Robert West

Rail
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Appendix E – 2014 Capacity Assessment, The Green / Heath Road / Colne Road (LINSIG)

5217/002/R01

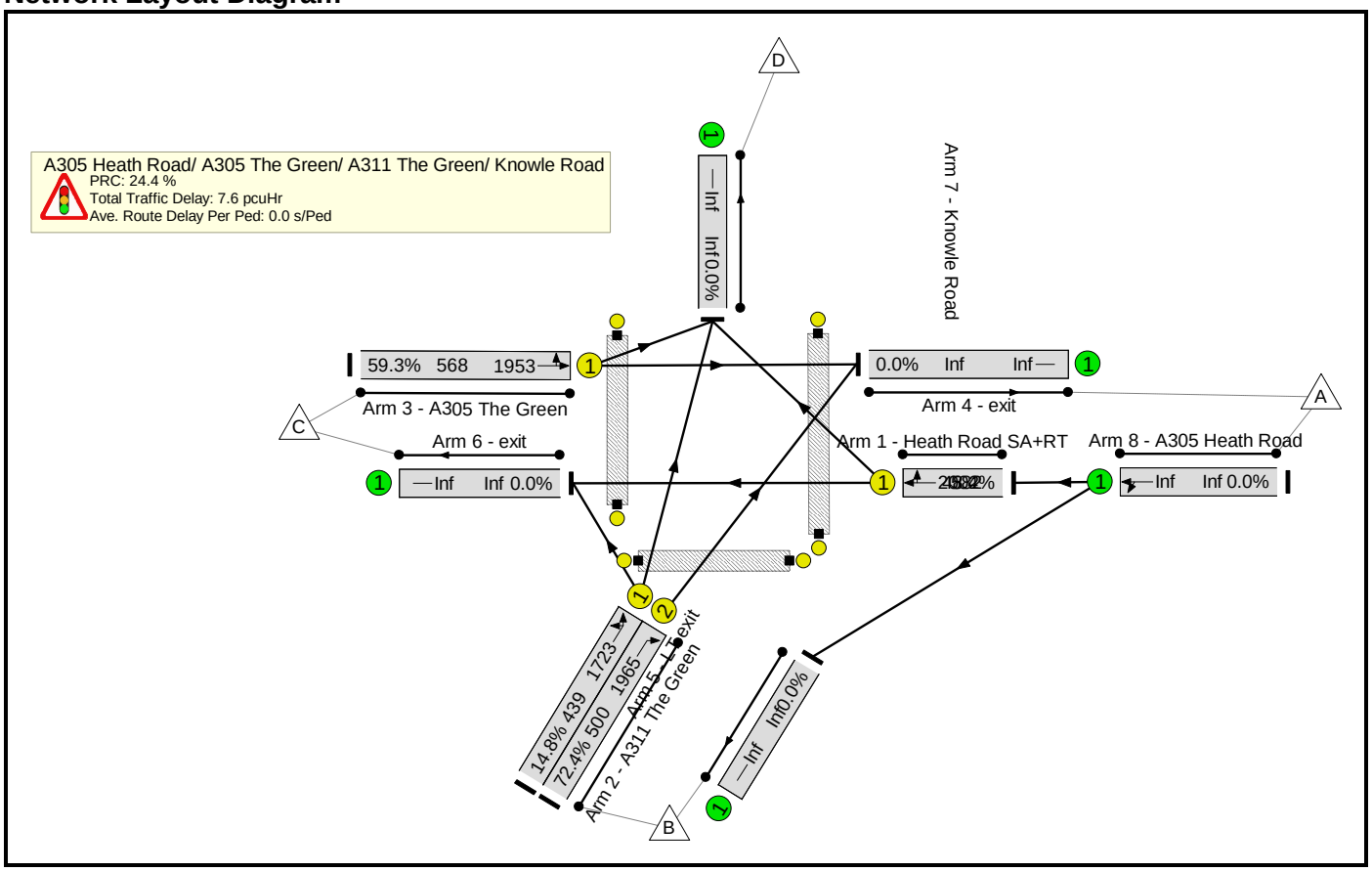
Basic Results Summary

User and Project Details

Project:	**Heathgate House**
Title:	**Heath Road_The Green_Knowle Road Junction Assessment**
Location:	
File name:	Heath Road_The Green_Knowle Road Jnc.lsg3x
Author:	
Company:	Robert West
Address:	
Notes:	

Scenario 1: 'AM 2014 Base ' (FG1: 'AM 2014 Base Year', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

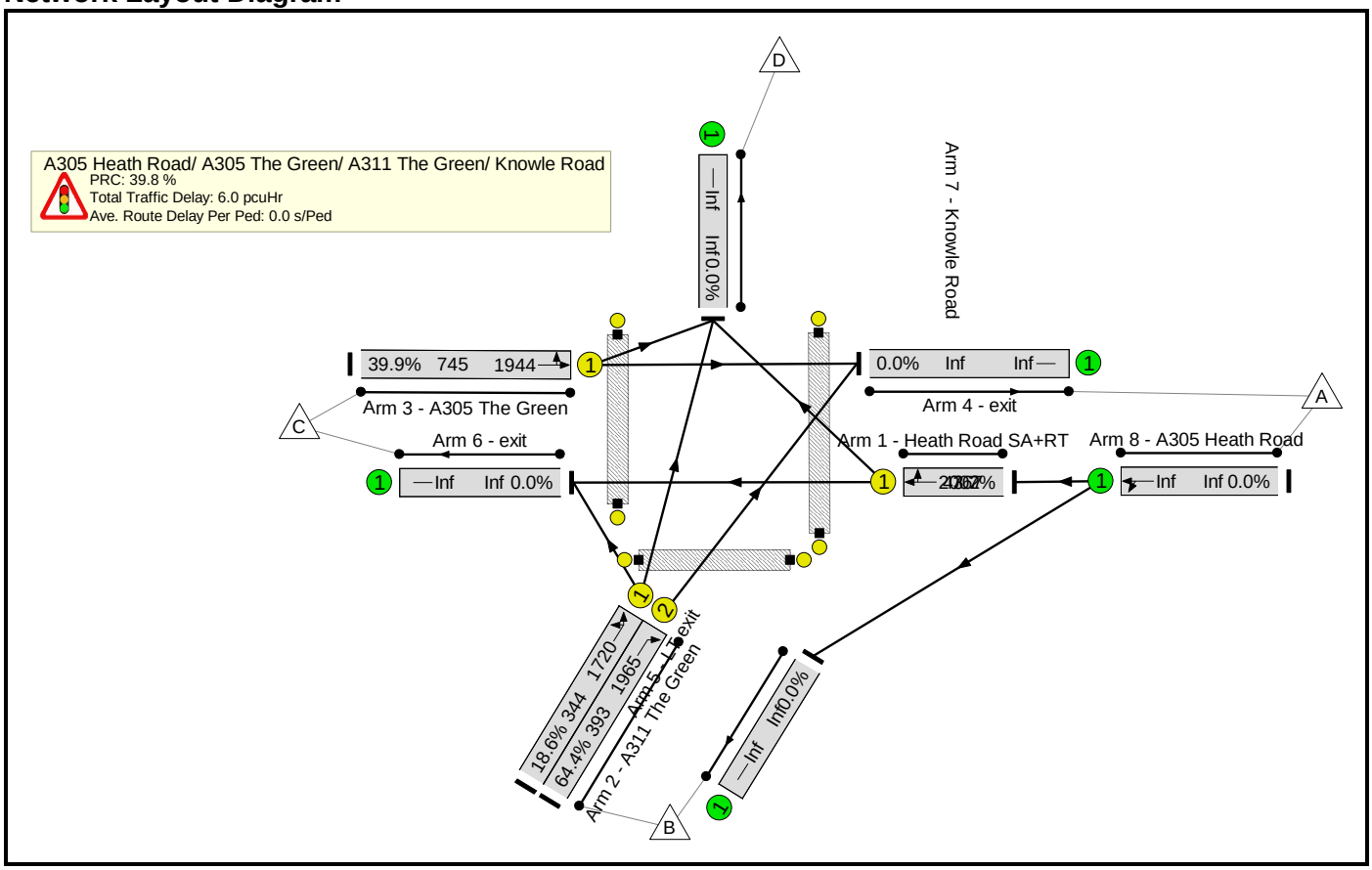
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Heath Road_The Green_Knowle Road Junction Assessment	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.4%**	**0**	**0**	**0**	**7.6**	**-**	**-**
A305 Heath Road/ A305 The Green/ A311 The Green/ Knowle Road	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.4%**	**0**	**0**	**0**	**7.6**	**-**	**-**
1/1	Heath Road SA+RT Ahead Right	U	B		1	15	-	282	2002	582	48.4%	-	-	-	1.7	22.1	4.0
2/1	A311 The Green Left Ahead	U	C		1	13	-	65	1723	439	14.8%	-	-	-	0.4	20.8	0.8
2/2	A311 The Green Right	U	C		1	13	-	362	1965	500	72.4%	-	-	-	3.2	31.5	6.3
3/1	A305 The Green Ahead Left	U	A		1	15	-	337	1953	568	59.3%	-	-	-	2.3	24.5	5.1
Ped Link: P1	Heath Road	-	F		1	5	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	A311 The Green	-	E		1	13	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	A305 The Green	-	D		1	5	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 24.4 Total Delay for Signalled Lanes (pcuHr): 7.56 Cycle Time (s): 55
PRC Over All Lanes (%): 24.4 Total Delay Over All Lanes(pcuHr): 7.56

Basic Results Summary

Scenario 5: 'SCH 2014 Base ' (FG5: 'SCH 2014 Base Year', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Heath Road_The Green_Knowle Road Junction Assessment	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**64.4%**	**0**	**0**	**0**	**6.0**	**-**	**-**
A305 Heath Road/ A305 The Green/ A311 The Green/ Knowle Road	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**64.4%**	**0**	**0**	**0**	**6.0**	**-**	**-**
1/1	Heath Road SA+RT Ahead Right	U	B		1	22	-	335	2002	767	43.7%	-	-	-	1.7	17.9	4.5
2/1	A311 The Green Left Ahead	U	C		1	11	-	64	1720	344	18.6%	-	-	-	0.5	26.4	1.0
2/2	A311 The Green Right	U	C		1	11	-	253	1965	393	64.4%	-	-	-	2.4	34.7	4.8
3/1	A305 The Green Ahead Left	U	A		1	22	-	297	1944	745	39.9%	-	-	-	1.4	17.5	3.9
Ped Link: P1	Heath Road	-	F		1	5	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	A311 The Green	-	E		1	13	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	A305 The Green	-	D		1	5	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 39.8 Total Delay for Signalled Lanes (pcuHr): 6.02 Cycle Time (s): 60

PRC Over All Lanes (%): 39.8 Total Delay Over All Lanes(pcuHr): 6.02

Robert West

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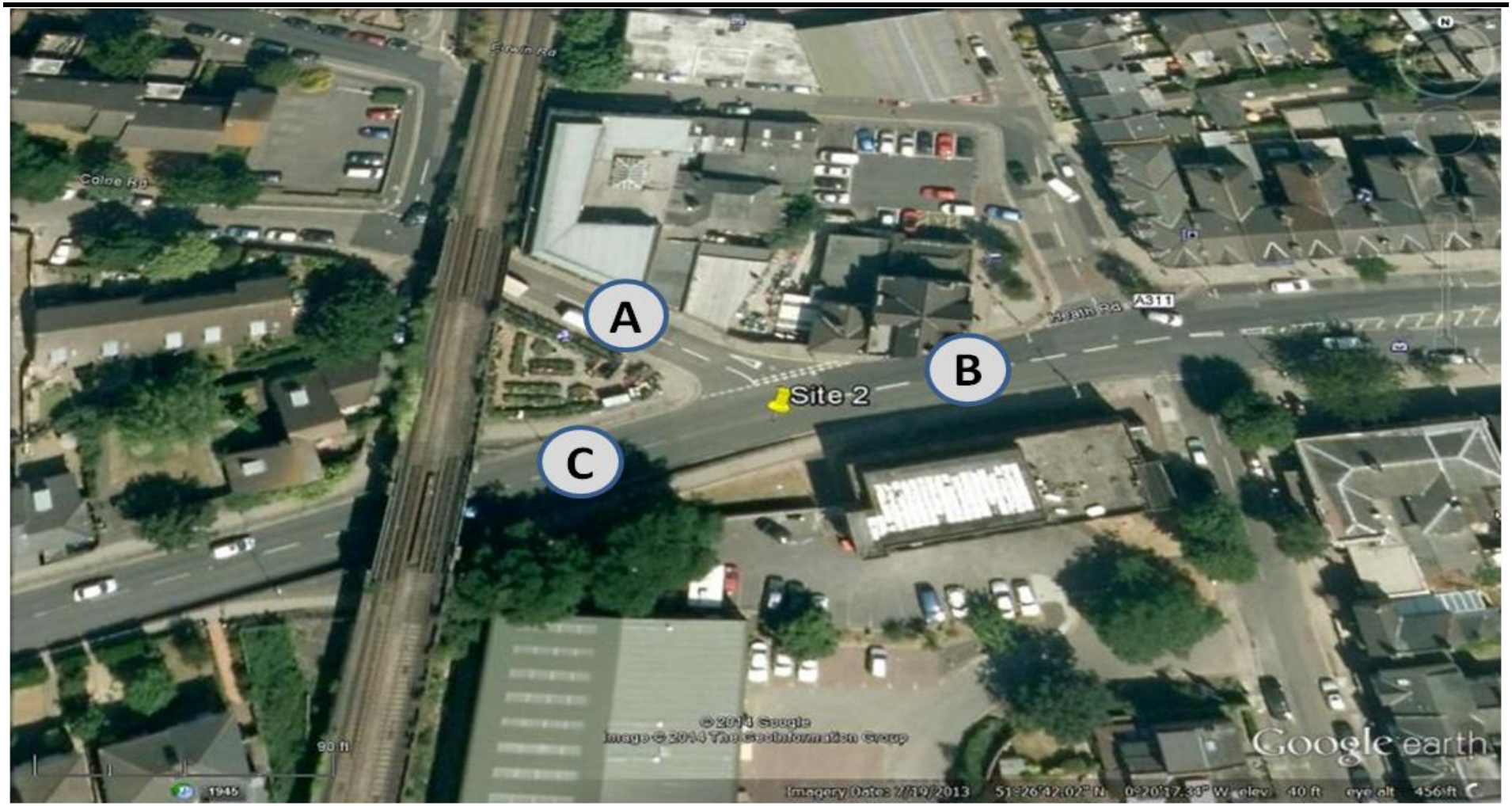
Appendix F – Heath Road / Colne Road, Junction Counts

5217/002/R01

Project Number: TSP11888
Project Name: Heathgate House Twickenham
Survey Type: Manual Classified Traffic Count
Site No: 2
Location: Colne Road / Heath Road



Project Number: **TSP11888**
Project Name: **Heathgate House Twickenham**
Survey Type: **Manual Classified Traffic Count**
Site No: **2**
Location: **Colne Road / Heath Road**
Date: **24 September 2014, Wednesday**

traffic survey partners

	1	1	1	1.5	2.3	2	2	0.4	0.2													
Time	**A - A**											**A - B**										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	**TOTAL**	**TOTAL (PCU)**	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	**TOTAL**	**TOTAL (PCU)**
07:30	0	0	0	0	0	0	0	0	0	0	0	13	0	0	1	0	0	0	2	2	18	15.7
07:45	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	1	2	19	16.8
08:00	0	0	0	0	0	0	0	0	0	0	0	14	0	1	0	0	0	0	0	5	20	16
08:15	0	0	0	0	0	0	0	0	0	0	0	36	1	3	0	0	0	1	1	1	43	42.6
H/Total	0	0	0	0	0	0	0	0	0	0	0	79	1	4	1	0	0	1	4	10	100	91.1
08:30	0	0	0	0	0	0	0	0	0	0	0	14	0	3	0	0	0	0	0	1	18	17.2
08:45	0	0	0	0	0	0	0	0	0	0	0	18	0	1	0	0	0	0	1	4	24	20.2
09:00	0	0	0	0	0	0	0	0	0	0	0	13	0	3	0	0	0	0	3	3	22	17.8
09:15	0	0	0	0	0	0	0	0	0	0	0	9	0	1	2	0	0	0	0	3	15	13.6
H/Total	0	0	0	0	0	0	0	0	0	0	0	54	0	8	2	0	0	0	4	11	79	68.8
Total	0	0	0	0	0	0	0	0	0	0	0	133	1	12	3	0	0	1	8	21	179	159.9

Time	**A - A**											**A - B**										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	**TOTAL**	**TOTAL (PCU)**	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	**TOTAL**	**TOTAL (PCU)**
14:30	0	0	0	0	0	0	0	0	0	0	0	10	0	2	0	0	0	0	1	2	15	12.8
14:45	0	0	0	0	0	0	0	0	0	0	0	15	0	3	0	0	0	0	0	0	18	18
15:00	0	0	0	0	0	0	0	0	0	0	0	15	0	3	1	0	0	0	1	3	23	20.5
15:15	0	0	0	0	0	0	0	0	0	0	0	17	0	4	0	0	0	0	1	0	22	21.4
H/Total	0	0	0	0	0	0	0	0	0	0	0	57	0	12	1	0	0	0	3	5	78	72.7
15:30	0	0	0	0	0	0	0	0	0	0	0	21	0	4	1	0	0	0	1	1	28	27.1
15:45	0	0	0	0	0	0	0	0	0	0	0	20	0	3	0	0	0	0	0	0	23	23
16:00	0	0	0	0	0	0	0	0	0	0	0	15	0	3	0	0	0	0	0	2	20	18.4
16:15	0	0	0	0	0	0	0	0	0	0	0	14	0	4	1	0	0	0	0	1	20	19.7
H/Total	0	0	0	0	0	0	0	0	0	0	0	70	0	14	2	0	0	0	1	4	91	88.2
Total	0	0	0	0	0	0	0	0	0	0	0	127	0	26	3	0	0	0	4	9	169	160.9

Project Number: **TSP11888**
Project Name: **Heathgate House Twickenham**
Survey Type: **Manual Classified Traffic Count**
Site No: **2**
Location: **Colne Road / Heath Road**
Date: **24 September 2014, Wednesday**

traffic survey partners

Time	A - C											B - A										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)
07:30	2	0	0	1	0	0	0	0	0	3	3.5	6	0	0	0	0	0	0	0	0	6	6
07:45	2	0	0	0	0	0	0	0	1	3	2.2	9	0	1	1	0	0	0	0	0	11	11.5
08:00	12	0	0	0	0	0	0	0	0	12	12	7	0	0	1	0	0	0	1	1	10	9.1
08:15	7	0	2	1	0	0	0	0	0	10	10.5	2	0	1	2	0	0	0	0	1	6	6.2
H/Total	23	0	2	2	0	0	0	0	1	28	28.2	24	0	2	4	0	0	0	1	2	33	32.8
08:30	4	0	0	1	0	0	0	0	0	5	5.5	10	0	1	0	0	0	0	0	1	12	11.2
08:45	7	0	0	1	0	0	0	0	0	8	8.5	7	0	0	0	0	0	0	0	1	8	7.2
09:00	9	0	0	0	0	0	0	1	1	11	9.6	8	0	1	1	0	0	0	0	0	10	10.5
09:15	5	0	5	0	0	0	0	0	0	10	10	7	0	2	0	0	0	0	0	0	9	9
H/Total	25	0	5	2	0	0	0	1	1	34	33.6	32	0	4	1	0	0	0	0	2	39	37.9
Total	48	0	7	4	0	0	0	1	2	62	61.8	56	0	6	5	0	0	0	1	4	72	70.7

Time	A - C											B - A										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)
14:30	9	0	1	0	0	0	0	0	0	10	10	9	0	1	0	0	0	0	1	0	11	10.4
14:45	9	0	1	0	0	0	0	0	1	11	10.2	7	0	1	0	0	0	0	0	0	8	8
15:00	8	0	4	1	0	0	0	0	0	13	13.5	7	0	4	0	0	0	0	1	0	12	11.4
15:15	6	0	4	3	0	0	0	0	0	13	14.5	6	0	0	1	0	0	0	0	0	7	7.5
H/Total	32	0	10	4	0	0	0	0	1	47	48.2	29	0	6	1	0	0	0	2	0	38	37.3
15:30	2	0	1	2	0	0	0	0	0	5	6	14	0	4	0	0	0	0	0	1	19	18.2
15:45	6	0	1	0	0	0	0	1	0	8	7.4	7	0	3	1	0	0	0	2	1	14	12.5
16:00	10	0	1	1	0	0	0	0	0	12	12.5	6	0	1	0	0	0	0	0	0	7	7
16:15	6	0	1	0	0	0	1	0	0	8	9	9	0	3	1	0	0	0	3	0	16	14.7
H/Total	24	0	4	3	0	0	1	1	0	33	34.9	36	0	11	2	0	0	0	5	2	56	52.4
Total	56	0	14	7	0	0	1	1	1	80	83.1	65	0	17	3	0	0	0	7	2	94	89.7

Project Number: **TSP11888**
Project Name: **Heathgate House Twickenham**
Survey Type: **Manual Classified Traffic Count**
Site No: **2**
Location: **Colne Road / Heath Road**
Date: **24 September 2014, Wednesday**

traffic survey partners

Time	B - B											B - C										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)
07:30	0	0	0	0	0	0	0	0	0	0	0	71	0	7	0	0	8	0	1	8	95	96
07:45	0	0	0	0	0	0	0	0	0	0	0	77	0	11	3	0	12	0	1	3	107	117.5
08:00	0	0	0	0	0	0	0	0	0	0	0	109	0	12	2	0	7	1	0	9	140	141.8
08:15	0	0	0	0	0	0	0	0	0	0	0	100	0	6	2	0	8	0	3	6	125	127.4
H/Total	0	0	0	0	0	0	0	0	0	0	0	357	0	36	7	0	35	1	5	26	467	482.7
08:30	0	0	0	0	0	0	0	0	0	0	0	76	0	12	0	0	10	0	2	7	107	110.2
08:45	0	0	0	0	0	0	0	0	0	0	0	78	0	7	1	0	13	1	3	8	111	117.3
09:00	0	0	0	0	0	0	0	0	0	0	0	71	0	10	2	0	8	0	0	4	95	100.8
09:15	0	0	0	0	0	0	0	0	0	0	0	74	0	9	1	0	9	0	2	9	104	105.1
H/Total	0	0	0	0	0	0	0	0	0	0	0	299	0	38	4	0	40	1	7	28	417	433.4
Total	0	0	0	0	0	0	0	0	0	0	0	656	0	74	11	0	75	2	12	54	884	916.1

Time	B - B											B - C										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)
14:30	0	0	0	0	0	0	0	0	0	0	0	109	1	16	0	0	12	0	5	9	152	153.8
14:45	0	0	0	0	0	0	0	0	0	0	0	105	0	19	3	0	8	0	6	8	149	148.5
15:00	0	0	0	0	0	0	0	0	0	0	0	80	0	18	1	0	10	0	2	18	129	123.9
15:15	0	0	0	0	0	0	0	0	0	0	0	86	1	17	0	0	11	0	3	10	128	129.2
H/Total	0	0	0	0	0	0	0	0	0	0	0	380	2	70	4	0	41	0	16	45	558	555.4
15:30	0	0	0	0	0	0	0	0	0	0	0	113	2	11	1	1	6	0	3	6	143	144.2
15:45	0	0	0	0	0	0	0	0	0	0	0	101	0	12	2	0	10	0	2	11	138	139
16:00	0	0	0	0	0	0	0	0	0	0	0	115	0	13	1	0	9	0	2	5	145	149.3
16:15	0	0	0	0	0	0	0	0	0	0	0	112	1	16	0	0	7	0	1	11	148	145.6
H/Total	0	0	0	0	0	0	0	0	0	0	0	441	3	52	4	1	32	0	8	33	574	578.1
Total	0	0	0	0	0	0	0	0	0	0	0	821	5	122	8	1	73	0	24	78	1132	1133.5

Project Number: **TSP11888**
Project Name: **Heathgate House Twickenham**
Survey Type: **Manual Classified Traffic Count**
Site No: **2**
Location: **Colne Road / Heath Road**
Date: **24 September 2014, Wednesday**

traffic survey partners

Time	C - A											C - B										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)
07:30	3	0	0	0	0	0	0	1	0	4	3.4	124	0	40	2	1	14	1	4	27	213	206.3
07:45	5	0	1	0	0	0	0	0	0	6	6	105	0	24	2	1	6	0	12	30	180	157.1
08:00	3	0	0	0	0	0	0	0	0	3	3	121	0	21	1	0	9	0	9	24	185	169.9
08:15	0	0	2	0	0	0	0	1	0	3	2.4	127	0	19	2	0	4	1	6	41	200	169.6
H/Total	11	0	3	0	0	0	0	2	0	16	14.8	477	0	104	7	2	33	2	31	122	778	702.9
08:30	3	0	1	1	0	0	0	0	0	5	5.5	123	0	14	2	0	9	0	2	29	179	164.6
08:45	2	0	3	3	0	0	0	0	1	9	9.7	122	1	25	2	0	8	0	6	31	195	175.6
09:00	7	0	1	3	0	0	0	0	0	11	12.5	114	0	20	2	0	10	1	5	19	171	164.8
09:15	3	0	1	2	0	0	1	0	0	7	9	97	2	23	5	0	13	0	4	14	158	159.9
H/Total	15	0	6	9	0	0	1	0	1	32	36.7	456	3	82	11	0	40	1	17	93	703	664.9
Total	26	0	9	9	0	0	1	2	1	48	51.5	933	3	186	18	2	73	3	48	215	1481	1367.8

Time	C - A											C - B										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)
14:30	4	0	0	1	0	0	0	0	0	5	5.5	86	1	16	0	0	15	0	0	5	123	134
14:45	2	0	0	0	0	0	0	0	0	2	2	92	1	14	2	0	7	0	0	5	121	125
15:00	2	0	1	0	0	0	0	0	0	3	3	90	0	11	0	0	10	0	3	2	116	122.6
15:15	2	0	1	0	0	0	0	0	0	3	3	92	0	9	1	0	8	0	2	11	123	121.5
H/Total	10	0	2	1	0	0	0	0	0	13	13.5	360	2	50	3	0	40	0	5	23	483	503.1
15:30	4	0	1	1	0	0	0	0	0	6	6.5	103	2	7	1	0	10	0	4	6	133	136.3
15:45	8	0	0	1	0	0	0	1	0	10	9.9	95	0	14	1	0	9	1	3	7	130	133.1
16:00	7	0	2	0	0	0	0	0	0	9	9	89	2	12	1	0	7	0	3	8	122	121.3
16:15	7	0	1	0	0	0	0	0	0	8	8	98	3	11	1	0	10	0	4	4	131	135.9
H/Total	26	0	4	2	0	0	0	1	0	33	33.4	385	7	44	4	0	36	1	14	25	516	526.6
Total	36	0	6	3	0	0	0	1	0	46	46.9	745	9	94	7	0	76	1	19	48	999	1029.7

Project Number: **TSP11888**
Project Name: **Heathgate House Twickenham**
Survey Type: **Manual Classified Traffic Count**
Site No: **2**
Location: **Colne Road / Heath Road**
Date: **24 September 2014, Wednesday**

traffic survey partners

Time	C - C										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)
07:30	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0
H/Total	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0
H/Total	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0

Time	C - C										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)
14:30	1	0	0	0	0	0	0	0	0	1	1
14:45	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0
H/Total	1	0	0	0	0	0	0	0	0	1	1
15:30	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0
H/Total	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	0	0	0	0	0	1	1

Project Number: **TSP11888**
Project Name: **Heathgate House Twickenham**
Survey Type: **Manual Classified Traffic Count**
Site No: **2**
Location: **Colne Road / Heath Road**
Date: **24 September 2014, Wednesday**

Time	From A											To A										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)
07:30	15	0	0	2	0	0	0	2	2	21	19.2	9	0	0	0	0	0	0	1	0	10	9.4
07:45	18	0	0	0	0	0	0	1	3	22	19	14	0	2	1	0	0	0	0	0	17	17.5
08:00	26	0	1	0	0	0	0	0	5	32	28	10	0	0	1	0	0	0	1	1	13	12.1
08:15	43	1	5	1	0	0	1	1	1	53	53.1	2	0	3	2	0	0	0	1	1	9	8.6
H/Total	102	1	6	3	0	0	1	4	11	128	119.3	35	0	5	4	0	0	0	3	2	49	47.6
08:30	18	0	3	1	0	0	0	0	1	23	22.7	13	0	2	1	0	0	0	0	1	17	16.7
08:45	25	0	1	1	0	0	0	1	4	32	28.7	9	0	3	3	0	0	0	0	2	17	16.9
09:00	22	0	3	0	0	0	0	4	4	33	27.4	15	0	2	4	0	0	0	0	0	21	23
09:15	14	0	6	2	0	0	0	0	3	25	23.6	10	0	3	2	0	0	1	0	0	16	18
H/Total	79	0	13	4	0	0	0	5	12	113	102.4	47	0	10	10	0	0	1	0	3	71	74.6
Total	181	1	19	7	0	0	1	9	23	241	221.7	82	0	15	14	0	0	1	3	5	120	122.2

Time	From A											To A										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)
14:30	19	0	3	0	0	0	0	1	2	25	22.8	13	0	1	1	0	0	0	1	0	16	15.9
14:45	24	0	4	0	0	0	0	0	1	29	28.2	9	0	1	0	0	0	0	0	0	10	10
15:00	23	0	7	2	0	0	0	1	3	36	34	9	0	5	0	0	0	0	1	0	15	14.4
15:15	23	0	8	3	0	0	0	1	0	35	35.9	8	0	1	1	0	0	0	0	0	10	10.5
H/Total	89	0	22	5	0	0	0	3	6	125	120.9	39	0	8	2	0	0	0	2	0	51	50.8
15:30	23	0	5	3	0	0	0	1	1	33	33.1	18	0	5	1	0	0	0	0	1	25	24.7
15:45	26	0	4	0	0	0	0	1	0	31	30.4	15	0	3	2	0	0	0	3	1	24	22.4
16:00	25	0	4	1	0	0	0	0	2	32	30.9	13	0	3	0	0	0	0	0	0	16	16
16:15	20	0	5	1	0	0	1	0	1	28	28.7	16	0	4	1	0	0	0	3	0	24	22.7
H/Total	94	0	18	5	0	0	1	2	4	124	123.1	62	0	15	4	0	0	0	6	2	89	85.8
Total	183	0	40	10	0	0	1	5	10	249	244	101	0	23	6	0	0	0	8	2	140	136.6

Project Number: **TSP11888**
Project Name: **Heathgate House Twickenham**
Survey Type: **Manual Classified Traffic Count**
Site No: **2**
Location: **Colne Road / Heath Road**
Date: **24 September 2014, Wednesday**

Time	From B											To B										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)
07:30	77	0	7	0	0	8	0	1	8	101	102	137	0	40	3	1	14	1	6	29	231	222
07:45	86	0	12	4	0	12	0	1	3	118	129	121	0	24	2	1	6	0	13	32	199	173.9
08:00	116	0	12	3	0	7	1	1	10	150	150.9	135	0	22	1	0	9	0	9	29	205	185.9
08:15	102	0	7	4	0	8	0	3	7	131	133.6	163	1	22	2	0	4	2	7	42	243	212.2
H/Total	381	0	38	11	0	35	1	6	28	500	515.5	556	1	108	8	2	33	3	35	132	878	794
08:30	86	0	13	0	0	10	0	2	8	119	121.4	137	0	17	2	0	9	0	2	30	197	181.8
08:45	85	0	7	1	0	13	1	3	9	119	124.5	140	1	26	2	0	8	0	7	35	219	195.8
09:00	79	0	11	3	0	8	0	0	4	105	111.3	127	0	23	2	0	10	1	8	22	193	182.6
09:15	81	0	11	1	0	9	0	2	9	113	114.1	106	2	24	7	0	13	0	4	17	173	173.5
H/Total	331	0	42	5	0	40	1	7	30	456	471.3	510	3	90	13	0	40	1	21	104	782	733.7
Total	712	0	80	16	0	75	2	13	58	956	986.8	1066	4	198	21	2	73	4	56	236	1660	1527.7

Time	From B											To B										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)
14:30	118	1	17	0	0	12	0	6	9	163	164.2	96	1	18	0	0	15	0	1	7	138	146.8
14:45	112	0	20	3	0	8	0	6	8	157	156.5	107	1	17	2	0	7	0	0	5	139	143
15:00	87	0	22	1	0	10	0	3	18	141	135.3	105	0	14	1	0	10	0	4	5	139	143.1
15:15	92	1	17	1	0	11	0	3	10	135	136.7	109	0	13	1	0	8	0	3	11	145	142.9
H/Total	409	2	76	5	0	41	0	18	45	596	592.7	417	2	62	4	0	40	0	8	28	561	575.8
15:30	127	2	15	1	1	6	0	3	7	162	162.4	124	2	11	2	0	10	0	5	7	161	163.4
15:45	108	0	15	3	0	10	0	4	12	152	151.5	115	0	17	1	0	9	1	3	7	153	156.1
16:00	121	0	14	1	0	9	0	2	5	152	156.3	104	2	15	1	0	7	0	3	10	142	139.7
16:15	121	1	19	1	0	7	0	4	11	164	160.3	112	3	15	2	0	10	0	4	5	151	155.6
H/Total	477	3	63	6	1	32	0	13	35	630	630.5	455	7	58	6	0	36	1	15	29	607	614.8
Total	886	5	139	11	1	73	0	31	80	1226	1223.2	872	9	120	10	0	76	1	23	57	1168	1190.6

Project Number: **TSP11888**
Project Name: **Heathgate House Twickenham**
Survey Type: **Manual Classified Traffic Count**
Site No: **2**
Location: **Colne Road / Heath Road**
Date: **24 September 2014, Wednesday**

tsp traffic survey partners

Time	From C											To C										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)
07:30	127	0	40	2	1	14	1	5	27	217	209.7	73	0	7	1	0	8	0	1	8	98	99.5
07:45	110	0	25	2	1	6	0	12	30	186	163.1	79	0	11	3	0	12	0	1	4	110	119.7
08:00	124	0	21	1	0	9	0	9	24	188	172.9	121	0	12	2	0	7	1	0	9	152	153.8
08:15	127	0	21	2	0	4	1	7	41	203	172	107	0	8	3	0	8	0	3	6	135	137.9
H/Total	488	0	107	7	2	33	2	33	122	794	717.7	380	0	38	9	0	35	1	5	27	495	510.9
08:30	126	0	15	3	0	9	0	2	29	184	170.1	80	0	12	1	0	10	0	2	7	112	115.7
08:45	124	1	28	5	0	8	0	6	32	204	185.3	85	0	7	2	0	13	1	3	8	119	125.8
09:00	121	0	21	5	0	10	1	5	19	182	177.3	80	0	10	2	0	8	0	1	5	106	110.4
09:15	100	2	24	7	0	13	1	4	14	165	168.9	79	0	14	1	0	9	0	2	9	114	115.1
H/Total	471	3	88	20	0	40	2	17	94	735	701.6	324	0	43	6	0	40	1	8	29	451	467
Total	959	3	195	27	2	73	4	50	216	1529	1419.3	704	0	81	15	0	75	2	13	56	946	977.9

Time	From C											To C										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)
14:30	91	1	16	1	0	15	0	0	5	129	140.5	119	1	17	0	0	12	0	5	9	163	164.8
14:45	94	1	14	2	0	7	0	0	5	123	127	114	0	20	3	0	8	0	6	9	160	158.7
15:00	92	0	12	0	0	10	0	3	2	119	125.6	88	0	22	2	0	10	0	2	18	142	137.4
15:15	94	0	10	1	0	8	0	2	11	126	124.5	92	1	21	3	0	11	0	3	10	141	143.7
H/Total	371	2	52	4	0	40	0	5	23	497	517.6	413	2	80	8	0	41	0	16	46	606	604.6
15:30	107	2	8	2	0	10	0	4	6	139	142.8	115	2	12	3	1	6	0	3	6	148	150.2
15:45	103	0	14	2	0	9	1	4	7	140	143	107	0	13	2	0	10	0	3	11	146	146.4
16:00	96	2	14	1	0	7	0	3	8	131	130.3	125	0	14	2	0	9	0	2	5	157	161.8
16:15	105	3	12	1	0	10	0	4	4	139	143.9	118	1	17	0	0	7	1	1	11	156	154.6
H/Total	411	7	48	6	0	36	1	15	25	549	560	465	3	56	7	1	32	1	9	33	607	613
Total	782	9	100	10	0	76	1	20	48	1046	1077.6	878	5	136	15	1	73	1	25	79	1213	1217.6

Project Number: **TSP11888**
Project Name: **Heathgate House Twickenham**
Survey Type: **Manual Classified Traffic Count**
Site No: **2**
Location: **Colne Road / Heath Road**
Date: **24 September 2014, Wednesday**

traffic survey partners

Time	Whole Junction										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)
07:30	219	0	47	4	1	22	1	8	37	339	330.9
07:45	214	0	37	6	1	18	0	14	36	326	311.1
08:00	266	0	34	4	0	16	1	10	39	370	351.8
08:15	272	1	33	7	0	12	2	11	49	387	358.7
H/Total	971	1	151	21	2	68	4	43	161	1422	1352.5
08:30	230	0	31	4	0	19	0	4	38	326	314.2
08:45	234	1	36	7	0	21	1	10	45	355	338.5
09:00	222	0	35	8	0	18	1	9	27	320	316
09:15	195	2	41	10	0	22	1	6	26	303	306.6
H/Total	881	3	143	29	0	80	3	29	136	1304	1275.3
Total	1852	4	294	50	2	148	7	72	297	2726	2627.8

Peak Hours		Totals
07:30	08:30	1422
07:45	08:45	1409
08:00	09:00	1438
08:15	09:15	1388

08:30	09:30	1304

Time	Whole Junction										
	CAR	TAXI	LGV	OGV 1	OGV 2	BUS	COACH	MCY	PCY	TOTAL	TOTAL (PCU)
14:30	228	2	36	1	0	27	0	7	16	317	327.5
14:45	230	1	38	5	0	15	0	6	14	309	311.7
15:00	202	0	41	3	0	20	0	7	23	296	294.9
15:15	209	1	35	5	0	19	0	6	21	296	297.1
H/Total	869	4	150	14	0	81	0	26	74	1218	1231.2
15:30	257	4	28	6	1	16	0	8	14	334	338.3
15:45	237	0	33	5	0	19	1	9	19	323	324.9
16:00	242	2	32	3	0	16	0	5	15	315	317.5
16:15	246	4	36	3	0	17	1	8	16	331	332.9
H/Total	982	10	129	17	1	68	2	30	64	1303	1313.6
Total	1851	14	279	31	1	149	2	56	138	2521	2544.8

Peak Hours		Totals
14:30	15:30	1218
14:45	15:45	1235
15:00	16:00	1249
15:15	16:15	1268

15:30	16:30	1303

Robert West

Rail
Buildings
Infrastructure
Transport & Environment

Appendix G – 2014 Capacity Assessment, Heath Road / Colne Road (PICADY)

5217/002/R01

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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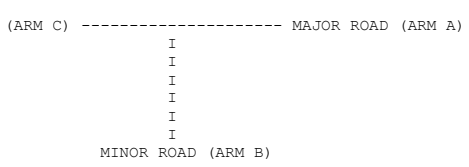
Run with file:-
"L:\5217 - Jones Lang LaSalle\001 - Heathgate House\Analysis & Design\Junctions\Heath Rd_Colne Rd 2014 AM.vpi"
(drive-on-the-left) at 14:23:46 on Wednesday, 15 October 2014

.RUN INFORMATION

RUN TITLE	: A305 Heath Road / Colne Road 2014 AM
LOCATION	: The Green, Twickenham
DATE	: 15/08/14
CLIENT	: EFA
ENUMERATOR	: MarkScroggs [RW-CAD-26]
JOB NUMBER	: 5217/001
STATUS	:
DESCRIPTION	:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



ARM A IS Heath Road (west)
ARM B IS Colne Road
ARM C IS Heath Road (east)

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM		MINOR ROAD B	
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	8.06	M.
CENTRAL RESERVE WIDTH	(WCR)	0.00	M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20	M.
- VISIBILITY	(VC-B)	130.00	M.
- BLOCKS TRAFFIC (SPACES)		YES (0)	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	46.0	M.
- VISIBILITY TO RIGHT	(VB-A)	20.0	M.
- LANE 1 WIDTH	(WB-C)	3.60	M.
- LANE 2 WIDTH	(WB-A)	0.00	M.

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
674.76	0.24	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B

532.45	0.22	0.09	0.14	0.32

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
649.25	0.23	0.23

(NB These values do not allow for any site specific corrections)

.TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

.Demand set: A305 Heath Road / Colne Road 2014 AM

TIME PERIOD BEGINS 07.45 AND ENDS 09.15

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	9.74	14.61	9.74
ARM B	15.00	45.00	75.00	1.75	2.63	1.75
ARM C	15.00	45.00	75.00	6.49	9.73	6.49

.Demand set: A305 Heath Road / Colne Road 2014 AM

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 08.00	ARM A	0.000	0.026	0.974
		0.0	20.0	759.0
		(0.0)	(20.0)	(0.9)
	ARM B	0.250	0.000	0.750
		35.0	0.0	105.0
		(8.6)	(0.0)	(0.0)
	ARM C	0.931	0.069	0.000
		483.0	36.0	0.0
		(1.0)	(8.3)	(0.0)
08.00 - 08.15	ARM A	0.000	0.026	0.974
		0.0	0.0	0.0
		(0.0)	(20.0)	(0.9)
	ARM B	0.250	0.000	0.750
		0.0	0.0	0.0
		(8.6)	(0.0)	(0.0)
	ARM C	0.931	0.069	0.000
		0.0	0.0	0.0
		(1.0)	(8.3)	(0.0)
08.15 - 08.30	ARM A	0.000	0.026	0.974
		0.0	0.0	0.0
		(0.0)	(20.0)	(0.9)
	ARM B	0.250	0.000	0.750
		0.0	0.0	0.0
		(8.6)	(0.0)	(0.0)
	ARM C	0.931	0.069	0.000
		0.0	0.0	0.0
		(1.0)	(8.3)	(0.0)
08.30 - 08.45	ARM A	0.000	0.026	0.974
		0.0	0.0	0.0
		(0.0)	(20.0)	(0.9)
	ARM B	0.250	0.000	0.750
		0.0	0.0	0.0
		(8.6)	(0.0)	(0.0)

	ARM C	0.931	0.069	0.000	
		0.0	0.0	0.0	
		(1.0)	(8.3)	(0.0)	
08.45 - 09.00					
	ARM A	0.000	0.026	0.974	
		0.0	0.0	0.0	
		(0.0)	(20.0)	(0.9)	
	ARM B	0.250	0.000	0.750	
		0.0	0.0	0.0	
		(8.6)	(0.0)	(0.0)	
	ARM C	0.931	0.069	0.000	
		0.0	0.0	0.0	
		(1.0)	(8.3)	(0.0)	
09.00 - 09.15					
	ARM A	0.000	0.026	0.974	
		0.0	0.0	0.0	
		(0.0)	(20.0)	(0.9)	
	ARM B	0.250	0.000	0.750	
		0.0	0.0	0.0	
		(8.6)	(0.0)	(0.0)	
	ARM C	0.931	0.069	0.000	
		0.0	0.0	0.0	
		(1.0)	(8.3)	(0.0)	

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
THE PERCENTAGE OF HEAVY VEHICLES VARIES BETWEEN TIME SEGMENTS
THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-AC	1.76	7.59	0.231		0.00	0.30	4.2		0.17
C-AB	0.88	12.31	0.071		0.00	0.12	1.8		0.09
C-A	5.63								
A-B	0.25								
A-C	9.52								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	2.10	7.04	0.298		0.30	0.42	6.0		0.20
C-AB	1.21	12.84	0.094		0.12	0.19	2.9		0.09
C-A	6.57								
A-B	0.30								
A-C	11.37								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	2.57	6.25	0.411		0.42	0.68	9.6		0.27
C-AB	1.81	13.59	0.133		0.19	0.33	5.0		0.08
C-A	7.72								
A-B	0.37								
A-C	13.93								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	2.57	6.25	0.411		0.68	0.69	10.2		0.27
C-AB	1.81	13.60	0.133		0.33	0.33	5.1		0.08
C-A	7.71								
A-B	0.37								
A-C	13.93								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	2.10	7.04	0.298		0.69	0.43	6.8		0.20
C-AB	1.22	12.85	0.095		0.33	0.20	3.0		0.09
C-A	6.56								

I	A-B	0.30								I
I	A-C	11.37								I
I										I

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
09.00-09.15									
B-AC	1.76	7.59	0.231		0.43	0.31	4.7		0.17
C-AB	0.88	12.32	0.072		0.20	0.13	1.9		0.09
C-A	5.63								
A-B	0.25								
A-C	9.52								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.3	
08.15	0.4	
08.30	0.7	*
08.45	0.7	*
09.00	0.4	
09.15	0.3	

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.1
08.15	0.2
08.30	0.3
08.45	0.3
09.00	0.2
09.15	0.1

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	192.7	128.5	41.7	0.22	41.7	0.22
C-AB	117.1	78.1	19.6	0.17	19.6	0.17
C-A	597.3	398.2				
A-B	27.5	18.4				
A-C	1044.7	696.5				
ALL	1979.3	1319.5	61.3	0.03	61.3	0.03

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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TRL SOFTWARE SALES
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EMAIL: software@trl.co.uk

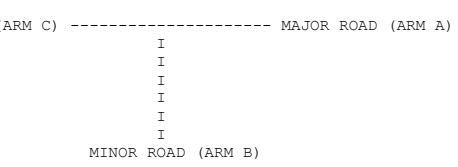
Run with file:-
"\\rwdc01\Users$\markscroggs\Documents\PICADY\Heath Rd_Colne Rd 2014 SCH.vpi"
(drive-on-the-left) at 15:12:04 on Wednesday, 15 October 2014

.RUN INFORMATION

RUN TITLE	: A305 Heath Road / Colne Road 2014 SCH
LOCATION	: The Green, Twickenham
DATE	: 15/08/14
CLIENT	: EFA
ENUMERATOR	: MarkScroggs [RW-CAD-26]
JOB NUMBER	: 5217/001
STATUS	:
DESCRIPTION	:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



ARM A IS Heath Road (west)
ARM B IS Colne Road
ARM C IS Heath Road (east)

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM		MINOR ROAD B	
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	8.06	M.
CENTRAL RESERVE WIDTH	(WCR)	0.00	M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20	M.
- VISIBILITY	(VC-B)	130.00	M.
- BLOCKS TRAFFIC (SPACES)		YES (0)	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	46.0	M.
- VISIBILITY TO RIGHT	(VB-A)	20.0	M.
- LANE 1 WIDTH	(WB-C)	3.60	M.
- LANE 2 WIDTH	(WB-A)	0.00	M.

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
674.76	0.24	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B

532.45	0.22	0.09	0.14	0.32	

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
649.25	0.23	0.23

(NB These values do not allow for any site specific corrections)

.TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

.Demand set: A305 Heath Road / Colne Road 2014 SCH

TIME PERIOD BEGINS 14.45 AND ENDS 16.15

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	6.55	9.83	6.55
ARM B	15.00	45.00	75.00	1.69	2.53	1.69
ARM C	15.00	45.00	75.00	7.38	11.06	7.38

.Demand set: A305 Heath Road / Colne Road 2014 SCH

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
14.45 - 15.00	ARM A	0.000	0.042	0.958
		0.0	22.0	502.0
		(0.0)	(9.1)	(0.6)
	ARM B	0.289	0.000	0.711
		39.0	0.0	96.0
		(15.4)	(0.0)	(2.1)
	ARM C	0.912	0.088	0.000
		538.0	52.0	0.0
		(0.9)	(3.9)	(0.0)
15.00 - 15.15	ARM A	0.000	0.042	0.958
		0.0	0.0	0.0
		(0.0)	(9.1)	(0.6)
	ARM B	0.289	0.000	0.711
		0.0	0.0	0.0
		(15.4)	(0.0)	(2.1)
	ARM C	0.912	0.088	0.000
		0.0	0.0	0.0
		(0.9)	(3.9)	(0.0)
15.15 - 15.30	ARM A	0.000	0.042	0.958
		0.0	0.0	0.0
		(0.0)	(9.1)	(0.6)
	ARM B	0.289	0.000	0.711
		0.0	0.0	0.0
		(15.4)	(0.0)	(2.1)
	ARM C	0.912	0.088	0.000
		0.0	0.0	0.0
		(0.9)	(3.9)	(0.0)
15.30 - 15.45	ARM A	0.000	0.042	0.958
		0.0	0.0	0.0
		(0.0)	(9.1)	(0.6)
	ARM B	0.289	0.000	0.711
		0.0	0.0	0.0
		(15.4)	(0.0)	(2.1)

	ARM C	0.912	0.088	0.000	
		0.0	0.0	0.0	
		(0.9)	(3.9)	(0.0)	
15.45 - 16.00					
	ARM A	0.000	0.042	0.958	
		0.0	0.0	0.0	
		(0.0)	(9.1)	(0.6)	
	ARM B	0.289	0.000	0.711	
		0.0	0.0	0.0	
		(15.4)	(0.0)	(2.1)	
	ARM C	0.912	0.088	0.000	
		0.0	0.0	0.0	
		(0.9)	(3.9)	(0.0)	
16.00 - 16.15					
	ARM A	0.000	0.042	0.958	
		0.0	0.0	0.0	
		(0.0)	(9.1)	(0.6)	
	ARM B	0.289	0.000	0.711	
		0.0	0.0	0.0	
		(15.4)	(0.0)	(2.1)	
	ARM C	0.912	0.088	0.000	
		0.0	0.0	0.0	
		(0.9)	(3.9)	(0.0)	

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
THE PERCENTAGE OF HEAVY VEHICLES VARIES BETWEEN TIME SEGMENTS
THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
14.45-15.00									
B-AC	1.69	7.81	0.217		0.00	0.27	3.9		0.16
C-AB	1.27	13.63	0.093		0.00	0.19	2.8		0.08
C-A	6.13								
A-B	0.28								
A-C	6.30								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
15.00-15.15									
B-AC	2.02	7.40	0.273		0.27	0.37	5.4		0.19
C-AB	1.74	14.30	0.121		0.19	0.28	4.3		0.08
C-A	7.10								
A-B	0.33								
A-C	7.52								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
15.15-15.30									
B-AC	2.48	6.82	0.363		0.37	0.56	8.0		0.23
C-AB	2.63	15.35	0.171		0.28	0.46	7.0		0.08
C-A	8.20								
A-B	0.40								
A-C	9.21								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
15.30-15.45									
B-AC	2.48	6.81	0.364		0.56	0.56	8.4		0.23
C-AB	2.64	15.35	0.172		0.46	0.47	7.1		0.08
C-A	8.19								
A-B	0.40								
A-C	9.21								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
15.45-16.00									
B-AC	2.02	7.40	0.273		0.56	0.38	6.0		0.19
C-AB	1.74	14.31	0.122		0.47	0.30	4.5		0.08
C-A	7.10								

I	A-B	0.33								I
I	A-C	7.52								I
I										I

I TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I 16.00-16.15										I
I B-AC	1.69	7.81	0.217		0.38	0.28	4.3		0.16	I
I C-AB	1.28	13.63	0.094		0.30	0.19	2.9		0.08	I
I C-A	6.12									I
I A-B	0.28									I
I A-C	6.30									I
I										I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
15.00	0.3	
15.15	0.4	
15.30	0.6	*
15.45	0.6	*
16.00	0.4	
16.15	0.3	

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
15.00	0.2
15.15	0.3
15.30	0.5
15.45	0.5
16.00	0.3
16.15	0.2

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I STREAM I	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *		I
I	I (VEH)	(VEH/H) I	(MIN)	(MIN/VEH) I	(MIN)	(MIN/VEH)	I
I B-AC	I 185.8	I 123.9 I	36.0 I	0.19 I	36.0 I	0.19	I
I C-AB	I 169.4	I 112.9 I	28.5 I	0.17 I	28.5 I	0.17	I
I C-A	I 642.7	I 428.5 I	I	I	I	I	I
I A-B	I 30.3	I 20.2 I	I	I	I	I	I
I A-C	I 691.0	I 460.6 I	I	I	I	I	I
I ALL	I 1719.2	I 1146.1 I	64.5 I	0.04 I	64.5 I	0.04	I

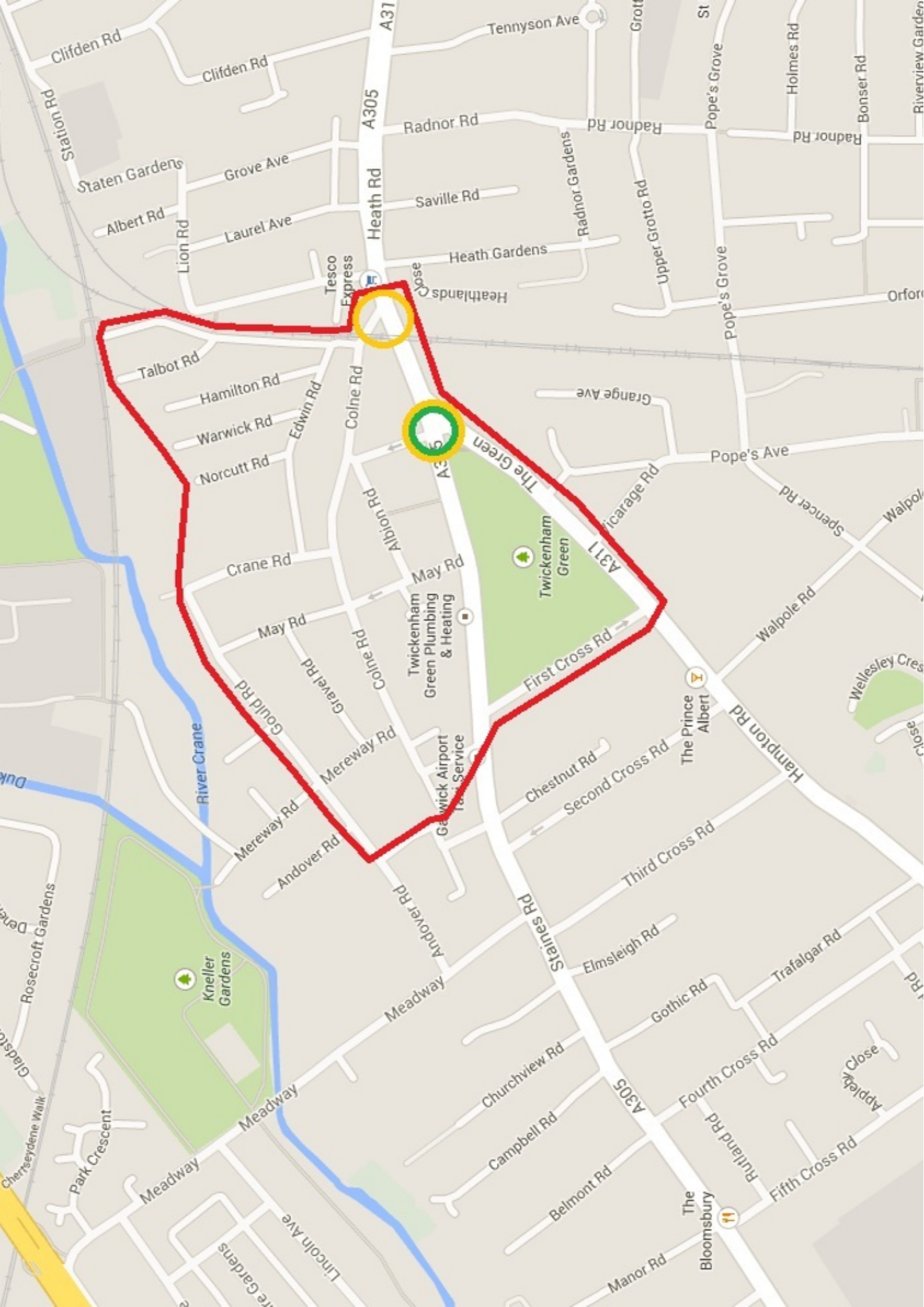
* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

Robert West

Rail
Buildings
Infrastructure
Transport & Environment

Appendix H – Parking Beat Survey Area


Clifden Rd
Clifden Rd
Tennyson Ave
A305
Station Rd
Staten Gardens
Grove Ave
Albert Rd
Laurel Ave
Lion Rd
Radnor Rd
Saville Rd
Heath Rd
Radnor Gardens
Upper Grotto Rd
Pope's Grove
Holmes Rd
Bonser Rd
Heath Gardens
Tesco Express
Heathlands Close
Talbot Rd
Hamilton Rd
Warwick Rd
Norcutt Rd
Edwin Rd
Colne Rd
Albion Rd
Grange Ave
Pope's Ave
The Green
A311
Twickenham Green
Twickenham Green Plumbing & Heating
Crane Rd
May Rd
Gravel Rd
Gould Rd
Mereway Rd
Andover Rd
Gatwick Airport Taxi Service
First Cross Rd
Walpole Rd
Hampton Rd
The Prince Albert
Chestnut Rd
Second Cross Rd
Third Cross Rd
Elmsleigh Rd
Staines Rd
Trafalgar Rd
Gothic Rd
Fourth Cross Rd
Churchview Rd
Campbell Rd
Belmont Rd
Hurland Rd
Fifth Cross Rd
The Bloomsbury
Manor Rd
A305
Meadway
River Crane
Kneller Gardens
Rosecroft Gardens
Park Crescent
Lincoln Ave
Spencer Rd
Wellesley Cres

Robert West

Rail
Buildings
Infrastructure
Transport & Environment

Appendix I – Street Inventory & Parking Beat Survey Data

5217/002/R01

	ACCESS	AMBULANCE	BUS STOP	BUS STOP/DROPPED KERB	CAR CLUB	DISABLED BAY	DOUBLE YELLOW	DOUBLE YELLOW/ACCESS	DOUBLE YELLOW/DROPPED KERB	DROPPED KERB	DROPPED KERB/ZIG ZAG	KEEP CLEAR	PARKING PERMITTED	PEDESTRIAN CROSSING	PRIVATE	RESIDENTS BAY	SHARED USE	SINGLE YELLOW	SINGLE YELLOW/BUS LANE	SINGLE YELLOW/BUS LANE/DROPPED KERB	SINGLE YELLOW/DROPPED KERB	SINGLE YELLOW/WHITE LINE/ACCESS	UNRESTRICTED BAY	WHITE LINE/DROPPED KERB	ZIG ZAG	Grand Total
ALBION ROAD	0	0	0	0	0	0	8	0	2	6	0	0	0	0	0	0	0	0	0	0	0	0	33	0	0	49
ALLEYWAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANDOVER ROAD	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	1	0	32
COLNE ROAD	3	0	0	0	0	1	52	0	5	14	0	0	0	0	0	0	0	8	0	0	3	0	62	0	0	148
CRANE ROAD	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	51	0	0	54
EDWIN ROAD	3	0	0	0	0	0	9	1	8	4	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	75
FIRST CROSS ROAD	0	0	0	0	1	0	35	0	0	0	0	4	0	0	0	27	10	1	0	0	0	0	0	0	0	78
GOULD ROAD	0	0	0	0	0	0	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	80	0	0	84
GRAVEL ROAD	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	55	0	0	57
HAMILTON ROAD	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	0	0	69
KNOWLE ROAD	0	0	0	0	0	3	4	0	0	3	0	0	2	0	0	0	0	1	0	0	0	0	6	0	0	19
MARSH FARM ROAD	0	0	0	0	0	1	5	0	0	1	0	0	0	0	10	0	0	0	0	0	0	0	39	0	0	56
MAY ROAD	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	0	0	4	0	0	0	0	69	0	0	81
MEREWAY ROAD	0	2	0	0	0	1	5	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0	0	31
NORCUTT ROAD	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	40	0	0	42
TALBOT ROAD	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	38	0	0	42
THE GREEN	0	0	25	0	0	0	79	0	1	0	3	0	0	0	0	0	0	66	36	1	4	0	44	0	12	271
WARWICK ROAD	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	0	0	57
Grand Total	6	2	25	0	1	12	205	1	25	36	3	4	2	0	10	27	10	80	36	1	7	0	739	1	12	1245

CLASS	(Multiple Items)							
Motorcycles have been excluded from the summary below								
		Occupancy						
STREET	**REGULATION**	**Beat @ 07:45**	**Beat @ 08:00**	**Beat @ 08:15**	**Beat @ 08:30**	**Beat @ 08:45**	**Beat @ 09:00**	**Capacity**
ALBION ROAD	DOUBLE YELLOW			1				8
	DROPPED KERB	3	3	3	4	4	4	6
	UNRESTRICTED BAY	28	29	30	29	30	31	33
ALBION ROAD Total		**31**	**32**	**34**	**33**	**34**	**35**	
ANDOVER ROAD	DISABLED BAY	1	1	1	1	1	1	1
	UNRESTRICTED BAY	20	20	20	20	18	19	30
ANDOVER ROAD Total		**21**	**21**	**21**	**21**	**19**	**20**	
COLNE ROAD	DISABLED BAY				1	1	1	1
	DROPPED KERB	2	1	1	2	3	3	14
	UNRESTRICTED BAY	52	52	60	61	62	61	62
COLNE ROAD Total		**54**	**53**	**61**	**64**	**66**	**65**	
CRANE ROAD	DOUBLE YELLOW					1		2
	DROPPED KERB	1	1	1	1	1	1	1
	UNRESTRICTED BAY	47	44	43	46	45	47	51
CRANE ROAD Total		**48**	**45**	**44**	**47**	**47**	**48**	
EDWIN ROAD	DOUBLE YELLOW	1	1	1	1	1		9
	DROPPED KERB	3	3	3	2	2	2	4
	UNRESTRICTED BAY	49	50	50	49	50	49	50
EDWIN ROAD Total		**53**	**54**	**54**	**52**	**53**	**51**	
FIRST CROSS ROAD	CAR CLUB	1	1	1	1	1	1	1
	DOUBLE YELLOW	1	1					35
	RESIDENTS BAY	18	18	21	21	21	20	27
	SHARED USE	9	10	8	8	8	8	10
	SINGLE YELLOW			1	1	1	1	1
FIRST CROSS ROAD Total		**29**	**30**	**31**	**31**	**31**	**30**	
GOULD ROAD	DROPPED KERB		1	1	1	1	1	1
	UNRESTRICTED BAY	64	72	71	71	70	71	80
GOULD ROAD Total		**64**	**73**	**72**	**72**	**71**	**72**	
GRAVEL ROAD	UNRESTRICTED BAY	47	46	45	45	46	47	55
GRAVEL ROAD Total		**47**	**46**	**45**	**45**	**46**	**47**	
HAMILTON ROAD	DISABLED BAY	1	1	1	1	1	1	1

HAMILTON ROAD	UNRESTRICTED BAY	62	61	62	62	62	62	68
HAMILTON ROAD Total		**63**	**62**	**63**	**63**	**63**	**63**	
KNOWLE ROAD	DISABLED BAY	2	2	3	3	3	3	3
	PARKING PERMITTED					1	2	2
	SINGLE YELLOW						1	1
	UNRESTRICTED BAY	5	5	5	4	5	5	6
KNOWLE ROAD Total		**7**	**7**	**8**	**7**	**9**	**11**	
MARSH FARM ROAD	DISABLED BAY	1	1	1	1	1	1	1
	DROPPED KERB	1	1	1	1	1	1	1
	UNRESTRICTED BAY	37	37	38	38	38	38	39
MARSH FARM ROAD Total		**39**	**39**	**40**	**40**	**40**	**40**	
MAY ROAD	DISABLED BAY	1	1					1
	DOUBLE YELLOW	1						3
	DROPPED KERB	3	3	3	3	3	3	4
	SINGLE YELLOW	1	1	1	1	1	1	4
	UNRESTRICTED BAY	64	64	64	63	66	66	69
MAY ROAD Total		**70**	**69**	**68**	**67**	**70**	**70**	
MEREWAY ROAD	DISABLED BAY	1	1	1	1	1	1	1
	DOUBLE YELLOW/DROPPED KERB		1					4
	UNRESTRICTED BAY	14	15	18	18	18	18	19
MEREWAY ROAD Total		**15**	**17**	**19**	**19**	**19**	**19**	
NORCUTT ROAD	DOUBLE YELLOW/DROPPED KERB		1	1	1	1	1	1
	UNRESTRICTED BAY	34	34	34	32	32	31	40
NORCUTT ROAD Total		**34**	**35**	**35**	**33**	**33**	**32**	
TALBOT ROAD	DISABLED BAY	1	1	1	1	1	1	1
	DROPPED KERB	2	2	2	2	2	2	2
	UNRESTRICTED BAY	35	35	36	36	36	36	38
TALBOT ROAD Total		**38**	**38**	**39**	**39**	**39**	**39**	
THE GREEN	BUS STOP	1	1	1	1	1	1	25
	UNRESTRICTED BAY	38	38	38	38	38	38	44
THE GREEN Total		**39**	**39**	**39**	**39**	**39**	**39**	
WARWICK ROAD	UNRESTRICTED BAY	53	49	50	50	52	50	55
WARWICK ROAD Total		**53**	**49**	**50**	**50**	**52**	**50**	
Grand Total		**705**	**709**	**723**	**722**	**731**	**731**	

% Occupancy					
Beat @ 07:45	Beat @ 08:00	Beat @ 08:15	Beat @ 08:30	Beat @ 08:45	Beat @ 09:00
0%	0%	13%	0%	0%	0%
50%	50%	50%	67%	67%	67%
85%	88%	91%	88%	91%	94%
100%	100%	100%	100%	100%	100%
67%	67%	67%	67%	60%	63%
0%	0%	0%	100%	100%	100%
14%	7%	7%	14%	21%	21%
84%	84%	97%	98%	100%	98%
0%	0%	0%	0%	50%	0%
100%	100%	100%	100%	100%	100%
92%	86%	84%	90%	88%	92%
11%	11%	11%	11%	11%	0%
75%	75%	75%	50%	50%	50%
98%	100%	100%	98%	100%	98%
100%	100%	100%	100%	100%	100%
3%	3%	0%	0%	0%	0%
67%	67%	78%	78%	78%	74%
90%	100%	80%	80%	80%	80%
0%	0%	100%	100%	100%	100%
0%	100%	100%	100%	100%	100%
80%	90%	89%	89%	88%	89%
85%	84%	82%	82%	84%	85%
100%	100%	100%	100%	100%	100%

91%	90%	91%	91%	91%	91%
67%	67%	100%	100%	100%	100%
0%	0%	0%	0%	50%	100%
0%	0%	0%	0%	0%	100%
83%	83%	83%	67%	83%	83%
100%	100%	100%	100%	100%	100%
100%	100%	100%	100%	100%	100%
95%	95%	97%	97%	97%	97%
100%	100%	0%	0%	0%	0%
33%	0%	0%	0%	0%	0%
75%	75%	75%	75%	75%	75%
25%	25%	25%	25%	25%	25%
93%	93%	93%	91%	96%	96%
100%	100%	100%	100%	100%	100%
0%	25%	0%	0%	0%	0%
74%	79%	95%	95%	95%	95%
0%	100%	100%	100%	100%	100%
85%	85%	85%	80%	80%	78%
100%	100%	100%	100%	100%	100%
100%	100%	100%	100%	100%	100%
92%	92%	95%	95%	95%	95%
4%	4%	4%	4%	4%	4%
86%	86%	86%	86%	86%	86%
96%	89%	91%	91%	95%	91%

CLASS	(Multiple Items)													
Motorcycles have been excluded from the summary below														
		Occupancy							**% Occupancy**					
Row Labels	**REGULATION**	**Beat @ 14:45**	**Beat @ 15:00**	**Beat @ 15:15**	**Beat @ 15:30**	**Beat @ 15:45**	**Beat @ 16:00**	**Capacity**	**Beat @ 07:45**	**Beat @ 08:00**	**Beat @ 08:15**	**Beat @ 08:30**	**Beat @ 08:45**	**Beat @ 09:00**
ALBION ROAD	DROPPED KERB	6	6	6	5	5	5	6	100%	100%	100%	83%	83%	83%
	UNRESTRICTED BAY	33	32	31	31	32	32	33	100%	97%	94%	94%	97%	97%
ALBION ROAD Total		**39**	**38**	**37**	**36**	**37**	**37**							
ANDOVER ROAD	UNRESTRICTED BAY	23	22	22	22	23	22	30	77%	73%	73%	73%	77%	73%
ANDOVER ROAD Total		**23**	**22**	**22**	**22**	**23**	**22**							
COLNE ROAD	ACCESS	1	1	1	1	1		3	33%	33%	33%	33%	33%	0%
	DISABLED BAY	1	1	1	1	1	1	1	100%	100%	100%	100%	100%	100%
	DOUBLE YELLOW			1				52	0%	0%	2%	0%	0%	0%
	DROPPED KERB	3	3	3	3	2	1	14	21%	21%	21%	21%	14%	7%
	SINGLE YELLOW	2	1	2	1			8	25%	13%	25%	13%	0%	0%
	SINGLE YELLOW/DROPPED KERB					2		3	0%	0%	0%	0%	67%	0%
	UNRESTRICTED BAY	61	60	60	59	58	58	62	98%	97%	97%	95%	94%	94%
COLNE ROAD Total		**68**	**66**	**68**	**65**	**64**	**60**							
CRANE ROAD	DOUBLE YELLOW	1	2	2				2	50%	100%	100%	0%	0%	0%
	DROPPED KERB	1	1	1	1	1	1	1	100%	100%	100%	100%	100%	100%
	UNRESTRICTED BAY	50	50	49	50	51	51	51	98%	98%	96%	98%	100%	100%
CRANE ROAD Total		**52**	**53**	**52**	**51**	**52**	**52**							
EDWIN ROAD	DOUBLE YELLOW	2	2	2	3	3	3	9	22%	22%	22%	33%	33%	33%
	DOUBLE YELLOW/DROPPED KERB				1			8	0%	0%	0%	13%	0%	0%
	DROPPED KERB		1	1	1	2	2	4	0%	25%	25%	25%	50%	50%
	UNRESTRICTED BAY	49	49	48	48	49	49	50	98%	98%	96%	96%	98%	98%
EDWIN ROAD Total		**51**	**52**	**51**	**53**	**54**	**54**							
FIRST CROSS ROAD	CAR CLUB	1	1	1	1	1	1	1	100%	100%	100%	100%	100%	100%
	RESIDENTS BAY	20	20	19	19	16	16	27	74%	74%	70%	70%	59%	59%
	SHARED USE	10	10	10	10	6	5	10	100%	100%	100%	100%	60%	50%
	SINGLE YELLOW	1	1	1	1	1	1	1	100%	100%	100%	100%	100%	100%
FIRST CROSS ROAD Total		**32**	**32**	**31**	**31**	**24**	**23**							
GOULD ROAD	DOUBLE YELLOW	1			1			1	100%	0%	0%	100%	0%	0%
	DOUBLE YELLOW/DROPPED KERB	1	1	1	1	1	1	2	50%	50%	50%	50%	50%	50%
	DROPPED KERB	1	1	1	1	1	1	1	100%	100%	100%	100%	100%	100%
	UNRESTRICTED BAY	75	76	75	75	75	75	80	94%	95%	94%	94%	94%	94%
GOULD ROAD Total		**78**	**78**	**77**	**78**	**77**	**77**							
GRAVEL ROAD	DOUBLE YELLOW/DROPPED KERB	1						2	50%	0%	0%	0%	0%	0%
	UNRESTRICTED BAY	52	50	50	50	49	48	55	95%	91%	91%	91%	89%	87%
GRAVEL ROAD Total		**53**	**50**	**50**	**50**	**49**	**48**							
HAMILTON ROAD	DISABLED BAY	1	1	1	1	1	1	1	100%	100%	100%	100%	100%	100%
	UNRESTRICTED BAY	67	66	66	66	66	66	68	99%	97%	97%	97%	97%	97%
HAMILTON ROAD Total		**68**	**67**	**67**	**67**	**67**	**67**							
KNOWLE ROAD	DISABLED BAY	3	3	3	3	3	3	3	100%	100%	100%	100%	100%	100%
	DOUBLE YELLOW		1		2			4	0%	25%	0%	50%	0%	0%
	PARKING PERMITTED	1	1	1			1	2	50%	50%	50%	0%	0%	50%
	UNRESTRICTED BAY	6	6	6	6	6	6	6	100%	100%	100%	100%	100%	100%
KNOWLE ROAD Total		**10**	**11**	**10**	**11**	**9**	**10**							
MARSH FARM ROAD	DISABLED BAY	1	1	1	1	1	1	1	100%	100%	100%	100%	100%	100%
	DROPPED KERB	1	1	1	1	1	1	1	100%	100%	100%	100%	100%	100%
	UNRESTRICTED BAY	37	37	36	36	35	35	39	95%	95%	92%	92%	90%	90%
MARSH FARM ROAD Total		**39**	**39**	**38**	**38**	**37**	**37**							

MAY ROAD	DISABLED BAY	1	1	1	1	1	1	1	100%	100%	100%	100%	100%	100%
	DOUBLE YELLOW	1	1	1	1	1	1	3	33%	33%	33%	33%	33%	33%
	DROPPED KERB	3	4	4	4	4	4	4	75%	100%	100%	100%	100%	100%
	SINGLE YELLOW	1	1	1	1	1	1	4	25%	25%	25%	25%	25%	25%
	UNRESTRICTED BAY	66	67	67	67	67	67	69	96%	97%	97%	97%	97%	97%
MAY ROAD Total		**72**	**74**	**74**	**74**	**74**	**74**							
MEREWAY ROAD	AMBULANCE				1			2	0%	0%	0%	50%	0%	0%
	DISABLED BAY	1	1	1	1	1	1	1	100%	100%	100%	100%	100%	100%
	DOUBLE YELLOW	1	1	1	1	1	1	5	20%	20%	20%	20%	20%	20%
	UNRESTRICTED BAY	18	18	18	18	18	18	19	95%	95%	95%	95%	95%	95%
MEREWAY ROAD Total		**20**	**20**	**20**	**21**	**20**	**20**							
NORCUTT ROAD	DOUBLE YELLOW/DROPPED KERB	1	1	1	1	1	1	1	100%	100%	100%	100%	100%	100%
	UNRESTRICTED BAY	33	33	34	34	34	34	40	83%	83%	85%	85%	85%	85%
NORCUTT ROAD Total		**34**	**34**	**35**	**35**	**35**	**35**							
TALBOT ROAD	DISABLED BAY	1	1	1	1	1	1	1	100%	100%	100%	100%	100%	100%
	DROPPED KERB	1	1	1	1	1	1	2	50%	50%	50%	50%	50%	50%
	UNRESTRICTED BAY	37	37	36	36	36	36	38	97%	97%	95%	95%	95%	95%
TALBOT ROAD Total		**39**	**39**	**38**	**38**	**38**	**38**							
THE GREEN	BUS STOP	1	1	1	1	1	1	25	4%	4%	4%	4%	4%	4%
	DOUBLE YELLOW	2	3	2	1	1		79	3%	4%	3%	1%	1%	0%
	SINGLE YELLOW		8	6	3	3	5	66	0%	12%	9%	5%	5%	8%
	SINGLE YELLOW/BUS LANE	27	27	27	27	27	28	36	75%	75%	75%	75%	75%	78%
	SINGLE YELLOW/BUS LANE/DROPPED KERB	1	1	1				1	100%	100%	100%	0%	0%	0%
	UNRESTRICTED BAY	38	38	37	37	38	38	44	86%	86%	84%	84%	86%	86%
THE GREEN Total		**69**	**78**	**74**	**69**	**70**	**72**							
WARWICK ROAD	UNRESTRICTED BAY	50	50	50	50	51	51	55	91%	91%	91%	91%	93%	93%
WARWICK ROAD Total		**50**	**50**	**50**	**50**	**51**	**51**							
Grand Total		**797**	**803**	**794**	**789**	**781**	**777**							

Robert West

Rail
Buildings
Infrastructure
Transport & Environment

Appendix J – Accident Data

5217/002/R01

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

Summary of Accidents Selected

Site Reference and Description (zero accident counts shown in bold)	Date Period	Accidents
LP001 GIS AREA 400m_EFA request (C)	60 MTS TO JAN-2014	35

The description of how the accident occurred and the contributory factors are the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) 60 MTS TO JAN-2014 SORTED BY DATE

1 0109TW60065 TUE 10/03/09 12:07 LIGHT HEATH ROAD J/W GROVE AVENUE 24 LINK 104-131 515760 / 173130

POLICE - AT SCENE ROAD-DRY WEATHER-FINE DUAL CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M

V2 TURNED RIGHT ACROSS PATH V1 & THEY COLLIDED

CASUALTY 001 (002) (26 Yrs - F TW9) SLIGHT DRIVER/RIDER

CASUALTY 002 (002) (22 Yrs - M TW10) SLIGHT PASSENGER FRONT SEAT

VEHICLE 001 (002) GDS =< 3.5T (51 Yrs - M TW15) GOING AHEAD OTHER E TO W JCT MID
BT - NEGATIVE N/S HIT FIRST

VEHICLE 002 (001) CAR (26 Yrs - F TW9) TURNING RIGHT E TO N JCT MID
BT - NEGATIVE FRONT HIT FIRST

V002 A 403 (POOR TURN OR MANOEUVRE)
V002 A 405 (FAILED TO LOOK PROPERLY)
V002 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)
V002 A 602 (CARELESS/RECKLESS/IN A HURRY)

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2 0109TW60076 SAT 21/03/09 12:10 LIGHT HEATH ROAD 15M WEST SAVILLE ROAD 24 LINK 104-131 515670 / 173120

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M

V1 CHANGED LANES & COLLIDED WITH V2 CAUSING RIDER TO FALL OFF

CASUALTY 001 (002) (? Yrs - M UNKN) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (22 Yrs - M TW2) CHANGE LANE TO LEFT E TO W JCT CLEARED
BT - NEGATIVE N/S HIT FIRST

VEHICLE 002 (001) PEDAL CYCLE (? Yrs - M UNKN) GOING AHEAD OTHER E TO W JCT CLEARED
BT - NOT APPLICABLE FRONT HIT FIRST

V001 A 403 (POOR TURN OR MANOEUVRE)
V001 A 405 (FAILED TO LOOK PROPERLY)
V001 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)
V001 A 407 (PASSING TOO CLOSE TO CYCLIST, HORSE RIDER OR PEDESTRIAN)

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) 60 MTS TO JAN-2014 SORTED BY DATE

3 0109TW60097 MON 06/04/09 13:25 LIGHT GOULD ROAD J/W MAY ROAD 24 CELL 515000/173000 515190 / 173280

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY PRIV DRIVE GIVE WAY/UNCONT NO XING FACILITY IN 50M

V1 PULLED ACROSS THE JUNCTION TO ENTER A CAR PARK ACROSS PATH V2 WHO HAD TO SWERVE TO AVOID A COLLISION & FELL OFF

CASUALTY 001 (002) (55 Yrs - M TW2) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	CAR BT - NEGATIVE	(52 Yrs - F TW1)	GOING AHEAD OTHER	S TO N FRONT HIT FIRST	JCT MID
VEHICLE	002 (001)	M/C 50-125CC BT - NOT REQUESTED	(55 Yrs - M TW2)	GOING AHEAD OTHER	SW TO NE O/S HIT FIRST	JCT MID

V001 A 403 (POOR TURN OR MANOEUVRE)
V001 A 405 (FAILED TO LOOK PROPERLY)
V001 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)
V001 A 602 (CARELESS/RECKLESS/IN A HURRY)

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4 0109TW60292 MON 21/09/09 08:30 LIGHT NFL HEATH ROAD 30M EAST J/W SAVILLE ROAD 24 LINK 104-131 515720 / 173120

POLICE - OVER COU ROAD-DRY WEATHER-FINE DUAL CWY NO JUN IN 20M NO XING FACILITY IN 50M

DRIVER OPENED DOOR V1 IN PATH V2

CASUALTY 001 (001) (26 Yrs - M TW2) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	PEDAL CYCLE BT - NOT APPLICABLE	(26 Yrs - M TW2)	GOING AHEAD OTHER HIT OPEN DOOR	E TO W FRONT HIT FIRST BUS LANE	
VEHICLE	002 (001)	CAR BT - DRV NOT CONTACTED	(? Yrs - U UNKN)	PARKED	P TO P O/S HIT FIRST	

V002 A 904 (VEHICLE DOOR OPENED OR CLOSED NEGLIGENTLY)

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) 60 MTS TO JAN-2014 SORTED BY DATE

5 0109TW60385 TUE 17/11/09 16:12 LIGHT THE GREEN/HEATH ROAD J/W HEATH GARDENS 24 LINK 104-131 515620 / 173120

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M

V2 WHO FTS DROVE INTO REAR V1 WHO WAS SLOWING FOR RED ATS

CASUALTY 001 (001) (21 Yrs - F HA5) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (21 Yrs - F HA5) SLOWING OR STOPPING E TO W JCT MID
BT - NOT PROVD (MEDCL REASONS) BACK HIT FIRST

VEHICLE 002 (001) CAR (? Yrs - U UNKN) GOING AHEAD OTHER E TO W JCT MID
BT - DRV NOT CONTACTED FRONT HIT FIRST

V002 A 308 (FOLLOWING TOO CLOSE) V002 A 408 (SUDDEN BRAKING)
V002 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED) V002 A 602 (CARELESS/RECKLESS/IN A HURRY)

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6 0109TW69001 SUN 27/12/09 22:02 DARK THE GREEN 46M NORTH EAST OF J/W FIRST CROSS RD 24 LINK 65-103 515280 / 172840

POLICE - AT SCENE ROAD-WET WEATHER-FINE SINGLE CWY NO JUN IN 20M ZEBRA

PED (CAS2) RAN INTO PATH OF V1 (SOLO-CAS1), CAUSING COLLISION.

CASUALTY 001 (001) (23 Yrs - M SW17) SERIOUS DRIVER/RIDER

CASUALTY 002 (001) (44 Yrs - M TW11) SLIGHT PEDESTRIAN CROSSING ROAD IN ZIG-ZAG APP NW BOUND FROM DRIVERS O/SIDE MSK

VEHICLE 001 (000) M/C 50-125CC (23 Yrs - M SW17) GOING AHEAD OTHER SW TO NE JNY PART OF WORK
BT - NOT PROVD (MEDCL REASONS) SKIDDED O/S HIT FIRST

C002 A 802 (FAILED TO LOOK PROPERLY) C002 A 801 (CROSSED ROAD MASKED BY STATIONARY OR PARKED VEHICLE)
C002 A 808 (CARELESS/RECKLESS/IN A HURRY) C002 A 806 (IMPAIRED BY ALCOHOL)

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7 0110TW60039 MON 01/03/10 16:03 LIGHT NFL- THE GREEN 50M EAST J/W FIRST CROSS ROAD 24 LINK 60-104 515170 / 172990

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M

PED CROSSED ROAD IN FRONT OF UNK BUS HE HAD ALIGHTED & WAS HIT BY V1

CASUALTY 001 (001) (13 Yrs - M TW2) SERIOUS PEDESTRIAN CROSSING ROAD (NOT ON XING) S BOUND FROM DRIVERS O/SIDE
Sch Attended : NK

VEHICLE 001 (000) CAR (56 Yrs - M TW11) GOING AHEAD OTHER E TO W
BT - NEGATIVE FRONT HIT FIRST

C001 A 801 (CROSSED ROAD MASKED BY STATIONARY OR PARKED VEHICLE) C001 A 802 (FAILED TO LOOK PROPERLY)
C001 A 803 (FAILED TO JUDGE VEHICLE'S PATH OR SPEED) C001 A 808 (CARELESS/RECKLESS/IN A HURRY)

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) 60 MTS TO JAN-2014 SORTED BY DATE

8 0110TW60186 THU 24/06/10 10:40 LIGHT HEATH ROAD J/W SAVILLE ROAD 24 LINK 104-131 515690 / 173120

POLICE - AT SCENE ROAD-DRY WEATHER-FINE DUAL CWY T/STAG JUN GIVE WAY/UNCONT PELICAN OR SIMILAR

CHILD PED RAN INTO ROAD IN PATH V1WHEN ATS WAS GREEN FOR VEHICLES

CASUALTY 001 (001) (3 Yrs - F TW2) SLIGHT PEDESTRIAN CROSSING ROAD ON PED XING S BOUND FROM DRIVERS O/SIDE

VEHICLE 001 (000) CAR (31 Yrs - M TW4) GOING AHEAD OTHER E TO W JCT MID
BT - NEGATIVE FRONT HIT FIRST

C001 A 802 (FAILED TO LOOK PROPERLY) C001 A 805 (DANGEROUS ACTION IN CARRIAGEWAY (EG PLAYING))

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9 0110TW60244 SUN 01/08/10 18:40 LIGHT NFL- HEATH ROAD 30M EAST J/W SAVILLE ROAD 24 LINK 104-131 515720 / 173120

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M

DRV V1 OPENED DOOR INTO PATH V1 CAUSING RIDER TO HIT DOOR & FALL OFF

CASUALTY 001 (002) (? Yrs - M TW2) SERIOUS DRIVER/RIDER

VEHICLE 001 (002) CAR (57 Yrs - M TW1) PARKED P TO P
BT - NOT REQUESTED O/S HIT FIRST

VEHICLE 002 (001) PEDAL CYCLE (? Yrs - M TW2) GOING AHEAD OTHER E TO W
BT - NOT APPLICABLE FRONT HIT FIRST
HIT PARKED VEH

V001 A 904 (VEHICLE DOOR OPENED OR CLOSED NEGLIGENTLY) V001 A 405 (FAILED TO LOOK PROPERLY)

V001 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED) V001 A 602 (CARELESS/RECKLESS/IN A HURRY)

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10 0110TW60292 TUE 14/09/10 21:30 DARK HEATH ROAD J/W LION ROAD 24 LINK 104-131 515610 / 173120

POLICE - AT SCENE ROAD-WET WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M

V1 TURNED RIGHT & COLLIDED WITH PASSING V2 CAUSING RIDER TO FALL OFF

CASUALTY 001 (002) (25 Yrs - M HA0) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (22 Yrs - M TW2) TURNING RIGHT N TO W JCT MID
BT - NOT REQUESTED FRONT HIT FIRST

VEHICLE 002 (001) M/C 50-125CC (25 Yrs - M HA0) GOING AHEAD OTHER E TO W JCT MID
BT - NOT REQUESTED FRONT HIT FIRST

V001 A 403 (POOR TURN OR MANOEUVRE) V001 A 405 (FAILED TO LOOK PROPERLY)

V001 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) — 60 MTS TO JAN-2014 SORTED BY DATE

11 0110TW60313 SAT 02/10/10 17:40 LIGHT NFL- STAINES ROAD 53M EAST J/W FIRST CROSS ROAD 24 LINK 60-104 515180 / 172990

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY PRIV DRIVE GIVE WAY/UNCONT NO XING FACILITY IN 50M

V1 BRAKED TO AVOID TURNING V2 & FELL OFF V1 SLID INTO V2 WHILE RIDER HIT V3

CASUALTY 001 (001) (20 Yrs - M TW13) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	M/C > 500CC BT - NOT REQUESTED	(20 Yrs - M TW13)	SLOWING OR STOPPING	E TO W FRONT HIT FIRST	JCT MID
VEHICLE	002 (001)	CAR BT - NOT REQUESTED	(64 Yrs - M TW1)	TURNING RIGHT	E TO N O/S HIT FIRST	JCT MID
VEHICLE	003 (001)	CAR BT - NOT REQUESTED	(38 Yrs - M TW2)	WAITING TO TURN RIGHT	N TO W FRONT HIT FIRST	JCT MID

V001 A 408 (SUDDEN BRAKING)
V001 A 405 (FAILED TO LOOK PROPERLY)
V001 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)
V001 A 602 (CARELESS/RECKLESS/IN A HURRY)

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12 0110TW60318 WED 06/10/10 07:55 LIGHT HEATH ROAD J/W GROVE AVENUE 24 LINK 104-131 515760 / 173130

POLICE - AT SCENE ROAD-WET RAINING DUAL CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M

V1 TURNED RIGHT & COLLIDED WITH V2 (CYCLIST) WHO WAS OBSCURED BY TRAFFIC

CASUALTY 001 (002) (47 Yrs - M TW12) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	CAR BT - NEGATIVE	(38 Yrs - M TW11)	TURNING RIGHT	E TO N N/S HIT FIRST	JCT MID
VEHICLE	002 (001)	PEDAL CYCLE BT - NOT APPLICABLE	(47 Yrs - M TW12)	GOING AHEAD OTHER	W TO E FRONT HIT FIRST	JCT MID

V001 A 701 (VISION AFFECTED - STATIONARY OR PARKED VEHICLE(S))
V001 A 405 (FAILED TO LOOK PROPERLY)
V002 A 701 (VISION AFFECTED - STATIONARY OR PARKED VEHICLE(S))
V002 A 405 (FAILED TO LOOK PROPERLY)

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) — 60 MTS TO JAN-2014 SORTED BY DATE

13 0110TW60426 MON 13/12/10 15:30 LIGHT HEATH ROAD J/W GROVE AVENUE 24 LINK 104-131 515760 / 173130

POLICE - OVER COU ROAD-WET WEATHER-OTHER DUAL CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M

UNK V2 TURNED LEFT ACROSS PATH V1 CAUSING RIDER TO BRAKE HARD & FALL OFF

CASUALTY 001 (001) (53 Yrs - F TW12) SERIOUS DRIVER/RIDER

VEHICLE	001 (000)	PEDAL CYCLE (53 Yrs - F TW12) BT - NOT APPLICABLE	SLOWING OR STOPPING	W TO E O/S HIT FIRST	JCT MID	
VEHICLE	002 (000)	CAR (? Yrs - U UNKN) BT - DRV NOT CONTACTED	TURNING LEFT	W TO N DID NOT IMPACT	JCT MID	

V002 A 403 (POOR TURN OR MANOEUVRE)
V002 A 602 (CARELESS/RECKLESS/IN A HURRY)
V002 A 407 (PASSING TOO CLOSE TO CYCLIST, HORSE RIDER OR PEDESTRIAN)
V001 A 408 (SUDDEN BRAKING)

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14 0111TW60049 TUE 22/02/11 11:07 LIGHT THE GREEN J/W KNOWLE ROAD 24 NODE 104 515430 / 173050

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M

DRV V2 WAS DISTRACTED & DROVE INTO REAR V1 WHO WAS WAITING TO TURN RIGHT

CASUALTY 001 (001) (58 Yrs - F TW1) SLIGHT DRIVER/RIDER
CASUALTY 002 (002) (42 Yrs - F TW1) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	CAR (58 Yrs - F TW1) BT - NOT REQUESTED	WAITING TO TURN RIGHT	NE TO NW BACK HIT FIRST	JCT MID	
VEHICLE	002 (001)	CAR (42 Yrs - F TW1) BT - NOT REQUESTED	GOING AHEAD OTHER	NE TO SW FRONT HIT FIRST	JCT MID	

V002 A 308 (FOLLOWING TOO CLOSE)
V002 A 405 (FAILED TO LOOK PROPERLY)
V002 A 509 (DISTRACTION IN VEHICLE)
V002 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) 60 MTS TO JAN-2014 SORTED BY DATE

15 0111TW60210 WED 13/07/11 09:55 LIGHT THE GREEN J/W VICARAGE ROAD 24 NODE 103 515310 / 172870

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M

V2 OVERTOOK A STATIONARY UNK BUS FAILING TO SEE V1 WHO WAS WAITING TO TURN RIGHT & COLLIDING RIDER V2 FELL OFF

CASUALTY 001 (002) (? Yrs - M TW11) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	CAR BT - NEGATIVE	(67 Yrs - F TW2)	WAITING TO TURN RIGHT	SW TO SE BACK HIT FIRST	JCT MID
VEHICLE	002 (001)	M/C <= 50CC BT - NEGATIVE	(? Yrs - M TW11)	OVERTAKE STAT VEH O/S	SW TO NE FRONT HIT FIRST	JCT APP

V002 A 403 (POOR TURN OR MANOEUVRE)
V002 A 405 (FAILED TO LOOK PROPERLY)
V002 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)
V002 A 602 (CARELESS/RECKLESS/IN A HURRY)

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16 0111TW60294 SAT 17/09/11 13:45 LIGHT HEATH ROAD 25M EAST J/W TENNYSON AVENUE 24 LINK 104-131 515880 / 173110

POLICE - OVER COU ROAD-DRY WEATHER-FINE DUAL CWY NO JUN IN 20M NO XING FACILITY IN 50M

DRV V1 OPENED DOOR ONTO RIDER OF PASSING V2 (CYCLIST) CAUSING RIDER TO FALL OFF

CASUALTY 001 (002) (29 Yrs - F W9) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	CAR BT - DRV NOT CONTACTED	(76 Yrs - M TW1)	PARKED	P TO P FRONT HIT FIRST	
VEHICLE	002 (001)	PEDAL CYCLE BT - NOT APPLICABLE	(29 Yrs - F W9)	GOING AHEAD OTHER HIT OPEN DOOR	E TO W FRONT HIT FIRST	

V001 A 904 (VEHICLE DOOR OPENED OR CLOSED NEGLIGENTLY)
V001 A 405 (FAILED TO LOOK PROPERLY)
V001 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) 60 MTS TO JAN-2014 SORTED BY DATE

17 0111TW60312 THU 06/10/11 12:00 LIGHT HAMILTON ROAD 180M NORTH J/W EDWIN ROAD 24 CELL 515000/173000 515450 / 173350

POLICE - OVER COU ROAD-DRY WEATHER-FINE SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M

V2 WAS DOING A 3 POINT TURN & HIT PARKED V1 DRV V2 REFUSED DETAILS & WAS AGGRESSIVE BEFORE D/A

CASUALTY 001 (001) (50 Yrs - M SL2) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	CAR BT - DRV NOT CONTACTED	(50 Yrs - M SL2)	PARKED	P TO P BACK HIT FIRST	
VEHICLE	002 (001)	CAR BT - DRV NOT CONTACTED	(? Yrs - M UNKN)	U-TURNING HIT PARKED VEH	S TO S FRONT HIT FIRST	

V002 A 601 (AGGRESSIVE DRIVING)
V002 A 403 (POOR TURN OR MANOEUVRE)
V002 A 405 (FAILED TO LOOK PROPERLY)
V002 A 602 (CARELESS/RECKLESS/IN A HURRY)

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18 0111TW60370 TUE 29/11/11 20:00 DARK HEATH ROAD J/W TEENYSON AVENUE 24 LINK 104-131 515860 / 173120

POLICE - AT SCENE ROAD-WET WEATHER-OTHER DUAL CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M

V1 TURNED RIGHT & COLLIDED WITH V2 WHO WAS ON OFFSIDE OF V1

CASUALTY 001 (002) (30 Yrs - M TW4) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	CAR BT - NEGATIVE	(71 Yrs - M SL2)	TURNING RIGHT	W TO S O/S HIT FIRST	JCT MID
VEHICLE	002 (001)	M/C 50-125CC BT - NEGATIVE	(30 Yrs - M TW4)	GOING AHEAD OTHER	W TO E FRONT HIT FIRST	JCT MID

V001 B 404 (FAILED TO SIGNAL/ MISLEADING SIGNAL)
V001 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)
V001 A 405 (FAILED TO LOOK PROPERLY)
V002 A 405 (FAILED TO LOOK PROPERLY)

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) — 60 MTS TO JAN-2014 SORTED BY DATE

19 0112TA00462 SUN 01/01/12 15:30 LIGHT HEATH ROAD J/W LAUREL AVENUE 24 LINK 104-131 515680 / 173120

POLICE - AT SCENE ROAD-WET RAINING SINGLE CWY CROSSROADS GIVE WAY/UNCONT NO XING FACILITY IN 50M

V1 (SOLO) NOT PAYING ATTENTION LOST CONTROL AND COLLIDED WITH STAT ONCOMING V2

CASUALTY 001 (001) (34 Yrs - M UNKN) SERIOUS DRIVER/RIDER

VEHICLE	001 (002)	M/C > 500CC BT - NOT PROVD (MEDCL REASONS) LEFT CWY OFFSIDE	(34 Yrs - M UNKN)	GOING AHEAD OTHER HIT KERB	E TO W FRONT HIT FIRST	JCT CLEARED
VEHICLE	002 (001)	CAR BT - NOT REQUESTED	(41 Yrs - M TW2)	GOING AHEAD HELD UP	W TO E FRONT HIT FIRST	JCT APP

V001 A 405 (FAILED TO LOOK PROPERLY)
V001 A 410 (LOSS OF CONTROL)
V001 A 602 (CARELESS/RECKLESS/IN A HURRY)
V001 A 510 (DISTRACTION OUTSIDE VEHICLE)

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20 0112TW60010 WED 11/01/12 10:57 LIGHT HEATH ROAD J/W RADNOR ROAD. 24 LINK 104-131 515780 / 173120

POLICE - AT SCENE ROAD-DRY WEATHER-FINE DUAL CWY T/STAG JUN AUTO SIG PEDN PHASE AT ATS

V1 BRAKED AND CAUSED STANDING PASSENGER TO FALL.

CASUALTY 001 (001) (79 Yrs - F SW14) SLIGHT PASSENGER STANDING ON PSV

VEHICLE	001 (000)	BUS/COACH BT - NEGATIVE	(64 Yrs - M TW16)	SLOWING OR STOPPING	E TO W JNY PART OF WORK DID NOT IMPACT	JCT APP

V001 A 408 (SUDDEN BRAKING)

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) 60 MTS TO JAN-2014 SORTED BY DATE

21 0112TW60016 WED 11/01/12 12:20 LIGHT THE GREEN 30M S/W J/W KNOWLE ROAD 24 LINK 60-104 515410 / 173040

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M

DRIVER V1 WAS DISTRACTED AND LOST CONTROL AND HIT V3 PUSHING IT INTO V2.

CASUALTY 001 (001) (25 Yrs - F TW13) SLIGHT DRIVER/RIDER

CASUALTY 002 (003) (40 Yrs - F TW2) SLIGHT DRIVER/RIDER

VEHICLE 001 (003) CAR (25 Yrs - F TW13) GOING AHEAD HELD UP SW TO NE
BT - NOT REQUESTED FRONT HIT FIRST

VEHICLE 002 (003) CAR (38 Yrs - M TW2) GOING AHEAD HELD UP SW TO NE
BT - NOT REQUESTED FRONT HIT FIRST

VEHICLE 003 (001) CAR (40 Yrs - F TW2) GOING AHEAD HELD UP SW TO NE
BT - NOT REQUESTED BACK HIT FIRST

V001 A 509 (DISTRACTION IN VEHICLE)
V001 A 405 (FAILED TO LOOK PROPERLY)
V001 A 410 (LOSS OF CONTROL)
V001 A 308 (FOLLOWING TOO CLOSE)

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22 0112TW60058 SAT 28/01/12 13:30 LIGHT HEATH ROAD J/WLONMDON ROAD 24 LINK 104-131 515610 / 173120

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN STOP SIGN NO XING FACILITY IN 50M

PED CROSSED ROAD BETWEEN MOVING TRAFFIC AND WAS HIT BY V1

CASUALTY 001 (001) (? Yrs - M UNKN) SLIGHT PEDESTRIAN UNKNOWN

VEHICLE 001 (000) CAR (56 Yrs - M TW4) GOING AHEAD RIGHT BEND SW TO E JCT MID
BT - DRV NOT CONTACTED FRONT HIT FIRST

C001 A 801 (CROSSED ROAD MASKED BY STATIONARY OR PARKED VEHICLE)
C001 A 808 (CARELESS/RECKLESS/IN A HURRY)
C001 A 803 (FAILED TO JUDGE VEHICLE'S PATH OR SPEED)
V001 A 405 (FAILED TO LOOK PROPERLY)

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) 60 MTS TO JAN-2014 SORTED BY DATE

23 0112TW60107 MON 19/03/12 07:05 LIGHT NFL- THE GREEN 40M EAST J/W FIRST CROSS ROAD 24 LINK 60-104 515160 / 172990

POLICE - OVER COU ROAD-DRY WEATHER-FINE SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M

V2 PULLED OUT OF PARKING SPACE & COLLIDED WITH PASSING V1

CASUALTY 001 (001) (42 Yrs - M TW2) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) GDS =< 3.5T (42 Yrs - M TW2) GOING AHEAD OTHER W TO E
BT - DRV NOT CONTACTED O/S HIT FIRST

VEHICLE 002 (001) CAR (? Yrs - F TW2) GOING AHEAD OTHER W TO E
BT - DRV NOT CONTACTED N/S HIT FIRST

V002 A 403 (POOR TURN OR MANOEUVRE)
V002 A 404 (FAILED TO SIGNAL/ MISLEADING SIGNAL)
V002 A 405 (FAILED TO LOOK PROPERLY)
V002 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)

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24 0112TW60173 THU 17/05/12 09:40 LIGHT HEATH ROAD/THE GREEN J/W COLNE ROAD 24 LINK 104-131 515580 / 173110

POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M

V1 TURNED LEFT ACROSS PATH V2 (CYCLIST) CAUSING A COLLISION & RIDER TO FALL OFF

CASUALTY 001 (002) (36 Yrs - F TW12) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) GDS 3.5-7.5T (42 Yrs - M TW7) TURNING LEFT SW TO NW JCT MID
BT - NOT REQUESTED N/S HIT FIRST

VEHICLE 002 (001) PEDAL CYCLE (36 Yrs - F TW12) GOING AHEAD OTHER SW TO NE JCT MID
BT - NOT APPLICABLE FRONT HIT FIRST

V001 A 403 (POOR TURN OR MANOEUVRE)
V001 A 404 (FAILED TO SIGNAL/ MISLEADING SIGNAL)
V001 A 405 (FAILED TO LOOK PROPERLY)
V001 A 407 (PASSING TOO CLOSE TO CYCLIST, HORSE RIDER OR PEDESTRIAN)

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) 60 MTS TO JAN-2014 SORTED BY DATE

25 0112TW60241 SUN 08/07/12 20:11 DARK COLNE ROAD J/W ALBION ROAD 24 CELL 515000/173000 515410 / 173140

POLICE - AT SCENE ROAD-WET WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M

DRV V1 HAS POOR EYESIGHT & DRV V2 WAS TRAVELLING TO FAST FOR CONDITIONS & BOTH FAILED TO GIVEWAY & COLLIDED

CASUALTY 001 (002) (27 Yrs - M TW3) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	CAR BT - NEGATIVE	(82 Yrs - M TW2)	GOING AHEAD OTHER	W TO E FRONT HIT FIRST	JCT MID
VEHICLE	002 (001)	M/C 50-125CC BT - NEGATIVE	(27 Yrs - M TW3)	GOING AHEAD OTHER	E TO W FRONT HIT FIRST	JCT MID

V001 A 504 (UNCORRECTED, DEFECTIVE EYESIGHT)
V002 A 307 (TRAVELLING TOO FAST FOR CONDITIONS)
V001 A 302 (DISOBEYED GIVE WAY OR STOP SIGN OR MARKINGS)
V002 A 302 (DISOBEYED GIVE WAY OR STOP SIGN OR MARKINGS)

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26 0112TW60311 SUN 02/09/12 19:18 LIGHT HEATH RD J/W SAVILLE RD 24 LINK 104-131 515700 / 173120

POLICE - AT SCENE ROAD-DRY WEATHER-FINE DUAL CWY CROSSROADS GIVE WAY/UNCONT NO XING FACILITY IN 50M

FOR UNKNOWN REASON V2 CAUSED V1 TO LOSE CONTROL AND CRASH

CASUALTY 001 (001) (57 Yrs - M TW12) SLIGHT DRIVER/RIDER

VEHICLE	001 (000)	GDS =< 3.5T BT - NEGATIVE	(57 Yrs - M TW12)	GOING AHEAD OTHER HIT KERB	E TO W JNY PART OF WORK FRONT HIT FIRST	JCT APP
VEHICLE	002 (000)	CAR BT - NEGATIVE	(57 Yrs - M TW12)	GOING AHEAD OTHER	E TO W DID NOT IMPACT	JCT APP

V002 B 601 (AGGRESSIVE DRIVING)
V001 A 410 (LOSS OF CONTROL)
V002 B 602 (CARELESS/RECKLESS/IN A HURRY)

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) 60 MTS TO JAN-2014 SORTED BY DATE

27 0112TW60323 FRI 14/09/12 09:08 LIGHT THE GREEN J/W LION ROAD 24 LINK 104-131 515580 / 173110
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M
V1 TURNED AND V2 (CYCLIST) WASNT PAYING ATTENTION AND HIT THE SIDE OF V1

CASUALTY 001 (002) (30 Yrs - M TW12) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) CAR (42 Yrs - F TW4) TURNING LEFT SW TO NW JCT MID
BT - NOT REQUESTED O/S HIT FIRST

VEHICLE 002 (001) PEDAL CYCLE (30 Yrs - M TW12) GOING AHEAD OTHER SW TO NE JCT MID
BT - NOT APPLICABLE FRONT HIT FIRST

V002 A 405 (FAILED TO LOOK PROPERLY) V002 A 602 (CARELESS/RECKLESS/IN A HURRY)

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28 0112TW60370 WED 24/10/12 08:01 LIGHT THE GREEN 75M W J/W KNOWLE ROAD 24 LINK 60-104 515360 / 173030
POLICE - AT SCENE ROAD-WET WEATHER-FINE SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M
PED CROSSED THE ROAD INTO PATH OF SOLO V1 CAUSING COLLISION. V1 THEN ALSO COLLIDED WITH V2.

CASUALTY 001 (001) (41 Yrs - M TW2) SLIGHT DRIVER/RIDER
CASUALTY 002 (001) (66 Yrs - M KT20) SLIGHT PEDESTRIAN CROSSING ROAD (NOT ON XING) S BOUND FROM DRIVERS O/SIDE

VEHICLE 001 (002) M/C 50-125CC (41 Yrs - M TW2) OVERTAKING NEARSIDE NE TO SW JNY PART OF WORK
BT - DRV NOT CONTACTED O/S HIT FIRST

VEHICLE 002 (001) CAR (53 Yrs - M PO8) GOING AHEAD OTHER SW TO NE
BT - DRV NOT CONTACTED O/S HIT FIRST

C002 A 803 (FAILED TO JUDGE VEHICLE'S PATH OR SPEED) V001 A 407 (PASSING TOO CLOSE TO CYCLIST, HORSE RIDER OR PEDESTRIAN)
V001 A 602 (CARELESS/RECKLESS/IN A HURRY)

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29 0113TA00092 THU 10/01/13 12:15 LIGHT MARSH FARM ROAD J/W ALBOT ROAD 24 CELL 515500/173000 515540 / 173300
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M
PED RAN OUT FROM ALLEY WAY INTO PATH OF PASSING V1

CASUALTY 001 (001) (16 Yrs - M TW12) SERIOUS PEDESTRIAN CROSSING ROAD (NOT ON XING) W BOUND FROM DRIVERS N/SIDE

VEHICLE 001 (000) GDS =< 3.5T (60 Yrs - M HA2) GOING AHEAD OTHER N TO S JNY PART OF WORK JCT APP
BT - NOT REQUESTED N/S HIT FIRST

C001 A 802 (FAILED TO LOOK PROPERLY) C001 A 808 (CARELESS/RECKLESS/IN A HURRY)

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) 60 MTS TO JAN-2014 SORTED BY DATE

30 0113TW60114 MON 22/04/13 08:13 LIGHT THE GREEN J/W COLNE ROAD 24 LINK 104-131 515580 / 173110
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M
V2 MAIN ROAD WEST-BD BEGAN TO TURN RIGHT, AS V1 BEGAN AN OVERTAKE

CASUALTY 001 (001) (18 Yrs - M W3) SLIGHT DRIVER/RIDER

VEHICLE 001 (002) M/C 50-125CC (18 Yrs - M W3) OVERTAKE MOVE VEH O/S NE TO SW JCT MID
BT - NOT REQUESTED FRONT HIT FIRST

VEHICLE 002 (001) CAR (32 Yrs - F TW2) TURNING RIGHT NE TO NW JCT MID
BT - NOT REQUESTED O/S HIT FIRST

V001 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED) V002 A 405 (FAILED TO LOOK PROPERLY)

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31 0113TW60261 SAT 15/06/13 16:08 LIGHT THE GREEN 60M W J/W MAY ROAD. 24 LINK 60-104 515240 / 173000
POLICE - AT SCENE ROAD-WET RAINING SINGLE CWY NO JUN IN 20M NO XING FACILITY IN 50M
PED HAS CROSSED THE ROAD INTO PATH OF V1 CAUSING COLLISION.

CASUALTY 001 (001) (52 Yrs - M HA4) SLIGHT PEDESTRIAN CROSSING ROAD (NOT ON XING) S BOUND FROM DRIVERS O/SIDE

VEHICLE 001 (000) CAR (51 Yrs - M TW13) GOING AHEAD OTHER E TO W
BT - NEGATIVE O/S HIT FIRST

C001 A 802 (FAILED TO LOOK PROPERLY) C001 A 801 (CROSSED ROAD MASKED BY STATIONARY OR PARKED VEHICLE)
V001 A 701 (VISION AFFECTED - STATIONARY OR PARKED VEHICLE(S))

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32 0113TW60221 MON 01/07/13 10:40 LIGHT NFL HEATH RD J/W GROVE AVE 24 LINK 104-131 515750 / 173130
POLICE - AT SCENE ROAD-DRY WEATHER-FINE DUAL CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M
PED CROSSED RD AND GOT HIT BY V1

CASUALTY 001 (001) (? Yrs - M TW2) SLIGHT PEDESTRIAN CROSSING ROAD (NOT ON XING) S BOUND FROM DRIVERS N/SIDE

VEHICLE 001 (000) CAR (? Yrs - U UNKN) GOING AHEAD OTHER W TO E JCT APP
BT - DRV NOT CONTACTED FRONT HIT FIRST

C001 A 802 (FAILED TO LOOK PROPERLY) C001 A 808 (CARELESS/RECKLESS/IN A HURRY)

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) 60 MTS TO JAN-2014 SORTED BY DATE

33 0113TW60306 WED 04/09/13 13:32 LIGHT HEATH ROAD J/W HEATH GARDENS 24 LINK 104-131 515620 / 173120
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M
V2 TURNED RIGHT ACROSS PATH OF ONCOMING V1

CASUALTY 001 (002) (32 Yrs - F SW14) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	CAR BT - NOT REQUESTED	(68 Yrs - F TW16)	TURNING RIGHT	W TO S N/S HIT FIRST	LEAVING MAIN RD
VEHICLE	002 (001)	PEDAL CYCLE BT - NOT APPLICABLE	(32 Yrs - F SW14)	GOING AHEAD OTHER	E TO W FRONT HIT FIRST	JCT APP

V001 A 405 (FAILED TO LOOK PROPERLY)
V001 B 701 (VISION AFFECTED - STATIONARY OR PARKED VEHICLE(S))
V002 A 405 (FAILED TO LOOK PROPERLY)
V001 B 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)
V002 B 701 (VISION AFFECTED - STATIONARY OR PARKED VEHICLE(S))

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34 0113TW60342 WED 18/09/13 17:10 LIGHT HAMPTON ROAD J/W FIRST CROSS ROAD 24 LINK 65-103 515250 / 172800
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE CWY T/STAG JUN GIVE WAY/UNCONT NO XING FACILITY IN 50M
V1 PULLED OUT AND TURNED RIGHT ACROSS PATH OF V2, V2 SWERVED AND LOST CONTROL

CASUALTY 001 (002) (18 Yrs - M TW12) SLIGHT DRIVER/RIDER

VEHICLE	001 (002)	CAR BT - NEGATIVE	(63 Yrs - M TW2)	TURNING RIGHT	NW TO SW N/S HIT FIRST	JCT MID
VEHICLE	002 (001)	M/C 125-500CC BT - NEGATIVE	(18 Yrs - M TW12)	GOING AHEAD OTHER	NE TO SW FRONT HIT FIRST	JCT MID

V001 A 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)
V001 A 405 (FAILED TO LOOK PROPERLY)
V001 B 401 (JUNCTION OVERSHOOT)
V002 B 406 (FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED)

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35 0114TW60028 MON 20/01/14 14:31 LIGHT HEATH ROAD 33M EAST J/W LAUREL AVENUE 24 LINK 104-131 515720 / 173130
POLICE - AT SCENE ROAD-DRY WEATHER-FINE DUAL CWY NO JUN IN 20M NO XING FACILITY IN 50M
PASSENGER ON V1 BECAME UNWELL & HAD A FIT HITTING HEAD - [PASS HAD A FIT (C001)]

CASUALTY 001 (001) (57 Yrs - M TW2) SLIGHT PASSENGER STANDING ON PSV

VEHICLE	001 (000)	BUS/COACH BT - NOT REQUESTED	(46 Yrs - M TW3)	MOVING OFF	W TO E JNY PART OF WORK DID NOT IMPACT	

C001 A 999 (OTHER FACTOR)

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) 60 MTS TO JAN-2014 SORTED BY DATE
End of Accidents for LP001 GIS AREA 400m_EFA request (C)

End of Report

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

Summary of Accidents Selected

Site Reference and Description (zero accident counts shown in bold)	Date Period	Accidents
LP001 GIS AREA 400m_EFA request (C)	60 MTS TO JAN-2014	35

The description of how the accident occurred and the contributory factors are the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) — 60 MTS TO JAN-2014 SORTED BY DATE

	1	2	3	4	5	6	7	8	9	10
Accident Reference	0109TW60065	0109TW60076	0109TW60097	0109TW60292	0109TW60385	0109TW69001	0110TW60039	0110TW60186	0110TW60244	0110TW60292
Day	TUESDAY	SATURDAY	MONDAY	MONDAY	TUESDAY	SUNDAY	MONDAY	THURSDAY	SUNDAY	TUESDAY
Date	10/03/2009	21/03/2009	06/04/2009	21/09/2009	17/11/2009	27/12/2009	01/03/2010	24/06/2010	01/08/2010	14/09/2010
Time	12:07	12:10	13:25	08:30	16:12	22:02	16:03	10:40	18:40	21:30
Light Conditions	LIGHT	LIGHT	LIGHT	LIGHT	LIGHT	DARK	LIGHT	LIGHT	LIGHT	DARK
Road Surface	DRY	DRY	DRY	DRY	DRY	WET	DRY	DRY	DRY	WET
Severity	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SERIOUS	SERIOUS	SLIGHT	SERIOUS	SLIGHT
Conflict										
Pedestrian Location						50M	0	X		
Contributory Factors (* denotes pre 2005)	403 V002 A 405 V002 A 406 V002 A 602 V002 A	403 V001 A 405 V001 A 406 V001 A 407 V001 A	403 V001 A 405 V001 A 406 V001 A 602 V001 A	904 V002 A	308 V002 A 408 V002 A 406 V002 A 602 V002 A	802 C002 A 801 C002 A 808 C002 A 806 C002 A	801 C001 A 802 C001 A 803 C001 A 808 C001 A	802 C001 A 805 C001 A	904 V001 A 405 V001 A 406 V001 A 602 V001 A	403 V001 A 405 V001 A 406 V001 A
Easting/Northing	515760 173130	515670 173120	515190 173280	515720 173120	515620 173120	515280 172840	515170 172990	515690 173120	515720 173120	515610 173120

Pedestrian	8	23 %
Wet	9	26 %
Dark	4	11 %

Site Diagram

Severity / Months To	12 01/2010	12 01/2011	12 01/2012	12 01/2013	12 01/2014	Total	Pct
Fatal	0	0	0	0	0	**0**	**0.0 %**
Serious	1	3	1	1	0	**6**	**17.1 %**
Slight	5	4	8	6	6	**29**	**82.9 %**
Total	**6**	**7**	**9**	**7**	**6**	**35**	
Pct	**17.1 %**	**20.0 %**	**25.7 %**	**20.0 %**	**17.1 %**		

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) — 60 MTS TO JAN-2014 SORTED BY DATE

	11	12	13	14	15	16	17	18	19	20
Accident Reference	0110TW60313	0110TW60318	0110TW60426	0111TW60049	0111TW60210	0111TW60294	0111TW60312	0111TW60370	0112TA00462	0112TW60010
Day	SATURDAY	WEDNESDAY	MONDAY	TUESDAY	WEDNESDAY	SATURDAY	THURSDAY	TUESDAY	SUNDAY	WEDNESDAY
Date	02/10/2010	06/10/2010	13/12/2010	22/02/2011	13/07/2011	17/09/2011	06/10/2011	29/11/2011	01/01/2012	11/01/2012
Time	17:40	07:55	15:30	11:07	09:55	13:45	12:00	20:00	15:30	10:57
Light Conditions	LIGHT	LIGHT	LIGHT	LIGHT	LIGHT	LIGHT	LIGHT	DARK	LIGHT	LIGHT
Road Surface	DRY	WET	WET	DRY	DRY	DRY	DRY	WET	WET	DRY
Severity	SLIGHT	SLIGHT	SERIOUS	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SERIOUS	SLIGHT
Conflict										
Pedestrian Location										
Contributory Factors (* denotes pre 2005)	408 V001 A 405 V001 A 406 V001 A 602 V001 A	701 V001 A 405 V001 A 701 V002 A 405 V002 A	403 V002 A 407 V002 A 602 V002 A 408 V001 A	308 V002 A 509 V002 A 405 V002 A 406 V002 A	403 V002 A 405 V002 A 406 V002 A 602 V002 A	904 V001 A 405 V001 A 406 V001 A	601 V002 A 405 V002 A 403 V002 A 602 V002 A	404 V001 B 405 V001 A 406 V001 A 405 V002 A	405 V001 A 602 V001 A 410 V001 A 510 V001 A	408 V001 A
Easting/Northing	515180 172990	515760 173130	515760 173130	515430 173050	515310 172870	515880 173110	515450 173350	515860 173120	515680 173120	515780 173120

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) — 60 MTS TO JAN-2014 SORTED BY DATE

	21	22	23	24	25	26	27	28	29	30
Accident Reference	0112TW60016	0112TW60058	0112TW60107	0112TW60173	0112TW60241	0112TW60311	0112TW60323	0112TW60370	0113TA00092	0113TW60114
Day	WEDNESDAY	SATURDAY	MONDAY	THURSDAY	SUNDAY	SUNDAY	FRIDAY	WEDNESDAY	THURSDAY	MONDAY
Date	11/01/2012	28/01/2012	19/03/2012	17/05/2012	08/07/2012	02/09/2012	14/09/2012	24/10/2012	10/01/2013	22/04/2013
Time	12:20	13:30	07:05	09:40	20:11	19:18	09:08	08:01	12:15	08:13
Light Conditions	LIGHT	LIGHT	LIGHT	LIGHT	DARK	LIGHT	LIGHT	LIGHT	LIGHT	LIGHT
Road Surface	DRY	DRY	DRY	DRY	WET	DRY	DRY	WET	DRY	DRY
Severity	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SERIOUS	SLIGHT
Conflict										
Pedestrian Location		0						0	0	
Contributory Factors (* denotes pre 2005)	509 V001 A 410 V001 A 405 V001 A 308 V001 A	801 C001 A 803 C001 A 808 C001 A 405 V001 A	403 V002 A 404 V002 A 405 V002 A 406 V002 A	403 V001 A 404 V001 A 405 V001 A 407 V001 A	504 V001 A 302 V001 A 307 V002 A 302 V002 A	601 V002 B 602 V002 B 410 V001 A	405 V002 A 602 V002 A	803 C002 A 407 V001 A 602 V001 A	802 C001 A 808 C001 A	406 V001 A 405 V002 A
Easting/Northing	515410 173040	515610 173120	515160 172990	515580 173110	515410 173140	515700 173120	515580 173110	515360 173030	515540 173300	515580 173110

Richmond Upon Thames area (400m) - 60 months to 31-Jan-2014

LP001 GIS AREA 400m_EFA request (C) — 60 MTS TO JAN-2014 SORTED BY DATE

	31	32	33	34	35
Accident Reference	0113TW60261	0113TW60221	0113TW60306	0113TW60342	0114TW60028
Day	SATURDAY	MONDAY	WEDNESDAY	WEDNESDAY	MONDAY
Date	15/06/2013	01/07/2013	04/09/2013	18/09/2013	20/01/2014
Time	16:08	10:40	13:32	17:10	14:31
Light Conditions	LIGHT	LIGHT	LIGHT	LIGHT	LIGHT
Road Surface	WET	DRY	DRY	DRY	DRY
Severity	SLIGHT	SLIGHT	SLIGHT	SLIGHT	SLIGHT
Conflict					
Pedestrian Location	0	0			
Contributory Factors (* denotes pre 2005)	802 C001 A 801 C001 A 701 V001 A	802 C001 A 808 C001 A	405 V001 A 406 V001 B 701 V001 B 701 V002 B 405 V002 A	406 V001 A 401 V001 B 405 V001 A 406 V002 B	999 C001 A
Easting/Northing	515240 173000	515750 173130	515620 173120	515250 172800	515720 173130

Robert West

Rail
Buildings
Infrastructure
Transport & Environment

Appendix K – Extant B1 Office Trip Generation (TRAVL)

5217/002/R01

Survey Cod	Land Use	Name	Borough	Survey Date	PTAL	Area	Total Parking	Survey Hrs1	GFA	Employ	Surveyed
TOTALS											
7	B1 - Office	First National Bank	HARROW	23/10/1991	4	Outer	58	08:00-18:00	4230	469	All Car Driv
7	B1 - Office	First National Bank	HARROW	23/10/1991	4	Outer	58	08:00-18:00	4230	469	Car Passeng
7	B1 - Office	First National Bank	HARROW	23/10/1991	4	Outer	58	08:00-18:00	4230	469	Coach
7	B1 - Office	First National Bank	HARROW	23/10/1991	4	Outer	58	08:00-18:00	4230	469	Motor Cycl
7	B1 - Office	First National Bank	HARROW	23/10/1991	4	Outer	58	08:00-18:00	4230	469	Other
7	B1 - Office	First National Bank	HARROW	23/10/1991	4	Outer	58	08:00-18:00	4230	469	Pedal Cycle
7	B1 - Office	First National Bank	HARROW	23/10/1991	4	Outer	58	08:00-18:00	4230	469	Taxi
7	B1 - Office	First National Bank	HARROW	23/10/1991	4	Outer	58	08:00-18:00	4230	469	Taxi Occupa
7	B1 - Office	First National Bank	HARROW	23/10/1991	4	Outer	58	08:00-18:00	4230	469	Walk/PT
6	B1 - Office	Hereward Philips	BARNET	25/03/1992	3	Outer	30	07:00-19:00	880	109	All Car Driv
6	B1 - Office	Hereward Philips	BARNET	25/03/1992	3	Outer	30	07:00-19:00	880	109	Car Passeng
6	B1 - Office	Hereward Philips	BARNET	25/03/1992	3	Outer	30	07:00-19:00	880	109	Coach
6	B1 - Office	Hereward Philips	BARNET	25/03/1992	3	Outer	30	07:00-19:00	880	109	Motor Cycl
6	B1 - Office	Hereward Philips	BARNET	25/03/1992	3	Outer	30	07:00-19:00	880	109	Other
6	B1 - Office	Hereward Philips	BARNET	25/03/1992	3	Outer	30	07:00-19:00	880	109	Pedal Cycle
6	B1 - Office	Hereward Philips	BARNET	25/03/1992	3	Outer	30	07:00-19:00	880	109	Taxi
6	B1 - Office	Hereward Philips	BARNET	25/03/1992	3	Outer	30	07:00-19:00	880	109	Taxi Occupa
6	B1 - Office	Hereward Philips	BARNET	25/03/1992	3	Outer	30	07:00-19:00	880	109	Walk/PT

	Total	**5110**
	Total/100sqm	**51.1**
Trips	**Existing Office**	**2316**
	Total/100sqm	**23.16**

Surveyed	06:30-07:00	07:00-07:3	07:30-08:0	08:00-08:3	08:30-09:0	09:00-09:3	09:30-10:0	10:00-10:3	10:30-11:0	11:00-11:3	11:30-12:0	12:00-12:3	12:30-13:0	13:00-13:3	13:30-14:0	14:00-14:3	14:30-15:0	15:00-15:3	15:30-16:0	16:00-16:3	16:30-17:0	17:00-17:3	17:30-18:0	18:00-18:3	18:30-19:0
All Car Drivers				13	14	54	3	15	5	2	5	5	12	15	3	15	4	5	5	1	7	12	63		
Car Passenger				5	7	10	0	6	7	0	0	0	3	1	0	3	2	0	3	4	3	4	13		
Coach				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Motor Cycle				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Other				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Pedal Cycle				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Taxi				0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Taxi Occupants				0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Walk/PT				35	87	158	12	15	4	24	18	96	66	282	115	193	33	45	36	18	13	30	218		

All Car Drivers	1	6	8	29	16	3	6	7	9	6	14	11	26	11	7	2	6	4	8	4	6	30	10	5
Car Passenger	0	0	1	3	1	0	0	0	1	1	1	1	1	1	0	0	1	0	0	1	2	3	2	0
Coach	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motor Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedal Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Taxi Occupants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk/PT	1	3	2	4	7	0	3	0	6	0	2	3	29	19	12	0	3	1	4	0	4	5	5	0

All Modes	**Surveyed Total**	2	9	64	144	248	18	45	23	42	30	118	96	354	149	230	41	60	49	35	28	58	332	17	5
	Trip Rate	0.039139	0.176125	1.252446	2.818004	4.853229	0.35225	0.880626	0.450098	0.821918	0.587084	2.309198	1.878669	6.927593	2.915851	4.500978	0.802348	1.174168	0.958904	0.684932	0.547945	1.135029	6.497065	0.332681	0.097847
	Trips	**1**	**5**	**30**	**66**	**113**	**9**	**21**	**11**	**20**	**14**	**54**	**44**	**161**	**68**	**105**	**19**	**28**	**23**	**16**	**13**	**27**	**151**	**8**	**3**
All Car Drivers	**Surveyed Total**	1	6	21	43	70	6	21	12	11	11	19	23	41	14	22	6	11	9	9	11	18	93	10	5
	Trip Rate	0.019569	0.117417	0.410959	0.841487	1.369863	0.117417	0.410959	0.234834	0.215264	0.215264	0.37182	0.450098	0.802348	0.273973	0.430528	0.117417	0.215264	0.176125	0.176125	0.215264	0.35225	1.819961	0.195695	0.097847
	Trips	**1**	**3**	**10**	**20**	**32**	**3**	**10**	**6**	**5**	**5**	**9**	**11**	**19**	**7**	**10**	**3**	**5**	**5**	**5**	**5**	**9**	**43**	**5**	**3**
Car Passenger	**Surveyed Total**	0	0	6	10	11	0	6	7	1	1	1	4	2	1	3	2	1	3	4	4	6	16	2	0
	Trip Rate	0	0	0.117417	0.195695	0.215264	0	0.117417	0.136986	0.019569	0.019569	0.019569	0.078278	0.039139	0.019569	0.058708	0.039139	0.019569	0.058708	0.078278	0.078278	0.117417	0.313112	0.039139	0
	Trips	**0**	**0**	**3**	**5**	**5**	**0**	**3**	**4**	**1**	**1**	**1**	**2**	**1**	**1**	**2**	**1**	**1**	**2**	**2**	**2**	**3**	**8**	**1**	**0**
Taxi	**Surveyed Total**	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Trip Rate	0	0	0	0	0.019569	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Trips	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Taxi Occupants	**Surveyed Total**	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Trip Rate	0	0	0	0	0.019569	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Trips	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Walk/PT	**Surveyed Total**	1	3	37	91	165	12	18	4	30	18	98	69	311	134	205	33	48	37	22	13	34	223	5	0
	Trip Rate	0.019569	0.058708	0.72407	1.780822	3.228963	0.234834	0.35225	0.078278	0.587084	0.35225	1.917808	1.350294	6.086106	2.622309	4.011742	0.645793	0.939335	0.72407	0.430528	0.254403	0.665362	4.363992	0.097847	0
	Trips	**1**	**2**	**17**	**42**	**75**	**6**	**9**	**2**	**14**	**9**	**45**	**32**	**141**	**61**	**93**	**15**	**22**	**17**	**10**	**6**	**16**	**102**	**3**	**0**

Existing B1 Office Trip Gen

			School Peak Hours				Network Peak Period				Network Peak Hour			
	Daily trips	Daily Mode Share	AM Peak Trips (0800-0900)	AM Peak Mode Share	PM Peak Trips (1500-1600)	PM Peak Mode Share	AM Peak Trips (0700-1000)	AM Peak Mode Share	PM Peak Trips (1600-1900)	PM Peak Mode Share	AM Peak Trips (0800-0900)	AM Peak Mode Share	PM Peak Trips (1500-1600)	PM Peak Mode Share
Car Drivers	234	23%	**30**	**31%**	**10**	**19%**	69	31%	70	31%	30	31%	52	29%
Car Passenger	49	5%	**8**	**8%**	**3**	**6%**	13	6%	16	7%	8	8%	11	6%
Taxi	1	0%	**0**	**0%**	**0**	**0%**	1	0%	0	0%	0	0%	0	0%
Walk/PT	740	72%	**59**	**61%**	**39**	**75%**	143	63%	137	61%	59	61%	118	65%
Total	1024	100%	**97**	**100%**	**52**	**100%**	226	100%	223	100%	97	100%	181	100%

Walk/PT assumption

	% Split	Daily trips	Daily Mode Share	AM Peak Trips (0800-0900)	AM Peak Mode Share	PM Peak Trips (1500-1600)	PM Peak Mode Share	AM Peak Trips (0700-1000)	AM Peak Mode Share	PM Peak Trips (1600-1900)	PM Peak Mode Share	AM Peak Trips (0800-0900)	AM Peak Mode Share	PM Peak Trips (1500-1600)	PM Peak Mode Share
Walk	20%	148	14%	**12**	**12%**	**8**	**15%**	29	13%	27	12%	12	12%	24	13%
Public Transport	80%	592	58%	**47**	**48%**	**31**	**60%**	114	50%	110	49%	47	48%	94	52%
	100%	740	72%	**59**	**61%**	**39**	**75%**	143	63%	137	61%	59	61%	118	65%

Public Transport Split

	% Split	Daily trips	Daily Mode Share	AM Peak Trips (0800-0900)	AM Peak Mode Share	PM Peak Trips (1500-1600)	PM Peak Mode Share	AM Peak Trips (0700-1000)	AM Peak Mode Share	PM Peak Trips (1600-1900)	PM Peak Mode Share	AM Peak Trips (0800-0900)	AM Peak Mode Share	PM Peak Trips (1500-1600)	PM Peak Mode Share
Bus	70%	414	40%	**33**	**34%**	**22**	**42%**	80	35%	77	35%	33	34%	66	36%
Rail	30%	178	17%	**14**	**14%**	**9**	**17%**	34	15%	33	15%	14	14%	28	16%
	100%	592	58%	**47**	**48%**	**31**	**60%**	114	50%	110	49%	47	48%	94	52%

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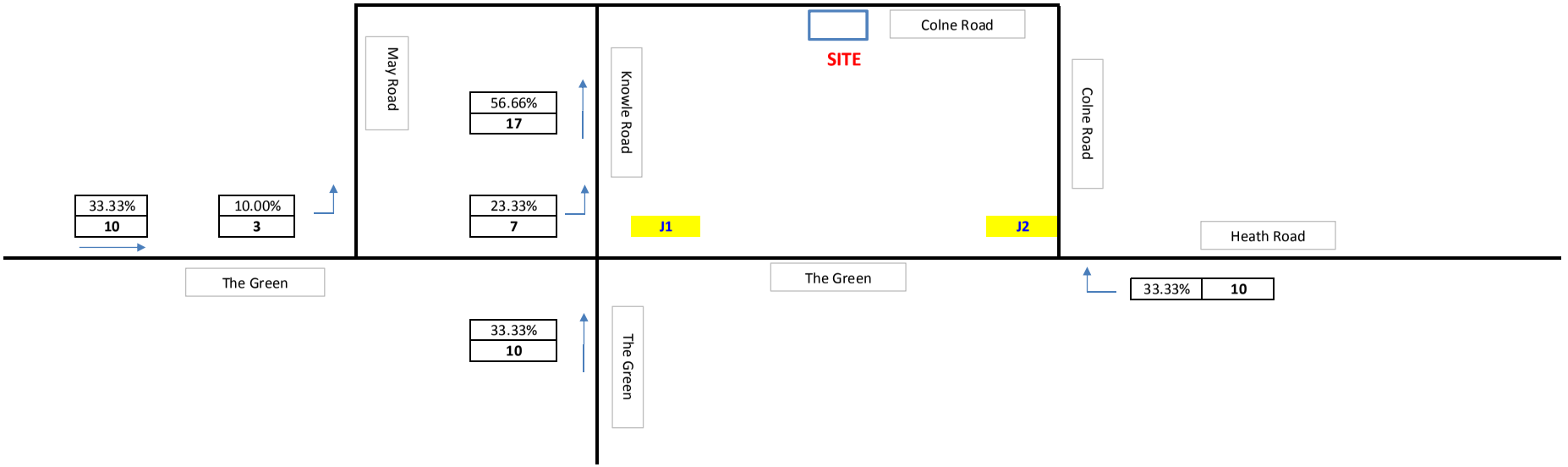
Appendix L – Extant B1 Office Traffic Flow Diagrams

5217/002/R01

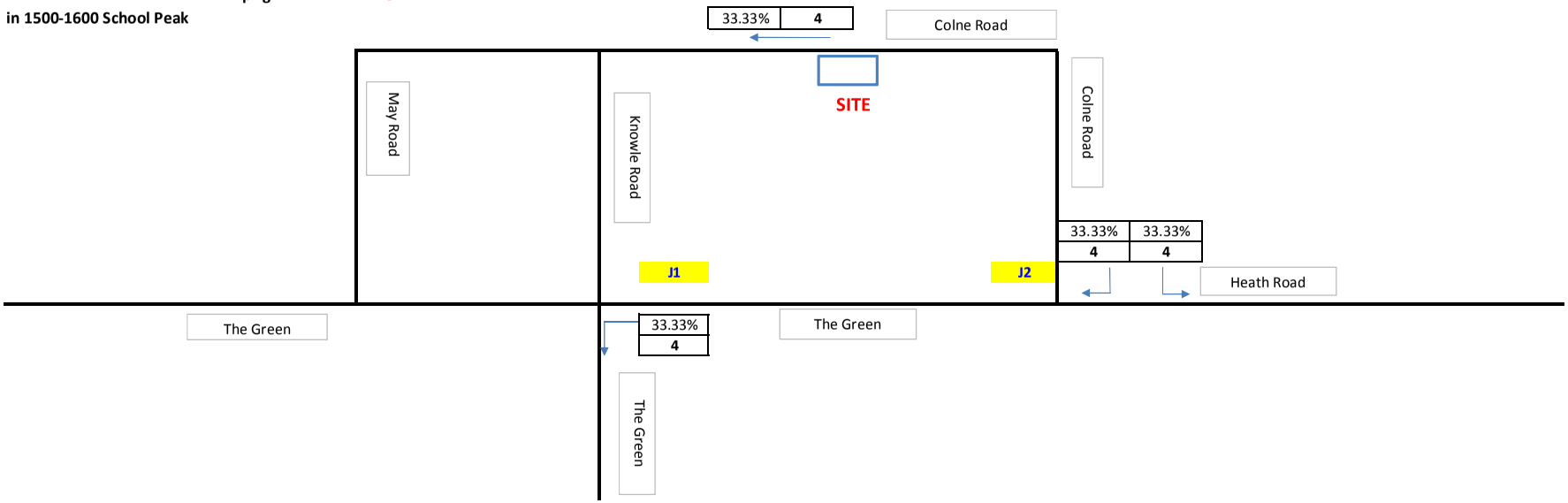
Office Inbound
in 0800-0900 AM Peak

Trips generated = **30**

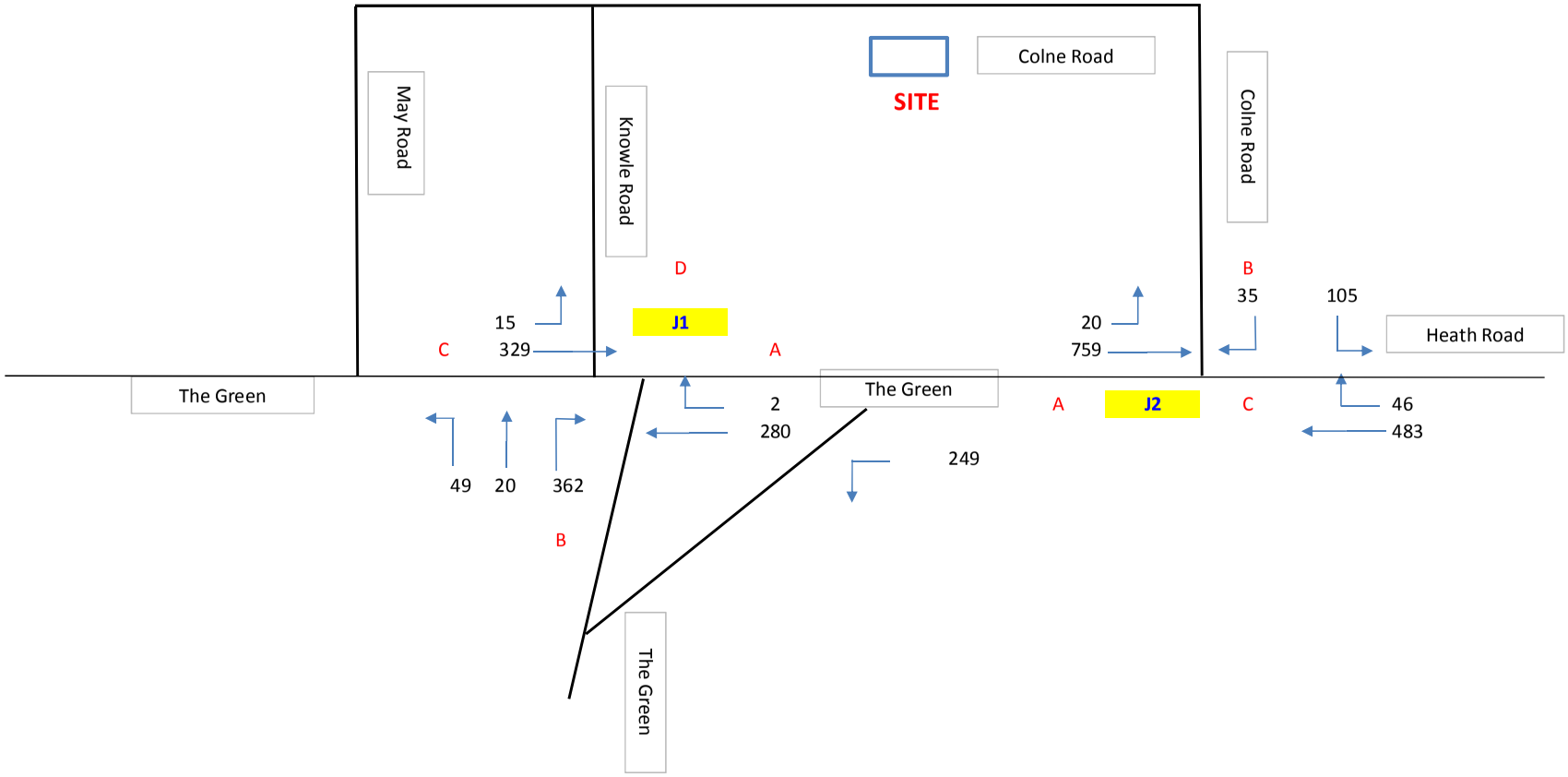


Office Outbound
in 1500-1600 School Peak

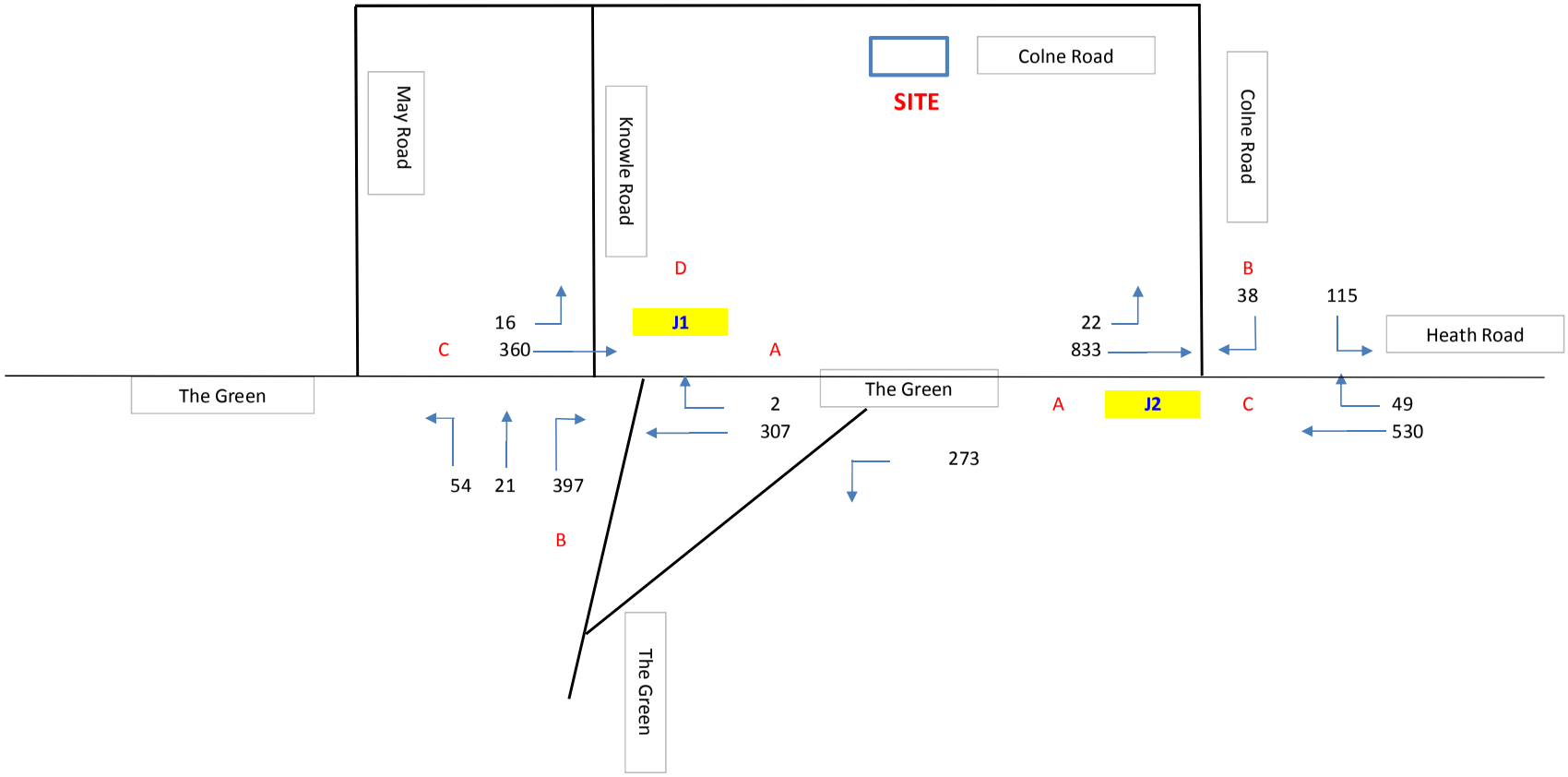
Trips generated = **10**



2014 + Extant Use AM



2022 + Extant Use AM



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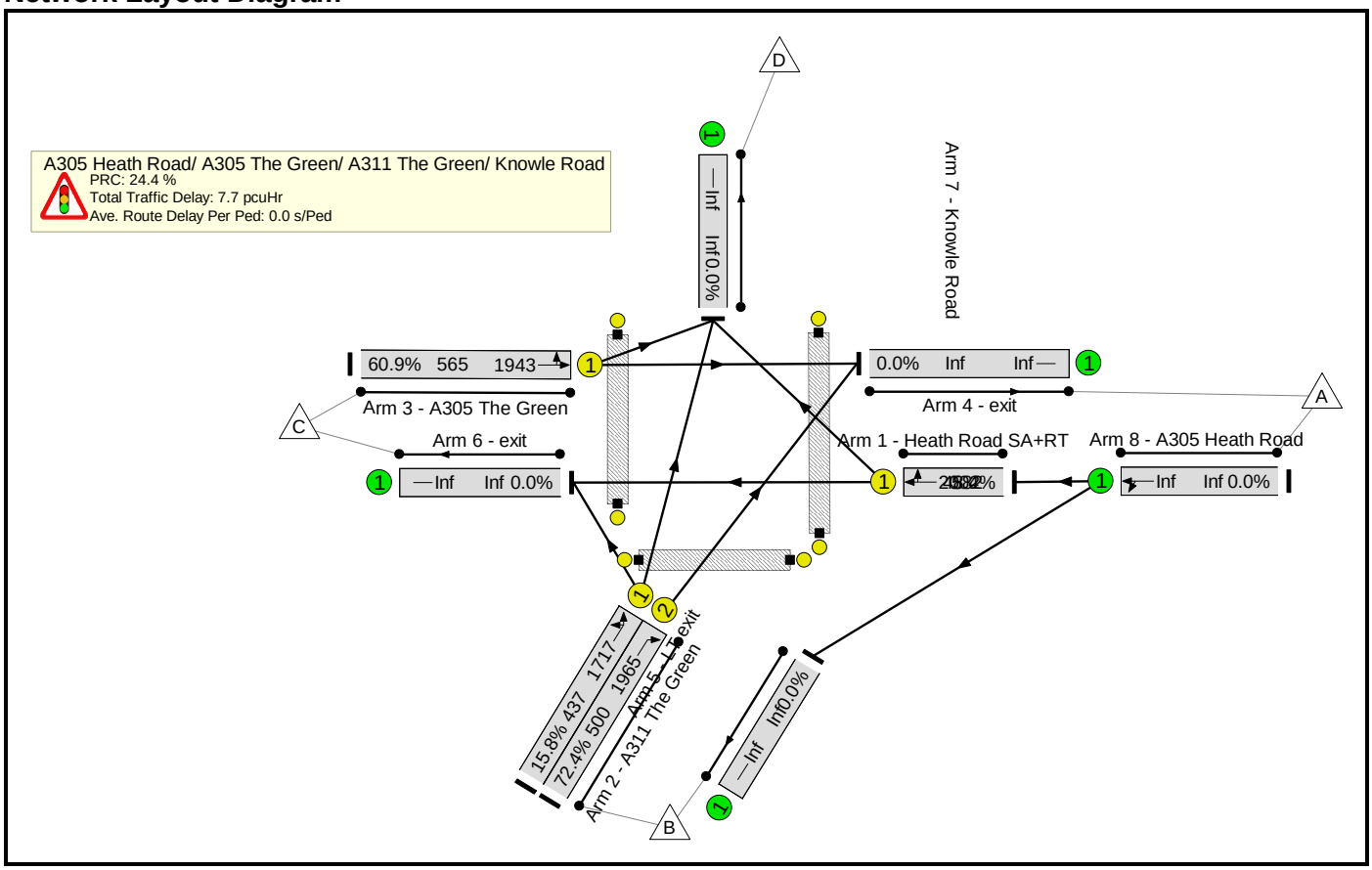
Appendix M – 2014 Base Capacity Assessment, The Green / Heath Road / Colne Road (LINSIG)

5217/002/R01

Basic Results Summary

Scenario 2: 'AM 2014 Base + Extant' (FG2: 'AM 2014 Base Year + Extant', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

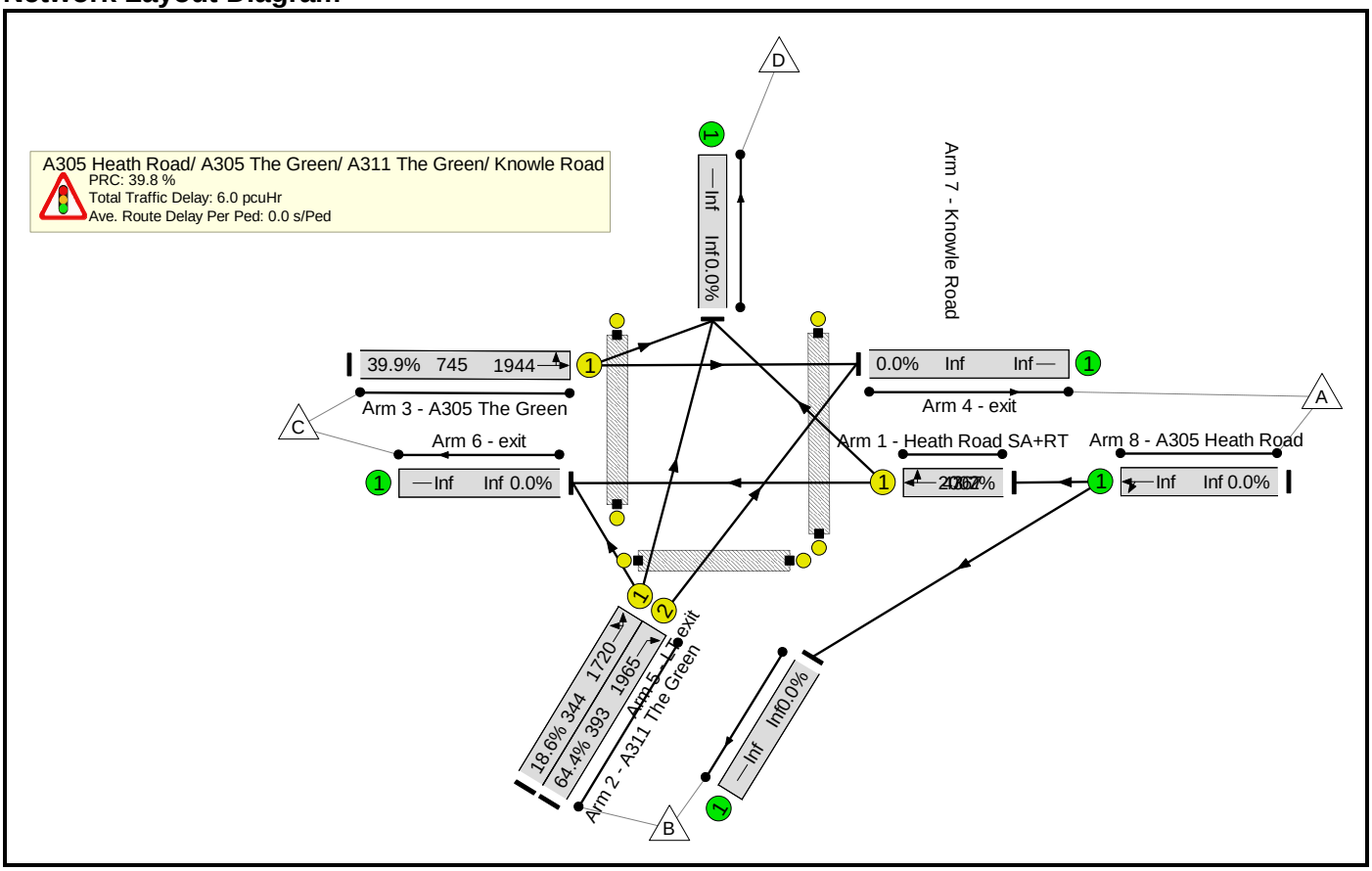
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Heath Road_The Green_Knowle Road Junction Assessment	-	-	-		-	-	-	-	-	-	**72.4%**	**0**	**0**	**0**	**7.7**	-	-
A305 Heath Road/ A305 The Green/ A311 The Green/ Knowle Road	-	-	-		-	-	-	-	-	-	**72.4%**	**0**	**0**	**0**	**7.7**	-	-
1/1	Heath Road SA+RT Ahead Right	U	B		1	15	-	282	2002	582	48.4%	-	-	-	1.7	22.1	4.0
2/1	A311 The Green Left Ahead	U	C		1	13	-	69	1717	437	15.8%	-	-	-	0.4	20.9	0.9
2/2	A311 The Green Right	U	C		1	13	-	362	1965	500	72.4%	-	-	-	3.2	31.5	6.3
3/1	A305 The Green Ahead Left	U	A		1	15	-	344	1943	565	60.9%	-	-	-	2.4	24.9	5.3
Ped Link: P1	Heath Road	-	F		1	5	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	A311 The Green	-	E		1	13	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	A305 The Green	-	D		1	5	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 24.4 Total Delay for Signalled Lanes (pcuHr): 7.68 Cycle Time (s): 55
PRC Over All Lanes (%): 24.4 Total Delay Over All Lanes(pcuHr): 7.68

Basic Results Summary

Scenario 6: 'SCH 2014 Base + Extant' (FG6: 'SCH 2014 Base Year + Extant', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Heath Road_The Green_Knowle Road Junction Assessment	-	-	-		-	-	-	-	-	-	**64.4%**	**0**	**0**	**0**	**6.0**	-	-
A305 Heath Road/ A305 The Green/ A311 The Green/ Knowle Road	-	-	-		-	-	-	-	-	-	**64.4%**	**0**	**0**	**0**	**6.0**	-	-
1/1	Heath Road SA+RT Ahead Right	U	B		1	22	-	335	2002	767	43.7%	-	-	-	1.7	17.9	4.5
2/1	A311 The Green Left Ahead	U	C		1	11	-	64	1720	344	18.6%	-	-	-	0.5	26.4	1.0
2/2	A311 The Green Right	U	C		1	11	-	253	1965	393	64.4%	-	-	-	2.4	34.7	4.8
3/1	A305 The Green Ahead Left	U	A		1	22	-	297	1944	745	39.9%	-	-	-	1.4	17.5	3.9
Ped Link: P1	Heath Road	-	F		1	5	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	A311 The Green	-	E		1	13	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	A305 The Green	-	D		1	5	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 39.8 Total Delay for Signalled Lanes (pcuHr): 6.02 Cycle Time (s): 60
PRC Over All Lanes (%): 39.8 Total Delay Over All Lanes(pcuHr): 6.02

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Appendix N – 2014 Base Capacity Assessment, Heath Road / Colne Road (PICADY)

5217/002/R01

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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TRL SOFTWARE SALES
TEL: CROWTHORNE (01344) 770758, FAX: 770356
EMAIL: software@trl.co.uk

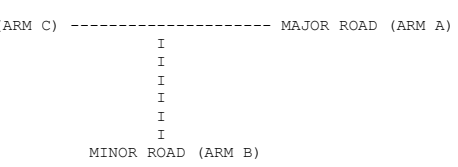
Run with file:-
"\\rwdc01\Users$\markscroggs\Documents\PICADY\Heath Rd_Colne Rd 2014+Extant AM.vpi"
(drive-on-the-left) at 14:27:56 on Tuesday, 21 October 2014

.RUN INFORMATION

RUN TITLE	: A305 Heath Road / Colne Road 2014 AM + Extant Use
LOCATION	: The Green, Twickenham
DATE	: 15/08/14
CLIENT	: EFA
ENUMERATOR	: MarkScroggs [RW-CAD-26]
JOB NUMBER	: 5217/001
STATUS	:
DESCRIPTION	:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



ARM A IS Heath Road (west)
ARM B IS Colne Road
ARM C IS Heath Road (east)

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM		MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	8.06 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	130.00 M.
- BLOCKS TRAFFIC (SPACES)		YES (0)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	46.0 M.
- VISIBILITY TO RIGHT	(VB-A)	20.0 M.
- LANE 1 WIDTH	(WB-C)	3.60 M.
- LANE 2 WIDTH	(WB-A)	0.00 M.

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
674.76	0.24	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B

532.45	0.22	0.09	0.14	0.32

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
649.25	0.23	0.23

(NB These values do not allow for any site specific corrections)

.TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

.Demand set: A305 Heath Road / Colne Road 2014 AM + Extant

TIME PERIOD BEGINS 07.45 AND ENDS 09.15

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	9.74	14.61	9.74
ARM B	15.00	45.00	75.00	1.75	2.63	1.75
ARM C	15.00	45.00	75.00	6.61	9.92	6.61

.Demand set: A305 Heath Road / Colne Road 2014 AM + Extant

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 08.00	ARM A	0.000	0.026	0.974
		0.0	20.0	759.0
		(0.0)	(20.0)	(0.9)
	ARM B	0.250	0.000	0.750
		35.0	0.0	105.0
		(8.6)	(0.0)	(0.0)
	ARM C	0.913	0.087	0.000
		483.0	46.0	0.0
		(1.0)	(6.5)	(0.0)
08.00 - 08.15	ARM A	0.000	0.026	0.974
		0.0	0.0	0.0
		(0.0)	(20.0)	(0.9)
	ARM B	0.250	0.000	0.750
		0.0	0.0	0.0
		(8.6)	(0.0)	(0.0)
	ARM C	0.913	0.087	0.000
		0.0	0.0	0.0
		(1.0)	(6.5)	(0.0)
08.15 - 08.30	ARM A	0.000	0.026	0.974
		0.0	0.0	0.0
		(0.0)	(20.0)	(0.9)
	ARM B	0.250	0.000	0.750
		0.0	0.0	0.0
		(8.6)	(0.0)	(0.0)
	ARM C	0.913	0.087	0.000
		0.0	0.0	0.0
		(1.0)	(6.5)	(0.0)
08.30 - 08.45	ARM A	0.000	0.026	0.974
		0.0	0.0	0.0
		(0.0)	(20.0)	(0.9)
	ARM B	0.250	0.000	0.750
		0.0	0.0	0.0
		(8.6)	(0.0)	(0.0)

	ARM C	0.913	0.087	0.000	
		0.0	0.0	0.0	
		(1.0)	(6.5)	(0.0)	
08.45 - 09.00					
	ARM A	0.000	0.026	0.974	
		0.0	0.0	0.0	
		(0.0)	(20.0)	(0.9)	
	ARM B	0.250	0.000	0.750	
		0.0	0.0	0.0	
		(8.6)	(0.0)	(0.0)	
	ARM C	0.913	0.087	0.000	
		0.0	0.0	0.0	
		(1.0)	(6.5)	(0.0)	
09.00 - 09.15					
	ARM A	0.000	0.026	0.974	
		0.0	0.0	0.0	
		(0.0)	(20.0)	(0.9)	
	ARM B	0.250	0.000	0.750	
		0.0	0.0	0.0	
		(8.6)	(0.0)	(0.0)	
	ARM C	0.913	0.087	0.000	
		0.0	0.0	0.0	
		(1.0)	(6.5)	(0.0)	

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
THE PERCENTAGE OF HEAVY VEHICLES VARIES BETWEEN TIME SEGMENTS
THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-AC	1.76	7.57	0.232		0.00	0.30	4.3		0.17
C-AB	1.11	12.42	0.090		0.00	0.17	2.6		0.09
C-A	5.53								
A-B	0.25								
A-C	9.52								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	2.10	7.02	0.299		0.30	0.42	6.1		0.20
C-AB	1.53	12.94	0.118		0.17	0.27	4.1		0.09
C-A	6.39								
A-B	0.30								
A-C	11.37								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	2.57	6.22	0.413		0.42	0.68	9.7		0.27
C-AB	2.35	13.77	0.170		0.27	0.47	7.1		0.09
C-A	7.36								
A-B	0.37								
A-C	13.93								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	2.57	6.22	0.413		0.68	0.69	10.3		0.27
C-AB	2.35	13.78	0.171		0.47	0.48	7.2		0.09
C-A	7.35								
A-B	0.37								
A-C	13.93								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	2.10	7.01	0.299		0.69	0.43	6.8		0.20
C-AB	1.54	12.95	0.119		0.48	0.28	4.3		0.09
C-A	6.39								

I	A-B	0.30								I
I	A-C	11.37								I
I										I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
I	09.00-09.15									I
I	B-AC	1.76	7.57	0.232		0.43	0.31	4.8		0.17
I	C-AB	1.12	12.43	0.090		0.28	0.18	2.7		0.09
I	C-A	5.52								I
I	A-B	0.25								I
I	A-C	9.52								I
I										I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.3	
08.15	0.4	
08.30	0.7	*
08.45	0.7	*
09.00	0.4	
09.15	0.3	

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.2
08.15	0.3
08.30	0.5
08.45	0.5
09.00	0.3
09.15	0.2

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	192.7	128.5	41.9	0.22	41.9	0.22
C-AB	150.1	100.1	28.0	0.19	28.0	0.19
C-A	578.0	385.4				
A-B	27.5	18.4				
A-C	1044.7	696.5				
ALL	1993.1	1328.7	70.0	0.04	70.0	0.04

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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EMAIL: software@trl.co.uk

Run with file:-
"\\rwdc01\Users$\markscroggs\Documents\PICADY\Heath Rd_Colne Rd 2014+Extant SCH.vpi"
(drive-on-the-left) at 14:35:40 on Tuesday, 21 October 2014

.RUN INFORMATION
****

RUN TITLE : A305 Heath Road / Colne Road 2014 + Extant SCH
LOCATION : The Green, Twickenham
DATE : 15/08/14
CLIENT : EFA
ENUMERATOR : MarkScroggs [RW-CAD-26]
JOB NUMBER : 5217/001
STATUS :
DESCRIPTION :

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Heath Road (west)
ARM B IS Colne Road
ARM C IS Heath Road (east)

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM		MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	8.06 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	130.00 M.
- BLOCKS TRAFFIC (SPACES)		YES (0)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	46.0 M.
- VISIBILITY TO RIGHT	(VB-A)	20.0 M.
- LANE 1 WIDTH	(WB-C)	3.60 M.
- LANE 2 WIDTH	(WB-A)	0.00 M.

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
674.76	0.24	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B

532.45	0.22	0.09	0.14	0.32	

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
649.25	0.23	0.23

(NB These values do not allow for any site specific corrections)

.TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

.Demand set: A305 Heath Road / Colne Road 2014 + Extant SCH

TIME PERIOD BEGINS 14.45 AND ENDS 16.15

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	6.55	9.83	6.55
ARM B	15.00	45.00	75.00	1.79	2.68	1.79
ARM C	15.00	45.00	75.00	7.38	11.06	7.38

.Demand set: A305 Heath Road / Colne Road 2014 + Extant SCH

TIME	FROM/TO	ARM A	ARM B	ARM C
14.45 - 15.00	TURNING PROPORTIONS			
	TURNING COUNTS			
	(PERCENTAGE OF H.V.S)			
	ARM A	0.000	0.042	0.958
		0.0	22.0	502.0
		(0.0)	(9.1)	(0.6)
	ARM B	0.301	0.000	0.699
		43.0	0.0	100.0
		(14.0)	(0.0)	(2.0)
	ARM C	0.912	0.088	0.000
		538.0	52.0	0.0
		(0.9)	(3.9)	(0.0)
15.00 - 15.15	ARM A	0.000	0.042	0.958
		0.0	0.0	0.0
		(0.0)	(9.1)	(0.6)
	ARM B	0.301	0.000	0.699
		0.0	0.0	0.0
		(14.0)	(0.0)	(2.0)
	ARM C	0.912	0.088	0.000
		0.0	0.0	0.0
		(0.9)	(3.9)	(0.0)
15.15 - 15.30	ARM A	0.000	0.042	0.958
		0.0	0.0	0.0
		(0.0)	(9.1)	(0.6)
	ARM B	0.301	0.000	0.699
		0.0	0.0	0.0
		(14.0)	(0.0)	(2.0)
	ARM C	0.912	0.088	0.000
		0.0	0.0	0.0
		(0.9)	(3.9)	(0.0)
15.30 - 15.45	ARM A	0.000	0.042	0.958
		0.0	0.0	0.0
		(0.0)	(9.1)	(0.6)
	ARM B	0.301	0.000	0.699
		0.0	0.0	0.0
		(14.0)	(0.0)	(2.0)

	ARM C	0.912	0.088	0.000	
		0.0	0.0	0.0	
		(0.9)	(3.9)	(0.0)	
15.45 - 16.00					
	ARM A	0.000	0.042	0.958	
		0.0	0.0	0.0	
		(0.0)	(9.1)	(0.6)	
	ARM B	0.301	0.000	0.699	
		0.0	0.0	0.0	
		(14.0)	(0.0)	(2.0)	
	ARM C	0.912	0.088	0.000	
		0.0	0.0	0.0	
		(0.9)	(3.9)	(0.0)	
16.00 - 16.15					
	ARM A	0.000	0.042	0.958	
		0.0	0.0	0.0	
		(0.0)	(9.1)	(0.6)	
	ARM B	0.301	0.000	0.699	
		0.0	0.0	0.0	
		(14.0)	(0.0)	(2.0)	
	ARM C	0.912	0.088	0.000	
		0.0	0.0	0.0	
		(0.9)	(3.9)	(0.0)	

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
THE PERCENTAGE OF HEAVY VEHICLES VARIES BETWEEN TIME SEGMENTS
THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
14.45-15.00									
B-AC	1.79	7.80	0.230		0.00	0.29	4.2		0.17
C-AB	1.27	13.63	0.093		0.00	0.19	2.8		0.08
C-A	6.13								
A-B	0.28								
A-C	6.30								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
15.00-15.15									
B-AC	2.14	7.39	0.290		0.29	0.40	5.8		0.19
C-AB	1.74	14.30	0.121		0.19	0.28	4.3		0.08
C-A	7.10								
A-B	0.33								
A-C	7.52								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
15.15-15.30									
B-AC	2.62	6.80	0.386		0.40	0.61	8.8		0.24
C-AB	2.63	15.35	0.171		0.28	0.46	7.0		0.08
C-A	8.20								
A-B	0.40								
A-C	9.21								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
15.30-15.45									
B-AC	2.62	6.79	0.386		0.61	0.62	9.3		0.24
C-AB	2.64	15.35	0.172		0.46	0.47	7.1		0.08
C-A	8.19								
A-B	0.40								
A-C	9.21								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
15.45-16.00									
B-AC	2.14	7.38	0.290		0.62	0.42	6.5		0.19
C-AB	1.74	14.31	0.122		0.47	0.30	4.5		0.08
C-A	7.10								

I	A-B	0.33 I
I	A-C	7.52 I
I		I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	16.00-16.15										I
I	B-AC	1.79	7.80	0.230		0.42	0.30	4.7		0.17	I
I	C-AB	1.28	13.63	0.094		0.30	0.19	2.9		0.08	I
I	C-A	6.12									I
I	A-B	0.28									I
I	A-C	6.30									I
I											I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
15.00	0.3	
15.15	0.4	
15.30	0.6	*
15.45	0.6	*
16.00	0.4	
16.15	0.3	

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
15.00	0.2
15.15	0.3
15.30	0.5
15.45	0.5
16.00	0.3
16.15	0.2

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I STREAM I	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *		I
I	(VEH)	(VEH/H) I	(MIN)	(MIN/VEH) I	(MIN)	(MIN/VEH)	I
I B-AC I	196.8	I 131.2 I	39.3	I 0.20 I	39.3	I 0.20	I
I C-AB I	169.4	I 112.9 I	28.5	I 0.17 I	28.5	I 0.17	I
I C-A I	642.7	I 428.5 I		I		I	I
I A-B I	30.3	I 20.2 I		I		I	I
I A-C I	691.0	I 460.6 I		I		I	I
I ALL I	1730.2	I 1153.4 I	67.8	I 0.04 I	67.8	I 0.04	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

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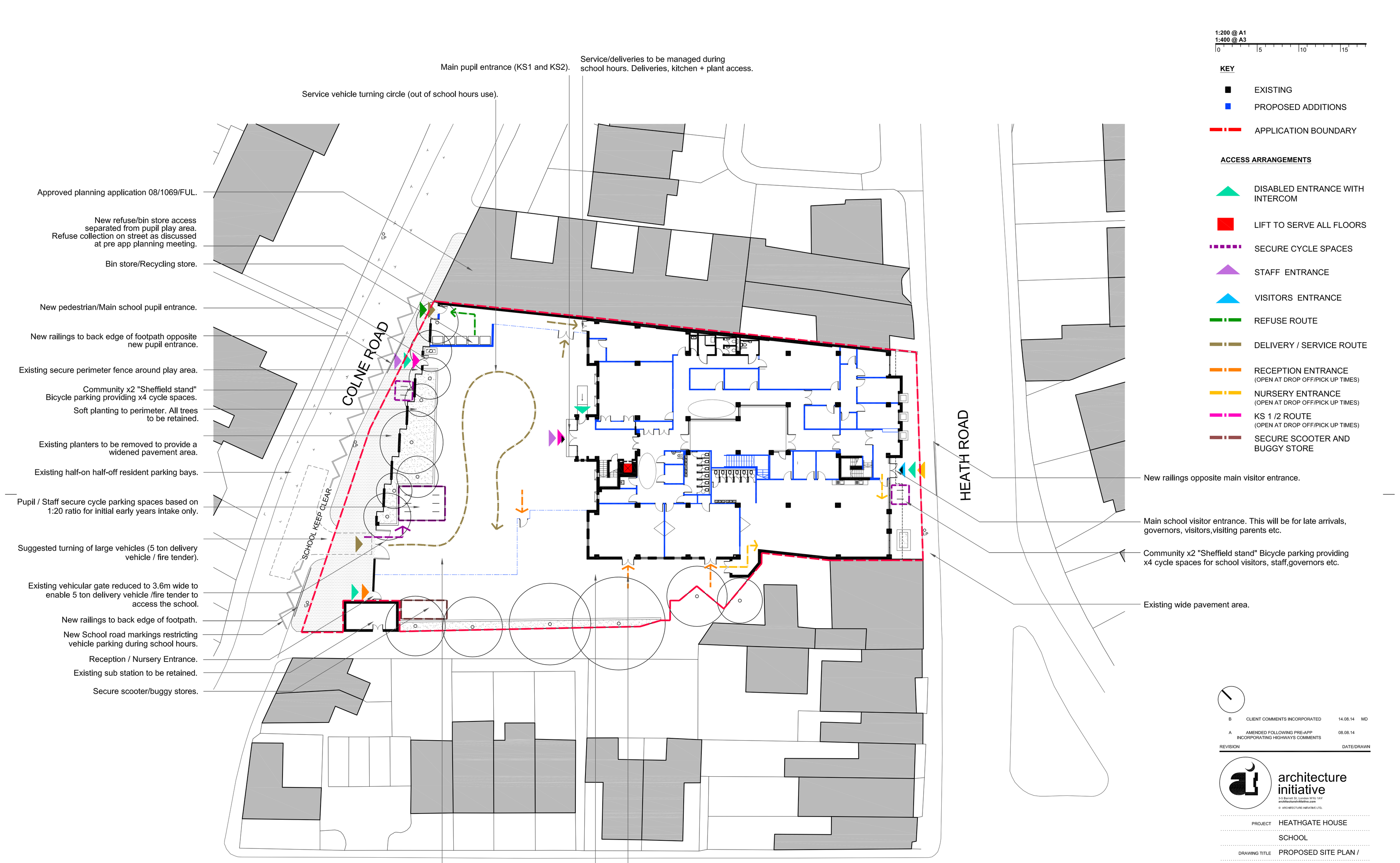
Appendix O – Proposed Site Layout



1:200 @ A1
1:400 @ A3

0 5 10 15

KEY

- EXISTING
- PROPOSED ADDITIONS
- APPLICATION BOUNDARY

ACCESS ARRANGEMENTS

- DISABLED ENTRANCE WITH INTERCOM
- LIFT TO SERVE ALL FLOORS
- SECURE CYCLE SPACES
- STAFF ENTRANCE
- VISITORS ENTRANCE
- REFUSE ROUTE
- DELIVERY / SERVICE ROUTE
- RECEPTION ENTRANCE (OPEN AT DROP OFF/PICK UP TIMES)
- NURSERY ENTRANCE (OPEN AT DROP OFF/PICK UP TIMES)
- KS 1 /2 ROUTE (OPEN AT DROP OFF/PICK UP TIMES)
- SECURE SCOOTER AND BUGGY STORE

REVISION		DATE/DRAWN
B	CLIENT COMMENTS INCORPORATED	14.08.14 MD
A	AMENDED FOLLOWING PRE-APP INCORPORATING HIGHWAYS COMMENTS	08.08.14

architecture initiative
3-5 Barrett St, London W1U 1AY
architecture@ai.com

PROJECT	HEATHGATE HOUSE SCHOOL
DRAWING TITLE	PROPOSED SITE PLAN / ACCESS PLAN
DATE	JUNE 2014
SCALE	1:200 @ A1
DRAWN	AH
CHECK	LM
STATUS	PLANNING_CLASS K
JOB NUMBER	AI_2156
DRAWING NUMBER	HH_002
REV	B

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Appendix P – Pupil Trip Generation (2011 School Census Data)

Estab number	LAESTAB no.	School name	Sex of schc	Form 7 sch	Form 7 school type description	Denomination	Phase of ec	Type of est	Admissions	Walk	Cycle	Car	Bus	Train	Other	% Walk	% Cycle	% Car	% Bus	% Train	% Other	Pupils (excluding boarders)
2023	3182023	Trafalgar Junior School	Mixed	17	Junior School 7-11 or 8-11	Does not apply	Primary	Community	Not applica	222	10	96	18	0	4	63.4	2.9	27.4	5.1	0	1.1	350
2024	3182024	Trafalgar Infant School	Mixed	16	Infant School 5-7 or 5-8	Does not apply	Primary	Community	Not applica	234	14	17	x	0	x	87.6	5.2	6.4	x	0	x	265
3326	3183326	Archdeacon Cambridge's Church of England Primary School	Mixed	18	Infant and Junior School 5-11	Church of England	Primary	Voluntary A	Not applica	339	33	78	16	0	0	72.7	7.1	16.7	3.4	0	0	465
2021	3182021	Stanley Primary School	Mixed	18	Junior School 7-11 or 8-11	Does not apply	Primary	Community	Not applica	413	35	224	20	7	0	59.1	5	32	2.9	1	0	700
										302	**23**	**104**	**18**	**2**	**1**	**70.7%**	**5.1%**	**20.6%**	**3.8%**	**0.3%**	**0.4%**	**445**
									Number of pupils at proposed School =	450						318	23	93	17	1	2	

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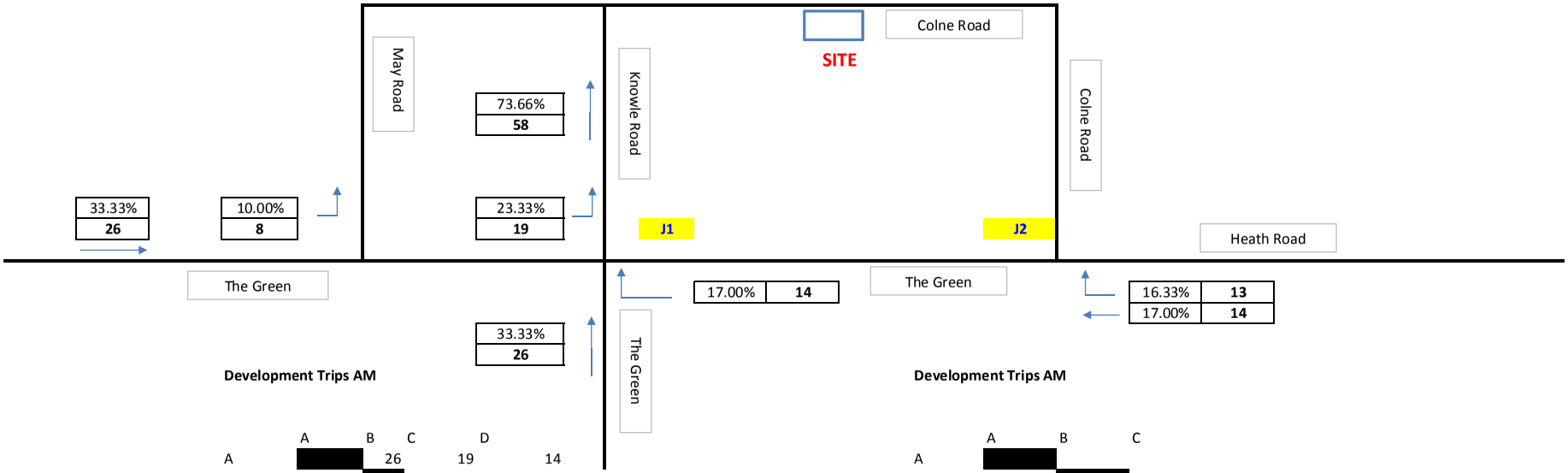
Appendix Q – Proposed Development Traffic Flow Diagrams

5217/002/R01

Pupils Inbound
in 0800-0900 AM Peak

Trips generated = **78**



Development Trips AM

	A	B	C	D
A		26	19	14
B				26
C	13			19
D				

Development Trips SCH

	A	B	C	D
A		26	19	14
B				26
C	13			19
D				

Development Trips AM

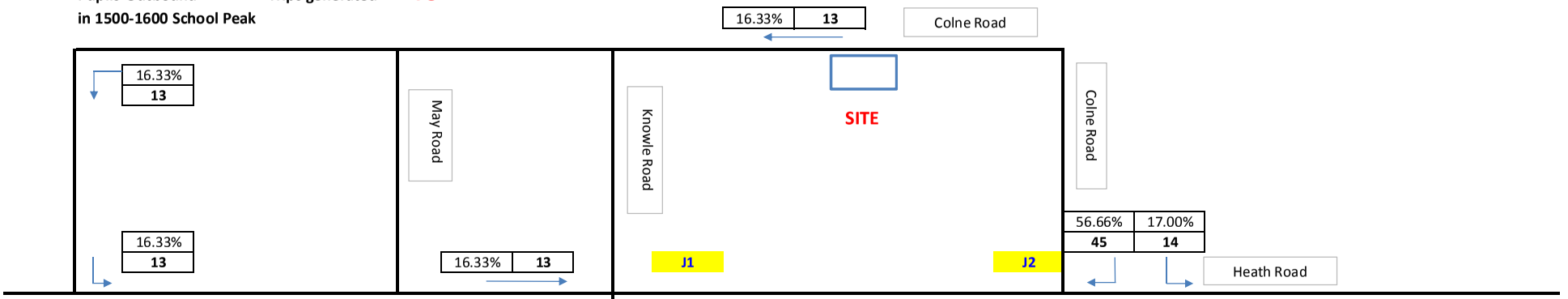
	A	B	C
A			
B	45		14
C	14	13	

Development Trips SCH

	A	B	C
A			
B	45		14
C	14	13	

Pupils Outbound
in 1500-1600 School Peak

Trips generated = **78**



Development Trips AM

	A	B	C	D
A		26	19	14
B				26
C	13			19
D				

Development Trips AM

	A	B	C
A			
B	45		14
C	14	13	

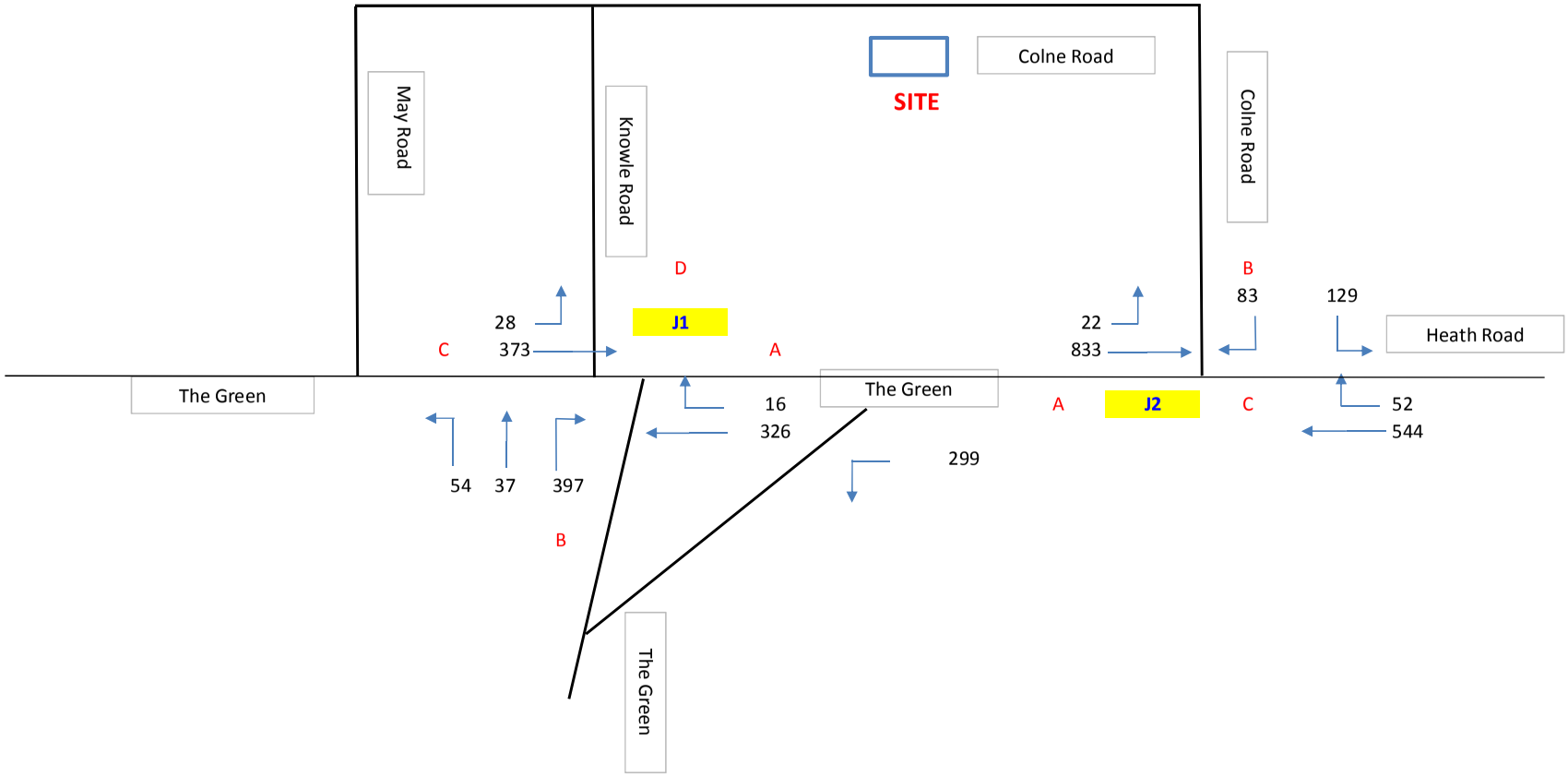
Development Trips SCH

	A	B	C	D
A		26	19	14
B				26
C	13			19
D				

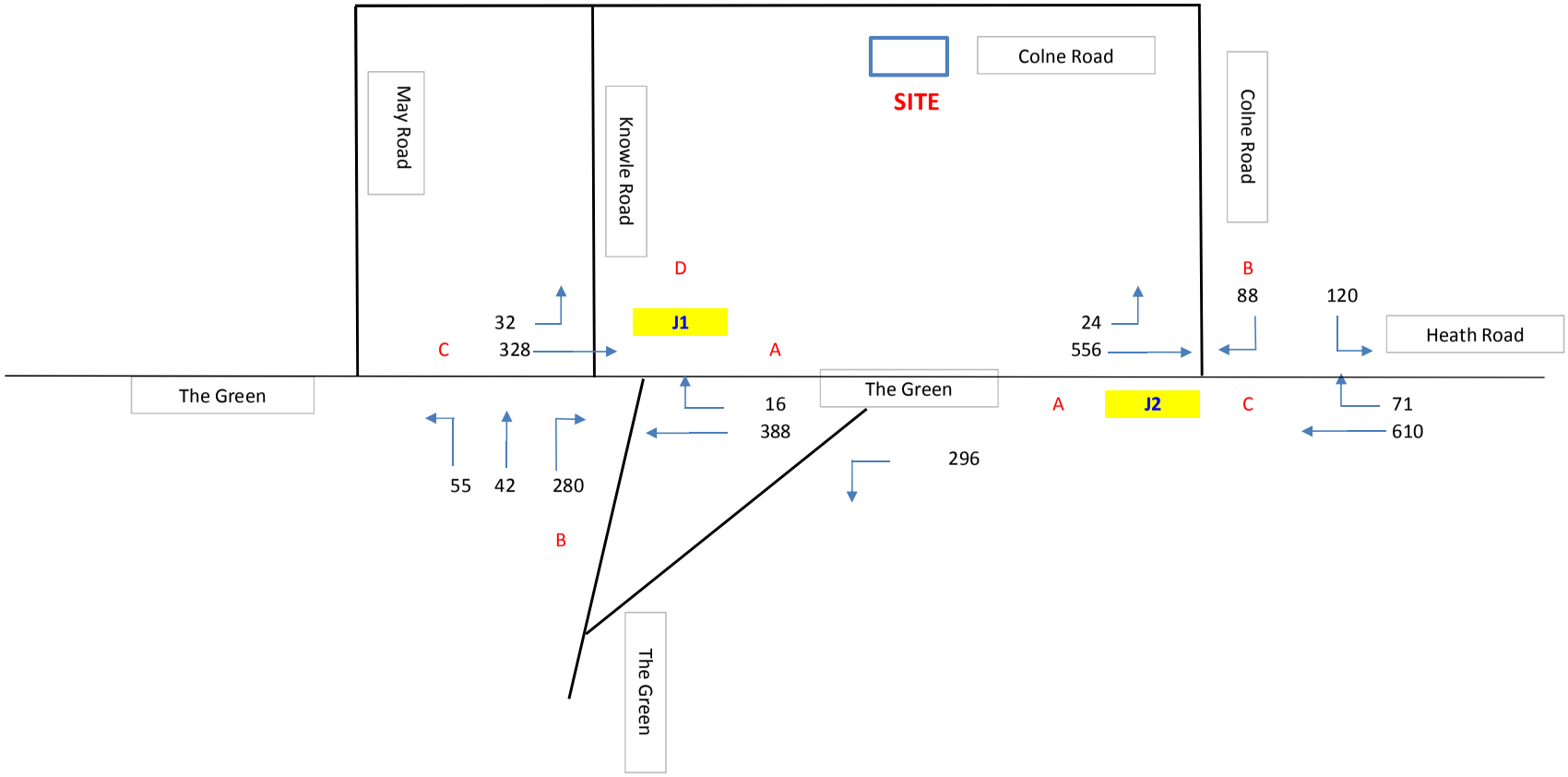
Development Trips SCH

	A	B	C
A			
B	45		14
C	14	13	

2022 + Proposed Development AM



2022 + Proposed Development SCH



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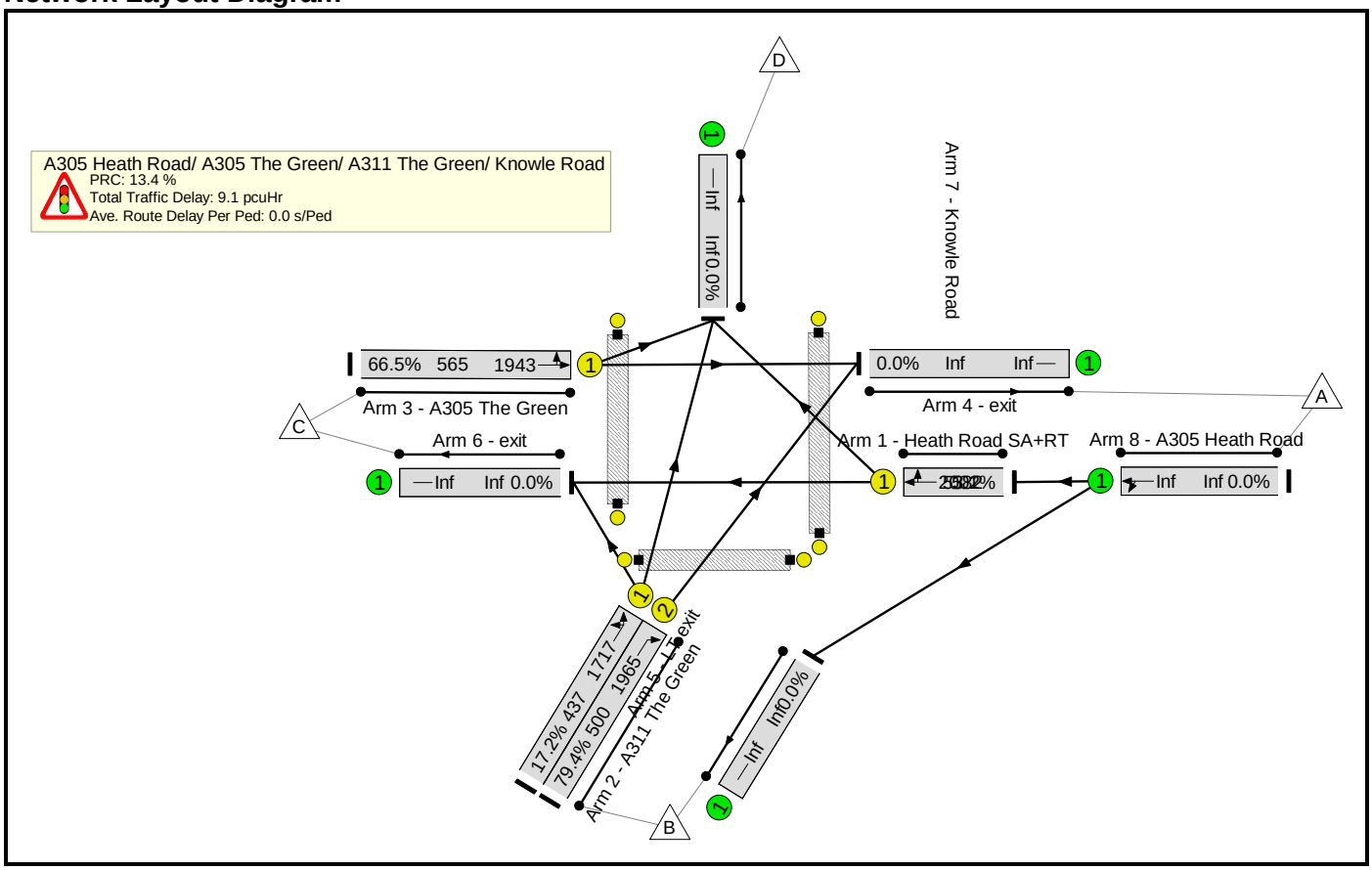
Appendix R – 2022 Future Year Capacity Assessments, The Green / Heath Road / Colne Road (LINSIG)

5217/002/R01

Basic Results Summary

Scenario 3: 'AM 2022 Future + Extant' (FG3: 'AM 2022 Future Year + Extant', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

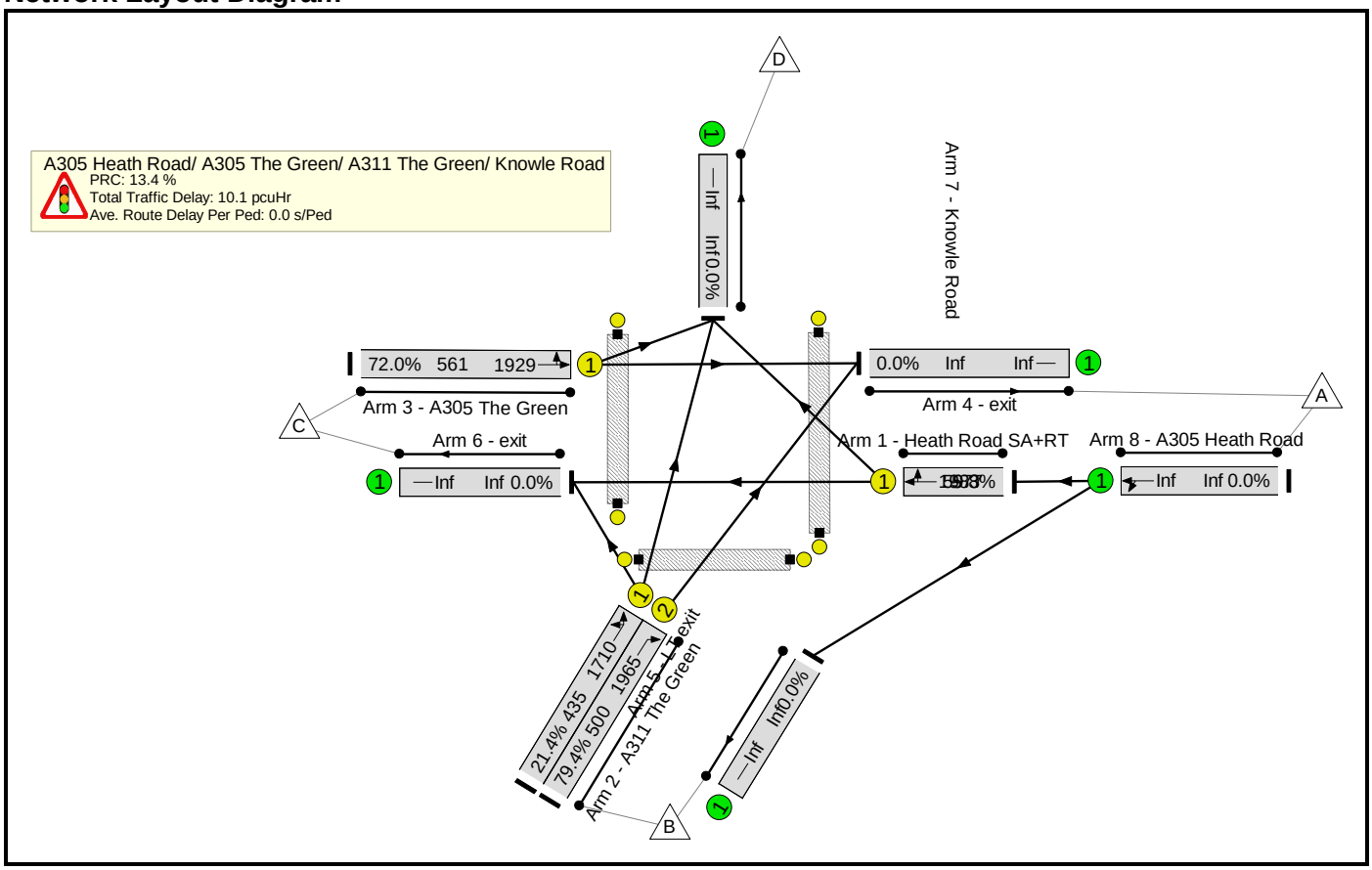
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Heath Road_The Green_Knowle Road Junction Assessment	-	-	-		-	-	-	-	-	-	**79.4%**	**0**	**0**	**0**	**9.1**	-	-
A305 Heath Road/ A305 The Green/ A311 The Green/ Knowle Road	-	-	-		-	-	-	-	-	-	**79.4%**	**0**	**0**	**0**	**9.1**	-	-
1/1	Heath Road SA+RT Ahead Right	U	B		1	15	-	309	2002	582	53.1%	-	-	-	2.0	22.9	4.5
2/1	A311 The Green Left Ahead	U	C		1	13	-	75	1717	437	17.2%	-	-	-	0.4	21.0	1.0
2/2	A311 The Green Right	U	C		1	13	-	397	1965	500	79.4%	-	-	-	4.0	36.0	7.5
3/1	A305 The Green Ahead Left	U	A		1	15	-	376	1943	565	66.5%	-	-	-	2.8	26.6	6.0
Ped Link: P1	Heath Road	-	F		1	5	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	A311 The Green	-	E		1	13	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	A305 The Green	-	D		1	5	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 13.4 Total Delay for Signalled Lanes (pcuHr): 9.15 Cycle Time (s): 55
PRC Over All Lanes (%): 13.4 Total Delay Over All Lanes(pcuHr): 9.15

Basic Results Summary

Scenario 4: 'AM 2022 Future + Development' (FG4: 'AM 2022 Future Year + Development', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

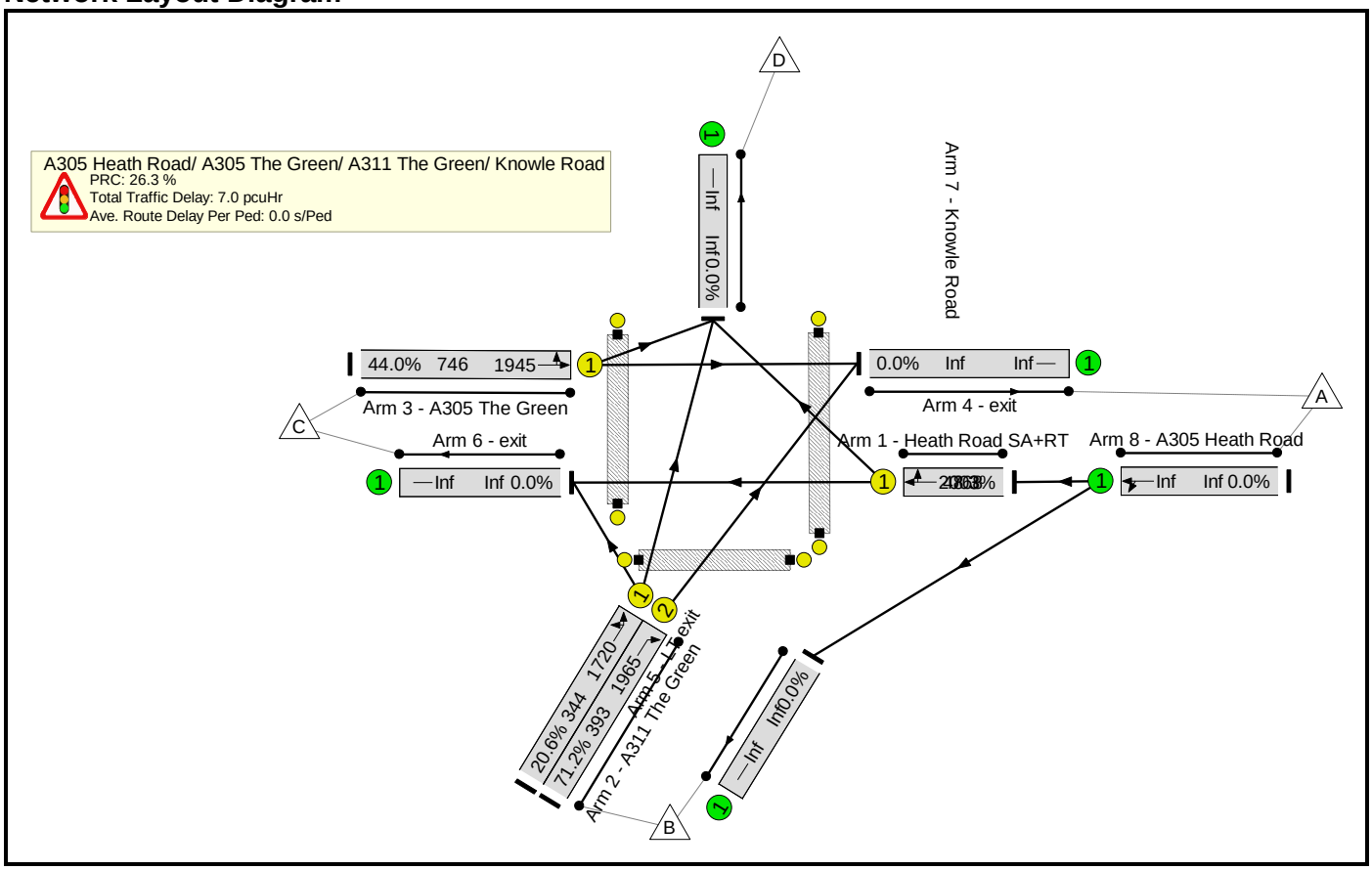
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Heath Road_The Green_Knowle Road Junction Assessment	-	-	-		-	-	-	-	-	-	**79.4%**	**0**	**0**	**0**	**10.1**	-	-
A305 Heath Road/ A305 The Green/ A311 The Green/ Knowle Road	-	-	-		-	-	-	-	-	-	**79.4%**	**0**	**0**	**0**	**10.1**	-	-
1/1	Heath Road SA+RT Ahead Right	U	B		1	15	-	345	1983	577	59.8%	-	-	-	2.3	24.5	5.2
2/1	A311 The Green Left Ahead	U	C		1	13	-	93	1710	435	21.4%	-	-	-	0.6	21.5	1.2
2/2	A311 The Green Right	U	C		1	13	-	397	1965	500	79.4%	-	-	-	4.0	36.0	7.5
3/1	A305 The Green Ahead Left	U	A		1	15	-	404	1929	561	72.0%	-	-	-	3.2	28.8	6.8
Ped Link: P1	Heath Road	-	F		1	5	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	A311 The Green	-	E		1	13	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	A305 The Green	-	D		1	5	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 13.4 Total Delay for Signalled Lanes (pcuHr): 10.10 Cycle Time (s): 55
PRC Over All Lanes (%): 13.4 Total Delay Over All Lanes(pcuHr): 10.10

Basic Results Summary

Scenario 7: 'SCH 2022 Future + Extant' (FG7: 'SCH 2022 Future Year + Extant', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Heath Road_The Green_Knowle Road Junction Assessment	-	-	-		-	-	-	-	-	-	**71.2%**	**0**	**0**	**0**	**7.0**	-	-
A305 Heath Road/ A305 The Green/ A311 The Green/ Knowle Road	-	-	-		-	-	-	-	-	-	**71.2%**	**0**	**0**	**0**	**7.0**	-	-
1/1	Heath Road SA+RT Ahead Right	U	B		1	22	-	371	2003	768	48.3%	-	-	-	1.9	18.5	5.1
2/1	A311 The Green Left Ahead	U	C		1	11	-	71	1720	344	20.6%	-	-	-	0.5	26.6	1.1
2/2	A311 The Green Right	U	C		1	11	-	280	1965	393	71.2%	-	-	-	3.0	38.0	5.5
3/1	A305 The Green Ahead Left	U	A		1	22	-	328	1945	746	44.0%	-	-	-	1.6	18.0	4.4
Ped Link: P1	Heath Road	-	F		1	5	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	A311 The Green	-	E		1	13	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	A305 The Green	-	D		1	5	-	0	-	0	0.0%	-	-	-	-	-	-

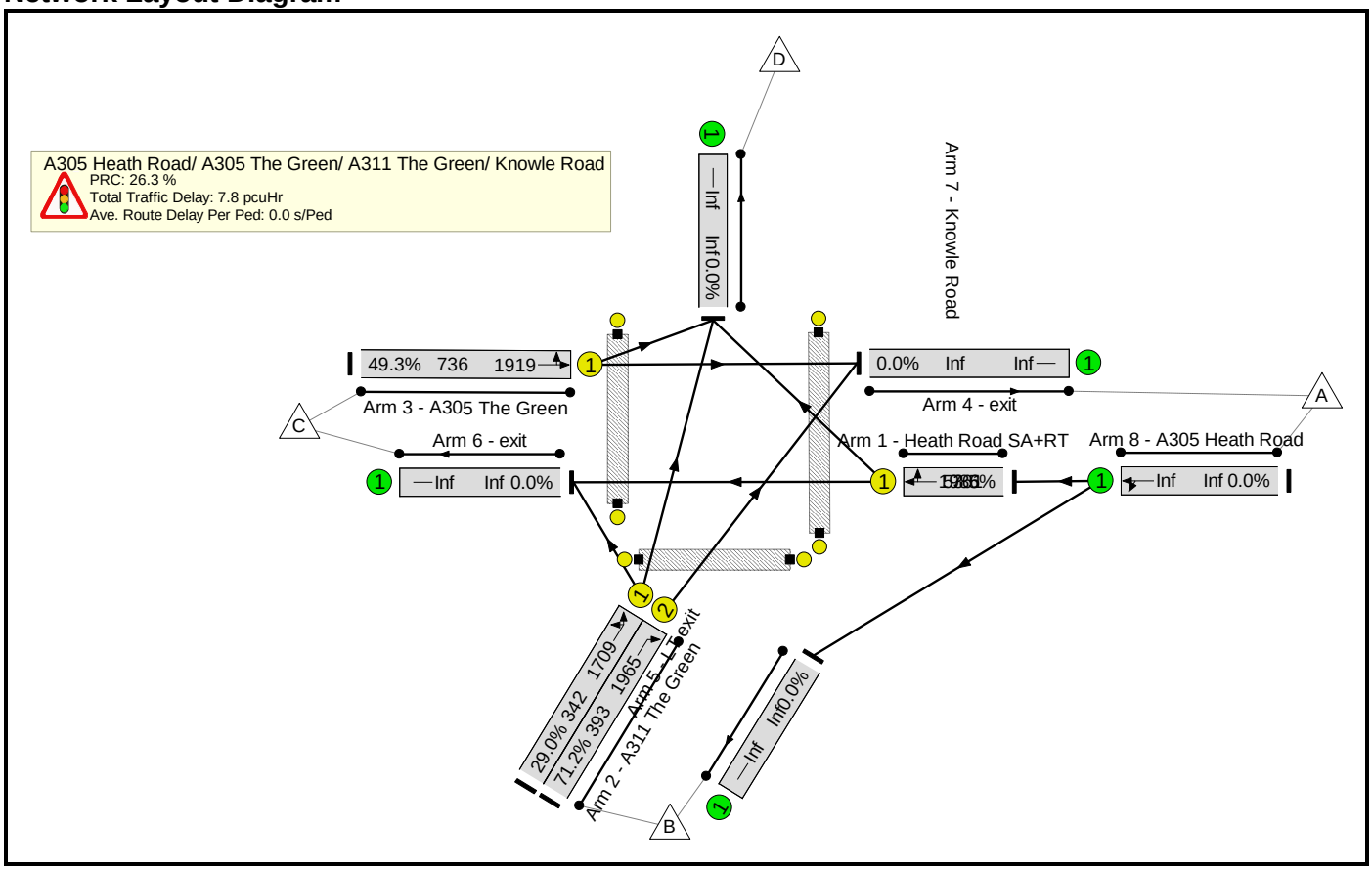
C1 PRC for Signalled Lanes (%): 26.3 Total Delay for Signalled Lanes (pcuHr): 7.03 Cycle Time (s): 60

PRC Over All Lanes (%): 26.3 Total Delay Over All Lanes(pcuHr): 7.03

Basic Results Summary

Scenario 8: 'SCH 2022 Future + Development' (FG8: 'SCH 2022 Future Year + Development', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Heath Road_The Green_Knowle Road Junction Assessment	-	-	-		-	-	-	-	-	-	**71.2%**	**0**	**0**	**0**	**7.8**	-	-
A305 Heath Road/ A305 The Green/ A311 The Green/ Knowle Road	-	-	-		-	-	-	-	-	-	**71.2%**	**0**	**0**	**0**	**7.8**	-	-
1/1	Heath Road SA+RT Ahead Right	U	B		1	22	-	407	1986	761	53.5%	-	-	-	2.2	19.4	5.8
2/1	A311 The Green Left Ahead	U	C		1	11	-	99	1709	342	29.0%	-	-	-	0.8	27.8	1.6
2/2	A311 The Green Right	U	C		1	11	-	280	1965	393	71.2%	-	-	-	3.0	38.0	5.5
3/1	A305 The Green Ahead Left	U	A		1	22	-	363	1919	736	49.3%	-	-	-	1.9	18.9	5.0
Ped Link: P1	Heath Road	-	F		1	5	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	A311 The Green	-	E		1	13	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	A305 The Green	-	D		1	5	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 26.3 Total Delay for Signalled Lanes (pcuHr): 7.82 Cycle Time (s): 60
PRC Over All Lanes (%): 26.3 Total Delay Over All Lanes(pcuHr): 7.82

Robert West

Rail
Buildings
Infrastructure
Transport & Environment

Appendix S – 2022 Future Year Capacity Assessments, Heath Road / Colne Road (PICADY)

5217/002/R01

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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TRL SOFTWARE SALES
TEL: CROWTHORNE (01344) 770758, FAX: 770356
EMAIL: software@trl.co.uk

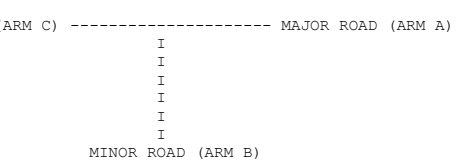
Run with file:-
"\\rwdc01\Users$\markscroggs\Documents\Heath Rd_Colne Rd 2022_Extant AM.vpi"
(drive-on-the-left) at 15:23:13 on Thursday, 16 October 2014

.RUN INFORMATION

RUN TITLE	: A305 Heath Road / Colne Road 2022 + Extant AM
LOCATION	: The Green, Twickenham
DATE	: 15/08/14
CLIENT	: EFA
ENUMERATOR	: MarkScroggs [RW-CAD-26]
JOB NUMBER	: 5217/001
STATUS	:
DESCRIPTION	:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



ARM A IS Heath Road (west)
ARM B IS Colne Road
ARM C IS Heath Road (east)

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM		MINOR ROAD B	
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	8.06	M.
CENTRAL RESERVE WIDTH	(WCR)	0.00	M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20	M.
- VISIBILITY	(VC-B)	130.00	M.
- BLOCKS TRAFFIC (SPACES)		YES (0)	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	46.0	M.
- VISIBILITY TO RIGHT	(VB-A)	20.0	M.
- LANE 1 WIDTH	(WB-C)	3.60	M.
- LANE 2 WIDTH	(WB-A)	0.00	M.

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
674.76	0.24	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B

532.45	0.22	0.09	0.14	0.32

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
649.25	0.23	0.23

(NB These values do not allow for any site specific corrections)

.TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

.Demand set: A305 Heath Road / Colne Road 2022 + Extant AM

TIME PERIOD BEGINS 07.45 AND ENDS 09.15

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	10.69	16.03	10.69
ARM B	15.00	45.00	75.00	1.91	2.87	1.91
ARM C	15.00	45.00	75.00	7.24	10.86	7.24

.Demand set: A305 Heath Road / Colne Road 2022 + Extant AM

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 08.00	ARM A	0.000	0.026	0.974
		0.0	22.0	833.0
		(0.0)	(18.2)	(0.9)
	ARM B	0.248	0.000	0.752
		38.0	0.0	115.0
		(7.8)	(0.0)	(0.0)
	ARM C	0.915	0.085	0.000
		530.0	49.0	0.0
		(1.0)	(6.1)	(0.0)
08.00 - 08.15	ARM A	0.000	0.026	0.974
		0.0	0.0	0.0
		(0.0)	(18.2)	(0.9)
	ARM B	0.248	0.000	0.752
		0.0	0.0	0.0
		(7.8)	(0.0)	(0.0)
	ARM C	0.915	0.085	0.000
		0.0	0.0	0.0
		(1.0)	(6.1)	(0.0)
08.15 - 08.30	ARM A	0.000	0.026	0.974
		0.0	0.0	0.0
		(0.0)	(18.2)	(0.9)
	ARM B	0.248	0.000	0.752
		0.0	0.0	0.0
		(7.8)	(0.0)	(0.0)
	ARM C	0.915	0.085	0.000
		0.0	0.0	0.0
		(1.0)	(6.1)	(0.0)
08.30 - 08.45	ARM A	0.000	0.026	0.974
		0.0	0.0	0.0
		(0.0)	(18.2)	(0.9)
	ARM B	0.248	0.000	0.752
		0.0	0.0	0.0
		(7.8)	(0.0)	(0.0)

	ARM C	0.915	0.085	0.000
		0.0	0.0	0.0
		(1.0)	(6.1)	(0.0)
08.45 - 09.00				
	ARM A	0.000	0.026	0.974
		0.0	0.0	0.0
		(0.0)	(18.2)	(0.9)
	ARM B	0.248	0.000	0.752
		0.0	0.0	0.0
		(7.8)	(0.0)	(0.0)
	ARM C	0.915	0.085	0.000
		0.0	0.0	0.0
		(1.0)	(6.1)	(0.0)
09.00 - 09.15				
	ARM A	0.000	0.026	0.974
		0.0	0.0	0.0
		(0.0)	(18.2)	(0.9)
	ARM B	0.248	0.000	0.752
		0.0	0.0	0.0
		(7.8)	(0.0)	(0.0)
	ARM C	0.915	0.085	0.000
		0.0	0.0	0.0
		(1.0)	(6.1)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
THE PERCENTAGE OF HEAVY VEHICLES VARIES BETWEEN TIME SEGMENTS
THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-AC	1.92	7.33	0.262		0.00	0.35	5.0		0.18
C-AB	1.27	12.70	0.100		0.00	0.21	3.0		0.09
C-A	6.00								
A-B	0.28								
A-C	10.45								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	2.29	6.71	0.342		0.35	0.51	7.3		0.23
C-AB	1.77	13.28	0.134		0.21	0.33	5.0		0.09
C-A	6.90								
A-B	0.33								
A-C	12.48								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	2.81	5.81	0.483		0.51	0.90	12.6		0.33
C-AB	2.80	14.23	0.197		0.33	0.59	8.9		0.09
C-A	7.83								
A-B	0.40								
A-C	15.29								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	2.81	5.81	0.483		0.90	0.92	13.6		0.33
C-AB	2.81	14.24	0.197		0.59	0.60	9.1		0.09
C-A	7.82								
A-B	0.40								
A-C	15.29								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	2.29	6.71	0.342		0.92	0.53	8.4		0.23
C-AB	1.78	13.29	0.134		0.60	0.35	5.3		0.09
C-A	6.89								

I	A-B	0.33								I
I	A-C	12.48								I
I										I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
I	09.00-09.15									I
I	B-AC	1.92	7.32	0.262		0.53	0.36	5.6		0.19
I	C-AB	1.28	12.71	0.101		0.35	0.22	3.3		0.09
I	C-A	5.99								I
I	A-B	0.28								I
I	A-C	10.45								I
I										I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.3	
08.15	0.5	*
08.30	0.9	*
08.45	0.9	*
09.00	0.5	*
09.15	0.4	

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.2	
08.15	0.3	
08.30	0.6	*
08.45	0.6	*
09.00	0.3	
09.15	0.2	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	210.6	140.4	52.5	0.25	52.5	0.25
C-AB	175.5	117.0	34.6	0.20	34.6	0.20
C-A	621.4	414.3				
A-B	30.3	20.2				
A-C	1146.6	764.4				
ALL	2184.4	1456.3	87.1	0.04	87.1	0.04

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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EMAIL: software@trl.co.uk

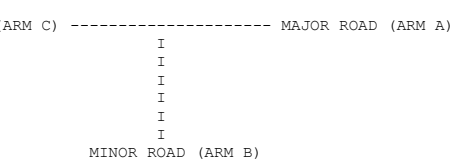
Run with file:-
"\\rwdc01\Users$\markscroggs\Documents\Heath Rd_Colne Rd 2022_Extant SCH.vpi"
(drive-on-the-left) at 15:33:35 on Thursday, 16 October 2014

.RUN INFORMATION

RUN TITLE	: A305 Heath Road / Colne Road 2022 + Extant SCH
LOCATION	: The Green, Twickenham
DATE	: 15/08/14
CLIENT	: EFA
ENUMERATOR	: MarkScroggs [RW-CAD-26]
JOB NUMBER	: 5217/001
STATUS	:
DESCRIPTION	:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



ARM A IS Heath Road (west)
ARM B IS Colne Road
ARM C IS Heath Road (east)

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM		MINOR ROAD B	
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	8.06	M.
CENTRAL RESERVE WIDTH	(WCR)	0.00	M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20	M.
- VISIBILITY	(VC-B)	130.00	M.
- BLOCKS TRAFFIC (SPACES)		YES (0)	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	46.0	M.
- VISIBILITY TO RIGHT	(VB-A)	20.0	M.
- LANE 1 WIDTH	(WB-C)	3.60	M.
- LANE 2 WIDTH	(WB-A)	0.00	M.

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
674.76	0.24	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B

532.45	0.22	0.09	0.14	0.32

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
649.25	0.23	0.23

(NB These values do not allow for any site specific corrections)

.TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

.Demand set: A305 Heath Road / Colne Road 2022 + Extant SCH

TIME PERIOD BEGINS 14.45 AND ENDS 16.15

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	7.25	10.88	7.25
ARM B	15.00	45.00	75.00	1.96	2.94	1.96
ARM C	15.00	45.00	75.00	8.18	12.26	8.18

.Demand set: A305 Heath Road / Colne Road 2022 + Extant SCH

TIME	FROM/TO	ARM A	ARM B	ARM C
14.45 - 15.00	TURNING PROPORTIONS			
	TURNING COUNTS			
	(PERCENTAGE OF H.V.S)			
	ARM A	0.000	0.041	0.959
		0.0	24.0	556.0
		(0.0)	(8.2)	(0.5)
	ARM B	0.299	0.000	0.701
		47.0	0.0	110.0
		(12.7)	(0.0)	(1.8)
	ARM C	0.911	0.089	0.000
		596.0	58.0	0.0
		(8.4)	(3.5)	(0.0)
15.00 - 15.15	TURNING PROPORTIONS			
	TURNING COUNTS			
	(PERCENTAGE OF H.V.S)			
	ARM A	0.000	0.041	0.959
		0.0	0.0	0.0
		(0.0)	(8.2)	(0.5)
	ARM B	0.299	0.000	0.701
		0.0	0.0	0.0
		(12.7)	(0.0)	(1.8)
	ARM C	0.911	0.089	0.000
		0.0	0.0	0.0
		(8.4)	(3.5)	(0.0)
15.15 - 15.30	TURNING PROPORTIONS			
	TURNING COUNTS			
	(PERCENTAGE OF H.V.S)			
	ARM A	0.000	0.041	0.959
		0.0	0.0	0.0
		(0.0)	(8.2)	(0.5)
	ARM B	0.299	0.000	0.701
		0.0	0.0	0.0
		(12.7)	(0.0)	(1.8)
	ARM C	0.911	0.089	0.000
		0.0	0.0	0.0
		(8.4)	(3.5)	(0.0)
15.30 - 15.45	TURNING PROPORTIONS			
	TURNING COUNTS			
	(PERCENTAGE OF H.V.S)			
	ARM A	0.000	0.041	0.959
		0.0	0.0	0.0
		(0.0)	(8.2)	(0.5)
	ARM B	0.299	0.000	0.701
		0.0	0.0	0.0
		(12.7)	(0.0)	(1.8)

	ARM C	0.911	0.089	0.000	
		0.0	0.0	0.0	
		(8.4)	(3.5)	(0.0)	
15.45 - 16.00					
	ARM A	0.000	0.041	0.959	
		0.0	0.0	0.0	
		(0.0)	(8.2)	(0.5)	
	ARM B	0.299	0.000	0.701	
		0.0	0.0	0.0	
		(12.7)	(0.0)	(1.8)	
	ARM C	0.911	0.089	0.000	
		0.0	0.0	0.0	
		(8.4)	(3.5)	(0.0)	
16.00 - 16.15					
	ARM A	0.000	0.041	0.959	
		0.0	0.0	0.0	
		(0.0)	(8.2)	(0.5)	
	ARM B	0.299	0.000	0.701	
		0.0	0.0	0.0	
		(12.7)	(0.0)	(1.8)	
	ARM C	0.911	0.089	0.000	
		0.0	0.0	0.0	
		(8.4)	(3.5)	(0.0)	

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
THE PERCENTAGE OF HEAVY VEHICLES VARIES BETWEEN TIME SEGMENTS
THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
14.45-15.00									
B-AC	1.97	7.58	0.260		0.00	0.35	4.9		0.18
C-AB	1.53	13.85	0.111		0.00	0.24	3.6		0.08
C-A	6.67								
A-B	0.30								
A-C	6.98								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
15.00-15.15									
B-AC	2.35	7.10	0.331		0.35	0.49	7.0		0.21
C-AB	2.20	14.66	0.150		0.24	0.39	5.9		0.08
C-A	7.60								
A-B	0.36								
A-C	8.33								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
15.15-15.30									
B-AC	2.88	6.41	0.449		0.49	0.79	11.2		0.28
C-AB	3.36	15.72	0.214		0.39	0.65	9.8		0.08
C-A	8.64								
A-B	0.44								
A-C	10.20								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
15.30-15.45									
B-AC	2.88	6.41	0.450		0.79	0.80	12.0		0.28
C-AB	3.37	15.73	0.214		0.65	0.66	10.0		0.08
C-A	8.63								
A-B	0.44								
A-C	10.20								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
15.45-16.00									
B-AC	2.35	7.10	0.331		0.80	0.51	8.0		0.21
C-AB	2.21	14.67	0.150		0.66	0.41	6.2		0.08
C-A	7.59								

I	A-B	0.36 I
I	A-C	8.33 I
I		I

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.00-16.15									
B-AC	1.97	7.58	0.260		0.51	0.36	5.5		0.18
C-AB	1.55	13.86	0.111		0.41	0.26	3.9		0.08
C-A	6.66								
A-B	0.30								
A-C	6.98								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
15.00	0.3	
15.15	0.5	
15.30	0.8	*
15.45	0.8	*
16.00	0.5	*
16.15	0.4	

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
15.00	0.2	
15.15	0.4	
15.30	0.7	*
15.45	0.7	*
16.00	0.4	
16.15	0.3	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	216.1	144.1	48.6	0.22	48.6	0.22
C-AB	213.2	142.1	39.4	0.18	39.4	0.18
C-A	687.0	458.0				
A-B	33.0	22.0				
A-C	765.3	510.2				
ALL	1914.6	1276.4	88.0	0.05	88.0	0.05

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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EMAIL: software@trl.co.uk

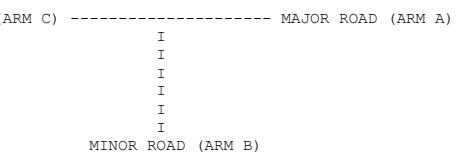
Run with file:-
"\\rwdc01\Users$\markscroggs\Documents\Heath Rd_Colne Rd 2022_Development AM.vpi"
(drive-on-the-left) at 15:25:05 on Thursday, 16 October 2014

.RUN INFORMATION

RUN TITLE	: A305 Heath Road / Colne Road 2022 + Development AM
LOCATION	: The Green, Twickenham
DATE	: 15/08/14
CLIENT	: EFA
ENUMERATOR	: MarkScroggs [RW-CAD-26]
JOB NUMBER	: 5217/001
STATUS	:
DESCRIPTION	:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



ARM A IS Heath Road (west)
ARM B IS Colne Road
ARM C IS Heath Road (east)

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 8.06 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B)130.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (0)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 46.0 M.
- VISIBILITY TO RIGHT	(VB-A) 20.0 M.
- LANE 1 WIDTH	(WB-C) 3.60 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
674.76	0.24	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B

532.45	0.22	0.09	0.14	0.32

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
649.25	0.23	0.23

(NB These values do not allow for any site specific corrections)

.TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

.Demand set: A305 Heath Road / Colne Road 2022 + Development AM

TIME PERIOD BEGINS 07.45 AND ENDS 09.15

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	10.69	16.03	10.69
ARM B	15.00	45.00	75.00	2.71	4.07	2.71
ARM C	15.00	45.00	75.00	7.47	11.21	7.47

.Demand set: A305 Heath Road / Colne Road 2022 + Development AM

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 08.00	ARM A	0.000	0.026	0.974
		0.0	22.0	833.0
		(0.0)	(18.2)	(0.8)
	ARM B	0.401	0.000	0.599
		87.0	0.0	130.0
		(3.4)	(0.0)	(0.0)
	ARM C	0.911	0.089	0.000
		545.0	53.0	0.0
		(0.9)	(5.6)	(0.0)
08.00 - 08.15	ARM A	0.000	0.026	0.974
		0.0	0.0	0.0
		(0.0)	(18.2)	(0.8)
	ARM B	0.401	0.000	0.599
		0.0	0.0	0.0
		(3.4)	(0.0)	(0.0)
	ARM C	0.911	0.089	0.000
		0.0	0.0	0.0
		(0.9)	(5.6)	(0.0)
08.15 - 08.30	ARM A	0.000	0.026	0.974
		0.0	0.0	0.0
		(0.0)	(18.2)	(0.8)
	ARM B	0.401	0.000	0.599
		0.0	0.0	0.0
		(3.4)	(0.0)	(0.0)
	ARM C	0.911	0.089	0.000
		0.0	0.0	0.0
		(0.9)	(5.6)	(0.0)
08.30 - 08.45	ARM A	0.000	0.026	0.974
		0.0	0.0	0.0
		(0.0)	(18.2)	(0.8)
	ARM B	0.401	0.000	0.599
		0.0	0.0	0.0
		(3.4)	(0.0)	(0.0)

	ARM C	0.911	0.089	0.000	
		0.0	0.0	0.0	
		(0.9)	(5.6)	(0.0)	
08.45 - 09.00					
	ARM A	0.000	0.026	0.974	
		0.0	0.0	0.0	
		(0.0)	(18.2)	(0.8)	
	ARM B	0.401	0.000	0.599	
		0.0	0.0	0.0	
		(3.4)	(0.0)	(0.0)	
	ARM C	0.911	0.089	0.000	
		0.0	0.0	0.0	
		(0.9)	(5.6)	(0.0)	
09.00 - 09.15					
	ARM A	0.000	0.026	0.974	
		0.0	0.0	0.0	
		(0.0)	(18.2)	(0.8)	
	ARM B	0.401	0.000	0.599	
		0.0	0.0	0.0	
		(3.4)	(0.0)	(0.0)	
	ARM C	0.911	0.089	0.000	
		0.0	0.0	0.0	
		(0.9)	(5.6)	(0.0)	

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
THE PERCENTAGE OF HEAVY VEHICLES VARIES BETWEEN TIME SEGMENTS
THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-AC	2.72	6.80	0.400		0.00	0.65	9.1		0.24
C-AB	1.39	12.86	0.108		0.00	0.23	3.5		0.09
C-A	6.11								
A-B	0.28								
A-C	10.45								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	3.25	6.14	0.530		0.65	1.08	15.1		0.34
C-AB	1.95	13.47	0.145		0.23	0.37	5.6		0.09
C-A	7.01								
A-B	0.33								
A-C	12.48								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	3.98	5.17	0.770		1.08	2.78	35.1		0.71
C-AB	3.10	14.46	0.214		0.37	0.65	9.8		0.09
C-A	7.88								
A-B	0.40								
A-C	15.29								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	3.98	5.17	0.770		2.78	3.02	43.8		0.81
C-AB	3.11	14.47	0.215		0.65	0.66	10.1		0.09
C-A	7.87								
A-B	0.40								
A-C	15.29								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	3.25	6.13	0.530		3.02	1.18	20.1		0.38
C-AB	1.96	13.48	0.146		0.66	0.39	5.9		0.09
C-A	7.00								

A-B	0.33	
A-C	12.48	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
09.00-09.15									
B-AC	2.72	6.80	0.400		1.18	0.69	10.9		0.25
C-AB	1.40	12.88	0.109		0.39	0.25	3.7		0.09
C-A	6.10								
A-B	0.28								
A-C	10.45								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.6	*
08.15	1.1	*
08.30	2.8	***
08.45	3.0	***
09.00	1.2	*
09.15	0.7	*

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.2	
08.15	0.4	
08.30	0.7	*
08.45	0.7	*
09.00	0.4	
09.15	0.2	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	298.7	199.1	134.0	0.45	134.1	0.45
C-AB	193.6	129.1	38.6	0.20	38.6	0.20
C-A	629.5	419.6				
A-B	30.3	20.2				
A-C	1146.6	764.4				
ALL	2298.6	1532.4	172.7	0.08	172.7	0.08

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

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RELEASE 5.0 (JUNE 2010)

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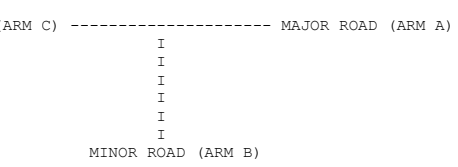
Run with file:-
"\\rwdc01\Users$\markscroggs\Documents\Heath Rd_Colne Rd 2022_Development SCH.vpi"
(drive-on-the-left) at 15:39:46 on Thursday, 16 October 2014

.RUN INFORMATION

RUN TITLE	: A305 Heath Road / Colne Road 2022 + Development SCH
LOCATION	: The Green, Twickenham
DATE	: 15/08/14
CLIENT	: EFA
ENUMERATOR	: MarkScroggs [RW-CAD-26]
JOB NUMBER	: 5217/001
STATUS	:
DESCRIPTION	:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



ARM A IS Heath Road (west)
ARM B IS Colne Road
ARM C IS Heath Road (east)

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM		MINOR ROAD B	
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	8.06	M.
CENTRAL RESERVE WIDTH	(WCR)	0.00	M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20	M.
- VISIBILITY	(VC-B)	130.00	M.
- BLOCKS TRAFFIC (SPACES)		YES (0)	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	46.0	M.
- VISIBILITY TO RIGHT	(VB-A)	20.0	M.
- LANE 1 WIDTH	(WB-C)	3.60	M.
- LANE 2 WIDTH	(WB-A)	0.00	M.

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
674.76	0.24	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B

532.45	0.22	0.09	0.14	0.32	

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
649.25	0.23	0.23

(NB These values do not allow for any site specific corrections)

.TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

.Demand set: A305 Heath Road / Colne Road 2022 + Development SCH

TIME PERIOD BEGINS 14.45 AND ENDS 16.15

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	7.25	10.88	7.25
ARM B	15.00	45.00	75.00	2.66	3.99	2.66
ARM C	15.00	45.00	75.00	8.54	12.81	8.54

.Demand set: A305 Heath Road / Colne Road 2022 + Development SCH

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
14.45 - 15.00	ARM A	0.000	0.041	0.959
		0.0	24.0	556.0
		(0.0)%	(8.2)%	(0.5)%
	ARM B	0.432	0.000	0.568
		92.0	0.0	121.0
		(6.5)%	(0.0)%	(1.9)%
	ARM C	0.895	0.105	0.000
		611.0	72.0	0.0
		(0.8)%	(2.8)%	(0.0)%
15.00 - 15.15	ARM A	0.000	0.041	0.959
		0.0	0.0	0.0
		(0.0)%	(8.2)%	(0.5)%
	ARM B	0.432	0.000	0.568
		0.0	0.0	0.0
		(6.5)%	(0.0)%	(1.9)%
	ARM C	0.895	0.105	0.000
		0.0	0.0	0.0
		(0.8)%	(2.8)%	(0.0)%
15.15 - 15.30	ARM A	0.000	0.041	0.959
		0.0	0.0	0.0
		(0.0)%	(8.2)%	(0.5)%
	ARM B	0.432	0.000	0.568
		0.0	0.0	0.0
		(6.5)%	(0.0)%	(1.9)%
	ARM C	0.895	0.105	0.000
		0.0	0.0	0.0
		(0.8)%	(2.8)%	(0.0)%
15.30 - 15.45	ARM A	0.000	0.041	0.959
		0.0	0.0	0.0
		(0.0)%	(8.2)%	(0.5)%
	ARM B	0.432	0.000	0.568
		0.0	0.0	0.0
		(6.5)%	(0.0)%	(1.9)%

	ARM C	0.895	0.105	0.000	
		0.0	0.0	0.0	
		(0.8)	(2.8)	(0.0)	
15.45 - 16.00					
	ARM A	0.000	0.041	0.959	
		0.0	0.0	0.0	
		(0.0)	(8.2)	(0.5)	
	ARM B	0.432	0.000	0.568	
		0.0	0.0	0.0	
		(6.5)	(0.0)	(1.9)	
	ARM C	0.895	0.105	0.000	
		0.0	0.0	0.0	
		(0.8)	(2.8)	(0.0)	
16.00 - 16.15					
	ARM A	0.000	0.041	0.959	
		0.0	0.0	0.0	
		(0.0)	(8.2)	(0.5)	
	ARM B	0.432	0.000	0.568	
		0.0	0.0	0.0	
		(6.5)	(0.0)	(1.9)	
	ARM C	0.895	0.105	0.000	
		0.0	0.0	0.0	
		(0.8)	(2.8)	(0.0)	

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
THE PERCENTAGE OF HEAVY VEHICLES VARIES BETWEEN TIME SEGMENTS
THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
14.45-15.00									
B-AC	2.67	7.21	0.370		0.00	0.58	8.1		0.22
C-AB	1.91	14.20	0.135		0.00	0.31	4.5		0.08
C-A	6.66								
A-B	0.30								
A-C	6.98								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
15.00-15.15									
B-AC	3.19	6.70	0.476		0.58	0.88	12.5		0.28
C-AB	2.73	15.06	0.181		0.31	0.46	7.0		0.08
C-A	7.51								
A-B	0.36								
A-C	8.33								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
15.15-15.30									
B-AC	3.91	5.96	0.656		0.88	1.76	23.7		0.46
C-AB	4.16	16.19	0.257		0.46	0.77	11.6		0.08
C-A	8.37								
A-B	0.44								
A-C	10.20								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
15.30-15.45									
B-AC	3.91	5.95	0.657		1.76	1.83	27.0		0.49
C-AB	4.17	16.20	0.257		0.77	0.78	11.8		0.08
C-A	8.36								
A-B	0.44								
A-C	10.20								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
15.45-16.00									
B-AC	3.19	6.69	0.477		1.83	0.94	15.2		0.30
C-AB	2.74	15.07	0.182		0.78	0.48	7.2		0.08
C-A	7.50								

I	A-B	0.36 I
I	A-C	8.33 I
I		I

I TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
I 16.00-16.15									I
I B-AC	2.67	7.21	0.371		0.94	0.60	9.5		0.22 I
I C-AB	1.92	14.21	0.135		0.48	0.32	4.8		0.08 I
I C-A	6.65								I
I A-B	0.30								I
I A-C	6.98								I
I									I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
15.00	0.6	*
15.15	0.9	*
15.30	1.8	**
15.45	1.8	**
16.00	0.9	*
16.15	0.6	*

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
15.00	0.3	
15.15	0.5	
15.30	0.8	*
15.45	0.8	*
16.00	0.5	
16.15	0.3	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I STREAM I	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
I	I (VEH)	(VEH/H) I	(MIN)	(MIN/VEH) I	(MIN)	(MIN/VEH) I
I B-AC	I 293.2	I 195.5 I	96.0	I 0.33 I	96.0	I 0.33 I
I C-AB	I 264.4	I 176.3 I	47.0	I 0.18 I	47.0	I 0.18 I
I C-A	I 675.7	I 450.5 I		I I		I I
I A-B	I 33.0	I 22.0 I		I I		I I
I A-C	I 765.3	I 510.2 I		I I		I I
I ALL	I 2031.6	I 1354.4 I	143.0	I 0.07 I	143.0	I 0.07 I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******