

<b>ARCADY 7</b>
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**File:** P:\Projects\7000-0710-64 Barton Farm, Winchester\ARCADY\October 2009\Three Maids Hill Roundabout\2023 PM Base.arc7

**Report generation date:** 15/10/2009 18:28:32

## « A1 - (Default Analysis Set) - D1 - 2024 PMB, AM

- » Roundabout Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Direct/Resultant Flows
- » Turning Proportions
- » Vehicle Mix
- » Results
- » Overview: Standard Roundabout Geometry
- » Overview: Time Segment Results

## File summary

### File Description

<b>Title</b>	Existing Andover Road North/A272/Down Farm Lane Junction PM Peak Hr Assessments
<b>Location</b>	Winchester
<b>Site Number</b>	
<b>Date</b>	21/05/2009
<b>Version</b>	
<b>Status</b>	TIA
<b>Identifier</b>	
<b>Client</b>	Cala Homes (South) Limited
<b>Jobnumber</b>	0710-64
<b>Enumerator</b>	Mike.fuller
<b>Description</b>	
<b>Results Upto Date</b>	False

## Analysis Options

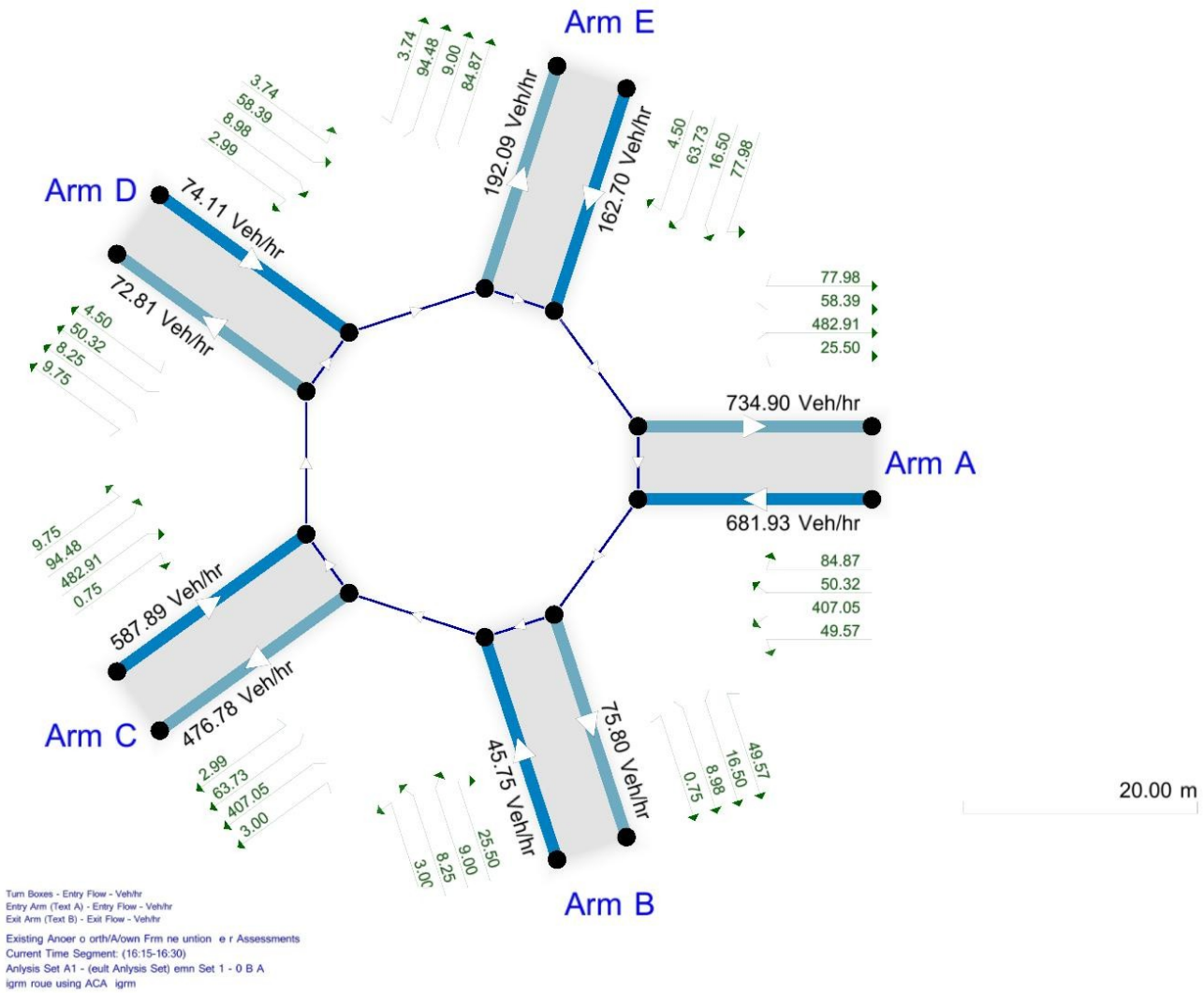
RFC Threshold	Vehicle Length (m)	Do Queue Variations
0.85	5.75	

## 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	Veh	Veh	perHour	min	-Min	perMin



The junction diagram reflects the last run of ARCADY.

## A1 - (Default Analysis Set) - D1 - 2024 PMB, AM

### 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

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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
2024 PMB, AM	2024 PMB	AM			Yes			16:15	17:45	90	15	Varies by Arm

## Roundabout Network

### Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	A,B,C,D,E	Standard			

### Roundabout Network Options

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

## Arms

### Arms

ID	Name	Description
A	A34	
B	Down Farm Lane	
C	B3420	
D	Country Lane	
E	A272 North West	

### Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00
D	0.00	99999.00		0.00
E	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
A	7.50	9.00	10.00	25.00	87.00	32.00	
B	3.00	7.50	7.50	20.00	84.00	16.50	
C	3.50	6.00	30.00	35.00	86.50	17.00	
D	2.00	6.50	10.00	12.50	86.00	37.00	
E	3.25	5.00	20.00	25.00	87.00	17.00	

### Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None
D	None
E	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)
A		((calculated))	((calculated))	0.587	2586.921
B		((calculated))	((calculated))	0.437	1440.409
C		((calculated))	((calculated))	0.484	1768.100
D		((calculated))	((calculated))	0.364	1102.343
E		((calculated))	((calculated))	0.440	1475.799

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
		Yes	Yes	HV Percentages	2.00				Yes	Yes

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/hr)	Flow Scaling Factor (%)	PHF
A	ONE HOUR	Yes	908.00	100.000	N/A
B	ONE HOUR	Yes	61.00	100.000	N/A
C	ONE HOUR	Yes	784.00	100.000	N/A
D	ONE HOUR	Yes	99.00	100.000	N/A
E	ONE HOUR	Yes	217.00	100.000	N/A

## Direct/Resultant Flows

### Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (Veh/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (Veh/hr)	Direct Demand Pedestrian Flow (Ped/hr)
16:15-16:30	A	683.59	745.56	N/A	N/A
16:15-16:30	B	45.92	45.92	N/A	N/A
16:15-16:30	C	590.24	606.30	N/A	N/A
16:15-16:30	D	74.53	76.96	N/A	N/A
16:15-16:30	E	163.37	167.91	N/A	N/A
16:30-16:45	A	816.27	890.27	N/A	N/A
16:30-16:45	B	54.84	54.84	N/A	N/A
16:30-16:45	C	704.80	723.98	N/A	N/A
16:30-16:45	D	89.00	91.89	N/A	N/A
16:30-16:45	E	195.08	200.50	N/A	N/A
16:45-17:00	A	999.73	1090.35	N/A	N/A
16:45-17:00	B	67.16	67.16	N/A	N/A
16:45-17:00	C	863.20	886.69	N/A	N/A
16:45-17:00	D	109.00	112.55	N/A	N/A
16:45-17:00	E	238.92	245.56	N/A	N/A
17:00-17:15	A	999.73	1090.35	N/A	N/A

17:00-17:15	B	67.16	67.16	N/A	N/A
17:00-17:15	C	863.20	886.69	N/A	N/A
17:00-17:15	D	109.00	112.55	N/A	N/A
17:00-17:15	E	238.92	245.56	N/A	N/A
17:15-17:30	A	816.27	890.27	N/A	N/A
17:15-17:30	B	54.84	54.84	N/A	N/A
17:15-17:30	C	704.80	723.98	N/A	N/A
17:15-17:30	D	89.00	91.89	N/A	N/A
17:15-17:30	E	195.08	200.50	N/A	N/A
17:30-17:45	A	683.59	745.56	N/A	N/A
17:30-17:45	B	45.92	45.92	N/A	N/A
17:30-17:45	C	590.24	606.30	N/A	N/A
17:30-17:45	D	74.53	76.96	N/A	N/A
17:30-17:45	E	163.37	167.91	N/A	N/A

## Turning Proportions

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

		To				
		A	B	C	D	E
From	A	120.00	66.00	542.00	67.00	113.00
	B	34.00	0.00	4.00	11.00	12.00
	C	644.00	1.00	0.00	13.00	126.00
	D	78.00	12.00	4.00	0.00	5.00
	E	104.00	22.00	85.00	6.00	0.00

### Turning Proportions (Veh) - Roundabout 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.13	0.07	0.60	0.07	0.12
	B	0.56	0.00	0.07	0.18	0.20
	C	0.82	0.00	0.00	0.02	0.16
	D	0.79	0.12	0.04	0.00	0.05
	E	0.48	0.10	0.39	0.03	0.00

## Vehicle Mix

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

		To				
		A	B	C	D	E
From	A	1.07	1.06	1.12	1.02	1.02
	B	1.00	1.00	1.00	1.00	1.00
	C	1.03	1.00	1.00	1.00	1.02
	D	1.03	1.00	1.05	1.00	1.20
	E	1.06	1.00	1.00	1.00	1.00

### Heavy Vehicle Percentages - Roundabout 1 (for whole period)

		To				
		A	B	C	D	E
From	A	6.70	6.10	12.40	1.50	1.80

From	B	0.00	0.00	0.00	0.00	0.00
	C	3.00	0.00	0.00	0.00	1.60
	D	2.60	0.00	4.80	0.00	20.00
	E	5.80	0.00	0.00	0.00	0.00

## Results

### Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (Veh)	Max LOS	Total Demand (Veh/hr)	Total Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Queueing Total Delay (Veh-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
A	0.44	0.05	0.77	A	833.20	1249.80	51.80	0.04	0.58	51.80	0.04	0.587	2586.921
B	0.07	0.07	0.08	A	55.97	83.96	5.22	0.06	0.06	5.22	0.06	0.437	1440.409
C	0.57	0.09	1.29	A	719.42	1079.12	80.34	0.07	0.89	80.35	0.07	0.484	1768.100
D	0.17	0.11	0.20	A	90.84	136.27	13.30	0.10	0.15	13.30	0.10	0.364	1102.343
E	0.24	0.08	0.31	A	199.12	298.68	20.87	0.07	0.23	20.87	0.07	0.440	1475.799

## Overview: Standard Roundabout Geometry

### 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	Final Slope	Final Intercept (PCU/hr)
A	7.50	9.00	10.00	25.00	87.00	32.00		0.587	2586.921
B	3.00	7.50	7.50	20.00	84.00	16.50		0.437	1440.409
C	3.50	6.00	30.00	35.00	86.50	17.00		0.484	1768.100
D	2.00	6.50	10.00	12.50	86.00	37.00		0.364	1102.343
E	3.25	5.00	20.00	25.00	87.00	17.00		0.440	1475.799

## Overview: Time Segment Results

### Time Segment Results

Time Segment	Arm	Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (Veh)	End Queue (Veh)	Queueing Total Delay (Veh-min)	Geometric Total Delay (Veh-min)	Average Delay Per Arriving Vehicle (min)
16:15-16:30	A	683.59	2319.37	0.295	0.00	0.00	0.42	6.15	(0.00)	0.037
16:15-16:30	B	45.92	1107.23	0.041	0.00	0.00	0.04	0.63	(0.00)	0.057
16:15-16:30	C	590.24	1588.80	0.372	0.00	0.00	0.59	8.59	(0.00)	0.060
16:15-16:30	D	74.53	781.89	0.095	0.00	0.00	0.10	1.53	(0.00)	0.085
16:15-16:30	E	163.37	1140.04	0.143	0.00	0.00	0.17	2.45	(0.00)	0.061
16:30-16:45	A	816.28	2308.98	0.354	0.00	0.42	0.54	8.06	(0.00)	0.040
16:30-16:45	B	54.84	1041.80	0.053	0.00	0.04	0.06	0.82	(0.00)	0.061
16:30-16:45	C	704.80	1562.78	0.451	0.00	0.59	0.81	11.95	(0.00)	0.070
16:30-16:45	D	89.00	725.57	0.123	0.00	0.10	0.14	2.04	(0.00)	0.094
16:30-16:45	E	195.08	1081.65	0.180	0.00	0.17	0.22	3.23	(0.00)	0.068
16:45-17:00	A	999.73	2294.87	0.436	0.00	0.54	0.77	11.33	(0.00)	0.046
16:45-17:00	B	67.16	952.35	0.071	0.00	0.06	0.08	1.12	(0.00)	0.068
16:45-17:00	C	863.20	1527.21	0.565	0.00	0.81	1.28	18.61	(0.00)	0.090
16:45-17:00	D	109.00	649.00	0.168	0.00	0.14	0.20	2.93	(0.00)	0.111
16:45-17:00	E	238.92	1002.37	0.238	0.00	0.22	0.31	4.57	(0.00)	0.079
17:00-17:15	A	999.73	2294.75	0.436	0.00	0.77	0.77	11.54	(0.00)	0.046
17:00-17:15	B	67.16	951.89	0.071	0.00	0.08	0.08	1.13	(0.00)	0.068
17:00-17:15	C	863.20	1527.03	0.565	0.00	1.28	1.29	19.32	(0.00)	0.090

17:00-17:15	D	109.00	648.24	0.168	0.00	0.20	0.20	3.01	(0.00)	0.111
17:00-17:15	E	238.92	1001.53	0.239	0.00	0.31	0.31	4.67	(0.00)	0.079
17:15-17:30	A	816.28	2308.78	0.354	0.00	0.77	0.55	8.36	(0.00)	0.040
17:15-17:30	B	54.84	1041.07	0.053	0.00	0.08	0.06	0.85	(0.00)	0.061
17:15-17:30	C	704.80	1562.49	0.451	0.00	1.29	0.83	12.76	(0.00)	0.070
17:15-17:30	D	89.00	724.42	0.123	0.00	0.20	0.14	2.16	(0.00)	0.095
17:15-17:30	E	195.08	1080.38	0.181	0.00	0.31	0.22	3.38	(0.00)	0.068
17:30-17:45	A	683.59	2319.07	0.295	0.00	0.55	0.42	6.37	(0.00)	0.037
17:30-17:45	B	45.92	1106.09	0.042	0.00	0.06	0.04	0.66	(0.00)	0.057
17:30-17:45	C	590.24	1588.34	0.372	0.00	0.83	0.60	9.10	(0.00)	0.060
17:30-17:45	D	74.53	780.45	0.096	0.00	0.14	0.11	1.62	(0.00)	0.085
17:30-17:45	E	163.37	1138.43	0.144	0.00	0.22	0.17	2.56	(0.00)	0.062