16768			CHILMINGT	ON GREEN			Site No: 10	6768004		Location	Site 4, Chi	lmington G	ireen Road	(TP 3)		
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: N	Northbound								
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<21	21-<31	31-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	71-<76	=>76
	- 40															
Wed 11-Sep 00:00		-	44.1	7.3	0	0	0	1	2	0	1	0	0	0	0	0
01:00	2	-	39.8	5.3	0	0	0	1	1	0	0	0	0	0	0	0
02:00	1	<u>-</u>	43.5	-	0	0	0	0	1	0	0	0	0	0	0	0
03:00	3	<u>-</u>	47.7	11.3	0	0	0	1	0	1	0	1	0	0	0	0
04:00	15	51.4	45.3	6.3	0	0	0	3	5	4	3	0	0	0	0	0
05:00	29	52.4	45.3	8.6	0	0	1	6	9	7	4	1	0	1	0	0
06:00	81	49.9	44.9	6.7	0	0	0	16	33	25	3	2	0	2	0	0
07:00	162	51	44.2	6.9	0	1	2	36	60	38	23	2	0	0	0	0
08:00	225	49.1	42.1	6.7	0	1	3	84	77	42	16	2	0	0	0	0
09:00	122	48.9	42.2	6.6	0	0	4	40	43	28	6	1	0	0	0	0
10:00	122	48.1	42.4	6.4	0	0	0	44	52	17	6	1	2	0	0	0
11:00	133	47.8	41.6	6.7	0	0	2	55	49	18	7	1	0	1	0	0
12:00	125	48.2	40.5	7.8	0	1	7	56	36	13	9	3	0	0	0	0
13:00	128	50.1	43.1	7	0	0	1	46	36	31	11	2	1	0	0	0
14:00	124	49.1	42.3	6.7	0	1	0	47	40	27	8	1	0	0	0	0
15:00	161	48.6	41.4	7.7	1	1	5	61	56	24	10	2	1	0	0	0
16:00	172	45.9	40.4	6	0	0	4	82	60	22	3	1	0	0	0	0
17:00	170	49.4	42	8.4	1	4	5	50	58	38	11	2	1	0	0	0
18:00	92	50.2	42.5	10.4	0	7	1	20	28	26	4	5	0	1	0	0
19:00	80	49.3	41.8	9.1	1	1	2	30	23	16	3	2	1	1	0	0
20:00	43	49.8	43.3	6.5	0	0	1	11	18	8	5	0	0	0	0	0
21:00	33	46.6	40.5	5.9	0	0	0	18	9	5	1	0	0	0	0	0
22:00	25	44.4	37.1	7.4	0	0	5	11	7	2	0	0	0	0	0	0
23:00	10	54.3	49.3	10.3	0	0	0	1	4	1	3	0	0	0	1	0
12H,7-19	1736	49.2	42.1	7.3	2	16	34	621	595	324	114	23	5	2	0	0
16H,6-22	1973	49.2	42.2	7.3	3	17	37	696	678	378	126	27	6	5	0	0
18H,6-24	2008	49.2	42.1	7.4	3	17	42	708	689	381	129	27	6	5	1	0
24H,0-24	2062	49.3	42.2	7.4	3	17	43	720	707	393	137	29	6	6	1	0



16768			CHILMINGT	ON GREEN			Site No: 16	5768004		Location	Site 4, Chi	lmington G	ireen Road	(TP 3)		
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: N	orthbound								
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<21	21-<31	31-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	71-<76	=>76
	40			<b>DC7.</b>												
Thu 12-Sep			43.5	7.9		0			1	4	1	0	0			
00:00 01:00	5 1	-	53.5		0	0	0	0	0	0	1	0	0	0	0	0
02:00	1	-	48.5	-	0	0	0	0	0	1	0	0	0	0	0	0
03:00	5		46.5	8.3	0	0	0	1	2	1	0	1	0	0	0	0
03:00	11	58.1	46.9	12.1	0	0	1	2	2	3	0	2	0	1	0	0
05:00	26	55	47.5	8.6	0	0	0	4	10	4	4	2	1	1	0	0
06:00	67	50.3	43.9	6.3	0	0	0	17	30	11	7	2	0	0	0	0
07:00	163	50.3	43.8	7.1	1	0	1	43	57	42	14	4	1	0	0	0
08:00	251	47.9	42.5	5.6	0	0	0	79	118	41	11	2	0	0	0	0
09:00	128	49.6	43.2	6.8	0	1	1	38	42	37	6	3	0	0	0	0
10:00	105	50	43	7.2	0	0	1	38	33	21	8	2	2	0	0	0
11:00	123	47.5	41.3	6.3	0	0	3	49	46	20	4	1	0	0	0	0
12:00	129	49.2	41.9	7	0	1	0	57	33	28	8	2	0	0	0	0
13:00	146	49.4	42.2	7.1	0	0	4	56	44	29	9	4	0	0	0	0
14:00	137	48.3	41.2	7.6	1	0	2	63	37	28	4	1	0	0	0	1
15:00	178	48.2	41.6	6.6	0	1	3	68	66	29	10	1	0	0	0	0
16:00	157	49.3	43.5	6.2	0	1	1	37	68	39	9	2	0	0	0	0
17:00	161	50.3	44.1	7.3	1	1	0	37	63	40	13	4	2	0	0	0
18:00	109	52.2	43.8	8.4	0	2	1	31	36	19	13	5	2	0	0	0
19:00	85	50.5	43.8	6.9	0	0	2	22	29	21	9	2	0	0	0	0
20:00	42	49.1	43.4	6.7	0	0	0	13	16	10	0	3	0	0	0	0
21:00	39	48.1	42.8	7.6	0	0	0	15	16	4	1	1	2	0	0	0
22:00	21	48.3	40.3	8	0	0	1	12	3	3	1	1	0	0	0	0
23:00	10	43.5	36.8	7.6	0	0	2	5	2	1	0	0	0	0	0	0
12H,7-19	1787	49.4	42.7	6.9	3	7	17	596	643	373	109	31	7	0	0	1
16H,6-22	2020	49.5	42.8	6.9	3	7	19	663	734	419	126	39	9	0	0	1
18H,6-24	2051	49.4	42.7	6.9	3	7	22	680	739	423	127	40	9	0	0	1
24H,0-24	2100	49.6	42.8	7	3	7	23	689	754	433	133	45	10	2	0	1



Data produced by Axiom Traffic Ltd

16768			CHILMINGT	ON GREEN			Site No: 16	768004		Location	Site 4, Chi	lmington G	reen Road	(TP 3)		
Tue 10-Sep-	-13 to Mon 1	6-Sep-13					Channel: N	lorthbound								
· ·		•														
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<21	21-<31	31-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	71-<76	=>76
Fri 13-Sep-1	12	•	•													
00:00	2	_	39.8	5.3	0	0	0	1	1	0	0	0	0	0	0	0
01:00	2	-	48.5	1.8	0	0	0	0	0	2	0	0	0	0	0	0
02:00	5		37.5	4.4	0	0	0	4	1	0	0	0	0	0	0	0
03:00	1	_	43.5	-	0	0	0	0	1	0	0	0	0	0	0	0
04:00	8	-	38.8	8.4	0	0	1	4	2	0	1	0	0	0	0	0
05:00	26	50.3	43.2	7.8	0	0	1	8	8	5	3	1	0	0	0	0
06:00	78	49.9	43.6	6.4	0	0	0	25	22	24	6	1	0	0	0	0
07:00	156	49.8	43.8	7.1	1	0	5	26	72	37	12	2	0	1	0	0
08:00	235	48.7	42.8	5.9	0	0	2	68	104	46	14	1	0	0	0	0
09:00	137	46	40.9	5.7	0	0	0	65	51	16	4	1	0	0	0	0
10:00	133	46.8	40.9	6.9	0	2	4	49	55	17	5	1	0	0	0	0
11:00	116	48.9	42.4	6.1	0	0	0	43	44	19	10	0	0	0	0	0
12:00	134	47.2	40.9	6.4	0	0	6	52	50	22	4	0	0	0	0	0
13:00	140	49.6	43.1	7.2	0	0	2	46	52	26	7	4	3	0	0	0
14:00	141	48.5	40.8	7.7	0	0	9	63	35	25	5	2	2	0	0	0
15:00	190	47.5	40.6	7	0	0	7	93	54	23	9	3	1	0	0	0
16:00	152	48.6	41.7	6.9	1	0	3	56	53	30	9	0	0	0	0	0
17:00	160	47.6	41.2	6	0	0	0	77	51	24	7	1	0	0	0	0
18:00	114	48.9	41.1	8.3	0	1	10	38	37	18	7	2	1	0	0	0
19:00	81	45.6	39.5	6.3	0	0	3	46	21	9	1	1	0	0	0	0
20:00	48	45.2	38.9	6.4	0	0	2	30	10	5	0	1	0	0	0	0
21:00	23	44.1	38.1	6.7	0	0	2	14	5	1	1	0	0	0	0	0
22:00	24	45.1	39	6	0	0	1	14	6	3	0	0	0	0	0	0
23:00	10	42.7	37.3	5.8	0	0	1	6	3	0	0	0	0	0	0	0
12H,7-19	1808	48.5	41.7	6.8	2	3	48	676	658	303	93	17	7	1	0	0
16H,6-22	2038	48.4	41.6	6.8	2	3	55	791	716	342	101	20	7	1	0	0
18H,6-24	2072	48.4	41.6	6.8	2	3	57	811	725	345	101	20	7	1	0	0
24H,0-24	2116	48.4	41.6	6.8	2	3	59	828	738	352	105	21	7	1	0	0



16768			CHILMINGT	ON GREEN			Site No: 10	6768004		Location	Site 4, Chi	lmington G	ireen Road	(TP 3)		
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: N	Northbound								
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<21	21-<31	31-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	71-<76	=>76
	10	оросс	op occ	DCV.												
Sat 14-Sep-			04.5	0.0		0	0		0	4					0	
00:00	5	-	34.5	9.6	0	0	2	2	0	1	0	0	0	0	0	0
01:00	6	-	43.5	6.4	0	0	0	2	1	3	0	0	0	0	0	0
02:00 03:00	3	-	48.5 42.7	7.1 6.3	0	0	0	0 1	<u>1</u> 1	1	0	0	0	0	0	0
03:00	5	-	42.7	7.3	0	0	0	3	0	2	0	0	0	0	0	0
05:00	6		43.5	7.3	0	0	0	2	2	1	1	0	0	0	0	0
06:00	25	55.4	46.5	9	0	0	0	6	7	7	1	2	1	1	0	0
07:00	69	50.8	45.3	7.1	0	0	0	15	24	20	5	4	0	1	0	0
08:00	89	49.5	43.6	5.9	0	0	0	25	31	27	6	0	0	0	0	0
09:00	156	48.8	41.8	7.7	0	1	8	52	55	29	7	1	3	0	0	0
10:00	139	49	42.6	6.3	0	0	0	50	54	23	9	3	0	0	0	0
11:00	148	48.3	41.1	7.1	1	0	2	68	44	22	9	2	0	0	0	0
12:00	148	49.5	43.5	6.2	0	0	0	42	60	33	11	1	0	1	0	0
13:00	139	50.3	43.1	7.6	0	2	1	44	45	30	15	1	0	1	0	0
14:00	107	50	43.4	7.6	0	2	0	31	35	28	7	3	1	0	0	0
15:00	133	49.3	42.6	7	0	0	1	50	47	22	10	1	1	1	0	0
16:00	135	47.5	41.3	6.4	0	1	1	57	50	18	8	0	0	0	0	0
17:00	112	50.2	43.4	7.3	0	1	1	32	43	21	9	5	0	0	0	0
18:00	69	48.8	43	7.6	0	1	0	20	31	11	4	1	0	0	1	0
19:00	68	51.2	44.1	8.2	0	1	1	17	23	15	7	2	2	0	0	0
20:00	39	52.7	43.4	8.6	0	0	0	17	10	4	5	2	0	1	0	0
21:00	33	50	42.7	7.5	0	0	1	12	9	7	3	1	0	0	0	0
22:00	22	51.3	41.7	9.5	0	0	1	11	5	1	3	0	0	1	0	0
23:00	21	51.6	42	7.8	0	0	0	11	5	1	3	1	0	0	0	0
12H,7-19	1444	49.5	42.7	7	1	8	14	486	519	284	100	22	5	4	1	0
16H,6-22	1609	49.7	42.8	7.2	1	9	16	538	568	317	116	29	8	6	1	0
18H,6-24	1652	49.7	42.8	7.2	1	9	17	560	578	319	122	30	8	7	1	0
24H,0-24	1679	49.7	42.8	7.2	1	9	19	570	583	327	124	30	8	7	1	0



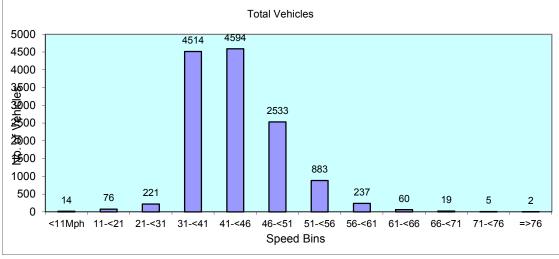
16768			CHILMINGT	ON GREEN			Site No: 10	5768004		Location	Site 4, Chi	lmington G	reen Road	(TP 3)		
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: N	orthbound								
•		•														
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<21	21-<31	31-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	71-<76	=>76
Sun 15-Sep	-13															
00:00	12	44.5	40	8.5	0	0	1	6	3	1	0	1	0	0	0	0
01:00	5	-	44.5	8.3	0	0	0	2	0	2	1	0	0	0	0	0
02:00	1	-	58.5	-	0	0	0	0	0	0	0	1	0	0	0	0
03:00	2	-	48.5	7.1	0	0	0	0	1	0	1	0	0	0	0	0
04:00	2	-	47.3	15.9	0	0	0	1	0	0	0	1	0	0	0	0
05:00	7	-	41	9.3	0	0	1	2	2	1	1	0	0	0	0	0
06:00	17	50.3	45.3	6.3	0	0	0	4	3	8	2	0	0	0	0	0
07:00	46	47	41.5	8.5	0	2	0	15	21	3	4	0	1	0	0	0
08:00	57	56	45	11.3	0	4	0	11	12	16	5	6	3	0	0	0
09:00	109	52.2	44.2	9.2	1	2	0	29	32	25	13	4	2	0	1	0
10:00	119	52.5	43.5	11.7	0	11	2	16	39	30	9	8	3	0	0	1
11:00	99	49.1	42.9	7	0	2	0	26	42	22	5	2	0	0	0	0
12:00	139	50.9	44.1	6.2	0	0	0	34	59	25	20	0	1	0	0	0
13:00	104	50.4	44	6.3	0	0	0	27	44	19	11	3	0	0	0	0
14:00	97	48.3	41.8	7.7	0	0	8	25	41	17	4	1	0	1	0	0
15:00	85	48.3	42.5	6.2	0	0	0	30	35	15	3	1	1	0	0	0
16:00	95	47.8	41.4	6.2	0	0	2	38	35	15	5	0	0	0	0	0
17:00	64	50.1	43.5	6.8	0	0	1	18	25	12	6	2	0	0	0	0
18:00	63	47.7	41.9	5.6	0	0	0	24	25	12	2	0	0	0	0	0
19:00	42	45.8	41	6	0	0	1	17	18	4	2	0	0	0	0	0
20:00	27	43.9	37.3	7.1	0	0	4	15	6	1	1	0	0	0	0	0
21:00	26	47	40.3	7.4	0	0	1	14	6	3	1	1	0	0	0	0
22:00	18	42	37.1	5	0	0	1	13	4	0	0	0	0	0	0	0
23:00	7	-	40.3	7.9	0	0	0	5	0	1	1	0	0	0	0	0
12H,7-19	1077	50.2	43.1	8	1	21	13	293	410	211	87	27	11	1	1	1
16H,6-22	1189	50	42.9	7.9	1	21	19	343	443	227	93	28	11	1	1	1
18H,6-24	1214	50	42.8	7.9	1	21	20	361	447	228	94	28	11	1	1	1
24H,0-24	1243	50	42.8	8	1	21	22	372	453	232	97	31	11	1	1	1

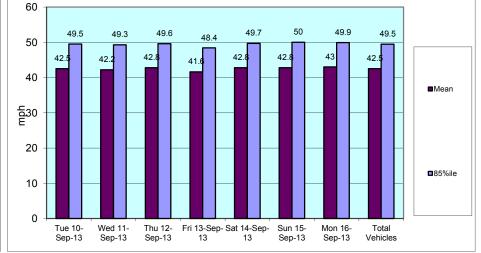




Data produced by Axiom Traffic Ltd

16768			CHILMINGT	ON GREEN			Site No: 10	5768004		Location	Site 4, Chi	lmington G	reen Road	(TP 3)		
Tue 10-Sep-	13 to Mon 1	6-Sep-13					Channel: N	orthbound	l							
Time Period	Total Vehicles	85%ile Speed	Mean Speed	Stand Dev.	<11Mph	11-<21	21-<31	31-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	71-<76	=>76
Daily Totals																
Tue 10-Sep-13	2049	49.5	42.5	7.2	2	12	31	724	680	413	146	27	11	1	2	0
Wed 11-Sep-13	2062	49.3	42.2	7.4	3	17	43	720	707	393	137	29	6	6	1	0
Thu 12-Sep-13	2100	49.6	42.8	7	3	7	23	689	754	433	133	45	10	2	0	1
Fri 13-Sep-13	2116	48.4	41.6	6.8	2	3	59	828	738	352	105	21	7	1	0	0
Sat 14-Sep-13	1679	49.7	42.8	7.2	1	9	19	570	583	327	124	30	8	7	1	0
Sun 15-Sep-13	1243	50	42.8	8	1	21	22	372	453	232	97	31	11	1	1	1
Mon 16-Sep-13	1909	49.9	43	7.1	2	7	24	611	679	383	141	54	7	1	0	0
<b>Total Vehicl</b>	es				•											
[]	13158	49.5	42.5	7.2	14	76	221	4514	4594	2533	883	237	60	19	5	2



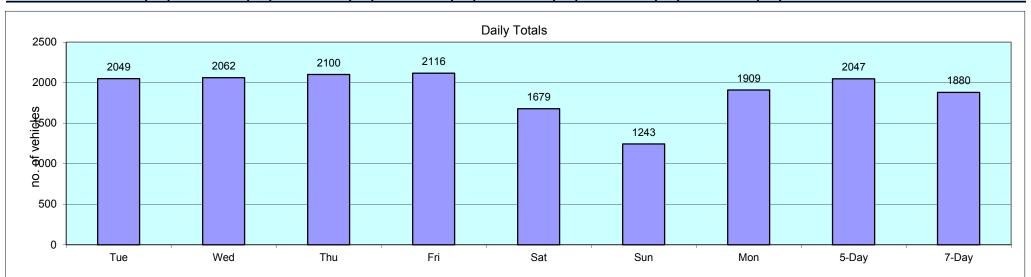




	Tue	Wed	Thu	Fri	Sat	Sun	Mon	5-Day	7-Day
TIME PERIOD	10/09/13	11/09/13	12/09/13	13/09/13	14/09/13	15/09/13	16/09/13	Av	Av
Week Begin: 10-S	Sep-13								
00:00	5	4	5	2	5	12	1	3	5
01:00	3	2	1	2	6	5	1	2	3
02:00	5	1	1	5	2	1	3	3	3
03:00	5	3	5	1	3	2	3	3	3
04:00	9	15	11	8	5	2	9	10	8
05:00	22	29	26	26	6	7	27	26	20
06:00	75	81	67	78	25	17	68	74	59
07:00	166	162	163	156	69	46	171	164	133
08:00	239	225	251	235	89	57	232	236	190
09:00	125	122	128	137	156	109	131	129	130
10:00	116	122	105	133	139	119	87	113	117
11:00	111	133	123	116	148	99	92	115	117
12:00	119	125	129	134	148	139	107	123	129
13:00	125	128	146	140	139	104	127	133	130
14:00	151	124	137	141	107	97	129	136	127
15:00	158	161	178	190	133	85	160	169	152
16:00	165	172	157	152	135	95	147	159	146
17:00	160	170	161	160	112	64	129	156	137
18:00	117	92	109	114	69	63	110	108	96
19:00	69	80	85	81	68	42	83	80	73
20:00	46	43	42	48	39	27	42	44	41
21:00	35	33	39	23	33	26	25	31	31
22:00	12	25	21	24	22	18	18	20	20
23:00	11	10	10	10	21	7	7	10	11
12H,7-19	1752	1736	1787	1808	1444	1077	1622	1741	1604
16H,6-22	1977	1973	2020	2038	1609	1189	1840	1970	1807
18H,6-24	2000	2008	2051	2072	1652	1214	1865	1999	1837
24H,0-24	2049	2062	2100	2116	1679	1243	1909	2047	1880
Am	08:00	08:00	08:00	08:00	09:00	10:00	08:00	-	-
Peak	239	225	251	235	156	119	232	236	208
Pm	16:00	16:00	15:00	15:00	12:00	12:00	15:00	-	-
Peak	165	172	178	190	148	139	160	173	165



16768	С	HILMINGTON GREE	N	Site No: 1676800	4	Location	Site 4, Chilmington	Green Road (TP	3)
				Channel: Northbo	und				
	Tue	Wed	Thu	Fri	Sat	Sun	Mon	5-Day	7-Day
TIME PERIOD	10/09/13	11/09/13	12/09/13	13/09/13	14/09/13	15/09/13	16/09/13	Av	Av





TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	MOTOR- CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Tue 10-Sep-13											
00:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0
03:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
04:00	6	0	0.0	4	66.7	2	33.3	0	0.0	0	0.0
05:00	3	0	0.0	0	0.0	3	100.0	0	0.0	0	0.0
06:00	19	1	5.3	16	84.2	2	10.5	0	0.0	0	0.0
07:00	97	2	2.1	79	81.4	10	10.3	4	4.1	2	2.1
08:00	192	2	1.0	160	83.3	22	11.5	6	3.1	2	1.0
09:00	122	0	0.0	95	77.9	19	15.6	8	6.6	0	0.0
10:00	111	0	0.0	88	79.3	20	18.0	3	2.7	0	0.0
11:00	125	0	0.0	103	82.4	18	14.4	3	2.4	1	0.8
12:00	133	1	0.8	118	88.7	11	8.3	3	2.3	0	0.0
13:00	112	0	0.0	102	91.1	7	6.3	3	2.7	0	0.0
14:00	152	1	0.7	123	80.9	25	16.5	3	2.0	0	0.0
15:00	162	3	1.9	146	90.1	11	6.8	2	1.2	0	0.0
16:00	221	2	0.9	194	87.8	23	10.4	2	0.9	0	0.0
17:00	215	2	0.9	195	90.7	16	7.4	2	0.9	0	0.0
18:00	152	2	1.3	141	92.8	9	5.9	0	0.0	0	0.0
19:00	102	1	1.0	96	94.1	5	4.9	0	0.0	0	0.0
20:00	45	0	0.0	42	93.3	3	6.7	0	0.0	0	0.0
21:00	32	0	0.0	32	100.0	0	0.0	0	0.0	0	0.0
22:00	22	0	0.0	20	90.9	2	9.1	0	0.0	0	0.0
23:00	17	1	5.9	16	94.1	0	0.0	0	0.0	0	0.0
12H,7-19	1794	15	0.8	1544	86.1	191	10.7	39	2.2	5	0.3
16H,6-22	1992	17	0.9	1730	86.9	201	10.1	39	2.0	5	0.3
18H,6-24	2031	18	0.9	1766	87.0	203	10.0	39	1.9	5	0.3
24H,0-24	2046	18	0.9	1775	86.8	209	10.2	39	1.9	5	0.2



Channel: Southbound

TIME	TOTAL	MOTOR-	MOTOR-								
PERIOD	VEHICLES	CYCLES	CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Wed 11-Sep-1	3										
00:00	5	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0
01:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
02:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0
03:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
04:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0
05:00	5	0	0.0	4	80.0	0	0.0	1	20.0	0	0.0
06:00	22	0	0.0	18	81.8	4	18.2	0	0.0	0	0.0
07:00	87	2	2.3	76	87.4	8	9.2	1	1.2	0	0.0
08:00	164	0	0.0	148	90.2	12	7.3	4	2.4	0	0.0
09:00	123	1	8.0	103	83.7	17	13.8	2	1.6	0	0.0
10:00	94	1	1.1	78	83.0	12	12.8	2	2.1	1	1.1
11:00	109	0	0.0	94	86.2	10	9.2	5	4.6	0	0.0
12:00	127	2	1.6	102	80.3	21	16.5	2	1.6	0	0.0
13:00	136	10	7.4	111	81.6	12	8.8	3	2.2	0	0.0
14:00	159	1	0.6	135	84.9	20	12.6	3	1.9	0	0.0
15:00	187	2	1.1	163	87.2	18	9.6	4	2.1	0	0.0
16:00	225	4	1.8	195	86.7	21	9.3	5	2.2	0	0.0
17:00	224	3	1.3	200	89.3	20	8.9	1	0.5	0	0.0
18:00	147	2	1.4	133	90.5	10	6.8	2	1.4	0	0.0
19:00	82	0	0.0	78	95.1	2	2.4	2	2.4	0	0.0
20:00	47	1	2.1	44	93.6	1	2.1	1	2.1	0	0.0
21:00	29	2	6.9	25	86.2	2	6.9	0	0.0	0	0.0
22:00	20	0	0.0	18	90.0	1	5.0	1	5.0	0	0.0
23:00	12	0	0.0	11	91.7	1	8.3	0	0.0	0	0.0
12H,7-19	1782	28	1.6	1538	86.3	181	10.2	34	1.9	1	0.1
16H,6-22	1962	31	1.6	1703	86.8	190	9.7	37	1.9	1	0.1
18H,6-24	1994	31	1.6	1732	86.9	192	9.6	38	1.9	1	0.1
24H,0-24	2014	31	1.5	1750	86.9	193	9.6	39	1.9	1	0.1



TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	MOTOR- CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Thu 12-Sep-13						-					
00:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
01:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
02:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0
03:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
04:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0
05:00	9	0	0.0	7	77.8	2	22.2	0	0.0	0	0.0
06:00	28	2	7.1	23	82.1	3	10.7	0	0.0	0	0.0
07:00	96	2	2.1	82	85.4	11	11.5	1	1.0	0	0.0
08:00	166	2	1.2	149	89.8	12	7.2	2	1.2	1	0.6
09:00	133	1	8.0	114	85.7	11	8.3	6	4.5	1	8.0
10:00	118	0	0.0	103	87.3	12	10.2	3	2.5	0	0.0
11:00	130	1	8.0	112	86.2	13	10.0	4	3.1	0	0.0
12:00	142	1	0.7	123	86.6	14	9.9	4	2.8	0	0.0
13:00	145	3	2.1	127	87.6	13	9.0	2	1.4	0	0.0
14:00	144	1	0.7	129	89.6	13	9.0	0	0.0	1	0.7
15:00	181	1	0.6	157	86.7	18	9.9	4	2.2	1	0.6
16:00	229	5	2.2	213	93.0	10	4.4	1	0.4	0	0.0
17:00	235	5	2.1	214	91.1	14	6.0	2	0.9	0	0.0
18:00	162	2	1.2	143	88.3	16	9.9	1	0.6	0	0.0
19:00	100	2	2.0	94	94.0	3	3.0	1	1.0	0	0.0
20:00	42	0	0.0	41	97.6	1	2.4	0	0.0	0	0.0
21:00	45	0	0.0	42	93.3	3	6.7	0	0.0	0	0.0
22:00	37	0	0.0	36	97.3	1	2.7	0	0.0	0	0.0
23:00	16	1	6.3	14	87.5	1	6.3	0	0.0	0	0.0
12H,7-19	1881	24	1.3	1666	88.6	157	8.4	30	1.6	4	0.2
16H,6-22	2096	28	1.3	1866	89.0	167	8.0	31	1.5	4	0.2
18H,6-24	2149	29	1.4	1916	89.2	169	7.9	31	1.4	4	0.2
24H,0-24	2170	29	1.3	1934	89.1	172	7.9	31	1.4	4	0.2



TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	MOTOR- CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Fri 13-Sep-13						-					
00:00	7	0	0.0	6	85.7	1	14.3	0	0.0	0	0.0
01:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
02:00	4	0	0.0	3	75.0	1	25.0	0	0.0	0	0.0
03:00	3	0	0.0	2	66.7	1	33.3	0	0.0	0	0.0
04:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0
05:00	4	0	0.0	3	75.0	1	25.0	0	0.0	0	0.0
06:00	29	2	6.9	23	79.3	3	10.3	1	3.5	0	0.0
07:00	90	2	2.2	77	85.6	6	6.7	4	4.4	1	1.1
08:00	186	0	0.0	160	86.0	20	10.8	5	2.7	1	0.5
09:00	153	1	0.7	132	86.3	14	9.2	5	3.3	1	0.7
10:00	131	1	8.0	111	84.7	16	12.2	3	2.3	0	0.0
11:00	125	0	0.0	110	88.0	12	9.6	3	2.4	0	0.0
12:00	140	0	0.0	122	87.1	15	10.7	2	1.4	1	0.7
13:00	134	3	2.2	117	87.3	13	9.7	1	0.8	0	0.0
14:00	157	0	0.0	132	84.1	20	12.7	5	3.2	0	0.0
15:00	173	1	0.6	157	90.8	14	8.1	1	0.6	0	0.0
16:00	234	4	1.7	212	90.6	14	6.0	4	1.7	0	0.0
17:00	189	1	0.5	177	93.7	11	5.8	0	0.0	0	0.0
18:00	156	2	1.3	142	91.0	12	7.7	0	0.0	0	0.0
19:00	95	0	0.0	87	91.6	6	6.3	2	2.1	0	0.0
20:00	36	0	0.0	36	100.0	0	0.0	0	0.0	0	0.0
21:00	35	0	0.0	32	91.4	3	8.6	0	0.0	0	0.0
22:00	30	0	0.0	29	96.7	1	3.3	0	0.0	0	0.0
23:00	25	0	0.0	24	96.0	1	4.0	0	0.0	0	0.0
12H,7-19	1868	15	8.0	1649	88.3	167	8.9	33	1.8	4	0.2
16H,6-22	2063	17	8.0	1827	88.6	179	8.7	36	1.8	4	0.2
18H,6-24	2118	17	8.0	1880	88.8	181	8.6	36	1.7	4	0.2
24H,0-24	2142	17	8.0	1900	88.7	185	8.6	36	1.7	4	0.2



TIME	TOTAL	MOTOR-	MOTOR-								
PERIOD	VEHICLES	CYCLES	CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Sat 14-Sep-13	72	0.0220	0.10220.10		071110 70						200 /0
00:00	20	0	0.0	20	100.0	0	0.0	0	0.0	0	0.0
01:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0
02:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
03:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0
04:00	5	0	0.0	4	80.0	1	20.0	0	0.0	0	0.0
05:00	16	1	6.3	9	56.3	5	31.3	1	6.3	0	0.0
06:00	18	0	0.0	16	88.9	2	11.1	0	0.0	0	0.0
07:00	40	0	0.0	35	87.5	4	10.0	1	2.5	0	0.0
08:00	72	0	0.0	63	87.5	8	11.1	1	1.4	0	0.0
09:00	123	1	0.8	116	94.3	5	4.1	1	0.8	0	0.0
10:00	137	4	2.9	124	90.5	9	6.6	0	0.0	0	0.0
11:00	156	4	2.6	143	91.7	8	5.1	1	0.6	0	0.0
12:00	125	0	0.0	117	93.6	7	5.6	1	0.8	0	0.0
13:00	141	1	0.7	130	92.2	10	7.1	0	0.0	0	0.0
14:00	152	1	0.7	144	94.7	7	4.6	0	0.0	0	0.0
15:00	141	3	2.1	131	92.9	6	4.3	1	0.7	0	0.0
16:00	167	1	0.6	161	96.4	4	2.4	1	0.6	0	0.0
17:00	140	3	2.1	130	92.9	6	4.3	1	0.7	0	0.0
18:00	98	0	0.0	96	98.0	2	2.0	0	0.0	0	0.0
19:00	66	1	1.5	62	93.9	1	1.5	2	3.0	0	0.0
20:00	38	0	0.0	37	97.4	0	0.0	1	2.6	0	0.0
21:00	29	0	0.0	27	93.1	2	6.9	0	0.0	0	0.0
22:00	24	0	0.0	22	91.7	2	8.3	0	0.0	0	0.0
23:00	20	0	0.0	20	100.0	0	0.0	0	0.0	0	0.0
12H,7-19	1492	18	1.2	1390	93.2	76	5.1	8	0.5	0	0.0
16H,6-22	1643	19	1.2	1532	93.2	81	4.9	11	0.7	0	0.0
18H,6-24	1687	19	1.1	1574	93.3	83	4.9	11	0.7	0	0.0
24H,0-24	1739	20	1.2	1618	93.0	89	5.1	12	0.7	0	0.0



TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	MOTOR- CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Sun 15-Sep-13					0.000						
00:00	15	0	0.0	14	93.3	1	6.7	0	0.0	0	0.0
01:00	5	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0
02:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
03:00	6	0	0.0	6	100.0	0	0.0	0	0.0	0	0.0
04:00	3	0	0.0	2	66.7	1	33.3	0	0.0	0	0.0
05:00	9	0	0.0	8	88.9	0	0.0	1	11.1	0	0.0
06:00	10	0	0.0	9	90.0	1	10.0	0	0.0	0	0.0
07:00	32	3	9.4	29	90.6	0	0.0	0	0.0	0	0.0
08:00	33	0	0.0	33	100.0	0	0.0	0	0.0	0	0.0
09:00	72	1	1.4	67	93.1	3	4.2	1	1.4	0	0.0
10:00	99	6	6.1	90	90.9	3	3.0	0	0.0	0	0.0
11:00	130	11	8.5	108	83.1	9	6.9	2	1.5	0	0.0
12:00	130	4	3.1	122	93.9	4	3.1	0	0.0	0	0.0
13:00	147	5	3.4	138	93.9	4	2.7	0	0.0	0	0.0
14:00	109	1	0.9	101	92.7	7	6.4	0	0.0	0	0.0
15:00	116	0	0.0	112	96.6	4	3.5	0	0.0	0	0.0
16:00	104	0	0.0	101	97.1	2	1.9	1	1.0	0	0.0
17:00	86	0	0.0	81	94.2	5	5.8	0	0.0	0	0.0
18:00	58	1	1.7	54	93.1	3	5.2	0	0.0	0	0.0
19:00	41	0	0.0	37	90.2	4	9.8	0	0.0	0	0.0
20:00	38	0	0.0	35	92.1	3	7.9	0	0.0	0	0.0
21:00	18	0	0.0	17	94.4	1	5.6	0	0.0	0	0.0
22:00	19	0	0.0	19	100.0	0	0.0	0	0.0	0	0.0
23:00	8	0	0.0	7	87.5	1	12.5	0	0.0	0	0.0
12H,7-19	1116	32	2.9	1036	92.8	44	3.9	4	0.4	0	0.0
16H,6-22	1223	32	2.6	1134	92.7	53	4.3	4	0.3	0	0.0
18H,6-24	1250	32	2.6	1160	92.8	54	4.3	4	0.3	0	0.0
24H,0-24	1289	32	2.5	1196	92.8	56	4.3	5	0.4	0	0.0



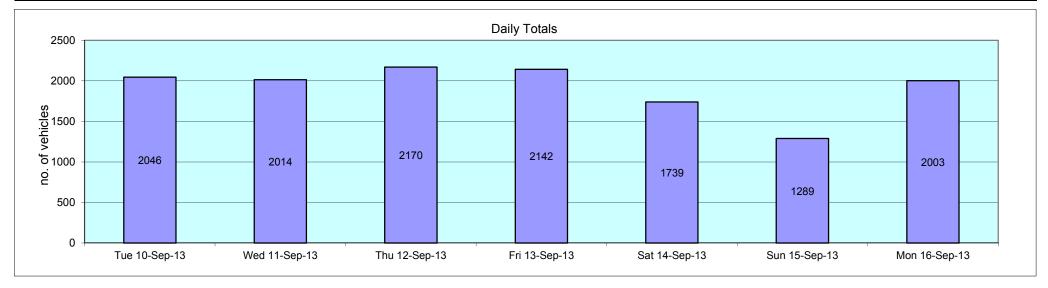
Channel: Southbound

TIME	TOTAL	MOTOR-	MOTOR-								
PERIOD	VEHICLES	CYCLES	CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Mon 16-Sep-13	3										
00:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
01:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
02:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	5	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0
05:00	4	0	0.0	1	25.0	3	75.0	0	0.0	0	0.0
06:00	27	0	0.0	24	88.9	2	7.4	1	3.7	0	0.0
07:00	89	2	2.3	73	82.0	12	13.5	2	2.3	0	0.0
08:00	190	1	0.5	173	91.1	15	7.9	1	0.5	0	0.0
09:00	124	1	0.8	109	87.9	11	8.9	2	1.6	1	8.0
10:00	111	3	2.7	94	84.7	13	11.7	1	0.9	0	0.0
11:00	103	4	3.9	91	88.4	8	7.8	0	0.0	0	0.0
12:00	118	1	0.9	103	87.3	13	11.0	1	0.9	0	0.0
13:00	117	0	0.0	92	78.6	19	16.2	6	5.1	0	0.0
14:00	140	3	2.1	117	83.6	15	10.7	5	3.6	0	0.0
15:00	159	2	1.3	144	90.6	12	7.6	1	0.6	0	0.0
16:00	205	3	1.5	183	89.3	16	7.8	3	1.5	0	0.0
17:00	257	4	1.6	235	91.4	16	6.2	2	0.8	0	0.0
18:00	158	2	1.3	147	93.0	9	5.7	0	0.0	0	0.0
19:00	84	1	1.2	79	94.1	4	4.8	0	0.0	0	0.0
20:00	44	2	4.6	36	81.8	4	9.1	2	4.6	0	0.0
21:00	25	0	0.0	24	96.0	1	4.0	0	0.0	0	0.0
22:00	28	0	0.0	28	100.0	0	0.0	0	0.0	0	0.0
23:00	11	0	0.0	8	72.7	3	27.3	0	0.0	0	0.0
12H,7-19	1771	26	1.5	1561	88.1	159	9.0	24	1.4	1	0.1
16H,6-22	1951	29	1.5	1724	88.4	170	8.7	27	1.4	1	0.1
18H,6-24	1990	29	1.5	1760	88.4	173	8.7	27	1.4	1	0.1
24H,0-24	2003	29	1.5	1770	88.4	176	8.8	27	1.4	1	0.1



16768	CHILMINGTON GREEN	Site No: 16768004	Location	Site 4, Chilmington Green Road (TP 3)

TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	MOTOR- CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Daily Totals	VEHICLES	CICLES	CICLES 70	CARO	CARS 70	201	201 70	1101	1101 70	<b>D</b> 00	<b>D</b> 05 70
Tue 10-Sep-13	2046	18	0.9	1775	86.8	209	10.2	39	1.9	5	0.2
Wed 11-Sep-13	2014	31	1.5	1750	86.9	193	9.6	39	1.9	1	0.1
Thu 12-Sep-13	2170	29	1.3	1934	89.1	172	7.9	31	1.4	4	0.2
Fri 13-Sep-13	2142	17	0.8	1900	88.7	185	8.6	36	1.7	4	0.2
Sat 14-Sep-13	1739	20	1.2	1618	93.0	89	5.1	12	0.7	0	0.0
Sun 15-Sep-13	1289	32	2.5	1196	92.8	56	4.3	5	0.4	0	0.0
Mon 16-Sep-13	2003	29	1.5	1770	88.4	176	8.8	27	1.4	1	0.1
<b>Total Vehicles</b>											
[]	13403	176	1.4	11943	89.4	1080	7.8	189	1.3	15	0.1





16768			CHILMINGT	ON GREEN			Site No: 16	5768004		Location	Site 4, Chi	lmington G	reen Road	(TP 3)		
Tue 10-Sep-	-13 to Mon 1	6-Sep-13					Channel: S	outhbound	l							
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<21	21-<31	31-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	71-<76	=>76
Tue 10-Sep	12		<u> </u>													
00:00	3		40.2	7.6	0	0	0	2	0	1	0	0	0	0	0	0
01:00	0	<u> </u>		7.0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	2		53.5	7.1	0	0	0	0	0	1	0	1	0	0	0	0
03:00	1	_	53.5	-	0	0	0	0	0	0	1	0	0	0	0	0
04:00	6	-	44.8	6	0	0	0	1	3	1	1	0	0	0	0	0
05:00	3	_	43.5	1.7	0	0	0	0	3	0	0	0	0	0	0	0
06:00	19	48.1	40.1	8.6	0	1	0	9	4	4	1	0	0	0	0	0
07:00	97	49.3	41.7	8.7	0	2	4	35	25	24	6	0	0	0	0	1
08:00	192	48.4	42	6.3	0	0	3	71	71	37	7	3	0	0	0	0
09:00	122	48.7	40.9	7.4	0	0	7	53	34	17	10	1	0	0	0	0
10:00	111	46	39.9	6.3	0	0	5	55	34	15	2	0	0	0	0	0
11:00	125	47.6	41.6	5.6	0	0	0	51	47	24	3	0	0	0	0	0
12:00	133	49.3	42.1	7.2	0	1	3	49	43	25	10	2	0	0	0	0
13:00	112	50.4	43.2	7.3	0	0	2	38	32	26	12	0	2	0	0	0
14:00	152	47.2	41	6	0	0	3	65	54	27	3	0	0	0	0	0
15:00	162	47.4	42.1	5.6	0	1	0	51	77	29	4	0	0	0	0	0
16:00	221	48.7	42.9	5.8	0	1	0	63	94	54	8	1	0	0	0	0
17:00	215	50.1	44.3	6	0	0	0	49	88	55	19	3	1	0	0	0
18:00	152	51.7	45.7	6.7	0	0	0	30	47	49	20	4	0	2	0	0
19:00	102	47.8	41.4	6.2	0	0	2	42	36	17	5	0	0	0	0	0
20:00	45	49.1	42.9	6.4	0	0	0	15	19	6	4	1	0	0	0	0
21:00	32	45.5	40.2	6.1	0	0	1	15	12	3	1	0	0	0	0	0
22:00	22	50.2	46.2	4.8	0	0	0	2	7	11	2	0	0	0	0	0
23:00	17	50.9	45.6	5.5	0	0	0	2	8	4	3	0	0	0	0	0
12H,7-19	1794	49.1	42.5	6.6	0	5	27	610	646	382	104	14	3	2	0	1
16H,6-22	1992	49	42.3	6.6	0	6	30	691	717	412	115	15	3	2	0	1
18H,6-24	2031	49.1	42.4	6.6	0	6	30	695	732	427	120	15	3	2	0	1
24H,0-24	2046	49.1	42.4	6.6	0	6	30	698	738	430	122	16	3	2	0	1



16768			CHILMINGT	ON GREEN			Site No: 16	5768004		Location	Site 4, Chi	lmington G	reen Road	(TP 3)		
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: S	outhbound								
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<21	21-<31	31-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	71-<76	=>76
Wed 11-Sep	p-13															
00:00	5	=	45.5	3.1	0	0	0	0	3	2	0	0	0	0	0	0
01:00	3	-	41	4.5	0	0	0	1	2	0	0	0	0	0	0	0
02:00	2	-	44.8	12.4	0	0	0	1	0	0	1	0	0	0	0	0
03:00	1	-	43.5	-	0	0	0	0	1	0	0	0	0	0	0	0
04:00	4	-	46.6	8.6	0	0	0	1	1	0	2	0	0	0	0	0
05:00	5	-	43	10.4	0	0	1	0	2	1	1	0	0	0	0	0
06:00	22	47.2	40.5	5.9	0	0	0	12	5	5	0	0	0	0	0	0
07:00	87	50.5	43.2	7.4	0	1	0	28	30	16	9	3	0	0	0	0
08:00	164	48.4	41.8	6.6	0	0	7	53	67	25	12	0	0	0	0	0
09:00	123	50	43	6.8	0	0	1	44	36	29	10	3	0	0	0	0
10:00	94	49.5	42.5	7	0	0	1	37	28	19	7	1	1	0	0	0
11:00	109	46.1	40.8	6.4	0	0	5	42	45	14	2	1	0	0	0	0
12:00	127	49	41.8	6.8	0	0	1	57	37	21	8	3	0	0	0	0
13:00	136	48.9	41.3	8.2	0	3	7	46	42	30	6	0	2	0	0	0
14:00	159	48.3	42.1	6.2	0	0	1	60	60	30	5	3	0	0	0	0
15:00	187	49.2	42.4	6.7	0	1	1	71	57	44	11	1	1	0	0	0
16:00	225	48.9	42.5	6.9	0	4	0	69	91	46	12	3	0	0	0	0
17:00	224	49.9	43.6	7.2	0	4	0	59	72	70	14	4	1	0	0	0
18:00	147	51.4	43	9.2	0	5	7	35	40	36	20	3	1	0	0	0
19:00	82	49.2	41	8.6	0	3	2	34	18	19	5	0	1	0	0	0
20:00	47	51.5	42.2	8.8	0	1	1	17	18	2	5	2	1	0	0	0
21:00	29	51.2	42.8	7.3	0	0	1	9	11	3	5	0	0	0	0	0
22:00	20	49.8	44.1	7.4	0	0	0	7	4	6	2	1	0	0	0	0
23:00	12	49.5	44.8	7.8	0	0	0	4	2	4	1	1	0	0	0	0
12H,7-19	1782	49.4	42.4	7.2	0	18	31	601	605	380	116	25	6	0	0	0
16H,6-22	1962	49.4	42.3	7.3	0	22	35	673	657	409	131	27	8	0	0	0
18H,6-24	1994	49.5	42.3	7.3	0	22	35	684	663	419	134	29	8	0	0	0
24H,0-24	2014	49.5	42.4	7.3	0	22	36	687	672	422	138	29	8	0	0	0



16768			CHILMINGT	ON GREEN			Site No: 10	6768004		Location	Site 4, Chi	lmington G	reen Road	(TP 3)		
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: S	Southbound	1							
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<21	21-<31	31-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	71-<76	=>76
	40															
Thu 12-Sep			43.5	1.8	Ι ο	0	0	0	2	0	0	0	0	0	0	0
00:00 01:00	2	<u>-</u> -	44.8	12.4	0	0	0	0	0	0	1	0	0	0	0	0
02:00	4	-	44.8	10.4	0	0	0	2	0	0	2	0	0	0	0	0
03:00	2	<u>-</u>	44.8	12.4	0	0	0	1	0	0	1	0	0	0	0	0
04:00	2		42.3	8.8	0	0	0	1	0	1	0	0	0	0	0	0
05:00	9	_	42.9	4.8	0	0	0	2	5	2	0	0	0	0	0	0
06:00	28	48.8	40.8	8.1	0	1	0	13	6	6	2	0	0	0	0	0
07:00	96	47.2	40.6	7	0	2	1	43	32	13	5	0	0	0	0	0
08:00	166	49	43.3	6.1	0	0	3	39	78	34	10	1	1	0	0	0
09:00	133	48.8	42.3	6.2	0	0	0	51	50	21	9	2	0	0	0	0
10:00	118	49.6	41.3	8	0	1	6	49	30	19	10	3	0	0	0	0
11:00	130	47.4	40.8	7.1	0	1	3	61	40	18	5	1	0	1	0	0
12:00	142	49.1	42.1	6.9	0	1	2	53	44	33	7	2	0	0	0	0
13:00	145	47.8	41.1	7.3	1	2	2	55	54	25	4	2	0	0	0	0
14:00	144	48.7	41.2	8.4	0	5	3	53	50	20	8	5	0	0	0	0
15:00	181	49.1	42.5	6.6	0	0	3	63	64	38	8	5	0	0	0	0
16:00	229	49.1	42.6	6.7	0	2	0	80	78	55	10	3	1	0	0	0
17:00	235	48.9	42.8	6.6	0	2	5	58	103	53	11	3	0	0	0	0
18:00	162	50.4	44.3	7.9	0	3	0	35	63	41	11	5	3	0	1	0
19:00	100	50.3	42.7	7.3	0	1	0	38	29	19	11	2	0	0	0	0
20:00	42	51.2	43.4	7.5	0	0	0	17	9	9	5	2	0	0	0	0
21:00	45	50.8	41.6	8.1	0	0	1	23	10	4	5	1	1	0	0	0
22:00	37	50.3	42.6	7.5	0	0	1	14	10	7	4	1	0	0	0	0
23:00	16	49.9	43.3	8.4	0	0	0	7	3	4	1	0	1	0	0	0
12H,7-19	1881	49	42.2	7.1	1	19	28	640	686	370	98	32	5	1	1	0
16H,6-22	2096	49.2	42.2	7.2	1	21	29	731	740	408	121	37	6	1	1	0
18H,6-24	2149	49.2	42.3	7.2	1	21	30	752	753	419	126	38	7	1	1	0
24H,0-24	2170	49.2	42.3	7.2	1	21	30	759	760	422	130	38	7	1	1	0



16768			CHILMINGT	ON GREEN			Site No: 16	5768004		Location	Site 4, Chi	lmington G	reen Road	(TP 3)		
Tue 10-Sep-	·13 to Mon 1	6-Sep-13					Channel: S	outhbound								
•																
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<21	21-<31	31-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	71-<76	=>76
Fri 13-Sep-1	13															
00:00	7	_	43.9	7.9	0	0	0	3	0	3	1	0	0	0	0	0
01:00	2	_	39.8	5.3	0	0	0	1	1	0	0	0	0	0	0	0
02:00	4	_	45.4	7.5	0	0	0	1	<u>.</u> 1	1	1	0	0	0	0	0
03:00	3	_	41	4.5	0	0	0	1	2	0	0	0	0	0	0	0
04:00	4	-	41	6.5	0	0	0	2	1	1	0	0	0	0	0	0
05:00	4	-	44.8	2.8	0	0	0	0	3	1	0	0	0	0	0	0
06:00	29	49.2	41.3	8.2	0	1	0	13	5	8	2	0	0	0	0	0
07:00	90	49.2	41.4	7.8	0	2	2	36	22	22	5	1	0	0	0	0
08:00	186	48.4	41.8	6.5	0	0	1	80	64	26	13	1	1	0	0	0
09:00	153	45.9	40.1	7.6	3	0	3	69	56	16	3	3	0	0	0	0
10:00	131	45.8	40.5	5.8	0	0	3	59	51	15	3	0	0	0	0	0
11:00	125	45.7	40.8	5.6	0	0	2	53	54	13	3	0	0	0	0	0
12:00	140	46.1	40.4	6.6	0	0	4	69	45	17	3	0	2	0	0	0
13:00	134	48.7	41.3	7.1	0	2	0	62	33	30	5	2	0	0	0	0
14:00	157	47.2	41.4	6.2	0	0	2	65	60	24	4	1	1	0	0	0
15:00	173	45.7	39.9	6.3	0	1	6	82	61	21	1	1	0	0	0	0
16:00	234	47.6	41.7	5.8	0	0	2	91	92	41	7	1	0	0	0	0
17:00	189	46.2	41.3	5.3	0	0	0	78	81	28	2	0	0	0	0	0
18:00	156	49	41.4	8.1	0	4	3	62	44	32	6	4	1	0	0	0
19:00	95	48.8	41.7	7.6	0	0	4	38	30	15	5	1	2	0	0	0
20:00	36	49.4	41.8	7.4	0	0	1	16	9	6	3	1	0	0	0	0
21:00	35	45.5	39.7	6.3	0	0	0	23	7	2	3	0	0	0	0	0
22:00	30	44.8	39.4	5.6	0	0	0	19	8	2	1	0	0	0	0	0
23:00	25	46.8	41.5	5.4	0	0	0	10	10	5	0	0	0	0	0	0
12H,7-19	1868	47.4	41	6.5	3	9	28	806	663	285	55	14	5	0	0	0
16H,6-22	2063	47.5	41.1	6.6	3	10	33	896	714	316	68	16	7	0	0	0
18H,6-24	2118	47.5	41	6.6	3	10	33	925	732	323	69	16	7	0	0	0
24H,0-24	2142	47.5	41.1	6.6	3	10	33	933	740	329	71	16	7	0	0	0



Data produced by Axiom Traffic Ltd

16768			CHILMINGT	ON GREEN			Site No: 10	6768004		Location	Site 4, Chi	lmington G	reen Road	(TP 3)		
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: 9	Southbound	l							
•		•														
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<21	21-<31	31-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	71-<76	=>76
	40		•													
Sat 14-Sep- 00:00	-13	48.1	40.8	6.9	0	0	1	9	4	6	0	0	0	0	0	0
01:00	4	40.1	40.6	6.5	0	0	0	2	1	1	0	0	0	0	0	0
02:00	3	<u> </u>	44.3	8.8	0	0	0	1	1	0	1	0	0	0	0	0
03:00	4	<u>-</u>	46.6	8.6	0	0	0	1	1	0	2	0	0	0	0	0
04:00	5	_	41	7.3	0	0	0	3	0	2	0	0	0	0	0	0
05:00	16	40	33.8	8.9	0	1	4	9	1	0	1	0	0	0	0	0
06:00	18	48.3	40	7.3	0	0	1	10	1	6	0	0	0	0	0	0
07:00	40	49.8	42.9	7.4	0	0	2	11	13	10	3	1	0	0	0	0
08:00	72	50.9	44	6.9	0	0	1	21	19	20	11	0	0	0	0	0
09:00	123	48.6	42.7	6.9	0	0	1	41	52	19	7	1	1	0	1	0
10:00	137	49.6	42.5	8.2	0	2	7	35	52	28	9	2	1	1	0	0
11:00	156	48.9	42.2	7.3	1	1	2	53	56	33	8	0	2	0	0	0
12:00	125	49.1	42	7.8	0	3	5	34	43	33	7	0	0	0	0	0
13:00	141	49.6	42.6	7.6	0	1	6	40	50	31	8	5	0	0	0	0
14:00	152	50.4	42.4	7.6	0	1	2	61	42	26	15	4	1	0	0	0
15:00	141	47.7	41.3	6.5	0	1	3	54	53	25	4	1	0	0	0	0
16:00	167	48.8	43.3	5.6	0	0	0	44	76	39	6	1	1	0	0	0
17:00	140	49.9	43.6	7.6	0	0	1	45	50	29	7	3	4	0	1	0
18:00	98	50	43.5	6.8	0	0	2	27	36	22	8	3	0	0	0	0
19:00	66	50.4	42.8	6.7	0	0	0	26	19	12	9	0	0	0	0	0
20:00	38	50.1	43.6	7.2	0	0	0	14	8	12	2	2	0	0	0	0
21:00	29	49.5	42.2	6.7	0	0	0	13	7	6	3	0	0	0	0	0
22:00	24	49.1	42.5	6.4	0	0	0	10	5	8	1	0	0	0	0	0
23:00	20	50.2	42	7.2	0	0	0	10	4	3	3	0	0	0	0	0
12H,7-19	1492	49.5	42.7	7.2	1	9	32	466	542	315	93	21	10	1	2	0
16H,6-22	1643	49.5	42.7	7.2	1	9	33	529	577	351	107	23	10	1	2	0
18H,6-24	1687	49.5	42.7	7.2	1	9	33	549	586	362	111	23	10	1	2	0
24H,0-24	1739	49.5	42.6	7.2	1	10	38	574	594	371	115	23	10	1	2	0



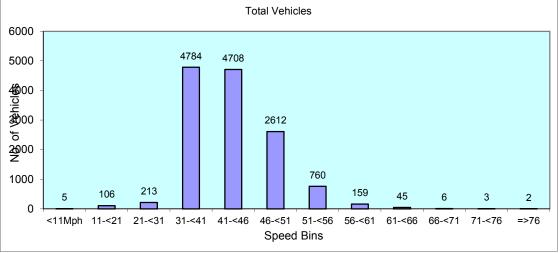
16768			CHILMINGT	ON GREEN			Site No: 10	6768004		Location	Site 4, Chi	lmington G	reen Road	(TP 3)		
Tue 10-Sep-	-13 to Mon 1	6-Sep-13					Channel: 9	Southbound	l							
·		•														
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<21	21-<31	31-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	71-<76	=>76
Sun 15-Sep	_13															
00:00	15	44.8	39.5	6.2	0	0	0	10	3	1	1	0	0	0	0	0
01:00	5	-	44	5.3	0	0	0	1	2	2	0	0	0	0	0	0
02:00	1	_	43.5	-	0	0	0	0	1	0	0	0	0	0	0	0
03:00	6	-	41	8.3	0	0	0	4	0	1	1	0	0	0	0	0
04:00	3	-	40.2	7.6	0	0	0	2	0	1	0	0	0	0	0	0
05:00	9	-	39.6	6.2	0	0	0	6	1	2	0	0	0	0	0	0
06:00	10	53.5	41.8	9.7	0	0	0	7	0	0	2	1	0	0	0	0
07:00	32	45.6	41.1	8.1	0	2	0	7	18	4	1	0	0	0	0	0
08:00	33	49.6	42.4	7.9	0	1	0	11	9	9	3	0	0	0	0	0
09:00	72	50.3	43.8	7.5	0	1	0	19	26	17	6	2	1	0	0	0
10:00	99	49	42.2	7.3	0	2	1	32	35	23	4	2	0	0	0	0
11:00	130	48.3	40.1	9.7	0	9	3	49	42	15	9	0	3	0	0	0
12:00	130	47.2	40.7	6.8	0	2	3	54	46	21	4	0	0	0	0	0
13:00	147	48.1	41.7	7.4	0	2	2	56	56	20	7	2	2	0	0	0
14:00	109	49.2	42.8	6.1	0	0	0	37	40	24	7	1	0	0	0	0
15:00	116	48.2	41.8	6.7	0	1	3	39	45	23	4	1	0	0	0	0
16:00	104	48.7	42.2	6.1	0	0	0	41	34	24	4	1	0	0	0	0
17:00	86	48.9	42.8	5.8	0	0	0	28	32	22	4	0	0	0	0	0
18:00	58	48.2	43.1	5.5	0	0	0	15	28	13	1	1	0	0	0	0
19:00	41	45.8	41.7	6.4	0	0	1	14	20	3	2	1	0	0	0	0
20:00	38	44.5	39	6.9	0	0	2	22	11	2	0	0	1	0	0	0
21:00	18	47	40.7	6.6	0	0	1	7	6	4	0	0	0	0	0	0
22:00	19	46.8	41.4	5.5	0	0	0	8	7	4	0	0	0	0	0	0
23:00	8	-	41.3	5.1	0	0	0	3	4	1	0	0	0	0	0	0
12H,7-19	1116	48.7	41.9	7.2	0	20	12	388	411	215	54	10	6	0	0	0
16H,6-22	1223	48.6	41.8	7.2	0	20	16	438	448	224	58	12	7	0	0	0
18H,6-24	1250	48.6	41.8	7.2	0	20	16	449	459	229	58	12	7	0	0	0
24H,0-24	1289	48.6	41.7	7.1	0	20	16	472	466	236	60	12	7	0	0	0

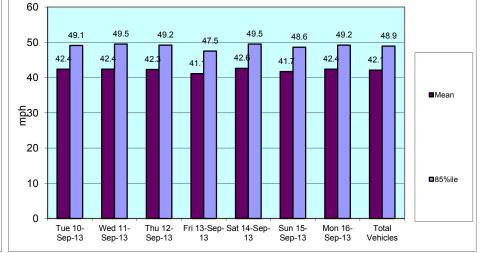


16768			CHILMINGT	TON GREEN	l		Site No: 16	6768004		Location	Site 4, Chi	ilmington G	reen Road	(TP 3)		
Tue 10-Sep	o-13 to Mon 1	16-Sep-13					Channel: S	Southbound	l							
·		•														
Time	Total	85%ile	Mean	Stand	<11Mph	11 -21	21-<31	21 - 41	11 - 16	16 vE1	E1 .E4	E6 .61	61 -66	66 271	71 .76	=>76
Period	Vehicles	Speed	Speed	Dev.	< i impii	11-521	Z1-<31	31-541	41-540	46-<51	21-<20	30-<01	01-<00	00- 1</th <th>/1-<!--0</th--><th>=&gt;/0</th></th>	/1- 0</th <th>=&gt;/0</th>	=>/0
Mon 16-Se	p-13															
00:00	1	-	43.5	=	0	0	0	0	1	0	0	0	0	0	0	0
01:00	1	=	43.5	-	0	0	0	0	1	0	0	0	0	0	0	0
02:00	2	=	36	3.5	0	0	0	2	0	0	0	0	0	0	0	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	5	-	43.5	7.9	0	0	0	2	1	1	1	0	0	0	0	0
05:00	4	-	45.4	7.5	0	0	0	1	1	1	1	0	0	0	0	0
06:00	27	50.6	44.6	7.5	0	0	1	5	10	7	2	2	0	0	0	0
07:00	89	49.3	43.2	6.6	0	1	0	24	37	20	5	2	0	0	0	0
08:00	190	48.8	42.3	6.1	0	0	1	70	66	43	9	1	0	0	0	0
09:00	124	48.8	42.2	6.3	0	0	1	46	48	18	10	1	0	0	0	0
10:00	111	48.6	42.6	7.7	0	0	4	33	47	19	5	1	0	1	0	1
11:00	103	49.3	42.3	7.5	0	1	2	36	37	17	8	0	2	0	0	0
12:00	118	48.3	42	6.7	0	0	2	45	42	23	4	1	0	1	0	0
13:00	117	47.5	40.7	6.7	0	0	5	52	37	16	7	0	0	0	0	0
14:00	140	50.3	43.1	7	0	0	4	40	52	26	16	2	0	0	0	0
15:00	159	47.4	41.5	6	0	1	0	64	62	27	4	1	0	0	0	0
16:00	205	46.4	41.3	6.1	0	1	3	79	89	25	6	2	0	0	0	0
17:00	257	49.7	42.8	8	0	10	2	58	98	68	19	2	0	0	0	0
18:00	158	50.4	44.3	7	0	2	1	34	53	50	14	4	0	0	0	0
19:00	84	49.1	42.6	7.2	0	1	0	30	28	19	3	2	1	0	0	0
20:00	44	49.5	41.3	8	0	0	3	18	11	7	4	1	0	0	0	0
21:00	25	54.4	45.3	8.3	0	0	0	8	6	4	4	3	0	0	0	0
22:00	28	48.1	41.6	6.3	0	0	1	10	9	8	0	0	0	0	0	0
23:00	11	50.6	44	7.4	0	0	0	4	2	3	2	0	0	0	0	0
12H,7-19	1771	49.1	42.4	6.9	0	16	25	581	668	352	107	17	2	2	0	1
16H,6-22	1951	49.2	42.4	7	0	17	29	642	723	389	120	25	3	2	0	1
18H,6-24	1990	49.2	42.4	7	0	17	30	656	734	400	122	25	3	2	0	1
24H,0-24	2003	49.2	42.4	7	0	17	30	661	738	402	124	25	3	2	0	1



16768			CHILMINGT	TON GREEN			Site No: 10	6768004		Location	Site 4, Chi	lmington G	reen Road	(TP 3)		
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: S	Southbound	l							
Time	Total	85%ile	Mean	Stand												_
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<21	21-<31	31-<41	41-<46	46-<51	51-<56	56-<61	61-<66	66-<71	71-<76	=>76
Daily Totals	<u> </u>															
Tue 10-Sep-13	2046	49.1	42.4	6.6	0	6	30	698	738	430	122	16	3	2	0	1
Wed 11-Sep-13	2014	49.5	42.4	7.3	0	22	36	687	672	422	138	29	8	0	0	0
Thu 12-Sep-13	2170	49.2	42.3	7.2	1	21	30	759	760	422	130	38	7	1	1	0
Fri 13-Sep-13	2142	47.5	41.1	6.6	3	10	33	933	740	329	71	16	7	0	0	0
Sat 14-Sep-13	1739	49.5	42.6	7.2	1	10	38	574	594	371	115	23	10	1	2	0
Sun 15-Sep-13	1289	48.6	41.7	7.1	0	20	16	472	466	236	60	12	7	0	0	0
Mon 16-Sep-13	2003	49.2	42.4	7	0	17	30	661	738	402	124	25	3	2	0	1
Total Vehic	les				•											
[]	13403	48.9	42.1	7.0	5	106	213	4784	4708	2612	760	159	45	6	3	2





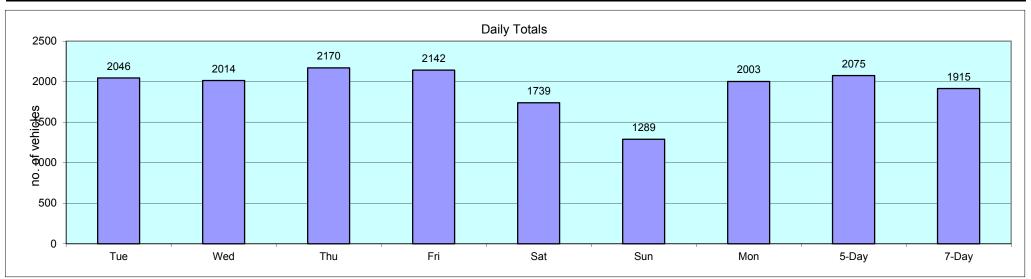


Channel: Southbound

	Tue	Wed	Thu	Fri	Sat	Sun	Mon	5-Day	7-Day
TIME PERIOD	10/09/13	11/09/13	12/09/13	13/09/13	14/09/13	15/09/13	16/09/13	Av	Av
Week Begin: 10-S	Sep-13		•						
00:00	3	5	2	7	20	15	1	4	8
01:00	0	3	2	2	4	5	1	2	2
02:00	2	2	4	4	3	1	2	3	3
03:00	1	1	2	3	4	6	0	1	2
04:00	6	4	2	4	5	3	5	4	4
05:00	3	5	9	4	16	9	4	5	7
06:00	19	22	28	29	18	10	27	25	22
07:00	97	87	96	90	40	32	89	92	76
08:00	192	164	166	186	72	33	190	180	143
09:00	122	123	133	153	123	72	124	131	121
10:00	111	94	118	131	137	99	111	113	114
11:00	125	109	130	125	156	130	103	118	125
12:00	133	127	142	140	125	130	118	132	131
13:00	112	136	145	134	141	147	117	129	133
14:00	152	159	144	157	152	109	140	150	145
15:00	162	187	181	173	141	116	159	172	160
16:00	221	225	229	234	167	104	205	223	198
17:00	215	224	235	189	140	86	257	224	192
18:00	152	147	162	156	98	58	158	155	133
19:00	102	82	100	95	66	41	84	93	81
20:00	45	47	42	36	38	38	44	43	41
21:00	32	29	45	35	29	18	25	33	30
22:00	22	20	37	30	24	19	28	27	26
23:00	17	12	16	25	20	8	11	16	16
12H,7-19	1794	1782	1881	1868	1492	1116	1771	1819	1672
16H,6-22	1992	1962	2096	2063	1643	1223	1951	2013	1847
18H,6-24	2031	1994	2149	2118	1687	1250	1990	2056	1888
24H,0-24	2046	2014	2170	2142	1739	1289	2003	2075	1915
Am	08:00	08:00	08:00	08:00	11:00	11:00	08:00	-	-
Peak	192	164	166	186	156	130	190	180	169
Pm	16:00	16:00	17:00	16:00	16:00	13:00	17:00	-	-
Peak	221	225	235	234	167	147	257	234	212



16768		CHILMINGTON GREE	:N	Site No: 1676800	4	Location	Site 4, Chilmingtor	Green Road (TP	3)
				Channel: Southbo	und				
	<b>T</b>	NA/ o. d	<b>T</b> l	F	C-1	<b>6</b>	Man	5 Day	7 0
	Tue	Wed	Thu	Fri	Sat	Sun	Mon	5-Day	7-Day
TIME PERIO	DD 10/09/13	11/09/13	12/09/13	13/09/13	14/09/13	15/09/13	16/09/13	Av	Av





## **Classification Schemes**

## Scheme F Classification Scheme (Non-metric)

Scheme F is an attempt to implement the FWHA's visual classification scheme as an axle-based classification scheme. This is one of several interpretations.

				Axle	spacing in	feet	
Class	Vehicle Type	No. of	Axle	Axle	Axle	Axle	Axle
	-	Axles	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6
1	motorcycle	2	<6.0				
	passenger car	2	6.0 - 10.0				
2	car + 1 axle trailer	3	<10.0	10.0 - 18.0			
	car + 2 axle trailer	4	<10.0		<3.5		
	pickup	2	10.0 - 15.0				
3	pickup + 1 axle trailer	3	10.0 - 15.0	10.0 - 18.0			
3	pickup + 2 axle trailer	4	10.0 -15.0		<3.5		
	pickup + 3 axle trailer	5	9.9 - 15.0			<3.5	
4	Traditional bus/coach	2	>20.0				
4	Traditional bus/coach	3	>19.0				
5	single unit truck/bus - dual rear axle	2	14.9 - 20.0			<3.5	
6	3 axle truck	3		<18.0			
7	4 axle truck	4					
	2S1	3		>18.0			
8	2S2	4		>5.0	>3.5		
	3S1	4		<5.0	>10.0		
9	3S2	5		<6.1		3.5 - 8.0	
9	5 axle combination	5					
10	6 axle combination	6			3.5 - 5.0		
10	3S3	6					
11	2S1-2	5		>6.0			
12	3S1-2	6					>10.0
13	truck	7 or more					

16768		CHILMINGTON GRE	EN							
		SEPTEMBER 2013		Posted Speed						
Site	Location	End Date	Limit (PSL)	Total Vehicles	5 Day Ave.	7 Day Ave.	Average 85%ile Speed	Mean Speed		
Site No:	Site 5, Magpie Hall Road, Chilmington Green	Channel: Northbound	Tue 10-Sep-13	Mon 16-Sep-13		18322	2860	2617	46.9	41.4
16768005	(40mph Sign) TQ 98797 38757	Mon 16-Sep-13	40	18356	2869	2622	46.4	40.8		



TIME	TOTAL	MOTOR-	MOTOR-								
PERIOD	VEHICLES	CYCLES	CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Tue 10-Sep-13											
00:00	9	0	0.0	9	100.0	0	0.0	0	0.0	0	0.0
01:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
02:00	5	1	20.0	3	60.0	1	20.0	0	0.0	0	0.0
03:00	3	0	0.0	2	66.7	1	33.3	0	0.0	0	0.0
04:00	8	1	12.5	4	50.0	3	37.5	0	0.0	0	0.0
05:00	15	0	0.0	12	80.0	3	20.0	0	0.0	0	0.0
06:00	77	0	0.0	67	87.0	10	13.0	0	0.0	0	0.0
07:00	175	2	1.1	141	80.6	25	14.3	6	3.4	1	0.6
08:00	243	2	0.8	205	84.4	30	12.4	5	2.1	1	0.4
09:00	156	0	0.0	142	91.0	12	7.7	2	1.3	0	0.0
10:00	155	1	0.7	124	80.0	24	15.5	5	3.2	1	0.7
11:00	162	2	1.2	139	85.8	15	9.3	6	3.7	0	0.0
12:00	176	1	0.6	161	91.5	9	5.1	5	2.8	0	0.0
13:00	187	0	0.0	167	89.3	18	9.6	2	1.1	0	0.0
14:00	193	0	0.0	165	85.5	23	11.9	5	2.6	0	0.0
15:00	232	0	0.0	207	89.2	20	8.6	5	2.2	0	0.0
16:00	259	0	0.0	234	90.4	20	7.7	4	1.5	1	0.4
17:00	284	2	0.7	262	92.3	16	5.6	4	1.4	0	0.0
18:00	197	1	0.5	184	93.4	9	4.6	3	1.5	0	0.0
19:00	136	2	1.5	125	91.9	8	5.9	1	0.7	0	0.0
20:00	60	2	3.3	56	93.3	2	3.3	0	0.0	0	0.0
21:00	60	0	0.0	58	96.7	2	3.3	0	0.0	0	0.0
22:00	39	0	0.0	38	97.4	1	2.6	0	0.0	0	0.0
23:00	16	0	0.0	15	93.8	1	6.3	0	0.0	0	0.0
12H,7-19	2419	11	0.5	2131	88.1	221	9.1	52	2.2	4	0.2
16H,6-22	2752	15	0.6	2437	88.6	243	8.8	53	1.9	4	0.2
18H,6-24	2807	15	0.5	2490	88.7	245	8.7	53	1.9	4	0.1
24H,0-24	2850	17	0.6	2523	88.5	253	8.9	53	1.9	4	0.1



TIME	TOTAL	MOTOR-	MOTOR-								
PERIOD	VEHICLES	CYCLES	CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Wed 11-Sep-1	3										
00:00	9	0	0.0	9	100.0	0	0.0	0	0.0	0	0.0
01:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
02:00	2	0	0.0	0	0.0	2	100.0	0	0.0	0	0.0
03:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
04:00	8	1	12.5	3	37.5	4	50.0	0	0.0	0	0.0
05:00	25	1	4.0	21	84.0	3	12.0	0	0.0	0	0.0
06:00	72	2	2.8	62	86.1	8	11.1	0	0.0	0	0.0
07:00	164	2	1.2	146	89.0	15	9.2	1	0.6	0	0.0
08:00	255	2	8.0	228	89.4	19	7.5	6	2.4	0	0.0
09:00	153	1	0.7	121	79.1	24	15.7	7	4.6	0	0.0
10:00	162	2	1.2	136	84.0	20	12.4	4	2.5	0	0.0
11:00	168	5	3.0	143	85.1	14	8.3	6	3.6	0	0.0
12:00	205	2	1.0	175	85.4	23	11.2	5	2.4	0	0.0
13:00	161	1	0.6	143	88.8	12	7.5	5	3.1	0	0.0
14:00	182	0	0.0	161	88.5	14	7.7	6	3.3	1	0.6
15:00	213	2	0.9	189	88.7	17	8.0	5	2.4	0	0.0
16:00	266	2	0.8	241	90.6	14	5.3	7	2.6	2	0.8
17:00	297	3	1.0	269	90.6	22	7.4	3	1.0	0	0.0
18:00	201	1	0.5	188	93.5	11	5.5	1	0.5	0	0.0
19:00	155	2	1.3	148	95.5	3	1.9	2	1.3	0	0.0
20:00	100	1	1.0	89	89.0	9	9.0	1	1.0	0	0.0
21:00	60	0	0.0	55	91.7	5	8.3	0	0.0	0	0.0
22:00	46	1	2.2	40	87.0	3	6.5	2	4.4	0	0.0
23:00	17	0	0.0	16	94.1	1	5.9	0	0.0	0	0.0
12H,7-19	2427	23	1.0	2140	88.2	205	8.5	56	2.3	3	0.1
16H,6-22	2814	28	1.0	2494	88.6	230	8.2	59	2.1	3	0.1
18H,6-24	2877	29	1.0	2550	88.6	234	8.1	61	2.1	3	0.1
24H,0-24	2923	31	1.1	2585	88.4	243	8.3	61	2.1	3	0.1



TIME	TOTAL	MOTOR-	MOTOR-								
PERIOD	VEHICLES	CYCLES	CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Thu 12-Sep-13											
00:00	7	0	0.0	7	100.0	0	0.0	0	0.0	0	0.0
01:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0
02:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0
03:00	3	0	0.0	2	66.7	1	33.3	0	0.0	0	0.0
04:00	7	1	14.3	3	42.9	3	42.9	0	0.0	0	0.0
05:00	16	0	0.0	13	81.3	3	18.8	0	0.0	0	0.0
06:00	70	1	1.4	55	78.6	13	18.6	1	1.4	0	0.0
07:00	174	2	1.2	145	83.3	26	14.9	1	0.6	0	0.0
08:00	244	1	0.4	218	89.3	19	7.8	6	2.5	0	0.0
09:00	163	1	0.6	141	86.5	19	11.7	2	1.2	0	0.0
10:00	126	0	0.0	111	88.1	14	11.1	1	0.8	0	0.0
11:00	154	1	0.7	137	89.0	12	7.8	3	2.0	1	0.7
12:00	196	0	0.0	172	87.8	20	10.2	4	2.0	0	0.0
13:00	189	0	0.0	169	89.4	15	7.9	5	2.7	0	0.0
14:00	201	2	1.0	177	88.1	17	8.5	5	2.5	0	0.0
15:00	228	0	0.0	208	91.2	16	7.0	4	1.8	0	0.0
16:00	229	2	0.9	202	88.2	20	8.7	4	1.8	1	0.4
17:00	284	4	1.4	259	91.2	19	6.7	2	0.7	0	0.0
18:00	196	2	1.0	185	94.4	8	4.1	1	0.5	0	0.0
19:00	142	2	1.4	130	91.6	9	6.3	1	0.7	0	0.0
20:00	95	1	1.1	92	96.8	2	2.1	0	0.0	0	0.0
21:00	74	1	1.4	72	97.3	1	1.4	0	0.0	0	0.0
22:00	46	0	0.0	45	97.8	1	2.2	0	0.0	0	0.0
23:00	17	0	0.0	14	82.4	3	17.7	0	0.0	0	0.0
12H,7-19	2384	15	0.6	2124	89.1	205	8.6	38	1.6	2	0.1
16H,6-22	2765	20	0.7	2473	89.4	230	8.3	40	1.5	2	0.1
18H,6-24	2828	20	0.7	2532	89.5	234	8.3	40	1.4	2	0.1
24H,0-24	2865	21	0.7	2559	89.3	243	8.5	40	1.4	2	0.1



TIME	TOTAL	MOTOR-	MOTOR-								
PERIOD	VEHICLES	CYCLES	CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Fri 13-Sep-13											
00:00	7	0	0.0	7	100.0	0	0.0	0	0.0	0	0.0
01:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
02:00	4	0	0.0	3	75.0	1	25.0	0	0.0	0	0.0
03:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
04:00	7	0	0.0	3	42.9	4	57.1	0	0.0	0	0.0
05:00	15	0	0.0	11	73.3	4	26.7	0	0.0	0	0.0
06:00	74	2	2.7	60	81.1	12	16.2	0	0.0	0	0.0
07:00	153	3	2.0	129	84.3	21	13.7	0	0.0	0	0.0
08:00	238	0	0.0	206	86.6	27	11.3	5	2.1	0	0.0
09:00	172	1	0.6	148	86.1	20	11.6	3	1.7	0	0.0
10:00	163	0	0.0	141	86.5	20	12.3	1	0.6	1	0.6
11:00	179	2	1.1	155	86.6	22	12.3	0	0.0	0	0.0
12:00	192	0	0.0	170	88.5	20	10.4	2	1.0	0	0.0
13:00	192	2	1.0	173	90.1	14	7.3	2	1.0	1	0.5
14:00	216	0	0.0	188	87.0	20	9.3	7	3.2	1	0.5
15:00	300	0	0.0	271	90.3	22	7.3	5	1.7	2	0.7
16:00	248	0	0.0	220	88.7	22	8.9	3	1.2	3	1.2
17:00	248	0	0.0	230	92.7	14	5.7	4	1.6	0	0.0
18:00	202	1	0.5	185	91.6	14	6.9	2	1.0	0	0.0
19:00	140	0	0.0	132	94.3	7	5.0	1	0.7	0	0.0
20:00	101	0	0.0	98	97.0	3	3.0	0	0.0	0	0.0
21:00	45	0	0.0	42	93.3	3	6.7	0	0.0	0	0.0
22:00	39	0	0.0	39	100.0	0	0.0	0	0.0	0	0.0
23:00	31	0	0.0	28	90.3	2	6.5	1	3.2	0	0.0
12H,7-19	2503	9	0.4	2216	88.5	236	9.4	34	1.4	8	0.3
16H,6-22	2863	11	0.4	2548	89.0	261	9.1	35	1.2	8	0.3
18H,6-24	2933	11	0.4	2615	89.2	263	9.0	36	1.2	8	0.3
24H,0-24	2970	11	0.4	2643	89.0	272	9.2	36	1.2	8	0.3



TIME	TOTAL	MOTOR-	MOTOR-								
PERIOD	VEHICLES	CYCLES	CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Sat 14-Sep-13		31322									
00:00	10	0	0.0	10	100.0	0	0.0	0	0.0	0	0.0
01:00	9	0	0.0	8	88.9	1	11.1	0	0.0	0	0.0
02:00	5	0	0.0	3	60.0	1	20.0	1	20.0	0	0.0
03:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
04:00	8	0	0.0	4	50.0	4	50.0	0	0.0	0	0.0
05:00	6	0	0.0	6	100.0	0	0.0	0	0.0	0	0.0
06:00	29	0	0.0	24	82.8	5	17.2	0	0.0	0	0.0
07:00	76	0	0.0	63	82.9	12	15.8	1	1.3	0	0.0
08:00	94	2	2.1	83	88.3	7	7.5	2	2.1	0	0.0
09:00	147	3	2.0	130	88.4	13	8.8	1	0.7	0	0.0
10:00	187	3	1.6	167	89.3	15	8.0	2	1.1	0	0.0
11:00	195	1	0.5	181	92.8	11	5.6	2	1.0	0	0.0
12:00	225	2	0.9	215	95.6	7	3.1	1	0.4	0	0.0
13:00	187	3	1.6	170	90.9	12	6.4	2	1.1	0	0.0
14:00	169	5	3.0	158	93.5	5	3.0	1	0.6	0	0.0
15:00	182	0	0.0	168	92.3	12	6.6	2	1.1	0	0.0
16:00	196	1	0.5	190	96.9	4	2.0	1	0.5	0	0.0
17:00	193	3	1.6	179	92.8	10	5.2	1	0.5	0	0.0
18:00	139	0	0.0	134	96.4	5	3.6	0	0.0	0	0.0
19:00	112	1	0.9	109	97.3	1	0.9	1	0.9	0	0.0
20:00	57	1	1.8	55	96.5	1	1.8	0	0.0	0	0.0
21:00	41	0	0.0	40	97.6	1	2.4	0	0.0	0	0.0
22:00	32	0	0.0	31	96.9	1	3.1	0	0.0	0	0.0
23:00	32	0	0.0	30	93.8	2	6.3	0	0.0	0	0.0
12H,7-19	1990	23	1.2	1838	92.4	113	5.7	16	8.0	0	0.0
16H,6-22	2229	25	1.1	2066	92.7	121	5.4	17	8.0	0	0.0
18H,6-24	2293	25	1.1	2127	92.8	124	5.4	17	0.7	0	0.0
24H,0-24	2333	25	1.1	2160	92.6	130	5.6	18	0.8	0	0.0



Tue 10-Sep-13 to Mon 16-Sep-13

TIME	TOTAL	MOTOR-	MOTOR-								
PERIOD	VEHICLES	CYCLES	CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Sun 15-Sep-13											
00:00	22	0	0.0	21	95.5	1	4.6	0	0.0	0	0.0
01:00	13	0	0.0	11	84.6	2	15.4	0	0.0	0	0.0
02:00	6	0	0.0	6	100.0	0	0.0	0	0.0	0	0.0
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	6	0	0.0	4	66.7	2	33.3	0	0.0	0	0.0
05:00	4	0	0.0	3	75.0	1	25.0	0	0.0	0	0.0
06:00	20	0	0.0	18	90.0	2	10.0	0	0.0	0	0.0
07:00	43	2	4.7	38	88.4	3	7.0	0	0.0	0	0.0
08:00	63	3	4.8	55	87.3	3	4.8	1	1.6	1	1.6
09:00	92	9	9.8	75	81.5	8	8.7	0	0.0	0	0.0
10:00	127	5	3.9	114	89.8	5	3.9	3	2.4	0	0.0
11:00	133	3	2.3	121	91.0	9	6.8	0	0.0	0	0.0
12:00	201	4	2.0	189	94.0	7	3.5	1	0.5	0	0.0
13:00	163	0	0.0	159	97.6	4	2.5	0	0.0	0	0.0
14:00	153	1	0.7	143	93.5	6	3.9	3	2.0	0	0.0
15:00	144	0	0.0	136	94.4	7	4.9	1	0.7	0	0.0
16:00	140	0	0.0	133	95.0	6	4.3	1	0.7	0	0.0
17:00	107	0	0.0	105	98.1	2	1.9	0	0.0	0	0.0
18:00	82	1	1.2	77	93.9	3	3.7	1	1.2	0	0.0
19:00	56	0	0.0	51	91.1	5	8.9	0	0.0	0	0.0
20:00	46	1	2.2	43	93.5	2	4.4	0	0.0	0	0.0
21:00	31	0	0.0	27	87.1	3	9.7	1	3.2	0	0.0
22:00	22	0	0.0	18	81.8	4	18.2	0	0.0	0	0.0
23:00	13	0	0.0	12	92.3	1	7.7	0	0.0	0	0.0
12H,7-19	1448	28	1.9	1345	92.9	63	4.4	11	0.8	1	0.1
16H,6-22	1601	29	1.8	1484	92.7	75	4.7	12	0.8	1	0.1
18H,6-24	1636	29	1.8	1514	92.5	80	4.9	12	0.7	1	0.1



1687

29

1.7

1559

24H,0-24

0.1

1

92.4

86

5.1

12

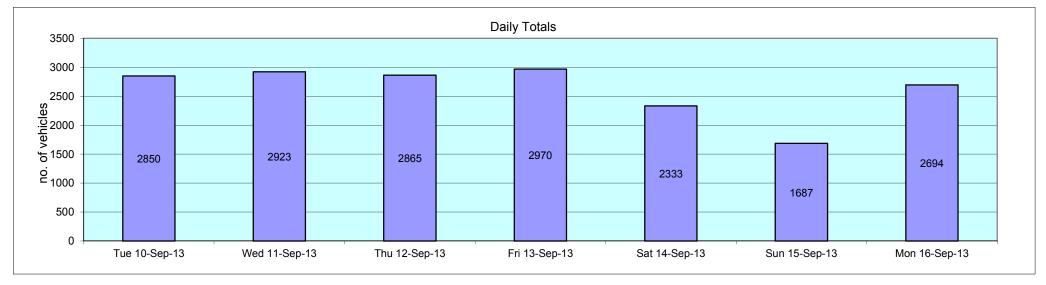
0.7

TIME	TOTAL	MOTOR	мотор								
TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	MOTOR- CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Mon 16-Sep-1		0.0110	01011070	<u> </u>			201 //		1101 /0		200 //0
00:00	0	0	-	0	-	0	-	0	-	0	-
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
03:00	1	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0
04:00	8	0	0.0	6	75.0	2	25.0	0	0.0	0	0.0
05:00	18	0	0.0	15	83.3	3	16.7	0	0.0	0	0.0
06:00	70	1	1.4	62	88.6	6	8.6	1	1.4	0	0.0
07:00	181	4	2.2	147	81.2	28	15.5	2	1.1	0	0.0
08:00	254	1	0.4	221	87.0	29	11.4	2	0.8	1	0.4
09:00	153	0	0.0	140	91.5	11	7.2	2	1.3	0	0.0
10:00	138	0	0.0	124	89.9	12	8.7	2	1.5	0	0.0
11:00	143	1	0.7	129	90.2	10	7.0	3	2.1	0	0.0
12:00	169	2	1.2	155	91.7	11	6.5	1	0.6	0	0.0
13:00	165	0	0.0	150	90.9	12	7.3	2	1.2	1	0.6
14:00	182	1	0.6	158	86.8	16	8.8	6	3.3	1	0.6
15:00	207	2	1.0	191	92.3	12	5.8	2	1.0	0	0.0
16:00	229	0	0.0	212	92.6	17	7.4	0	0.0	0	0.0
17:00	275	2	0.7	255	92.7	15	5.5	1	0.4	2	0.7
18:00	212	1	0.5	205	96.7	5	2.4	1	0.5	0	0.0
19:00	124	2	1.6	113	91.1	6	4.8	3	2.4	0	0.0
20:00	70	0	0.0	69	98.6	1	1.4	0	0.0	0	0.0
21:00	46	1	2.2	43	93.5	2	4.4	0	0.0	0	0.0
22:00	39	1	2.6	36	92.3	2	5.1	0	0.0	0	0.0
23:00	9	0	0.0	6	66.7	3	33.3	0	0.0	0	0.0
12H,7-19	2308	14	0.6	2087	90.4	178	7.7	24	1.0	5	0.2
16H,6-22	2618	18	0.7	2374	90.7	193	7.4	28	1.1	5	0.2
18H,6-24	2666	19	0.7	2416	90.6	198	7.4	28	1.1	5	0.2
24H,0-24	2694	19	0.7	2438	90.5	204	7.6	28	1.0	5	0.2



16768	CHILMINGTON GREEN	Site No: 16768005	Location	Site 5, Magpie Hall Road, Chilmington Green

TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	MOTOR- CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Daily Totals											
Tue 10-Sep-13	2850	17	0.6	2523	88.5	253	8.9	53	1.9	4	0.1
Wed 11-Sep-13	2923	31	1.1	2585	88.4	243	8.3	61	2.1	3	0.1
Thu 12-Sep-13	2865	21	0.7	2559	89.3	243	8.5	40	1.4	2	0.1
Fri 13-Sep-13	2970	11	0.4	2643	89.0	272	9.2	36	1.2	8	0.3
Sat 14-Sep-13	2333	25	1.1	2160	92.6	130	5.6	18	0.8	0	0.0
Sun 15-Sep-13	1687	29	1.7	1559	92.4	86	5.1	12	0.7	1	0.1
Mon 16-Sep-13	2694	19	0.7	2438	90.5	204	7.6	28	1.0	5	0.2
<b>Total Vehicles</b>											
[]	18322	153	0.9	16467	90.1	1431	7.6	248	1.3	23	0.1





16768			CHILMINGT	ON GREEN			Site No: 16	6768005		Location	Site 5, Mag	gpie Hall Ro	ad, Chilmi	ngton Gree	n	
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: N	Northbound	l							
		•														
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
Tue 10-Sep	12	•	•													
00:00	9	_	44.1	4.9	0	0	0	0	0	0	3	2	4	0	0	0
01:00	3		53.5	8.8	0	0	0	0	0	0	0	0	2	0	0	1
02:00	5	_	48.5	11.2	0	0	0	0	0	1	0	1	1	1	0	1
03:00	3	_	41.8	5.9	0	0	0	0	0	0	2	0	1	0	0	0
04:00	8	-	40.4	8.9	0	0	0	1	0	1	2	1	3	0	0	0
05:00	15	49.5	44.8	8.4	0	0	0	1	0	0	2	5	6	0	0	1
06:00	77	49.7	42.8	6.5	0	0	0	0	0	6	33	17	12	5	4	0
07:00	175	46.3	41.5	4.9	0	0	0	0	0	17	69	61	24	3	1	0
08:00	243	45.7	40.9	5.4	0	1	0	1	5	27	83	94	30	2	0	0
09:00	156	45.9	41.5	5	0	0	0	0	2	9	68	54	18	4	1	0
10:00	155	44	38.8	5.6	0	1	0	1	6	31	68	41	4	2	1	0
11:00	162	45.4	40	5.6	0	0	2	0	5	19	71	46	17	2	0	0
12:00	176	45.9	40.3	6.2	0	0	1	3	3	26	68	49	21	4	0	1
13:00	187	45.8	40.4	6	0	0	4	0	1	22	82	51	24	2	0	1
14:00	193	46.1	40.7	5.4	0	0	0	0	3	26	85	49	24	5	1	0
15:00	232	45	39.9	5.7	0	1	0	1	6	40	90	73	14	6	1	0
16:00	259	45.3	40.3	5.9	0	2	4	1	2	23	109	92	23	2	1	0
17:00	284	46	41.9	5	0	0	1	0	1	15	109	115	35	6	1	1
18:00	197	46.8	41.6	6.3	2	0	0	0	2	17	68	74	24	9	0	1
19:00	136	45.6	40.4	6.5	0	1	0	1	2	25	46	44	11	3	2	1
20:00	60	50.4	43.7	7	0	0	0	1	0	4	17	18	12	6	1	1
21:00	60	46.8	41.9	5.1	0	0	0	0	0	6	20	23	10	0	1	0
22:00	39	47.7	41.3	5.8	0	0	0	0	0	8	11	11	8	1	0	0
23:00	16	47.8	44.1	6.7	0	0	0	0	0	1	3	8	3	0	0	1
12H,7-19	2419	45.7	40.7	5.6	2	5	12	7	36	272	970	799	258	47	7	4
16H,6-22	2752	45.8	40.8	5.8	2	6	12	9	38	313	1086	901	303	61	15	6
18H,6-24	2807	45.9	40.8	5.8	2	6	12	9	38	322	1100	920	314	62	15	7
24H,0-24	2850	46	40.9	5.8	2	6	12	11	38	324	1109	929	331	63	15	10





16768			CHILMINGT	ON GREEN			Site No: 16	6768005		Location	Site 5, Mag	gpie Hall Ro	ad, Chilmi	ngton Gree	n	
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: N	Northbound	l							
		•														
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
Thu 12-Sep	12	•	•													
00:00	7	_	42.8	6.2	0	0	0	0	0	1	2	1	3	0	0	0
01:00	2		38.5	21.2	0	0	0	1	0	0	0	0	0	1	0	0
02:00	2	_	46	3.5	0	0	0	0	0	0	0	1	1	0	0	0
03:00	3	_	48.5	5	0	0	0	0	0	0	0	1	1	1	0	0
04:00	7	-	47.8	9.4	0	0	0	0	0	1	0	2	2	1	0	1
05:00	16	50.1	46	5.3	0	0	0	0	0	0	2	7	5	1	1	0
06:00	70	50.1	43.9	6.3	0	0	1	0	0	2	19	24	16	7	1	0
07:00	174	48.8	42.9	6	0	1	0	0	0	12	53	62	35	7	4	0
08:00	244	46.5	41.1	6.2	0	1	0	0	7	26	98	72	27	9	2	2
09:00	163	47.2	41	6.1	0	0	2	0	1	26	54	49	26	4	1	0
10:00	126	46.8	41	6	0	0	1	0	3	17	43	40	16	6	0	0
11:00	154	44.4	39.3	4.9	0	0	0	0	3	32	71	36	10	2	0	0
12:00	196	44	39	4.7	0	0	0	1	5	34	101	42	13	0	0	0
13:00	189	45.4	40.4	5.4	0	0	0	0	9	20	78	61	16	4	1	0
14:00	201	45.8	39.8	6.2	0	0	1	2	5	41	75	48	22	5	2	0
15:00	228	45.2	40.2	5.5	0	0	1	1	6	26	102	68	19	3	2	0
16:00	229	47.4	42	5.8	0	0	1	4	1	18	64	95	40	4	2	0
17:00	284	48	42.6	5.8	0	1	1	0	2	11	95	114	42	13	4	1
18:00	196	48.4	42.9	5.7	0	0	1	0	0	7	69	75	29	12	1	2
19:00	142	47.3	41.8	6.2	0	1	2	0	1	9	44	58	20	7	0	0
20:00	95	49.6	43	6.4	0	0	1	0	0	7	26	39	10	11	0	1
21:00	74	46.2	41.1	5.2	0	0	0	0	0	7	37	18	9	2	1	0
22:00	46	46.8	43.1	5.9	0	0	0	0	0	2	15	21	4	2	1	1
23:00	17	45.9	41.4	5.5	0	0	0	0	0	2	7	5	2	1	0	0
12H,7-19	2384	46.5	41.1	5.9	0	3	8	8	42	270	903	762	295	69	19	5
16H,6-22	2765	46.8	41.3	5.9	0	4	12	8	43	295	1029	901	350	96	21	6
18H,6-24	2828	46.8	41.3	5.9	0	4	12	8	43	299	1051	927	356	99	22	7
24H,0-24	2865	47	41.4	6	0	4	12	9	43	301	1055	939	368	103	23	8



16768			CHILMINGT	ON GREEN			Site No: 16	6768005		Location	Site 5, Mag	gpie Hall Ro	ad, Chilmi	ngton Gree	n	
Tue 10-Sep-	-13 to Mon 1	6-Sep-13					Channel: N	orthbound								
		•														
Time	Total	85%ile	Mean	Stand	-11Mnh	11 -12	16 -21	24 -26	26 424	24 426	36-<41	11 -16	46 .51	E4 .E4	E4 444	=>61
Period	Vehicles	Speed	Speed	Dev.	< i impli	11-<10	10-<21	21-<20	20-<31	31-<30	30-<41	41-<40	40-<51	51-<56	56-<61	=>01
Fri 13-Sep-1	13															
00:00	7	-	42.1	8.1	0	0	0	0	1	1	0	2	3	0	0	0
01:00	1	-	38.5	-	0	0	0	0	0	0	1	0	0	0	0	0
02:00	4	-	41	6.5	0	0	0	0	0	1	1	1	1	0	0	0
03:00	3	-	41.8	3.1	0	0	0	0	0	0	1	2	0	0	0	0
04:00	7	=	42.8	8.5	0	0	0	0	0	2	1	2	0	2	0	0
05:00	15	49.8	43.8	6.3	0	0	0	0	0	2	2	6	3	2	0	0
06:00	74	48.7	42.6	6.4	0	1	0	0	1	5	20	25	19	3	0	0
07:00	153	49.3	43.2	6.2	0	1	0	0	0	12	39	57	31	11	1	1
08:00	238	46.1	41.9	5	0	0	0	0	4	20	67	110	31	6	0	0
09:00	172	45.3	39.9	5.7	0	0	0	0	10	24	70	49	14	4	1	0
10:00	163	46.3	40.9	5.7	0	0	0	0	5	22	59	51	21	3	2	0
11:00	179	44.2	38.8	5.3	0	1	0	0	6	41	77	42	11	1	0	0
12:00	192	45.4	40.9	5.1	0	0	0	0	5	24	60	83	16	4	0	0
13:00	192	46.5	40.8	5.9	0	0	0	0	8	23	75	54	25	4	3	0
14:00	216	44.6	38.7	6.2	0	0	2	5	11	39	86	56	15	1	0	1
15:00	300	44.7	39.3	5	0	0	0	0	5	68	128	72	25	2	0	0
16:00	248	45.6	40.3	5.4	0	1	0	0	5	33	107	70	28	4	0	0
17:00	248	46.1	41.1	5.9	0	0	0	0	10	29	83	88	29	6	2	1
18:00	202	45.4	40.3	5.9	0	0	1	1	5	26	89	56	16	6	1	1
19:00	140	45.2	40.7	4.9	0	0	0	0	1	11	74	39	11	2	2	0
20:00	101	45.4	39.5	6.2	0	1	0	0	5	20	32	31	11	1	0	0
21:00	45	44.4	39.5	4.6	0	0	0	0	0	10	19	13	3	0	0	0
22:00	39	45.5	40.9	5.1	0	0	0	0	0	6	14	14	4	1	0	0
23:00	31	46.9	41.7	5.3	0	0	0	0	0	4	10	11	5	1	0	0
12H,7-19	2503	45.7	40.4	5.7	0	3	3	6	74	361	940	788	262	52	10	4
16H,6-22	2863	45.7	40.5	5.7	0	5	3	6	81	407	1085	896	306	58	12	4
18H,6-24	2933	45.7	40.5	5.7	0	5	3	6	81	417	1109	921	315	60	12	4
24H,0-24	2970	45.8	40.5	5.7	0	5	3	6	82	423	1115	934	322	64	12	4



Data produced by Axiom Traffic Ltd

16768			CHILMINGT	ON GREEN			Site No: 16	6768005		Location	Site 5, Mag	gpie Hall Ro	oad, Chilmi	ngton Gree	n	
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: N	orthbound	l							
•		•														
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
Sat 14-Sep-	.13															
00:00	10	46	40.5	5.5	0	0	0	0	0	2	4	2	2	0	0	0
01:00	9	-	40.7	5.8	0	0	0	0	1	0	3	4	1	0	0	0
02:00	5	_	41.5	14.4	0	0	0	1	0	1	1	0	0	1	1	0
03:00	2	-	46	3.5	0	0	0	0	0	0	0	1	1	0	0	0
04:00	8	-	45.4	10	0	0	0	0	1	0	2	1	1	2	1	0
05:00	6	-	46.8	9.4	0	0	0	0	0	0	2	1	2	0	0	1
06:00	29	52.8	44.5	7.4	0	0	0	0	0	2	9	8	3	6	0	1
07:00	76	49.6	44.2	6	0	0	0	0	0	3	20	28	18	5	0	2
08:00	94	49.1	42.2	7.2	0	1	1	0	1	7	32	25	20	6	0	1
09:00	147	45.6	40.5	5.6	0	0	0	1	6	14	61	46	14	5	0	0
10:00	187	45	39.9	6.1	0	2	0	1	2	27	87	49	13	4	1	1
11:00	195	45.5	40.3	5.7	0	0	0	2	3	33	72	62	17	5	0	1
12:00	225	45.9	41	5.4	0	0	2	1	2	20	89	79	28	4	0	0
13:00	187	47.2	41	6.9	0	3	2	0	0	22	66	60	22	12	0	0
14:00	169	45.4	40.3	6.1	0	0	2	3	4	19	59	64	15	1	2	0
15:00	182	48.2	42.4	5.7	0	0	0	0	0	12	75	56	25	10	3	1
16:00	196	47.3	42.2	5.1	0	0	0	0	2	9	74	74	28	8	1	0
17:00	193	48.6	42.4	6.3	0	1	0	0	0	14	76	56	32	9	2	3
18:00	139	46.2	41	6.1	0	0	1	0	0	25	46	45	15	5	1	1
19:00	112	47.3	41.8	6	0	0	0	0	1	14	37	39	14	5	1	1
20:00	57	49.3	41.7	6.7	0	0	0	0	2	5	25	12	6	6	1	0
21:00	41	49.7	43.7	6.8	0	0	0	0	1	5	5	16	10	2	2	0
22:00	32	50.6	42.9	6.6	0	0	0	0	0	3	12	9	3	4	1	0
23:00	32	51.9	45.2	6.2	0	0	0	0	0	1	6	14	5	4	2	0
12H,7-19	1990	46.9	41.3	6	0	7	8	8	20	205	757	644	247	74	10	10
16H,6-22	2229	47.1	41.4	6.1	0	7	8	8	24	231	833	719	280	93	14	12
18H,6-24	2293	47.3	41.5	6.1	0	7	8	8	24	235	851	742	288	101	17	12
24H,0-24	2333	47.4	41.5	6.2	0	7	8	9	26	238	863	751	295	104	19	13



Data produced by Axiom Traffic Ltd

16768			CHILMINGT	ON GREEN			Site No: 16	6768005		Location	Site 5, Mag	gpie Hall Ro	oad, Chilmi	ngton Gree	n	
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: N	orthbound	l							
·		•														
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
Sun 15-Sep	-13															
00:00	22	52	44.6	8	0	0	0	0	0	2	5	9	2	1	2	1
01:00	13	48.8	44.3	8	0	0	0	0	0	1	4	4	2	1	0	1
02:00	6	-	48.5	6.4	0	0	0	0	0	0	0	3	1	1	1	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	6	-	46	4.4	0	0	0	0	0	0	1	1	4	0	0	0
05:00	4	-	46	6.5	0	0	0	0	0	0	1	1	1	1	0	0
06:00	20	49.8	45.3	6.7	0	0	0	0	0	1	6	2	8	2	1	0
07:00	43	49.2	42.7	6.8	0	0	1	0	1	1	13	15	8	4	0	0
08:00	63	51	43.3	8.3	0	0	2	1	0	5	14	19	12	7	3	0
09:00	92	50	41.9	8.9	1	2	1	1	0	5	30	29	11	9	2	1
10:00	127	49.7	42.9	7.6	0	0	3	2	0	5	40	39	25	7	5	1
11:00	133	48	42.5	5.3	0	0	0	0	0	12	41	49	26	3	2	0
12:00	201	47.7	42.2	5.6	0	0	0	0	0	21	68	71	30	7	4	0
13:00	163	47.5	42.1	5.2	0	0	0	0	0	11	67	53	23	8	1	0
14:00	153	48	42.4	5.8	0	0	0	0	3	12	47	57	26	6	1	1
15:00	144	47.8	42.6	5.1	0	0	0	1	1	4	50	57	25	5	1	0
16:00	140	45.9	41.5	5.5	0	0	2	1	1	8	47	60	19	2	0	0
17:00	107	48.4	42.6	5.7	0	0	0	0	3	5	34	38	22	3	2	0
18:00	82	49.3	43.4	6.6	0	1	0	0	1	4	18	34	17	5	2	0
19:00	56	48.1	41.6	6.2	0	0	0	0	3	2	25	13	10	2	1	0
20:00	46	44.8	40.1	5.2	0	0	0	0	3	2	23	14	3	1	0	0
21:00	31	52.1	43.2	8	0	0	0	0	0	5	10	7	3	4	1	1
22:00	22	49.7	43.3	7.1	0	0	0	0	0	2	8	6	3	1	2	0
23:00	13	54.9	43.9	9.1	0	0	0	0	0	3	3	2	2	1	2	0
12H,7-19	1448	48.4	42.4	6.2	1	3	9	6	10	93	469	521	244	66	23	3
16H,6-22	1601	48.5	42.3	6.2	1	3	9	6	16	103	533	557	268	75	26	4
18H,6-24	1636	48.5	42.4	6.3	1	3	9	6	16	108	544	565	273	77	30	4
24H,0-24	1687	48.6	42.5	6.3	1	3	9	6	16	111	555	583	283	81	33	6

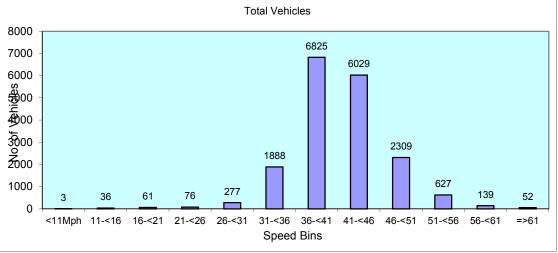


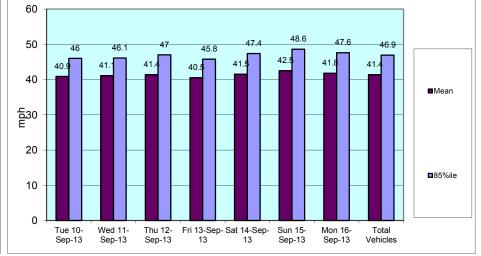
Data produced by Axiom Traffic Ltd

16768			CHILMINGT	ON GREEN			Site No: 10	6768005		Location	Site 5, Mag	gpie Hall Ro	oad, Chilmi	ngton Gree	n	
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: N	Northbound	l							
·		•														
Time	Total	85%ile	Mean	Stand	-11Mnh	11 -16	16 421	24 426	26 424	24 .24	36-<41	44 - 46	16 <sub>4</sub> E1	E4 .E4	E6 461	=>61
Period	Vehicles	Speed	Speed	Dev.	< i impii	11-<10	10-521	21-<20	20-<31	31-<30	30-541	41-<40	40-<51	51-<56	56-<61	=>01
Mon 16-Sep	o-13															
00:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	1	-	38.5	-	0	0	0	0	0	0	1	0	0	0	0	0
03:00	1	=	43.5	-	0	0	0	0	0	0	0	1	0	0	0	0
04:00	8	=	49.1	8.7	0	0	0	0	0	0	2	1	2	0	3	0
05:00	18	45.3	41.3	4.5	0	0	0	0	0	2	6	8	2	0	0	0
06:00	70	50.4	44.4	6.2	0	0	0	0	0	4	18	22	17	6	3	0
07:00	181	49.3	43.8	5.4	0	1	0	0	0	5	46	68	50	11	0	0
08:00	254	47.1	41.8	5.4	0	1	0	0	0	20	100	87	33	12	1	0
09:00	153	47.3	41.5	5.1	0	0	0	0	2	11	67	43	26	4	0	0
10:00	138	45.9	41	6.2	0	0	0	4	2	10	55	47	13	6	0	1
11:00	143	46.3	40.9	5.5	0	0	0	0	3	16	62	39	18	4	1	0
12:00	169	46.3	41.2	5.7	0	0	0	0	1	20	75	46	18	7	0	2
13:00	165	45.9	41	6	0	0	0	3	3	16	62	57	18	4	1	1
14:00	182	45.4	40.8	4.6	0	0	0	0	2	14	87	58	18	3	0	0
15:00	207	45.8	40.8	5.7	0	1	2	0	3	15	92	65	23	6	0	0
16:00	229	45.5	41.5	4.8	0	0	0	1	1	11	97	94	18	6	0	1
17:00	275	48.9	42.5	6.2	0	0	1	2	8	12	88	96	46	20	2	0
18:00	212	48.3	42.7	5.2	0	0	0	1	0	14	64	82	40	11	0	0
19:00	124	47.1	40.8	6.8	0	1	0	3	2	17	38	40	18	4	1	0
20:00	70	48.5	42.9	5.6	0	0	0	0	0	3	26	24	12	4	0	1
21:00	46	50.1	43.4	6.5	0	0	0	0	0	3	17	12	8	5	0	1
22:00	39	49	42.6	6.3	0	0	0	1	0	2	13	13	6	4	0	0
23:00	9	-	46.3	8.8	0	0	0	0	0	0	4	0	3	1	0	1
12H,7-19	2308	47.2	41.7	5.6	0	3	3	11	25	164	895	782	321	94	5	5
16H,6-22	2618	47.5	41.8	5.7	0	4	3	14	27	191	994	880	376	113	9	7
18H,6-24	2666	47.6	41.8	5.7	0	4	3	15	27	193	1011	893	385	118	9	8
24H,0-24	2694	47.6	41.8	5.7	0	4	3	15	27	195	1020	903	389	118	12	8



16768			CHILMINGT	ON GREEN	ĺ		Site No: 16	6768005		Location	Site 5, Mag	gpie Hall Ro	oad, Chilmi	ngton Gree	n	
Tue 10-Sep-	13 to Mon 1	6-Sep-13					Channel: N	Northbound								
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
Daily Totals																
Tue 10-Sep-13	2850	46	40.9	5.8	2	6	12	11	38	324	1109	929	331	63	15	10
Wed 11-Sep-13	2923	46.1	41.1	5.9	0	7	14	20	45	296	1108	990	321	94	25	3
Thu 12-Sep-13	2865	47	41.4	6	0	4	12	9	43	301	1055	939	368	103	23	8
Fri 13-Sep-13	2970	45.8	40.5	5.7	0	5	3	6	82	423	1115	934	322	64	12	4
Sat 14-Sep-13	2333	47.4	41.5	6.2	0	7	8	9	26	238	863	751	295	104	19	13
Sun 15-Sep-13	1687	48.6	42.5	6.3	1	3	9	6	16	111	555	583	283	81	33	6
Mon 16-Sep-13	2694	47.6	41.8	5.7	0	4	3	15	27	195	1020	903	389	118	12	8
<b>Total Vehicl</b>	es															
[]	18322	46.9	41.4	5.9	3	36	61	76	277	1888	6825	6029	2309	627	139	52







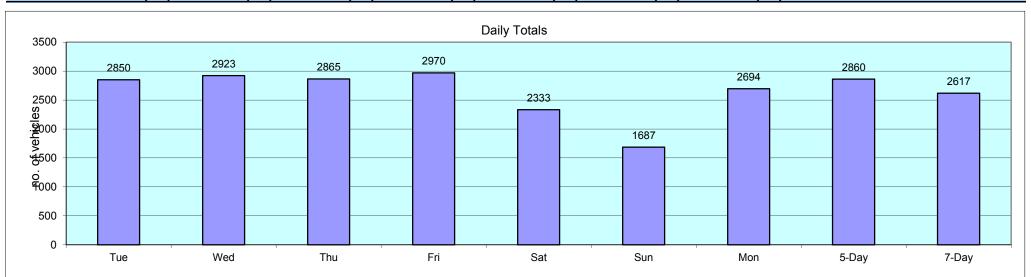
Channel: Northbound

	Tue	Wed	Thu	Fri	Sat	Sun	Mon	5-Day	7-Day
TIME PERIOD	10/09/13	11/09/13	12/09/13	13/09/13	14/09/13	15/09/13	16/09/13	Av	Av
Veek Begin: 10-9	Sep-13								
00:00	9	9	7	7	10	22	0	6	9
01:00	3	1	2	1	9	13	0	1	4
02:00	5	2	2	4	5	6	1	3	4
03:00	3	1	3	3	2	0	1	2	2
04:00	8	8	7	7	8	6	8	8	7
05:00	15	25	16	15	6	4	18	18	14
06:00	77	72	70	74	29	20	70	73	59
07:00	175	164	174	153	76	43	181	169	138
08:00	243	255	244	238	94	63	254	247	199
09:00	156	153	163	172	147	92	153	159	148
10:00	155	162	126	163	187	127	138	149	151
11:00	162	168	154	179	195	133	143	161	162
12:00	176	205	196	192	225	201	169	188	195
13:00	187	161	189	192	187	163	165	179	178
14:00	193	182	201	216	169	153	182	195	185
15:00	232	213	228	300	182	144	207	236	215
16:00	259	266	229	248	196	140	229	246	224
17:00	284	297	284	248	193	107	275	278	241
18:00	197	201	196	202	139	82	212	202	176
19:00	136	155	142	140	112	56	124	139	124
20:00	60	100	95	101	57	46	70	85	76
21:00	60	60	74	45	41	31	46	57	51
22:00	39	46	46	39	32	22	39	42	38
23:00	16	17	17	31	32	13	9	18	19
12H,7-19	2419	2427	2384	2503	1990	1448	2308	2408	2211
16H,6-22	2752	2814	2765	2863	2229	1601	2618	2762	2520
18H,6-24	2807	2877	2828	2933	2293	1636	2666	2822	2577
24H,0-24	2850	2923	2865	2970	2333	1687	2694	2860	2617
Am	08:00	08:00	08:00	08:00	11:00	11:00	08:00	-	-
Peak	243	255	244	238	195	133	254	247	223
Pm	17:00	17:00	17:00	15:00	12:00	12:00	17:00	-	-
Peak	284	297	284	300	225	201	275	288	267



16768

16768	C	HILMINGTON GREE	N	Site No: 1676800	5	Location	Site 5, Magpie Hall	Road, Chilmingto	n Green
				Channel: Northbo	und				
	Tue	Wed	Thu	Fri	Sat	Sun	Mon	5-Dav	7-Day
TIME PERIOD	10/09/13	11/09/13	12/09/13	13/09/13	14/09/13	15/09/13	16/09/13	Av	Av





Channel: Southbound

Tue 10-Sep-13 to Mon 16-Sep-13

TIME	TOTAL	MOTOR-	MOTOR-								
PERIOD	VEHICLES	CYCLES	CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Tue 10-Sep-13		0.000	01022070	<u> </u>	07.11.0 70				1101 70		200 10
00:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
01:00	0	0	-	0	-	0	-	0	-	0	-
02:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0
03:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0
04:00	5	0	0.0	4	80.0	1	20.0	0	0.0	0	0.0
05:00	17	0	0.0	15	88.2	2	11.8	0	0.0	0	0.0
06:00	77	0	0.0	73	94.8	4	5.2	0	0.0	0	0.0
07:00	219	2	0.9	197	90.0	12	5.5	6	2.7	2	0.9
08:00	321	2	0.6	287	89.4	18	5.6	9	2.8	5	1.6
09:00	225	0	0.0	199	88.4	18	8.0	8	3.6	0	0.0
10:00	166	1	0.6	139	83.7	21	12.7	4	2.4	1	0.6
11:00	195	0	0.0	171	87.7	20	10.3	3	1.5	1	0.5
12:00	174	0	0.0	159	91.4	10	5.8	5	2.9	0	0.0
13:00	155	1	0.7	145	93.6	6	3.9	3	1.9	0	0.0
14:00	175	1	0.6	152	86.9	16	9.1	6	3.4	0	0.0
15:00	216	3	1.4	197	91.2	12	5.6	4	1.9	0	0.0
16:00	246	1	0.4	217	88.2	24	9.8	4	1.6	0	0.0
17:00	245	0	0.0	217	88.6	27	11.0	1	0.4	0	0.0
18:00	169	1	0.6	158	93.5	8	4.7	2	1.2	0	0.0
19:00	143	1	0.7	135	94.4	7	4.9	0	0.0	0	0.0
20:00	76	0	0.0	72	94.7	4	5.3	0	0.0	0	0.0
21:00	41	0	0.0	40	97.6	1	2.4	0	0.0	0	0.0
22:00	23	0	0.0	20	87.0	3	13.0	0	0.0	0	0.0
23:00	8	0	0.0	8	100.0	0	0.0	0	0.0	0	0.0
12H,7-19	2506	12	0.5	2238	89.3	192	7.7	55	2.2	9	0.4
16H,6-22	2843	13	0.5	2558	90.0	208	7.3	55	1.9	9	0.3
18H,6-24	2874	13	0.5	2586	90.0	211	7.3	55	1.9	9	0.3
24H,0-24	2902	13	0.5	2609	89.9	216	7.4	55	1.9	9	0.3



TIME	TOTAL	MOTOR-	MOTOR-	2172	0.000		1.00/.0/		1101/0/		<b>DUG</b> 0/
PERIOD Wed 11-Sep-1	VEHICLES	CYCLES	CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
			0.0		100.0		0.0		0.0		0.0
00:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
01:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
02:00	3	0	0.0	2	66.7	1	33.3	0	0.0	0	0.0
03:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
04:00	5	0	0.0	4	80.0	1	20.0	0	0.0	0	0.0
05:00	22	0	0.0	17	77.3	5	22.7	0	0.0	0	0.0
06:00	70	0	0.0	67	95.7	3	4.3	0	0.0	0	0.0
07:00	200	2	1.0	188	94.0	9	4.5	1	0.5	0	0.0
08:00	278	0	0.0	264	95.0	9	3.2	4	1.4	1	0.4
09:00	209	2	1.0	187	89.5	13	6.2	7	3.4	0	0.0
10:00	164	2	1.2	151	92.1	7	4.3	4	2.4	0	0.0
11:00	147	1	0.7	129	87.8	13	8.8	4	2.7	0	0.0
12:00	162	3	1.9	138	85.2	16	9.9	5	3.1	0	0.0
13:00	166	8	4.8	141	84.9	14	8.4	3	1.8	0	0.0
14:00	221	1	0.5	198	89.6	19	8.6	2	0.9	1	0.5
15:00	218	2	0.9	193	88.5	18	8.3	5	2.3	0	0.0
16:00	249	1	0.4	220	88.4	24	9.6	4	1.6	0	0.0
17:00	245	1	0.4	219	89.4	22	9.0	3	1.2	0	0.0
18:00	177	2	1.1	166	93.8	8	4.5	1	0.6	0	0.0
19:00	131	1	0.8	125	95.4	5	3.8	0	0.0	0	0.0
20:00	74	1	1.4	69	93.2	4	5.4	0	0.0	0	0.0
21:00	53	2	3.8	49	92.5	2	3.8	0	0.0	0	0.0
22:00	16	0	0.0	14	87.5	2	12.5	0	0.0	0	0.0
23:00	8	0	0.0	7	87.5	1	12.5	0	0.0	0	0.0
12H,7-19	2436	25	1.0	2194	90.1	172	7.1	43	1.8	2	0.1
16H,6-22	2764	29	1.1	2504	90.6	186	6.7	43	1.6	2	0.1
18H,6-24	2788	29	1.0	2525	90.6	189	6.8	43	1.5	2	0.1
24H,0-24	2823	29	1.0	2553	90.4	196	6.9	43	1.5	2	0.1



TIME	TOTAL	MOTOR-	MOTOR-								
PERIOD	VEHICLES	CYCLES	CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Thu 12-Sep-13	3										
00:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
01:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
02:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
03:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
04:00	7	0	0.0	4	57.1	2	28.6	1	14.3	0	0.0
05:00	22	1	4.6	16	72.7	5	22.7	0	0.0	0	0.0
06:00	75	2	2.7	69	92.0	4	5.3	0	0.0	0	0.0
07:00	197	2	1.0	178	90.4	13	6.6	4	2.0	0	0.0
08:00	293	0	0.0	274	93.5	13	4.4	5	1.7	1	0.3
09:00	213	1	0.5	193	90.6	11	5.2	7	3.3	1	0.5
10:00	190	3	1.6	170	89.5	13	6.8	4	2.1	0	0.0
11:00	185	0	0.0	160	86.5	21	11.4	4	2.2	0	0.0
12:00	182	1	0.6	165	90.7	13	7.1	3	1.7	0	0.0
13:00	201	3	1.5	185	92.0	10	5.0	3	1.5	0	0.0
14:00	201	2	1.0	180	89.6	14	7.0	4	2.0	1	0.5
15:00	223	3	1.4	204	91.5	10	4.5	5	2.2	1	0.5
16:00	249	3	1.2	225	90.4	16	6.4	4	1.6	1	0.4
17:00	271	3	1.1	250	92.3	14	5.2	4	1.5	0	0.0
18:00	174	0	0.0	161	92.5	11	6.3	2	1.2	0	0.0
19:00	125	3	2.4	118	94.4	4	3.2	0	0.0	0	0.0
20:00	58	0	0.0	56	96.6	2	3.5	0	0.0	0	0.0
21:00	63	0	0.0	61	96.8	2	3.2	0	0.0	0	0.0
22:00	34	0	0.0	33	97.1	1	2.9	0	0.0	0	0.0
23:00	19	1	5.3	17	89.5	1	5.3	0	0.0	0	0.0
12H,7-19	2579	21	8.0	2345	90.9	159	6.2	49	1.9	5	0.2
16H,6-22	2900	26	0.9	2649	91.3	171	5.9	49	1.7	5	0.2
18H,6-24	2953	27	0.9	2699	91.4	173	5.9	49	1.7	5	0.2
24H,0-24	2991	28	0.9	2728	91.2	180	6.0	50	1.7	5	0.2



TIME	TOTAL	MOTOR-	MOTOR-								
PERIOD	VEHICLES	CYCLES	CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Fri 13-Sep-13											
00:00	3	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0
01:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0
02:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
03:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
04:00	7	0	0.0	5	71.4	1	14.3	1	14.3	0	0.0
05:00	22	0	0.0	21	95.5	1	4.6	0	0.0	0	0.0
06:00	67	1	1.5	62	92.5	3	4.5	1	1.5	0	0.0
07:00	197	1	0.5	175	88.8	12	6.1	8	4.1	1	0.5
08:00	291	0	0.0	269	92.4	16	5.5	3	1.0	3	1.0
09:00	233	1	0.4	209	89.7	16	6.9	5	2.2	2	0.9
10:00	200	0	0.0	180	90.0	14	7.0	6	3.0	0	0.0
11:00	170	1	0.6	154	90.6	13	7.7	2	1.2	0	0.0
12:00	182	1	0.6	162	89.0	12	6.6	7	3.9	0	0.0
13:00	172	2	1.2	153	89.0	14	8.1	3	1.7	0	0.0
14:00	230	2	0.9	199	86.5	24	10.4	5	2.2	0	0.0
15:00	215	0	0.0	194	90.2	17	7.9	4	1.9	0	0.0
16:00	269	2	0.7	241	89.6	18	6.7	8	3.0	0	0.0
17:00	221	1	0.5	205	92.8	13	5.9	2	0.9	0	0.0
18:00	188	0	0.0	170	90.4	17	9.0	1	0.5	0	0.0
19:00	98	0	0.0	94	95.9	3	3.1	1	1.0	0	0.0
20:00	50	0	0.0	47	94.0	3	6.0	0	0.0	0	0.0
21:00	36	0	0.0	35	97.2	1	2.8	0	0.0	0	0.0
22:00	27	0	0.0	26	96.3	1	3.7	0	0.0	0	0.0
23:00	17	0	0.0	16	94.1	1	5.9	0	0.0	0	0.0
12H,7-19	2568	11	0.4	2311	90.0	186	7.2	54	2.1	6	0.2
16H,6-22	2819	12	0.4	2549	90.4	196	7.0	56	2.0	6	0.2
18H,6-24	2863	12	0.4	2591	90.5	198	6.9	56	2.0	6	0.2
24H,0-24	2903	12	0.4	<b>262</b> 8	90.5	200	6.9	57	2.0	6	0.2



TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	MOTOR- CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Sat 14-Sep-13	VEHICLES	CICLLS	CICLES 70	CARS	CARS 70	LGV	LGV 70	IIGV	11 <b>GV</b> 70	ВОЗ	DO3 70
00:00	20	0	0.0	18	90.0	1	5.0	1	5.0	0	0.0
01:00	6	0	0.0	5	83.3	1	16.7	0	0.0	0	0.0
02:00	2	0	0.0	1	50.0	1	50.0	0	0.0	0	0.0
03:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
04:00	7	0	0.0	6	85.7	1	14.3	0	0.0	0	0.0
05:00	11	0	0.0	9	81.8	1	9.1	1	9.1	0	0.0
06:00	38	2	5.3	32	84.2	4	10.5	0	0.0	0	0.0
07:00	74	0	0.0	68	91.9	4	5.4	2	2.7	0	0.0
08:00	132	0	0.0	115	87.1	15	11.4	2	1.5	0	0.0
09:00	181	0	0.0	174	96.1	6	3.3	1	0.6	0	0.0
10:00	199	0	0.0	186	93.5	12	6.0	1	0.5	0	0.0
11:00	221	6	2.7	206	93.2	8	3.6	1	0.5	0	0.0
12:00	177	0	0.0	167	94.4	9	5.1	1	0.6	0	0.0
13:00	196	0	0.0	180	91.8	15	7.7	1	0.5	0	0.0
14:00	193	2	1.0	183	94.8	8	4.2	0	0.0	0	0.0
15:00	195	2	1.0	181	92.8	10	5.1	2	1.0	0	0.0
16:00	201	2	1.0	193	96.0	4	2.0	2	1.0	0	0.0
17:00	140	2	1.4	130	92.9	6	4.3	2	1.4	0	0.0
18:00	118	1	0.9	115	97.5	1	0.9	1	0.9	0	0.0
19:00	91	1	1.1	87	95.6	1	1.1	2	2.2	0	0.0
20:00	54	2	3.7	50	92.6	1	1.9	1	1.9	0	0.0
21:00	26	0	0.0	26	100.0	0	0.0	0	0.0	0	0.0
22:00	28	0	0.0	27	96.4	1	3.6	0	0.0	0	0.0
23:00	21	0	0.0	20	95.2	1	4.8	0	0.0	0	0.0
12H,7-19	2027	15	0.7	1898	93.6	98	4.8	16	8.0	0	0.0
16H,6-22	2236	20	0.9	2093	93.6	104	4.7	19	0.9	0	0.0
18H,6-24	2285	20	0.9	2140	93.7	106	4.6	19	0.8	0	0.0
24H,0-24	2333	20	0.9	2181	93.5	111	4.8	21	0.9	0	0.0



TIME	TOTAL	MOTOR-	MOTOR-								
PERIOD	VEHICLES	CYCLES	CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Sun 15-Sep-13	3										
00:00	17	0	0.0	15	88.2	2	11.8	0	0.0	0	0.0
01:00	5	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0
02:00	2	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
03:00	4	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0
04:00	6	0	0.0	4	66.7	2	33.3	0	0.0	0	0.0
05:00	13	0	0.0	10	76.9	2	15.4	1	7.7	0	0.0
06:00	15	0	0.0	14	93.3	1	6.7	0	0.0	0	0.0
07:00	41	4	9.8	33	80.5	4	9.8	0	0.0	0	0.0
08:00	63	0	0.0	63	100.0	0	0.0	0	0.0	0	0.0
09:00	102	2	2.0	95	93.1	4	3.9	1	1.0	0	0.0
10:00	145	0	0.0	142	97.9	3	2.1	0	0.0	0	0.0
11:00	177	2	1.1	163	92.1	8	4.5	4	2.3	0	0.0
12:00	188	1	0.5	182	96.8	5	2.7	0	0.0	0	0.0
13:00	185	2	1.1	178	96.2	4	2.2	1	0.5	0	0.0
14:00	147	1	0.7	141	95.9	5	3.4	0	0.0	0	0.0
15:00	131	0	0.0	131	100.0	0	0.0	0	0.0	0	0.0
16:00	119	0	0.0	116	97.5	1	8.0	2	1.7	0	0.0
17:00	109	0	0.0	105	96.3	4	3.7	0	0.0	0	0.0
18:00	68	1	1.5	63	92.7	3	4.4	1	1.5	0	0.0
19:00	59	0	0.0	53	89.8	5	8.5	1	1.7	0	0.0
20:00	37	0	0.0	33	89.2	4	10.8	0	0.0	0	0.0
21:00	30	0	0.0	28	93.3	2	6.7	0	0.0	0	0.0
22:00	10	0	0.0	10	100.0	0	0.0	0	0.0	0	0.0
23:00	5	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0
12H,7-19	1475	13	0.9	1412	95.7	41	2.8	9	0.6	0	0.0
16H,6-22	1616	13	0.8	1540	95.3	53	3.3	10	0.6	0	0.0
18H,6-24	1631	13	0.8	1555	95.3	53	3.3	10	0.6	0	0.0
24H,0-24	1678	13	0.8	1595	95.1	59	3.5	11	0.7	0	0.0



Channel: Southbound

Tue 10-Sep-13 to Mon 16-Sep-13

TIME	TOTAL	MOTOR-	MOTOR-								
PERIOD	VEHICLES	CYCLES	CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Mon 16-Sep-13	3										
00:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
01:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
02:00	1	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
03:00	0	0	-	0	-	0	-	0	-	0	-
04:00	9	0	0.0	7	77.8	1	11.1	1	11.1	0	0.0
05:00	20	0	0.0	17	85.0	3	15.0	0	0.0	0	0.0
06:00	72	1	1.4	68	94.4	2	2.8	1	1.4	0	0.0
07:00	208	1	0.5	188	90.4	15	7.2	4	1.9	0	0.0
08:00	297	0	0.0	275	92.6	18	6.1	4	1.4	0	0.0
09:00	207	2	1.0	184	88.9	18	8.7	3	1.5	0	0.0
10:00	174	2	1.2	157	90.2	12	6.9	3	1.7	0	0.0
11:00	168	4	2.4	154	91.7	7	4.2	3	1.8	0	0.0
12:00	138	2	1.5	123	89.1	11	8.0	2	1.5	0	0.0
13:00	161	1	0.6	138	85.7	17	10.6	5	3.1	0	0.0
14:00	184	1	0.5	164	89.1	12	6.5	6	3.3	1	0.5
15:00	199	0	0.0	188	94.5	9	4.5	2	1.0	0	0.0
16:00	218	1	0.5	197	90.4	15	6.9	5	2.3	0	0.0
17:00	258	5	1.9	227	88.0	20	7.8	6	2.3	0	0.0
18:00	176	0	0.0	166	94.3	9	5.1	1	0.6	0	0.0
19:00	115	1	0.9	110	95.7	4	3.5	0	0.0	0	0.0
20:00	47	1	2.1	39	83.0	6	12.8	1	2.1	0	0.0
21:00	40	0	0.0	38	95.0	2	5.0	0	0.0	0	0.0



21

11

2388

2662

2694

2726

0.0

0.0

8.0

8.0

8.0

0.8

0

0

19

22

22

22

20

8

2161

2416

2444

2471

22:00

23:00

12H,7-19

16H,6-22

18H,6-24

24H,0-24

0.0

0.0

0.0

0.0

0.0

0.0

0

0

1

1

1

1

0.0

0.0

1.8

1.7

1.7

1.7

0

0

44

46

46

47

1

3

163

177

181

185

4.8

27.3

6.8

6.7

6.7

6.8

95.2

72.7

90.5

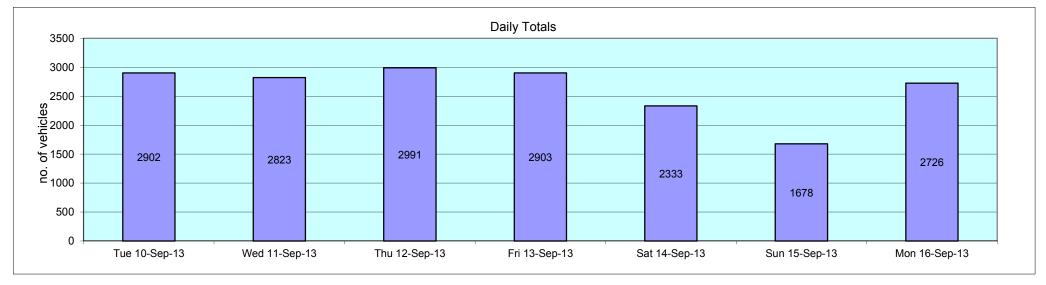
90.8

90.7

90.7

16768 CHILMINGTON GREEN	Site No: 16768005	Location	Site 5, Magpie Hall Road, Chilmington Green
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TIME PERIOD	TOTAL VEHICLES	MOTOR- CYCLES	MOTOR- CYCLES%	CARS	CARS %	LGV	LGV %	HGV	HGV %	BUS	BUS %
Daily Totals						-					
Tue 10-Sep-13	2902	13	0.5	2609	89.9	216	7.4	55	1.9	9	0.3
Wed 11-Sep-13	2823	29	1.0	2553	90.4	196	6.9	43	1.5	2	0.1
Thu 12-Sep-13	2991	28	0.9	2728	91.2	180	6.0	50	1.7	5	0.2
Fri 13-Sep-13	2903	12	0.4	2628	90.5	200	6.9	57	2.0	6	0.2
Sat 14-Sep-13	2333	20	0.9	2181	93.5	111	4.8	21	0.9	0	0.0
Sun 15-Sep-13	1678	13	8.0	1595	95.1	59	3.5	11	0.7	0	0.0
Mon 16-Sep-13	2726	22	0.8	2471	90.7	185	6.8	47	1.7	1	0.0
<b>Total Vehicles</b>											
[]	18356	137	8.0	16765	91.6	1147	6.1	284	1.5	23	0.1





16768			CHILMINGT	ON GREEN			Site No: 10	6768005		Location	Site 5, Mag	gpie Hall Ro	ad, Chilmi	ngton Gree	en	
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: S	Southbound	1							
		. ССР														
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
		эрсси	эрсса	Dev.												
Tue 10-Sep																
00:00	2	=	43.5	1.8	0	0	0	0	0	0	0	2	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	2	-	51	3.5	0	0	0	0	0	0	0	0	1	1	0	0
03:00	2	-	56	10.6	0	0	0	0	0	0	0	0	1	0	0	1
04:00	5	-	42.5	5.6	0	0	0	0	0	1	0	3	1	0	0	0
05:00	17	48	40.3	7.4	0	0	0	1	1	1	7	2	5	0	0	0
06:00	77	49.6	43.7	5.5	0	0	0	0	1	3	21	25	21	6	0	0
07:00	219	46.1	41	6	0	0	1	2	3	27	79	73	25	6	2	1
08:00	321	45.6	40.2	5.6	0	0	0	4	8	40	143	85	33	6	2	0
09:00	225	45.6	39.5	6	1	0	0	2	5	51	81	55	28	2	0	0
10:00	166	44.8	39.3	5.5	0	0	1	1	5	31	70	43	13	2	0	0
11:00	195	44.3	38.7	5.6	0	0	1	0	11	44	79	46	11	2	1	0
12:00	174	46.4	40.1	6.4	0	0	2	1	7	34	48	53	27	2	0	0
13:00	155	45.7	41	4.8	0	0	0	0	4	7	75	48	19	2	0	0
14:00	175	45.2	39	7.4	0	3	4	1	10	23	65	50	14	4	1	0
15:00	216	45.3	40.1	5.8	0	1	1	2	5	24	93	67	18	4	1	0
16:00	246	45.9	41.4	5.3	0	0	0	0	6	21	88	96	27	6	2	0
17:00	245	47	41.8	5.3	0	0	0	1	5	17	84	93	39	4	2	0
18:00	169	48.9	42.6	6.8	0	2	2	0	0	9	49	64	30	12	0	1
19:00	143	46	41	6.2	0	1	0	2	2	14	52	50	19	1	1	1
20:00	76	45.8	40.6	6.7	0	1	1	0	1	11	22	29	8	3	0	0
21:00	41	46.4	41.5	6.2	0	0	0	0	1	8	7	18	4	3	0	0
22:00	23	51.1	43.3	8.6	0	0	0	0	3	1	5	4	6	3	1	0
23:00	8	-	47.9	9.5	0	0	0	0	0	1	1	2	0	2	2	0
12H,7-19	2506	45.8	40.4	6	1	6	12	14	69	328	954	773	284	52	11	2
16H,6-22	2843	45.9	40.6	6	1	8	13	16	74	364	1056	895	336	65	12	3
18H,6-24	2874	46	40.6	6.1	1	8	13	16	77	366	1062	901	342	70	15	3
24H,0-24	2902	46.1	40.6	6.1	1	8	13	17	78	368	1069	908	350	71	15	4



16768			CHILMINGT	ON GREEN			Site No: 16	5768005		Location	Site 5, Mag	gpie Hall Ro	ad, Chilmi	ngton Gree	n	
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: S	outhbound								
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
		Speed	opeca	DCV.												
Wed 11-Sep																
00:00	3	-	43.5	5	0	0	0	0	0	0	1	1	1	0	0	0
01:00	1	-	38.5	-	0	0	0	0	0	0	1	0	0	0	0	0
02:00	3	-	41.8	5.9	0	0	0	0	0	0	2	0	1	0	0	0
03:00	1	-	48.5	-	0	0	0	0	0	0	0	0	1	0	0	0
04:00	5	-	48.5	5.2	0	0	0	0	0	0	0	2	1	2	0	0
05:00	22	51.3	44.2	5.8	0	0	0	0	0	1	5	10	2	4	0	0
06:00	70	49.5	42.9	6.4	0	0	0	1	0	6	20	25	10	7	1	0
07:00	200	48.2	42.7	5.5	0	0	0	0	1	15	62	75	37	7	2	1
08:00	278	45.5	40.6	5.3	0	0	0	0	6	47	90	103	27	4	1	0
09:00	209	45.8	41.1	5.1	0	0	0	0	7	14	83	77	25	2	1	0
10:00	164	45.4	40.7	5	0	0	0	1	1	21	64	59	15	3	0	0
11:00	147	44.9	39.8	5	0	0	0	0	3	29	55	48	11	1	0	0
12:00	162	46	39.8	6.9	1	1	2	2	4	18	69	40	21	4	0	0
13:00	166	44.6	38.5	6	0	0	2	3	7	39	61	40	13	1	0	0
14:00	221	44.3	38.8	5.3	0	0	0	1	13	45	93	53	15	1	0	0
15:00	218	46.3	41.4	5.4	0	0	1	1	1	17	91	72	27	7	1	0
16:00	249	45.7	40.6	5.4	0	0	1	0	5	35	94	81	28	4	1	0
17:00	245	47.7	41.9	5.6	0	0	0	0	1	26	87	81	37	10	3	0
18:00	177	48	42.8	5.6	0	0	0	0	1	6	67	68	20	9	6	0
19:00	131	45.8	39.3	7.8	0	1	3	2	5	25	48	28	11	5	2	1
20:00	74	46.8	40.8	6.7	0	0	0	0	3	13	25	20	9	2	1	1
21:00	53	47.8	39.3	8.2	0	0	1	0	7	11	12	11	7	3	1	0
22:00	16	51.2	42.9	7.2	0	0	0	0	1	1	4	6	1	3	0	0
23:00	8	-	46	6.7	0	0	0	0	0	0	2	2	3	0	1	0
12H,7-19	2436	45.9	40.8	5.6	1	1	6	8	50	312	916	797	276	53	15	1
16H,6-22	2764	45.9	40.7	5.9	1	2	10	11	65	367	1021	881	313	70	20	3
18H,6-24	2788	46	40.7	5.9	1	2	10	11	66	368	1027	889	317	73	21	3
24H,0-24	2823	46	40.8	5.9	1	2	10	11	66	369	1036	902	323	79	21	3



16768			CHILMINGT	ON GREEN	ĺ		Site No: 16	6768005		Location	Site 5, Mag	gpie Hall Ro	ad, Chilmi	ngton Gree	n	
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: S	Southbound	l							
•		•														
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
Thu 12-Sep	-13															
00:00	1	_	38.5	_	0	0	0	0	0	0	1	0	0	0	0	0
01:00	3	_	41.8	5.9	0	0	0	0	0	0	2	0	1	0	0	0
02:00	3	-	48.5	5	0	0	0	0	0	0	0	1	1	1	0	0
03:00	2	-	43.5	7.1	0	0	0	0	0	0	1	0	1	0	0	0
04:00	7	-	42.8	4.7	0	0	0	0	0	0	3	2	2	0	0	0
05:00	22	50.4	45.3	5.2	0	0	0	0	0	0	5	7	7	3	0	0
06:00	75	47.4	42	6.5	0	0	1	0	0	6	29	25	8	4	1	1
07:00	197	47.6	42.2	5.7	0	1	0	0	0	22	51	83	31	8	0	1
08:00	293	45.5	39.4	7.1	4	1	3	6	9	37	105	93	34	1	0	0
09:00	213	44.4	38.4	5.9	0	0	0	6	13	45	81	53	13	2	0	0
10:00	190	45.2	39.5	5.8	0	0	0	0	4	47	78	38	16	5	1	1
11:00	185	44.6	39.6	5.2	0	0	0	3	2	30	86	49	12	3	0	0
12:00	182	45.1	39.2	6.2	0	0	2	3	9	28	78	42	15	5	0	0
13:00	201	43.5	37.7	6.3	1	0	4	2	11	48	85	38	10	2	0	0
14:00	201	45	38.3	7	0	0	4	6	15	37	76	40	18	5	0	0
15:00	223	45.5	38.8	7.8	4	0	2	7	11	28	91	51	23	4	2	0
16:00	249	45.5	40.9	5.2	0	0	0	2	6	23	90	101	22	4	1	0
17:00	271	47.2	41.9	6	1	0	1	2	0	20	96	101	37	10	2	1
18:00	174	48.9	43.2	5.4	0	0	0	0	0	9	55	61	39	7	3	0
19:00	125	48.7	42.3	6.1	0	0	0	0	2	13	39	42	18	9	2	0
20:00	58	49.1	42.5	6.2	0	0	0	0	0	8	18	16	11	4	1	0
21:00	63	47.1	41.9	5.8	0	0	0	0	0	4	31	17	5	4	2	0
22:00	34	50	44.7	6.6	0	0	0	0	0	2	7	13	8	2	1	1
23:00	19	49.3	45.9	6.3	0	0	0	0	0	0	4	7	5	1	2	0
12H,7-19	2579	45.7	39.9	6.4	10	2	16	37	80	374	972	750	270	56	9	3
16H,6-22	2900	45.8	40.2	6.4	10	2	17	37	82	405	1089	850	312	77	15	4
18H,6-24	2953	45.9	40.3	6.5	10	2	17	37	82	407	1100	870	325	80	18	5
24H,0-24	2991	46	40.3	6.5	10	2	17	37	82	407	1112	880	337	84	18	5



16768			CHILMINGT	ON GREEN			Site No: 16	6768005		Location	Site 5, Mag	gpie Hall Ro	ad, Chilmi	ngton Gree	en	
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: S	Southbound								
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
	40		•													
Fri 13-Sep-	3		40.2	3.1	0	0	0	0	0	0	2	1	0	0	0	0
00:00 01:00	4	-	43.5	9.1	0	0	0	0	0	0	1	0	1	1	0	0
01:00	2		43.5	1.8	0	0	0	0			0	2	0	0	0	
03:00	2	-	43.5	10.6	0	0	0	0	0	0 1	0	0	1	0	0	0
03:00	7	-	42.1	5.7	0	0	0	0	0	1	2	2	2	0	0	0
05:00	22	48.8	44	5.5	0	0	0	0	0	0	7	9	4	1	1	0
06:00	67	47.2	41.4	6.7	0	1	0	1	0	3	30	20	6	6	0	0
07:00	197	47.9	41.6	6	0	0	1	0	3	25	65	61	31	10	1	0
08:00	291	45.6	40.4	5.7	0	0	2	0	9	43	100	100	31	6	0	0
09:00	233	45.2	39.4	6.1	0	1	3	0	9	42	88	65	23	1	1	0
10:00	200	45	39.3	5.6	0	0	0	6	2	38	85	48	20	1	0	0
11:00	170	45.3	39.3	6.1	0	0	1	3	7	31	66	42	18	1	1	0
12:00	182	44.6	38.8	5.9	0	0	1	3	7	36	82	35	14	4	0	0
13:00	172	45.8	39.9	5.9	0	0	1	3	3	29	65	47	22	2	0	0
14:00	230	44.4	38.5	6.4	0	1	4	4	10	37	108	45	19	1	0	1
15:00	215	44.9	39.5	5.5	0	0	0	2	4	45	86	58	14	6	0	0
16:00	269	44.9	39.5	5.4	0	0	0	6	6	47	99	91	18	2	0	0
17:00	221	46.4	41.4	5	0	0	0	0	1	27	75	82	33	2	1	0
18:00	188	47.8	41.6	6.2	0	0	0	0	4	28	58	58	31	5	3	1
19:00	98	45.8	39.7	7.8	1	1	0	2	5	10	40	25	10	2	1	1
20:00	50	46	40.4	5.7	0	0	0	0	2	8	18	14	7	1	0	0
21:00	36	44	39.2	4.4	0	0	0	0	0	9	14	12	1	0	0	0
22:00	27	44.5	38.9	5.5	0	0	0	0	2	5	12	5	3	0	0	0
23:00	17	47.6	41.1	6.1	0	0	0	0	0	3	7	3	3	1	0	0
12H,7-19	2568	45.6	39.9	5.9	0	2	13	27	65	428	977	732	274	41	7	2
16H,6-22	2819	45.6	40	6	1	4	13	30	72	458	1079	803	298	50	8	3
18H,6-24	2863	45.6	40	6	1	4	13	30	74	466	1098	811	304	51	8	3
24H,0-24	2903	45.6	40	6	1	4	13	30	74	469	1110	825	312	53	9	3



Data produced by Axiom Traffic Ltd

16768			CHILMINGT	ON GREEN			Site No: 16	6768005		Location	Location Site 5, Magpie Hall Road, Chilmington Green					
Tue 10-Sep-	-13 to Mon 1	6-Sep-13					Channel: S	Southbound								
•		•														
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
Sat 14-Sep-	12	•	•													
00:00	20	43.5	39	7.4	0	0	0	0	2	6	5	4	1	2	0	0
01:00	6	-	41.8	8.2	0	0	0	0	1	0	1	3	0	1	0	0
02:00	2		41	3.5	0	0	0	0	0	0	1	1	0	0	0	0
03:00	2	_	41	10.6	0	0	0	0	0	1	0	0	1	0	0	0
04:00	7	_	44.2	10.6	0	0	0	0	0	1	3	1	0	1	0	1
05:00	11	52.4	45.3	6.6	0	0	0	0	0	1	1	5	1	3	0	0
06:00	38	48.3	41.1	8.6	0	1	0	1	1	3	13	10	6	2	0	1
07:00	74	47.8	41.8	6	0	0	0	0	3	6	25	24	12	3	1	0
08:00	132	47.4	41.1	6.3	0	0	0	0	5	17	51	34	17	5	3	0
09:00	181	45.5	40.4	5.7	0	0	0	0	7	29	64	59	13	9	0	0
10:00	199	46.1	39.9	6.4	0	0	1	1	15	25	77	49	25	4	2	0
11:00	221	45	39.2	6.4	1	0	1	6	13	27	84	69	17	3	0	0
12:00	177	47.2	40.9	6.3	0	0	0	1	5	26	66	46	25	4	3	1
13:00	196	46.4	41.1	5.3	0	0	0	0	1	26	78	59	25	6	1	0
14:00	193	45	39.1	6.2	0	2	2	1	6	35	76	52	18	1	0	0
15:00	195	47.1	41.4	6.1	0	0	2	2	2	19	65	69	29	5	2	0
16:00	201	47.7	42	5.3	0	0	0	0	2	19	67	71	33	9	0	0
17:00	140	46.7	41.3	6.1	0	0	1	0	2	20	45	48	17	5	2	0
18:00	118	48.3	42.7	5.3	0	0	0	0	2	5	37	45	23	6	0	0
19:00	91	49.3	42.3	6.5	0	0	0	0	1	10	35	19	18	6	1	1
20:00	54	49.7	43	7.5	0	0	1	0	0	4	18	15	10	3	2	1
21:00	26	47	41.4	6.3	0	0	0	0	2	1	10	8	3	2	0	0
22:00	28	48.8	43.1	6.5	0	0	0	0	0	2	10	8	6	1	0	1
23:00	21	49.9	42.8	6.9	0	0	0	0	0	2	9	4	3	2	1	0
12H,7-19	2027	46.5	40.8	6.1	1	2	7	11	63	254	735	625	254	60	14	1
16H,6-22	2236	46.8	40.9	6.2	1	3	8	12	67	272	811	677	291	73	17	4
18H,6-24	2285	46.9	40.9	6.2	1	3	8	12	67	276	830	689	300	76	18	5
24H,0-24	2333	47	41	6.2	1	3	8	12	70	285	841	703	303	83	18	6



16768			CHILMINGT	ON GREEN			Site No: 10	6768005		Location	Site 5, Mag	gpie Hall Ro	oad, Chilmi	ngton Gree	en	
Tue 10-Sep-	-13 to Mon 1	6-Sep-13					Channel: 9	Southbound								
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
Sun 15-Sep	_13	•	•													
00:00	17	53.4	42.3	9.7	0	0	0	1	0	3	6	1	1	4	1	0
01:00	5	-	44.5	8.3	0	0	0	0	0	1	1	0	2	1	0	0
02:00	2	-	48.5	7.1	0	0	0	0	0	0	0	1	0	1	0	0
03:00	4	_	42.3	7.6	0	0	0	0	0	1	1	0	2	0	0	0
04:00	6	-	48.5	11.4	0	0	0	0	0	1	1	0	2	0	1	1
05:00	13	48.6	42	7.8	0	0	0	0	1	1	5	2	3	0	1	0
06:00	15	44.8	40.5	9.1	0	0	0	1	0	2	7	3	0	1	0	1
07:00	41	49.8	43.3	6.5	0	0	0	0	0	5	12	9	11	3	1	0
08:00	63	48	42.8	5.6	0	0	0	0	1	4	17	27	10	3	1	0
09:00	102	48.2	41.6	6.4	0	1	0	0	2	11	33	31	19	5	0	0
10:00	145	46.9	41.6	5.6	0	0	0	0	0	24	39	56	21	3	2	0
11:00	177	45.3	40.1	5.5	0	0	0	0	4	33	67	54	16	1	1	1
12:00	188	45.9	40.8	5.3	0	0	0	0	2	28	71	59	24	3	1	0
13:00	185	46.4	41.5	5.5	0	0	0	0	1	20	73	61	23	4	2	1
14:00	147	48.2	42.4	5.4	0	0	0	0	0	13	48	52	26	7	1	0
15:00	131	46.5	41.7	5.4	0	0	0	1	4	10	36	58	19	3	0	0
16:00	119	45.7	41.1	5.8	1	0	0	0	2	10	44	46	13	3	0	0
17:00	109	47.1	41	5.7	0	0	0	0	1	14	50	24	14	5	1	0
18:00	68	48.6	42.6	5.8	0	0	0	0	0	9	17	24	14	3	1	0
19:00	59	50.5	43.2	6.8	0	0	0	0	0	10	13	15	13	7	1	0
20:00	37	43.5	39.9	5.4	0	0	0	0	1	3	24	6	1	1	1	0
21:00	30	44.1	39	6.9	0	1	0	0	1	3	15	8	1	1	0	0
22:00	10	46	41.5	5	0	0	0	0	0	1	4	3	2	0	0	0
23:00	5	-	39.5	4.4	0	0	0	0	0	1	2	2	0	0	0	0
12H,7-19	1475	47.1	41.5	5.6	1	1	0	1	17	181	507	501	210	43	11	2
16H,6-22	1616	47.1	41.4	5.8	1	2	0	2	19	199	566	533	225	53	13	3
18H,6-24	1631	47.1	41.4	5.8	1	2	0	2	19	201	572	538	227	53	13	3
24H,0-24	1678	47.3	41.5	5.9	1	2	0	3	20	208	586	542	237	59	16	4

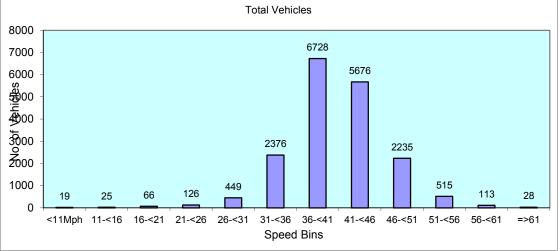


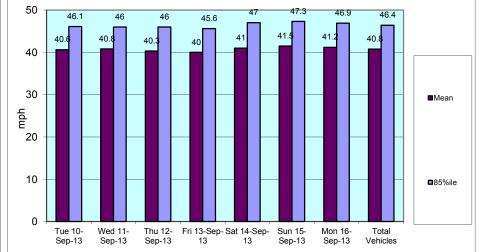
16768			CHILMINGT	ON GREEN			Site No: 1	6768005		Location	Site 5, Mag	gpie Hall Ro	oad, Chilmi	ngton Gree	en	
Tue 10-Sep	-13 to Mon 1	6-Sep-13					Channel: S	Southbound	1							
•																
Time	Total	85%ile	Mean	Stand												
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
Mon 16-Ser	n 12	•	•													
00:00	1		43.5	_	0	0	0	0	0	0	0	1	0	0	0	0
01:00	1		48.5	-	0	0	0	0	0	0	0	0	1	0	0	0
02:00	1	_	48.5	_	0	0	0	0	0	0	0	0	1	0	0	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	9	-	45.2	7.2	0	0	0	0	0	1	2	1	3	2	0	0
05:00	20	47.3	41.3	8.3	0	0	1	0	0	2	7	6	2	1	1	0
06:00	72	49.3	43	6.1	0	0	0	0	2	6	16	28	13	7	0	0
07:00	208	47.1	42.4	4.8	0	0	0	0	3	8	67	91	32	7	0	0
08:00	297	45.8	40.6	5.9	2	1	0	0	4	38	109	103	33	7	0	0
09:00	207	45.3	40.6	5.1	0	0	0	0	3	28	86	68	16	5	1	0
10:00	174	45.1	39.4	5.7	0	0	0	4	11	17	80	43	19	0	0	0
11:00	168	47.1	40.5	6.1	0	0	0	0	5	32	61	39	24	6	0	1
12:00	138	46.7	41.5	5.6	0	0	1	1	0	13	50	49	21	1	2	0
13:00	161	45.5	40.2	5.3	0	0	0	1	3	27	59	51	19	1	0	0
14:00	184	45.8	39.6	7.1	1	2	0	5	9	21	64	56	23	3	0	0
15:00	199	45.9	41.3	5	0	0	0	0	1	17	88	64	22	6	1	0
16:00	218	46.5	41.1	6.3	0	1	2	2	6	20	68	83	29	6	1	0
17:00	258	45.9	41.6	5.3	0	0	1	2	3	14	95	105	28	9	1	0
18:00	176	49	43.2	5.6	0	0	0	0	3	6	54	60	43	7	3	0
19:00	115	49.1	42.5	7.4	1	0	0	0	4	9	33	39	18	6	4	1
20:00	47	50.7	43.1	6.7	0	0	0	0	0	6	15	11	8	6	1	0
21:00	40	49.9	44	6.2	0	0	0	0	1	2	9	13	11	3	1	0
22:00	21	46.6	41.6	6.8	0	0	0	0	0	2	11	4	3	0	0	1
23:00	11	52.4	44	10.7	0	0	0	1	1	1	0	1	4	3	0	0
12H,7-19	2388	46.3	41	5.8	3	4	4	15	51	241	881	812	309	58	9	1
16H,6-22	2662	46.8	41.2	5.9	4	4	4	15	58	264	954	903	359	80	15	2
18H,6-24	2694	46.9	41.2	5.9	4	4	4	16	59	267	965	908	366	83	15	3
24H,0-24	2726	46.9	41.2	6	4	4	5	16	59	270	974	916	373	86	16	3



Data produced by Axiom Traffic Ltd

16768			CHILMINGT	ON GREEN			Site No: 10	6768005		Location	Site 5, Mag	gpie Hall Ro	oad, Chilmi	ngton Gree	n	
Tue 10-Sep-	13 to Mon 1	6-Sep-13					Channel: S	outhbound	l							
				<u>.</u>												
Time	Total	85%ile	Mean	Stand	.44Mmh	44 .47	47 -24	24 .27	26 -24	24 .27	26 - 44	44 .40	47 .E4	E4 .E/	EC	(1
Period	Vehicles	Speed	Speed	Dev.	<11Mph	11-<10	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
Daily Totals																
Tue 10-Sep-13	2902	46.1	40.6	6.1	1	8	13	17	78	368	1069	908	350	71	15	4
Wed 11-Sep-13	2823	46	40.8	5.9	1	2	10	11	66	369	1036	902	323	79	21	3
Thu 12-Sep-13	2991	46	40.3	6.5	10	2	17	37	82	407	1112	880	337	84	18	5
Fri 13-Sep-13	2903	45.6	40	6	1	4	13	30	74	469	1110	825	312	53	9	3
Sat 14-Sep-13	2333	47	41	6.2	1	3	8	12	70	285	841	703	303	83	18	6
Sun 15-Sep-13	1678	47.3	41.5	5.9	1	2	0	3	20	208	586	542	237	59	16	4
Mon 16-Sep-13	2726	46.9	41.2	6	4	4	5	16	59	270	974	916	373	86	16	3
Total Vehicl	es															
[]	18356	46.4	40.8	6.1	19	25	66	126	449	2376	6728	5676	2235	515	113	28







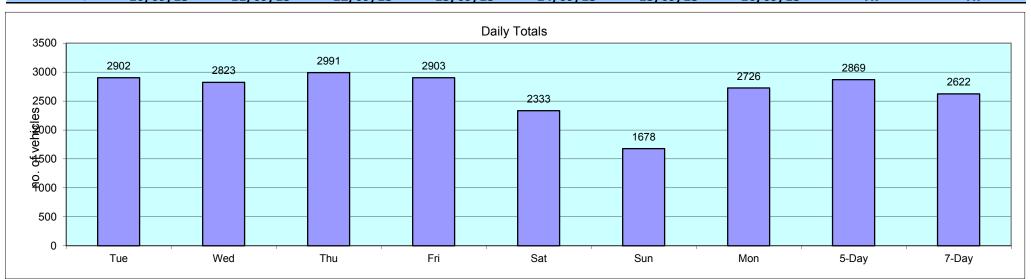
Channel: Southbound

	Tue	Wed	Thu	Fri	Sat	Sun	Mon	5-Day	7-Day
TIME PERIOD	10/09/13	11/09/13	12/09/13	13/09/13	14/09/13	15/09/13	16/09/13	Av	Av
Week Begin: 10-9							•		
00:00	2	3	1	3	20	17	1	2	7
01:00	0	1	3	4	6	5	1	2	3
02:00	2	3	3	2	2	2	1	2	2
03:00	2	1	2	2	2	4	0	1	2
04:00	5	5	7	7	7	6	9	7	7
05:00	17	22	22	22	11	13	20	21	18
06:00	77	70	75	67	38	15	72	72	59
07:00	219	200	197	197	74	41	208	204	162
08:00	321	278	293	291	132	63	297	296	239
09:00	225	209	213	233	181	102	207	217	196
10:00	166	164	190	200	199	145	174	179	177
11:00	195	147	185	170	221	177	168	173	180
12:00	174	162	182	182	177	188	138	168	172
13:00	155	166	201	172	196	185	161	171	177
14:00	175	221	201	230	193	147	184	202	193
15:00	216	218	223	215	195	131	199	214	200
16:00	246	249	249	269	201	119	218	246	222
17:00	245	245	271	221	140	109	258	248	213
18:00	169	177	174	188	118	68	176	177	153
19:00	143	131	125	98	91	59	115	122	109
20:00	76	74	58	50	54	37	47	61	57
21:00	41	53	63	36	26	30	40	47	41
22:00	23	16	34	27	28	10	21	24	23
23:00	8	8	19	17	21	5	11	13	13
12H,7-19	2506	2436	2579	2568	2027	1475	2388	2495	2283
16H,6-22	2843	2764	2900	2819	2236	1616	2662	2798	2549
18H,6-24	2874	2788	2953	2863	2285	1631	2694	2834	2584
24H,0-24	2902	2823	2991	2903	2333	1678	2726	2869	2622
Am	08:00	08:00	08:00	08:00	11:00	11:00	08:00	-	-
Peak	321	278	293	291	221	177	297	296	268
Pm	16:00	16:00	17:00	16:00	16:00	12:00	17:00	-	-
Peak	246	249	271	269	201	188	<b>258</b>	259	240



16768

16768	С	HILMINGTON GREE	N	Site No: 1676800!	5	Location	Site 5, Magpie Hall	Road, Chilmingto	n Green
				Channel: Southbo	und				
	_				_				
	Tue	Wed	Thu	Fri	Sat	Sun	Mon	5-Day	7-Day
TIME PERIOD	10/09/13	11/09/13	12/09/13	13/09/13	14/09/13	15/09/13	16/09/13	Av	Av





# **Classification Schemes**

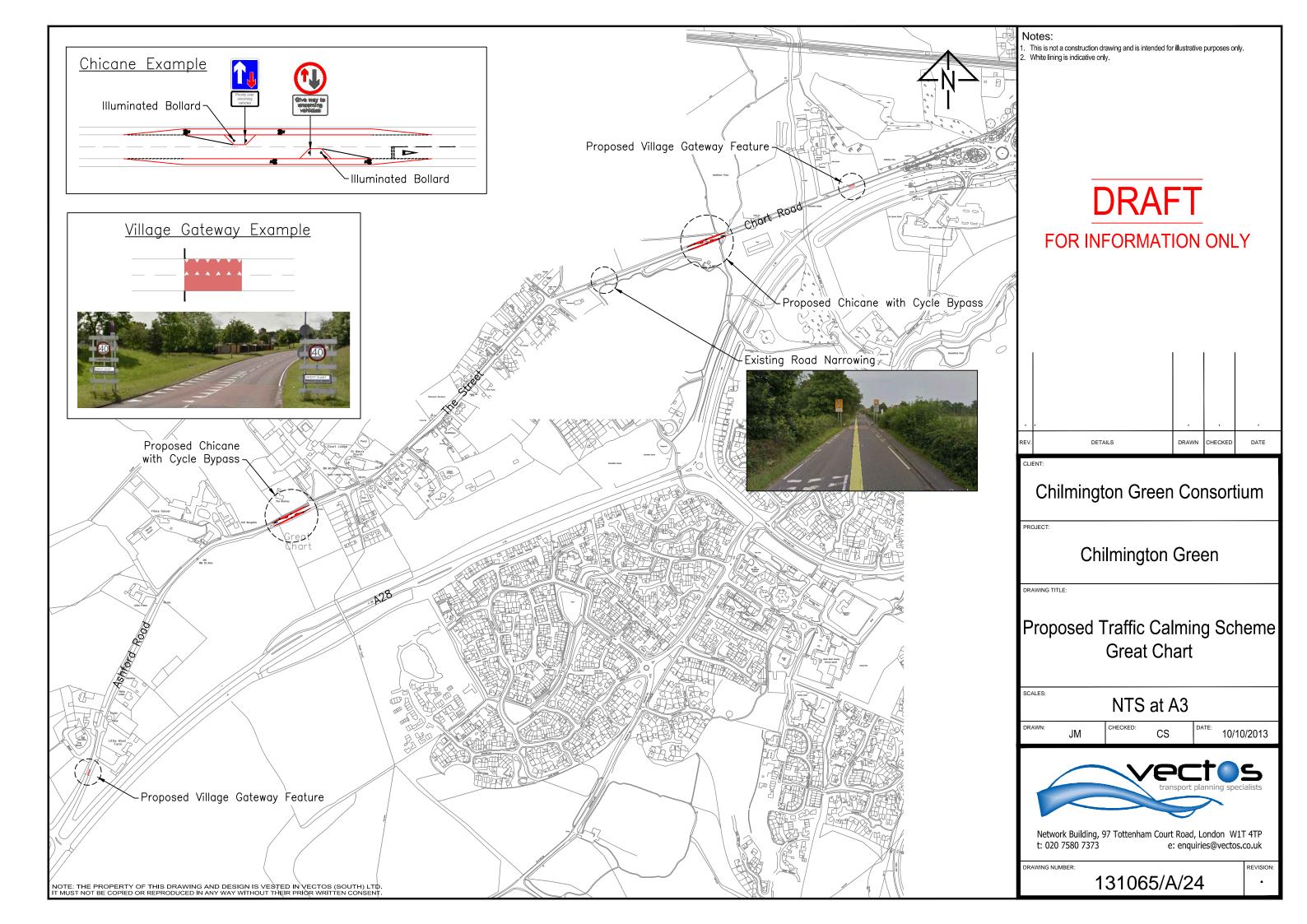
#### Scheme F Classification Scheme (Non-metric)

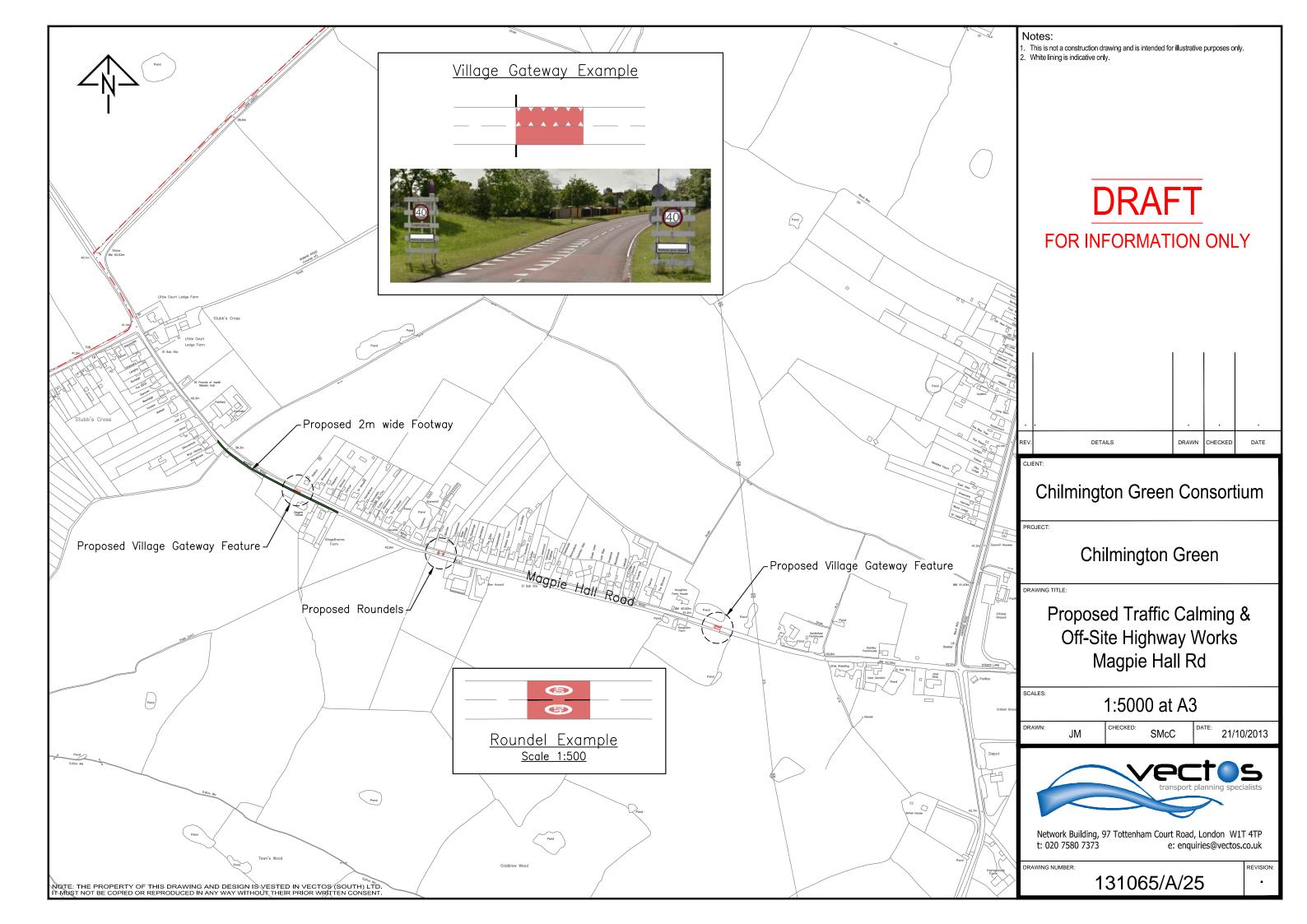
Scheme F is an attempt to implement the FWHA's visual classification scheme as an axle-based classification scheme. This is one of several interpretations.

				Axle	spacing in	feet	
Class	Vehicle Type	No. of	Axle	Axle	Axle	Axle	Axle
	-	Axles	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6
1	motorcycle	2	<6.0				
	passenger car	2	6.0 - 10.0				
2	car + 1 axle trailer	3	<10.0	10.0 - 18.0			
	car + 2 axle trailer	4	<10.0		<3.5		
	pickup	2	10.0 - 15.0				
3	pickup + 1 axle trailer	3	10.0 - 15.0	10.0 - 18.0			
3	pickup + 2 axle trailer	4	10.0 -15.0		<3.5		
	pickup + 3 axle trailer	5	9.9 - 15.0			<3.5	
4	Traditional bus/coach	2	>20.0				
4	Traditional bus/coach	3	>19.0				
5	single unit truck/bus - dual rear axle	2	14.9 - 20.0			<3.5	
6	3 axle truck	3		<18.0			
7	4 axle truck	4					
	2S1	3		>18.0			
8	2S2	4		>5.0	>3.5		
	3S1	4		<5.0	>10.0		
9	3S2	5		<6.1		3.5 - 8.0	
9	5 axle combination	5					
10	6 axle combination	6			3.5 - 5.0		
10	3S3	6					
11	2S1-2	5		>6.0			
12	3S1-2	6					>10.0
13	truck	7 or more					

### **APPENDIX K**

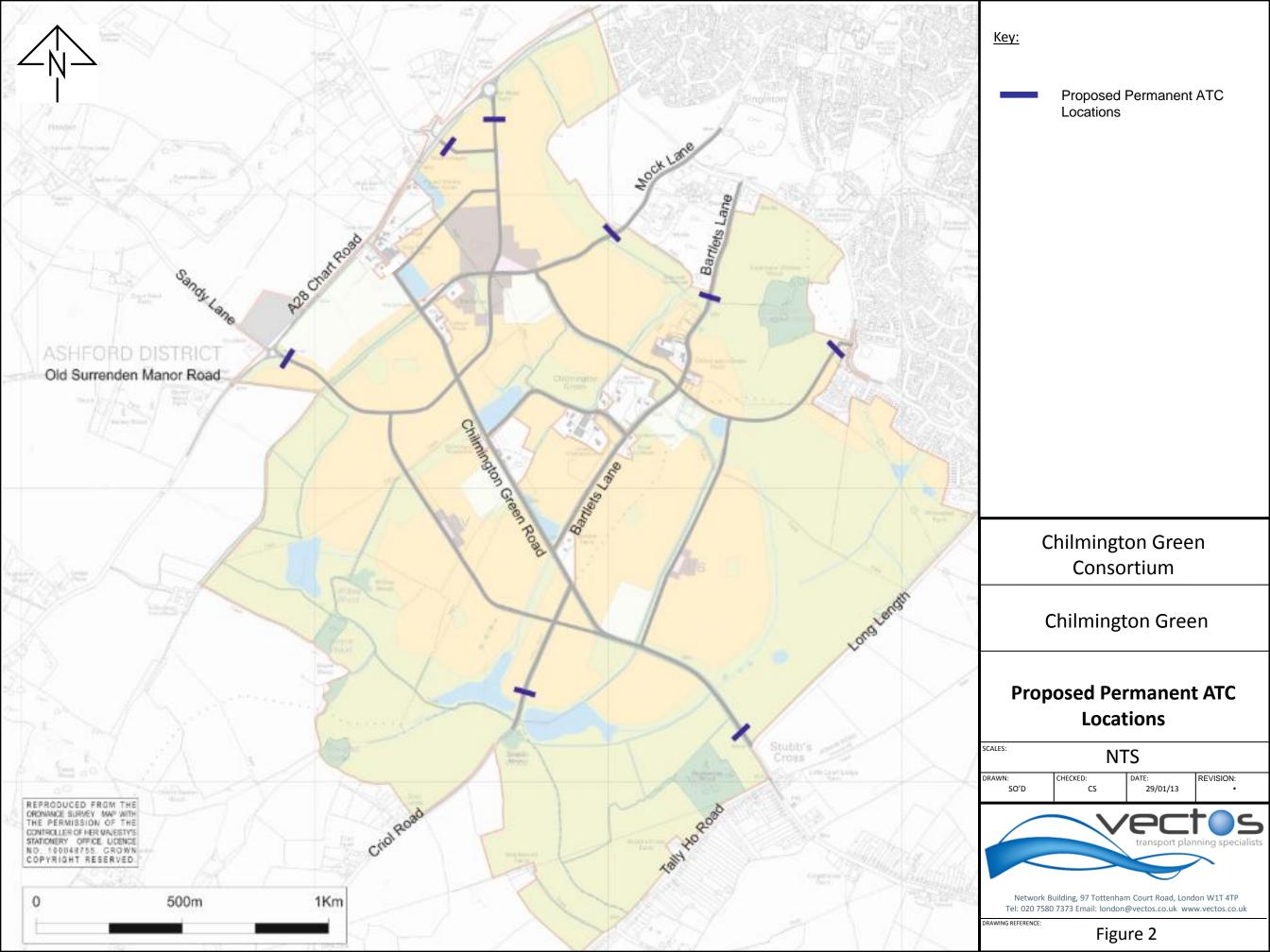
Great Chart and Magpie Hall Road
Traffic Calming Schemes





## **APPENDIX L**

**Traffic Data Monitoring Locations** 

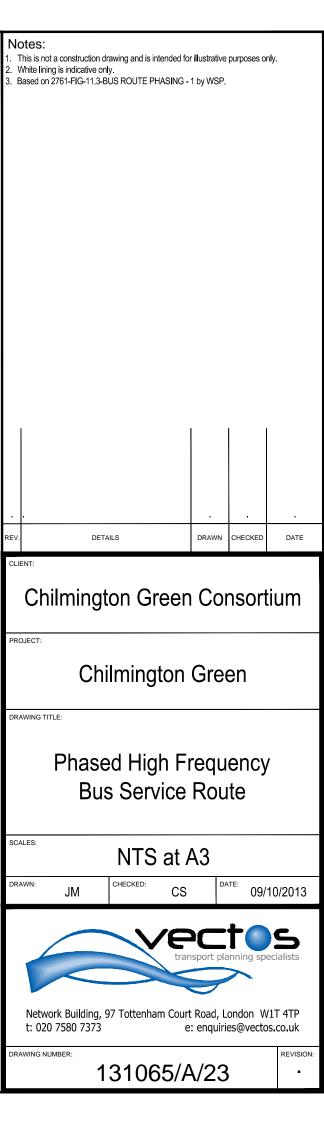


### **APPENDIX M**

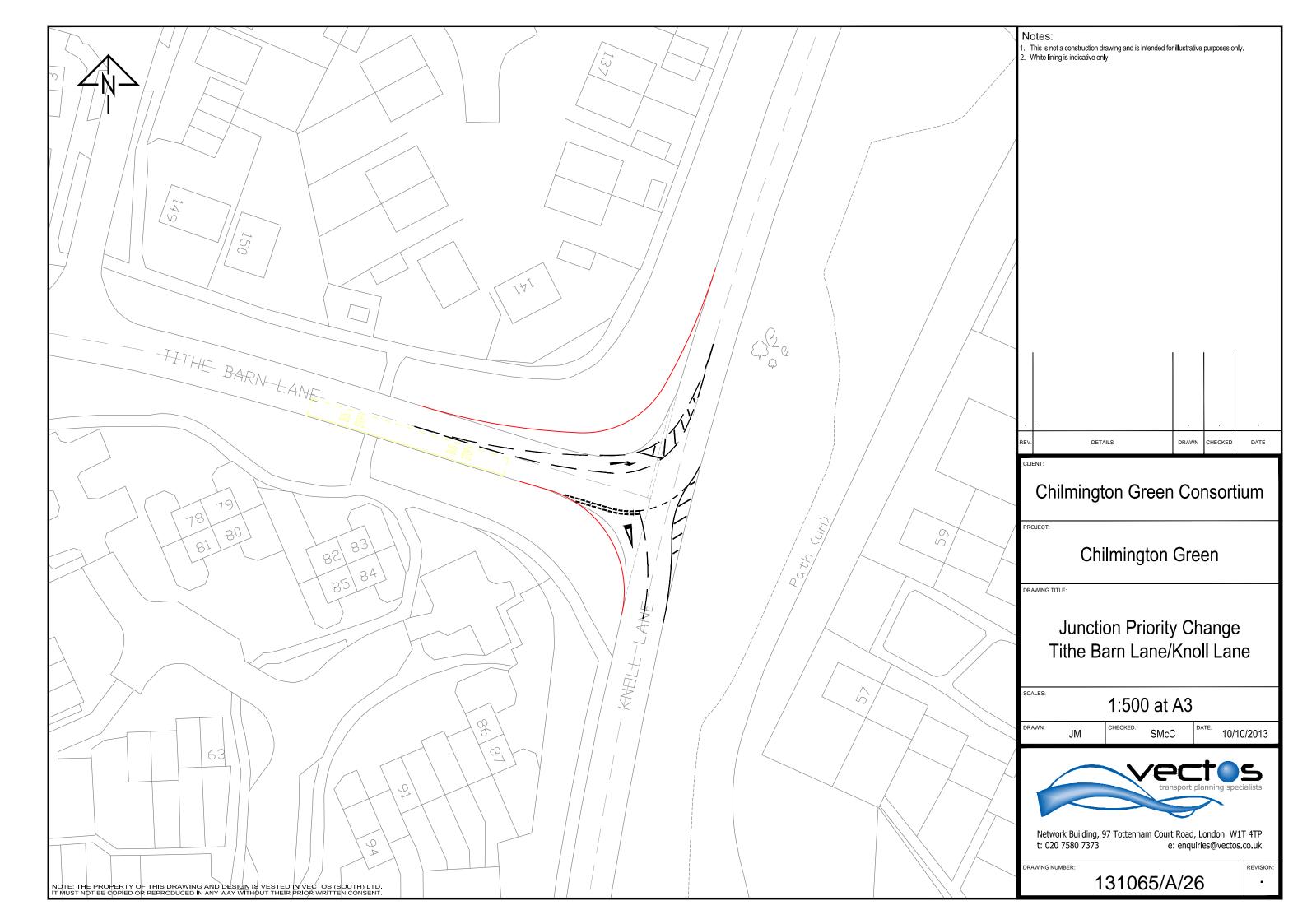
**Bus Priority Measures** 

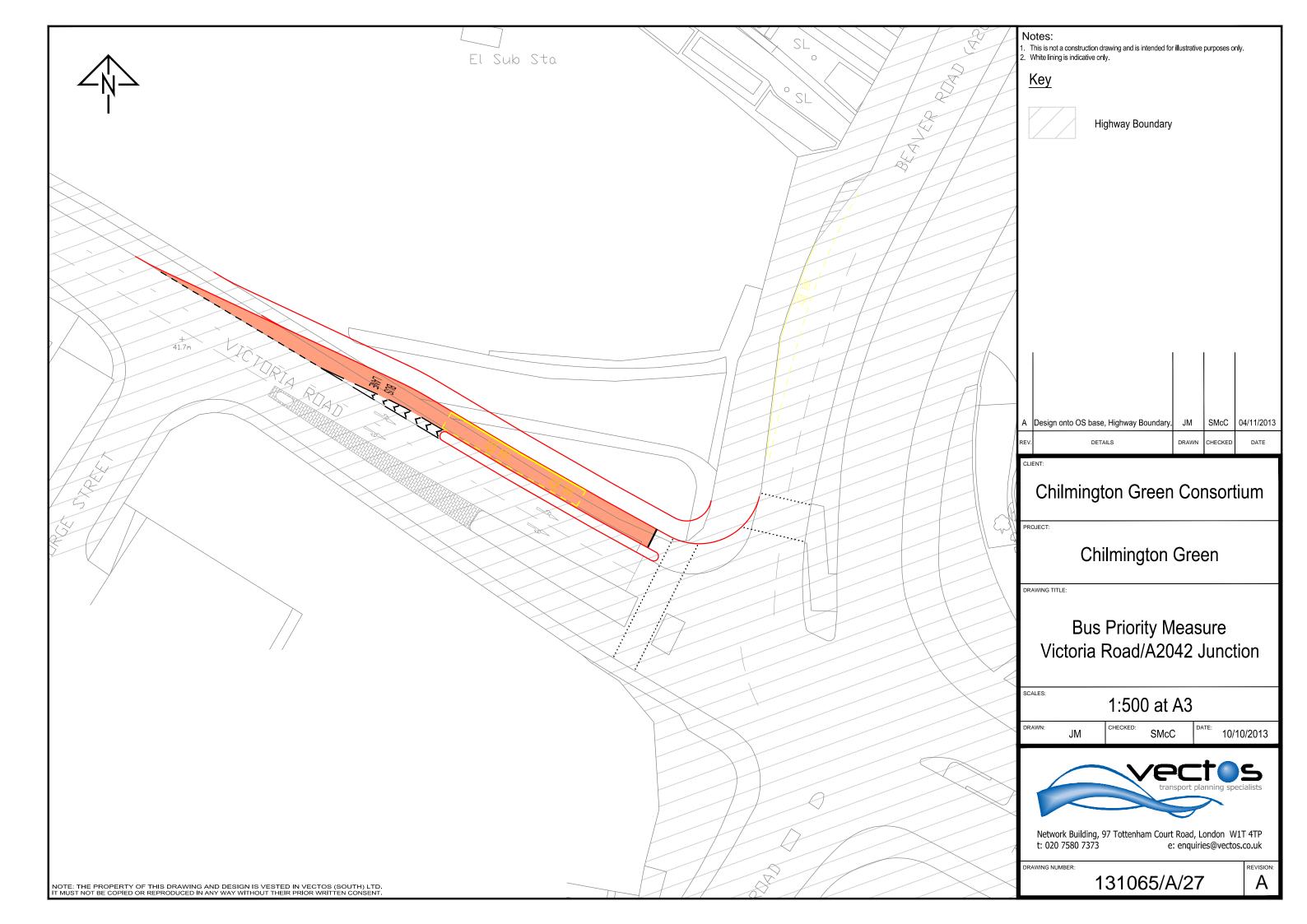


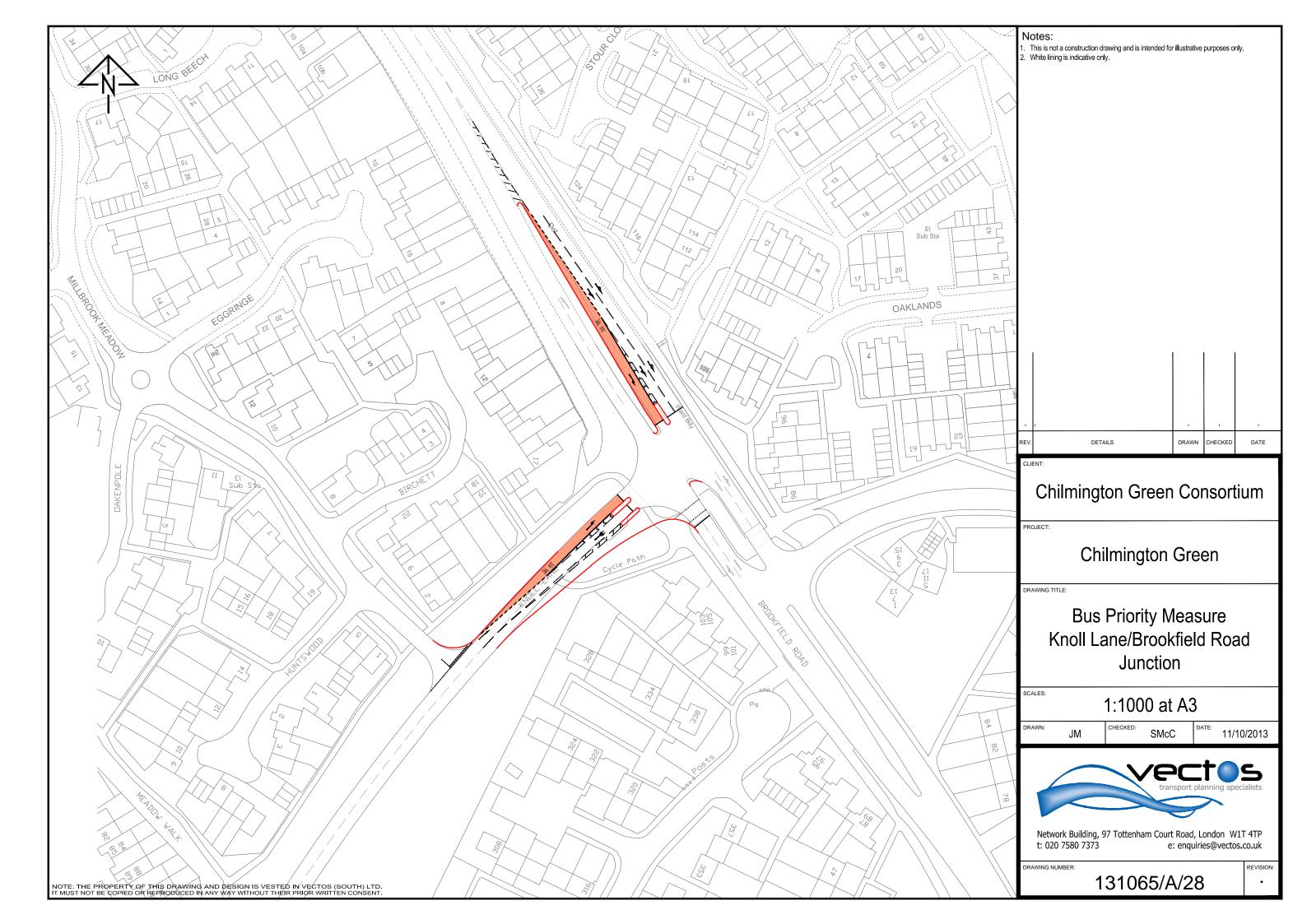




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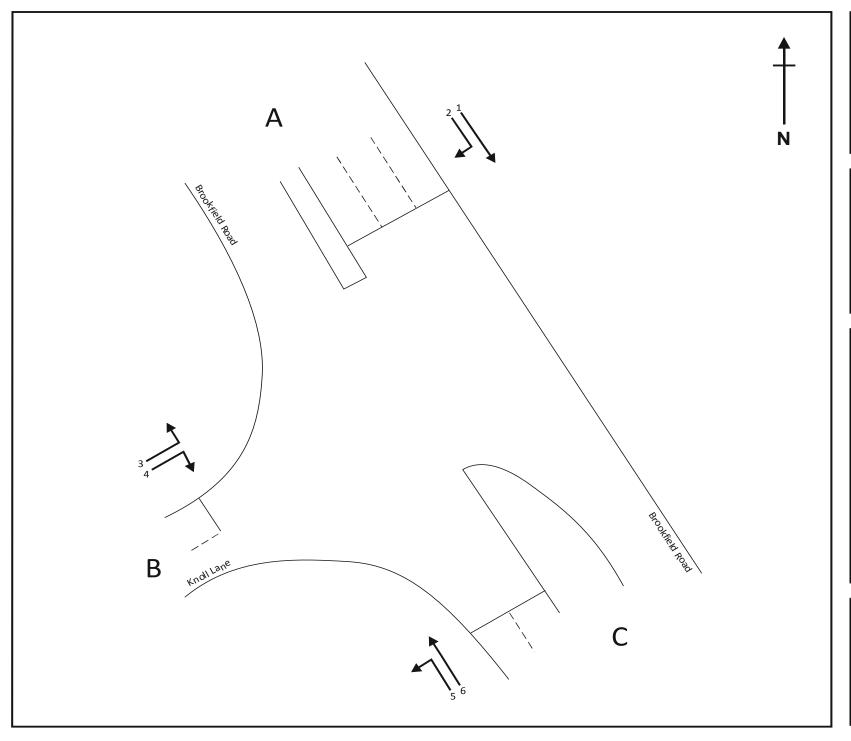






# **APPENDIX N**

**Brookfield Road/Knoll Lane Traffic Data** 









**ASHFORD** 

Wednesday 27 November 2013

0700-1000 1600-1900

Drawing N: 17027 - 01

Site: 1

Location: Brookfield Road /

Knoll Lane

JOB REF: 17027

JOB NAME: ASHFORD

SITE: 1 DATE: 27/11/2013

LOCATION: BROOKFIELD ROAD / KNOLL LANE DAY: WEDNESDAY

				MOVEN				
TIME		FRO	OM BROOKFI	ELD ROAD (N	I) TO BROOF	(FIELD ROAD	(S)	
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	33	8	1	2	0	0	0	44
07:15	40	6	3	1	0	1	0	51
07:30	53	16	6	2	3	0	0	80
07:45	55	20	4	2	3	0	0	84
H/TOT	181	50	14	7	6	1	0	259
08:00	66	14	1	3	1	0	0	85
08:15	83	12	5	0	0	0	0	100
08:30	99	13	2	0	2	0	0	116
08:45	90	9	1	0	0	2	0	102
H/TOT	338	48	9	3	3	2	0	403
09:00	98	18	9	1	0	0	0	126
09:15	84	16	2	0	0	0	0	102
09:30	64	18	3	0	1	0	0	86
09:45	75	15	2	2	0	1	0	95
н/тот	321	67	16	3	1	1	0	409
P/TOT	840	165	39	13	10	4	0	1071

			MOVEN	/IENT 2			
		FROM BRO	OKFIELD RO	AD (N) TO K	NOLL LANE		
CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	тот
15	2	0	0	0	0	0	17
16	2	0	0	0	0	0	18
19	4	1	0	2	0	0	26
25	5	1	0	1	0	0	32
75	13	2	0	3	0	0	93
27	2	0	0	2	0	0	31
17	3	0	0	0	0	0	20
26	3	1	0	0	0	0	30
29	6	1	0	0	0	0	36
99	14	2	0	2	0	0	117
31	3	2	0	0	0	0	36
24	3	0	0	0	0	0	27
31	1	1	0	0	0	0	33
28	4	0	0	0	0	0	32
114	11	3	0	0	0	0	128
288	38	7	0	5	0	0	338

AXIOM

JOB REF: 17027

JOB NAME: ASHFORD

SITE: 1 DATE: 27/11/2013

**AXIOM** 

Traffic Limited

LOCATION: BROOKFIELD ROAD / KNOLL LANE DAY: WEDNESDAY

				MOVE	MENT 1							MOVE	VIENT 2			
TIME		FR	OM BROOKF	IELD ROAD (N	N) TO BROO	KFIELD ROAD	(S)				FROM BRO	OKFIELD RO	AD (N) TO K	NOLL LANE		
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	тот	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	тот
16:00	131	12	3	3	0	1	0	150	52	10	1	0	0	0	0	63
16:15	112	17	4	2	2	1	0	138	62	10	0	0	0	0	0	72
16:30	125	28	3	2	0	0	0	158	61	9	1	0	0	0	0	71
16:45	128	37	2	0	1	0	0	168	57	7	0	0	0	0	0	64
н/тот	496	94	12	7	3	2	0	614	232	36	2	0	0	0	0	270
17:00	133	19	1	1	0	2	0	156	61	6	0	0	0	0	0	67
17:15	132	16	2	0	1	1	0	152	80	7	0	0	0	0	0	87
17:30	118	21	1	1	1	0	0	142	78	6	0	0	0	0	0	84
17:45	118	17	1	0	0	2	0	138	59	8	0	0	0	1	0	68
н/тот	501	73	5	2	2	5	0	588	278	27	0	0	0	1	0	306
18:00	118	14	3	0	0	0	0	135	61	4	0	0	0	0	0	65
18:15	110	14	1	0	0	2	0	127	82	4	1	0	0	0	0	87
18:30	100	17	1	0	1	1	0	120	51	6	0	0	0	0	0	57
18:45	91	8	1	0	0	0	0	100	50	2	0	0	0	0	0	52
н/тот	419	53	6	0	1	3	0	482	244	16	1	0	0	0	0	261
P/TOT	1416	220	23	9	6	10	0	1684	754	79	3	0	0	1	0	837

JOB REF: 17027

JOB NAME: ASHFORD

SITE: 1 DATE: 27/11/2013

LOCATION: BROOKFIELD ROAD / KNOLL LANE DAY: WEDNESDAY

				MOVEN	/IENT 3			
TIME			FROM KNO	LL LANE TO I	BROOKFIELD	ROAD (N)		
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	тот
07:00	62	18	1	0	0	0	0	81
07:15	59	6	0	0	0	0	0	65
07:30	79	5	0	0	0	0	0	84
07:45	86	6	2	0	0	1	0	95
н/тот	286	35	3	0	0	1	0	325
08:00	78	13	1	0	0	0	0	92
08:15	86	7	0	0	0	1	0	94
08:30	63	7	3	1	0	0	0	74
08:45	87	3	0	0	0	0	0	90
н/тот	314	30	4	1	0	1	0	350
09:00	47	7	2	0	0	0	0	56
09:15	43	7	1	2	0	0	0	53
09:30	36	4	1	0	0	0	0	41
09:45	51	6	0	0	0	0	0	57
н/тот	177	24	4	2	0	0	0	207
P/TOT	777	89	11	3	0	2	0	882

			MOVEN	/IENT 4			
		FROM KNO	OLL LANE TO	BROOKFIELI	D ROAD (S)		
CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	тот
10	1	0	0	1	0	0	12
7	4	0	0	1	0	0	12
17	6	1	0	3	0	0	27
24	5	1	0	1	0	0	31
58	16	2	0	6	0	0	82
24	2	1	0	2	1	0	30
27	4	1	0	3	1	0	36
33	2	2	0	0	0	0	37
34	3	0	0	2	0	0	39
118	11	4	0	7	2	0	142
32	5	0	0	2	0	0	39
39	3	0	0	1	0	0	43
24	5	1	0	2	0	0	32
22	3	0	0	2	0	0	27
117	16	1	0	7	0	0	141
293	43	7	0	20	2	0	365

AXIOM

JOB REF: 17027

JOB NAME: ASHFORD

SITE: 1 DATE: 27/11/2013

LOCATION: BROOKFIELD ROAD / KNOLL LANE DAY: WEDNESDAY

				MOVEN	IENT 3			
TIME			FROM KNC	LL LANE TO I	BROOKFIELD	ROAD (N)		
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	тот
16:00	42	6	0	0	1	0	0	49
16:15	34	6	0	0	1	1	0	42
16:30	37	5	0	0	2	0	0	44
16:45	46	4	1	0	0	0	0	51
н/тот	159	21	1	0	4	1	0	186
17:00	34	3	0	0	1	0	0	38
17:15	38	3	0	0	0	0	0	41
17:30	38	5	1	0	0	0	0	44
17:45	41	1	1	0	0	0	0	43
н/тот	151	12	2	0	1	0	0	166
18:00	38	5	0	0	0	0	0	43
18:15	39	0	0	0	0	0	0	39
18:30	41	1	0	0	0	0	0	42
18:45	36	1	0	0	0	0	0	37
н/тот	154	7	0	0	0	0	0	161
P/TOT	464	40	3	0	5	1	0	513

	MOVEMENT 4  FROM KNOLL LANE TO BROOKFIELD ROAD (S)											
CAR												
18	4	1	0	3	0	0	26					
27	2	0	0	2	0	0	31					
22	3	0	0	1	1	0	27					
25	3	0	0	2	1	0	31					
92	12	1	0	8	2	0	115					
35	6	1	0	0	1	0	43					
28	0	1	0	3	1	1	34					
29	6	0	0	1	0	0	36					
30	5	1	0	2	0	0	38					
122	17	3	0	6	2	1	151					
21	4	1	0	0	0	0	26					
36	2	1	0	1	1	0	41					
26	1	0	0	2	0	0	29					
34	1	1	0	0	0	0	36					
117	8	3	0	3	1	0	132					
331	37	7	0	17	5	1	398					

AXIOM

Traffic Limited

JOB REF: 17027

JOB NAME: ASHFORD

SITE: 1 DATE: 27/11/2013

LOCATION: BROOKFIELD ROAD / KNOLL LANE DAY: WEDNESDAY

				MOVEN	/IENT 5			
TIME			FROM BRO	OKFIELD RO	AD (S) TO KI	NOLL LANE		
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	18	2	0	0	1	1	0	22
07:15	14	4	0	0	1	1	0	20
07:30	17	3	1	0	0	0	0	21
07:45	24	4	0	0	1	0	0	29
н/тот	73	13	1	0	3	2	0	92
08:00	27	6	0	0	2	0	0	35
08:15	33	3	1	0	0	0	0	37
08:30	25	6	3	1	2	0	0	37
08:45	31	7	3	0	2	0	0	43
н/тот	116	22	7	1	6	0	0	152
09:00	22	2	0	0	1	0	0	25
09:15	19	5	0	0	2	0	0	26
09:30	22	2	0	0	2	0	0	26
09:45	18	3	0	0	0	1	0	22
н/тот	81	12	0	0	5	1	0	99
P/TOT	270	47	8	1	14	3	0	343

			MOVEN	ΛENT 6			
	FRO	OM BROOKFI	ELD ROAD (S	) TO BROOK	FIELD ROAD	(N)	
CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	тот
75	29	1	0	1	1	0	107
95	19	3	3	0	2	0	122
104	25	4	0	0	2	0	135
112	20	4	3	1	0	0	140
386	93	12	6	2	5	0	504
108	17	4	1	2	0	0	132
120	5	2	1	3	1	1	133
91	12	1	0	0	1	0	105
109	17	1	2	0	0	0	129
428	51	8	4	5	2	1	499
94	10	1	0	0	0	0	105
97	11	8	0	1	0	0	117
71	11	3	2	0	0	0	87
77	7	2	1	0	0	0	87
339	39	14	3	1	0	0	396
1153	183	34	13	8	7	1	1399

AXIOM

Traffic Limited

JOB REF: 17027

JOB NAME: ASHFORD

SITE: 1 DATE: 27/11/2013

LOCATION: BROOKFIELD ROAD / KNOLL LANE DAY: WEDNESDAY

				MOVEN						
TIME			FROM BRO	OKFIELD RO	AD (S) TO K	NOLL LANE				FR
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV
16:00	31	3	0	0	2	0	0	36	92	13
16:15	34	4	0	0	2	0	1	41	94	12
16:30	35	4	0	0	1	1	0	41	99	20
16:45	41	6	0	0	2	0	0	49	92	11
н/тот	141	17	0	0	7	1	1	167	377	56
17:00	41	4	0	0	2	1	0	48	113	8
17:15	28	2	0	0	1	0	0	31	103	9
17:30	39	1	1	0	2	0	0	43	93	7
17:45	15	0	0	0	1	0	0	16	94	11
н/тот	123	7	1	0	6	1	0	138	403	35
18:00	36	2	0	0	2	2	0	42	85	4
18:15	35	4	1	0	1	0	0	41	79	4
18:30	35	2	0	0	3	0	0	40	85	5
18:45	26	3	1	0	1	0	0	31	72	6
н/тот	132	11	2	0	7	2	0	154	321	19
P/TOT	396	35	3	0	20	4	1	459	1101	110

			MOVEN	ΛENT 6			
	FRO	OM BROOKFI	ELD ROAD (S	) TO BROOK	FIELD ROAD	(N)	
CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	тот
92	13	2	0	0	0	0	107
94	12	3	0	0	0	0	109
99	20	1	1	2	1	0	124
92	11	0	0	0	0	0	103
377	56	6	1	2	1	0	443
113	8	3	0	0	0	0	124
103	9	3	0	1	0	0	116
93	7	3	0	0	0	0	103
94	11	0	0	1	0	0	106
403	35	9	0	2	0	0	449
85	4	1	0	0	0	0	90
79	4	0	0	0	1	0	84
85	5	1	0	1	1	0	93
72	6	0	0	0	0	0	78
321	19	2	0	1	2	0	345
1101	110	17	1	5	3	0	1237

AXIOM

JOB REF: 17027

JOB NAME: ASHFORD

SITE: 1 DATE: 27/11/2013

LOCATION: BROOKFIELD ROAD / KNOLL LANE DAY: WEDNESDAY

TIME				TO AF				
111112	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	тот
07:00	137	47	2	0	1	1	0	188
07:15	154	25	3	3	0	2	0	187
07:30	183	30	4	0	0	2	0	219
07:45	198	26	6	3	1	1	0	235
н/тот	672	128	15	6	2	6	0	829
08:00	186	30	5	1	2	0	0	224
08:15	206	12	2	1	3	2	1	227
08:30	154	19	4	1	0	1	0	179
08:45	196	20	1	2	0	0	0	219
н/тот	742	81	12	5	5	3	1	849
09:00	141	17	3	0	0	0	0	161
09:15	140	18	9	2	1	0	0	170
09:30	107	15	4	2	0	0	0	128
09:45	128	13	2	1	0	0	0	144
н/тот	516	63	18	5	1	0	0	603
P/TOT	1930	272	45	16	8	9	1	2281
P/101	1930	272	43	10	ŏ	9	1	2201

			FROM A				
CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	тот
48	10	1	2	0	0	0	61
56	8	3	1	0	1	0	69
72	20	7	2	5	0	0	106
80	25	5	2	4	0	0	116
256	63	16	7	9	1	0	352
93	16	1	3	3	0	0	116
100	15	5	0	0	0	0	120
125	16	3	0	2	0	0	146
119	15	2	0	0	2	0	138
437	62	11	3	5	2	0	520
129	21	11	1	0	0	0	162
108	19	2	0	0	0	0	129
95	19	4	0	1	0	0	119
103	19	2	2	0	1	0	127
435	78	19	3	1	1	0	537
1128	203	46	13	15	4	0	1409

AXIOM

JOB REF: 17027

JOB NAME: ASHFORD

SITE: 1 DATE: 27/11/2013

LOCATION: BROOKFIELD ROAD / KNOLL LANE DAY: WEDNESDAY

TIME	TO ARM A BROOKFIELD ROAD (N)									FROM ARM A BROOKFIELD ROAD (N)						
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	тот	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	тот
16:00	134	19	2	0	1	0	0	156	183	22	4	3	0	1	0	213
16:15	128	18	3	0	1	1	0	151	174	27	4	2	2	1	0	210
16:30	136	25	1	1	4	1	0	168	186	37	4	2	0	0	0	229
16:45	138	15	1	0	0	0	0	154	185	44	2	0	1	0	0	232
н/тот	536	77	7	1	6	2	0	629	728	130	14	7	3	2	0	884
17:00	147	11	3	0	1	0	0	162	194	25	1	1	0	2	0	223
17:15	141	12	3	0	1	0	0	157	212	23	2	0	1	1	0	239
17:30	131	12	4	0	0	0	0	147	196	27	1	1	1	0	0	226
17:45	135	12	1	0	1	0	0	149	177	25	1	0	0	3	0	206
H/TOT	554	47	11	0	3	0	0	615	779	100	5	2	2	6	0	894
18:00	123	9	1	0	0	0	0	133	179	18	3	0	0	0	0	200
18:15	118	4	0	0	0	1	0	123	192	18	2	0	0	2	0	214
18:30	126	6	1	0	1	1	0	135	151	23	1	0	1	1	0	177
18:45	108	7	0	0	0	0	0	115	141	10	1	0	0	0	0	152
н/тот	475	26	2	0	1	2	0	506	663	69	7	0	1	3	0	743
P/TOT	1565	150	20	1	10	4	0	1750	2170	299	26	9	6	11	0	2521

TO ARM A IS TOTAL OF MOVEMENTS 3, 6 FROM ARM A IS TOTAL OF MOVEMENTS 1, 2



JOB REF: 17027

JOB NAME: ASHFORD

SITE: 1 DATE: 27/11/2013

LOCATION: BROOKFIELD ROAD / KNOLL LANE DAY: WEDNESDAY

07:00	CAR 33	LGV	OGV1					
	33			OGV2	PSV	MCL	PCL	тот
07.45		4	0	0	1	1	0	39
07:15	30	6	0	0	1	1	0	38
07:30	36	7	2	0	2	0	0	47
07:45	49	9	1	0	2	0	0	61
н/тот	148	26	3	0	6	2	0	185
08:00	54	8	0	0	4	0	0	66
08:15	50	6	1	0	0	0	0	57
08:30	51	9	4	1	2	0	0	67
08:45	60	13	4	0	2	0	0	79
н/тот	215	36	9	1	8	0	0	269
09:00	53	5	2	0	1	0	0	61
09:15	43	8	0	0	2	0	0	53
09:30	53	3	1	0	2	0	0	59
09:45	46	7	0	0	0	1	0	54
н/тот	195	23	3	0	5	1	0	227
P/TOT	558	85	15	1	19	3	0	681

			FROM				
			KNOLL	LANE			
CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
72	19	1	0	1	0	0	93
66	10	0	0	1	0	0	77
96	11	1	0	3	0	0	111
110	11	3	0	1	1	0	126
344	51	5	0	6	1	0	407
102	15	2	0	2	1	0	122
113	11	1	0	3	2	0	130
96	9	5	1	0	0	0	111
121	6	0	0	2	0	0	129
432	41	8	1	7	3	0	492
79	12	2	0	2	0	0	95
82	10	1	2	1	0	0	96
60	9	2	0	2	0	0	73
73	9	0	0	2	0	0	84
294	40	5	2	7	0	0	348
1070	132	18	3	20	4	0	1247



JOB REF: 17027

JOB NAME: ASHFORD

SITE: 1 DATE: 27/11/2013

LOCATION: BROOKFIELD ROAD / KNOLL LANE DAY: WEDNESDAY

				TO AF	RM B							FROM A	ARM B			
TIME				KNOLL	LANE							KNOLL	LANE			
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	тот	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	83	13	1	0	2	0	0	99	60	10	1	0	4	0	0	75
16:15	96	14	0	0	2	0	1	113	61	8	0	0	3	1	0	73
16:30	96	13	1	0	1	1	0	112	59	8	0	0	3	1	0	71
16:45	98	13	0	0	2	0	0	113	71	7	1	0	2	1	0	82
н/тот	373	53	2	0	7	1	1	437	251	33	2	0	12	3	0	301
17:00	102	10	0	0	2	1	0	115	69	9	1	0	1	1	0	81
17:15	108	9	0	0	1	0	0	118	66	3	1	0	3	1	1	75
17:30	117	7	1	0	2	0	0	127	67	11	1	0	1	0	0	80
17:45	74	8	0	0	1	1	0	84	71	6	2	0	2	0	0	81
н/тот	401	34	1	0	6	2	0	444	273	29	5	0	7	2	1	317
18:00	97	6	0	0	2	2	0	107	59	9	1	0	0	0	0	69
18:15	117	8	2	0	1	0	0	128	75	2	1	0	1	1	0	80
18:30	86	8	0	0	3	0	0	97	67	2	0	0	2	0	0	71
18:45	76	5	1	0	1	0	0	83	70	2	1	0	0	0	0	73
н/тот	376	27	3	0	7	2	0	415	271	15	3	0	3	1	0	293
P/TOT	1150	114	6	0	20	5	1	1296	795	77	10	0	22	6	1	911

TO ARM B IS TOTAL OF MOVEMENTS 2, 5 FROM ARM B IS TOTAL OF MOVEMENTS 3, 4



JOB REF: 17027

JOB NAME: ASHFORD

SITE: 1 DATE: 27/11/2013

LOCATION: BROOKFIELD ROAD / KNOLL LANE DAY: WEDNESDAY

TIME		TO ARM C BROOKFIELD ROAD (S)											
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	тот					
07:00	43	9	1	2	1	0	0	56					
07:15	47	10	3	1	1	1	0	63					
07:30	70	22	7	2	6	0	0	107					
07:45	79	25	5	2	4	0	0	115					
н/тот	239	66	16	7	12	1	0	341					
08:00	90	16	2	3	3	1	0	115					
08:15	110	16	6	0	3	1	0	136					
08:30	132	15	4	0	2	0	0	153					
08:45	124	12	1	0	2	2	0	141					
н/тот	456	59	13	3	10	4	0	545					
09:00	130	23	9	1	2	0	0	165					
09:15	123	19	2	0	1	0	0	145					
09:30	88	23	4	0	3	0	0	118					
09:45	97	18	2	2	2	1	0	122					
н/тот	438	83	17	3	8	1	0	550					
P/TOT	1133	208	46	13	30	6	0	1436					
	_												

			FROM A				
CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	тот
93	31	1	0	2	2	0	129
109	23	3	3	1	3	0	142
121	28	5	0	0	2	0	156
136	24	4	3	2	0	0	169
459	106	13	6	5	7	0	596
135	23	4	1	4	0	0	167
153	8	3	1	3	1	1	170
116	18	4	1	2	1	0	142
140	24	4	2	2	0	0	172
544	73	15	5	11	2	1	651
116	12	1	0	1	0	0	130
116	16	8	0	3	0	0	143
93	13	3	2	2	0	0	113
95	10	2	1	0	1	0	109
420	51	14	3	6	1	0	495
1423	230	42	14	22	10	1	1742

AXIOM

Traffic Limited

JOB REF: 17027

JOB NAME: ASHFORD

SITE: 1 DATE: 27/11/2013

LOCATION: BROOKFIELD ROAD / KNOLL LANE DAY: WEDNESDAY

TIME	TO ARM C BROOKFIELD ROAD (S)									FROM ARM C  BROOKFIELD ROAD (S)						
THVIL	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	тот	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	тот
16:00	149	16	4	3	3	1	0	176	123	16	2	0	2	0	0	143
16:15	139	19	4	2	4	1	0	169	128	16	3	0	2	0	1	150
16:30	147	31	3	2	1	1	0	185	134	24	1	1	3	2	0	165
16:45	153	40	2	0	3	1	0	199	133	17	0	0	2	0	0	152
н/тот	588	106	13	7	11	4	0	729	518	73	6	1	9	2	1	610
17:00	168	25	2	1	0	3	0	199	154	12	3	0	2	1	0	172
17:15	160	16	3	0	4	2	1	186	131	11	3	0	2	0	0	147
17:30	147	27	1	1	2	0	0	178	132	8	4	0	2	0	0	146
17:45	148	22	2	0	2	2	0	176	109	11	0	0	2	0	0	122
н/тот	623	90	8	2	8	7	1	739	526	42	10	0	8	1	0	587
18:00	139	18	4	0	0	0	0	161	121	6	1	0	2	2	0	132
18:15	146	16	2	0	1	3	0	168	114	8	1	0	1	1	0	125
18:30	126	18	1	0	3	1	0	149	120	7	1	0	4	1	0	133
18:45	125	9	2	0	0	0	0	136	98	9	1	0	1	0	0	109
н/тот	536	61	9	0	4	4	0	614	453	30	4	0	8	4	0	499
P/TOT	1747	257	30	9	23	15	1	2082	1497	145	20	1	25	7	1	1696

TO ARM C IS TOTAL OF MOVEMENTS 1, 4 FROM ARM C IS TOTAL OF MOVEMENTS 5, 6



# **APPENDIX O**

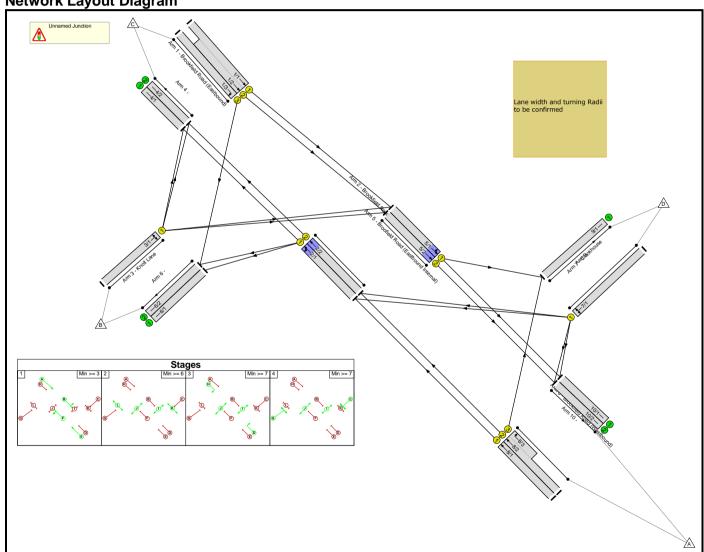
**Brookfield Road/Knoll Lane Traffic Capacity Analysis** 

# Full Input Data And Results Full Input Data And Results

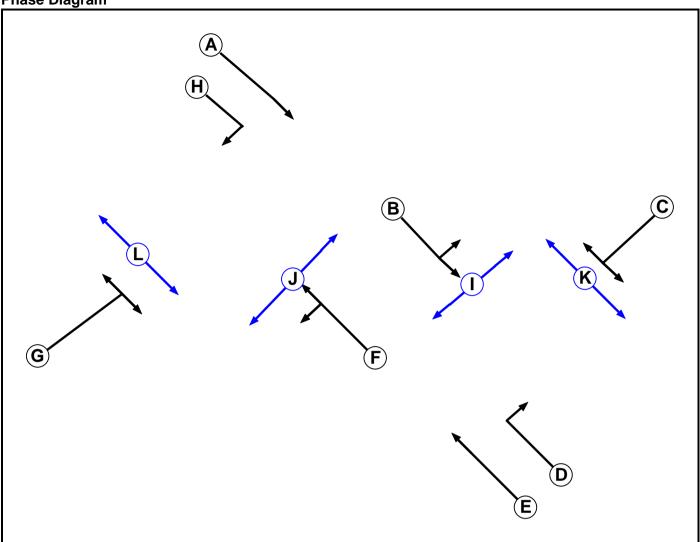
**User and Project Details** 

Project:	Chilmington Green
Title:	
Location:	
File name:	Existing Junction 140113.lsg3x
Author:	
Company:	
Address:	
Notes:	

**Network Layout Diagram** 



Phase Diagram



Phase Input Data

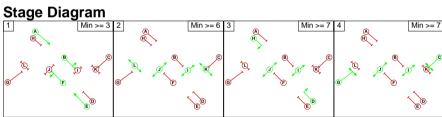
Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
А	Traffic		7	7
В	Traffic		7	3
С	Traffic		7	7
D	Traffic		7	7
Е	Traffic		7	7
F	Traffic		7	3
G	Traffic		7	7
Н	Traffic		7	7
I	Pedestrian		6	6
J	Pedestrian		6	6
K	Pedestrian		6	6
L	Pedestrian		6	6

Phase Intergreens Matrix

riiase iiile	ıyı	greens Matrix											
					Sta	artir	ng Ph	nase					
		Α	В	С	D	Е	F	G	Н	I	J	K	L
Terminating Phase	Α		-	-	-	-	-	5	-	•	-	-	-
	В	-		5	5	-	-	-	-	5	-	6	-
	С	-	6		5	6	-	-	-	-	-	5	1
	D	-	5	5		-	-	-	-	-	-	7	-
	Е	-	-	5	-		-	-	-	•	-	-	-
	F	-	-	-	-	-		5	5	•	5	-	6
	G	6	-	-	-	-	6		5	-	-	-	5
	Н	-	-	-	-	-	5	5		-	-	-	7
	I	-	8	-	-	-	-	-	-		-	-	-
	J	-	-	-	-	-	8	-	-	-		-	-
	K	-	10	10	10	-	-	-	-	-	-		-
	L	-	-	-	-	-	10	10	10	-	-	-	

Phases in Stage

ı mascs m	i Otage
Stage No.	Phases in Stage
1	ABEF
2	IJKL
3	DHIJ
4	CGIJ



**Phase Delays** 

Term. Stage		Phase	Туре	Value	Cont value
1	2	В	Losing	4	4
1	2	F Losing		4	4
1	3	В	Losing	4	4
1	3	F	Losing	4	4
1	4	В	Losing	4	4
1	4	F	Losing	4	4
2	1	Α	Gaining absolute	5	5
2	1	E	Gaining absolute	5	5
3	1	Α	Gaining absolute	3	3
3	1	Е	Gaining absolute	3	3

# Prohibited Stage Change

	_									
		To Stage								
		1	2	3	4					
From Stage	1		10	9	9					
	2	10		10	10					
	3	8	7		5					
	4	8	5	5						

# Full Input Data And Results Give-Way Lane Input Data

Junction: Unnamed Junction

There are no Opposed Lanes in this Junction

**Lane Input Data** 

Junction: Unna	med Ju	ınction										
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Brookfield Road (Eastbound))	U	А	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
1/2 (Brookfield Road (Eastbound))	U	A	2	3	13.9	Geom	-	3.00	0.00	N	Arm 5 Ahead	Inf
1/3 (Brookfield Road (Eastbound))	U	н	2	3	60.0	Geom	-	3.00	0.00	N	Arm 6 Right	15.00
2/1 (Brookfield Road	U	F	2	3	4.3	Geom	-	3.00	0.00	Y	Arm 4 Ahead	Inf
(Westbound Internal))											Arm 6 Left	15.00
2/2 (Brookfield Road (Westbound Internal))	U	F	2	3	4.3	Geom	-	3.00	0.00	N	Arm 4 Ahead	Inf
3/1 (Knoll Lane)	U	G	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Left Arm 5 Right	Inf Inf
4/1	U		2	3	60.0	Inf	-	_	-	-	-	-
4/2	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Broofield Road											Arm 9 Left	10.00
(Eastbound Internal))	U	В	2	3	4.3	Geom	-	3.00	0.00	Y	Arm 10 Ahead	Inf
5/2 (Broofield Road (Eastbound Internal))	U	В	2	3	4.3	Geom	-	3.00	0.00	N	Arm 10 Ahead	Inf
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U	С	2	3	60.0	Geom		3.00	0.00	Y	Arm 2 Right	12.00
(Clockhouse)					50.0	Geom		3.00	3.00		Arm 10 Left	12.00
8/1 (Brookfield Road (Westbound))	U	E	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 2 Ahead	Inf
8/2 (Brookfield Road (Westbound))	U	E	2	3	60.0	Geom	-	3.00	0.00	N	Arm 2 Ahead	Inf

8/3 (Brookfield Road (Westbound))	U	D	2	3	6.1	Geom	-	3.00	0.00	N	Arm 9 Right	12.00
9/1	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1	U		2	3	60.0	Inf	-	-	-	-	-	-
10/2	U		2	3	60.0	Inf	-	-	-	-	-	-

**Traffic Flow Groups** 

Flow Group	Start Time	End Time	Duration	Formula
1: 'Observed (2013) AM Peak'	08:00	09:00	01:00	
2: 'Observed (2013) PM Peak'	17:00	18:00	01:00	
3: 'Observed (2013) AM Peak - Clockhouse Assumption'	08:00	09:00	01:00	
4: 'Observed (2013) PM Peak - Clockhouse Assumption'	17:00	18:00	01:00	

Scenario 1: 'Observed (2013) AM Peak' (FG3: 'Observed (2013) AM Peak - Clockhouse Assumption', Plan 1: 'Peds Every Other Cycle')

# **Traffic Flows, Desired**

### **Desired Flow:**

	Destination										
		Α	В	С	D	Tot.					
	Α	0	150	480	50	680					
Origin	В	140	0	369	17	526					
Origin	С	421	128	0	20	569					
	D	50	27	60	0	137					
	Tot.	611	305	909	87	1912					

### Traffic Lane Flows

Traffic Lane Flows									
Lane	Scenario 1: Observed (2013) AM Peak								
Junction: Un	named Junction								
1/1 (with short)	441(In) 208(Out)								
1/2 (short)	233								
1/3	128								
2/1	334								
2/2	383								
3/1	526								
4/1	341								
4/2	568								
5/1	278								
5/2	320								
6/1	89								
6/2	216								
7/1	137								
8/1	304								
8/2 (with short)	376(In) 326(Out)								
8/3 (short)	50								
9/1	87								
10/1	266								
10/2	345								

### Lane Saturation Flows

Lane Saturation Flows Junction: Unnamed Junction											
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)			
1/1 (Brookfield Road (Eastbound))	3.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1915	1915			
1/2 (Brookfield Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055			
1/3 (Brookfield Road (Eastbound))	3.00	0.00	N	Arm 6 Right	15.00	100.0 %	1868	1868			
2/1 (Brookfield Road (Westbound Internal))	3.00	0.00	Y	Arm 4 Ahead Arm 6 Left	Inf 15.00	47.0 % 53.0 %	1819	1819			
2/2 (Brookfield Road (Westbound Internal))	3.00	0.00	N	Arm 4 Ahead	Inf	100.0 %	2055	2055			
3/1	3.00	0.00	Y	Arm 4 Left	Inf	70.2 %	1915	1915			
(Knoll Lane)	0.00	0.00	'	Arm 5 Right	Inf	29.8 %	1313	1010			
4/1			Inf	Inf							
4/2			Inf	Inf							
5/1		0.00	Y	Arm 9 Left	10.00	13.3 %					
(Broofield Road (Eastbound Internal))	3.00			Arm 10 Ahead	Inf	86.7 %	1878	1878			
5/2 (Broofield Road (Eastbound Internal))	3.00	0.00	N	Arm 10 Ahead	Inf	100.0 %	2055	2055			
6/1			Infinite S	aturation Flow			Inf	Inf			
6/2			Infinite S	aturation Flow			Inf	Inf			
7/1	0.00	0.00	V	Arm 2 Right	12.00	63.5 %	4700	4700			
(Clockhouse)	3.00	0.00	Y	Arm 10 Left	12.00	36.5 %	1702	1702			
8/1 (Brookfield Road (Westbound))	3.00	0.00	Υ	Arm 2 Ahead	Inf	100.0 %	1915	1915			
8/2 (Brookfield Road (Westbound))	3.00	0.00	N	Arm 2 Ahead	Inf	100.0 %	2055	2055			
8/3 (Brookfield Road (Westbound))	3.00	0.00	N	Arm 9 Right	12.00	100.0 %	1827	1827			
9/1			Inf	Inf							
10/1		Infinite Saturation Flow						Inf			
10/2			Inf	Inf							

Scenario 2: 'Observed (2013) PM Peak' (FG4: 'Observed (2013) PM Peak - Clockhouse Assumption', Plan 1: 'Peds Every Other Cycle')

# Traffic Flows, Desired

Desired Flow:

		Destination											
		Α	В	С	D	Tot.							
	A B	0	131	458	50	639							
Origin		140	0	175	27	342							
Oligili	С	571	319	0	60	950							
	D	50	17	20	0	87							
	Tot.	761	467	653	137	2018							

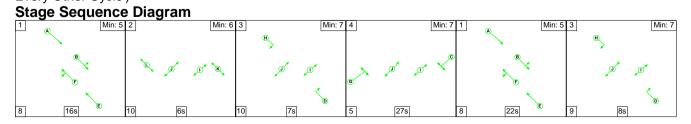
### **Traffic Lane Flows**

Traffic Lane Flows									
Lane	Scenario 2: Observed (2013) PM Peak								
Junction: Un	named Junction								
1/1 (with short)	631(In) 293(Out)								
1/2 (short)	338								
1/3	319								
2/1	296								
2/2	330								
3/1	342								
4/1	235								
4/2	418								
5/1	374								
5/2	424								
6/1	75								
6/2	392								
7/1	87								
8/1	279								
8/2 (with short)	360(In) 310(Out)								
8/3 (short)	50								
9/1	137								
10/1	312								
10/2	449								

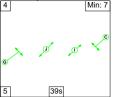
### **Lane Saturation Flows**

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Brookfield Road (Eastbound))	3.00	0.00	Υ	Arm 5 Ahead	Inf	100.0 %	1915	1915
1/2 (Brookfield Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
1/3 (Brookfield Road (Eastbound))	3.00	0.00	N	Arm 6 Right	15.00	100.0 %	1868	1868
2/1 (Brookfield Road (Westbound Internal))	3.00	0.00	Y	Arm 4 Ahead Arm 6 Left	Inf 15.00	50.0 % 50.0 %	1824	1824
2/2 (Brookfield Road (Westbound Internal))	3.00	0.00	N	Arm 4 Ahead	Inf	100.0 %	2055	2055
3/1	3.00	0.00	Y	Arm 4 Left	Inf	51.2 %	1915	1915
(Knoll Lane)			ŗ	Arm 5 Right	Inf	48.8 %	1915	
4/1		Infinite Saturation Flow						Inf
4/2		Infinite Saturation Flow						Inf
5/1	3.00	0.00		Arm 9 Left	10.00	23.3 %		
(Broofield Road (Eastbound Internal))			Y	Arm 10 Ahead	Inf	76.7 %	1850	1850
5/2 (Broofield Road (Eastbound Internal))	3.00	0.00	N	Arm 10 Ahead	Inf	100.0 %	2055	2055
6/1			Infinite S	aturation Flow			Inf	Inf
6/2			Infinite S	aturation Flow			Inf	Inf
7/1	3.00	0.00	Υ	Arm 2 Right	12.00	42.5 %	1702	1702
(Clockhouse)	3.00	0.00	ı	Arm 10 Left	12.00	57.5 %	1702	1702
8/1 (Brookfield Road (Westbound))	3.00	0.00	Υ	Arm 2 Ahead	Inf	100.0 %	1915	1915
8/2 (Brookfield Road (Westbound))	3.00	0.00	N	Arm 2 Ahead	Inf	100.0 %	2055	2055
8/3 (Brookfield Road (Westbound))	3.00	0.00	N	Arm 9 Right	12.00	100.0 %	1827	1827
9/1			Inf	Inf				
10/1			Inf	Inf				
10/2			Infinite S	aturation Flow			Inf	Inf

Scenario 1: 'Observed (2013) AM Peak' (FG3: 'Observed (2013) AM Peak - Clockhouse Assumption', Plan 1: 'Peds Every Other Cycle')



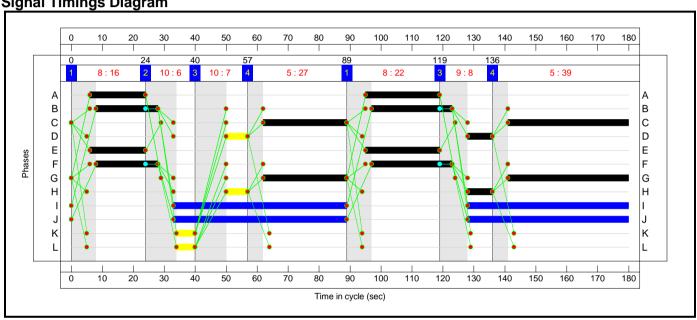
# Full Input Data And Results [4] Min: 7



**Stage Timings** 

Stage	1	2	3	4	1	3	4
Duration	16	6	7	27	22	8	39
Change Point	0	24	40	57	89	119	136





Full Input Data And Results

Network Layout Diagram

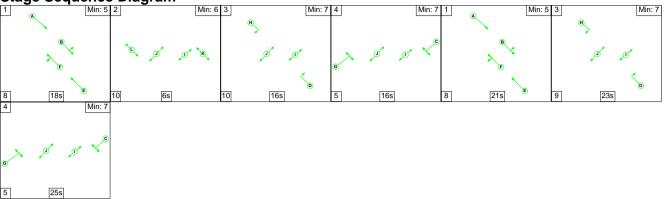
### **Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	72.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	72.7%
1/1+1/2	Brookfield Road (Eastbound) Ahead	U	N/A	N/A	А		2	42	-	441	1915:2055	950	46.4%
1/3	Brookfield Road (Eastbound) Right	U	N/A	N/A	Н		2	15	-	128	1868	176	72.6%
2/1	Brookfield Road (Westbound Internal) Ahead Left	U	N/A	N/A	F		2	46	-	334	1819	485	68.9%
2/2	Brookfield Road (Westbound Internal) Ahead	U	N/A	N/A	F		2	46	-	383	2055	548	69.9%
3/1	Knoll Lane Left Right	U	N/A	N/A	G		2	66	-	526	1915	723	72.7%
4/1		U	N/A	N/A	-		-	-	-	341	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	568	Inf	Inf	0.0%
5/1	Broofield Road (Eastbound Internal) Left Ahead	U	N/A	N/A	В		2	46	-	278	1878	501	55.5%
5/2	Broofield Road (Eastbound Internal) Ahead	U	N/A	N/A	В		2	46	-	320	2055	548	58.4%
6/1		U	N/A	N/A	-		-	-	-	89	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	216	Inf	Inf	0.0%
7/1	Clockhouse Right Left	U	N/A	N/A	С		2	66	-	137	1702	643	21.3%
8/1	Brookfield Road (Westbound) Ahead	U	N/A	N/A	E		2	42	-	304	1915	468	64.9%
8/2+8/3	Brookfield Road (Westbound) Ahead Right	U	N/A	N/A	E D		2	42:15	-	376	2055:1827	527	71.4%
9/1		U	N/A	N/A	-		-	-	-	87	Inf	Inf	0.0%

i uli iliput L	pata And Results			I	ı	1			1	1			
10/1		U	N/A	N/A	-		-	-	-	266	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	345	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	17.3	8.8	0.0	26.1	-	-	-	-
Unnamed Junction	-	-	0	0	0	17.3	8.8	0.0	26.1	-	-	-	-
1/1+1/2	441	441	-	-	-	3.5	0.4	-	4.0	32.5	5.0	0.4	5.5
1/3	128	128	-	-	-	1.4	1.3	-	2.7	75.8	3.5	1.3	4.8
2/1	334	334	-	-	-	0.3	1.1	-	1.4	15.3	0.9	1.1	2.0
2/2	383	383	-	-	-	0.5	1.1	-	1.7	15.8	1.8	1.1	2.9
3/1	526	526	-	-	-	3.5	1.3	-	4.9	33.2	12.3	1.3	13.6
4/1	341	341	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	568	568	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	278	278	-	-	-	0.6	0.6	-	1.2	15.4	2.1	0.6	2.7
5/2	320	320	-	-	-	0.7	0.7	-	1.4	15.7	2.9	0.7	3.6
6/1	89	89	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	216	216	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	137	137	-	-	-	0.7	0.1	-	0.9	22.7	2.5	0.1	2.6
8/1	304	304	-	-	-	2.6	0.9	-	3.5	41.4	7.0	0.9	7.9
8/2+8/3	376	376	-	-	-	3.3	1.2	-	4.5	43.5	7.8	1.2	9.1
9/1	87	87	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	266	266	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	345	345	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
	-	C1 PRC for Signalled Lanes (%): PRC Over All Lanes (%):			23.8 23.8		r Signalled Lanes ay Over All Lanes		Cycle Time (s): 180				

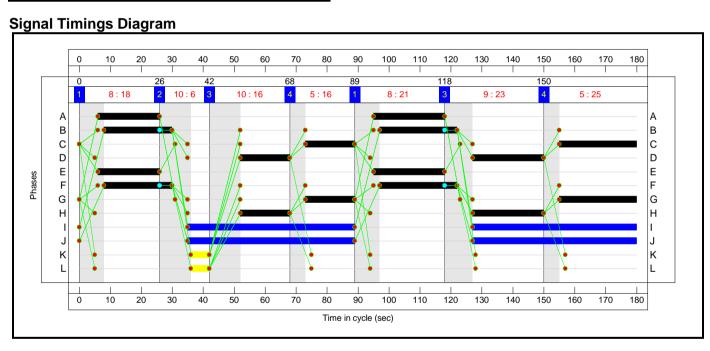
Scenario 2: 'Observed (2013) PM Peak' (FG4: 'Observed (2013) PM Peak - Clockhouse Assumption', Plan 1: 'Peds Every Other Cycle')

**Stage Sequence Diagram** 



**Stage Timings** 

Stage	1	2	3	4	1	3	4
Duration	18	6	16	16	21	23	25
Change Point	0	26	42	68	89	118	150



Full Input Data And Results

Network Layout Diagram

### **Network Results**

INCLWOIK	toounto												
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	75.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	75.8%
1/1+1/2	Brookfield Road (Eastbound) Ahead	U	N/A	N/A	А		2	43	-	631	1915:2055	959	65.8%
1/3	Brookfield Road (Eastbound) Right	U	N/A	N/A	Н		2	39	-	319	1868	425	75.0%
2/1	Brookfield Road (Westbound Internal) Ahead Left	U	N/A	N/A	F		2	47	-	296	1824	497	59.6%
2/2	Brookfield Road (Westbound Internal) Ahead	U	N/A	N/A	F		2	47	-	330	2055	559	59.0%
3/1	Knoll Lane Left Right	U	N/A	N/A	G		2	41	-	342	1915	457	74.8%
4/1		U	N/A	N/A	-		-	-	-	235	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	418	Inf	Inf	0.0%
5/1	Broofield Road (Eastbound Internal) Left Ahead	U	N/A	N/A	В		2	47	-	374	1850	504	74.3%
5/2	Broofield Road (Eastbound Internal) Ahead	U	N/A	N/A	В		2	47	-	424	2055	559	75.8%
6/1		U	N/A	N/A	-		-	-	-	75	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	392	Inf	Inf	0.0%
7/1	Clockhouse Right Left	U	N/A	N/A	С		2	41	-	87	1702	407	21.4%
8/1	Brookfield Road (Westbound) Ahead	U	N/A	N/A	E		2	43	-	279	1915	479	58.3%
8/2+8/3	Brookfield Road (Westbound) Ahead Right	U	N/A	N/A	E D		2	43:39	-	360	2055:1827	540	66.7%
9/1		U	N/A	N/A	-		-	-	-	137	Inf	Inf	0.0%
	I .	1	1	1	1	1	1	1	1		1	1	

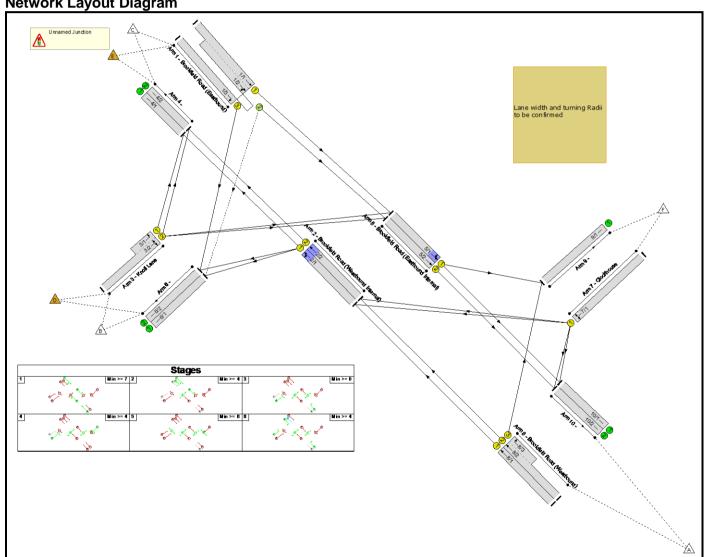
	Jata And Results												
10/1		U	N/A	N/A	-		-	-	-	312	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	449	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	18.7	10.1	0.0	28.7	-	-	-	-
Unnamed Junction	-	-	0	0	0	18.7	10.1	0.0	28.7	-	-	-	-
1/1+1/2	631	631	-	-	-	5.3	1.0	-	6.2	35.6	7.6	1.0	8.6
1/3	319	319	-	-	-	2.9	1.5	-	4.4	49.7	8.6	1.5	10.1
2/1	296	296	-	-	-	0.2	0.7	-	0.9	11.0	0.5	0.7	1.3
2/2	330	330	-	-	-	0.2	0.7	-	0.9	9.9	0.6	0.7	1.3
3/1	342	342	-	-	-	3.0	1.4	-	4.5	47.0	8.3	1.4	9.7
4/1	235	235	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	418	418	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	374	374	-	-	-	0.5	1.4	-	1.9	18.7	2.8	1.4	4.2
5/2	424	424	-	-	-	0.6	1.5	-	2.1	17.9	3.0	1.5	4.5
6/1	75	75	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	392	392	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	87	87	-	-	-	0.7	0.1	-	0.8	33.2	1.8	0.1	1.9
8/1	279	279	-	-	-	2.3	0.7	-	3.0	38.6	6.1	0.7	6.8
8/2+8/3	360	360	-	-	-	3.0	1.0	-	4.0	39.6	7.0	1.0	8.0
9/1	137	137	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	312	312	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	449	449	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
		C1		Signalled Lanes (%): Over All Lanes (%):	18.7 18.7		r Signalled Lanes lay Over All Lanes			e Time (s): 180			

# Full Input Data And Results Full Input Data And Results

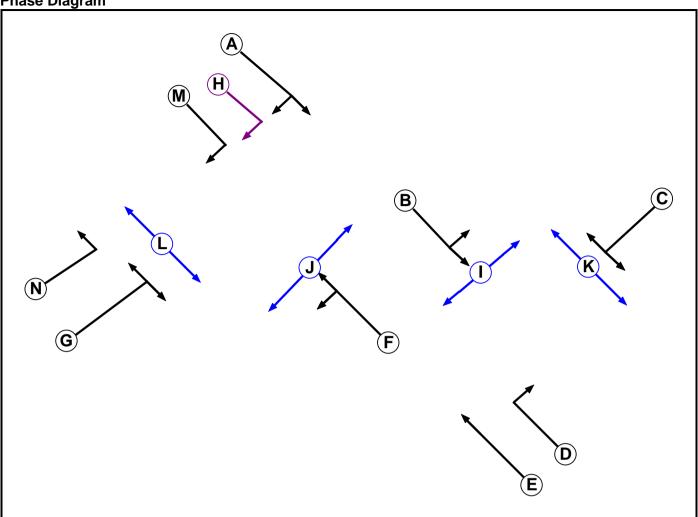
**User and Project Details** 

Project:	Chilmingdon Green
Title:	
Location:	
File name:	Proposed Junction (Bus Provision) 140110.lsg3x
Author:	
Company:	
Address:	
Notes:	

**Network Layout Diagram** 



Phase Diagram



**Phase Input Data** 

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
А	Traffic		7	7
В	Traffic		7	7
С	Traffic		7	7
D	Traffic		7	7
Е	Traffic		7	7
F	Traffic		7	7
G	Traffic		7	7
Н	Ind. Arrow	А	4	4
I	Pedestrian		6	6
J	Pedestrian		6	6
K	Pedestrian		6	6
L	Pedestrian		6	6
M	Traffic		7	7
N	Traffic		7	7

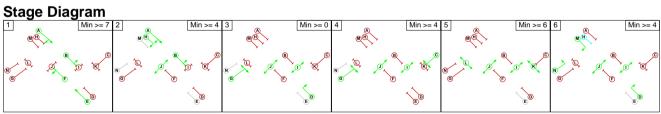
Phase Intergreens Matrix

Phase Inte	rgr	ee	ns i	viat	ΓIX										
						S	tartin	ıg Ph	nase						
		Α	В	С	D	Е	F	G	Н	I	J	K	L	М	N
	Α		-	-	-	-	-	5	-	-	-	-	-	•	-
	В	-		5	5	-	•	-	-	5	-	6	-	-	-
	С	-	6		5	6	-	-	-	-	-	5	-	-	-
	D	-	5	5		-	-	-	-	-	-	7	-	-	-
	Е	-	-	5	-		-	-	-	-	-	-	-		-
	F	-	-	-	-	-		5	5	-	5	-	6	5	5
Terminating Phase	G	6	-	-	-	-	6		5	-	-	-	5	5	-
	Н	-	-	-	-	-	5	5		-	-	-	7	-	-
	I	-	8	-	-	-	-	-	-		-	-	-	-	-
	J	-	-	-	-	-	8	-	-	-		-	-	-	-
	K	-	10	10	10	-	-	-	-	-	-		-	-	-
	L	-	-	-	-	-	13	13	13	-	-	-		13	13
	М	-	-	-	-	-	5	5	1	-	-	-	7		-
	N	-	-	-	-	-	5	-	-	-	-	-	5	-	

Phases in Stage

Stage No.	Phases in Stage
1	ABEF
2	АВНЈ
3	DGIJ
4	CGIJ
5	IJKL
6	DIJMN





**Phase Delays** 

Term. Stage	Start Stage	Phase	Туре	Value	Cont value
1	4	В	Losing	4	4
1	4	F	Losing	4	4
1	5	В	Losing	4	4
1	5	F	Losing	4	4
1	6	В	Losing	4	4
1	6	F	Losing	4	4
5	1	Α	Gaining absolute	5	5
6	1	Α	Gaining absolute	3	3

**Prohibited Stage Change** 

						<u> </u>								
		To Stage												
		1	2	3	4	5	6							
	1		5	5	9	10	9							
	2	8		5	5	7	5							
From Stage	3	8	X		5	7	5							
	4	8	X	5		5	5							
	5	13	13	13	13		13							
	6	8	X	5	5	7								

Full Input Data And Results
Give-Way Lane Input Data

Junction: Unnamed Junction												
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)	
1/2	6/1 (Dight)	1420	0	2/1	1.09	All	2.00	2.00	0.50	2	2.00	
(Brookfield Road (Eastbound))	6/1 (Right)	1439	U	2/2	1.09	All	3.00	3.00	0.50	3	2.00	

**Lane Input Data** 

ane Input Data Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Brookfield Road (Eastbound))	U	А	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
1/2 (Brookfield	0	АН	2	3	13.9	Geom	-	3.00	0.00	N	Arm 5 Ahead	Inf
Road (Eastbound))											Arm 6 Right	15.00
1/3 (Brookfield Road (Eastbound))	U	М	2	3	60.0	Geom	-	3.00	0.00	N	Arm 6 Right	15.00
2/1 (Brookfield Road	U	F	2	3	4.3	Geom	-	3.00	0.00	Y	Arm 4 Ahead	Inf
(Westbound Internal))											Arm 6 Left	15.00
2/2 (Brookfield Road (Westbound Internal))	U	F	2	3	4.3	Geom	-	3.00	0.00	N	Arm 4 Ahead	Inf
3/1 (Knoll Lane)	U	N	2	3	5.0	Geom	-	3.00	0.00	Y	Arm 4 Left	Inf
3/2	U	G	2	3	60.0	Geom		3.00	0.00	Y	Arm 4 Left	Inf
(Knoll Lane)	U	G	2	3	00.0	Geom	-	3.00	0.00	1	Arm 5 Right	Inf
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Brookfield Road (Eastbound Internal))	U	В	2	3	4.3	Geom	-	3.00	0.00	Y	Arm 9 Left Arm 10 Ahead	10.00 Inf
5/2 (Brookfield Road (Eastbound Internal))	U	В	2	3	4.3	Geom	-	3.00	0.00	N	Arm 10 Ahead	Inf
6/1	U		2	3	60.0	Inf	-	-	-	-	-	
6/2	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U	С	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 2 Right	12.00
(Clockhouse)			_		30.0	200111		5.50	3.00	•	Arm 10 Left	12.00
8/1 (Brookfield Road (Westbound))	U	E	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 2 Ahead	Inf

8/2 (Brookfield Road (Westbound))	U	E	2	3	60.0	Geom	-	3.00	0.00	N	Arm 2 Ahead	Inf
8/3 (Brookfield Road (Westbound))	U	D	2	3	6.1	Geom	-	3.00	0.00	N	Arm 9 Right	12.00
9/1	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1	U		2	3	60.0	Inf	-	-	-	-	-	-
10/2	U		2	3	60.0	Inf	-	-	-	-	-	-

**Traffic Flow Groups** 

Flow Group	Start Time	End Time	Duration	Formula
1: 'Observed (2013) AM Peak'	08:00	09:00	01:00	
2: 'Observed (2013) PM Peak'	17:00	18:00	01:00	
3: 'Observed (2013) AM Peak - Clockhouse Assumption'	08:00	09:00	01:00	
4: 'Observed (2013) PM Peak - Clockhouse Assumption'	17:00	18:00	01:00	

Scenario 1: 'Observed (2013) AM Peak' (FG3: 'Observed (2013) AM Peak - Clockhouse Assumption', Plan 1: 'Peds and Bus Every Other Cycle')
Traffic Flows, Desired

Desired Flow:

				Desti	nation			
		Α	В	С	D	Е	F	Tot.
	Α	0	150	480	0	0	50	680
	В	140	0	369	0	0	17	526
Origin	С	421	128	0	0	0	20	569
Origin	D	0	0	0	0	12	0	12
	Е	0	0	0	12	0	0	12
	F	50	27	60	0	0	0	137
	Tot.	611	305	909	12	12	87	1936

Traffic Land	e Flows
Lane	Scenario 1: Observed (2013) AM Peak
Junction: Un	named Junction
1/1 (with short)	569(In) 233(Out)
1/2 (short)	336
1/3	12
2/1	332
2/2	385
3/1 (short)	12
3/2 (with short)	538(In) 526(Out)
4/1	167
4/2	754
5/1	296
5/2	302
6/1	217
6/2	100
7/1	137
8/1	297
8/2 (with short)	383(In) 333(Out)
8/3 (short)	50
9/1	87
10/1	284
10/2	327

#### Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Brookfield Road (Eastbound))	3.00	0.00	Υ	Arm 5 Ahead	Inf	100.0 %	1915	1915
1/2	3.00	0.00	N	Arm 5 Ahead	Inf	61.9 %	1980	1980
(Brookfield Road (Eastbound))	3.00	0.00	IN .	Arm 6 Right	15.00	38.1 %	1900	1900
1/3 (Brookfield Road (Eastbound))	3.00	0.00	N	Arm 6 Right	15.00	100.0 %	1868	1868
2/1 (Brookfield Road (Westbound	3.00	0.00	Y	Arm 4 Ahead	Inf	46.7 %	1818	1818
Internal))	3.00	0.00	•	Arm 6 Left	15.00	53.3 %	1010	1010
2/2 (Brookfield Road (Westbound Internal))	3.00	0.00	N	Arm 4 Ahead	Inf	100.0 %	2055	2055
3/1 (Knoll Lane)	3.00	0.00	Υ	Arm 4 Left	Inf	100.0 %	1915	1915
3/2	2.00	0.00	Υ	Arm 4 Left	Inf	70.2 %	1015	1015
(Knoll Lane)	3.00	0.00	Y	Arm 5 Right	Inf	29.8 %	1915	1915
4/1			Infinite S	aturation Flow			Inf	Inf
4/2			Infinite S	aturation Flow			Inf	Inf
5/1				Arm 9 Left	10.00	12.5 %		
(Brookfield Road (Eastbound Internal))	3.00	0.00	Y	Arm 10 Ahead	Inf	87.5 %	1880	1880
5/2 (Brookfield Road (Eastbound Internal))	3.00	0.00	N	Arm 10 Ahead	Inf	100.0 %	2055	2055
6/1			Infinite S	aturation Flow			Inf	Inf
6/2			Infinite S	aturation Flow	ı		Inf	Inf
7/1	3.00	0.00	Y	Arm 2 Right	12.00	63.5 %	1702	1702
(Clockhouse)	0.00	0.00		Arm 10 Left	12.00	36.5 %	1702	1702
8/1 (Brookfield Road (Westbound))	3.00	0.00	Υ	Arm 2 Ahead	Inf	100.0 %	1915	1915
8/2 (Brookfield Road (Westbound))	3.00	0.00	N	Arm 2 Ahead	Inf	100.0 %	2055	2055
8/3 (Brookfield Road (Westbound))	3.00 0.00 N Arm 9 Right 12.00 100.0 %						1827	1827
9/1				Inf	Inf			
10/1			Infinite S	aturation Flow			Inf	Inf
10/2			Infinite S	aturation Flow			Inf	Inf

Scenario 2: 'Observed (2013) PM Peak' (FG4: 'Observed (2013) PM Peak - Clockhouse Assumption', Plan 1: 'Peds and Bus Every Other Cycle')
Traffic Flows, Desired

Desired Flow:

	Destination													
		Α	В	С	D	Е	F	Tot.						
	Α	0	131	458	0	0	50	639						
	В	140	0	175	0	0	27	342						
Origin	С	571	319	0	0	0	60	950						
Origin	D	0	0	0	0	12	0	12						
	E	0	0	0	12	0	0	12						
	F	50	17	20	0	0	0	87						
	Tot.	761	467	653	12	12	137	2042						

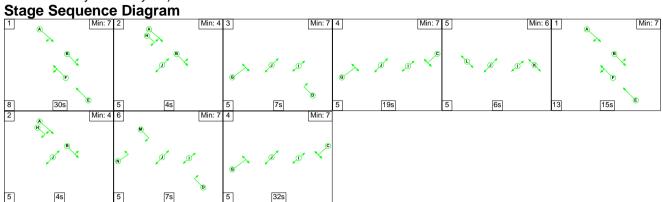
#### Traffic Lane Flows

Traffic Lane Flows											
Lane	Scenario 2: Observed (2013) PM Peak										
Junction: Un	named Junction										
1/1 (with short)	950(In) 511(Out)										
1/2 (short)	439										
1/3	12										
2/1	289										
2/2	337										
3/1 (short)	12										
3/2 (with short)	354(In) 342(Out)										
4/1	153										
4/2	512										
5/1	552										
5/2	246										
6/1	394										
6/2	85										
7/1	87										
8/1	270										
8/2 (with short)	369(In) 319(Out)										
8/3 (short)	50										
9/1	137										
10/1	490										
10/2	271										

#### Lane Saturation Flows

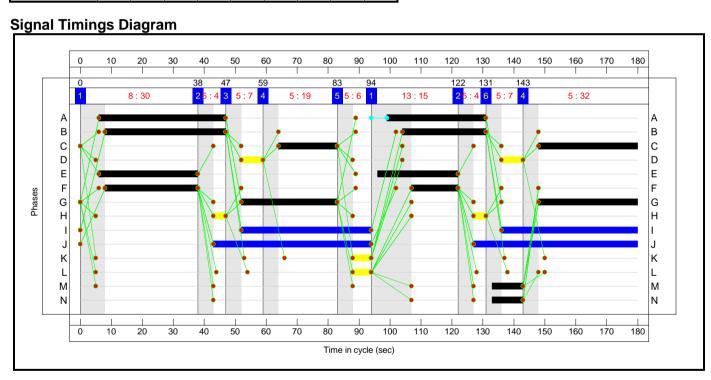
Lane Saturation Flows												
Junction: Unnamed Junction												
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)				
1/1 (Brookfield Road (Eastbound))	3.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1915	1915				
1/2	3.00	0.00	N	Arm 5 Ahead	Inf	27.3 %	1916	1916				
(Brookfield Road (Eastbound))	3.00	0.00	IN	Arm 6 Right	15.00	72.7 %	1910	1910				
1/3 (Brookfield Road (Eastbound))	3.00	0.00 N		Arm 6 Right	15.00	100.0 %	1868	1868				
2/1 (Brookfield Road (Westbound	3.00	0.00	Y	Arm 4 Ahead	Inf	48.8 %	1822	1822				
Internal))	3.00	0.00	T	Arm 6 Left	15.00	51.2 %	1022	1022				
2/2 (Brookfield Road (Westbound Internal))	3.00	0.00	N	Arm 4 Ahead	Inf	100.0 %	2055	2055				
3/1 (Knoll Lane)	3.00	0.00	Y	Arm 4 Left	Inf	100.0 %	1915	1915				
3/2	2.00	0.00	Y	Arm 4 Left	Inf	51.2 %	1015	1015				
(Knoll Lane)	3.00	0.00	Y	Arm 5 Right	Inf	48.8 %	1915	1915				
4/1			Infinite S	aturation Flow			Inf	Inf				
4/2			Inf	Inf								
5/1		0.00		Arm 9 Left	10.00	15.8 %						
(Brookfield Road (Eastbound Internal))	3.00	0.00	Y	Arm 10 Ahead	Inf	84.2 %	1871	1871				
5/2 (Brookfield Road (Eastbound Internal))	3.00	0.00	N	Arm 10 Ahead	Inf	100.0 %	2055	2055				
6/1			Infinite S	aturation Flow			Inf	Inf				
6/2			Infinite S	aturation Flow			Inf	Inf				
7/1	3.00	0.00	Y	Arm 2 Right	12.00	42.5 %	1702	1702				
(Clockhouse)	0.00	0.00	•	Arm 10 Left	12.00	57.5 %						
8/1 (Brookfield Road (Westbound))	3.00	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1915	1915				
8/2 (Brookfield Road (Westbound))	3.00	0.00	N	Arm 2 Ahead	Inf	100.0 %	2055	2055				
8/3 (Brookfield Road (Westbound))	3.00 0.00 N Arm 9 Right 12.00 100.0 %						1827	1827				
9/1			Infinite S	aturation Flow			Inf	Inf				
10/1	Infinite Saturation Flow							Inf				
10/2	aturation Flow			Inf	Inf							

Scenario 1: 'Observed (2013) AM Peak' (FG3: 'Observed (2013) AM Peak - Clockhouse Assumption', Plan 1: 'Peds and Bus Every Other Cycle')



**Stage Timings** 

Stage	1	2	3	4	5	1	2	6	4
Duration	30	4	7	19	6	15	4	7	32
Change Point	0	38	47	59	83	94	122	131	143



Full Input Data And Results

Network Layout Diagram

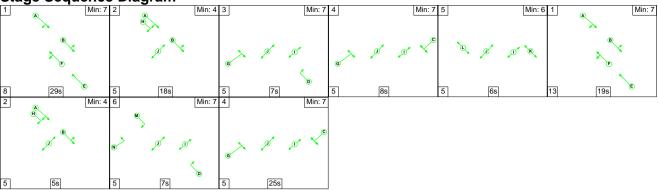
### **Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	76.4%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	76.4%
1/1+1/2	Brookfield Road (Eastbound) Ahead Right	U+O	N/A	N/A	A	Н	2	73	8	569	1915:1980	1034	55.0%
1/3	Brookfield Road (Eastbound) Right	U	N/A	N/A	М		1	10	-	12	1868	114	10.5%
2/1	Brookfield Road (Westbound Internal) Ahead Left	U	N/A	N/A	F		2	45	-	332	1818	475	69.9%
2/2	Brookfield Road (Westbound Internal) Ahead	U	N/A	N/A	F		2	45	-	385	2055	537	71.8%
3/2+3/1	Knoll Lane Left Right	U	N/A	N/A	G N		2:1	63:10	-	538	1915:1915	705	76.4%
4/1		U	N/A	N/A	-		-	-	-	167	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	754	Inf	Inf	0.0%
5/1	Brookfield Road (Eastbound Internal) Left Ahead	U	N/A	N/A	В		2	66	-	296	1880	710	41.7%
5/2	Brookfield Road (Eastbound Internal) Ahead	U	N/A	N/A	В		2	66	-	302	2055	776	38.9%
6/1		U	N/A	N/A	-		-	-	-	217	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	100	Inf	Inf	0.0%
7/1	Clockhouse Right Left	U	N/A	N/A	С		2	51	-	137	1702	501	27.3%
8/1	Brookfield Road (Westbound) Ahead	U	N/A	N/A	E		2	58	-	297	1915	638	46.5%
8/2+8/3	Brookfield Road (Westbound) Ahead Right	U	N/A	N/A	E D		2	58:14	-	383	2055:1827	706	54.3%
9/1		U	N/A	N/A	-		-	-	-	87	Inf	Inf	0.0%

Full Input L	Data And Results								ı	1			
10/1		U	N/A	N/A	-		-	-	-	284	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	327	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	52	71	4	16.7	6.5	0.4	23.6	-	-	-	-
Unnamed Junction	-	-	52	71	4	16.7	6.5	0.4	23.6	-	-	-	-
1/1+1/2	569	569	52	71	4	2.9	0.6	0.4	3.9	24.6	6.1	0.6	6.7
1/3	12	12	-	-	-	0.3	0.1	-	0.3	97.5	0.6	0.1	0.6
2/1	332	332	-	-	-	0.9	1.1	-	2.0	22.1	7.7	1.1	8.8
2/2	385	385	-	-	-	1.1	1.2	-	2.4	22.2	8.9	1.2	10.1
3/2+3/1	538	538	-	-	-	4.1	1.6	-	5.7	38.0	13.0	1.6	14.6
4/1	167	167	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	754	754	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	296	296	-	-	-	0.8	0.4	-	1.2	14.0	5.5	0.4	5.9
5/2	302	302	-	-	-	1.0	0.3	-	1.3	15.7	4.7	0.3	5.0
6/1	217	217	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	100	100	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	137	137	-	-	-	0.9	0.2	-	1.1	29.3	2.6	0.2	2.8
8/1	297	297	-	-	-	2.0	0.4	-	2.4	29.0	6.1	0.4	6.5
8/2+8/3	383	383	-	-	-	2.8	0.6	-	3.3	31.4	7.1	0.6	7.7
9/1	87	87	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	284	284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	327	327	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
		C1	PRC for S	Signalled Lanes (%): Over All Lanes (%):	17.9 17.9		r Signalled Lanes ay Over All Lanes		3 Cycle	e Time (s): 180	-		

Scenario 2: 'Observed (2013) PM Peak' (FG4: 'Observed (2013) PM Peak - Clockhouse Assumption', Plan 1: 'Peds and Bus Every Other Cycle')

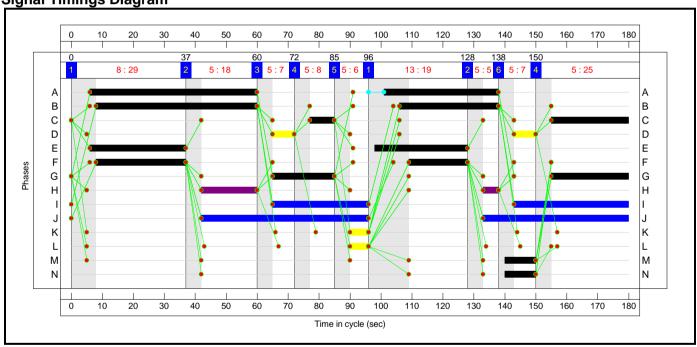
**Stage Sequence Diagram** 



**Stage Timings** 

Stage	1	2	3	4	5	1	2	6	4
Duration	29	18	7	8	6	19	5	7	25
Change Point	0	37	60	72	85	96	128	138	150





Full Input Data And Results

Network Layout Diagram

### **Network Results**

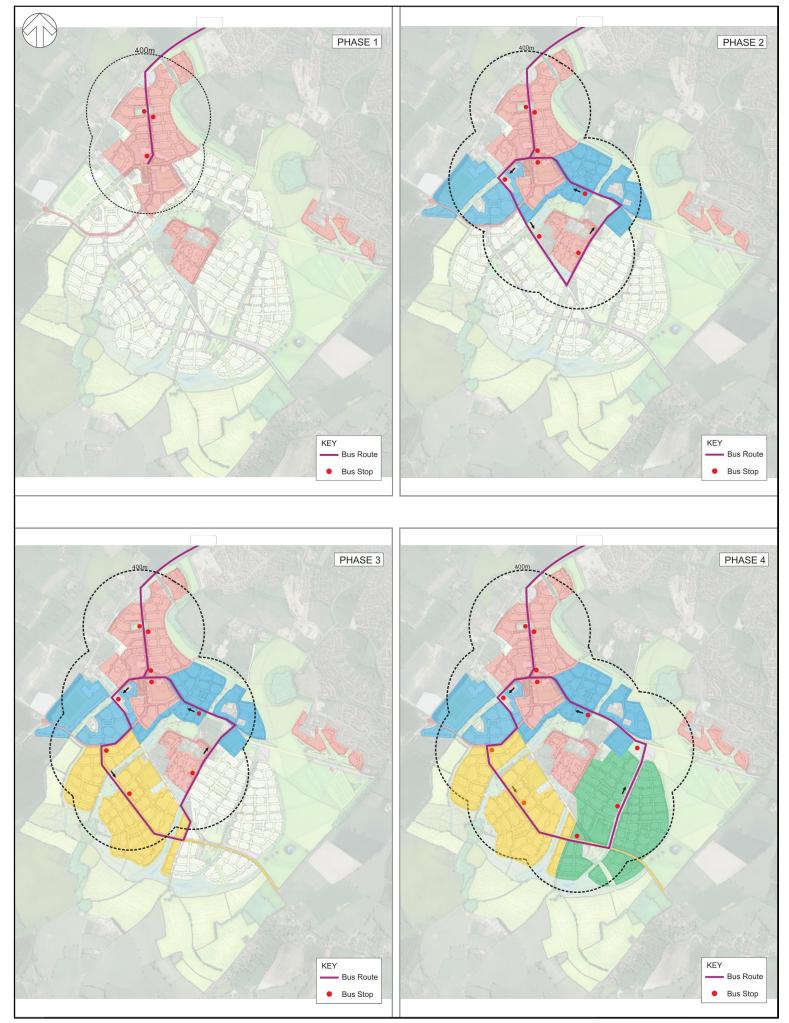
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	68.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	68.7%
1/1+1/2	Brookfield Road (Eastbound) Ahead Right	U+O	N/A	N/A	А	Н	2	91	23	950	1915:1916	1384	68.6%
1/3	Brookfield Road (Eastbound) Right	U	N/A	N/A	М		1	10	-	12	1868	114	10.5%
2/1	Brookfield Road (Westbound Internal) Ahead Left	U	N/A	N/A	F		2	48	-	289	1822	506	57.1%
2/2	Brookfield Road (Westbound Internal) Ahead	U	N/A	N/A	F		2	48	-	337	2055	571	59.0%
3/2+3/1	Knoll Lane Left Right	U	N/A	N/A	G N		2:1	45:10	-	354	1915:1915	516	68.7%
4/1		U	N/A	N/A	-		-	-	-	153	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	512	Inf	Inf	0.0%
5/1	Brookfield Road (Eastbound Internal) Left Ahead	U	N/A	N/A	В		2	84	-	552	1871	894	61.8%
5/2	Brookfield Road (Eastbound Internal) Ahead	U	N/A	N/A	В		2	84	-	246	2055	982	25.1%
6/1		U	N/A	N/A	-		-	-	-	394	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	85	Inf	Inf	0.0%
7/1	Clockhouse Right Left	U	N/A	N/A	С		2	33	-	87	1702	331	26.3%
8/1	Brookfield Road (Westbound) Ahead	U	N/A	N/A	E		2	61	-	270	1915	670	40.3%
8/2+8/3	Brookfield Road (Westbound) Ahead Right	U	N/A	N/A	E D		2	61:14	-	369	2055:1827	741	49.8%
9/1		U	N/A	N/A	-		-	-	-	137	Inf	Inf	0.0%

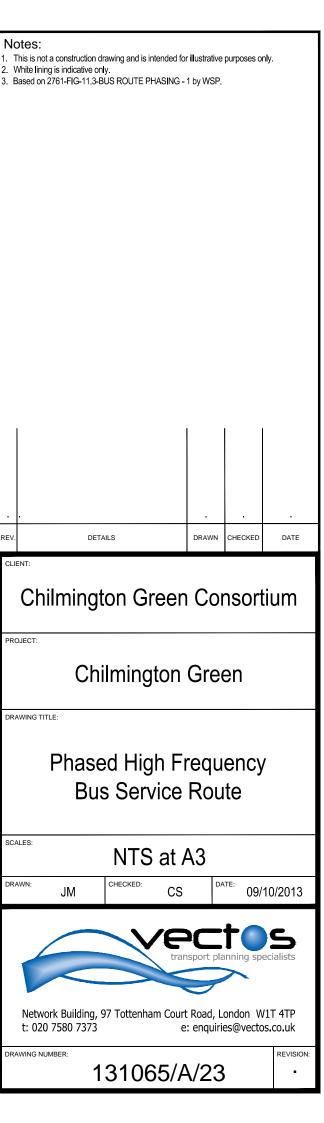
·	Data And Results									1			
10/1		U	N/A	N/A	-		-	-	-	490	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	271	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	87	217	14	15.8	5.6	0.8	22.2	-	-	-	-
Unnamed Junction	-	-	87	217	14	15.8	5.6	0.8	22.2	-	-	-	-
1/1+1/2	950	950	87	217	14	4.2	1.1	0.8	6.1	23.2	10.4	1.1	11.5
1/3	12	12	-	-	-	0.3	0.1	-	0.3	97.5	0.6	0.1	0.6
2/1	289	289	-	-	-	0.6	0.7	-	1.3	16.2	6.7	0.7	7.4
2/2	337	337	-	-	-	0.7	0.7	-	1.4	15.3	7.9	0.7	8.6
3/2+3/1	354	354	-	-	-	3.2	1.1	-	4.2	43.1	8.0	1.1	9.1
4/1	153	153	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	512	512	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	552	552	-	-	-	0.8	0.8	-	1.7	10.8	10.0	0.8	10.8
5/2	246	246	-	-	-	1.0	0.2	-	1.2	17.1	3.8	0.2	4.0
6/1	394	394	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	85	85	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	87	87	-	-	-	0.7	0.2	-	0.9	38.2	1.9	0.2	2.1
8/1	270	270	-	-	-	1.7	0.3	-	2.0	26.6	5.2	0.3	5.5
8/2+8/3	369	369	-	-	-	2.5	0.5	-	3.0	29.6	6.4	0.5	6.9
9/1	137	137	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	490	490	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	271	271	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
		C1		Signalled Lanes (%): Over All Lanes (%):	31.1 31.1		r Signalled Lanes ay Over All Lanes			Time (s): 180			

# **APPENDIX P**

**Bus Stop Locations** 







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# **APPENDIX Q**

**Travel Plans** 



# **Chilmington Green, Ashford**

# **Umbrella Travel Plan**

Hodson Developments, Malcolm Jarvis Homes, Pentland Homes & Ward Homes

January 2013



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#### 1 INTRODUCTION

- 1.1 Vectos has been commissioned by Hodson Developments, Malcolm Jarvis Homes,
  Pentland Homes and Ward Homes (The Consortium) to update the existing Umbrella
  Travel Plan produced by WSP in 2012. This Umbrella Travel Plan has been updated by
  Vectos following stakeholder comments raised by Kent County Council, Ashford
  Borough Council and the Highways Agency. The Umbrella Travel Plan in support of the
  development proposals for up to 5,750 dwellings, provision of new school facilities,
  employment and various community facilities on land at Chilmington Green, Ashford.
- 1.2 Also provided over the course of the four phases will be public open space, associated access and junction improvements and other associated works. These are identified in the accompanying Transport Assessment (TA).

#### APPROACH TO TRAVEL PLANNING

- 1.3 This Umbrella Travel Plan provides an overarching summary of the aims, measures, approach to management and implementation, and targets for Travel Planning for this development proposal.
- As this is a large, mixed-use development, each land use has had its own respective

  Travel Plan prepared to provide greater detail on the approach to delivering Travel

  Planning measures. These individual Travel Plans are appended to this Umbrella Travel

  Plan document, and a short summary of each is provided below.
- 1.5 The management and delivery of these Travel Plans will be overseen by the appointment of a site-wide Travel Plan Coordinator (TPC), who will undertake these duties through to the completion of the development and monitoring period beyond. Chapter 6 provides further details of the Travel Plan Coordinator and their responsibilities. An Umbrella Travel Plan Steering Group will be set up by the TPC to help co-ordinate a joined-up approach to site-wide travel planning across the mix of land uses. Key local stakeholders, including TPC's from other local developments will be encouraged to join.
- 1.6 The figures referred to in each of the Travel Plans are contained solely within this Umbrella Travel Plan and are as follows:



- Figure TP 1.1 Site Location Plan
- Figure TP 4.1 Local Highway Network
- Figure TP 4.2 Pedestrian and Cycle Network
- Figure TP 4.3 Public Transport Network
- Figure TP 4.4 Existing Pedestrian Accessibility
- Figure TP 4.5 Existing Cycle Accessibility
- Figure TP 4.6 Existing Public Transport Accessibility
- Figure TP 4.7Residential Development Density
- Figure TP 5.1 Proposed Development Pedestrian and Cycle Routes
- Figure TP 5.2 Chilmington Green Development Pedestrian Accessibility
- Figure TP 5.3 Chilmington Green Development Cycle Accessibility
- Figure TP 5.4 High Frequency Bus Service Route
- Figure TP 5.5 Chilmington Green Development Local PT Accessibility
- Figure TP 5.6 Chilmington Green Development PT Accessibility to Kent
- Figure TP 9.1 Proposed Permanent ATC Locations
- Figure TP 9.2 Existing Bus Route Plan

## APPENDIX A – RESIDENTIAL TRAVEL PLAN

- 1.7 A Residential Travel Plan (RTP) has been prepared to complement the proposals set out within the accompanying Transport Assessment Report and Public Transport Strategy in the interests of promoting sustainable development and reducing the reliance on private car-based forms of transport.
- 1.8 This detailed Travel Plan is included as 'Appendix A' to this Umbrella Travel Plan document.
- 1.9 This plan focuses primarily on how residents of the development can be encouraged to use sustainable means of transport to and from the site for all journey purposes.

## APPENDIX B - WORKPLACE TRAVEL PLAN

1.10 A Workplace Travel Plan (WTP) has been prepared to complement the proposals set out within the accompanying Transport Assessment Report and Public Transport Strategy in



the interests of reducing private car-based forms of transport for commuting and business travel at the non-residential components of the development.

- 1.11 This detailed Travel Plan is included as 'Appendix B' to this Umbrella Travel Plan document.
- 1.12 This plan focuses primarily on how employees who will be based at the development can be encouraged to use sustainable means of transport to and from the site.

#### APPENDIX C – SCHOOL TRAVEL PLAN FRAMEWORK

- 1.13 A School Travel Plan Framework (STP) has also been prepared.
- 1.14 This framework provides guidance which is to be used to assist each of the schools within the development to develop their own School Travel Plan. The school's individual plans will focus primarily on how pupils and staff based at the development can be encouraged to use sustainable means of transport to travel safely to and from the area's schools.
- 1.15 It is proposed that four new primary schools and a secondary school will be constructed as part of the development. It is anticipated in the accompanying Transport Assessment Report that these education facilities will absorb virtually all the education trips generated by the development, giving a high level of internalisation. This framework will guide schools in creating appropriate School Travel Plans in preparation for their opening.
- 1.16 The framework will guide and inform five School Travel Plans:
  - The TP for the four new primary schools; and
  - The TP for the new secondary school.
- 1.17 The School Travel Plan Framework is included as 'Appendix C' to this Umbrella Travel Plan document.

## **BENEFITS OF SITE-WIDE APPROACH**

1.18 The site wide Chilmington Green Travel Plan brings together different land uses in a joined up approach the benefit of this are:



- Ensuring each land use is working towards a common goal;
  - Site-Wide aim
  - Objectives
  - End of phase targets.
- Coordination of measures between land uses;
- Coordinated approach to monitoring;
- Coordinated approach to consultation with KCC/ ABC and other key stakeholders.



## 2 POLICY AND GUIDANCE REVIEW

### Introduction

2.1 The sustainability of new development has become of paramount importance and a significant amount of guidance has been produced on promoting lower carbon transport options such as walking, cycling and public transport, whilst advocating a reduction of the use of the private car. This section outlines the national and local policy context and best practice guidance under which this Umbrella Travel Plan has been prepared.

### **NATIONAL POLICY GUIDANCE**

## CREATING GROWTH, CUTTING CARBON: MAKING SUSTAINABLE LOCAL TRANSPORT HAPPEN (DFT WHITE PAPER, 2011)

- 2.2 The Government's Transport White Paper entitled 'Creating growth, cutting carbon:

  Making sustainable local transport happen' sets out the Government's vision for a
  sustainable local transport system that supports the economy and reduces carbon
  emissions.
- 2.3 The Transport White Paper states that action taken locally is best placed to support economic growth and deliver near term reduction in transport-related carbon emissions. This can be achieved by providing people with options to choose sustainable modes for everyday local transport choices to, for example, help boost economic growth by facilitating access to local jobs.
- 2.4 Travel Plans are noted as being a key means for promoting travel choices to a wide audience and encouraging a change in travel behaviour towards greater use of sustainable modes of travel.

## **DELIVERING A SUSTAINABLE TRANSPORT SYSTEM (DFT, 2008)**

- 2.5 This publication outlines Government's five goals for transport, focusing on the challenge of delivering strong economic growth while at the same time reducing greenhouse gas emissions.
- 2.6 These five overarching goals are:



- To support national economic competitiveness and growth, by delivering reliable and efficient transport networks
- To reduce transport's emissions of carbon dioxide and other greenhouse gases,
   with the desired outcome of tackling climate change.
- To contribute to better safety security and health and longer life-expectancy by reducing the risk of death, injury or illness arising from transport and by promoting travel modes that are beneficial to health
- To promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society;
- To improve quality of life for transport users and non-transport users, and to promote a healthy natural environment.
- 2.7 Travel Plans provide an opportunity to support these goals by highlighting and promoting the availability of low carbon transport options to residents and visitors, thereby reducing carbon emissions associated with low journeys.

## NATIONAL PLANNING POLICY FRAMEWORK, DCLG, (2012)

- 2.8 Adopted on 27 March 2012, the National Planning Policy Framework (NPPF) seeks to reduce the complexity and improve the accessibility of the planning system, whilst protecting the environment and encouraging growth in a sustainable manner.
- 2.9 This Travel Plan shows how the proposed development accords with
- 2.10 Paragraph 29 of the NPPF which details transport as having:
  - "... an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives."
- 2.11 Travel Plans are noted in Paragraph 36 of NPPF as an important mechanism to facilitate measures to increase sustainability.
- As encouraged in the NPPF, the proposed development at Chilmington Green has been planned in such a way that gives people a "real choice" regarding their mode of travel.

  Its density and proximity to local facilities ensures that sustainable modes can be considered a favourable option for local trips.



- 2.13 Pedestrian and cycle movements are afforded priority on the internal network of the proposed development, which also limits the opportunity for conflict between nonmotorised users and vehicles, ensuring safety and accessibility is afforded in line with the NPPF.
- 2.14 Paragraph 29 of the NPPF notes that more efficient use of technology can contribute to a reduction in the requirement to travel. As suggested in paragraph 42 of the NPPF, communications and broadband technologies can enhance the provision for communities. This Travel Plan suggests measures which utilise technology to encourage smarter travel choices.

## GOOD PRACTICE GUIDELINES: DELIVERING TRAVEL PLANS THROUGH THE PLANNING SYSTEM – DEPARTMENT FOR TRANSPORT (2009)

- 2.15 This document defines a travel plan as:
  - A long-term management strategy for an occupier or site that seeks to deliver sustainable transport objectives through positive action and is articulated in a document that is regularly reviewed.
- 2.16 The purpose of reviewing the document is to ensure that it remains relevant and effective.
- 2.17 Travel Plans are important for new developments in order to:
  - Promote sustainable travel and help to reduce single occupancy car use;
  - Encourage effective use of current transport networks;
  - Support increased choice of travel modes;
  - Promote and achieve access by sustainable modes;
    - Respond to growing concern about the environment, congestion, pollution and poverty of access; and
    - Promote a partnership between the authority and the developer in creating and shaping 'place'.



## **MAKING SMARTER CHOICES WORK – DEPARTMENT FOR TRANSPORT (2005)**

- 2.18 Published subsequent to the Transport White Paper, the Department for Transport (DfT) report 'Making Smarter Choices Work' signals continued government support for a range of measures aimed at raising awareness of alternative modes of travel to private car use, and actively encouraging the use of a wider range of travel modes amongst individuals.
- 2.19 These measures include Travel Plans, travel awareness campaigns, car sharing initiatives, and individualised travel marketing. Contemporary transport policy now recognises the impact that such measures can have in encouraging a shift in modal choice, particularly when accompanied by demand management restraints on single-occupancy car use.

### A SAFER JOURNEY TO SCHOOL: A GUIDE TO SCHOOL TRAVEL PLANS

- 2.20 The Safer Journey To School is the recommended guidance by the Department for Education, and is available free of charge from Prolog.
- 2.21 Links to the policy and best practice information approved by DfT in regards to School Travel Plans is now located on the Department for Education website.
- 2.22 The Safer Journey to School guide suggests that a good School Travel Plan should include the following:
  - A brief description of the location, size and type of school;
  - A brief description of the transport/travel problems faced by the school/cluster of schools, and should include all the pupils travel needs:
    - Journeys to and from School at normal start/finish times;
    - Journeys to attend pre and after school events; and
    - Journeys made during the school day to attend activities at other locations.
  - The results of a survey to identify:
    - How children currently travel to/from school; and
    - How they would like to travel to/from school.



- Clearly defined the aims of the Travel Plan, set out targets and objectives;
- Details of proposed measures;
- A detailed timetable for implementation;
- Local partners who can help the school take the plan forward with clearly defined responsibilities;
- Evidence that all interested parties have been consulted; and
- The funding plans what the costs are and possible sources of funds
- Proposals for monitoring and review.
- 2.23 During the creation of the Travel Plans for the three new schools, the site-wide TPC will discuss these areas with each school for inclusion within each school's plan.

### **KEY LOCAL GUIDANCE**

### **LOCAL TRANSPORT PLAN FOR KENT 2011 – 2016 LTP3**

- 2.24 Through Kent's third Local Transport Plan (LTP3), KCC actively promotes alternatives to car based travel as part of its work to improve the safety, sustainability and efficiency of the highway network. In particular, this includes working with the county's school, businesses and developers to develop travel plans.
- 2.25 The implementation plan for A Safer and Healthier County specifically looks to the delivery of school travel plans in helping to deliver its Sustainable Travel to School Strategy. KCC is working with health colleagues to ensure that all schools are engaged in the Governments Healthy Schools campaign.
- 2.26 Also of relevance to development at Chilmington Green is the implementation plan for Tackling a Changing Climate. In particular, the following themes;
  - New Development to ensure that associated transport infrastructure embraces sustainability. Locating development near existing transport hubs and providing facilities for walking, cycling and public transport.
  - Smarter Travel KCC is exploring ways of encouraging journeys by more efficient modes of transport and reducing the distance travelled. Through the promotion of car sharing and encouraging the use of public transport, walking and cycling,



- capacity can be released on the transport network which will allow more people to reach their destination on time.
- Walking increasing the number of people choosing to walk instead of drive, is one of the key outcomes needed if the UK is to achieve the carbon reduction target required by the Climate Change Act 2008. Walking networks must be inclusive, considering the quality of the walking environment, its suitability for all types of pedestrians, personal safety and security, signage and information, and the directness of the route. It is important to ensure that the principles of inclusive design are enshrined in the planning and delivery of all new developments, which should be fully accessible to all.
- Cycling cycle routes should be continuous and direct. Therefore, priority will be
  given to providing a comprehensive network that enables people to cycle
  continuously to schools, work places, shops and leisure opportunities.
- Buses continued partnership working to deliver modal shift from car to bus and reducing overall emissions.
- WTP & Smarter Choices KCC will continue to provide support to developers in fulfilling their obligations. In particular, This includes implementing the iTRACE Travel Plan survey tool and facilitating links with service providers, including public transport operators and car club/car share networks.

# GUIDANCE ON TRANSPORT ASSESSMENTS AND TRAVEL PLANS, KENT COUNTY COUNCIL (OCTOBER 2008)

- 2.27 The purpose of this document is to assist both Officers and intending Developers by clarifying when a transport assessment and or travel plan will need to be submitted alongside a Planning Application in Kent and how this will be evaluated, monitored and enforced.
- 2.28 The Travel Plan will take the form of a package of sustainable transport and demand management measures tailored to the needs of an individual site. The Travel Plan is aimed at promoting sustainable transport options to the site and reducing car dependence and single car occupancy. A Travel Plan will grow and develop in time in accordance with changing circumstances.
- 2.29 2A Travel Plan will need to include:



- A clear statement of targets and objectives;
- An assessment of existing transport infrastructure and facilities at the site;
- An assessment of the travel needs that are or will be generated by the site;
- A programme of appropriate measures which will improve accessibility and promote sustainable travel options;
- A programme for implementation of the plan, giving details of the dates by which
  the various measures will be put in place, of who will be responsible for the various
  actions and of how funding will be provided;
- A firm commitment to implement the measures identified in the Travel Plan, to monitor its success and to modify or develop the Plan in the future if this is necessary to achieve its targets; and
- A commitment to support the Planning Authority in seeking further district wide improvements in sustainability in the future.

## 2.30 The Travel Plan measures proposed in the document may include:

- Provision of on-site infrastructure and facilities (for example, convenient cycle parking, bus stops and a carshare scheme);
- Commitment to sustainable policies and working patterns (such as parking restraint, local recruitment, public transport - friendly shift patterns and sustainable fleet management); and
- Assistance with or contributions to off-site infrastructure and services (such as pedestrian crossing points, cycle routes, supported bus services).

## 2.31 They must always include:

- The appointment of an individual to act as Travel Plan Co-ordinator, who must have the full support of management and will be responsible for the implementation of the Travel Plan;
- A firm commitment to achieving the targets of the Travel Plan; and
- Clear proposals for monitoring and reviewing the Travel Plan over time.



## NEW WAYS 2 WORK - BEST PRACTICE GUIDE FOR PREPARING TRAVEL PLANS IN KENT, KENT COUNTY COUNCIL

- 2.32 This document is the second edition of News Ways 2 Work, initially published in 2003.

  This current version acknowledges the greater importance of Travel Plans as a tool to tackle congestion and climate change. The guide has been designed to provide practical advice and support to help raise awareness and to assist organisations make their own decisions on how best to take forward their travel plan activities. This guide will be closely followed in the preparation of travel plans for Chilmington Green.
- 2.33 Furthermore, the guide details how KCC has recently introduced iTRACE. iTRACE is an innovative Travel Plan software package which includes site audit questionnaires and staff travel surveys designed to monitor and report on the performance of workplace travel plans. All new travel plans in Kent are required to use iTRACE.

## **KENT'S SUSTAINABLE TRAVEL TO SCHOOL STRATEGY (SEPTEMBER 2010)**

2.34 This Sustainable Travel to School Strategy forms the strategy for assessing schools and colleges in Kent. The strategy identifies school travel and transport trends in addition to travel issues affecting young people. Included within the strategy is School Travel Plan (STP) suggested measures.

## **SUMMARY**

- 2.35 The purpose of this chapter has been to present the key elements of a national and local policy framework that will be supported by the introduction of Residential, Workplace and School Travel Plans at the development at Chilmington Green.
- 2.36 National, regional and local policies emphasise the need to reduce the amount of trips undertaken by private car for all journey purposes. They encourage developments to provide the opportunity for residents, employees and school children to travel on foot, by bicycle or by public transport for everyday trips.
- 2.37 Travel Planning at this development will directly contribute to both national and local planning and transport policy objectives for promoting a full range of transport options at new developments. This will actively contribute towards delivering sustainable



communities and improving people's accessibility to local services and amenities by non-car forms of transport.

December 2013



## 3 TRAVEL PLAN AIMS AND OBJECTIVES

### Introduction

3.1 As has been shown in the policy review in Chapter 2, delivering sustainable development and travel patterns is an important objective of both national and local planning and transport policy. This can be achieved by introducing positive measures to encouraging residents, employees, school children and teachers to use more low carbon, healthy travel options, such as walking, cycling, local bus services and car sharing.

#### **UMBRELLA TRAVEL PLAN AIM**

- 3.2 The overarching aim of this Umbrella Travel Plan is to provide a tool for the provision of appropriate measures to encourage residents, employees, those attending educational establishments, and visitors of the development to use healthier, lower carbon transport options.
- 3.3 This will contribute to a greener, more sustainable development, providing added benefits to the wider community.

#### TRAVEL PLAN OBJECTIVES

- 3.4 The objectives of this Umbrella Travel Plan are;
  - To support the development of land at Chilmington Green as a sustainable community;
  - 2. To facilitate and encourage the use of lower carbon transport options in preference to the use of the private car, particularly for local journeys;
  - 3. To promote awareness of the Travel Plan aim;
  - 4. To promote a lifestyle to residents, employees, school children and visitors which includes healthy, low carbon living;



- To encourage a greater use of sustainable transport initiatives amongst all site
  users and encourage sustainable travel behaviour, including walking and cycling;
  and
- Continually develop, implement, monitor, evaluate and review the progress of the Travel Plan towards achieving the targets.
- 3.5 The above objectives will be achieved by introducing a package of measures that focus on promoting access to the site by sustainable modes of transport as an alternative to the private car. This will encourage users of the development to consider healthier, lower carbon travel alternatives in everyday trips as opposed to single occupancy car travel.
- 3.6 The Travel Plans for individual land uses will feed into the aim presented in this chapter, but also include objectives specific to the land use.



## 4 ACCESSIBILITY AND DEVELOPMENT PROPOSALS

## **Existing Situation**

- 4.1 The current access to facilities from Chilmington Green via sustainable modes ranges from poor to acceptable. This is primarily because the area currently has minimal development and therefore does not create a substantial demand for facilities.

  Therefore the facilities that will be used by existing residents have been established in order to serve other communities such as those in Singleton and Stanhope to the south of Ashford.
- 4.2 Ashford currently has a very well developed provision of pedestrian and cycle routes, and the proposed development will integrate seamlessly with these, ensuring that the new community is able to access existing facilities with ease.
- 4.3 The proposed development will provide a wide range of facilities for retail, education, employment and medical requirements. In the majority of cases, accessing a facility within Chilmington Green will be the most attractive option for residents.

## **DEVELOPMENT PROPOSALS**

- 4.4 The proposals at Chilmington Green are for a mixed use development. Residential properties will comprise the focus of the development, however there will be significant supporting infrastructure which will sustain Chilmington Green itself and also complement Ashford's position as a regional growth point.
- 4.5 The outline application is for a comprehensive Mixed Use Development comprising:
  - Up to 5,750 residential units, in a mix of sizes, types and tenures;
  - Up to 10,000m<sup>2</sup> gross floorspace of Class B1 use;
  - Up to 9,000m<sup>2</sup> gross floorspace of Class A1 to A5 uses:
  - Education (including a secondary school of up to 8ha, and up to four primary schools of up to 2.1ha each);
  - Community uses (class D1) up to 5,000m² gross floorspace;
  - Leisure uses (class D2) up to 5,000m<sup>2</sup> gross floorspace;
  - Provision of local recycling facilities;



- Provision of areas of formal and informal open space;
- Installation of appropriate utilities infrastructure as requires to serve the
  development, including flood attenuation works, SUDS, water supply and
  wastewater infrastructure, gas supply, electricity supply (including substations),
  telecommunications infrastructure and renewable energy infrastructure;
- Transport infrastructure, including provision of three accesses on to the A28, an
  access on to Coulter Road, other connection on to the local road network, a Park
  and Ride with a maximum of 600 parking spaces and a network of internal roads,
  footpaths and cycle routes;
- New planting and landscaping, both within the Proposed Development and on its boundaries, and ecological enhancement works; and
- Associated groundworks.
- 4.6 Appearance, landscaping, layout and scale are reserved for future approval. Access is also reserved for future approval with the exception of the three accesses on to the A28 and the access on to Coulter Road.
- 4.7 The proposals at Chilmington Green afford future residents, employees and visitors the opportunity to access all the facilities that Chilmington Green has to offer using sustainable modes. Travel to and from the development and to places outside of Ashford is significantly enhanced by the proposed high frequency bus service.
- 4.8 Each of the Travel Plans will help to promote and enhance opportunities for sustainable travel to Residents, employees, staff and pupils of the Chilmington Green development.



## 5 PROMOTING SUSTAINABLE TRAVEL

### Introduction

- 5.1 Having outlined the aim and objectives of the Umbrella Travel Plan there are potentially a wide range of different measures that can be implemented to meet them.
- 5.2 Individual Travel Plans for the residential, workplace, and school elements of the development have been prepared and these are included within the appendices to this report. These individual Travel Plans provide more detail about the specific measures, and the reasons for their introduction at this development.
- 5.3 Therefore, this chapter outlines in summary a range of measures that will be implemented through each of the individual Travel Plans. The measures presented are anticipated to be relevant to the scale of development and have the greatest potential for encouraging the use of sustainable transport modes amongst residents, employees and those attending one of the schools to be located on the development.
- This chapter provides a summary of the main measures to be implemented at the development for the promotion of sustainable travel patterns. Further details are provided within each individual Travel Plan in the appendices. These measures are summarised under the following headings:
  - Providing travel information and raising awareness
  - Promoting the use of public transport
  - Promoting walking and cycling
  - Promoting more efficient car travel
  - Adopting smarter working practices

### PROVIDING TRAVEL INFORMATION AND RAISING AWARENESS

## **Residential Sales Staff Training**

5.5 Training will be provided to all sales staff that will be responsible for meeting with prospective residents at the new development. The training will focus on ensuring all staff are familiar with the objectives of the RTP and are able to communicate to a prospective buyer the sustainable travel opportunities available. Staff training will be



repeated by the Travel Plan Coordinator to reflect staff turnover or to keep staff up to date with any changes to the Travel Plan.

- 5.6 This will help to promote the sustainable characteristics of the site to prospective buyers and help to ensure that all new residents of the development are aware that sustainable travel information will be available to them, including prior to occupation.
- 5.7 Sales and marketing literature aimed at prospective buyers of homes will highlight the sustainable nature of the development in terms of its location and connectivity to the surrounding local area.

#### **Sustainable Travel Information Packs**

5.8 Upon occupation of the development, residents and employees will receive a 'Sustainable Travel Information Pack'. Through the information provided in the welcome pack, residents and employees of the development will be in a better position to make informed choices about how they choose to travel to and from the development.

### **Personalised Journey Planning**

- 5.9 Personalised Journey Planning will be offered to all residents of Chilmington Green, initially through an advisory leaflet and followed by face to face 'home visits' at periodic phases as the development builds out.
- Initially an advisory leaflet will be provided in the Travel Information Pack to explain to new residents the available sustainable transport options advocated in the Chilmington Green Travel Plan and that if they wish, they may fill in the response slip enclosed with the leaflet which will be returned to the Travel Plan Coordinator directly to identify the residents specific travel needs. The Travel Plan Coordinator will then use this information to prepare a 'Personal Journey Plan' for that resident free of charge. Additionally the Sustainable Travel Website for the development will provide an electronic version of the return slip which will be submitted directly to the TPC, residents will be advised of this alternative means of submitting a journey planning request through the Travel Information Pack.
- 5.11 Secondly face to face 'home visits' will be organised by the Travel Plan Coordinator on a yearly basis to discuss with each homeowner their travel requirements and provide



suitable solutions. The TPC will then use this information to prepare a 'Personal Journey Plan' for that resident free of charge. The TPC will then carry out a second home visit to talk to each resident briefly about their pack, and to answer any immediate questions or concerns raised by the resident.

#### **Sustainable Travel Information Website**

- 5.12 A dedicated sustainable travel website for the development will be created that will focus on providing appropriate, up-to-date information on sustainable travel options for accessing the development site. This will include detail relating to the employment and educational components of the site.
- 5.13 The website will serve as a 'one-stop-shop' for the dissemination of site-wide sustainable travel information to residents, employees, school pupils and staff, as well as acting as a source of information for visitors. When and if an Ashford-wide sustainable travel website is developed, it would be beneficial for the TPC to work with the developers to share information and ensure a link is provided to the Chilmington Green travel website. This will ensure that visitors to the development from elsewhere in the wider locality can easily gain an understanding of the sustainable travel options available to them for accessing the site.
- The website will also provide links to other websites such as kentjourneyshare,Traveline and Transport Direct so as to encourage residents to plan their journeys using sustainable transport.
- The Consortium will ensure that the site is provided with high-speed broadband access.

  This will enable all homes to gain access to high quality broadband to assist with sustainable initiatives such as working from home, home shopping, finding travel information and car-sharing information.

## **Green Travel Initiatives**

5.16 National green travel initiatives such as 'Walk to School' week will be promoted by employers and schools at the development. Participating in these initiatives will illustrate the effect and therefore very real benefits that can be achieved from swapping the car for an alternative mode of travel, if only for one day per week.



## Community Consultation with Relevant Parties and Umbrella Travel Plan Steering Group

- 5.17 The continued engagement of employers, parents, the local community, the Police and Kent County Council will be essential in ensuring the progress and momentum of each school's Travel Plan. Furthermore, it will be possible to gauge changes in attitudes towards the Travel Plan and sustainable travel which will assist in determining the effectiveness of the Travel Plan.
- 5.18 The site wide Travel Plan Coordinator (see Chapter 5) will be responsible for maintaining an excellent level of communication on travel planning matters with these stakeholders.
- To further support the progress and success of site-wide travel planning at Chilmington Green, the TPC will set up and coordinate an Umbrella Travel Plan Steering Group. The key stakeholders, mentioned above plus representatives for all on-site travel planning (resident representatives, Workplace TPCs and School TPCs) will be invited to join the Steering Group. TPCs from other developments in the area will also be invited to join. This will provide an excellent Forum for information sharing, providing feedback and for ensuring a site-wide and area-wide joined up approach to delivering the Chilmington Green Travel Plan.
- 5.20 The TPC will manage and administer the Steering Group, which could meet quarterly and whose remit will be:
  - To provide comment and feedback to the TPC on travel planning across the land uses at Chilmington Green – both positive and negative;
  - To review monitoring reports and provide feedback; and
  - For area-wide stakeholders to provide updates on area-wide travel planning initiatives.

## PROMOTING THE USE OF PUBLIC TRANSPORT

#### **Enhanced Public Transport Services**

A high quality, frequent and direct bus service to Ashford Town Centre is to be provided.

It is proposed that the bus service is bespoke to Chilmington Green rather than an extension of an existing bus service. The service will operate every 10 minutes and



provide a direct and attractive link between Chilmington Green, Ashford Town Centre and Ashford International Rail Station (for high speed rail services to London).

5.22 High Quality Bus Shelters are also planned around the Chilmington Green site. It is proposed that these shelters would include Real Time Passenger Information (RTPI) screens which show passengers when the next bus is due.

#### **Bus/Rail Service Information**

5.23 Details of public transport services serving the development area will be publicised to all residents, employees, and schools. This will include route, fares and timetable information. This information will be disseminated directly to via a range of media including posters, sustainable travel information packs and via the travel information website for the development.

### **Branded Marketing Campaign**

The buses used for the new bus route will be branded and specific to the new route, allowing residents to easily identify the buses that travel through the site to Ashford Centre. To highlight this further to residents, branded leaflets and timetables will be included in welcome packs to all new residents. Additionally any changes to the new bus service such as frequency or changes to routing of service will be advertised to residents with a leaflet drop and through the development website.

#### **Trial Travel Vouchers for Residents**

- 5.25 Residents of the development will be offered an Ashford Megarider ticket which allows for one month's free travel on local bus services operating via Chilmington Green, with the cost of £40 being met by the developers. To be eligible for this, residents will be required to complete and return a form provided by the site management company. These forms will be included within the travel information pack, with a letter explaining the scheme and detailing which tickets they can claim.
- 5.26 When carrying out the Personal Journey Planning exercise the TPC will offer one day tickets (£3.20) to residents that have a journey planned for them that will make use of the ticket, to further encourage them to try the planned journey.



### PROMOTING WALKING AND CYCLING

## **Developing Local Walking and Cycling Network**

5.27 The design of the site will adopt a Manual for Streets approach where pedestrians are considered first at the top of a user hierarchy to ensure that their needs are met early on in the design process. Walkable neighbourhoods will ensure that a range of facilities can be reached easily and safely on foot, and by bicycle, to help reduce the reliance on the private car for shorter trips.

### **Site Specific Walking and Cycling Maps**

- 5.28 To demonstrate to residents and employees how local facilities and services can be reached on foot, or by bicycle, site-specific walking and cycling maps will be produced by the Travel Plan Coordinator and distributed along with the travel information packs to all residents and employers.
- These maps will be produced with the development as the central points of focus, with all key local facilities and services clearly illustrated within time bands showing average walking and cycling journey times. This will demonstrate how accessible these destinations are within a given travel time, and will therefore support the uptake of walking and cycling for short journeys from the development.
- 5.30 The maps will also include the location of public cycle parking within the development and at key local destinations. Cycle parking will be provided on-site for all land uses by the developer, in accordance with ABC's cycle parking guidelines.

### **Secure Cycle Parking**

- 5.31 All employment facilities, schools, shops and community facilities at the development will be provided with high quality secure cycle parking facilities close to the main access to the building.
- 5.32 This will ensure that individual companies will be able to benefit from secure and covered cycle parking for their employees to use.
- 5.33 Cycle parking for all land uses at Chilmington Green will be provided in accordance with KCC cycle parking guidelines, as detailed within the adjoining Transport Assessment.



## **Bicycle User Group (BUG)**

- 5.34 A Bicycle User Group (BUG) will be established for the development. This group will comprise of employees and local residents who are interested in taking forward initiatives to promote and facilitate cycling in and around the development. The BUG will provide a forum for sharing information on cycle routes, cycling best practice, and to address any issues of concern regarding cycling or cycle safety.
- 5.35 The BUG will also enable less experienced cyclists to interact with established cyclists and obtain information, guidance and potentially a 'cycling buddy' to accompany them on their journey to or from the development. Through the BUG, a 'Bike Doctor' can be organised on a regular basis to service resident's and employee's bicycles and provide advice on cycle maintenance.

### **Cycle Discounts**

5.36 Details of local cycle shops will be publicised on the travel information website and discussions will be held with these shops to endeavour to secure discounts for residents and employees on cycle purchase and repair. It is anticipated that such a discount may be secured given the sizable number of residents and employees and the BUG will provide an ideal platform for taking this forward. Regardless of this discount being secured, which would come direct from the retailer, each household will be provided with a £50 cycle voucher to redeem against cycle purchase or repair. One voucher will be offered per household and this can be requested via the information provided within the Welcome Pack.

## **School Cycle Proficiency Training**

5.37 Provision of cycling and road safety training under the Bikeability scheme would provide school pupils with the knowledge and skills necessary to ride with confidence, both on the road and on dedicated cycleways. A number of trainers certified to provide Bikeability training are located in Bedfordshire.

### **Snap Bands for Pupils**

5.38 The provision of a reflective snap band to all school staff and pupils upon occupation of the schools is designed to encourage them to think about walking or cycling more often.



In the case of pupils, their parents may be more inclined to let their children walk or cycle if they are reassured about their visibility.

## **Walking Buses**

- 5.39 Walking buses are increasingly being used as a safe and healthy way for children to get to school. A walking bus follows the same route to school each day, picking children up on the way. Specially trained parents or assistants stand at the front and back of the 'bus' to ensure the safety of all children, with both adults and children wearing reflective tabards to ensure high visibility.
- 5.40 Walking Buses are highlighted within Kent's County Council's Sustainable Modes of Transport Strategy as a good success within Kent and Medway due to the unique partnership with KM walk to School Team. The charity works with the school and volunteers to arrange for publicity and a launch of the walking bus. KCC are responsible for risk assessments of the route and providing basic road safety advice to volunteers. The risk assessment and monitoring process is ongoing by KCC to ensure that the schemes operate correctly. KCC, as the Education Authority are responsible for ensuring the adequate public liability insurance and that personal (CRB) checks are undertaken for all volunteers.
- 5.41 Walking bus schemes rely heavily on volunteers, they are not always sustainable in the long term. It is recommended that the individual schools make the decision when choosing appropriate schemes, having regard to the resources available to them. The site-wide TPC will provide support to the schools in this decision making process.
- 5.42 If a Walking Bus is not something that would be appropriate to implement, the schools, with support from the site-wide TPC, will be encouraged to consider alternative measures such as:
  - Walking Incentive Schemes (The Walking Bug- an initiative to link walking to school and the curriculum, or Walk on Wednesday); and
  - Pedestrian Training



## **School Crossing Patrol**

- 5.43 Whilst the site infrastructure will be designed with pedestrians safety and ease of movement considered first, the use of School Crossing Patrollers to help children cross roads will be helpful in reassuring parents of younger children of the safety of the child walking to school as they will be supervised at crossings.
- 5.44 The site-wide TPC will help the individual schools to identify if this measure is appropriate to them. It may be that feedback from parents shows that they would be happier to let their child walk to school if such a measure was in place.

#### PROMOTING MORE EFFICIENT CAR USE

## **Promoting Car Sharing**

- 5.45 To ensure the most efficient use of cars that do travel to and from the site, residents will be encouraged to car share wherever possible. This will help to reduce the overall number of car journeys being made in the first instance, whilst encouraging a pattern of more efficient car use amongst residents.
- 5.46 Car sharing schemes encourage individuals to share private vehicles for particular journeys. Car sharing can be both formal and informal. Informal car sharing operates between individuals and neighbours and formal car sharing is defined by a more elaborate approach to trip matching, often focussed on the commuting journey.
- 5.47 Information about existing local car sharing groups will be disseminated to residents through letter drops, sustainable travel information packs and notice boards. There are two such groups that incorporate the Ashford area; kentjourneyshare.com and Kentcarshare. As detailed in Chapter 4, these organisations can be joined for free, or for a small fee, and help users match journeys with like-minded people, and subsequently help to reduce the costs of travelling alone by car.
- 5.48 In addition to this a car sharing database will be set up for Chilmington Green which residents will be encouraged to sign up to. This is expected to become more popular as the development builds out and more residents join. A promotional event will be held at Chilmington Green organised by the Travel Plan Coordinator to boost the uptake of car sharing within the community.



### **Car Clubs**

The Travel Plan Coordinator will undertake a feasibility study prior to first occupation of the site to determine the suitability for a dedicated car club. A car club offers members the use of a car, for a yearly membership fee, so that members have access to the use of a car without any of the cost and hassle of owning it themselves. An existing car club operator, such as City Car Club, will be approached to manage the scheme. If it is deemed that this site provides the right characteristics to support a car club, the developer will provide the first year's membership to the club free of charge (one membership per dwelling). The Travel Plan Coordinator will also undertake an assessment to determine the viability of this scheme on an area wide basis i.e. to incorporate other residential developments nearby as developments progress.

## **Electric Vehicle Charging Points**

- 5.50 The technology behind electric vehicles is at a point where they now provide a much better range and level of performance than early incarnations. From being produced by specialist companies they have now moved to mass production by the world's major manufacturers, with fully electric cars having been released by Nissan, Peugeot, and Renault in 2011 and other companies are expected to following in the next few years.
- By providing a number of secure charging points located at various points around the development, those who feel that they need a vehicle may be encouraged to choose an electric car. This offers a social benefit of zero harmful emissions from the vehicle. There are personal benefits for the owner of the vehicle as it will be exempt from road tax and the London Congestion Charge. From January 2011, the government has been offering a grant of 25 per cent of the cost of the car, up to a maximum of £5,000. This level has been agreed until 2015, when the level of the grant will be reviewed. A new grant of up to £8,000 towards the purchase of electric vans was released in January 2012.
- 5.52 With the installation of charging points at community and retail centres, Chilmington Green would be at the forefront of the promotion of zero emission vehicle use, particularly as there aren't currently any charging points in the Ashford area.
- 5.53 Prior to development completion and occupation, the Consortium will review the benefits and viability of introducing some electric charging points for vehicles at key



points within the development, such as at community and retail centres. This will serve as an added incentive for local residents to consider electric vehicles, thereby reducing vehicle emissions, as they will have opportunity to charge the vehicles at their end destination.

5.54 Electric Vehicle charging points can be retrofitted so additional bays can be introduced if monitoring and feedback shows an increasing level or demand.

## **Car Parking Management**

5.55 The Travel Plan Coordinator will work with residents and individual occupiers to help manage the demand for car parking across the development and ensure no inappropriate overspill car parking occurs.

### **SUMMARY**

- 5.56 This chapter has summarised some of the key measures that will collectively be delivered through the Residential, Workplace and School Travel Plans at the Chilmington Green development.
- 5.57 They will collectively support the delivery of a sustainable community by targeting the promotion of sustainable travel options to all users of the development.



## 6 MANAGEMENT AND IMPLEMENTATION

## **Umbrella Travel Plan Management Structure**

6.1 The Consortium will retain overall responsibility for ensuring the implementation of the Residential, Workplace, and School Travel Plans, and will ensure that they are reviewed and amended as necessary. The intended management structure for this process is shown below in Figure 6.1.

Site Management
Company

Steering Group
Reservation

Company

Steering Group
Reservation

Companies

Wide

Steering Group

Reservation

Companies

- Wartplace TPC's

Steering Group

TCC

Figure 6.1 Umbrella Travel Plan Management Structure

- A Travel Plan Coordinator will be appointed to ensure the overall implementation of the Travel Plans. The TPC will either be directly appointed by The Consortium or Site Management Company. Regardless of the method, the TPC will oversee the day to day running of the Travel Plan activities and administration of the Plan.
- 6.3 The TPC will be appointed prior to recruitment of site sales staff. This will ensure that the TPC has sufficient time to plan training, prepare materials for welcome packs and liaise with local stakeholders. Prior to occupation, the Travel Plan Coordinator will be responsible for training sales staff to promote the Travel Plan from the outset, establishing contacts within the local community i.e. bus operators and cycle shop owners, and ensuring the timely implementation of identified measures.



- 6.4 The Travel Plan Coordinator is primarily responsible for the implementation of the RTP, but their remit will extend site-wide to provide guidance, support and advice to the employment and educational components of the site.
- 6.5 The role of this coordinator will include:
  - Acting as a point of contact for queries for residents, employers and school representatives;
  - Ensuring that all travel information and data disseminated is accurate and up to date;
  - The ongoing monitoring of the Travel Plan;
  - Assist in the decision making process with the site management on which measures
     will be best to implement and in association with Kent County Council;
  - Management and administration of the Umbrella Travel Plan Steering Group;
  - Updating the Travel Plan documents as necessary and liaising with KCC; and
  - Details of the nominated Travel Plan Coordinator will be established prior to occupation of the site and provided to KCC.
- 6.6 The TPC will be funded by the Consortium through development build out to five years beyond completion.



## 7 TARGETS AND MONITORING

## **Travel Plan Targets**

- 7.1 To help guide the progress of the Travel Plans, each contains specific targets that will be reviewed by the appointed Travel Plan Coordinator on an annual basis. These targets are divided amongst those relating to delivering outputs and those related to achieving outcomes.
  - Output targets These targets relate to the implementation of the measures to be introduced as part of the Travel Plan. They will help to ensure that The Consortium remains on course with the delivery of the different measures contained within this Travel Plan.
  - Outcome targets These targets relate to the effect of implementing the Travel
     Planning measures, and will include, for example, reducing the overall proportion
     of journeys (all journeys) being undertaken from the development by car.
- The individual Travel Plans should be viewed for specific information on targets. Once baseline travel surveys have been undertaken the TPC, in consultation with KCC, will finalise the single-occupancy car journey reduction targets to be achieved by the end of Phases 1, 2, and 3 in seeking towards achieving the agreed Phase 4 site wide mode share targets (detailed in Table 7.1 below) by development completion (to be achieved by completion of all residential units). The percentage annual reduction will be derived using empirical evidence from the travel survey and an understanding of the site design and Sustainability Strategy. The final targets will be agreed with KCC / ABC, but are unlikely to be largely dissimilar to the proposed targets detailed within the individual travel plans.
- 7.3 The site-wide end of Phase 4 mode share targets (to be achieved by completion of all residential units) that each of the land uses will work towards is detailed in Table 7.1 below.



Table 7.1 End of phase mode share targets

Mode	Site wide target		
Car (car driver and passenger) Bus Train Walk	53% 20% 10% 11%		
		Cycle	5%
		Other (motorcycle, taxis etc)	1%
		TOTAL	100%

7.4 Establishing targets following the baseline travel surveys will ensure that SMART (site specific, measurable, achievable, realistic and timed), targets are set that accurately reflect of-the-moment travel and transport characteristics.

## TRAVEL PLAN MONITORING

- 7.5 Development at Chilmington Green is expected to commence in 2014 and the baseline surveys will be undertaken 1 year following this (2015). The first annual surveys will be undertaken in the following year (2016) and every other year following this and to coincide with the end of each development Phase. The proposed development build out and target years for the end of each Phase is likely to change between the submission of the this travel plan and building commencing on site. This Umbrella Travel Plan and each subsequent land use specific plan will be updated to reflect any changes.
- Annual monitoring in the form of travel surveys, manual classified and automatic traffic counts (ATC) are intended to be undertaken to incorporate each of the land uses within the development until five years after development completion. Details relating to residential, employment and school travel surveys are provided in the respective appendices. The intention is to have permanent pedestrian/ cycle loops (location yet to be determined) and permanent ATCs. However, given that some of the roads in Chilmington Green will be 'through routes' permanent ATCs may not provide a robust indication of development site traffic, therefore further consideration on the location of and best method to monitor the Travel Plan will be undertaken prior to implementation of the Travel Plan.

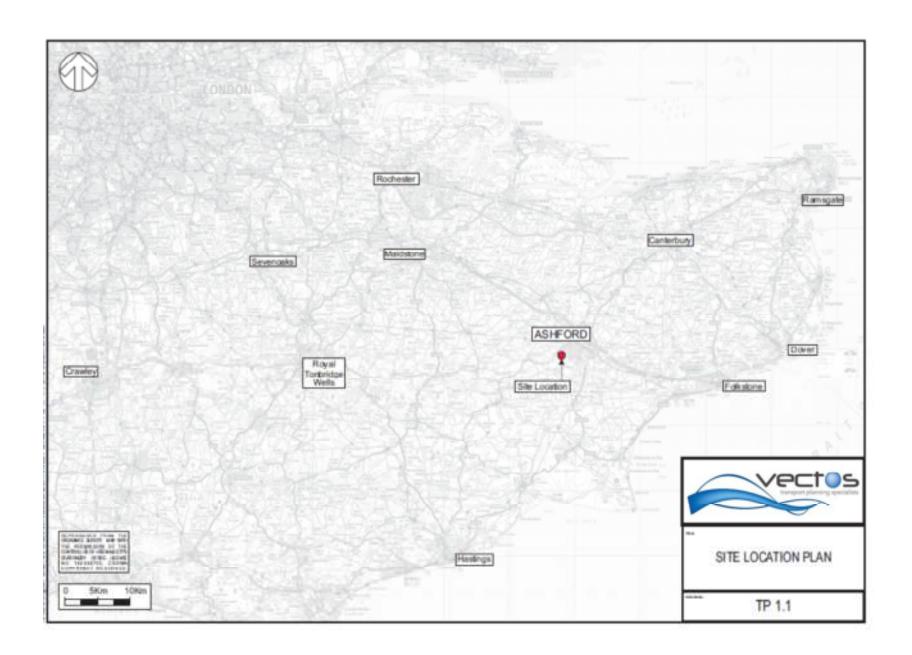


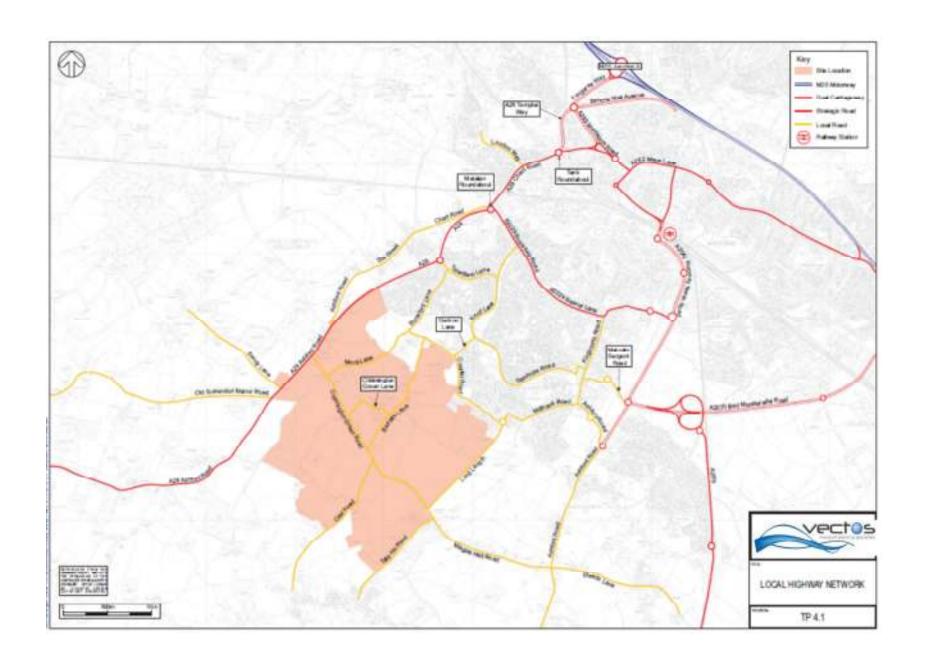
- 7.7 The objective of the monitoring process is to measure the progress of the Travel Plan against the respective targets. If progress against the target is not being demonstrated, the introduction of additional recovery measures will be undertaken to help meet the target
- 7.8 The individual Travel Plans should be viewed for specific information on targets.

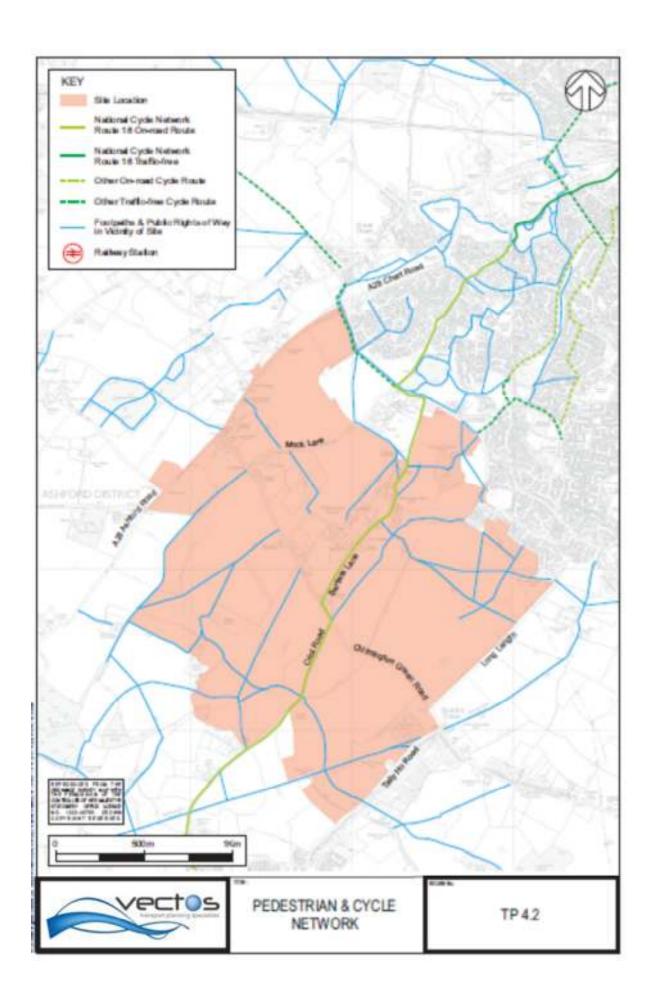
### TRAVEL PLAN FUNDING

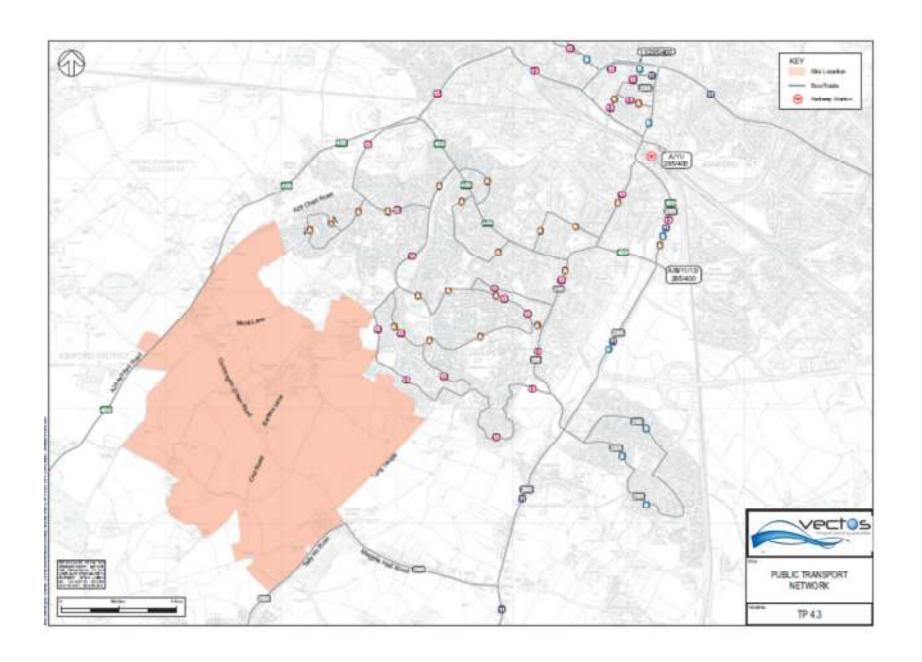
- 7.9 The management and delivery of the travel plans will be secured through the Section 106 agreement between The Consortium and Kent County Council.
- 7.10 The Consortium is responsible for the implementation and management and funding of the residential travel plan, which includes the provision of a site-wide Travel Plan Coordinator to assist employers and schools on the site to produce and implement their own travel plans. Furthermore, The Consortium is responsible for the funding of associated site-wide infrastructure including footpaths, cycle ways and cycle parking at key destinations.
- 7.11 Land-use specific measures will be funded by the relevant occupiers and Appendices A,B and C describe these funding responsibilities in full.

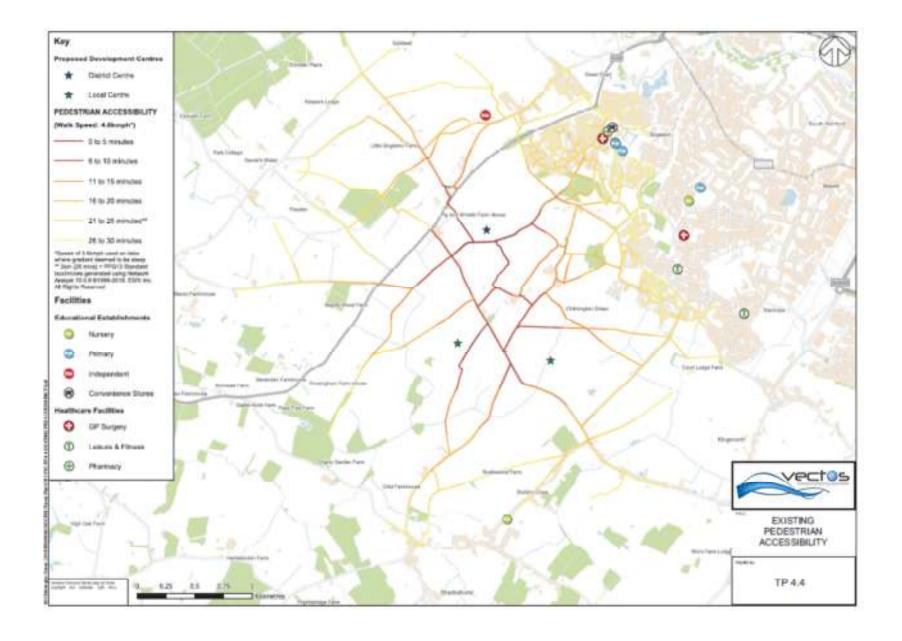
## **FIGURES**

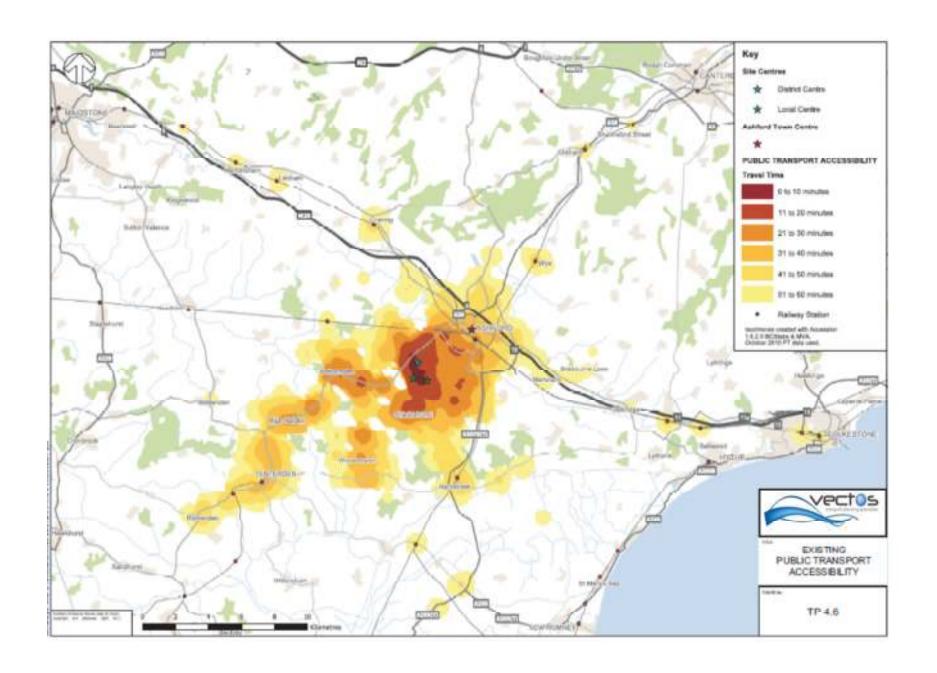


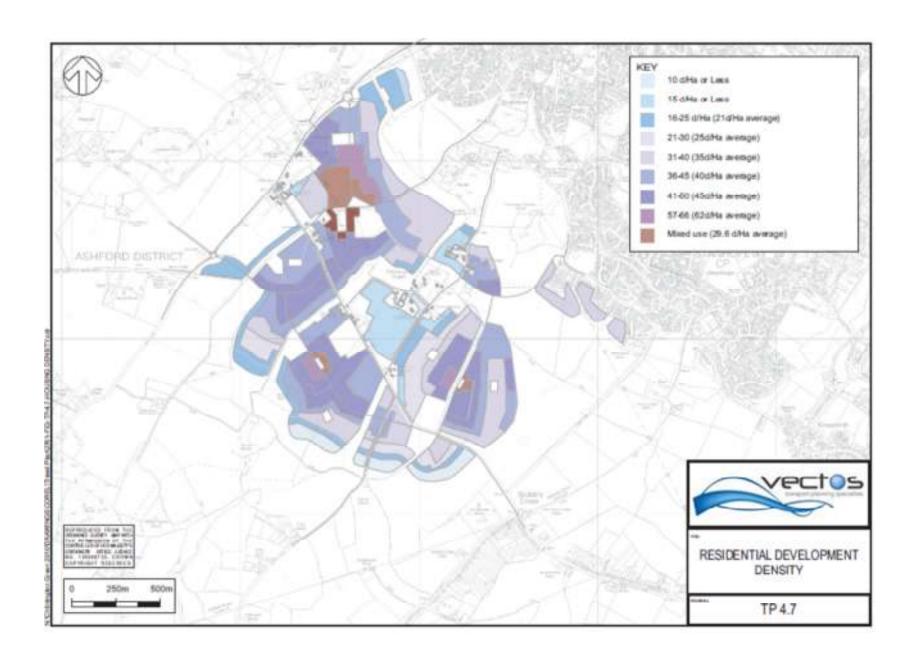


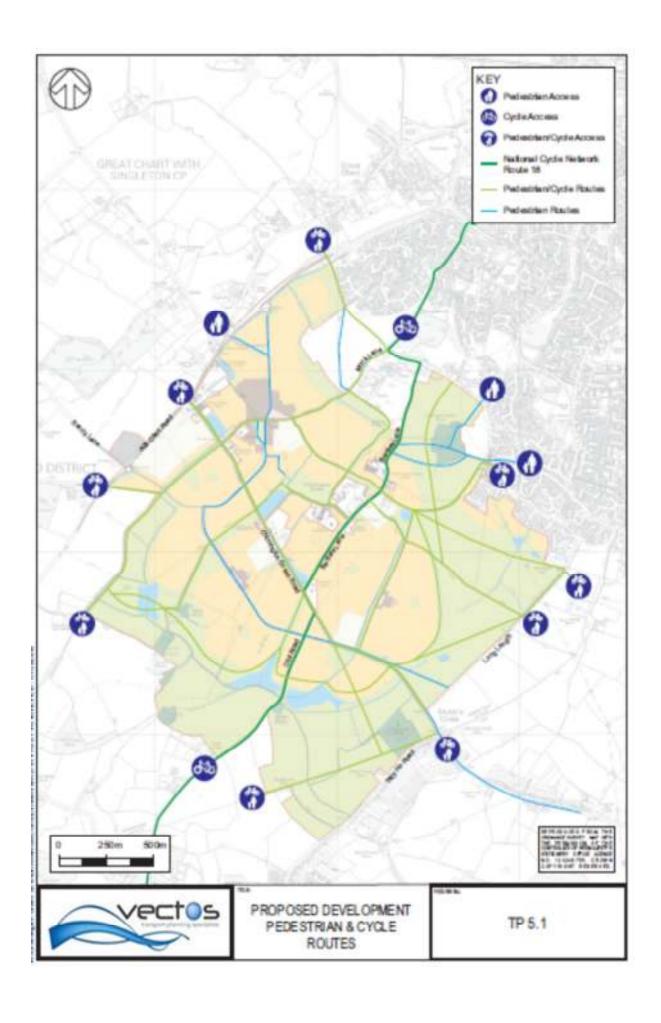


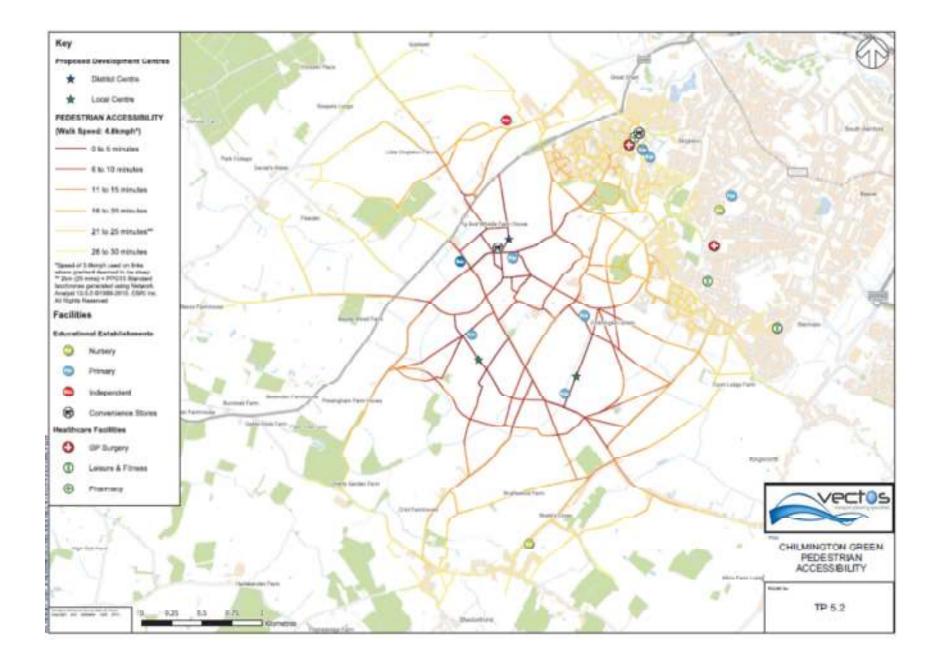


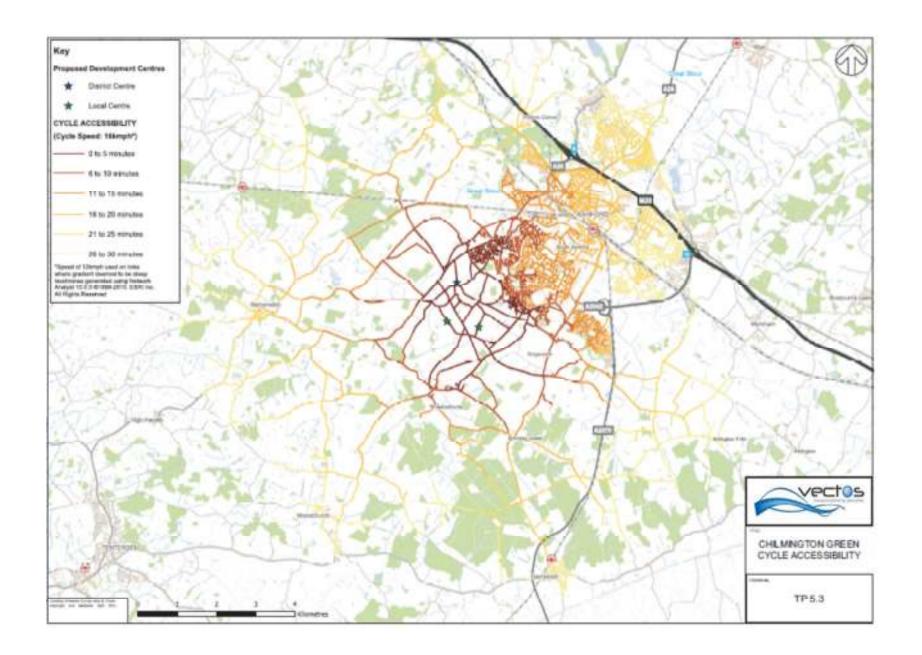


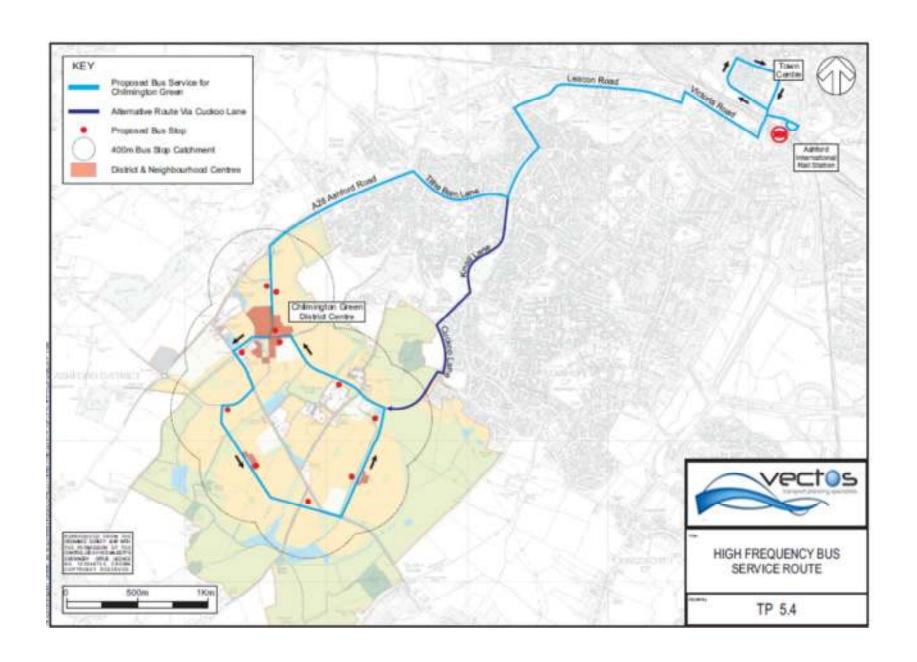


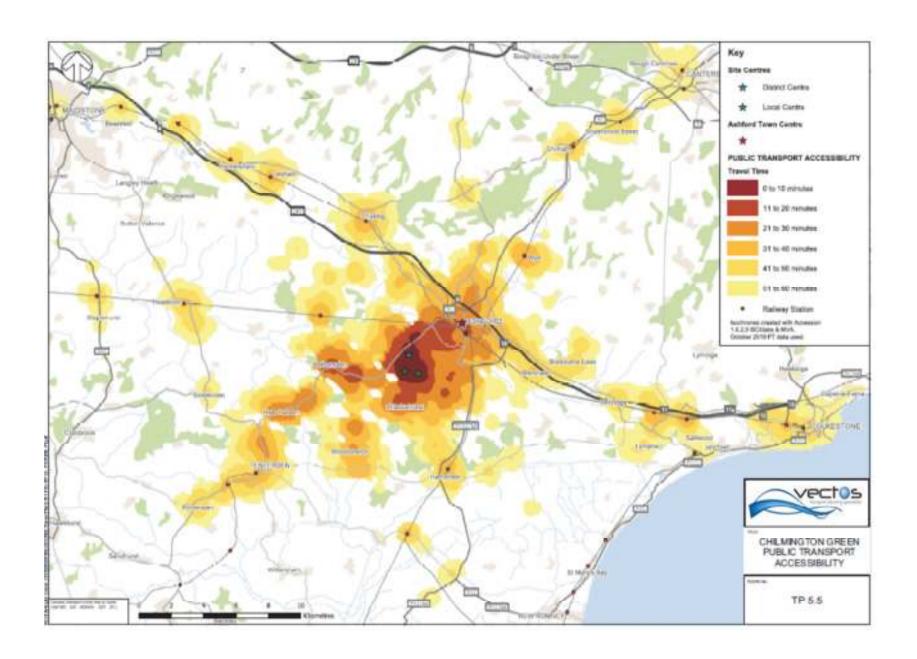


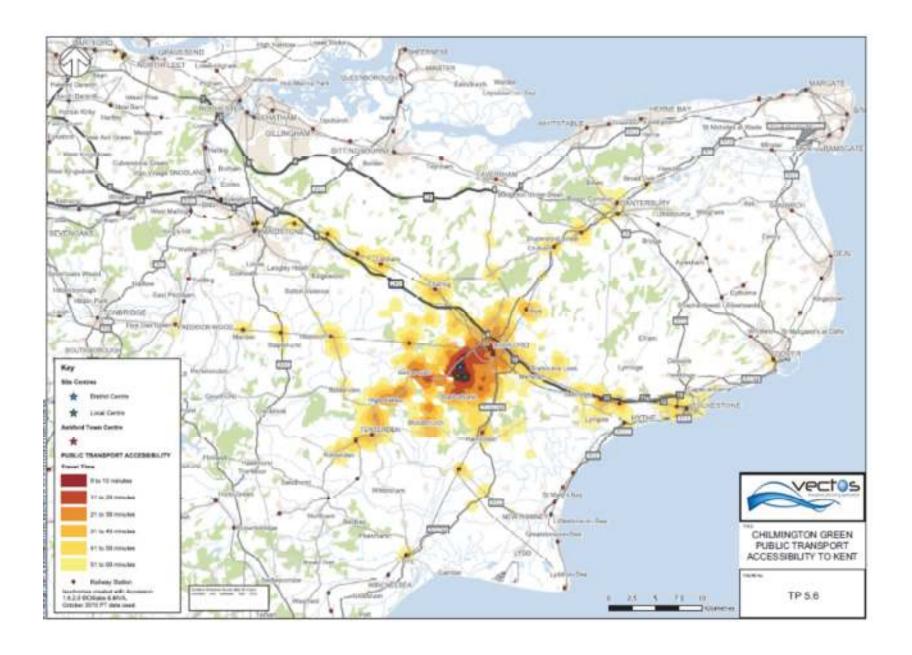


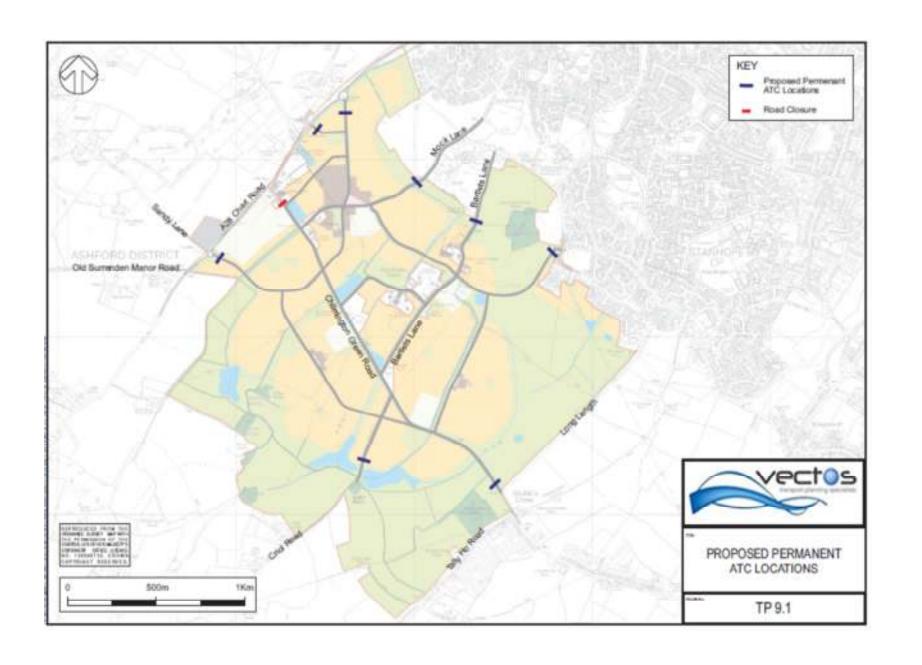














# Chilmington Green, Ashford

# **Residential Travel Plan**

Hodson Developments, Malcolm Jarvis Homes, Pentland Homes & Ward Homes

January 2013

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# **Appendices**

Appendix A - Residential Travel Survey

# **EXECUTIVE SUMMARY**

Hodson Developments, Malcolm Jarvis Homes, Pentland Homes & Ward Homes (The Consortium) are committed to delivering a sustainable community at Chilmington Green and this Residential Travel Plan will support this objective by promoting a wide range of low carbon travel and transport options to residents and their visitors.

This plan will help deliver travel benefits for all residents, the local area and also the environment.

This Travel Plan will be actively promoted to all new residents at Chilmington Green. Within the plan The Consortium has demonstrated commitment to the management and delivery of a wide range of measures to inform residents of travel opportunities, and to actively promote their use as an alternative to single-occupancy car travel.

A site wide Travel Plan Coordinator will be appointed to oversee and manage the implementation of and on-going delivery of these measures in an effective and efficient way and to make progress towards reducing car-based journeys at Chilmington Green.

# 1 INTRODUCTION

#### **BACKGROUND**

- 1.1 Vectos has been commissioned by Hodson Developments, Malcolm Jarvis Homes, Pentland Homes & Ward Homes (The Consortium) to produce a Transport Assessment (TA) and associated Travel Plans to support an application for the development of up to 5,750 dwellings, four primary schools, one secondary school and retail and employment land uses at the Chilmington Green site to the south-west of Ashford in Kent.
- 1.2 This Residential Travel Plan (RTP) has been prepared to complement the proposals set out within the accompanying Transport Assessment report in the interests of promoting sustainable development and reducing the reliance on private car-based forms of transport for residents and their visitors.
- 1.3 The employment and educational uses at Chilmington Green are covered by separate Travel Plans to be submitted to KCC. Whilst separate travel plan documents have been produced for each of the land uses, each of the travel plans seeks towards a common objective for the site as a whole; to reduce single occupancy car travel and to increase travel by sustainable modes. Review and monitoring events will be coordinated by an overarching site-wide Travel Plan Coordinator to ensure that data is collated in a timely and comparable manner which will be invaluable to establishing the successes of the travel plans.
- 1.4 The figures referred to in this Travel Plan are contained within the Umbrella Travel Plan document.

#### THE SITE

- 1.5 The Chilmington Green development site is located to the south west of Ashford as shown on Figure TP 1.1. The site has been identified by Ashford Borough Council (ABC) as a proposed Growth Area, offering the potential for an urban extension of 5,000-7,000 dwellings, supporting land uses and community infrastructure.
- The site is bounded to the west by the A28, providing access to Ashford, Canterbury and the M20 to the north of the site, Tenterden and Hastings to the south, and Royal Tunbridge Wells to the west. The development area can also be accessed from the north via two local roads from Chart Road.

#### THE BENEFIT OF RESIDENTIAL TRAVEL PLANS

- 1.7 A Travel Plan can provide a number of key benefits which can be extended to residents and visitors of a new community development, as well as to the wider local community. Some of the benefits that can be achieved will be key drivers of this RTP and are set out below:
  - Improved quality of life for residents through adopting healthier lifestyles e.g.
     replacing shorter car journeys with walking and cycling and avoiding the stresses
     of trying to find parking spaces at their end destination;
  - Improved local air quality through reduced traffic congestion in the local community, as a result of the use of alternative modes to the private car for many local journeys;
  - Less vehicle congestion on local roads as a result of fewer cars attempting to depart and access the development; and
  - Cost savings for car sharers by sharing journeys with neighbours or friends, residents can benefit from sharing the financial and time cost of making these journeys.
- 1.8 Through identifying an appropriate package of measures and ensuring a joined up approach to the delivery of the RTP it is possible that all of these benefits can be achieved as part of the development of the site.

#### SITE-WIDE TRAVEL PLAN OPPORTUNITIES

- 1.9 This RTP has also been developed to incorporate a site-wide approach to promoting sustainable travel patterns.
- 1.10 In addition to this RTP, a Workplace Travel Plan has also been prepared to promote sustainable and low carbon travel patterns to employees based at various proposed workplaces at Chilmington Green, and who are also covered by umbrella initiatives. Additionally, a framework School Travel Plan has been prepared containing initiatives to be considered for inclusion in the individual school travel plans proposed for the site.
- 1.11 This presents the opportunity to ensure a joined up approach to travel planning at the new community, to work towards common goals, and so that each of the different land uses can benefit from a management structure that encompasses all aspects of the site. There will

also be site wide measures that will be implemented which will be of benefit in supporting and promoting sustainable travel for each of the land uses. For example, a network of connected, convenient and well signposted walking and cycling routes.

1.12 This Travel Plan recognises the potential benefits from a mixed use development in being able to support a reduction in the overall need to travel outside of Chilmington Green to access employment opportunities and local services. The Travel Plan measures outlined in each of the Travel Plans acknowledges this opportunity.

# 2 POLICY AND GUIDANCE REVIEW

# **INTRODUCTION**

2.1 The sustainability of new development has become of paramount importance and a significant amount of guidance has been produced on promoting lower carbon transport options such as walking, cycling and public transport, whilst advocating a reduction of the use of the private car. This section outlines the national and local policy context and best practice guidance under which this RTP has been prepared.

#### **NATIONAL POLICY GUIDANCE**

# CREATING GROWTH, CUTTING CARBON: MAKING SUSTAINABLE LOCAL TRANSPORT HAPPEN (DFT WHITE PAPER, 2011)

- 2.2 The Government's Transport White Paper entitled 'Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen' sets out the Government's vision for a sustainable local transport system that supports the economy and reduces carbon emissions.
- 2.3 The Transport White Paper states that action taken locally is best placed to support economic growth and deliver near term reduction in transport-related carbon emissions. This can be achieved by providing people with options to choose sustainable modes for everyday local transport choices to, for example, help boost economic growth by facilitating access to local jobs.
- 2.4 Travel Plans are noted as being a key means for promoting travel choices to a wide audience and encouraging a change in travel behaviour towards greater use of sustainable modes of travel.

#### **DELIVERING A SUSTAINABLE TRANSPORT SYSTEM (DFT, 2008)**

- 2.5 This publication outlines Government's five goals for transport, focusing on the challenge of delivering strong economic growth while at the same time reducing greenhouse gas emissions.
- 2.6 These five overarching goals are:
  - To support national economic competitiveness and growth, by delivering reliable and efficient transport networks

- To reduce transport's emissions of carbon dioxide and other greenhouse gases,
   with the desired outcome of tackling climate change.
- To contribute to better safety security and health and longer life-expectancy by reducing the risk of death, injury or illness arising from transport and by promoting travel modes that are beneficial to health
- To promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society;
- To improve quality of life for transport users and non-transport users, and to promote a healthy natural environment.
- 2.7 RTPs provide an opportunity to support these goals by highlighting and promoting the availability of low carbon transport options to residents and visitors, thereby reducing carbon emissions associated with low journeys.

#### NATIONAL PLANNING POLICY FRAMEWORK, DCLG, (2012)

- 2.8 Adopted on 27 March 2012, the National Planning Policy Framework (NPPF) seeks to reduce the complexity and improve the accessibility of the planning system, whilst protecting the environment and encouraging growth in a sustainable manner.
- 2.9 This Travel Plan shows how the proposed development accords with Paragraph 29 of the NPPF which details transport as having:
  - "... an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives."
- 2.10 Travel Plans are noted in Paragraph 36 of NPPF as an important mechanism to facilitate measures to increase sustainability.
- 2.11 As encouraged in the NPPF, the proposed development at Chilmington Green has been planned in such a way that gives people a "real choice" regarding their mode of travel. Its density and proximity to local facilities ensures that sustainable modes can be considered a favourable option for local trips.
- 2.12 Pedestrian and cycle movements are afforded priority on the internal network of the proposed development, which also limits the opportunity for conflict between non-

motorised users and vehicles, ensuring safety and accessibility is afforded in line with the NPPF.

2.13 Paragraph 29 of the NPPF notes that more efficient use of technology can contribute to a reduction in the requirement to travel. As suggested in paragraph 42 of the NPPF, communications and broadband technologies can enhance the provision for communities. This Travel Plan suggests measures which utilise technology to encourage smarter travel choices.

# GOOD PRACTICE GUIDELINES: DELIVERING TRAVEL PLANS THROUGH THE PLANNING SYSTEM – DEPARTMENT FOR TRANSPORT (2009)

- 2.14 This document defines a travel plan as:
  - A long-term management strategy for an occupier or site that seeks to deliver sustainable transport objectives through positive action and is articulated in a document that is regularly reviewed
- 2.15 The purpose of reviewing the document is to ensure that it remains relevant and effective.
- 2.16 Travel Plans are important for new developments in order to:
  - Promote sustainable travel and help to reduce single occupancy car use;
  - Encourage effective use of current transport networks;
  - Support increased choice of travel modes;
  - Promote and achieve access by sustainable modes;
  - Respond to growing concern about the environment, congestion, pollution and poverty of access; and
  - Promote a partnership between the authority and the developer in creating and shaping 'place'.

### MAKING SMARTER CHOICES WORK – DEPARTMENT FOR TRANSPORT (2005)

2.17 Published subsequent to the Transport White Paper, the Department for Transport (DfT) report 'Making Smarter Choices Work' signals continued government support for a range of measures aimed at raising awareness of alternative modes of travel to private car use, and actively encouraging the use of a wider range of travel modes amongst individuals.

2.18 These measures include Travel Plans, travel awareness campaigns, car sharing initiatives, and individualised travel marketing. Contemporary transport policy now recognises the impact that such measures can have in encouraging a shift in modal choice, particularly when accompanied by demand management restraints on single- occupancy car use.

#### **KEY LOCAL GUIDANCE**

#### **LOCAL TRANSPORT PLAN FOR KENT 2011 – 2016 LTP3**

- 2.19 Through Kent's third Local Transport Plan (LTP3), KCC actively promotes alternatives to car based travel as part of its work to improve the safety, sustainability and efficiency of the highway network. In particular, this includes working with the county's school, businesses and developers to develop travel plans.
- 2.20 The implementation plan for A Safer and Healthier County specifically looks to the delivery of school travel plans in helping to deliver its Sustainable Travel to School Strategy. KCC is working with health colleagues to ensure that all schools are engaged in the Governments Healthy Schools campaign.
- 2.21 Also of relevance to development at Chilmington Green is the implementation plan for Tackling a Changing Climate. In particular, the following themes:
  - New Development to ensure that associated transport infrastructure embraces sustainability. Locating development near existing transport hubs and providing facilities for walking, cycling and public transport.
  - Smarter Travel KCC is exploring ways of encouraging journeys by more efficient
    modes of transport and reducing the distance travelled. Through the promotion of
    car sharing and encouraging the use of public transport, walking and cycling,
    capacity can be released on the transport network which will allow more people to
    reach their destination on time.
  - Walking increasing the number of people choosing to walk instead of drive, is one
    of the key outcomes needed if the UK is to achieve the carbon reduction target
    required by the Climate Change Act 2008. Walking networks must be inclusive,
    considering the quality of the walking environment, its suitability for all types of
    pedestrians, personal safety and security, signage and information, and the
    directness of the route. It is important to ensure that the principles of inclusive

- design are enshrined in the planning and delivery of all new developments, which should be fully accessible to all.
- Cycling cycle routes should be continuous and direct. Therefore, priority will be
  given to providing a comprehensive network that enables people to cycle
  continuously to schools, work places, shops and leisure opportunities.
- Buses continued partnership working to deliver modal shift from car to bus and reducing overall emissions.

# GUIDANCE ON TRANSPORT ASSESSMENTS AND TRAVEL PLANS, KENT COUNTY COUNCIL (OCTOBER 2008)

- 2.22 The purpose of this document is to assist both Officers and intending Developers by clarifying when a transport assessment and or travel plan will need to be submitted alongside a Planning Application in Kent and how this will be evaluated, monitored and enforced.
- 2.23 The Travel Plan will take the form of a package of sustainable transport and demand management measures tailored to the needs of an individual site. The Travel Plan is aimed at promoting sustainable transport options to the site and reducing car dependence and single car occupancy. A Travel Plan will grow and develop in time in accordance with changing circumstances.

#### 2.24 A Travel Plan will need to include:

- A clear statement of targets and objectives;
- An assessment of existing transport infrastructure and facilities at the site;
- An assessment of the travel needs that are or will be generated by the site;
- A programme of appropriate measures which will improve accessibility and promote sustainable travel options;
- A programme for implementation of the plan, giving details of the dates by which
  the various measures will be put in place, of who will be responsible for the various
  actions and of how funding will be provided;
- A firm commitment to implement the measures identified in the Travel Plan, to monitor its success and to modify or develop the Plan in the future if this is necessary to achieve its targets; and

- A commitment to support the Planning Authority in seeking further district wide improvements in sustainability in the future.
- 2.25 The Travel Plan measures proposed in the document may include:
  - Provision of on-site infrastructure and facilities (for example, convenient cycle parking, bus stops and a carshare scheme);
  - Commitment to sustainable policies and working patterns (such as parking restraint, local recruitment, public transport - friendly shift patterns and sustainable fleet management); and
  - Assistance with or contributions to off-site infrastructure and services (such as pedestrian crossing points, cycle routes, supported bus services).

#### 2.26 They must always include:

- The appointment of an individual to act as Travel Plan Co-ordinator, who must have the full support of management and will be responsible for the implementation of the Travel Plan;
- A firm commitment to achieving the targets of the Travel Plan; and
- Clear proposals for monitoring and reviewing the Travel Plan over time.

# **SUMMARY**

- 2.27 This chapter has presented the key elements of a national and local policy framework that will be supported by the introduction of am RTP at Chilmington Green.
- 2.28 National, regional and local policies emphasise the need to reduce the amount of trips undertaken by private car. These policies encourage developments to provide the opportunity for residents to travel by public transport, cycle or walk for everyday trips. Residents living in an area with these alternative travel options will have less need to own and use a private car.
- 2.29 The RTP for Chilmington Green will directly contribute to both national and local planning and transport policy objectives for promoting a full range of transport options at new developments. This will actively contribute towards delivering sustainable communities and improving people's accessibility to local services and amenities by non-car forms of transport.

# 3 TRAVEL PLAN AIMS & OBJECTIVES

# **INTRODUCTION**

3.1 As has been shown in the policy review, delivering sustainable development and travel patterns is an important objective of both national and local planning and transport policy. This can be achieved by introducing positive measures to encourage modal shift from cars to more low carbon travel options, such as walking, cycling, local bus services and car sharing.

#### **SITE-WIDE AIM**

3.2 The aim for the site as a whole; is to reduce single occupancy car travel and to increase travel by sustainable modes.

#### **RESIDENTIAL TRAVEL PLAN AIM**

3.3 The aim of this Travel Plan is to provide a tool for the provision of appropriate measures to encourage residents and visitors of the Chilmington Green development to switch to lower carbon transport options. This will contribute to a greener, more sustainable development, providing added benefits to the wider community.

# **RESIDENTIAL TRAVEL PLAN OBJECTIVES**

- 3.4 The objectives of this RTP are:
  - 1. To support the development of Chilmington Green as a sustainable community;
  - To facilitate and encourage the use of lower carbon transport options in preference to the use of the private car, particularly for local journeys and for journeys to work;
  - 3. To promote awareness of the site-wide Travel Plan aim;
  - 4. To promote a lifestyle to residents, which includes healthy, sustainable living;
  - 5. To encourage a greater use of sustainable transport initiatives and encourage sustainable travel behaviour, including walking and cycling; and

- 6. Continually develop, implement, monitor, evaluate and review the progress of the Travel Plan towards achieving the targets.
- 3.5 The above objectives will be achieved by introducing a package of measures that focus on promoting travel to and from the site by sustainable transport as an alternative to the private car. This will encourage residents and visitors to consider lower carbon travel alternatives in everyday trips.
- 3.6 The following chapters describe the existing opportunities for encouraging sustainable travel.

# 4 EXISTING SITE ASSESSMENT

4.1 The proposed Chilmington Green site is located to the south west of Ashford as shown in Figure TP 1.1. It is bounded by the A28 to the north-west and existing residential areas of Ashford to the north east. To the south are the settlements of Stubbs Cross and Shadoxhurst while the rest of the site is surrounded by farmland.

#### **HIGHWAY NETWORK**

- 4.2 Ashford is connected to other major towns and cities via the motorway and trunk-road network beyond which a network of local primary 'A' and 'B' class roads accommodate the bulk of local traffic.
- 4.3 A network of 'C' and 'unclassified' rural roads dissect the site as shown in Figure TP 4.1.

  These roads provide access to farms, hamlets and individual dwellings together with access from the rural villages into Ashford.
- 4.4 Key highway links potentially serving the development area are described further in the Transport Assessment.

# **WILLINGNESS TO WALK**

- 4.5 Guidance given by the Institute of Highways and Transportation (IHT) in their publication 'Guidelines for Providing for Journeys on Foot, 2000' suggests that in terms of commuting, walking to school and recreational journeys, walk distances of up to 2,000 metres can be considered, with the desirable and acceptable distances being 500 metres and 1,000 metres respectively.
- 4.6 For non-commuter journeys, the guidance suggests that walk distances of up to 1,200 metres can be considered, with the desirable and acceptable distances being 400 metres and 800 metres respectively.
- 4.7 Assuming a 'typical' walking speed of 400m in 5 minutes, Table 4.1 summarises the broad walk journey times that can be 'considered'; are 'acceptable'; and those that are 'desirable':

**Table 4.1: Walk Journey Times** 

IHT Standard	Distance		Walk Time	
	Commuting, Walking to School and Recreational	Other Non- Commuter Journeys	Commuting, Walking to School and Recreational	Other Non- Commuter Journeys
'Desirable'	500m	400m	6.25 mins	5 mins
'Acceptable'	1,000m	800m	12.5 mins	10 mins
'Considered'	2,000m	1,200m	25 mins	15 mins

Source: IHT Guidelines for Providing for Journeys on Foot, 2000.

- 4.8 It is important to remember that people's willingness to walk also includes a number of factors associated with the footway forming part of the highway and the environment within which it passes. In different environments the following factors will positively increase a willingness to walk:
  - Provision of shelter during inclement weather;
  - Active streets with good surveillance during hours of darkness;
  - Increased separation from fast or heavy traffic;
  - Increased footway width in places with high pedestrian activity; and
  - High quality streets which provide strong design features that assist navigation in unfamiliar environments.
- 4.9 A person's willingness to walk can also be influenced by changes in level, as walking up or in some cases down long or steep gradients or steps exerts more effort. Generally, gradient of less than 1:20 have a negligible impact on people's willingness to walk.

#### **PUBLIC RIGHTS OF WAY**

4.10 The development area is located on the outskirts on Ashford. Being rural, there are few formal pedestrian facilities although the Public Rights of Way (PROW) provides a network of routes for pedestrian, cycle and equestrian movements. Several PROWs connect to the southern residential areas of Ashford, providing direct access to the proposed development area and can be seen on Figure TP 4.2 which displays the pedestrian and cycle facilities subsequently discussed in this TA.

4.11 National Cycle Route 18 (Canterbury to Royal Tunbridge Wells and onward to link with route 21) runs through the site. Its route is broadly north to south. There are numerous traffic free cycle routes and other on-road recommended cycle routes throughout Ashford.

#### **CYCLE NETWORK**

- 4.12 There are a number of designated walking and cycling routes in the vicinity of the development site as shown on Figure TP 4.2, many of which have been constructed in recent years and represent a marked improvement in infrastructure.
- 4.13 It is generally accepted that cycling has the potential to substitute for short car trips of 5km or less. It can also form part of a longer multi-modal journey involving public transport. The willingness to cycle reduces as distances increase where a series of factors affect mode choice. Assuming a typical cycling distance of 1,200m every five minutes the accessibility of facilities 5km from the site can be considered to be a 20 minute cycle ride.

#### WILLINGNESS TO CYCLE

- 4.14 Many people will cycle considerable distances depending on, inter alia, weather, time of day, level of fitness and real or perceived safety/convenience. National Travel Survey research indicates that the average cycle trip in the UK increased by approximately 27% between 2002 and 2010 to 2.8 miles. This figure is slightly below the distance between the centre of the site and Ashford town centre via National Cycle Route 18, this being 3 miles.
- 4.15 The most common response for unwillingness to cycle reflects varying levels of road safety concerns. For example, most parents are anxious of road safety risks thus young cyclists are less confident cycling on carriageway. This position is normally influential in the nature of constructed cycle infrastructure, unless the vast majority of cyclists on a route are more mature. The IHT's 'Guidelines cyclists on a route are more mature. The IHT's 'Guidelines for Cycle Audit and Cycle Review' present potential cycle infrastructure options based on the relationship between vehicle speed and flow. It is considerations such as these which will be incorporated into the design of cycle facilities at Chilmington Green.
- 4.16 Like car ownership, the capital cost of owning a vehicle contributes to use. Around 80% of children and nearly half of all adults own a bicycle and therefore adequate space for cycle parking is influential in design of new homes. Facilities at destinations are also significant

factors in willingness to cycle, notably shower, changing facilities, lockers and safe secure parking.

4.17 Cycle parking both at home and at travel destinations is a key part to complementing the willingness to cycle. Table 4.2 shows that the nature of a journey purpose will influence willingness to park further from the end destination, although other factors such as security will influence choice.

Table 4.2: Cycle Parking - Distance and Location

Cycle Parking		Cycle Parking – Location Preference	
Journey Purpose	Median Distance (m)	Influencing Factor	%
Commuting	40	Close to destination	86%
Business	50	Security	16%
Education	38	Only place available	9%
Shopping	125	Space available	7%
Leisure	20	Location conspicuous / busy	6%

Source: TRL 278: 'Cycle Parking and Demand'.

4.18 Factors such as those highlighted in Table 4.2 have been considered in the location of cycle parking at Chilmington Green. The amount of parking, and its accessibility and security are recognised as important contributors to the amount of cycle trips which will be made by people at the development in future.

# LOCAL CYCLE INFRASTRUCTURE

- 4.19 National Cycle Route 18 runs south west from Canterbury, via Ashford and Tenterden, to join up with Route 21 just west of Tunbridge Wells. The existing route runs through the development site to the east of Chilmington Green hamlet. Beyond Singleton, to the north of the site, the cycle route becomes traffic free, providing a direct connection to Ashford International station and Ashford town centre, including the Stour Centre for leisure facilities. This route can be seen on Figure TP 4.2.
- 4.20 Greensand Way Leisure route also provides access through the development. This route links Kingsnorth to the south and Great Chart to the north of the A28. While this link does not provide access into Ashford directly, use of this route alongside National Cycle Route 18 would enable access to destinations surrounding the site.

- 4.21 While the above two routes provide the important linkages between Ashford and the local areas and the new development, there are a number of minor routes that pass through the site. There are routes that provide access from the National Cycle Route through the ancient woodland to the southern section of Stanhope from which access into the town via residential streets can be made.
- 4.22 Ashford has a comprehensive network of cycle routes including many miles of traffic free cycle paths, which when combined with the signalised crossing facilities present in many strategic locations in the town, ensure that many journeys can be made by cycle without the need for direct interaction with vehicular traffic.

#### **BUS NETWORK**

- 4.23 Bus services in the southern part of Ashford are provided through a combination of:
  - Regular services along the main arteries from the south and south west of Ashford from nearby local towns; and
  - More frequent local shuttles from existing residential areas north of the proposed development area to the town centre.
- 4.24 The existing bus services that operate in close proximity to the Chilmington Green development site are shown on Figure TP 4.3 and are detailed within Table 4.3.

**Table 4.3: Current Bus Services near Chilmington Green** 

Service	e Route		Weekday Frequency		
No.		AM	PM Peak		
		Peak			
2A	Tenterden – Kingsnorth – Ashford	1	1		
	Town Centre				
113	Singleton – Stanhope – Ashford	1	None (Last service from South is		
	Town Centre		approximately 16:55)		
Α	Stanhope – Bridewell – Ashford	6	6		
	Town Centre – Singleton				
11/	Lydd – New Romney – Appledore –	1	None (no service between 17:00 –		
11A/11B	Newchurch		18:00 in the area closest to the Site)		
B1 / B2	Park Farm – South Ashford – Ashford	1	1		
	Town Centre – Willesborough				
514	Towers School – Ashford Town	1	0		
	Centre – Kennington				
518	Singleton – Park Farm – Ashford	1	0		
	Town Centre				
925	Godinton Park – Ashford Town	1	0		
	Centre – Chartham - Thannington				

Routes 514, 518 and 925 are school day only services. A single 'return' service is run for each route during the afternoon.

4.25 The operators of these services are as shown in Table 4.4.

Table 4.4: Bus Service Operators in the Vicinity of Chilmington Green

Route Number	Operator
2A	Stagecoach in East Kent
113	Kent Coach Tours
A	Stagecoach in East Kent
11/11A/11B	Stagecoach in East Kent
B1/B2	Stagecoach in East Kent
514	Stagecoach in East Kent
515	Stagecoach in East Kent
518	Stagecoach in East Kent
925	Stagecoach in East Kent

- 4.26 There are several bus routes that run in proximity to the site, although the majority of these run only within the existing urbanised area of Ashford.
- 4.27 Collectively, services 113 and service A provide up to seven peak hour services during the day.

4.28 Service B1/B2 provides a frequent service between Park Farm and the town centre while also providing access to the rail station. Service 2 operates along the A28 to the west of the development site. This is a less frequent service that operates hourly between Rolvenden and Ashford town centre, including Ashford International Station.

# **RAIL NETWORK**

#### **RAILWAY STATIONS & SERVICES**

- 4.29 Ashford International Station is approximately 4km north of the site and offers a range of frequent rail services to local and strategic destinations, including Europe via Eurostar services.
- 4.30 The station is staffed 24 hours per day, seven days per week. In addition to sheltered cycle storage, the station has parking provision for 619 cars. These parking spaces include allowance for disabled users. Ashford International provides full wheelchair access in addition to ticket machine which are wheelchair accessible.
- 4.31 The range of services available from Ashford International provides onward travel for employment and leisure purposes. Table 4.5 sets out a summary of the destinations that are served.

**Table 4.5: Rail Services from Ashford International** 

Destination	Approx. Journey Time (mins)
Tonbridge	36
Maidstone East	23
London Waterloo East (via Tonbridge)	75
London Victoria (via Maidstone East)	61
London St Pancras International	35
Hastings	41
Folkestone Central	18
Dover Priory	26
Canterbury West	16
Ramsgate	35

Source: National Rail Enquiries

4.32 Ashford International is served direct by three main London stations. These are Waterloo East, Victoria and Kings Cross / St. Pancras. The journey times to these stations are 75 minutes, 61 minutes and 35 minutes respectively.

- 4.33 The centre of the Chilmington Green site is approximately 5.5 km from the international rail station via road. National Cycle route 18 runs through the site and provides a route to Ashford International Station. Currently Bus Service A provides access to Ashford International Station and routes within close proximity of the proposed site.
- 4.34 The Network Rail London and South East Route Utilisation Strategy (2011) identifies that with only committed rail improvement schemes included, by 2031 the High Speed 1 route could be up to 500 seats short of demand in the morning peak hour. Recommendations for avoiding this situation include additional rolling stock and an increase in platform capacity at Ashford International.
- 4.35 Table 4.6 highlights that passenger numbers at Ashford International Railway Station have grown by 20.5% in the last five years, although demand has remained stable in recent years due to economic conditions.

**Table 4.6: Biennial Passenger Numbers at Ashford International** 

Year	Passenger Numbers (entry / exit, millions)
2004/05	2.29
2005/06	2.41
2006/07	2.61
2007/08	2.82
2008/09	2.76
2009/10	2.76
2010/11	3.12
2011/12	3.31

#### **RAIL PASSENGER TRENDS**

- 4.36 The Channel Tunnel Rail Link (CTRL) had a dramatic impact on passenger numbers in the area, but local demand has been more modest.
- 4.37 Current forecasts1<sup>1</sup> suggest rail passenger growth will continue around 2% per annum to 2016, thereafter falling to around 0.8% per annum. The Route Plans for the Kent area highlight that much of this growth is expected to occur due to station improvements in London, enhancing the potential for 10-12 car trains on the regional corridors.

<sup>&</sup>lt;sup>1</sup> Southern Regional Planning Assessment for the Railway, DfT, 2007

#### **EXISTING ACCESSIBILITY**

- 4.38 The mixed use nature of the proposed development will provide many of the facilities which the residents of Chilmington Green will require on a daily basis. This convenience and locality of facilities will ensure that many journeys can be made via sustainable modes and thus remain within the development boundary.
- 4.39 This section will review the current accessibility of the site to facilities in Ashford and beyond via sustainable modes, and when read in conjunction with Section 5 offers a comparison of the 'before' and 'after' impact of the Chilmington Green site.
- 4.40 It is generally understood that walking and cycling are of high importance at the local trip level, offering the greatest potential to replace short car trips where they are under 2 kilometres for walking and 5 kilometres for cycling. Section 4 of the NPPF, emphasises the need for land use and transport planning to be integrated in a manner which promotes sustainable development with good access to local facilities.

#### **METHODOLOGY**

- 4.41 In order to provide the most accurate assessment of current pedestrian accessibility, a GIS based methodology has been utilised. To facilitate comparison with the proposed development, three centroids have been taken, which are the locations of the future district centre and the two local centres.
- 4.42 Close to the northern boundary of the site, there is a perceivable gradient change. This has been incorporated into the assessment, constraining the distance which can be travelled on foot or by cycle from Chilmington Green in any period.

#### PEDESTRIAN ACCESSIBILITY

- 4.43 As shown on Figure TP 4.4, there is currently limited accessibility to existing facilities in Ashford from the site. Some of the facilities located in the south of Ashford, a short distance from the northern border of the development, are reachable within 30 minutes.
- 4.44 A small pocket of facilities is accessible in less than 25 minutes, located in Singleton. These include schools, convenience retail, a GP and a pharmacy. Other than these, the only other facilities within reasonable walking distance are a nursery on the northern fringe of Shadoxhurst and Ashford Friars Prep School, located in Great Chart. Both of these facilities

- can be reached in less than 20 minutes. The Post Office in Stubbs Cross can be reached in less than 20 minutes' walk.
- 4.45 It can therefore be surmised that a journey on foot is generally not currently a means of accessing anything more than the most basic facilities. The current road network is not conducive to making certain of these journeys though. For instance it is not realistically conceivable that a parent with a small child would walk along Chilmington Green Road in order to reach the nursery in Shadoxhurst.
- 4.46 The Chilmington Green site contains a number of public rights of way (as noted in Section 4.4); these have been incorporated into the assessment of existing conditions. A number of these will form primary routes for non-motorised users at the proposed development.
- 4.47 The current levels of pedestrian activity suggest that walking for leisure would be a more common use of existing pedestrian routes, rather than as a means of accessing facilities.

#### **CYCLE ACCESSIBILITY**

- 4.48 As is to be expected, accessibility to Ashford and the wider area via cycle is significantly expanded in comparison to being on foot. This is displayed on Figure TP 4.5. Ashford town centre is accessible in less than 20 minutes, with all except the northernmost and easternmost areas of the town falling within the 30 minute accessibility window.
- 4.49 The travel time by cycle to the pocket of facilities in Singleton referred to in the pedestrian assessment is under 10 minutes. The range of leisure and retail facilities accessible by cycle covers most of those in Ashford, although certain types of journey purpose will not necessarily be conducive to cycling, such as making large purchases.
- 4.50 Travelling to work by cycle is also a realistic option for workers whose place of employment is outside of Ashford Town centre. The cycling time from the site to local employment centres is shown in Table 4.7.

Table 4.7: Accessibility to Employment by Cycle

Employment Location	Travel Time by Cycle (mins)
Ashford town centre	16-20
Cobbs Wood Industrial Estate	11-15
Broofield Industrial Estate	11-15
Kingnorth Industrial Estate	16-20
Eastmead Trading Estate	16-20
Kingfisher Business Park	21-25
Grove Business Park	21-25
Henwood Industrial Estate	21-25

4.51 In terms of cycling comprising a stage in a multi-modal journey, Ashford International Station can be reached from the site in less than 20 minutes. To the south east, Ham Street station is within 30 minutes cycle. Both of these stations offer cycle storage.

#### **PUBLIC TRANSPORT ACCESSIBILITY**

- 4.52 The GIS based software ACCESSION has been used in order to determine the accessibility of destinations from the site using currently timetabled public transport services. This assessment indicates that the site has some degree of accessibility to other parts of Ashford and nearby settlements in Kent. This is illustrated in Figure TP 4.6.
- 4.53 It is discernible when comparing the cycle accessibility in Figure TP 4.5 that there are some areas of Ashford which are faster to reach by cycle than they are using the current Public Transport services. This is likely to be due to the fact that a cyclist can take a direct route to these destinations. If using a bus service, it is possible a change of service may have to be taken, most likely in the town centre, in order to make an onward journey to the same destination.
- 4.54 In many cases, where a rail travel element is a component in a journey, a significant amount of onward travel from the rail destination is not possible within the cumulative one hour period used for assessment. Table 4.8 presents some of the destinations accessible from the site in a one hour window via public transport.

Table 4.8: Accessibility from Site to Destinations via Public Transport

Destination	Travel Time by Public Transport (mins)
Ashford International Station	21-30
Ashford town centre	31-40
Tenterden	31-40
Wye	41-50
Canterbury	51-60
Folkestone	51-60
Headcorn	51-60

Source: Third-party prepared Accession assessment

#### **SUMMARY**

- 4.55 The current access to facilities from Chilmington Green via sustainable modes ranges from poor to acceptable. This is primarily because the area currently has minimal development and therefore does not create a substantial demand for facilities. Therefore the facilities that will be used by existing residents have been established in order to serve other communities such as those in Singleton and Stanhope to the south of Ashford.
- 4.56 Ashford currently has a very well developed provision of pedestrian and cycle routes, and the proposed development will integrate seamlessly with these, ensuring that the new community is able to access existing facilities with ease.
- 4.57 The proposed development will provide a wide range of facilities for retail, education, employment and medical requirements. In the majority of cases, accessing a facility within Chilmington Green will be the most attractive option for residents.

#### 5 DEVELOPMENT PROPOSALS

#### **DEVELOPMENT PROPOSAL**

- 5.1 The proposals at Chilmington Green are for a mixed use development. Residential properties will comprise the focus of the development, however there will be significant supporting infrastructure which will sustain Chilmington Green itself and also complement Ashford's position as a regional growth point.
- 5.2 The outline application is for a comprehensive Mixed Use Development comprising:
  - Up to 5,750 residential units, in a mix of sizes, types and tenures;
  - Up to 10,000m<sup>2</sup> gross floorspace of Class B1 use;
  - Up to 9,000m<sup>2</sup> gross floorspace of Class A1 to A5 uses:
  - Education (including a secondary school of up to 8ha, and up to four primary schools of up to 2.1ha each);
  - Community uses (class D1) up to 5,000m² gross floorspace;
  - Leisure uses (class D2) up to 5,000m<sup>2</sup> gross floorspace;
  - Provision of local recycling facilities;
  - Provision of areas of formal and informal open space;
  - Installation of appropriate utilities infrastructure as requires to serve the
    development, including flood attenuation works, SUDS, water supply and
    wastewater infrastructure, gas supply, electricity supply (including substations),
    telecommunications infrastructure and renewable energy infrastructure;
  - Transport infrastructure, including provision of three accesses on to the A28, an
    access on to Coulter Road, other connection on to the local road network, a Park
    and Ride with a maximum of 600 parking spaces and a network of internal roads,
    footpaths and cycle routes;
  - New planting and landscaping, both within the Proposed Development and on its boundaries, and ecological enhancement works; and
  - Associated groundworks.

#### PUBLIC TRANSPORT IMPROVEMENTS

- 5.3 A new high frequency bus service will be introduced at the proposed development and will be available from the first phase, with its coverage expanding as Chilmington Green is built out.
- 5.4 Further details of Chilmington Green's public transport offering and the proposed bus route are contained in the Transport Assessment.

#### SUSTAINABLE TRANSPORT MEASURES

- 5.5 A number of development proposals, including design features, will aid sustainable travel to and from the site. These are outlined below:
  - Permeable pedestrian and cycle network;
  - Green Lanes with limited vehicle movements, encouraging use by pedestrians, cyclists and equestrians;
  - Master Plan design integrating facilities within communities, reducing travel distance;
  - Car parking in accordance with local policy;
  - Convenient cycle parking; and
  - Speed limits throughout the development of 30mph or less, to be detailed in reserved matters.

#### **CAR AND CYCLE PARKING**

- 5.6 Car and cycle parking at Chilmington Green will be provided in line with the standards detailed in the Transport Assessment. This parking will be 'designed in' to the scheme and located close to dwellings and distributed efficiently over the site to cater for residential visitors.
- 5.7 Many of the new dwellings will be served with on-plot parking generally located to the side, rear or front of the dwelling. Parking spaces and garages will be sited so that there is sufficient room for users to enter and exit the vehicle. The distance from the car parking space to the home will be kept to a minimum and will be level or gently sloping where practically possible. Disabled parking and cycling parking numbers will be provided in accordance with the appropriate standards at the time of reserved matters submission.

Where appropriate, on-street parking will be provisioned, forming traffic calming and creating spaces away from built form for street trees and other landscaping. By designing the on-street parking locations from the outset, the impact of car parking on the street scene is minimised.

5.8 Courtyard parking within the development blocks will be evident, but where this approach will be utilised, parking courts will serve a limited number of dwellings, include landscaping and create private, well defined areas with good surveillance from dwellings, giving the court its own sense of place. Pedestrian connections from the fronts of houses to rear courts should be regular and direct.

#### PEDESTRIAN AND CYCLE ROUTES

- 5.9 Ashford is well served by pedestrian and cycle routes and infrastructure, and this provision is complemented by the Chilmington Green Master Plan. Existing Public Rights of Way within the site would be complemented by new routes and infrastructure, giving traffic free movement for cyclists to many areas of Chilmington Green.
- 5.10 National Cycle Route 18 will continue to form a key route for non-motorised users, whether to gain access to Chilmington Green or for leisure purposes, and Greensand Way will also form a key corridor for pedestrian and cycle movement.
- 5.11 As a result of the construction of roads to support vehicle movement around Chilmington Green, several existing roads will become 'Green Lanes', rural routes which retain their existing character. These routes will have minimal vehicular traffic and will present a pleasant environment for non-motorised users for trips of all purposes.
- 5.12 These 'Green Lanes' will primarily consist of:
  - Chilmington Green Road;
  - Chilmington Green Lane; and
  - Bartlets Lane.
- 5.13 Chilmington Green's proposed primary pedestrian and cycle routes are shown on Figure TP 5.1.

#### **ORCHARD WAY**

- 5.14 Orchard Way will be the main vehicular link through Chilmington Green, handling traffic heading to and from the A28 in addition to local traffic circulating in the proposed development. Orchard Way will have a 6.0m carriageway width, with footway and cycleway providing ease of access around Chilmington Green for non-motorised users.
- 5.15 The southern section of Orchard Way will form part of the bus route for the proposed high frequency bus service.

#### **PHASING**

5.16 Construction of Chilmington Green will take place in four phases, with each phase consisting of dwellings, plus non-residential land uses which directly support either that phase or Chilmington Green as a whole. These include facilities such as the education facilities, which will be required at regular intervals, and retail facilities.

#### PEDESTRIAN ACCESSIBILITY

- 5.17 The primary pedestrian routes introduced by the proposed development have been included in the third party prepared GIS assessment, which shows the effect of these links on pedestrian accessibility inside and outside of the development. Figure TP 5.2 shows the pedestrian accessibility at full build-out of Chilmington Green.
- 5.18 A comparison between the future pedestrian accessibility and the existing accessibility shown in Figure TP 4.4 shows that there is an increase in the distance which can be travelled on foot within a 30 minute period, but it does not offer significantly improve access to any existing facilities.
- 5.19 What Figure TP 5.2 does show is the excellent accessibility within the site to facilities. In addition to displaying the locations of the district and local centres as centroids, the education facilities have been shown, as has the supermarket located at the district centre.
- 5.20 From any point within the development, the walking time to one of the centres is less than 15 minutes, and in the majority of the residential areas it is under 10 minutes. The locations of the centres around the development ensure that this travel time is kept low. The employment, convenience retail and commercial facilities at each of the centres will be within easy reach on foot of all residents, visitors and employees.

- 5.21 A comparison with the development density in Figure TP 4.7 shows that the district and local centres are surrounded by high density development, with the density gradually decreasing at further distances. This means that a greater number of people are located within a shorter walking distance to the centres than are located further away.
- 5.22 Three of Chilmington Green's primary schools are within five minutes' walk of one of the centres, with the fourth primary school and the secondary school situated less than 10 minutes' walk from a centre. As a result, it can be said that all residential development will be within 15 minutes' walk of a primary school and a good proportion within 5 minutes' walk. Chilmington Green's secondary school will be within the 2km guideline for walking offered by the Chartered Institution of Highways and Transportation in the publication "Guidelines for Providing for Journeys on Foot", 2000.

#### **CYCLE ACCESSIBILITY**

- 5.23 The proposed cycle infrastructure at Chilmington Green offers some degree of improvement in accessing the wider Ashford area as a result of the provision of the proposed development's internal cycle routes. Figure TP 5.3 shows the level of cycle accessibility from Chilmington Green's district and local centres.
- 5.24 In particular, a greater proportion of Ashford north of the M20 and areas in the far east of the town become accessible in less than 30 minutes cycle time. Access time to Ashford town centre remains under 20 minutes by cycle.
- 5.25 Based on the results of this assessment, Chilmington Green can be deemed as a 'cycle neighbourhood'. The proposed infrastructure provides an environment where any of the three centres within the proposed development can be reached conveniently by cycle. The majority of the development is able to reach either the district centre or one of the local centres in under 5 minutes, with only those at the very fringes of the site needing up to 10 minutes to get to a centre.
- 5.26 With Chilmington Green's schools located in close proximity to the centres, these will all be accessible in a short time by cycle too, with the secondary school within an excellent distance by cycle.

#### **PUBLIC TRANSPORT ACCESSIBILITY**

- 5.27 As with the assessment of existing conditions, the public transport assessment for the future scenario has been carried out by a third party using ACCESSION. This incorporates the proposed high frequency bus service from Chilmington Green. The assumptions associated with the service (detailed in Section 11 of the Transport Assessment) are:
  - 10 minute frequency;
  - Real-time smart bus stops located as shown in Figure TP 5.4; and
  - A journey time of approximately 15 minutes to Ashford International Station from the district centre.
- 5.28 The assessment includes the time taken to walk from the centroid (in this case either the district or local centre) to the nearest bus stop, there is also an assumed wait time. Where there is a change of mode from bus to rail, another small delay is introduced replicating the wait for a train for example. Where there are no further onward connections, the distance that can be reached in a 60 minute period is shown. The future public transport accessibility from Chilmington Green is shown in Figure TP 5.5. A wider view of public transport accessibility from Chilmington Green to the rest of Kent can be seen on Figure TP 5.6.
- 5.29 In comparison to the existing accessibility by public transport as displayed on Figure TP 4.6, there is a noticeable difference in the destinations which can be reached, and the time in which they can be accessed.
- 5.30 Table 5.1 shows a list of local destinations and offers a comparison in the time calculated to reach them from Chilmington Green currently, and with the proposed bus service.

Table 5.1: Accessibility from Chilmington Green to Destinations via Public Transport

Destination	Travel Time by Public Transport (mins)
Ashford International Station	21-30
Ashford town centre	31-40
Tenterden	31-40
Wye	41-50
Canterbury	51-60
Folkestone	51-60
Headcorn	51-60

Source: Third-party prepared Accession assessment.

- 5.31 As Table 5.1 shows, Chilmington Green's proposed bus service facilitates access to a wide area, giving excellent links to Ashford International station and to the town centre.
- 5.32 Destinations that cannot currently be reached in less than an hour by public transport are shown by the assessment as being reachable in that time in the future year assessment. For example from commencing a journey at one of the centres at Chilmington Green the assessment anticipates it will be possible to get to central Maidstone in under 50 minutes and to Ebbsfleet International Station in under 60 minutes.
- 5.33 The future level of accessibility increases the potential for residents to commute from Chilmington Green to other destinations in Kent. And with London St Pancras station a further 18 minutes journey from Ebbsfleet International, central London is feasibly accessible from Chilmington Green in a little over one hour.
- 5.34 The reverse journey can also be made conveniently, with commuters able to access the proposed development using public transport to reach Chilmington Green.
- 5.35 It should be noted that ACCESSION assumes a certain time to reach a public transport stop and for the service to arrive. This can result in journeys involving public transport services with a low frequency providing better results than they may do in reality.

#### **SUMMARY**

5.36 This section has demonstrated that the proposals at Chilmington Green afford future Site users, including residents, the opportunity to access all the facilities that Chilmington Green has to offer using sustainable modes. Travel to and from the development and to places outside of Ashford is significantly enhanced by the proposed high frequency bus service.

#### 6 TRAVEL PLAN PROMOTION AND MEASURES

#### **INTRODUCTION**

- 6.1 Having outlined the aim and objectives of the RTP, and examined the opportunities presented by the development site, there are potentially a wide range of different measures that can be implemented to meet them.
- 6.2 This section outlines a range of measures that will be implemented as part of this plan. The measures presented are anticipated to be relevant to the scale of development and have the greatest potential for encouraging the use of sustainable transport modes amongst residents.
- 6.3 Further details of the site-wide and occupier-specific measures are set out in the following paragraphs.

#### **SITE WIDE MEASURES**

6.4 This section outlines the specific site-wide development measures to be introduced as part of the RTP.

#### TRAVEL PLAN COORDINATOR

- 6.5 A Travel Plan Coordinator will be appointed by the site management company to ensure the effective implementation of the Travel Plan. They will oversee the day to day running of the Travel Plan activities and administration of the Plan. Prior to occupation the Travel Plan Coordinator will be responsible for establishing contacts within the local community i.e. bus operators and cycle shop owners, and ensuring the timely implementation of identified measures.
- 6.6 The Travel Plan Coordinator will lead the day-to-day delivery of the RTP and oversee the implementation of the other travel plans (WTP and STP).
- 6.7 Details of the nominated Travel Plan Coordinator will be established prior to occupation of the site and provided to KCC / ABC.

#### TRAVEL PLAN STEERING GROUP

- 6.8 The Travel Plan Coordinator will seek to set up a Chilmington Green Travel Plan Steering Group. This will be made up of resident representatives and other stakeholders including those related to the workplace and school travel plans (more details of these roles are provided within the respective travel plan documents). Other key stakeholders from the wider community, such as Travel Plan Coordinators from other developments plus KCC and ABC will also be invited to attend.
- 6.9 The purpose of this Steering Group is to help with securing buy-in from all aspects of the new community. This will help the Travel Plan Coordinator to successfully implement new measures and undertake monitoring phases. The Group will also be useful for information sharing and feedback.

#### PROVIDING TRAVEL INFORMATION

- 6.10 The provision of information on a wide variety of transport options for travelling to and from Chilmington Green will ensure all residents are fully aware of the choices available to them.
- 6.11 The dissemination of information can best be achieved through a range of methods, including via the internet, information notice boards and direct contact with households. Therefore, the following measures will be introduced by The Consortium (or appointed site management company) at a site-wide level.

#### RESIDENTIAL SALES STAFF TRAINING

- 6.12 Training will be provided to all sales staff that will be responsible for meeting with prospective residents at the new development. The training will focus on ensuring all staff are familiar with the objectives of the RTP and are able to communicate to a prospective buyer the sustainable travel opportunities available. Staff training will be repeated by the Travel Plan Coordinator to reflect staff turnover or to keep staff up to date with any changes to the Travel Plan.
- 6.13 This will help to promote the sustainable characteristics of the site to prospective buyers and help to ensure that all new residents of the development are aware that sustainable travel information will be available to them, including prior to occupation.

6.14 Sales and marketing literature aimed at prospective buyers of homes will highlight the sustainable nature of the development in terms of its location and connectivity to the surrounding local area.

#### CHILMINGTON GREEN SUSTAINABLE TRAVEL WEBSITE

- 6.15 The Consortium will be responsible for the creation of a dedicated sustainable travel website for Chilmington Green that will focus on providing appropriate, up-to-date information on sustainable travel options for accessing the development site.
- 6.16 The website will serve as a 'one-stop-shop' for the dissemination of site-wide sustainable travel information to residents, as well as acting as a source of information for other Site attendees. Information on the website will include details of local public transport routes, local amenities and facilities, walking and cycle maps and a link to online car sharing opportunities.
- 6.17 The website will also provide links to other websites such as Kent Journey share, Traveline and Transport Direct so as to encourage residents to plan their journeys using sustainable transport.
- 6.18 Residents will also be encouraged to provide on-line feedback on travel and travel plan related issues.

#### RESIDENTS' SUSTAINABLE TRAVEL INFORMATION PACK

- 6.19 Upon occupation of the development, residents will receive a 'Sustainable Travel Information Pack'. Through the information provided in the pack, residents of the development will be in a better position to make informed choices about how they choose to travel to and from the development. The pack will include:
  - An overview of the objectives and structure of the Chilmington Green Travel Plan, why
    the scheme is in place, and what advice is available on sustainable travel options;
  - The benefits that having a travel plan brings, to individuals, the community and to the environment;
  - What incentives are being offered to residents to encourage sustainable travel; Contact
    details of the Travel Plan Coordinator, should they have any transport or travel
    problems, or ideas they wish to discuss;

- Up to date public bus and rail timetables. If necessary these will be simplified and produced as pocket guides to make them easier to use and to carry in everyday travel;
- How to access and register with the countywide and site-wide car share database;
- Pedestrian and cycle route maps for travelling within the development, as well as to
  and from the surrounding area, including access to the nearest local facilities (such as
  schools, doctors and dentist surgeries, the post office etc.), the bus and rail stations;
- Details of local taxi companies;
- Details of local retail outlets that provide home delivery services;
- Details on how to get involved in the Travel Plan Forum;
- Bus and bike discount vouchers application form;
- A personal journey planning advisory leaflet and reply slip;
- Brief summary note about the status of local School Travel Plans, including any
  noteworthy initiatives that have been implemented. In the event the school is not open
  prior to occupation of residential properties, the note to residents will include local
  schools that children can attend for the interim period and details of when the school is
  expected to open and how to go about registering children for the school.
- Information on which broadband providers are available from the exchange serving the site and their residential unit.
- 6.20 Information packs will be provided to the first two occupiers of each dwelling. This will be achieved by liaison with residents and local estate agents. The appointed Travel Plan Coordinator is responsible for the compilation and maintenance of the information provided within the information packs.

#### TRAVEL INFORMATION POSTERS/LEAFLETS

- 6.21 Posters will be produced to provide information and details of key site-wide initiatives, including the internet site web address and a contact. Leaflets will be produced for visitors to promote suitable modes of transportation to and from the locality.
- 6.22 These will be distributed throughout the Site to maximise awareness of measures and opportunities to all residents.

#### PROMOTING CAR SHARING

- 6.23 Residents will be encouraged to car share, where possible. This will help to reduce the overall number of car journeys being made in the first instance, whilst encouraging a pattern of more efficient car use amongst residents and other Site attendees.
- 6.24 Car sharing schemes encourage individuals to share private vehicles for particular journeys.

  Car sharing can be both formal and informal. Informal car sharing operates between individuals and neighbours and formal car sharing is defined by a more elaborate approach to trip matching, often focussed on the commuting journey.
- 6.25 Information about existing local car sharing groups will be disseminated to households through sustainable travel information packs and notice boards. There are two such groups that incorporate the Ashford area; kentjourneyshare.com and Kent Car Share. These organisations can be joined for free, or for a small fee, and help users match journeys with other people, and subsequently help to reduce the costs of travelling alone by car.
- 6.26 The site-wide Travel Plan Coordinator will be responsible for setting up a car sharing database for Chilmington Green which residents and other Site users will be encouraged to sign up to. This is expected to become more popular as the development builds out and more individuals join. A promotional event will be held at Chilmington Green organised by the site-wide Travel Plan Coordinator to boost the uptake of car sharing within the community.

# MEASURES TO PROMOTE WALKING/CYCLING WALKING AND CYCLING NETWORK

6.27 Pedestrian and cycle permeability will be high, with links provided within the development site and to the existing residential area, enabling full use of the community facilities for people based at Chilmington Green.

#### SITE SPECIFIC WALKING AND CYCLING MAPS

6.28 To demonstrate to residents how local facilities and services can be reached on foot, or by bicycle, site-specific walking and cycling maps will be produced by the Travel Plan Coordinator and distributed along with the travel information packs to all households.

6.29 These maps will be produced with the development as the central points of focus, with all key local facilities and services clearly illustrated within time bands showing average walking and cycling journey times. This will demonstrate how accessible these destinations are within a given travel time.

#### **SECURE CYCLE PARKING**

6.30 All general facilities, shops and community facilities at Chilmington Green will be provided with high quality secure cycle parking facilities close to the main access to the building. This will ensure that Site attendees Chilmington Green will be able to benefit from secure and covered cycle parking for public use. The quantum of cycle parking provided will be in accordance with KCC / ABC guidance and reviewed through the monitoring process to see if additional spaces are required.

#### **BICYCLE USER GROUP (BUG)**

- 6.31 A Bicycle User Group (BUG) will be established for the development. This group will comprise residents as well as other site attendees, such as employees and travel planning representatives who are interested in taking forward initiatives to promote and facilitate cycling at Chilmington Green. The BUG will provide a forum for sharing information on cycle routes, cycling best practice, and to address any issues of concern regarding cycling or cycle safety.
- 6.32 The BUG will also enable less experienced cyclists to interact with established cyclists and obtain information, guidance and potentially a 'cycling buddy' to accompany them on their journey to or from the development. Through the BUG, a 'Bike Doctor' can be organised on a regular basis to service residents' bicycles and provide advice on cycle maintenance.

#### **CYCLE DISCOUNTS**

6.33 Details of local cycle shops will be publicised on the development website and discussions will be held with these shops to endeavour to secure discounts for residents on cycle purchase and repair.

#### **PROMOTIONAL EVENTS**

6.34 The promotion of cycling and walking throughout the year will be undertaken through involvement in national activities such as 'National Bike Week'.

6.35 Households will receive publicity of these events via email, the website or notice boards/posters to actively encourage their participation. The coordination of these events will be facilitated by the TPC.

## MEASURES TO PROMOTE PUBLIC TRANSPORT USE ENHANCED PUBLIC TRANSPORT SERVICES

- 6.36 A Public Transport Strategy has been developed to ensure a target of 20% of trips Chilmington Green trips by public transport is met.
- 6.37 To achieve this mode share a high quality, frequent and direct bus service to Ashford Town Centre is required. It is proposed that the bus service is bespoke to Chilmington Green rather than an extension of an existing bus service. The service will operate every 10 minutes and provide a direct and attractive link between Chilmington Green, Ashford Town Centre and Ashford International Rail Station (for high speed rail services to London).
- 6.38 High Quality Smart Bus Shelters are also planned around the Chilmington Green site. It is proposed that these shelters would include Real Time Passenger Information (RTPI) screens which show passengers when the next bus is due.

#### **BUS/RAIL SERVICE INFORMATION**

- 6.39 Details of public transport services serving the development area will be publicised to all residents, including route, fares and timetable information. This information will be disseminated directly via a range of media including posters, sustainable travel information packs and via the Chilmington Green website.
- 6.40 As a further measure, the provision of Personal Travel Planning information to households could be introduced if the aforementioned approach is not felt to be sufficient following its implementation. Each household could be offered public transport information for their journey, based on their home postcode location as part of their induction process.

#### MEASURES TO PROMOTE MORE EFFICIENT CAR USE

6.41 Car parking provision at Chilmington Green will be provided in accordance with local standards. This will ensure there is no over provision of car parking. Furthermore, regulating access to the supply of car parking will also help to restrict the demand for single-occupancy car journeys to/from the site.

#### **CAR SHARING**

- 6.42 To ensure the most efficient use of cars that do travel to and from the site, residents will be encouraged to car share wherever possible. This will help to reduce the overall number of car journeys being made in the first instance, whilst encouraging a pattern of more efficient car use amongst residents.
- 6.43 Car sharing schemes encourage individuals to share private vehicles for particular journeys.

  Car sharing can be both formal and informal. Informal car sharing operates between individuals and neighbours and formal car sharing is defined by a more elaborate approach to trip matching, often focussed on the commuting journey.
- 6.44 Information about existing local car sharing groups will be disseminated to residents through letter drops, sustainable travel information packs and notice boards.
- 6.45 There are two such groups that incorporate the Ashford area; kentjourneyshare.com and Kentcarshare. These organisations can be joined for free, or for a small fee, and help users match journeys with people, and subsequently help to reduce the costs of travelling alone by car.
- 6.46 In addition to this a car sharing database will be set up for Chilmington Green which residents will be encouraged to sign up to. This is expected to become more popular as the development builds out and more residents join. A promotional event will be held at Chilmington Green organised by the Travel Plan Coordinator to boost the uptake of car sharing within the community.

#### **CAR CLUB**

- 6.47 The Travel Plan Coordinator will undertake a feasibility study prior to first occupation of the site to determine the suitability for a dedicated car club. A car club offers members the use of a car, for a yearly membership fee, so that members have access to the use of a car without any of the cost and hassle of owning it themselves.
- 6.48 An existing car club operator, such as City Car Club, will be approached to manage the scheme. If it is deemed that this site provides the right characteristics to support a car club, the developer will provide the first year's membership to the club free of charge (one membership per dwelling). The Travel Plan Coordinator will also undertake an assessment to

determine the viability of this scheme on an area wide basis i.e. to incorporate other residential developments nearby as developments progress.

#### **ELECTRIC VEHICLE CHARGING POINTS**

- 6.49 The technology behind electric vehicles is at a point where they now provide a much better range and level of performance than early incarnations. From being produced by specialist companies they have now moved to mass production by the world's major manufacturers, with fully electric cars having been released by Nissan, Peugeot, and Renault in 2011 and other companies are expected to following in the next few years.
- 6.50 By providing a number of secure charging points located at various points around the development, those who feel that they need a vehicle may be encouraged to choose an electric car. This offers a social benefit of zero harmful emissions from the vehicle. There are personal benefits for the owner of the vehicle as it will be exempt from road tax and the London Congestion Charge.
- 6.51 With the installation of charging points, Chilmington Green would be at the forefront of the promotion of zero emission vehicle use.
- 6.52 Once benefits and location have been reviewed, The Consortium will install an appropriate number of charging points prior to occupation. At this point, additional locations will also be reserved for further future installations should the demand arise. Initial charging points will be monitored to assess demand.

#### **SUMMARY**

- 6.53 This chapter has outlined a number of measures that will actively encourage sustainable travel behaviour amongst residents and reduce the number of single- occupancy car journeys associated with development at Chilmington Green.
- 6.54 It is expected that, where practical, these measures will be encompassed by Chilmington Green residents to reduce the need to travel or choose sustainable travel modes for commuting, leisure, retail and other journeys.

#### 7 TRAVEL PLAN MANAGEMENT

#### TRAVEL PLAN MANAGEMENT STRUCTURE

7.1 The Consortium will retain overall responsibility for ensuring the implementation of the Chilmington Green Travel Plan and will ensure that it is reviewed and amended as necessary.

#### TRAVEL PLAN COORDINATOR

- 7.2 A Travel Plan Coordinator will be appointed by the site management company while the site is being developed and prior to opening of the sales and marketing suite to ensure the effective preparation of materials and implementation of the Travel Plan. This will allow for sufficient time to determine Electric Vehicle charging locations and supplier and car club feasibility and potential operation.
- 7.3 They will oversee the day to day running of the Travel Plan activities and administration of the Plan. Prior to occupation the Travel Plan Coordinator will be responsible for training sales staff to promote the Travel Plan from the outset, establishing contacts within the local community i.e. bus operators and cycle shop owners, and ensuring the timely implementation of identified measures.
- 7.4 The Travel Plan Coordinator is primarily responsible for the implementation of the RTP, but their remit will extend site-wide to provide guidance, support and advice to the employment and educational components of the site.
- 7.5 The role of this coordinator will include:
- Acting as a point of contact for queries for residents, employers and school representatives;
- Setting up, managing and facilitating the Travel Plan Steering Group;
- Ensuring that all travel information and data disseminated is accurate and up to date;
- The ongoing monitoring of the Travel Plan;
- Assist in the decision making process with the site management company on which measures will be best to implement – and in association with KCC/ABC; and
- Updating the Travel Plan document as necessary, and liaising with KCC/ABC.
- 7.6 Details of the nominated Travel Plan Coordinator will be established prior to occupation of the site and provided to Kent County Council and Ashford Borough Council.

#### 8 IMPLEMENTATION ACTION PLAN

- 8.1 The Travel Plan Coordinator will be appointed prior to first occupation of Chilmington Green.

  This will ensure that preparation for measures to be introduced either prior to, or on first occupation of the site, can be progressed in the meantime to ensure lower carbon travel patterns are actively encouraged amongst residents and visitors from the outset.
- 8.2 To ensure delivery and ownership of specific measures it is necessary to set out an 'Action Plan' for implementation and review. Table 8.1 provides an initial action plan for the implementation of measures at Chilmington Green. This includes the site- wide measures to be implemented on-site and associated timescales or trigger points.

Table 8.1 Chilmington Green RTP – Implementation Action Plan

Trigger / Date	Task / Measure	Delivery	
Prior to first occupation	Appoint a site management	The Consortium	
	company		
	Appoint a site-wide TPC	Site Management Company	
	Train residential sales /	TPC	
	marketing staff		
	Prepare 'sustainable travel	TPC	
	information packs'		
	Sustainable travel information	The Consortium / Site	
	website.	Management Company / TPC	
	Contact local cycle shops to	TPC	
	organise cycle vouchers and		
	discounts		
	Electric vehicle charging points	The Consortium / Developers	
Following first occupation	Establish Travel Plan Steering	TPC	
	Group		
	Set up a BUG involving residents	TPC	
	Promote an online forum for	TPC	
	residents' feedback on the		
	Travel Plan		
	Undertake residential surveys at	TPC	
	an agreed time following first		
	occupation		
	Analyse residential travel	TPC	
	surveys, update RTP as required,		
	submit to KCC / ABC for		
	approval		
	Distribute residents' travel	TPC	
	information pack		
	Organise a Bike Week event.	TPC	
	Promote household travel	TPC	
	planning service to residents		
Two years following first	Undertake repeat monitoring	TPC	
occupation	surveys		
Thereafter and ongoing until	Organise and carry out home	TPC	
five years after final phase	visit personal journey planning		
completion	for new households that have		
	not taken part.		
Five years post-completion	Discuss and agree the way	TPC.	
	forward for monitoring and with		
	KCC / ABC.		

#### **FUNDING**

- 8.3 The initial infrastructure related to the planning application proposals, such as on-site and off-site pedestrian and cycle facilities and delivery of the public transport strategy, will be secured through appropriate mechanisms within the planning process.
- 8.4 This will provide the delivery of facilities and the vehicle for the funding of such measures.
- 8.5 The site developers will collectively provide funding to the site management company to appoint a Travel Plan Coordinator who will take forward the site-wide Action Plan of sustainable travel initiatives and measures.
- 8.6 The Consortium and the site developers will fund the delivery of initiatives including the establishment of the Chilmington Green website, monitoring requirements, and site-wide marketing/promotional activity related to sustainable travel. Table 8.2 indicates the responsibility for delivery of each measure outlined within this RTP.

**Table 8.2 Funding Responsibility for Delivery of Measures** 

Measure	Funding Responsibility		
Overall Management			
Travel Plan Coordinator	The Consortium		
Monitoring and report			
On-Site Infrastruct	ure Improvements		
Footpaths and cycle ways	The Consortium		
Enhanced bus services			
Secure cycle parking			
Electric vehicle charging points			
Travel Plan Marketing and Promotional Measures			
Sales and marketing staff training	The Consortium		
Sustainable Travel Website	The Consortium / Management Company		
Sustainable Travel Information Packs	The Consortium		
Bike Week	Management Company		

#### 9 TARGETS AND MONITORING

#### **Travel Plan Targets**

- 9.1 To help guide the progress of the RTP a number of targets have been adopted that will be reviewed by the appointed Travel Plan Coordinator on a biennial basis.
- 9.2 These targets are divided amongst those relating to delivering outputs and those related to achieving outcomes.
- Output targets These targets relate to the implementation of the measures to be introduced as part of the Travel Plan. They will help to ensure that The Consortium remains on course with the delivery of the different measures contained within this Travel Plan.
- Outcome targets These targets relate to the effect of implementing the Travel Planning measures, and will include for example reducing the overall proportion of journeys (all journeys) being undertaken from the development by car.

#### **OUTPUT TARGETS**

9.3 Table 9.1 details the output targets that will be adopted for the RTP.

**Table 9.1 Funding Responsibility for Delivery of Measures** 

Output Target	Responsibility	Timescale
Appoint and fund a site-wide	The Consortium / Site	Following appointment of the
Travel Plan Coordinator	Management Company	Site Management Company
		and prior to appoint of sales
		staff
Training of sales staff so that	The Consortium / Travel Plan	Prior to first occupation
they can discuss with potential	Coordinator	
occupants		
Prepare residents Sustainable	Travel Plan Coordinator	Prior to first occupation
Travel Information Pack ready		
for distribution		
Distribute information pack to	Travel Plan Coordinator	On occupation
residents		
Ensure all travel information is	Travel Plan Coordinator	On-going
maintained and up to date		
Set up Travel Plan Steering	Travel Plan Coordinator	On occupation
Group		
Manage and facilitate Steering	Travel Plan Coordinator	On-going
Group		
Promote car sharing	Travel Plan Coordinator	On occupation
opportunities to all residents		
Hold Bike Week event	Site Management Company /	On occupation
	Travel Plan Coordinator	

#### **OUTCOME TARGETS**

- 9.4 A baseline travel survey will be undertaken 1 year from first occupation of the development to gather base year modal split data for journeys to and from Chilmington Green. This base year information will then be used to establish appropriate fixed end of phase targets for Chilmington Green. The formulation of the end of Phase 4 targets (fixed site-wide modal split target) is detailed in the Transport Assessment.
- 9.5 Until such a travel survey can be undertaken, interim baseline modal split targets for Phases1, 2 and 3 have been established based on information within the 2001 Census.
- 9.6 The 2001 Census provides information on the current 'journey to work' modal split for the nearby Great Chart and Singleton North Ward, which has been analysed in the Transport Assessment, and shown in Table 9.2 below. Information for this ward is being used, in

agreement with KCC, as the majority of the site falls within this ward. It should be noted that the table excludes people that indicated they work from home.

Table 9.2 Great Chart and Singleton North Ward model split (Journeys to work)

Mode	Percentage
Car Driver	72.10%
Car Passenger	6.44%
Train	6.06%
Underground	0.00%
Bus	3.28%
Taxi	0.38%
Motorcycle	0.76%
Cycle	4.29%
Walk	6.69%
Other	0.00%
Total	100%

#### **RESIDENTIAL USE – OUTCOME TARGET**

9.7 The census data indicates that 72.1% of the resident population in this ward travel to work as single-occupant car drivers. Therefore, an interim target for this RTP will be to not exceed 72% of all journeys being undertaken by residents of the development as car drivers until such a time as a more accurate baseline level can be established from a survey.

Table: 9.3 End of phase mode share targets

Mode	Phase1	Phase 2	Phase 3	Phase 4	Site-Wide
					Target
Car (Driver &	62%	60%	57%	54%	53%
Passenger)					
Bus	20%	20%	20%	20%	20%
Train	6.5%	8%	9%	10%	10%
Walk	7%	7%	8%	10%	11%
Cycle	4%	4%	5%	5%	5%
Other	1%	1%	1%	1%	1%
(motorcycle,					
taxis, etc)					
Total	100%	100%	100%	100%	100%
Baseline	End of Year 1	N/A	N/A	N/A	N/A
Survey					
Monitoring	2,4,6	2,4,6	2,4,6	2,4,6	Biennial up
(Years of					to 5 years
Phase)					following
					completion

#### TRAVEL PLAN MONITORING

- 9.8 The Travel Plan Coordinator will undertake monitoring of travel patterns associated with the development of Chilmington Green. This is to understand the level of modal shift and use of sustainable modes that is taking place at the development. By monitoring travel patterns it allows for the introduction of remedial measures should the implemented measures not achieve the required modal shift. The Coordinator will be responsible for monitoring the Residential Travel Plan, but will also provide support and assistance to the appointed coordinators of the employment and school travel plans.
- 9.9 Biennial (every two years) monitoring in the form of residents travel surveys and multimodal traffic surveys will commence one year after first occupation of the first phase of development, or following 35% occupation of the first phase. The first two monitoring phases (identified in Table 9.3) will be used to determine the progress towards achieving end of phase targets.
- 9.10 Monitoring will take place until five years after the final phase is complete, with monitoring reports submitted to KCC / ABC on a biennial basis for this period. No further monitoring or reporting will be undertaken after this time unless the targets outlined in Table 9.3 have not been met.
- 9.11 The monitoring will be undertaken using a combination of household travel surveys and multi-modal travel surveys. Any necessary revisions to this survey will be agreed between the Travel Plan Coordinator and the relevant Kent County Council Travel Plan Auditing Officer prior to the survey being issued. The multimodal travel surveys will be undertaken using permanent vehicular monitoring loops located on each vehicular site access point. The potential locations for these loops are shown in Figure TP 9.1. In addition, it is intended that permanent pedestrian/ cycle loops will be used to monitor trip numbers by these modes, although the exact type and location of these is yet to be determined. Given that the site will have many access points, many of which will be through routes, the best method used to survey vehicle, pedestrian and cycle trips will be investigated by the Travel Plan Coordinator, whether this is through the installation of permanent or temporary loops/ counters, to establish which is the most effective and robust method.

- 9.12 In addition to these surveys it will be important to gather data relating to bus usage to ensure that the target of 20% is achieved and maintained. This data will be provided biennially by the bus operator.
- 9.13 The survey will seek to ascertain information about all users of the site, including (primarily) residents, workers and visitors to Chilmington Green. The survey will gather information on the following main points:
- Travel behaviour to establish the overall travel patterns associated with the site and to allow the Travel Plan Coordinator to understand the 'modal split' for journeys to and from Chilmington Green for ongoing comparison.
- Attitudes towards travel to establish site user attitudes towards using different transport
  options available to access Chilmington Green. This will help identify any issues, or barriers
  (perceived and actual) that may reduce the desirability of low carbon transport options.
- 9.14 All costs associated with distributing, collecting, analysing and reporting of the survey will be met by the site management company, and all aspects of undertaking the survey will be administered by the Travel Plan Coordinator.
- 9.15 The monitoring which takes place for the RTP will link in with that done for the Workplace Travel Plan. Results and information gathered from each survey may provide an insight which results in positive changes to a Travel Plan which may not have occurred otherwise.
- 9.16 iTRACE is an innovative Travel Plan software package which includes site audit questionnaires and staff travel surveys designed to monitor and report on the performance of workplace travel plans. All new travel plans in Kent are required to use iTRACE and as such, this methodology will be utilised for Chilmington Green, and survey results provided to KCC for inclusion in iTRACE.
- 9.17 The objective of the monitoring process is to measure the progress of the RTP against the respective modal split target. If progress against the target is not being demonstrated, the introduction of additional recovery measures will be undertaken to help meet the target (see Section 9.4).

#### **FUNDING AND REPORTING RESPONSIBILITY**

- 9.18 The monitoring and review process will be managed by the TPC and funded by the site management company.
- 9.19 A summary report of Travel Plan progress and findings of the monitoring will be submitted at each biennial review to KCC / ABC. This will ensure that a focus and momentum is maintained and provides opportunities for a review of the RTP in light of any travel and transport issues that may have arisen.
- 9.20 The Travel Plan support provided by KCC, including the inclusion of survey data in iTRACE will be included in the pre-application fee, to be paid for by the Consortium.

#### **RECOVERY MEASURES – ACTION PLAN**

- 9.21 Table 9.4 presents the draft end of phase mode split targets for each phase of development.
- 9.22 As previously outlined, it is anticipated that the draft end of phase targets (phase 1, 2 and 3) will be subject to change following the baseline residents travel survey to be undertaken following occupation of Chilmington Green. This will ensure that they remain realistic in striving to meet the site-wise targets. Since the site is very large and that it will be constructed over a number of years (up to 20 years) the baseline survey undertaken in year 1 will not be representative of the whole site.
- 9.23 Initial monitoring during each phase prior to the end of phase monitoring, will help to ensure that the end phase modal split targets (for phases 1, 2, and 3) set in year 1 are realistic in working towards meeting the site-wide model split target.
- 9.24 However, despite potential changes to the target itself, it is important to illustrate a course of remedial action should progress towards the targets not be achieved. Table 9.4 summarises a step-by-step approach to introducing a series of recovery measures designed to bring the RTP back on course should the initial Implementation Action Plan fail to achieve the associated targets.
- 9.25 The recovery measures would commence with notification to KCC / ABC of any failure to reach the target mode share. The recovery measures process would be funded by the site management company.

**Table: 9.4 Recovery Measures Action Plan (Interim)** 

Order of	Action
Actions	
1	Notification of failure to meet mode share target
2	Meeting of TPC and KCC / ABD to discuss way forward
3	Meeting between TPC, KCC / ABC to agree additional mutually convenient and voluntary
	measures.
4	Review 'Personal Journey Planning' service to all residents at Chilmington Green,
	providing individually tailored sustainable travel information specific to their own journey
	to work, including further incentives to try these modes such as step-up marketing,
	actively involve user groups, events in schools, etc.
5	TPC to meet KCC / ABC to discuss further potential measures and a possible revision to
	future RTP target.

- 9.26 As shown by Table 9.4, the recovery measures action plan details an approach to introducing a range of measures that could be called upon to boost sustainable travel patterns at Chilmington Green.
- 9.27 Appropriate funding will be made available to ensure implementation of an appropriate recovery plan. At this stage however, it is difficult to determine exactly what measures would be required and therefore to put a cost to this.

#### 10 SUMMARY

#### Summary

- 10.1 This RTP has been prepared in support of development proposals at Chilmington Green,
  Ashford. This plan focuses primarily on how residents and visitors to the site can be
  encouraged to use sustainable means of transport to and from the site.
- 10.2 The measures proposed within this document will not only bring associated benefits to residents, but will also help to mitigate any transport impacts of the development on the wider local community.
- 10.3 To deliver this effectively, The Consortium will appoint a site management company who will in turn appoint a Travel Plan Coordinator to lead the day-to-day delivery of the plan. Their duties will include preparing travel information materials for dissemination to residents on their immediate occupation of Chilmington Green, providing additional travel advice and incentives where necessary, and actively monitoring progress.
- 10.4 This RTP has also detailed a clearly defined end of phase targets (to align with the phased build-out of the site) relating to the modal split for journeys arising from Chilmington Green, which can be revised more accurately following a baseline travel survey. A fixed end of Phase 4 target, overall site-wide target has been determined and this would not be subject to change. To monitor progress against the target, a detailed resident travel survey will be conducted on a biennial basis by the Residential Travel Plan Coordinator, with the results submitted to KCC / ABC. Information gathered from these surveys will also support the ongoing review of this RTP.

## Appendix A

**Residential Travel Plan Survey** 



# The following provides an example Residential Travel Survey that may be used at Chilmington Green.

### **Example Residential Travel Survey**

Example Introduction

"As part of the monitoring process for the Residential Travel Plan, we are currently conducting a Travel Survey. We would be grateful if one member of your household could complete this brief survey to help us better understand your travel patterns, needs and how we may be able to assist with your travel requirements.

It will take about 5 minutes to complete and all responses will be treated confidentially."

TPC to complete details)  Travel Plan Coordinator:  Telephone:		1
Who to return completed form to? (TPC to complete)  If you have any queries about the survey, or for guidance on how to complete it, please do not resitate to contact me at the details provided below:  TPC to complete details)  Travel Plan Coordinator:  Telephone:	Explanation of the Travel Plan: (TPC to complete)	
Who to return completed form to? (TPC to complete)  If you have any queries about the survey, or for guidance on how to complete it, please do not resitate to contact me at the details provided below:  TPC to complete details)  Travel Plan Coordinator:  Telephone:		
Who to return completed form to? (TPC to complete)  If you have any queries about the survey, or for guidance on how to complete it, please do not resitate to contact me at the details provided below:  TPC to complete details)  Travel Plan Coordinator:  Telephone:		
Who to return completed form to? (TPC to complete)  If you have any queries about the survey, or for guidance on how to complete it, please do not resitate to contact me at the details provided below:  TPC to complete details)  Travel Plan Coordinator:  Telephone:		
Who to return completed form to? (TPC to complete)  If you have any queries about the survey, or for guidance on how to complete it, please do not resitate to contact me at the details provided below:  TPC to complete details)  Travel Plan Coordinator:  Telephone:		
f you have any queries about the survey, or for guidance on how to complete it, please do not nesitate to contact me at the details provided below:  TPC to complete details)  Travel Plan Coordinator:  Telephone:	Who should participate? (TPC to complete)	
f you have any queries about the survey, or for guidance on how to complete it, please do not nesitate to contact me at the details provided below:  TPC to complete details)  Travel Plan Coordinator:  Telephone:		
f you have any queries about the survey, or for guidance on how to complete it, please do not nesitate to contact me at the details provided below:  TPC to complete details)  Travel Plan Coordinator:  Telephone:		
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resitate to contact me at the details provided below:  TPC to complete details)  Travel Plan Coordinator:  Telephone:		
ravel Plan Coordinator:	If you have any queries about the survey, or for guidance on how to complete it, phesitate to contact me at the details provided below:	olease do not
Felephone:	(TPC to complete details)	
	Travel Plan Coordinator:	
E-mail:	Telephone:	
	E-mail:	

#### SECTION A: ABOUT YOU AND YOUR HOME

1. Are you:	
Male	
Female	
2. Which age range do you fall into?	
16 – 25	
26 – 35	
36 – 45	
46 – 55	
56 – 65	
65+	
3. What is your postcode?	
4. How long have you lived at your current address?	
0 – 6 months	
6 months – 1year	
1 – 2 years	
2 – 3 years	
3 – 4 years	
4 – 5 years	
Longer than 5 years	
5. Do you or any member of your household own a car?	
Yes	
No	
If yes, how many cars in total?	

# SECTION B - ABOUT YOUR TRAVEL TO AND FROM YOUR HOME

6.	How do you most frequently travel to and from your home for the following activities?
	(Choose the mode of travel that you use most often)

Reasons for travel	Walk	Cycle	Bus	Train	Tram	Car share (as driver or passenger)	Car (alone)	Motorcycle or scooter	Other (please specify)
Work									
Shopping									
Education (if applicable)									

7. How often do you use the following modes of travel for journeys from your home? (Tick all modes that you ever use, for all or part of a journey, choosing the frequency with which you use them)

TRAVEL MODE	Very often (7 or more in every 10 trips	Quite Often (between 3 and 6 out of every 10 trips	Occasionally (less than 2 out of every 10 trips)	Never
Walk				
Cycle				
Bus				
Train				
Tram				
Car share (as driver or passenger)				
Car (alone)				
Motorcycle or Scooter				

8.	Have you changed your most common mode of transport since relocating development?	to this
Ye	S	
No		
If y	es, what was the main reason for this change?	

# SECTION C - ABOUT YOUR FUTURE JOURNEYS

9. Which of the following changes would most encourage you to cycle for journeys in the local area? (If you already cycle, which would you most like to see?)						
Safer, better lit cycle paths						
Improve cycle paths on the journey to town centre/rail station						
Improve cycle parking at this development						
Arrangements to buy a bicycle at discount						
Improved crossing facilities						
Improved cycle parking at local facilities – where?						
None of the above						
Other (please specify)						
10. Which of the following changes would most encourage you to use public your journeys in the local area? (If you already travel to by public trans you most like to see)	•					
More direct bus routes						
More frequent bus services						
More frequent train services						
More frequent train services						
Better lighting at bus shelters and on footpaths						
More convenient bus drop-off points						
Better bus links to work from station						
Public transport information						
None of the above						
Other (please specify)						
11. Which of the following changes would most encourage you to walk for j local area? (If you already walk, which would you most like to see?)	ourneys in the					
Cleaner, better maintained footpaths						
Better lighting on workplace footpaths						
More improved pedestrian crossing points						
Higher presence of security around the site						
Slower speed limits						
Better street lighting in the local area						
None						
Other (please specify)						

12. Which of the following changes would most encourage you to car share car share, which would you most like to see?)	? (If you already
More help finding car share partners who have similar work patterns	
Free taxi home if let down by car	
More information regarding car sharing i.e. benefits and cost savings	
None	
Other (please specify)	
13. Did you know this development operated a Travel Plan?	_
Yes	
No	
14. If yes, how did you find out about the Travel Plan?	
During the sales process	
Word of mouth	
Development publication/newsletter/notice board/website	
Personalised travel planning process	
Other (please specify)	
15. Would you like to receive more information regarding the Travel Plan?	
Yes	
No	
Thank you for taking part in this survey. Please use the following box to procomments you wish to make in relation to travel in the local area.	vide any

Thank you for your time.





# **Chilmington Green, Ashford**

# **Workplace Travel Plan**

Hodson Developments, Malcolm Jarvis Homes, Pentland Homes & Ward Homes

January 2013



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# **Figures**

Figure 1. - Chilmington Green Travel Plan Management Structure

Figure 2. - Monitoring Loop Locations (See Umbrella Travel Plan Figure 9.1)

# **Appendices**

Appendix A - Travel Plan Questionnaire Survey (Example)

# 1 INTRODUCTION

- 1.1 Vectos has been commissioned by Hodson Developments, Malcolm Jarvis Homes, Pentland Homes and Ward Homes (the 'Consortium') to update the existing Workplace Travel Plan (WTP) prepared by WSP in 2012. This WTP has been updated by Vectos following stakeholder comments raised by Kent County Council (KCC), Ashford Borough Council (ABC) and the Highways Agency. The WTP refers to the site-wide Umbrella Travel Plan, also updated by Vectos in December 2013. Readers are advised to refer to the Umbrella Travel Plan for further details on the general travel planning measures that will be brought forward for the urban extension at Chilmington Green, Ashford.
- 1.2 In general, the Umbrella Travel Plan will support sustainable travel for up to 5,750 residential dwellings, provision of new school facilities, employment uses, and various community facilities.

# 2 TRAVEL PLAN PROMOTION AND MEASURES

# Introduction

- 2.1 At a site-wide level, a number of measures to facilitate and encourage sustainable travel at employment sites will be implemented at Chilmington Green. These measures will be funded by The Consortium.
- The measures suggested are divided into 'site-wide' measures (funded by The Consortium and delivered through a site management company) and 'occupier-specific' measures (to be funded and delivered by the subsequent individual site occupiers). Responsibility and funding of individual employer occupiers will be passed to the employer through specific clauses in the lease agreement. Individual employer occupiers will also be made aware of the roles and responsibilities at pre-letting meetings, where the Travel Plan Coordinator will be available to address any concerns.
- 2.3 This Umbrella WTP is prepared because individual organisations have not yet been identified as occupiers of Chilmington Green. Following development completions and occupation, further surveys and monitoring will present a clearer understanding of the 'occupier-specific' measures that should be introduced.
- 2.4 Further details of the site-wide and occupier-specific measures are set out in the following paragraphs.

#### **SITE WIDE MEASURES**

2.5 This section outlines the specific site-wide development measures to be introduced as part of the WTP.

#### TRAVEL PLAN COORDINATOR

A Travel Plan Coordinator will be appointed by the site management company to ensure the effective implementation of the WTP. They will oversee the day to day running and administration of the WTP with the support of nominated contacts employed by each of the occupiers. Prior to occupation the Travel Plan Coordinator will be responsible for establishing contacts within the local community, such as bus operators (e.g. Stagecoach) and cycle shops (e.g. <u>Ashford Cycle Centre</u>, TN23 6LZ and <u>Spiral Cycles</u>, TN23 1PP) and ensuring the timely implementation of identified measures.

- 2.7 The Travel Plan Coordinator is primarily responsible for the implementation of the WTP in conjunction with the Travel Plan Champions who are employed directly by each of the occupiers. .
- 2.8 The TPC will lead on the following, with the assistance of the Travel Plan Champions:
  - acting as a point of contact for queries on travel planning matters;
  - meeting with each employment site occupier before occupation to discuss the WTP
    and ensure that they are aware of their roles and responsibilities in relation to the
    WTP (as defined within their lease agreements);
  - providing continuing support and guidance to Travel Plan Champions once occupation of employment units has taken place;
  - providing sustainable travel information packs;
  - ensuring that all travel information and data disseminated is accurate and up to date;
  - on-going monitoring of the Travel Plan;
  - updating the WTP document as necessary; and
  - liaising with KCC and ABC.
- 2.9 Details of the Travel Plan Coordinator will be established prior to occupation of the site and provided to KCC / ABC. Each employer occupier will also be required to nominate a WTP Champion, whose details will also be provided to KCC / ABC.
- 2.10 The amount of time spent by the TPC will vary according to the period of delivery. It is anticipated that the TPC will work full time on the WTP during first occupation, when organising events and during monitoring periods. The site management company will ensure that the TPC has the time and resources to fulfil his/her duties.

# TRAVEL PLAN STEERING GROUP

2.11 The Travel Plan Coordinator will seek to set up a Chilmington Green Travel Plan Steering Group. This will be made up of resident representatives and the appointed Workplace Travel Champions and School Travel Plan Coordinators. Other key stakeholders from the wider community, such as Travel Plan Coordinators from other developments plus KCC and ABC will also be invited to attend. With regard to the Workplace Travel Champions,

each organisation will have a representative. It is expected that the Travel Plan Champions will be supported by the management of their respective organisations in order to implement the decisions made by the Steering Group.

- 2.12 The purpose of this Steering Group is to help with securing buy-in from all aspects of the new community. This will help the Travel Plan Coordinator to successfully implement new measures and undertake monitoring phases. The Group will also be useful for information sharing and feedback.
- 2.13 The Travel Plan Coordinator will be responsible for disseminating the minutes of steering group meetings for agreement by attendees.

#### PROVIDING TRAVEL INFORMATION

- 2.14 The provision of information on a wide variety of transport options for travelling to and from Chilmington Green will ensure all employees are fully aware of the choices available to them.
- 2.15 The dissemination of information is best achieved through a range of methods, including via the internet, employee induction packs, information notice boards at each company, and direct contact with each employee. Therefore, the following measures will be introduced by The Consortium (or appointed site management company) at a site-wide level with the assistance of the occupying organisations who must implement the travel planning measures internally using their own systems (such as providing links to the Chilmington Green Sustainable Travel Website on their respective intranet and external websites).

#### CHILMINGTON GREEN SUSTAINABLE TRAVEL WEBSITE

- 2.16 The Consortium will be responsible for the creation of a dedicated sustainable travel website for Chilmington Green that will focus on providing appropriate, up-to-date information on sustainable travel options for accessing the development site.
- 2.17 The website will serve as a 'one-stop-shop' for the dissemination of site-wide sustainable travel information to the employees of each occupying business, as well as acting as a source of information for visitors. Information on the website will include

details of local public transport routes, local amenities and facilities, walking and cycle maps and a link to online car sharing opportunities.

- 2.18 The website will also provide links to other websites such as <u>Kent Journey Share</u>, <u>Traveline</u> and <u>Transport Direct</u> so as to encourage employees and visitors to plan their journeys using sustainable transport.
- 2.19 Employers and employees will also be encouraged to participate in an online discussion forum to help provide feedback on travel and travel plan related issues.

#### **EMPLOYEE SUSTAINABLE TRAVEL INFORMATION PACK**

- 2.20 A Sustainable Travel Information Pack will be provided to all employees at Chilmington Green. This pack will include details of the local public transport services, key local amenities and facilities, and walking and cycling maps.
- 2.21 The contents of the pack will be updated as necessary and will also be delivered to each new employee prior to their first day of employment. This will help ensure that all employees are able to consider the sustainable transport options available to them prior to commencing work at Chilmington Green and that the promotion of sustainable travel forms an active part of their employment induction process.
- 2.22 Any subsequent updates to information in the travel pack will be advised by the TPC, but printed and disseminated by the occupier.
- 2.23 Individual occupiers will be required to advise the TPC as to how many packs are required. The occupier will send packs to all staff prior to relocation and on confirmation of employment.

# TRAVEL INFORMATION POSTERS/LEAFLETS

2.24 Posters will be produced to provide information and details of key site-wide WTP initiatives, including the internet site web address and key contact details. Leaflets will be produced for visitors to promote suitable modes of transportation to and from the locality.

- 2.25 These will be distributed throughout the development to all occupying businesses for internal circulation within their premises to maximise awareness of WTP measures and opportunities to all employees.
- 2.26 Occupiers will be encouraged to display this information in reception areas, communal areas and areas of high foot fall.

#### Car Use

### **Promoting Car Sharing**

- 2.27 To ensure the most efficient use of cars that do travel to and from the site, employees of the site will be encouraged to car share where car use is necessary. This will help to reduce the overall number of car journeys being made in the first instance, whilst encouraging a pattern of more efficient car use amongst employees and residents.
- 2.28 Car sharing schemes encourage individuals to share private vehicles for particular journeys. Car sharing can be both formal and informal. Informal car sharing operates between individuals and neighbours and formal car sharing is defined by a more elaborate approach to trip matching, often focussed on the commuting journey.
- 2.29 Information about the existing local car sharing group, <u>Kent Journey Share</u> will be disseminated to employees through sustainable travel information packs and notice boards. This network can be joined for free and it helps users match journeys with other people and subsequently reduce the costs of travelling alone by car.
- 2.30 The site-wide Travel Plan Coordinator will be responsible for setting up a car sharing database for Chilmington Green which residents and employees will be encouraged to sign up to. This is expected to become more popular as the development builds out and more individuals join. A promotional event will be held at Chilmington. The Travel Plan Coordinator will also liaise directly with Kent Journey Share, should the need arise to encourage site employees (and other site users) to make greater use of the wider Kent Journey Share network.

#### **Car Clubs**

2.31 As part of the site wide measures for the Site, the Travel Plan Coordinator will undertake a feasibility study prior to first occupation of the site to determine the

suitability of a dedicated car club. A car club operator, such as ZipCar or City Car Club, will be approached to manage the scheme. This scheme will open to all local users including employees, local residents and other members of the Chilmington Green community to ensure optimal usage.

# MEASURES TO PROMOTE WALKING/CYCLING WALKING AND CYCLING NETWORK

2.32 Pedestrian and cycle permeability will be high, with links provided within the development site and to the existing residential area, enabling full use of the community facilities for employees based at Chilmington Green. The employment uses will attract local residents, thus increasing the opportunities to travel to the employment land uses sustainably without relying on the private car.

#### SITE SPECIFIC WALKING AND CYCLING MAPS

- 2.33 To demonstrate to employees how local facilities and services can be reached on foot, or by bicycle, site-specific walking and cycling maps will be produced by the Travel Plan Coordinator and distributed along with the travel information packs to all employers.
- 2.34 These maps will be produced with the development as the central points of focus, with all key local facilities and services clearly illustrated within time bands showing average walking and cycling journey times. This will demonstrate how accessible these destinations are within a given travel time.

#### **SECURE CYCLE PARKING**

2.35 All employment facilities, shops and community facilities at Chilmington Green will be provided with high quality secure cycle parking facilities close to their respective main access points. This will ensure that individual companies at Chilmington Green will be able to benefit from secure and covered cycle parking for their employees to use. The quantum of cycle parking provided will be in accordance with KCC / ABC guidance and reviewed through the monitoring process to see if additional spaces are required.

#### **BICYCLE USER GROUP (BUG)**

2.36 A Bicycle User Group (BUG) will be established for the development. This group will comprise of employees and WTP representatives of the companies, and local residents,

who are interested in taking forward initiatives to promote and facilitate cycling at Chilmington Green. The BUG will provide a forum for sharing information on cycle routes, cycling best practice, and to address any issues of concern regarding cycling or cycle safety.

2.37 The BUG will also enable less experienced cyclists to interact with established cyclists and obtain information, guidance and potentially a 'cycling buddy' to accompany them on their journey to or from the development. Through the BUG, a 'Bike Doctor' can be organised on a regular basis to service employee bicycles and provide advice on cycle maintenance.

#### **EMPLOYEE DISCOUNTS**

2.38 Details of local cycle shops will be publicised on the development website and discussions will be held with these shops to endeavour to secure discounts for employees on cycle purchase and repair. It is anticipated that such a discount may be secured given the sizable number of employees and the BUG will provide an ideal platform for taking this forward. However, the ultimately the agreement for any discounts will be the decision of the retail operators.

#### PROMOTIONAL EVENTS

- 2.39 The promotion of cycling and walking throughout the year will be undertaken through involvement in national activities such as <u>Bike Week</u>, which takes place in June annually. The TPC will contact the organisers of Bike Week for information on how to promote the event.
- 2.40 Employees located at all occupying organisations will receive publicity of these events via email, the website or notice boards/posters to actively encourage their participation. The coordination of these events will be facilitated by the TPC.

# MEASURES TO PROMOTE PUBLIC TRANSPORT USE ENHANCED PUBLIC TRANSPORT SERVICES

2.41 A Public Transport Strategy has been developed to ensure a target of 20% of trips Chilmington Green trips by public transport is met.

- To achieve this mode share a high quality, frequent and direct bus service to Ashford Town Centre is required. It is proposed that the bus service is bespoke to Chilmington Green rather than an extension of an existing bus service. The service will ultimately operate every 10 minutes (possibly with less frequency at first occupation with the service intensifying as the Site is occupied) and provide a direct and attractive link between Chilmington Green, Ashford Town Centre and Ashford International Rail Station (for high speed rail services to London).
- 2.43 High Quality Smart Bus Shelters are also planned around the Chilmington Green site. It is proposed that these shelters would include Real Time Passenger Information (RTPI) screens which show passengers when the next bus is due.

#### **BUS/RAIL SERVICE INFORMATION**

- 2.44 Details of public transport services serving the development area will be publicised to all employees, including route, fares and timetable information. This information will be disseminated directly to employees via a range of media including posters, sustainable travel information packs and via the Chilmington Green website.
- As a further measure, the provision of personalised travel planning information to employees could be introduced if the aforementioned approach is not felt to be sufficient following its implementation. At each individual business, new members of staff could be offered public transport information for their journey, based on their home postcode location as part of their induction process. This would be provided by the respective Travel Plan Champions who will set up short meetings with members of staff and/or provide information by email or alternative correspondence.

#### **DISCOUNTED FARES**

2.46 Discussions with public transport service operators will be undertaken, led by the TPC, to seek discounted public transport fares for employees. Should this be secured, the discount will be rolled out to employees to encourage their use, particularly of Chilmington Green bus service.

# MEASURES TO PROMOTE MORE EFFICIENT CAR USE CAR PARKING MANAGEMENT

- 2.47 It is recognised that the management of car parking is key to implementing a successful WTP.
- 2.48 Car parking provision at Chilmington Green will be provided in accordance with local standards. This will ensure there is no over provision of car parking which may lead to excessive car-based journeys to the site. Furthermore, regulating access to the supply of car parking will also help to restrict the demand for single-occupancy car journeys to the site.
- 2.49 The TPC will work with individual occupiers to help manage the demand for car parking at Chilmington Green and ensure no inappropriate overspill car parking occurs.

#### **CAR SHARING**

- 2.50 As organisations take up occupancy at Chilmington Green, the <u>Kent Journey Share</u> database will be promoted to provide the mechanism for encouraging car-sharing amongst employees from across the different companies.
- 2.51 Membership of these databases will continue to grow as future occupiers become apparent. The overall size of the databases will then be enhanced, to the collective benefit all employees looking to find prospective matches.
- 2.52 This will provide an ideal platform for employees with the same commuting destination to find a suitable car-sharing partner to share the journey to work with. In turn, car-based journeys to work will be made in a more efficient manner, and overall car trips will be reduced.
- 2.53 The benefits of joining a car share database will be promoted throughout Chilmington Green using promotional materials issued to employees through the sustainable travel packs, internet site and promotional advertising (such as posters) to be located within public areas at each occupying organisation.
- 2.54 The site-wide Travel Plan Coordinator will be responsible for setting up a car sharing database for Chilmington Green (which can be set up as a sub-network via Kent Journey Share) which residents and employees will be encouraged to sign up to. This is expected

to become more popular as the development builds out and more individuals join. A promotional event will be held at Chilmington Green organised by the site-wide Travel Plan Coordinator to boost the uptake of car sharing within the community.

2.55 In addition to the above, information and guidance will be provided to car sharers on security, the division of costs without incurring tax penalties, and details of insurance requirements to help facilitate a popular and successful scheme.

#### **ELECTRIC VEHICLE CHARGING POINTS**

- 2.56 The technology behind electric vehicles is at a point where they now provide a much better range and level of performance than early incarnations. From being produced by specialist companies they have now moved to mass production by the world's major manufacturers. At the time of writing, fully electric cars were produced by manufacturers such as Renault, BMW, Smart and Ford, among many others, with new electric car models to be produced by Volkswagen and Mini.
- 2.57 By providing a number of secure charging points located at various points around the development, those who feel that they need a vehicle may be encouraged to choose an electric car. This offers a social benefit of zero harmful emissions from the vehicle. There are personal benefits for the owners of electric vehicles as they are exempt from road tax and exempt, subject to eligibility criteria, from the London Congestion Charge. This is useful for employees who travel to the site from London or commute to London as part of their work. From January 2011, the Government has offered a grant of 25 per cent of the cost of the car, up to a maximum of £5,000. This level has been agreed until 2015, when the level of the grant will be reviewed. A new grant of 20% up to the value of £8,000 towards the purchase of electric vans was released in January 2012.
- 2.58 With the installation of charging points, Chilmington Green would be at the forefront of the promotion of zero emission vehicle use.
- 2.59 Once benefits and location have been reviewed, The Consortium will install an appropriate number of charging points prior to occupation. At this point, additional locations will also be reserved for further future installations should the demand arise. Initial charging points will be monitored to assess demand.

#### **OCCUPIER-SPECIFIC MEASURES**

- 2.60 Certain measures may be introduced by future occupiers of Chilmington Green on a company by company basis, depending on the applicability of a given measure to their operation.
- The measures in this section may, or may not, be relevant to the specific operation and travel characteristics of a particular occupier. As such these measures will not be delivered directly by The Consortium, but through individual business occupiers, with guidance from the TPC. The intention would be for individual occupiers to consider adopting these measures as part of their company policy, where they are clearly appropriate and beneficial to their business operation.
- These suggested measures are, as far as possible, intended to be suitable for review following identification of each occupier. As such more specific details on these measures will be presented to KCC / ABC in line with the phased development and occupation of Chilmington Green.
- A clause will be entered in to the lease contract documents to ensure that future occupiers are aware of the responsibilities in relation to travel planning well in advance of occupation. The wording will also refer to the need for occupiers to ensure sufficient funding is made available to deliver specific travel plan measures, discussed below.

# PROMOTING SUSTAINABLE TRANSPORT OPTIONS CYCLE2WORK SCHEMES

- 2.64 In consultation with the TPC occupiers will be encouraged to become involved in the government initiated <a href="Cyclescheme">Cyclescheme</a> which offers both tax and national insurance savings to participating employees who purchase a bike to cycle from home to work.
- 2.65 Payments for a bicycle can also be spread across the year using the scheme. An example of such a scheme can be found at <a href="https://www.halfordsb2b.com">www.halfordsb2b.com</a>.

#### PUBLIC TRANSPORT SEASON TICKET LOANS

2.66 In consultation with the TPC, occupiers will be encouraged to offer their employees interest-free loans to enable them to purchase public transport season tickets. The

greatest saving on public transport fares can be achieved by purchasing a long-term season ticket.

2.67 However, the need for a single advance payment can be prohibitive for some employees, particularly those on lower incomes. By offering an interest-free loan, employees can realise the financial savings of a season ticket and pay for it over time rather than in advance.

#### INCENTIVES FOR WALKING AND CYCLING

In addition to providing information, facilities and promotional events, there are a range of incentives that could be offered to encourage walking and cycling. Financial incentives for those who walk or cycle, entry into prize draws, a 'walker's breakfast', and greater flexibility over working times are all incentives that could be offered. Therefore, a key role of the TPC will be to discuss with site-occupiers the potential for some of these incentives to be offered to their employees.

#### **INCENTIVES FOR BUS TRAVEL**

Occupiers will offer incentives to encourage bus travel amongst their own employees.

This could include a special offer sample ticket for their employees to experience one week's free bus travel upon commencement of work at Chilmington Green. This would help to establish sustainable travel behaviour amongst staff during the very initial stages of relocating to the site.

# **ENCOURAGING EFFICIENT CAR USE**

#### SUPPORTING STAFF RELOCATION / REDUCING THE NEED TO TRAVEL

- 2.70 Chilmington Green will be a mixed use development consisting of residential and employment properties, adjacent to existing residential areas. Therefore, the opportunity exists to promote the employment opportunities to residents in the surrounding area or those moving into the new residential dwellings.
- 2.71 Furthermore, individual employers may wish to publicise the availability of residential properties at Chilmington Green to their existing staff base. This may help support a reduction in longer distance commuting trips into Chilmington Green, as residents are

based more locally. Some form of incentive offer may be possible to help encourage this process.

2.72 The Travel Plan Coordinator will be able to work alongside individual site occupiers to promote these types of schemes.

#### **COMPANY CAR POLICY**

- 2.73 Individual occupiers who anticipate offering company cars to employees as part of their remuneration will be encouraged to offer a financial alternative. This will in turn encourage employees that are entitled to a company car to consider such an alternative as opposed to the use of an additional car.
- 2.74 Introducing fuel efficient, or alternative fuel, low emission pool cars and fleet vehicles will also be actively promoted by the TPC to each site occupier. This will further help to reduce the impact of car-based vehicles on the local environment.
- 2.75 By offering electric pool cars and fleet vehicles it would make use of the charging points discussed previously.

### **GUARANTEED RIDE HOME SCHEME**

- 2.76 Occupiers will also be encouraged to offer a 'guaranteed ride home' for their employees who participate in any car-sharing arrangement. Under the guaranteed ride home scheme, if a member of staff has to leave at an unexpected time for emergency reasons and no practical alternative travel option is available, the organisation will provide the means for ensuring that this person gets home.
- 2.77 This may take the form of covering the cost of a taxi for that employee. The 'guaranteed ride home' scheme will also help appease any concerns amongst employees should their car sharing arrangements fail for any reason, ensuring they are able to travel home.

### FINANCIAL TRAVEL INCENTIVES

2.78 Financial incentives represent another option for the promotion of efficient car use and car sharing. Financial incentives such as entry to a prize draw for all members of the car

share database. These cash-out and prize schemes can of course be extended to cover those who journey to work by other sustainable means, such as walking and cycling.

2.79 The TPC will discuss the potential for these schemes with individual companies.

#### MEASURES TO PROMOTE SMARTER WORKING PRACTICES

2.80 A review of working practices can have a positive impact in encouraging sustainable travel behaviour and each occupier will be encouraged to consider the following working practices for their employees, where applicable. These include the examples outlined below.

# FLEXIBLE WORKING HOURS/COMPRESSED WORKING WEEK

- Where operational requirements permit, occupiers should examine the potential to introduce a practice of flexible working hours amongst employees. This will help to reduce peak congestion on the public transport network, allow employees to work flexibly around other commitments, such as dropping off or picking up children to/from school. It will also help ensure that those wishing to travel by public transport are not deterred by differences between service operation times and when they are required to commence work. Where such conflicts do occur, and cannot be resolved, this may lead to a higher level of car dependency.
- 2.82 Individual occupiers will be encouraged by the TPC to introduce this flexibility in working hours where possible.

#### REMOTE/HOME WORKING OPPORTUNITIES

2.83 Home working may only be suitable for a small number of employees within a business, but can reduce the overall number of journeys to and from the site. Therefore, each occupier will also be encouraged by the TPC to explore the potential to introduce home working where this is possible and in line with business need.

# **VIDEO/TELE-CONFERENCING FACILITIES**

2.84 Making available video and audio conferencing facilities will allow employees to use them instead of travelling for some business journeys. The TPC will highlight the

benefits of these facilities to companies at Chilmington Green where it appears applicable to their business operation.

# SUSTAINABLE VISITOR JOURNEYS

- 2.85 Visitors to Chilmington Green will be able to access sustainable travel information via the sustainable travel website.
- 2.86 Directing visitors to this information should be considered a standard business practice for future occupiers to ensure visitors are aware of the sustainable travel options that might be available to them. This will be communicated to individual businesses by the TPC.

# **SUMMARY**

- 2.87 This chapter has outlined a number of measures that will actively encourage sustainable travel behaviour amongst employees and reduce the number of single- occupancy car journeys associated with development at Chilmington Green.
- 2.88 The measures themselves will either be implemented as site-wide measures, and primarily funded by The Consortium, or will be encouraged as a sustainable business practice to be adopted by future occupiers of the site, and within any subsidiary WTPs.
- 2.89 It is expected that, where practical, these measures will be encompassed by all the individual occupiers to make it easier for as many employees as possible to reduce the need to travel or choose sustainable travel modes for commuting or business journeys.
- 2.90 The following chapter highlights the management structure that will be introduced to deliver the measures presented in this chapter.

# 3 TRAVEL PLAN MANAGEMENT

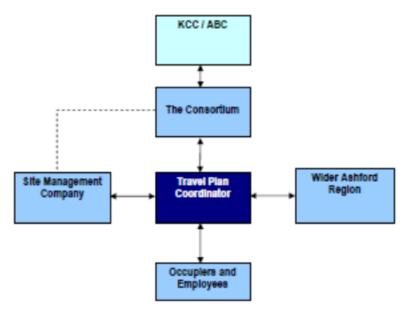
# Context

3.1 The management and implementation of the WTP will be an important part of the phased development of Chilmington Green. It must be seen as beneficial by employees, and a clear structure must be in place prior to first occupation of the development. This section highlights how this will be achieved.

#### **MANAGEMENT STRUCTURE**

- 3.2 Responsibilities for delivering measures within the WTP must ultimately be shared between The Consortium and future occupiers.
- 3.3 To deliver this effectively, the WTP will be co-ordinated by a group of key personnel. This group will be responsible for the implementation and review process of the WTP and will include:
  - a site management company;
  - the site-wide Travel Plan Co-ordinator; and
  - the Travel Plan Champions of each occupier.
- 3.4 The intended management structure for the WTP is shown below in **Figure 3.1**.

Figure 3.1 Chilmington Green Travel Plan Management Structure



#### SITE MANAGEMENT COMPANY

- 3.5 A site management company will be established for Chilmington Green, as an agent of The Consortium, with ongoing responsibility for the management, maintenance and operation of the site including overall responsibility for delivering the WTP.
- 3.6 It will be the site management company's responsibility to appoint a TPC to provide support when required for the WTP.

#### TRAVEL PLAN COORDINATOR

- 3.7 A TPC will be appointed by the site management company prior to first occupation of Chilmington Green (whether residential or employment). They will act as the principal point of contact for all TP queries at Chilmington Green and will co-ordinate delivery of the TP at a site-wide level.
- The post of TPC will be funded by the Consortium via the site management company.

  The amount of time that the TPC will spend will vary, with hours intensifying during first occupation, monitoring periods and when events, campaigns or promotions take place.
- 3.9 Having one TPC for the site gives greater consistency between all the Travel Plans and allows for the interchanging between the plans of successful ideas and methods of stimulating modal shift.
- 3.10 The duties of the TPC will include (in respect of the WTP):
  - managing the day-to-day operational requirements of the WTP;
  - meeting with all potential occupiers to discuss the requirements of the Travel Plan.
  - actively promoting the use and availability sustainable travel options to all employees located at Chilmington Green;
  - working with the individual business at Chilmington Green to develop their
     'occupier- specific' WTP measures, and subsidiary WTPs;
  - as a point of contact for occupier-specific nominated WTP representatives;
  - setting up, managing and coordinating a WTP Steering Group.
  - ensuring that all travel information and data disseminated via the Chilmington
     Green internet site is kept accurate and up-to-date;

- ensuring that annual employees travel surveys are undertaken across Chilmington
   Green, reviewing short monitoring reports supplied by the occupiers and compiling
   an overarching report detailing the findings of the whole development;
- reporting to the site management company and KCC / ABC with all results of the employees travel surveys, and ongoing staff feedback on travel and transport issues;
- taking part in the decision making process with the site management company on the delivery of measures at a site-wide level;
- updating the WTP document with individual occupiers to ensure ownership; and
- liaising with local authorities, key stakeholders and other local employers.

# **BUSINESS OCCUPIER REPRESENTATIVES**

- 3.11 Individual occupier representatives will be identified and appointed by their respective organisations, as Travel Plan Champions prior to their occupation of premises at Chilmington Green.
- 3.12 Their role will include:
  - being the first point of contact for employees of their organisation regarding travel and transport issues;
  - helping to implement occupier specific measures within the organisation;
  - co-ordinating and analysing employee travel surveys within the organisation;
  - disseminating results of the employee travel surveys to their organisation's staff;
     and
  - disseminating results of the employee travel surveys to the TPC to enable for sitewide summary feedback to KCC / ABC.
- 3.13 Individual occupier representatives will assist the TPC by facilitating travel surveys and providing assistance in the rolling out of site-wide measures and their coordinated implementation.
- 3.14 If the appointed representative leaves the company, a replacement will be appointed and the TPC notified accordingly.

# **ALL EMPLOYEES**

- 3.15 In addition to the key personnel outlined in this chapter, all employees working within Chilmington Green will be encouraged to co-operate in implementing travel planning measures at their respective organisation, and support the aim and objectives of the WTP by:
  - being aware of how much they use their car and considering whether commuting and business journeys are always necessary; and
  - reducing their car dependency to minimise congestion and protect the environment.

# 4 IMPLEMENTATION ACTION PLAN

# **Implementation Action Plan**

- 4.1 The site management company will appoint the TPC prior to first occupation of Chilmington Green. This will ensure that preparation for measures to be introduced either prior to, or on first occupation of the site can be progressed in the meantime, to ensure sustainable travel patterns are actively encouraged from the outset.
- 4.2 It is envisaged that subsequent occupiers should on first occupation appoint their Travel Plan Champions and a management representative to attend the WTP steering group.
- 4.3 To ensure delivery and ownership of specific measures it is necessary to set out an 'Action Plan' for implementation and review. **Table 4.1** below provides an initial action plan for implementation of measures across Chilmington Green. This includes the sitewide measures to be implemented on-site and associated timescales or trigger points.

Table 4.1 Chilmington Green WTP – Implementation Action Plan

Trigger / Date	Task	Delivery		
		Responsibility		
Prior to first	Appoint a site management company	The Consortium		
employment	Appoint a site-wide TPC	Management		
occupation		Company		
	Creation of a sustainable travel website	The Consortium /		
		Site Management		
		Company / TPC		
	Creation of car share database	TPC		
	Prepare site-specific walking and cycling maps	TPC		
	Prepare employee sustainable travel welcome	TPC		
	pack contents			
	Installation of electric vehicle charging points	The Consortium		
	Installation of secure cycle parking	The Consortium		
Following first	Collate and distribute sustainable travel	TPC / Site occupiers		
employment	welcome pack to all employees			
occupation	Prepare travel information leaflets / posters for	TPC		
	distribution to the occupiers			
	Organise and run sustainable travel promotional	TPC		
	event, e.g. car sharing promotion or Bike Week.			
	Funding enhanced bus services	The Consortium		
Following first	Seek public transport fares and cycle shop	TPC		
employment	discounts for employees at Chilmington Green			
occupation	Undertake employee travel surveys within six	TPC		
	months of occupation after initial travel patterns			
	have stabilised			
	Analysis of employee travel surveys; agreement	TPC		
	of appropriate measures; update WTP as			
	necessary; submit to KCC / ABC for approval			
	Work in partnership with individual occupiers on	TPC		
	the implementation of occupier-specific WTP			
	measures			
	Set up a Bicycle User Group	TPC		
One year following	Repeat travel surveys once year after baseline	TPC		
first employment	survey, review effectiveness of initiatives, results			
occupation	and targets and submit to KCC / ABC. If			
	insufficient progress is being made then			
	introduce recovery measures.			
Subsequent years	Repeat process set out for Year 1 (as necessary)	TPC		
following first	following first and report findings and actions to KCC / ABC			
employment	Discontinue WTP monitoring after 5 years	TPC		
occupation	following site occupation			

#### **FUNDING**

- The initial infrastructure related to the planning application proposals, such as on-site and off-site pedestrian and cycle facilities and delivery of the public transport strategy, will be secured through appropriate mechanisms within the planning process (Section 106 Agreement). This will provide the delivery of facilities and the vehicle for the funding of such measures.
- 4.5 The site developers will also provide funding to the site management company for appointing a TPC, who will take forward the site-wide Action Plan of sustainable travel initiatives and measures.
- 4.6 The Consortium will fund the delivery of 'site-wide' initiatives including the establishment of the Chilmington Green internet site, initial monitoring, and site-wide marketing/promotional activity related to sustainable travel. This will continue until such time as there are further site occupiers, at which point the funding responsibility will become shared.
- 4.7 The subsequent individual occupying companies will be responsible for the ongoing funding and delivery of their company-specific WTP initiatives including monitoring. Measures to be delivered by individual occupiers will include, for example, internal awareness raising campaigns within the organisations, sustainable business practices such as remote or home working (where possible) and providing loans for public transport season tickets. Commitment to funding these measures will be secured through the tenancy agreement for each occupier of Chilmington Green.
- 4.8 Therefore, the obligation for funding and implementing site-specific travel plans will be passed to the individual occupying companies through the legal contractual lease agreement.
- 4.9 Table 4.2 indicates the funding responsibility for each measure outlined within this WTP.

**Table 4.2 Funding Responsibility for Delivery of Measures** 

Measure	Funding Responsibility
Overall Ma	
Appoint site-wide TPC	Site Management Company
Undertake annual employee travel monitoring	Site Management Company
for a period of 5 years following site	
occupation	
Infrastructure	Improvements
Pedestrian and cycle routes through the	The Consortium
development	
Travel Inf	ormation
Create and manage sustainable travel website	Create: The Consortium
	Manage: Site Management Company
Create and distribute employee sustainable	Site Management Company
travel welcome packs	
Produce sustainable travel posters / leaflets for	Site Management Company
distribution across Chilmington Green	
organisations	
	e Walking and Cycling
Establish a Bicycle User Group	Site Management Company
Site-specific walking and cycling maps	Site Management Company
Signposting and maps of main routes	The Consortium
Site-wide promotional events	Site Management Company
Seek favourable purchasing arrangements at	Site Management Company
local bike stores for Chilmington Green	
employees Cycle parking	The Consortium / Developers
Cycle parking Participation in Cyclescheme	Site Management Company
Measures to pr	
Provision of bus timetables to employees	Site Management Company
Enhanced bus services	The Consortium
Offer of discounted tickets	Site Occupiers
Season ticket loans	Site Occupiers
	ote efficient car use
Promotion of Kent Journey Share	Site Management Company
Employee relocation schemes	Site Occupiers
Guaranteed ride home scheme	Site Occupiers
Measures to promote smarter work practices	Site Occupiers
(e.g. home working)	· ·

# **SUMMARY**

- 4.10 This chapter has outlined a clear implementation plan for the WTP, detailing the funding and delivery responsibilities associated with the Travel Plan measures.
- 4.11 The TPC will work closely with individual occupiers through the entire process to ensure that useful travel plans are implemented and accurate data collated through the monitoring process.
- 4.12 To add further certainty to the delivery of measures, specific trigger points have been identified for when measures should be introduced. This will provide an initial guideline for The Consortium and the appointed WTPC on the timing of specific interventions to maximise the potential for encouraging sustainable commuting patterns and business travel at Chilmington Green.

# 5 TARGETS AND MONITORING

# **Workplace Travel Plan Targets**

- 5.1 Establishing targets and then monitoring these play an important part in understanding the changing nature of employee travel habits and the effectiveness of measures in working towards meeting the WTP's aim and objectives. Existing measures can then be reviewed and evaluated, with alternative or recovery measures being considered where necessary to achieve the targets.
- 5.2 Employee travel surveys, circulated annually at specific review dates, will support this process. This will also ensure that regular monitoring is linked as part of a site-wide monitoring strategy.
- Targets related to modal split are useful in assessing the effectiveness of a WTP, but must take into account individual site characteristics. Given that Chilmington Green has yet to be occupied it isn't possible to establish a baseline mode split for commuting journeys to and from Chilmington Green at this time. The site is being designed with sustainable travel as a priority. This will help to ensure that sustainable travel habits are encouraged from the outset, but the effect of this cannot be determined until baseline travel surveys have been undertaken.
- The 2001 Census provides information on the current 'journey to work' modal split for the nearby Great Chart and Singleton North Ward, which has been analysed in Section 3.8 of the Transport Assessment, and shown in **Table 5.1** below. Data from the 2011 Census is not currently available to use for this purpose. Information for this ward is being used, in agreement with KCC, as the majority of the site falls within this ward. It should be noted that the table excludes people that indicated they work from home.

Table 5.1 Great Chart and Singleton North Ward model split (Journeys to work)

Mode	Percentage
Car Driver	72.10%
Car Passenger	6.44%
Train	6.06%
Underground	0%
Bus	3.28%
Taxi	0.38%
Motorcycle	0.76%
Cycle	4.29%
Walk	6.69%
Other	0%
Total	100%

Source: 2001 Census

- 5.5 The census data indicates that 72.10% of the resident population in this ward travel to work as single-occupant car drivers. Therefore, an interim target for this WTP will be to not exceed 72% of all journeys being undertaken by employees of the development as car drivers until such a time as a more accurate baseline target can be established from a survey.
- 5.6 Establishing targets relating to changes in employee attitudes towards sustainable transport options can also prove important in evaluating the success of a WTP. This information will be gained from the employee travel surveys undertaken six months post-occupation of the site.
- 5.7 Targets will then be set for Phases 1, 2, and 3 a reduction of single-occupancy car journeys to and from Chilmington Green to reach the agreed Phase 4 site wide mode share targets by development completion (to be achieved by completion of all residential units). The percentage annual reduction will be derived using empirical evidence from the travel survey and an understanding of the site design and Sustainability strategy, the final targets will be agreed with KCC / ABC, but are unlikely to be largely dissimilar to the proposed targets for end of Phases 1, 2, and 3 detailed in Table 5.2 below.

Table: 5.2 End of phase mode share targets

Mode	Phase 1	Phase	Phase	Phase	Site-wide target
		2	3	4	
Car (driver and	62%	60%	57%	54%	53%
passenger)					
Bus	20%	20%	20%	20%	20%
Train	6.5%	8%	9%	10%	10%
Walk	7%	7%	8%	10%	11%
Cycle	4%	4%	5%	5%	5%
Other (motorcycle,	1%	1%	1%	1%	1%
taxis, etc)					
Total	100%	100%	100%	100%	100%
Baseline survey	End of	N/A	N/A	N/A	N/A
	year 1				
Monitoring (years of	3,5	3,5	3,5	3,5	Annual up to five years
phase)					following completion

#### MONITORING METHODOLOGY

- 5.8 An initial baseline survey will be undertaken 6 months following first occupation of each commercial development to set appropriate yearly targets to fulfil the site wide target.
- 5.9 Following this, it is proposed that annual monitoring in the form of employee travel surveys and multimodal surveys will be undertaken strategy, until five years after development completion. It is the intention that all employer occupiers monitoring strategies will align with the site-wide annual approach. This will ensure that monitoring is co-ordinated effectively and will result in more useful monitoring reports, covering each land use on site.
- All individual site occupiers will be required to ensure the distribution of the employee travel survey at their respective organisations. An example employee travel survey form is attached in Appendix A. This will be adapted to ensure it is specific to companies occupying Chilmington Green before it is issued.
- 5.11 The multimodal travel surveys will be undertaken using permanent vehicular monitoring loops located on each vehicular site access point. The proposed locations for these loops are shown in *Umbrella Travel Plan Figure 9.1* (see the Umbrella Travel Plan). Given that the site will have many access points, many of which will be through routes, the best method used to survey vehicle, pedestrian and cycle trips will be investigated

by the Travel Plan Coordinator to establish which is the most effective and robust method.

- The results of these surveys will be supplied directly to the TPC. The TPC will be responsible for coordinating the timing of the annual surveys, collating the resulting information, and submitting an annual monitoring report to KCC / ABC, with assistance from the workplace travel representatives
- The objective of the monitoring process is to measure the progress of the WTP against the respective modal split target. If progress against the target is not being demonstrated, the introduction of additional recovery measures will be undertaken to help meet the target (see Section 9.4).

#### **FUNDING AND REPORTING RESPONSIBILITY**

- The monitoring and review process of the Workplace Travel Plans will be managed by the TPC and funded by the site management company. Time spent within the organisation in disseminating, collated and summarising data will be met by that occupier.
- 5.15 A summary report of progress will be submitted at each annual review to KCC / ABC.

  This will ensure that a focus and momentum is maintained and provides opportunities for a review of the WTP in light of any travel and transport issue that may have arisen.
- 5.16 The Travel Plan support provided by KCC, including the inclusion of survey data in iTRACE will be included in the pre-application fee, to be paid for by the Consortium.

#### **RECOVERY MEASURES – ACTION PLAN**

- 5.17 **Table 5.3** presents the draft end of phase mode split targets for each phase of development.
- As previously outlined, it is anticipated that the draft end of phase targets (phase 1, 2 and 3) will be subject to change following the baseline employee travel survey to be undertaken following occupation of Chilmington Green. This will ensure that they remain realistic in striving to meet the site-wise targets. Since the site is very large and that it will be constructed over a number of years (up to 20 years) the baseline survey undertaken in year 1 will not be representative of the whole site.

- 5.19 Initial monitoring during each phase prior to the end of phase monitoring, will help to ensure that the end phase modal split targets (for phases 1, 2, and 3) set in year 1 are realistic in working towards meeting the site-wide model split target.
- 5.20 However, despite potential changes to the target itself, it is important to illustrate a course of remedial action should progress towards the targets not be achieved. Table
  5.3 summarises a step-by-step approach to introducing a series of recovery measures designed to bring the RTP back on course should the initial Implementation Action Plan fail to achieve the associated targets.
- 5.21 The recovery measures would commence with notification to KCC / ABC of any failure to reach the target mode share. The recovery measures process would be funded by the site management company.

**Table 5.3 Recovery Measures Action Plan (Interim)** 

Order of	Action
Actions	
1	Notification of failure to meet mode share target
2	Meeting of TPC and KCC / ABC to discuss way forward
3	Meeting between TPC, KCC / ABC and representatives of individual occupiers to
	agree additional mutually convenient and voluntary measures
4	Pursue the offer of interest free loans for bus and rail season tickets amongst
	organisations not currently participating
5	Pursue the offer of interest free loans for bicycles amongst organisations not
	currently participating
6	Offer free two-week trial public transport tickets for employees at Chilmington
	Green
7	Offer incentives to employees to make greater use of sustainable travel options.
	Examples may include financial incentives based around a reward system for the
	non-use of private car-based commuting
8	Offer a full personal travel planning service to all employees at Chilmington Green,
	providing individually tailored sustainable travel information specific to their own
	journey to work, including further incentives to try these modes.
9	TPC to meet with KCC / ABC to discuss further potential measures and a possible
	revision to future WTP target.

As shown by **Table 5.3**, the recovery measures action plan details an approach to introducing a range of measures and instigating further discussions about individual business practices that could be called upon to boost sustainable travel patterns at Chilmington Green.

5.23 It is not possible at this stage to identify an exact package of remedial measures, given that the reasons for non-conformity against the set targets cannot be established until employee travel surveys have been assessed. Only at this point will it be possible to determine the most appropriate course of action. As detailed in Table 5.3 this will require discussion with KCC / ABC. The Consortium will ensure that an appropriate sum of money is ring-fenced within the Section 106 Agreement to appropriately fund remedial measures. Should this sum not be required to implement such measures, these monies will be used by KCC / ABC to enhance existing sustainable transport networks which would benefit Chilmington Green.

# 6 SUMMARY

### Summary

- 6.1 This umbrella Workplace Travel Plan (WTP) has been prepared in support of development proposals at Chilmington Green, Ashford. The plan focuses primarily on how employees who will be based at Chilmington Green can be encouraged to use sustainable means of transport for commuting to and from the site, and for business travel.
- 6.2 The measures proposed within this document will not only bring associated benefits to the individual businesses and their employees, but will also help to mitigate any transport impacts of the development on the wider local community.
- 6.3 The measures outlined are divided into 'site-wide' measures (to be funded by The Consortium and delivered through a site management company) and 'occupier- specific' measures (to be funded and delivered by the subsequent individual site occupiers)
- To deliver this effectively, the WTP will be co-ordinated by a group of key personnel, including the appointment of a Travel Plan Coordinator from within the occupier's organisation to oversee delivery on a day-to-day basis. This will include preparing travel information materials for dissemination to companies and employees on their immediate occupation of Chilmington Green. The site-wide appointed TPC will work closely with individual occupiers to provide guidance and support and to ensure that WTPs are implemented across the site in a joined manner.
- 6.5 This WTP has also detailed a clearly defined interim target relating to the modal split for commuting journeys to Chilmington Green, which can be revised more accurately following a baseline travel survey. To monitor progress against the target, a detailed employee travel survey will be conducted on an annual basis by the Workplace Travel Plan Coordinator, with the results submitted to KCC / ABC.
- 6.6 Information gathered from these surveys will also support the ongoing review of this WTP.

# Appendix A

**Employee Travel Plan Survey (Example)** 

# Appendix A - Example Staff Travel Survey

The following provides an example staff travel survey that may be used to inform the Chilmington Green Workplace Travel Plan. Not all of the questions may be relevant to your organisation.

Example Introduction: We would like to understand more about how our staff currently travel to work so that we can better cater for your needs. This is your chance to tell us what you think. Please take a few minutes to complete this questionnaire and submit your response by XXX.

Example Incentive: As a token of our appreciation, X randomly selected respondents will win XX.

If you have any queries abo	ut this questionnaire, please contact XX
Firstly, please tell us abou	π your working patterns at XX
Q1: On what basis do you w Select one only	vork at XXX?
Full-time	
Part-time	
Q2: Are you on a permanen	t contract or employed through an agency?
Select one only	
Permanent employee	
Agency	
Q3: Within which departmen	nt do you work?
Select one only	
XX	
XX	
XX	
Q4: At which office are you	predominately based?
Select one only	• • • • • • • • • • • • • • • • • • • •
XX	
XX	
XX	
Q5: Do you usually work shi	ift patterns or standardised hours?
Select one only	
Shift patterns	
Standardised hours	<u> </u>
Startualuised flours	
Q6: Does your work enable	you to:
Select all which apply	_
Work flexible hours	<u> </u>
Work from home	<u>_</u>
Hot-desk	
Q7: What time do you usual	ly arrive at work?
Select one only	A STATE OF THE STA
Before 7 am	
7 am - 7:29 am	<u> </u>
7:30 am -7:59 am	
8 am - 8:29 am	
8:30 am - 8:59 am	
9 am - 9:59 am	
10 am -10:59 am	
11 am-11:59 am	ō
12 midday or after	

Q8: What time do you usua	ally leave work?	
Select one only		
Before 2pm		
2 pm-2:59 pm		
3 pm-3:59 pm	000000	
4 pm-4:29 pm		
4:30 pm-4:59 pm		
5 pm-5:29 pm		
5:30 pm-5:59 pm		
6 pm-6:59 pm	=	
7 pm or after	_	
Q9: How often do you curr	entry work from	nome?
Select one only	_	
Several times per week	_	
Once a week	<u>_</u>	
Once a fortnight		
Once a month		
Less often	00000	
Never		
Now tell us about how yo	ou travel to and	from work
Q10: Do you have access t	to a car for your	journey to and from work?
Select one only		the state of the s
Yes – every day		
Yes – sometimes		
No – never		
No - I cannot drive		
Odd: Do you have assert !	to a blounin for a	our lovemon to and from work?
	to a bicycle for	your journey to and from work?
Select one only	to a bloyde for y	<u> </u>
Select one only Yes – every day	to a bloyde for y	
Select one only Yes – every day Yes – sometimes	to a bloyde for y	
Select one only Yes – every day Yes – sometimes No – I do not have a bike		
Select one only Yes – every day Yes – sometimes		
Select one only Yes – every day Yes – sometimes No – I do not have a bike	to work	
Select one only Yes – every day Yes – sometimes No – I do not have a bike I live too far away to cycle! Q12: How do you usually to	to work ravel to/from wo	rik?
Select one only Yes – every day Yes – sometimes No – I do not have a bike I live too far away to cycle? Q12: How do you usually to Please select the one type	to work ravel to/from wo	
Select one only Yes – every day Yes – sometimes No – I do not have a bike I live too far away to cycle i Q12: How do you usually to Please select the one type stop and then catch the bu	to work ravel to/from wo	rik?
Select one only Yes – every day Yes – sometimes No – I do not have a bike I live too far away to cycle to Q12: How do you usually to Please select the one type stop and then catch the bu Select one only	to work ravel to/from wo of transport you s, please select	rik?
Select one only Yes – every day Yes – sometimes No – I do not have a bike I live too far away to cycle to Q12: How do you usually to Please select the one type stop and then catch the bu Select one only Car driver	to work ravel to/from wo of transport you s, please select	rik?
Select one only Yes – every day Yes – sometimes No – I do not have a bike I live too far away to cycle to Q12: How do you usually to Please select the one type stop and then catch the bu Select one only Car driver Car passenger	to work ravel to/from wo of transport you s, please select	rik?
Select one only Yes – every day Yes – sometimes No – I do not have a bike I live too far away to cycle i Q12: How do you usually to Please select the one type stop and then catch the bu Select one only Car driver Car passenger Bus	to work ravel to/from wo of transport you s, please select	rik?
Select one only Yes – every day Yes – sometimes No – I do not have a bike I live too far away to cycle to Q12: How do you usually to Please select the one type stop and then catch the bu Select one only Car driver Car passenger Bus Train	to work ravel to/from wo of transport you s, please select	rik?
Select one only Yes – every day Yes – sometimes No – I do not have a blike I live too far away to cycle i  Q12: How do you usually to Please select the one type stop and then catch the bu  Select one only Car driver Car passenger Bus Train Motorcycle/scooter	to work ravel to/from wo of transport you s, please select	rik?
Select one only Yes – every day Yes – sometimes No – I do not have a blike I live too far away to cycle to Q12: How do you usually to Please select the one type stop and then catch the bu Select one only Car driver Car passenger Bus Train Motorcycle/scooter Walk	to work ravel to/from wo of transport you s, please select	rik?
Select one only Yes – every day Yes – sometimes No – I do not have a bike I live too far away to cycle to Q12: How do you usually to Please select the one type stop and then catch the bu Select one only Car driver Car passenger Bus Train Motorcycle/scooter Walk Cycle	to work ravel to/from wo of transport you s, please select	rik?
Select one only Yes – every day Yes – sometimes No – I do not have a blike I live too far away to cycle i  Q12: How do you usually to Please select the one type stop and then catch the bu  Select one only Car driver Car passenger Bus Train Motorcycle/scooter Walk Cycle Taxi	to work  ravel to/from wo of transport you s, please select	rik?
Select one only Yes – every day Yes – sometimes No – I do not have a blike I live too far away to cycle i  Q12: How do you usually to Please select the one type stop and then catch the bu  Select one only Car driver Car passenger Bus Train Motorcycle/scooter Walk Cycle Taxi	to work ravel to/from wo of transport you s, please select	rik?
Select one only Yes – every day Yes – sometimes No – I do not have a blike I live too far away to cycle i Q12: How do you usually to Please select the one type stop and then catch the bu Select one only Car driver Car passenger Bus Train Motorcycle/scooter Walk Cycle Taxl Other (please specify) Q13: If you ever travel to w	to work  ravel to/from wo of transport you s, please select	rik?
Select one only Yes – every day Yes – sometimes No – I do not have a blike I live too far away to cycle i  Q12: How do you usually to Please select the one type stop and then catch the bu  Select one only Car driver Car passenger Bus Train Motorcycle/scooter Walk Cycle Taxi Other (please specify) Q13: If you ever travel to w Select all which apply	to work  ravel to/from wo of transport you s, please select	nk?  u use most aften. If you use two types, e.g. walk to the bus the one on which you travel for the greatest distance.
Select one only Yes – every day Yes – sometimes No – I do not have a blike I live too far away to cycle i  Q12: How do you usually to Please select the one type stop and then catch the bu  Select one only Car driver Car passenger Bus Train Motorcycle/scooter Walk Cycle Taxl Other (please specify) Q13: If you ever travel to w Select all which apply None	to work  ravel to/from wo of transport you s, please select	nk?  u use most aften. If you use two types, e.g. walk to the bus the one on which you travel for the greatest distance.
Select one only Yes – every day Yes – sometimes No – I do not have a blike I live too far away to cycle i  Q12: How do you usually to Please select the one type stop and then catch the bu  Select one only Car driver Car passenger Bus Train Motorcycle/scooter Walk Cycle Taxi Other (please specify) Q13: If you ever travel to w Select all which apply	to work  ravel to/from wo of transport you s, please select	nk?  u use most aften. If you use two types, e.g. walk to the bus the one on which you travel for the greatest distance.
Select one only Yes – every day Yes – sometimes No – I do not have a blike I live too far away to cycle i  Q12: How do you usually to Please select the one type stop and then catch the bu  Select one only Car driver Car passenger Bus Train Motorcycle/scooter Walk Cycle Taxl Other (please specify) Q13: If you ever travel to w Select all which apply None Car driver	to work  ravel to/from wo of transport you s, please select	nk?  u use most aften. If you use two types, e.g. walk to the bus the one on which you travel for the greatest distance.
Select one only Yes – every day Yes – sometimes No – I do not have a blike I live too far away to cycle i  Q12: How do you usually to Please select the one type stop and then catch the bu  Select one only Car driver Car passenger Bus Train Motorcycle/scooter Walk Cycle Taxl Other (please specify) Q13: If you ever travel to w Select all which apply None	to work  ravel to/from wo of transport you s, please select	nk?  u use most aften. If you use two types, e.g. walk to the bus the one on which you travel for the greatest distance.

Train Motorcycle/scooter Walk Cycle Taxl Other (please specify)	
Q13: How long does your jour Select one only 0-15 minutes 16-30 minutes 31-45 minutes 46-60 minutes Over an hour	ney to work usually take?
If you ever travel to/from work	by car, please answer Q14-Q17. If you do not, please go to Q18.
Q14: When you travel to work	by car where do you usually park?
Select one only	by the miles by you assure years.
Workplace car park	
On-street near work	
Public car park	
Other (please specify)	_
Q15: How much do you pay po	er day for parking?
Select one only	_
Nothing – free parking	
Less than £1 per day	
£1-£1.99 £2-£2.99	
£3-£4.99	H
€5-€6.99	ī .
€7-€9.99	
£10 or more	8
Other (please specify)	
O15: Do you pood to drop off!	pick up a child/family member on your way to/from work?
Select one only	pok up a uniunanny member on your way to non work:
Yes	
No	ō
	by car for work related business (e.g. to meetings)?
Select one only  More than five times per week	
Several times per week	<del></del>
Once a week	<del></del>
Once a fortnight	
Once a month	
Less often	
Never	

# Now tell us about how your journey to work could be improved

We are looking at ways to improve the transport system to make it easier for staff to get here by alternatives to the private car.

Please say whether you would consider travelling by these alternative means of transport if the following measures were provided. If you already use these types of transport, consider whether the measures would improve your existing journey to/from work.

Select one box in each row	Yes - definitely	Yes - probably	Yes - possibly	No	Don't know
Q18 Walking		1701111			
Better lit footpaths around workplace					
Better maintained footpaths around workplace					
CCTV cameras	-	_	_	_	
Lockers available at work	_	_		_	
Q19 Cycling	_	_		_	_
Dedicated cycle routes & crossings					
The latest term of the second					
Better signed cycle routes Covered cycle parking at work		-	-	-	-
	_	<u> </u>		ö	
Secure cycle parking at work		1		Ö	
Provision of lockers and changing facilities		8		ä	ä
Discounts on cycle purchase/equipment	_	_			
Cycle mileage allowance for business trips	8	8		8	
Establishment of a cycle user group Q20 Bus/Train		ш	ш	ш	П
Better waiting facilities (shelters/seating) at work					
Better public transport information at work					
Cheaper/discounted fares					
More frequent bus services					
More reliable bus services					
CCTV at bus stops					
Interest free loans for purchase of season tickets	-	-			
Q21 Car sharing (a formal system to group togethe	er neonie trave	and the second second		00)	_
Priority car parking for car sharers					
Cheaper car parking for car sharers	_	_		_	
Help in finding car share partners	=	6		=	
Cost savings for car sharers (shared fuel costs)	_	_		_	
Guaranteed free ride home in emergency	ä	ä		ă	
Q22: Other comments on transport improvements:	-	_	_	_	_
Please tell us a few details about yourself. These wused to attribute findings to any individual.  Q23a: Your gender	ill help us wit	n our analys	sis but will n	not be	
Valo.					
Male  Female					
Q23b: Your age					
20 or under					
21-30					
31-40					
41-50					
51-60					
61 or above					
Q24: Do you have a disability or mobility problem which	requires you t	to travel to wo	ork by car?		
Yes					
No 🗆					

	The Four In	me postcode:				
you d	lo not know yo	ur postcode, p	please provide	e the name of	the street in	which you live:
				211		
26: P	ease use the	space below t	o record any	other comme	nts you have	on travel to/from work:
VINI W	vish to be enti	red into the n	rize draw nie	ase include	inur name/str	off ID number in the s
rovide	d. This will or	ily be used to	notify the win	ner.	our Harriston	aff ID number in the s

Thank you for taking the time to complete this questionnaire.

Please submit your response by Day/Month/Year



# **Chilmington Green, Ashford**

# Framework School Travel Plan

Hodson Developments, Malcolm Jarvis Homes, Pentland Homes & Ward Homes

January 2013

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#### 1 EXECUTIVE SUMMARY

- 1.1 Hodson Developments, Malcolm Jarvis Homes, Pentland Homes & Ward Homes (The Consortium) are committed to delivering a sustainable community at Chilmington Green and this School Travel Plan Framework will support this objective by promoting a wide range of low carbon travel and transport options to staff, pupils, parents and visitors to schools at Chilmington Green.
- 1.2 The Consortium believes the plans outlined in this document will help to create a travel strategy that benefits all residents, the local area and also the environment.
- 1.3 This framework will assist schools in the Chilmington Green area with the creation and amendment of their own School Travel Plans. This will ensure that each of the schools assumes full ownership and responsibility for their own travel plans. Within this plan, The Consortium has demonstrated commitment to the management and delivery of a wide range of measures to inform those travelling to the schools of travel opportunities, and to actively promote their use as an alternative to single-occupancy car travel.
- 1.4 Each school will appoint its own Travel Plan Coordinator (TPC) who will oversee and manage the ongoing delivery of these measures in an effective and efficient way. This will deliver progress towards reducing car-based journeys to and from the school, and promote safe and healthy access to school for staff and pupils.
- 1.5 Full support and advice will be provided to schools by the site wide Travel Plan Coordinator for Chilmington Green, as identified in the Chilmington Green Umbrella Travel Plan.

#### 2 INTRODUCTION

- Vectos has been commissioned by Hodson Developments, Malcolm Jarvis Homes, Pentland Homes and Ward Homes (the Consortium) to update the existing School Travel Plan (STP) prepared by WSP in 2012. The STP has been updated by Vectos following stakeholder comments raised by Kent County Council (KCC), Ashford Borough Council (ABC) and the Highways Agency on the Chilmington Green development as a whole.
- 2.2 Four new primary schools and one sixth form entry secondary school will be constructed as part of the development. The location of the site is shown in Figure TP 1.1 (please refer to the Umbrella Travel Plan). For all figures referred to in this document please see the Umbrella Travel Plan. It is acknowledged that where possible, reference has been made to the original WSP drawings.
- 2.3 Construction of school infrastructure at Chilmington Green will take place during the four phases of development. The new primary schools are proposed to be constructed on the basis of one per phase of development and the secondary school is to be constructed in phase two. However, it is anticipated that these education facilities will absorb virtually all the school-related trips generated by the Chilmington Green development, giving a high level of internalisation. Prior to the primary schools and secondary school coming into operation, other local schools within walking distance will be promoted to residents occupying the early years of the development. Since the design of the site will be such that it considers the needs of pedestrians and cyclists first, this will help to support sustainable travel to existing schools in the wider local community from Chilmington Green in the first instance.
- 2.4 This STP will be used to assist each of the schools within the Chilmington Green Development in developing their own individual Travel Plans. This will ensure that each school takes ownership and responsibility for its own Travel Plan. Each school will have a School Travel Plan Coordinator to develop and implement their own Travel Plan, with support from the Site-Wide Travel Plan Coordinator. The school's individual plans will focus primarily on how residents of Chilmington Green and prospective students and their families throughout the wider local area can be encouraged to use sustainable means of transport to travel safely to and from the area's schools.
- 2.5 The residential and other non-residential uses at Chilmington Green are covered by separate Residential and Workplace Travel Plans. This STP will enable the site-wide Travel Plan

Coordinator to work with these schools to create appropriate plans in preparation for their opening.

- 2.6 Therefore, this STP will ultimately guide and inform five School Travel Plans:
  - The STP for each of the four new primary schools; and
  - The STP for the new secondary school.

# **SCHOOL TRAVEL PLANS**

2.7 A School Travel Plan is a document produced by a school in conjunction with the local authority, which aims to encourage schools to identify and solve problems associated with the school journey (particularly those related to safety). Plans do not necessarily have to include physical measures to improve routes but instead are a way of 'living and learning' (Road Safety Strategy for Wales, January 2003). The Department for Transport (DfT) defines a School Travel Plan as follows (DfT, 2009, p. 26)<sup>1</sup>:

"An effective school travel plan is one that puts forward a package of measures to improve safety and reduce car use. This should be backed by a partnership involving the school, education and transport officers along with the police and representatives from the health authority."

2.8 A School Travel Plan will often include initiatives such as promotional activities, training, better facilities, and safety improvements to the physical environment - all of which are aimed at promoting healthy and active travel options for journeys to and from a school.

#### SCHOOL TRAVEL PLAN FRAMEWORK STRUCTURE

- 2.9 This STP for the proposed education facilities at the Chilmington Green development has been prepared so that there is a clear overarching aim, objectives and measures for schools to work towards when creating or amending their individual Travel Plans. This STP is therefore set out in the following sections:
  - Section 3 summarises current best practice in the preparation of a School Travel Plan;

<sup>&</sup>lt;sup>1</sup> Department for Transport (2009). *Road Safety Research Report 99 – Building on Success: Improving the Delivery of Road Safety Education, Training and Publicity*.

- Section 4 sets out the existing site conditions and local travel opportunities in relation to identifying existing opportunities for encouraging healthy and sustainable school travel amongst staff and pupils;
- Section 5 identifies the STP overarching aim and objectives;
- Section 6 identifies a range of typical measures that would benefit the schools at Clipstone Park, in addition to the implementation timescales for these measures;
- Section 7 sets out the overarching responsibilities for the implementation of the Travel Plan;
- Section 8 details the purpose of setting targets for use within School Travel Plans;
- Section 9 details the process for an overarching monitoring and review process; and
- Section 10 summarises this document.

#### SCHOOL TRAVEL PLAN BENEFITS

- 2.10 Travel planning can have a number of key benefits which extend to staff and pupils as well as the wider local community. The benefits that can be achieved are the key driver of this travel plan and are set out below:
  - improved air quality through reduced congestion as a result of the use of alternative modes to the private car;
  - better use of existing infrastructure as road space is made less congested as a result of fewer cars;
  - possible cost savings for car sharers by sharing journeys with neighbours/friends, staff
    and pupils can benefit from sharing the cost of the fuel consumed through making these
    journeys;
  - improved quality of life for staff and pupils achieved through healthier lifestyles i.e.
     replacing shorter car journeys with walking; better air quality; less stress etc; and
  - positive contribution towards improving road safety achieved through less school gate congestion through encouraging alternative modes and preparing adequate parking strategies; enhanced public footways and cycle routes; road awareness and cycle training sessions for pupils, etc.

# 3 BEST PRACTICE REVIEW

# **Relevant Policy**

3.1 A detailed review of relevant national, regional and local transport policy and travel planning guidance is provided in the Chilmington Green Umbrella Travel Plan document. Of particular relevance is the *Kent's Sustainable Travel to School Strategy* for school travel plan guidance and the *cycle parking standards* summarised for reference below.

#### **Kent's Sustainable Travel to School Strategy (September 2010)**

3.2 This Sustainable Travel to School Strategy forms the strategy for assessing schools and colleges in Kent. The strategy identifies school travel and transport trends in addition to travel issues affecting young people. Included within the strategy are suggested STP measures such as the provision of an STP Information Pack.

#### **STP Information Pack**

- 3.3 This information pack includes details on how to create an STP which will be approved by KCC, the document includes an STP checklist, an STP toolkit and frequently asked questions.
- 3.4 This STP framework document has been prepared in accordance with this guidance.

#### **Kent Vehicle Parking Standards**

3.5 According to the *Kent Vehicle Parking Standards* (KCC, 2006), junior school require a minimum of one cycle parking space per 50 pupils (p. 25); secondary school require a minimum of one cycle parking space per 7 pupils.

# 4 FRAMEWORK AIM AND OBJECTIVES

#### **SITE WIDE AIM**

4.1 The overarching aim, as specified in the Umbrella Travel Plan, is to provide a tool for the provision of appropriate measures to encourage residents, employees and those attending educational establishments and visitors of the development to use healthier, lower carbon transport options.

#### **STP AIM**

4.2 The overarching aim for the Chilmington Green School Travel Plan Framework is:

"To support each school at the Chilmington Green development in providing a safe environment in which to travel to school by reducing single occupancy car travel and promoting and encouraging the use of alternative transport options amongst staff, parents, pupils and visitors"

4.3 The aims will be achieved by supporting each school in developing its own STP, to include a package of measures that focus on promoting access to that school by sustainable modes of transport as an alternative to the private car.

### **STP OBJECTIVES**

- 4.4 The supporting objectives below, while overarching, are still relevant to the schools which are part of the development. The objectives can be adopted or adapted as desired to suit the individual circumstances of each school as they develop their respective STPs:
  - 1. to reduce the numbers of cars travelling to, and parking at, the schools;
  - 2. to introduce a range of measures that will encourage greater use of public transport;
  - 3. to maintain and improve access for specific user groups such as pupils and staff with mobility impairments;
  - 4. to improve staff and pupil health and fitness by promoting walking and cycling to school in a safe environment;

- 5. to work with KCC, the police and local residents to build and maintain a network of information sharing; and
- 6. to review and monitor the progress of individual STPs to ensure that these objectives are being met.

# 5 EXISTING SITE CONDITIONS AND TRAVEL OPPORTUNITIES

#### Introduction

- 5.1 This section reviews the existing conditions with regards to schools serving the proposed development, and the quality of access by healthy and sustainable travel modes. This will enable the identification of a range of sustainable travel opportunities that are and will be available through existing and proposed facilities not related to this Framework.
- 5.2 Measures proposed further within this Framework will therefore be identified not only due to their appropriateness to these individual components, but also in support of the existing facilities.
- 5.3 Ashford is connected to other major towns and cities via the motorway and trunk-road network beyond which a network of local primary 'A' and 'B' class roads accommodate the bulk of local traffic.
- A network of 'C' and 'unclassified' rural roads dissect the site as shown in *Umbrella Travel*Plan Figure 4.1 (see the Umbrella Travel Plan). These roads provide access to farms, hamlets and individual dwellings together with access from the rural villages into Ashford.
- 5.5 Key highway links potentially serving the development area are described further in the Transport Assessment.

#### WILLINGNESS TO WALK

- 5.6 Guidance given by the Institute of Highways and Transportation (IHT) in their publication *Guidelines for Providing for Journeys on Foot*, 2000 suggests that in terms of commuting, walking to school and recreational journeys, walk distances of up to 2,000 metres can be considered, with the desirable and acceptable distances being 500 metres and 1,000 metres respectively (Table 3.2).
- 5.7 For non-commuter journeys, the guidance suggests that walk distances of up to 1,200 metres can be considered, with the desirable and acceptable distances being 400 metres and 800 metres respectively (Table 3.2).

5.8 Assuming a 'typical' walking speed of 400m in 5 minutes (80m per minute), **Table 5.1** summarises the broad walk journey times that can be 'considered'; are 'acceptable'; and those that are 'desirable':

**Table 5.1: Walk Journey Times** 

IHT Standard	Walking to School and Recreational		Other Non-Com	muter Journeys
	Distance (m)	Walk Time	Distance (m)	Walk Time
		(mins)		(mins)
'Desirable'	500	6.25	400	5
'Acceptable'	1000	12.5	800	10
'Considered'	2000	25	1,200	15

Source: IHT (2000). Guidelines for Providing Journeys on Foot.

- 5.9 It is important to remember that people's willingness to walk also includes a number of factors associated with the footway forming part of the highway and the environment within which it passes. In different environments the following factors will positively increase a willingness to walk:
  - provision of shelter during inclement weather;
  - active streets with good surveillance during hours of darkness;
  - increased separation from fast or heavy traffic;
  - increased footway width in places with high pedestrian activity; and
  - high quality streets which provide strong design features that assist navigation in unfamiliar environments.
- 5.10 A person's willingness to walk can also be influenced by changes in level, as walking up or in some cases down long or steep gradients or steps exerts more effort. Generally, gradient of less than 1:20 have a negligible impact on people's willingness to walk.

#### **PUBLIC RIGHTS OF WAY**

5.11 The development area is located on the outskirts on Ashford. Being rural, there are few formal pedestrian facilities although the Public Rights of Way (PROW) provides a network of routes for pedestrian, cycle and equestrian movements. Several PROWs connect to the southern residential areas of Ashford, providing direct access to the proposed development area and can be seen on *Umbrella Travel Plan Figure 4.2* which displays the pedestrian and cycle facilities subsequently discussed in this report.

5.12 National Cycle Route 18 (Canterbury to Royal Tunbridge Wells and onward to link with route 21) runs through the site. Its route is broadly north to south. There are numerous traffic free cycle routes and other on-road recommended cycle routes throughout Ashford.

#### **CYCLE NETWORK**

- 5.13 There are a number of designated walking and cycling routes in the vicinity of the development site as shown on *Umbrella Travel Plan Figure 4.2*, many of which have been constructed in recent years and represent a marked improvement in infrastructure.
- 5.14 It is generally accepted that cycling has the potential to substitute for short car trips of 5km or less. It can also form part of a longer multi-modal journey involving public transport. The willingness to cycle reduces as distances increase where a series of factors affect mode choice. Assuming a typical cycling distance of 1,200m every five minutes the accessibility of facilities 5km from the site can be considered to be a 20 minute cycle ride.

#### **WILLINGNESS TO CYCLE**

- 5.15 Many people will cycle considerable distances depending on, inter alia, weather, time of day, level of fitness and real or perceived safety/convenience. National Travel Survey research indicates that the average cycle trip in the UK increased by approximately 27% between 2002 and 2010 to 2.8 miles. This figure is slightly below the distance between the centre of the site and Ashford town centre via National Cycle Route 18, this being 3 miles.
- 5.16 The most common response for unwillingness to cycle reflects varying levels of road safety concerns. For example, most parents are anxious of road safety risks thus young cyclists are less confident cycling on carriageway. This position is normally influential in the nature of constructed cycle infrastructure, unless the vast majority of cyclists on a route are more mature. The IHT's 'Guidelines for Cycle Audit and Cycle Review' present potential cycle infrastructure options based on the relationship between vehicle speed and flow. It is considerations such as these which will be incorporated into the design of cycle facilities at Chilmington Green.
- 5.17 Like car ownership, the capital cost of owning a vehicle contributes to use. Around 80% of children and nearly half of all adults own a bicycle and therefore adequate space for cycle parking is influential in design of new homes. Facilities at destinations are also significant

factors in willingness to cycle, notably shower, changing facilities, lockers and safe secure parking.

5.18 Cycle parking both at home and at travel destinations is a key part to complementing the willingness to cycle. Table 5.2 shows that the nature of a journey purpose will influence willingness to park further from the end destination, although other factors such as security will influence choice.

Table 5.2: Cycle Parking – Distance and Location

Сус	cle Parking	Cycle Parking – Location Preference		
Journey Purpose Median Distance (m)		Influencing Factor		
Commuting	40	Close to destination	86%	
Business	50	Security	16%	
Education	38	Only place available	9%	
Shopping	125	Space available	7%	
Leisure	20	Location conspicuous / busy	6%	

Source: TRL 278: 'Cycle Parking and Demand'.

5.19 Factors such as those highlighted in Table 5.2 have been considered in the location of cycle parking at Chilmington Green. The amount of parking, and its accessibility and security are recognised as important contributors to the amount of cycle trips which will be made by people at the development in future.

#### LOCAL CYCLE INFRASTRUCTURE

- 5.20 National Cycle Route 18 runs south west from Canterbury, via Ashford and Tenterden, to join up with Route 21 just west of Tunbridge Wells. The existing route runs through the development site to the east of Chilmington Green hamlet. Beyond Singleton, to the north of the site, the cycle route becomes traffic free, providing a direct connection to Ashford International station and Ashford town centre, including the Stour Centre for leisure facilities. This route can be seen in *Umbrella Travel Plan Figure 4.2*.
- 5.21 Greensand Way Leisure route also provides access through the development. This route links Kingsnorth to the south and Great Chart to the north of the A28. While this link does not provide access into Ashford directly, use of this route alongside National Cycle Route 18 would enable access to destinations surrounding the site.

- 5.22 While the above two routes provide the important linkages between Ashford and the local areas and the new development, there are a number of minor routes that pass through the site. There are routes that provide access from the National Cycle Route through the ancient woodland to the southern section of Stanhope from which access into the town via residential streets can be made.
- 5.23 Ashford has a comprehensive network of cycle routes including many miles of traffic free cycle paths, which when combined with the signalised crossing facilities present in many strategic locations in the town, ensure that many journeys can be made by cycle without the need for direct interaction with vehicular traffic.

#### **BUS NETWORK**

- 5.24 Bus services in the southern part of Ashford are provided through a combination of:
  - Regular services along the main arteries from the south and south west of Ashford from nearby local towns; and
  - More frequent local shuttles from existing residential areas north of the proposed development area to the town centre.
- 5.25 The existing bus services that operate in close proximity to the Chilmington Green development site are shown in *Umbrella Travel Plan Figure 9.2* and are detailed within Table 5.3.

**Table 4.3: Current Bus Services near Chilmington Green** 

Service	Route	Weekday Frequency		
No.		AM Peak	PM Peak	
2A	Tenterden – Kingsnorth – Ashford Town	1	1	
	Centre			
113	Singleton – Stanhope – Ashford Town	1	None (Last service	
	Centre		from South is	
			approximately 16:55)	
Α	Stanhope – Bridewell – Ashford Town	6	6	
	Centre – Singleton			
11/ Lydd – New Romney – Appledore –		1	None (no service	
11A/11B	Newchurch		between 17:00 –	
			18:00 in the area	
			closest to the Site)	
B1 / B2	Park Farm – South Ashford – Ashford	1	1	
	Town Centre – Willesborough			
514	Towers School – Ashford Town Centre –	1	0	
	Kennington			
518	Singleton – Park Farm – Ashford Town	1	0	
	Centre			
925	Godinton Park – Ashford Town Centre –	1	0	
	Chartham - Thannington			

Routes 514, 518 and 925 are school day only services. A single 'return' service is run for each route during the afternoon.

5.26 The operators of these services are as shown in Table 5.4.

**Table 5.4: Bus Service Operators in the Vicinity of Chilmington Green** 

Route Number	Operator
514	Stagecoach in East Kent
515	Stagecoach in East Kent
518	Stagecoach in East Kent
925	Stagecoach in East Kent

- 5.27 There are several bus routes that run in proximity to the site, although the majority of these run only within the existing urbanised area of Ashford.
- 5.28 Collectively, services 113 and service A provide up to seven peak hour services during the day.
- 5.29 Service B1/B2 provides a frequent service between Park Farm and the town centre while also providing access to the rail station. Service 2 operates along the A28 to the west of the

development site. This is a less frequent service that operates hourly between Rolvenden and Ashford town centre, including Ashford International Station.

#### **RAIL NETWORK**

#### **RAILWAY STATIONS & SERVICES**

- 5.30 Ashford International Station is approximately 4km north of the site and offers a range of frequent rail services to local and strategic destinations, including Europe via Eurostar services.
- 5.31 The station is staffed 24 hours per day, seven days per week. In addition to sheltered 322 cycle storage spaces, the station has parking provision for 619 cars. These parking spaces include allowance for disabled users. Ashford International provides full wheelchair access in addition to ticket machine which are wheelchair accessible.
- 5.32 The range of services available from Ashford International provides onward travel for employment and leisure purposes. **Table 5.5** sets out a summary of the destinations that are served.

Table 5.5: Rail Services from Ashford International

Destination	Approx. Journey Time (mins)
Tonbridge	36
Maidstone East	23
London Waterloo East (via Tonbridge)	75
London Victoria (via Maidstone East)	61
London St Pancras International	35
Hastings	41
Folkestone Central	18
Dover Priory	26
Canterbury West	16
Ramsgate	35

Source: National Rail Enquiries

- 5.33 Ashford International is served direct by three main London stations. These are Waterloo East, Victoria and St Pancras International. The journey times to these stations are 75 minutes, 80 minutes and 38 minutes respectively.
- 5.34 The centre of the Chilmington Green site is approximately 5.5 km from Ashford International Station via road. National Cycle Route 18 runs through the site and provides a route to Ashford International Station.

- 5.35 The Network Rail London and South East Route Utilisation Strategy (2011) identifies that with only committed rail improvement schemes included, by 2031 the High Speed 1 route could be up to 500 seats short of demand in the morning peak hour. Recommendations for avoiding this situation include additional rolling stock and an increase in platform capacity at Ashford International.
- 5.36 Table 5.6 highlights that passenger numbers at Ashford International Railway Station have grown by 17.4% in the last five years to 2011/12, although demand has remained stable in recent years due to economic conditions.

**Table 5.6: Annual Passenger Numbers at Ashford International** 

Year	Passenger Numbers (entry / exit, millions)
2004/05	2.29
2005/06	2.41
2006/07	2.61
2007/08	2.82
2008/09	2.76
2009/10	2.76
2010/11	3.12
2011/12	3.31

#### **RAIL PASSENGER TRENDS**

- 5.37 The Channel Tunnel Rail Link (CTRL) had a dramatic impact on passenger numbers in the area, but local demand has been more modest.
- 5.38 Current forecasts<sup>2</sup> suggest rail passenger growth will continue around 2% per annum to 2016, thereafter falling to around 0.8% per annum. The Route Plans for the Kent area highlight that much of this growth is expected to occur due to station improvements in London, enhancing the potential for 10-12 car trains on the regional corridors.

#### **CAR SHARING**

5.39 Car sharing can reduce congestion and halve the fuel and running costs to the car traveller. KCC's 'New Ways 2 Work' guidance states that successful travel plans in Kent have largely centred on car sharing as their key initiative as employees who car share retain most of the flexibilities associated with the car (p.30).

<sup>&</sup>lt;sup>2</sup> Southern Regional Planning Assessment for the Railway, DfT, 2007

5.40 KCC, in association with Liftshare, has developed <u>KentJourneyShare.com</u>. This is a free internet based car sharing service available to everyone in Kent, which provides a large pool of potential trip matches to help reduce single occupancy car trips.

# EXISTING ACCESSIBILITY TO EDUCATION, EMPLOYMENT, RETAIL AND LEISURE FACILITIES

- 5.41 The mixed use nature of the proposed development will provide many of the facilities which the residents of Chilmington Green will require on a daily basis. This convenience and locality of facilities will ensure that many journeys can be made via sustainable modes and thus remain within the development boundary.
- 5.42 This section will review the current accessibility of the site to facilities in Ashford and beyond via sustainable modes.
- 5.43 Walking and cycling are of high importance at the local trip level, offering the greatest potential to replace short car trips where they are under 2 kilometres for walking and 5 kilometres for cycling. Section 4 of the NPPF, emphasises the need for land use and transport planning to be integrated in a manner which promotes sustainable development with good access to local facilities.

#### **METHODOLOGY**

- 5.44 In order to provide the most accurate assessment of current pedestrian accessibility, a GIS based methodology has been utilised. To facilitate comparison with the proposed development, three centroids have been taken, which are the locations of the future district centre and the two local centres.
- 5.45 Close to the northern boundary of the site, there is a perceivable gradient change. This has been incorporated into the assessment, constraining the distance which can be travelled on foot or by cycle from Chilmington Green in any period.

#### PEDESTRIAN ACCESSIBILITY

As shown on **Umbrella Travel Plan Figure 4.4** of the Umbrella Travel Plan, there is currently limited accessibility to existing facilities in Ashford from the site. Some of the facilities located in the south of Ashford, a short distance from the northern border of the development, are reachable within 30 minutes.

- 5.47 A small pocket of facilities is accessible in less than 25 minutes, located in Singleton. These include schools, convenience retail, a GP and a pharmacy. Other than these, the only other facilities within reasonable walking distance are a nursery on the northern fringe of Shadoxhurst and Ashford Friars Prep School, located in Great Chart. Both of these facilities can be reached in less than 20 minutes. The Post Office in Stubbs Cross can be reached in less than 20 minutes' walk.
- 5.48 It can therefore be surmised that a journey on foot is generally not currently a means of accessing anything more than the most basic facilities. The current road network is not conducive to making certain of these journeys though. For instance it is not realistically conceivable that a parent with a small child would walk along Chilmington Green Road in order to reach the nursery in Shadoxhurst.
- 5.49 The Chilmington Green site contains a number of public rights of way; these have been incorporated into the assessment of existing conditions. A number of these will form primary routes for non-motorised users at the proposed development.
- 5.50 The current levels of pedestrian activity suggest that walking for leisure would be a more common use of existing pedestrian routes, rather than as a means of accessing facilities.

#### **CYCLE ACCESSIBILITY**

- 5.51 Accessibility to Ashford and the wider area via cycle is significantly expanded in comparison to being on foot. This is displayed on *Umbrella Travel Plan Figure 4.5*. Ashford town centre is accessible in less than 20 minutes, with all except the northernmost and easternmost areas of the town falling within the 30 minute accessibility window.
- 5.52 The travel time by cycle to the pocket of facilities in Singleton referred to in the pedestrian assessment is under 10 minutes. The range of leisure and retail facilities accessible by cycle covers most of those in Ashford, although certain types of journey purpose will not necessarily be conducive to cycling, such as making large purchases.
- 5.53 Travelling to work by cycle is also a realistic option for workers whose place of employment is outside of Ashford Town centre. The cycling time from the site to local employment centres is shown in Table 5.7.

Table 5.7: Accessibility to Employment by Cycle

Employment Location	Travel Time by Cycle
	(mins)
Ashford town centre	16-20
Cobbs Wood Industrial Estate	11-15
Broofield Industrial Estate	11-15
Kingnorth Industrial Estate	16-20
Eastmead Trading Estate	16-20
Kingfisher Business Park	21-25
Grove Business Park	21-25
Henwood Industrial Estate	21-25

5.54 In terms of cycling comprising a stage in a multi-modal journey, Ashford International station can be reached from the site in less than 20 minutes. To the south east, Ham Street station is within 30 minutes cycle. Both of these stations offer cycle storage.

#### **PUBLIC TRANSPORT ACCESSIBILITY**

- 5.55 The GIS based software, Accession, has been used in order to determine the accessibility of destinations from the site using currently timetabled public transport services. This assessment indicates that the site has some degree of accessibility to other parts of Ashford and nearby settlements in Kent. This is illustrated in **Umbrella Travel Plan Figure 4.6** of the Umbrella Travel Plan.
- 5.56 It is discernible when comparing the cycle accessibility in **Umbrella Travel Plan Figure 4.5** that there are some areas of Ashford which are faster to reach by cycle than they are using current public transport services. This is likely to be due to the fact that a cyclist can take a direct route to these destinations. If using a bus service, it is possible a change of service may have to be taken, most likely in the town centre, in order to make an onward journey to the same destination.
- 5.57 In many cases, where a rail travel element is a component in a journey, a significant amount of onward travel from the rail destination is not possible within the cumulative one hour period used for assessment. **Table 5.8** presents some of the destinations accessible from the site in a one hour window via public transport.

Table 5.8: Accessibility from Site to Destinations via Public Transport

Destination	Travel Time by Public Transport (mins)
Ashford International Station	21-30
Ashford town centre	31-40
Tenterden	31-40
Wye	41-50
Canterbury	51-60
Folkestone	51-60
Headcorn	51-60

Source: WSP prepared Accession assessment

#### **SUMMARY**

- 5.58 The existing access to facilities from Chilmington Green via sustainable modes ranges from poor to acceptable. This is primarily because the area currently has minimal development and therefore does not create a substantial demand for facilities. Therefore the facilities that will be used by existing residents have been established in order to serve other communities such as those in Singleton and Stanhope to the south of Ashford.
- 5.59 Ashford currently has a very well developed provision of pedestrian and cycle routes, and the proposed development will integrate with these, ensuring that the new community is able to access existing facilities with ease.
- 5.60 The proposed development will provide a wide range of facilities for retail, education, employment and medical requirements. In the majority of cases, accessing a facility within Chilmington Green will be the most attractive option for residents.

# **6 DEVELOPMENT PROPOSALS**

#### **DEVELOPMENT PROPOSAL**

- 6.1 The proposals at Chilmington Green are for a mixed use development. Residential properties will comprise the focus of the development, however there will be significant supporting infrastructure and facilities which will sustain Chilmington Green itself and also complement Ashford's position as a regional growth point; this includes up to four primary schools and a single secondary school.
- 6.2 The outline application is for a comprehensive Mixed Use Development comprising:
  - up to 5,750 residential units, in a mix of sizes, types and tenures;
  - up to 10,000m<sup>2</sup> gross floorspace of Class B1 use;
  - up to 9,000m<sup>2</sup> gross floorspace of Class A1 to A5 uses:
  - education (including a secondary school of up to 8ha, and up to four primary schools of up to 2.1ha each);
  - community uses (class D1) up to 5,000m<sup>2</sup> gross floorspace;
  - leisure uses (class D2) up to 5,000m<sup>2</sup> gross floorspace;
  - provision of local recycling facilities;
  - provision of areas of formal and informal open space;
  - installation of appropriate utilities infrastructure as requires to serve the
    development, including flood attenuation works, SUDS, water supply and
    wastewater infrastructure, gas supply, electricity supply (including substations),
    telecommunications infrastructure and renewable energy infrastructure;
  - transport infrastructure, including provision of three accesses on to the A28, an
    access on to Coulter Road, other connection on to the local road network, a Park
    and Ride with a maximum of 600 parking spaces and a network of internal roads,
    footpaths and cycle routes;
  - mew planting and landscaping, both within the Proposed Development and on its boundaries, and ecological enhancement works; and
  - associated groundworks.

#### PUBLIC TRANSPORT IMPROVEMENTS

- 6.3 A new high frequency bus service will be introduced at the proposed development and will be available from the first phase, with its coverage expanding as Chilmington Green is built out.
- 6.4 Following an internal loop of Chilmington Green, the service will head on to the A28, Tithe Barn Lane, Knoll Road, Brookfield Road, Victoria Way, Beaver Road (as per previous proposed routing for Phase 1 contained within the submitted TA). Ashford International Station will also form one of the destinations for the service. The anticipated travel time from Chilmington Green's district centre to Ashford International is approximately 15 minutes. The service will allow for children travelling to school to do so by bus as most residents will be located within 400m of a bus stop.
- 6.5 Further details of Chilmington Green's public transport offering are contained in Section 11 of the Transport Assessment.

# **SUSTAINABLE TRANSPORT MEASURES**

- A number of development proposals, including design features, will aid sustainable travel to and from the site. These are outlined below:
  - A permeable pedestrian and cycle network;
  - 'Green Lanes' with limited vehicle movements, encouraging use by pedestrians,
     cyclists and equestrians;
  - Master Plan design integrating facilities within communities, reducing travel distance;
  - car parking in accordance with local policy;
  - convenient cycle parking; and
  - speed limits throughout the development of 30mph or less.

#### CAR AND CYCLE PARKING

6.7 Car and cycle parking at Chilmington Green will be provided in line with the standards detailed in the Transport Assessment. This parking will be 'designed in' to the scheme and

located close to dwellings and distributed efficiently over the site to cater for residential visitors.

#### PEDESTRIAN AND CYCLE ROUTES

- Ashford is well served by pedestrian and cycle routes and infrastructure, and this provision is complemented by the Chilmington Green Master Plan. Existing Public Rights of Way within the site would be complemented by new routes and infrastructure, giving traffic free movement for cyclists to many areas of Chilmington Green.
- 6.9 National Cycle Route 18 will continue to form a key route for non-motorised users, whether to gain access to Chilmington Green or for leisure purposes and Greensand Way will also form a key corridor for pedestrian and cycle movement.
- 6.10 As a result of the construction of roads to support vehicle movement around Chilmington Green, several existing roads will become 'Green Lanes', rural routes which retain their existing character. These routes will have minimal vehicular traffic and will present a pleasant environment for non-motorised users for trips of all purposes.
- 6.11 These 'Green Lanes' will primarily consist of:
  - Chilmington Green Road;
  - Chilmington Green Lane; and
  - Bartletts Lane.
- 6.12 Chilmington Green's proposed primary pedestrian and cycle routes are shown on **Umbrella**Travel Plan Figure 5.1.

#### **ORCHARD WAY**

- 6.13 Orchard Way will be the main vehicular link through Chilmington Green, handling traffic heading to and from the A28 in addition to local traffic circulating in the proposed development. Orchard Way will have a footway and cycleway providing ease of access around Chilmington Green for non-motorised users.
- 6.14 The southern section of Orchard Way will form part of the bus route for the proposed high frequency bus service.

#### PEDESTRIAN ACCESSIBILITY

- 6.15 The primary pedestrian routes introduced by the proposed development have been included in the GIS assessment, which shows the effect of these links on pedestrian accessibility inside and outside of the development. **Umbrella Travel Plan Figure 5.2** shows the pedestrian accessibility at full build-out of Chilmington Green.
- 6.16 A comparison between the future pedestrian accessibility and the existing accessibility shown in Figure TP 4.4 shows that there is an increase in the distance which can be travelled on foot within a 30 minute period, but it does not offer significantly improve access to any existing facilities.
- 6.17 What Figure TP 5.2 does show is the excellent accessibility within the site to facilities. In addition to displaying the locations of the district and local centres as centroids, the education facilities have been shown, as has the supermarket located at the district centre.
- 6.18 From any point within the development, the walking time to one of the centres is less than 15 minutes, and in the majority of the residential areas it is under 10 minutes. The locations of the centres around the development ensure that this travel time is kept low. The employment, convenience retail and commercial facilities at each of the centres will be within easy reach on foot of all residents, visitors and employees.
- 6.19 Three of Chilmington Green's primary schools are within five minutes' walk of one of the centres, with the fourth primary school and the secondary school situated less than 10 minutes' walk from a centre. Resultantly, it can be said that all residential development will be within 15 minutes' walk of a primary school and a good proportion within 5 minutes' walk. Chilmington Green's secondary school will be within the 2km guideline for walking offered by the Chartered Institution of Highways and Transportation in the publication "Guidelines for Providing for Journeys on Foot", 2000.

#### CYCLE ACCESSIBILITY

6.20 The proposed cycle infrastructure at Chilmington Green offers some degree of improvement in accessing the wider Ashford area as a result of the provision of the proposed development's internal cycle routes. Figure TP 5.3 shows the level of cycle accessibility from Chilmington Green's district and local centres.

- 6.21 In particular, a greater proportion of Ashford north of the M20 and areas in the far east of the town become accessible in less than 30 minutes cycle time. Access time to Ashford town centre remains under 20 minutes by cycle.
- 6.22 Based on the results of this assessment, Chilmington Green can be deemed as a 'cycle neighbourhood'. The proposed infrastructure provides an environment where any of the three centres within the proposed development can be reached conveniently by cycle. The majority of the development is able to reach either the district centre or one of the local centres in under five minutes, with only those at the very fringes of the site needing up to ten minutes to get to a centre.
- 6.23 With Chilmington Green's schools located in close proximity to the centres, these will all be accessible in a short time by cycle too, with the secondary school within an excellent distance by cycle.

#### PUBLIC TRANSPORT ACCESSIBILITY

- 6.24 As with the assessment of existing conditions, the public transport assessment for the future scenario has been carried out using Accession. This incorporates the proposed high frequency bus service from Chilmington Green. The assumptions associated with the service are:
  - 10 minute frequency (when the proposed development is fully built out);
  - Real-time smart bus stops located as shown in Figure TP 5.4 of the Umbrella Travel
     Plan; and
  - A journey time of approximately 20 minutes to Ashford International Station from the district centre.
- 6.25 The assessment includes the time taken to walk from the centroid (in this case either the district or local centre) to the nearest bus stop, there is also an assumed wait time. Where there is a change of mode from bus to rail, another small delay is introduced replicating the wait for a train for example. Where there are no further onward connections, the distance that can be reached in a 60 minute period is shown.

- 6.26 The future public transport accessibility from Chilmington Green is shown in Figure TP 5.5 of the Umbrella Travel Plan. A wider view of public transport accessibility from Chilmington Green to the rest of Kent can be seen on Figure TP 5.6.
- 6.27 In comparison to the existing accessibility by public transport as displayed on Figure TP 4.6, there is a noticeable difference in the destinations which can be reached, and the time in which they can be accessed.

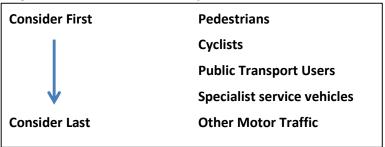
# 7 TYPICAL MEASAURES AND IMPLEMENTATION

#### Introduction

- 7.1 Identifying an appropriate package of measures is essential to support the overarching aim and objectives of the Chilmington Green STP. Therefore, the measures suggested within this chapter are to be used by the site-wide TPC as a tool for discussion with the individual schools. In these discussions, the relevance and potential effectiveness of each measure will be considered by each school and the inclusion of a measure will be based on this deliberation.
- 7.2 The site-wide TPC will be informed by the site-management company of the progress of each of the school before becoming operational and when a head teacher has been appointed. At this point, the TPC will approach the head to discuss the requirements of the STP.
- 7.3 Each primary school is planned to come forward in each of the four phases of development, therefore it is essential that the sustainable nature of the schools, including the active travel routes that are available to each, are promoted to residents of Chilmington Green and wider local area at the earliest possible opportunity. This will ensure that every opportunity is taken to encourage sustainable travel to schools. The site-wide TPC will be responsible for implementing the following measures prior to occupation of the schools:
  - providing information about the new schools in the residents' sustainable travel information packs;
  - ensuring that walking maps included within the sustainable travel information
    packs highlights the active routes to the schools, including existing schools in the
    wider local community;
  - promoting active travel routes by sales staff during the sales process;
  - promoting active travel routes to the schools through the residential personalised travel planning process; and
  - ensuring that the sustainable travel website includes information relating to each
    of the schools, specifically relating to access on foot, by bicycle and by public
    transport.

7.4 Table 3.2 of *Manual for Streets* (MfS), 2007, recommends that the design of a scheme should follow the user hierarchy, shown in Figure 7.1 below. As such, the potential range of measures identified below have been presented with measures for pedestrians at the top.

Figure 7.1 MfS User Hierarchy



**Table 7.1 School Travel Plan Framework Measures** 

Measure	Supports Umbrella	Implementation	Responsibility
	Travel Plan	Timescale	
	Objective		
Identify an STP	5 and 6	Prior to occupation	Individual schools
Coordinator			
(individual to each			
school and supported			
fully by the site wide			
TPC?			

#### **School Travel Plan Coordinator**

7.5 A School Travel Plan Coordinator (TPC) for each school must be appointed by each school head teacher prior to the school opening. Further details of the TPCs role are covered in Section 8. This role will be fully supported by the site-wide TPC.

**Table 7.2 STP Walking Measures** 

Measure	Supports	Implementation	Responsibility
	Objective		
Establish a walking bus	1 and 4	Ongoing following	Individual schools with
Walking incentive schemes		occupation	support from the site-wide
Pedestrian training			TPC
School crossing patrol			
Provision of walking		On occupation	
information, including			
maps			
Provision of high visibility		Ongoing following	
tabards		occupation	
Taking part in promotional			
activities – Walk to School			
Week			

## **Walking Bus**

- 7.6 <u>Walking buses</u> are increasingly being used as a safe and healthy way for children to get to school. A walking bus follows the same route to school each day, picking children up on the way. Specially trained parents or assistants stand at the front and back of the 'bus' to ensure the safety of all children, with both adults and children wearing reflective tabards to ensure high visibility.
- 7.7 Walking Buses are highlighted within Kent's County Council's Sustainable Modes of Transport Strategy as a good success within Kent and Medway due to the unique partnership with KM Walk to School Team. The charity works with the school and volunteers to arrange for publicity and a launch of the walking bus. KCC are responsible for risk assessments of the route and providing basic road safety advice to volunteers. The risk assessment and monitoring process is on-going by KCC to ensure that the schemes operate correctly. KCC, as the Education Authority, is responsible for ensuring the adequate public liability insurance and that personal (CRB) checks are undertaken for all volunteers.
- 7.8 Walking bus schemes rely heavily on volunteers; they are not always sustainable in the long term. It is recommended that the individual schools make the decision when choosing appropriate schemes, having regard to the resources available to them. The site-wide TPC will provide support to the schools in this decision making process.

- 7.9 If a Walking Bus is not something that would be appropriate to implement, the schools, with support from the site-wide TPC, will be encouraged to consider alternative measures such as those listed below.
  - Walking Incentive Schemes (The Walking Bug- an initiative to link walking to school and the curriculum, or Walk on Wednesday).
  - Pedestrian Training.

# **School Crossing Patrol**

- 7.10 Whilst the site infrastructure will be designed with pedestrian's safety and ease of movement considered first, the use of School Crossing Patrollers to help children cross roads will be helpful in reassuring parents of younger children of the safety of the child walking to school as they will be supervised at crossings.
- 7.11 The site-wide TPC will help the individual schools to identify if this measure is appropriate to them. It may be that feedback from parents shows that they would be happier to let their child walk to school if such a measure was in place.

#### **Provision of Information**

7.12 Maps showing local footways from residential areas to the school will be provided through the Pupil Information Packs, discussed further below.

### **High Visibility Tabards**

7.13 High visibility tabards will be provided to pupils when excursions on foot are taken from the school. This helps to improve the visibility of pupils to enhance safety whilst walking under the care of the school.

#### **Promotional Events**

7.14 Taking part in promotional events, such as the Living Streets' Walk to School campaign, can help to raise the awareness of the benefits of walking to school to pupils and their parents, as well as to local residents. The site-wide TPC will help the schools to identify suitable campaigns and to take part in them effectively.

**Table 7.3 STP Cycling Measures** 

Measure	Supports Umbrella	Implementation	Responsibility
	Travel Plan	Timescale	
	Objective		
Secure cycle parking	1 and 4	Prior to occupation	Site developers
Designated cycle			
infrastructure			
Discussion with local	2 and 4	Discount agreed prior	Individual schools
cycle shops, in		to occupation	with support from the
conjunction with ABC,			TPC
to secure equipment			
discounts			
Cycle training and	1, 2 and 4	Ongoing following	
road safety awareness		occupation	
sessions for pupils.			
Provision of high	4	On occupation	
visibility 'snap bands'			
to each pupil			
Taking part in	4	Ongoing following	
promotional events,		occupation	
including Bike to			
School Week.			

# **Secure Cycle Parking**

7.15 A perceived lack of security could influence pupils and staff to not use cycles to get to school.
The provision of secure cycle parking facilities will help to allay those fears and encourage more staff and pupils to cycle.

#### **Discounted Cycle Equipment**

7.16 Discussions will be held with local cycle shops to endeavour to secure discounts for staff and pupils on cycle purchase, repair and equipment. It is anticipated that such a discount may be secured given the sizable number of staff and pupils present at the schools at Chilmington Green.

#### **Cycle Training**

7.17 Provision of cycling and road safety training under the Bikeability scheme would provide pupils with the knowledge and skills necessary to ride with confidence, both on the road and on dedicated cycleways. A number of trainers certified to provide Bikeability training are

located in Kent. Children also enjoy scooting to school. The TPC will work with the Bikeability trainers to see if an element of safe scooting can be included.

#### **Snap Bands**

7.18 The provision of a reflective snap band to all staff and pupils upon occupation of the schools is designed to encourage them to think about walking or cycling more often. In the case of pupils, their parents may be more inclined to let their children walk or cycle if they are reassured about their visibility. The individual schools will be responsible for the provision of snap bands.

#### **Cycle Infrastructure**

7.19 Cycle infrastructure at Chilmington Green will include high quality signage and designated cycleways which follow desire lines to primary destinations, including the local schools.

#### **Promotion Events**

7.20 Taking part in promotional events, such as the Living Streets 'Walk to School' campaign, can help to raise the awareness of the benefits of walking to school to pupils and their parents, as well as to local residents. The site-wide TPC will help the schools to identify suitable campaigns and to take part in them effectively.

**Table 7.4 STP Bus Measures** 

Measuring	Supporting Umbrella Implementation		Responsibility
	Travel Plan Objective	Timescale	
Discussion with local	1 and 2	Negotiated prior to	Site-wide TPC / KCC
bus operator to		occupation so that	
secure possible		discounts can be	
discount travel		offered either prior to	
vouchers		or upon occupation	

#### **Discount Travel Vouchers**

7.21 Discounts for travel on local bus services and provision of services that run directly to schools during 'school run' hours would encourage more staff and pupils to travel to school by bus.

**Table 7.5 STP Car Measures** 

Measure	Supports Objective	Implementation	Responsibility
		Timescale	
Car parking strategy	1, 2 and 3	Prior to occupation	Site developers (with
			KCC)
Staff car sharing	1 and 2	Set up prior to	Individual schools with
database		occupation, then	support from site-wide
		ongoing	TPC
Guaranteed ride	In support of	On occupation	
home scheme	promoting car		
	sharing		
Pupil / parent car	1 and 2	Set up prior to	
sharing database		occupation, then	
		ongoing	

#### **Car Parking Strategy**

- 7.22 Parking for the new schools will be provided in line with KCC standards. The levels will be set so as not to create a further inducement to drive. It is essential therefore that a parking strategy is defined as the development proposals progress, to ensure that a set structure is in place that addresses staff parking and student parking.
- 7.23 The secondary school will include a sixth form element, It is vital to ensure that any parking that is provided for sixth form pupils is managed and to ensure that no issues are created from pupils parking in nearby residential streets, whether in the new Chilmington Green development or the current residential areas. Some form of application for these spaces may be appropriate.
- 7.24 It is envisaged that designated parking spaces will be provided close to the entrances of the schools specifically for vehicles with two or more occupants. Car sharing spaces will be provided for both staff and pupils. This is to provide a high profile image of car sharing. School entrances be kept free of parking to maintain the safety of parents and pupils.
- 7.25 A definitive car parking strategy for each of the schools will be developed by the Consortium as the development proposals progress for each phase. Once implemented, senior management teams within each of the schools and their Governors will take on the responsibility of managing the parking strategy. Support will be provided by the site-wide TPC.

#### **Staff Car sharing Scheme**

- 7.26 Staff living within 2km of their school should be encouraged to walk or cycle to work and those within 5km encouraged to cycle. However, there may be some impracticalities in travelling to school this way, for example, when carrying class books. The key members of staff to target are those that live further away and that are able to pick up members of staff living closer to the school.
- 7.27 It is envisaged that a database is maintained of all members of staff in each school. All staff will be asked if they would be willing to car share. Those who would be willing will be maintained on the database and put in touch with other willing members of staff living nearby and that would be able to offer/share a lift.
- 7.28 By producing a diagram for each school showing where members of staff live and issuing it to each of them it would illustrate to a member of staff whether or not they live in close proximity to another member of staff, which they may not have previously realised. This may encourage a more positive response to car sharing.
- 7.29 As an incentive, the car parking strategy for each school should identify spaces close to the site entrance that are designated purely for car sharers.
- 7.30 Car sharing will also be promoted between parents. This can be more difficult however, as their end destinations following dropping children at school are likely to vary considerably. It is not entirely impossible though and information will be provided in Pupil Information Packs, with marketing posters displayed in school entrances.

#### **Guaranteed Ride Home**

- 7.31 A guaranteed ride home scheme will provide a 'safety net' for members of staff who chose to walk, cycle, car share or use public transport as a means of getting to work.
- 7.32 The scheme offers staff that have made a commitment to using alternative modes of travel to private car use, the ability to get home in the event of the following:
  - a home or family emergency during working hours;
  - illness; and

- a sudden change in the work schedule of either the car driver or passenger in a car sharing scenario.
- 7.33 Under a guaranteed ride home scheme, if a committed member of staff (to alternative modes) has to leave at an unexpected time and no practical alternative route home is available, the organisation will provide the means for ensuring that this person gets home.
- 7.34 The DfT document, *Making Smarter Choices Work*, states that experience from employers who offer the guaranteed ride home shows that it is rarely taken up, but that the measure reassures staff (p. 30). The main purpose of this scheme is to provide reassurance and an added incentive for staff to travel using modes other than the private car.

# **Pupil / Parent Car Sharing Database**

- 7.35 The majority of the pupils at the schools at Chilmington Green will live within 2km of their school. These pupils should be encouraged to walk and cycle to school. Beyond this, car sharing may be a consideration in places where there are groups of pupils living near to each other.
- 7.36 A survey of parents could be used to produce a map showing the location of families whose children attend each school. The survey could also ascertain whether parents are willing to offer lifts or allow their children to catch a lift with other families. The map will be provided to parents to illustrate the potential of car sharing.
- 7.37 The details of those willing to participate will be maintained on a database and parents will be put in touch with other parents (subject to their agreement) that live within close proximity of each other. Encouraging car sharing could further reduce the number of single child car journeys made to the schools at Chilmington Green.

**Table 7.6 STP Information & Travel Initiatives** 

Measure	Supports Umbrella	Implementation	Responsibility
	Travel Plan	Timescale	
	Objective		
Noticeboard at main	1, 2 and 4	On occupation, then	Individual schools with
entrance and in each		continually updated	support from the site-
staff room			wide TPC
Pupil travel	1, 2, 3 and 4	Distributed prior to	
information packs		occupation	
Green travel	1, 2 and 4	Ongoing (held at the	
initiatives		same time as national	
		events)	

#### **Notice Boards**

- 7.38 Publicity and promotion will be essential to ensuring the success of the Travel Plan and in maintaining its momentum. Information notice boards at the main school entrance and in staff common rooms will provide an appropriate media to ensure that all staff, parents and visitors to the school are aware of the intentions of the Travel Plan.
- 7.39 The notice boards will be used to promote access to each school by modes other than the private car. The information that the notice boards will contain is detailed as follows:
  - objectives of the School Travel Plan;
  - main contact details Head Teacher, School Travel Plan Coordinator;
  - summary of the Parking Strategy;
  - information relating to national green travel awareness days;
  - staff and parent car sharing details; and
  - maps showing access to the school by foot, bicycle and public transport (including timetables).

#### **Pupil Information Packs**

7.40 Pupil Information Packs will support the information notice boards. The information contained in the pack will be fairly simple so that it is easily understood by pupils and all information included within these packs will be agreed with ABC. The information packs will be distributed alongside school's prospectuses to all new and potential parents/pupils. This

will be an excellent way of engaging the parents and pupils prior to the occupation of the school and later on when new pupils join.

7.41 The ultimate responsibility for producing the information packs lies with each individual school. A management team will have been identified well in advance of pupil occupation, which will enable a TPC to have been identified and time, with support from the site-wide TPC, to produce the Pupil Information Packs. Furthermore, the site- specific measures need to be determined by the individual school before the information packs can be produced. However, hard infrastructure including pedestrian and cycle routes to the schools and cycle parking will be in place and the Consortium will provide the appropriate information regarding these for inclusion within the information packs.

#### **Green Travel Initiatives**

- 7.42 National green travel initiatives such as 'Walk to School' week will be promoted by schools at Chilmington Green. Participating in these initiatives will illustrate the effect and therefore very real benefits that can be achieved from swapping the car for an alternative mode, if only for one day per week.
- 7.43 In addition to the promotion of these national events, special assemblies/lessons could be given to raise the awareness of pupils. This will be particularly important upon first occupation of the new schools at Chilmington Green to introduce the pupils and staff to the concept of Travel Planning.

**Table 7.7 STP Consultation Measures** 

Measure	Supports Umbrella Travel Plan Objective	Implementation Timescale	Responsibility
Engage with parents	1, 2, 3, and 5	Prior to occupation	Individual schools
/ local community /		and then ongoing	with support from the
police and KCC			site-wide TPC

## **Engagement with Relevant Parties**

7.44 The continued engagement of parents, the local community, the police and KCC will be essential in ensuring the progress and momentum of each STP. Furthermore, it will be possible to gauge changes in attitudes towards the STPs and sustainable travel which will assist in determining STP effectiveness.

7.45 The site wide TPC will be responsible for maintaining an excellent level of communication with these stakeholders.

# **ACTIONS PRIOR TO OCCUPATION**

7.46 Table 7.8 below provides a summary of the actions to be undertaken prior to occupation of each school site.

Table 7.8 School Travel Plan Action Plan – Prior to occupation

Action	Responsibility
Identify a STP Coordinator (individual to each school)	Individual school
	head teachers
Prepare all information to be included with the Pupil Information Packs,	TPC
including walking and cycling maps, information on cycle training and road	
safety awareness schemes for pupils, such as Safe Routes to School.	
Discuss with Bikeability providers if scooting safely can be included in courses	
Appoint a School Crossing Patroller	TPC / KCC
Purchase high visibility materials and snap bands	School / KCC
Secure discounts for local school bus services	TPC / KCC
Develop and implement a car parking strategy	Consortium / KCC
Set up staff and pupil / parent car sharing databases	TPC
Walking bus training and participation	TPC / KCC

# 8 SCHOOL TRAVEL PLAN RESPONSIBILITIES

#### Introduction

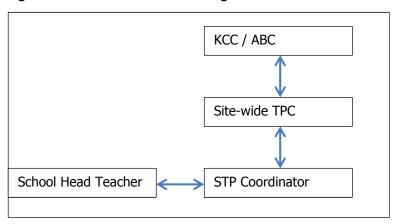
- 8.1 Identifying a management structure is essential to ensure the implementation and continued maintenance of each STP.
- 8.2 Each school will be required to produce its own STP, using national and local guidance and the recommendations in this document with full support and guidance from the site-wide TPC. The document will be submitted to Kent County Council for their review and to monitor performance.
- 8.3 The ultimate responsibility for the success of the individual STPs will lie with the school head teacher. They will be responsible for providing support to the School's own TPC to achieve the required objectives of the Travel Plan.

#### **SCHOOL TRAVEL PLAN COORDINATOR**

- 8.4 Each school will need to appoint its own STP Coordinator prior to occupation. This individual can be selected from a group of people with a vested interest in the school, such as a Teacher, Governor, or a non-teaching member of staff.
- 8.5 The responsibilities of the TPC role are as listed below.
  - To be the main point of contact between the school, Kent County Council, Ashford Borough Council, the Police and the local community – particularly for consultation and in reporting to Kent County Council as part of the monitoring process.
  - To be the main driving force behind the implementation, monitoring and review of the STP.
  - To coordinate green travel initiatives for the school in liaison with the Head
     Teacher and other associated parties.
  - Set up and maintain the staff and pupil/parent car sharing databases.
  - To prepare and provide all information for the notice boards and to maintain the upkeep of this information.

- To prepare and provide the information required for the pupil travel information packs.
- To deal with any on-site parking related issues.
- The appointed Coordinator from each school will receive full support and guidance from the site-wide Travel Plan Coordinator.
- 8.6 Figure 8.1 below shows the School Travel Plan management structure.

Figure 8.1 School Travel Plan Management Structure



### 9 SCHOOL TRAVEL PLAN TARGETS

#### Context

- 9.1 A major objective of current policy is to reduce the need to travel, particularly by private car. Targets related to modal split are useful in assessing the progress and effectiveness of a Travel Plan and must take into account individual site characteristics. As well as headline targets relating to trips, mode share for public transport etc and other indicators may also provide meaningful results. Changes in staff, parent and local resident attitudes might also prove to be equally important factors in indicating the success of a STP. The setting of targets also assists in ensuring that the STP has a purpose.
- 9.2 For contextual purposes, the modal share for travel to school for children in the area covered by Kent County Council is presented in Table 9.1 below.

Table 9.1 Kent's School Pupils Travel mode to School 2009/10

Walk	Cycle	Other	Car (includes car sharing)	Public Transport
43%	2%	1%	33%	18%

Source: Central Kent's Sustainable Travel to School Strategy

# **TARGETS**

- 9.3 As the opening of the education facilities at Chilmington Green is still several years away it is not reasonable or viable at this time to set targets. As the construction of the entire development will be phased over a number of years it is not currently possible to understand the travel and transport issues that will impact the individual schools. To ensure that each school takes on full ownership of their travel plan, it is also important that targets are set by those that are ultimately responsible for achieving them i.e. the Head Teacher and appointed School Travel Plan Coordinator.
- 9.4 At the time when the Travel Plan for each school is being prepared, the site- wide TPC for Chilmington Green will work with the schools to develop their Travel Plans and to help determine the most appropriate targets to include within them. These will take into account each individual school's circumstance upon opening and the influence of the growing development.

- 9.5 The targets which are set will be revised based on the results of the first school travel survey, and agreed with Kent County Council.
- 9.6 Targets will be specified according to the outcome which is desired and also by the actions which are required to obtain the outcome. These targets should be SMART (Specific, Measurable, Attainable, Relevant and Time-bound) and relate to local policy objectives for school travel and sustainable transport where possible.
- 9.7 Based on the mode share data in Table 9.1 above, it is considered that the mode shares that can be achieved by the schools will be significantly better, in favour of none car modes, than the fixed site-wide mode share targets. This will ensure that the STP targets will contribute to Chilmington Green achieving its end of Phase mode share targets detailed below in Table 9.2.

**Table 9.2 End of Phase Mode Share targets** 

Mode	Phase 1	Phase 2	Phase 3	Phase 4	Site-wide target
Car (car	62%	60%	57%	54%	53%
driver and					
passenger)					
Bus	20%	20%	20%	20%	20%
Train	6.5%	8%	9%	10%	11%
Walk	7%	7%	8%	10%	10%
Cycle	4%	4%	5%	5%	5%
Other	1%	1%	1%	1%	1%
(motorcycle,					
taxis, etc)					
	Total			100%	
Baseline	End of year 1	N/A	N/A	N/A	N/A
survey					
Monitoring	2, 4 and 6	2, 4 and 6	2, 4 and 6	2, 4 and 6	Bi-annual up
(years of					to 5 years
phase)					following
					completion

### 10 MONITORING AND REVIEW PROCESS

#### Introduction

- 10.1 Monitoring the Travel Plan is important in understanding the changing nature of staff and pupil travel behaviour and the effectiveness of the measures. Existing measures should be reviewed and alternative methods introduced where necessary to achieve Travel Plan Targets.
- 10.2 This section suggests a process by which the Travel Plans for schools at Chilmington Green could be monitored and reviewed. Each school will conform to this overarching process to ensure that comparable data is collected in a timely fashion.

#### **MONITORING AND REVIEW PROCESS**

- 10.3 Prior to each school's occupation; initial targets will be set by the School TPC following discussion with the site-wide TPC. These will be based on existing evidence of local travel patterns and the estimated positive impact the Travel Plan will have.
- 10.4 Six months following occupation, each school's Travel Plan Coordinator will be responsible for undertaking and analysing their school's travel survey, this will allow the school patterns to stabilise as parents and children grow accustomed to the measures provided by the Travel Plan. A review of the findings will be provided to the site-wide TPC, who, in conjunction with the schools, will provide a report to Kent County Council. Following feedback and recommendations, revised targets will be set for each of the schools based on the actual figures returned in the travel survey. The targets set must work towards the site wide phase end targets.
- 10.5 A bi-annual report will be submitted to Kent County Council that includes the results from the staff surveys and pupil surveys, school gate parking counts and possible local consultation groups. In addition to a review of these results against the targets set, Kent County Council will confirm whether or not a review of the Travel Plan measures is required. A review of the measures will be necessary if the targets are not being met. The bi-annual monitoring will be carried out in-line with the site-wide monitoring.

- 10.6 Additionally annual hands-up surveys will be assessed by the School Travel Plan Coordinator to ensure that the progress of the Travel Plan is in-line with the site- wide end of phase targets in Table 9.2.
- 10.7 If remedial measures are required, it is envisaged that a joint meeting will be held to discuss these matters and that will include:
  - The Head Teacher;
  - Travel Plan Coordinator;
  - Kent County Council;
  - Police; and
  - Local Residents Association
- 10.8 Including all of these stakeholders ensures that a high level of consultation is maintained throughout the life of the School Travel Plan in accordance with DfT guidance. Even if the targets are being met, it would be beneficial to hold a similar meeting to determine if aspirations require a review of measures. This would help to ensure the momentum of the Travel Plan. Such meetings will also assist in gauging whether attitudes in general are becoming more or less positive towards sustainable travel practices.
- 10.9 An outline of the monitoring timescales is provided in Table 10.1 below:

**Table 10.1 Monitoring Timescales** 

Timescale	Action	
Prior to occupation	Agree interim targets	
Six months from occupation	Travel survey to determine mode shares and	
	travel and transport issues	
Following analysis of surveys	STP Coordinators to report results to KCC	
If targets are met	STP Coordinator and head teacher to attend	
	stakeholder meeting to discuss the way	
	forward	
If targets are not being met	STP Coordinator and head teacher to attend	
	stakeholder meeting to discuss the way foward	

10.10 Monitoring of the schools will be ongoing to ensure that parents and pupils continue to travel by sustainable modes. The annual Hands-Up surveys will continue to be carried out, with a full review with KCC/ ABC every five years.

# 11 SUMMARY

- 11.1 WSP UK (WSP) has been commissioned by Hodson Developments, Malcolm Jarvis Homes,
  Pentland Homes & Ward Homes (The Consortium) to prepare a School Travel Plan
  Framework in support of development proposals at Chilmington Green, Kent.
- 11.2 Four new primary schools and a secondary school will be constructed as part of the development.
- 11.3 This Framework has been prepared to complement the proposals set out within the accompanying Transport Assessment report in the interests of promoting sustainable development and reducing the reliance on private car-based forms of transport, with an emphasis on the provision of a safe environment in which pupils can get to school.
- 11.4 This document has been designed as a reference tool for each of the individual schools to help them to prepare their own Travel Plans.
- 11.5 The measures proposed within this document are designed to aid discussion and inform the preparation of School Travel Plans for the individual schools at Chilmington Green and when adopted will not only bring associated benefits to the staff and pupils of the schools at Chilmington Green, but will also help to mitigate any transport impacts of the development on the wider local community.
- 11.6 To deliver this effectively the appointment of a School Travel Plan Coordinator at each school will be made to oversee delivery on a day-to-day basis. This will include preparing travel information materials for dissemination to staff, pupils and parents. This individual will receive support and guidance from the site-wide Travel Plan Coordinator at Chilmington Green to successfully accomplish their role.
- 11.7 Each school will be expected to set targets as part of their Travel Plan. To monitor progress against the targets, a detailed staff and pupil/parent travel survey will be conducted on an annual basis by the School Travel Plan Coordinator, with the results submitted to the site-wide TPC prior to Kent County Council.
- 11.8 Information gathered from these surveys will also support the ongoing review of each school's STP.

# **APPENDIX R**

**Road Safety Audit and Designer Response** 



# **Chilmington Green Consortium**

**Chilmington Green Masterplan, Ashford** 

Road Safety Audit Response Access A

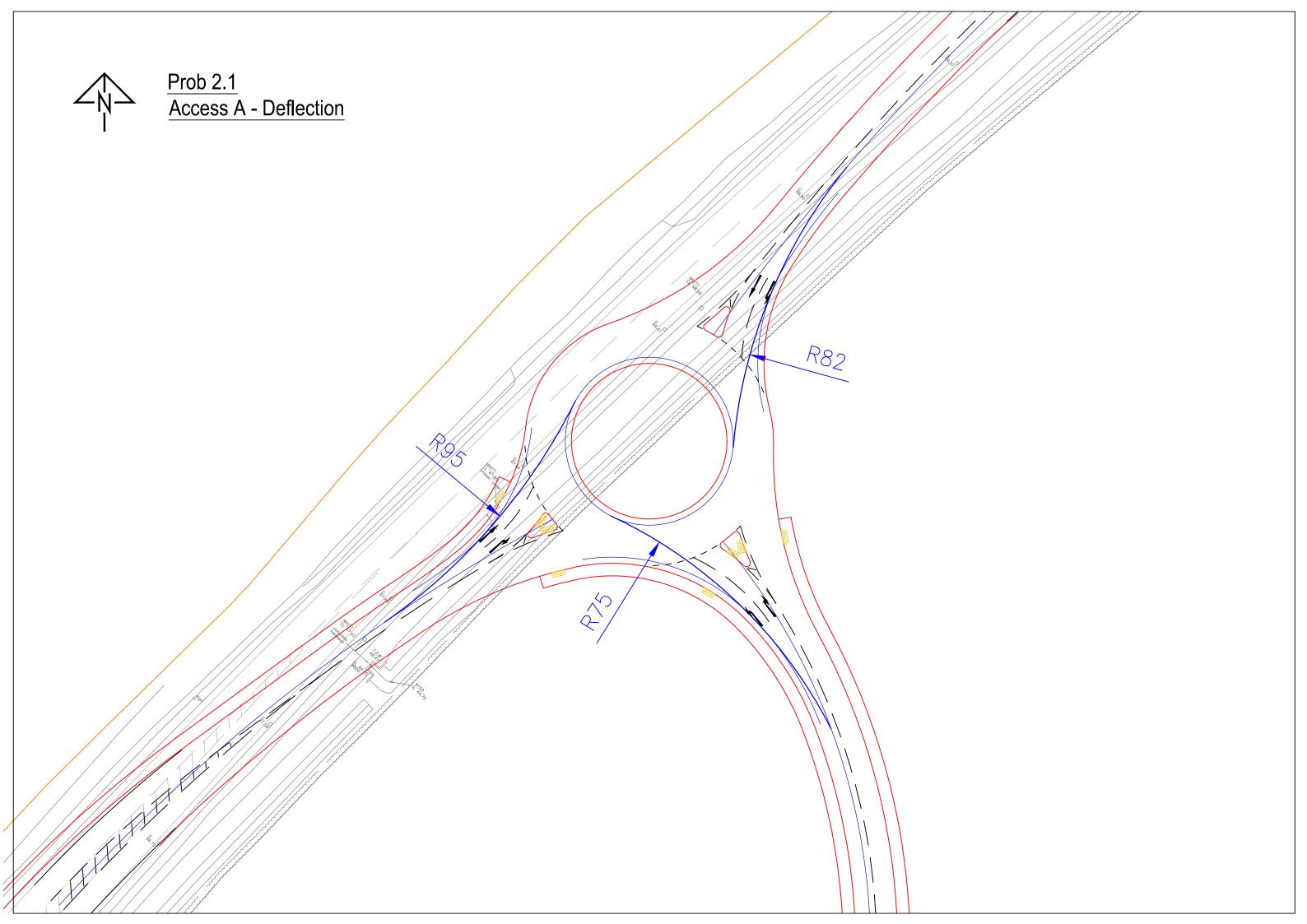
October 2013

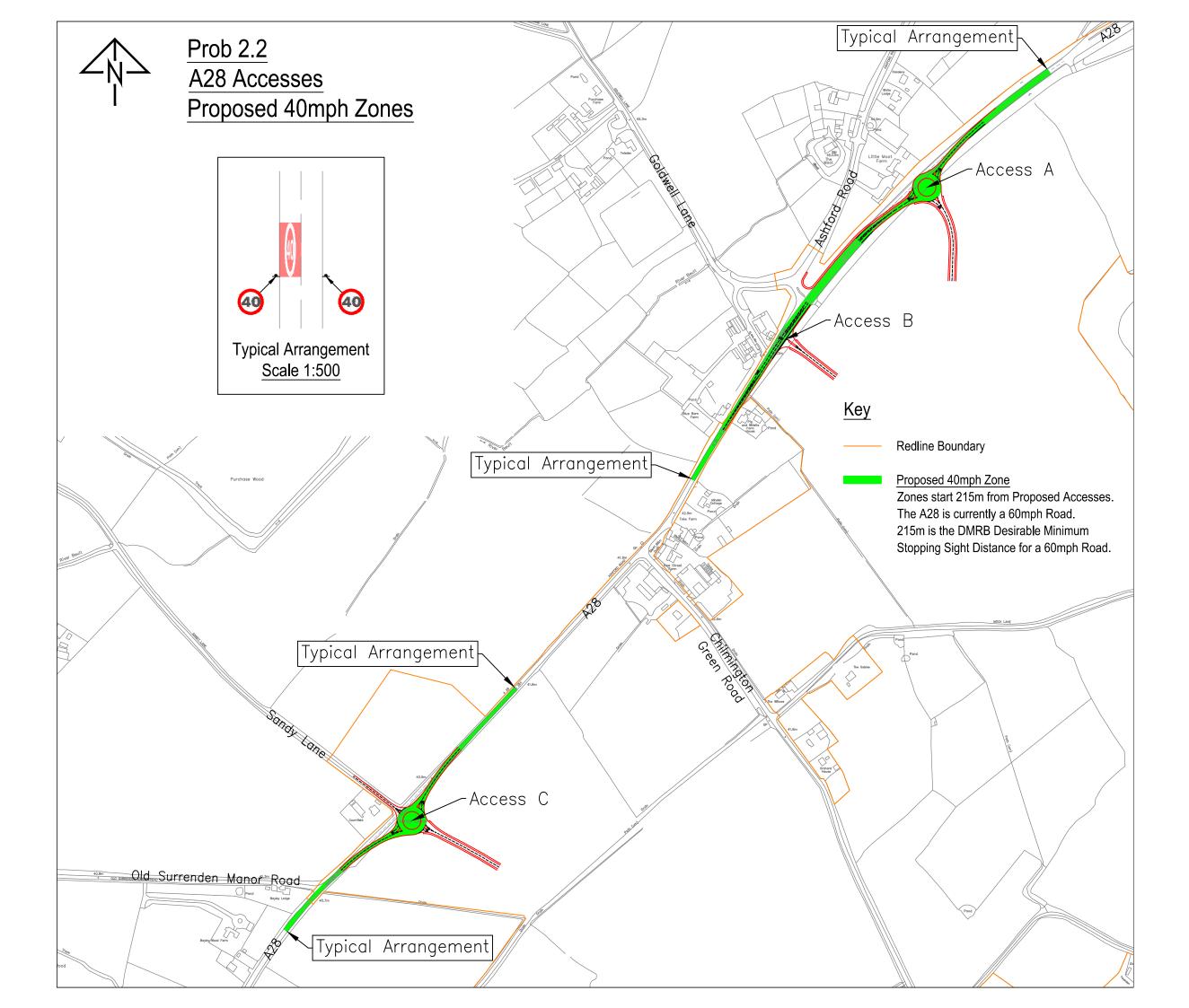
Network Building, 97 Tottenham Court Road, London W1T 4TP www.vectos.co.uk Registered address: Vectos (South) Limited, Hardwick House, Prospect Place, Swindon SN1 3LJ Company no. 7591661 Road Safety Audit Response Access A

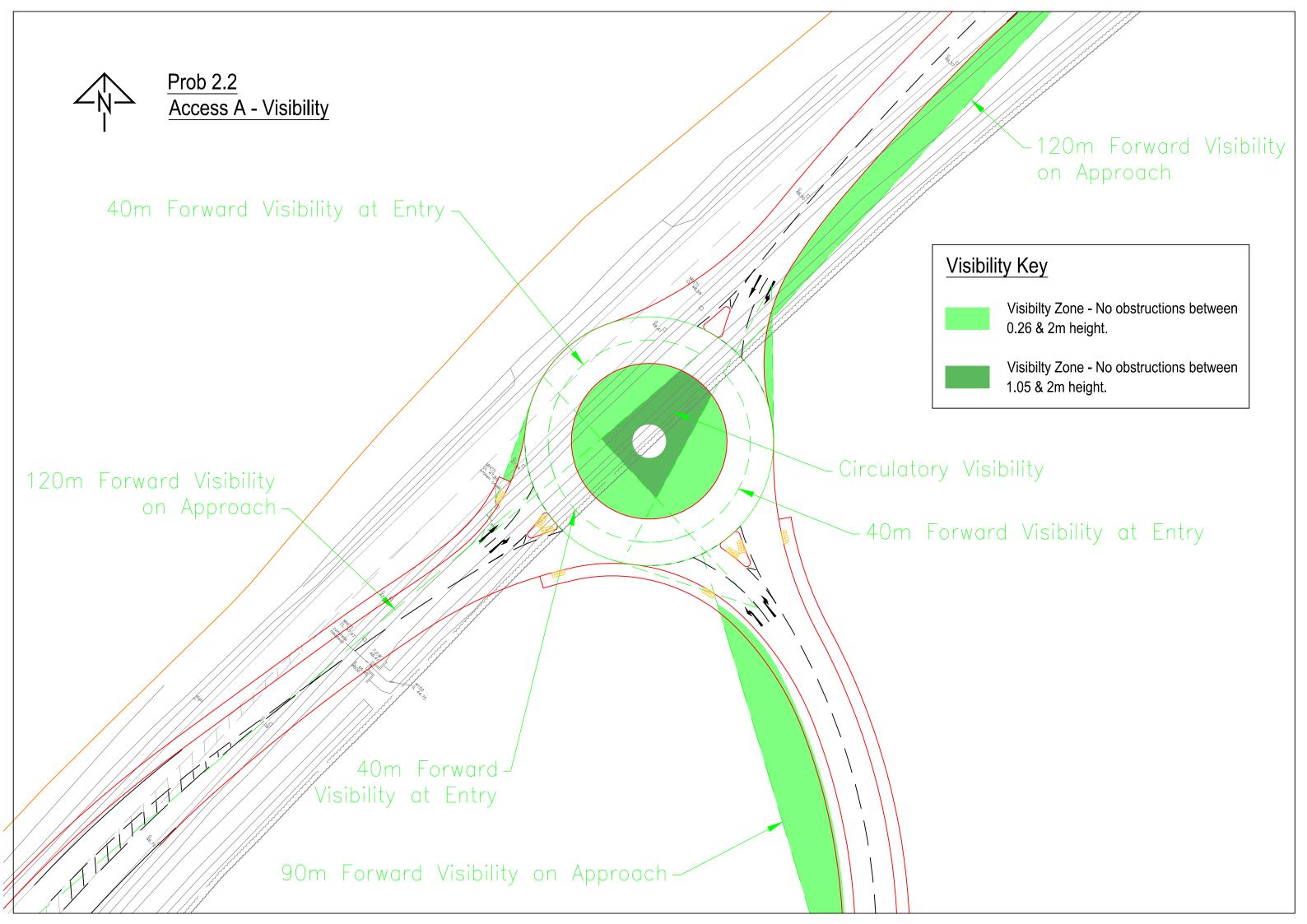
Paragraph No.	Problem	Recommendation	Client's Response	Safety Audit Team's Response
2.1	Unsuitable entry deflection could lead to accidents at the entries.  It has not been possible to accurately measure entry path curvature (EPC) on the approaches to the roundabout due to the small scale of the plan. However EPC is one of the most important determinants of safety at roundabouts. Relaxed EPC (>100m) can increase the risk of high speed entry and failure to give-way type accidents. Severe EPC (<70m) can lead to loss of control type accidents on entries, especially involving high sided vehicles.	The entry path curvature on the approaches should be checked to ensure it falls within the range 70m to 100m.	Recommendation agreed.  Roundabout has been designed to provide sufficient deflection to entering vehicles. All arms are within the 70m to 100m range.  See Access A – Deflection.	
2.2	Potential Vehicle Conflicts.  The northern A28 roundabout is within a national speed limit. Actual vehicle speeds data has not been provided but observed speeds past the site are likely to be in excess of the posted speed limit but the forward visibility splays of 120m shown are appropriate for 50mph speed limits. The combination of high vehicle approach speeds and inappropriate forward visibility may result in late braking, loss of control, failure to give way and circulatory type vehicle conflicts.	should be provided on the approach to the A28 northern roundabout in accordance with actual vehicle speed.	40mph Zones starting 215m (60mph Stopping sight distance) in advance of the junctions are proposed.  See A28 Accesses – Proposed 40mph Zones.  40mph gives a DMRB Stopping sight distance of 120mph.  See Access A – Visibility.	
2.3	Potential Vehicle Hazard.  The roundabout will be offset to the right for northbound approaching drivers. There may be potential for drivers to 'see through' the old carriageway alignment. Drivers failing to see the new vertical alignment may brake later or lose control on approach to the roundabout.	At detailed design stage, soft landscaping/mounding should be proposed on the north western verge on the A28 southern arm to prevent see through. The existing hedge line on the west side of the A28 should also be removed.	Recommendation agreed.	

Paragraph No.	Problem	Recommendation	Client's Response	Safety Audit Team's Response
2.4	Risk of accidents involving cyclists. Roundabouts can be hazardous for pedal cyclists, who can be involved in a high proportion of accidents. They tend to be most vulnerable on the circulatory carriageway of roundabouts, were they can get hit by entering vehicles.	At detailed design stage, if necessary, measures to improve safety for cyclists at roundabouts should be provided, such as off-carriageway paths or oncarriageway cycle lanes. Alternative routes avoiding the roundabout should also be investigated.	Recommendation agreed.	
2.5	Potential darkness retailed vehicle conflicts. There is no street lighting at present on the A28 past the location of the proposed northern roundabout. The change of alignment and the introduction of a new junction may not be obvious to approaching drivers during darkness or adverse weather. Poor conspicuity of the roundabout may result in late braking, loss of control, failure to give way and circulatory type vehicle conflicts.	the approach to and at the northern A28	Recommendation agreed.	

Signatures:-			
Safety Audit Team Leader	Date:	Scheme Promoter	Date:









# **Chilmington Green Consortium**

**Chilmington Green Masterplan, Ashford** 

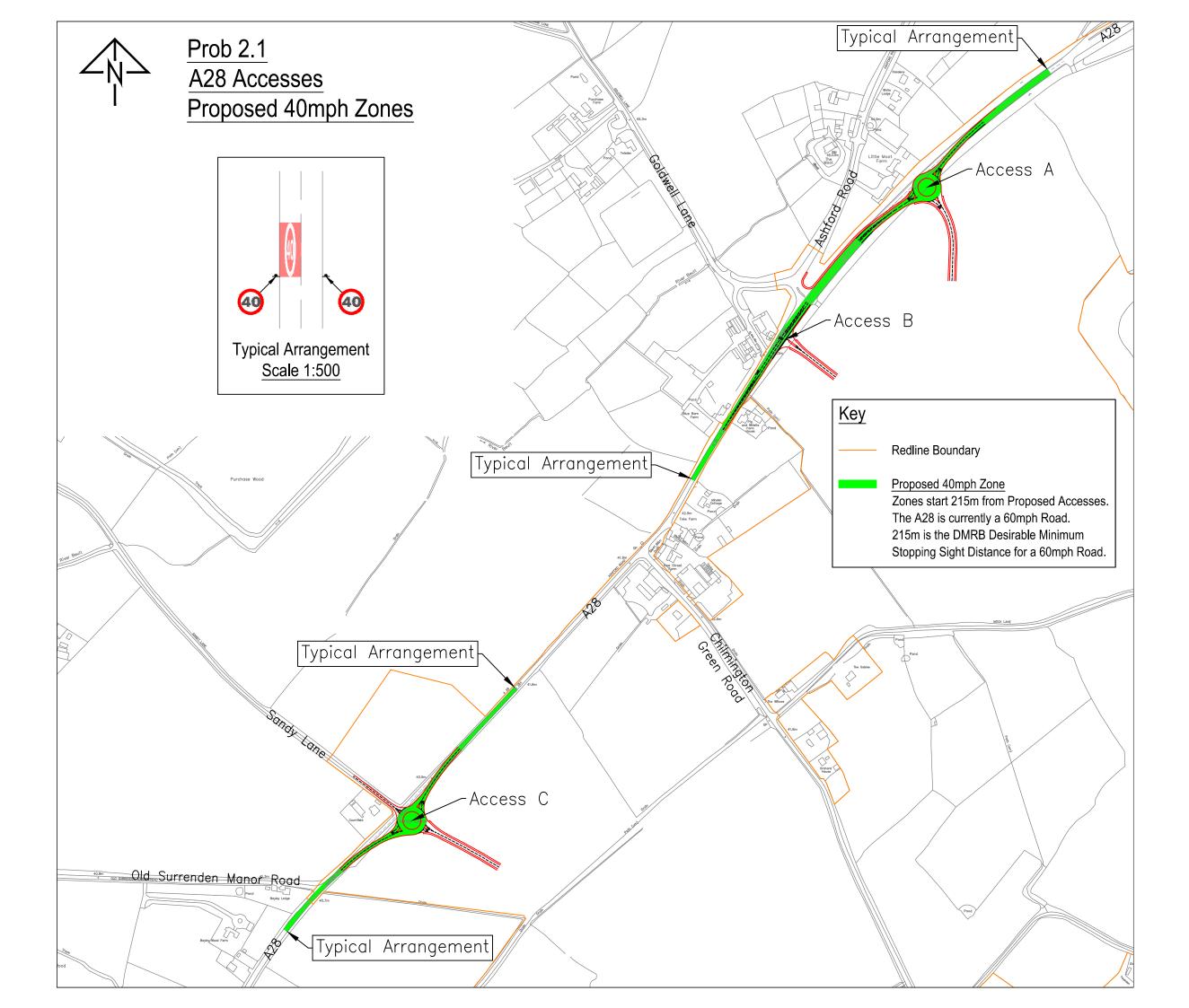
Road Safety Audit Response Access B

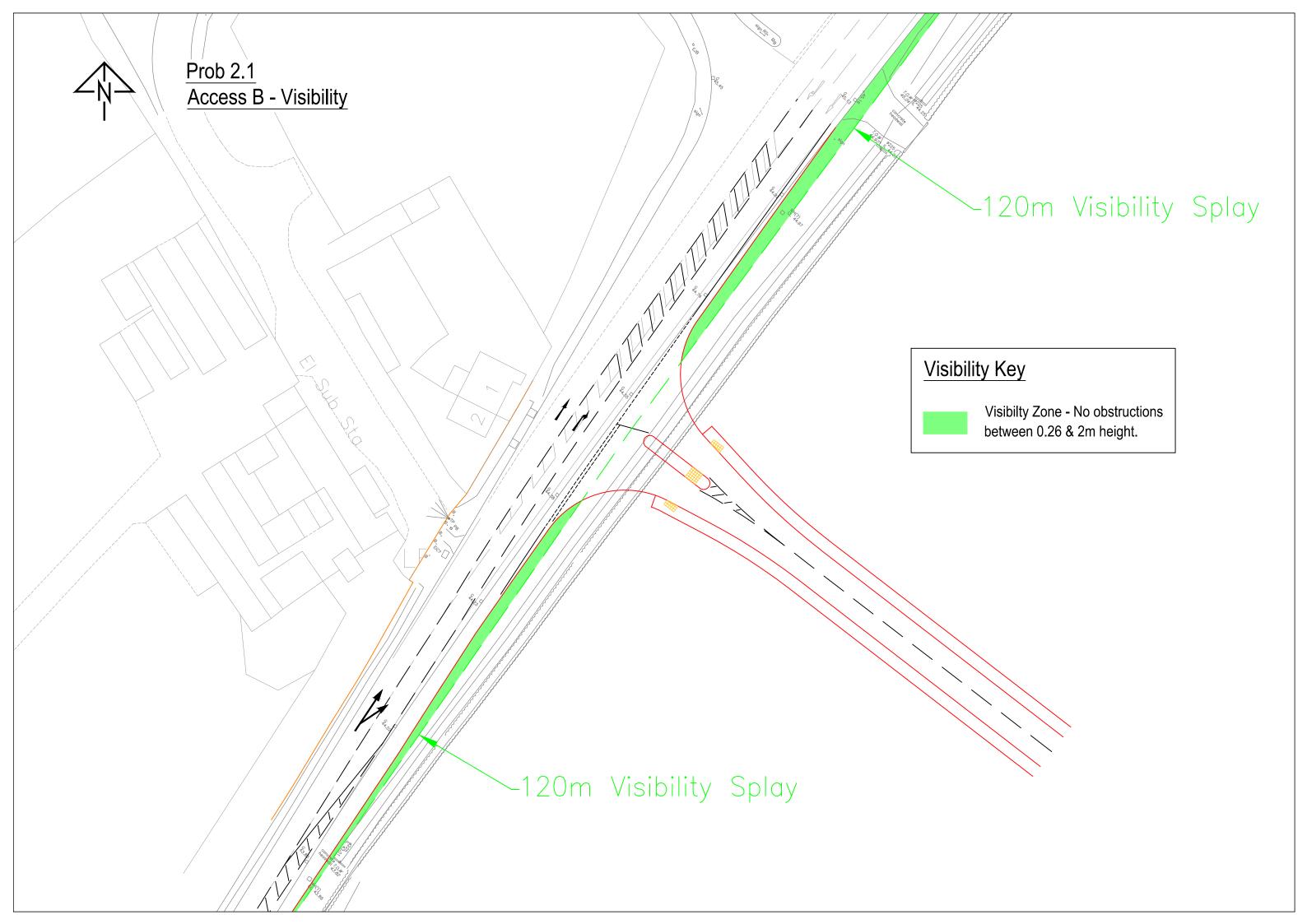
October 2013

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Paragraph No.	Problem	Recommendation	Client's Response	Safety Audit Team's Response
2.1	Potential Vehicle Conflicts.  The proposed priority junction is within a national speed limit. Actual vehicle speeds data has not been provided but observed speeds past the site are likely to be in excess of the posted speed limit but the forward visibility splays of 120m shown are appropriate for 50mph speed limits. The combination of high vehicle approach speeds and inappropriate visibility splays may result in vehicle pull out type conflicts.	Suitable visibility splays should be provided from the priority junction in accordance with actual vehicle speeds.	40mph Zones starting 215m (60mph Stopping sight distance) in advance of the junctions are proposed.  See A28 Accesses – Proposed 40mph Zones.  40mph gives a DMRB Stopping sight distance of 120mph.  See Access B – Visibility.	
2.2	Potential darkness retailed vehicle conflicts.  There is no street lighting at present on the A28 past the location of the proposed priority junction access. The introduction of a new junction and turning manoeuvres may result in vehicle conflicts during darkness.	At detailed design stage appropriate street lighting should be provided on the approach to and at the priority junction access.	Recommendation agreed.	
2.3	Hazard to Pedestrians.  Footways are provided on both sides of the development road but they terminate at the Access B junction, at which point there is no obvious continuation for pedestrians. Pedestrians will be expected to continue on verge or within the carriageway which may be hazardous particularly to children, the elderly or those with visual or mobility impairments.	At detailed design stage the continuation of pedestrian routes should be clarified and facilities provided as necessary.	As there are no existing footways along this section of the A28, pedestrians are not expected to continue beyond the limits of the proposed footways shown.	

Signatures:-			
	Date:		Date:
Safety Audit Team Leader		Scheme Promoter	







# **Chilmington Green Consortium**

**Chilmington Green Masterplan, Ashford** 

Road Safety Audit Response Access C

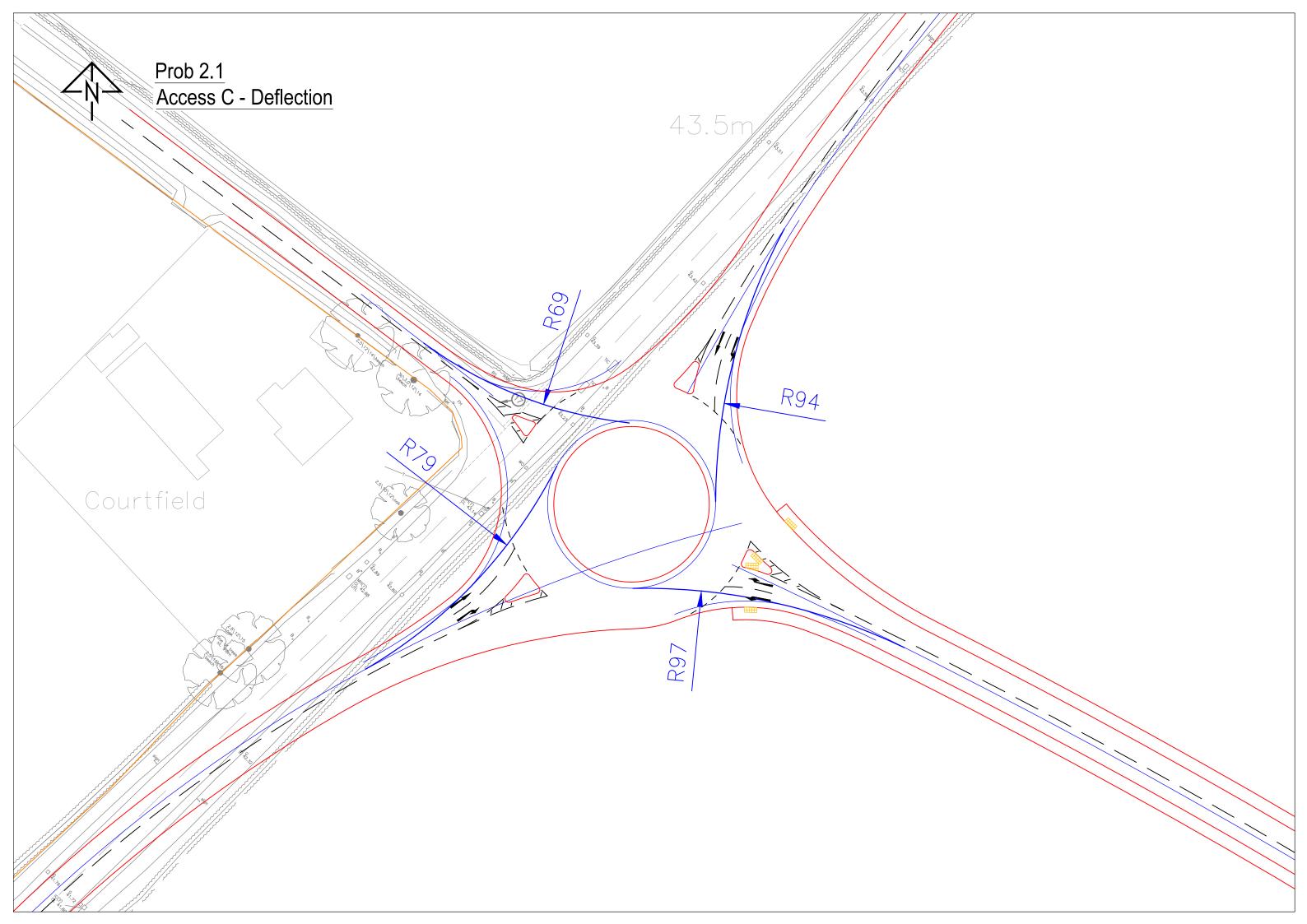
October 2013

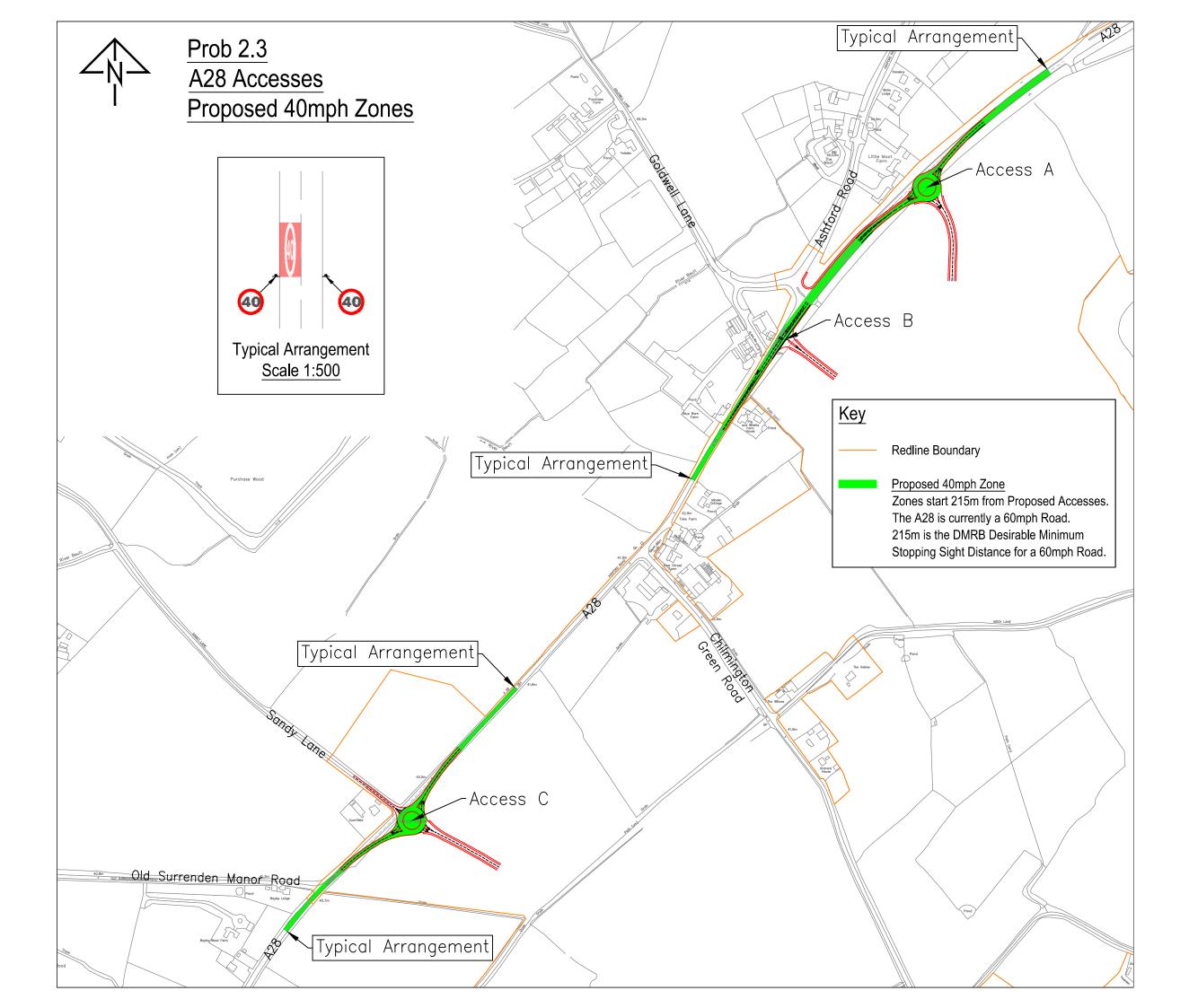
Road Safety Audit Response Access C

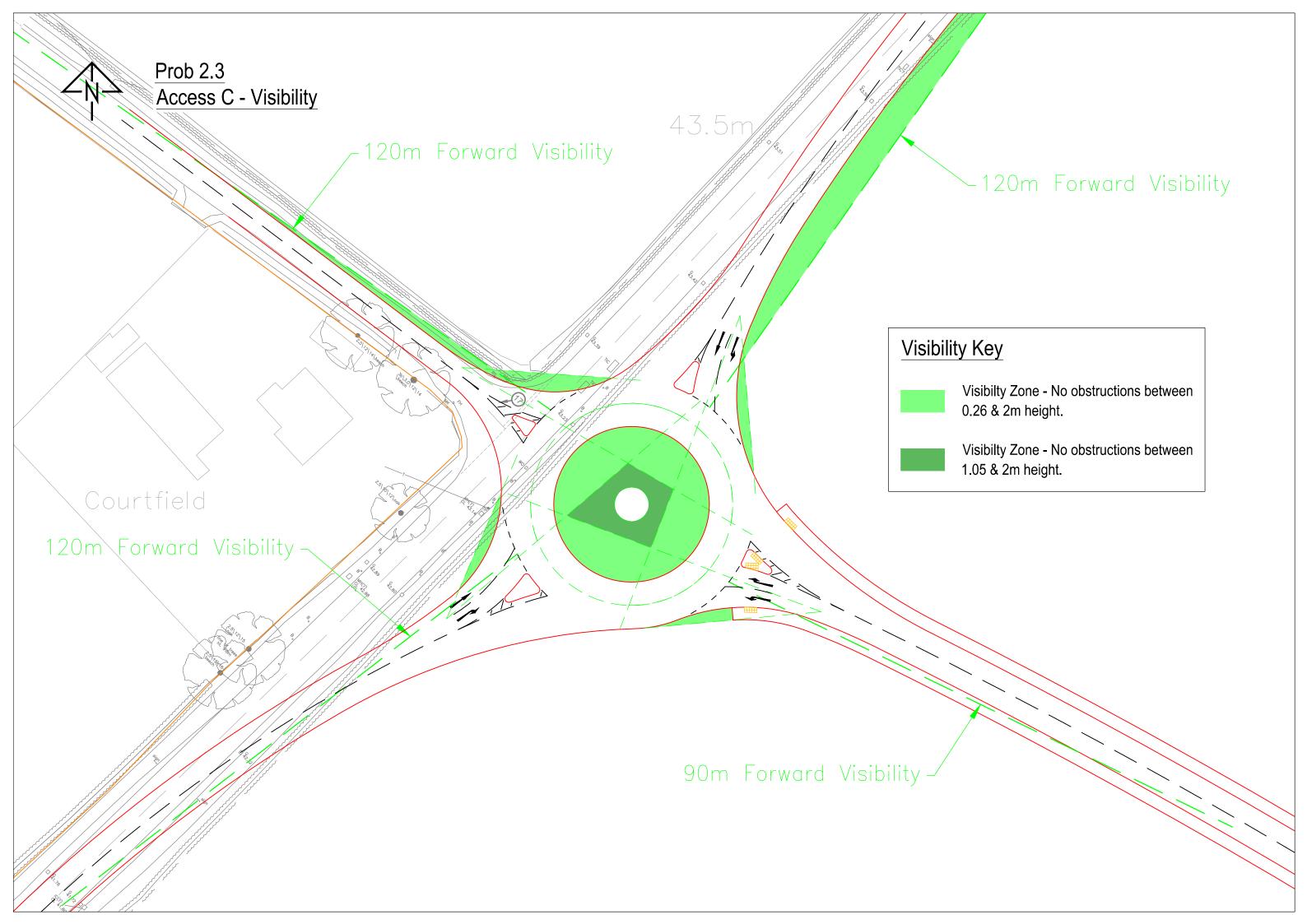
Paragraph No.	Problem	Recommendation	Client's Response	Safety Audit Team's Response
2.1	Unsuitable entry deflection could lead to accidents at the entries.  It has not been possible to accurately measure entry path curvature (EPC) on the approaches to the roundabout due to the small scale of the plan. However EPC is one of the most important determinants of safety at roundabouts. Relaxed EPC (>100m) can increase the risk of high speed entry and failure to give-way type accidents. Severe EPC (<70m) can lead to loss of control type accidents on entries, especially involving high sided vehicles.	The entry path curvature on the approaches should be checked to ensure it falls within the range 70m to 100m.	Recommendation agreed.  Roundabout has been designed to provide sufficient deflection to entering vehicles. All arms are within the 70m to 100m range.  See Access C – Deflection.	
2.2	Potential Vehicle Hazard.  The roundabout will be offset to the right for northbound and to the left for southbound approaching drivers. There may be potential for drivers to 'see through' the old carriageway alignment. Drivers failing to see the new vertical alignment may brake late or lose control on approach to the roundabout.	At detailed design stage, soft landscaping/mounding should be proposed on the north western verge on the A28 to prevent see through. The existing hedge line on the west side of the A28 should also be removed.	Recommendation agreed.	
2.3	Potential Vehicle Conflicts.  The southern A28 roundabout is within a 50mph speed limit. Although the forward visibility splays of 120m are shown, it was perceived that actual vehicle speeds were in excess of the posted speed limit. The combination of high vehicle approach speeds and inappropriate forward visibility may result in late braking, loss of control, failure to give way and circulatory type vehicle conflicts.	Suitable forward visibility splays should be provided on the approach to the A28 southern roundabout in accordance with actual vehicle speeds.	40mph Zones starting 215m (60mph Stopping sight distance) in advance of the junctions are proposed.  See A28 Accesses – Proposed 40mph Zones.  40mph gives a DMRB Stopping sight distance of 120mph.  See Access C – Visibility.	

Paragraph No.	Problem	Recommendation	Client's Response	Safety Audit Team's Response
2.4	Risk of accidents involving cyclists.  Roundabouts can be hazardous for pedal cyclists, who can be involved in a high proportion of accidents. They tend to be most vulnerable on the circulatory carriageway of roundabouts, were they can get hit by entering vehicles.	At detailed design stage, if necessary, measures to improve safety for cyclists at roundabouts should be provided, such as off-carriageway paths or on-carriageway cycle lanes. Alternative routes avoiding the roundabout should also be investigated.	Recommendation agreed.	
2.5	Potential Hazard to Pedestrians. Footways are provided on both sides of the development arm but they terminate at the southern A28 roundabout, at which point there is no obvious continuation for pedestrians. Pedestrians will be expected to continue on verge or within the carriageway which may be hazardous, particularly to children, the elderly or those with visual or mobility impairments.	At detailed design stage the continuation of pedestrian routes should be clarified and facilities provided as necessary.	As there are no existing footways along this section of the A28, pedestrians are not expected to continue beyond the limits of the proposed footways shown.	
2.6	Potential darkness retailed vehicle conflicts. There is no street lighting at present on the A28 past the location of the proposed southern roundabout. The change of alignment and the introduction of a new junction may not be obvious to approaching drivers during darkness or adverse weather. Poor conspicuity of the roundabout may result in late braking, loss of control, failure to give way and circulatory type vehicle conflicts.	At detailed design stage appropriate street lighting should be provided on the approach to and at the southern A28 roundabout.	Recommendation agreed.	

Signatures:-			
	Date:		Date:
Safety Audit Team Leader		Scheme Promoter	









## **Chilmington Green Consortium**

**Chilmington Green Masterplan, Ashford** 

Road Safety Audit Response Access D

October 2013

Road Safety Audit Response Access D

Paragraph No.	Problem	Recommendation	Client's Response	Safety Audit Team's Response
2.1	Potential Hazard to Pedestrians.  No pedestrian crossing point has been provided on the southern arm of the Coulter Road miniroundabout. Pedestrians wishing to cross Coulter Road to the south of the roundabout will have to do so via full height kerbs which may be a trip hazard, particularly to those with visual or mobility impairments.	An uncontrolled pedestrian crossing point should be provided on the southern arm of the Coulter Road miniroundabout.	Recommendation agreed.  The Coulter Road mini-roundabout design has been revised to include this recommendation.  See 131065/A/15 Rev A.	
2.2	At detailed design stage the mini roundabout central island should be domed to provide some deflection and encourage drivers to circulate.		Recommendation agreed.	

Signatures:-			
Safety Audit Team Leader	Date:	Scheme Promoter	Date:

