Procuro Planning Services

cTc Transport Planning

Land at A40, Lea

Technical Note 2;

Road Safety Audit Brief

1. INTRODUCTION

1.1 **cTc** is commissioned by Procuro Planning Services to address transport and traffic issues associated with proposals for a small scale residential development on land adjacent to the A40 in Lea, Herefordshire. The proposals include provision of a pedestrian crossing on A40, connecting the site with the village and the primary school and this Brief concerns the safety of providing such an arrangement at this location.

1.2 Similar, albeit larger proposals have been previously considered at this location, in conjunction with an additional site on the opposite side of the A40. Those proposals were refused permission and considered at a subsequent Planning Appeal. The Appeal was dismissed by the Inspector, however, **cTc** understands the reason for dismissal was not highway safety, with both the principal and preliminary design of the proposed crossing being agreed by all parties at that time.

1.3 In support of the current application, **cTc** has updated the previous traffic surveys, undertaken for the Planning Appeal and has designed the crossing according to the newly collected traffic data.

1.4 The recent traffic survey has identified traffic speeds notably different to and slower than those in the previous survey. These slower speeds have been used to define visibility requirements and have confirmed that a crossing in the same location as that previously proposed achieves the requirements of Manual for Streets 2, for the speeds recently recorded.

2. THE ISSUE

2.1 Highways officers have identified that the recently collected speed data is different from that collected for the previous Appeal and are requesting that the previous visibility splays should be provided. **cTc** maintains that the previously proposed visibility splays are excessive and onerous.

2.2 The previous visibility splays are achievable at the proposed crossing for north and south directions from the eastern side of the proposed crossing and to the north from the western side. To the south from the western side, however, the longer splays requested slightly impinge on third party land, across an adjacent private residential access. Splays appropriate to the recent speed data are achievable in both directions from both sides.

2.3 In order to examine whether the proposals are considered safe in design, a Stage 1/F Road Safety Audit is required. This should be undertaken according to the requirements of HD19/15 and should comment on matters of road safety associated with the proposed pedestrian crossing and site access junction illustrated in **cTc** Drawing Number 2016-W-006-001 RevB, which is attached at Appendix A.

3. STANDARDS AND DATA COLLECTED

3.1 The preliminary design has been undertaken according to the requirements of Manual for Streets 2 and in discussion with highways officers of Herefordshire County Council.

3.2 Appendix B comprises the recent traffic survey data collected by Automatic Traffic Counter (ATC), whilst Appendix C comprises the ATC data collected for the previous proposal. Appendix D comprises 85th percentile speed and appropriate visibility calculations from the recent ATC surveys, whilst the submitted Transport Assessment is provided at Appendix E.

3.3 No relaxations of standard have been applied.

Client:		Procuro Plannning Services Limited	
Project Name:		Land Adjacent to the A40, Lea	
Project Number:		2016-W-006	
Report Title:		Technical Note 2 – RSA Brief	
Created by:	Carl Tonks	**Date:**	January 2017
Proofed by:	Carl Tonks	**Date:**	January 2017
Approved by:	Carl Tonks carl@tonks-consulting.co.uk	**Date:**	January 2017
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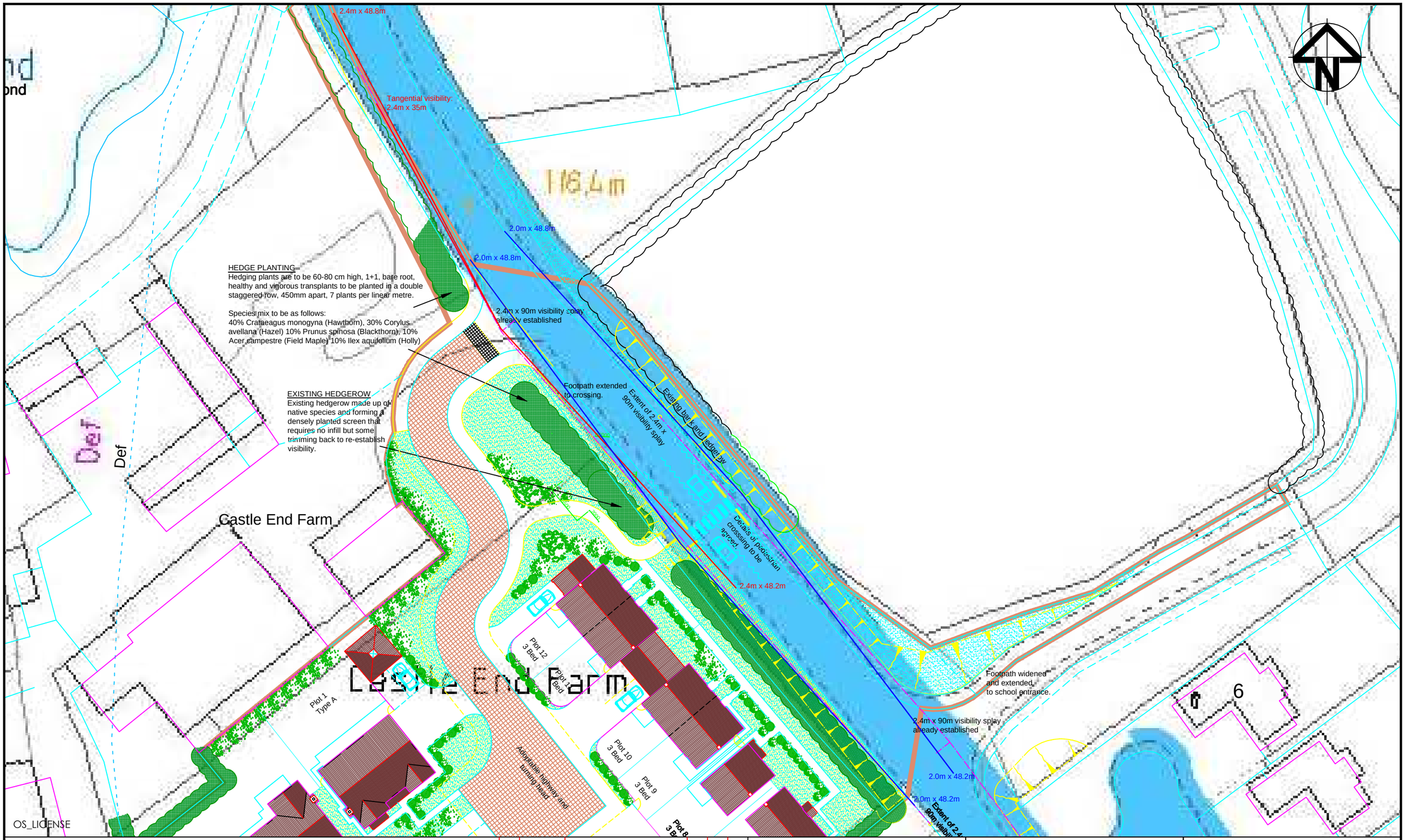
APPENDICES

APPENDIX A

cTc DRAWING NUMBER 2016-W-006-001 RevB



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Rev	Date	Description	Drn	Chk	App
B	14.07.16	Visi revised for updated ATC. Original xing. Shown in single viewport.	EP	CT	CT
A	01.07.16	Highway boundary plan inserted.	EP	CT	CT
-	10.06.16	ORIGINAL ISSUE	EP	CT	CT

Procuro Planning.

Castle End, Lea.

Proposed Access Arrangments.

SCALE: 1:500 @A3 | REV B

2016-W-006-001

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APPENDIX B

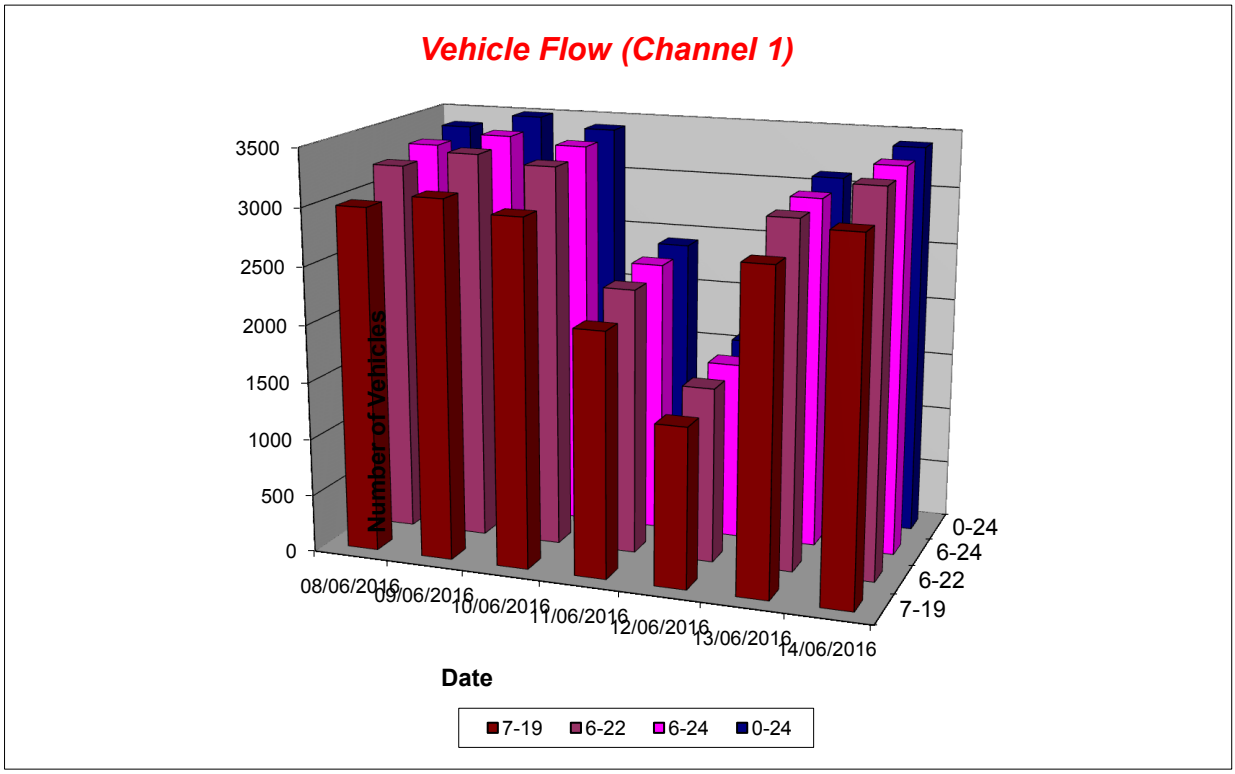
2016 ATC SURVEY REPORT

Lea ATC, A40

Channel 1 - Northwestbound **Vehicle Flow** **Week 1**

Hr Ending	08/06/2016 Wednesday	09/06/2016 Thursday	10/06/2016 Friday	11/06/2016 Saturday	12/06/2016 Sunday	13/06/2016 Monday	14/06/2016 Tuesday	5 Day Ave	7 Day Ave
1	22	14	12	13	14	6	9	13	13
2	4	7	4	5	6	8	4	5	5
3	4	6	3	1	4	3	3	4	3
4	3	3	5	6	6	4	0	3	4
5	9	12	9	2	2	12	7	10	8
6	24	33	14	11	4	24	25	24	19
7	71	72	79	26	14	78	81	76	60
8	257	184	214	54	31	235	215	221	170
9	283	352	284	106	54	340	295	311	245
10	255	258	255	206	97	250	254	254	225
11	239	231	232	180	141	215	232	230	210
12	236	223	174	226	154	181	269	217	209
13	243	279	316	231	161	240	210	258	240
14	221	210	244	263	121	194	207	215	209
15	223	328	310	224	167	242	281	277	254
16	252	259	257	213	139	198	254	244	225
17	319	305	321	152	164	288	318	310	267
18	307	348	285	143	95	256	384	316	260
19	161	136	116	125	67	133	156	140	128
20	85	105	98	86	48	65	74	85	80
21	38	54	71	45	43	46	43	50	49
22	41	26	48	30	27	48	39	40	37
23	42	38	32	33	18	25	39	35	32
24	36	15	33	34	9	15	10	22	22

7-19	2996	3113	3008	2123	1391	2772	3075	2993	2640
6-22	3231	3370	3304	2310	1523	3009	3312	3245	2866
6-24	3309	3423	3369	2377	1550	3049	3361	3302	2920
0-24	3375	3498	3416	2415	1586	3106	3409	3361	2972



Lea ATC, A40

Channel 1 - Northwestbound **Average Speed** **Week 1**

Hr Ending	08/06/2016 Wednesday	09/06/2016 Thursday	10/06/2016 Friday	11/06/2016 Saturday	12/06/2016 Sunday	13/06/2016 Monday	14/06/2016 Tuesday
1	24.9	26.8	24.8	24.2	24.9	24.5	26.8
2	23.8	24.6	26.5	28.4	26.0	26.4	22.8
3	22.3	25.5	26.3	25.0	23.8	25.3	28.3
4	24.0	22.7	25.2	24.2	23.8	25.3	-
5	23.9	27.3	26.6	26.5	20.5	25.5	24.3
6	23.3	26.1	24.6	23.5	25.8	26.3	25.8
7	25.6	25.8	26.1	25.4	26.7	25.1	25.6
8	25.6	25.8	25.2	26.5	25.0	25.7	25.6
9	25.4	26.4	25.5	25.1	25.0	25.9	25.5
10	25.5	25.2	25.3	25.3	25.6	25.7	25.2
11	25.7	25.3	25.2	25.3	25.2	25.1	25.4
12	25.7	25.2	24.7	25.7	24.9	25.3	25.3
13	25.9	25.3	25.0	25.4	25.1	25.7	25.3
14	25.3	25.9	25.5	25.5	25.3	25.5	25.8
15	25.1	25.3	25.4	25.7	25.5	25.2	25.7
16	25.5	26.0	25.5	25.7	25.9	25.7	24.9
17	25.2	25.8	26.0	25.7	25.8	25.5	25.3
18	25.7	27.2	25.9	25.8	25.2	26.0	26.4
19	25.3	25.5	25.1	25.3	26.0	25.9	25.8
20	25.5	25.7	25.0	25.4	25.8	25.3	25.8
21	26.1	25.5	26.2	24.8	26.7	25.5	25.7
22	25.0	26.0	24.6	25.8	24.5	26.3	25.3
23	26.0	25.4	25.1	25.5	24.4	25.0	25.9
24	25.1	25.2	25.8	25.8	26.1	22.4	27.0
10-12	25.7	25.3	25.0	25.5	25.0	25.2	25.4
14-16	25.3	25.6	25.4	25.7	25.7	25.5	25.3
0-24	25.5	25.8	25.4	25.5	25.4	25.6	25.5
						7 Day Ave	25.5

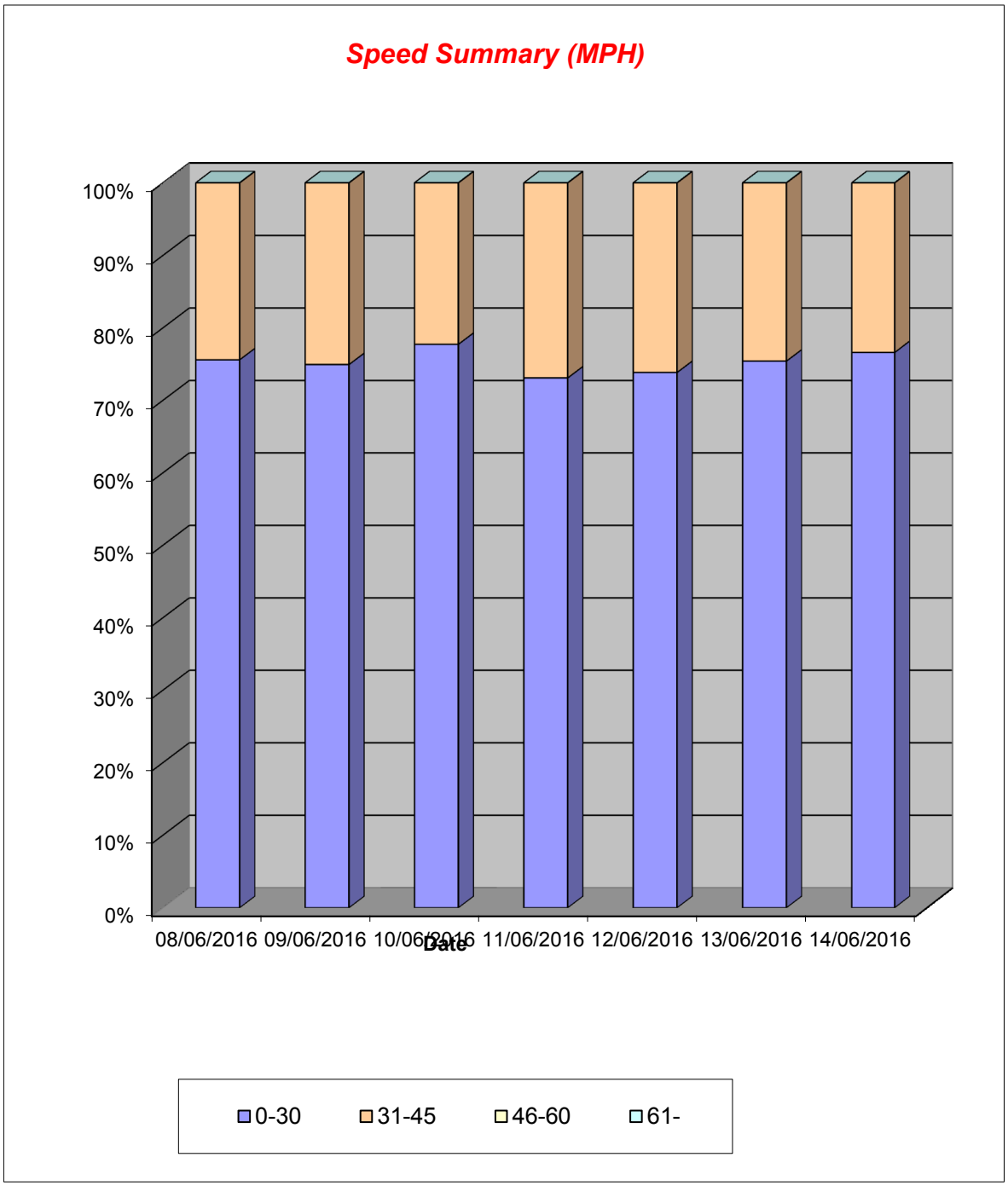
Channel 1 - Northwestbound **85th Percentile**

Hr Ending	08/06/2016 Wednesday	09/06/2016 Thursday	10/06/2016 Friday	11/06/2016 Saturday	12/06/2016 Sunday	13/06/2016 Monday	14/06/2016 Tuesday
1	32.7	33.2	30.0	30.2	30.1	29.8	30.8
2	33.6	25.5	28.7	31.8	33.5	36.7	31.0
3	27.4	31.3	30.7	-	29.5	30.4	29.4
4	26.5	25.8	27.6	27.0	31.3	32.2	-
5	29.4	30.4	29.8	33.2	28.6	31.7	31.3
6	29.6	33.0	30.1	31.0	30.8	31.0	32.0
7	32.0	32.4	33.0	34.3	32.0	32.0	32.0
8	32.0	33.0	32.0	35.1	30.5	32.0	32.0
9	32.0	33.0	32.0	32.0	33.0	33.0	32.0
10	32.0	31.0	31.0	33.0	33.0	32.0	31.0
11	32.0	31.5	30.0	33.0	33.0	31.0	32.0
12	31.0	30.0	32.0	32.0	31.0	30.0	31.0
13	33.0	32.3	31.0	32.0	32.0	31.0	32.0
14	32.0	32.7	32.0	32.0	32.0	32.0	32.0
15	31.0	32.0	31.0	33.0	32.0	32.0	31.0
16	31.0	31.0	32.0	32.0	33.0	33.0	31.0
17	32.0	32.4	32.0	32.0	32.0	32.0	32.0
18	33.0	33.0	32.0	33.0	31.0	33.0	32.0
19	33.0	34.0	32.0	32.0	34.0	33.0	32.0
20	32.4	33.4	33.5	33.0	32.0	31.4	33.0
21	34.0	34.0	32.5	32.4	33.7	31.3	33.0
22	32.0	33.3	32.0	32.7	33.1	35.9	33.3
23	32.9	33.0	31.4	31.2	33.0	31.4	33.0
24	33.8	31.8	30.0	31.1	33.4	26.0	30.7
10-12	32.0	31.5	30.0	33.0	33.0	31.0	32.0
14-16	31.0	32.0	31.1	32.0	32.0	32.2	31.0
0-24	32.0	32.0	32.0	32.0	32.0	32.0	32.0
						7 Day Ave	32.0

Lea ATC, A40

Channel 1 - Northwestbound **Speed Summary** **Week 1**

Speed (MPH)	08/06/2016 Wednesday	09/06/2016 Thursday	10/06/2016 Friday	11/06/2016 Saturday	12/06/2016 Sunday	13/06/2016 Monday	14/06/2016 Tuesday
0-30	2551	2621	2655	1765	1171	2342	2611
31-45	824	877	761	650	415	764	798
46-60	0	0	0	0	0	0	0
61-	0	0	0	0	0	0	0
TOTAL	**3375**	**3498**	**3416**	**2415**	**1586**	**3106**	**3409**

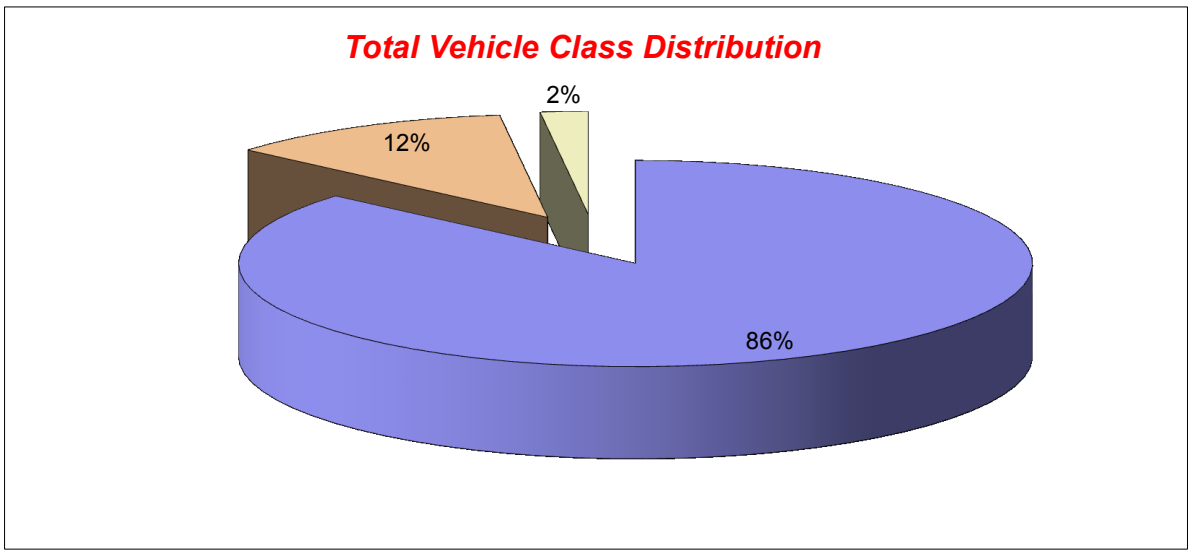


Lea ATC, A40

Channel 1 - Northwestbound | **Vehicle Class** | **Week 1**

Classes / Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
08/06/2016				
7-19	2503	411	82	2996
6-22	2710	430	91	3231
6-24	2782	434	93	3309
0-24	2827	453	95	3375
09/06/2016				
7-19	2672	376	65	3113
6-22	2899	398	73	3370
6-24	2948	400	75	3423
0-24	3002	416	80	3498
10/06/2016				
7-19	2539	403	66	3008
6-22	2809	425	70	3304
6-24	2870	428	71	3369
0-24	2899	442	75	3416
11/06/2016				
7-19	1963	147	13	2123
6-22	2138	157	15	2310
6-24	2198	163	16	2377
0-24	2221	176	18	2415
12/06/2016				
7-19	1310	75	6	1391
6-22	1426	89	8	1523
6-24	1451	89	10	1550
0-24	1482	91	13	1586
13/06/2016				
7-19	2388	337	47	2772
6-22	2593	364	52	3009
6-24	2631	366	52	3049
0-24	2673	375	58	3106
14/06/2016				
7-19	2583	442	50	3075
6-22	2783	471	58	3312
6-24	2830	473	58	3361
0-24	2861	484	64	3409

Average				
7-19	2280	313	47	2640
6-22	2480	333	52	2866
6-24	2530	336	54	2920
0-24	2566	348	58	2972

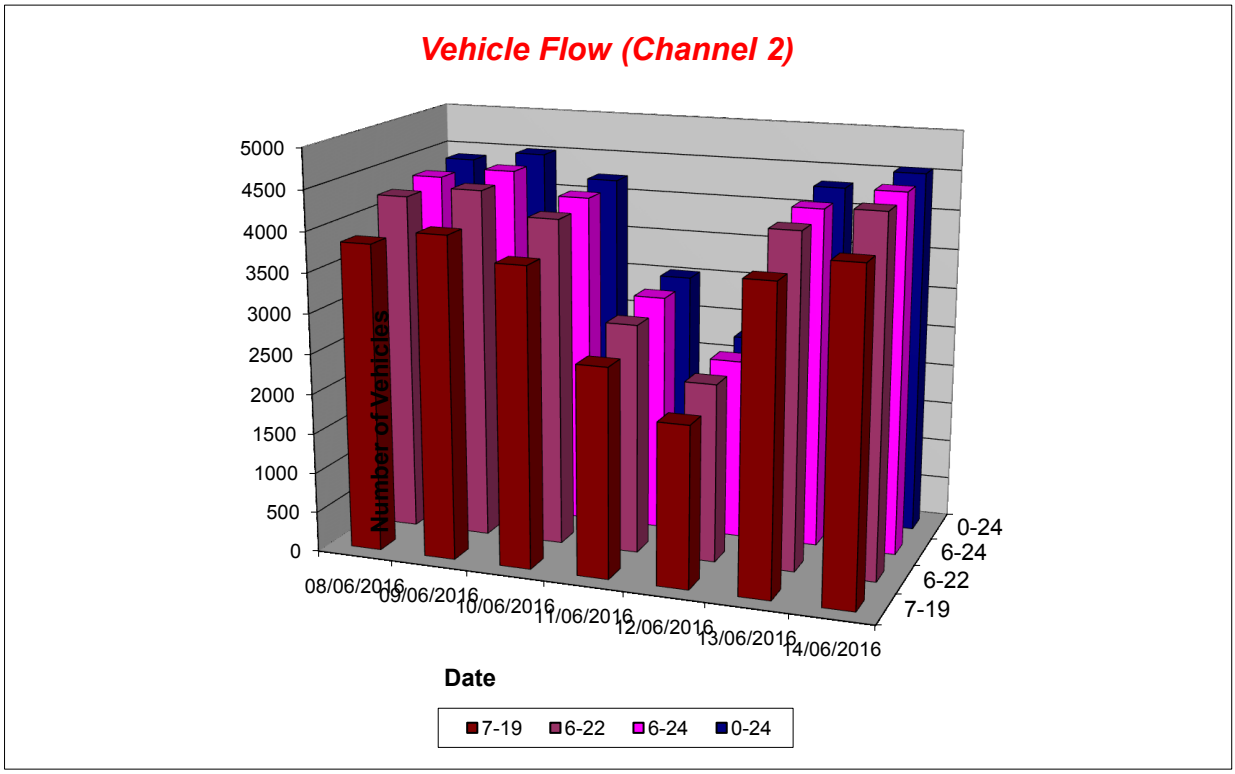


Lea ATC, A40

Channel 2 - Southeastbound **Vehicle Flow** **Week 1**

Hr Ending	08/06/2016 Wednesday	09/06/2016 Thursday	10/06/2016 Friday	11/06/2016 Saturday	12/06/2016 Sunday	13/06/2016 Monday	14/06/2016 Tuesday	5 Day Ave	7 Day Ave
1	14	6	14	14	22	15	6	11	13
2	4	5	8	5	8	7	4	6	6
3	6	8	3	2	7	3	5	5	5
4	4	7	3	5	3	7	2	5	4
5	9	7	6	7	3	15	13	10	9
6	33	27	23	13	4	37	26	29	23
7	64	79	81	38	14	101	55	76	62
8	225	304	278	60	21	248	230	257	195
9	553	484	521	134	47	503	505	513	392
10	378	273	273	210	100	359	386	334	283
11	267	333	289	249	187	287	333	302	278
12	208	301	249	263	205	250	298	261	253
13	333	319	292	307	237	258	291	299	291
14	359	334	315	244	245	332	310	330	306
15	283	301	357	274	251	325	334	320	304
16	339	395	351	304	193	294	403	356	326
17	328	365	309	213	262	360	368	346	315
18	326	341	298	167	143	357	406	346	291
19	240	266	196	180	119	202	191	219	199
20	182	120	117	106	71	136	154	142	127
21	81	96	97	75	93	85	109	94	91
22	72	63	65	45	41	57	70	65	59
23	55	55	48	50	15	56	27	48	44
24	25	21	37	63	15	20	25	26	29

7-19	3839	4016	3728	2605	2010	3775	4055	3883	3433
6-22	4238	4374	4088	2869	2229	4154	4443	4259	3771
6-24	4318	4450	4173	2982	2259	4230	4495	4333	3844
0-24	4388	4510	4230	3028	2306	4314	4551	4399	3904



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Channel 2 - Southeastbound **Average Speed** **Week 1**

Hr Ending	08/06/2016 Wednesday	09/06/2016 Thursday	10/06/2016 Friday	11/06/2016 Saturday	12/06/2016 Sunday	13/06/2016 Monday	14/06/2016 Tuesday
1	26.6	24.2	26.5	24.7	27.0	24.8	28.0
2	23.5	23.6	26.5	25.2	23.5	24.6	22.3
3	21.7	25.9	27.0	21.5	25.4	24.3	23.0
4	19.8	24.0	24.7	25.4	20.3	23.9	19.0
5	26.1	27.1	26.7	24.4	22.3	26.2	25.5
6	24.5	25.8	24.3	26.4	23.3	24.9	26.5
7	24.1	24.8	25.3	25.7	27.5	24.6	25.1
8	25.6	25.1	25.3	25.5	24.9	25.5	25.2
9	25.2	25.5	25.2	25.4	24.3	25.3	25.6
10	25.2	25.6	24.9	24.9	25.2	25.2	25.0
11	25.0	25.0	25.6	25.3	25.5	25.5	25.5
12	25.2	25.0	25.1	24.7	25.1	25.1	24.7
13	25.1	25.3	25.0	25.4	25.3	25.5	25.0
14	25.4	25.3	25.3	25.3	25.2	25.5	25.4
15	25.3	24.7	25.1	25.4	25.6	26.4	24.8
16	25.1	25.9	25.1	25.1	25.2	25.2	24.9
17	25.3	26.0	25.2	24.7	25.6	25.4	25.3
18	25.3	25.4	24.5	24.7	25.1	25.2	25.2
19	25.0	25.5	25.2	25.1	25.3	24.9	25.3
20	25.0	25.0	25.0	25.2	25.3	25.5	25.1
21	25.5	24.9	24.8	25.6	25.4	26.4	24.7
22	25.9	25.4	24.4	25.0	24.8	25.6	25.0
23	25.6	25.7	26.0	24.0	26.1	25.0	25.1
24	23.8	26.4	25.5	25.7	25.8	24.9	25.3
10-12	25.1	25.0	25.3	25.0	25.3	25.3	25.1
14-16	25.2	25.4	25.1	25.2	25.4	25.8	24.9
0-24	25.2	25.4	25.1	25.1	25.3	25.4	25.2
						7 Day Ave	25.2

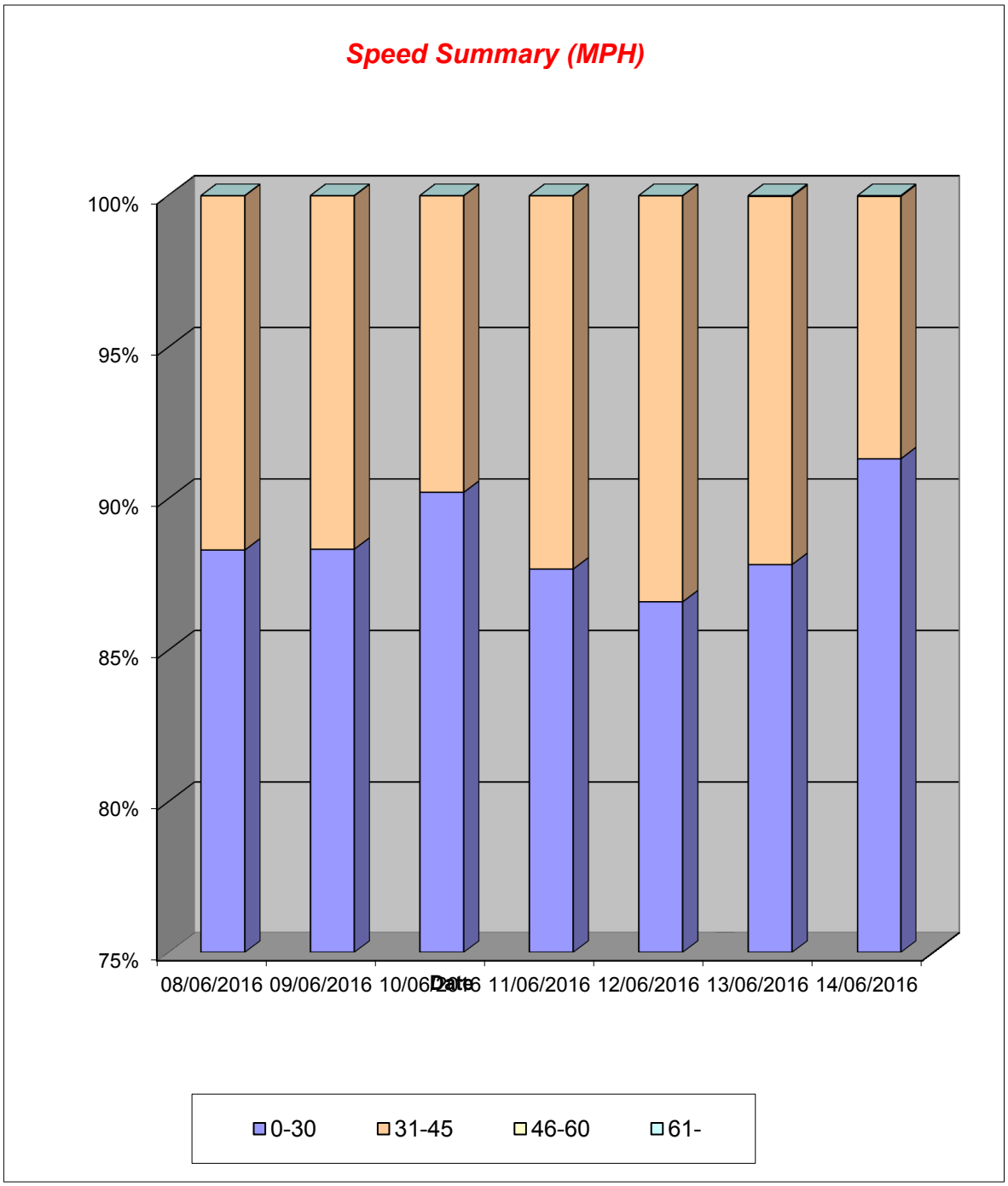
Channel 2 - Southeastbound **85th Percentile**

Hr Ending	08/06/2016 Wednesday	09/06/2016 Thursday	10/06/2016 Friday	11/06/2016 Saturday	12/06/2016 Sunday	13/06/2016 Monday	14/06/2016 Tuesday
1	30.1	33.3	37.2	34.0	30.0	33.6	31.3
2	29.1	29.0	30.0	30.2	30.9	29.3	26.1
3	29.8	30.0	30.7	22.6	30.4	25.7	30.8
4	34.5	29.4	28.0	30.4	28.0	28.1	28.1
5	30.0	31.3	30.8	30.7	26.7	32.9	35.0
6	35.0	35.1	33.0	34.0	28.6	32.6	35.3
7	30.0	31.0	31.0	31.0	35.1	31.0	31.8
8	30.0	30.0	30.0	33.0	31.0	31.0	29.0
9	30.0	30.0	30.0	33.0	30.1	30.0	30.0
10	30.0	30.0	29.0	30.0	30.0	31.0	30.0
11	30.0	30.0	30.0	30.0	30.0	30.0	30.0
12	30.0	30.0	30.0	30.0	29.4	30.0	30.0
13	30.0	30.0	30.0	30.0	30.0	30.0	30.0
14	30.0	30.0	30.0	30.0	30.0	30.0	30.0
15	30.0	30.0	30.0	30.0	30.0	30.4	30.0
16	30.0	30.0	30.0	30.0	31.2	30.0	30.0
17	30.0	30.0	30.0	30.0	32.0	30.0	30.0
18	31.3	30.0	30.0	30.0	30.7	30.0	30.0
19	30.0	30.0	30.0	30.0	30.0	30.0	30.0
20	30.9	32.0	30.0	31.0	31.5	30.0	31.0
21	32.0	31.8	31.0	30.0	30.0	31.0	30.0
22	30.4	33.0	30.0	29.0	32.0	32.0	33.0
23	32.0	32.0	33.0	28.0	32.9	33.0	30.0
24	32.4	29.0	30.0	30.0	34.9	30.0	30.0
10-12	30.0	30.0	30.0	30.0	30.0	30.0	30.0
14-16	30.0	30.0	30.0	30.0	30.6	30.0	30.0
0-24	30.0	30.0	30.0	30.0	30.0	30.0	30.0
						7 Day Ave	30.0

Lea ATC, A40

Channel 2 - Southeastbound | **Speed Summary** | **Week 1**

Speed (MPH)	08/06/2016 Wednesday	09/06/2016 Thursday	10/06/2016 Friday	11/06/2016 Saturday	12/06/2016 Sunday	13/06/2016 Monday	14/06/2016 Tuesday
0-30	3875	3984	3816	2655	1997	3789	4156
31-45	513	526	414	373	309	524	394
46-60	0	0	0	0	0	1	1
61-	0	0	0	0	0	0	0
TOTAL	**4388**	**4510**	**4230**	**3028**	**2306**	**4314**	**4551**

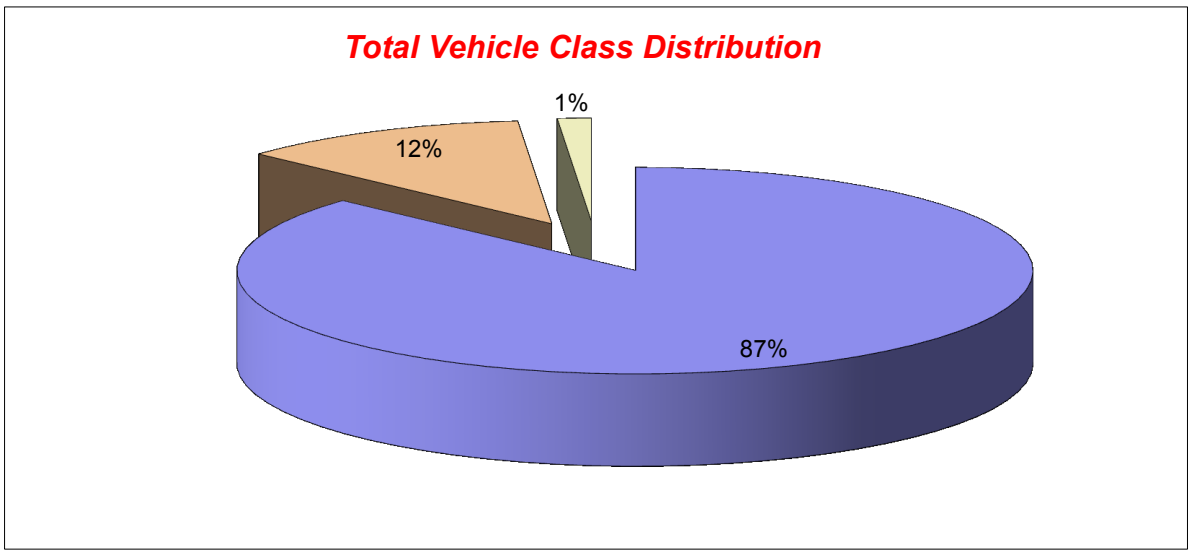


Lea ATC, A40

Channel 2 - Southeastbound **Vehicle Class** **Week 1**

Classes / Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
08/06/2016				
7-19	3228	540	71	3839
6-22	3588	572	78	4238
6-24	3666	574	78	4318
0-24	3710	595	83	4388
09/06/2016				
7-19	3384	563	69	4016
6-22	3713	584	77	4374
6-24	3782	591	77	4450
0-24	3827	605	78	4510
10/06/2016				
7-19	3148	520	60	3728
6-22	3476	546	66	4088
6-24	3552	554	67	4173
0-24	3590	570	70	4230
11/06/2016				
7-19	2394	205	6	2605
6-22	2640	222	7	2869
6-24	2749	226	7	2982
0-24	2785	234	9	3028
12/06/2016				
7-19	1897	108	5	2010
6-22	2104	117	8	2229
6-24	2132	119	8	2259
0-24	2175	122	9	2306
13/06/2016				
7-19	3240	491	44	3775
6-22	3590	515	49	4154
6-24	3661	519	50	4230
0-24	3723	537	54	4314
14/06/2016				
7-19	3491	500	64	4055
6-22	3840	536	67	4443
6-24	3885	543	67	4495
0-24	3922	559	70	4551

Average				
7-19	2969	418	46	3433
6-22	3279	442	50	3771
6-24	3347	447	51	3844
0-24	3390	460	53	3904



APPENDIX C

2013 ATC SURVEY REPORT

CASTLE END, LEA, HEREFORDSHIRE

TRANSPORT STATEMENT

PROCURO PLANNING SERVICES LTD

April 2014

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engineering the future

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1. INTRODUCTION

General

1.1. This Transport Statement (TS) has been prepared by PFA Consulting on behalf of Procuro Planning Services.

1.2. The site is located to the west of Lea, Herefordshire, spanning the A40 as shown on **Figure 1.1**.

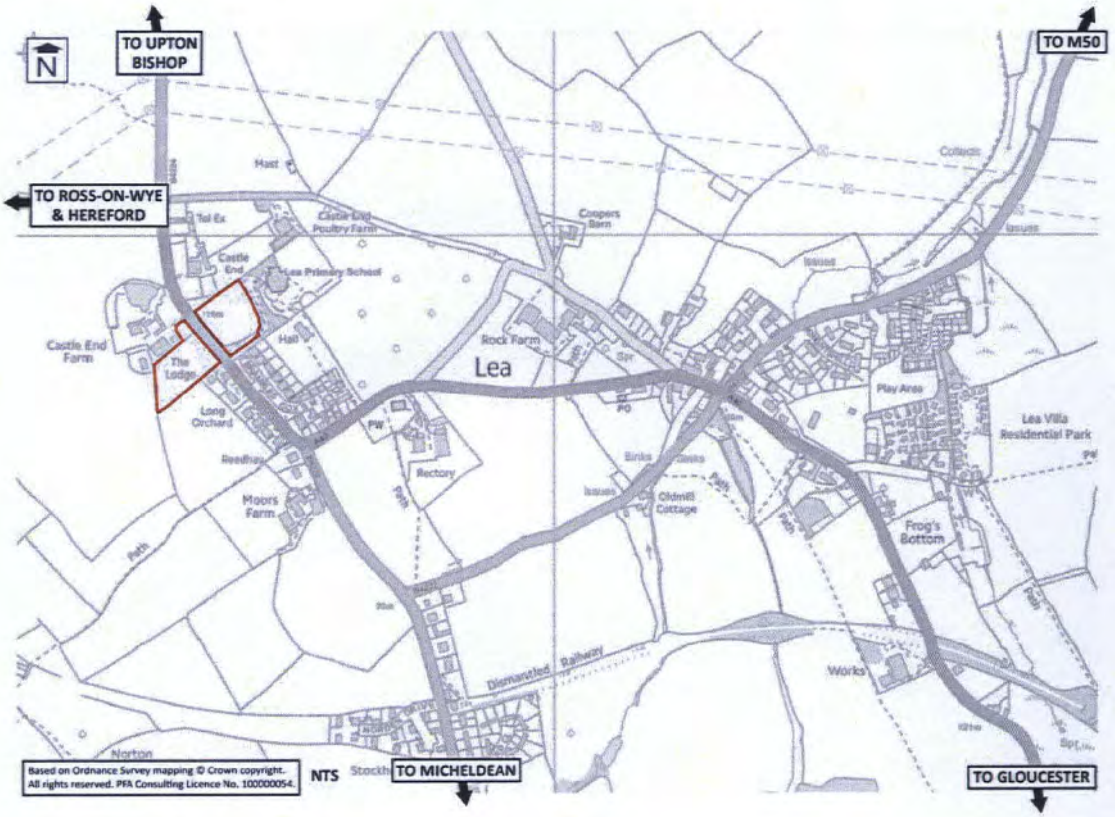

Figure 1.1: Site Location

1.3. The total area of the site is 1.3 hectares, with the northern site totalling 0.59 hectares and the southern 0.71 hectares. The development proposal is for 28 residential dwellings, with 14 units on each parcel of land.

Consultations

1.4. A number of meetings and consultations have been held with Herefordshire Council (HC) and relevant correspondence is included at **Appendix A**.

Guidance

1.5. The Department for Transport and the Department for Communities and Local Government jointly published *Guidance on Transport Assessment* in March 2007. This document identifies a need to prepare and submit a TS (as opposed to a Transport Assessment or TA) with a planning application for new development where it is likely to have relatively small transport implications. The threshold for a development requiring a TS is typically 50-80 dwellings, however, HC, as the local highway authority, has requested that a TS be submitted for the proposed development. In addition further guidance on Transport Assessments and Travel Plans is available as part of the

Planning Practice Guidance Suite website. The preparation of this Transport Statement has taken account of both these guidance documents as well as the consultations outlined in paragraph 1.4.

Outline of the Transport Statement

1.6. Section 2 of this TS describes the existing transport network, including opportunities for walking, cycling and public transport. Section 3 provides a description of the proposed development. Trip generation and distribution is considered in Section 4, whilst Section 5 sets out the conclusions of the assessment.

2. EXISTING TRANSPORT CONDITIONS

Site Context

2.1. The proposed development consists of two parcels of land bisected by the A40 with a total area of approximately 1.3 hectares. The location of the site is shown on **Figure 1.1**.

2.2. The northern land parcel is bounded to the north by fields, to the east by Lea CofE Primary School, to the south by an access road to the school and the A40 to the west. The southern land parcel is bounded by Castle End Farm to the north, the A40 to the east, residential properties and a field to the south and a field to the west.

2.3. The proposed development sites currently comprise open fields.

2.4. The village of Lea is situated approximately 6km to the east of Ross-on-Wye town centre and 18km west of Gloucester City Centre.

Existing Highway Network

2.5. The A40, in the vicinity of Lea is a single carriageway road which runs through the centre of the village, continuing to Ross-on-Wye and Weston-under-Penyard in the west and Gloucester and Huntley in the east. It is not street lit through Lea. In the locality of the accesses to the proposed development, the A40 has a carriageway width of approximately 6.3m, as shown in **Photograph 2.1.**

2.6. The northern proposed development site is to be accessed from the access road serving Lea C of E Primary School, with the existing access for Castle End Farm serving the southern site. The Lea CE Primary School access road only provides access for staff and deliveries, with pupils/parents accessing via the village hall to the southeast.

Photograph 2.1: A40 looking southeast from access road to Northern Parcel

2.7. The existing access road to the northern proposed development site and primary school is approximately 5.5m wide, narrowing to 4.5m after approximately 20m. A footway of approximately 1.2m is provided on the southern side of the access road carriageway.

2.8. The access to Castle End Farm is surfaced in bitmac, but is in poor condition, with no kerbing and no footways.

Photograph 2.2: A40 looking north from access to Castle End Farm

2.9. A footway of approximately 1.0-1.2m is provided on the north side of the A40 in the vicinity of the existing accesses. The footway continues from the primary school access road southeast towards the centre of Lea and northwest to a point 60m north of the access to Castle End Farm. The footway then switches to the other side of the carriageway in the vicinity of the bus stop shown on **Figure 2.2**. Footways are provided on one or both sides of the A40 from the site to the centre of Lea.

Existing Traffic

2.10. To establish the existing traffic flow and vehicle speeds on the A40 in the vicinity of the proposed development, an Automatic Traffic Counter (ATC) was installed by consultant Amey for 12 days between 4 and 15 July 2013. The weather conditions during the period the ATC was undertaken were generally dry and sunny, as was the majority of July 2013.

2.11. The ATC identified A40 highway weekday peak hour two-way traffic flows of approximately 600-700 vehicles. Mean traffic speeds were approximately 33mph, with 85%ile speeds of 38mph. A summary of the ATC data is shown in **Table 2.1** and the detailed data is included at **Appendix B**.

2.12. As the ATC was undertaken during a period of dry weather, the 85%ile traffic speeds represent 'dry weather' speeds. As set out in TD22/81 'wet weather' speeds are used with regards to improvements to existing and new minor junctions on existing roads. To calculate 'wet weather' 85%ile speeds from 'dry weather' speeds TD22/81 states that 4kph (2.5mph) should be deducted.

Table 2.1: Summary of A40 Automatic Traffic Count

	Weekday AM Peak Hour (08:00-09:00)	Weekday PM Peak Hour (16:00-17:00)	Daily
Northbound Traffic Flow	331	331	3,752
Northbound HGV %	10.0%	5.4%	7.5%
Southbound Traffic Flow	269	370	3,592
Southbound HGV %	8.9%	4.9%	6.8%
Northbound Mean Traffic Speed	-	-	33 mph
Southbound 85%ile Traffic Speed (dry weather)	-	-	38 mph
Northbound Mean Traffic Speed	-	-	33 mph
Southbound 85%ile Traffic Speed (dry weather)	-	-	38 mph

2.13. As set out in paragraph 2.12 the 85%ile speeds in **Table 2.1** from the ATC are 'dry weather' speeds. The resultant 'wet weather' speeds are 35.5mph in both directions.

2.14. A peak hour turning count at both of the existing accesses was undertaken on Thursday 20 March 2014. A summary of the count is included at **Appendix C**. The turning count recorded the PM Peak Hour as 17:00-18:00, compared to the July 2013 ATC which recorded it as 16:00-17:00.

2.15. The It can be seen that traffic movements entering/exiting the existing accesses is low for all time periods, with no movements at the existing school access during the afternoon school peak of 15:00-16:00.

Road Safety

2.16. Information on personal injury accidents on the road outside the site has been obtained from Herefordshire Council for the three year period 1 February 2011 to 31 January 2014. There were no recorded personal injury accidents in the search area during this time period.

Local Facilities

2.17. There are a number of local facilities and services in and around the local area of Lea. Within Lea there is a Post Office, village shop, public house, village hall, a pre-school and a primary school. The accessibility to these facilities is discussed in more detail below, but broadly they are all within easy walking distance of the proposed development.

2.18. The location of the proposed development sites relative to local services and facilities is included at **Figure 2.1**. **Table 2.2** lists relevant local facilities and the distance from the sites.

Table 2.2: Local Facilities

Local Facility	Location	Distance from Sites (m)
Local Shop	Lea Village	700
Post Office	Lea Village	700
Pre School	Lea Pre-School	160
Primary School	Lea CofE Primary School	160
Secondary School	John Kyrle High School and Sixth Form Centre Academy, Ross-on-Wye	7,700
Village Hall	Lea Village	360
The Crown Inn Public House	Lea Village	800

Note: Distance is the walking distance from the centre of the sites measured along existing roads and footpaths.

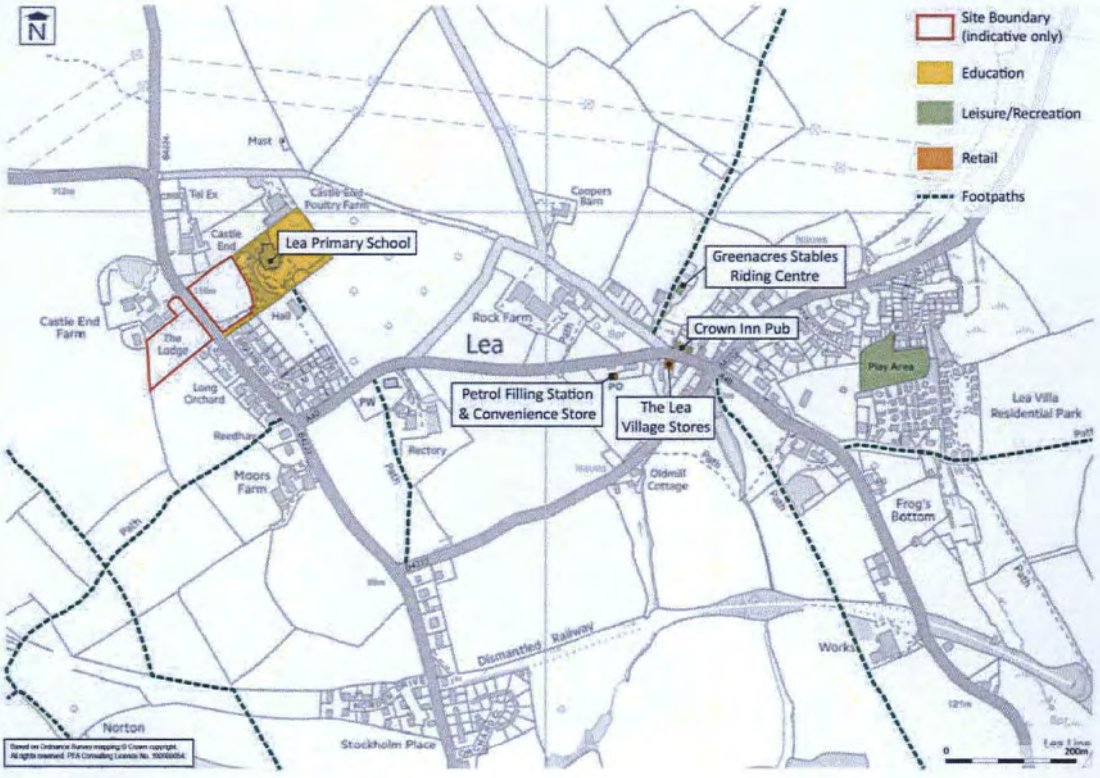

Figure 2.1: Local Facilities and Footpaths

Walking and Cycling

2.19. *Manual for Streets*, March 2007, states that walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800m) walking distance. The Institution of Highways and Transportation's document *Providing for Journeys on Foot* sets out preferred walking distances to key facilities. It identifies a preferred maximum walking distance of 2km for commuting and 1.2km for other purposes. Generally, it is acknowledged that for journeys less than 5 km cycling has the potential to substitute for short car trips.

2.20. The existing walking routes within Lea are identified in **Figure 2.1**. This does not include footways alongside local roads.

2.21. Virtually all of Lea is within a 1.2km walking distance, with the centre of Lea within 1.0km. **Table 2.2** demonstrates that the proposed development has access to a range of local facilities.

Public Transport

2.22. The provision of attractive public transport services will allow opportunities for sustainable travel over longer distances. Ross-on-Wye is accessible by using the hourly bus service 33, which routes along the A40. The nearest bus stop is located approximately 130 metres from the sites. The proximity of Ross-on-Wye means that the residents of Lea have good access to a wide range of facilities and services accessible by public transport, including a secondary school.

Local Bus Services

2.23. A map of bus routes and bus stops in the vicinity of the sites is shown on **Figure 2.2**. It can be seen that a bus stop is located approximately 130m from the sites.

Figure 2.2: Bus Services and Stops

2.24. **Table 2.3** provides a summary of the regular bus service available from Lea.

Table 2.3: Summary of Bus Services in the Vicinity of the Site

Service	Route	Days	Approximate Frequency		
			First Service	Frequency (Daytime)	Last Service
33	Gloucester-Ross on Wye-Hereford	Mon-Fri	7:14	Hourly	19:30
	Hereford-Ross on Wye-Gloucester	Mon-Fri	6:28	Hourly	18:02

Note: Information from Traveline West Midland.

2.25. In addition to the bus services included in **Table 2.3**, service 33 provides a school service to John Kyrle High School, Ross-on-Wye.

Rail Services

2.26. Gloucester Station is the nearest major rail link and is located approximately 18km east of the sites. Bus service 33 provides a regular daytime service to the centre of Gloucester, with a journey time of approximately 30 minutes.

2.27. Gloucester Station accommodates rail services operated by Arriva Trains Wales, Cross Country and First Great Western. Rail services operate between Cardiff and Cheltenham, Cardiff and Nottingham, London/Swindon and Cheltenham and Westbury.

2.28. London Paddington Station is approximately a 1 hour 50 minute train journey from Gloucester Station with an average train frequency of two trains per hour in both directions throughout the day. **Table 2.4** shows the approximate duration of journeys and frequencies of services to destinations travelling from Gloucester Station.

Table 2.4: Summary of Rail Services from Gloucester Station

Destination	Journey Time (approximate)	Peak Frequency
London Paddington	1 hour 50 minutes	1 per hour
Cardiff	1 hour	1 per hour
Cheltenham	15 minutes	2 per hour

Source: National Rail Enquiries

3. PROPOSED DEVELOPMENT

Introduction

3.1. The proposed development is for 28 residential units, with 14 units on each land parcel, either side of the A40 in Lea, Herefordshire.

Proposed Development

3.2. An illustrative layout for the proposed development is reproduced in **Appendix D.**

3.3. It is proposed that vehicular access will be from the existing accesses off the A40. Footways will be provided as shown on the illustrative layout. A new footway will be provided from the southern site access to the A40 bus stop located to the northwest and to a proposed pedestrian crossing to the south. The existing footway along the A40 fronting the northern site will be widened to 2.0m and extended along the existing access road to the northern site.

3.4. A pedestrian crossing is proposed on the A40 as indicated on the illustrative layout. The provision and detail design of any pedestrian crossing will be subject to agreement with HCC.

Vehicular Access

3.5. Vehicular access to the proposed development will be from standard priority junctions from the A40. The existing access off the A40 to the primary school will be used to access the northern site, with a new access replacing the existing field access into the northern land parcel. The existing access to Castle End Farm will be improved and will provide access the southern site.

3.6. The proposed layouts for the access junctions are shown on the illustrative layout reproduced at **Appendix D**. The access junction from the A40 to the northern site will remain as existing, except for the provision of a footway into the development. The proposed new access junctions have been designed in accordance with HC's *Highways Design Guide for New Developments* (July 2006).

3.7. The new access road into the northern site has been designed as a 'shared surface', with an initial 5.5m wide carriageway, narrowing to 4.5m, 6m junction radii and 2m services strips to both sides of the carriageway. The new access to the southern site provides a 5.5m wide carriageway, with footways of 2m to both sides and junction radii of 6m.

3.8. The ATC survey undertaken in July 2013 identified 'wet weather' 85%ile speeds of 35.5mph in both directions. Junction exit visibility splays of 2.4m x 90m are provided at both access junctions off the A40. These visibility splays are in accordance with Table A (page 23) of HC's *Highways Design Guide for New Developments* (July 2006) which identifies a 'Y' dimension of 90m for known vehicle speeds of up to 60kph (37.3mph).

3.9. The capacity of the proposed access junction has been assessed using PICADY. The results of this assessment are included in Section 4.

Safety Audit

3.10. A Stage 1 Road Safety Audit was undertaken by consultant Amey in July 2013, and it is reproduced at **Appendix D**.

3.11. The Safety Audit raised three issues. The issues and the responses are set out in **Table 3.1**.

Table 3.1: Road Safety Audit Issues and Response

Paragraph	Issue	Recommendation	Response
2.1.1	It was observed during the site visit that there is a tight bend on the A40 located just north of the access into the southern parcel. Drivers would not immediately see vehicles waiting to turn right into the access giving them very limited distance to stop if travelling too fast. This could potentially cause rear end shunts and impacts.	Even though this stretch of road is already in a traffic calmed 30mph zone, an advance warning sign to make people aware of this junction should be erected at the appropriate site stopping distance in advance of the access.	A PICADY assessment was undertaken of the proposed site access junction with proposed development traffic flows. The assessment identified that the simple priority junction would operate safely without queuing. The suggested requirement for advanced warning signs will be discussed with HC.
2.1.2	The layout plan provided would appear to show the proposed pedestrian crossing as a Zebra crossing. However the inset on the same plan states it is to be a Pelican Crossing. Given the fact that this length of the A40 is in a speed camera zone it would appear that even though the speed limit is 30mph, that speed is an issue. A Zebra crossing may not be adequate in these circumstances especially as it is in the vicinity of an existing school and pre-school.	The pedestrian crossing should be a Pelican crossing.	Discussions are still ongoing with HC over the provision and form of any pedestrian crossing. It is noted that any pedestrian crossing is recommended to be a Pelican crossing.
2.1.3	The documentation provided does not show any swept path analysis to show in principle whether the scheme can accommodate the largest vehicles most likely to access the development, such as removal lorries, refuse collection and fire appliance vehicles. Therefore audit team has been unable to comment on whether the scheme can allow large vehicles to safely access and egress the highway together with the access roads and turning areas within the development.	The designers should ensure that swept path analysis is provided at the detailed design stage to confirm if the scheme can accommodate all vehicles most likely to access it.	Swept path analysis has been undertaken as part of this TS as requested by HC. The swept path analysis identified below, identifies that large refuse vehicles and removal lorries would be able to access and navigate the layout.

Servicing, Refuse and Emergency Vehicle Access

3.12. The site access junctions and access roads will be designed to safely accommodate the movement of service, refuse and emergency vehicles.

3.13. PFA Consulting Drawings P655/1 and P655/2 included at **Appendix E** identify that a large refuse vehicle and a pantechnicon can adequately access and turn around in the development to leave in forward gear.

Car Parking

3.14. The maximum parking provision for new residential developments in Herefordshire is set out in *HC's Highways Design* Guide *for New Developments* (July 2006). The standards are provided on page 44 and are summarised in **Table 3.2** below.

Table 3.2: Maximum Car Parking Standards for Residential Developments in Herefordshire

Number of Bedrooms	Maximum Number of Spaces per Dwelling
1	1
2 – 3	2
4+	3

3.15. HC have confirmed that for garages to be counted as parking spaces, they require an internal dimension of 6.0m x 3.0m. All garages provided as part of the proposed development will provide these internal dimensions.

3.16. The details of parking are to be determined at the Reserved Matters stage but will be provided in accordance with the standards. The illustrative layout, included at **Appendix D**, demonstrates that parking levels can meet HC's requirements.

3.17. In response to comments about visitor parking within the development by HC, additional unallocated spaces will be provided and will be available for use by visitors to the development.

Cycle Parking

3.18. Cycle parking will be the subject of a Reserved Matters application. Cycle parking will be provided in accordance with HC's requirements of one space per bedroom for long stay parking and one space per unit for short stay parking. It is envisaged that cycle parking will largely be provided within garages and dwellings without a garage will be provided with alternative secure storage.

4. TRIP GENERATION AND DISTRIBUTION

Introduction

4.1. This chapter considers the trip generation characteristics of the proposed development. The existing vehicle movements at the accesses are taken into account in assessing the proposed development accesses.

4.2. As set out in paragraph 2.15 there is no traffic flow at the existing school access junction during the afternoon school peak hour, as this only provides access for staff. Therefore, trip generation assessments will only be undertaken for the highway peak hours of 08:00-09:00 and 17:00-18:00.

Estimated Trip Generation

4.3. The trip generation for the proposed development has been predicted form the TRICS database V7.1.1.

4.4. Multi-modal sites within the category 'Houses Privately Owned in Great Britain', excluding Greater London were interrogated, with sites up to 50 dwellings selected. Sites on the edge of town centres and with high local populations (above 15,000 within 1 mile and 100,000 within 5 miles) were discounted. As the proposed development has a considerable proportion of larger dwellings and is located in a comparatively rural location, sites with low levels of car ownership were also removed.

4.5. The full TRICS output is included in **Appendix F** and a summary of the peak hour trip rates and trip generation is presented in **Table 4.1** and **Table 4.2**.

Table 4.1: Potential Trip Generation – AM Peak 08:00-09:00

Time Period	Arrivals		Departures		Two-Way	
	Trip rate per dwelling	No. of trips	Trip rate per dwelling	No. of trips	Trip rate per dwelling	No. of trips
Vehicles	0.135	4	0.405	11	0.540	15
Pedestrians	0.056	2	0.238	7	0.294	8
Cyclists	0.008	0	0.008	0	0.016	0
Public Transport	0.000	0	0.024	1	0.024	1
Vehicle Occupants	0.143	4	0.508	14	0.651	18
Total Person Trips	0.206	6	0.778	22	0.984	28

Note: 1. Trip rates taken directly from TRICS output, minor summation errors likely due to rounding Trip generation based upon 28 dwellings

Table 4.2: Potential Trip Generation – PM Peak 17:00-18:00

Time Period	Arrivals		Departures		Two-Way	
	Trip rate per dwelling	No. of trips	Trip rate per dwellings	No. of trips	Trip rate per dwellings	No. of trips
Vehicles	0.532	15	0.230	6	0.762	21
Pedestrians	0.167	5	0.159	4	0.326	9
Cyclists	0.032	1	0.000	0	0.032	1
Public Transport	0.016	0	0.000	0	0.016	0
Vehicle Occupants	0.635	18	0.357	10	0.992	28
Total Person Trips	0.849	24	0.516	14	1.365	38

Note: 1. Trip rates taken directly from TRICS output, minor summation errors likely due to rounding Trip generation based upon 28 dwellings

Vehicular Traffic Generation Summary

4.6. **Table 4.3** summarises the total peak hour vehicular trips predicted to be generated by the proposed development. A total of 28 two-way vehicular trips in the AM peak hour and 38 two-way vehicular trips in the PM peak hour are predicted.

Table 4.3: Total Vehicular Traffic Generation

Time Period	Arrivals	Departures	Two-Way
AM Peak Hour (08:00-09:00)	6	22	28
PM Peak Hour (17:00-18:00)	24	14	38

Traffic Distribution

4.7. The distribution of the proposed development traffic on the local highway network has been based on 2001 Census journey to work data for car drivers living within the 'output area' covering the majority of Lea (Note that at the time of writing the 2011 Census journey to work O/D data has not been published). The employment locations of the residents of the 'output areas' were identified and then used to distribute the proposed development traffic onto the most logical route. The distribution is summarised in **Table 4.4** and tables identifying the journey to work locations are included at **Appendix G**.

Table 4.4: Distribution of Generated Vehicular Traffic

Destination	% Distribution	AM Peak Arrivals	AM Peak Departures	PM Peak Arrivals	PM Peak Departures
A40 east (inc. Local Trips)	57%	3	13	14	8
A40 west	43%	3	9	10	6
Total	100%	6	22	24	14

Note: Minor summation errors due to rounding

4.8. In terms of impact on the primary road network, the development proposals will result in an additional 16-22 vehicle movements in the critical highway peak hours on the A40 east towards

Gloucester and 12-16 vehicle movements on the A40 west towards Ross-on-Wye. The maximum impact as a result of the development on the primary network is approximately one additional vehicle every 3-4 minutes. The predicted traffic movements in **Table 4.4** are identified on the site access junctions diagram in **Appendix H.**

4.9. It is concluded that the predicted trip generation by the proposed development will have a negligible impact on the capacity and operation of the primary and local road network.

Site Access Assessment

4.10. A capacity assessment of the proposed A40 access priority junctions has been completed using JUNCTIONS 8 – PICADY module for the AM and PM peak hours, incorporating the existing flows from the 2014 turning counts and the predicted vehicle movements from **Table 4.4.**

Northern Access

4.11. **Tables 4.5 and 4.6** show the results for the northern site access. Full details of the JUNCTIONS 8 outputs are available upon request.

Table 4.5: AM Peak Hour (08:00-09:00)

Movement	Max Queue (veh)	Max RFC	Queuing Delay (sec)
Site Access to A40 North/South	0.03	0.03	6.84
A40 South to Site Access / A40 North	0.01	0.01	5.11

Note: RFC is Ratio of Flow to Capacity on an arm

Table 4.6: PM Peak Hour (17:00-18:00)

Movement	Max Queue (veh)	Max RFC	Queuing Delay (sec)
Site Access to A40 North/South	0.02	0.02	7.31
A40 South to Site Access / A40 North	0.02	0.02	5.18

Note: RFC is Ratio of Flow to Capacity on an arm

4.12. The assessment results indicate that the site access junction would operate well below capacity with the proposed development and experience no queuing or delay.

Southern Access

4.13. **Tables 4.7 and 4.8** show the results for the southern site access. Full details of the JUNCTIONS 8 outputs are available upon request.

Table 4.7: AM Peak Hour (08:00-09:00)

Movement	Max Queue (veh)	Max RFC	Queuing Delay (sec)
Site Access to A40 South/North	0.03	0.03	7.52
A40 North to Site Access / A40 South	0.01	0.01	4.89

Note: RFC is Ratio of Flow to Capacity on an arm

Table 4.8: PM Peak Hour (17:00-18:00)

Movement	Max Queue (veh)	Max RFC	Queuing Delay (sec)
Site Access to A40 North/South	0.02	0.02	7.98
A40 South to Site Access / A40 North	0.01	0.01	4.71

Note: RFC is Ratio of Flow to Capacity on an arm

4.14. The assessment results indicate that the southern site access junction would operate well below capacity with the proposed development and experience no queuing or delay.

5. SUMMARY AND CONCLUSIONS

5.1. This Transport Statement (TS) has been prepared by PFA Consulting on behalf of Procuro Planning Services to support a planning application for residential development at Castle End, Lea, Herefordshire.

5.2. The proposed development is on two sites located either side of the existing A40 with a total area of 1.3 hectares. The northern site area is 0.59 hectares and the southern site 0.71 hectares. The proposed development is for 28 residential dwellings, with 14 units on each site.

5.3. Vehicular access to the proposed development will be from standard priority junctions off the A40. The existing access with the A40 to the primary school will be used to access the northern site, with a new access junction replacing the existing field access into the northern land parcel. The existing access to Castle End Farm will be used to provide access to the southern site, with a new improved priority junction. The proposed development access junctions and layout are designed in accordance with HC's *Highways Design Guide for New Developments.*

5.4. Footways will be provided as shown on the Illustrative Layout at **Appendix D**. A new footway will be provided from the southern site access to the A40 bus stop to the northwest and to a proposed pedestrian crossing to the south. The existing footway along the A40 fronting the northern site will be widened to 2.0m and extended along the existing access road to the northern site.

5.5. A pedestrian crossing is proposed on the A40 as indicated on the Illustrative Layout at **Appendix D**. The detail design of the pedestrian crossing will be subject to agreement with Herefordshire Council.

5.6. The proposed development site is located within the village of Lea which presents the opportunity to new residents to access a range of day-to-day facilities on foot. An existing bus service (service 33) operates past the site, providing residents with the opportunity to travel to/from the proposed development by public transport to Ross-on-Wye and Gloucester. The location of the proposed development is therefore considered to be transport sustainable providing good opportunities for residents to travel by sustainable transport modes.

5.7. The total peak hour vehicular trips predicted to be generated by the proposed development are 28 in the AM peak hour and 38 in the PM peak hour. These will result in an additional 16-22 vehicle movements in the highway peak periods on the A40 eastwards towards Gloucester and 12-16 vehicle movements on the A40 westwards towards Ross-on-Wye. The maximum impact of the proposed development generated traffic on the primary network is approximately one additional vehicle every 3-4 minutes

5.8. It is therefore concluded that the predicted trip generation by the site will have a negligible impact on both the local and primary highway networks, and that there should be no traffic or transport related objection to the proposed development.

Appendices

Appendix A

Paul Key IMAP

From: John Kendrick <john@procuroplanning.com>
Sent: 19 June 2013 18:02
To: ptregear@pfaplc.com
Cc: [redacted]
Subject: P655- FW: Lea

From: Evans, Bruce [mailto:bje@herefordshire.gov.uk]
Sent: 19 June 2013 16:42
To:pps@procuroplanning.com
Subject: FW: Lea

Dear Mr Martin
Please find below my latest comments to Rebecca Jenman outlining the issues to be addressed,
Hope this helps, any queries please call,
Regards
Bruce

Bruce Evans
Senior Area Engineer (Development Control)
Transportation - Planning
Herefordshire Council
P.O. Box 236
Plough Lane,
Hereford
HR4 0WZ

Tel 01432 260970
E-mail bje@herefordshire.gov.uk

From: Evans, Bruce

To: Jenman, Rebecca
Subject: RE: Lea

Hi Becca,
In regards to the crossing, the details need to be subject to a stage 1 / 2 safety audit and supported by a speed survey, 7 day loops or radar. This will need to be undertaken by an acceptable Auditor with qualifications and references, HC will need to vet who undertakes the work. I preferred Auditor would be from Amey.

The speed survey will need to support the visibility splays for the accesses.

The development will be subject to a S278 Agreement

In regards to the plan comments as follows:

At the meeting we discussed the site to the West.
The access road off the A40 needs to serve the industrial estate with footpath either side, the housing site would be served off this.
The car parking numbers look acceptable, the rationale regarding the parking numbers needs to be supported in the Transport Statement.
Concerned about the turning area, doesn't appear to conform to the design guide, refuse, service vehicles and delivery lorries may well have difficulty in turning.

Need to see footpath across the frontage of the site to accommodate housing to the South, ideally linked to the housing.
Garages, if counted as car parking, will need to be min internal dimension of 6m x 3m.
Within the estate a shared drive would be an option that would minimise the impact of the development, this would require a different surface treatment that can be sorted out in the S38 details but needs to be noted.

Site to the East
The access will require a footpath either side to a safe crossing point. The footpath fronting the site needs to be improved to give min 2m wide.
The access into the site and the crossing needs to be not in line to prevent people walking straight out onto the crossing, this should be picked up in the Safety Audit.
The footpaths around the site appear to duplicate others, this may be due to level differences.
Parking need to be supported in the TS, there is no on street parking, how will visitors be accommodated?
There needs to be a change in surface at the entrance and a ramp with a footpath either side entering into the site.
Due to the problems in the village, surface water drainage for both sites needs to be detailed.
Details /info of usage/ownership of the access lane needs to be supplied in the TS.

Hope this helps, can you give me a ring to discuss,
Cheers
Bruce

S106
S106 will be used to support sustainable transport infrastructure such as improved passenger waiting facilities, footpath improvements, and dropped crossings which will support linkage to the village.

paul key @pfaplc.com

PLEASE REPLY TO JOHN at pps@procuroplanning.com

ENCLOSURE

Dear Paul,
RE. Castle End Lea.
I enclose herewith a further note with regard to the requirements for the Transport Statement , from Kevin Bishop, the Council's senior Planning Officer, for your further information.

With best regards.

Yours sincerely,

J. L. B. Kendrick
Consultant
Procuro Planning Services Ltd
11.3.14

enc.

Contact details:

Telephone: 01989 730700
E-mail: pps@procuroplanning.com
Address: Procuro,
St. Owens Cross,
Herefordshire,
HR2 8LG.

John Kendrick

From: Bishop, Kevin
Sent: 04 March 2014 15:47
To: 'John Kendrick'
Cc: Yates, John (John.Yates@english-heritage.org.uk); Lowe, Sarah
Subject: RE: FRA 132004/O Castle End Lea CONFIDETIAL
Attachments: 20140218161420.pdf

WITHOUT PREJUDICE

John,

Thankyou for your emails and our recent meetings including with John Yates (English Heritage) and Sarah Lowe(Councils Historic Buildings Officer) on Monday.

I have now reviewed the file and undertaken a screening opinion which is attached which confirms that the proposal is not EIA Development.

I will tackle the issues under the various headings.

Flooding.

The combine size of the two sites is over 0.5hec and accordingly a flood risk assessment is required for the present application.

Impact on setting of grade 2* listed building.

The objection from English Heritage at the present time prevents a positive recommendation, this aspect we reviewed at our meeting and it was agreed that you would contact John Yates to resolve this issue. In the meantime I have also discussed with our Historic Buildings Officer whose suggestion is that plot 15 is reduced to single or one half storey (together with the rest of the terrace) and that the plots at the rear along the boundary are also reduced to single storey.

Subsequently and as discussed at our site meeting on Monday it was agreed that the plots 15 to 18 should be reduced to one and half storey dwellings and that plots 23 to 27 should be single storey. John Yates confirmed, subject to seeing the amended plan, that this would remove English Heritage objection to the impact of the development on the setting of the grade 2* listed building.

It was also confirmed that a Heritage Statement would be required to support the application.

Design and Access Statement

The Town and Country Planning (Development Management Procedure) (England) (Amendment) Order 2013 requires that a Design and Access Statement shall include the following:-

(a) explain the design principles and concepts that have been applied to the development;

(b) demonstrate the steps taken to appraise the context of the development and how the design of the development takes that context into account;
(c) explain the policy adopted as to access, and how policies relating to access in relevant local development documents have been taken into account;
(d) state what, if any, consultation has been undertaken on issues relating to access to the development and what account has been taken of the outcome of any such consultation; and
(e) explain how any specific issues which might affect access to the development have been addressed.

The Design and Access Statement submitted requires enhancement to incorporate all of the above. I would also suggest a statement relating to the deliverability of the site is made ie when will the site be built.

Transport Statement.

I have discussed this aspect with Bruce Evans who maintains that he has requested and needs a Transport Statement.

In support of the application a Transport Statement is required to identify and set out the transport issues relating to the site. The statement must cover the following:
Existing Environment

- Existing site use including type and number of movements associated with the site
- Planning history and permitted use of the site
- Existing site access arrangements and access constraints
- Existing public transport provision in the locality
- Accident history in the location of the site
- Historical information on Lea relating to flooding

Proposed Development

- Proposed site layout
- Trip generation
- Speed surveys
- Proposed Access including visibility splays ref to speed data
- Pedestrian / Cycle links
- Parking Strategy
- Drainage details / calcs including run-off

Landscaping

I would suggest that the planting belt identifies semi mature species to enable enhance impact.

Affordable Housing.

You have identified affordable dwellings amounting to 35% of the development in line with the requirements of the HUDP. However the housing needs survey only requires six units. Therefore your proposal exceeds the threshold required.

Way Forward.

As I indicated to you the land on the south western side of the road has limited objections and I

Appendix B

A40 ... Lea ... Lea School ... Northbound ...

			Count	Speed bins [mph]										v15	v50	v85	Length bins [m]				
				10	20	30	40	50	60	70	80	90	>90				5.2	6.6	11.0	40.0	0.0
	Date	Time																			
Thursday	04/07/13	01:00																			
	04/07/13	02:00																			
	04/07/13	03:00																			
	04/07/13	04:00																			
	04/07/13	05:00																			
	04/07/13	06:00																			
	04/07/13	07:00																			
	04/07/13	08:00																			
	04/07/13	09:00																			
	04/07/13	10:00																			
	04/07/13	11:00																			
	04/07/13	12:00																			
	04/07/13	13:00	208	0	0	69	122	17	1	0	0	0	0	28	33	37	164	25	9	10	0
	04/07/13	14:00	234	0	0	77	143	14	0	0	0	0	0	28	33	38	190	25	15	4	0
	04/07/13	15:00	241	0	3	104	120	14	0	0	0	0	0	27	32	37	203	21	11	6	0
	04/07/13	16:00	276	1	3	91	155	26	0	0	0	0	0	28	32	37	236	26	6	8	0
	04/07/13	17:00	294	1	2	91	179	20	1	0	0	0	0	28	33	37	257	24	2	11	0
	04/07/13	18:00	280	1	7	76	162	33	1	0	0	0	0	27	33	39	238	29	5	8	0
	04/07/13	19:00	230	1	1	44	143	19	2	0	0	0	0	29	34	38	177	22	3	8	0
	04/07/13	20:00	118	0	1	27	69	17	3	1	0	0	0	29	35	41	102	11	1	4	0
	04/07/13	21:00	91	0	0	19	57	14	1	0	0	0	0	29	35	41	79	9	1	2	0
	04/07/13	22:00	95	0	1	26	57	10	1	0	0	0	0	29	34	39	80	12	2	1	0
	04/07/13	23:00	36	0	0	4	26	6	0	0	0	0	0	31	35	41	28	6	2	0	0
	04/07/13	24:00	19	1	0	1	6	1	0	0	0	0	0	27	30	35	14	1	2	2	0
	04/07/13	06:00-09:00																			
	04/07/13	15:00-18:00	1060	4	13	302	639	98	4	0	0	0	0	28	33	38	908	101	16	35	0
	04/07/13	06:00-22:00																			
	04/07/13	00:00-24:00																			

Friday

05/07/13	01:00	14	0	1	4	7	2	0	0	0	0	0	26	33	37	6	4	1	3	0
05/07/13	02:00	5	0	0	0	4	1	0	0	0	0	0	32	37	39	3	1	1	0	0
05/07/13	03:00	7	0	0	3	4	0	0	0	0	0	0	28	31	34	0	0	2	5	0
05/07/13	04:00	4	0	0	1	2	1	0	0	0	0	0	31	34	37	2	1	0	1	0
05/07/13	05:00	24	0	0	7	11	6	0	0	0	0	0	27	35	42	14	6	1	3	0
05/07/13	06:00	50	0	1	8	33	8	0	0	0	0	0	30	35	41	28	12	6	4	0
05/07/13	07:00	184	0	5	46	101	31	1	0	0	0	0	28	34	41	119	39	8	18	0
05/07/13	08:00	329	2	14	122	180	20	1	0	0	0	0	27	32	37	240	56	25	8	0
05/07/13	09:00	333	1	9	171	143	9	0	0	0	0	0	26	30	34	243	51	22	17	0
05/07/13	10:00	295	0	2	105	172	16	0	0	0	0	0	28	32	36	225	42	17	11	0
05/07/13	11:00	274	0	5	130	128	11	0	0	0	0	0	27	31	37	207	38	19	10	0
05/07/13	12:00	285	3	4	94	174	9	1	0	0	0	0	27	32	37	222	40	15	8	0
05/07/13	13:00	284	0	14	83	179	8	0	0	0	0	0	28	32	36	232	30	14	8	0
05/07/13	14:00	327	3	19	141	148	16	0	0	0	0	0	25	30	36	266	37	15	9	0
05/07/13	15:00	354	3	16	105	178	12	0	0	0	0	0	26	31	37	281	31	11	11	0
05/07/13	16:00	303	0	9	89	177	28	0	0	0	0	0	27	33	38	260	24	14	5	0
05/07/13	17:00	367	2	8	126	215	15	1	0	0	0	0	27	32	37	325	27	9	6	0
05/07/13	18:00	310	0	1	89	195	24	1	0	0	0	0	28	55	35	270	23	10	7	0
05/07/13	19:00	284	0	9	84	170	20	1	0	0	0	0	28	33	37	240	27	10	7	0
05/07/13	20:00	196	0	1	49	130	15	0	1	0	0	0	28	34	35	156	26	12	2	0
05/07/13	21:00	126	0	3	25	79	17	2	0	0	0	0	28	34	40	99	21	3	3	0
05/07/13	22:00	89	1	1	17	57	11	2	0	0	0	0	29	35	35	75	10	2	2	0
05/07/13	23:00	59	0	0	12	39	8	0	0	0	0	0	29	35	39	46	12	1	0	0
05/07/13	24:00	28	0	0	10	15	3	0	0	0	0	0	28	33	37	21	5	0	2	0
05/07/13	06:00-09:00	846	3	28	329	424	60	2	0	0	0	0	27	32	37	602	146	55	43	0
05/07/13	15:00-19:00	1264	2	27	388	757	87	3	0	0	0	0	28	33	38	1095	101	43	25	0
05/07/13	06:00-22:00	4300	15	120	1466	2426	262	10	1	0	0	0	27	32	38	3440	522	206	132	0
05/07/13	00:00-24:00	4491	15	122	1511	2541	291	10	1	0	0	0	28	33	38	3560	563	218	150	0

Saturday	06/07/13	01:00	22	0	0	6	12	4	0	0	0	0	0	29	35	41	20	1	0	1	0
	06/07/13	02:00	19	0	0	5	13	1	0	0	0	0	0	28	34	39	15	3	1	0	0
	06/07/13	03:00	20	0	0	5	14	1	0	0	0	0	0	28	32	36	14	2	3	1	0
	06/07/13	04:00	8	0	0	2	0	0	0	0	0	0	0	30	34	37	4	1	1	2	0
	06/07/13	05:00	13	0	0	5	3	3	2	0	0	0	0	28	37	49	6	6	0	1	0
	06/07/13	06:00	28	0	0	8	14	5	1	0	0	0	0	28	35	43	21	3	1	3	0
	06/07/13	07:00	68	0	1	11	42	14	0	0	0	0	0	29	36	42	47	15	3	3	0
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	06/07/13	10:00	319	1	1	140	158	18	1	0	0	0	0	27	31	37	252	46	15	6	0
	06/07/13	11:00	328	0	5	122	186	15	0	0	0	0	0	27	32	37	279	28	15	6	0
	06/07/13	12:00	282	1	0	99	164	18	0	0	0	0	0	28	32	37	246	26	8	2	0
	06/07/13	13:00	305	0	2	115	170	17	1	0	0	0	0	27	32	36	250	42	9	4	0
	06/07/13	14:00	318	0	1	106	190	20	0	1	0	0	0	28	33	37	289	23	6	0	0
	06/07/13	15:00	248	0	0	72	162	13	1	0	0	0	0	28	33	38	221	19	6	2	0
	06/07/13	16:00	231	0	0	61	150	18	2	0	0	0	0	29	34	38	207	18	2	4	0
	06/07/13	17:00	224	1	1	57	144	21	0	0	0	0	0	28	34	39	210	9	3	2	0
	06/07/13	18:00	202	0	0	61	118	21	2	0	0	0	0	28	33	39	188	9	2	3	0
	06/07/13	19:00	159	0	0	25	107	27	0	0	0	0	0	30	35	41	140	11	4	4	0
	06/07/13	20:00	115	0	1	24	73	14	3	0	0	0	0	29	35	40	102	11	1	1	0
	06/07/13	21:00	88	0	0	19	58	11	0	0	0	0	0	28	34	39	75	12	1	0	0
	06/07/13	22:00	67	0	0	19	44	3	1	0	0	0	0	28	34	39	58	3	1	0	0
	06/07/13	23:00	53	0	0	20	27	4	1	1	0	0	0	28	34	39	40	8	3	2	0
	06/07/13	24:00	27	0	0	6	18	3	0	0	0	0	0	30	34	37	20	4	1	2	0
	06/07/13	06:00-09:00	497	0	3	124	306	58	4	1	0	0	0	29	35	40	398	73	19	7	0
	06/07/13	15:00-19:00	816	1	1	204	519	87	4	0	0	0	0	29	34	39	745	47	11	13	0
	06/07/13	08:00-22:00	3383	3	14	1044	2080	275	15	2	0	0	0	28	33	39	2815	335	92	41	0
	06/07/13	00:00-24:00	3573	3	14	1101	2137	296	19	3	0	0	0	28	34	39	3055	363	102	53	0

Sunday

07/07/13	01:00	16	0	0	4	9	2	1	0	0	0	0	28	35	41	12	4	0	0	0
07/07/13	02:00	11	0	0	4	4	3	0	0	0	0	0	29	34	41	10	0	0	1	0
07/07/13	03:00	7	0	0	1	6	0	0	0	0	0	0	34	34	37	5	2	0	0	0
07/07/13	04:00	7	0	0	3	4	0	0	0	0	0	0	26	31	36	4	1	-	1	0
07/07/13	05:00	5	0	0	3	1	1	0	0	0	0	0	29	33	38	3	0	-	1	0
07/07/13	06:00	24	0	0	7	13	3	1	0	0	0	0	28	35	39	12	9	-	2	0
07/07/13	07:00	53	0	0	2	41	8	1	0	1	0	0	32	37	41	42	9	-	1	0
07/07/13	08:00	95	0	3	31	50	7	4	0	0	0	0	28	33	39	78	13	2	2	0
07/07/13	09:00	169	2	4	29	123	10	1	0	0	0	0	30	34	39	142	25	-	1	0
07/07/13	10:00	262	0	6	55	171	30	0	0	0	0	0	28	34	39	227	28	4	3	0
07/07/13	11:00	262	0	1	84	160	16	0	1	0	0	0	29	33	37	239	19	3	1	0
07/07/13	12:00	284	0	1	80	183	17	2	1	0	0	0	28	33	37	258	18	7	1	0
07/07/13	13:00	253	0	5	60	168	19	1	0	0	0	0	29	33	37	222	26	4	1	0
07/07/13	14:00	214	0	4	56	134	20	0	0	0	0	0	29	33	39	196	14	3	1	0
07/07/13	15:00	201	0	1	53	132	14	1	0	0	0	0	28	33	37	182	14	4	1	0
07/07/13	16:00	187	0	2	44	120	21	0	0	0	0	0	29	34	39	175	10	0	2	0
07/07/13	17:00	192	0	1	57	112	22	0	0	0	0	0	29	33	39	178	8	4	2	0
07/07/13	18:00	194	1	2	44	127	20	0	0	0	0	0	29	34	39	178	8	1	6	0
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07/07/13	20:00	105	0	0	28	58	17	2	0	0	0	0	28	35	41	85	14	3	3	0
07/07/13	21:00	96	0	5	21	60	10	0	0	0	0	0	28	33	39	79	10	4	3	0
07/07/13	22:00	67	0	0	21	41	4	1	0	0	0	0	29	33	38	56	7	2	2	0
07/07/13	23:00	41	0	0	14	19	8	0	0	0	0	0	27	34	41	34	5	0	2	0
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07/07/13	06:00-09:00	317	2	7	62	214	25	6	0	1	0	0	30	35	40	262	47	4	4	0
07/07/13	15:00-19:00	737	2	6	184	462	83	0	0	0	0	0	29	34	39	674	40	12	11	0
07/07/13	06:00-22:00	2798	4	36	704	1785	255	13	2	1	0	0	29	34	39	2480	237	50	31	0
07/07/13	00:00-24:00	2930	4	36	746	1850	275	16	2	1	0	0	29	34	39	2577	260	54	39	0

Monday	08/07/13	01:00	10	0	0	1	6	3	0	0	0	0	0	0	32	38	45	7	1	2	0	0
	08/07/13	02:00	5	0	1	2	2	0	0	0	0	0	0	0	28	28	34	2	0	1	2	0
	08/07/13	03:00	6	0	0	2	4	0	0	0	0	0	0	0	28	31	32	5	0	0	1	0
	08/07/13	04:00	8	0	0	3	5	0	0	0	0	0	0	0	27	31	35	3	1	1	3	0
	08/07/13	05:00	23	0	0	5	13	5	0	0	0	0	0	0	28	35	42	17	2	3	1	0
	08/07/13	06:00	56	0	0	12	33	10	1	0	0	0	0	0	28	35	41	38	13	3	2	0
	08/07/13	07:00	168	0	2	33	105	27	1	0	0	0	0	0	28	35	41	127	24	10	7	0
	08/07/13	08:00	306	1	4	115	168	18	0	0	0	0	0	0	27	32	37	230	48	21	12	0
	08/07/13	09:00	335	1	9	159	161	5	0	0	0	0	0	0	26	30	36	241	55	20	19	0
	08/07/13	10:00	259	0	2	123	125	8	1	0	0	0	0	0	27	32	37	187	34	20	18	0
	08/07/13	11:00	237	0	2	85	138	12	0	0	0	0	0	0	28	32	36	177	23	21	15	0
	08/07/13	12:00	250	0	2	93	144	11	0	0	0	0	0	0	27	32	36	184	30	20	16	0
	08/07/13	13:00	236	2	1	105	124	4	0	0	0	0	0	0	27	31	36	174	31	19	12	0
	08/07/13	14:00	241	0	1	108	122	9	1	0	0	0	0	0	27	31	36	197	22	20	12	0
	08/07/13	15:00	262	1	3	94	147	16	1	0	0	0	0	0	28	32	37	211	26	13	12	0
	08/07/13	16:00	256	0	4	114	121	17	0	0	0	0	0	0	27	31	36	201	26	19	10	0
	08/07/13	17:00	322	2	7	105	191	17	0	0	0	0	0	0	27	32	37	282	25	8	7	0
	08/07/13	18:00	279	0	2	75	182	19	1	0	0	0	0	0	28	33	38	248	17	4	10	0
	08/07/13	19:00	184	0	3	47	112	22	0	0	0	0	0	0	29	34	40	159	17	4	4	0
	08/07/13	20:00	103	0	5	28	51	18	1	0	0	0	0	0	28	34	41	88	9	3	3	0
	08/07/13	21:00	76	0	1	30	35	9	1	0	0	0	0	0	27	33	40	61	9	2	4	0
	08/07/13	22:00	51	0	1	12	31	7	0	0	0	0	0	0	29	34	40	46	3	1	1	0
	08/07/13	23:00	31	0	0	5	12	11	3	0	0	0	0	0	31	39	45	30	0	0	1	0
	08/07/13	24:00	26	0	0	5	14	8	1	0	0	0	0	0	29	36	45	16	6	1	3	0
	08/07/13	06:00-09:00	809	2	15	307	434	50	1	0	0	0	0	0	27	32	38	998	122	51	38	0
	08/07/13	15:00-19:00	1041	2	16	341	606	75	1	0	0	0	0	0	28	33	38	990	85	35	31	0
	08/07/13	06:00-22:00	3565	7	49	1326	1957	219	7	0	0	0	0	0	28	32	38	2813	394	196	162	0
	08/07/13	00:00-24:00	3730	7	50	1361	2046	254	12	0	0	0	0	0	28	33	38	2931	417	207	175	0

Tuesday

09/07/13	01:00	11	0	0	3	3	5	0	0	0	0	0	27	37	42	8	1	1	1	0
09/07/13	02:00	12	0	0	3	7	1	1	0	0	0	0	30	35	38	5	1	2	4	0
09/07/13	03:00	7	0	0	1	5	1	0	0	0	0	0	31	35	40	1	1	3	2	0
09/07/13	04:00	12	0	0	5	6	1	0	0	0	0	0	26	32	39	6	1	1	4	0
09/07/13	05:00	28	0	0	10	13	5	0	0	0	0	0	27	33	41	14	7	3	4	0
09/07/13	06:00	49	0	0	6	30	13	0	0	0	0	0	31	37	44	35	10	2	2	0
09/07/13	07:00	157	0	2	46	85	24	0	0	0	0	0	28	34	40	103	30	12	12	0
09/07/13	08:00	321	1	12	102	185	21	0	0	0	0	0	27	32	37	238	50	20	13	0
09/07/13	09:00	316	0	7	125	172	12	0	0	0	0	0	27	32	37	230	55	19	12	0
09/07/13	10:00	285	0	5	92	127	11	0	0	0	0	0	27	31	36	163	41	16	15	0
09/07/13	11:00	242	0	2	98	127	15	0	0	0	0	0	28	32	37	169	39	15	19	0
09/07/13	12:00	250	0	4	101	135	10	0	0	0	0	0	27	31	36	184	29	20	17	0
09/07/13	13:00	184	1	6	69	95	13	0	0	0	0	0	26	31	37	142	19	10	13	0
09/07/13	14:00	218	0	6	80	120	11	0	1	0	0	0	27	32	37	164	31	9	14	0
09/07/13	15:00	252	0	0	94	146	10	2	0	0	0	0	27	32	37	201	23	13	15	0
09/07/13	16:00	266	0	4	94	151	17	0	0	0	0	0	28	32	37	223	25	9	9	0
09/07/13	17:00	298	0	5	103	174	16	0	0	0	0	0	27	32	37	261	19	6	12	0
09/07/13	18:00	244	0	1	73	147	21	1	1	0	0	0	28	33	38	215	16	5	8	0
09/07/13	19:00	211	0	1	55	134	19	2	0	0	0	0	29	34	38	180	19	4	8	0
09/07/13	20:00	116	0	2	16	84	12	2	0	0	0	0	30	35	39	101	12	1	2	0
09/07/13	21:00	103	0	1	28	54	19	1	0	0	0	0	28	34	41	86	14	1	2	0
09/07/13	22:00	60	0	0	24	30	6	0	0	0	0	0	28	33	37	43	10	2	5	0
09/07/13	23:00	44	0	1	11	25	7	0	0	0	0	0	28	34	40	35	5	0	4	0
09/07/13	24:00	12	0	0	4	8	0	0	0	0	0	0	28	33	37	8	1	0	3	0

09/07/13	06:00-09:00	794	1	21	273	442	57	0	0	0	0	0	27	32	38	571	135	51	37	0
09/07/13	15:00-19:00	1019	0	11	325	606	73	3	1	0	0	0	28	33	38	879	79	24	37	0
09/07/13	06:00-22:00	3473	2	58	1200	1968	237	8	2	0	0	0	28	33	38	2703	432	162	176	0
09/07/13	00:00-24:00	3648	2	59	1243	2063	270	9	2	0	0	0	28	33	38	2815	459	174	200	0

Wednesday	10/07/13	01:00	14	0	0	5	7	2	0	0	0	0	0	28	34	39	8	0	3	3	0
	10/07/13	02:00	8	0	0	2	6	0	0	0	0	0	0	30	34	38	3	1	2	2	0
	10/07/13	03:00	7	0	0	2	5	0	0	0	0	0	0	27	32	35	3	1	0	3	0
	10/07/13	04:00	12	0	0	4	7	1	0	0	0	0	0	28	33	37	5	2	1	4	0
	10/07/13	05:00	30	0	0	11	12	5	1	0	0	0	0	26	35	44	20	6	2	2	0
	10/07/13	06:00	53	0	2	9	25	16	1	0	0	0	0	29	36	44	32	13	3	5	0
	10/07/13	07:00	161	1	1	48	91	20	0	0	0	0	0	27	33	39	111	27	10	13	0
	10/07/13	08:00	334	0	10	109	189	25	1	0	0	0	0	27	32	37	240	56	26	12	0
	10/07/13	09:00	354	1	11	125	205	12	0	0	0	0	0	27	31	37	273	54	18	9	0
	10/07/13	10:00	259	1	2	106	141	8	1	0	0	0	0	27	31	36	190	40	18	11	0
	10/07/13	11:00	261	2	6	100	149	4	0	0	0	0	0	27	31	36	202	31	19	9	0
	10/07/13	12:00	238	0	7	108	116	6	1	0	0	0	0	28	31	36	176	33	15	14	0
	10/07/13	13:00	239	0	3	82	141	13	0	0	0	0	0	28	33	38	177	33	12	17	0
	10/07/13	14:00	233	0	8	85	126	14	0	0	0	0	0	27	31	36	187	23	11	12	0
	10/07/13	15:00	228	0	1	82	131	14	0	0	0	0	0	27	32	37	186	18	16	8	0
	10/07/13	16:00	283	0	4	120	142	15	2	0	0	0	0	28	31	37	234	18	16	15	0
	10/07/13	17:00	325	1	6	98	205	15	0	0	0	0	0	28	32	37	278	29	8	10	0
	10/07/13	18:00	272	0	8	89	155	19	0	1	0	0	0	27	32	37	229	25	11	7	0
	10/07/13	19:00	177	0	0	50	105	21	1	0	0	0	0	29	34	39	155	18	3	1	0
	10/07/13	20:00	118	0	0	28	70	17	2	1	0	0	0	29	35	41	101	12	2	3	0
	10/07/13	21:00	101	0	0	21	54	24	1	1	0	0	0	29	36	44	82	15	3	1	0
	10/07/13	22:00	74	0	1	21	43	9	0	0	0	0	0	28	33	38	61	9	1	3	0
	10/07/13	23:00	50	0	0	11	34	5	0	0	0	0	0	29	34	39	44	6	0	0	0
	10/07/13	24:00	9	0	0	2	6	1	0	0	0	0	0	29	35	40	6	1	0	2	0
	10/07/13	06:00-09:00	849	2	22	282	485	57	2	0	0	0	0	27	32	38	624	137	54	34	0
	10/07/13	15:00-19:00	1057	1	18	357	607	70	3	1	0	0	0	28	32	38	896	90	38	33	0
	10/07/13	06:00-22:00	3657	6	68	1272	2063	236	9	3	0	0	0	27	32	38	2852	441	189	145	0
	10/07/13	00:00-24:00	3840	6	70	1328	2165	267	11	3	0	0	0	28	33	38	3003	471	200	166	0

Thursday

11/07/13	01:00	20	0	0	5	12	3	0	0	0	0	0	27	34	39	13	2	1	4	0
11/07/13	02:00	5	1	0	2	2	0	0	0	0	0	0	26	28	37	3	1	0	1	0
11/07/13	03:00	11	0	0	0	10	1	0	0	0	0	0	32	35	37	4	2	3	2	0
11/07/13	04:00	7	0	0	4	3	0	0	0	0	0	0	26	29	32	6	0	0	1	0
11/07/13	05:00	24	0	0	6	13	5	0	0	0	0	0	29	35	41	14	5	2	3	0
11/07/13	06:00	65	0	5	13	36	11	0	0	0	0	0	27	33	41	34	18	5	8	0
11/07/13	07:00	179	0	1	58	100	19	1	0	0	0	0	27	33	39	114	38	14	13	0
11/07/13	08:00	341	3	8	133	176	21	0	0	0	0	0	26	32	37	261	53	14	13	0
11/07/13	09:00	356	1	6	146	195	8	0	0	0	0	0	27	31	36	262	62	21	11	0
11/07/13	10:00	281	0	4	118	148	10	1	0	0	0	0	27	31	36	205	40	23	13	0
11/07/13	11:00	284	0	2	145	123	12	2	0	0	0	0	27	31	36	192	57	20	15	0
11/07/13	12:00	252	1	3	108	137	3	0	0	0	0	0	27	31	35	193	30	16	13	0
11/07/13	13:00	241	0	1	94	133	13	0	0	0	0	0	27	32	37	191	25	18	7	0
11/07/13	14:00	214	0	1	75	127	11	0	0	0	0	0	27	32	37	160	34	12	8	0
11/07/13	15:00	271	0	0	91	165	14	1	0	0	0	0	28	33	37	211	35	13	12	0
11/07/13	16:00	286	1	2	101	165	17	0	0	0	0	0	28	32	37	233	29	13	11	0
11/07/13	17:00	319	2	7	126	168	15	1	0	0	0	0	27	32	37	280	22	6	11	0
11/07/13	18:00	290	0	1	120	149	19	1	0	0	0	0	27	32	37	260	21	2	7	0
11/07/13	19:00	204	0	0	85	107	12	0	0	0	0	0	27	32	37	165	25	5	9	0
11/07/13	20:00	163	1	10	63	75	12	2	0	0	0	0	26	31	37	134	14	5	10	0
11/07/13	21:00	101	0	0	27	56	18	0	0	0	0	0	29	35	41	90	11	0	0	0
11/07/13	22:00	69	0	0	16	45	8	0	0	0	0	0	29	35	39	58	7	2	2	0
11/07/13	23:00	54	0	0	11	32	11	0	0	0	0	0	29	35	41	43	10	1	0	0
11/07/13	24:00	29	0	0	5	20	4	0	0	0	0	0	29	35	40	18	7	1	3	0

11/07/13	06:00-09:00	876	4	15	337	471	48	1	0	0	0	0	27	32	37	637	153	49	37	0
11/07/13	15:00-19:00	1099	3	10	432	589	63	2	0	0	0	0	27	32	37	938	97	26	38	0
11/07/13	06:00-22:00	3851	9	46	1506	2069	212	9	0	0	0	0	27	32	37	3009	503	184	155	0
11/07/13	00:00-24:00	4066	10	51	1552	2197	247	9	0	0	0	0	28	32	38	3144	548	197	177	0

Friday

12/07/13	01:00	20	0	1	4	12	3	0	0	0	0	0	29	34	39	14	2	1	3	0
12/07/13	02:00	12	0	0	3	7	1	1	0	0	0	0	30	35	36	9	0	2	1	0
12/07/13	03:00	4	0	0	1	3	0	0	0	0	0	0	36	35	37	2	0	1	1	0
12/07/13	04:00	7	0	0	2	5	0	0	0	0	0	0	29	33	37	4	0	3	0	0
12/07/13	05:00	21	0	0	10	8	3	0	0	0	0	0	27	34	40	13	5	1	2	0
12/07/13	06:00	49	0	0	9	24	15	1	0	0	0	0	29	37	43	32	10	4	3	0
12/07/13	07:00	167	0	0	49	87	30	1	0	0	0	0	28	35	41	99	44	16	8	0
12/07/13	08:00	320	2	17	100	180	21	0	0	0	0	0	27	32	37	239	55	14	12	0
12/07/13	09:00	326	1	6	148	160	11	0	0	0	0	0	26	31	36	237	54	17	18	0
12/07/13	10:00	294	1	1	113	154	14	1	0	0	0	0	28	32	37	207	55	25	7	0
12/07/13	11:00	252	0	2	83	155	12	0	0	0	0	0	28	32	37	207	28	9	8	0
12/07/13	12:00	271	0	1	105	149	16	0	0	0	0	0	27	32	37	208	42	14	7	0
12/07/13	13:00	301	0	5	117	167	12	0	0	0	0	0	27	32	36	236	40	16	9	0
12/07/13	14:00	290	0	1	92	181	15	1	0	0	0	0	28	32	37	241	27	14	8	0
12/07/13	15:00	355	0	1	112	226	16	0	0	0	0	0	28	33	37	312	32	7	4	0
12/07/13	16:00	367	0	15	143	195	14	0	0	0	0	0	27	31	37	319	28	8	12	0
12/07/13	17:00	355	1	8	107	221	18	0	0	0	0	0	28	32	37	320	20	7	8	0
12/07/13	18:00	325	1	2	103	201	16	2	0	0	0	0	28	32	37	287	22	12	4	0
12/07/13	19:00	246	1	6	61	150	27	1	0	0	0	0	29	33	39	221	15	7	3	0
12/07/13	20:00	212	0	1	42	148	21	0	0	0	0	0	29	34	39	180	25	5	2	0
12/07/13	21:00	137	0	0	26	76	32	3	0	0	0	0	30	36	42	117	17	3	0	0
12/07/13	22:00	77	0	2	27	40	8	0	0	0	0	0	27	32	37	67	5	2	3	0
12/07/13	23:00	67	0	0	16	38	12	1	0	0	0	0	28	35	41	57	8	1	1	0
12/07/13	24:00	27	0	0	12	11	4	0	0	0	0	0	29	34	40	23	2	1	1	0

12/07/13	06:00-09:00	813	3	23	297	427	62	1	0	0	0	0	27	32	38	575	153	47	38	0
12/07/13	15:00-19:00	1293	3	31	414	767	75	3	0	0	0	0	28	32	38	1147	85	34	27	0
12/07/13	06:00-22:00	4295	7	68	1428	2500	283	3	0	0	0	0	28	33	38	3497	509	176	113	0
12/07/13	00:00-24:00	4502	7	69	1485	2608	321	12	0	0	0	0	28	33	38	3651	536	190	125	0

Saturday	13/07/13	01:00	15	0	0	4	5	5	1	0	0	0	0	26	36	42	11	2	0	2	0
	13/07/13	02:00	18	0	0	3	13	2	0	0	0	0	0	31	34	37	10	6	0	2	0
	13/07/13	03:00	7	0	0	0	6	1	0	0	0	0	0	32	37	37	3	3	1	0	0
	13/07/13	04:00	8	0	0	1	6	1	0	0	0	0	0	32	34	36	5	0	1	2	0
	13/07/13	05:00	16	0	1	10	2	3	0	0	0	0	0	24	31	41	9	4	0	3	0
	13/07/13	06:00	32	0	0	5	22	4	1	0	0	0	0	31	35	40	21	6	2	3	0
	13/07/13	07:00	70	0	0	15	40	12	3	0	0	0	0	29	36	43	53	11	3	3	0
	13/07/13	08:00	135	1	1	52	115	16	0	0	0	0	0	28	33	38	136	32	8	9	0
	13/07/13	09:00	257	0	2	79	158	17	0	1	0	0	0	28	33	37	214	29	12	2	0
	13/07/13	10:00	291	0	1	88	181	20	0	0	0	0	0	28	33	37	256	29	7	1	0
	13/07/13	11:00	338	0	0	118	206	14	0	0	0	0	0	28	32	37	301	26	6	5	0
	13/07/13	12:00	323	0	4	101	206	12	0	0	0	0	0	28	32	36	296	20	4	3	0
	13/07/13	13:00	314	0	1	119	179	14	1	0	0	0	0	28	32	37	278	25	7	4	0
	13/07/13	14:00	260	0	1	67	174	18	0	0	0	0	0	28	33	37	235	16	7	2	0
	13/07/13	15:00	248	0	1	62	158	26	0	1	0	0	0	29	34	39	228	11	5	4	0
	13/07/13	16:00	203	0	0	71	117	14	1	0	0	0	0	27	33	37	188	3	9	3	0
	13/07/13	17:00	187	0	1	43	124	18	1	0	0	0	0	29	34	38	178	5	3	1	0
	13/07/13	18:00	192	0	1	43	125	23	0	0	0	0	0	29	34	39	178	9	3	2	0
	13/07/13	19:00	180	0	0	46	117	16	1	0	0	0	0	29	34	39	164	8	6	1	0
	13/07/13	20:00	137	0	1	40	81	15	0	0	0	0	0	28	34	39	126	7	4	0	0
	13/07/13	21:00	118	0	1	37	67	13	0	0	0	0	0	27	33	39	97	12	3	6	0
	13/07/13	22:00	71	0	0	30	38	2	1	0	0	0	0	27	32	37	61	6	1	3	0
	13/07/13	23:00	71	0	0	36	34	1	0	0	0	0	0	27	31	35	62	5	1	3	0
	13/07/13	24:00	39	0	0	16	18	4	1	0	0	0	0	27	33	38	33	4	0	2	0
	13/07/13	06:00-09:00	512	1	3	146	313	45	3	1	0	0	0	28	34	39	403	72	23	14	0
	13/07/13	15:00-19:00	762	0	2	203	483	71	3	0	0	0	0	29	34	38	708	26	21	7	0
	13/07/13	06:00-22:00	3374	1	15	1012	2086	250	8	2	0	0	0	28	33	38	2987	250	88	49	0
	13/07/13	00:00-24:00	3580	1	16	1087	2192	271	11	2	0	0	0	28	33	38	3141	280	93	66	0

Sunday

14/07/13	01:00	23	0	0	12	9	2	0	0	0	0	0	27	32	39	15	4	0	4	0
14/07/13	02:00	20	0	0	6	8	6	0	0	0	0	0	29	36	47	14	3	1	2	0
14/07/13	03:00	17	0	0	7	8	2	0	0	0	0	0	28	32	37	9	5	0	3	0
14/07/13	04:00	9	0	0	5	4	0	0	0	0	0	0	27	30	35	3	4	0	2	0
14/07/13	05:00	16	0	1	4	10	1	0	0	0	0	0	26	33	40	4	5	3	4	0
14/07/13	06:00	24	0	0	8	12	4	0	0	0	0	0	29	35	40	15	4	3	2	0
14/07/13	07:00	54	0	0	11	33	10	0	0	0	0	0	29	35	41	41	10	2	1	0
14/07/13	08:00	93	0	1	18	58	13	2	0	1	0	0	29	35	41	73	14	3	3	0
14/07/13	09:00	141	0	2	29	95	15	0	0	0	0	0	29	34	39	115	18	4	4	0
14/07/13	10:00	246	0	2	68	161	14	0	1	0	0	0	29	33	37	225	14	6	1	0
14/07/13	11:00	287	0	0	82	199	6	0	0	0	0	0	29	33	36	256	28	1	2	0
14/07/13	12:00	298	0	8	92	187	11	0	0	0	0	0	28	32	37	272	18	5	3	0
14/07/13	13:00	277	0	6	83	171	17	0	0	0	0	0	28	32	37	247	21	4	5	0
14/07/13	14:00	235	0	0	75	146	12	2	0	0	0	0	28	33	37	207	23	2	3	0
14/07/13	15:00	198	0	0	56	120	10	2	0	0	0	0	28	33	37	188	7	1	2	0
14/07/13	16:00	200	0	3	54	114	18	1	0	0	0	0	28	33	39	190	7	1	2	0
14/07/13	17:00	168	0	1	48	101	17	1	0	0	0	0	28	34	38	145	17	4	2	0
14/07/13	18:00	181	0	2	55	97	24	3	0	0	0	0	28	34	40	152	18	4	7	0
14/07/13	19:00	154	2	0	30	106	15	1	0	0	0	0	29	34	39	137	10	5	2	0
14/07/13	20:00	120	0	0	28	74	16	2	0	0	0	0	29	34	40	111	8	0	1	0
14/07/13	21:00	88	0	0	31	50	7	0	0	0	0	0	28	33	39	76	7	2	3	0
14/07/13	22:00	56	0	0	12	37	7	0	0	0	0	0	29	35	40	44	8	2	2	0
14/07/13	23:00	42	1	0	8	30	5	0	0	0	0	0	30	34	40	33	4	0	0	0
14/07/13	24:00	19	0	1	5	9	4	0	0	0	0	0	29	35	42	18	0	0	1	0

14/07/13	06:00-09:00	288	0	3	58	186	38	2	0	1	0	0	29	35	40	229	42	9	8	0
14/07/13	15:00-18:00	703	2	6	197	418	74	6	0	0	0	0	28	34	39	624	52	14	13	0
14/07/13	06:00-22:00	2796	2	25	792	1749	212	14	1	1	0	0	29	34	39	2479	228	46	43	0
14/07/13	00:00-24:00	2966	3	27	845	1839	236	14	1	1	0	0	28	33	39	2595	257	58	61	0

Monday	15/07/13	01:00	12	0	1	4	8	1	0	0	0	0	0	28	31	38	8	2	1	1	0
	15/07/13	02:00	6	0	0	3	3	0	0	0	0	0	0	29	33	39	4	0	2	0	0
	15/07/13	03:00	8	0	0	0	6	2	0	0	0	0	0	36	38	41	7	1	0	0	0
	15/07/13	04:00	9	0	0	2	4	2	1	0	0	0	0	28	36	46	5	2	2	0	0
	15/07/13	05:00	18	0	0	6	5	7	0	0	0	0	0	29	37	46	13	3	1	1	0
	15/07/13	06:00	63	0	0	11	36	14	2	0	0	0	0	29	36	42	42	15	4	2	0
	15/07/13	07:00	150	1	2	42	80	24	1	0	0	0	0	28	34	41	101	31	6	12	0
	15/07/13	08:00	331	0	7	95	205	21	3	0	0	0	0	28	33	37	245	56	24	6	0
	15/07/13	09:00	299	2	6	123	154	14	0	0	0	0	0	27	31	36	231	37	16	15	0
	15/07/13	10:00	273	0	5	117	141	9	1	0	0	0	0	27	31	36	213	25	17	18	0
	15/07/13	11:00	329	0	0	136	187	6	0	0	0	0	0	28	31	36	235	39	29	26	0
	15/07/13	12:00	265	0	2	128	119	14	2	0	0	0	0	27	32	36	200	30	17	18	0
	15/07/13	13:00	318	0	4	149	153	12	0	0	0	0	0	28	31	36	247	32	20	19	0
	15/07/13	14:00	261	1	3	87	162	9	0	0	0	0	0	27	32	37	201	29	26	15	0
	15/07/13	15:00	274	0	3	103	155	12	1	0	0	0	0	27	32	37	223	26	14	11	0
	15/07/13	16:00	284	0	2	89	176	17	0	0	0	0	0	28	32	37	246	19	12	7	0
	15/07/13	17:00	328	0	3	121	181	22	1	0	0	0	0	27	32	37	278	23	11	16	0
	15/07/13	18:00	283	2	9	87	158	26	1	0	0	0	0	27	32	39	255	13	7	8	0
	15/07/13	19:00	146	0	1	34	88	20	2	1	0	0	0	29	34	41	224	13	3	6	0
	15/07/13	20:00	100	0	1	36	49	14	0	0	0	0	0	27	33	40	82	6	6	6	0
	15/07/13	21:00	85	0	1	22	45	16	1	0	0	0	0	27	34	41	72	10	0	3	0
	15/07/13	22:00	51	0	0	8	39	4	0	0	0	0	0	31	34	37	41	8	0	2	0
	15/07/13	23:00	42	0	1	11	23	7	0	0	0	0	0	29	35	41	34	3	2	3	0
	15/07/13	24:00	11	0	0	4	5	2	0	0	0	0	0	29	34	37	8	0	0	3	0
	15/07/13	06:00-09:00	780	3	15	260	439	59	4	0	0	0	0	28	33	38	577	124	46	33	0
	15/07/13	15:00-19:00	1041	2	15	331	608	85	4	1	0	0	0	28	33	39	903	68	33	37	0
	15/07/13	06:00-22:00	3777	6	49	1377	2091	240	13	1	0	0	0	28	32	38	2994	397	198	188	0
	15/07/13	00:00-24:00	3946	6	51	1418	2179	275	16	1	0	0	0	28	33	39	3115	423	210	198	0

5-day

	01:00	14	0	0	4	8	3	0	0	0	0	0	28	34	40	9	2	1	2	0
	02:00	8	0	0	2	4	0	0	0	0	0	0	29	33	37	4	1	1	1	0
	03:00	7	0	0	1	5	1	0	0	0	0	0	31	34	37	3	1	1	2	0
	04:00	8	0	0	3	5	1	0	0	0	0	0	28	33	37	4	1	1	2	0
	05:00	24	0	0	8	11	5	0	0	0	0	0	28	35	42	15	5	2	2	0
	06:00	55	0	1	10	31	12	1	0	0	0	0	29	36	42	34	13	4	4	0
	07:00	167	0	2	46	93	25	1	0	0	0	0	28	34	40	111	33	11	12	0
	08:00	326	1	10	109	183	21	1	0	0	0	0	27	32	37	242	53	21	11	0
	09:00	331	1	8	142	170	10	0	0	0	0	0	27	31	36	245	53	19	14	0
	10:00	271	0	3	111	145	11	1	0	0	0	0	27	32	36	199	40	19	13	0
	11:00	268	0	3	111	144	10	0	0	0	0	0	28	31	36	198	36	19	15	0
	12:00	259	1	3	105	139	10	1	0	0	0	0	27	31	36	195	33	17	13	0
	13:00	258	0	5	100	142	11	0	0	0	0	0	27	32	37	200	30	16	12	0
	14:00	255	1	6	95	141	12	0	0	0	0	0	27	32	37	202	29	12	11	0
	15:00	279	1	3	97	164	13	1	0	0	0	0	27	32	37	229	27	12	10	0
	16:00	292	0	6	107	161	18	0	0	0	0	0	27	32	37	245	24	13	10	0
	17:00	331	1	6	112	194	17	0	0	0	0	0	27	32	37	289	24	8	10	0
	18:00	286	0	3	91	170	21	1	0	0	0	0	28	33	38	252	20	7	7	0
	19:00	207	0	3	59	124	20	1	0	0	0	0	29	33	39	178	19	5	5	0
	20:00	144	0	3	37	87	16	1	0	0	0	0	28	34	39	120	15	5	4	0
	21:00	104	0	1	26	57	19	1	0	0	0	0	28	35	41	87	14	2	2	0
	22:00	67	0	1	18	41	8	0	0	0	0	0	29	34	38	56	7	1	3	0
	23:00	50	0	0	11	29	9	1	0	0	0	0	29	35	41	41	6	1	1	0
	24:00	20	0	0	6	11	3	0	0	0	0	0	29	34	39	14	3	0	2	0

	06:00-09:00	824	3	20	298	446	56	1	0	0	0	0	27	32	38	598	139	50	37	0
	15:00-19:00	1116	2	18	370	648	75	3	0	0	0	0	28	33	38	964	86	33	33	0
	06:00-22:00	3845	7	85	1368	2153	241	9	1	0	0	0	28	32	38	3048	457	187	153	0
	00:00-24:00	4092	8	97	1413	2257	275	11	1	0	0	0	28	33	38	3174	488	199	170	0

7-day

	01:00	16	0	0	5	8	3	0	0	0	0	0	28	34	40	11	2	1	2	0
	02:00	11	0	0	3	6	1	0	0	0	0	0	29	34	39	7	1	1	1	0
	03:00	9	0	0	2	6	1	0	0	0	0	0	31	34	37	5	2	1	2	0
	04:00	8	0	0	3	5	1	0	0	0	0	0	28	32	37	4	1	1	2	0
	05:00	20	0	0	7	8	4	0	0	0	0	0	27	34	42	12	4	2	2	0
	06:00	45	0	1	9	25	9	1	0	0	0	0	29	35	42	28	10	3	3	0
	07:00	128	0	1	33	73	20	1	0	0	0	0	28	35	41	87	25	8	8	0
	08:00	258	1	7	83	147	19	1	0	0	0	0	28	33	38	193	41	15	8	0
	09:00	285	1	5	109	156	12	0	0	0	0	0	27	32	37	217	43	15	10	0
	10:00	274	0	3	102	154	14	1	0	0	0	0	28	32	37	213	36	15	9	0
	11:00	281	0	2	108	160	11	0	0	0	0	0	28	32	37	224	32	14	11	0
	12:00	273	0	3	101	156	12	1	0	0	0	0	27	32	36	222	29	13	9	0
	13:00	268	0	4	98	153	13	0	0	0	0	0	27	32	37	218	29	12	9	0
	14:00	256	0	4	88	148	14	0	0	0	0	0	27	32	37	213	25	10	8	0
	15:00	259	0	2	85	156	14	1	0	0	0	0	28	33	37	220	22	9	7	0
	16:00	261	0	4	90	148	13	1	0	0	0	0	28	32	37	225	19	9	7	0
	17:00	280	1	4	90	167	18	0	0	0	0	0	28	33	38	249	19	6	7	0
	18:00	252	0	3	76	150	21	1	0	0	0	0	28	33	38	224	16	6	6	0
	19:00	192	0	2	51	118	20	1	0	0	0	0	29	34	39	166	16	5	4	0
	20:00	135	0	1	35	81	16	1	0	0	0	0	28	34	40	115	13	4	3	0
	21:00	102	0	1	26	58	16	1	0	0	0	0	28	34	40	85	13	2	2	0
	22:00	67	0	0	19	40	6	0	0	0	0	0	29	34	38	55	7	1	2	0
	23:00	50	0	0	14	28	7	0	0	0	0	0	29	34	40	42	6	1	1	0
	24:00	23	0	0	7	12	3	0	0	0	0	0	29	34	39	17	3	0	2	0

	06:00-09:00	671	2	14	225	376	53	2	0	0	0	0	28	33	39	498	109	37	27	0
	15:00-19:00	985	2	13	307	583	77	3	0	0	0	0	28	33	38	864	70	26	25	0
	06:00-22:00	3570	6	50	1193	2065	244	10	1	0	0	0	28	33	38	2927	386	144	112	0
	00:00-24:00	3752	6	51	1242	2165	273	13	1	0	0	0	28	33	38	3053	416	154	128	0

A40	Lea	Lea School	Southbound

			Count	Speed bins (mph)										v15	vm	v85	Length bins (m)				
	Date	Time		10	20	30	40	50	60	70	80	90	>90				5.2	6.8	11.0	40.0	0.0
Thursday	04/07/13	01:00																			
	04/07/13	02:00																			
	04/07/13	03:00																			
	04/07/13	04:00																			
	04/07/13	05:00																			
	04/07/13	06:00																			
	04/07/13	07:00																			
	04/07/13	08:00																			
	04/07/13	09:00																			
	04/07/13	10:00																			
	04/07/13	11:00																			
	04/07/13	12:00																			
	04/07/13	13:00	210	0	8	110	86	6	0	0	0	0	0	28	30	36	153	31	19	7	0
	04/07/13	14:00	233	0	1	98	126	8	0	0	0	0	0	29	32	36	185	25	13	10	0
	04/07/13	15:00	279	1	4	155	112	7	0	0	0	0	0	27	30	35	233	26	12	8	0
	04/07/13	16:00	270	0	13	150	98	9	0	0	0	0	0	25	30	36	227	30	14	8	0
	04/07/13	17:00	370	0	9	178	174	9	0	0	0	0	0	26	31	36	316	36	13	5	0
	04/07/13	18:00	274	0	2	137	123	11	1	0	0	0	0	27	31	37	242	23	7	2	0
	04/07/13	19:00	194	0	0	77	110	7	0	0	0	0	0	29	32	37	169	23	1	1	0
	04/07/13	20:00	144	0	1	53	77	11	1	1	0	0	0	29	33	38	118	22	3	1	0
	04/07/13	21:00	107	0	3	30	62	10	2	0	0	0	0	28	33	39	88	13	6	0	0
	04/07/13	22:00	86	0	1	41	47	7	0	0	0	0	0	28	32	37	65	8	2	1	0
	04/07/13	23:00	32	0	0	8	23	1	0	0	0	0	0	29	33	37	27	4	1	0	0
	04/07/13	24:00	14	0	0	5	6	2	1	0	0	0	0	27	35	45	13	0	0	1	0
	04/07/13	00:00-09:00																			
	04/07/13	15:00-19:00	1117	0	24	551	505	36	1	0	0	0	0	27	31	37	954	112	35	16	0
	04/07/13	06:00-22:00																			
	04/07/13	00:00-24:00																			

Friday

05/07/13	01:00	13	0	0	0	10	3	0	0	0	0	0	34	37	41	10	1	1	1	0
05/07/13	02:00	6	0	1	2	3	0	0	0	0	0	0	29	30	37	3	2	0	1	0
05/07/13	03:00	5	0	0	2	2	1	0	0	0	0	0	29	35	39	2	1	2	0	0
05/07/13	04:00	6	0	0	3	1	2	0	0	0	0	0	29	35	44	4	0	1	1	0
05/07/13	05:00	11	0	0	3	6	2	0	0	0	0	0	30	35	40	8	0	1	2	0
05/07/13	06:00	51	0	2	8	30	12	1	0	0	0	0	31	35	42	36	7	3	2	0
05/07/13	07:00	136	0	2	42	74	19	1	0	0	0	0	29	34	39	102	19	7	10	0
05/07/13	08:00	234	1	11	103	115	3	1	0	0	0	0	28	30	36	178	28	17	13	0
05/07/13	09:00	278	4	10	144	117	3	0	0	0	0	0	28	29	34	218	33	12	15	0
05/07/13	10:00	256	0	4	146	94	11	0	0	0	0	0	28	30	35	210	30	10	5	0
05/07/13	11:00	246	0	9	105	128	8	0	0	0	0	0	27	31	34	188	25	15	10	0
05/07/13	12:00	280	0	5	134	137	4	0	0	0	0	0	28	30	35	224	30	17	9	0
05/07/13	13:00	286	0	12	181	85	7	1	0	0	0	0	28	29	34	232	28	15	11	0
05/07/13	14:00	285	0	9	174	96	6	0	0	0	0	0	28	29	34	225	30	20	10	0
05/07/13	15:00	288	0	15	127	139	7	0	0	0	0	0	28	30	35	242	22	15	8	0
05/07/13	16:00	312	0	13	171	120	8	0	0	0	0	0	28	30	35	266	27	17	3	0
05/07/13	17:00	367	0	8	199	149	13	0	0	0	0	0	25	30	36	309	36	15	5	0
05/07/13	18:00	324	0	11	147	150	15	1	0	0	0	0	26	31	37	292	20	8	4	0
05/07/13	19:00	248	0	4	101	124	16	1	0	0	0	0	27	32	37	220	18	7	1	0
05/07/13	20:00	183	0	1	65	84	13	0	0	0	0	0	28	32	37	140	16	4	3	0
05/07/13	21:00	118	0	2	38	69	7	2	0	0	0	0	28	33	38	100	10	7	1	0
05/07/13	22:00	94	0	1	40	50	3	0	0	0	0	0	28	32	37	87	5	1	1	0
05/07/13	23:00	56	1	0	21	30	3	0	0	0	0	0	27	32	37	48	6	2	1	0
05/07/13	24:00	24	0	0	9	12	3	0	0	0	0	0	27	33	38	18	5	0	1	0

05/07/13	06:00-09:00	850	5	23	280	306	25	2	0	0	0	0	27	31	36	496	80	36	38	0
05/07/13	15:00-19:00	1249	0	34	618	543	52	2	0	0	0	0	28	31	36	1085	103	47	13	0
05/07/13	06:00-22:00	3918	5	115	1917	1731	141	7	0	0	0	0	27	31	36	3240	376	158	109	0
05/07/13	00:00-24:00	4087	6	118	1963	1825	167	8	0	0	0	0	28	32	37	3370	401	198	118	0

Saturday	06/07/13	01:00	19	0	1	8	9	0	1	0	0	0	0	26	32	38	12	6	0	1	0
	06/07/13	02:00	9	0	0	1	8	0	0	0	0	0	0	32	35	39	8	1	0	0	0
	06/07/13	03:00	9	0	0	2	5	1	1	0	0	0	0	29	36	41	5	2	1	1	0
	06/07/13	04:00	7	0	0	2	3	2	0	0	0	0	0	27	36	44	4	0	3	0	0
	06/07/13	05:00	10	0	0	2	6	2	0	0	0	0	0	28	35	42	6	2	0	2	0
	06/07/13	06:00	13	0	0	3	7	4	1	0	0	0	0	37	40	44	9	1	2	1	0
	06/07/13	07:00	46	0	0	10	30	5	1	0	0	0	0	29	34	39	36	8	1	1	0
	06/07/13	08:00	137	0	1	55	69	11	1	0	0	0	0	28	32	37	102	25	2	8	0
	06/07/13	09:00	192	0	1	96	90	4	1	0	0	0	0	26	31	35	163	14	10	5	0
	06/07/13	10:00	267	0	3	114	130	10	0	0	0	0	0	28	32	36	223	25	8	3	0
	06/07/13	11:00	271	0	14	100	147	8	2	0	0	0	0	27	31	38	238	19	11	3	0
	06/07/13	12:00	258	0	8	100	142	6	0	0	0	0	0	28	31	36	218	26	9	3	0
	06/07/13	13:00	256	0	2	152	98	4	0	0	0	0	0	28	30	35	230	17	4	2	0
	06/07/13	14:00	244	0	5	108	116	14	1	0	0	0	0	27	31	37	210	22	9	3	0
	06/07/13	15:00	264	0	0	132	126	5	0	0	0	0	0	27	31	37	244	13	4	3	0
	06/07/13	16:00	223	0	1	91	126	5	0	0	0	0	0	27	32	37	209	12	1	1	0
	06/07/13	17:00	227	0	0	128	92	7	0	0	0	0	0	26	31	35	207	13	6	1	0
	06/07/13	18:00	230	0	0	97	119	14	0	0	0	0	0	26	32	37	210	14	5	1	0
	06/07/13	19:00	167	0	0	52	98	16	1	0	0	0	0	29	33	39	147	17	2	1	0
	06/07/13	20:00	128	0	2	57	57	12	0	0	0	0	0	28	32	38	112	10	6	0	0
	06/07/13	21:00	110	0	1	48	55	1	5	0	0	0	0	28	32	37	98	11	0	1	0
	06/07/13	22:00	94	0	0	37	52	5	0	0	0	0	0	28	32	37	85	6	3	0	0
	06/07/13	23:00	59	0	1	18	33	6	1	0	0	0	0	28	33	37	52	6	0	1	0
	06/07/13	24:00	48	0	0	14	27	7	0	0	0	0	0	29	33	39	40	7	1	0	0
	06/07/13	00:00-09:00	375	0	2	161	189	20	3	0	0	0	0	28	32	37	301	47	13	14	0
	06/07/13	15:00-19:00	847	0	1	368	435	44	1	0	0	0	0	28	32	37	773	56	14	4	0
	06/07/13	05:00-22:00	3102	0	38	1375	1547	130	12	0	0	0	0	28	32	37	2735	252	78	38	0
	06/07/13	00:00-24:00	3276	0	40	1423	1645	152	16	0	0	0	0	28	33	38	2871	277	86	42	0

Sunday

07/07/13	01:00	21	0	0	4	15	2	0	0	0	0	0	30	35	38	17	4	0	0	0
07/07/13	02:00	12	0	0	2	6	4	0	0	0	0	0	34	37	41	9	2	1	0	0
07/07/13	03:00	1	0	0	0	0	1	0	0	0	0	0	47	47	47	1	0	0	0	0
07/07/13	04:00	8	0	0	4	3	1	0	0	0	0	0	28	33	39	7	1	0	0	0
07/07/13	05:00	11	0	0	3	4	4	0	0	0	0	0	29	37	46	7	3	1	0	0
07/07/13	06:00	15	0	1	6	7	1	0	0	0	0	0	24	32	39	11	3	0	1	0
07/07/13	07:00	23	0	1	7	11	4	0	0	0	0	0	28	33	41	19	3	1	0	0
07/07/13	08:00	90	0	0	27	53	5	0	0	0	0	0	28	33	39	72	11	5	2	0
07/07/13	09:00	132	0	3	37	81	11	0	0	0	0	0	29	33	37	116	9	6	1	0
07/07/13	10:00	237	1	8	80	131	17	0	0	0	0	0	27	32	37	213	18	5	1	0
07/07/13	11:00	281	0	3	124	149	15	0	0	0	0	0	27	32	37	237	33	15	6	0
07/07/13	12:00	290	0	0	98	184	7	1	0	0	0	0	28	32	37	263	18	8	1	0
07/07/13	13:00	288	0	2	116	157	11	0	0	0	0	0	27	32	38	246	37	2	1	0
07/07/13	14:00	288	0	7	122	124	14	1	0	0	0	0	27	31	37	240	20	5	3	0
07/07/13	15:00	227	0	0	70	142	15	0	0	0	0	0	29	33	39	212	13	0	2	0
07/07/13	16:00	236	1	5	87	130	15	0	0	0	0	0	27	32	37	218	15	5	0	0
07/07/13	17:00	250	0	1	70	149	29	1	0	0	0	0	29	34	39	225	22	1	2	0
07/07/13	18:00	241	0	3	72	144	22	0	0	0	0	0	29	33	39	218	17	4	2	0
07/07/13	19:00	192	0	0	47	124	21	0	0	0	0	0	29	34	39	177	11	4	0	0
07/07/13	20:00	139	0	1	45	73	20	0	0	0	0	0	29	33	40	121	15	2	1	0
07/07/13	21:00	80	0	0	25	48	8	0	0	0	0	0	29	33	39	68	8	2	2	0
07/07/13	22:00	56	0	0	17	31	8	0	0	0	0	0	28	34	40	46	6	1	1	0
07/07/13	23:00	45	0	0	16	22	7	0	0	0	0	0	27	33	38	42	3	0	0	0
07/07/13	24:00	19	0	1	6	11	1	0	0	0	0	0	28	32	37	17	2	0	0	0

07/07/13	06:00-09:00	245	0	4	71	150	20	0	0	0	0	0	28	33	39	207	23	12	3	0
07/07/13	15:00-19:00	921	1	9	278	547	87	1	0	0	0	0	29	33	39	838	65	14	4	0
07/07/13	06:00-22:00	3040	2	34	1044	1737	220	3	0	0	0	0	28	33	38	2693	250	66	25	0
07/07/13	00:00-24:00	3172	2	36	1085	1805	241	3	0	0	0	0	29	34	39	2804	274	88	26	0

Monday

08/07/13	01:00	5	0	1	2	1	0	1	0	0	0	0	25	32	39	3	1	1	0	0
08/07/13	02:00	3	0	0	1	1	1	0	0	0	0	0	26	35	42	2	0	0	1	0
08/07/13	03:00	4	0	0	0	3	1	0	0	0	0	0	38	39	40	3	0	1	0	0
08/07/13	04:00	4	0	0	0	2	2	0	0	0	0	0	39	42	44	2	1	1	0	0
08/07/13	05:00	32	0	0	6	20	5	1	0	0	0	0	29	37	41	26	4	1	1	0
08/07/13	06:00	75	0	1	23	33	18	2	0	0	0	0	29	36	42	65	4	2	4	0
08/07/13	07:00	150	0	0	57	76	17	0	0	0	0	0	28	33	39	119	14	12	5	0
08/07/13	08:00	203	1	2	84	97	9	0	0	0	0	0	28	31	36	146	35	11	11	0
08/07/13	09:00	254	1	4	137	102	10	0	0	0	0	0	28	30	35	202	23	21	8	0
08/07/13	10:00	227	0	0	118	107	4	0	0	0	0	0	27	31	36	170	25	20	12	0
08/07/13	11:00	230	0	5	108	113	4	0	0	0	0	0	27	31	35	178	22	17	13	0
08/07/13	12:00	241	1	2	122	105	9	2	0	0	0	0	28	30	35	189	23	17	12	0
08/07/13	13:00	229	0	3	102	112	11	0	0	0	0	0	27	31	36	171	22	19	16	0
08/07/13	14:00	240	0	3	116	116	8	1	0	0	0	0	27	31	36	198	25	14	9	0
08/07/13	15:00	249	1	6	121	114	7	0	0	0	0	0	27	30	34	202	25	12	10	0
08/07/13	16:00	256	0	15	105	122	14	0	0	0	0	0	26	31	37	207	27	15	7	0
08/07/13	17:00	371	0	9	190	155	11	0	0	0	0	0	26	30	35	317	44	12	4	0
08/07/13	18:00	286	0	15	125	143	15	1	0	0	0	0	26	31	37	209	27	5	7	0
08/07/13	19:00	174	0	13	70	78	12	1	0	0	0	0	27	31	38	154	18	3	1	0
08/07/13	20:00	141	0	5	56	73	8	0	0	0	0	0	27	32	38	124	13	3	1	0
08/07/13	21:00	91	1	5	23	52	10	0	0	0	0	0	29	33	39	76	4	7	4	0
08/07/13	22:00	54	1	1	16	29	5	2	0	0	0	0	27	33	39	48	5	0	0	0
08/07/13	23:00	30	0	0	18	28	4	0	0	0	0	0	28	33	39	41	3	2	4	0
08/07/13	24:00	23	0	0	5	15	3	0	0	0	0	0	30	34	39	9	3	4	7	0
08/07/13	09:00-09:00	607	2	8	288	275	36	0	0	0	0	0	27	31	37	467	72	44	24	0
08/07/13	15:00-19:00	1100	0	52	495	498	52	2	0	0	0	0	28	31	37	932	114	35	19	0
08/07/13	06:00-22:00	3414	6	86	1565	1584	154	7	0	0	0	0	27	31	37	2755	351	188	120	0
08/07/13	00:00-24:00	3610	6	90	1620	1607	186	11	0	0	0	0	28	33	38	2906	367	200	137	0

Tuesday

09/07/13	01:00	24	0	0	5	15	3	1	0	0	0	0	30	35	39	16	3	0	5	0
09/07/13	02:00	5	0	0	1	3	1	0	0	0	0	0	34	38	38	2	0	2	1	0
09/07/13	03:00	16	0	0	1	13	2	0	0	0	0	0	34	37	40	7	1	2	6	0
09/07/13	04:00	7	0	0	0	5	2	0	0	0	0	0	34	39	45	6	0	0	1	0
09/07/13	05:00	20	0	0	4	12	4	0	0	0	0	0	29	35	41	11	2	1	6	0
09/07/13	06:00	59	0	0	10	36	13	0	0	0	0	0	30	38	41	47	7	4	1	0
09/07/13	07:00	137	0	1	51	72	12	1	0	0	0	0	28	33	39	112	18	3	4	0
09/07/13	08:00	216	0	10	110	83	12	1	0	0	0	0	26	30	36	150	31	17	9	0
09/07/13	09:00	200	1	1	137	117	10	0	0	0	0	0	27	31	35	212	31	17	6	0
09/07/13	10:00	199	0	0	86	102	10	1	0	0	0	0	27	32	37	146	29	11	13	0
09/07/13	11:00	210	0	12	83	112	3	0	0	0	0	0	28	31	35	159	20	17	8	0
09/07/13	12:00	205	0	4	97	96	8	1	0	0	0	0	28	31	36	158	22	14	11	0
09/07/13	13:00	222	0	2	95	109	15	1	0	0	0	0	27	32	36	174	23	10	9	0
09/07/13	14:00	221	0	1	114	101	4	1	0	0	0	0	28	31	35	177	21	12	11	0
09/07/13	15:00	276	0	2	127	135	10	2	0	0	0	0	27	31	36	224	29	12	11	0
09/07/13	16:00	280	1	12	138	118	11	0	0	0	0	0	24	30	36	228	28	13	11	0
09/07/13	17:00	362	0	10	190	160	9	0	0	0	0	0	28	30	36	321	28	8	5	0
09/07/13	18:00	283	0	3	141	130	9	0	0	0	0	0	27	31	35	238	34	5	6	0
09/07/13	19:00	183	0	4	82	83	14	0	0	0	0	0	24	31	36	150	15	3	6	0
09/07/13	20:00	125	0	0	50	65	8	2	0	0	0	0	29	32	39	107	14	0	4	0
09/07/13	21:00	104	0	1	32	58	11	2	0	0	0	0	29	34	39	89	12	3	0	0
09/07/13	22:00	79	0	0	34	44	1	0	0	0	0	0	28	31	38	70	8	0	0	0
09/07/13	23:00	41	0	0	13	26	2	0	0	0	0	0	28	33	38	38	2	0	1	0
09/07/13	24:00	27	0	0	4	19	4	0	0	0	0	0	31	35	40	18	3	3	3	0

09/07/13	08:00-09:00	619	1	12	288	272	34	2	0	0	0	0	27	31	37	483	80	37	19	0
09/07/13	15:00-19:00	1108	1	29	551	484	43	0	0	0	0	0	25	31	36	948	105	29	28	0
09/07/13	08:00-22:00	3368	2	83	1587	1577	147	12	0	0	0	0	27	31	37	2733	370	151	114	0
09/07/13	00:00-24:00	3567	2	83	1805	1706	178	13	0	0	0	0	28	33	38	2878	388	163	138	0

Wednesday	10/07/13	01:00	18	0	1	7	8	1	1	0	0	0	0	29	32	37	12	3	1	2	0
	10/07/13	02:00	3	0	0	1	2	0	0	0	0	0	0	28	33	39	2	1	0	0	0
	10/07/13	03:00	8	0	0	5	3	0	0	0	0	0	0	29	31	35	4	0	1	3	0
	10/07/13	04:00	11	0	0	1	6	4	0	0	0	0	0	32	37	43	6	2	1	2	0
	10/07/13	05:00	22	0	0	2	17	2	1	0	0	0	0	31	38	39	12	4	3	3	0
	10/07/13	06:00	54	0	1	8	29	14	2	0	0	0	0	30	38	43	42	3	4	5	0
	10/07/13	07:00	158	0	0	52	89	16	1	0	0	0	0	28	33	38	136	13	7	8	0
	10/07/13	08:00	220	2	5	108	99	6	1	0	0	0	0	26	31	37	172	32	10	9	0
	10/07/13	09:00	290	0	3	154	117	6	0	0	0	0	0	27	31	35	219	35	20	8	0
	10/07/13	10:00	237	0	4	100	92	11	0	0	0	0	0	28	31	37	158	28	14	11	0
	10/07/13	11:00	214	0	1	98	112	3	0	0	0	0	0	27	31	36	165	23	17	9	0
	10/07/13	12:00	237	1	2	134	92	8	0	0	0	0	0	27	31	35	197	21	12	7	0
	10/07/13	13:00	246	0	1	117	118	10	0	0	0	0	0	27	32	36	189	29	16	12	0
	10/07/13	14:00	232	4	11	110	105	4	0	0	0	0	0	25	30	36	183	23	8	18	0
	10/07/13	15:00	249	1	1	137	104	6	0	0	0	0	0	26	30	36	203	19	20	7	0
	10/07/13	16:00	299	1	19	157	114	7	1	0	0	0	0	26	29	34	235	29	24	11	0
	10/07/13	17:00	333	1	5	182	180	14	1	0	0	0	0	26	31	36	322	43	13	5	0
	10/07/13	18:00	291	0	1	149	131	10	0	0	0	0	0	26	31	36	256	25	8	2	0
	10/07/13	19:00	195	0	1	89	115	10	0	0	0	0	0	28	32	37	174	17	1	3	0
	10/07/13	20:00	138	0	3	48	79	8	1	1	0	0	0	28	33	39	116	17	3	2	0
	10/07/13	21:00	99	0	0	29	59	10	0	1	0	0	0	29	33	39	85	11	3	0	0
	10/07/13	22:00	82	0	1	33	46	2	0	0	0	0	0	28	32	37	70	8	1	3	0
	10/07/13	23:00	47	0	0	20	20	7	0	0	0	0	0	27	33	40	42	3	1	1	0
	10/07/13	24:00	22	0	0	8	13	1	0	0	0	0	0	29	32	36	18	2	1	1	0
	10/07/13	06:00-09:00	661	2	8	314	305	30	2	0	0	0	0	27	31	37	521	80	37	23	0
	10/07/13	15:00-19:00	1168	2	26	557	540	41	2	0	0	0	0	27	31	36	980	114	44	21	0
	10/07/13	06:00-22:00	3533	7	58	1675	1653	133	5	2	0	0	0	27	31	37	2874	371	175	113	0
	10/07/13	00:00-24:00	3718	7	60	1727	1751	152	9	2	0	0	0	28	32	37	3012	389	187	130	0

Thursday	11/07/13	01:00	29	0	0	5	19	5	0	0	0	0	0	29	35	42	21	2	1	5	0
	11/07/13	02:00	8	0	0	2	3	1	0	0	0	0	0	26	33	35	4	1	1	0	0
	11/07/13	03:00	11	0	0	0	9	2	0	0	0	0	0	35	38	40	7	1	1	2	0
	11/07/13	04:00	7	0	0	0	4	3	0	0	0	0	0	32	38	45	3	0	2	2	0
	11/07/13	05:00	24	0	1	8	10	5	0	0	0	0	0	27	34	42	15	4	1	4	0
	11/07/13	06:00	57	0	0	15	29	11	2	0	0	0	0	29	35	42	45	6	2	3	0
	11/07/13	07:00	140	0	3	37	81	18	1	0	0	0	0	29	34	40	110	18	6	6	0
	11/07/13	08:00	223	1	7	131	73	6	0	0	0	0	0	25	29	34	161	23	22	17	0
	11/07/13	09:00	256	0	2	130	118	5	0	0	0	0	0	27	31	35	214	25	9	8	0
	11/07/13	10:00	210	1	10	100	91	8	0	0	0	0	0	24	30	36	156	25	22	9	0
	11/07/13	11:00	240	0	1	126	105	8	0	0	0	0	0	27	31	36	193	28	11	8	0
	11/07/13	12:00	257	2	2	134	113	6	0	0	0	0	0	28	30	36	208	19	18	12	0
	11/07/13	13:00	271	0	2	121	141	7	0	0	0	0	0	27	31	36	222	22	21	6	0
	11/07/13	14:00	257	0	1	115	133	7	1	0	0	0	0	27	32	37	207	27	14	9	0
	11/07/13	15:00	253	1	1	129	116	6	0	1	0	0	0	28	31	36	203	27	16	7	0
	11/07/13	16:00	299	0	7	154	130	7	1	0	0	0	0	26	30	36	246	28	16	9	0
	11/07/13	17:00	384	1	10	181	179	12	1	0	0	0	0	26	31	36	317	39	19	9	0
	11/07/13	18:00	301	0	5	159	127	10	0	0	0	0	0	26	31	36	266	25	5	5	0
	11/07/13	19:00	181	0	1	51	121	7	1	0	0	0	0	29	33	37	155	20	5	11	0
	11/07/13	20:00	142	1	1	58	74	10	0	0	0	0	0	27	32	36	127	10	3	2	0
	11/07/13	21:00	118	0	3	45	60	10	0	0	0	0	0	28	32	36	108	4	5	1	0
	11/07/13	22:00	73	0	1	48	38	5	1	0	0	0	0	27	31	36	75	13	2	3	0
	11/07/13	23:00	45	0	0	17	26	2	0	0	0	0	0	28	32	37	40	3	1	1	0
	11/07/13	24:00	28	0	0	9	14	4	1	0	0	0	0	28	35	41	23	4	0	1	0
	11/07/13	00:00-08:00	518	1	12	288	278	29	1	0	0	0	0	27	31	36	485	68	37	31	0
	11/07/13	15:00-19:00	1186	1	23	545	557	36	3	0	0	0	0	27	31	36	984	112	46	24	0
	11/07/13	08:00-22:00	3025	7	57	1717	1705	132	6	1	0	0	0	27	31	36	2967	353	194	111	0
	11/07/13	00:00-24:00	3832	7	58	1773	1819	165	9	1	0	0	0	28	32	36	3126	374	203	129	0

Friday

12/07/13	01:00	17	0	0	1	12	3	0	1	0	0	0	33	36	41	12	2	2	1	0
12/07/13	02:00	9	0	0	2	7	0	0	0	0	0	0	30	33	36	7	0	0	2	0
12/07/13	03:00	16	0	1	6	7	2	0	0	0	0	0	27	32	38	12	1	1	2	0
12/07/13	04:00	8	0	0	1	3	2	0	0	0	0	0	31	37	42	4	0	1	1	0
12/07/13	05:00	22	0	0	3	11	7	1	0	0	0	0	31	38	47	17	3	1	1	0
12/07/13	06:00	53	0	1	11	27	13	1	0	0	0	0	30	36	43	42	3	3	5	0
12/07/13	07:00	141	0	1	47	81	10	2	0	0	0	0	28	33	39	104	23	9	5	0
12/07/13	08:00	235	1	20	105	104	5	0	0	0	0	0	24	29	35	173	34	16	12	0
12/07/13	09:00	273	0	3	153	109	8	0	0	0	0	0	27	30	34	221	35	10	7	0
12/07/13	10:00	270	0	13	143	109	5	0	0	0	0	0	28	30	34	213	26	16	10	0
12/07/13	11:00	276	0	0	128	132	16	0	0	0	0	0	28	31	36	225	24	15	12	0
12/07/13	12:00	267	2	2	128	128	7	0	0	0	0	0	27	31	35	203	38	16	10	0
12/07/13	13:00	284	0	6	143	140	5	0	0	0	0	0	27	31	35	231	28	25	10	0
12/07/13	14:00	293	0	2	118	156	17	0	0	0	0	0	28	32	37	244	29	10	10	0
12/07/13	15:00	347	0	4	162	174	7	0	0	0	0	0	26	31	36	293	28	12	9	0
12/07/13	16:00	331	1	24	140	155	10	1	0	0	0	0	26	30	36	279	31	14	7	0
12/07/13	17:00	380	0	1	198	172	9	0	0	0	0	0	27	30	34	337	21	16	6	0
12/07/13	18:00	302	1	11	122	150	18	0	0	0	0	0	27	31	37	273	16	7	6	0
12/07/13	19:00	202	1	3	95	94	9	0	0	0	0	0	27	31	37	175	13	6	2	0
12/07/13	20:00	145	4	8	41	77	14	1	0	0	0	0	26	31	36	131	9	3	2	0
12/07/13	21:00	102	0	2	34	55	11	0	0	0	0	0	27	33	39	91	7	3	1	0
12/07/13	22:00	102	1	0	48	45	7	0	1	0	0	0	26	32	37	93	7	2	0	0
12/07/13	23:00	54	0	0	21	29	4	0	0	0	0	0	27	32	38	48	5	1	2	0
12/07/13	24:00	33	0	2	13	15	3	0	0	0	0	0	27	32	39	27	4	1	1	0

12/07/13	08:00-09:00	649	1	24	305	294	23	2	0	0	0	0	26	31	36	498	92	35	24	0
12/07/13	15:00-19:00	1215	3	39	555	571	46	1	0	0	0	0	27	31	36	1064	87	43	21	0
12/07/13	06.00-22:00	3960	11	100	1805	1861	158	4	1	0	0	0	27	31	36	3291	378	182	109	0
12/07/13	00:00-24:00	4170	11	104	1863	1992	192	6	2	0	0	0	28	32	38	3458	396	192	124	0

Saturday

13/07/13	01:00	19	0	0	5	10	4	0	0	0	0	0	28	36	41	13	1	1	4	0
13/07/13	02:00	16	0	0	4	11	1	0	0	0	0	0	29	34	38	11	2	0	3	0
13/07/13	03:00	10	0	0	1	7	2	0	0	0	0	0	34	38	41	8	2	1	1	0
13/07/13	04:00	10	0	0	2	6	2	0	0	0	0	0	30	35	42	7	1	2	0	0
13/07/13	05:00	9	0	0	1	6	2	0	0	0	0	0	34	37	41	8	1	1	1	0
13/07/13	06:00	19	0	1	6	7	4	1	0	0	0	0	29	35	42	13	3	1	2	0
13/07/13	07:00	54	0	1	10	32	11	0	0	0	0	0	29	36	42	47	2	5	0	0
13/07/13	08:00	90	0	1	35	45	8	0	0	0	0	0	27	32	38	87	9	2	5	0
13/07/13	09:00	174	0	3	65	92	13	1	0	0	0	0	27	32	37	140	25	8	3	0
13/07/13	10:00	232	0	2	88	120	12	0	0	0	0	0	28	32	37	207	18	5	2	0
13/07/13	11:00	249	0	1	112	131	5	0	0	0	0	0	27	31	36	212	27	9	1	0
13/07/13	12:00	282	0	6	140	114	22	0	0	0	0	0	26	31	37	252	14	9	7	0
13/07/13	13:00	276	0	0	128	136	12	0	0	0	0	0	27	31	36	244	24	7	1	0
13/07/13	14:00	285	0	2	123	130	10	0	0	0	0	0	27	31	36	237	18	7	3	0
13/07/13	15:00	198	0	0	83	99	16	0	0	0	0	0	27	32	38	181	12	3	2	0
13/07/13	16:00	257	0	3	91	150	12	1	0	0	0	0	28	32	37	233	19	3	2	0
13/07/13	17:00	236	0	0	80	138	8	1	0	0	0	0	28	32	37	226	12	2	4	0
13/07/13	18:00	243	0	4	80	146	12	1	0	0	0	0	28	32	38	231	10	1	1	0
13/07/13	19:00	172	0	0	55	94	21	2	0	0	0	0	28	33	39	155	16	1	0	0
13/07/13	20:00	128	0	0	42	80	6	0	0	0	0	0	28	33	37	111	13	3	1	0
13/07/13	21:00	107	0	0	30	53	15	0	0	0	0	0	28	33	39	98	8	1	0	0
13/07/13	22:00	78	0	1	19	52	5	1	0	0	0	0	28	33	39	71	5	1	1	0
13/07/13	23:00	64	0	1	25	37	1	0	0	0	0	0	27	32	36	57	6	0	1	0
13/07/13	24:00	40	0	0	10	27	3	0	0	0	0	0	30	34	39	34	5	0	1	0

13/07/13	06:00-09:00	318	0	5	110	170	32	1	0	0	0	0	28	33	39	254	36	20	8	0
13/07/13	15:00-19:00	910	0	7	316	528	54	5	0	0	0	0	28	33	38	839	57	7	7	0
13/07/13	08:00-22:00	3043	0	24	1210	1613	196	7	0	0	0	0	28	32	38	2706	232	72	33	0
13/07/13	00:00-24:00	3230	0	26	1284	1724	208	8	0	0	0	0	28	33	38	2853	253	76	48	0

Sunday

14/07/13	01:00	15	0	0	6	6	3	0	0	0	0	0	28	34	42	10	4	1	0	0
14/07/13	02:00	12	0	0	3	6	3	0	0	0	0	0	28	35	45	8	3	0	1	0
14/07/13	03:00	7	0	0	2	3	2	0	0	0	0	0	30	36	44	5	1	1	0	0
14/07/13	04:00	3	0	0	1	2	0	0	0	0	0	0	26	30	32	2	1	0	0	0
14/07/13	05:00	12	0	0	3	5	3	1	0	0	0	0	30	37	44	10	2	0	0	0
14/07/13	06:00	19	0	0	3	9	6	1	0	0	0	0	31	38	45	12	4	2	1	0
14/07/13	07:00	20	0	0	2	10	7	1	0	0	0	0	33	39	44	14	5	1	0	0
14/07/13	08:00	51	0	0	17	27	6	1	0	0	0	0	29	33	38	44	2	3	2	0
14/07/13	09:00	110	0	0	38	64	8	0	0	0	0	0	28	33	39	98	10	2	2	0
14/07/13	10:00	217	0	3	99	108	7	0	0	0	0	0	27	31	36	192	15	6	4	0
14/07/13	11:00	287	0	0	147	131	8	1	0	0	0	0	27	31	36	261	16	8	2	0
14/07/13	12:00	303	0	4	104	181	13	1	0	0	0	0	28	33	37	277	17	6	3	0
14/07/13	13:00	273	0	4	112	146	11	0	0	0	0	0	28	32	36	247	18	4	4	0
14/07/13	14:00	275	0	7	122	134	12	0	0	0	0	0	27	31	35	246	18	9	2	0
14/07/13	15:00	248	0	3	97	133	15	0	0	0	0	0	29	32	37	225	18	4	1	0
14/07/13	16:00	287	0	7	90	180	10	0	0	0	0	0	29	32	37	263	28	5	3	0
14/07/13	17:00	305	0	13	145	138	9	0	0	0	0	0	28	30	36	282	17	3	3	0
14/07/13	18:00	193	0	1	61	109	21	1	0	0	0	0	28	33	38	174	13	5	1	0
14/07/13	19:00	181	0	0	65	116	10	0	0	0	0	0	29	33	38	160	21	8	2	0
14/07/13	20:00	159	0	2	61	84	12	0	0	0	0	0	28	33	38	145	10	4	0	0
14/07/13	21:00	109	0	1	44	52	11	0	1	0	0	0	27	33	39	94	12	2	1	0
14/07/13	22:00	52	0	0	17	27	6	3	0	0	0	0	29	34	39	48	3	1	0	0
14/07/13	23:00	42	0	0	11	25	6	0	0	0	0	0	29	33	39	40	2	0	0	0
14/07/13	24:00	13	0	0	7	3	3	0	0	0	0	0	27	34	44	11	0	0	2	0

14/07/13	06:00-09:00	181	0	0	57	101	21	2	0	0	0	0	30	35	41	154	17	6	4	0
14/07/13	15:00-18:00	976	0	21	381	543	50	1	0	0	0	0	28	32	38	869	77	21	9	0
14/07/13	08:00-22:00	3080	0	45	1221	1640	165	8	1	0	0	0	28	33	38	2758	221	71	30	0
14/07/13	00:00-24:00	3203	0	45	1257	1699	191	10	1	0	0	0	28	33	39	2856	238	75	34	0

Monday

15/07/13	01:00	7	0	1	3	2	1	0	0	0	0	0	27	29	34	3	3	1	0	0
15/07/13	02:00	6	0	0	2	2	1	1	0	0	0	0	28	37	44	4	2	0	0	0
15/07/13	03:00	4	0	0	0	3	1	0	0	0	0	0	30	37	37	3	0	1	0	0
15/07/13	04:00	5	0	0	0	4	1	0	0	0	0	0	36	39	39	4	1	0	0	0
15/07/13	05:00	23	0	0	4	14	5	0	0	0	0	0	29	35	42	18	5	0	0	0
15/07/13	06:00	68	0	0	12	35	19	0	0	0	0	0	30	37	42	56	5	4	1	0
15/07/13	07:00	156	0	0	54	80	22	0	0	0	0	0	27	34	40	119	21	11	5	0
15/07/13	08:00	222	0	7	105	100	10	0	0	0	0	0	27	31	38	170	32	13	7	0
15/07/13	09:00	279	0	5	156	112	6	0	0	0	0	0	25	30	35	224	26	23	6	0
15/07/13	10:00	233	1	13	111	104	4	0	0	0	0	0	26	30	38	189	20	13	11	0
15/07/13	11:00	252	0	1	119	126	5	1	0	0	0	0	27	31	36	197	28	20	9	0
15/07/13	12:00	248	0	1	122	119	6	0	0	0	0	0	26	31	36	194	28	19	9	0
15/07/13	13:00	247	0	6	129	97	15	0	0	0	0	0	26	31	37	203	24	13	7	0
15/07/13	14:00	242	0	1	104	131	6	0	0	0	0	0	27	31	36	186	27	15	14	0
15/07/13	15:00	282	0	5	139	122	16	0	0	0	0	0	27	31	36	231	20	21	10	0
15/07/13	16:00	276	0	5	139	128	6	0	0	0	0	0	26	30	36	219	32	13	12	0
15/07/13	17:00	342	7	15	177	133	10	0	0	0	0	0	24	29	35	309	22	7	4	0
15/07/13	18:00	278	0	5	159	103	11	0	0	0	0	0	25	30	36	247	18	8	7	0
15/07/13	19:00	156	0	1	54	84	17	0	0	0	0	0	28	33	39	140	13	2	1	0
15/07/13	20:00	107	0	2	41	59	5	0	0	0	0	0	28	32	36	87	15	4	1	0
15/07/13	21:00	79	0	2	25	44	8	0	0	0	0	0	29	33	39	68	6	3	2	0
15/07/13	22:00	82	0	0	35	41	6	0	0	0	0	0	28	32	37	71	9	1	1	0
15/07/13	23:00	38	0	0	11	23	4	0	0	0	0	0	29	34	39	34	3	0	1	0
15/07/13	24:00	20	0	0	3	16	1	0	0	0	0	0	31	34	38	16	2	0	2	0

15/07/13	08:00-09:00	667	0	12	315	292	38	0	0	0	0	0	28	31	37	513	79	47	18	0
15/07/13	15:00-19:00	1052	7	26	529	448	44	0	0	0	0	0	28	31	37	915	83	30	24	0
15/07/13	06:00-22:00	3481	8	69	1669	1581	153	1	0	0	0	0	27	31	37	2854	335	186	108	0
15/07/13	00:00-24:00	3650	8	70	1704	1660	186	2	0	0	0	0	28	32	38	2992	356	192	110	0

5-day

	01:00	16	0	0	3	10	2	0	0	0	0	0	30	34	39	11	2	1	2	0
	02:00	5	0	0	1	3	1	0	0	0	0	0	29	34	39	3	1	0	1	0
	03:00	9	0	0	2	6	1	0	0	0	0	0	32	35	38	5	1	1	1	0
	04:00	7	0	0	1	4	2	0	0	0	0	0	33	38	43	4	1	1	1	0
	05:00	22	0	0	4	13	4	0	0	0	0	0	29	36	42	15	3	1	2	0
	06:00	59	0	1	12	31	14	1	0	0	0	0	30	36	42	48	5	3	3	0
	07:00	146	0	1	49	79	16	1	0	0	0	0	28	33	39	114	18	8	6	0
	08:00	222	1	9	108	97	8	0	0	0	0	0	26	30	36	165	31	15	11	0
	09:00	269	1	4	144	113	7	0	0	0	0	0	26	30	35	216	30	16	8	0
	10:00	229	0	6	115	100	8	0	0	0	0	0	26	31	36	177	26	15	10	0
	11:00	239	0	4	110	118	6	0	0	0	0	0	27	31	35	188	25	16	10	0
	12:00	248	1	3	124	113	7	0	0	0	0	0	26	31	35	196	26	16	10	0
	13:00	256	0	5	127	115	10	0	0	0	0	0	27	31	36	203	25	18	10	0
	14:00	254	0	4	122	120	7	0	0	0	0	0	27	31	36	203	26	13	12	0
	15:00	278	0	5	135	129	8	0	0	0	0	0	26	31	36	229	24	16	9	0
	16:00	293	0	14	143	126	9	0	0	0	0	0	26	30	36	240	29	16	9	0
	17:00	370	1	8	189	160	11	0	0	0	0	0	26	30	35	318	34	13	5	0
	18:00	297	0	7	143	133	13	0	0	0	0	0	26	31	36	262	23	6	5	0
	19:00	191	0	4	75	100	12	0	0	0	0	0	27	32	38	168	17	4	2	0
	20:00	137	1	3	51	73	9	1	0	0	0	0	27	32	38	119	13	3	2	0
	21:00	102	0	2	32	57	10	1	0	0	0	0	28	33	39	88	8	4	1	0
	22:00	84	0	1	36	42	4	0	0	0	0	0	27	32	37	73	8	1	1	0
	23:00	47	0	0	17	26	4	0	0	0	0	0	28	33	38	41	4	1	2	0
	24:00	25	0	0	7	15	3	0	0	0	0	0	29	34	39	18	3	1	2	0

	06:00-09:00	637	2	14	301	289	31	1	0	0	0	0	27	31	37	495	78	39	25	0
	15:00-19:00	1151	2	33	550	520	45	1	0	0	0	0	26	31	36	988	103	39	21	0
	06:00-22:00	3614	7	79	1702	1675	145	6	1	0	0	0	27	31	36	2959	362	181	112	0
	00:00-24:00	3805	7	80	1751	1781	177	8	1	0	0	0	28	32	38	3106	382	191	127	0

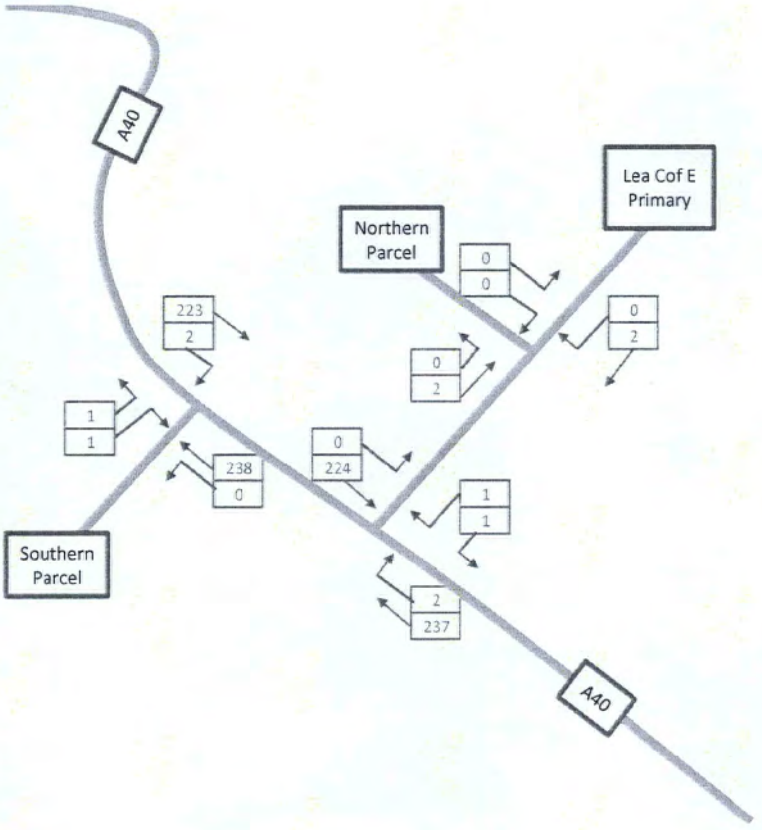
7-day

	01:00	17	0	0	4	10	2	0	0	0	0	0	29	34	39	12	3	1	2	0
	02:00	8	0	0	2	5	1	0	0	0	0	0	30	34	39	5	1	0	1	0
	03:00	8	0	0	2	5	1	0	0	0	0	0	33	37	40	5	1	1	1	0
	04:00	7	0	0	1	4	2	0	0	0	0	0	31	36	42	4	1	1	1	0
	05:00	18	0	0	4	10	4	0	0	0	0	0	30	36	42	12	3	1	2	0
	06:00	44	0	1	9	23	10	1	0	0	0	0	30	36	42	35	4	2	2	0
	07:00	106	0	1	34	58	13	1	0	0	0	0	29	34	40	83	13	6	4	0
	08:00	175	1	6	81	80	8	0	0	0	0	0	27	31	37	131	24	11	5	0
	09:00	227	1	3	113	102	8	0	0	0	0	0	27	31	36	184	24	12	6	0
	10:00	231	0	5	108	108	9	0	0	0	0	0	27	31	36	189	24	12	7	0
	11:00	252	0	4	114	126	7	0	0	0	0	0	27	31	36	206	24	14	7	0
	12:00	261	1	3	119	128	9	0	0	0	0	0	27	31	36	217	23	13	8	0
	13:00	262	0	4	127	122	10	0	0	0	0	0	27	31	36	217	25	13	7	0
	14:00	257	0	4	121	122	9	0	0	0	0	0	27	31	36	214	24	11	8	0
	15:00	262	0	3	120	128	10	0	0	0	0	0	27	31	36	224	21	11	6	0
	16:00	278	0	10	124	134	10	0	0	0	0	0	26	31	36	236	25	11	6	0
	17:00	328	1	6	159	149	12	0	0	0	0	0	26	31	36	287	27	9	4	0
	18:00	271	0	5	119	132	14	0	0	0	0	0	27	31	37	242	20	5	4	0
	19:00	187	0	2	67	103	14	1	0	0	0	0	28	32	38	165	17	4	2	0
	20:00	138	0	2	51	73	11	0	0	0	0	0	28	32	38	120	13	3	2	0
	21:00	102	0	2	35	55	9	1	0	0	0	0	28	33	39	89	8	3	1	0
	22:00	79	0	0	31	41	5	1	0	0	0	0	27	32	38	70	7	1	1	0
	23:00	49	0	0	17	27	4	0	0	0	0	0	28	33	38	43	4	1	1	0
	24:00	27	0	0	8	16	3	0	0	0	0	0	29	34	39	21	3	1	2	0

	06:00-09:00	507	1	10	228	239	28	1	0	0	0	0	27	32	37	398	61	29	19	0
	15:00-19:00	1065	1	24	470	517	50	2	0	0	0	0	27	31	37	930	88	30	16	0
	06:00-22:00	3415	4	63	1524	1660	157	7	0	0	0	0	27	32	37	2873	318	141	82	0
	00:00-24:00	3592	4	65	1571	1758	184	9	1	0	0	0	28	33	38	3012	338	149	94	0

Appendix C

P655 Castle End, Lea, Herefordshire
2014 AM Pk Hour
08:00-09:00



April 2014
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P655 Castle End, Lea, Herefordshire
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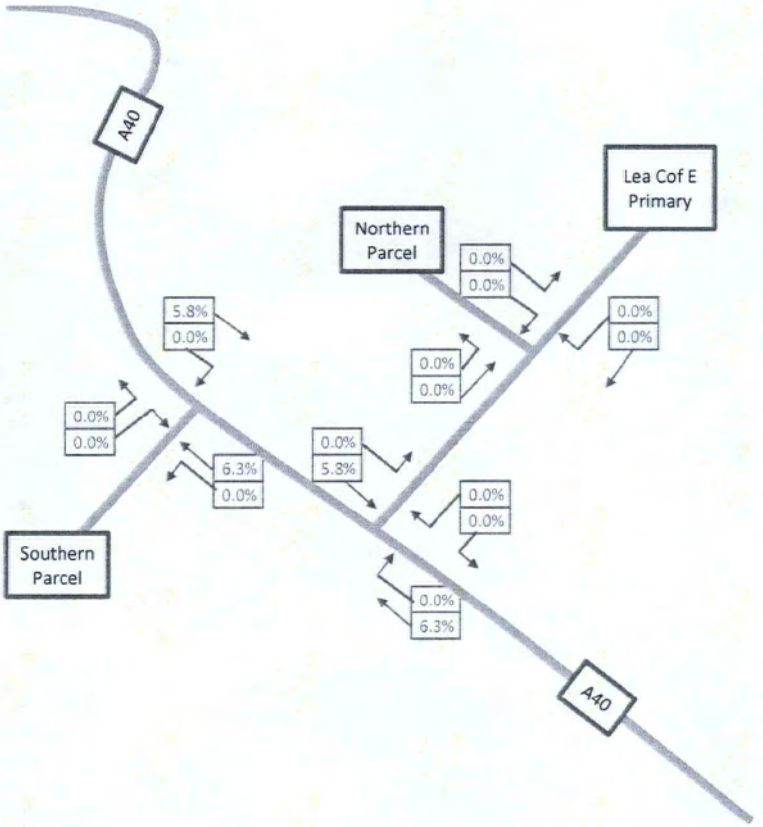
08:00-09:00



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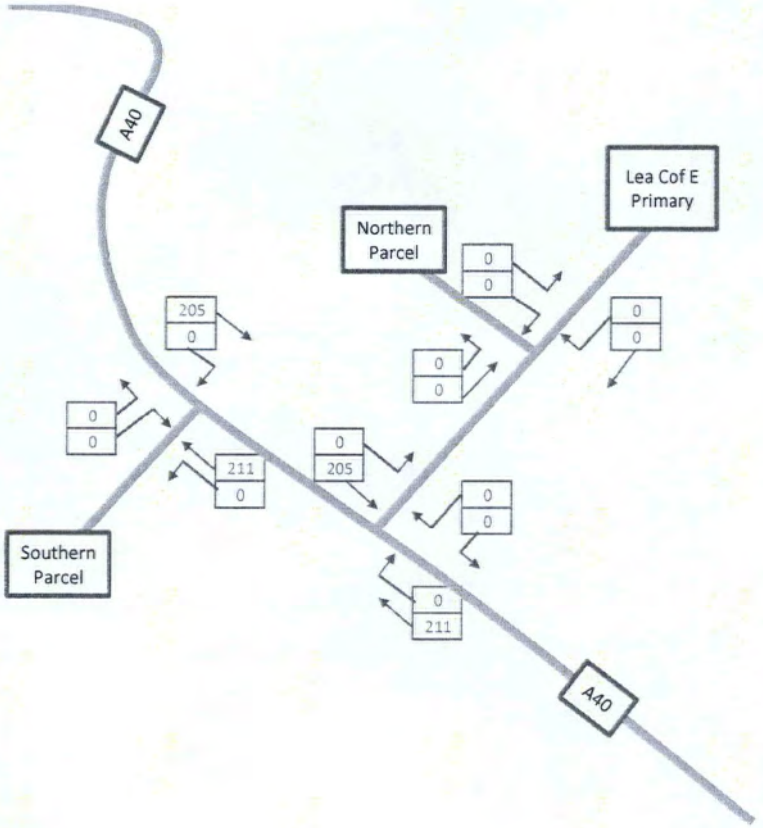
2014 Sch Pk Hour
15:00-16:00



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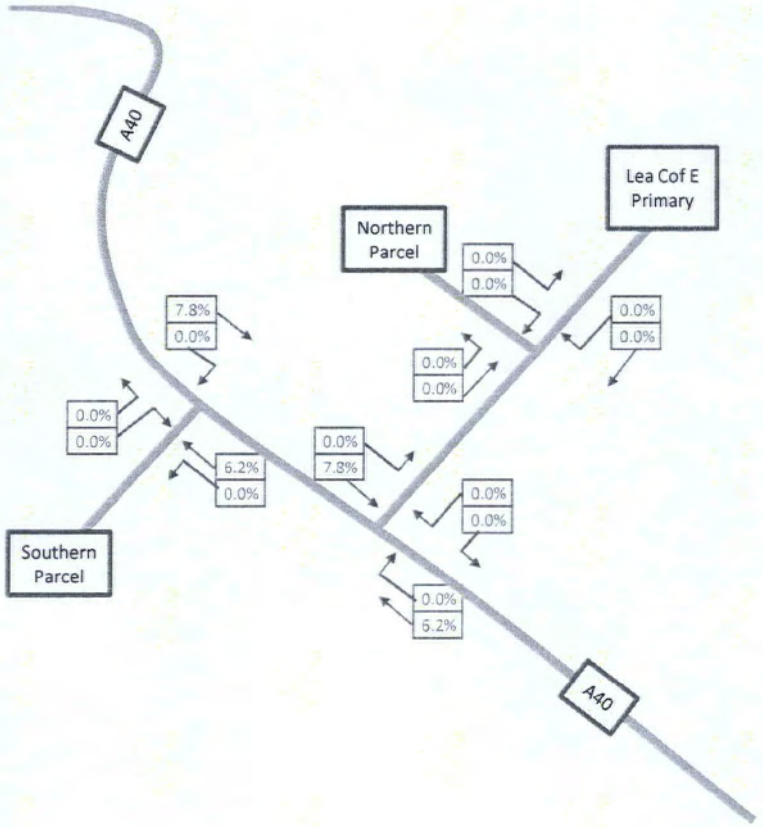
15:00-16:00



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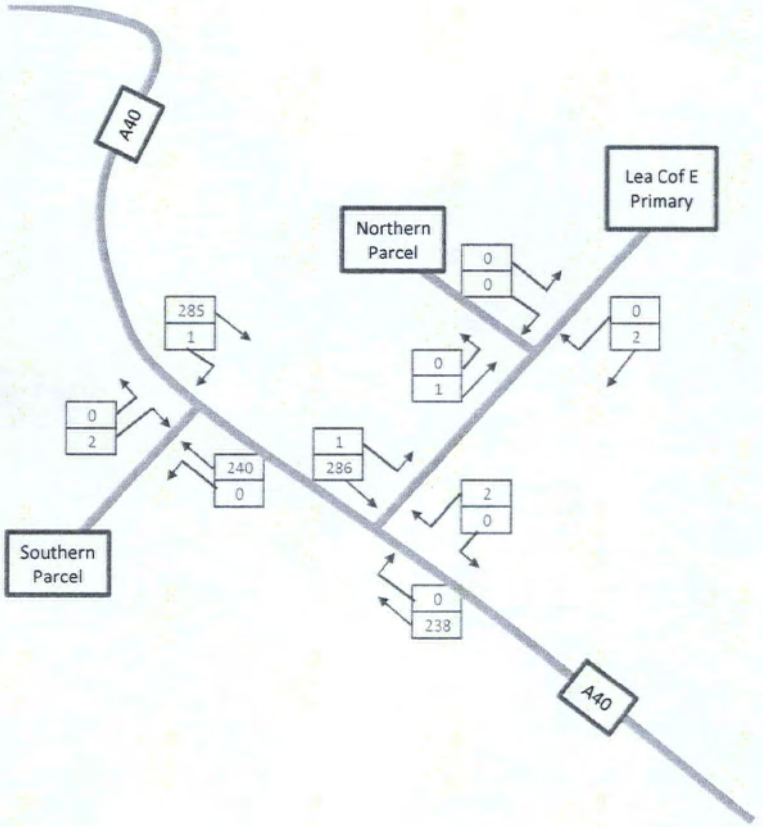
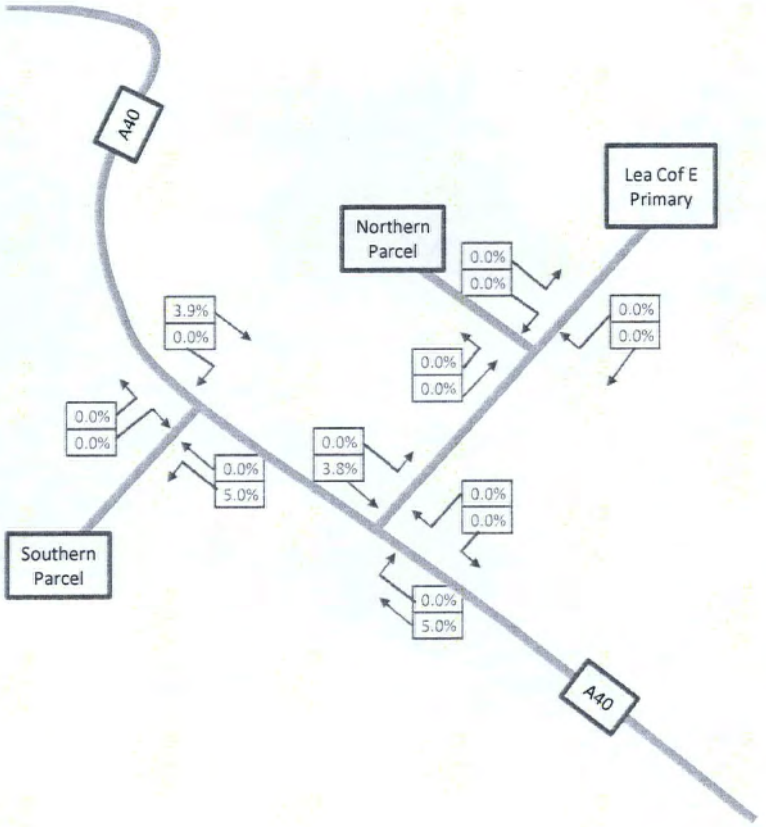
2014 PM Pk Hour
17:00-18:00



April 2014
F:\Workfile\P655\Traffic Spreadsheet\P655 Traffic Spreadsheet

P655 Castle End, Lea, Herefordshire
2014 PM Pk HGV%
17:00-18:00



April 2014
F:\Workfile\P655\Traffic Spreadsheet\P655 Traffic Spreadsheet

Appendix D


N
Guide Post
Bus Stop
Cottage
Castle End Farm
The Lodge
THE BRAMBLES
Layout Plan (SCALE 1:500)
Location Plan (SCALE 1:2500)
Cross Section at Pelican Crossing (SCALE 1:250)
View of Plots 15 - 24 from Castle End Cottage (SCALE 1:250)
Street Elevation facing SW (SCALE 1:250)
Street Elevation facing NE (SCALE 1:250)
CLIENT
Mr K W Bell
AGENT
Procuro Planning Services Ltd
Procuro, St. Owens Cross,
Hereford, HR2 8LG.
DRAWING
Proposed Dwellings at Castle
End, Herefordshire HR8 2JY
SCALE
DATE
DRAWN
DRAWING NO.

Appendix E

Castle End Farm, Lea, Hereford

Road Safety Audit Stage 1 report

Issue 01 - Draft [For comment]

Service is our passion. People, our strength

Document Control Sheet

Project Name:	Castle End Farm, Lea, Hereford
Project Number:	CO03022450
Document / Report Title:	Road Safety Audit Report Stage 1
Document / Report Number:	CO03022450/IDH/RSASt1

Issue Status/Amendment	Draft	Revision 1	Revision 2
Prepared	Name: Miles Fletcher - Brown Date: 8.07.13.	Name: Date:	Name: Date:
Checked	Name: Nick Newton Date: 10.07.13.	Name: Date:	Name: Date:
Authorised	Name: J. Webb Date: 10.07.13.	Name: Date:	Name: Date:
Project Sponsor Approval	Name: J Kendrick Ltd Date:	Name: Date:	Name: Date:

Amey
International Design Hub
Colmore Plaza
20 Colmore Circus
Birmingham
B4 6AT

John Kendrick Ltd
P.O. Box 69
Ross-on-,Wye
Herefordshire
HR9 7WG

* The front cover is aerial snap of Castle End Farm, Lea Courtesy of Google Imagery

Contents

1. INTRODUCTION 2
1.2. Scheme Description 4
1.3. Audit Management 5
2. ISSUES RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT 6
2.1. General 6
3. AUDIT TEAM STATEMENT 8

Appendix A
A1 Drawings & Documents
Drawings

Appendix B
Problem Location Plan

1. INTRODUCTION

1.1.1. This report results from the Road Safety Audit Stage 1, carried out on the proposed residential development located at Castle End Farm in Lea Hereford.

1.1.2. The Audit was commissioned by John Kendrick Ltd who have appointed Road Safety Auditors from Amey Consulting at the request of Herefordshire Council Development Control Department.

1.1.3. The Audit was carried out by experienced Road Safety Engineers approved by the Project Sponsor who have not been involved with the design process.

1.1.4. It is confirmed that this is a Stage 1 Road Safety Audit and that the Audit was undertaken upon completion of the preliminary design. It is also confirmed that the Audit was carried out in accordance with the Departmental Standard HD19/03, and interim advice note 152/11.

1.1.5. The comments and suggestions for road safety improvements made in this report are aimed to address matters that might have an adverse effect on road safety in the context of the chosen design. To clearly explain a safety problem or a recommendation to resolve a problem, the Audit Team may, on occasion, refer to a Design Standard.

1.1.6. No attempt has been made to comment on the appropriateness of the design or undertake a technical / design standards check. Consequently the Audit Team accept no responsibility for the design or construction of the scheme. Any absence of comment should not be taken as an indication of design compliance.

1.1.7. All of the issues raised in the report are considered to be required for action. The comments contained in the report are based on safety related concerns and as such the Design Engineer will need to consider carefully how to respond to each of the issues contained in the report, and that the Designer's response to the Audit is kept on file for future reference.

1.1.8. The Audit took place at Amey's International Design Hub (IDH) Birmingham and consisted of detailed examination of the drawing listed in **Appendix A.**

1.1.9. The Audit Team consisted of:

Miles Fletcher-Brown MIHE RegRSA (IHE) (Team Leader)
Amey Consulting

Nick Newton IEng, FIHE, FSoRSA, MCHIT RegRSA (IHE) (Team Member)
Amey Consulting

1.1.10. The Audit Team member holds a certificate of competence meeting the requirements of IAN 152/11 and the European Directive 2008/EC.

1.1.11. A visit to the site took place on Friday 5th July 2013 between 12.00 and 14.00hrs when both Audit Team members visited the site. The weather was dry and cloudy and the road surface was dry.

1.1.12. During the Audit, digital photographs of the site were taken for orientation to assist the Audit Team. These photographs will be kept on file for future reference. Any photographs used in this report will be referred to and cross referenced.

1.1.13. No accident data was available to the Audit Team.

1.1.14. No traffic data was available to the Audit Team. Traffic flows observed during the site visit were light.

1.1.15. No Departures from Standards relating to the scheme were forwarded to the Audit Team.

1.1.16. All reference to signing within the scheme proposals will be referenced to the Traffic Signs Regulations and General Directions 2002 (TSRGD). All diagram numbers will be referred to in this report.

1.1.17. This is the first formal Audit of the scheme.

1.1.18. Any safety related issues identified with the scheme are contained in **Section 2** of this report.

1.1.19. Although this was a stage 1 audit the scheme has not included information such as lighting, road marking proposals, drainage and signing and pedestrian facilities e.g. tactile features. Full details of these elements should be submitted to a Stage 2 Road Safety Audit

1.2. Scheme Description

1.2.1. The proposed scheme is a residential development located on two plots of land at Castle End Farm in Lea, Hereford.

1.2.2. The development consists of 30 residential units split across two sites either side of the A40. The sites are to be accessed via existing accesses one of which leads to a pre infant school and the other to Castel End Farm.

1.2.3. The proposed development is to be complimented with a pedestrian crossing located on the A40 to connect the two sites enabling pedestrians to access both sites.

1.3. Audit Management

1.3.1. A draft report will be submitted to the Project Sponsor for checking, consideration and approval. The Project Sponsor is responsible for agreeing with the Audit Team, the content of the final version of the report.

1.3.2. If any problem or recommendation is not accepted on submission of the final report, a signed 'Exception Report' is to be approved by the Project Director, a copy of which should be sent to the Audit Team Leader for record keeping purposes.

1.3.3. Any Road Safety related and maintenance issues which the Terms of Reference exclude from this report but which the Audit Team wishes to draw the attention of the Project Sponsor will be documented in the covering letter to this report.

2. ISSUES RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT

2.1. General

2.1.1. PROBLEM

LOCATION: A40 when approaching from the bend just north of the north most access (location 1 on problem location figure)

SUMMARY: *Forward visibility when approaching from the north at the bend on the A40*

It was observed during the site visit that there is a tight bend on the A40 located just north of the northern most access, (not shown on plan provided). Drivers would not immediately see vehicles (or a queue) waiting to turn right into the access giving them very limited distance to stop if travelling too fast.

This could potentially cause rear end shunts and impacts.

RECOMENDATION

Even though this stretch of road is already in a trafficked calmed 30mph zone, an advance warning sign to make people aware of this junction should be erected at the appropriate site stopping distance in advance of the access.

2.1.2. PROBLEM

LOCATION: Proposed pedestrian crossing (location 2 on problem location figure)

SUMMARY: *confusion on type of pedestrian crossing proposed*

The plan provided Lea 30d, graphically would appear to show the proposed pedestrian crossing as a Zebra crossing. However the inset on the same plan states it is to be a Pelican Crossing. Given the fact that this length of the A40 is in a speed camera zone it would appear that even though the speed limit is 30mph, that speed is an issue. A Zebra crossing may not be adequate in these circumstances especially as it is in the vicinity of an existing school and pre-school.

RECOMENDATION

The pedestrian crossing should be a Pelican crossing.

2.1.3. PROBLEM

LOCATION: Whole scheme

SUMMARY: No s*wept path analysis*

The documentation provided does not show any swept path analysis to show in principle whether the scheme can accommodate the largest vehicles most likely to access the development, such as removal lorries, refuse collection and fire appliance vehicles. Therefore audit team has been unable to comment on whether the scheme can allow large vehicles to safely access and egress the highway together with the access roads and turning areas within the development.

RECOMENDATION

The designers should ensure that swept path analysis is provided at the detailed design stage to confirm if the scheme can accommodate all vehicles most likely to access it.

End of list of Problems and Recommendations offered in this Stage 1 Road Safety Audit Report.

3. AUDIT TEAM STATEMENT

I certify that this Road Safety Audit has been carried out in accordance with HD 19/03.

AUDIT TEAM LEADER:

Miles Fletcher-Brown **MIHE RegRSA (IHE)**	**Signed:** [redacted]
Amey Consulting International Design Hub Colmore Plaza 20 Colmore Circus Birmingham B4 6AT	**Date: 10/07/2013**

AUDIT TEAM MEMBER:

Nick Newton IEng, FIHE, FSoRSA, MCHIT RegRSA (IHE)
Amey Consulting International Design Hub Colmore Plaza 20 Colmore Circus Birmingham B4 6AT

Appendix A

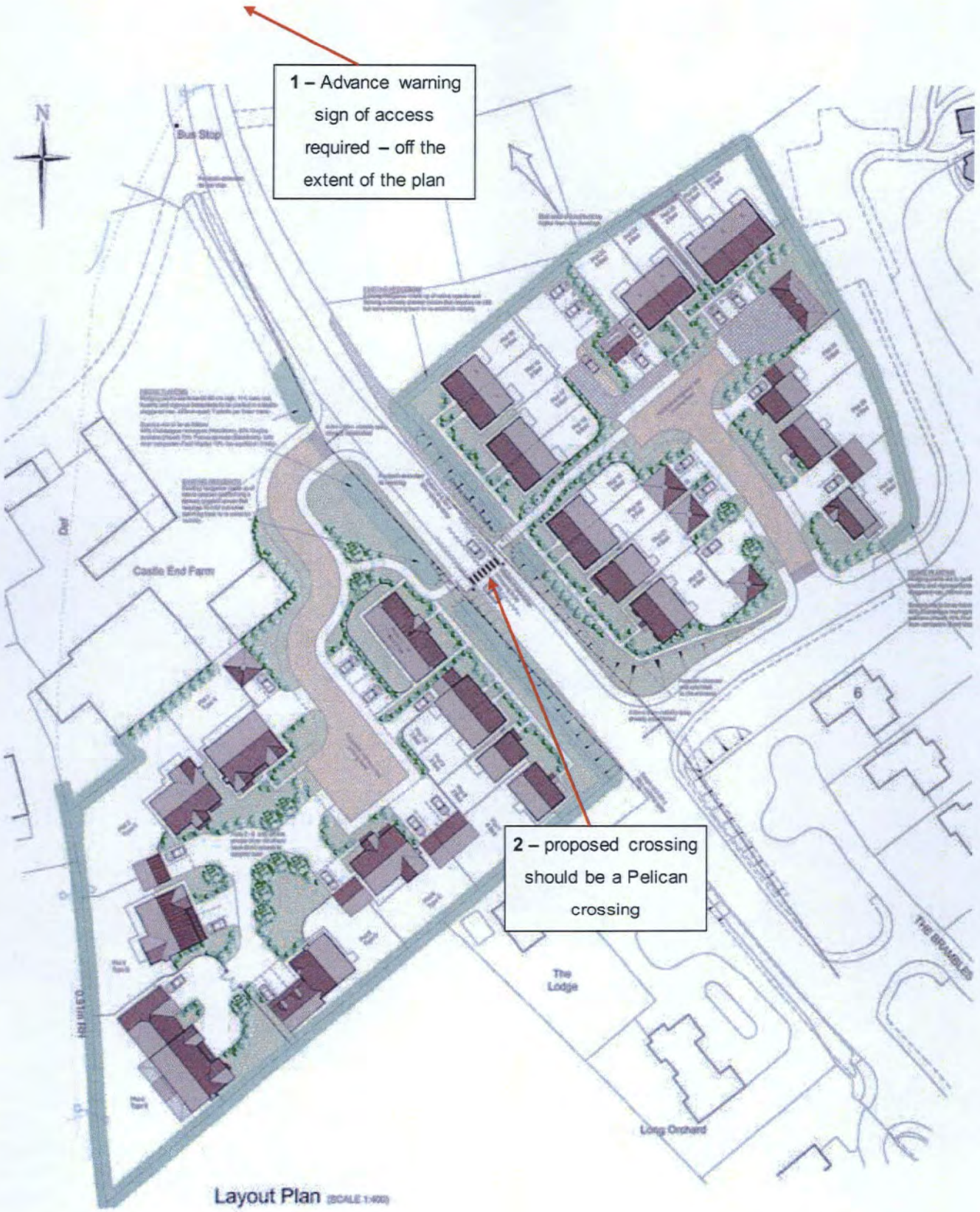
A1 Drawings & Documents

Drawings

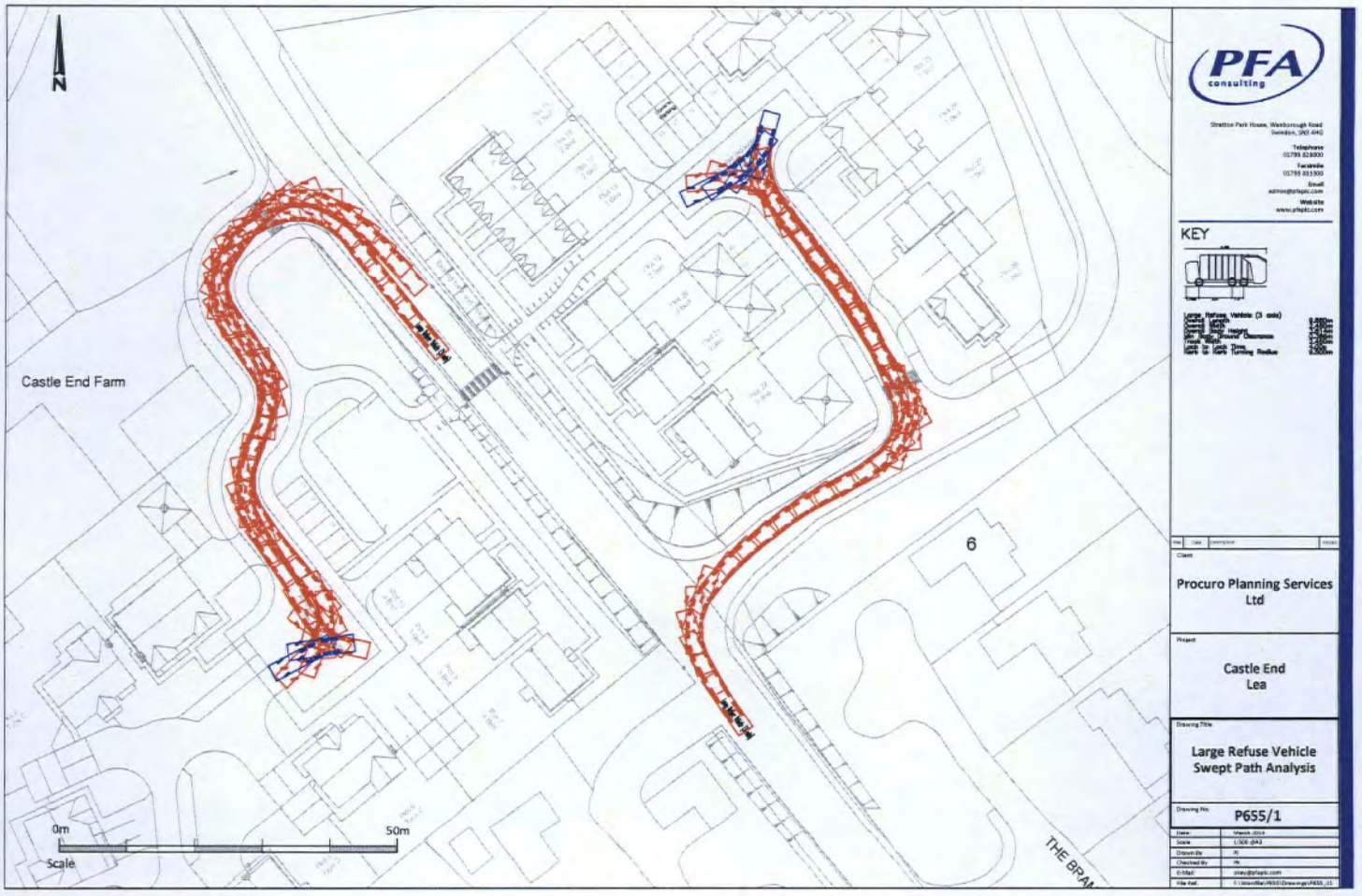
Drawing Number	Rev	Title
Lea 30	D	Proposed Dwellings at Castle End, Herefordshire

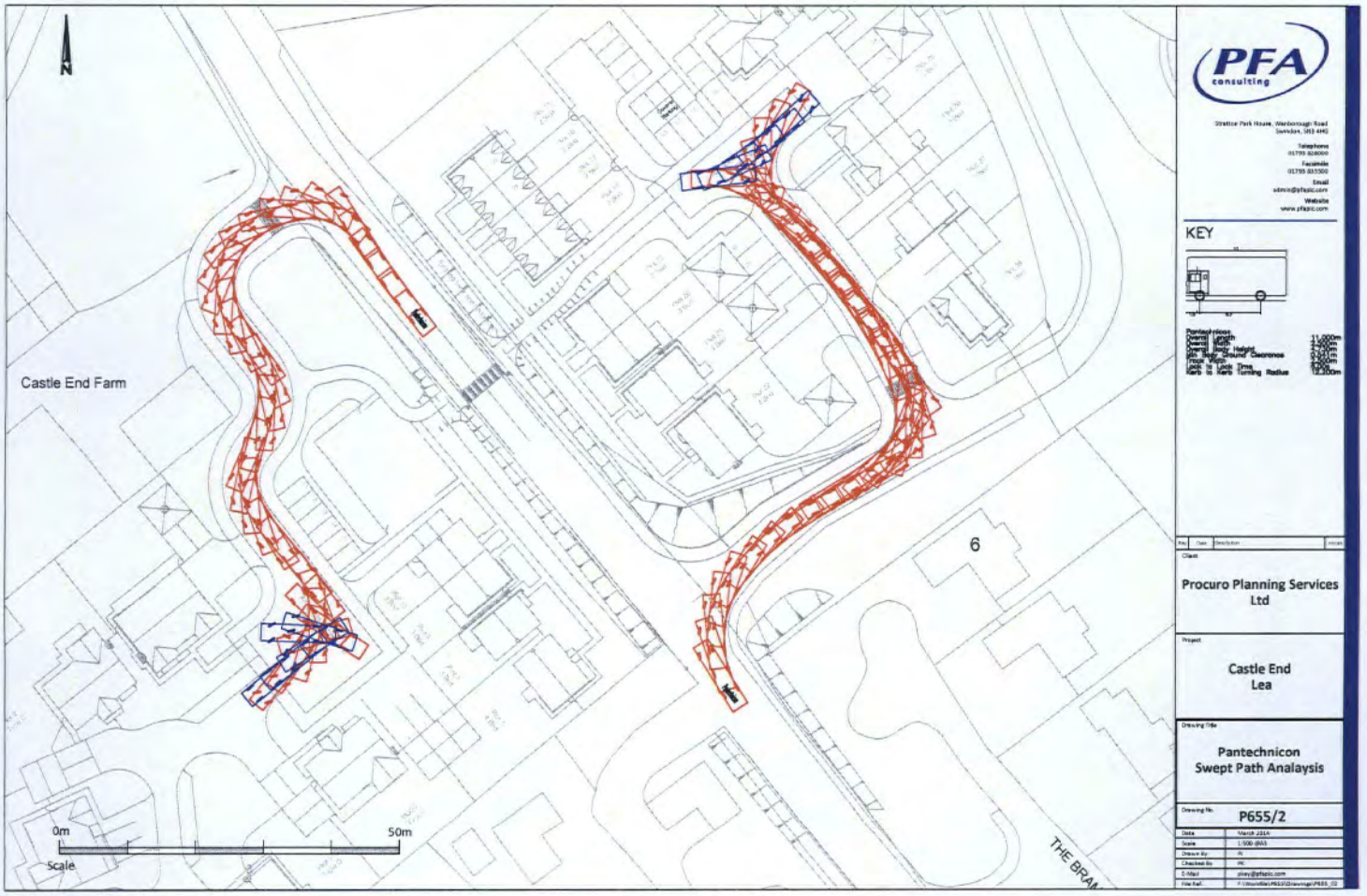
Appendix B

Problem Location Plan


1 – Advance warning sign of access required – off the extent of the plan
2 – proposed crossing should be a Pelican crossing
N
Bus Stop
Castle End Farm
The Lodge
Long Orchard
THE BRAMBLES
6
Layout Plan

Appendix F


N
Castle End Farm
6
THE BRAM
0m
50m
Scale
PFA consulting
Stratton Park House, Wanborough Road
Swindon, SN3 4AG
Telephone
01793 823000
Facsimile
01793 851500
Email
admin@pfaplc.com
Website
www.pfaplc.com
KEY
Large Refuse Vehicle (3 axle)
Length
Width
Lock to Lock Time
Kerb to Kerb Turning Radius
Client
Procuro Planning Services Ltd
Project
Castle End Lea
Drawing Title
Large Refuse Vehicle Swept Path Analysis
Drawing No.
P655/1
Date
March 2014
Scale
1:500 @A3
Drawn By
PK
Checked By
PK
E-Mail
pkay@pfaplc.com
File Ref.


N
Castle End Farm
6
THE BRAM
0m
50m
Scale
PFA consulting
Stratton Park House, Wanborough Road
Swindon, SN3 4AG
Telephone
01793 828000
Facsimile
01793 851500
Email
admin@pfaplc.com
Website
www.pfaplc.com
KEY
Procuro Planning Services Ltd
Castle End Lea
Pantechnicon Swept Path Analaysis
P655/2
March 2014
1:500 @A3

Appendix G

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	ES	EAST SUSSEX	1 days
06	**WEST MIDLANDS**		
	SH	SHROPSHIRE	1 days
09	**NORTH**		
	CB	CUMBRIA	1 days
11	**SCOTLAND**		
	EA	EAST AYRSHIRE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Filtering Stage 2 selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of dwellings
Actual Range: 10 to 40 (units:)
Range Selected by User: 6 to 50 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/05 to 07/10/13

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Thursday	1 days
Friday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	4

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	3
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Filtering Stage 3 selection:

Use Class:

C3	4 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	1 days
10,001 to 15,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

1.1 to 1.5	4 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	3 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

LIST OF SITES relevant to selection parameters

1	**CB-03-A-02**	**SEMI DETACHED**		**CUMBRIA**
	HAWKSHEAD AVENUE			
	WORKINGTON			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		40	
	Survey date: MONDAY		*20/06/05*	*Survey Type: MANUAL*
2	**EA-03-A-01**	**DETATCHED**		**EAST AYRSHIRE**
	TALISKER AVENUE			
	KILMARNOCK			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		39	
	Survey date: THURSDAY		*05/06/08*	*Survey Type: MANUAL*
3	**ES-03-A-02**	**PRIVATE HOUSING**		**EAST SUSSEX**
	SOUTH COAST ROAD			
	PEACEHAVEN			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		37	
	Survey date: FRIDAY		*18/11/11*	*Survey Type: MANUAL*
4	**SH-03-A-03**	**DETATCHED**		**SHROPSHIRE**
	SOMERBY DRIVE			
	BICTON HEATH			
	SHREWSBURY			
	Edge of Town			
	No Sub Category			
	Total Number of dwellings:		10	
	Survey date: FRIDAY		*26/06/09*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	32	0.135	**4**	**32**	**0.405**	4	32	0.540
08:00 - 09:00	4	32	0.135	4	32	0.405	4	32	0.540
09:00 - 10:00	4	32	0.127	4	32	0.175	4	32	0.302
10:00 - 11:00	4	32	0.167	4	32	0.198	4	32	0.365
11:00 - 12:00	4	32	0.190	4	32	0.167	4	32	0.357
12:00 - 13:00	4	32	0.175	4	32	0.143	4	32	0.318
13:00 - 14:00	4	32	0.206	4	32	0.206	4	32	0.412
14:00 - 15:00	4	32	0.103	4	32	0.119	4	32	0.222
15:00 - 16:00	4	32	0.278	4	32	0.151	4	32	0.429
16:00 - 17:00	4	32	0.389	4	32	0.238	4	32	0.627
17:00 - 18:00	**4**	**32**	**0.532**	4	32	0.230	**4**	**32**	**0.762**
18:00 - 19:00	4	32	0.246	4	32	0.175	4	32	0.421
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.683			2.612			5.295

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	10 - 40 (units:)
Survey date date range:	01/01/05 - 07/10/13
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	32	0.000	4	32	0.000	4	32	0.000
08:00 - 09:00	**4**	**32**	**0.008**	**4**	**32**	**0.008**	**4**	**32**	**0.016**
09:00 - 10:00	4	32	0.000	4	32	0.000	4	32	0.000
10:00 - 11:00	4	32	0.008	4	32	0.008	4	32	0.016
11:00 - 12:00	4	32	0.000	4	32	0.008	4	32	0.008
12:00 - 13:00	4	32	0.008	4	32	0.000	4	32	0.008
13:00 - 14:00	4	32	0.000	4	32	0.000	4	32	0.000
14:00 - 15:00	4	32	0.000	4	32	0.000	4	32	0.000
15:00 - 16:00	4	32	0.008	4	32	0.008	4	32	0.016
16:00 - 17:00	4	32	0.000	4	32	0.000	4	32	0.000
17:00 - 18:00	4	32	0.000	4	32	0.000	4	32	0.000
18:00 - 19:00	4	32	0.000	4	32	0.000	4	32	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.032			0.032			0.064

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	10 - 40 (units:)
Survey date date range:	01/01/05 - 07/10/13
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PSVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	32	0.000	4	32	0.000	4	32	0.000
08:00 - 09:00	4	32	0.000	4	32	0.000	4	32	0.000
09:00 - 10:00	4	32	0.000	4	32	0.000	4	32	0.000
10:00 - 11:00	4	32	0.000	4	32	0.000	4	32	0.000
11:00 - 12:00	4	32	0.000	4	32	0.000	4	32	0.000
12:00 - 13:00	4	32	0.000	4	32	0.000	4	32	0.000
13:00 - 14:00	4	32	0.000	4	32	0.000	4	32	0.000
14:00 - 15:00	4	32	0.000	4	32	0.000	4	32	0.000
15:00 - 16:00	4	32	0.000	4	32	0.000	4	32	0.000
16:00 - 17:00	4	32	0.000	4	32	0.000	4	32	0.000
17:00 - 18:00	4	32	0.000	4	32	0.000	4	32	0.000
18:00 - 19:00	4	32	0.000	4	32	0.000	4	32	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	10 - 40 (units:)
Survey date date range:	01/01/05 - 07/10/13
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	32	0.008	**4**	**32**	**0.024**	**4**	**32**	**0.032**
08:00 - 09:00	4	32	0.008	4	32	0.008	4	32	0.016
09:00 - 10:00	4	32	0.000	4	32	0.008	4	32	0.008
10:00 - 11:00	4	32	0.000	4	32	0.008	4	32	0.008
11:00 - 12:00	4	32	0.000	4	32	0.000	4	32	0.000
12:00 - 13:00	4	32	0.000	4	32	0.000	4	32	0.000
13:00 - 14:00	4	32	0.000	4	32	0.008	4	32	0.008
14:00 - 15:00	4	32	0.000	4	32	0.000	4	32	0.000
15:00 - 16:00	4	32	0.000	4	32	0.000	4	32	0.000
16:00 - 17:00	4	32	0.008	4	32	0.000	4	32	0.008
17:00 - 18:00	**4**	**32**	**0.032**	4	32	0.000	4	32	0.032
18:00 - 19:00	4	32	0.000	4	32	0.000	4	32	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.056			0.056			0.112

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	10 - 40 (units:)
Survey date date range:	01/01/05 - 07/10/13
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	32	0.135	4	32	0.452	4	32	0.587
08:00 - 09:00	4	32	0.143	**4**	**32**	**0.508**	4	32	0.651
09:00 - 10:00	4	32	0.167	4	32	0.222	4	32	0.389
10:00 - 11:00	4	32	0.222	4	32	0.278	4	32	0.500
11:00 - 12:00	4	32	0.230	4	32	0.230	4	32	0.460
12:00 - 13:00	4	32	0.214	4	32	0.175	4	32	0.389
13:00 - 14:00	4	32	0.294	4	32	0.325	4	32	0.619
14:00 - 15:00	4	32	0.143	4	32	0.135	4	32	0.278
15:00 - 16:00	4	32	0.444	4	32	0.262	4	32	0.706
16:00 - 17:00	4	32	0.476	4	32	0.357	4	32	0.833
17:00 - 18:00	**4**	**32**	**0.635**	4	32	0.357	**4**	**32**	**0.992**
18:00 - 19:00	4	32	0.349	4	32	0.246	4	32	0.595
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.452			3.547			6.999

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	10 - 40 (units:)
Survey date date range:	01/01/05 - 07/10/13
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PEDESTRIANS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	32	0.032	4	32	0.024	4	32	0.056
08:00 - 09:00	4	32	0.056	**4**	**32**	**0.238**	4	32	0.294
09:00 - 10:00	4	32	0.048	4	32	0.063	4	32	0.111
10:00 - 11:00	4	32	0.071	4	32	0.032	4	32	0.103
11:00 - 12:00	4	32	0.056	4	32	0.063	4	32	0.119
12:00 - 13:00	4	32	0.063	4	32	0.063	4	32	0.126
13:00 - 14:00	4	32	0.056	4	32	0.063	4	32	0.119
14:00 - 15:00	4	32	0.032	4	32	0.056	4	32	0.088
15:00 - 16:00	**4**	**32**	**0.214**	4	32	0.024	4	32	0.238
16:00 - 17:00	4	32	0.111	4	32	0.048	4	32	0.159
17:00 - 18:00	4	32	0.167	4	32	0.159	**4**	**32**	**0.326**
18:00 - 19:00	4	32	0.071	4	32	0.087	4	32	0.158
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.977			0.920			1.897

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	10 - 40 (units:)
Survey date date range:	01/01/05 - 07/10/13
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	32	0.000	**4**	**32**	**0.032**	**4**	**32**	**0.032**
08:00 - 09:00	4	32	0.000	4	32	0.024	4	32	0.024
09:00 - 10:00	4	32	0.000	4	32	0.008	4	32	0.008
10:00 - 11:00	4	32	0.000	4	32	0.000	4	32	0.000
11:00 - 12:00	4	32	0.000	4	32	0.000	4	32	0.000
12:00 - 13:00	4	32	0.000	4	32	0.008	4	32	0.008
13:00 - 14:00	4	32	0.000	4	32	0.000	4	32	0.000
14:00 - 15:00	4	32	0.008	4	32	0.000	4	32	0.008
15:00 - 16:00	4	32	0.008	4	32	0.008	4	32	0.016
16:00 - 17:00	**4**	**32**	**0.016**	4	32	0.008	4	32	0.024
17:00 - 18:00	4	32	0.016	4	32	0.000	4	32	0.016
18:00 - 19:00	4	32	0.016	4	32	0.000	4	32	0.016
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.064			0.088			0.152

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	10 - 40 (units:)
Survey date date range:	01/01/05 - 07/10/13
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	32	0.175	4	32	0.532	4	32	0.707
08:00 - 09:00	4	32	0.206	**4**	**32**	**0.778**	4	32	0.984
09:00 - 10:00	4	32	0.214	4	32	0.302	4	32	0.516
10:00 - 11:00	4	32	0.294	4	32	0.317	4	32	0.611
11:00 - 12:00	4	32	0.286	4	32	0.294	4	32	0.580
12:00 - 13:00	4	32	0.278	4	32	0.246	4	32	0.524
13:00 - 14:00	4	32	0.349	4	32	0.397	4	32	0.746
14:00 - 15:00	4	32	0.183	4	32	0.190	4	32	0.373
15:00 - 16:00	4	32	0.667	4	32	0.294	4	32	0.961
16:00 - 17:00	4	32	0.611	4	32	0.413	4	32	1.024
17:00 - 18:00	**4**	**32**	**0.849**	4	32	0.516	**4**	**32**	**1.365**
18:00 - 19:00	4	32	0.437	4	32	0.333	4	32	0.770
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.549			4.612			9.161

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	10 - 40 (units:)
Survey date date range:	01/01/05 - 07/10/13
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Appendix H

Sum of Car Driver			
Workplace LA	Workplace Ward	Workplace	Total
Bristol, City of	Whitchurch Park	00HBPY0008	3
	Whitchurch Park Total		3
Bristol, City of Total			3
Forest of Dean	Awre	23UDGG0004	3
	Awre Total		3
	Churcham and Huntley	23UDGN0002	3
	Churcham and Huntley Total		3
	Cinderford West	23UDGQ0011	3
	Cinderford West Total		3
	Coleford East	23UDGS0005	3
	Coleford East Total		3
	Lydbrook and Ruardean	23UDGX0017	3
	Lydbrook and Ruardean Total		3
	Mitcheldean and Drybrook	23UDHA0002	3
		23UDHA0005	3
		23UDHA0008	4
		23UDHA0010	3
	Mitcheldean and Drybrook Total		13
	Newent Central	23UDHB0008	3
	Newent Central Total		3
	Oxenhall and Newent North East	23UDHE0004	3
	Oxenhall and Newent North East Total		3
	Pillowell	23UDHF0005	3
	Pillowell Total		3
Forest of Dean Total			37
Gloucester	Kingsholm and Wotton	23UEFY0009	0
	Kingsholm and Wotton Total		0
	Westgate	23UEGG0005	3
		23UEGG0008	4
		23UEGG0011	3
	Westgate Total		10
Gloucester Total			10
Herefordshire, County of	Burghill, Holmer and Lyde	00GAPE0002	0
	Burghill, Holmer and Lyde Total		0
	Hollington	00GAPQ0005	3
	Hollington Total		3
	Leominster South	00GAPX0002	0
	Leominster South Total		0
	Llangarron	00GAPY0009	3
	Llangarron Total		3
	Penyard	00GAQC0004	12
		00GAQC0008	3
		00GAQC0010	0
	Penyard Total		15
	Pontrilas	00GAQD0004	3
	Pontrilas Total		3
	Ross-on-Wye East	00GAQE0005	3
		00GAQE0011	8
		00GAQE0012	3
		00GAQE0016	7
	Ross-on-Wye East Total		21
	Ross-on-Wye West	00GAQF0008	3
		00GAQF0016	3
		00GAQF0017	3
	Ross-on-Wye West Total		9
	St Martins and Hinton	00GAQG0008	3
		00GAQG0010	3
	St Martins and Hinton Total		6
	Three Elms	00GAQL0026	3
	Three Elms Total		3
Herefordshire, County of Total			63
Reading	Whitley	00MCNH0005	3
	Whitley Total		3
Reading Total			3
Swindon	Blunsdon	00HXMZ0010	3
	Blunsdon Total		3
Swindon Total			3
Grand Total			119

Distribution From Site

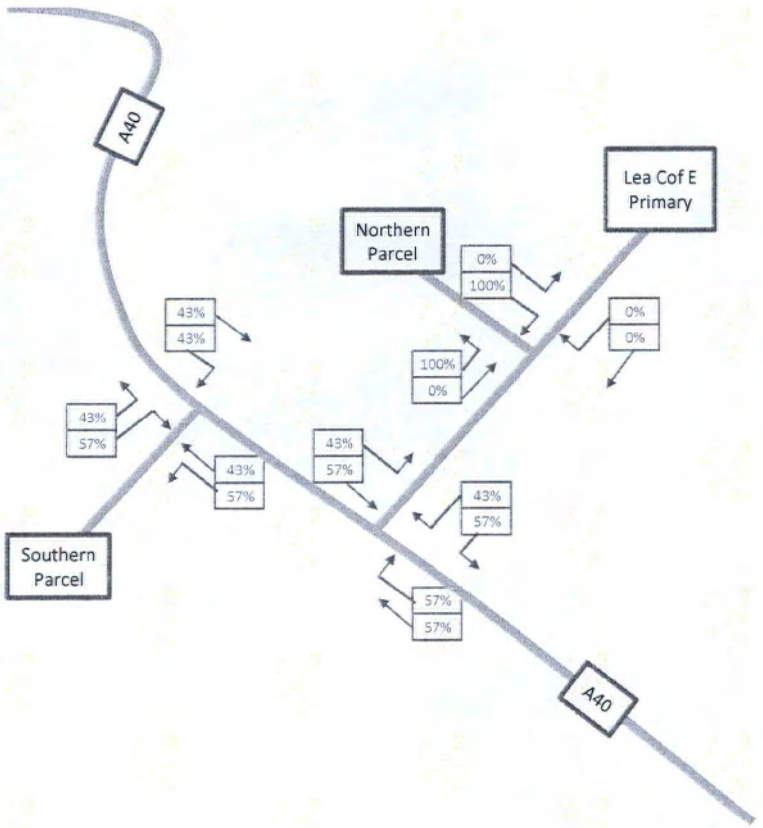
Local Trips	12	(Assumed to be A40 East)
A40 East	68	57.1%
A40 West	51	42.9%
Total	119	

Appendix I

P655 Castle End, Lea, Herefordshire
Trip Distribution

Northern Parcel
xx%

Southern Parcel
xx%



April 2014
F:\Workfile\P655\Traffic Spreadsheet\P655 Traffic Spreadsheet

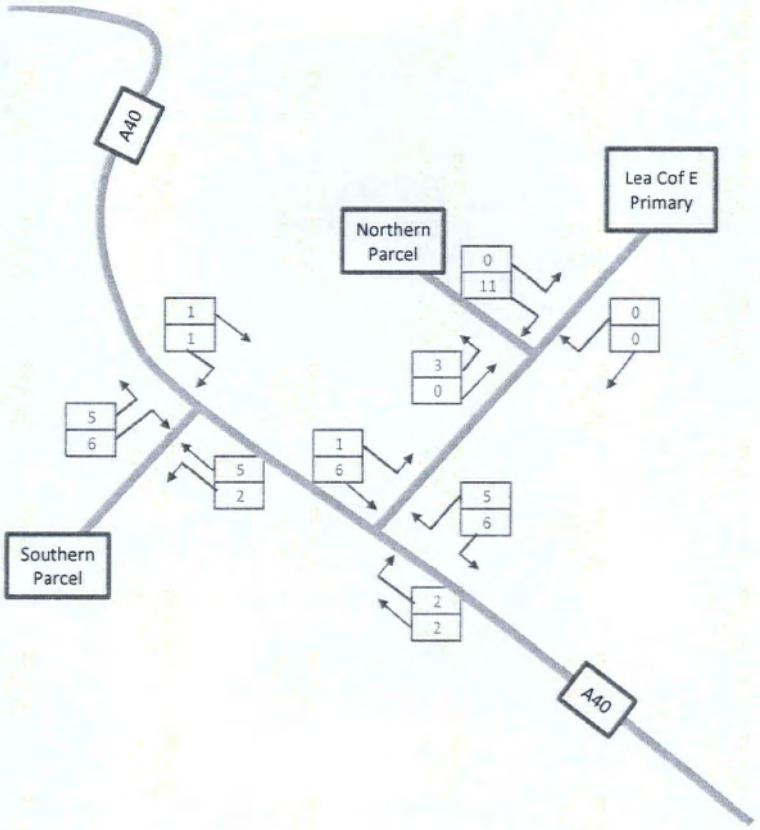
P655 Castle End, Lea, Herefordshire
AM Pk Trips
08:00-09:00

Northern Parcel

Arrivals	3
Departures	11

Southern Parcel

Arrivals	3
Departures	11



April 2014
F:\Workfile\P655\Traffic Spreadsheet\P655 Traffic Spreadsheet

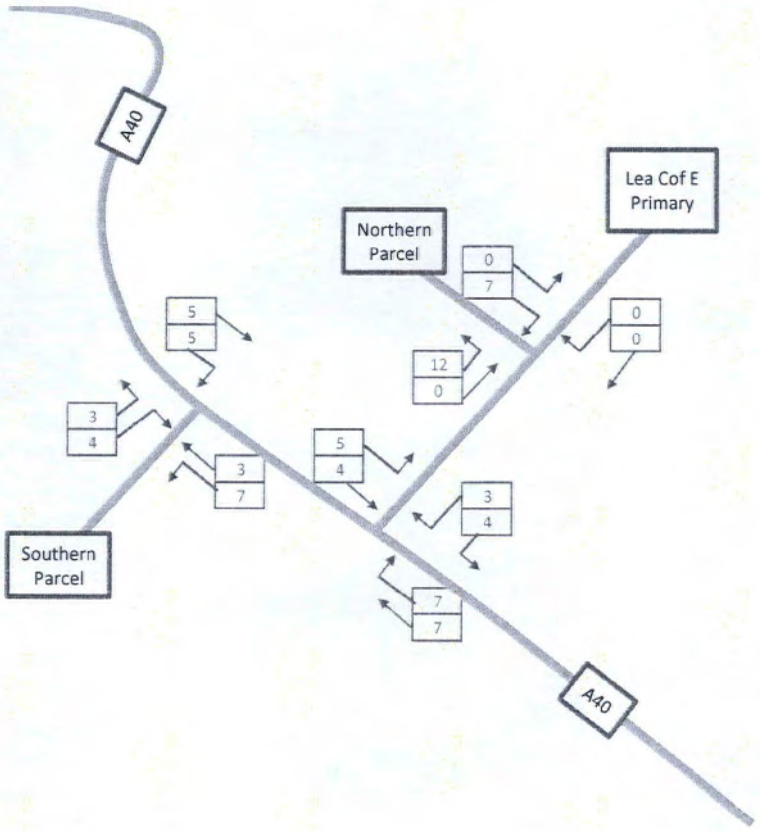
P655 Castle End, Lea, Herefordshire
PM Pk Trips
17:00-18:00

Northern Parcel

Arrivals	12
Departures	7

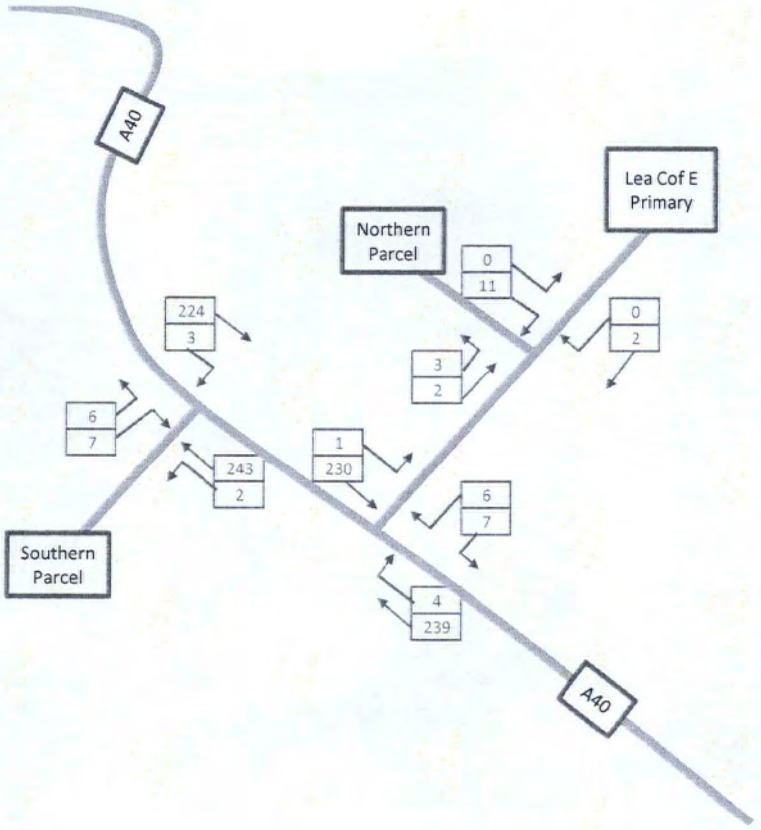
Southern Parcel

Arrivals	12
Departures	7



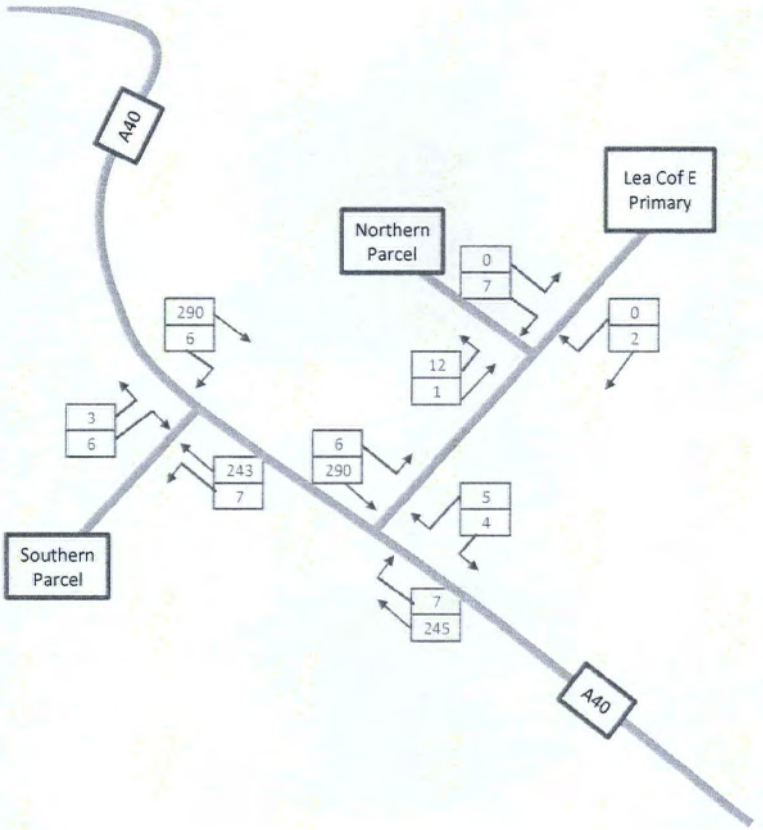
April 2014
F:\Workfile\P655\Traffic Spreadsheet\P655 Traffic Spreadsheet

P655 Castle End, Lea, Herefordshire
2014 AM Pk Hour + Development
08:00-09:00



April 2014
F:\Workfile\P655\Traffic Spreadsheet\P655 Traffic Spreadsheet

P655 Castle End, Lea, Herefordshire
2014 PM Pk Hour + Development
17:00-18:00



April 2014
F:\Workfile\P655\Traffic Spreadsheet\P655 Traffic Spreadsheet

APPENDIX D

85th PERCENTILE SPEEDS AND VISIBILITY CALULATIONS

carl TONKS consulting

Calculation of 85th %ile Speeds (Weighted by flow)

Site Name: Lea
Road Name: A40

Southbound

Period	85th %ile Speeds (mph)					Traffic Flow					Speed x Flow				
	Fri	Mon	Tue	Wed	Thu	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed
	05/07/13	08/07/13	09/07/13	10/07/13	11/07/13	05/07/13	08/07/13	09/07/13	10/07/13	11/07/13	05/07/13	08/07/13	09/07/13	10/07/13	11/07/13
08 - 09											0	0	0	0	0
10 - 11	34.0	35.0	35.0	36.0	35.0	248	230	210	214	240	8432	8050	7350	7704	8400
11 - 12	35.0	35.0	38.0	35.0	35.0	280	241	205	237	257	9800	8435	7790	8295	8995
14 - 15	35.0	34.0	38.0	38.0	38.0	288	248	275	249	253	10080	8432	10450	9462	9614
15 - 16	35.0	37.0	38.0	34.0	38.0	312	256	280	299	299	10920	9472	10640	10166	11362
17 - 18											0	0	0	0	0
24hr											0	0	0	0	0

AM Peak Speed Weighted by Flow = **#DIV/0!** mph = **#DIV/0!** kph
Interpeak Speed Weighted by Flow = **35.9** mph = **57.8** kph
PM Peak Speed Weighted by Flow = **#DIV/0!** mph = **#DIV/0!** kph
24hr Speed Weighted by Flow = **#DIV/0!** mph = **#DIV/0!** kph

Northbound

Period	85th %ile Speeds (mph)					Traffic Flow					Speed x Flow				
	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu
	05/07/13	08/07/13	09/07/13	10/07/13	11/07/13	05/07/13	08/07/13	09/07/13	10/07/13	11/07/13	05/07/13	08/07/13	09/07/13	10/07/13	11/07/13
08 - 09											0	0	0	0	0
10 - 11	37.0	36.0	37.0	36.0	36.0	274	237	242	261	284	10138	8532	8954	9396	10224
11 - 12	37.0	36.0	36.0	36.0	35.0	285	250	250	238	252	10545	9000	9000	8568	8820
14 - 15	37.0	37.0	37.0	37.0	37.0	314	262	252	228	271	11618	9694	9324	8436	10027
15 - 16	38.0	36.0	37.0	37.0	37.0	303	256	266	283	286	11514	9216	9842	10471	10582
17 - 18											0	0	0	0	0
24hr											0	0	0	0	0

AM Peak Speed Weighted by Flow = **#DIV/0!** mph = **#DIV/0!** kph
Interpeak Speed Weighted by Flow = **36.6** mph = **58.9** kph
PM Peak Speed Weighted by Flow = **#DIV/0!** mph = **#DIV/0!** kph
24hr Speed Weighted by Flow = **#DIV/0!** mph = **#DIV/0!** kph

carl TONKS consulting

Calculation of Required Visbility Splay for Measured Speed (85th %ile)

Site Name: Lea
Road Name: A40

MfS2 SSD equation: SSD = vt +(v*v)/2(d+0.1a)

t =	1.5	s
d =	3.675	m/s/s
a = gradient		

Southbound Traffic

Gradient =	-2.5	%		
Measured Speed =	57.8	kph =	16.1	mps
Associated SSD =	61.7	m		
Adjusted for bonnet =	64.1	m		

Northbound Traffic

Gradient =	2.5	%		
Measured Speed =	58.9	kph =	16.4	mps
Associated SSD =	58.6	m		
Adjusted for bonnet =	61.0	m		

APPENDIX E

cTc TRANSPORT ASSESSMENT (2016)