APPENDIX K

Calculation Reference: AUDIT-219602-181101-1140

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	3 days
	HC	HAMPSHIRE	1 days
	KC	KENT	5 days
	SC	SURREY	1 days
	WS	WEST SUSSEX	5 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	2 days
	NF	NORFOLK	3 days
	SF	SUFFOLK	2 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	1 days
	ST	STAFFORDSHIRE	1 days
	WK	WARWICKSHIRE	2 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of dwellings
Actual Range: 6 to 805 (units:)
Range Selected by User: 6 to 805 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 19/04/18

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	4 days
Tuesday	3 days
Wednesday	6 days
Thursday	8 days
Friday	5 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	26 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	10
Edge of Town	14
Neighbourhood Centre (PPS6 Local Centre)	2

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	24
Village	2

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	25 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	4 days
5,001 to 10,000	6 days
10,001 to 15,000	7 days
15,001 to 20,000	3 days
20,001 to 25,000	4 days
25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	3 days
50,001 to 75,000	4 days
75,001 to 100,000	7 days
100,001 to 125,000	1 days
125,001 to 250,000	9 days
250,001 to 500,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	7 days
1.1 to 1.5	17 days
1.6 to 2.0	2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	6 days
No	20 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	26 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 CA-03-A-04 DETACHED CAMBRIDGESHIRE

PETERBOROUGH
THORPE PARK ROAD
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 9
Survey date: TUESDAY *18/10/11* *Survey Type: MANUAL*

2 CA-03-A-05 DETACHED HOUSES CAMBRIDGESHIRE
EASTFIELD ROAD
PETERBOROUGH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 28
Survey date: MONDAY *17/10/16* *Survey Type: MANUAL*

3 ES-03-A-02 PRIVATE HOUSING EAST SUSSEX
SOUTH COAST ROAD
PEACEHAVEN

Edge of Town
Residential Zone
Total Number of dwellings: 37
Survey date: FRIDAY *18/11/11* *Survey Type: MANUAL*

4 ES-03-A-03 MIXED HOUSES & FLATS EAST SUSSEX
SHEPHAM LANE
POLEGATE

Edge of Town
Residential Zone
Total Number of dwellings: 212
Survey date: MONDAY *11/07/16* *Survey Type: MANUAL*

5 ES-03-A-04 MIXED HOUSES & FLATS EAST SUSSEX
NEW LYDD ROAD
CAMBER

Edge of Town
Residential Zone
Total Number of dwellings: 134
Survey date: FRIDAY *15/07/16* *Survey Type: MANUAL*

6 HC-03-A-19 HOUSES & FLATS HAMPSHIRE
CANADA WAY
LIPHOOK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 62
Survey date: MONDAY *27/11/17* *Survey Type: MANUAL*

7 KC-03-A-03 MIXED HOUSES & FLATS KENT
HYTHE ROAD
ASHFORD
WILLESBOROUGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 51
Survey date: THURSDAY *14/07/16* *Survey Type: MANUAL*

8 KC-03-A-04 SEMI-DETACHED & TERRACED KENT
KILN BARN ROAD
AYLESFORD
DITTON
Edge of Town
Residential Zone
Total Number of dwellings: 110
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

9 KC-03-A-05 DETACHED & SEMI-DETACHED KENT
ROCHESTER ROAD
NEAR CHATHAM
BURHAM
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of dwellings: 8
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

10 KC-03-A-06 MIXED HOUSES & FLATS KENT
MARGATE ROAD
HERNE BAY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 363
Survey date: WEDNESDAY *27/09/17* *Survey Type: MANUAL*

11 KC-03-A-07 MIXED HOUSES KENT
RECULVER ROAD
HERNE BAY

Edge of Town
Residential Zone
Total Number of dwellings: 288
Survey date: WEDNESDAY *27/09/17* *Survey Type: MANUAL*

12 NF-03-A-01 SEMI DET. & BUNGALOWS NORFOLK
YARMOUTH ROAD
CAISTER-ON-SEA

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 27
Survey date: TUESDAY *16/10/12* *Survey Type: MANUAL*

13 NF-03-A-02 HOUSES & FLATS NORFOLK
DEREHAM ROAD
NORWICH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 98
Survey date: MONDAY *22/10/12* *Survey Type: MANUAL*

14 NF-03-A-03 DETACHED HOUSES NORFOLK
HALING WAY
THETFORD

Edge of Town
Residential Zone
Total Number of dwellings: 10
Survey date: WEDNESDAY *16/09/15* *Survey Type: MANUAL*

15 SC-03-A-04 DETACHED & TERRACED SURREY
HIGH ROAD
BYFLEET

Edge of Town
Residential Zone
Total Number of dwellings: 71
Survey date: THURSDAY *23/01/14* *Survey Type: MANUAL*

16 SF-03-A-04 DETACHED & BUNGALOWS SUFFOLK
NORMANSTON DRIVE
LOWESTOFT

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 7
Survey date: TUESDAY *23/10/12* *Survey Type: MANUAL*

17 SF-03-A-05 DETACHED HOUSES SUFFOLK
VALE LANE
BURY ST EDMUNDS

Edge of Town
Residential Zone
Total Number of dwellings: 18
Survey date: WEDNESDAY *09/09/15* *Survey Type: MANUAL*

18 SH-03-A-06 BUNGALOWS SHROPSHIRE
ELLESMERE ROAD
SHREWSBURY

Edge of Town
Residential Zone
Total Number of dwellings: 16
Survey date: THURSDAY *22/05/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

19 ST-03-A-07 DETACHED & SEMI-DETACHED STAFFORDSHIRE
BEACONSIDE
STAFFORD
MARSTON GATE
Edge of Town
Residential Zone
Total Number of dwellings: 248
Survey date: WEDNESDAY *22/11/17* *Survey Type: MANUAL*

20 WK-03-A-01 TERRACED/SEMI/DET. WARWICKSHIRE
ARLINGTON AVENUE
LEAMINGTON SPA

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 6
Survey date: FRIDAY *21/10/11* *Survey Type: MANUAL*

21 WK-03-A-02 BUNGALOWS WARWICKSHIRE
NARBERTH WAY
COVENTRY
POTTERS GREEN
Edge of Town
Residential Zone
Total Number of dwellings: 17
Survey date: THURSDAY *17/10/13* *Survey Type: MANUAL*

22 WS-03-A-04 MIXED HOUSES WEST SUSSEX
HILLS FARM LANE
HORSHAM
BROADBRIDGE HEATH
Edge of Town
Residential Zone
Total Number of dwellings: 151
Survey date: THURSDAY *11/12/14* *Survey Type: MANUAL*

23 WS-03-A-05 TERRACED & FLATS WEST SUSSEX
UPPER SHOREHAM ROAD
SHOREHAM BY SEA

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 48
Survey date: WEDNESDAY *18/04/12* *Survey Type: MANUAL*

24 WS-03-A-06 MIXED HOUSES WEST SUSSEX
ELLIS ROAD
WEST HORSHAM
S BROADBRIDGE HEATH
Edge of Town
Residential Zone
Total Number of dwellings: 805
Survey date: THURSDAY *02/03/17* *Survey Type: MANUAL*

25 WS-03-A-07 BUNGALOWS WEST SUSSEX
EMMS LANE
NEAR HORSHAM
BROOKS GREEN
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of dwellings: 57
Survey date: THURSDAY *19/10/17* *Survey Type: MANUAL*

26 WS-03-A-08 MIXED HOUSES WEST SUSSEX
ROUNDSTONE LANE
ANGMERING

Edge of Town
Residential Zone
Total Number of dwellings: 180
Survey date: THURSDAY *19/04/18* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
LN-03-A-03	Parking
SF-03-A-06	Parking
SH-03-A-05	Parking
WM-03-A-04	Parking

Transport Planning Associates Ltd 25 Southampton Buildings London WC2A 1AL Licence No: 219602

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	26	118	0.089	26	118	0.308	26	118	0.397
08:00 - 09:00	26	118	0.140	26	118	0.388	26	118	0.528
09:00 - 10:00	26	118	0.146	26	118	0.173	26	118	0.319
10:00 - 11:00	26	118	0.125	26	118	0.152	26	118	0.277
11:00 - 12:00	26	118	0.140	26	118	0.158	26	118	0.298
12:00 - 13:00	26	118	0.152	26	118	0.149	26	118	0.301
13:00 - 14:00	26	118	0.171	26	118	0.160	26	118	0.331
14:00 - 15:00	26	118	0.169	26	118	0.182	26	118	0.351
15:00 - 16:00	26	118	0.259	26	118	0.182	26	118	0.441
16:00 - 17:00	26	118	0.277	26	118	0.174	26	118	0.451
17:00 - 18:00	26	118	0.341	26	118	0.160	26	118	0.501
18:00 - 19:00	26	118	0.302	26	118	0.183	26	118	0.485
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.311			2.369			4.680

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	6 - 805 (units:)
Survey date date range:	01/01/10 - 19/04/18
Number of weekdays (Monday-Friday):	26
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	4

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Transport Planning Associates Ltd 25 Southampton Buildings London WC2A 1AL Licence No: 219602

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TAXIS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	26	118	0.001	26	118	0.001	26	118	0.002
08:00 - 09:00	26	118	0.004	26	118	0.003	26	118	0.007
09:00 - 10:00	26	118	0.002	26	118	0.000	26	118	0.002
10:00 - 11:00	26	118	0.002	26	118	0.003	26	118	0.005
11:00 - 12:00	26	118	0.002	26	118	0.002	26	118	0.004
12:00 - 13:00	26	118	0.001	26	118	0.002	26	118	0.003
13:00 - 14:00	26	118	0.002	26	118	0.001	26	118	0.003
14:00 - 15:00	26	118	0.002	26	118	0.003	26	118	0.005
15:00 - 16:00	26	118	0.006	26	118	0.005	26	118	0.011
16:00 - 17:00	26	118	0.003	26	118	0.004	26	118	0.007
17:00 - 18:00	26	118	0.002	26	118	0.001	26	118	0.003
18:00 - 19:00	26	118	0.002	26	118	0.002	26	118	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.029			0.027			0.056

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	26	118	0.001	26	118	0.000	26	118	0.001
08:00 - 09:00	26	118	0.002	26	118	0.002	26	118	0.004
09:00 - 10:00	26	118	0.003	26	118	0.002	26	118	0.005
10:00 - 11:00	26	118	0.004	26	118	0.004	26	118	0.008
11:00 - 12:00	26	118	0.002	26	118	0.003	26	118	0.005
12:00 - 13:00	26	118	0.002	26	118	0.003	26	118	0.005
13:00 - 14:00	26	118	0.003	26	118	0.001	26	118	0.004
14:00 - 15:00	26	118	0.001	26	118	0.003	26	118	0.004
15:00 - 16:00	26	118	0.001	26	118	0.001	26	118	0.002
16:00 - 17:00	26	118	0.002	26	118	0.001	26	118	0.003
17:00 - 18:00	26	118	0.001	26	118	0.001	26	118	0.002
18:00 - 19:00	26	118	0.000	26	118	0.000	26	118	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.022			0.021			0.043

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Transport Planning Associates Ltd 25 Southampton Buildings London WC2A 1AL Licence No: 219602

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PSVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	26	118	0.000	26	118	0.000	26	118	0.000
08:00 - 09:00	26	118	0.000	26	118	0.000	26	118	0.000
09:00 - 10:00	26	118	0.000	26	118	0.000	26	118	0.000
10:00 - 11:00	26	118	0.000	26	118	0.000	26	118	0.000
11:00 - 12:00	26	118	0.000	26	118	0.000	26	118	0.000
12:00 - 13:00	26	118	0.000	26	118	0.000	26	118	0.000
13:00 - 14:00	26	118	0.000	26	118	0.000	26	118	0.000
14:00 - 15:00	26	118	0.000	26	118	0.000	26	118	0.000
15:00 - 16:00	26	118	0.000	26	118	0.000	26	118	0.000
16:00 - 17:00	26	118	0.000	26	118	0.000	26	118	0.000
17:00 - 18:00	26	118	0.000	26	118	0.000	26	118	0.000
18:00 - 19:00	26	118	0.000	26	118	0.000	26	118	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Transport Planning Associates Ltd 25 Southampton Buildings London WC2A 1AL Licence No: 219602

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	26	118	0.006	26	118	0.009	26	118	0.015
08:00 - 09:00	26	118	0.003	26	118	0.008	26	118	0.011
09:00 - 10:00	26	118	0.001	26	118	0.002	26	118	0.003
10:00 - 11:00	26	118	0.001	26	118	0.004	26	118	0.005
11:00 - 12:00	26	118	0.003	26	118	0.004	26	118	0.007
12:00 - 13:00	26	118	0.003	26	118	0.003	26	118	0.006
13:00 - 14:00	26	118	0.002	26	118	0.003	26	118	0.005
14:00 - 15:00	26	118	0.002	26	118	0.003	26	118	0.005
15:00 - 16:00	26	118	0.007	26	118	0.005	26	118	0.012
16:00 - 17:00	26	118	0.008	26	118	0.008	26	118	0.016
17:00 - 18:00	26	118	0.014	26	118	0.008	26	118	0.022
18:00 - 19:00	26	118	0.007	26	118	0.006	26	118	0.013
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.057			0.063			0.120

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Transport Planning Associates Ltd 25 Southampton Buildings London WC2A 1AL Licence No: 219602

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	26	118	0.113	26	118	0.453	26	118	0.566
08:00 - 09:00	26	118	0.185	26	118	0.684	26	118	0.869
09:00 - 10:00	26	118	0.188	26	118	0.248	26	118	0.436
10:00 - 11:00	26	118	0.168	26	118	0.213	26	118	0.381
11:00 - 12:00	26	118	0.184	26	118	0.228	26	118	0.412
12:00 - 13:00	26	118	0.209	26	118	0.214	26	118	0.423
13:00 - 14:00	26	118	0.245	26	118	0.226	26	118	0.471
14:00 - 15:00	26	118	0.236	26	118	0.251	26	118	0.487
15:00 - 16:00	26	118	0.451	26	118	0.264	26	118	0.715
16:00 - 17:00	26	118	0.462	26	118	0.260	26	118	0.722
17:00 - 18:00	26	118	0.530	26	118	0.235	26	118	0.765
18:00 - 19:00	26	118	0.455	26	118	0.279	26	118	0.734
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.426			3.555			6.981

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Transport Planning Associates Ltd 25 Southampton Buildings London WC2A 1AL Licence No: 219602

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	26	118	0.015	26	118	0.028	26	118	0.043
08:00 - 09:00	26	118	0.026	26	118	0.109	26	118	0.135
09:00 - 10:00	26	118	0.041	26	118	0.038	26	118	0.079
10:00 - 11:00	26	118	0.034	26	118	0.040	26	118	0.074
11:00 - 12:00	26	118	0.025	26	118	0.027	26	118	0.052
12:00 - 13:00	26	118	0.032	26	118	0.032	26	118	0.064
13:00 - 14:00	26	118	0.035	26	118	0.024	26	118	0.059
14:00 - 15:00	26	118	0.032	26	118	0.043	26	118	0.075
15:00 - 16:00	26	118	0.116	26	118	0.047	26	118	0.163
16:00 - 17:00	26	118	0.068	26	118	0.041	26	118	0.109
17:00 - 18:00	26	118	0.062	26	118	0.041	26	118	0.103
18:00 - 19:00	26	118	0.043	26	118	0.046	26	118	0.089
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.529			0.516			1.045

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL BUS/TRAM PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	26	118	0.001	26	118	0.013	26	118	0.014
08:00 - 09:00	26	118	0.000	26	118	0.021	26	118	0.021
09:00 - 10:00	26	118	0.001	26	118	0.008	26	118	0.009
10:00 - 11:00	26	118	0.003	26	118	0.004	26	118	0.007
11:00 - 12:00	26	118	0.001	26	118	0.004	26	118	0.005
12:00 - 13:00	26	118	0.003	26	118	0.004	26	118	0.007
13:00 - 14:00	26	118	0.004	26	118	0.003	26	118	0.007
14:00 - 15:00	26	118	0.005	26	118	0.003	26	118	0.008
15:00 - 16:00	26	118	0.016	26	118	0.005	26	118	0.021
16:00 - 17:00	26	118	0.014	26	118	0.005	26	118	0.019
17:00 - 18:00	26	118	0.014	26	118	0.002	26	118	0.016
18:00 - 19:00	26	118	0.015	26	118	0.004	26	118	0.019
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.077			0.076			0.153

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Transport Planning Associates Ltd 25 Southampton Buildings London WC2A 1AL Licence No: 219602

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL RAIL PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	26	118	0.001	26	118	0.009	26	118	0.010
08:00 - 09:00	26	118	0.000	26	118	0.007	26	118	0.007
09:00 - 10:00	26	118	0.000	26	118	0.003	26	118	0.003
10:00 - 11:00	26	118	0.000	26	118	0.002	26	118	0.002
11:00 - 12:00	26	118	0.000	26	118	0.001	26	118	0.001
12:00 - 13:00	26	118	0.000	26	118	0.002	26	118	0.002
13:00 - 14:00	26	118	0.001	26	118	0.001	26	118	0.002
14:00 - 15:00	26	118	0.001	26	118	0.000	26	118	0.001
15:00 - 16:00	26	118	0.004	26	118	0.001	26	118	0.005
16:00 - 17:00	26	118	0.002	26	118	0.001	26	118	0.003
17:00 - 18:00	26	118	0.007	26	118	0.000	26	118	0.007
18:00 - 19:00	26	118	0.005	26	118	0.001	26	118	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.021			0.028			0.049

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL COACH PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	26	118	0.000	26	118	0.000	26	118	0.000
08:00 - 09:00	26	118	0.000	26	118	0.000	26	118	0.000
09:00 - 10:00	26	118	0.000	26	118	0.000	26	118	0.000
10:00 - 11:00	26	118	0.000	26	118	0.000	26	118	0.000
11:00 - 12:00	26	118	0.000	26	118	0.000	26	118	0.000
12:00 - 13:00	26	118	0.000	26	118	0.000	26	118	0.000
13:00 - 14:00	26	118	0.000	26	118	0.000	26	118	0.000
14:00 - 15:00	26	118	0.000	26	118	0.000	26	118	0.000
15:00 - 16:00	26	118	0.001	26	118	0.000	26	118	0.001
16:00 - 17:00	26	118	0.000	26	118	0.000	26	118	0.000
17:00 - 18:00	26	118	0.000	26	118	0.000	26	118	0.000
18:00 - 19:00	26	118	0.000	26	118	0.000	26	118	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.001			0.000			0.001

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Transport Planning Associates Ltd 25 Southampton Buildings London WC2A 1AL Licence No: 219602

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	26	118	0.001	26	118	0.022	26	118	0.023
08:00 - 09:00	26	118	0.000	26	118	0.028	26	118	0.028
09:00 - 10:00	26	118	0.001	26	118	0.011	26	118	0.012
10:00 - 11:00	26	118	0.003	26	118	0.006	26	118	0.009
11:00 - 12:00	26	118	0.001	26	118	0.005	26	118	0.006
12:00 - 13:00	26	118	0.003	26	118	0.007	26	118	0.010
13:00 - 14:00	26	118	0.005	26	118	0.004	26	118	0.009
14:00 - 15:00	26	118	0.005	26	118	0.003	26	118	0.008
15:00 - 16:00	26	118	0.020	26	118	0.006	26	118	0.026
16:00 - 17:00	26	118	0.017	26	118	0.005	26	118	0.022
17:00 - 18:00	26	118	0.020	26	118	0.002	26	118	0.022
18:00 - 19:00	26	118	0.020	26	118	0.005	26	118	0.025
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.096			0.104			0.200

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Transport Planning Associates Ltd 25 Southampton Buildings London WC2A 1AL Licence No: 219602

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	26	118	0.135	26	118	0.513	26	118	0.648
08:00 - 09:00	26	118	0.214	26	118	0.830	26	118	1.044
09:00 - 10:00	26	118	0.231	26	118	0.300	26	118	0.531
10:00 - 11:00	26	118	0.206	26	118	0.262	26	118	0.468
11:00 - 12:00	26	118	0.213	26	118	0.265	26	118	0.478
12:00 - 13:00	26	118	0.247	26	118	0.255	26	118	0.502
13:00 - 14:00	26	118	0.287	26	118	0.256	26	118	0.543
14:00 - 15:00	26	118	0.275	26	118	0.300	26	118	0.575
15:00 - 16:00	26	118	0.594	26	118	0.322	26	118	0.916
16:00 - 17:00	26	118	0.554	26	118	0.315	26	118	0.869
17:00 - 18:00	26	118	0.627	26	118	0.286	26	118	0.913
18:00 - 19:00	26	118	0.526	26	118	0.335	26	118	0.861
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.109			4.239			8.348

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL Servicing Vehicles
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	26	118	0.013	26	118	0.007	26	118	0.020
08:00 - 09:00	26	118	0.011	26	118	0.008	26	118	0.019
09:00 - 10:00	26	118	0.014	26	118	0.009	26	118	0.023
10:00 - 11:00	26	118	0.012	26	118	0.013	26	118	0.025
11:00 - 12:00	26	118	0.012	26	118	0.014	26	118	0.026
12:00 - 13:00	26	118	0.010	26	118	0.011	26	118	0.021
13:00 - 14:00	26	118	0.016	26	118	0.017	26	118	0.033
14:00 - 15:00	26	118	0.009	26	118	0.015	26	118	0.024
15:00 - 16:00	26	118	0.011	26	118	0.010	26	118	0.021
16:00 - 17:00	26	118	0.008	26	118	0.008	26	118	0.016
17:00 - 18:00	26	118	0.006	26	118	0.008	26	118	0.014
18:00 - 19:00	26	118	0.004	26	118	0.006	26	118	0.010
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.126			0.126			0.252

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

APPENDIX L

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

Filename: 1801-47 J2.j9
Path: P:\18\01\47 - Honingham, Norfolk\04 Calculations and Analysis\Highway Impact Analysis
Report generation date: 30/11/2018 09:42:54

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
Arm A	31.7	90.15	1.04	F	20.3	60.54	1.01	F
Arm B	0.7	8.64	0.42	A	0.3	6.09	0.21	A
Arm C	63.9	211.16	1.14	F	24.5	85.77	1.03	F
	2023 Future Base							
Arm A	130.6	361.01	1.20	F	105.8	292.46	1.17	F
Arm B	0.9	9.78	0.48	A	0.3	6.53	0.24	A
Arm C	199.7	685.80	1.36	F	100.4	334.35	1.20	F
	600 Unit Development							
Arm A	169.9	459.15	1.25	F	115.9	323.86	1.19	F
Arm B	0.9	9.85	0.48	A	0.3	6.55	0.24	A
Arm C	210.7	721.39	1.37	F	127.7	420.13	1.24	F

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	With Capacity Adjustment - 2018 Base							
Arm A	5.0	13.78	0.83	B	4.0	11.56	0.81	B
Arm B	0.6	6.50	0.35	A	0.2	4.79	0.17	A
Arm C	8.3	27.76	0.91	D	4.4	15.06	0.83	C
	With Capacity Adjustment - 2023 Future Base							
Arm A	14.2	33.22	0.96	D	10.8	26.55	0.94	D
Arm B	0.8	8.97	0.46	A	0.3	5.88	0.22	A
Arm C	48.3	136.08	1.09	F	12.0	34.85	0.96	D
	With Capacity Adjustment - 600 Unit Development							
Arm A	20.6	48.62	1.00	E	12.1	29.19	0.95	D
Arm B	0.9	9.55	0.47	A	0.3	5.98	0.23	A
Arm C	54.1	150.15	1.10	F	16.5	47.29	0.99	E

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	With two lane approaches - 600 Unit Development							
Arm A	7.4	17.12	0.89	C	5.2	12.72	0.85	B
Arm B	1.5	16.58	0.61	C	0.4	8.21	0.29	A
Arm C	8.4	23.55	0.91	C	4.7	13.30	0.83	B

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	Honingham Thorpe
Location	
Site number	
Date	31/10/2018
Version	
Status	(new file)
Identifier	
Client	Clarion Housing Group
Jobnumber	
Enumerator	TPA\pd
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	mph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2018 Base	AM	ONE HOUR	07:20	08:50	10	✓		
D2	2018 Base	PM	ONE HOUR	16:35	18:05	10	✓		
D3	Committed	AM	ONE HOUR	07:20	08:50	10			
D4	Committed	PM	ONE HOUR	16:35	18:05	10			
D5	2023 Future Base	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D1*G1+D3
D6	2023 Future Base	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D2*G2+D4
D7	100 Unit Development	AM	ONE HOUR	07:20	08:50	10			
D8	100 Unit Development	PM	ONE HOUR	16:35	18:05	10			
D9	300 Unit Development	AM	ONE HOUR	07:20	08:50	10		Simple	D7*3+D5
D10	300 Unit Development	PM	ONE HOUR	16:35	18:05	10		Simple	D8*3+D6
D11	600 Unit Development	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D7*6+D5
D12	600 Unit Development	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D8*6+D6

Growth Factors

ID	Description	Use TEMPRO	Growth Factor
G1	AM 2018 to 2023		1.1188
G2	PM 2018 to 2023		1.1212

Growth factors are only active if the Demand Set references them in a Relationship.

2018 Base , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	A47/Norwich Road	Standard Roundabout		A, B, C	130.23	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A47 East	
B	Norwich Road	
C	A47 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.20	4.20	0.0	20.0	50.0	21.0	
B	3.10	5.00	22.0	15.6	50.0	31.0	
C	3.00	3.80	87.8	21.1	50.0	28.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.544	1312
B	0.540	1366
C	0.508	1155

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2018 Base	AM	ONE HOUR	07:20	08:50	10	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1344	100.000
B		ONE HOUR	✓	305	100.000
C		ONE HOUR	✓	1124	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	121	1222
	B	300	0	5
	C	1117	7	0

Proportions

		To		
		A	B	C
From	A	0.00	0.09	0.91
	B	0.98	0.00	0.02
	C	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	9	10
	B	2	0	25
	C	11	17	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.090	1.100
	B	1.020	1.000	1.250
	C	1.110	1.170	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:20-07:30	A	909	909
	B	206	206
	C	760	760
07:30-07:40	A	909	909
	B	206	206
	C	760	760
07:40-07:50	A	1138	1138
	B	258	258
	C	952	952
07:50-08:00	A	1303	1303
	B	296	296
	C	1089	1089
08:00-08:10	A	1363	1363
	B	309	309
	C	1140	1140
08:10-08:20	A	1303	1303
	B	296	296
	C	1089	1089
08:20-08:30	A	1138	1138
	B	258	258
	C	952	952
08:30-08:40	A	909	909
	B	206	206
	C	760	760
08:40-08:50	A	909	909
	B	206	206
	C	760	760

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	1.04	90.15	31.7	F	1098	1646
B	0.42	8.64	0.7	A	249	374
C	1.14	211.16	63.9	F	918	1377

Main Results for each time segment

07:20 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	909	151	5	1310	0.694	894	940	0.0	2.4	9.235	A
B	206	34	814	927	0.223	205	85	0.0	0.3	5.086	A
C	760	127	201	1053	0.721	744	817	0.0	2.7	12.366	B

07:30 - 07:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	909	151	5	1310	0.694	908	957	2.4	2.4	9.830	A
B	206	34	826	920	0.224	206	87	0.3	0.3	5.159	A
C	760	127	203	1052	0.722	759	829	2.7	2.8	13.565	B

07:40 - 07:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1138	190	6	1309	0.869	1117	1166	2.4	5.9	18.771	C
B	258	43	1016	817	0.316	257	107	0.3	0.5	6.565	A
C	952	159	253	1027	0.927	919	1020	2.8	8.3	30.282	D

07:50 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1303	217	6	1309	0.995	1244	1269	5.9	15.7	40.370	E
B	296	49	1132	755	0.392	295	118	0.5	0.6	7.987	A
C	1089	182	290	1008	1.081	985	1137	8.3	25.6	73.984	F

08:00 - 08:10

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1363	227	6	1309	1.041	1286	1294	15.7	28.5	71.162	F
B	309	52	1169	734	0.421	309	122	0.6	0.7	8.642	A
C	1140	190	304	1001	1.139	996	1174	25.6	49.6	145.880	F

08:10 - 08:20

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1303	217	6	1309	0.995	1284	1289	28.5	31.7	90.155	F
B	296	49	1168	735	0.402	296	122	0.7	0.7	8.388	A
C	1089	182	291	1007	1.081	1004	1172	49.6	63.9	210.652	F

08:20 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1138	190	6	1309	0.869	1264	1257	31.7	10.8	64.969	F
B	258	43	1149	745	0.347	259	120	0.7	0.6	7.594	A
C	952	159	255	1026	0.928	1008	1153	63.9	54.5	211.162	F

08:30 - 08:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	909	151	6	1309	0.694	957	1229	10.8	2.6	12.643	B
B	206	34	871	896	0.230	208	93	0.6	0.3	5.365	A
C	760	127	205	1051	0.723	1030	874	54.5	9.3	116.804	F

08:40 - 08:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	909	151	5	1310	0.694	909	995	2.6	2.6	9.904	A
B	206	34	827	919	0.224	206	87	0.3	0.3	5.163	A
C	760	127	203	1052	0.722	797	830	9.3	3.1	17.503	C

2018 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	A47/Norwich Road	Standard Roundabout		A, B, C	68.04	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A47 East	
B	Norwich Road	
C	A47 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.20	4.20	0.0	20.0	50.0	21.0	
B	3.10	5.00	22.0	15.6	50.0	31.0	
C	3.00	3.80	87.8	21.1	50.0	28.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.544	1312
B	0.540	1366
C	0.508	1155

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2018 Base	PM	ONE HOUR	16:35	18:05	10	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1291	100.000
B		ONE HOUR	✓	159	100.000
C		ONE HOUR	✓	1101	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	156	1136
	B	143	0	15
	C	1079	22	0

Proportions

		To		
		A	B	C
From	A	0.00	0.12	0.88
	B	0.90	0.00	0.10
	C	0.98	0.02	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	5
	B	3	0	0
	C	4	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.020	1.050
	B	1.030	1.000	1.000
	C	1.040	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:35-16:45	A	873	873
	B	107	107
	C	744	744
16:45-16:55	A	873	873
	B	107	107
	C	744	744
16:55-17:05	A	1094	1094
	B	134	134
	C	932	932
17:05-17:15	A	1252	1252
	B	154	154
	C	1067	1067
17:15-17:25	A	1310	1310
	B	161	161
	C	1117	1117
17:25-17:35	A	1252	1252
	B	154	154
	C	1067	1067
17:35-17:45	A	1094	1094
	B	134	134
	C	932	932
17:45-17:55	A	873	873
	B	107	107
	C	744	744
17:55-18:05	A	873	873
	B	107	107
	C	744	744

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	1.01	60.54	20.3	F	1055	1582
B	0.21	6.09	0.3	A	130	194
C	1.03	85.77	24.5	F	899	1349

Main Results for each time segment

16:35 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	873	146	15	1304	0.669	861	814	0.0	2.0	8.285	A
B	107	18	757	957	0.112	106	119	0.0	0.1	4.342	A
C	744	124	96	1107	0.673	732	767	0.0	2.0	9.705	A

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	873	146	15	1304	0.670	873	826	2.0	2.1	8.720	A
B	107	18	768	952	0.113	107	120	0.1	0.1	4.378	A
C	744	124	97	1106	0.673	744	778	2.0	2.1	10.306	B

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1094	182	18	1302	0.840	1078	1018	2.1	4.7	15.742	C
B	134	22	948	854	0.157	134	148	0.1	0.2	5.131	A
C	932	155	121	1094	0.852	915	961	2.1	5.0	19.258	C

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1252	209	21	1301	0.962	1212	1139	4.7	11.5	31.911	D
B	154	26	1065	791	0.195	153	167	0.2	0.2	5.801	A
C	1067	178	139	1085	0.984	1021	1080	5.0	12.7	40.547	E

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1310	218	21	1301	1.007	1260	1180	11.5	19.7	53.082	F
B	161	27	1108	767	0.210	161	173	0.2	0.3	6.092	A
C	1117	186	145	1082	1.032	1057	1124	12.7	22.6	70.062	F

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1252	209	21	1301	0.963	1249	1174	19.7	20.3	60.542	F
B	154	26	1098	773	0.199	154	172	0.3	0.3	5.972	A
C	1067	178	139	1085	0.984	1056	1113	22.6	24.5	85.769	F

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1094	182	21	1301	0.841	1175	1132	20.3	6.6	35.568	E
B	134	22	1034	808	0.166	135	163	0.3	0.2	5.494	A
C	932	155	122	1094	0.853	1031	1047	24.5	8.1	57.642	F

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	873	146	16	1304	0.670	900	861	6.6	2.2	9.881	A
B	107	18	791	939	0.114	108	124	0.2	0.1	4.452	A
C	744	124	97	1106	0.673	779	802	8.1	2.3	12.531	B

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	873	146	15	1304	0.670	873	827	2.2	2.2	8.761	A
B	107	18	768	951	0.113	107	120	0.1	0.1	4.382	A
C	744	124	97	1106	0.673	745	778	2.3	2.2	10.374	B

2023 Future Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	A47/Norwich Road	Standard Roundabout		A, B, C	456.85	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A47 East	
B	Norwich Road	
C	A47 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.20	4.20	0.0	20.0	50.0	21.0	
B	3.10	5.00	22.0	15.6	50.0	31.0	
C	3.00	3.80	87.8	21.1	50.0	28.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.544	1312
B	0.540	1366
C	0.508	1155

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D5	2023 Future Base	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D1*G1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1554	100.000
B		ONE HOUR	✓	341	100.000
C		ONE HOUR	✓	1317	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	136	1419
	B	336	0	5
	C	1309	8	0

Proportions

		To		
		A	B	C
From	A	0.00	0.09	0.91
	B	0.98	0.00	0.02
	C	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	9	10
	B	2	0	25
	C	10	17	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.090	1.096
	B	1.020	1.000	1.250
	C	1.104	1.170	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:20-07:30	A	1051	1051
	B	231	231
	C	891	891
07:30-07:40	A	1051	1051
	B	231	231
	C	891	891
07:40-07:50	A	1316	1316
	B	289	289
	C	1116	1116
07:50-08:00	A	1507	1507
	B	331	331
	C	1277	1277
08:00-08:10	A	1576	1576
	B	346	346
	C	1336	1336
08:10-08:20	A	1507	1507
	B	331	331
	C	1277	1277
08:20-08:30	A	1316	1316
	B	289	289
	C	1116	1116
08:30-08:40	A	1051	1051
	B	231	231
	C	891	891
08:40-08:50	A	1051	1051
	B	231	231
	C	891	891

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	1.20	361.01	130.6	F	1270	1905
B	0.48	9.78	0.9	A	279	418
C	1.36	685.80	199.7	F	1076	1614

Main Results for each time segment

07:20 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1051	175	5	1310	0.803	1027	1079	0.0	4.0	13.043	B
B	231	38	937	860	0.268	229	95	0.0	0.4	5.814	A
C	891	148	225	1041	0.855	859	941	0.0	5.2	19.435	C

07:30 - 07:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1051	175	5	1309	0.803	1050	1109	4.0	4.2	14.996	B
B	231	38	958	849	0.272	231	97	0.4	0.4	5.959	A
C	891	148	227	1040	0.856	887	962	5.2	5.8	24.894	C

07:40 - 07:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1316	219	6	1309	1.006	1244	1265	4.2	16.3	39.257	E
B	289	48	1135	753	0.384	288	114	0.4	0.6	7.889	A
C	1116	186	283	1011	1.103	988	1140	5.8	27.1	71.968	F

07:50 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1507	251	6	1309	1.151	1301	1307	16.3	50.7	102.059	F
B	331	55	1187	725	0.456	330	119	0.6	0.8	9.283	A
C	1277	213	325	990	1.289	988	1192	27.1	75.2	195.792	F

08:00 - 08:10

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1576	263	6	1309	1.204	1308	1317	50.7	95.5	208.070	F
B	346	58	1193	721	0.480	346	120	0.8	0.9	9.780	A
C	1336	223	340	982	1.360	982	1199	75.2	134.2	389.460	F

08:10 - 08:20

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1507	251	6	1309	1.151	1308	1310	95.5	128.6	313.939	F
B	331	55	1194	721	0.459	331	120	0.9	0.9	9.451	A
C	1277	213	326	990	1.290	989	1199	134.2	182.1	575.265	F

08:20 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1316	219	6	1309	1.006	1305	1290	128.6	130.6	361.013	F
B	289	48	1191	723	0.400	290	120	0.9	0.7	8.536	A
C	1116	186	286	1010	1.104	1010	1195	182.1	199.7	685.801	F

08:30 - 08:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1051	175	6	1309	0.803	1298	1256	130.6	89.4	305.939	F
B	231	38	1185	726	0.318	232	119	0.7	0.5	7.474	A
C	891	148	229	1039	0.857	1034	1188	199.7	175.8	654.311	F

08:40 - 08:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1051	175	6	1309	0.803	1293	1255	89.4	49.0	194.355	F
B	231	38	1180	729	0.317	231	119	0.5	0.5	7.398	A
C	891	148	227	1040	0.856	1033	1184	175.8	152.0	571.518	F

2023 Future Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	A47/Norwich Road	Standard Roundabout		A, B, C	293.21	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A47 East	
B	Norwich Road	
C	A47 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.20	4.20	0.0	20.0	50.0	21.0	
B	3.10	5.00	22.0	15.6	50.0	31.0	
C	3.00	3.80	87.8	21.1	50.0	28.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.544	1312
B	0.540	1366
C	0.508	1155

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D6	2023 Future Base	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D2*G2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1505	100.000
B		ONE HOUR	✓	178	100.000
C		ONE HOUR	✓	1266	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	175	1330
	B	161	0	17
	C	1241	25	0

Proportions

		To		
		A	B	C
From	A	0.00	0.12	0.88
	B	0.90	0.00	0.10
	C	0.98	0.02	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	5
	B	3	0	0
	C	4	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.020	1.048
	B	1.030	1.000	1.000
	C	1.039	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:35-16:45	A	1018	1018
	B	120	120
	C	856	856
16:45-16:55	A	1018	1018
	B	120	120
	C	856	856
16:55-17:05	A	1275	1275
	B	151	151
	C	1072	1072
17:05-17:15	A	1459	1459
	B	172	172
	C	1228	1228
17:15-17:25	A	1526	1526
	B	180	180
	C	1284	1284
17:25-17:35	A	1459	1459
	B	172	172
	C	1228	1228
17:35-17:45	A	1275	1275
	B	151	151
	C	1072	1072
17:45-17:55	A	1018	1018
	B	120	120
	C	856	856
17:55-18:05	A	1018	1018
	B	120	120
	C	856	856

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	1.17	292.46	105.8	F	1229	1844
B	0.24	6.53	0.3	A	145	218
C	1.20	334.35	100.4	F	1034	1552

Main Results for each time segment

16:35 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1018	170	16	1303	0.781	997	928	0.0	3.4	11.612	B
B	120	20	881	890	0.135	119	132	0.0	0.2	4.791	A
C	856	143	108	1101	0.778	836	893	0.0	3.3	13.309	B

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1018	170	17	1303	0.781	1017	947	3.4	3.5	13.016	B
B	120	20	899	881	0.137	120	135	0.2	0.2	4.861	A
C	856	143	109	1100	0.778	855	910	3.3	3.5	15.100	C

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1275	212	20	1301	0.979	1219	1134	3.5	12.8	32.875	D
B	151	25	1077	784	0.192	150	162	0.2	0.2	5.832	A
C	1072	179	136	1087	0.987	1018	1092	3.5	12.5	38.108	E

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1459	243	21	1301	1.122	1289	1201	12.8	41.2	85.002	F
B	172	29	1139	751	0.230	172	171	0.2	0.3	6.384	A
C	1228	205	155	1076	1.141	1066	1156	12.5	39.4	98.186	F

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1526	254	21	1301	1.173	1299	1212	41.2	79.2	173.927	F
B	180	30	1148	746	0.242	180	172	0.3	0.3	6.532	A
C	1284	214	163	1073	1.197	1071	1165	39.4	75.0	199.970	F

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1459	243	21	1301	1.122	1300	1210	79.2	105.8	261.791	F
B	172	29	1149	746	0.231	172	172	0.3	0.3	6.451	A
C	1228	205	156	1076	1.141	1075	1165	75.0	100.4	299.208	F

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1275	212	21	1301	0.980	1288	1188	105.8	103.5	292.464	F
B	151	25	1139	751	0.201	151	171	0.3	0.3	6.163	A
C	1072	179	136	1086	0.987	1073	1153	100.4	100.3	334.354	F

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1018	170	21	1301	0.782	1288	1176	103.5	58.5	227.822	F
B	120	20	1138	751	0.160	121	171	0.3	0.2	5.865	A
C	856	143	109	1100	0.778	1089	1150	100.3	61.5	268.838	F

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1018	170	21	1301	0.782	1278	1169	58.5	15.1	107.431	F
B	120	20	1130	756	0.159	120	170	0.2	0.2	5.818	A
C	856	143	109	1100	0.778	1082	1141	61.5	23.9	145.151	F

600 Unit Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	A47/Norwich Road	Standard Roundabout		A, B, C	518.81	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A47 East	
B	Norwich Road	
C	A47 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.20	4.20	0.0	20.0	50.0	21.0	
B	3.10	5.00	22.0	15.6	50.0	31.0	
C	3.00	3.80	87.8	21.1	50.0	28.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.544	1312
B	0.540	1366
C	0.508	1155

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	600 Unit Development	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D7*6+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1610	100.000
B		ONE HOUR	✓	341	100.000
C		ONE HOUR	✓	1331	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	136	1474
	B	336	0	5
	C	1324	8	0

Proportions

		To		
		A	B	C
From	A	0.00	0.08	0.92
	B	0.98	0.00	0.02
	C	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	9	9
	B	2	0	25
	C	10	17	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.090	1.092
	B	1.020	1.000	1.250
	C	1.103	1.170	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:20-07:30	A	1089	1089
	B	231	231
	C	900	900
07:30-07:40	A	1089	1089
	B	231	231
	C	900	900
07:40-07:50	A	1364	1364
	B	289	289
	C	1128	1128
07:50-08:00	A	1561	1561
	B	331	331
	C	1291	1291
08:00-08:10	A	1633	1633
	B	346	346
	C	1350	1350
08:10-08:20	A	1561	1561
	B	331	331
	C	1291	1291
08:20-08:30	A	1364	1364
	B	289	289
	C	1128	1128
08:30-08:40	A	1089	1089
	B	231	231
	C	900	900
08:40-08:50	A	1089	1089
	B	231	231
	C	900	900

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	1.25	459.15	169.9	F	1315	1973
B	0.48	9.85	0.9	A	279	418
C	1.37	721.39	210.7	F	1088	1631

Main Results for each time segment

07:20 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1089	181	5	1310	0.831	1061	1087	0.0	4.7	14.501	B
B	231	38	971	841	0.274	228	95	0.0	0.4	5.986	A
C	900	150	225	1041	0.865	867	975	0.0	5.5	20.129	C

07:30 - 07:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1089	181	5	1309	0.831	1087	1118	4.7	5.0	17.295	C
B	231	38	995	829	0.279	231	97	0.4	0.4	6.159	A
C	900	150	227	1040	0.866	896	999	5.5	6.1	26.252	D

07:40 - 07:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1364	227	6	1309	1.042	1264	1268	5.0	21.6	47.966	E
B	289	48	1157	741	0.390	288	112	0.4	0.6	8.094	A
C	1128	188	283	1011	1.115	990	1162	6.1	29.0	76.018	F

07:50 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1561	260	6	1309	1.192	1304	1307	21.6	64.4	127.230	F
B	331	55	1194	721	0.459	330	116	0.6	0.8	9.380	A
C	1291	215	325	990	1.303	989	1199	29.0	79.4	206.869	F

08:00 - 08:10

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1633	272	6	1309	1.247	1308	1317	64.4	118.5	257.821	F
B	346	58	1198	719	0.481	346	116	0.8	0.9	9.846	A
C	1350	225	340	982	1.375	982	1203	79.4	140.8	409.228	F

08:10 - 08:20

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1561	260	6	1309	1.192	1309	1310	118.5	160.6	389.013	F
B	331	55	1198	719	0.460	331	116	0.9	0.9	9.510	A
C	1291	215	326	990	1.304	989	1203	140.8	191.1	603.073	F

08:20 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1364	227	6	1309	1.042	1308	1290	160.6	169.9	459.152	F
B	289	48	1198	719	0.402	290	116	0.9	0.7	8.609	A
C	1128	188	286	1010	1.116	1010	1202	191.1	210.7	721.393	F

08:30 - 08:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1089	181	6	1309	0.832	1301	1256	169.9	134.6	421.863	F
B	231	38	1191	723	0.319	232	116	0.7	0.5	7.523	A
C	900	150	229	1039	0.866	1034	1195	210.7	188.4	695.169	F

08:40 - 08:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1089	181	6	1309	0.832	1298	1255	134.6	99.6	325.338	F
B	231	38	1189	724	0.319	231	116	0.5	0.5	7.472	A
C	900	150	227	1040	0.866	1034	1193	188.4	166.2	617.767	F

600 Unit Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	A47/Norwich Road	Standard Roundabout		A, B, C	346.96	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A47 East	
B	Norwich Road	
C	A47 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.20	4.20	0.0	20.0	50.0	21.0	
B	3.10	5.00	22.0	15.6	50.0	31.0	
C	3.00	3.80	87.8	21.1	50.0	28.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.544	1312
B	0.540	1366
C	0.508	1155

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	600 Unit Development	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D8*6+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1524	100.000
B		ONE HOUR	✓	178	100.000
C		ONE HOUR	✓	1308	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	175	1349
	B	161	0	17
	C	1283	25	0

Proportions

		To		
		A	B	C
From	A	0.00	0.11	0.89
	B	0.90	0.00	0.10
	C	0.98	0.02	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	5
	B	3	0	0
	C	4	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.020	1.047
	B	1.030	1.000	1.000
	C	1.038	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:35-16:45	A	1030	1030
	B	120	120
	C	885	885
16:45-16:55	A	1030	1030
	B	120	120
	C	885	885
16:55-17:05	A	1291	1291
	B	151	151
	C	1108	1108
17:05-17:15	A	1478	1478
	B	172	172
	C	1268	1268
17:15-17:25	A	1546	1546
	B	180	180
	C	1327	1327
17:25-17:35	A	1478	1478
	B	172	172
	C	1268	1268
17:35-17:45	A	1291	1291
	B	151	151
	C	1108	1108
17:45-17:55	A	1030	1030
	B	120	120
	C	885	885
17:55-18:05	A	1030	1030
	B	120	120
	C	885	885

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	1.19	323.86	115.9	F	1245	1867
B	0.24	6.55	0.3	A	145	218
C	1.24	420.13	127.7	F	1069	1603

Main Results for each time segment

16:35 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1030	172	16	1303	0.791	1009	953	0.0	3.6	12.020	B
B	120	20	893	884	0.136	119	132	0.0	0.2	4.831	A
C	885	147	108	1101	0.804	862	905	0.0	3.7	14.527	B

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1030	172	17	1303	0.791	1029	975	3.6	3.7	13.599	B
B	120	20	911	874	0.138	120	135	0.2	0.2	4.906	A
C	885	147	109	1100	0.804	883	923	3.7	4.0	16.938	C

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1291	215	20	1302	0.992	1228	1152	3.7	14.2	35.301	E
B	151	25	1088	779	0.193	150	160	0.2	0.2	5.883	A
C	1108	185	136	1087	1.020	1036	1102	4.0	16.0	45.332	E

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1478	246	20	1301	1.136	1291	1205	14.2	45.3	92.154	F
B	172	29	1143	749	0.230	172	168	0.2	0.3	6.408	A
C	1268	211	155	1076	1.178	1070	1160	16.0	49.0	119.334	F

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1546	258	20	1301	1.188	1299	1214	45.3	86.3	189.050	F
B	180	30	1150	745	0.242	180	169	0.3	0.3	6.549	A
C	1327	221	163	1073	1.237	1072	1168	49.0	91.6	243.223	F

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1478	246	20	1301	1.136	1300	1211	86.3	115.9	285.427	F
B	172	29	1151	744	0.232	172	169	0.3	0.3	6.469	A
C	1268	211	156	1076	1.179	1076	1168	91.6	123.7	365.128	F

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1291	215	21	1301	0.992	1291	1200	115.9	115.9	323.862	F
B	151	25	1143	749	0.201	151	169	0.3	0.3	6.189	A
C	1108	185	136	1086	1.020	1084	1157	123.7	127.7	420.131	F

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1030	172	21	1301	0.792	1289	1179	115.9	72.8	264.523	F
B	120	20	1142	749	0.160	121	169	0.3	0.2	5.885	A
C	885	147	109	1100	0.804	1091	1153	127.7	93.3	365.371	F

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1030	172	21	1301	0.792	1283	1176	72.8	30.7	147.691	F
B	120	20	1136	753	0.160	120	168	0.2	0.2	5.846	A
C	885	147	109	1100	0.804	1088	1147	93.3	59.4	253.835	F

With Capacity Adjustment - 2018 Base , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	With Capacity Adjustment	✓	✓	D1,D2,D5,D6,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	A47/Norwich Road	Standard Roundabout		A, B, C	18.64	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A47 East	
B	Norwich Road	
C	A47 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.20	4.20	0.0	20.0	50.0	21.0	
B	3.10	5.00	22.0	15.6	50.0	31.0	
C	3.00	3.80	87.7	21.1	50.0	28.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.544	1312
B	0.540	1366
C	0.508	1155

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A	Percentage		125.00
B	Percentage		125.00
C	Percentage		125.00

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2018 Base	AM	ONE HOUR	07:20	08:50	10	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1344	100.000
B		ONE HOUR	✓	305	100.000
C		ONE HOUR	✓	1124	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	121	1222
	B	300	0	5
	C	1117	7	0

Proportions

		To		
		A	B	C
From	A	0.00	0.09	0.91
	B	0.98	0.00	0.02
	C	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	9	10
	B	2	0	25
	C	11	17	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.090	1.100
	B	1.020	1.000	1.250
	C	1.110	1.170	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:20-07:30	A	909	909
	B	206	206
	C	760	760
07:30-07:40	A	909	909
	B	206	206
	C	760	760
07:40-07:50	A	1138	1138
	B	258	258
	C	952	952
07:50-08:00	A	1303	1303
	B	296	296
	C	1089	1089
08:00-08:10	A	1363	1363
	B	309	309
	C	1140	1140
08:10-08:20	A	1303	1303
	B	296	296
	C	1089	1089
08:20-08:30	A	1138	1138
	B	258	258
	C	952	952
08:30-08:40	A	909	909
	B	206	206
	C	760	760
08:40-08:50	A	909	909
	B	206	206
	C	760	760

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.83	13.78	5.0	B	1098	1646
B	0.35	6.50	0.6	A	249	374
C	0.91	27.76	8.3	D	918	1377

Main Results for each time segment

07:20 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	909	151	5	1637	0.555	900	948	0.0	1.3	5.314	A
B	206	34	819	1155	0.179	205	86	0.0	0.2	3.872	A
C	760	127	202	1316	0.577	751	822	0.0	1.5	6.971	A

07:30 - 07:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	909	151	5	1637	0.555	908	958	1.3	1.4	5.427	A
B	206	34	826	1150	0.179	206	87	0.2	0.2	3.902	A
C	760	127	203	1315	0.578	760	830	1.5	1.5	7.189	A

07:40 - 07:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1138	190	6	1636	0.695	1132	1191	1.4	2.4	7.742	A
B	258	43	1030	1012	0.255	258	108	0.2	0.3	4.873	A
C	952	159	254	1283	0.742	943	1033	1.5	3.0	11.450	B

07:50 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1303	217	7	1636	0.796	1293	1356	2.4	4.0	11.231	B
B	296	49	1177	913	0.324	295	123	0.3	0.5	5.950	A
C	1089	182	290	1260	0.865	1072	1181	3.0	5.8	19.623	C

08:00 - 08:10

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1363	227	7	1636	0.833	1357	1422	4.0	5.0	13.778	B
B	309	52	1234	874	0.354	309	129	0.5	0.6	6.504	A
C	1140	190	304	1251	0.911	1125	1239	5.8	8.3	27.758	D

08:10 - 08:20

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1303	217	7	1636	0.796	1305	1377	5.0	4.6	12.128	B
B	296	49	1187	906	0.327	296	125	0.6	0.5	6.044	A
C	1089	182	292	1259	0.865	1092	1192	8.3	7.9	24.857	C

08:20 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1138	190	6	1636	0.696	1150	1228	4.6	2.6	8.318	A
B	258	43	1046	1001	0.258	259	110	0.5	0.4	4.966	A
C	952	159	255	1282	0.742	978	1050	7.9	3.4	14.132	B

08:30 - 08:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	909	151	5	1637	0.555	916	970	2.6	1.4	5.540	A
B	206	34	833	1145	0.180	207	87	0.4	0.2	3.928	A
C	760	127	204	1315	0.578	771	836	3.4	1.6	7.493	A

08:40 - 08:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	909	151	5	1637	0.555	909	958	1.4	1.4	5.431	A
B	206	34	827	1150	0.179	206	87	0.2	0.2	3.904	A
C	760	127	203	1315	0.578	760	830	1.6	1.5	7.204	A

With Capacity Adjustment - 2018 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	With Capacity Adjustment	✓	✓	D1,D2,D5,D6,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	A47/Norwich Road	Standard Roundabout		A, B, C	12.65	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A47 East	
B	Norwich Road	
C	A47 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.20	4.20	0.0	20.0	50.0	21.0	
B	3.10	5.00	22.0	15.6	50.0	31.0	
C	3.00	3.80	87.7	21.1	50.0	28.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.544	1312
B	0.540	1366
C	0.508	1155

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A	Percentage		125.00
B	Percentage		125.00
C	Percentage		125.00

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2018 Base	PM	ONE HOUR	16:35	18:05	10	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1291	100.000
B		ONE HOUR	✓	159	100.000
C		ONE HOUR	✓	1101	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	156	1136
	B	143	0	15
	C	1079	22	0

Proportions

		To		
		A	B	C
From	A	0.00	0.12	0.88
	B	0.90	0.00	0.10
	C	0.98	0.02	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	5
	B	3	0	0
	C	4	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.020	1.050
	B	1.030	1.000	1.000
	C	1.040	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:35-16:45	A	873	873
	B	107	107
	C	744	744
16:45-16:55	A	873	873
	B	107	107
	C	744	744
16:55-17:05	A	1094	1094
	B	134	134
	C	932	932
17:05-17:15	A	1252	1252
	B	154	154
	C	1067	1067
17:15-17:25	A	1310	1310
	B	161	161
	C	1117	1117
17:25-17:35	A	1252	1252
	B	154	154
	C	1067	1067
17:35-17:45	A	1094	1094
	B	134	134
	C	932	932
17:45-17:55	A	873	873
	B	107	107
	C	744	744
17:55-18:05	A	873	873
	B	107	107
	C	744	744

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.81	11.56	4.0	B	1055	1582
B	0.17	4.79	0.2	A	130	194
C	0.83	15.06	4.4	C	899	1349

Main Results for each time segment

16:35 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	873	146	15	1630	0.536	866	819	0.0	1.2	4.884	A
B	107	18	762	1193	0.090	107	119	0.0	0.1	3.400	A
C	744	124	96	1383	0.538	737	772	0.0	1.2	5.732	A

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	873	146	15	1630	0.536	873	826	1.2	1.2	4.974	A
B	107	18	768	1189	0.090	107	120	0.1	0.1	3.416	A
C	744	124	97	1383	0.538	744	778	1.2	1.2	5.857	A

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1094	182	19	1628	0.672	1089	1029	1.2	2.1	6.918	A
B	134	22	957	1061	0.127	134	150	0.1	0.1	3.986	A
C	932	155	121	1367	0.682	927	970	1.2	2.1	8.382	A

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1252	209	21	1626	0.770	1245	1176	2.1	3.3	9.685	A
B	154	26	1095	969	0.159	154	172	0.1	0.2	4.535	A
C	1067	178	139	1356	0.787	1059	1109	2.1	3.5	12.227	B

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1310	218	22	1625	0.806	1305	1234	3.3	4.0	11.555	B
B	161	27	1148	933	0.173	161	180	0.2	0.2	4.790	A
C	1117	186	145	1352	0.826	1111	1163	3.5	4.4	15.060	C

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1252	209	22	1626	0.770	1254	1187	4.0	3.7	10.232	B
B	154	26	1103	963	0.160	154	173	0.2	0.2	4.570	A
C	1067	178	139	1356	0.787	1070	1118	4.4	4.1	13.235	B

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1094	182	19	1627	0.672	1103	1045	3.7	2.2	7.290	A
B	134	22	970	1053	0.128	135	152	0.2	0.2	4.028	A
C	932	155	122	1367	0.682	943	983	4.1	2.3	9.030	A

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	873	146	15	1630	0.536	879	833	2.2	1.2	5.055	A
B	107	18	773	1186	0.090	108	121	0.2	0.1	3.431	A
C	744	124	97	1383	0.538	751	783	2.3	1.2	5.983	A

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	873	146	15	1630	0.536	873	826	1.2	1.2	4.978	A
B	107	18	768	1189	0.090	107	120	0.1	0.1	3.419	A
C	744	124	97	1383	0.538	744	778	1.2	1.2	5.862	A

With Capacity Adjustment - 2023 Future Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	With Capacity Adjustment	✓	✓	D1,D2,D5,D6,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	A47/Norwich Road	Standard Roundabout		A, B, C	72.81	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A47 East	
B	Norwich Road	
C	A47 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.20	4.20	0.0	20.0	50.0	21.0	
B	3.10	5.00	22.0	15.6	50.0	31.0	
C	3.00	3.80	87.7	21.1	50.0	28.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.544	1312
B	0.540	1366
C	0.508	1155

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A	Percentage		125.00
B	Percentage		125.00
C	Percentage		125.00

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D5	2023 Future Base	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D1*G1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1554	100.000
B		ONE HOUR	✓	341	100.000
C		ONE HOUR	✓	1317	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	136	1419
	B	336	0	5
	C	1309	8	0

Proportions

		To		
		A	B	C
From	A	0.00	0.09	0.91
	B	0.98	0.00	0.02
	C	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	9	10
	B	2	0	25
	C	10	17	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.090	1.096
	B	1.020	1.000	1.250
	C	1.104	1.170	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:20-07:30	A	1051	1051
	B	231	231
	C	891	891
07:30-07:40	A	1051	1051
	B	231	231
	C	891	891
07:40-07:50	A	1316	1316
	B	289	289
	C	1116	1116
07:50-08:00	A	1507	1507
	B	331	331
	C	1277	1277
08:00-08:10	A	1576	1576
	B	346	346
	C	1336	1336
08:10-08:20	A	1507	1507
	B	331	331
	C	1277	1277
08:20-08:30	A	1316	1316
	B	289	289
	C	1116	1116
08:30-08:40	A	1051	1051
	B	231	231
	C	891	891
08:40-08:50	A	1051	1051
	B	231	231
	C	891	891

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.96	33.22	14.2	D	1270	1905
B	0.46	8.97	0.8	A	279	418
C	1.09	136.08	48.3	F	1076	1614

Main Results for each time segment

07:20 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1051	175	5	1637	0.642	1040	1097	0.0	1.9	6.485	A
B	231	38	949	1067	0.216	229	96	0.0	0.3	4.385	A
C	891	148	226	1301	0.685	877	952	0.0	2.3	9.110	A

07:30 - 07:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1051	175	5	1637	0.642	1051	1112	1.9	1.9	6.725	A
B	231	38	959	1060	0.218	231	97	0.3	0.3	4.439	A
C	891	148	227	1300	0.685	890	963	2.3	2.3	9.685	A

07:40 - 07:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1316	219	6	1636	0.805	1303	1368	1.9	4.1	11.419	B
B	289	48	1190	904	0.320	288	120	0.3	0.5	5.962	A
C	1116	186	284	1264	0.882	1091	1194	2.3	6.4	20.530	C

07:50 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1507	251	7	1636	0.921	1478	1512	4.1	9.0	21.522	C
B	331	55	1349	797	0.415	329	136	0.5	0.7	7.853	A
C	1277	213	324	1238	1.031	1194	1354	6.4	20.2	50.474	F

08:00 - 08:10

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1576	263	7	1636	0.964	1546	1550	9.0	14.2	33.217	D
B	346	58	1411	755	0.458	345	142	0.7	0.8	8.968	A
C	1336	223	340	1228	1.088	1217	1416	20.2	40.0	98.481	F

08:10 - 08:20

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1507	251	7	1635	0.921	1508	1546	14.2	14.0	32.385	D
B	331	55	1376	778	0.425	331	139	0.8	0.8	8.251	A
C	1277	213	326	1237	1.032	1227	1381	40.0	48.3	136.081	F

08:20 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1316	219	7	1635	0.805	1371	1513	14.0	5.0	17.074	C
B	289	48	1251	863	0.335	291	127	0.8	0.5	6.451	A
C	1116	186	286	1262	0.884	1234	1255	48.3	28.5	113.951	F

08:30 - 08:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1051	175	6	1636	0.642	1069	1268	5.0	2.0	7.155	A
B	231	38	975	1049	0.220	232	100	0.5	0.3	4.514	A
C	891	148	229	1299	0.686	1046	979	28.5	2.6	24.761	C

08:40 - 08:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1051	175	5	1637	0.642	1051	1113	2.0	2.0	6.741	A
B	231	38	959	1060	0.218	231	97	0.3	0.3	4.441	A
C	891	148	227	1300	0.685	891	963	2.6	2.5	9.764	A

With Capacity Adjustment - 2023 Future Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	With Capacity Adjustment	✓	✓	D1,D2,D5,D6,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	A47/Norwich Road	Standard Roundabout		A, B, C	28.87	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A47 East	
B	Norwich Road	
C	A47 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.20	4.20	0.0	20.0	50.0	21.0	
B	3.10	5.00	22.0	15.6	50.0	31.0	
C	3.00	3.80	87.7	21.1	50.0	28.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.544	1312
B	0.540	1366
C	0.508	1155

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A	Percentage		125.00
B	Percentage		125.00
C	Percentage		125.00

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D6	2023 Future Base	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D2*G2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1505	100.000
B		ONE HOUR	✓	178	100.000
C		ONE HOUR	✓	1266	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	175	1330
	B	161	0	17
	C	1241	25	0

Proportions

		To		
		A	B	C
From	A	0.00	0.12	0.88
	B	0.90	0.00	0.10
	C	0.98	0.02	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	5
	B	3	0	0
	C	4	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.020	1.048
	B	1.030	1.000	1.000
	C	1.039	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:35-16:45	A	1018	1018
	B	120	120
	C	856	856
16:45-16:55	A	1018	1018
	B	120	120
	C	856	856
16:55-17:05	A	1275	1275
	B	151	151
	C	1072	1072
17:05-17:15	A	1459	1459
	B	172	172
	C	1228	1228
17:15-17:25	A	1526	1526
	B	180	180
	C	1284	1284
17:25-17:35	A	1459	1459
	B	172	172
	C	1228	1228
17:35-17:45	A	1275	1275
	B	151	151
	C	1072	1072
17:45-17:55	A	1018	1018
	B	120	120
	C	856	856
17:55-18:05	A	1018	1018
	B	120	120
	C	856	856

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.94	26.55	10.8	D	1229	1844
B	0.22	5.88	0.3	A	145	218
C	0.96	34.85	12.0	D	1034	1552

Main Results for each time segment

16:35 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1018	170	17	1629	0.625	1007	937	0.0	1.7	5.955	A
B	120	20	890	1106	0.109	119	134	0.0	0.1	3.745	A
C	856	143	108	1376	0.622	846	902	0.0	1.7	6.937	A

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1018	170	17	1629	0.625	1017	948	1.7	1.7	6.143	A
B	120	20	899	1100	0.109	120	135	0.1	0.1	3.770	A
C	856	143	109	1375	0.623	856	911	1.7	1.7	7.193	A

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1275	212	21	1626	0.784	1264	1176	1.7	3.5	10.075	B
B	151	25	1117	953	0.158	150	168	0.1	0.2	4.601	A
C	1072	179	136	1358	0.790	1061	1132	1.7	3.6	12.140	B

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1459	243	24	1624	0.898	1437	1334	3.5	7.2	18.052	C
B	172	29	1270	850	0.203	172	190	0.2	0.3	5.449	A
C	1228	205	155	1346	0.912	1203	1287	3.6	7.7	22.719	C

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1526	254	25	1624	0.940	1505	1396	7.2	10.8	26.553	D
B	180	30	1330	809	0.223	180	199	0.3	0.3	5.875	A
C	1284	214	163	1341	0.958	1258	1348	7.7	12.0	34.848	D

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1459	243	24	1624	0.898	1462	1360	10.8	10.3	24.311	C
B	172	29	1292	835	0.206	173	194	0.3	0.3	5.584	A
C	1228	205	156	1345	0.913	1229	1309	12.0	11.9	33.604	D

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1275	212	22	1625	0.784	1312	1232	10.3	4.1	13.148	B
B	151	25	1160	925	0.163	151	174	0.3	0.2	4.783	A
C	1072	179	136	1358	0.790	1118	1174	11.9	4.3	17.742	C

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1018	170	17	1629	0.625	1031	963	4.1	1.8	6.431	A
B	120	20	912	1092	0.110	121	137	0.2	0.1	3.809	A
C	856	143	109	1375	0.623	871	923	4.3	1.8	7.632	A

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1018	170	17	1629	0.625	1018	948	1.8	1.8	6.156	A
B	120	20	900	1100	0.109	120	135	0.1	0.1	3.771	A
C	856	143	109	1375	0.623	856	911	1.8	1.7	7.210	A

With Capacity Adjustment - 600 Unit Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	With Capacity Adjustment	✓	✓	D1,D2,D5,D6,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	A47/Norwich Road	Standard Roundabout		A, B, C	85.74	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A47 East	
B	Norwich Road	
C	A47 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.20	4.20	0.0	20.0	50.0	21.0	
B	3.10	5.00	22.0	15.6	50.0	31.0	
C	3.00	3.80	87.7	21.1	50.0	28.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.544	1312
B	0.540	1366
C	0.508	1155

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A	Percentage		125.00
B	Percentage		125.00
C	Percentage		125.00

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	600 Unit Development	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D7*6+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1610	100.000
B		ONE HOUR	✓	341	100.000
C		ONE HOUR	✓	1331	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	136	1474
	B	336	0	5
	C	1324	8	0

Proportions

		To		
		A	B	C
From	A	0.00	0.08	0.92
	B	0.98	0.00	0.02
	C	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	9	9
	B	2	0	25
	C	10	17	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.090	1.092
	B	1.020	1.000	1.250
	C	1.103	1.170	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:20-07:30	A	1089	1089
	B	231	231
	C	900	900
07:30-07:40	A	1089	1089
	B	231	231
	C	900	900
07:40-07:50	A	1364	1364
	B	289	289
	C	1128	1128
07:50-08:00	A	1561	1561
	B	331	331
	C	1291	1291
08:00-08:10	A	1633	1633
	B	346	346
	C	1350	1350
08:10-08:20	A	1561	1561
	B	331	331
	C	1291	1291
08:20-08:30	A	1364	1364
	B	289	289
	C	1128	1128
08:30-08:40	A	1089	1089
	B	231	231
	C	900	900
08:40-08:50	A	1089	1089
	B	231	231
	C	900	900

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	1.00	48.62	20.6	E	1315	1973
B	0.47	9.55	0.9	A	279	418
C	1.10	150.15	54.1	F	1088	1631

Main Results for each time segment

07:20 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1089	181	5	1637	0.665	1076	1106	0.0	2.1	6.867	A
B	231	38	985	1042	0.221	229	96	0.0	0.3	4.519	A
C	900	150	226	1301	0.692	886	989	0.0	2.4	9.289	A

07:30 - 07:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1089	181	5	1637	0.665	1088	1122	2.1	2.1	7.162	A
B	231	38	997	1035	0.223	231	97	0.3	0.3	4.580	A
C	900	150	227	1300	0.693	900	1000	2.4	2.4	9.908	A

07:40 - 07:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1364	227	6	1636	0.834	1347	1378	2.1	4.9	12.928	B
B	289	48	1234	874	0.331	288	120	0.3	0.5	6.264	A
C	1128	188	283	1264	0.892	1101	1238	2.4	6.9	21.502	C

07:50 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1561	260	7	1636	0.954	1519	1517	4.9	11.9	26.568	D
B	331	55	1391	768	0.431	329	135	0.5	0.8	8.358	A
C	1291	215	324	1238	1.043	1200	1396	6.9	22.0	53.831	F

08:00 - 08:10

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1633	272	7	1636	0.998	1582	1552	11.9	20.5	44.355	E
B	346	58	1448	730	0.474	345	140	0.8	0.9	9.555	A
C	1350	225	340	1228	1.099	1219	1453	22.0	43.9	106.668	F

08:10 - 08:20

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1561	260	7	1636	0.955	1560	1549	20.5	20.6	48.621	E
B	331	55	1429	743	0.445	331	139	0.9	0.8	8.961	A
C	1291	215	326	1237	1.044	1230	1434	43.9	54.1	150.152	F

08:20 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1364	227	7	1635	0.834	1449	1516	20.6	6.3	25.816	D
B	289	48	1327	811	0.356	291	129	0.8	0.6	7.094	A
C	1128	188	286	1262	0.893	1237	1332	54.1	35.9	132.364	F

08:30 - 08:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1089	181	6	1636	0.665	1113	1322	6.3	2.2	7.845	A
B	231	38	1019	1019	0.226	232	100	0.6	0.3	4.690	A
C	900	150	229	1299	0.693	1099	1023	35.9	2.7	35.992	E

08:40 - 08:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1089	181	5	1637	0.665	1089	1123	2.2	2.2	7.185	A
B	231	38	997	1034	0.223	231	97	0.3	0.3	4.582	A
C	900	150	227	1300	0.693	901	1001	2.7	2.6	10.009	B

With Capacity Adjustment - 600 Unit Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	With Capacity Adjustment	✓	✓	D1,D2,D5,D6,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	A47/Norwich Road	Standard Roundabout		A, B, C	35.69	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A47 East	
B	Norwich Road	
C	A47 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.20	4.20	0.0	20.0	50.0	21.0	
B	3.10	5.00	22.0	15.6	50.0	31.0	
C	3.00	3.80	87.7	21.1	50.0	28.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.544	1312
B	0.540	1366
C	0.508	1155

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
A	Percentage		125.00
B	Percentage		125.00
C	Percentage		125.00

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	600 Unit Development	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D8*6+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1524	100.000
B		ONE HOUR	✓	178	100.000
C		ONE HOUR	✓	1308	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	175	1349
	B	161	0	17
	C	1283	25	0

Proportions

		To		
		A	B	C
From	A	0.00	0.11	0.89
	B	0.90	0.00	0.10
	C	0.98	0.02	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	5
	B	3	0	0
	C	4	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.020	1.047
	B	1.030	1.000	1.000
	C	1.038	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:35-16:45	A	1030	1030
	B	120	120
	C	885	885
16:45-16:55	A	1030	1030
	B	120	120
	C	885	885
16:55-17:05	A	1291	1291
	B	151	151
	C	1108	1108
17:05-17:15	A	1478	1478
	B	172	172
	C	1268	1268
17:15-17:25	A	1546	1546
	B	180	180
	C	1327	1327
17:25-17:35	A	1478	1478
	B	172	172
	C	1268	1268
17:35-17:45	A	1291	1291
	B	151	151
	C	1108	1108
17:45-17:55	A	1030	1030
	B	120	120
	C	885	885
17:55-18:05	A	1030	1030
	B	120	120
	C	885	885

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.95	29.19	12.1	D	1245	1867
B	0.23	5.98	0.3	A	145	218
C	0.99	47.29	16.5	E	1069	1603

Main Results for each time segment

16:35 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1030	172	17	1629	0.633	1020	965	0.0	1.7	6.070	A
B	120	20	903	1098	0.110	119	134	0.0	0.1	3.779	A
C	885	147	108	1376	0.643	874	915	0.0	1.8	7.290	A

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1030	172	17	1629	0.633	1030	976	1.7	1.8	6.273	A
B	120	20	912	1092	0.110	120	135	0.1	0.1	3.804	A
C	885	147	109	1375	0.643	884	924	1.8	1.8	7.597	A

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1291	215	21	1626	0.794	1279	1209	1.8	3.7	10.483	B
B	151	25	1133	943	0.160	150	167	0.1	0.2	4.662	A
C	1108	185	136	1358	0.816	1094	1147	1.8	4.1	13.494	B

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1478	246	23	1624	0.910	1453	1366	3.7	7.9	19.332	C
B	172	29	1286	839	0.205	172	190	0.2	0.3	5.538	A
C	1268	211	155	1346	0.943	1234	1303	4.1	9.8	27.183	D

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1546	258	24	1624	0.952	1521	1425	7.9	12.1	29.191	D
B	180	30	1346	798	0.226	180	199	0.3	0.3	5.978	A
C	1327	221	163	1341	0.990	1287	1364	9.8	16.5	44.587	E

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1478	246	24	1624	0.910	1480	1400	12.1	11.7	27.415	D
B	172	29	1310	823	0.210	173	194	0.3	0.3	5.688	A
C	1268	211	156	1345	0.943	1268	1327	16.5	16.5	47.292	E

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1291	215	22	1625	0.794	1335	1290	11.7	4.4	14.478	B
B	151	25	1182	910	0.166	151	175	0.3	0.2	4.878	A
C	1108	185	136	1358	0.816	1176	1197	16.5	5.2	24.709	C

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1030	172	17	1629	0.633	1046	996	4.4	1.8	6.603	A
B	120	20	926	1083	0.111	121	137	0.2	0.1	3.847	A
C	885	147	109	1375	0.643	904	938	5.2	1.9	8.244	A

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1030	172	17	1629	0.633	1031	977	1.8	1.8	6.284	A
B	120	20	913	1091	0.110	120	135	0.1	0.1	3.808	A
C	885	147	109	1375	0.643	885	924	1.9	1.9	7.620	A

With two lane approaches - 600 Unit Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	With two lane approaches	✓	✓	D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	A47/Norwich Road	Standard Roundabout		A, B, C	19.67	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A47 East	
B	Norwich Road	
C	A47 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.20	6.10	50.0	20.0	50.0	21.0	
B	3.10	5.00	22.0	15.6	50.0	31.0	
C	3.80	6.20	20.0	21.1	50.0	28.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.644	1842
B	0.540	1366
C	0.610	1693

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	600 Unit Development	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D7*6+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1610	100.000
B		ONE HOUR	✓	341	100.000
C		ONE HOUR	✓	1331	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	136	1474
	B	336	0	5
	C	1324	8	0

Proportions

		To		
		A	B	C
From	A	0.00	0.08	0.92
	B	0.98	0.00	0.02
	C	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	9	9
	B	2	0	25
	C	10	17	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.090	1.092
	B	1.020	1.000	1.250
	C	1.103	1.170	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:20-07:30	A	1089	1089
	B	231	231
	C	900	900
07:30-07:40	A	1089	1089
	B	231	231
	C	900	900
07:40-07:50	A	1364	1364
	B	289	289
	C	1128	1128
07:50-08:00	A	1561	1561
	B	331	331
	C	1291	1291
08:00-08:10	A	1633	1633
	B	346	346
	C	1350	1350
08:10-08:20	A	1561	1561
	B	331	331
	C	1291	1291
08:20-08:30	A	1364	1364
	B	289	289
	C	1128	1128
08:30-08:40	A	1089	1089
	B	231	231
	C	900	900
08:40-08:50	A	1089	1089
	B	231	231
	C	900	900

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.89	17.12	7.4	C	1315	1973
B	0.61	16.58	1.5	C	279	418
C	0.91	23.55	8.4	C	1088	1631

Main Results for each time segment

07:20 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1089	181	5	1838	0.592	1079	1111	0.0	1.6	5.120	A
B	231	38	988	832	0.277	228	96	0.0	0.4	6.076	A
C	900	150	225	1556	0.579	891	992	0.0	1.5	5.905	A

07:30 - 07:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1089	181	5	1838	0.592	1089	1122	1.6	1.6	5.241	A
B	231	38	997	828	0.279	231	97	0.4	0.4	6.168	A
C	900	150	227	1554	0.579	900	1000	1.5	1.5	6.072	A

07:40 - 07:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1364	227	7	1837	0.742	1355	1395	1.6	3.0	8.010	A
B	289	48	1241	696	0.415	287	121	0.4	0.7	8.971	A
C	1128	188	283	1520	0.742	1119	1245	1.5	3.0	9.681	A

07:50 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1561	260	7	1837	0.850	1546	1589	3.0	5.5	12.869	B
B	331	55	1416	601	0.550	328	138	0.7	1.2	13.335	B
C	1291	215	323	1496	0.863	1274	1421	3.0	5.9	16.645	C

08:00 - 08:10

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1633	272	8	1837	0.889	1622	1666	5.5	7.4	17.116	C
B	346	58	1485	564	0.614	344	145	1.2	1.5	16.582	C
C	1350	225	339	1486	0.909	1335	1490	5.9	8.4	23.548	C

08:10 - 08:20

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1561	260	8	1837	0.850	1565	1614	7.4	6.7	14.838	B
B	331	55	1433	592	0.559	332	140	1.5	1.4	14.248	B
C	1291	215	327	1493	0.864	1295	1438	8.4	7.8	20.722	C

08:20 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1364	227	7	1837	0.742	1384	1435	6.7	3.3	9.032	A
B	289	48	1268	681	0.424	293	123	1.4	0.8	9.551	A
C	1128	188	288	1517	0.743	1154	1272	7.8	3.4	11.635	B

08:30 - 08:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1089	181	5	1838	0.592	1099	1135	3.3	1.6	5.385	A
B	231	38	1006	823	0.281	233	98	0.8	0.4	6.269	A
C	900	150	229	1553	0.580	911	1010	3.4	1.6	6.296	A

08:40 - 08:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1089	181	5	1838	0.592	1089	1122	1.6	1.6	5.248	A
B	231	38	997	828	0.279	231	97	0.4	0.4	6.170	A
C	900	150	227	1554	0.579	900	1001	1.6	1.5	6.081	A

With two lane approaches - 600 Unit Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	With two lane approaches	✓	✓	D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
2	A47/Norwich Road	Standard Roundabout		A, B, C	12.71	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A47 East	
B	Norwich Road	
C	A47 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.20	6.10	50.0	20.0	50.0	21.0	
B	3.10	5.00	22.0	15.6	50.0	31.0	
C	3.80	6.20	20.0	21.1	50.0	28.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.644	1842
B	0.540	1366
C	0.610	1693

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	600 Unit Development	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D8*6+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1524	100.000
B		ONE HOUR	✓	178	100.000
C		ONE HOUR	✓	1308	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	175	1349
	B	161	0	17
	C	1283	25	0

Proportions

		To		
		A	B	C
From	A	0.00	0.11	0.89
	B	0.90	0.00	0.10
	C	0.98	0.02	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	5
	B	3	0	0
	C	4	0	0

Average PCU Per Veh

		To		
		A	B	C
From	A	1.000	1.020	1.047
	B	1.030	1.000	1.000
	C	1.038	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:35-16:45	A	1030	1030
	B	120	120
	C	885	885
16:45-16:55	A	1030	1030
	B	120	120
	C	885	885
16:55-17:05	A	1291	1291
	B	151	151
	C	1108	1108
17:05-17:15	A	1478	1478
	B	172	172
	C	1268	1268
17:15-17:25	A	1546	1546
	B	180	180
	C	1327	1327
17:25-17:35	A	1478	1478
	B	172	172
	C	1268	1268
17:35-17:45	A	1291	1291
	B	151	151
	C	1108	1108
17:45-17:55	A	1030	1030
	B	120	120
	C	885	885
17:55-18:05	A	1030	1030
	B	120	120
	C	885	885

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.85	12.72	5.2	B	1245	1867
B	0.29	8.21	0.4	A	145	218
C	0.83	13.30	4.7	B	1069	1603

Main Results for each time segment

16:35 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1030	172	17	1831	0.563	1023	968	0.0	1.3	4.606	A
B	120	20	905	877	0.137	119	134	0.0	0.2	4.873	A
C	885	147	108	1627	0.544	877	917	0.0	1.2	4.932	A

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1030	172	17	1831	0.563	1030	976	1.3	1.3	4.695	A
B	120	20	912	873	0.138	120	135	0.2	0.2	4.909	A
C	885	147	109	1627	0.544	885	924	1.2	1.2	5.030	A

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1291	215	21	1828	0.706	1284	1217	1.3	2.4	6.829	A
B	151	25	1137	752	0.200	150	168	0.2	0.3	6.139	A
C	1108	185	135	1610	0.688	1102	1152	1.2	2.2	7.262	A

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1478	246	24	1826	0.809	1468	1391	2.4	4.1	10.184	B
B	172	29	1299	664	0.260	172	192	0.3	0.4	7.500	A
C	1268	211	155	1598	0.794	1260	1316	2.2	3.7	10.728	B

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1546	258	25	1825	0.847	1539	1458	4.1	5.2	12.717	B
B	180	30	1363	630	0.286	180	202	0.4	0.4	8.211	A
C	1327	221	163	1594	0.833	1321	1380	3.7	4.7	13.302	B

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1478	246	24	1826	0.809	1481	1403	5.2	4.7	11.038	B
B	172	29	1311	658	0.262	173	194	0.4	0.4	7.625	A
C	1268	211	156	1598	0.794	1271	1328	4.7	4.2	11.583	B

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1291	215	21	1828	0.706	1303	1234	4.7	2.6	7.326	A
B	151	25	1154	743	0.203	151	171	0.4	0.3	6.259	A
C	1108	185	137	1609	0.688	1119	1169	4.2	2.4	7.778	A

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1030	172	17	1831	0.563	1038	983	2.6	1.4	4.782	A
B	120	20	919	870	0.138	121	136	0.3	0.2	4.942	A
C	885	147	109	1626	0.544	891	931	2.4	1.3	5.125	A

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1030	172	17	1831	0.563	1031	976	1.4	1.4	4.698	A
B	120	20	912	873	0.138	120	135	0.2	0.2	4.909	A
C	885	147	109	1627	0.544	885	924	1.3	1.2	5.034	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: 1801-47 J3.j9
Path: P:\18\01\47 - Honingham, Norfolk\04 Calculations and Analysis\Highway Impact Analysis
Report generation date: 30/11/2018 09:45:53

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
Arm A	0.8	7.37	0.44	A	0.1	4.30	0.13	A
Arm B	2.7	6.89	0.72	A	2.2	5.73	0.68	A
Arm C	0.1	3.77	0.12	A	0.3	4.04	0.22	A
Arm D	1.5	3.85	0.59	A	1.2	3.51	0.54	A
	2023 Future Base							
Arm A	2.0	16.72	0.68	C	0.3	6.04	0.20	A
Arm B	10.8	22.47	0.93	C	5.3	11.67	0.85	B
Arm C	0.6	5.60	0.38	A	1.1	7.26	0.53	A
Arm D	2.8	6.10	0.72	A	2.1	5.34	0.67	A
	600 Unit Development							
Arm A	5.4	45.14	0.89	E	0.3	7.03	0.24	A
Arm B	16.8	32.15	0.98	D	15.7	29.57	0.97	D
Arm C	2.4	11.51	0.71	B	1.7	9.19	0.64	A
Arm D	4.1	9.09	0.80	A	2.5	6.31	0.72	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	Honingham Thorpe
Location	
Site number	
Date	31/10/2018
Version	
Status	(new file)
Identifier	
Client	Clarion Housing Group
Jobnumber	1801-47
Enumerator	TPA\pd
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	mph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2018 Base	AM	ONE HOUR	07:20	08:50	10	✓		
D2	2018 Base	PM	ONE HOUR	16:35	18:05	10	✓		
D3	Committed	AM	ONE HOUR	07:20	08:50	10			
D4	Committed	PM	ONE HOUR	16:35	18:05	10			
D5	2023 Future Base	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D1*G1+D3
D6	2023 Future Base	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D2*G2+D4
D7	100 Unit Development	AM	ONE HOUR	07:20	08:50	10			
D8	100 Unit Development	PM	ONE HOUR	16:35	18:05	10			
D9	300 Unit Development	AM	ONE HOUR	07:20	08:50	10			
D10	300 Unit Development	PM	ONE HOUR	16:35	18:05	10			
D11	600 Unit Development	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D7*6+D1*G1+D3
D12	600 Unit Development	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D8*6+D2*G2+D4

Growth Factors

ID	Description	Use TEMPRO	Growth Factor
G1	AM 2018 to 2023		1.1188
G2	PM 2018 to 2023		1.1212

Growth factors are only active if the Demand Set references them in a Relationship.

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2018 Base , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm D - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	A47 Easton Roundabout	Standard Roundabout		A, B, C, D	5.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Church Lane	
B	A47 East	
C	Dereham Road	
D	A47 West	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	3.00	7.50	21.0	17.6	64.0	35.0	
B	7.50	7.50	0.0	14.0	64.0	45.0	
C	3.10	8.20	27.3	37.0	64.0	22.0	
D	3.11	9.10	173.0	23.4	64.0	32.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.525	1677
B	0.584	2107
C	0.598	2002
D	0.681	2577

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2018 Base	AM	ONE HOUR	07:20	08:50	10	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	378	100.000
B		ONE HOUR	✓	1410	100.000
C		ONE HOUR	✓	139	100.000
D		ONE HOUR	✓	1416	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	273	75	30
	B	77	0	48	1285
	C	7	93	0	39
	D	5	1330	81	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.72	0.20	0.08
	B	0.05	0.00	0.03	0.91
	C	0.05	0.67	0.00	0.28
	D	0.00	0.94	0.06	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	3	0
	B	4	0	2	10
	C	0	2	0	21
	D	0	9	11	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.010	1.030	1.000
	B	1.040	1.000	1.020	1.100
	C	1.000	1.020	1.000	1.210
	D	1.000	1.090	1.110	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:20-07:30	A	255	255
	B	954	954
	C	94	94
	D	957	957
07:30-07:40	A	255	255
	B	954	954
	C	94	94
	D	957	957
07:40-07:50	A	320	320
	B	1194	1194
	C	118	118
	D	1199	1199
07:50-08:00	A	366	366
	B	1367	1367
	C	135	135
	D	1373	1373
08:00-08:10	A	383	383
	B	1430	1430
	C	141	141
	D	1436	1436
08:10-08:20	A	366	366
	B	1367	1367
	C	135	135
	D	1373	1373
08:20-08:30	A	320	320
	B	1194	1194
	C	118	118
	D	1199	1199
08:30-08:40	A	255	255
	B	954	954
	C	94	94
	D	957	957
08:40-08:50	A	255	255
	B	954	954
	C	94	94
	D	957	957

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.44	7.37	0.8	A	308	463
B	0.72	6.89	2.7	A	1152	1728
C	0.12	3.77	0.1	A	114	170
D	0.59	3.85	1.5	A	1157	1735

Main Results for each time segment

07:20 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	255	43	1012	1145	0.223	254	60	0.0	0.3	4.084	A
B	954	159	125	2034	0.469	948	1141	0.0	1.0	3.607	A
C	94	16	935	1443	0.065	94	137	0.0	0.1	2.844	A
D	957	160	119	2496	0.384	953	910	0.0	0.7	2.540	A

07:30 - 07:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	255	43	1017	1143	0.223	255	61	0.3	0.3	4.109	A
B	954	159	126	2033	0.469	954	1146	1.0	1.0	3.645	A
C	94	16	941	1439	0.065	94	138	0.1	0.1	2.851	A
D	957	160	120	2495	0.384	957	915	0.7	0.7	2.553	A

07:40 - 07:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	320	53	1271	1009	0.317	319	76	0.3	0.5	5.276	A
B	1194	199	157	2015	0.593	1191	1433	1.0	1.6	4.757	A
C	118	20	1175	1299	0.091	118	173	0.1	0.1	3.246	A
D	1199	200	150	2475	0.485	1197	1143	0.7	1.0	3.068	A

07:50 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	366	61	1456	912	0.401	365	87	0.5	0.7	6.647	A
B	1367	228	180	2002	0.683	1363	1641	1.6	2.3	6.121	A
C	135	22	1345	1198	0.113	135	197	0.1	0.1	3.608	A
D	1373	229	171	2460	0.558	1371	1308	1.0	1.4	3.599	A

08:00 - 08:10

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	383	64	1524	876	0.437	382	91	0.7	0.8	7.369	A
B	1430	238	188	1997	0.716	1428	1718	2.3	2.7	6.889	A
C	141	23	1409	1159	0.122	141	207	0.1	0.1	3.766	A
D	1436	239	180	2454	0.585	1435	1371	1.4	1.5	3.848	A

08:10 - 08:20

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	366	61	1458	911	0.402	367	87	0.8	0.7	6.710	A
B	1367	228	180	2001	0.683	1369	1645	2.7	2.4	6.245	A
C	135	22	1351	1194	0.113	135	198	0.1	0.1	3.623	A
D	1373	229	172	2460	0.558	1374	1314	1.5	1.4	3.617	A

08:20 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	320	53	1276	1007	0.318	321	76	0.7	0.5	5.330	A
B	1194	199	158	2014	0.593	1199	1439	2.4	1.6	4.860	A
C	118	20	1184	1294	0.091	118	174	0.1	0.1	3.263	A
D	1199	200	150	2474	0.485	1201	1151	1.4	1.0	3.092	A

08:30 - 08:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	255	43	1019	1142	0.224	256	61	0.5	0.3	4.126	A
B	954	159	126	2033	0.469	957	1149	1.6	1.0	3.675	A
C	94	16	945	1437	0.065	94	139	0.1	0.1	2.859	A
D	957	160	120	2495	0.384	959	919	1.0	0.7	2.560	A

08:40 - 08:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	255	43	1017	1143	0.223	255	61	0.3	0.3	4.109	A
B	954	159	126	2033	0.469	954	1146	1.0	1.0	3.646	A
C	94	16	941	1439	0.065	94	138	0.1	0.1	2.853	A
D	957	160	120	2495	0.384	957	915	0.7	0.7	2.553	A

2018 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm D - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	A47 Easton Roundabout	Standard Roundabout		A, B, C, D	4.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2018 Base	PM	ONE HOUR	16:35	18:05	10	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	123	100.000
B		ONE HOUR	✓	1381	100.000
C		ONE HOUR	✓	248	100.000
D		ONE HOUR	✓	1235	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	85	25	12
	B	243	0	15	1123
	C	24	106	0	118
	D	7	1161	67	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.69	0.21	0.10
	B	0.18	0.00	0.01	0.81
	C	0.10	0.43	0.00	0.48
	D	0.01	0.94	0.05	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	0	0
	B	0	0	0	4
	C	4	0	0	5
	D	0	4	5	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.010	1.000	1.000
	B	1.000	1.000	1.000	1.040
	C	1.040	1.000	1.000	1.050
	D	1.000	1.040	1.050	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:35-16:45	A	83	83
	B	934	934
	C	168	168
	D	835	835
16:45-16:55	A	83	83
	B	934	934
	C	168	168
	D	835	835
16:55-17:05	A	104	104
	B	1170	1170
	C	210	210
	D	1046	1046
17:05-17:15	A	119	119
	B	1339	1339
	C	240	240
	D	1197	1197
17:15-17:25	A	124	124
	B	1401	1401
	C	251	251
	D	1252	1252
17:25-17:35	A	119	119
	B	1339	1339
	C	240	240
	D	1197	1197
17:35-17:45	A	104	104
	B	1170	1170
	C	210	210
	D	1046	1046
17:45-17:55	A	83	83
	B	934	934
	C	168	168
	D	835	835
17:55-18:05	A	83	83
	B	934	934
	C	168	168
	D	835	835

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.13	4.30	0.1	A	100	150
B	0.68	5.73	2.2	A	1128	1692
C	0.22	4.04	0.3	A	202	304
D	0.54	3.51	1.2	A	1009	1513

Main Results for each time segment

16:35 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	83	14	898	1205	0.069	82	185	0.0	0.1	3.227	A
B	934	156	70	2066	0.452	929	910	0.0	0.8	3.254	A
C	168	28	927	1448	0.116	167	72	0.0	0.1	2.884	A
D	835	139	251	2406	0.347	832	842	0.0	0.5	2.374	A

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	83	14	902	1203	0.069	83	186	0.1	0.1	3.235	A
B	934	156	70	2065	0.452	934	914	0.8	0.8	3.282	A
C	168	28	932	1445	0.116	168	72	0.1	0.1	2.893	A
D	835	139	252	2405	0.347	835	847	0.5	0.6	2.385	A

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	104	17	1128	1084	0.096	104	232	0.1	0.1	3.695	A
B	1170	195	88	2055	0.569	1167	1143	0.8	1.3	4.168	A
C	210	35	1164	1306	0.161	210	90	0.1	0.2	3.372	A
D	1046	174	316	2362	0.443	1044	1058	0.6	0.8	2.838	A

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	119	20	1291	999	0.119	119	266	0.1	0.1	4.118	A
B	1339	223	101	2048	0.654	1336	1309	1.3	1.9	5.193	A
C	240	40	1333	1205	0.199	240	103	0.2	0.3	3.831	A
D	1197	200	361	2331	0.514	1195	1212	0.8	1.1	3.295	A

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	124	21	1352	967	0.129	124	278	0.1	0.1	4.302	A
B	1401	233	105	2045	0.685	1399	1371	1.9	2.2	5.732	A
C	251	42	1396	1167	0.215	251	108	0.3	0.3	4.036	A
D	1252	209	378	2319	0.540	1252	1269	1.1	1.2	3.507	A

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	119	20	1294	997	0.119	119	266	0.1	0.1	4.128	A
B	1339	223	101	2048	0.654	1340	1312	2.2	2.0	5.265	A
C	240	40	1337	1202	0.200	240	104	0.3	0.3	3.843	A
D	1197	200	362	2330	0.514	1198	1215	1.2	1.1	3.311	A

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	104	17	1131	1083	0.096	104	233	0.1	0.1	3.704	A
B	1170	195	88	2055	0.569	1173	1147	2.0	1.4	4.231	A
C	210	35	1171	1302	0.161	210	91	0.3	0.2	3.389	A
D	1046	174	317	2361	0.443	1047	1064	1.1	0.8	2.856	A

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	83	14	903	1202	0.069	83	186	0.1	0.1	3.241	A
B	934	156	70	2065	0.452	937	916	1.4	0.9	3.303	A
C	168	28	935	1443	0.116	168	72	0.2	0.1	2.899	A
D	835	139	253	2404	0.347	836	850	0.8	0.6	2.390	A

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	83	14	902	1203	0.069	83	186	0.1	0.1	3.237	A
B	934	156	70	2065	0.452	934	914	0.9	0.9	3.285	A
C	168	28	932	1445	0.116	168	72	0.1	0.1	2.893	A
D	835	139	252	2405	0.347	835	847	0.6	0.6	2.385	A

2023 Future Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm D - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	A47 Easton Roundabout	Standard Roundabout		A, B, C, D	13.98	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D5	2023 Future Base	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D1*G1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	437	100.000
B		ONE HOUR	✓	1787	100.000
C		ONE HOUR	✓	406	100.000
D		ONE HOUR	✓	1644	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	305	99	33
	B	86	0	263	1438
	C	28	283	0	95
	D	6	1488	150	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.70	0.23	0.08
	B	0.05	0.00	0.15	0.80
	C	0.07	0.70	0.00	0.23
	D	0.00	0.91	0.09	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	3	0
	B	4	0	0	10
	C	0	1	0	9
	D	0	9	6	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.010	1.025	1.000
	B	1.040	1.000	1.004	1.100
	C	1.000	1.007	1.000	1.087
	D	1.000	1.090	1.063	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:20-07:30	A	296	296
	B	1208	1208
	C	274	274
	D	1112	1112
07:30-07:40	A	296	296
	B	1208	1208
	C	274	274
	D	1112	1112
07:40-07:50	A	370	370
	B	1513	1513
	C	343	343
	D	1393	1393
07:50-08:00	A	424	424
	B	1732	1732
	C	393	393
	D	1594	1594
08:00-08:10	A	444	444
	B	1812	1812
	C	411	411
	D	1668	1668
08:10-08:20	A	424	424
	B	1732	1732
	C	393	393
	D	1594	1594
08:20-08:30	A	370	370
	B	1513	1513
	C	343	343
	D	1393	1393
08:30-08:40	A	296	296
	B	1208	1208
	C	274	274
	D	1112	1112
08:40-08:50	A	296	296
	B	1208	1208
	C	274	274
	D	1112	1112

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.68	16.72	2.0	C	357	536
B	0.93	22.47	10.8	C	1460	2189
C	0.38	5.60	0.6	A	331	497
D	0.72	6.10	2.8	A	1343	2015

Main Results for each time segment

07:20 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	296	49	1292	998	0.296	293	81	0.0	0.4	5.153	A
B	1208	201	190	1996	0.605	1198	1396	0.0	1.6	4.829	A
C	274	46	1044	1378	0.199	273	344	0.0	0.3	3.333	A
D	1112	185	267	2395	0.464	1106	1050	0.0	0.9	3.025	A

07:30 - 07:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	296	49	1299	995	0.297	296	81	0.4	0.4	5.216	A
B	1208	201	191	1995	0.606	1208	1403	1.6	1.6	4.948	A
C	274	46	1053	1373	0.200	274	347	0.3	0.3	3.356	A
D	1112	185	269	2394	0.464	1112	1058	0.9	0.9	3.052	A

07:40 - 07:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	370	62	1623	824	0.449	368	101	0.4	0.8	7.950	A
B	1513	252	239	1967	0.769	1503	1752	1.6	3.4	8.201	A
C	343	57	1310	1219	0.282	343	432	0.3	0.4	4.203	A
D	1393	232	335	2348	0.593	1389	1317	0.9	1.6	4.064	A

07:50 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	424	71	1857	701	0.605	420	115	0.8	1.5	12.779	B
B	1732	289	273	1947	0.890	1710	2005	3.4	7.2	15.058	C
C	393	66	1490	1111	0.354	392	492	0.4	0.6	5.124	A
D	1594	266	383	2316	0.688	1589	1499	1.6	2.3	5.353	A

08:00 - 08:10

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	444	74	1946	655	0.677	441	121	1.5	2.0	16.723	C
B	1812	302	286	1940	0.934	1790	2100	7.2	10.8	22.467	C
C	411	69	1560	1069	0.385	411	516	0.6	0.6	5.599	A
D	1668	278	402	2303	0.724	1665	1570	2.3	2.8	6.102	A

08:10 - 08:20

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	424	71	1865	697	0.608	426	117	2.0	1.6	13.555	B
B	1732	289	275	1946	0.890	1738	2016	10.8	9.9	19.679	C
C	393	66	1515	1096	0.359	394	498	0.6	0.6	5.249	A
D	1594	266	386	2314	0.689	1596	1523	2.8	2.5	5.468	A

08:20 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	370	62	1633	819	0.452	375	104	1.6	0.9	8.297	A
B	1513	252	242	1965	0.770	1550	1767	9.9	3.8	10.077	B
C	343	57	1350	1195	0.288	344	441	0.6	0.4	4.343	A
D	1393	232	339	2346	0.594	1398	1356	2.5	1.6	4.149	A

08:30 - 08:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	296	49	1304	992	0.298	298	82	0.9	0.4	5.274	A
B	1208	201	192	1994	0.606	1221	1409	3.8	1.7	5.117	A
C	274	46	1064	1366	0.201	275	349	0.4	0.3	3.382	A
D	1112	185	270	2393	0.465	1116	1069	1.6	1.0	3.073	A

08:40 - 08:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	296	49	1299	994	0.297	296	81	0.4	0.4	5.217	A
B	1208	201	191	1995	0.606	1208	1403	1.7	1.7	4.952	A
C	274	46	1053	1372	0.200	274	347	0.3	0.3	3.356	A
D	1112	185	269	2394	0.464	1112	1059	1.0	0.9	3.054	A

2023 Future Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm D - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	A47 Easton Roundabout	Standard Roundabout		A, B, C, D	8.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D6	2023 Future Base	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D2*G2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	151	100.000
B		ONE HOUR	✓	1685	100.000
C		ONE HOUR	✓	561	100.000
D		ONE HOUR	✓	1416	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	96	42	14
	B	273	0	154	1259
	C	44	328	0	189
	D	8	1301	107	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.63	0.28	0.09
	B	0.16	0.00	0.09	0.75
	C	0.08	0.58	0.00	0.34
	D	0.01	0.92	0.08	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	0	0
	B	0	0	0	4
	C	2	0	0	3
	D	0	4	3	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.010	1.000	1.000
	B	1.000	1.000	1.000	1.040
	C	1.024	1.000	1.000	1.034
	D	1.000	1.040	1.034	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:35-16:45	A	102	102
	B	1140	1140
	C	379	379
	D	958	958
16:45-16:55	A	102	102
	B	1140	1140
	C	379	379
	D	958	958
16:55-17:05	A	128	128
	B	1427	1427
	C	475	475
	D	1200	1200
17:05-17:15	A	147	147
	B	1634	1634
	C	544	544
	D	1373	1373
17:15-17:25	A	154	154
	B	1709	1709
	C	569	569
	D	1436	1436
17:25-17:35	A	147	147
	B	1634	1634
	C	544	544
	D	1373	1373
17:35-17:45	A	128	128
	B	1427	1427
	C	475	475
	D	1200	1200
17:45-17:55	A	102	102
	B	1140	1140
	C	379	379
	D	958	958
17:55-18:05	A	102	102
	B	1140	1140
	C	379	379
	D	958	958

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.20	6.04	0.3	A	124	186
B	0.85	11.67	5.3	B	1377	2065
C	0.53	7.26	1.1	A	458	687
D	0.67	5.34	2.1	A	1157	1735

Main Results for each time segment

16:35 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	102	17	1168	1063	0.096	102	218	0.0	0.1	3.766	A
B	1140	190	109	2043	0.558	1132	1160	0.0	1.3	4.036	A
C	379	63	1038	1382	0.274	377	203	0.0	0.4	3.623	A
D	958	160	433	2282	0.420	953	982	0.0	0.7	2.807	A

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	102	17	1174	1060	0.097	102	220	0.1	0.1	3.781	A
B	1140	190	110	2042	0.558	1139	1166	1.3	1.3	4.105	A
C	379	63	1045	1377	0.275	379	205	0.4	0.4	3.653	A
D	958	160	436	2280	0.420	958	988	0.7	0.7	2.829	A

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	128	21	1467	906	0.142	128	274	0.1	0.2	4.651	A
B	1427	238	137	2026	0.704	1421	1457	1.3	2.4	6.057	A
C	475	79	1303	1223	0.388	474	256	0.4	0.6	4.856	A
D	1200	200	544	2206	0.544	1197	1232	0.7	1.2	3.695	A

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	147	24	1679	795	0.185	146	313	0.2	0.2	5.583	A
B	1634	272	157	2015	0.811	1624	1668	2.4	4.1	9.226	A
C	544	91	1489	1112	0.489	542	292	0.6	1.0	6.376	A
D	1373	229	622	2153	0.638	1370	1408	1.2	1.8	4.756	A

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	154	26	1758	753	0.204	153	328	0.2	0.3	6.038	A
B	1709	285	165	2010	0.850	1702	1747	4.1	5.3	11.669	B
C	569	95	1561	1069	0.532	568	306	1.0	1.1	7.261	A
D	1436	239	652	2133	0.674	1435	1476	1.8	2.1	5.344	A

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	147	24	1685	792	0.185	147	316	0.3	0.2	5.618	A
B	1634	272	158	2014	0.811	1638	1674	5.3	4.7	9.980	A
C	544	91	1502	1104	0.492	545	294	1.1	1.0	6.528	A
D	1373	229	626	2150	0.639	1374	1420	2.1	1.9	4.834	A

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	128	21	1475	902	0.142	129	277	0.2	0.2	4.688	A
B	1427	238	138	2026	0.705	1440	1466	4.7	2.5	6.464	A
C	475	79	1320	1213	0.392	477	258	1.0	0.7	4.973	A
D	1200	200	549	2202	0.545	1203	1248	1.9	1.3	3.757	A

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	102	17	1178	1058	0.097	103	221	0.2	0.1	3.792	A
B	1140	190	110	2042	0.558	1147	1170	2.5	1.3	4.174	A
C	379	63	1051	1373	0.276	381	206	0.7	0.4	3.682	A
D	958	160	438	2278	0.420	961	994	1.3	0.8	2.847	A

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	102	17	1174	1060	0.097	102	220	0.1	0.1	3.781	A
B	1140	190	110	2042	0.558	1140	1166	1.3	1.3	4.106	A
C	379	63	1045	1377	0.275	379	205	0.4	0.4	3.653	A
D	958	160	436	2280	0.420	958	988	0.8	0.8	2.831	A

600 Unit Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm D - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	A47 Easton Roundabout	Standard Roundabout		A, B, C, D	21.94	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	600 Unit Development	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D7*6+D1*G1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	442	100.000
B		ONE HOUR	✓	1859	100.000
C		ONE HOUR	✓	758	100.000
D		ONE HOUR	✓	1658	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	305	104	33
	B	86	0	335	1438
	C	44	563	0	150
	D	6	1488	165	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.69	0.23	0.08
	B	0.05	0.00	0.18	0.77
	C	0.06	0.74	0.00	0.20
	D	0.00	0.90	0.10	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	2	0
	B	4	0	0	10
	C	0	0	0	5
	D	0	9	6	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.010	1.024	1.000
	B	1.040	1.000	1.003	1.100
	C	1.000	1.004	1.000	1.053
	D	1.000	1.090	1.057	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:20-07:30	A	299	299
	B	1257	1257
	C	512	512
	D	1121	1121
07:30-07:40	A	299	299
	B	1257	1257
	C	512	512
	D	1121	1121
07:40-07:50	A	374	374
	B	1574	1574
	C	642	642
	D	1405	1405
07:50-08:00	A	428	428
	B	1802	1802
	C	735	735
	D	1608	1608
08:00-08:10	A	448	448
	B	1885	1885
	C	769	769
	D	1682	1682
08:10-08:20	A	428	428
	B	1802	1802
	C	735	735
	D	1608	1608
08:20-08:30	A	374	374
	B	1574	1574
	C	642	642
	D	1405	1405
08:30-08:40	A	299	299
	B	1257	1257
	C	512	512
	D	1121	1121
08:40-08:50	A	299	299
	B	1257	1257
	C	512	512
	D	1121	1121

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.89	45.14	5.4	E	361	541
B	0.98	32.15	16.8	D	1518	2278
C	0.71	11.51	2.4	B	619	929
D	0.80	9.09	4.1	A	1355	2032

Main Results for each time segment

07:20 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	299	50	1489	895	0.334	296	92	0.0	0.5	6.055	A
B	1257	209	202	1988	0.632	1246	1583	0.0	1.8	5.157	A
C	512	85	1044	1378	0.372	509	404	0.0	0.6	4.179	A
D	1121	187	466	2260	0.496	1115	1087	0.0	1.1	3.401	A

07:30 - 07:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	299	50	1498	890	0.336	299	92	0.5	0.5	6.163	A
B	1257	209	204	1987	0.632	1257	1593	1.8	1.8	5.310	A
C	512	85	1053	1373	0.373	512	408	0.6	0.6	4.238	A
D	1121	187	469	2257	0.497	1121	1096	1.1	1.1	3.442	A

07:40 - 07:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	374	62	1869	695	0.538	370	115	0.5	1.1	11.098	B
B	1574	262	254	1958	0.804	1561	1986	1.8	4.1	9.453	A
C	642	107	1308	1220	0.526	639	507	0.6	1.1	6.238	A
D	1405	234	585	2179	0.645	1400	1362	1.1	1.9	4.987	A

07:50 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	428	71	2137	554	0.772	417	130	1.1	2.9	24.883	C
B	1802	300	288	1938	0.930	1767	2266	4.1	9.9	19.461	C
C	735	122	1480	1117	0.658	730	575	1.1	1.9	9.315	A
D	1608	268	667	2122	0.758	1600	1543	1.9	3.2	7.375	A

08:00 - 08:10

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	448	75	2240	500	0.895	433	136	2.9	5.4	45.144	E
B	1885	314	301	1931	0.976	1844	2372	9.9	16.8	32.148	D
C	769	128	1545	1078	0.713	765	600	1.9	2.4	11.510	B
D	1682	280	699	2101	0.801	1677	1611	3.2	4.1	9.092	A

08:10 - 08:20

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	428	71	2153	546	0.784	435	132	5.4	4.2	34.861	D
B	1802	300	295	1934	0.932	1804	2293	16.8	16.4	31.701	D
C	735	122	1512	1098	0.669	736	587	2.4	2.1	10.136	B
D	1608	268	674	2118	0.759	1611	1574	4.1	3.6	7.784	A

08:20 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	374	62	1890	684	0.547	392	119	4.2	1.3	13.144	B
B	1574	262	262	1954	0.806	1644	2020	16.4	4.9	14.667	B
C	642	107	1377	1179	0.545	647	528	2.1	1.2	6.928	A
D	1405	234	595	2171	0.647	1414	1429	3.6	2.0	5.225	A

08:30 - 08:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	299	50	1507	885	0.337	303	93	1.3	0.5	6.307	A
B	1257	209	206	1986	0.633	1275	1604	4.9	1.9	5.585	A
C	512	85	1068	1364	0.376	516	413	1.2	0.6	4.320	A
D	1121	187	473	2255	0.497	1127	1111	2.0	1.1	3.487	A

08:40 - 08:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	299	50	1498	890	0.336	299	92	0.5	0.5	6.168	A
B	1257	209	204	1987	0.632	1257	1593	1.9	1.9	5.317	A
C	512	85	1053	1372	0.373	512	408	0.6	0.6	4.241	A
D	1121	187	469	2257	0.497	1121	1096	1.1	1.1	3.442	A

600 Unit Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm D - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
3	A47 Easton Roundabout	Standard Roundabout		A, B, C, D	17.31	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	600 Unit Development	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D8*6+D2*G2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	163	100.000
B		ONE HOUR	✓	1897	100.000
C		ONE HOUR	✓	682	100.000
D		ONE HOUR	✓	1458	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	96	54	14
	B	273	0	366	1259
	C	49	425	0	208
	D	8	1301	149	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.58	0.33	0.08
	B	0.14	0.00	0.19	0.66
	C	0.07	0.62	0.00	0.31
	D	0.01	0.89	0.10	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	0	0
	B	0	0	0	4
	C	2	0	0	3
	D	0	4	2	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.010	1.000	1.000
	B	1.000	1.000	1.000	1.040
	C	1.021	1.000	1.000	1.031
	D	1.000	1.040	1.025	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:35-16:45	A	111	111
	B	1283	1283
	C	461	461
	D	986	986
16:45-16:55	A	111	111
	B	1283	1283
	C	461	461
	D	986	986
16:55-17:05	A	138	138
	B	1607	1607
	C	578	578
	D	1235	1235
17:05-17:15	A	158	158
	B	1839	1839
	C	661	661
	D	1414	1414
17:15-17:25	A	166	166
	B	1924	1924
	C	692	692
	D	1479	1479
17:25-17:35	A	158	158
	B	1839	1839
	C	661	661
	D	1414	1414
17:35-17:45	A	138	138
	B	1607	1607
	C	578	578
	D	1235	1235
17:45-17:55	A	111	111
	B	1283	1283
	C	461	461
	D	986	986
17:55-18:05	A	111	111
	B	1283	1283
	C	461	461
	D	986	986

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.24	7.03	0.3	A	134	200
B	0.97	29.57	15.7	D	1550	2325
C	0.64	9.19	1.7	A	557	836
D	0.72	6.31	2.5	A	1191	1787

Main Results for each time segment

16:35 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	111	18	1261	1015	0.109	110	222	0.0	0.1	3.996	A
B	1283	214	146	2021	0.635	1272	1225	0.0	1.7	4.865	A
C	461	77	1036	1382	0.334	458	382	0.0	0.5	3.924	A
D	986	164	501	2235	0.441	981	993	0.0	0.8	2.969	A

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	111	18	1268	1011	0.109	111	223	0.1	0.1	4.020	A
B	1283	214	146	2021	0.635	1283	1232	1.7	1.8	5.001	A
C	461	77	1045	1377	0.335	461	384	0.5	0.5	3.971	A
D	986	164	505	2233	0.442	986	1001	0.8	0.8	2.996	A

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	138	23	1583	845	0.164	138	278	0.1	0.2	5.115	A
B	1607	268	183	2000	0.804	1594	1538	1.8	3.9	8.833	A
C	578	96	1298	1226	0.471	575	479	0.5	0.9	5.578	A
D	1235	206	629	2148	0.575	1232	1245	0.8	1.4	4.061	A

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	158	26	1811	725	0.218	158	315	0.2	0.3	6.375	A
B	1839	307	209	1984	0.927	1807	1760	3.9	9.3	18.029	C
C	661	110	1472	1122	0.589	658	544	0.9	1.4	7.792	A
D	1414	236	717	2088	0.677	1409	1413	1.4	2.1	5.469	A

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	166	28	1898	680	0.244	166	329	0.3	0.3	7.034	A
B	1924	321	219	1978	0.973	1886	1844	9.3	15.7	29.570	D
C	692	115	1537	1083	0.639	690	569	1.4	1.7	9.194	A
D	1479	247	751	2066	0.716	1477	1476	2.1	2.5	6.311	A

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	158	26	1820	721	0.220	159	321	0.3	0.3	6.444	A
B	1839	307	210	1984	0.927	1843	1768	15.7	15.0	28.244	D
C	661	110	1501	1104	0.599	662	552	1.7	1.6	8.258	A
D	1414	236	725	2083	0.679	1416	1438	2.5	2.2	5.621	A

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	138	23	1595	839	0.165	139	289	0.3	0.2	5.176	A
B	1607	268	184	1999	0.804	1670	1550	15.0	4.5	12.919	B
C	578	96	1359	1189	0.486	581	494	1.6	1.0	6.019	A
D	1235	206	644	2138	0.578	1240	1297	2.2	1.4	4.184	A

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	111	18	1273	1008	0.110	111	226	0.2	0.1	4.037	A
B	1283	214	147	2021	0.635	1299	1237	4.5	1.8	5.229	A
C	461	77	1058	1369	0.337	464	388	1.0	0.5	4.031	A
D	986	164	509	2230	0.442	990	1013	1.4	0.8	3.021	A

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	111	18	1268	1011	0.109	111	223	0.1	0.1	4.022	A
B	1283	214	146	2021	0.635	1283	1232	1.8	1.8	5.006	A
C	461	77	1045	1377	0.335	461	384	0.5	0.5	3.972	A
D	986	164	505	2233	0.442	986	1001	0.8	0.8	2.997	A

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896

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Filename: 1801-47 J4.j9
Path: P:\18\01\47 - Honingham, Norfolk\04 Calculations and Analysis\Highway Impact Analysis
Report generation date: 30/11/2018 09:49:31

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Exsitng Layout - 2018 Base							
Stream B-C	0.1	5.01	0.06	A	0.1	4.68	0.06	A
Stream B-A	0.1	7.20	0.06	A	0.0	7.16	0.04	A
Stream C-AB	0.1	5.01	0.08	A	0.0	4.95	0.02	A
	Exsitng Layout - 2023 Future Base							
Stream B-C	0.6	7.14	0.37	A	0.7	7.47	0.41	A
Stream B-A	0.2	12.17	0.19	B	0.2	10.20	0.18	B
Stream C-AB	1.5	10.82	0.57	B	0.5	6.75	0.29	A
	Exsitng Layout - 600 Unit Development							
Stream B-C	4.6	27.05	0.85	D	1.4	11.10	0.58	B
Stream B-A	0.7	32.25	0.42	D	0.4	15.93	0.26	C
Stream C-AB	2.8	16.67	0.72	C	2.6	16.96	0.72	C

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	With Easton Village Growth - 2023 Future Base							
Stream B-C	0.6	7.20	0.37	A	0.7	7.56	0.41	A
Stream B-A	0.2	10.71	0.17	B	0.2	9.14	0.16	A
Stream C-AB	0.9	9.55	0.47	A	0.3	6.63	0.25	A
	With Easton Village Growth - 600 Unit Development							
Stream B-C	4.1	23.94	0.82	C	1.3	10.52	0.57	B
Stream B-A	0.5	24.66	0.36	C	0.3	13.63	0.23	B
Stream C-AB	1.5	12.53	0.60	B	1.6	13.06	0.62	B

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	Honingham Thorpe
Location	
Site number	
Date	31/10/2018
Version	
Status	(new file)
Identifier	
Client	Clarion Houding Group
Jobnumber	1801-47
Enumerator	TPA\pd
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	mph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2018 Base	AM	ONE HOUR	07:20	08:50	10	✓		
D2	2018 Base	PM	ONE HOUR	16:35	18:05	10	✓		
D3	Committed	AM	ONE HOUR	07:20	08:50	10			
D4	Committed	PM	ONE HOUR	16:35	18:05	10			
D5	2023 Future Base	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D1*G1+D3
D6	2023 Future Base	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D2*G2+D4
D7	100 Unit Development	AM	ONE HOUR	07:20	08:50	10			
D8	100 Unit Development	PM	ONE HOUR	16:35	18:05	10			
D9	300 Unit Development	AM	ONE HOUR	07:20	08:50	10		Simple	D7*3+D5
D10	300 Unit Development	PM	ONE HOUR	16:35	18:05	10		Simple	D8*3+D6
D11	600 Unit Development	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D7*6+D5
D12	600 Unit Development	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D8*6+D6

Growth Factors

ID	Description	Use TEMPRO	Growth Factor
G1	AM 2018 to 2023		1.1188
G2	PM 2018 to 2023		1.1212

Growth factors are only active if the Demand Set references them in a Relationship.

Exsitng Layout - 2018 Base , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Exsitng Layout	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	Dereham Road/Unamed Road	T-Junction	Two-way		1.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Dereham Road		Major
B	Unamed Road		Minor
C	Dereham Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.30			250.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	6.50	4.80	4.00	3.80	✓	2.00	22	231

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
4	B-A	607	0.109	0.276	0.173	0.394
4	B-C	843	0.128	0.322	-	-
4	C-B	719	0.275	0.275	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2018 Base	AM	ONE HOUR	07:20	08:50	10	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	107	100.000
B		ONE HOUR	✓	84	100.000
C		ONE HOUR	✓	204	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	19	88
	B	33	0	51
	C	158	47	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	6	9
	B	0	0	4
	C	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.06	5.01	0.1	A	42	62
B-A	0.06	7.20	0.1	A	27	40
C-AB	0.08	5.01	0.1	A	46	69
C-A					121	181
A-B					16	23
A-C					72	108

Main Results for each time segment

07:20 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	6	814	0.042	34	0.0	0.0	4.802	A
B-A	22	4	558	0.040	22	0.0	0.0	6.716	A
C-AB	37	6	764	0.048	36	0.0	0.1	4.989	A
C-A	101	17			101				
A-B	13	2			13				
A-C	60	10			60				

07:30 - 07:40

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	6	813	0.042	34	0.0	0.0	4.805	A
B-A	22	4	558	0.040	22	0.0	0.0	6.721	A
C-AB	37	6	764	0.048	37	0.1	0.1	4.995	A
C-A	101	17			101				
A-B	13	2			13				
A-C	60	10			60				

07:40 - 07:50

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	43	7	806	0.054	43	0.0	0.1	4.907	A
B-A	28	5	546	0.051	28	0.0	0.1	6.954	A
C-AB	48	8	776	0.062	48	0.1	0.1	4.995	A
C-A	125	21			125				
A-B	16	3			16				
A-C	75	12			75				

07:50 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	49	8	801	0.062	49	0.1	0.1	4.984	A
B-A	32	5	537	0.060	32	0.1	0.1	7.132	A
C-AB	56	9	784	0.072	56	0.1	0.1	5.003	A
C-A	142	24			142				
A-B	19	3			19				
A-C	85	14			85				

08:00 - 08:10

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	52	9	798	0.065	52	0.1	0.1	5.013	A
B-A	33	6	533	0.063	33	0.1	0.1	7.199	A
C-AB	59	10	788	0.075	59	0.1	0.1	5.010	A
C-A	148	25			148				
A-B	19	3			19				
A-C	89	15			89				

08:10 - 08:20

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	49	8	800	0.062	49	0.1	0.1	4.985	A
B-A	32	5	537	0.060	32	0.1	0.1	7.133	A
C-AB	56	9	784	0.072	56	0.1	0.1	5.013	A
C-A	142	24			142				
A-B	19	3			19				
A-C	85	14			85				

08:20 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	43	7	806	0.054	43	0.1	0.1	4.909	A
B-A	28	5	546	0.051	28	0.1	0.1	6.956	A
C-AB	48	8	776	0.062	48	0.1	0.1	5.007	A
C-A	125	21			125				
A-B	16	3			16				
A-C	75	12			75				

08:30 - 08:40

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	6	813	0.042	35	0.1	0.0	4.809	A
B-A	22	4	558	0.040	22	0.1	0.0	6.723	A
C-AB	37	6	764	0.048	37	0.1	0.1	5.006	A
C-A	101	17			101				
A-B	13	2			13				
A-C	60	10			60				

08:40 - 08:50

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	6	813	0.042	34	0.0	0.0	4.805	A
B-A	22	4	558	0.040	22	0.0	0.0	6.721	A
C-AB	37	6	764	0.048	37	0.1	0.1	4.997	A
C-A	101	17			101				
A-B	13	2			13				
A-C	60	10			60				

Exsitng Layout - 2018 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Exsitng Layout	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	Dereham Road/Unamed Road	T-Junction	Two-way		1.47	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Dereham Road		Major
B	Unamed Road		Minor
C	Dereham Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.30			250.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	6.50	4.80	4.00	3.80	✓	2.00	22	231

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
4	B-A	595	0.107	0.270	0.170	0.386
4	B-C	858	0.130	0.328	-	-
4	C-B	719	0.275	0.275	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2018 Base	PM	ONE HOUR	16:35	18:05	10	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	120	100.000
B		ONE HOUR	✓	69	100.000
C		ONE HOUR	✓	107	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	31	89
	B	23	0	45
	C	97	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	7
	B	4	0	0
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.06	4.68	0.1	A	37	55
B-A	0.04	7.16	0.0	A	19	29
C-AB	0.02	4.95	0.0	A	9	14
C-A					78	117
A-B					25	38
A-C					73	109

Main Results for each time segment

16:35 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	5	830	0.037	30	0.0	0.0	4.503	A
B-A	16	3	563	0.028	16	0.0	0.0	6.843	A
C-AB	7	1	737	0.010	7	0.0	0.0	4.949	A
C-A	65	11			65				
A-B	21	3			21				
A-C	60	10			60				

16:45 - 16:55

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	5	829	0.037	31	0.0	0.0	4.507	A
B-A	16	3	563	0.028	16	0.0	0.0	6.843	A
C-AB	7	1	737	0.010	7	0.0	0.0	4.951	A
C-A	65	11			65				
A-B	21	3			21				
A-C	60	10			60				

16:55 - 17:05

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	38	6	822	0.047	38	0.0	0.0	4.592	A
B-A	20	3	555	0.036	20	0.0	0.0	6.999	A
C-AB	10	2	741	0.013	10	0.0	0.0	4.933	A
C-A	81	13			81				
A-B	26	4			26				
A-C	75	13			75				

17:05 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	44	7	817	0.054	44	0.0	0.1	4.656	A
B-A	23	4	549	0.041	23	0.0	0.0	7.115	A
C-AB	11	2	745	0.015	11	0.0	0.0	4.922	A
C-A	92	15			92				
A-B	30	5			30				
A-C	86	14			86				

17:15 - 17:25

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	46	8	815	0.056	46	0.1	0.1	4.680	A
B-A	24	4	547	0.043	24	0.0	0.0	7.158	A
C-AB	12	2	746	0.016	12	0.0	0.0	4.919	A
C-A	97	16			97				
A-B	31	5			31				
A-C	90	15			90				

17:25 - 17:35

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	44	7	817	0.054	44	0.1	0.1	4.657	A
B-A	23	4	549	0.041	23	0.0	0.0	7.115	A
C-AB	11	2	745	0.015	11	0.0	0.0	4.924	A
C-A	92	15			92				
A-B	30	5			30				
A-C	86	14			86				

17:35 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	38	6	822	0.047	38	0.1	0.0	4.595	A
B-A	20	3	555	0.036	20	0.0	0.0	6.999	A
C-AB	10	2	741	0.013	10	0.0	0.0	4.938	A
C-A	81	13			81				
A-B	26	4			26				
A-C	75	13			75				

17:45 - 17:55

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	5	829	0.037	31	0.0	0.0	4.508	A
B-A	16	3	563	0.028	16	0.0	0.0	6.847	A
C-AB	7	1	737	0.010	7	0.0	0.0	4.951	A
C-A	65	11			65				
A-B	21	3			21				
A-C	60	10			60				

17:55 - 18:05

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	5	829	0.037	31	0.0	0.0	4.507	A
B-A	16	3	563	0.028	16	0.0	0.0	6.843	A
C-AB	7	1	737	0.010	7	0.0	0.0	4.951	A
C-A	65	11			65				
A-B	21	3			21				
A-C	60	10			60				

Exsitng Layout - 2023 Future Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Exsitng Layout	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	Dereham Road/Unamed Road	T-Junction	Two-way		6.92	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Dereham Road		Major
B	Unamed Road		Minor
C	Dereham Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.30			250.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	6.50	4.80	4.00	3.80	✓	2.00	22	231

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
4	B-A	567	0.102	0.257	0.162	0.368
4	B-C	894	0.135	0.342	-	-
4	C-B	719	0.275	0.275	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D5	2023 Future Base	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D1*G1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	199	100.000
B		ONE HOUR	✓	358	100.000
C		ONE HOUR	✓	512	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	82	117
	B	70	0	288
	C	180	332	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	7
	B	0	0	1
	C	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.37	7.14	0.6	A	235	353
B-A	0.19	12.17	0.2	B	57	86
C-AB	0.57	10.82	1.5	B	339	509
C-A					79	119
A-B					67	100
A-C					96	144

Main Results for each time segment

07:20 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	195	32	836	0.233	193	0.0	0.3	5.624	A
B-A	47	8	437	0.108	47	0.0	0.1	9.199	A
C-AB	268	45	757	0.353	264	0.0	0.6	7.333	A
C-A	79	13			79				
A-B	55	9			55				
A-C	79	13			79				

07:30 - 07:40

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	195	32	836	0.233	195	0.3	0.3	5.659	A
B-A	47	8	436	0.108	47	0.1	0.1	9.260	A
C-AB	268	45	758	0.354	268	0.6	0.6	7.442	A
C-A	78	13			78				
A-B	55	9			55				
A-C	79	13			79				

07:40 - 07:50

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	244	41	819	0.298	243	0.3	0.4	6.297	A
B-A	59	10	402	0.147	59	0.1	0.2	10.480	B
C-AB	352	59	768	0.458	350	0.6	1.0	8.685	A
C-A	82	14			82				
A-B	69	12			69				
A-C	99	17			99				

07:50 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	279	47	805	0.347	279	0.4	0.5	6.883	A
B-A	68	11	377	0.180	68	0.2	0.2	11.638	B
C-AB	417	70	777	0.537	415	1.0	1.3	10.077	B
C-A	80	13			80				
A-B	79	13			79				
A-C	114	19			114				

08:00 - 08:10

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	292	49	800	0.365	292	0.5	0.6	7.139	A
B-A	71	12	367	0.194	71	0.2	0.2	12.165	B
C-AB	442	74	780	0.567	441	1.3	1.5	10.818	B
C-A	77	13			77				
A-B	83	14			83				
A-C	119	20			119				

08:10 - 08:20

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	279	47	805	0.347	279	0.6	0.5	6.912	A
B-A	68	11	376	0.181	68	0.2	0.2	11.706	B
C-AB	418	70	777	0.538	418	1.5	1.4	10.273	B
C-A	79	13			79				
A-B	79	13			79				
A-C	114	19			114				

08:20 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	244	41	818	0.298	245	0.5	0.4	6.335	A
B-A	59	10	401	0.148	60	0.2	0.2	10.560	B
C-AB	353	59	769	0.459	355	1.4	1.0	8.910	A
C-A	81	14			81				
A-B	69	12			69				
A-C	99	17			99				

08:30 - 08:40

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	195	32	835	0.233	196	0.4	0.3	5.677	A
B-A	47	8	435	0.109	48	0.2	0.1	9.293	A
C-AB	269	45	758	0.354	271	1.0	0.6	7.531	A
C-A	78	13			78				
A-B	55	9			55				
A-C	79	13			79				

08:40 - 08:50

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	195	32	836	0.233	195	0.3	0.3	5.660	A
B-A	47	8	436	0.108	47	0.1	0.1	9.262	A
C-AB	268	45	758	0.354	268	0.6	0.6	7.449	A
C-A	78	13			78				
A-B	55	9			55				
A-C	79	13			79				

Exsitng Layout - 2023 Future Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Exsitng Layout	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	Dereham Road/Unamed Road	T-Junction	Two-way		5.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Dereham Road		Major
B	Unamed Road		Minor
C	Dereham Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.30			250.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	6.50	4.80	4.00	3.80	✓	2.00	22	231

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
4	B-A	566	0.102	0.257	0.162	0.368
4	B-C	895	0.135	0.342	-	-
4	C-B	719	0.275	0.275	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D6	2023 Future Base	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D2*G2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	161	100.000
B		ONE HOUR	✓	402	100.000
C		ONE HOUR	✓	302	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	52	109
	B	77	0	325
	C	124	178	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	6
	B	1	0	0
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.41	7.47	0.7	A	265	398
B-A	0.18	10.20	0.2	B	63	95
C-AB	0.29	6.75	0.5	A	169	254
C-A					77	116
A-B					42	64
A-C					89	133

Main Results for each time segment

16:35 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	220	37	841	0.261	217	0.0	0.3	5.754	A
B-A	52	9	484	0.108	52	0.0	0.1	8.415	A
C-AB	136	23	740	0.183	134	0.0	0.2	5.944	A
C-A	68	11			68				
A-B	35	6			35				
A-C	73	12			73				

16:45 - 16:55

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	220	37	841	0.261	220	0.3	0.4	5.794	A
B-A	52	9	484	0.108	52	0.1	0.1	8.452	A
C-AB	136	23	741	0.184	136	0.2	0.2	5.976	A
C-A	68	11			68				
A-B	35	6			35				
A-C	73	12			73				

16:55 - 17:05

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	275	46	826	0.333	274	0.4	0.5	6.525	A
B-A	66	11	461	0.142	65	0.1	0.2	9.212	A
C-AB	176	29	746	0.235	175	0.2	0.3	6.320	A
C-A	80	13			80				
A-B	44	7			44				
A-C	92	15			92				

17:05 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	315	52	815	0.386	314	0.5	0.6	7.180	A
B-A	75	13	443	0.170	75	0.2	0.2	9.899	A
C-AB	206	34	751	0.274	205	0.3	0.4	6.628	A
C-A	87	14			87				
A-B	50	8			50				
A-C	105	18			105				

17:15 - 17:25

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	329	55	810	0.406	329	0.6	0.7	7.469	A
B-A	79	13	436	0.180	79	0.2	0.2	10.196	B
C-AB	217	36	753	0.289	217	0.4	0.5	6.755	A
C-A	89	15			89				
A-B	53	9			53				
A-C	110	18			110				

17:25 - 17:35

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	315	52	814	0.387	315	0.7	0.6	7.212	A
B-A	75	13	443	0.170	75	0.2	0.2	9.925	A
C-AB	206	34	751	0.274	206	0.5	0.4	6.644	A
C-A	87	14			87				
A-B	50	8			50				
A-C	105	18			105				

17:35 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	275	46	826	0.333	276	0.6	0.5	6.559	A
B-A	66	11	461	0.143	66	0.2	0.2	9.245	A
C-AB	176	29	747	0.236	176	0.4	0.4	6.351	A
C-A	80	13			80				
A-B	44	7			44				
A-C	92	15			92				

17:45 - 17:55

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	220	37	841	0.261	220	0.5	0.4	5.815	A
B-A	52	9	484	0.108	53	0.2	0.1	8.469	A
C-AB	136	23	741	0.184	137	0.4	0.3	5.991	A
C-A	68	11			68				
A-B	35	6			35				
A-C	73	12			73				

17:55 - 18:05

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	220	37	841	0.261	220	0.4	0.4	5.797	A
B-A	52	9	484	0.108	52	0.1	0.1	8.453	A
C-AB	136	23	741	0.184	136	0.3	0.3	5.974	A
C-A	68	11			68				
A-B	35	6			35				
A-C	73	12			73				

Exsitng Layout - 600 Unit Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Exsitng Layout	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	Dereham Road/Unamed Road	T-Junction	Two-way		18.83	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Dereham Road		Major
B	Unamed Road		Minor
C	Dereham Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.30			250.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	6.50	4.80	4.00	3.80	✓	2.00	22	231

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
4	B-A	558	0.100	0.254	0.160	0.362
4	B-C	878	0.133	0.336	-	-
4	C-B	719	0.275	0.275	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	600 Unit Development	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D7*6+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	202	100.000
B		ONE HOUR	✓	719	100.000
C		ONE HOUR	✓	603	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	84	117
	B	79	0	640
	C	180	423	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	7
	B	0	0	0
	C	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.85	27.05	4.6	D	523	784
B-A	0.42	32.25	0.7	D	64	97
C-AB	0.72	16.67	2.8	C	433	649
C-A					60	90
A-B					69	103
A-C					96	144

Main Results for each time segment

07:20 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	433	72	816	0.530	426	0.0	1.1	9.122	A
B-A	53	9	384	0.139	52	0.0	0.2	10.834	B
C-AB	341	57	757	0.450	335	0.0	0.9	8.545	A
C-A	67	11			67				
A-B	57	9			57				
A-C	79	13			79				

07:30 - 07:40

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	433	72	815	0.531	433	1.1	1.1	9.434	A
B-A	53	9	381	0.140	53	0.2	0.2	11.003	B
C-AB	342	57	758	0.451	342	0.9	0.9	8.763	A
C-A	66	11			66				
A-B	57	9			57				
A-C	79	13			79				

07:40 - 07:50

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	542	90	794	0.682	537	1.1	2.0	13.711	B
B-A	67	11	305	0.219	66	0.2	0.3	15.025	C
C-AB	448	75	768	0.584	445	0.9	1.5	11.180	B
C-A	63	10			63				
A-B	71	12			71				
A-C	99	17			99				

07:50 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	620	103	776	0.799	612	2.0	3.5	20.845	C
B-A	76	13	229	0.334	75	0.3	0.5	23.260	C
C-AB	532	89	776	0.685	527	1.5	2.3	14.477	B
C-A	53	9			53				
A-B	82	14			82				
A-C	114	19			114				

08:00 - 08:10

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	649	108	767	0.846	642	3.5	4.6	27.052	D
B-A	80	13	189	0.423	79	0.5	0.7	32.253	D
C-AB	564	94	780	0.723	561	2.3	2.8	16.668	C
C-A	48	8			48				
A-B	85	14			85				
A-C	119	20			119				

08:10 - 08:20

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	620	103	773	0.802	622	4.6	4.4	24.309	C
B-A	76	13	215	0.356	77	0.7	0.6	26.238	D
C-AB	533	89	778	0.686	534	2.8	2.7	15.343	C
C-A	51	9			51				
A-B	82	14			82				
A-C	114	19			114				

08:20 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	542	90	792	0.684	554	4.4	2.3	15.871	C
B-A	67	11	292	0.229	68	0.6	0.3	16.204	C
C-AB	450	75	770	0.585	456	2.7	1.7	11.949	B
C-A	61	10			61				
A-B	71	12			71				
A-C	99	17			99				

08:30 - 08:40

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	433	72	815	0.531	439	2.3	1.2	9.801	A
B-A	53	9	377	0.141	54	0.3	0.2	11.174	B
C-AB	342	57	758	0.452	347	1.7	1.0	8.985	A
C-A	65	11			65				
A-B	57	9			57				
A-C	79	13			79				

08:40 - 08:50

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	433	72	815	0.531	433	1.2	1.2	9.456	A
B-A	53	9	380	0.140	53	0.2	0.2	11.012	B
C-AB	342	57	758	0.451	342	1.0	0.9	8.778	A
C-A	66	11			66				
A-B	57	9			57				
A-C	79	13			79				

Exsitng Layout - 600 Unit Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Exsitng Layout	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	Dereham Road/Unamed Road	T-Junction	Two-way		11.90	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Dereham Road		Major
B	Unamed Road		Minor
C	Dereham Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.30			250.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	6.50	4.80	4.00	3.80	✓	2.00	22	231

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
4	B-A	563	0.101	0.256	0.161	0.365
4	B-C	875	0.132	0.335	-	-
4	C-B	719	0.275	0.275	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	600 Unit Development	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D8*6+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	167	100.000
B		ONE HOUR	✓	526	100.000
C		ONE HOUR	✓	567	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	59	109
	B	81	0	446
	C	124	444	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	6
	B	1	0	0
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.58	11.10	1.4	B	364	546
B-A	0.26	15.93	0.4	C	66	99
C-AB	0.72	16.96	2.6	C	423	634
C-A					41	61
A-B					48	72
A-C					89	133

Main Results for each time segment

16:35 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	302	50	817	0.369	298	0.0	0.6	6.890	A
B-A	54	9	411	0.133	54	0.0	0.2	10.173	B
C-AB	338	56	739	0.458	333	0.0	0.9	8.795	A
C-A	45	8			45				
A-B	40	7			40				
A-C	73	12			73				

16:45 - 16:55

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	302	50	817	0.369	301	0.6	0.6	6.989	A
B-A	54	9	409	0.133	54	0.2	0.2	10.281	B
C-AB	339	57	740	0.458	339	0.9	0.9	9.020	A
C-A	45	7			45				
A-B	40	7			40				
A-C	73	12			73				

16:55 - 17:05

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	378	63	798	0.473	376	0.6	0.9	8.500	A
B-A	68	11	364	0.188	68	0.2	0.2	12.295	B
C-AB	438	73	745	0.588	435	0.9	1.5	11.539	B
C-A	42	7			42				
A-B	50	8			50				
A-C	92	15			92				

17:05 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	432	72	781	0.553	430	0.9	1.2	10.194	B
B-A	78	13	326	0.240	78	0.2	0.3	14.638	B
C-AB	514	86	750	0.685	509	1.5	2.2	14.850	B
C-A	36	6			36				
A-B	57	9			57				
A-C	105	18			105				

17:15 - 17:25

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	452	75	774	0.584	451	1.2	1.4	11.099	B
B-A	82	14	310	0.264	81	0.3	0.4	15.929	C
C-AB	543	90	752	0.722	540	2.2	2.6	16.965	C
C-A	33	5			33				
A-B	60	10			60				
A-C	110	18			110				

17:25 - 17:35

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	432	72	780	0.554	433	1.4	1.3	10.379	B
B-A	78	13	323	0.242	78	0.4	0.3	14.885	B
C-AB	515	86	751	0.686	516	2.6	2.5	15.644	C
C-A	35	6			35				
A-B	57	9			57				
A-C	105	18			105				

17:35 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	378	63	797	0.474	380	1.3	0.9	8.682	A
B-A	68	11	360	0.189	69	0.3	0.2	12.535	B
C-AB	440	73	746	0.589	445	2.5	1.6	12.253	B
C-A	41	7			41				
A-B	50	8			50				
A-C	92	15			92				

17:45 - 17:55

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	302	50	816	0.369	303	0.9	0.6	7.048	A
B-A	54	9	407	0.134	55	0.2	0.2	10.359	B
C-AB	339	57	740	0.459	344	1.6	0.9	9.227	A
C-A	44	7			44				
A-B	40	7			40				
A-C	73	12			73				

17:55 - 18:05

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	302	50	816	0.369	302	0.6	0.6	6.991	A
B-A	54	9	409	0.133	54	0.2	0.2	10.288	B
C-AB	339	57	740	0.458	339	0.9	0.9	9.036	A
C-A	45	7			45				
A-B	40	7			40				
A-C	73	12			73				

With Easton Village Growth - 2023 Future Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	With Easton Village Growth	✓	✓	D5,D6,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	Dereham Road/Unamed Road	T-Junction	Two-way		5.60	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Dereham Road		Major
B	Unamed Road		Minor
C	Dereham Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.30		✓	3.00	231.0	✓	7.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	8.70	5.60	4.20	3.60	✓	2.00	22	231

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
4	B-A	614	0.105	0.267	0.168	0.381
4	B-C	882	0.128	0.322	-	-
4	C-B	769	0.281	0.281	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D5	2023 Future Base	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D1*G1+D3

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	199	100.000
B		ONE HOUR	✓	358	100.000
C		ONE HOUR	✓	512	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	82	117
	B	70	0	288
	C	180	332	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	7
	B	0	0	1
	C	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.37	7.20	0.6	A	235	353
B-A	0.17	10.71	0.2	B	57	86
C-AB	0.47	9.55	0.9	A	271	407
C-A					147	221
A-B					67	100
A-C					96	144

Main Results for each time segment

07:20 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	195	32	828	0.235	193	0.0	0.3	5.695	A
B-A	47	8	480	0.099	47	0.0	0.1	8.303	A
C-AB	225	37	731	0.307	222	0.0	0.4	7.032	A
C-A	122	20			122				
A-B	55	9			55				
A-C	79	13			79				

07:30 - 07:40

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	195	32	828	0.235	195	0.3	0.3	5.729	A
B-A	47	8	479	0.099	47	0.1	0.1	8.346	A
C-AB	225	37	731	0.307	225	0.4	0.4	7.101	A
C-A	122	20			122				
A-B	55	9			55				
A-C	79	13			79				

07:40 - 07:50

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	244	41	812	0.300	243	0.3	0.4	6.367	A
B-A	59	10	443	0.134	59	0.1	0.2	9.358	A
C-AB	281	47	722	0.390	280	0.4	0.6	8.128	A
C-A	153	25			153				
A-B	69	12			69				
A-C	99	17			99				

07:50 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	279	47	800	0.349	279	0.4	0.5	6.948	A
B-A	68	11	417	0.163	68	0.2	0.2	10.297	B
C-AB	322	54	716	0.450	321	0.6	0.8	9.103	A
C-A	175	29			175				
A-B	79	13			79				
A-C	114	19			114				

08:00 - 08:10

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	292	49	795	0.367	292	0.5	0.6	7.200	A
B-A	71	12	407	0.174	71	0.2	0.2	10.712	B
C-AB	337	56	713	0.473	337	0.8	0.9	9.546	A
C-A	182	30			182				
A-B	83	14			83				
A-C	119	20			119				

08:10 - 08:20

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	279	47	800	0.349	279	0.6	0.5	6.973	A
B-A	68	11	416	0.163	68	0.2	0.2	10.334	B
C-AB	322	54	716	0.450	323	0.9	0.8	9.170	A
C-A	175	29			175				
A-B	79	13			79				
A-C	114	19			114				

08:20 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	244	41	812	0.301	245	0.5	0.4	6.404	A
B-A	59	10	442	0.134	59	0.2	0.2	9.406	A
C-AB	281	47	722	0.390	283	0.8	0.7	8.213	A
C-A	153	25			153				
A-B	69	12			69				
A-C	99	17			99				

08:30 - 08:40

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	195	32	828	0.235	196	0.4	0.3	5.747	A
B-A	47	8	478	0.099	48	0.2	0.1	8.368	A
C-AB	225	37	731	0.307	226	0.7	0.5	7.135	A
C-A	122	20			122				
A-B	55	9			55				
A-C	79	13			79				

08:40 - 08:50

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	195	32	828	0.235	195	0.3	0.3	5.730	A
B-A	47	8	479	0.099	47	0.1	0.1	8.349	A
C-AB	225	37	731	0.307	225	0.5	0.4	7.102	A
C-A	122	20			122				
A-B	55	9			55				
A-C	79	13			79				

With Easton Village Growth - 2023 Future Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	With Easton Village Growth	✓	✓	D5,D6,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	Dereham Road/Unamed Road	T-Junction	Two-way		5.03	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Dereham Road		Major
B	Unamed Road		Minor
C	Dereham Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.30		✓	3.00	231.0	✓	7.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	8.70	5.60	4.20	3.60	✓	2.00	22	231

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
4	B-A	613	0.105	0.266	0.168	0.381
4	B-C	882	0.128	0.322	-	-
4	C-B	769	0.281	0.281	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D6	2023 Future Base	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D2*G2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	161	100.000
B		ONE HOUR	✓	402	100.000
C		ONE HOUR	✓	302	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	52	109
	B	77	0	325
	C	124	178	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	6
	B	1	0	0
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.41	7.56	0.7	A	265	398
B-A	0.16	9.14	0.2	A	63	95
C-AB	0.25	6.63	0.3	A	146	218
C-A					101	151
A-B					42	64
A-C					89	133

Main Results for each time segment

16:35 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	220	37	833	0.264	217	0.0	0.4	5.831	A
B-A	52	9	528	0.099	52	0.0	0.1	7.645	A
C-AB	121	20	739	0.163	119	0.0	0.2	5.801	A
C-A	84	14			84				
A-B	35	6			35				
A-C	73	12			73				

16:45 - 16:55

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	220	37	832	0.264	220	0.4	0.4	5.873	A
B-A	52	9	528	0.099	52	0.1	0.1	7.670	A
C-AB	121	20	739	0.163	120	0.2	0.2	5.821	A
C-A	84	14			84				
A-B	35	6			35				
A-C	73	12			73				

16:55 - 17:05

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	275	46	819	0.336	274	0.4	0.5	6.598	A
B-A	66	11	504	0.130	65	0.1	0.1	8.313	A
C-AB	151	25	731	0.206	151	0.2	0.3	6.197	A
C-A	105	17			105				
A-B	44	7			44				
A-C	92	15			92				

17:05 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	315	52	808	0.389	314	0.5	0.6	7.268	A
B-A	75	13	485	0.155	75	0.1	0.2	8.888	A
C-AB	173	29	726	0.238	172	0.3	0.3	6.504	A
C-A	120	20			120				
A-B	50	8			50				
A-C	105	18			105				

17:15 - 17:25

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	329	55	805	0.409	329	0.6	0.7	7.562	A
B-A	79	13	478	0.165	79	0.2	0.2	9.136	A
C-AB	181	30	724	0.250	181	0.3	0.3	6.628	A
C-A	125	21			125				
A-B	53	9			53				
A-C	110	18			110				

17:25 - 17:35

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	315	52	808	0.389	315	0.7	0.6	7.301	A
B-A	75	13	485	0.155	75	0.2	0.2	8.906	A
C-AB	173	29	726	0.238	173	0.3	0.3	6.513	A
C-A	120	20			120				
A-B	50	8			50				
A-C	105	18			105				

17:35 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	275	46	819	0.336	276	0.6	0.5	6.644	A
B-A	66	11	504	0.130	66	0.2	0.2	8.338	A
C-AB	151	25	731	0.206	151	0.3	0.3	6.211	A
C-A	105	17			105				
A-B	44	7			44				
A-C	92	15			92				

17:45 - 17:55

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	220	37	832	0.264	220	0.5	0.4	5.892	A
B-A	52	9	528	0.099	53	0.2	0.1	7.683	A
C-AB	121	20	739	0.163	121	0.3	0.2	5.829	A
C-A	84	14			84				
A-B	35	6			35				
A-C	73	12			73				

17:55 - 18:05

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	220	37	832	0.264	220	0.4	0.4	5.876	A
B-A	52	9	528	0.099	52	0.1	0.1	7.674	A
C-AB	121	20	739	0.163	121	0.2	0.2	5.821	A
C-A	84	14			84				
A-B	35	6			35				
A-C	73	12			73				

With Easton Village Growth - 600 Unit Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	With Easton Village Growth	✓	✓	D5,D6,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	Dereham Road/Unamed Road	T-Junction	Two-way		14.82	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Dereham Road		Major
B	Unamed Road		Minor
C	Dereham Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.30		✓	3.00	231.0	✓	7.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	8.70	5.60	4.20	3.60	✓	2.00	22	231

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
4	B-A	604	0.104	0.262	0.165	0.375
4	B-C	889	0.129	0.325	-	-
4	C-B	769	0.281	0.281	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	600 Unit Development	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D7*6+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	202	100.000
B		ONE HOUR	✓	719	100.000
C		ONE HOUR	✓	603	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	84	117
	B	79	0	640
	C	180	423	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	7
	B	0	0	0
	C	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.82	23.94	4.1	C	523	784
B-A	0.36	24.66	0.5	C	64	97
C-AB	0.60	12.53	1.5	B	346	520
C-A					146	220
A-B					69	103
A-C					96	144

Main Results for each time segment

07:20 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	433	72	830	0.521	426	0.0	1.1	8.812	A
B-A	53	9	423	0.126	52	0.0	0.1	9.688	A
C-AB	286	48	731	0.391	282	0.0	0.6	7.954	A
C-A	122	20			122				
A-B	57	9			57				
A-C	79	13			79				

07:30 - 07:40

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	433	72	830	0.521	433	1.1	1.1	9.089	A
B-A	53	9	420	0.127	53	0.1	0.1	9.808	A
C-AB	286	48	731	0.391	286	0.6	0.6	8.084	A
C-A	122	20			122				
A-B	57	9			57				
A-C	79	13			79				

07:40 - 07:50

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	542	90	811	0.668	537	1.1	1.9	12.952	B
B-A	67	11	342	0.195	66	0.1	0.2	13.021	B
C-AB	359	60	722	0.497	357	0.6	1.0	9.790	A
C-A	152	25			152				
A-B	71	12			71				
A-C	99	17			99				

07:50 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	620	103	794	0.781	613	1.9	3.2	19.048	C
B-A	76	13	264	0.290	76	0.2	0.4	19.025	C
C-AB	412	69	718	0.574	410	1.0	1.3	11.609	B
C-A	173	29			173				
A-B	82	14			82				
A-C	114	19			114				

08:00 - 08:10

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	649	108	787	0.825	644	3.2	4.1	23.939	C
B-A	80	13	224	0.357	79	0.4	0.5	24.660	C
C-AB	432	72	717	0.602	431	1.3	1.5	12.528	B
C-A	180	30			180				
A-B	85	14			85				
A-C	119	20			119				

08:10 - 08:20

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	620	103	793	0.782	622	4.1	3.9	21.440	C
B-A	76	13	253	0.303	77	0.5	0.5	20.563	C
C-AB	412	69	718	0.574	412	1.5	1.4	11.822	B
C-A	173	29			173				
A-B	82	14			82				
A-C	114	19			114				

08:20 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	542	90	809	0.670	552	3.9	2.2	14.542	B
B-A	67	11	332	0.201	68	0.5	0.3	13.702	B
C-AB	359	60	723	0.496	361	1.4	1.0	10.025	B
C-A	152	25			152				
A-B	71	12			71				
A-C	99	17			99				

08:30 - 08:40

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	433	72	829	0.522	439	2.2	1.1	9.392	A
B-A	53	9	418	0.128	54	0.3	0.1	9.914	A
C-AB	286	48	731	0.391	288	1.0	0.7	8.164	A
C-A	122	20			122				
A-B	57	9			57				
A-C	79	13			79				

08:40 - 08:50

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	433	72	830	0.521	433	1.1	1.1	9.107	A
B-A	53	9	420	0.127	53	0.1	0.1	9.816	A
C-AB	286	48	731	0.391	286	0.7	0.6	8.090	A
C-A	122	20			122				
A-B	57	9			57				
A-C	79	13			79				

With Easton Village Growth - 600 Unit Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 300 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	With Easton Village Growth	✓	✓	D5,D6,D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	Dereham Road/Unamed Road	T-Junction	Two-way		9.20	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Dereham Road		Major
B	Unamed Road		Minor
C	Dereham Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.30		✓	3.00	231.0	✓	7.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	8.70	5.60	4.20	3.60	✓	2.00	22	231

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
4	B-A	609	0.105	0.264	0.166	0.378
4	B-C	886	0.128	0.324	-	-
4	C-B	769	0.281	0.281	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	600 Unit Development	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D8*6+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	167	100.000
B		ONE HOUR	✓	526	100.000
C		ONE HOUR	✓	567	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	59	109
	B	81	0	446
	C	124	444	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	6
	B	1	0	0
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.57	10.52	1.3	B	364	546
B-A	0.23	13.63	0.3	B	66	99
C-AB	0.62	13.06	1.6	B	364	545
C-A					100	150
A-B					48	72
A-C					89	133

Main Results for each time segment

16:35 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	302	50	831	0.363	298	0.0	0.6	6.717	A
B-A	54	9	452	0.120	54	0.0	0.1	9.132	A
C-AB	300	50	738	0.407	296	0.0	0.7	8.084	A
C-A	83	14			83				
A-B	40	7			40				
A-C	73	12			73				

16:45 - 16:55

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	302	50	830	0.363	301	0.6	0.6	6.806	A
B-A	54	9	450	0.121	54	0.1	0.1	9.208	A
C-AB	300	50	738	0.407	300	0.7	0.7	8.224	A
C-A	83	14			83				
A-B	40	7			40				
A-C	73	12			73				

16:55 - 17:05

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	378	63	813	0.465	376	0.6	0.8	8.203	A
B-A	68	11	404	0.169	68	0.1	0.2	10.851	B
C-AB	377	63	730	0.515	374	0.7	1.0	10.048	B
C-A	104	17			104				
A-B	50	8			50				
A-C	92	15			92				

17:05 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	432	72	799	0.541	431	0.8	1.1	9.731	A
B-A	78	13	365	0.214	78	0.2	0.3	12.674	B
C-AB	432	72	727	0.595	430	1.0	1.4	12.027	B
C-A	118	20			118				
A-B	57	9			57				
A-C	105	18			105				

17:15 - 17:25

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	452	75	792	0.571	451	1.1	1.3	10.519	B
B-A	82	14	349	0.234	82	0.3	0.3	13.626	B
C-AB	453	76	726	0.624	452	1.4	1.6	13.056	B
C-A	122	20			122				
A-B	60	10			60				
A-C	110	18			110				

17:25 - 17:35

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	432	72	798	0.542	433	1.3	1.2	9.878	A
B-A	78	13	363	0.215	78	0.3	0.3	12.806	B
C-AB	432	72	727	0.595	433	1.6	1.5	12.282	B
C-A	118	20			118				
A-B	57	9			57				
A-C	105	18			105				

17:35 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	378	63	812	0.465	380	1.2	0.9	8.356	A
B-A	68	11	401	0.170	69	0.3	0.2	10.982	B
C-AB	377	63	731	0.515	379	1.5	1.1	10.320	B
C-A	104	17			104				
A-B	50	8			50				
A-C	92	15			92				

17:45 - 17:55

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	302	50	830	0.363	303	0.9	0.6	6.861	A
B-A	54	9	449	0.121	55	0.2	0.1	9.256	A
C-AB	300	50	738	0.407	303	1.1	0.7	8.320	A
C-A	83	14			83				
A-B	40	7			40				
A-C	73	12			73				

17:55 - 18:05

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	302	50	830	0.363	302	0.6	0.6	6.811	A
B-A	54	9	450	0.121	54	0.1	0.1	9.211	A
C-AB	300	50	738	0.407	300	0.7	0.7	8.232	A
C-A	83	14			83				
A-B	40	7			40				
A-C	73	12			73				

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896

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Filename: 1801-47 J5N.j9
Path: P:\18\01\47 - Honingham, Norfolk\04 Calculations and Analysis\Highway Impact Analysis
Report generation date: 30/11/2018 14:14:12

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2018 Base							
Arm A	1.4	5.75	0.58	A	0.8	4.91	0.44	A
Arm B	3.7	9.42	0.79	A	1.6	5.02	0.62	A
Arm D	0.9	3.50	0.45	A	3.9	9.21	0.80	A
Arm E	0.5	4.10	0.31	A	0.9	8.23	0.48	A
	2023 Future Base							
Arm A	3.5	12.78	0.78	B	1.5	8.29	0.60	A
Arm B	42.9	92.98	1.07	F	5.2	12.97	0.85	B
Arm D	1.7	4.88	0.61	A	19.6	36.67	0.99	E
Arm E	1.0	6.54	0.49	A	6.3	40.67	0.91	E
	600 Unit Development							
Arm A	5.1	18.85	0.85	C	1.6	8.85	0.61	A
Arm B	58.6	121.10	1.10	F	8.5	19.56	0.92	C
Arm D	1.7	4.90	0.62	A	19.8	37.26	0.99	E
Arm E	2.7	13.88	0.73	B	10.7	61.57	0.99	F

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	With Bypass - 600 Unit Development							
Arm A	5.1	18.83	0.85	C	1.6	8.85	0.61	A
Arm B	6.0	21.23	0.87	C	6.6	20.85	0.89	C
Arm D	1.7	5.05	0.62	A	19.8	37.24	0.99	E
Arm E	2.7	14.28	0.73	B	10.7	61.53	0.99	F

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	Honingham Thorpe
Location	
Site number	
Date	31/10/2018
Version	
Status	(new file)
Identifier	
Client	Clarion Housing Group
Jobnumber	1801-47
Enumerator	TPA\pd
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	mph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2018 Base	AM	ONE HOUR	07:20	08:50	10	✓		
D2	2018 Base	PM	ONE HOUR	16:35	18:05	10	✓		
D3	Committed	AM	ONE HOUR	07:20	08:50	10			
D4	Committed	PM	ONE HOUR	16:35	18:05	10			
D5	2023 Future Base	AM	ONE HOUR	07:20	08:50	10	✓	Simple	(D1*G1) +D3+D13
D6	2023 Future Base	PM	ONE HOUR	16:35	18:05	10	✓	Simple	(D2*G2) +D4+D14
D7	600 Unit Development only	AM	ONE HOUR	07:20	08:50	10			
D8	600 Unit Development only	PM	ONE HOUR	16:35	18:05	10			
D11	600 Unit Development	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D7+D5
D12	600 Unit Development	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D8+D6
D13	Diverted	AM	ONE HOUR	07:20	08:50	10			
D14	Diverted	PM	ONE HOUR	16:35	18:05	10			

Growth Factors

ID	Description	Use TEMPRO	Growth Factor
G1	AM 2018 to 2023		1.1188
G2	PM 2018 to 2023		1.1212

Growth factors are only active if the Demand Set references them in a Relationship.

2018 Base , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Pedestrian Crossing	Arm E - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Demand Set Relationship	D11 - 600 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5N	A47/William Frost Way	Standard Roundabout		A, B, C , D, E	6.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	William Frost Way	
B	Dereham Road	
C	A47 On Slip	
D	Longwater Bridge	
E	A47 Off Slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.30	8.00	49.7	19.1	54.7	36.0	
B	6.00	9.80	32.6	23.9	54.7	27.0	
C							✓
D	7.20	9.50	2.7	19.8	54.7	38.0	
E	6.20	8.30	20.3	23.6	54.7	44.0	

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
E	3.00	3.00	1.50	2.00	6.00	6.00	15.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.663	2157
B	0.774	2705
C		
D	0.688	2302
E	0.677	2260

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2018 Base	AM	ONE HOUR	07:20	08:50	10	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	896	100.000
B		ONE HOUR	✓	1430	100.000
C					
D		ONE HOUR	✓	913	100.000
E		ONE HOUR	✓	416	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A		
B		
C		
D		
E	[ONEHOUR]	0.00

Origin-Destination Data

Demand (PCU/hr)

		To				
		A	B	C	D	E
From	A	5	0	669	221	0
	B	369	0	644	417	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	354	441	119	0	0
	E	107	225	0	84	0

Proportions

		To				
		A	B	C	D	E
From	A	0.01	0.00	0.75	0.25	0.00
	B	0.26	0.00	0.45	0.29	0.00
	C	0.20	0.20	0.20	0.20	0.20
	D	0.39	0.48	0.13	0.00	0.00
	E	0.26	0.54	0.00	0.20	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A	B	C	D	E
From	A	25	7	7	5	0
	B	9	0	4	6	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	10	5	19	0	0
	E	9	6	0	17	0

Average PCU Per Veh

		To				
		A	B	C	D	E
From	A	1.250	1.070	1.070	1.050	1.000
	B	1.090	1.000	1.040	1.060	1.000
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	1.100	1.050	1.190	1.000	1.000
	E	1.090	1.060	1.000	1.170	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)	Pedestrian Demand (Ped/hr)
07:20-07:30	A	606	606	
	B	967	967	
	C	0	0	
	D	618	618	
	E	281	281	0.00
07:30-07:40	A	606	606	
	B	967	967	
	C	0	0	
	D	618	618	
	E	281	281	0.00
07:40-07:50	A	759	759	
	B	1211	1211	
	C	0	0	
	D	774	774	
	E	352	352	0.00
07:50-08:00	A	869	869	
	B	1386	1386	
	C	0	0	
	D	886	886	
	E	403	403	0.00
08:00-08:10	A	909	909	
	B	1450	1450	
	C	0	0	
	D	926	926	
	E	421	421	0.00
08:10-08:20	A	869	869	
	B	1386	1386	
	C	0	0	
	D	886	886	
	E	403	403	0.00
08:20-08:30	A	759	759	
	B	1211	1211	
	C	0	0	
	D	774	774	
	E	352	352	0.00
08:30-08:40	A	606	606	
	B	967	967	
	C	0	0	
	D	618	618	
	E	281	281	0.00
08:40-08:50	A	606	606	
	B	967	967	
	C	0	0	
	D	618	618	
	E	281	281	0.00

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.58	5.75	1.4	A	732	1098
B	0.79	9.42	3.7	A	1168	1752
C						
D	0.45	3.50	0.9	A	746	1119
E	0.31	4.10	0.5	A	339	509

Main Results for each time segment

07:20 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	606	101	584		1770	0.342	603	562	0.0	0.6	3.278	A
B	967	161	739		2133	0.453	962	448	0.0	0.9	3.237	A
C			738					963				
D	618	103	252		2129	0.290	615	486	0.0	0.4	2.577	A
E	281	47	867	0.00	1674	0.168	280	0	0.0	0.2	2.808	A

07:30 - 07:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	606	101	587		1768	0.343	606	565	0.6	0.6	3.301	A
B	967	161	743		2130	0.454	967	450	0.9	0.9	3.274	A
C			741					968				
D	618	103	253		2128	0.290	618	488	0.4	0.4	2.587	A
E	281	47	871	0.00	1671	0.168	281	0	0.2	0.2	2.818	A

07:40 - 07:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	759	126	734		1670	0.454	757	705	0.6	0.9	4.192	A
B	1211	202	928		1987	0.610	1207	563	0.9	1.6	4.856	A
C			926					1209				
D	774	129	316		2085	0.371	772	610	0.4	0.6	2.975	A
E	352	59	1088	0.00	1524	0.231	351	0	0.2	0.3	3.340	A

07:50 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	869	145	841		1600	0.543	866	807	0.9	1.2	5.216	A
B	1386	231	1063		1883	0.736	1379	644	1.6	2.8	7.458	A
C			1059					1383				
D	886	148	361		2054	0.431	884	698	0.6	0.8	3.339	A
E	403	67	1245	0.00	1417	0.284	402	0	0.3	0.4	3.857	A

08:00 - 08:10

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	909	151	880		1574	0.577	908	845	1.2	1.4	5.749	A
B	1450	242	1113		1844	0.787	1445	675	2.8	3.7	9.417	A
C			1109					1449				
D	926	154	378		2042	0.454	926	731	0.8	0.9	3.500	A
E	421	70	1304	0.00	1378	0.306	421	0	0.4	0.5	4.096	A

08:10 - 08:20

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	869	145	842		1599	0.543	870	811	1.4	1.3	5.269	A
B	1386	231	1066		1880	0.737	1390	646	3.7	3.1	7.842	A
C			1065					1391				
D	886	148	364		2052	0.432	886	702	0.9	0.8	3.355	A
E	403	67	1250	0.00	1414	0.285	403	0	0.5	0.4	3.876	A

08:20 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	759	126	736		1669	0.455	761	710	1.3	0.9	4.239	A
B	1211	202	933		1983	0.611	1220	565	3.1	1.7	5.044	A
C			934					1218				
D	774	129	319		2082	0.371	775	615	0.8	0.6	2.990	A
E	352	59	1094	0.00	1520	0.232	353	0	0.4	0.3	3.360	A

08:30 - 08:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	606	101	588		1767	0.343	608	566	0.9	0.6	3.317	A
B	967	161	745		2128	0.454	972	451	1.7	0.9	3.306	A
C			745					972				
D	618	103	254		2127	0.290	619	491	0.6	0.4	2.595	A
E	281	47	873	0.00	1669	0.168	282	0	0.3	0.2	2.826	A

08:40 - 08:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	606	101	587		1768	0.343	606	565	0.6	0.6	3.301	A
B	967	161	743		2130	0.454	967	450	0.9	0.9	3.274	A
C			742					968				
D	618	103	253		2128	0.290	618	488	0.4	0.4	2.589	A
E	281	47	871	0.00	1671	0.168	281	0	0.2	0.2	2.818	A

2018 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Pedestrian Crossing	Arm E - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Demand Set Relationship	D11 - 600 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5N	A47/William Frost Way	Standard Roundabout		A, B, C , D, E	7.11	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	William Frost Way	
B	Dereham Road	
C	A47 On Slip	
D	Longwater Bridge	
E	A47 Off Slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.30	8.00	49.7	19.1	54.7	36.0	
B	6.00	9.80	32.6	23.9	54.7	27.0	
C							✓
D	7.20	9.50	2.7	19.8	54.7	38.0	
E	6.20	8.30	20.3	23.6	54.7	44.0	

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
E	3.00	3.00	1.50	2.00	6.00	6.00	15.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.663	2157
B	0.774	2705
C		
D	0.688	2302
E	0.677	2260

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2018 Base	PM	ONE HOUR	16:35	18:05	10	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	581	100.000
B		ONE HOUR	✓	1181	100.000
C					
D		ONE HOUR	✓	1565	100.000
E		ONE HOUR	✓	410	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A		
B		
C		
D		
E	[ONEHOUR]	0.00

Origin-Destination Data

Demand (PCU/hr)

		To				
		A	B	C	D	E
From	A	12	0	435	135	0
	B	456	0	379	345	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	557	689	319	0	0
	E	212	103	0	95	0

Proportions

		To				
		A	B	C	D	E
From	A	0.02	0.00	0.75	0.23	0.00
	B	0.39	0.00	0.32	0.29	0.00
	C	0.20	0.20	0.20	0.20	0.20
	D	0.36	0.44	0.20	0.00	0.00
	E	0.52	0.25	0.00	0.23	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A	B	C	D	E
From	A	0	3	5	0	0
	B	2	0	3	1	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	2	1	5	0	0
	E	4	3	0	5	0

Average PCU Per Veh

		To				
		A	B	C	D	E
From	A	1.000	1.030	1.050	1.000	1.000
	B	1.020	1.000	1.030	1.010	1.000
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	1.020	1.010	1.050	1.000	1.000
	E	1.040	1.030	1.000	1.050	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)	Pedestrian Demand (Ped/hr)
16:35-16:45	A	393	393	
	B	798	798	
	C	0	0	
	D	1058	1058	
	E	277	277	0.00
16:45-16:55	A	393	393	
	B	798	798	
	C	0	0	
	D	1058	1058	
	E	277	277	0.00
16:55-17:05	A	492	492	
	B	1000	1000	
	C	0	0	
	D	1326	1326	
	E	347	347	0.00
17:05-17:15	A	563	563	
	B	1145	1145	
	C	0	0	
	D	1518	1518	
	E	398	398	0.00
17:15-17:25	A	589	589	
	B	1198	1198	
	C	0	0	
	D	1587	1587	
	E	416	416	0.00
17:25-17:35	A	563	563	
	B	1145	1145	
	C	0	0	
	D	1518	1518	
	E	398	398	0.00
17:35-17:45	A	492	492	
	B	1000	1000	
	C	0	0	
	D	1326	1326	
	E	347	347	0.00
17:45-17:55	A	393	393	
	B	798	798	
	C	0	0	
	D	1058	1058	
	E	277	277	0.00
17:55-18:05	A	393	393	
	B	798	798	
	C	0	0	
	D	1058	1058	
	E	277	277	0.00

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.44	4.91	0.8	A	475	712
B	0.62	5.02	1.6	A	965	1447
C						
D	0.80	9.21	3.9	A	1279	1918
E	0.48	8.23	0.9	A	335	502

Main Results for each time segment

16:35 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	393	65	811		1620	0.243	391	832	0.0	0.3	3.033	A
B	798	133	669		2187	0.365	795	533	0.0	0.6	2.631	A
C			702					762				
D	1058	176	315		2085	0.508	1052	387	0.0	1.0	3.538	A
E	277	46	1367	0.00	1335	0.208	276	0	0.0	0.3	3.529	A

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	393	65	816		1616	0.243	393	836	0.3	0.3	3.050	A
B	798	133	673		2185	0.365	798	536	0.6	0.6	2.649	A
C			705					766				
D	1058	176	316		2084	0.508	1058	389	1.0	1.0	3.583	A
E	277	46	1375	0.00	1330	0.208	277	0	0.3	0.3	3.555	A

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	492	82	1018		1482	0.332	491	1044	0.3	0.5	3.763	A
B	1000	167	840		2055	0.487	998	669	0.6	1.0	3.467	A
C			881					957				
D	1326	221	396		2030	0.653	1321	486	1.0	1.9	5.150	A
E	347	58	1716	0.00	1099	0.316	346	0	0.3	0.5	4.965	A

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	563	94	1164		1386	0.407	562	1195	0.5	0.7	4.528	A
B	1145	191	962		1961	0.584	1142	765	1.0	1.4	4.470	A
C			1009					1095				
D	1518	253	453		1991	0.762	1510	556	1.9	3.1	7.532	A
E	398	66	1963	0.00	932	0.427	396	0	0.5	0.8	6.960	A

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	589	98	1220		1348	0.437	589	1252	0.7	0.8	4.906	A
B	1198	200	1007		1926	0.622	1196	802	1.4	1.6	5.025	A
C			1056					1147				
D	1587	265	474		1976	0.803	1583	582	3.1	3.9	9.209	A
E	416	69	2057	0.00	868	0.479	415	0	0.8	0.9	8.233	A

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	563	94	1172		1380	0.408	564	1201	0.8	0.7	4.576	A
B	1145	191	966		1958	0.585	1146	770	1.6	1.5	4.531	A
C			1012					1100				
D	1518	253	454		1990	0.763	1521	558	3.9	3.4	7.906	A
E	398	66	1975	0.00	924	0.430	398	0	0.9	0.8	7.135	A

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	492	82	1028		1475	0.334	493	1053	0.7	0.5	3.804	A
B	1000	167	846		2050	0.488	1003	676	1.5	1.0	3.515	A
C			886					963				
D	1326	221	398		2029	0.654	1334	488	3.4	2.0	5.364	A
E	347	58	1732	0.00	1088	0.319	349	0	0.8	0.5	5.077	A

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	393	65	820		1614	0.244	394	840	0.5	0.3	3.062	A
B	798	133	675		2183	0.366	801	539	1.0	0.6	2.663	A
C			707					769				
D	1058	176	317		2084	0.508	1064	390	2.0	1.1	3.626	A
E	277	46	1381	0.00	1325	0.209	279	0	0.5	0.3	3.581	A

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	393	65	816		1616	0.243	393	836	0.3	0.3	3.050	A
B	798	133	673		2185	0.365	798	536	0.6	0.6	2.649	A
C			705					766				
D	1058	176	316		2084	0.508	1058	389	1.1	1.1	3.583	A
E	277	46	1375	0.00	1330	0.209	277	0	0.3	0.3	3.558	A

2023 Future Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Pedestrian Crossing	Arm E - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Demand Set Relationship	D11 - 600 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5N	A47/William Frost Way	Standard Roundabout		A, B, C , D, E	40.68	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	William Frost Way	
B	Dereham Road	
C	A47 On Slip	
D	Longwater Bridge	
E	A47 Off Slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.30	8.00	49.7	19.1	54.7	36.0	
B	6.00	9.80	32.6	23.9	54.7	27.0	
C							✓
D	7.20	9.50	2.7	19.8	54.7	38.0	
E	6.20	8.30	20.3	23.6	54.7	44.0	

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
E	3.00	3.00	1.50	2.00	6.00	6.00	15.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.663	2157
B	0.774	2705
C		
D	0.688	2302
E	0.677	2260

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D5	2023 Future Base	AM	ONE HOUR	07:20	08:50	10	✓	Simple	(D1*G1) +D3+D13

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1002	100.000
B		ONE HOUR	✓	1737	100.000
C					
D		ONE HOUR	✓	1227	100.000
E		ONE HOUR	✓	556	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A		
B		
C		
D		
E	[ONEHOUR]	0.00

Origin-Destination Data

Demand (PCU/hr)

		To				
		A	B	C	D	E
From	A	6	0	749	247	0
	B	413	0	720	604	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	396	570	226	35	0
	E	120	343	0	94	0

Proportions

		To				
		A	B	C	D	E
From	A	0.01	0.00	0.75	0.25	0.00
	B	0.24	0.00	0.41	0.35	0.00
	C	0.20	0.20	0.20	0.20	0.20
	D	0.32	0.46	0.18	0.03	0.00
	E	0.22	0.62	0.00	0.17	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A	B	C	D	E
From	A	25	0	7	5	0
	B	9	0	4	5	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	10	4	10	0	0
	E	9	4	0	17	0

Average PCU Per Veh

		To				
		A	B	C	D	E
From	A	1.250	1.000	1.070	1.050	1.000
	B	1.090	1.000	1.040	1.046	1.000
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	1.100	1.043	1.104	1.000	1.000
	E	1.090	1.043	1.000	1.170	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)	Pedestrian Demand (Ped/hr)
07:20-07:30	A	678	678	
	B	1175	1175	
	C	0	0	
	D	830	830	
	E	376	376	0.00
07:30-07:40	A	678	678	
	B	1175	1175	
	C	0	0	
	D	830	830	
	E	376	376	0.00
07:40-07:50	A	849	849	
	B	1472	1472	
	C	0	0	
	D	1039	1039	
	E	471	471	0.00
07:50-08:00	A	972	972	
	B	1685	1685	
	C	0	0	
	D	1190	1190	
	E	539	539	0.00
08:00-08:10	A	1017	1017	
	B	1762	1762	
	C	0	0	
	D	1244	1244	
	E	564	564	0.00
08:10-08:20	A	972	972	
	B	1685	1685	
	C	0	0	
	D	1190	1190	
	E	539	539	0.00
08:20-08:30	A	849	849	
	B	1472	1472	
	C	0	0	
	D	1039	1039	
	E	471	471	0.00
08:30-08:40	A	678	678	
	B	1175	1175	
	C	0	0	
	D	830	830	
	E	376	376	0.00
08:40-08:50	A	678	678	
	B	1175	1175	
	C	0	0	
	D	830	830	
	E	376	376	0.00

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.78	12.78	3.5	B	819	1228
B	1.07	92.98	42.9	F	1419	2129
C						
D	0.61	4.88	1.7	A	1002	1503
E	0.49	6.54	1.0	A	455	682

Main Results for each time segment

07:20 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	678	113	853		1592	0.426	673	628	0.0	0.8	4.157	A
B	1175	196	912		1999	0.588	1166	614	0.0	1.5	4.504	A
C			939					1138				
D	830	138	281		2109	0.393	826	658	0.0	0.7	2.993	A
E	376	63	1106	0.00	1511	0.249	374	0	0.0	0.4	3.391	A

07:30 - 07:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	678	113	857		1589	0.427	678	632	0.8	0.8	4.211	A
B	1175	196	918		1995	0.589	1175	617	1.5	1.5	4.622	A
C			946					1146				
D	830	138	283		2107	0.394	830	663	0.7	0.7	3.015	A
E	376	63	1113	0.00	1507	0.250	376	0	0.4	0.4	3.414	A

07:40 - 07:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	849	142	1071		1447	0.587	845	786	0.8	1.5	6.331	A
B	1472	245	1145		1819	0.809	1456	771	1.5	4.1	10.037	B
C			1175					1426				
D	1039	173	351		2061	0.504	1037	824	0.7	1.1	3.757	A
E	471	79	1388	0.00	1321	0.357	470	0	0.4	0.6	4.530	A

07:50 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	972	162	1226		1344	0.723	965	887	1.5	2.6	9.933	A
B	1685	281	1308		1693	0.995	1609	883	4.1	16.6	31.166	D
C			1311					1607				
D	1190	198	388		2035	0.585	1187	923	1.1	1.5	4.531	A
E	539	90	1575	0.00	1194	0.452	538	0	0.6	0.9	5.869	A

08:00 - 08:10

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1017	169	1285		1306	0.779	1012	915	2.6	3.5	12.784	B
B	1762	294	1371		1644	1.072	1626	925	16.6	39.3	69.979	F
C			1338					1659				
D	1244	207	392		2032	0.612	1243	946	1.5	1.7	4.878	A
E	564	94	1636	0.00	1153	0.489	563	0	0.9	1.0	6.539	A

08:10 - 08:20

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	972	162	1230		1342	0.724	975	901	3.5	2.9	10.582	B
B	1685	281	1319		1684	1.000	1663	886	39.3	42.9	92.983	F
C			1345					1637				
D	1190	198	401		2026	0.587	1190	944	1.7	1.5	4.614	A
E	539	90	1591	0.00	1183	0.456	540	0	1.0	0.9	6.009	A

08:20 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	849	142	1077		1443	0.588	857	846	2.9	1.6	6.639	A
B	1472	245	1159		1808	0.814	1695	776	42.9	5.6	45.445	E
C			1319					1535				
D	1039	173	408		2021	0.514	1042	911	1.5	1.1	3.943	A
E	471	79	1449	0.00	1279	0.368	473	0	0.9	0.6	4.801	A

08:30 - 08:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	678	113	860		1587	0.427	682	639	1.6	0.8	4.263	A
B	1175	196	923		1991	0.590	1199	620	5.6	1.5	4.932	A
C			962					1160				
D	830	138	289		2103	0.394	832	673	1.1	0.7	3.039	A
E	376	63	1121	0.00	1501	0.251	378	0	0.6	0.4	3.444	A

08:40 - 08:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	678	113	857		1589	0.427	678	632	0.8	0.8	4.214	A
B	1175	196	918		1995	0.589	1175	617	1.5	1.5	4.626	A
C			946					1146				
D	830	138	283		2107	0.394	830	663	0.7	0.7	3.015	A
E	376	63	1113	0.00	1507	0.250	376	0	0.4	0.4	3.417	A

2023 Future Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Pedestrian Crossing	Arm E - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Demand Set Relationship	D11 - 600 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5N	A47/William Frost Way	Standard Roundabout		A, B, C , D, E	25.49	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	William Frost Way	
B	Dereham Road	
C	A47 On Slip	
D	Longwater Bridge	
E	A47 Off Slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.30	8.00	49.7	19.1	54.7	36.0	
B	6.00	9.80	32.6	23.9	54.7	27.0	
C							✓
D	7.20	9.50	2.7	19.8	54.7	38.0	
E	6.20	8.30	20.3	23.6	54.7	44.0	

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
E	3.00	3.00	1.50	2.00	6.00	6.00	15.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.663	2157
B	0.774	2705
C		
D	0.688	2302
E	0.677	2260

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D6	2023 Future Base	PM	ONE HOUR	16:35	18:05	10	✓	Simple	(D2*G2) +D4+D14

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	652	100.000
B		ONE HOUR	✓	1493	100.000
C					
D		ONE HOUR	✓	1899	100.000
E		ONE HOUR	✓	570	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A		
B		
C		
D		
E	[ONEHOUR]	0.00

Origin-Destination Data

Demand (PCU/hr)

		To				
		A	B	C	D	E
From	A	13	0	487	151	0
	B	511	0	425	556	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	624	833	435	7	0
	E	238	226	0	106	0

Proportions

		To				
		A	B	C	D	E
From	A	0.02	0.00	0.75	0.23	0.00
	B	0.34	0.00	0.28	0.37	0.00
	C	0.20	0.20	0.20	0.20	0.20
	D	0.33	0.44	0.23	0.00	0.00
	E	0.42	0.40	0.00	0.19	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A	B	C	D	E
From	A	0	0	5	0	0
	B	2	0	3	1	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	2	1	4	0	0
	E	4	2	0	5	0

Average PCU Per Veh

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.050	1.000	1.000
	B	1.020	1.000	1.030	1.007	1.000
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	1.020	1.009	1.041	1.000	1.000
	E	1.040	1.015	1.000	1.050	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)	Pedestrian Demand (Ped/hr)
16:35-16:45	A	441	441	
	B	1009	1009	
	C	0	0	
	D	1284	1284	
	E	385	385	0.00
16:45-16:55	A	441	441	
	B	1009	1009	
	C	0	0	
	D	1284	1284	
	E	385	385	0.00
16:55-17:05	A	552	552	
	B	1264	1264	
	C	0	0	
	D	1609	1609	
	E	483	483	0.00
17:05-17:15	A	632	632	
	B	1447	1447	
	C	0	0	
	D	1842	1842	
	E	552	552	0.00
17:15-17:25	A	661	661	
	B	1514	1514	
	C	0	0	
	D	1926	1926	
	E	578	578	0.00
17:25-17:35	A	632	632	
	B	1447	1447	
	C	0	0	
	D	1842	1842	
	E	552	552	0.00
17:35-17:45	A	552	552	
	B	1264	1264	
	C	0	0	
	D	1609	1609	
	E	483	483	0.00
17:45-17:55	A	441	441	
	B	1009	1009	
	C	0	0	
	D	1284	1284	
	E	385	385	0.00
17:55-18:05	A	441	441	
	B	1009	1009	
	C	0	0	
	D	1284	1284	
	E	385	385	0.00

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.60	8.29	1.5	A	532	798
B	0.85	12.97	5.2	B	1219	1829
C						
D	0.99	36.67	19.6	E	1552	2327
E	0.91	40.67	6.3	E	465	698

Main Results for each time segment

16:35 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	441	73	1078		1442	0.305	438	931	0.0	0.5	3.707	A
B	1009	168	806		2082	0.485	1004	710	0.0	0.9	3.382	A
C			904					905				
D	1284	214	353		2059	0.624	1274	551	0.0	1.7	4.622	A
E	385	64	1627	0.00	1159	0.332	382	0	0.0	0.5	4.764	A

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	441	73	1087		1437	0.307	441	938	0.5	0.5	3.745	A
B	1009	168	811		2077	0.486	1009	716	0.9	1.0	3.430	A
C			909					911				
D	1284	214	355		2058	0.624	1284	555	1.7	1.7	4.743	A
E	385	64	1639	0.00	1151	0.335	385	0	0.5	0.5	4.850	A

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	552	92	1350		1262	0.437	550	1166	0.5	0.8	5.223	A
B	1264	211	1010		1923	0.658	1259	889	1.0	1.9	5.469	A
C			1134					1135				
D	1609	268	442		1998	0.805	1595	691	1.7	3.9	8.839	A
E	483	80	2038	0.00	881	0.548	478	0	0.5	1.2	9.130	A

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	632	105	1524		1147	0.551	629	1322	0.8	1.2	7.170	A
B	1447	241	1149		1816	0.797	1436	1004	1.9	3.7	9.396	A
C			1293					1292				
D	1842	307	505		1955	0.942	1802	788	3.9	10.6	19.974	C
E	552	92	2307	0.00	699	0.790	540	0	1.2	3.3	21.761	C

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	661	110	1583		1108	0.596	659	1378	1.2	1.5	8.289	A
B	1514	252	1200		1777	0.852	1505	1043	3.7	5.2	12.973	B
C			1354					1351				
D	1926	321	529		1938	0.994	1872	825	10.6	19.6	35.676	E
E	578	96	2401	0.00	635	0.910	560	0	3.3	6.3	40.670	E

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	632	105	1562		1122	0.563	632	1349	1.5	1.4	7.644	A
B	1447	241	1165		1803	0.803	1452	1029	5.2	4.4	10.636	B
C			1309					1309				
D	1842	307	510		1951	0.944	1843	798	19.6	19.3	36.675	E
E	552	92	2354	0.00	667	0.828	556	0	6.3	5.7	35.383	E

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	552	92	1435		1206	0.458	555	1219	1.4	0.9	5.756	A
B	1264	211	1044		1897	0.667	1278	945	4.4	2.1	6.052	A
C			1155					1168				
D	1609	268	449		1993	0.807	1697	706	19.3	4.7	15.220	C
E	483	80	2146	0.00	808	0.597	507	0	5.7	1.6	13.244	B

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	441	73	1102		1427	0.309	443	948	0.9	0.5	3.807	A
B	1009	168	819		2071	0.487	1016	726	2.1	1.0	3.493	A
C			916					919				
D	1284	214	357		2056	0.625	1302	559	4.7	1.7	4.976	A
E	385	64	1659	0.00	1137	0.339	392	0	1.6	0.5	5.021	A

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	441	73	1087		1437	0.307	441	938	0.5	0.5	3.749	A
B	1009	168	811		2077	0.486	1009	716	1.0	1.0	3.434	A
C			910					911				
D	1284	214	355		2058	0.624	1284	555	1.7	1.7	4.750	A
E	385	64	1639	0.00	1151	0.335	385	0	0.5	0.5	4.852	A

600 Unit Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D11 - 600 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5N	A47/William Frost Way	Standard Roundabout		A, B, C , D, E	52.92	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	William Frost Way	
B	Dereham Road	
C	A47 On Slip	
D	Longwater Bridge	
E	A47 Off Slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.30	8.00	49.7	19.1	54.7	36.0	
B	6.00	9.80	32.6	23.9	54.7	27.0	
C							✓
D	7.20	9.50	2.7	19.8	54.7	38.0	
E	6.20	8.30	20.3	23.6	54.7	44.0	

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
E	3.00	3.00	1.50	2.00	6.00	6.00	15.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.663	2157
B	0.774	2705
C		
D	0.688	2302
E	0.677	2260

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	600 Unit Development	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D7+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1002	100.000
B		ONE HOUR	✓	1776	100.000
C					
D		ONE HOUR	✓	1236	100.000
E		ONE HOUR	✓	706	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A		
B		
C		
D		
E	[ONEHOUR]	1000.00

Origin-Destination Data

Demand (PCU/hr)

		To				
		A	B	C	D	E
From	A	6	0	749	247	0
	B	413	0	720	643	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	396	570	226	44	0
	E	120	492	0	94	0

Proportions

		To				
		A	B	C	D	E
From	A	0.01	0.00	0.75	0.25	0.00
	B	0.23	0.00	0.41	0.36	0.00
	C	0.20	0.20	0.20	0.20	0.20
	D	0.32	0.46	0.18	0.04	0.00
	E	0.17	0.70	0.00	0.13	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A	B	C	D	E
From	A	25	0	7	5	0
	B	9	0	4	4	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	10	4	10	0	0
	E	9	3	0	17	0

Average PCU Per Veh

		To				
		A	B	C	D	E
From	A	1.250	1.000	1.070	1.050	1.000
	B	1.090	1.000	1.040	1.043	1.000
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	1.100	1.043	1.104	1.000	1.000
	E	1.090	1.030	1.000	1.170	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)	Pedestrian Demand (Ped/hr)
07:20-07:30	A	678	678	
	B	1201	1201	
	C	0	0	
	D	836	836	
	E	477	477	676.20
07:30-07:40	A	678	678	
	B	1201	1201	
	C	0	0	
	D	836	836	
	E	477	477	676.20
07:40-07:50	A	849	849	
	B	1504	1504	
	C	0	0	
	D	1047	1047	
	E	598	598	847.04
07:50-08:00	A	972	972	
	B	1722	1722	
	C	0	0	
	D	1198	1198	
	E	684	684	969.62
08:00-08:10	A	1017	1017	
	B	1801	1801	
	C	0	0	
	D	1254	1254	
	E	716	716	1014.30
08:10-08:20	A	972	972	
	B	1722	1722	
	C	0	0	
	D	1198	1198	
	E	684	684	969.62
08:20-08:30	A	849	849	
	B	1504	1504	
	C	0	0	
	D	1047	1047	
	E	598	598	847.04
08:30-08:40	A	678	678	
	B	1201	1201	
	C	0	0	
	D	836	836	
	E	477	477	676.20
08:40-08:50	A	678	678	
	B	1201	1201	
	C	0	0	
	D	836	836	
	E	477	477	676.20

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.85	18.85	5.1	C	819	1228
B	1.10	121.10	58.6	F	1451	2176
C						
D	0.62	4.90	1.7	A	1010	1515
E	0.73	13.88	2.7	B	576	865

Main Results for each time segment

07:20 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	678	113	957		1523	0.445	673	627	0.0	0.8	4.488	A
B	1201	200	917		1995	0.602	1191	713	0.0	1.6	4.660	A
C			971					1138				
D	836	139	281		2109	0.396	832	690	0.0	0.7	3.005	A
E	477	80	1112	676.20	1001	0.477	472	0	0.0	0.9	7.109	A

07:30 - 07:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	678	113	965		1518	0.447	678	632	0.8	0.9	4.568	A
B	1201	200	924		1990	0.603	1201	719	1.6	1.6	4.796	A
C			978					1146				
D	836	139	283		2107	0.397	836	695	0.7	0.7	3.028	A
E	477	80	1119	676.20	1049	0.455	477	0	0.9	0.9	6.664	A

07:40 - 07:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	849	142	1202		1360	0.624	844	785	0.9	1.7	7.361	A
B	1504	251	1151		1814	0.829	1486	895	1.6	4.6	10.980	B
C			1213					1424				
D	1047	174	350		2061	0.508	1045	862	0.7	1.1	3.782	A
E	598	100	1395	847.04	956	0.625	593	0	0.9	1.7	10.330	B

07:50 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	972	162	1377		1244	0.781	961	882	1.7	3.5	13.089	B
B	1722	287	1313		1689	1.020	1626	1026	4.6	20.7	36.460	E
C			1342					1596				
D	1198	200	383		2038	0.588	1196	959	1.1	1.5	4.558	A
E	684	114	1579	969.62	959	0.714	680	0	1.7	2.5	13.385	B

08:00 - 08:10

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1017	169	1445		1199	0.848	1007	907	3.5	5.1	18.846	C
B	1801	300	1376		1640	1.098	1629	1076	20.7	49.3	84.981	F
C			1363					1642				
D	1254	209	385		2037	0.615	1253	978	1.5	1.7	4.899	A
E	716	119	1637	1014.30	986	0.726	715	0	2.5	2.7	13.880	B

08:10 - 08:20

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	972	162	1385		1239	0.784	977	893	5.1	4.2	15.015	C
B	1722	287	1330		1675	1.028	1666	1032	49.3	58.6	121.096	F
C			1371					1625				
D	1198	200	393		2032	0.590	1199	978	1.7	1.6	4.630	A
E	684	114	1592	969.62	1003	0.682	686	0	2.7	2.4	12.098	B

08:20 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	849	142	1213		1353	0.628	863	854	4.2	1.9	8.044	A
B	1504	251	1172		1798	0.837	1766	904	58.6	15.0	78.464	F
C			1385					1553				
D	1047	174	416		2016	0.519	1049	970	1.6	1.2	3.994	A
E	598	100	1465	847.04	1006	0.594	602	0	2.4	1.6	9.539	A

08:30 - 08:40

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	678	113	970		1514	0.448	684	652	1.9	0.9	4.653	A
B	1201	200	931		1985	0.605	1281	723	15.0	1.6	6.001	A
C			1028					1184				
D	836	139	302		2094	0.399	838	726	1.2	0.7	3.072	A
E	477	80	1140	676.20	1075	0.444	482	0	1.6	0.9	6.459	A

08:40 - 08:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	678	113	964		1518	0.447	678	632	0.9	0.9	4.569	A
B	1201	200	924		1990	0.603	1201	718	1.6	1.6	4.802	A
C			978					1146				
D	836	139	283		2107	0.397	836	695	0.7	0.7	3.031	A
E	477	80	1119	676.20	1043	0.457	477	0	0.9	0.9	6.716	A

600 Unit Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D11 - 600 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5N	A47/William Frost Way	Standard Roundabout		A, B, C , D, E	30.60	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	William Frost Way	
B	Dereham Road	
C	A47 On Slip	
D	Longwater Bridge	
E	A47 Off Slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.30	8.00	49.7	19.1	54.7	36.0	
B	6.00	9.80	32.6	23.9	54.7	27.0	
C							✓
D	7.20	9.50	2.7	19.8	54.7	38.0	
E	6.20	8.30	20.3	23.6	54.7	44.0	

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
E	3.00	3.00	1.50	2.00	6.00	6.00	15.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.663	2157
B	0.774	2705
C		
D	0.688	2302
E	0.677	2260

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	600 Unit Development	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D8+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	652	100.000
B		ONE HOUR	✓	1606	100.000
C					
D		ONE HOUR	✓	1902	100.000
E		ONE HOUR	✓	621	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A		
B		
C		
D		
E	[ONEHOUR]	100.00

Origin-Destination Data

Demand (PCU/hr)

		To				
		A	B	C	D	E
From	A	13	0	487	151	0
	B	511	0	425	669	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	624	833	435	10	0
	E	238	277	0	106	0

Proportions

		To				
		A	B	C	D	E
From	A	0.02	0.00	0.75	0.23	0.00
	B	0.32	0.00	0.26	0.42	0.00
	C	0.20	0.20	0.20	0.20	0.20
	D	0.33	0.44	0.23	0.01	0.00
	E	0.38	0.45	0.00	0.17	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A	B	C	D	E
From	A	0	0	5	0	0
	B	2	0	3	1	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	2	1	4	0	0
	E	4	1	0	5	0

Average PCU Per Veh

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.050	1.000	1.000
	B	1.020	1.000	1.030	1.006	1.000
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	1.020	1.009	1.041	1.000	1.000
	E	1.040	1.012	1.000	1.050	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)	Pedestrian Demand (Ped/hr)
16:35-16:45	A	441	441	
	B	1086	1086	
	C	0	0	
	D	1286	1286	
	E	420	420	67.62
16:45-16:55	A	441	441	
	B	1086	1086	
	C	0	0	
	D	1286	1286	
	E	420	420	67.62
16:55-17:05	A	552	552	
	B	1360	1360	
	C	0	0	
	D	1611	1611	
	E	526	526	84.70
17:05-17:15	A	632	632	
	B	1557	1557	
	C	0	0	
	D	1844	1844	
	E	602	602	96.96
17:15-17:25	A	661	661	
	B	1628	1628	
	C	0	0	
	D	1929	1929	
	E	630	630	101.43
17:25-17:35	A	632	632	
	B	1557	1557	
	C	0	0	
	D	1844	1844	
	E	602	602	96.96
17:35-17:45	A	552	552	
	B	1360	1360	
	C	0	0	
	D	1611	1611	
	E	526	526	84.70
17:45-17:55	A	441	441	
	B	1086	1086	
	C	0	0	
	D	1286	1286	
	E	420	420	67.62
17:55-18:05	A	441	441	
	B	1086	1086	
	C	0	0	
	D	1286	1286	
	E	420	420	67.62

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.61	8.85	1.6	A	532	798
B	0.92	19.56	8.5	C	1312	1967
C						
D	0.99	37.26	19.8	E	1554	2331
E	0.99	61.57	10.7	F	507	761

Main Results for each time segment

16:35 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	441	73	1114		1419	0.311	438	931	0.0	0.5	3.794	A
B	1086	181	808		2080	0.522	1079	744	0.0	1.1	3.633	A
C			981					905				
D	1286	214	353		2059	0.625	1276	629	0.0	1.7	4.631	A
E	420	70	1629	67.62	1009	0.416	416	0	0.0	0.7	6.198	A

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	441	73	1123		1412	0.312	441	938	0.5	0.5	3.840	A
B	1086	181	813		2076	0.523	1086	751	1.1	1.1	3.695	A
C			988					911				
D	1286	214	355		2058	0.625	1286	633	1.7	1.7	4.755	A
E	420	70	1641	67.62	1021	0.411	420	0	0.7	0.7	6.159	A

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	552	92	1394		1233	0.448	550	1165	0.5	0.8	5.445	A
B	1360	227	1012		1922	0.708	1352	931	1.1	2.4	6.345	A
C			1230					1135				
D	1611	269	442		1998	0.806	1598	788	1.7	4.0	8.880	A
E	526	88	2040	84.70	808	0.651	520	0	0.7	1.8	12.563	B

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	632	105	1573		1115	0.567	629	1319	0.8	1.3	7.637	A
B	1557	259	1151		1814	0.858	1539	1051	2.4	5.4	12.512	B
C			1399					1290				
D	1844	307	503		1956	0.943	1804	896	4.0	10.7	20.085	C
E	602	100	2307	96.96	699	0.862	584	0	1.8	4.8	28.656	D

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	661	110	1627		1079	0.613	659	1369	1.3	1.6	8.854	A
B	1628	271	1200		1777	0.917	1610	1086	5.4	8.5	19.559	C
C			1461					1348				
D	1929	322	526		1940	0.995	1875	935	10.7	19.8	35.871	E
E	630	105	2401	101.43	635	0.992	595	0	4.8	10.7	59.563	F

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	632	105	1612		1089	0.580	632	1348	1.6	1.5	8.200	A
B	1557	259	1167		1802	0.864	1565	1077	8.5	7.2	16.117	C
C			1423					1310				
D	1844	307	511		1950	0.946	1846	911	19.8	19.6	37.257	E
E	602	100	2357	96.96	665	0.905	603	0	10.7	10.6	61.574	F

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	552	92	1499		1164	0.474	555	1232	1.5	1.0	6.162	A
B	1360	227	1052		1891	0.719	1387	1002	7.2	2.7	7.616	A
C			1267					1171				
D	1611	269	453		1990	0.810	1700	814	19.6	4.7	15.607	C
E	526	88	2153	84.70	803	0.655	577	0	10.6	2.1	19.564	C

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	441	73	1141		1401	0.314	443	950	1.0	0.5	3.909	A
B	1086	181	822		2069	0.525	1095	762	2.7	1.1	3.792	A
C			997					920				
D	1286	214	358		2056	0.626	1304	639	4.7	1.7	4.998	A
E	420	70	1662	67.62	1045	0.402	428	0	2.1	0.7	6.084	A

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	441	73	1124		1412	0.312	441	938	0.5	0.5	3.842	A
B	1086	181	813		2076	0.523	1086	751	1.1	1.1	3.700	A
C			988					911				
D	1286	214	355		2058	0.625	1286	633	1.7	1.7	4.760	A
E	420	70	1641	67.62	1021	0.412	420	0	0.7	0.7	6.168	A

With Bypass - 600 Unit Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D11 - 600 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	With Bypass	✓	✓	D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5N	A47/William Frost Way	Standard Roundabout		A, B, C , D, E	15.44	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	William Frost Way	
B	Dereham Road	
C	A47 On Slip	
D	Longwater Bridge	
E	A47 Off Slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.30	8.00	49.7	19.1	54.7	36.0	
B	6.00	7.00	40.0	30.0	54.7	27.0	
C							✓
D	7.20	9.50	2.7	19.8	54.7	38.0	
E	6.20	8.30	20.3	23.6	54.7	44.0	

Bypass

Arm	Arm has bypass	Bypass utilisation (%)
A		
B	✓	100
C		
D		
E		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
E	3.00	3.00	1.50	2.00	6.00	6.00	15.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.663	2157
B	0.676	2155
C		
D	0.688	2302
E	0.677	2260

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	600 Unit Development	AM	ONE HOUR	07:20	08:50	10	✓	Simple	D7+D5

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1002	100.000
B		ONE HOUR	✓	1776	100.000
C					
D		ONE HOUR	✓	1236	100.000
E		ONE HOUR	✓	706	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A		
B		
C		
D		
E	[ONEHOUR]	1000.00

Origin-Destination Data

Demand (PCU/hr)

		To				
		A	B	C	D	E
From	A	6	0	749	247	0
	B	413	0	720	643	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	396	570	226	44	0
	E	120	492	0	94	0

Proportions

		To				
		A	B	C	D	E
From	A	0.01	0.00	0.75	0.25	0.00
	B	0.23	0.00	0.41	0.36	0.00
	C	0.20	0.20	0.20	0.20	0.20
	D	0.32	0.46	0.18	0.04	0.00
	E	0.17	0.70	0.00	0.13	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A	B	C	D	E
From	A	25	0	7	5	0
	B	9	0	4	4	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	10	4	10	0	0
	E	9	3	0	17	0

Average PCU Per Veh

		To				
		A	B	C	D	E
From	A	1.250	1.000	1.070	1.050	1.000
	B	1.090	1.000	1.040	1.043	1.000
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	1.100	1.043	1.104	1.000	1.000
	E	1.090	1.030	1.000	1.170	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)	Pedestrian Demand (Ped/hr)
07:20-07:30	A	678	678	
	B	1201	1201	
	C	0	0	
	D	836	836	
	E	477	477	676.20
07:30-07:40	A	678	678	
	B	1201	1201	
	C	0	0	
	D	836	836	
	E	477	477	676.20
07:40-07:50	A	849	849	
	B	1504	1504	
	C	0	0	
	D	1047	1047	
	E	598	598	847.04
07:50-08:00	A	972	972	
	B	1722	1722	
	C	0	0	
	D	1198	1198	
	E	684	684	969.62
08:00-08:10	A	1017	1017	
	B	1801	1801	
	C	0	0	
	D	1254	1254	
	E	716	716	1014.30
08:10-08:20	A	972	972	
	B	1722	1722	
	C	0	0	
	D	1198	1198	
	E	684	684	969.62
08:20-08:30	A	849	849	
	B	1504	1504	
	C	0	0	
	D	1047	1047	
	E	598	598	847.04
08:30-08:40	A	678	678	
	B	1201	1201	
	C	0	0	
	D	836	836	
	E	477	477	676.20
08:40-08:50	A	678	678	
	B	1201	1201	
	C	0	0	
	D	836	836	
	E	477	477	676.20

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.85	18.83	5.1	C	819	1228
B	0.87	21.23	6.0	C	1451	1294
C						
D	0.62	5.05	1.7	A	1010	1515
E	0.73	14.28	2.7	B	576	865

Main Results for each time segment

07:20 - 07:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignal level servic
A	678	678	113	0	0	957		1523	0.445	673	627	0.0	0.8	4.488	A
B	1201	714	119	487	0	917		1535	0.465	708	713	0.0	0.9	4.592	A
C						971					655				
D	836	836	139	0	0	281		2109	0.396	832	690	0.0	0.7	3.005	A
E	477	477	80	0	0	1112	676.20	1001	0.477	472	0	0.0	0.9	7.109	A

07:30 - 07:40

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignal level servic
A	678	678	113	0	0	965		1518	0.447	678	632	0.8	0.9	4.568	A
B	1201	714	119	487	0	924		1530	0.467	714	719	0.9	0.9	4.678	A
C						978					659				
D	836	836	139	0	0	283		2107	0.397	836	695	0.7	0.7	3.028	A
E	477	477	80	0	0	1119	676.20	1049	0.455	477	0	0.9	0.9	6.664	A

07:40 - 07:50

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsigna level servi
A	849	849	142	0	0	1202		1360	0.624	844	787	0.9	1.7	7.361	A
B	1504	894	149	610	0	1151		1376	0.650	888	895	0.9	1.9	7.729	A
C						1218					821				
D	1047	1047	174	0	0	352		2060	0.508	1045	865	0.7	1.1	3.788	A
E	598	598	100	0	0	1397	847.04	956	0.625	593	0	0.9	1.7	10.349	B

07:50 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsigna level servi
A	972	972	162	0	0	1377		1244	0.781	961	899	1.7	3.5	13.081	B
B	1722	1024	171	698	0	1313		1267	0.808	1011	1025	1.9	4.0	14.247	B
C						1387					937				
D	1198	1198	200	0	0	401		2026	0.591	1196	986	1.1	1.5	4.623	A
E	684	684	114	0	0	1597	969.62	954	0.717	679	0	1.7	2.5	13.590	B

08:00 - 08:10

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsigna level servi
A	1017	1017	169	0	0	1445		1200	0.848	1007	942	3.5	5.1	18.833	C
B	1801	1071	178	730	0	1376		1225	0.874	1058	1076	4.0	6.0	21.228	C
C						1453					981				
D	1254	1254	209	0	0	420		2013	0.623	1252	1033	1.5	1.7	5.051	A
E	716	716	119	0	0	1672	1014.30	978	0.732	714	0	2.5	2.7	14.280	B

08:10 - 08:20

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsigna level servi
A	972	972	162	0	0	1385		1239	0.784	977	908	5.1	4.2	15.026	C
B	1722	1024	171	698	0	1330		1255	0.816	1029	1032	6.0	5.1	17.412	C
C						1410					949				
D	1198	1198	200	0	0	408		2021	0.593	1199	1002	1.7	1.6	4.693	A
E	684	684	114	0	0	1607	969.62	1001	0.683	686	0	2.7	2.4	12.176	B

08:20 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignal level servic
A	849	849	142	0	0	1214		1352	0.628	863	800	4.2	1.9	8.054	A
B	1504	894	149	610	0	1172		1362	0.657	912	905	5.1	2.1	8.814	A
C						1248					837				
D	1047	1047	174	0	0	362		2053	0.510	1050	886	1.6	1.1	3.848	A
E	598	598	100	0	0	1411	847.04	1025	0.583	603	0	2.4	1.5	9.128	A

08:30 - 08:40

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignal level servic
A	678	678	113	0	0	969		1514	0.448	684	636	1.9	0.9	4.650	A
B	1201	714	119	487	0	931		1525	0.468	721	722	2.1	0.9	4.786	A
C						987					664				
D	836	836	139	0	0	286		2105	0.397	838	702	1.1	0.7	3.044	A
E	477	477	80	0	0	1124	676.20	1077	0.443	481	0	1.5	0.9	6.423	A

08:40 - 08:50

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignal level servic
A	678	678	113	0	0	964		1518	0.447	678	632	0.9	0.9	4.567	A
B	1201	714	119	487	0	924		1530	0.467	714	718	0.9	0.9	4.681	A
C						978					659				
D	836	836	139	0	0	283		2107	0.397	836	695	0.7	0.7	3.030	A
E	477	477	80	0	0	1119	676.20	1043	0.458	477	0	0.9	0.9	6.718	A

With Bypass - 600 Unit Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Set Relationship	D11 - 600 Unit Development, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	With Bypass	✓	✓	D11,D12	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
5N	A47/William Frost Way	Standard Roundabout		A, B, C , D, E	31.02	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	William Frost Way	
B	Dereham Road	
C	A47 On Slip	
D	Longwater Bridge	
E	A47 Off Slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.30	8.00	49.7	19.1	54.7	36.0	
B	6.00	7.00	40.0	30.0	54.7	27.0	
C							✓
D	7.20	9.50	2.7	19.8	54.7	38.0	
E	6.20	8.30	20.3	23.6	54.7	44.0	

Bypass

Arm	Arm has bypass	Bypass utilisation (%)
A		
B	✓	100
C		
D		
E		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
E	3.00	3.00	1.50	2.00	6.00	6.00	15.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.663	2157
B	0.676	2155
C		
D	0.688	2302
E	0.677	2260

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	600 Unit Development	PM	ONE HOUR	16:35	18:05	10	✓	Simple	D8+D6

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	652	100.000
B		ONE HOUR	✓	1606	100.000
C					
D		ONE HOUR	✓	1902	100.000
E		ONE HOUR	✓	621	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A		
B		
C		
D		
E	[ONEHOUR]	100.00

Origin-Destination Data

Demand (PCU/hr)

		To				
		A	B	C	D	E
From	A	13	0	487	151	0
	B	511	0	425	669	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	624	833	435	10	0
	E	238	277	0	106	0

Proportions

		To				
		A	B	C	D	E
From	A	0.02	0.00	0.75	0.23	0.00
	B	0.32	0.00	0.26	0.42	0.00
	C	0.20	0.20	0.20	0.20	0.20
	D	0.33	0.44	0.23	0.01	0.00
	E	0.38	0.45	0.00	0.17	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A	B	C	D	E
From	A	0	0	5	0	0
	B	2	0	3	1	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	2	1	4	0	0
	E	4	1	0	5	0

Average PCU Per Veh

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.050	1.000	1.000
	B	1.020	1.000	1.030	1.006	1.000
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	1.020	1.009	1.041	1.000	1.000
	E	1.040	1.012	1.000	1.050	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)	Pedestrian Demand (Ped/hr)
16:35-16:45	A	441	441	
	B	1086	1086	
	C	0	0	
	D	1286	1286	
	E	420	420	67.62
16:45-16:55	A	441	441	
	B	1086	1086	
	C	0	0	
	D	1286	1286	
	E	420	420	67.62
16:55-17:05	A	552	552	
	B	1360	1360	
	C	0	0	
	D	1611	1611	
	E	526	526	84.70
17:05-17:15	A	632	632	
	B	1557	1557	
	C	0	0	
	D	1844	1844	
	E	602	602	96.96
17:15-17:25	A	661	661	
	B	1628	1628	
	C	0	0	
	D	1929	1929	
	E	630	630	101.43
17:25-17:35	A	632	632	
	B	1557	1557	
	C	0	0	
	D	1844	1844	
	E	602	602	96.96
17:35-17:45	A	552	552	
	B	1360	1360	
	C	0	0	
	D	1611	1611	
	E	526	526	84.70
17:45-17:55	A	441	441	
	B	1086	1086	
	C	0	0	
	D	1286	1286	
	E	420	420	67.62
17:55-18:05	A	441	441	
	B	1086	1086	
	C	0	0	
	D	1286	1286	
	E	420	420	67.62

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.61	8.85	1.6	A	532	798
B	0.89	20.85	6.6	C	1312	1446
C						
D	0.99	37.24	19.8	E	1554	2331
E	0.99	61.53	10.7	F	507	761

Main Results for each time segment

16:35 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignal level servic
A	441	441	73	0	0	1114		1419	0.311	438	930	0.0	0.5	3.794	A
B	1086	798	133	288	0	808		1609	0.496	792	744	0.0	1.0	4.430	A
C						980					619				
D	1286	1286	214	0	0	352		2060	0.625	1276	628	0.0	1.7	4.629	A
E	420	420	70	0	0	1629	67.62	1010	0.416	416	0	0.0	0.7	6.195	A

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignal level servic
A	441	441	73	0	0	1123		1412	0.312	441	938	0.5	0.5	3.840	A
B	1086	798	133	288	0	813		1605	0.497	798	751	1.0	1.0	4.515	A
C						988					624				
D	1286	1286	214	0	0	355		2058	0.625	1286	633	1.7	1.7	4.755	A
E	420	420	70	0	0	1641	67.62	1021	0.411	420	0	0.7	0.7	6.162	A

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsigna level servi
A	552	552	92	0	0	1394		1233	0.448	550	1165	0.5	0.8	5.445	A
B	1360	1000	167	360	0	1012		1470	0.680	993	931	1.0	2.1	7.539	A
C						1229					777				
D	1611	1611	269	0	0	442		1998	0.806	1598	788	1.7	4.0	8.876	A
E	526	526	88	0	0	2039	84.70	808	0.651	520	0	0.7	1.8	12.558	B

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsigna level servi
A	632	632	105	0	0	1573		1115	0.567	629	1318	0.8	1.3	7.637	A
B	1557	1144	191	412	0	1151		1376	0.831	1130	1051	2.1	4.4	14.040	B
C						1398					883				
D	1844	1844	307	0	0	503		1956	0.943	1804	896	4.0	10.7	20.067	C
E	602	602	100	0	0	2307	96.96	699	0.862	584	0	1.8	4.8	28.625	D

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsigna level servi
A	661	661	110	0	0	1627		1079	0.612	659	1369	1.3	1.6	8.852	A
B	1628	1197	200	431	0	1200		1344	0.891	1184	1086	4.4	6.6	20.851	C
C						1462					922				
D	1929	1929	322	0	0	526		1940	0.995	1875	935	10.7	19.8	35.878	E
E	630	630	105	0	0	2401	101.43	635	0.992	595	0	4.8	10.7	59.571	F

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsigna level servi
A	632	632	105	0	0	1612		1089	0.580	632	1347	1.6	1.5	8.202	A
B	1557	1144	191	412	0	1167		1365	0.838	1149	1077	6.6	5.8	17.454	C
C						1422					895				
D	1844	1844	307	0	0	511		1950	0.946	1846	911	19.8	19.6	37.242	E
E	602	602	100	0	0	2357	96.96	665	0.905	603	0	10.7	10.6	61.525	F

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsigna level servi
A	552	552	92	0	0	1499		1164	0.474	555	1232	1.5	1.0	6.164	A
B	1360	1000	167	360	0	1052		1444	0.693	1020	1002	5.8	2.4	8.980	A
C						1268					804				
D	1611	1611	269	0	0	453		1990	0.810	1700	814	19.6	4.7	15.613	C
E	526	526	88	0	0	2154	84.70	803	0.655	577	0	10.6	2.1	19.579	C

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignal level servic
A	441	441	73	0	0	1141		1401	0.314	443	950	1.0	0.5	3.909	A
B	1086	798	133	288	0	822		1599	0.499	806	762	2.4	1.0	4.642	A
C						998					630				
D	1286	1286	214	0	0	358		2055	0.626	1304	640	4.7	1.7	4.999	A
E	420	420	70	0	0	1663	67.62	1045	0.402	428	0	2.1	0.7	6.089	A

17:55 - 18:05

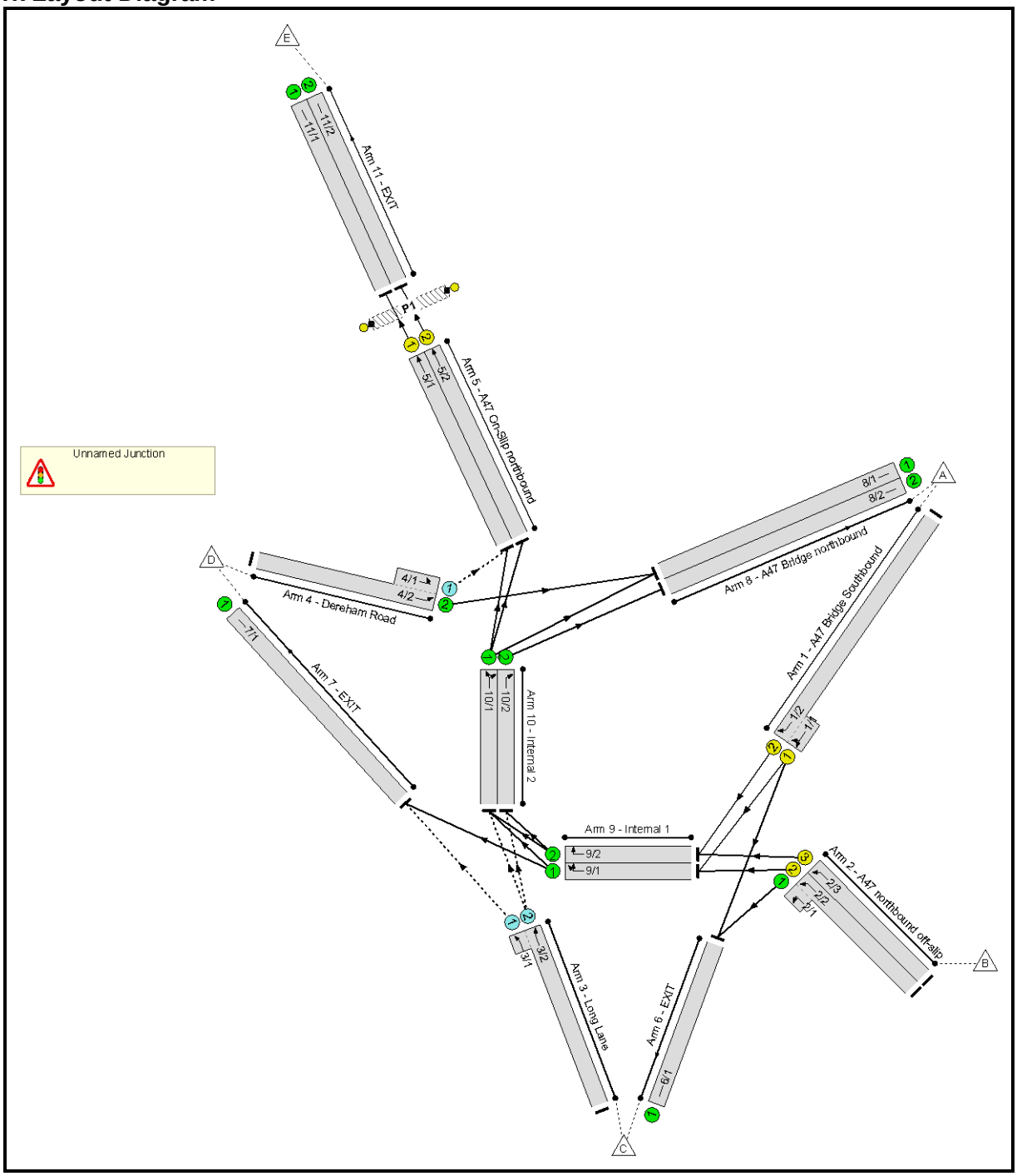
Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignal level servic
A	441	441	73	0	0	1124		1412	0.312	441	938	0.5	0.5	3.842	A
B	1086	798	133	288	0	813		1605	0.497	798	751	1.0	1.0	4.517	A
C						988					624				
D	1286	1286	214	0	0	355		2058	0.625	1286	633	1.7	1.7	4.762	A
E	420	420	70	0	0	1641	67.62	1021	0.412	420	0	0.7	0.7	6.168	A

Full Input Data And Results

User and Project Details

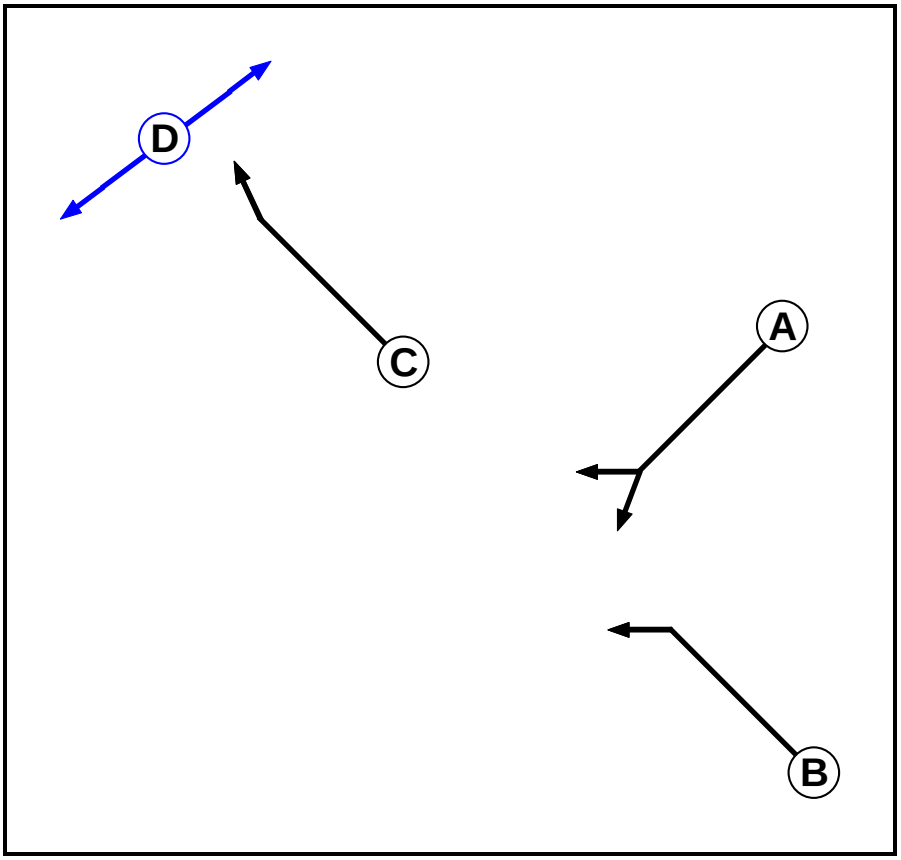
Project:	**Honingham, Norfolk**
Title:	**Longwater Interchange – South Dumbbell**
Location:	
Additional detail:	
File name:	Southern Junction - A47.lsg3x
Author:	SMK
Company:	Transport Planning Associates
Address:	25 Southampton Buildings, London

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Pedestrian	2		8	8

Phase Intergreens Matrix

		Starting Phase			
		A	B	C	D
Terminating Phase	A		5	-	-
	B	5		-	-
	C	-	-		5
	D	-	-	8	

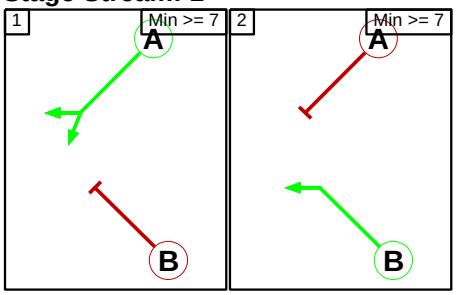
Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D

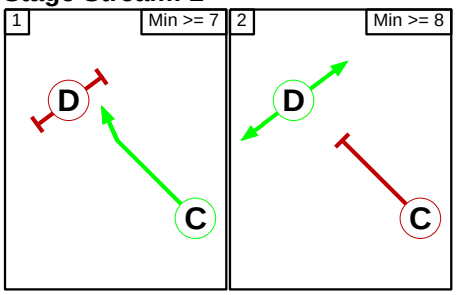
Full Input Data And Results

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

	To Stage		
		1	2
From Stage	1		5
	2	5	

Stage Stream: 2

	To Stage		
		1	2
From Stage	1		5
	2	8	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction											
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Min Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
3/1 (Long Lane)	7/1 (Ahead)	2000	0	9/1	0.33	All	-	-	-	-	-
				9/2	0.33	All					
3/2 (Long Lane)	10/1 (Ahead)	2000	0	9/1	0.33	All	-	-	-	-	-
				9/2	0.33	All					
	10/2 (Ahead)	2000	0	9/1	0.33	All					
				9/2	0.33	All					
4/1 (Dereham Road)	5/1 (Left)	2000	0	10/1	0.33	All	-	-	-	-	-
				10/2	0.33	All					

Full Input Data And Results

Lane Input Data

Junction: Unnamed Junction

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A47 Bridge Southbound)	U	A	2	3	2.9	Geom	-	4.20	0.00	Y	Arm 6 Ahead	24.77
											Arm 9 Right	Inf
1/2 (A47 Bridge Southbound)	U	A	2	3	60.0	Geom	-	4.20	0.00	Y	Arm 9 Right	19.96
2/1 (A47 northbound off-slip)	U		2	3	2.0	Geom	-	5.00	0.00	Y	Arm 6 Left	31.30
2/2 (A47 northbound off-slip)	U	B	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 9 Ahead	22.00
2/3 (A47 northbound off-slip)	U	B	2	3	60.0	Geom	-	4.00	0.00	N	Arm 9 Ahead	23.00
3/1 (Long Lane)	O		2	3	1.7	Geom	-	3.25	0.00	Y	Arm 7 Ahead	22.70
3/2 (Long Lane)	O		2	3	60.0	Geom	-	3.25	0.00	Y	Arm 10 Ahead	22.70
4/1 (Dereham Road)	O		2	3	3.9	Geom	-	3.80	0.00	Y	Arm 5 Left	24.48
4/2 (Dereham Road)	U		2	3	60.0	Geom	-	3.80	0.00	Y	Arm 8 Ahead	Inf
5/1 (A47 On-Slip northbound)	U	C	2	3	60.0	Geom	-	3.90	0.00	Y	Arm 11 Ahead	Inf
5/2 (A47 On-Slip northbound)	U	C	2	3	60.0	Geom	-	3.90	0.00	Y	Arm 11 Ahead	Inf
6/1 (EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (A47 Bridge northbound)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/2 (A47 Bridge northbound)	U		2	3	60.0	Inf	-	-	-	-	-	-
9/1 (Internal 1)	U		2	3	60.0	Geom	-	5.00	0.00	Y	Arm 7 Right	25.00
											Arm 10 Right	Inf
9/2 (Internal 1)	U		2	3	60.0	Geom	-	5.00	0.00	N	Arm 10 Right	20.00

Full Input Data And Results

10/1 (Internal 2)	U		2	3	60.0	Geom	-	5.00	0.00	Y	Arm 5 Ahead	25.00
											Arm 8 Right	Inf
10/2 (Internal 2)	U		2	3	60.0	Geom	-	5.00	0.00	N	Arm 8 Right	20.00
11/1 (EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
11/2 (EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2018 AM Base'	07:35	08:35	01:00	
2: '2018 PM Base'	16:50	17:50	01:00	
5: '2023 AM Future Base'	07:35	08:35	01:00	(F1*1.1188)+F3
6: '2023 PM Future Base'	16:50	17:50	01:00	(F2*1.1212)+F4
9: '2023 with dev AM'	07:35	08:35	01:00	F5+F7
10: '2023 with dev PM'	16:50	17:50	01:00	F6+F8

Scenario 1: '2023 AM Future Base' (FG5: '2023 AM Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	243	178	562	983
	B	698	0	205	230	0	1133
	C	106	0	0	6	22	134
	D	424	0	0	0	7	431
	E	0	0	0	0	0	0
	Tot.	1228	0	448	414	591	2681

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2023 AM Future Base
Junction: Unnamed Junction	
1/1 (short)	582
1/2 (with short)	983(In) 401(Out)
2/1 (short)	205
2/2 (with short)	584(In) 379(Out)
2/3	549
3/1 (short)	6
3/2 (with short)	134(In) 128(Out)
4/1 (short)	7
4/2 (with short)	431(In) 424(Out)
5/1	294
5/2	297
6/1	448
7/1	414
8/1	573
8/2	655
9/1	718
9/2	950
10/1	733
10/2	655
11/1	294
11/2	297

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A47 Bridge Southbound)	4.20	0.00	Y	Arm 6 Ahead	24.77	41.8 %	1985	1985
				Arm 9 Right	Inf	58.2 %		
1/2 (A47 Bridge Southbound)	4.20	0.00	Y	Arm 9 Right	19.96	100.0 %	1893	1893
2/1 (A47 northbound off-slip)	5.00	0.00	Y	Arm 6 Left	31.30	100.0 %	2018	2018
2/2 (A47 northbound off-slip)	4.00	0.00	Y	Arm 9 Ahead	22.00	100.0 %	1886	1886
2/3 (A47 northbound off-slip)	4.00	0.00	N	Arm 9 Ahead	23.00	100.0 %	2023	2023
3/1 (Long Lane)	3.25	0.00	Y	Arm 7 Ahead	22.70	100.0 %	1820	1820
3/2 (Long Lane)	3.25	0.00	Y	Arm 10 Ahead	22.70	100.0 %	1820	1820
4/1 (Dereham Road)	3.80	0.00	Y	Arm 5 Left	24.48	100.0 %	1880	1880
4/2 (Dereham Road)	3.80	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1995	1995
5/1 (A47 On-Slip northbound)	3.90	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2005	2005
5/2 (A47 On-Slip northbound)	3.90	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2005	2005
6/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A47 Bridge northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A47 Bridge northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (Internal 1)	5.00	0.00	Y	Arm 7 Right	25.00	56.8 %	2045	2045
				Arm 10 Right	Inf	43.2 %		
9/2 (Internal 1)	5.00	0.00	N	Arm 10 Right	20.00	100.0 %	2098	2098
10/1 (Internal 2)	5.00	0.00	Y	Arm 5 Ahead	25.00	79.7 %	2019	2019
				Arm 8 Right	Inf	20.3 %		
10/2 (Internal 2)	5.00	0.00	N	Arm 8 Right	20.00	100.0 %	2098	2098
11/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
11/2 (EXIT Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 2: '2023 PM Future Base' (FG6: '2023 PM Future Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	57	299	464	820
	B	1188	0	22	255	0	1465
	C	220	0	0	27	53	300
	D	492	0	0	0	12	504
	E	0	0	0	0	0	0
	Tot.	1900	0	79	581	529	3089

Traffic Lane Flows

Lane	Scenario 2: 2023 PM Future Base
Junction: Unnamed Junction	
1/1 (short)	447
1/2 (with short)	820(In) 373(Out)
2/1 (short)	22
2/2 (with short)	704(In) 682(Out)
2/3	761
3/1 (short)	27
3/2 (with short)	300(In) 273(Out)
4/1 (short)	12
4/2 (with short)	504(In) 492(Out)
5/1	259
5/2	270
6/1	79
7/1	581
8/1	962
8/2	938
9/1	1072
9/2	1134
10/1	987
10/2	938
11/1	259
11/2	270

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A47 Bridge Southbound)	4.20	0.00	Y	Arm 6 Ahead	24.77	12.8 %	2019	2019
				Arm 9 Right	Inf	87.2 %		
1/2 (A47 Bridge Southbound)	4.20	0.00	Y	Arm 9 Right	19.96	100.0 %	1893	1893
2/1 (A47 northbound off-slip)	5.00	0.00	Y	Arm 6 Left	31.30	100.0 %	2018	2018
2/2 (A47 northbound off-slip)	4.00	0.00	Y	Arm 9 Ahead	22.00	100.0 %	1886	1886
2/3 (A47 northbound off-slip)	4.00	0.00	N	Arm 9 Ahead	23.00	100.0 %	2023	2023
3/1 (Long Lane)	3.25	0.00	Y	Arm 7 Ahead	22.70	100.0 %	1820	1820
3/2 (Long Lane)	3.25	0.00	Y	Arm 10 Ahead	22.70	100.0 %	1820	1820
4/1 (Dereham Road)	3.80	0.00	Y	Arm 5 Left	24.48	100.0 %	1880	1880
4/2 (Dereham Road)	3.80	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1995	1995
5/1 (A47 On-Slip northbound)	3.90	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2005	2005
5/2 (A47 On-Slip northbound)	3.90	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2005	2005
6/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A47 Bridge northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A47 Bridge northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (Internal 1)	5.00	0.00	Y	Arm 7 Right	25.00	51.7 %	2051	2051
				Arm 10 Right	Inf	48.3 %		
9/2 (Internal 1)	5.00	0.00	N	Arm 10 Right	20.00	100.0 %	2098	2098
10/1 (Internal 2)	5.00	0.00	Y	Arm 5 Ahead	25.00	52.4 %	2051	2051
				Arm 8 Right	Inf	47.6 %		
10/2 (Internal 2)	5.00	0.00	N	Arm 8 Right	20.00	100.0 %	2098	2098
11/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
11/2 (EXIT Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: '2023 AM With dev' (FG9: '2023 with dev AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	252	178	600	1030
	B	698	0	205	230	0	1133
	C	106	0	0	8	22	136
	D	433	0	0	0	7	440
	E	0	0	0	0	0	0
	Tot.	1237	0	457	416	629	2739

Traffic Lane Flows

Lane	Scenario 3: 2023 AM With dev
Junction: Unnamed Junction	
1/1 (short)	631
1/2 (with short)	1030(In) 399(Out)
2/1 (short)	205
2/2 (with short)	578(In) 373(Out)
2/3	555
3/1 (short)	8
3/2 (with short)	136(In) 128(Out)
4/1 (short)	7
4/2 (with short)	440(In) 433(Out)
5/1	311
5/2	318
6/1	457
7/1	416
8/1	576
8/2	661
9/1	752
9/2	954
10/1	765
10/2	661
11/1	311
11/2	318

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A47 Bridge Southbound)	4.20	0.00	Y	Arm 6 Ahead	24.77	39.9 %	1987	1987
				Arm 9 Right	Inf	60.1 %		
1/2 (A47 Bridge Southbound)	4.20	0.00	Y	Arm 9 Right	19.96	100.0 %	1893	1893
2/1 (A47 northbound off-slip)	5.00	0.00	Y	Arm 6 Left	31.30	100.0 %	2018	2018
2/2 (A47 northbound off-slip)	4.00	0.00	Y	Arm 9 Ahead	22.00	100.0 %	1886	1886
2/3 (A47 northbound off-slip)	4.00	0.00	N	Arm 9 Ahead	23.00	100.0 %	2023	2023
3/1 (Long Lane)	3.25	0.00	Y	Arm 7 Ahead	22.70	100.0 %	1820	1820
3/2 (Long Lane)	3.25	0.00	Y	Arm 10 Ahead	22.70	100.0 %	1820	1820
4/1 (Dereham Road)	3.80	0.00	Y	Arm 5 Left	24.48	100.0 %	1880	1880
4/2 (Dereham Road)	3.80	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1995	1995
5/1 (A47 On-Slip northbound)	3.90	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2005	2005
5/2 (A47 On-Slip northbound)	3.90	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2005	2005
6/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A47 Bridge northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A47 Bridge northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (Internal 1)	5.00	0.00	Y	Arm 7 Right	25.00	54.3 %	2048	2048
				Arm 10 Right	Inf	45.7 %		
9/2 (Internal 1)	5.00	0.00	N	Arm 10 Right	20.00	100.0 %	2098	2098
10/1 (Internal 2)	5.00	0.00	Y	Arm 5 Ahead	25.00	81.3 %	2017	2017
				Arm 8 Right	Inf	18.7 %		
10/2 (Internal 2)	5.00	0.00	N	Arm 8 Right	20.00	100.0 %	2098	2098
11/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
11/2 (EXIT Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 4: '2023 PM With dev' (FG10: '2023 with dev PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	60	299	577	936
	B	1188	0	22	255	0	1465
	C	220	0	0	34	53	307
	D	495	0	0	0	12	507
	E	0	0	0	0	0	0
	Tot.	1903	0	82	588	642	3215

Traffic Lane Flows

Lane	Scenario 4: 2023 PM With dev
Junction: Unnamed Junction	
1/1 (short)	507
1/2 (with short)	936(In) 429(Out)
2/1 (short)	22
2/2 (with short)	703(In) 681(Out)
2/3	762
3/1 (short)	34
3/2 (with short)	307(In) 273(Out)
4/1 (short)	12
4/2 (with short)	507(In) 495(Out)
5/1	316
5/2	326
6/1	82
7/1	588
8/1	945
8/2	958
9/1	1128
9/2	1191
10/1	1080
10/2	958
11/1	316
11/2	326

Full Input Data And Results

Lane Saturation Flows

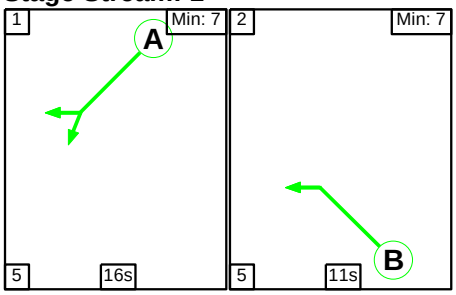
Junction: Unnamed Junction								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A47 Bridge Southbound)	4.20	0.00	Y	Arm 6 Ahead	24.77	11.8 %	2021	2021
				Arm 9 Right	Inf	88.2 %		
1/2 (A47 Bridge Southbound)	4.20	0.00	Y	Arm 9 Right	19.96	100.0 %	1893	1893
2/1 (A47 northbound off-slip)	5.00	0.00	Y	Arm 6 Left	31.30	100.0 %	2018	2018
2/2 (A47 northbound off-slip)	4.00	0.00	Y	Arm 9 Ahead	22.00	100.0 %	1886	1886
2/3 (A47 northbound off-slip)	4.00	0.00	N	Arm 9 Ahead	23.00	100.0 %	2023	2023
3/1 (Long Lane)	3.25	0.00	Y	Arm 7 Ahead	22.70	100.0 %	1820	1820
3/2 (Long Lane)	3.25	0.00	Y	Arm 10 Ahead	22.70	100.0 %	1820	1820
4/1 (Dereham Road)	3.80	0.00	Y	Arm 5 Left	24.48	100.0 %	1880	1880
4/2 (Dereham Road)	3.80	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1995	1995
5/1 (A47 On-Slip northbound)	3.90	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2005	2005
5/2 (A47 On-Slip northbound)	3.90	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2005	2005
6/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (A47 Bridge northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A47 Bridge northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (Internal 1)	5.00	0.00	Y	Arm 7 Right	25.00	49.1 %	2054	2054
				Arm 10 Right	Inf	50.9 %		
9/2 (Internal 1)	5.00	0.00	N	Arm 10 Right	20.00	100.0 %	2098	2098
10/1 (Internal 2)	5.00	0.00	Y	Arm 5 Ahead	25.00	58.3 %	2043	2043
				Arm 8 Right	Inf	41.7 %		
10/2 (Internal 2)	5.00	0.00	N	Arm 8 Right	20.00	100.0 %	2098	2098
11/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
11/2 (EXIT Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

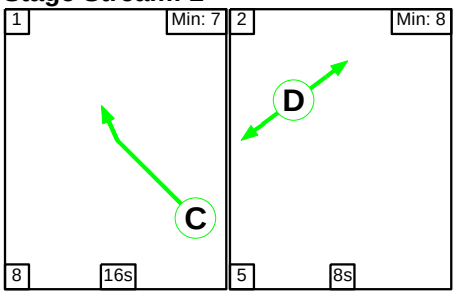
Scenario 1: '2023 AM Future Base' (FG5: '2023 AM Future Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

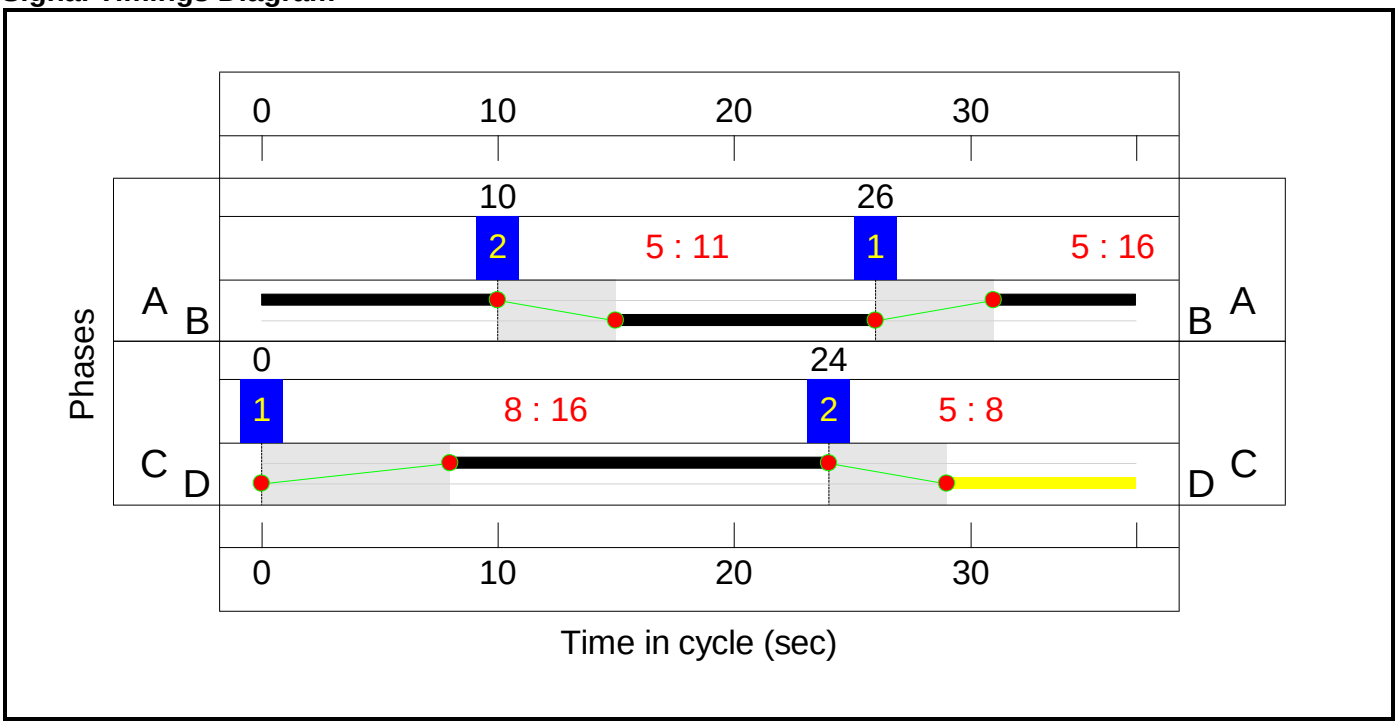
Stage	1	2
Duration	16	11
Change Point	26	10

Stage Stream: 2

Stage	1	2
Duration	16	8
Change Point	0	24

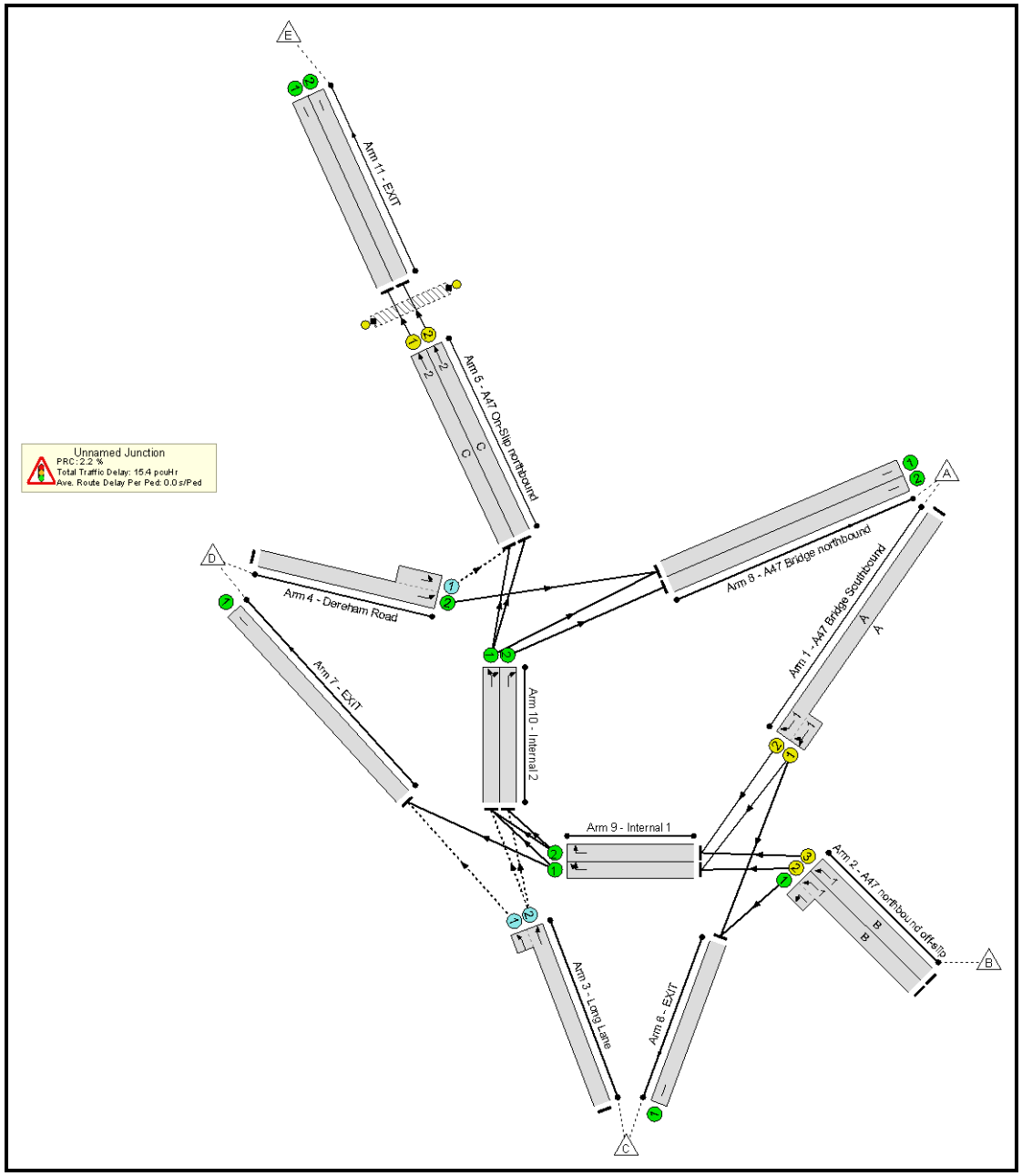
Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**88.1%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**88.1%**
1/2+1/1	A47 Bridge Southbound Ahead Right	U	1	N/A	A		1	16	-	983	1893:1985	455+661	88.1 : 88.1%
2/2+2/1	A47 northbound off-slip Left Ahead	U	1	N/A	B -		1	11	-	584	1886:2018	465+252	81.4 : 81.4%
2/3	A47 northbound off-slip Ahead	U	1	N/A	B		1	11	-	549	2023	656	83.7%
3/2+3/1	Long Lane Ahead Ahead2	O	N/A	N/A	-		-	-	-	134	1820:1820	1432+67	8.9 : 8.9%
4/2+4/1	Dereham Road Left Ahead	U+O	N/A	N/A	-		-	-	-	431	1995:1880	1961+32	21.6 : 21.6%
5/1	A47 On-Slip northbound Ahead	U	2	N/A	C		1	16	-	294	2005	921	31.9%
5/2	A47 On-Slip northbound Ahead	U	2	N/A	C		1	16	-	297	2005	921	32.2%
6/1	EXIT	U	N/A	N/A	-		-	-	-	448	Inf	Inf	0.0%
7/1	EXIT	U	N/A	N/A	-		-	-	-	414	Inf	Inf	0.0%
8/1	A47 Bridge northbound	U	N/A	N/A	-		-	-	-	573	Inf	Inf	0.0%
8/2	A47 Bridge northbound	U	N/A	N/A	-		-	-	-	655	Inf	Inf	0.0%
9/1	Internal 1 Right Right2	U	N/A	N/A	-		-	-	-	718	2045	2045	35.1%
9/2	Internal 1 Right	U	N/A	N/A	-		-	-	-	950	2098	2098	45.3%
10/1	Internal 2 Ahead Right	U	N/A	N/A	-		-	-	-	733	2019	2019	36.3%
10/2	Internal 2 Right	U	N/A	N/A	-		-	-	-	655	2098	2098	31.2%
11/1	EXIT	U	N/A	N/A	-		-	-	-	294	Inf	Inf	0.0%

Full Input Data And Results

11/2	EXIT	U	N/A	N/A	-		-	-	-	297	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	2	-	D		1	8	-	0	-	0	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**275**	**0**	**0**	**5.4**	**9.9**	**0.0**	**15.4**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**275**	**0**	**0**	**5.4**	**9.9**	**0.0**	**15.4**	**-**	**-**	**-**	**-**
1/2+1/1	983	983	-	-	-	2.1	3.5	-	5.6	20.6	6.5	3.5	10.0
2/2+2/1	584	584	-	-	-	1.3	2.1	-	3.4	20.8	4.4	2.1	6.6
2/3	549	549	-	-	-	1.8	2.5	-	4.2	27.7	5.2	2.5	7.6
3/2+3/1	134	134	268	0	0	0.0	0.0	-	0.0	1.3	0.0	0.0	0.0
4/2+4/1	431	431	7	0	0	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
5/1	294	294	-	-	-	0.2	0.2	-	0.4	4.7	0.6	0.2	0.8
5/2	297	297	-	-	-	0.1	0.2	-	0.4	4.3	0.3	0.2	0.6
6/1	448	448	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	414	414	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	573	573	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	655	655	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	718	718	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
9/2	950	950	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
10/1	733	733	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
10/2	655	655	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/1	294	294	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	297	297	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 Stream: 1 PRC for Signalled Lanes (%): 2.2
C1 Stream: 2 PRC for Signalled Lanes (%): 179.2
PRC Over All Lanes (%): 2.2

Total Delay for Signalled Lanes (pcuHr): 13.23
Total Delay for Signalled Lanes (pcuHr): 0.74
Total Delay Over All Lanes(pcuHr): 15.36

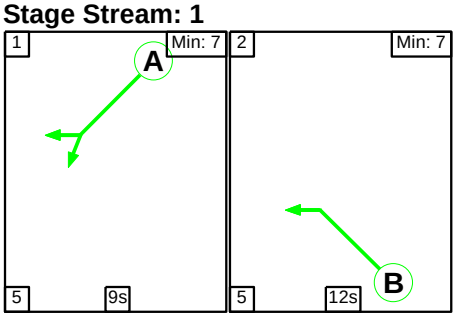
Cycle Time (s): 37
Cycle Time (s): 37

Full Input Data And Results

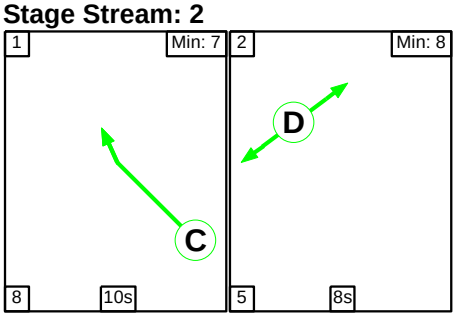
Scenario 2: '2023 PM Future Base' (FG6: '2023 PM Future Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

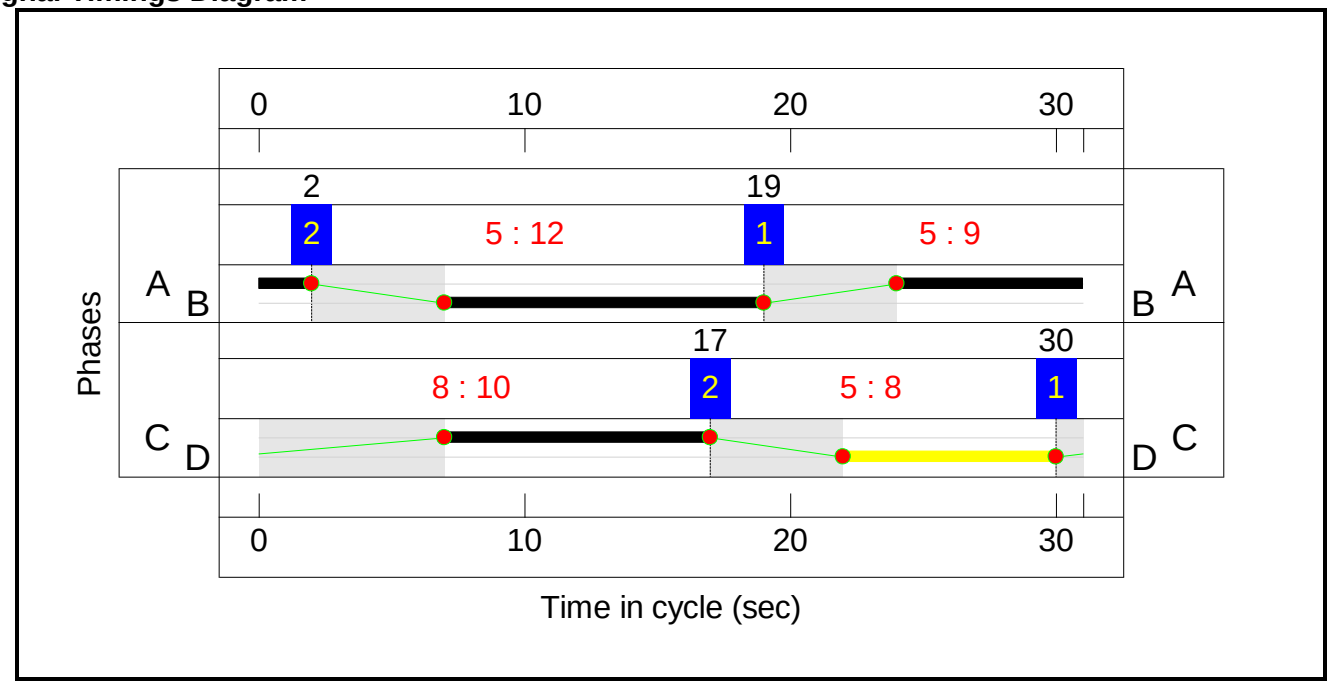
Stage Stream: 1

Stage	1	2
Duration	9	12
Change Point	19	2

Stage Stream: 2

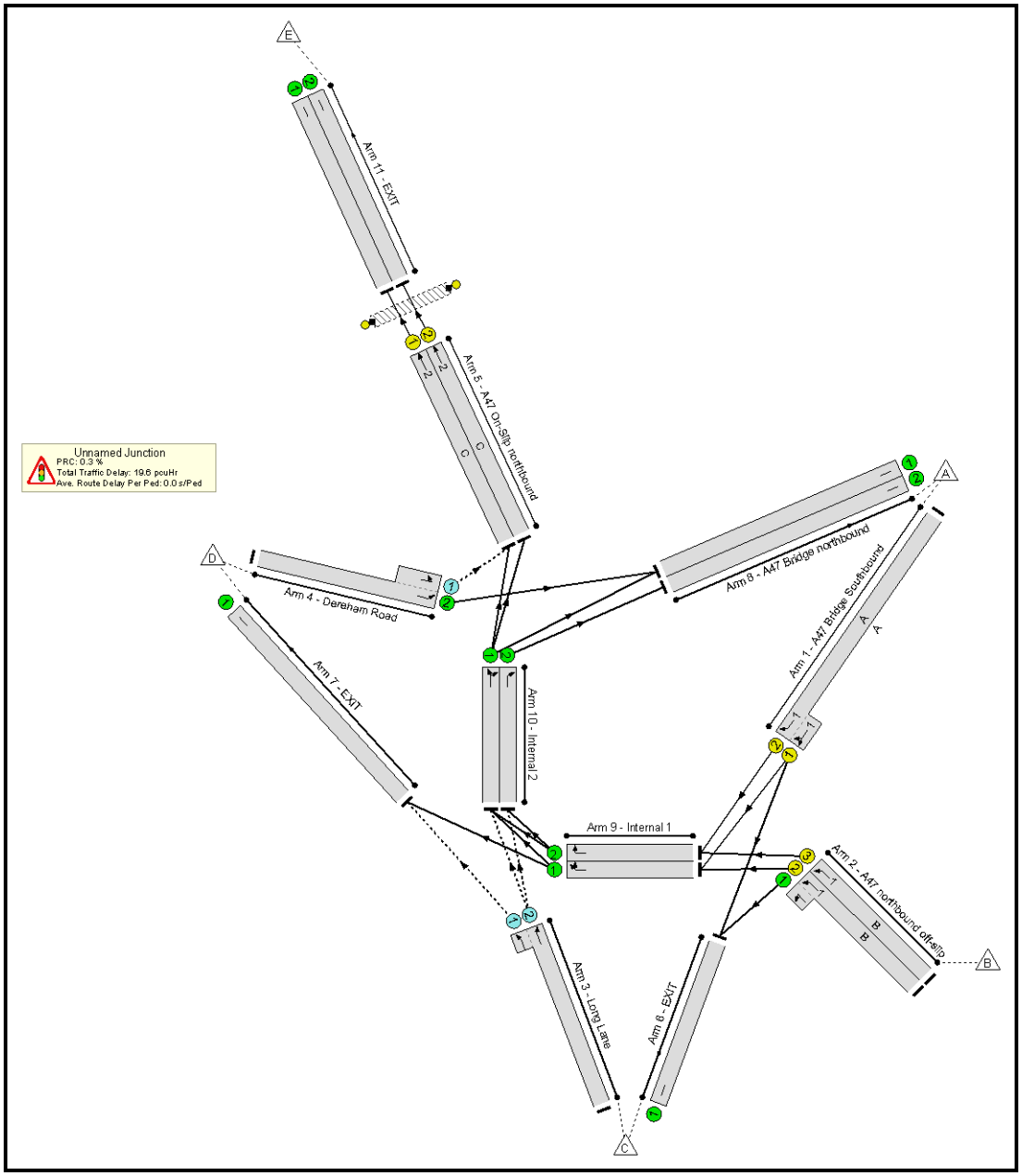
Stage	1	2
Duration	10	8
Change Point	30	17

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.7%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.7%**
1/2+1/1	A47 Bridge Southbound Ahead Right	U	1	N/A	A		1	9	-	820	1893:2019	430+515	86.8 : 86.8%
2/2+2/1	A47 northbound off-slip Left Ahead	U	1	N/A	B -		1	12	-	704	1886:2018	764+25	89.3 : 89.3%
2/3	A47 northbound off-slip Ahead	U	1	N/A	B		1	12	-	761	2023	848	89.7%
3/2+3/1	Long Lane Ahead Ahead2	O	N/A	N/A	-		-	-	-	300	1820:1820	1258+124	21.7 : 21.7%
4/2+4/1	Dereham Road Left Ahead	U+O	N/A	N/A	-		-	-	-	504	1995:1880	1945+47	25.3 : 25.3%
5/1	A47 On-Slip northbound Ahead	U	2	N/A	C		1	10	-	259	2005	711	36.4%
5/2	A47 On-Slip northbound Ahead	U	2	N/A	C		1	10	-	270	2005	711	38.0%
6/1	EXIT	U	N/A	N/A	-		-	-	-	79	Inf	Inf	0.0%
7/1	EXIT	U	N/A	N/A	-		-	-	-	581	Inf	Inf	0.0%
8/1	A47 Bridge northbound	U	N/A	N/A	-		-	-	-	962	Inf	Inf	0.0%
8/2	A47 Bridge northbound	U	N/A	N/A	-		-	-	-	938	Inf	Inf	0.0%
9/1	Internal 1 Right Right2	U	N/A	N/A	-		-	-	-	1072	2051	2051	52.3%
9/2	Internal 1 Right	U	N/A	N/A	-		-	-	-	1134	2098	2098	54.1%
10/1	Internal 2 Ahead Right	U	N/A	N/A	-		-	-	-	987	2051	2051	48.1%
10/2	Internal 2 Right	U	N/A	N/A	-		-	-	-	938	2098	2098	44.7%
11/1	EXIT	U	N/A	N/A	-		-	-	-	259	Inf	Inf	0.0%

Full Input Data And Results

11/2	EXIT	U	N/A	N/A	-		-	-	-	270	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	2	-	D		1	8	-	0	-	0	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**612**	**0**	**0**	**5.8**	**13.8**	**0.0**	**19.6**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**612**	**0**	**0**	**5.8**	**13.8**	**0.0**	**19.6**	**-**	**-**	**-**	**-**
1/2+1/1	820	820	-	-	-	2.1	3.1	-	5.2	22.8	3.8	3.1	6.9
2/2+2/1	704	704	-	-	-	1.6	3.8	-	5.4	27.8	5.5	3.8	9.3
2/3	761	761	-	-	-	1.8	4.0	-	5.8	27.3	5.9	4.0	9.9
3/2+3/1	300	300	600	0	0	0.0	0.1	-	0.1	1.7	0.0	0.1	0.1
4/2+4/1	504	504	12	0	0	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
5/1	259	259	-	-	-	0.2	0.3	-	0.5	7.1	0.7	0.3	1.0
5/2	270	270	-	-	-	0.1	0.3	-	0.4	5.9	0.3	0.3	0.6
6/1	79	79	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	581	581	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	962	962	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	938	938	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1072	1072	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
9/2	1134	1134	-	-	-	0.0	0.6	-	0.6	1.9	0.0	0.6	0.6
10/1	987	987	-	-	-	0.0	0.5	-	0.5	1.7	0.0	0.5	0.5
10/2	938	938	-	-	-	0.0	0.4	-	0.4	1.6	1.2	0.4	1.6
11/1	259	259	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	270	270	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 Stream: 1 PRC for Signalled Lanes (%): 0.3
C1 Stream: 2 PRC for Signalled Lanes (%): 137.2
PRC Over All Lanes (%): 0.3

Total Delay for Signalled Lanes (pcuHr): 16.38
Total Delay for Signalled Lanes (pcuHr): 0.95
Total Delay Over All Lanes(pcuHr): 19.65

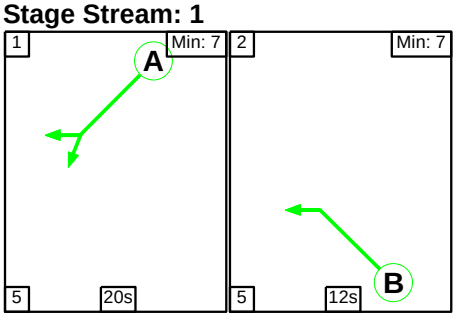
Cycle Time (s): 31
Cycle Time (s): 31

Full Input Data And Results

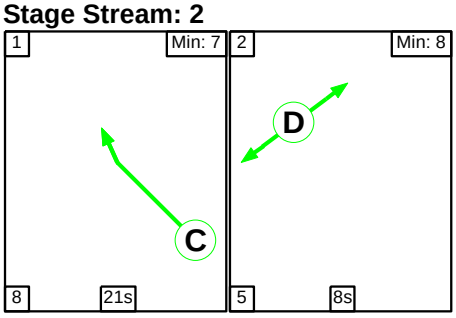
Scenario 3: '2023 AM With dev' (FG9: '2023 with dev AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

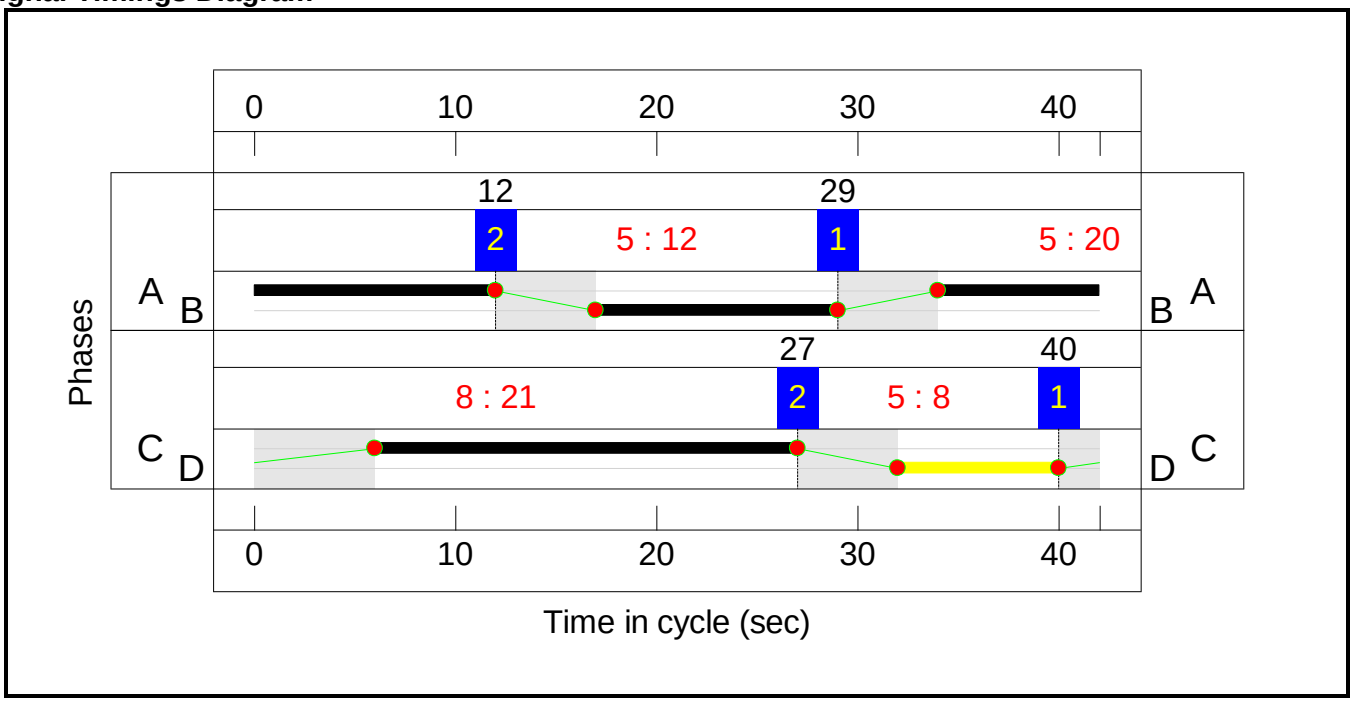
Stage Stream: 1

Stage	1	2
Duration	20	12
Change Point	29	12

Stage Stream: 2

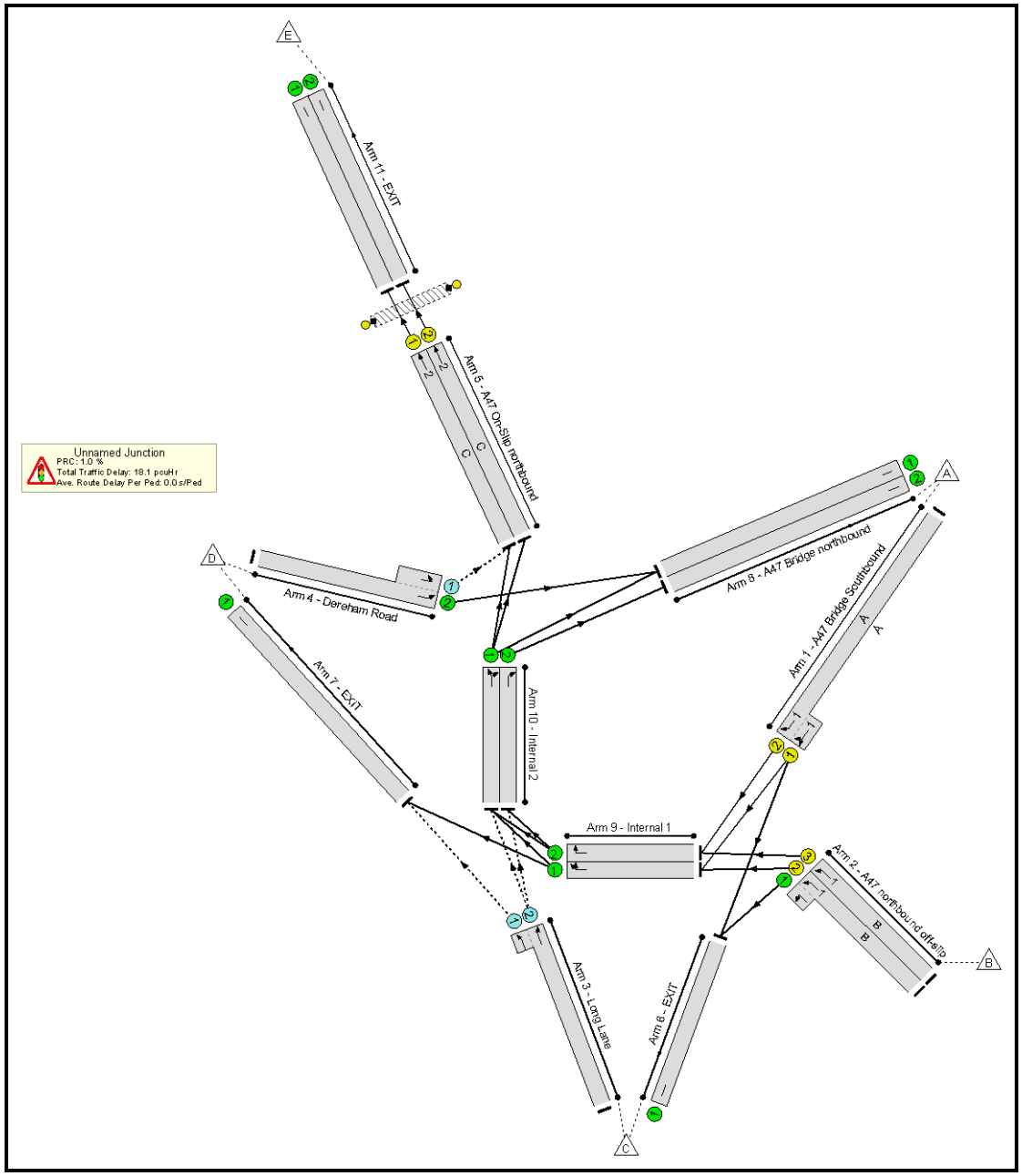
Stage	1	2
Duration	21	8
Change Point	40	27

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.1%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.1%**
1/2+1/1	A47 Bridge Southbound Ahead Right	U	1	N/A	A		1	20	-	1030	1893:1987	448+708	89.1 : 89.1%
2/2+2/1	A47 northbound off-slip Left Ahead	U	1	N/A	B -		1	12	-	578	1886:2018	438+241	85.1 : 85.1%
2/3	A47 northbound off-slip Ahead	U	1	N/A	B		1	12	-	555	2023	626	88.6%
3/2+3/1	Long Lane Ahead Ahead2	O	N/A	N/A	-		-	-	-	136	1820:1820	1423+89	9.0 : 9.0%
4/2+4/1	Dereham Road Left Ahead	U+O	N/A	N/A	-		-	-	-	440	1995:1880	1961+32	22.1 : 22.1%
5/1	A47 On-Slip northbound Ahead	U	2	N/A	C		1	21	-	311	2005	1050	29.6%
5/2	A47 On-Slip northbound Ahead	U	2	N/A	C		1	21	-	318	2005	1050	30.3%
6/1	EXIT	U	N/A	N/A	-		-	-	-	457	Inf	Inf	0.0%
7/1	EXIT	U	N/A	N/A	-		-	-	-	416	Inf	Inf	0.0%
8/1	A47 Bridge northbound	U	N/A	N/A	-		-	-	-	576	Inf	Inf	0.0%
8/2	A47 Bridge northbound	U	N/A	N/A	-		-	-	-	661	Inf	Inf	0.0%
9/1	Internal 1 Right Right2	U	N/A	N/A	-		-	-	-	752	2048	2048	36.7%
9/2	Internal 1 Right	U	N/A	N/A	-		-	-	-	954	2098	2098	45.5%
10/1	Internal 2 Ahead Right	U	N/A	N/A	-		-	-	-	765	2017	2017	37.9%
10/2	Internal 2 Right	U	N/A	N/A	-		-	-	-	661	2098	2098	31.5%
11/1	EXIT	U	N/A	N/A	-		-	-	-	311	Inf	Inf	0.0%

Full Input Data And Results

11/2	EXIT	U	N/A	N/A	-		-	-	-	318	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	2	-	D		1	8	-	0	-	0	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**279**	**0**	**0**	**6.2**	**12.0**	**0.0**	**18.1**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**279**	**0**	**0**	**6.2**	**12.0**	**0.0**	**18.1**	**-**	**-**	**-**	**-**
1/2+1/1	1030	1030	-	-	-	2.3	3.9	-	6.2	21.6	8.5	3.9	12.3
2/2+2/1	578	578	-	-	-	1.5	2.7	-	4.2	26.4	5.1	2.7	7.8
2/3	555	555	-	-	-	2.1	3.5	-	5.7	36.8	6.0	3.5	9.6
3/2+3/1	136	136	272	0	0	0.0	0.0	-	0.0	1.3	0.0	0.0	0.0
4/2+4/1	440	440	7	0	0	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
5/1	311	311	-	-	-	0.1	0.2	-	0.3	3.7	0.4	0.2	0.6
5/2	318	318	-	-	-	0.1	0.2	-	0.3	3.3	0.3	0.2	0.5
6/1	457	457	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	416	416	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	576	576	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	661	661	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	752	752	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
9/2	954	954	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
10/1	765	765	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
10/2	661	661	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/1	311	311	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	318	318	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 Stream: 1 PRC for Signalled Lanes (%): 1.0
C1 Stream: 2 PRC for Signalled Lanes (%): 197.2
PRC Over All Lanes (%): 1.0

Total Delay for Signalled Lanes (pcuHr): 16.09
Total Delay for Signalled Lanes (pcuHr): 0.62
Total Delay Over All Lanes(pcuHr): 18.13

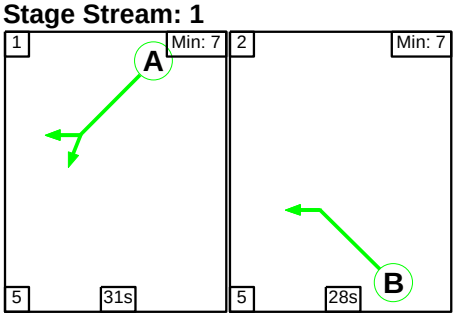
Cycle Time (s): 42
Cycle Time (s): 42

Full Input Data And Results

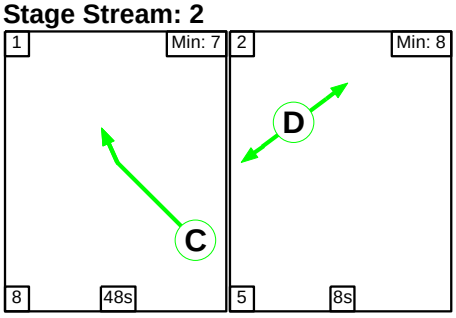
Scenario 4: '2023 PM With dev' (FG10: '2023 with dev PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

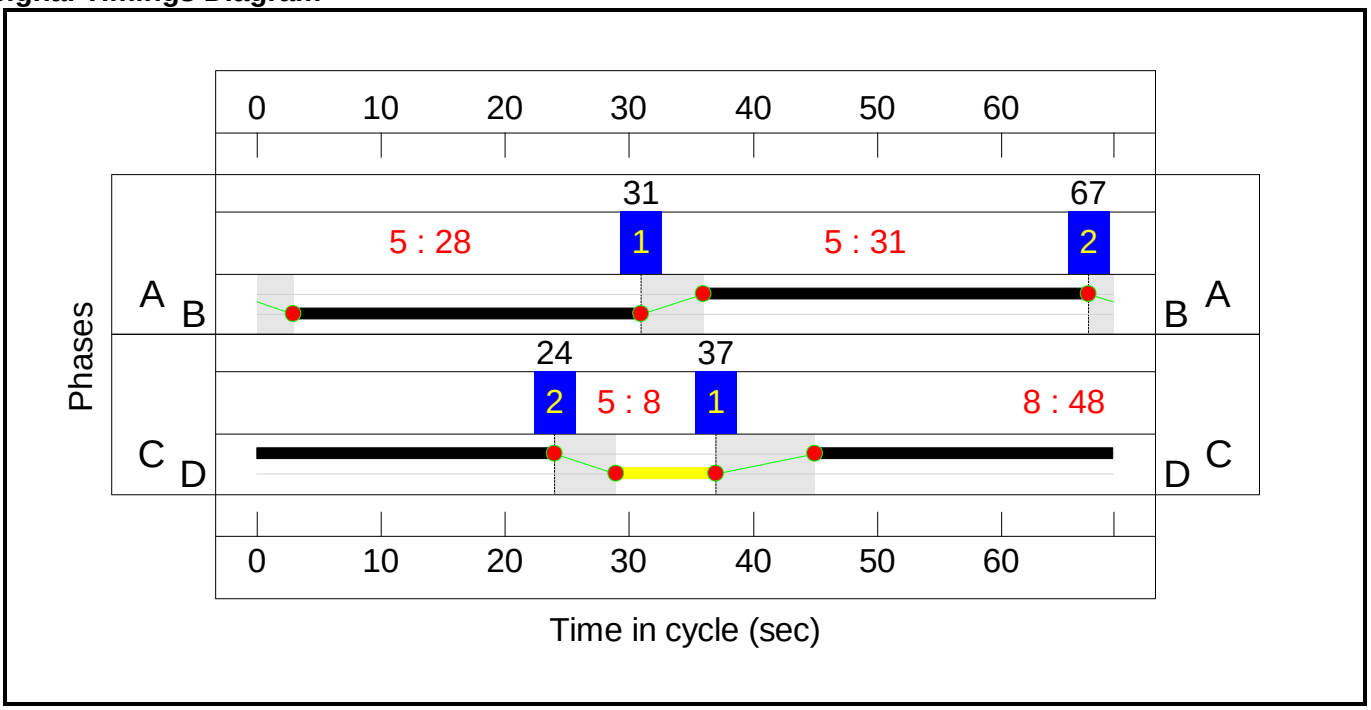
Stage Stream: 1

Stage	1	2
Duration	31	28
Change Point	31	67

Stage Stream: 2

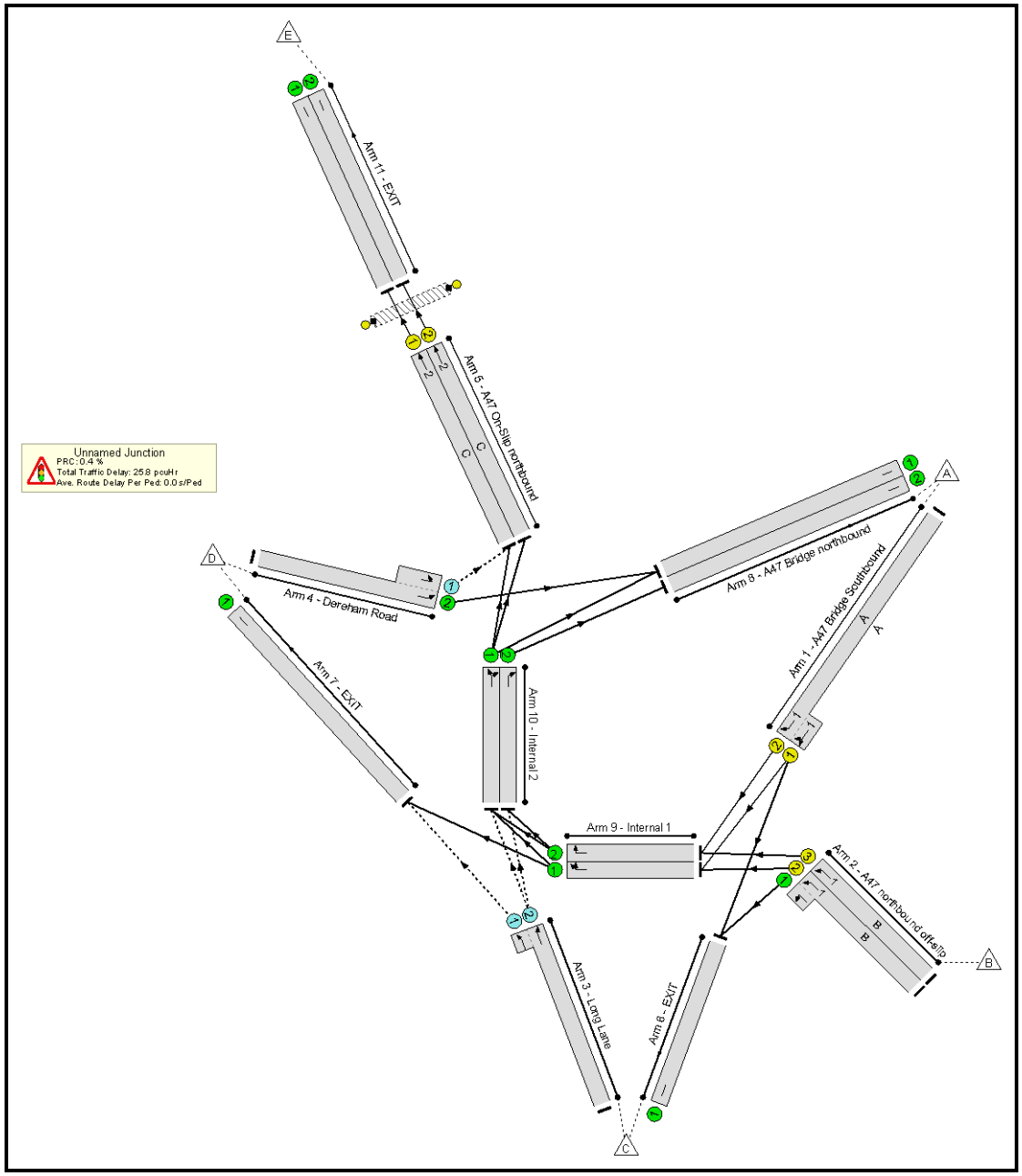
Stage	1	2
Duration	48	8
Change Point	37	24

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.6%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.6%**
1/2+1/1	A47 Bridge Southbound Ahead Right	U	1	N/A	A		1	31	-	936	1893:2021	482+569	89.0 : 89.0%
2/2+2/1	A47 northbound off-slip Left Ahead	U	1	N/A	B -		1	28	-	703	1886:2018	768+25	88.7 : 88.7%
2/3	A47 northbound off-slip Ahead	U	1	N/A	B		1	28	-	762	2023	850	89.6%
3/2+3/1	Long Lane Ahead Ahead2	O	N/A	N/A	-		-	-	-	307	1820:1820	1227+153	22.3 : 22.3%
4/2+4/1	Dereham Road Left Ahead	U+O	N/A	N/A	-		-	-	-	507	1995:1880	1945+47	25.5 : 25.5%
5/1	A47 On-Slip northbound Ahead	U	2	N/A	C		1	48	-	316	2005	1424	22.2%
5/2	A47 On-Slip northbound Ahead	U	2	N/A	C		1	48	-	326	2005	1424	22.9%
6/1	EXIT	U	N/A	N/A	-		-	-	-	82	Inf	Inf	0.0%
7/1	EXIT	U	N/A	N/A	-		-	-	-	588	Inf	Inf	0.0%
8/1	A47 Bridge northbound	U	N/A	N/A	-		-	-	-	945	Inf	Inf	0.0%
8/2	A47 Bridge northbound	U	N/A	N/A	-		-	-	-	958	Inf	Inf	0.0%
9/1	Internal 1 Right Right2	U	N/A	N/A	-		-	-	-	1128	2054	2054	54.9%
9/2	Internal 1 Right	U	N/A	N/A	-		-	-	-	1191	2098	2098	56.8%
10/1	Internal 2 Ahead Right	U	N/A	N/A	-		-	-	-	1080	2043	2043	52.9%
10/2	Internal 2 Right	U	N/A	N/A	-		-	-	-	958	2098	2098	45.7%
11/1	EXIT	U	N/A	N/A	-		-	-	-	316	Inf	Inf	0.0%

Full Input Data And Results

11/2	EXIT	U	N/A	N/A	-		-	-	-	326	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	2	-	D		1	8	-	0	-	0	0.0%

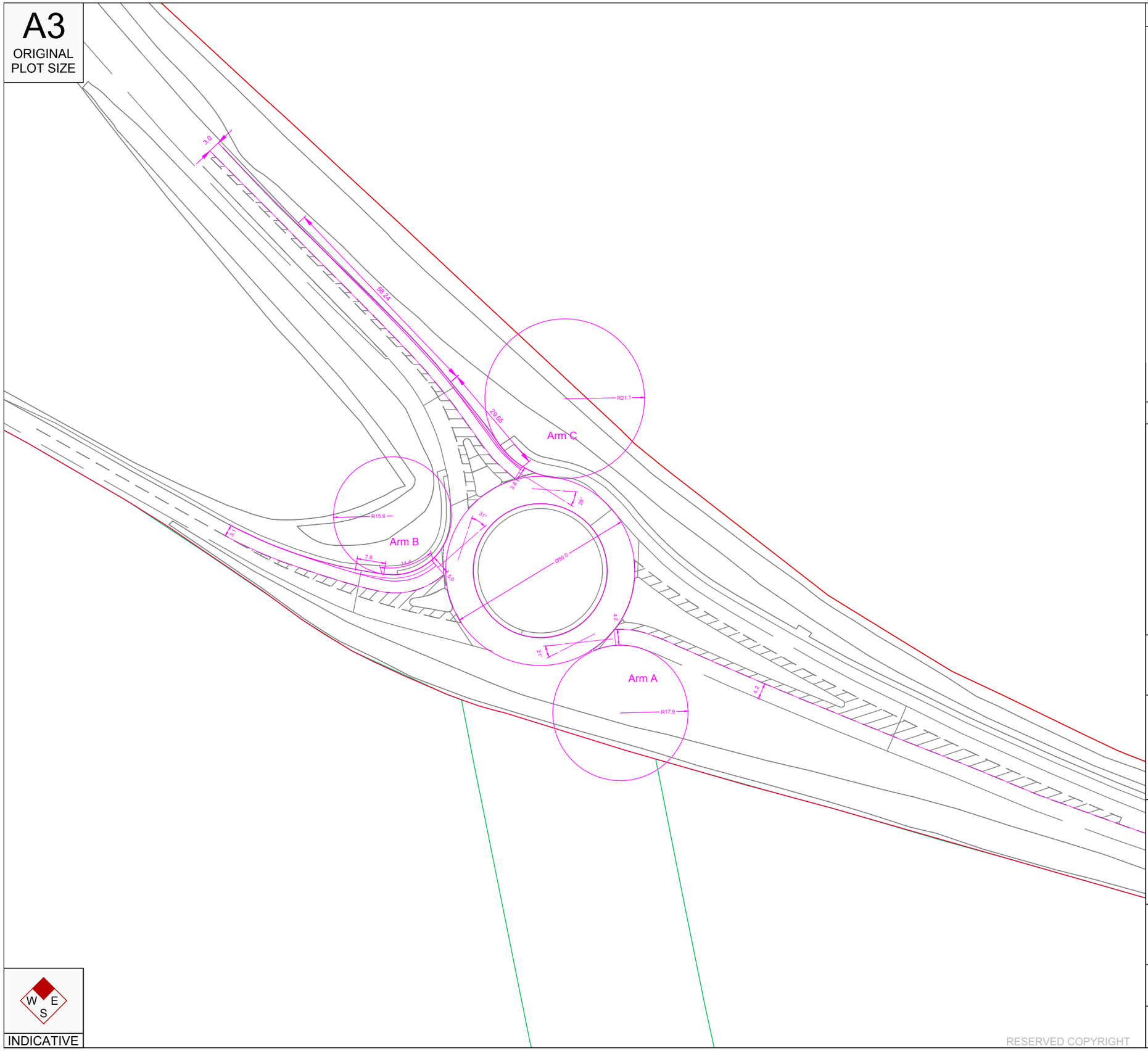
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**626**	**0**	**0**	**11.5**	**14.3**	**0.0**	**25.8**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**626**	**0**	**0**	**11.5**	**14.3**	**0.0**	**25.8**	**-**	**-**	**-**	**-**
1/2+1/1	936	936	-	-	-	3.9	3.8	-	7.7	29.6	13.4	3.8	17.2
2/2+2/1	703	703	-	-	-	3.6	3.6	-	7.2	36.9	12.3	3.6	16.0
2/3	762	762	-	-	-	3.9	4.0	-	7.9	37.3	13.5	4.0	17.5
3/2+3/1	307	307	614	0	0	0.0	0.1	-	0.1	1.7	0.0	0.1	0.1
4/2+4/1	507	507	12	0	0	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
5/1	316	316	-	-	-	0.1	0.1	-	0.2	2.3	0.4	0.1	0.5
5/2	326	326	-	-	-	0.0	0.1	-	0.1	1.6	0.0	0.1	0.2
6/1	82	82	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	588	588	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	945	945	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	958	958	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1128	1128	-	-	-	0.0	0.6	-	0.6	1.9	0.0	0.6	0.6
9/2	1191	1191	-	-	-	0.0	0.7	-	0.7	2.0	0.0	0.7	0.7
10/1	1080	1080	-	-	-	0.0	0.6	-	0.6	1.9	0.0	0.6	0.6
10/2	958	958	-	-	-	0.0	0.4	-	0.5	1.7	11.1	0.4	11.5
11/1	316	316	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	326	326	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 Stream: 1 PRC for Signalled Lanes (%): 0.4
C1 Stream: 2 PRC for Signalled Lanes (%): 293.1
PRC Over All Lanes (%): 0.4

Total Delay for Signalled Lanes (pcuHr): 22.81
Total Delay for Signalled Lanes (pcuHr): 0.35
Total Delay Over All Lanes(pcuHr): 25.76

Cycle Time (s): 69
Cycle Time (s): 69

A3
ORIGINAL
PLOT SIZE



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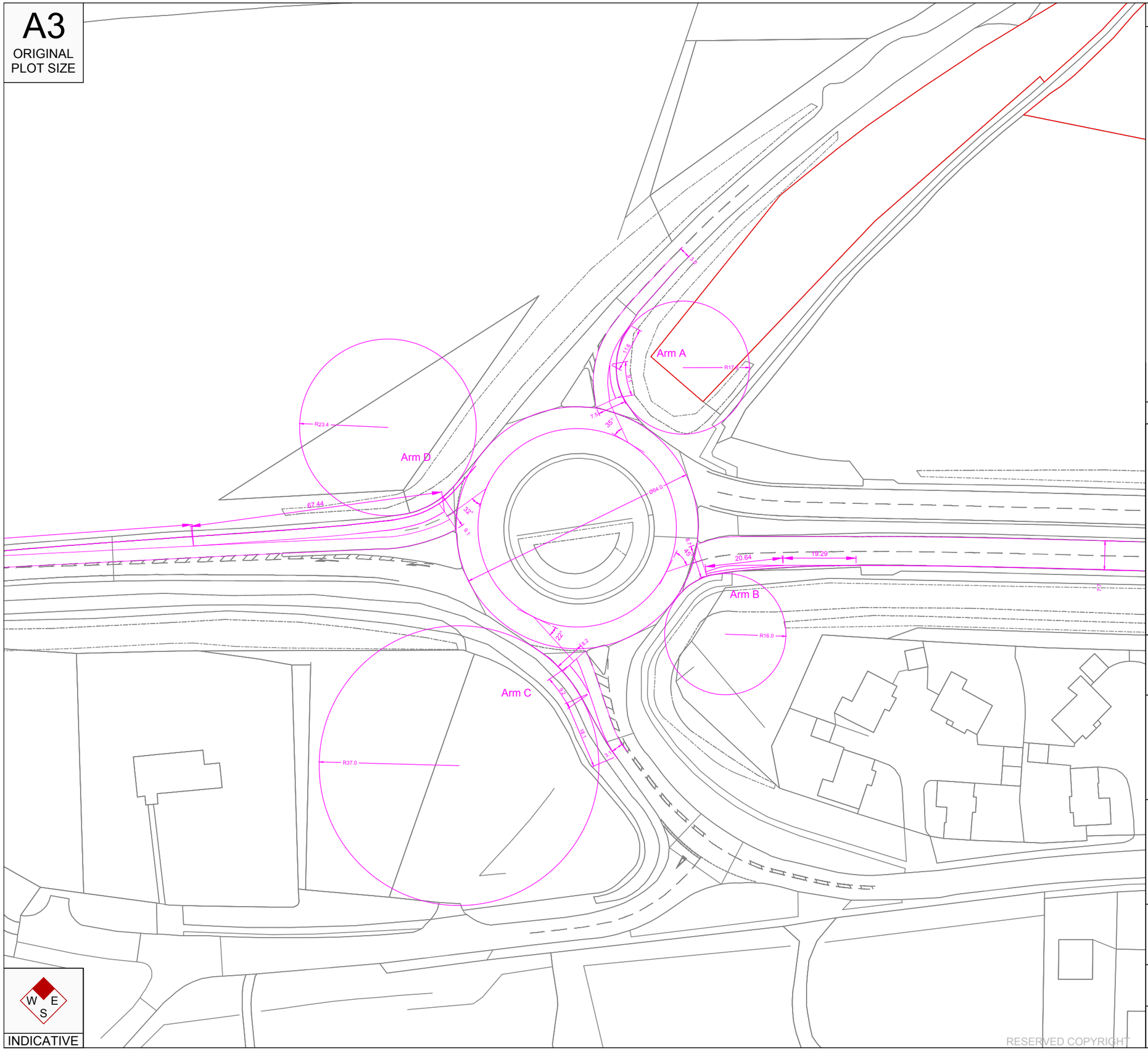

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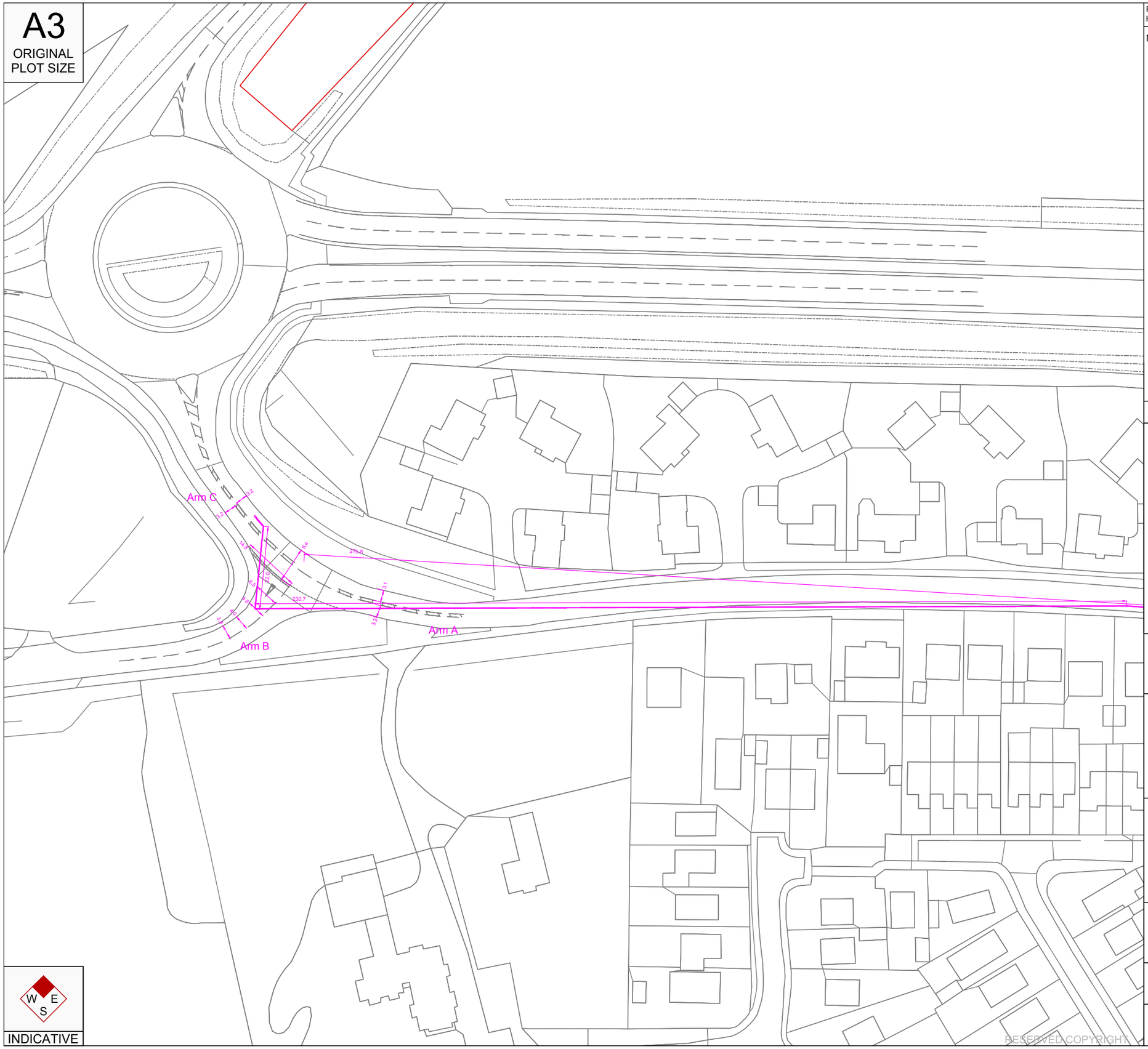

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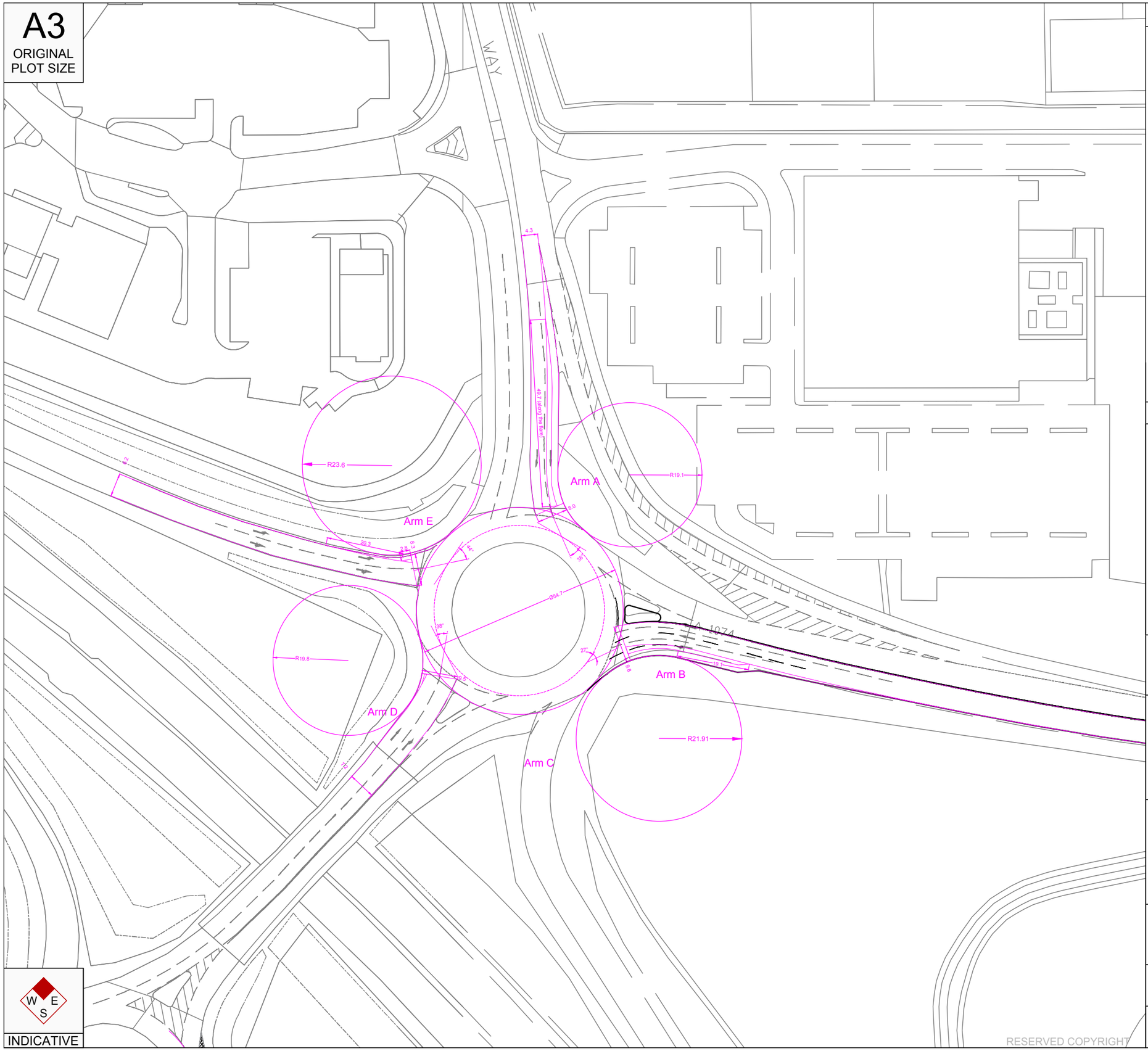

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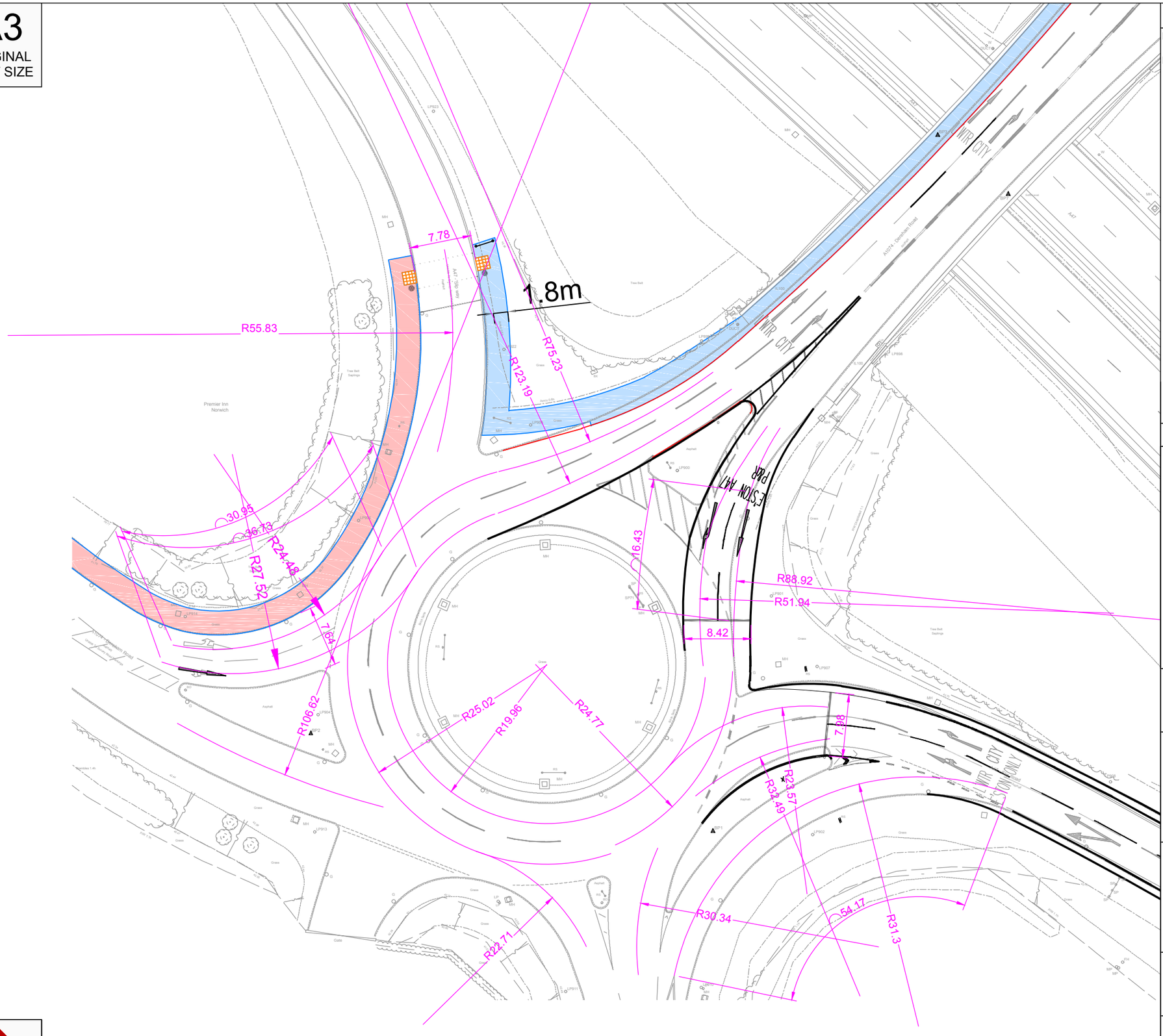

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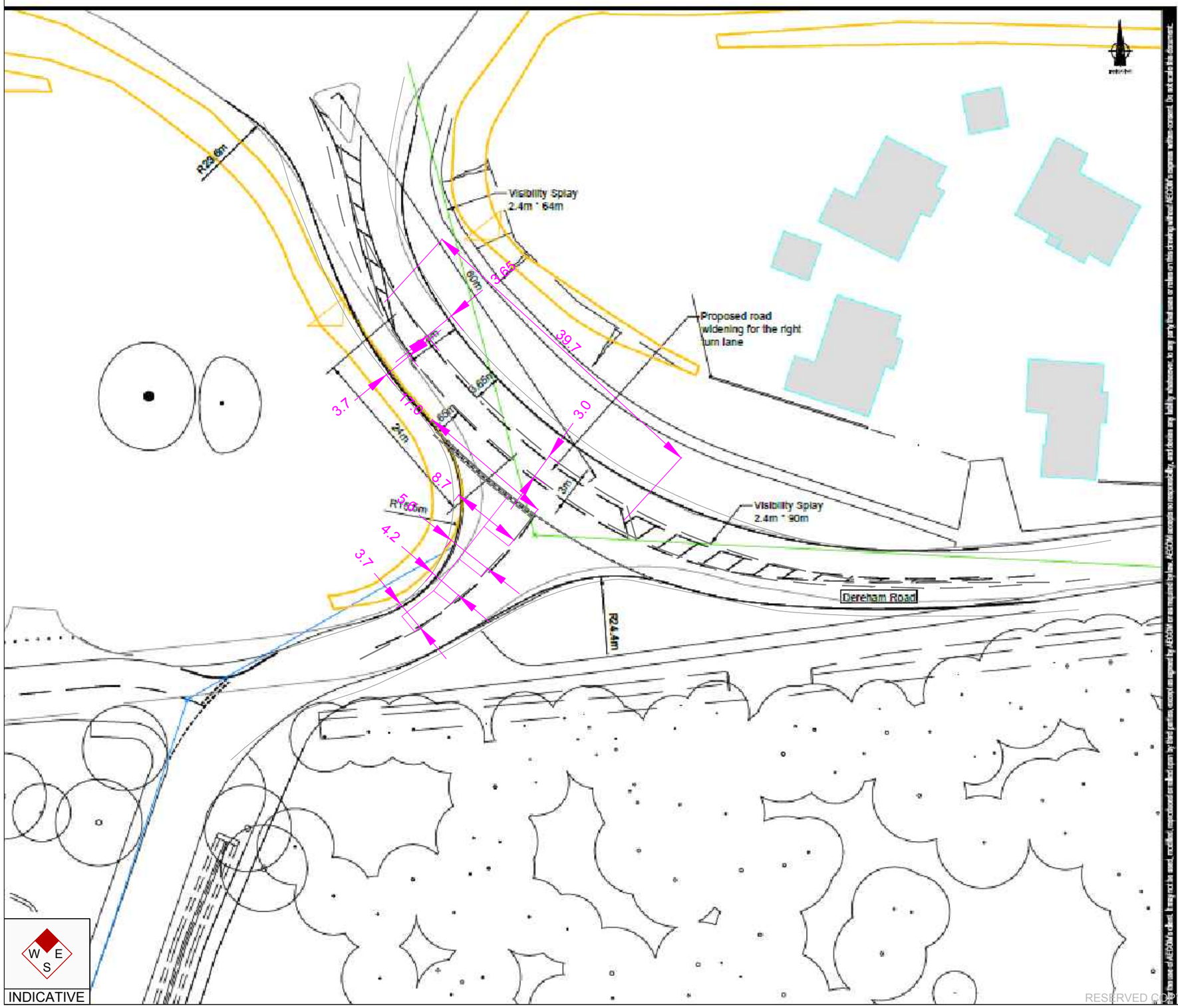

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