(Default Analysis Set) - 2027 Future BY (Sensitivity), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Site Access - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D6 - 2027 Future BY (Sensitivity), PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road Site Access	T-Junction	Two-way	Two-way	Two-way		1.25	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.25	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2027 Future BY (Sensitivity)	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road North		ONE HOUR	✓	301	100.000
B - Site Access		ONE HOUR	✓	68	100.000
C - Henham Road East		ONE HOUR	✓	139	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	0	116	185
	B - Site Access	66	0	2
	C - Henham Road East	136	3	0

Proportions

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	0.00	0.39	0.61
	B - Site Access	0.97	0.00	0.03
	C - Henham Road East	0.98	0.02	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	0	0	1
	B - Site Access	0	0	0
	C - Henham Road East	0	0	0

Average PCU Per Veh

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	1.000	1.000	1.005
	B - Site Access	1.000	1.000	1.000
	C - Henham Road East	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road North	16:45-17:00	227	227
	17:00-17:15	271	271
	17:15-17:30	331	333
	17:30-17:45	331	333
	17:45-18:00	271	271
	18:00-18:15	227	227
B - Site Access	16:45-17:00	51	51
	17:00-17:15	61	61
	17:15-17:30	75	75
	17:30-17:45	75	75
	17:45-18:00	61	61
	18:00-18:15	51	51
C - Henham Road East	16:45-17:00	105	105
	17:00-17:15	125	125
	17:15-17:30	153	153
	17:30-17:45	153	153
	17:45-18:00	125	125
	18:00-18:15	105	105

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.00	6.78	0.0	A	2	2
B-A	0.16	9.15	0.2	A	66	66
C-AB	0.01	5.75	0.0	A	3	3
C-A					136	136
A-B					116	116
A-C					185	185

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	0.45	549	0.003	2	0.0	0.0	6.576	A
B-A	59	15	482	0.123	59	0.1	0.1	8.505	A
C-AB	3	0.67	645	0.004	3	0.0	0.0	5.601	A
C-A	122	31			122				
A-B	104	26			104				
A-C	166	42			166				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	0.55	533	0.004	2	0.0	0.0	6.782	A
B-A	73	18	466	0.156	72	0.1	0.2	9.140	A
C-AB	3	0.83	629	0.005	3	0.0	0.0	5.753	A
C-A	150	37			150				
A-B	128	32			128				
A-C	204	51			204				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	0.55	533	0.004	2	0.0	0.0	6.783	A
B-A	73	18	466	0.156	73	0.2	0.2	9.148	A
C-AB	3	0.83	629	0.005	3	0.0	0.0	5.753	A
C-A	150	37			150				
A-B	128	32			128				
A-C	204	51			204				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	0.45	549	0.003	2	0.0	0.0	6.580	A
B-A	59	15	482	0.123	60	0.2	0.1	8.517	A
C-AB	3	0.67	645	0.004	3	0.0	0.0	5.601	A
C-A	122	31			122				
A-B	104	26			104				
A-C	166	42			166				

(Default Analysis Set) - 2027 Future BY + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Site Access - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D7 - 2027 Future BY + Dev, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road Site Access	T-Junction	Two-way	Two-way	Two-way		4.89	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.89	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D7	2027 Future BY + Dev	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road North		ONE HOUR	✓	253	100.000
B - Site Access		ONE HOUR	✓	215	100.000
C - Henham Road East		ONE HOUR	✓	244	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	0	55	198
	B - Site Access	210	0	5
	C - Henham Road East	242	2	0

Proportions

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	0.00	0.22	0.78
	B - Site Access	0.98	0.00	0.02
	C - Henham Road East	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	0	0	2
	B - Site Access	0	0	0
	C - Henham Road East	1	0	0

Average PCU Per Veh

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	1.000	1.000	1.015
	B - Site Access	1.000	1.000	1.000
	C - Henham Road East	1.008	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road North	07:45-08:00	191	193
	08:00-08:15	228	230
	08:15-08:30	279	282
	08:30-08:45	279	282
	08:45-09:00	228	230
	09:00-09:15	191	193
B - Site Access	07:45-08:00	162	162
	08:00-08:15	194	194
	08:15-08:30	237	237
	08:30-08:45	237	237
	08:45-09:00	194	194
	09:00-09:15	162	162
C - Henham Road East	07:45-08:00	183	185
	08:00-08:15	219	221
	08:15-08:30	268	270
	08:30-08:45	268	270
	08:45-09:00	219	221
	09:00-09:15	183	185

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.01	8.74	0.0	A	5	5
B-A	0.51	16.41	1.0	C	210	210
C-AB	0.00	5.62	0.0	A	2	2
C-A					242	242
A-B					55	55
A-C					198	198

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	4	1	477	0.009	4	0.0	0.0	7.612	A
B-A	189	47	470	0.403	188	0.5	0.7	12.754	B
C-AB	1	0.34	656	0.002	1	0.0	0.0	5.494	A
C-A	218	54			218				
A-B	50	12			50				
A-C	178	44			178				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	5	1	419	0.013	5	0.0	0.0	8.706	A
B-A	232	58	451	0.514	230	0.7	1.0	16.212	C
C-AB	2	0.42	643	0.003	2	0.0	0.0	5.616	A
C-A	266	67			266				
A-B	61	15			61				
A-C	218	54			218				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	5	1	417	0.013	5	0.0	0.0	8.741	A
B-A	232	58	451	0.514	232	1.0	1.0	16.411	C
C-AB	2	0.42	643	0.003	2	0.0	0.0	5.616	A
C-A	266	67			266				
A-B	61	15			61				
A-C	218	54			218				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	4	1	475	0.009	4	0.0	0.0	7.645	A
B-A	189	47	470	0.403	191	1.0	0.7	12.950	B
C-AB	1	0.34	656	0.002	1	0.0	0.0	5.494	A
C-A	218	54			218				
A-B	50	12			50				
A-C	178	44			178				

(Default Analysis Set) - 2027 Future BY + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Site Access - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D8 - 2027 Future BY + Dev, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road Site Access	T-Junction	Two-way	Two-way	Two-way		1.85	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.85	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D8	2027 Future BY + Dev	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road North		ONE HOUR	✓	366	100.000
B - Site Access		ONE HOUR	✓	107	100.000
C - Henham Road East		ONE HOUR	✓	138	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	0	182	184
	B - Site Access	104	0	3
	C - Henham Road East	133	5	0

Proportions

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	0.00	0.50	0.50
	B - Site Access	0.97	0.00	0.03
	C - Henham Road East	0.97	0.03	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	0	0	1
	B - Site Access	0	0	0
	C - Henham Road East	0	0	0

Average PCU Per Veh

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	1.000	1.000	1.005
	B - Site Access	1.000	1.000	1.000
	C - Henham Road East	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road North	16:45-17:00	276	277
	17:00-17:15	329	330
	17:15-17:30	404	405
	17:30-17:45	404	405
	17:45-18:00	329	330
	18:00-18:15	276	277
B - Site Access	16:45-17:00	80	80
	17:00-17:15	96	96
	17:15-17:30	118	118
	17:30-17:45	118	118
	17:45-18:00	96	96
	18:00-18:15	80	80
C - Henham Road East	16:45-17:00	104	104
	17:00-17:15	124	124
	17:15-17:30	151	151
	17:30-17:45	151	151
	17:45-18:00	124	124
	18:00-18:15	104	104

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.01	7.14	0.0	A	3	3
B-A	0.25	10.44	0.3	B	104	104
C-AB	0.01	5.95	0.0	A	5	5
C-A					133	133
A-B					182	182
A-C					184	184

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	3	0.67	530	0.005	3	0.0	0.0	6.820	A
B-A	93	23	477	0.196	93	0.2	0.2	9.381	A
C-AB	4	1	630	0.007	4	0.0	0.0	5.756	A
C-A	119	30			119				
A-B	164	41			164				
A-C	165	41			165				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	3	0.82	508	0.006	3	0.0	0.0	7.137	A
B-A	114	29	459	0.249	114	0.2	0.3	10.419	B
C-AB	5	1	610	0.009	5	0.0	0.0	5.953	A
C-A	146	37			146				
A-B	201	50			201				
A-C	203	51			203				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	3	0.82	507	0.006	3	0.0	0.0	7.140	A
B-A	114	29	459	0.249	114	0.3	0.3	10.440	B
C-AB	5	1	610	0.009	5	0.0	0.0	5.953	A
C-A	146	37			146				
A-B	201	50			201				
A-C	203	51			203				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	3	0.67	530	0.005	3	0.0	0.0	6.823	A
B-A	93	23	477	0.196	94	0.3	0.2	9.409	A
C-AB	4	1	630	0.007	4	0.0	0.0	5.756	A
C-A	119	30			119				
A-B	164	41			164				
A-C	165	41			165				

(Default Analysis Set) - 2027 Future BY + Dev (Sens), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Site Access - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D9 - 2027 Future BY + Dev (Sens), AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road Site Access	T-Junction	Two-way	Two-way	Two-way		4.88	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.88	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D9	2027 Future BY + Dev (Sens)	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road North		ONE HOUR	✓	256	100.000
B - Site Access		ONE HOUR	✓	215	100.000
C - Henham Road East		ONE HOUR	✓	245	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	0	55	201
	B - Site Access	210	0	5
	C - Henham Road East	243	2	0

Proportions

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	0.00	0.22	0.78
	B - Site Access	0.98	0.00	0.02
	C - Henham Road East	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	0	0	1
	B - Site Access	0	0	0
	C - Henham Road East	1	0	0

Average PCU Per Veh

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	1.000	1.000	1.015
	B - Site Access	1.000	1.000	1.000
	C - Henham Road East	1.008	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road North	07:45-08:00	193	195
	08:00-08:15	230	233
	08:15-08:30	282	285
	08:30-08:45	282	285
	08:45-09:00	230	233
	09:00-09:15	193	195
B - Site Access	07:45-08:00	162	162
	08:00-08:15	194	194
	08:15-08:30	237	237
	08:30-08:45	237	237
	08:45-09:00	194	194
	09:00-09:15	162	162
C - Henham Road East	07:45-08:00	184	186
	08:00-08:15	220	222
	08:15-08:30	269	271
	08:30-08:45	269	271
	08:45-09:00	220	222
	09:00-09:15	184	186

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.01	8.77	0.0	A	5	5
B-A	0.52	16.49	1.0	C	210	210
C-AB	0.00	5.62	0.0	A	2	2
C-A					243	243
A-B					55	55
A-C					201	201

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	4	1	476	0.009	4	0.0	0.0	7.625	A
B-A	189	47	469	0.403	188	0.5	0.7	12.792	B
C-AB	1	0.34	656	0.002	1	0.0	0.0	5.500	A
C-A	218	55			218				
A-B	50	12			50				
A-C	181	45			181				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	5	1	418	0.013	5	0.0	0.0	8.731	A
B-A	232	58	450	0.515	230	0.7	1.0	16.283	C
C-AB	2	0.42	642	0.003	2	0.0	0.0	5.623	A
C-A	268	67			268				
A-B	61	15			61				
A-C	221	55			221				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	5	1	416	0.013	5	0.0	0.0	8.766	A
B-A	232	58	450	0.515	232	1.0	1.0	16.486	C
C-AB	2	0.42	642	0.003	2	0.0	0.0	5.623	A
C-A	268	67			268				
A-B	61	15			61				
A-C	221	55			221				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	4	1	475	0.009	4	0.0	0.0	7.656	A
B-A	189	47	469	0.403	191	1.0	0.7	12.989	B
C-AB	1	0.34	656	0.002	1	0.0	0.0	5.503	A
C-A	218	55			218				
A-B	50	12			50				
A-C	181	45			181				

(Default Analysis Set) - 2027 Future BY + Dev (Sens), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Site Access - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D10 - 2027 Future BY + Dev (Sens), PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road Site Access	T-Junction	Two-way	Two-way	Two-way		1.84	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.84	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D10	2027 Future BY + Dev (Sens)	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road North		ONE HOUR	✓	367	100.000
B - Site Access		ONE HOUR	✓	107	100.000
C - Henham Road East		ONE HOUR	✓	141	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	0	182	185
	B - Site Access	104	0	3
	C - Henham Road East	136	5	0

Proportions

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	0.00	0.50	0.50
	B - Site Access	0.97	0.00	0.03
	C - Henham Road East	0.97	0.03	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	0	0	1
	B - Site Access	0	0	0
	C - Henham Road East	0	0	0

Average PCU Per Veh

		To		
		A - Henham Road North	B - Site Access	C - Henham Road East
From	A - Henham Road North	1.000	1.000	1.005
	B - Site Access	1.000	1.000	1.000
	C - Henham Road East	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road North	16:45-17:00	277	277
	17:00-17:15	330	331
	17:15-17:30	405	406
	17:30-17:45	405	406
	17:45-18:00	330	331
	18:00-18:15	277	277
B - Site Access	16:45-17:00	80	80
	17:00-17:15	96	96
	17:15-17:30	118	118
	17:30-17:45	118	118
	17:45-18:00	96	96
	18:00-18:15	80	80
C - Henham Road East	16:45-17:00	106	106
	17:00-17:15	126	126
	17:15-17:30	155	155
	17:30-17:45	155	155
	17:45-18:00	126	126
	18:00-18:15	106	106

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.01	7.14	0.0	A	3	3
B-A	0.25	10.46	0.3	B	104	104
C-AB	0.01	5.96	0.0	A	5	5
C-A					136	136
A-B					182	182
A-C					185	185

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	3	0.67	530	0.005	3	0.0	0.0	6.823	A
B-A	93	23	476	0.196	93	0.2	0.2	9.397	A
C-AB	4	1	629	0.007	4	0.0	0.0	5.758	A
C-A	122	31			122				
A-B	164	41			164				
A-C	166	42			166				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	3	0.82	507	0.006	3	0.0	0.0	7.142	A
B-A	114	29	458	0.249	114	0.2	0.3	10.443	B
C-AB	5	1	609	0.009	5	0.0	0.0	5.956	A
C-A	150	37			150				
A-B	201	50			201				
A-C	204	51			204				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	3	0.82	507	0.006	3	0.0	0.0	7.144	A
B-A	114	29	458	0.249	114	0.3	0.3	10.464	B
C-AB	5	1	609	0.009	5	0.0	0.0	5.956	A
C-A	150	37			150				
A-B	201	50			201				
A-C	204	51			204				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	3	0.67	530	0.005	3	0.0	0.0	6.826	A
B-A	93	23	476	0.196	94	0.3	0.2	9.425	A
C-AB	4	1	629	0.007	4	0.0	0.0	5.760	A
C-A	122	31			122				
A-B	164	41			164				
A-C	166	42			166				

Junctions 10

ARCADY 10 - Roundabout Module

Filename: 20220929_Import of Std Rd - High St Dbl Mini v2.j10
Path: \\corp.pbwan.net\IN\IN_Projects\50610325 - Chancery Lane Projects\Development Planning Projects\000000000 Elsenham\03 WIP\TP\01 Analysis & Calcs\02. Std Rd - High St Dbl Mini
Report generation date: 9/29/2022 11:57:42 AM

Summary of junction performance

	AM				PM			
	Set ID	Queue (Veh)	Delay (s)	RFC	Set ID	Queue (Veh)	Delay (s)	RFC
	A1 - 2022 Base Year							
1 - Stansted Road / Robinhood Road - 1 - Stansted Road	D1	0.5	6.14	0.34	D2	0.5	6.30	0.35
1 - Stansted Road / Robinhood Road - 2 - Robinhood Road		0.1	5.21	0.05		0.0	4.79	0.04
1 - Stansted Road / Robinhood Road - 3 - High Street		0.0	6.22	0.36		0.0	6.05	0.35
2 - Station Road / High Street - 1 - Station Road		0.5	7.87	0.32		0.3	6.99	0.26
2 - Station Road / High Street - 2 - High Street		0.6	5.39	0.38		0.5	5.03	0.33
2 - Station Road / High Street - 3 - Stansted Road		0.0	4.86	0.30		0.0	4.57	0.26
	A1 - 2027 Future Base Year							
1 - Stansted Road / Robinhood Road - 1 - Stansted Road	D3	0.7	6.75	0.40	D4	0.9	7.82	0.48
1 - Stansted Road / Robinhood Road - 2 - Robinhood Road		0.1	5.46	0.07		0.1	5.26	0.05
1 - Stansted Road / Robinhood Road - 3 - High Street		0.0	7.54	0.47		0.0	6.89	0.43
2 - Station Road / High Street - 1 - Station Road		0.6	9.03	0.36		0.4	7.94	0.31
2 - Station Road / High Street - 2 - High Street		0.9	6.45	0.48		0.7	5.65	0.40
2 - Station Road / High Street - 3 - Stansted Road		0.0	5.71	0.40		0.0	5.03	0.33
	A1 - 2027 Future BY (Sensitivity)							
1 - Stansted Road / Robinhood Road - 1 - Stansted Road	D5	0.7	6.84	0.41	D6	1.0	8.19	0.50
1 - Stansted Road / Robinhood Road - 2 - Robinhood Road		0.1	5.50	0.07		0.1	5.36	0.05
1 - Stansted Road / Robinhood Road - 3 - High Street		0.0	7.92	0.50		0.0	7.01	0.44
2 - Station Road / High Street - 1 - Station Road		0.6	9.35	0.37		0.5	8.10	0.31
2 - Station Road / High Street - 2 - High Street		1.0	6.76	0.50		0.7	5.76	0.41
2 - Station Road / High Street - 3 - Stansted Road		0.0	5.94	0.42		0.0	5.11	0.34
	A1 - 2027 Future BY + Dev							
1 - Stansted Road / Robinhood Road - 1 - Stansted Road	D7	0.7	6.89	0.41	D8	1.1	8.58	0.52
1 - Stansted Road / Robinhood Road - 2 - Robinhood Road		0.1	5.52	0.08		0.1	5.46	0.05
1 - Stansted Road / Robinhood Road - 3 - High Street		0.0	8.31	0.53		0.0	7.19	0.46
2 - Station Road / High Street - 1 - Station Road		0.6	9.65	0.38		0.5	8.34	0.32
2 - Station Road / High Street - 2 - High Street		1.1	7.13	0.53		0.7	5.90	0.43
2 - Station Road / High Street - 3 - Stansted Road		0.0	6.20	0.45		0.0	5.21	0.35
	A1 - 2027 Future BY + Dev (Sens)							
1 - Stansted Road / Robinhood Road - 1 - Stansted Road	D9	0.7	6.99	0.42	D10	1.2	9.02	0.55
1 - Stansted Road / Robinhood Road - 2 - Robinhood Road		0.1	5.56	0.08		0.1	5.57	0.05
1 - Stansted Road / Robinhood Road - 3 - High Street		0.0	8.77	0.55		0.0	7.33	0.47
2 - Station Road / High Street - 1 - Station Road		0.6	10.02	0.39		0.5	8.51	0.33
2 - Station Road / High Street - 2 - High Street		1.2	7.52	0.55		0.8	6.02	0.44
2 - Station Road / High Street - 3 - Stansted Road		0.0	6.48	0.47		0.0	5.29	0.36

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

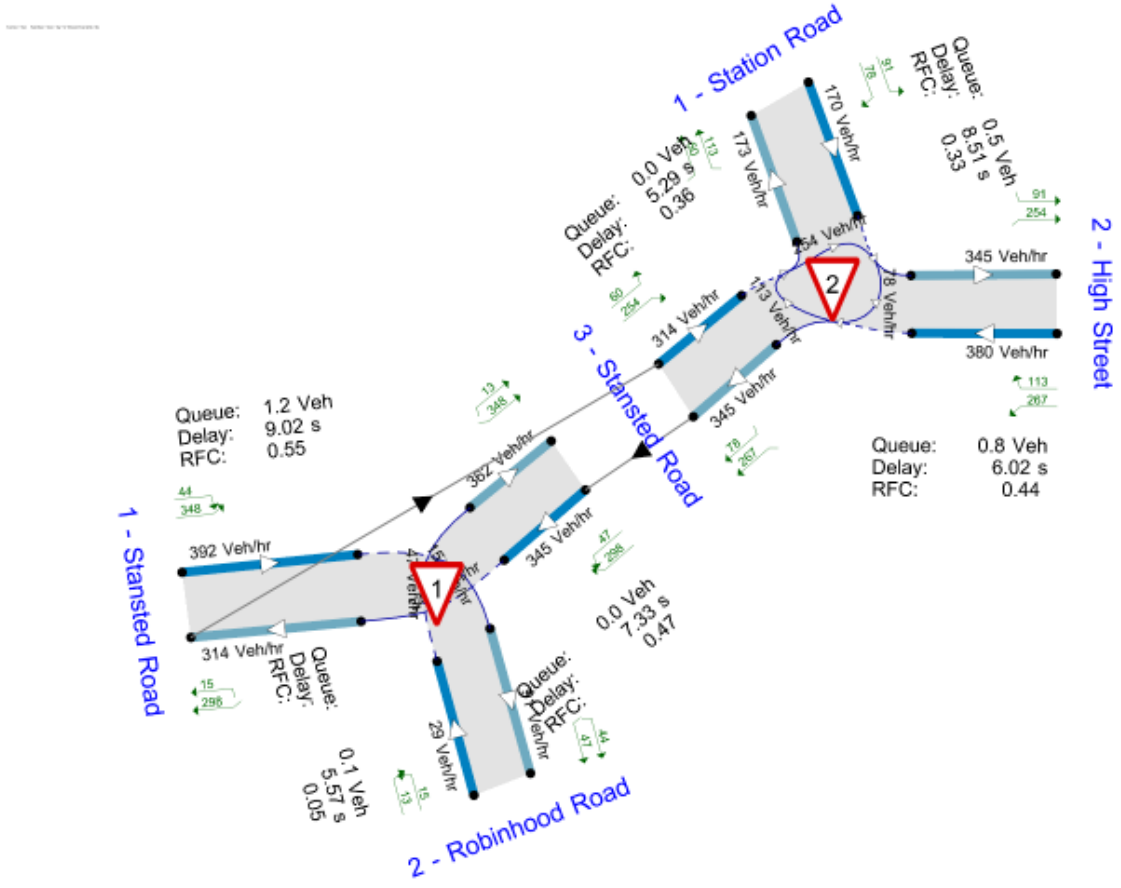
File summary

File Description

Title	Elsenam Double Mini Roundabout
Location	Elsenham
Site number	
Date	8/23/2017
Version	v2
Status	
Identifier	
Client	Fairfield Partnership
Jobnumber	11500582
Enumerator	UKEWS001
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



Flows show modelled flow through junction (Veh/hr).
Time Segment: 17:00-17:15

The junction diagram reflects the last run of Junctions.

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
JUNCTIONS 9	5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2022 Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓
D2	2022 Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓
D3	2027 Future Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓
D4	2027 Future Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓
D5	2027 Future BY (Sensitivity)	AM	ONE HOUR	07:45	09:15	15	✓	✓
D6	2027 Future BY (Sensitivity)	PM	ONE HOUR	16:45	18:15	15	✓	✓
D7	2027 Future BY + Dev	AM	ONE HOUR	07:45	09:15	15	✓	✓
D8	2027 Future BY + Dev	PM	ONE HOUR	16:45	18:15	15	✓	✓
D9	2027 Future BY + Dev (Sens)	AM	ONE HOUR	07:45	09:15	15	✓	✓
D10	2027 Future BY + Dev (Sens)	PM	ONE HOUR	16:45	18:15	15	✓	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

(Default Analysis Set) - 2022 Base Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	1 - Stansted Road / Robinhood Road	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 94% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	1 - Stansted Road / Robinhood Road - 3 - High Street	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	2 - Station Road / High Street - 3 - Stansted Road	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Demand Sets	D1 - 2022 Base Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Stansted Road / Robinhood Road	Mini-roundabout		1, 2, 3	6.13	A
2	Station Road / High Street	Mini-roundabout		1, 2, 3	5.79	A

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		5.93	A

Arms

Arms

Junction	Arm	Name	Description
1 - Stansted Road / Robinhood Road	1	Stansted Road	
	2	Robinhood Road	
	3	High Street	
2 - Station Road / High Street	1	Station Road	
	2	High Street	
	3	Stansted Road	

Capacity Options

Junction	Arm	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Assume flat start profile	Initial queue (PCU)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	0	99999	✓	
	2 - Robinhood Road	0	99999	✓	
	3 - High Street	0	99999	✓	
2 - Station Road / High Street	1 - Station Road	0	99999	✓	
	2 - High Street	0	99999	✓	
	3 - Stansted Road	0	99999	✓	

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - Stansted Road / Robinhood Road	1 - Stansted Road	3.21	3.21	3.92	3.1	15.70	12.45	0.0	
	2 - Robinhood Road	2.90	2.90	4.69	1.8	13.05	8.83	0.0	
	3 - High Street	3.17	3.17	8.32	3.2	10.09	2.00	0.0	
2 - Station Road / High Street	1 - Station Road	2.23	2.23	4.50	4.0	9.81	5.71	0.0	
	2 - High Street	3.08	3.08	4.85	13.6	14.38	9.11	0.0	
	3 - Stansted Road	4.22	4.22	5.91	3.2	9.85	4.37	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	0.621	920
	2 - Robinhood Road	0.604	941
	3 - High Street	0.628	923
2 - Station Road / High Street	1 - Station Road	0.592	826
	2 - High Street	0.642	1127
	3 - Stansted Road	0.661	1157

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2022 Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Stansted Road / Robinhood Road	3 - High Street	2	3	Closely spaced	Normal	0	100.00	1.00
2 - Station Road / High Street	3 - Stansted Road	1	1	Closely spaced	Normal	0	100.00	1.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stansted Road / Robinhood Road	1 - Stansted Road		ONE HOUR	✓	277	100.000
	2 - Robinhood Road		ONE HOUR	✓	33	100.000
	3 - High Street	✓				
2 - Station Road / High Street	1 - Station Road		ONE HOUR	✓	200	100.000
	2 - High Street		ONE HOUR	✓	364	100.000
	3 - Stansted Road	✓				

Origin-Destination Data

1 - Stansted Road / Robinhood Road

Demand (Veh/hr)

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	22	255
	2 - Robinhood Road	14	0	19
	3 - High Street	267	29	0

Proportions

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0.00	0.08	0.92
	2 - Robinhood Road	0.42	0.00	0.58
	3 - High Street	0.90	0.10	0.00

2 - Station Road / High Street

Demand (Veh/hr)

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	139	61
	2 - High Street	129	0	235
	3 - Stansted Road	59	188	0

Proportions

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0.00	0.70	0.31
	2 - High Street	0.35	0.00	0.65
	3 - Stansted Road	0.24	0.76	0.00

Vehicle Mix

1 - Stansted Road / Robinhood Road

Heavy Vehicle Percentages

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	0	1
	2 - Robinhood Road	14	0	0
	3 - High Street	1	3	0

Average PCU Per Veh

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	1.000	1.000	1.010
	2 - Robinhood Road	1.140	1.000	1.000
	3 - High Street	1.010	1.030	1.000

2 - Station Road / High Street

Heavy Vehicle Percentages

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	1	2
	2 - High Street	1	0	2
	3 - Stansted Road	3	1	0

Average PCU Per Veh

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	1.000	1.007	1.016
	2 - High Street	1.008	1.000	1.017
	3 - Stansted Road	1.034	1.005	1.000

Detailed Demand Data

Demand for each time segment

Junction	Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	07:45-08:00	209	210
		08:00-08:15	249	251
		08:15-08:30	305	308
		08:30-08:45	305	308
		08:45-09:00	249	251
		09:00-09:15	209	210
	2 - Robinhood Road	07:45-08:00	25	26
		08:00-08:15	30	31
		08:15-08:30	36	38
		08:30-08:45	36	38
		08:45-09:00	30	31
		09:00-09:15	25	26
	3 - High Street	07:45-08:00	410	415
		08:00-08:15	410	415
		08:15-08:30	410	415
		08:30-08:45	410	415
		08:45-09:00	410	415
		09:00-09:15	410	415
2 - Station Road / High Street	1 - Station Road	07:45-08:00	151	152
		08:00-08:15	180	182
		08:15-08:30	220	222
		08:30-08:45	220	222
		08:45-09:00	180	182
		09:00-09:15	151	152
	2 - High Street	07:45-08:00	274	278
		08:00-08:15	327	332
		08:15-08:30	401	406
		08:30-08:45	401	406
		08:45-09:00	327	332
		09:00-09:15	274	278
	3 - Stansted Road	07:45-08:00	480	486
		08:00-08:15	480	486
		08:15-08:30	480	486
		08:30-08:45	480	486
		08:45-09:00	480	486
		09:00-09:15	480	486

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	0.34	6.14	0.5	A	277	277
	2 - Robinhood Road	0.05	5.21	0.1	A	33	33
	3 - High Street	0.36	6.22	0.0	A	297	297
2 - Station Road / High Street	1 - Station Road	0.32	7.87	0.5	A	200	200
	2 - High Street	0.38	5.39	0.6	A	364	364
	3 - Stansted Road	0.30	4.86	0.0	A	283	283

Main Results for each time segment

08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	249	62	26	895	0.278	249	253	0.3	0.4	5.565
	2 - Robinhood Road	30	7	229	757	0.039	30	46	0.0	0.0	4.951
	3 - High Street	267	67	13	904	0.296	267	246	0.0	0.0	5.626
2 - Station Road / High Street	1 - Station Road	180	45	194	704	0.256	179	177	0.3	0.3	6.863
	2 - High Street	327	82	55	1077	0.304	327	318	0.3	0.4	4.799
	3 - Stansted Road	255	64	116	1067	0.239	255	266	0.0	0.0	4.417

08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	305	76	32	892	0.342	304	310	0.4	0.5	6.126
	2 - Robinhood Road	36	9	280	727	0.050	36	56	0.0	0.1	5.211
	3 - High Street	327	82	15	902	0.363	327	301	0.0	0.0	6.216
2 - Station Road / High Street	1 - Station Road	220	55	237	678	0.325	220	216	0.3	0.5	7.844
	2 - High Street	401	100	67	1069	0.375	400	390	0.4	0.6	5.379
	3 - Stansted Road	312	78	142	1050	0.297	312	325	0.0	0.0	4.852

08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	305	76	32	892	0.342	305	311	0.5	0.5	6.136
	2 - Robinhood Road	36	9	281	727	0.050	36	56	0.1	0.1	5.213
	3 - High Street	327	82	15	902	0.363	327	302	0.0	0.0	6.223
2 - Station Road / High Street	1 - Station Road	220	55	238	678	0.325	220	217	0.5	0.5	7.867
	2 - High Street	401	100	67	1069	0.375	401	391	0.6	0.6	5.389
	3 - Stansted Road	312	78	142	1050	0.297	312	326	0.0	0.0	4.857

08:45 - 09:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	249	62	26	895	0.278	250	254	0.5	0.4	5.581
	2 - Robinhood Road	30	7	230	756	0.039	30	46	0.1	0.0	4.957
	3 - High Street	268	67	13	904	0.297	268	247	0.0	0.0	5.634
2 - Station Road / High Street	1 - Station Road	180	45	194	703	0.256	180	177	0.5	0.3	6.893
	2 - High Street	327	82	55	1077	0.304	328	320	0.6	0.4	4.813
	3 - Stansted Road	255	64	116	1067	0.239	255	267	0.0	0.0	4.423

(Default Analysis Set) - 2022 Base Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	1 - Stansted Road / Robinhood Road	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 95% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	1 - Stansted Road / Robinhood Road - 3 - High Street	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	2 - Station Road / High Street - 3 - Stansted Road	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Demand Sets	D2 - 2022 Base Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Stansted Road / Robinhood Road	Mini-roundabout		1, 2, 3	6.11	A
2	Station Road / High Street	Mini-roundabout		1, 2, 3	5.31	A

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		5.67	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2022 Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Stansted Road / Robinhood Road	3 - High Street	2	3	Closely spaced	Normal	0	100.00	1.00
2 - Station Road / High Street	3 - Stansted Road	1	1	Closely spaced	Normal	0	100.00	1.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stansted Road / Robinhood Road	1 - Stansted Road		ONE HOUR	✓	283	100.000
	2 - Robinhood Road		ONE HOUR	✓	25	100.000
	3 - High Street	✓				
2 - Station Road / High Street	1 - Station Road		ONE HOUR	✓	163	100.000
	2 - High Street		ONE HOUR	✓	319	100.000
	3 - Stansted Road	✓				

Origin-Destination Data

1 - Stansted Road / Robinhood Road

Demand (Veh/hr)

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	41	242
	2 - Robinhood Road	13	0	12
	3 - High Street	243	45	0

Proportions

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0.00	0.14	0.86
	2 - Robinhood Road	0.52	0.00	0.48
	3 - High Street	0.84	0.16	0.00

2 - Station Road / High Street

Demand (Veh/hr)

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	80	83
	2 - High Street	114	0	205
	3 - Stansted Road	74	180	0

Proportions

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0.00	0.49	0.51
	2 - High Street	0.36	0.00	0.64
	3 - Stansted Road	0.29	0.71	0.00

Vehicle Mix

1 - Stansted Road / Robinhood Road

Heavy Vehicle Percentages

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	0	1
	2 - Robinhood Road	0	0	0
	3 - High Street	1	0	0

Average PCU Per Veh

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	1.000	1.000	1.008
	2 - Robinhood Road	1.000	1.000	1.000
	3 - High Street	1.008	1.000	1.000

2 - Station Road / High Street

Heavy Vehicle Percentages

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	1	2
	2 - High Street	0	0	0
	3 - Stansted Road	1	1	0

Average PCU Per Veh

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	1.000	1.013	1.024
	2 - High Street	1.000	1.000	1.000
	3 - Stansted Road	1.014	1.006	1.000

Detailed Demand Data

Demand for each time segment

Junction	Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	16:45-17:00	213	215
		17:00-17:15	254	256
		17:15-17:30	312	314
		17:30-17:45	312	314
		17:45-18:00	254	256
		18:00-18:15	213	215
	2 - Robinhood Road	16:45-17:00	19	19
		17:00-17:15	22	22
		17:15-17:30	28	28
		17:30-17:45	28	28
		17:45-18:00	22	22
		18:00-18:15	19	19
	3 - High Street	16:45-17:00	217	218
		17:00-17:15	259	261
		17:15-17:30	317	319
		17:30-17:45	317	319
		17:45-18:00	259	261
		18:00-18:15	217	218
2 - Station Road / High Street	1 - Station Road	16:45-17:00	123	125
		17:00-17:15	147	149
		17:15-17:30	179	183
		17:30-17:45	179	183
		17:45-18:00	147	149
		18:00-18:15	123	125
	2 - High Street	16:45-17:00	240	240
		17:00-17:15	287	287
		17:15-17:30	351	351
		17:30-17:45	351	351
		17:45-18:00	287	287
		18:00-18:15	240	240
	3 - Stansted Road	16:45-17:00	191	193
		17:00-17:15	228	230
		17:15-17:30	280	282
		17:30-17:45	280	282
		17:45-18:00	228	230
		18:00-18:15	191	193

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	0.35	6.30	0.5	A	283	283
	2 - Robinhood Road	0.04	4.79	0.0	A	25	25
	3 - High Street	0.35	6.05	0.0	A	288	288
2 - Station Road / High Street	1 - Station Road	0.26	6.99	0.3	A	163	163
	2 - High Street	0.33	5.03	0.5	A	319	319
	3 - Stansted Road	0.26	4.57	0.0	A	256	256

Main Results for each time segment

17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	254	64	40	889	0.286	254	230	0.3	0.4	5.668
	2 - Robinhood Road	22	6	217	809	0.028	22	77	0.0	0.0	4.577
	3 - High Street	259	65	12	910	0.284	259	228	0.0	0.0	5.502
2 - Station Road / High Street	1 - Station Road	147	37	163	716	0.205	146	169	0.2	0.3	6.322
	2 - High Street	287	72	75	1078	0.266	286	235	0.3	0.4	4.543
	3 - Stansted Road	230	57	102	1081	0.213	230	259	0.0	0.0	4.218

17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	312	78	49	883	0.353	311	281	0.4	0.5	6.283
	2 - Robinhood Road	28	7	266	779	0.035	27	95	0.0	0.0	4.788
	3 - High Street	317	79	14	908	0.349	317	279	0.0	0.0	6.041
2 - Station Road / High Street	1 - Station Road	179	45	199	694	0.258	179	207	0.3	0.3	6.981
	2 - High Street	351	88	91	1067	0.329	351	287	0.4	0.5	5.021
	3 - Stansted Road	281	70	125	1066	0.264	281	317	0.0	0.0	4.571

17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	312	78	50	883	0.353	312	282	0.5	0.5	6.295
	2 - Robinhood Road	28	7	266	779	0.035	28	95	0.0	0.0	4.790
	3 - High Street	317	79	14	908	0.349	317	280	0.0	0.0	6.047
2 - Station Road / High Street	1 - Station Road	179	45	200	694	0.258	179	208	0.3	0.3	6.992
	2 - High Street	351	88	91	1067	0.329	351	288	0.5	0.5	5.028
	3 - Stansted Road	282	70	126	1066	0.264	282	317	0.0	0.0	4.574

17:45 - 18:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	254	64	41	889	0.286	255	231	0.5	0.4	5.685
	2 - Robinhood Road	22	6	218	808	0.028	23	77	0.0	0.0	4.582
	3 - High Street	259	65	12	910	0.285	259	229	0.0	0.0	5.509
2 - Station Road / High Street	1 - Station Road	147	37	163	716	0.205	147	170	0.3	0.3	6.334
	2 - High Street	287	72	75	1078	0.266	287	235	0.5	0.4	4.556
	3 - Stansted Road	231	58	103	1081	0.213	231	259	0.0	0.0	4.222

(Default Analysis Set) - 2027 Future Base Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	1 - Stansted Road / Robinhood Road	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 93% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	1 - Stansted Road / Robinhood Road - 3 - High Street	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	2 - Station Road / High Street - 3 - Stansted Road	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Demand Sets	D3 - 2027 Future Base Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Stansted Road / Robinhood Road	Mini-roundabout		1, 2, 3	7.06	A
2	Station Road / High Street	Mini-roundabout		1, 2, 3	6.69	A

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		6.84	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2027 Future Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Stansted Road / Robinhood Road	3 - High Street	2	3	Closely spaced	Normal	0	100.00	1.00
2 - Station Road / High Street	3 - Stansted Road	1	1	Closely spaced	Normal	0	100.00	1.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stansted Road / Robinhood Road	1 - Stansted Road		ONE HOUR	✓	323	100.000
	2 - Robinhood Road		ONE HOUR	✓	48	100.000
	3 - High Street	✓				
2 - Station Road / High Street	1 - Station Road		ONE HOUR	✓	205	100.000
	2 - High Street		ONE HOUR	✓	466	100.000
	3 - Stansted Road	✓				

Origin-Destination Data

1 - Stansted Road / Robinhood Road

Demand (Veh/hr)

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	25	298
	2 - Robinhood Road	22	0	26
	3 - High Street	355	31	0

Proportions

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0.00	0.08	0.92
	2 - Robinhood Road	0.46	0.00	0.54
	3 - High Street	0.92	0.08	0.00

2 - Station Road / High Street

Demand (Veh/hr)

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	143	62
	2 - High Street	142	0	323
	3 - Stansted Road	63	234	0

Proportions

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0.00	0.70	0.30
	2 - High Street	0.31	0.00	0.69
	3 - Stansted Road	0.21	0.79	0.00

Vehicle Mix

1 - Stansted Road / Robinhood Road

Heavy Vehicle Percentages

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	0	1
	2 - Robinhood Road	9	0	0
	3 - High Street	1	3	0

Average PCU Per Veh

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	1.000	1.000	1.011
	2 - Robinhood Road	1.090	1.000	1.000
	3 - High Street	1.011	1.030	1.000

2 - Station Road / High Street

Heavy Vehicle Percentages

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	1	2
	2 - High Street	1	0	1
	3 - Stansted Road	3	0	0

Average PCU Per Veh

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	1.000	1.007	1.016
	2 - High Street	1.007	1.000	1.012
	3 - Stansted Road	1.032	1.004	1.000

Detailed Demand Data

Demand for each time segment

Junction	Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	07:45-08:00	243	246
		08:00-08:15	290	293
		08:15-08:30	356	359
		08:30-08:45	356	359
		08:45-09:00	290	293
		09:00-09:15	243	246
	2 - Robinhood Road	07:45-08:00	36	38
		08:00-08:15	43	45
		08:15-08:30	53	55
		08:30-08:45	53	55
		08:45-09:00	43	45
		09:00-09:15	36	38
	3 - High Street	07:45-08:00	291	294
		08:00-08:15	347	351
		08:15-08:30	425	430
		08:30-08:45	425	430
		08:45-09:00	347	351
		09:00-09:15	291	294
2 - Station Road / High Street	1 - Station Road	07:45-08:00	155	156
		08:00-08:15	185	186
		08:15-08:30	226	228
		08:30-08:45	226	228
		08:45-09:00	185	186
		09:00-09:15	155	156
	2 - High Street	07:45-08:00	351	354
		08:00-08:15	419	423
		08:15-08:30	513	518
		08:30-08:45	513	518
		08:45-09:00	419	423
		09:00-09:15	351	354
	3 - Stansted Road	07:45-08:00	223	226
		08:00-08:15	267	270
		08:15-08:30	327	330
		08:30-08:45	327	330
		08:45-09:00	267	270
		09:00-09:15	223	226

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	0.40	6.75	0.7	A	323	323
	2 - Robinhood Road	0.07	5.46	0.1	A	48	48
	3 - High Street	0.47	7.54	0.0	A	386	386
2 - Station Road / High Street	1 - Station Road	0.36	9.03	0.6	A	205	205
	2 - High Street	0.48	6.45	0.9	A	466	466
	3 - Stansted Road	0.40	5.71	0.0	A	379	379

Main Results for each time segment

08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	290	73	28	893	0.325	290	338	0.4	0.5	5.964
	2 - Robinhood Road	43	11	268	747	0.058	43	50	0.0	0.1	5.114
	3 - High Street	346	87	20	899	0.385	346	291	0.0	0.0	6.462
2 - Station Road / High Street	1 - Station Road	185	46	268	660	0.280	184	200	0.3	0.4	7.554
	2 - High Street	419	105	56	1079	0.388	418	396	0.5	0.6	5.441
	3 - Stansted Road	340	85	128	1062	0.320	340	346	0.0	0.0	4.964

08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	356	89	34	889	0.400	355	414	0.5	0.7	6.726
	2 - Robinhood Road	53	13	327	712	0.074	53	62	0.1	0.1	5.462
	3 - High Street	424	106	24	896	0.473	424	356	0.0	0.0	7.520
2 - Station Road / High Street	1 - Station Road	226	57	328	625	0.362	225	245	0.4	0.6	8.991
	2 - High Street	513	128	68	1071	0.479	512	485	0.6	0.9	6.421
	3 - Stansted Road	416	104	156	1043	0.399	416	424	0.0	0.0	5.698

08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	356	89	34	889	0.400	356	415	0.7	0.7	6.745
	2 - Robinhood Road	53	13	328	711	0.074	53	62	0.1	0.1	5.465
	3 - High Street	425	106	24	896	0.474	425	357	0.0	0.0	7.536
2 - Station Road / High Street	1 - Station Road	226	57	328	625	0.362	226	245	0.6	0.6	9.032
	2 - High Street	513	128	69	1071	0.479	513	486	0.9	0.9	6.447
	3 - Stansted Road	417	104	157	1043	0.400	417	425	0.0	0.0	5.709

08:45 - 09:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	290	73	28	893	0.325	291	340	0.7	0.5	5.985
	2 - Robinhood Road	43	11	269	746	0.058	43	50	0.1	0.1	5.121
	3 - High Street	348	87	20	899	0.387	348	292	0.0	0.0	6.480
2 - Station Road / High Street	1 - Station Road	185	46	269	660	0.280	185	201	0.6	0.4	7.601
	2 - High Street	419	105	56	1079	0.388	420	398	0.9	0.6	5.471
	3 - Stansted Road	342	85	128	1061	0.322	342	348	0.0	0.0	4.976

(Default Analysis Set) - 2027 Future Base Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	1 - Stansted Road / Robinhood Road	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 95% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	1 - Stansted Road / Robinhood Road - 3 - High Street	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	2 - Station Road / High Street - 3 - Stansted Road	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Demand Sets	D4 - 2027 Future Base Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Stansted Road / Robinhood Road	Mini-roundabout		1, 2, 3	7.28	A
2	Station Road / High Street	Mini-roundabout		1, 2, 3	5.90	A

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		6.54	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2027 Future Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Stansted Road / Robinhood Road	3 - High Street	2	3	Closely spaced	Normal	0	100.00	1.00
2 - Station Road / High Street	3 - Stansted Road	1	1	Closely spaced	Normal	0	100.00	1.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stansted Road / Robinhood Road	1 - Stansted Road		ONE HOUR	✓	381	100.000
	2 - Robinhood Road		ONE HOUR	✓	32	100.000
	3 - High Street	✓				
2 - Station Road / High Street	1 - Station Road		ONE HOUR	✓	181	100.000
	2 - High Street		ONE HOUR	✓	388	100.000
	3 - Stansted Road	✓				

Origin-Destination Data

1 - Stansted Road / Robinhood Road

Demand (Veh/hr)

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	49	332
	2 - Robinhood Road	17	0	15
	3 - High Street	302	52	0

Proportions

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0.00	0.13	0.87
	2 - Robinhood Road	0.53	0.00	0.47
	3 - High Street	0.85	0.15	0.00

2 - Station Road / High Street

Demand (Veh/hr)

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	94	87
	2 - High Street	121	0	267
	3 - Stansted Road	77	271	0

Proportions

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0.00	0.52	0.48
	2 - High Street	0.31	0.00	0.69
	3 - Stansted Road	0.22	0.78	0.00

Vehicle Mix

1 - Stansted Road / Robinhood Road

Heavy Vehicle Percentages

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	0	1
	2 - Robinhood Road	0	0	0
	3 - High Street	1	0	0

Average PCU Per Veh

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	1.000	1.000	1.007
	2 - Robinhood Road	1.000	1.000	1.000
	3 - High Street	1.006	1.000	1.000

2 - Station Road / High Street

Heavy Vehicle Percentages

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	1	2
	2 - High Street	0	0	0
	3 - Stansted Road	1	0	0

Average PCU Per Veh

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	1.000	1.011	1.023
	2 - High Street	1.000	1.000	1.000
	3 - Stansted Road	1.013	1.004	1.000

Detailed Demand Data

Demand for each time segment

Junction	Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	16:45-17:00	287	288
		17:00-17:15	343	344
		17:15-17:30	419	422
		17:30-17:45	419	422
		17:45-18:00	343	344
		18:00-18:15	287	288
	2 - Robinhood Road	16:45-17:00	24	24
		17:00-17:15	29	29
		17:15-17:30	35	35
		17:30-17:45	35	35
		17:45-18:00	29	29
		18:00-18:15	24	24
	3 - High Street	16:45-17:00	267	268
		17:00-17:15	318	320
		17:15-17:30	390	392
		17:30-17:45	390	392
		17:45-18:00	318	320
		18:00-18:15	267	268
2 - Station Road / High Street	1 - Station Road	16:45-17:00	136	139
		17:00-17:15	163	165
		17:15-17:30	199	203
		17:30-17:45	199	203
		17:45-18:00	163	165
		18:00-18:15	136	139
	2 - High Street	16:45-17:00	292	292
		17:00-17:15	348	348
		17:15-17:30	427	427
		17:30-17:45	427	427
		17:45-18:00	348	348
		18:00-18:15	292	292
	3 - Stansted Road	16:45-17:00	262	263
		17:00-17:15	312	314
		17:15-17:30	382	385
		17:30-17:45	382	385
		17:45-18:00	312	314
		18:00-18:15	262	263

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	0.48	7.82	0.9	A	381	381
	2 - Robinhood Road	0.05	5.26	0.1	A	32	32
	3 - High Street	0.43	6.89	0.0	A	354	354
2 - Station Road / High Street	1 - Station Road	0.31	7.94	0.4	A	181	181
	2 - High Street	0.40	5.65	0.7	A	388	388
	3 - Stansted Road	0.33	5.03	0.0	A	319	319

Main Results for each time segment

17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	343	86	47	886	0.387	342	287	0.5	0.6	6.607
	2 - Robinhood Road	29	7	298	760	0.038	29	91	0.0	0.0	4.922
	3 - High Street	318	79	15	909	0.350	318	311	0.0	0.0	6.045
2 - Station Road / High Street	1 - Station Road	163	41	223	682	0.239	162	172	0.2	0.3	6.926
	2 - High Street	348	87	78	1076	0.324	348	307	0.4	0.5	4.943
	3 - Stansted Road	287	72	109	1079	0.265	287	318	0.0	0.0	4.523

17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	419	105	57	880	0.477	418	351	0.6	0.9	7.785
	2 - Robinhood Road	35	9	365	720	0.049	35	111	0.0	0.1	5.259
	3 - High Street	389	97	19	907	0.429	389	381	0.0	0.0	6.875
2 - Station Road / High Street	1 - Station Road	199	50	273	653	0.305	199	210	0.3	0.4	7.921
	2 - High Street	427	107	96	1064	0.401	426	376	0.5	0.7	5.633
	3 - Stansted Road	351	88	133	1063	0.330	351	389	0.0	0.0	5.024

17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	419	105	57	880	0.477	419	351	0.9	0.9	7.821
	2 - Robinhood Road	35	9	366	719	0.049	35	111	0.1	0.1	5.264
	3 - High Street	390	97	19	907	0.430	390	382	0.0	0.0	6.885
2 - Station Road / High Street	1 - Station Road	199	50	274	653	0.306	199	211	0.4	0.4	7.943
	2 - High Street	427	107	96	1064	0.401	427	377	0.7	0.7	5.647
	3 - Stansted Road	351	88	133	1063	0.330	351	390	0.0	0.0	5.030

17:45 - 18:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	343	86	47	886	0.387	344	288	0.9	0.6	6.650
	2 - Robinhood Road	29	7	299	759	0.038	29	91	0.1	0.0	4.928
	3 - High Street	319	80	15	909	0.351	319	313	0.0	0.0	6.058
2 - Station Road / High Street	1 - Station Road	163	41	224	682	0.239	163	172	0.4	0.3	6.953
	2 - High Street	348	87	79	1076	0.324	349	309	0.7	0.5	4.960
	3 - Stansted Road	288	72	109	1079	0.266	288	319	0.0	0.0	4.531

(Default Analysis Set) - 2027 Future BY (Sensitivity), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	1 - Stansted Road / Robinhood Road	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 93% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	1 - Stansted Road / Robinhood Road - 3 - High Street	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	2 - Station Road / High Street - 3 - Stansted Road	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Demand Sets	D5 - 2027 Future BY (Sensitivity), AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Stansted Road / Robinhood Road	Mini-roundabout		1, 2, 3	7.31	A
2	Station Road / High Street	Mini-roundabout		1, 2, 3	6.95	A

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		7.10	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2027 Future BY (Sensitivity)	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Stansted Road / Robinhood Road	3 - High Street	2	3	Closely spaced	Normal	0	100.00	1.00
2 - Station Road / High Street	3 - Stansted Road	1	1	Closely spaced	Normal	0	100.00	1.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stansted Road / Robinhood Road	1 - Stansted Road		ONE HOUR	✓	330	100.000
	2 - Robinhood Road		ONE HOUR	✓	48	100.000
	3 - High Street	✓				
2 - Station Road / High Street	1 - Station Road		ONE HOUR	✓	208	100.000
	2 - High Street		ONE HOUR	✓	490	100.000
	3 - Stansted Road	✓				

Origin-Destination Data

1 - Stansted Road / Robinhood Road

Demand (Veh/hr)

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	25	305
	2 - Robinhood Road	22	0	26
	3 - High Street	377	31	0

Proportions

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0.00	0.08	0.92
	2 - Robinhood Road	0.46	0.00	0.54
	3 - High Street	0.92	0.08	0.00

2 - Station Road / High Street

Demand (Veh/hr)

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	144	62
	2 - High Street	144	0	345
	3 - Stansted Road	63	241	0

Proportions

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0.00	0.70	0.30
	2 - High Street	0.29	0.00	0.71
	3 - Stansted Road	0.21	0.79	0.00

Vehicle Mix

1 - Stansted Road / Robinhood Road

Heavy Vehicle Percentages

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	0	1
	2 - Robinhood Road	9	0	0
	3 - High Street	1	3	0

Average PCU Per Veh

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	1.000	1.000	1.011
	2 - Robinhood Road	1.090	1.000	1.000
	3 - High Street	1.011	1.030	1.000

2 - Station Road / High Street

Heavy Vehicle Percentages

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	1	2
	2 - High Street	1	0	1
	3 - Stansted Road	3	0	0

Average PCU Per Veh

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	1.000	1.007	1.016
	2 - High Street	1.007	1.000	1.012
	3 - Stansted Road	1.032	1.004	1.000

Detailed Demand Data

Demand for each time segment

Junction	Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	07:45-08:00	248	251
		08:00-08:15	297	300
		08:15-08:30	363	367
		08:30-08:45	363	367
		08:45-09:00	297	300
		09:00-09:15	248	251
	2 - Robinhood Road	07:45-08:00	36	38
		08:00-08:15	43	45
		08:15-08:30	53	55
		08:30-08:45	53	55
		08:45-09:00	43	45
		09:00-09:15	36	38
	3 - High Street	07:45-08:00	307	311
		08:00-08:15	367	371
		08:15-08:30	449	455
		08:30-08:45	449	455
		08:45-09:00	367	371
		09:00-09:15	307	311
2 - Station Road / High Street	1 - Station Road	07:45-08:00	155	157
		08:00-08:15	186	187
		08:15-08:30	227	229
		08:30-08:45	227	229
		08:45-09:00	186	187
		09:00-09:15	155	157
	2 - High Street	07:45-08:00	369	372
		08:00-08:15	440	445
		08:15-08:30	539	545
		08:30-08:45	539	545
		08:45-09:00	440	445
		09:00-09:15	369	372
	3 - Stansted Road	07:45-08:00	229	231
		08:00-08:15	273	276
		08:15-08:30	335	338
		08:30-08:45	335	338
		08:45-09:00	273	276
		09:00-09:15	229	231

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	0.41	6.84	0.7	A	330	330
	2 - Robinhood Road	0.07	5.50	0.1	A	48	48
	3 - High Street	0.50	7.92	0.0	A	408	408
2 - Station Road / High Street	1 - Station Road	0.37	9.35	0.6	A	206	206
	2 - High Street	0.50	6.76	1.0	A	490	490
	3 - Stansted Road	0.42	5.94	0.0	A	401	401

Main Results for each time segment

08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	297	74	28	894	0.332	296	358	0.4	0.5	6.021
	2 - Robinhood Road	43	11	274	743	0.058	43	50	0.0	0.1	5.140
	3 - High Street	366	91	20	899	0.407	366	297	0.0	0.0	6.688
2 - Station Road / High Street	1 - Station Road	186	46	285	650	0.285	185	204	0.3	0.4	7.733
	2 - High Street	440	110	56	1080	0.408	439	414	0.5	0.7	5.617
	3 - Stansted Road	360	90	130	1061	0.339	360	366	0.0	0.0	5.107

08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	363	91	34	890	0.408	363	438	0.5	0.7	6.818
	2 - Robinhood Road	53	13	335	707	0.075	53	61	0.1	0.1	5.498
	3 - High Street	448	112	24	896	0.500	448	364	0.0	0.0	7.899
2 - Station Road / High Street	1 - Station Road	227	57	349	613	0.371	227	250	0.4	0.6	9.305
	2 - High Street	539	135	68	1072	0.503	538	507	0.7	1.0	6.727
	3 - Stansted Road	440	110	158	1042	0.423	440	448	0.0	0.0	5.929

08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	363	91	34	890	0.408	363	439	0.7	0.7	6.837
	2 - Robinhood Road	53	13	336	707	0.075	53	62	0.1	0.1	5.501
	3 - High Street	449	112	24	896	0.501	449	364	0.0	0.0	7.917
2 - Station Road / High Street	1 - Station Road	227	57	350	612	0.371	227	251	0.6	0.6	9.347
	2 - High Street	539	135	69	1071	0.503	539	508	1.0	1.0	6.761
	3 - Stansted Road	441	110	159	1041	0.424	441	449	0.0	0.0	5.942

08:45 - 09:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	297	74	28	894	0.332	297	360	0.7	0.5	6.044
	2 - Robinhood Road	43	11	275	743	0.058	43	50	0.1	0.1	5.146
	3 - High Street	368	92	20	899	0.409	368	298	0.0	0.0	6.710
2 - Station Road / High Street	1 - Station Road	186	46	286	650	0.286	186	205	0.6	0.4	7.784
	2 - High Street	440	110	56	1079	0.408	441	416	1.0	0.7	5.652
	3 - Stansted Road	361	90	130	1060	0.341	361	368	0.0	0.0	5.122

(Default Analysis Set) - 2027 Future BY (Sensitivity), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	1 - Stansted Road / Robinhood Road	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 95% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	1 - Stansted Road / Robinhood Road - 3 - High Street	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	2 - Station Road / High Street - 3 - Stansted Road	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Demand Sets	D6 - 2027 Future BY (Sensitivity), PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Stansted Road / Robinhood Road	Mini-roundabout		1, 2, 3	7.54	A
2	Station Road / High Street	Mini-roundabout		1, 2, 3	6.00	A

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		6.72	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2027 Future BY (Sensitivity)	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Stansted Road / Robinhood Road	3 - High Street	2	3	Closely spaced	Normal	0	100.00	1.00
2 - Station Road / High Street	3 - Stansted Road	1	1	Closely spaced	Normal	0	100.00	1.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stansted Road / Robinhood Road	1 - Stansted Road		ONE HOUR	✓	400	100.000
	2 - Robinhood Road		ONE HOUR	✓	32	100.000
	3 - High Street	✓				
2 - Station Road / High Street	1 - Station Road		ONE HOUR	✓	183	100.000
	2 - High Street		ONE HOUR	✓	399	100.000
	3 - Stansted Road	✓				

Origin-Destination Data

1 - Stansted Road / Robinhood Road

Demand (Veh/hr)

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	49	351
	2 - Robinhood Road	17	0	15
	3 - High Street	311	52	0

Proportions

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0.00	0.12	0.88
	2 - Robinhood Road	0.53	0.00	0.47
	3 - High Street	0.86	0.14	0.00

2 - Station Road / High Street

Demand (Veh/hr)

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	96	87
	2 - High Street	123	0	276
	3 - Stansted Road	77	290	0

Proportions

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0.00	0.52	0.48
	2 - High Street	0.31	0.00	0.69
	3 - Stansted Road	0.21	0.79	0.00

Vehicle Mix

1 - Stansted Road / Robinhood Road

Heavy Vehicle Percentages

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	0	1
	2 - Robinhood Road	0	0	0
	3 - High Street	1	0	0

Average PCU Per Veh

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	1.000	1.000	1.006
	2 - Robinhood Road	1.000	1.000	1.000
	3 - High Street	1.006	1.000	1.000

2 - Station Road / High Street

Heavy Vehicle Percentages

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	1	2
	2 - High Street	0	0	0
	3 - Stansted Road	1	0	0

Average PCU Per Veh

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	1.000	1.010	1.023
	2 - High Street	1.000	1.000	1.000
	3 - Stansted Road	1.013	1.003	1.000

Detailed Demand Data

Demand for each time segment

Junction	Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	16:45-17:00	301	303
		17:00-17:15	360	362
		17:15-17:30	440	443
		17:30-17:45	440	443
		17:45-18:00	360	362
		18:00-18:15	301	303
	2 - Robinhood Road	16:45-17:00	24	24
		17:00-17:15	29	29
		17:15-17:30	35	35
		17:30-17:45	35	35
		17:45-18:00	29	29
		18:00-18:15	24	24
	3 - High Street	16:45-17:00	273	275
		17:00-17:15	326	328
		17:15-17:30	400	402
		17:30-17:45	400	402
		17:45-18:00	326	328
		18:00-18:15	273	275
2 - Station Road / High Street	1 - Station Road	16:45-17:00	138	140
		17:00-17:15	165	167
		17:15-17:30	202	205
		17:30-17:45	202	205
		17:45-18:00	165	167
		18:00-18:15	138	140
	2 - High Street	16:45-17:00	300	300
		17:00-17:15	358	358
		17:15-17:30	439	439
		17:30-17:45	439	439
		17:45-18:00	358	358
		18:00-18:15	300	300
	3 - Stansted Road	16:45-17:00	276	277
		17:00-17:15	329	331
		17:15-17:30	403	406
		17:30-17:45	403	406
		17:45-18:00	329	331
		18:00-18:15	276	277

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	0.50	8.19	1.0	A	400	400
	2 - Robinhood Road	0.05	5.36	0.1	A	32	32
	3 - High Street	0.44	7.01	0.0	A	363	363
2 - Station Road / High Street	1 - Station Road	0.31	8.10	0.5	A	183	183
	2 - High Street	0.41	5.76	0.7	A	399	399
	3 - Stansted Road	0.34	5.11	0.0	A	328	328

Main Results for each time segment

17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	360	90	47	886	0.406	359	295	0.5	0.7	6.818
	2 - Robinhood Road	29	7	315	750	0.038	29	91	0.0	0.0	4.992
	3 - High Street	326	82	15	909	0.359	326	328	0.0	0.0	6.125
2 - Station Road / High Street	1 - Station Road	165	41	233	677	0.243	164	172	0.2	0.3	7.025
	2 - High Street	358	90	78	1076	0.333	358	319	0.4	0.5	5.011
	3 - Stansted Road	295	74	110	1079	0.273	295	326	0.0	0.0	4.575

17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	440	110	57	880	0.501	439	361	0.7	1.0	8.145
	2 - Robinhood Road	35	9	385	707	0.050	35	111	0.0	0.1	5.358
	3 - High Street	399	100	19	907	0.440	399	402	0.0	0.0	7.001
2 - Station Road / High Street	1 - Station Road	202	50	285	646	0.312	201	211	0.3	0.4	8.079
	2 - High Street	439	110	96	1064	0.412	438	390	0.5	0.7	5.742
	3 - Stansted Road	361	90	135	1062	0.339	361	399	0.0	0.0	5.101

17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	440	110	57	880	0.501	440	361	1.0	1.0	8.191
	2 - Robinhood Road	35	9	386	706	0.050	35	111	0.1	0.1	5.363
	3 - High Street	400	100	19	907	0.441	400	403	0.0	0.0	7.012
2 - Station Road / High Street	1 - Station Road	202	50	286	646	0.312	202	211	0.4	0.5	8.104
	2 - High Street	439	110	96	1064	0.412	439	391	0.7	0.7	5.757
	3 - Stansted Road	361	90	135	1062	0.340	361	400	0.0	0.0	5.108

17:45 - 18:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	360	90	47	886	0.406	361	296	1.0	0.7	6.867
	2 - Robinhood Road	29	7	317	749	0.038	29	91	0.1	0.0	5.000
	3 - High Street	327	82	15	909	0.360	327	330	0.0	0.0	6.138
2 - Station Road / High Street	1 - Station Road	165	41	234	676	0.243	165	173	0.5	0.3	7.054
	2 - High Street	358	90	79	1076	0.333	359	320	0.7	0.5	5.030
	3 - Stansted Road	296	74	111	1078	0.274	296	327	0.0	0.0	4.583

(Default Analysis Set) - 2027 Future BY + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	1 - Stansted Road / Robinhood Road	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 93% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	1 - Stansted Road / Robinhood Road - 3 - High Street	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	2 - Station Road / High Street - 3 - Stansted Road	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Demand Sets	D7 - 2027 Future BY + Dev, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Stansted Road / Robinhood Road	Mini-roundabout		1, 2, 3	7.56	A
2	Station Road / High Street	Mini-roundabout		1, 2, 3	7.25	A

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		7.37	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D7	2027 Future BY + Dev	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Stansted Road / Robinhood Road	3 - High Street	2	3	Closely spaced	Normal	0	100.00	1.00
2 - Station Road / High Street	3 - Stansted Road	1	1	Closely spaced	Normal	0	100.00	1.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stansted Road / Robinhood Road	1 - Stansted Road		ONE HOUR	✓	334	100.000
	2 - Robinhood Road		ONE HOUR	✓	48	100.000
	3 - High Street	✓				
2 - Station Road / High Street	1 - Station Road		ONE HOUR	✓	207	100.000
	2 - High Street		ONE HOUR	✓	515	100.000
	3 - Stansted Road	✓				

Origin-Destination Data

1 - Stansted Road / Robinhood Road

Demand (Veh/hr)

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	25	309
	2 - Robinhood Road	22	0	26
	3 - High Street	397	31	0

Proportions

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0.00	0.07	0.93
	2 - Robinhood Road	0.46	0.00	0.54
	3 - High Street	0.93	0.07	0.00

2 - Station Road / High Street

Demand (Veh/hr)

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	145	62
	2 - High Street	149	0	366
	3 - Stansted Road	63	245	0

Proportions

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0.00	0.70	0.30
	2 - High Street	0.29	0.00	0.71
	3 - Stansted Road	0.21	0.79	0.00

Vehicle Mix

1 - Stansted Road / Robinhood Road

Heavy Vehicle Percentages

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	0	1
	2 - Robinhood Road	9	0	0
	3 - High Street	1	3	0

Average PCU Per Veh

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	1.000	1.000	1.010
	2 - Robinhood Road	1.090	1.000	1.000
	3 - High Street	1.011	1.030	1.000

2 - Station Road / High Street

Heavy Vehicle Percentages

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	1	2
	2 - High Street	1	0	1
	3 - Stansted Road	3	0	0

Average PCU Per Veh

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	1.000	1.007	1.016
	2 - High Street	1.007	1.000	1.011
	3 - Stansted Road	1.032	1.004	1.000

Detailed Demand Data

Demand for each time segment

Junction	Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	07:45-08:00	251	254
		08:00-08:15	300	303
		08:15-08:30	368	371
		08:30-08:45	368	371
		08:45-09:00	300	303
		09:00-09:15	251	254
	2 - Robinhood Road	07:45-08:00	36	38
		08:00-08:15	43	45
		08:15-08:30	53	55
		08:30-08:45	53	55
		08:45-09:00	43	45
		09:00-09:15	36	38
	3 - High Street	07:45-08:00	322	326
		08:00-08:15	385	389
		08:15-08:30	471	477
		08:30-08:45	471	477
		08:45-09:00	385	389
		09:00-09:15	322	326
2 - Station Road / High Street	1 - Station Road	07:45-08:00	156	158
		08:00-08:15	186	188
		08:15-08:30	228	230
		08:30-08:45	228	230
		08:45-09:00	186	188
		09:00-09:15	156	158
	2 - High Street	07:45-08:00	388	392
		08:00-08:15	463	468
		08:15-08:30	567	573
		08:30-08:45	567	573
		08:45-09:00	463	468
		09:00-09:15	388	392
	3 - Stansted Road	07:45-08:00	232	234
		08:00-08:15	277	280
		08:15-08:30	339	343
		08:30-08:45	339	343
		08:45-09:00	277	280
		09:00-09:15	232	234

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	0.41	6.89	0.7	A	334	334
	2 - Robinhood Road	0.08	5.52	0.1	A	48	48
	3 - High Street	0.53	8.31	0.0	A	428	428
2 - Station Road / High Street	1 - Station Road	0.38	9.65	0.6	A	207	207
	2 - High Street	0.53	7.13	1.1	A	515	515
	3 - Stansted Road	0.45	6.20	0.0	A	421	421

Main Results for each time segment

08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	300	75	28	894	0.336	300	376	0.4	0.5	6.053
	2 - Robinhood Road	43	11	277	741	0.058	43	50	0.0	0.1	5.155
	3 - High Street	384	96	20	899	0.427	384	301	0.0	0.0	6.915
2 - Station Road / High Street	1 - Station Road	186	47	301	641	0.291	186	211	0.3	0.4	7.900
	2 - High Street	463	116	56	1080	0.429	462	430	0.6	0.7	5.819
	3 - Stansted Road	378	95	134	1058	0.357	378	384	0.0	0.0	5.261

08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	368	92	34	890	0.413	367	460	0.5	0.7	6.870
	2 - Robinhood Road	53	13	339	705	0.075	53	62	0.1	0.1	5.519
	3 - High Street	470	118	24	896	0.525	470	368	0.0	0.0	8.287
2 - Station Road / High Street	1 - Station Road	228	57	368	602	0.379	227	259	0.4	0.6	9.600
	2 - High Street	567	142	68	1072	0.529	566	527	0.7	1.1	7.090
	3 - Stansted Road	463	116	164	1038	0.446	463	470	0.0	0.0	6.187

08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	368	92	34	890	0.413	368	462	0.7	0.7	6.890
	2 - Robinhood Road	53	13	340	705	0.075	53	62	0.1	0.1	5.522
	3 - High Street	471	118	24	896	0.526	471	369	0.0	0.0	8.310
2 - Station Road / High Street	1 - Station Road	228	57	369	601	0.380	228	259	0.6	0.6	9.652
	2 - High Street	567	142	69	1072	0.529	567	528	1.1	1.1	7.131
	3 - Stansted Road	464	116	164	1038	0.447	464	472	0.0	0.0	6.203

08:45 - 09:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	300	75	28	894	0.336	301	378	0.7	0.5	6.077
	2 - Robinhood Road	43	11	278	741	0.058	43	51	0.1	0.1	5.161
	3 - High Street	386	97	20	899	0.430	386	302	0.0	0.0	6.941
2 - Station Road / High Street	1 - Station Road	186	47	302	640	0.291	187	212	0.6	0.4	7.956
	2 - High Street	463	116	56	1080	0.429	465	433	1.1	0.8	5.864
	3 - Stansted Road	380	95	135	1058	0.359	380	386	0.0	0.0	5.279

(Default Analysis Set) - 2027 Future BY + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	1 - Stansted Road / Robinhood Road	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 96% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	1 - Stansted Road / Robinhood Road - 3 - High Street	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	2 - Station Road / High Street - 3 - Stansted Road	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Demand Sets	D8 - 2027 Future BY + Dev, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Stansted Road / Robinhood Road	Mini-roundabout		1, 2, 3	7.83	A
2	Station Road / High Street	Mini-roundabout		1, 2, 3	6.14	A

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		6.93	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D8	2027 Future BY + Dev	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Stansted Road / Robinhood Road	3 - High Street	2	3	Closely spaced	Normal	0	100.00	1.00
2 - Station Road / High Street	3 - Stansted Road	1	1	Closely spaced	Normal	0	100.00	1.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stansted Road / Robinhood Road	1 - Stansted Road		ONE HOUR	✓	418	100.000
	2 - Robinhood Road		ONE HOUR	✓	32	100.000
	3 - High Street	✓				
2 - Station Road / High Street	1 - Station Road		ONE HOUR	✓	187	100.000
	2 - High Street		ONE HOUR	✓	412	100.000
	3 - Stansted Road	✓				

Origin-Destination Data

1 - Stansted Road / Robinhood Road

Demand (Veh/hr)

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	49	369
	2 - Robinhood Road	17	0	15
	3 - High Street	323	52	0

Proportions

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0.00	0.12	0.88
	2 - Robinhood Road	0.53	0.00	0.47
	3 - High Street	0.86	0.14	0.00

2 - Station Road / High Street

Demand (Veh/hr)

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	100	87
	2 - High Street	124	0	288
	3 - Stansted Road	77	308	0

Proportions

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0.00	0.53	0.47
	2 - High Street	0.30	0.00	0.70
	3 - Stansted Road	0.20	0.80	0.00

Vehicle Mix

1 - Stansted Road / Robinhood Road

Heavy Vehicle Percentages

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	0	1
	2 - Robinhood Road	0	0	0
	3 - High Street	1	0	0

Average PCU Per Veh

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	1.000	1.000	1.006
	2 - Robinhood Road	1.000	1.000	1.000
	3 - High Street	1.005	1.000	1.000

2 - Station Road / High Street

Heavy Vehicle Percentages

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	1	2
	2 - High Street	0	0	0
	3 - Stansted Road	1	0	0

Average PCU Per Veh

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	1.000	1.010	1.023
	2 - High Street	1.000	1.000	1.000
	3 - Stansted Road	1.013	1.003	1.000

Detailed Demand Data

Demand for each time segment

Junction	Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	16:45-17:00	315	316
		17:00-17:15	376	378
		17:15-17:30	460	463
		17:30-17:45	460	463
		17:45-18:00	376	378
		18:00-18:15	315	316
	2 - Robinhood Road	16:45-17:00	24	24
		17:00-17:15	29	29
		17:15-17:30	35	35
		17:30-17:45	35	35
		17:45-18:00	29	29
		18:00-18:15	24	24
	3 - High Street	16:45-17:00	282	284
		17:00-17:15	337	339
		17:15-17:30	413	415
		17:30-17:45	413	415
		17:45-18:00	337	339
		18:00-18:15	282	284
2 - Station Road / High Street	1 - Station Road	16:45-17:00	141	143
		17:00-17:15	168	171
		17:15-17:30	206	209
		17:30-17:45	206	209
		17:45-18:00	168	171
		18:00-18:15	141	143
	2 - High Street	16:45-17:00	310	310
		17:00-17:15	371	371
		17:15-17:30	454	454
		17:30-17:45	454	454
		17:45-18:00	371	371
		18:00-18:15	310	310
	3 - Stansted Road	16:45-17:00	289	291
		17:00-17:15	346	347
		17:15-17:30	423	425
		17:30-17:45	423	425
		17:45-18:00	346	347
		18:00-18:15	289	291

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	0.52	8.58	1.1	A	418	418
	2 - Robinhood Road	0.05	5.46	0.1	A	32	32
	3 - High Street	0.46	7.19	0.0	A	375	375
2 - Station Road / High Street	1 - Station Road	0.32	8.34	0.5	A	187	187
	2 - High Street	0.43	5.90	0.7	A	412	412
	3 - Stansted Road	0.35	5.21	0.0	A	340	340

Main Results for each time segment

17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	376	94	47	886	0.424	375	305	0.5	0.7	7.029
	2 - Robinhood Road	29	7	331	740	0.039	29	91	0.0	0.0	5.060
	3 - High Street	337	84	15	910	0.370	337	345	0.0	0.0	6.236
2 - Station Road / High Street	1 - Station Road	168	42	244	670	0.251	168	173	0.3	0.3	7.164
	2 - High Street	371	93	78	1076	0.344	370	334	0.4	0.5	5.097
	3 - Stansted Road	305	76	112	1078	0.283	305	337	0.0	0.0	4.641

17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	460	115	57	880	0.523	459	374	0.7	1.1	8.519
	2 - Robinhood Road	35	9	405	695	0.051	35	111	0.0	0.1	5.455
	3 - High Street	412	103	19	907	0.454	412	422	0.0	0.0	7.177
2 - Station Road / High Street	1 - Station Road	206	52	299	638	0.323	205	211	0.3	0.5	8.310
	2 - High Street	454	113	96	1064	0.426	453	409	0.5	0.7	5.880
	3 - Stansted Road	374	93	137	1062	0.352	374	412	0.0	0.0	5.203

17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	460	115	57	880	0.523	460	375	1.1	1.1	8.576
	2 - Robinhood Road	35	9	406	694	0.051	35	111	0.1	0.1	5.461
	3 - High Street	413	103	19	907	0.455	413	423	0.0	0.0	7.190
2 - Station Road / High Street	1 - Station Road	206	52	300	638	0.323	206	212	0.5	0.5	8.338
	2 - High Street	454	113	96	1064	0.426	454	410	0.7	0.7	5.897
	3 - Stansted Road	375	94	137	1061	0.353	375	413	0.0	0.0	5.210

17:45 - 18:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	376	94	47	886	0.424	377	307	1.1	0.7	7.088
	2 - Robinhood Road	29	7	333	739	0.039	29	91	0.1	0.0	5.071
	3 - High Street	338	85	15	910	0.372	338	346	0.0	0.0	6.251
2 - Station Road / High Street	1 - Station Road	168	42	245	669	0.251	169	173	0.5	0.3	7.196
	2 - High Street	371	93	79	1076	0.345	371	335	0.7	0.5	5.119
	3 - Stansted Road	307	77	112	1078	0.285	307	338	0.0	0.0	4.650

(Default Analysis Set) - 2027 Future BY + Dev (Sens), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	1 - Stansted Road / Robinhood Road	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 94% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	1 - Stansted Road / Robinhood Road - 3 - High Street	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	2 - Station Road / High Street - 3 - Stansted Road	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Demand Sets	D9 - 2027 Future BY + Dev (Sens), AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Stansted Road / Robinhood Road	Mini-roundabout		1, 2, 3	7.86	A
2	Station Road / High Street	Mini-roundabout		1, 2, 3	7.57	A

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		7.69	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D9	2027 Future BY + Dev (Sens)	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Stansted Road / Robinhood Road	3 - High Street	2	3	Closely spaced	Normal	0	100.00	1.00
2 - Station Road / High Street	3 - Stansted Road	1	1	Closely spaced	Normal	0	100.00	1.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stansted Road / Robinhood Road	1 - Stansted Road		ONE HOUR	✓	341	100.000
	2 - Robinhood Road		ONE HOUR	✓	48	100.000
	3 - High Street	✓				
2 - Station Road / High Street	1 - Station Road		ONE HOUR	✓	208	100.000
	2 - High Street		ONE HOUR	✓	539	100.000
	3 - Stansted Road	✓				

Origin-Destination Data

1 - Stansted Road / Robinhood Road

Demand (Veh/hr)

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	25	316
	2 - Robinhood Road	22	0	26
	3 - High Street	419	31	0

Proportions

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0.00	0.07	0.93
	2 - Robinhood Road	0.46	0.00	0.54
	3 - High Street	0.93	0.07	0.00

2 - Station Road / High Street

Demand (Veh/hr)

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	146	62
	2 - High Street	151	0	388
	3 - Stansted Road	63	252	0

Proportions

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0.00	0.70	0.30
	2 - High Street	0.28	0.00	0.72
	3 - Stansted Road	0.20	0.80	0.00

Vehicle Mix

1 - Stansted Road / Robinhood Road

Heavy Vehicle Percentages

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	0	1
	2 - Robinhood Road	9	0	0
	3 - High Street	1	3	0

Average PCU Per Veh

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	1.000	1.000	1.010
	2 - Robinhood Road	1.090	1.000	1.000
	3 - High Street	1.010	1.030	1.000

2 - Station Road / High Street

Heavy Vehicle Percentages

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	1	2
	2 - High Street	1	0	1
	3 - Stansted Road	3	0	0

Average PCU Per Veh

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	1.000	1.007	1.016
	2 - High Street	1.007	1.000	1.010
	3 - Stansted Road	1.032	1.004	1.000

Detailed Demand Data

Demand for each time segment

Junction	Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	07:45-08:00	257	259
		08:00-08:15	307	309
		08:15-08:30	375	379
		08:30-08:45	375	379
		08:45-09:00	307	309
		09:00-09:15	257	259
	2 - Robinhood Road	07:45-08:00	36	38
		08:00-08:15	43	45
		08:15-08:30	53	55
		08:30-08:45	53	55
		08:45-09:00	43	45
		09:00-09:15	36	38
	3 - High Street	07:45-08:00	339	343
		08:00-08:15	405	409
		08:15-08:30	495	501
		08:30-08:45	495	501
		08:45-09:00	405	409
		09:00-09:15	339	343
2 - Station Road / High Street	1 - Station Road	07:45-08:00	157	158
		08:00-08:15	187	189
		08:15-08:30	229	231
		08:30-08:45	229	231
		08:45-09:00	187	189
		09:00-09:15	157	158
	2 - High Street	07:45-08:00	406	410
		08:00-08:15	485	489
		08:15-08:30	594	599
		08:30-08:45	594	599
		08:45-09:00	485	489
		09:00-09:15	406	410
	3 - Stansted Road	07:45-08:00	237	240
		08:00-08:15	283	286
		08:15-08:30	347	350
		08:30-08:45	347	350
		08:45-09:00	283	286
		09:00-09:15	237	240

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	0.42	6.99	0.7	A	341	341
	2 - Robinhood Road	0.08	5.56	0.1	A	48	48
	3 - High Street	0.55	8.77	0.0	A	450	450
2 - Station Road / High Street	1 - Station Road	0.39	10.02	0.6	B	208	208
	2 - High Street	0.55	7.52	1.2	A	539	539
	3 - Stansted Road	0.47	6.48	0.0	A	443	443

Main Results for each time segment

08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	307	77	28	895	0.343	306	396	0.4	0.5	6.111
	2 - Robinhood Road	43	11	284	738	0.058	43	50	0.0	0.1	5.181
	3 - High Street	404	101	20	899	0.449	404	307	0.0	0.0	7.174
2 - Station Road / High Street	1 - Station Road	187	47	318	631	0.297	187	215	0.3	0.4	8.098
	2 - High Street	485	121	56	1081	0.449	484	449	0.6	0.8	6.023
	3 - Stansted Road	398	99	136	1057	0.376	398	404	0.0	0.0	5.421

08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	375	94	34	891	0.422	375	484	0.5	0.7	6.964
	2 - Robinhood Road	53	13	347	701	0.075	53	62	0.1	0.1	5.556
	3 - High Street	494	124	24	896	0.551	494	376	0.0	0.0	8.744
2 - Station Road / High Street	1 - Station Road	229	57	389	589	0.389	228	264	0.4	0.6	9.955
	2 - High Street	594	148	68	1073	0.553	592	549	0.8	1.2	7.465
	3 - Stansted Road	487	122	166	1037	0.469	487	494	0.0	0.0	6.460

08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	375	94	34	891	0.422	375	486	0.7	0.7	6.987
	2 - Robinhood Road	53	13	348	700	0.075	53	62	0.1	0.1	5.560
	3 - High Street	496	124	24	896	0.553	496	377	0.0	0.0	8.774
2 - Station Road / High Street	1 - Station Road	229	57	390	589	0.390	229	264	0.6	0.6	10.018
	2 - High Street	594	148	69	1072	0.554	594	551	1.2	1.2	7.517
	3 - Stansted Road	488	122	167	1037	0.471	488	496	0.0	0.0	6.479

08:45 - 09:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	307	77	28	894	0.343	307	398	0.7	0.5	6.141
	2 - Robinhood Road	43	11	285	737	0.059	43	51	0.1	0.1	5.189
	3 - High Street	406	102	20	899	0.451	406	308	0.0	0.0	7.205
2 - Station Road / High Street	1 - Station Road	187	47	320	630	0.297	188	217	0.6	0.4	8.160
	2 - High Street	485	121	56	1080	0.449	486	451	1.2	0.8	6.077
	3 - Stansted Road	400	100	136	1057	0.378	400	406	0.0	0.0	5.442

(Default Analysis Set) - 2027 Future BY + Dev (Sens), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	1 - Stansted Road / Robinhood Road	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 96% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	1 - Stansted Road / Robinhood Road - 3 - High Street	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	2 - Station Road / High Street - 3 - Stansted Road	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Demand Sets	D10 - 2027 Future BY + Dev (Sens), PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Stansted Road / Robinhood Road	Mini-roundabout		1, 2, 3	8.13	A
2	Station Road / High Street	Mini-roundabout		1, 2, 3	6.25	A

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		7.13	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D10	2027 Future BY + Dev (Sens)	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Stansted Road / Robinhood Road	3 - High Street	2	3	Closely spaced	Normal	0	100.00	1.00
2 - Station Road / High Street	3 - Stansted Road	1	1	Closely spaced	Normal	0	100.00	1.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stansted Road / Robinhood Road	1 - Stansted Road		ONE HOUR	✓	437	100.000
	2 - Robinhood Road		ONE HOUR	✓	32	100.000
	3 - High Street	✓				
2 - Station Road / High Street	1 - Station Road		ONE HOUR	✓	189	100.000
	2 - High Street		ONE HOUR	✓	423	100.000
	3 - Stansted Road	✓				

Origin-Destination Data

1 - Stansted Road / Robinhood Road

Demand (Veh/hr)

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	49	388
	2 - Robinhood Road	17	0	15
	3 - High Street	332	52	0

Proportions

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0.00	0.11	0.89
	2 - Robinhood Road	0.53	0.00	0.47
	3 - High Street	0.86	0.14	0.00

2 - Station Road / High Street

Demand (Veh/hr)

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	102	87
	2 - High Street	126	0	297
	3 - Stansted Road	77	327	0

Proportions

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0.00	0.54	0.46
	2 - High Street	0.30	0.00	0.70
	3 - Stansted Road	0.19	0.81	0.00

Vehicle Mix

1 - Stansted Road / Robinhood Road

Heavy Vehicle Percentages

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	0	0	1
	2 - Robinhood Road	0	0	0
	3 - High Street	1	0	0

Average PCU Per Veh

		To		
		1 - Stansted Road	2 - Robinhood Road	3 - High Street
From	1 - Stansted Road	1.000	1.000	1.006
	2 - Robinhood Road	1.000	1.000	1.000
	3 - High Street	1.005	1.000	1.000

2 - Station Road / High Street

Heavy Vehicle Percentages

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	0	1	2
	2 - High Street	0	0	0
	3 - Stansted Road	1	0	0

Average PCU Per Veh

		To		
		1 - Station Road	2 - High Street	3 - Stansted Road
From	1 - Station Road	1.000	1.010	1.023
	2 - High Street	1.000	1.000	1.000
	3 - Stansted Road	1.013	1.003	1.000

Detailed Demand Data

Demand for each time segment

Junction	Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	16:45-17:00	329	331
		17:00-17:15	393	395
		17:15-17:30	481	484
		17:30-17:45	481	484
		17:45-18:00	393	395
		18:00-18:15	329	331
	2 - Robinhood Road	16:45-17:00	24	24
		17:00-17:15	29	29
		17:15-17:30	35	35
		17:30-17:45	35	35
		17:45-18:00	29	29
		18:00-18:15	24	24
	3 - High Street	16:45-17:00	289	290
		17:00-17:15	345	347
		17:15-17:30	423	425
		17:30-17:45	423	425
		17:45-18:00	345	347
		18:00-18:15	289	290
2 - Station Road / High Street	1 - Station Road	16:45-17:00	142	145
		17:00-17:15	170	173
		17:15-17:30	208	212
		17:30-17:45	208	212
		17:45-18:00	170	173
		18:00-18:15	142	145
	2 - High Street	16:45-17:00	319	319
		17:00-17:15	380	380
		17:15-17:30	466	466
		17:30-17:45	466	466
		17:45-18:00	380	380
		18:00-18:15	319	319
	3 - Stansted Road	16:45-17:00	304	305
		17:00-17:15	383	384
		17:15-17:30	444	446
		17:30-17:45	444	446
		17:45-18:00	383	384
		18:00-18:15	304	305

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	0.55	9.02	1.2	A	437	437
	2 - Robinhood Road	0.05	5.57	0.1	A	32	32
	3 - High Street	0.47	7.33	0.0	A	384	384
2 - Station Road / High Street	1 - Station Road	0.33	8.51	0.5	A	189	189
	2 - High Street	0.44	6.02	0.8	A	423	423
	3 - Stansted Road	0.36	5.29	0.0	A	349	349

Main Results for each time segment

17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	393	98	47	887	0.443	392	314	0.6	0.8	7.268
	2 - Robinhood Road	29	7	348	730	0.039	29	91	0.0	0.0	5.135
	3 - High Street	345	86	15	910	0.379	345	362	0.0	0.0	6.321
2 - Station Road / High Street	1 - Station Road	170	43	254	665	0.256	170	173	0.3	0.3	7.268
	2 - High Street	380	95	78	1076	0.354	380	345	0.4	0.5	5.170
	3 - Stansted Road	314	78	113	1077	0.291	314	345	0.0	0.0	4.696

17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	481	120	57	880	0.547	480	384	0.8	1.2	8.951
	2 - Robinhood Road	35	9	426	683	0.052	35	111	0.0	0.1	5.560
	3 - High Street	422	106	19	908	0.465	422	442	0.0	0.0	7.315
2 - Station Road / High Street	1 - Station Road	208	52	311	631	0.330	208	212	0.3	0.5	8.482
	2 - High Street	466	116	96	1064	0.438	465	423	0.5	0.8	5.998
	3 - Stansted Road	384	96	139	1060	0.362	384	422	0.0	0.0	5.287

17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	481	120	57	880	0.547	481	385	1.2	1.2	9.021
	2 - Robinhood Road	35	9	427	682	0.052	35	111	0.1	0.1	5.568
	3 - High Street	423	106	19	908	0.466	423	444	0.0	0.0	7.329
2 - Station Road / High Street	1 - Station Road	208	52	311	631	0.330	208	212	0.5	0.5	8.512
	2 - High Street	466	116	96	1064	0.438	466	424	0.8	0.8	6.017
	3 - Stansted Road	385	96	139	1060	0.363	385	423	0.0	0.0	5.294

17:45 - 18:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)
1 - Stansted Road / Robinhood Road	1 - Stansted Road	393	98	47	886	0.443	394	315	1.2	0.8	7.341
	2 - Robinhood Road	29	7	350	728	0.039	29	91	0.1	0.0	5.147
	3 - High Street	346	87	15	910	0.381	346	364	0.0	0.0	6.337
2 - Station Road / High Street	1 - Station Road	170	43	255	664	0.256	171	174	0.5	0.3	7.305
	2 - High Street	380	95	79	1076	0.354	381	347	0.8	0.6	5.191
	3 - Stansted Road	315	79	114	1077	0.292	315	346	0.0	0.0	4.705

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: Import of Hall Road - High Street - Henham Road.j10
Path: \\corp.pbwan.net\IN\IN_Projects\50610325 - Chancery Lane Projects\Development Planning Projects\000000000 Elsenham\03 WIP\TP\01 Analysis & Calcs\03. Elsenham Cross
Report generation date: 16-09-2022 14:28:58

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2022 Base Year									
Stream B-AC	D1	0.3	8.82	0.25	A	D2	0.5	9.60	0.35	A
Stream C-AB		0.6	8.36	0.34	A		0.3	7.01	0.21	A
	2027 Future Base Year									
Stream B-AC	D3	0.4	9.68	0.29	A	D4	0.7	10.65	0.41	B
Stream C-AB		0.8	9.24	0.40	A		0.4	7.34	0.27	A
	2027 Future BY (Sensitivity)									
Stream B-AC	D5	0.4	9.84	0.29	A	D6	0.7	10.74	0.41	B
Stream C-AB		0.8	9.34	0.41	A		0.4	7.31	0.27	A
	2027 Future BY + Dev									
Stream B-AC	D7	0.4	10.02	0.30	B	D8	0.7	10.86	0.41	B
Stream C-AB		0.8	9.48	0.41	A		0.4	7.29	0.27	A
	2027 Future BY + Dev (Sens)									
Stream B-AC	D9	0.4	10.19	0.30	B	D10	0.7	10.95	0.41	B
Stream C-AB		0.8	9.59	0.42	A		0.4	7.27	0.27	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

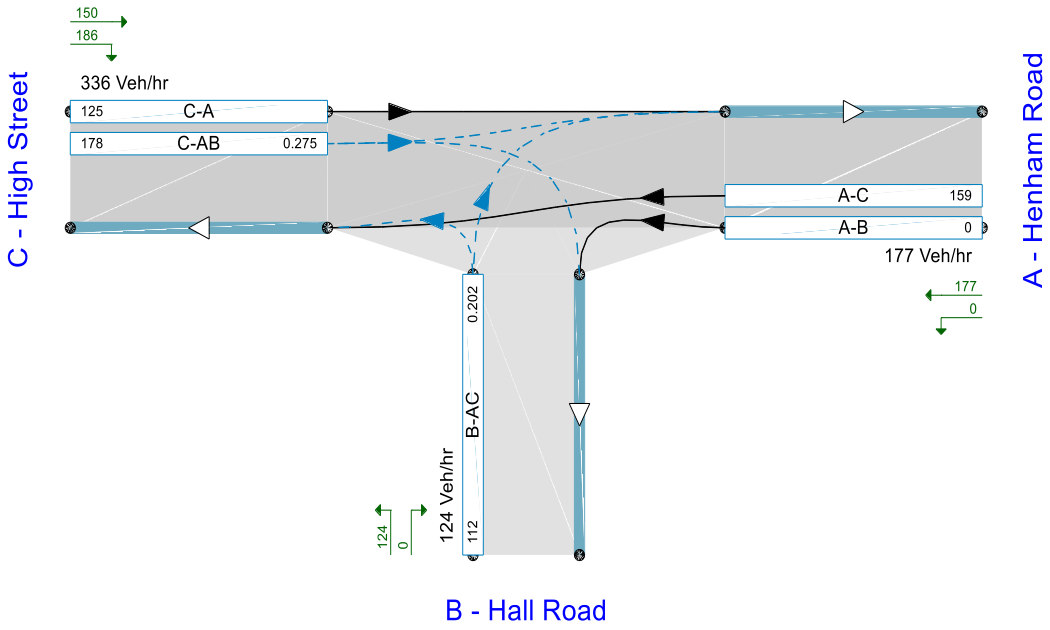
File summary

File Description

Title	Elsenham Cross: Hall Road - High Street - Henham Road
Location	Elsenham
Site number	
Date	12-05-2017
Version	v1
Status	
Identifier	
Client	Fairfield Partnership
Jobnumber	11500582
Enumerator	UKEWS001
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2022 Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓
D2	2022 Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓
D3	2027 Future Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓
D4	2027 Future Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓
D5	2027 Future BY (Sensitivity)	AM	ONE HOUR	07:45	09:15	15	✓	✓
D6	2027 Future BY (Sensitivity)	PM	ONE HOUR	16:45	18:15	15	✓	✓
D7	2027 Future BY + Dev	AM	ONE HOUR	07:45	09:15	15	✓	✓
D8	2027 Future BY + Dev	PM	ONE HOUR	16:45	18:15	15	✓	✓
D9	2027 Future BY + Dev (Sens)	AM	ONE HOUR	07:45	09:15	15	✓	✓
D10	2027 Future BY + Dev (Sens)	PM	ONE HOUR	16:45	18:15	15	✓	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2022 Base Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2022 Base Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		4.37	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.37	A

Arms

Arms

Arm	Name	Description	Arm type
A	Henham Road		Major
B	Hall Road		Minor
C	High Street		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - High Street	6.00			132.7	✓	1.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Hall Road	One lane	2.40	56	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	480	0.087	0.221	0.139	0.316
B-C	604	0.093	0.234	-	-
C-B	651	0.252	0.252	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2022 Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	177	100.000
B - Hall Road		ONE HOUR	✓	124	100.000
C - High Street		ONE HOUR	✓	336	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0	0	177
	B - Hall Road	0	0	124
	C - High Street	150	186	0

Proportions

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0.00	0.00	1.00
	B - Hall Road	0.00	0.00	1.00
	C - High Street	0.45	0.55	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0	0	1
	B - Hall Road	0	0	2
	C - High Street	1	1	0

Average PCU Per Veh

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	1.000	1.000	1.006
	B - Hall Road	1.000	1.000	1.024
	C - High Street	1.007	1.005	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	07:45-08:00	133	134
	08:00-08:15	159	160
	08:15-08:30	195	196
	08:30-08:45	195	196
	08:45-09:00	159	160
	09:00-09:15	133	134
B - Hall Road	07:45-08:00	94	96
	08:00-08:15	112	114
	08:15-08:30	137	140
	08:30-08:45	137	140
	08:45-09:00	112	114
	09:00-09:15	94	96
C - High Street	07:45-08:00	253	254
	08:00-08:15	302	304
	08:15-08:30	370	372
	08:30-08:45	370	372
	08:45-09:00	302	304
	09:00-09:15	253	254

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.25	8.82	0.3	A	124	124
C-AB	0.34	8.36	0.6	A	201	201

C-A					135	135
A-B					0	0
A-C					177	177

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	112	28	553	0.202	112	0.2	0.3	8.147	A
C-AB	178	44	645	0.275	177	0.3	0.4	7.698	A
C-A	125	31			125				
A-B	0	0			0				
A-C	159	40			159				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	137	34	545	0.251	137	0.3	0.3	8.805	A
C-AB	224	56	655	0.342	224	0.4	0.6	8.339	A
C-A	146	36			146				
A-B	0	0			0				
A-C	195	49			195				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	137	34	545	0.251	137	0.3	0.3	8.819	A
C-AB	224	56	655	0.342	224	0.6	0.6	8.364	A
C-A	146	36			146				
A-B	0	0			0				
A-C	195	49			195				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	112	28	553	0.202	112	0.3	0.3	8.166	A
C-AB	178	44	645	0.275	178	0.6	0.4	7.733	A
C-A	125	31			125				
A-B	0	0			0				
A-C	159	40			159				

2022 Base Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2022 Base Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		5.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.06	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2022 Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	91	100.000
B - Hall Road		ONE HOUR	✓	187	100.000
C - High Street		ONE HOUR	✓	249	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0	0	91
	B - Hall Road	0	0	187
	C - High Street	130	119	0

Proportions

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0.00	0.00	1.00
	B - Hall Road	0.00	0.00	1.00
	C - High Street	0.52	0.48	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0	0	0
	B - Hall Road	0	0	0
	C - High Street	0	1	0

Average PCU Per Veh

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	1.000	1.000	1.000
	B - Hall Road	1.000	1.000	1.000
	C - High Street	1.000	1.008	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	16:45-17:00	69	69
	17:00-17:15	82	82
	17:15-17:30	100	100
	17:30-17:45	100	100
	17:45-18:00	82	82
	18:00-18:15	69	69
B - Hall Road	16:45-17:00	141	141
	17:00-17:15	168	168
	17:15-17:30	206	206
	17:30-17:45	206	206
	17:45-18:00	168	168
	18:00-18:15	141	141
C - High Street	16:45-17:00	187	188
	17:00-17:15	224	225
	17:15-17:30	274	275
	17:30-17:45	274	275
	17:45-18:00	224	225
	18:00-18:15	187	188

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.35	9.60	0.5	A	187	187
C-AB	0.21	7.01	0.3	A	124	124
C-A					125	125
A-B					0	0
A-C					91	91

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	168	42	585	0.287	168	0.3	0.4	8.621	A
C-AB	110	28	645	0.171	110	0.2	0.2	6.728	A
C-A	113	28			113				
A-B	0	0			0				
A-C	82	20			82				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	206	51	581	0.355	205	0.4	0.5	9.590	A

C-AB	137	34	651	0.211	137	0.2	0.3	7.005	A
C-A	137	34			137				
A-B	0	0			0				
A-C	100	25			100				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	206	51	581	0.355	206	0.5	0.5	9.604	A
C-AB	137	34	651	0.211	137	0.3	0.3	7.011	A
C-A	137	34			137				
A-B	0	0			0				
A-C	100	25			100				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	168	42	585	0.287	169	0.5	0.4	8.658	A
C-AB	110	28	645	0.171	111	0.3	0.2	6.741	A
C-A	113	28			113				
A-B	0	0			0				
A-C	82	20			82				

2027 Future Base Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D3 - 2027 Future Base Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		4.46	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.46	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2027 Future Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)

✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	264	100.000
B - Hall Road		ONE HOUR	✓	139	100.000
C - High Street		ONE HOUR	✓	386	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0	0	264
	B - Hall Road	0	0	139
	C - High Street	176	210	0

Proportions

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0.00	0.00	1.00
	B - Hall Road	0.00	0.00	1.00
	C - High Street	0.46	0.54	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0	0	0
	B - Hall Road	0	0	2
	C - High Street	1	0	0

Average PCU Per Veh

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	1.000	1.000	1.004
	B - Hall Road	1.000	1.000	1.022
	C - High Street	1.006	1.005	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	07:45-08:00	199	200
	08:00-08:15	237	238
	08:15-08:30	291	292
	08:30-08:45	291	292
	08:45-09:00	237	238
	09:00-09:15	199	200
B - Hall Road	07:45-08:00	104	107
	08:00-08:15	125	127
	08:15-08:30	153	156
	08:30-08:45	153	156
	08:45-09:00	125	127
	09:00-09:15	104	107
C - High Street	07:45-08:00	290	292
	08:00-08:15	347	348
	08:15-08:30	425	427
	08:30-08:45	425	427
	08:45-09:00	347	348

	09:00-09:15	290	292

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.29	9.68	0.4	A	139	139
C-AB	0.40	9.24	0.8	A	234	234
C-A					152	152
A-B					0	0
A-C					264	264

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	125	31	537	0.232	124	0.2	0.3	8.724	A
C-AB	205	51	639	0.321	204	0.4	0.5	8.283	A
C-A	142	35			142				
A-B	0	0			0				
A-C	237	59			237				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	38	524	0.291	152	0.3	0.4	9.659	A
C-AB	262	66	653	0.402	262	0.5	0.7	9.197	A
C-A	162	41			162				
A-B	0	0			0				
A-C	291	73			291				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	38	524	0.291	153	0.4	0.4	9.680	A
C-AB	262	66	653	0.402	262	0.7	0.8	9.241	A
C-A	162	41			162				
A-B	0	0			0				
A-C	291	73			291				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	125	31	537	0.232	125	0.4	0.3	8.753	A
C-AB	205	51	639	0.321	206	0.8	0.5	8.340	A
C-A	142	35			142				

A-B	0	0			0				
A-C	237	59			237				

2027 Future Base Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D4 - 2027 Future Base Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		4.88	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.88	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2027 Future Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	137	100.000
B - Hall Road		ONE HOUR	✓	210	100.000
C - High Street		ONE HOUR	✓	352	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road	**B - Hall Road**	**C - High Street**
From	**A - Henham Road**	0	0	137
	B - Hall Road	0	0	210
	C - High Street	205	147	0

Proportions

		To		
		A - Henham Road	**B - Hall Road**	**C - High Street**
From	**A - Henham Road**	0.00	0.00	1.00
	B - Hall Road	0.00	0.00	1.00
	C - High Street	0.58	0.42	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0	0	0
	B - Hall Road	0	0	0
	C - High Street	0	1	0

Average PCU Per Veh

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	1.000	1.000	1.000
	B - Hall Road	1.000	1.000	1.000
	C - High Street	1.000	1.007	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	16:45-17:00	103	103
	17:00-17:15	123	123
	17:15-17:30	151	151
	17:30-17:45	151	151
	17:45-18:00	123	123
	18:00-18:15	103	103
B - Hall Road	16:45-17:00	158	158
	17:00-17:15	189	189
	17:15-17:30	231	231
	17:30-17:45	231	231
	17:45-18:00	189	189
	18:00-18:15	158	158
C - High Street	16:45-17:00	265	266
	17:00-17:15	317	318
	17:15-17:30	388	389
	17:30-17:45	388	389
	17:45-18:00	317	318
	18:00-18:15	265	266

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.41	10.65	0.7	B	210	210
C-AB	0.27	7.34	0.4	A	160	160
C-A					193	193
A-B					0	0
A-C					137	137

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	47	575	0.328	188	0.4	0.5	9.287	A
C-AB	141	35	656	0.215	141	0.2	0.3	6.993	A
C-A	176	44			176				
A-B	0	0			0				
A-C	123	31			123				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	231	58	569	0.406	230	0.5	0.7	10.607	B
C-AB	179	45	669	0.267	178	0.3	0.4	7.324	A
C-A	210	52			210				
A-B	0	0			0				
A-C	151	38			151				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	231	58	569	0.406	231	0.7	0.7	10.653	B
C-AB	179	45	669	0.267	179	0.4	0.4	7.336	A
C-A	210	52			210				
A-B	0	0			0				
A-C	151	38			151				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	47	575	0.328	189	0.7	0.5	9.344	A
C-AB	141	35	656	0.215	142	0.4	0.3	7.011	A
C-A	176	44			176				
A-B	0	0			0				
A-C	123	31			123				

2027 Future BY (Sensitivity), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2027 Future BY (Sensitivity), AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		4.36	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.36	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2027 Future BY (Sensitivity)	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	288	100.000
B - Hall Road		ONE HOUR	✓	139	100.000
C - High Street		ONE HOUR	✓	394	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0	0	288
	B - Hall Road	0	0	139
	C - High Street	184	210	0

Proportions

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0.00	0.00	1.00
	B - Hall Road	0.00	0.00	1.00
	C - High Street	0.47	0.53	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0	0	0
	B - Hall Road	0	0	2
	C - High Street	1	0	0

Average PCU Per Veh

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	1.000	1.000	1.003
	B - Hall Road	1.000	1.000	1.022
	C - High Street	1.005	1.005	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	07:45-08:00	217	218
	08:00-08:15	259	260
	08:15-08:30	317	318

	08:30-08:45	317	318
	08:45-09:00	259	260
	09:00-09:15	217	218
B - Hall Road	**07:45-08:00**	104	107
	08:00-08:15	125	127
	08:15-08:30	153	156
	08:30-08:45	153	156
	08:45-09:00	125	127
	09:00-09:15	104	107
C - High Street	**07:45-08:00**	296	298
	08:00-08:15	354	356
	08:15-08:30	433	436
	08:30-08:45	433	436
	08:45-09:00	354	356
	09:00-09:15	296	298

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.29	9.84	0.4	A	139	139
C-AB	0.41	9.34	0.8	A	235	235
C-A					158	158
A-B					0	0
A-C					288	288

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	125	31	532	0.234	124	0.2	0.3	8.830	A
C-AB	206	52	636	0.324	206	0.4	0.5	8.352	A
C-A	148	37			148				
A-B	0	0			0				
A-C	259	65			259				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	38	518	0.294	152	0.3	0.4	9.817	A
C-AB	265	66	651	0.407	264	0.5	0.8	9.298	A
C-A	169	42			169				
A-B	0	0			0				
A-C	317	79			317				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	38	518	0.294	153	0.4	0.4	9.840	A
C-AB	265	66	651	0.407	265	0.8	0.8	9.344	A
C-A	169	42			169				
A-B	0	0			0				
A-C	317	79			317				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	125	31	532	0.234	125	0.4	0.3	8.858	A
C-AB	206	52	636	0.324	207	0.8	0.5	8.414	A
C-A	148	37			148				
A-B	0	0			0				
A-C	259	65			259				

2027 Future BY (Sensitivity), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - 2027 Future BY (Sensitivity), PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		4.70	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.70	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2027 Future BY (Sensitivity)	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	148	100.000

B - Hall Road		ONE HOUR	✓	210	100.000
C - High Street		ONE HOUR	✓	373	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road	**B - Hall Road**	**C - High Street**
From	**A - Henham Road**	0	0	148
	B - Hall Road	0	0	210
	C - High Street	226	147	0

Proportions

		To		
		A - Henham Road	**B - Hall Road**	**C - High Street**
From	**A - Henham Road**	0.00	0.00	1.00
	B - Hall Road	0.00	0.00	1.00
	C - High Street	0.61	0.39	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road	**B - Hall Road**	**C - High Street**
From	**A - Henham Road**	0	0	0
	B - Hall Road	0	0	0
	C - High Street	0	1	0

Average PCU Per Veh

		To		
		A - Henham Road	**B - Hall Road**	**C - High Street**
From	**A - Henham Road**	1.000	1.000	1.000
	B - Hall Road	1.000	1.000	1.000
	C - High Street	1.000	1.007	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	**16:45-17:00**	111	111
	17:00-17:15	133	133
	17:15-17:30	163	163
	17:30-17:45	163	163
	17:45-18:00	133	133
	18:00-18:15	111	111
B - Hall Road	**16:45-17:00**	158	158
	17:00-17:15	189	189
	17:15-17:30	231	231
	17:30-17:45	231	231
	17:45-18:00	189	189
	18:00-18:15	158	158
C - High Street	**16:45-17:00**	281	282
	17:00-17:15	336	337
	17:15-17:30	411	412
	17:30-17:45	411	412
	17:45-18:00	336	337
	18:00-18:15	281	282

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.41	10.74	0.7	B	210	210
C-AB	0.27	7.31	0.4	A	161	161
C-A					212	212
A-B					0	0
A-C					148	148

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	47	573	0.329	188	0.4	0.5	9.343	A
C-AB	142	36	658	0.216	142	0.2	0.3	6.981	A
C-A	194	48			194				
A-B	0	0			0				
A-C	133	33			133				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	231	58	566	0.408	230	0.5	0.7	10.695	B
C-AB	180	45	673	0.268	180	0.3	0.4	7.299	A
C-A	231	58			231				
A-B	0	0			0				
A-C	163	41			163				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	231	58	566	0.408	231	0.7	0.7	10.743	B
C-AB	180	45	673	0.268	180	0.4	0.4	7.311	A
C-A	231	58			231				
A-B	0	0			0				
A-C	163	41			163				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	47	573	0.329	189	0.7	0.5	9.403	A
C-AB	142	36	657	0.216	143	0.4	0.3	6.998	A
C-A	194	48			194				
A-B	0	0			0				
A-C	133	33			133				

2027 Future BY + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D7 - 2027 Future BY + Dev, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		4.29	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.29	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D7	2027 Future BY + Dev	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	314	100.000
B - Hall Road		ONE HOUR	✓	139	100.000
C - High Street		ONE HOUR	✓	399	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0	0	314
	B - Hall Road	0	0	139
	C - High Street	189	210	0

Proportions

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0.00	0.00	1.00
	B - Hall Road	0.00	0.00	1.00
	C - High Street	0.47	0.53	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0	0	0
	B - Hall Road	0	0	2
	C - High Street	1	0	0

Average PCU Per Veh

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	1.000	1.000	1.003
	B - Hall Road	1.000	1.000	1.022
	C - High Street	1.005	1.005	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	07:45-08:00	236	237
	08:00-08:15	282	283
	08:15-08:30	345	346
	08:30-08:45	345	346
	08:45-09:00	282	283
	09:00-09:15	236	237
B - Hall Road	07:45-08:00	104	107
	08:00-08:15	125	127
	08:15-08:30	153	156
	08:30-08:45	153	156
	08:45-09:00	125	127
	09:00-09:15	104	107
C - High Street	07:45-08:00	300	302
	08:00-08:15	359	360
	08:15-08:30	439	441
	08:30-08:45	439	441
	08:45-09:00	359	360
	09:00-09:15	300	302

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.30	10.02	0.4	B	139	139
C-AB	0.41	9.48	0.8	A	237	237
C-A					162	162
A-B					0	0
A-C					314	314

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	125	31	527	0.237	124	0.2	0.3	8.944	A
C-AB	207	52	633	0.327	206	0.4	0.5	8.442	A
C-A	152	38			152				
A-B	0	0			0				
A-C	282	70			282				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	38	512	0.298	152	0.3	0.4	9.991	A
C-AB	267	67	647	0.412	265	0.5	0.8	9.431	A
C-A	173	43			173				
A-B	0	0			0				
A-C	345	86			345				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	38	512	0.298	153	0.4	0.4	10.017	B
C-AB	267	67	647	0.412	266	0.8	0.8	9.481	A
C-A	173	43			173				
A-B	0	0			0				
A-C	345	86			345				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	125	31	527	0.237	125	0.4	0.3	8.975	A
C-AB	207	52	633	0.327	208	0.8	0.5	8.507	A
C-A	152	38			152				
A-B	0	0			0				
A-C	282	70			282				

2027 Future BY + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D8 - 2027 Future BY + Dev, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		4.52	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.52	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D8	2027 Future BY + Dev	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	161	100.000
B - Hall Road		ONE HOUR	✓	210	100.000
C - High Street		ONE HOUR	✓	396	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0	0	161
	B - Hall Road	0	0	210
	C - High Street	248	147	0

Proportions

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0.00	0.00	1.00
	B - Hall Road	0.00	0.00	1.00
	C - High Street	0.63	0.37	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0	0	0
	B - Hall Road	0	0	0
	C - High Street	0	1	0

Average PCU Per Veh

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	1.000	1.000	1.000
	B - Hall Road	1.000	1.000	1.000
	C - High Street	1.000	1.007	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	16:45-17:00	121	121
	17:00-17:15	145	145
	17:15-17:30	178	178

	17:30-17:45	178	178
	17:45-18:00	145	145
	18:00-18:15	121	121
B - Hall Road	**16:45-17:00**	158	158
	17:00-17:15	189	189
	17:15-17:30	231	231
	17:30-17:45	231	231
	17:45-18:00	189	189
	18:00-18:15	158	158
C - High Street	**16:45-17:00**	298	299
	17:00-17:15	356	356
	17:15-17:30	436	437
	17:30-17:45	436	437
	17:45-18:00	356	356
	18:00-18:15	298	299

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.41	10.86	0.7	B	210	210
C-AB	0.27	7.29	0.4	A	163	163
C-A					233	233
A-B					0	0
A-C					161	161

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	47	570	0.331	188	0.4	0.5	9.412	A
C-AB	143	36	659	0.217	143	0.2	0.3	6.974	A
C-A	212	53			212				
A-B	0	0			0				
A-C	145	36			145				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	231	58	563	0.411	230	0.5	0.7	10.807	B
C-AB	182	46	676	0.270	182	0.3	0.4	7.282	A
C-A	253	63			253				
A-B	0	0			0				
A-C	178	44			178				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	231	58	563	0.411	231	0.7	0.7	10.856	B
C-AB	182	46	676	0.270	182	0.4	0.4	7.292	A
C-A	253	63			253				
A-B	0	0			0				
A-C	178	44			178				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	47	570	0.331	189	0.7	0.5	9.474	A
C-AB	143	36	659	0.217	144	0.4	0.3	6.994	A
C-A	212	53			212				
A-B	0	0			0				
A-C	145	36			145				

2027 Future BY + Dev (Sens), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D9 - 2027 Future BY + Dev (Sens), AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		4.21	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.21	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D9	2027 Future BY + Dev (Sens)	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	338	100.000

B - Hall Road		ONE HOUR	✓	139	100.000
C - High Street		ONE HOUR	✓	407	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road	**B - Hall Road**	**C - High Street**
From	**A - Henham Road**	0	0	338
	B - Hall Road	0	0	139
	C - High Street	197	210	0

Proportions

		To		
		A - Henham Road	**B - Hall Road**	**C - High Street**
From	**A - Henham Road**	0.00	0.00	1.00
	B - Hall Road	0.00	0.00	1.00
	C - High Street	0.48	0.52	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road	**B - Hall Road**	**C - High Street**
From	**A - Henham Road**	0	0	0
	B - Hall Road	0	0	2
	C - High Street	1	0	0

Average PCU Per Veh

		To		
		A - Henham Road	**B - Hall Road**	**C - High Street**
From	**A - Henham Road**	1.000	1.000	1.003
	B - Hall Road	1.000	1.000	1.022
	C - High Street	1.005	1.005	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	**07:45-08:00**	254	255
	08:00-08:15	303	304
	08:15-08:30	372	373
	08:30-08:45	372	373
	08:45-09:00	303	304
	09:00-09:15	254	255
B - Hall Road	**07:45-08:00**	104	107
	08:00-08:15	125	127
	08:15-08:30	153	156
	08:30-08:45	153	156
	08:45-09:00	125	127
	09:00-09:15	104	107
C - High Street	**07:45-08:00**	306	308
	08:00-08:15	366	368
	08:15-08:30	448	450
	08:30-08:45	448	450
	08:45-09:00	366	368
	09:00-09:15	306	308

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.30	10.19	0.4	B	139	139
C-AB	0.42	9.59	0.8	A	238	238
C-A					168	168
A-B					0	0
A-C					338	338

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	125	31	522	0.239	124	0.2	0.3	9.055	A
C-AB	208	52	630	0.330	207	0.4	0.5	8.514	A
C-A	158	39			158				
A-B	0	0			0				
A-C	303	76			303				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	38	506	0.302	152	0.3	0.4	10.162	B
C-AB	269	67	645	0.417	268	0.5	0.8	9.539	A
C-A	179	45			179				
A-B	0	0			0				
A-C	372	93			372				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	38	506	0.302	153	0.4	0.4	10.188	B
C-AB	269	67	645	0.417	269	0.8	0.8	9.593	A
C-A	179	45			179				
A-B	0	0			0				
A-C	372	93			372				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	125	31	522	0.239	125	0.4	0.3	9.088	A
C-AB	208	52	630	0.330	209	0.8	0.6	8.583	A
C-A	158	39			158				
A-B	0	0			0				
A-C	303	76			303				

2027 Future BY + Dev (Sens), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D10 - 2027 Future BY + Dev (Sens), PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		4.38	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.38	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D10	2027 Future BY + Dev (Sens)	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	172	100.000
B - Hall Road		ONE HOUR	✓	210	100.000
C - High Street		ONE HOUR	✓	417	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0	0	172
	B - Hall Road	0	0	210
	C - High Street	269	147	0

Proportions

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0.00	0.00	1.00
	B - Hall Road	0.00	0.00	1.00
	C - High Street	0.65	0.35	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	0	0	0
	B - Hall Road	0	0	0
	C - High Street	0	1	0

Average PCU Per Veh

		To		
		A - Henham Road	B - Hall Road	C - High Street
From	A - Henham Road	1.000	1.000	1.000
	B - Hall Road	1.000	1.000	1.000
	C - High Street	1.000	1.007	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	16:45-17:00	130	130
	17:00-17:15	155	155
	17:15-17:30	190	190
	17:30-17:45	190	190
	17:45-18:00	155	155
	18:00-18:15	130	130
B - Hall Road	16:45-17:00	158	158
	17:00-17:15	189	189
	17:15-17:30	231	231
	17:30-17:45	231	231
	17:45-18:00	189	189
	18:00-18:15	158	158
C - High Street	16:45-17:00	314	314
	17:00-17:15	374	375
	17:15-17:30	459	460
	17:30-17:45	459	460
	17:45-18:00	374	375
	18:00-18:15	314	314

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.41	10.95	0.7	B	210	210
C-AB	0.27	7.27	0.4	A	164	164
C-A					252	252
A-B					0	0
A-C					172	172

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	47	568	0.332	188	0.4	0.5	9.470	A
C-AB	144	36	661	0.218	144	0.2	0.3	6.963	A
C-A	230	58			230				
A-B	0	0			0				
A-C	155	39			155				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	231	58	560	0.413	230	0.5	0.7	10.899	B
C-AB	184	46	680	0.271	184	0.3	0.4	7.257	A
C-A	274	69			274				
A-B	0	0			0				
A-C	190	47			190				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	231	58	560	0.413	231	0.7	0.7	10.950	B
C-AB	184	46	680	0.271	184	0.4	0.4	7.270	A
C-A	274	69			274				
A-B	0	0			0				
A-C	190	47			190				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	47	568	0.332	189	0.7	0.5	9.531	A
C-AB	144	36	661	0.218	145	0.4	0.3	6.980	A
C-A	230	58			230				
A-B	0	0			0				
A-C	155	39			155				

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: Import of Hall Road Slip - Hall Road.j10
Path: \\corp.pbwan.net\IN\IN_Projects\50610325 - Chancery Lane Projects\Development Planning Projects\000000000 Elsenham\03 WIP\TP\01 Analysis & Calcs\03. Elsenham Cross
Report generation date: 16-09-2022 14:26:14

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2022 Base Year									
Stream B-AC	D1	0.1	6.96	0.12	A	D2	0.1	6.22	0.06	A
Stream C-AB		0.1	6.47	0.07	A		0.1	6.15	0.09	A
	2027 Future Base Year									
Stream B-AC	D3	0.3	7.80	0.21	A	D4	0.1	6.68	0.11	A
Stream C-AB		0.1	6.61	0.11	A		0.2	6.52	0.17	A
	2027 Future BY (Sensitivity)									
Stream B-AC	D5	0.3	8.16	0.25	A	D6	0.1	6.79	0.13	A
Stream C-AB		0.1	6.66	0.12	A		0.3	6.69	0.20	A
	2027 Future BY + Dev									
Stream B-AC	D7	0.4	8.32	0.26	A	D8	0.2	6.86	0.14	A
Stream C-AB		0.1	6.66	0.12	A		0.3	6.75	0.21	A
	2027 Future BY + Dev (Sens)									
Stream B-AC	D9	0.4	8.73	0.30	A	D10	0.2	6.98	0.15	A
Stream C-AB		0.2	6.71	0.13	A		0.3	6.94	0.24	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

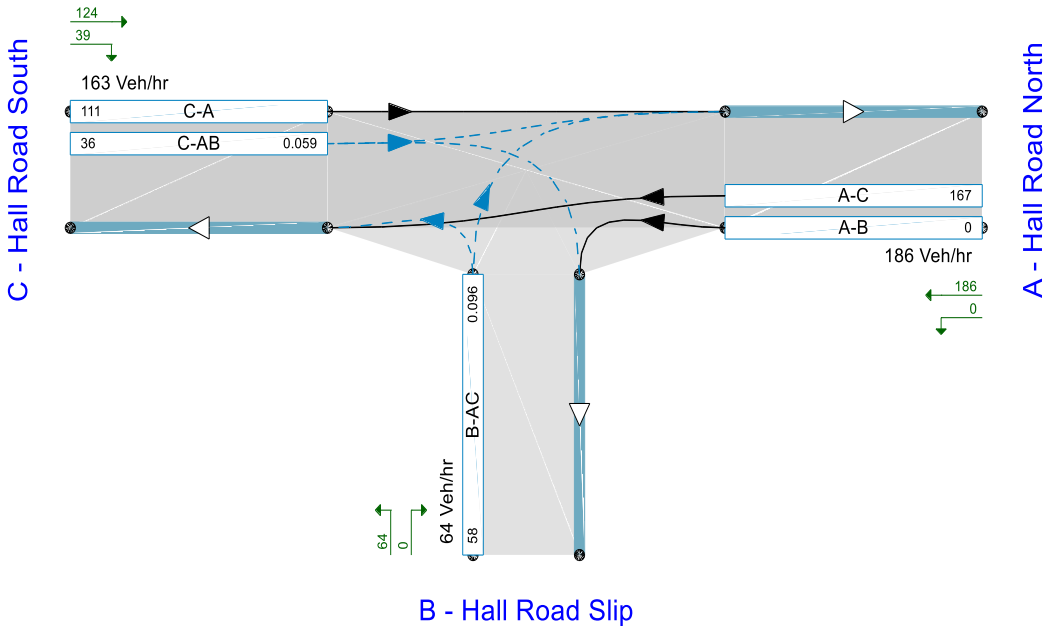
File summary

File Description

Title	Elsenham Cross: Hall Road Slip - Hall Road
Location	Elsenham
Site number	
Date	12-05-2017
Version	v1
Status	
Identifier	
Client	Fairfield Partnership
Jobnumber	11500582
Enumerator	UKEWS001
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2022 Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓
D2	2022 Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓
D3	2027 Future Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓
D4	2027 Future Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓
D5	2027 Future BY (Sensitivity)	AM	ONE HOUR	07:45	09:15	15	✓	✓
D6	2027 Future BY (Sensitivity)	PM	ONE HOUR	16:45	18:15	15	✓	✓
D7	2027 Future BY + Dev	AM	ONE HOUR	07:45	09:15	15	✓	✓
D8	2027 Future BY + Dev	PM	ONE HOUR	16:45	18:15	15	✓	✓
D9	2027 Future BY + Dev (Sens)	AM	ONE HOUR	07:45	09:15	15	✓	✓
D10	2027 Future BY + Dev (Sens)	PM	ONE HOUR	16:45	18:15	15	✓	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2022 Base Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2022 Base Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		1.72	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.72	A

Arms

Arms

Arm	Name	Description	Arm type
A	Hall Road North		Major
B	Hall Road Slip		Minor
C	Hall Road South		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Hall Road South	6.00			171.0	✓	1.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Hall Road Slip	One lane	3.17	56	22

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	515	0.094	0.237	0.149	0.339
B-C	648	0.099	0.251	-	-
C-B	673	0.261	0.261	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2022 Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road North		ONE HOUR	✓	186	100.000
B - Hall Road Slip		ONE HOUR	✓	64	100.000
C - Hall Road South		ONE HOUR	✓	163	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	0	0	186
	B - Hall Road Slip	0	0	64
	C - Hall Road South	124	39	0

Proportions

From	To			
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	0.00	0.00	1.00
	B - Hall Road Slip	0.00	0.00	1.00
	C - Hall Road South	0.76	0.24	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	0	0	1
	B - Hall Road Slip	0	0	2
	C - Hall Road South	2	5	0

Average PCU Per Veh

From	To			
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	1.000	1.000	1.005
	B - Hall Road Slip	1.000	1.000	1.016
	C - Hall Road South	1.024	1.051	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road North	07:45-08:00	140	141
	08:00-08:15	167	168
	08:15-08:30	205	206
	08:30-08:45	205	206
	08:45-09:00	167	168
	09:00-09:15	140	141
B - Hall Road Slip	07:45-08:00	48	49
	08:00-08:15	58	58
	08:15-08:30	70	72
	08:30-08:45	70	72
	08:45-09:00	58	58
	09:00-09:15	48	49
C - Hall Road South	07:45-08:00	123	127
	08:00-08:15	147	151
	08:15-08:30	180	185
	08:30-08:45	180	185
	08:45-09:00	147	151
	09:00-09:15	123	127

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.12	6.96	0.1	A	64	64

C-AB	0.07	6.47	0.1	A	40	40
C-A					124	124
A-B					0	0
A-C					186	186

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	14	597	0.096	57	0.1	0.1	6.676	A
C-AB	36	9	606	0.059	35	0.1	0.1	6.309	A
C-A	111	28			111				
A-B	0	0			0				
A-C	167	42			167				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	70	18	587	0.120	70	0.1	0.1	6.961	A
C-AB	44	11	600	0.073	44	0.1	0.1	6.466	A
C-A	136	34			136				
A-B	0	0			0				
A-C	205	51			205				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	70	18	587	0.120	70	0.1	0.1	6.963	A
C-AB	44	11	600	0.073	44	0.1	0.1	6.468	A
C-A	136	34			136				
A-B	0	0			0				
A-C	205	51			205				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	14	597	0.096	58	0.1	0.1	6.678	A
C-AB	36	9	606	0.059	36	0.1	0.1	6.313	A
C-A	111	28			111				
A-B	0	0			0				
A-C	167	42			167				

2022 Base Year, PM

Data Errors and Warnings

Severity	Area	Item	Description

Warning	Demand Sets	D2 - 2022 Base Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		1.40	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.40	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2022 Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road North		ONE HOUR	✓	119	100.000
B - Hall Road Slip		ONE HOUR	✓	33	100.000
C - Hall Road South		ONE HOUR	✓	241	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
From		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	0	0	119
	B - Hall Road Slip	0	0	33
	C - Hall Road South	187	54	0

Proportions

		To		
From		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	0.00	0.00	1.00
	B - Hall Road Slip	0.00	0.00	1.00
	C - Hall Road South	0.78	0.22	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	0	0	1
	B - Hall Road Slip	0	0	0
	C - Hall Road South	0	2	0

Average PCU Per Veh

From	To			
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	1.000	1.000	1.008
	B - Hall Road Slip	1.000	1.000	1.000
	C - Hall Road South	1.000	1.019	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road North	16:45-17:00	90	90
	17:00-17:15	107	108
	17:15-17:30	131	132
	17:30-17:45	131	132
	17:45-18:00	107	108
	18:00-18:15	90	90
B - Hall Road Slip	16:45-17:00	25	25
	17:00-17:15	30	30
	17:15-17:30	36	36
	17:30-17:45	36	36
	17:45-18:00	30	30
	18:00-18:15	25	25
C - Hall Road South	16:45-17:00	181	182
	17:00-17:15	217	218
	17:15-17:30	265	266
	17:30-17:45	265	266
	17:45-18:00	217	218
	18:00-18:15	181	182

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.06	6.22	0.1	A	33	33
C-AB	0.09	6.15	0.1	A	55	55
C-A					186	186
A-B					0	0
A-C					119	119

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	30	7	621	0.048	30	0.0	0.0	6.085	A
C-AB	50	12	647	0.077	50	0.1	0.1	6.028	A
C-A	167	42			167				
A-B	0	0			0				
A-C	107	27			107				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	36	9	615	0.059	36	0.0	0.1	6.219	A
C-AB	61	15	647	0.095	61	0.1	0.1	6.143	A
C-A	204	51			204				
A-B	0	0			0				
A-C	131	33			131				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	36	9	615	0.059	36	0.1	0.1	6.219	A
C-AB	61	15	647	0.095	61	0.1	0.1	6.146	A
C-A	204	51			204				
A-B	0	0			0				
A-C	131	33			131				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	30	7	621	0.048	30	0.1	0.1	6.088	A
C-AB	50	12	647	0.077	50	0.1	0.1	6.030	A
C-A	167	42			167				
A-B	0	0			0				
A-C	107	27			107				

2027 Future Base Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D3 - 2027 Future Base Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		2.44	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.44	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2027 Future Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road North		ONE HOUR	✓	210	100.000
B - Hall Road Slip		ONE HOUR	✓	112	100.000
C - Hall Road South		ONE HOUR	✓	196	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
From	A - Hall Road North	0	0	210
	B - Hall Road Slip	0	0	112
	C - Hall Road South	139	57	0

Proportions

		To		
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
From	A - Hall Road North	0.00	0.00	1.00
	B - Hall Road Slip	0.00	0.00	1.00
	C - Hall Road South	0.71	0.29	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
From	A - Hall Road North	0	0	0
	B - Hall Road Slip	0	0	1
	C - Hall Road South	2	4	0

Average PCU Per Veh

		To		
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
From	A - Hall Road North	1.000	1.000	1.005
	B - Hall Road Slip	1.000	1.000	1.009
	C - Hall Road South	1.022	1.035	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road North	07:45-08:00	158	159
	08:00-08:15	189	190

	08:15-08:30	231	232
	08:30-08:45	231	232
	08:45-09:00	189	190
	09:00-09:15	158	159
B - Hall Road Slip	07:45-08:00	84	85
	08:00-08:15	101	102
	08:15-08:30	123	124
	08:30-08:45	123	124
	08:45-09:00	101	102
	09:00-09:15	84	85
C - Hall Road South	07:45-08:00	147	151
	08:00-08:15	176	180
	08:15-08:30	215	221
	08:30-08:45	215	221
	08:45-09:00	176	180
	09:00-09:15	147	151

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.21	7.80	0.3	A	112	112
C-AB	0.11	6.61	0.1	A	58	58
C-A					137	137
A-B					0	0
A-C					210	210

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	101	25	595	0.169	101	0.2	0.2	7.274	A
C-AB	52	13	614	0.085	52	0.1	0.1	6.408	A
C-A	124	31			124				
A-B	0	0			0				
A-C	189	47			189				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	123	31	585	0.211	123	0.2	0.3	7.794	A
C-AB	65	16	609	0.106	65	0.1	0.1	6.610	A
C-A	151	38			151				
A-B	0	0			0				
A-C	231	58			231				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	123	31	585	0.211	123	0.3	0.3	7.801	A
C-AB	65	16	609	0.106	65	0.1	0.1	6.612	A
C-A	151	38			151				
A-B	0	0			0				
A-C	231	58			231				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	101	25	595	0.169	101	0.3	0.2	7.287	A
C-AB	52	13	614	0.085	52	0.1	0.1	6.410	A
C-A	124	31			124				
A-B	0	0			0				
A-C	189	47			189				

2027 Future Base Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D4 - 2027 Future Base Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		2.08	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.08	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2027 Future Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road North		ONE HOUR	✓	147	100.000

B - Hall Road Slip		ONE HOUR	✓	62	100.000
C - Hall Road South		ONE HOUR	✓	305	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Hall Road North	**B - Hall Road Slip**	**C - Hall Road South**
From	**A - Hall Road North**	0	0	147
	B - Hall Road Slip	0	0	62
	C - Hall Road South	210	95	0

Proportions

		To		
		A - Hall Road North	**B - Hall Road Slip**	**C - Hall Road South**
From	**A - Hall Road North**	0.00	0.00	1.00
	B - Hall Road Slip	0.00	0.00	1.00
	C - Hall Road South	0.69	0.31	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hall Road North	**B - Hall Road Slip**	**C - Hall Road South**
From	**A - Hall Road North**	0	0	1
	B - Hall Road Slip	0	0	0
	C - Hall Road South	0	1	0

Average PCU Per Veh

		To		
		A - Hall Road North	**B - Hall Road Slip**	**C - Hall Road South**
From	**A - Hall Road North**	1.000	1.000	1.007
	B - Hall Road Slip	1.000	1.000	1.000
	C - Hall Road South	1.000	1.011	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road North	**16:45-17:00**	111	112
	17:00-17:15	133	133
	17:15-17:30	162	163
	17:30-17:45	162	163
	17:45-18:00	133	133
	18:00-18:15	111	112
B - Hall Road Slip	**16:45-17:00**	47	47
	17:00-17:15	56	56
	17:15-17:30	68	68
	17:30-17:45	68	68
	17:45-18:00	56	56
	18:00-18:15	47	47
C - Hall Road South	**16:45-17:00**	230	230
	17:00-17:15	274	275
	17:15-17:30	336	337
	17:30-17:45	336	337
	17:45-18:00	274	275
	18:00-18:15	230	230

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.11	6.68	0.1	A	62	62
C-AB	0.17	6.52	0.2	A	100	100
C-A					205	205
A-B					0	0
A-C					147	147

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	56	14	615	0.091	56	0.1	0.1	6.439	A
C-AB	89	22	658	0.135	89	0.1	0.2	6.329	A
C-A	185	46			185				
A-B	0	0			0				
A-C	133	33			133				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	68	17	607	0.112	68	0.1	0.1	6.676	A
C-AB	111	28	663	0.168	111	0.2	0.2	6.517	A
C-A	224	56			224				
A-B	0	0			0				
A-C	162	41			162				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	68	17	607	0.112	68	0.1	0.1	6.678	A
C-AB	111	28	663	0.168	111	0.2	0.2	6.521	A
C-A	224	56			224				
A-B	0	0			0				
A-C	162	41			162				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	56	14	615	0.091	56	0.1	0.1	6.441	A
C-AB	89	22	658	0.135	89	0.2	0.2	6.334	A
C-A	185	46			185				
A-B	0	0			0				
A-C	133	33			133				

2027 Future BY (Sensitivity), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2027 Future BY (Sensitivity), AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		2.77	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.77	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2027 Future BY (Sensitivity)	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road North		ONE HOUR	✓	210	100.000
B - Hall Road Slip		ONE HOUR	✓	131	100.000
C - Hall Road South		ONE HOUR	✓	202	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
From		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	0	0	210
	B - Hall Road Slip	0	0	131
	C - Hall Road South	139	63	0

Proportions

		To		
From		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	0.00	0.00	1.00
	B - Hall Road Slip	0.00	0.00	1.00
	C - Hall Road South	0.69	0.31	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	0	0	0
	B - Hall Road Slip	0	0	1
	C - Hall Road South	2	3	0

Average PCU Per Veh

From	To			
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	1.000	1.000	1.005
	B - Hall Road Slip	1.000	1.000	1.008
	C - Hall Road South	1.022	1.032	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road North	07:45-08:00	158	159
	08:00-08:15	189	190
	08:15-08:30	231	232
	08:30-08:45	231	232
	08:45-09:00	189	190
	09:00-09:15	158	159
B - Hall Road Slip	07:45-08:00	99	99
	08:00-08:15	118	119
	08:15-08:30	144	145
	08:30-08:45	144	145
	08:45-09:00	118	119
	09:00-09:15	99	99
C - Hall Road South	07:45-08:00	152	156
	08:00-08:15	181	186
	08:15-08:30	222	227
	08:30-08:45	222	227
	08:45-09:00	181	186
	09:00-09:15	152	156

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.25	8.16	0.3	A	131	131
C-AB	0.12	6.66	0.1	A	65	65
C-A					137	137
A-B					0	0
A-C					210	210

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	118	29	596	0.198	118	0.2	0.2	7.519	A
C-AB	58	14	617	0.094	58	0.1	0.1	6.437	A
C-A	123	31			123				
A-B	0	0			0				
A-C	189	47			189				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	144	36	585	0.246	144	0.2	0.3	8.147	A
C-AB	72	18	613	0.117	71	0.1	0.1	6.650	A
C-A	150	38			150				
A-B	0	0			0				
A-C	231	58			231				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	144	36	585	0.246	144	0.3	0.3	8.158	A
C-AB	72	18	613	0.117	72	0.1	0.1	6.655	A
C-A	150	38			150				
A-B	0	0			0				
A-C	231	58			231				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	118	29	596	0.198	118	0.3	0.2	7.537	A
C-AB	58	14	617	0.094	58	0.1	0.1	6.443	A
C-A	123	31			123				
A-B	0	0			0				
A-C	189	47			189				

2027 Future BY (Sensitivity), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - 2027 Future BY (Sensitivity), PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		2.36	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.36	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2027 Future BY (Sensitivity)	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road North		ONE HOUR	✓	147	100.000
B - Hall Road Slip		ONE HOUR	✓	70	100.000
C - Hall Road South		ONE HOUR	✓	322	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
From		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	0	0	147
	B - Hall Road Slip	0	0	70
	C - Hall Road South	210	112	0

Proportions

		To		
From		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	0.00	0.00	1.00
	B - Hall Road Slip	0.00	0.00	1.00
	C - Hall Road South	0.65	0.35	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	0	0	1
	B - Hall Road Slip	0	0	0
	C - Hall Road South	0	1	0

Average PCU Per Veh

		To		
From		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	1.000	1.000	1.007
	B - Hall Road Slip	1.000	1.000	1.000
	C - Hall Road South	1.000	1.009	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road North	16:45-17:00	111	112
	17:00-17:15	133	133

	17:15-17:30	162	163
	17:30-17:45	162	163
	17:45-18:00	133	133
	18:00-18:15	111	112
B - Hall Road Slip	16:45-17:00	53	53
	17:00-17:15	63	63
	17:15-17:30	77	77
	17:30-17:45	77	77
	17:45-18:00	63	63
	18:00-18:15	53	53
C - Hall Road South	16:45-17:00	242	243
	17:00-17:15	289	290
	17:15-17:30	354	355
	17:30-17:45	354	355
	17:45-18:00	289	290
	18:00-18:15	242	243

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.13	6.79	0.1	A	70	70
C-AB	0.20	6.69	0.3	A	119	119
C-A					203	203
A-B					0	0
A-C					147	147

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	63	16	615	0.102	63	0.1	0.1	6.523	A
C-AB	106	26	663	0.159	105	0.2	0.2	6.453	A
C-A	184	46			184				
A-B	0	0			0				
A-C	133	33			133				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	77	19	607	0.127	77	0.1	0.1	6.787	A
C-AB	132	33	671	0.197	132	0.2	0.3	6.680	A
C-A	222	55			222				
A-B	0	0			0				
A-C	162	41			162				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	77	19	607	0.127	77	0.1	0.1	6.789	A
C-AB	132	33	671	0.197	132	0.3	0.3	6.687	A
C-A	222	55			222				
A-B	0	0			0				
A-C	162	41			162				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	63	16	615	0.102	63	0.1	0.1	6.528	A
C-AB	106	26	663	0.159	106	0.3	0.2	6.462	A
C-A	184	46			184				
A-B	0	0			0				
A-C	133	33			133				

2027 Future BY + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D7 - 2027 Future BY + Dev, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		2.89	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.89	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D7	2027 Future BY + Dev	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road North		ONE HOUR	✓	210	100.000

B - Hall Road Slip		ONE HOUR	✓	139	100.000
C - Hall Road South		ONE HOUR	✓	203	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Hall Road North	**B - Hall Road Slip**	**C - Hall Road South**
From	**A - Hall Road North**	0	0	210
	B - Hall Road Slip	0	0	139
	C - Hall Road South	139	64	0

Proportions

		To		
		A - Hall Road North	**B - Hall Road Slip**	**C - Hall Road South**
From	**A - Hall Road North**	0.00	0.00	1.00
	B - Hall Road Slip	0.00	0.00	1.00
	C - Hall Road South	0.68	0.32	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hall Road North	**B - Hall Road Slip**	**C - Hall Road South**
From	**A - Hall Road North**	0	0	0
	B - Hall Road Slip	0	0	1
	C - Hall Road South	2	3	0

Average PCU Per Veh

		To		
		A - Hall Road North	**B - Hall Road Slip**	**C - Hall Road South**
From	**A - Hall Road North**	1.000	1.000	1.005
	B - Hall Road Slip	1.000	1.000	1.007
	C - Hall Road South	1.022	1.031	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road North	**07:45-08:00**	158	159
	08:00-08:15	189	190
	08:15-08:30	231	232
	08:30-08:45	231	232
	08:45-09:00	189	190
	09:00-09:15	158	159
B - Hall Road Slip	**07:45-08:00**	105	105
	08:00-08:15	125	126
	08:15-08:30	153	154
	08:30-08:45	153	154
	08:45-09:00	125	126
	09:00-09:15	105	105
C - Hall Road South	**07:45-08:00**	153	156
	08:00-08:15	182	187
	08:15-08:30	223	229
	08:30-08:45	223	229
	08:45-09:00	182	187
	09:00-09:15	153	156

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.26	8.32	0.4	A	139	139
C-AB	0.12	6.66	0.1	A	66	66
C-A					137	137
A-B					0	0
A-C					210	210

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	125	31	596	0.209	125	0.2	0.3	7.628	A
C-AB	59	15	617	0.095	59	0.1	0.1	6.443	A
C-A	123	31			123				
A-B	0	0			0				
A-C	189	47			189				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	38	586	0.261	153	0.3	0.3	8.304	A
C-AB	73	18	613	0.119	73	0.1	0.1	6.658	A
C-A	150	38			150				
A-B	0	0			0				
A-C	231	58			231				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	38	586	0.261	153	0.3	0.4	8.317	A
C-AB	73	18	613	0.119	73	0.1	0.1	6.661	A
C-A	150	38			150				
A-B	0	0			0				
A-C	231	58			231				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	125	31	596	0.209	125	0.4	0.3	7.647	A
C-AB	59	15	617	0.095	59	0.1	0.1	6.446	A
C-A	123	31			123				
A-B	0	0			0				
A-C	189	47			189				

2027 Future BY + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D8 - 2027 Future BY + Dev, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		2.49	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.49	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D8	2027 Future BY + Dev	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road North		ONE HOUR	✓	147	100.000
B - Hall Road Slip		ONE HOUR	✓	75	100.000
C - Hall Road South		ONE HOUR	✓	328	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
From		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	0	0	147
	B - Hall Road Slip	0	0	75
	C - Hall Road South	210	118	0

Proportions

		To		
From		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	0.00	0.00	1.00
	B - Hall Road Slip	0.00	0.00	1.00
	C - Hall Road South	0.64	0.36	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	0	0	1
	B - Hall Road Slip	0	0	0
	C - Hall Road South	0	1	0

Average PCU Per Veh

From	To			
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
	A - Hall Road North	1.000	1.000	1.007
	B - Hall Road Slip	1.000	1.000	1.000
	C - Hall Road South	1.000	1.008	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road North	16:45-17:00	111	112
	17:00-17:15	133	133
	17:15-17:30	162	163
	17:30-17:45	162	163
	17:45-18:00	133	133
	18:00-18:15	111	112
B - Hall Road Slip	16:45-17:00	57	57
	17:00-17:15	68	68
	17:15-17:30	83	83
	17:30-17:45	83	83
	17:45-18:00	68	68
	18:00-18:15	57	57
C - Hall Road South	16:45-17:00	247	248
	17:00-17:15	295	296
	17:15-17:30	361	362
	17:30-17:45	361	362
	17:45-18:00	295	296
	18:00-18:15	247	248

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.14	6.86	0.2	A	75	75
C-AB	0.21	6.75	0.3	A	126	126
C-A					202	202
A-B					0	0
A-C					147	147

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	68	17	615	0.110	68	0.1	0.1	6.579	A
C-AB	112	28	665	0.168	112	0.2	0.2	6.504	A
C-A	183	46			183				
A-B	0	0			0				
A-C	133	33			133				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	607	0.137	83	0.1	0.2	6.862	A
C-AB	141	35	674	0.208	140	0.2	0.3	6.741	A
C-A	221	55			221				
A-B	0	0			0				
A-C	162	41			162				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	607	0.137	83	0.2	0.2	6.865	A
C-AB	141	35	674	0.209	141	0.3	0.3	6.750	A
C-A	221	55			221				
A-B	0	0			0				
A-C	162	41			162				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	68	17	615	0.110	68	0.2	0.1	6.583	A
C-AB	112	28	665	0.168	112	0.3	0.2	6.513	A
C-A	183	46			183				
A-B	0	0			0				
A-C	133	33			133				

2027 Future BY + Dev (Sens), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D9 - 2027 Future BY + Dev (Sens), AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		3.23	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.23	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D9	2027 Future BY + Dev (Sens)	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road North		ONE HOUR	✓	210	100.000
B - Hall Road Slip		ONE HOUR	✓	158	100.000
C - Hall Road South		ONE HOUR	✓	209	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
From	A - Hall Road North	0	0	210
	B - Hall Road Slip	0	0	158
	C - Hall Road South	139	70	0

Proportions

		To		
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
From	A - Hall Road North	0.00	0.00	1.00
	B - Hall Road Slip	0.00	0.00	1.00
	C - Hall Road South	0.66	0.34	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
From	A - Hall Road North	0	0	0
	B - Hall Road Slip	0	0	1
	C - Hall Road South	2	3	0

Average PCU Per Veh

		To		
		A - Hall Road North	B - Hall Road Slip	C - Hall Road South
From	A - Hall Road North	1.000	1.000	1.005
	B - Hall Road Slip	1.000	1.000	1.006
	C - Hall Road South	1.022	1.029	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road North	07:45-08:00	158	159
	08:00-08:15	189	190

	08:15-08:30	231	232
	08:30-08:45	231	232
	08:45-09:00	189	190
	09:00-09:15	158	159
B - Hall Road Slip	07:45-08:00	119	120
	08:00-08:15	142	143
	08:15-08:30	174	175
	08:30-08:45	174	175
	08:45-09:00	142	143
	09:00-09:15	119	120
C - Hall Road South	07:45-08:00	157	161
	08:00-08:15	188	192
	08:15-08:30	230	235
	08:30-08:45	230	235
	08:45-09:00	188	192
	09:00-09:15	157	161

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.30	8.73	0.4	A	158	158
C-AB	0.13	6.71	0.2	A	72	72
C-A					137	137
A-B					0	0
A-C					210	210

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	142	35	597	0.238	142	0.2	0.3	7.903	A
C-AB	64	16	620	0.104	64	0.1	0.1	6.478	A
C-A	123	31			123				
A-B	0	0			0				
A-C	189	47			189				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	174	43	586	0.297	173	0.3	0.4	8.711	A
C-AB	80	20	616	0.130	80	0.1	0.2	6.706	A
C-A	150	37			150				
A-B	0	0			0				
A-C	231	58			231				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	174	43	586	0.297	174	0.4	0.4	8.728	A
C-AB	80	20	616	0.130	80	0.2	0.2	6.709	A
C-A	150	37			150				
A-B	0	0			0				
A-C	231	58			231				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	142	35	597	0.238	142	0.4	0.3	7.928	A
C-AB	64	16	620	0.104	65	0.2	0.1	6.484	A
C-A	123	31			123				
A-B	0	0			0				
A-C	189	47			189				

2027 Future BY + Dev (Sens), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D10 - 2027 Future BY + Dev (Sens), PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		2.76	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.76	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D10	2027 Future BY + Dev (Sens)	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road North		ONE HOUR	✓	147	100.000

B - Hall Road Slip		ONE HOUR	✓	83	100.000
C - Hall Road South		ONE HOUR	✓	345	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		**A - Hall Road North**	**B - Hall Road Slip**	**C - Hall Road South**
	A - Hall Road North	0	0	147
	B - Hall Road Slip	0	0	83
	C - Hall Road South	210	135	0

Proportions

	To			
From		**A - Hall Road North**	**B - Hall Road Slip**	**C - Hall Road South**
	A - Hall Road North	0.00	0.00	1.00
	B - Hall Road Slip	0.00	0.00	1.00
	C - Hall Road South	0.61	0.39	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		**A - Hall Road North**	**B - Hall Road Slip**	**C - Hall Road South**
	A - Hall Road North	0	0	1
	B - Hall Road Slip	0	0	0
	C - Hall Road South	0	1	0

Average PCU Per Veh

	To			
From		**A - Hall Road North**	**B - Hall Road Slip**	**C - Hall Road South**
	A - Hall Road North	1.000	1.000	1.007
	B - Hall Road Slip	1.000	1.000	1.000
	C - Hall Road South	1.000	1.007	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road North	**16:45-17:00**	111	112
	17:00-17:15	133	133
	17:15-17:30	162	163
	17:30-17:45	162	163
	17:45-18:00	133	133
	18:00-18:15	111	112
B - Hall Road Slip	**16:45-17:00**	63	63
	17:00-17:15	75	75
	17:15-17:30	92	92
	17:30-17:45	92	92
	17:45-18:00	75	75
	18:00-18:15	63	63
C - Hall Road South	**16:45-17:00**	260	261
	17:00-17:15	310	311
	17:15-17:30	380	381
	17:30-17:45	380	381
	17:45-18:00	310	311
	18:00-18:15	260	261

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.15	6.98	0.2	A	83	83
C-AB	0.24	6.94	0.3	A	146	146
C-A					200	200
A-B					0	0
A-C					147	147

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	75	19	615	0.122	75	0.1	0.1	6.664	A
C-AB	129	32	670	0.192	129	0.2	0.2	6.645	A
C-A	182	45			182				
A-B	0	0			0				
A-C	133	33			133				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	92	23	607	0.151	92	0.1	0.2	6.979	A
C-AB	162	41	681	0.238	162	0.2	0.3	6.929	A
C-A	218	54			218				
A-B	0	0			0				
A-C	162	41			162				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	92	23	607	0.151	92	0.2	0.2	6.982	A
C-AB	162	41	681	0.238	162	0.3	0.3	6.937	A
C-A	218	54			218				
A-B	0	0			0				
A-C	162	41			162				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	75	19	615	0.122	75	0.2	0.1	6.671	A
C-AB	129	32	670	0.192	129	0.3	0.3	6.657	A
C-A	182	45			182				
A-B	0	0			0				
A-C	133	33			133				

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: Import of Hall Road Slip - High Street - Henham Road.j10
Path: \\corp.pbwan.net\IN\IN_Projects\50610325 - Chancery Lane Projects\Development Planning Projects\000000000 Elsenham\03 WIP\TP\01 Analysis & Calcs\03. Elsenham Cross
Report generation date: 16-09-2022 18:40:43

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2022 Base Year									
Stream B-AC	D1	0.1	9.66	0.10	A	D2	0.1	9.04	0.13	A
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2027 Future Base Year									
Stream B-AC	D3	0.2	10.96	0.16	B	D4	0.3	10.91	0.24	B
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2027 Future BY (Sensitivity)									
Stream B-AC	D5	0.2	11.47	0.18	B	D6	0.4	11.81	0.29	B
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2027 Future BY + Dev									
Stream B-AC	D7	0.2	11.81	0.19	B	D8	0.4	12.40	0.31	B
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2027 Future BY + Dev (Sens)									
Stream B-AC	D9	0.3	12.42	0.21	B	D10	0.6	13.58	0.36	B
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

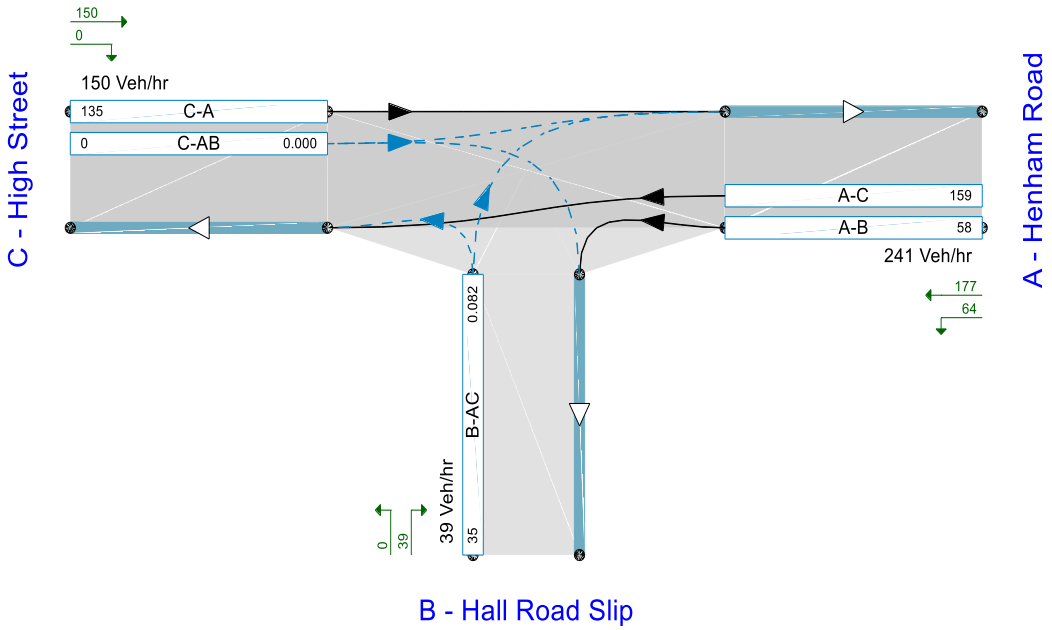
File summary

File Description

Title	Elsenham Cross: Hall Road Slip - High Street - Henham Road
Location	Elsenham
Site number	
Date	12-05-2017
Version	v1
Status	
Identifier	
Client	Fairfield Partnership
Jobnumber	11500582
Enumerator	UKEWS001
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2022 Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓
D2	2022 Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓
D3	2027 Future Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓
D4	2027 Future Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓
D5	2027 Future BY (Sensitivity)	AM	ONE HOUR	07:45	09:15	15	✓	✓
D6	2027 Future BY (Sensitivity)	PM	ONE HOUR	16:45	18:15	15	✓	✓
D7	2027 Future BY + Dev	AM	ONE HOUR	07:45	09:15	15	✓	✓
D8	2027 Future BY + Dev	PM	ONE HOUR	16:45	18:15	15	✓	✓
D9	2027 Future BY + Dev (Sens)	AM	ONE HOUR	07:45	09:15	15	✓	✓
D10	2027 Future BY + Dev (Sens)	PM	ONE HOUR	16:45	18:15	15	✓	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2022 Base Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2022 Base Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		0.91	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.91	A

Arms

Arms

Arm	Name	Description	Arm type
A	Henham Road		Major
B	Hall Road Slip		Minor
C	High Street		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - High Street	6.00			171.0	✓	1.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Hall Road Slip	One lane	3.17	56	22

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	515	0.094	0.237	0.149	0.339
B-C	648	0.099	0.251	-	-
C-B	673	0.261	0.261	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2022 Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	241	100.000
B - Hall Road Slip		ONE HOUR	✓	39	100.000
C - High Street		ONE HOUR	✓	150	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To	A - Henham Road	B - Hall Road Slip	C - High Street
	A - Henham Road	0	64	177
	B - Hall Road Slip	39	0	0
	C - High Street	150	0	0

Proportions

From	To	A - Henham Road	B - Hall Road Slip	C - High Street
	A - Henham Road	0.00	0.27	0.73
	B - Hall Road Slip	1.00	0.00	0.00
	C - High Street	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To	A - Henham Road	B - Hall Road Slip	C - High Street
	A - Henham Road	0	2	1
	B - Hall Road Slip	5	0	0
	C - High Street	1	0	0

Average PCU Per Veh

From	To	A - Henham Road	B - Hall Road Slip	C - High Street
	A - Henham Road	1.000	1.016	1.006
	B - Hall Road Slip	1.051	1.000	1.000
	C - High Street	1.007	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	07:45-08:00	181	183
	08:00-08:15	217	218
	08:15-08:30	265	268
	08:30-08:45	265	268
	08:45-09:00	217	218
	09:00-09:15	181	183
B - Hall Road Slip	07:45-08:00	29	31
	08:00-08:15	35	37
	08:15-08:30	43	45
	08:30-08:45	43	45
	08:45-09:00	35	37
	09:00-09:15	29	31
C - High Street	07:45-08:00	113	114
	08:00-08:15	135	136
	08:15-08:30	165	166
	08:30-08:45	165	166
	08:45-09:00	135	136
	09:00-09:15	113	114

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.10	9.66	0.1	A	39	39

C-AB	0.00	0.00	0.0	A	0	0
C-A					150	150
A-B					64	64
A-C					177	177

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	35	9	429	0.082	35	0.1	0.1	9.132	A
C-AB	0	0	1232	0.000	0	0.0	0.0	0.000	A
C-A	135	34			135				
A-B	58	14			58				
A-C	159	40			159				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	43	11	416	0.103	43	0.1	0.1	9.657	A
C-AB	0	0	1206	0.000	0	0.0	0.0	0.000	A
C-A	165	41			165				
A-B	70	18			70				
A-C	195	49			195				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	43	11	416	0.103	43	0.1	0.1	9.661	A
C-AB	0	0	1206	0.000	0	0.0	0.0	0.000	A
C-A	165	41			165				
A-B	70	18			70				
A-C	195	49			195				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	35	9	429	0.082	35	0.1	0.1	9.140	A
C-AB	0	0	1232	0.000	0	0.0	0.0	0.000	A
C-A	135	34			135				
A-B	58	14			58				
A-C	159	40			159				

2022 Base Year, PM

Data Errors and Warnings

Severity	Area	Item	Description

Warning	Demand Sets	D2 - 2022 Base Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		1.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.61	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2022 Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	124	100.000
B - Hall Road Slip		ONE HOUR	✓	54	100.000
C - High Street		ONE HOUR	✓	130	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
From		A - Henham Road	B - Hall Road Slip	C - High Street
	A - Henham Road	0	33	91
	B - Hall Road Slip	54	0	0
	C - High Street	130	0	0

Proportions

		To		
From		A - Henham Road	B - Hall Road Slip	C - High Street
	A - Henham Road	0.00	0.27	0.73
	B - Hall Road Slip	1.00	0.00	0.00
	C - High Street	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To	A - Henham Road	B - Hall Road Slip	C - High Street
	A - Henham Road	0	0	0
	B - Hall Road Slip	2	0	0
	C - High Street	0	0	0

Average PCU Per Veh

From	To	A - Henham Road	B - Hall Road Slip	C - High Street
	A - Henham Road	1.000	1.000	1.000
	B - Hall Road Slip	1.019	1.000	1.000
	C - High Street	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	16:45-17:00	93	93
	17:00-17:15	111	111
	17:15-17:30	137	137
	17:30-17:45	137	137
	17:45-18:00	111	111
	18:00-18:15	93	93
B - Hall Road Slip	16:45-17:00	41	41
	17:00-17:15	49	49
	17:15-17:30	59	61
	17:30-17:45	59	61
	17:45-18:00	49	49
	18:00-18:15	41	41
C - High Street	16:45-17:00	98	98
	17:00-17:15	117	117
	17:15-17:30	143	143
	17:30-17:45	143	143
	17:45-18:00	117	117
	18:00-18:15	98	98

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.13	9.04	0.1	A	54	54
C-AB	0.00	0.00	0.0	A	0	0
C-A					130	130
A-B					33	33
A-C					91	91

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	49	12	467	0.104	48	0.1	0.1	8.608	A
C-AB	0	0	1288	0.000	0	0.0	0.0	0.000	A
C-A	117	29			117				
A-B	30	7			30				
A-C	82	20			82				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	59	15	458	0.130	59	0.1	0.1	9.030	A
C-AB	0	0	1275	0.000	0	0.0	0.0	0.000	A
C-A	143	36			143				
A-B	36	9			36				
A-C	100	25			100				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	59	15	458	0.130	59	0.1	0.1	9.036	A
C-AB	0	0	1275	0.000	0	0.0	0.0	0.000	A
C-A	143	36			143				
A-B	36	9			36				
A-C	100	25			100				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	49	12	467	0.104	49	0.1	0.1	8.618	A
C-AB	0	0	1288	0.000	0	0.0	0.0	0.000	A
C-A	117	29			117				
A-B	30	7			30				
A-C	82	20			82				

2027 Future Base Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D3 - 2027 Future Base Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		1.05	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.05	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2027 Future Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	376	100.000
B - Hall Road Slip		ONE HOUR	✓	57	100.000
C - High Street		ONE HOUR	✓	176	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road	B - Hall Road Slip	C - High Street
From	A - Henham Road	0	112	264
	B - Hall Road Slip	57	0	0
	C - High Street	176	0	0

Proportions

		To		
		A - Henham Road	B - Hall Road Slip	C - High Street
From	A - Henham Road	0.00	0.30	0.70
	B - Hall Road Slip	1.00	0.00	0.00
	C - High Street	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road	B - Hall Road Slip	C - High Street
From	A - Henham Road	0	1	0
	B - Hall Road Slip	4	0	0
	C - High Street	1	0	0

Average PCU Per Veh

		To		
		A - Henham Road	B - Hall Road Slip	C - High Street
From	A - Henham Road	1.000	1.009	1.004
	B - Hall Road Slip	1.035	1.000	1.000
	C - High Street	1.006	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	07:45-08:00	283	285
	08:00-08:15	338	340

	08:15-08:30	414	416
	08:30-08:45	414	416
	08:45-09:00	338	340
	09:00-09:15	283	285
B - Hall Road Slip	07:45-08:00	43	44
	08:00-08:15	51	53
	08:15-08:30	63	65
	08:30-08:45	63	65
	08:45-09:00	51	53
	09:00-09:15	43	44
C - High Street	07:45-08:00	132	133
	08:00-08:15	158	159
	08:15-08:30	194	195
	08:30-08:45	194	195
	08:45-09:00	158	159
	09:00-09:15	132	133

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.16	10.96	0.2	B	57	57
C-AB	0.00	0.00	0.0	A	0	0
C-A					176	176
A-B					112	112
A-C					264	264

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	51	13	411	0.125	51	0.1	0.1	10.008	B
C-AB	0	0	1169	0.000	0	0.0	0.0	0.000	A
C-A	158	40			158				
A-B	101	25			101				
A-C	237	59			237				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	63	16	391	0.160	63	0.1	0.2	10.945	B
C-AB	0	0	1129	0.000	0	0.0	0.0	0.000	A
C-A	194	48			194				
A-B	123	31			123				
A-C	291	73			291				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	63	16	391	0.160	63	0.2	0.2	10.958	B
C-AB	0	0	1129	0.000	0	0.0	0.0	0.000	A
C-A	194	48			194				
A-B	123	31			123				
A-C	291	73			291				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	51	13	411	0.125	51	0.2	0.1	10.026	B
C-AB	0	0	1169	0.000	0	0.0	0.0	0.000	A
C-A	158	40			158				
A-B	101	25			101				
A-C	237	59			237				

2027 Future Base Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D4 - 2027 Future Base Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		2.10	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.10	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2027 Future Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	199	100.000

B - Hall Road Slip		ONE HOUR	✓	95	100.000
C - High Street		ONE HOUR	✓	205	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road	**B - Hall Road Slip**	**C - High Street**
From	**A - Henham Road**	0	62	137
	B - Hall Road Slip	95	0	0
	C - High Street	205	0	0

Proportions

		To		
		A - Henham Road	**B - Hall Road Slip**	**C - High Street**
From	**A - Henham Road**	0.00	0.31	0.69
	B - Hall Road Slip	1.00	0.00	0.00
	C - High Street	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road	**B - Hall Road Slip**	**C - High Street**
From	**A - Henham Road**	0	0	0
	B - Hall Road Slip	1	0	0
	C - High Street	0	0	0

Average PCU Per Veh

		To		
		A - Henham Road	**B - Hall Road Slip**	**C - High Street**
From	**A - Henham Road**	1.000	1.000	1.000
	B - Hall Road Slip	1.011	1.000	1.000
	C - High Street	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	**16:45-17:00**	150	150
	17:00-17:15	179	179
	17:15-17:30	219	219
	17:30-17:45	219	219
	17:45-18:00	179	179
	18:00-18:15	150	150
B - Hall Road Slip	**16:45-17:00**	72	72
	17:00-17:15	85	86
	17:15-17:30	105	106
	17:30-17:45	105	106
	17:45-18:00	85	86
	18:00-18:15	72	72
C - High Street	**16:45-17:00**	154	154
	17:00-17:15	184	184
	17:15-17:30	226	226
	17:30-17:45	226	226
	17:45-18:00	184	184
	18:00-18:15	154	154

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.24	10.91	0.3	B	95	95
C-AB	0.00	0.00	0.0	A	0	0
C-A					205	205
A-B					62	62
A-C					137	137

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	85	21	448	0.191	85	0.2	0.2	9.911	A
C-AB	0	0	1253	0.000	0	0.0	0.0	0.000	A
C-A	184	46			184				
A-B	56	14			56				
A-C	123	31			123				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	105	26	434	0.241	104	0.2	0.3	10.890	B
C-AB	0	0	1232	0.000	0	0.0	0.0	0.000	A
C-A	226	56			226				
A-B	68	17			68				
A-C	151	38			151				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	105	26	434	0.241	105	0.3	0.3	10.912	B
C-AB	0	0	1232	0.000	0	0.0	0.0	0.000	A
C-A	226	56			226				
A-B	68	17			68				
A-C	151	38			151				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	85	21	448	0.191	86	0.3	0.2	9.938	A
C-AB	0	0	1253	0.000	0	0.0	0.0	0.000	A
C-A	184	46			184				
A-B	56	14			56				
A-C	123	31			123				

2027 Future BY (Sensitivity), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2027 Future BY (Sensitivity), AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		1.11	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.11	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2027 Future BY (Sensitivity)	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	419	100.000
B - Hall Road Slip		ONE HOUR	✓	63	100.000
C - High Street		ONE HOUR	✓	184	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
From		A - Henham Road	B - Hall Road Slip	C - High Street
	A - Henham Road	0	131	288
	B - Hall Road Slip	63	0	0
	C - High Street	184	0	0

Proportions

		To		
From		A - Henham Road	B - Hall Road Slip	C - High Street
	A - Henham Road	0.00	0.31	0.69
	B - Hall Road Slip	1.00	0.00	0.00
	C - High Street	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Henham Road	B - Hall Road Slip	C - High Street
	A - Henham Road	0	1	0
	B - Hall Road Slip	3	0	0
	C - High Street	1	0	0

Average PCU Per Veh

From	To			
		A - Henham Road	B - Hall Road Slip	C - High Street
	A - Henham Road	1.000	1.008	1.003
	B - Hall Road Slip	1.032	1.000	1.000
	C - High Street	1.005	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	07:45-08:00	315	317
	08:00-08:15	377	378
	08:15-08:30	461	464
	08:30-08:45	461	464
	08:45-09:00	377	378
	09:00-09:15	315	317
B - Hall Road Slip	07:45-08:00	47	49
	08:00-08:15	57	58
	08:15-08:30	69	72
	08:30-08:45	69	72
	08:45-09:00	57	58
	09:00-09:15	47	49
C - High Street	07:45-08:00	138	139
	08:00-08:15	165	166
	08:15-08:30	202	203
	08:30-08:45	202	203
	08:45-09:00	165	166
	09:00-09:15	138	139

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.18	11.47	0.2	B	63	63
C-AB	0.00	0.00	0.0	A	0	0
C-A					184	184
A-B					131	131
A-C					288	288

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	57	14	404	0.140	56	0.1	0.2	10.340	B
C-AB	0	0	1149	0.000	0	0.0	0.0	0.000	A
C-A	165	41			165				
A-B	118	29			118				
A-C	259	65			259				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	69	17	383	0.181	69	0.2	0.2	11.452	B
C-AB	0	0	1104	0.000	0	0.0	0.0	0.000	A
C-A	202	51			202				
A-B	144	36			144				
A-C	317	79			317				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	69	17	383	0.181	69	0.2	0.2	11.468	B
C-AB	0	0	1104	0.000	0	0.0	0.0	0.000	A
C-A	202	51			202				
A-B	144	36			144				
A-C	317	79			317				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	57	14	404	0.140	57	0.2	0.2	10.361	B
C-AB	0	0	1149	0.000	0	0.0	0.0	0.000	A
C-A	165	41			165				
A-B	118	29			118				
A-C	259	65			259				

2027 Future BY (Sensitivity), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - 2027 Future BY (Sensitivity), PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		2.40	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.40	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2027 Future BY (Sensitivity)	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	218	100.000
B - Hall Road Slip		ONE HOUR	✓	112	100.000
C - High Street		ONE HOUR	✓	226	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road	B - Hall Road Slip	C - High Street
From	A - Henham Road	0	70	148
	B - Hall Road Slip	112	0	0
	C - High Street	226	0	0

Proportions

		To		
		A - Henham Road	B - Hall Road Slip	C - High Street
From	A - Henham Road	0.00	0.32	0.68
	B - Hall Road Slip	1.00	0.00	0.00
	C - High Street	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road	B - Hall Road Slip	C - High Street
From	A - Henham Road	0	0	0
	B - Hall Road Slip	1	0	0
	C - High Street	0	0	0

Average PCU Per Veh

		To		
		A - Henham Road	B - Hall Road Slip	C - High Street
From	A - Henham Road	1.000	1.000	1.000
	B - Hall Road Slip	1.009	1.000	1.000
	C - High Street	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	16:45-17:00	164	164
	17:00-17:15	196	196

	17:15-17:30	240	240
	17:30-17:45	240	240
	17:45-18:00	196	196
	18:00-18:15	164	164
B - Hall Road Slip	**16:45-17:00**	84	85
	17:00-17:15	101	102
	17:15-17:30	123	124
	17:30-17:45	123	124
	17:45-18:00	101	102
	18:00-18:15	84	85
C - High Street	**16:45-17:00**	170	170
	17:00-17:15	203	203
	17:15-17:30	249	249
	17:30-17:45	249	249
	17:45-18:00	203	203
	18:00-18:15	170	170

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.29	11.81	0.4	B	112	112
C-AB	0.00	0.00	0.0	A	0	0
C-A					226	226
A-B					70	70
A-C					148	148

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	101	25	443	0.227	100	0.2	0.3	10.503	B
C-AB	0	0	1244	0.000	0	0.0	0.0	0.000	A
C-A	203	51			203				
A-B	63	16			63				
A-C	133	33			133				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	123	31	428	0.288	123	0.3	0.4	11.779	B
C-AB	0	0	1221	0.000	0	0.0	0.0	0.000	A
C-A	249	62			249				
A-B	77	19			77				
A-C	163	41			163				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	123	31	428	0.288	123	0.4	0.4	11.811	B
C-AB	0	0	1221	0.000	0	0.0	0.0	0.000	A
C-A	249	62			249				
A-B	77	19			77				
A-C	163	41			163				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	101	25	443	0.227	101	0.4	0.3	10.536	B
C-AB	0	0	1244	0.000	0	0.0	0.0	0.000	A
C-A	203	51			203				
A-B	63	16			63				
A-C	133	33			133				

2027 Future BY + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D7 - 2027 Future BY + Dev, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		1.10	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.10	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D7	2027 Future BY + Dev	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	452	100.000

B - Hall Road Slip		ONE HOUR	✓	64	100.000
C - High Street		ONE HOUR	✓	189	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road	**B - Hall Road Slip**	**C - High Street**
From	**A - Henham Road**	0	139	314
	B - Hall Road Slip	64	0	0
	C - High Street	189	0	0

Proportions

		To		
		A - Henham Road	**B - Hall Road Slip**	**C - High Street**
From	**A - Henham Road**	0.00	0.31	0.69
	B - Hall Road Slip	1.00	0.00	0.00
	C - High Street	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road	**B - Hall Road Slip**	**C - High Street**
From	**A - Henham Road**	0	1	0
	B - Hall Road Slip	3	0	0
	C - High Street	1	0	0

Average PCU Per Veh

		To		
		A - Henham Road	**B - Hall Road Slip**	**C - High Street**
From	**A - Henham Road**	1.000	1.007	1.003
	B - Hall Road Slip	1.031	1.000	1.000
	C - High Street	1.005	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	**07:45-08:00**	341	342
	08:00-08:15	407	409
	08:15-08:30	498	500
	08:30-08:45	498	500
	08:45-09:00	407	409
	09:00-09:15	341	342
B - Hall Road Slip	**07:45-08:00**	48	50
	08:00-08:15	58	59
	08:15-08:30	71	73
	08:30-08:45	71	73
	08:45-09:00	58	59
	09:00-09:15	48	50
C - High Street	**07:45-08:00**	142	143
	08:00-08:15	170	171
	08:15-08:30	208	209
	08:30-08:45	208	209
	08:45-09:00	170	171
	09:00-09:15	142	143

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.19	11.81	0.2	B	64	64
C-AB	0.00	0.00	0.0	A	0	0
C-A					189	189
A-B					139	139
A-C					314	314

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	14	398	0.145	58	0.1	0.2	10.564	B
C-AB	0	0	1133	0.000	0	0.0	0.0	0.000	A
C-A	170	42			170				
A-B	125	31			125				
A-C	282	70			282				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	71	18	375	0.188	70	0.2	0.2	11.792	B
C-AB	0	0	1085	0.000	0	0.0	0.0	0.000	A
C-A	208	52			208				
A-B	153	38			153				
A-C	345	86			345				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	71	18	375	0.188	71	0.2	0.2	11.810	B
C-AB	0	0	1085	0.000	0	0.0	0.0	0.000	A
C-A	208	52			208				
A-B	153	38			153				
A-C	345	86			345				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	14	398	0.145	58	0.2	0.2	10.589	B
C-AB	0	0	1133	0.000	0	0.0	0.0	0.000	A
C-A	170	42			170				
A-B	125	31			125				
A-C	282	70			282				

2027 Future BY + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D8 - 2027 Future BY + Dev, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		2.45	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.45	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D8	2027 Future BY + Dev	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	237	100.000
B - Hall Road Slip		ONE HOUR	✓	118	100.000
C - High Street		ONE HOUR	✓	248	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
From		A - Henham Road	B - Hall Road Slip	C - High Street
	A - Henham Road	0	75	161
	B - Hall Road Slip	118	0	0
	C - High Street	248	0	0

Proportions

		To		
From		A - Henham Road	B - Hall Road Slip	C - High Street
	A - Henham Road	0.00	0.32	0.68
	B - Hall Road Slip	1.00	0.00	0.00
	C - High Street	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To	A - Henham Road	B - Hall Road Slip	C - High Street
	A - Henham Road	0	0	0
	B - Hall Road Slip	1	0	0
	C - High Street	0	0	0

Average PCU Per Veh

From	To	A - Henham Road	B - Hall Road Slip	C - High Street
	A - Henham Road	1.000	1.000	1.000
	B - Hall Road Slip	1.008	1.000	1.000
	C - High Street	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	16:45-17:00	178	178
	17:00-17:15	213	213
	17:15-17:30	261	261
	17:30-17:45	261	261
	17:45-18:00	213	213
	18:00-18:15	178	178
B - Hall Road Slip	16:45-17:00	89	90
	17:00-17:15	106	107
	17:15-17:30	130	131
	17:30-17:45	130	131
	17:45-18:00	106	107
	18:00-18:15	89	90
C - High Street	16:45-17:00	187	187
	17:00-17:15	223	223
	17:15-17:30	273	273
	17:30-17:45	273	273
	17:45-18:00	223	223
	18:00-18:15	187	187

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.31	12.40	0.4	B	118	118
C-AB	0.00	0.00	0.0	A	0	0
C-A					248	248
A-B					75	75
A-C					161	161

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	106	27	437	0.243	106	0.2	0.3	10.865	B
C-AB	0	0	1235	0.000	0	0.0	0.0	0.000	A
C-A	223	56			223				
A-B	68	17			68				
A-C	145	36			145				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	130	33	421	0.310	130	0.3	0.4	12.358	B
C-AB	0	0	1210	0.000	0	0.0	0.0	0.000	A
C-A	273	68			273				
A-B	83	21			83				
A-C	178	44			178				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	130	33	421	0.310	130	0.4	0.4	12.397	B
C-AB	0	0	1210	0.000	0	0.0	0.0	0.000	A
C-A	273	68			273				
A-B	83	21			83				
A-C	178	44			178				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	106	27	437	0.243	107	0.4	0.3	10.916	B
C-AB	0	0	1235	0.000	0	0.0	0.0	0.000	A
C-A	223	56			223				
A-B	68	17			68				
A-C	145	36			145				

2027 Future BY + Dev (Sens), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D9 - 2027 Future BY + Dev (Sens), AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		1.17	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.17	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D9	2027 Future BY + Dev (Sens)	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	495	100.000
B - Hall Road Slip		ONE HOUR	✓	70	100.000
C - High Street		ONE HOUR	✓	197	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road	B - Hall Road Slip	C - High Street
From	A - Henham Road	0	158	338
	B - Hall Road Slip	70	0	0
	C - High Street	197	0	0

Proportions

		To		
		A - Henham Road	B - Hall Road Slip	C - High Street
From	A - Henham Road	0.00	0.32	0.68
	B - Hall Road Slip	1.00	0.00	0.00
	C - High Street	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road	B - Hall Road Slip	C - High Street
From	A - Henham Road	0	1	0
	B - Hall Road Slip	3	0	0
	C - High Street	1	0	0

Average PCU Per Veh

		To		
		A - Henham Road	B - Hall Road Slip	C - High Street
From	A - Henham Road	1.000	1.006	1.003
	B - Hall Road Slip	1.029	1.000	1.000
	C - High Street	1.005	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	07:45-08:00	373	375
	08:00-08:15	445	447

	08:15-08:30	545	548
	08:30-08:45	545	548
	08:45-09:00	445	447
	09:00-09:15	373	375
B - Hall Road Slip	07:45-08:00	53	54
	08:00-08:15	63	65
	08:15-08:30	77	79
	08:30-08:45	77	79
	08:45-09:00	63	65
	09:00-09:15	53	54
C - High Street	07:45-08:00	148	149
	08:00-08:15	177	178
	08:15-08:30	217	218
	08:30-08:45	217	218
	08:45-09:00	177	178
	09:00-09:15	148	149

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.21	12.42	0.3	B	70	70
C-AB	0.00	0.00	0.0	A	0	0
C-A					197	197
A-B					158	158
A-C					338	338

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	63	16	392	0.161	63	0.1	0.2	10.946	B
C-AB	0	0	1113	0.000	0	0.0	0.0	0.000	A
C-A	177	44			177				
A-B	142	35			142				
A-C	303	76			303				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	77	19	367	0.210	77	0.2	0.3	12.393	B
C-AB	0	0	1060	0.000	0	0.0	0.0	0.000	A
C-A	217	54			217				
A-B	174	43			174				
A-C	372	93			372				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	77	19	367	0.210	77	0.3	0.3	12.418	B
C-AB	0	0	1060	0.000	0	0.0	0.0	0.000	A
C-A	217	54			217				
A-B	174	43			174				
A-C	372	93			372				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	63	16	392	0.161	63	0.3	0.2	10.978	B
C-AB	0	0	1113	0.000	0	0.0	0.0	0.000	A
C-A	177	44			177				
A-B	142	35			142				
A-C	303	76			303				

2027 Future BY + Dev (Sens), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D10 - 2027 Future BY + Dev (Sens), PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Henham Road/ Hall Road	T-Junction	Two-way	Two-way	Two-way		2.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.80	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D10	2027 Future BY + Dev (Sens)	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Henham Road		ONE HOUR	✓	256	100.000

B - Hall Road Slip		ONE HOUR	✓	135	100.000
C - High Street		ONE HOUR	✓	269	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Henham Road	**B - Hall Road Slip**	**C - High Street**
From	**A - Henham Road**	0	83	172
	B - Hall Road Slip	135	0	0
	C - High Street	269	0	0

Proportions

		To		
		A - Henham Road	**B - Hall Road Slip**	**C - High Street**
From	**A - Henham Road**	0.00	0.33	0.67
	B - Hall Road Slip	1.00	0.00	0.00
	C - High Street	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Henham Road	**B - Hall Road Slip**	**C - High Street**
From	**A - Henham Road**	0	0	0
	B - Hall Road Slip	1	0	0
	C - High Street	0	0	0

Average PCU Per Veh

		To		
		A - Henham Road	**B - Hall Road Slip**	**C - High Street**
From	**A - Henham Road**	1.000	1.000	1.000
	B - Hall Road Slip	1.007	1.000	1.000
	C - High Street	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Henham Road	**16:45-17:00**	192	192
	17:00-17:15	230	230
	17:15-17:30	281	281
	17:30-17:45	281	281
	17:45-18:00	230	230
	18:00-18:15	192	192
B - Hall Road Slip	**16:45-17:00**	102	103
	17:00-17:15	122	123
	17:15-17:30	149	150
	17:30-17:45	149	150
	17:45-18:00	122	123
	18:00-18:15	102	103
C - High Street	**16:45-17:00**	203	203
	17:00-17:15	242	242
	17:15-17:30	296	296
	17:30-17:45	296	296
	17:45-18:00	242	242
	18:00-18:15	203	203

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.36	13.58	0.6	B	135	135
C-AB	0.00	0.00	0.0	A	0	0
C-A					269	269
A-B					83	83
A-C					172	172

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	122	30	432	0.282	121	0.3	0.4	11.581	B
C-AB	0	0	1226	0.000	0	0.0	0.0	0.000	A
C-A	242	60			242				
A-B	75	19			75				
A-C	155	39			155				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	149	37	414	0.360	148	0.4	0.6	13.521	B
C-AB	0	0	1199	0.000	0	0.0	0.0	0.000	A
C-A	296	74			296				
A-B	92	23			92				
A-C	190	47			190				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	149	37	414	0.360	149	0.6	0.6	13.584	B
C-AB	0	0	1199	0.000	0	0.0	0.0	0.000	A
C-A	296	74			296				
A-B	92	23			92				
A-C	190	47			190				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	122	30	432	0.282	122	0.6	0.4	11.658	B
C-AB	0	0	1226	0.000	0	0.0	0.0	0.000	A
C-A	242	60			242				
A-B	75	19			75				
A-C	155	39			155				

Junctions 10

ARCADY 10 - Roundabout Module

Filename: Import of Coopers End Double Rdabt v3.j10
Path: \\corp.pbwan.net\IN\IN_Projects\50610325 - Chancery Lane Projects\Development Planning Projects\000000000 Elsenham\03 WIP\TP\01 Analysis & Calcs\04. Coopers End MiniRoundabout
Report generation date: 16-09-2022 16:08:22

Summary of junction performance

	AM				PM			
	Set ID	Queue (Veh)	Delay (s)	RFC	Set ID	Queue (Veh)	Delay (s)	RFC
	A1 - 2022 Base Year							
A - Hall Road	D1	2.2	18.83	0.70	D2	1.1	11.74	0.52
B - Parsonage Road		0.5	5.95	0.31		0.4	5.54	0.30
C - Coopers End Roundabout Access		0.9	9.57	0.47		1.0	10.18	0.51
	A1 - 2027 Future Base Year							
A - Hall Road	D3	5.9	42.80	0.87	D4	1.9	17.62	0.66
B - Parsonage Road		0.8	7.99	0.46		0.6	6.23	0.36
C - Coopers End Roundabout Access		1.2	11.13	0.54		2.6	18.15	0.73
	A1 - 2027 Future BY (Sensitivity)							
A - Hall Road	D5	7.6	53.00	0.91	D6	2.0	18.38	0.67
B - Parsonage Road		0.9	8.21	0.47		0.6	6.29	0.36
C - Coopers End Roundabout Access		1.2	11.35	0.55		2.9	19.97	0.75
	A1 - 2027 Future BY + Dev							
A - Hall Road	D7	8.5	58.28	0.92	D8	2.1	18.92	0.68
B - Parsonage Road		0.9	8.28	0.47		0.6	6.34	0.37
C - Coopers End Roundabout Access		1.2	11.37	0.55		3.0	20.65	0.76
	A1 - 2027 Future BY + Dev (Sens)							
A - Hall Road	D9	11.4	74.11	0.95	D10	2.2	19.80	0.70
B - Parsonage Road		0.9	8.49	0.48		0.6	6.40	0.37

C - Coopers End Roundabout Access		1.3	11.60	0.56		3.5	23.00	0.79

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

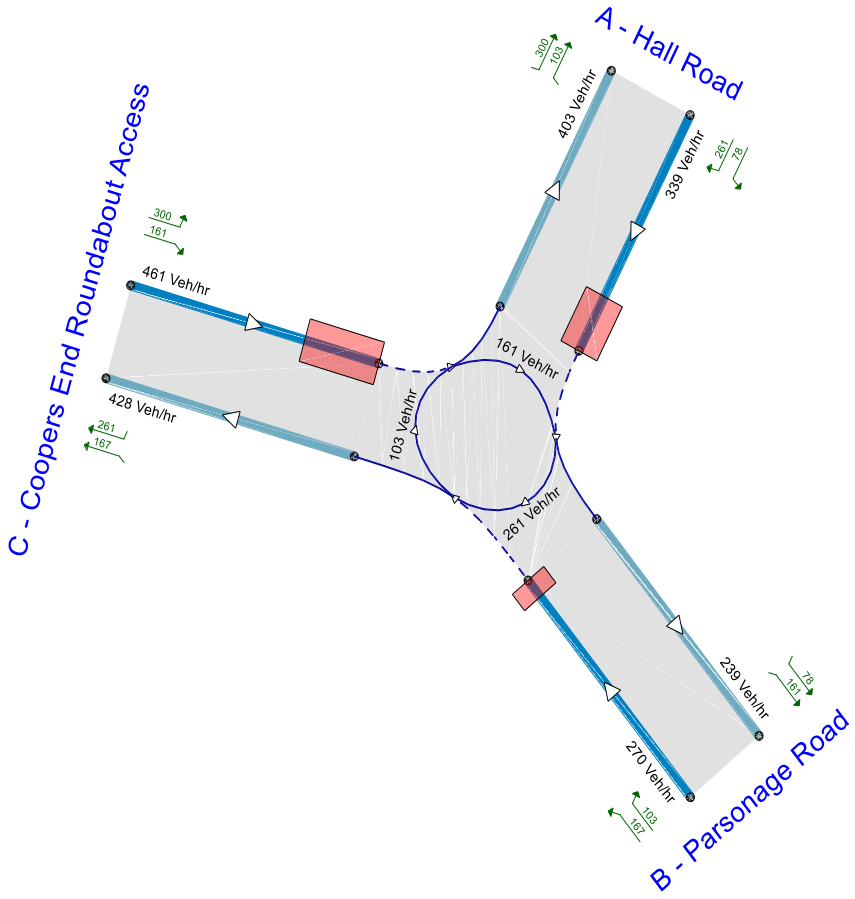
File summary

File Description

Title	Coopers End Double Roundabout
Location	Stansted Airport
Site number	
Date	12-05-2017
Version	v1
Status	
Identifier	
Client	Fairfield Partnership
Jobnumber	11500582
Enumerator	UKEWS001
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
JUNCTIONS 9	5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2022 Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓
D2	2022 Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓
D3	2027 Future Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓
D4	2027 Future Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓
D5	2027 Future BY (Sensitivity)	AM	ONE HOUR	07:45	09:15	15	✓	✓
D6	2027 Future BY (Sensitivity)	PM	ONE HOUR	16:45	18:15	15	✓	✓

D7	2027 Future BY + Dev	AM	ONE HOUR	07:45	09:15	15	✓	✓
D8	2027 Future BY + Dev	PM	ONE HOUR	16:45	18:15	15	✓	✓
D9	2027 Future BY + Dev (Sens)	AM	ONE HOUR	07:45	09:15	15	✓	✓
D10	2027 Future BY + Dev (Sens)	PM	ONE HOUR	16:45	18:15	15	✓	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

(Default Analysis Set) - 2022 Base Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2022 Base Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hall Road / Stansted Road	Mini-roundabout		A, B, C	12.47	B

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		12.47	B

Arms

Arms

Arm	Name	Description
A	Hall Road	
B	Parsonage Road	
C	Coopers End Roundabout Access	

Capacity Options

Arm	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Assume flat start profile	Initial queue (PCU)
A - Hall Road	0	99999	✓	
B - Parsonage Road	0	99999	✓	
C - Coopers End Roundabout Access	0	99999	✓	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island

A - Hall Road	2.73	2.73	3.10	12.1	17.90	15.35	0.0	
B - Parsonage Road	2.65	2.65	3.60	7.5	19.62	18.39	0.0	✓
C - Coopers End Roundabout Access	3.01	3.01	5.07	2.7	13.15	6.26	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Hall Road	0.622	733
B - Parsonage Road	0.628	1117
C - Coopers End Roundabout Access	0.614	810

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2022 Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road		ONE HOUR	✓	395	100.000
B - Parsonage Road		ONE HOUR	✓	251	100.000
C - Coopers End Roundabout Access		ONE HOUR	✓	300	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		**A - Hall Road**	**B - Parsonage Road**	**C - Coopers End Roundabout Access**
	A - Hall Road	0	102	293
	B - Parsonage Road	87	0	164
	C - Coopers End Roundabout Access	183	117	0

Proportions

	To			
From		**A - Hall Road**	**B - Parsonage Road**	**C - Coopers End Roundabout Access**
	A - Hall Road	0.00	0.26	0.74
	B - Parsonage Road	0.35	0.00	0.65
	C - Coopers End Roundabout Access	0.61	0.39	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0	7	3
	B - Parsonage Road	3	0	3
	C - Coopers End Roundabout Access	7	5	0

Average PCU Per Veh

	To			
From		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	1.000	1.069	1.027
	B - Parsonage Road	1.034	1.000	1.030
	C - Coopers End Roundabout Access	1.066	1.051	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road	07:45-08:00	297	309
	08:00-08:15	355	369
	08:15-08:30	435	451
	08:30-08:45	435	451
	08:45-09:00	355	369
	09:00-09:15	297	309
B - Parsonage Road	07:45-08:00	189	195
	08:00-08:15	226	233
	08:15-08:30	276	285
	08:30-08:45	276	285
	08:45-09:00	226	233
	09:00-09:15	189	195
C - Coopers End Roundabout Access	07:45-08:00	226	239
	08:00-08:15	270	286
	08:15-08:30	330	350
	08:30-08:45	330	350
	08:45-09:00	270	286
	09:00-09:15	226	239

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Hall Road	0.70	18.83	2.2	C	395	395
B - Parsonage Road	0.31	5.95	0.5	A	251	251
C - Coopers End Roundabout Access	0.47	9.57	0.9	A	300	300

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	355	89	105	640	0.555	354	242	0.8	1.2	12.496	B
B - Parsonage Road	226	56	262	918	0.246	225	196	0.3	0.3	5.192	A
C - Coopers End Roundabout Access	270	67	78	717	0.376	269	410	0.5	0.6	8.028	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	435	109	128	625	0.695	431	296	1.2	2.1	18.180	C
B - Parsonage Road	276	69	320	882	0.313	276	240	0.3	0.5	5.929	A
C - Coopers End Roundabout Access	330	83	96	706	0.468	329	500	0.6	0.9	9.515	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	435	109	129	625	0.696	435	297	2.1	2.2	18.830	C
B - Parsonage Road	276	69	322	881	0.314	276	241	0.5	0.5	5.955	A
C - Coopers End Roundabout Access	330	83	96	706	0.468	330	503	0.9	0.9	9.570	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	355	89	106	640	0.555	359	244	2.2	1.3	12.980	B
B - Parsonage Road	226	56	266	916	0.246	226	198	0.5	0.3	5.222	A
C - Coopers End Roundabout Access	270	67	78	717	0.376	271	414	0.9	0.6	8.089	A

(Default Analysis Set) - 2022 Base Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2022 Base Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hall Road / Stansted Road	Mini-roundabout		A, B, C	9.39	A

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		9.39	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D2	2022 Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road		ONE HOUR	✓	307	100.000
B - Parsonage Road		ONE HOUR	✓	254	100.000
C - Coopers End Roundabout Access		ONE HOUR	✓	337	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0	75	232
	B - Parsonage Road	104	0	150
	C - Coopers End Roundabout Access	230	107	0

Proportions

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0.00	0.24	0.76
	B - Parsonage Road	0.41	0.00	0.59
	C - Coopers End Roundabout Access	0.68	0.32	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0	5	1
	B - Parsonage Road	3	0	3
	C - Coopers End Roundabout Access	1	4	0

Average PCU Per Veh

	To			
From		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	1.000	1.053	1.009
	B - Parsonage Road	1.029	1.000	1.027
	C - Coopers End Roundabout Access	1.009	1.037	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road	16:45-17:00	231	236
	17:00-17:15	276	281
	17:15-17:30	338	345
	17:30-17:45	338	345
	17:45-18:00	276	281
	18:00-18:15	231	236
B - Parsonage Road	16:45-17:00	191	196
	17:00-17:15	228	235
	17:15-17:30	280	287
	17:30-17:45	280	287
	17:45-18:00	228	235
	18:00-18:15	191	196
C - Coopers End Roundabout Access	16:45-17:00	254	258
	17:00-17:15	303	308
	17:15-17:30	371	378
	17:30-17:45	371	378
	17:45-18:00	303	308
	18:00-18:15	254	258

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Hall Road	0.52	11.74	1.1	B	307	307
B - Parsonage Road	0.30	5.54	0.4	A	254	254
C - Coopers End Roundabout Access	0.51	10.18	1.0	B	337	337

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	276	69	96	658	0.419	275	300	0.5	0.7	9.384	A
B - Parsonage Road	228	57	208	959	0.238	228	163	0.2	0.3	4.926	A
C - Coopers End Roundabout Access	303	76	93	737	0.411	302	343	0.5	0.7	8.258	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	338	85	117	645	0.524	337	367	0.7	1.1	11.624	B
B - Parsonage Road	280	70	254	930	0.301	279	200	0.3	0.4	5.527	A
C - Coopers End Roundabout Access	371	93	114	724	0.512	370	419	0.7	1.0	10.107	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	338	85	118	644	0.525	338	368	1.1	1.1	11.740	B
B - Parsonage Road	280	70	255	929	0.301	280	200	0.4	0.4	5.539	A
C - Coopers End Roundabout Access	371	93	115	724	0.512	371	421	1.0	1.0	10.184	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	276	69	97	658	0.420	277	301	1.1	0.7	9.496	A
B - Parsonage Road	228	57	210	958	0.238	229	164	0.4	0.3	4.943	A
C - Coopers End Roundabout Access	303	76	94	737	0.411	304	345	1.0	0.7	8.340	A

(Default Analysis Set) - 2027 Future Base Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D3 - 2027 Future Base Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hall Road / Stansted Road	Mini-roundabout		A, B, C	23.18	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		23.18	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D3	2027 Future Base Year	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road		ONE HOUR	✓	486	100.000
B - Parsonage Road		ONE HOUR	✓	350	100.000
C - Coopers End Roundabout Access		ONE HOUR	✓	347	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0	113	373
	B - Parsonage Road	98	0	252
	C - Coopers End Roundabout Access	203	144	0

Proportions

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0.00	0.23	0.77
	B - Parsonage Road	0.28	0.00	0.72
	C - Coopers End Roundabout Access	0.58	0.42	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0	6	2
	B - Parsonage Road	3	0	2
	C - Coopers End Roundabout Access	6	4	0

Average PCU Per Veh

	To			
From		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	1.000	1.062	1.021
	B - Parsonage Road	1.031	1.000	1.020
	C - Coopers End Roundabout Access	1.059	1.042	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road	07:45-08:00	366	377
	08:00-08:15	437	450
	08:15-08:30	535	551
	08:30-08:45	535	551
	08:45-09:00	437	450
	09:00-09:15	366	377
B - Parsonage Road	07:45-08:00	263	269
	08:00-08:15	314	322
	08:15-08:30	385	394
	08:30-08:45	385	394
	08:45-09:00	314	322
	09:00-09:15	263	269
C - Coopers End Roundabout Access	07:45-08:00	261	275
	08:00-08:15	312	328
	08:15-08:30	382	402
	08:30-08:45	382	402
	08:45-09:00	312	328
	09:00-09:15	261	275

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Hall Road	0.87	42.80	5.9	E	486	486
B - Parsonage Road	0.46	7.99	0.8	A	350	350
C - Coopers End Roundabout Access	0.54	11.13	1.2	B	347	347

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	437	109	129	630	0.693	434	270	1.3	2.1	18.013	C
B - Parsonage Road	314	79	333	883	0.356	314	230	0.4	0.5	6.317	A
C - Coopers End Roundabout Access	312	78	88	717	0.435	311	559	0.6	0.8	8.851	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	535	134	158	612	0.874	522	330	2.1	5.3	35.805	E
B - Parsonage Road	385	96	401	840	0.458	384	279	0.5	0.8	7.868	A
C - Coopers End Roundabout Access	382	95	107	705	0.542	380	678	0.8	1.2	11.026	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	535	134	159	611	0.875	532	331	5.3	5.9	42.804	E
B - Parsonage Road	385	96	409	835	0.461	385	282	0.8	0.8	7.993	A
C - Coopers End Roundabout Access	382	95	108	705	0.542	382	687	1.2	1.2	11.135	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	437	109	130	629	0.694	451	271	5.9	2.4	21.538	C
B - Parsonage Road	314	79	346	875	0.359	316	235	0.8	0.6	6.453	A
C - Coopers End Roundabout Access	312	78	88	717	0.435	313	574	1.2	0.8	8.959	A

(Default Analysis Set) - 2027 Future Base Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D4 - 2027 Future Base Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hall Road / Stansted Road	Mini-roundabout		A, B, C	14.82	B

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		14.82	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D4	2027 Future Base Year	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road		ONE HOUR	✓	357	100.000
B - Parsonage Road		ONE HOUR	✓	298	100.000
C - Coopers End Roundabout Access		ONE HOUR	✓	477	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0	86	272
	B - Parsonage Road	112	0	186
	C - Coopers End Roundabout Access	297	180	0

Proportions

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0.00	0.24	0.76
	B - Parsonage Road	0.38	0.00	0.62
	C - Coopers End Roundabout Access	0.62	0.38	0.00

Vehicle Mix

Heavy Vehicle Percentages

From \ To		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
From	A - Hall Road	0	5	1
	B - Parsonage Road	3	0	2
	C - Coopers End Roundabout Access	1	2	0

Average PCU Per Veh

From \ To		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
From	A - Hall Road	1.000	1.047	1.007
	B - Parsonage Road	1.027	1.000	1.022
	C - Coopers End Roundabout Access	1.007	1.022	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road	16:45-17:00	269	274
	17:00-17:15	321	327
	17:15-17:30	394	400
	17:30-17:45	394	400
	17:45-18:00	321	327
	18:00-18:15	269	274
B - Parsonage Road	16:45-17:00	225	230
	17:00-17:15	268	275
	17:15-17:30	328	336
	17:30-17:45	328	336
	17:45-18:00	268	275
	18:00-18:15	225	230
C - Coopers End Roundabout Access	16:45-17:00	359	364
	17:00-17:15	429	434
	17:15-17:30	525	532
	17:30-17:45	525	532
	17:45-18:00	429	434
	18:00-18:15	359	364

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Hall Road	0.66	17.62	1.9	C	357	357
B - Parsonage Road	0.36	6.23	0.6	A	298	298
C - Coopers End Roundabout Access	0.73	18.15	2.6	C	477	477

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	321	80	161	620	0.518	320	367	0.7	1.0	11.942	B
B - Parsonage Road	268	67	243	941	0.285	268	238	0.3	0.4	5.346	A
C - Coopers End Roundabout Access	429	107	101	737	0.582	427	410	0.9	1.4	11.562	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	394	98	196	598	0.658	390	448	1.0	1.8	17.074	C
B - Parsonage Road	328	82	297	908	0.362	328	290	0.4	0.6	6.200	A
C - Coopers End Roundabout Access	525	131	123	723	0.727	521	501	1.4	2.5	17.435	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	394	98	198	597	0.659	393	451	1.8	1.9	17.620	C
B - Parsonage Road	328	82	299	907	0.362	328	292	0.6	0.6	6.227	A
C - Coopers End Roundabout Access	525	131	124	723	0.727	525	504	2.5	2.6	18.149	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	321	80	164	619	0.519	324	371	1.9	1.1	12.359	B
B - Parsonage Road	268	67	247	939	0.286	269	241	0.6	0.4	5.379	A
C - Coopers End Roundabout Access	429	107	101	737	0.582	434	414	2.6	1.4	12.052	B

(Default Analysis Set) - 2027 Future BY (Sensitivity), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2027 Future BY (Sensitivity), AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hall Road / Stansted Road	Mini-roundabout		A, B, C	27.79	D

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		27.79	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2027 Future BY (Sensitivity)	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road		ONE HOUR	✓	505	100.000
B - Parsonage Road		ONE HOUR	✓	350	100.000
C - Coopers End Roundabout Access		ONE HOUR	✓	353	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0	113	392
	B - Parsonage Road	98	0	252
	C - Coopers End Roundabout Access	209	144	0

Proportions

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0.00	0.22	0.78
	B - Parsonage Road	0.28	0.00	0.72
	C - Coopers End Roundabout Access	0.59	0.41	0.00

Vehicle Mix

Heavy Vehicle Percentages

From \ To		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
From	A - Hall Road	0	6	2
	B - Parsonage Road	3	0	2
	C - Coopers End Roundabout Access	6	4	0

Average PCU Per Veh

From \ To		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
From	A - Hall Road	1.000	1.062	1.020
	B - Parsonage Road	1.031	1.000	1.020
	C - Coopers End Roundabout Access	1.057	1.042	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road	07:45-08:00	380	391
	08:00-08:15	454	467
	08:15-08:30	556	572
	08:30-08:45	556	572
	08:45-09:00	454	467
	09:00-09:15	380	391
B - Parsonage Road	07:45-08:00	263	269
	08:00-08:15	314	322
	08:15-08:30	385	394
	08:30-08:45	385	394
	08:45-09:00	314	322
	09:00-09:15	263	269
C - Coopers End Roundabout Access	07:45-08:00	266	279
	08:00-08:15	317	333
	08:15-08:30	388	408
	08:30-08:45	388	408
	08:45-09:00	317	333
	09:00-09:15	266	279

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Hall Road	0.91	53.00	7.6	F	505	505
B - Parsonage Road	0.47	8.21	0.9	A	350	350
C - Coopers End Roundabout Access	0.55	11.35	1.2	B	353	353

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	454	113	129	631	0.720	450	275	1.4	2.4	19.500	C
B - Parsonage Road	314	79	350	873	0.360	314	229	0.4	0.6	6.433	A
C - Coopers End Roundabout Access	317	79	88	717	0.442	316	576	0.6	0.8	8.955	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	556	139	158	613	0.907	539	336	2.4	6.6	41.707	E
B - Parsonage Road	385	96	419	829	0.464	384	278	0.6	0.9	8.057	A
C - Coopers End Roundabout Access	388	97	107	706	0.550	387	696	0.8	1.2	11.228	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	556	139	159	612	0.908	552	337	6.6	7.6	53.000	F
B - Parsonage Road	385	96	429	823	0.468	385	282	0.9	0.9	8.209	A
C - Coopers End Roundabout Access	388	97	108	706	0.551	388	706	1.2	1.2	11.349	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	454	113	130	630	0.720	473	277	7.6	2.8	25.245	D
B - Parsonage Road	314	79	368	862	0.365	316	236	0.9	0.6	6.608	A
C - Coopers End Roundabout Access	317	79	88	717	0.442	319	595	1.2	0.8	9.073	A

(Default Analysis Set) - 2027 Future BY (Sensitivity), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - 2027 Future BY (Sensitivity), PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hall Road / Stansted Road	Mini-roundabout		A, B, C	15.92	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		15.92	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D6	2027 Future BY (Sensitivity)	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road		ONE HOUR	✓	365	100.000
B - Parsonage Road		ONE HOUR	✓	298	100.000
C - Coopers End Roundabout Access		ONE HOUR	✓	494	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0	86	280
	B - Parsonage Road	112	0	186
	C - Coopers End Roundabout Access	314	180	0

Proportions

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0.00	0.23	0.77
	B - Parsonage Road	0.38	0.00	0.62
	C - Coopers End Roundabout Access	0.64	0.36	0.00

Vehicle Mix

Heavy Vehicle Percentages

From \ To		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
From	A - Hall Road	0	5	1
	B - Parsonage Road	3	0	2
	C - Coopers End Roundabout Access	1	2	0

Average PCU Per Veh

From \ To		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
From	A - Hall Road	1.000	1.047	1.007
	B - Parsonage Road	1.027	1.000	1.022
	C - Coopers End Roundabout Access	1.006	1.022	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road	16:45-17:00	275	280
	17:00-17:15	329	334
	17:15-17:30	402	409
	17:30-17:45	402	409
	17:45-18:00	329	334
	18:00-18:15	275	280
B - Parsonage Road	16:45-17:00	225	230
	17:00-17:15	268	275
	17:15-17:30	328	336
	17:30-17:45	328	336
	17:45-18:00	268	275
	18:00-18:15	225	230
C - Coopers End Roundabout Access	16:45-17:00	372	377
	17:00-17:15	444	450
	17:15-17:30	544	551
	17:30-17:45	544	551
	17:45-18:00	444	450
	18:00-18:15	372	377

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Hall Road	0.67	18.38	2.0	C	365	365
B - Parsonage Road	0.36	6.29	0.6	A	298	298
C - Coopers End Roundabout Access	0.75	19.97	2.9	C	494	494

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	329	82	161	620	0.530	327	382	0.8	1.1	12.237	B
B - Parsonage Road	268	67	250	937	0.286	268	238	0.3	0.4	5.381	A
C - Coopers End Roundabout Access	444	111	101	737	0.603	442	417	1.0	1.5	12.130	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	402	101	196	598	0.672	399	466	1.1	1.9	17.741	C
B - Parsonage Road	328	82	305	903	0.364	328	290	0.4	0.6	6.255	A
C - Coopers End Roundabout Access	544	136	123	723	0.753	539	510	1.5	2.8	18.983	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	402	101	198	597	0.674	402	469	1.9	2.0	18.382	C
B - Parsonage Road	328	82	308	901	0.365	328	292	0.6	0.6	6.286	A
C - Coopers End Roundabout Access	544	136	124	723	0.753	544	512	2.8	2.9	19.965	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	329	82	164	619	0.531	332	387	2.0	1.2	12.689	B
B - Parsonage Road	268	67	254	934	0.287	269	242	0.6	0.4	5.414	A
C - Coopers End Roundabout Access	444	111	101	737	0.603	450	422	2.9	1.6	12.759	B

(Default Analysis Set) - 2027 Future BY + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D7 - 2027 Future BY + Dev, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hall Road / Stansted Road	Mini-roundabout		A, B, C	30.18	D

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		30.18	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D7	2027 Future BY + Dev	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road		ONE HOUR	✓	513	100.000
B - Parsonage Road		ONE HOUR	✓	350	100.000
C - Coopers End Roundabout Access		ONE HOUR	✓	353	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0	115	398
	B - Parsonage Road	98	0	252
	C - Coopers End Roundabout Access	209	144	0

Proportions

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0.00	0.22	0.78
	B - Parsonage Road	0.28	0.00	0.72
	C - Coopers End Roundabout Access	0.59	0.41	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0	6	2
	B - Parsonage Road	3	0	2
	C - Coopers End Roundabout Access	6	4	0

Average PCU Per Veh

	To			
From		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	1.000	1.061	1.020
	B - Parsonage Road	1.031	1.000	1.020
	C - Coopers End Roundabout Access	1.057	1.042	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road	07:45-08:00	386	397
	08:00-08:15	461	474
	08:15-08:30	565	581
	08:30-08:45	565	581
	08:45-09:00	461	474
	09:00-09:15	386	397
B - Parsonage Road	07:45-08:00	264	270
	08:00-08:15	315	322
	08:15-08:30	386	395
	08:30-08:45	386	395
	08:45-09:00	315	322
	09:00-09:15	264	270
C - Coopers End Roundabout Access	07:45-08:00	266	280
	08:00-08:15	318	334
	08:15-08:30	389	409
	08:30-08:45	389	409
	08:45-09:00	318	334
	09:00-09:15	266	280

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Hall Road	0.92	58.28	8.5	F	513	513
B - Parsonage Road	0.47	8.28	0.9	A	350	350
C - Coopers End Roundabout Access	0.55	11.37	1.2	B	353	353

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	461	115	129	631	0.731	457	276	1.5	2.5	20.184	C
B - Parsonage Road	315	79	355	870	0.362	314	231	0.4	0.6	6.473	A
C - Coopers End Roundabout Access	318	79	88	717	0.443	317	581	0.6	0.8	8.971	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	565	141	158	613	0.921	546	337	2.5	7.2	44.539	E
B - Parsonage Road	386	96	424	827	0.467	385	280	0.6	0.9	8.117	A
C - Coopers End Roundabout Access	389	97	108	705	0.552	387	700	0.8	1.2	11.259	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	565	141	159	612	0.922	559	339	7.2	8.5	58.283	F
B - Parsonage Road	386	96	434	820	0.470	386	284	0.9	0.9	8.282	A
C - Coopers End Roundabout Access	389	97	108	705	0.552	389	711	1.2	1.2	11.373	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	461	115	130	630	0.731	483	278	8.5	3.0	27.357	D
B - Parsonage Road	315	79	375	857	0.367	316	238	0.9	0.6	6.670	A
C - Coopers End Roundabout Access	318	79	89	717	0.443	319	602	1.2	0.8	9.090	A

(Default Analysis Set) - 2027 Future BY + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D8 - 2027 Future BY + Dev, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hall Road / Stansted Road	Mini-roundabout		A, B, C	16.40	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		16.40	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D8	2027 Future BY + Dev	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road		ONE HOUR	✓	371	100.000
B - Parsonage Road		ONE HOUR	✓	300	100.000
C - Coopers End Roundabout Access		ONE HOUR	✓	499	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0	87	284
	B - Parsonage Road	114	0	186
	C - Coopers End Roundabout Access	319	180	0

Proportions

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0.00	0.23	0.77
	B - Parsonage Road	0.38	0.00	0.62
	C - Coopers End Roundabout Access	0.64	0.36	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To	A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0	5	1
	B - Parsonage Road	3	0	2
	C - Coopers End Roundabout Access	1	2	0

Average PCU Per Veh

From	To	A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	1.000	1.046	1.007
	B - Parsonage Road	1.026	1.000	1.022
	C - Coopers End Roundabout Access	1.006	1.022	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road	16:45-17:00	279	284
	17:00-17:15	333	339
	17:15-17:30	408	415
	17:30-17:45	408	415
	17:45-18:00	333	339
	18:00-18:15	279	284
B - Parsonage Road	16:45-17:00	226	231
	17:00-17:15	270	276
	17:15-17:30	331	338
	17:30-17:45	331	338
	17:45-18:00	270	276
	18:00-18:15	226	231
C - Coopers End Roundabout Access	16:45-17:00	375	380
	17:00-17:15	448	454
	17:15-17:30	549	556
	17:30-17:45	549	556
	17:45-18:00	448	454
	18:00-18:15	375	380

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Hall Road	0.68	18.92	2.1	C	371	371
B - Parsonage Road	0.37	6.34	0.6	A	300	300
C - Coopers End Roundabout Access	0.76	20.65	3.0	C	499	499

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	333	83	161	621	0.537	332	388	0.8	1.1	12.407	B
B - Parsonage Road	270	67	254	934	0.289	270	239	0.3	0.4	5.413	A
C - Coopers End Roundabout Access	448	112	103	736	0.609	446	421	1.0	1.5	12.332	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	408	102	196	599	0.682	405	473	1.1	2.0	18.212	C
B - Parsonage Road	331	83	310	900	0.367	330	291	0.4	0.6	6.307	A
C - Coopers End Roundabout Access	549	137	126	722	0.761	543	514	1.5	2.9	19.552	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	408	102	198	597	0.683	408	476	2.0	2.1	18.924	C
B - Parsonage Road	331	83	312	898	0.368	331	294	0.6	0.6	6.339	A
C - Coopers End Roundabout Access	549	137	126	722	0.761	548	517	2.9	3.0	20.645	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	333	83	164	619	0.539	337	393	2.1	1.2	12.919	B
B - Parsonage Road	270	67	258	932	0.290	271	243	0.6	0.4	5.447	A
C - Coopers End Roundabout Access	448	112	103	736	0.609	454	425	3.0	1.6	13.018	B

(Default Analysis Set) - 2027 Future BY + Dev (Sens), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D9 - 2027 Future BY + Dev (Sens), AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hall Road / Stansted Road	Mini-roundabout		A, B, C	37.38	E

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		37.38	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D9	2027 Future BY + Dev (Sens)	AM	ONE HOUR	07:45	09:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road		ONE HOUR	✓	532	100.000
B - Parsonage Road		ONE HOUR	✓	350	100.000
C - Coopers End Roundabout Access		ONE HOUR	✓	359	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0	115	417
	B - Parsonage Road	98	0	252
	C - Coopers End Roundabout Access	215	144	0

Proportions

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0.00	0.22	0.78
	B - Parsonage Road	0.28	0.00	0.72
	C - Coopers End Roundabout Access	0.60	0.40	0.00

Vehicle Mix

Heavy Vehicle Percentages

From \ To		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
From	A - Hall Road	0	6	2
	B - Parsonage Road	3	0	2
	C - Coopers End Roundabout Access	6	4	0

Average PCU Per Veh

From \ To		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
From	A - Hall Road	1.000	1.061	1.019
	B - Parsonage Road	1.031	1.000	1.020
	C - Coopers End Roundabout Access	1.056	1.042	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road	07:45-08:00	400	412
	08:00-08:15	478	491
	08:15-08:30	585	602
	08:30-08:45	585	602
	08:45-09:00	478	491
	09:00-09:15	400	412
B - Parsonage Road	07:45-08:00	264	270
	08:00-08:15	315	322
	08:15-08:30	386	395
	08:30-08:45	386	395
	08:45-09:00	315	322
	09:00-09:15	264	270
C - Coopers End Roundabout Access	07:45-08:00	271	284
	08:00-08:15	323	339
	08:15-08:30	396	415
	08:30-08:45	396	415
	08:45-09:00	323	339
	09:00-09:15	271	284

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Hall Road	0.95	74.11	11.4	F	532	532
B - Parsonage Road	0.48	8.49	0.9	A	350	350
C - Coopers End Roundabout Access	0.56	11.60	1.3	B	359	359

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	478	120	129	632	0.757	473	281	1.6	2.8	22.031	C
B - Parsonage Road	315	79	371	860	0.366	314	231	0.4	0.6	6.593	A
C - Coopers End Roundabout Access	323	81	88	718	0.450	322	597	0.6	0.8	9.079	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	585	146	158	613	0.954	561	344	2.8	9.0	52.407	F
B - Parsonage Road	386	96	440	817	0.472	384	279	0.6	0.9	8.302	A
C - Coopers End Roundabout Access	396	99	108	706	0.560	394	716	0.8	1.2	11.468	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	585	146	159	613	0.955	576	345	9.0	11.4	74.110	F
B - Parsonage Road	386	96	452	809	0.477	386	283	0.9	0.9	8.493	A
C - Coopers End Roundabout Access	396	99	108	706	0.561	396	729	1.2	1.3	11.598	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	478	120	130	631	0.758	510	283	11.4	3.5	34.968	D
B - Parsonage Road	315	79	400	842	0.374	316	240	0.9	0.6	6.863	A
C - Coopers End Roundabout Access	323	81	89	718	0.450	325	627	1.3	0.8	9.204	A

(Default Analysis Set) - 2027 Future BY + Dev (Sens), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D10 - 2027 Future BY + Dev (Sens), PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hall Road / Stansted Road	Mini-roundabout		A, B, C	17.78	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		17.78	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D10	2027 Future BY + Dev (Sens)	PM	ONE HOUR	16:45	18:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Hall Road		ONE HOUR	✓	379	100.000
B - Parsonage Road		ONE HOUR	✓	300	100.000
C - Coopers End Roundabout Access		ONE HOUR	✓	516	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0	87	292
	B - Parsonage Road	114	0	186
	C - Coopers End Roundabout Access	336	180	0

Proportions

From	To			
		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
	A - Hall Road	0.00	0.23	0.77
	B - Parsonage Road	0.38	0.00	0.62
	C - Coopers End Roundabout Access	0.65	0.35	0.00

Vehicle Mix

Heavy Vehicle Percentages

From \ To		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
From	A - Hall Road	0	5	1
	B - Parsonage Road	3	0	2
	C - Coopers End Roundabout Access	1	2	0

Average PCU Per Veh

From \ To		A - Hall Road	B - Parsonage Road	C - Coopers End Roundabout Access
From	A - Hall Road	1.000	1.046	1.007
	B - Parsonage Road	1.026	1.000	1.022
	C - Coopers End Roundabout Access	1.006	1.022	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Hall Road	16:45-17:00	285	290
	17:00-17:15	340	346
	17:15-17:30	417	424
	17:30-17:45	417	424
	17:45-18:00	340	346
	18:00-18:15	285	290
B - Parsonage Road	16:45-17:00	226	231
	17:00-17:15	270	276
	17:15-17:30	331	338
	17:30-17:45	331	338
	17:45-18:00	270	276
	18:00-18:15	226	231
C - Coopers End Roundabout Access	16:45-17:00	388	393
	17:00-17:15	464	469
	17:15-17:30	568	574
	17:30-17:45	568	574
	17:45-18:00	464	469
	18:00-18:15	388	393

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Hall Road	0.70	19.80	2.2	C	379	379
B - Parsonage Road	0.37	6.40	0.6	A	300	300
C - Coopers End Roundabout Access	0.79	23.00	3.5	C	516	516

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	340	85	161	621	0.548	339	403	0.8	1.2	12.702	B
B - Parsonage Road	270	67	261	930	0.290	270	239	0.3	0.4	5.447	A
C - Coopers End Roundabout Access	464	116	103	736	0.629	461	428	1.1	1.6	12.976	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	417	104	196	599	0.696	413	491	1.2	2.1	18.961	C
B - Parsonage Road	331	83	318	895	0.370	330	291	0.4	0.6	6.366	A
C - Coopers End Roundabout Access	568	142	126	722	0.786	561	523	1.6	3.3	21.466	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	417	104	198	598	0.698	417	495	2.1	2.2	19.800	C
B - Parsonage Road	331	83	321	893	0.370	331	294	0.6	0.6	6.400	A
C - Coopers End Roundabout Access	568	142	126	722	0.786	567	526	3.3	3.5	22.999	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Hall Road	340	85	164	619	0.550	344	409	2.2	1.3	13.291	B
B - Parsonage Road	270	67	265	927	0.291	271	243	0.6	0.4	5.486	A
C - Coopers End Roundabout Access	464	116	103	736	0.630	470	433	3.5	1.8	13.877	B

Appendix N

VISSIM MODELLING TECHNICAL NOTE

TECHNICAL NOTE

DATE:	13 September 2022	**CONFIDENTIALITY:**	Confidential
SUBJECT:	Stansted Mountfitchet Microsimulation Modelling – Revision D		
PROJECT:	Land East of Elsenham	**AUTHOR:**	Alice Connolly
CHECKED:	Eduardo Carbajo Fuertes	**APPROVED:**	Gerry Corrance

1. Introduction

1.1. This Technical Note has been prepared by WSP to detail the process that was undertaken to assess the likely impact of the traffic generated by the development of the "Land to East of Station Road" on the highway network in Stansted Mountfitchet.

1.2. Stansted Mountfitchet is a rural village in Uttlesford, Essex which is located between Elsenham and Bishop's Stortford on land adjacent to the M11. The proposed residential development site ("Land to East of Station Road") is situated 2 miles east of Stansted Mountfitchet and is shown on the parameter plan in Figure 1. The proposed development is likely to increase the number of vehicle trips routing into and through Stansted Mountfitchet due to its location on the route between Elsenham and Bishop's Stortford.

Figure 1 – Parameter plan

1.3. The main route through Stansted Mountfitchet is the B1051 which comprises a number of junctions and sections of carriageway where on-street parking is common and has the potential to restrict flows,

predominantly on Chapel Hill and also on Grove Hill, just north of the Lower Street traffic lights. The performance of the existing junctions and the presence of on-street parking is known to impact the operation of the local road network and therefore, it is important that these constraints are taken into account within this assessment.

2. Methodology

2.1. It is important to capture the complexities of the give-way behaviour that is required to navigate narrow sections with on-street parking in this assessment as it governs the level of throughput that can be achieved. In order to accurately assess the impact of the on-street parking, the production of a VISSIM microsimulation model is required as this gives the flexibility to calibrate the overtaking / parking behaviour as observed on-street. A microsimulation model can assess both link and junction performance and is able to capture the complexities associated with the on-street parking / overtaking behaviours that have been observed in the study area.

2.2. The VISSIM microsimulation model also allows for the correct representation of the traffic signal controller at Grove Hill, as it is able to accurately model the vehicle actuated strategy that operates the signals. Moreover, the model is able to assess the close interaction between the signals and the on-street parking at Grove Hill, which is one of the key constraints of Stansted Mountfitchet.

2.3. When setting up a micro-simulation model it is standard practice to initially build a base model to represent current network conditions. This allows the modeller to compare the model outputs to on-street observations and, if they compare well, gives confidence that the model is fit for purpose and therefore can be relied upon to predict future conditions. This process is known as calibration and validation of the model and is the first step described in this Technical Note.

2.4. Following successful base model validation, this Technical Note then describes the subsequent forecast year testing that was undertaken which assessed the impact of the additional vehicle trips predicted to be generated by committed developments as well as the proposed 200-unit residential development at Elsenham. The scenarios assessed within this Technical Note are listed in Table 1.

Table 1 – Model scenarios

SCENARIO	DESCRIPTION
2022 Base Year	Validated base year model
2027 Reference Case	Validated base year model + 2027 committed developments
2027 With Development	Validated base year model + 2027 committed developments + “Land to East of Station Road” development

3. Model Scope

3.1. A micro-simulation model is the most appropriate tool to model the operation of the B1051 through Stansted Mountfitchet as it can replicate both the existing junction operations as well as the impact of on-street parking on reduced traffic speeds and single file working. The 2022 base model scope has been developed with this in mind, and includes the following:

- All key routes that are likely to receive traffic from the proposed development – Grove Hill, Lower Street, Church Road, Chapel Hill, Cambridge Road, Silver Street and Bentfield Road;
- Both the AM and PM peak periods, identified based on observed data;
- On-street parking on Chapel Hill and Grove Hill: the model incorporates the behaviour of drivers overtaking parked cars as observed in these locations; and
- Vehicle interaction at the following junctions:

- Lower Street / Grove Hill: the model includes the VA signal controller currently operating the junction;
- Chapel Hill / Church Road / Lower Street / Station Road; and
- Bentfield Road / Silver Street / Chapel Hill.

4. Data Collection

4.1. A data collection exercise was undertaken by Intelligent Data Collection Limited on Tuesday 22nd February 2022, including classified turning counts, automatic traffic counts, queue lengths and journey times. The location of the different data collection points is shown in Figure 2.

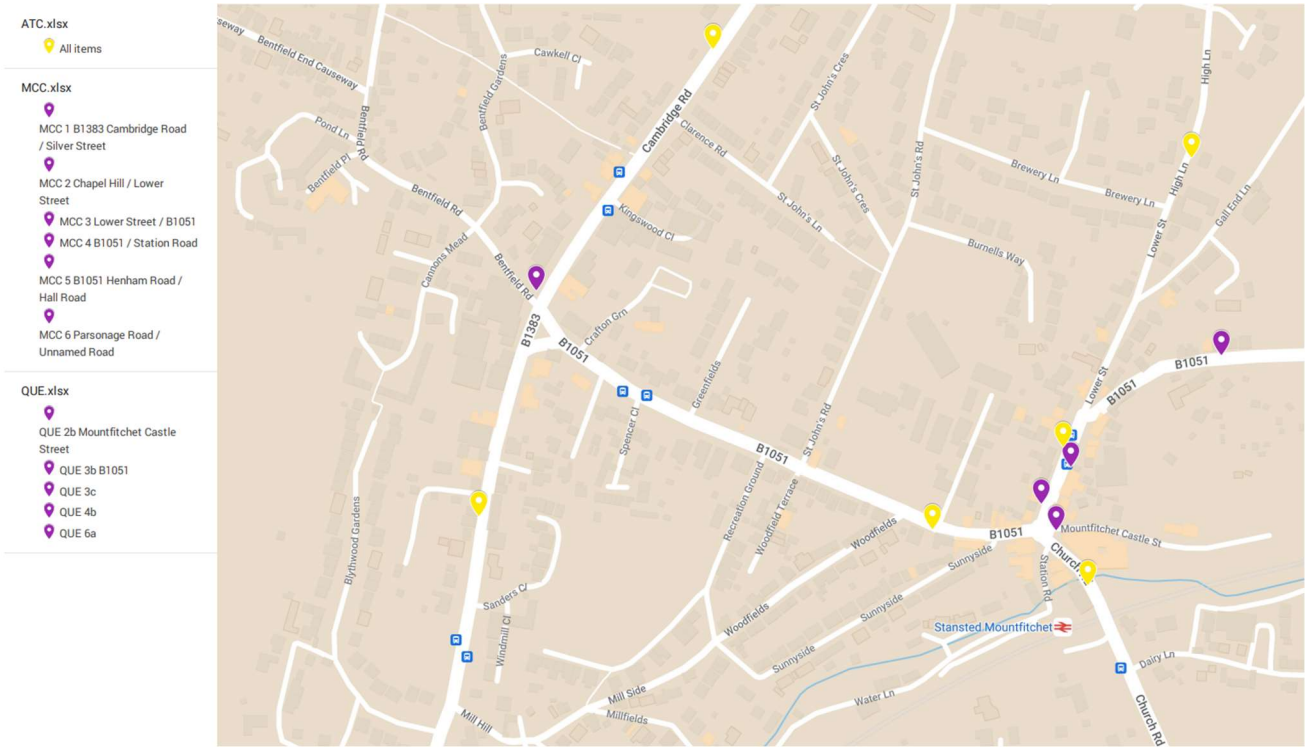


Figure 2 – Data collection

4.2. Details of all data sources used to build the 2022 base model are covered in the following sections.

Traffic Flow Data

4.3. Manually classified turning counts were conducted at three junctions in Stansted Mountfitchet. Turning flows at each location were collated in 15-minute intervals from 07:00-10:00 hours and 16:00-19:00 hours. Vehicles were classified into seven categories; Car, Light Goods Vehicle (LGV), OGV1 (Smaller HGV), OGV2 (Larger HGV), Bus / Coach, Motorbike and Bicycle.

4.4. Data from the following three survey sites was used to inform flows for the 2022 base model:

- Site 4) Lower Street / Grove Hill;
- Site 5) Chapel Hill / Church Road / Lower Street / Station Road; and
- Site 10) Bentfield Road / Silver Street / Chapel Hill.

4.5. Analysis of the observed traffic count data confirmed that the periods of peak traffic flow in Stansted Mountfitchet are 08:00-09:00 and 17:00-18:00. It is best practice to model the worst case in terms of traffic

flows to ensure a robust assessment is made and therefore these hours were selected for the 2022 base model. A network flow diagram for the AM and PM is provided in Appendix A.

Queue length data

4.6. Queue length surveys were also conducted at the same three junctions in Stansted Mountfitchet. Queue lengths in vehicles were collated in 5-minute intervals from 07:00-10:00 hours and 16:00-19:00 hours for each entry lane at the junctions.

4.7. Data from the following three survey sites was used to calibrate the 2022 base model:

- Site 4) Lower Street / Grove Hill (including secondary queue on Grove Hill);
- Site 5) Chapel Hill / Church Road / Lower Street / Station Road; and
- Site 10) Bentfield Road / Silver Street / Chapel Hill.

Travel time data

4.8. Travel times through Stansted Mountfitchet were obtained from video footage collected on the same day as the traffic flow and queue length data. The journey times were recorded for the peak hours (08:00 – 09:00 and 17:00 – 18:00) with a sample size of 60 measurements per hour for each journey time section (see Figure 6). Inconsistency in time synchronisation between the cameras was noted at some locations, which has an impact on the observed journey times. Where possible, WSP has made the effort to adjust these times based on the offset between the cameras.

Site observations

4.9. Observations relating to the operation of the on-street parking and zebra crossings were made using the video footage to ensure a detailed understanding was gained on their impact on the existing operation of the B1051 through Stansted Mountfitchet. These observations helped to capture the capacity impacts of both the existing crossings and on-street parking allowing on-street behaviours to be replicated in the 2022 base model. The following observations were made:

- Parked cars on Grove Hill, just north of the traffic lights have the potential to block the carriageway, but drivers in the area appear to be aware of this and ensure that queues at the southbound signal allow a gap for northbound vehicles to overtake the cars parked in the northbound lane. This courteous / yellow-box style behaviour is key to the successful operation of the traffic lights in this area; and
- Parked cars on both sides of Lower Street, between the Queen's Head pub and the point where Grove Hill and Lower Street diverge restrict throughput as available road space is effectively narrowed. Vehicles are not forced to overtake parked cars as there is space for two moderately sized vehicles to pass each other, but vehicles are observed to slow down considerably;

Bus timetables

4.10. Bus timetable was reviewed to ensure existing bus movements were included in the 2022 base model. The existing timetable information is summarised below:

- The bus service 7 / 7A runs from Stansted Airport to Bishop's Stortford approximately every 2 hours. It travels along Chapel Hill, eastbound to Stansted Airport and westbound to Bishops Stortford;
- The 301 service runs from Saffron Walden to Bishop's Stortford approximately once per hour. It travels northbound and southbound along the B1383 (Silver Street and Cambridge Road); and
- The 306 service runs from Wicken Bonhunt to Bishop's Stortford once in the morning and returns in the late afternoon, prior to the PM peak. In the morning it runs from Silver Street via Bentfield and then west to Bishops Stortford.

4.11. Bus service frequencies during the modelled hours (08:00-09:00 and 17:00-18:00) are shown in Table 2.

Table 2 - Existing Bus Frequencies: Stansted Mountfitchet

ROUTE	TIME PERIOD	DIRECTION	BUSES PER HOUR
7 /7A	AM Peak (08:00-09:00)	Eastbound	1
		Westbound	0
	PM peak (17:00-18:00)	Eastbound	1
		Westbound	1
301	AM Peak (08:00-09:00)	Northbound	0
		Southbound	1
	PM peak (17:00-18:00)	Northbound	1
		Southbound	1
306	AM Peak (08:00-09:00)	Northbound	0
		Southbound	1
	PM peak (17:00-18:00)	Northbound	0
		Southbound	0

5. Base Model Development

5.1. The 2022 base model road network was produced using aerial imagery and a general arrangement layout plan of the new mini roundabout which has recently been constructed at the eastern end of Chapel Hill. The extent of the model was produced in line with the area identified during the model scoping process (see Figure 3 below).

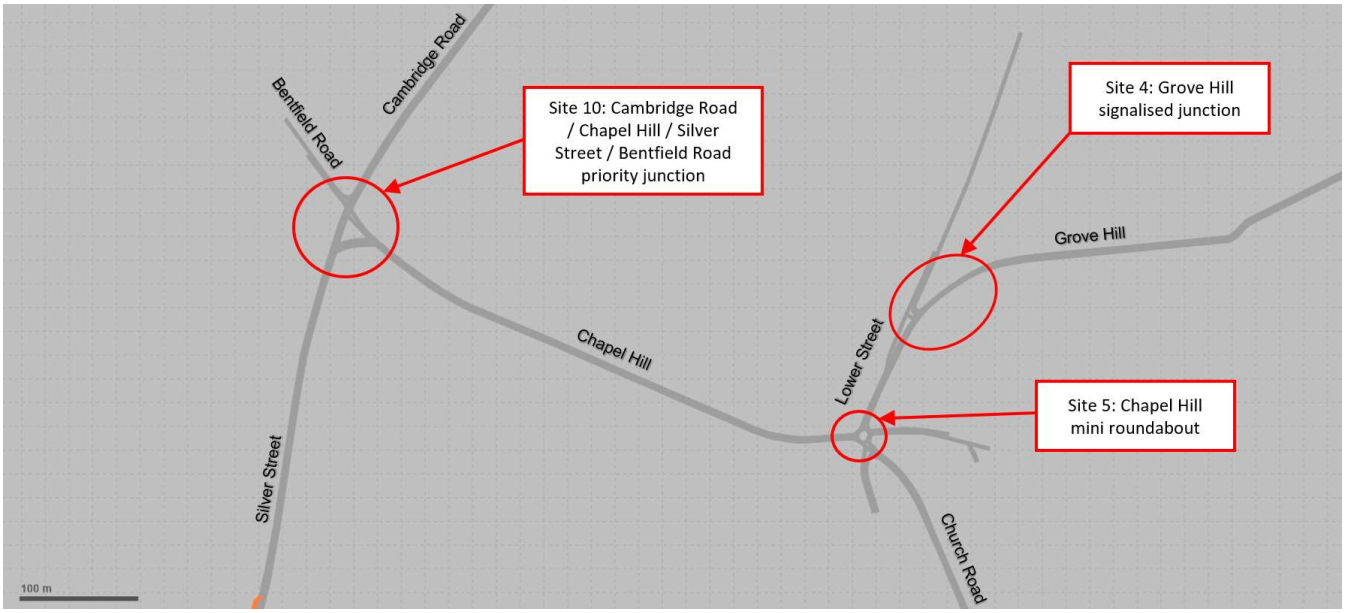


Figure 3 – Stansted Mountfitchet Model Extent

5.2. The following network controls were put in place to ensure that the modelled driving behaviour adequately represents the observed traffic behaviour:

- 30mph speed limits in all locations with the exception of the B1051 between Elsenham and Stansted Mountfitchet with a speed limit of 60 mph and the Castle and Station accesses which were reduced to 20mph zones. Speed distributions for each speed limit were taken from TfL's VISSIM model template[1]
- All turns at junctions were assigned a reduced speed area to ensure that vehicles are able to navigate their way around the network at a realistic speed. Priority rules and conflict areas were defined at all junctions where give way behaviour is present;
- The sections of Cambridge Road and Lower Street that are subject to a narrowing of the carriageway width due to on-street parking were assigned reduced speed areas to replicate the observed low vehicle speeds through these sections of road;
- The shuttle working traffic signals on Grove Hill were included in the model and were set up for both the AM and PM peak. TfL's VA VAP template was used to create the modelled signal controller. This template allows any vehicle actuated junction to be accurately represented in VISSIM providing that site-specific parameters from the on-street signal controller are provided as an input. Minimum and maximum green times, extensions, intergreens, etc. were obtained from the signal specification provided by ECC. Detectors were placed on the network based on aerial images and plans provided by ECC;

5.3. Vehicles were input into the base model in 15-minute intervals in two distinct layers; light vehicles (cars, LGVs and motorbikes) and heavy vehicles (OGV1, OGV2 and buses). This was done to ensure the distribution of heavy vehicles throughout the network was realistic. The composition of vehicles within the light and heavy layers was based on observed totals as shown in Table 3.

Table 3 – Vehicle composition

		AM	PM
Light	Car	86.8%	88.0%
	LGV	13.2%	11.8%
	Motorbike	0.1%	0.2%
Heavy	OGV1	13.0%	0.1%
	OGV2	52.2%	15.4%
	Bus	34.8%	84.6%

5.4. Vehicles were colour-coded in the model based on their corresponding layer of traffic to facilitate its interpretation. The colour scheme used in the model is explained in Table 4.

Table 4 – Vehicle colour scheme

TRAFFIC LAYER	COLOUR
Base year	Blue
Committed Developments	Red
Proposed Development	Green
Parked Cars	Yellow / White

5.5. On-street parking was explicitly modelled on Chapel Hill and Grove Hill. Parked vehicles arrive in the on-street parking bays during the model warm-up period and are assumed to remain parked for the entirety of

[1] Paragraph 2.6.3 at http://content.tfl.gov.uk/traffic-modelling-guidelines.pdf

the core modelled hour, in line-up with on-site observations. Overtaking in the opposing lane was permitted on links where on-street parking has been included. A number of priority rules have been placed on both the impeded (side with parking) and the non-impeded side of the road which instruct vehicles when they should give way to the opposing flow.

5.6. These rules work as follows on Chapel Hill:

- If an eastbound vehicle has entered the on-street parked cars section (location 1 in Figure 4), the westbound vehicles will give way before the first parking bay (location C);
- If a westbound vehicle has entered the on-street parked cars section (location 2), the eastbound vehicles will give way before the first parking bay (location A).

5.7. These two rules effectively give priority to whichever vehicle gets first to the on-street parked cars section, as it was observed in the video footage. As vehicles from opposite directions might reach the parked cars section at the same time and proceed, additional priority rules have been set up in the middle section between the parking bays:

- If an eastbound vehicle has entered the on-street parked cars section (location 1), the westbound vehicles between both parking bays (location D) will give way;
- If a westbound vehicle is waiting between the two parking bays (location D), the approaching eastbound vehicles will give way (location A), despite technically having right of way (the courtesy behaviour observed during the site visit);
- If several westbound vehicles are waiting between the two parking bays (location D) then the upstream vehicles at the primary queue (location C) will stop to avoid blocking the section alongside the parked cars;
- If a westbound vehicle has entered the on-street parked cars section (location 2), the eastbound vehicles between both parking bays (location B) will give way; and
- If an eastbound vehicle is waiting between the two parking bays (location B) then the upstream vehicles at the primary queue (location A) will give way to avoid blocking the section alongside the parked cars.

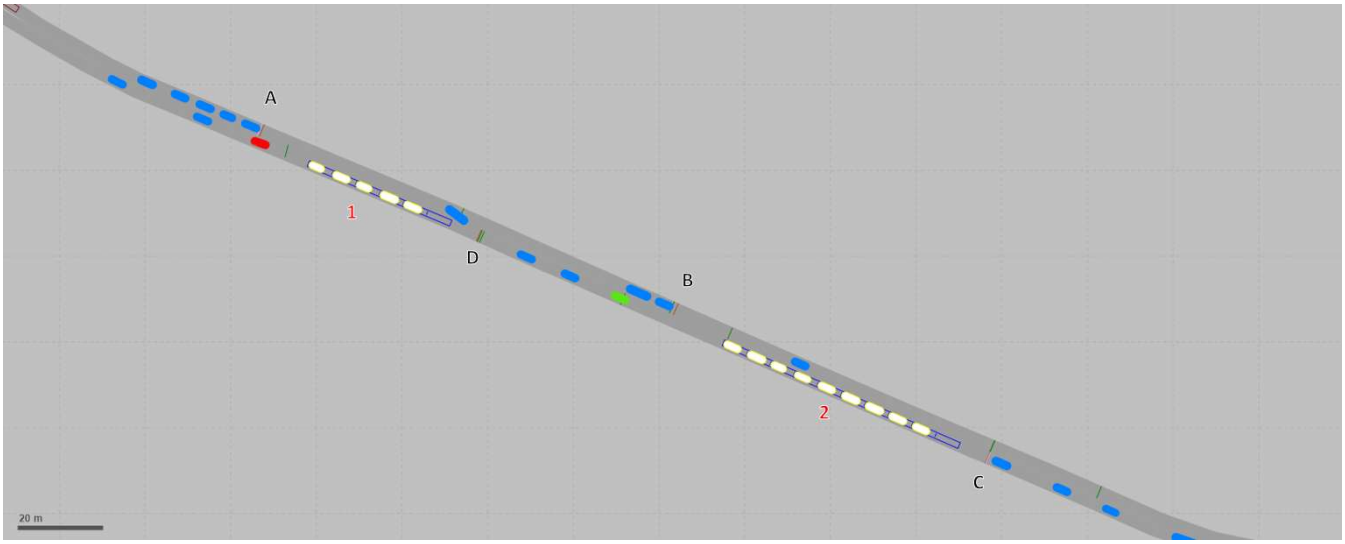


Figure 4 – Chapel Hill. Vehicles from opposite directions approached the on-street parking section at the same time. Eastbound vehicles give way at location B as there are westbound vehicles overtaking the parked cars at the eastern parking bay section (2). The vehicles at location A opt not to proceed as there are vehicles waiting at location B and they could block the western parking bay section, allowing vehicles at location D to continue.

5.8. The following priority rules have been applied on Grove Hill:

- If an eastbound vehicle is approaching or at the on-street parked cars section, the westbound vehicles will give way at the secondary queue (location B in Figure 5), despite technically having right of way;
- If a westbound vehicle is at the on-street parked cars section, the eastbound vehicles will give way (location C); and
- If a westbound vehicle is found between the stopline (location A) and the secondary queue (location B) while the signal for the southbound stage is red, the following non-impeded vehicle will stop at the secondary queue (location B). Drivers were observed to treat this area as they would a yellow box marking, opting to leave the southbound lane clear so that northbound traffic was not blocked from overtaking the parked cars, allowing it to clear the traffic lights.

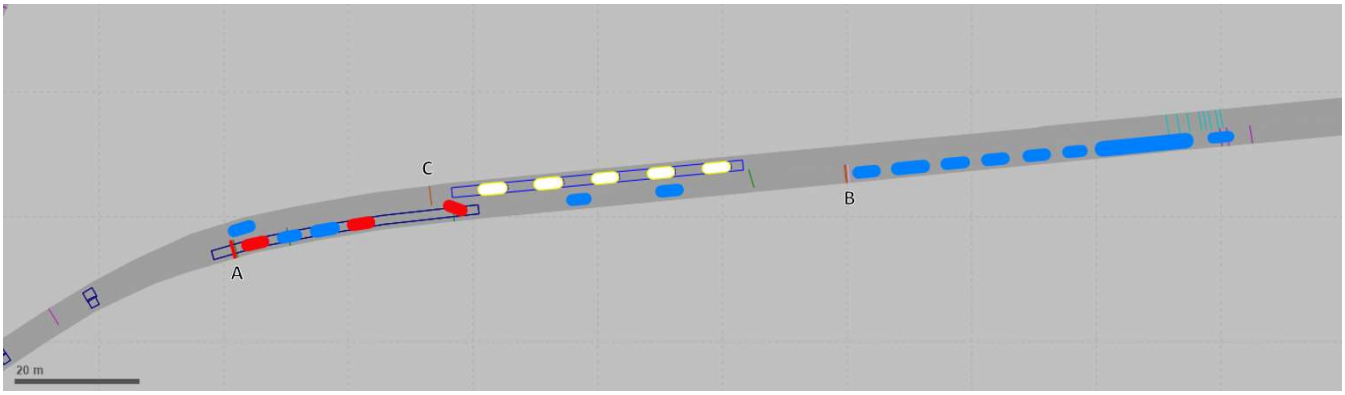


Figure 5 – Southbound traffic signal at Grove Hill. Westbound vehicles observe "yellow-box" style behaviour and opt not to queue alongside the parked cars (white vehicles). This allows the eastbound vehicles to overtake the parked cars and avoid queuing back into the signal controlled area.

5.9. The driving behaviour on the Grove Hill approach was analysed from video footage and replicated in the model in detail. The video footage revealed two different behaviours depending on the level of congestion at the approach. During the AM peak, due to higher levels of congestion drivers are, in general, more hesitant to go through the on-street parking section and hence the headway between vehicles is significantly longer than usual. During the PM peak, the level of congestion is lower and vehicles do not hesitate as much. The headway between vehicles in this case remains more comparable to the rest of the network and thus has not been modified in the model.

6. Results of Base Model Calibration and Validation

6.1. The AM and PM peak hour base models were both compared against observed flow, queue and travel time data to ensure they were replicating on-street behaviour. The following section presents this comparison and demonstrates that the base models are able to replicate observed conditions and meet the Department for Transport (DfT) validation criteria.

6.2. The validation criteria set used was based on DfT guidelines set out in TAG Unit M3.1 Highway Assignment Modelling.

Turning Flow Calibration

6.3. The modelled junction turning flows were compared against observed counts using the GEH statistic as prescribed in WebTAG and summarised below.

$$GEH = \sqrt{\frac{(M-C)^2}{(M+C)/2}}$$

where: GEH is the GEH statistic;

M is the modelled flow; and

C is the observed flow.

6.4. Traffic flow validation was confirmed using the criteria set out in Table 5.

Table 5 - Traffic Flow Validation Criteria (source: TAG Unit 3.1)

Table 2 Link Flow and Turning Movement Validation Criteria and Acceptability Guidelines		
Criteria	Description of Criteria	Acceptability Guideline
1	Individual flows within 100 veh/h of counts for flows less than 700 veh/h	> 85% of cases
	Individual flows within 15% of counts for flows from 700 to 2,700 veh/h	> 85% of cases
	Individual flows within 400 veh/h of counts for flows more than 2,700 veh/h	> 85% of cases
2	GEH < 5 for individual flows	> 85% of cases

6.5. Table 6 and Table 7 demonstrate that all of the modelled turning flows closely match those observed in both the AM and PM peak hours. All turns achieve a GEH of less than 1.5 which is better than the DfT criteria of less than 5. All observed turning flows are less than 700 vehicles per hour and are therefore subject to the 'within 100 vehicles' criteria which they all pass.

Table 6 – AM peak flow calibration statistics

	GEH STATISTICS - AM			INDIVIDUAL FLOWS		
	GEH < 5	GEH < 6	GEH < 10	f < 700	700 < f < 2700	f > 2700
Calibration	100.0%	100.0%	100.0%	100.0%	No Data	No Data

Table 7 – PM peak flow calibration statistics

	GEH STATISTICS - PM			INDIVIDUAL FLOWS		
	GEH < 5	GEH < 6	GEH < 10	f < 700	700 < f < 2700	f > 2700
Calibration	100.0%	100.0%	100.0%	100.0%	No Data	No Data

6.6. Table 6 and Table 7 both demonstrate that the modelled junction turning flows calibrate well against observed data in both time periods which would be expected as the observed flows are being directly input into the model.

6.7. Full turning flow calibration data is provided in Appendix B.

Travel Time Validation

6.8. Travel times from the model were compared against observed travel times using the criteria set out in Table 8.

Table 8 - Journey Time Validation Criteria (source: TAG Unit M3.1)

Table 3 Journey Time Validation Criterion and Acceptability Guideline	
Criteria	Acceptability Guideline
Modelled times along routes should be within 15% of surveyed times (or 1 minute, if higher than 15%)	> 85% of routes

6.9. Table 9 demonstrates that compared to the DfT journey time validation criteria, the travel time routes in the AM peak period fall outside +/- 15% of the observed time, but both (100%) are within 60 seconds (one minute) of the observed time. Table 10 demonstrates that both (100%) of the travel time routes in the PM peak period fall within +/- 15% of the observed time, which therefore means both base models validate against observed data.

Table 9 – AM Peak Travel Time Analysis Summary

	TRAVEL TIME (SECONDS)			
	OBSERVED	MODELLED	DIFF	%DIFF
Westbound: B1051 (E) to Blythwood Gardens	244	196	-48	-19.7%
Eastbound: Blythwood Gardens to B1051 (E)	127	156	29	+22.6%

Table 10 - PM Peak Travel Time Analysis Summary

	TRAVEL TIME (SECONDS)			
	OBSERVED	MODELLED	DIFF	%DIFF
Westbound: B1051 (E) to Blythwood Gardens	301	274	-28	-9.2%
Eastbound: Blythwood Gardens to B1051 (E)	139	137	-1	-1.1%

6.10. The presence of traffic signals and also the modelled courtesy behaviour around parked cars can result in the modelled journey times being relatively variable, therefore achieving an acceptable level of validation against an observed average time is a good indication that the model replicates reality.

6.11. To give further confidence that the 2022 base model is able to replicate observed conditions, a more detailed journey time validation exercise has been undertaken. The eastbound and westbound routes presented above were disaggregated into sub-sections (see Figure 6) to allow the model to be validated in more detail. The modelled and observed travel times are compared in more detail in Table 11 and Table 12.

6.12. It is worth noting that inconsistency in time synchronisation between the cameras has been found at some locations, most prominently at sections 103 and 106 between the Chapel Hill roundabout and Crafton Green. This in turn has an impact on the observed journey times, and therefore the results shown below should be taken cautiously.

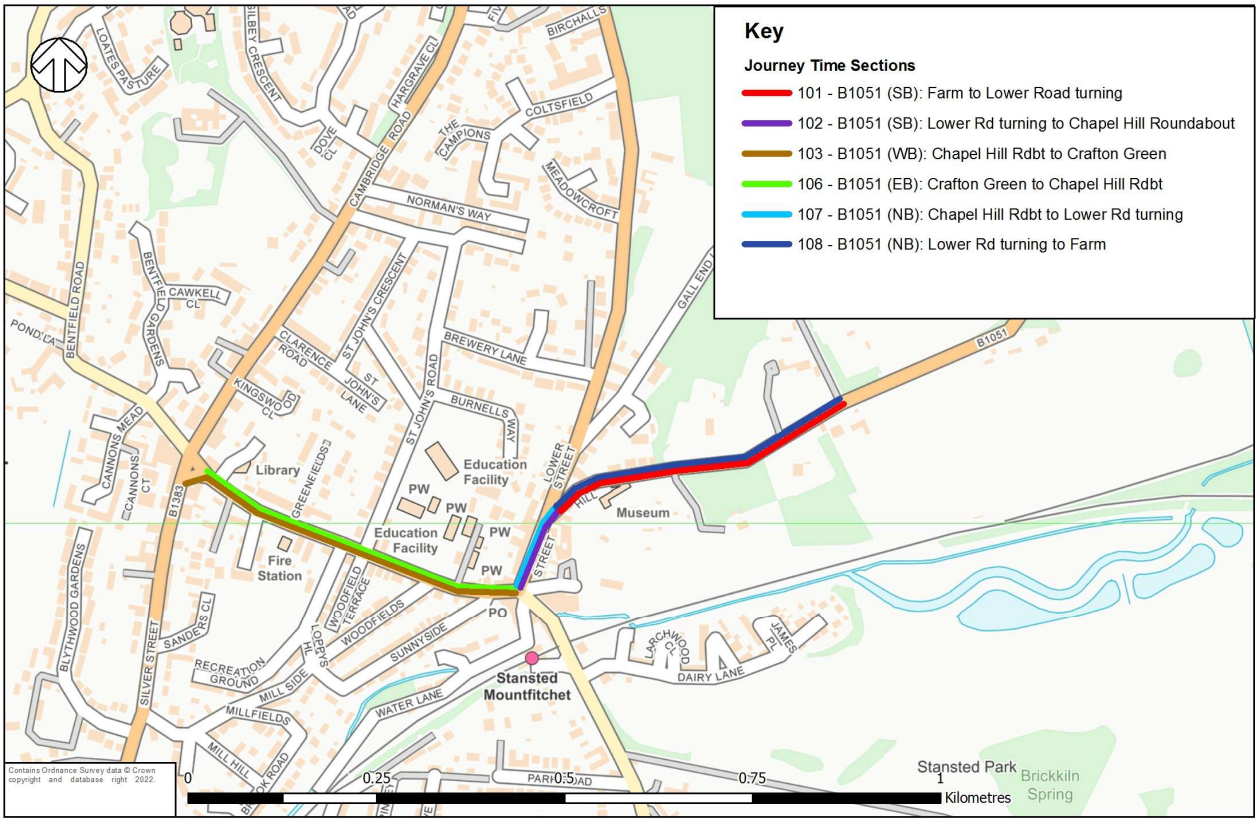


Figure 6 – Travel Time Sub-sections

6.13. Table 11 demonstrates that the travel time sub-sections compare relatively well against observed times. In the AM model, only one travel time sub-section falls within +/- 15% of the observed time. As the travel time sub-sections are all short, achieving a modelled time within 15% of the observed is challenging as this often means being with 5-10 seconds of the observed time. All (100%) of the travel time sub-sections are within 60 seconds of the observed times. This meets the WebTAG criteria of 'more than 85%'.

Table 11 - AM Peak Detailed Travel Time Analysis

TRAVEL TIME ROUTE, SUB-SECTION	TRAVEL TIME (S)		MODELLED VS OBSERVED	
	OBSERVED	MODELLED	DIFF	% DIFF
101 - B1051 (SB): Farm to Lower Road turning	78	88	11	+14.0%
102 - B1051 (SB): Lower Rd turning to Chapel Hill Roundabout	26	20	-5	-20.7%
103 - B1051 (WB): Chapel Hill Rdbt to Crafton Green	140	87	-53	-38.1%
106 - B1051 (EB): Crafton Green to Chapel Hill Rdbt	63	95	32	+51.7%
107 - B1051 (NB): Chapel Hill Rdbt to Lower Rd turning	39	32	-8	-19.2%
108 - B1051 (NB): Lower Rd turning to Farm	25	29	4	+15.3%

6.14. In the PM model, 33% of the travel time sub-sections fall within +/- 15% of the observed time. Of the four sub-sections that do not fall within 15% of the observed travel time, all four fall within 35% of the observed travel time. All the travel time sub-sections are within 60 seconds of the observed times, meeting the WebTAG criteria of 'more than 85%'.

Table 12 - PM Peak Detailed Travel Time Analysis

TRAVEL TIME ROUTE, SUB-SECTION	TRAVEL TIME (S)		MODELLED VS OBSERVED	
	OBSERVED	MODELLED	DIFF	% DIFF
101 - B1051 (SB): Farm to Lower Road turning	148	171	23	15.8%
102 - B1051 (SB): Lower Rd turning to Chapel Hill Roundabout	22	17	-5	-23.6%
103 - B1051 (WB): Chapel Hill Rdbt to Crafton Green	132	86	-46	-34.7%
106 - B1051 (EB): Crafton Green to Chapel Hill Rdbt	75	81	6	7.4%
107 - B1051 (NB): Chapel Hill Rdbt to Lower Rd turning	32	27	-6	-18.2%
108 - B1051 (NB): Lower Rd turning to Farm	31	30	-1	-3.7%

6.15. Focussing on the absolute difference between modelled and observed travel times demonstrates that the two compare favourably. The largest difference in both the peak periods can be seen in section 103 where the modelled time is underestimated by 53 seconds in the AM peak and 46 seconds in the PM peak. Section 103 contains the Chapel Hill parked cars, which cause a significant amount of journey time variability in this area of the network. If a vehicle arrives when no vehicles are approaching on the opposite direction it may have a relatively short travel time whilst the opposite can result in a much longer travel time. An average travel time through this section is therefore highly sensitive to when vehicles arrive to each approach of the parked cars section. Achieving a modelled travel time within 60 seconds of the observed travel time in both peak periods in such a variable location is therefore deemed to be a good indication that the model is able to replicate observed conditions.

6.16. Overall, the modelled travel times compare well to observed times which gives confidence that the model is able to replicate observed conditions.

Queue Length Validation

6.17. Queue lengths from the model have been compared against observed queue lengths in 5-minute intervals. The modelled queue lengths represent the maximum queue length occurring within each 5-minute interval. There are no formal queue length validation criteria prescribed by industry guidance, but in general the length, variability and profile of modelled queues throughout the hour should match observations.

6.18. The observed and modelled queue lengths have been compared in 5-minute intervals. It is expected that modelled queue lengths will be less variable than the observed queues as modelled flows have been input in 15-minute intervals whereas the vehicle arrival rate on street will be entirely random. We would expect modelled queue lengths to be more stable, as the arrival rate of traffic should be more consistent within each 15-minute input period. Generally this is the case when comparing the modelled and observed queues.

6.19. It should be noted that observed queue length data is particularly susceptible to human error. A VISSIM model is able to accurately monitor the maximum length of a queue to the nearest centimetre based on a pre-defined definition of what constitutes a queue. In the case of VISSIM, the default definition of a queue is a string of vehicles no more than 20m apart who are travelling less than 3.1mph and not subsequently above 6.2mph. The observed data cannot possibly be recorded to this level of precision because it is not possible for a human observer to achieve. Also, for a human observer, the definition of a queue is extremely subjective so is likely to vary between observers.

6.20. Full queue length validation data is provided in Appendix B.

Validation Summary

6.21. Overall, the modelled flows, journey times and queue lengths compare well to those observed and therefore it is concluded that the 2022 base model is able to independently replicate observations and is therefore fit for forecasting. The model provides a good representation of the existing operation of the B1051 through Stansted Mountfitchet, against which the impact of additional committed development and the proposed development vehicle trips can be assessed.

7. Model Forecasting

7.1. The validated base model has been used as a basis for producing a forecast of traffic conditions in Stansted Mountfitchet for an assessment year of 2027. The forecast includes calculation of traffic associated with committed development sites in the vicinity of Stansted Mountfitchet and Elsenham. To avoid double counting, Tempro growth has not been applied to the 2027 traffic forecast.

Committed Development Trips

7.2. The location and anticipated build-out of committed development sites (local to Elsenham and Stansted Mountfitchet) has been identified using information published by Uttlesford District Council. The Transport Assessment report details the committed sites that have been taken into account. The vehicle trip generation for each committed development site has been assessed and then assigned to the local highway network, including to the B1051 and routes through Stansted Mountfitchet.

7.3. The identified committed development sites result in an extra 146 vehicular trips being added to the AM peak base model and 166 extra trips being added to the PM peak base model respectively. The majority of these trips have been assigned to Lower Street, Chapel Hill and Silver Street (on the route to/from Bishop's Stortford).

Proposed Development Trips

7.4. Previously agreed vehicle trip rates have been used to assess the total number of development related vehicular trips. These vehicle trips have then been distributed based on Journey to Work data from the 2011 Census (to determine where development trips are likely to go) and then assigned to routes to each destination using Google Maps and Trafficmaster journey time data (to determine which routes trips are likely to take).

7.5. The proposed development is predicted to result in a total of 53 vehicular trips being added to the Stansted Mountfitchet road network in the AM peak and 56 vehicle trips being added to the Stansted Mountfitchet road network in the PM peak respectively. The majority of these additional vehicle trips have been assigned to Silver Street and Grove Hill (route from Bishop's Stortford), as per the committed development assignment.

8. Forecast Model Results

8.1. VISSIM is a stochastic micro-simulation modelling package and therefore is able to take into account the differences caused by small changes in vehicular arrival rates, desired speeds, vehicle dwell times and accelerations amongst other factors that occur within the daily variation of traffic flows. When a single model run is conducted, a random seed is selected which governs the randomly assigned elements of the model. A different random seed can result in different outcomes for the same model due to the variation of these small random elements.

8.2. Ultimately the level of flow will remain roughly the same between runs but the arrival pattern and other random elements will vary. For this reason, it is best practice to conduct a number of VISSIM model runs, each using a different random seed. This gives the modeller an opportunity to ascertain how sensitive the model is to small variations and also means any results can be averaged for all runs to provide an average outcome rather than rely on the results of a single run (single random seed) which could be particularly better or worse.

8.3. A total of 20 simulation runs were conducted for each of the model scenarios. One simulation run in the AM peak (random seed 9) was excluded from the analysis as some of the driving behaviour observed during this run was deemed unrealistic due to modelling limitations. The main issue related to the way in which modelled vehicles are not reliably able to pre-empt the blocking of downstream sections of road. Local drivers were observed to consistently apply a courtesy behaviour to prevent gridlock from occurring in narrow areas of the network but vehicles in the model were not able to reliably do this due to their inability to predict outcomes before they've happened. Any runs where model limitations result in gridlock situations occurring have been excluded from the results analysis.

8.4. Three model scenarios have been set up for both the AM and PM peaks, and are summarised in Table 13.

Table 13 – Forecast Models

MODEL NAME	CODE (GRAPH LEGEND)	DESCRIPTION
2022 Base	2022	2022 validated base model
2027 Reference Case	2027+C	2022 base model + committed developments
2027 With Development	2027+C+D	2022 base model + committed developments + trips associated with 200-unit proposed development

Overall Network Performance Results

8.5. A number of network wide statistics have been extracted for the three models which indicate how the overall performance of the network compares between the three scenarios. The results presented below are the average of all runs for the full modelled periods.

Table 14 – Network Performance Model Results

NETWORK STATISITIC	AM PEAK			PM PEAK		
	2022	2027+C	2027+C+D	2022	2027+C	2027+C+D
Total Time (h)	89	102	109	87	95	100
Total Distance (km)	2,709	3,104	3,233	2,544	2,816	2,907
Total Vehicles	2,457	2,620	2,671	2,516	2,666	2,723
Total Delay (h)	30	36	41	33	33	37
Average Time (s) / Vehicle	130	140	147	128	129	133
Average Time (s) / Mile	190	190	196	204	196	200
Average Distance (m) / Vehicle	1,103	1,185	1,210	1,011	1,056	1,067
Average Speed (mph)	19	19	18	18	18	18
Average Speed (kph)	31	31	30	29	30	29
Average Delay / Vehicle (s)	44	49	56	47	45	48

8.6. The network wide statistics show that total time and distance increase in a linear trend with the number of vehicles in the network. Delay either increases slightly in the AM or remains stable in the PM due to the signal improvements at Grove Hill.

8.7. Looking at the average time and speed per vehicle helps to demonstrate the impact that will be felt by the average driver. For example, the VISSIM model predicts that the average driver will experience an increase of 7 seconds in their journey time for the scenario with the proposed development compared to the reference case during the AM peak. In the PM peak, the average journey time would increase by 4 seconds. The predicted increases in average travel times for such short routes are unlikely to be perceptible to road users.

8.8. In terms of speeds, the average driver is predicted to experience a reduction of 1mph in their average speed in both the AM and PM peaks.

Queue Length Results

8.9. Table 15 shows the queue lengths obtained at the approaches to all junctions and all scenarios, as well as the queues at the approaches to the on-street parking sections in Chapel Hill. The table shows both the hourly maximum and hourly average of the maximum queue recorded every 5-minute interval averaged over all simulation runs. A full set of queue length comparison graphs for each stopline are provided in Appendix C.

Table 15 – Queue results (m)

Junction	Queue Counter	AM			PM		
		2022	2027+C	2027+C+D	2022	2027+C	2027+C+D
Maximum Queues							
Junction 4 - Grove Hill signalised junction	41 - J4 - Lower Street LT	33.3	33.7	43.7	12.9	13.1	16.1
	42 - J4 - Lower Street RT	36.3	35.8	45.8	15.5	16.0	19.2
	43 - J4 - B1051 (N) RT	5.6	14.6	14.1	2.8	2.8	3.9
	44 - J4 - B1051 (S) Signal Stopline	48.5	64.0	60.4	51.6	65.5	66.7
	45 - J4 - B1051 (N) Signal Stopline	29.6	23.3	31.5	25.9	23.3	25.0
	46 - Grove Hill (2nd queue)	109.7	92.8	108.5	114.2	57.7	60.2
Junction 5 - Chapel Hill roundabout	51 - J5 - B1051 (N)	54.8	60.8	69.8	29.1	42.1	42.4
	52 - J5 - Castle	1.6	2.1	2.1	6.4	8.6	9.6
	53 - J5 - Church Road	51.7	70.4	65.3	42.0	46.7	51.5
	54 - J5 - Station Road LT	2.0	3.4	4.4	14.0	13.6	19.6
	55 - J5 - Station Road RT	1.1	1.7	2.2	5.3	5.2	5.2
	56 - J5 - Chapel Hill	58.5	69.0	78.5	65.5	82.0	81.5
Junction 10 - Cambridge Road / Chapel Hill / Sliver Street / Bentfield Road priority junction	101 - J10 - Cambridge Road (N) RT	10.9	17.8	43.1	21.5	17.7	29.3
	102 - J10 - Chapel Hill LT	58.3	87.3	106.0	18.9	35.6	31.0
	103 - J10 - Chapel Hill RT	24.5	29.1	25.9	35.2	39.6	50.1
	104 - J10 - Silver Street RT	59.6	79.8	118.7	141.5	150.3	169.6
	105 - J10 Bentfield Road LT	12.7	12.9	19.1	15.4	15.1	18.1
	106 - J10 Bentfield Road RT	14.3	13.9	20.1	16.0	16.0	18.8
Chapel Hill	991 - Chapel Hill (E)	74.0	96.1	99.8	60.3	85.4	97.8
	992 - Chapel Hill (W)	89.3	110.6	161.1	75.6	103.4	118.0
Average Queues							
Junction 4 - Grove Hill signalised junction	41 - J4 - Lower Street LT	19.8	23.3	27.4	7.3	8.3	9.1
	42 - J4 - Lower Street RT	23.5	26.2	30.3	11.9	13.1	13.6
	43 - J4 - B1051 (N) RT	2.6	5.7	8.1	1.6	1.2	1.7
	44 - J4 - B1051 (S) Signal Stopline	37.2	44.8	45.9	43.4	54.7	56.5
	45 - J4 - B1051 (N) Signal Stopline	26.1	18.8	24.5	23.0	20.8	22.2
	46 - Grove Hill (2nd queue)	91.4	78.0	89.3	87.7	50.3	56.8
Junction 5 - Chapel Hill roundabout	51 - J5 - B1051 (N)	29.7	39.7	52.4	13.0	20.2	23.1
	52 - J5 - Castle	0.7	0.9	1.0	4.6	6.1	5.6
	53 - J5 - Church Road	34.0	39.8	42.7	29.7	36.8	41.6
	54 - J5 - Station Road LT	0.5	0.9	1.1	7.3	7.9	10.4
	55 - J5 - Station Road RT	0.3	0.7	0.7	3.1	3.6	3.5
	56 - J5 - Chapel Hill	37.5	49.6	58.8	41.6	65.0	65.2
Junction 10 - Cambridge Road / Chapel Hill / Sliver Street / Bentfield Road priority junction	101 - J10 - Cambridge Road (N) RT	4.2	6.3	10.9	12.7	12.3	14.7
	102 - J10 - Chapel Hill LT	31.4	45.8	50.9	15.4	21.8	22.9
	103 - J10 - Chapel Hill RT	16.2	19.2	19.6	17.3	17.9	22.1
	104 - J10 - Silver Street RT	46.7	58.7	73.7	80.1	111.6	128.1
	105 - J10 Bentfield Road LT	9.3	10.0	11.5	10.6	10.8	12.9
	106 - J10 Bentfield Road RT	11.3	11.8	13.1	12.2	12.7	14.2
Chapel Hill	991 - Chapel Hill (E)	62.0	78.6	83.8	51.5	68.5	73.8
	992 - Chapel Hill (W)	62.0	85.2	103.2	60.7	83.1	93.4

8.10. Queue lengths remain similar between the forecast year scenarios for both the AM and PM peaks. The most significant increases in maximum queue length between the with and without proposed development scenarios occurred in these locations:

- Chapel Hill western approach to the on-street parked vehicles section – AM queue increases by 51m (~ 9 vehicles), PM queue increases by 15m (~ 3 vehicles); and
- Silver Street right turn onto Chapel Hill – AM queue increases by 39m (~ 7 vehicles), PM queue increases by 19m (~ 4 vehicles).

8.11. At Grove Hill the queues remain at a similar level to the base year in the AM Peak, while in the PM the queues are significantly reduced due to the improvements at the signals.

8.12. The average queue results help to reinforce the conclusions obtained from the maximum queues. The locations were the average queues are expected to increase the most significantly are the Chapel Hill westbound queue and the Silver Street right turn onto Chapel Hill. However, the average queue length is not expected to increase substantially in either location; 3 additional vehicles on Silver Street in the AM and PM peak, 3 additional vehicles on Chapel Hill westbound in the AM peak, and 1 additional vehicle on Chapel Hill westbound in the PM peak.

8.13. Due to the proximity between the Lower Street / Grove Hill junction (J4) and the Chapel Hill mini roundabout (J5), a more detailed analysis has been performed on the Lower Street approach to the Lower Street / Grove Hill junction (queue counter #44) and the Lower Street approach to the Chapel Hill mini roundabout (queue counter #51) to determine the likelihood of the queues reaching back to the upstream junction.

8.14. Maximum queue lengths have been obtained in 15-second intervals for each simulation run. The tables below show the absolute maximum queue recorded at any point in the modelled period and within any of the modelled runs, as well as the percentage of runs where these queues reach the upstream junction and the longest duration of these situations in any of the runs.

8.15. Table 16 and Table 17 shows the queue propagation analysis for the AM and PM peaks. The results show that in the AM and PM peak, the addition of the proposed development traffic does not result in the either the northbound or southbound queue reaching the upstream junction in any of the simulation runs.

Table 16 – Lower Street / mini roundabout queue propagation analysis – AM peak

Scenario	Queue direction	Distance between junctions (m)	Absolute maximum queue (m)	Percentage of runs where queue reaches upstream junction (%)	Maximum length of time during which queue reaches upstream junction (s)
2022	Northbound	110	49	0	-
	Southbound	110	55	0	-
2027+C	Northbound	110	64	0	-
	Southbound	110	61	0	-
2027+C+D	Northbound	110	60	0	-
	Southbound	110	70	0	-

Table 17 – Lower Street queue propagation analysis – PM peak

Scenario	Queue direction	Distance between junctions (m)	Absolute maximum queue (m)	Percentage of runs where queue reaches upstream junction (%)	Maximum length of time during which queue reaches upstream junction (s)
2022	Northbound	110	52	0	-
	Southbound	110	29	0	-
2027+C	Northbound	110	65	0	-
	Southbound	110	42	0	-
2027+C+D	Northbound	110	67	0	-
	Southbound	110	42	0	-

Journey Time Results

8.16. Table 18 shows the average journey time between Grove Hill (at Gorsefield school) and the Silver Street / Mill Side junction via Chapel Hill. For the westbound direction, the Grove Hill end of the section has been extended up to the M11 bridge to capture the additional delay caused by queuing vehicles on Grove Hill.

Table 18 – Average Journey times (min) through Stansted Mountfitchet

SCENARIO	WESTBOUND		EASTBOUND	
	AM	PM	AM	PM
2022	5.8	7.2	3.3	3.1
2027 Reference Case	5.3	5.3	4.1	3.5
2027 With Development	5.5	5.4	4.4	3.7

8.17. The average journey time westbound is expected to increase by 12 seconds in the AM peak and 8 seconds in the PM peak due to the addition of the proposed development compared to the reference case. The average journey time eastbound is expected to increase by 18 seconds in the AM peak and 9 seconds in the PM peak.

8.18. The average journey times westbound through Stanstead Mountfitchet in the reference case and proposed development scenarios have decreased from the base scenario due to the improvements to the signals on Grove Hill.

8.19. The effect of the additional traffic from the proposed development does not cause significant increases in journey time in either the westbound or eastbound direction and would not result in a perceptible impact on drivers travelling between Elsenham and Bishops Stortford.

8.20. Figure 7 shows a breakdown of the average journey time for each road sections and scenario during the AM peak. The graph demonstrates that the majority of the increase in average journey time through Stanstead Mountfitchet is concentrated on Chapel Hill eastbound (journey time section #106). The additional of the proposed development would result in an increase in average journey time of 13 seconds. The significant decrease in average journey time between the base year and forecast year scenarios in journey time section #101 is associated with the signal improvements on Grove Hill.

8.21. The increase in average journey time for the rest of the road sections is not greater than 10 seconds and is not likely to be perceptible to the average driver.

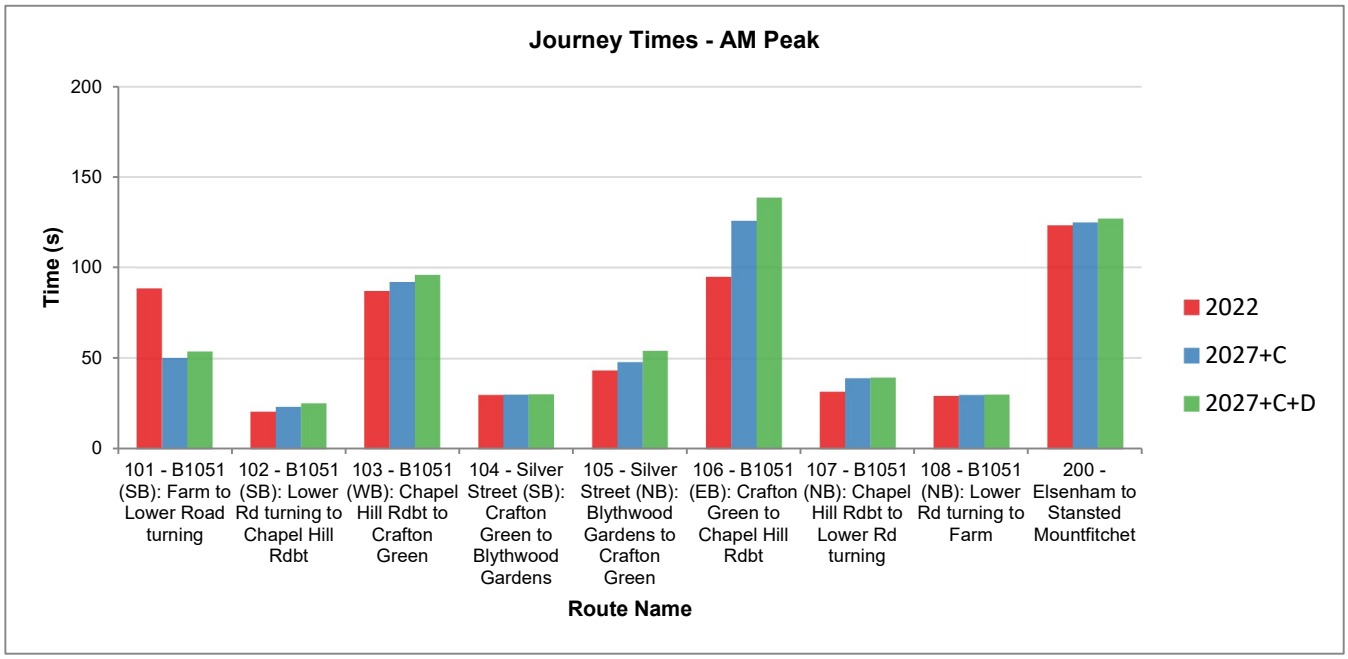


Figure 7 – AM peak modelled travel times

8.22. Figure 8 illustrates the average journey time for all the road sections and scenarios during the PM peak. The increase in journey times for all of the road sections is no greater than 10 seconds and is therefore not likely to be perceptible by drivers. As with the AM peak, the decrease in journey times between the base year scenarios and the forecast year scenarios at journey time section #101 and journey time section #200 is associated with the improvements to the Grove Hill signals.

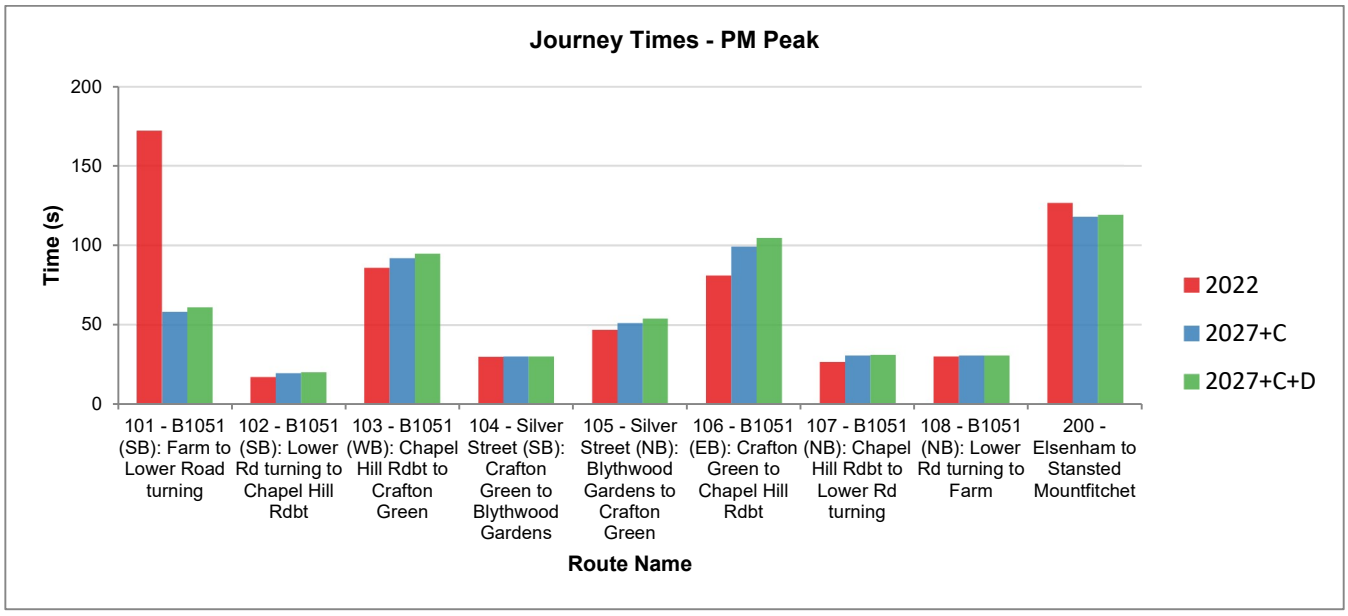


Figure 8 - PM peak modelled travel times

Delay Results

8.23. Table 19 shows the average delay per approach and scenario. The delay shown in the table is the average delay recorded every 15-minute interval weighted by turning proportion and averaged over all simulation runs.

Table 19 – Average delay (s) per approach

Junction	Approach	AM			PM		
		2022	2027+C	2027+C+D	2022	2027+C	2027+C+D
Junction 4 - Grove Hill signalised junction	Grove Hill	85.8	48.4	53.9	170.2	50.9	54.5
	Lower Street (S)	21.4	28.8	29.3	16.5	20.8	21.3
	Lower Street (N)	13.4	17.1	20.7	6.6	8.0	8.4
Junction 5 - Chapel Hill roundabout	Lower Street	12.3	15.4	16.9	10.6	13.5	15.6
	Station Car Park	15.9	20.3	22.3	15.0	20.9	22.9
	Church Road	15.7	20.4	24.2	29.1	33.1	44.3
	Station Road	10.9	12.5	13.5	9.7	11.7	11.6
	Chapel Hill	8.2	10.6	12.4	5.4	7.7	8.3
Junction 10 - Cambridge Road / Chapel Hill / Silver Street / Bentfield Road priority junction	Cambridge Road	15.5	15.7	17.2	13.2	13.3	13.8
	Chapel Hill	12.3	16.1	17.0	8.5	9.5	10.5
	Silver Street	14.5	17.9	23.9	19.8	24.7	26.9
	Bentfield Road	8.9	10.2	13.4	10.6	11.5	13.6
Chapel Hill	Westbound	29.0	31.0	33.1	33.7	38.3	40.4
	Eastbound	43.6	69.4	80.1	30.8	43.1	46.6

8.24. The table demonstrates that the level of delay experienced at most of the approaches to the junctions remains similar between the forecast year scenarios in the AM and PM peak. The most significant increase occurs at Chapel Hill eastbound in the AM peak, where the average delay is expected to increase by 10 seconds for the scenario with the proposed development. On the other hand, the delay at Grove Hill significantly gets reduced due to the signal improvements.

Summary

8.25. The VISSIM model demonstrates that the impact of additional vehicle trips on the local road network in Stansted Mountfitchet due the proposed residential development in Elsenham will not be significant. There are expected to be some small increases in queue lengths, journey times, and delay experienced, concentrated mainly on Chapel Hill, but these are not expected to be perceptible to drivers. In some locations, improvements to journey times, queue lengths and delay between the base year scenario and the reference case scenario will be experienced, associated with the planned signal improvements at Grove Hill.

9. Sensitivity Test

9.1. A sensitivity test was performed on the forecast year scenarios to consider the additional committed development trips from the “Land South of Henham Road” development.

9.2. The committed development is predicted to result in 29 additional vehicular trips through Stansted Mountfitchet in the AM peak and 28 trips in the PM Peak.

9.3. A total of 20 simulation runs were conducted for each of the model scenarios. Four simulation runs in the AM peak (random seed 3, 9, 12 and 17) and one simulation run in the PM peak (random seed 2) was

excluded from the analysis as some of the driving behaviour observed during these runs was deemed unrealistic due to modelling limitations.

Overall Network Performance

9.4. A number of network wide statistics have been extracted for the three models which indicate how the overall performance of the network compares between the three scenarios. The results presented below are the average of all runs for the full modelled periods.

Table 20 – Network Performance Model Results

NETWORK STATISITIC	AM PEAK			PM PEAK		
	2022	2027+C	2027+C+D	2022	2027+C	2027+C+D
Total Time (h)	89	107	115	89	98	103
Total Distance (km)	2,709	3,191	3,316	2,544	2,865	2,956
Total Vehicles	2,455	2,647	2,702	2,516	2,698	2,753
Total Delay (h)	30	40	45	33	35	38
Average Time (s) / Vehicle	130	146	153	128	131	134
Average Time (s) / Mile	190	194	201	204	199	201
Average Distance (m) / Vehicle	1,104	1,205	1,227	1,011	1,062	1,074
Average Speed (mph)	19	19	18	18	18	18
Average Speed (kph)	31	30	29	29	29	29
Average Delay / Vehicle (s)	44	54	60	47	47	50

9.5. The results show that total time, distance and delay increase with the number of vehicles in the network. It is expected that the average driver will experience a journey time increase of 7 seconds in the AM peak and 3 seconds in the PM peak between the reference case and the proposed development. The average driver is expected to experience an average speed reduction of 1mph in the AM peak and no reduction of their speed in the PM peak. The predicted changes to journey times and speeds for such short routes are not likely to be perceptible to road users.

Queue Length Results

9.6. Table 15 shows the queue lengths obtained at the approaches to all junctions and all scenarios, as well as the queues at the approaches to the on-street parking sections in Chapel Hill. The table shows both the hourly maximum and hourly average of the maximum queue recorded every 5-minute interval averaged over all simulation runs.

Table 21 – Queue results (m)

Junction	Queue Counter	AM			PM		
		2022	2027+C	2027+C+D	2022	2027+C	2027+C+D
Maximum Queues							
Junction 4 - Grove Hill signalised junction	41 - J4 - Lower Street LT	33.8	39.5	36.1	13.6	12.7	13.3
	42 - J4 - Lower Street RT	37.0	41.7	38.3	15.8	15.7	16.4
	43 - J4 - B1051 (N) RT	5.3	8.8	14.6	3.0	3.3	2.0
	44 - J4 - B1051 (S) Signal Stopline	51.7	57.8	58.4	52.4	72.0	71.7
	45 - J4 - B1051 (N) Signal Stopline	29.9	28.5	29.3	25.9	25.8	25.5
	46 - Grove Hill (2nd queue)	115.8	119.3	123.7	115.4	61.0	67.3
Junction 5 - Chapel Hill roundabout	51 - J5 - B1051 (N)	62.6	63.4	81.6	28.1	33.0	53.0
	52 - J5 - Castle	1.7	2.1	3.6	6.8	10.9	9.6
	53 - J5 - Church Road	48.6	59.9	72.9	42.7	47.0	51.4
	54 - J5 - Station Road LT	2.4	4.4	5.0	14.1	16.7	19.1
	55 - J5 - Station Road RT	1.3	2.3	2.3	5.3	5.0	5.5
	56 - J5 - Chapel Hill	50.6	80.7	94.4	65.9	77.3	92.5
Junction 10 - Cambridge Road / Chapel Hill / Sliver Street / Bentfield Road priority junction	101 - J10 - Cambridge Road (N) RT	9.7	41.5	64.0	22.1	25.0	30.5
	102 - J10 - Chapel Hill LT	61.6	115.9	119.1	19.3	31.4	37.0
	103 - J10 - Chapel Hill RT	25.0	37.7	38.1	35.9	44.9	42.8
	104 - J10 - Silver Street RT	62.8	109.0	180.7	147.3	177.1	198.6
	105 - J10 Bentfield Road LT	12.4	16.3	24.5	15.6	16.1	16.8
	106 - J10 Bentfield Road RT	14.2	16.6	25.1	16.3	16.7	18.1
Chapel Hill	991 - Chapel Hill (E)	76.5	99.1	113.9	59.5	85.9	95.2
	992 - Chapel Hill (W)	87.3	139.9	185.1	76.1	101.9	117.3
Average Queues							
Junction 4 - Grove Hill signalised junction	41 - J4 - Lower Street LT	20.2	24.5	25.3	7.4	8.8	8.7
	42 - J4 - Lower Street RT	23.8	27.8	28.5	11.9	13.5	13.6
	43 - J4 - B1051 (N) RT	2.4	4.9	8.2	1.7	1.5	1.1
	44 - J4 - B1051 (S) Signal Stopline	37.3	44.8	45.0	43.3	56.2	58.9
	45 - J4 - B1051 (N) Signal Stopline	25.9	21.2	24.8	22.9	21.6	23.1
	46 - Grove Hill (2nd queue)	92.6	84.9	95.4	88.0	52.6	59.1
Junction 5 - Chapel Hill roundabout	51 - J5 - B1051 (N)	30.8	41.6	56.9	12.8	19.0	24.2
	52 - J5 - Castle	0.6	1.3	1.5	4.6	6.4	6.1
	53 - J5 - Church Road	34.1	37.8	41.6	29.6	37.1	40.4
	54 - J5 - Station Road LT	0.5	1.0	1.2	7.4	9.1	9.6
	55 - J5 - Station Road RT	0.4	0.6	0.6	3.1	3.2	3.5
	56 - J5 - Chapel Hill	35.0	53.1	61.3	41.5	64.3	69.3
Junction 10 - Cambridge Road / Chapel Hill / Sliver Street / Bentfield Road priority junction	101 - J10 - Cambridge Road (N) RT	3.7	10.9	21.7	13.1	13.1	14.5
	102 - J10 - Chapel Hill LT	30.8	55.2	60.6	15.4	24.2	24.6
	103 - J10 - Chapel Hill RT	16.5	18.1	22.3	17.1	19.3	21.7
	104 - J10 - Silver Street RT	45.1	67.2	88.9	81.3	119.9	131.3
	105 - J10 Bentfield Road LT	9.3	10.9	13.2	10.5	11.7	11.9
	106 - J10 Bentfield Road RT	11.2	12.5	14.7	12.1	12.9	13.3
Chapel Hill	991 - Chapel Hill (E)	62.4	84.4	89.5	51.9	73.0	76.6
	992 - Chapel Hill (W)	60.7	97.2	119.0	61.0	90.4	93.0

9.7. Queue lengths remain similar between the forecast year scenarios for both the AM and PM peaks. The most significant increases in maximum queue length between the with and without proposed development scenarios occurred in these locations:

- Silver Street right turn onto Chapel Hill – AM queue increases by 72m (~ 12 vehicles), PM queue increases by 22m (~ 4 vehicles);
- Chapel Hill western approach to the on-street parking section – AM queue increases by 45m (~ 8 vehicles); and
- Chapel Hill roundabout B1051 approach – PM queue increases by 20m (~ 4 vehicles).

9.8. The average queue results help to reinforce the conclusions obtained from the maximum queues. The average queues are expected to increase the most significantly at the Silver Street right turn onto Chapel Hill queue and the Chapel Hill westbound queue. However, the average queue length is not expected to increase substantially in either location; 4 additional vehicles in the AM peak at Silver Street right turn and Chapel Hill westbound, and 2 additional vehicles in the PM peak at Silver Street right turn queue.

9.9. Table 16 and Table 17 shows the queue propagation analysis for the AM and PM peaks between the Lower Street / Grove Hill junction (J4) and the Chapel Hill mini roundabout (J5) to determine the likelihood of the queues reaching back to the upstream junction. The results show that in both forecast scenarios, neither the northbound or southbound queues in the AM and PM peaks reach the upstream junction in any of the simulation runs.

Table 22 – Lower Street / mini roundabout queue propagation analysis – AM peak

Scenario	Queue direction	Distance between junctions (m)	Absolute maximum queue (m)	Percentage of runs where queue reaches upstream junction (%)	Maximum length of time during which queue reaches upstream junction (s)
2022	Northbound	110	52	0	-
	Southbound	110	63	0	-
2027+C	Northbound	110	58	0	-
	Southbound	110	63	0	-
2027+C+D	Northbound	110	58	0	-
	Southbound	110	82	0	-

Table 23 – Lower Street queue propagation analysis – PM peak

Scenario	Queue direction	Distance between junctions (m)	Absolute maximum queue (m)	Percentage of runs where queue reaches upstream junction (%)	Maximum length of time during which queue reaches upstream junction (s)
2022	Northbound	110	52	0	-
	Southbound	110	28	0	-
2027+C	Northbound	110	72	0	-
	Southbound	110	33	0	-
2027+C+D	Northbound	110	72	0	-
	Southbound	110	53	0	-

Journey Time Results

9.10. Table 18 shows the average journey time between Grove Hill (at Gorsefield School) and the Silver Street / Mill Side junction via Chapel Hill. For the westbound direction, the Grove Hill end of the section has been extended up to the M11 bridge to capture the additional delay caused by queueing vehicles on Grove Hill.

Table 24 – Average Journey times (min) through Stansted Mountfitchet

SCENARIO	WESTBOUND		EASTBOUND	
	AM	PM	AM	PM
2022	5.9	7.2	3.3	3.1
2027 Reference Case	5.4	5.4	4.3	3.6
2027 With Development	5.6	5.4	4.6	3.7

9.11. The average journey time westbound is expected to increase by 8 seconds in the AM peak and 4 seconds in the PM peak due to the addition of the proposed development compared to the reference case. The average journey time eastbound is expected to increase by 22 seconds in the AM peak and 6 seconds in the PM peak. The effect of the additional traffic from the proposed development does not cause significant increases in journey time in either the westbound or eastbound direction and would not result in a perceptible impact on drivers travelling between Elsenham and Bishops Stortford.

9.12. Figure 7 shows a breakdown of the average journey time for each road sections and scenario during the AM peak. The graph demonstrates that the majority of the increase in average journey time through Stanstead Mountfitchet is concentrated on Chapel Hill eastbound (journey time section #106). The additional of the proposed development would result in an increase in average journey time of 13 seconds. The increase in average journey time for the rest of the road sections is not greater than 6 seconds and is not likely to be perceptible to the average driver.

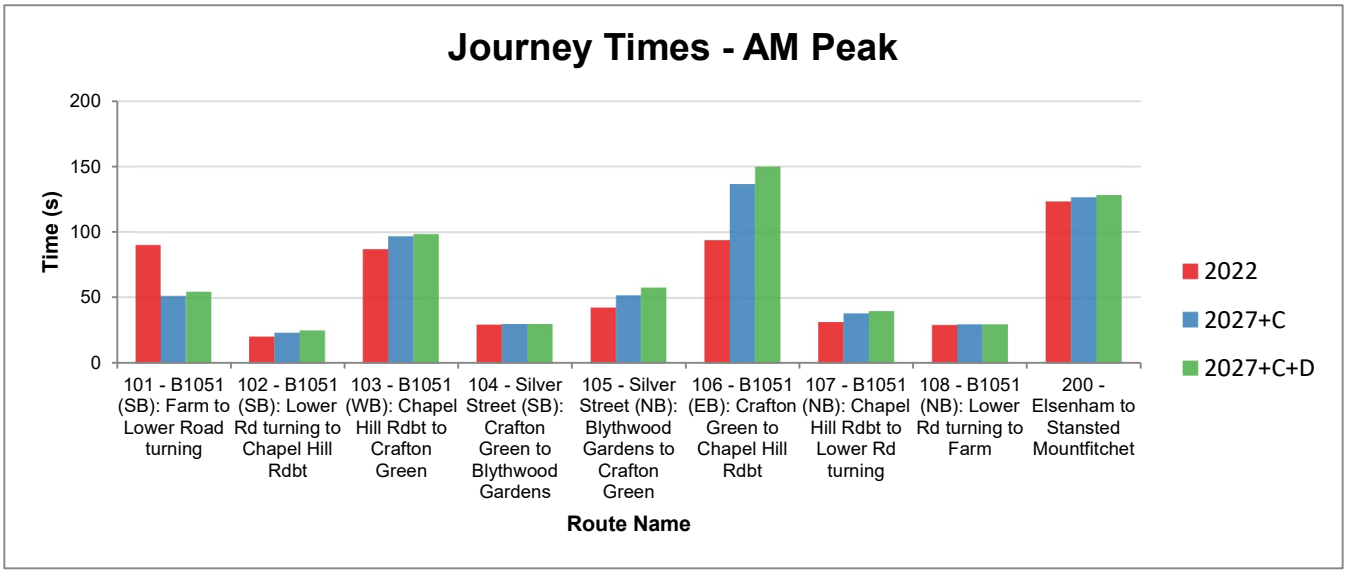


Figure 9 - AM peak modelled travel times

9.13. Figure 12 shows the average journey time for all the road sections and scenarios during the PM peak. The change in journey times between the reference case scenario and proposed development scenario is not greater than 5 seconds for all of the road sections and is therefore not likely to be perceptible to drivers.

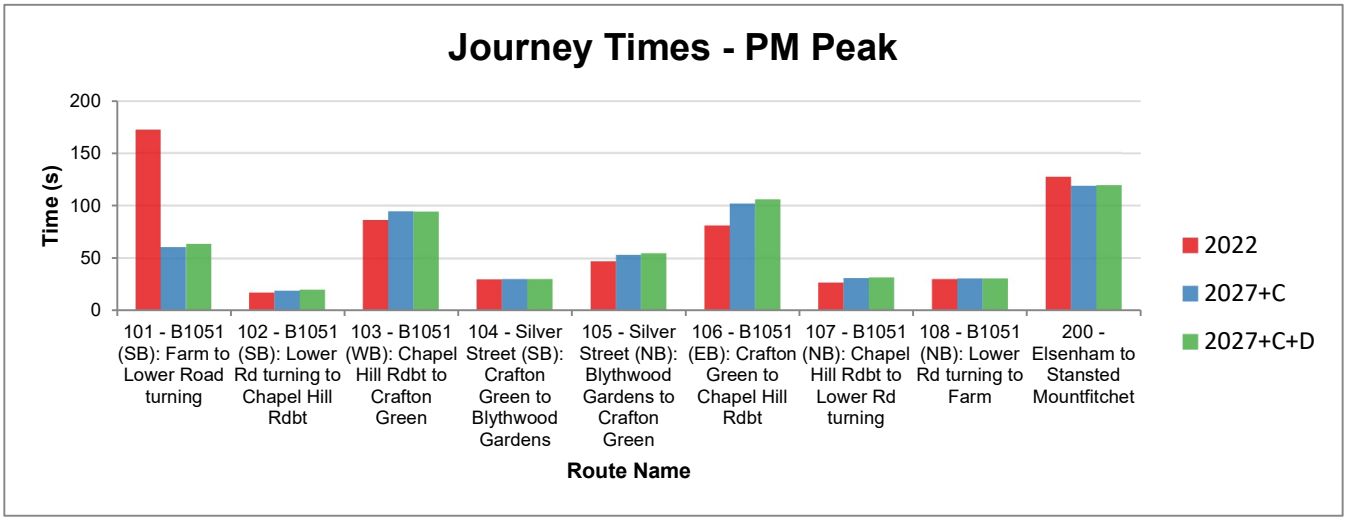


Figure 10 - PM peak modelled travel times

Delay Results

9.14. Table 19 shows the average delay per approach and scenario. The delay shown in the table is the average delay recorded every 15-minute interval weighted by turning proportion and averaged over all simulation runs.

Table 25 – Average delay (s) per approach

Junction	Approach	AM			PM		
		2022	2027+C	2027+C+D	2022	2027+C	2027+C+D
Junction 4 - Grove Hill signalised junction	Grove Hill	85.8	51.1	55.9	170.2	53.3	56.8
	Lower Street (S)	21.4	28.3	30.2	16.5	21.4	22.0
	Lower Street (N)	13.4	19.0	19.4	6.6	8.2	8.4
Junction 5 - Chapel Hill roundabout	Lower Street	12.3	14.4	16.3	10.6	14.2	14.8
	Station Car Park	15.9	21.8	24.1	15.0	21.5	23.3
	Church Road	15.7	22.7	25.4	29.1	38.1	40.7
	Station Road	10.9	13.0	13.7	9.7	12.0	12.0
	Chapel Hill	8.2	11.2	12.5	5.4	7.4	8.3
Junction 10 - Cambridge Road / Chapel Hill / Silver Street / Bentfield Road priority junction	Cambridge Road	15.5	17.3	19.8	13.2	13.5	13.9
	Chapel Hill	12.3	19.2	20.9	8.5	10.1	10.7
	Silver Street	14.5	22.1	29.1	19.8	26.1	28.3
	Bentfield Road	8.9	11.5	18.2	10.6	12.4	13.4
Chapel Hill	Westbound	29.0	32.4	32.7	33.7	40.4	40.4
	Eastbound	43.6	78.6	92.5	30.8	44.9	47.2

9.15. The table demonstrates that the level of delay experienced at most of the approaches to the junctions remains similar between the forecast year scenarios in the AM and PM peak. The most significant increase occurs at Chapel Hill eastbound in the AM peak, where the average delay is expected to increase by 14 seconds as a result of the proposed development. The increase average delay between the reference case scenario and the proposed development scenario in the PM peak is not expected to exceed 5 seconds at any of the junctions and therefore is not likely to be perceptible to drivers.

Summary

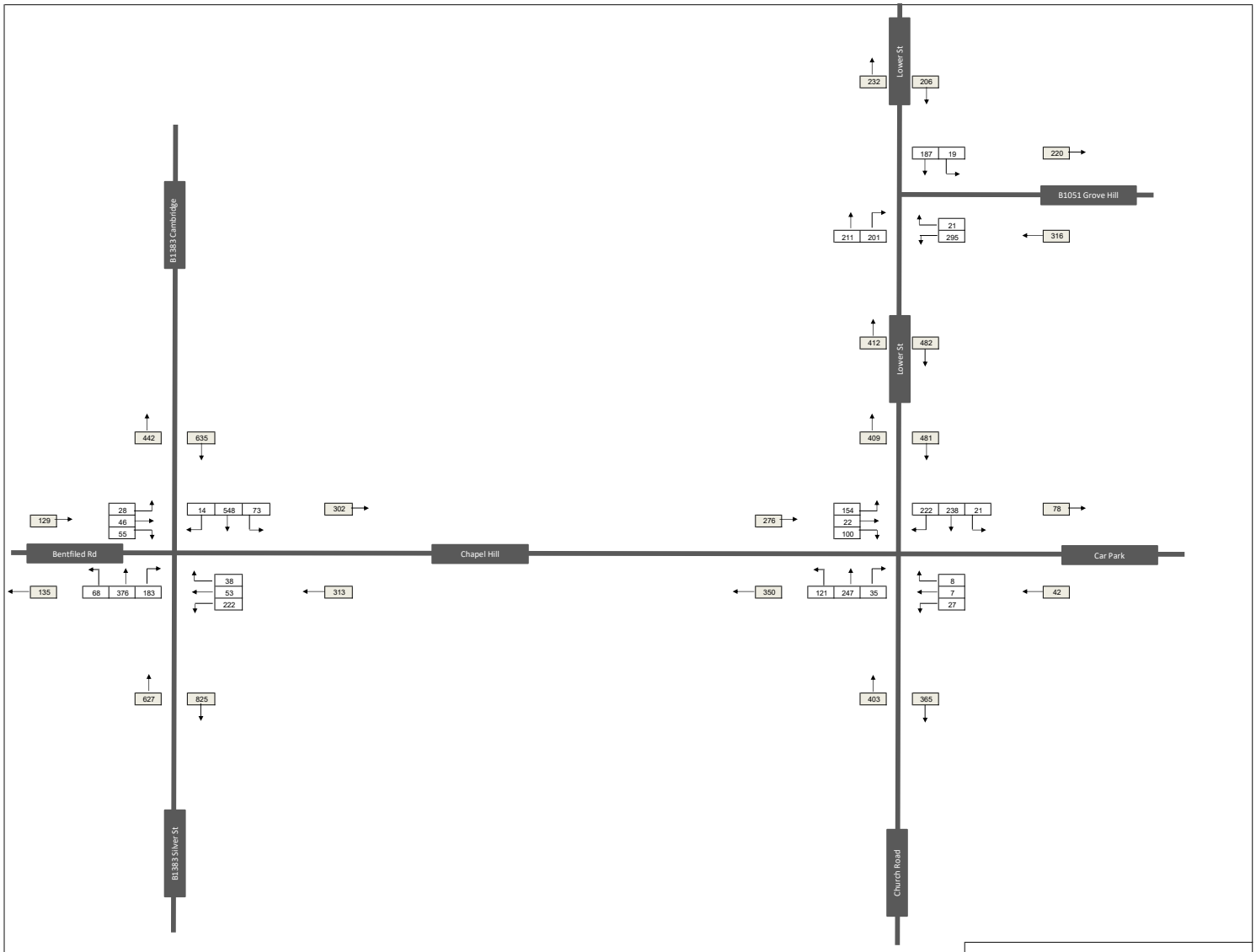
9.16. The sensitivity test demonstrates that the additional trips associated with the "Land South of Henham Road" development does not cause significant impact to the local road network in Stanstead Mountfitchet. The impact of the proposed residential development in Elsenham is expected to cause some increases in queue lengths, journey times, and delay experienced, however these are not expected to be perceptible to drivers, and are similar to the results seen in Section 8 of the Technical Note.

10. Conclusion

10.1. The Stansted Mountfitchet VISSIM model provides a robust evidence base which has been used to assess the operational performance of the network in 2027 with the addition of the proposed development at Elsenham.

10.2. The effect of the additional traffic generated by the development "Land to East of Station Road" during both peak hours on network performance, queue lengths, journey times and delay is expected to remain similar between the reference case scenario and the proposed development scenario. There are improvements to network performance, journey times, queue lengths and delay, particularly on Grove Hill, between the base year scenario and the reference case scenario, associated with the signal improvements on Grove Hill. The small increases in journey times, queue length and delay expected in the proposed development scenario are not expected to be perceptible to drivers.

Appendix A: Network Flow Diagrams



Movement

125	1
452	2
102	3

Title:	Client:	Date:
2022 AM Peak Flows		13/09/2022
Time Period:	**Project:**	**Reference:**
08:00-09:00	Elsenham	