A5-7 Micro Demand Forecast (1/69)

No.	Year	Demand									
		Total	R1	R2	R3	S1	S2	H1	GR	OT	SP
C1010	1994	292	47	46	0	164	0	0	15	20	0
	1999	366	56	69	0	191	0	0	30	20	0
	2004	494	66	91	0	272	0	0	45	20	0
	2009	567	63	63	63	63	63	63	63	63	63
	Area :	255,683	(m^2)	Number of Houses :		637					
C1020	1994	274	124	0	0	25	25	0	25	75	0
	1999	340	148	0	0	30	37	0	50	75	0
	2004	451	173	0	0	42	86	0	75	75	0
	2009	685	320	0	0	67	123	0	100	75	0
	Area :	206,244	(m^2)	Number of Houses :		442					
C1030	1994	283	163	29	0	56	0	0	15	20	0
	1999	355	196	44	0	65	0	0	30	20	0
	2004	442	228	57	0	92	0	0	45	20	0
	2009	735	422	86	0	147	0	0	60	20	0
	Area :	302,505	(m^2)	Number of Houses :		563					
C1040	1994	233	77	0	0	37	28	0	0	40	51
	1999	281	94	0	0	43	42	0	0	40	62
	2004	381	108	0	0	62	97	0	0	40	74
	2009	564	198	0	0	99	138	0	0	40	89
	Area :	160,181	(m^2)	Number of Houses :		384					
C1050	1994	229	19	6	0	22	107	0	25	50	0
	1999	321	29	8	0	25	159	0	50	50	0
	2004	576	34	11	0	36	370	0	75	50	0
	2009	814	63	16	0	57	528	0	100	50	0
	Area :	141,405	(m^2)	Number of Houses :		650					
C1060	1994	367	0	0	0	337	0	10	0	20	0
	1999	460	0	0	0	395	0	15	0	20	30
	2004	631	0	0	0	561	0	20	0	20	30
	2009	964	0	0	0	894	0	20	0	20	30
	Area :	185,698	(m^2)	Number of Houses :		563					
C1070	1994	293	0	0	0	179	24	40	5	45	0
	1999	358	0	0	0	208	35	60	10	45	0
	2004	516	0	0	0	296	80	80	15	45	0
	2009	732	0	0	0	473	114	80	20	45	0
	Area :	140,198	(m^2)	Number of Houses :		491					
C1080	1994	380	0	0	0	275	0	40	10	55	0
	1999	458	0	0	0	323	0	60	20	55	0
	2004	624	0	0	0	459	0	80	30	55	0
	2009	907	0	0	0	732	0	80	40	55	0
	Area :	151,878	(m^2)	Number of Houses :		473					
C2010	1994	149	106	0	0	0	8	0	20	15	0
	1999	195	128	0	0	0	12	0	40	15	0
	2004	249	148	0	0	0	26	0	60	15	0
	2009	404	272	0	0	0	37	0	80	15	0
	Area :	143,706	(m^2)	Number of Houses :		250					

A5-7 Micro Demand Forecast (2/69)

No.	Year	Demand									
		Total	R1	R2	R3	S1	S2	H1	GR	OT	SP
C2020	1994	245	6	56	0	33	0	0	110	30	10
	1999	396	7	91	0	38	0	0	220	30	10
	2004	554	9	120	0	55	0	0	330	30	10
	2009	763	15	181	0	87	0	0	440	30	10
	Area : 958,478 (m^2) Number of Houses : 32,923										
C2030	1994	338	138	0	0	0	20	0	15	115	50
	1999	389	165	0	0	0	29	0	30	115	50
	2004	469	192	0	0	0	67	0	45	115	50
	2009	672	353	0	0	0	94	0	60	115	50
	Area : 321,584 (m^2) Number of Houses : 984										
C2040	1994	217	0	0	0	0	37	30	20	50	80
	1999	270	0	0	0	0	55	45	40	50	80
	2004	376	0	0	0	0	126	60	60	50	80
	2009	0	0	0	0	0	0	0	0	0	0
	Area : 94,246 (m^2) Number of Houses : 585										
C2050	1994	239	116	0	0	0	10	0	15	10	88
	1999	295	141	0	0	0	14	0	30	10	100
	2004	362	164	0	0	0	33	0	45	10	110
	2009	544	302	0	0	0	46	0	60	10	126
	Area : 168,198 (m^2) Number of Houses : 298										
C2060	1994	172	0	0	0	33	99	10	20	10	0
	1999	251	0	0	0	39	147	15	40	10	0
	2004	488	0	0	0	55	343	20	60	10	0
	2009	687	0	0	0	87	490	20	80	10	0
	Area : 99,615 (m^2) Number of Houses : 550										
C2070	1994	166	0	0	0	114	47	0	0	5	0
	1999	207	0	0	0	132	70	0	0	5	0
	2004	356	0	0	0	188	163	0	0	5	0
	2009	539	0	0	0	301	233	0	0	5	0
	Area : 101,191 (m^2) Number of Houses : 421										
C2080	1994	312	0	0	0	237	0	0	15	40	20
	1999	366	0	0	0	276	0	0	30	40	20
	2004	499	0	0	0	394	0	0	45	40	20
	2009	750	0	0	0	630	0	0	60	40	20
	Area : 130,171 (m^2) Number of Houses : 403										
C2090	1994	324	0	0	0	284	0	0	10	30	0
	1999	421	0	0	0	371	0	0	20	30	0
	2004	588	0	0	0	528	0	0	30	30	0
	2009	910	0	0	0	840	0	0	40	30	0
	Area : 194,355 (m^2) Number of Houses : 591										
C2100	1994	327	0	0	0	287	0	0	5	15	20
	1999	380	0	0	0	335	0	0	10	15	20
	2004	528	0	0	0	478	0	0	15	15	20
	2009	817	0	0	0	762	0	0	20	15	20
	Area : 168,306 (m^2) Number of Houses : 510										

A5-7 Micro Demand Forecast (3/69)

No.	Year	Demand									
		Total	R1	R2	R3	S1	S2	H1	GR	OT	SP
C3010	1994	177	0	74	0	60	23	0	0	20	0
	1999	307	0	182	0	70	35	0	0	20	0
	2004	441	0	242	0	100	79	0	0	20	0
	2009	650	0	360	0	158	112	0	0	20	0
	Area :	288,833	(m^2)	Number of Houses :		548					
C3020	1994	373	189	0	0	38	16	20	0	70	40
	1999	434	227	0	0	44	23	30	0	70	40
	2004	528	262	0	0	63	53	40	0	70	40
	2009	809	483	0	0	100	76	40	0	70	40
	Area :	294,808	(m^2)	Number of Houses :		807					
C3030	1994	285	0	106	0	84	75	0	5	15	0
	1999	406	0	173	0	97	111	0	10	15	0
	2004	658	0	230	0	139	259	0	15	15	0
	2009	967	0	342	0	221	369	0	20	15	0
	Area :	332,827	(m^2)	Number of Houses :		1,072					
C3040	1994	319	114	68	0	0	42	0	10	85	0
	1999	404	136	100	0	0	63	0	20	85	0
	2004	549	156	131	0	0	147	0	30	85	0
	2009	820	290	195	0	0	210	0	40	85	0
	Area :	307,806	(m^2)	Number of Houses :		765					
C3050	1994	211	0	49	0	147	0	0	0	15	0
	1999	258	0	73	0	170	0	0	0	15	0
	2004	355	0	97	0	243	0	0	0	15	0
	2009	550	0	146	0	389	0	0	0	15	0
	Area :	177,970	(m^2)	Number of Houses :		488					
C3060	1994	285	129	0	0	66	0	0	20	70	0
	1999	353	167	0	0	76	0	0	40	70	0
	2004	432	194	0	0	108	0	0	60	70	0
	2009	681	359	0	0	172	0	0	80	70	0
	Area :	275,150	(m^2)	Number of Houses :		2,707					
C3070	1994	162	29	24	0	0	34	0	10	15	50
	1999	220	33	52	0	0	50	0	20	15	50
	2004	367	43	113	0	0	116	0	30	15	50
	2009	557	83	201	0	0	168	0	40	15	50
	Area :	751,647	(m^2)	Number of Houses :		22,520					
C3080	1994	264	0	63	0	114	62	0	20	5	0
	1999	365	0	93	0	133	94	0	40	5	0
	2004	632	0	164	0	187	216	0	60	5	0
	2009	999	0	306	0	299	309	0	80	5	0
	Area :	372,956	(m^2)	Number of Houses :		2,518					
C3090	1994	234	0	139	0	40	30	0	5	20	0
	1999	339	0	203	0	46	60	0	10	20	0
	2004	606	0	366	0	65	140	0	15	20	0
	2009	1,032	0	690	0	103	199	0	20	20	0
	Area :	649,511	(m^2)	Number of Houses :		6,949					

A5-7 Micro Demand Forecast (4/69)

No.	Year	Demand									
		Total	R1	R2	R3	S1	S2	H1	GR	OT	SP
C3100	1994	221	42	56	0	109	4	0	5	5	0
	1999	281	50	84	0	126	6	0	10	5	0
	2004	387	59	112	0	182	14	0	15	5	0
	2009	609	108	168	0	288	20	0	20	5	0
	Area : 229,264 (m^2) Number of Houses : 561										
C4010	1994	288	0	31	0	132	25	0	0	50	50
	1999	352	0	62	0	154	36	0	0	50	50
	2004	488	0	82	0	221	85	0	0	50	50
	2009	695	0	123	0	351	121	0	0	50	50
	Area : 385,812 (m^2) Number of Houses : 9,033										
C4020	1994	238	0	75	0	148	0	0	5	10	0
	1999	337	0	143	0	174	0	0	10	10	0
	2004	463	0	191	0	247	0	0	15	10	0
	2009	709	0	285	0	394	0	0	20	10	0
	Area : 270,279 (m^2) Number of Houses : 719										
C4030	1994	282	0	59	0	28	80	0	5	10	100
	1999	473	0	202	0	32	119	0	10	10	100
	2004	737	0	291	0	46	275	0	15	10	100
	2009	1,063	0	468	0	73	392	0	20	10	100
	Area : 429,100 (m^2) Number of Houses : 2,752										

A5-7 Micro Demand Forecast (5/69)

No.	Year	Demand									
		Total	R1	R2	R3	S1	S2	H1	GR	OT	SP
W1010	1994	246	0	138	0	0	78	0	20	10	0
	1999	374	0	207	0	0	117	0	40	10	0
	2004	614	0	274	0	0	270	0	60	10	0
	2009	883	0	409	0	0	384	0	80	10	0
	Area : 356,065 (m^2) Number of Houses : 1932										
W1020	1994	182	9	38	0	0	39	10	10	40	36
	1999	237	11	57	0	0	58	15	20	40	36
	2004	365	15	82	0	0	140	20	30	40	38
	2009	540	32	134	0	0	230	20	40	40	44
	Area : 269,005 (m^2) Number of Houses : 987										
W2010	1994	199	8	55	0	0	41	0	5	80	10
	1999	299	11	127	0	0	61	0	10	80	10
	2004	565	15	229	0	0	216	0	15	80	10
	2009	992	32	470	0	0	380	0	20	80	10
	Area : 558,667 (m^2) Number of Houses : 4,236										
W2020	1994	264	181	21	0	0	31	0	3	28	0
	1999	377	257	29	0	0	58	0	5	28	0
	2004	712	351	78	0	0	243	0	11	29	0
	2009	1,338	734	139	0	0	420	0	16	29	0
	Area : 929,788 (m^2) Number of Houses : 2,327										
W2030	1994	225	64	86	0	0	0	0	10	65	0
	1999	360	84	191	0	0	0	0	20	65	0
	2004	934	176	663	0	0	0	0	30	65	0
	2009	1,729	394	1,230	0	0	0	0	40	65	0
	Area : 1,433,993 (m^2) Number of Houses : 7,078										
W3010	1994	318	0	31	0	201	1	0	0	25	60
	1999	379	0	58	0	234	2	0	0	25	60
	2004	545	0	99	0	357	4	0	0	25	60
	2009	898	0	176	0	629	8	0	0	25	60
	Area : 275,270 (m^2) Number of Houses : 783										
W3020	1994	267	0	74	0	179	4	0	5	5	0
	1999	339	0	110	0	209	5	0	10	5	0
	2004	472	0	144	0	297	11	0	15	5	0
	2009	730	0	214	0	475	16	0	20	5	0
	Area : 241,840 (m^2) Number of Houses : 665										
W3030	1994	310	52	0	0	112	6	10	20	60	50
	1999	376	63	0	0	130	18	15	40	60	50
	2004	488	73	0	0	184	41	20	60	60	50
	2009	697	135	0	0	293	59	20	80	60	50
	Area : 327,847 (m^2) Number of Houses : 905										
W3040	1994	423	37	26	0	253	7	0	20	60	20
	1999	508	46	38	0	294	10	0	40	60	20
	2004	683	53	49	0	419	22	0	60	60	20
	2009	1,030	96	74	0	669	31	0	80	60	20
	Area : 240,208 (m^2) Number of Houses : 656										

A5-7 Micro Demand Forecast (6/69)

No.	Year	Demand									
		Total	R1	R2	R3	S1	S2	H1	GR	OT	SP
W3050	1994	188	0	4	0	134	0	10	0	40	0
	1999	217	0	6	0	156	0	15	0	40	0
	2004	289	0	7	0	222	0	20	0	40	0
	2009	425	0	11	0	354	0	20	0	40	0
	Area : 229,458 (m^2) Number of Houses : 664										
W3060	1994	302	0	0	0	186	81	20	0	15	0
	1999	381	0	0	0	216	120	30	0	15	0
	2004	643	0	0	0	308	280	40	0	15	0
	2009	947	0	0	0	492	400	40	0	15	0
	Area : 191,592 (m^2) Number of Houses : 848										
W4010	1994	299	0	87	0	152	25	0	10	25	0
	1999	388	0	129	0	177	37	0	20	25	0
	2004	562	0	171	0	252	84	0	30	25	0
	2009	840	0	254	0	401	120	0	40	25	0
	Area : 286,961 (m^2) Number of Houses : 1,451										
W4020	1994	209	0	108	0	0	91	0	5	5	0
	1999	313	0	162	0	0	136	0	10	5	0
	2004	549	0	214	0	0	315	0	15	5	0
	2009	795	0	320	0	0	450	0	20	5	0
	Area : 363,086 (m^2) Number of Houses : 4,034										
W4030	1994	291	0	0	0	225	41	0	0	25	0
	1999	349	0	0	0	262	62	0	0	25	0
	2004	544	0	0	0	375	144	0	0	25	0
	2009	829	0	0	0	599	205	0	0	25	0
	Area : 1,226,368 (m^2) Number of Houses : 43,298										
W4040	1994	261	0	14	0	185	37	0	10	15	0
	1999	326	0	20	0	216	55	0	20	15	0
	2004	521	0	40	0	308	128	0	30	15	0
	2009	808	0	80	0	490	183	0	40	15	0
	Area : 235,560 (m^2) Number of Houses : 2,635										

A5-7 Micro Demand Forecast (7/69)

No.	Year	Demand									
		Total	R1	R2	R3	S1	S2	H1	GR	OT	SP
N1010	1994	178	0	0	0	11	62	0	25	40	40
	1999	262	0	0	0	13	119	0	50	40	40
	2004	449	0	0	0	18	276	0	75	40	40
	2009	601	0	0	0	29	392	0	100	40	40
	Area :	146,848	(m^2)	Number of Houses :		2,340					
N2010	1994	135	12	0	0	0	63	0	10	50	0
	1999	179	15	0	0	0	94	0	20	50	0
	2004	315	17	0	0	0	218	0	30	50	0
	2009	433	32	0	0	0	311	0	40	50	0
	Area :	137,947	(m^2)	Number of Houses :		768					
N2020	1994	330	35	0	0	130	50	10	15	70	20
	1999	401	40	0	0	152	74	15	30	70	20
	2004	590	47	0	0	216	172	20	45	70	20
	2009	847	86	0	0	346	245	20	60	70	20
	Area :	268,626	(m^2)	Number of Houses :		980					
N2030	1994	184	0	56	0	0	63	0	0	65	0
	1999	309	0	83	0	49	112	0	0	65	0
	2004	692	0	163	0	116	348	0	0	65	0
	2009	1,270	0	323	0	260	622	0	0	65	0
	Area :	602,740	(m^2)	Number of Houses :		9,361					
N3010	1994	252	0	9	0	36	32	20	35	20	100
	1999	339	0	13	0	55	47	30	70	20	104
	2004	495	0	17	0	95	109	40	105	20	109
	2009	663	0	25	0	167	156	40	140	20	115
	Area :	76,892	(m^2)	Number of Houses :		316					
N3020	1994	157	0	28	0	58	1	0	15	35	20
	1999	254	0	57	0	111	1	0	30	35	20
	2004	376	0	115	0	159	2	0	45	35	20
	2009	605	0	233	0	254	3	0	60	35	20
	Area :	380,113	(m^2)	Number of Houses :		2,013					

A5-7 Micro Demand Forecast (8/69)

No. C-1010

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4		---					
5		---					
6		---					
7		---					
8		---					
9	R2	72,569	181	37	55	73	109
10		---					
11		---					
12	OT	---	1	5	5	5	5
13		---					
14		---					
15		---					
16	R1	14,315	21	11	13	16	28
17	S1	7,953	24	15	17	24	39
18	S1	46,524	140	59	69	98	157
19	OT	---	1	5	5	5	5
20		---					
21		---					
22		---					
23		---					
24		---					
25		---					
26		---					
27		---					
28		---					
29	R2	17,894	45	9	14	18	27
30		---					
31	S1	49,705	149	90	105	150	239
32	R1	46,723	70	36	43	50	92
33		---					
34	OT	---	1	5	5	5	5
35		---					
36		---					
37	GR	---	1	5	10	15	20
38	GR	---	1	5	10	15	20
39	GR	---	1	5	10	15	20
40	OT	---	1	5	5	5	5
Total		255,683	637	292	366	494	771

A5-7 Micro Demand Forecast (9/69)

No. C-1020

Block No.	Clasification	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	R1	27,744	42	21	25	30	55
2	R1	13,872	21	11	13	15	28
3	R1	26,622	40	20	24	28	52
4	R1	34,680	52	27	32	37	68
5	R1	33,150	50	18	21	25	46
6	R1	35,904	54	27	33	38	71
7	OT	---	1	5	5	5	5
8	GR	---	1	5	10	15	20
9	S2	20,400	122	25	37	86	123
10	S1	13,872	42	25	30	42	67
11		---					
12	OT	---	1	5	5	5	5
13	OT	---	1	5	5	5	5
14	OT	---	1	5	5	5	5
15	OT	---	1	5	5	5	5
16	OT	---	1	5	5	5	5
17	OT	---	1	5	5	5	5
18	GR	---	1	5	10	15	20
19	OT	---	1	5	5	5	5
20	OT	---	1	5	5	5	5
21	GR	---	1	5	10	15	20
22	OT	---	1	5	5	5	5
23	GR	---	1	5	10	15	20
24	GR	---	1	5	10	15	20
25	OT	---	1	5	5	5	5
26	OT	---	1	5	5	5	5
27	OT	---	1	5	5	5	5
28	OT	---	1	5	5	5	5
29	OT	---	1	5	5	5	5
Total		206,244	442	274	340	451	685

A5-7 Micro Demand Forecast (10/69)

No. C-1030

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	R1	22,964	34	18	21	25	45
2	OT	---	1	5	5	5	5
3	R2	38,770	97	20	30	39	59
4	R2	3,877	10	2	3	4	6
5	R1	4,473	7	4	5	5	9
6	S1	30,618	92	56	65	92	147
7	OT	---	1	5	5	5	5
8	GR	---	1	5	10	15	20
9	R2	13,917	35	7	11	14	21
10	R1	125,257	188	94	113	132	245
11	GR	---	1	5	10	15	20
12	GR	---	1	5	10	15	20
13	OT	---	1	5	5	5	5
14	R1	62,628	94	47	57	66	123
15	OT	---	1	5	5	5	5
Total		302,505	563	283	355	442	735

A5-7 Micro Demand Forecast (11/69)

No. C-1040

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S2	22,950	138	28	42	97	138
2	S1	20,441	61	37	43	62	99
3	R1	24,276	36	19	22	26	48
4	R1	15,606	23	12	15	17	31
5	R1	22,542	34	17	21	24	44
6	R1	31,824	48	17	21	24	44
7	R1	22,542	34	12	15	17	31
8	OT	---	1	5	5	5	5
9	SP	---	1	36	44	52	63
10	OT	---	1	5	5	5	5
11	OT	---	1	5	5	5	5
12	OT	---	1	5	5	5	5
13	OT	---	1	5	5	5	5
14	OT	---	1	5	5	5	5
15	OT	---	1	5	5	5	5
16	OT	---	1	5	5	5	5
17	SP	---	1	15	18	22	26
Total		160,181	384	233	281	381	564

A5-7 Micro Demand Forecast (12/69)

No. C-1050

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3	S2	12,000	72	15	22	51	72
4	S2	22,138	133	27	40	93	133
5	S2	10,000	60	12	18	42	60
6		---					
7	S2	43,683	262	53	79	184	263
8	R1	18,500	28	9	17	20	37
9	OT	---	1	5	5	5	5
10	GR	---	1	5	10	15	20
11	GR	---	1	5	10	15	20
12	GR	---	1	5	10	15	20
13	GR	---	1	5	10	15	20
14	OT	---	1	5	5	5	5
15	OT	---	1	5	5	5	5
16	GR	---	1	5	10	15	20
17	OT	---	1	5	5	5	5
18	OT	---	1	5	5	5	5
19	OT	---	1	5	5	5	5
20	OT	---	1	5	5	5	5
21		---					
22	OT	---	1	5	5	5	5
23	OT	---	1	5	5	5	5
24	OT	---	1	5	5	5	5
25	R1	12,848	19	10	12	14	26
26	S1	11,860	36	22	25	36	57
27	R2	10,377	26	6	8	11	16
Total		141,405	650	229	321	576	814

A5-7 Micro Demand Forecast (13/69)

No. C-1060

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S1	21,473	64	39	46	65	104
2	S1	31,016	93	56	66	94	149
3		---					
4	S1	37,179	112	67	79	112	179
5	S1	16,403	49	30	35	50	79
6	S1	26,841	81	49	57	81	129
7		---					
8	S1	29,525	89	54	63	89	142
9	OT	---	1	5	5	5	5
10	OT	---	1	5	5	5	5
11		---					
12	SP	---	1		30	30	30
13	S1	23,262	70	42	49	70	112
14	OT	---	1	5	5	5	5
15		---					
16		---					
17		---					
18		---					
19		---					
20		---					
21	H1	---	1	10	15	20	20
22	OT	---	1	5	5	5	5
Total		185,698	563	367	460	631	964

A5-7 Micro Demand Forecast (14/69)

No. C-1070

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S1	29,572	89	43	50	71	114
2	S1	25,006	75	14	16	23	37
3	S1	20,004	60	37	43	61	97
4	S2	10,872	65	14	20	46	66
5	S1	21,744	65	40	46	66	105
6		---					
7	H1	---	1	10	15	20	20
8		---					
9		---					
10		---					
11		---					
12	OT	---	1	5	5	5	5
13	H1	---	1	10	15	20	20
14	OT	---	1	5	5	5	5
15	OT	---	1	5	5	5	5
16	GR	---	1	5	10	15	20
17	OT	---	1	5	5	5	5
18	OT	---	1	5	5	5	5
19	S2	8,000	48	10	15	34	48
20	OT	---	1	5	5	5	5
21	OT	---	1	5	5	5	5
22	S1	25,000	75	45	53	75	120
23	H1	---	1	10	15	20	20
24	H1	---	1	10	15	20	20
25	OT	---	1	5	5	5	5
26	OT	---	1	5	5	5	5
Total		140,198	491	293	358	516	732

A5-7 Micro Demand Forecast (15/69)

No. C-1080

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S1	47,621	143	86	101	143	229
2	S1	8,781	26	16	19	27	43
3	S1	28,820	86	52	61	87	139
4	S1	25,000	75	45	53	75	120
5		---					
6	OT	---	1	5	5	5	5
7	H1	---	1	10	15	20	20
8		---					
9	H1	---	1	10	15	20	20
10		---					
11	OT	---	1	5	5	5	5
12	OT	---	1	5	5	5	5
13	OT	---	1	5	5	5	5
14		---					
15	H1	---	1	10	15	20	20
16		---					
17		---					
18		---					
19	H1	---	1	10	15	20	20
20	OT	---	1	5	5	5	5
21		---					
22		---					
23		---					
24	OT	---	1	5	5	5	5
25	OT	---	1	5	5	5	5
26	GR	---	1	5	10	15	20
27	OT	---	1	5	5	5	5
28	S1	28,820	86	52	61	87	139
29	OT	---	1	5	5	5	5
30	GR	---	1	5	10	15	20
31	S1	4,728	14	9	10	15	23
32	S1	8,106	24	15	18	25	39
33	OT	---	1	5	5	5	5
34	OT	---	1	5	5	5	5
Total		151,878	473	380	458	624	907

A5-7 Micro Demand Forecast (16/69)

No. C-2010

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	R1	24,805	37	19	23	27	49
2	R1	23,678	36	18	22	25	47
3	R1	23,370	35	18	22	25	46
4	R1	17,528	26	14	16	19	35
5	R1	11,480	17	9	11	13	23
6	R1	15,785	24	12	15	17	31
7	R1	20,910	31	16	19	22	41
8	GR	---	1	5	10	15	20
9	OT	---	1	5	5	5	5
10	OT	---	1	5	5	5	5
11	GR	---	1	5	10	15	20
12	OT	---	1	5	5	5	5
13	GR	---	1	5	10	15	20
14	GR	---	1	5	10	15	20
15	S2	6,150	37	8	12	26	37
Total		143,706	250	149	195	249	404

A5-7 Micro Demand Forecast (17/69)

No. C-2020 (1/2)

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4		---					
5		---					
6		---					
7		---					
8	R3	10,455	418				
9	R1	7,688	12	6	7	9	15
10	R3	236,980	9,479				
11	S1	18,040	54	33	38	55	87
12		---					
13	OT	---	1	5	5	5	5
14	GR	---	1	5	10	15	20
15	R3	565,800	22,632				
16		---					
17	R2	33,825	85	12	26	34	51
18	OT	---	1	5	5	5	5
19	OT	---	1	5	5	5	5
20		---					
21		---					
22		---					
23	OT	---	1	5	5	5	5
24	GR	---	1	5	10	15	20
25	GR	---	1	5	10	15	20
26	OT	---	1	5	5	5	5
27	GR	---	1	5	10	15	20
28		---					
29		---					
30	R2	48,790	122	25	37	49	74
31	SP	---	1	10	10	10	10
32	R2	36,900	92	19	28	37	56
33	OT	---	1	5	5	5	5
34		---					
35	GR	---	1	5	10	15	20
36		---					
37	GR	---	1	5	10	15	20
38	GR	---	1	5	10	15	20
39	GR	---	1	5	10	15	20
40	GR	---	1	5	10	15	20
41	GR	---	1	5	10	15	20
42	GR	---	1	5	10	15	20

No. C-2020 (2/2)

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
43	GR	---	1	5	10	15	20
44	GR	---	1	5	10	15	20
45	GR	---	1	5	10	15	20
46	GR	---	1	5	10	15	20
47	GR	---	1	5	10	15	20
48	GR	---	1	5	10	15	20
49	GR	---	1	5	10	15	20
50	GR	---	1	5	10	15	20
51	GR	---	1	5	10	15	20
52	GR	---	1	5	10	15	20
53	GR	---	1	5	10	15	20
Total		958,478	32,923	245	396	554	763

A5-7 Micro Demand Forecast (19/69)

No. C-2030

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	R1	32,629	49	25	30	35	64
2	R1	26,145	39	20	24	28	51
3	OT	---	1	5	5	5	5
4	R1	35,139	53	27	32	37	69
5	R1	33,361	50	11	13	15	27
6	R1	33,884	51	26	31	36	67
7		---					
8		---					
9	OT	---	1	5	5	5	5
10		---					
11	GR	---	1	5	10	15	20
12		---					
13	S2	50,617	304	13	19	43	61
14	R1	54,905	82	29	35	41	75
15	SP	---	1	50	50	50	50
16		---					
17		---					
18	OT	---	1	5	5	5	5
19	OT	---	1	5	5	5	5
20	OT	---	1	5	5	5	5
21	OT	---	1	5	5	5	5
22	OT	---	1	5	5	5	5
23	GR	---	1	5	10	15	20
24	OT	---	1	5	5	5	5
25	OT	---	1	5	5	5	5
26	OT	---	1	5	5	5	5
27	OT	---	1	5	5	5	5
28	OT	---	1	5	5	5	5
29	OT	---	1	5	5	5	5
30	OT	---	1	5	5	5	5
31	GR	---	1	5	10	15	20
32	OT	---	1	5	5	5	5
33	OT	---	1	5	5	5	5
34	OT	---	1	5	5	5	5
35	OT	---	1	5	5	5	5
36	OT	---	1	5	5	5	5
37	OT	---	1	5	5	5	5
38	OT	---	1	5	5	5	5
39	OT	---	1	5	5	5	5
40	OT	---	1	5	5	5	5
41	S2	54,905	329	7	10	24	33
Total		321,584	984	338	389	469	672

A5-7 Micro Demand Forecast (20/69)

No. C-2040

Block No.	Clasification	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S2	57,133	343	14	21	48	69
2	S2	37,112	223	23	34	78	112
3	H1	---	1	10	15	20	20
4	H1	---	1	10	15	20	20
5	SP	---	1	60	60	60	60
6	GR	---	1	5	10	15	20
7	H1	---	1	10	15	20	20
8	GR	---	1	5	10	15	20
9		---					
10	GR	---	1	5	10	15	20
11	OT	---	1	5	5	5	5
12	OT	---	1	5	5	5	5
13	OT	---	1	5	5	5	5
14	SP	---	1	10	10	10	10
15	OT	---	1	5	5	5	5
16	OT	---	1	5	5	5	5
17	OT	---	1	5	5	5	5
18	OT	---	1	5	5	5	5
19	OT	---	1	5	5	5	5
20	SP	---	1	10	10	10	10
21	GR	---	1	5	10	15	20
22	OT	---	1	5	5	5	5
23	OT	---	1	5	5	5	5
Total		94,246	585	217	270	376	451

A5-7 Micro Demand Forecast (21/69)

No. C-2050 (1/2)

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4		---					
5		---					
6		---					
7		---					
8		---					
9	S2	7,650	46	10	14	33	46
10		---					
11		---					
12		---					
13		---					
14		---					
15	R1	22,542	34	12	15	17	31
16	R1	37,128	56	28	34	39	73
17	R1	30,498	46	23	28	33	60
18	R1	39,882	60	30	36	42	78
19	R1	30,498	46	23	28	33	60
20	GR	---	1	5	10	15	20
21		---					
22	GR	---	1	5	10	15	20
23	OT	---	1	5	5	5	5
24	GR	---	1	5	10	15	20
25		---					
26		---					
27		---					
28		---					
29		---					
30		---					
31		---					
32		---					
33		---					
34		---					
35		---					
36		---					
37		---					
38		---					
39		---					
40		---					
41		---					
42		---					

A5-7 Micro Demand Forecast (22/69)

No. C-2050 (2/2)

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
43		---					
44		---					
45		---					
46		---					
47		---					
48		---					
49		---					
50		---					
51		---					
52		---					
53		---					
54	SP	---	1	6	8	9	11
55	SP	---	1	18	22	26	32
56	SP	---	1	18	22	26	32
57	SP	---	1	6	8	9	11
58	SP	---	1	20	20	20	20
59	SP	---	1	20	20	20	20
60	OT	---	1	5	5	5	5
Total		168,198	298	239	295	362	544

A5-7 Micro Demand Forecast (23/69)

No. C-2060

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4		---					
5	S2	47,091	283	57	85	198	283
6		---					
7	OT	---	1	5	5	5	5
8	S2	34,412	206	42	62	145	207
9	S1	18,112	54	33	39	55	87
10	H1	---	1	10	15	20	20
11	OT	---	1	5	5	5	5
12	GR	---	1	5	10	15	20
13	GR	---	1	5	10	15	20
14	GR	---	1	5	10	15	20
15	GR	---	1	5	10	15	20
Total		99,615	550	172	251	488	687

A5-7 Micro Demand Forecast (24/69)

No. C-2070

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S1	25,570	77	47	54	77	123
2	S1	3,600	11	7	8	11	18
3	S2	38,781	233	47	70	163	233
4	S1	33,240	100	60	70	100	160
5	OT	---	1	5	5	5	5
Total		101,191	421	166	207	356	539

A5-7 Micro Demand Forecast (25/69)

No. C-2080

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3	S1	25,006	75	46	53	76	121
4	S1	31,529	95	57	67	95	152
5	S1	25,223	76	46	53	76	122
6	S1	25,223	76	46	53	76	122
7		---					
8	OT	---	1	5	5	5	5
9		---					
10	GR	---	1	5	10	15	20
11	OT	---	1	5	5	5	5
12	GR	---	1	5	10	15	20
13	SP	---	1	20	20	20	20
14	GR	---	1	5	10	15	20
15	OT	---	1	5	5	5	5
16	OT	---	1	5	5	5	5
17	OT	---	1	5	5	5	5
18	S1	8,781	26	16	19	27	43
19	S1	14,410	43	26	31	44	70
20	OT	---	1	5	5	5	5
21	OT	---	1	5	5	5	5
22	OT	---	1	5	5	5	5
23		---					
Total		130,171	403	312	366	499	750

A5-7 Micro Demand Forecast (26/69)

No. C-2090

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2	S1	20,533	62	37	44	62	99
3		---					
4	S1	27,377	82	50	58	83	132
5		---					
6	S1	33,818	101	61	72	102	163
7		---					
8	S1	16,104	48	22	34	49	78
9	GR	---	1	5	10	15	20
10	GR	---	1	5	10	15	20
11	OT	---	1	5	5	5	5
12	OT	---	1	5	5	5	5
13		---					
14		---					
15	S1	24,156	72	44	51	73	116
16	S1	35,932	108	33	53	76	121
17	S1	18,117	54	20	39	55	87
18	OT	---	1	5	5	5	5
19		---					
20	S1	18,318	55	17	20	28	44
21	OT	---	1	5	5	5	5
22	OT	---	1	5	5	5	5
23	OT	---	1	5	5	5	5
Total		194,355	591	324	421	588	910

A5-7 Micro Demand Forecast (27/69)

No. C-2100

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S1	27,779	83	51	59	84	134
2		---					
3	S1	33,818	101	61	72	102	163
4		---					
5	S1	38,046	114	69	80	115	183
6		---					
7	S1	16,104	48	29	34	49	78
8		---					
9		---					
10		---					
11		---					
12		---					
13	SP	---	1	20	20	20	20
14		---					
15	GR	---	1	5	10	15	20
16	OT	---	1	5	5	5	5
17		---					
18	S1	11,467	34	21	25	35	56
19	S1	41,091	123	56	65	93	148
20	OT	---	1	5	5	5	5
21	OT	---	1	5	5	5	5
Total		168,306	510	327	380	528	817

A5-7 Micro Demand Forecast (28/69)

No. C-3010 (1/2)

Block No.	Clasifi-cation	Land Area (m^2)	Number	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4		---					
5		---					
6		---					
7		---					
8		---					
9		---					
10		---					
11		---					
12		---					
13		---					
14		---					
15		---					
16		---					
17		---					
18		---					
19		---					
20		---					
21		---					
22		---					
23		---					
24		---					
25		---					
26		---					
27		---					
28		---					
29	OT	---	1	5	5	5	5
30	S2	2,295	14	3	5	10	14
31	R2	19,511	49	10	15	20	30
32	R2	12,624	32	7	10	13	19
33	R2	11,477	29	6	9	12	18
34	S2	6,312	38	8	12	27	38
35	OT	---	1	5	5	5	5
36	R2	19,128	48	5	15	20	29
37	R2	61,975	155	16	47	62	93
38	R2	42,082	105	11	32	43	64
39	R2	40,169	100	11	31	41	61
40	R2	30,605	77	8	23	31	46
41	OT	---	1	5	5	5	5
42	S2	9,947	60	12	18	42	60

A5-7 Micro Demand Forecast (29/69)

No. C-3010 (2/2)

Block No.	Clasifi-cation	Land Area (m^2)	Number	Demand			
				1994	1999	2004	2009
43	OT	---	1	5	5	5	5
44	S1	9,755	29	18	21	30	47
45	S1	12,051	36	22	26	37	58
46	S1	10,903	33	20	23	33	53
Total		288,833	807	177	307	441	650

A5-7 Micro Demand Forecast (30/69)

No. C-3020

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	R1	8,375	13	7	8	9	17
2	R1	34,548	52	26	32	37	68
3	R1	34,548	52	26	32	37	68
4	R1	13,191	20	10	12	14	26
5	S1	20,729	62	38	44	63	100
6	R1	20,519	31	16	19	22	41
7	R1	21,985	33	17	20	24	43
8	R1	21,776	33	17	20	23	43
9	R1	21,776	33	17	20	23	43
10	R1	10,050	15	8	10	11	20
11	R1	10,050	15	8	10	11	20
12	SP	---	1	10	10	10	10
13	R1	35,176	53	14	16	19	35
14	R1	15,075	23	12	14	16	30
15	R1	14,447	22	11	14	16	29
16	OT	---	1	5	5	5	5
17	OT	---	1	5	5	5	5
18	H1	---	1	10	15	20	20
19	OT	---	1	5	5	5	5
20	OT	---	1	5	5	5	5
21	OT	---	1	5	5	5	5
22	SP	---	1	30	30	30	30
23	H1	---	1	10	15	20	20
24	S2	12,563	75	16	23	53	76
25		---					
26	OT	---	1	5	5	5	5
27	OT	---	1	5	5	5	5
28	OT	---	1	5	5	5	5
29	OT	---	1	5	5	5	5
30	OT	---	1	5	5	5	5
31	OT	---	1	5	5	5	5
32	OT	---	1	5	5	5	5
33	OT	---	1	5	5	5	5
Total		294,808	548	373	434	528	809

A5-7 Micro Demand Forecast (31/69)

No. C-3030

Block No.	Clasification	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4		---					
5		---					
6		---					
7		---					
8		---					
9		---					
10		---					
11		---					
12		---					
13		---					
14		---					
15		---					
16		---					
17		---					
18	OT	---	1	5	5	5	5
19	OT	---	1	5	5	5	5
20	S2	7,173	43	9	13	31	44
21	S2	7,173	43	9	13	31	44
22	GR	---	1	5	10	15	20
23	S2	13,772	83	17	25	58	83
24	S2	2,869	17	4	6	13	18
25	R2	17,215	43	9	13	18	26
26	R2	50,211	126	26	38	51	76
27	R2	16,068	40	9	13	17	25
28	S2	29,840	179	36	54	126	180
29	OT	---	1	5	5	5	5
30	R2	24,388	61	13	19	25	37
31	R2	45,907	115	23	35	46	69
32	S1	24,484	73	45	52	74	118
33	S1	21,423	64	39	45	65	103
34	R2	30,987	77	11	24	31	47
35	R2	41,316	103	15	31	42	62
Total		332,827	1,072	285	406	658	967

A5-7 Micro Demand Forecast (32/69)

No. C-3040

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	R1	29,250	44	22	27	31	58
2	R2	34,758	87	18	27	35	53
3	R2	20,134	50	11	16	21	31
4	R2	18,195	45	10	14	19	28
5	R1	21,458	32	17	20	23	42
6	R1	12,362	19	10	12	13	25
7	R2	12,137	30	7	10	13	19
8	R2	13,871	35	7	11	14	21
9	R1	15,604	23	12	15	17	31
10	R2	14,279	36	8	11	15	22
11	R2	13,871	35	7	11	14	21
12	R1	12,851	19	10	12	14	26
13	GR	---	1	5	10	15	20
14	R1	12,137	18	10	11	13	24
15	R1	13,871	21	11	13	15	28
16	R1	14,279	21	11	13	15	28
17	R1	13,871	21	11	13	15	28
18	GR	---	1	5	10	15	20
19	S2	11,627	70	14	21	49	70
20	S2	23,254	140	28	42	98	140
21		---					
22	OT	---	1	5	5	5	5
23	OT	---	1	5	5	5	5
24	OT	---	1	5	5	5	5
25	OT	---	1	5	5	5	5
26	OT	---	1	5	5	5	5
27	OT	---	1	5	5	5	5
28	OT	---	1	5	5	5	5
29	OT	---	1	5	5	5	5
30	OT	---	1	5	5	5	5
31	OT	---	1	5	5	5	5
32	OT	---	1	5	5	5	5
33	OT	---	1	5	5	5	5
34	OT	---	1	5	5	5	5
35	OT	---	1	5	5	5	5
36	OT	---	1	5	5	5	5
37	OT	---	1	5	5	5	5
38	OT	---	1	5	5	5	5
Total		307,806	765	319	404	549	820

A5-7 Micro Demand Forecast (33/69)

No. C-3050

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4		---					
5		---					
6		---					
7		---					
8		---					
9		---					
10		---					
11		---					
12		---					
13		---					
14		---					
15		---					
16		---					
17	S1	11,381	34	21	24	35	55
18	S1	14,059	42	26	30	43	68
19	S1	32,900	99	59	68	96	156
20	R2	52,000	130	26	39	52	78
21	R2	44,880	112	23	34	45	68
22		---					
23		---					
24		---					
25	OT	---	1	5	5	5	5
26		---					
27		---					
28		---					
29	OT	---	1	5	5	5	5
30	S1	22,750	68	41	48	69	110
31	OT	---	1	5	5	5	5
Total		177,970	488	211	258	355	550

A5-7 Micro Demand Forecast (34/69)

No. C-3060

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S1	23,531	71	43	50	71	113
2	S1	12,236	37	23	26	37	59
3	OT	---	1	5	5	5	5
4	R1	26,668	40	21	25	29	53
5	R1	24,158	36	19	22	26	48
6	R1	28,446	43	22	26	30	56
7	R1	38,485	58	18	35	41	76
8	R1	28,446	43	22	26	30	56
9	R3	57,728	2,309				
10	R1	15,896	24	12	15	17	31
11	R1	19,556	29	15	18	21	39
12	GR	---	1	5	10	15	20
13	OT	---	1	5	5	5	5
14	GR	---	1	5	10	15	20
15	OT	---	1	5	5	5	5
16	GR	---	1	5	10	15	20
17	GR	---	1	5	10	15	20
17		---					
18	OT	---	1	5	5	5	5
19	OT	---	1	5	5	5	5
20	OT	---	1	5	5	5	5
21	OT	---	1	5	5	5	5
22	OT	---	1	5	5	5	5
23	OT	---	1	5	5	5	5
24	OT	---	1	5	5	5	5
25	OT	---	1	5	5	5	5
26	OT	---	1	5	5	5	5
27	OT	---	1	5	5	5	5
28	OT	---	1	5	5	5	5
Total		275,150	2,707	285	353	432	681

A5-7 Micro Demand Forecast (35/69)

No. C-3070

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	R2	28,707	72	8	11	22	44
2	R1	11,087	17	5	5	9	22
3	OT	---	1	5	5	5	5
4	R1	1,000	2	1	1	2	2
5	R3	6,000	240				
6	R1	30,000	45	23	27	32	59
7	R2	2,000	5	1	2	2	3
8	OT	---	1	5	5	5	5
9	R2	45,139	113		17	46	68
10	S2	1,800	11	2	2	6	11
11	R2	57,018	143	15	22	43	86
12	R3	435,556	17,422				
13	GR	---	1	5	10	15	20
14		---					
15	S2	26,133	157	32	48	110	157
16	SP	---	1	20	20	20	20
17	R3	107,206	4,288				
18	SP	---	1	30	30	30	30
19	GR	---	1	5	10	15	20
20	OT	---	1	5	5	5	5
Total		751,647	22,520	162	220	367	557

A5-7 Micro Demand Forecast (36/69)

No. C-3070

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	R2	28,707	72	8	11	22	44
2	R1	11,087	17	5	5	9	22
3	OT	---	1	5	5	5	5
4	R1	1,000	2	1	1	2	2
5	R3	6,000	240				
6	R1	30,000	45	23	27	32	59
7	R2	2,000	5	1	2	2	3
8	OT	---	1	5	5	5	5
9	R2	45,139	113		17	46	68
10	S2	1,800	11	2	2	6	11
11	R2	57,018	143	15	22	43	86
12	R3	435,556	17,422				
13	GR	---	1	5	10	15	20
14		---					
15	S2	26,133	157	32	48	110	157
16	SP	---	1	20	20	20	20
17	R3	107,206	4,288				
18	SP	---	1	30	30	30	30
19	GR	---	1	5	10	15	20
20	OT	---	1	5	5	5	5
Total		751,647	22,520	162	220	367	557

A5-7 Micro Demand Forecast (37/69)

No. C-3080

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4	S1	20,172	61	37	43	61	97
5	R2	51,872	130	13	20	39	78
6	S1	14,316	43	26	31	43	69
7	R2	42,390	106	11	16	32	64
8	S1	18,592	56	34	40	56	90
9	S1	29,747	89	17	19	27	43
10	R2	22,310	56	6	9	17	34
11	R2	20,451	51	6	8	16	31
12	R2	25,564	64	7	10	20	39
13		---					
14		---					
15		---					
16		---					
17		---					
18		---					
19		---					
20		---					
21		---					
22		---					
23		---					
24		---					
25		---					
26		---					
27		---					
28		---					
29		---					
30		---					
31		---					
32	R2	39,973	100	20	30	40	60
33	GR	---	1	5	10	15	20
34	GR	---	1	5	10	15	20
35	GR	---	1	5	10	15	20
36	R3	19,986	799				
37	S2	12,271	74	15	23	52	74
38	S2	39,043	234	47	71	164	235
39	GR	---	1	5	10	15	20
40	OT	---	1	5	5	5	5
41	R3	16,268	651				
Total		372,956	2,518	264	365	632	999

A5-7 Micro Demand Forecast (38/69)

No. C-3090

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S1	9,110	27	17	20	28	44
2	R2	24,727	62	13	19	25	38
3	OT	---	1	5	5	5	5
4		---					
5		---					
6		---					
7		---					
8		---					
9		---					
10		---					
11		---					
12		---					
13	R2	31,885	80	8	12	24	48
14	R2	36,347	91	10	14	28	55
15	S2	29,933	180	26	54	126	180
16	R2	14,408	36	4	6	11	22
17	R2	37,928	95	10	15	29	57
18	R2	31,235	78	8	12	24	47
19	R2	55,776	139	14	21	42	84
20	R2	28,446	71	15	22	29	43
21	R2	41,832	105	11	16	32	63
22	R3	39,043	1,562				
23	R3	27,888	1,116				
24	R3	14,874	595				
25	R3	26,029	1,041				
26	R2	9,296	23	3	4	7	14
27	R2	21,753	54	6	9	17	33
28	R2	20,916	52	6	8	16	32
29	R2	41,832	105	11	16	32	63
30	R2	18,592	46	5	7	14	28
31	R2	27,609	69	7	11	21	42
32	GR	---	1	5	10	15	20
33	OT	---	1	5	5	5	5
34		---					
35	OT	---	1	5	5	5	5
36	S2	3,161	19	4	6	14	19
37	OT	---	1	5	5	5	5
38	R2	4,648	12	3	4	5	7
39	R2	9,296	23	5	7	10	14
40	S1	12,271	37	23	26	37	59
41	R3	30,677	1,227				
Total		649,511	6,949	234	339	606	1,032

A5-7 Micro Demand Forecast (39/69)

No. C-3100

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S1	14,729	44	27	31	45	71
2	S1	16,068	48	29	34	49	78
3	R2	75,400	189	38	57	76	114
4	R1	55,280	83	42	50	59	108
5	S2	3,250	20	4	6	14	20
6	OT	---	1	5	5	5	5
7	GR	---	1	5	10	15	20
8	S1	14,729	44	27	31	45	71
9	S1	14,059	42	26	30	43	68
10	R2	35,750	89	18	27	36	54
Total		229,264	561	221	281	387	609

A5-7 Micro Demand Forecast (40/69)

No. C-4010 (1/2)

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4	S2	9,373	56	12	17	40	57
5	OT	---	1	5	5	5	5
6	S1	8,034	24	15	17	25	39
7	S1	11,477	34	21	25	35	56
8	R2	9,755	24	5	8	10	15
9	R2	71,730	179	26	54	72	108
10		---					
11		---					
12	S1	16,068	48	29	34	49	78
13	S1	28,788	86	52	61	87	139
14		---					
15		---					
16		---					
17	SP	---	1	50	50	50	50
18	S1	8,034	24	15	17	25	39
19		---					
20		---					
21	R3	157,806	6,312				
22	S2	10,520	63	13	19	45	64
23	OT	---	1	5	5	5	5
24	OT	---	1	5	5	5	5
25	OT	---	1	5	5	5	5
26		---					
27	OT	---	1	5	5	5	5
28	OT	---	1	5	5	5	5
29	OT	---	1	5	5	5	5
30	OT	---	1	5	5	5	5
31		---					
32		---					
33		---					
34		---					
35		---					
36		---					
37		---					
38		---					
39		---					
40		---					
41		---					
42		---					

A5-7 Micro Demand Forecast (41/69)

No. C-4010 (1/2)

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
43		---					
44		---					
45		---					
46		---					
47	R3	54,228	2,169				
48	OT	---	1	5	5	5	5
49	OT	---	1	5	5	5	5
Total		385,812	9,033	288	352	488	695

A5-7 Micro Demand Forecast (42/69)

No. C-4020

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S1	16,259	49	30	35	49	79
2	R2	18,172	45	10	14	19	28
3	R2	27,257	68	14	21	28	41
4	S1	16,068	48	29	34	49	78
5	S1	12,720	38	23	27	39	62
6	GR	---	1	5	10	15	20
7	OT	---	1	5	5	5	5
8	OT	---	1	5	5	5	5
9	S1	17,215	52	31	37	52	83
10	S1	19,128	57	35	41	58	92
11	R2	143,460	359	51	108	144	216
Total		270,279	719	238	337	463	709

A5-7 Micro Demand Forecast (43/69)

No. C-4020

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S1	16,259	49	30	35	49	79
2	R2	18,172	45	10	14	19	28
3	R2	27,257	68	14	21	28	41
4	S1	16,068	48	29	34	49	78
5	S1	12,720	38	23	27	39	62
6	GR	---	1	5	10	15	20
7	OT	---	1	5	5	5	5
8	OT	---	1	5	5	5	5
9	S1	17,215	52	31	37	52	83
10	S1	19,128	57	35	41	58	92
11	R2	143,460	359	51	108	144	216
Total		270,279	719	238	337	463	709

A5-7 Micro Demand Forecast (44/69)

No. C-4030

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	SP	---	1	100	100	100	100
2	S1	15,200	46	28	32	46	73
3	S2	19,200	115	24	35	81	116
4	S2	22,400	134	27	41	95	135
5	S2	18,400	110	23	34	78	111
6	GR	---	1	5	10	15	20
7	R2	55,200	138	9	42	56	83
8	R2	67,200	168	11	51	68	101
9	R2	81,000	203	13	61	81	122
10	R2	42,300	106	11	16	32	64
11	R2	19,800	50	3	15	20	30
12	R3	38,400	1,536				
13	R2	45,000	113	12	17	34	68
14	OT	---	1	5	5	5	5
15	OT	---	1	5	5	5	5
16	S2	5,000	30	6	9	21	30
Total		429,100	2,752	282	473	737	1,063

A5-7 Micro Demand Forecast (45/69)

No. W-1010

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4	OT	---	1	5	5	5	5
5	GR	---	1	5	10	15	20
6		---					
7		---					
8	GR	---	1	5	10	15	20
9	OT	---	1	5	5	5	5
10	GR	---	1	5	10	15	20
11	S2	23,470	141	29	43	99	141
12	R2	31,294	78	16	24	32	47
13	R2	54,764	137	28	42	55	83
14	S2	22,868	137	28	42	97	138
15	R2	30,491	76	16	23	31	46
16	R2	53,360	133	27	41	54	81
17	S2	17,452	105	21	32	74	105
18	R3	21,665	867				
19	GR	---	1	5	10	15	20
20	R2	41,725	104	21	32	42	63
21		---					
22		---					
23		---					
24	R2	35,105	88	18	27	36	53
25	R2	23,871	60	12	18	24	36
Total		356,065	1,932	246	374	614	883

A5-7 Micro Demand Forecast (46/69)

No. W-1020 (1/2)

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4		---					
5		---					
6	SP	---	1	10	10	12	14
7	R2	39,117	98	8	12	16	24
8	R2	39,117	98	10	15	20	30
9		---					
10	SP	---	1	20	20	20	20
11	SP	---	1	6	6	6	10
12	S2	39,117	235	10	15	33	47
13	S2	17,553	105	7	10	23	53
14		---					
15		---					
16		---					
17		---					
18		---					
19		---					
20	OT	---	1	5	5	5	5
21	R1	23,069	35	9	11	15	32
22	R2	37,613	94	10	15	23	40
23	R2	37,613	94	10	15	23	40
24	S2	18,255	110	11	17	47	77
25	GR	---	1	5	10	15	20
26	GR	---	1	5	10	15	20
27	OT	---	1	5	5	5	5
28	OT	---	1	5	5	5	5
29	OT	---	1	5	5	5	5
30	OT	---	1	5	5	5	5
31	OT	---	1	5	5	5	5
32	OT	---	1	5	5	5	5
33	OT	---	1	5	5	5	5
34		---					
35		---					
36		---					
37		---					
38		---					
39		---					
40		---					
41		---					
42	H1	---	1	10	15	20	20

A5-7 Micro Demand Forecast (47/69)

No. W-1020 (1/2)

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
43	S2	17,553	105	11	16	37	53
44		---					
45		---					
46		---					
47		---					
Total		269,005	987	182	237	365	540

No. W-2010 (1/2)

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4		---					
5		---					
6		---					
7		---					
8		---					
9		---					
10		---					
11		---					
12		---					
13		---					
14		---					
15		---					
16		---					
17		---					
18		---					
19	S2	31,152	187	10	15	53	94
20		---					
21	S2	44,651	268	14	21	76	134
22		---					
23	S2	23,883	143	8	11	41	72
24		---					
25	S2	21,806	131	7	10	37	66
26	R3	64,192	2,568				
27		---					
28		---					
29	R2	30,208	76	1	2	4	5
30	OT	---	1	5	5	5	5
31	OT	---	1	5	5	5	5
32	OT	---	1	5	5	5	5
33	OT	---	1	5	5	5	5
34	OT	---	1	5	5	5	5
35	GR	---	1	5	10	15	20
36	OT	---	1	5	5	5	5
37	OT	---	1	5	5	5	5
38	OT	---	1	5	5	5	5
39	OT	---	1	5	5	5	5
40	OT	---	1	5	5	5	5
41	OT	---	1	5	5	5	5
42	SP	---	1	10	10	10	10

A5-7 Micro Demand Forecast (49/69)

No. W-2010 (1/2)

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
43	OT	---	1	5	5	5	5
44	OT	---	1	5	5	5	5
45	OT	---	1	5	5	5	5
46	OT	---	1	5	5	5	5
47	OT	---	1	5	5	5	5
48	R2	20,000	50	3	8	14	30
49	R1	20,000	30	8	11	15	32
50	R2	245,000	613	37	92	172	368
51	R2	55,224	138	14	25	39	67
52	S2	1,050	6	1	2	4	6
53	S2	1,500	9	1	2	5	8
Total		558,667	4,236	199	299	565	992

A5-7 Micro Demand Forecast (50/69)

No. W-2020

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2	R1	29,264	44	11	16	22	46
3	R1	40,592	61	16	22	30	64
4	R1	41,536	62	16	23	31	65
5	R1	56,640	85	22	31	42	89
6	R2	8,307	21	2	2	3	7
7	R1	37,760	57	15	21	28	59
8	R1	63,437	95	24	35	47	99
9	R1	79,296	119	30	43	59	124
10	R2	116,112	290	6	9	35	53
11	R2	15,104	38	3	4	5	12
12	R1	22,467	34	9	13	17	36
13	R2	34,362	86	6	8	21	39
14	R1	40,120	60	16	22	30	63
15	R2	19,824	50	3	5	12	23
16	R1	16,520	25	7	9	13	26
17	R1	25,110	38	10	14	19	40
18	GR	---	1	3	5	11	16
19		---					
20	OT	---	1	3	3	4	4
21		---					
22	S2	21,806	131	8	12	46	66
23		---					
24	S2	21,806	131	8	12	46	66
25		---					
26		---					
27		---					
28		---					
29	S2	116,112	697	14	32	147	279
30	R1	116,112	174	5	8	13	23
31	R2	6,000	15	1	1	2	5
32	S2	1,500	9	1	2	4	9
33	OT	---	1	5	5	5	5
34	OT	---	1	5	5	5	5
35	OT	---	1	5	5	5	5
36	OT	---	1	5	5	5	5
37	OT	---	1	5	5	5	5
Total		929,788	2,327	264	377	712	1,338

A5-7 Micro Demand Forecast (51/69)

No. W-2030 (1/2)

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	R2	29,206	73	2	5	18	33
2	R2	38,536	96	2	6	24	44
3	R2	24,338	61	2	4	15	28
4	R2	22,310	56	2	4	14	26
5	R2	32,451	81	2	5	20	37
6	R2	33,465	84	2	6	21	38
7	R2	34,581	86	2	6	21	39
8		---					
9	R2	13,792	34	3	4	9	16
10	R2	48,981	122	3	8	30	56
11	R3	65,511	2,620				
12	R2	91,269	228	5	14	55	103
13	R2	46,649	117	7	11	28	53
14	R2	43,606	109	7	10	27	50
15	R2	30,423	76	5	7	19	35
16	R2	50,198	125	8	12	31	57
17	R1	47,967	72	11	13	31	71
18	R2	33,465	84	2	6	21	38
19	R2	10,952	27	1	2	7	13
20	R2	30,423	76	2	5	19	35
21	R2	64,902	162	4	10	39	74
22	R2	30,423	76	2	5	19	35
23	R3	34,074	1,363				
24	R2	41,172	103	3	7	25	47
25	R2	30,322	76	2	5	19	35
26	R2	38,333	96	2	6	23	44
27	R2	40,868	102	3	7	25	46
28	R2	30,017	75	2	5	19	34
29	R2	15,414	39	1	3	10	18
30	R2	65,409	164	4	10	40	74
31	R2	34,784	87	2	6	21	40
32	R2	34,784	87	2	6	21	40
33	R2	36,913	92	2	6	23	42
34	R1	58,818	88	14	16	38	87
35	R1	43,606	65	10	12	28	64
36	R1	43,606	65	10	12	28	64
37	R1	30,423	46	7	9	20	45
38		---					
39		---					
40	OT	---	1	5	5	5	5
41	OT	---	1	5	5	5	5
42	GR	---	1	5	10	15	20

No. W-2030 (2/2)

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
43	OT	---	1	5	5	5	5
44	GR	---	1	5	10	15	20
45	OT	---	1	5	5	5	5
46	OT	---	1	5	5	5	5
47	OT	---	1	5	5	5	5
48	OT	---	1	5	5	5	5
49	OT	---	1	5	5	5	5
50	OT	---	1	5	5	5	5
51	OT	---	1	5	5	5	5
52	OT	---	1	5	5	5	5
53	OT	---	1	5	5	5	5
54	OT	---	1	5	5	5	5
55	R1	32,000	48	12	22	31	63
Total		1,433,993	7,078	225	360	934	1,729

A5-7 Micro Demand Forecast (53/69)

No. W-3010

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S1	35,556	107	23	27	49	120
2	S1	30,435	91	14	16	35	74
3	R2	26,087	65	7	10	20	40
4	R2	24,638	62	7	10	19	37
5	S1	37,778	113	69	80	114	182
6	S1	25,508	77	46	54	77	123
7	S1	27,054	81	49	57	82	130
8	SP	---	1	20	20	20	20
9	SP	---	1	20	20	20	20
10	SP	---	1	20	20	20	20
11	OT	---	1	5	5	5	5
12	R2	39,914	100	10	23	36	60
13	OT	---	1	5	5	5	5
14	OT	---	1	5	5	5	5
15	OT	---	1	5	5	5	5
16	OT	---	1	5	5	5	5
17	R2	25,884	65	7	15	24	39
18		---					
19	S2	2,416	14	1	2	4	8
Total		275,270	783	318	379	545	898

A5-7 Micro Demand Forecast (54/69)

No. W-3020

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4		---					
5	OT	---	1	5	5	5	5
6	GR	---	1	5	10	15	20
7	S2	2,609	16	4	5	11	16
8	S1	25,508	77	46	54	77	123
9	S1	27,054	81	49	57	82	130
10	R2	21,643	54	11	17	22	33
11	R2	24,348	61	13	19	25	37
12	R2	24,348	61	13	19	25	37
13	S1	22,996	69	42	49	69	111
14	R2	21,643	54	11	17	22	33
15	R2	24,348	61	13	19	25	37
16	R2	24,348	61	13	19	25	37
17	S1	22,996	69	42	49	69	111
Total		241,840	665	267	339	472	730

A5-7 Micro Demand Forecast (55/69)

No. W-3030

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	SP	---	1	20	20	20	20
2	S1	46,421	139	13	15	21	34
3	S1	29,013	87	27	31	44	70
4	S1	19,342	58	14	17	24	38
5	S1	29,013	87	27	31	44	70
6	OT	---	1	5	5	5	5
7	H1	---	1	10	15	20	20
8	SP	---	1	30	30	30	30
9	R1	66,730	100	38	46	53	98
10	S1	66,730	200	31	36	51	81
11	R1	46,421	70	14	17	20	37
12	GR	---	1	5	10	15	20
13	GR	---	1	5	10	15	20
14	GR	---	1	5	10	15	20
15	GR	---	1	5	10	15	20
16	OT	---	1	5	5	5	5
17	OT	---	1	5	5	5	5
18	OT	---	1	5	5	5	5
19	OT	---	1	5	5	5	5
20	OT	---	1	5	5	5	5
21	OT	---	1	5	5	5	5
22	OT	---	1	5	5	5	5
23	OT	---	1	5	5	5	5
24	OT	---	1	5	5	5	5
25	OT	---	1	5	5	5	5
26	S2	24,178	145	6	18	41	59
27	OT	---	1	5	5	5	5
Total		327,847	905	310	376	488	697

A5-7 Micro Demand Forecast (56/69)

No. W-3040

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S1	38,838	117	70	82	117	187
2	R1	15,778	24	12	15	17	31
3	R1	15,778	24	12	15	17	31
4	S1	10,316	31	19	22	31	50
5	R1	17,295	26	13	16	19	34
6	GR	---	1	5	10	15	20
7	S1	17,700	53	32	38	54	85
8	R2	12,744	32	7	10	13	20
9	R2	22,757	57	12	18	23	35
10	R2	12,238	31	7	10	13	19
11	S1	16,182	49	30	34	49	78
12	S1	36,714	110	67	78	111	177
13	S1	13,148	39	24	28	40	64
14	OT	---	1	5	5	5	5
15	OT	---	1	5	5	5	5
16	OT	---	1	5	5	5	5
17	OT	---	1	5	5	5	5
18	S1	5,664	17	11	12	17	28
19	OT	---	1	5	5	5	5
20	OT	---	1	5	5	5	5
21	GR	---	1	5	10	15	20
22	OT	---	1	5	5	5	5
23	GR	---	1	5	10	15	20
24	OT	---	1	5	5	5	5
25	OT	---	1	5	5	5	5
26	OT	---	1	5	5	5	5
27	SP	---	1	20	20	20	20
28	GR	---	1	5	10	15	20
29	S2	5,057	30	7	10	22	31
30		---					
31	OT	---	1	5	5	5	5
32	OT	---	1	5	5	5	5
Total		240,208	656	423	508	683	1,030

A5-7 Micro Demand Forecast (57/69)

No. W-3050

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S1	29,555	89	27	32	45	71
2	S1	67,729	203	13	15	21	33
3	S1	25,450	76	23	27	39	62
4		---					
5		---					
6		---					
7		---					
8		---					
9		---					
10	S1	38,996	117	71	82	117	188
11		---					
12		---					
13	H1	---	1	10	15	20	20
14	OT	---	1	5	5	5	5
15	OT	---	1	5	5	5	5
16	OT	---	1	5	5	5	5
17	OT	---	1	5	5	5	5
18	OT	---	1	5	5	5	5
19	OT	---	1	5	5	5	5
20	OT	---	1	5	5	5	5
21	OT	---	1	5	5	5	5
22	R2	67,729	169	4	6	7	11
Total		229,458	664	188	217	289	425

A5-7 Micro Demand Forecast (58/69)

No. W-3060

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4	S2	23,090	139	14	21	49	70
5	S2	20,524	123	25	37	87	124
6	S2	22,576	135	28	41	95	136
7	S1	37,867	114	69	80	114	182
8	S1	20,319	61	37	43	61	98
9	S1	44,127	132	80	93	133	212
10		---					
11	H1	---	1	10	15	20	20
12	H1	---	1	10	15	20	20
13	OT	---	1	5	5	5	5
14	OT	---	1	5	5	5	5
15	OT	---	1	5	5	5	5
16	S2	23,090	139	14	21	49	70
Total		191,592	848	302	381	643	947

A5-7 Micro Demand Forecast (59/69)

No. W-4010

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4		---					
5		---					
6		---					
7		---					
8	OT	---	1	5	5	5	5
9	OT	---	1	5	5	5	5
10	GR	---	1	5	10	15	20
11	OT	---	1	5	5	5	5
12	S2	6,280	38	8	12	27	38
13	R2	12,561	31	7	10	13	19
14	R2	6,280	16	4	5	7	10
15	S2	13,527	81	17	25	57	82
16	S1	8,116	24	15	18	25	39
17	OT	---	1	5	5	5	5
18	R2	13,044	33	7	10	14	20
19	R2	33,817	85	17	26	34	51
20	R2	7,826	20	4	6	8	12
21		---					
22	S1	17,392	52	32	37	53	84
23	R2	52,078	130	27	40	53	79
24	S1	28,696	86	52	61	87	138
25	GR	---	1	5	10	15	20
26	OT	---	1	5	5	5	5
27	R2	41,933	105	21	32	42	63
28	S1	28,986	87	53	61	87	140
29		---					
30		---					
31		---					
32		---					
33		---					
34		---					
35		---					
36		---					
37	R3	16,425	657				
Total		286,961	1,451	299	388	562	840

A5-7 Micro Demand Forecast (60/69)

No. W-4020 (1/2)

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4		---					
5		---					
6	OT	---	1	5	5	5	5
7	GR	---	1	5	10	15	20
8	S2	37,613	226	46	68	158	226
9	R2	33,901	85	17	26	34	51
10	R2	33,901	85	17	26	34	51
11	R2	17,553	44	9	14	18	27
12	R2	11,936	30	6	9	12	18
13		---					
14		---					
15		---					
16		---					
17		---					
18		---					
19		---					
20		---					
21		---					
22		---					
23	R3	12,036	481				
24		---					
25	S2	18,054	108	22	33	76	109
26	R3	17,051	682				
27	R3	15,647	626				
28	R3	17,553	702				
29	R2	10,431	26	6	8	11	16
30	S2	19,057	114	23	35	81	115
31		---					
32	R3	14,042	562				
33		---					
34		---					
35		---					
36		---					
37		---					
38		---					
39		---					
40		---					
41		---					
42		---					

A5-7 Micro Demand Forecast (61/69)

No. W-4020 (2/2)

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
43		---					
44	R2	37,813	95	19	29	38	57
45	R2	66,499	166	34	50	67	100
Total		363,086	4,034	209	313	549	795

A5-7 Micro Demand Forecast (62/69)

No. W-4030

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4		---					
5		---					
6		---					
7		---					
8		---					
9		---					
10		---					
11		---					
12		---					
13		---					
14		---					
15		---					
16		---					
17	R3	651,950	26,078				
18	OT	---	1	5	5	5	5
19	OT	---	1	5	5	5	5
20	OT	---	1	5	5	5	5
21	OT	---	1	5	5	5	5
22	R3	30,090	1,204				
23		---					
24	OT	---	1	5	5	5	5
25		---					
26	R3	52,858	2,114				
27	R3	52,156	2,086				
28	R3	47,643	1,906				
29		---					
30		---					
31	S2	34,102	205	41	62	144	205
32	R3	40,120	1,605				
33	R3	35,105	1,404				
34	R3	39,117	1,565				
35		---					
36	S1	34,102	102	62	72	103	164
37	S1	26,078	78	47	55	79	126
38	R3	46,640	1,866				
39	R3	42,126	1,685				
40	R3	30,090	1,204				
41	S1	64,192	193	116	135	193	309
Total		1,226,368	43,298	291	349	544	829

A5-7 Micro Demand Forecast (63/69)

No. W-4040

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4		---					
5		---					
6		---					
7		---					
8		---					
9		---					
10		---					
11		---					
12		---					
13		---					
14		---					
15		---					
16		---					
17		---					
18		---					
19		---					
20		---					
21		---					
22		---					
23		---					
24		---					
25	S1	8,696	26	16	19	27	42
26	OT	---	1	5	5	5	5
27	OT	---	1	5	5	5	5
28	GR	---	1	5	10	15	20
29	S1	13,527	41	25	29	41	65
30	R3	50,242	2,010				
31	R2	53,238	133	14	20	40	80
32	S2	30,435	183	37	55	128	183
33	S1	28,986	87	53	61	87	140
34	GR	---	1	5	10	15	20
35	S1	24,348	73	44	52	74	117
36	S1	26,087	78	47	55	79	126
37		---					
38		---					
39	OT	---	1	5	5	5	5
Total		235,560	2,635,335	261	326	521	808

A5-7 Micro Demand Forecast (64/69)

No. N-1010

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1		---					
2		---					
3		---					
4	GR	---	1	5	10	15	20
5	GR	---	1	5	10	15	20
6		---					
7		---					
8		---					
9	S2	5,973	36	8	11	26	36
10	SP	---	1	20	20	20	20
11		---					
12		---					
13	OT	---	1	5	5	5	5
14	S1	5,973	18	11	13	18	29
15	OT	---	1	5	5	5	5
16	S2	37,432	225	27	68	158	225
17		---					
18	S2	36,552	219	9	14	31	44
19	S2	17,918	108	18	26	61	87
20	R3	43,002	1,720				
21		---					
22		---					
23		---					
24		---					
25	GR	---	1	5	10	15	20
26		---					
27		---					
28	SP	---	1	20	20	20	20
29	OT	---	1	5	5	5	5
30	GR	---	1	5	10	15	20
31	GR	---	1	5	10	15	20
32	OT	---	1	5	5	5	5
33	OT	---	1	5	5	5	5
34	OT	---	1	5	5	5	5
35	OT	---	1	5	5	5	5
36	OT	---	1	5	5	5	5
Total		146,848	2,340	178	262	449	601

A5-7 Micro Demand Forecast (65/69)

No. N-2010

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S2	74,865	449	23	34	79	113
2	S2	47,083	282	40	60	139	198
3	OT	---	1	5	5	5	5
4	OT	---	1	5	5	5	5
5	OT	---	1	5	5	5	5
6	OT	---	1	5	5	5	5
7	OT	---	1	5	5	5	5
8	GR	---	1	5	10	15	20
9	OT	---	1	5	5	5	5
10	OT	---	1	5	5	5	5
11	OT	---	1	5	5	5	5
12	GR	---	1	5	10	15	20
13	R1	16,000	24	12	15	17	32
14	OT	---	1	5	5	5	5
15	OT	---	1	5	5	5	5
Total		137,947	768	135	179	315	433

A5-7 Micro Demand Forecast (66/69)

No. N-2020

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S1	50,294	151	91	106	151	242
2	S2	17,449	105	21	32	74	105
3	R1	27,918	42	11	13	15	28
4	S2	24,018	144	15	22	51	73
5	GR	---	1	5	10	15	20
6	H1	---	1	10	15	20	20
7	SP	---	1	20	20	20	20
8	OT	---	1	5	5	5	5
9	GR	---	1	5	10	15	20
10	GR	---	1	5	10	15	20
11	OT	---	1	5	5	5	5
12	OT	---	1	5	5	5	5
13	OT	---	1	5	5	5	5
14	OT	---	1	5	5	5	5
15	OT	---	1	5	5	5	5
16	OT	---	1	5	5	5	5
17	OT	---	1	5	5	5	5
18	OT	---	1	5	5	5	5
19	OT	---	1	5	5	5	5
20	R1	24,018	36	8	9	11	19
21	S1	30,792	92	39	46	65	104
22	S2	55,426	333	14	20	47	67
23	R1	27,713	42	7	8	9	17
24	OT	---	1	5	5	5	5
25	OT	---	1	5	5	5	5
26	R1	11,000	17	9	10	12	22
27	OT	---	1	5	5	5	5
28	OT	---	1	5	5	5	5
Total		268,626	980	330	401	590	847

A5-7 Micro Demand Forecast (67/69)

No. N-2030

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	R2	54,294	136	14	21	41	82
2	R2	45,451	114	12	18	35	69
3	R2	53,986	135	14	21	41	81
4	R2	60,567	151	16	23	46	91
5	S2	43,189	259	21	39	127	234
6	S2	61,698	370	30	56	182	334
7	S1	77,123	231		49	116	260
8	R3	104,887	4,195				
9	R3	46,274	1,851				
10	R3	46,274	1,851				
11	OT	---	1	5	5	5	5
12	OT	---	1	5	5	5	5
13	OT	---	1	5	5	5	5
14	OT	---	1	5	5	5	5
15	OT	---	1	5	5	5	5
16	OT	---	1	5	5	5	5
17	OT	---	1	5	5	5	5
18	S2	2,000	12	3	4	9	12
19	OT	---	1	5	5	5	5
20	OT	---	1	5	5	5	5
21	OT	---	1	5	5	5	5
22	OT	---	1	5	5	5	5
23	OT	---	1	5	5	5	5
24	S2	7,000	42	9	13	30	42
25	OT	---	1	5	5	5	5
Total		602,740	9,361	184	309	692	1,270

A5-7 Micro Demand Forecast (68/69)

No. N-3010

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S1	29,595	89	27	44	80	143
2	GR	---	1	5	10	15	20
3	GR	---	1	5	10	15	20
4		---					
5	S1	4,932	15	9	11	15	24
6	GR	---	1	5	10	15	20
7		---					
8		---					
9		---					
10	SP	---	1	20	24	29	35
11		---					
12		---					
13	SP	---	1	50	50	50	50
14	GR	---	1	5	10	15	20
15	GR	---	1	5	10	15	20
16	SP	---	1	30	30	30	30
17	GR	---	1	5	10	15	20
18	H1	---	1	10	15	20	20
19		---					
20	S2	25,865	155	32	47	109	156
21	OT	---	1	5	5	5	5
22	OT	---	1	5	5	5	5
23	OT	---	1	5	5	5	5
24	GR	---	1	5	10	15	20
25	H1	---	1	10	15	20	20
26	OT	---	1	5	5	5	5
27	R2	16,500	41	9	13	17	25
Total		76,892	316	252	339	495	663

A5-7 Micro Demand Forecast (69/69)

No. N-3020

Block No.	Clasifi-cation	Land Area (m^2)	Number of Houses	Demand			
				1994	1999	2004	2009
1	S1	69,584	209		44	63	101
2	S1	63,445	190	35	40	58	92
3	R2	110,516	276	28	42	83	166
4	S1	44,002	132	16	19	27	43
5	R2	62,933	157		15	32	67
6	OT	---	1	5	5	5	5
7	GR	---	1	5	10	15	20
8	GR	---	1	5	10	15	20
9	OT	---	1	5	5	5	5
10	OT	---	1	5	5	5	5
11	OT	---	1	5	5	5	5
12	OT	---	1	5	5	5	5
13	SP	---	1	20	20	20	20
14	GR	---	1	5	10	15	20
15	OT	---	1	5	5	5	5
16	R3	25,583	1,023				
17	OT	---	1	5	5	5	5
18	S2	450	3	1	1	2	3
19	S1	3,600	11	7	8	11	18
Total		380,113	2,013	157	254	376	605

A5-8 Main Line Density and Cellular Telephone Density

Country	Population (Million)	Main Line (Thousand)	Cellular Telephone (Thousand)	Main Line Density	Cellular Telephone Density
Senegal	7,400	44.326	0.028	0.599	0.000
Indonesia	176,400	863.815	9.620	0.490	0.005
Sri Lanka	16,990	121.388	1.010	0.714	0.006
Morocco	25,866	496.789	1.500	1.921	0.006
Egypt	52,890	1,717.498	4.000	3.247	0.008
Colombia	32,980	2,414.726	3.371	7.322	0.010
Tunisia	8,059	303.318	0.953	3.764	0.012
Peru	22,330	564.504	3.200	2.528	0.014
South Africa	33,410	3,254.246	6.216	9.740	0.019
Venezuela	19,730	1,494.776	7.422	7.576	0.038
Turkey	56,470	6,893.267	31.809	12.207	0.056
Portugal	10,530	2,379.265	6.461	22.595	0.061
Greece	10,250	3,948.654	8.658	38.523	0.084
Chile	13,173	860.075	13.921	6.529	0.106
Luxembourg	381	183.700	0.820	48.215	0.215
Malaysia	17,350	1,388.183	39.419	8.001	0.227
South Korea	42,870	13,510.000	129.402	31.514	0.302
Israel	4,822	1,626.449	15.240	33.732	0.316
France	56,440	28,084.922	230.511	49.761	0.408
West Germany	63,070	29,980.000	272.609	47.534	0.432
Belgium	9,993	3,912.600	44.501	39.153	0.445
Cyprus	707	254.510	3.157	36.004	0.447
Italy	57,650	22,350.000	266.000	38.768	0.461
Netherland	15,010	6,940.000	79.000	46.236	0.526
Malta	350	128.249	2.280	36.643	0.651
Macau	462	93.155	3.197	20.172	0.692
Ireland	3,503	983.000	25.000	28.062	0.714
Qatar	486	92.071	3.811	18.945	0.784
Austria	7,712	3,223.161	73.698	41.797	0.956
Hongkong	5,812	2,304.572	58.834	39.650	1.012
Australia	17,210	7,786.889	184.943	45.246	1.075
Singapore	2,690	1,040.187	45.631	38.667	1.696
New Zealand	3,427	1,473.384	61.000	42.991	1.780
Switzerland	6,796	3,942.701	133.300	58.015	1.961
United States	250,000	127,200.000	5,283.055	50.880	2.113
Denmark	5,140	2,911.000	148.000	56.634	2.879
Iceland	256	130.500	10.010	50.977	3.910
Norway	4,250	2,132.290	196.828	50.174	4.631
Finland	4,982	2,670.000	258.000	53.593	5.179
Sweden	8,591	5,848.700	461.200	68.077	5.368

Appendix 6

Fundamental Network Plan

APPendix 6-1 Traffic Data (1/2)

Traffic of the Digital Exchange AXE-104B (1,100 lines)

1. Traffic of outgoing & incomming calls at the busy-hour per subscriber

   Number of calls : 3,259 calls

   Traffic in Erl : 68.7 Erl

2. Route traffic at the busy-hour

Local	: 3,306	calls	66.6 Erl
Toll	: -	calls	- Erl
International	: 1,112	calls	18.8 Erl

3. Weekly trafiic fluctuation (Date : 5/9/1994~11/9/1994)

(Erl.)

Mon	Tue	Wed	Thu	Fri	Sat	Sun
377.7	254.8	240.9	318.4	303.9	217.6	200.8

4. Daily traffic fluctuation (24 hours) (Date : 23/9/1994)

(Erl.)

1	2	3	4	5	6	7	8	9	10	11	12
2.4	0.7	0.3	0.5	1.4	8.4	38.5	68.5	68.7	69.5	50.3	33.9
13	14	15	16	17	18	19	20	21	22	23	24
44.6	47.6	67.5	82.3	67.4	45.7	34.7	30.6	28.3	23.2	14.8	8.8

APPendix 6-1 Traffic Data (2/2)

Traffic of the Digital Exchange AXE-105

1. Traffic of outgoing & incomming calls at the busy-hour per subscriber
   Number of calls :12,244 calls
   Traffic in Erl : 20.1 Erl

2. Route traffic at the busy-hour

Local	:2,051	calls	50.3	Erl
Toll	: -	calls	-	Erl
International	:1,087	calls	24.2	Erl

3. Weekly trafiic fluctuation (Date : 12/9/1994~18/9/1994)

(Erl.)

Mon	Tue	Wed	Thu	Fri	Sat	Sun
20.1	19.4	20.5	17.5	18.3	17.5	9.4

4. Daily traffic fluctuation (24 hours) (Date : 23/9/1994)

(Erl.)

1	2	3	4	5	6	7	8	9	10	11	12
0.7	0.2	0.1	0.1	0.2	0.3	2.2	9.2	17.3	20.9	20.1	16.8
13	14	15	16	17	18	19	20	21	22	23	24
10.2	11.0	17.8	18.8	17.3	13.2	11.1	8.3	5.7	4.0	2.8	1.4

Appendix 6-2 Erlang B Formula

Traffic Table (Loss Probability = 0.01)

Number of Circuits (CH)	Traffic (Erl.)	Number of Circuits (CH)	Traffic (Erl.)	Number of Circuits (CH)	Traffic (Erl.)	Number of Circuits (CH)	Traffic (Erl.)
1	0.01	51	38.80	101	85.00	151	132.54
2	0.15	52	39.70	102	85.94	152	133.50
3	0.46	53	40.60	103	86.89	153	134.45
4	0.87	54	41.50	104	87.83	154	135.41
5	1.36	55	42.41	105	88.77	155	136.37
6	1.91	56	43.31	106	89.71	156	137.33
7	2.50	57	44.22	107	90.66	157	138.29
8	3.13	58	45.13	108	91.60	158	139.25
9	3.78	59	46.04	109	92.55	159	140.21
10	4.46	60	46.95	110	93.49	160	141.17
11	5.16	61	47.86	111	94.44	161	142.13
12	5.88	62	48.77	112	95.38	162	143.09
13	6.61	63	49.69	113	96.33	163	144.05
14	7.35	64	50.60	114	97.74	164	145.01
15	8.11	65	51.52	115	98.22	165	145.97
16	8.88	66	52.44	116	99.17	166	146.93
17	9.65	67	53.35	117	100.12	167	147.89
18	10.44	68	54.27	118	101.06	168	148.86
19	11.23	69	55.19	119	102.01	169	149.82
20	12.03	70	56.11	120	102.96	170	150.78
21	12.84	71	57.03	121	103.91	171	151.74
22	13.65	72	57.96	122	104.86	172	152.71
23	14.47	73	58.88	123	105.81	173	153.67
24	15.30	74	59.80	124	106.76	174	154.64
25	16.12	75	60.73	125	107.71	175	155.60
26	16.96	76	61.65	126	108.66	176	156.56
27	17.80	77	62.58	127	109.61	177	157.53
28	18.64	78	63.51	128	110.57	178	158.49
29	19.49	79	64.43	129	111.52	179	159.46
30	20.34	80	65.36	130	112.47	180	160.40
31	21.19	81	66.29	131	113.42	181	161.38
32	22.05	82	67.22	132	114.38	182	162.35
33	22.91	83	68.15	133	115.37	183	163.31
34	23.77	84	69.08	134	116.86	184	164.28
35	24.64	85	70.02	135	117.24	185	165.24
36	25.51	86	70.95	136	118.19	186	166.21
37	26.38	87	71.88	137	119.15	187	167.17
38	27.25	88	72.82	138	120.10	188	168.14
39	28.13	89	73.75	139	121.06	189	169.10
40	29.01	90	74.68	140	122.01	190	170.07
41	29.89	91	75.62	141	122.97	191	171.04
42	30.77	92	76.56	142	123.92	192	172.00
43	31.66	93	77.49	143	124.88	193	172.97
44	32.54	94	78.43	144	125.83	194	173.93
45	33.43	95	79.37	145	126.79	195	174.90
46	34.32	96	80.31	146	127.75	196	175.87
47	35.21	97	81.24	147	128.71	197	174.84
48	36.11	98	82.18	148	129.66	198	177.80
49	37.00	99	83.12	149	130.62	199	178.77
50	37.90	100	84.06	150	131.58	200	179.74

Appendix 7

System Selection

Appendix 8

Development Strategy

Appendix 9

Traffic Forecast and Circuit Calculation

Appendix 10

Telecommunications Facility Provision Plan of Essential Project

Appendix 10-1 Power Supply System (1/16)

CENTRAL POWER CALCULATION

ITEM	DESCRIPTION	1997	1999	2002	2007
BATTERIES					
A	DC POWER CONSUMPTION (A)	611.0	626.0	1,728.0	1,980.0
B	HOLDING TIME (HOUR)	3.0	3.0	3.0	3.0
C	RATING FACTOR	4.15	4.15	4.15	4.15
D	NO. OF CELLS	24.0	24.0	24.0	24.0
E	REQUIRED CAPACITY (AH)	2,535.7	2,597.9	7,171.2	8,217.0
F	SELECTED BATT CAPACITY (AH)	1,000.0	1,000.0	1,000.0	1,000.0
G	NO. OF BANKS	3.0	3.0	8.0	9.0
H	BATT CAPACITY (AH)	3,000.0	3,000.0	8,000.0	9,000.0
I	BATT. CHARGING CURRENT (A)	169.0	173.2	478.1	547.8
RECTIFIER					
J	TOTAL CURRENT (A)	780.0	799.2	2,206.1	2,527.8
K	SELECTED UNIT CAPACITY (A)	100.0	100.0	100.0	100.0
L	NO. OF UNITS	7.0	7.0	18.0	20.0
M	NO. OF TOTAL UNITS	8.0	8.0	23.0	26.0
N	NO. OF STAND-BY UNITS	1.0	1.0	5.0	6.0
ENGINE GENERATOR					
O	AC POWER FOR RECT (KVA)	54.4	54.4	139.8	155.3
P	AC POWER FOR UPS (KVA)	20.0	20.0	20.0	20.0
Q	AC POWER FOR AIR-CON. (KVA)	103.0	103.0	103.0	103.0
R	AC POWER FOR OTHERS (KVA)	114.0	114.0	114.0	114.0
S	AC POWER TOTAL (KVA)	291.4	291.4	376.8	392.3
T	SELECTED E/G (KVA)	300.0	300.0	400.0	400.0
AC MAINS CAPACITY					
	FOR RECT (KVA)	64.1	64.1	184.1	208.2
	FOR UPS (KVA)	20.0	20.0	20.0	20.0
	FOR AIR-CON. THR E/G (KVA)	103.0	103.0	103.0	103.0
	FOR AIR-CON. (DIRECT) (KVA)	234.0	234.0	234.0	234.0
	FOR OTHERS (KVA)	114.0	114.0	114.0	114.0
	TOTAL AC MAINS (KVA)	535.1	535.1	655.1	679.2

WEST POWER CALCULATION

ITEM	DESCRIPTION	1997	2002	2007
BATTERIES				
A	DC POWER CONSUMPTION (A)	312.0	512.0	712.0
B	HOLDING TIME (HOUR)	3.0	3.0	3.0
C	RATING FACTOR	4.15	4.15	4.15
D	NO. OF CELLS	24.0	24.0	24.0
E	REQUIRED CAPACITY (AH)	1,294.8	2,124.8	2,954.8
F	SELECTED BATT CAPACITY (AH)	1,000.0	1,000.0	1,000.0
G	NO. OF BANKS	2.0	3.0	3.0
H	BATT CAPACITY (AH)	2,000.0	3,000.0	3,000.0
I	BATT. CHARGING CURRENT (A)	86.3	141.7	197.0
RECTIFIER				
J	TOTAL CURRENT (A)	398.3	653.7	909.0
K	SELECTED UNIT CAPACITY (A)	100.0	100.0	100.0
L	NO. OF UNITS	4.0	6.0	8.0
M	NO. OF TOTAL UNITS	5.0	7.0	10.0
N	NO. OF STAND-BY UNITS	1.0	1.0	2.0
ENGINE GENERATOR				
O	AC POWER FOR RECT (KVA)	31.1	46.6	62.1
P	AC POWER FOR UPS (KVA)	1.0	1.0	1.0
Q	AC POWER FOR AIR-CON. (KVA)	13.0	13.0	13.0
R	AC POWER FOR OTHERS (KVA)	5.0	5.0	5.0
S	AC POWER TOTAL (KVA)	50.1	65.6	81.1
T	SELECTED E/G (KVA)	60.0	70.0	90.0
AC MAINS CAPACITY				
	FOR RECT (KVA)	40.0	56.0	80.1
	FOR UPS (KVA)	1.0	1.0	1.0
	FOR AIR-CON. THR E/G (KVA)	13.0	13.0	13.0
	FOR AIR-CON. (DIRECT) (KVA)	4.0	4.0	4.0
	FOR OTHERS (KVA)	5.0	5.0	5.0
	TOTAL AC MAINS (KVA)	63.0	79.0	103.1

AIRPORT POWER CALCULATION

ITEM	DESCRIPTION	1997	2002	2007
BATTERIES				
A	DC POWER CONSUMPTION (A)	87.0	127.0	247.0
B	HOLDING TIME (HOUR)	3.0	3.0	3.0
C	RATING FACTOR	4.15	4.15	4.15
D	NO. OF CELLS	24.0	24.0	24.0
E	REQUIRED CAPACITY (AH)	361.1	527.1	1,025.1
F	SELECTED BATT CAPACITY (AH)	300.0	300.0	300.0
G	NO. OF BANKS	2.0	2.0	4.0
H	BATT CAPACITY (AH)	600.0	600.0	1,200.0
I	BATT. CHARGING CURRENT (A)	24.1	35.1	68.3
RECTIFIER				
J	TOTAL CURRENT (A)	111.1	162.1	315.3
K	SELECTED UNIT CAPACITY (A)	100.0	100.0	100.0
L	NO. OF UNITS	1.0	2.0	3.0
M	NO. OF TOTAL UNITS	2.0	3.0	4.0
N	NO. OF STAND-BY UNITS	1.0	1.0	1.0
ENGINE GENERATOR				
O	AC POWER FOR RECT (KVA)	7.8	15.5	23.3
P	AC POWER FOR UPS (KVA)	1.0	1.0	1.0
Q	AC POWER FOR AIR-CON. (KVA)	13.0	13.0	13.0
R	AC POWER FOR OTHERS (KVA)	5.0	5.0	5.0
S	AC POWER TOTAL (KVA)	26.8	34.5	42.3
T	SELECTED E/G (KVA)	30.0	40.0	50.0
AC MAINS CAPACITY				
	FOR RECT (KVA)	16.0	24.0	32.0
	FOR UPS (KVA)	1.0	1.0	1.0
	FOR AIR-CON. THR E/G (KVA)	13.0	13.0	13.0
	FOR AIR-CON. (DIRECT) (KVA)	4.0	4.0	4.0
	FOR OTHERS (KVA)	5.0	5.0	5.0
	TOTAL AC MAINS (KVA)	39.0	47.0	55.0

NORTH POWER CALCULATION

ITEM	DESCRIPTION	1999	2004	2009
BATTERIES				
A	DC POWER CONSUMPTION (A)	187.0	307.0	367.0
B	HOLDING TIME (HOUR)	3.0	3.0	3.0
C	RATING FACTOR	4.15	4.15	4.15
D	NO. OF CELLS	24.0	24.0	24.0
E	REQUIRED CAPACITY (AH)	776.1	1,274.1	1,523.1
F	SELECTED BATT CAPACITY (AH)	1,000.0	1,000.0	1,000.0
G	NO. OF BANKS	1.0	2.0	2.0
H	BATT CAPACITY (AH)	1,000.0	2,000.0	2,000.0
I	BATT. CHARGING CURRENT (A)	51.7	84.9	101.5
RECTIFIER				
J	TOTAL CURRENT (A)	238.7	391.9	468.5
K	SELECTED UNIT CAPACITY (A)	100.0	100.0	100.0
L	NO. OF UNITS	2.0	4.0	4.0
M	NO. OF TOTAL UNITS	3.0	5.0	5.0
N	NO. OF STAND-BY UNITS	1.0	1.0	1.0
ENGINE GENERATOR				
O	AC POWER FOR RECT (KVA)	15.5	31.1	31.1
P	AC POWER FOR UPS (KVA)	1.0	1.0	1.0
Q	AC POWER FOR AIR-CON. (KVA)	13.0	13.0	13.0
R	AC POWER FOR OTHERS (KVA)	5.0	5.0	5.0
S	AC POWER TOTAL (KVA)	34.5	50.1	50.1
T	SELECTED E/G (KVA)	40.0	60.0	60.0
AC MAINS CAPACITY				
	FOR RECT (KVA)	24.0	40.0	40.0
	FOR UPS (KVA)	1.0	1.0	1.0
	FOR AIR-CON. THR E/G (KVA)	13.0	13.0	13.0
	FOR AIR-CON. (DIRECT) (KVA)	4.0	4.0	4.0
	FOR OTHERS (KVA)	5.0	5.0	5.0
	TOTAL AC MAINS (KVA)	47.0	63.0	63.0

C.C. REY POWER CALCULATION

ITEM	DESCRIPTION	1999	2004	2007	2009
BATTERIES					
A	DC POWER CONSUMPTION (A)	87.0	247.0	252.0	252.0
B	HOLDING TIME (HOUR)	3.0	3.0	3.0	3.0
C	RATING FACTOR	4.15	4.15	4.15	4.15
D	NO. OF CELLS	24.0	24.0	24.0	24.0
E	REQUIRED CAPACITY (AH)	361.1	1,025.1	1,045.8	1,045.8
F	SELECTED BATT CAPACITY (AH)	300.0	300.0	300.0	300.0
G	NO. OF BANKS	2.0	4.0	4.0	4.0
H	BATT CAPACITY (AH)	600.0	1,200.0	1,200.0	1,200.0
I	BATT. CHARGING CURRENT (A)	24.1	68.3	69.7	69.7
RECTIFIER					
J	TOTAL CURRENT (A)	111.1	315.3	321.7	321.7
K	SELECTED UNIT CAPACITY (A)	100.0	100.0	100.0	100.0
L	NO. OF UNITS	1.0	3.0	3.0	3.0
M	NO. OF TOTAL UNITS	2.0	4.0	4.0	4.0
N	NO. OF STAND-BY UNITS	1.0	1.0	1.0	1.0
ENGINE GENERATOR					
O	AC POWER FOR RECT (KVA)	7.8	23.3	23.3	23.3
P	AC POWER FOR UPS (KVA)	1.0	1.0	1.0	1.0
Q	AC POWER FOR AIR-CON. (KVA)	13.0	13.0	13.0	13.0
R	AC POWER FOR OTHERS (KVA)	5.0	5.0	5.0	5.0
S	AC POWER TOTAL (KVA)	26.8	42.3	42.3	42.3
T	SELECTED E/G (KVA)	30.0	50.0	50.0	50.0
AC MAINS CAPACITY					
	FOR RECT (KVA)	16.0	32.0	32.0	32.0
	FOR UPS (KVA)	1.0	1.0	1.0	1.0
	FOR AIR-CON. THR E/G (KVA)	13.0	13.0	13.0	13.0
	FOR AIR-CON. (DIRECT) (KVA)	4.0	4.0	4.0	4.0
	FOR OTHERS (KVA)	5.0	5.0	5.0	5.0
	TOTAL AC MAINS (KVA)	39.0	55.0	55.0	55.0

TAKHMAU POWER CALCULATION

ITEM	DESCRIPTION	1999	2004	2009
BATTERIES				
A	DC POWER CONSUMPTION (A)	207.0	407.0	587.0
B	HOLDING TIME (HOUR)	3.0	3.0	3.0
C	RATING FACTOR	4.15	4.15	4.15
D	NO. OF CELLS	24.0	24.0	24.0
E	REQUIRED CAPACITY (AH)	859.1	1,689.1	2,436.1
F	SELECTED BATT CAPACITY (AH)	1,000.0	1,000.0	1,000.0
G	NO. OF BANKS	1.0	2.0	3.0
H	BATT CAPACITY (AH)	1,000.0	2,000.0	3,000.0
I	BATT. CHARGING CURRENT (A)	57.3	112.6	162.4
RECTIFIER				
J	TOTAL CURRENT (A)	264.3	519.6	749.4
K	SELECTED UNIT CAPACITY (A)	100.0	100.0	100.0
L	NO. OF UNITS	3.0	5.0	6.0
M	NO. OF TOTAL UNITS	4.0	6.0	8.0
N	NO. OF STAND-BY UNITS	1.0	1.0	2.0
ENGINE GENERATOR				
O	AC POWER FOR RECT (KVA)	23.3	38.8	46.6
P	AC POWER FOR UPS (KVA)	1.0	1.0	1.0
Q	AC POWER FOR AIR-CON. (KVA)	13.0	13.0	13.0
R	AC POWER FOR OTHERS (KVA)	5.0	5.0	5.0
S	AC POWER TOTAL (KVA)	42.3	57.8	65.6
T	SELECTED E/G (KVA)	50.0	60.0	70.0
AC MAINS CAPACITY				
	FOR RECT (KVA)	32.0	48.0	64.1
	FOR UPS (KVA)	1.0	1.0	1.0
	FOR AIR-CON. THR E/G (KVA)	13.0	13.0	13.0
	FOR AIR-CON. (DIRECT) (KVA)	4.0	4.0	4.0
	FOR OTHERS (KVA)	5.0	5.0	5.0
	TOTAL AC MAINS (KVA)	55.0	71.0	87.1

C.AMPOU POWER CALCULATION

ITEM	DESCRIPTION	1999	2004	2009
BATTERIES				
A	DC POWER CONSUMPTION (A)	242.0	412.0	712.0
B	HOLDING TIME (HOUR)	3.0	3.0	3.0
C	RATING FACTOR	4.15	4.15	4.15
D	NO. OF CELLS	24.0	24.0	24.0
E	REQUIRED CAPACITY (AH)	1,004.3	1,709.8	2,954.8
F	SELECTED BATT CAPACITY (AH)	1,000.0	1,000.0	1,000.0
G	NO. OF BANKS	2.0	2.0	3.0
H	BATT CAPACITY (AH)	2,000.0	2,000.0	3,000.0
I	BATT. CHARGING CURRENT (A)	67.0	114.0	197.0
RECTIFIER				
J	TOTAL CURRENT (A)	309.0	526.0	909.0
K	SELECTED UNIT CAPACITY (A)	100.0	100.0	100.0
L	NO. OF UNITS	3.0	5.0	8.0
M	NO. OF TOTAL UNITS	4.0	6.0	10.0
N	NO. OF STAND-BY UNITS	1.0	1.0	2.0
ENGINE GENERATOR				
O	AC POWER FOR RECT (KVA)	23.3	38.8	62.1
P	AC POWER FOR UPS (KVA)	1.0	1.0	1.0
Q	AC POWER FOR AIR-CON. (KVA)	13.0	13.0	13.0
R	AC POWER FOR OTHERS (KVA)	5.0	5.0	5.0
S	AC POWER TOTAL (KVA)	42.3	57.8	81.1
T	SELECTED E/G (KVA)	50.0	60.0	90.0
AC MAINS CAPACITY				
	FOR RECT (KVA)	32.0	48.0	80.1
	FOR UPS (KVA)	1.0	1.0	1.0
	FOR AIR-CON. THR E/G (KVA)	13.0	13.0	13.0
	FOR AIR-CON. (DIRECT) (KVA)	4.0	4.0	4.0
	FOR OTHERS (KVA)	5.0	5.0	5.0
	TOTAL AC MAINS (KVA)	55.0	71.0	103.1

PREK PHNOU & P.RUSSEI POWER CALCULATION

ITEM	DESCRIPTION	2007	2017
BATTERIES			
A	DC POWER CONSUMPTION (A)	37.0	127.0
B	HOLDING TIME (HOUR)	3.0	3.0
C	RATING FACTOR	4.15	4.15
D	NO. OF CELLS	24.0	24.0
E	REQUIRED CAPACITY (AH)	153.6	527.1
F	SELECTED BATT CAPACITY (AH)	300.0	300.0
G	NO. OF BANKS	1.0	2.0
H	BATT CAPACITY (AH)	300.0	600.0
I	BATT. CHARGING CURRENT (A)	10.2	35.1
RECTIFIER			
J	TOTAL CURRENT (A)	47.2	162.1
K	SELECTED UNIT CAPACITY (A)	100.0	100.0
L	NO. OF UNITS	1.0	2.0
M	NO. OF TOTAL UNITS	2.0	3.0
N	NO. OF STAND-BY UNITS	1.0	1.0
ENGINE GENERATOR			
O	AC POWER FOR RECT (KVA)	7.8	15.5
P	AC POWER FOR UPS (KVA)	1.0	1.0
Q	AC POWER FOR AIR-CON. (KVA)	13.0	13.0
R	AC POWER FOR OTHERS (KVA)	5.0	5.0
S	AC POWER TOTAL (KVA)	26.8	34.5
T	SELECTED E/G (KVA)	30.0	40.0
AC MAINS CAPACITY			
	FOR RECT (KVA)	16.0	24.0
	FOR UPS (KVA)	1.0	1.0
	FOR AIR-CON. THR E/G (KVA)	13.0	13.0
	FOR AIR-CON. (DIRECT) (KVA)	4.0	4.0
	FOR OTHERS (KVA)	5.0	5.0
	TOTAL AC MAINS (KVA)	39.0	47.0

P.RUSSEI

2007	2017
27.0	67.0
3.0	3.0
4.15	4.15
24.0	24.0
112.1	278.1
300.0	300.0
1.0	1.0
300.0	300.0
7.5	18.5
34.5	85.5
100.0	100.0
1.0	1.0
2.0	2.0
1.0	1.0
7.8	7.8
1.0	1.0
13.0	13.0
5.0	5.0
26.8	26.8
30.0	30.0
16.0	16.0
1.0	1.0
13.0	13.0
4.0	4.0
5.0	5.0
39.0	39.0

Power Load of Power Supply System

Office	Type	1997	1999	2002	2004	2007	Ultimate	Remarks
CENTRAL	Direct	233.2	233.2	233.2	233.2	233.2	233.2	
	Direct E/G	216.5	216.5	216.5	216.5	216.5	216.5	
	UPS	14.1	14.1	15.5	15.5	15.5	15.5	
	RECT	611 A	626 A	1,728 A	1,728 A	1,980 A	1,980 A	
WEST	Direct	3.2	3.2	3.2	3.2	3.2	3.2	
	Direct E/G	17.7	17.7	17.7	17.7	17.7	17.7	
	UPS	0.7	0.7	0.7	0.7	0.7	0.7	
	RECT	312 A	312 A	512 A	512 A	712 A	712 A	
AIRPORT	Direct	3.2	3.2	3.2	3.2	3.2	3.2	
	Direct E/G	17.7	17.7	17.7	17.7	17.7	17.7	
	UPS	0.7	0.7	0.7	0.7	0.7	0.7	
	RECT	87 A	87 A	127 A	127 A	247 A	247 A	
NORTH	Direct	-	3.2	3.2	3.2	3.2	3.2	
	Direct E/G	-	17.7	17.7	17.7	17.7	17.7	
	UPS	-	0.7	0.7	0.7	0.7	0.7	
	RECT	-	187 A	187 A	307 A	307 A	367 A	
C.C.REY	Direct	-	3.2	3.2	3.2	3.2	3.2	
	Direct E/G	-	17.7	17.7	17.7	17.7	17.7	
	UPS	-	0.7	0.7	0.7	0.7	0.7	
	RECT	-	87 A	87 A	247 A	252 A	252 A	
TAKHMAU	Direct	-	3.2	3.2	3.2	3.2	3.2	
	Direct E/G	-	17.7	17.7	17.7	17.7	17.7	
	UPS	-	0.7	0.7	0.7	0.7	0.7	
	RECT	-	207 A	207 A	407 A	407 A	587 A	
C.AMPOU	Direct	-	3.2	3.2	3.2	3.2	3.2	
	Direct E/G	-	17.7	17.7	17.7	17.7	17.7	
	UPS	-	0.7	0.7	0.7	0.7	0.7	
	RECT	-	242 A	242 A	412 A	412 A	712 A	
PREK PHNOU	Direct	-	-	-	-	3.2	3.2	
	Direct E/G	-	-	-	-	17.7	17.7	
	UPS	-	-	-	-	0.7	0.7	
	RECT	-	-	-	-	37 A	127 A	
P.RUSSEI	Direct	-	-	-	-	3.2	3.2	
	Direct E/G	-	-	-	-	17.7	17.7	
	UPS	-	-	-	-	0.7	0.7	
	RECT	-	-	-	-	27 A	67 A	

Note Direct: Direct connection with commercial power, Direct E/G: Direct connection with Engine Generator, UPS: Power load in kVA of UPS, RECT: Power load in Ampere of Rectifier

Power Consumption (DC/AC)

1. Central Telephone Office

Power Consumption of Telecommunications Facilities (supplied by Rectifier or UPS)

System to be introduced		S+0	(1997)	1999	2002	S+10	(2007)	Remarks
		DC-48	AC	DC-48	DC-48	DC-48	AC	
Exchange	LS	530 A	0.7 kVA	530 A	790 A	1,000 A	0.7 kVA	
	TS	-	-	-	800 A	800 A	0.7 kVA	
	INTS	-	-	-				
	Manual SW Board	50 A	-	50 A	50 A	50 A	-	
	Billing/Accouting	-	12 kVA	-	-	-	12 kVA	
Approach Link	to ITC	5 A	-	5 A	10 A	10 A	-	F/O
Long Distance & International	to Hochimin	-	-	-	18 A	18 A	-	Micro
	to Sihanoukville	-	-	-	18 A	18 A	-	Micro
	to Kompong Cham	-	-	-	-	18 A	-	Micro
	to Sisophone	-	-	-	-	18 A	-	Micro
	Micro SV	-	-	-	-	-	0.7 kVA	
Junction	to Training Cen.	5 A	-	5 A	5 A	5 A	-	F/O
	to West(Airport)	5 A	-	5 A	5 A	5 A	-	F/O
	to North	-	-	5 A	5 A	5 A	-	F/O
	to C.C.Rey(P.P)	-	-	5 A	5 A	5 A	-	F/O
	to C.Ampou(Takh.)	-	-	5 A	5 A	5 A	-	F/O
	to Russei Keo	-	-	-	-	5 A	-	F/O
	F/O SV	7 A	0.7 kVA	7 A	7 A	7 A	0.7 kVA	
Radio Sub.	Digital MAS	9 A	0.7 kVA	9 A	10 A	11 A	0.7 kVA	
Total		611 A	14.1 kVA	626 A	1,728 A	1,980 A	15.5kVA	

Power Consumption of Miscellaneous Facilities

Facilities		S + 10(2007)	Remarks
Supplied by E/G	Air-Conditioner	102.8 kVA	34a,14kW/160m^{2}x3a x36m^{2}x80%x1.2
	Water Raising Pump	3.0 kVA	5.5kWx45%x1.2
	Draining Pump	3.0 kVA	5.5kWx45%x1.2
	Light	51.8 kVA	80Wx2x9/60m^{2}x60%x1.2x3000m^2
	Outlet	50.0 kVA	2.5kW/36m^{2}x20%x1.2x3000m^2
	Spare (elevator)	5.9 kVA	7.5kWx65%x1.2
	Sub-total	216.5 kVA	
Commercial	Air-Conditioner	233.2 kVA	Office:14kW/160x2776m^{2}x80%x1.2

Note: a=36m^2, b:Ratio of simultaneous use

2. West Telephone Office

Power Consumption of Telecommunications Facilities (by Rectifier or UPS)

System to be introduced		S+0 (1997)		2002	S+10 (2007)		Remarks
		DC-48 V	AC	DC-48 V	DC-48 V	AC	
Exchange	LS	300 A	0.7 kVA	500 A	700 A	0.7 kVA	
Junction	to Central	5 A	-	5 A	5 A	-	F/O
	to Airport	5 A	-	5 A	5 A	-	F/O
	F/O Common	2 A	-	2 A	2 A	-	
Total		312 A	0.7 kVA	512 A	712 A	0.7 kVA	

Power Consumption of Miscellaneous Facilities

Facilities		S + 10(2007)	Remarks
Supplied by E/G	Air-Conditioner	12.8 kVA	4a, b=80%
	Light	2.5 kVA	80Wx2x9/60m^{2}x60%x1.2x4x36m^2
	Outlet	2.4 kVA	2.5kW/36m^{2}x20%x1.2x4x36m^2
	Sub-total	17.7 kVA	
Commercial	Air-Conditioner	3.2 kVA	Office: 1a, b=80%

Note: a=36m^2, b:Ratio of simultaneous use

3. Airport Telephone Office

Power Consumption of Telecommunications Facilities (by Rectifier or UPS)

System to be introduced		S+0 (1997)		2002	S+10 (2007)		Remarks
		DC	AC	DC-48 V	DC	AC	
Exchange	LS	80 A	0.7 kVA	120 A	240 A	0.7 kVA	
Junction	to West	5 A	-	5 A	5 A	-	F/O
	F/O Common	2 A	-	2 A	2 A	-	
Total		87 A	0.7 kVA	127 A	247 A	0.7 kVA	

Power Consumption of Miscellaneous Facilities

Facilities		S + 10(2007)	Remarks
Supplied by E/G	Air-Conditioner	12.8 kVA	4a, b=80%
	Light	2.5 kVA	80Wx2x9/60m^{2}x60%x1.2x4x36m^2
	Outlet	2.4 kVA	2.5kW/36m^{2}x20%x1.2x4x36m^2
	Sub-total	17.7 kVA	
Commercial	Air-Conditioner	3.2 kVA	Office: 1a, b=80%

Note: a=36m^2, b:Ratio of simultaneous use

4. North Telephone Office

Power Consumption of Telecommunications Facilities (by Rectifier or UPS)

System to be introduced		S+0	(1999)	2004	S+10	(2009)	Remarks
		DC-48 V	AC220 V	DC-48 V	DC-48 V	AC220 V	
Exchange	LS	180 A	0.7 kVA	300 A	360 A	0.7 kVA	
Junction	to Central	5 A	-	5 A	5 A	-	F/O
	F/O Common	2 A	-	2 A	2 A	-	
		187 A	0.7 kVA	307 A	367 A	0.7 kVA	

Power Consumption of Miscellaneous Facilities

Facilities		S + 10(2009)	Remarks
Supplied by E/G	Air-Conditioner	12.8 kVA	4a, b=80%
	Light	2.5 kVA	80Wx2x9/60m^{2}x60%x1.2x4x36m^2
	Outlet	2.4 kVA	2.5kW/36m^{2}x20%x1.2x4x36m^2
	Sub-total	17.7 kVA	
Commercial	Air-Conditioner	3.2 kVA	Office:1a, b=80%

Note: a=36m^2, b:Ratio of simultaneous use

5. C.C.Rey Telephone Office

Power Consumption of Telecommunications Facilities (by Rectifier or UPS)

System to be introduced		S+0	(1999)	2004	2007	S+10	(2009)	Remarks
		DC-48 V	AC220 V	DC-48 V	DC-48 V	DC-48 V	AC220 V	
Exchange	LS	80 A	0.7 kVA	240 A	240 A	240 A	0.7 kVA	
Junction	to Central	5 A	-	5 A	5 A	5 A	-	F/O
	to Prek Phnou	-	-	-	5 A	5 A	-	F/O
	F/O Common	2 A	-	2 A	2 A	2 A	-	
		87 A	0.7 kVA	247 A	252 A	252 A	0.7 kVA	

Power Consumption of Miscellaneous Facilities

Facilities		S + 10(2009)	Remarks
Supplied by E/G	Air-Conditioner	12.8 kVA	4a, b=80%
	Light	2.5 kVA	80Wx2x9/60m^{2}x60%x1.2x4x36m^2
	Outlet	2.4 kVA	2.5kW/36m^{2}x20%x1.2x4x36m^2
	Sub-total	17.7 kVA	
Commercial	Air-Conditioner	3.2 kVA	Office:1a, b=80%

Note: a=36m^2, b:Ratio of simultaneous use

6. Takhmau Telephone Office

Power Consumption of Telecommunications Facilities (by Rectifier or UPS)

System to be introduced		S+0	(1999)	2004	S+10	(2009)	Remarks
		DC-48 V	AC220 V	DC-48 V	DC-48 V	AC220 V	
Exchange	LS	200 A	0.7 kVA	400 A	580 A	0.7 kVA	
Junction	to Central	5 A	-	5 A	5 A	-	F/O
	F/O Common	2 A	-	2 A	2 A	-	
		207 A	0.7 kVA	407 A	587 A	0.7 kVA	

Power Consumption of Miscellaneous Facilities

Facilities		S + 10(2009)	Remarks
Supplied by E/G	Air-Conditioner	12.8 kVA	4a, b=80%
	Light	2.5 kVA	80Wx2x9/60m^{2}x60%x1.2x4x36m^2
	Outlet	2.4 kVA	2.5kW/36m^{2}x20%x1.2x4x36m^2
	Sub-total	17.7 kVA	
Commercial	Air-Conditioner	3.2 kVA	Office:1a, b=80%

Note: a=36m^2, b:Ratio of simultaneous use

7. C.Ampou Telephone Office

Power Consumption of Telecommunications Facilities (by Rectifier or UPS)

System to be introduced		S+0	(1999)	2004	S+10	(2009)	Remarks
		DC-48 V	AC220 V	DC-48 V	DC-48 V	AC220 V	
Exchange	LS	230 A	0.7 kVA	400 A	700 A	0.7 kVA	
Junction	to Central	5 A	-	5 A	5 A	-	F/O
	to Takhmau	5 A	-	5 A	5 A	-	F/O
	F/O Common	2 A	-	2 A	2 A	-	
		242 A	0.7 kVA	412 A	712 A	0.7 kVA	

Power Consumption of Miscellaneous Facilities

Facilities		S + 10(2009)	Remarks
Supplied by E/G	Air-Conditioner	12.8 kVA	4a, b=80%
	Light	2.5 kVA	80Wx2x9/60m^{2}x60%x1.2x4x36m^2
	Outlet	2.4 kVA	2.5kW/36m^{2}x20%x1.2x4x36m^2
	Sub-total	17.7 kVA	
Commercial	Air-Conditioner	3.2 kVA	Office:1a, b=80%

Note: a=36m^2, b:Ratio of simultaneous use

8. Prek Phnou Telephone Office

Power Consumption of Telecommunications Facilities (by Rectifier or UPS)

System to be introduced		S+0	(2007)	S+10	(2017)	Remarks
		DC-48 V	AC	DC-48 V	AC	
Exchange	LS	30 A	0.7 kVA	120 A	0.7 kVA	
Junction	to C.C.Rey	5 A	-	5 A	-	F/O
	F/O Common	2 A	-	2 A	-	
		37 A	0.7 kVA	127 A	0.7 kVA	

Power Consumption of Miscellaneous Facilities

Facilities		S + 10(2017)	Remarks
Supplied by E/G	Air-Conditioner	12.8 kVA	4a, b=80%
	Light	2.5 kVA	80Wx2x9/60m^{2}x60%x1.2x4x36m^2
	Outlet	2.4 kVA	2.5kW/36m^{2}x20%x1.2x4x36m^2
	Sub-total	17.7 kVA	
Commercial	Air-Conditioner	3.2 kVA	Office:1a, b=80%

Note: a=36m^2, b:Ratio of simultaneous use

9. P.Russei Telephone Office

Power Consumption of Telecommunications Facilities (by Rectifier or UPS)

System to be introduced		S+0	(2007)	S+10	(2017)	Remarks
		DC-48 V	AC	DC-48 V	AC	
Exchange	LS	20 A	0.7 kVA	60 A	0.7 kVA	
Junction	to Central	5 A	-	5 A	-	F/O
	F/O Common	2 A	-	2 A	-	
		27 A	0.7 kVA	67 A	0.7 kVA	

Power Consumption of Miscellaneous Facilities

Facilities		S + 10(2017)	Remarks
Supplied by E/G	Air-Conditioner	12.8 kVA	4a, b=80%
	Light	2.5 kVA	80Wx2x9/60m^{2}x60%x1.2x4x36m^2
	Outlet	2.4 kVA	2.5kW/36m^{2}x20%x1.2x4x36m^2
	Sub-total	17.7 kVA	
Commercial	Air-Conditioner	3.2 kVA	Office:1a, b= 80%

Note: a=36m^2, b:Ratio of simultaneous use

Introduction Plan for Power Calculation

1. Central Exchange Office

System to be introduced		S+0 (1997)	S+5 (2002)	S+10 (2007)	Remarks
Exchange	LS	○(10,000)	○(14,000)	○(21,000)	
	TS		○	○	
	INTS		○	○	
Approach Link	to ITC	○(STM-1)	○(STM-1x2)	○(STM-1x2)	
Long Distance & International	to Hochimin		○(STM-1)	○(STM-1)	Microwave
	to Sihanoukville		○(STM-1)	○(STM-1)	Microwave
	to Kompong Cham			○(STM-1)	Microwave
	to Sisophone			○(STM-1)	Microwave
Junction	to West	○(STM-1)	○(STM-1)	○(STM-1)	F/O,includingAirport
	to Airport	○(STM-1)	○(STM-1)	○(STM-1)	F/O,through West
	to North		○(STM-1)	○(STM-1)	F/O
	to C.C.Rey		○(STM-1)	○(STM-1)	F/O,including Prek P.
	to Prek Phnou			○(STM-1)	F/O,through C.C.Rey
	to C.Ampou		○(STM-1)	○(STM-1)	F/O,including Takhmau
	to Takhmau		○(STM-1)	○(STM-1)	F/O, through C.Ampou
	to Russei Keo			○(STM-1)	Microwave
Radio Subscriber	Digital MAS	○(300)	○(500)	○(1000)	( ):No. of Lines

2. West Exch ange Office

System to be introduced		S+0 (1997)	S+5 (2002)	S+10 (2007)	Remarks
Exchange	LS	○(6,000)	○(10,000)	○(15,000)	
Junction	to Central	○(STM-1)	○(STM-1)	○(STM-1)	F/O
	to Airport	○(STM-1)	○(STM-1)	○(STM-1)	F/O

3. Airport Exchange Office

System to be introduced		S+0 (1997)	S+5 (2002)	S+10 (2007)	Remarks
Exchange	RSU	○(800)	○(1,500)	○(3,000)	
Junction	to West	○(STM-1)	○(STM-1)	○(STM-1)	F/O

[Exchange Office for Feasibility Study]

4. North Exchange Office

System to be introduced		S+0 (1999)	S+5 (2004)	S+10 (2009)	Remarks
Exchange	LS	2,200	3,600	6,000	
Junction	to Central	STM-1	STM-1	STM-1	F/O

5. Takhmau Exchange Office

System to be introduced		S+0 (1999)	S+5 (2004)	S+10 (2009)	Remarks
Exchange	LS	2,400	4,800	10,000	
Junction	to C.Ampou	STM-1	STM-1	STM-1	F/O

6. C.C.Rey Exchange Office

System to be introduced		S+0 (1999)	S+5 (2004)	S+10 (2009)	Remarks
Exchange	LS	800	1,300	3,000	
Junction	to Central	STM-1	STM-1	STM-1	F/O
	to Prek Phnou	-	-	STM-1	Microwave

7. C.Ampou Exchange Office

System to be introduced		S+0 (1999)	S+5 (2004)	S+10 (2009)	Remarks
Exchange	LS	2,200	4,000	14,000	
Junction	to Central	STM-1	STM-1	STM-1	F/O
	to Takhmau	STM-1	STM-1	STM-1	F/O

8. Prek Phnou Exchange Office

System to be introduced		S+0 (2007)	S+5 (2012)	S+10 (2017)	Remarks
Exchange	RSU	500	-	2,000	
Junction	to C.C.Rey	STM-1	STM-1	STM-1	Microwave

9. P.Russei Exchange Office

System to be introduced		S+0 (2007)	S+5 (2012)	S+10 (2017)	Remarks
Exchange	RSU	300	-	900	
Junction	to Central	STM-1	STM-1	STM-1	

Appendix 11

Operation and Maintenance Plan

Appendix 11-1 Number of Staff for the Project

Year	Number of Staff	
	Calculation	Assumption
1994	230	230
1995	220	240
1996	210	270
1997	220	330
1998	370	410
1999	510	480
2000	520	530
2001	560	550
2002	510	550
2003	540	560
2004	560	560
2005	560	560
2006	560	560
2007	510	560

Assumption : No. of Staff =

$$\frac{337.587688314631}{1 + 44.0957093096884 \times e^{(-0.990805046126667 \times (\text{Year}-1994))}}$$

Appendix 12

Implementation Plan

Appendix 13

Cost Estimation

Appendix 13-1 Project Summary (1/13)

Package : First Stage

Location : North, Charang Cham Reh, Takhmau, Chabar Ampou exchanges

Objectives : To set up local telecommunications networks in the objective areas to match the demand of the areas in the commencement year, 1999

Implementation :
- Field Survey
- Basic Design
- Detailed Design
- Procurement and Installation of the local telecommunications network
- Testing/commissioning
- Training

Main Component :

- Building	4 Exchange Offices
- Local Exchange	7,600 LU
	Network Management System
- Local Cable	7,800 pairs
- Junction Cable	5 Sections
	5+5 Sys
	Network Management System
- Power Supply	270 KVA Engine Generator
	200 KVA AC-MAINS

The following centers constructed in this stage are described hereafter.

- Training Center
- Outside Plant Maintenance Center
- Billing Center

Implementation Schedule :
- Implementation : 1998 - 1999
- Commencement : 1999

Estimated Cost	:	US$ 16,713 thousand (Training Center, Outside Plant Maintenance Center, and Billing Center are excluded.)
Technical Assistance	:	- Engineering Services by Foreign Consultant for basic and detailed design, project management to be required - Training by the construction contractor to be required
Project Preparation	:	Fundamental Network Plan is prepared in this feasibility report
Related Project	:	The Emergency Project establishing central, west, airport exchange offices covering Phnom Penh city and airport area and scheduled to complete in 1997 is under preparation.

Package : Training Center

Location : Phnom Penh city

Objectives : To match the needs for human resource development, the needs for reinforcement of manpower in terms of number of new employees and the needs for grading up employees skills to handle newly introduced telecommunications facilities

Implementation :
- Field Survey
- Consultation about training needs
- Basic Design
- Detailed Design
- Procurement and Installation of training-aids

Main Component :
- Building consisting of Office room, Training / Practice room with office equipment, training-aids and furniture
- Simulator of telecommunications equipment such as switch, transmission and radio and cable subscriber system
- Simulator of computerized systems including network management system for both switching and transmission

Implementation Schedule : The year the first group of the project commences operation, or 1999

Estimated Cost (US$) :
- US$ 7,152 thousand

Technical Assistance :
- Engineering Services by Foreign Consultant for basic and detailed design, project management to be required
- Technical assistance to establish suitable training procedure by Foreign Consultant to be required
- Training by the contractor for handling training-aid to be required

Project Preparation : The establishment is scheduled in this feasibility report

Related Project : The Emergency Project establishing central, west, airport exchange offices covering Phnom Penh city and airport area and scheduled to complete in 1997 is under preparation.

- The Essential Project in the form of four stages with the completion years of 1999, 2002, 2004 and 2007 is formulated in this feasibility report.

Package : Billing Center

Location : Phnom Penh city

Objectives : To manage the data of charge for calls and to issue the bill to subscribers by upgraded work procedure

Implementation :
- Field Survey
- Basic Design
- Detailed Design
- Procurement and Installtion of facilities for the management of the data of charge and the issuance of bill

Main Component :
- Building consisting of Computer room, Office room and Bill dispatch room
- Facilities consisting of Computer equipment, Printing equipment for preparing bill

Implementation Schedule : The year the first group of the project commences operation, or 1999

Estimated Cost (US$) :
- US$ 5,665 thousand

Technical Assistance :
- Engineering Services by Foreign Consultant for basic and detailed design, project management to be required
- Training by the contractor for facilities to be required

Project Preparation : The establishment is scheduled in this feasibility report

Related Project :
- The Emergency Project establishing central, west, airport exchange offices covering Phnom Penh city and airport area and scheduled to complete in 1997 is under preparation.
- The Essential Project in the form of four stages with the completion years of 1999, 2002, 2004 and 2007 is formulated in this feasibility report.

Package : Outside Plant Maintenance Center (OPMC)

Location : Phnom Penh city

Objectives : To match the outside plant expansion which may need reinforcement of MPTC in both terms of man power and mechanization to operate the facilities

Implementation :
- Field Survey
- Basic Design
- Detailed Design
- Procurement and Installation of facilities for the outside plant maintenance and operation
- Training

Main Component :
- Building consisting of Office room, Storage, Training / Practice room with office equipment and furniture
- Parking lot
- Facilities consisting of measuring equipment, working tools, vehicles
- Computerized system consisting of plant record management, cable pair assignment sheet and fault record analysis

Implementation Schedule : The year the number of subscriber exceeds about 20,000, or 1999

Estimated Cost (US$) :
- US$ 5,226 thousand

Technical Assistance :
- Engineering Services by Foreign Consultant for basic and detailed design, project management to be required
- Technical assistance to establish efficient work procedure by foreign operator(s) to be required
- Training by the contractor for facilities to be required

Project Preparation : The establishment is scheduled in this feasibility report

Related Project : The Emergency Project establishing central, west, airport exchange offices covering Phnom Penh city and airport area and scheduled to complete in 1997 is under preparation.

- The Essential Project in the form of four stages with the completion years of 1999, 2002, 2004 and 2007 is formulated in this feasibility report.

Package : Second Stage

Location : Central exchange, West exchange, Airport exchange

Objectives : To expand local telecommunications networks in the objective areas following the Emergency Project to match the demand of the areas in 2002 in accordance with the recommendation that the provisioning for further expansion being implemented every 5 years

Implementation :
- Field Survey
- Basic Design
- Detailed Design
- Procurement and Installation of the local telecommunications network
- Testing/commissioning
- Training

Main Component :
- Local Exchange 8,700 LU
- Local Cable 9,600 pairs
- Power Supply + 145 KVA AC-MAINS (*)

(Note: Junction network capacity constructed under the Emergency Project and the first stage of this project will be enough for the second stage)

(*; + means work for capacity upgrading to existing power supply facilities)

Implementation Schedule :
- Implementation : 2002
- Commencement : 2002

Estimated Cost : US$ 7,744 thousand

Technical Assistance :
- Engineering Services by Foreign Consultant for basic and detailed design, project management to be required
- Training by the construction contractor to be required

Project Preparation	:	Fundamental Network Plan is prepared in this feasibility report
Related Project	:	The Emergency Project establishing central, west, airport exchange offices covering Phnom Penh city and airport area and scheduled to complete in 1997 is under preparation.

Package : Third Stage

Location : North, Charang Cham Reh, Takhmau, Chabar Ampou exchanges

Objectives : To expand local telecommunications networks in the objective areas following the first stage of this project to match the demand of the areas in 2004 in accordance with the recommendation that the provisioning for further expansion being implemented every 5 years

Implementation :
- Field Survey
- Basic Design
- Detailed Design
- Procurement and Installation of the local telecommunications network
- Testing/commissioning
- Training

Main Component :
- Local Exchange 6,500 LU
- Local Cable 7,400 pairs
- Junction Cable 4 Units expansion
- Power Supply + 70 KVA AC-MAINS (*)

(*; + means work for capacity upgrading to existing power supply facilities)

Implementation Schedule :
- Implementation : 2004
- Commencement : 2004

Estimated Cost : US$ 8,978 thousand

Technical Assistance :
- Engineering Services by Foreign Consultant for basic and detailed design, project management to be required
- Training by the construction contractor to be required

Project Preparation	:	Fundamental Network Plan is prepared in this feasibility report
Related Project	:	The Emergency Project establishing central, west, airport exchange offices covering Phnom Penh city and airport area and scheduled to complete in 1997 is under preparation.

Package : Forth Stage

Location : Central exchange, West exchange, Airport exchange, Prek Phnou exchange, Russei exchange

Objectives :
- To expand local telecommunications networks in the areas of the Central, West and Airport exchange following the second stage to match the demand of the areas in 2007 in accordance with the recommendation that the provisioning for further expansion being implemented every 5 years
- To set up local telecommunications networks in the areas of Prek Phnou and Russei exchange to match the demand of the areas in the commencement year, 2007

Implementation :
- Field Survey
- Basic Design
- Detailed Design
- Procurement and Installation of the local telecommunications network
- Testing/commissioning
- Training

Main Component :

- Local Exchange	14,300 LU	
- Local Cable	17,750 pairs	
- Junction Cable	2 Sections	
	2+2 Sys	
- Power Supply	70 KVA Engine Generator	
	80 KVA AC-MAINS	
-	+ 50 KVA AC-MAINS (*)	

(*; + means work for capacity upgrading to existing power supply facilities)

Implementation Schedule :
- Implementation : 2007
- Commencement : 2007

Estimated Cost	:	US$ 20,287 thousand
Technical Assistance	:	- Engineering Services by Foreign Consultant for basic and detailed design, project management to be required - Training by the construction contractor to be required
Project Preparation	:	Fundamental Network Plan is prepared in this feasibility report
Related Project	:	The Emergency Project establishing central, west, airport exchange offices covering Phnom Penh city and airport area and scheduled to complete in 1997 is under preparation.

Appendix 14

Project Evaluation

Appendix 14-1 Result of the Survey for Telephone Users

User rank	Range of IDD Telephone Charges	Number of Subscribers	Average IDD Telephone Charges
Large Scale Business	over US$100	201	US$750
Middle Scale Business	US$50~US$100	18	US$85
Small Scale Business and Residential use	US$30~US$50	2	US$35

Note : Data about IDD telephone charges are of per subscriber per month

Appendix 15

Recommendation