KINGDOM OF THAILAND
MINISTRY OF TRANSPORT AND COMMUNICATIONS
DEPARTMENT OF HIGHWAYS

ROAD DEVELOPMENT STUDY IN THE CENTRAL REGION

FEASIBILITY STUDY

FINAL REPORT
APPENDICES
(VOLUME Ⅱ-2)

MARCH 1989

JAPAN INTERNATIONAL COOPERATION AGENCY

19132

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LIST OF APPENDICES

Appendix 2 **DEVELOPMENT PLANS RELATED TO THE PROPOSED ROUTES**

		Page
2.1.1	AMOUNT OF PASSEENGER TRAFFIC FROM LAEM CHAGANG INDUSTRIAL ESTATE	2-1
2.1.2	PERCENT DISTRIBUTION FACTOR OF TRAFFIC TO MAJOR ACCESS ROADS	2-2
2.1.3	AMOUNT OF PASSENGER TRAFFIC FROM MAP TA PHUT INDUSTRIAL ESTATE	2-3

Appendix 3 **TRAFFIC SURVEY AND FORECAST**

3.3.1	TRAFFIC SURVEY LOCATIONS	3-1
3.3.2	LOCATION MAP OF LICENSE PLATE SURVEYS	3-2
3.3.3	DIRECTION OF TURNING MOVEMENTS	3-3
3.3.4	TRAFFIC COUNTS	3-4
3.3.5	TURNING MOVEMENTS	3-5
3.3.6	SAMPLING RATIO	3-6
3.3.7	AVERAGE PERMITTED CAPACITY	3-7
3.3.8	AVERAGE ACTUAL PAYLOADS	3-7
3.3.9	EMPTY VEHICLE RATIO	3-8
3.3.10	ENGINE CAPACITY	3-8
3.3.11	AGE OF VEHICLES	3-9
3.3.12	NUMBER OF ASSISTANTS	3-9
3.3.13	AVERAGE OF FREQUENCY OF TRIPS	3-10
3.3.14	VEHICLE OWNERSHIP	3-10
3.3.15	TRIP PURPOSE	3-11
3.3.16	FUEL TYPE	3-12
3.3.17	COMMODITY FLOW	3-13
3.3.18	DIVERSION RATIO ON CHON BURI BYPASS	3-15
3.4.1	SUPPLEMENTAL ANALYSIS OF TRAFFIC GROWTH	3-16
3.4.2	TRAFFIC GROWTH RATE	3-17
3.4.3	DIVERSION RATE	3-19
3.4.4	TRAFFIC DIVERSION ESTIMATED BY DOH METHOD	3-20
3.4.5	FORECASTED TRAFFIC VOLUME	3-21
3.4.6	FORECASTED TURNING MOVEMENTS	3-24
3.4.7	TURNING MOVEMENTS ON PLANNED INTERSECTION	3-33
3.4.8	ON/OFF TRAFFIC FLOW FOR ML-9 BY DIRECTION	3-34

Appendix 4 **ENGINEERING**

4.2.1	MINIMUM DESIGN STANDARDS FOR PRIMARY HIGHWAYS	4-1
4.2.2	MINIMUM DESIGN STANDARDS FOR SECONDARY HIGHWAYS	4-2
4.2.3	MINIMUM DESIGN STANDARDS FOR PROVINCIAL ROADS	4-3
4.2.4	TYPICAL CROSS SECTIONS	4-4
4.2.5	RESULT OF STABILITY ANALYSIS BH-1	4-7
4.2.6	AASHTO GUIDE METHOD	4-9
4.2.7	ROAD NOTE 29 METHOD	4-16
4.2.8	JRA METHOD	4-19
4.2.9	CUMULATIVE NUMBER OF ESA	4-22
4.2.10	RESULTS OF PAVEMENT STRUCTURE DESIGN	4-29
4.2.11	ESTIMATION OF REMAINING LIFE OF AC PAVEMENT	4-34
4.2.12	YEARS ESTIMATED TO BE 2.0 OF PSI	4-36
4.2.13	TYPICAL DESIGN OF PIPE AND BOX CULVERTS	4-37
4.2.14	RAINFALL INTENSITY-DURATION CURVES BY STATION	4-38
4.2.15	COEFFICIENT OF RUNOFF	4-40
4.2.16	RAINFALL REDUCTION FACTOR	4-40
4.2.17	UNIT HYDROGRAPH PEAK DISCHARGE COEFFICIENTS	4-41
4.2.18	COVER FACTORS AND INFILTRATION CAPACITY FOR PERMANENT FOREST AND GRASS	4-41
4.2.19	INFILTRATION COVER FACTORS	4-41
4.2.20	DISCHARGE CALCULATION FOR ML-3	4-42
4.2.21	DISCHARGE CALCULATION FOR IM-2	4-46
4.2.22	TRAFFIC MOVEMENTS AT INTERSECTIONS	4-50
4.2.23	ANALYSIS OF UNSIGNALIZED INTERSECTION	4-76
4.2.24	ANALYSIS OF SIGNALIZED INTERSECTION	4-79

		Page
Appendix 5	**CONSTRUCTION AND MAINTENANCE COSTS**	
5.2.1	MAINTENANCE BUDGET CALCULATION	5-1
Appendix 6	**ROAD USER BENEFITS**	
6.1.1	VARIATIONS IN FUEL CONSUMPTION	6-1
6.1.2	VARIATIONS IN OIL CONSUMPTION	6-1
6.1.3	TIRE CONSUMPTION BY ROAD TYPE	6-2
6.1.4	INDICES OF TIRE CONSUMPTION ON DIFFERENT TYPES OF ROADS AND SPEEDS	6-2
6.1.5	MAINTENANCE COSTS BY ROAD TYPE	6-3
6.1.6	INDICES OF MAINTENANCE CONSUMPTION ON DIFFERENT TYPES OF ROADS AND SPEEDS	6-3
6.1.7	RELEVANT DATA FOR CAPITAL COSTS	6-4
6.1.8	CALCULATION METHOD FOR INTERSECTING TRAFFIC VOLUME	6-6
6.1.9	ADDITIONAL COSTS DUE TO SPEED CHANGES	6-7
6.1.10	RELATIONSHIP BETWEEN AVERAGE SPEED AND FLOW	6-8

Appendix 2.1.1 AMOUNT OF PASSENGER TRAFFIC FROM LAEM CHABANG INDUSTRIAL ESTATE

MOTORCYCLES IN 1995

AREA	COMMUTING FROM		
	NEW TOWN	OTHER AREAS	TOTAL
GIE	975	444	1419
EPZ	1026	469	1495
BC	1033	471	1504
Port	159	73	232
Total	3193	1457	4650

PASSENGER CARS IN 1995

AREA	COMMUTING FROM		
	NEW TOWN	OTHER AREAS	TOTAL
GIE	2248	1024	3272
EPZ	2365	1080	3445
BC	2381	1085	3466
Port	365	168	533
Total	7359	3357	10716

BUSES IN 1995

AREA	COMMUTING FROM		
	NEW TOWN	OTHER AREAS	TOTAL
GIE	176	80	256
EPZ	185	84	269
BC	186	85	271
Port	29	13	42
Total	576	262	838

MOTORCYCLES IN 2001

AREA	COMMUTING FROM		
	NEW TOWN	OTHER AREAS	TOTAL
GIE	1505	441	1946
EPZ	2807	821	3628
BC	1924	563	2487
Port	197	58	255
Total	6433	1883	8316

PASSENGER CARS IN 2001

AREA	COMMUTING FROM		
	NEW TOWN	OTHER AREAS	TOTAL
GIE	4337	1270	5607
EPZ	8087	2367	10454
BC	5543	1623	7166
Port	567	167	734
Total	18534	5427	23961

BUSES IN 2001

AREA	COMMUTING FROM		
	NEW TOWN	OTHER AREAS	TOTAL
GIE	253	74	327
EPZ	471	138	609
BC	323	95	418
Port	33	10	43
Total	1080	317	1397

Appendix 2.1.2 PERCENT DISTRIBUTION FACTOR OF TRAFFIC TO MAJOR ACCESS ROADS

unit : %

Area	To and From	First Stage			Final Stage		
		North Access Road	T-2 Road	South Access Road	North Access Road	T-2 Road	South Access Road
GTE	New Town	20	30	50	25	25	50
	Other Areas	25	25	50	40	20	40
EPZ	New Town	-	10	90	15	15	70
	Other Areas	25	25	30	40	20	40
BC*	New Town	-	-	50	-	40	30
	Other Areas	25	25	25	25	25	25
Port	New Town	-	30	70	20	20	60
	Other Areas	50	-	50	50	-	50

* The sum of each line is less than 100. The remaining traffic is assumed to use ST-2 and ST-3 roads.

Appendix 2.1.3 AMOUNT OF PASSENGER TRAFFIC FROM MAP TA PHUT INDUSTRIAL ESTATE

MOTORCYCLES IN 1995

AREA	COMMUTING FROM				
	NEW TOWN	Other Areas			Total
		Western	Eastren	sub-total	
Petrochemicals Stage 1	95	9	29	38	133
Petrochemicals Stage 2	133	13	41	54	187
Other Industry	175	17	54	71	246
Small-plot and Reserved Area	478	46	147	193	671
Port	41	4	13	17	58
Town Center	791	77	243	320	1111
Total	1713	166	587	693	2406

MOTORCYCLES IN 2001

AREA	COMMUTING FROM				
	NEW TOWN	Other Areas			Total
		Western	Eastren	sub-total	
Petrochemicals Stage 1	102	7	24	31	133
Petrochemicals Stage 2	542	40	126	166	708
Other Industry	764	56	178	234	998
Small-plot and Reserved Area	514	38	119	157	671
Port	89	6	21	27	116
Town Center	1727	127	402	529	2256
Total	3738	274	870	1144	4882

PASSENGER CARS IN 1995

AREA	COMMUTING FROM				
	NEW TOWN	Other Areas			Total
		Western	Eastren	sub-total	
Petrochemicals Stage 1	218	21	67	88	306
Petrochemicals Stage 2	308	30	94	124	432
Other Industry	402	39	124	163	565
Small-plot and Reserved Area	1101	107	339	446	1547
Port	95	9	29	38	133
Town Center	1822	177	561	738	2560
Total	3946	383	1214	1597	5543

PASSENGER CARS IN 2001

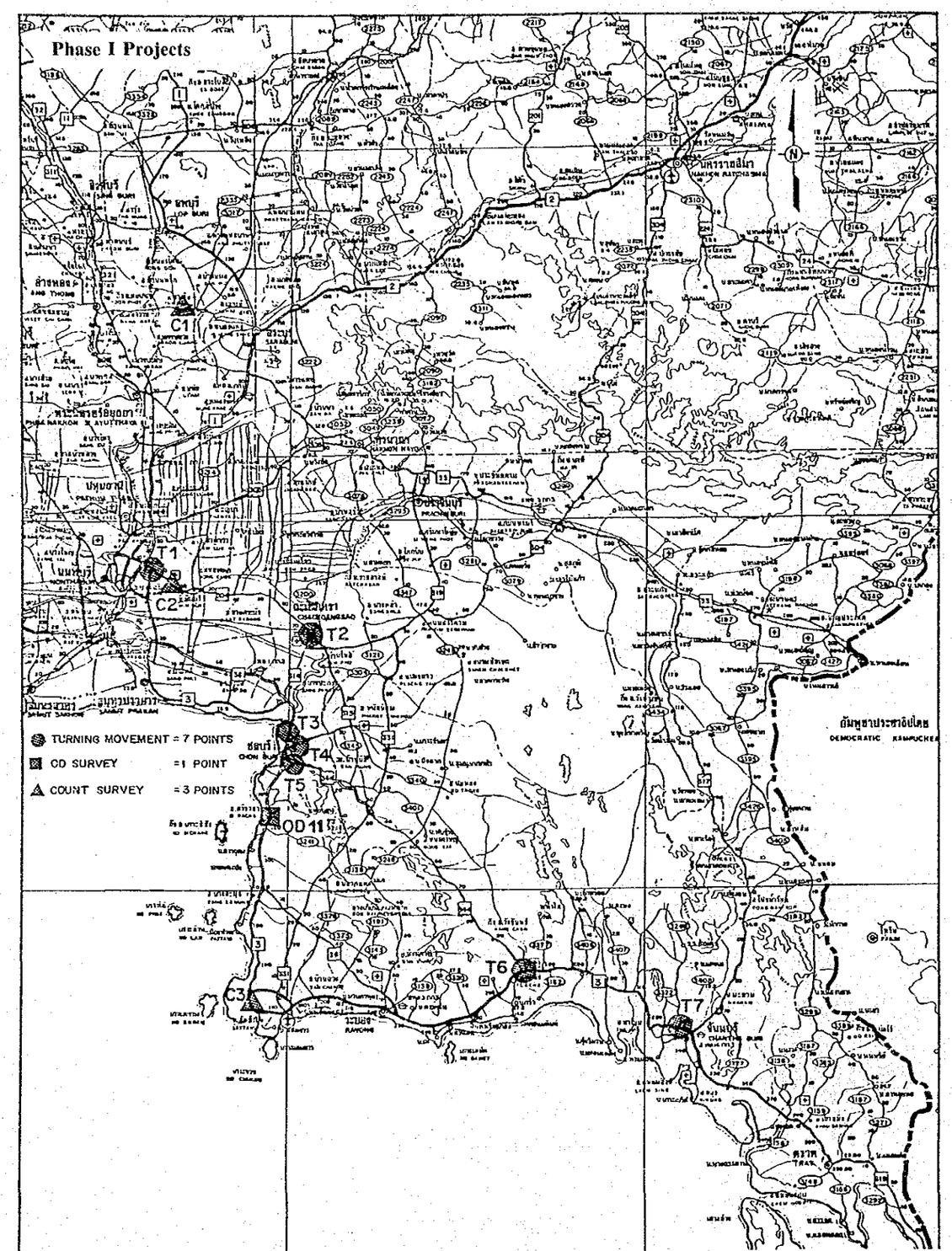
AREA	COMMUTING FROM				
	NEW TOWN	Other Areas			Total
		Western	Eastren	sub-total	
Petrochemicals Stage 1	294	22	68	90	384
Petrochemicals Stage 2	1562	115	363	478	2040
Other Industry	2200	162	512	674	2874
Small-plot and Reserved Area	1480	109	344	453	1933
Port	255	19	59	78	333
Town Center	4976	366	1158	1524	6500
Total	10767	793	2504	3297	14064

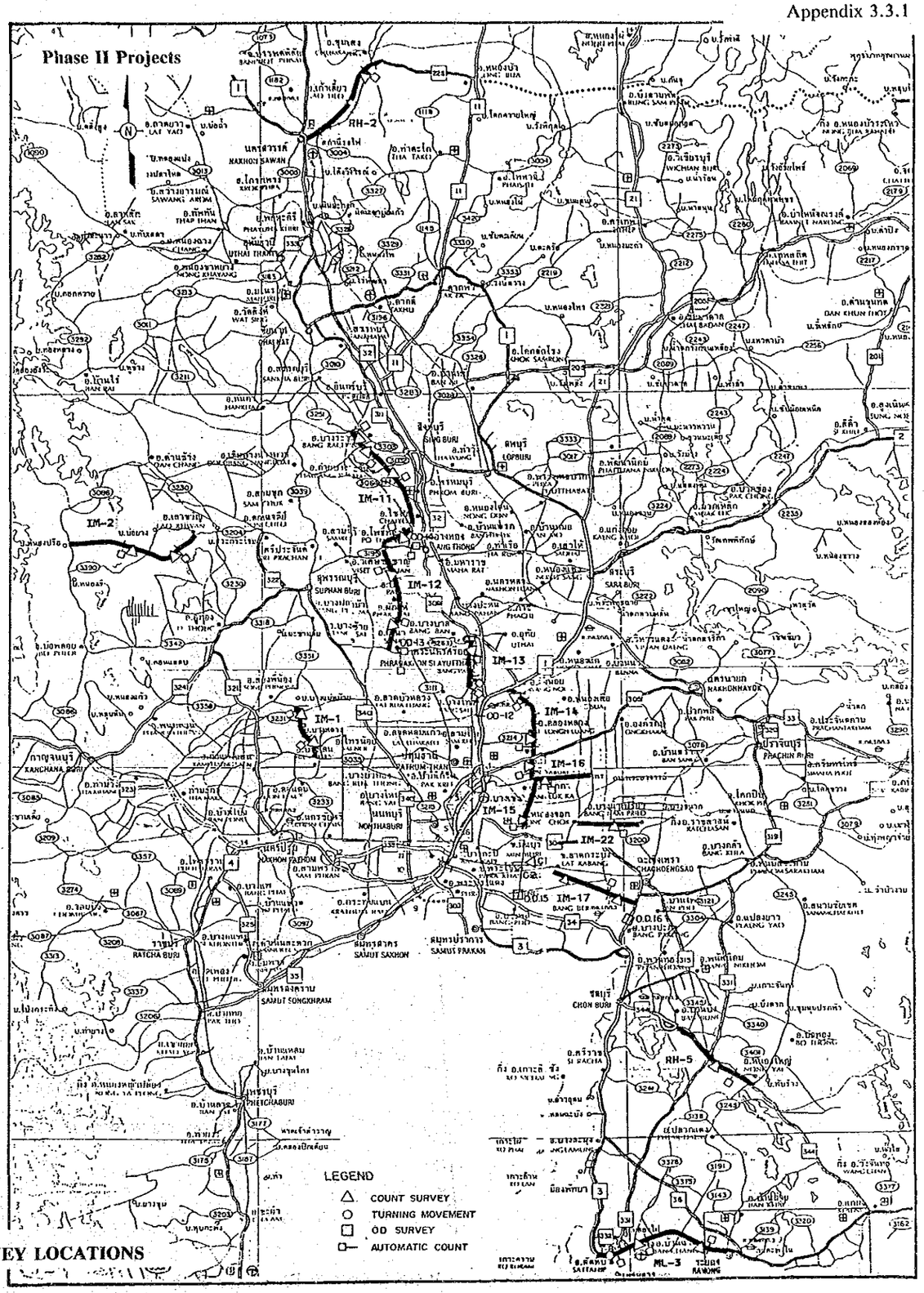
BUSES IN 1995

AREA	COMMUTING FROM				
	NEW TOWN	Other Areas			Total
		Western	Eastren	sub-total	
Petrochemicals Stage 1	17	2	5	7	24
Petrochemicals Stage 2	24	2	8	10	34
Other Industry	31	3	10	13	44
Small-plot and Reserved Area	86	8	27	35	121
Port	7	1	2	3	10
Town Center	143	14	44	58	201
Total	308	30	96	126	434

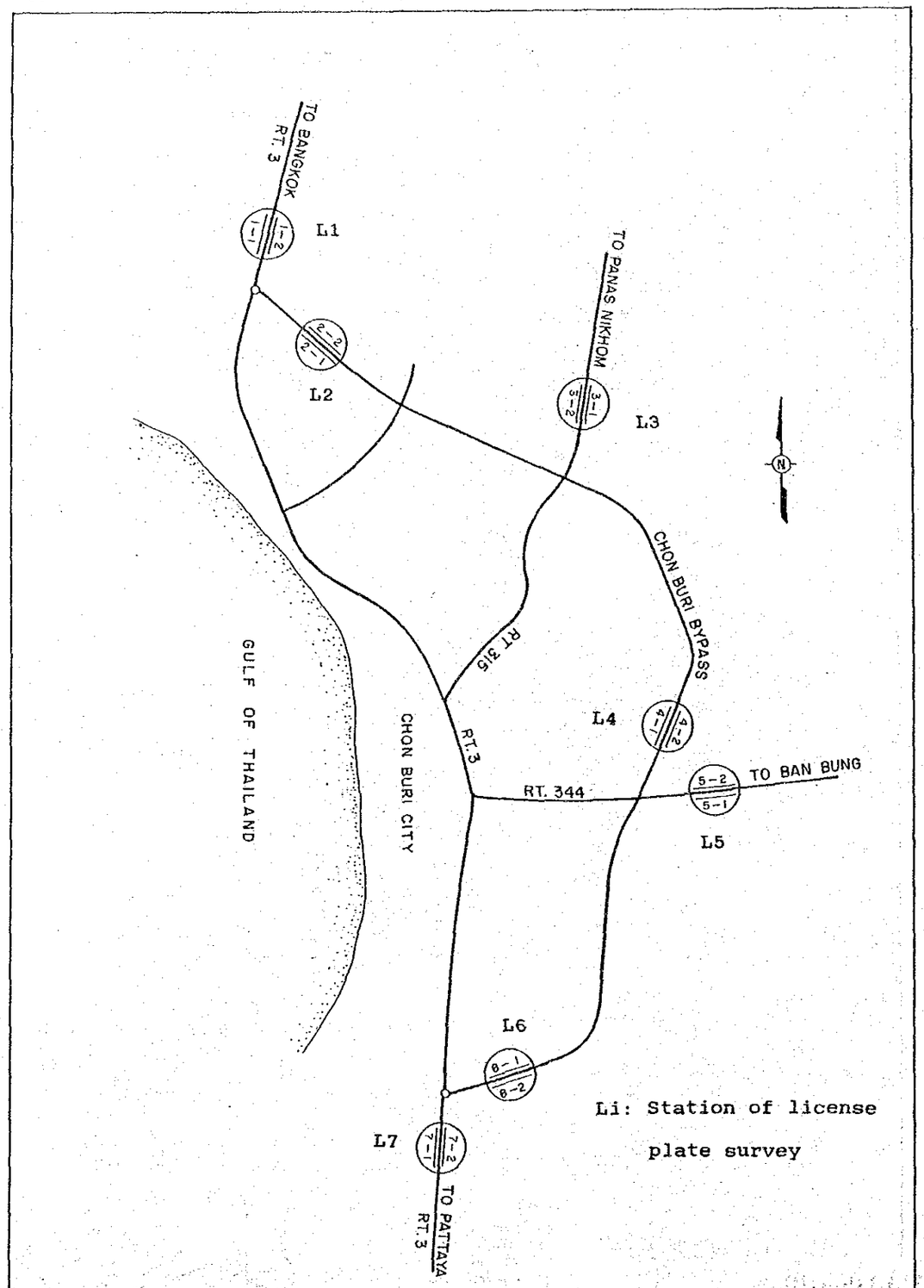
BUSES IN 2001

AREA	COMMUTING FROM				
	NEW TOWN	Other Areas			Total
		Western	Eastren	sub-total	
Petrochemicals Stage 1	17	1	4	5	22
Petrochemicals Stage 2	91	7	21	28	119
Other Industry	128	9	30	39	167
Small-plot and Reserved Area	86	6	20	26	112
Port	15	1	4	5	20
Town Center	290	21	68	89	379
Total	627	45	147	192	819

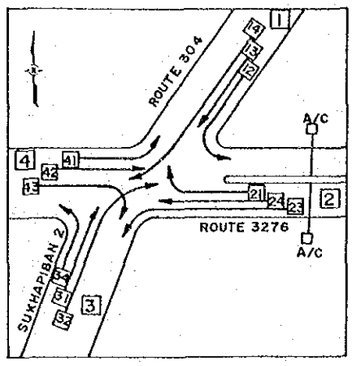




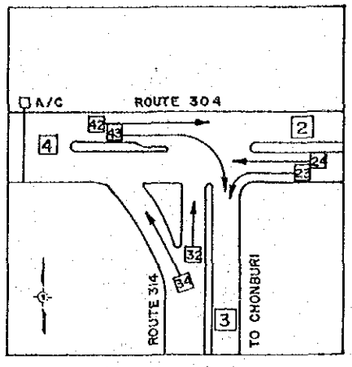
Appendix 3.3.1 TRAFFIC SURVEY LOCATIONS



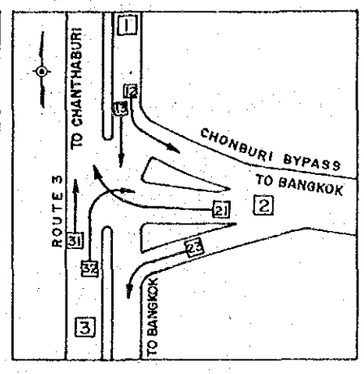
Appendix 3.3.2 LOCATION MAP OF LICENSE PLATE SURVEYS



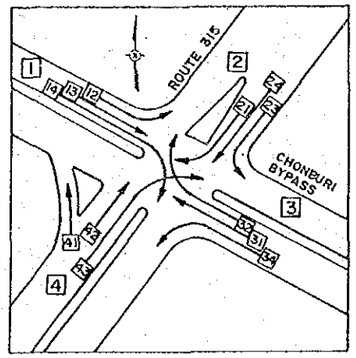
TMC – 1
MIN BURI INTERSECTION
ROUTE 304 AND 3276



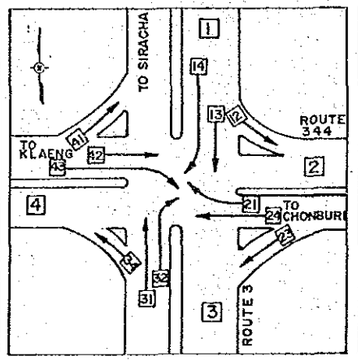
TMC – 2
CHACHOENGSAO WEST SIDE
ROUTE 304 AND 314



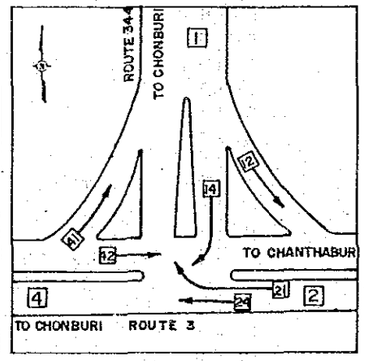
TMC – 3
CHON BURI BYPASS AND ROUTE 3



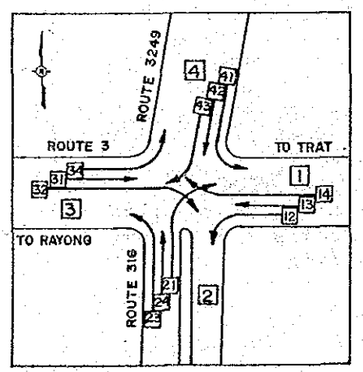
TMC – 4
CHON BURI BYPASS
AND ROUTE 315



TMC – 5
CHON BURI BYPASS
AND ROUTE 344

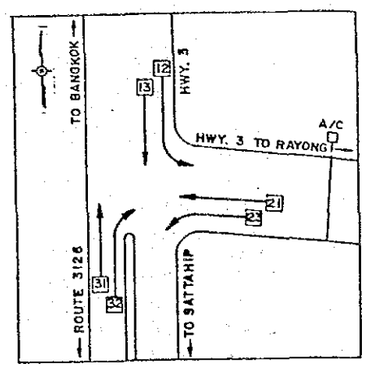


TMC – 6
KLAENG ROUTE 3
AND ROUTE 344



TMC – 7
CHANTHABURI
NORTH ROUTE 3 AND 316

Phase I Projects



TMC – 8
SATTAHIP INTERSECTION
ROUTE 3 AND ROUTE 3126

Phase II Projects

Appendix 3.3.3 DIRECTION OF TURNING MOVEMENTS

Appendix 3.3.4 TRAFFIC COUNTS

Phase I Projects (Unit:Vehicles/Day)

STATI	ROUTE	MC	PC	LB	HB	LT	MT	HT	ALL*
OD11	3	2729	5724	2101	2447	7776	1383	2399	21830
C1	3267	414	264	89	226	769	175	437	1960
C2	304	935	1440	911	597	1680	911	387	5926
C3	3	3676	1078	2348	508	2356	301	109	6700
T1	304-N	787	1146	350	180	1808	798	1891	6173
	3276	3343	3041	1307	2083	4011	768	289	11499
	3278	1819	1495	742	1206	1753	525	443	6164
	304-W	2187	2778	877	873	4072	1061	1787	11448
T2	304-E	2375	2199	635	896	4427	776	667	9600
	304-W	1047	1066	352	535	2088	443	883	5367
	314	1512	1371	355	391	2967	597	440	6121
T3	3-N	2659	7150	650	2185	11646	2030	9252	32913
	3-E	683	1163	101	429	2528	1277	8673	14171
	3-S	2490	6151	607	2264	9752	829	811	20414
T4	3-N	1287	1295	167	93	3314	1383	9118	15370
	315-E	3886	1470	736	444	4994	648	1102	9394
	3-S	1018	1344	282	123	3284	1478	9330	15841
	315-W	3849	1495	633	482	4718	449	436	8213
T5	3-N	1587	1418	462	147	3242	1271	8728	15268
	344-E	4324	3157	2777	892	7169	1091	4477	19563
	3-S	2043	1078	555	151	3141	919	6297	12141
	344-W	5658	2823	2826	836	6972	675	880	15012
T6	344	2035	758	216	139	2559	473	675	4820
	3-E	3542	1244	780	248	5605	877	1384	10138
	3-W	3867	1010	864	219	5218	678	963	8952
T7	3-E	527	301	283	17	1432	328	679	3040
	316	2395	920	1169	195	4500	373	210	7367
	3-W	1537	891	953	186	3851	566	856	7303
	3249	1313	190	333	14	2023	143	101	2804

Note. * : Exclude MC
ODi: OD survey station Ci : Traffic count station
Ti : Turning movement station
-N : North section -E : East section -S : South section
-W : West section

Phase II Projects (Unit:Vehicles/Day)

STATION	ROUTE	MC	PC	LB	HB	LT	MT	HT	ALL*
OD-12	308	1367	709	31	238	1447	393	377	3195
OD-13	3263	1161	539	97	443	1768	209	358	3414
OD-14	3064	3634	1177	224	520	3139	428	538	6026
OD-15	3256	1581	1776	1250	305	2681	1596	1229	8837
OD-16	314	1189	1607	1379	365	2681	536	1925	8493
C- 4	ML- 3 TC-1	1370	696	779	237	2122	220	334	4388
C- 5	TC-2	1895	806	668	249	3180	349	557	5809
C- 6	ML- 9 OnNut	3056	2813	171	68	577	4708	185	8522
C- 7	3119	1838	1565	400	74	124	2939	124	5226
C- 8	IM- 1 TC-1	257	8	14	4	191	24	34	275
C- 9	TC-2	399	21	54	25	299	35	92	526
C-10	IM- 2 TC-1	145	0	4	4	102	8	2	120
C-11	TC-2	278	0	6	5	92	15	4	122
C-12	IM-11 TC-1	844	38	12	38	229	55	33	405
C-13	TC-2	245	10	9	0	98	18	14	149
C-14	TC-3	610	73	26	2	275	285	60	721
C-15	IM-12 TC-1	465	39	87	16	120	52	26	340
C-16	TC-2	443	24	0	0	221	68	8	321
C-17	TC-3	250	63	42	0	272	48	7	432
C-18	IM-13 TC-1	253	33	83	67	120	10	27	340
C-19	IM-14 TC-1	423	9	4	0	91	29	31	164
C-20	TC-2	133	5	2	0	71	6	0	84
C-21	IM-15 TC-1	227	30	6	1	187	78	77	379
C-22	TC-2	350	194	88	58	988	565	451	2344
C-23	IM-16 TC-1	355	50	39	51	344	37	19	540
C-24	IM-17 TC-1	99	54	16	0	103	24	4	201
C-25	TC-2	238	53	24	19	317	131	184	728
C-26	IM-22 TC-1	141	3	0	1	26	1	0	31
C-27	RH- 2 TC-1	782	105	43	125	797	133	163	1366
C-28	RH- 5 TC-1	493	937	88	324	2821	316	630	5116
T- 8	1	9618	2674	3726	289	596	4298	106	11689
	2	4128	1473	721	47	293	2398	74	5006
	3	6514	1813	3351	264	383	2622	38	8471

Note. * : Exclude MC
ODi: OD survey station Ci : Traffic count station
Ti : Turning movement station TCi: Count station in the Project
-N : North section -E : East section -S : South section
-W : West section

Appendix 3.3.5 TURNING MOVEMENTS

Phase I Projects (Unit:Vehicles/Day)

STATION	From- To *	MC	PC	LB	HB	LT	MT	HT	All**
T1	1 - 2	96	30	17	48	73	15	12	195
	1 - 3	238	117	194	9	81	89	125	615
	1 - 4	182	423	59	13	742	249	944	2430
	2 - 1	30	46	19	59	71	30	50	275
	2 - 3	731	581	322	556	611	114	38	2222
	2 - 4	713	759	292	386	1331	199	125	3092
	3 - 1	40	114	19	27	191	122	180	653
	3 - 2	746	564	190	599	723	145	13	2234
	3 - 4	48	85	8	7	73	27	47	247
	4 - 1	201	416	42	24	650	293	580	2005
	4 - 2	1027	1061	467	435	1202	265	51	3481
	4 - 3	16	34	9	8	74	28	40	193
T2	2 - 3	491	509	173	268	827	143	281	2201
	2 - 4	731	563	161	189	1318	238	47	2516
	3 - 2	464	438	143	252	947	168	274	2222
	3 - 4	44	69	26	14	157	59	179	504
	4 - 2	689	689	158	187	1335	227	65	2661
	4 - 3	48	50	10	1	157	73	149	440
T3	1 - 2	181	560	46	92	1053	573	4213	6537
	1 - 3	1086	3034	317	987	4754	360	376	9828
	2 - 1	245	521	26	83	1158	666	4344	6798
	2 - 3	175	50	16	129	166	22	57	440
	3 - 1	1147	3035	261	1023	4681	431	319	9750
	3 - 2	82	32	13	125	151	16	59	396
T4	1 - 2	323	96	12	10	307	75	111	611
	1 - 3	157	518	43	32	1094	585	4084	6356
	1 - 4	118	69	32	10	341	88	223	763
	2 - 1	118	75	20	9	269	22	181	576
	2 - 3	264	114	161	16	367	140	393	1191
	2 - 4	1567	583	223	209	1872	130	53	3070
	3 - 1	161	423	14	16	939	567	4487	6446
	3 - 2	148	81	26	6	461	141	301	1016
	3 - 4	213	127	19	27	246	16	29	464
	4 - 1	410	114	46	16	364	46	32	618
	4 - 2	1466	521	294	194	1718	140	63	2930
	4 - 3	75	81	19	26	177	29	36	368
T5	1 - 2	220	423	25	49	788	251	1705	3241
	1 - 3	221	322	33	14	538	358	2471	3736
	1 - 4	341	137	59	19	455	56	94	820
	2 - 1	113	231	91	16	543	243	1516	2640
	2 - 3	214	134	66	26	467	71	273	1037
	2 - 4	1932	1246	1088	370	2426	263	238	5631
	3 - 1	185	159	162	30	412	318	2829	3910
	3 - 2	195	146	107	42	542	62	517	1416
	3 - 4	670	172	123	29	572	75	81	1052
	4 - 1	507	146	92	19	506	45	113	921
	4 - 2	1650	977	1400	389	2403	201	228	5598
	4 - 3	558	145	64	10	610	35	126	990
T6	1 - 2	414	244	31	28	748	161	318	1530
	1 - 4	673	157	97	14	616	77	63	1024
	2 - 1	441	252	35	56	725	175	230	1473
	2 - 4	1333	388	361	74	2110	272	431	3636
	4 - 1	507	105	53	41	470	60	64	793
	4 - 2	1354	360	353	90	2022	269	405	3499
T7	1 - 2	99	50	39	8	176	15	5	293
	1 - 3	102	87	137	5	406	124	249	1008
	1 - 4	48	12	10	0	122	19	12	175
	2 - 1	78	52	52	1	129	19	19	272
	2 - 3	540	331	362	88	1259	132	68	2240
	2 - 4	501	65	136	3	751	33	16	1004
	3 - 1	102	86	23	3	482	133	387	1114
	3 - 2	652	355	423	87	1428	139	94	2526
	3 - 4	95	12	0	3	1[illegible]	18	27	215
	4 - 1	98	14	22	0	11[illegible]	18	7	178
	4 - 2	525	67	157	8	757	35	8	1032
	4 - 3	46	20	8	0	121	20	31	200

Note. * : See Appendx 3.3.3 Direction of Turning Movement
** : Exclude MC
Ti : Turning movement station

Phase II Projects (Unit:Vehicles/Day)

STATION	From- To *	MC	PC	LB	HB	LT	MT	HT	All**
T8	1 - 2	1703	554	295	10	142	886	24	1911
	1 - 3	2565	697	1364	84	187	952	21	3305
	2 - 1	1913	613	253	26	111	1151	47	2201
	2 - 3	299	174	126	6	16	216	3	541
	3 - 1	3437	810	1814	169	156	1309	14	4272
	3 - 2	213	132	47	5	24	145	0	353

Note. * : See Appendix 3.3.3 Direction of Turning Movement
** : Exclude MC
Ti : Turning movement station

Appendix 3.3.6 SAMPLING RATIO

Phase I Projects (Unit: Vehicles/12hours)

ITEM	PC	LB	MB	HB	PT	4WT	6WT	10WT	Total
OD-11									
Manual Counts	4297	1577	984	853	5606	232	1038	1801	16388
Number of Sample	272	43	24	48	787	29	148	398	1749
Sampling Ratio	0.063	0.027	0.024	0.056	0.140	0.125	0.142	0.220	0.1067

Phase II Projects (Unit: Vehicles/12hours)

ITEM	PC	LB	MB	HB	PT	4WT	6WT	10WT	Total
OD-12									
Manual Counts	533	23	3	176	1005	82	295	283	2400
Number of Sample	214	23	3	35	487	12	74	128	976
Sampling Ratio	0.402	1.000	1.000	0.199	0.485	0.146	0.251	0.452	0.407
OD-13									
Manual Counts	443	80	84	280	1408	44	172	294	2805
Number of Sample	185	10	28	69	696	20	89	154	1251
Sampling Ratio	0.418	0.125	0.333	0.246	0.494	0.455	0.517	0.524	0.446
OD-14									
Manual Counts	868	165	153	231	2210	105	316	397	4445
Number of Sample	195	24	30	23	641	21	86	150	1170
Sampling Ratio	0.225	0.145	0.196	0.100	0.290	0.200	0.272	0.378	0.263
OD-15									
Manual Counts	1453	1023	120	129	2035	159	1306	1006	7231
Number of Sample	219	38	22	16	561	35	237	274	1402
Sampling Ratio	0.151	0.037	0.183	0.124	0.276	0.220	0.181	0.272	0.194
OD-16									
Manual Counts	1262	1083	41	246	1973	133	421	1512	6671
Number of Sample	167	10	9	59	516	10	87	305	1163
Sampling Ratio	0.132	0.009	0.220	0.240	0.262	0.075	0.207	0.202	0.174

Note. OD-i: OD survey station

Appendix 3.3.7 AVERAGE PERMITTED CAPACITY

Phase I Project	Vehicle Type								
	Passenger					Truck			
	(person)					(ton)			
Station	PC	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
11- Rt. 3 (Chonburi)	4.8	13.8	38.7	61.8	12.2	1.11	3.57	6.49	15.15
Average	4.8	13.8	38.7	61.8	12.2	1.11	3.57	6.49	15.15

AVERAGE PERMITTED CAPACITY

Phase II Projects	Vehicle Type								
	Passenger					Truck			
	(person)					(ton)			
Station	PC	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
12- Rt.308 (Ayutthaya)	5.1	15.7	30.0	56.5	12.0	1.00	2.52	5.60	15.17
13- Rt.3263 (Ayutthaya)	5.5	14.0	24.5	60.8	12.0	1.01	2.61	4.78	12.60
14- Rt.3064 (Angthong)	5.0	14.0	27.5	59.4	11.9	1.03	2.65	4.41	12.67
15- Rt.3256 (Samutprak.)	5.1	16.7	24.4	65.7	11.7	1.45	3.09	5.43	11.70
16- Rt. 314 (Chacheongs.)	5.4	16.1	24.1	71.7	11.6	1.49	3.30	5.57	11.74
Average	5.2	15.5	25.6	62.9	11.8	1.15	2.85	5.22	12.43

Appendix 3.3.8 AVERAGE ACTUAL PAYLOADS

Phase I Project	Vehicle Type								
	Passenger					Truck			
	(person)					(ton)			
Station	PC	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
11- Rt. 3 (Chonburi)	2.3	5.9	19.4	37.5	4.0	0.25	1.16	3.00	10.26
Average	2.3	5.9	19.4	37.5	4.0	0.25	1.16	3.00	10.26

Note: include empty vehicles

AVERAGE ACTUAL PAYLOADS

Phase II Projects	Vehicle Type								
	Passenger					Truck			
	(person)					(ton)			
Station	PC	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
12- Rt.308 (Ayutthaya)	2.3	16.5	15.3	29.8	3.5	0.25	1.02	2.35	8.23
13- Rt.3263 (Ayutthaya)	2.4	10.2	15.5	28.7	3.6	0.23	0.83	1.78	6.75
14- Rt.3064 (Angthong)	2.2	9.5	15.5	34.5	3.5	0.20	0.78	2.28	6.19
15- Rt.3256 (Samutprak.)	1.8	14.4	20.5	41.9	3.5	0.38	0.68	2.15	5.80
16- Rt. 314 (Chacheongs.)	3.0	4.1	12.8	34.5	3.9	0.31	0.60	2.27	6.33
Average	2.3	12.4	16.4	32.3	3.6	0.26	0.77	2.16	6.47

Note: include empty vehicles

Appendix 3.3. 9
Appendix 3.3.10

Appendix 3.3.9 EMPTY VEHICLE RATIO

(%)

Phase I Project Station	Vehicle Type							
	Passenger				Truck			
	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
11- Rt. 3 (Chonburi)	17.0	0.0	1.3	20.3	63.2	37.9	30.4	22.9
Average	17.0	0.0	1.3	20.3	63.2	37.9	30.4	22.9

EMPTY VEHICLE RATIO

(%)

Phase II Projects Station	Vehicle Type							
	Passenger				Truck			
	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
12- Rt.308 (Ayutthaya)	4.3	0.0	5.7	23.4	57.5	25.0	37.8	23.4
13- Rt.3263 (Ayutthaya)	20.0	3.6	0.0	21.4	64.8	50.0	41.6	33.1
14- Rt.3064 (Angthong)	0.0	6.7	0.0	23.5	70.0	52.4	32.6	42.7
15- Rt.3256 (Samutprak.)	5.3	0.0	12.5	33.4	56.9	57.1	46.8	47.8
16- Rt. 314 (Chacheongs.)	0.0	0.0	10.2	19.9	73.6	80.0	44.8	46.6
Average	4.8	3.3	5.0	24.7	65.5	53.1	42.4	41.3

Appendix 3.3.10 ENGINE CAPACITY

Phase I Project Station	Vehicle Type								
	Passenger					Truck			
	PC	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
	(CC)	(HP)	(HP)	(HP)	(CC)	(CC)	(HP)	(HP)	(HP)
11- Rt. 3 (Chonburi)	1,732	93.4	138.7	200.6	2,039	1,991	87.3	101.8	157.1
Average	1,732	93.4	138.7	200.6	2,039	1,991	87.3	101.8	157.1

ENGINE CAPACITY

Phase II Projects Station	Vehicle Type								
	Passenger					Truck			
	PC	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
	(CC)	(HP)	(HP)	(HP)	(CC)	(CC)	(HP)	(HP)	(HP)
12- Rt.308 (Ayutthaya)	1,690	92.0	145.0	204.3	2,059	2,053	83.5	103.9	156.0
13- Rt.3263 (Ayutthaya)	1,620	81.7	132.0	187.9	2,103	2,079	79.2	101.8	159.1
14- Rt.3064 (Angthong)	1,585	79.5	106.7	199.1	2,045	2,022	84.4	99.6	157.3
15- Rt.3256 (Samutprak.)	1,669	88.9	107.6	165.0	2,125	2,179	93.4	109.0	163.9
16- Rt. 314 (Chacheongs.)	1,702	83.3	120.0	189.9	2,162	2,089	83.9	106.4	164.8
Average	1,653	86.5	117.1	191.1	2,102	2,073	86.4	105.4	161.5

Appendix 3.3.11 AGE OF VEHICLES

(year)

Phase I Project Station	Vehicle Type								
	Passenger					Truck			
	PC	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
11- Rt. 3 (Chonburi)	6.72	4.11	7.36	7.36	4.91	5.22	8.10	6.48	8.45
Average	6.72	4.11	7.36	7.36	4.91	5.22	8.10	6.48	8.45

AGE OF VEHICLES

(year)

Phase II Projects Station	Vehicle Type								
	Passenger					Truck			
	PC	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
12- Rt.308 (Ayutthaya)	7.54	7.00	4.00	5.86	4.92	5.22	6.33	7.57	9.62
13- Rt.3263 (Ayutthaya)	7.59	6.30	7.00	6.70	4.39	5.04	9.15	6.46	7.95
14- Rt.3064 (Angthong)	8.76	9.83	6.07	6.48	4.85	5.13	8.38	6.16	7.05
15- Rt.3256 (Samutprak.)	6.44	5.95	3.73	7.25	4.25	4.59	7.14	6.91	7.72
16- Rt. 314 (Chacheongs.)	6.77	4.90	6.22	6.90	3.59	4.71	5.70	6.30	8.18
Average	7.42	7.00	5.74	6.63	4.38	4.98	7.57	6.72	8.04

Appendix 3.3.12 NUMBER OF ASSISTANTS

Phase I Project Station	Vehicle Type							
	Passenger				Truck			
	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
11- Rt. 3 (Chonburi)	0.09	0.54	0.94	0.05	0.13	0.17	0.41	0.30
Average	0.09	0.54	0.94	0.05	0.13	0.17	0.41	0.30

NUMBER OF ASSISTANTS

Phase II Projects Station	Vehicle Type							
	Passenger				Truck			
	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
12- Rt.308 (Ayutthaya)	0.25	0.33	0.50	0.09	0.20	0.75	0.45	0.30
13- Rt.3263 (Ayutthaya)	0.10	0.40	0.98	0.14	0.06	0.55	0.35	0.42
14- Rt.3064 (Angthong)	0.00	0.50	0.67	0.05	0.08	0.10	0.30	0.25
15- Rt.3256 (Samutprak.)	0.29	0.50	0.50	0.17	0.20	0.17	0.51	0.30
16- Rt. 314 (Chacheongs.)	0.00	0.22	0.63	0.05	0.06	0.10	0.30	0.27
Average	0.12	0.41	0.74	0.11	0.11	0.30	0.41	0.30

Appendix 3.3.13 AVERAGE FREQUENCY OF TRIPS

(per day)

Phase I Project Station	Vehicle Type								
	Passenger					Truck			
	PC	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
11- Rt. 3 (Chonburi)	0.86	3.94	3.48	2.43	1.40	1.26	1.67	1.43	1.21
Average	0.86	3.94	3.48	2.43	1.40	1.26	1.67	1.43	1.21

AVERAGE FREQUENCY OF TRIPS

(per day)

Phase II Projects Station	Vehicle Type								
	Passenger					Truck			
	PC	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
12- Rt.308 (Ayutthaya)	0.98	4.30	0.76	5.33	1.25	1.34	0.68	1.40	1.10
13- Rt.3263 (Ayutthaya)	0.69	1.46	3.50	4.23	0.98	1.16	1.17	1.01	1.14
14- Rt.3064 (Angthong)	1.23	2.86	3.34	3.91	1.19	1.11	1.61	1.31	0.95
15- Rt.3256 (Samutprak.)	1.35	5.09	4.55	1.54	1.69	1.19	1.47	1.08	1.10
16- Rt. 314 (Chacheongs.)	0.77	0.18	3.36	2.74	1.07	0.84	1.67	1.15	1.25
Average	1.02	3.59	3.59	3.74	1.25	1.13	1.36	1.16	1.13

Appendix 3.3.14 VEHICLE OWNERSHIP

(%)

Phase I Project Station	Vehicle Type								
	Passenger					Truck			
	PC	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
11- Rt. 3 (Chonburi)									
- Driver	81.99	55.81	20.83	20.83	71.63	75.80	62.07	30.41	14.32
- Company	14.71	32.56	70.83	77.08	19.48	16.44	34.48	63.51	82.16
- Other Agency	3.31	11.63	8.33	2.08	8.88	7.76	3.45	6.08	3.52
Average									
- Driver	81.99	55.81	20.83	20.83	71.63	75.80	62.07	30.41	14.32
- Company	14.71	32.56	70.83	77.08	19.48	16.44	34.48	63.51	82.16
- Other Agency	3.31	11.63	8.33	2.08	8.88	7.76	3.45	6.08	3.52

VEHICLE OWNERSHIP

(%)

Phase II Projects Station	Vehicle Type								
	Passenger					Truck			
	PC	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
12- Rt.308 (Ayutthaya)									
- Driver	84.58	75.00	66.67	10.00	69.60	76.17	75.00	27.03	11.72
- Company	8.88	0.00	33.33	90.00	20.88	16.36	25.00	67.57	83.59
- Other Agency	6.54	25.00	0.00	0.00	9.52	7.48	0.00	5.41	4.69
13- Rt.3263 (Ayutthaya)									
- Driver	90.81	40.00	60.00	10.00	84.23	82.70	70.00	35.96	18.83
- Company	7.03	60.00	26.67	80.00	9.58	10.56	25.00	52.81	74.68
- Other Agency	2.16	0.00	13.33	10.00	6.20	6.74	5.00	11.24	6.49
14- Rt.3064 (Angthong)									
- Driver	92.82	73.33	71.43	0.00	81.82	91.25	66.67	41.86	22.00
- Company	1.03	20.00	28.57	77.78	6.82	4.24	23.81	44.19	60.00
- Other Agency	6.15	6.67	0.00	22.22	11.36	4.51	9.52	13.95	18.00
15- Rt.3256 (Samutprak.)									
- Driver	74.89	28.57	50.00	50.00	60.26	51.38	34.29	23.21	18.25
- Company	16.44	57.14	50.00	50.00	31.84	43.09	60.00	73.00	77.74
- Other Agency	8.68	14.29	0.00	0.00	7.89	5.52	5.71	3.80	4.01
16- Rt. 314 (Chacheongs.)									
- Driver	85.03	80.00	44.44	16.67	75.68	78.18	70.00	36.78	11.80
- Company	8.98	20.00	44.44	73.33	13.51	10.45	30.00	57.47	81.97
- Other Agency	5.99	0.00	11.11	10.00	10.81	11.36	0.00	5.75	6.23
Average									
- Driver	85.31	57.89	59.18	15.84	73.85	79.07	57.14	30.54	16.12
- Company	8.67	33.33	34.69	75.25	17.22	14.10	37.76	62.48	76.66
- Other Agency	6.02	8.77	6.12	8.91	8.93	6.83	5.10	6.98	7.22

Appendix 3.3.15 TRIP PURPOSE

(%)

Phase I Project / Station	Vehicle Type: Passenger PC	LB	MB	HB	PT	Truck PT	4 WT	6 WT	10 WT
11- Rt. 3 (Chonburi)									
- Work or Business	51.78	82.98	87.88	93.42	58.17	76.94	82.76	90.54	93.72
- Private	32.35	6.38	9.09	1.32	31.81	22.37	17.24	4.73	3.77
- Tour	12.13	10.64	0.00	2.63	6.88	0.68	0.00	0.00	0.00
- Other Purpose	0.74	0.00	3.03	2.63	3.15	0.00	0.00	4.73	2.51

TRIP PURPOSE

(%)

Phase II Projects / Station	Vehicle Type: Passenger PC	LB	MB	HB	PT	Truck PT	4 WT	6 WT	10 WT
12- Rt.308 (Ayutthaya)									
- Work or Business	49.53	100.00	66.67	100.00	60.07	70.09	100.00	97.30	96.09
- Private	36.92	0.00	33.33	0.00	32.97	28.97	0.00	2.70	1.56
- Tour	13.55	0.00	0.00	0.00	6.96	0.93	0.00	0.00	0.78
- Other Purpose	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.56
13- Rt.3263 (Ayutthaya)									
- Work or Business	55.68	80.00	92.86	97.10	57.75	72.73	65.00	89.89	97.40
- Private	40.00	10.00	7.14	1.45	39.44	26.69	35.00	10.11	1.95
- Tour	4.32	0.00	0.00	0.00	2.54	0.29	0.00	0.00	0.00
- Other Purpose	0.00	10.00	0.00	1.45	0.28	0.29	0.00	0.00	0.65
14- Rt.3064 (Angthong)									
- Work or Business	57.44	75.00	96.67	100.00	60.61	62.86	71.43	89.53	98.00
- Private	42.56	25.00	3.33	0.00	38.64	36.34	28.57	10.47	2.00
- Tour	0.00	0.00	0.00	0.00	0.76	0.27	0.00	0.00	0.00
- Other Purpose	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00
15- Rt.3256 (Samutprak.)									
- Work or Business	80.82	100.00	100.00	93.75	77.89	84.53	85.71	94.09	96.35
- Private	15.07	0.00	0.00	0.00	19.47	12.71	8.57	3.80	2.92
- Tour	1.37	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00
- Other Purpose	2.74	0.00	0.00	6.25	2.37	2.76	5.71	2.11	0.73
16- Rt. 314 (Chacheongs.)									
- Work or Business	50.30	30.00	77.78	89.83	51.35	65.45	90.00	93.10	95.08
- Private	39.52	70.00	22.22	6.78	39.53	26.36	10.00	5.75	4.59
- Tour	4.79	0.00	0.00	1.69	6.08	1.36	0.00	1.15	0.00
- Other Purpose	5.39	0.00	0.00	1.69	3.04	6.82	0.00	0.00	0.33
Average									
- Work or Business	59.39	85.71	93.48	95.54	62.31	69.92	80.61	93.02	96.34
- Private	34.18	13.33	6.52	2.48	33.35	27.83	17.35	5.93	2.97
- Tour	4.90	0.00	0.00	0.50	3.13	0.53	0.00	0.17	0.10
- Other Purpose	1.53	0.95	0.00	1.49	1.21	1.73	2.04	0.87	0.59

TRIP PURPOSE OF BUS PASSENGERS

(%)

Phase I Project	Vehicle Type: LB	MB	HB
11- Rt. 3 (Chonburi)			
- Work or Business	25.00	23.72	25.89
- Private	31.25	39.53	35.67
- Tour	4.17	1.86	7.48
- Other Purpose	39.58	34.88	30.96

TRIP PURPOSE OF BUS PASSENGERS

(%)

Phase II Projects	Vehicle Type: LB	MB	HB
12- Rt.308 (Ayutthaya)			
- Work or Business	20.41	0.00	31.14
- Private	42.45	0.00	46.64
- Tour	0.41	0.00	2.49
- Other Purpose	36.73	0.00	19.74
13- Rt.3263 (Ayutthaya)			
- Work or Business	0.00	30.83	30.69
- Private	0.00	58.75	54.83
- Tour	0.00	0.83	0.00
- Other Purpose	0.00	9.58	14.48
14- Rt.3064 (Angthong)			
- Work or Business	14.89	22.22	22.90
- Private	73.40	71.48	62.38
- Tour	0.00	0.00	0.00
- Other Purpose	11.70	6.30	14.72
15- Rt.3256 (Samutprak.)			
- Work or Business	27.44	38.03	61.33
- Private	53.30	32.11	0.00
- Tour	1.85	1.13	0.00
- Other Purpose	17.41	28.73	38.67
16- Rt. 314 (Chacheongs.)			
- Work or Business	0.00	0.00	39.77
- Private	0.00	0.00	38.53
- Tour	0.00	0.00	15.70
- Other Purpose	0.00	0.00	5.99
Average			
- Work or Business	23.40	31.10	35.46
- Private	52.23	51.79	43.55
- Tour	1.11	0.69	5.92
- Other Purpose	23.26	16.42	15.07

Appendix 3.3.16 FUEL TYPE

(%)

Phase I Project Station	Vehicle Type								
	Passenger					Truck			
	PC	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
11- Rt. 3 (Chonburi)									
- Diesel	20.22	91.49	96.97	100.00	77.94	76.71	96.55	97.97	100.00
- Regular	22.43	6.38	3.03	0.00	11.75	16.21	3.45	2.03	0.00
- Premium	51.84	0.00	0.00	0.00	8.88	6.16	0.00	0.00	0.00
- Gas	5.51	2.13	0.00	0.00	1.43	0.91	0.00	0.00	0.00

FUEL TYPE

(%)

Phase II Projects Station	Vehicle Type								
	Passenger					Truck			
	PC	LB	MB	HB	PT	PT	4 WT	6 WT	10 WT
12- Rt.308 (Ayutthaya)									
- Diesel	16.36	100.00	100.00	100.00	81.32	84.58	83.33	97.30	97.66
- Regular	15.42	0.00	0.00	0.00	10.26	11.21	0.00	2.70	1.56
- Premium	65.89	0.00	0.00	0.00	7.33	4.21	16.67	0.00	0.78
- Gas	2.34	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
13- Rt.3263 (Ayutthaya)									
- Diesel	11.35	70.00	100.00	98.55	82.25	83.58	95.00	100.00	99.35
- Regular	10.81	0.00	0.00	1.45	9.01	9.09	5.00	0.00	0.65
- Premium	74.05	30.00	0.00	0.00	8.73	6.45	0.00	0.00	0.00
- Gas	3.78	0.00	0.00	0.00	0.00	0.88	0.00	0.00	0.00
14- Rt.3064 (Angthong)									
- Diesel	15.38	91.67	100.00	100.00	79.92	77.98	95.24	100.00	100.00
- Regular	20.00	8.33	0.00	0.00	11.74	16.71	4.76	0.00	0.00
- Premium	64.10	0.00	0.00	0.00	7.95	4.24	0.00	0.00	0.00
- Gas	0.51	0.00	0.00	0.00	0.38	1.06	0.00	0.00	0.00
15- Rt.3256 (Samutprak.)									
- Diesel	5.94	81.58	100.00	93.75	83.16	86.19	97.14	99.58	98.91
- Regular	21.92	7.89	0.00	6.25	11.32	6.63	0.00	0.00	0.73
- Premium	70.32	7.89	0.00	0.00	4.74	6.08	2.86	0.42	0.36
- Gas	1.83	2.63	0.00	0.00	0.79	1.10	0.00	0.00	0.00
16- Rt. 314 (Chacheongs.)									
- Diesel	20.96	90.00	88.89	98.31	83.78	89.09	100.00	98.85	98.69
- Regular	14.37	10.00	11.11	1.69	10.81	7.27	0.00	1.15	0.98
- Premium	62.87	0.00	0.00	0.00	5.07	3.64	0.00	0.00	0.33
- Gas	1.80	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00
Average									
- Diesel	13.67	87.62	98.91	98.51	82.21	83.42	94.90	99.30	98.91
- Regular	16.73	5.71	1.09	1.49	10.59	10.95	2.04	0.52	0.79
- Premium	67.55	5.71	0.00	0.00	6.70	4.95	3.06	0.17	0.30
- Gas	2.04	0.95	0.00	0.00	0.51	0.68	0.00	0.00	0.00

Appendix 3.3.17 COMMODITY FLOW: STATION 11 - RT. 3 (CHON BURI)

(ton)

Phase I Project / Commodity Type	Vehicle Type PT	4 WT	6 WT	10 WT	Total
Rice	3.00	2.00	0.00	55.00	60.00
Sand, Gravel	0.00	0.00	0.00	450.40	450.40
Cement and products	1.80	1.00	49.00	144.00	195.80
Steel	2.50	5.50	12.00	48.00	68.00
Construction materials	2.70	0.00	18.00	289.80	310.50
Timber	1.00	0.00	18.00	65.00	84.00
Firewood	1.00	0.00	0.00	20.00	21.00
Petroleum products	5.50	0.00	22.50	528.90	556.90
Minerals	0.00	0.00	0.00	0.00	0.00
Vegetable and fruit	10.80	9.30	24.00	67.00	111.10
Cassava	0.00	0.00	14.00	1345.30	1359.30
Maize	0.00	0.00	0.00	133.00	133.00
Sugar	0.00	0.00	6.00	53.00	59.00
Bean	0.00	0.00	0.00	0.00	0.00
Jute and products	0.10	0.00	0.00	0.00	0.10
Beverages	7.40	2.00	64.00	109.30	182.70
Grocery	10.60	0.00	63.00	149.00	222.60
Animal	1.50	0.00	38.10	23.00	62.60
Fish	18.00	8.50	4.00	38.00	68.50
Fertilizer & animal feed	4.50	0.00	47.00	246.10	297.60
Household appliances	22.90	1.50	16.00	123.00	163.40
Other manufactures	6.80	2.40	20.00	37.50	66.70
All others	9.60	1.50	29.00	124.00	164.10
Total	109.70	33.70	444.60	4049.30	4637.30

COMMODITY FLOW: STATION 12 - Rt. 308 (AYUTTHAYA)

(ton)

Phase II Project / Commodity Type	Vehicle Type PT	4 WT	6 WT	10 WT	Total
Rice	1.00	0.00	4.00	41.00	46.00
Sand, Gravel	0.00	0.00	3.00	424.00	427.00
Cement and products	4.00	0.00	35.00	140.00	179.00
Steel	2.00	0.00	2.00	18.00	22.00
Construction materials	1.00	0.00	0.00	0.00	1.00
Timber	3.00	0.00	13.00	13.00	29.00
Firewood	0.00	0.00	5.00	17.00	22.00
Petroleum products	0.00	2.00	3.00	30.00	35.00
Minerals	0.00	0.00	0.00	33.00	33.00
Vegetable and fruit	14.00	1.00	0.00	0.00	15.00
Cassava	0.00	0.00	0.00	260.00	260.00
Maize	0.00	0.00	0.00	0.00	0.00
Sugar	0.00	0.00	0.00	0.00	0.00
Bean	0.00	0.00	0.00	0.00	0.00
Jute and products	1.00	0.00	0.00	0.00	1.00
Beverages	5.00	5.00	43.00	18.00	71.00
Grocery	6.00	1.00	1.00	11.00	19.00
Animal	0.00	0.00	0.00	0.00	0.00
Fish	1.00	0.00	0.00	0.00	1.00
Fertilizer & animal feed	1.00	1.00	10.00	19.00	31.00
Household appliances	14.00	4.00	16.00	18.00	52.00
Other manufactures	3.00	0.00	7.00	0.00	10.00
All others	5.00	0.00	33.00	18.00	56.00
Total	54.20	12.20	173.60	1054.00	1294.00

COMMODITY FLOW: STATION 13 - Rt. 3263 (AYUTTHAYA)

(ton)

Phase II Project / Commodity Type	Vehicle Type PT	4 WT	6 WT	10 WT	Total
Rice	6.00	0.00	2.00	140.00	148.00
Sand, Gravel	0.00	0.00	3.00	397.00	400.00
Cement and products	3.00	2.00	7.00	0.00	12.00
Steel	3.00	0.00	0.00	0.00	3.00
Construction materials	0.00	0.00	0.00	27.00	27.00
Timber	3.00	0.00	13.00	44.00	60.00
Firewood	2.00	3.00	28.00	126.00	159.00
Petroleum products	1.00	0.00	3.00	40.00	44.00
Minerals	0.00	0.00	0.00	0.00	0.00
Vegetable and fruit	14.00	0.00	20.00	27.00	61.00
Cassava	0.00	0.00	0.00	0.00	0.00
Maize	1.00	0.00	3.00	0.00	4.00
Sugar	1.00	0.00	12.00	20.00	33.00
Bean	0.00	0.00	0.00	0.00	0.00
Jute and products	0.00	0.00	0.00	0.00	0.00
Beverages	9.00	1.00	22.00	7.00	39.00
Grocery	10.00	1.00	11.00	8.00	30.00
Animal	1.00	0.00	0.00	3.00	4.00
Fish	12.00	0.00	6.00	0.00	18.00
Fertilizer & animal feed	2.00	3.00	14.00	112.00	131.00
Household appliances	10.00	4.00	15.00	2.00	31.00
Other manufactures	8.00	0.00	2.00	12.00	22.00
All others	11.00	2.00	0.00	76.00	89.00
Total	79.10	16.60	158.70	1038.90	1293.30

COMMODITY FLOW: STATION 14 - Rt. 3064 (ANG THONG)

(ton)

Phase II Projects / Commodity Type	Vehicle Type PT	4 WT	6 WT	10 WT	Total
Rice	1.00	0.00	22.00	212.00	235.00
Sand, Gravel	0.00	0.00	12.00	234.00	246.00
Cement and products	0.00	9.00	20.00	124.00	153.00
Steel	2.00	1.00	6.00	0.00	9.00
Construction materials	0.00	0.00	0.00	0.00	0.00
Timber	4.00	0.00	0.00	0.00	4.00
Firewood	2.00	0.00	25.00	22.00	49.00
Petroleum products	3.00	2.00	6.00	10.00	21.00
Minerals	0.00	0.00	0.00	8.00	8.00
Vegetable and fruit	19.00	0.00	16.00	32.00	67.00
Cassava	0.00	0.00	5.00	13.00	18.00
Maize	0.00	0.00	4.00	86.00	90.00
Sugar	0.00	0.00	0.00	26.00	26.00
Bean	1.00	0.00	0.00	0.00	1.00
Jute and products	0.00	0.00	0.00	6.00	6.00
Beverages	7.00	0.00	27.00	0.00	34.00
Grocery	11.00	0.00	12.00	3.00	26.00
Animal	3.00	2.00	1.00	1.00	7.00
Fish	3.00	0.00	10.00	0.00	13.00
Fertilizer & animal feed	3.00	0.00	9.00	120.00	132.00
Household appliances	16.00	2.00	10.00	32.00	60.00
Other manufactures	3.00	0.00	2.00	0.00	5.00
All others	8.00	0.00	10.00	0.00	18.00
Total	73.70	16.30	196.10	929.00	1215.10

COMMODITY FLOW: STATION 15 - Rt. 3256 (SAMUT PRAKLAN)

(ton)

Phase II Project Commodity Type	Vehicle Type				Total
	PT	4 WT	6 WT	10 WT	
Rice	0.00	0.00	17.00	54.00	71.00
Sand, Gravel	0.00	0.00	50.00	535.00	585.00
Cement and products	0.00	1.00	24.00	57.00	82.00
Steel	7.00	3.00	25.00	50.00	85.00
Construction materials	3.00	2.00	17.00	136.00	158.00
Timber	8.00	0.00	10.00	42.00	60.00
Firewood	0.00	0.00	0.00	0.00	0.00
Petroleum products	1.00	3.00	0.00	131.00	135.00
Minerals	0.00	3.00	7.00	18.00	28.00
Vegetable and fruit	4.00	0.00	0.00	0.00	4.00
Cassava	0.00	0.00	0.00	46.00	46.00
Maize	0.00	0.00	14.00	49.00	63.00
Sugar	1.00	0.00	0.00	0.00	1.00
Bean	0.00	0.00	0.00	20.00	20.00
Jute and products	0.00	0.00	0.00	0.00	0.00
Beverages	3.00	0.00	30.00	60.00	93.00
Grocery	2.00	0.00	19.00	19.00	40.00
Animal	1.00	0.00	35.00	14.00	50.00
Fish	8.00	1.00	5.00	3.00	17.00
Fertilizer & animal feed	2.00	0.00	20.00	82.00	104.00
Household appliances	8.00	3.00	73.00	110.00	194.00
Other manufactures	5.00	2.00	77.00	43.00	127.00
All others	21.00	8.00	98.00	123.00	250.00
Total	69.50	23.90	510.30	1588.70	2192.40

COMMODITY FLOW: STATION 16 - Rt. 314 (CHACHEONGSAO)

(ton)

Phase II Project Commodity Type	Vehicle Type				Total
	PT	4 WT	6 WT	10 WT	
Rice	1.00	0.00	3.00	198.00	202.00
Sand, Gravel	0.00	0.00	16.00	301.00	317.00
Cement and products	0.00	0.00	6.00	86.00	92.00
Steel	1.00	0.00	0.00	0.00	1.00
Construction materials	6.00	0.00	0.00	0.00	6.00
Timber	4.00	0.00	7.00	36.00	47.00
Firewood	0.00	0.00	0.00	13.00	13.00
Petroleum products	2.00	0.00	6.00	84.00	92.00
Minerals	0.00	0.00	0.00	0.00	0.00
Vegetable and fruit	5.00	0.00	0.00	61.00	66.00
Cassava	0.00	0.00	0.00	644.00	644.00
Maize	0.00	0.00	3.00	119.00	122.00
Sugar	0.00	0.00	0.00	0.00	0.00
Bean	0.00	0.00	0.00	0.00	0.00
Jute and products	0.00	0.00	0.00	0.00	0.00
Beverages	2.00	0.00	24.00	51.00	77.00
Grocery	7.00	2.00	52.00	51.00	112.00
Animal	8.00	0.00	33.00	30.00	71.00
Fish	7.00	0.00	1.00	0.00	8.00
Fertilizer & animal feed	5.00	0.00	7.00	197.00	209.00
Household appliances	20.00	4.00	8.00	13.00	45.00
Other manufactures	3.00	0.00	25.00	38.00	66.00
All others	1.00	0.00	8.00	13.00	22.00
Total	67.50	6.00	197.90	1930.40	2201.80

Appendix 3.3.18 DIVERSION RATIO ON CHON BURI BYPASS

(Unit: Vehicles/12hours)

Direction	Vehicle Type	Through Traffic	Bypass Traffic	Diversion Ratio
Bangkok -Patthaya	P/C	2022	37	0.018
	L/T	3352	56	0.016
	M/T	297	140	0.320
	H/T	562	1281	0.695
	ALL	6233	1514	0.195
Bangkok-R.315	P/C	193	74	0.277
	L/T	843	421	0.333
	M/T	46	84	0.646
	H/T	85	346	0.803
	ALL	1167	925	0.442
Bangkok-R.344	P/C	266	150	0.361
	L/T	1144	354	0.236
	M/T	34	136	0.800
	H/T	75	1160	0.939
	ALL	1519	1800	0.542
R.315-Patthaya	P/C	195	54	0.217
	L/T	1033	166	0.138
	M/T	20	39	0.661
	H/T	24	131	0.845
	ALL	1272	390	0.235
R.344-Patthaya	P/C	380	157	0.292
	L/T	2153	467	0.178
	M/T	40	67	0.626
	H/T	200	534	0.728
	ALL	2773	1225	0.306
TOTAL	P/C	3056	472	0.134
	L/T	8525	1464	0.147
	M/T	437	466	0.516
	H/T	946	3452	0.785
	ALL	12964	5854	0.311

Appendix 3.4.1 SUPPLEMENTAL ANALYSIS OF TRAFFIC GROWTH

Supplementary, the Study Team analized traffic growth rates by Changwat for comparison to the traffic growth rates which estimated in urgent project phase. The gorwth rates by Changwat were caluclated based on the results of Income and Expenditure Survey in 1986 by NSO.

From the regression analisys using the above data, the relationship between income level and expenditure for transportation was obtained as the following equation. Parameter "a" used be determined as approximately 1.2 using data of Income and Expenditure Survey in 1981 by NSO. Therefore in this analysis parameter "a" was determined as the following.

$$E = I \hat{} a \quad : a = 1.23$$

where I: Average income level (Baht/Year)
E: Average expenditure level for transportation (Baht/Year)
a: Parameter

Using above relationship; trffic growth rates for passenger vehicles are explained as follows.

$$Gi = GPi * a + POi$$

where Gi: Traffic growth rate by Changwat (Percent)
GPi: Grwowth rate of GPP by Changwat (Percent)
POi: Grwowth rate of population by Changwat (Percent)
a: Parameter = 1.23

Traffic growth rates for tracks were asumed to be the same as that of GPP. Proportions of passenger vehicles and trucks on national highways are 53:47 based on traffic counts by DOH. Weighted averages of traffic growths are shown in the following Table. Traffic growth rates range from nine to four percent in the period from 1986 to 1993 except Changwat Pathum Thani. By 2008, growth rates decline apploximately one percent.

TRAFFIC GROWTH RATE BY PERIOD

(Unit:Percent)

Changwat	Population			GPP			Traffic Growth Rate		
	1986 -1993	1993 -2000	2000 -2008	1986 -1993	1993 -2000	2000 -2008	1986 -1993	1993 -2000	2000 -2008
Bangkok	1.6	1.3	1.0	5.9	5.1	5.2	7.5	6.4	6.4
Nakhon Sawan	0.7	0.5	0.3	3.6	3.6	3.7	4.4	4.3	4.3
Uthai Thani	0.9	0.7	0.4	5.2	4.3	4.2	6.3	5.2	4.9
Chai Nat	0.5	0.6	0.6	3.8	3.7	3.7	4.5	4.5	4.5
Nonthaburi	3.6	2.8	2.1	6.1	5.2	5.1	8.8	7.3	6.8
Pathum Thani	2.4	2.1	1.7	9.0	6.8	6.3	11.4	8.7	8.0
Ayutthaya	0.4	0.6	0.5	5.5	4.9	4.9	6.4	5.8	5.8
Lop Buri	0.6	0.9	0.7	4.9	4.4	4.5	5.8	5.4	5.4
Saraburi	0.2	0.2	0.3	4.6	4.7	4.8	5.3	5.4	5.5
Sing Buri	0.6	0.7	0.6	4.8	4.6	4.8	5.7	5.5	5.7
Ang Thong	0.6	0.7	0.5	3.8	3.9	4.2	4.6	4.7	5.0
Kanchanaburi	1.8	1.5	1.2	4.4	4.2	4.3	5.9	5.5	5.5
Nakhon Pathom	0.7	0.8	0.6	3.9	4.0	4.2	4.7	4.9	5.0
Prachuap Khirikha	0.5	0.6	0.5	4.2	4.0	4.0	5.0	4.8	4.8
Phetchaburi	1.5	1.3	1.0	5.2	4.7	4.7	6.6	6.0	5.8
Ratchaburi	0.4	0.5	0.4	4.1	4.2	4.5	4.8	5.0	5.3
Samut Sakhon	2.5	2.1	1.7	6.1	5.4	5.3	8.2	7.2	6.8
Samut Songkram	0.0	0.3	0.2	5.6	4.9	5.0	6.3	5.7	5.7
Suphan Buri	1.1	1.2	1.0	3.1	3.5	3.9	4.1	4.6	4.9
Chachoengsao	0.6	0.8	0.7	5.3	5.0	5.4	6.3	6.0	6.4
Chon Buri	1.7	2.0	1.5	5.1	4.7	4.8	6.6	6.3	6.2
Trat	3.0	2.5	1.9	5.8	4.9	4.8	8.1	6.8	6.4
Nakhon Nayok	0.4	0.6	0.4	4.0	4.0	4.3	4.7	4.8	5.0
Prachin Buri	2.7	2.3	1.8	5.7	4.6	3.6	7.8	6.4	5.0
Rayong	2.4	2.3	1.7	5.6	4.6	4.3	7.6	6.4	5.7
Samut Prakarn	2.8	2.3	1.8	5.9	5.3	5.4	8.1	7.2	7.0
Chanthaburi	2.2	1.9	1.5	2.5	3.1	3.6	4.0	4.5	4.8
Central Region	1.5	1.3	1.1	5.6	5.0	5.0	7.1	6.3	6.2
Northeastern Regi	1.3	1.3	1.0	4.3	4.1	4.3	5.5	5.3	5.4
Northern Region	1.1	0.8	0.5	4.2	3.9	4.0	5.3	4.8	4.8
Southern Region	2.9	1.8	1.5	4.0	4.0	4.0	6.0	5.4	5.3
Whole Kigdom	1.5	1.3	1.0	5.1	4.7	4.7	6.5	6.0	5.8

Appendix 3.4.2 TRAFFIC GROWTH RATE

Phase I Projects (Unit: Percent)

Project Code	Section	1993 MC	PC	LB	HB	LT	MT	HT
ML-1	3-0403-N	7.83	8.65	7.95	7.31	7.07	6.91	6.02
	3-0403-E	7.83	8.65	7.95	7.31	7.07	6.91	6.02
	3-0403-S	7.83	8.65	7.95	7.31	7.07	6.91	6.02
	3-0403-s	7.83	8.65	7.95	7.31	7.07	6.91	6.02
ML-2	3-158KM	6.44	6.70	6.88	6.29	5.01	6.19	6.99
	3-175KM	6.44	6.70	6.88	6.29	5.01	6.19	6.99
ML-4	3-1000	8.36	7.66	7.98	5.69	8.93	8.47	8.47
	3-1102	5.97	6.69	6.91	6.28	5.53	5.84	5.40
	316	5.97	6.69	6.91	6.28	5.53	5.84	5.40
ML-5	BP-N	-	-	-	-	-	-	-
	BP-S	-	-	-	-	-	-	-
	BP-W	-	-	-	-	-	-	-
	3-0502	7.88	8.55	7.42	7.31	7.05	7.19	4.72
	3-0601	7.88	8.55	7.42	7.31	7.05	7.19	4.72
ML-7	304-40KM	5.07	5.94	5.83	3.94	3.36	4.60	3.78
	304-J.314	5.53	6.23	6.90	4.15	3.73	4.95	3.78
IM-23	3267- 5KM	7.61	9.45	5.41	7.48	6.41	7.31	8.16
	3267-20KM	7.61	9.45	5.41	7.48	6.41	7.31	8.16

Phase I Projects (Unit: Percent)

Project Code	Section	1993 MC	PC	LB	HB	LT	MT	HT
ML-3	3-0702	7.42	7.16	8.52	5.72	7.73	4.73	4.95
	3-0800-W	7.42	7.16	8.52	5.72	7.73	4.73	4.95
	3-0800-E	7.42	7.16	8.52	5.72	7.73	4.73	4.95
ML-9	34-0100-E	7.31	7.59	7.86	7.58	6.71	7.26	6.60
	3-0402	7.83	8.65	7.95	7.31	7.07	6.91	6.02
IM-1	PWD-N	5.02	6.52	5.70	5.74	4.52	4.51	4.52
	PWD-S	5.02	6.52	5.70	5.74	4.52	4.51	4.52
IM-2	3306-0100-W	5.09	6.49	5.65	5.74	4.52	4.52	4.92
	3306-0100-E	5.09	6.49	5.65	5.74	4.52	4.52	4.92
IM-11	RID-N	8.46	8.80	5.44	6.77	9.17	7.93	9.14
	RID-M	8.46	8.80	5.44	6.77	9.17	7.93	9.14
	RID-S	8.46	8.80	5.44	6.77	9.17	7.93	9.14
IM-12	RID-N	8.46	8.80	5.44	6.77	9.17	7.93	9.14
	RID-M	8.46	8.80	5.44	6.77	9.17	7.93	9.14
	RID-S	8.46	8.80	5.44	6.77	9.17	7.93	9.14
IM-13	PWD	5.96	6.15	6.53	5.38	5.62	6.85	6.36
IM-14	RURAL-N	4.11	4.78	3.92	4.62	4.08	4.11	3.55
	RURAL-S	4.11	4.78	3.92	4.62	4.08	4.11	3.55
IM-15	RURAL-N	6.23	6.35	6.71	5.68	4.87	6.67	6.29
	RURAL-S	6.23	6.35	6.71	5.68	4.87	6.67	6.29
IM-16	3312	6.78	8.30	5.70	5.73	5.66	6.62	3.47
	PWD	6.78	8.30	5.70	5.73	5.66	6.62	3.47
IM-17	PWD-W	3.78	5.30	3.93	5.45	4.14	1.34	1.43
	PWD-M	3.78	5.30	3.93	5.45	4.14	1.34	1.43
	PWD-E	3.78	5.30	3.93	5.45	4.14	1.34	1.43
IM-22	RURAL	5.70	6.68	5.96	5.90	4.01	4.92	1.37
RH-2	225-0100-N	6.87	6.42	5.70	5.70	9.21	4.53	4.54
	225-0100-S	6.87	6.42	5.70	5.70	9.21	4.53	4.54
RH-3	325-0200	6.42	7.98	6.39	5.22	4.15	3.53	4.36
RH-5	344-0200-N	6.08	6.17	5.85	5.97	5.68	6.08	5.76
	344-0200-S	6.08	6.17	5.85	5.97	5.68	6.08	5.76

Phase II Projects (Unit: Percent)

Project Code	Section	1994-2000 MC	PC	LB	HB	LT	MT	HT
ML-1	3-0403-N	6.82	6.97	7.90	6.75	5.73	6.16	5.95
	3-0403-E	6.82	6.97	7.90	6.75	5.73	6.16	5.95
	3-0403-S	6.82	6.97	7.90	6.75	5.73	6.16	5.95
	3-0403-s	6.82	6.97	7.90	6.75	5.73	6.16	5.95
ML-2	3-158KM	5.57	5.61	6.52	5.40	3.49	4.70	5.11
	3-175KM	5.57	5.61	6.52	5.40	3.49	4.70	5.11
ML-4	3-1000	5.37	5.35	7.68	5.11	4.74	4.67	4.61
	3-1102	5.57	5.82	7.78	4.90	5.04	5.36	5.47
	316	5.57	5.82	7.78	4.90	5.04	5.36	5.47
ML-5	BP-N	6.55	6.77	7.80	6.37	5.60	5.94	2.08
	BP-S	6.55	6.77	7.80	6.37	5.60	5.94	2.08
	BP-W	6.55	6.77	7.80	6.37	5.60	5.94	2.08
	3-0502	6.55	6.77	7.80	6.37	5.60	5.94	2.08
	3-0601	6.55	6.77	7.80	6.37	5.60	5.94	2.08
ML-7	304-40KM	5.36	5.88	5.11	5.07	5.14	4.68	3.98
	304-J.314	5.39	5.94	5.03	4.99	5.16	4.78	4.62
IM-23	3267- 5KM	4.44	4.98	5.10	4.93	4.64	4.92	3.39
	3267-20KM	4.44	4.98	5.10	4.93	4.64	4.92	3.39

Phase II Projects (Unit: Percent)

Project Code	Section	1994-2000 MC	PC	LB	HB	LT	MT	HT
ML-3	3-0702	5.89	6.42	5.89	5.08	5.94	4.55	4.96
	3-0800-W	5.89	6.42	5.89	5.08	5.94	4.55	4.96
	3-0800-E	5.89	6.42	5.89	5.08	5.94	4.55	4.96
ML-9	34-0100-E	6.18	6.42	6.63	5.48	5.57	5.88	6.03
	3-0402	6.82	6.97	7.90	6.75	5.73	6.16	5.95
IM-1	PWD-N	4.56	5.79	5.10	5.05	4.11	4.11	4.11
	PWD-S	4.56	5.79	5.10	5.05	4.11	4.11	4.11
IM-2	3306-0100-W	4.64	5.80	5.20	5.05	4.12	4.12	3.66
	3306-0100-E	4.64	5.80	5.20	5.05	4.12	4.12	3.66
IM-11	RID-N	6.86	6.25	5.28	7.57	7.06	7.67	7.95
	RID-M	6.86	6.25	5.28	7.57	7.06	7.67	7.95
	RID-S	6.86	6.25	5.28	7.57	7.06	7.67	7.95
IM-12	RID-N	6.86	6.25	5.28	7.57	7.06	7.67	7.95
	RID-M	6.86	6.25	5.28	7.57	7.06	7.67	7.95
	RID-S	6.86	6.25	5.28	7.57	7.06	7.67	7.95
IM-13	PWD	5.39	5.65	6.31	5.30	4.80	5.17	4.62
IM-14	RURAL-N	5.03	5.67	5.91	5.08	4.62	4.86	4.42
	RURAL-S	5.03	5.67	5.91	5.08	4.62	4.86	4.42
IM-15	RURAL-N	5.99	6.22	6.13	6.26	5.37	5.54	5.00
	RURAL-S	5.99	6.22	6.13	6.26	5.37	5.54	5.00
IM-16	3312	5.95	6.65	5.09	5.05	4.99	4.45	5.71
	PWD	5.95	6.65	5.09	5.05	4.99	4.45	5.71
IM-17	PWD-W	6.19	6.72	6.56	5.43	5.89	5.19	5.84
	PWD-M	6.19	6.72	6.56	5.43	5.89	5.19	5.84
	PWD-E	6.19	6.72	6.56	5.43	5.89	5.19	5.84
IM-22	RURAL	6.78	8.30	5.70	5.73	5.66	6.62	3.47
RH-2	225-0100-N	3.78	4.40	5.10	5.08	2.35	4.08	4.10
	225-0100-S	3.78	4.40	5.10	5.08	2.35	4.08	4.10
RH-3	325-0200	4.86	5.29	4.69	4.68	4.07	4.15	4.27
RH-5	344-0200-N	5.43	5.44	6.77	3.82	5.63	5.67	4.82
	344-0200-S	5.43	5.44	6.77	3.82	5.63	5.67	4.82

Phase I Projects (Unit: Percent)

Project Code	Section	2000-2008 MC	PC	LB	HB	LT	MT	HT
ML-1	3-0403-N	6.21	6.59	7.00	5.76	5.10	5.08	4.94
	3-0403-E	6.21	6.59	7.00	5.76	5.10	5.08	4.94
	3-0403-S	6.21	6.59	7.00	5.76	5.10	5.08	4.94
	3-0403-s	6.21	6.59	7.00	5.76	5.10	5.08	4.94
ML-2	3-158KM	5.04	5.60	5.03	5.04	3.82	4.58	4.26
	3-175KM	5.04	5.60	5.03	5.04	3.82	4.58	4.26
ML-4	3-1000	5.13	5.13	7.17	5.09	4.54	4.19	3.00
	3-1102	5.16	5.52	8.02	4.29	4.65	4.38	3.54
	316	5.16	5.52	8.02	4.29	4.65	4.38	3.54
ML-5	BP-N	6.09	6.43	7.07	5.58	5.07	4.99	1.88
	BP-S	6.09	6.43	7.07	5.58	5.07	4.99	1.88
	BP-W	6.09	6.43	7.07	5.58	5.07	4.99	1.88
	3-0502	6.09	6.43	7.07	5.58	5.07	4.99	1.88
	3-0601	6.09	6.43	7.07	5.58	5.07	4.99	1.88
ML-7	304-40KM	5.18	5.86	4.98	4.29	4.57	4.53	4.01
	304-J.314	5.17	5.91	4.94	4.05	4.60	4.49	4.26
IM-23	3267- 5KM	4.41	4.56	5.10	4.88	4.44	4.51	4.01
	3267-20KM	4.41	4.56	5.10	4.88	4.44	4.51	4.01

Note. ML-1 N:North section E:East section S:Upper south section
s:Lower south section
ML-5 BP-N:North section BP-S:South section BP-W:West section

Phase II Projects (Unit: Percent)

Project Code	Section	2000-2008 MC	PC	LB	HB	LT	MT	HT
ML-3	3-0702	5.27	6.08	5.18	5.10	5.17	4.27	4.38
	3-0800-W	5.27	6.08	5.18	5.10	5.17	4.27	4.38
	3-0800-E	5.27	6.08	5.18	5.10	5.17	4.27	4.38
ML-9	34-0100-E	5.65	6.14	6.68	4.95	4.97	4.92	4.65
	3-0402	6.21	6.59	7.00	5.76	5.10	5.08	4.94
IM-1	PWD-N	4.63	5.80	5.10	5.08	4.15	4.17	4.15
	PWD-S	4.63	5.80	5.10	5.08	4.15	4.17	4.15
IM-2	3306-0100-W	4.71	5.81	5.00	5.02	4.15	4.16	4.19
	3306-0100-E	4.71	5.81	5.00	5.02	4.15	4.16	4.19
IM-11	RID-N	5.39	5.70	4.99	2.31	4.92	6.18	6.76
	RID-M	5.39	5.70	4.99	2.31	4.92	6.18	6.76
	RID-S	5.39	5.70	4.99	2.31	4.92	6.18	6.76
IM-12	RID-N	5.39	5.70	4.99	2.31	4.92	6.18	6.76
	RID-M	5.39	5.70	4.99	2.31	4.92	6.18	6.76
	RID-S	5.39	5.70	4.99	2.31	4.92	6.18	6.76
IM-13	PWD	4.93	5.56	4.50	4.55	4.63	4.68	3.73
IM-14	RURAL-N	4.87	5.69	5.69	4.78	4.47	4.28	4.18
	RURAL-S	4.87	5.69	5.69	4.78	4.47	4.28	4.18
IM-15	RURAL-N	5.61	6.09	5.66	4.93	4.77	4.74	4.52
	RURAL-S	5.61	6.09	5.66	4.93	4.77	4.74	4.52
IM-16	3312	6.67	7.39	5.86	5.87	5.63	5.62	5.70
	PWD	6.67	7.39	5.86	5.87	5.63	5.62	5.70
IM-17	PWD-W	6.06	6.66	6.32	4.99	5.34	5.56	5.62
	PWD-M	6.06	6.66	6.32	4.99	5.34	5.56	5.62
	PWD-E	6.06	6.66	6.32	4.99	5.34	5.56	5.62
IM-22	RURAL	5.95	6.65	5.09	5.05	4.99	4.45	5.71
RH-2	225-0100-N	3.60	3.11	5.11	5.11	2.58	4.17	4.14
	225-0100-S	3.60	3.11	5.11	5.11	2.58	4.17	4.14
RH-3	325-0200	5.02	5.53	4.87	4.12	4.37	3.88	4.18
RH-5	344-0200-N	5.30	5.47	6.80	3.60	5.00	4.67	3.43
	344-0200-S	5.30	5.47	6.80	3.60	5.00	4.67	3.43

Note. N: North section E: East section S: South section
W: West section

Appendix 3.4.3.(1) DIVERSION RATE

Phase I Projects (Unit: Percent)

Divert from Route 3 to	Diversion Rate						
	MC	PC	LB	HB	LT	MT	HT
Bangkok-Chonburi New Highway	0.0	65.0	35.2	49.0	20.4	18.9	11.4
Chonburi Bypass (Trough Traffic Rate)	0.0	38.2	30.8	30.8	34.0	25.6	14.3
ML-5 Project for Pattaya, Satahip	31.6	37.5	33.6	42.0	29.0	29.2	14.6
ML-5 Project for Rayong, Chantaburi	8.4	3.1	1.7	15.1	7.4	3.2	7.5

Phase II Projects (Unit: Vehicle)

Divert from Route 3 to or Route34	Diversion Rate						
	MC	PC	LB	HB	LT	MT	HT
Bangkok-Chonburi New Highway (Route 34)	0.0	48.1	63.6	80.0	36.8	32.1	26.8
Bangkok-Chonburi New Highway (Route 3)	0.0	68.7	46.3	51.8	22.80	21.50	14.30
Chonburi Bypass (Trough Traffic Rate)	0.0	38.2	30.8	30.8	34.0	25.6	14.3
ML-5 Project for Pattaya, Satahip	31.6	37.5	33.6	42.0	29.0	29.2	14.6
ML-5 Project for Rayong, Chantaburi	8.4	3.1	1.7	15.1	7.4	3.2	7.5

Appendix 3.4.3.(2) DISTRIBUTION PATTERN BY INTERSECT ROAD

TRAFFIC DISTRIBUTION FOR BANGKOK SIDE (Unit: Percent)

Bangkok Side Road	MC	PC	LB	HB	LT	MT	HT
DOH Road	39.2	49.2	57.6	57.3	51.9	58.1	53.8
Sri Nakarin N	19.4	12.5	1.1	3.4	6.4	1.2	3.0
Sri Nakarin S	8.6	8.3	10.4	9.0	8.8	9.1	9.4
Outer Ring R.N	21.1	22.4	22.6	23.1	23.2	23.5	25.0
Outer Ring R.S	5.3	6.0	6.7	6.9	6.8	7.1	6.8
R.3119 N	3.6	1.4	0.0	0.3	1.9	0.6	1.1
R.3119 S	2.7	0.3	1.7	0.0	1.1	0.3	0.9

Note. Bases were traffic volumes on R.3119-R.314 Section

Traffic Distribution for Chonburi Side (Unit: Percent)

Chonburi Side Road	MC	PC	LB	HB	LT	MT	HT
R.315 W	32.4	30.1	20.8	14.5	31.0	36.5	49.8
R.315 E	4.4	5.3	0.0	5.7	3.3	3.6	4.1
R.344 E	21.2	13.7	8.7	23.8	27.6	21.9	17.5
ML-5 & R.3	42.0	51.0	70.6	56.0	38.1	38.0	28.7

Note. Bases were traffic volumes on R.314-R.315 Section

Appendix 3.4.3.(3) DIVERTABLE TRAFFIC AT PRESENT

Phase II Projects (Unit: Vehicles/Day)

Project Code	Section	Year	Base Traffic Volume							
			MC	PC	LB	HB	LT	MT	HT	ADT
IM-11	RID-N	1988	0	1	0	0	6	0	22	29
	RID-M	1988	0	1	0	0	6	0	22	29
	RID-S	1988	0	4	0	0	38	9	22	73
IM-12	RID-N	1988	0	4	0	0	38	9	22	73
	RID-M	1988	0	12	0	0	116	9	22	159
	RID-S	1988	0	12	0	0	116	9	22	159
IM-13	PWD	1988	0	68	36	143	130	9	9	395
IM-14	RURAL-N	1987	0	7	0	0	66	9	341	423
	RURAL-S	1987	0	7	0	0	66	14	341	428
IM-15	RURAL-N	1987	0	7	0	0	66	14	330	417
	RURAL-S	1987	0	4	0	0	40	14	267	325
IM-22	RURAL	1987	0	193	0	7	200	35	32	467

Appendix 3.4.4 TRAFFIC DIVERSION ESTIMATED BY DOH METHOD

DOH applies the following equation to estimate traffic diversion rate. For the comparison to Study Team's results, Study Team calculated diversion rates for traffic from route 3 to ML-5 project applying the DOH equation. DOH's equation is as follows.

$$P = 100 / (1+(T2/T1)^6)$$

where

P: Diversion rate (Percent)
T1: Trip time using new road
T2: Trip time using old road

For the estimation of diversion rate, a small road network between Chonburi and Patthaya which included old and new highways was established. The network consisted of eight road links. Trip times on each link were calcurated by the folloing equations, which were determined rerering to Hiway Capacity Manual 1985.

$$Vn = 88 - 5.42*10^{-4} * Q$$
$$Vo = 77 - 5.42*10^{-4} * Q$$

where

Vn: Vehicle speed on new multi lane road (km/h)
Vo: Vehicle speed on old multi lane road (km/h)
Q: Future traffic volume (vehicles/day)

Future traffic volumes on road links were taken from the results of the traffic forecast. Travel times by link were calculated using the above equations of vehicle speed and future traffic volume.

Four nodes, which were Chonburi, Patthaya, Si Racha and intersection on route 36, were established on the network for measurement travel times using new or old road. Travel times by said node pair were calculated using travel times by links.

Diversion rates by node pair were calculated using travel times by node pair. Weighted average diversion rates were obtained by means of distribution of OD pairs on Route 3.

Resultes are shown in the following table. The results show that weighted average diversion rates are appriximately 40 percent under good traffic conditions. However, after traffic volumes increase as those of in 2008, diversion rates increase to approximately 47 percent.

TRAFFIC DIVERSION BY YEAR

Node Pair on Network	Weight of OD Pair Distribution	Travel Time		Diversion Rate (%)
		New	Old	
1994		(Min.)		
Chonburi-Patthaya	0.316	44	43	45.9
Chonburi-Si Racha	0.444	26	25	42.9
Patthaya-Si Racha	0.034	32	18	2.9
Rout 36- Chonburi	0.084	33	41	76.4
Weighted Average				40.0
2000				
Chonburi-Patthaya	0.316	47	46	47.5
Chonburi-Si Racha	0.444	27	26	45.7
Patthaya-Si Racha	0.034	34	20	3.3
Rout 36- Chonburi	0.084	36	43	76.8
Weighted Average				41.9
2008				
Chonburi-Patthaya	0.316	53	54	51.7
Chonburi-Si Racha	0.444	30	31	52.9
Patthaya-Si Racha	0.034	38	23	4.9
Rout 36- Chonburi	0.084	39	50	80.4
Weighted Average				46.7

Appendix 3.4.5 FORECASTED TRAFFIC VOLUME

Phase I Projects (Unit: Vehicles/Day)

Project Code	Section	Traffic Volume in 1992							
		MC	PC	LB	HB	LT	MT	HT	ADT
ML-1	3-0403-N	1344	2379	182	348	3887	2705	14194	23695
	3-0403-E	1779	2594	505	180	4343	2764	14362	24748
	3-0403-S	2788	2165	754	201	4180	2164	10908	20372
	3-0403-s	2055	3078	1164	1742	4210	977	7307	18478
	Average	1992	2554	651	618	4155	2153	11693	21823
ML-5	BP-N	1497	3919	984	1869	3768	1553	3601	15694
	BP-S	314	250	47	494	766	582	1144	3283
	BP-W	1183	3669	937	1375	3002	971	2457	12411
	Average	998	2613	656	1246	2512	1035	2401	10463

Phase I Projects (Unit: Vehicles/Day)

Project Code	Section	Traffic Volume in 1994							
		MC	PC	LB	HB	LT	MT	HT	ADT
ML-1	3-0403-N	1534	3654	279	641	5489	2972	15831	28866
	3-0403-E	2030	3900	656	450	5998	3038	16020	30062
	3-0403-S	3181	3409	946	475	5816	2363	12143	25152
	3-0403-s	2337	4235	1421	2048	5784	1178	8293	22959
	Average	2271	3800	826	904	5772	2388	13072	26760
ML-2	3-158KM	4032	2906	2953	497	1268	320	153	8097
	3-175KM	5302	1575	3489	726	3113	425	161	9489
	Average	4667	2241	3221	612	2191	373	157	8793
ML-4	3-1000	4985	2382	1383	431	6157	1211	1552	13116
	3-1102	2168	1304	1435	264	5294	792	1174	10263
	316	3379	1346	1760	277	6187	522	288	10380
	Average	3511	1677	1526	324	5879	842	1005	11253
ML-5	BP-N	1700	4522	1143	2115	4202	1599	3850	17431
	BP-S	357	286	55	559	854	533	1038	3325
	BP-W	1343	4236	1088	1556	3348	1066	2812	14106
	Average	1133	3015	762	1410	2801	1066	2567	11621
ML-7	304-40KM	1522	2281	1336	824	2552	1294	554	8841
	304-J.314	2086	1965	521	503	3747	796	554	8086
	Average	1804	2123	929	664	3150	1045	554	8464
IM-23	3267- 5KM	752	910	132	236	1489	633	884	4284
	3267-20KM	624	436	122	340	1098	261	669	2926
	Average	688	673	127	288	1294	447	777	3605

Phase I Projects (Unit: Vehicles/Day)

Project Code	Section	Traffic Volume in 2000							
		MC	PC	LB	HB	LT	MT	HT	ADT
ML-1	3-0403-N	2279	1468	216	299	4832	3457	18033	28305
	3-0403-E	3015	1836	811	16	5544	3551	18300	30058
	3-0403-S	4726	1101	1269	52	5290	2585	12816	23113
	3-0403-s	3433	2066	1536	1554	6076	1271	9922	22425
	Average	3363	1618	958	480	5436	2716	14768	25975
ML-2	3-158KM	5581	4033	4313	682	1557	422	207	11214
	3-175KM	7339	2185	5096	996	3824	560	217	12878
	Average	6460	3109	4705	839	2691	491	212	12046
ML-4	3-1000	6823	3256	2155	581	8129	1593	2034	17748
	3-1102	3002	1831	2249	352	7111	1084	1616	14243
	316	4678	1890	2759	369	8310	713	396	14437
	Average	4834	2326	2388	434	7850	1130	1349	15476
ML-5	BP-N	2487	6750	1795	3063	5827	2389	5686	25510
	BP-S	522	423	87	810	1185	897	1655	5057
	BP-W	1965	6327	1708	2253	4642	1492	4031	20453
	Average	1658	4500	1197	2042	3885	1593	3791	17007
ML-7	304-40KM	2440	3562	1889	1193	4082	1836	794	13356
	304-J.314	2858	2778	699	674	5067	1054	727	10999
	Average	2649	3170	1294	934	4575	1445	761	12178
IM-23	3267- 5KM	976	1219	179	315	1955	844	1080	5592
	3267-20KM	809	583	164	454	1441	348	817	3807
	Average	893	901	172	385	1698	596	949	4700

Phase I Projects (Unit: Vehicles/Day)

Project Code	Section	Traffic Volume in 2008							
		MC	PC	LB	HB	LT	MT	HT	ADT
ML-1	3-0403-N	3690	5642	883	1702	15248	5496	26519	55490
	3-0403-E	4882	6255	1905	1259	16308	5636	26911	58274
	3-0403-S	7653	5030	2692	1315	15929	4200	18846	48012
	3-0403-s	5522	4021	2801	2225	11222	2067	15103	37439
	Average	5437	5237	2070	1625	14677	4350	21845	49804
ML-2	3-158KM	8271	6236	6387	1011	2102	604	289	16629
	3-175KM	10876	3379	7546	1476	5161	801	303	18666
	Average	9574	4808	6967	1244	3632	703	296	17648
ML-4	3-1000	10181	4858	3750	864	11596	2212	2577	25857
	3-1102	4490	2814	4169	493	10229	1527	2135	21367
	316	6996	2905	5114	516	11954	1005	523	22017
	Average	7222	3526	4344	624	11260	1581	1745	23080
ML-5	BP-N	3991	10901	3100	4730	8655	3320	7783	38489
	BP-S	838	696	150	1251	1759	1188	2123	7167
	BP-W	3153	10205	2950	3479	6896	2132	5660	31322
	Average	2661	7267	2067	3153	5770	2213	5189	25659
ML-7	304-40KM	3654	5622	2786	1665	5840	2616	1092	19621
	304-J.314	4278	4398	1028	926	7261	1498	1015	16126
	Average	3966	5010	1907	1296	6551	2057	1054	17874
IM-23	3267- 5KM	1379	1741	266	461	2768	1201	1480	7917
	3267-20KM	1143	833	244	665	2040	495	1119	5396
	Average	1261	1287	255	563	2404	848	1300	6657

Note. ML-1 N:North section E:East section S:Upper south section
s:Lower south section
ML-5 BP-N:North section BP-S:South section BP-W:West section

Phase II Projects (Unit: Vehicles/Day)

Project Code	Section	Traffic Volume in 1994 MC	PC	LB	HB	LT	MT	HT	ADT
ML-3	3-0702	6252	2215	1149	65	450	3158	99	7136
	3-0800-W	2075	1046	1241	329	3262	290	446	6614
	3-0800-E	2870	1212	1064	346	4888	460	744	8714
	Average	3732	1491	1151	247	2867	1303	430	7488
ML-9	1.SriNak'n-OuterR.	6478	13524	967	2390	4910	3563	2358	27712
	2.OutreR.-R.3119	5143	10973	1020	2399	4543	4024	2408	25367
	3.R.3119-R.314	3108	8551	934	2275	4190	1633	2364	19947
	4.R.314-R.315	3066	8733	584	1983	4302	883	2354	18839
	5.R.315-r.344	2028	4558	519	1784	2899	553	1014	11327
	6.R.344-ML-5	1700	4522	1143	2115	4202	1699	4025	17706
	Average	3587	8477	861	2158	4174	2059	2421	20150
IM-1	PWD-N	581	47	84	37	424	45	119	756
	PWD-S	423	34	25	7	305	31	44	446
	Average	502	40	55	22	365	38	82	601
IM-2	3306-0100-W	375	34	10	7	313	86	3	453
	3306-0100-E	401	27	10	6	233	91	4	371
	Average	388	30	10	7	273	88	3	412
IM-11	RID-N	1354	63	16	57	390	87	92	705
	RID-M	474	22	16	2	216	28	60	344
	RID-S	978	125	36	3	520	464	137	1285
	Average	935	70	23	20	375	193	96	778
IM-12	RID-N	746	70	119	24	262	96	80	651
	RID-M	711	58	1	1	559	121	50	790
	RID-S	481	144	71	2	747	90	48	1102
	Average	646	91	64	9	523	102	60	848
IM-13	PWD	388	149	187	294	362	28	51	1071
IM-14	RURAL-N	613	24	6	1	228	49	478	786
	RURAL-S	221	22	3	2	204	26	440	697
	Average	417	23	5	2	216	38	459	742
IM-15	RURAL-N	369	64	11	2	402	135	609	1223
	RURAL-S	500	320	128	45	1246	600	946	3285
	Average	435	192	69	23	824	368	777	2254
IM-16	3312	626	97	67	81	585	53	24	907
	PWD	269	27	133	2	243	10	44	459
	Average	447	62	100	41	414	32	34	683
IM-17	PWD-W	676	95	363	10	724	184	100	1476
	PWD-M	152	91	26	2	164	27	5	315
	PWD-E	348	89	38	30	505	147	147	956
	Average	392	92	142	14	464	120	84	916
IM-22	RURAL	257	314	2	12	312	51	37	728
RH-2	225-0100-N	1131	149	60	173	1267	173	211	2033
	225-0100-S	2113	2007	200	209	671	454	48	3589
	Average	1622	1078	130	191	969	314	130	2811
RH-3	325-0200	1861	4036	1089	608	722	391	334	7180
RH-5	344-0200-N	1746	2253	256	844	2968	421	995	7737
	344-0200-S	698	1333	125	450	3928	448	874	7158
	Average	1222	1793	191	647	3448	435	935	7448

Phase II Projects (Unit: Vehicles/Day)

Project Code	Section	Traffic Volume in 2000 MC	PC	LB	HB	LT	MT	HT	ADT
ML-3	3-0702	8813	3217	1620	88	637	4125	132	9819
	3-0800-W	2926	1520	1749	443	4611	378	596	9297
	3-0800-E	4045	1761	1500	465	6910	601	995	12232
	Average	5261	2166	1623	332	4053	1701	574	10449
ML-9	1.SriNak'n-OuterR.	9346	19727	1421	3292	6844	5030	3394	39708
	2.OutreR.-R.3119	7417	16003	1499	3302	6334	5682	3468	36288
	3.R.3119-R.314	4454	12469	1373	3133	5800	2299	3379	28453
	4.R.314-R.315	4146	13109	922	2934	6010	1258	3351	27584
	5.R.315-r.344	2728	6812	816	2607	4042	784	1432	16493
	6.R.344-ML-5	2487	6750	1795	3063	5827	2389	5686	25510
	Average	5096	12478	1304	3055	5810	2907	3452	29006
IM-1	PWD-N	761	66	114	50	540	58	152	980
	PWD-S	554	47	34	9	389	40	56	575
	Average	657	57	74	30	464	49	104	778
IM-2	3306-0100-W	492	48	14	10	399	109	3	583
	3306-0100-E	528	37	13	8	297	116	5	476
	Average	510	43	14	9	348	113	4	530
IM-11	RID-N	2016	91	22	88	587	135	146	1069
	RID-M	706	32	21	3	325	44	95	520
	RID-S	1457	179	49	5	782	722	217	1954
	Average	1393	101	31	32	565	301	153	1181
IM-12	RID-N	1110	100	163	37	395	150	127	972
	RID-M	1058	84	2	2	842	189	79	1198
	RID-S	715	207	97	3	1125	140	77	1649
	Average	961	130	87	14	788	160	94	1273
IM-13	PWD	532	207	270	400	480	38	67	1462
IM-14	RURAL-N	827	34	9	2	300	65	619	1029
	RURAL-S	295	31	5	2	268	35	571	912
	Average	561	32	7	2	284	50	595	971
IM-15	RURAL-N	524	92	16	2	550	187	817	1664
	RURAL-S	709	459	183	65	1705	830	1267	4509
	Average	617	276	99	33	1127	508	1042	3087
IM-16	3312	884	143	90	108	783	69	33	1226
	PWD	380	40	180	2	325	13	61	621
	Average	632	92	135	55	554	41	47	924
IM-17	PWD-W	970	141	532	13	1020	250	141	2097
	PWD-M	217	135	37	2	231	37	6	448
	PWD-E	500	132	56	41	712	200	206	1347
	Average	563	136	208	19	655	162	118	1297
IM-22	RURAL	386	507	3	17	434	75	45	1081
RH-2	225-0100-N	1413	193	81	233	1456	220	269	2452
	225-0100-S	2640	2599	269	281	772	577	61	4559
	Average	2027	1396	175	257	1114	399	165	3506
RH-3	325-0200	2475	5498	1434	800	918	498	429	9577
RH-5	344-0200-N	2398	3097	380	1057	4123	585	1320	10562
	344-0200-S	959	1832	185	563	5456	624	1160	9820
	Average	1679	2465	283	810	4790	605	1240	10191

Phase II Projects (Unit: Vehicles/Day)

Project Code	Section	Traffic Volume in 2008							
		MC	PC	LB	HB	LT	MT	HT	ADT
ML-3	3-0702	13291	5158	2427	131	953	5764	186	14619
	3-0800-W	4413	2437	2620	660	6901	528	840	13986
	3-0800-E	6100	2824	2247	692	10342	840	1402	18347
	Average	7935	3473	2431	494	6065	2377	809	15651
ML-9	1.SriNak'n-OuterR.	14607	31673	2380	4846	10156	7368	4902	61325
	2.OutreR.-R.3119	11582	25698	2512	4859	9401	8328	5003	55801
	3.R.3119-R.314	6914	19976	2303	4611	8550	3339	4839	43618
	4.R.314-R.315	6124	21691	1584	4593	8947	1828	4889	43532
	5.R.315-r.344	3985	11127	1409	4050	6014	1123	2039	25762
	6.R.344-ML-5	3991	10901	3100	4730	8655	3320	7783	38489
	Average	7867	20178	2215	4615	8621	4218	4909	44755
IM-1	PWD-N	1092	104	169	75	747	80	211	1386
	PWD-S	795	74	51	13	538	55	78	809
	Average	943	89	110	44	643	68	144	1098
IM-2	3306-0100-W	710	76	21	14	552	151	5	819
	3306-0100-E	763	58	19	12	411	160	7	667
	Average	736	67	20	13	481	156	6	743
IM-11	RID-N	3068	142	33	105	862	218	246	1606
	RID-M	1068	49	32	3	477	71	161	793
	RID-S	2217	280	72	6	1149	1167	366	3040
	Average	2117	157	45	38	829	486	258	1813
IM-12	RID-N	1690	156	240	44	580	242	214	1476
	RID-M	1610	131	3	3	1237	306	134	1814
	RID-S	1087	323	143	3	1653	226	130	2478
	Average	1462	203	129	17	1156	258	159	1923
IM-13	PWD	782	319	384	571	690	54	90	2108
IM-14	RURAL-N	1208	53	14	3	425	91	859	1445
	RURAL-S	432	48	7	3	380	49	792	1279
	Average	820	50	11	3	402	70	825	1362
IM-15	RURAL-N	813	148	24	3	799	271	1163	2408
	RURAL-S	1098	737	284	95	2475	1202	1805	6598
	Average	955	442	154	49	1637	737	1484	4503
IM-16	3312	1483	253	142	171	1213	107	52	1938
	PWD	637	72	284	3	503	20	95	977
	Average	1060	162	213	87	858	64	74	1458
IM-17	PWD-W	1552	236	868	20	1547	385	218	3274
	PWD-M	349	225	61	3	351	56	10	706
	PWD-E	800	221	92	60	1080	308	319	2080
	Average	901	228	340	28	993	250	182	2020
IM-22	RURAL	615	848	4	25	641	106	71	1695
RH-2	225-0100-N	1875	247	121	347	1785	305	372	3177
	225-0100-S	3503	3320	401	419	946	800	84	5970
	Average	2689	1784	261	383	1366	553	228	4574
RH-3	325-0200	3662	8458	2098	1105	1293	675	595	14224
RH-5	344-0200-N	3624	4742	643	1403	6091	843	1729	15451
	344-0200-S	1449	2805	313	747	8060	899	1519	14343
	Average	2537	3774	478	1075	7076	871	1624	14897

Note. N: North section E: East section S: South section
W: West section

Appendix 3.4.6 FORECASTED TURNING MOVEMENTS

Phase I Project

ROUTE 304 – ROUTE 314

TRAFFIC FORECAST

INTERSECTION

PEAK HOUR

TMC-2 D1: 0 <D2>: 9 D3: 14 D4: 7

DIRECTION			Base Traffic Volume								Traffic Volume in 1994								Traffic Volume in 2000								Traffic Volume in 2008							
From	To	Year	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT
1	1	1988	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	0	0	0	0	0	0
	2	1988	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	0	0	0	0	0	0
	3	1988	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	0	0	0	0	0	0
	4	1988	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	0	0	0	0	0	0
	In	1988	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	0	0	0	0	0	0
	Out	1988	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	0	0	0	0	0	0
	Total	1988	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	0	0	0	0	0	0
2	1	1988	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	0	0	0	0	0	0
	2	1988	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	0	0	0	0	0	0
	3	1988	20	29	21	21	58	12	27	168	27	41	30	27	74	16	35	223	38	58	41	37	100	21	45	302	57	92	60	51	143	30	63	439
	4	1988	32	21	16	11	102	19	5	174	44	30	23	14	128	25	6	226	61	42	31	18	174	33	8	306	91	66	46	25	249	47	11	444
	In	1988	52	50	37	32	160	31	32	342	71	71	53	41	202	41	41	449	99	100	72	55	274	54	53	608	148	158	106	76	392	77	74	883
	Out	1988	75	77	16	30	156	25	22	326	104	110	23	38	197	34	27	429	142	156	31	50	266	44	36	583	212	247	45	68	381	63	50	854
	Total	1988	127	127	53	62	316	56	54	668	175	181	76	79	399	75	68	878	241	256	103	105	540	98	89	1191	360	405	151	144	773	140	124	1737
3	1	1988	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	0	0	0	0	0	0
	2	1988	24	24	6	15	66	10	15	136	33	34	8	19	83	14	19	177	45	48	11	25	112	18	25	239	67	76	16	34	160	26	35	347
	3	1988	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	0	0	0	0	0	0
	4	1988	1	2	0	0	10	3	21	36	1	3	0	0	13	4	26	46	1	4	0	0	17	6	34	61	1	6	0	0	24	9	47	86
	In	1988	25	26	6	15	76	13	36	172	34	37	8	19	96	18	45	223	46	52	11	25	129	24	59	300	68	82	16	34	184	35	82	433
	Out	1988	22	33	21	21	70	18	33	196	30	46	30	27	89	24	42	258	42	65	41	37	120	32	55	350	63	103	60	51	172	46	77	509
	Total	1988	47	59	27	36	146	31	69	368	64	83	38	46	185	42	87	481	88	117	52	62	249	56	114	650	131	185	76	85	356	81	159	942
4	1	1988	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	0	0	0	0	0	0
	2	1988	51	53	10	15	90	15	7	190	71	76	15	19	114	20	8	252	97	108	20	25	154	26	11	344	145	171	29	34	221	37	15	507
	3	1988	2	4	0	0	12	6	6	28	3	5	0	0	15	8	7	35	4	7	0	0	20	11	10	48	6	11	0	0	29	16	14	70
	4	1988	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	0	0	0	0	0	0
	In	1988	53	57	10	15	102	21	13	218	74	81	15	19	129	28	15	287	101	115	20	25	174	37	21	392	151	182	29	34	250	53	29	577
	Out	1988	33	23	16	11	112	22	26	210	45	33	23	14	141	29	32	272	62	46	31	18	191	39	42	367	92	72	46	25	273	56	58	530
	Total	1988	86	80	26	26	214	43	39	428	119	114	38	33	270	57	47	559	163	161	51	43	365	76	63	759	243	254	75	59	523	109	87	1107

TRAFFIC FORECAST

INTERSECTION

PEAK HOUR

TMC-2 D1: 0 D2: 9 <D3>: 14 D4: 7

DIRECTION			Base Traffic Volume								Traffic Volume in 1994								Traffic Volume in 2000								Traffic Volume in 2008							
From	To	Year	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT
1	1	1988	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	0	0	0	0	0	0
	2	1988	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	0	0	0	0	0	0
	3	1988	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	0	0	0	0	0	0
	4	1988	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	0	0	0	0	0	0
	In	1988	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	0	0	0	0	0	0
	Out	1988	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	0	0	0	0	0	0
	Total	1988	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	0	0	0	0	0	0
2	1	1988	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	0	0	0	0	0	0
	2	1988	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	0	0	0	0	0	0
	3	1988	16	25	3	17	57	9	10	121	22	36	4	22	72	12	13	159	30	51	6	30	97	15	16	215	45	81	9	41	139	21	22	313
	4	1988	28	38	4	14	85	9	1	151	39	54	6	18	107	12	1	198	53	76	8	24	145	15	1	269	79	120	12	33	208	21	1	395
	In	1988	44	63	7	31	142	18	11	272	61	90	10	40	179	24	14	357	83	127	14	54	242	30	17	484	124	201	21	74	347	42	23	708
	Out	1988	43	61	8	23	134	42	24	292	59	87	11	29	170	56	30	383	81	122	16	39	229	73	40	519	121	193	24	53	328	104	56	758
	Total	1988	87	124	15	54	276	60	35	564	120	177	21	69	349	80	44	740	164	249	30	93	471	103	57	1003	245	394	45	127	675	146	79	1466
3	1	1988	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	0	0	0	0	0	0
	2	1988	20	29	3	15	74	15	18	154	27	41	4	19	94	20	23	201	38	58	6	25	127	26	30	272	57	92	9	34	182	37	42	396
	3	1988	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	0	0	0	0	0	0
	4	1988	5	9	3	3	15	7	10	47	7	13	4	4	19	9	13	62	10	18	6	6	26	12	16	84	15	28	9	8	37	17	22	121
	In	1988	25	38	6	18	89	22	28	201	34	54	8	23	113	29	36	263	48	76	12	31	153	38	46	356	72	120	18	42	219	54	64	517
	Out	1988	18	28	3	17	63	14	24	149	25	40	4	22	79	18	31	194	34	57	6	30	107	23	39	262	51	90	9	41	153	32	54	379
	Total	1988	43	66	9	35	152	36	52	350	59	94	12	45	192	47	67	457	82	133	18	61	260	61	85	618	123	210	27	83	372	86	118	896
4	1	1988	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	0	0	0	0	0	0
	2	1988	23	32	5	8	60	27	6	138	32	46	7	10	76	36	7	182	43	64	10	14	102	47	10	247	64	101	15	19	146	67	14	362
	3	1988	2	3	0	0	6	5	14	28	3	4	0	0	7	6	18	35	4	6	0	0	10	8	23	47	6	9	0	0	14	11	32	66
	4	1988	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	0	0	0	0	0	0
	In	1988	25	35	5	8	66	32	20	166	35	50	7	10	83	42	25	217	47	70	10	14	112	55	33	294	70	110	15	19	160	78	46	428
	Out	1988	33	47	7	17	100	16	11	198	46	67	10	22	126	21	14	260	68	94	14	30	171	27	17	353	94	148	21	41	245	38	23	516
	Total	1988	58	82	12	25	166	48	31	364	81	117	17	32	209	63	39	477	110	164	24	44	283	82	50	647	164	258	36	60	405	116	69	944

TRAFFIC FORECAST

INTERSECTION

PEAK HOUR

TMC-2 <D1>: 0 D2: 9 D3: 14 <D4>: 7

DIRECTION			Base Traffic Volume								Traffic Volume in 1994								Traffic Volume in 2000								Traffic Volume in 2008							
From	To	Year	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT
1	1	1988	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	0	0	0	0	0	0
	2	1988	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	0	0	0	0	0	0
	3	1988	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	0	0	0	0	0	0
	4	1988	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	0	0	0	0	0	0
	In	1988	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	0	0	0	0	0	0
	Out	1988	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	0	0	0	0	0	0
	Total	1988	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	0	0	0	0	0	0
2	1	1988	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	0	0	0	0	0	0
	2	1988	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	0	0	0	0	0	0
	3	1988	25	31	14	17	45	5	21	133	35	44	21	22	57	6	26	176	48	63	28	30	77	8	34	240	72	100	41	41	110	11	47	350
	4	1988	73	30	14	12	62	16	4	138	101	43	21	16	78	21	5	184	139	61	28	21	105	28	7	250	208	97	41	29	150	40	10	367
	In	1988	98	61	28	29	107	21	25	271	136	87	42	38	135	27	31	360	187	124	56	51	182	36	41	490	280	197	82	70	260	51	57	717
	Out	1988	110	103	57	27	148	24	16	375	151	147	84	35	186	33	20	505	208	208	113	46	252	43	26	688	311	329	166	64	361	61	37	1018
	Total	1988	208	164	85	56	255	45	41	646	287	234	126	73	321	60	51	865	395	332	169	97	434	79	67	1178	591	526	248	134	621	112	94	1735
3	1	1988	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	0	0	0	0	0	0
	2	1988	48	41	27	18	52	13	12	163	66	58	40	23	65	18	15	219	91	82	54	31	88	24	19	298	136	130	79	43	126	34	27	439
	3	1988	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	0	0	0	0	0	0
	4	1988	3	2	3	1	11	4	8	29	4	3	4	1	14	5	10	37	6	4	6	1	18	7	14	50	9	6	9	1	26	10	20	72
	In	1988	51	43	30	19	63	17	20	192	70	61	44	24	79	23	25	256	97	86	60	32	106	31	33	348	145	136	88	44	152	44	47	511
	Out	1988	28	33	15	18	50	8	27	151	39	47	22	23	63	10	33	198	54	67	29	31	86	14	44	271	81	106	42	42	123	20	61	394
	Total	1988	79	76	45	37	113	25	47	343	109	108	66	47	142	33	58	454	151	153	89	63	192	45	77	619	226	242	130	86	275	64	108	905
4	1	1988	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	0	0	0	0	0	0
	2	1988	62	62	30	9	96	11	4	212	85	89	44	12	121	15	5	286	117	126	59	15	164	19	7	390	175	199	87	21	235	27	10	579
	3	1988	3	2	1	1	5	3	6	18	4	3	1	1	6	4	7	22	6	4	1	1	9	6	10	31	9	6	1	1	13	9	14	44
	4	1988	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	0	0	0	0	0	0
	In	1988	65	64	31	10	101	14	10	230	89	92	45	13	127	19	12	308	123	130	60	16	173	25	17	421	184	205	88	22	248	36	24	623
	Out	1988	76	32	17	13	73	20	12	167	105	46	25	17	92	26	15	221	145	65	34	22	123	35	21	300	217	103	50	30	176	50	30	439
	Total	1988	141	96	48	23	174	34	22	397	194	138	70	30	219	45	27	529	268	195	94	38	296	60	38	721	401	308	138	52	424	86	54	1062

Phase I Project

ROUTE 3 – CHON BURI BYPASS

TRAFFIC FORECAST

INTERSECTION

PEAK HOUR

TMC-3 <D1>: 11 <D2>: 11 D3: 13 D4: 0

DIRECTION			Base Traffic Volume								Traffic Volume in 1994								Traffic Volume in 2000								Traffic Volume in 2008							
From	To	Year	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT
1	1	1988	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	0	0	0	0	0	0
	2	1988	8	47	0	2	51	62	293	455	13	180	4	18	147	155	615	1119	19	67	0	2	85	180	659	993	31	311	32	80	630	290	969	2312
	3	1988	45	260	21	68	328	23	19	719	71	421	33	104	488	34	26	1106	105	221	34	78	543	39	33	948	170	368	58	122	808	58	49	1463
	4	1988	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	0	0	0	0	0	0
	In	1988	53	307	21	70	379	85	312	1174	84	601	37	122	635	189	641	2225	124	288	34	80	628	219	692	1941	201	679	90	202	1438	348	1018	3775
	Out	1988	62	190	16	48	335	85	343	1017	97	412	29	87	570	190	686	1974	144	189	25	55	555	220	747	1791	233	514	75	163	1329	349	1099	3529
	Total	1988	115	497	37	118	714	170	655	2191	181	1013	66	209	1205	379	1327	4199	268	477	59	135	1183	439	1439	3732	434	1193	165	365	2767	697	2117	7304
2	1	1988	8	27	0	3	63	55	319	467	13	148	4	19	165	145	652	1133	19	50	0	3	105	168	705	1031	31	282	32	82	659	272	1037	2364
	2	1988	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	0	0	0	0	0	0
	3	1988	11	2	1	10	14	4	8	39	17	3	1	15	21	6	12	58	25	5	2	22	30	9	16	84	40	8	3	34	45	13	24	127
	4	1988	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	0	0	0	0	0	0
	In	1988	19	29	1	13	77	59	327	506	30	151	5	34	186	151	664	1191	44	55	2	25	135	177	721	1115	71	290	35	116	704	285	1061	2491
	Out	1988	13	49	0	10	68	62	301	490	20	183	4	30	172	155	627	1171	30	72	0	19	120	180	675	1066	49	319	32	107	682	290	993	2423
	Total	1988	32	78	1	23	145	121	628	996	50	334	9	64	358	306	1291	2362	74	127	2	44	255	357	1396	2181	120	609	67	223	1386	575	2054	4914
3	1	1988	54	163	16	45	272	30	24	550	84	264	25	68	405	45	34	841	125	139	25	52	450	52	42	760	202	232	43	81	670	77	62	1165
	2	1988	5	2	0	8	17	0	8	35	7	3	0	12	25	0	12	52	11	5	0	17	35	0	16	73	18	8	0	27	52	0	24	111
	3	1988	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	0	0	0	0	0	0
	4	1988	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	0	0	0	0	0	0
	In	1988	59	165	16	53	289	30	32	585	91	267	25	80	430	45	46	893	136	144	25	69	485	52	58	833	220	240	43	108	722	77	86	1276
	Out	1988	56	262	22	78	342	27	27	758	88	424	34	119	509	40	38	1164	130	226	36	100	573	48	49	1032	210	376	61	156	853	71	73	1590
	Total	1988	115	427	38	131	631	57	59	1343	179	691	59	199	939	85	84	2057	266	370	61	169	1058	100	107	1865	430	616	104	264	1575	148	159	2866
4	1	1988	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	0	0	0	0	0	0
	2	1988	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	0	0	0	0	0	0
	3	1988	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	0	0	0	0	0	0
	4	1988	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	0	0	0	0	0	0
	In	1988	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	0	0	0	0	0	0
	Out	1988	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	0	0	0	0	0	0
	Total	1988	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	0	0	0	0	0	0

TRAFFIC FORECAST

INTERSECTION

PEAK HOUR

TMC-3 D1: 11 D2: 11 <D3>: 13 D4: 0

DIRECTION			Base Traffic Volume								Traffic Volume in 1994								Traffic Volume in 2000								Traffic Volume in 2008							
From	To	Year	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT
1	1	1988	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	0	0	0	0	0	0
	2	1988	6	39	3	6	57	19	262	386	10	167	8	25	156	92	572	1020	14	60	4	7	94	106	604	875	23	299	39	88	643	180	888	2137
	3	1988	41	153	23	52	290	19	25	562	64	248	37	79	431	29	35	859	95	130	38	60	480	33	44	785	154	217	65	94	715	49	65	1205
	4	1988	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	0	0	0	0	0	0
	In	1988	47	192	26	58	347	38	287	948	74	415	45	104	587	121	607	1879	109	190	42	67	574	139	648	1660	177	516	104	182	1358	229	953	3342
	Out	1988	59	232	18	79	357	68	272	1026	92	480	32	135	602	164	587	2000	137	224	28	90	591	190	622	1745	222	572	80	218	1383	305	915	3473
Total		1988	106	424	44	137	704	106	559	1974	166	895	77	239	1189	285	1194	3879	246	414	70	157	1165	329	1270	3405	399	1088	184	400	2741	534	1868	6815
2	1	1988	7	28	3	8	59	37	258	393	11	149	8	27	159	118	567	1028	16	51	4	9	98	137	597	896	26	284	39	91	649	226	878	2167
	2	1988	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	0	0	0	0	0	0
	3	1988	4	2	1	8	3	0	2	16	6	3	1	12	4	0	3	23	10	5	2	17	6	0	4	34	16	8	3	27	9	0	6	53
	4	1988	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	0	0	0	0	0	0
	In	1988	11	30	4	16	62	37	260	409	17	152	9	39	163	118	570	1051	26	56	6	26	104	137	601	930	42	292	42	118	658	226	884	2220
	Out	1988	10	40	4	16	62	20	264	406	16	169	9	40	163	93	575	1049	24	63	6	29	104	108	608	918	39	304	42	122	658	183	894	2203
Total		1988	21	70	8	32	124	57	524	815	33	321	18	79	326	211	1145	2100	50	119	12	55	208	245	1209	1848	81	596	84	240	1316	409	1778	4423
3	1	1988	52	204	15	71	298	31	14	633	81	331	24	108	443	46	20	972	121	173	24	81	493	53	25	849	196	288	41	127	734	79	37	1306
	2	1988	4	1	1	10	5	1	2	20	6	2	1	15	7	1	3	29	10	3	2	22	10	2	4	43	16	5	3	34	15	3	6	66
	3	1988	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	0	0	0	0	0	0
	4	1988	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	0	0	0	0	0	0
	In	1988	56	205	16	81	303	32	16	653	87	333	25	123	450	47	23	1001	131	176	26	103	503	55	29	892	212	293	44	161	749	82	43	1372
	Out	1988	45	155	24	60	293	19	27	578	70	251	38	91	435	29	38	882	105	135	40	77	486	33	48	819	170	225	68	121	724	49	71	1258
Total		1988	101	360	40	141	596	51	43	1231	157	584	63	214	885	76	61	1883	236	311	66	180	989	88	77	1711	382	518	112	282	1473	131	114	2630
4	1	1988	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	0	0	0	0	0	0
	2	1988	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	0	0	0	0	0	0
	3	1988	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	0	0	0	0	0	0
	4	1988	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	0	0	0	0	0	0
	In	1988	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	0	0	0	0	0	0
	Out	1988	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	0	0	0	0	0	0
Total		1988	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	0	0	0	0	0	0

TRAFFIC FORECAST

INTERSECTION

PEAK HOUR

TMC-4 <D1>: 15 D2: 17 D3: 11 D4: 17

DIRECTION			Base Traffic Volume								Traffic Volume in 1994								Traffic Volume in 2000								Traffic Volume in 2008							
From	To	Year	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT
1	1	1988	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	0	0	0	0	0	0
	2	1988	13	4	2	0	17	2	3	28	20	6	3	0	25	3	4	41	30	3	3	0	28	4	5	43	49	5	5	0	42	6	7	65
	3	1988	7	29	4	3	68	50	359	513	11	151	10	19	173	137	710	1200	16	52	7	3	113	159	777	1111	26	286	44	82	671	259	1143	2485
	4	1988	6	1	1	0	14	7	14	37	10	2	1	0	21	11	20	55	14	1	1	0	24	12	25	63	23	2	2	0	36	18	37	95
	In	1988	26	34	7	3	99	59	376	578	41	159	14	19	219	151	734	1296	60	56	11	3	165	175	807	1217	98	293	51	82	749	283	1187	2645
	Out	1988	19	44	4	0	101	38	257	444	28	175	10	15	222	119	565	1106	43	70	7	0	170	139	596	982	70	316	44	77	756	229	877	2299
Total		1988	45	78	11	3	200	97	633	1022	69	334	24	34	441	270	1299	2402	103	126	18	3	335	314	1403	2199	168	609	95	159	1505	512	2064	4944
2	1	1988	1	4	0	0	8	1	9	22	1	6	0	0	12	1	13	32	2	3	0	0	13	1	16	33	3	5	0	0	19	1	24	49
	2	1988	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	0	0	0	0	0	0
	3	1988	9	8	12	1	11	12	16	60	14	13	19	1	16	18	22	89	21	8	27	0	18	21	28	102	34	13	46	0	27	31	41	158
	4	1988	57	34	7	11	97	7	3	159	89	55	11	17	144	11	4	242	132	82	17	25	201	15	6	346	214	137	29	39	299	22	9	535
	In	1988	67	46	19	12	116	20	28	241	104	74	30	18	172	30	39	363	155	93	44	25	232	37	50	481	251	155	75	39	345	54	74	742
	Out	1988	76	47	20	11	174	21	22	295	119	77	31	17	258	32	30	445	176	101	47	25	341	40	38	592	286	168	81	39	508	59	55	910
Total		1988	143	93	39	23	290	41	50	536	223	151	61	35	430	62	69	808	331	194	91	50	573	77	88	1073	537	323	156	78	853	113	129	1652
3	1	1988	5	36	0	0	68	35	245	384	7	163	4	15	173	115	548	1018	11	64	0	0	116	134	575	889	18	306	32	77	676	222	846	2159
	2	1988	7	5	1	0	33	12	18	69	11	9	1	0	49	18	25	102	16	5	1	0	56	21	32	115	26	8	2	0	83	31	47	171
	3	1988	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	0	0	0	0	0	0
	4	1988	15	7	1	0	12	1	2	23	24	12	1	0	18	1	3	35	35	7	1	0	21	1	4	34	57	12	2	0	31	1	6	52
	In	1988	27	48	2	0	113	48	265	476	42	184	6	15	240	134	576	1155	62	76	2	0	193	156	611	1038	101	326	36	77	790	254	899	2382
	Out	1988	19	41	17	4	92	64	376	594	29	170	30	20	208	158	733	1319	43	64	35	3	153	184	806	1245	70	306	92	82	731	296	1185	2692
Total		1988	46	89	19	4	205	112	641	1070	71	354	36	35	448	292	1309	2474	105	140	37	3	346	340	1417	2283	171	632	128	159	1521	550	2084	5074
4	1	1988	13	4	4	0	25	2	3	38	20	6	6	0	37	3	4	56	30	3	7	0	41	4	5	60	49	5	12	0	61	6	7	91
	2	1988	56	38	17	11	124	7	1	198	88	62	27	17	184	11	1	302	130	93	43	25	257	15	1	434	211	155	74	39	383	22	1	674
	3	1988	3	4	1	0	13	2	1	21	4	6	1	0	19	3	1	30	6	4	1	0	22	4	1	32	10	7	2	0	33	6	1	49
	4	1988	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	0	0	0	0	0	0
	In	1988	72	46	22	11	162	11	5	257	112	74	34	17	240	17	6	388	166	100	51	25	320	23	7	526	270	167	88	39	477	34	9	814
	Out	1988	78	42	9	11	123	15	19	219	123	69	13	17	183	23	27	332	181	90	19	25	246	28	35	443	294	151	33	39	366	41	52	682
Total		1988	150	88	31	22	285	26	24	476	235	143	47	34	423	40	33	720	347	190	70	50	566	51	42	969	564	318	121	78	843	75	61	1496

TRAFFIC FORECAST

INTERSECTION

PEAK HOUR

TMC-4 D1: 15 <D2>: 17 D3: 11 <D4>: 17

DIRECTION		Base Traffic Volume								Traffic Volume in 1994								Traffic Volume in 2000								Traffic Volume in 2008							
From	To	Year	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT
1	1	1988	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	0	0	0	0	0	0
	2	1988	39	13	0	3	17	5	11	49	61	21	0	4	25	7	16	73	90	11	0	3	28	9	20	71	146	18	0	5	42	13	29	107
	3	1988	20	24	3	5	68	39	204	343	31	143	8	22	173	120	489	955	46	47	4	6	113	140	500	810	74	277	39	86	671	231	735	2039
	4	1988	14	3	1	1	21	9	7	42	21	5	1	1	32	14	10	63	32	3	1	1	35	16	12	68	52	5	2	2	52	24	18	103
	In	1988	73	40	4	9	106	53	222	434	113	169	9	27	230	141	515	1091	168	61	5	10	176	165	532	949	272	300	41	93	765	268	782	2249
	Out	1988	64	47	5	2	116	46	189	405	99	180	11	17	243	131	468	1050	148	73	8	1	195	152	475	904	240	320	46	79	793	248	699	2185
	Total	1988	137	87	9	11	222	99	411	839	212	349	20	44	473	272	983	2141	316	134	13	11	371	317	1007	1853	512	620	87	172	1558	516	1481	4434
2	1	1988	5	2	2	1	15	0	0	20	7	3	3	1	22	0	0	29	11	2	3	1	25	0	0	31	18	3	5	2	37	0	0	47
	2	1988	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	0	0	0	0	0	0
	3	1988	25	13	8	1	23	9	25	79	38	21	13	1	34	14	35	118	57	13	18	0	39	16	44	130	92	22	31	0	58	24	65	200
	4	1988	124	63	27	15	147	14	7	273	193	102	43	22	219	21	10	417	287	152	68	33	306	30	13	602	465	253	117	52	456	45	19	942
	In	1988	154	78	37	17	185	23	32	372	238	126	59	24	275	35	45	564	355	167	89	34	370	46	57	763	575	278	153	54	551	69	84	1189
	Out	1988	224	56	23	18	168	21	34	320	349	92	36	26	250	31	48	483	517	106	55	36	329	40	62	628	837	177	95	57	490	59	91	969
	Total	1988	378	134	60	35	353	44	66	692	587	218	95	50	525	66	93	1047	872	273	144	70	699	86	119	1391	1412	455	248	111	1041	128	175	2158
3	1	1988	15	35	2	1	72	45	189	344	24	161	7	16	178	130	468	960	35	63	4	0	122	151	475	815	57	304	39	77	685	247	699	2051
	2	1988	27	7	1	0	36	8	18	70	42	12	1	0	54	12	25	104	62	7	1	0	62	14	32	116	100	12	2	0	92	21	47	174
	3	1988	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	0	0	0	0	0	0
	4	1988	11	12	3	0	14	0	2	31	17	19	4	0	21	0	3	47	25	12	6	0	24	0	4	46	40	20	10	0	36	0	6	72
	In	1988	53	54	6	1	122	53	209	445	83	192	12	16	253	142	496	1111	122	82	11	0	208	165	511	977	197	336	51	77	813	268	752	2297
	Out	1988	54	50	14	11	114	51	232	472	83	185	25	30	241	138	528	1147	124	73	28	7	191	161	549	1009	200	321	80	88	787	262	807	2345
	Total	1988	107	104	20	12	236	104	441	917	166	377	37	46	494	280	1024	2258	246	155	39	7	399	326	1060	1986	397	657	131	165	1600	530	1559	4642
4	1	1988	44	10	1	0	29	1	0	41	68	16	1	0	43	1	0	61	102	8	1	0	48	1	0	58	165	13	2	0	71	1	0	87
	2	1988	158	36	22	15	115	8	5	201	246	59	35	22	171	12	7	306	365	88	54	33	239	17	10	441	591	147	93	52	356	25	15	688
	3	1988	9	13	3	5	23	3	3	50	14	21	4	7	34	4	4	74	21	13	6	1	39	5	5	69	34	22	10	2	58	7	7	106
	4	1988	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	0	0	0	0	0	0
	In	1988	211	59	26	20	167	12	8	292	328	96	40	29	248	17	11	441	488	109	61	34	326	23	15	568	790	182	105	54	485	33	22	881
	Out	1988	149	78	31	16	182	23	16	346	231	126	48	23	272	35	23	527	344	167	75	34	365	46	29	716	557	278	129	54	544	69	43	1117
	Total	1988	360	137	57	36	349	35	24	638	559	222	88	52	520	52	34	968	832	276	136	68	691	69	44	1284	1347	460	234	108	1029	102	65	1998

TRAFFIC FORECAST

INTERSECTION

PEAK HOUR

TMC-4 D1: 15 D2: 17 <D3>: 11 D4: 17

DIRECTION		Base Traffic Volume								Traffic Volume in 1994								Traffic Volume in 2000								Traffic Volume in 2008							
From	To	Year	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT
1	1	1988	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	0	0	0	0	0	0
	2	1988	14	6	2	0	18	4	5	35	21	10	3	0	26	6	7	52	32	5	3	0	29	7	9	53	52	8	5	0	43	10	13	79
	3	1988	8	32	0	1	62	54	228	377	13	155	4	16	163	143	523	1004	19	54	0	1	102	165	543	865	31	289	32	79	655	268	799	2122
	4	1988	1	4	3	0	30	5	16	58	1	6	4	0	44	7	22	83	2	3	4	0	49	9	28	93	3	5	7	0	73	13	41	139
	In	1988	23	42	5	1	110	63	249	470	35	171	11	16	233	156	552	1139	53	62	7	1	180	181	580	1011	86	302	44	79	771	291	853	2340
	Out	1988	31	29	2	1	102	58	325	517	48	152	6	16	223	149	662	1208	72	56	2	0	171	174	718	1121	116	292	36	77	758	281	1056	2500
	Total	1988	54	71	7	2	212	121	574	987	83	323	17	32	456	305	1214	2347	125	118	9	1	351	355	1298	2132	202	594	80	156	1529	572	1909	4840
2	1	1988	1	3	0	0	20	2	11	36	1	5	0	0	30	3	16	54	2	3	0	0	33	4	20	60	3	5	0	0	49	6	29	89
	2	1988	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	0	0	0	0	0	0
	3	1988	14	8	10	1	21	10	28	78	21	13	16	1	32	15	40	117	32	8	22	0	36	17	51	134	52	13	38	0	54	25	75	205
	4	1988	62	32	1	11	101	5	3	153	96	51	1	17	150	7	4	230	143	77	2	25	210	11	6	331	232	128	3	39	313	16	9	508
	In	1988	77	43	11	12	142	17	42	267	118	69	17	18	212	25	60	401	177	88	24	25	279	32	77	525	287	146	41	39	416	47	113	802
	Out	1988	97	36	22	9	145	17	35	264	150	58	34	14	214	26	49	395	224	77	51	21	284	32	64	529	363	128	88	33	423	47	94	813
	Total	1988	174	79	33	21	287	34	77	531	268	127	51	32	426	51	109	796	401	165	75	46	563	64	141	1054	650	274	129	72	839	94	207	1615
3	1	1988	7	19	1	1	59	53	314	447	11	135	5	16	159	142	646	1103	16	47	1	0	100	165	698	1011	26	277	34	77	652	268	1027	2335
	2	1988	9	0	2	0	23	9	24	58	14	0	3	0	34	14	34	85	21	0	4	0	39	16	43	102	34	0	7	0	58	24	63	152
	3	1988	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	0	0	0	0	0	0
	4	1988	10	6	0	1	15	0	2	24	16	10	0	1	22	0	3	36	24	6	0	0	25	0	4	35	39	10	0	0	37	0	6	53
	In	1988	26	25	3	2	97	62	340	529	41	145	8	17	215	156	683	1224	61	53	5	0	164	181	745	1148	99	287	41	77	747	292	1096	2540
	Out	1988	24	42	11	2	87	65	256	463	37	171	21	17	201	159	563	1132	56	64	23	1	145	183	594	1010	91	305	72	79	719	294	874	2343
	Total	1988	50	67	14	4	184	127	596	992	78	316	29	34	416	315	1246	2356	117	117	28	1	309	364	1339	2158	190	592	113	156	1466	586	1970	4883
4	1	1988	23	7	1	0	23	3	0	34	36	12	1	0	34	4	0	51	54	6	1	0	38	5	0	50	87	10	2	0	57	7	0	76
	2	1988	74	30	18	9	104	4	6	171	115	48	28	14	154	6	8	258	171	72	44	21	216	9	12	374	277	120	76	33	322	13	18	582
	3	1988	2	2	1	0	4	1	0	8	3	3	1	0	6	1	0	11	5	2	1	0	7	1	0	11	8	3	2	0	10	1	0	16
	4	1988	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	0	0	0	0	0	0
	In	1988	99	39	20	9	131	8	6	213	154	63	30	14	194	11	8	320	230	80	46	21	261	15	12	435	372	133	80	33	389	21	18	674
	Out	1988	73	42	4	12	146	10	21	235	113	67	5	18	216	14	29	349	169	86	6	25	284	20	38	459	274	143	10	39	423	29	56	700
	Total	1988	172	81	24	21	277	18	27	448	267	130	35	32	410	25	37	669	399	166	52	46	545	35	50	894	646	276	90	72	812	50	74	1374

Phase I Project

CHON BURI BYPASS – ROUTE 344

TRAFFIC FORECAST

INTERSECTION

PEAK HOUR
TMC-5 <D1>: 15 D2: 8 D3: 11 D4: 8

DIRECTION		Base Traffic Volume								Traffic Volume in 1994								Traffic Volume in 2000								Traffic Volume in 2008							
From	To	Year	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT
1	1	1988	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	0	0	0	0	0	0
	2	1988	14	16	1	4	53	22	124	220	21	26	1	6	79	33	176	321	32	16	1	0	91	38	221	367	52	27	2	0	135	56	325	545
	3	1988	16	27	4	1	41	27	203	303	25	148	10	16	132	103	488	897	37	60	9	0	70	121	501	761	60	299	47	77	607	201	735	1966
	4	1988	21	5	9	1	16	5	9	45	33	9	14	1	24	7	13	68	49	5	19	0	28	9	16	77	79	8	33	0	42	13	24	120
	In	1988	51	48	14	6	110	54	336	568	79	183	25	23	235	143	677	1286	118	81	29	0	189	168	738	1205	191	334	82	77	784	270	1084	2631
	Out	1988	29	47	21	4	99	33	255	459	45	180	37	21	217	112	562	1129	67	72	47	0	166	127	577	989	109	318	112	77	750	210	847	2314
	Total	1988	80	95	35	10	209	87	591	1027	124	363	62	44	452	255	1239	2415	185	153	76	0	355	295	1315	2194	300	652	194	154	1534	480	1931	4945
2	1	1988	5	19	4	2	38	9	80	152	7	31	6	3	56	14	113	223	11	20	9	0	64	16	142	251	18	33	15	0	95	24	209	376
	2	1988	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	0	0	0	0	0	0
	3	1988	8	3	0	0	19	3	12	37	13	5	0	0	29	4	17	55	19	2	0	0	32	4	20	58	31	3	0	0	48	6	29	86
	4	1988	91	66	60	26	141	12	9	314	142	107	95	39	209	18	13	481	211	160	150	58	292	26	18	704	342	267	258	91	435	39	26	1116
	In	1988	104	88	64	28	198	24	101	503	162	143	101	42	294	36	143	759	241	182	159	58	388	46	180	1013	391	303	273	91	578	69	264	1578
	Out	1988	101	79	69	29	202	29	162	570	157	127	108	43	301	42	230	851	234	161	167	54	393	51	289	1115	379	268	287	85	585	75	425	1725
	Total	1988	205	167	133	57	400	53	263	1073	319	270	209	85	595	78	373	1610	475	343	326	112	781	97	469	2128	770	571	560	176	1163	144	689	3303
3	1	1988	9	20	7	0	33	21	173	254	14	136	15	15	120	94	446	826	21	44	16	0	55	106	431	652	34	272	59	77	585	179	632	1804
	2	1988	8	4	9	1	21	1	26	62	13	6	14	1	32	1	37	91	19	2	20	0	36	1	44	103	31	3	34	0	54	1	65	157
	3	1988	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	0	0	0	0	0	0
	4	1988	25	8	12	3	37	7	2	69	38	13	19	4	55	11	3	105	57	5	28	1	62	11	4	111	92	8	48	2	92	16	6	172
	In	1988	42	32	28	4	91	29	201	385	65	155	48	20	207	106	486	1022	97	51	64	1	153	118	479	866	157	283	141	79	731	196	703	2133
	Out	1988	52	38	8	1	106	33	223	409	82	166	16	16	230	111	517	1056	121	67	18	0	180	129	535	929	196	310	62	77	771	213	785	2218
	Total	1988	94	70	36	5	197	62	424	794	147	321	64	36	437	217	1003	2078	218	118	82	1	333	247	1014	1795	353	593	203	156	1502	409	1488	4351
4	1	1988	15	8	10	2	28	3	2	53	24	13	16	3	41	4	3	80	35	8	22	0	47	5	4	86	57	13	38	0	70	7	6	134
	2	1988	79	59	59	24	128	6	12	288	123	95	93	36	190	8	17	439	183	143	146	54	266	12	24	645	296	238	251	85	396	18	35	1023
	3	1988	28	8	4	0	46	3	8	69	44	13	6	0	69	4	12	104	65	5	9	0	78	4	14	110	105	8	15	0	116	6	21	166
	4	1988	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	0	0	0	0	0	0
	In	1988	122	75	73	26	202	12	22	410	191	121	115	39	300	16	32	623	283	156	177	54	391	21	42	841	458	259	304	85	582	31	62	1323
	Out	1988	137	79	81	30	194	24	20	428	213	129	128	44	288	36	29	654	317	170	197	59	382	46	38	892	513	283	339	93	569	68	56	1408
	Total	1988	259	154	154	56	396	36	42	838	404	250	243	83	588	52	61	1277	600	326	374	113	773	67	80	1733	971	542	643	178	1151	99	118	2731

TRAFFIC FORECAST

INTERSECTION

PEAK HOUR
TMC-5 D1: 15 <D2>: 8 D3: 11 <D4>: 8

DIRECTION		Base Traffic Volume								Traffic Volume in 1994								Traffic Volume in 2000								Traffic Volume in 2008							
From	To	Year	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT
1	1	1988	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	0	0	0	0	0	0
	2	1988	11	36	0	2	39	7	84	168	17	59	0	3	58	11	120	251	25	37	0	0	66	12	150	265	40	62	0	0	98	18	221	399
	3	1988	21	10	0	1	29	11	117	168	33	120	4	16	114	79	366	699	49	42	0	0	49	93	348	532	79	269	32	77	576	159	510	1623
	4	1988	26	0	1	2	39	1	0	43	41	0	1	3	58	1	0	63	60	0	1	0	66	1	0	68	97	0	2	0	98	1	0	101
	In	1988	58	46	1	5	107	19	201	379	91	179	5	22	230	91	486	1013	134	79	1	0	181	106	498	865	216	331	34	77	772	178	731	2123
	Out	1988	60	28	14	3	90	30	231	396	94	150	27	19	205	107	528	1036	140	58	31	1	151	123	538	902	226	295	85	79	728	204	789	2180
	Total	1988	118	74	15	8	197	49	432	775	185	329	32	41	435	198	1014	2049	274	137	32	1	332	229	1036	1767	442	626	119	156	1500	382	1520	4303
2	1	1988	11	12	6	1	35	13	99	166	17	19	10	1	52	19	141	242	25	12	13	0	59	22	177	283	40	20	22	0	88	33	260	423
	2	1988	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	0	0	0	0	0	0
	3	1988	9	2	8	0	40	3	19	72	14	3	13	0	59	4	26	105	21	1	19	0	67	4	31	122	34	2	33	0	100	6	46	187
	4	1988	163	59	71	23	189	13	9	364	254	95	112	35	281	19	13	555	378	143	177	52	393	27	18	810	612	238	304	81	585	40	26	1274
	In	1988	183	73	85	24	264	29	127	602	285	117	135	36	392	42	180	902	424	156	209	52	519	53	226	1215	686	260	359	81	773	79	332	1884
	Out	1988	68	116	138	23	184	34	142	637	106	188	219	35	274	51	202	969	157	211	343	44	355	68	253	1274	254	352	589	69	528	101	372	2011
	Total	1988	251	189	223	47	448	63	269	1239	391	305	354	71	666	93	382	1871	581	367	552	96	874	121	479	2489	940	612	948	150	1301	180	704	3895
3	1	1988	17	5	2	2	20	15	122	166	27	113	7	18	101	85	373	697	40	35	5	1	33	97	344	515	65	257	41	79	552	165	504	1598
	2	1988	7	11	12	2	31	4	41	101	11	18	19	3	47	6	58	151	16	7	28	1	53	7	69	165	26	12	48	2	79	10	101	252
	3	1988	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	0	0	0	0	0	0
	4	1988	48	7	10	1	34	5	7	64	75	12	16	1	51	7	10	97	111	5	23	0	57	8	11	104	180	8	40	0	85	12	16	161
	In	1988	72	23	24	5	85	24	170	331	113	143	42	22	199	98	441	945	167	47	56	2	143	112	424	784	271	277	129	81	716	187	621	2011
	Out	1988	63	20	10	1	97	15	146	289	98	136	20	16	214	84	406	876	146	48	24	0	163	98	395	728	236	279	74	77	746	166	580	1922
	Total	1988	135	43	34	6	182	39	316	620	211	279	62	38	413	182	847	1821	313	95	80	2	306	210	819	1512	507	556	203	158	1462	353	1201	3933
4	1	1988	32	11	6	0	35	2	10	64	50	18	10	0	52	3	14	97	75	11	13	0	59	4	17	104	121	18	22	0	88	6	25	159
	2	1988	50	69	126	19	114	23	17	368	78	111	200	29	169	34	24	567	116	167	315	43	236	49	34	844	188	278	541	67	351	73	50	1360
	3	1988	33	8	2	0	28	1	10	49	51	13	3	0	41	1	14	72	76	5	5	0	47	1	16	74	123	8	9	0	70	1	24	112
	4	1988	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	0	0	0	0	0	0
	In	1988	115	88	134	19	177	26	37	481	179	142	213	29	262	38	52	736	267	183	333	43	342	54	67	1022	432	304	572	67	509	80	99	1631
	Out	1988	237	66	82	26	262	19	16	471	370	107	129	39	390	27	23	715	549	148	201	52	516	36	29	982	889	246	346	81	768	53	42	1536
	Total	1988	352	154	216	45	439	45	53	952	549	249	342	68	652	65	75	1451	816	331	534	95	858	90	96	2004	1321	550	918	148	1277	133	141	3167

TRAFFIC FORECAST

INTERSECTION

PEAK HOUR

TMC-5 D1: 15 D2: 8 <D3>: 11 D4: 8

DIRECTION		Base Traffic Volume									Traffic Volume in 1994								Traffic Volume in 2000								Traffic Volume in 2008							
From	To	Year	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT
1	1	1988	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	0	0	0	0	0	0
	2	1988	13	31	0	1	39	19	117	207	20	50	0	1	58	29	166	304	30	32	0	0	66	34	209	341	49	53	0	0	98	51	307	509
	3	1988	6	23	0	0	32	29	127	211	10	141	4	15	119	107	380	766	14	56	0	0	54	125	365	600	23	292	32	77	583	207	535	1726
	4	1988	5	7	3	1	27	5	13	56	7	12	4	1	40	7	18	82	11	7	6	0	46	9	23	91	18	12	10	0	68	13	34	137
	In	1988	24	61	3	2	98	53	257	474	37	203	8	17	217	143	564	1152	55	95	6	0	166	168	597	1032	90	357	42	77	749	271	876	2372
	Out	1988	38	24	14	4	86	44	302	474	58	143	25	21	199	127	628	1143	87	54	30	1	145	144	657	1031	141	289	83	79	720	235	965	2371
	Total	1988	62	85	17	6	184	97	559	948	95	346	33	38	416	270	1192	2295	142	149	36	1	311	312	1254	2063	231	646	125	156	1469	506	1841	4743
2	1	1988	3	8	1	2	25	10	98	144	4	13	1	3	37	15	139	208	6	8	1	0	42	17	174	242	10	13	2	0	63	25	256	359
	2	1988	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	0	0	0	0	0	0
	3	1988	10	6	3	4	35	4	14	66	16	10	4	6	52	6	20	98	24	4	6	1	59	7	24	101	39	7	10	2	88	10	35	152
	4	1988	89	49	57	17	149	16	6	294	139	79	91	26	222	23	8	449	206	119	143	38	310	33	12	655	334	198	246	59	462	49	18	1032
	In	1988	102	63	61	23	209	30	118	504	159	102	96	35	311	44	167	755	236	131	150	39	411	57	210	998	383	218	258	61	613	84	309	1543
	Out	1988	121	89	83	27	217	40	157	613	187	144	131	40	323	60	223	921	279	157	208	58	421	73	281	1198	453	261	358	91	626	109	413	1858
	Total	1988	223	152	144	50	426	70	275	1117	346	246	227	75	634	104	390	1676	515	288	358	97	832	130	491	2196	836	479	616	152	1239	193	722	3401
3	1	1988	12	6	9	2	36	28	200	281	18	114	18	18	125	104	484	863	27	36	20	1	61	117	476	711	44	259	66	79	594	195	699	1892
	2	1988	13	9	2	0	39	8	28	86	20	15	3	0	58	12	40	128	30	6	5	0	66	12	48	137	49	10	9	0	98	18	71	206
	3	1988	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	0	0	0	0	0	0
	4	1988	23	3	2	1	39	6	5	56	36	5	3	1	58	8	7	82	54	2	5	0	66	9	9	91	87	3	9	0	98	13	13	136
	In	1988	48	18	13	3	114	42	233	423	74	134	24	19	241	124	531	1073	111	44	30	1	193	138	533	939	180	272	84	79	790	226	783	2234
	Out	1988	49	43	4	4	112	36	149	348	77	173	9	21	238	117	412	970	114	69	8	1	188	136	403	805	185	314	45	79	783	223	591	2035
	Total	1988	97	61	17	7	226	78	382	771	151	307	33	40	479	241	943	2043	225	113	38	2	381	274	936	1744	365	586	129	158	1573	449	1374	4269
4	1	1988	23	10	4	0	25	6	4	49	36	16	6	0	37	8	5	72	54	10	9	0	42	10	7	78	87	17	15	0	63	15	10	120
	2	1988	95	49	81	26	139	13	12	320	147	79	128	39	207	19	17	489	219	119	203	58	289	27	24	720	355	198	349	91	430	40	35	1143
	3	1988	33	14	1	0	45	3	8	71	51	22	1	0	67	4	12	106	76	9	2	0	75	4	14	104	123	15	3	0	112	6	21	157
	4	1988	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	0	0	0	0	0	0
	In	1988	151	73	86	26	209	22	24	440	234	117	135	39	311	31	34	667	349	138	214	58	406	41	45	902	565	230	367	91	605	61	66	1420
	Out	1988	117	59	62	19	215	27	24	406	182	96	98	28	320	38	33	613	271	128	154	38	422	51	44	837	439	213	265	59	628	75	65	1305
	Total	1988	268	132	148	45	424	49	48	846	416	213	233	67	631	69	67	1280	620	266	368	96	828	92	89	1739	1004	443	632	150	1233	136	131	2725

TRAFFIC FORECAST

INTERSECTION

PEAK HOUR

TMC-6 <D1>: 13 D2: 10 D3: 0 D4: 8

DIRECTION		Base Traffic Volume									Traffic Volume in 1994								Traffic Volume in 2000								Traffic Volume in 2008							
From	To	Year	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT
1	1	1988	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	0	0	0	0	0	0
	2	1988	17	19	2	2	50	12	17	102	23	26	3	2	62	16	21	130	32	37	4	3	84	21	26	175	48	58	6	4	120	30	36	254
	3	1988	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	0	0	0	0	0	0
	4	1988	28	13	5	2	48	7	4	79	38	18	7	2	60	9	5	101	52	25	10	3	81	12	7	138	78	39	15	4	116	17	10	201
	In	1988	45	32	7	4	98	19	21	181	61	44	10	4	122	25	26	231	84	62	14	6	165	33	33	313	126	97	21	8	236	47	46	455
	Out	1988	41	25	2	4	59	18	10	118	55	35	3	4	74	24	12	152	75	49	4	6	100	32	16	207	112	78	6	8	143	46	22	303
	Total	1988	86	57	9	8	157	37	31	299	116	79	13	8	196	49	38	383	159	111	18	12	265	65	49	520	238	175	27	16	379	93	68	758
2	1	1988	23	18	2	2	44	15	8	89	31	25	3	2	55	20	10	115	42	36	4	3	74	26	13	156	63	57	6	4	106	37	18	228
	2	1988	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	0	0	0	0	0	0
	3	1988	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	0	0	0	0	0	0
	4	1988	52	21	17	5	139	11	24	217	71	30	24	6	172	15	30	277	97	42	33	8	233	19	38	373	145	66	49	11	333	27	52	538
	In	1988	75	39	19	7	183	26	32	306	102	55	27	8	227	35	40	392	139	78	37	11	307	45	51	529	208	123	55	15	439	64	70	766
	Out	1988	80	35	15	9	159	36	48	302	108	48	21	10	198	47	59	383	149	68	28	14	267	62	75	514	223	107	41	19	382	88	103	740
	Total	1988	155	74	34	16	342	62	80	608	210	103	48	18	425	82	99	775	288	146	65	25	574	107	126	1043	431	230	96	34	821	152	173	1506
3	1	1988	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	0	0	0	0	0	0
	2	1988	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	0	0	0	0	0	0
	3	1988	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	0	0	0	0	0	0
	4	1988	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	0	0	0	0	0	0
	In	1988	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	0	0	0	0	0	0
	Out	1988	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	0	0	0	0	0	0
	Total	1988	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	0	0	0	0	0	0
4	1	1988	18	7	0	2	15	3	2	29	24	10	0	2	19	4	2	37	33	13	0	3	26	6	3	51	49	21	0	4	37	9	4	75
	2	1988	63	16	13	7	109	24	31	200	85	22	18	8	136	31	38	253	117	31	24	11	183	41	49	339	175	49	35	15	262	58	67	486
	3	1988	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	0	0	0	0	0	0
	4	1988	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	0	0	0	0	0	0
	In	1988	81	23	13	9	124	27	33	229	109	32	18	10	155	35	40	290	150	44	24	14	209	47	52	390	224	70	35	19	299	67	71	561
	Out	1988	80	34	22	7	187	18	28	296	109	48	31	8	232	24	35	378	149	67	43	11	314	31	45	511	223	105	64	15	449	44	62	739
	Total	1988	161	57	35	16	311	45	61	525	218	80	49	18	387	59	75	668	299	111	67	25	523	78	97	901	447	175	99	34	748	111	133	1300

TRAFFIC FORECAST

INTERSECTION

PEAK HOUR

TMC-6 D1: 13 <D2>: 10 D3: 0 D4: 8

DIRECTION		Base Traffic Volume								Traffic Volume in 1994								Traffic Volume in 2000								Traffic Volume in 2008							
From	To	Year	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT
1	1	1988	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	0	0	0	0	0	0
	2	1988	15	12	1	1	37	3	13	67	20	17	1	1	46	4	17	86	27	24	1	1	62	6	21	115	40	38	1	1	89	9	29	167
	3	1988	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	0	0	0	0	0	0
	4	1988	38	10	2	2	29	5	2	50	52	14	3	2	36	6	2	63	71	19	4	3	48	8	3	85	106	30	6	4	69	11	4	124
	In	1988	53	22	3	3	66	8	15	117	72	31	4	3	82	10	19	149	98	43	5	4	110	14	24	200	146	68	7	5	158	20	33	291
	Out	1988	50	23	3	11	76	15	13	141	67	32	4	13	95	19	16	179	93	46	5	18	128	26	19	242	139	73	7	25	183	37	26	351
	Total	1988	103	45	6	14	142	23	28	258	139	63	8	16	177	29	35	328	191	89	10	22	238	40	43	442	285	141	14	30	341	57	59	642
2	1	1988	19	17	1	7	50	8	12	95	25	24	1	8	62	10	15	120	35	34	1	11	84	14	18	162	52	54	1	15	120	20	25	235
	2	1988	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	0	0	0	0	0	0
	3	1988	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	0	0	0	0	0	0
	4	1988	83	25	25	4	167	19	39	279	112	35	35	5	207	25	49	356	153	49	47	7	280	33	62	478	229	77	69	10	400	47	85	688
	In	1988	102	42	26	11	217	27	51	374	137	59	36	13	269	35	64	476	188	83	48	18	364	47	80	640	281	131	70	25	520	67	110	923
	Out	1988	86	35	29	9	168	16	27	284	116	50	40	12	209	21	35	367	158	70	53	15	282	28	43	491	236	111	78	21	404	40	59	713
	Total	1988	188	77	55	20	385	43	78	658	253	109	76	25	478	56	99	843	346	153	101	33	646	75	123	1131	517	242	148	46	924	107	169	1636
3	1	1988	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	0	0	0	0	0	0
	2	1988	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	0	0	0	0	0	0
	3	1988	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	0	0	0	0	0	0
	4	1988	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	0	0	0	0	0	0
	In	1988	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	0	0	0	0	0	0
	Out	1988	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	0	0	0	0	0	0
	Total	1988	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	0	0	0	0	0	0
4	1	1988	31	6	2	4	26	7	1	46	42	8	3	5	33	9	1	59	58	12	4	7	44	12	1	80	87	19	6	10	63	17	1	116
	2	1988	71	23	28	8	131	13	14	217	96	33	39	11	163	17	18	281	131	46	52	14	220	22	22	376	196	73	77	20	315	31	30	546
	3	1988	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	0	0	0	0	0	0
	4	1988	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	0	0	0	0	0	0
	In	1988	102	29	30	12	157	20	15	263	138	41	42	16	196	26	19	340	189	58	56	21	264	34	23	456	283	92	83	30	378	48	31	662
	Out	1988	121	35	27	6	196	24	41	329	164	49	38	7	243	31	51	419	224	68	51	10	328	41	65	563	335	107	75	14	469	58	89	812
	Total	1988	223	64	57	18	353	44	56	592	302	90	80	23	439	57	70	759	413	126	107	31	592	75	88	1019	618	199	158	44	847	106	120	1474

TRAFFIC FORECAST

INTERSECTION

PEAK HOUR

TMC-6 D1: 13 D2: 10 D3: 0 <D4>: 8

DIRECTION		Base Traffic Volume								Traffic Volume in 1994								Traffic Volume in 2000								Traffic Volume in 2008							
From	To	Year	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT
1	1	1988	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	0	0	0	0	0	0
	2	1988	24	10	3	0	47	12	24	96	33	14	4	0	58	16	30	122	45	19	6	0	78	21	38	162	67	30	9	0	112	30	52	233
	3	1988	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	0	0	0	0	0	0
	4	1988	41	5	13	0	47	10	6	81	56	7	18	0	58	14	7	104	76	10	24	0	78	18	9	139	114	16	35	0	112	26	12	201
	In	1988	65	15	16	0	94	22	30	177	89	21	22	0	116	30	37	226	121	29	30	0	156	39	47	301	181	46	44	0	224	56	64	434
	Out	1988	66	13	14	6	109	16	28	186	89	18	20	8	136	21	36	239	123	25	27	12	183	27	45	319	184	40	40	16	262	38	62	458
	Total	1988	131	28	30	6	203	38	58	363	178	39	42	8	252	51	73	465	244	54	57	12	339	66	92	620	365	86	84	16	486	94	126	892
2	1	1988	17	7	3	3	48	7	15	83	23	10	4	4	60	9	19	106	32	13	6	6	81	12	24	142	48	21	9	8	116	17	33	204
	2	1988	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	0	0	0	0	0	0
	3	1988	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	0	0	0	0	0	0
	4	1988	104	26	28	3	166	25	31	279	140	37	39	4	206	32	38	356	192	52	52	6	278	43	49	480	288	82	77	8	397	61	67	692
	In	1988	121	33	31	6	214	32	46	362	163	47	43	8	266	41	57	462	224	65	58	12	359	55	73	622	336	103	86	16	513	78	100	896
	Out	1988	152	32	47	8	178	35	49	349	206	45	65	11	221	46	61	449	281	62	88	14	298	61	77	600	420	98	130	20	427	87	105	867
	Total	1988	273	65	78	14	392	67	95	711	369	92	108	19	487	87	118	911	505	127	146	26	657	116	150	1222	756	201	216	36	940	165	205	1763
3	1	1988	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	0	0	0	0	0	0
	2	1988	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	0	0	0	0	0	0
	3	1988	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	0	0	0	0	0	0
	4	1988	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	0	0	0	0	0	0
	In	1988	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	0	0	0	0	0	0
	Out	1988	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	0	0	0	0	0	0
	Total	1988	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	0	0	0	0	0	0
4	1	1988	49	6	11	3	61	9	13	103	66	8	16	4	76	12	17	133	91	12	21	6	102	15	21	177	136	19	31	8	146	21	29	254
	2	1988	128	22	44	8	131	23	25	253	173	31	61	11	163	30	31	327	236	43	82	14	220	40	39	438	353	68	121	20	315	57	53	634
	3	1988	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	0	0	0	0	0	0
	4	1988	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	0	0	0	0	0	0
	In	1988	177	28	55	11	192	32	38	356	239	39	77	15	239	42	48	460	327	55	103	20	322	55	60	615	489	87	152	28	461	78	82	888
	Out	1988	145	31	41	3	213	35	37	360	196	44	57	4	264	46	45	460	268	62	76	6	356	61	58	619	402	98	112	8	509	87	79	893
	Total	1988	322	59	96	14	405	67	75	716	435	83	134	19	503	88	93	920	595	117	179	26	678	116	118	1234	891	185	264	36	970	165	161	1781

ROUTE 3 – ROUTE 316

TRAFFIC FORECAST

INTERSECTION

PEAK HOUR TMC-7 <D1>: 9 <D2>: 9 <D3>: 9 D4: 7

DIRECTION From	To	Year	Base Traffic Volume MC	PC	LB	HB	LT	MT	HT	ADT	Traffic Volume in 1994 MC	PC	LB	HB	LT	MT	HT	ADT	Traffic Volume in 2000 MC	PC	LB	HB	LT	MT	HT	ADT	Traffic Volume in 2008 MC	PC	LB	HB	LT	MT	HT	ADT
1	1	1988	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	0	0	0	0	0	0
	2	1988	6	2	3	1	24	1	1	32	8	3	4	1	30	1	1	40	12	4	6	1	41	1	1	54	18	6	9	1	59	1	1	77
	3	1988	4	7	13	1	28	10	15	74	5	10	19	1	36	14	19	99	7	13	25	1	48	18	25	130	10	21	37	1	69	26	35	189
	4	1988	6	1	0	0	12	3	0	16	8	1	0	0	15	4	0	20	12	1	0	0	20	6	0	27	18	2	0	0	29	9	0	40
	In	1988	16	10	16	2	64	14	16	122	21	14	23	2	81	19	20	159	31	18	31	2	109	25	26	211	46	29	46	2	157	36	36	306
	Out	1988	12	14	5	0	52	14	43	128	16	20	6	0	65	18	54	163	23	28	8	0	88	23	71	218	34	44	11	0	126	32	99	312
	Total	1988	28	24	21	2	116	28	59	250	37	34	29	2	146	37	74	322	54	46	39	2	197	48	97	429	80	73	57	2	283	68	135	618
2	1	1988	4	5	3	0	15	1	1	25	5	7	4	0	19	1	1	32	7	10	6	0	26	1	1	44	10	16	9	0	37	1	1	64
	2	1988	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	0	0	0	0	0	0
	3	1988	39	22	31	8	107	11	1	180	54	32	45	10	136	15	1	239	74	45	61	14	183	19	1	323	111	71	90	19	262	27	1	470
	4	1988	30	6	12	0	50	1	0	69	41	8	18	0	63	1	0	90	56	12	24	0	85	1	0	122	84	19	35	0	122	1	0	177
	In	1988	73	33	46	8	172	13	2	274	100	47	67	10	218	17	2	361	137	67	91	14	294	21	2	489	205	106	134	19	421	29	2	711
	Out	1988	80	26	48	4	188	13	7	286	110	37	70	5	238	18	8	376	152	51	94	7	321	23	10	506	227	80	139	9	460	33	13	734
	Total	1988	153	59	94	12	360	26	9	560	210	84	137	15	456	35	10	737	289	118	185	21	615	44	12	995	432	186	273	28	881	62	15	1445
3	1	1988	6	9	1	0	30	12	42	94	8	13	1	0	38	16	53	121	12	18	1	0	51	21	70	161	18	28	1	0	73	30	98	230
	2	1988	32	20	32	3	107	10	5	177	44	29	47	4	136	14	6	236	61	40	63	6	183	18	8	318	91	63	93	8	262	26	11	463
	3	1988	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	0	0	0	0	0	0
	4	1988	7	0	0	0	9	3	5	17	9	0	0	0	12	4	6	22	13	0	0	0	16	6	8	30	19	0	0	0	23	9	11	43
	In	1988	45	29	33	3	146	25	52	288	61	42	48	4	186	34	65	379	86	58	64	6	250	45	86	509	128	91	94	8	358	65	120	736
	Out	1988	45	30	44	9	140	22	16	261	62	43	64	11	178	30	20	346	85	59	86	15	240	38	26	464	127	94	127	20	344	54	36	675
	Total	1988	90	59	77	12	286	47	68	549	123	85	112	15	364	64	85	725	171	117	150	21	490	83	112	973	255	185	221	28	702	119	156	1411
4	1	1988	2	0	1	0	7	1	0	9	3	0	1	0	8	1	0	10	4	0	1	0	11	1	0	13	6	0	1	0	16	1	0	18
	2	1988	42	4	13	0	57	2	1	77	58	5	19	0	72	3	1	100	79	7	25	0	97	4	1	134	118	11	37	0	139	6	1	194
	3	1988	2	1	0	0	5	1	0	7	3	1	0	0	6	1	0	8	4	1	0	0	9	1	0	11	6	2	0	0	13	1	0	16
	4	1988	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	0	0	0	0	0	0
	In	1988	46	5	14	0	69	4	1	93	64	6	20	0	86	5	1	118	87	8	26	0	117	6	1	158	130	13	38	0	168	8	1	228
	Out	1988	43	7	12	0	71	7	5	102	58	9	18	0	90	9	6	132	81	13	24	0	121	13	8	179	121	21	35	0	174	19	11	260
	Total	1988	89	12	26	0	140	11	6	195	122	15	38	0	176	14	7	250	168	21	50	0	238	19	9	337	251	34	73	0	342	27	12	488

TRAFFIC FORECAST

INTERSECTION

PEAK HOUR TMC-7 D1: 9 D2: 9 D3: 9 <D4>: 7

DIRECTION From	To	Year	Base Traffic Volume MC	PC	LB	HB	LT	MT	HT	ADT	Traffic Volume in 1994 MC	PC	LB	HB	LT	MT	HT	ADT	Traffic Volume in 2000 MC	PC	LB	HB	LT	MT	HT	ADT	Traffic Volume in 2008 MC	PC	LB	HB	LT	MT	HT	ADT
1	1	1988	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	0	0	0	0	0	0
	2	1988	8	4	3	1	9	0	0	17	11	5	4	1	12	0	0	22	14	7	6	1	16	0	0	30	21	11	9	1	23	0	0	44
	3	1988	6	1	7	0	29	0	16	53	8	1	11	0	37	0	20	69	12	1	14	0	50	0	26	91	18	2	21	0	72	0	36	131
	4	1988	3	0	2	0	4	1	0	7	4	0	3	0	5	1	0	9	6	0	4	0	7	1	0	12	9	0	6	0	10	1	0	17
	In	1988	17	5	12	1	42	1	16	77	23	6	18	1	54	1	20	100	32	8	24	1	73	1	26	133	48	13	36	1	105	1	36	192
	Out	1988	29	11	4	0	46	14	32	107	39	15	5	0	58	18	40	136	53	20	7	0	78	23	52	180	79	32	10	0	112	32	72	258
	Total	1988	46	16	16	1	88	15	48	184	62	21	23	1	112	19	60	236	85	28	31	1	151	24	78	313	127	45	46	1	217	33	108	450
2	1	1988	4	4	1	0	11	5	1	22	5	5	1	0	14	6	1	27	7	7	1	0	18	8	1	35	10	11	1	0	26	11	1	50
	2	1988	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	0	0	0	0	0	0
	3	1988	49	8	20	5	54	8	3	98	67	12	29	6	68	10	4	129	92	16	39	8	92	14	5	174	138	25	57	11	132	20	7	252
	4	1988	31	3	8	0	44	3	0	58	43	4	12	0	56	4	0	76	59	6	16	0	75	6	0	103	88	9	24	0	107	9	0	149
	In	1988	84	15	29	5	109	16	4	178	115	21	42	6	138	20	5	232	158	29	56	8	185	28	6	312	236	45	82	11	265	40	8	451
	Out	1988	125	8	82	4	137	9	8	248	173	11	119	4	173	12	9	328	235	15	161	5	234	16	12	443	352	23	237	6	335	23	16	640
	Total	1988	209	23	111	9	246	25	12	426	288	32	161	10	311	32	14	560	393	44	217	13	419	44	18	755	588	68	319	17	600	63	24	1091
3	1	1988	11	7	3	0	32	9	31	82	15	10	4	0	40	12	39	105	20	13	6	0	54	15	51	139	30	21	9	0	77	21	71	199
	2	1988	53	2	46	2	71	7	7	135	73	3	67	2	89	9	8	178	100	4	90	3	121	12	11	241	150	6	132	4	173	17	15	347
	3	1988	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	0	0	0	0	0	0
	4	1988	7	1	0	0	13	0	1	15	9	1	0	0	17	0	1	19	13	1	0	0	23	0	1	25	19	2	0	0	33	0	1	36
	In	1988	71	10	49	2	116	16	39	232	97	14	71	2	146	21	48	302	133	18	96	3	198	27	63	405	199	29	141	4	283	38	87	582
	Out	1988	55	10	27	5	90	9	19	160	75	14	40	6	113	11	24	208	104	18	53	8	153	15	31	278	156	29	78	11	220	21	43	402
	Total	1988	126	20	76	7	206	25	58	392	172	28	111	8	259	32	72	510	237	36	149	11	351	42	94	683	355	58	219	15	503	59	130	984
4	1	1988	14	0	0	0	3	0	0	3	19	0	0	0	4	0	0	4	26	0	0	0	6	0	0	6	39	0	0	0	9	0	0	9
	2	1988	64	2	33	1	57	2	1	96	89	3	48	1	72	3	1	128	121	4	65	1	97	4	1	172	181	6	96	1	139	6	1	249
	3	1988	0	1	0	0	7	1	0	9	0	1	0	0	8	1	0	10	0	1	0	0	11	1	0	13	0	2	0	0	16	1	0	19
	4	1988	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	0	0	0	0	0	0
	In	1988	78	3	33	1	67	3	1	108	108	4	48	1	84	4	1	142	147	5	65	1	114	5	1	191	220	8	96	1	164	7	1	277
	Out	1988	41	4	10	0	61	4	1	80	56	5	15	0	78	5	1	104	78	7	20	0	105	7	1	140	116	11	30	0	150	10	1	202
	Total	1988	119	7	43	1	128	7	2	188	164	9	63	1	162	9	2	246	225	12	85	1	219	12	2	331	336	19	126	1	314	17	2	479

Note. <Di>: Peak direction & peak time of table
ADT: Total traffic volume per hour excluded MC

Phase II Project

ROUTE 3 – ROUTE 3126

TRAFFIC FORECAST

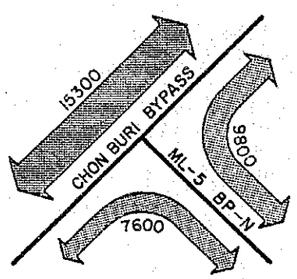
INTERSECTION

PEAK HOUR

NORMAL TRAFFIC TMC-8 <D1>: 7 <D2>: 7 <D3>: 7 D4: 0

DIRECTION			Base Traffic Volume								Traffic Volume in 1994								Traffic Volume in 2000								Traffic Volume in 2008							
From	To	Year	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT	MC	PC	LB	HB	LT	MT	HT	ADT
1	1	1988	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	0	0	0	0	0	0
	2	1988	155	47	26	16	62	2	12	165	235	70	41	22	95	3	16	247	331	102	58	30	135	4	21	350	499	164	87	45	202	6	30	534
	3	1988	181	55	105	15	43	4	2	224	274	83	167	21	66	5	3	345	387	121	236	28	93	7	4	489	584	194	353	42	139	10	6	744
	4	1988	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	0	0	0	0	0	0
	In	1988	336	102	131	31	105	6	14	389	509	153	208	43	161	8	19	592	718	223	294	58	228	11	25	839	1083	358	440	87	341	16	36	1278
	Out	1988	296	102	197	45	133	10	5	492	449	154	314	62	204	13	6	753	633	222	444	83	289	17	8	1063	954	356	665	123	432	24	11	1611
	Total	1988	632	204	328	76	238	16	19	881	958	307	522	105	365	21	25	1345	1351	445	738	141	517	28	33	1902	2037	714	1105	210	773	40	47	2889
2	1	1988	155	51	25	19	74	7	5	181	235	77	40	26	113	9	6	271	331	111	57	35	160	12	8	383	499	178	85	52	239	17	11	582
	2	1988	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	0	0	0	0	0	0
	3	1988	20	15	10	1	8	0	0	34	31	22	16	1	13	0	0	52	43	32	22	1	18	0	0	73	65	51	33	1	27	0	0	112
	4	1988	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	0	0	0	0	0	0
	In	1988	175	66	35	20	82	7	5	215	266	99	56	27	126	9	6	323	374	143	79	36	178	12	8	456	564	229	118	53	266	17	11	694
	Out	1988	166	49	27	19	67	3	12	177	252	73	43	26	102	4	16	264	355	107	61	36	145	5	21	375	535	172	91	54	217	7	30	571
	Total	1988	341	115	62	39	149	10	17	392	518	172	99	53	228	13	22	587	729	250	140	72	323	17	29	831	1099	401	209	107	483	24	41	1265
3	1	1988	141	51	172	26	59	3	0	311	214	77	274	36	91	4	0	482	302	111	387	48	129	5	0	680	455	178	580	71	193	7	0	1029
	2	1988	11	2	1	3	5	1	0	12	17	3	2	4	7	1	0	17	24	5	3	6	10	1	0	25	36	8	4	9	15	1	0	37
	3	1988	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	0	0	0	0	0	0
	4	1988	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	0	0	0	0	0	0
	In	1988	152	53	173	29	64	4	0	323	231	80	276	40	98	5	0	499	326	116	390	54	139	6	0	705	491	186	584	80	208	8	0	1066
	Out	1988	201	70	115	16	51	4	2	258	305	105	183	22	79	5	3	397	430	153	258	29	111	7	4	562	649	245	386	43	166	10	6	856
	Total	1988	353	123	288	45	115	8	2	581	536	185	459	62	177	10	3	896	756	269	648	83	250	13	4	1267	1140	431	970	123	374	18	6	1922
4	1	1988	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	0	0	0	0	0	0
	2	1988	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	0	0	0	0	0	0
	3	1988	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	0	0	0	0	0	0
	4	1988	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	0	0	0	0	0	0
	In	1988	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	0	0	0	0	0	0
	Out	1988	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	0	0	0	0	0	0
	Total	1988	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	0	0	0	0	0	0

Note. <Di>: Peak direction & peak time of table
ADT: Total traffic volume per hour excluded MC



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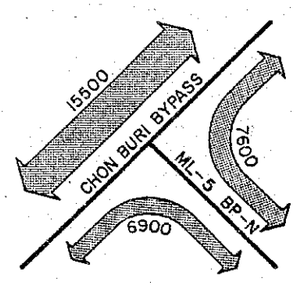

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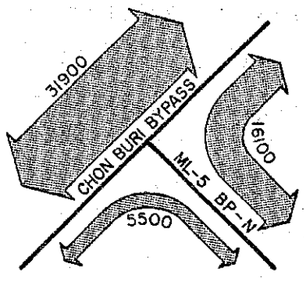

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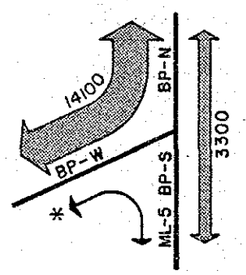

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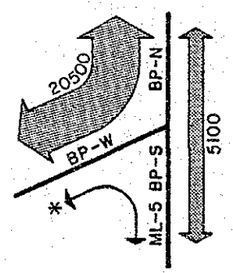

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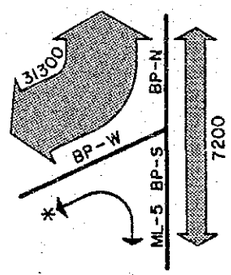
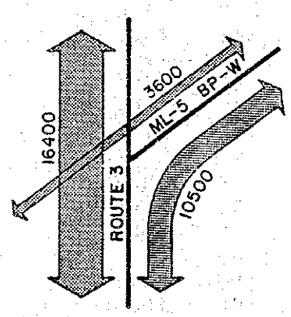


2008

* NEGLIGIBLE SMALL : BUT NOT ZERO



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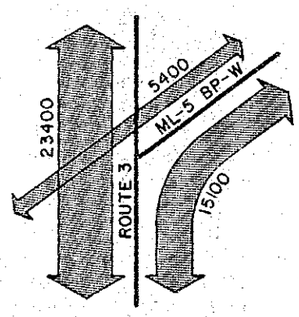

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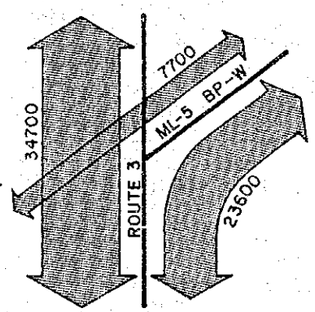

2008**

** EXCLUDED LOCAL TRAFFIC AROUND INTERSECTION

Appendix 3.4.7 TURNING MOVEMENTS ON PLANNED INTERSECTIONS

Appendix 3.4.8 ON/OFF TRAFFIC FLOW FOR ML-9 BY DIRECTION

(Unit: Vehicles/Day)

Project Code	Direction	Year	Traffic Volume MC	PC	LB	HB	LT	MT	HT	ADT
ML-9	BKK Center	1994	3679	9498	817	1966	3803	2794	1906	20784
	-	2000	5309	13855	1200	2708	5302	3944	2743	29752
	Section 1	2008	8300	22245	2011	3986	7867	5781	3962	45852
	SriNakarin N	1994	2729	2967	2	46	331	5	33	3384
	-	2000	3938	4332	3	63	462	8	47	4915
	BKK Center	2008	6160	6955	5	94	686	11	68	7819
	SriNakarin N	1994	1827	2407	16	118	473	59	106	3179
	-	2000	2636	3512	24	162	659	86	151	4594
	Section 1	2008	4120	5638	39	239	978	121	219	7234
	SriNakarin S	1994	1452	1996	18	120	444	64	109	2751
	-	2000	2093	2911	26	165	619	93	155	3969
	BKK Center	2008	3270	4675	42	243	919	132	225	6236
	SriNakarin S	1994	972	1619	134	306	634	710	346	3749
	-	2000	1401	2360	197	422	883	1000	500	5362
	Section 1	2008	2187	3790	330	621	1311	1466	721	8239
	OuterRingR.N	1994	1795	3415	27	197	756	65	171	4631
	-	2000	2592	4984	40	272	1054	93	244	6687
	Section 1	2008	4058	8000	65	402	1562	132	356	10517
	OuterRingR.N	1994	1099	2490	239	556	1090	840	609	5824
	-	2000	1586	3631	351	765	1520	1185	876	8328
	Section 2	2008	2478	5830	589	1126	2255	1740	1265	12805
	OuterRingR.S	1994	1018	2307	222	514	1010	779	563	5395
	-	2000	1469	3365	325	709	1408	1098	811	7716
	Section 1	2008	2296	5402	546	1043	2089	1612	1172	11864
	OuterRingR.S	1994	379	681	63	164	309	465	175	1857
	-	2000	546	994	92	226	432	658	253	2655
	Section 2	2008	851	1597	154	332	641	964	364	4052
	R.3119 N	1994	1037	1070	0	19	87	1347	40	2563
	-	2000	1509	1563	0	26	143	1905	70	3707
	Section 2	2008	2378	2531	0	38	244	2807	118	5738
	R.3119 N	1994	121	121	0	8	93	10	25	257
	-	2000	174	177	0	10	129	13	36	365
	Section 3	2008	270	283	0	15	189	19	52	558
	R.3119 S	1994	1195	1497	100	113	390	1059	53	3212
	-	2000	1736	2182	148	153	563	1499	88	4633
	Section 2	2008	2729	3528	248	226	861	2212	144	7219
	R.3119 S	1994	76	23	15	0	31	5	22	96
	-	2000	109	34	23	0	43	7	32	139
	Section 3	2008	169	54	38	0	63	10	45	210

(Unit: Vehicles/Day)

Project Code	Direction	Year	Traffic Volume MC	PC	LB	HB	LT	MT	HT	ADT
ML-9	R.314 S	1994	0	0	0	319	0	552	58	929
	-	2000	17	0	0	245	0	764	93	1102
	Section 3	2008	354	0	0	100	0	1106	61	1267
	R.314 S	1994	167	241	12	0	197	0	0	450
	-	2000	0	705	63	0	321	0	0	1089
	Section 4	2008	0	1781	132	0	552	0	0	2465
	R.314 N	1994	379	515	534	77	541	282	355	2304
	-	2000	543	748	785	107	748	397	504	3289
	Section 3	2008	844	1204	1317	157	1103	583	726	5090
	R.314 N	1994	170	456	172	104	456	84	403	1675
	-	2000	252	683	271	153	637	120	569	2433
	Section 4	2008	408	1138	466	239	948	178	837	3806
	R.315 W	1994	1266	4236	131	362	2119	387	1470	8705
	-	2000	1721	6388	210	568	2968	556	2101	12791
	Section 4	2008	2575	10716	355	920	4422	828	3118	20359
	R.315 W	1994	147	0	33	145	655	11	18	862
	-	2000	191	0	52	215	914	16	25	1222
	Section 5	2008	268	0	90	336	1361	24	37	1848
	R.315 E	1994	135	434	0	113	140	24	81	792
	-	2000	182	650	0	167	196	35	114	1162
	Section 4	2008	269	1083	0	262	292	52	168	1857
	R.315 E	1994	191	495	33	131	201	70	193	1123
	-	2000	257	741	52	193	282	101	271	1640
	Section 5	2008	376	1235	90	303	420	151	399	2598
	R.344 W	1994	388	495	66	276	856	81	211	1985
	-	2000	522	741	104	408	1196	117	296	2862
	Section 5	2008	765	1235	180	639	1781	175	436	4446
	R.344 W	1994	682	1534	734	1051	3259	1375	3564	11517
	-	2000	1118	2290	1153	1521	4518	1934	5034	16450
	Section 6	2008	2002	3694	1991	2348	6711	2686	6891	24321
	R.344 E	1994	650	1124	51	472	1186	151	344	3328
	-	2000	879	1684	80	698	1657	216	487	4822
	Section 5	2008	1298	2806	138	1093	2467	321	716	7541
	R.344 E	1994	3	49	7	28	86	3	2	175
	-	2000	5	73	10	41	120	4	3	251
	Section 6	2008	7	121	18	64	178	7	5	393

Note. N: North section E: East section S: South section
W: West section

Appendix 4.2.1 MINIMUM DESIGN STANDARDS FOR PRIMARY HIGHWAYS

Controlling Factors

1. Access control : When designated under the Highway Law.
2. Highway crossing : Grade separation only after proven viable by economic feasibility calculations.
3. Railroad crossing: Grade separation only after proven viable by economic feasibility calculations.
4. Bridge width (1) : Bridge width shall be one of the following
   (a) Full roadway width (shoulder to shoulder or curb to curb)
   (b) 1.50m greater than carriageway width
5. Sidewalk (2): Sidewalk shall be one of the following
   (a) 1.50m for bridges in urban and suburban areas
   (b) 1.00m for bridges in rural areas.
   (c) 05.0m for bridges with no pedestrian
6. Vertical clearance = 4.90m (16 ft.)
7. Design bridge loading = HS 20-44 (MS 18)
8. Pavement design shall be based on the accumulated number of equivalent axle loads predicted during the first 7-year after construction.
9. Follow AASHTO recommendation for any design details not separately specified.

	P_D	P_1	P_2	P_3	Remarks
Average Daily Traffic	Above 8,000	4,000-8,000	2,000-4,000	Below 2,000	
Design Speed k.p.h.					
Flat and moderately rolling	← 80 - 100 →				
Rolling and hilly	← 60 - 80 →				
Mountainous	← 50 - 60 →				
Maximum Gradient %					
Flat and moderately rolling	← 4 →				
Rolling and hilly	← 6 →				
Mountainous	← 8 →				
Suggested Surface Type	← High →		← Intermediate →		
Width of Carriageway m.	Divided2@7.00	7.00	6.50	6.00	
Width of Carriageway m.	2.50, 1.50*	2.50	2.25	2.00	* on right side
Right of Way m.	← 60 - 80 →				

Explanatory Notes

1. Bridge shall be to the full roadway width except as specified below
   (a) Bridges in urban areas
   (b) Bridges in short curves
   (c) Bridges with low traffic volumes
   (d) Bridges with special conditions such as crossing large river
2. Where required by the number of pedestrians, a minimum of one meter of sidewalk shall be provided on both sides of 2-lane 2-way highway and on left side of divided highway
3. Design speed may be relaxed in exceptional circumstances on account of right of way difficulties or mountainous terrian.
4. Refer to the AASHTO policy on Geometric Design of Rural Highways to relate desirable grade lengths, climbing lane, etc.
5. May be reduced in urban or semi-urban conditions at the discretion of the Department provided that a suitable cross section including service roads, where necessary, is obtainable.
6. Class P_D roads are required on the basis of a 7-year ADT projection or be justified by economic feasibility calculations. Class P_1 to P_3 roads are required on the basis of a 15-year ADT projection.

Remark

In special cases the Department may reduce the carriageway width to 3.5, 4, 4.5 or 5m on various roadbed widths, i.e.,5m on 8m roadbed width. Such the case the case the class of the road will be defined as class P_3(5/8)if the geometric standard of the road section in the said case below than P_3 then the road class will be defined as P_3(5/8).

Appendix 4.2.2 MINIMUM DESIGN STANDARDS FOR SECONDARY HIGHWAYS

Controlling Factors

1. Access control : When designated under the Highway Law.
2. Highway crossing : Grade separation only after proven viable by economic feasibility calculations.
3. Railroad crossing: Grade separation only after proven viable by feasibility calculations.
4. Bridge width (1) : Bridge width shall be one of the following
   (a) Full roadway width (shoulder to shoulder or curb to curb)
   (b) 1.50m greater than carriageway width
5. Sidewalk (2): Sidewalk shall be one of the following
   (a) 1.50m for bridges in urban and suburban areas.
   (b) 1.00m for bridges in rural areas.
   (c) 0.50m for bridges with no pedestrian
6. Vertical clearance = 4.30m (14 ft.)
7. Design bridge loading = HS 20-44 (MS 18)
8. Pavement design shall be based on the accumulated number of equivalent axle load predicted during the first 7-year after construction.
9. Follow AASHTO recommendation for any design details not separately specified.

	S_D	S_1	S_2	S_3	S_4	S_5	Remarks
Average Daily Traffic	Above 8,000	4,000-8,000	2,000-4,000	1,000-2,000	300-1,000	Below 300	
Design Speed k.p.h.							
Flat and moderately rolling	← 70 - 90 →						
Rolling and hilly	← 55 - 70 →						
Mountainous	← 40 - 50 →						
Maximum Gradient %							
Flat and moderately rolling	← 6 →						
Rolling and hilly	← 8 →						
Mountainous	← 10 →						
Suggested Surface Type	← High →		← Intermediate →		Intermediate To - low	Soil Aggregate	
Width of Carriageway m.	Divided2@7.00	7.00	6.50	6.00	5.50	9.00	
Width of Shoulder m.	2.50, 1.50*	2.50	2.25	2.00	1.75	Travelled way	*on right side
Right of Way m.	← 40 - 60 →						

Explanatory Notes

1. Bridges shall be to the full roadway width except as specified below
   (a) Bridges in urban areas
   (b) Bridges in short curves
   (c) Bridges with low traffic volumes
   (d) Bridges with special conditions such as crossing large river
2. Where required by the number of pedestrians, a minimum of one meter of sidewalk shall be provided on both sides of 2-lane 2-way highway and on left side of divided highway.
3. Design speed may be relaxed in exceptional circumstances on account of way difficulties or mountainous terrian.
4. Refer to the AASHTO Policy on Geometric Design of Rural Highways to relate desirable grade lengths, climbing lane, etc.
5. May be reduced in urban or semi-urban conditions at the discretion of the Department provided that a suitable cross section including service roads, where necessary, is obtainable.
6. Class S_D roads are required on the basis of a 7-year ADT projection or be justified by economic feasibility calculations. Class S_1, S_2 and S_3 are required on the basis of a 15-year ADT projection. Class S_1 roads may exceed an ADT projection of 8,000 beyond the 7th year and should be planned for upgrading to S_D when ADT reaches 8,000 or it is shown to be economically viable. Class S_4 roads have a projected ADT more than 300 in 7 years and less than 1,000 in 15 years. Class S_5 roads have a projected ADT less than 300 in 7 years.

Remark

In special cases, the Department may reduce the carriageway width to 3.5, 4, 4.5 or 5m on various roadbed widths, i.e., 5m on 8m roadbed width. Such the case, the class of the road will be defined as class S_4 (5/8). If the geometric standard of the road section in the said case below than S_4 then the road class will be defined as S_4(5/8).