Main results: (17:15-17:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Berry Lane (SB)	499.86	124.97	497.32	508.06	51.57	0.00	787.52	770.89	0.635	1.04	1.68	0.205	B
Calder Avenue	175.06	43.77	174.52	175.35	373.54	0.00	561.30	457.63	0.312	0.31	0.45	0.155	A
Berry Lane (NB)	443.71	110.93	442.18	430.61	117.45	0.00	827.69	724.90	0.536	0.75	1.13	0.155	A

Main results: (17:30-17:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Berry Lane (SB)	499.86	124.97	499.75	509.72	51.74	0.00	787.44	770.89	0.635	1.68	1.71	0.208	B
Calder Avenue	175.06	43.77	175.05	176.13	375.36	0.00	560.38	457.63	0.312	0.45	0.45	0.156	A
Berry Lane (NB)	443.71	110.93	443.66	432.61	117.80	0.00	827.50	724.90	0.536	1.13	1.14	0.156	A

Main results: (17:45-18:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Berry Lane (SB)	408.14	102.03	410.62	417.89	42.43	0.00	792.14	770.89	0.515	1.71	1.08	0.158	A
Calder Avenue	142.94	35.73	143.46	144.63	308.42	0.00	594.15	457.63	0.241	0.45	0.32	0.133	A
Berry Lane (NB)	362.29	90.57	363.78	355.34	96.54	0.00	838.97	724.90	0.432	1.14	0.77	0.127	A

Main results: (18:00-18:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Berry Lane (SB)	341.80	85.45	343.08	349.51	35.48	0.00	795.64	770.89	0.430	1.08	0.76	0.133	A
Calder Avenue	119.70	29.93	120.02	120.87	257.69	0.00	619.75	457.63	0.193	0.32	0.24	0.120	A
Berry Lane (NB)	303.40	75.85	304.23	298.94	80.77	0.00	847.48	724.90	0.358	0.77	0.56	0.111	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	10.60	0.71	0.130	A	A
Calder Avenue	3.42	0.23	0.119	A	A
Berry Lane (NB)	7.95	0.53	0.109	A	A

Queueing Delay results: (17:00-17:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	15.02	1.00	0.155	A	A
Calder Avenue	4.57	0.30	0.132	A	A
Berry Lane (NB)	10.90	0.73	0.125	A	A

Queueing Delay results: (17:15-17:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	23.68	1.58	0.205	B	B
Calder Avenue	6.49	0.43	0.155	A	A
Berry Lane (NB)	16.25	1.08	0.155	A	A

Queueing Delay results: (17:30-17:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	25.43	1.70	0.208	B	B
Calder Avenue	6.74	0.45	0.156	A	A
Berry Lane (NB)	17.08	1.14	0.156	A	A

Queueing Delay results: (17:45-18:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	17.07	1.14	0.158	A	A
Calder Avenue	4.95	0.33	0.133	A	A
Berry Lane (NB)	11.99	0.80	0.127	A	A

Queueing Delay results: (18:00-18:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	11.88	0.79	0.133	A	A
Calder Avenue	3.72	0.25	0.120	A	A
Berry Lane (NB)	8.70	0.58	0.111	A	A

Future Years - 2025 Assessment, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Future Years	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
2025 Assessment, AM	2025 Assessment	AM		ONE HOUR	07:45	09:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (min)	Junction LOS
1	Berry Lane / Calder Avenue	Mini-roundabout	A,B,C	0.15	A

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Name	Arm	Name	Description
Berry Lane (SB)	A	Berry Lane (SB)	
Calder Avenue	B	Calder Avenue	
Berry Lane (NB)	C	Berry Lane (NB)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Berry Lane (SB)	0.00	99999.00		0.00
Calder Avenue	0.00	99999.00		0.00
Berry Lane (NB)	0.00	99999.00		0.00

Mini Roundabout Geometry

Name	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
Berry Lane (SB)	3.00	3.00	3.00	0.00	7.00	5.50	0.00	
Calder Avenue	3.00	3.00	3.00	0.00	7.00	6.00	0.00	
Berry Lane (NB)	3.50	3.50	3.50	0.00	10.00	12.00	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Berry Lane (SB)		(calculated)	(calculated)	0.504	813.537
Calder Avenue		(calculated)	(calculated)	0.505	749.761
Berry Lane (NB)		(calculated)	(calculated)	0.540	891.064

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Berry Lane (SB)	ONE HOUR	✓	266.00	100.000
Calder Avenue	ONE HOUR	✓	199.00	100.000
Berry Lane (NB)	ONE HOUR	✓	411.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Berry Lane / Calder Avenue (for whole period)

		To		
		Berry Lane (SB)	Calder Avenue	Berry Lane (NB)
From	Berry Lane (SB)	0.000	40.000	226.000
	Calder Avenue	143.000	0.000	56.000
	Berry Lane (NB)	378.000	33.000	0.000

Turning Proportions (PCU) - Berry Lane / Calder Avenue (for whole period)

		To		
		Berry Lane (SB)	Calder Avenue	Berry Lane (NB)
From	Berry Lane (SB)	0.00	0.15	0.85
	Calder Avenue	0.72	0.00	0.28
	Berry Lane (NB)	0.92	0.08	0.00

Vehicle Mix

Average PCU Per Vehicle - Berry Lane / Calder Avenue (for whole period)

		To		
		Berry Lane (SB)	Calder Avenue	Berry Lane (NB)
From	Berry Lane (SB)	1.000	1.000	1.000
	Calder Avenue	1.000	1.000	1.000
	Berry Lane (NB)	1.000	1.000	1.000

Heavy Vehicle Percentages - Berry Lane / Calder Avenue (for whole period)

		To		
		Berry Lane (SB)	Calder Avenue	Berry Lane (NB)
From	Berry Lane (SB)	0.0	0.0	0.0
	Calder Avenue	0.0	0.0	0.0
	Berry Lane (NB)	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Berry Lane (SB)	0.37	0.12	0.58	A	244.09	366.13	39.87	0.11	0.44	39.88	0.11
Calder Avenue	0.35	0.15	0.54	A	182.61	273.91	35.95	0.13	0.40	35.95	0.13
Berry Lane (NB)	0.56	0.17	1.26	B	377.14	565.71	78.99	0.14	0.88	79.00	0.14

Main Results for each time segment

Main results: (07:45-08:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Berry Lane (SB)	200.26	50.06	198.94	389.26	24.66	0.00	801.10	783.95	0.250	0.00	0.33	0.099	A
Calder Avenue	149.82	37.45	148.66	54.57	169.02	0.00	664.48	413.71	0.225	0.00	0.29	0.116	A
Berry Lane (NB)	309.42	77.36	307.09	210.86	106.83	0.00	833.42	730.65	0.371	0.00	0.58	0.114	A

Main results: (08:00-08:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Berry Lane (SB)	239.13	59.78	238.76	467.30	29.60	0.00	798.61	783.95	0.299	0.33	0.42	0.107	A
Calder Avenue	178.90	44.72	178.54	65.50	202.85	0.00	647.42	413.71	0.276	0.29	0.38	0.128	A
Berry Lane (NB)	369.48	92.37	368.60	253.10	128.30	0.00	821.84	730.65	0.450	0.58	0.80	0.132	A

Main results: (08:15-08:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Berry Lane (SB)	292.87	73.22	292.26	571.55	36.19	0.00	795.28	783.95	0.368	0.42	0.58	0.119	A
Calder Avenue	219.10	54.78	218.48	80.14	248.31	0.00	624.48	413.71	0.351	0.38	0.53	0.148	A
Berry Lane (NB)	452.52	113.13	450.74	309.79	157.00	0.00	806.35	730.65	0.561	0.80	1.25	0.168	B

Main results: (08:30-08:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Berry Lane (SB)	292.87	73.22	292.86	573.56	36.33	0.00	795.21	783.95	0.368	0.58	0.58	0.119	A
Calder Avenue	219.10	54.78	219.09	80.37	248.82	0.00	624.22	413.71	0.351	0.53	0.54	0.148	A
Berry Lane (NB)	452.52	113.13	452.46	310.47	157.43	0.00	806.12	730.65	0.561	1.25	1.26	0.170	B

Main results: (08:45-09:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Berry Lane (SB)	239.13	59.78	239.72	470.39	29.81	0.00	798.50	783.95	0.299	0.58	0.43	0.108	A
Calder Avenue	178.90	44.72	179.50	65.85	203.67	0.00	647.00	413.71	0.277	0.54	0.39	0.129	A
Berry Lane (NB)	369.48	92.37	371.21	254.18	128.99	0.00	821.47	730.65	0.450	1.26	0.83	0.134	A

Main results: (09:00-09:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Berry Lane (SB)	200.26	50.06	200.64	393.35	24.92	0.00	800.97	783.95	0.250	0.43	0.34	0.100	A
Calder Avenue	149.82	37.45	150.19	55.09	170.47	0.00	663.75	413.71	0.226	0.39	0.29	0.117	A
Berry Lane (NB)	309.42	77.36	310.35	212.73	107.92	0.00	832.83	730.65	0.372	0.83	0.60	0.115	A

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	4.79	0.32	0.099	A	A
Calder Avenue	4.17	0.28	0.116	A	A
Berry Lane (NB)	8.40	0.56	0.114	A	A

Queueing Delay results: (08:00-08:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	6.21	0.41	0.107	A	A
Calder Avenue	5.52	0.37	0.128	A	A
Berry Lane (NB)	11.68	0.78	0.132	A	A

Queueing Delay results: (08:15-08:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	8.40	0.56	0.119	A	A
Calder Avenue	7.73	0.52	0.148	A	A
Berry Lane (NB)	17.85	1.19	0.168	B	B

Queueing Delay results: (08:30-08:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	8.67	0.58	0.119	A	A
Calder Avenue	8.03	0.54	0.148	A	A
Berry Lane (NB)	18.86	1.26	0.170	B	B

Queueing Delay results: (08:45-09:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	6.65	0.44	0.108	A	A
Calder Avenue	5.97	0.40	0.129	A	A
Berry Lane (NB)	12.95	0.86	0.134	A	A

Queueing Delay results: (09:00-09:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	5.16	0.34	0.100	A	A
Calder Avenue	4.53	0.30	0.117	A	A
Berry Lane (NB)	9.25	0.62	0.115	A	A

Future Years - 2025 Assessment, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Future Years	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
2025 Assessment, PM	2025 Assessment	PM		ONE HOUR	16:45	18:15	90	15			✓	✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Junction Delay (min)	Junction LOS
1	Berry Lane / Calder Avenue	Mini-roundabout	A,B,C	0.22	B

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Name	Arm	Name	Description
Berry Lane (SB)	A	Berry Lane (SB)	
Calder Avenue	B	Calder Avenue	
Berry Lane (NB)	C	Berry Lane (NB)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Berry Lane (SB)	0.00	99999.00		0.00
Calder Avenue	0.00	99999.00		0.00
Berry Lane (NB)	0.00	99999.00		0.00

Mini Roundabout Geometry

Name	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
Berry Lane (SB)	3.00	3.00	3.00	0.00	7.00	5.50	0.00	
Calder Avenue	3.00	3.00	3.00	0.00	7.00	6.00	0.00	
Berry Lane (NB)	3.50	3.50	3.50	0.00	10.00	12.00	0.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Berry Lane (SB)		(calculated)	(calculated)	0.504	813.537
Calder Avenue		(calculated)	(calculated)	0.505	749.761
Berry Lane (NB)		(calculated)	(calculated)	0.540	891.064

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Berry Lane (SB)	ONE HOUR	✓	509.00	100.000
Calder Avenue	ONE HOUR	✓	180.00	100.000
Berry Lane (NB)	ONE HOUR	✓	451.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Berry Lane / Calder Avenue (for whole period)

		To		
		Berry Lane (SB)	Calder Avenue	Berry Lane (NB)
From	Berry Lane (SB)	0.000	128.000	381.000
	Calder Avenue	121.000	0.000	59.000
	Berry Lane (NB)	398.000	53.000	0.000

Turning Proportions (PCU) - Berry Lane / Calder Avenue (for whole period)

		To		
		Berry Lane (SB)	Calder Avenue	Berry Lane (NB)
From	Berry Lane (SB)	0.00	0.25	0.75
	Calder Avenue	0.67	0.00	0.33
	Berry Lane (NB)	0.88	0.12	0.00

Vehicle Mix

Average PCU Per Vehicle - Berry Lane / Calder Avenue (for whole period)

		To		
		Berry Lane (SB)	Calder Avenue	Berry Lane (NB)
From	Berry Lane (SB)	1.000	1.000	1.000
	Calder Avenue	1.000	1.000	1.000
	Berry Lane (NB)	1.000	1.000	1.000

Heavy Vehicle Percentages - Berry Lane / Calder Avenue (for whole period)

		To		
		Berry Lane (SB)	Calder Avenue	Berry Lane (NB)
From	Berry Lane (SB)	0.0	0.0	0.0
	Calder Avenue	0.0	0.0	0.0
	Berry Lane (NB)	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Berry Lane (SB)	0.71	0.27	2.43	C	467.07	700.60	138.44	0.20	1.54	138.47	0.20
Calder Avenue	0.37	0.18	0.58	B	165.17	247.76	37.21	0.15	0.41	37.22	0.15
Berry Lane (NB)	0.61	0.19	1.52	B	413.85	620.77	92.65	0.15	1.03	92.66	0.15

Main Results for each time segment

Main results: (16:45-17:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Berry Lane (SB)	383.20	95.80	379.54	387.61	39.59	0.00	793.57	770.58	0.483	0.00	0.92	0.144	A
Calder Avenue	135.51	33.88	134.37	135.03	284.09	0.00	606.43	458.75	0.223	0.00	0.28	0.127	A
Berry Lane (NB)	339.54	84.88	336.87	328.14	90.33	0.00	842.32	724.67	0.403	0.00	0.67	0.118	A

Main results: (17:00-17:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Berry Lane (SB)	457.58	114.40	455.88	465.36	47.52	0.00	789.57	770.58	0.580	0.92	1.34	0.179	B
Calder Avenue	161.82	40.45	161.42	162.16	341.24	0.00	577.60	458.75	0.280	0.28	0.38	0.144	A
Berry Lane (NB)	405.44	101.36	404.37	394.15	108.51	0.00	832.52	724.67	0.487	0.67	0.93	0.140	A

Main results: (17:15-17:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Berry Lane (SB)	560.42	140.10	556.32	568.95	58.09	0.00	784.24	770.58	0.715	1.34	2.37	0.259	C
Calder Avenue	198.18	49.55	197.44	197.99	416.42	0.00	539.67	458.75	0.367	0.38	0.57	0.175	B
Berry Lane (NB)	496.56	124.14	494.32	481.13	132.72	0.00	819.45	724.67	0.606	0.93	1.49	0.183	B

Main results: (17:30-17:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Berry Lane (SB)	560.42	140.10	560.16	571.33	58.34	0.00	784.11	770.58	0.715	2.37	2.43	0.267	C
Calder Avenue	198.18	49.55	198.16	199.21	419.30	0.00	538.21	458.75	0.368	0.57	0.58	0.176	B
Berry Lane (NB)	496.56	124.14	496.47	484.25	133.21	0.00	819.19	724.67	0.606	1.49	1.52	0.186	B

Main results: (17:45-18:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Berry Lane (SB)	457.58	114.40	461.64	468.99	47.90	0.00	789.37	770.58	0.580	2.43	1.42	0.185	B
Calder Avenue	161.82	40.45	162.54	163.99	345.55	0.00	575.42	458.75	0.281	0.58	0.40	0.146	A
Berry Lane (NB)	405.44	101.36	407.63	398.83	109.26	0.00	832.11	724.67	0.487	1.52	0.97	0.142	A

Main results: (18:00-18:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Berry Lane (SB)	383.20	95.80	385.06	392.01	40.03	0.00	793.34	770.58	0.483	1.42	0.95	0.148	A
Calder Avenue	135.51	33.88	135.93	136.87	288.23	0.00	604.34	458.75	0.224	0.40	0.29	0.128	A
Berry Lane (NB)	339.54	84.88	340.67	332.79	91.38	0.00	841.76	724.67	0.403	0.97	0.68	0.120	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	13.02	0.87	0.144	A	A
Calder Avenue	4.11	0.27	0.127	A	A
Berry Lane (NB)	9.57	0.64	0.118	A	A

Queueing Delay results: (17:00-17:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	19.19	1.28	0.179	B	B
Calder Avenue	5.60	0.37	0.144	A	A
Berry Lane (NB)	13.50	0.90	0.140	A	A

Queueing Delay results: (17:15-17:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	32.69	2.18	0.259	C	B
Calder Avenue	8.23	0.55	0.175	B	B
Berry Lane (NB)	21.21	1.41	0.183	B	B

Queueing Delay results: (17:30-17:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	36.10	2.41	0.267	C	B
Calder Avenue	8.62	0.57	0.176	B	B
Berry Lane (NB)	22.60	1.51	0.186	B	B

Queueing Delay results: (17:45-18:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	22.56	1.50	0.185	B	B
Calder Avenue	6.15	0.41	0.146	A	A
Berry Lane (NB)	15.15	1.01	0.142	A	A

Queueing Delay results: (18:00-18:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Berry Lane (SB)	14.88	0.99	0.148	A	A
Calder Avenue	4.50	0.30	0.128	A	A
Berry Lane (NB)	10.61	0.71	0.120	A	A

Appendix 17

ARCADY Outputs – Derby Road/Whittingham Rd/Kestor Lane

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.1.305 [25 May 2012]

For sales and distribution information, program advice and maintenance, contact TRL:
Tel: +44 (0)1344 770758 E-mail: software@trl.co.uk Web: http://www.trlsoftware.co.uk

Filename: (new file)
Path:
Report generation date: 17/03/2015 15:55:00

Summary of junction performance

	AM			
	Queue (PCU)	Delay (min)	RFC	LOS
	Derby Road_Preston Road - 2014 Surveyed			
Derby Road	1.25	0.15	0.56	A
Kestor Lane	1.65	0.34	0.63	C
Preston Road	2.51	0.29	0.72	C
Whittingham Road	0.90	0.21	0.48	B
	Derby Road_Preston Road - 2016 Assessment			
Derby Road	2.78	0.28	0.74	C
Kestor Lane	5.45	1.03	0.87	F
Preston Road	8.07	0.80	0.91	E
Whittingham Road	8.87	1.14	0.93	F
	Derby Road_Preston Road - 2016 Baseline			
Derby Road	1.94	0.22	0.67	B
Kestor Lane	4.14	0.77	0.83	E
Preston Road	6.30	0.64	0.88	E
Whittingham Road	7.82	1.01	0.92	F
	Derby Road_Preston Road - 2025 Assessment			
Derby Road	4.68	0.43	0.84	D
Kestor Lane	16.74	2.61	1.03	F
Preston Road	24.32	1.98	1.03	F
Whittingham Road	20.92	2.32	1.04	F
	Derby Road_Preston Road - 2025 Baseline			
Derby Road	3.02	0.30	0.76	C
Kestor Lane	11.25	1.84	0.98	F
Preston Road	18.35	1.59	1.00	F
Whittingham Road	19.06	2.13	1.02	F

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

"D1 - 2016 Baseline, AM " model duration: 07:45 - 09:15
"D3 - 2025 Baseline, AM" model duration: 07:45 - 09:15
"D5 - 2016 Assessment, AM" model duration: 07:45 - 09:15
"D7 - 2025 Assessment, AM" model duration: 07:45 - 09:15
"D9 - 2014 Surveyed, AM" model duration: 07:45 - 09:15

Run using Junctions 8.0.1.305 at 17/03/2015 15:54:57

File summary

File Description

Title	Inglewhite Road / Berry Lane
Location	Longridge
Site Number	
Date	03/02/2014
Version	
Status	(new file)
Identifier	VN30277
Client	
Jobnumber	VN30277
Enumerator	Workstation\Workstation1
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (min)	Queue Threshold (PCU)
5.75			N/A	0.85	0.60	20.00

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	PCU	PCU	perHour	min	-Min	perMin

Derby Road_Preston Road - 2016 Baseline, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Derby Road_Preston Road	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2016 Baseline, AM	2016 Baseline	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (min)	Junction LOS
Derby Road / Preston Road	Roundabout	A,B,C,1				0.64	E

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Name	Description
Derby Road	Derby Road	
Kestor Lane	Kestor Lane	
Preston Road	Preston Road	
Whittingham Road	Whittingham Road	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Derby Road	0.00	99999.00		0.00
Kestor Lane	0.00	99999.00		0.00
Preston Road	0.00	99999.00		0.00
Whittingham Road	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Derby Road	3.40	7.00	4.00	11.00	17.00	76.00	
Kestor Lane	3.60	5.50	4.00	3.00	17.00	64.00	
Preston Road	3.80	4.50	4.00	8.00	17.00	68.00	
Whittingham Road	3.60	5.50	7.00	6.00	17.00	64.00	

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

Pedestrian Crossings

Name	Crossing Type
Derby Road	None
Kestor Lane	None
Preston Road	None
Whittingham Road	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Derby Road	Direct	Queue Surveys	30.00	
Kestor Lane	Direct	Queue Surveys	-120.00	
Preston Road	Direct	Queue Surveys	-150.00	
Whittingham Road	Direct	Queue Surveys	-300.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Derby Road		(calculated)	(calculated)	0.468	1079.554
Kestor Lane		(calculated)	(calculated)	0.355	678.042
Preston Road		(calculated)	(calculated)	0.461	873.182
Whittingham Road		(calculated)	(calculated)	0.463	774.240

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Derby Road	ONE HOUR	✓	500.00	100.000
Kestor Lane	ONE HOUR	✓	312.00	100.000
Preston Road	ONE HOUR	✓	572.00	100.000
Whittingham Road	ONE HOUR	✓	453.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	47.000	343.000	110.000
	B	58.000	0.000	109.000	145.000
	C	279.000	116.000	0.000	177.000
	1	75.000	157.000	221.000	0.000

Turning Proportions (PCU) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.00	0.09	0.69	0.22
	B	0.19	0.00	0.35	0.46
	C	0.49	0.20	0.00	0.31
	1	0.17	0.35	0.49	0.00

Vehicle Mix

Average PCU Per Vehicle - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	1	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	0.000
	C	0.000	0.000	0.000	0.000
	1	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Derby Road	0.67	0.22	1.94	B	458.81	688.21	108.84	0.16	1.21	108.86	0.16
Kestor Lane	0.83	0.77	4.14	E	286.30	429.44	181.16	0.42	2.01	181.21	0.42
Preston Road	0.88	0.54	6.30	E	524.88	787.32	269.24	0.34	2.99	269.31	0.34
Whittingham Road	0.92	1.01	7.82	F	415.88	623.52	298.37	0.48	3.32	298.45	0.48

Main Results for each time segment

Main results: (07:45-08:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	376.43	94.11	373.83	306.30	366.91	0.00	907.75	808.84	0.415	0.00	0.70	0.112	A
Kestor Lane	234.89	58.72	231.44	237.98	502.58	0.00	499.69	327.18	0.470	0.00	0.86	0.221	B
Preston Road	430.63	107.66	425.63	501.22	232.78	0.00	765.86	693.00	0.562	0.00	1.25	0.174	B
Whittingham Road	341.04	85.26	336.27	321.46	336.95	0.00	618.17	524.41	0.552	0.00	1.19	0.210	B

Main results: (08:00-08:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	449.49	112.37	448.12	367.62	440.27	0.00	873.40	808.85	0.515	0.70	1.04	0.141	A
Kestor Lane	280.48	70.12	278.12	285.54	602.85	0.00	464.10	327.18	0.604	0.86	1.45	0.318	C
Preston Road	514.22	128.55	510.72	601.43	279.54	0.00	744.30	693.00	0.691	1.25	2.12	0.253	C
Whittingham Road	407.24	101.81	403.51	385.88	404.38	0.00	586.94	524.41	0.694	1.19	2.13	0.320	C

Main results: (08:15-08:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	550.51	137.63	547.17	442.32	526.71	0.00	832.93	808.85	0.661	1.04	1.88	0.208	B
Kestor Lane	343.52	85.88	334.55	343.22	730.66	0.00	418.74	327.18	0.820	1.45	3.70	0.652	E
Preston Road	629.78	157.45	615.88	727.16	338.05	0.00	717.33	693.00	0.878	2.12	5.60	0.530	D
Whittingham Road	498.76	124.69	481.53	466.44	487.49	0.00	548.44	524.41	0.909	2.13	6.43	0.753	E

Main results: (08:30-08:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	550.51	137.63	550.25	451.01	538.71	0.00	827.31	808.85	0.665	1.88	1.94	0.216	B
Kestor Lane	343.52	85.88	341.75	349.81	739.15	0.00	415.72	327.18	0.826	3.70	4.14	0.774	E
Preston Road	629.78	157.45	626.98	737.49	343.41	0.00	714.86	693.00	0.881	5.60	6.30	0.642	E
Whittingham Road	498.76	124.69	493.22	473.89	496.50	0.00	544.27	524.41	0.916	6.43	7.82	1.010	F

Main results: (08:45-09:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	449.49	112.37	452.80	383.32	464.67	0.00	861.88	808.85	0.522	1.94	1.11	0.148	A
Kestor Lane	280.48	70.12	290.38	298.46	619.21	0.00	458.29	327.18	0.612	4.14	1.66	0.378	C
Preston Road	514.22	128.55	529.81	621.04	288.55	0.00	740.15	693.00	0.695	6.30	2.40	0.304	C
Whittingham Road	407.24	101.81	428.34	396.51	419.85	0.00	578.78	524.41	0.702	7.82	2.54	0.441	D

Main results: (09:00-09:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	376.43	94.11	377.98	313.66	376.97	0.00	903.04	808.84	0.417	1.11	0.72	0.115	A
Kestor Lane	234.89	58.72	237.86	243.67	511.28	0.00	496.59	327.18	0.473	1.66	0.92	0.234	B
Preston Road	430.63	107.66	434.93	511.22	237.92	0.00	763.50	693.00	0.564	2.40	1.33	0.185	B
Whittingham Road	341.04	85.26	346.07	328.28	344.56	0.00	614.65	524.41	0.555	2.54	1.29	0.227	B

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	10.06	0.67	0.112	A	A
Kestor Lane	12.03	0.80	0.221	B	B
Preston Road	17.50	1.17	0.174	B	B
Whittingham Road	16.55	1.10	0.210	B	B

Queueing Delay results: (08:00-08:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	15.01	1.00	0.141	A	A
Kestor Lane	20.21	1.35	0.318	C	B
Preston Road	29.52	1.97	0.253	C	B
Whittingham Road	29.15	1.94	0.320	C	B

Queueing Delay results: (08:15-08:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	26.26	1.75	0.208	B	B
Kestor Lane	46.22	3.08	0.652	E	D
Preston Road	69.09	4.61	0.530	D	C
Whittingham Road	75.36	5.02	0.753	E	D

Queueing Delay results: (08:30-08:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	28.75	1.92	0.216	B	B
Kestor Lane	59.38	3.96	0.774	E	D
Preston Road	90.15	6.01	0.642	E	D
Whittingham Road	108.29	7.22	1.010	F	E

Queueing Delay results: (08:45-09:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	17.52	1.17	0.148	A	A
Kestor Lane	28.59	1.91	0.376	C	C
Preston Road	41.82	2.79	0.304	C	B
Whittingham Road	48.32	3.22	0.441	D	C

Queueing Delay results: (09:00-09:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	11.24	0.75	0.115	A	A
Kestor Lane	14.73	0.98	0.234	B	B
Preston Road	21.16	1.41	0.185	B	B
Whittingham Road	20.69	1.38	0.227	B	B

Derby Road_Preston Road - 2025 Baseline, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include in Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Derby Road_Preston Road	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2025 Baseline, AM	2025 Baseline	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (min)	Junction LOS
Derby Road / Preston Road	Roundabout	A,B,C,1				1.40	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Name	Description
Derby Road	Derby Road	
Kestor Lane	Kestor Lane	
Preston Road	Preston Road	
Whittingham Road	Whittingham Road	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Derby Road	0.00	99999.00		0.00
Kestor Lane	0.00	99999.00		0.00
Preston Road	0.00	99999.00		0.00
Whittingham Road	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Derby Road	3.40	7.00	4.00	11.00	17.00	76.00	
Kestor Lane	3.60	5.50	4.00	3.00	17.00	64.00	
Preston Road	3.80	4.50	4.00	8.00	17.00	68.00	
Whittingham Road	3.60	5.50	7.00	6.00	17.00	64.00	

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

Pedestrian Crossings

Name	Crossing Type
Derby Road	None
Kestor Lane	None
Preston Road	None
Whittingham Road	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Derby Road	Direct	Queue Surveys	30.00	
Kestor Lane	Direct	Queue Surveys	-120.00	
Preston Road	Direct	Queue Surveys	-150.00	
Whittingham Road	Direct	Queue Surveys	-300.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Derby Road		(calculated)	(calculated)	0.468	1079.554
Kestor Lane		(calculated)	(calculated)	0.355	676.042
Preston Road		(calculated)	(calculated)	0.461	873.182
Whittingham Road		(calculated)	(calculated)	0.463	774.240

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Derby Road	ONE HOUR	✓	563.00	100.000
Kestor Lane	ONE HOUR	✓	348.00	100.000
Preston Road	ONE HOUR	✓	636.00	100.000
Whittingham Road	ONE HOUR	✓	486.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	53.000	386.000	124.000
	B	65.000	0.000	123.000	160.000
	C	314.000	131.000	0.000	191.000
	1	82.000	171.000	233.000	0.000

Turning Proportions (PCU) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.00	0.09	0.69	0.22
	B	0.19	0.00	0.35	0.46
	C	0.49	0.21	0.00	0.30
	1	0.17	0.35	0.48	0.00

Vehicle Mix

Average PCU Per Vehicle - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	1	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	0.000
	C	0.000	0.000	0.000	0.000
	1	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Derby Road	0.76	0.30	3.02	C	516.62	774.93	156.42	0.20	1.74	156.45	0.20
Kestor Lane	0.98	1.84	11.25	F	318.33	479.00	374.89	0.78	4.17	374.99	0.78
Preston Road	1.00	1.59	18.35	F	583.60	875.41	591.53	0.68	6.57	591.66	0.68
Whittingham Road	1.02	2.13	19.06	F	445.96	668.94	611.57	0.91	6.80	611.72	0.91

Main Results for each time segment

Main results: (07:45-08:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	423.86	105.96	420.31	341.88	396.39	0.00	893.95	809.85	0.474	0.00	0.89	0.126	A
Kestor Lane	261.99	65.50	257.40	263.43	553.27	0.00	481.69	329.01	0.544	0.00	1.15	0.263	C
Preston Road	478.61	119.70	472.11	551.67	259.00	0.00	753.78	692.88	0.635	0.00	1.68	0.208	B
Whittingham Road	365.89	91.47	359.87	352.70	378.41	0.00	598.97	521.23	0.611	0.00	1.51	0.245	B

Main results: (08:00-08:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	506.13	126.53	504.06	409.43	474.46	0.00	857.39	809.85	0.590	0.89	1.40	0.169	B
Kestor Lane	312.84	78.21	308.62	315.43	663.09	0.00	442.72	329.01	0.707	1.15	2.20	0.434	D
Preston Road	571.75	142.94	565.34	661.15	310.56	0.00	730.01	692.88	0.783	1.68	3.28	0.351	C
Whittingham Road	436.90	109.23	430.68	422.69	453.21	0.00	564.32	521.23	0.774	1.51	3.06	0.430	D

Main results: (08:15-08:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	619.87	154.97	614.06	477.91	549.92	0.00	822.06	809.85	0.754	1.40	2.86	0.281	C
Kestor Lane	383.16	95.79	359.25	369.22	794.76	0.00	385.99	329.01	0.968	2.20	8.18	1.194	F
Preston Road	700.25	175.06	682.08	786.49	367.52	0.00	703.74	692.88	0.995	3.28	12.82	0.980	F
Whittingham Road	535.10	133.77	497.48	499.25	530.35	0.00	528.59	521.23	1.012	3.06	12.46	1.241	F

Main results: (08:30-08:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	619.87	154.97	619.23	489.90	562.55	0.00	816.15	809.85	0.760	2.86	3.02	0.303	C
Kestor Lane	383.16	95.79	370.86	378.96	804.82	0.00	392.42	329.01	0.976	8.18	11.25	1.837	F
Preston Road	700.25	175.06	678.12	799.52	376.17	0.00	699.76	692.88	1.001	12.82	18.35	1.591	F
Whittingham Road	535.10	133.77	508.70	510.55	543.74	0.00	522.39	521.23	1.024	12.46	19.06	2.126	F

Main results: (08:45-09:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	506.13	126.53	511.70	457.16	538.16	0.00	827.57	809.85	0.612	3.02	1.62	0.193	B
Kestor Lane	312.84	78.21	345.69	350.44	699.42	0.00	429.83	329.01	0.726	11.25	3.04	0.871	F
Preston Road	571.75	142.94	627.05	708.90	336.21	0.00	716.16	692.88	0.796	18.35	4.53	0.837	F

Whittingham Road	436.80	109.23	492.02	459.95	503.31	0.00	541.12	521.23	0.807	19.06	5.28	1.382	F

Main results: (09:00-09:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	423.86	105.96	426.60	356.13	416.94	0.00	884.32	809.85	0.479	1.62	0.94	0.132	A
Kestor Lane	261.99	65.50	269.07	274.80	568.75	0.00	476.20	329.01	0.550	3.04	1.27	0.299	C
Preston Road	478.81	119.70	489.58	569.89	267.93	0.00	749.66	692.88	0.639	4.53	1.84	0.240	B
Whittingham Road	365.89	91.47	380.26	384.70	392.81	0.00	592.30	521.23	0.618	5.28	1.69	0.300	C

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	12.67	0.84	0.126	A	A
Kestor Lane	15.74	1.05	0.263	C	B
Preston Road	23.03	1.54	0.208	B	B
Whittingham Road	20.55	1.37	0.245	B	B

Queueing Delay results: (08:00-08:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	20.02	1.33	0.169	B	B
Kestor Lane	28.50	1.97	0.434	D	C
Preston Road	43.79	2.92	0.351	C	C
Whittingham Road	40.44	2.70	0.430	D	C

Queueing Delay results: (08:15-08:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	38.73	2.58	0.281	C	B
Kestor Lane	88.26	5.88	1.194	F	E
Preston Road	134.86	8.99	0.980	F	E
Whittingham Road	128.20	8.55	1.241	F	E

Queueing Delay results: (08:30-08:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	44.35	2.96	0.303	C	B
Kestor Lane	147.47	9.83	1.837	F	F
Preston Road	236.15	15.74	1.591	F	F
Whittingham Road	238.48	15.90	2.126	F	F

Queueing Delay results: (08:45-09:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	26.00	1.73	0.193	B	B
Kestor Lane	72.66	4.84	0.871	F	D
Preston Road	123.02	8.20	0.837	F	D
Whittingham Road	154.09	10.27	1.382	F	F

Queueing Delay results: (09:00-09:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	14.66	0.98	0.132	A	A
Kestor Lane	21.15	1.41	0.299	C	B
Preston Road	30.67	2.04	0.240	B	B
Whittingham Road	29.81	1.99	0.300	C	B

Derby Road_Preston Road - 2016 Assessment, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Derby Road_Preston Road	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2016 Assessment, AM	2016 Assessment	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (min)	Junction LOS
Derby Road / Preston Road	Roundabout	A,B,C,1				0.76	E

Junction Network Options

Driving Side	Lighting
Left	Normal/Unknown

Arms

Arms

Name	Name	Description
Derby Road	Derby Road	
Kestor Lane	Kestor Lane	
Preston Road	Preston Road	
Whittingham Road	Whittingham Road	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Derby Road	0.00	99999.00		0.00
Kestor Lane	0.00	99999.00		0.00
Preston Road	0.00	99999.00		0.00
Whittingham Road	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Derby Road	3.40	7.00	4.00	11.00	17.00	76.00	
Kestor Lane	3.60	5.50	4.00	3.00	17.00	64.00	
Preston Road	3.80	4.50	4.00	8.00	17.00	68.00	
Whittingham Road	3.60	5.50	7.00	6.00	17.00	64.00	

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

Pedestrian Crossings

Name	Crossing Type
Derby Road	None
Kestor Lane	None
Preston Road	None
Whittingham Road	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Derby Road	Direct	Queue Surveys	30.00	

Kestor Lane	Direct	Queue Surveys	-120.00	
Preston Road	Direct	Queue Surveys	-150.00	
Whittingham Road	Direct	Queue Surveys	-300.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Derby Road		(calculated)	(calculated)	0.468	1079.554
Kestor Lane		(calculated)	(calculated)	0.355	678.042
Preston Road		(calculated)	(calculated)	0.461	873.182
Whittingham Road		(calculated)	(calculated)	0.463	774.240

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Derby Road	ONE HOUR	✓	559.00	100.000
Kestor Lane	ONE HOUR	✓	312.00	100.000
Preston Road	ONE HOUR	✓	593.00	100.000
Whittingham Road	ONE HOUR	✓	453.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	47.000	402.000	110.000
	B	58.000	0.000	109.000	145.000
	C	300.000	116.000	0.000	177.000
	1	75.000	157.000	221.000	0.000

Turning Proportions (PCU) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.00	0.08	0.72	0.20
	B	0.19	0.00	0.35	0.46
	C	0.51	0.20	0.00	0.30
	1	0.17	0.35	0.49	0.00

Vehicle Mix

Average PCU Per Vehicle - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	1	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1

From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	0.000
	C	0.000	0.000	0.000	0.000
	1	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Derby Road	0.74	0.28	2.78	C	512.95	769.42	145.00	0.19	1.61	145.02	0.19
Kestor Lane	0.87	1.03	5.45	F	266.30	429.44	217.11	0.51	2.41	217.17	0.51
Preston Road	0.91	0.80	8.07	E	544.15	816.22	320.86	0.39	3.57	320.97	0.39
Whittingham Road	0.93	1.14	8.87	F	415.68	623.52	325.35	0.52	3.62	325.44	0.52

Main Results for each time segment

Main results: (07:45-08:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	420.84	105.21	417.44	321.75	386.77	0.00	907.82	812.78	0.464	0.00	0.85	0.122	A
Kestor Lane	234.88	58.72	231.23	237.87	546.34	0.00	484.15	324.13	0.485	0.00	0.91	0.234	B
Preston Road	446.44	111.61	441.01	544.98	232.59	0.00	765.95	702.22	0.583	0.00	1.36	0.182	B
Whittingham Road	341.04	85.26	336.15	321.24	352.36	0.00	611.03	518.16	0.558	0.00	1.22	0.215	B

Main results: (08:00-08:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	502.53	125.63	500.64	386.02	439.97	0.00	873.54	812.78	0.575	0.85	1.32	0.160	A
Kestor Lane	280.48	70.12	277.72	285.33	655.28	0.00	445.49	324.13	0.630	0.91	1.60	0.352	C
Preston Road	533.09	133.27	529.01	653.79	279.22	0.00	744.48	702.22	0.716	1.36	2.38	0.273	C
Whittingham Road	407.24	101.81	403.25	385.49	422.74	0.00	578.44	518.16	0.704	1.22	2.22	0.335	C

Main results: (08:15-08:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	615.47	153.87	610.18	462.21	524.26	0.00	834.07	812.78	0.738	1.32	2.65	0.262	C
Kestor Lane	343.52	85.88	331.44	341.67	792.77	0.00	396.70	324.13	0.866	1.60	4.62	0.802	E
Preston Road	652.91	163.23	634.94	788.49	335.72	0.00	718.41	702.22	0.909	2.38	6.87	0.616	E
Whittingham Road	498.76	124.69	479.44	463.63	507.04	0.00	539.39	518.16	0.925	2.22	7.05	0.816	E

Main results: (08:30-08:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	615.47	153.87	614.93	472.49	536.88	0.00	828.15	812.78	0.743	2.65	2.78	0.280	C
Kestor Lane	343.52	85.88	340.22	348.81	803.00	0.00	393.07	324.13	0.874	4.62	5.45	1.027	F
Preston Road	652.91	163.23	648.10	800.85	342.37	0.00	715.34	702.22	0.913	6.87	8.07	0.796	E
Whittingham Road	498.76	124.69	491.47	472.57	517.90	0.00	534.36	518.16	0.933	7.05	8.87	1.142	F

Main results: (08:45-09:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	502.53	125.63	507.88	406.68	468.71	0.00	860.08	812.78	0.584	2.78	1.44	0.173	B
Kestor Lane	280.48	70.12	284.67	300.77	675.82	0.00	438.20	324.13	0.640	5.45	1.90	0.453	D
Preston Road	533.09	133.27	554.30	678.83	291.67	0.00	738.72	702.22	0.722	8.07	2.77	0.357	C
Whittingham Road	407.24	101.81	431.77	402.34	443.63	0.00	568.76	518.16	0.716	8.87	2.74	0.499	D

Main results: (09:00-09:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	420.84	105.21	423.07	330.27	377.67	0.00	902.71	812.78	0.468	1.44	0.89	0.126	A
Kestor Lane	234.89	58.72	238.55	244.10	556.64	0.00	480.50	324.13	0.489	1.90	0.99	0.252	C
Preston Road	446.44	111.61	451.72	556.73	238.48	0.00	763.24	702.22	0.585	2.77	1.45	0.196	B
Whittingham Road	341.04	85.26	346.71	328.95	361.23	0.00	806.92	518.16	0.562	2.74	1.32	0.235	B

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	12.18	0.81	0.122	A	A
Kestor Lane	12.69	0.85	0.234	B	B
Preston Road	18.91	1.26	0.182	B	B
Whittingham Road	16.94	1.13	0.215	B	B

Queueing Delay results: (08:00-08:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	18.92	1.26	0.160	A	A
Kestor Lane	22.10	1.47	0.352	C	C
Preston Road	32.76	2.18	0.273	C	B
Whittingham Road	30.31	2.02	0.335	C	C

Queueing Delay results: (08:15-08:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	36.13	2.41	0.262	C	B
Kestor Lane	55.43	3.70	0.802	E	D
Preston Road	81.82	5.45	0.616	E	D
Whittingham Road	81.05	5.40	0.816	E	D

Queueing Delay results: (08:30-08:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	40.94	2.73	0.280	C	B
Kestor Lane	76.49	5.10	1.027	F	E
Preston Road	113.35	7.56	0.796	E	D
Whittingham Road	121.11	8.07	1.142	F	E

Queueing Delay results: (08:45-09:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	22.99	1.53	0.173	B	B
Kestor Lane	34.56	2.30	0.453	D	C
Preston Road	50.83	3.39	0.357	C	C
Whittingham Road	54.50	3.63	0.499	D	C

Queueing Delay results: (09:00-09:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	13.85	0.92	0.126	A	A
Kestor Lane	15.83	1.06	0.252	C	B
Preston Road	23.22	1.55	0.196	B	B
Whittingham Road	21.45	1.43	0.235	B	B

Derby Road_Preston Road - 2025 Assessment, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include in Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Derby Road_Preston Road	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2025 Assessment, AM	2025 Assessment	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (min)	Junction LOS
Derby Road / Preston Road	Roundabout	A,B,C,1				1.71	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Name	Description
Derby Road	Derby Road	
Kestor Lane	Kestor Lane	
Preston Road	Preston Road	
Whittingham Road	Whittingham Road	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Derby Road	0.00	99999.00		0.00
Kestor Lane	0.00	99999.00		0.00
Preston Road	0.00	99999.00		0.00
Whittingham Road	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Derby Road	3.40	7.00	4.00	11.00	17.00	76.00	
Kestor Lane	3.60	5.50	4.00	3.00	17.00	64.00	
Preston Road	3.80	4.50	4.00	8.00	17.00	68.00	
Whittingham Road	3.60	5.50	7.00	6.00	17.00	64.00	

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

Pedestrian Crossings

Name	Crossing Type
Derby Road	None
Kestor Lane	None
Preston Road	None
Whittingham Road	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Derby Road	Direct	Queue Surveys	30.00	
Kestor Lane	Direct	Queue Surveys	-120.00	
Preston Road	Direct	Queue Surveys	-150.00	
Whittingham Road	Direct	Queue Surveys	-300.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Derby Road		(calculated)	(calculated)	0.468	1079.554
Kestor Lane		(calculated)	(calculated)	0.355	678.042
Preston Road		(calculated)	(calculated)	0.461	873.182
Whittingham Road		(calculated)	(calculated)	0.463	774.240

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Derby Road	ONE HOUR	✓	622.00	100.000
Kestor Lane	ONE HOUR	✓	348.00	100.000
Preston Road	ONE HOUR	✓	657.00	100.000
Whittingham Road	ONE HOUR	✓	486.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	53.000	445.000	124.000
	B	65.000	0.000	123.000	160.000
	C	335.000	131.000	0.000	191.000
	1	82.000	171.000	233.000	0.000

Turning Proportions (PCU) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.00	0.09	0.72	0.20
	B	0.19	0.00	0.35	0.46
	C	0.51	0.20	0.00	0.29
	1	0.17	0.35	0.48	0.00

Vehicle Mix

Average PCU Per Vehicle - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	1	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	0.000
	C	0.000	0.000	0.000	0.000
	1	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Derby Road	0.84	0.43	4.68	D	570.76	856.14	218.70	0.26	2.43	218.75	0.26
Kestor Lane	1.03	2.61	16.74	F	319.33	479.00	520.69	1.09	5.79	520.81	1.09
Preston Road	1.03	1.98	24.32	F	602.87	904.31	773.69	0.86	8.60	773.86	0.86
Whittingham Road	1.04	2.32	20.92	F	445.96	668.94	687.49	1.03	7.64	687.65	1.03

Main Results for each time segment

Main results: (07:45-08:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	468.27	117.07	463.96	357.18	396.17	0.00	894.05	813.38	0.524	0.00	1.08	0.138	A
Kestor Lane	261.99	65.50	257.08	263.26	596.87	0.00	466.22	326.24	0.562	0.00	1.23	0.281	C
Preston Road	494.62	123.66	487.31	595.24	258.71	0.00	753.91	701.18	0.656	0.00	1.83	0.220	B
Whittingham Road	365.89	91.47	359.69	352.36	393.68	0.00	591.90	515.66	0.618	0.00	1.55	0.252	C

Main results: (08:00-08:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	559.17	139.79	556.25	427.30	473.82	0.00	857.69	813.38	0.652	1.08	1.81	0.197	B
Kestor Lane	312.84	78.21	307.72	314.99	715.08	0.00	424.27	326.24	0.737	1.23	2.51	0.494	D
Preston Road	590.63	147.66	582.95	712.96	309.85	0.00	730.33	701.18	0.809	1.83	3.75	0.388	C
Whittingham Road	436.90	109.23	430.17	421.85	470.95	0.00	556.10	515.66	0.786	1.55	3.23	0.453	D

Main results: (08:15-08:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	684.83	171.21	674.89	492.80	545.49	0.00	824.13	813.38	0.831	1.81	4.29	0.379	C
Kestor Lane	383.16	95.79	349.77	365.99	854.39	0.00	374.83	326.24	1.022	2.51	10.86	1.520	F
Preston Road	723.37	180.84	674.77	843.47	380.69	0.00	706.89	701.18	1.023	3.75	15.90	1.138	F
Whittingham Road	535.10	133.77	494.35	491.52	543.93	0.00	522.30	515.66	1.025	3.23	13.42	1.323	F

Main results: (08:30-08:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	684.83	171.21	683.27	504.05	557.38	0.00	818.56	813.38	0.837	4.29	4.68	0.433	D
Kestor Lane	383.16	95.79	359.61	373.45	867.20	0.00	370.28	326.24	1.035	10.86	16.74	2.614	F
Preston Road	723.37	180.84	689.67	858.09	368.72	0.00	703.19	701.18	1.029	15.90	24.32	1.978	F
Whittingham Road	535.10	133.77	505.09	502.05	556.34	0.00	516.55	515.66	1.036	13.42	20.92	2.316	F

Main results: (08:45-09:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	559.17	139.79	569.14	489.26	542.30	0.00	825.63	813.38	0.677	4.68	2.19	0.242	B
Kestor Lane	312.84	78.21	363.67	354.28	757.15	0.00	409.34	326.24	0.764	16.74	4.04	1.545	F
Preston Road	590.63	147.66	683.07	772.23	348.59	0.00	712.47	701.18	0.829	24.32	6.21	1.326	F
Whittingham Road	436.90	109.23	493.32	473.43	536.24	0.00	524.94	515.66	0.832	20.92	6.81	1.740	F

Main results: (09:00-09:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	468.27	117.07	472.41	376.77	422.87	0.00	881.55	813.38	0.531	2.19	1.16	0.148	A

Kestor Lane	261.99	65.50	272.57	278.04	617.24	0.00	458.99	326.24	0.571	4.04	1.39	0.338	C
Preston Road	494.62	123.66	511.32	619.40	270.41	0.00	748.52	701.18	0.661	6.21	2.04	0.269	C
Whittingham Road	365.89	91.47	386.05	368.15	413.59	0.00	582.68	515.66	0.628	5.81	1.77	0.333	C

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	15.30	1.02	0.138	A	A
Kestor Lane	16.75	1.12	0.281	C	B
Preston Road	24.96	1.66	0.220	B	B
Whittingham Road	21.09	1.41	0.252	C	B

Queueing Delay results: (08:00-08:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	25.46	1.70	0.197	B	B
Kestor Lane	33.16	2.21	0.494	D	C
Preston Road	49.32	3.29	0.388	C	C
Whittingham Road	42.39	2.83	0.453	D	C

Queueing Delay results: (08:15-08:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	55.61	3.71	0.379	C	C
Kestor Lane	110.21	7.35	1.520	F	F
Preston Road	160.76	10.72	1.138	F	E
Whittingham Road	136.21	9.08	1.323	F	E

Queueing Delay results: (08:30-08:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	67.95	4.53	0.433	D	C
Kestor Lane	208.64	13.91	2.614	F	F
Preston Road	303.79	20.25	1.978	F	F
Whittingham Road	259.43	17.30	2.316	F	F

Queueing Delay results: (08:45-09:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	36.12	2.41	0.242	B	B
Kestor Lane	127.77	8.52	1.545	F	F
Preston Road	199.00	13.27	1.326	F	E
Whittingham Road	194.76	12.98	1.740	F	F

Queueing Delay results: (09:00-09:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	18.26	1.22	0.148	A	A
Kestor Lane	24.15	1.61	0.338	C	C
Preston Road	35.84	2.39	0.269	C	B
Whittingham Road	33.62	2.24	0.333	C	B

Derby Road_Preston Road - 2014 Surveyed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Derby Road_Preston Road	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2014 Surveyed, AM	2014 Surveyed	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (min)	Junction LOS
Derby Road / Preston Road	Roundabout	A,B,C,1				0.24	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Name	Description
Derby Road	Derby Road	
Kestor Lane	Kestor Lane	
Preston Road	Preston Road	
Whittingham Road	Whittingham Road	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Derby Road	0.00	99999.00		0.00
Kestor Lane	0.00	99999.00		0.00
Preston Road	0.00	99999.00		0.00
Whittingham Road	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Derby Road	3.40	7.00	4.00	11.00	17.00	76.00	
Kestor Lane	3.60	5.50	4.00	3.00	17.00	64.00	
Preston Road	3.80	4.50	4.00	6.00	17.00	68.00	
Whittingham Road	**3.80**	**5.50**	**7.00**	**6.00**	**17.00**	**64.00**	

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

Pedestrian Crossings

Name	Crossing Type
Derby Road	None
Kestor Lane	None
Preston Road	None
Whittingham Road	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Derby Road	Direct	Queue Surveys	30.00	
Kestor Lane	Direct	Queue Surveys	-120.00	
Preston Road	Direct	Queue Surveys	-150.00	
Whittingham Road	Direct	Queue Surveys	-300.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Derby Road		(calculated)	(calculated)	0.468	1079.554
Kestor Lane		(calculated)	(calculated)	0.355	878.042

Preston Road		(calculated)	(calculated)	0.461	873.182
Whittingham Road		(calculated)	(calculated)	0.463	774.240

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Derby Road	ONE HOUR	✓	469.00	100.000
Kestor Lane	ONE HOUR	✓	273.00	100.000
Preston Road	ONE HOUR	✓	484.00	100.000
Whittingham Road	ONE HOUR	✓	240.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	45.000	325.000	99.000
	B	56.000	0.000	105.000	112.000
	C	263.000	112.000	0.000	109.000
	1	52.000	99.000	89.000	0.000

Turning Proportions (PCU) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.00	0.10	0.69	0.21
	B	0.21	0.00	0.38	0.41
	C	0.54	0.23	0.00	0.23
	1	0.22	0.41	0.37	0.00

Vehicle Mix

Average PCU Per Vehicle - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	1	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	0.000
	C	0.000	0.000	0.000	0.000
	1	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Derby Road	0.56	0.15	1.25	A	430.36	645.54	77.28	0.12	0.86	77.29	0.12
Kestor Lane	0.63	0.34	1.85	C	250.51	375.76	92.50	0.25	1.03	92.52	0.25
Preston Road	0.72	0.29	2.51	C	444.13	666.19	137.06	0.21	1.52	137.09	0.21
Whittingham Road	0.48	0.21	0.90	B	220.23	330.34	55.35	0.17	0.61	55.35	0.17

Main Results for each time segment

Main results: (07:45-08:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	353.09	88.27	350.84	276.60	223.80	0.00	974.76	823.88	0.362	0.00	0.56	0.096	A
Kestor Lane	205.53	51.38	203.13	191.06	383.58	0.00	541.91	348.95	0.379	0.00	0.60	0.176	B
Preston Road	364.38	91.10	360.95	387.65	199.06	0.00	781.41	694.00	0.466	0.00	0.86	0.142	A
Whittingham Road	180.68	45.17	179.06	238.68	321.33	0.00	625.41	492.03	0.289	0.00	0.40	0.134	A

Main results: (08:00-08:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	421.62	105.41	420.74	332.20	268.80	0.00	953.69	823.88	0.442	0.56	0.78	0.112	A
Kestor Lane	245.42	61.36	244.27	229.39	460.15	0.00	514.74	348.95	0.477	0.60	0.89	0.221	B
Preston Road	435.11	108.78	433.37	465.28	239.13	0.00	762.93	694.00	0.570	0.86	1.29	0.181	B
Whittingham Road	215.76	53.94	215.12	286.62	385.88	0.00	595.51	492.03	0.362	0.40	0.56	0.157	A

Main results: (08:15-08:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	516.38	129.09	514.57	405.13	328.24	0.00	925.88	823.88	0.558	0.78	1.23	0.145	A
Kestor Lane	300.58	75.14	297.72	280.10	562.71	0.00	478.34	348.95	0.628	0.89	1.60	0.327	C
Preston Road	532.89	133.22	528.33	568.60	291.83	0.00	736.64	694.00	0.721	1.29	2.43	0.279	C
Whittingham Road	264.24	66.06	262.95	349.74	470.42	0.00	556.35	492.03	0.475	0.56	0.88	0.204	B

Main results: (08:30-08:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	516.38	129.09	516.32	408.25	330.19	0.00	924.95	823.88	0.558	1.23	1.25	0.147	A
Kestor Lane	300.58	75.14	300.39	281.76	564.75	0.00	477.62	348.95	0.629	1.60	1.65	0.338	C
Preston Road	532.89	133.22	532.57	571.30	293.85	0.00	737.71	694.00	0.722	2.43	2.51	0.291	C
Whittingham Road	264.24	66.06	264.19	352.17	474.25	0.00	554.58	492.03	0.476	0.88	0.90	0.207	B

Main results: (08:45-09:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	421.62	105.41	423.40	336.87	271.74	0.00	952.31	823.88	0.443	1.25	0.80	0.114	A
Kestor Lane	245.42	61.36	248.25	231.89	463.25	0.00	513.64	348.95	0.478	1.65	0.94	0.226	B
Preston Road	435.11	108.78	439.89	469.38	242.15	0.00	761.55	694.00	0.571	2.51	1.37	0.189	B
Whittingham Road	215.76	53.94	217.02	290.24	391.59	0.00	592.86	492.03	0.364	0.90	0.58	0.160	A

Main results: (09:00-09:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	353.09	88.27	354.01	280.75	226.82	0.00	973.35	823.88	0.363	0.80	0.57	0.097	A
Kestor Lane	205.53	51.38	206.79	193.54	387.29	0.00	540.60	348.95	0.380	0.94	0.62	0.180	B
Preston Road	364.38	91.10	366.29	392.10	201.98	0.00	780.06	694.00	0.467	1.37	0.89	0.146	A
Whittingham Road	180.68	45.17	181.36	242.05	326.22	0.00	623.14	492.03	0.290	0.58	0.41	0.136	A

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	8.14	0.54	0.096	A	A
Kestor Lane	8.50	0.57	0.176	B	B
Preston Road	12.21	0.81	0.142	A	A
Whittingham Road	5.77	0.38	0.134	A	A

Queueing Delay results: (08:00-08:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	11.39	0.76	0.112	A	A
Kestor Lane	12.68	0.85	0.221	B	B
Preston Road	18.46	1.23	0.181	B	B
Whittingham Road	8.11	0.54	0.157	A	A

Queueing Delay results: (08:15-08:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	17.72	1.18	0.145	A	A
Kestor Lane	22.10	1.47	0.327	C	B
Preston Road	33.34	2.22	0.279	C	B
Whittingham Road	12.61	0.84	0.204	B	B

Queueing Delay results: (08:30-08:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	18.66	1.24	0.147	A	A
Kestor Lane	24.45	1.63	0.338	C	C
Preston Road	37.25	2.48	0.291	C	B
Whittingham Road	13.38	0.89	0.207	B	B

Queueing Delay results: (08:45-09:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	12.51	0.83	0.114	A	A
Kestor Lane	14.99	1.00	0.228	B	B
Preston Road	21.85	1.46	0.189	B	B
Whittingham Road	9.08	0.61	0.160	A	A

Queueing Delay results: (09:00-09:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	8.86	0.59	0.097	A	A
Kestor Lane	9.79	0.65	0.180	B	B
Preston Road	13.96	0.93	0.146	A	A
Whittingham Road	6.40	0.43	0.136	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.1.305 [25 May 2012]

Filename: (new file)
Path:
Report generation date: 17/03/2015 15:57:30

Summary of junction performance

	PM			
	Queue (PCU)	Delay (min)	RFC	LOS
	Derby Road_Preston Road - 2014 Surveyed			
Derby Road	2.71	0.33	0.74	C
Kestor Lane	0.70	0.21	0.42	B
Preston Road	1.73	0.14	0.64	A
Whittingham Road	1.52	0.26	0.61	C
	Derby Road_Preston Road - 2016 Assessment			
Derby Road	9.74	1.06	0.94	F
Kestor Lane	1.59	0.36	0.62	C
Preston Road	5.47	0.36	0.86	C
Whittingham Road	9.22	1.14	0.94	F
	Derby Road_Preston Road - 2016 Baseline			
Derby Road	6.43	0.74	0.89	E
Kestor Lane	1.51	0.34	0.61	C
Preston Road	3.87	0.27	0.80	C
Whittingham Road	6.60	0.82	0.89	E
	Derby Road_Preston Road - 2025 Assessment			
Derby Road	29.59	2.59	1.06	F
Kestor Lane	2.21	0.46	0.70	D
Preston Road	13.32	0.80	0.95	E
Whittingham Road	33.76	3.36	1.10	F
	Derby Road_Preston Road - 2025 Baseline			
Derby Road	20.07	1.92	1.02	F
Kestor Lane	2.16	0.45	0.70	D
Preston Road	7.81	0.50	0.90	D
Whittingham Road	24.29	2.48	1.05	F

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

"D2 - 2016 Baseline, PM " model duration: 16:45 - 18:15
"D4 - 2025 Baseline, PM" model duration: 16:45 - 18:15
"D6 - 2016 Assessment, PM" model duration: 16:45 - 18:15
"D8 - 2025 Assessment, PM" model duration: 16:45 - 18:15
"D10 - 2014 Surveyed, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.1.305 at 17/03/2015 15:57:28

File summary

File Description

Title	Inglewhite Road / Berry Lane
Location	Longridge
Site Number	
Date	03/02/2014
Version	
Status	(new file)
Identifier	VN30277
Client	
Jobnumber	VN30277
Enumerator	Workstation\Workstation1
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (min)	Queue Threshold (PCU)
5.75			N/A	0.85	0.60	20.00

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	PCU	PCU	perHour	min	-Min	perMin

Derby Road_Preston Road - 2016 Baseline, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Derby Road_Preston Road	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2016 Baseline, PM	2016 Baseline	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (min)	Junction LOS
Derby Road / Preston Road	Roundabout	A,B,C,1				0.52	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Name	Description
Derby Road	Derby Road	
Kestor Lane	Kestor Lane	
Preston Road	Preston Road	
Whittingham Road	Whittingham Road	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Derby Road	0.00	99999.00		0.00
Kestor Lane	0.00	99999.00		0.00
Preston Road	0.00	99999.00		0.00
Whittingham Road	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Derby Road	3.40	7.00	4.00	11.00	17.00	76.00	
Kestor Lane	3.60	5.50	4.00	3.00	17.00	64.00	
Preston Road	3.80	4.50	4.00	8.00	17.00	88.00	
Whittingham Road	3.60	5.50	7.00	8.00	17.00	64.00	

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

Pedestrian Crossings

Name	Crossing Type
Derby Road	None
Kestor Lane	None
Preston Road	None
Whittingham Road	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Derby Road	Direct	Queue Surveys	-170.00	
Kestor Lane	Direct	Queue Surveys	-100.00	
Preston Road	Direct	Queue Surveys	250.00	
Whittingham Road	Direct	Queue Surveys	-170.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Derby Road		(calculated)	(calculated)	0.468	879.554
Kestor Lane		(calculated)	(calculated)	0.355	698.042
Preston Road		(calculated)	(calculated)	0.461	1273.182
Whittingham Road		(calculated)	(calculated)	0.463	904.240

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Derby Road	ONE HOUR	✓	505.00	100.000
Kestor Lane	ONE HOUR	✓	246.00	100.000
Preston Road	ONE HOUR	✓	817.00	100.000
Whittingham Road	ONE HOUR	✓	489.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	60.000	337.000	108.000
	B	56.000	0.000	55.000	135.000
	C	449.000	133.000	0.000	235.000
	1	109.000	152.000	208.000	0.000

Turning Proportions (PCU) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.00	0.12	0.67	0.21
	B	0.23	0.00	0.22	0.55
	C	0.55	0.16	0.00	0.29
	1	0.23	0.32	0.44	0.00

Vehicle Mix

Average PCU Per Vehicle - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	1	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	0.000
	C	0.000	0.000	0.000	0.000
	1	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Derby Road	0.89	0.74	6.43	E	463.40	695.10	261.23	0.38	2.90	261.29	0.38
Kestor Lane	0.61	0.34	1.51	C	225.73	338.60	83.83	0.25	0.93	83.85	0.25
Preston Road	0.80	0.27	3.87	C	749.69	1124.54	194.23	0.17	2.16	194.27	0.17
Whittingham Road	0.89	0.82	6.60	E	430.36	645.54	256.81	0.40	2.85	256.86	0.40

Main Results for each time segment

Main results: (16:45-17:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	380.19	95.05	375.66	458.40	387.24	0.00	707.60	615.59	0.537	0.00	1.13	0.178	B
Kestor Lane	185.20	46.30	183.06	257.13	485.77	0.00	525.85	425.33	0.352	0.00	0.53	0.174	B
Preston Road	615.08	153.77	610.72	448.36	222.48	0.00	1170.61	1060.24	0.525	0.00	1.09	0.106	A
Whittingham Road	353.09	88.27	348.92	356.47	476.73	0.00	683.43	509.57	0.517	0.00	1.04	0.177	B

Main results: (17:00-17:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	453.98	113.50	450.64	549.60	440.33	0.00	673.37	615.59	0.674	1.13	1.97	0.265	C
Kestor Lane	221.15	55.29	220.09	308.30	582.67	0.00	491.26	425.33	0.450	0.53	0.80	0.220	B
Preston Road	734.47	183.62	731.93	535.50	267.26	0.00	1149.97	1060.24	0.639	1.09	1.72	0.143	A
Whittingham Road	421.62	105.41	418.42	427.69	571.50	0.00	639.53	509.57	0.659	1.04	1.84	0.267	C

Main results: (17:15-17:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	556.02	139.00	541.71	667.50	529.71	0.00	631.52	615.59	0.880	1.97	5.55	0.591	E
Kestor Lane	270.85	67.71	268.29	371.87	699.54	0.00	449.78	425.33	0.602	0.80	1.44	0.326	C
Preston Road	899.53	224.88	891.58	643.67	324.16	0.00	1123.74	1060.24	0.800	1.72	3.71	0.250	C
Whittingham Road	516.38	129.09	501.00	519.54	696.21	0.00	581.77	509.57	0.888	1.84	5.69	0.647	E

Main results: (17:30-17:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	556.02	139.00	552.48	674.77	539.91	0.00	626.75	615.59	0.887	5.55	6.43	0.745	E
Kestor Lane	270.85	67.71	270.58	378.15	714.24	0.00	444.57	425.33	0.609	1.44	1.51	0.344	C
Preston Road	899.53	224.88	898.89	656.58	328.24	0.00	1121.86	1060.24	0.802	3.71	3.87	0.267	C
Whittingham Road	516.38	129.09	512.75	525.20	701.93	0.00	579.12	509.57	0.892	5.69	6.60	0.824	E

Main results: (17:45-18:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	453.98	113.50	470.59	561.24	458.40	0.00	664.91	615.59	0.683	6.43	2.28	0.332	C
Kestor Lane	221.15	55.29	223.69	319.31	609.88	0.00	481.87	425.33	0.459	1.51	0.87	0.235	B
Preston Road	734.47	183.62	742.64	559.05	274.32	0.00	1146.71	1060.24	0.641	3.87	1.83	0.151	A
Whittingham Road	421.62	105.41	439.69	437.01	579.95	0.00	635.62	509.57	0.663	6.60	2.08	0.331	C

Main results: (18:00-18:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	380.19	95.05	384.48	464.98	374.60	0.00	704.15	615.59	0.540	2.28	1.20	0.190	B
Kestor Lane	185.20	46.30	186.45	261.96	497.13	0.00	521.62	425.33	0.355	0.87	0.56	0.180	B
Preston Road	615.08	153.77	617.86	456.58	226.99	0.00	1168.53	1060.24	0.526	1.83	1.13	0.110	A
Whittingham Road	353.09	88.27	356.99	362.27	482.60	0.00	680.71	509.57	0.519	2.08	1.10	0.188	B

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	15.85	1.06	0.178	B	B
Kestor Lane	7.59	0.51	0.174	B	B
Preston Road	15.61	1.04	0.106	A	A
Whittingham Road	14.64	0.98	0.177	B	B

Queueing Delay results: (17:00-17:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	27.30	1.82	0.265	C	B
Kestor Lane	11.42	0.76	0.220	B	B
Preston Road	24.61	1.64	0.143	A	A
Whittingham Road	25.56	1.71	0.267	C	B

Queueing Delay results: (17:15-17:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	67.48	4.50	0.591	E	D
Kestor Lane	19.91	1.33	0.326	C	B
Preston Road	49.95	3.33	0.250	C	B
Whittingham Road	68.05	4.54	0.647	E	D

Queueing Delay results: (17:30-17:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	90.91	6.06	0.745	E	D
Kestor Lane	22.23	1.48	0.344	C	C
Preston Road	57.12	3.81	0.267	C	B
Whittingham Road	93.17	6.21	0.824	E	D

Queueing Delay results: (17:45-18:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	40.49	2.70	0.332	C	B
Kestor Lane	13.89	0.93	0.235	B	B
Preston Road	29.33	1.96	0.151	A	A
Whittingham Road	37.80	2.52	0.331	C	B

Queueing Delay results: (18:00-18:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	19.19	1.28	0.190	B	B
Kestor Lane	8.78	0.59	0.180	B	B
Preston Road	17.60	1.17	0.110	A	A
Whittingham Road	17.57	1.17	0.188	B	B

Derby Road_Preston Road - 2025 Baseline, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include in Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Derby Road_Preston Road	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2025 Baseline, PM	2025 Baseline	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (min)	Junction LOS
Derby Road / Preston Road	Roundabout	A,B,C,1				1.30	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Name	Description
Derby Road	Derby Road	
Kestor Lane	Kestor Lane	
Preston Road	Preston Road	
Whittingham Road	Whittingham Road	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Derby Road	0.00	99999.00		0.00
Kestor Lane	0.00	99999.00		0.00
Preston Road	0.00	99999.00		0.00
Whittingham Road	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Derby Road	3.40	7.00	4.00	11.00	17.00	76.00	
Kestor Lane	3.60	5.50	4.00	3.00	17.00	64.00	
Preston Road	3.80	4.50	4.00	8.00	17.00	68.00	
Whittingham Road	3.60	5.50	7.00	6.00	17.00	64.00	

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

Pedestrian Crossings

Name	Crossing Type
Derby Road	None
Kestor Lane	None
Preston Road	None
Whittingham Road	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Derby Road	Direct	Queue Surveys	-170.00	
Kestor Lane	Direct	Queue Surveys	-100.00	
Preston Road	Direct	Queue Surveys	250.00	
Whittingham Road	Direct	Queue Surveys	-170.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Derby Road		(calculated)	(calculated)	0.468	879.554
Kestor Lane		(calculated)	(calculated)	0.355	698.042
Preston Road		(calculated)	(calculated)	0.461	1273.182
Whittingham Road		(calculated)	(calculated)	0.463	904.240

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Derby Road	ONE HOUR	✓	568.00	100.000
Kestor Lane	ONE HOUR	✓	271.00	100.000
Preston Road	ONE HOUR	✓	907.00	100.000
Whittingham Road	ONE HOUR	✓	514.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	68.000	379.000	121.000
	B	63.000	0.000	62.000	146.000
	C	507.000	150.000	0.000	250.000
	1	123.000	167.000	224.000	0.000

Turning Proportions (PCU) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.00	0.12	0.67	0.21
	B	0.23	0.00	0.23	0.54
	C	0.56	0.17	0.00	0.28
	1	0.24	0.32	0.44	0.00

Vehicle Mix

Average PCU Per Vehicle - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	1	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	0.000
	C	0.000	0.000	0.000	0.000
	1	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Derby Road	1.02	1.92	20.07	F	521.21	781.81	647.46	0.83	7.19	647.59	0.83
Kestor Lane	0.70	0.45	2.16	D	248.67	373.01	115.21	0.31	1.28	115.24	0.31
Preston Road	0.90	0.50	7.81	D	832.28	1248.42	322.35	0.26	3.58	322.40	0.26
Whittingham Road	1.05	2.48	24.29	F	471.66	707.48	700.74	0.99	7.79	700.85	0.99

Main Results for each time segment

Main results: (16:45-17:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	427.62	106.91	421.37	516.65	402.13	0.00	691.26	618.47	0.619	0.00	1.56	0.218	B
Kestor Lane	204.02	51.01	201.39	286.36	537.14	0.00	507.42	427.13	0.402	0.00	0.66	0.194	B
Preston Road	682.84	170.71	677.23	493.45	245.08	0.00	1160.19	1060.57	0.589	0.00	1.40	0.123	A
Whittingham Road	386.97	96.74	381.40	384.93	537.38	0.00	655.34	502.41	0.590	0.00	1.39	0.215	B

Main results: (17:00-17:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	510.62	127.66	504.07	618.89	481.05	0.00	654.31	618.47	0.780	1.56	3.20	0.383	C
Kestor Lane	243.62	60.91	242.10	342.67	642.45	0.00	470.04	427.13	0.518	0.66	1.04	0.261	C
Preston Road	815.37	203.84	811.26	590.45	294.09	0.00	1137.60	1060.57	0.717	1.40	2.43	0.182	B
Whittingham Road	462.08	115.52	456.00	461.42	643.93	0.00	605.98	502.41	0.763	1.39	2.91	0.385	C

Main results: (17:15-17:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	625.38	156.34	584.85	740.29	555.67	0.00	619.37	618.47	1.010	3.20	13.33	1.126	F
Kestor Lane	298.38	74.59	294.49	400.24	740.28	0.00	435.32	427.13	0.685	1.04	2.01	0.415	C
Preston Road	998.63	249.66	980.40	683.07	351.71	0.00	1111.03	1060.57	0.899	2.43	6.99	0.411	C
Whittingham Road	565.92	141.48	517.33	553.48	778.63	0.00	543.59	502.41	1.041	2.91	15.06	1.353	F

Main results: (17:30-17:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	625.38	156.34	598.41	752.19	567.01	0.00	614.06	618.47	1.018	13.33	20.07	1.918	F
Kestor Lane	298.38	74.59	297.80	408.12	757.31	0.00	429.28	427.13	0.695	2.01	2.16	0.452	D
Preston Road	998.63	249.66	995.32	697.96	357.14	0.00	1108.53	1060.57	0.901	6.99	7.81	0.500	D
Whittingham Road	565.92	141.48	528.99	562.26	790.21	0.00	538.23	502.41	1.051	15.06	24.29	2.481	F

Main results: (17:45-18:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	510.62	127.66	567.82	654.43	550.90	0.00	621.60	618.47	0.921	20.07	5.77	1.267	F
Kestor Lane	243.62	60.91	246.98	382.46	736.26	0.00	436.75	427.13	0.558	2.16	1.32	0.322	C
Preston Road	815.37	203.84	835.78	671.81	311.44	0.00	1129.60	1060.57	0.722	7.81	2.71	0.217	B

Whittingham Road	462.08	115.52	542.50	484.39	662.83	0.00	597.23	502.41	0.774	24.29	4.19	1.387	F

Main results: (18:00-18:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	427.62	106.91	443.79	527.62	416.23	0.00	684.66	618.47	0.625	5.77	1.73	0.264	C
Kestor Lane	204.02	51.01	206.45	296.07	563.95	0.00	497.90	427.13	0.410	1.32	0.71	0.208	B
Preston Road	682.84	170.71	687.80	516.64	253.76	0.00	1156.19	1060.57	0.591	2.71	1.47	0.129	A
Whittingham Road	388.97	96.74	397.64	395.34	546.21	0.00	651.25	502.41	0.594	4.19	1.52	0.248	B

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	21.45	1.43	0.218	B	B
Kestor Lane	9.28	0.62	0.194	B	B
Preston Road	19.87	1.32	0.123	A	A
Whittingham Road	19.21	1.28	0.215	B	B

Queueing Delay results: (17:00-17:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	42.44	2.83	0.383	C	C
Kestor Lane	14.71	0.98	0.261	C	B
Preston Road	34.04	2.27	0.182	B	B
Whittingham Road	38.69	2.58	0.385	C	C

Queueing Delay results: (17:15-17:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	137.12	9.14	1.126	F	E
Kestor Lane	27.15	1.81	0.415	C	C
Preston Road	86.05	5.74	0.411	C	C
Whittingham Road	147.49	9.83	1.353	F	F

Queueing Delay results: (17:30-17:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	252.74	16.85	1.918	F	F
Kestor Lane	31.53	2.10	0.452	D	C
Preston Road	112.04	7.47	0.500	D	C
Whittingham Road	296.90	19.79	2.481	F	F

Queueing Delay results: (17:45-18:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	163.06	10.87	1.267	F	E
Kestor Lane	21.28	1.42	0.322	C	B
Preston Road	47.12	3.14	0.217	B	B
Whittingham Road	172.88	11.53	1.387	F	F

Queueing Delay results: (18:00-18:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	30.65	2.04	0.264	C	B
Kestor Lane	11.26	0.75	0.208	B	B
Preston Road	23.23	1.55	0.129	A	A
Whittingham Road	25.57	1.70	0.248	B	B

Derby Road_Preston Road - 2016 Assessment, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Derby Road_Preston Road	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2016 Assessment, PM	2016 Assessment	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (min)	Junction LOS
Derby Road / Preston Road	Roundabout	A,B,C,1				0.71	E

Junction Network Options

Driving Side	Lighting
Left	Normal/Unknown

Arms

Arms

Name	Name	Description
Derby Road	Derby Road	
Kestor Lane	Kestor Lane	
Preston Road	Preston Road	
Whittingham Road	Whittingham Road	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Derby Road	0.00	99999.00		0.00
Kestor Lane	0.00	99999.00		0.00
Preston Road	0.00	99999.00		0.00
Whittingham Road	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Derby Road	3.40	7.00	4.00	11.00	17.00	76.00	
Kestor Lane	3.60	5.50	4.00	3.00	17.00	64.00	
Preston Road	3.80	4.50	4.00	8.00	17.00	68.00	
Whittingham Road	3.60	5.50	7.00	6.00	17.00	64.00	

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

Pedestrian Crossings

Name	Crossing Type
Derby Road	None
Kestor Lane	None
Preston Road	None
Whittingham Road	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Derby Road	Direct	Queue Surveys	-170.00	

Kestor Lane	Direct	Queue Surveys	-100.00	
Preston Road	Direct	Queue Surveys	250.00	
Whittingham Road	Direct	Queue Surveys	-170.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Derby Road		(calculated)	(calculated)	0.468	879.554
Kestor Lane		(calculated)	(calculated)	0.355	698.042
Preston Road		(calculated)	(calculated)	0.461	1273.182
Whittingham Road		(calculated)	(calculated)	0.463	904.240

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Derby Road	ONE HOUR	✓	536.00	100.000
Kestor Lane	ONE HOUR	✓	246.00	100.000
Preston Road	ONE HOUR	✓	872.00	100.000
Whittingham Road	ONE HOUR	✓	469.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	60.000	368.000	108.000
	B	56.000	0.000	55.000	135.000
	C	504.000	133.000	0.000	235.000
	1	109.000	152.000	208.000	0.000

Turning Proportions (PCU) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.00	0.11	0.69	0.20
	B	0.23	0.00	0.22	0.55
	C	0.58	0.15	0.00	0.27
	1	0.23	0.32	0.44	0.00

Vehicle Mix

Average PCU Per Vehicle - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	1	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1

From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	0.000
	C	0.000	0.000	0.000	0.000
	1	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Derby Road	0.94	1.06	9.74	F	491.84	737.76	351.94	0.48	3.91	352.02	0.48
Kestor Lane	0.62	0.36	1.59	C	225.73	338.60	87.64	0.26	0.97	87.66	0.26
Preston Road	0.86	0.36	5.47	C	800.16	1200.24	250.77	0.21	2.79	250.81	0.21
Whittingham Road	0.94	1.14	9.22	F	430.36	645.54	320.05	0.50	3.56	320.11	0.50

Main Results for each time segment

Main results: (16:45-17:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	403.53	100.88	398.38	499.23	367.00	0.00	707.71	623.98	0.570	0.00	1.29	0.191	B
Kestor Lane	185.20	46.30	183.01	256.96	508.42	0.00	517.61	422.74	0.358	0.00	0.55	0.178	B
Preston Road	656.49	164.12	651.47	469.07	222.37	0.00	1170.66	1063.90	0.561	0.00	1.25	0.114	A
Whittingham Road	353.09	88.27	348.67	356.27	517.56	0.00	664.52	499.69	0.531	0.00	1.10	0.187	B

Main results: (17:00-17:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	481.85	120.46	477.58	598.40	439.83	0.00	673.61	623.98	0.715	1.29	2.36	0.299	C
Kestor Lane	221.15	55.29	220.03	307.96	609.45	0.00	481.75	422.74	0.459	0.55	0.83	0.228	B
Preston Road	783.91	195.98	780.63	562.42	267.07	0.00	1150.06	1063.90	0.682	1.25	2.07	0.161	A
Whittingham Road	421.62	105.41	417.89	427.36	620.35	0.00	616.91	499.69	0.683	1.10	2.04	0.286	C

Main results: (17:15-17:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	590.15	147.54	568.70	724.01	524.69	0.00	633.87	623.98	0.931	2.36	7.72	0.749	E
Kestor Lane	270.85	67.71	268.12	368.73	724.66	0.00	440.87	422.74	0.614	0.83	1.51	0.341	C
Preston Road	960.09	240.02	947.93	670.01	322.77	0.00	1124.38	1063.90	0.854	2.07	5.11	0.320	C
Whittingham Road	516.38	129.09	495.19	517.19	753.51	0.00	555.23	499.69	0.930	2.04	7.33	0.807	E

Main results: (17:30-17:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	590.15	147.54	582.05	733.92	536.81	0.00	628.20	623.98	0.939	7.72	9.74	1.056	F
Kestor Lane	270.85	67.71	270.51	376.29	742.57	0.00	434.51	422.74	0.623	1.51	1.59	0.364	C
Preston Road	960.09	240.02	958.65	685.77	327.31	0.00	1122.28	1063.90	0.855	5.11	5.47	0.359	C
Whittingham Road	516.38	129.09	508.65	524.08	761.88	0.00	551.35	499.69	0.937	7.33	9.22	1.144	F

Main results: (17:45-18:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	481.85	120.46	509.19	615.85	466.15	0.00	661.28	623.98	0.729	9.74	2.91	0.450	D
Kestor Lane	221.15	55.29	223.82	324.04	651.30	0.00	468.90	422.74	0.474	1.59	0.93	0.249	B
Preston Road	783.91	195.98	796.84	598.74	276.37	0.00	1145.77	1063.90	0.684	5.47	2.24	0.178	B
Whittingham Road	421.62	105.41	448.95	440.17	633.05	0.00	611.03	499.69	0.690	9.22	2.38	0.422	D

Main results: (18:00-18:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	403.53	100.88	409.63	507.26	375.43	0.00	703.76	623.98	0.573	2.91	1.38	0.208	B
Kestor Lane	185.20	46.30	186.60	262.55	522.51	0.00	512.61	422.74	0.361	0.93	0.58	0.185	B
Preston Road	656.49	164.12	660.23	481.69	227.42	0.00	1168.34	1063.90	0.562	2.24	1.30	0.119	A
Whittingham Road	353.09	88.27	357.91	362.87	524.78	0.00	661.17	499.69	0.534	2.38	1.18	0.201	B

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	17.92	1.19	0.191	B	B
Kestor Lane	7.76	0.52	0.178	B	B
Preston Road	17.87	1.19	0.114	A	A
Whittingham Road	15.43	1.03	0.187	B	B

Queueing Delay results: (17:00-17:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	32.25	2.15	0.299	C	B
Kestor Lane	11.80	0.79	0.228	B	B
Preston Road	29.34	1.96	0.161	A	A
Whittingham Road	28.02	1.87	0.296	C	B

Queueing Delay results: (17:15-17:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	88.48	5.90	0.749	E	D
Kestor Lane	20.79	1.39	0.341	C	C
Preston Road	66.19	4.41	0.320	C	B
Whittingham Road	83.14	5.54	0.807	E	D

Queueing Delay results: (17:30-17:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	132.79	8.85	1.056	F	E
Kestor Lane	23.44	1.56	0.364	C	C
Preston Road	79.92	5.33	0.359	C	C
Whittingham Road	125.80	8.39	1.144	F	E

Queueing Delay results: (17:45-18:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	58.16	3.88	0.450	D	C
Kestor Lane	14.80	0.99	0.249	B	B
Preston Road	36.97	2.46	0.178	B	B
Whittingham Road	48.80	3.25	0.422	D	C

Queueing Delay results: (18:00-18:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	22.35	1.49	0.208	B	B
Kestor Lane	9.05	0.60	0.185	B	B
Preston Road	20.48	1.37	0.119	A	A
Whittingham Road	18.85	1.26	0.201	B	B

Derby Road_Preston Road - 2025 Assessment, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Derby Road_Preston Road	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2025 Assessment, PM	2025 Assessment	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (min)	Junction LOS
Derby Road / Preston Road	Roundabout	A,B,C,1				1.78	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Name	Description
Derby Road	Derby Road	
Kestor Lane	Kestor Lane	
Preston Road	Preston Road	
Whittingham Road	Whittingham Road	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Derby Road	0.00	99999.00		0.00
Kestor Lane	0.00	99999.00		0.00
Preston Road	0.00	99999.00		0.00
Whittingham Road	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Derby Road	3.40	7.00	4.00	11.00	17.00	76.00	
Kestor Lane	3.60	5.50	4.00	3.00	17.00	64.00	
Preston Road	3.80	4.50	4.00	8.00	17.00	68.00	
Whittingham Road	3.60	5.50	7.00	6.00	17.00	64.00	

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

Pedestrian Crossings

Name	Crossing Type
Derby Road	None
Kestor Lane	None
Preston Road	None
Whittingham Road	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Derby Road	Direct	Queue Surveys	-170.00	
Kestor Lane	Direct	Queue Surveys	-100.00	
Preston Road	Direct	Queue Surveys	250.00	
Whittingham Road	Direct	Queue Surveys	-170.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Derby Road		(calculated)	(calculated)	0.468	879.554
Kestor Lane		(calculated)	(calculated)	0.355	898.042
Preston Road		(calculated)	(calculated)	0.461	1273.182
Whittingham Road		(calculated)	(calculated)	0.463	904.240

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Derby Road	ONE HOUR	✓	599.00	100.000
Kestor Lane	ONE HOUR	✓	271.00	100.000
Preston Road	ONE HOUR	✓	982.00	100.000
Whittingham Road	ONE HOUR	✓	514.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	68.000	410.000	121.000
	B	63.000	0.000	62.000	148.000
	C	582.000	150.000	0.000	250.000
	1	123.000	167.000	224.000	0.000

Turning Proportions (PCU) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.00	0.11	0.68	0.20
	B	0.23	0.00	0.23	0.54
	C	0.58	0.16	0.00	0.26
	1	0.24	0.32	0.44	0.00

Vehicle Mix

Average PCU Per Vehicle - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	1	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	0.000
	C	0.000	0.000	0.000	0.000
	1	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Derby Road	1.06	2.59	29.59	F	549.65	824.48	1009.94	1.22	11.22	1010.15	1.23
Kestor Lane	0.70	0.46	2.21	D	248.67	373.01	120.06	0.32	1.33	120.10	0.32
Preston Road	0.95	0.80	13.32	E	882.75	1324.12	468.16	0.35	5.20	468.24	0.35
Whittingham Road	1.10	3.36	33.76	F	471.66	707.48	1023.93	1.45	11.38	1024.06	1.45

Main Results for each time segment

Main results: (16:45-17:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	450.96	112.74	443.79	557.29	401.74	0.00	691.44	525.99	0.652	0.00	1.79	0.236	B
Kestor Lane	204.02	51.01	201.32	286.08	559.45	0.00	499.50	424.73	0.408	0.00	0.68	0.200	B
Preston Road	724.24	181.06	717.76	515.86	244.91	0.00	1160.27	1063.87	0.624	0.00	1.62	0.134	A
Whittingham Road	388.97	96.74	381.00	384.64	578.03	0.00	636.51	493.80	0.608	0.00	1.49	0.230	B

Main results: (17:00-17:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	538.49	134.62	529.72	667.06	479.84	0.00	654.87	525.99	0.822	1.79	3.98	0.450	D
Kestor Lane	243.62	60.91	242.00	341.84	667.72	0.00	461.07	424.73	0.528	0.68	1.08	0.272	C
Preston Road	864.82	216.20	859.31	616.08	293.64	0.00	1137.80	1063.87	0.760	1.62	3.00	0.211	B
Whittingham Road	462.08	115.52	454.65	460.70	692.26	0.00	583.60	493.80	0.792	1.49	3.35	0.441	D

Main results: (17:15-17:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	659.51	164.88	602.45	789.14	542.25	0.00	625.65	525.99	1.054	3.98	18.25	1.399	F
Kestor Lane	298.38	74.59	294.42	391.82	752.88	0.00	430.85	424.73	0.693	1.08	2.07	0.427	D
Preston Road	1059.18	264.80	1027.96	698.54	348.76	0.00	1112.40	1063.87	0.952	3.00	10.80	0.568	D
Whittingham Road	565.92	141.48	502.13	547.45	829.26	0.00	520.14	493.80	1.088	3.35	19.30	1.680	F

Main results: (17:30-17:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	659.51	164.88	614.16	803.72	550.08	0.00	621.98	525.99	1.060	18.25	29.59	2.591	F
Kestor Lane	298.38	74.59	297.83	398.38	765.87	0.00	426.24	424.73	0.700	2.07	2.21	0.463	D
Preston Road	1059.18	264.80	1049.12	709.94	353.76	0.00	1110.09	1063.87	0.954	10.80	13.32	0.800	E
Whittingham Road	565.92	141.48	508.09	557.16	845.72	0.00	512.52	493.80	1.104	19.30	33.76	3.362	F

Main results: (17:45-18:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	538.49	134.62	596.97	717.54	560.41	0.00	617.15	525.99	0.873	29.59	14.97	2.323	F
Kestor Lane	243.62	60.91	246.83	387.89	769.49	0.00	424.96	424.73	0.573	2.21	1.41	0.343	C
Preston Road	864.82	216.20	904.17	705.37	310.95	0.00	1129.83	1063.87	0.765	13.32	3.48	0.305	C
Whittingham Road	462.08	115.52	551.37	488.54	726.58	0.00	567.70	493.80	0.814	33.76	11.43	2.577	F

Main results: (18:00-18:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	450.96	112.74	502.23	577.17	438.13	0.00	674.40	525.99	0.669	14.97	2.15	0.443	D

Kestor Lane	204.02	51.01	206.55	309.47	630.90	0.00	474.14	424.73	0.430	1.41	0.77	0.226	B
Preston Road	724.24	181.06	731.25	576.70	260.75	0.00	1152.97	1063.87	0.628	3.48	1.73	0.145	A
Whittingham Road	386.97	96.74	426.07	402.77	589.23	0.00	631.32	493.80	0.613	11.43	1.66	0.345	C

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	24.38	1.63	0.236	B	B
Kestor Lane	9.50	0.63	0.200	B	B
Preston Road	22.82	1.52	0.134	A	A
Whittingham Road	20.45	1.36	0.230	B	B

Queueing Delay results: (17:00-17:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	51.46	3.43	0.450	D	C
Kestor Lane	15.25	1.02	0.272	C	B
Preston Road	41.35	2.76	0.211	B	B
Whittingham Road	43.65	2.91	0.441	D	C

Queueing Delay results: (17:15-17:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	178.27	11.88	1.399	F	F
Kestor Lane	27.90	1.86	0.427	D	C
Preston Road	122.45	8.16	0.568	D	C
Whittingham Road	180.65	12.04	1.680	F	F

Queueing Delay results: (17:30-17:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	360.39	24.03	2.591	F	F
Kestor Lane	32.33	2.16	0.463	D	C
Preston Road	183.10	12.21	0.800	E	D
Whittingham Road	389.09	26.61	3.362	F	F

Queueing Delay results: (17:45-18:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	334.14	22.28	2.323	F	F
Kestor Lane	22.75	1.52	0.343	C	C
Preston Road	70.86	4.72	0.305	C	B
Whittingham Road	338.93	22.60	2.577	F	F

Queueing Delay results: (18:00-18:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	61.31	4.09	0.443	D	C
Kestor Lane	12.33	0.82	0.226	B	B
Preston Road	27.57	1.84	0.145	A	A
Whittingham Road	41.18	2.74	0.345	C	C

Derby Road_Preston Road - 2014 Surveyed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include in Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Derby Road_Preston Road	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2014 Surveyed. PM	2014 Surveyed	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (min)	Junction LOS
Derby Road / Preston Road	Roundabout	A,B,C,1				0.23	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Name	Name	Description
Derby Road	Derby Road	
Kestor Lane	Kestor Lane	
Preston Road	Preston Road	
Whittingham Road	Whittingham Road	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Derby Road	0.00	99999.00		0.00
Kestor Lane	0.00	99999.00		0.00
Preston Road	0.00	99999.00		0.00
Whittingham Road	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Derby Road	3.40	7.00	4.00	11.00	17.00	76.00	
Kestor Lane	3.60	5.50	4.00	3.00	17.00	64.00	
Preston Road	3.80	4.50	4.00	8.00	17.00	68.00	
Whittingham Road	3.60	5.50	7.00	6.00	17.00	64.00	

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

Pedestrian Crossings

Name	Crossing Type
Derby Road	None
Kestor Lane	None
Preston Road	None
Whittingham Road	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Derby Road	Direct	Queue Surveys	-170.00	
Kestor Lane	Direct	Queue Surveys	-100.00	
Preston Road	Direct	Queue Surveys	250.00	
Whittingham Road	Direct	Queue Surveys	-170.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Derby Road		(calculated)	(calculated)	0.468	879.554
Kestor Lane		(calculated)	(calculated)	0.355	698.042

Preston Road		(calculated)	(calculated)	0.461	1273.182
Whittingham Road		(calculated)	(calculated)	0.463	904.240

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Derby Road	ONE HOUR	✓	466.00	100.000
Kestor Lane	ONE HOUR	✓	186.00	100.000
Preston Road	ONE HOUR	✓	689.00	100.000
Whittingham Road	ONE HOUR	✓	327.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	58.000	313.000	95.000
	B	54.000	0.000	53.000	79.000
	C	430.000	128.000	0.000	111.000
	1	97.000	111.000	119.000	0.000

Turning Proportions (PCU) - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.00	0.12	0.67	0.20
	B	0.29	0.00	0.28	0.42
	C	0.64	0.19	0.00	0.17
	1	0.30	0.34	0.36	0.00

Vehicle Mix

Average PCU Per Vehicle - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000
	1	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Derby Road / Preston Road (for whole period)

		To			
		A	B	C	1
From	A	0.000	0.000	0.000	0.000
	B	0.000	0.000	0.000	0.000
	C	0.000	0.000	0.000	0.000
	1	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Derby Road	0.74	0.33	2.71	C	427.61	641.41	142.44	0.22	1.58	142.48	0.22
Kestor Lane	0.42	0.21	0.70	B	170.68	256.02	44.35	0.17	0.49	44.35	0.17
Preston Road	0.64	0.14	1.73	A	613.89	920.83	103.31	0.11	1.15	103.32	0.11
Whittingham Road	0.61	0.26	1.52	C	300.06	450.09	84.83	0.19	0.94	84.84	0.19

Main Results for each time segment

Main results: (16:45-17:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	350.83	87.71	347.41	434.52	267.44	0.00	754.33	841.53	0.465	0.00	0.85	0.146	A
Kestor Lane	140.03	35.01	138.71	221.88	392.97	0.00	558.58	442.85	0.251	0.00	0.33	0.142	A
Preston Road	503.66	125.91	500.77	361.67	170.01	0.00	1194.80	1066.90	0.422	0.00	0.72	0.086	A
Whittingham Road	246.18	61.55	244.00	212.83	457.95	0.00	692.12	432.52	0.356	0.00	0.54	0.133	A

Main results: (17:00-17:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	418.92	104.73	417.09	521.06	320.85	0.00	729.32	641.53	0.574	0.85	1.31	0.191	B
Kestor Lane	167.21	41.80	166.72	266.17	471.77	0.00	530.62	442.85	0.315	0.33	0.45	0.165	A
Preston Road	601.42	150.35	600.19	434.25	204.24	0.00	1179.02	1066.90	0.510	0.72	1.03	0.103	A
Whittingham Road	293.97	73.49	292.90	255.42	549.01	0.00	849.95	432.52	0.452	0.54	0.81	0.168	B

Main results: (17:15-17:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	513.08	128.27	507.90	636.88	391.76	0.00	696.12	841.53	0.737	1.31	2.61	0.310	C
Kestor Lane	204.79	51.20	203.83	324.93	574.73	0.00	494.08	442.85	0.414	0.45	0.69	0.206	B
Preston Road	736.58	184.15	733.87	529.27	249.29	0.00	1158.25	1066.90	0.636	1.03	1.70	0.140	A
Whittingham Road	360.03	90.01	357.34	311.88	671.29	0.00	593.31	432.52	0.607	0.81	1.48	0.251	C

Main results: (17:30-17:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	513.08	128.27	512.67	639.58	394.05	0.00	695.04	841.53	0.738	2.61	2.71	0.327	C
Kestor Lane	204.79	51.20	204.75	326.89	579.83	0.00	492.27	442.85	0.416	0.69	0.70	0.209	B
Preston Road	736.58	184.15	736.49	533.66	250.92	0.00	1157.50	1066.90	0.636	1.70	1.73	0.142	A
Whittingham Road	360.03	90.01	359.90	313.67	673.74	0.00	592.18	432.52	0.608	1.48	1.52	0.258	C

Main results: (17:45-18:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	418.92	104.73	424.17	525.09	324.23	0.00	727.73	841.53	0.576	2.71	1.40	0.201	B
Kestor Lane	167.21	41.80	168.14	269.07	479.33	0.00	527.93	442.85	0.317	0.70	0.47	0.167	B
Preston Road	601.42	150.35	604.09	440.77	206.70	0.00	1177.89	1066.90	0.511	1.73	1.06	0.105	A
Whittingham Road	293.97	73.49	296.65	258.12	552.68	0.00	648.25	432.52	0.453	1.52	0.85	0.172	B

Main results: (18:00-18:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Derby Road	350.83	87.71	352.86	438.72	270.57	0.00	752.86	841.53	0.466	1.40	0.89	0.151	A
Kestor Lane	140.03	35.01	140.55	224.48	398.95	0.00	556.46	442.85	0.252	0.47	0.34	0.144	A
Preston Road	503.66	125.91	504.94	367.06	172.44	0.00	1193.66	1066.90	0.422	1.06	0.74	0.087	A
Whittingham Road	246.18	61.55	247.32	215.41	461.97	0.00	690.27	432.52	0.357	0.85	0.56	0.136	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	12.13	0.81	0.148	A	A
Kestor Lane	4.75	0.32	0.142	A	A
Preston Road	10.45	0.70	0.086	A	A
Whittingham Road	7.81	0.52	0.133	A	A

Queueing Delay results: (17:00-17:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	18.69	1.25	0.191	B	B
Kestor Lane	6.58	0.44	0.165	A	A
Preston Road	14.93	1.00	0.103	A	A
Whittingham Road	11.66	0.78	0.166	B	B

Queueing Delay results: (17:15-17:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	35.33	2.36	0.310	C	B
Kestor Lane	9.93	0.66	0.206	B	B
Preston Road	24.31	1.62	0.140	A	A
Whittingham Road	20.71	1.38	0.251	C	B

Queueing Delay results: (17:30-17:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	40.02	2.67	0.327	C	B
Kestor Lane	10.49	0.70	0.209	B	B
Preston Road	25.77	1.72	0.142	A	A
Whittingham Road	22.55	1.50	0.259	C	B

Queueing Delay results: (17:45-18:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	22.37	1.49	0.201	B	B
Kestor Lane	7.34	0.49	0.167	B	B
Preston Road	16.48	1.10	0.105	A	A
Whittingham Road	13.36	0.89	0.172	B	B

Queueing Delay results: (18:00-18:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Derby Road	13.92	0.93	0.151	A	A
Kestor Lane	5.27	0.35	0.144	A	A
Preston Road	11.36	0.76	0.087	A	A
Whittingham Road	8.74	0.58	0.138	A	A

Appendix 18

ARCADY Outputs – Preston Road/Chapel Hill

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.1.305 [25 May 2012]

Filename: (new file)
Path:
Report generation date: 17/03/2015 15:58:16

Summary of junction performance

	AM			
	Queue (PCU)	Delay (min)	RFC	LOS
	Preston Road/ Chapel Hill - 2014 Surveyed			
Preston Rd (SB)	1.75	0.18	0.64	B
Chapel Hill	0.78	0.12	0.44	A
Preston Rd (NB)	0.65	0.06	0.39	A
	Preston Road/ Chapel Hill - 2016 Assessment			
Preston Rd (SB)	8.20	0.65	0.91	E
Chapel Hill	1.30	0.17	0.57	B
Preston Rd (NB)	0.90	0.07	0.48	A
	Preston Road/ Chapel Hill - 2016 Baseline			
Preston Rd (SB)	4.75	0.40	0.84	C
Chapel Hill	1.18	0.16	0.54	A
Preston Rd (NB)	0.85	0.07	0.46	A
	Preston Road/ Chapel Hill - 2025 Assessment			
Preston Rd (SB)	26.07	1.72	1.02	F
Chapel Hill	1.87	0.23	0.66	B
Preston Rd (NB)	1.12	0.08	0.53	A
	Preston Road/ Chapel Hill - 2025 Baseline			
Preston Rd (SB)	11.58	0.90	0.95	F
Chapel Hill	1.72	0.21	0.64	B
Preston Rd (NB)	1.06	0.07	0.52	A

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

"D1 - 2016 Baseline, AM " model duration: 07:45 - 09:15
"D3 - 2025 Baseline, AM" model duration: 07:45 - 09:15
"D5 - 2016 Assessment, AM" model duration: 07:45 - 09:15
"D7 - 2025 Assessment, AM" model duration: 07:45 - 09:15
"D8 - 2014 Surveyed, AM" model duration: 07:45 - 09:15

Run using Junctions 8.0.1.305 at 17/03/2015 15:58:14

File summary

File Description

Title	Inglewhite Road / Berry Lane
Location	Longridge
Site Number	
Date	03/02/2014
Version	
Status	(new file)
Identifier	VN30277
Client	
Jobnumber	VN30277
Enumerator	Workstation\Workstation1
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (min)	Queue Threshold (PCU)
5.75			N/A	0.85	0.60	20.00

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	PCU	PCU	perHour	min	-Min	perMin

Preston Road/ Chapel Hill - 2016 Baseline, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Preston Road/ Chapel Hill	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2016 Baseline, AM	2016 Baseline	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (min)	Junction LOS
Preston Road / Chapel Hill	Mini-roundabout	A,B,C	0.21	B

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Name	Name	Description
Preston Rd (SB)	Preston Rd (SB)	
Chapel Hill	Chapel Hill	
Preston Rd (NB)	Preston Rd (NB)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Preston Rd (SB)	0.00	99999.00		0.00
Chapel Hill	0.00	99999.00		0.00
Preston Rd (NB)	0.00	99999.00		0.00

Mini Roundabout Geometry

Name	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 60m (%)	Kerbed central island
Preston Rd (SB)	4.00	4.00	6.00	2.00	9.00	4.00	0.00	
Chapel Hill	4.00	4.00	4.00	0.00	15.00	15.00	0.00	
Preston Rd (NB)	3.50	3.50	4.50	1.00	10.00	9.00	0.00	

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

Pedestrian Crossings

Name	Crossing Type
Preston Rd (SB)	None
Chapel Hill	None
Preston Rd (NB)	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Preston Rd (SB)	Direct	Queue Surveys	195.00	
Chapel Hill	Direct		300.00	
Preston Rd (NB)	Direct	Queue Surveys	800.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Preston Rd (SB)		(calculated)	(calculated)	0.578	1071.783
Chapel Hill		(calculated)	(calculated)	0.601	1233.082
Preston Rd (NB)		(calculated)	(calculated)	0.543	1689.951

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Preston Rd (SB)	ONE HOUR	✓	679.00	100.000
Chapel Hill	ONE HOUR	✓	413.00	100.000
Preston Rd (NB)	ONE HOUR	✓	701.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	78.000	601.000
	B	31.000	0.000	382.000
	C	421.000	280.000	0.000

Turning Proportions (PCU) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.00	0.11	0.89
	B	0.08	0.00	0.92
	C	0.60	0.40	0.00

Vehicle Mix

Average PCU Per Vehicle - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000

	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Preston Rd (SB)	0.84	0.40	4.75	C	623.06	934.59	221.81	0.24	2.46	221.86	0.24
Chapel Hill	0.54	0.16	1.18	A	378.98	568.46	69.27	0.12	0.77	69.27	0.12
Preston Rd (NB)	0.46	0.07	0.85	A	643.25	964.87	57.15	0.06	0.63	57.15	0.06

Main Results for each time segment

Main results: (07:45-08:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	511.19	127.80	506.62	339.05	210.07	0.00	950.36	689.77	0.538	0.00	1.14	0.134	A
Chapel Hill	310.93	77.73	309.04	268.27	448.42	0.00	963.42	865.93	0.323	0.00	0.47	0.091	A
Preston Rd (NB)	527.75	131.94	525.92	734.26	23.20	0.00	1677.35	1654.64	0.315	0.00	0.46	0.052	A

Main results: (08:00-08:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	610.41	152.60	607.51	405.93	251.49	0.00	926.42	689.77	0.659	1.14	1.97	0.186	B
Chapel Hill	371.28	92.82	370.44	321.27	537.72	0.00	909.72	865.93	0.408	0.47	0.68	0.111	A
Preston Rd (NB)	630.18	157.55	629.61	880.36	27.81	0.00	1674.85	1654.64	0.376	0.46	0.60	0.057	A

Main results: (08:15-08:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	747.59	186.90	737.17	496.92	307.88	0.00	893.83	689.77	0.836	1.97	4.47	0.361	C
Chapel Hill	454.72	113.68	452.83	392.57	652.49	0.00	840.70	865.93	0.541	0.68	1.15	0.154	A
Preston Rd (NB)	771.82	192.95	770.81	1071.33	33.99	0.00	1671.49	1654.64	0.462	0.60	0.85	0.067	A

Main results: (08:30-08:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	747.59	186.90	746.47	497.65	308.28	0.00	893.60	689.77	0.837	4.47	4.75	0.400	C
Chapel Hill	454.72	113.68	454.63	394.03	660.72	0.00	835.75	865.93	0.544	1.15	1.18	0.157	A
Preston Rd (NB)	771.82	192.95	771.80	1081.22	34.12	0.00	1671.41	1654.64	0.462	0.85	0.85	0.067	A

Main results: (08:45-09:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	610.41	152.60	621.40	407.07	252.11	0.00	926.06	689.77	0.659	4.75	2.00	0.204	B
Chapel Hill	371.28	92.82	373.16	323.49	550.02	0.00	902.32	865.93	0.411	1.18	0.71	0.114	A
Preston Rd (NB)	630.18	157.55	631.17	895.17	28.01	0.00	1674.74	1654.64	0.376	0.85	0.61	0.058	A

Main results: (09:00-09:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	511.19	127.80	514.45	340.71	211.03	0.00	949.81	889.77	0.538	2.00	1.19	0.139	A
Chapel Hill	310.93	77.73	311.82	270.13	455.35	0.00	959.25	865.93	0.324	0.71	0.46	0.093	A
Preston Rd (NB)	527.75	131.94	528.33	743.77	23.41	0.00	1677.24	1654.64	0.315	0.61	0.46	0.052	A

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	16.19	1.08	0.134	A	A
Chapel Hill	6.85	0.46	0.091	A	A
Preston Rd (NB)	6.71	0.45	0.052	A	A

Queueing Delay results: (08:00-08:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	26.35	1.76	0.186	B	B
Chapel Hill	9.92	0.66	0.111	A	A
Preston Rd (NB)	8.84	0.59	0.057	A	A

Queueing Delay results: (08:15-08:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	57.95	3.86	0.361	C	C
Chapel Hill	16.50	1.10	0.154	A	A
Preston Rd (NB)	12.49	0.83	0.067	A	A

Queueing Delay results: (08:30-08:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	69.58	4.64	0.400	C	C
Chapel Hill	17.53	1.17	0.157	A	A
Preston Rd (NB)	12.80	0.85	0.067	A	A

Queueing Delay results: (08:45-09:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	33.06	2.20	0.204	B	B
Chapel Hill	11.01	0.73	0.114	A	A
Preston Rd (NB)	9.28	0.62	0.058	A	A

Queueing Delay results: (09:00-09:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	18.89	1.25	0.139	A	A
Chapel Hill	7.45	0.50	0.093	A	A
Preston Rd (NB)	7.03	0.47	0.052	A	A

Preston Road/ Chapel Hill - 2025 Baseline, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors

Preston Road/ Chapel Hill	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2025 Baseline, AM	2025 Baseline	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (min)	Junction LOS
Preston Road / Chapel Hill	Mini-roundabout	A,B,C	0.41	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Name	Name	Description
Preston Rd (SB)	Preston Rd (SB)	
Chapel Hill	Chapel Hill	
Preston Rd (NB)	Preston Rd (NB)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Preston Rd (SB)	0.00	99999.00		0.00
Chapel Hill	0.00	99999.00		0.00
Preston Rd (NB)	0.00	99999.00		0.00

Mini Roundabout Geometry

Name	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
Preston Rd (SB)	4.00	4.00	6.00	2.00	9.00	4.00	0.00	
Chapel Hill	4.00	4.00	4.00	0.00	15.00	15.00	0.00	
Preston Rd (NB)	3.50	3.50	4.50	1.00	10.00	9.00	0.00	

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

Pedestrian Crossings

Name	Crossing Type
Preston Rd (SB)	None
Chapel Hill	None
Preston Rd (NB)	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Preston Rd (SB)	Direct	Queue Surveys	195.00	
Chapel Hill	Direct		300.00	
Preston Rd (NB)	Direct	Queue Surveys	800.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Preston Rd (SB)		(calculated)	(calculated)	0.578	1071.783
Chapel Hill		(calculated)	(calculated)	0.601	1233.082
Preston Rd (NB)		(calculated)	(calculated)	0.543	1689.951

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Preston Rd (SB)	ONE HOUR	✓	749.00	100.000
Chapel Hill	ONE HOUR	✓	463.00	100.000
Preston Rd (NB)	ONE HOUR	✓	781.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	88.000	661.000
	B	35.000	0.000	428.000
	C	466.000	315.000	0.000

Turning Proportions (PCU) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.00	0.12	0.88
	B	0.08	0.00	0.92
	C	0.60	0.40	0.00

Vehicle Mix

Average PCU Per Vehicle - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Preston Rd (SB)	0.95	0.90	11.58	F	687.30	1030.94	412.76	0.40	4.59	412.84	0.40
Chapel											

Hill	0.64	0.21	1.72	B	424.86	637.29	94.19	0.15	1.05	94.20	0.15
Preston Rd (NB)	0.52	0.07	1.06	A	716.66	1074.99	69.12	0.06	0.77	69.13	0.06

Main Results for each time segment

Main results: (07:45-08:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	563.89	140.97	557.97	375.72	236.28	0.00	935.21	686.13	0.603	0.00	1.48	0.157	A
Chapel Hill	348.57	87.14	346.23	301.84	492.41	0.00	936.96	868.95	0.372	0.00	0.59	0.101	A
Preston Rd (NB)	587.98	146.99	585.83	812.47	26.17	0.00	1675.73	1654.27	0.351	0.00	0.54	0.055	A

Main results: (08:00-08:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	673.34	168.33	668.44	449.87	282.89	0.00	908.27	686.13	0.741	1.48	2.70	0.245	B
Chapel Hill	416.23	104.06	415.03	361.42	589.91	0.00	878.34	868.95	0.474	0.59	0.89	0.129	A
Preston Rd (NB)	702.10	175.53	701.38	973.56	31.37	0.00	1672.91	1654.27	0.420	0.54	0.72	0.062	A

Main results: (08:15-08:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	824.66	206.17	797.44	550.59	346.28	0.00	871.63	686.13	0.946	2.70	9.51	0.648	E
Chapel Hill	509.77	127.44	506.75	439.97	703.75	0.00	809.88	868.95	0.629	0.89	1.64	0.196	B
Preston Rd (NB)	859.90	214.97	858.56	1172.19	38.31	0.00	1669.14	1654.27	0.515	0.72	1.05	0.074	A

Main results: (08:30-08:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	824.66	206.17	816.38	551.58	346.81	0.00	871.32	686.13	0.946	9.51	11.58	0.897	F
Chapel Hill	509.77	127.44	509.48	442.73	720.46	0.00	799.82	868.95	0.637	1.64	1.72	0.206	B
Preston Rd (NB)	859.90	214.97	859.88	1191.43	38.51	0.00	1669.03	1654.27	0.515	1.05	1.06	0.074	A

Main results: (08:45-09:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	673.34	168.33	707.36	451.40	283.71	0.00	907.80	686.13	0.742	11.58	3.07	0.342	C
Chapel Hill	416.23	104.06	419.25	366.82	624.27	0.00	857.67	868.95	0.485	1.72	0.96	0.138	A
Preston Rd (NB)	702.10	175.53	703.42	1011.83	31.69	0.00	1672.73	1654.27	0.420	1.06	0.73	0.062	A

Main results: (09:00-09:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	563.89	140.97	569.91	377.73	237.45	0.00	934.54	686.13	0.603	3.07	1.56	0.167	B
Chapel Hill	348.57	87.14	349.99	304.41	502.95	0.00	930.63	868.95	0.375	0.96	0.61	0.104	A
Preston Rd (NB)	587.98	146.99	588.72	828.48	26.46	0.00	1675.58	1654.27	0.351	0.73	0.54	0.055	A

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Name	Queueing Total Delay (PCU-	Queueing Rate Of Delay (PCU-	Average Delay Per Arriving	Unsignalised Level Of	Signalised Level Of

	min)	min/min)	Vehicle (min)	Service	Service
Preston Rd (SB)	20.71	1.38	0.157	A	A
Chapel Hill	8.47	0.56	0.101	A	A
Preston Rd (NB)	7.88	0.53	0.055	A	A

Queueing Delay results: (08:00-08:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	37.17	2.48	0.245	B	B
Chapel Hill	12.83	0.86	0.129	A	A
Preston Rd (NB)	10.57	0.70	0.062	A	A

Queueing Delay results: (08:15-08:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	107.86	7.19	0.648	E	D
Chapel Hill	23.10	1.54	0.196	B	B
Preston Rd (NB)	15.38	1.03	0.074	A	A

Queueing Delay results: (08:30-08:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	159.95	10.66	0.697	F	D
Chapel Hill	25.36	1.69	0.206	B	B
Preston Rd (NB)	15.63	1.06	0.074	A	A

Queueing Delay results: (08:45-09:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	62.16	4.14	0.342	C	C
Chapel Hill	15.07	1.00	0.138	A	A
Preston Rd (NB)	11.17	0.74	0.062	A	A

Queueing Delay results: (09:00-09:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	24.91	1.66	0.167	B	B
Chapel Hill	9.37	0.62	0.104	A	A
Preston Rd (NB)	8.30	0.55	0.055	A	A

Preston Road/ Chapel Hill - 2016 Assessment, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Preston Road/ Chapel Hill	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2016 Assessment, AM	2016 Assessment	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (min)	Junction LOS
Preston Road / Chapel Hill	Mini-roundabout	A,B,C	0.32	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Name	Name	Description
Preston Rd (SB)	Preston Rd (SB)	
Chapel Hill	Chapel Hill	
Preston Rd (NB)	Preston Rd (NB)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Preston Rd (SB)	0.00	99999.00		0.00
Chapel Hill	0.00	99999.00		0.00
Preston Rd (NB)	0.00	99999.00		0.00

Mini Roundabout Geometry

Name	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
Preston Rd (SB)	4.00	4.00	6.00	2.00	9.00	4.00	0.00	
Chapel Hill	4.00	4.00	4.00	0.00	15.00	15.00	0.00	
Preston Rd (NB)	3.50	3.50	4.50	1.00	10.00	9.00	0.00	

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

Pedestrian Crossings

Name	Crossing Type
Preston Rd (SB)	None
Chapel Hill	None
Preston Rd (NB)	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Preston Rd (SB)	Direct	Queue Surveys	195.00	
Chapel Hill	Direct		300.00	
Preston Rd (NB)	Direct	Queue Surveys	800.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Preston Rd (SB)		(calculated)	(calculated)	0.578	1071.783
Chapel Hill		(calculated)	(calculated)	0.601	1233.082
Preston Rd (NB)		(calculated)	(calculated)	0.543	1689.951

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry

		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Preston Rd (SB)	ONE HOUR	✓	736.00	100.000
Chapel Hill	ONE HOUR	✓	413.00	100.000
Preston Rd (NB)	ONE HOUR	✓	722.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	78.000	660.000
	B	31.000	0.000	382.000
	C	442.000	280.000	0.000

Turning Proportions (PCU) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.00	0.11	0.89
	B	0.08	0.00	0.92
	C	0.61	0.39	0.00

Vehicle Mix

Average PCU Per Vehicle - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Preston Rd (SB)	0.91	0.65	8.20	E	677.20	1015.80	327.06	0.32	3.63	327.12	0.32
Chapel Hill	0.57	0.17	1.30	B	378.98	568.46	74.61	0.13	0.83	74.62	0.13
Preston Rd (NB)	0.48	0.07	0.80	A	662.52	993.78	60.07	0.06	0.67	60.07	0.06

Main Results for each time segment

Main results: (07:45-08:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	555.61	138.90	550.11	354.78	210.06	0.00	950.37	700.80	0.585	0.00	1.37	0.148	A
Chapel Hill	310.93	77.73	308.96	266.20	491.97	0.00	937.23	856.19	0.332	0.00	0.49	0.095	A
Preston Rd (NB)	543.56	135.89	541.65	777.74	23.19	0.00	1677.35	1655.04	0.324	0.00	0.48	0.053	A

Main results: (08:00-08:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	663.45	165.86	659.33	424.78	251.48	0.00	926.43	700.80	0.716	1.37	2.40	0.221	B
Chapel Hill	371.28	92.82	370.36	321.16	589.64	0.00	878.49	856.19	0.423	0.49	0.72	0.118	A
Preston Rd (NB)	648.06	162.27	648.46	932.20	27.80	0.00	1674.85	1655.04	0.388	0.48	0.63	0.058	A

Main results: (08:15-08:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	812.55	203.14	793.28	519.96	307.87	0.00	893.84	700.80	0.909	2.40	7.22	0.518	D
Chapel Hill	454.72	113.68	452.57	391.71	709.44	0.00	806.45	856.19	0.564	0.72	1.26	0.169	B
Preston Rd (NB)	794.94	198.73	793.86	1128.03	33.97	0.00	1671.50	1655.04	0.476	0.63	0.90	0.068	A

Main results: (08:30-08:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	812.55	203.14	808.63	520.76	308.28	0.00	893.80	700.80	0.909	7.22	8.20	0.648	E
Chapel Hill	454.72	113.68	454.56	393.74	723.16	0.00	798.20	856.19	0.570	1.26	1.30	0.174	B
Preston Rd (NB)	794.94	198.73	794.92	1143.60	34.12	0.00	1671.42	1655.04	0.476	0.90	0.90	0.068	A

Main results: (08:45-09:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	663.45	165.86	685.62	426.03	252.13	0.00	926.05	700.80	0.716	8.20	2.66	0.270	C
Chapel Hill	371.28	92.82	373.43	324.59	613.16	0.00	864.35	856.19	0.430	1.30	0.76	0.123	A
Preston Rd (NB)	649.06	162.27	650.13	958.56	28.03	0.00	1674.72	1655.04	0.388	0.90	0.64	0.059	A

Main results: (09:00-09:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	555.61	138.90	560.48	356.56	211.04	0.00	949.80	700.80	0.585	2.66	1.44	0.156	A
Chapel Hill	310.93	77.73	311.96	270.28	501.24	0.00	931.66	856.19	0.334	0.76	0.51	0.097	A
Preston Rd (NB)	543.56	135.89	544.18	788.78	23.42	0.00	1677.23	1655.04	0.324	0.64	0.48	0.053	A

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	19.33	1.29	0.148	A	A
Chapel Hill	7.13	0.48	0.095	A	A
Preston Rd (NB)	7.00	0.47	0.053	A	A

Queueing Delay results: (08:00-08:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	33.40	2.23	0.221	B	B

Chapel Hill	10.50	0.70	0.118	A	A
Preston Rd (NB)	9.27	0.62	0.058	A	A

Queueing Delay results: (08:15-08:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	86.70	5.78	0.518	D	C
Chapel Hill	17.96	1.20	0.169	B	B
Preston Rd (NB)	13.18	0.88	0.068	A	A

Queueing Delay results: (08:30-08:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	116.79	7.79	0.648	E	D
Chapel Hill	19.31	1.29	0.174	B	B
Preston Rd (NB)	13.52	0.90	0.068	A	A

Queueing Delay results: (08:45-09:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	47.93	3.20	0.270	C	B
Chapel Hill	11.91	0.79	0.123	A	A
Preston Rd (NB)	9.75	0.65	0.059	A	A

Queueing Delay results: (09:00-09:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	22.90	1.53	0.156	A	A
Chapel Hill	7.80	0.52	0.097	A	A
Preston Rd (NB)	7.35	0.49	0.053	A	A

Preston Road/ Chapel Hill - 2025 Assessment, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Preston Road/ Chapel Hill	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2025 Assessment, AM	2025 Assessment	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (min)	Junction LOS
Preston Road / Chapel Hill	Mini-roundabout	A,B,C	0.75	E

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Name	Name	Description
Preston Rd (SB)	Preston Rd (SB)	
Chapel Hill	Chapel Hill	
Preston Rd (NB)	Preston Rd (NB)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Preston Rd (SB)	0.00	99999.00		0.00
Chapel Hill	0.00	99999.00		0.00
Preston Rd (NB)	0.00	99999.00		0.00

Mini Roundabout Geometry

Name	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
Preston Rd (SB)	4.00	4.00	6.00	2.00	9.00	4.00	0.00	
Chapel Hill	4.00	4.00	4.00	0.00	15.00	15.00	0.00	
Preston Rd (NB)	3.50	3.50	4.50	1.00	10.00	9.00	0.00	

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

Pedestrian Crossings

Name	Crossing Type
Preston Rd (SB)	None
Chapel Hill	None
Preston Rd (NB)	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Preston Rd (SB)	Direct	Queue Surveys	195.00	
Chapel Hill	Direct		300.00	
Preston Rd (NB)	Direct	Queue Surveys	800.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Preston Rd (SB)		(calculated)	(calculated)	0.578	1071.783
Chapel Hill		(calculated)	(calculated)	0.601	1233.082
Preston Rd (NB)		(calculated)	(calculated)	0.543	1669.951

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Preston Rd (SB)	ONE HOUR	✓	808.00	100.000
Chapel Hill	ONE HOUR	✓	463.00	100.000
Preston Rd (NB)	ONE HOUR	✓	802.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	88.000	720.000
	B	35.000	0.000	428.000
	C	487.000	315.000	0.000

Turning Proportions (PCU) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.00	0.11	0.89
	B	0.08	0.00	0.92
	C	0.61	0.39	0.00

Vehicle Mix

Average PCU Per Vehicle - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Preston Rd (SB)	1.02	1.72	26.07	F	741.43	1112.15	774.08	0.70	8.60	774.20	0.70
Chapel Hill	0.66	0.23	1.87	B	424.86	637.29	102.42	0.16	1.14	102.43	0.16
Preston Rd (NB)	0.53	0.08	1.12	A	735.93	1103.89	72.58	0.07	0.81	72.58	0.07

Main Results for each time segment

Main results: (07:45-08:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	608.30	152.08	601.11	391.44	236.27	0.00	935.22	696.15	0.650	0.00	1.80	0.176	B
Chapel Hill	348.57	87.14	346.12	301.74	536.64	0.00	910.97	880.04	0.383	0.00	0.61	0.106	A
Preston Rd (NB)	603.79	150.95	601.55	855.60	26.16	0.00	1675.74	1654.63	0.360	0.00	0.56	0.056	A

Main results: (08:00-08:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS

Preston Rd (SB)	726.38	181.59	719.01	468.70	282.88	0.00	908.28	696.15	0.800	1.80	3.64	0.305	C
Chapel Hill	416.23	104.06	414.89	361.19	640.70	0.00	847.79	860.04	0.491	0.61	0.95	0.138	A
Preston Rd (NB)	720.98	180.25	720.21	1024.23	31.36	0.00	1672.91	1654.63	0.431	0.56	0.75	0.083	A

Main results: (08:15-08:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	889.62	222.41	834.36	573.61	348.26	0.00	871.65	696.15	1.021	3.64	17.46	0.994	F
Chapel Hill	509.77	127.44	506.46	437.13	743.49	0.00	785.98	860.04	0.649	0.95	1.78	0.212	B
Preston Rd (NB)	883.02	220.75	881.58	1211.66	38.29	0.00	1669.15	1654.63	0.529	0.75	1.11	0.076	A

Main results: (08:30-08:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	889.62	222.41	855.16	574.69	346.81	0.00	871.33	696.15	1.021	17.46	26.07	1.722	F
Chapel Hill	509.77	127.44	509.40	439.95	762.02	0.00	774.83	860.04	0.658	1.78	1.87	0.225	B
Preston Rd (NB)	883.02	220.75	882.99	1232.91	38.51	0.00	1669.03	1654.63	0.529	1.11	1.12	0.076	A

Main results: (08:45-09:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	726.38	181.59	812.11	470.36	283.74	0.00	907.78	696.15	0.800	26.07	4.64	0.864	F
Chapel Hill	416.23	104.06	419.25	372.18	723.66	0.00	797.90	860.04	0.522	1.87	1.11	0.160	A
Preston Rd (NB)	720.98	180.25	722.40	1111.22	31.69	0.00	1672.73	1654.63	0.431	1.12	0.76	0.063	A

Main results: (09:00-09:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	608.30	152.08	619.15	393.61	237.46	0.00	934.53	696.15	0.651	4.64	1.93	0.196	B
Chapel Hill	348.57	87.14	350.47	304.89	551.72	0.00	901.30	860.04	0.387	1.11	0.64	0.109	A
Preston Rd (NB)	603.79	150.95	604.57	875.70	26.49	0.00	1675.56	1654.63	0.360	0.76	0.57	0.056	A

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	24.90	1.66	0.176	B	B
Chapel Hill	8.84	0.59	0.106	A	A
Preston Rd (NB)	8.20	0.55	0.056	A	A

Queueing Delay results: (08:00-08:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	48.66	3.24	0.305	C	B
Chapel Hill	13.67	0.91	0.138	A	A
Preston Rd (NB)	11.06	0.74	0.063	A	A

Queueing Delay results: (08:15-08:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	174.74	11.65	0.994	F	E
Chapel Hill	24.85	1.66	0.212	B	B
Preston Rd (NB)	16.23	1.08	0.076	A	A

Queueing Delay results: (08:30-08:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	328.79	21.92	1.722	F	F
Chapel Hill	27.57	1.84	0.225	B	B
Preston Rd (NB)	16.73	1.12	0.076	A	A

Queueing Delay results: (08:45-09:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	165.23	11.02	0.864	F	D
Chapel Hill	17.57	1.17	0.160	A	A
Preston Rd (NB)	11.71	0.78	0.063	A	A

Queueing Delay results: (09:00-09:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	31.76	2.12	0.196	B	B
Chapel Hill	9.91	0.66	0.109	A	A
Preston Rd (NB)	8.85	0.58	0.056	A	A

Preston Road/ Chapel Hill - 2014 Surveyed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include in Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Preston Road/ Chapel Hill	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2014 Surveyed, AM	2014 Surveyed	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (min)	Junction LOS
Preston Road / Chapel Hill	Mini-roundabout	A,B,C	0.12	A

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Name	Name	Description
Preston Rd (SB)	Preston Rd (SB)	
Chapel Hill	Chapel Hill	
Preston Rd (NB)	Preston Rd (NB)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Preston Rd (SB)	0.00	99999.00		0.00
Chapel Hill	0.00	99999.00		0.00
Preston Rd (NB)	0.00	99999.00		0.00

Mini Roundabout Geometry

Name	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 60m (%)	Kerbed central island
Preston Rd (SB)	4.00	4.00	6.00	2.00	9.00	4.00	0.00	
Chapel Hill	4.00	4.00	4.00	0.00	15.00	15.00	0.00	
Preston Rd (NB)	3.50	3.50	4.50	1.00	10.00	9.00	0.00	

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

Pedestrian Crossings

Name	Crossing Type
Preston Rd (SB)	None
Chapel Hill	None
Preston Rd (NB)	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Preston Rd (SB)	Direct	Queue Surveys	195.00	
Chapel Hill	Direct		300.00	
Preston Rd (NB)	Direct	Queue Surveys	800.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Preston Rd (SB)		(calculated)	(calculated)	0.578	1071.783
Chapel Hill		(calculated)	(calculated)	0.601	1233.062
Preston Rd (NB)		(calculated)	(calculated)	0.543	1689.951

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Preston Rd (SB)	ONE HOUR	✓	528.00	100.000
Chapel Hill	ONE HOUR	✓	374.00	100.000
Preston Rd (NB)	ONE HOUR	✓	597.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	74.000	454.000
	B	29.000	0.000	345.000
	C	339.000	258.000	0.000

Turning Proportions (PCU) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.00	0.14	0.86
	B	0.08	0.00	0.92
	C	0.57	0.43	0.00

Vehicle Mix

Average PCU Per Vehicle - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Preston Rd (SB)	0.64	0.18	1.75	B	484.50	726.75	102.58	0.14	1.14	102.59	0.14
Chapel Hill	0.44	0.12	0.78	A	343.19	514.78	49.86	0.10	0.55	49.86	0.10
Preston Rd (NB)	0.39	0.06	0.65	A	547.82	821.73	44.24	0.05	0.49	44.24	0.05

Main Results for each time segment

Main results: (07:45-08:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	397.51	99.38	394.71	276.11	193.61	0.00	959.88	659.04	0.414	0.00	0.70	0.106	A
Chapel Hill	281.57	70.39	280.07	248.93	339.39	0.00	1028.98	892.31	0.274	0.00	0.37	0.080	A
Preston Rd (NB)	449.45	112.36	448.00	597.75	21.72	0.00	1678.15	1652.36	0.268	0.00	0.36	0.049	A

Main results: (08:00-08:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	474.66	118.67	473.42	330.54	231.76	0.00	937.83	659.04	0.506	0.70	1.01	0.129	A
Chapel Hill	336.22	84.05	335.67	298.11	407.07	0.00	988.29	892.31	0.340	0.37	0.51	0.092	A
Preston Rd (NB)	536.69	134.17	536.27	716.71	26.03	0.00	1675.81	1652.36	0.320	0.36	0.47	0.053	A

Main results: (08:15-08:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	581.34	145.33	578.47	404.70	283.76	0.00	907.77	659.04	0.640	1.01	1.73	0.181	B
Chapel Hill	411.78	102.95	410.71	364.84	497.40	0.00	933.97	892.31	0.441	0.51	0.78	0.114	A
Preston	657.31	164.33	656.61	876.26	31.85	0.00	1672.65	1652.36	0.393	0.47	0.64	0.059	A

Rd (NB)													

Main results: (08:30-08:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	581.34	145.33	581.23	405.17	284.06	0.00	907.60	659.04	0.641	1.73	1.75	0.184	B
Chapel Hill	411.78	102.95	411.75	365.52	499.77	0.00	932.54	892.31	0.442	0.78	0.78	0.115	A
Preston Rd (NB)	657.31	164.33	657.30	879.60	31.93	0.00	1672.61	1652.36	0.393	0.64	0.65	0.059	A

Main results: (08:45-09:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	474.66	118.67	477.50	331.30	232.23	0.00	937.55	659.04	0.508	1.75	1.04	0.131	A
Chapel Hill	336.22	84.05	337.27	299.16	410.58	0.00	986.18	892.31	0.341	0.78	0.52	0.093	A
Preston Rd (NB)	536.69	134.17	537.38	721.70	26.15	0.00	1675.74	1652.36	0.320	0.65	0.47	0.053	A

Main results: (09:00-09:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	397.51	99.38	398.81	277.33	194.42	0.00	959.41	659.04	0.414	1.04	0.72	0.107	A
Chapel Hill	281.57	70.39	282.13	250.31	342.92	0.00	1026.86	892.31	0.274	0.52	0.38	0.081	A
Preston Rd (NB)	449.45	112.36	449.86	603.18	21.88	0.00	1678.07	1652.36	0.268	0.47	0.37	0.049	A

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	10.06	0.67	0.106	A	A
Chapel Hill	5.45	0.36	0.080	A	A
Preston Rd (NB)	5.36	0.36	0.049	A	A

Queueing Delay results: (08:00-08:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	14.58	0.97	0.129	A	A
Chapel Hill	7.49	0.50	0.092	A	A
Preston Rd (NB)	6.93	0.46	0.053	A	A

Queueing Delay results: (08:15-08:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	24.38	1.63	0.181	B	B
Chapel Hill	11.30	0.75	0.114	A	A
Preston Rd (NB)	9.47	0.63	0.059	A	A

Queueing Delay results: (08:30-08:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	26.13	1.74	0.184	B	B
Chapel Hill	11.74	0.78	0.115	A	A
Preston Rd (NB)	9.67	0.64	0.059	A	A

Queueing Delay results: (08:45-09:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	16.35	1.09	0.131	A	A
Chapel Hill	8.05	0.54	0.093	A	A

Preston Rd (NB)	7.22	0.48	0.053	A	A

Queueing Delay results: (09:00-09:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	11.08	0.74	0.107	A	A
Chapel Hill	5.83	0.39	0.081	A	A
Preston Rd (NB)	5.59	0.37	0.049	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.1.305 [25 May 2012]

For sales and distribution information, program advice and maintenance, contact TRL:
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Filename: (new file)
Path:
Report generation date: 17/03/2015 16:02:17

Summary of junction performance

	PM			
	Queue (PCU)	Delay (min)	RFC	LOS
	Preston Road/ Chapel Hill - 2014 Surveyed			
Preston Rd (SB)	2.25	0.29	0.70	C
Chapel Hill	1.65	0.40	0.63	C
Preston Rd (NB)	2.40	0.16	0.71	A
	Preston Road/ Chapel Hill - 2016 Assessment			
Preston Rd (SB)	7.90	0.86	0.91	F
Chapel Hill	4.15	0.96	0.83	F
Preston Rd (NB)	9.10	0.50	0.92	D
	Preston Road/ Chapel Hill - 2016 Baseline			
Preston Rd (SB)	5.39	0.62	0.86	E
Chapel Hill	3.32	0.76	0.79	E
Preston Rd (NB)	6.08	0.35	0.87	C
	Preston Road/ Chapel Hill - 2025 Assessment			
Preston Rd (SB)	25.68	2.28	1.04	F
Chapel Hill	10.87	2.16	0.99	F
Preston Rd (NB)	29.97	1.37	1.01	F
	Preston Road/ Chapel Hill - 2025 Baseline			
Preston Rd (SB)	16.65	1.63	1.00	F
Chapel Hill	8.76	1.76	0.96	F
Preston Rd (NB)	16.03	0.83	0.97	E

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

"D2 - 2016 Baseline, PM " model duration: 16:45 - 18:15
"D4 - 2025 Baseline, PM" model duration: 16:45 - 18:15
"D6 - 2016 Assessment, PM" model duration: 16:45 - 18:15
"D8 - 2025 Assessment, PM" model duration: 16:45 - 18:15
"D9 - 2014 Surveyed, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.1.305 at 17/03/2015 16:02:15

File summary

File Description

Title	Inglewhite Road / Berry Lane
Location	Longridge
Site Number	
Date	03/02/2014
Version	
Status	(new file)
Identifier	VN30277
Client	
Jobnumber	VN30277
Enumerator	Workstation\Workstation1
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (min)	Queue Threshold (PCU)
5.75			N/A	0.85	0.60	20.00

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	PCU	PCU	perHour	min	-Min	perMin

Preston Road/ Chapel Hill - 2016 Baseline, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Preston Road/ Chapel Hill	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2016 Baseline, PM	2016 Baseline	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (min)	Junction LOS
Preston Road / Chapel Hill	Mini-roundabout	A,B,C	0.49	D

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Name	Name	Description
Preston Rd (SB)	Preston Rd (SB)	
Chapel Hill	Chapel Hill	
Preston Rd (NB)	Preston Rd (NB)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Preston Rd (SB)	0.00	99999.00		0.00
Chapel Hill	0.00	99999.00		0.00
Preston Rd (NB)	0.00	99999.00		0.00

Mini Roundabout Geometry

Name	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
Preston Rd (SB)	4.00	4.00	6.00	2.00	9.00	4.00	0.00	
Chapel Hill	4.00	4.00	4.00	0.00	15.00	15.00	0.00	
Preston Rd (NB)	3.50	3.50	4.50	1.00	10.00	9.00	0.00	

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

Pedestrian Crossings

Name	Crossing Type
Preston Rd (SB)	None
Chapel Hill	None
Preston Rd (NB)	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Preston Rd (SB)	None			
Chapel Hill	Direct	Queue Surveys	-280.00	
Preston Rd (NB)	Direct	Queue Surveys	400.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Preston Rd (SB)		(calculated)	(calculated)	0.578	876.783
Chapel Hill		(calculated)	(calculated)	0.601	653.082
Preston Rd (NB)		(calculated)	(calculated)	0.543	1289.951

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Preston Rd (SB)	ONE HOUR	✓	506.00	100.000
Chapel Hill	ONE HOUR	✓	254.00	100.000
Preston Rd (NB)	ONE HOUR	✓	998.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	53.000	453.000
	B	41.000	0.000	213.000
	C	637.000	361.000	0.000

Turning Proportions (PCU) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.00	0.10	0.90
	B	0.16	0.00	0.84
	C	0.64	0.36	0.00

Vehicle Mix

Average PCU Per Vehicle - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000

	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Preston Rd (SB)	0.86	0.62	5.39	E	464.31	696.47	232.93	0.33	2.59	232.98	0.33
Chapel Hill	0.79	0.76	3.32	E	233.07	349.61	147.67	0.42	1.64	147.71	0.42
Preston Rd (NB)	0.87	0.35	6.08	C	915.78	1373.67	279.61	0.20	3.11	279.67	0.20

Main Results for each time segment

Main results: (16:45-17:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	380.94	95.24	378.57	506.36	269.74	0.00	720.88	613.01	0.528	0.00	1.09	0.172	B
Chapel Hill	191.22	47.81	188.35	309.18	337.13	0.00	450.35	323.06	0.425	0.00	0.72	0.227	B
Preston Rd (NB)	751.35	187.84	745.89	495.07	30.40	0.00	1273.43	1261.62	0.590	0.00	1.41	0.113	A

Main results: (17:00-17:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	454.88	113.72	451.86	606.87	323.21	0.00	689.97	613.01	0.659	1.09	1.85	0.249	B
Chapel Hill	228.34	57.09	226.41	370.54	404.53	0.00	409.81	323.06	0.557	0.72	1.20	0.324	C
Preston Rd (NB)	897.18	224.30	893.53	594.39	36.55	0.00	1270.10	1261.62	0.708	1.41	2.33	0.158	A

Main results: (17:15-17:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	557.12	139.28	545.12	736.76	392.59	0.00	649.86	613.01	0.857	1.85	4.85	0.521	D
Chapel Hill	279.66	69.91	272.66	449.69	488.03	0.00	359.60	323.06	0.778	1.20	2.95	0.644	E
Preston Rd (NB)	1098.82	274.70	1085.34	716.69	44.02	0.00	1266.04	1261.62	0.868	2.33	5.70	0.311	C

Main results: (17:30-17:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	557.12	139.28	554.95	745.28	396.91	0.00	647.37	613.01	0.861	4.85	5.39	0.619	E
Chapel Hill	279.66	69.91	278.19	455.04	496.82	0.00	354.31	323.06	0.789	2.95	3.32	0.760	E
Preston Rd (NB)	1098.82	274.70	1097.29	730.11	44.90	0.00	1265.56	1261.62	0.868	5.70	6.08	0.349	C

Main results: (17:45-18:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	454.88	113.72	468.19	619.90	329.72	0.00	686.21	613.01	0.663	5.39	2.06	0.290	C
Chapel Hill	228.34	57.09	236.04	378.76	419.15	0.00	401.02	323.06	0.569	3.32	1.39	0.379	C
Preston Rd (NB)	897.18	224.30	911.51	617.09	38.10	0.00	1269.25	1261.62	0.707	6.08	2.50	0.174	B

Main results: (18:00-18:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	380.94	95.24	384.58	513.46	273.27	0.00	718.83	613.01	0.530	2.06	1.15	0.181	B
Chapel Hill	191.22	47.81	193.70	313.55	344.30	0.00	446.04	323.06	0.429	1.39	0.77	0.240	B
Preston Rd (NB)	751.35	187.84	755.47	506.73	31.27	0.00	1272.97	1261.62	0.590	2.50	1.47	0.117	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	15.36	1.02	0.172	B	B
Chapel Hill	10.05	0.67	0.227	B	B
Preston Rd (NB)	20.09	1.34	0.113	A	A

Queueing Delay results: (17:00-17:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	25.80	1.72	0.249	B	B
Chapel Hill	16.79	1.12	0.324	C	B
Preston Rd (NB)	32.85	2.19	0.158	A	A

Queueing Delay results: (17:15-17:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	60.46	4.03	0.521	D	C
Chapel Hill	37.47	2.50	0.644	E	D
Preston Rd (NB)	73.46	4.90	0.311	C	B

Queueing Delay results: (17:30-17:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	77.50	5.17	0.619	E	D
Chapel Hill	47.55	3.17	0.760	E	D
Preston Rd (NB)	88.86	5.92	0.349	C	C

Queueing Delay results: (17:45-18:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	35.45	2.36	0.290	C	B
Chapel Hill	23.54	1.57	0.379	C	C
Preston Rd (NB)	41.32	2.75	0.174	B	B

Queueing Delay results: (18:00-18:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	18.34	1.22	0.181	B	B
Chapel Hill	12.28	0.82	0.240	B	B
Preston Rd (NB)	23.04	1.54	0.117	A	A

Preston Road/ Chapel Hill - 2025 Baseline, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors

Preston Road/ Chapel Hill	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2025 Baseline, PM	2025 Baseline	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (min)	Junction LOS
Preston Road / Chapel Hill	Mini-roundabout	A,B,C	1.20	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Name	Name	Description
Preston Rd (SB)	Preston Rd (SB)	
Chapel Hill	Chapel Hill	
Preston Rd (NB)	Preston Rd (NB)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Preston Rd (SB)	0.00	99999.00		0.00
Chapel Hill	0.00	99999.00		0.00
Preston Rd (NB)	0.00	99999.00		0.00

Mini Roundabout Geometry

Name	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
Preston Rd (SB)	4.00	4.00	6.00	2.00	9.00	4.00	0.00	
Chapel Hill	4.00	4.00	4.00	0.00	15.00	15.00	0.00	
Preston Rd (NB)	3.50	3.50	4.50	1.00	10.00	9.00	0.00	

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

Pedestrian Crossings

Name	Crossing Type
Preston Rd (SB)	None
Chapel Hill	None
Preston Rd (NB)	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Preston Rd (SB)	None			
Chapel Hill	Direct	Queue Surveys	-280.00	
Preston Rd (NB)	Direct	Queue Surveys	400.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Preston Rd (SB)		(calculated)	(calculated)	0.578	876.783
Chapel Hill		(calculated)	(calculated)	0.601	653.082
Preston Rd (NB)		(calculated)	(calculated)	0.543	1269.951

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Preston Rd (SB)	ONE HOUR	✓	564.00	100.000
Chapel Hill	ONE HOUR	✓	286.00	100.000
Preston Rd (NB)	ONE HOUR	✓	1108.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	59.000	505.000
	B	47.000	0.000	239.000
	C	704.000	404.000	0.000

Turning Proportions (PCU) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.00	0.10	0.90
	B	0.16	0.00	0.84
	C	0.64	0.36	0.00

Vehicle Mix

Average PCU Per Vehicle - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Preston Rd (SB)	1.00	1.63	16.65	F	517.54	776.30	526.34	0.68	5.85	526.45	0.68
Chapel											

Hill	0.96	1.76	8.76	F	262.44	393.66	307.86	0.78	3.42	307.95	0.78
Preston Rd (NB)	0.97	0.83	16.03	E	1016.72	1525.08	550.78	0.36	6.12	550.87	0.36

Main Results for each time segment

Main results: (16:45-17:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	424.61	106.15	418.71	560.02	301.44	0.00	702.55	611.02	0.604	0.00	1.48	0.207	B
Chapel Hill	215.32	53.83	211.40	345.24	374.81	0.00	427.63	324.08	0.504	0.00	0.98	0.272	C
Preston Rd (NB)	834.16	208.54	826.72	551.57	34.74	0.00	1271.08	1261.02	0.656	0.00	1.86	0.133	A

Main results: (17:00-17:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	507.02	126.76	501.40	670.49	360.86	0.00	668.20	611.02	0.759	1.48	2.88	0.348	C
Chapel Hill	257.11	64.28	253.51	413.31	448.94	0.00	383.10	324.08	0.671	0.98	1.88	0.451	D
Preston Rd (NB)	996.07	249.02	989.69	660.79	41.66	0.00	1267.32	1261.02	0.786	1.86	3.45	0.211	B

Main results: (17:15-17:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	620.98	155.24	586.07	800.28	431.23	0.00	627.53	611.02	0.990	2.88	11.61	1.006	F
Chapel Hill	314.89	78.72	297.10	492.54	524.78	0.00	337.51	324.08	0.933	1.88	6.33	1.159	F
Preston Rd (NB)	1219.93	304.98	1182.69	773.04	48.82	0.00	1263.43	1261.02	0.966	3.45	12.77	0.574	D

Main results: (17:30-17:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	620.98	155.24	600.82	816.98	440.05	0.00	622.43	611.02	0.998	11.61	16.65	1.633	F
Chapel Hill	314.89	78.72	305.16	502.91	537.97	0.00	329.57	324.08	0.955	6.33	8.76	1.764	F
Preston Rd (NB)	1219.93	304.98	1208.88	792.96	50.15	0.00	1262.71	1261.02	0.966	12.77	16.03	0.830	E

Main results: (17:45-18:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	507.02	126.76	558.18	706.48	380.76	0.00	656.70	611.02	0.772	16.65	3.86	0.781	E
Chapel Hill	257.11	64.28	279.74	439.15	499.79	0.00	352.53	324.08	0.729	8.76	3.10	0.960	F
Preston Rd (NB)	996.07	249.02	1044.27	733.55	45.97	0.00	1264.98	1261.02	0.787	16.03	3.86	0.321	C

Main results: (18:00-18:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	424.61	106.15	433.64	571.83	307.09	0.00	699.28	611.02	0.607	3.86	1.50	0.233	B
Chapel Hill	215.32	53.83	223.34	352.45	388.27	0.00	419.59	324.08	0.513	3.10	1.10	0.317	C
Preston Rd (NB)	834.16	208.54	842.22	574.91	36.70	0.00	1270.01	1261.02	0.657	3.98	1.96	0.143	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

Name	Queueing Total Delay (PCU-	Queueing Rate Of Delay (PCU-	Average Delay Per Arriving	Unsignalised Level Of	Signalised Level Of

	min)	min/min)	Vehicle (min)	Service	Service
Preston Rd (SB)	20.36	1.36	0.207	B	B
Chapel Hill	13.44	0.90	0.272	C	B
Preston Rd (NB)	26.09	1.74	0.133	A	A

Queueing Delay results: (17:00-17:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	38.72	2.58	0.348	C	C
Chapel Hill	25.32	1.69	0.451	D	C
Preston Rd (NB)	47.40	3.16	0.211	B	B

Queueing Delay results: (17:15-17:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	122.44	8.16	1.006	F	E
Chapel Hill	70.84	4.71	1.159	F	E
Preston Rd (NB)	142.06	9.47	0.574	D	C

Queueing Delay results: (17:30-17:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	214.19	14.28	1.633	F	F
Chapel Hill	114.92	7.66	1.764	F	F
Preston Rd (NB)	218.42	14.56	0.830	E	D

Queueing Delay results: (17:45-18:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	104.15	6.94	0.781	E	D
Chapel Hill	64.94	4.33	0.960	F	E
Preston Rd (NB)	85.45	5.70	0.321	C	B

Queueing Delay results: (18:00-18:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	26.47	1.76	0.233	B	B
Chapel Hill	18.61	1.24	0.317	C	B
Preston Rd (NB)	31.37	2.09	0.143	A	A

Preston Road/ Chapel Hill - 2016 Assessment, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Preston Road/ Chapel Hill	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2016 Assessment, PM	2016 Assessment	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (min)	Junction LOS
Preston Road / Chapel Hill	Mini-roundabout	A,B,C	0.67	E

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Name	Name	Description
Preston Rd (SB)	Preston Rd (SB)	
Chapel Hill	Chapel Hill	
Preston Rd (NB)	Preston Rd (NB)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Preston Rd (SB)	0.00	99999.00		0.00
Chapel Hill	0.00	99999.00		0.00
Preston Rd (NB)	0.00	99999.00		0.00

Mini Roundabout Geometry

Name	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
Preston Rd (SB)	4.00	4.00	6.00	2.00	9.00	4.00	0.00	
Chapel Hill	4.00	4.00	4.00	0.00	15.00	15.00	0.00	
Preston Rd (NB)	3.50	3.50	4.50	1.00	10.00	9.00	0.00	

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

Pedestrian Crossings

Name	Crossing Type
Preston Rd (SB)	None
Chapel Hill	None
Preston Rd (NB)	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Preston Rd (SB)	None			
Chapel Hill	Direct	Queue Surveys	-280.00	
Preston Rd (NB)	Direct	Queue Surveys	400.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Preston Rd (SB)		(calculated)	(calculated)	0.578	876.783
Chapel Hill		(calculated)	(calculated)	0.601	653.082
Preston Rd (NB)		(calculated)	(calculated)	0.543	1288.951

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry

		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Preston Rd (SB)	ONE HOUR	✓	537.00	100.000
Chapel Hill	ONE HOUR	✓	254.00	100.000
Preston Rd (NB)	ONE HOUR	✓	1052.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	53.000	484.000
	B	41.000	0.000	213.000
	C	691.000	361.000	0.000

Turning Proportions (PCU) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.00	0.10	0.90
	B	0.16	0.00	0.84
	C	0.66	0.34	0.00

Vehicle Mix

Average PCU Per Vehicle - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Preston Rd (SB)	0.91	0.66	7.90	F	492.76	739.14	305.46	0.41	3.39	305.53	0.41
Chapel Hill	0.83	0.96	4.15	F	233.07	349.61	171.69	0.49	1.91	171.74	0.49
Preston Rd (NB)	0.92	0.50	9.10	D	965.33	1448.00	371.49	0.26	4.13	371.56	0.26

Main Results for each time segment

Main results: (16:45-17:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	404.28	101.07	399.32	546.37	269.57	0.00	720.97	626.38	0.561	0.00	1.24	0.184	B
Chapel Hill	191.22	47.81	188.19	305.98	359.90	0.00	436.65	313.58	0.438	0.00	0.78	0.239	B
Preston Rd (NB)	792.00	198.00	785.56	517.72	30.38	0.00	1273.45	1262.45	0.622	0.00	1.61	0.121	A

Main results: (17:00-17:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	482.75	120.69	478.92	654.59	322.91	0.00	690.14	626.38	0.700	1.24	2.20	0.279	C
Chapel Hill	228.34	57.09	226.12	370.18	431.66	0.00	393.50	313.58	0.580	0.76	1.31	0.354	C
Preston Rd (NB)	945.73	236.43	941.01	621.28	36.50	0.00	1270.12	1262.45	0.745	1.61	2.79	0.180	B

Main results: (17:15-17:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	591.25	147.81	573.43	790.53	390.16	0.00	651.27	626.38	0.908	2.20	6.65	0.656	E
Chapel Hill	279.66	69.91	270.86	446.75	516.83	0.00	342.28	313.58	0.817	1.31	3.51	0.761	E
Preston Rd (NB)	1158.27	289.57	1136.96	743.97	43.72	0.00	1266.20	1262.45	0.915	2.79	8.12	0.409	C

Main results: (17:30-17:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	591.25	147.81	586.26	802.95	396.12	0.00	647.83	626.38	0.913	6.65	7.90	0.861	F
Chapel Hill	279.66	69.91	277.11	453.98	528.40	0.00	335.32	313.58	0.834	3.51	4.15	0.960	F
Preston Rd (NB)	1158.27	289.57	1154.34	760.78	44.73	0.00	1265.65	1262.45	0.915	8.12	9.10	0.503	D

Main results: (17:45-18:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	482.75	120.69	504.14	675.56	332.82	0.00	684.41	626.38	0.705	7.90	2.55	0.366	C
Chapel Hill	228.34	57.09	238.52	382.57	454.38	0.00	379.84	313.58	0.601	4.15	1.60	0.451	D
Preston Rd (NB)	945.73	236.43	969.88	654.40	38.50	0.00	1269.03	1262.45	0.745	9.10	3.06	0.215	B

Main results: (18:00-18:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	404.28	101.07	409.21	555.23	273.68	0.00	718.60	626.38	0.563	2.55	1.32	0.197	B
Chapel Hill	191.22	47.81	194.36	314.07	368.62	0.00	431.29	313.58	0.443	1.60	0.82	0.256	C
Preston Rd (NB)	792.00	198.00	797.53	531.80	31.37	0.00	1272.91	1262.45	0.622	3.06	1.68	0.128	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	17.33	1.16	0.184	B	B
Chapel Hill	10.55	0.70	0.239	B	B
Preston Rd (NB)	22.76	1.52	0.121	A	A

Queueing Delay results: (17:00-17:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	30.31	2.02	0.279	C	B

Chapel Hill	18.19	1.21	0.354	C	C
Preston Rd (NB)	38.94	2.60	0.180	B	B

Queueing Delay results: (17:15-17:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	78.68	5.25	0.656	E	D
Chapel Hill	43.35	2.89	0.761	E	D
Preston Rd (NB)	98.83	6.59	0.409	C	C

Queueing Delay results: (17:30-17:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	110.48	7.37	0.861	F	D
Chapel Hill	58.36	3.89	0.960	F	E
Preston Rd (NB)	130.32	8.69	0.503	D	C

Queueing Delay results: (17:45-18:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	47.52	3.17	0.366	C	C
Chapel Hill	28.11	1.87	0.451	D	C
Preston Rd (NB)	54.06	3.60	0.215	B	B

Queueing Delay results: (18:00-18:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	21.14	1.41	0.197	B	B
Chapel Hill	13.15	0.88	0.256	C	B
Preston Rd (NB)	26.59	1.77	0.128	A	A

Preston Road/ Chapel Hill - 2025 Assessment, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Preston Road/ Chapel Hill	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2025 Assessment, PM	2025 Assessment	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (min)	Junction LOS
Preston Road / Chapel Hill	Mini-roundabout	A,B,C	1.75	F

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Name	Name	Description
Preston Rd (SB)	Preston Rd (SB)	
Chapel Hill	Chapel Hill	
Preston Rd (NB)	Preston Rd (NB)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Preston Rd (SB)	0.00	99999.00		0.00
Chapel Hill	0.00	99999.00		0.00
Preston Rd (NB)	0.00	99999.00		0.00

Mini Roundabout Geometry

Name	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
Preston Rd (SB)	4.00	4.00	6.00	2.00	9.00	4.00	0.00	
Chapel Hill	4.00	4.00	4.00	0.00	15.00	15.00	0.00	
Preston Rd (NB)	3.50	3.50	4.50	1.00	10.00	9.00	0.00	

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

Pedestrian Crossings

Name	Crossing Type
Preston Rd (SB)	None
Chapel Hill	None
Preston Rd (NB)	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Preston Rd (SB)	None			
Chapel Hill	Direct	Queue Surveys	-280.00	
Preston Rd (NB)	Direct	Queue Surveys	400.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Preston Rd (SB)		(calculated)	(calculated)	0.578	876.783
Chapel Hill		(calculated)	(calculated)	0.601	653.082
Preston Rd (NB)		(calculated)	(calculated)	0.543	1289.951

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Preston Rd (SB)	ONE HOUR	✓	595.00	100.000
Chapel Hill	ONE HOUR	✓	286.00	100.000
Preston Rd (NB)	ONE HOUR	✓	1163.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	59.000	536.000
	B	47.000	0.000	239.000
	C	759.000	404.000	0.000

Turning Proportions (PCU) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.00	0.10	0.90
	B	0.16	0.00	0.84
	C	0.85	0.35	0.00

Vehicle Mix

Average PCU Per Vehicle - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Preston Rd (SB)	1.04	2.28	25.68	F	545.98	818.97	802.34	0.98	8.91	802.49	0.98
Chapel Hill	0.99	2.16	10.87	F	262.44	393.66	389.15	0.99	4.32	389.26	0.99
Preston Rd (NB)	1.01	1.37	29.97	F	1067.19	1600.78	896.00	0.56	9.96	896.12	0.56

Main Results for each time segment

Main results: (16:45-17:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	447.95	111.99	441.20	600.51	301.17	0.00	702.71	623.43	0.637	0.00	1.69	0.224	B
Chapel Hill	215.32	53.83	211.15	344.92	397.45	0.00	414.07	315.35	0.520	0.00	1.04	0.290	C
Preston Rd (NB)	875.57	218.89	866.99	573.90	34.70	0.00	1271.10	1261.80	0.689	0.00	2.15	0.146	A

Main results: (17:00-17:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS

Preston Rd (SB)	534.89	133.72	527.46	718.21	360.17	0.00	668.60	623.43	0.800	1.69	3.55	0.405	C
Chapel Hill	257.11	64.28	252.84	412.47	475.16	0.00	367.34	315.35	0.700	1.04	2.11	0.506	D
Preston Rd (NB)	1045.51	261.38	1036.83	686.45	41.55	0.00	1267.38	1261.80	0.825	2.15	4.32	0.251	C

Main results: (17:15-17:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	655.11	163.78	604.63	842.14	422.60	0.00	632.52	623.43	1.039	3.55	16.16	1.263	F
Chapel Hill	314.89	78.72	293.26	482.56	544.68	0.00	325.53	315.35	0.967	2.11	7.52	1.353	F
Preston Rd (NB)	1280.49	320.12	1216.55	789.75	48.19	0.00	1263.77	1261.80	1.013	4.32	20.30	0.798	E

Main results: (17:30-17:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	655.11	163.78	617.05	859.99	431.38	0.00	627.44	623.43	1.044	16.16	25.68	2.279	F
Chapel Hill	314.89	78.72	301.46	492.57	555.86	0.00	318.81	315.35	0.988	7.52	10.87	2.161	F
Preston Rd (NB)	1280.49	320.12	1241.83	807.78	49.54	0.00	1263.04	1261.80	1.014	20.30	29.97	1.375	F

Main results: (17:45-18:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	534.89	133.72	611.82	792.39	397.24	0.00	647.18	623.43	0.827	25.68	6.45	1.605	F
Chapel Hill	257.11	64.28	280.50	457.91	551.15	0.00	321.64	315.35	0.799	10.87	5.03	1.590	F
Preston Rd (NB)	1045.51	261.38	1143.54	785.55	46.10	0.00	1264.91	1261.80	0.827	29.97	5.46	0.686	E

Main results: (18:00-18:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	447.95	111.99	466.26	617.57	308.55	0.00	698.44	623.43	0.641	6.45	1.87	0.277	C
Chapel Hill	215.32	53.83	230.55	354.79	420.03	0.00	400.49	315.35	0.538	5.03	1.22	0.381	C
Preston Rd (NB)	875.57	218.89	888.23	612.69	37.89	0.00	1269.37	1261.80	0.690	5.46	2.29	0.162	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	23.08	1.54	0.224	B	B
Chapel Hill	14.22	0.95	0.290	C	B
Preston Rd (NB)	29.82	1.99	0.146	A	A

Queueing Delay results: (17:00-17:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	46.57	3.10	0.405	C	C
Chapel Hill	28.02	1.87	0.506	D	C
Preston Rd (NB)	57.93	3.86	0.251	C	B

Queueing Delay results: (17:15-17:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	160.52	10.70	1.263	F	E
Chapel Hill	81.14	5.41	1.353	F	F
Preston Rd (NB)	204.97	13.66	0.798	E	D

Queueing Delay results: (17:30-17:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	315.72	21.05	2.279	F	F
Chapel Hill	139.67	9.31	2.161	F	F
Preston Rd (NB)	379.89	25.33	1.375	F	F

Queueing Delay results: (17:45-18:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	222.75	14.85	1.605	F	F
Chapel Hill	102.96	6.86	1.590	F	F
Preston Rd (NB)	185.80	12.39	0.686	E	D

Queueing Delay results: (18:00-18:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	33.70	2.25	0.277	C	B
Chapel Hill	23.13	1.54	0.381	C	C
Preston Rd (NB)	37.59	2.51	0.162	A	A

Preston Road/ Chapel Hill - 2014 Surveyed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Preston Road/ Chapel Hill	ARCADY		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2014 Surveyed, PM	2014 Surveyed	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (min)	Junction LOS
Preston Road / Chapel Hill	Mini-roundabout	A,B,C	0.24	B

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Name	Name	Description
Preston Rd (SB)	Preston Rd (SB)	
Chapel Hill	Chapel Hill	
Preston Rd (NB)	Preston Rd (NB)	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Preston Rd (SB)	0.00	99999.00		0.00
Chapel Hill	0.00	99999.00		0.00
Preston Rd (NB)	0.00	99999.00		0.00

Mini Roundabout Geometry

Name	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
Preston Rd (SB)	4.00	4.00	6.00	2.00	9.00	4.00	0.00	
Chapel Hill	4.00	4.00	4.00	0.00	15.00	15.00	0.00	
Preston Rd (NB)	3.50	3.50	4.50	1.00	10.00	9.00	0.00	

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

Pedestrian Crossings

Name	Crossing Type
Preston Rd (SB)	None
Chapel Hill	None
Preston Rd (NB)	None

Slope / Intercept / Capacity

Arm Intercept Adjustments

Name	Type	Reason	Direct Intercept Adjustment (PCU/hr)	Percentage Intercept Adjustment (%)
Preston Rd (SB)	None			
Chapel Hill	Direct	Queue Surveys	-280.00	
Preston Rd (NB)	Direct	Queue Surveys	400.00	

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Preston Rd (SB)		(calculated)	(calculated)	0.578	876.783
Chapel Hill		(calculated)	(calculated)	0.601	853.082
Preston Rd (NB)		(calculated)	(calculated)	0.543	1289.951

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Preston Rd (SB)	ONE HOUR	✓	427.00	100.000
Chapel Hill	ONE HOUR	✓	231.00	100.000
Preston Rd (NB)	ONE HOUR	✓	816.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	49.000	378.000
	B	40.000	0.000	191.000
	C	495.000	321.000	0.000

Turning Proportions (PCU) - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.00	0.11	0.89
	B	0.17	0.00	0.83
	C	0.61	0.39	0.00

Vehicle Mix

Average PCU Per Vehicle - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Preston Road / Chapel Hill (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (min)
Preston Rd (SB)	0.70	0.29	2.25	C	391.82	587.73	122.09	0.21	1.36	122.12	0.21
Chapel Hill	0.63	0.40	1.65	C	211.97	317.95	89.10	0.28	0.99	89.12	0.28
Preston Rd (NB)	0.71	0.16	2.40	A	748.78	1123.16	138.07	0.12	1.53	138.09	0.12

Main Results for each time segment

Main results: (16:45-17:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	321.47	80.37	318.43	400.16	240.22	0.00	737.94	590.72	0.436	0.00	0.76	0.142	A
Chapel Hill	173.91	43.48	171.71	276.76	281.89	0.00	483.56	338.61	0.360	0.00	0.55	0.191	B
Preston Rd (NB)	614.33	153.58	610.64	423.86	29.73	0.00	1273.80	1258.10	0.482	0.00	0.92	0.090	A

Main results: (17:00-17:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	383.86	95.97	382.31	478.73	287.91	0.00	710.37	590.72	0.540	0.76	1.15	0.182	B
Chapel Hill	207.66	51.92	206.53	331.78	338.44	0.00	449.56	338.61	0.462	0.55	0.83	0.248	B
Preston Rd (NB)	733.57	183.39	731.88	509.21	35.76	0.00	1270.52	1258.10	0.577	0.92	1.34	0.111	A

Main results: (17:15-17:30)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	470.14	117.53	466.00	586.05	351.83	0.00	673.42	590.72	0.698	1.15	2.18	0.284	C
Chapel Hill	254.34	63.58	251.34	405.30	412.52	0.00	405.01	338.61	0.628	0.83	1.58	0.383	C
Preston	898.43	224.61	894.37	620.34	43.52	0.00	1266.31	1258.10	0.709	1.34	2.36	0.190	A

Rd (NB)													

Main results: (17:30-17:45)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	470.14	117.53	469.86	588.90	353.36	0.00	672.54	590.72	0.699	2.18	2.25	0.295	C
Chapel Hill	254.34	63.58	254.08	407.28	415.95	0.00	402.95	338.61	0.631	1.58	1.65	0.401	C
Preston Rd (NB)	898.43	224.61	898.27	626.03	44.00	0.00	1266.05	1258.10	0.710	2.36	2.40	0.163	A

Main results: (17:45-18:00)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	383.88	95.97	388.02	483.92	290.16	0.00	709.07	590.72	0.541	2.25	1.21	0.189	B
Chapel Hill	207.66	51.92	210.68	334.69	343.49	0.00	446.52	338.61	0.465	1.65	0.90	0.258	C
Preston Rd (NB)	733.57	183.39	737.60	517.69	36.48	0.00	1270.13	1258.10	0.578	2.40	1.39	0.114	A

Main results: (18:00-18:15)

Name	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (min)	LOS
Preston Rd (SB)	321.47	80.37	323.16	404.08	242.37	0.00	736.69	590.72	0.436	1.21	0.79	0.148	A
Chapel Hill	173.91	43.48	175.18	279.45	286.08	0.00	481.05	338.61	0.362	0.90	0.58	0.197	B
Preston Rd (NB)	614.33	153.58	616.12	430.93	30.33	0.00	1273.47	1258.10	0.482	1.39	0.94	0.092	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	10.81	0.72	0.142	A	A
Chapel Hill	7.79	0.52	0.191	B	B
Preston Rd (NB)	13.28	0.89	0.090	A	A

Queueing Delay results: (17:00-17:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	16.40	1.09	0.182	B	B
Chapel Hill	11.88	0.79	0.246	B	B
Preston Rd (NB)	19.43	1.30	0.111	A	A

Queueing Delay results: (17:15-17:30)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	29.95	2.00	0.284	C	B
Chapel Hill	21.65	1.44	0.383	C	C
Preston Rd (NB)	33.20	2.21	0.160	A	A

Queueing Delay results: (17:30-17:45)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	33.34	2.22	0.295	C	B
Chapel Hill	24.38	1.62	0.401	C	C
Preston Rd (NB)	35.76	2.38	0.163	A	A

Queueing Delay results: (17:45-18:00)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	19.29	1.29	0.189	B	B
Chapel Hill	14.35	0.96	0.258	C	B

Preston Rd (NB)	21.82	1.45	0.114	A	A

Queueing Delay results: (18:00-18:15)

Name	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Preston Rd (SB)	12.30	0.82	0.146	A	A
Chapel Hill	9.07	0.60	0.197	B	B
Preston Rd (NB)	14.59	0.97	0.092	A	A

Appendix 19

PICADY Outputs – Berry Lane/Market Place/King Street

TRL LIMITED

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

FOR SALES AND DISTRIBUTION INFORMATION,
PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL SOFTWARE SALES
TEL: CROWTHORNE (01344) 770758, FAX: 770356
EMAIL: software@trl.co.uk

Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\Dec 14\Full Application-106 Dwellings\ODTAB\
2016 Baseline Flows\Berry Lane Market Street King St 2016 Baseline Flows-AM.vpi"
(drive-on-the-left) at 11:39:34 on Tuesday, 2 December 2014

RUN INFORMATION
****

RUN TITLE	: Berry Lane/Market Street/King Street 2016 baline Flows-AM
LOCATION	: Longridge
DATE	: 02/12/14
CLIENT	: Barratt Homes
ENUMERATOR	:
JOB NUMBER	: Vn30277
STATUS	:
DESCRIPTION	:

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA

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

ARM A IS Market Place
ARM B IS Berry Lane
ARM C IS King Street

STREAM LABELLING CONVENTION

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

TRL TRL Viewer 3.2 AG N:\.. \2016 Baseline Flows\Berry Lane Market Street King St 2016 Baseline Flows-AM.vpo

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 7.70 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B) 75.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 34.0 M.
- VISIBILITY TO RIGHT	(VB-A) 38.0 M.
- LANE 1 WIDTH	(WB-C) 3.60 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
686.78	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
537.77	0.23	0.09	0.14	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
617.40	0.22	0.22

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

TRAFFIC DEMAND DATA

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

Demand set: Berry Lane/Market Street/King Street 2016

TIME PERIOD BEGINS 07.45 AND ENDS 09.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	3.78	5.66	3.78
ARM B	15.00	45.00	75.00	2.78	4.16	2.78
ARM C	15.00	45.00	75.00	5.40	8.10	5.40

Demand set: Berry Lane/Market Street/King Street 2016

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.000	0.474	0.526
		0.0	143.0	159.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.320	0.000	0.680
		71.0	0.0	151.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.519	0.481	0.000
		224.0	208.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-AC	2.79	9.24	0.302		0.00	0.43	6.1		0.15
C-AB	2.61	9.45	0.276		0.00	0.41	6.0		0.15
A-B	1.79								
A-C	2.00								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	3.33	8.97	0.371		0.43	0.58	8.4		0.18
C-AB	3.12	9.29	0.336		0.41	0.56	8.3		0.16
A-B	2.14								
A-C	2.38								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	4.07	8.58	0.475		0.58	0.88	12.6		0.22
C-AB	3.82	9.06	0.421		0.56	0.84	12.6		0.19
A-B	2.62								
A-C	2.92								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	4.07	8.58	0.475		0.88	0.89	13.3		0.22
C-AB	3.82	9.06	0.421		0.84	0.85	13.0		0.19
A-B	2.62								
A-C	2.92								

TRL TRL Viewer 3.2 AG N:\.. \2016 Baseline Flows\Berry Lane Market Street King St 2016 Baseline Flows-AM.vpo

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	3.33	8.96	0.371		0.89	0.60	9.4		0.18
C-AB	3.12	9.29	0.336		0.85	0.58	8.7		0.16
A-B	2.14								
A-C	2.38								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
09.00-09.15									
B-AC	2.79	9.23	0.302		0.60	0.44	6.8		0.16
C-AB	2.61	9.45	0.276		0.58	0.42	6.3		0.15
A-B	1.79								
A-C	2.00								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.4	
08.15	0.6	*
08.30	0.9	*
08.45	0.9	*
09.00	0.6	*
09.15	0.4	

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.4	
08.15	0.6	*
08.30	0.8	*
08.45	0.9	*
09.00	0.6	*
09.15	0.4	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	305.6	203.7	56.6	0.19	56.6	0.19
C-AB	286.3	190.9	55.0	0.19	55.0	0.19
A-B	196.8	131.2				
A-C	218.9	145.9				
ALL	1315.9	877.2	111.5	0.08	111.6	0.08

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

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

========== end of file ==========

Printed at 11:40:42 on 02/12/2014]

TRL LIMITED

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

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Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\Dec 14\Full Application-106 Dwellings\ODTAB\
2016 Baseline Flows\Berry Lane Market Street King St 2016 Baseline Flows-PM.vpi"
(drive-on-the-left) at 11:45:43 on Tuesday, 2 December 2014

RUN INFORMATION
****

RUN TITLE	: Berry Lane/Market Street 2016 Baseline Flows-PM
LOCATION	: Longridge
DATE	: 02/12/14
CLIENT	: Barratt Homes
ENUMERATOR	:
JOB NUMBER	: VN30277
STATUS	:
DESCRIPTION	:

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA

ARM A IS Market Place
ARM B IS Berry Lane
ARM C IS King Street

STREAM LABELLING CONVENTION

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

TRL TRL Viewer 3.2 AG N:\.. \2016 Baseline Flows\Berry Lane Market Street King St 2016 Baseline Flows-PM.vpo

GEOMETRIC DATA

DATA ITEM		MINOR ROAD B	
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	7.70 M.	
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.	
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.	
- VISIBILITY	(VC-B)	75.00 M.	
- BLOCKS TRAFFIC (SPACES)		YES (1)	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	34.0 M.	
- VISIBILITY TO RIGHT	(VB-A)	38.0 M.	
- LANE 1 WIDTH	(WB-C)	3.60 M.	
- LANE 2 WIDTH	(WB-A)	0.00 M.	

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
686.78	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
537.77	0.23	0.09	0.14	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
617.40	0.22	0.22

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

TRAFFIC DEMAND DATA

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

Demand set: Berry Lane/Market Street 2016

TIME PERIOD BEGINS 16.45 AND ENDS 18.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	4.71	7.07	4.71
ARM B	15.00	45.00	75.00	3.33	4.99	3.33
ARM C	15.00	45.00	75.00	3.97	5.96	3.97

Demand set: Berry Lane/Market Street 2016

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.355	0.645
		0.0	134.0	243.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.357	0.000	0.643
		95.0	0.0	171.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.475	0.525	0.000
		151.0	167.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00									
B-AC	3.34	9.01	0.370		0.00	0.58	8.2		0.17
C-AB	2.10	9.24	0.227		0.00	0.30	4.5		0.14
A-B	1.68								
A-C	3.05								
17.00-17.15									
B-AC	3.99	8.72	0.457		0.58	0.82	11.8		0.21
C-AB	2.50	9.04	0.277		0.30	0.40	6.0		0.15
A-B	2.01								
A-C	3.64								
17.15-17.30									
B-AC	4.88	8.32	0.587		0.82	1.36	19.1		0.28
C-AB	3.06	8.76	0.350		0.40	0.59	8.8		0.18
A-B	2.46								
A-C	4.46								
17.30-17.45									
B-AC	4.88	8.31	0.587		1.36	1.39	20.7		0.29
C-AB	3.06	8.76	0.350		0.59	0.59	9.0		0.18
A-B	2.46								
A-C	4.46								

TRL TRL Viewer 3.2 AG N:\.. \2016 Baseline Flows\Berry Lane Market Street King St 2016 Baseline Flows-PM.vpo

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.45-18.00									
B-AC	3.99	8.72	0.457		1.39	0.86	13.7		0.21
C-AB	2.50	9.04	0.277		0.59	0.42	6.3		0.15
A-B	2.01								
A-C	3.64								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-AC	3.34	9.01	0.371		0.86	0.60	9.4		0.18
C-AB	2.10	9.24	0.227		0.42	0.31	4.7		0.14
A-B	1.68								
A-C	3.05								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.6	*
17.15	0.8	*
17.30	1.4	*
17.45	1.4	*
18.00	0.9	*
18.15	0.6	*

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.3	
17.15	0.4	
17.30	0.6	*
17.45	0.6	*
18.00	0.4	
18.15	0.3	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	366.1	244.1	82.8	0.23	82.8	0.23
C-AB	229.9	153.2	39.2	0.17	39.2	0.17
A-B	184.4	123.0				
A-C	334.5	223.0				
ALL	1322.7	881.8	122.0	0.09	122.0	0.09

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

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

========== end of file ==========

Printed at 11:46:07 on 02/12/2014]

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

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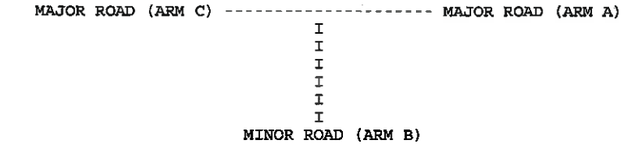
Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\March 15\363 Dwellings\2016 Assessment Flows\
Berry Lane Market Street King St 2016 Assessment Flows-AM.vpi"
(drive-on-the-left) at 09:00:58 on Wednesday, 11 March 2015

RUN INFORMATION
****

RUN TITLE	: Berry Lane/Market Street/King Street 2016 Assessment Flows-AM
LOCATION	: Longridge
DATE	: 11/03/15
CLIENT	: Barratt Homes
ENUMERATOR	:
JOB NUMBER	: VN30277
STATUS	:
DESCRIPTION	:

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Market Place
ARM B IS Berry Lane
ARM C IS King Street

STREAM LABELLING CONVENTION

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

GEOMETRIC DATA

DATA ITEM		MINOR ROAD B	
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	7.70 M.	
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.	
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.	
- VISIBILITY	(VC-B)	75.00 M.	
- BLOCKS TRAFFIC (SPACES)		YES (1)	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	34.0 M.	
- VISIBILITY TO RIGHT	(VB-A)	38.0 M.	
- LANE 1 WIDTH	(WB-C)	3.60 M.	
- LANE 2 WIDTH	(WB-A)	0.00 M.	

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
686.78	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
537.77	0.23	0.09	0.14	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
617.40	0.22	0.22

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

TRAFFIC DEMAND DATA

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

Demand set: Berry Lane/Market Street/King Street 2016

TIME PERIOD BEGINS 07.45 AND ENDS 09.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	3.78	5.66	3.78
ARM B	15.00	45.00	75.00	3.14	4.71	3.14
ARM C	15.00	45.00	75.00	5.54	8.31	5.54

Demand set: Berry Lane/Market Street/King Street 2016

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15				
	ARM A	0.000	0.474	0.526
		0.0	143.0	159.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.283	0.000	0.717
		71.0	0.0	180.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.506	0.494	0.000
		224.0	219.0	0.0
		(0.0)	(0.0)	(0.0)

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

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-AC	3.15	9.37	0.336		0.00	0.50	7.1		0.16
C-AB	2.75	9.45	0.291		0.00	0.44	6.5		0.15
A-B	1.79								
A-C	2.00								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	3.76	9.10	0.413		0.50	0.69	10.0		0.19
C-AB	3.28	9.29	0.353		0.44	0.60	9.1		0.17
A-B	2.14								
A-C	2.38								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	4.61	8.73	0.528		0.69	1.08	15.4		0.24
C-AB	4.02	9.06	0.443		0.60	0.93	13.9		0.20
A-B	2.62								
A-C	2.92								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	4.61	8.72	0.528		1.08	1.10	16.4		0.24
C-AB	4.02	9.06	0.443		0.93	0.94	14.3		0.20
A-B	2.62								
A-C	2.92								

TRL TRL Viewer 3.2 AG N:\.. \2016 Assessment Flows\Berry Lane Market Street King St 2016 Assessment Flows-AM

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	3.76	9.10	0.413		1.10	0.72	11.3		0.19
C-AB	3.28	9.29	0.353		0.94	0.63	9.5		0.17
A-B	2.14								
A-C	2.38								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
09.00-09.15									
B-AC	3.15	9.36	0.336		0.72	0.51	8.0		0.16
C-AB	2.75	9.45	0.291		0.63	0.45	6.8		0.15
A-B	1.79								
A-C	2.00								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.5	
08.15	0.7	*
08.30	1.1	*
08.45	1.1	*
09.00	0.7	*
09.15	0.5	*

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.4	
08.15	0.6	*
08.30	0.9	*
08.45	0.9	*
09.00	0.6	*
09.15	0.5	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	345.5	230.3	68.1	0.20	68.1	0.20
C-AB	301.4	201.0	60.1	0.20	60.1	0.20
A-B	196.8	131.2				
A-C	218.9	145.9				
ALL	1370.9	913.9	128.2	0.09	128.3	0.09

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

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

========== end of file ==========

Printed at 09:01:14 on 11/03/2015]

TRL LIMITED

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

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EMAIL: software@trl.co.uk

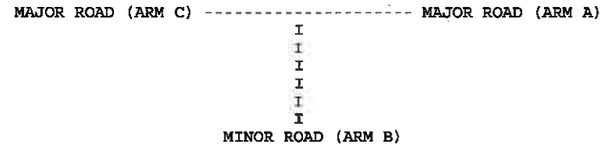
Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\March 15\363 Dwellings\2016 Assessment Flows\
Berry Lane Market Street King St 2016 Assessment Flows-PM.vpi"
(drive-on-the-left) at 09:02:42 on Wednesday, 11 March 2015

RUN INFORMATION
****

RUN TITLE	: Berry Lane/Market Street 2016 Assessment Flows-PM
LOCATION	: Longridge
DATE	: 11/03/15
CLIENT	: Barratt Homes
ENUMERATOR	:
JOB NUMBER	: VN30277
STATUS	:
DESCRIPTION	:

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Market Place
ARM B IS Berry Lane
ARM C IS King Street

STREAM LABELLING CONVENTION

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

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B	
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	7.70 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	75.00 M.
- BLOCKS TRAFFIC (SPACES)		YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	34.0 M.
- VISIBILITY TO RIGHT	(VB-A)	38.0 M.
- LANE 1 WIDTH	(WB-C)	3.60 M.
- LANE 2 WIDTH	(WB-A)	0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
686.78	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
537.77	0.23	0.09	0.14	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
617.40	0.22	0.22

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

TRAFFIC DEMAND DATA

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

Demand set: Berry Lane/Market Street 2016

TIME PERIOD BEGINS 16.45 AND ENDS 18.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	4.71	7.07	4.71
ARM B	15.00	45.00	75.00	3.51	5.27	3.51
ARM C	15.00	45.00	75.00	4.31	6.47	4.31

Demand set: Berry Lane/Market Street 2016

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.355	0.645
		0.0	134.0	243.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.338	0.000	0.662
		95.0	0.0	186.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.438	0.562	0.000
		151.0	194.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00									
B-AC	3.53	9.02	0.391		0.00	0.63	8.9		0.18
C-AB	2.43	9.24	0.263		0.00	0.37	5.5		0.15
A-B	1.68								
A-C	3.05								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	4.21	8.72	0.483		0.63	0.91	13.0		0.22
C-AB	2.91	9.04	0.322		0.37	0.50	7.5		0.16
A-B	2.01								
A-C	3.64								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	5.16	8.30	0.622		0.91	1.56	21.7		0.31
C-AB	3.56	8.76	0.407		0.50	0.75	11.3		0.19
A-B	2.46								
A-C	4.46								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	5.16	8.29	0.622		1.56	1.60	23.8		0.32
C-AB	3.56	8.76	0.407		0.75	0.76	11.6		0.19
A-B	2.46								
A-C	4.46								

TRL TRL Viewer 3.2 AG N:\.. \2016 Assessment Flows\Berry Lane Market Street King St 2016. Assessment Flows-PM

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.45-18.00									
B-AC	4.21	8.71	0.483		1.60	0.96	15.3		0.23
C-AB	2.91	9.04	0.322		0.76	0.52	7.9		0.16
A-B	2.01								
A-C	3.64								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-AC	3.53	9.01	0.391		0.96	0.65	10.3		0.18
C-AB	2.43	9.24	0.263		0.52	0.38	5.8		0.15
A-B	1.68								
A-C	3.05								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.6	*
17.15	0.9	*
17.30	1.6	**
17.45	1.6	**
18.00	1.0	*
18.15	0.7	*

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.4	
17.15	0.5	*
17.30	0.8	*
17.45	0.8	*
18.00	0.5	*
18.15	0.4	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	386.8	257.9	92.9	0.24	92.9	0.24
C-AB	267.0	178.0	49.5	0.19	49.5	0.19
A-B	184.4	123.0				
A-C	334.5	223.0				
ALL	1380.6	920.4	142.4	0.10	142.5	0.10

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

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

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Printed at 09:02:57 on 11/03/2015]

TRL LIMITED

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

FOR SALES AND DISTRIBUTION INFORMATION,
PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL SOFTWARE SALES
TEL: CROWTHORNE (01344) 770758, FAX: 770356
EMAIL: software@trl.co.uk

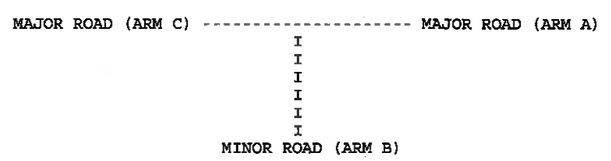
Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\Dec 14\Full Application-106 Dwellings\CDTAB\
2025 Baseline Flows\Berry Lane Market Street King St 2025 Baseline Flows-AM.vpi"
(drive-on-the-left) at 15:36:56 on Tuesday, 2 December 2014

RUN INFORMATION
****

RUN TITLE : Berry Lane/Market Street/King Street 2025 Baseline Flows-AM
LOCATION : Longridge
DATE : 02/12/14
CLIENT : Barratt Homes
ENUMERATOR :
JOB NUMBER : Vn30277
STATUS :
DESCRIPTION :

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Market Place
ARM B IS Berry Lane
ARM C IS King Street

STREAM LABELLING CONVENTION

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

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 7.70 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B) 75.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 34.0 M.
- VISIBILITY TO RIGHT	(VB-A) 38.0 M.
- LANE 1 WIDTH	(WB-C) 3.60 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
686.78	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
537.77	0.23	0.09	0.14	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
617.40	0.22	0.22

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

TRAFFIC DEMAND DATA

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

Demand set: Berry Lane/Market Street/King Street 2025

TIME PERIOD BEGINS 07.45 AND ENDS 09.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	4.24	6.36	4.24
ARM B	15.00	45.00	75.00	3.10	4.65	3.10
ARM C	15.00	45.00	75.00	6.06	9.09	6.06

Demand set: Berry Lane/Market Street/King Street 2025

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS / (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.000 0.0 (0.0)	0.478 162.0 (0.0)	0.522 177.0 (0.0)
	ARM B	0.319 79.0 (0.0)	0.000 0.0 (0.0)	0.681 169.0 (0.0)
	ARM C	0.518 251.0 (0.0)	0.482 234.0 (0.0)	0.000 0.0 (0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-AC	3.11	9.08	0.343		0.00	0.51	7.3		0.17
C-AB	2.94	9.35	0.314		0.00	0.50	7.3		0.15
A-B	2.03								
A-C	2.22								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	3.72	8.77	0.424		0.51	0.72	10.4		0.20
C-AB	3.51	9.16	0.383		0.50	0.70	10.5		0.18
A-B	2.43								
A-C	2.65								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	4.55	8.32	0.547		0.72	1.16	16.4		0.26
C-AB	4.29	8.91	0.482		0.70	1.12	16.8		0.22
A-B	2.97								
A-C	3.25								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	4.55	8.32	0.547		1.16	1.19	17.7		0.26
C-AB	4.29	8.91	0.482		1.12	1.14	17.4		0.22
A-B	2.97								
A-C	3.25								

TRL TRL Viewer 3.2 AG N:\.. \2025 Baseline Flows\Berry Lane Market Street King St 2025 Baseline Flows-AM.vpo

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	3.72	8.76	0.424		1.19	0.75	11.9		0.20
C-AB	3.51	9.16	0.383		1.14	0.73	11.1		0.18
A-B	2.43								
A-C	2.65								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
09.00-09.15									
B-AC	3.11	9.07	0.343		0.75	0.53	8.3		0.17
C-AB	2.94	9.35	0.314		0.73	0.52	7.8		0.16
A-B	2.03								
A-C	2.22								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.5	*
08.15	0.7	*
08.30	1.2	*
08.45	1.2	*
09.00	0.8	*
09.15	0.5	*

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.5	
08.15	0.7	*
08.30	1.1	*
08.45	1.1	*
09.00	0.7	*
09.15	0.5	*

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	341.4	227.6	71.9	0.21	71.9	0.21
C-AB	322.1	214.7	70.9	0.22	70.9	0.22
A-B	223.0	148.7				
A-C	243.6	162.4				
ALL	1475.5	983.7	142.8	0.10	142.8	0.10

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

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

========== end of file ==========

Printed at 15:37:43 on 02/12/2014]

TRL LIMITED

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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

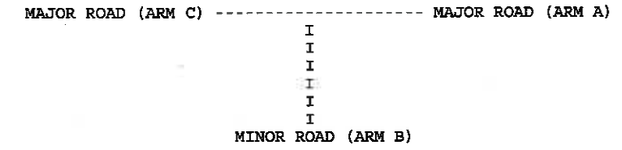
Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\Dec 14\Full Application-106 Dwellings\ODTAB\
2025 Baseline Flows\Berry Lane Market Street King St 2025 Baseline Flows-PM.vpi"
(drive-on-the-left) at 15:39:35 on Tuesday, 2 December 2014

RUN INFORMATION
****

RUN TITLE	: Berry Lane/Market Street 2016 Baseline Flows-PM
LOCATION	: Longridge
DATE	: 02/12/14
CLIENT	: Barratt Homes
ENUMERATOR	:
JOB NUMBER	: VN30277
STATUS	:
DESCRIPTION	:

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Market Place
ARM B IS Berry Lane
ARM C IS King Street

STREAM LABELLING CONVENTION

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

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 7.70 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B) 75.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 34.0 M.
- VISIBILITY TO RIGHT	(VB-A) 38.0 M.
- LANE 1 WIDTH	(WB-C) 3.60 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
686.78	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
537.77	0.23	0.09	0.14	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
617.40	0.22	0.22

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

TRAFFIC DEMAND DATA

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

Demand set: Berry Lane/Market Street 2025

TIME PERIOD BEGINS 16.45 AND ENDS 18.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	5.28	7.91	5.28
ARM B	15.00	45.00	75.00	3.72	5.59	3.72
ARM C	15.00	45.00	75.00	4.45	6.67	4.45

Demand set: Berry Lane/Market Street 2025

TIME	FROM/TO	ARM A	ARM B	ARM C
16.45 - 18.15		TURNING PROPORTIONS		
	ARM A	0.000	0.358	0.642
		0.0	151.0	271.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.356	0.000	0.644
		106.0	0.0	192.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.472	0.528	0.000
		168.0	188.0	0.0
		(0.0)	(0.0)	(0.0)

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

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00									
B-AC	3.74	8.84	0.423		0.00	0.72	10.1		0.19
C-AB	2.36	9.12	0.259		0.00	0.36	5.4		0.15
A-B	1.89								
A-C	3.40								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	4.46	8.51	0.524		0.72	1.07	15.2		0.24
C-AB	2.82	8.89	0.317		0.36	0.50	7.4		0.16
A-B	2.26								
A-C	4.06								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	5.47	8.05	0.679		1.07	1.97	26.9		0.37
C-AB	3.45	8.57	0.402		0.50	0.75	11.2		0.19
A-B	2.77								
A-C	4.97								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	5.47	8.05	0.679		1.97	2.04	30.2		0.38
C-AB	3.45	8.57	0.402		0.75	0.76	11.5		0.20
A-B	2.77								
A-C	4.97								

TRL TRL Viewer 3.2 AG N:\.. \2025 Baseline Flows\Berry Lane Market Street King St 2025 Baseline Flows-PM.vpo

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.45-18.00									
B-AC	4.46	8.51	0.525		2.04	1.14	18.3		0.25
C-AB	2.82	8.89	0.317		0.76	0.51	7.8		0.17
A-B	2.26								
A-C	4.06								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-AC	3.74	8.83	0.423		1.14	0.75	11.8		0.20
C-AB	2.36	9.12	0.259		0.51	0.38	5.7		0.15
A-B	1.89								
A-C	3.40								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.7	*
17.15	1.1	*
17.30	2.0	**
17.45	2.0	**
18.00	1.1	*
18.15	0.7	*

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.4	
17.15	0.5	
17.30	0.8	*
17.45	0.8	*
18.00	0.5	*
18.15	0.4	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	410.2	273.4	112.5	0.27	112.5	0.27
C-AB	258.8	172.5	49.0	0.19	49.0	0.19
A-B	207.8	138.6				
A-C	373.0	248.7				
ALL	1481.0	987.4	161.5	0.11	161.5	0.11

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

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

========== end of file ==========

Printed at 15:39:50 on 02/12/2014]

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

FOR SALES AND DISTRIBUTION INFORMATION,
PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL SOFTWARE SALES
TEL: CROWTHORNE (01344) 770758, FAX: 770356
EMAIL: software@trl.co.uk

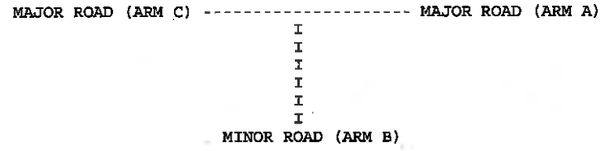
Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\March 15\363 Dwellings\2025 Assessment Flows\
Berry Lane Market Street King St 2025 Assessment Flows-AM.vpi"
(drive-on-the-left) at 09:07:18 on Wednesday, 11 March 2015

RUN INFORMATION
****

RUN TITLE	: Berry Lane/Market Street/King Street 2025 Assessment Flows-AM
LOCATION	: Longridge
DATE	: 11/03/15
CLIENT	: Barratt Homes
ENUMERATOR	:
JOB NUMBER	: VN30277
STATUS	:
DESCRIPTION	:

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Market Place
ARM B IS Berry Lane
ARM C IS King Street

STREAM LABELLING CONVENTION

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

GEOMETRIC DATA

DATA ITEM		MINOR ROAD B	
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	7.70 M.	
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.	
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.	
- VISIBILITY	(VC-B)	75.00 M.	
- BLOCKS TRAFFIC (SPACES)		YES (1)	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	34.0 M.	
- VISIBILITY TO RIGHT	(VB-A)	38.0 M.	
- LANE 1 WIDTH	(WB-C)	3.60 M.	
- LANE 2 WIDTH	(WB-A)	0.00 M.	

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
686.78	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
537.77	0.23	0.09	0.14	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
617.40	0.22	0.22

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

TRAFFIC DEMAND DATA

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

Demand set: Berry Lane/Market Street/King Street 2025

TIME PERIOD BEGINS 07.45 AND ENDS 09.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	4.24	6.36	4.24
ARM B	15.00	45.00	75.00	3.46	5.19	3.46
ARM C	15.00	45.00	75.00	6.20	9.30	6.20

Demand set: Berry Lane/Market Street/King Street 2025

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS / (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.000 0.0 (0.0)	0.478 162.0 (0.0)	0.522 177.0 (0.0)
	ARM B	0.285 79.0 (0.0)	0.000 0.0 (0.0)	0.715 198.0 (0.0)
	ARM C	0.506 251.0 (0.0)	0.494 245.0 (0.0)	0.000 0.0 (0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME		DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00										
	B-AC	3.48	9.20	0.378		0.00	0.60	8.5		0.17
	C-AB	3.07	9.35	0.329		0.00	0.53	7.9		0.16
	A-B	2.03								
	A-C	2.22								
08.00-08.15										
	B-AC	4.15	8.89	0.467		0.60	0.85	12.2		0.21
	C-AB	3.67	9.16	0.401		0.53	0.76	11.4		0.18
	A-B	2.43								
	A-C	2.65								
08.15-08.30										
	B-AC	5.08	8.46	0.601		0.85	1.44	20.1		0.29
	C-AB	4.50	8.91	0.504		0.76	1.24	18.5		0.22
	A-B	2.97								
	A-C	3.25								
08.30-08.45										
	B-AC	5.08	8.45	0.601		1.44	1.47	21.9		0.30
	C-AB	4.50	8.91	0.504		1.24	1.26	19.2		0.23
	A-B	2.97								
	A-C	3.25								

TRL TRL Viewer 3.2 AG N:\.. \2025 Assessment Flows\Berry Lane Market Street King St 2025 Assessment Flows-AM

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	4.15	8.89	0.467		1.47	0.90	14.3		0.21
C-AB	3.67	9.16	0.401		1.26	0.80	12.1		0.18
A-B	2.43								
A-C	2.65								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
09.00-09.15									
B-AC	3.48	9.19	0.378		0.90	0.62	9.7		0.18
C-AB	3.07	9.35	0.329		0.80	0.55	8.4		0.16
A-B	2.03								
A-C	2.22								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.6	*
08.15	0.9	*
08.30	1.4	*
08.45	1.5	*
09.00	0.9	*
09.15	0.6	*

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.5	*
08.15	0.8	*
08.30	1.2	*
08.45	1.3	*
09.00	0.8	*
09.15	0.6	*

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	381.3	254.2	86.6	0.23	86.6	0.23
C-AB	337.2	224.8	77.4	0.23	77.5	0.23
A-B	223.0	148.7				
A-C	243.6	162.4				
ALL	1530.6	1020.4	164.1	0.11	164.1	0.11

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

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

========== end of file ==========

Printed at 09:07:53 on 11/03/2015]

TRL LIMITED

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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EMAIL: software@trl.co.uk

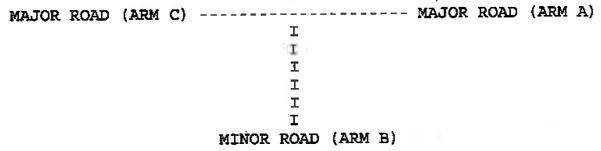
Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\March 15\363 Dwellings\2025 Assessment Flows\
Berry Lane Market Street King St 2025 Assessment Flows-PM.vpi"
(drive-on-the-left) at 09:12:12 on Wednesday, 11 March 2015

RUN INFORMATION
****

RUN TITLE	: Berry Lane/Market Street 2025 Assessment Flows-PM
LOCATION	: Longridge
DATE	: 11/03/15
CLIENT	: Barratt Homes
ENUMERATOR	:
JOB NUMBER	: VN30277
STATUS	:
DESCRIPTION	:

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Market Place
ARM B IS Berry Lane
ARM C IS King Street

STREAM LABELLING CONVENTION

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

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 7.70 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B) 75.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 34.0 M.
- VISIBILITY TO RIGHT	(VB-A) 38.0 M.
- LANE 1 WIDTH	(WB-C) 3.60 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
686.78	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
537.77	0.23	0.09	0.14	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
617.40	0.22	0.22

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

TRAFFIC DEMAND DATA

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

Demand set: Berry Lane/Market Street 2025

TIME PERIOD BEGINS 16.45 AND ENDS 18.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	5.28	7.91	5.28
ARM B	15.00	45.00	75.00	3.91	5.87	3.91
ARM C	15.00	45.00	75.00	4.79	7.18	4.79

Demand set: Berry Lane/Market Street 2025

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000 0.0 (0.0)	0.358 151.0 (0.0)	0.642 271.0 (0.0)
	ARM B	0.339 106.0 (0.0)	0.000 0.0 (0.0)	0.661 207.0 (0.0)
	ARM C	0.439 168.0 (0.0)	0.561 215.0 (0.0)	0.000 0.0 (0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME		DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00										
	B-AC	3.93	8.84	0.444		0.00	0.78	11.0		0.20
	C-AB	2.70	9.12	0.296		0.00	0.44	6.5		0.15
	A-B	1.89								
	A-C	3.40								
17.00-17.15										
	B-AC	4.69	8.50	0.552		0.78	1.19	16.8		0.26
	C-AB	3.22	8.89	0.362		0.44	0.61	9.2		0.18
	A-B	2.26								
	A-C	4.06								

TIME		DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30										
	B-AC	5.74	8.02	0.716		1.19	2.31	31.0		0.41
	C-AB	3.95	8.57	0.460		0.61	0.96	14.4		0.21
	A-B	2.77								
	A-C	4.97								

TIME		DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45										
	B-AC	5.74	8.02	0.716		2.31	2.41	35.5		0.43
	C-AB	3.95	8.57	0.460		0.96	0.98	14.9		0.22
	A-B	2.77								
	A-C	4.97								

TRL TRL Viewer 3.2 AG N:\.. \2025 Assessment Flows\Berry Lane Market Street King St 2025 Assessment Flows-PM

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.45-18.00									
B-AC	4.69	8.50	0.552		2.41	1.28	20.6		0.27
C-AB	3.22	8.89	0.362		0.98	0.64	9.7		0.18
A-B	2.26								
A-C	4.06								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-AC	3.93	8.84	0.444		1.28	0.82	12.9		0.21
C-AB	2.70	9.12	0.296		0.64	0.46	6.9		0.16
A-B	1.89								
A-C	3.40								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.8	*
17.15	1.2	*
17.30	2.3	**
17.45	2.4	**
18.00	1.3	*
18.15	0.8	*

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.4	
17.15	0.6	*
17.30	1.0	*
17.45	1.0	*
18.00	0.6	*
18.15	0.5	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	430.8	287.2	127.8	0.30	127.9	0.30
C-AB	295.9	197.3	61.6	0.21	61.6	0.21
A-B	207.8	138.6				
A-C	373.0	248.7				
ALL	1538.8	1025.9	189.4	0.12	189.4	0.12

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

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

========== end of file ==========

Printed at 09:12:36 on 11/03/2015]

Appendix 20

PICADY Outputs – Inglewhite Road/Halfpenny Lane

TRL LIMITED

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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EMAIL: software@trl.co.uk

Run with file:-
"N:\Vectos Job Data\2013\VW30277 Longridge\Picady\Dec 14\Full Application-106 Dwellings\ODTAB\
2016 Baseline Flows\Halfpenny and Inglewhite Rd 2016 Baseline Flows-AM.vpi"
(drive-on-the-left) at 10:41:04 on Tuesday, 2 December 2014

RUN INFORMATION
****

RUN TITLE : Halfpenny Lane/Inglewhite Road 2016 Baseline Flows
LOCATION : Longridge
DATE : 24/03/14
CLIENT : Barratt Homes
ENUMERATOR : Hannah [HANNAH-ZOO]
JOB NUMBER : VN30277
STATUS :
DESCRIPTION :

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA

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

ARM A IS Arm A
ARM B IS Arm B
ARM C IS Arm C

STREAM LABELLING CONVENTION

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

GEOMETRIC DATA

DATA ITEM		MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	6.00 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	117.00 M.
- BLOCKS TRAFFIC (SPACES)		YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	16.0 M.
- VISIBILITY TO RIGHT	(VB-A)	15.0 M.
- LANE 1 WIDTH	(WB-C)	3.30 M.
- LANE 2 WIDTH	(WB-A)	0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
652.40	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
504.92	0.23	0.09	0.15	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
641.72	0.25	0.25

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

TRAFFIC DEMAND DATA

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

Demand set: Halfpenny Lane/Inglewhite Road

TIME PERIOD BEGINS 07.45 AND ENDS 09.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	2.80	4.20	2.80
ARM B	15.00	45.00	75.00	0.71	1.07	0.71
ARM C	15.00	45.00	75.00	2.03	3.04	2.03

Demand set: Halfpenny Lane/Inglewhite Road

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15		TURNING PROPORTIONS / TURNING COUNTS / (PERCENTAGE OF H.V.S)		
	ARM A	0.000 0.0 (0.0)	0.210 47.0 (0.0)	0.790 177.0 (0.0)
	ARM B	0.544 31.0 (0.0)	0.000 0.0 (0.0)	0.456 26.0 (0.0)
	ARM C	0.914 148.0 (0.0)	0.086 14.0 (0.0)	0.000 0.0 (0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-AC	0.72	8.56	0.084		0.00	0.09	1.3		0.13
C-AB	0.18	10.00	0.018		0.00	0.02	0.3		0.10
A-B	0.59								
A-C	2.22								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	0.85	8.40	0.102		0.09	0.11	1.6		0.13
C-AB	0.21	9.86	0.021		0.02	0.02	0.3		0.10
A-B	0.70								
A-C	2.65								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	1.05	8.17	0.128		0.11	0.15	2.1		0.14
C-AB	0.26	9.67	0.027		0.02	0.03	0.4		0.11
A-B	0.86								
A-C	3.25								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	1.05	8.17	0.128		0.15	0.15	2.2		0.14
C-AB	0.26	9.67	0.027		0.03	0.03	0.4		0.11
A-B	0.86								
A-C	3.25								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	0.85	8.40	0.102		0.15	0.11	1.8		0.13
C-AB	0.21	9.86	0.021		0.03	0.02	0.3		0.10
A-B	0.70								
A-C	2.65								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
09.00-09.15									
B-AC	0.72	8.56	0.084		0.11	0.09	1.4		0.13
C-AB	0.18	10.00	0.018		0.02	0.02	0.3		0.10
A-B	0.59								
A-C	2.22								

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

QUEUE FOR STREAM B-AC

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

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	78.5	52.3	10.4	0.13	10.4	0.13
C-AB	19.3	12.8	2.0	0.10	2.0	0.10
A-B	64.7	43.1				
A-C	243.6	162.4				
ALL	609.8	406.5	12.5	0.02	12.5	0.02

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

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

========== end of file ==========

Printed at 10:43:11 on 02/12/2014

TRL LIMITED

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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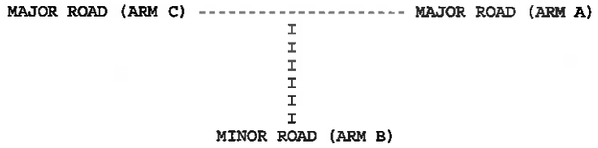
Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\Dec 14\Full Application-106 Dwellings\ODTAB\
2016 Baseline Flows\Halfpenny and Inglewhite Rd 2016 Baseline Flows-PM.vpi"
(drive-on-the-left) at 10:47:04 on Tuesday, 2 December 2014

RUN INFORMATION

RUN TITLE : Halfpenny Lane/Inglewhite Road 2016 Baseline Flows-PM
LOCATION : Longridge
DATE : 24/03/14
CLIENT : Barratt Homes
ENUMERATOR : Hannah [HANNAH-ZOO]
JOB NUMBER : VN30277
STATUS :
DESCRIPTION :

MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



ARM A IS Arm A
ARM B IS Arm B
ARM C IS Arm C

STREAM LABELLING CONVENTION

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

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 6.00 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B) 117.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 16.0 M.
- VISIBILITY TO RIGHT	(VB-A) 15.0 M.
- LANE 1 WIDTH	(WB-C) 3.30 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
652.40	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
504.92	0.23	0.09	0.15	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
641.72	0.25	0.25

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

TRAFFIC DEMAND DATA

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

Demand set: Halfpenny Lane/Inglewhite Road

TIME PERIOD BEGINS 16.45 AND ENDS 18.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	2.67	4.01	2.67
ARM B	15.00	45.00	75.00	0.73	1.09	0.73
ARM C	15.00	45.00	75.00	2.01	3.02	2.01

Demand set: Halfpenny Lane/Inglewhite Road

TIME	FROM/TO	ARM A	ARM B	ARM C
16.45 - 18.15				
	ARM A	0.000	0.210	0.790
		0.0	45.0	169.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.862	0.000	0.138
		50.0	0.0	8.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.944	0.056	0.000
		152.0	9.0	0.0
		(10.0)	(10.0)	(0.0)

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

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA
DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00									
B-AC	0.73	7.05	0.103		0.00	0.11	1.6		0.16
C-AB	0.11	9.06	0.012		0.00	0.01	0.2		0.11
A-B	0.56								
A-C	2.12								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	0.87	6.89	0.126		0.11	0.14	2.1		0.17
C-AB	0.13	8.93	0.015		0.01	0.02	0.2		0.11
A-B	0.67								
A-C	2.53								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	1.06	6.66	0.160		0.14	0.19	2.7		0.18
C-AB	0.17	8.75	0.019		0.02	0.02	0.3		0.12
A-B	0.83								
A-C	3.10								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	1.06	6.66	0.160		0.19	0.19	2.8		0.18
C-AB	0.17	8.75	0.019		0.02	0.02	0.3		0.12
A-B	0.83								
A-C	3.10								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.45-18.00									
B-AC	0.87	6.89	0.126		0.19	0.15	2.3		0.17
C-AB	0.13	8.93	0.015		0.02	0.02	0.2		0.11
A-B	0.67								
A-C	2.53								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-AC	0.73	7.05	0.103		0.15	0.12	1.8		0.16
C-AB	0.11	9.06	0.012		0.02	0.01	0.2		0.11
A-B	0.56								
A-C	2.12								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.1
17.15	0.1
17.30	0.2
17.45	0.2
18.00	0.1
18.15	0.1

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.0
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	79.8	53.2	13.3	0.17	13.3	0.17
C-AB	12.4	8.3	1.4	0.11	1.4	0.11
A-B	61.9	41.3				
A-C	232.6	155.1				
ALL	596.0	397.3	14.8	0.02	14.8	0.02

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

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

========== end of file ==========

Printed at 10:47:34 on 02/12/2014]

TRL TRL Viewer 3.2 AG N:\.. \2016 Assessment Flows\Halfpenny and Inglewhite Rd 2016 Assessment Flows-AM.vpo

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\March 15\363 Dwellings\2016 Assessment Flows\
Halfpenny and Inglewhite Rd 2016 Assessment Flows-AM.vpi"
(drive-on-the-left) at 11:30:24 on Wednesday, 11 March 2015

RUN INFORMATION
****

RUN TITLE : Halfpenny Lane/Inglewhite Road 2016 Assessment Flows
LOCATION : Longridge
DATE : 11/03/15
CLIENT : Barratt Homes
ENUMERATOR : Hannah [HANNAH-ZOO]
JOB NUMBER : VN30277
STATUS :
DESCRIPTION :

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA

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

ARM A IS Inglewhite Road E
ARM B IS Halfpenny Lane
ARM C IS Inglewhite Road W

STREAM LABELLING CONVENTION

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

TRL TRL Viewer 3.2 AG N:\.. \2016 Assessment Flows\Halfpenny and Inglewhite Rd 2016 Assessment Flows-AM.vpc

GEOMETRIC DATA

DATA ITEM		MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	6.00 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	117.00 M.
- BLOCKS TRAFFIC (SPACES)		YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	16.0 M.
- VISIBILITY TO RIGHT	(VB-A)	15.0 M.
- LANE 1 WIDTH	(WB-C)	3.30 M.
- LANE 2 WIDTH	(WB-A)	0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
652.40	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
504.92	0.23	0.09	0.15	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
641.72	0.25	0.25

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

TRAFFIC DEMAND DATA

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

Demand set: Halfpenny Lane/Inglewhite Road

TIME PERIOD BEGINS 07.45 AND ENDS 09.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	2.85	4.27	2.85
ARM B	15.00	45.00	75.00	0.90	1.35	0.90
ARM C	15.00	45.00	75.00	2.05	3.07	2.05

Demand set: Halfpenny Lane/Inglewhite Road

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15	TURNING PROPORTIONS			
	ARM A	0.000	0.395	0.605
		0.0	90.0	138.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.639	0.000	0.361
		46.0	0.0	26.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.915	0.085	0.000
		150.0	14.0	0.0
		(0.0)	(0.0)	(0.0)
	TURNING COUNTS (PERCENTAGE OF H.V.S)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-AC	0.90	8.38	0.108		0.00	0.12	1.7		0.13
C-AB	0.18	9.98	0.018		0.00	0.02	0.3		0.10
A-B	1.13								
A-C	1.73								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	1.08	8.23	0.131		0.12	0.15	2.2		0.14
C-AB	0.21	9.85	0.021		0.02	0.02	0.3		0.10
A-B	1.35								
A-C	2.07								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	1.32	8.01	0.165		0.15	0.20	2.9		0.15
C-AB	0.26	9.66	0.027		0.02	0.03	0.4		0.11
A-B	1.65								
A-C	2.53								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	1.32	8.01	0.165		0.20	0.20	2.9		0.15
C-AB	0.26	9.66	0.027		0.03	0.03	0.4		0.11
A-B	1.65								
A-C	2.53								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	1.08	8.23	0.131		0.20	0.15	2.3		0.14
C-AB	0.21	9.85	0.021		0.03	0.02	0.3		0.10
A-B	1.35								
A-C	2.07								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
09.00-09.15									
B-AC	0.90	8.38	0.108		0.15	0.12	1.9		0.13
C-AB	0.18	9.98	0.018		0.02	0.02	0.3		0.10
A-B	1.13								
A-C	1.73								

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

QUEUE FOR STREAM B-AC

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

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	99.1	66.1	13.9	0.14	13.9	0.14
C-AB	19.3	12.8	2.0	0.10	2.0	0.10
A-B	123.9	82.6				
A-C	189.9	126.6				
ALL	638.7	425.8	15.9	0.02	15.9	0.02

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

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

========== end of file ==========

Printed at 11:31:06 on 11/03/2015]

TRL TRL Viewer 3.2 AG N:\.. \2016 Assessment Flows\Halfpenny and Inglewhite Rd 2016 Assessment Flows-PM.vpo

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TRL LIMITED

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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EMAIL: software@trl.co.uk

Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\March 15\363 Dwellings\2016 Assessment Flows\
Halfpenny and Inglewhite Rd 2016 Assessment Flows-PM.vpi"
(drive-on-the-left) at 10:47:26 on Wednesday, 11 March 2015

RUN INFORMATION
****

RUN TITLE : Halfpenny Lane/Inglewhite Road 2016 Assesment Flows-PM
LOCATION : Longridge
DATE : 11/03/15
CLIENT : Barratt Homes
ENUMERATOR : Hannah [HANNAH-ZOO]
JOB NUMBER : VN30277
STATUS :
DESCRIPTION :

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA

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

ARM A IS Inglewhite Road E
ARM B IS Halfpenny Lane
ARM C IS Inglewhite Road W

STREAM LABELLING CONVENTION

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

GEOMETRIC DATA

DATA ITEM		MINOR ROAD B	
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	6.00 M.	
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.	
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.	
- VISIBILITY	(VC-B)	117.00 M.	
- BLOCKS TRAFFIC (SPACES)		YES (1)	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	16.0 M.	
- VISIBILITY TO RIGHT	(VB-A)	15.0 M.	
- LANE 1 WIDTH	(WB-C)	3.30 M.	
- LANE 2 WIDTH	(WB-A)	0.00 M.	

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
652.40	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
504.92	0.23	0.09	0.15	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
641.72	0.25	0.25

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

TRAFFIC DEMAND DATA

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

Demand set: Halfpenny Lane/Inglewhite Road

TIME PERIOD BEGINS 16.45 AND ENDS 18.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	2.99	4.48	2.99
ARM B	15.00	45.00	75.00	1.23	1.84	1.23
ARM C	15.00	45.00	75.00	2.08	3.11	2.08

TRL TRL Viewer 3.2 AG N:\.. \2016 Assessment Flows\Halfpenny and Inglewhite Rd 2016 Assessment Flows-PM.vpo

Demand set: Halfpenny Lane/Inglewhite Road

TIME	FROM/TO	ARM A	ARM B	ARM C
16.45 - 18.15				
	ARM A	0.000	0.280	0.720
		0.0	67.0	172.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.918	0.000	0.082
		90.0	0.0	8.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.946	0.054	0.000
		157.0	9.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00									
B-AC	1.23	7.68	0.160		0.00	0.19	2.7		0.15
C-AB	0.11	9.95	0.011		0.00	0.01	0.2		0.10
A-B	0.84								
A-C	2.16								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	1.47	7.50	0.196		0.19	0.24	3.5		0.17
C-AB	0.13	9.80	0.014		0.01	0.01	0.2		0.10
A-B	1.00								
A-C	2.58								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	1.80	7.26	0.248		0.24	0.32	4.7		0.18
C-AB	0.17	9.60	0.017		0.01	0.02	0.3		0.11
A-B	1.23								
A-C	3.16								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	1.80	7.26	0.248		0.32	0.33	4.9		0.18
C-AB	0.17	9.60	0.017		0.02	0.02	0.3		0.11
A-B	1.23								
A-C	3.16								

TRL TRL Viewer 3.2 AG N:\.. \2016 Assessment Flows\Halfpenny and Inglewhite Rd 2016 Assessment Flows-PM.vpo

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.45-18.00									
B-AC	1.47	7.50	0.196		0.33	0.25	3.8		0.17
C-AB	0.13	9.80	0.014		0.02	0.01	0.2		0.10
A-B	1.00								
A-C	2.58								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-AC	1.23	7.68	0.160		0.25	0.19	3.0		0.16
C-AB	0.11	9.95	0.011		0.01	0.01	0.2		0.10
A-B	0.84								
A-C	2.16								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.2
17.15	0.2
17.30	0.3
17.45	0.3
18.00	0.2
18.15	0.2

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.0
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	134.9	89.9	22.6	0.17	22.6	0.17
C-AB	12.4	8.3	1.3	0.10	1.3	0.10
A-B	92.2	61.5				
A-C	236.7	157.8				
ALL	692.3	461.6	23.9	0.03	23.9	0.03

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

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

========== end of file ==========

Printed at 10:47:51 on 11/03/2015

TRL TRL Viewer 3.2 AG N:\.. \2025 Baseline Flows\Halfpenny and Inglewhite Rd 2025 Baseline Flows-AM.vpo - Pa

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TRL LIMITED

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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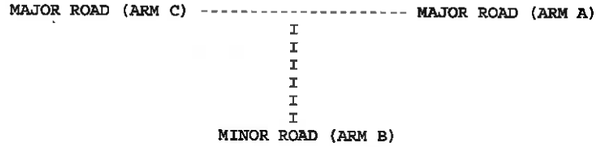
Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\Dec 14\Full Application-106 Dwellings\ODTAB\
2025 Baseline Flows\Halfpenny and Inglewhite Rd 2025 Baseline Flows-AM.vpi"
(drive-on-the-left) at 15:11:50 on Tuesday, 2 December 2014

RUN INFORMATION
****

RUN TITLE : Halfpenny Lane/Inglewhite Road 2016 Baseline Flows-AM
LOCATION : Longridge
DATE : 02/12/14
CLIENT : Barratt Homes
ENUMERATOR : Hannah [HANNAH-ZOO]
JOB NUMBER : VN30277
STATUS :
DESCRIPTION :

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Arm A
ARM B IS Arm B
ARM C IS Arm C

STREAM LABELLING CONVENTION

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

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 6.00 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B) 117.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 16.0 M.
- VISIBILITY TO RIGHT	(VB-A) 15.0 M.
- LANE 1 WIDTH	(WB-C) 3.30 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
652.40	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
504.92	0.23	0.09	0.15	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
641.72	0.25	0.25

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

TRAFFIC DEMAND DATA

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

Demand set: Halfpenny Lane/Inglewhite Road

TIME PERIOD BEGINS 07.45 AND ENDS 09.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	3.15	4.73	3.15
ARM B	15.00	45.00	75.00	0.80	1.20	0.80
ARM C	15.00	45.00	75.00	2.29	3.43	2.29

Demand set: Halfpenny Lane/Inglewhite Road

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15		TURNING PROPORTIONS		
	ARM A	0.000	0.210	0.790
		0.0	53.0	199.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.531	0.000	0.469
		34.0	0.0	30.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.913	0.087	0.000
		167.0	16.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-AC	0.80	8.49	0.095		0.00	0.10	1.5		0.13
C-AB	0.20	9.91	0.020		0.00	0.02	0.3		0.10
A-B	0.67								
A-C	2.50								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	0.96	8.30	0.115		0.10	0.13	1.9		0.14
C-AB	0.24	9.76	0.025		0.02	0.03	0.4		0.11
A-B	0.79								
A-C	2.98								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	1.17	8.05	0.146		0.13	0.17	2.5		0.15
C-AB	0.29	9.55	0.031		0.03	0.03	0.5		0.11
A-B	0.97								
A-C	3.65								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	1.17	8.05	0.146		0.17	0.17	2.5		0.15
C-AB	0.29	9.55	0.031		0.03	0.03	0.5		0.11
A-B	0.97								
A-C	3.65								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	0.96	8.30	0.115		0.17	0.13	2.0		0.14
C-AB	0.24	9.76	0.025		0.03	0.03	0.4		0.11
A-B	0.79								
A-C	2.98								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
09.00-09.15									
B-AC	0.80	8.49	0.095		0.13	0.11	1.6		0.13
C-AB	0.20	9.91	0.020		0.03	0.02	0.3		0.10
A-B	0.67								
A-C	2.50								

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

QUEUE FOR STREAM B-AC

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

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	88.1	58.7	12.1	0.14	12.1	0.14
C-AB	22.0	14.7	2.3	0.11	2.3	0.11
A-B	73.0	48.6				
A-C	273.9	182.6				
ALL	686.8	457.9	14.4	0.02	14.4	0.02

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

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

========== end of file ==========

Printed at 15:12:33 on 02/12/2014]

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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EMAIL: software@trl.co.uk

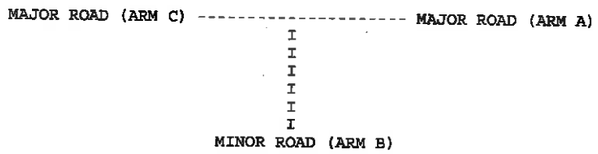
Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\Dec 14\Full Application-106 Dwellings\ODTAB\
2025 Baseline Flows\Halfpenny and Inglewhite Rd 2025 Baseline Flows-PM.vpi"
(drive-on-the-left) at 15:20:25 on Tuesday, 2 December 2014

RUN INFORMATION
****

RUN TITLE	: Halfpenny Lane/Inglewhite Road 2025 Baseline Flows-PM
LOCATION	: Longridge
DATE	: 02/12/14
CLIENT	: Barratt Homes
ENUMERATOR	: Hannah [HANNAH-ZOO]
JOB NUMBER	: VN30277
STATUS	:
DESCRIPTION	:

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Arm A
ARM B IS Arm B
ARM C IS Arm C

STREAM LABELLING CONVENTION

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

GEOMETRIC DATA

DATA ITEM		MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	6.00 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	117.00 M.
- BLOCKS TRAFFIC (SPACES)		YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	16.0 M.
- VISIBILITY TO RIGHT	(VB-A)	15.0 M.
- LANE 1 WIDTH	(WB-C)	3.30 M.
- LANE 2 WIDTH	(WB-A)	0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
652.40	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
504.92	0.23	0.09	0.15	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
641.72	0.25	0.25

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

TRAFFIC DEMAND DATA

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

Demand set: Halfpenny Lane/Inglewhite Road

TIME PERIOD BEGINS 16.45 AND ENDS 18.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	3.03	4.54	3.03
ARM B	15.00	45.00	75.00	0.81	1.22	0.81
ARM C	15.00	45.00	75.00	2.26	3.39	2.26

Demand set: Halfpenny Lane/Inglewhite Road

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.211	0.789
		0.0	51.0	191.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.862	0.000	0.138
		56.0	0.0	9.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.945	0.055	0.000
		171.0	10.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00									
B-AC	0.82	7.73	0.105		0.00	0.12	1.7		0.14
C-AB	0.13	9.94	0.013		0.00	0.01	0.2		0.10
A-B	0.64								
A-C	2.40								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	0.97	7.55	0.129		0.12	0.15	2.1		0.15
C-AB	0.15	9.79	0.015		0.01	0.02	0.2		0.10
A-B	0.76								
A-C	2.86								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	1.19	7.29	0.164		0.15	0.19	2.8		0.16
C-AB	0.18	9.59	0.019		0.02	0.02	0.3		0.11
A-B	0.94								
A-C	3.50								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	1.19	7.29	0.164		0.19	0.19	2.9		0.16
C-AB	0.18	9.59	0.019		0.02	0.02	0.3		0.11
A-B	0.94								
A-C	3.50								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.45-18.00									
B-AC	0.97	7.55	0.129		0.19	0.15	2.3		0.15
C-AB	0.15	9.79	0.015		0.02	0.02	0.2		0.10
A-B	0.76								
A-C	2.86								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-AC	0.82	7.73	0.105		0.15	0.12	1.8		0.14
C-AB	0.13	9.94	0.013		0.02	0.01	0.2		0.10
A-B	0.64								
A-C	2.40								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.1
17.15	0.1
17.30	0.2
17.45	0.2
18.00	0.1
18.15	0.1

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.0
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	89.5	59.6	13.7	0.15	13.7	0.15
C-AB	13.8	9.2	1.4	0.10	1.4	0.10
A-B	70.2	46.8				
A-C	262.9	175.3				
ALL	671.7	447.8	15.1	0.02	15.1	0.02

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

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

========== end of file ==========

Printed at 15:20:41 on 02/12/2014]

TRL TRL Viewer 3.2 AG N:\.. \2025 Assessment Flows\Halfpenny and Inglewhite Rd 2025 Assessment Flows-AM.vpo

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

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Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\March 15\363 Dwellings\2025 Assessment Flows\
Halfpenny and Inglewhite Rd 2025 Assessment Flows-AM.vpi"
(drive-on-the-left) at 11:24:49 on Wednesday, 11 March 2015

RUN INFORMATION
****

RUN TITLE : Halfpenny Lane/Inglewhite Road 2025 Assessment Flows-AM
LOCATION : Longridge
DATE : 11/03/15
CLIENT : Barratt Homes
ENUMERATOR : Hannah [HANNAH-ZOO]
JOB NUMBER : VN30277
STATUS :
DESCRIPTION :

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA

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

ARM A IS Inglewhite Road E
ARM B IS halfpenny Lane
ARM C IS Inglewhite Road W

STREAM LABELLING CONVENTION

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

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 6.00 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B) 117.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 16.0 M.
- VISIBILITY TO RIGHT	(VB-A) 15.0 M.
- LANE 1 WIDTH	(WB-C) 3.30 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
652.40	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
504.92	0.23	0.09	0.15	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
641.72	0.25	0.25

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

TRAFFIC DEMAND DATA

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

Demand set: Halfpenny Lane/Inglewhite Road

TIME PERIOD BEGINS 07.45 AND ENDS 09.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	3.76	5.64	3.76
ARM B	15.00	45.00	75.00	1.00	1.50	1.00
ARM C	15.00	45.00	75.00	2.31	3.47	2.31

Demand set: Halfpenny Lane/Inglewhite Road

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15		TURNING PROPORTIONS / TURNING COUNTS / (PERCENTAGE OF H.V.S)		
	ARM A	0.000 0.0 (0.0)	0.319 96.0 (0.0)	0.681 205.0 (0.0)
	ARM B	0.625 50.0 (0.0)	0.000 0.0 (0.0)	0.375 30.0 (0.0)
	ARM C	0.914 169.0 (0.0)	0.086 16.0 (0.0)	0.000 0.0 (0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-AC	1.00	8.17	0.123		0.00	0.14	2.0		0.14
C-AB	0.20	9.76	0.021		0.00	0.02	0.3		0.10
A-B	1.20								
A-C	2.57								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	1.20	7.97	0.150		0.14	0.18	2.6		0.15
C-AB	0.24	9.57	0.025		0.02	0.03	0.4		0.11
A-B	1.44								
A-C	3.07								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	1.47	7.69	0.191		0.18	0.23	3.4		0.16
C-AB	0.29	9.32	0.031		0.03	0.03	0.5		0.11
A-B	1.76								
A-C	3.76								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	1.47	7.69	0.191		0.23	0.23	3.5		0.16
C-AB	0.29	9.32	0.031		0.03	0.03	0.5		0.11
A-B	1.76								
A-C	3.76								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	1.20	7.97	0.150		0.23	0.18	2.8		0.15
C-AB	0.24	9.57	0.025		0.03	0.03	0.4		0.11
A-B	1.44								
A-C	3.07								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
09.00-09.15									
B-AC	1.00	8.17	0.123		0.18	0.14	2.2		0.14
C-AB	0.20	9.76	0.021		0.03	0.02	0.3		0.10
A-B	1.20								
A-C	2.57								

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

QUEUE FOR STREAM B-AC

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

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	110.1	73.4	16.4	0.15	16.4	0.15
C-AB	22.0	14.7	2.4	0.11	2.4	0.11
A-B	132.1	88.1				
A-C	282.2	188.1				
ALL	779.1	519.4	18.8	0.02	18.8	0.02

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

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

========== end of file ==========

Printed at 11:25:16 on 11/03/2015

TRL TRL Viewer 3.2 AG N:\.. \2025 Assessment Flows\Halfpenny and Inglewhite Rd 2025 Assessment Flows-PM.vpo

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

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RELEASE 5.0 (JUNE 2010)

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Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\March 15\363 Dwellings\2025 Assessment Flows\
Halfpenny and Inglewhite Rd 2025 Assessment Flows-PM.vpi"
(drive-on-the-left) at 11:25:51 on Wednesday, 11 March 2015

RUN INFORMATION
****

RUN TITLE : Halfpenny Lane/Inglewhite Road 2025 Assessment Flows-PM
LOCATION : Longridge
DATE : 11/03/15
CLIENT : Barratt Homes
ENUMERATOR : Hannah [HANNAH-ZOO]
JOB NUMBER : VN30277
STATUS :
DESCRIPTION :

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA

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

ARM A IS Inglewhite Road E
ARM B IS Halpenny Lane
ARM C IS Inglewhite Road W

STREAM LABELLING CONVENTION

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

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 6.00 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B) 117.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 16.0 M.
- VISIBILITY TO RIGHT	(VB-A) 15.0 M.
- LANE 1 WIDTH	(WB-C) 3.30 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
652.40	0.25	0.10

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
504.92	0.23	0.09	0.15	0.33

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
641.72	0.25	0.25

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

TRAFFIC DEMAND DATA

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

Demand set: Halfpenny Lane/Inglewhite Road

TIME PERIOD BEGINS 16.45 AND ENDS 18.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
ARM A	15.00	45.00	75.00	3.34	5.01	3.34
ARM B	15.00	45.00	75.00	1.31	1.97	1.31
ARM C	15.00	45.00	75.00	2.33	3.49	2.33

TRL TRL Viewer 3.2 AG N:\.. \2025 Assessment Flows\Halfpenny and Inglewhite Rd 2025 Assessment Flows-PM.vpo

Demand set: Halfpenny Lane/Inglewhite Road

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.273	0.727
		0.0	73.0	194.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.914	0.000	0.086
		96.0	0.0	9.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.946	0.054	0.000
		176.0	10.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00									
B-AC	1.32	7.58	0.174		0.00	0.21	3.0		0.16
C-AB	0.13	9.86	0.013		0.00	0.01	0.2		0.10
A-B	0.92								
A-C	2.43								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	1.57	7.38	0.213		0.21	0.27	3.9		0.17
C-AB	0.15	9.70	0.015		0.01	0.02	0.2		0.10
A-B	1.09								
A-C	2.91								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	1.93	7.11	0.271		0.27	0.37	5.3		0.19
C-AB	0.18	9.48	0.019		0.02	0.02	0.3		0.11
A-B	1.34								
A-C	3.56								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	1.93	7.11	0.271		0.37	0.37	5.5		0.19
C-AB	0.18	9.48	0.019		0.02	0.02	0.3		0.11
A-B	1.34								
A-C	3.56								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.45-18.00									
B-AC	1.57	7.38	0.213		0.37	0.27	4.3		0.17
C-AB	0.15	9.70	0.015		0.02	0.02	0.2		0.10
A-B	1.09								
A-C	2.91								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-AC	1.32	7.58	0.174		0.27	0.21	3.3		0.16
C-AB	0.13	9.86	0.013		0.02	0.01	0.2		0.10
A-B	0.92								
A-C	2.43								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.2
17.15	0.3
17.30	0.4
17.45	0.4
18.00	0.3
18.15	0.2

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.0
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	144.5	96.3	25.2	0.17	25.2	0.17
C-AB	13.8	9.2	1.5	0.11	1.5	0.11
A-B	100.5	67.0				
A-C	267.0	178.0				
ALL	768.0	512.0	26.7	0.03	26.7	0.03

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

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

========== end of file ==========

Printed at 11:26:16 on 11/03/2015]

Appendix 21

PICADY Outputs – Whittingham Road/Halfpenny Lane

TRL LIMITED

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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

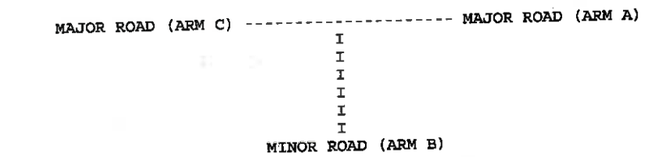
Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\Dec 14\Full Application-106 Dwellings\ODTAB\
2016 Baseline Flows\Halfpenny and Whittingham Rd 2016 Baseline Flows-AM.vpi"
(drive-on-the-left) at 11:33:56 on Tuesday, 2 December 2014

RUN INFORMATION
****

RUN TITLE	: Halfpenny Lane/Whittingham Road2016 Baseline Flows-AM
LOCATION	: Longridge
DATE	: 02/12/14
CLIENT	: Barratt Homes
ENUMERATOR	: Hannah [HANNAH-ZOO]
JOB NUMBER	: VN30277
STATUS	:
DESCRIPTION	:

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Arm A
ARM B IS Arm B
ARM C IS Arm C

STREAM LABELLING CONVENTION

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

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 6.15 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B) 90.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 16.0 M.
- VISIBILITY TO RIGHT	(VB-A) 16.0 M.
- LANE 1 WIDTH	(WB-C) 2.20 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
583.23	0.22	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
451.39	0.21	0.08	0.13	0.29

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
626.08	0.24	0.24

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

TRAFFIC DEMAND DATA

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

Demand set: Halfpenny Lane/Whittingham Road

TIME PERIOD BEGINS 07.45 AND ENDS 09.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	3.70	5.55	3.70
ARM B	15.00	45.00	75.00	0.90	1.35	0.90
ARM C	15.00	45.00	75.00	4.53	6.79	4.53

Demand set: Halfpenny Lane/Whittingham Road

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15				
	ARM A	0.000	0.074	0.926
		0.0	22.0	274.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.806	0.000	0.194
		58.0	0.0	14.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.912	0.088	0.000
		330.0	32.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-AC	0.90	6.53	0.138		0.00	0.16	2.3		0.18
C-AB	0.40	9.54	0.042		0.00	0.04	0.7		0.11
A-B	0.28								
A-C	3.44								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	1.08	6.27	0.172		0.16	0.20	3.0		0.19
C-AB	0.48	9.37	0.051		0.04	0.06	0.8		0.11
A-B	0.33								
A-C	4.11								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	1.32	5.90	0.224		0.20	0.28	4.1		0.22
C-AB	0.59	9.13	0.064		0.06	0.07	1.1		0.12
A-B	0.40								
A-C	5.03								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	1.32	5.90	0.224		0.28	0.29	4.3		0.22
C-AB	0.59	9.13	0.064		0.07	0.07	1.1		0.12
A-B	0.40								
A-C	5.03								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	1.08	6.27	0.172		0.29	0.21	3.3		0.19
C-AB	0.48	9.37	0.051		0.07	0.06	0.8		0.11
A-B	0.33								
A-C	4.11								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
09.00-09.15									
B-AC	0.90	6.53	0.138		0.21	0.16	2.5		0.18
C-AB	0.40	9.54	0.042		0.06	0.05	0.7		0.11
A-B	0.28								
A-C	3.44								

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

QUEUE FOR STREAM B-AC

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

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.0
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1
09.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	99.1	66.1	19.4	0.20	19.4	0.20
C-AB	44.0	29.4	5.1	0.12	5.1	0.12
A-B	30.3	20.2				
A-C	377.1	251.4				
ALL	1004.8	669.9	24.6	0.02	24.6	0.02

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

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

========== end of file ==========

Printed at 11:34:22 on 02/12/2014]

TRL LIMITED

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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EMAIL: software@trl.co.uk

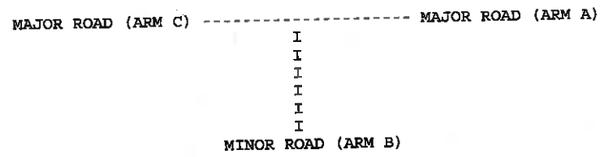
Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\Dec 14\Full Application-106 Dwellings\ODTAB\
2016 Baseline Flows\Halfpenny and Whittingham Rd 2016 Baseline Flows-PM.vpi"
(drive-on-the-left) at 11:35:52 on Tuesday, 2 December 2014

RUN INFORMATION
****

RUN TITLE	: Halfpenny Lane/Whittinghjam Road 2016 Basleine Flows-PM
LOCATION	: Longridge
DATE	: 02/12/14
CLIENT	: Barratt Homes
ENUMERATOR	: Hannah [HANNAH-ZOO]
JOB NUMBER	: VN30277
STATUS	:
DESCRIPTION	:

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Arm A
ARM B IS Arm B
ARM C IS Arm C

STREAM LABELLING CONVENTION

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

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH (W)	6.15 M.
CENTRAL RESERVE WIDTH (WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH (WC-B)	2.20 M.
- VISIBILITY (VC-B)	90.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (1)
MINOR ROAD - VISIBILITY TO LEFT (VB-C)	16.0 M.
- VISIBILITY TO RIGHT (VB-A)	16.0 M.
- LANE 1 WIDTH (WB-C)	2.20 M.
- LANE 2 WIDTH (WB-A)	0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
583.23	0.22	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
451.39	0.21	0.08	0.13	0.29

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
626.08	0.24	0.24

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

TRAFFIC DEMAND DATA

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

Demand set: Halfpenny Lane/Whittinghjam Road

TIME PERIOD BEGINS 16.45 AND ENDS 18.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	4.50	6.75	4.50
ARM B	15.00	45.00	75.00	0.74	1.11	0.74
ARM C	15.00	45.00	75.00	3.47	5.21	3.47

Demand set: Halfpenny Lane/Whittinghjam Road

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000 0.0 (0.0)	0.139 50.0 (0.0)	0.861 310.0 (0.0)
	ARM B	0.763 45.0 (0.0)	0.000 0.0 (0.0)	0.237 14.0 (0.0)
	ARM C	0.917 255.0 (0.0)	0.083 23.0 (0.0)	0.000 0.0 (0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00									
B-AC	0.74	6.64	0.112		0.00	0.12	1.8		0.17
C-AB	0.29	9.35	0.031		0.00	0.03	0.5		0.11
A-B	0.63								
A-C	3.89								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	0.88	6.38	0.139		0.12	0.16	2.3		0.18
C-AB	0.34	9.13	0.038		0.03	0.04	0.6		0.11
A-B	0.75								
A-C	4.64								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	1.08	6.02	0.180		0.16	0.22	3.1		0.20
C-AB	0.42	8.84	0.048		0.04	0.05	0.8		0.12
A-B	0.92								
A-C	5.69								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	1.08	6.02	0.180		0.22	0.22	3.3		0.20
C-AB	0.42	8.84	0.048		0.05	0.05	0.8		0.12
A-B	0.92								
A-C	5.69								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.45-18.00									
B-AC	0.88	6.38	0.139		0.22	0.16	2.5		
C-AB	0.34	9.13	0.038		0.05	0.04	0.6		0.18
A-B	0.75								0.11
A-C	4.64								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-AC	0.74	6.64	0.112		0.16	0.13	2.0		
C-AB	0.29	9.35	0.031		0.04	0.03	0.5		0.17
A-B	0.63								0.11
A-C	3.89								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.1
17.15	0.2
17.30	0.2
17.45	0.2
18.00	0.2
18.15	0.1

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.0
17.15	0.0
17.30	0.1
17.45	0.1
18.00	0.0
18.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * -(MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	81.2	54.1	15.0	0.18	15.0	0.18
C-AB	31.7	21.1	3.7	0.12	3.7	0.12
A-B	68.8	45.9				
A-C	426.7	284.5				
ALL	959.4	639.6	18.7	0.02	18.7	0.02

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

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

========== end of file ==========

Printed at 11:36:56 on 02/12/2014]

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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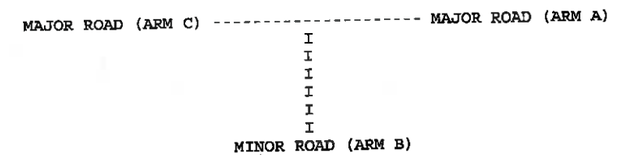
Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\March 15\363 Dwellings\2016 Assessment Flows\
Halfpenny and Whittingham Rd 2016 Assessment Flows-AM.vpi"
(drive-on-the-left) at 11:01:02 on Wednesday, 11 March 2015

RUN INFORMATION
****

RUN TITLE	: Halfpenny Lane/Whittingham Road2016 Assessment Flows-AM
LOCATION	: Longridge
DATE	: 11/03/15
CLIENT	: Barratt Homes
ENUMERATOR	: Hannah [HANNAH-ZOO]
JOB NUMBER	: VN30277
STATUS	:
DESCRIPTION	:

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Whittingham Road W
ARM B IS Halfpenny Lane
ARM C IS Whittingham Road E

STREAM LABELLING CONVENTION

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

TRL TRL Viewer 3.2 AG N:\.. \2016 Assessment Flows\Halfpenny and Whittingham Rd 2016 Assessment Flows-AM.vpo

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 6.15 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B) 90.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 16.0 M.
- VISIBILITY TO RIGHT	(VB-A) 16.0 M.
- LANE 1 WIDTH	(WB-C) 2.20 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
583.23	0.22	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
451.39	0.21	0.08	0.13	0.29

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
626.08	0.24	0.24

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

TRAFFIC DEMAND DATA

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

Demand set: Halfpenny Lane/Whittingham Road

TIME PERIOD BEGINS 07.45 AND ENDS 09.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	3.90	5.85	3.90
ARM B	15.00	45.00	75.00	1.44	2.16	1.44
ARM C	15.00	45.00	75.00	4.53	6.79	4.53

Demand set: Halfpenny Lane/Whittingham Road

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15	TURNING PROPORTIONS			
	ARM A	0.000	0.122	0.878
		0.0	38.0	274.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.878	0.000	0.122
		101.0	0.0	14.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.912	0.088	0.000
		330.0	32.0	0.0
		(0.0)	(0.0)	(0.0)
	TURNING COUNTS (PERCENTAGE OF H.V.S)			

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-AC	1.44	6.36	0.227		0.00	0.29	4.1		0.20
C-AB	0.40	9.49	0.042		0.00	0.04	0.7		0.11
A-B	0.48								
A-C	3.44								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	1.72	6.09	0.283		0.29	0.39	5.6		0.23
C-AB	0.48	9.31	0.052		0.04	0.06	0.8		0.11
A-B	0.57								
A-C	4.11								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	2.11	5.72	0.369		0.39	0.57	8.1		0.28
C-AB	0.59	9.05	0.065		0.06	0.07	1.1		0.12
A-B	0.70								
A-C	5.03								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	2.11	5.72	0.369		0.57	0.58	8.6		0.28
C-AB	0.59	9.05	0.065		0.07	0.07	1.1		0.12
A-B	0.70								
A-C	5.03								

TRL TRL Viewer 3.2 AG N:\.. \2016 Assessment Flows\Halfpenny and Whittingham Rd 2016 Assessment Flows-AM.vpo

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	1.72	6.09	0.283		0.58	0.40	6.3		0.23
C-AB	0.48	9.31	0.052		0.07	0.06	0.8		0.11
A-B	0.57								
A-C	4.11								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
09.00-09.15									
B-AC	1.44	6.36	0.227		0.40	0.30	4.6		0.20
C-AB	0.40	9.49	0.042		0.06	0.05	0.7		0.11
A-B	0.48								
A-C	3.44								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.3	
08.15	0.4	
08.30	0.6	*
08.45	0.6	*
09.00	0.4	
09.15	0.3	

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.0
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1
09.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	158.3	105.5	37.4	0.24	37.4	0.24
C-AB	44.0	29.4	5.2	0.12	5.2	0.12
A-B	52.3	34.9				
A-C	377.1	251.4				
ALL	1086.0	724.0	42.6	0.04	42.6	0.04

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

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

========== end of file ==========

Printed at 11:01:21 on 11/03/2015]

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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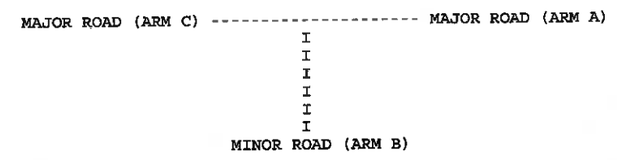
Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\March 15\363 Dwellings\2016 Assessment Flows\
Halfpenny and Whittingham Rd 2016 Assessment Flows-PM.vpi"
(drive-on-the-left) at 11:09:14 on Wednesday, 11 March 2015

RUN INFORMATION
****

RUN TITLE	: Halfpenny Lane/Whittingham Road 2016 Assessment Flows-PM
LOCATION	: Longridge
DATE	: 11/03/15
CLIENT	: Barratt Homes
ENUMERATOR	: Hannah [HANNAH-ZOO]
JOB NUMBER	: VN30277
STATUS	:
DESCRIPTION	:

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Whittingham Road W
ARM B IS Halfpenny Lane
ARM C IS Whittingham Road E

STREAM LABELLING CONVENTION

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

TRL TRL Viewer 3.2 AG N:\.. \2016 Assessment Flows\Halfpenny and Whittingham Rd 2016 Assessment Flows-PM.vpo

GEOMETRIC DATA

DATA ITEM		MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	6.15 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	90.00 M.
- BLOCKS TRAFFIC (SPACES)		YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	16.0 M.
- VISIBILITY TO RIGHT	(VB-A)	16.0 M.
- LANE 1 WIDTH	(WB-C)	2.20 M.
- LANE 2 WIDTH	(WB-A)	0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
583.23	0.22	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
451.39	0.21	0.08	0.13	0.29

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
626.08	0.24	0.24

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

TRAFFIC DEMAND DATA

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

Demand set: Halfpenny Lane/Whittingham Road

TIME PERIOD BEGINS 16.45 AND ENDS 18.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	5.00	7.50	5.00
ARM B	15.00	45.00	75.00	1.01	1.52	1.01
ARM C	15.00	45.00	75.00	3.47	5.21	3.47

Demand set: Halfpenny Lane/Whittingham Road

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.225	0.775
		0.0	90.0	310.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.827	0.000	0.173
		67.0	0.0	14.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.917	0.083	0.000
		255.0	23.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00									
B-AC	1.02	6.46	0.157		0.00	0.18	2.6		0.18
C-AB	0.29	9.23	0.031		0.00	0.03	0.5		0.11
A-B	1.13								
A-C	3.89								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	1.21	6.19	0.196		0.18	0.24	3.5		0.20
C-AB	0.34	8.99	0.038		0.03	0.04	0.6		0.12
A-B	1.35								
A-C	4.64								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	1.49	5.82	0.255		0.24	0.34	4.9		0.23
C-AB	0.42	8.67	0.049		0.04	0.05	0.8		0.12
A-B	1.65								
A-C	5.69								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	1.49	5.82	0.255		0.34	0.34	5.1		0.23
C-AB	0.42	8.67	0.049		0.05	0.05	0.8		0.12
A-B	1.65								
A-C	5.69								

TRL TRL Viewer 3.2 AG N:\.. \2016 Assessment Flows\Halfpenny and Whittingham Rd 2016 Assessment Flows-PM.vpo

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.45-18.00									
B-AC	1.21	6.19	0.196		0.34	0.25	3.8		0.20
C-AB	0.34	8.99	0.038		0.05	0.04	0.6		0.12
A-B	1.35								
A-C	4.64								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-AC	1.02	6.46	0.157		0.25	0.19	2.9		0.18
C-AB	0.29	9.23	0.031		0.04	0.03	0.5		0.11
A-B	1.13								
A-C	3.89								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.2
17.15	0.2
17.30	0.3
17.45	0.3
18.00	0.2
18.15	0.2

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.0
17.15	0.0
17.30	0.1
17.45	0.1
18.00	0.0
18.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	111.5	74.3	22.8	0.20	22.8	0.20
C-AB	31.7	21.1	3.8	0.12	3.8	0.12
A-B	123.9	82.6				
A-C	426.7	284.5				
ALL	1044.7	696.5	26.6	0.03	26.6	0.03

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

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

========== end of file ==========

Printed at 11:09:30 on 11/03/2015]

TRL LIMITED

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

FOR SALES AND DISTRIBUTION INFORMATION,
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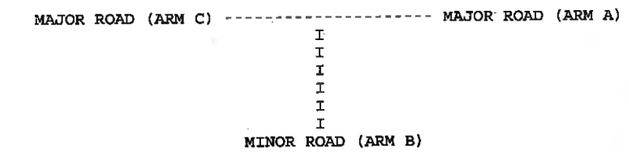
Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\Dec 14\Full Application-106 Dwellings\CDTAB\
2025 Baseline Flows\Halfpenny and Whittingham Rd 2025 Baseline Flows-AM.vpi"
(drive-on-the-left) at 15:31:32 on Tuesday, 2 December 2014

RUN INFORMATION
****

RUN TITLE	: Halfpenny Lane/Whittingham Road 2025 Baseline Flows-AM
LOCATION	: Longridge
DATE	: 02/12/14
CLIENT	: Barratt Homes
ENUMERATOR	: Hannah [HANNAH-ZOO]
JOB NUMBER	: VN30277
STATUS	:
DESCRIPTION	:

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Arm A
ARM B IS Arm B
ARM C IS Arm C

STREAM LABELLING CONVENTION

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

GEOMETRIC DATA

DATA ITEM		MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	6.15 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	90.00 M.
- BLOCKS TRAFFIC (SPACES)		YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	16.0 M.
- VISIBILITY TO RIGHT	(VB-A)	16.0 M.
- LANE 1 WIDTH	(WB-C)	2.20 M.
- LANE 2 WIDTH	(WB-A)	0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
583.23	0.22	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
451.39	0.21	0.08	0.13	0.29

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
626.08	0.24	0.24

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

TRAFFIC DEMAND DATA

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

Demand set: Halfpenny Lane/Whittingham Road

TIME PERIOD BEGINS 07.45 AND ENDS 09.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	4.03	6.04	4.03
ARM B	15.00	45.00	75.00	1.01	1.52	1.01
ARM C	15.00	45.00	75.00	4.95	7.42	4.95

Demand set: Halfpenny Lane/Whittingham Road

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.000 0.0 (0.0)	0.078 25.0 (0.0)	0.922 297.0 (0.0)
	ARM B	0.802 65.0 (0.0)	0.000 0.0 (0.0)	0.198 16.0 (0.0)
	ARM C	0.909 360.0 (0.0)	0.091 36.0 (0.0)	0.000 0.0 (0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME		DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00										
	B-AC	1.02	6.42	0.158		0.00	0.19	2.7		0.18
	C-AB	0.45	9.46	0.048		0.00	0.05	0.8		0.11
	A-B	0.31								
	A-C	3.73								
08.00-08.15										
	B-AC	1.21	6.13	0.198		0.19	0.24	3.5		0.20
	C-AB	0.54	9.27	0.058		0.05	0.06	1.0		0.11
	A-B	0.37								
	A-C	4.45								

TIME		DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30										
	B-AC	1.49	5.73	0.260		0.24	0.34	5.0		0.24
	C-AB	0.66	9.01	0.073		0.06	0.08	1.2		0.12
	A-B	0.46								
	A-C	5.45								

TIME		DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45										
	B-AC	1.49	5.73	0.260		0.34	0.35	5.2		0.24
	C-AB	0.66	9.01	0.073		0.08	0.08	1.2		0.12
	A-B	0.46								
	A-C	5.45								

TRL TRL Viewer 3.2 AG N:\.. \2025 Baseline Flows\Halfpenny and Whittingham Rd 2025 Baseline Flows-AM.vpo - P

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	1.21	6.13	0.198		0.35	0.25	3.9		0.20
C-AB	0.54	9.27	0.058		0.08	0.06	1.0		0.11
A-B	0.37								
A-C	4.45								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
09.00-09.15									
B-AC	1.02	6.41	0.158		0.25	0.19	3.0		0.19
C-AB	0.45	9.46	0.048		0.06	0.05	0.8		0.11
A-B	0.31								
A-C	3.73								

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

QUEUE FOR STREAM B-AC

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

QUEUE FOR STREAM C-AB

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

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	111.5	74.3	23.2	0.21	23.2	0.21
C-AB	49.6	33.0	5.9	0.12	5.9	0.12
A-B	34.4	22.9				
A-C	408.8	272.5				
ALL	1099.8	733.2	29.1	0.03	29.1	0.03

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

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

========== end of file ==========

Printed at 15:32:02 on 02/12/2014]

TRL LIMITED

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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EMAIL: software@trl.co.uk

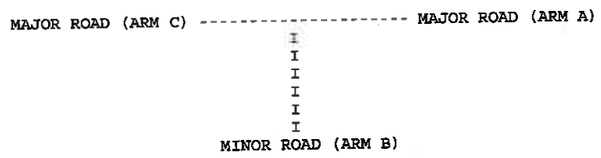
Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\Dec 14\Full Application-106 Dwellings\CDTAB\
2025 Baseline Flows\Halfpenny and Whittingham Rd 2025 Baseline Flows-PM.vpi"
(drive-on-the-left) at 15:34:28 on Tuesday, 2 December 2014

RUN INFORMATION
****

RUN TITLE	: Halfpenny Lane/Whittinghjam Road 2025 Basleine Flows-PM
LOCATION	: Longridge
DATE	: 02/12/14
CLIENT	: Barratt Homes
ENUMERATOR	: Hannah [HANNAH-ZOO]
JOB NUMBER	: VN30277
STATUS	:
DESCRIPTION	:

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Arm A
ARM B IS Arm B
ARM C IS Arm C

STREAM LABELLING CONVENTION

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

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH (W)	6.15 M.
CENTRAL RESERVE WIDTH (WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH (WC-B)	2.20 M.
- VISIBILITY (VC-B)	90.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (1)
MINOR ROAD - VISIBILITY TO LEFT (VB-C)	16.0 M.
- VISIBILITY TO RIGHT (VB-A)	16.0 M.
- LANE 1 WIDTH (WB-C)	2.20 M.
- LANE 2 WIDTH (WB-A)	0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
583.23	0.22	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
451.39	0.21	0.08	0.13	0.29

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
626.08	0.24	0.24

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

TRAFFIC DEMAND DATA

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

Demand set: Halfpenny Lane/Whittinghjam Road

TIME PERIOD BEGINS 16.45 AND ENDS 18.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	4.91	7.37	4.91
ARM B	15.00	45.00	75.00	0.84	1.26	0.84
ARM C	15.00	45.00	75.00	3.80	5.70	3.80

Demand set: Halfpenny Lane/Whittinghjam Road

TIME	FROM/TO	ARM A	ARM B	ARM C
16.45 - 18.15	TURNING PROPORTIONS			
	TURNING COUNTS			
	(PERCENTAGE OF H.V.S)			
	ARM A	0.000	0.142	0.858
		0.0	56.0	337.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.761	0.000	0.239
		51.0	0.0	16.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.914	0.086	0.000
		278.0	26.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00									
B-AC	0.84	6.52	0.129		0.00	0.15	2.1		0.18
C-AB	0.33	9.25	0.035		0.00	0.04	0.5		0.11
A-B	0.70								
A-C	4.23								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	1.00	6.24	0.161		0.15	0.19	2.8		0.19
C-AB	0.39	9.02	0.043		0.04	0.05	0.7		0.12
A-B	0.84								
A-C	5.05								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	1.23	5.85	0.210		0.19	0.26	3.8		0.22
C-AB	0.48	8.70	0.055		0.05	0.06	0.9		0.12
A-B	1.03								
A-C	6.18								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	1.23	5.85	0.210		0.26	0.26	3.9		0.22
C-AB	0.48	8.70	0.055		0.06	0.06	0.9		0.12
A-B	1.03								
A-C	6.18								

TRL TRL Viewer 3.2 AG N:\.. \2025 Baseline Flows\Halfpenny and Whittingham Rd 2025 Baseline Flows-PM.vpo - P

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.45-18.00									
B-AC	1.00	6.24	0.161		0.26	0.19	3.0		
C-AB	0.39	9.02	0.043		0.06	0.05	0.7		0.19
A-B	0.84								0.12
A-C	5.05								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-AC	0.84	6.52	0.129		0.19	0.15	2.3		
C-AB	0.33	9.25	0.035		0.05	0.04	0.6		0.18
A-B	0.70								0.11
A-C	4.23								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.1
17.15	0.2
17.30	0.3
17.45	0.3
18.00	0.2
18.15	0.1

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.0
17.15	0.0
17.30	0.1
17.45	0.1
18.00	0.0
18.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	92.2	61.5	17.9	0.19	17.9	0.19
C-AB	35.8	23.9	4.3	0.12	4.3	0.12
A-B	77.1	51.4				
A-C	463.9	309.2				
ALL	1051.6	701.1	22.2	0.02	22.2	0.02

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

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

========== end of file ==========

Printed at 15:35:26 on 02/12/2014]

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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EMAIL: software@trl.co.uk

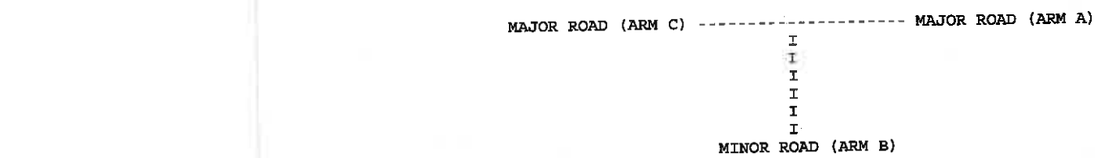
Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\March 15\363 Dwellings\2025 Assessment Flows\
Halfpenny and Whittingham Rd 2025 Assessment Flows-AM.vpi"
(drive-on-the-left) at 11:28:02 on Wednesday, 11 March 2015

RUN INFORMATION
****

RUN TITLE	: Halfpenny Lane/Whittingham Road 2025 Assessment Flows-AM
LOCATION	: Longridge
DATE	: 11/03/15
CLIENT	: Barratt Homes
ENUMERATOR	: Hannah [HANNAH-ZOO]
JOB NUMBER	: VN30277
STATUS	:
DESCRIPTION	:

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Whittingham Road W
ARM B IS Halfpenny Lane
ARM C IS Whittingham Road E

STREAM LABELLING CONVENTION

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

TRL TRL Viewer 3.2 AG N:\.. \2025 Assessment Flows\Halfpenny and Whittingham Rd 2025 Assessment Flows-AM.vpo

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W ') 6.15 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B) 90.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 16.0 M.
- VISIBILITY TO RIGHT	(VB-A) 16.0 M.
- LANE 1 WIDTH	(WB-C) 2.20 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
583.23	0.22	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
451.39	0.21	0.08	0.13	0.29

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
626.08	0.24	0.24

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

TRAFFIC DEMAND DATA

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

Demand set: Halfpenny Lane/Whittingham Road

TIME PERIOD BEGINS 07.45 AND ENDS 09.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	4.22	6.34	4.22
ARM B	15.00	45.00	75.00	1.55	2.32	1.55
ARM C	15.00	45.00	75.00	4.95	7.42	4.95

Demand set: Halfpenny Lane/Whittingham Road

TIME	FROM/TO		ARM A	ARM B	ARM C
07.45 - 09.15		TURNING PROPORTIONS			
	ARM A	TURNING COUNTS	0.000	0.121	0.879
			0.0	41.0	297.0
		(PERCENTAGE OF H.V.S)	(0.0)	(0.0)	(0.0)
	ARM B		0.871	0.000	0.129
			108.0	0.0	16.0
			(0.0)	(0.0)	(0.0)
	ARM C		0.909	0.091	0.000
			360.0	36.0	0.0
			(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-AC	1.56	6.25	0.249		0.00	0.33	4.6		0.21
C-AB	0.45	9.41	0.048		0.00	0.05	0.8		0.11
A-B	0.51								
A-C	3.73								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	1.86	5.96	0.312		0.33	0.44	6.4		0.24
C-AB	0.54	9.21	0.059		0.05	0.06	1.0		0.12
A-B	0.61								
A-C	4.45								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	2.28	5.55	0.410		0.44	0.67	9.6		0.30
C-AB	0.66	8.94	0.074		0.06	0.08	1.3		0.12
A-B	0.75								
A-C	5.45								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-AC	2.28	5.55	0.410		0.67	0.68	10.2		0.31
C-AB	0.66	8.94	0.074		0.08	0.08	1.3		0.12
A-B	0.75								
A-C	5.45								

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TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	1.86	5.96	0.312		0.68	0.46	7.3		
C-AB	0.54	9.21	0.059		0.08	0.06	1.0		0.25
A-B	0.61								0.12
A-C	4.45								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
09.00-09.15									
B-AC	1.56	6.25	0.249		0.46	0.34	5.3		
C-AB	0.45	9.41	0.048		0.06	0.05	0.8		0.21
A-B	0.51								0.11
A-C	3.73								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.3	
08.15	0.4	
08.30	0.7	*
08.45	0.7	*
09.00	0.5	
09.15	0.3	

QUEUE FOR STREAM C-AB

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

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	170.7	113.8	43.3	0.25	43.3	0.25
C-AB	49.6	33.0	6.0	0.12	6.0	0.12
A-B	56.4	37.6				
A-C	408.8	272.5				
ALL	1181.0	787.3	49.3	0.04	49.3	0.04

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

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

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TRL LIMITED

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

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 5.0 (JUNE 2010)

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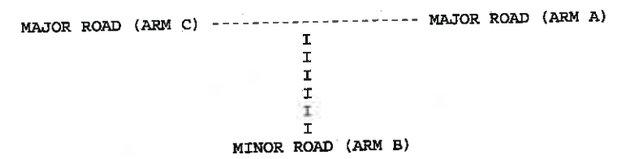
Run with file:-
"N:\Vectos Job Data\2013\VN30277 Longridge\Picady\March 15\363 Dwellings\2025 Assessment Flows\
Halfpenny and Whittingham Rd 2025 Assessment Flows-PM.vpi"
(drive-on-the-left) at 11:29:09 on Wednesday, 11 March 2015

RUN INFORMATION
****

RUN TITLE	: Halfpenny Lane/Whittinghjam Road 2025 Assessment Flows-PM
LOCATION	: Longridge
DATE	: 11/03/15
CLIENT	: Barratt Homes
ENUMERATOR	: Hannah [HANNAH-ZOO]
JOB NUMBER	: VN30277
STATUS	:
DESCRIPTION	:

MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Whittingham Road E
ARM B IS Halfpenny Lane
ARM C IS Whittingham Road W

STREAM LABELLING CONVENTION

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

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GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 6.15 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B) 90.00 M.
- BLOCKS TRAFFIC (SPACES)	YES (1)
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 16.0 M.
- VISIBILITY TO RIGHT	(VB-A) 16.0 M.
- LANE 1 WIDTH	(WB-C) 2.20 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

.SLOPES AND INTERCEPT

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

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
583.23	0.22	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
451.39	0.21	0.08	0.13	0.29

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
626.08	0.24	0.24

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

TRAFFIC DEMAND DATA

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

Demand set: Halfpenny Lane/Whittinghjam Road

TIME PERIOD BEGINS 16.45 AND ENDS 18.15

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

DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	5.41	8.12	5.41
ARM B	15.00	45.00	75.00	1.11	1.67	1.11
ARM C	15.00	45.00	75.00	3.80	5.70	3.80

Demand set: Halfpenny Lane/Whittinghjam Road

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000 0.0 (0.0)	0.222 96.0 (0.0)	0.778 337.0 (0.0)
	ARM B	0.820 73.0 (0.0)	0.000 0.0 (0.0)	0.180 16.0 (0.0)
	ARM C	0.914 278.0 (0.0)	0.086 26.0 (0.0)	0.000 0.0 (0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD 1

TIME		DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00										
	B-AC	1.12	6.35	0.176		0.00	0.21	3.0		0.19
	C-AB	0.33	9.13	0.036		0.00	0.04	0.6		0.11
	A-B	1.20								
	A-C	4.23								
17.00-17.15										
	B-AC	1.33	6.06	0.220		0.21	0.28	4.0		0.21
	C-AB	0.39	8.87	0.044		0.04	0.05	0.7		0.12
	A-B	1.44								
	A-C	5.05								
17.15-17.30										
	B-AC	1.63	5.66	0.289		0.28	0.40	5.7		0.25
	C-AB	0.48	8.52	0.056		0.05	0.06	0.9		0.12
	A-B	1.76								
	A-C	6.18								
17.30-17.45										
	B-AC	1.63	5.66	0.289		0.40	0.40	6.0		0.25
	C-AB	0.48	8.52	0.056		0.06	0.06	0.9		0.12
	A-B	1.76								
	A-C	6.18								

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TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.45-18.00									
B-AC	1.33	6.06	0.220		0.40	0.29	4.5		
C-AB	0.39	8.87	0.044		0.06	0.05	0.7		0.21
A-B	1.44								0.12
A-C	5.05								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-AC	1.12	6.35	0.176		0.29	0.22	3.4		
C-AB	0.33	9.13	0.036		0.05	0.04	0.6		0.19
A-B	1.20								0.11
A-C	4.23								

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

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.2
17.15	0.3
17.30	0.4
17.45	0.4
18.00	0.3
18.15	0.2

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.0
17.15	0.0
17.30	0.1
17.45	0.1
18.00	0.0
18.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	122.5	81.7	26.6	0.22	26.6	0.22
C-AB	35.8	23.9	4.4	0.12	4.4	0.12
A-B	132.1	88.1				
A-C	463.9	309.2				
ALL	1136.9	758.0	30.9	0.03	30.9	0.03

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

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

========== end of file ==========

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