	45															0
	7	0.05	0	34	12		5													5
	6	0.80	3	2	22															0
	5	0.50	4	23	22															0
	4	0.84	6	46	21															0
	3	1.48	10	32	24		6													6
	2	1.47	13	5	35															0
	1	0.11	13	21	25															0
N-S(5)	9	0.00	0	0																0
	8	0.24	0	20	43															0

Appendix Table 5.2.1.1 Travel Speed Survey

	Check Points	Dist.(Km)	Pass Min	T. Ave-Speed Sec	Stop-T	%										Total										
						R-1	R-2	R-3	R-4	R-5	R-6	R-7	R-8	R-9	R-10											
NO 5 Sadah Rd.																										
N-S(2)	1	0.00	0	0		0																				
	2	0.55	0	45	44	0																				
	3	0.70	1	30	47	0																				
	4	0.33	2	26	25	18	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
	5	0.71	3	36	37	0																				
	6	0.21	3	50	33	0																				
	7	0.20	5	7	11	17	17	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
S-N(2)	7	0.00	0	0		0																				
	6	0.20	0	40	12	0																				
	5	0.21	1	25	17	9	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100		
	4	0.71	2	33	38	0																				
	3	0.33	3	6	35	0																				
	2	0.70	4	14	37	13	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
	1	0.55	5	40	27	24	24	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
N-S(5)	1	0.00	0	0		0																				
	2	0.55	0	54	37	14	14	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
	3	0.70	1	37	59	0																				
	4	0.33	2	10	35	0																				
	5	0.71	2	56	55	0																				
	6	0.21	3	17	36	0																				
	7	0.20	3	55	18	18	18	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
S-N(5)	7	0.00	0	0		0																				
	6	0.20	0	21	34	0																				
	5	0.21	0	40	40	0																				
	4	0.71	1	28	53	0																				
	3	0.33	1	58	39	0																				
	2	0.70	2	40	60	0																				
	1	0.55	3	53	27	0																				
NO 6 Haddah St.																										
S-N(1)	1	0.00	0	0		0																				
	2	0.85	1	27	35	0																				
	3	0.77	0	43	34	0																				
	4	0.37	3	53	20	8	8	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	100	
	5	0.07	4	6	19	4	4	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	100	
	6	0.30	4	38	34	0																				
	7	0.40	6	1	17	27	27	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
N-S(1)	7	0.00	0	0		0																				
	6	0.40	0	47	31	0																				
	5	0.30	1	12	43	0																				
	4	0.07	1	38	10	20	20	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
	3	0.37	2	33	24	39	39	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
	2	0.77	4	28	24	0																				
	1	0.85	5	54	36	9	9	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
S-N(5)	1	0.00	0	0		0																				
	2	0.85	0	52	59	0																				
	3	0.77	1	40	56	0																				
	4	0.37	2	10	44	0																				
	5	0.07	2	21	23	0																				
	6	0.30	2	56	31	0																				
	7	0.40	3	40	33	0																				

Appendix Table 5.2.1.1 Travel Speed Survey

Check Points	Dist. (km)	Pass Min	T. Ave- Sec	Speed K/H	Stop-T	%										Total						
						R-1	R-2	R-3	R-4	R-5	R-6	R-7	R-8	R-9	R-10							
N-S(5)	7	0.00	0	0																	0	
	6	0.40	0	31	45																0	
	5	0.30	0	49	60																0	
	4	0.07	1	15	19																	8
	3	0.37	2	22	29	55																55
	2	0.77	3	9	59																	100
	1	0.65	4	50	30																	100
NO 7 Kasl Al Qasr St. -																						
S-N(2)	1	0.00	0	0																	0	
	2	0.35	2	8	10	37															37	
	3	1.00	3	33	42																0	
	4	0.55	4	27	37																0	
	5	0.40	5	13	31																0	
	6	0.20	6	0	15																0	
	7	0.34	6	40	31																0	
	8	0.39	7	11	45																0	
N-S(2)	3	0.00	0	0																	0	
	7	0.39	0	35	40																0	
	6	0.34	1	27	24																0	
	5	0.20	2	22	13																0	
	4	0.40	3	17	26																0	
	3	0.55	4	40	24																18	
	2	1.00	5	50	51																100	
S-N(5)	9	0.06	6	0	22																0	
	1	0.00	0	0																	0	
	2	0.35	0	50	25																0	
	3	1.00	2	2	50																0	
	4	0.55	2	52	40																0	
	5	0.40	3	34	34																0	
	6	0.20	4	4	24																0	
	7	0.34	4	53	25																0	
N-S(5)	8	0.39	6	3	20	10															10	
	2	0.00	0	0																	0	
	7	0.39	0	46	31																0	
	6	0.34	1	46	20	15															100	
	5	0.20	2	47	12		10														100	
	4	0.40	3	37	29																0	
	3	0.55	4	18	48																0	
	2	1.00	5	26	53																0	
NO 8 26th Sep. St.	9	0.06	5	32	36																0	
	E-W(1)																					
	1	0.00	0	0																		0
	2	0.24	1	55	8																	58
	3	0.3	2	44	29																	19
E-W(4)	4	0.64	3	45	36																81	
	5	0.29	4	30	23																0	
	1	0.00	0	0																	0	
	2	0.24	0	40	22																0	
	3	0.36	1	31	26																0	
4	0.64	2	42	32																	0	
5	0.29	3	12	35																	0	

Appendix Table 5.2.1.1 Travel Speed Survey

Check Points	Dist. (km)	Pass. Min	T. Sec	Ave-Speed	Stop-T	%										Total
						R-1	R-2	R-3	R-4	R-5	R-6	R-7	R-8	R-9	R-10	
NO 9 Ring Rd.																
S-W-N-E																
(1)	1	0.00	0	0		0										
	2	0.80	1	20	36	15	100	0	0	0	0	0	0	0	0	100
	3	0.34	1	48	44	0										
	4	0.20	2	8	36	0										
	5	0.38	2	40	42	0										
	6	0.71	6	0	13	113	100	0	0	0	0	0	0	0	0	100
	7	0.25	6	34	23	0										
	8	0.35	7	16	30	0										
	9	0.25	8	23	13	29	100	0	0	0	0	0	0	0	0	100
	10	0.70	10	5	25	0										
	11	0.25	10	27	11	0										
	12	0.51	12	16	17	48	100	0	0	0	0	0	0	0	0	100
	13	0.11	12	31	26	0										
	14	0.36	12	57	53	0										
	15	0.67	13	30	52	0										
	16	0.56	14	11	63	0										
	17	0.21	14	57	16	6	0	0	0	0	100	0	0	0	0	100
	18	0.30	16	3	15	30	100	0	0	0	0	0	0	0	0	100
	19	0.89	18	0	27	60	100	0	0	0	0	0	0	0	0	100
	20	0.32	18	56	23	15	100	0	0	0	0	0	0	0	0	100
	21	1.01	19	50	51	0										
	22	2.11	22	17	52	0										
	23	2.44	26	21	33	60	100	0	0	0	0	0	0	0	0	100
	24	0.40	27	58	15	58	100	0	0	0	0	0	0	0	0	100
	25	0.15	28	15	32	0										
	26	0.56	29	0	45	0										
	27	0.40	29	47	31	14	100	0	0	0	0	0	0	0	0	100
	1	0.55	30	55	20	0										
S-E-N-W																
(1)	1	0.00	0	0		0										
	27	0.55	0	50	40	0										
	26	0.40	1	29	37	0										
	25	0.56	2	5	56	0										
	24	0.15	3	13	7	49	100	0	0	0	0	0	0	0	0	100
	23	0.40	4	7	20	11	100	0	0	0	0	0	0	0	0	100
	22	2.44	7	4	50	0										
	21	2.11	9	13	33	0										
	20	1.01	10	45	40	21	100	0	0	0	0	0	0	0	0	100
	19	0.32	12	0	15	42	100	0	0	0	0	0	0	0	0	100
	18	0.89	14	22	23	72	100	0	0	0	0	0	0	0	0	100
	17	0.30	14	53	35	0										
	16	0.21	15	16	33	0										
	15	0.56	15	51	53	0										
	14	0.67	16	46	44	0										
	13	0.38	17	11	55	0										
	12	0.11	17	42	13	17	100	0	0	0	0	0	0	0	0	100
	11	0.51	18	33	36	0										

Appendix Table 5.2.1.1 Travel Speed Survey

	Check Points	Dist (Km)	Pass T. Min	Ave- Speed Sec	Stop-T	K/H	%										Total										
							R-1	R-2	R-3	R-4	R-5	R-6	R-7	R-8	R-9	R-10											
	10	0.25	19	31	35	72																			72	100	
	9	0.70	21	11	25	8																				8	100
	8	0.25	21	49	34																					0	
	7	0.35	22	40	25																					0	
	6	0.25	24	57	7	110																				110	100
	5	0.71	26	0	41																					0	
	4	0.38	26	26	52																					0	
	3	0.20	26	56	24																					6	0
	2	0.34	28	22	14	51																				51	100
	1	0.80	30	5	22	27																				27	100
S-W-N-E																											
(5)	1	0.00	0	0																						0	
	2	0.80	1	28	33	27																				27	100
	3	0.34	2	15	21																					0	
	4	0.20	2	35	33																					0	
	5	0.38	3	0	54																					0	
	6	0.71	3	58	44	23																				23	100
	7	0.25	4	41	21																					0	
	8	0.35	5	3	57																					0	
	9	0.25	5	30	33																					0	
	10	0.70	6	45	34																					0	
	11	0.25	7	10	36																					0	
	12	0.51	7	50	46																					0	
	13	0.11	7	56	66																					0	
	14	0.38	8	20	57																					0	
	15	0.67	9	2	57																					0	
	16	0.56	9	40	53																					0	
	17	0.21	10	0	36																					0	
	18	0.30	10	30	38	6																				6	100
	19	0.89	11	56	37	29																				29	100
	20	0.32	12	27	37	7																				7	100
	21	1.01	13	20	69																					0	
	22	2.11	15	25	61																					0	
	23	2.44	16	52	42	47																				47	100
	24	0.40	19	40	50	12																				12	100
	25	0.15	20	0	27																					0	
	26	0.56	20	38	53																					0	
	27	0.40	21	17	37																					0	
	1	0.55	22	5	41																					0	
S-E-N-W																											
(5)	1	0.00	0	0																						0	
	27	0.55	0	52	36																					0	
	26	0.40	1	35	33																					0	
	25	0.56	2	25	40																					0	
	24	0.15	3	11	12	60																				60	100
	23	0.40	5	14	12	56																				56	100
	22	2.44	8	12	49																					0	
	21	2.11	10	23	58																					0	
	20	1.01	11	54	40	23																				23	100
	19	0.32	12	47	21	29																				29	100

Appendix Table 5.2.1.1 Travel Speed Survey

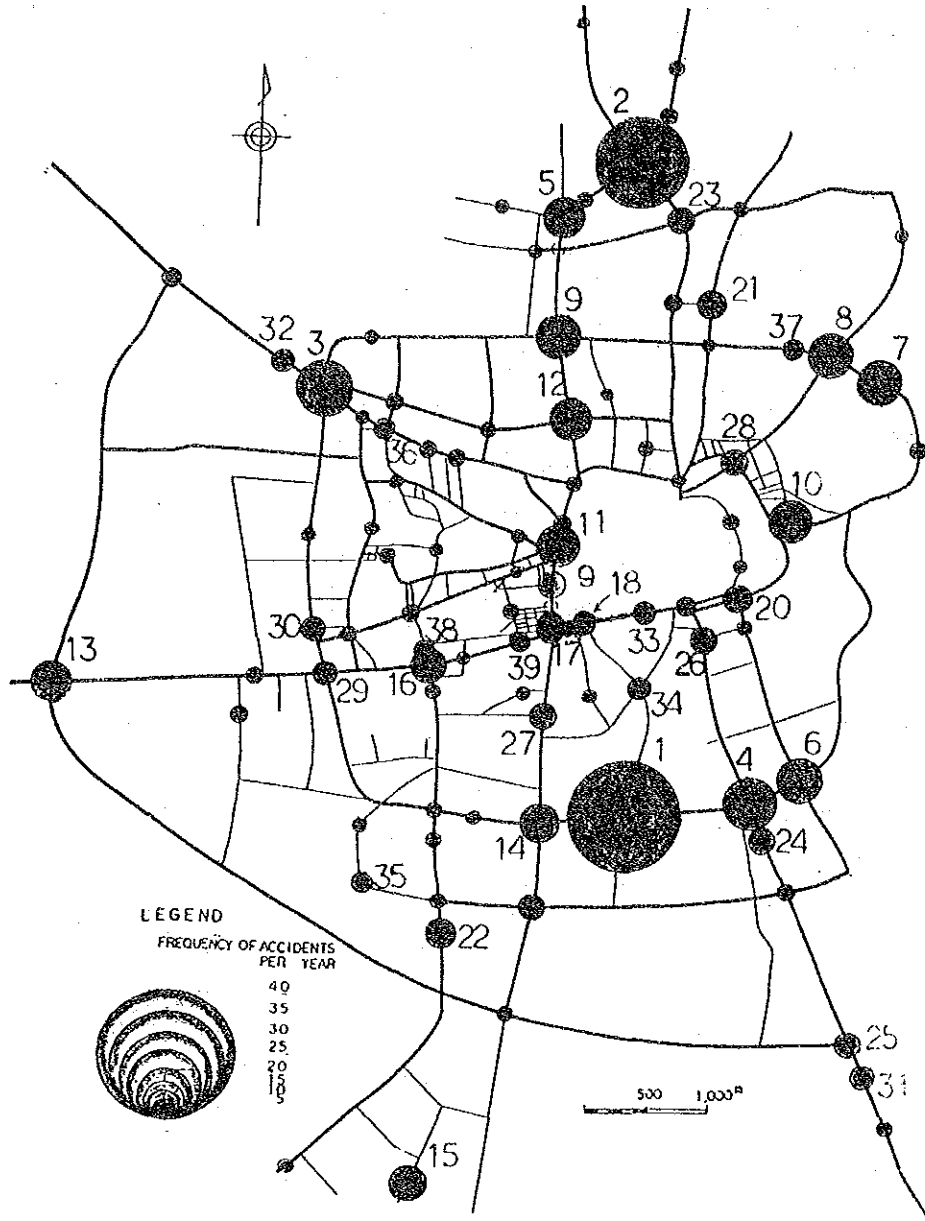
Check Point	Dist. (km)	Pass. Min	T. Sec	Ave. Speed	Stop-T	%										Total																																											
						R-1	R-2	R-3	R-4	R-5	R-6	R-7	R-8	R-9	R-10																																												
18	0.89	14	4	42	27																27	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100																						
17	0.30	14	30	42																		0																0																					
16	0.21	14	45	50																		0																0																					
15	0.56	15	19	50																		0																0																					
14	0.67	16	5	52																		0																0																					
13	0.35	16	26	65																		0																0																					
12	0.11	16	45	21	11																	11	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100																					
11	0.51	17	29	43																		0																0																					
10	0.25	18	0	29																		0																0																					
9	0.70	19	22	31																		0																0																					
8	0.25	19	55	27																		0																0																					
7	0.35	20	43	25																		0																0																					
6	0.25	21	28	20	17																	17	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100																					
5	0.71	22	30	41																		0																0																					
4	0.38	22	55	54																		0																0																					
3	0.20	23	14	33																		0																0																					
2	0.34	24	19	19	39																	39	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100																					
1	0.80	25	24	44																		0																0																					
NO 10 Marib Rd.																																																											
S-N(3)	1	0.00	0	0																		0																	0																				
	2	0.11	0	44	9	4																4	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100																				
	3	0.23	2	11	9		30															30	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	100																				
	4	0.80	5	4	17	48		7														55	87	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	100																				
	5	0.33	3	35	33		43															43	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	100																				
	6	0.65	6	33	53																	0																	0																				
N-S(3)	5	0.99	0	0																		0																	0																				
	5	0.65	1	16	40																	0																	0																				
	4	0.33	2	29	13	42																42	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100																				
	3	0.60	3	56	33																	0																	0																				
	2	0.23	5	1	12		5															5	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	100																				
S-N(5)	1	0.11	5	40	10	5																5	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100																				
	1	0.00	0	0																		0																	0																				
	2	0.11	0	14	27																	0																	0																				
	3	0.23	0	47	23																	0																	0																				
	4	0.80	2	31	23	20																20	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100																				
	5	0.33	2	55	40																	0																	0																				
N-S(5)	6	0.85	3	49	57																	0																	0																				
	6	0.00	0	0																		0																	0																				
	5	0.65	0	55	56																	0																	0																				
	4	0.33	1	34	30	14																14	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100																				
	3	0.60	2	51	37																	0																	0																				
	2	0.23	3	33	19		5															5	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	100																				
	1	0.11	3	52	20	15																15	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100																				
NO 11 Ziraah St.																																																											
N-S(2)	1	0.00	0	0																		0																	0																				
	2	0.30	0	33	33																	0																	0																				
	3	0.15	1	0	20																	0																	0																				
	4	0.66	3	27	16		16		3													19	0	0	0	84	0	0	16	0	0	0	0	0	0	0	0	100																					

Appendix Table 5.2.1.1 Travel Speed Survey

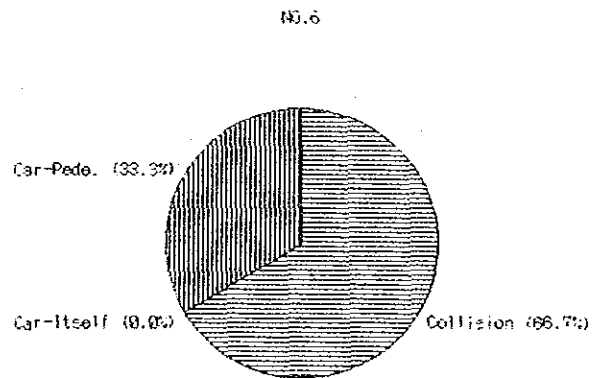
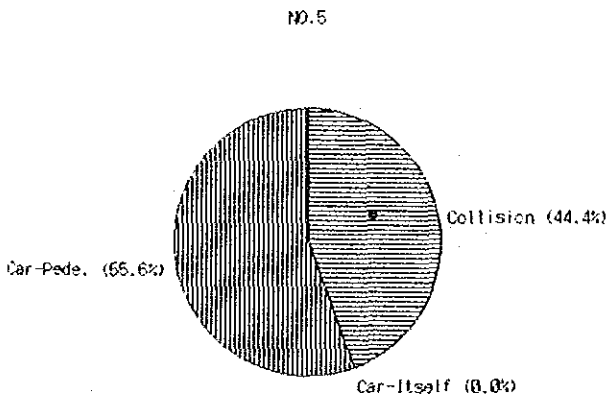
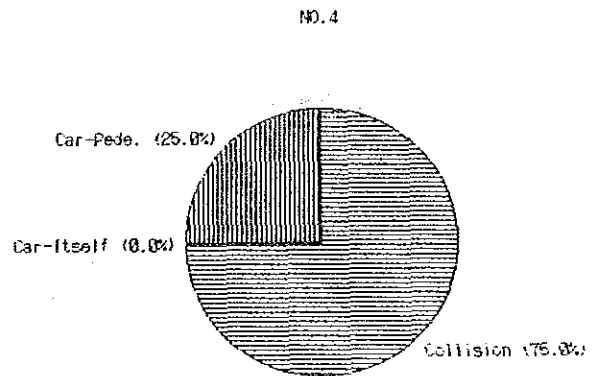
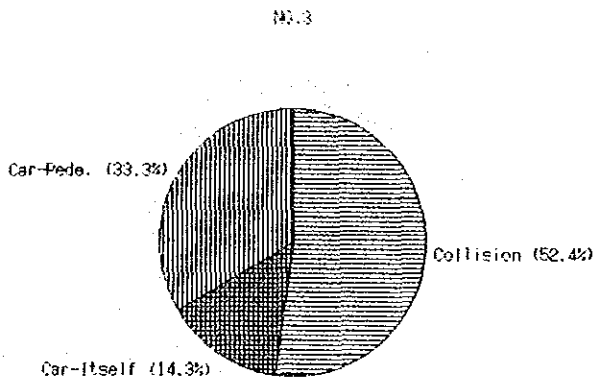
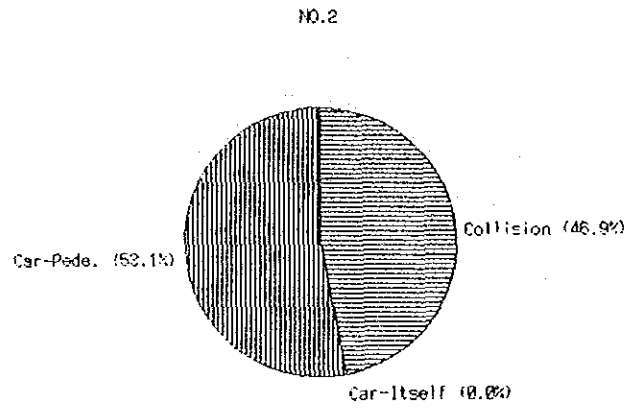
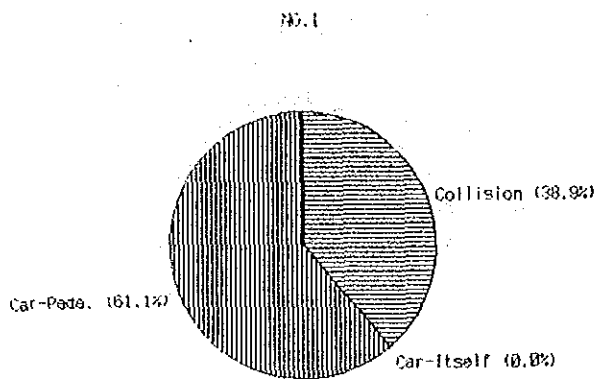
Check Points	Dist (km)	PassT. Min	Ave-Speed	Stop-T	Reasons for stopping (%)											Total							
					R-1	R-2	R-3	R-4	R-5	R-6	R-7	R-8	R-9	R-10									
S-N(2)	5	0.37	4.26	12																		0	
	6	0.25	6.1	9					33													33	0 0 0 100 0 0 0 0 0 0 100
	6	0.09	0.0																			0	
	5	0.25	0.29	31																		0	
	4	0.37	3.30	7				59	23													82	0 0 0 72 0 28 0 0 0 0 100
	3	0.66	5.10	24																		0	
N-S(5)	2	0.15	5.25	36																		0	
	1	0.30	6.13	25					10													10	0 0 0 0 0 100 0 0 0 0 100
	1	0.00	0.0																			0	
	2	0.30	0.29	37																		0	
	3	0.15	0.14	36																		0	
	4	0.66	2.24	24																		0	
S-N(5)	5	0.37	3.14	33																		0	
	6	0.25	3.25	43																		0	
	6	0.00	0.0																			0	
	5	0.25	0.26	35																		0	
	4	0.37	1.15	27																		0	
	3	0.66	2.16	33																		0	
NO 12 Al Bahwita St.																							
E-W(1)	1	0.00	0.0																			0	
	2	0.69	1.34	26																		0	
	3	0.17	2.6	19																		0	
	4	0.50	3.47	16	14																	14	100 0 0 0 0 0 0 0 0 0 100
E-W(5)	1	0.00	0.0																			0	
	2	0.69	1.36	25																		0	
	3	0.17	2.5	22																		0	
	4	0.50	3.21	24																		0	
NO 13 Gandan St.																							
S-N(1)	9	0.00	0.0																			0	
	5	0.39	2.16	25																		0	
N-S(1)	5	0.30	0.0																			0	
	9	0.69	2.10	24																		0	
S-N(4)	10	0.36	4.33	9																		0	
	9	0.00	0.0																			0	
N-S(4)	5	0.39	1.54	33																		0	
	5	0.00	0.0																			0	
	9	0.39	2.34	21																		0	
10	0.36	4.7	14																		0		

Notes : PassT. --- Passing times
Ave-Speed --- Average over-all travel speed
Stop-T --- Stopping times
(Reasons for stopping)
R-1 --- Waiting at intersections
R-2 --- Indiscriminate crossing of pedestrians
R-3 --- Stopping caused by micro-buses & taxis
R-4 --- Traffic merging from minor roads
R-5 --- Traffic diverging to minor roads
R-6 --- Influence of cars turning to the left
R-7 --- Entering for park & leave on streets
R-8 --- Traffic accidents
R-9,10 --- Others

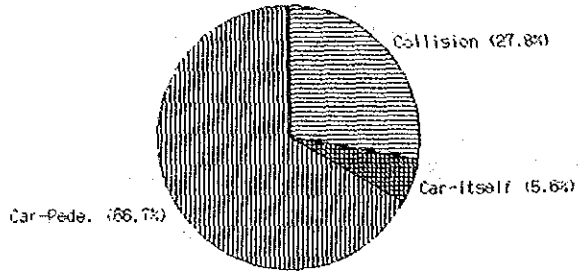
Appendix Fig. 5.4.1 Location Number and Frequency of Accidents



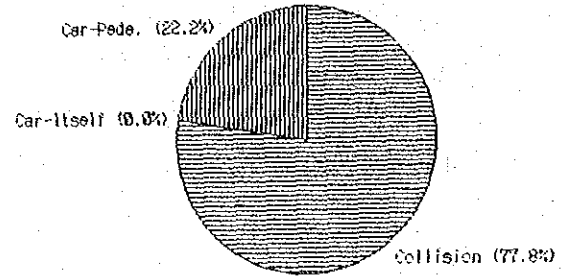
Appendix Fig. 5.4.2 Composition by Type of Accidents



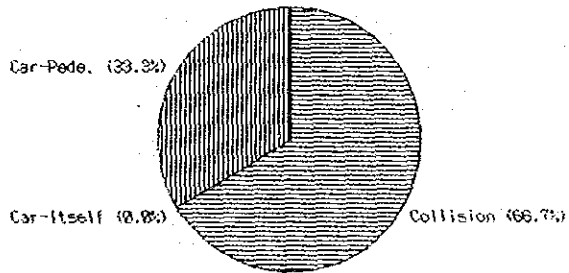
NO. 7



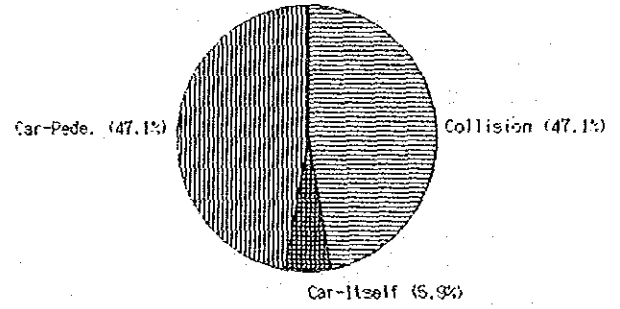
NO. 8



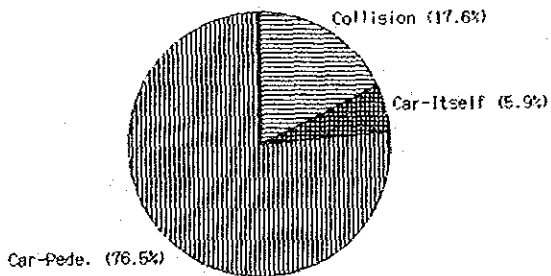
NO. 9



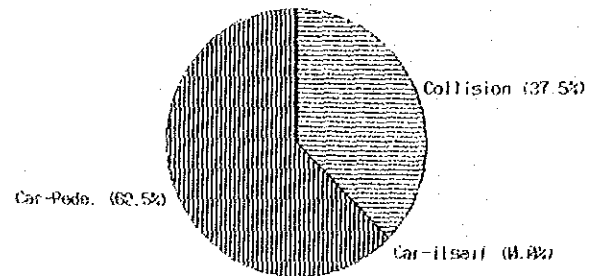
NO. 10



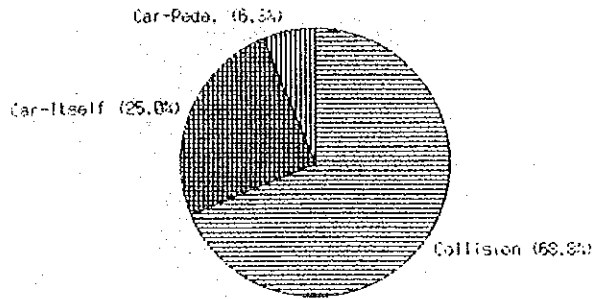
NO. 11



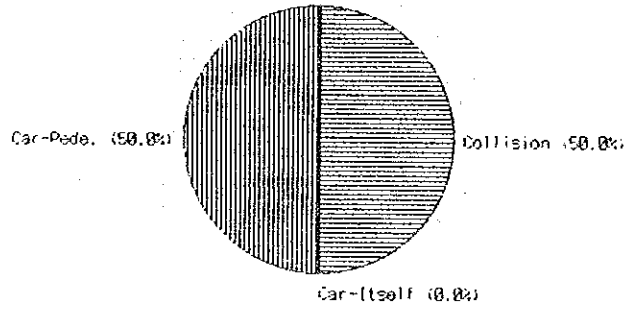
NO. 12



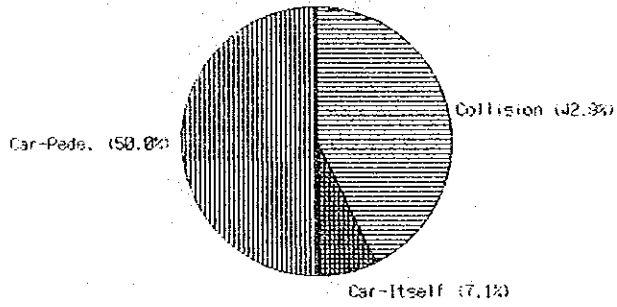
NO. 13



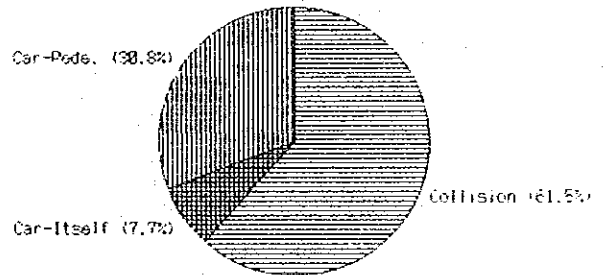
NO. 14



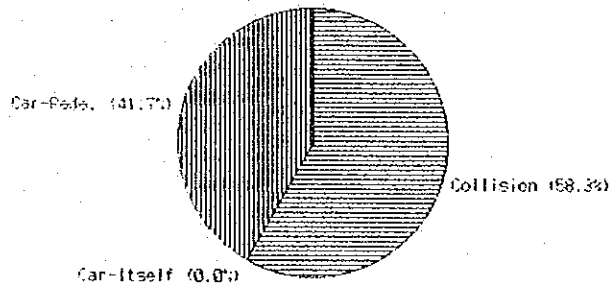
NO. 15



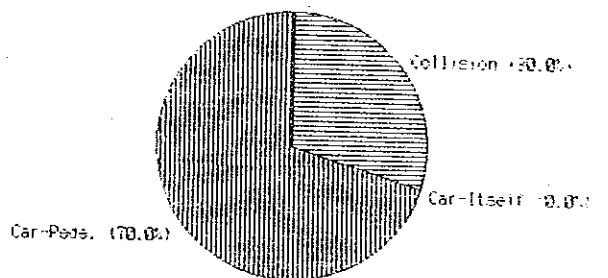
NO. 16



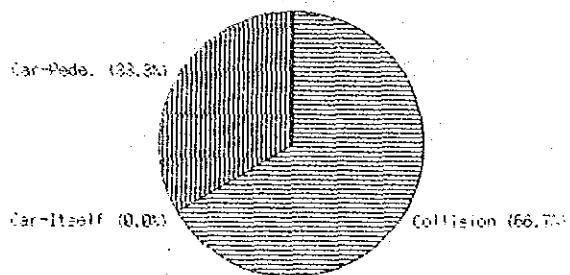
NO. 17



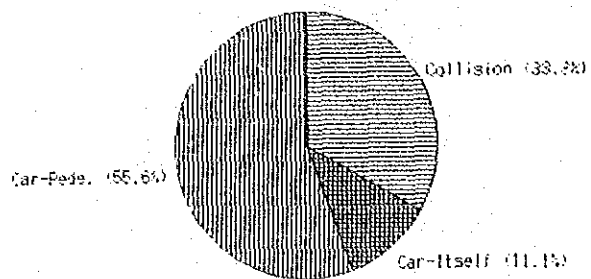
NO. 18



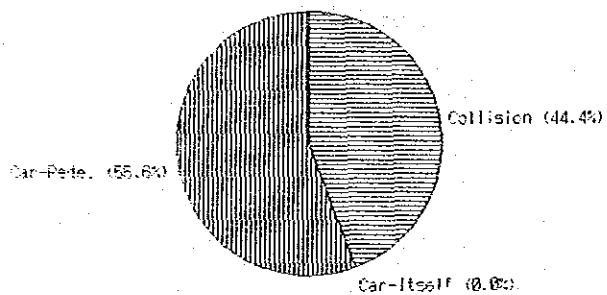
NO. 19



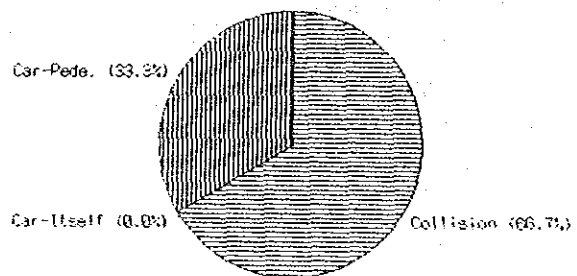
NO. 20



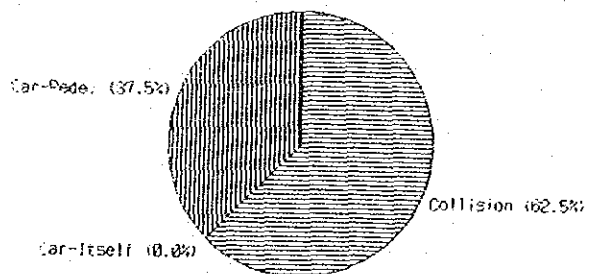
NO. 21



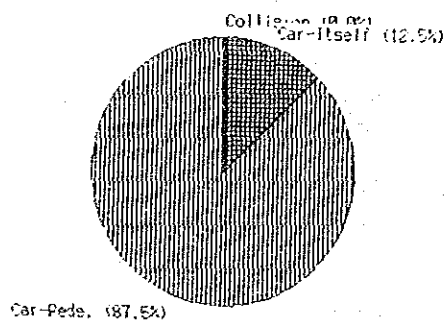
NO. 22



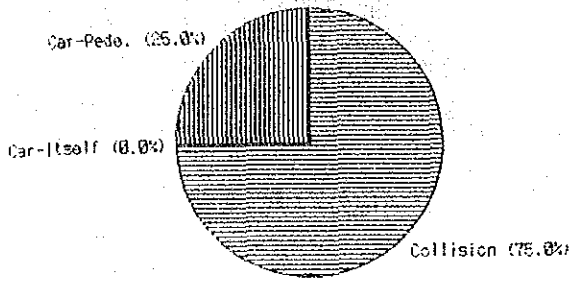
NO. 23



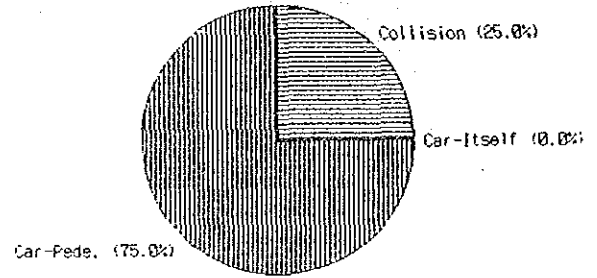
NO. 24



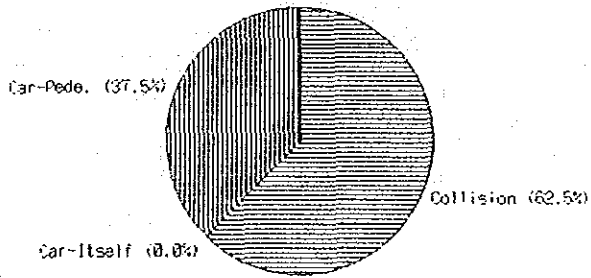
NO. 25



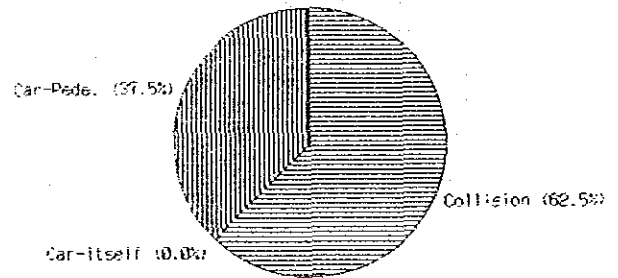
NO. 26



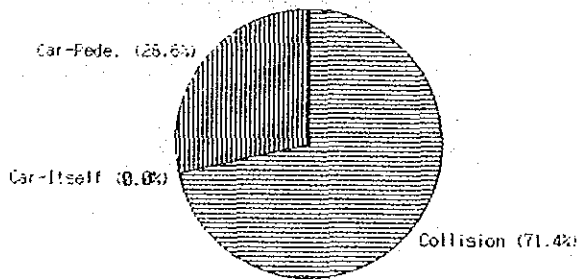
NO. 27



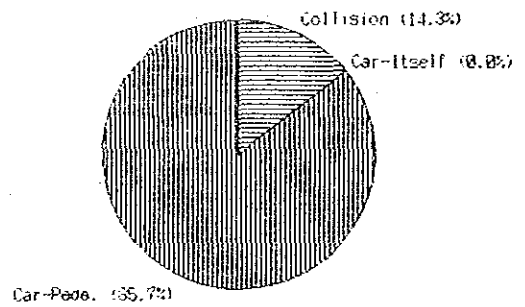
NO. 28



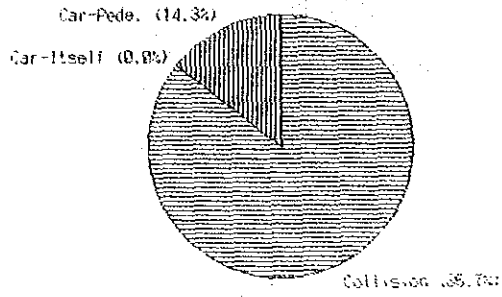
NO. 29



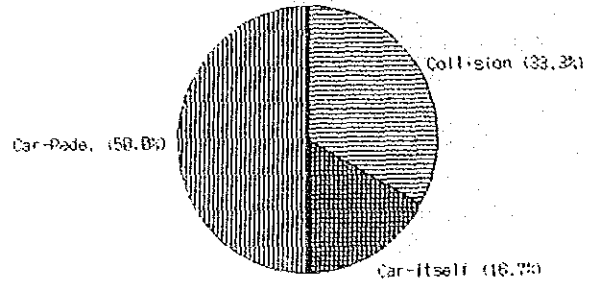
NO. 30



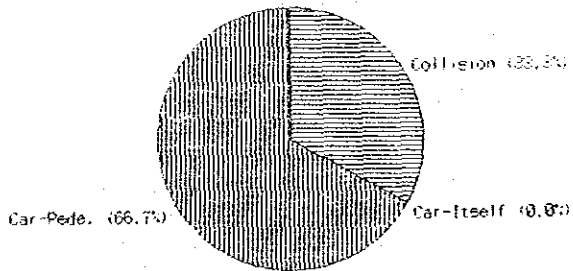
NO. 31



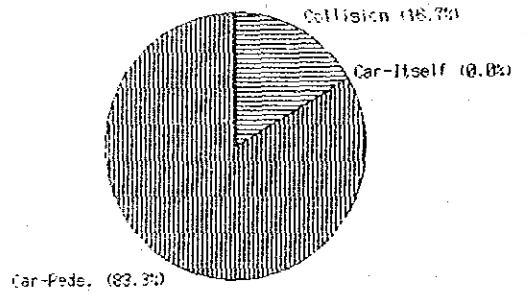
NO. 32



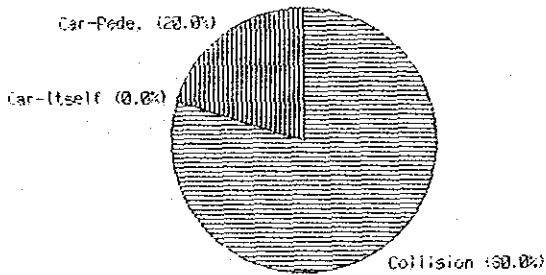
NO. 33



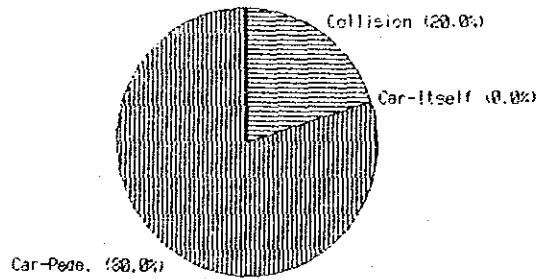
NO. 34



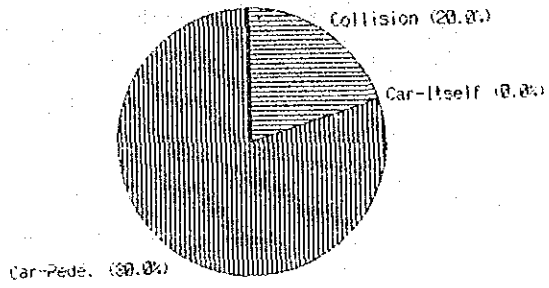
NO. 35



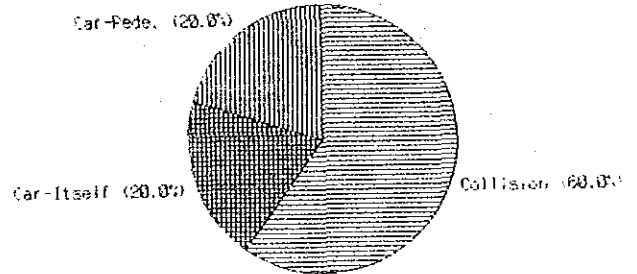
NO. 36



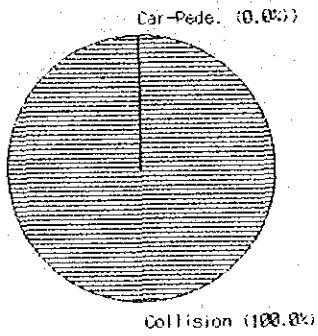
NO. 37



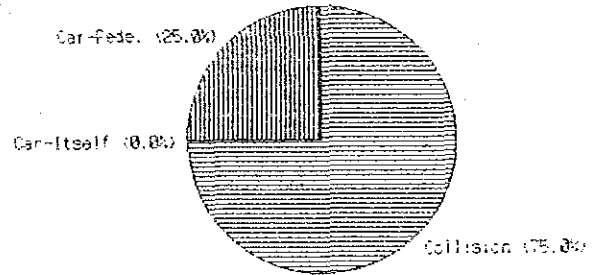
NO. 38



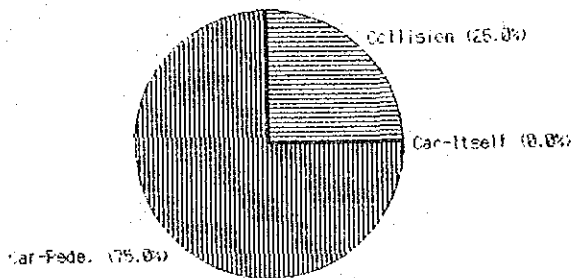
NO. 39



NO. 40



NO. 41



Appendix Table 5.4.1 Traffic Accidents Situation by Locations
(in Sana'a City 1987)

Locations No.	Pass.	Pub-	Medi.	Truck	Other	Coll- Total	Car- Total	Car Itself	VS Pedo.	Total	Signal.			Police		Damage		Total
	Car	Lic	Bus	4	5						S	P	N	Injury	Death			
	1	2	3	4	5						1	2	3	1	2			
No.1	19	1	0	7	5	32	14	0	22	36						30	0	30
2	18	15	0	12	4	49	15	0	17	32	1	1				19	2	21
3	14	7	0	9	2	32	11	3	7	21	1	1				21	1	22
4	15	14	0	7	3	39	15	0	5	20	1	1				9	0	9
5	15	6	0	5	0	26	8	0	10	16						9	4	13
6	16	5	0	11	0	32	12	0	6	18	1	1				11	1	12
7	12	7	0	3	1	23	5	1	12	18				1		17	5	22
8	20	3	0	9	2	34	14	0	4	16				1		11	2	13
9	18	6	1	5	1	31	12	0	6	18	1	1				9	1	10
10	10	3	0	7	5	25	8	1	8	17				1		14	0	14
11	10	4	0	1	5	20	3	1	13	17				1		13	1	14
12	11	8	2	2	1	24	6	0	10	16	1	1				10	1	11
13	15	5	0	10	1	31	11	4	1	16				1		13	0	13
14	12	5	0	5	2	24	7	0	7	14	1	1				13	1	14
15	12	4	0	3	2	21	6	1	7	14				1		12	0	12
16	9	9	0	4	1	23	6	1	4	13	1	1				8	0	8
17	10	6	0	4	0	20	7	0	5	12	1	1				9	0	9
18	4	4	0	4	1	13	3	0	7	10				1		10	2	12
19	7	5	0	2	1	15	6	0	3	9				1		6	0	6
20	6	2	0	3	1	12	3	1	5	9				1		7	0	7
21	6	3	0	3	2	14	4	0	5	9				1		7	0	7
22	7	4	0	3	1	15	6	0	3	9				1		9	0	9
23	5	5	0	4	0	14	5	0	3	8				1		3	0	3
24	3	3	0	2	0	8	0	1	7	8				1		8	0	8
25	4	5	0	5	0	14	6	0	2	8				1		7	1	8
26	5	5	0	0	0	10	2	0	6	8	1	1				5	1	6
27	8	2	0	5	0	15	5	0	3	8				1		2	1	3
28	4	3	0	2	4	13	5	0	3	8				1		8	0	8
29	6	3	0	3	0	12	5	0	2	7	1	1				2	0	2
30	2	1	0	3	2	8	1	0	6	7				1		6	0	6
31	1	2	0	8	2	13	6	0	1	7				1		2	0	2
32	3	1	0	3	1	8	2	1	3	6				1		4	0	4
33	5	2	0	0	1	8	2	0	4	6				1		4	0	4
34	2	1	0	3	1	7	1	0	5	6				1		4	1	5
35	4	3	0	1	1	9	4	0	1	5				1		2	0	2
36	1	3	0	0	2	6	1	0	4	5				1		4	0	4
37	3	1	0	2	0	6	1	0	4	5				1		4	0	4
38	5	2	0	1	2	10	3	1	1	5				1		5	0	5
39	5	1	1	3	0	10	5	0	0	5				1		0	0	0
40	5	1	0	2	0	8	3	0	1	4				1		6	1	7
41	1	3	0	1	0	5	1	0	3	4	1	1				3	0	3
42	2	0	0	2	0	4	1	0	2	3				1		2	0	2
43	2	0	0	1	1	4	1	0	2	3				1		2	0	2
44	2	0	0	2	0	4	1	0	2	3				1		2	0	2
45	3	0	0	0	1	4	1	0	2	3				1		3	0	3
46	2	0	0	1	1	4	1	0	2	3	1	1				2	1	3
47	3	0	0	0	2	5	2	0	1	3				1		2	0	2

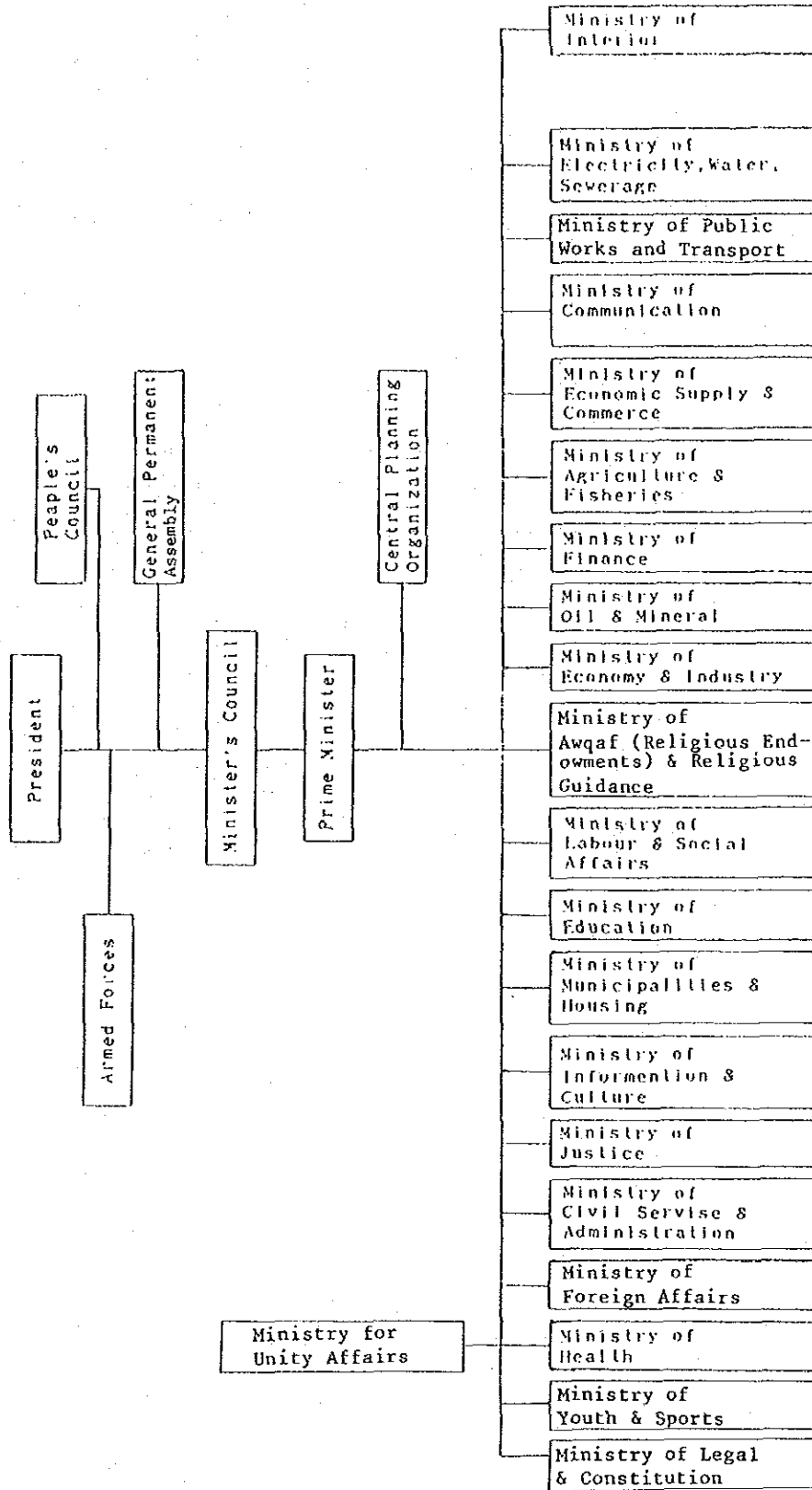
Locations No.	Pass. Car	Pub- Lic	Medl. Bus	Truck	Other	Coll- Car- Car VS			Signal.Police			Damage		Total	
						Total	sion	Itself	Pede.	Total	S	P	N		Injury
	1	2	3	4	5	1	2	3	1	2	3	1	2		
46	4	1	0	1	0	6	3	0	0	3	1			1	1
49	3	1	0	1	0	5	2	0	1	3	1			2	0
50	1	2	0	2	0	5	2	0	1	3		1		2	0
51	2	0	0	0	2	4	1	0	2	3		1		3	0
52	0	1	0	2	0	3	1	0	1	2	1			1	1
53	4	0	0	0	0	4	1	0	1	2	1	1		1	0
54	3	2	0	0	0	5	2	0	0	2		1		0	0
55	2	0	0	1	0	3	1	1	0	2		1		1	0
56	1	0	0	1	0	2	0	0	2	2		1		2	0
57	3	0	0	1	0	4	2	0	0	2	1	1		1	0
58	1	1	0	0	0	2	0	0	2	2		1		2	0
59	0	2	1	0	0	3	1	0	1	2		1		1	0
60	0	1	0	1	0	2	0	0	2	2		1		2	0
61	1	1	0	0	0	2	0	0	2	2		1		2	0
62	2	2	0	0	0	4	0	0	1	1		1		1	0
63	1	2	0	1	0	4	2	0	1	3	1	1		0	1
64	2	1	0	1	0	4	2	0	0	2		1		2	0
65	2	0	0	3	0	5	2	0	0	2		1		0	2
66	3	0	0	0	0	3	1	0	1	2		1		1	0
67	1	5	0	0	0	6	2	0	0	2		1		1	0
68	2	0	0	0	0	2	0	0	2	2		1		2	0
69	2	1	0	0	0	3	1	0	1	2		1		1	0
70	0	0	0	0	1	1	0	0	1	1		1		1	0
71	1	0	0	1	0	2	1	0	0	1		1		0	0
72	0	1	0	1	0	2	1	0	0	1		1		0	0
73	0	1	0	0	0	1	0	0	1	1		1		1	0
74	0	0	0	1	0	1	0	0	1	1		1		0	1
75	1	0	0	1	0	2	0	0	1	1		1		1	0
76	2	0	0	0	0	2	1	0	0	1		1		0	0
77	1	0	0	0	1	2	1	0	0	1		1		1	0
78	0	1	0	0	0	1	0	0	1	1		1		1	0
79	0	0	0	0	1	1	0	0	1	1		1		1	0
80	0	1	0	1	0	2	1	0	0	1	1	1		0	0
81	0	0	0	2	0	2	1	0	0	1		1		2	0
82	1	0	0	1	0	2	1	0	0	1		1		1	0
83	3	1	0	1	0	5	2	0	0	2		1		5	0
84	1	0	0	1	0	2	1	0	0	1		1		0	0
85	1	1	0	0	0	2	1	0	0	1		1		0	0
86	2	0	0	0	0	2	1	0	0	1		1		0	0
87	1	1	0	0	0	2	1	0	0	1		1		0	0
88	0	1	0	0	0	1	0	0	1	1		1		1	0
89	0	1	0	0	0	1	0	0	1	1		1		1	0
90	0	1	0	0	0	1	0	0	1	1		1		0	1
91	0	1	0	0	0	1	0	0	1	1		1		1	0
92	2	0	0	0	1	3	0	0	3	3	1	1		3	0
Total	408	207	5	198	68	886	288	17	271	576	18	44	48	416	33
%	46.0	23.4	0.6	22.3	7.7	100	50.0	3.0	47.0	100				92.7	7.3

Source: Sana'a Traffic Police, 1988

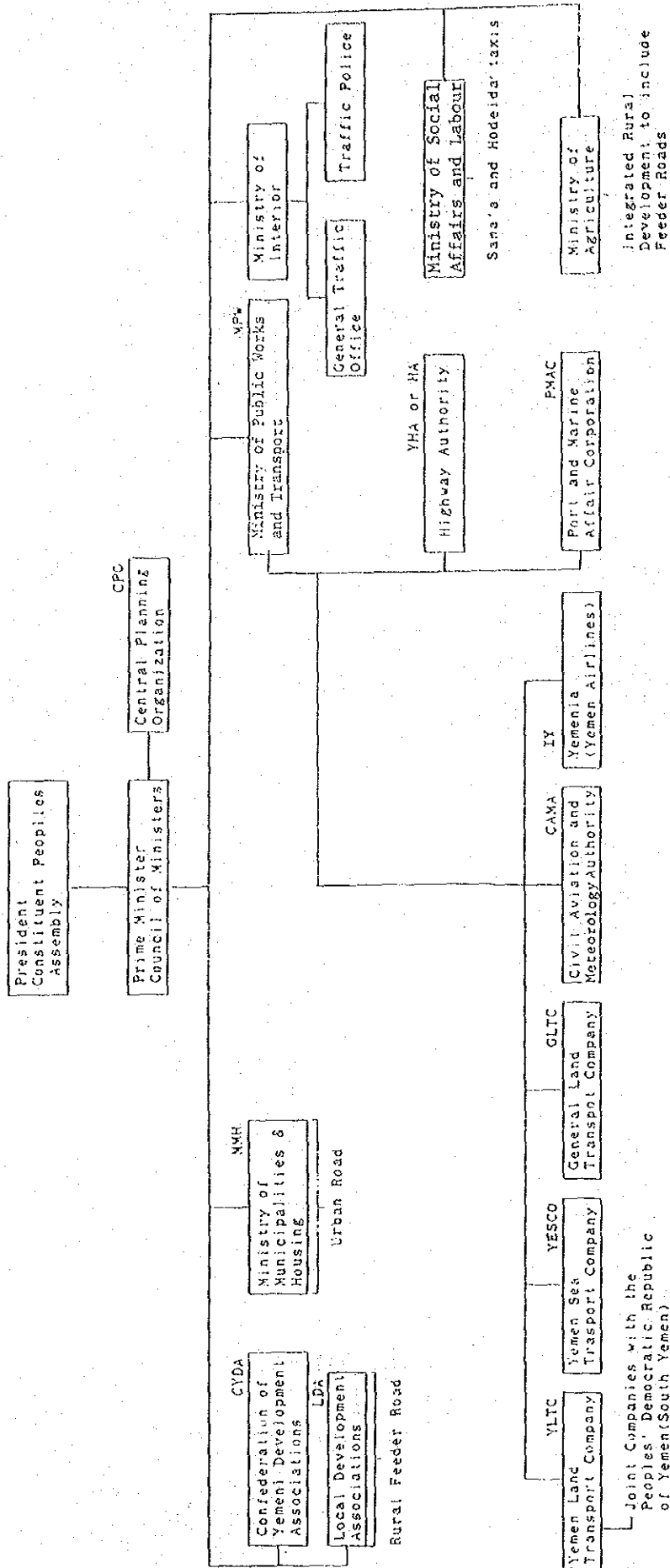
APPENDIX TO CHAPTER 6

Appendix Fig. 6.3.1 Organization of Government of Y.A.R.

(Announced in July, 1988)



Appendix Fig. 6.3.2 Organization of Y.A.R. Transport Sector



Appendix Fig. 6.3.3 Structure of Ministry of Communication

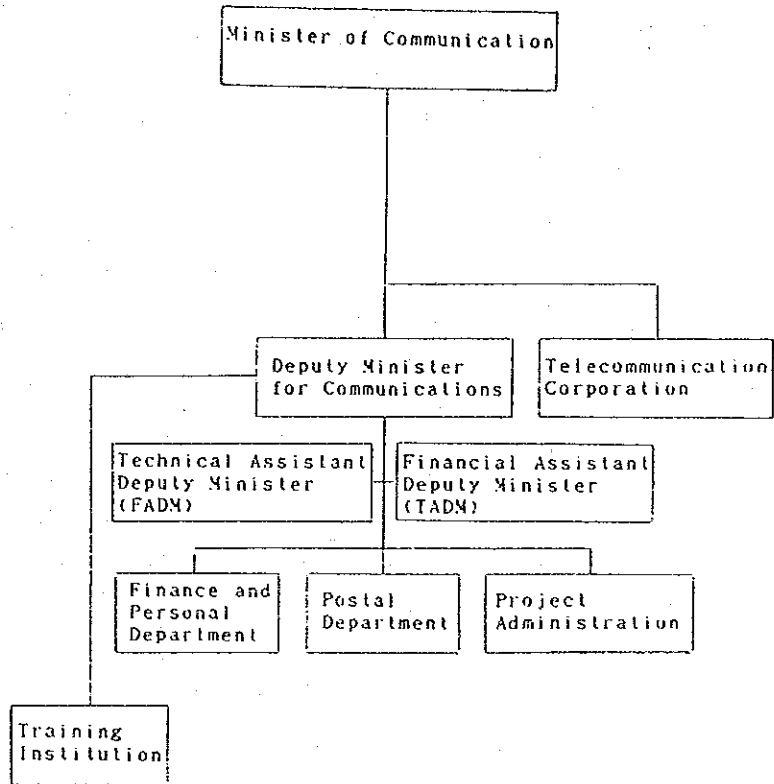
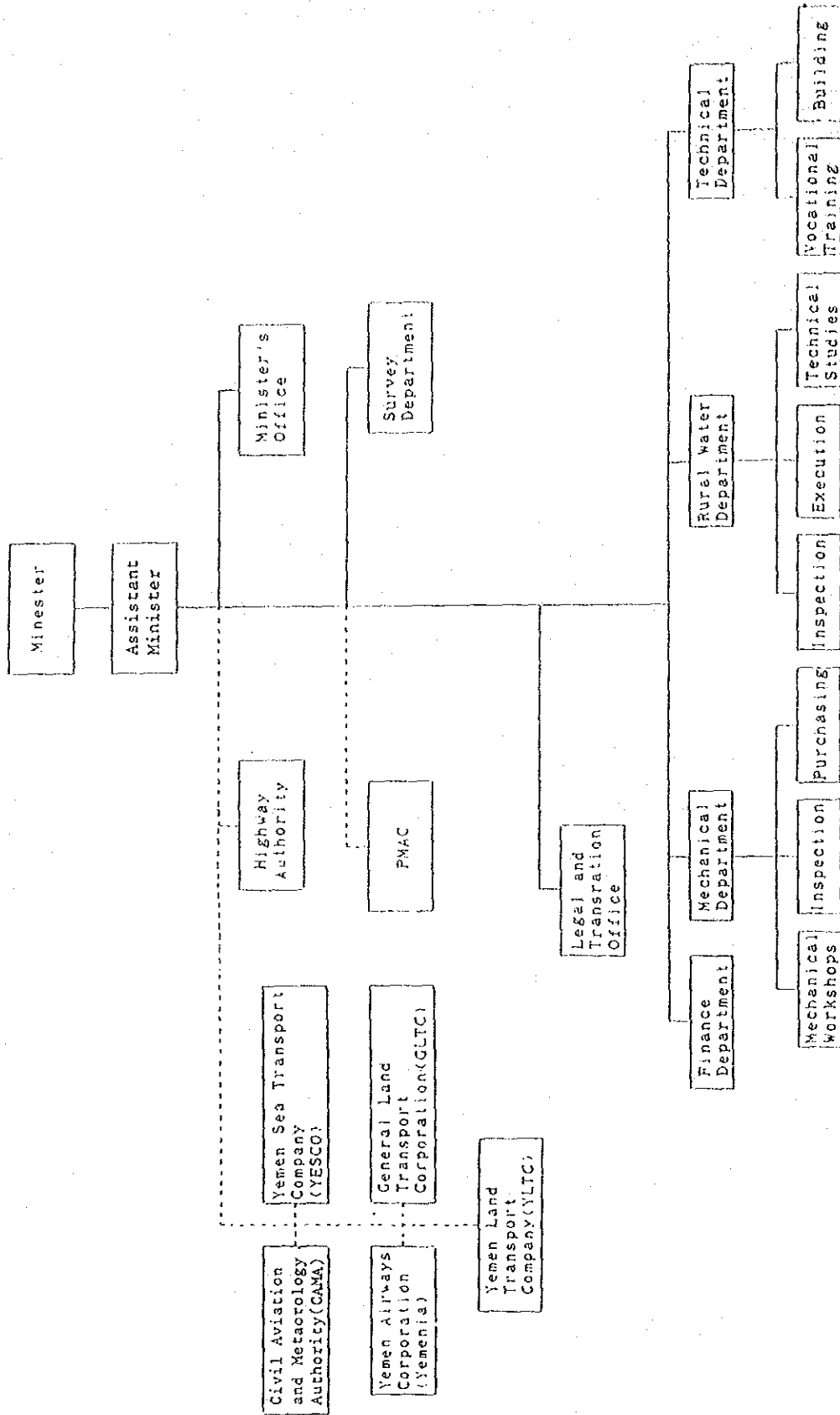
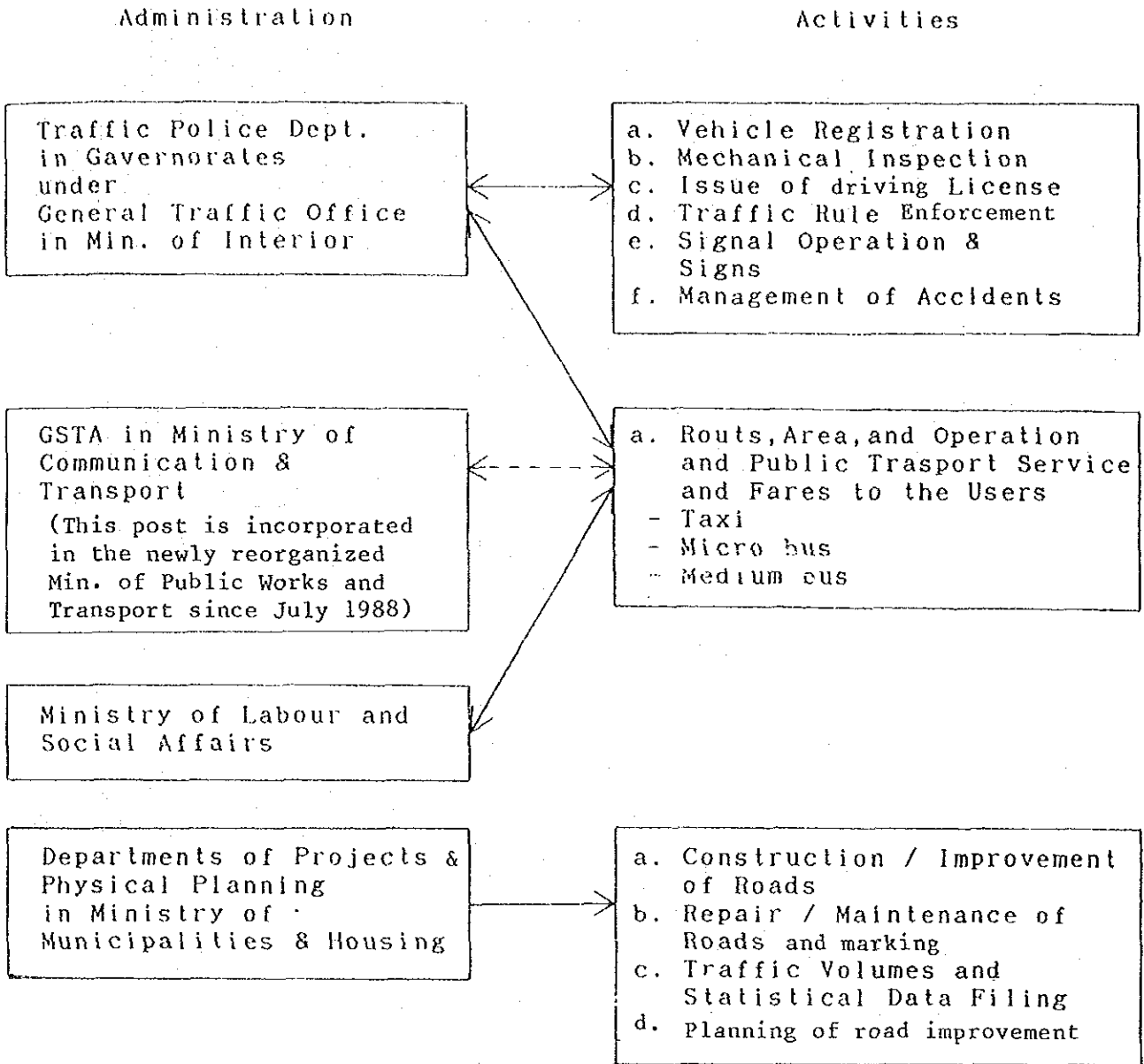


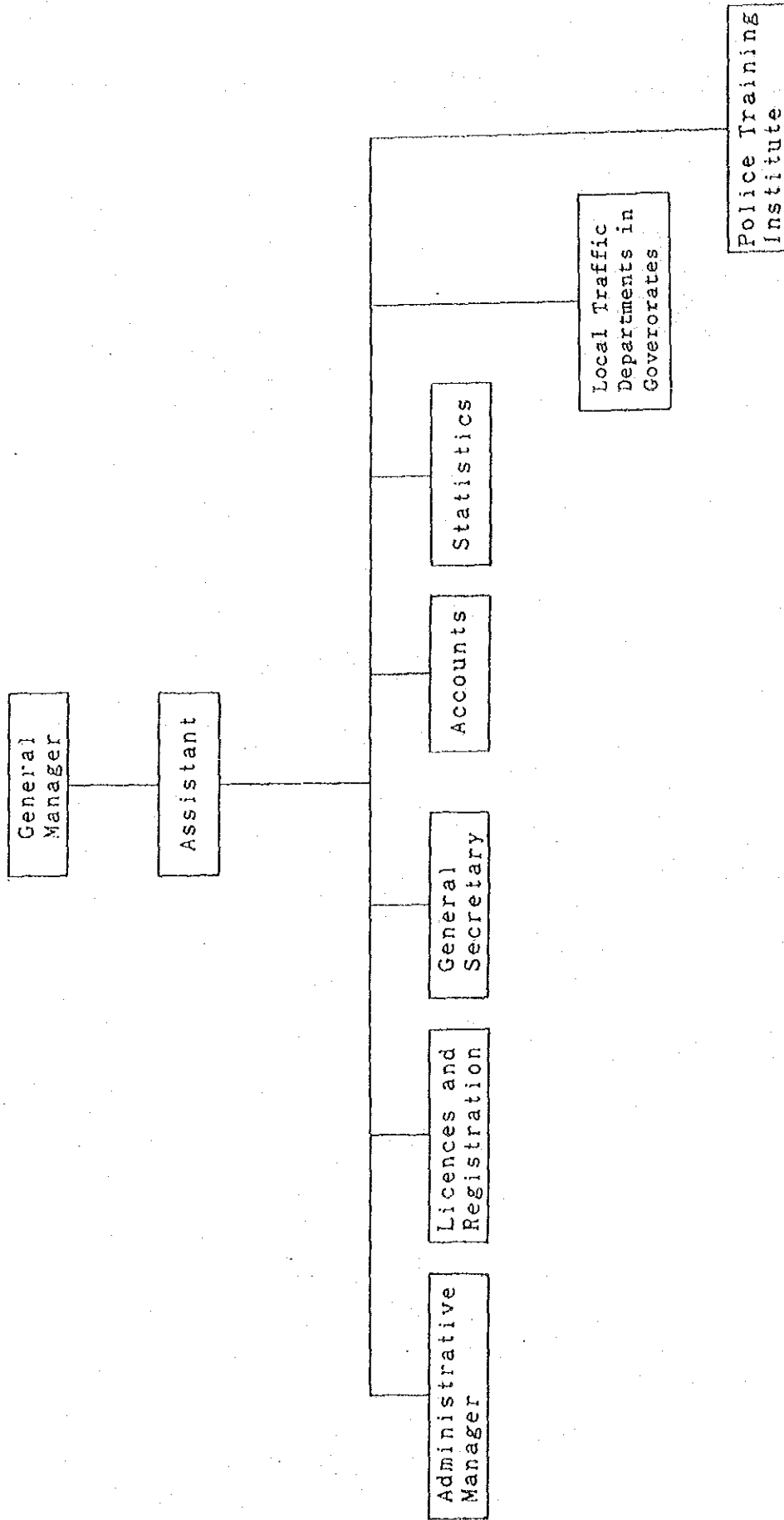
Fig. 6.3.4 Structure of Ministry of Public Works and Transport



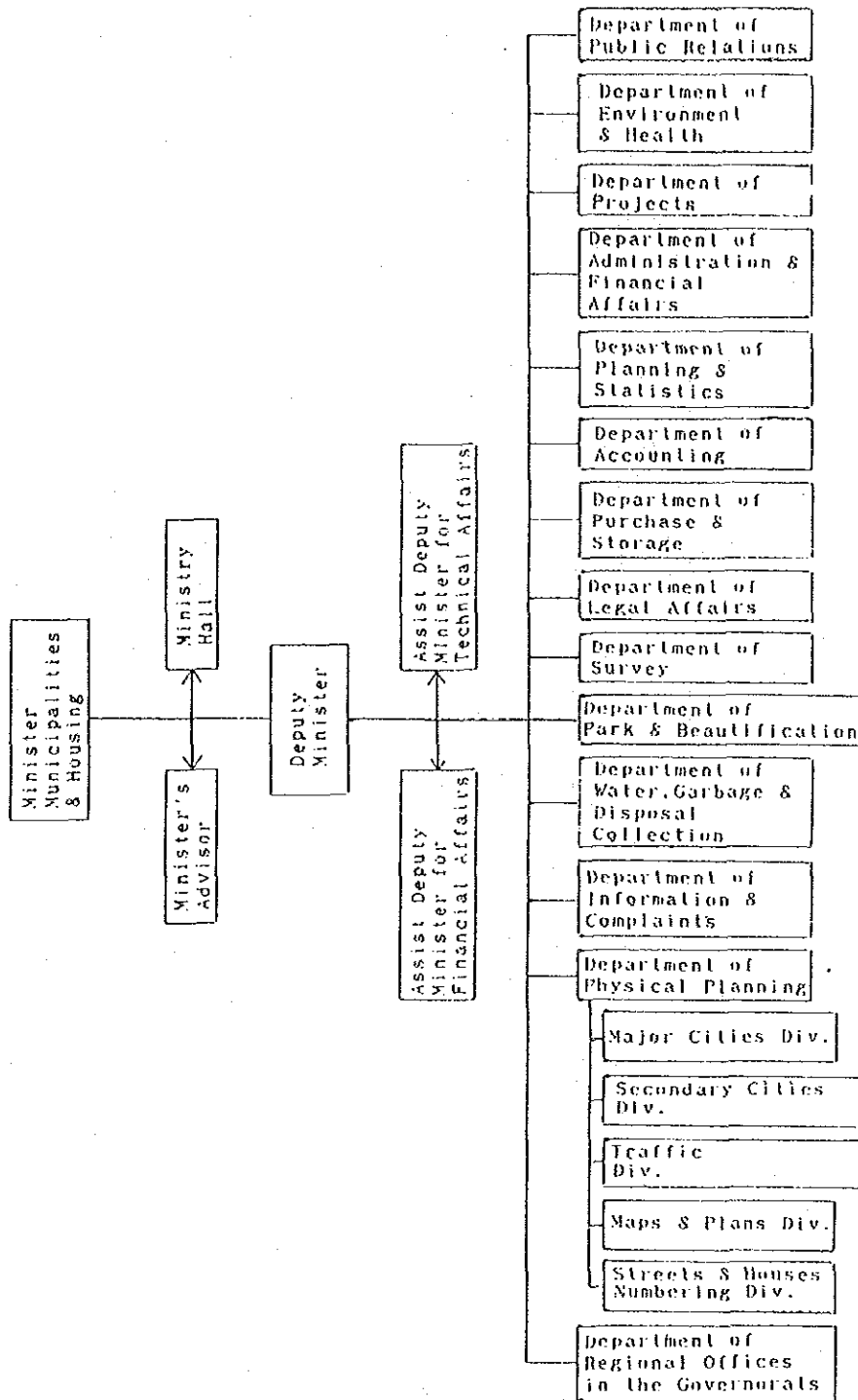
Appendix Fig. 6.3.5 Administrations Related to Urban Transportation Activities



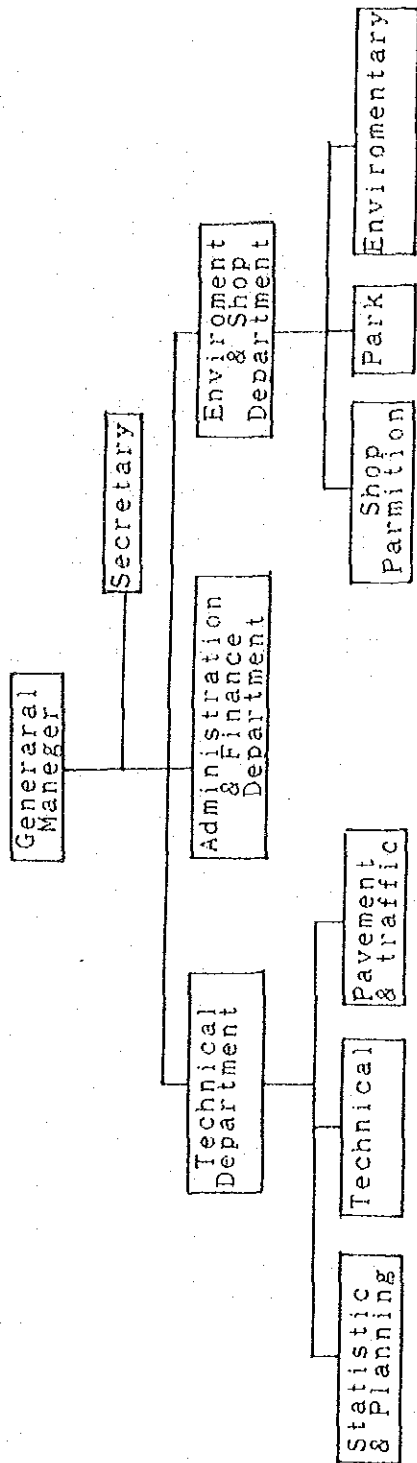
Appendix Fig. 6.3.6 General Traffic Office



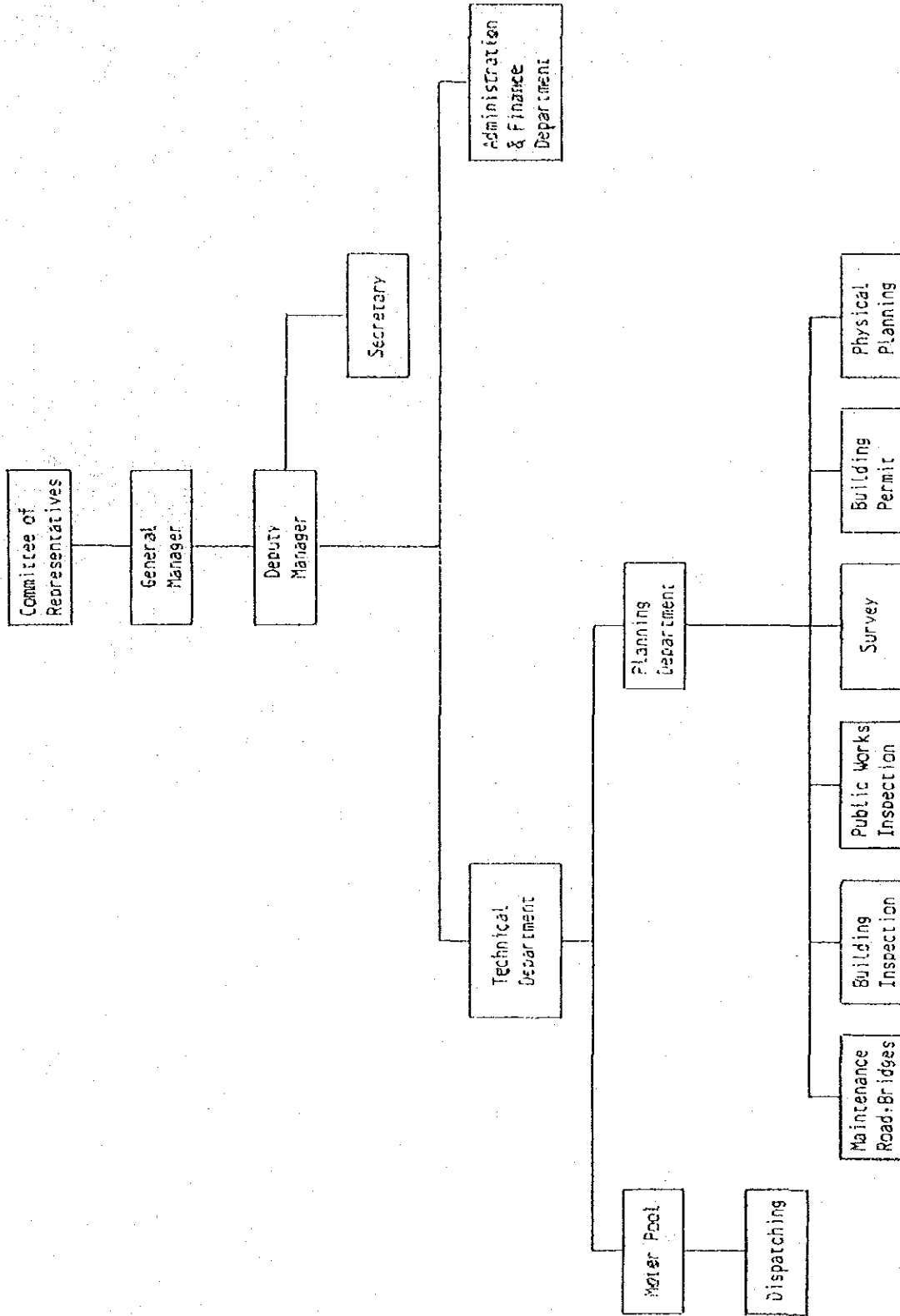
Appendix Fig. 6.3.7 Organization of Ministry of Municipalities & Housing



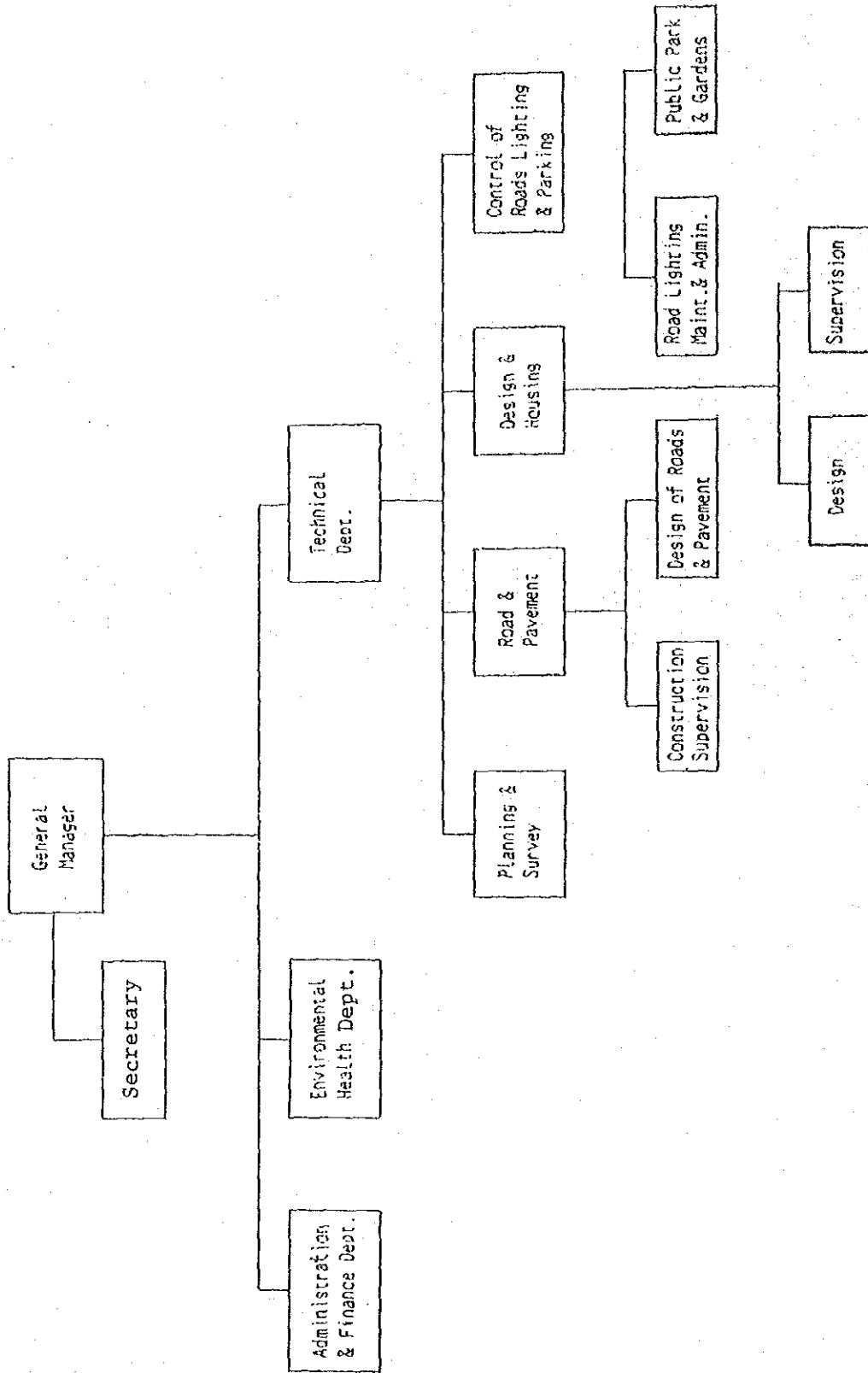
Appendix Fig. 6.3.8 Organization of Municipality in Sana'a



Appendix Fig. 6.3.9 Organization of Municipality in Taiz



Appendix Fig. 6.3.10 Organization of Municipality in Hodeidah



APPENDIX TO CHAPTER 7

Appendix Table 7.3.1 Locations of Interview on Passengers of Public Service

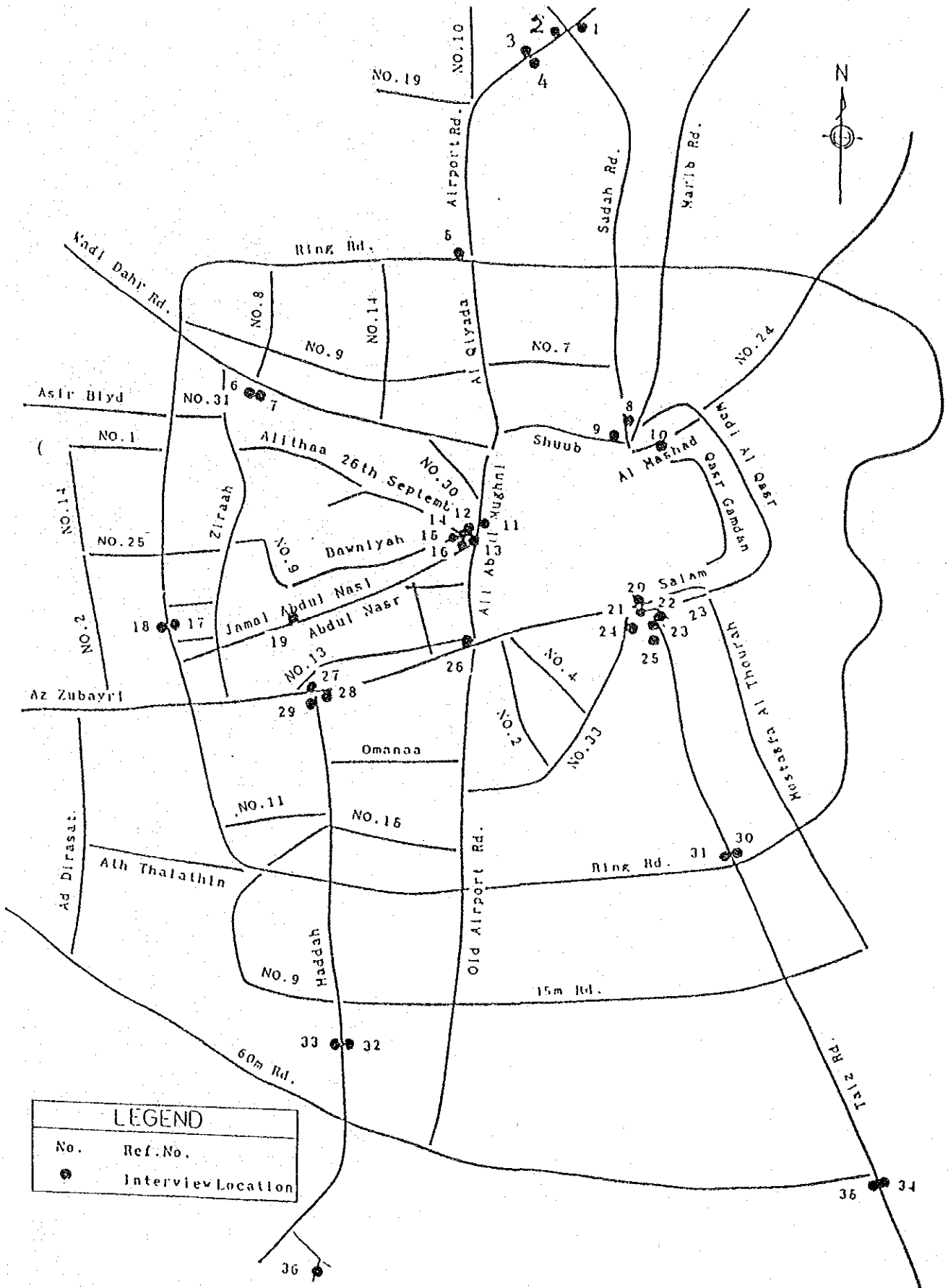
Ref. No.	Locations		No. of Samples
	o to south	● to north	
1	● Hasaba Intersection (to Airport)		59
2	o Hasaba Intersection (to Tahrir)		41
3	o Hasaba Qat Market (to Tahrir)		20
4	● Hasaba Qat Market (to Hasaba Intersection)		38
5	Ring Road-Airport Road Intersection		54
6	o Kuwait Hospital (to south)		23
7	● Kuwait Hospital (to north)		26
8	Bab Shuub (Sadah Road)		44
9	Bab Shuub (Shuub Street)		43
10	Bab Shuub (Medium Bus Terminal)		47
11	● Tahrir Square (to north on Ali Abdul Mughni St.)		41
12	Tahrir Square (in front of National Museum)		40
13	o Tahrir Square (to south on Ali Abdul Mughni St.)		37
14	Tahrir Square (east of the arch)		45
15	Tahrir Square (west of the arch)		43
16	Tahrir Square (in front of Min. of Health)		38
17	● Old Sanaa University (to north)		37
18	o Old Sanaa University (to south)		40
19	Al Qa		42
20	Bab Al Yemen (in front of Old City)		56
21	Bab Al Yemen (opposite to Old City)		34
22	● Bab Al Yemen (east side on Taiz Road)		43
23	o Bab Al Yemen (west side of Taiz Road)		53
24	Bab Al Yemen (Medium Bus Terminal to Tahrir/Al Qa)		37
25	o Bab Al Yemen (Medium Bus Terminal to Ber Obeid)		42
26	Zubayri St. - Ali Abdul Mughni St. Intersection		46
27	Zubayri St. - Haddah St. Intersection (north side on Zubayri St.)		41
28	Zubayri St. - Haddah St. Intersection (south side on Zubayri St.)		34
29	o Zubayri St. - Haddah St. Intersection (west side on Haddah St.)		41
30	● Ring Road - Taiz Road Intersection (east side on Taiz Road)		33
31	o Ring Road - Taiz Road Intersection (west side on Taiz Road)		36
32	● Haddah Cinema (east side on Haddah St.)		30
33	o Haddah Cinema (west side on Haddah St.)		31
34	● Sanaa Traffic Police (east side on Taiz Road)		45
35	o Sanaa Traffic Police (west side on Taiz Road)		53
36	New Residential Town of Haddah		30
Total			1443

Appendix Table 7.3.2 Origin-Destination Table of Public Transport Person Trips

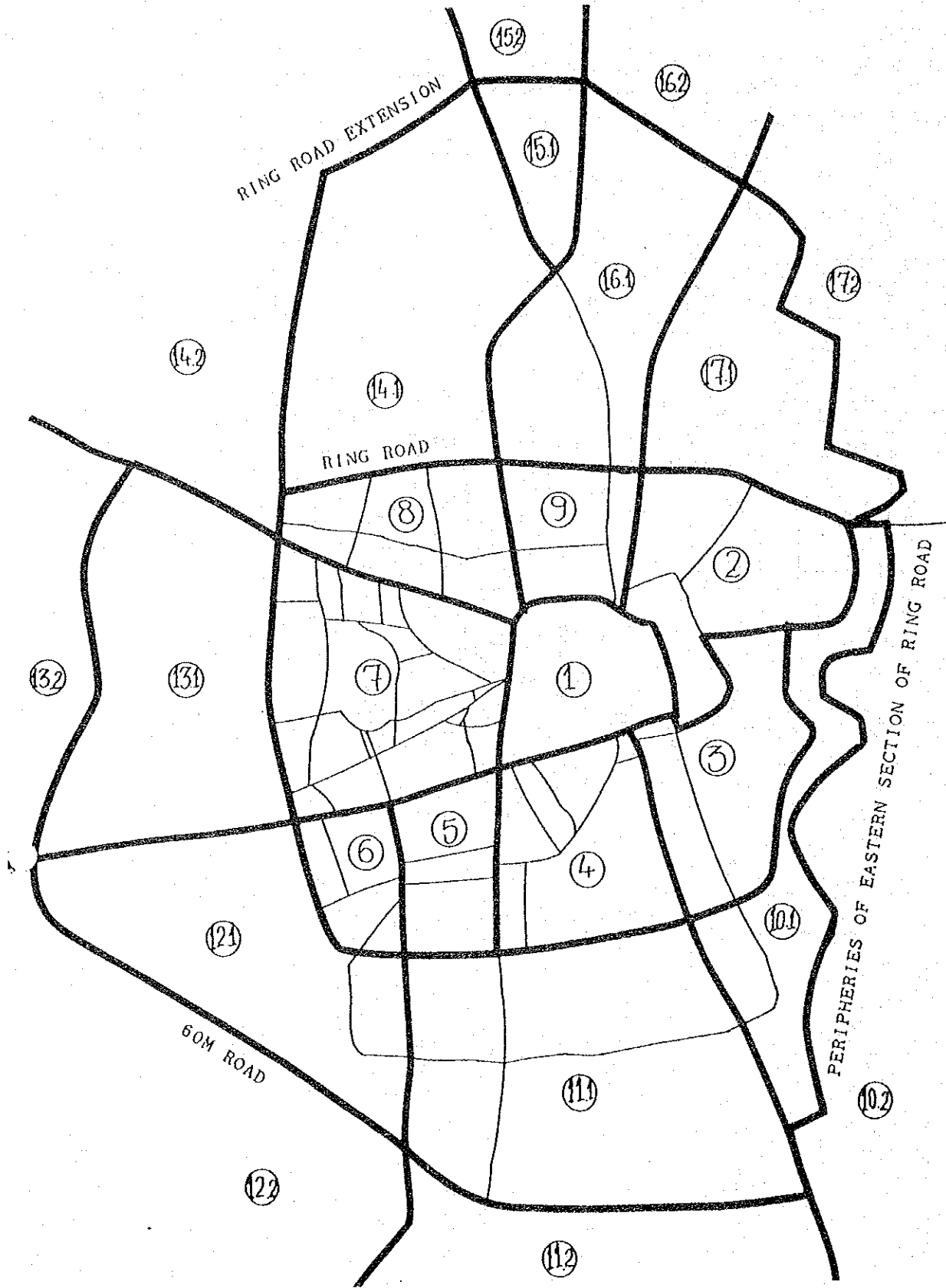
	01	02	03	04	05	06	07	08	09	10.1	10.2	11.1	11.2	12.1	12.2
01	602	0	86	1724	0	606	4999	172	372	2105	2169	963	903	130	167
02	210	0	62	0	0	0	1921	192	62	0	0	44	62	0	0
03	162	0	330	1047	295	0	1906	310	0	0	167	1086	769	0	0
04	2256	62	395	1290	100	295	3084	86	0	100	1463	1999	1041	582	0
05	301	0	0	0	116	0	172	0	62	0	0	0	74	0	0
06	0	0	0	100	0	0	490	0	0	100	0	75	471	101	0
07	5283	495	1053	2168	389	389	7961	634	692	1925	2135	2863	598	778	0
08	398	86	86	432	0	0	1035	0	0	100	100	322	160	116	75
09	248	0	62	425	62	62	846	132	248	0	162	294	0	0	0
10.1	2185	0	357	1480	0	0	1985	186	100	0	0	75	0	0	0
10.2	5928	162	590	2401	334	101	2351	167	86	353	835	1038	501	175	0
11.1	1107	62	76	1510	0	116	3145	0	0	100	668	167	373	0	0
11.2	536	0	101	646	74	74	659	0	0	0	167	75	784	71	35
12.1	301	0	0	150	0	0	474	0	0	0	175	101	424	75	0
12.2	0	0	0	0	0	0	0	0	0	0	0	75	0	0	0
13.1	186	62	100	100	0	202	2557	116	0	267	100	553	249	0	0
13.2	0	44	100	100	0	0	285	0	0	100	0	75	100	0	0
14.1	172	0	0	172	0	86	172	88	62	62	0	202	167	0	0
14.2	35	0	0	0	0	0	193	0	62	0	0	0	0	0	0
15.1	86	0	0	0	0	0	57	44	0	62	0	0	0	0	0
15.2	119	62	0	0	0	0	794	44	186	0	0	0	0	0	0
16.1	1049	44	0	86	0	0	2195	417	182	286	86	401	167	410	44
16.2	272	0	0	221	116	0	394	0	0	0	100	0	0	0	0
17.1	62	0	0	62	0	0	168	88	0	0	0	0	0	0	0
17.2	57	0	0	100	0	0	124	0	0	0	0	0	0	0	0
TOT	21555	1079	3397	14214	1486	1931	37957	2676	2114	5560	8327	10408	6843	2441	321
	13.1	13.2	14.1	14.2	15.1	15.2	16.1	16.2	17.1	17.2	TOT				
01	1061	487	86	171	86	842	1305	57	62	400	19555				
02	144	62	0	0	0	124	120	86	0	100	3189				
03	201	496	357	0	0	0	182	0	0	0	7308				
04	811	232	206	86	86	0	969	0	0	300	15443				
05	0	0	0	0	0	0	0	0	0	0	725				
06	303	0	0	0	0	0	0	101	0	0	1741				
07	3613	417	346	0	0	518	2256	57	258	86	34914				
08	218	0	0	0	0	101	417	57	86	0	3779				
09	440	0	0	0	0	181	119	0	62	0	3343				
10.1	616	400	0	57	0	62	100	0	0	0	7603				
10.2	200	57	0	0	0	0	0	0	0	62	15341				
11.1	519	100	187	0	0	0	0	57	0	100	8286				
11.2	100	201	0	0	0	0	158	0	0	0	3681				
12.1	0	0	0	0	0	57	86	0	0	0	1843				
12.2	0	0	0	0	0	0	0	0	0	0	75				
13.1	277	114	0	0	0	120	263	0	0	200	5466				
13.2	0	100	0	0	0	0	0	0	0	0	904				
14.1	216	0	0	0	0	0	460	0	0	0	1859				
14.2	0	57	0	0	0	0	120	0	0	0	467				
15.1	0	0	0	0	0	0	0	0	0	0	249				
15.2	246	0	182	0	86	0	297	57	0	0	2073				
16.1	434	286	177	130	0	588	518	240	0	100	7840				
16.2	101	0	0	0	0	0	57	57	0	0	1318				
17.1	176	0	0	0	0	57	164	0	0	0	777				
17.2	0	0	0	0	0	0	182	0	0	0	463				
TOT	9676	3009	1541	444	258	2650	7773	769	468	1348	148245				

Source: Weighted and expanded results of the public transport passenger survey by the study team

Appendix Fig. 7.3.1 Locations of Interview on Passengers



Appendix Fig. 7.3.2 Zones for Origin-Destination Table of Public Transport Person Trips



APPENDIX TO CHAPTER 8

Appendix Table 8.4.1 Current Traffic Problems by Section in Sana'a

●: Serious
○: Tolerable

Road & Section No.	1 Acci- dents	2 Conges- tion roads	3 Pede. Cross- ing	4 Micro Bus	5 Traffic Merging	6 Traffic Diverg- ing	7 Turn Left & Out	8 Park In & Out	9 Park & Traffic	10 Demand /Cap. Int.	11 Road Condi- tion
1. AIR PORT RD - OLD AIR PORT											
Peak hour (S-N)											
1-2	●										
2-3	●										
3-4	●										●
4-5	●										●
5-6	●										
6-7	●										
7-8	●	○							○		
8-9	●										
9-10	●	○									
10-11	○										
11-12	●	○									●
12-13	●	○									
13-14	●										
14-15	●										
15-16	●										
Peak hour (N-S)											
16-15	●										
15-14	●										
14-13	●										
13-12	●	●									
12-11	●										●
11-10	●										
10-9	○				○						
9-8	●										
8-7	●				●				○		
7-6	●				○						
6-5	●										
5-4	●										
4-3	●										●
3-2	●										●
2-1	○										
Off peak hour (S-N)											
1-2	○										
2-3	●										
3-4	●										●
4-5	●										●
5-6	●										
6-7	●										
7-8	●										
8-9	●										
9-10	●										
10-11	○										

Appendix Table 8.4.1 (Cont'd) ●: Serious
○: Tolerable

Road & Section No.	1 Acci- dents	2 Conges- tion roads	3 Pede. Cross- ing	4 Micro Bus	5 Traffic Merging	6 Traffic Diverg- ing	7 Turn Left & Out	8 Park In & Out	9 Park & Traffic	10 Demand /Cap. Int.	11 Road Condi- tion
11-12	●										
12-13	●										●
13-14	●										
14-15	●										
15-16	●	○									
Off peak hour (N-S)											
16-15	●										
15-14	●										
14-13	●										
13-12	●										
12-11	●										●
11-10	●										
10-9	○										
9-8	●										
8-7	●										
7-6	●										
6-5	●										
5-4	●										●
4-3	●										●
3-2	●										
2-1	○										
2. AZ ZUBAYRI ST.											
Peak hour (W-E)											
1-2	●										
2-3	○										
3-4	○										
4-5	●	●									
5-6	●										
6-7	●										
7-8	●	●									
8-9	●	●									
9-10	●										
10-11	●	●									
11-12	●										
12-13	●										
13-14	○										
Peak hour (E-W)											
14-13	○				●						●
13-12	●										
12-11	●	○									
11-10	●										
10-9	●										
9-8	●										
8-7	●										
7-6	●										

Appendix Table 8.4.1 (Cont'd)

● : Serious
○ : Tolerable

Road & Section No.	1 Acci- dents	2 Conges- tion roads	3 Pede. Cross- ing	4 Micro Bus	5 Traffic Merging	6 Traffic Diverg- ing	7 Turn Left & Out	8 Park & Out	9 Park & In Traffic	10 Demand /Cap. Int.	11 Road Condi- tion
6-5	●	○								●	
5-4	●										
4-3	○										
3-2	○										
2-1	●										
Off peak hour(W-E)											
1-2	○										
2-3	○										
3-4	○										
4-5	●										
5-6	●										
6-7	●										
7-8	●	○									
8-9	●										
9-10	●										
10-11	●	○									
11-12	●										
12-13	●										
13-14	○		○								●
Off peak hour(E-W)											
14-13	○										●
13-12	●										
12-11	●	○									
11-10	●										
10-9	●										
9-8	●										
8-7	●										
7-6	●										
6-5	●	○									
5-4	●										
4-3	○										
3-2	○										
2-1	●										
3.TA12 RD.											
Peak hour(S-N)											
1-2	○										
2-3	○										
3-4	●										
4-5	●										
5-6	●										
6-7	●										
7-6	●		○						●		
8-9	○		●						●		●
Peak hour(N-S)											
9-8	○										●

Appendix Table 8.4.1 (Cont'd)

● : Serious
○ : Tolerable

Road & Section No.	1 Acci- dents	2 Conges- tion roads	3 Pede. Cross- ing	4 Micro Bus	5 Traffic Merging	6 Traffic Diverg- ing	7 Turn Left & Out	8 Park & Out	9 Park & In Traffic	10 Demand /Cap. Int.	11 Road Condi- tion
8-7	●		○								
7-6	●										
6-5	●										
5-4	●										
4-3	●										
3-2	○										
2-1	○										
Off peak hour(S-N)											
1-2	○										
2-3	○										
3-4	●										
4-5	●										
5-6	●	○									
6-7	●										
7-8	●		○								
8-9	○										●
Off peak hour(N-S)											
9-8	○										●
8-7	○		○								●
7-6	●										
6-5	●	○									
5-4	●										
4-3	●										
3-2	○										
2-1	○										
4.WADI DAHR RD.											
Peak hour(W-E)											
1-2	○										●
2-3	●									●	●
3-4	●										●
4-5	●										●
5-6	●				○						●
6-7	●										●
Peak hour(E-W)											
7-6	●										●
6-5	●										●
5-4	●										●
4-3	●	○								●	●
3-2	●										●
2-1	○										●
Off peak hour(W-E)											
1-2	○										●
2-3	●										●
3-4	●										●
4-5	●										●

Appendix Table 8.4.1 (Cont'd)

● : Serious
○ : Tolerable

Road & Section No.	1 Acci- dents	2 Congea- tion roads	3 Pede. Cross- ing	4 Hicro Bus	5 Traffic Merging	6 Traffic Diverg- ing	7 Turn Left	8 Park & Out	9 Park In & Traffic	10 Demand /Cap. Int.	11 Road Condi- tion
5-6	●										●
6-7	●										●
Off peak hour(E-W)											
7-6											●
6-5	●										●
5-4	●										●
4-3	●										●
3-2	●										●
2-1	○										●
5.SADAH RD.											
Peak hour(N-S)											
1-2	●										
2-3	●										
3-4	○										
4-5											●
5-6											
6-7	○	○									
Peak hour(S-N)											
7-6	○		○								
6-5		○									
5-4											●
4-3	○										
3-2	●										
2-1	●								●		
Off peak hour(N-S)											
1-2	●										
2-3	●										
3-4	○										
4-5											●
5-6											
6-7	○	○									
Off peak hour(S-N)											
7-6	○										
6-5											
5-4											●
4-3	○										
3-2	●										
2-1	●										
6.HABDAH ST.											
Peak hour(S-N)											
1-2	●										
2-3	○										
3-4	○										
4-5											○
5-6											

Appendix Table 8.4.1 (Cont'd)

● : Serious
○ : Tolerable

Road & Section No.	1 Acci- dents	2 Congea- tion roads	3 Pede. Cross- ing	4 Hicro Bus	5 Traffic Merging	6 Traffic Diverg- ing	7 Turn Left	8 Park & Out	9 Park In & Traffic	10 Demand /Cap. Int.	11 Road Condi- tion
6-7	●	○									
Peak hour(N-S)											
7-6	●										
6-5											
5-4					●						
4-3	○										
3-2	○										
2-1	●										
Off peak hour(S-N)											
1-2	●										
2-3	○										
3-4	○										
4-5											
5-6											
6-7	●										
Off peak hour(N-S)											
7-6	●										
6-5											
5-4											●
4-3	○	○									
3-2	○										
2-1	●										
7.WADI AL QASH ST.											
Peak hour(S-N)											
1-2	●	●									●
2-3	●										●
3-4	●										
4-5	●										
5-6	○	○									
6-7	○										
7-8	○										
Peak hour(N-S)											
8-7											
7-6	○										
6-5	○	○									
5-4	●										
4-3	●										
3-2	●										●
2-1	●										●
Off peak hour(S-N)											
1-2	●										●
2-3	●										●
3-4	●										
4-5	●										
5-6	○										

Appendix Table 8.4.1 (Cont'd)

●: Serious
○: Tolerable

Road & Section No.	1 Acci- dents	2 Conges- tion roads	3 Pede. Cross- ing	4 Micro Bus	5 Traffic Merging	6 Traffic Diverg- ing	7 Turn Left & Out	8 Park In & Out	9 Park & Traffic	10 Demand /Cap. Int.	11 Road Condi- tion
6-7	○										
7-8			○								
Off peak hour(N-S)											
8-7											
7-6	○	○									
6-5	○				○						
5-4	●										
4-3	●										
3-2	●										
2-1	●										●
S.26TH SEP.ST.											●
Peak hour(E-W)											
1-2	●							●			
2-3	○										
3-4	○										
4-5	○										
Off peak hour(E-W)											
1-2	●										
2-3	○										
3-4	○										
4-5	○										
9.RING RD.											
Peak hour(S-W-N-E)											
1-2	●										●
2-3	○										●
3-4											●
4-5											●
5-6	●	○							●		●
6-7	●										●
7-8	●										●
8-9	●										●
9-10	○	○							●		●
10-11											●
11-12	●	○							●		●
12-13	●								●		●
13-14	●										●
14-15	○										●
15-16											●
16-17							○				
17-18	●	○									●
18-19	●										
19-20	○										●
20-21	●										●
21-22	●										●
22-23	●										●

Appendix Table 8.4.1 (Cont'd)

●: Serious
○: Tolerable

Road & Section No.	1 Acci- dents	2 Conges- tion roads	3 Pede. Cross- ing	4 Micro Bus	5 Traffic Merging	6 Traffic Diverg- ing	7 Turn Left & Out	8 Park In & Out	9 Park & Traffic	10 Demand /Cap. Int.	11 Road Condi- tion
23-24	●	○									
24-25	●										●
25-26	●										
26-27	●										
27-1	●										
Peak hour(S-E-N-W)											
1-27	●										
27-26	●										
26-25	●										
25-24	●										●
24-23	●										
23-22	●										
22-21	●										
21-20	●										
20-19	○										
19-18	●										●
18-17	●										
17-16	●										
16-15	●										
15-14	○										
14-13	●										
13-12	●										●
12-11	●										●
11-10	●										●
10-9	○										●
9-8	●										●
8-7	●										●
7-6	●										●
6-5	●								●		●
5-4	●										●
4-3	●										●
3-2	○										●
2-1	●										●
Off peak hour(S-E-N-E)											
1-2	●										●
2-3	○										●
3-4	●										●
4-5	●										●
5-6	●										●
6-7	●										●
7-8	●										●
8-9	●										●
9-10	○										●
10-11	●										●
11-12	●										●

Appendix Table 8.4.1 (Cont'd)

● : Serious
○ : Tolerable

Road & Section No.	1 Acci- dents	2 Conges- tion roads	3 Pede- Cross- ing	4 Micro Bus	5 Traffic Merging	6 Traffic Diverg- ing	7 Turn Left	8 Park In & Out	9 Park & Traffic	10 Demand /Cap. Int.	11 Road Condi- tion
12-13	●										●
13-14											
14-15	○										
15-16											
16-17											
17-18	●										●
18-19	●										
19-20	○										
20-21	●										
21-22	●										
22-23	●										●
23-24	●										
24-25	●										
25-26	●										
26-27	●										
27-1	●										
Off peak hour(S-E-N-W)											
1-27	●										
27-26	●										●
26-25		○									
25-24	●	○									
24-23	●										
23-22	●										
22-21	●										
21-20	○										●
20-19	●										
19-18	●										
18-17	●										
17-16											
16-15											
15-14	○										●
14-13											●
13-12	●										●
12-11	●										●
11-10	●										●
10-9	○										●
9-8	●										●
8-7	●										●
7-6	●										●
6-5	●										●
5-4											●
4-3											●
3-2	○	○									
2-1	●										

10. NARIB RD.

Appendix Table 8.4.1 (Cont'd)

● : Serious
○ : Tolerable

Road & Section No.	1 Acci- dents	2 Conges- tion roads	3 Pede- Cross- ing	4 Micro Bus	5 Traffic Merging	6 Traffic Diverg- ing	7 Turn Left	8 Park In & Out	9 Park & Traffic	10 Demand /Cap. Int.	11 Road Condi- tion
Peak hour(S-N)											
1-2	○		●						●		●
2-3						●			●		●
3-4	○	○									●
4-5	●										
5-6	●										
Peak hour(N-S)											
6-5	●										
5-4	●	○									
4-3	○										●
3-2	○								○		●
2-1	○	●			○				●		●
Off peak hour(S-N)											
1-2	○										●
2-3	○										●
3-4	○										●
4-5	●										
5-6	●										
Off peak hour(N-S)											
6-5	●										
5-4	○										
4-3	○										●
3-2	○										●
2-1	○	○			○						●
11. ZIRAH ST.											
Peak hour(N-S)											
1-2	○										
2-3	○										
3-4	○					○					
4-5	○										
5-6	○					●					
Peak hour(S-N)											
6-5	○										
5-4	○					●					
4-3	○										
3-2	○										
2-1	○										
Off peak hour(N-S)											
1-2	○										
2-3	○										
3-4	○										
4-5	○										
5-6	○										
Off peak hour(S-N)											
6-5	○										

Appendix Table 8.4.1 (Cont'd)

●: Serious
○: Tolerable

Road & Section No.	1 Acci- dents	2 Conges- tion roads	3 Pede. Cross- ing	4 Micro Bus	5 Traffic Merging	6 Traffic Diverg- ing	7 Turn Left	8 Park In & Out	9 Park & Traffic	10 Demand /Cap. Int.	11 Road Condi- tion
5-4	○										
4-3	○										
3-2											
2-1	○										
12. AL BAHNIA ST.											
Peak hour(E-W)											
1-2	●										
2-3											
3-4	○	○									
Off peak hour(E-W)											
1-2	●										
2-3											
3-4	○										
13. GAMDAN ST.											
Peak hour(S-N)											
9-5	○										●
Peak hour(N-S)											
5-9	○										●
Off peak hour(S-N)											
9-5	○										●
Off peak hour(N-S)											
5-9	○										●

Appendix Table 8.4.2 Current Traffic Problems by Section in Taiz

●: Serious
○: Tolerable

Road & Section No.	1 Acci- dents	2 Conges- tion roads	3 Pede. Cross- ing	4 Micro Bus	5 Traffic Merging	6 Traffic Diverg- ing	7 Turn Left	8 Park In & Out	9 Park & Traffic	10 Demand /Cap. Int.	11 Road Condi- tion
1. JANAL ST. - 26th											
SEPT. ST.											
Peak hour(S-N)											
1-2											●
2-3											●
3-4											●
4-5									○		●
5-6											
6-7											
7-8	Unknown		●					●	●		●
8-9			○					○	○		●
Peak hour(N-S)											
3-7			●					●	●		●
7-6											
6-5											
5-4		○									
4-3		○			○	○					●
3-2		○								●	●
2-1		○								●	●