Run Information

Run with file:- **C:\ARC6\1305\TA MODELS\SJ4 AM MODEL.vai**
At: **09:50:56 on Thursday, January 24, 2013**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	A49 LUDLOW ROAD
Arm B	A49
Arm C	A44
Arm D	PFS access

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

File Properties

Run Title	SJ4
Location	
Date	19/06/2012
Client	
Enumerator	AHA [ANALYSIS1]
Job Number	1305
Status	
Description	

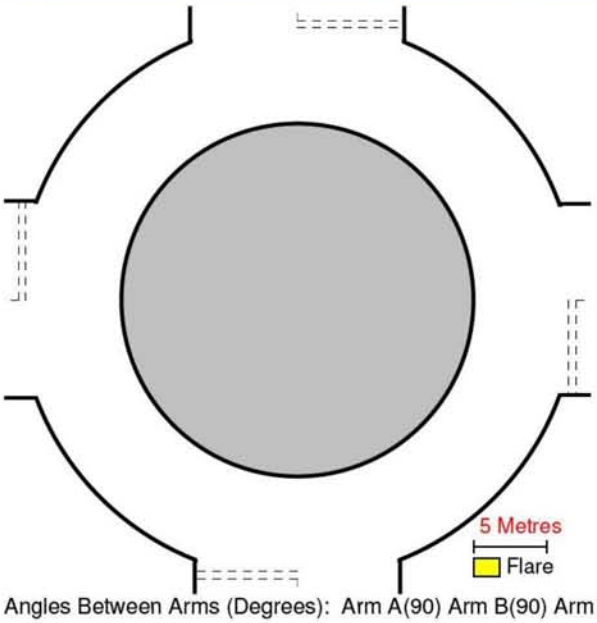
Errors and Warnings

WARNING ARM A Effective flare length is outside normal range.
Treat capacities with increasing caution.
WARNING ARM C Effective flare length is outside normal range.
Treat capacities with increasing caution.

Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D
Approach Road Half-Width (m)	3.65	3.90	4.00	3.00
Entry Width (m)	6.50	7.00	6.70	7.30
Flare Length (m)	35.00	20.00	40.00	5.00
Entry Radius (m)	25.00	25.00	20.00	20.00
Inscribed Circle Diameter (m)	38.00	38.00	38.00	38.00
Entry Angle (degrees)	30.00	30.00	30.00	30.00
Slope	0.671	0.675	0.683	0.557
Intercept (PCU/Min)	30.142	30.455	31.413	20.938

Junction Diagram: (View Extent = 40m)



Angles Between Arms (Degrees): Arm A(90) Arm B(90) Arm C(90) Arm D(90)

Demand Data

Demand Profiles are Synthesised using **ODTAB** Data
Period of interest (for Queue and Delay calculations): **08:00 to 09:30**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Total Traffic Demand (Vehicles/Hour) for Demand Set: AM 2012 TRAFFIC COUNT

From/To	Arm A	Arm B	Arm C	Arm D
Arm A	0.0	310.0	238.0	16.0
Arm B	225.0	0.0	208.0	35.0
Arm C	139.0	205.0	0.0	61.0
Arm D	28.0	44.0	28.0	0.0

Entry Flow Data for Demand Set: AM 2012 TRAFFIC COUNT

Arms	Number of Minutes From Start When			Rate of flow (Veh/Min)		
	Flow Starts To Rise	Top of Peak is Reached	Flow Stops Falling	Before Peak	At Top of Peak	After Peak
Arm A	15.00	45.00	75.00	7.05	10.58	7.05
Arm B	15.00	45.00	75.00	5.85	8.77	5.85
Arm C	15.00	45.00	75.00	5.06	7.59	5.06
Arm D	15.00	45.00	75.00	1.25	1.88	1.25

Turning Proportions

ODTAB Demand Data type is used, no turning proportions available.

Heavy Vehicle Percentages for Demand Set: AM 2012 TRAFFIC COUNT

Vary over entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
08:00 to 09:30	Arm A	0.0	11.9	11.9	11.9
	Arm B	11.9	0.0	11.9	11.9
	Arm C	11.9	11.9	0.0	11.9

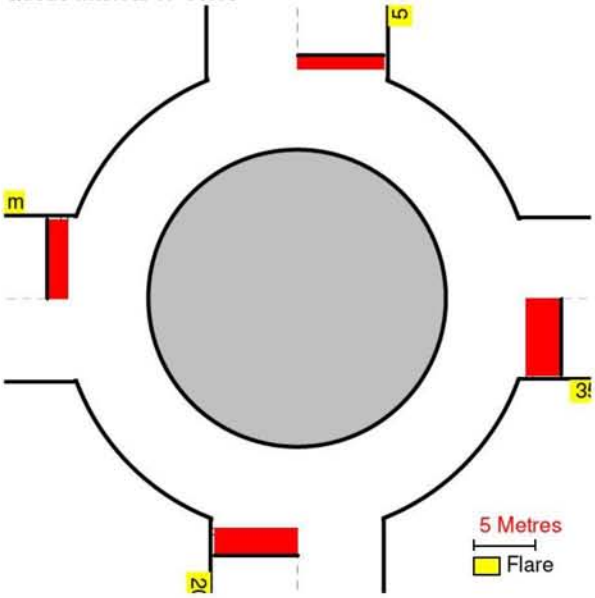
Time Period	From/To	Arm A	Arm B	Arm C	Arm D
	Arm D	11.9	11.9	11.9	0.0

Queue Diagrams: (View Extent = 40m)

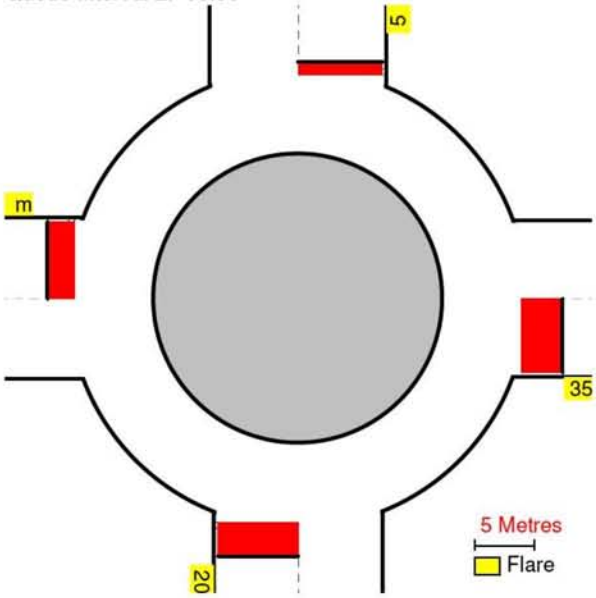
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 08:00---> End Time: 09:30

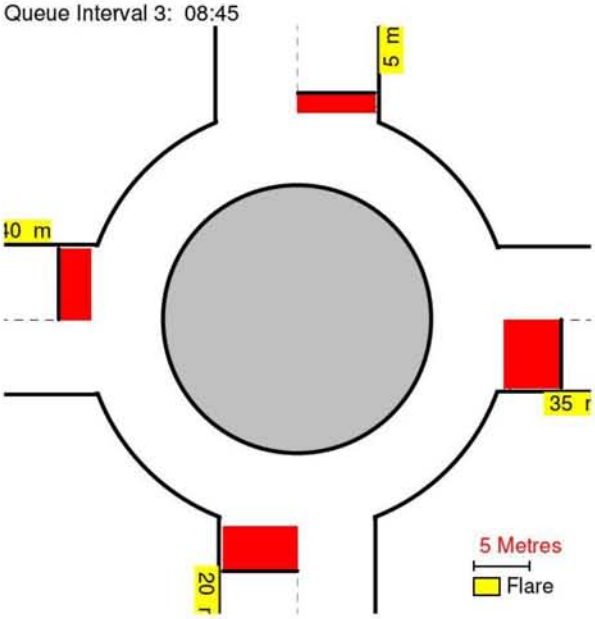
Queue Interval 1: 08:15



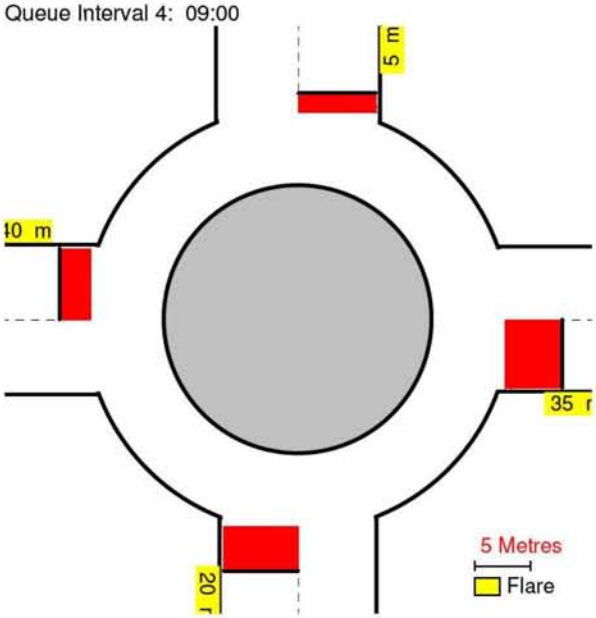
Queue Interval 2: 08:30



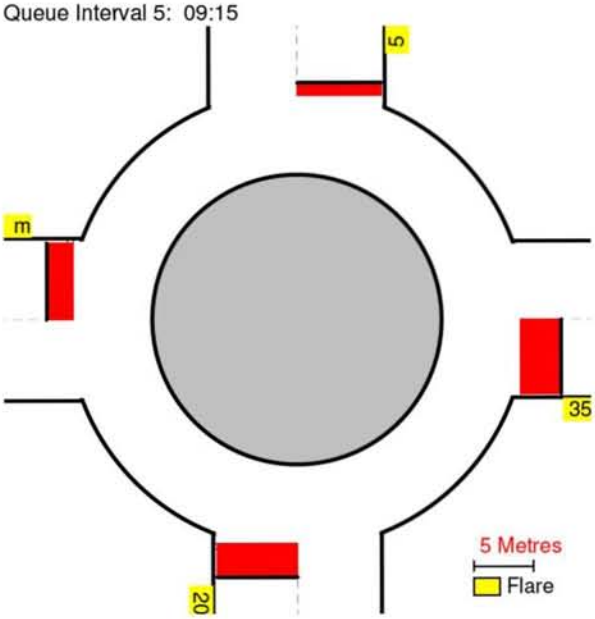
Queue Interval 3: 08:45



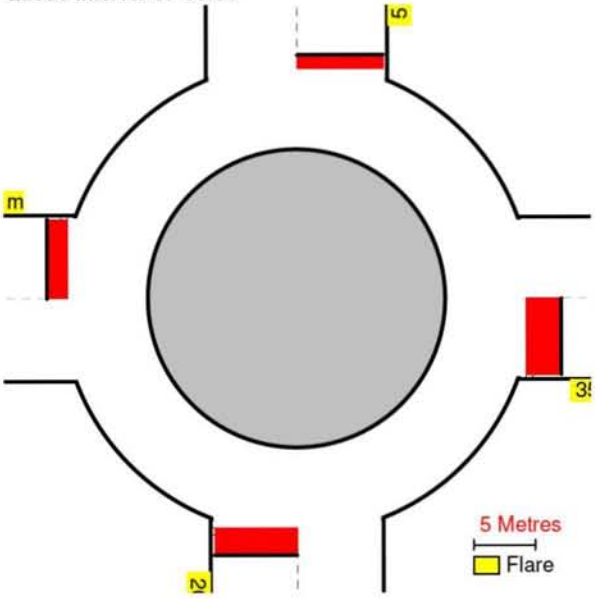
Queue Interval 4: 09:00



Queue Interval 5: 09:15



Queue Interval 6: 09:30

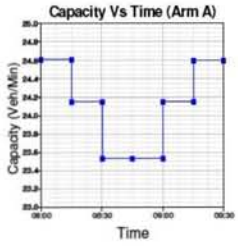


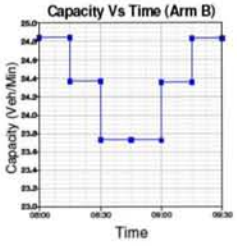
Demand Data Graphs

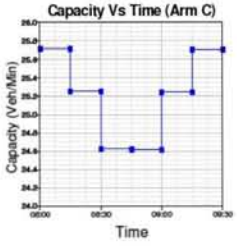
No graph available

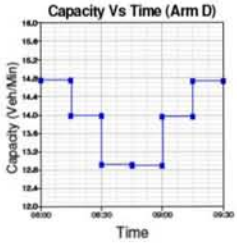
Capacity (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



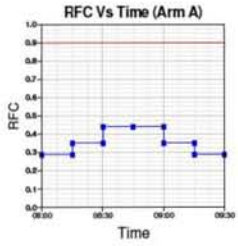


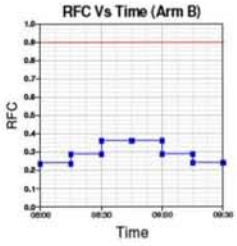


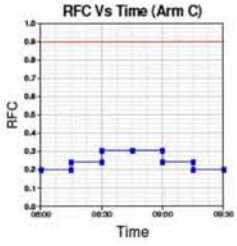


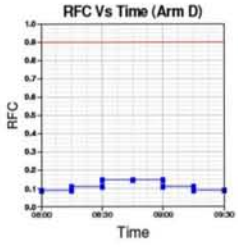
RFC (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



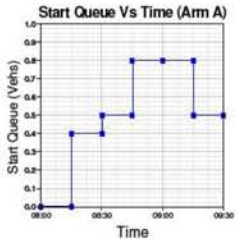


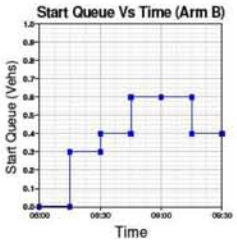


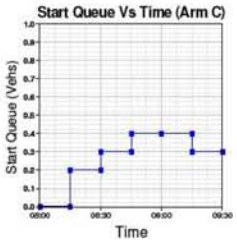


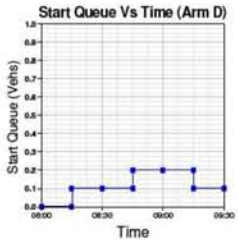
Start Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



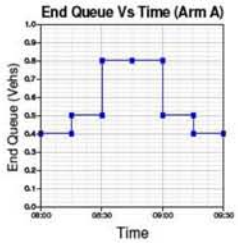


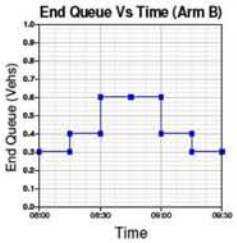


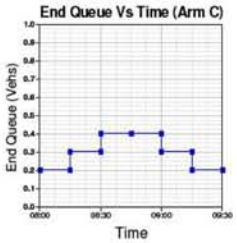


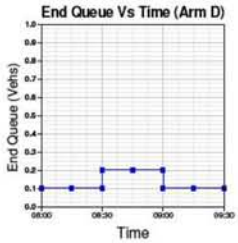
End Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)







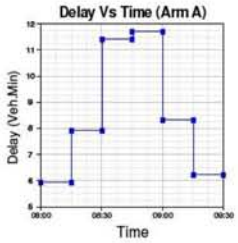


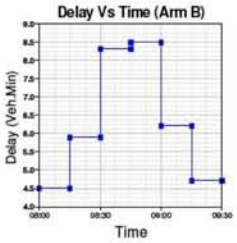
Geometric Delay Graph

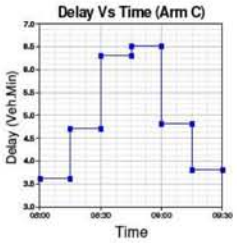
No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

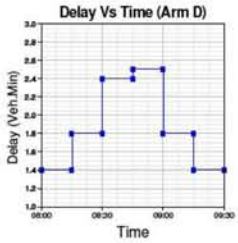
Delay (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)









Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 08:00 to 08:15	A	7.08	24.61	0.288	-	0.0	0.4	5.9	-	0.057
	B	5.87	24.84	0.236	-	0.0	0.3	4.5	-	0.053
	C	5.08	25.71	0.198	-	0.0	0.2	3.6	-	0.048
	D	1.25	14.75	0.085	-	0.0	0.1	1.4	-	0.074
Segment : 2 - 08:15 to 08:30	A	8.45	24.15	0.350	-	0.4	0.5	7.9	-	0.064
	B	7.01	24.37	0.288	-	0.3	0.4	5.9	-	0.058
	C	6.07	25.25	0.240	-	0.2	0.3	4.7	-	0.052
	D	1.50	13.97	0.107	-	0.1	0.1	1.8	-	0.080
Segment : 3 - 08:30 to 08:45	A	10.35	23.53	0.440	-	0.5	0.8	11.4	-	0.076
	B	8.59	23.73	0.362	-	0.4	0.6	8.3	-	0.066
	C	7.43	24.62	0.302	-	0.3	0.4	6.3	-	0.058
	D	1.84	12.90	0.142	-	0.1	0.2	2.4	-	0.090
Segment : 4 - 08:45 to 09:00	A	10.35	23.53	0.440	-	0.8	0.8	11.7	-	0.076
	B	8.59	23.72	0.362	-	0.6	0.6	8.5	-	0.066
	C	7.43	24.61	0.302	-	0.4	0.4	6.5	-	0.058
	D	1.84	12.89	0.142	-	0.2	0.2	2.5	-	0.090
Segment : 5 - 09:00 to 09:15	A	8.45	24.15	0.350	-	0.8	0.5	8.3	-	0.064
	B	7.01	24.36	0.288	-	0.6	0.4	6.2	-	0.058
	C	6.07	25.24	0.240	-	0.4	0.3	4.8	-	0.052
	D	1.50	13.96	0.107	-	0.2	0.1	1.8	-	0.080
Segment : 6 - 09:15 to 09:30	A	7.08	24.60	0.288	-	0.5	0.4	6.2	-	0.057
	B	5.87	24.83	0.237	-	0.4	0.3	4.7	-	0.053
	C	5.08	25.70	0.198	-	0.3	0.2	3.8	-	0.049
	D	1.25	14.73	0.085	-	0.1	0.1	1.4	-	0.074

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	776.3	517.5	51.4	0.07	51.4	0.07
B	644.2	429.4	38.2	0.06	38.2	0.06
C	557.5	371.6	29.7	0.05	29.7	0.05
D	137.6	91.8	11.3	0.08	11.3	0.08
ALL	2115.6	1410.4	130.5	0.06	130.5	0.06

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

ARCADY 6

GUI Version: 6.2 AG
Analysis Program: Release 7.0 (FEBRUARY 2010)

For sales and distribution information, program advice and maintenance, contact:

TRL Limited
Crowthorne House
Nine Mile Ride
Wokingham, Berks.
RG40 3GA, UK

Tel: +44 (0)1344 770758
Fax:+44 (0)1344 770864
Email: software@ trl.co.uk
Web:www.trlsoftware.co.uk

Run Information

Run with file:- **C:\ARC6\1305\TA MODELS\SJ4 AM MODEL.vai**
At: **09:52:58 on Thursday, January 24, 2013**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	A49 LUDLOW ROAD
Arm B	A49
Arm C	A44
Arm D	PFS access

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

File Properties

Run Title	SJ4
Location	
Date	19/06/2012
Client	
Enumerator	AHA [ANALYSIS1]
Job Number	1305
Status	
Description	

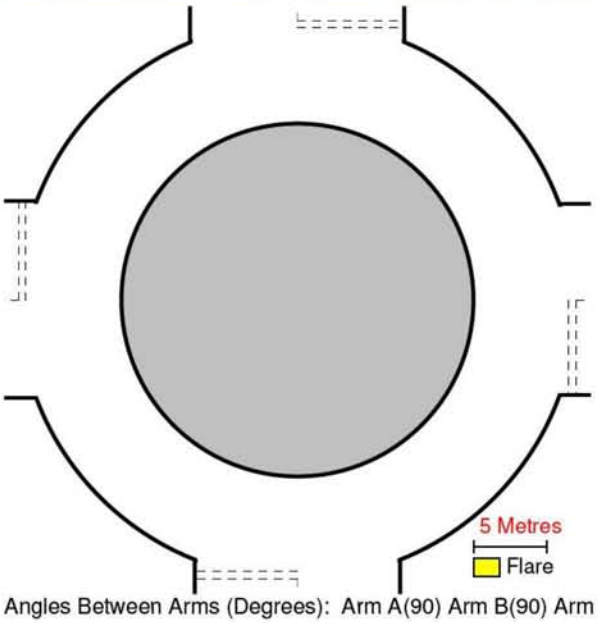
Errors and Warnings

WARNING ARM A Effective flare length is outside normal range.
Treat capacities with increasing caution.
WARNING ARM C Effective flare length is outside normal range.
Treat capacities with increasing caution.

Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D
Approach Road Half-Width (m)	3.65	3.90	4.00	3.00
Entry Width (m)	6.50	7.00	6.70	7.30
Flare Length (m)	35.00	20.00	40.00	5.00
Entry Radius (m)	25.00	25.00	20.00	20.00
Inscribed Circle Diameter (m)	38.00	38.00	38.00	38.00
Entry Angle (degrees)	30.00	30.00	30.00	30.00
Slope	0.671	0.675	0.683	0.557
Intercept (PCU/Min)	30.142	30.455	31.413	20.938

Junction Diagram: (View Extent = 40m)



Angles Between Arms (Degrees): Arm A(90) Arm B(90) Arm C(90) Arm D(90)

Demand Data

Demand Profiles are Synthesised using **ODTAB** Data
Period of interest (for Queue and Delay calculations): **08:00 to 09:30**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Total Traffic Demand (Vehicles/Hour) for Demand Set: AM 2014 BASE

From/To	Arm A	Arm B	Arm C	Arm D
Arm A	0.0	312.0	251.0	16.0
Arm B	226.0	0.0	209.0	35.0
Arm C	177.0	206.0	0.0	61.0
Arm D	28.0	44.0	28.0	0.0

Entry Flow Data for Demand Set: AM 2014 BASE

Arms	Number of Minutes From Start When			Rate of flow (Veh/Min)		
	Flow Starts To Rise	Top of Peak is Reached	Flow Stops Falling	Before Peak	At Top of Peak	After Peak
Arm A	15.00	45.00	75.00	7.24	10.86	7.24
Arm B	15.00	45.00	75.00	5.88	8.81	5.88
Arm C	15.00	45.00	75.00	5.55	8.33	5.55
Arm D	15.00	45.00	75.00	1.25	1.88	1.25

Turning Proportions

ODTAB Demand Data type is used, no turning proportions available.

Heavy Vehicle Percentages for Demand Set: AM 2014 BASE

Vary over entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
08:00 to 09:30	Arm A	0.0	11.9	11.9	11.9
	Arm B	11.9	0.0	11.9	11.9
	Arm C	11.9	11.9	0.0	11.9

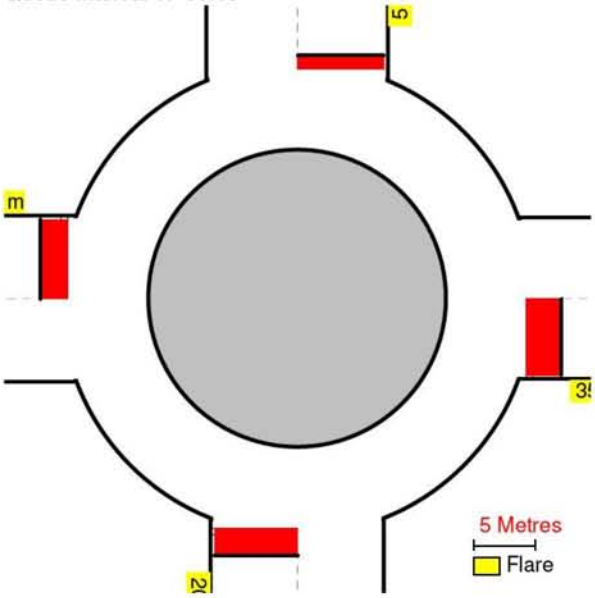
Time Period	From/To	Arm A	Arm B	Arm C	Arm D
	Arm D	11.9	11.9	11.9	0.0

Queue Diagrams: (View Extent = 40m)

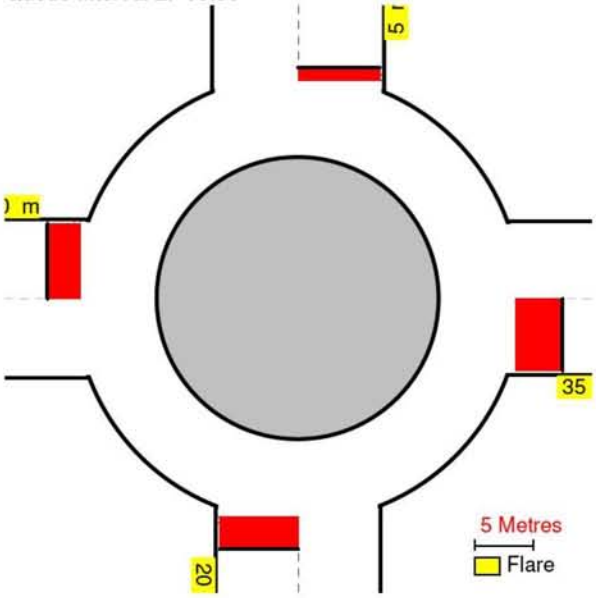
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 08:00---> End Time: 09:30

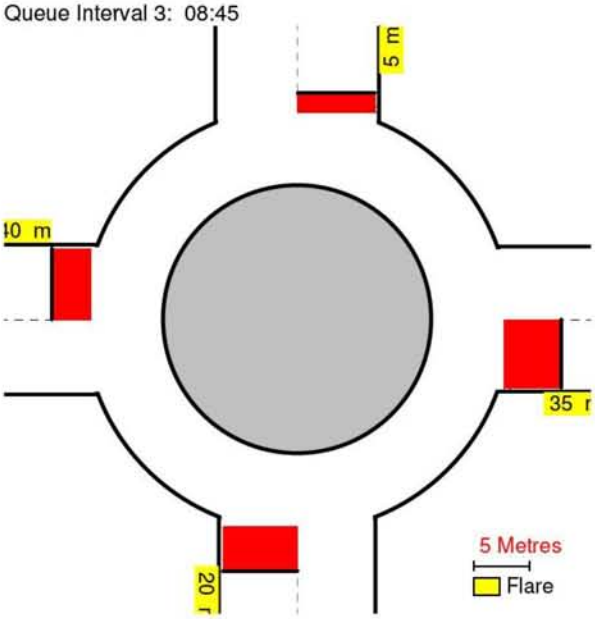
Queue Interval 1: 08:15



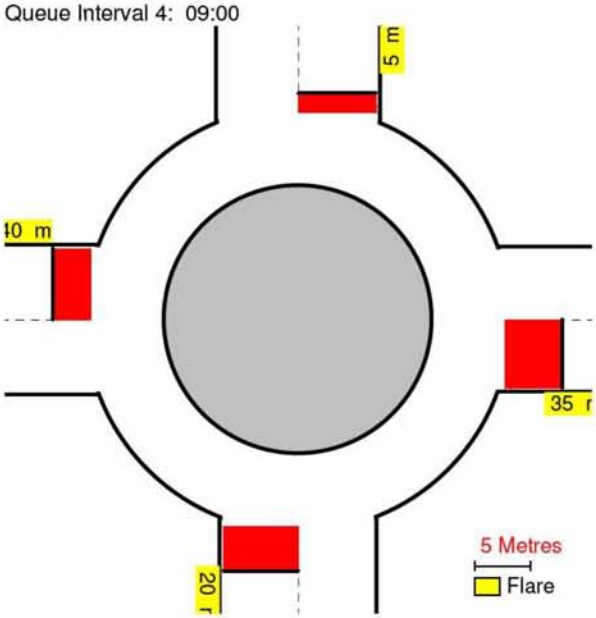
Queue Interval 2: 08:30



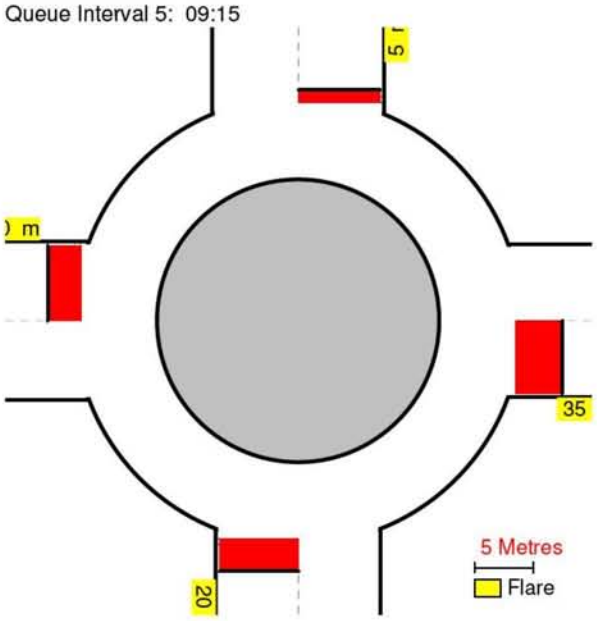
Queue Interval 3: 08:45



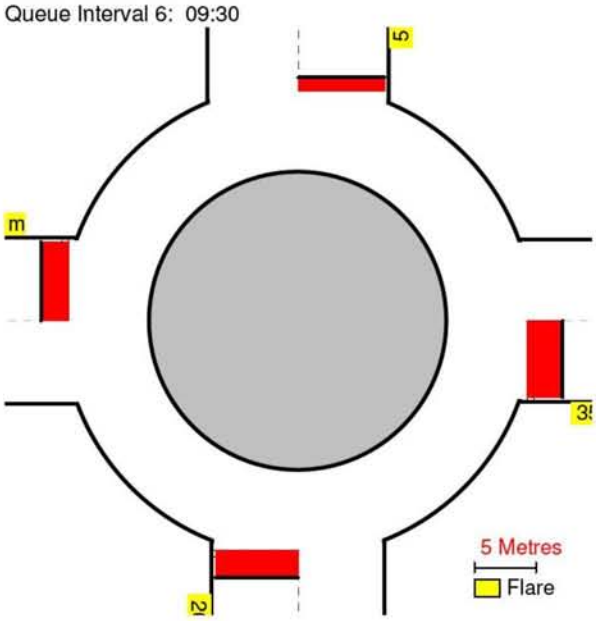
Queue Interval 4: 09:00



Queue Interval 5: 09:15



Queue Interval 6: 09:30

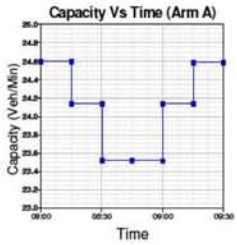


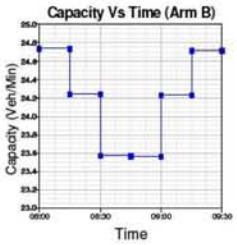
Demand Data Graphs

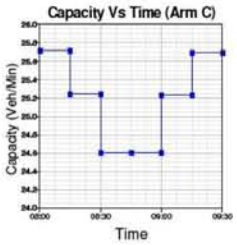
No graph available

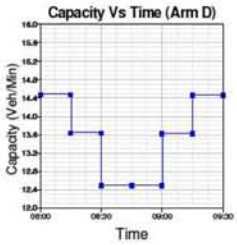
Capacity (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



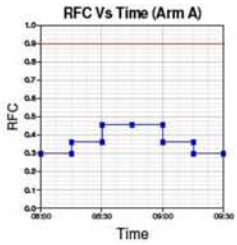


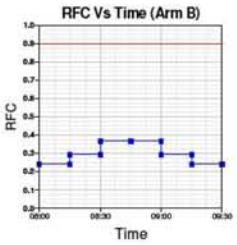


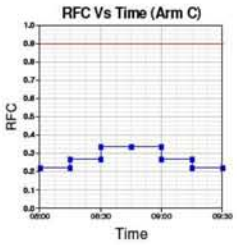


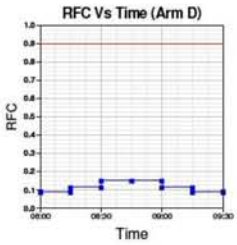
RFC (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



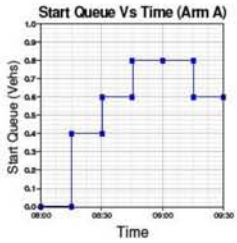


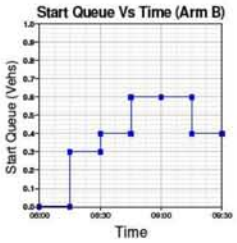


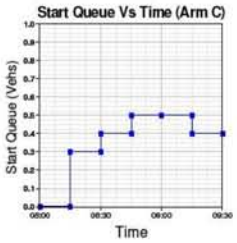


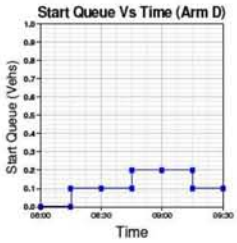
Start Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



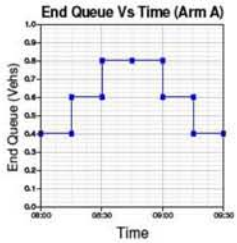


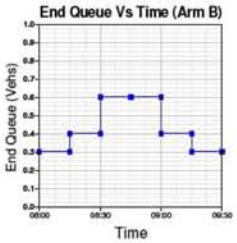


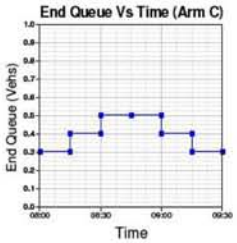


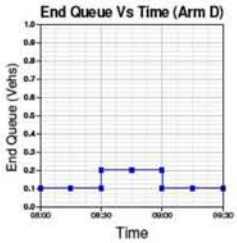
End Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)







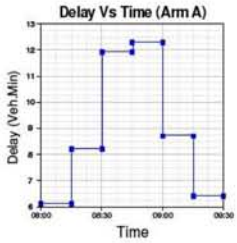


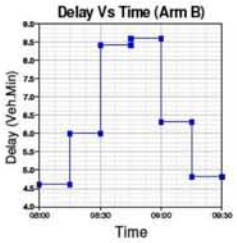
Geometric Delay Graph

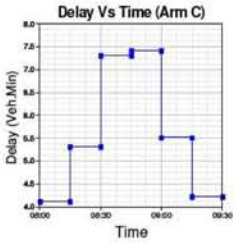
No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

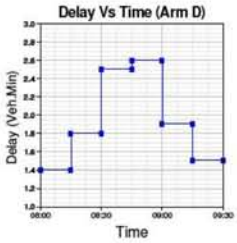
Delay (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)









Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 08:00 to 08:15	A	7.27	24.60	0.295	-	0.0	0.4	6.1	-	0.057
	B	5.90	24.73	0.238	-	0.0	0.3	4.6	-	0.053
	C	5.57	25.71	0.217	-	0.0	0.3	4.1	-	0.050
	D	1.25	14.47	0.087	-	0.0	0.1	1.4	-	0.076
Segment : 2 - 08:15 to 08:30	A	8.68	24.14	0.359	-	0.4	0.6	8.2	-	0.065
	B	7.04	24.24	0.291	-	0.3	0.4	6.0	-	0.058
	C	6.65	25.24	0.264	-	0.3	0.4	5.3	-	0.054
	D	1.50	13.63	0.110	-	0.1	0.1	1.8	-	0.082
Segment : 3 - 08:30 to 08:45	A	10.62	23.52	0.452	-	0.6	0.8	11.9	-	0.077
	B	8.62	23.57	0.366	-	0.4	0.6	8.4	-	0.067
	C	8.15	24.60	0.331	-	0.4	0.5	7.3	-	0.061
	D	1.84	12.49	0.147	-	0.1	0.2	2.5	-	0.094
Segment : 4 - 08:45 to 09:00	A	10.62	23.51	0.452	-	0.8	0.8	12.3	-	0.078
	B	8.62	23.56	0.366	-	0.6	0.6	8.6	-	0.067
	C	8.15	24.60	0.331	-	0.5	0.5	7.4	-	0.061
	D	1.84	12.49	0.147	-	0.2	0.2	2.6	-	0.094
Segment : 5 - 09:00 to 09:15	A	8.68	24.14	0.359	-	0.8	0.6	8.7	-	0.065
	B	7.04	24.23	0.291	-	0.6	0.4	6.3	-	0.058
	C	6.65	25.23	0.264	-	0.5	0.4	5.5	-	0.054
	D	1.50	13.62	0.110	-	0.2	0.1	1.9	-	0.083
Segment : 6 - 09:15 to 09:30	A	7.27	24.59	0.295	-	0.6	0.4	6.4	-	0.058
	B	5.90	24.71	0.239	-	0.4	0.3	4.8	-	0.053
	C	5.57	25.69	0.217	-	0.4	0.3	4.2	-	0.050
	D	1.25	14.45	0.087	-	0.1	0.1	1.5	-	0.076

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	797.0	531.3	53.6	0.07	53.6	0.07
B	646.9	431.3	38.7	0.06	38.7	0.06
C	611.1	407.4	33.7	0.06	33.7	0.06
D	137.6	91.8	11.6	0.08	11.6	0.08
ALL	2192.6	1461.8	137.7	0.06	137.7	0.06

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

Run Information

Run with file:- **C:\ARC6\1305\TA MODELS\SJ4 AM MODEL.vai**
At: **09:54:24 on Thursday, January 24, 2013**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	A49 LUDLOW ROAD
Arm B	A49
Arm C	A44
Arm D	PFS access

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

File Properties

Run Title	SJ4
Location	
Date	19/06/2012
Client	
Enumerator	AHA [ANALYSIS1]
Job Number	1305
Status	
Description	

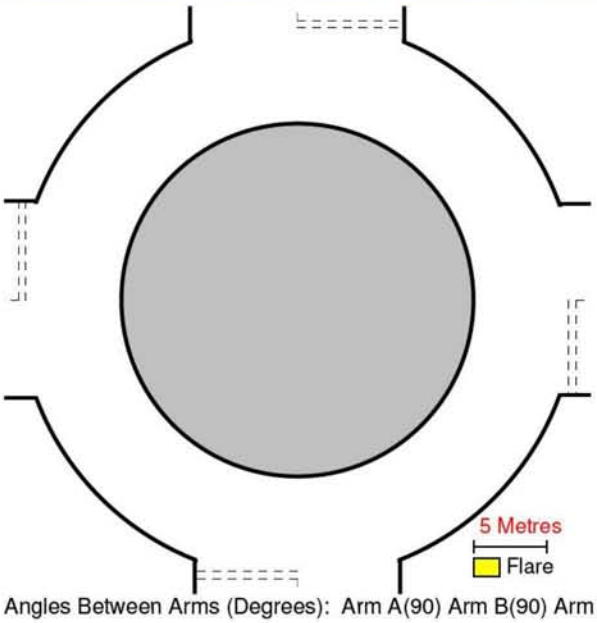
Errors and Warnings

WARNING ARM A Effective flare length is outside normal range.
Treat capacities with increasing caution.
WARNING ARM C Effective flare length is outside normal range.
Treat capacities with increasing caution.

Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D
Approach Road Half-Width (m)	3.65	3.90	4.00	3.00
Entry Width (m)	6.50	7.00	6.70	7.30
Flare Length (m)	35.00	20.00	40.00	5.00
Entry Radius (m)	25.00	25.00	20.00	20.00
Inscribed Circle Diameter (m)	38.00	38.00	38.00	38.00
Entry Angle (degrees)	30.00	30.00	30.00	30.00
Slope	0.671	0.675	0.683	0.557
Intercept (PCU/Min)	30.142	30.455	31.413	20.938

Junction Diagram: (View Extent = 40m)



Angles Between Arms (Degrees): Arm A(90) Arm B(90) Arm C(90) Arm D(90)

Demand Data

Demand Profiles are Synthesised using **ODTAB** Data
Period of interest (for Queue and Delay calculations): **08:00 to 09:30**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Total Traffic Demand (Vehicles/Hour) for Demand Set: AM 2014 WITH DEVT

From/To	Arm A	Arm B	Arm C	Arm D
Arm A	0.0	318.0	244.0	16.0
Arm B	230.0	0.0	223.0	35.0
Arm C	168.0	227.0	0.0	61.0
Arm D	28.0	44.0	28.0	0.0

Entry Flow Data for Demand Set: AM 2014 WITH DEVT

Arms	Number of Minutes From Start When			Rate of flow (Veh/Min)		
	Flow Starts To Rise	Top of Peak is Reached	Flow Stops Falling	Before Peak	At Top of Peak	After Peak
Arm A	15.00	45.00	75.00	7.22	10.84	7.22
Arm B	15.00	45.00	75.00	6.10	9.15	6.10
Arm C	15.00	45.00	75.00	5.70	8.55	5.70
Arm D	15.00	45.00	75.00	1.25	1.88	1.25

Turning Proportions

ODTAB Demand Data type is used, no turning proportions available.

Heavy Vehicle Percentages for Demand Set: AM 2014 WITH DEVT

Vary over entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
08:00 to 09:30	Arm A	0.0	11.9	11.9	11.9
	Arm B	11.9	0.0	11.9	11.9
	Arm C	11.9	11.9	0.0	11.9

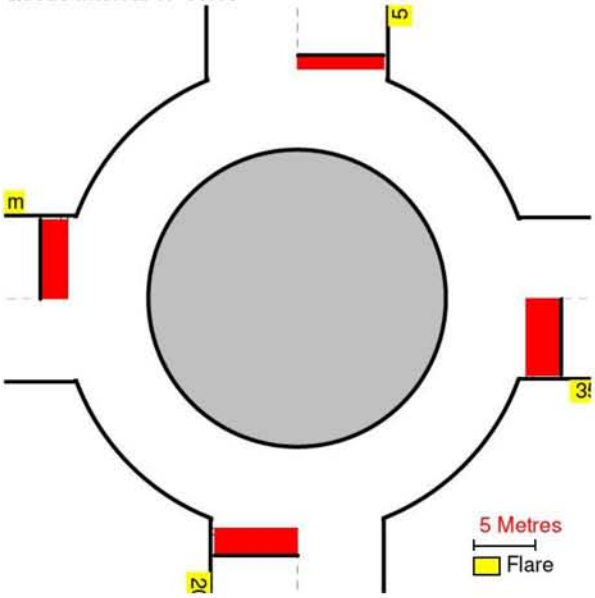
Time Period	From/To	Arm A	Arm B	Arm C	Arm D
	Arm D	11.9	11.9	11.9	0.0

Queue Diagrams: (View Extent = 40m)

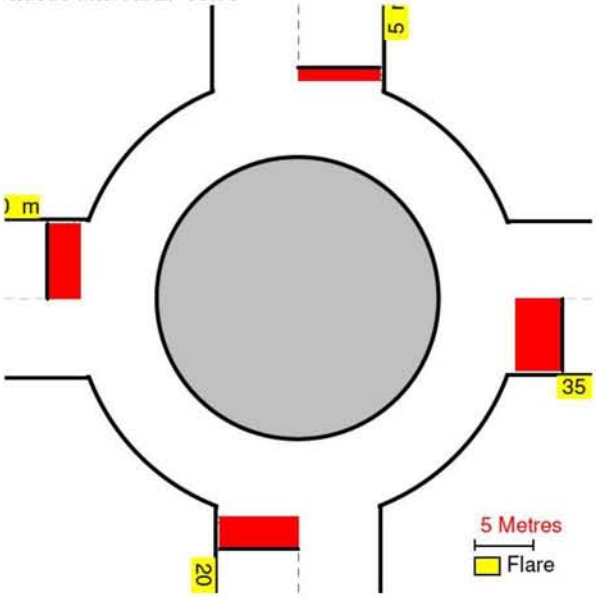
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 08:00---> End Time: 09:30

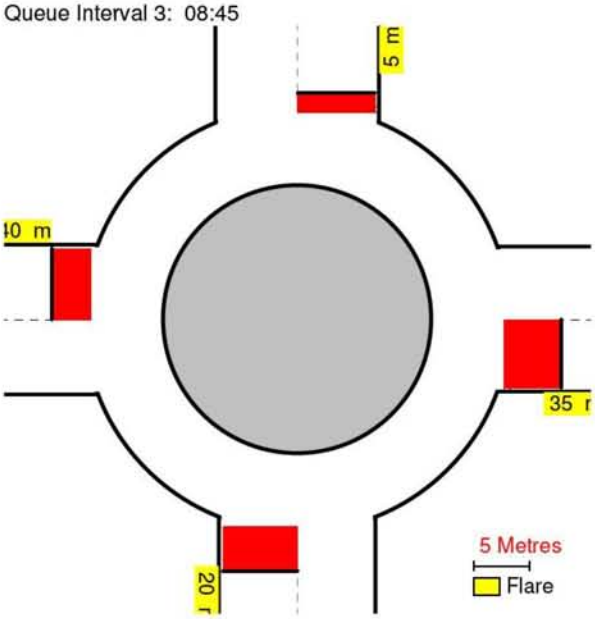
Queue Interval 1: 08:15



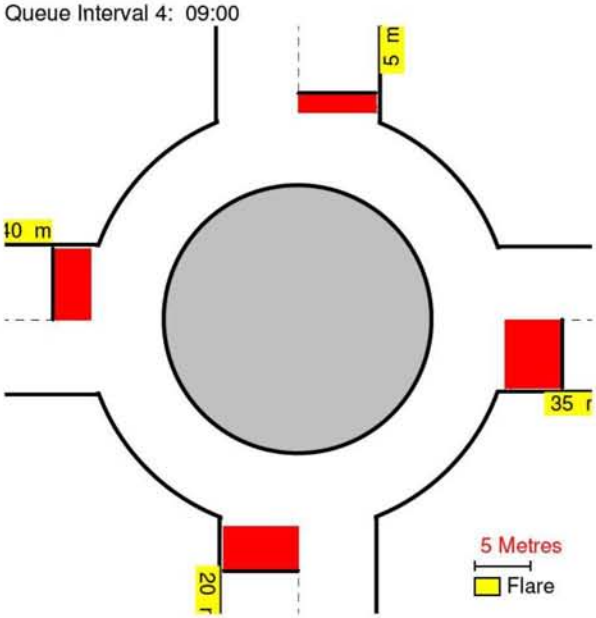
Queue Interval 2: 08:30



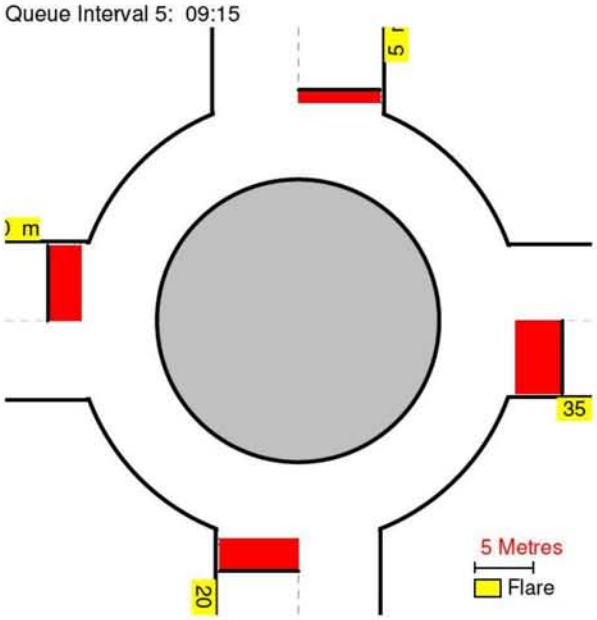
Queue Interval 3: 08:45



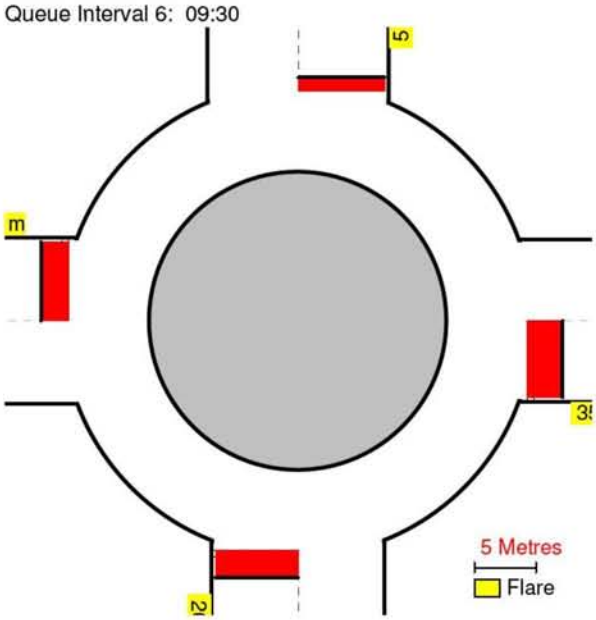
Queue Interval 4: 09:00



Queue Interval 5: 09:15



Queue Interval 6: 09:30

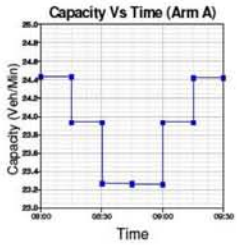


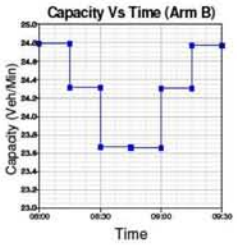
Demand Data Graphs

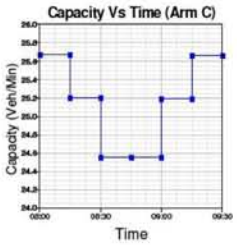
No graph available

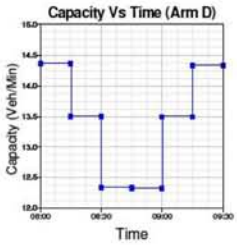
Capacity (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



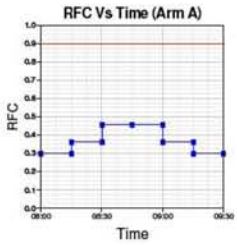


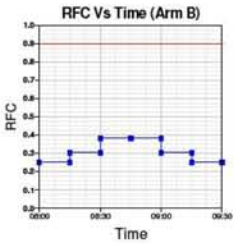


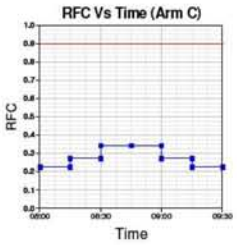


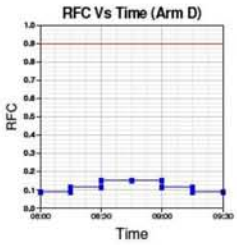
RFC (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



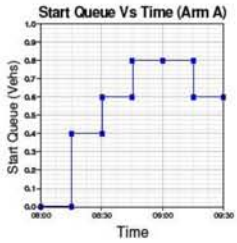


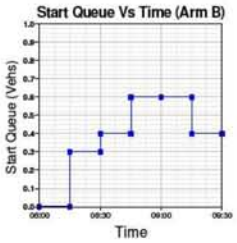


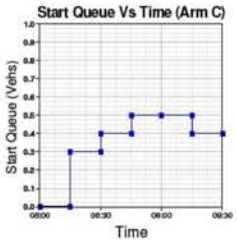


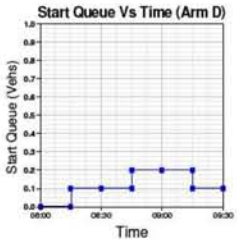
Start Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



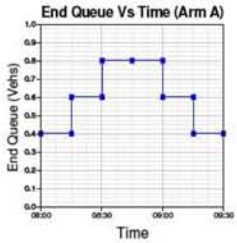


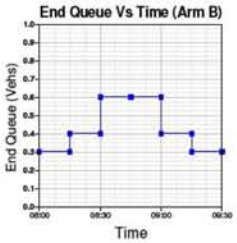


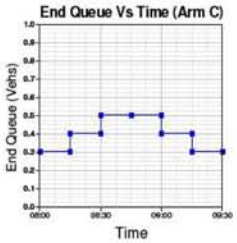


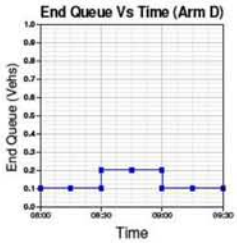
End Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)







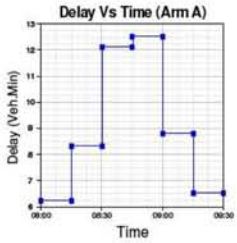


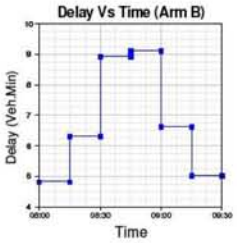
Geometric Delay Graph

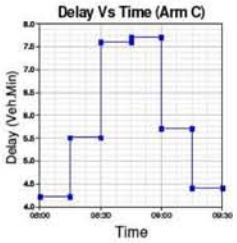
No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

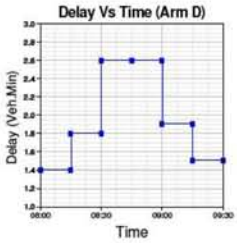
Delay (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)









Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 08:00 to 08:15	A	7.25	24.43	0.297	-	0.0	0.4	6.2	-	0.058
	B	6.12	24.79	0.247	-	0.0	0.3	4.8	-	0.053
	C	5.72	25.67	0.223	-	0.0	0.3	4.2	-	0.050
	D	1.25	14.36	0.087	-	0.0	0.1	1.4	-	0.076
Segment : 2 - 08:15 to 08:30	A	8.66	23.93	0.362	-	0.4	0.6	8.3	-	0.065
	B	7.31	24.31	0.301	-	0.3	0.4	6.3	-	0.059
	C	6.83	25.20	0.271	-	0.3	0.4	5.5	-	0.054
	D	1.50	13.50	0.111	-	0.1	0.1	1.8	-	0.083
Segment : 3 - 08:30 to 08:45	A	10.61	23.26	0.456	-	0.6	0.8	12.1	-	0.079
	B	8.95	23.66	0.379	-	0.4	0.6	8.9	-	0.068
	C	8.37	24.55	0.341	-	0.4	0.5	7.6	-	0.062
	D	1.84	12.33	0.149	-	0.1	0.2	2.6	-	0.095
Segment : 4 - 08:45 to 09:00	A	10.61	23.25	0.456	-	0.8	0.8	12.5	-	0.079
	B	8.95	23.65	0.379	-	0.6	0.6	9.1	-	0.068
	C	8.37	24.55	0.341	-	0.5	0.5	7.7	-	0.062
	D	1.84	12.32	0.149	-	0.2	0.2	2.6	-	0.095
Segment : 5 - 09:00 to 09:15	A	8.66	23.93	0.362	-	0.8	0.6	8.8	-	0.066
	B	7.31	24.30	0.301	-	0.6	0.4	6.6	-	0.059
	C	6.83	25.19	0.271	-	0.5	0.4	5.7	-	0.055
	D	1.50	13.49	0.111	-	0.2	0.1	1.9	-	0.083
Segment : 6 - 09:15 to 09:30	A	7.25	24.42	0.297	-	0.6	0.4	6.5	-	0.058
	B	6.12	24.77	0.247	-	0.4	0.3	5.0	-	0.054
	C	5.72	25.66	0.223	-	0.4	0.3	4.4	-	0.050
	D	1.25	14.34	0.088	-	0.1	0.1	1.5	-	0.076

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	795.6	530.4	54.3	0.07	54.3	0.07
B	671.7	447.8	40.7	0.06	40.7	0.06
C	627.7	418.4	35.1	0.06	35.1	0.06
D	137.6	91.8	11.8	0.09	11.8	0.09
ALL	2232.6	1488.4	141.9	0.06	141.9	0.06

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

Run Information

Run with file:- **C:\ARC6\1305\TA MODELS\SJ4 AM MODEL.vai**
At: **09:53:26 on Thursday, January 24, 2013**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	A49 LUDLOW ROAD
Arm B	A49
Arm C	A44
Arm D	PFS access

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

File Properties

Run Title	SJ4
Location	
Date	19/06/2012
Client	
Enumerator	AHA [ANALYSIS1]
Job Number	1305
Status	
Description	

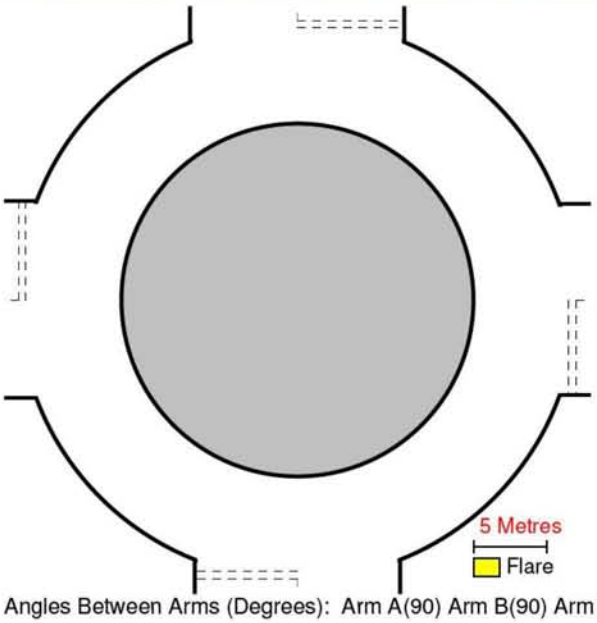
Errors and Warnings

WARNING ARM A Effective flare length is outside normal range.
Treat capacities with increasing caution.
WARNING ARM C Effective flare length is outside normal range.
Treat capacities with increasing caution.

Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D
Approach Road Half-Width (m)	3.65	3.90	4.00	3.00
Entry Width (m)	6.50	7.00	6.70	7.30
Flare Length (m)	35.00	20.00	40.00	5.00
Entry Radius (m)	25.00	25.00	20.00	20.00
Inscribed Circle Diameter (m)	38.00	38.00	38.00	38.00
Entry Angle (degrees)	30.00	30.00	30.00	30.00
Slope	0.671	0.675	0.683	0.557
Intercept (PCU/Min)	30.142	30.455	31.413	20.938

Junction Diagram: (View Extent = 40m)



Angles Between Arms (Degrees): Arm A(90) Arm B(90) Arm C(90) Arm D(90)

Demand Data

Demand Profiles are Synthesised using **ODTAB** Data
Period of interest (for Queue and Delay calculations): **08:00 to 09:30**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Total Traffic Demand (Vehicles/Hour) for Demand Set: AM 2022 BASE

From/To	Arm A	Arm B	Arm C	Arm D
Arm A	0.0	335.0	269.0	17.0
Arm B	243.0	0.0	225.0	38.0
Arm C	187.0	222.0	0.0	66.0
Arm D	30.0	48.0	30.0	0.0

Entry Flow Data for Demand Set: AM 2022 BASE

Arms	Number of Minutes From Start When			Rate of flow (Veh/Min)		
	Flow Starts To Rise	Top of Peak is Reached	Flow Stops Falling	Before Peak	At Top of Peak	After Peak
Arm A	15.00	45.00	75.00	7.76	11.64	7.76
Arm B	15.00	45.00	75.00	6.32	9.49	6.32
Arm C	15.00	45.00	75.00	5.94	8.91	5.94
Arm D	15.00	45.00	75.00	1.35	2.03	1.35

Turning Proportions

ODTAB Demand Data type is used, no turning proportions available.

Heavy Vehicle Percentages for Demand Set: AM 2022 BASE

Vary over entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
08:00 to 09:30	Arm A	0.0	11.9	11.9	11.9
	Arm B	11.9	0.0	11.9	11.9
	Arm C	11.9	11.9	0.0	11.9

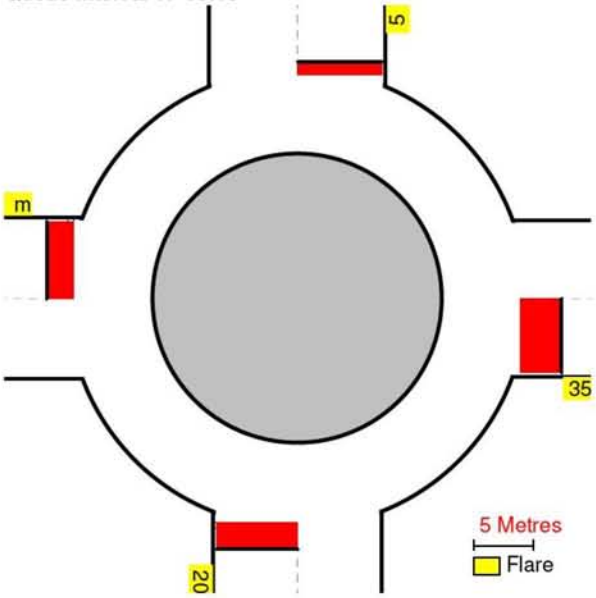
Time Period	From/To	Arm A	Arm B	Arm C	Arm D
	Arm D	11.9	11.9	11.9	0.0

Queue Diagrams: (View Extent = 40m)

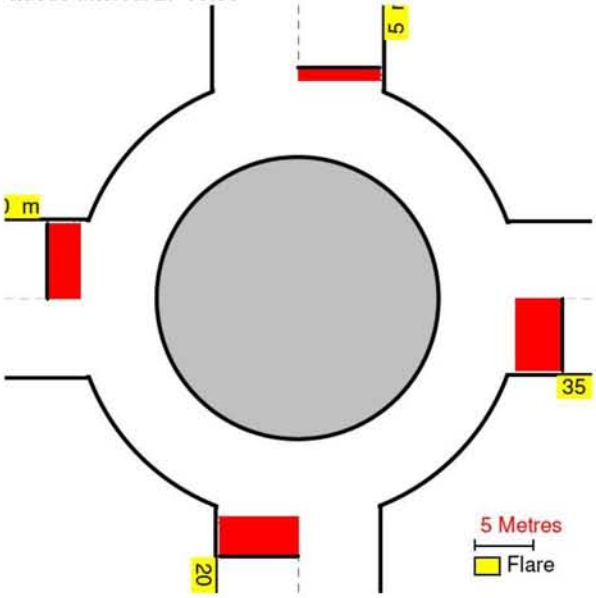
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 08:00---> End Time: 09:30

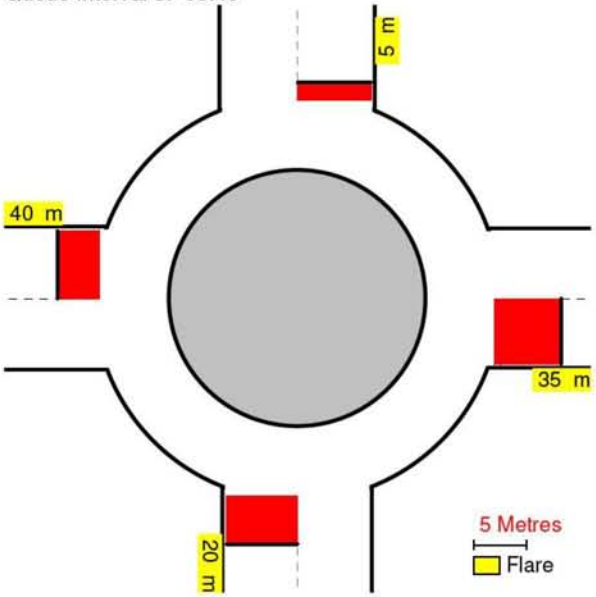
Queue Interval 1: 08:15



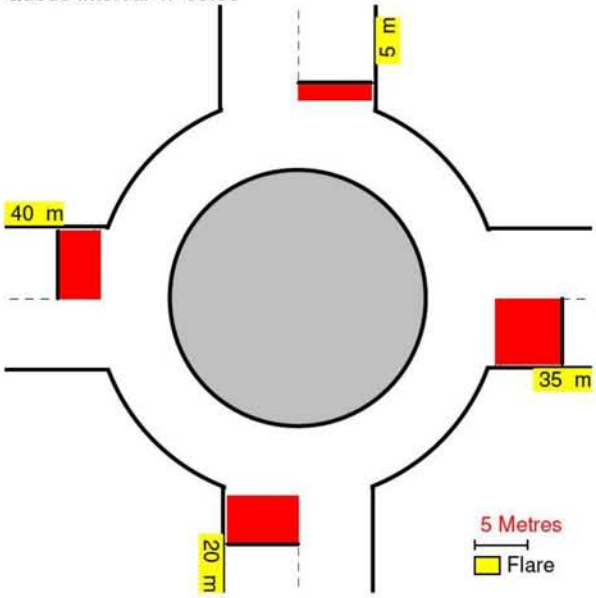
Queue Interval 2: 08:30



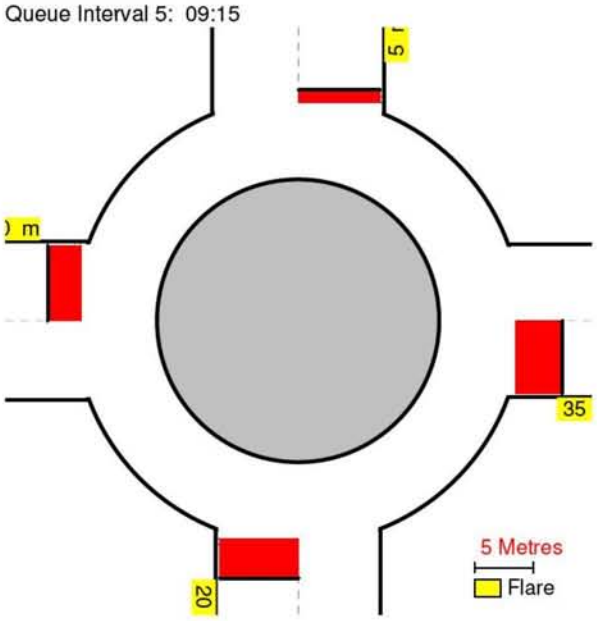
Queue Interval 3: 08:45



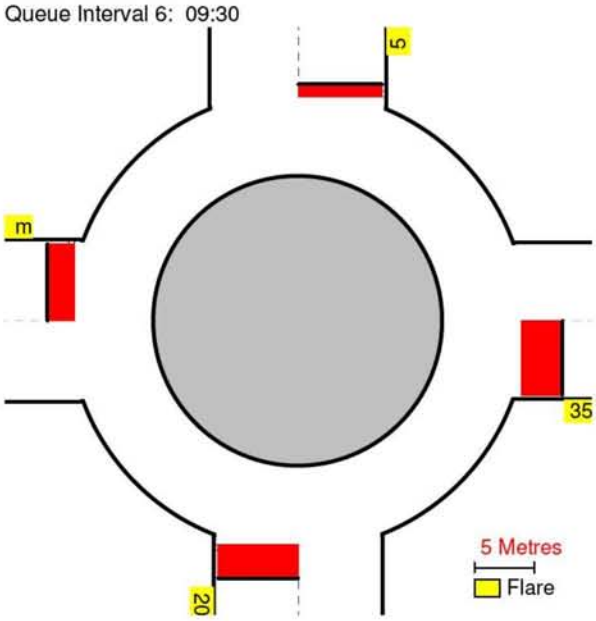
Queue Interval 4: 09:00



Queue Interval 5: 09:15



Queue Interval 6: 09:30

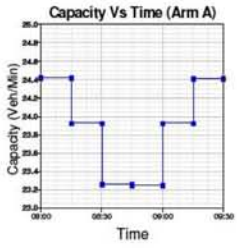


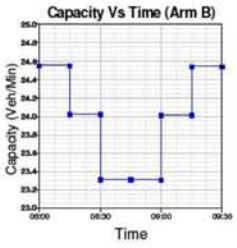
Demand Data Graphs

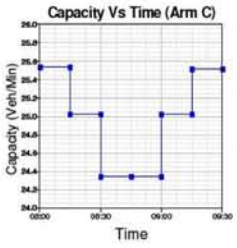
No graph available

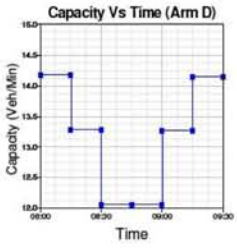
Capacity (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



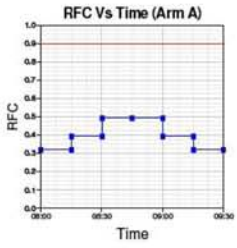


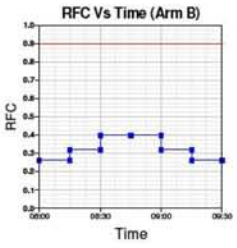


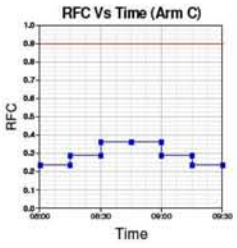


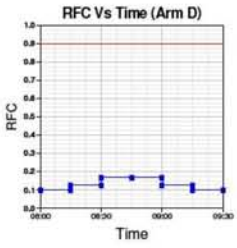
RFC (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



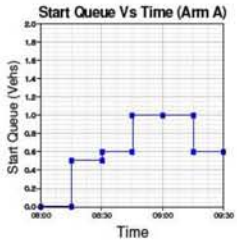


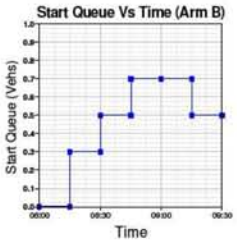


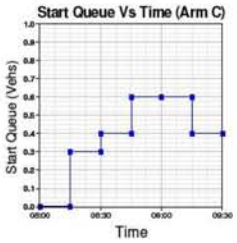


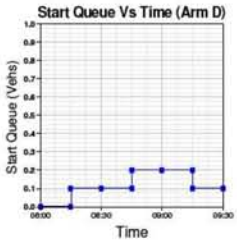
Start Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



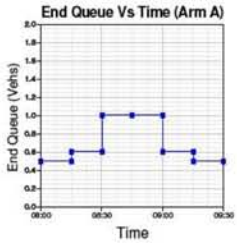


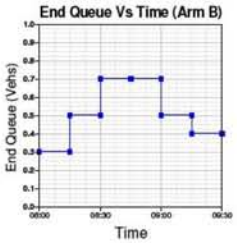


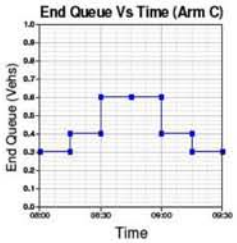


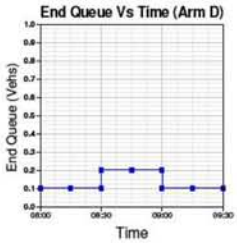
End Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)







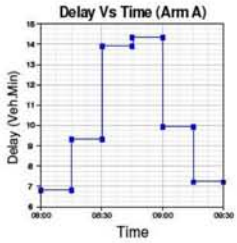


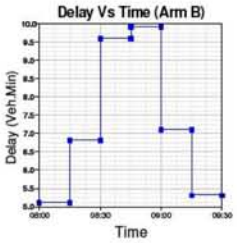
Geometric Delay Graph

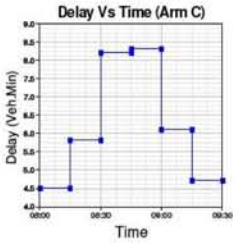
No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

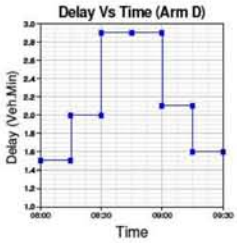
Delay (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)









Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 08:00 to 08:15	A	7.79	24.42	0.319	-	0.0	0.5	6.8	-	0.060
	B	6.35	24.55	0.259	-	0.0	0.3	5.1	-	0.055
	C	5.96	25.53	0.233	-	0.0	0.3	4.5	-	0.051
	D	1.36	14.17	0.096	-	0.0	0.1	1.5	-	0.078
Segment : 2 - 08:15 to 08:30	A	9.30	23.92	0.389	-	0.5	0.6	9.3	-	0.068
	B	7.58	24.02	0.316	-	0.3	0.5	6.8	-	0.061
	C	7.12	25.02	0.284	-	0.3	0.4	5.8	-	0.056
	D	1.62	13.27	0.122	-	0.1	0.1	2.0	-	0.086
Segment : 3 - 08:30 to 08:45	A	11.40	23.25	0.490	-	0.6	1.0	13.9	-	0.084
	B	9.29	23.31	0.398	-	0.5	0.7	9.6	-	0.071
	C	8.72	24.34	0.358	-	0.4	0.6	8.2	-	0.064
	D	1.98	12.05	0.164	-	0.1	0.2	2.9	-	0.099
Segment : 4 - 08:45 to 09:00	A	11.40	23.24	0.490	-	1.0	1.0	14.3	-	0.084
	B	9.29	23.30	0.398	-	0.7	0.7	9.9	-	0.071
	C	8.72	24.34	0.358	-	0.6	0.6	8.3	-	0.064
	D	1.98	12.05	0.165	-	0.2	0.2	2.9	-	0.099
Segment : 5 - 09:00 to 09:15	A	9.30	23.92	0.389	-	1.0	0.6	9.9	-	0.069
	B	7.58	24.01	0.316	-	0.7	0.5	7.1	-	0.061
	C	7.12	25.02	0.284	-	0.6	0.4	6.1	-	0.056
	D	1.62	13.26	0.122	-	0.2	0.1	2.1	-	0.086
Segment : 6 - 09:15 to 09:30	A	7.79	24.41	0.319	-	0.6	0.5	7.2	-	0.060
	B	6.35	24.54	0.259	-	0.5	0.4	5.3	-	0.055
	C	5.96	25.51	0.234	-	0.4	0.3	4.7	-	0.051
	D	1.36	14.15	0.096	-	0.1	0.1	1.6	-	0.078

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	854.8	569.8	61.4	0.07	61.4	0.07
B	696.5	464.3	43.8	0.06	43.8	0.06
C	653.8	435.9	37.6	0.06	37.6	0.06
D	148.7	99.1	13.1	0.09	13.1	0.09
ALL	2353.7	1569.1	155.9	0.07	155.9	0.07

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

ARCADY 6

GUI Version: 6.2 AG
Analysis Program: Release 7.0 (FEBRUARY 2010)

For sales and distribution information, program advice and maintenance, contact:

TRL Limited
Crowthorne House
Nine Mile Ride
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Tel: +44 (0)1344 770758
Fax:+44 (0)1344 770864
Email: software@ trl.co.uk
Web:www.trlsoftware.co.uk

Run Information

Run with file:- **C:\ARC6\1305\TA MODELS\SJ4 AM MODEL.vai**
At: **09:54:50 on Thursday, January 24, 2013**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	A49 LUDLOW ROAD
Arm B	A49
Arm C	A44
Arm D	PFS access

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

File Properties

Run Title	SJ4
Location	
Date	19/06/2012
Client	
Enumerator	AHA [ANALYSIS1]
Job Number	1305
Status	
Description	

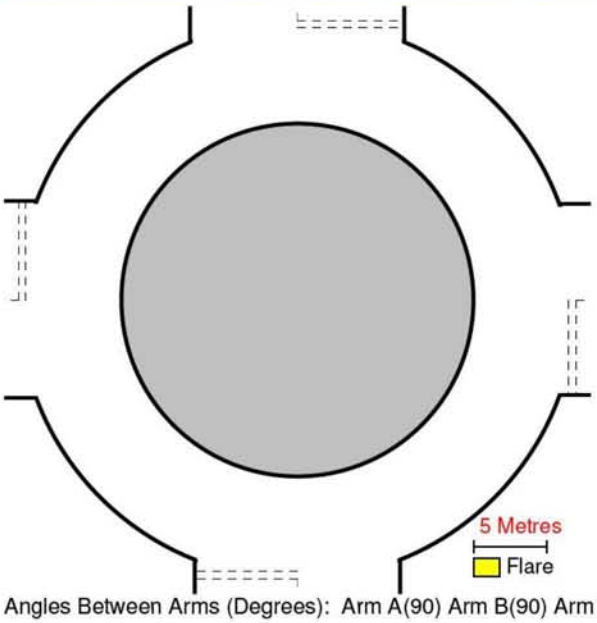
Errors and Warnings

WARNING ARM A Effective flare length is outside normal range.
Treat capacities with increasing caution.
WARNING ARM C Effective flare length is outside normal range.
Treat capacities with increasing caution.

Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D
Approach Road Half-Width (m)	3.65	3.90	4.00	3.00
Entry Width (m)	6.50	7.00	6.70	7.30
Flare Length (m)	35.00	20.00	40.00	5.00
Entry Radius (m)	25.00	25.00	20.00	20.00
Inscribed Circle Diameter (m)	38.00	38.00	38.00	38.00
Entry Angle (degrees)	30.00	30.00	30.00	30.00
Slope	0.671	0.675	0.683	0.557
Intercept (PCU/Min)	30.142	30.455	31.413	20.938

Junction Diagram: (View Extent = 40m)



Angles Between Arms (Degrees): Arm A(90) Arm B(90) Arm C(90) Arm D(90)

Demand Data

Demand Profiles are Synthesised using **ODTAB** Data
Period of interest (for Queue and Delay calculations): **08:00 to 09:30**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Total Traffic Demand (Vehicles/Hour) for Demand Set: AM 2022 WITH DEVT

From/To	Arm A	Arm B	Arm C	Arm D
Arm A	0.0	341.0	262.0	17.0
Arm B	247.0	0.0	239.0	38.0
Arm C	178.0	243.0	0.0	66.0
Arm D	30.0	48.0	30.0	0.0

Entry Flow Data for Demand Set: AM 2022 WITH DEVT

Arms	Number of Minutes From Start When			Rate of flow (Veh/Min)		
	Flow Starts To Rise	Top of Peak is Reached	Flow Stops Falling	Before Peak	At Top of Peak	After Peak
Arm A	15.00	45.00	75.00	7.75	11.63	7.75
Arm B	15.00	45.00	75.00	6.55	9.83	6.55
Arm C	15.00	45.00	75.00	6.09	9.13	6.09
Arm D	15.00	45.00	75.00	1.35	2.03	1.35

Turning Proportions

ODTAB Demand Data type is used, no turning proportions available.

Heavy Vehicle Percentages for Demand Set: AM 2022 WITH DEVT

Vary over entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
08:00 to 09:30	Arm A	0.0	11.9	11.9	11.9
	Arm B	11.9	0.0	11.9	11.9
	Arm C	11.9	11.9	0.0	11.9

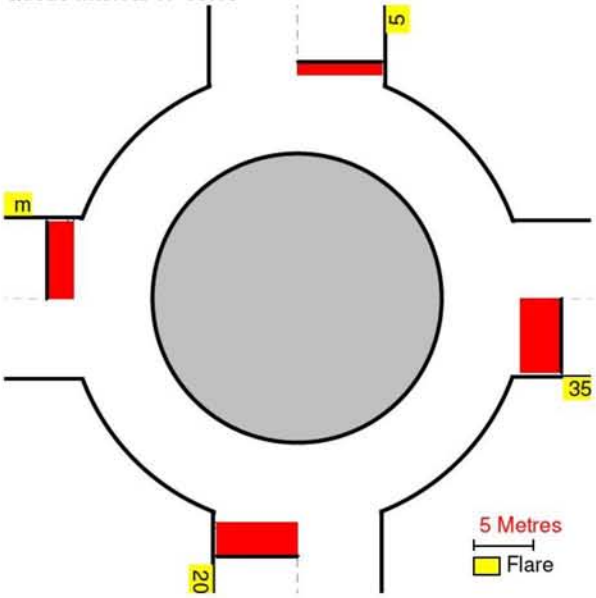
Time Period	From/To	Arm A	Arm B	Arm C	Arm D
	Arm D	11.9	11.9	11.9	0.0

Queue Diagrams: (View Extent = 40m)

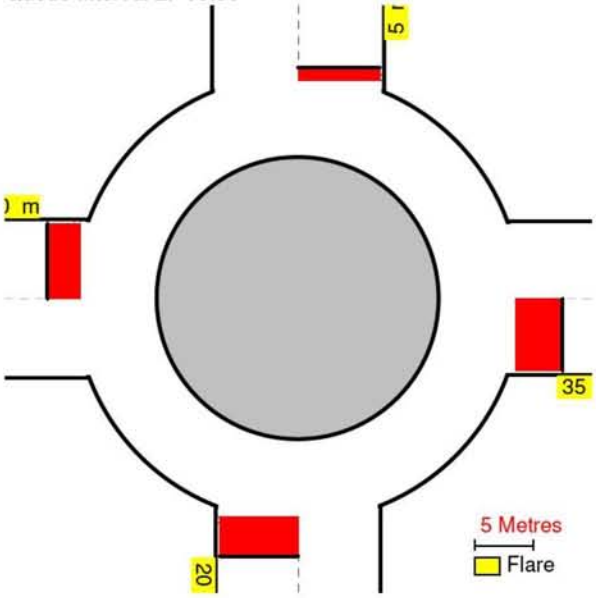
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 08:00---> End Time: 09:30

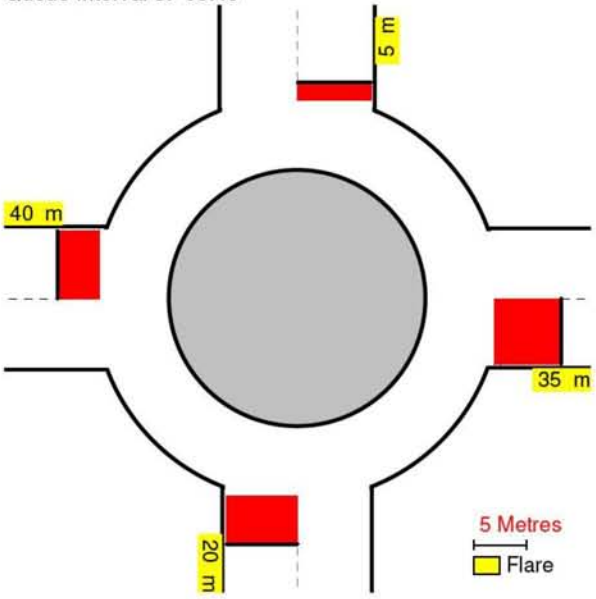
Queue Interval 1: 08:15



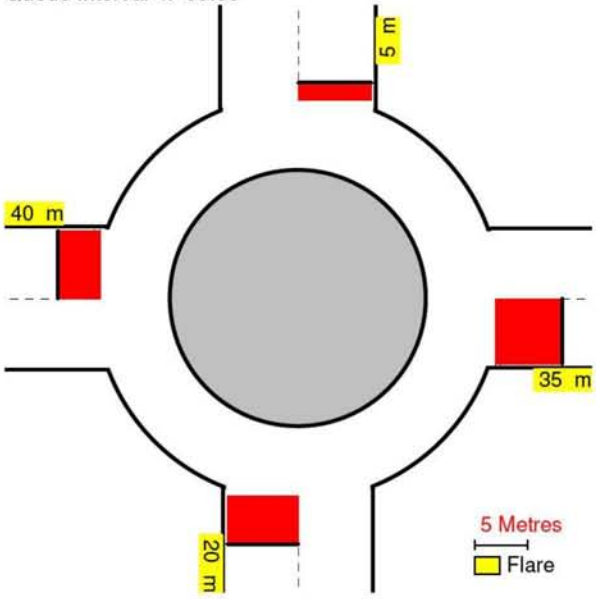
Queue Interval 2: 08:30



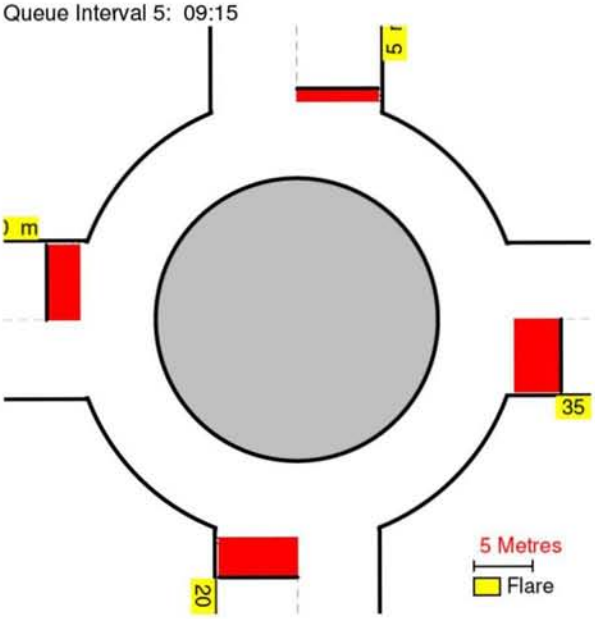
Queue Interval 3: 08:45



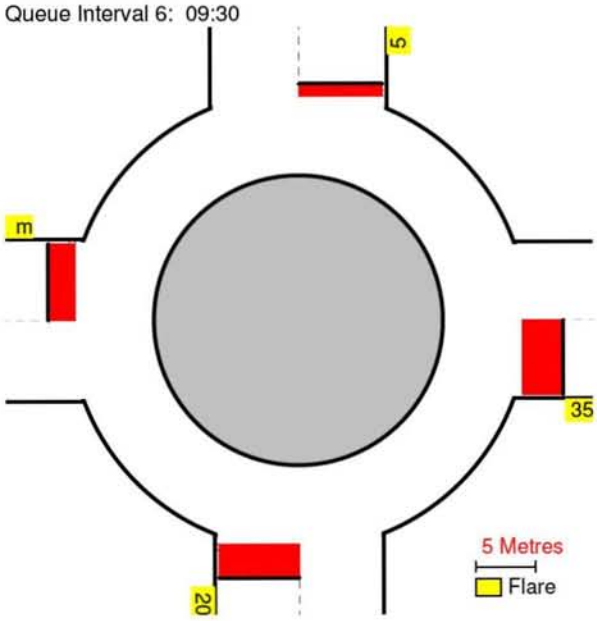
Queue Interval 4: 09:00



Queue Interval 5: 09:15



Queue Interval 6: 09:30

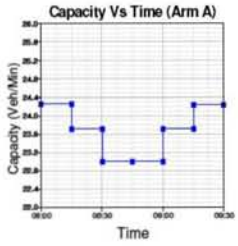


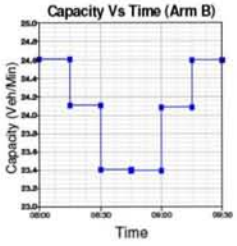
Demand Data Graphs

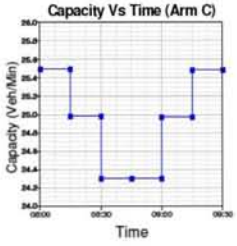
No graph available

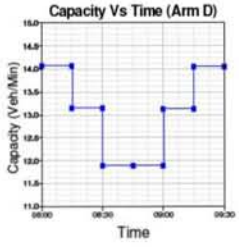
Capacity (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



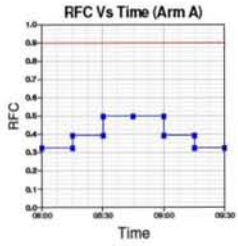


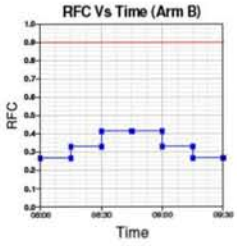


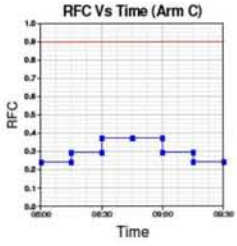


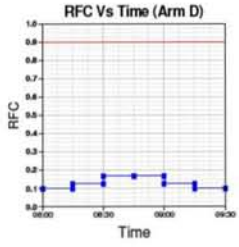
RFC (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



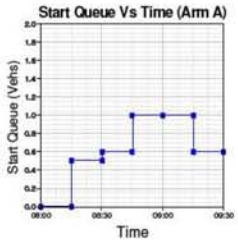


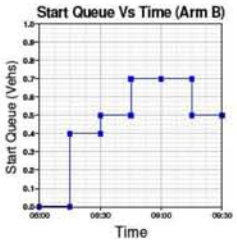


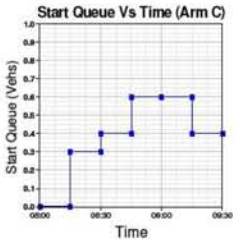


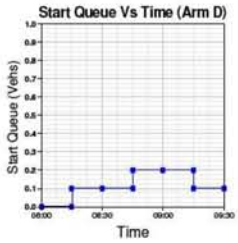
Start Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



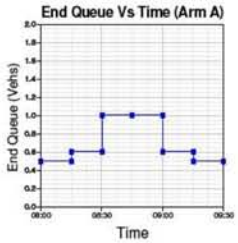


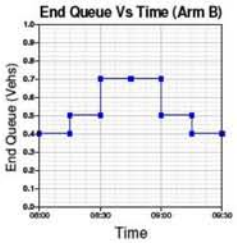


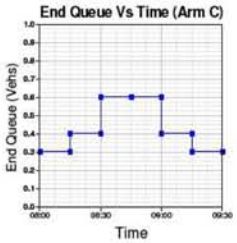


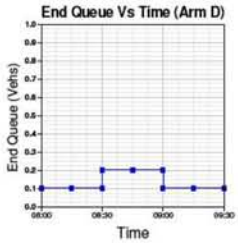
End Queue (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)







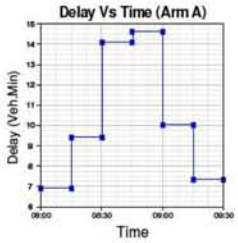


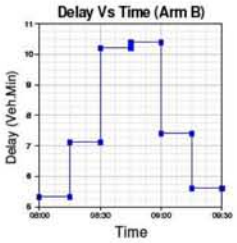
Geometric Delay Graph

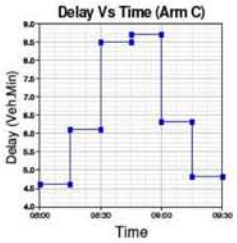
No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

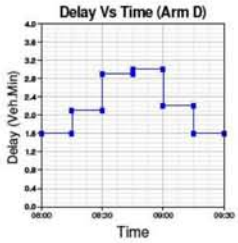
Delay (against Time) Graphs, for each 15min Interval (08:00 - 09:30)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)









Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 08:00 to 08:15	A	7.78	24.24	0.321	-	0.0	0.5	6.9	-	0.061
	B	6.57	24.61	0.267	-	0.0	0.4	5.3	-	0.055
	C	6.11	25.49	0.240	-	0.0	0.3	4.6	-	0.052
	D	1.36	14.06	0.096	-	0.0	0.1	1.6	-	0.079
Segment : 2 - 08:15 to 08:30	A	9.29	23.71	0.392	-	0.5	0.6	9.4	-	0.069
	B	7.85	24.10	0.326	-	0.4	0.5	7.1	-	0.062
	C	7.30	24.98	0.292	-	0.3	0.4	6.1	-	0.056
	D	1.62	13.14	0.123	-	0.1	0.1	2.1	-	0.087
Segment : 3 - 08:30 to 08:45	A	11.38	22.99	0.495	-	0.6	1.0	14.1	-	0.086
	B	9.62	23.40	0.411	-	0.5	0.7	10.2	-	0.072
	C	8.94	24.29	0.368	-	0.4	0.6	8.5	-	0.065
	D	1.98	11.89	0.167	-	0.1	0.2	2.9	-	0.101
Segment : 4 - 08:45 to 09:00	A	11.38	22.98	0.495	-	1.0	1.0	14.6	-	0.086
	B	9.62	23.39	0.411	-	0.7	0.7	10.4	-	0.073
	C	8.94	24.29	0.368	-	0.6	0.6	8.7	-	0.065
	D	1.98	11.88	0.167	-	0.2	0.2	3.0	-	0.101
Segment : 5 - 09:00 to 09:15	A	9.29	23.70	0.392	-	1.0	0.6	10.0	-	0.070
	B	7.85	24.08	0.326	-	0.7	0.5	7.4	-	0.062
	C	7.30	24.97	0.292	-	0.6	0.4	6.3	-	0.057
	D	1.62	13.13	0.123	-	0.2	0.1	2.2	-	0.087
Segment : 6 - 09:15 to 09:30	A	7.78	24.23	0.321	-	0.6	0.5	7.3	-	0.061
	B	6.57	24.60	0.267	-	0.5	0.4	5.6	-	0.056
	C	6.11	25.48	0.240	-	0.4	0.3	4.8	-	0.052
	D	1.36	14.04	0.097	-	0.1	0.1	1.6	-	0.079

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	853.4	568.9	62.2	0.07	62.2	0.07
B	721.2	480.8	46.0	0.06	46.0	0.06
C	670.3	446.9	39.0	0.06	39.0	0.06
D	148.7	99.1	13.3	0.09	13.3	0.09
ALL	2393.6	1595.7	160.6	0.07	160.6	0.07

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

ARCADY 6

GUI Version: 6.2 AG
Analysis Program: Release 7.0 (FEBRUARY 2010)

For sales and distribution information, program advice and maintenance, contact:

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RG40 3GA, UK

Tel: +44 (0)1344 770758
Fax:+44 (0)1344 770864
Email: software@ trl.co.uk
Web:www.trlsoftware.co.uk

Run Information

Run with file:- **C:\ARC6\1305\TA MODELS\SJ4 PM MODEL.vai**
At: **09:57:35 on Thursday, January 24, 2013**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	A49 LUDLOW ROAD
Arm B	A49
Arm C	A44
Arm D	PFS access

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

File Properties

Run Title	SJ4
Location	
Date	19/06/2012
Client	
Enumerator	AHA [ANALYSIS1]
Job Number	1305
Status	
Description	

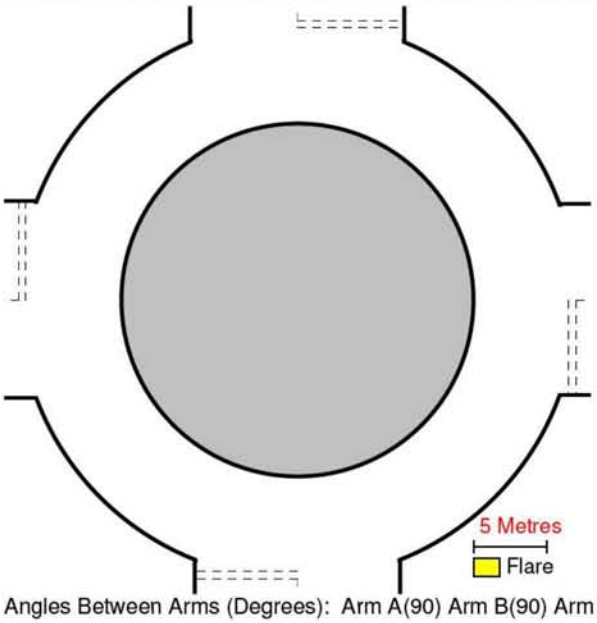
Errors and Warnings

WARNING ARM A Effective flare length is outside normal range.
Treat capacities with increasing caution.
WARNING ARM C Effective flare length is outside normal range.
Treat capacities with increasing caution.

Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D
Approach Road Half-Width (m)	3.65	3.90	4.00	3.00
Entry Width (m)	6.50	7.00	6.70	7.30
Flare Length (m)	35.00	20.00	40.00	5.00
Entry Radius (m)	25.00	25.00	20.00	20.00
Inscribed Circle Diameter (m)	38.00	38.00	38.00	38.00
Entry Angle (degrees)	30.00	30.00	30.00	30.00
Slope	0.671	0.675	0.683	0.557
Intercept (PCU/Min)	30.142	30.455	31.413	20.938

Junction Diagram: (View Extent = 40m)



Angles Between Arms (Degrees): Arm A(90) Arm B(90) Arm C(90) Arm D(90)

Demand Data

Demand Profiles are Synthesised using **ODTAB** Data
Period of interest (for Queue and Delay calculations): **16:15 to 17:45**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Total Traffic Demand (Vehicles/Hour) for Demand Set: PM 2012 TRAFFIC COUNT

From/To	Arm A	Arm B	Arm C	Arm D
Arm A	0.0	339.0	203.0	18.0
Arm B	387.0	0.0	277.0	55.0
Arm C	225.0	228.0	0.0	39.0
Arm D	45.0	41.0	20.0	0.0

Entry Flow Data for Demand Set: PM 2012 TRAFFIC COUNT

Arms	Number of Minutes From Start When			Rate of flow (Veh/Min)		
	Flow Starts To Rise	Top of Peak is Reached	Flow Stops Falling	Before Peak	At Top of Peak	After Peak
Arm A	15.00	45.00	75.00	7.00	10.50	7.00
Arm B	15.00	45.00	75.00	8.99	13.48	8.99
Arm C	15.00	45.00	75.00	6.15	9.23	6.15
Arm D	15.00	45.00	75.00	1.33	1.99	1.33

Turning Proportions

ODTAB Demand Data type is used, no turning proportions available.

Heavy Vehicle Percentages for Demand Set: PM 2012 TRAFFIC COUNT

Vary over entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
16:15 to 17:45	Arm A	0.0	5.1	5.1	5.1
	Arm B	5.1	0.0	5.1	5.1
	Arm C	5.1	5.1	0.0	5.1

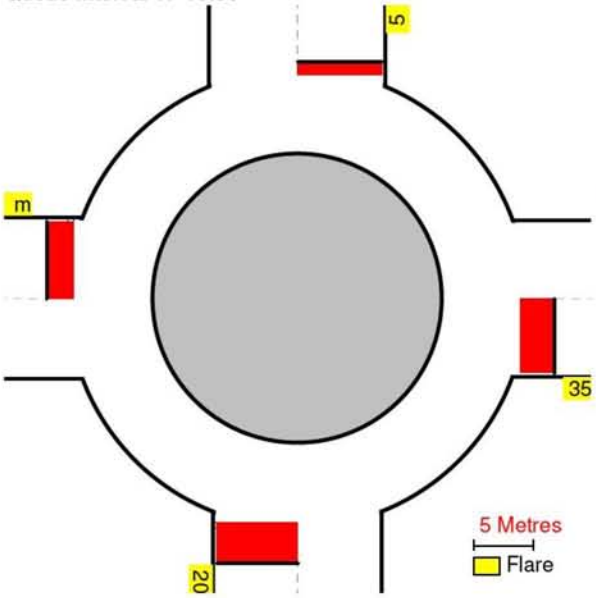
Time Period	From/To	Arm A	Arm B	Arm C	Arm D
	Arm D	5.1	5.1	5.1	0.0

Queue Diagrams: (View Extent = 40m)

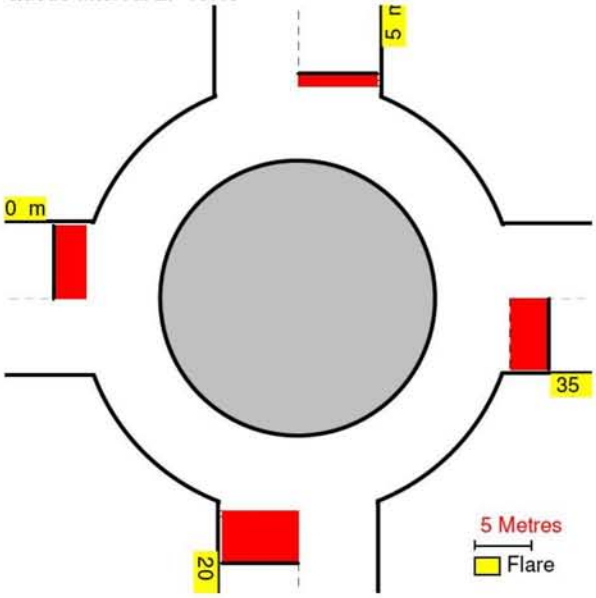
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 16:15---> End Time: 17:45

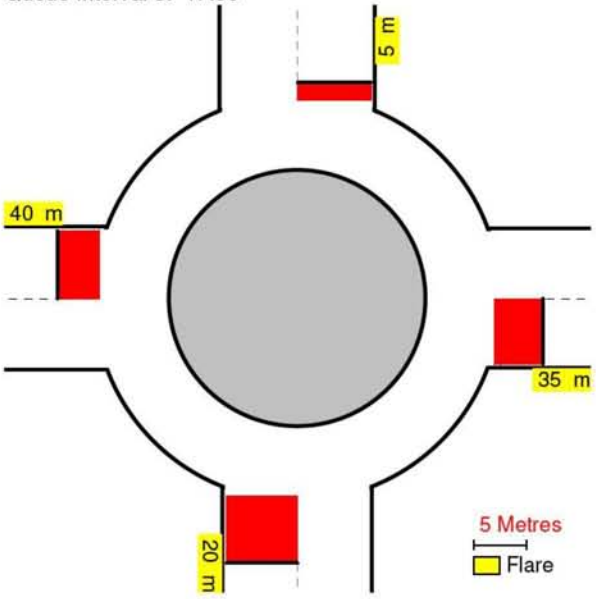
Queue Interval 1: 16:30



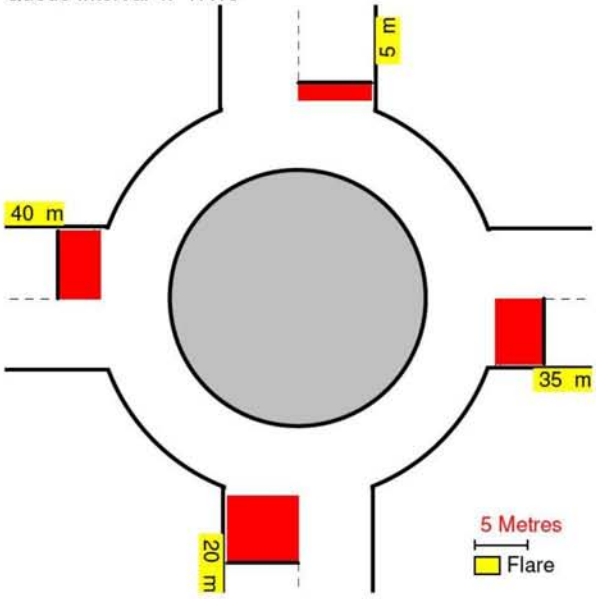
Queue Interval 2: 16:45



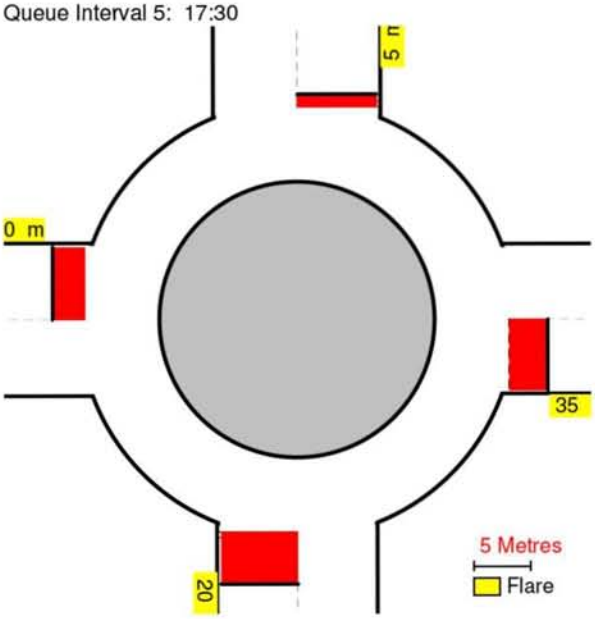
Queue Interval 3: 17:00



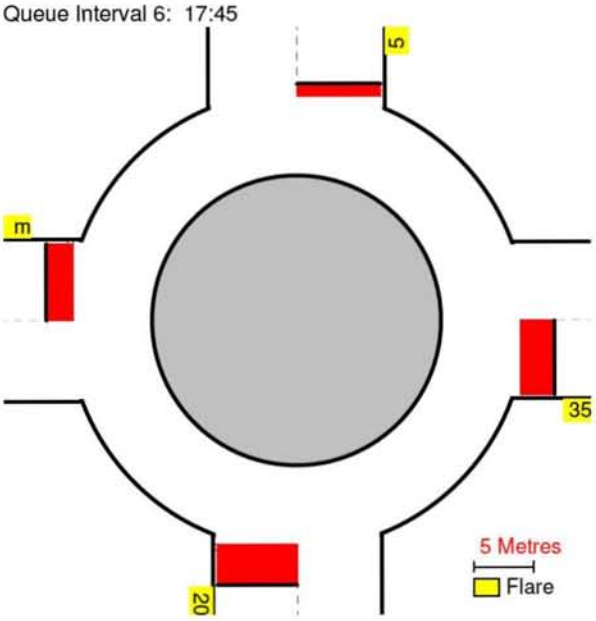
Queue Interval 4: 17:15



Queue Interval 5: 17:30



Queue Interval 6: 17:45

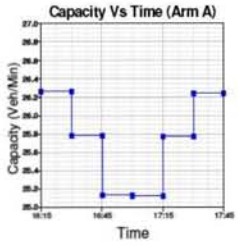


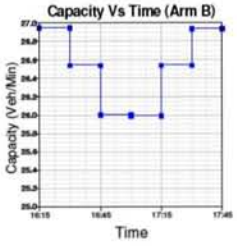
Demand Data Graphs

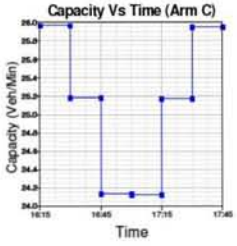
No graph available

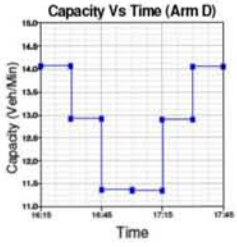
Capacity (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



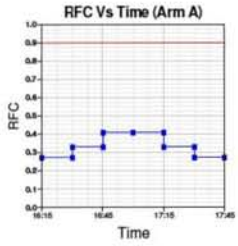


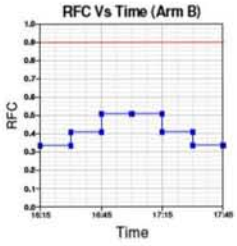


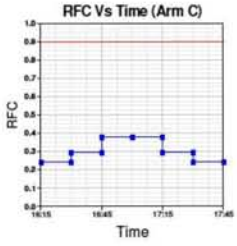


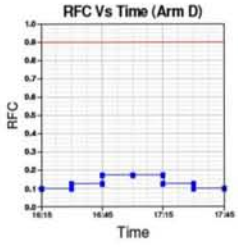
RFC (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



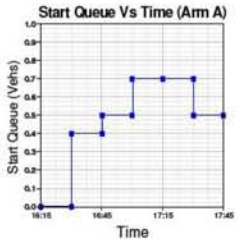


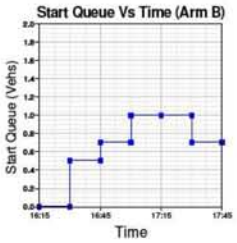


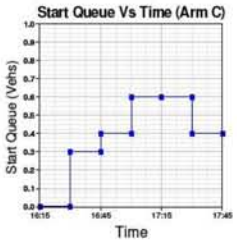


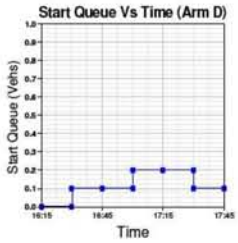
Start Queue (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



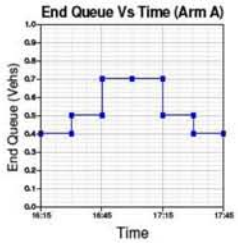


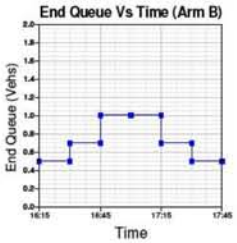


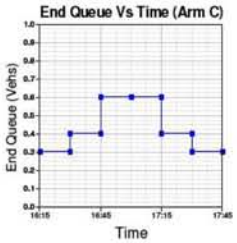


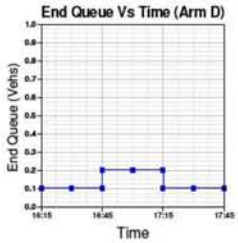
End Queue (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)







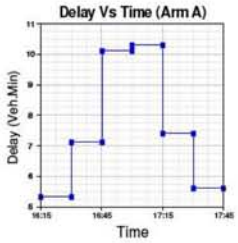


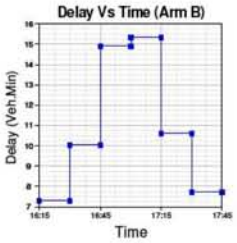
Geometric Delay Graph

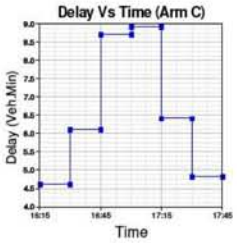
No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

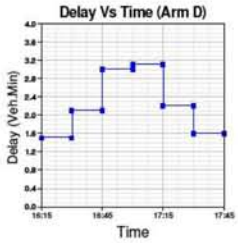
Delay (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)









Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 16:15 to 16:30	A	7.03	26.26	0.268	-	0.0	0.4	5.3	-	0.052
	B	9.02	26.94	0.335	-	0.0	0.5	7.3	-	0.056
	C	6.17	25.96	0.238	-	0.0	0.3	4.6	-	0.050
	D	1.33	14.07	0.095	-	0.0	0.1	1.5	-	0.078
Segment : 2 - 16:30 to 16:45	A	8.39	25.78	0.326	-	0.4	0.5	7.1	-	0.058
	B	10.77	26.54	0.406	-	0.5	0.7	10.0	-	0.063
	C	7.37	25.18	0.293	-	0.3	0.4	6.1	-	0.056
	D	1.59	12.92	0.123	-	0.1	0.1	2.1	-	0.088
Segment : 3 - 16:45 to 17:00	A	10.28	25.13	0.409	-	0.5	0.7	10.1	-	0.067
	B	13.19	26.00	0.508	-	0.7	1.0	14.9	-	0.078
	C	9.03	24.13	0.374	-	0.4	0.6	8.7	-	0.066
	D	1.95	11.35	0.171	-	0.1	0.2	3.0	-	0.106
Segment : 4 - 17:00 to 17:15	A	10.28	25.12	0.409	-	0.7	0.7	10.3	-	0.067
	B	13.19	25.99	0.508	-	1.0	1.0	15.3	-	0.078
	C	9.03	24.12	0.374	-	0.6	0.6	8.9	-	0.066
	D	1.95	11.34	0.172	-	0.2	0.2	3.1	-	0.106
Segment : 5 - 17:15 to 17:30	A	8.39	25.77	0.326	-	0.7	0.5	7.4	-	0.058
	B	10.77	26.54	0.406	-	1.0	0.7	10.6	-	0.064
	C	7.37	25.17	0.293	-	0.6	0.4	6.4	-	0.056
	D	1.59	12.90	0.123	-	0.2	0.1	2.2	-	0.088
Segment : 6 - 17:30 to 17:45	A	7.03	26.24	0.268	-	0.5	0.4	5.6	-	0.052
	B	9.02	26.93	0.335	-	0.7	0.5	7.7	-	0.056
	C	6.17	25.94	0.238	-	0.4	0.3	4.8	-	0.051
	D	1.33	14.04	0.095	-	0.1	0.1	1.6	-	0.079

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	770.8	513.9	45.9	0.06	45.9	0.06
B	989.7	659.8	65.9	0.07	65.9	0.07
C	677.2	451.5	39.4	0.06	39.4	0.06
D	145.9	97.3	13.4	0.09	13.4	0.09
ALL	2583.6	1722.4	164.6	0.06	164.6	0.06

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

ARCADY 6

GUI Version: 6.2 AG
Analysis Program: Release 7.0 (FEBRUARY 2010)

For sales and distribution information, program advice and maintenance, contact:

TRL Limited
Crowthorne House
Nine Mile Ride
Wokingham, Berks.
RG40 3GA, UK

Tel: +44 (0)1344 770758
Fax:+44 (0)1344 770864
Email: software@ trl.co.uk
Web:www.trlsoftware.co.uk

Run Information

Run with file:- **C:\ARC6\1305\TA MODELS\SJ4 PM MODEL.vai**
At: **09:58:48 on Thursday, January 24, 2013**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	A49 LUDLOW ROAD
Arm B	A49
Arm C	A44
Arm D	PFS access

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

File Properties

Run Title	SJ4
Location	
Date	19/06/2012
Client	
Enumerator	AHA [ANALYSIS1]
Job Number	1305
Status	
Description	

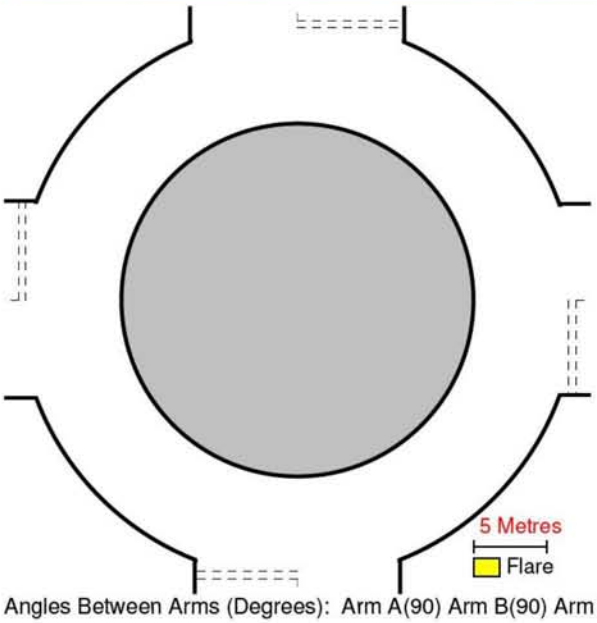
Errors and Warnings

WARNING ARM A Effective flare length is outside normal range.
Treat capacities with increasing caution.
WARNING ARM C Effective flare length is outside normal range.
Treat capacities with increasing caution.

Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D
Approach Road Half-Width (m)	3.65	3.90	4.00	3.00
Entry Width (m)	6.50	7.00	6.70	7.30
Flare Length (m)	35.00	20.00	40.00	5.00
Entry Radius (m)	25.00	25.00	20.00	20.00
Inscribed Circle Diameter (m)	38.00	38.00	38.00	38.00
Entry Angle (degrees)	30.00	30.00	30.00	30.00
Slope	0.671	0.675	0.683	0.557
Intercept (PCU/Min)	30.142	30.455	31.413	20.938

Junction Diagram: (View Extent = 40m)



Angles Between Arms (Degrees): Arm A(90) Arm B(90) Arm C(90) Arm D(90)

Demand Data

Demand Profiles are Synthesised using **ODTAB** Data
Period of interest (for Queue and Delay calculations): **16:15 to 17:45**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Total Traffic Demand (Vehicles/Hour) for Demand Set: PM 2014 BASE

From/To	Arm A	Arm B	Arm C	Arm D
Arm A	0.0	341.0	239.0	18.0
Arm B	390.0	0.0	279.0	55.0
Arm C	241.0	229.0	0.0	39.0
Arm D	45.0	41.0	20.0	0.0

Entry Flow Data for Demand Set: PM 2014 BASE

Arms	Number of Minutes From Start When			Rate of flow (Veh/Min)		
	Flow Starts To Rise	Top of Peak is Reached	Flow Stops Falling	Before Peak	At Top of Peak	After Peak
Arm A	15.00	45.00	75.00	7.47	11.21	7.47
Arm B	15.00	45.00	75.00	9.05	13.58	9.05
Arm C	15.00	45.00	75.00	6.36	9.54	6.36
Arm D	15.00	45.00	75.00	1.33	1.99	1.33

Turning Proportions

ODTAB Demand Data type is used, no turning proportions available.

Heavy Vehicle Percentages for Demand Set: PM 2014 BASE

Vary over entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
16:15 to 17:45	Arm A	0.0	5.1	5.1	5.1
	Arm B	5.1	0.0	5.1	5.1
	Arm C	5.1	5.1	0.0	5.1

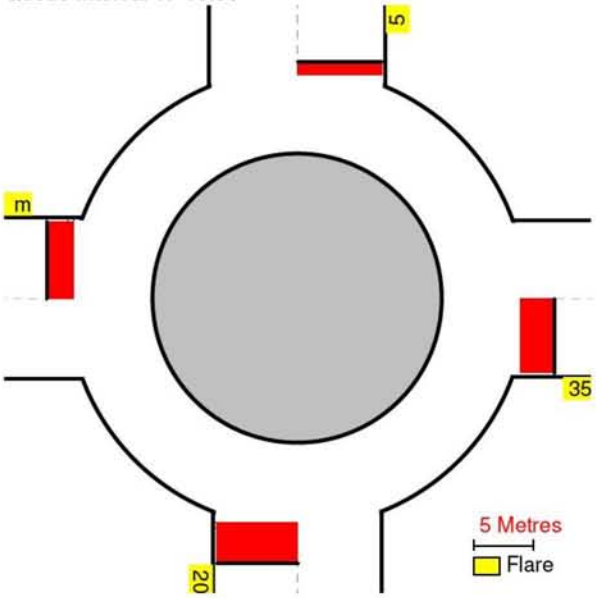
Time Period	From/To	Arm A	Arm B	Arm C	Arm D
	Arm D	5.1	5.1	5.1	0.0

Queue Diagrams: (View Extent = 40m)

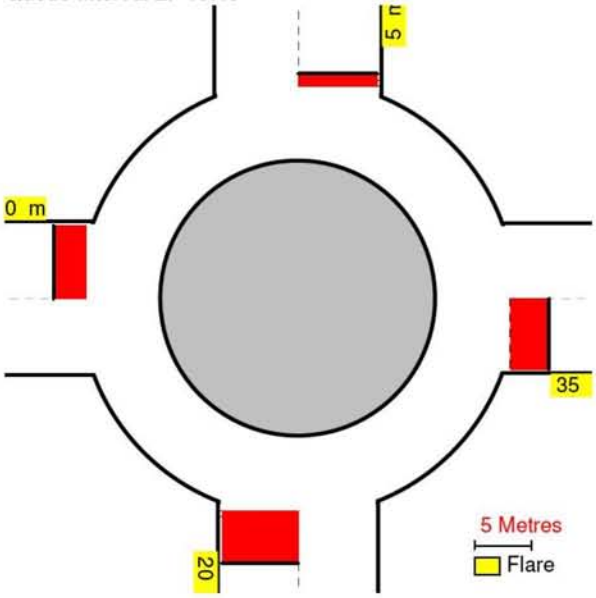
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 16:15---> End Time: 17:45

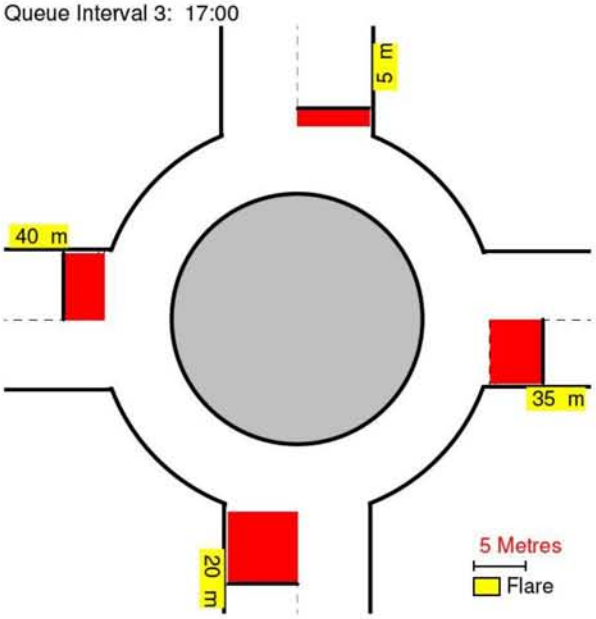
Queue Interval 1: 16:30



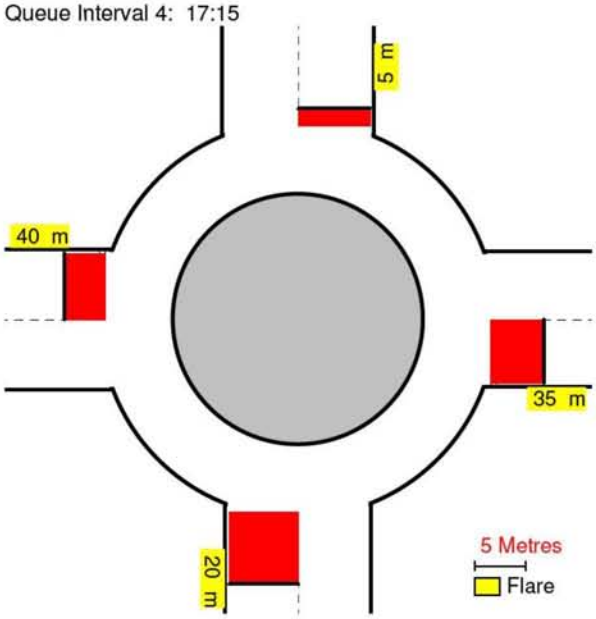
Queue Interval 2: 16:45



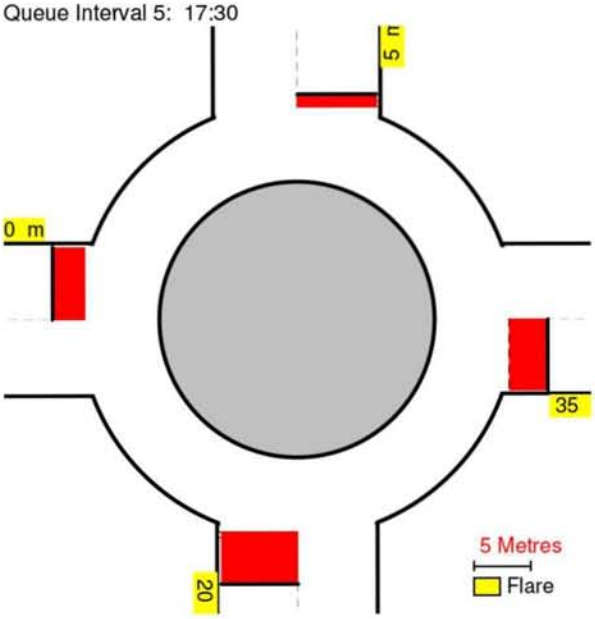
Queue Interval 3: 17:00



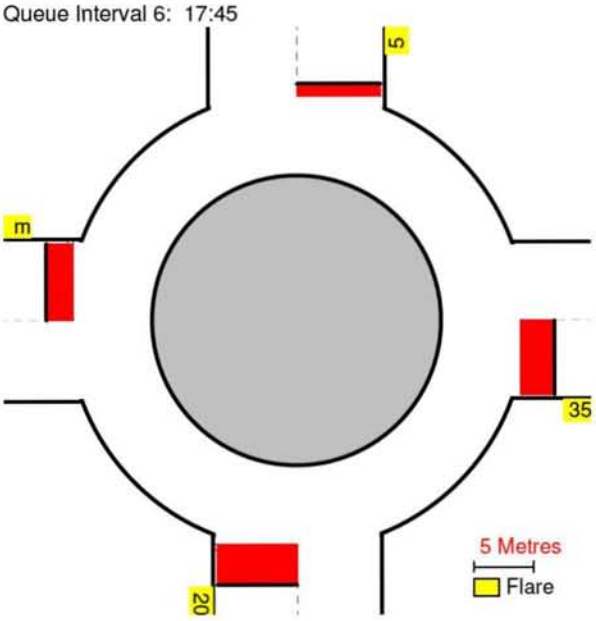
Queue Interval 4: 17:15



Queue Interval 5: 17:30



Queue Interval 6: 17:45

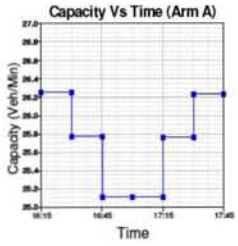


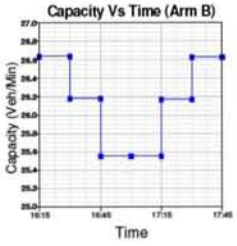
Demand Data Graphs

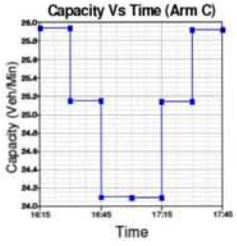
No graph available

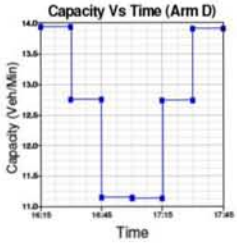
Capacity (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



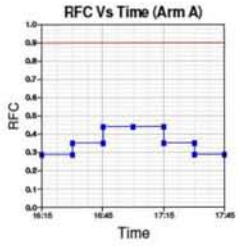


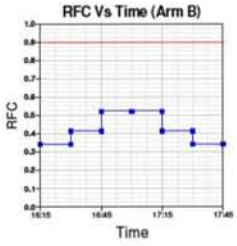


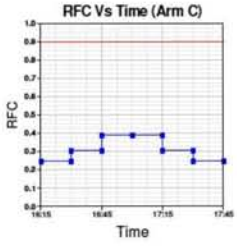


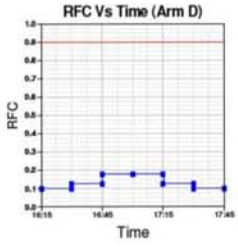
RFC (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



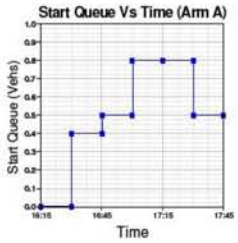


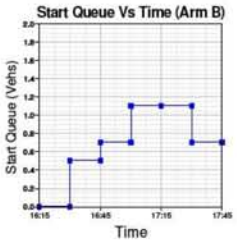


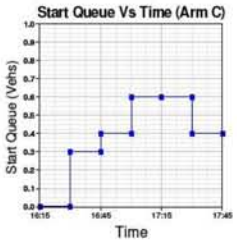


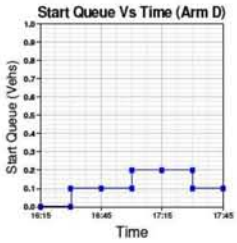
Start Queue (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



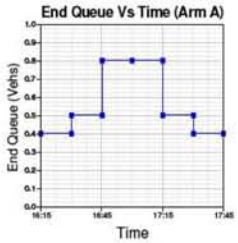


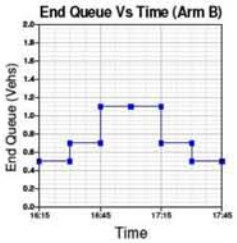


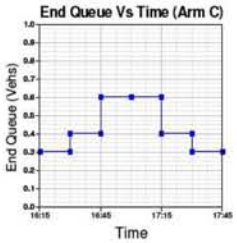


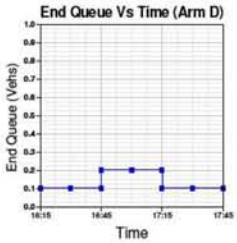
End Queue (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)







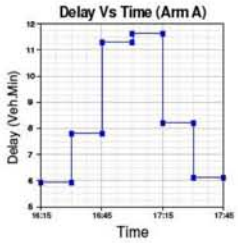


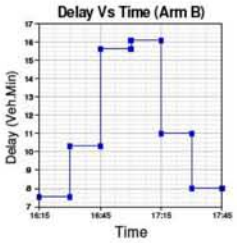
Geometric Delay Graph

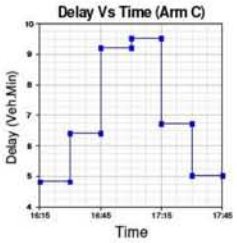
No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

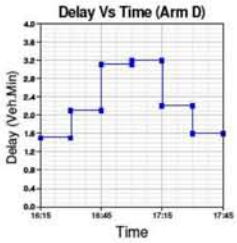
Delay (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)









Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 16:15 to 16:30	A	7.50	26.25	0.286	-	0.0	0.4	5.9	-	0.053
	B	9.08	26.64	0.341	-	0.0	0.5	7.5	-	0.057
	C	6.39	25.93	0.246	-	0.0	0.3	4.8	-	0.051
	D	1.33	13.93	0.095	-	0.0	0.1	1.5	-	0.079
Segment : 2 - 16:30 to 16:45	A	8.96	25.77	0.348	-	0.4	0.5	7.8	-	0.059
	B	10.85	26.18	0.414	-	0.5	0.7	10.3	-	0.065
	C	7.63	25.15	0.303	-	0.3	0.4	6.4	-	0.057
	D	1.59	12.75	0.125	-	0.1	0.1	2.1	-	0.090
Segment : 3 - 16:45 to 17:00	A	10.97	25.11	0.437	-	0.5	0.8	11.3	-	0.071
	B	13.29	25.55	0.520	-	0.7	1.1	15.6	-	0.081
	C	9.34	24.09	0.388	-	0.4	0.6	9.2	-	0.068
	D	1.95	11.14	0.175	-	0.1	0.2	3.1	-	0.109
Segment : 4 - 17:00 to 17:15	A	10.97	25.11	0.437	-	0.8	0.8	11.6	-	0.071
	B	13.29	25.55	0.520	-	1.1	1.1	16.1	-	0.082
	C	9.34	24.08	0.388	-	0.6	0.6	9.5	-	0.068
	D	1.95	11.13	0.175	-	0.2	0.2	3.2	-	0.109
Segment : 5 - 17:15 to 17:30	A	8.96	25.76	0.348	-	0.8	0.5	8.2	-	0.060
	B	10.85	26.17	0.414	-	1.1	0.7	11.0	-	0.065
	C	7.63	25.14	0.303	-	0.6	0.4	6.7	-	0.057
	D	1.59	12.73	0.125	-	0.2	0.1	2.2	-	0.090
Segment : 6 - 17:30 to 17:45	A	7.50	26.23	0.286	-	0.5	0.4	6.1	-	0.053
	B	9.08	26.63	0.341	-	0.7	0.5	8.0	-	0.057
	C	6.39	25.91	0.246	-	0.4	0.3	5.0	-	0.051
	D	1.33	13.90	0.096	-	0.1	0.1	1.6	-	0.080

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	823.1	548.7	50.9	0.06	50.9	0.06
B	996.5	664.4	68.5	0.07	68.5	0.07
C	700.6	467.1	41.6	0.06	41.6	0.06
D	145.9	97.3	13.7	0.09	13.7	0.09
ALL	2666.1	1777.4	174.6	0.07	174.6	0.07

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

ARCADY 6

GUI Version: 6.2 AG
Analysis Program: Release 7.0 (FEBRUARY 2010)

For sales and distribution information, program advice and maintenance, contact:

TRL Limited
Crowthorne House
Nine Mile Ride
Wokingham, Berks.
RG40 3GA, UK

Tel: +44 (0)1344 770758
Fax:+44 (0)1344 770864
Email: software@ trl.co.uk
Web:www.trlsoftware.co.uk

Run Information

Run with file:- **C:\ARC6\1305\TA MODELS\SJ4 PM MODEL.vai**
At: **09:59:42 on Thursday, January 24, 2013**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	A49 LUDLOW ROAD
Arm B	A49
Arm C	A44
Arm D	PFS access

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

File Properties

Run Title	SJ4
Location	
Date	19/06/2012
Client	
Enumerator	AHA [ANALYSIS1]
Job Number	1305
Status	
Description	

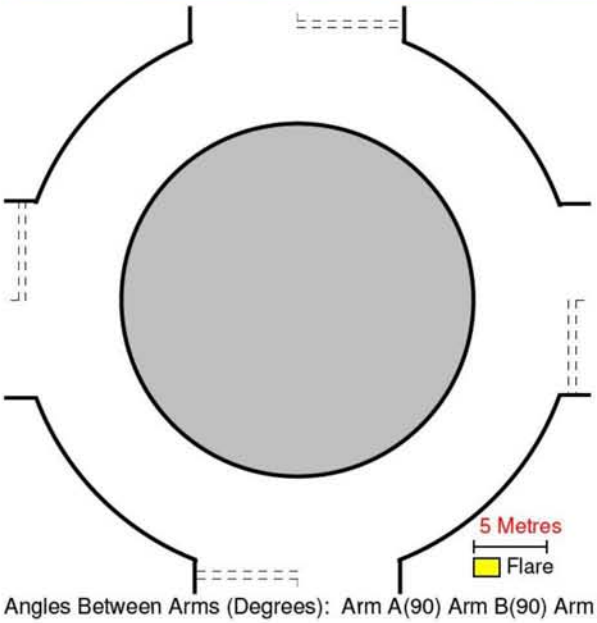
Errors and Warnings

WARNING ARM A Effective flare length is outside normal range.
Treat capacities with increasing caution.
WARNING ARM C Effective flare length is outside normal range.
Treat capacities with increasing caution.

Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D
Approach Road Half-Width (m)	3.65	3.90	4.00	3.00
Entry Width (m)	6.50	7.00	6.70	7.30
Flare Length (m)	35.00	20.00	40.00	5.00
Entry Radius (m)	25.00	25.00	20.00	20.00
Inscribed Circle Diameter (m)	38.00	38.00	38.00	38.00
Entry Angle (degrees)	30.00	30.00	30.00	30.00
Slope	0.671	0.675	0.683	0.557
Intercept (PCU/Min)	30.142	30.455	31.413	20.938

Junction Diagram: (View Extent = 40m)



Angles Between Arms (Degrees): Arm A(90) Arm B(90) Arm C(90) Arm D(90)

Demand Data

Demand Profiles are Synthesised using **ODTAB** Data
Period of interest (for Queue and Delay calculations): **16:15 to 17:45**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Total Traffic Demand (Vehicles/Hour) for Demand Set: PM 2014 WITH DEVT

From/To	Arm A	Arm B	Arm C	Arm D
Arm A	0.0	350.0	223.0	18.0
Arm B	399.0	0.0	314.0	55.0
Arm C	227.0	261.0	0.0	39.0
Arm D	45.0	41.0	20.0	0.0

Entry Flow Data for Demand Set: PM 2014 WITH DEVT

Arms	Number of Minutes From Start When			Rate of flow (Veh/Min)		
	Flow Starts To Rise	Top of Peak is Reached	Flow Stops Falling	Before Peak	At Top of Peak	After Peak
Arm A	15.00	45.00	75.00	7.39	11.08	7.39
Arm B	15.00	45.00	75.00	9.60	14.40	9.60
Arm C	15.00	45.00	75.00	6.59	9.88	6.59
Arm D	15.00	45.00	75.00	1.33	1.99	1.33

Turning Proportions

ODTAB Demand Data type is used, no turning proportions available.

Heavy Vehicle Percentages for Demand Set: PM 2014 WITH DEVT

Vary over entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
16:15 to 17:45	Arm A	0.0	5.1	5.1	5.1
	Arm B	5.1	0.0	5.1	5.1
	Arm C	5.1	5.1	0.0	5.1

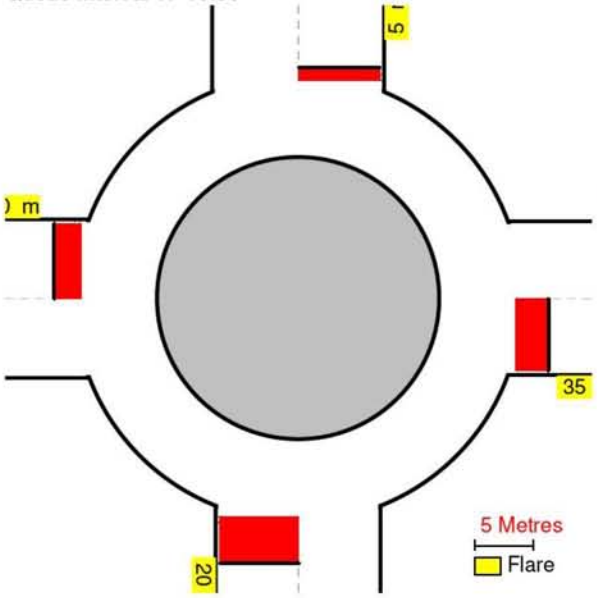
Time Period	From/To	Arm A	Arm B	Arm C	Arm D
	Arm D	5.1	5.1	5.1	0.0

Queue Diagrams: (View Extent = 40m)

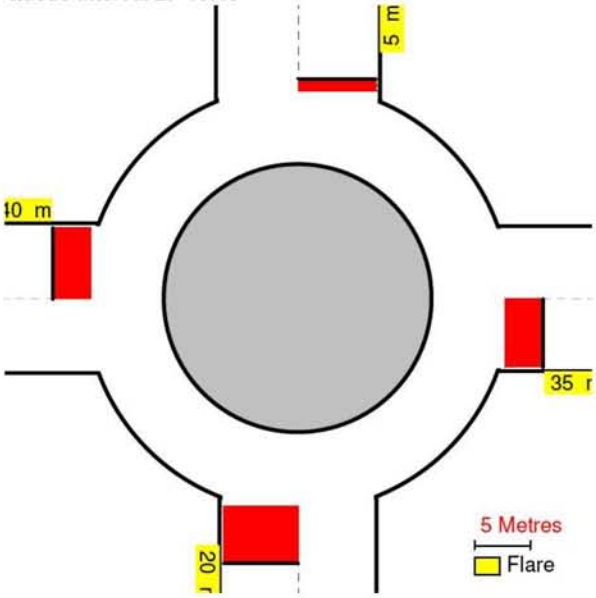
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 16:15---> End Time: 17:45

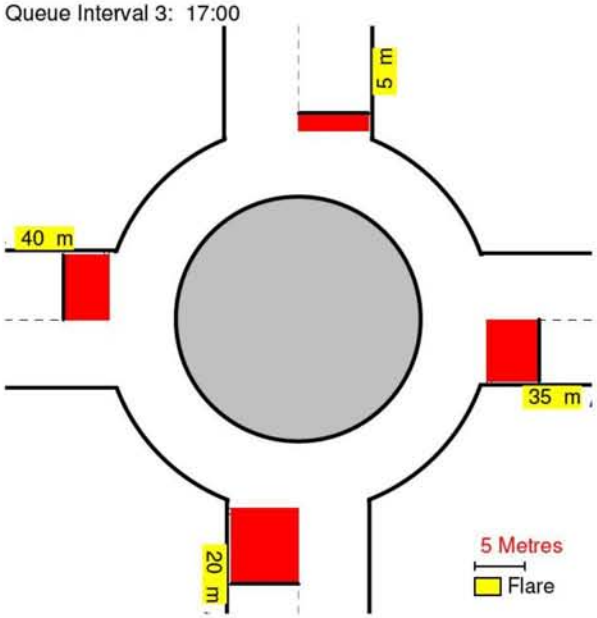
Queue Interval 1: 16:30



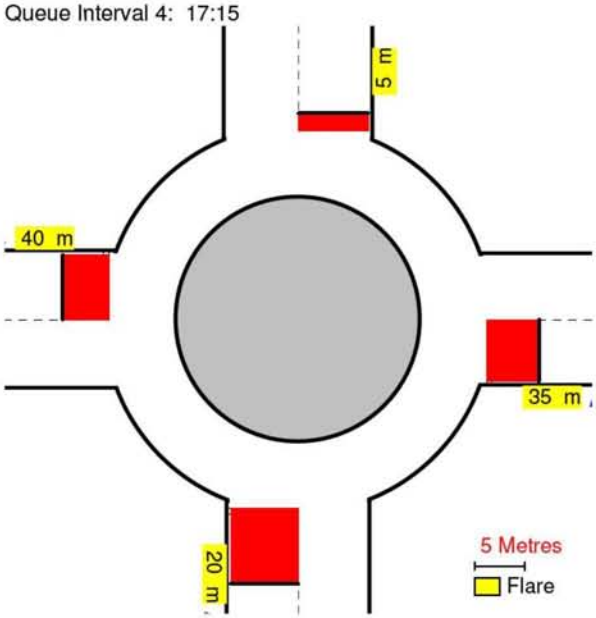
Queue Interval 2: 16:45



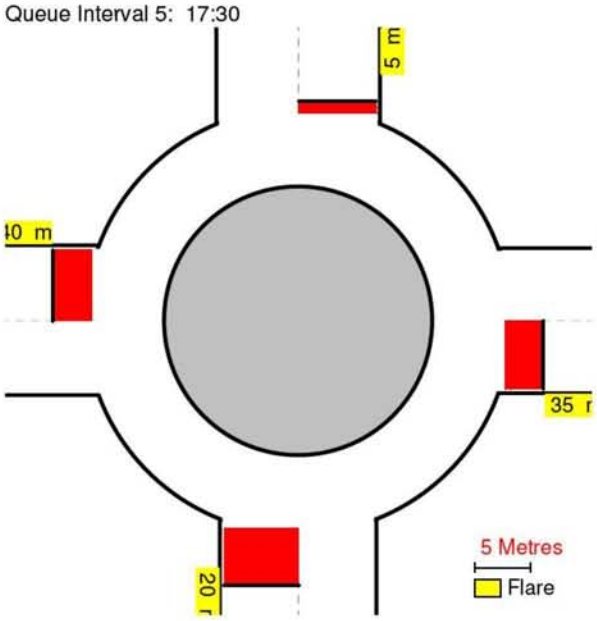
Queue Interval 3: 17:00



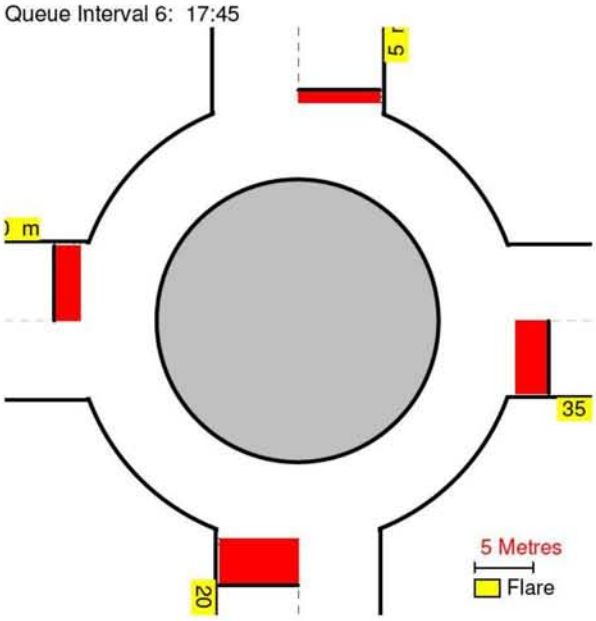
Queue Interval 4: 17:15



Queue Interval 5: 17:30



Queue Interval 6: 17:45

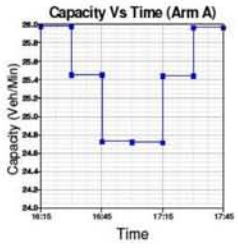


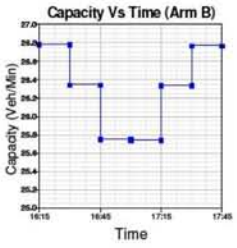
Demand Data Graphs

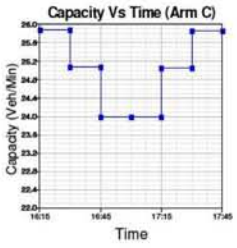
No graph available

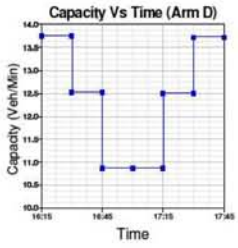
Capacity (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



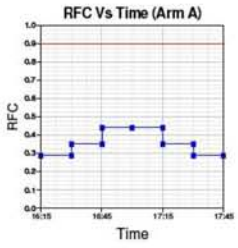


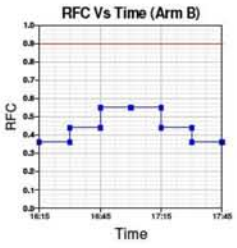


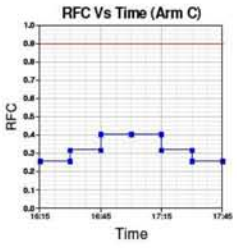


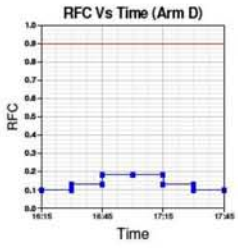
RFC (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



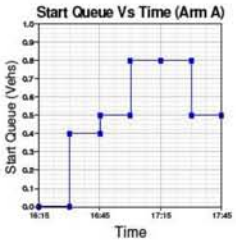


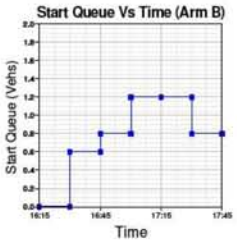


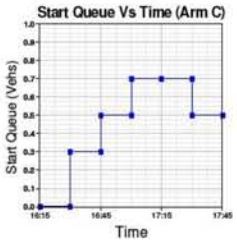


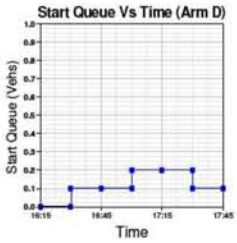
Start Queue (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



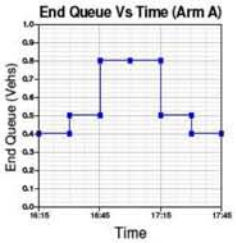


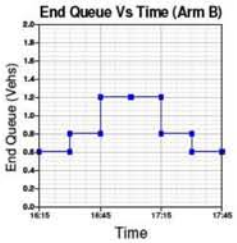


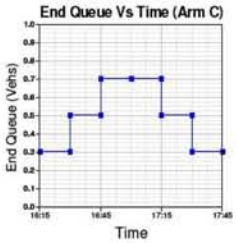


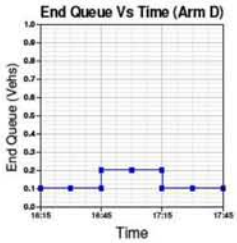
End Queue (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)







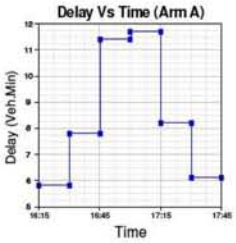


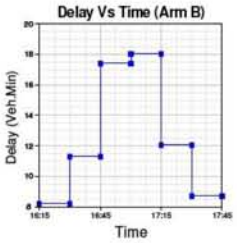
Geometric Delay Graph

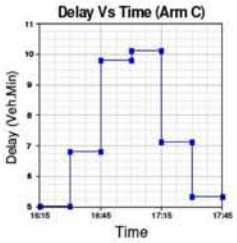
No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

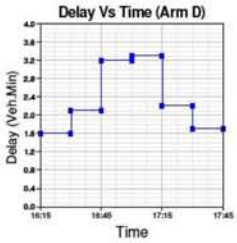
Delay (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)









Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 16:15 to 16:30	A	7.42	25.98	0.285	-	0.0	0.4	5.8	-	0.054
	B	9.64	26.78	0.360	-	0.0	0.6	8.2	-	0.058
	C	6.61	25.86	0.256	-	0.0	0.3	5.0	-	0.052
	D	1.33	13.74	0.097	-	0.0	0.1	1.6	-	0.081
Segment : 2 - 16:30 to 16:45	A	8.85	25.45	0.348	-	0.4	0.5	7.8	-	0.060
	B	11.51	26.34	0.437	-	0.6	0.8	11.3	-	0.067
	C	7.90	25.06	0.315	-	0.3	0.5	6.8	-	0.058
	D	1.59	12.53	0.127	-	0.1	0.1	2.1	-	0.091
Segment : 3 - 16:45 to 17:00	A	10.85	24.72	0.439	-	0.5	0.8	11.4	-	0.072
	B	14.09	25.75	0.547	-	0.8	1.2	17.4	-	0.085
	C	9.67	23.98	0.403	-	0.5	0.7	9.8	-	0.070
	D	1.95	10.87	0.179	-	0.1	0.2	3.2	-	0.112
Segment : 4 - 17:00 to 17:15	A	10.85	24.71	0.439	-	0.8	0.8	11.7	-	0.072
	B	14.09	25.74	0.547	-	1.2	1.2	18.0	-	0.086
	C	9.67	23.97	0.403	-	0.7	0.7	10.1	-	0.070
	D	1.95	10.86	0.179	-	0.2	0.2	3.3	-	0.112
Segment : 5 - 17:15 to 17:30	A	8.85	25.44	0.348	-	0.8	0.5	8.2	-	0.060
	B	11.51	26.33	0.437	-	1.2	0.8	12.0	-	0.068
	C	7.90	25.04	0.315	-	0.7	0.5	7.1	-	0.058
	D	1.59	12.50	0.127	-	0.2	0.1	2.2	-	0.092
Segment : 6 - 17:30 to 17:45	A	7.42	25.96	0.286	-	0.5	0.4	6.1	-	0.054
	B	9.64	26.76	0.360	-	0.8	0.6	8.7	-	0.058
	C	6.61	25.84	0.256	-	0.5	0.3	5.3	-	0.052
	D	1.33	13.71	0.097	-	0.1	0.1	1.7	-	0.081

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	813.5	542.3	51.0	0.06	51.0	0.06
B	1057.1	704.7	75.5	0.07	75.5	0.07
C	725.4	483.6	44.0	0.06	44.1	0.06
D	145.9	97.3	14.0	0.10	14.0	0.10
ALL	2741.8	1827.9	184.6	0.07	184.6	0.07

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

ARCADY 6

GUI Version: 6.2 AG
Analysis Program: Release 7.0 (FEBRUARY 2010)

For sales and distribution information, program advice and maintenance, contact:

TRL Limited
Crowthorne House
Nine Mile Ride
Wokingham, Berks.
RG40 3GA, UK

Tel: +44 (0)1344 770758
Fax:+44 (0)1344 770864
Email: software@ trl.co.uk
Web:www.trlsoftware.co.uk

Run Information

Run with file:- **C:\ARC6\1305\TA MODELS\SJ4 PM MODEL.vai**
At: **09:59:19 on Thursday, January 24, 2013**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	A49 LUDLOW ROAD
Arm B	A49
Arm C	A44
Arm D	PFS access

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

File Properties

Run Title	SJ4
Location	
Date	19/06/2012
Client	
Enumerator	AHA [ANALYSIS1]
Job Number	1305
Status	
Description	

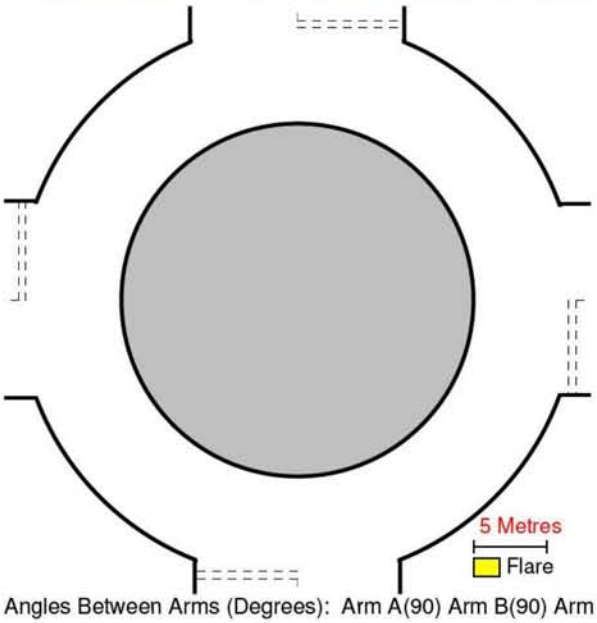
Errors and Warnings

WARNING ARM A Effective flare length is outside normal range.
Treat capacities with increasing caution.
WARNING ARM C Effective flare length is outside normal range.
Treat capacities with increasing caution.

Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D
Approach Road Half-Width (m)	3.65	3.90	4.00	3.00
Entry Width (m)	6.50	7.00	6.70	7.30
Flare Length (m)	35.00	20.00	40.00	5.00
Entry Radius (m)	25.00	25.00	20.00	20.00
Inscribed Circle Diameter (m)	38.00	38.00	38.00	38.00
Entry Angle (degrees)	30.00	30.00	30.00	30.00
Slope	0.671	0.675	0.683	0.557
Intercept (PCU/Min)	30.142	30.455	31.413	20.938

Junction Diagram: (View Extent = 40m)



Angles Between Arms (Degrees): Arm A(90) Arm B(90) Arm C(90) Arm D(90)

Demand Data

Demand Profiles are Synthesised using **ODTAB** Data
Period of interest (for Queue and Delay calculations): **16:15 to 17:45**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Total Traffic Demand (Vehicles/Hour) for Demand Set: PM 2022 BASE

From/To	Arm A	Arm B	Arm C	Arm D
Arm A	0.0	367.0	255.0	19.0
Arm B	419.0	0.0	300.0	60.0
Arm C	258.0	247.0	0.0	42.0
Arm D	49.0	44.0	22.0	0.0

Entry Flow Data for Demand Set: PM 2022 BASE

Arms	Number of Minutes From Start When			Rate of flow (Veh/Min)		
	Flow Starts To Rise	Top of Peak is Reached	Flow Stops Falling	Before Peak	At Top of Peak	After Peak
Arm A	15.00	45.00	75.00	8.01	12.02	8.01
Arm B	15.00	45.00	75.00	9.74	14.61	9.74
Arm C	15.00	45.00	75.00	6.84	10.26	6.84
Arm D	15.00	45.00	75.00	1.44	2.16	1.44

Turning Proportions

ODTAB Demand Data type is used, no turning proportions available.

Heavy Vehicle Percentages for Demand Set: PM 2022 BASE

Vary over entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
16:15 to 17:45	Arm A	0.0	5.1	5.1	5.1
	Arm B	5.1	0.0	5.1	5.1
	Arm C	5.1	5.1	0.0	5.1

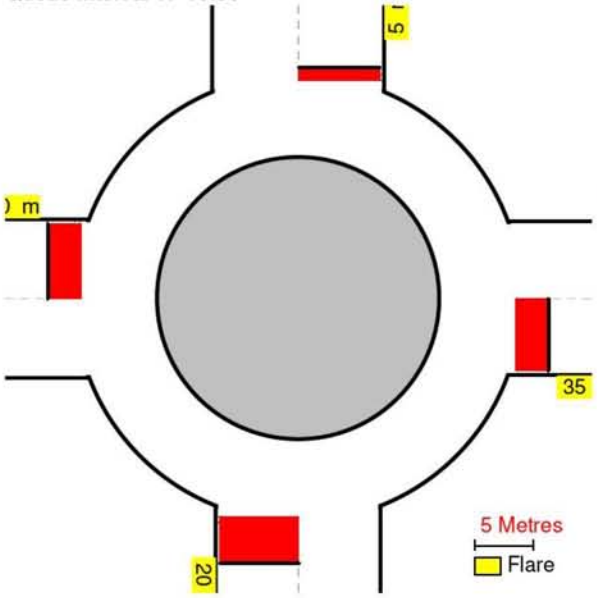
Time Period	From/To	Arm A	Arm B	Arm C	Arm D
	Arm D	5.1	5.1	5.1	0.0

Queue Diagrams: (View Extent = 40m)

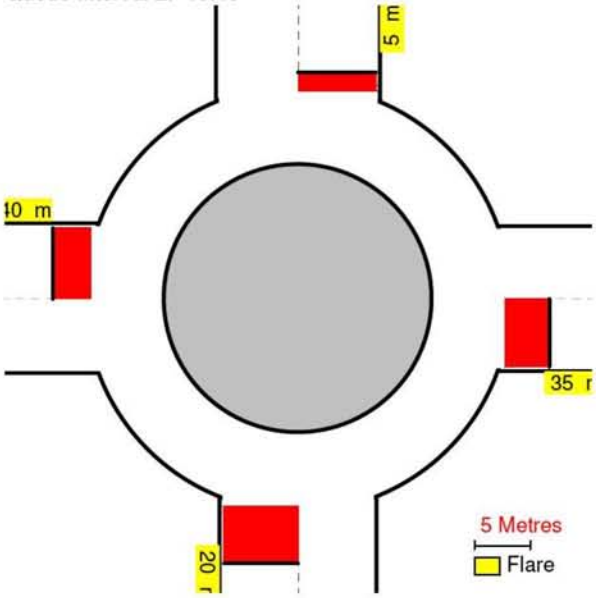
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 16:15---> End Time: 17:45

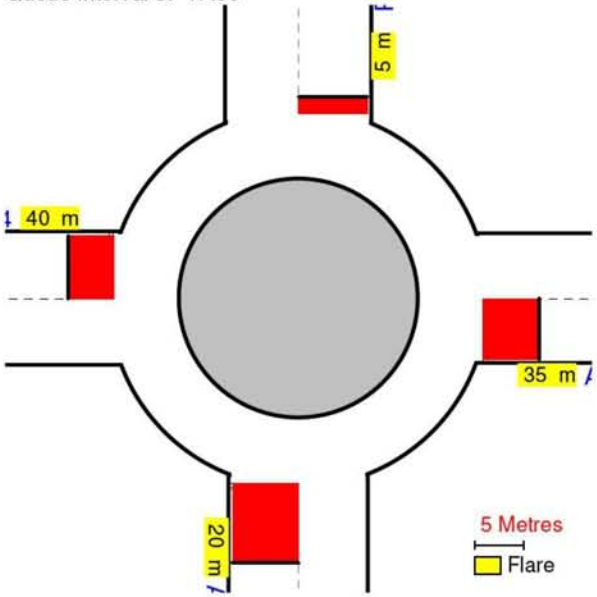
Queue Interval 1: 16:30



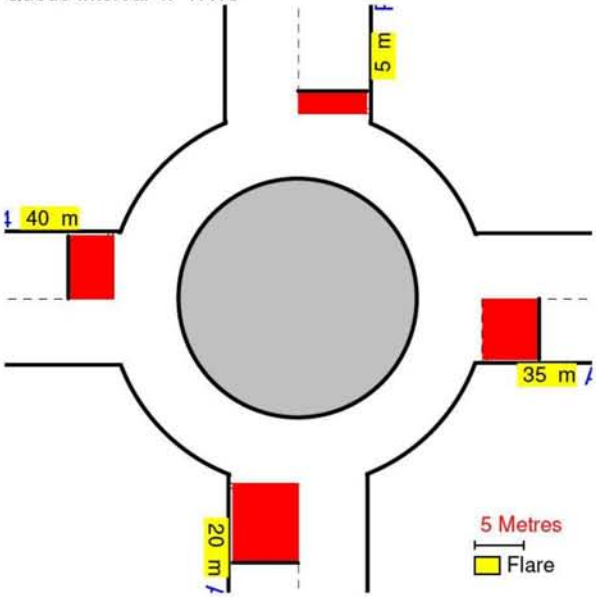
Queue Interval 2: 16:45



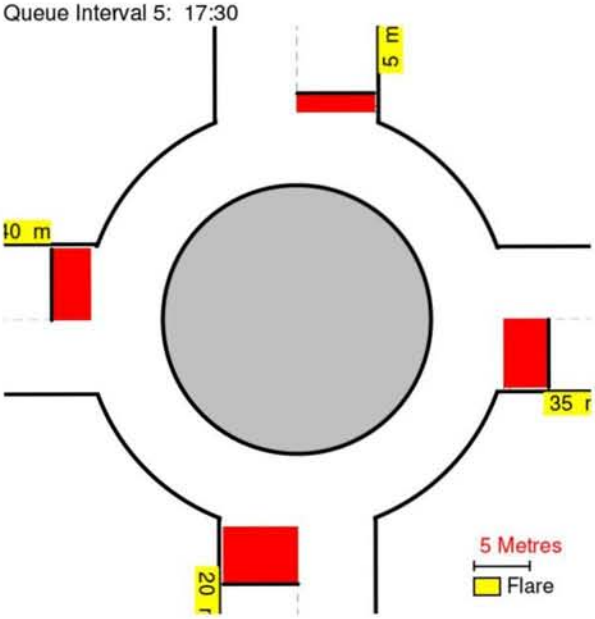
Queue Interval 3: 17:00



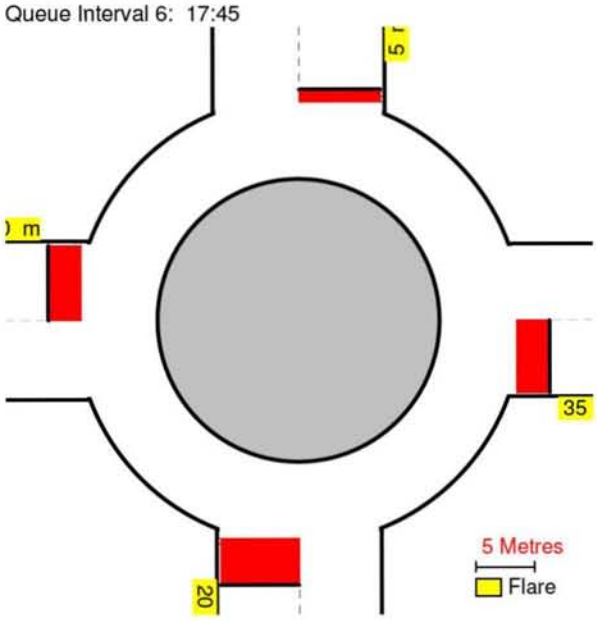
Queue Interval 4: 17:15



Queue Interval 5: 17:30



Queue Interval 6: 17:45

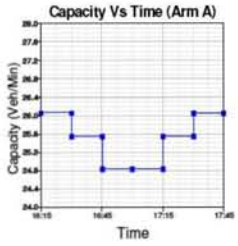


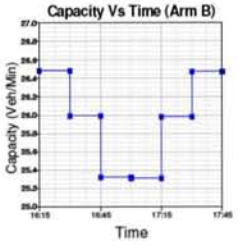
Demand Data Graphs

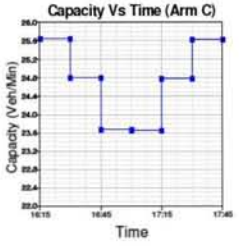
No graph available

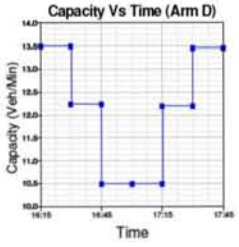
Capacity (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



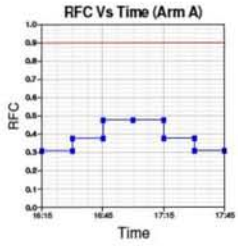


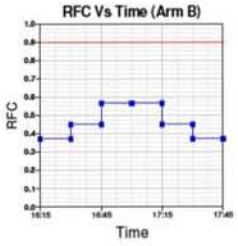


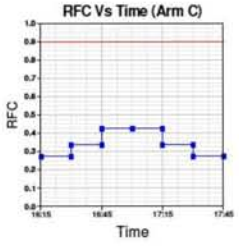


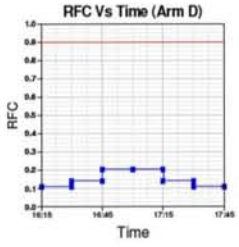
RFC (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



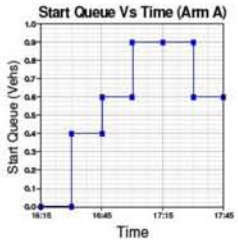


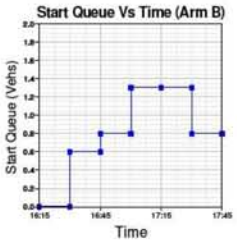


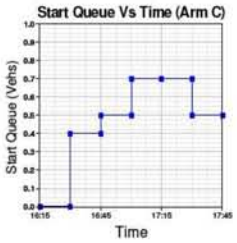


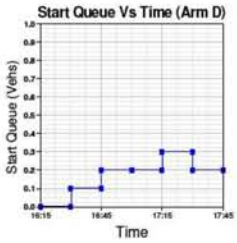
Start Queue (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



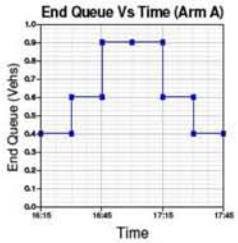


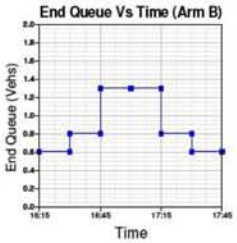


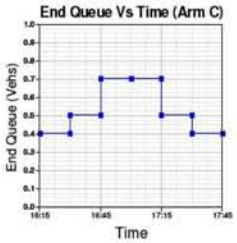


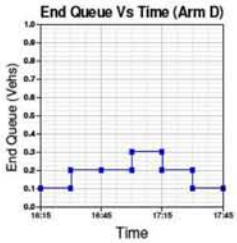
End Queue (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)







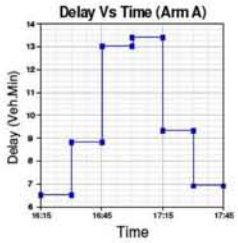


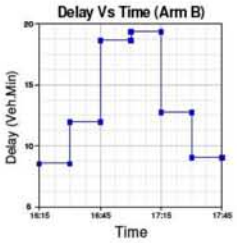
Geometric Delay Graph

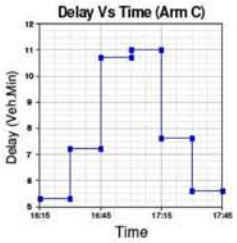
No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

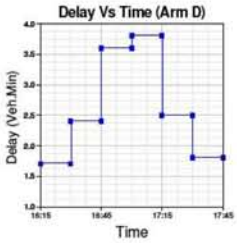
Delay (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)









Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
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	B	9.77	26.48	0.369	-	0.0	0.6	8.5	-	0.060
	C	6.86	25.64	0.268	-	0.0	0.4	5.3	-	0.053
	D	1.44	13.49	0.107	-	0.0	0.1	1.7	-	0.083
Segment : 2 - 16:30 to 16:45	A	9.60	25.54	0.376	-	0.4	0.6	8.8	-	0.063
	B	11.67	25.99	0.449	-	0.6	0.8	11.9	-	0.070
	C	8.20	24.80	0.331	-	0.4	0.5	7.2	-	0.060
	D	1.72	12.22	0.141	-	0.1	0.2	2.4	-	0.095
Segment : 3 - 16:45 to 17:00	A	11.76	24.83	0.474	-	0.6	0.9	13.0	-	0.076
	B	14.29	25.32	0.565	-	0.8	1.3	18.6	-	0.090
	C	10.04	23.66	0.424	-	0.5	0.7	10.7	-	0.073
	D	2.11	10.49	0.201	-	0.2	0.2	3.6	-	0.119
Segment : 4 - 17:00 to 17:15	A	11.76	24.83	0.474	-	0.9	0.9	13.4	-	0.077
	B	14.29	25.31	0.565	-	1.3	1.3	19.3	-	0.091
	C	10.04	23.64	0.425	-	0.7	0.7	11.0	-	0.074
	D	2.11	10.48	0.201	-	0.2	0.3	3.8	-	0.119
Segment : 5 - 17:15 to 17:30	A	9.60	25.53	0.376	-	0.9	0.6	9.3	-	0.063
	B	11.67	25.98	0.449	-	1.3	0.8	12.7	-	0.070
	C	8.20	24.78	0.331	-	0.7	0.5	7.6	-	0.060
	D	1.72	12.19	0.141	-	0.3	0.2	2.5	-	0.096
Segment : 6 - 17:30 to 17:45	A	8.04	26.04	0.309	-	0.6	0.4	6.9	-	0.056
	B	9.77	26.47	0.369	-	0.8	0.6	9.0	-	0.060
	C	6.86	25.61	0.268	-	0.5	0.4	5.6	-	0.053
	D	1.44	13.45	0.107	-	0.2	0.1	1.8	-	0.083

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	882.3	588.2	57.9	0.07	58.0	0.07
B	1072.2	714.8	79.9	0.07	79.9	0.07
C	752.9	501.9	47.5	0.06	47.5	0.06
D	158.3	105.5	15.9	0.10	15.9	0.10
ALL	2865.7	1910.5	201.3	0.07	201.3	0.07

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

ARCADY 6

GUI Version: 6.2 AG
Analysis Program: Release 7.0 (FEBRUARY 2010)

For sales and distribution information, program advice and maintenance, contact:

TRL Limited
Crowthorne House
Nine Mile Ride
Wokingham, Berks.
RG40 3GA, UK

Tel: +44 (0)1344 770758
Fax:+44 (0)1344 770864
Email: software@ trl.co.uk
Web:www.trlsoftware.co.uk

Run Information

Run with file:- **C:\ARC6\1305\TA MODELS\SJ4 PM MODEL.vai**
At: **10:00:07 on Thursday, January 24, 2013**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	A49 LUDLOW ROAD
Arm B	A49
Arm C	A44
Arm D	PFS access

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

File Properties

Run Title	SJ4
Location	
Date	19/06/2012
Client	
Enumerator	AHA [ANALYSIS1]
Job Number	1305
Status	
Description	

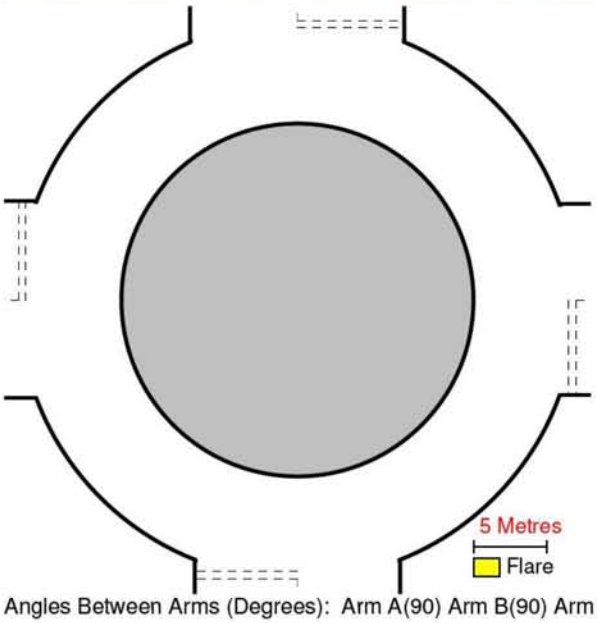
Errors and Warnings

WARNING ARM A Effective flare length is outside normal range.
Treat capacities with increasing caution.
WARNING ARM C Effective flare length is outside normal range.
Treat capacities with increasing caution.

Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D
Approach Road Half-Width (m)	3.65	3.90	4.00	3.00
Entry Width (m)	6.50	7.00	6.70	7.30
Flare Length (m)	35.00	20.00	40.00	5.00
Entry Radius (m)	25.00	25.00	20.00	20.00
Inscribed Circle Diameter (m)	38.00	38.00	38.00	38.00
Entry Angle (degrees)	30.00	30.00	30.00	30.00
Slope	0.671	0.675	0.683	0.557
Intercept (PCU/Min)	30.142	30.455	31.413	20.938

Junction Diagram: (View Extent = 40m)



Angles Between Arms (Degrees): Arm A(90) Arm B(90) Arm C(90) Arm D(90)

Demand Data

Demand Profiles are Synthesised using **ODTAB** Data
Period of interest (for Queue and Delay calculations): **16:15 to 17:45**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Total Traffic Demand (Vehicles/Hour) for Demand Set: PM 2022 WITH DEVT

From/To	Arm A	Arm B	Arm C	Arm D
Arm A	0.0	376.0	239.0	19.0
Arm B	428.0	0.0	335.0	60.0
Arm C	244.0	279.0	0.0	42.0
Arm D	49.0	44.0	22.0	0.0

Entry Flow Data for Demand Set: PM 2022 WITH DEVT

Arms	Number of Minutes From Start When			Rate of flow (Veh/Min)		
	Flow Starts To Rise	Top of Peak is Reached	Flow Stops Falling	Before Peak	At Top of Peak	After Peak
Arm A	15.00	45.00	75.00	7.93	11.89	7.93
Arm B	15.00	45.00	75.00	10.29	15.43	10.29
Arm C	15.00	45.00	75.00	7.06	10.59	7.06
Arm D	15.00	45.00	75.00	1.44	2.16	1.44

Turning Proportions

ODTAB Demand Data type is used, no turning proportions available.

Heavy Vehicle Percentages for Demand Set: PM 2022 WITH DEVT

Vary over entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
16:15 to 17:45	Arm A	0.0	5.1	5.1	5.1
	Arm B	5.1	0.0	5.1	5.1
	Arm C	5.1	5.1	0.0	5.1

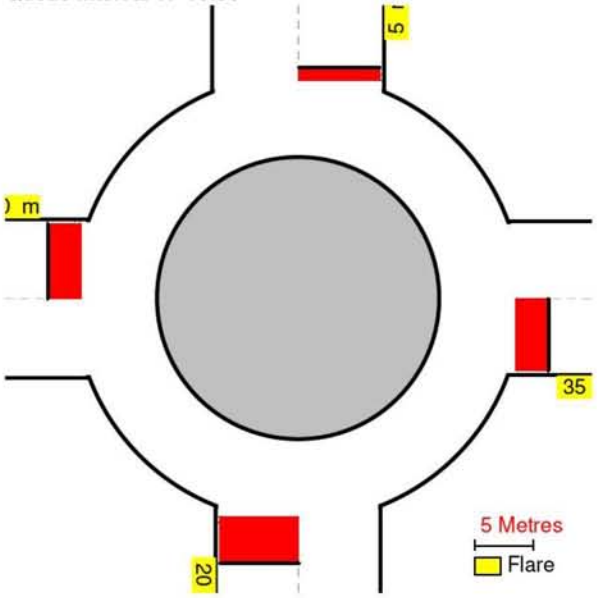
Time Period	From/To	Arm A	Arm B	Arm C	Arm D
	Arm D	5.1	5.1	5.1	0.0

Queue Diagrams: (View Extent = 40m)

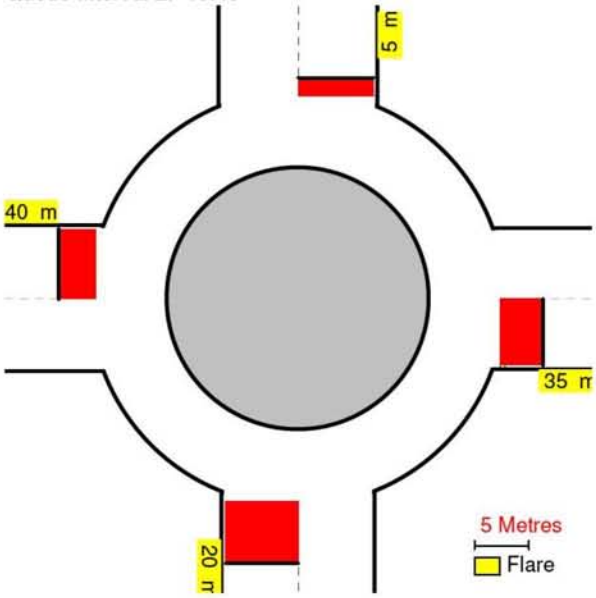
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 16:15---> End Time: 17:45

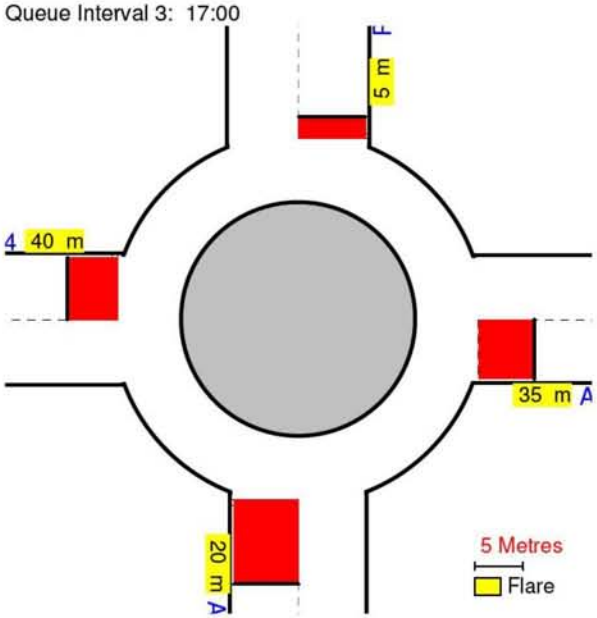
Queue Interval 1: 16:30



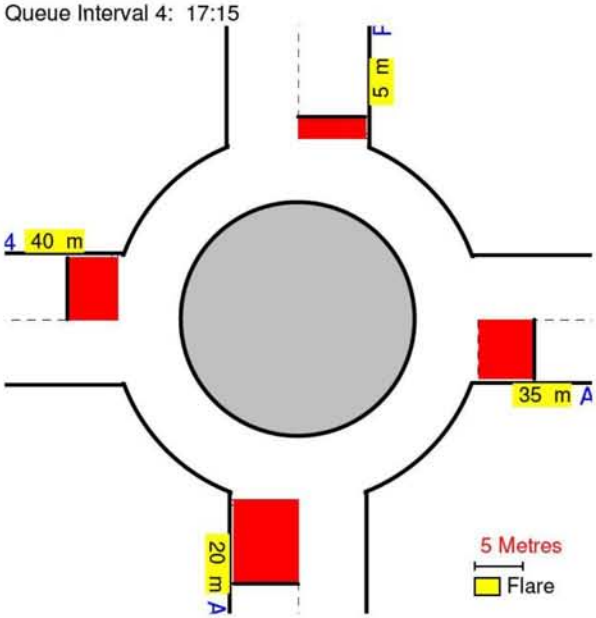
Queue Interval 2: 16:45



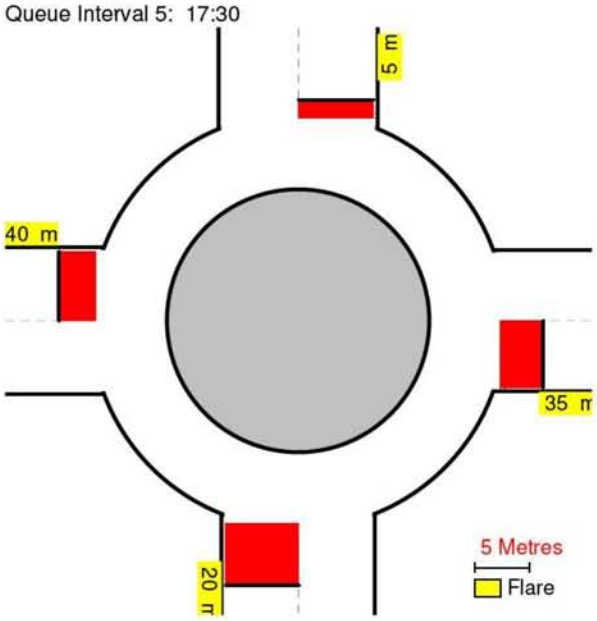
Queue Interval 3: 17:00



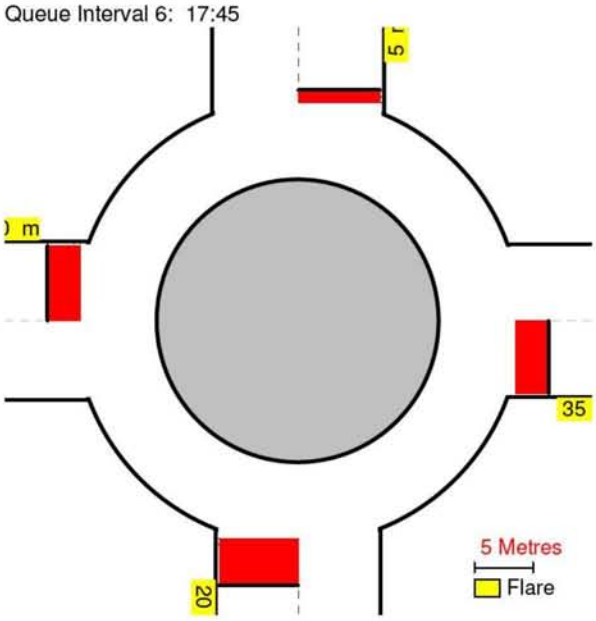
Queue Interval 4: 17:15



Queue Interval 5: 17:30



Queue Interval 6: 17:45

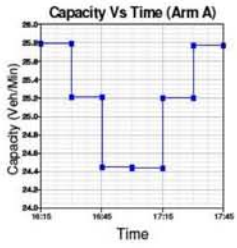


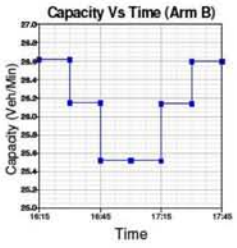
Demand Data Graphs

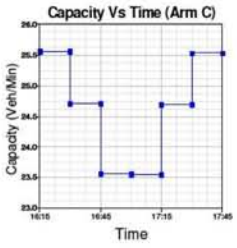
No graph available

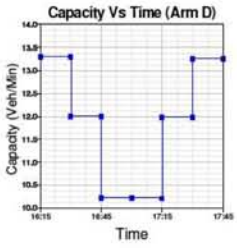
Capacity (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



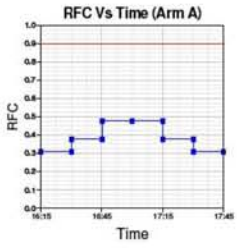


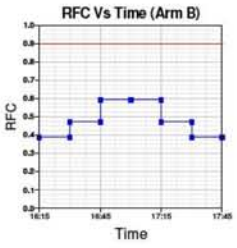


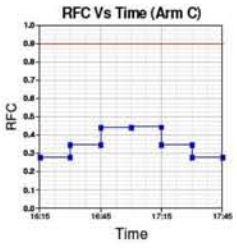


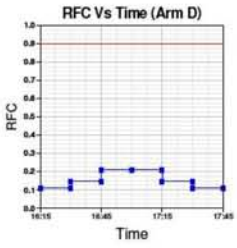
RFC (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



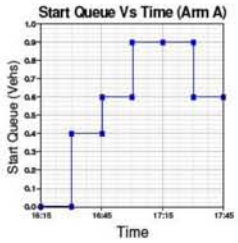


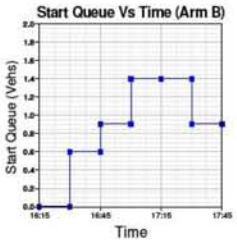


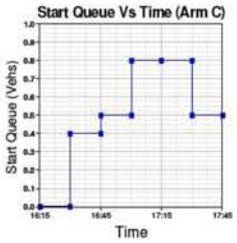


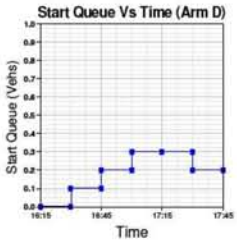
Start Queue (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



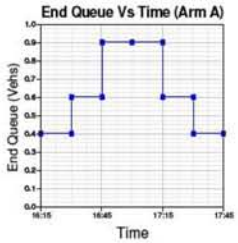


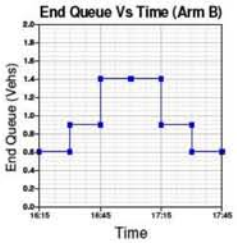


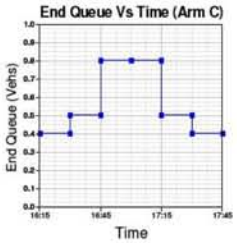


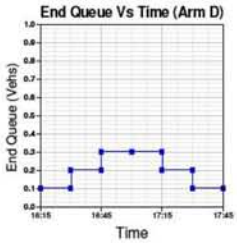
End Queue (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)







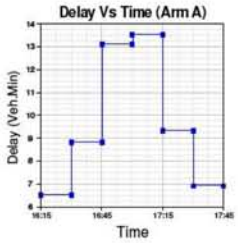


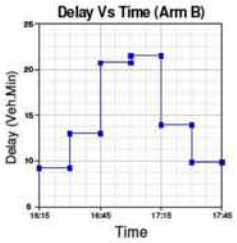
Geometric Delay Graph

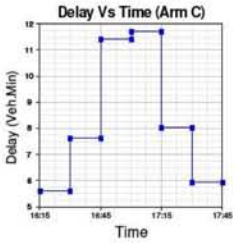
No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

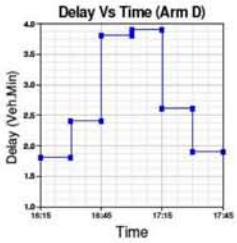
Delay (against Time) Graphs, for each 15min Interval (16:15 - 17:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)









Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 16:15 to 16:30	A	7.96	25.79	0.309	-	0.0	0.4	6.5	-	0.056
	B	10.33	26.62	0.388	-	0.0	0.6	9.2	-	0.061
	C	7.09	25.56	0.277	-	0.0	0.4	5.6	-	0.054
	D	1.44	13.30	0.108	-	0.0	0.1	1.8	-	0.084
Segment : 2 - 16:30 to 16:45	A	9.50	25.21	0.377	-	0.4	0.6	8.8	-	0.064
	B	12.33	26.15	0.472	-	0.6	0.9	13.0	-	0.072
	C	8.47	24.70	0.343	-	0.4	0.5	7.6	-	0.062
	D	1.72	11.99	0.144	-	0.1	0.2	2.4	-	0.097
Segment : 3 - 16:45 to 17:00	A	11.63	24.44	0.476	-	0.6	0.9	13.1	-	0.078
	B	15.10	25.52	0.592	-	0.9	1.4	20.7	-	0.095
	C	10.37	23.55	0.440	-	0.5	0.8	11.4	-	0.076
	D	2.11	10.22	0.206	-	0.2	0.3	3.8	-	0.123
Segment : 4 - 17:00 to 17:15	A	11.63	24.43	0.476	-	0.9	0.9	13.5	-	0.078
	B	15.10	25.51	0.592	-	1.4	1.4	21.5	-	0.096
	C	10.37	23.53	0.441	-	0.8	0.8	11.7	-	0.076
	D	2.11	10.20	0.207	-	0.3	0.3	3.9	-	0.124
Segment : 5 - 17:15 to 17:30	A	9.50	25.20	0.377	-	0.9	0.6	9.3	-	0.064
	B	12.33	26.14	0.472	-	1.4	0.9	13.9	-	0.073
	C	8.47	24.68	0.343	-	0.8	0.5	8.0	-	0.062
	D	1.72	11.97	0.144	-	0.3	0.2	2.6	-	0.098
Segment : 6 - 17:30 to 17:45	A	7.96	25.77	0.309	-	0.6	0.4	6.9	-	0.056
	B	10.33	26.60	0.388	-	0.9	0.6	9.8	-	0.062
	C	7.09	25.53	0.278	-	0.5	0.4	5.9	-	0.054
	D	1.44	13.26	0.109	-	0.2	0.1	1.9	-	0.085

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	872.7	581.8	58.2	0.07	58.2	0.07
B	1132.8	755.2	88.0	0.08	88.0	0.08
C	777.7	518.5	50.3	0.06	50.3	0.06
D	158.3	105.5	16.3	0.10	16.3	0.10
ALL	2941.4	1960.9	212.9	0.07	212.9	0.07

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

ARCADY 6

GUI Version: 6.2 AG
Analysis Program: Release 7.0 (FEBRUARY 2010)

For sales and distribution information, program advice and maintenance, contact:

TRL Limited
Crowthorne House
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Wokingham, Berks.
RG40 3GA, UK

Tel: +44 (0)1344 770758
Fax:+44 (0)1344 770864
Email: software@ trl.co.uk
Web:www.trlsoftware.co.uk

Run Information

Run with file:- **C:\ARC6\1305\TA MODELS\SJ4 SAT MODEL.vai**
At: **10:06:14 on Thursday, January 24, 2013**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	A49 LUDLOW ROAD
Arm B	A49
Arm C	A44
Arm D	PFS access

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

File Properties

Run Title	SJ4
Location	
Date	19/06/2012
Client	
Enumerator	AHA [ANALYSIS1]
Job Number	1305
Status	
Description	

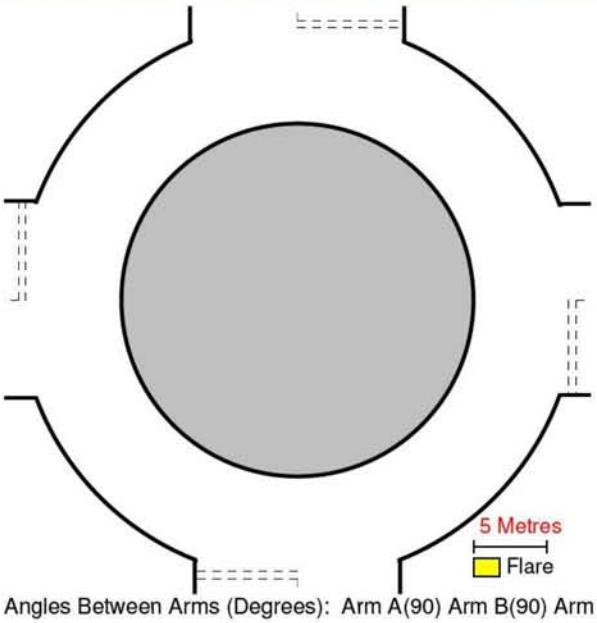
Errors and Warnings

WARNING ARM A Effective flare length is outside normal range.
Treat capacities with increasing caution.
WARNING ARM C Effective flare length is outside normal range.
Treat capacities with increasing caution.

Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D
Approach Road Half-Width (m)	3.65	3.90	4.00	3.00
Entry Width (m)	6.50	7.00	6.70	7.30
Flare Length (m)	35.00	20.00	40.00	5.00
Entry Radius (m)	25.00	25.00	20.00	20.00
Inscribed Circle Diameter (m)	38.00	38.00	38.00	38.00
Entry Angle (degrees)	30.00	30.00	30.00	30.00
Slope	0.671	0.675	0.683	0.557
Intercept (PCU/Min)	30.142	30.455	31.413	20.938

Junction Diagram: (View Extent = 40m)



Angles Between Arms (Degrees): Arm A(90) Arm B(90) Arm C(90) Arm D(90)

Demand Data

Demand Profiles are Synthesised using **ODTAB** Data
Period of interest (for Queue and Delay calculations): **11:15 to 12:45**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Total Traffic Demand (Vehicles/Hour) for Demand Set: SAT 2012 TRAFFIC COUNTS

From/To	Arm A	Arm B	Arm C	Arm D
Arm A	0.0	319.0	274.0	29.0
Arm B	299.0	0.0	198.0	40.0
Arm C	194.0	239.0	0.0	49.0
Arm D	33.0	45.0	25.0	0.0

Entry Flow Data for Demand Set: SAT 2012 TRAFFIC COUNTS

Arms	Number of Minutes From Start When			Rate of flow (Veh/Min)		
	Flow Starts To Rise	Top of Peak is Reached	Flow Stops Falling	Before Peak	At Top of Peak	After Peak
Arm A	15.00	45.00	75.00	7.78	11.66	7.78
Arm B	15.00	45.00	75.00	6.71	10.07	6.71
Arm C	15.00	45.00	75.00	6.03	9.04	6.03
Arm D	15.00	45.00	75.00	1.29	1.93	1.29

Turning Proportions

ODTAB Demand Data type is used, no turning proportions available.

Heavy Vehicle Percentages for Demand Set: SAT 2012 TRAFFIC COUNTS

Vary over entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
11:15 to 12:45	Arm A	0.0	3.0	3.0	3.0
	Arm B	3.0	0.0	3.0	3.0
	Arm C	3.0	3.0	0.0	3.0

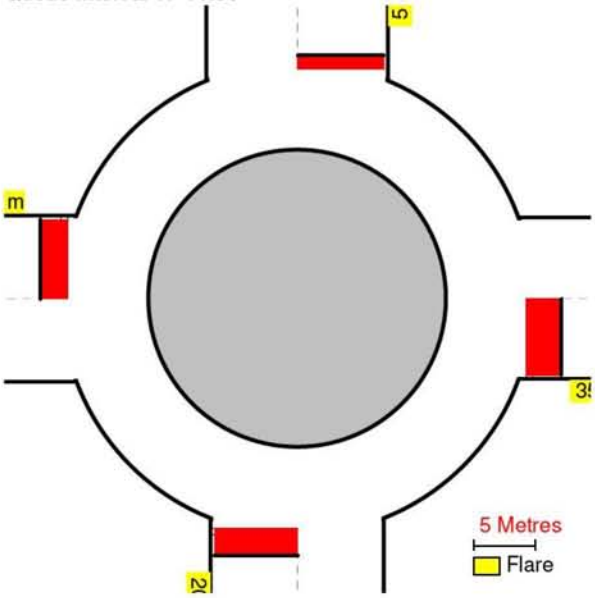
Time Period	From/To	Arm A	Arm B	Arm C	Arm D
	Arm D	3.0	3.0	3.0	0.0

Queue Diagrams: (View Extent = 40m)

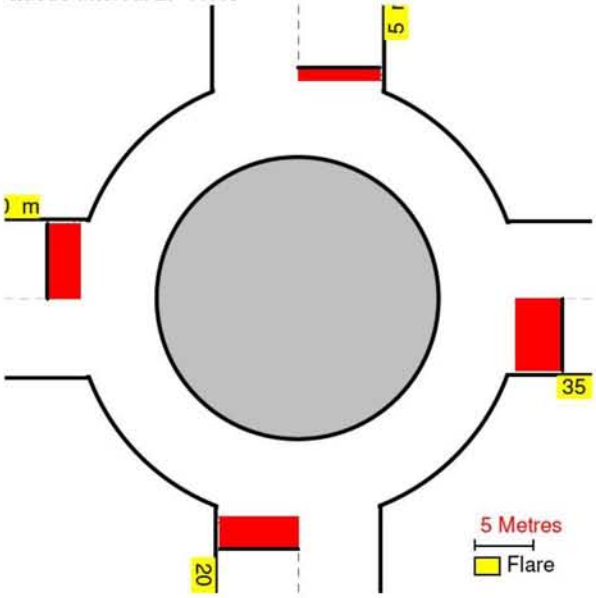
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 11:15---> End Time: 12:45

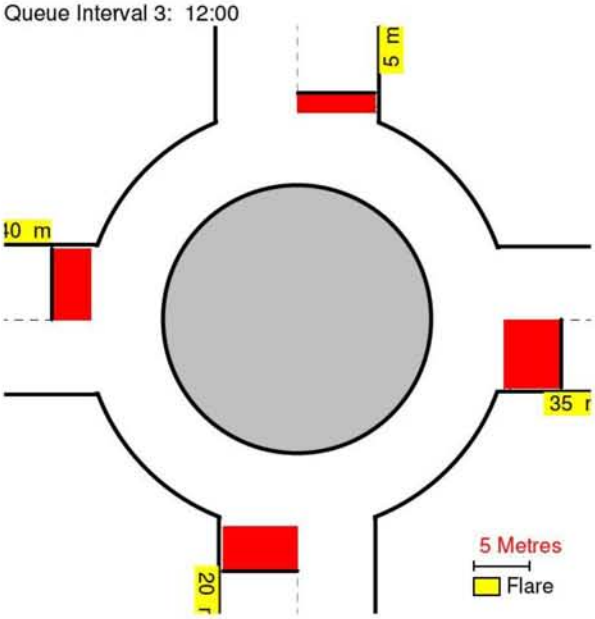
Queue Interval 1: 11:30



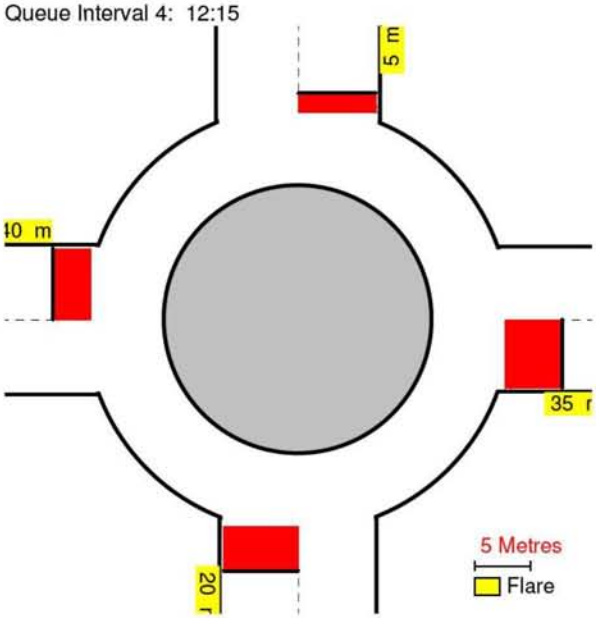
Queue Interval 2: 11:45



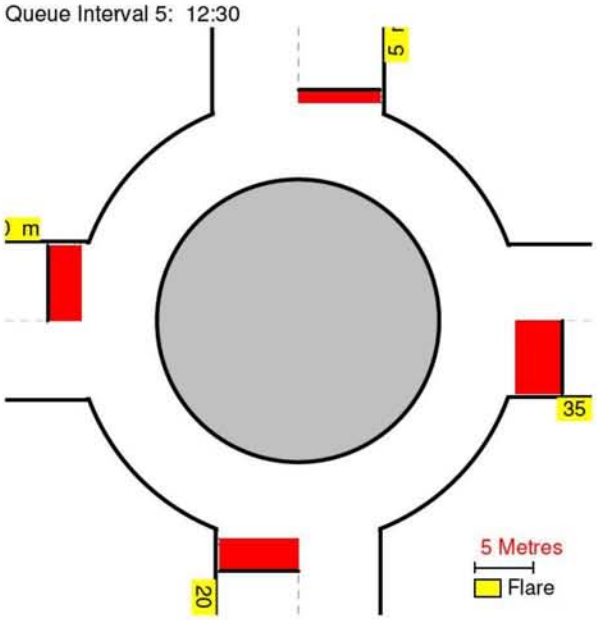
Queue Interval 3: 12:00



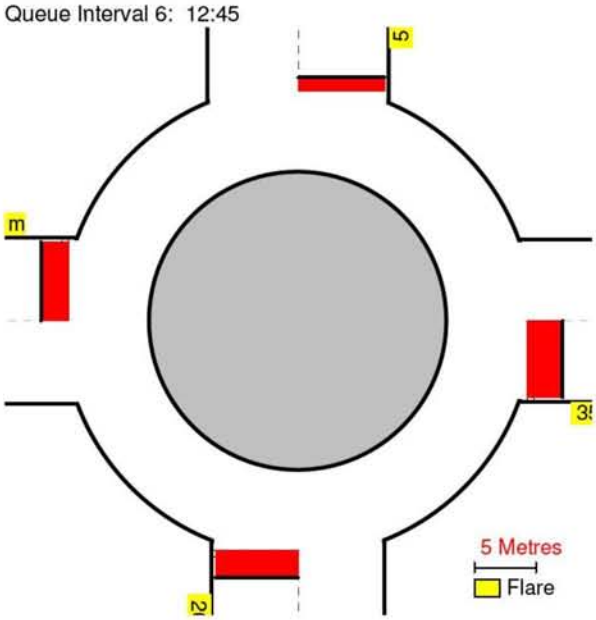
Queue Interval 4: 12:15



Queue Interval 5: 12:30



Queue Interval 6: 12:45

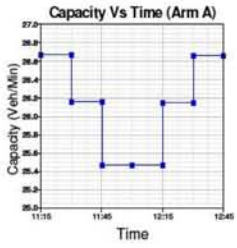


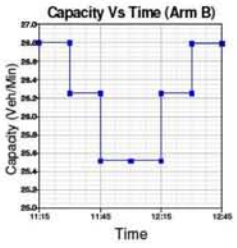
Demand Data Graphs

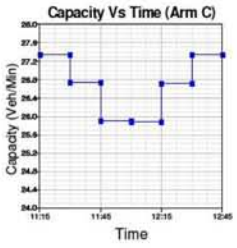
No graph available

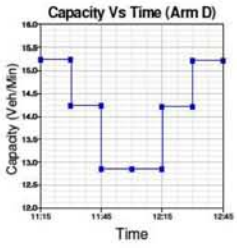
Capacity (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



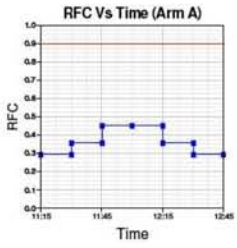


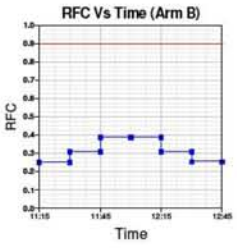


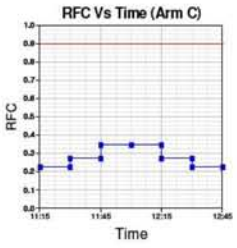


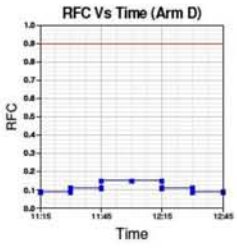
RFC (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



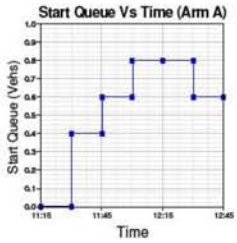


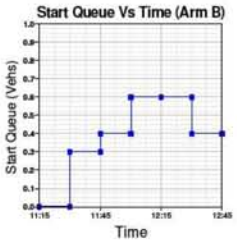


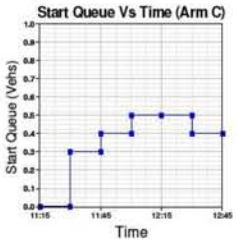


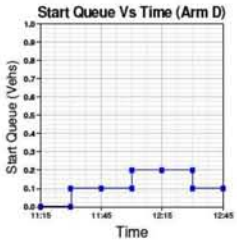
Start Queue (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



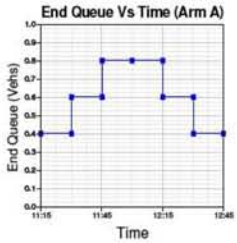


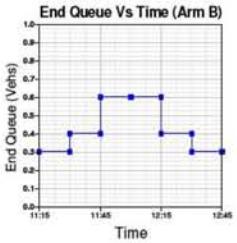


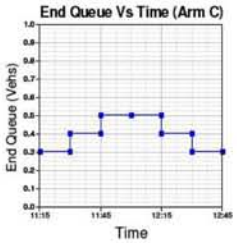


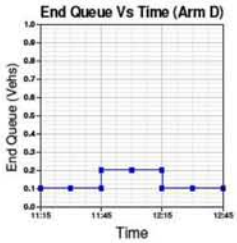
End Queue (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)







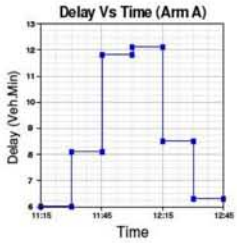


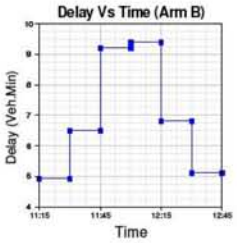
Geometric Delay Graph

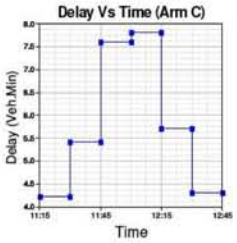
No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

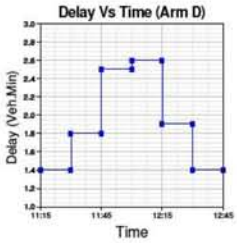
Delay (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)









Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 11:15 to 11:30	A	7.80	26.67	0.293	-	0.0	0.4	6.0	-	0.053
	B	6.74	26.80	0.251	-	0.0	0.3	4.9	-	0.050
	C	6.05	27.35	0.221	-	0.0	0.3	4.2	-	0.047
	D	1.29	15.23	0.085	-	0.0	0.1	1.4	-	0.072
Segment : 2 - 11:30 to 11:45	A	9.32	26.16	0.356	-	0.4	0.6	8.1	-	0.059
	B	8.05	26.25	0.306	-	0.3	0.4	6.5	-	0.055
	C	7.22	26.73	0.270	-	0.3	0.4	5.4	-	0.051
	D	1.54	14.22	0.109	-	0.1	0.1	1.8	-	0.079
Segment : 3 - 11:45 to 12:00	A	11.41	25.46	0.448	-	0.6	0.8	11.8	-	0.071
	B	9.85	25.51	0.386	-	0.4	0.6	9.2	-	0.064
	C	8.84	25.89	0.342	-	0.4	0.5	7.6	-	0.059
	D	1.89	12.85	0.147	-	0.1	0.2	2.5	-	0.091
Segment : 4 - 12:00 to 12:15	A	11.41	25.46	0.448	-	0.8	0.8	12.1	-	0.071
	B	9.85	25.51	0.386	-	0.6	0.6	9.4	-	0.064
	C	8.84	25.88	0.342	-	0.5	0.5	7.8	-	0.059
	D	1.89	12.85	0.147	-	0.2	0.2	2.6	-	0.091
Segment : 5 - 12:15 to 12:30	A	9.32	26.15	0.356	-	0.8	0.6	8.5	-	0.059
	B	8.05	26.25	0.307	-	0.6	0.4	6.8	-	0.055
	C	7.22	26.72	0.270	-	0.5	0.4	5.7	-	0.051
	D	1.54	14.21	0.109	-	0.2	0.1	1.9	-	0.079
Segment : 6 - 12:30 to 12:45	A	7.80	26.66	0.293	-	0.6	0.4	6.3	-	0.053
	B	6.74	26.79	0.252	-	0.4	0.3	5.1	-	0.050
	C	6.05	27.34	0.221	-	0.4	0.3	4.3	-	0.047
	D	1.29	15.21	0.085	-	0.1	0.1	1.4	-	0.072

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	856.1	570.8	52.9	0.06	52.9	0.06
B	739.1	492.8	41.9	0.06	41.9	0.06
C	663.4	442.3	35.0	0.05	35.0	0.05
D	141.8	94.5	11.5	0.08	11.5	0.08
ALL	2400.5	1600.3	141.4	0.06	141.4	0.06

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

ARCADY 6

GUI Version: 6.2 AG
Analysis Program: Release 7.0 (FEBRUARY 2010)

For sales and distribution information, program advice and maintenance, contact:

TRL Limited
Crowthorne House
Nine Mile Ride
Wokingham, Berks.
RG40 3GA, UK

Tel: +44 (0)1344 770758
Fax:+44 (0)1344 770864
Email: software@ trl.co.uk
Web:www.trlsoftware.co.uk

Run Information

Run with file:- **C:\ARC6\1305\TA MODELS\SJ4 SAT MODEL.vai**
At: **10:07:47 on Thursday, January 24, 2013**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	A49 LUDLOW ROAD
Arm B	A49
Arm C	A44
Arm D	PFS access

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

File Properties

Run Title	SJ4
Location	
Date	19/06/2012
Client	
Enumerator	AHA [ANALYSIS1]
Job Number	1305
Status	
Description	

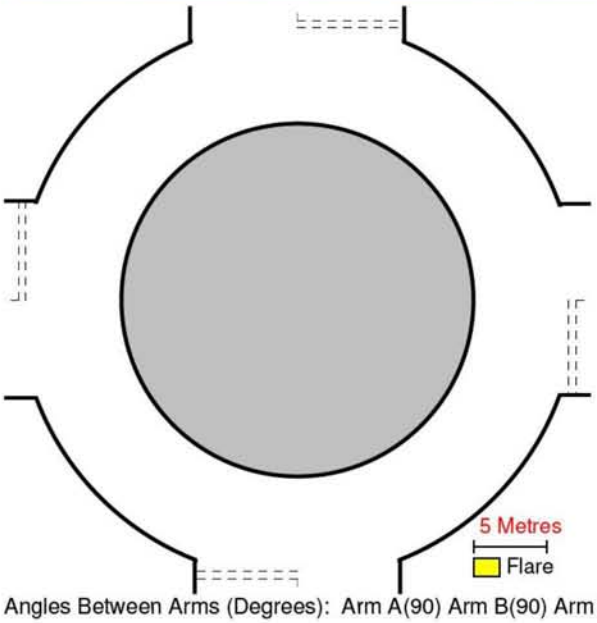
Errors and Warnings

WARNING ARM A Effective flare length is outside normal range.
Treat capacities with increasing caution.
WARNING ARM C Effective flare length is outside normal range.
Treat capacities with increasing caution.

Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D
Approach Road Half-Width (m)	3.65	3.90	4.00	3.00
Entry Width (m)	6.50	7.00	6.70	7.30
Flare Length (m)	35.00	20.00	40.00	5.00
Entry Radius (m)	25.00	25.00	20.00	20.00
Inscribed Circle Diameter (m)	38.00	38.00	38.00	38.00
Entry Angle (degrees)	30.00	30.00	30.00	30.00
Slope	0.671	0.675	0.683	0.557
Intercept (PCU/Min)	30.142	30.455	31.413	20.938

Junction Diagram: (View Extent = 40m)



Angles Between Arms (Degrees): Arm A(90) Arm B(90) Arm C(90) Arm D(90)

Demand Data

Demand Profiles are Synthesised using **ODTAB** Data
Period of interest (for Queue and Delay calculations): **11:15 to 12:45**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Total Traffic Demand (Vehicles/Hour) for Demand Set: SAT 2014 BASE

From/To	Arm A	Arm B	Arm C	Arm D
Arm A	0.0	321.0	302.0	29.0
Arm B	301.0	0.0	199.0	40.0
Arm C	221.0	241.0	0.0	49.0
Arm D	33.0	45.0	25.0	0.0

Entry Flow Data for Demand Set: SAT 2014 BASE

Arms	Number of Minutes From Start When			Rate of flow (Veh/Min)		
	Flow Starts To Rise	Top of Peak is Reached	Flow Stops Falling	Before Peak	At Top of Peak	After Peak
Arm A	15.00	45.00	75.00	8.15	12.22	8.15
Arm B	15.00	45.00	75.00	6.75	10.13	6.75
Arm C	15.00	45.00	75.00	6.39	9.58	6.39
Arm D	15.00	45.00	75.00	1.29	1.93	1.29

Turning Proportions

ODTAB Demand Data type is used, no turning proportions available.

Heavy Vehicle Percentages for Demand Set: SAT 2014 BASE

Vary over entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
11:15 to 12:45	Arm A	0.0	3.0	3.0	3.0
	Arm B	3.0	0.0	3.0	3.0
	Arm C	3.0	3.0	0.0	3.0

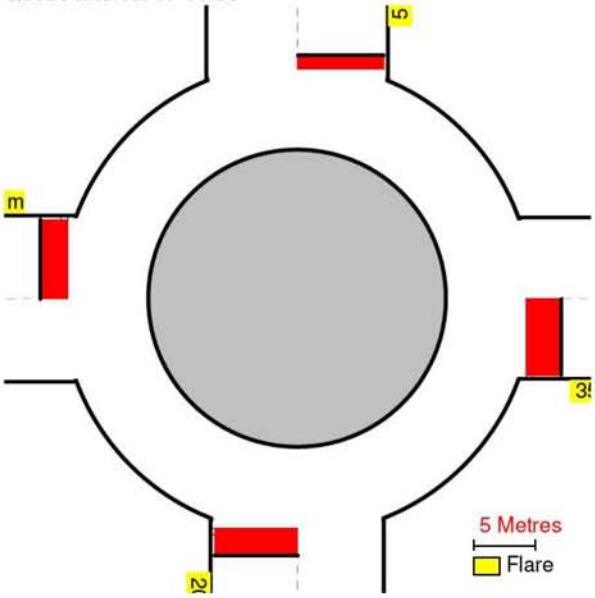
Time Period	From/To	Arm A	Arm B	Arm C	Arm D
	Arm D	3.0	3.0	3.0	0.0

Queue Diagrams: (View Extent = 40m)

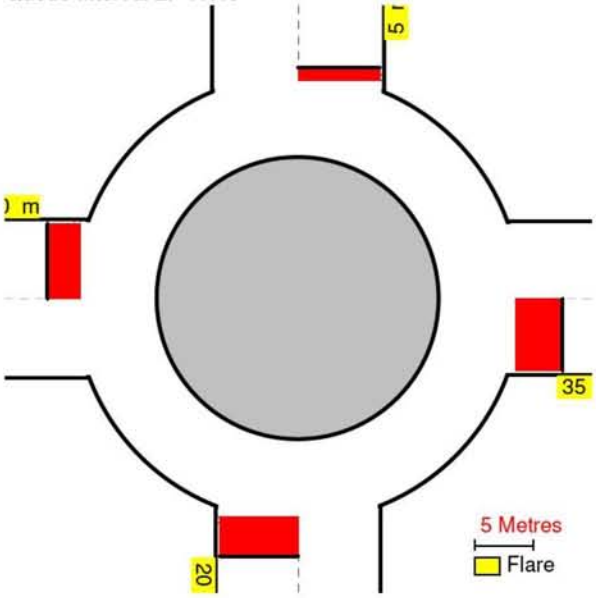
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 11:15---> End Time: 12:45

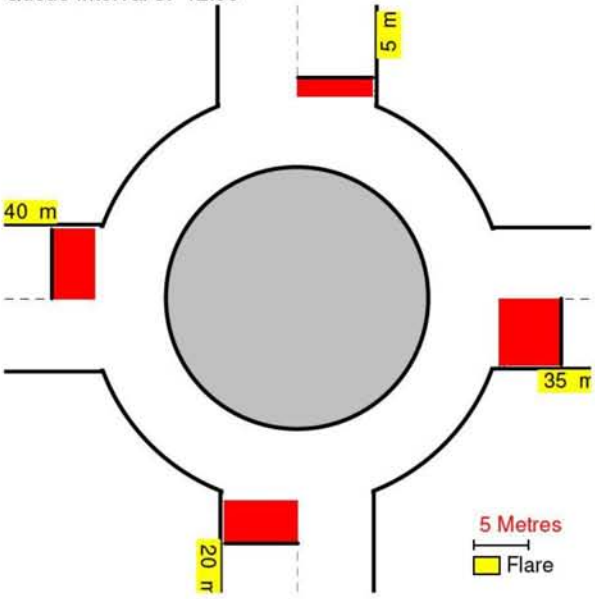
Queue Interval 1: 11:30



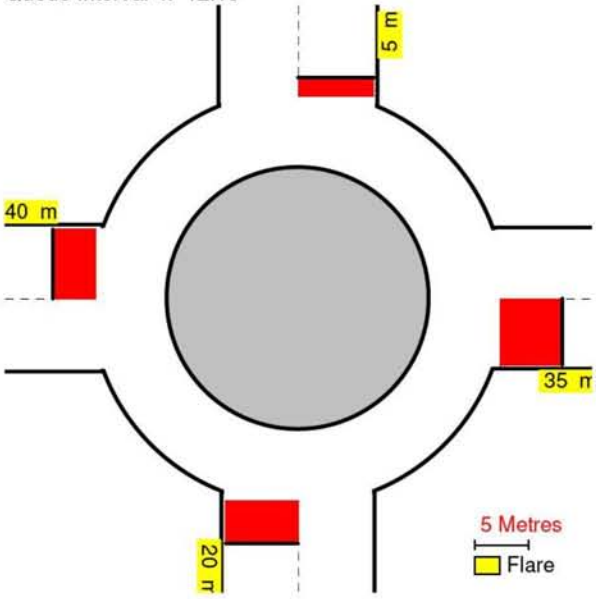
Queue Interval 2: 11:45



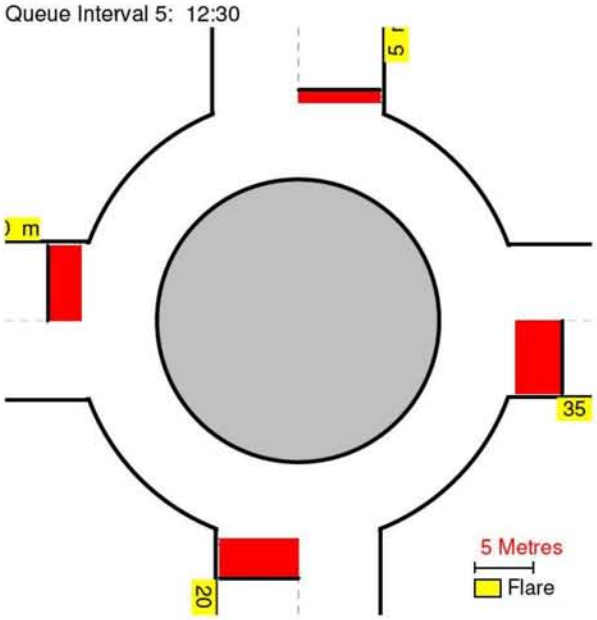
Queue Interval 3: 12:00



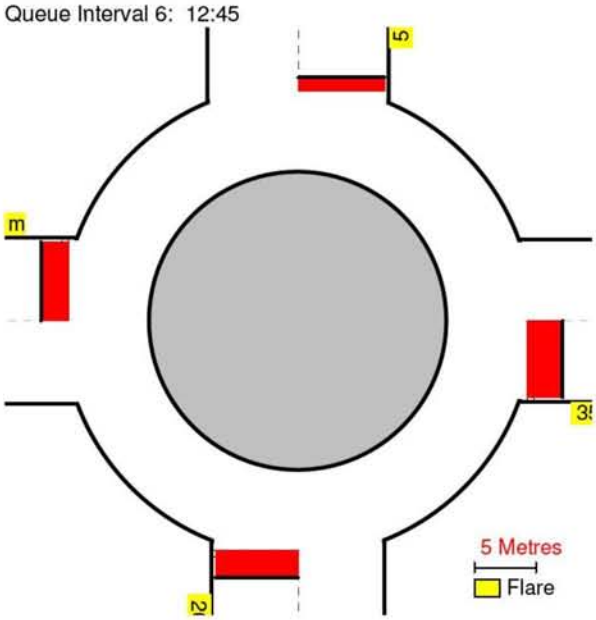
Queue Interval 4: 12:15



Queue Interval 5: 12:30



Queue Interval 6: 12:45

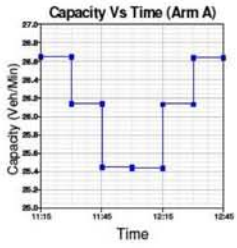


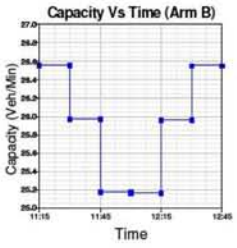
Demand Data Graphs

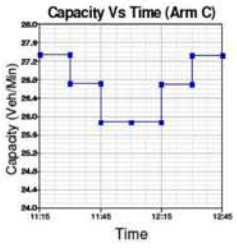
No graph available

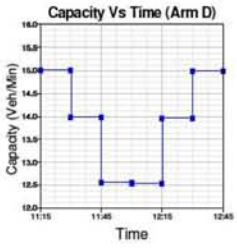
Capacity (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



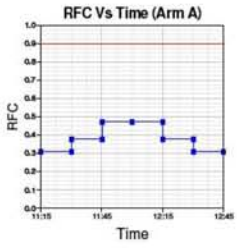


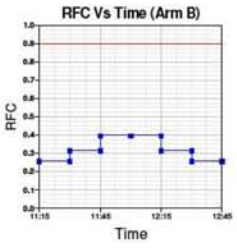


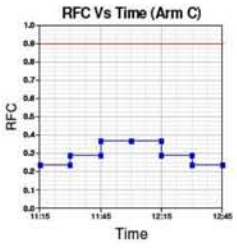


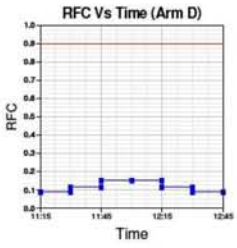
RFC (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



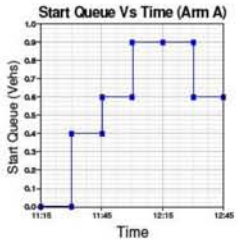


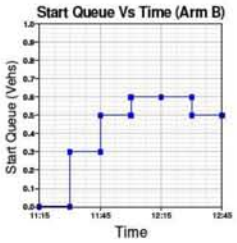


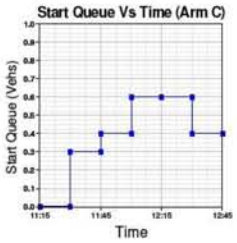


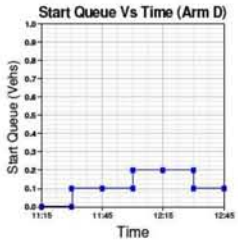
Start Queue (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



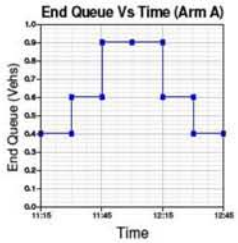


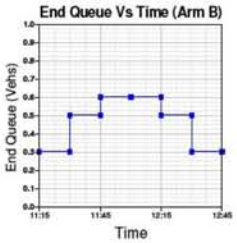


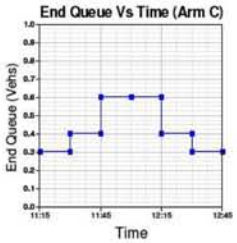


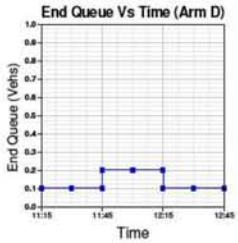
End Queue (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)







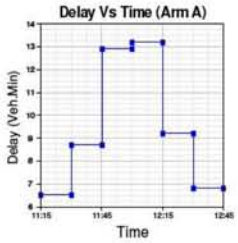


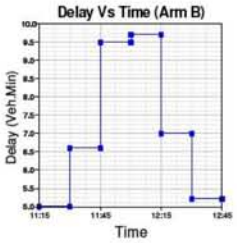
Geometric Delay Graph

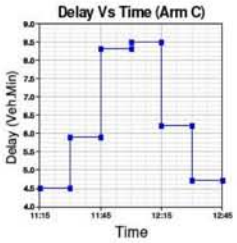
No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

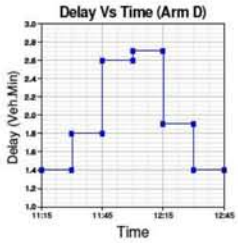
Delay (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)









Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 11:15 to 11:30	A	8.18	26.65	0.307	-	0.0	0.4	6.5	-	0.054
	B	6.78	26.56	0.255	-	0.0	0.3	5.0	-	0.050
	C	6.41	27.34	0.235	-	0.0	0.3	4.5	-	0.048
	D	1.29	15.01	0.086	-	0.0	0.1	1.4	-	0.073
Segment : 2 - 11:30 to 11:45	A	9.77	26.14	0.374	-	0.4	0.6	8.7	-	0.061
	B	8.09	25.97	0.312	-	0.3	0.5	6.6	-	0.056
	C	7.66	26.71	0.287	-	0.3	0.4	5.9	-	0.052
	D	1.54	13.97	0.111	-	0.1	0.1	1.8	-	0.080
Segment : 3 - 11:45 to 12:00	A	11.96	25.44	0.470	-	0.6	0.9	12.9	-	0.074
	B	9.91	25.17	0.394	-	0.5	0.6	9.5	-	0.065
	C	9.38	25.86	0.363	-	0.4	0.6	8.3	-	0.061
	D	1.89	12.54	0.151	-	0.1	0.2	2.6	-	0.094
Segment : 4 - 12:00 to 12:15	A	11.96	25.43	0.470	-	0.9	0.9	13.2	-	0.074
	B	9.91	25.16	0.394	-	0.6	0.6	9.7	-	0.066
	C	9.38	25.86	0.363	-	0.6	0.6	8.5	-	0.061
	D	1.89	12.53	0.151	-	0.2	0.2	2.7	-	0.094
Segment : 5 - 12:15 to 12:30	A	9.77	26.13	0.374	-	0.9	0.6	9.2	-	0.061
	B	8.09	25.96	0.312	-	0.6	0.5	7.0	-	0.056
	C	7.66	26.70	0.287	-	0.6	0.4	6.2	-	0.053
	D	1.54	13.95	0.111	-	0.2	0.1	1.9	-	0.081
Segment : 6 - 12:30 to 12:45	A	8.18	26.64	0.307	-	0.6	0.4	6.8	-	0.054
	B	6.78	26.55	0.255	-	0.5	0.3	5.2	-	0.051
	C	6.41	27.32	0.235	-	0.4	0.3	4.7	-	0.048
	D	1.29	14.99	0.086	-	0.1	0.1	1.4	-	0.073

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	897.4	598.3	57.3	0.06	57.3	0.06
B	743.3	495.5	43.0	0.06	43.0	0.06
C	703.4	468.9	38.1	0.05	38.1	0.05
D	141.8	94.5	11.8	0.08	11.8	0.08
ALL	2485.8	1657.2	150.2	0.06	150.2	0.06

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

ARCADY 6

GUI Version: 6.2 AG
Analysis Program: Release 7.0 (FEBRUARY 2010)

For sales and distribution information, program advice and maintenance, contact:

TRL Limited
Crowthorne House
Nine Mile Ride
Wokingham, Berks.
RG40 3GA, UK

Tel: +44 (0)1344 770758
Fax:+44 (0)1344 770864
Email: software@ trl.co.uk
Web:www.trlsoftware.co.uk

Run Information

Run with file:- **C:\ARC6\1305\TA MODELS\SJ4 SAT MODEL.vai**
At: **10:08:56 on Thursday, January 24, 2013**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	A49 LUDLOW ROAD
Arm B	A49
Arm C	A44
Arm D	PFS access

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

File Properties

Run Title	SJ4
Location	
Date	19/06/2012
Client	
Enumerator	AHA [ANALYSIS1]
Job Number	1305
Status	
Description	

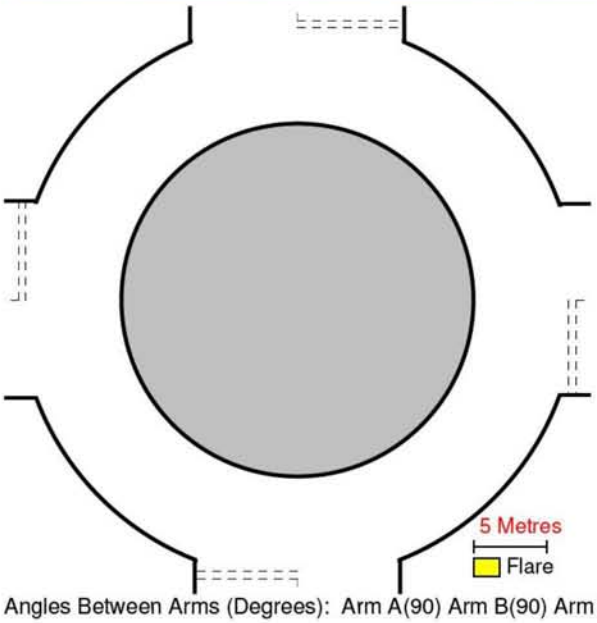
Errors and Warnings

WARNING ARM A Effective flare length is outside normal range.
Treat capacities with increasing caution.
WARNING ARM C Effective flare length is outside normal range.
Treat capacities with increasing caution.

Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D
Approach Road Half-Width (m)	3.65	3.90	4.00	3.00
Entry Width (m)	6.50	7.00	6.70	7.30
Flare Length (m)	35.00	20.00	40.00	5.00
Entry Radius (m)	25.00	25.00	20.00	20.00
Inscribed Circle Diameter (m)	38.00	38.00	38.00	38.00
Entry Angle (degrees)	30.00	30.00	30.00	30.00
Slope	0.671	0.675	0.683	0.557
Intercept (PCU/Min)	30.142	30.455	31.413	20.938

Junction Diagram: (View Extent = 40m)



Angles Between Arms (Degrees): Arm A(90) Arm B(90) Arm C(90) Arm D(90)

Demand Data

Demand Profiles are Synthesised using **ODTAB** Data
Period of interest (for Queue and Delay calculations): **11:15 to 12:45**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Total Traffic Demand (Vehicles/Hour) for Demand Set: SAT 2014 WITH DEVT (Sensitivity Test)

From/To	Arm A	Arm B	Arm C	Arm D
Arm A	0.0	333.0	283.0	29.0
Arm B	312.0	0.0	243.0	40.0
Arm C	258.0	287.0	0.0	49.0
Arm D	33.0	45.0	25.0	0.0

Entry Flow Data for Demand Set: SAT 2014 WITH DEVT (Sensitivity Test)

Arms	Number of Minutes From Start When			Rate of flow (Veh/Min)		
	Flow Starts To Rise	Top of Peak is Reached	Flow Stops Falling	Before Peak	At Top of Peak	After Peak
Arm A	15.00	45.00	75.00	8.06	12.09	8.06
Arm B	15.00	45.00	75.00	7.44	11.16	7.44
Arm C	15.00	45.00	75.00	7.43	11.14	7.43
Arm D	15.00	45.00	75.00	1.29	1.93	1.29

Turning Proportions

ODTAB Demand Data type is used, no turning proportions available.

Heavy Vehicle Percentages for Demand Set: SAT 2014 WITH DEVT (Sensitivity Test)

Vary over entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
11:15 to 12:45	Arm A	0.0	3.0	3.0	3.0
	Arm B	3.0	0.0	3.0	3.0
	Arm C	3.0	3.0	0.0	3.0

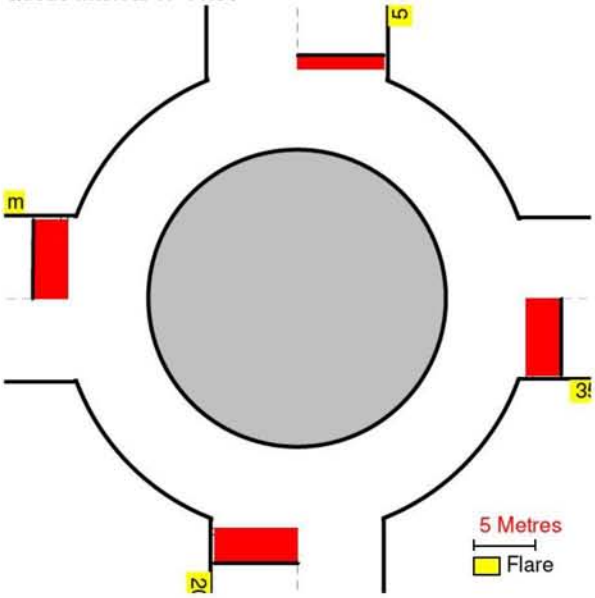
Time Period	From/To	Arm A	Arm B	Arm C	Arm D
	Arm D	3.0	3.0	3.0	0.0

Queue Diagrams: (View Extent = 40m)

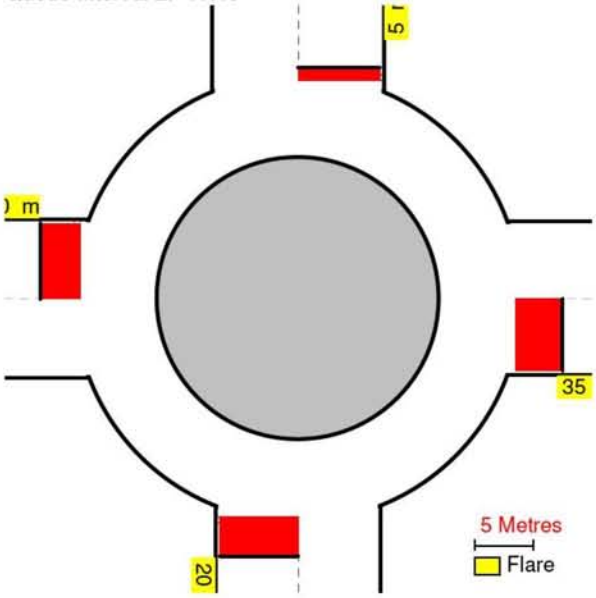
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 11:15---> End Time: 12:45

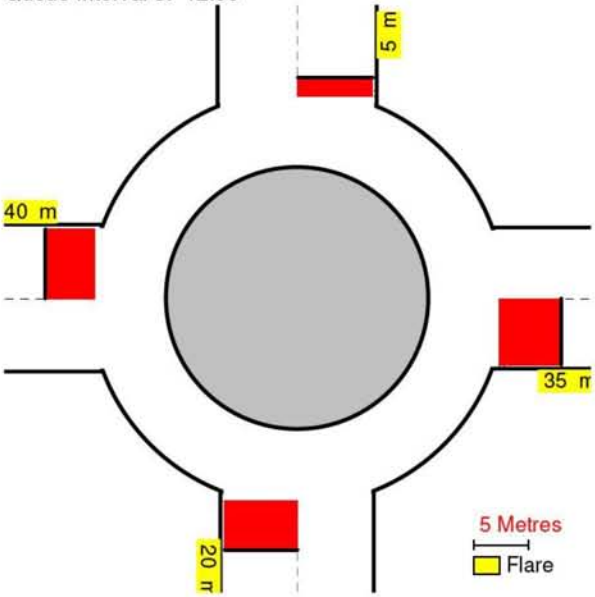
Queue Interval 1: 11:30



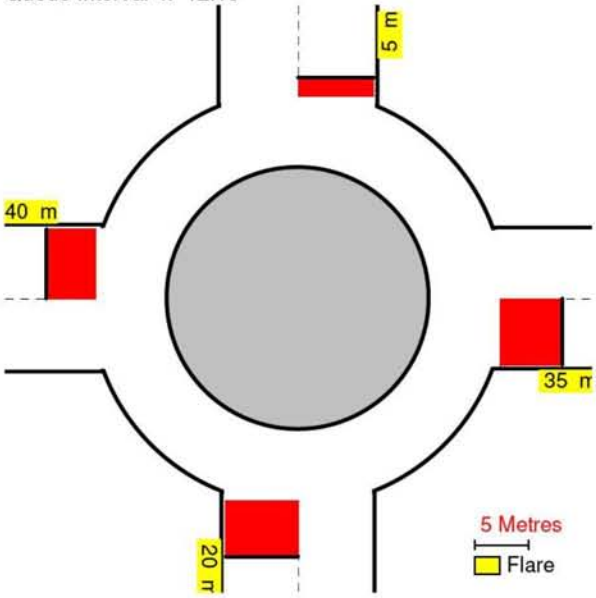
Queue Interval 2: 11:45



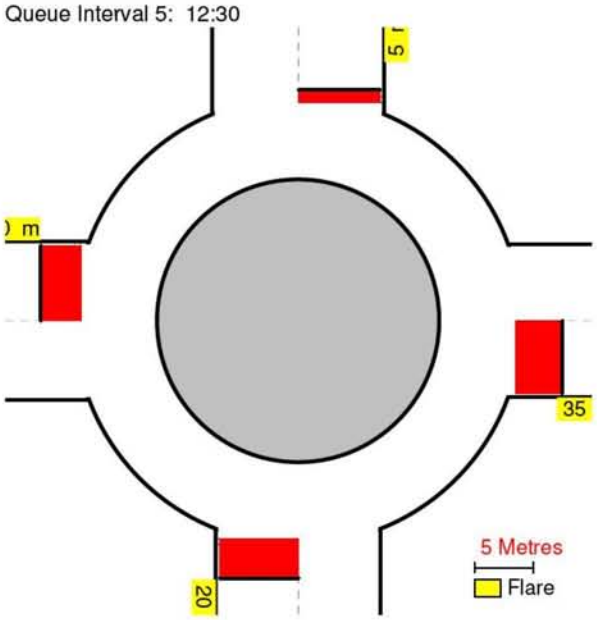
Queue Interval 3: 12:00



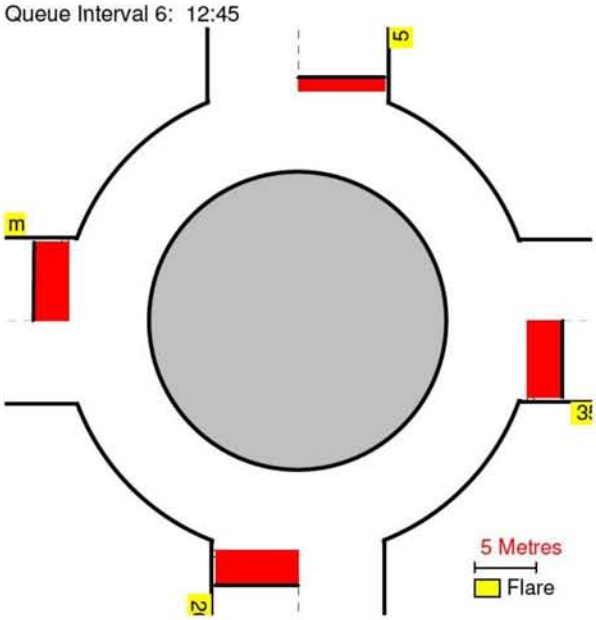
Queue Interval 4: 12:15



Queue Interval 5: 12:30



Queue Interval 6: 12:45

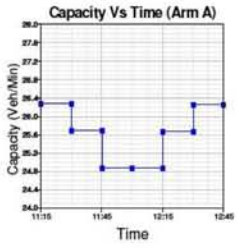


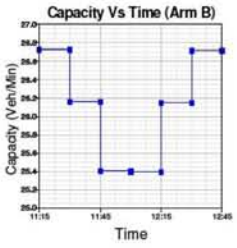
Demand Data Graphs

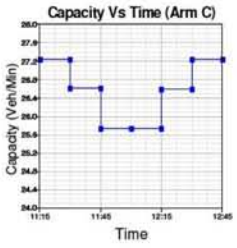
No graph available

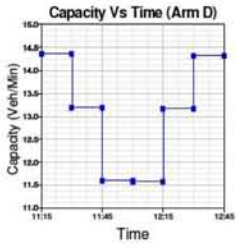
Capacity (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



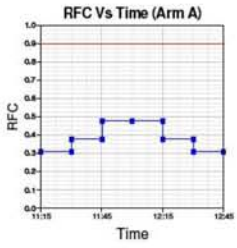


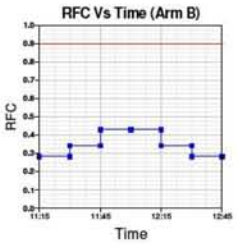


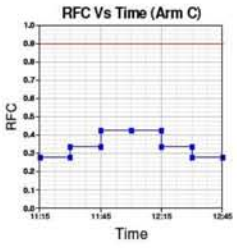


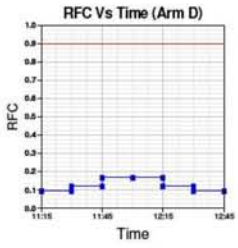
RFC (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



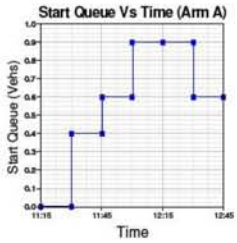


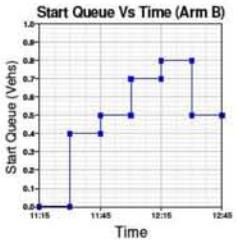


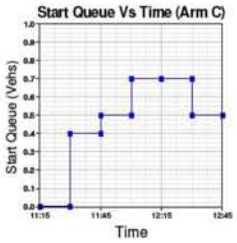


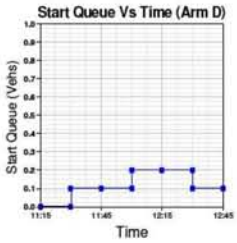
Start Queue (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



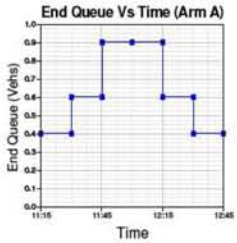


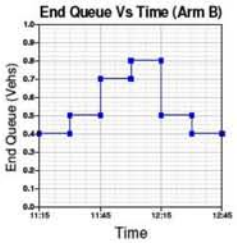


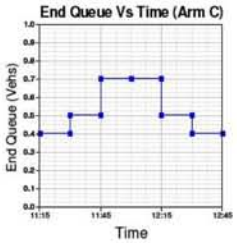


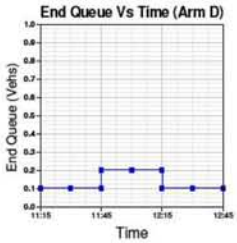
End Queue (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)







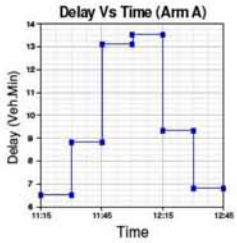


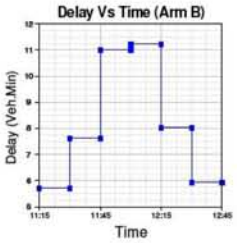
Geometric Delay Graph

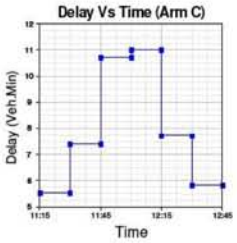
No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

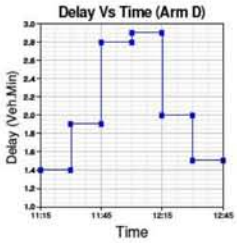
Delay (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)









Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 11:15 to 11:30	A	8.09	26.27	0.308	-	0.0	0.4	6.5	-	0.055
	B	7.47	26.72	0.279	-	0.0	0.4	5.7	-	0.052
	C	7.45	27.24	0.274	-	0.0	0.4	5.5	-	0.050
	D	1.29	14.36	0.090	-	0.0	0.1	1.4	-	0.076
Segment : 2 - 11:30 to 11:45	A	9.66	25.68	0.376	-	0.4	0.6	8.8	-	0.062
	B	8.91	26.16	0.341	-	0.4	0.5	7.6	-	0.058
	C	8.90	26.60	0.335	-	0.4	0.5	7.4	-	0.056
	D	1.54	13.18	0.117	-	0.1	0.1	1.9	-	0.086
Segment : 3 - 11:45 to 12:00	A	11.84	24.87	0.476	-	0.6	0.9	13.1	-	0.076
	B	10.92	25.40	0.430	-	0.5	0.7	11.0	-	0.069
	C	10.90	25.73	0.424	-	0.5	0.7	10.7	-	0.067
	D	1.89	11.58	0.163	-	0.1	0.2	2.8	-	0.103
Segment : 4 - 12:00 to 12:15	A	11.84	24.87	0.476	-	0.9	0.9	13.5	-	0.077
	B	10.92	25.39	0.430	-	0.7	0.8	11.2	-	0.069
	C	10.90	25.72	0.424	-	0.7	0.7	11.0	-	0.067
	D	1.89	11.57	0.163	-	0.2	0.2	2.9	-	0.103
Segment : 5 - 12:15 to 12:30	A	9.66	25.67	0.377	-	0.9	0.6	9.3	-	0.063
	B	8.91	26.15	0.341	-	0.8	0.5	8.0	-	0.058
	C	8.90	26.59	0.335	-	0.7	0.5	7.7	-	0.057
	D	1.54	13.16	0.117	-	0.2	0.1	2.0	-	0.086
Segment : 6 - 12:30 to 12:45	A	8.09	26.25	0.308	-	0.6	0.4	6.8	-	0.055
	B	7.47	26.71	0.280	-	0.5	0.4	5.9	-	0.052
	C	7.45	27.23	0.274	-	0.5	0.4	5.8	-	0.051
	D	1.29	14.33	0.090	-	0.1	0.1	1.5	-	0.077

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	887.8	591.9	58.2	0.07	58.2	0.07
B	819.0	546.0	49.4	0.06	49.4	0.06
C	817.6	545.1	48.1	0.06	48.1	0.06
D	141.8	94.5	12.7	0.09	12.7	0.09
ALL	2666.1	1777.4	168.3	0.06	168.3	0.06

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

ARCADY 6

GUI Version: 6.2 AG
Analysis Program: Release 7.0 (FEBRUARY 2010)

For sales and distribution information, program advice and maintenance, contact:

TRL Limited
Crowthorne House
Nine Mile Ride
Wokingham, Berks.
RG40 3GA, UK

Tel: +44 (0)1344 770758
Fax:+44 (0)1344 770864
Email: software@ trl.co.uk
Web:www.trlsoftware.co.uk

Run Information

Run with file:- **C:\ARC6\1305\TA MODELS\SJ4 SAT MODEL.vai**
At: **10:08:25 on Thursday, January 24, 2013**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	A49 LUDLOW ROAD
Arm B	A49
Arm C	A44
Arm D	PFS access

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

File Properties

Run Title	SJ4
Location	
Date	19/06/2012
Client	
Enumerator	AHA [ANALYSIS1]
Job Number	1305
Status	
Description	

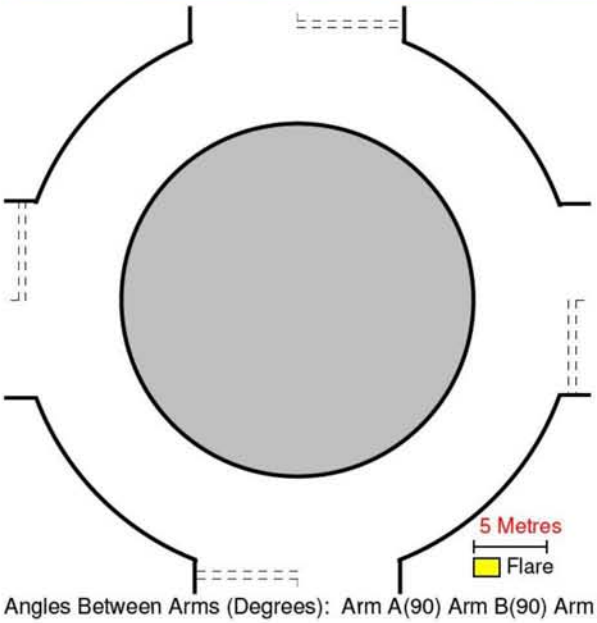
Errors and Warnings

WARNING ARM A Effective flare length is outside normal range.
Treat capacities with increasing caution.
WARNING ARM C Effective flare length is outside normal range.
Treat capacities with increasing caution.

Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D
Approach Road Half-Width (m)	3.65	3.90	4.00	3.00
Entry Width (m)	6.50	7.00	6.70	7.30
Flare Length (m)	35.00	20.00	40.00	5.00
Entry Radius (m)	25.00	25.00	20.00	20.00
Inscribed Circle Diameter (m)	38.00	38.00	38.00	38.00
Entry Angle (degrees)	30.00	30.00	30.00	30.00
Slope	0.671	0.675	0.683	0.557
Intercept (PCU/Min)	30.142	30.455	31.413	20.938

Junction Diagram: (View Extent = 40m)



Angles Between Arms (Degrees): Arm A(90) Arm B(90) Arm C(90) Arm D(90)

Demand Data

Demand Profiles are Synthesised using **ODTAB** Data
Period of interest (for Queue and Delay calculations): **11:15 to 12:45**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Total Traffic Demand (Vehicles/Hour) for Demand Set: SAT 2022 BASE

From/To	Arm A	Arm B	Arm C	Arm D
Arm A	0.0	345.0	322.0	31.0
Arm B	324.0	0.0	214.0	43.0
Arm C	236.0	259.0	0.0	53.0
Arm D	36.0	49.0	27.0	0.0

Entry Flow Data for Demand Set: SAT 2022 BASE

Arms	Number of Minutes From Start When			Rate of flow (Veh/Min)		
	Flow Starts To Rise	Top of Peak is Reached	Flow Stops Falling	Before Peak	At Top of Peak	After Peak
Arm A	15.00	45.00	75.00	8.73	13.09	8.73
Arm B	15.00	45.00	75.00	7.26	10.89	7.26
Arm C	15.00	45.00	75.00	6.85	10.27	6.85
Arm D	15.00	45.00	75.00	1.40	2.10	1.40

Turning Proportions

ODTAB Demand Data type is used, no turning proportions available.

Heavy Vehicle Percentages for Demand Set: SAT 2022 BASE

Vary over entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
11:15 to 12:45	Arm A	0.0	3.0	3.0	3.0
	Arm B	3.0	0.0	3.0	3.0
	Arm C	3.0	3.0	0.0	3.0

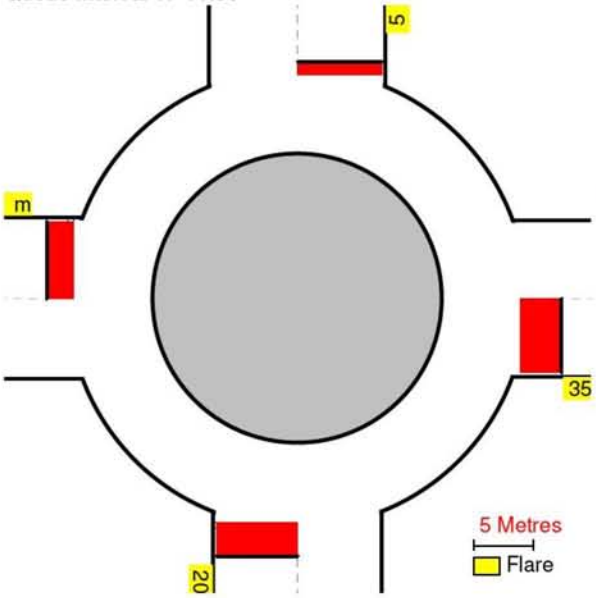
Time Period	From/To	Arm A	Arm B	Arm C	Arm D
	Arm D	3.0	3.0	3.0	0.0

Queue Diagrams: (View Extent = 40m)

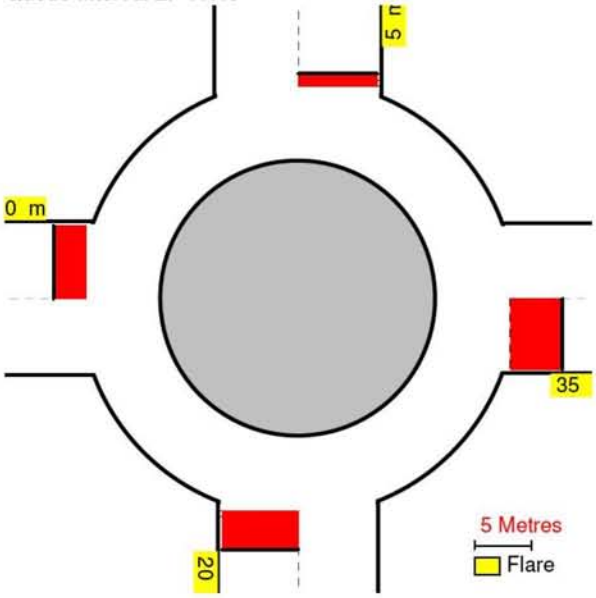
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 11:15---> End Time: 12:45

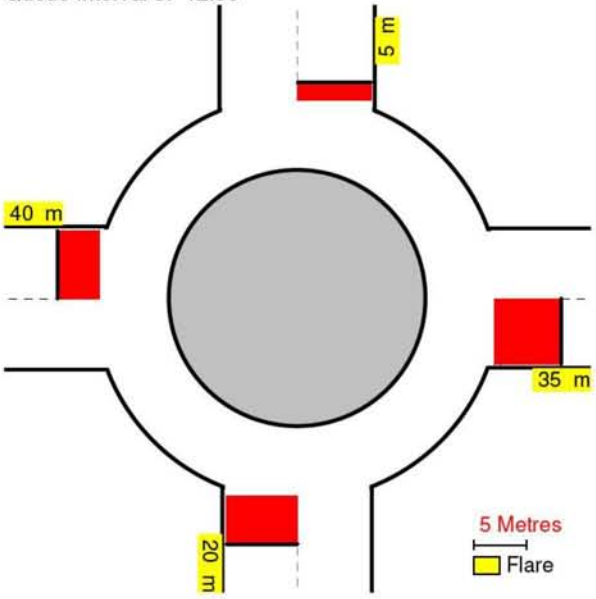
Queue Interval 1: 11:30



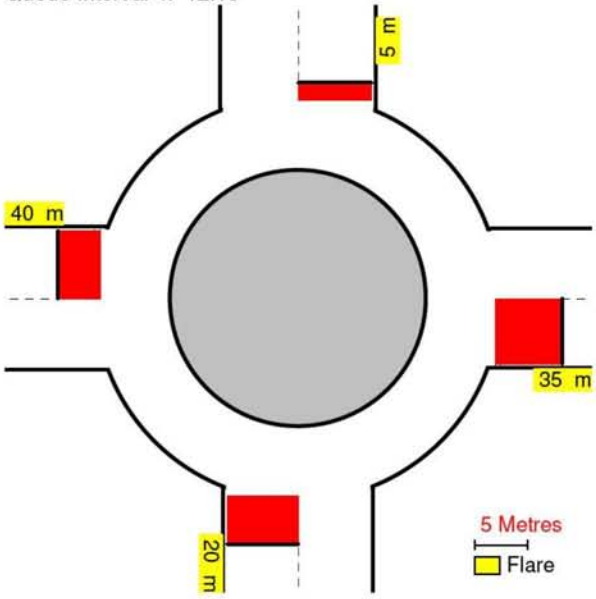
Queue Interval 2: 11:45



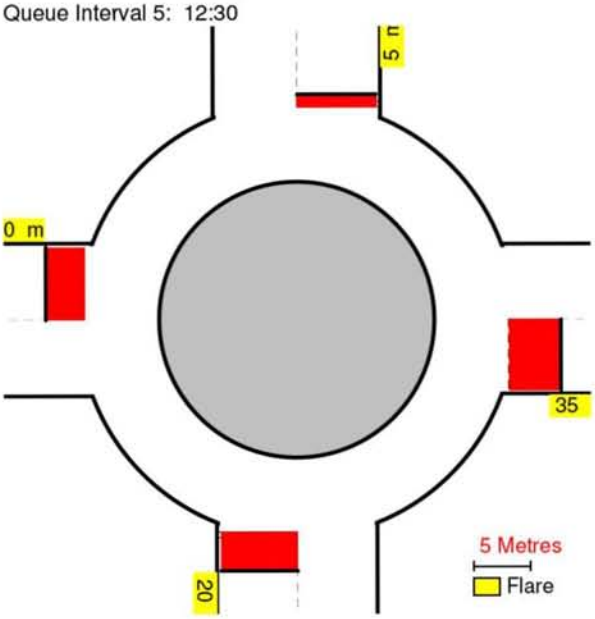
Queue Interval 3: 12:00



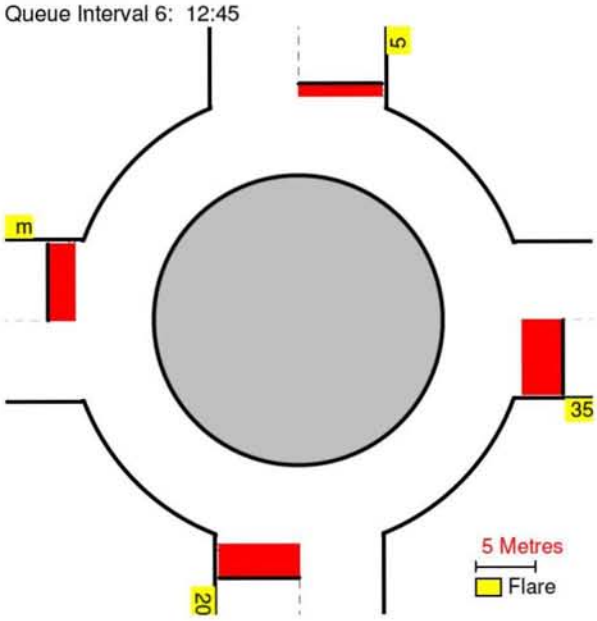
Queue Interval 4: 12:15



Queue Interval 5: 12:30



Queue Interval 6: 12:45

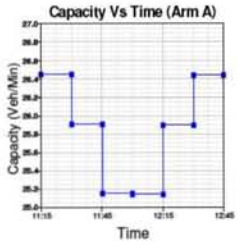


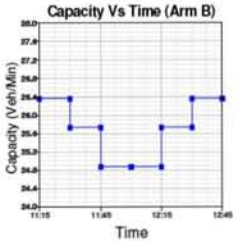
Demand Data Graphs

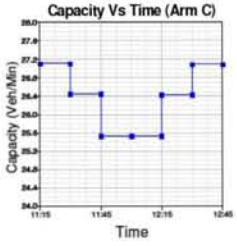
No graph available

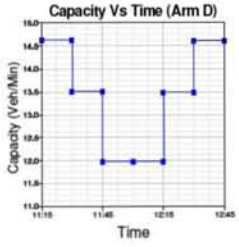
Capacity (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



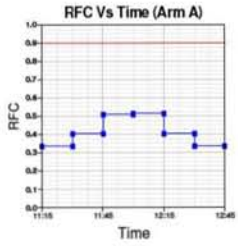


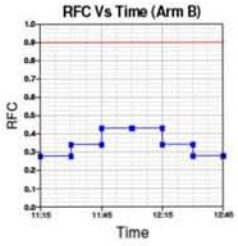


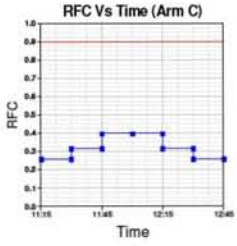


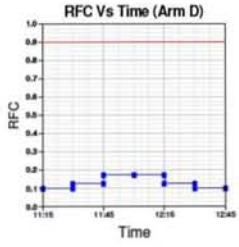
RFC (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



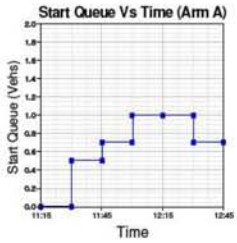


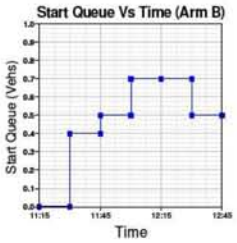


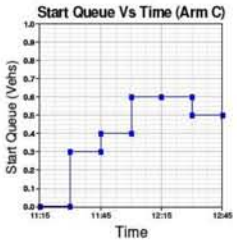


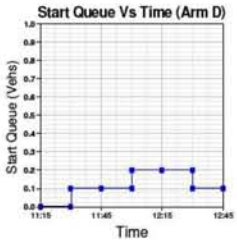
Start Queue (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



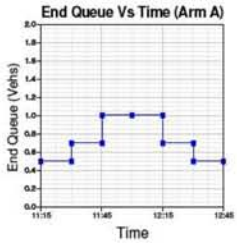


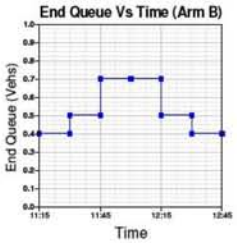


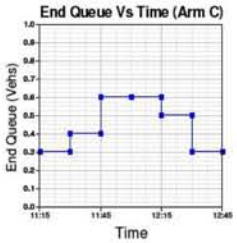


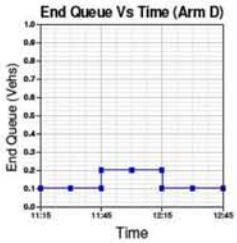
End Queue (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)







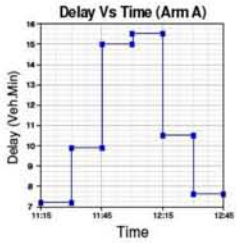


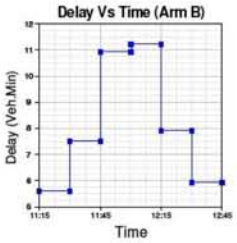
Geometric Delay Graph

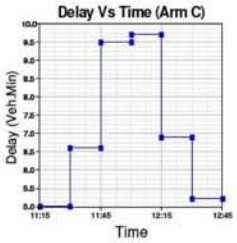
No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

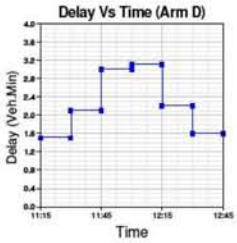
Delay (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)









Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
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	B	7.29	26.36	0.277	-	0.0	0.4	5.6	-	0.052
	C	6.88	27.10	0.254	-	0.0	0.3	5.0	-	0.049
	D	1.41	14.62	0.096	-	0.0	0.1	1.5	-	0.076
Segment : 2 - 11:30 to 11:45	A	10.46	25.90	0.404	-	0.5	0.7	9.9	-	0.065
	B	8.71	25.73	0.338	-	0.4	0.5	7.5	-	0.059
	C	8.21	26.43	0.311	-	0.3	0.4	6.6	-	0.055
	D	1.68	13.50	0.124	-	0.1	0.1	2.1	-	0.085
Segment : 3 - 11:45 to 12:00	A	12.81	25.15	0.509	-	0.7	1.0	15.0	-	0.081
	B	10.66	24.87	0.429	-	0.5	0.7	10.9	-	0.070
	C	10.06	25.51	0.394	-	0.4	0.6	9.5	-	0.065
	D	2.06	11.97	0.172	-	0.1	0.2	3.0	-	0.101
Segment : 4 - 12:00 to 12:15	A	12.81	25.14	0.510	-	1.0	1.0	15.5	-	0.081
	B	10.66	24.86	0.429	-	0.7	0.7	11.2	-	0.070
	C	10.06	25.51	0.394	-	0.6	0.6	9.7	-	0.065
	D	2.06	11.96	0.172	-	0.2	0.2	3.1	-	0.101
Segment : 5 - 12:15 to 12:30	A	10.46	25.89	0.404	-	1.0	0.7	10.5	-	0.065
	B	8.71	25.72	0.338	-	0.7	0.5	7.9	-	0.059
	C	8.21	26.42	0.311	-	0.6	0.5	6.9	-	0.055
	D	1.68	13.48	0.124	-	0.2	0.1	2.2	-	0.085
Segment : 6 - 12:30 to 12:45	A	8.76	26.44	0.331	-	0.7	0.5	7.6	-	0.057
	B	7.29	26.35	0.277	-	0.5	0.4	5.9	-	0.053
	C	6.88	27.08	0.254	-	0.5	0.3	5.2	-	0.050
	D	1.41	14.60	0.096	-	0.1	0.1	1.6	-	0.076

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	960.7	640.5	65.6	0.07	65.6	0.07
B	799.7	533.1	48.9	0.06	48.9	0.06
C	754.3	502.9	42.9	0.06	42.9	0.06
D	154.2	102.8	13.6	0.09	13.6	0.09
ALL	2668.9	1779.3	171.1	0.06	171.1	0.06

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

ARCADY 6

GUI Version: 6.2 AG
Analysis Program: Release 7.0 (FEBRUARY 2010)

For sales and distribution information, program advice and maintenance, contact:

TRL Limited
Crowthorne House
Nine Mile Ride
Wokingham, Berks.
RG40 3GA, UK

Tel: +44 (0)1344 770758
Fax:+44 (0)1344 770864
Email: software@ trl.co.uk
Web:www.trlsoftware.co.uk

Run Information

Run with file:- **C:\ARC6\1305\TA MODELS\SJ4 SAT MODEL.vai**
At: **10:09:37 on Thursday, January 24, 2013**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	A49 LUDLOW ROAD
Arm B	A49
Arm C	A44
Arm D	PFS access

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

File Properties

Run Title	SJ4
Location	
Date	19/06/2012
Client	
Enumerator	AHA [ANALYSIS1]
Job Number	1305
Status	
Description	

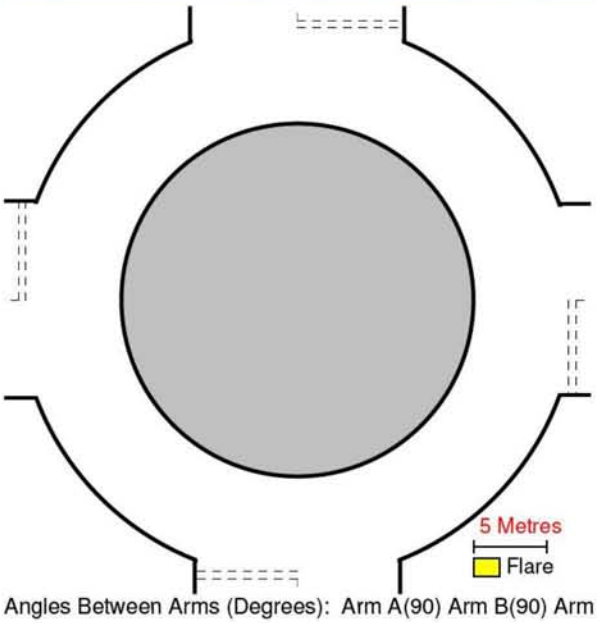
Errors and Warnings

WARNING ARM A Effective flare length is outside normal range.
Treat capacities with increasing caution.
WARNING ARM C Effective flare length is outside normal range.
Treat capacities with increasing caution.

Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D
Approach Road Half-Width (m)	3.65	3.90	4.00	3.00
Entry Width (m)	6.50	7.00	6.70	7.30
Flare Length (m)	35.00	20.00	40.00	5.00
Entry Radius (m)	25.00	25.00	20.00	20.00
Inscribed Circle Diameter (m)	38.00	38.00	38.00	38.00
Entry Angle (degrees)	30.00	30.00	30.00	30.00
Slope	0.671	0.675	0.683	0.557
Intercept (PCU/Min)	30.142	30.455	31.413	20.938

Junction Diagram: (View Extent = 40m)



Angles Between Arms (Degrees): Arm A(90) Arm B(90) Arm C(90) Arm D(90)

Demand Data

Demand Profiles are Synthesised using **ODTAB** Data
Period of interest (for Queue and Delay calculations): **11:15 to 12:45**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Total Traffic Demand (Vehicles/Hour) for Demand Set: SAT 2022 WITH DEVT (Sensitivity Test)

From/To	Arm A	Arm B	Arm C	Arm D
Arm A	0.0	357.0	303.0	31.0
Arm B	335.0	0.0	258.0	43.0
Arm C	273.0	305.0	0.0	53.0
Arm D	36.0	49.0	27.0	0.0

Entry Flow Data for Demand Set: SAT 2022 WITH DEVT (Sensitivity Test)

Arms	Number of Minutes From Start When			Rate of flow (Veh/Min)		
	Flow Starts To Rise	Top of Peak is Reached	Flow Stops Falling	Before Peak	At Top of Peak	After Peak
Arm A	15.00	45.00	75.00	8.64	12.96	8.64
Arm B	15.00	45.00	75.00	7.95	11.92	7.95
Arm C	15.00	45.00	75.00	7.89	11.83	7.89
Arm D	15.00	45.00	75.00	1.40	2.10	1.40

Turning Proportions

ODTAB Demand Data type is used, no turning proportions available.

Heavy Vehicle Percentages for Demand Set: SAT 2022 WITH DEVT (Sensitivity Test)

Vary over entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
11:15 to 12:45	Arm A	0.0	3.0	3.0	3.0
	Arm B	3.0	0.0	3.0	3.0
	Arm C	3.0	3.0	0.0	3.0

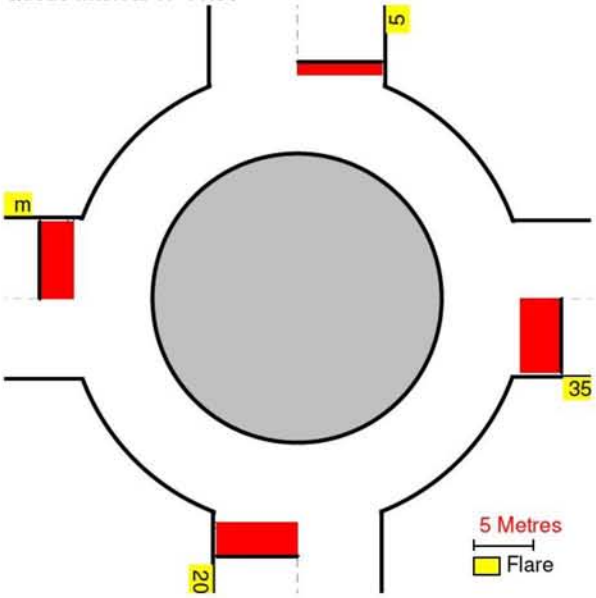
Time Period	From/To	Arm A	Arm B	Arm C	Arm D
	Arm D	3.0	3.0	3.0	0.0

Queue Diagrams: (View Extent = 40m)

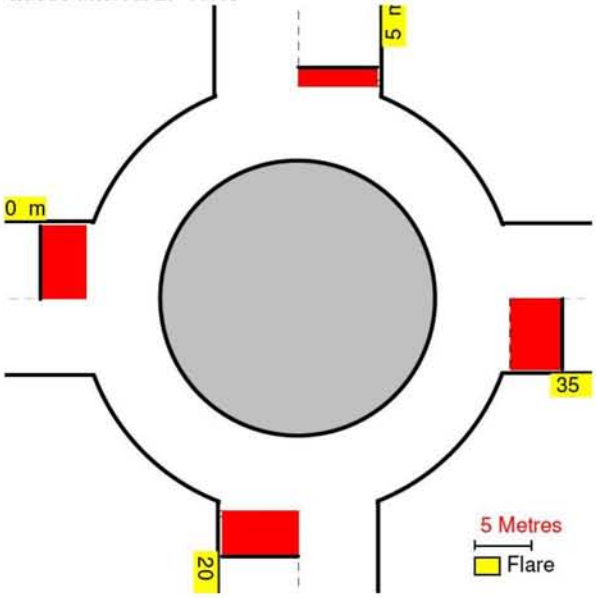
Queue Length	Colour
Mean Queue	
5 th % ile	
90 th % ile	
95 th % ile	

Start Time: 11:15---> End Time: 12:45

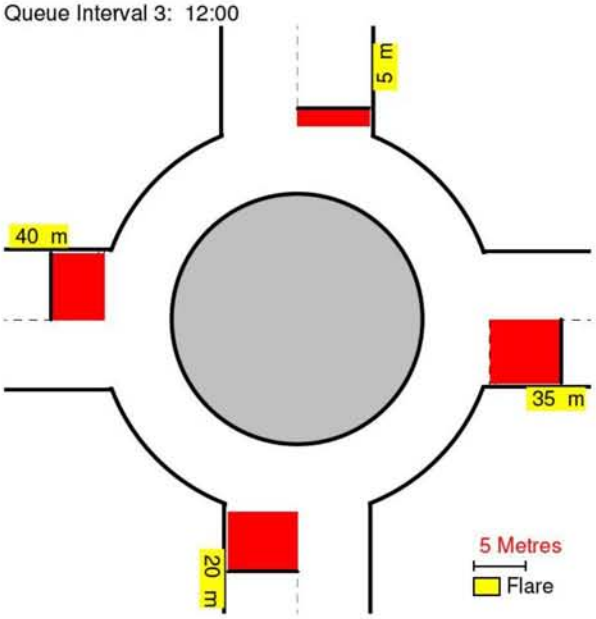
Queue Interval 1: 11:30



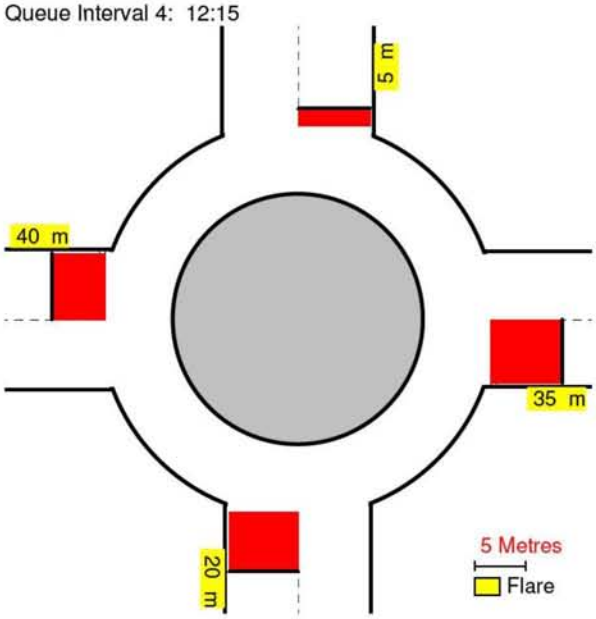
Queue Interval 2: 11:45



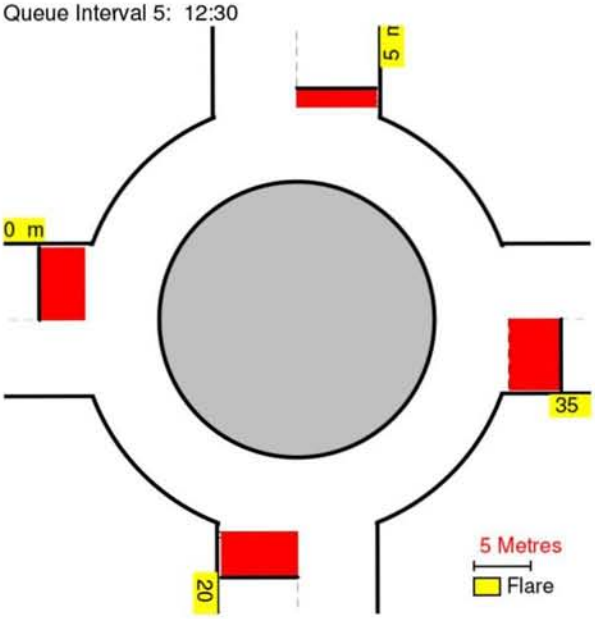
Queue Interval 3: 12:00



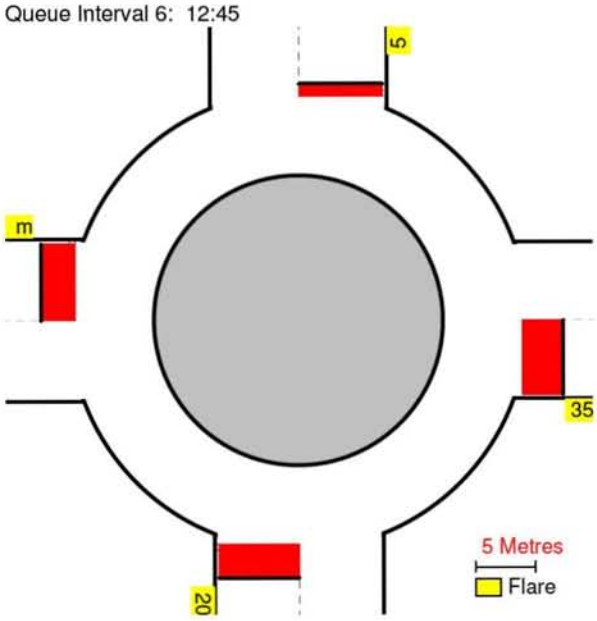
Queue Interval 4: 12:15



Queue Interval 5: 12:30



Queue Interval 6: 12:45

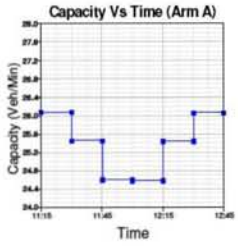


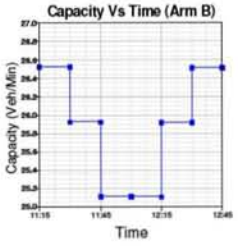
Demand Data Graphs

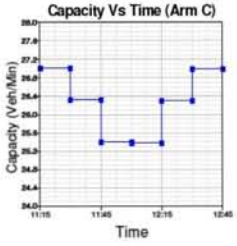
No graph available

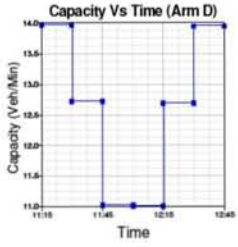
Capacity (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



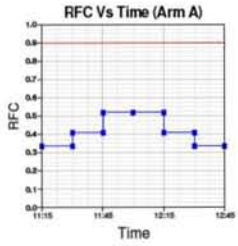


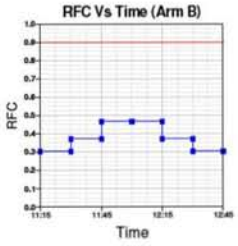


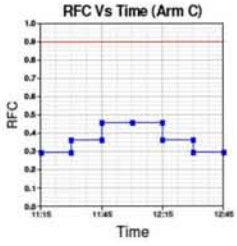


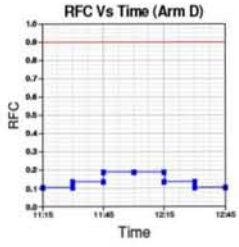
RFC (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



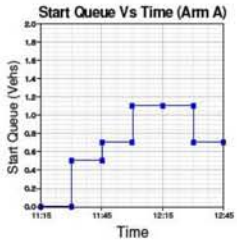


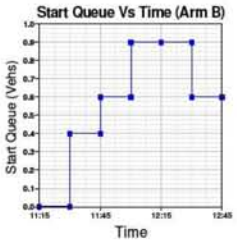


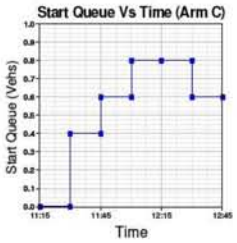


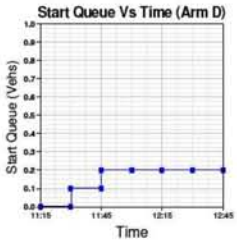
Start Queue (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)



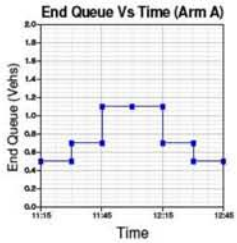


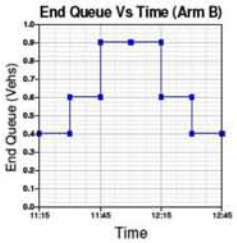


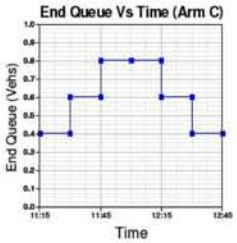


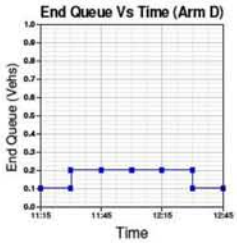
End Queue (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)







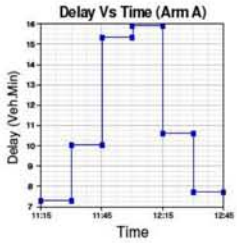


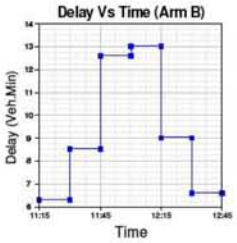
Geometric Delay Graph

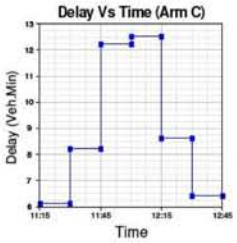
No Data. Please select 'Geometric Delay' in 'Principal Options' and try again.

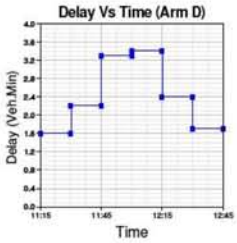
Delay (against Time) Graphs, for each 15min Interval (11:15 - 12:45)

(QUEUEING DELAY INFORMATION OVER WHOLE PERIOD)









Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 11:15 to 11:30	A	8.67	26.07	0.333	-	0.0	0.5	7.3	-	0.057
	B	7.98	26.52	0.301	-	0.0	0.4	6.3	-	0.054
	C	7.92	27.00	0.293	-	0.0	0.4	6.1	-	0.052
	D	1.41	13.97	0.101	-	0.0	0.1	1.6	-	0.080
Segment : 2 - 11:30 to 11:45	A	10.35	25.44	0.407	-	0.5	0.7	10.0	-	0.066
	B	9.53	25.92	0.368	-	0.4	0.6	8.5	-	0.061
	C	9.45	26.31	0.359	-	0.4	0.6	8.2	-	0.059
	D	1.68	12.72	0.132	-	0.1	0.2	2.2	-	0.091
Segment : 3 - 11:45 to 12:00	A	12.68	24.58	0.516	-	0.7	1.1	15.3	-	0.084
	B	11.67	25.11	0.465	-	0.6	0.9	12.6	-	0.074
	C	11.58	25.38	0.456	-	0.6	0.8	12.2	-	0.072
	D	2.06	11.01	0.187	-	0.2	0.2	3.3	-	0.112
Segment : 4 - 12:00 to 12:15	A	12.68	24.57	0.516	-	1.1	1.1	15.9	-	0.084
	B	11.67	25.10	0.465	-	0.9	0.9	13.0	-	0.074
	C	11.58	25.37	0.456	-	0.8	0.8	12.5	-	0.072
	D	2.06	11.00	0.187	-	0.2	0.2	3.4	-	0.112
Segment : 5 - 12:15 to 12:30	A	10.35	25.43	0.407	-	1.1	0.7	10.6	-	0.067
	B	9.53	25.91	0.368	-	0.9	0.6	9.0	-	0.061
	C	9.45	26.30	0.359	-	0.8	0.6	8.6	-	0.059
	D	1.68	12.69	0.132	-	0.2	0.2	2.4	-	0.091
Segment : 6 - 12:30 to 12:45	A	8.67	26.05	0.333	-	0.7	0.5	7.7	-	0.058
	B	7.98	26.51	0.301	-	0.6	0.4	6.6	-	0.054
	C	7.92	26.99	0.293	-	0.6	0.4	6.4	-	0.052
	D	1.41	13.94	0.101	-	0.2	0.1	1.7	-	0.080

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	951.1	634.1	66.8	0.07	66.8	0.07
B	875.4	583.6	55.9	0.06	55.9	0.06
C	868.5	579.0	54.0	0.06	54.0	0.06
D	154.2	102.8	14.7	0.10	14.7	0.10
ALL	2849.2	1899.5	191.4	0.07	191.4	0.07

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Accident Data

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.

Accident Results

No Data, please select the 'Accident Analysis' option in 'Principal Options' and try again.