

<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 AM Base.arc7

Report generation date: 15/10/2009 18:23:44

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

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## File summary

### File Description

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

## Analysis Options

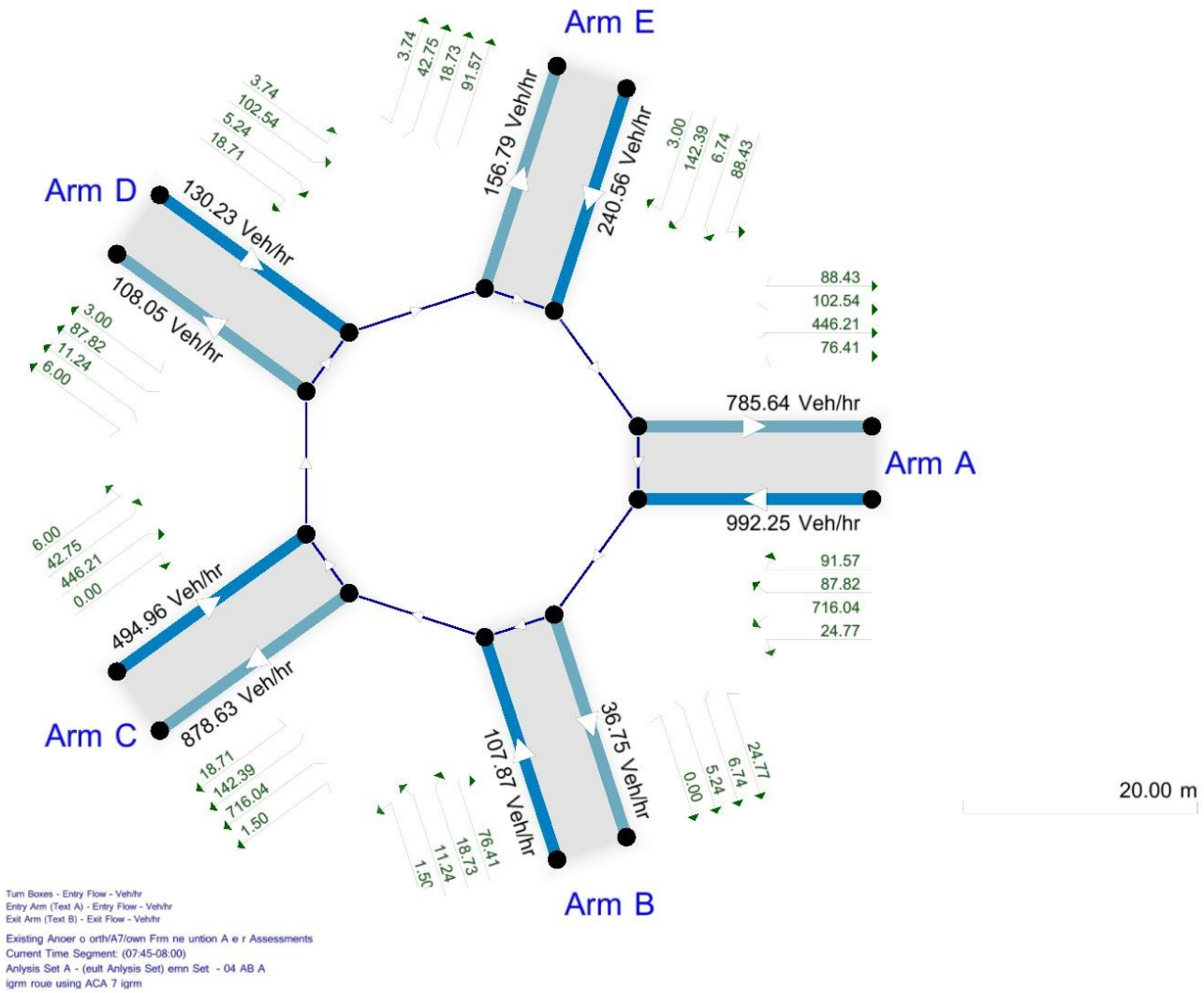
RFC Threshold	Vehicle Length (m)	Do Queue Variations
0.85	5.75	

## 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 AMB, 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 AMB, AM	2024 AMB	AM			Yes			07:45	09:15	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	1322.00	100.000	N/A
B	ONE HOUR	Yes	144.00	100.000	N/A
C	ONE HOUR	Yes	660.00	100.000	N/A
D	ONE HOUR	Yes	174.00	100.000	N/A
E	ONE HOUR	Yes	321.00	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)
07:45-08:00	A	995.27	1071.29	N/A	N/A
07:45-08:00	B	108.41	108.41	N/A	N/A
07:45-08:00	C	496.88	517.20	N/A	N/A
07:45-08:00	D	131.00	132.47	N/A	N/A
07:45-08:00	E	241.67	249.92	N/A	N/A
08:00-08:15	A	1188.45	1279.23	N/A	N/A
08:00-08:15	B	129.45	129.45	N/A	N/A
08:00-08:15	C	593.33	617.59	N/A	N/A
08:00-08:15	D	156.42	158.18	N/A	N/A
08:00-08:15	E	288.57	298.42	N/A	N/A
08:15-08:30	A	1455.55	1566.73	N/A	N/A
08:15-08:30	B	158.55	158.55	N/A	N/A
08:15-08:30	C	726.67	756.38	N/A	N/A
08:15-08:30	D	191.58	193.73	N/A	N/A
08:15-08:30	E	353.43	365.49	N/A	N/A
08:30-08:45	A	1455.55	1566.73	N/A	N/A

08:30-08:45	B	158.55	158.55	N/A	N/A
08:30-08:45	C	726.67	756.38	N/A	N/A
08:30-08:45	D	191.58	193.73	N/A	N/A
08:30-08:45	E	353.43	365.49	N/A	N/A
08:45-09:00	A	1188.45	1279.23	N/A	N/A
08:45-09:00	B	129.45	129.45	N/A	N/A
08:45-09:00	C	593.33	617.59	N/A	N/A
08:45-09:00	D	156.42	158.18	N/A	N/A
08:45-09:00	E	288.57	298.42	N/A	N/A
09:00-09:15	A	995.27	1071.29	N/A	N/A
09:00-09:15	B	108.41	108.41	N/A	N/A
09:00-09:15	C	496.88	517.20	N/A	N/A
09:00-09:15	D	131.00	132.47	N/A	N/A
09:00-09:15	E	241.67	249.92	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	96.00	33.00	954.00	117.00	122.00
	B	102.00	0.00	2.00	15.00	25.00
	C	595.00	0.00	0.00	8.00	57.00
	D	137.00	7.00	25.00	0.00	5.00
	E	118.00	9.00	190.00	4.00	0.00

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

		To				
		A	B	C	D	E
From	A	0.07	0.02	0.72	0.09	0.09
	B	0.71	0.00	0.01	0.10	0.17
	C	0.90	0.00	0.00	0.01	0.09
	D	0.79	0.04	0.14	0.00	0.03
	E	0.37	0.03	0.59	0.01	0.00

## Vehicle Mix

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

		To				
		A	B	C	D	E
From	A	1.09	1.03	1.09	1.02	1.05
	B	1.00	1.00	1.00	1.00	1.00
	C	1.04	1.00	1.00	1.00	1.04
	D	1.01	1.00	1.04	1.00	1.00
	E	1.05	1.00	1.03	1.00	1.00

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

		To				
		A	B	C	D	E
From	A	9.40	3.00	8.70	1.70	4.90

From	B	0.00	0.00	0.00	0.00	0.00
	C	4.20	0.00	0.00	0.00	3.50
	D	0.70	0.00	4.00	0.00	0.00
	E	5.10	0.00	2.60	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	0.64	0.07	1.80	A	1213.09	1819.64	108.18	0.06	1.20	108.19	0.06	0.587	2586.921
B	0.24	0.12	0.31	A	132.14	198.21	18.98	0.10	0.21	18.98	0.10	0.437	1440.409
C	0.50	0.08	1.01	A	605.63	908.44	64.06	0.07	0.71	64.06	0.07	0.484	1768.100
D	0.28	0.12	0.39	A	159.67	239.50	25.16	0.11	0.28	25.16	0.11	0.364	1102.343
E	0.37	0.10	0.58	A	294.55	441.83	36.88	0.08	0.41	36.88	0.08	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)
07:45-08:00	A	995.27	2304.88	0.432	0.00	0.00	0.76	11.09	(0.00)	0.046
07:45-08:00	B	108.41	911.24	0.119	0.00	0.00	0.13	1.97	(0.00)	0.075
07:45-08:00	C	496.88	1524.79	0.326	0.00	0.00	0.48	7.04	(0.00)	0.058
07:45-08:00	D	131.00	809.83	0.162	0.00	0.00	0.19	2.80	(0.00)	0.088
07:45-08:00	E	241.66	1109.12	0.218	0.00	0.00	0.28	4.05	(0.00)	0.069
08:00-08:15	A	1188.45	2285.38	0.520	0.00	0.76	1.08	15.80	(0.00)	0.055
08:00-08:15	B	129.45	807.17	0.160	0.00	0.13	0.19	2.79	(0.00)	0.088
08:00-08:15	C	593.32	1490.55	0.398	0.00	0.48	0.66	9.65	(0.00)	0.067
08:00-08:15	D	156.42	754.57	0.207	0.00	0.19	0.26	3.81	(0.00)	0.100
08:00-08:15	E	288.57	1046.29	0.276	0.00	0.28	0.38	5.56	(0.00)	0.079
08:15-08:30	A	1455.55	2258.99	0.644	0.00	1.08	1.79	25.90	(0.00)	0.074
08:15-08:30	B	158.55	665.53	0.238	0.00	0.19	0.31	4.51	(0.00)	0.118
08:15-08:30	C	726.67	1444.04	0.503	0.00	0.66	1.00	14.61	(0.00)	0.083
08:15-08:30	D	191.58	679.50	0.282	0.00	0.26	0.39	5.66	(0.00)	0.123
08:15-08:30	E	353.43	961.10	0.368	0.00	0.38	0.58	8.40	(0.00)	0.098
08:30-08:45	A	1455.55	2258.66	0.644	0.00	1.79	1.80	26.92	(0.00)	0.075
08:30-08:45	B	158.55	664.01	0.239	0.00	0.31	0.31	4.67	(0.00)	0.119
08:30-08:45	C	726.67	1443.48	0.503	0.00	1.00	1.01	15.08	(0.00)	0.084

08:30-08:45	D	191.58	678.67	0.282	0.00	0.39	0.39	5.85	(0.00)	0.123
08:30-08:45	E	353.43	960.11	0.368	0.00	0.58	0.58	8.67	(0.00)	0.099
08:45-09:00	A	1188.45	2284.88	0.520	0.00	1.80	1.09	16.80	(0.00)	0.055
08:45-09:00	B	129.45	804.91	0.161	0.00	0.31	0.19	2.97	(0.00)	0.089
08:45-09:00	C	593.32	1489.72	0.398	0.00	1.01	0.67	10.24	(0.00)	0.067
08:45-09:00	D	156.42	753.32	0.208	0.00	0.39	0.26	4.07	(0.00)	0.101
08:45-09:00	E	288.57	1044.79	0.276	0.00	0.58	0.38	5.90	(0.00)	0.080
09:00-09:15	A	995.27	2304.24	0.432	0.00	1.09	0.76	11.67	(0.00)	0.046
09:00-09:15	B	108.41	908.77	0.119	0.00	0.19	0.14	2.08	(0.00)	0.075
09:00-09:15	C	496.88	1523.89	0.326	0.00	0.67	0.49	7.43	(0.00)	0.059
09:00-09:15	D	131.00	808.33	0.162	0.00	0.26	0.19	2.98	(0.00)	0.089
09:00-09:15	E	241.66	1107.25	0.218	0.00	0.38	0.28	4.29	(0.00)	0.069