

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)	PHF
1	ONE HOUR	Yes	726.00	100.000	N/A
2	ONE HOUR	Yes	923.00	100.000	N/A
3	ONE HOUR	Yes	43.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	1	546.57	546.57	N/A	N/A
1	2	694.88	694.88	N/A	N/A
1	3	32.37	32.37	N/A	N/A
2	1	652.66	652.66	N/A	N/A
2	2	829.76	829.76	N/A	N/A
2	3	38.66	38.66	N/A	N/A
3	1	799.34	799.34	N/A	N/A
3	2	1016.24	1016.24	N/A	N/A
3	3	47.34	47.34	N/A	N/A
4	1	799.34	799.34	N/A	N/A
4	2	1016.24	1016.24	N/A	N/A
4	3	47.34	47.34	N/A	N/A
5	1	652.66	652.66	N/A	N/A
5	2	829.76	829.76	N/A	N/A
5	3	38.66	38.66	N/A	N/A
6	1	546.57	546.57	N/A	N/A
6	2	694.88	694.88	N/A	N/A
6	3	32.37	32.37	N/A	N/A

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Roundabout 1 (for whole period)

	To			
		1	2	3
From	1	0.000	686.000	40.000
	2	923.000	0.000	0.000
	3	43.000	0.000	0.000

Turning Proportions (PCU) - Roundabout 1 (for whole period)

	To			
		1	2	3
From	1	0.00	0.94	0.06
	2	1.00	0.00	0.00
	3	1.00	0.00	0.00

Vehicle Mix

Vehicle Data

Average PCU Per Vehicle - Roundabout 1 (for whole period)

		To		
		1	2	3
From	1	1.000	1.000	1.000
	2	1.000	1.000	1.000
	3	1.000	1.000	1.000

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

		To		
		1	2	3
From	1	0.000	0.000	0.000
	2	0.000	0.000	0.000
	3	0.000	0.000	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Total Demand (PCU/hr)	Total Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Queueing Total Delay (PCU-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
1	0.63	0.13	1.66	A	666.19	999.29	102.48	0.10	1.14	102.50	0.10	0.563	1274.764
2	0.89	0.45	7.24	D	846.96	1270.44	315.96	0.25	3.51	316.03	0.25	0.534	1163.999
3	0.06	0.08	0.06	A	39.46	59.19	4.08	0.07	0.05	4.08	0.07	0.603	1433.915

Main Results

Main results: (15:30-15:45)

Arm	Demand (PCU/hr)	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)
1	546.57	136.64	543.60	721.12	0.00	0.00	1274.76	1274.76	0.429	0.00	0.74
2	694.88	173.72	688.88	513.65	29.95	0.00	1147.99	1126.46	0.605	0.00	1.50
3	32.37	8.09	32.24	29.95	688.88	0.00	1018.64	754.85	0.032	0.00	0.03

Main results: (15:45-16:00)

Arm	Demand (PCU/hr)	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)
1	652.66	163.16	651.49	864.27	0.00	0.00	1274.76	1274.76	0.512	0.74	1.04
2	829.76	207.44	825.66	615.59	35.89	0.00	1144.81	1126.46	0.725	1.50	2.53
3	38.66	9.66	38.62	35.89	825.66	0.00	936.18	754.85	0.041	0.03	0.04

Main results: (16:00-16:15)

Arm	Demand (PCU/hr)	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)
1	799.34	199.84	796.90	1047.11	0.00	0.00	1274.76	1274.76	0.627	1.04	1.65
2	1016.24	254.06	999.83	753.00	43.91	0.00	1140.53	1126.46	0.891	2.53	6.63
3	47.34	11.84	47.28	43.91	999.83	0.00	831.19	754.85	0.057	0.04	0.06

Main results: (16:15-16:30)

Arm	Demand (PCU/hr)	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)
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1	799.34	199.84	799.27	1061.12	0.00	0.00	1274.76	1274.76	0.627	1.65	1.66
2	1016.24	254.06	1013.78	755.23	44.04	0.00	1140.46	1126.46	0.891	6.63	7.24
3	47.34	11.84	47.34	44.04	1013.78	0.00	822.78	754.85	0.058	0.06	0.06

Main results: (16:30-16:45)

Arm	Demand (PCU/hr)	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)
1	652.66	163.16	655.06	886.44	0.00	0.00	1274.76	1274.76	0.512	1.66	1.06
2	829.76	207.44	847.72	618.97	36.09	0.00	1144.71	1126.46	0.725	7.24	2.75
3	38.66	9.66	38.72	36.09	847.72	0.00	922.88	754.85	0.042	0.06	0.04

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

Arm	Demand (PCU/hr)	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)
1	546.57	136.64	547.79	732.04	0.00	0.00	1274.76	1274.76	0.429	1.06	0.76
2	694.88	173.72	699.62	517.61	30.18	0.00	1147.87	1126.46	0.605	2.75	1.57
3	32.37	8.09	32.42	30.18	699.62	0.00	1012.16	754.85	0.032	0.04	0.03

Queueing Delay Results

Queueing Delay results: (15:30-15:45)

Arm	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
1	10.78	0.72	0.082	A	A
2	21.19	1.41	0.129	A	A
3	0.48	0.03	0.061	A	A

Queueing Delay results: (15:45-16:00)

Arm	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
1	15.09	1.01	0.096	A	A
2	35.35	2.36	0.186	B	B
3	0.63	0.04	0.067	A	A

Queueing Delay results: (16:00-16:15)

Arm	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
1	23.60	1.57	0.125	A	A
2	82.89	5.53	0.387	C	C
3	0.89	0.06	0.077	A	A

Queueing Delay results: (16:15-16:30)

Arm	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
1	24.84	1.66	0.126	A	A
2	104.81	6.99	0.454	D	C
3	0.91	0.06	0.077	A	A

Queueing Delay results: (16:30-16:45)

Arm	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
1	16.51	1.10	0.097	A	A
2	46.96	3.13	0.213	B	B
3	0.67	0.04	0.068	A	A

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

Queueing Delay Results: (10.45-11.00)

Arm	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
1	11.67	0.78	0.083	A	A
2	24.77	1.65	0.135	A	A
3	0.50	0.03	0.061	A	A

A1 - (Default Analysis Set) - D6 - Future Base+Dev 2017, Sat

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
Future Base+Dev 2017, Sat	Future Base+Dev 2017	Sat			Yes			12:15	13:45	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	1,2,3	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
1	Burton Road East	
2	Burton Road Bypass	
3	Burton Road West	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00

Standard Geometry

Arm	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
1	3.60	5.00	5.00	22.00	27.50	40.00	
2	3.60	4.35	3.50	17.00	27.50	42.00	
3	3.50	5.00	27.00	17.00	27.50	30.00	

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		((calculated))	((calculated))	0.563	1274.764
2		((calculated))	((calculated))	0.534	1163.999
3		((calculated))	((calculated))	0.603	1433.915

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				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)	PHF
1	ONE HOUR	Yes	714.00	100.000	N/A
2	ONE HOUR	Yes	811.00	100.000	N/A
3	ONE HOUR	Yes	36.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	1	537.54	537.54	N/A	N/A
1	2	610.56	610.56	N/A	N/A
1	3	27.10	27.10	N/A	N/A
2	1	641.87	641.87	N/A	N/A
2	2	729.07	729.07	N/A	N/A
2	3	32.36	32.36	N/A	N/A
3	4	786.13	786.13	N/A	N/A

From	To	1	2	3	4	5
3	2	892.93	892.93	N/A	N/A	N/A
3	3	39.64	39.64	N/A	N/A	N/A
4	1	786.13	786.13	N/A	N/A	N/A
4	2	892.93	892.93	N/A	N/A	N/A
4	3	39.64	39.64	N/A	N/A	N/A
5	1	641.87	641.87	N/A	N/A	N/A
5	2	729.07	729.07	N/A	N/A	N/A
5	3	32.36	32.36	N/A	N/A	N/A
6	1	537.54	537.54	N/A	N/A	N/A
6	2	610.56	610.56	N/A	N/A	N/A
6	3	27.10	27.10	N/A	N/A	N/A

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Roundabout 1 (for whole period)

From		To		
		1	2	3
From	1	0.000	675.000	39.000
	2	811.000	0.000	0.000
	3	36.000	0.000	0.000

Turning Proportions (PCU) - Roundabout 1 (for whole period)

From		To		
		1	2	3
From	1	0.00	0.95	0.05
	2	1.00	0.00	0.00
	3	1.00	0.00	0.00

Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

From		To		
		1	2	3
From	1	1.000	1.000	1.000
	2	1.000	1.000	1.000
	3	1.000	1.000	1.000

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

From		To		
		1	2	3
From	1	0.000	0.000	0.000
	2	0.000	0.000	0.000
	3	0.000	0.000	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Total Demand (PCU/hr)	Total Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Queueing Total Delay (PCU-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
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1	0.62	0.12	1.59	A	655.18	982.77	98.78	0.10	1.10	98.79	0.10	0.563	1274.764
2	0.78	0.24	3.48	B	744.19	1116.28	184.45	0.17	2.05	184.48	0.17	0.534	1163.999
3	0.04	0.07	0.05	A	33.03	49.55	3.16	0.06	0.04	3.16	0.06	0.603	1433.915

Main Results

Main results: (12:15-12:30)

Arm	Demand (PCU/hr)	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)
1	537.54	134.38	534.65	633.09	0.00	0.00	1274.76	1274.76	0.422	0.00	0.72
2	610.56	152.64	606.09	505.44	29.20	0.00	1148.39	1126.78	0.532	0.00	1.12
3	27.10	6.78	27.00	29.20	606.09	0.00	1068.54	754.66	0.025	0.00	0.03

Main results: (12:30-12:45)

Arm	Demand (PCU/hr)	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)
1	641.87	160.47	640.75	759.04	0.00	0.00	1274.76	1274.76	0.504	0.72	1.00
2	729.07	182.27	726.71	605.75	35.00	0.00	1145.29	1126.78	0.637	1.12	1.71
3	32.36	8.09	32.33	35.00	726.71	0.00	995.83	754.66	0.033	0.03	0.03

Main results: (12:45-13:00)

Arm	Demand (PCU/hr)	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)
1	786.13	196.53	783.83	925.87	0.00	0.00	1274.76	1274.76	0.617	1.00	1.58
2	892.93	223.23	886.28	741.02	42.81	0.00	1141.12	1126.78	0.783	1.71	3.37
3	39.64	9.91	39.59	42.81	886.28	0.00	899.64	754.66	0.044	0.03	0.05

Main results: (13:00-13:15)

Arm	Demand (PCU/hr)	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)
1	786.13	196.53	786.07	932.14	0.00	0.00	1274.76	1274.76	0.617	1.58	1.59
2	892.93	223.23	892.50	743.13	42.94	0.00	1141.05	1126.78	0.783	3.37	3.48
3	39.64	9.91	39.64	42.94	892.50	0.00	895.89	754.66	0.044	0.05	0.05

Main results: (13:15-13:30)

Arm	Demand (PCU/hr)	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)
1	641.87	160.47	644.13	768.20	0.00	0.00	1274.76	1274.76	0.504	1.59	1.03
2	729.07	182.27	735.79	608.95	35.18	0.00	1145.19	1126.78	0.637	3.48	1.80
3	32.36	8.09	32.41	35.18	735.79	0.00	990.36	754.66	0.033	0.05	0.03

Main results: (13:30-13:45)

Arm	Demand (PCU/hr)	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)
1	537.54	134.38	538.70	640.27	0.00	0.00	1274.76	1274.76	0.422	1.03	0.74
2	610.56	152.64	613.14	509.28	29.42	0.00	1148.27	1126.78	0.532	1.80	1.15
3	27.10	6.78	27.13	29.42	613.14	0.00	1064.30	754.66	0.025	0.03	0.03

Queueing Delay Results

Queueing Delay results: (12:15-12:30)

Arm	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
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1	10.48	0.70	0.081	A	A
2	15.97	1.06	0.110	A	A
3	0.38	0.03	0.058	A	A

Queueing Delay results: (12:30-12:45)

Arm	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
1	14.60	0.97	0.094	A	A
2	24.43	1.63	0.143	A	A
3	0.50	0.03	0.062	A	A

Queueing Delay results: (12:45-13:00)

Arm	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
1	22.64	1.51	0.122	A	A
2	45.94	3.06	0.230	B	B
3	0.68	0.05	0.070	A	A

Queueing Delay results: (13:00-13:15)

Arm	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
1	23.79	1.59	0.123	A	A
2	51.50	3.43	0.240	B	B
3	0.69	0.05	0.070	A	A

Queueing Delay results: (13:15-13:30)

Arm	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
1	15.94	1.06	0.095	A	A
2	28.61	1.91	0.149	A	A
3	0.52	0.03	0.063	A	A

Queueing Delay results: (13:30-13:45)

Arm	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
1	11.32	0.75	0.082	A	A
2	17.99	1.20	0.113	A	A
3	0.40	0.03	0.058	A	A

Foodstore Access

ARCADY 7		
Version: 7.1.1.245 [9th June 2011]		
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File: L:\Manchester Projects\90095 Barnsley, Peel Holdings Proposed Food Store\I-Calculations\Models\ARCADY\Foodstore Access.arc7

Report generation date: 03/04/2012 16:39:52

- » A1 - (Default Analysis Set) - D1 - Future Base 2012, Fri
- » A1 - (Default Analysis Set) - D2 - Future Base 2012, Sat
- » A1 - (Default Analysis Set) - D3 - Future Base 2017, Fri
- » A1 - (Default Analysis Set) - D4 - Future Base 2017, Sat
- » A1 - (Default Analysis Set) - D5 - Future Base+Dev 2017, Fri
- » A1 - (Default Analysis Set) - D6 - Future Base+Dev 2017, Sat

Summary of roundabout performance

	Fri			Sat		
	Queue (PCU)	Delay (min)	RFC	Queue (PCU)	Delay (min)	RFC
(Default Analysis Set) - Future Base 2012						
Arm 1	0.13	0.09	0.12	0.18	0.08	0.15
Arm 2	0.66	0.08	0.40	0.70	0.08	0.41
Arm 3	0.00	0.00	0.00	0.00	0.00	0.00
Arm 4	0.64	0.05	0.39	0.54	0.04	0.35
(Default Analysis Set) - Future Base 2017						
Arm 1	0.14	0.09	0.12	0.19	0.08	0.16
Arm 2	0.71	0.08	0.42	0.75	0.08	0.43
Arm 3	0.00	0.00	0.00	0.00	0.00	0.00
Arm 4	0.68	0.05	0.40	0.57	0.04	0.37
(Default Analysis Set) - Future Base+Dev 2017						
Arm 1	0.45	0.29	0.31	0.49	0.22	0.33
Arm 2	4.02	0.33	0.81	3.48	0.29	0.78
Arm 3	2.50	0.16	0.72	1.99	0.14	0.67
Arm 4	3.23	0.13	0.77	2.25	0.10	0.69

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

Future Base 2012 - Fri runs from 15:30:00 to 17:00:00
Future Base 2012 - Sat runs from 12:15:00 to 13:45:00
Future Base 2017 - Fri runs from 15:30:00 to 17:00:00
Future Base 2017 - Sat runs from 12:15:00 to 13:45:00
Future Base+Dev 2017 - Fri runs from 15:30:00 to 17:00:00
Future Base+Dev 2017 - Sat runs from 12:15:00 to 13:45:00

File summary

File Description

Title	Burton Road Bypass Foodstore Access
Location	Barnsley
Site Number	
Date	02/08/2011
Version	

Status	(new file)
Identifier	
Client	
Jobnumber	90095
Enumerator	CURTINS\stoddart_d
Description	

Analysis Options

RFC Threshold	Vehicle Length (m)	Do Queue Variations
0.85	5.75	

Sorting and Display

Show Arm Names	Arm Grouping	Sorting Direction	Sorting Type	Data Matrix Style	Time Style
	Order	Ascending	Numerical	By Destination	Absolute Time

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

A1 - (Default Analysis Set) - D1 - Future Base 2012, Fri

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
Future Base 2012, Fri	Future Base 2012	Fri			Yes			15:30	17:00	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	1,2,3,4	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
1	Wickes Access	
2	Bypass East	
3	Foodstore Access	
4	Burton Road West	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

Standard Geometry

Arm	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
1	3.50	4.50	3.00	19.00	40.00	31.00	
2	3.50	5.50	6.50	24.00	40.00	35.00	
3	3.25	7.25	19.00	19.00	40.00	39.00	
4	7.25	7.25	0.00	15.00	40.00	33.00	

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		((calculated))	((calculated))	0.540	1199.817
2		((calculated))	((calculated))	0.570	1353.283
3		((calculated))	((calculated))	0.622	1651.134
4		((calculated))	((calculated))	0.721	2138.075

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				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)	PHF
1	ONE HOUR	Yes	84.00	100.000	N/A
2	ONE HOUR	Yes	477.00	100.000	N/A
3	ONE HOUR	Yes	0.00	100.000	N/A
4	ONE HOUR	Yes	750.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	1	63.24	63.24	N/A	N/A
1	2	359.11	359.11	N/A	N/A
1	3	0.00	0.00	N/A	N/A
1	4	564.64	564.64	N/A	N/A
2	1	75.51	75.51	N/A	N/A
2	2	428.81	428.81	N/A	N/A
2	3	0.00	0.00	N/A	N/A
2	4	674.23	674.23	N/A	N/A
3	1	92.49	92.49	N/A	N/A
3	2	525.19	525.19	N/A	N/A
3	3	0.00	0.00	N/A	N/A
3	4	825.77	825.77	N/A	N/A
4	1	92.49	92.49	N/A	N/A
4	2	525.19	525.19	N/A	N/A
4	3	0.00	0.00	N/A	N/A
4	4	825.77	825.77	N/A	N/A
5	1	75.51	75.51	N/A	N/A
5	2	428.81	428.81	N/A	N/A
5	3	0.00	0.00	N/A	N/A
5	4	674.23	674.23	N/A	N/A
6	1	63.24	63.24	N/A	N/A
6	2	359.11	359.11	N/A	N/A
6	3	0.00	0.00	N/A	N/A
6	4	564.64	564.64	N/A	N/A

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	18.000	0.000	66.000
	2	20.000	0.000	0.000	457.000
	3	0.000	0.000	0.000	0.000
	4	69.000	681.000	0.000	0.000

Turning Proportions (PCU) - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.21	0.00	0.79
	2	0.04	0.00	0.00	0.96

3	0.25	0.25	0.25	0.25
4	0.09	0.91	0.00	0.00

Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

	To				
From		1	2	3	4
	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

	To				
From		1	2	3	4
	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Total Demand (PCU/hr)	Total Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Queueing Total Delay (PCU-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
1	0.12	0.09	0.13	A	77.08	115.62	8.95	0.08	0.10	8.95	0.08	0.540	1199.817
2	0.40	0.08	0.66	A	437.70	656.56	45.26	0.07	0.50	45.26	0.07	0.570	1353.283
3	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	16666666.65	0.622	1651.134
4	0.39	0.05	0.64	A	688.21	1032.32	43.66	0.04	0.49	43.66	0.04	0.721	2138.075

Main Results

Main results: (15:30-15:45)

Arm	Demand (PCU/hr)	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)
1	63.24	15.81	62.95	66.81	511.38	0.00	923.56	164.21	0.068	0.00	0.07
2	359.11	89.78	357.63	524.87	49.46	0.00	1325.10	1158.60	0.271	0.00	0.37
3	0.00	0.00	0.00	0.00	407.09	0.00	1397.96	850.33	0.000	0.00	0.00
4	564.64	141.16	563.20	392.10	15.00	0.00	2127.26	1643.03	0.265	0.00	0.36

Main results: (15:45-16:00)

Arm	Demand (PCU/hr)	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)
1	75.51	18.88	75.43	79.95	611.83	0.00	869.30	164.21	0.087	0.07	0.09
2	428.81	107.20	428.38	627.99	59.27	0.00	1319.51	1158.59	0.325	0.37	0.48
3	0.00	0.00	0.00	0.00	487.64	0.00	1347.86	850.34	0.000	0.00	0.00
4	674.23	168.56	673.82	469.68	17.96	0.00	2125.12	1643.03	0.317	0.36	0.46

Main results: (16:00-16:15)

								Saturation		Start	End
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Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Capacity (PCU/hr)	RFC	Queue (PCU)	Queue (PCU)
1	92.49	23.12	92.34	97.90	749.17	0.00	795.11	164.21	0.116	0.09	0.13
2	525.19	131.30	524.45	768.96	72.55	0.00	1311.93	1158.59	0.400	0.48	0.66
3	0.00	0.00	0.00	0.00	597.01	0.00	1279.84	850.34	0.000	0.00	0.00
4	825.77	206.44	825.08	575.02	21.99	0.00	2122.21	1643.03	0.389	0.46	0.63

Main results: (16:15-16:30)

Arm	Demand (PCU/hr)	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)
1	92.49	23.12	92.48	97.99	749.79	0.00	794.77	164.21	0.116	0.13	0.13
2	525.19	131.30	525.18	769.61	72.67	0.00	1311.87	1158.59	0.400	0.66	0.66
3	0.00	0.00	0.00	0.00	597.84	0.00	1279.32	850.34	0.000	0.00	0.00
4	825.77	206.44	825.76	575.82	22.02	0.00	2122.19	1643.03	0.389	0.63	0.64

Main results: (16:30-16:45)

Arm	Demand (PCU/hr)	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)
1	75.51	18.88	75.66	80.10	612.82	0.00	868.77	164.21	0.087	0.13	0.10
2	428.81	107.20	429.53	629.03	59.44	0.00	1319.41	1158.59	0.325	0.66	0.48
3	0.00	0.00	0.00	0.00	488.98	0.00	1347.03	850.34	0.000	0.00	0.00
4	674.23	168.56	674.91	470.97	18.01	0.00	2125.08	1643.03	0.317	0.64	0.47

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

Arm	Demand (PCU/hr)	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)
1	63.24	15.81	63.33	67.06	513.07	0.00	922.65	164.21	0.069	0.10	0.07
2	359.11	89.78	359.55	526.64	49.76	0.00	1324.93	1158.60	0.271	0.48	0.37
3	0.00	0.00	0.00	0.00	409.31	0.00	1396.58	850.33	0.000	0.00	0.00
4	564.64	141.16	565.06	394.23	15.08	0.00	2127.20	1643.03	0.265	0.47	0.36

Queueing Delay Results

Queueing Delay results: (15:30-15:45)

Arm	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
1	1.07	0.07	0.070	A	A
2	5.42	0.36	0.062	A	A
3	0.00	0.00	0.000	A	A
4	5.32	0.35	0.038	A	A

Queueing Delay results: (15:45-16:00)

Arm	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
1	1.40	0.09	0.076	A	A
2	7.05	0.47	0.067	A	A
3	0.00	0.00	0.000	A	A
4	6.86	0.46	0.041	A	A

Queueing Delay results: (16:00-16:15)

Arm	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
1	1.93	0.13	0.085	A	A
2	9.71	0.65	0.076	A	A
3	0.00	0.00	0.000	A	A

4	9.36	0.62	0.046	A	A
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Queueing Delay results: (16:15-16:30)

Arm	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
1	1.97	0.13	0.085	A	A
2	9.96	0.66	0.076	A	A
3	0.00	0.00	0.000	A	A
4	9.52	0.63	0.046	A	A

Queueing Delay results: (16:30-16:45)

Arm	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
1	1.46	0.10	0.076	A	A
2	7.42	0.49	0.067	A	A
3	0.00	0.00	0.000	A	A
4	7.10	0.47	0.041	A	A

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

Arm	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
1	1.13	0.08	0.070	A	A
2	5.70	0.38	0.062	A	A
3	0.00	0.00	0.000	A	A
4	5.50	0.37	0.038	A	A

A1 - (Default Analysis Set) - D2 - Future Base 2012, Sat

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
Future Base 2012, Sat	Future Base 2012	Sat			Yes			12:15	13:45	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	1,2,3,4	Standard			

Roundabout Network Options

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
1	Wickes Access	
2	Bypass East	
3	Foodstore Access	
4	Burton Road West	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

Standard Geometry

Arm	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
1	3.50	4.50	3.00	19.00	40.00	31.00	
2	3.50	5.50	6.50	24.00	40.00	35.00	
3	3.25	7.25	19.00	19.00	40.00	39.00	
4	7.25	7.25	0.00	15.00	40.00	33.00	

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		((calculated))	((calculated))	0.540	1199.817
2		((calculated))	((calculated))	0.570	1353.283
3		((calculated))	((calculated))	0.622	1651.134
4		((calculated))	((calculated))	0.721	2138.075

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	2.00				Yes	Yes

Percentages

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)	PHF
1	ONE HOUR	Yes	120.00	100.000	N/A
2	ONE HOUR	Yes	486.00	100.000	N/A
3	ONE HOUR	Yes	0.00	100.000	N/A
4	ONE HOUR	Yes	674.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	1	90.34	90.34	N/A	N/A
1	2	365.89	365.89	N/A	N/A
1	3	0.00	0.00	N/A	N/A
1	4	507.42	507.42	N/A	N/A
2	1	107.88	107.88	N/A	N/A
2	2	436.90	436.90	N/A	N/A
2	3	0.00	0.00	N/A	N/A
2	4	605.91	605.91	N/A	N/A
3	1	132.12	132.12	N/A	N/A
3	2	535.10	535.10	N/A	N/A
3	3	0.00	0.00	N/A	N/A
3	4	742.09	742.09	N/A	N/A
4	1	132.12	132.12	N/A	N/A
4	2	535.10	535.10	N/A	N/A
4	3	0.00	0.00	N/A	N/A
4	4	742.09	742.09	N/A	N/A
5	1	107.88	107.88	N/A	N/A
5	2	436.90	436.90	N/A	N/A
5	3	0.00	0.00	N/A	N/A
5	4	605.91	605.91	N/A	N/A
6	1	90.34	90.34	N/A	N/A
6	2	365.89	365.89	N/A	N/A
6	3	0.00	0.00	N/A	N/A
6	4	507.42	507.42	N/A	N/A

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	34.000	0.000	86.000
	2	32.000	0.000	0.000	454.000
	3	0.000	0.000	0.000	0.000
	4	94.000	580.000	0.000	0.000

Turning Proportions (PCU) - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.28	0.00	0.72
	2	0.07	0.00	0.00	0.93
	3	0.25	0.25	0.25	0.25
	4	0.14	0.86	0.00	0.00

Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Total Demand (PCU/hr)	Total Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Queueing Total Delay (PCU-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
1	0.15	0.08	0.18	A	110.11	165.17	12.50	0.08	0.14	12.50	0.08	0.540	1199.817
2	0.41	0.08	0.70	A	445.96	668.94	47.18	0.07	0.52	47.18	0.07	0.570	1353.283
3	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	166666666.65	0.622	1651.134
4	0.35	0.04	0.54	A	618.47	927.71	37.52	0.04	0.42	37.53	0.04	0.721	2138.075

Main Results

Main results: (12:15-12:30)

Arm	Demand (PCU/hr)	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)
1	90.34	22.59	89.93	94.58	435.58	0.00	964.52	215.47	0.094	0.00	0.10
2	365.89	91.47	364.36	461.06	64.45	0.00	1316.55	1145.18	0.278	0.00	0.38
3	0.00	0.00	0.00	0.00	428.81	0.00	1384.45	842.89	0.000	0.00	0.00
4	507.42	126.86	506.17	404.82	23.99	0.00	2120.77	1627.71	0.239	0.00	0.31

Main results: (12:30-12:45)

Arm	Demand (PCU/hr)	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)
1	107.88	26.97	107.76	113.19	521.11	0.00	918.31	215.48	0.117	0.10	0.13

2	436.90	109.23	436.44	551.64	77.23	0.00	1309.27	1145.18	0.334	0.38	0.50
3	0.00	0.00	0.00	0.00	513.67	0.00	1331.67	842.89	0.000	0.00	0.00
4	605.91	151.48	605.57	484.94	28.74	0.00	2117.35	1627.71	0.286	0.31	0.40

Main results: (12:45-13:00)

Arm	Demand (PCU/hr)	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)
1	132.12	33.03	131.93	138.60	638.11	0.00	855.10	215.47	0.155	0.13	0.18
2	535.10	133.77	534.31	675.49	94.55	0.00	1299.40	1145.17	0.412	0.50	0.69
3	0.00	0.00	0.00	0.00	628.86	0.00	1260.04	842.89	0.000	0.00	0.00
4	742.09	185.52	741.53	593.68	35.18	0.00	2112.70	1627.71	0.351	0.40	0.54

Main results: (13:00-13:15)

Arm	Demand (PCU/hr)	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)
1	132.12	33.03	132.12	138.73	638.59	0.00	854.85	215.47	0.155	0.18	0.18
2	535.10	133.77	535.08	676.02	94.69	0.00	1299.32	1145.17	0.412	0.69	0.70
3	0.00	0.00	0.00	0.00	629.77	0.00	1259.47	842.89	0.000	0.00	0.00
4	742.09	185.52	742.08	594.54	35.23	0.00	2112.66	1627.71	0.351	0.54	0.54

Main results: (13:15-13:30)

Arm	Demand (PCU/hr)	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)
1	107.88	26.97	108.07	113.40	521.88	0.00	917.89	215.48	0.118	0.18	0.13
2	436.90	109.23	437.68	552.50	77.45	0.00	1309.14	1145.18	0.334	0.70	0.50
3	0.00	0.00	0.00	0.00	515.13	0.00	1330.77	842.89	0.000	0.00	0.00
4	605.91	151.48	606.46	486.31	28.82	0.00	2117.29	1627.71	0.286	0.54	0.40

Main results: (13:30-13:45)

Arm	Demand (PCU/hr)	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)
1	90.34	22.59	90.46	94.94	436.95	0.00	963.77	215.47	0.094	0.13	0.10
2	365.89	91.47	366.35	462.58	64.83	0.00	1316.34	1145.18	0.278	0.50	0.39
3	0.00	0.00	0.00	0.00	431.19	0.00	1382.97	842.89	0.000	0.00	0.00
4	507.42	126.86	507.77	407.06	24.12	0.00	2120.68	1627.71	0.239	0.40	0.32

Queueing Delay Results

Queueing Delay results: (12:15-12:30)

Arm	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
1	1.51	0.10	0.069	A	A
2	5.60	0.37	0.063	A	A
3	0.00	0.00	0.000	A	A
4	4.63	0.31	0.037	A	A

Queueing Delay results: (12:30-12:45)

Arm	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
1	1.96	0.13	0.074	A	A
2	7.33	0.49	0.069	A	A
3	0.00	0.00	0.000	A	A
4	5.92	0.39	0.040	A	A

Queueing Delay results: (12:45-13:00)

Arm	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
1	2.67	0.18	0.083	A	A
2	10.17	0.68	0.078	A	A
3	0.00	0.00	0.000	A	A
4	7.97	0.53	0.044	A	A

Queueing Delay results: (13:00-13:15)

Arm	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
1	2.73	0.18	0.083	A	A
2	10.44	0.70	0.079	A	A
3	0.00	0.00	0.000	A	A
4	8.10	0.54	0.044	A	A

Queueing Delay results: (13:15-13:30)

Arm	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
1	2.04	0.14	0.074	A	A
2	7.72	0.51	0.069	A	A
3	0.00	0.00	0.000	A	A
4	6.11	0.41	0.040	A	A

Queueing Delay results: (13:30-13:45)

Arm	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
1	1.58	0.11	0.069	A	A
2	5.91	0.39	0.063	A	A
3	0.00	0.00	0.000	A	A
4	4.79	0.32	0.037	A	A

A1 - (Default Analysis Set) - D3 - Future Base 2017, Fri

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
Future Base 2017, Fri	Future Base 2017	Fri			Yes			15:30	17:00	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	1,2,3,4	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
1	Wickes Access	
2	Bypass East	
3	Foodstore Access	
4	Burton Road West	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

Standard Geometry

Arm	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
1	3.50	4.50	3.00	19.00	40.00	31.00	
2	3.50	5.50	6.50	24.00	40.00	35.00	
3	3.25	7.25	19.00	19.00	40.00	39.00	
4	7.25	7.25	0.00	15.00	40.00	33.00	

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		((calculated))	((calculated))	0.540	1199.817
2		((calculated))	((calculated))	0.570	1353.283
3		((calculated))	((calculated))	0.622	1651.134
4		((calculated))	((calculated))	0.721	2138.075

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				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)	PHF
1	ONE HOUR	Yes	86.00	100.000	N/A
2	ONE HOUR	Yes	497.00	100.000	N/A
3	ONE HOUR	Yes	0.00	100.000	N/A
4	ONE HOUR	Yes	780.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	1	64.75	64.75	N/A	N/A
1	2	374.17	374.17	N/A	N/A
1	3	0.00	0.00	N/A	N/A
1	4	587.22	587.22	N/A	N/A
2	1	77.31	77.31	N/A	N/A
2	2	446.79	446.79	N/A	N/A
2	3	0.00	0.00	N/A	N/A
2	4	701.20	701.20	N/A	N/A
3	1	94.69	94.69	N/A	N/A
3	2	547.21	547.21	N/A	N/A
3	3	0.00	0.00	N/A	N/A
3	4	858.80	858.80	N/A	N/A
4	1	94.69	94.69	N/A	N/A
4	2	547.21	547.21	N/A	N/A
4	3	0.00	0.00	N/A	N/A
4	4	858.80	858.80	N/A	N/A
5	1	77.31	77.31	N/A	N/A
5	2	446.79	446.79	N/A	N/A
5	3	0.00	0.00	N/A	N/A
5	4	701.20	701.20	N/A	N/A
6	1	64.75	64.75	N/A	N/A
6	2	374.17	374.17	N/A	N/A
6	3	0.00	0.00	N/A	N/A
6	4	587.22	587.22	N/A	N/A

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Roundabout 1 (for whole period)

	To			
	1	2	3	4

From	1	0.000	18.000	0.000	68.000
	2	21.000	0.000	0.000	476.000
	3	0.000	0.000	0.000	0.000
	4	71.000	709.000	0.000	0.000

Turning Proportions (PCU) - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.21	0.00	0.79
	2	0.04	0.00	0.00	0.96
	3	0.25	0.25	0.25	0.25
	4	0.09	0.91	0.00	0.00

Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Total Demand (PCU/hr)	Total Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Queueing Total Delay (PCU-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
1	0.12	0.09	0.14	A	78.92	118.37	9.36	0.08	0.10	9.36	0.08	0.540	1199.817
2	0.42	0.08	0.71	A	456.06	684.08	48.28	0.07	0.54	48.29	0.07	0.570	1353.283
3	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.622	1651.134
4	0.40	0.05	0.68	A	715.74	1073.61	46.37	0.04	0.52	46.37	0.04	0.721	2138.075

Main Results

Main results: (15:30-15:45)

Arm	Demand (PCU/hr)	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)
1	64.75	16.19	64.44	69.06	532.39	0.00	912.21	163.48	0.071	0.00	0.08
2	374.17	93.54	372.60	545.88	50.95	0.00	1324.24	1158.47	0.283	0.00	0.39
3	0.00	0.00	0.00	0.00	423.56	0.00	1387.72	850.26	0.000	0.00	0.00
4	587.22	146.81	585.70	407.81	15.74	0.00	2126.72	1642.80	0.276	0.00	0.38

Main results: (15:45-16:00)

Arm	Demand (PCU/hr)	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)
1	77.31	19.33	77.22	82.65	636.97	0.00	855.72	163.48	0.090	0.08	0.10
2	446.79	111.70	446.32	653.14	61.06	0.00	1318.49	1158.47	0.339	0.39	0.51
3	0.00	0.00	0.00	0.00	507.38	0.00	1335.58	850.27	0.000	0.00	0.00
4	701.20	175.30	700.76	488.52	18.86	0.00	2124.47	1642.80	0.330	0.38	0.49

Main results: (16:00-16:15)

Arm	Demand (PCU/hr)	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)
1	94.69	23.67	94.53	101.19	779.95	0.00	778.48	163.48	0.122	0.10	0.14
2	547.21	136.80	546.40	799.73	74.75	0.00	1310.68	1158.46	0.418	0.51	0.71
3	0.00	0.00	0.00	0.00	621.15	0.00	1264.83	850.27	0.000	0.00	0.00
4	858.80	214.70	858.05	598.06	23.09	0.00	2121.42	1642.80	0.405	0.49	0.68

Main results: (16:15-16:30)

Arm	Demand (PCU/hr)	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)
1	94.69	23.67	94.69	101.29	780.62	0.00	778.12	163.48	0.122	0.14	0.14
2	547.21	136.80	547.19	800.44	74.87	0.00	1310.62	1158.46	0.418	0.71	0.71
3	0.00	0.00	0.00	0.00	622.06	0.00	1264.26	850.27	0.000	0.00	0.00
4	858.80	214.70	858.79	598.94	23.12	0.00	2121.40	1642.80	0.405	0.68	0.68

Main results: (16:30-16:45)

Arm	Demand (PCU/hr)	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)
1	77.31	19.33	77.46	82.81	638.04	0.00	855.14	163.48	0.090	0.14	0.10
2	446.79	111.70	447.58	654.26	61.25	0.00	1318.38	1158.47	0.339	0.71	0.52
3	0.00	0.00	0.00	0.00	508.83	0.00	1334.68	850.27	0.000	0.00	0.00
4	701.20	175.30	701.94	489.92	18.91	0.00	2124.43	1642.80	0.330	0.68	0.49

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

Arm	Demand (PCU/hr)	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)
1	64.75	16.19	64.84	69.32	534.18	0.00	911.25	163.48	0.071	0.10	0.08
2	374.17	93.54	374.65	547.75	51.27	0.00	1324.07	1158.47	0.283	0.52	0.40
3	0.00	0.00	0.00	0.00	425.91	0.00	1386.25	850.26	0.000	0.00	0.00
4	587.22	146.81	587.67	410.08	15.83	0.00	2126.66	1642.80	0.276	0.49	0.38

Queueing Delay Results

Queueing Delay results: (15:30-15:45)

Arm	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
1	1.12	0.07	0.071	A	A
2	5.73	0.38	0.063	A	A
3	0.00	0.00	0.000	A	A
4	5.61	0.37	0.039	A	A

Queueing Delay results: (15:45-16:00)

Arm	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
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1	1.46	0.10	0.077	A	A
2	7.50	0.50	0.069	A	A
3	0.00	0.00	0.000	A	A
4	7.27	0.48	0.042	A	A

Queueing Delay results: (16:00-16:15)

Arm	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
1	2.02	0.13	0.088	A	A
2	10.41	0.69	0.078	A	A
3	0.00	0.00	0.000	A	A
4	9.99	0.67	0.047	A	A

Queueing Delay results: (16:15-16:30)

Arm	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
1	2.07	0.14	0.088	A	A
2	10.69	0.71	0.079	A	A
3	0.00	0.00	0.000	A	A
4	10.17	0.68	0.048	A	A

Queueing Delay results: (16:30-16:45)

Arm	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
1	1.53	0.10	0.077	A	A
2	7.90	0.53	0.069	A	A
3	0.00	0.00	0.000	A	A
4	7.53	0.50	0.042	A	A

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

Arm	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
1	1.17	0.08	0.071	A	A
2	6.05	0.40	0.063	A	A
3	0.00	0.00	0.000	A	A
4	5.81	0.39	0.039	A	A

A1 - (Default Analysis Set) - D4 - Future Base 2017, Sat

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
Future Base	Future							16:45	17:00	15	15	ONE

2017, Sat	Base 2017	Sat			Yes			12:15	13:45	90	15	HOUR
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Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	1,2,3,4	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
1	Wickes Access	
2	Bypass East	
3	Foodstore Access	
4	Burton Road West	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

Standard Geometry

Arm	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
1	3.50	4.50	3.00	19.00	40.00	31.00	
2	3.50	5.50	6.50	24.00	40.00	35.00	
3	3.25	7.25	19.00	19.00	40.00	39.00	
4	7.25	7.25	0.00	15.00	40.00	33.00	

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		((calculated))	((calculated))	0.540	1199.817
2		((calculated))	((calculated))	0.570	1353.283
3		((calculated))	((calculated))	0.622	1651.134
4		((calculated))	((calculated))	0.721	2138.075

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				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)	PHF
1	ONE HOUR	Yes	121.00	100.000	N/A
2	ONE HOUR	Yes	506.00	100.000	N/A
3	ONE HOUR	Yes	0.00	100.000	N/A
4	ONE HOUR	Yes	701.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	1	91.10	91.10	N/A	N/A
1	2	380.94	380.94	N/A	N/A
1	3	0.00	0.00	N/A	N/A
1	4	527.75	527.75	N/A	N/A
2	1	108.78	108.78	N/A	N/A
2	2	454.88	454.88	N/A	N/A
2	3	0.00	0.00	N/A	N/A
2	4	630.18	630.18	N/A	N/A
3	1	133.22	133.22	N/A	N/A
3	2	557.12	557.12	N/A	N/A
3	3	0.00	0.00	N/A	N/A
3	4	771.82	771.82	N/A	N/A
4	1	133.22	133.22	N/A	N/A
4	2	557.12	557.12	N/A	N/A
4	3	0.00	0.00	N/A	N/A
4	4	771.82	771.82	N/A	N/A
5	1	108.78	108.78	N/A	N/A
5	2	454.88	454.88	N/A	N/A
5	3	0.00	0.00	N/A	N/A
5	4	630.18	630.18	N/A	N/A
6	1	91.10	91.10	N/A	N/A
6	2	380.94	380.94	N/A	N/A
6	3	0.00	0.00	N/A	N/A
6	4	527.75	527.75	N/A	N/A

Turning Proportions

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	34.000	0.000	87.000
	2	32.000	0.000	0.000	474.000
	3	0.000	0.000	0.000	0.000
	4	97.000	604.000	0.000	0.000

Turning Proportions (PCU) - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.28	0.00	0.72
	2	0.06	0.00	0.00	0.94
	3	0.25	0.25	0.25	0.25
	4	0.14	0.86	0.00	0.00

Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Total Demand (PCU/hr)	Total Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Queueing Total Delay (PCU-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
1	0.16	0.08	0.19	A	111.03	166.55	12.82	0.08	0.14	12.82	0.08	0.540	1199.817
2	0.43	0.08	0.75	A	464.31	696.47	50.29	0.07	0.56	50.30	0.07	0.570	1353.283
3	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	166666666.65	0.622	1651.134
4	0.37	0.04	0.57	A	643.25	964.87	39.72	0.04	0.44	39.72	0.04	0.721	2138.075

Main Results

Main results: (12:15-12:30)

Arm	Demand	Arrivals	Entry Flow	Exit Flow	Circulating Flow	Pedestrian	Capacity	Saturation Capacity	RFC	Start Queue	End Queue
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	(PCU/hr)	(PCU)	(PCU/hr)	(PCU/hr)	(PCU/hr)	Demand (Ped/hr)	(PCU/hr)	(PCU/hr)		(PCU)	(PCU)
1	91.10	22.77	90.68	96.83	453.58	0.00	954.79	213.52	0.095	0.00	0.10
2	380.94	95.24	379.32	479.06	65.20	0.00	1316.13	1145.65	0.289	0.00	0.40
3	0.00	0.00	0.00	0.00	444.52	0.00	1374.68	843.15	0.000	0.00	0.00
4	527.75	131.94	526.43	420.53	23.99	0.00	2120.77	1629.70	0.249	0.00	0.33

Main results: (12:30-12:45)

Arm	Demand (PCU/hr)	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)
1	108.78	27.19	108.65	115.89	542.67	0.00	906.66	213.52	0.120	0.10	0.14
2	454.88	113.72	454.39	573.20	78.12	0.00	1308.76	1145.66	0.348	0.40	0.53
3	0.00	0.00	0.00	0.00	532.51	0.00	1319.95	843.15	0.000	0.00	0.00
4	630.18	157.55	629.82	503.77	28.74	0.00	2117.35	1629.70	0.298	0.33	0.42

Main results: (12:45-13:00)

Arm	Demand (PCU/hr)	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)
1	133.22	33.31	133.02	141.89	664.50	0.00	840.85	213.52	0.158	0.14	0.19
2	557.12	139.28	556.26	701.87	95.64	0.00	1298.78	1145.65	0.429	0.53	0.74
3	0.00	0.00	0.00	0.00	651.90	0.00	1245.71	843.15	0.000	0.00	0.00
4	771.82	192.95	771.21	616.72	35.18	0.00	2112.70	1629.70	0.365	0.42	0.57

Main results: (13:00-13:15)

Arm	Demand (PCU/hr)	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)
1	133.22	33.31	133.22	142.03	665.01	0.00	840.57	213.52	0.158	0.19	0.19
2	557.12	139.28	557.10	702.45	95.79	0.00	1298.69	1145.65	0.429	0.74	0.75
3	0.00	0.00	0.00	0.00	652.89	0.00	1245.09	843.15	0.000	0.00	0.00
4	771.82	192.95	771.81	617.66	35.23	0.00	2112.66	1629.70	0.365	0.57	0.57

Main results: (13:15-13:30)

Arm	Demand (PCU/hr)	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)
1	108.78	27.19	108.98	116.10	543.50	0.00	906.22	213.52	0.120	0.19	0.14
2	454.88	113.72	455.73	574.12	78.36	0.00	1308.63	1145.66	0.348	0.75	0.54
3	0.00	0.00	0.00	0.00	534.08	0.00	1318.98	843.15	0.000	0.00	0.00
4	630.18	157.55	630.78	505.26	28.82	0.00	2117.29	1629.70	0.298	0.57	0.43

Main results: (13:30-13:45)

Arm	Demand (PCU/hr)	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)
1	91.10	22.77	91.22	97.20	455.04	0.00	954.00	213.52	0.095	0.14	0.11
2	380.94	95.24	381.45	480.68	65.59	0.00	1315.90	1145.65	0.289	0.54	0.41
3	0.00	0.00	0.00	0.00	447.04	0.00	1373.11	843.15	0.000	0.00	0.00
4	527.75	131.94	528.12	422.91	24.12	0.00	2120.67	1629.70	0.249	0.43	0.33

Queueing Delay Results

Queueing Delay results: (12:15-12:30)

Arm	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
1	1.54	0.10	0.069	A	A
2	5.93	0.40	0.064	A	A

3	0.00	0.00	0.000	A	A
4	4.88	0.33	0.038	A	A

Queueing Delay results: (12:30-12:45)

Arm	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
1	2.00	0.13	0.075	A	A
2	7.79	0.52	0.070	A	A
3	0.00	0.00	0.000	A	A
4	6.26	0.42	0.040	A	A

Queueing Delay results: (12:45-13:00)

Arm	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
1	2.75	0.18	0.085	A	A
2	10.90	0.73	0.081	A	A
3	0.00	0.00	0.000	A	A
4	8.47	0.56	0.045	A	A

Queueing Delay results: (13:00-13:15)

Arm	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
1	2.81	0.19	0.085	A	A
2	11.20	0.75	0.081	A	A
3	0.00	0.00	0.000	A	A
4	8.61	0.57	0.045	A	A

Queueing Delay results: (13:15-13:30)

Arm	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
1	2.10	0.14	0.075	A	A
2	8.22	0.55	0.070	A	A
3	0.00	0.00	0.000	A	A
4	6.47	0.43	0.040	A	A

Queueing Delay results: (13:30-13:45)

Arm	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
1	1.62	0.11	0.070	A	A
2	6.26	0.42	0.064	A	A
3	0.00	0.00	0.000	A	A
4	5.04	0.34	0.038	A	A

A1 - (Default Analysis Set) - D5 - Future Base+Dev 2017, Fri

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default				(D1)		100.000	100.000	

Analysis Set)		YES		(D1)		100.000	100.000	
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Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
Future Base+Dev 2017, Fri	Future Base+Dev 2017	Fri			Yes			15:30	17:00	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	1,2,3,4	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
1	Wickes Access	
2	Bypass East	
3	Foodstore Access	
4	Burton Road West	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

Standard Geometry

Arm	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
1	3.50	4.50	3.00	19.00	40.00	31.00	
2	3.50	5.50	6.50	24.00	40.00	35.00	
3	3.25	7.25	19.00	19.00	40.00	39.00	
4	7.25	7.25	0.00	15.00	40.00	33.00	

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		((calculated))	((calculated))	0.540	1199.817
2		((calculated))	((calculated))	0.570	1353.283
3		((calculated))	((calculated))	0.622	1651.134
4		((calculated))	((calculated))	0.721	2138.075

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				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)	PHF
1	ONE HOUR	Yes	86.00	100.000	N/A
2	ONE HOUR	Yes	682.00	100.000	N/A
3	ONE HOUR	Yes	861.00	100.000	N/A
4	ONE HOUR	Yes	1347.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	1	64.75	64.75	N/A	N/A
1	2	513.45	513.45	N/A	N/A
1	3	648.21	648.21	N/A	N/A
1	4	1014.09	1014.09	N/A	N/A
2	1	77.31	77.31	N/A	N/A
2	2	613.10	613.10	N/A	N/A
2	3	774.02	774.02	N/A	N/A
2	4	1210.93	1210.93	N/A	N/A
3	1	94.69	94.69	N/A	N/A
3	2	750.90	750.90	N/A	N/A
3	3	947.98	947.98	N/A	N/A
3	4	1483.07	1483.07	N/A	N/A
4	1	94.69	94.69	N/A	N/A
4	2	750.90	750.90	N/A	N/A
4	3	947.98	947.98	N/A	N/A
4	4	1483.07	1483.07	N/A	N/A
5	1	77.31	77.31	N/A	N/A
5	2	613.10	613.10	N/A	N/A
5	3	774.02	774.02	N/A	N/A

5	4	1210.93	1210.93	N/A	N/A
6	1	64.75	64.75	N/A	N/A
6	2	513.45	513.45	N/A	N/A
6	3	648.21	648.21	N/A	N/A
6	4	1014.09	1014.09	N/A	N/A

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	16.000	6.000	64.000
	2	19.000	0.000	262.000	401.000
	3	6.000	232.000	0.000	623.000
	4	67.000	671.000	609.000	0.000

Turning Proportions (PCU) - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.19	0.07	0.74
	2	0.03	0.00	0.38	0.59
	3	0.01	0.27	0.00	0.72
	4	0.05	0.50	0.45	0.00

Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Total Demand (PCU/hr)	Total Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Queueing Total Delay (PCU-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
1	0.31	0.29	0.45	C	78.92	118.37	22.68	0.19	0.25	22.68	0.19	0.540	1199.817
2	0.81	0.33	4.02	C	625.82	938.72	185.24	0.20	2.06	185.27	0.20	0.570	1353.283
3	0.72	0.16	2.50	A	790.07	1185.10	134.89	0.11	1.50	134.91	0.11	0.622	1651.134

4	0.77	0.13	3.23	A	1236.03	1854.05	171.32	0.09	1.90	171.33	0.09	0.721	2138.075
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Main Results

Main results: (15:30-15:45)

Arm	Demand (PCU/hr)	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)
1	64.75	16.19	64.25	68.93	1133.54	0.00	587.47	54.79	0.110	0.00	0.12
2	513.45	128.36	509.76	688.86	508.94	0.00	1063.24	848.19	0.483	0.00	0.92
3	648.21	162.05	644.90	656.96	361.75	0.00	1426.16	1300.92	0.455	0.00	0.83
4	1014.09	253.52	1010.01	814.18	192.47	0.00	1999.25	1861.65	0.507	0.00	1.02

Main results: (15:45-16:00)

Arm	Demand (PCU/hr)	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)
1	77.31	19.33	77.02	82.52	1356.70	0.00	466.91	54.79	0.166	0.12	0.20
2	613.10	153.28	610.70	824.55	609.17	0.00	1006.11	848.19	0.609	0.92	1.52
3	774.02	193.51	772.30	786.47	433.41	0.00	1381.59	1300.92	0.560	0.83	1.26
4	1210.93	302.73	1208.73	975.21	230.50	0.00	1971.82	1861.65	0.614	1.02	1.57

Main results: (16:00-16:15)

Arm	Demand (PCU/hr)	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)
1	94.69	23.67	93.71	100.69	1657.40	0.00	304.47	54.79	0.311	0.20	0.44
2	750.90	187.72	741.74	1007.20	743.91	0.00	929.33	848.19	0.808	1.52	3.81
3	947.98	236.99	943.26	959.12	526.53	0.00	1323.67	1300.92	0.716	1.26	2.44
4	1483.07	370.77	1476.69	1188.39	281.40	0.00	1935.10	1861.65	0.766	1.57	3.17

Main results: (16:15-16:30)

Arm	Demand (PCU/hr)	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)
1	94.69	23.67	94.64	101.26	1664.45	0.00	300.67	54.79	0.315	0.44	0.45
2	750.90	187.72	750.06	1011.64	747.44	0.00	927.31	848.19	0.810	3.81	4.02
3	947.98	236.99	947.74	965.16	532.34	0.00	1320.06	1300.92	0.718	2.44	2.50
4	1483.07	370.77	1482.83	1197.21	282.87	0.00	1934.04	1861.65	0.767	3.17	3.23

Main results: (16:30-16:45)

Arm	Demand (PCU/hr)	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)
1	77.31	19.33	78.30	83.33	1366.66	0.00	461.53	54.79	0.168	0.45	0.20
2	613.10	153.28	622.73	830.84	614.13	0.00	1003.29	848.19	0.611	4.02	1.61
3	774.02	193.51	778.79	795.09	441.78	0.00	1376.38	1300.92	0.562	2.50	1.30
4	1210.93	302.73	1217.37	987.94	232.62	0.00	1970.29	1861.65	0.615	3.23	1.62

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

Arm	Demand (PCU/hr)	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)
1	64.75	16.19	65.06	69.46	1141.00	0.00	583.44	54.79	0.111	0.20	0.13
2	513.45	128.36	516.09	693.57	512.48	0.00	1061.22	848.19	0.484	1.61	0.95
3	648.21	162.05	650.05	662.33	366.24	0.00	1423.36	1300.92	0.455	1.30	0.84
4	1014.09	253.52	1016.40	822.22	194.07	0.00	1998.10	1861.65	0.508	1.62	1.04

Queueing Delay Results

Queueing Delay results: (15:30-15:45)

Arm	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
1	1.78	0.12	0.115	A	A
2	13.21	0.88	0.108	A	A
3	11.97	0.80	0.076	A	A
4	14.86	0.99	0.060	A	A

Queueing Delay results: (15:45-16:00)

Arm	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
1	2.85	0.19	0.154	A	A
2	21.71	1.45	0.151	A	A
3	18.20	1.21	0.098	A	A
4	22.81	1.52	0.078	A	A

Queueing Delay results: (16:00-16:15)

Arm	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
1	6.20	0.41	0.283	C	B
2	50.24	3.35	0.306	C	B
3	34.17	2.28	0.156	A	A
4	44.36	2.96	0.129	A	A

Queueing Delay results: (16:15-16:30)

Arm	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
1	6.71	0.45	0.291	C	B
2	59.05	3.94	0.335	C	C
3	37.10	2.47	0.161	A	A
4	48.05	3.20	0.133	A	A

Queueing Delay results: (16:30-16:45)

Arm	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
1	3.19	0.21	0.157	A	A
2	26.21	1.75	0.161	A	A
3	20.42	1.36	0.101	A	A
4	25.24	1.68	0.080	A	A

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

Arm	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
1	1.94	0.13	0.116	A	A
2	14.82	0.99	0.111	A	A
3	13.02	0.87	0.078	A	A
4	15.99	1.07	0.061	A	A

**A1 - (Default Analysis Set) - D6 - Future Base+Dev
2017, Sat**

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
Future Base+Dev 2017, Sat	Future Base+Dev 2017	Sat			Yes			12:15	13:45	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	1,2,3,4	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
1	Wickes Access	
2	Bypass East	
3	Foodstore Access	
4	Burton Road West	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00

Standard Geometry

Arm	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
1	3.50	4.50	3.00	19.00	40.00	31.00	
2	3.50	5.50	6.50	24.00	40.00	35.00	
3	3.25	7.25	19.00	19.00	40.00	39.00	
4	7.25	7.25	0.00	15.00	40.00	33.00	

Pedestrian Crossings

Arm Crossing Type

Arm	Crossing type
1	None
2	None
3	None
4	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		((calculated))	((calculated))	0.540	1199.817
2		((calculated))	((calculated))	0.570	1353.283
3		((calculated))	((calculated))	0.622	1651.134
4		((calculated))	((calculated))	0.721	2138.075

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				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)	PHF
1	ONE HOUR	Yes	120.00	100.000	N/A
2	ONE HOUR	Yes	669.00	100.000	N/A
3	ONE HOUR	Yes	794.00	100.000	N/A
4	ONE HOUR	Yes	1221.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	1	90.34	90.34	N/A	N/A
1	2	503.66	503.66	N/A	N/A
1	3	597.76	597.76	N/A	N/A
1	4	919.23	919.23	N/A	N/A
2	1	107.88	107.88	N/A	N/A
2	2	601.42	601.42	N/A	N/A
2	3	713.79	713.79	N/A	N/A
2	4	1097.65	1097.65	N/A	N/A
3	1	132.12	132.12	N/A	N/A
3	2	736.58	736.58	N/A	N/A
3	3	874.21	874.21	N/A	N/A
3	4	1344.35	1344.35	N/A	N/A
4	1	132.12	132.12	N/A	N/A

4	2	736.58	736.58	N/A	N/A
4	3	874.21	874.21	N/A	N/A
4	4	1344.35	1344.35	N/A	N/A
5	1	107.88	107.88	N/A	N/A
5	2	601.42	601.42	N/A	N/A
5	3	713.79	713.79	N/A	N/A
5	4	1097.65	1097.65	N/A	N/A
6	1	90.34	90.34	N/A	N/A
6	2	503.66	503.66	N/A	N/A
6	3	597.76	597.76	N/A	N/A
6	4	919.23	919.23	N/A	N/A

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	31.000	10.000	79.000
	2	28.000	0.000	246.000	395.000
	3	10.000	216.000	0.000	568.000
	4	90.000	560.000	571.000	0.000

Turning Proportions (PCU) - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.26	0.08	0.66
	2	0.04	0.00	0.37	0.59
	3	0.01	0.27	0.00	0.72
	4	0.07	0.46	0.47	0.00

Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Total Demand (PCU/hr)	Total Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Queueing Total Delay (PCU-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
1	0.33	0.22	0.49	B	110.11	165.17	26.41	0.16	0.29	26.41	0.16	0.540	1199.817
2	0.78	0.29	3.48	C	613.89	920.83	166.96	0.18	1.86	166.98	0.18	0.570	1353.283
3	0.67	0.14	1.99	A	728.59	1092.88	112.00	0.10	1.24	112.01	0.10	0.622	1651.134
4	0.69	0.10	2.25	A	1120.41	1680.62	128.51	0.08	1.43	128.52	0.08	0.721	2138.075

Main Results

Main results: (12:15-12:30)

Arm	Demand (PCU/hr)	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)
1	90.34	22.59	89.71	95.93	1010.18	0.00	654.11	85.27	0.138	0.00	0.16
2	503.66	125.91	500.16	605.05	494.83	0.00	1071.28	824.74	0.470	0.00	0.88
3	597.76	149.44	594.87	619.69	375.30	0.00	1417.73	1291.91	0.422	0.00	0.72
4	919.23	229.81	915.86	779.92	190.25	0.00	2000.85	1847.94	0.459	0.00	0.84

Main results: (12:30-12:45)

Arm	Demand (PCU/hr)	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)
1	107.88	26.97	107.54	114.84	1209.08	0.00	546.66	85.27	0.197	0.16	0.24
2	601.42	150.35	599.24	724.28	592.34	0.00	1015.71	824.74	0.592	0.88	1.42
3	713.79	178.45	712.39	741.89	449.69	0.00	1371.46	1291.91	0.520	0.72	1.07
4	1097.65	274.41	1096.07	934.23	227.85	0.00	1973.73	1847.94	0.556	0.84	1.24

Main results: (12:45-13:00)

Arm	Demand (PCU/hr)	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)
1	132.12	33.03	131.17	140.28	1478.49	0.00	401.12	85.27	0.329	0.24	0.48
2	736.58	184.15	728.92	885.53	724.14	0.00	940.60	824.74	0.783	1.42	3.34
3	874.21	218.55	870.70	905.81	547.24	0.00	1310.79	1291.91	0.667	1.07	1.95
4	1344.35	336.09	1340.43	1139.60	278.34	0.00	1937.31	1847.94	0.694	1.24	2.22

Main results: (13:00-13:15)

Arm	Demand (PCU/hr)	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)
1	132.12	33.03	132.09	140.90	1482.94	0.00	398.72	85.27	0.331	0.48	0.49
2	736.58	184.15	736.01	888.43	726.60	0.00	939.19	824.74	0.784	3.34	3.48
3	874.21	218.55	874.07	910.28	552.33	0.00	1307.63	1291.91	0.669	1.95	1.99
4	1344.35	336.09	1344.24	1146.80	279.59	0.00	1936.41	1847.94	0.694	2.22	2.25

Main results: (13:15-13:30)

Arm	Demand (PCU/hr)	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)
1	107.88	26.97	108.83	115.73	1215.51	0.00	543.19	85.27	0.199	0.49	0.25
2	601.42	150.35	609.36	728.47	595.86	0.00	1013.70	824.74	0.593	3.48	1.49
3	713.79	178.45	717.31	748.28	456.94	0.00	1366.96	1291.91	0.522	1.99	1.11
4	1097.65	274.41	1101.57	944.57	229.68	0.00	1972.41	1847.94	0.557	2.25	1.27

Main results: (13:30-13:45)

Arm	Demand (PCU/hr)	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)
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Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Capacity (PCU/hr)	RFC	Queue (PCU)	Queue (PCU)
1	90.34	22.59	90.69	96.60	1016.02	0.00	650.96	85.27	0.139	0.25	0.16
2	503.66	125.91	506.02	608.80	497.91	0.00	1069.52	824.74	0.471	1.49	0.90
3	597.76	149.44	599.24	624.28	379.66	0.00	1415.02	1291.91	0.422	1.11	0.74
4	919.23	229.81	920.88	787.16	191.74	0.00	1999.77	1847.94	0.460	1.27	0.86

Queueing Delay Results

Queueing Delay results: (12:15-12:30)

Arm	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
1	2.31	0.15	0.106	A	A
2	12.58	0.84	0.104	A	A
3	10.51	0.70	0.073	A	A
4	12.33	0.82	0.055	A	A

Queueing Delay results: (12:30-12:45)

Arm	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
1	3.54	0.24	0.137	A	A
2	20.31	1.35	0.143	A	A
3	15.60	1.04	0.091	A	A
4	18.12	1.21	0.068	A	A

Queueing Delay results: (12:45-13:00)

Arm	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
1	6.86	0.46	0.222	B	B
2	44.69	2.98	0.274	C	B
3	27.71	1.85	0.135	A	A
4	31.75	2.12	0.100	A	A

Queueing Delay results: (13:00-13:15)

Arm	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
1	7.29	0.49	0.225	B	B
2	51.33	3.42	0.293	C	B
3	29.60	1.97	0.138	A	A
4	33.53	2.24	0.101	A	A

Queueing Delay results: (13:15-13:30)

Arm	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
1	3.90	0.26	0.138	A	A
2	24.00	1.60	0.151	A	A
3	17.23	1.15	0.093	A	A
4	19.63	1.31	0.069	A	A

Queueing Delay results: (13:30-13:45)

Arm	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
1	2.50	0.17	0.107	A	A
2	14.04	0.94	0.107	A	A
3	11.35	0.76	0.074	A	A
4	13.13	0.88	0.056	A	A

