

20076-02-001

PROPOSED RESIDENTIAL DEVELOPMENT
AT LANDS AT CAPDOO & ABBEYLANDS,
CLANE, CO. KILDARE

Traffic Impact Assessment

for

Westar Investments Limited

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1 INTRODUCTION

1 Introduction

1.1 INTRODUCTION

Roadplan Consulting were commissioned by Westar Investments Limited to prepare a Traffic Impact Assessment for the proposed residential development at lands at Capdoo & Abbeylands, Clane, Co. Kildare.

In preparing this report, Roadplan Consulting has made reference to:

- The Kildare County Development Plan 2017 - 2023.
- The Institute of Highways and Transportation *Guidelines on the Preparation of Traffic Impact Assessments*.
- The *TII Transport Assessment Guidelines*.
- The *TII National Traffic Model*.

1.2 OBJECTIVES

The objective of this report is to examine the traffic implications of the proposed mixed development in terms of how it can integrate with existing traffic in the area. The report will determine and quantify the extent of additional trips generated by the development, and the impact of such trips on the operational performance of the local road network and junctions, in particular the existing R403 / Brooklands / Capdoo Park crossroads and the existing R403 / Alexandra Walk / The Avenue roundabout.

1.3 STUDY METHODOLOGY

The methodology adopted for this report is summarised as follows:

- A traffic count was undertaken by Irish Traffic Surveys during a 12-hour period (07:00 to 19:00). Count information was obtained at the existing R403 / Brooklands / Capdoo Park crossroads and the existing R403 / Alexandra Walk / The Avenue roundabout.
- Existing Traffic Assessment – A spreadsheet model was created which contains the base year DO-NOTHING traffic count data described above. The traffic count data was used to develop a PICADY model of the existing R403 / Brooklands / Capdoo Park crossroads and an ARCADY model of the existing R403 / Alexandra Walk / The Avenue roundabout.

Traffic signal poles are installed at the R403 / Brooklands / Capdoo Park crossroads junction. However, the signals are currently not operational. The traffic count data was also used to develop a TRANSYT model of the R403 / Brooklands / Capdoo Park junction to assess the operational performance of the signals.

- Future Year Assessment – The estimated future year traffic volumes on the study area road network, as a result of the increase in background traffic and the additional development related traffic was used to assess the future operational performance of the junctions both at the year of opening of the development, 5 and 15 years after opening.
- Parking Requirements – Car parking provision for the proposed development was assessed against the parking standards as set out in the Kildare County Development Plan.

1.4 STRUCTURE OF REPORT

Following this introduction, the report is set out as follows:

- Chapter 2 provides details of the proposed development;
- Chapter 3 provides an overview of the existing traffic conditions and the local road network, identifying any existing issues related to traffic flow or road infrastructure;

- Chapters 4 and 5 outline the analysis as described in the Study Methodology above. The analysis examines trip generation, distribution and resulting junction operational performance with the development in place;
- Chapter 6 establishes the parking requirements for the development using the county development plan and the design standards for new apartments and sets out how these needs are provided for;
- Chapter 7 addresses road safety, pedestrian and public transport; and
- Chapter 8 presents the conclusions and a summary of the report.

2 PROPOSED DEVELOPMENT

2 Proposed Development

2.1 SITE LOCATION

The proposed residential development is located at lands at Capdoo & Abbeylands, Clane, Co. Kildare. The development is bounded by residential dwellings to the west and south, the river Liffey to the east and agricultural lands to the north and east as shown on Figure 2.1 'Site Location Map'.

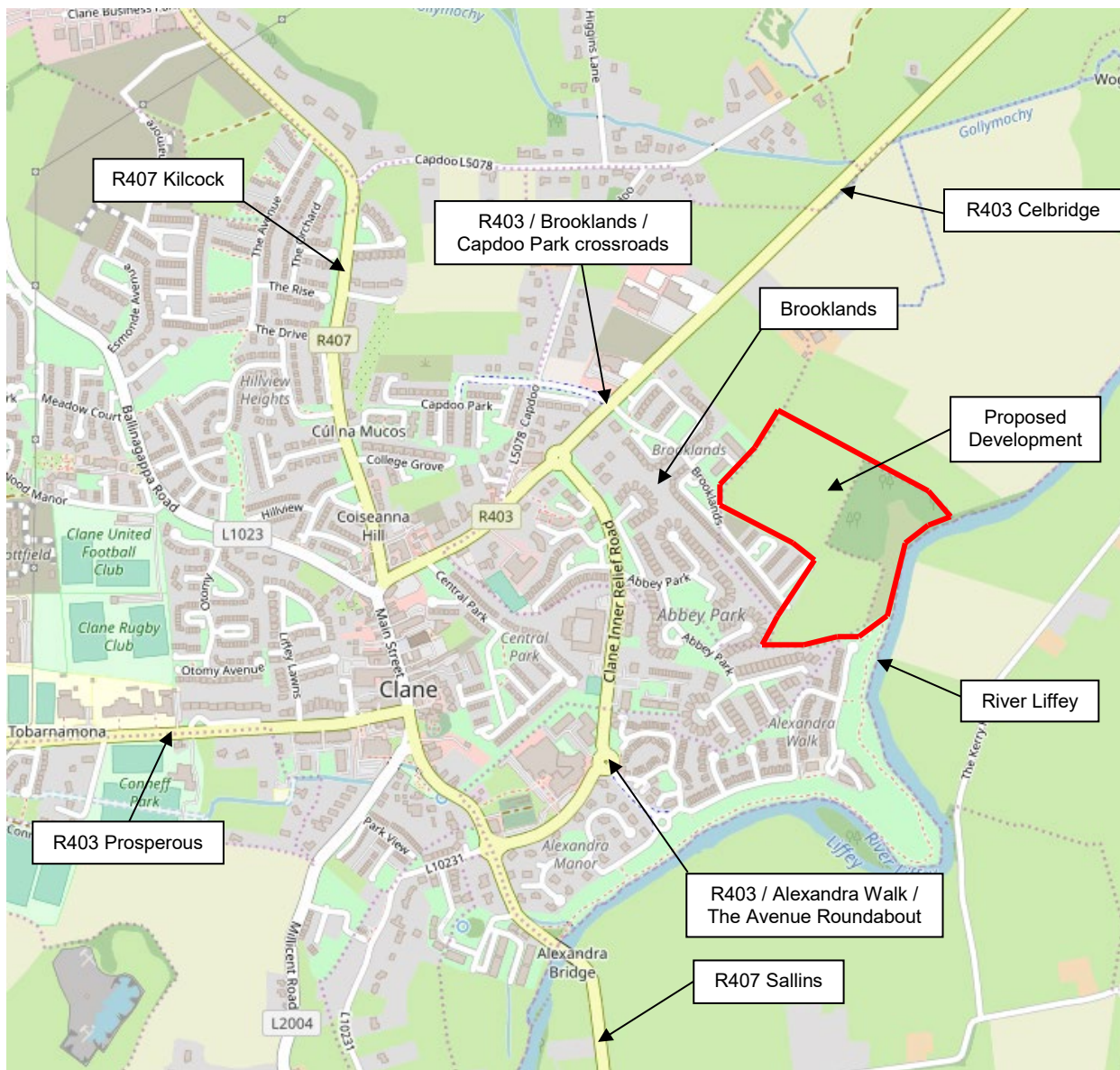


Figure 2.1: Site Location Map

2.2 EXISTING LAND USE

The existing site is currently undeveloped at present.

2.3 DESCRIPTION OF PROPOSED DEVELOPMENT

The proposed development consists of residential dwellings, apartments and a crèche as shown in table 2.1 and 2.2 *Development Schedule*.

Table 2.1 – Development Schedule

Item	Unit	Quantity
Residential Dwelling	No.	121
Duplex Dwelling	No.	68
Apartments	No.	144
Crèche	Sqm	485

Access to the proposed residential development will be via the existing R403 / Brooklands / Capdoo Park crossroads and the existing R403 / Alexandra Walk / The Avenue roundabout. A layout of the proposed development and its access points are shown on the Architect's drawing which is contained in Appendix A – Drawings.

3 EXISTING AND PROPOSED TRAFFIC CONDITIONS

3 Existing and Proposed Traffic Conditions

3.1 EXISTING TRAFFIC FLOWS

A traffic count was undertaken during a 12-hour period (07:00 to 19:00). The count data is provided in Appendix B – Traffic Counts. Count information was obtained at the following junctions:

- R403 / Brooklands / Capdoo Park crossroads
- R403 / Alexandra Walk / The Avenue roundabout

The traffic flows during the AM and PM peak hours were abstracted from the surveyed data and are shown in the following tables:

R403 / Brooklands / Capdoo Park Crossroads

AM Peak Existing (07:30 – 08:30)

From / To	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	1	285	10	296
Brooklands	31	0	58	1	90
R403 Clane	799	9	0	14	822
Capdoo Park	39	3	15	0	57
Totals	869	13	358	25	1265

Peak Existing (17:30 – 18:30)

From / To	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	24	797	42	863
Brooklands	6	0	32	3	41
R403 Clane	365	43	0	36	444
Capdoo Park	18	0	11	0	29
Totals	389	67	840	81	1377

R403 / Alexandra Walk / The Avenue Roundabout

AM Peak Existing (07:30 – 08:30)

From / To	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	29	313	1	343
Alexandra Walk	72	0	85	0	157
R403 (west)	362	21	0	4	387
The Avenue	10	0	6	0	16
Totals	444	50	404	5	903

Peak Existing (17:30 – 18:30)

From / To	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	49	580	9	638
Alexandra Walk	31	0	31	0	62
R403 (west)	440	70	3	10	523
The Avenue	3	0	3	0	6
Totals	474	119	617	19	1229

A summary of the count data for the peak hour flows is contained in Appendix C – Traffic Flow Sheets.

3.2 EXISTING ROAD NETWORK

Brooklands road is a cul-de-sac and provides access from the R403 to a number of residential developments. It is proposed to access the development via Brooklands road. The cross-section of Brooklands road is as follows:

- 6m wide carriageway.
- 2m wide footpaths with a 1m wide grass verge are located on either side of the carriageway.
- Street lighting is provided along Brooklands road.
- The speed limit on Brooklands road is 50kph.

Alexandra Walk road is a cul-de-sac and provides access from the R403 to a number of residential developments. It is proposed to access the development via Alexandra Walk. At the access to the development Alexandra Walk access road has the following cross-section:

- 6m wide carriageway.
- 2m wide footpath located on the west side of the carriageway.
- Street lighting is provided along Alexandra Walk access road.
- The speed limit on Alexandra Walk access road is 50kph.

The R403 is a regional road which travels in an east to west direction. To the east the R403 links Clane with Celbridge and to the M4, to the west the R403 links with other small and medium towns such as Prosperous and Allenwood. The R403 has the following characteristics at the location of the access onto Brooklands road

- 6.5m wide carriageway.
- 2m wide footpaths are located on the north and south sides of the carriageway. The footpaths provide pedestrian access to Clane and other surrounding residential developments.
- Street lighting is provided along the R403.
- The speed limit on the R403 is 50kph.

3.3 ROAD COLLISIONS

Information on road collisions was taken from the Road Safety Authority website and is provided hereunder in Figure 3.4.

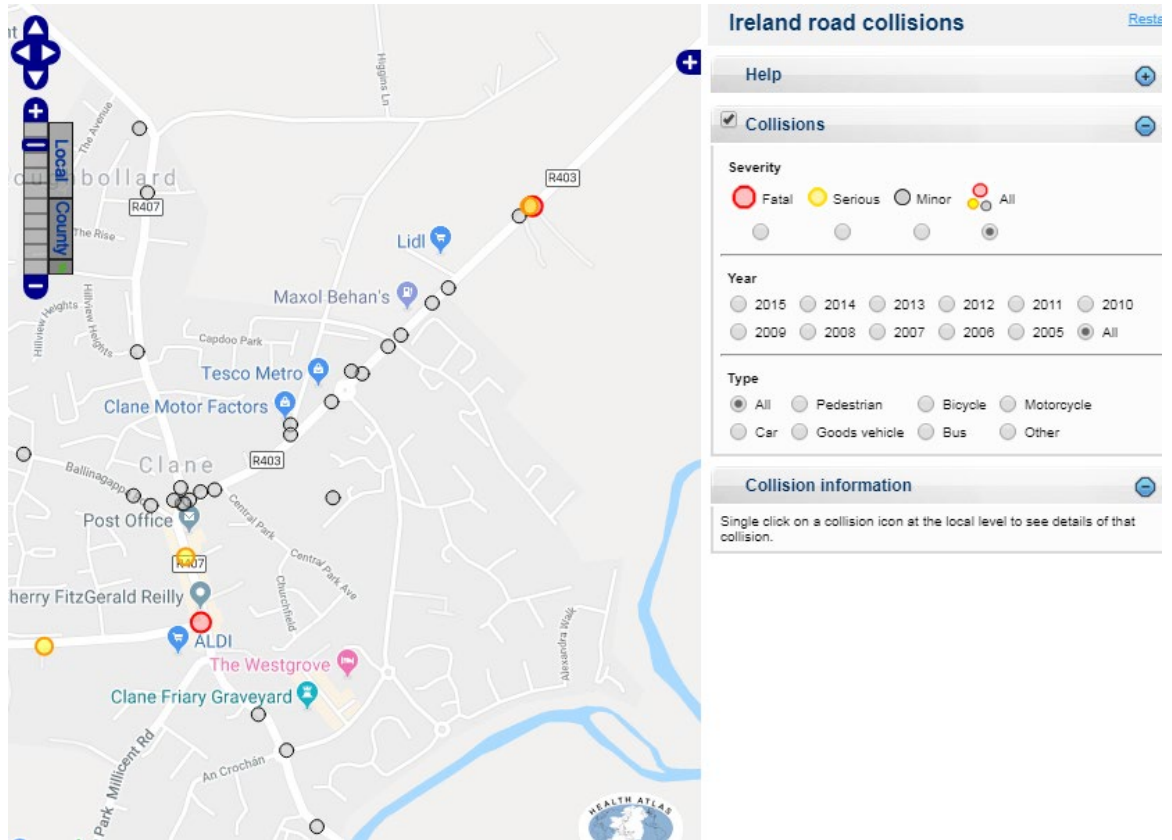


Fig 3.4: Road collisions

There have been two minor collisions at the R403 / Brooklands / Capdoo Park crossroads junction in the period of eleven years (from 2005 to 2015). There are no collisions recorded along Brooklands access road or at the existing R403 / Alexandra Walk / The Avenue roundabout.

3.4 PROPOSED ROAD NETWORK IMPROVEMENTS

The Kildare County Development Plan 2017-2023 has identified two locations along the R403 for road improvement works, "County boundary at Backweston to Clane via Celbridge and Clane to Junction with R402 via Prosperous, Allenwood & Derrinturn". However, it is not expected that these improvements would have a significant bearing on the development proposal.

4 TRAFFIC GENERATION & TRIP DISTRIBUTION

4 Traffic Generation and Trip Distribution

4.1 DEVELOPMENT TRIP GENERATION

The TRICS database has been used to predict the trip generation to and from the proposed development for the AM and PM peak periods. Full details of the TRICS information used for the assessments are provided in Appendix D - TRICS information.

4.1.1 Houses / Duplex

The category of "Residential / Houses Privately Owned" has been interrogated as the most appropriate development type category for this part of the development and the trip rates for the AM and PM peak periods are shown below:

Trip rates per number of Units

	Trip rate to development	Trip rate from development
AM Peak	0.20	0.40
PM Peak	0.45	0.27

For the proposed 189 residential dwellings with access onto Brooklands road this would give the following trips to and from the proposed development:

Trip Generation – 189 Dwellings

	Trip rate to development	Trip rate from development
AM Peak	37	75
PM Peak	85	51

4.1.2 Apartments

The category of "Residential / Flats Privately Owned" has been interrogated as the most appropriate development type category for this part of the development and the trip rates for the AM and PM peak periods are shown below:

Trip rates per number of Units

	Trip rate to development	Trip rate from development
AM Peak	0.05	0.15
PM Peak	0.12	0.07

For the proposed 144 apartments with access onto Brooklands road this would give the following trips to and from the proposed development:

Trip Generation – 144 Apartments

	Trip rate to development	Trip rate from development
AM Peak	7	21
PM Peak	17	10

4.1.3 Crèche

The category of "Education / Nursery" has been interrogated as the most appropriate development type category for this part of the development and the trip rates for the AM and PM peak periods are shown below:

Trip rates per number of Units

	Trip rate to development	Trip rate from development
AM Peak	5.93	4.11
PM Peak	2.99	3.22

For the proposed Crèche of 485sqm with access onto Brooklands road this would give the following trips to and from the proposed development:

Trip Generation – 485sqm

	Trip rate to development	Trip rate from development
AM Peak	28	19
PM Peak	14	15

4.1.4 Total Development Trip Generation Summary

To summarise, the combined trips that are predicted to be generated by the proposed development are shown in the table below:

Trip Generation – Total Development

	Trip rate to development	Trip rate from development	Total
AM peak	72	115	187
PM peak	116	76	192

4.2 TRIP DISTRIBUTION

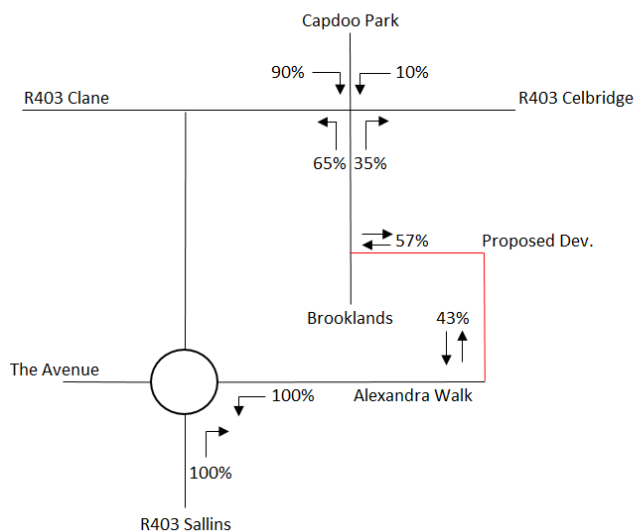
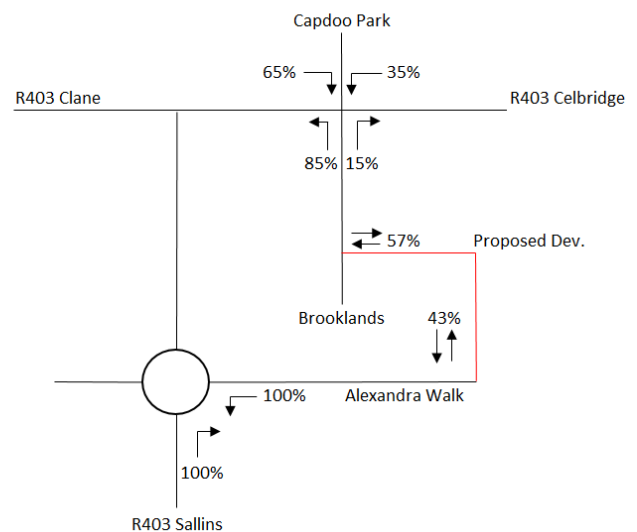
The access to the proposed development will be via the existing R403 / Brooklands / Capdoo Park crossroads and the existing R403 / Alexandra Walk / The Avenue roundabout. An origin / destination survey was carried out over a 3-day period from the 5th March 2019 to the 8th March 2019. The survey indicated that percentage of existing traffic arriving and departing to and from Clane are as follows:

- 23% to / from the R407 Kilcock direction
- 34% to / from the R403 Celbridge direction
- 28% to / from the R407 Sallins direction
- 15% to / from the R403 Prosperous direction

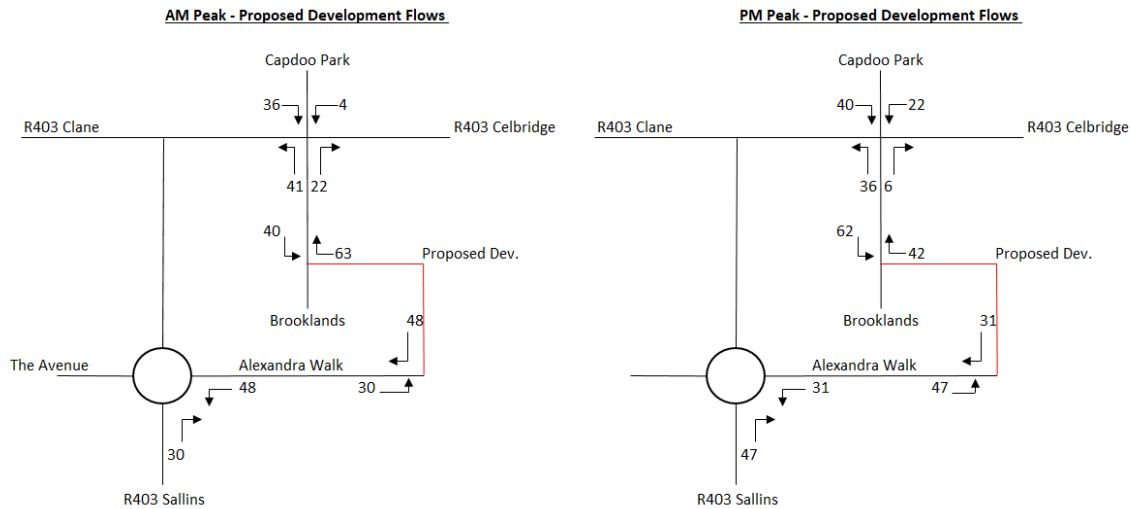
Using the above data, it is assumed that the development traffic will distribute as follows:

- 57% of the development traffic will arrive / depart via the R403 / Brooklands / Capdoo Park crossroads and
- 43% of the development traffic will arrive / depart via the R403 / Alexandra Walk / The Avenue roundabout.

The following diagrams show the existing and proposed traffic distribution percentage for the AM and PM peak at the existing R403 / Brooklands / Capdoo Park crossroads and the R403 / Alexandra Walk / The Avenue roundabout.

AM Peak - Existing & Proposed Trip Distribution (Percentage)**PM Peak - Existing & Proposed Trip Distribution (Percentage)**

Using the proposed directional splits shown above and the trips generated by the proposed development outlined in 4.1, the following diagrams show the turning movements of predicted development traffic at the R403 / Brooklands / Capdoo Park crossroads and the existing R403 / Alexandra Walk / The Avenue roundabout during the AM and PM peak hours:

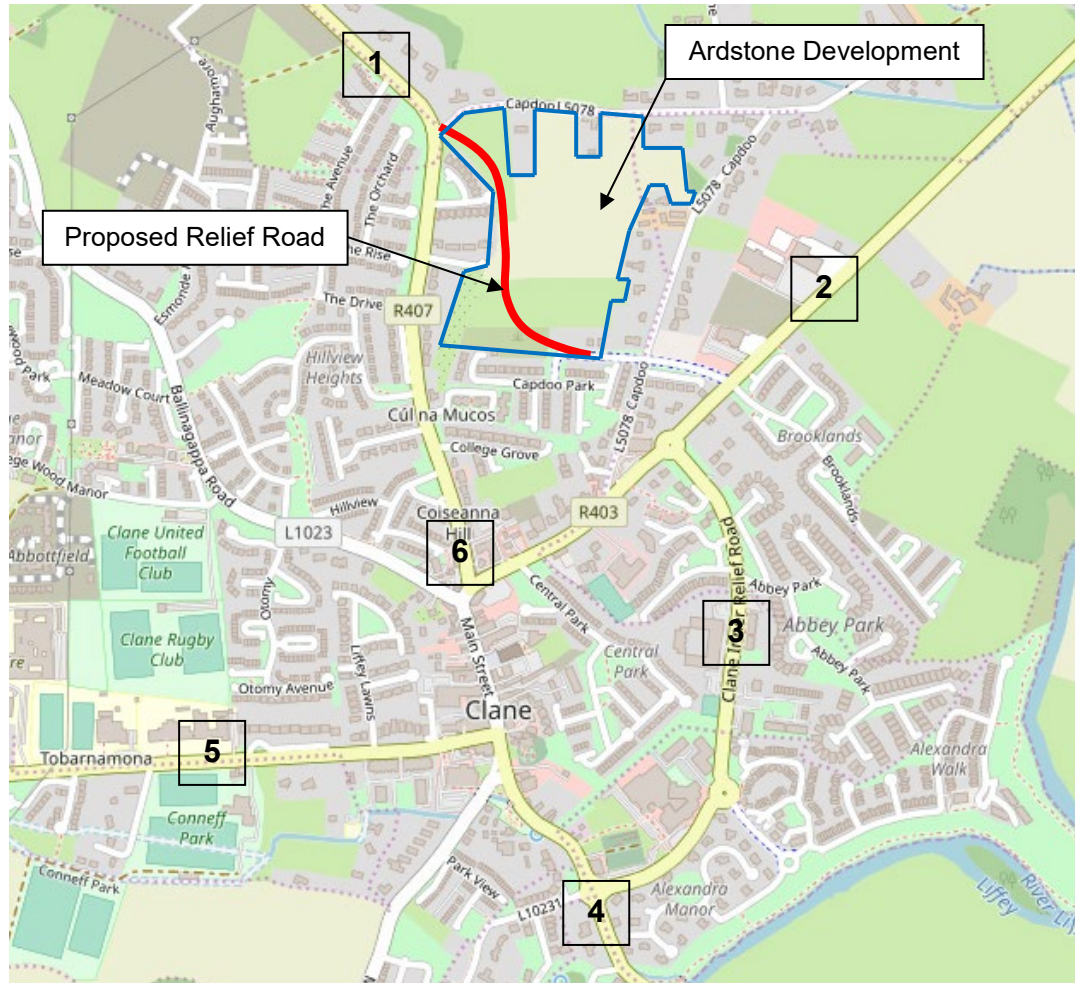


4.3 SENSITIVITY TESTING OF FUTURE DEVELOPMENT

There are lands located to the north of the proposed development which are zoned residential and are in the ownership of Ardstone Homes. Access to this potential future development would be via the existing R403 / Brooklands / Capdoo Park crossroads. For this reason, a capacity assessment has been undertaken to determine the impact that the possible future residential development will have on the existing R403 / Brooklands / Capdoo Park crossroads in the design year 2037 with the proposed residential development also operational.

As part of the Ardstone residential development it is proposed to provide a relief road through the development which will provide a connection from the R407 / L5078 priority junction to the R403 / Brooklands / Capdoo Park crossroads. The proposed relief road will have an impact on the travel pattern of traffic using the network surrounding Clane town. The alignment of the relief road and the location of Ardstone development is shown on the site map below.

In order to assess the impact that the relief road will have on the surrounding network an origin / destination survey was carried out. The origin / destination survey was carried out over a 3-day period from the 5th March 2019 to the 8th March 2019. Data was collected from 6 number origin / destination points. The location of each origin / destination point is shown on the site map below and the survey results are contained in Appendix B – Traffic Surveys. In addition to the above a 12-hour baseline traffic count was carried out at each of the 6 locations.



The origin / destination percentage splits for the 6 sites are indicated on the table below.

Origin / Destination	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Site 1	-	10%	9%	34%	7%	40%
Site 2	7%	-	25%	28%	23%	17%
Site 3	9%	55%	-	21%	4%	11%
Site 4	24%	42%	12%	-	10%	12%
Site 5	9%	52%	4%	22%	-	13%
Site 6	33%	26%	7%	22%	12%	-

With the relief road in place it is assumed that all vehicle trips travelling from site 1 to sites 2 and 3 will divert via the relief road and all vehicle trips travelling from sites 2 and 3 to site 1 will divert via the relief road. In addition, it is assumed that 40% of vehicles trips travelling to / from site 1 to site 4 will divert via the relief road.

Using the percentage splits shown in the table above it is assumed that 33% (10% + 9% + 14%) of the existing vehicle trips originating from site 1 will divert via the relief road and 26% (7% + 9% + 10%) of the existing vehicle trips originating from site 2, 3 and 4 will divert via the relief road.

Using the baseline traffic counts carried out at site 1 and the percentage splits shown above the predicted two-way flow of background traffic that will travel via the relief road during the AM and PM peak hours are indicated in the table below:

Proposed Relief Road - Diverted Trips

	Northbound	Southbound
AM Peak	89	88
PM Peak	97	95

The Ardstone development has been granted planning permission by An Bord Pleanala (ref no. ABP-304632-19). The development consists of 366 residential units (184 dwellings and 182 apartments).

The TRICS database has been used to predict trip generation to and from the proposed development for the AM and PM peak periods.

4.3.1 Residential Dwellings

Residential - Houses Privately Owned has been used as most appropriate category for this possible future development, and the trip rates for the AM and PM peak periods are shown below:

Residential (Houses Privately Owned) – Trip rates per House

	Arrivals to development	Departures from development
AM Peak	0.20	0.40
PM Peak	0.45	0.27

The predicted number of houses for the residential zoned land is 184. This results in the following trips to and from the proposed site:

Trip Generation – 184 No. Houses

	Trips to development	Trips from development
AM Peak	36	72
PM Peak	81	49

4.3.2 Apartments

The category of “Residential / Flats Privately Owned” has been interrogated as the most appropriate development type category for this part of the development and the trip rates for the AM and PM peak periods are shown below:

Trip rates per number of Units

	Trip rate to development	Trip rate from development
AM Peak	0.05	0.15
PM Peak	0.12	0.07

For the proposed 182 apartments with access onto Brooklands road this would give the following trips to and from the proposed development:

Trip Generation – 182 Apartments

	Trip rate to development	Trip rate from development
AM Peak	9	27
PM Peak	22	13

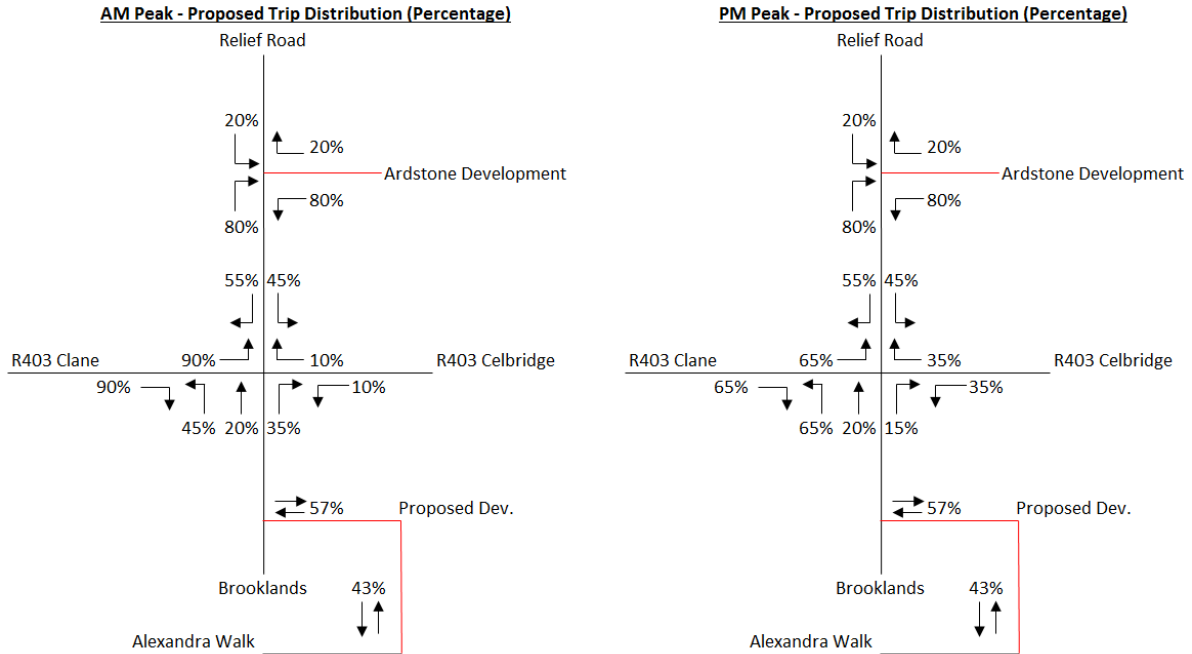
4.3.3 Total Development Trip Generation Summary

To summarise, the combined trips that are predicted to be generated by the proposed development are shown in the table below:

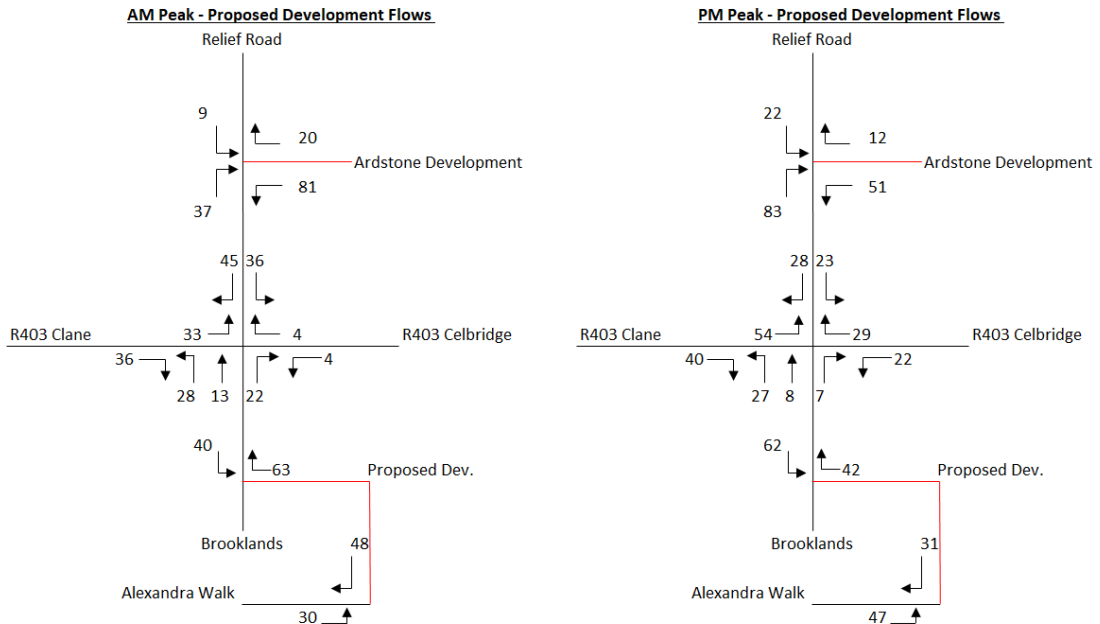
Trip Generation – Total Development

	Trip rate to development	Trip rate from development	Total
AM peak	46	101	147
PM peak	105	63	168

The construction of the proposed relief road as part of the Ardstone residential development will result in a re-distribution of the proposed residential flows associated with the Brooklands development. The following diagrams show the proposed traffic distribution percentage for the AM and PM peak at the existing R403 / Brooklands / Capdoo Park crossroads in 2037 when the proposed relief road and the Ardstone residential development is operational.



Using the proposed directional splits shown above and the trips generated by the proposed development outlined in 4.1 and the Ardstone Development outlined in 4.3, the following diagrams show the turning movements of predicted development traffic at the R403 / Brooklands / Capdoo Park crossroads during the AM and PM peak hours:



4.4 FUTURE YEAR TRAFFIC GROWTH

The TII issues a range of forecasts: low growth, medium growth and high growth. The implementation of policies relating to Smarter Travel and to public transport will act a deterrent to high growth in car-based travel. Low growth factors are however likely to be equally unrealistic at present in the Clane Area, so we have used medium growth factors in our assessment.

The zone in which the site is located is numbered 494 in the TII National Traffic Model. The growth factors are as follows:

Zone	2019 Existing	2022 development completion	2027 5 years after dev. completion	2037 15 years after dev. completion
494	1	5.88%	16.49%	27.18%

These percentages have been used to predict the increase in background traffic that will occur in future years. Full summary tables and predicted future traffic flows for 2022, 2027 and 2037 future years are included in Appendix C – Traffic Flow Sheets.

5 OPERATIONAL ASSESSMENTS

5 Operational Assessments

5.1 INTRODUCTION

Traffic generated by the proposed development will have some effect on the local road network surrounding the site. The following junction was assessed:

- R403 / Brooklands / Capdoo Park Crossroads
- R403 / Alexandra Walk / The Avenue Roundabout

5.2 R403 / BROOKLANDS / CAPDOO PARK CROSSROADS

Capacity assessments have been undertaken using the computer program PICADY for the AM and PM peak hours.

The following tables summarise the existing situation and the effects that the proposed development will have on this junction in 2022, 2027 and 2037 using the existing and predicted traffic flows shown in Appendix C – Traffic Flow Sheets. Full PICADY printouts are provided in Appendix E – PICADY Results.

The parameters shown in the tables are defined as follows:

Ratio of Flow to Capacity (RFC) is a factor indicating the flow on a junction arm relative to its capacity. An RFC of 1.0 means the junction has reached its ultimate capacity and an RFC of 0.85 means that the junction has reached its reserve capacity.

Avg. Queue is the average number of vehicles queued over the time period on the junction approach.

Queue delay is the average number of seconds delay to each vehicle in the time period.

Total Delay is the total number of vehicle hours of delay to all vehicles at the junction over the time period.

5.2.1 Existing Assessment (Base Flows)

The following tables show the predicted RFC values (Ratio of Flow to Capacity), average queue lengths, average vehicle delay and total delays for the existing crossroads junction using the existing traffic flows.

AM Peak – Base Flows

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 Celbridge	0.03	0	9	0.59
Brooklands	0.26	0	13	
R403 Clane	0.02	0	7	
Capdoo Park	0.14	0	18	

PM Peak – Base Flows

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 Celbridge	0.08	0	7	0.44
Brooklands	0.18	0	14	
R403 Clane	0.10	0	8	
Capdoo Park	0.04	0	13	

The summary predictions shown in the tables above indicate that there are no queues and minimal delays at this junction at present during the AM and PM peak hours.

5.2.2 Design Year Assessments (2022 With Development)

The following tables show the predicted RFC values (Ratio of Flow to Capacity), average queue lengths, average vehicle delay and total delays for the existing junction using the predicted traffic flows for 2022 including the proposed development.

AM Peak – 2022 with development

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 Celbridge	0.02	0	9	1.24
Brooklands	0.45	1	18	
R403 Clane	0.08	0	6	
Capdoo Park	0.11	0	19	

PM Peak – 2022 with development

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 Celbridge	0.10	0	7	0.88
Brooklands	0.35	1	18	
R403 Clane	0.20	0	9	
Capdoo Park	0.04	0	16	

The summary predictions shown in the tables above indicate that there will be minimal queues and small delays in the AM and PM peak hour at the junction in 2022, planned year of opening.

5.2.3 Design Year Assessments (2027 With Development)

The following tables show the predicted RFC values (Ratio of Flow to Capacity), average queue lengths, average vehicle delay and total delays for the existing junction using the predicted traffic flows for 2027 including the proposed development.

AM Peak – 2027 with development

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 Celbridge	0.02	0	9	1.56
Brooklands	0.51	1	21	
R403 Clane	0.08	0	6	
Capdoo Park	0.13	0	22	

PM Peak – 2027 with development

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 Celbridge	0.11	0	7	1.10
Brooklands	0.42	1	22	
R403 Clane	0.22	0	9	
Capdoo Park	0.04	0	17	

The summary predictions shown in the tables above indicate that there will be minimal queues and small delays in the AM and PM peak hour at the junction in 2027, five years after development completion.

5.2.4 Design Year Assessments (2037 With Development)

The following tables show the predicted RFC values (Ratio of Flow to Capacity), average queue lengths, average vehicle delay and total delays for the existing junction using the predicted traffic flows for 2037 including the proposed development.

AM Peak – 2037 with development

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 Celbridge	0.03	0	10	2.05
Brooklands	0.58	1	26	
R403 Clane	0.09	0	6	
Capdoo Park	0.15	0	27	

PM Peak – 2037 with development

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 Celbridge	0.12	0	7	1.36
Brooklands	0.48	1	28	
R403 Clane	0.25	0	10	
Capdoo Park	0.06	0	20	

The summary predictions shown in the tables above indicate that there will be minimal queues and small delays in the AM and PM peak hour at the junction in 2037, fifteen years after development completion.

5.2.5 Design Year Assessments (2037 With Development + Sensitivity Flows)

The following tables show the predicted RFC values (Ratio of Flow to Capacity), average queue lengths, average vehicle delay and total delays for the existing junction using the predicted traffic flows for 2037 including the proposed development Ardstone residential development.

AM Peak – 2037 with Development + Sensitivity Flows

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 Celbridge	0.17	0	12	44.26
Brooklands	0.68	2	44	
R403 Clane	0.09	0	6	
Capdoo Park	1.53	29	569	

PM Peak – 2037 with Development + Sensitivity Flows

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 Celbridge	0.33	1	7	11.360
Brooklands	0.43	1	29	
R403 Clane	0.28	1	9	
Capdoo Park	1.02	8	181	

Sensitivity testing of the proposed development, the Ardstone residential development with the relief road open indicates that during the AM and PM peak hour the junction will be at its ultimate capacity with queues and delays.

5.3 R403 / ALEXANDRA WALK / THE AVENUE ROUNDABOUT

Capacity assessments have been undertaken using the computer program ARCADY for the AM and PM peak hours.

The following tables summarise the existing situation and the effects that the proposed development will have on this junction in 2022, 2027 and 2037 using the existing and predicted traffic flows shown in Appendix C – Traffic Flow Sheets. Full ARCADY printouts are provided in Appendix F – ARCADY Results.

5.3.1 Existing Assessment (Base Flows)

The following tables show the predicted RFC values (Ratio of Flow to Capacity), average queue lengths, average vehicle delay and total delays for the existing roundabout junction using the existing traffic flows.

AM Peak – Base Flows

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 (east)	0.21	0	2	0.73
Alexandra Walk	0.13	0	3	
R403 (west)	0.31	0	3	
The Avenue	0.02	0	5	

PM Peak – Base Flows

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 (east)	0.38	1	3	1.15
Alexandra Walk	0.05	0	3	
R403 (west)	0.38	1	4	
The Avenue	0.01	0	6	

The summary predictions shown in the tables above indicate that there are minimal queues and delays at this junction at present during the AM and PM peak hours.

5.3.2 Design Year Assessments (2022 With Development)

The following tables show the predicted RFC values (Ratio of Flow to Capacity), average queue lengths, average vehicle delay and total delays for the existing junction using the predicted traffic flows for 2022 including the proposed development.

AM Peak – 2022 with development

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 (east)	0.22	0	2	0.91
Alexandra Walk	0.18	0	3	
R403 (west)	0.34	1	4	
The Avenue	0.03	0	6	

PM Peak – 2022 with development

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 (east)	0.41	1	3	1.40
Alexandra Walk	0.08	0	3	
R403 (west)	0.44	1	4	
The Avenue	0.01	0	6	

The summary predictions shown in the tables above indicate that there will be minimal queues and delays in the AM and PM peak at the junction in 2022, planned year of opening.

5.3.3 Design Year Assessments (2027 With Development)

The following tables show the predicted RFC values (Ratio of Flow to Capacity), average queue lengths, average vehicle delay and total delays for the existing junction using the predicted traffic flows for 2027 including the proposed development.

AM Peak – 2027 with development

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 (east)	0.25	0	3	1.04
Alexandra Walk	0.19	0	3	
R403 (west)	0.38	1	4	
The Avenue	0.03	0	6	

PM Peak – 2027 with development

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 (east)	0.45	1	3	1.60
Alexandra Walk	0.09	0	3	
R403 (west)	0.48	1	4	
The Avenue	0.01	0	6	

The summary predictions shown in the tables above indicate that there will be minimal queues and delays in the AM and PM peak hour at the junction in 2027, five years after development completion.

5.3.4 Design Year Assessments (2037 With Development)

The following tables show the predicted RFC values (Ratio of Flow to Capacity), average queue lengths, average vehicle delay and total delays for the existing junction using the predicted traffic flows for 2037 including the proposed development.

AM Peak – 2037 with development

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 (east)	0.27	0	3	1.19
Alexandra Walk	0.21	0	3	
R403 (west)	0.41	1	4	
The Avenue	0.03	0	6	

PM Peak – 2037 with development

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 (east)	0.50	1	4	1.94
Alexandra Walk	0.10	0	3	
R403 (west)	0.52	1	5	
The Avenue	0.01	0	7	

The summary predictions shown in the tables above indicate that there will be small queues and delays in the AM and PM peak hour at the junction in 2037, fifteen years after development completion.

5.4 R403 / BROOKLANDS / CAPDOO PARK SIGNALISED JUNCTION

Currently there are signal poles and signal heads located at the existing R403 / Brooklands / Capdoo Park crossroads junction. The traffic lights are currently not operational at present. However, a capacity assessment has been undertaken using the computer program TRANSYT for the AM and PM peak hours to determine the operational performance of the junction if it was upgraded to a signalised junction.

The following tables summarise the effects that the proposed development and the Ardstone development will have on this junction in 2037 using the existing and predicted traffic flows shown in Appendix C – Traffic Flow Sheets. Full TRANSYT printouts are provided in Appendix G – TRANSYT Results.

The parameters shown in the tables are defined as follows:

Max Degree of Saturation (%) is a ratio of demand to capacity on each approach to the junction, with a value of 100% meaning that demand and capacity are equal and no further traffic is able to progress through the junction. Values over 90% are typically regarded as suffering from traffic congestion, with queues of vehicles beginning to form.

Queue at end of Red is the number of vehicles queued on the approach arm at the end of red.

Average Delay is the average number of seconds delay to each vehicle in the time period.

Practical Reserve Capacity is the capacity available relative to a capacity of 90%. A positive PRC indicates that a junction has spare capacity and may be able to accept more traffic. A negative PRC indicates that the junction is over capacity and is suffering from traffic congestion.

R403 / Brooklands / Capdoo Park Signalised Junction

AM Peak		2020 Base Flows	2022 + Dev Flows	2027 + Dev Flows	2037 + Dev. Flows	2037 + Dev. Flows + Sen. Flows	
R403/ Brooklands/ Capdoo Park Signalised Junction	R403 (east)	Max DoS %	35	37	44	88	97
		Mean Max Que (pcu's)	9	10	12	26	27
		Average delay (s)	15	15	19	62	77
		PRC %	157	143	103	2	-7
	Brooklands	Max DoS %	53	90	97	104	127
		Mean Max Que (pcu's)	5	11	14	17	37
		Average delay (s)	77	125	150	189	401
		PRC %	70	0	-7	-14	-29
	R403 (west)	Max DoS %	81	92	100	107	117
		Mean Max Que (pcu's)	36	50	70	91	156
		Average delay (s)	27	36	55	94	267
		PRC %	11	-2	-10	-16	-23
	Capdoo Park	Max DoS %	29	28	28	31	112
		Mean Max Que (pcu's)	3	2	2	2	25
		Average delay (s)	64	68	68	69	45
		PRC %	364	221	227	189	-20

With traffic signals activated in 2020 the signalised junction will be at capacity with queues and delays during the AM peak hour.

In 2022, 2027 and 2037 with the development in place the signalised junction will be at capacity with queues and delays during the AM peak hour.

Sensitivity testing in 2037, indicates that with the proposed residential development open, the Ardstone residential development open and the relief road open the junction will be at capacity resulting with queues and delays during the AM peak hour.

R403 / Brooklands / Capdoo Park Signalised Junction

PM Peak		2020 Base Flows	2022 + Dev Flows	2027 + Dev Flows	2037 + Dev. Flows	2037 + Dev. Flows + Sen. Flows	
R403/ Brooklands/ Capdoo Park Signalised Junction	R403 (east)	Max DoS %	83	92	98	108	140
		Mean Max Que (pcu's)	36	48	64	108	316
		Average delay (s)	28	38	52	146	531
		PRC %	8	-2	-8	-17	-36
	Brooklands	Max DoS %	26	47	53	54	87
		Mean Max Que (pcu's)	3	5	5	6	7
		Average delay (s)	67	72	73	74	107
		PRC %	244	90	71	66	3
	R403 (west)	Max DoS %	87	101	106	107	101
		Mean Max Que (pcu's)	27	44	59	67	54
		Average delay (s)	66	118	149	155	81
		PRC %	4	-11	-15	-16	-11
	Capdoo Park	Max DoS %	17	19	22	26	82
		Mean Max Que (pcu's)	2	2	2	2	8
		Average delay (s)	66	65	66	67	93
		PRC %	426	386	302	242	9

With traffic signals activated in 2019 the signalised junction will be at its capacity with queues and delays during the PM peak hour.

In 2022, 2027 and 2037 with the development in place the signalised junction will be at capacity with queues and delays during the PM peak hour.

Sensitivity testing in 2037, indicates that with the proposed residential development open, the Ardstone residential development open and the relief road open the junction will be at capacity resulting with queues and delays during the PM peak hour.

5.5 CONCLUSIONS

Junction analyses to assess the effects of traffic generated by the proposed development have been undertaken for the existing R403 / Brooklands / Capdoo Park crossroads and the existing R403 / Alexandra Walk / The Avenue roundabout. The analysis shows that:

- The existing R403 / Brooklands / Capdoo Park crossroads currently operates within capacity with minimal delays and queues during the AM and PM peak hours.
- The existing R403 / Brooklands / Capdoo Park crossroads will continue to operate within capacity with small queues and delays when the proposed development is completed in 2022, year of opening, 2027, five years after opening and in 2037, fifteen years after opening.
- Sensitivity testing of the proposed development, the Ardstone residential development with the relief road open indicates that the existing R403 / Brooklands / Capdoo Park crossroads will operate at its ultimate capacity with queues and delays during the AM and PM peak period.
- The existing R403 / Alexandra Walk / The Avenue roundabout currently operates within capacity with minimal delays and queues during the AM and PM peak hours.
- The existing R403 / Alexandra Walk / The Avenue roundabout will continue to operate within capacity with small queues and delays when the proposed development is

completed in 2022, year of opening, 2027, five years after opening and in 2037, fifteen years after opening.

- Upgrading of the existing R403 / Brooklands / Capdoo Park crossroads to a signalised junction will result in the junction being at capacity resulting in queues and delays at the junction during the AM and PM peak hours with the proposed residential development operational in 2022, 2027 and 2037.
- Sensitivity testing of the proposed development, the Ardstone residential development with the relief road open indicates that upgrading of the existing R403 / Brooklands / Capdoo Park crossroads to a signalised junction will result in the junction being at capacity resulting in queues and delays at the junction during the AM and PM peak hours in 2037.

6 PARKING

6 Parking

6.1 CAR PARKING PROVISION

A total of 575 parking spaces are to be provided within the proposed residential development including 18 parking spaces for the proposed creche development as shown on the architect's drawing contained in Appendix A – Drawings

6.2 CAR PARKING REQUIREMENTS FROM DEVELOPMENT PLAN

The 'Kildare County Development Plan 2017-2023' lists standard provision for car parking and the table below sets out those requirements in relation to the proposed development.

Car parking requirements from the Kildare County Development Plan 2017 – 2023

Parking Standards for Residential Development			
Land-use	Requirements	Quantity	Parking
Residential Dwellings	2 spaces per unit	121 Dwellings	242
Apartments / Duplex	1.5 spaces per unit + 1 visitor space per 4 apartments	212 Apartments / Duplex	371
Crèche	0.5 per staff member plus 1 per 4 children	75 children + 15 staff	26
Total			639

The Kildare County Development Plan indicates that the number of parking spaces required is 639 parking spaces.

The number of parking spaces required for the 200 apartments / duplex units was also assessed using the "Design Standards for New Apartments – Guidelines for Planning Authorities 2018".

the "Design Standards for New Apartments – Guidelines for Planning Authorities 2018" indicates that 1 car space per unit together with an element of visitor parking, such as 1 space for every 3-4 apartments should generally be required.

Therefore, using the above requirements, the table below sets out those requirements in relation to the proposed 212 apartments / duplex.

Car parking requirements from the Design Standards for New Apartments

Parking Standards for Residential Development			
Land-use	Requirements	Quantity	Parking
Apartments / Duplex	1 space per unit + 1 visitor space per 4 apartments	212 Apartments / Duplex	253
Total			253

In summary, the Kildare County Development Plan indicates that 242 parking spaces are required for the residential dwellings and the Design Standards for New Apartments – Guidelines for Planning Authorities 2018 indicates that 253 parking spaces are required for the apartments / duplex giving a total of 495 parking spaces which is adequate to cater for the parking demand of the development.

7 ROAD SAFETY, PEDESTRIANS AND INTERNAL LAYOUT

7 Road Safety, Pedestrians and Internal Layout

7.1 ROAD SAFETY

The Design Manual for Urban Roads and Streets indicates that for a 50km/h speed limit a sightline of 45m at a 2m set-back shall be achieved in both directions.

At the proposed residential access and at the proposed creche access onto Brooklands access road a 45m sightline at a 2m set-back can be achieved in both directions. The visibility splay to the north and south of the proposed accesses is measured from a 2m set-back to the nearside kerb of the road.

7.2 PEDESTRIANS

A 2m wide footpath will be provided internally to cater for pedestrian movement within the development. The proposed internal footpaths within the development will connect to the existing footpath located on Brooklands access road and the existing footpaths located on Alexandra Walk access road.

7.3 INTERNAL LAYOUT

Within the development the spine road is 6m wide.

Parking is provided for each residential dwelling. Parking for Apartments is located adjacent to each apartment block. Parking bays are 2.5m wide x 5m long.

HGV access to the site will be via the proposed access onto Brooklands access road and via Alexandra Walk. The types of HGV's accessing the site would be emergency vehicles and a bin lorry. The internal layout can facilitate HGV movement within the site.

8 CONCLUSIONS AND SUMMARY

8 Conclusions

The main conclusions of this study are summarised as follows:

- The existing R403 / Brooklands / Capdoo Park crossroads currently operates within capacity with minimal delays and queues during the AM and PM peak hours.
- The existing R403 / Brooklands / Capdoo Park crossroads will operate within capacity with small queues and delays when the proposed development is completed in 2022, year of opening, 2027, five years after opening and in 2037, fifteen years after opening.
- Sensitivity testing of the proposed development, the Ardstone residential development with the relief road open indicates that the existing R403 / Brooklands / Capdoo Park crossroads will operate at its ultimate capacity with queues and delays during the AM and PM peak period.
- The existing R403 / Alexandra Walk / The Avenue roundabout currently operates within capacity with minimal delays and queues during the AM and PM peak hours.
- The existing R403 / Alexandra Walk / The Avenue roundabout will operate within capacity with small queues and delays when the proposed development is completed in 2022, year of opening, 2027, five years after opening and in 2037, fifteen years after opening.
- Upgrading of the existing R403 / Brooklands / Capdoo Park crossroads to a signalised junction will result in the junction being at capacity resulting in queues and delays at the junction during the AM and PM peak hours with the proposed residential development operational in 2022, 2027 and 2037.
- Sensitivity testing of the proposed development and the Ardstone residential development with the relief road open indicates that upgrading of the existing R403 / Brooklands / Capdoo Park crossroads to a signalised junction will result in the junction being at capacity resulting in queues and delays at the junction during the AM and PM peak hours in 2037.
- The development provides adequate car parking spaces when assessed in accordance with the Kildare county development plan and the Design Standards for New Apartments – Guidelines for Planning Authorities 2018. Facilities for pedestrians are included in the internal layout.
- Sightlines at the proposed accesses onto Brooklands road are in compliance with the Design Manual for Urban Roads & Streets.

Summary

The existing R403 / Brooklands / Capdoo Park crossroads currently operates within capacity with a maximum RFC value of 0.26 in the AM peak. The proposed development will generate an additional 187 trips in the AM peak and 192 trips in the PM peak.

As a result of increased flows generated by the proposed development and an increase in the background flows the existing R403 / Brooklands / Capdoo Park crossroads will operate within capacity with a maximum RFC value of 0.58 in the AM peak, in 2037, fifteen years after the development has been completed.

The development of the Ardstone residential site will result in the construction of a relief road that will provide a connection from the existing R403 / Brooklands / Capdoo Park crossroads to the R407 / L5078 priority junction. As a result of increase flows generated by the Ardstone residential development and with the proposed residential development operational in 2037 the existing R403 / Brooklands / Capdoo Park crossroads will operate at its ultimate capacity with a maximum RFC value of 1.53 in the AM peak.

Currently traffic signals are provided at the junction however they are not operational at present. Analysis was carried out on the signals in order to determine capacity of the junction if the traffic signals were operational.

The capacity analysis indicated that if the junction operated as a signalised junction it would result in queues and delays with and without the proposed development in place during the AM and PM peak hours.

In terms of road safety, the visibility splays at the existing access from Brooklands onto the R403 are in compliance with the Design Manual for Urban Roads and Streets. In addition, adequate pedestrian facilities are provided at the existing junction to cater for pedestrian movement.

APPENDICES

APPENDIX A – DRAWINGS

APPENDIX B – TRAFFIC COUNTS

B=>A					TOT	PCU	B=>B					TOT	PCU	B=>C					TOT	PCU	B=>D					TOT	PCU
CAR	LGV	OGV1	OGV2	OGV3V (BU)			CAR	LGV	OGV1	OGV2	OGV3V (BU)			CAR	LGV	OGV1	OGV2	OGV3V (BU)			CAR	LGV	OGV1	OGV2	OGV3V (BU)		
0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	38	6	2	1	0	47	0				
2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	37	6	3	3	1	50	0				
3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	42	2	0	2	3	49	0				
2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	1	61	6	1	3	0	71	0				
7	1	0	0	0	8	0	0	0	0	0	0	1	0	0	1	178	20	6	9	4	217	0					
2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	62	8	2	2	0	74	0				
3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	82	5	3	1	0	91	0				
3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	54	4	2	1	1	62	0				
3	0	0	0	0	3	0	0	0	0	0	0	1	0	0	1	78	7	0	1	0	86	0					
11	0	0	0	0	11	0	0	0	0	0	0	1	0	0	1	276	24	7	5	1	313	0					
3	1	0	0	0	4	0	0	0	0	0	0	1	0	0	1	65	10	2	4	0	81	0					
1	1	0	0	0	2	0	0	0	0	0	0	1	0	0	1	85	15	3	2	1	106	0					
1	3	0	0	0	4	0	0	0	0	0	0	2	0	0	2	61	8	5	1	0	75	0					
3	0	0	0	0	3	0	0	0	0	0	0	1	1	0	2	67	14	3	2	0	86	0					
8	5	0	0	0	13	0	0	0	0	0	0	5	1	0	6	278	47	13	9	1	348	0					
2	0	0	0	0	2	0	0	0	0	0	0	1	0	0	1	56	9	5	3	3	76	0					
1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	69	7	7	4	2	89	0					
3	1	0	0	0	4	0	0	0	0	0	0	1	1	0	2	72	8	4	2	0	86	0					
3	1	0	0	0	4	0	0	0	0	0	0	2	0	0	2	64	10	0	1	1	76	0					
9	2	0	0	0	11	0	0	0	0	0	0	5	1	0	6	261	34	16	10	6	327	0					
1	0	0	0	0	1	0	0	0	0	0	0	2	0	0	2	56	2	5	1	0	64	0					
2	0	0	0	0	2	0	0	0	0	0	0	3	0	0	3	75	18	3	0	1	97	0					
1	0	0	0	0	1	0	0	0	0	0	0	1	1	0	2	66	6	3	1	0	76	0					
3	0	0	0	0	3	0	0	0	0	0	0	2	0	0	2	92	7	0	6	1	106	0					
7	0	0	0	0	7	0	0	0	0	0	0	8	1	0	9	289	33	11	8	2	343	0					
3	0	0	0	0	3	0	0	0	0	0	0	1	1	0	2	83	10	2	4	0	99	0					
3	1	0	0	0	4	0	0	0	0	0	0	3	0	0	3	66	8	3	0	1	78	0					
0	2	0	0	0	2	0	0	0	0	0	0	3	0	0	3	80	16	7	3	0	106	0					
3	0	0	0	0	3	0	0	0	0	0	0	1	0	0	1	82	9	5	6	1	103	0					
9	3	0	0	0	12	0	0	0	0	0	0	8	1	0	9	311	43	17	13	2	386	0					
3	1	0	0	0	4	0	0	0	0	0	0	3	0	0	3	79	9	3	2	0	93	0					
2	1	0	0	0	3	0	0	0	0	0	0	1	0	0	1	84	10	1	1	1	97	0					
5	0	0	0	0	5	0	0	0	0	0	0	2	1	0	3	80	18	5	2	0	105	0					
3	0	0	0	0	3	0	0	0	0	0	0	2	0	1	3	92	8	3	2	1	106	0					
13	2	0	0	0	15	0	0	0	0	0	0	8	1	1	10	335	45	12	7	2	401	0					
3	0	0	0	0	3	0	0	0	0	0	0	1	0	0	1	90	18	2	2	0	112	0					
3	0	0	0	0	3	0	0	0	0	0	0	1	0	0	1	93	13	6	2	1	115	0					
3	0	0	0	0	3	0	0	0	0	0	0	1	0	0	1	91	14	3	4	0	112	0					
2	0	0	0	0	2	0	0	0	0	0	0	7	0	0	7	82	14	2	2	0	100	0					
11	0	0	0	0	11	0	0	0	0	0	0	10	0	0	10	356	59	13	10	1	439	0					
8	0	0	0	0	8	0	0	0	0	0	0	4	0	0	4	99	12	1	2	0	114	0					
3	0	0	0	0	3	0	0	0	0	0	0	4	0	0	4	104	19	4	1	1	129	0					
3	1	0	0	0	4	0	0	0	0	0	0	9	2	0	11	73	9	5	2	1	90	0					
4	2	0	0	0	6	0	0	0	0	0	0	7	0	0	7	108	17	5	0	0	130	0					
18	3	0	0	0	21	0	0	0	0	0	0	24	2	0	26	384	57	15	5	2	463	0					
3	2	0	0	0	5	0	0	0	0	0	0	5	1	0	6	109	14	3	2	0	128	0					
7	0	0	0	0	7	0	0	0	0	0	0	4	0	0	4	144	16	6	2	2	170	0					
4	1	0	0	0	5	0	0	0	0	0	0	3	1	0	4	146	18	2	1	0	167	0					
5	0	0	0	0	5	0	0	0	0	0	0	2	0	0	2	140	30	4	1	0	175	0					
19	3	0	0	0	22	0	0	0	0	0	0	14	2	0	16	539	78	15	6	2	640	0					
6	1	0	0	0	7	0	0	0	0	0	0	5	1	0	6	160	23	1	0	1	185	0					
0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	5	123	16	2	0	0	141	0					
10	0	1	0	0	11	0	0	0	0	0	0	8	0	0	8	168	30	2	2	1	203	0					
11	0	0	0	0	11	0	0	0	0	0	0	8	0	0	8	178	23	2	1	0	204	0					
27	1	1	0	0	29	0	0	0	0	0	0	24	3	0	27	629	92	7	3	2	733	0					
9	2	0	0	0	11	0	0	0	0	0	0	4	0	0	4	191	17	3	2	1	214	0					
8	1	0	0	0	9	0	0	0	0	0	0	3	1	0	4	155	19	1	1	0	176	0					
3	1	0	0	0	4	0	0	0	0	0	0	6	1	0	7	127	10	0	0	0	137	0					
6	0	0	0	0	6	0	0	0	0	0	0	4	0	0	4	124	14	0	1	3	142	0					
26	4	0	0	0	30	0	0	0	0	0	0	17	2	0	19	597	60	4	4	4	669	0					
165	24	1	0	0	190	0	0	0	0	0	0	125	14	1	140	4433	592	136	89	29	5279	0					

C=>A					C=>B					C=>C					C=>D									
CAR	LGV	OGV1	OGV23V (BU)	TOT	PCU	CAR	LGV	OGV1	OGV23V (BU)	TOT	PCU	CAR	LGV	OGV1	OGV23V (BU)	TOT	PCU	CAR	LGV	OGV1	OGV23V (BU)	TOT	PCU	
0	0	0	0	0	0	9	0	0	0	9	0	0	0	0	0	0	0	5	0	0	0	5	0	
0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	3	1	0	0	4	0	
0	0	0	0	0	0	7	2	0	0	9	0	0	0	0	0	0	0	11	1	0	0	12	0	
0	0	0	0	0	0	9	0	0	0	9	0	0	0	0	0	0	0	10	0	0	0	10	0	
0	0	0	0	0	0	30	2	0	0	32	0	0	0	0	0	0	0	29	2	0	0	31	0	
0	0	0	0	0	0	9	0	0	0	9	0	0	0	0	0	0	0	13	2	0	0	15	0	
1	0	0	0	0	1	4	0	0	0	4	0	0	0	0	0	0	0	16	3	0	1	21	0	
3	0	0	0	0	3	4	0	0	0	4	0	0	0	0	0	0	0	16	5	0	1	22	0	
0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	9	4	0	0	13	0	
4	0	0	0	0	4	20	0	0	0	20	0	0	0	0	0	0	0	54	14	0	2	71	0	
0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	0	0	8	0	0	0	8	0	
1	0	0	0	0	1	5	1	0	0	6	0	0	0	0	0	0	0	6	0	0	0	6	0	
0	0	0	1	0	1	2	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	2	0	
0	0	0	0	0	0	3	1	0	0	4	0	0	0	0	0	0	0	1	0	1	0	2	0	
1	0	0	1	0	2	15	3	0	0	18	0	0	0	0	0	0	0	17	0	1	0	18	0	
1	0	0	0	0	1	2	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	2	0	
0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	2	1	0	0	3	0	
0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	
0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	3	0	0	0	3	0	
1	1	0	0	0	2	5	1	0	0	6	0	0	0	0	0	0	0	9	1	0	0	10	0	
0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	2	1	0	0	3	0	
1	0	0	0	0	1	3	1	0	0	4	0	0	0	0	0	0	0	8	0	0	0	8	0	
1	0	0	0	0	1	3	0	0	0	3	0	0	0	0	0	0	0	2	0	0	0	2	0	
1	0	0	0	0	1	2	0	0	0	2	0	0	0	0	0	0	0	3	2	0	0	5	0	
3	0	0	0	0	3	9	2	0	0	11	0	0	0	0	0	0	0	15	3	0	0	18	0	
1	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	3	0	0	0	3	0	
0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	2	1	0	0	3	0	
0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	
2	0	0	0	0	2	3	0	0	0	3	0	0	0	0	0	0	0	5	0	0	0	5	0	
3	1	0	0	0	4	6	0	0	0	6	0	0	0	0	0	0	0	13	1	0	0	14	0	
0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	2	3	0	0	5	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	1	0	9	0	
0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	7	1	0	0	8	0	
0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	5	0	1	0	6	0	
0	0	0	0	0	0	8	1	0	0	9	0	0	0	0	0	0	0	21	5	2	0	28	0	
0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	9	2	0	0	11	0	
0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	9	0	0	0	9	0	
0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	7	0	1	0	8	0	
0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	6	1	1	0	8	0	
0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	31	3	2	0	36	0	
0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	1	2	0
0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	2	0	0
0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	5	2	0	0	7	0	
0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	6	0	0	0	6	0	
0	0	0	0	0	0	6	0	0	1	7	0	0	0	0	0	0	0	14	2	0	0	17	0	
0	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	5	0	0	0	5	0	
0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	4	0	0	0	4	0	
0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	2	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	
0	0	0	0	0	0	10	0	1	0	11	0	0	0	0	0	0	0	14	0	0	0	14	0	
1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	
1	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	6	0	0	0	6	0	
1	0	0	0	0	1	3	0	0	0	3	0	0	0	0	0	0	0	9	1	0	0	10	0	
1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	7	2	0	0	9	0	
4	1	0	0	0	5	4	0	0	0	4	0	0	0	0	0	0	0	27	3	0	0	30	0	
0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	5	0	0	0	5	0	
0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	6	1	1	0	8	0	
0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	8	0	0	0	8	0	
0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	11	1	0	0	12	0	
0	1	0	0	0	1	8	0	0	0	8	0	0	0	0	0	0	0	30	2	1	0	33	0	
16	4	0	1	0	21	128	9	1	1	139	0	0	0	0	0	0	0	274	36	6	2	320	0	

D=>A						D=>B						D=>C						D=>D					
CAR	LGV	OGV1	OGV23V (BU)	TOT	PCU	CAR	LGV	OGV1	OGV23V (BU)	TOT	PCU	CAR	LGV	OGV1	OGV23V (BU)	TOT	PCU	CAR	LGV	OGV1	OGV23V (BU)	TOT	PCU
2	0	0	0	0	2	0	142	27	1	1	1	172	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	1	0	182	38	6	4	2	232	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	192	26	4	4	2	228	0	3	0	0	0	0	0	0	0	0	0
2	0	0	0	0	2	0	189	28	5	4	1	227	0	2	0	0	0	0	0	0	0	0	0
5	0	0	0	0	5	0	705	119	16	13	6	859	0	5	0	0	0	0	0	0	0	0	0
2	0	0	0	0	2	0	160	20	6	2	0	188	0	0	1	1	0	0	0	0	0	0	0
10	0	0	0	0	10	0	138	14	0	3	1	156	0	2	0	0	0	0	0	0	0	0	0
15	0	0	0	0	15	0	116	6	1	2	2	127	0	4	0	1	0	0	0	0	0	0	0
4	0	0	0	0	4	0	119	22	4	0	0	145	0	13	2	0	0	0	0	0	0	0	0
31	0	0	0	0	31	0	533	62	11	7	3	616	0	19	3	2	0	0	0	0	0	0	0
6	0	0	0	0	6	0	118	12	3	2	0	135	0	5	1	0	0	0	0	0	0	0	0
2	0	0	0	0	2	0	113	12	1	2	0	128	0	4	0	0	1	0	0	0	0	0	0
2	0	0	0	0	2	0	105	12	6	1	1	125	0	2	0	1	0	0	0	0	0	0	0
0	1	0	0	0	1	0	79	10	8	1	0	98	0	4	0	0	0	0	0	0	0	0	0
10	1	0	0	0	11	0	415	46	18	6	1	486	0	15	1	1	1	0	0	0	0	0	0
3	0	0	0	0	3	0	84	18	3	3	1	109	0	2	0	0	0	0	0	0	0	0	0
1	1	0	0	0	2	0	63	14	1	1	0	79	0	1	1	0	0	0	0	0	0	0	0
0	1	0	0	0	1	0	79	7	0	3	2	91	0	5	0	0	0	0	0	0	0	0	0
0	1	0	0	0	1	0	87	9	7	2	0	105	0	2	0	0	0	0	0	0	0	0	0
4	3	0	0	0	7	0	313	48	11	9	3	384	0	10	1	0	0	0	0	0	0	0	0
3	0	0	0	0	3	0	82	8	3	4	1	98	0	4	1	0	0	0	0	0	0	0	0
1	0	1	0	0	2	0	63	6	3	1	2	75	0	5	0	0	0	0	0	0	0	0	0
6	1	0	0	0	7	0	58	7	1	1	1	68	0	0	0	0	0	0	0	0	0	0	0
3	1	0	0	0	4	0	94	14	1	3	0	112	0	7	1	0	0	0	0	0	0	0	0
13	2	1	0	0	16	0	297	35	8	9	4	353	0	16	2	0	0	0	0	0	0	0	0
3	0	0	0	0	3	0	87	11	1	3	0	102	0	6	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	75	8	5	2	1	91	0	3	1	0	0	0	0	0	0	0	0
5	0	0	0	0	5	0	66	10	3	0	1	80	0	7	1	1	0	0	0	0	0	0	0
4	0	0	1	0	5	0	64	12	1	1	0	78	0	5	1	0	0	0	0	0	0	1	0
12	0	0	1	0	13	0	292	41	10	6	2	351	0	21	4	1	0	0	0	0	0	1	0
3	0	0	0	0	3	0	93	6	1	1	2	103	0	5	1	0	0	0	0	0	0	0	0
3	1	0	0	0	4	0	80	9	6	0	1	96	0	1	0	0	0	0	0	0	0	0	0
2	0	0	0	0	2	0	79	11	3	3	1	97	0	4	0	0	0	0	0	0	0	0	0
3	2	0	0	0	5	0	93	15	1	1	0	110	0	9	1	0	0	0	0	0	0	0	0
11	3	0	0	0	14	0	345	41	11	5	4	406	0	19	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	66	8	3	1	0	78	0	4	2	0	0	0	0	0	0	0	0
3	1	0	0	0	4	0	87	8	6	3	1	105	0	1	0	0	0	0	0	0	0	1	0
5	1	0	0	0	6	0	70	6	3	1	1	81	0	5	0	0	0	0	0	0	0	0	0
4	1	0	0	0	5	0	74	9	2	0	0	85	0	11	2	1	0	0	0	0	0	0	0
12	3	0	0	0	15	0	297	31	14	5	2	349	0	21	4	1	0	0	0	0	0	1	0
3	0	0	0	0	3	0	69	7	1	2	2	81	0	5	1	0	0	0	0	0	0	0	0
1	1	0	0	0	2	0	62	4	1	2	0	69	0	5	0	0	1	0	0	0	0	0	0
3	0	0	0	0	3	0	78	12	1	0	0	91	0	5	1	0	0	0	0	0	0	0	0
6	0	0	0	0	6	0	65	8	1	2	1	77	0	14	0	0	0	0	0	0	0	0	0
13	1	0	0	0	14	0	274	31	4	6	3	318	0	29	2	0	1	0	0	0	0	0	0
2	0	0	0	0	2	0	69	10	2	0	0	81	0	6	0	1	0	0	0	0	0	0	0
3	0	0	0	0	3	0	84	12	2	1	2	101	0	5	1	0	0	0	0	0	0	0	0
2	1	0	0	1	4	0	78	9	0	1	5	93	0	5	1	0	0	0	0	0	0	0	0
4	0	0	0	0	4	0	73	12	2	1	2	90	0	2	1	0	0	0	0	0	0	0	0
11	1	0	0	1	13	0	304	43	6	3	9	365	0	18	3	1	0	0	0	0	0	0	0
11	0	0	0	0	11	0	72	10	0	1	1	84	0	9	2	0	0	0	0	0	0	0	0
7	0	0	0	0	7	0	74	12	2	0	0	88	0	12	0	0	0	0	0	0	0	0	0
8	2	0	0	0	10	0	70	6	1	1	1	79	0	11	0	0	0	0	0	0	0	0	0
10	1	0	0	0	11	0	78	6	1	0	0	85	0	10	2	0	0	0	0	0	0	0	0
36	3	0	0	0	39	0	294	34	4	2	2	336	0	42	4	0	0	0	0	0	0	0	0
7	0	0	0	0	7	0	79	8	1	0	0	88	0	11	1	0	0	0	0	0	0	0	0
8	0	0	0	0	8	0	102	8	0	2	1	113	0	7	1	0	0	0	0	0	0	0	0
7	0	0	0	0	7	0	93	5	2	0	0	100	0	11	0	1	0	0	0	0	0	0	0
5	0	0	0	0	5	0	73	9	0	1	0	83	0	5	0	0	0	0	0	0	0	0	0
27	0	0	0	0	27	0	347	30	3	3	1	384	0	34	2	1	0	0	0	0	0	0	0
185	17	1	1	1	205	0	4416	561	116	74	40	5207	0	249	28	7	2	0	0	0	0	2	0

Irish Traffic Surveys Ltd

Survey Name : ITS J285 Site A
 Site: Site A
 Date: 05/03/2019(07:00-19:00)
 Location: Clane, Co Kildare



Video end on -18:40:38

TIME	A => A								A => B								A => C							
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
07:00	0	0	0	0	0	0	0	0	0	0	37	20	5	2	0	64	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	42	15	3	8	1	69	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	58	16	6	6	0	86	0	0	1	1	0	0	0	2
07:45	0	0	0	0	0	0	0	0	0	0	59	12	4	2	1	78	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	196	63	18	18	2	297	0	0	1	1	0	0	0	2
08:00	0	0	0	0	0	0	0	0	0	0	62	8	2	1	0	73	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	62	18	2	2	0	84	0	0	0	0	1	1	0	2
08:30	0	0	0	0	0	0	0	0	0	0	54	5	3	1	1	64	0	0	2	0	0	0	0	2
08:45	0	0	0	0	0	0	0	0	0	0	59	6	4	3	0	72	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	237	37	11	7	1	293	0	0	2	0	1	1	0	4
09:00	0	0	0	0	0	0	0	0	0	0	66	9	3	2	0	80	0	0	1	0	0	0	0	1
09:15	0	0	0	0	0	0	0	0	0	0	64	13	6	6	0	89	0	0	1	0	1	0	0	2
09:30	0	0	0	0	0	0	0	0	0	0	69	11	3	2	0	85	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	57	12	5	2	0	76	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	256	45	17	12	0	330	0	0	2	0	1	0	0	3
10:00	0	0	0	0	0	0	0	0	0	0	63	12	4	4	2	85	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	35	11	4	5	1	56	0	0	2	0	0	0	0	2
10:30	0	0	0	0	0	0	0	0	0	0	46	10	6	1	0	63	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	1	0	51	9	9	2	0	72	0	0	2	0	0	0	0	2
H/TOT	0	0	0	0	0	0	0	1	0	0	195	42	23	12	3	276	0	0	4	0	0	0	0	4
11:00	0	0	0	0	0	0	0	0	0	0	35	11	3	0	0	49	0	0	1	0	0	0	0	1
11:15	0	0	0	0	0	0	0	0	0	0	51	9	3	2	0	65	0	0	0	1	0	0	0	1
11:30	0	0	0	0	0	0	0	0	0	0	50	10	4	3	0	67	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	50	12	1	8	0	71	0	0	2	1	0	0	0	3
H/TOT	0	0	0	0	0	0	0	0	0	0	186	42	11	13	0	252	0	0	3	2	0	0	0	5
12:00	0	0	0	0	0	0	0	0	0	0	58	11	1	6	2	78	0	0	1	0	0	0	0	1
12:15	0	0	0	0	0	0	0	0	0	1	40	7	4	2	0	54	0	0	5	0	0	0	0	5
12:30	0	0	0	0	0	0	0	0	0	1	52	7	3	2	0	65	0	0	0	0	0	0	0	0
12:45	0	0	1	0	0	0	0	1	0	0	58	6	4	5	0	73	0	0	1	0	1	0	0	2
H/TOT	0	0	1	0	0	0	1	1	0	2	208	31	12	15	2	270	0	0	7	0	1	0	0	8
13:00	0	0	0	0	0	0	0	0	0	0	60	11	3	5	0	79	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	55	11	2	3	2	73	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	62	4	3	2	6	77	0	0	3	0	0	0	0	3
13:45	0	0	0	0	0	0	0	0	0	0	52	10	0	3	1	66	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	229	36	8	13	9	295	0	0	3	0	0	0	0	3
14:00	0	0	0	0	0	0	0	0	0	0	52	11	3	4	0	70	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	55	11	2	6	0	74	1	0	0	0	0	0	0	1
14:30	0	0	0	0	0	0	0	0	0	0	43	9	3	2	0	57	0	0	1	0	0	0	0	1
14:45	0	0	0	0	0	0	0	0	0	0	52	13	8	1	0	74	0	0	1	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	0	0	202	44	16	13	0	275	1	0	2	0	0	0	0	3
15:00	0	0	0	0	0	0	0	0	0	0	60	5	1	0	1	67	0	0	4	0	0	0	0	4
15:15	0	0	0	0	0	0	0	0	0	0	56	9	4	3	1	73	0	0	1	0	0	0	0	1
15:30	0	0	0	0	0	0	0	0	0	0	52	10	3	2	1	68	0	0	3	0	0	0	0	3
15:45	0	0	0	0	0	0	0	0	1	0	60	8	1	1	1	72	0	0	1	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	1	0	0	228	32	9	6	4	280	0	0	9	0	0	0	0	9
16:00	0	0	0	0	0	0	0	0	0	0	54	13	4	4	1	76	0	0	1	2	0	0	0	3
16:15	0	0	0	0	0	0	0	0	0	0	74	14	2	0	0	90	0	0	4	0	0	0	0	4
16:30	0	0	0	0	0	0	0	0	0	0	68	14	1	2	0	85	0	0	0	1	0	0	0	1
16:45	0	0	0	0	0	0	0	0	0	0	64	9	3	0	0	76	0	0	2	0	0	0	0	2
H/TOT	0	0	0	0	0	0	0	0	0	0	260	50	10	6	1	327	0	0	7	3	0	0	0	10
17:00	0	0	0	0	0	0	0	0	0	0	74	13	1	1	0	89	0	0	1	1	1	0	0	3
17:15	0	0	0	0	0	0	0	0	1	0	67	15	2	9	0	94	1	0	1	0	0	0	0	2
17:30	0	0	0	0	0	0	0	0	0	0	77	10	1	0	0	88	0	0	1	1	0	0	0	2
17:45	0	0	0	0	0	0	0	0	0	0	65	12	0	6	0	83	0	0	1	1	0	0	0	2
H/TOT	0	0	0	0	0	0	0	1	0	0	283	50	4	16	0	354	1	0	4	3	1	0	0	9
18:00	0	0	0	0	0	0	0	0	0	0	63	8	1	2	2	76	0	0	2	0	0	0	0	2
18:15	0	0	0	0	0	0	0	0	1	0	62	5	0	7	7	82	0	0	2	0	0	0	0	2
18:30	0	0	0	0	0	0	0	0	0	0	53	3	1	1	0	58	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	1	0	0	178	16	2	10	9	216	0	0	4	0	0	0	0	4
12 TOT	0	0	1	0	0	0	1	4	2	2658	488	141	141	31	3465	2	0	48	9	4	1	0	0	64



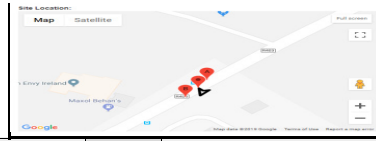
B => A								B => B								B => C							
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
0	0	43	15	1	2	0	61	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1	0	35	19	2	4	1	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	82	16	0	2	0	100	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
2	0	213	62	5	15	2	299	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2
0	0	85	10	6	3	1	105	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	4
0	0	87	9	3	3	3	105	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
0	0	90	10	1	5	2	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	86	13	5	7	0	111	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
0	0	348	42	15	18	6	429	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	6
0	0	57	9	1	0	0	67	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
0	0	64	11	6	4	0	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	51	7	5	3	1	67	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
0	0	47	11	0	2	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	219	38	12	9	1	279	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4
0	0	36	13	2	2	0	53	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
0	0	47	12	2	9	0	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	37	3	5	3	0	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	43	11	3	5	0	63	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
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1	0	43	8	2	3	1	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	42	9	3	5	2	61	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
0	0	70	13	3	1	0	87	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
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0	0	37	8	1	2	0	48	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
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0	0	221	32	15	12	3	283	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5
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0	0	41	10	0	1	0	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	217	35	2	6	4	264	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10
6	1	2730	493	135	157	30	3552	0	0	0	0	0	0	0	0	5	0	74	12	0	0	1	92
B => A								B => B								B => C							
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT



C => A								C => B								C => C							
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
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3	0	2	0	0	0	0	5	0	0	3	2	0	0	0	0	5	0	0	0	0	0	0	0
0	0	4	0	0	0	0	4	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0
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0	0	2	0	1	0	0	3	0	0	8	1	0	0	1	10	0	0	0	0	0	0	0	0
0	0	2	0	0	0	0	2	1	0	6	0	0	0	0	7	0	0	0	0	0	0	0	0
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0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	8	3	0	0	0	11	0	0	8	2	0	0	0	10	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	2	0	0	0	0	2	1	0	2	0	0	0	0	3	0	0	0	0	0	0	0	0
3	0	58	11	3	3	0	78	3	1	86	12	0	0	1	103	0	0	0	0	0	0	0	0
C => A								C => B								C => C							
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT

Irish Traffic Surveys Ltd

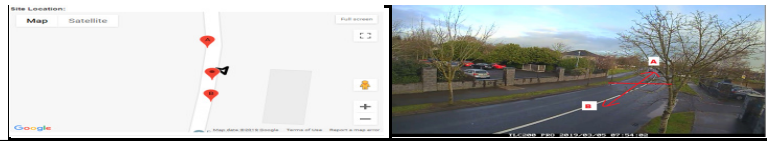
Survey Name : ITS J285 Site B
 Site: Site B
 Date: 05/03/2019(07:00-19:00)
 Location: Clane, Co.Kildare



TIME	A => B								TOT	B => A								TOT
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	P/C		M/C	CAR	LGV	OGV1	OGV2	PSV			
07:00	0	0	48	7	3	2	0	60	0	2	163	32	6	2	2	207		
07:15	0	0	38	6	3	1	0	48	0	0	162	30	5	4	1	202		
07:30	0	0	52	4	2	0	3	61	0	2	182	31	3	2	2	222		
07:45	0	0	58	11	1	2	0	72	0	0	171	25	2	4	1	203		
H/TOT	0	0	196	28	9	5	3	241	0	4	678	118	16	12	6	834		
08:00	0	0	64	5	4	4	0	77	1	0	171	20	4	0	1	197		
08:15	0	1	66	9	4	4	1	85	1	1	174	15	1	2	0	194		
08:30	0	0	58	4	0	3	0	65	1	0	145	20	2	2	2	172		
08:45	0	0	66	8	2	2	0	78	0	0	135	14	0	3	2	154		
H/TOT	0	1	254	26	10	13	1	305	3	1	625	69	7	7	5	717		
09:00	0	0	61	9	0	2	0	72	0	0	127	16	1	1	0	145		
09:15	0	0	90	7	1	1	2	101	0	0	119	8	1	4	1	133		
09:30	0	0	72	4	1	2	0	79	0	0	89	7	2	0	1	99		
09:45	0	0	62	9	2	3	1	77	0	0	86	12	4	2	0	104		
H/TOT	0	0	285	29	4	8	3	329	0	0	421	43	8	7	2	481		
10:00	0	0	65	6	6	2	0	79	0	0	71	11	2	3	0	87		
10:15	0	0	53	13	6	2	1	75	0	0	91	15	2	4	4	116		
10:30	0	0	71	11	5	2	1	90	0	0	75	16	4	1	1	97		
10:45	0	0	83	11	2	2	0	98	0	1	70	11	3	4	0	89		
H/TOT	0	0	272	41	19	8	2	342	0	1	307	53	11	12	5	389		
11:00	0	0	60	10	1	1	0	72	0	0	73	9	4	1	0	87		
11:15	1	0	58	9	1	3	2	74	0	2	74	11	2	1	0	90		
11:30	0	0	71	10	3	4	2	90	0	1	94	6	4	5	1	111		
11:45	0	0	72	9	3	1	1	86	0	0	70	16	2	2	0	90		
H/TOT	1	0	261	38	8	9	5	322	0	3	311	42	12	9	1	378		
12:00	0	0	60	10	3	3	0	76	0	0	93	5	2	4	1	105		
12:15	0	0	76	10	4	1	1	92	0	0	80	7	2	3	2	94		
12:30	1	1	94	10	3	1	0	110	1	0	73	8	2	1	1	86		
12:45	0	0	73	8	2	3	2	88	0	0	93	8	2	3	0	106		
H/TOT	1	1	303	38	12	8	3	366	1	0	339	28	8	11	4	391		
13:00	0	0	78	13	3	4	4	102	0	0	88	6	4	2	0	100		
13:15	0	1	98	15	0	2	1	117	0	0	77	15	2	1	1	96		
13:30	0	0	95	6	3	2	1	107	0	0	79	5	5	2	6	97		
13:45	0	0	83	9	1	2	1	96	1	0	74	8	2	3	2	90		
H/TOT	0	1	354	43	7	10	7	422	1	0	318	34	13	8	9	383		
14:00	1	0	62	10	3	3	0	79	0	0	77	16	1	3	0	97		
14:15	0	1	95	11	3	3	2	115	0	0	77	6	1	4	1	89		
14:30	0	0	97	8	1	2	0	108	0	0	64	15	1	3	1	84		
14:45	0	0	73	11	4	2	1	91	0	0	89	11	3	1	0	104		
H/TOT	1	1	327	40	11	10	3	393	0	0	307	48	6	11	2	374		
15:00	0	0	117	14	6	3	1	141	1	0	79	4	4	0	0	88		
15:15	1	0	118	25	11	4	1	160	0	1	75	6	3	1	2	88		
15:30	0	0	117	18	4	0	0	139	0	1	72	9	4	0	0	86		
15:45	0	0	112	17	5	1	2	137	0	0	98	11	2	2	2	115		
H/TOT	1	0	464	74	26	8	4	577	1	2	324	30	13	3	4	377		
16:00	0	0	129	30	2	1	0	162	0	0	71	11	2	1	0	85		
16:15	0	0	143	23	4	1	0	171	0	0	89	14	1	2	0	106		
16:30	0	0	170	29	2	1	1	203	1	0	96	8	1	1	4	111		
16:45	1	1	183	31	6	0	0	222	0	0	73	10	1	1	1	86		
H/TOT	1	1	625	113	14	3	1	758	1	0	329	43	5	5	5	388		
17:00	0	2	177	25	4	1	1	210	0	0	104	12	1	1	0	118		
17:15	0	0	196	33	1	1	0	231	1	0	89	7	0	2	1	100		
17:30	1	1	203	18	1	2	1	227	1	0	104	9	1	0	0	115		
17:45	1	0	180	28	2	1	1	213	0	0	77	6	0	0	0	83		
H/TOT	2	3	756	104	8	5	3	881	2	0	374	34	2	3	1	416		
18:00	0	1	175	18	0	1	4	199	0	0	66	11	0	0	0	77		
18:15	0	0	176	23	2	0	0	201	0	0	84	4	0	1	4	93		
18:30	0	0	171	11	0	1	2	185	0	1	85	6	0	0	1	93		
18:45	0	1	130	8	4	0	1	144	1	0	66	8	0	1	0	76		
H/TOT	0	2	652	60	6	2	7	729	1	1	301	29	0	2	5	339		
12 TOT	7	10	4749	634	134	89	42	5665	10	12	4634	571	101	90	49	5467		
	A => B									B => A								
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT		

Irish Traffic Surveys Ltd

Survey Name : ITS J285 Site C
 Site : Site C
 Date : 05/03/2019(07:00-19:00)
 Location : Clone, Co. Kildare



TIME	A => B								TOT	B => A								TOT
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	P/C		M/C	CAR	LGV	OGV1	OGV2	PSV			
07:00	0	0	44	6	2	0	0	52	0	0	68	14	3	0	0	85		
07:15	0	0	38	7	1	0	1	47	0	0	101	16	2	2	3	124		
07:30	0	0	58	3	1	1	1	64	0	0	85	10	2	2	0	99		
07:45	0	0	63	10	1	1	0	75	0	0	106	11	2	1	0	120		
H/TOT	0	0	203	26	5	2	2	238	0	0	360	51	9	5	3	428		
08:00	0	0	78	7	1	1	1	88	0	0	99	8	0	0	1	108		
08:15	0	0	86	7	0	1	0	94	1	0	115	12	2	2	1	133		
08:30	1	0	97	9	1	5	0	113	0	0	113	10	1	2	0	126		
08:45	0	0	84	9	1	0	0	94	0	0	102	17	2	3	1	125		
H/TOT	1	0	345	32	3	7	1	389	1	0	429	47	5	7	3	492		
09:00	0	0	53	4	2	1	1	61	0	0	105	6	0	3	0	114		
09:15	0	0	78	9	1	1	0	89	0	0	83	4	1	1	0	89		
09:30	0	0	63	3	1	1	0	68	0	0	54	6	1	1	0	62		
09:45	0	0	55	9	0	2	0	66	0	0	48	9	3	1	1	62		
H/TOT	0	0	249	25	4	5	1	284	0	0	290	25	5	6	1	327		
10:00	0	0	52	3	3	0	0	58	0	0	60	4	2	2	0	68		
10:15	0	0	52	6	4	3	0	65	0	0	68	10	3	2	0	83		
10:30	0	0	56	6	3	1	0	66	0	1	60	8	4	1	0	74		
10:45	0	0	60	5	6	1	0	72	0	0	40	4	4	2	1	51		
H/TOT	0	0	220	20	16	5	0	261	0	1	228	26	13	7	1	276		
11:00	0	0	64	4	0	0	0	68	1	0	49	1	1	0	0	52		
11:15	0	0	63	9	1	1	0	74	0	0	64	7	1	2	0	74		
11:30	0	0	56	7	1	2	0	66	0	0	61	7	3	3	0	74		
11:45	0	0	56	5	1	2	0	64	0	0	56	12	0	0	1	69		
H/TOT	0	0	239	25	3	5	0	272	1	0	230	27	5	5	1	269		
12:00	0	0	59	13	1	3	0	76	0	0	78	4	0	4	0	86		
12:15	0	0	45	6	2	3	0	56	1	0	55	7	2	1	0	66		
12:30	0	0	65	4	3	0	0	72	0	0	56	8	2	0	0	66		
12:45	0	1	39	5	2	1	0	48	0	0	76	3	0	1	0	80		
H/TOT	0	1	208	28	8	7	0	252	1	0	265	22	4	6	0	298		
13:00	0	0	65	6	5	3	0	79	2	0	64	7	2	3	1	79		
13:15	0	0	62	11	1	3	0	77	0	0	54	11	2	2	0	69		
13:30	0	0	88	5	1	1	0	95	0	0	58	10	3	2	0	73		
13:45	0	0	62	8	1	1	0	72	0	0	56	5	0	0	2	63		
H/TOT	0	0	277	30	8	8	0	323	2	0	232	33	7	7	3	284		
14:00	0	0	67	15	0	1	0	83	0	0	49	6	1	0	1	57		
14:15	0	1	73	13	2	2	0	91	0	0	51	7	4	1	0	63		
14:30	0	0	64	7	0	2	0	73	0	0	63	10	4	1	0	78		
14:45	0	0	65	15	3	0	1	84	0	0	60	3	4	1	0	68		
H/TOT	0	1	269	50	5	5	1	331	0	0	223	26	13	3	1	266		
15:00	0	0	72	7	4	2	1	86	0	0	73	3	0	0	1	77		
15:15	1	0	97	18	6	2	2	126	0	1	69	5	2	0	0	77		
15:30	0	0	86	9	3	1	0	99	0	0	65	11	2	1	0	79		
15:45	0	0	85	8	0	2	0	95	1	0	74	4	0	1	1	81		
H/TOT	1	0	340	42	13	7	3	406	1	1	281	23	4	2	2	314		
16:00	0	0	84	17	4	1	0	106	0	0	89	10	1	1	0	101		
16:15	0	0	98	15	0	0	0	113	1	0	85	11	0	3	0	100		
16:30	0	0	122	24	1	1	0	148	1	0	76	8	0	0	2	87		
16:45	0	0	142	19	6	1	0	168	0	1	85	8	0	1	1	96		
H/TOT	0	0	446	75	11	3	0	535	2	1	335	37	1	5	3	384		
17:00	0	0	127	22	1	0	0	150	0	0	86	7	0	1	0	94		
17:15	0	0	142	21	2	3	0	168	0	0	102	10	0	2	0	114		
17:30	1	0	163	20	2	0	0	186	0	0	111	9	2	0	0	122		
17:45	2	0	140	19	2	2	0	165	0	0	95	9	0	0	0	104		
H/TOT	3	0	572	82	7	5	0	669	0	0	394	35	2	3	0	434		
18:00	0	1	134	9	0	0	1	145	1	0	111	5	0	0	0	117		
18:15	0	1	140	12	1	0	1	155	0	1	99	6	2	1	1	110		
18:30	0	0	115	10	0	2	0	127	0	0	72	8	0	0	0	80		
18:45	0	0	104	6	3	0	0	113	0	0	63	3	0	0	0	66		
H/TOT	0	2	493	37	4	2	2	540	1	1	345	22	2	1	1	373		
12 TOT	5	4	3861	472	87	61	10	4500	9	4	3612	374	70	57	19	4145		
	A => B									B => A								
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT		

Irish Traffic Surveys Ltd

Survey Name : ITS J285 Site D
 Site: Site D
 Date: 05/03/2019(07:00-19:00)
 Location: Clane, Co Kildare



TIME	A => A							A => B							A => C							A => D												
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT		
07:00	0	0	0	0	0	0	0	0	0	0	7	2	1	1	0	11	0	0	44	19	3	1	0	67	0	0	1	0	0	0	0	1		
07:15	0	0	1	0	0	0	0	1	0	0	9	2	0	1	0	14	0	0	57	14	4	6	1	82	0	0	0	0	0	0	0	0		
07:30	0	0	0	0	0	0	0	0	0	0	10	4	0	0	0	14	0	0	74	12	2	5	1	94	0	0	0	0	0	0	0	0		
07:45	0	0	0	0	0	1	0	1	0	0	14	4	1	0	0	19	0	1	54	10	3	2	2	72	0	0	0	0	0	0	0	0		
H/TOT	0	0	1	0	0	1	0	2	0	0	40	12	2	2	0	56	0	1	229	55	12	14	4	315	0	0	1	0	0	0	0	1		
08:00	0	0	0	0	0	0	0	0	0	0	16	2	0	0	1	19	0	0	58	5	2	1	1	67	0	0	2	0	0	0	0	2		
08:15	0	0	0	0	0	0	0	0	0	0	13	0	0	0	1	14	0	0	33	6	1	1	0	41	0	0	3	1	0	0	0	4		
08:30	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	18	0	0	44	1	1	2	0	48	0	0	1	0	0	0	0	1		
08:45	0	0	1	0	0	0	0	1	0	0	20	2	0	2	0	24	0	0	29	1	2	0	0	32	0	0	0	0	0	0	0	0		
H/TOT	0	0	1	0	0	0	0	1	0	0	67	4	0	2	2	75	0	0	164	13	6	4	1	188	0	0	6	1	0	0	0	7		
09:00	0	0	0	0	0	0	0	0	0	0	43	3	0	1	1	48	0	0	35	3	1	5	0	44	0	0	0	0	0	0	0	0	0	
09:15	0	0	0	0	0	0	0	0	0	0	29	2	0	0	0	31	0	0	39	8	1	2	0	50	0	0	3	0	0	0	0	3		
09:30	0	0	2	0	0	0	0	2	1	0	25	1	1	0	0	28	0	0	49	6	3	3	2	63	0	0	1	1	0	0	0	2		
09:45	0	0	1	0	0	0	0	1	0	0	20	0	1	0	0	21	0	0	45	4	4	2	2	57	0	0	0	0	0	0	0	0		
H/TOT	0	0	3	0	0	0	0	3	1	0	117	6	2	1	1	128	0	0	168	21	9	12	4	214	0	0	4	1	0	0	0	5		
10:00	0	0	0	0	0	0	0	0	0	0	22	2	1	0	0	25	0	0	37	5	5	2	0	49	0	0	1	0	1	0	0	2		
10:15	0	0	1	0	1	0	0	2	0	0	26	2	0	0	0	28	0	0	35	5	2	1	1	44	0	0	0	1	0	0	0	1		
10:30	0	0	1	1	0	0	0	2	0	0	17	3	0	0	0	20	0	0	34	3	4	2	0	43	0	0	1	0	0	0	0	1		
10:45	0	0	1	0	0	0	0	1	0	0	30	0	2	0	0	32	0	0	33	6	5	2	1	47	0	0	1	0	0	0	0	1		
H/TOT	0	0	3	1	1	0	0	5	0	0	95	7	3	0	0	105	0	0	139	19	16	7	2	183	0	0	3	1	1	0	0	5		
11:00	0	0	0	0	0	0	0	0	0	0	32	2	1	0	0	35	0	0	33	10	1	0	0	44	0	0	1	0	0	0	0	1	1	
11:15	0	0	0	0	0	0	0	0	0	0	30	3	0	0	0	33	0	0	29	6	3	3	0	41	0	0	1	1	0	0	0	2		
11:30	0	0	0	0	1	0	0	1	0	0	23	1	2	0	0	26	0	0	35	6	1	0	0	42	0	0	2	0	0	0	0	2		
11:45	0	0	1	0	0	0	1	2	0	0	27	1	1	0	0	29	0	0	27	5	3	8	0	43	0	0	1	0	0	0	0	1		
H/TOT	0	0	1	0	1	0	1	3	0	0	112	7	4	0	0	123	0	0	124	27	8	11	0	170	0	0	5	1	0	0	0	6		
12:00	0	0	1	0	0	0	0	1	0	0	24	4	1	0	0	29	0	0	42	2	2	1	1	48	0	0	1	0	0	0	0	1		
12:15	0	0	0	1	0	0	0	1	1	0	25	2	0	0	0	28	0	0	33	4	2	0	1	40	0	0	1	0	0	0	0	1		
12:30	0	0	0	0	0	0	0	0	0	0	15	2	1	0	0	18	0	0	43	3	4	0	0	50	0	0	1	0	1	0	0	2		
12:45	0	0	1	0	1	0	0	2	0	0	15	1	0	1	0	17	0	0	31	4	1	5	0	41	0	0	1	0	0	0	0	1		
H/TOT	0	0	2	1	1	0	0	4	1	0	79	9	2	1	0	92	0	0	149	13	9	6	2	179	0	0	4	0	1	0	0	5		
13:00	0	0	0	0	1	0	0	1	0	0	28	6	0	1	0	35	0	0	41	7	0	1	1	50	0	0	1	0	0	0	0	1	1	
13:15	0	0	0	1	0	0	0	1	1	0	19	4	0	0	1	25	0	0	25	4	1	3	1	34	0	0	1	0	0	0	0	1	1	
13:30	0	0	0	0	0	0	0	0	0	0	22	3	1	0	0	26	0	0	51	8	0	2	0	61	0	0	2	0	0	0	0	2	2	
13:45	0	0	0	0	0	0	0	0	0	0	36	0	0	0	2	38	1	0	35	4	1	2	0	43	0	0	0	0	0	0	0	0	0	
H/TOT	0	0	0	1	1	0	0	2	1	0	105	13	1	1	3	124	1	0	152	23	2	8	2	188	0	0	4	0	0	0	0	4		
14:00	0	0	1	0	0	0	0	1	0	0	17	0	0	0	0	17	0	0	36	3	1	2	2	44	0	0	2	0	0	0	0	2	2	
14:15	0	0	0	0	0	0	0	0	0	0	14	3	1	1	0	19	0	1	30	5	2	5	1	44	0	0	3	0	0	0	0	3	3	
14:30	0	0	1	0	0	0	0	1	0	0	18	1	2	0	0	21	0	0	27	3	2	2	0	34	0	0	0	0	0	0	0	0	0	
14:45	0	0	1	0	0	0	0	1	0	0	34	0	1	0	0	35	1	0	37	6	7	1	0	52	0	0	5	0	0	0	0	5	5	
H/TOT	0	0	3	0	0	0	0	3	0	0	83	4	4	1	0	92	1	1	130	17	12	10	3	174	0	0	10	0	0	0	0	10		
15:00	0	0	2	0	0	0	0	2	0	0	28	3	3	0	0	34	0	0	26	6	2	0	0	34	0	0	1	0	0	0	0	1	1	
15:15	0	0	1	0	0	0	0	1	0	0	29	3	0	0	0	32	0	0	16	2	1	0	1	20	0	0	3	0	1	0	0	4	4	
15:30	0	0	0	0	0	0	0	0	0	0	24	1	0	0	0	25	0	0	32	5	1	2	1	41	0	0	1	0	0	0	0	1	1	
15:45	0	0	1	0	0	0	0	1	0	0	32	5	0	0	0	37	0	0	19	8	5	0	0	32	0	0	4	0	0	0	0	4	4	
H/TOT	0	0	4	0	0	0	0	4	0	0	113	12	3	0	0	128	0	0	93	21	9	2	2	127	0	0	9	0	1	0	0	10		
16:00	0	0	0	0	0	0	0	0	0	0	28	3	0	0	0	31	0	0	40	8	1	4	1	54	0	0	4	0	0	0	0	4	4	
16:15	0	0	1	0	0	0	0	1	0	0	27	2	0	0	0	29	0	0	32	5	1	1	0	39	0	0	5	0	0	0	0	5	5	
16:30	0	0	0	0	0	0	0	0	0	0	28	3	0	0	0	31	0	0	23	4	2	0	0	29	0	0	6	0	0	0	0	6	6	
16:45	0	0	0	0	0	0	0	0	0	0	19	2	0	0	0	21	0	0	26	7	2	0	0	35	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	0	1	0	<																								



C => A								C => B								C => C								C => D							
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
1	0	21	10	0	2	0	34	1	0	37	7	0	2	0	47	0	0	0	0	0	0	0	0	0	0	0	0	1			
0	0	32	8	2	5	1	48	0	0	54	6	1	1	2	64	0	0	0	0	0	0	0	0	0	0	0	0	3			
0	0	43	6	3	6	0	58	0	0	36	3	1	1	0	41	0	0	0	0	0	0	0	0	0	0	0	0	1			
0	1	41	4	0	2	1	49	0	0	46	3	0	1	1	51	0	0	0	0	0	0	0	0	0	0	0	0	0			
1	1	137	28	5	15	2	189	1	0	173	19	2	5	3	203	0	0	0	0	0	0	0	0	0	0	4	0	5			
0	0	33	5	2	4	2	46	0	0	43	2	1	1	0	47	0	0	0	0	0	0	0	0	0	0	0	0	2			
0	0	59	1	2	2	2	66	1	0	62	6	2	4	1	76	0	0	0	0	0	0	0	0	0	0	1	1	2			
0	0	27	1	0	5	0	33	0	0	41	6	0	2	0	49	0	0	0	0	0	0	0	0	0	0	1	1	2			
0	0	26	5	1	4	0	36	0	0	49	8	1	1	0	59	0	0	0	0	0	0	0	0	0	0	2	2	4			
0	0	145	12	5	15	4	181	1	0	195	22	4	8	1	231	0	0	0	0	0	0	0	0	0	0	6	4	10			
0	0	24	7	0	2	0	33	0	0	29	2	0	1	0	32	0	0	0	0	0	0	0	0	0	0	1	1	1			
0	0	22	4	2	0	2	30	0	0	32	1	2	2	0	37	0	0	0	0	0	0	0	0	0	3	1	1	5			
0	0	35	7	4	3	0	49	0	0	30	5	0	0	1	36	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	33	5	1	2	0	41	0	0	24	3	4	1	0	32	0	0	0	0	0	0	0	0	0	1	1	0	2			
0	0	114	23	7	7	2	153	0	0	115	11	6	4	1	137	0	0	0	0	0	0	0	0	0	0	4	3	8			
1	1	25	2	2	1	0	32	0	0	30	2	2	3	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	21	5	2	6	0	34	0	0	22	5	1	1	0	29	0	0	0	0	0	0	0	0	0	0	1	0	1			
0	0	21	4	4	3	1	33	0	1	32	8	2	1	0	44	0	0	0	0	0	0	0	0	0	0	1	0	1			
0	0	41	7	3	5	0	56	0	0	31	1	0	2	1	35	0	0	0	0	0	0	0	0	0	2	0	0	2			
1	1	108	18	11	15	1	155	0	1	115	16	5	7	1	145	0	0	0	0	0	0	0	0	0	0	3	1	4			
0	0	34	6	0	3	1	44	0	0	22	1	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	30	7	0	3	2	42	0	0	29	6	0	2	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	38	3	1	3	0	45	0	0	27	2	1	3	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	39	9	3	1	0	52	0	0	31	7	0	0	1	39	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	141	25	4	10	3	183	0	0	109	16	1	5	1	132	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	32	3	3	2	0	40	0	0	38	1	2	2	0	43	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	49	8	0	3	0	60	0	0	28	4	0	1	0	33	0	0	0	0	0	0	0	0	0	1	0	0	1			
0	0	31	6	1	2	0	40	0	0	38	5	0	1	0	44	0	0	0	0	0	0	0	0	0	3	0	0	3			
0	0	38	6	5	5	0	54	0	0	33	1	0	0	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	150	23	9	12	0	194	0	0	137	11	2	4	0	154	0	0	0	0	0	0	0	0	0	0	4	0	4			
0	0	42	2	6	4	0	54	0	0	25	4	3	2	1	35	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	32	4	2	2	2	42	0	0	33	4	0	1	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	42	5	2	2	0	51	0	0	39	3	4	2	0	48	0	0	0	0	0	0	0	0	0	0	0	0	0			
1	0	46	4	1	2	1	55	0	0	30	2	0	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0			
1	0	162	15	11	10	3	202	0	0	127	13	7	5	1	153	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	49	6	2	3	1	61	0	0	22	3	1	0	1	27	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	40	7	4	3	1	55	0	0	28	1	1	1	0	31	0	0	0	0	0	0	0	0	0	1	0	0	1			
0	0	41	2	4	4	0	51	0	0	29	7	1	1	0	38	0	0	0	0	0	0	0	0	0	1	0	0	1			
0	0	33	8	1	1	0	43	0	0	34	0	3	1	1	39	0	0	0	0	0	0	0	0	0	0	2	0	2			
0	0	163	23	11	11	2	210	0	0	113	11	6	3	2	135	0	0	0	0	0	0	0	0	0	0	2	2	4			
0	0	40	7	1	2	0	50	0	1	31	2	0	0	1	35	0	0	0	0	0	0	0	0	0	0	0	0	0			
1	0	26	7	2	3	1	40	0	0	36	3	0	0	0	39	0	0	0	0	0	0	0	0	0	2	0	0	2			
0	0	48	5	2	6	1	62	0	0	32	10	0	1	1	44	0	0	0	0	0	0	0	0	0	0	1	0	1			
0	0	41	3	1	6	0	51	0	0	37	2	1	1	1	42	0	0	0	0	0	0	0	0	0	1	0	1	3			
1	0	155	22	6	17	2	203	0	1	136	17	1	2	3	160	0	0	0	0	0	0	0	0	0	0	3	0	1	6		
0	0	40	7	6	3	0	56	0	0	43	5	1	1	0	50	0	0	0	0	0	0	0	0	0	2	0	0	2			
0	0	43	9	3	1	0	56	0	0	49	4	0	2	0	55	0	0	0	0	0	0	0	0	0	1	0	0	1			
0	1	60	9	3	1	0	74	0	0	54	4	0	0	2	60	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
0	0	58	9	3	1	0	71	0	1	50	10	0	1	1	63	0	0	0	0	0	0	0	0	0	1	0	0	1	1		
0	1	201	34	15	6	0	257	0	1	196	23	1	4	3	228	0	0	0	0	0	0	0	0	0	4	0	0	1	5		
1	1	50	12	0	2	0	66	0	0	55	1	0	2	0	58	0	0	0	0	0	0	0	0	0	0	1	0	0	1		
0	0	57	10	0	1	0	68	0	0	48	2	0	1	0	51	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
0	0	48	6	1	0	1	56	0	0	69	5	2	0	0	76	0	0	0	0	0	0	0	0	0	2	0	0	0	2		
0	0	57	3	1	0	0	61	0	0	53	4	0	0	0	57	0	0	0	0	0	0	0	0	0	1	1	0	0	2		
1	1	212	31	2	3	1	251	0	0	225	12	2	3	0	242	0	0	0	0	0	0	0	0	0	0	4	2	0	6		
0	0	49	1	0	3	0	53	0	0	57	4	1	0	1	63	0	0	0	0	0	0	0	0	0	4	0	0	0	4		
0	0	52	5	0	0	0	57	0	1	53	5	0	2	0	61	0	0	0	0	0	0	0	0	0	3	1	0	0	4		
0	0	70	4	0	2	0	76	0	0	43	4	0	0	0	47	0	0	0	0	0	0	0	0	0	3	0	0	0	3		
0	0	67	2	1	2	0	72	0	0	37	3	0	0	0	40	0	0	0	0	0	0	0	0	0	5	0	0	0	5		
0	0	238	12	1	7	0	258	0	1	190	16	1	2	1	211	0	0	0	0	0	0	0	0	0	0	15	1	0	0	16	
5	4	1926	266	87	128	20	2436	2	4	1831	187	38	52	17	2131	0	0	0	0	0	0	0	0	0	0	49	13	4	0	68	
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT

Survey Name : ITS J285 Site E
 Site : Site E
 Date : 05/03/2019(07:00-19:00)
 Location : Clone, Co. Kildare



TIME	A => B								TOT	B => A								TOT
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	P/C		M/C	CAR	LGV	OGV1	OGV2	PSV			
07:00	1	0	14	3	1	1	0	20	0	1	55	14	1	4	1	76		
07:15	0	0	14	2	0	3	0	19	0	0	47	10	3	2	2	64		
07:30	0	0	32	6	0	0	1	39	0	1	65	7	1	3	1	78		
07:45	0	1	49	5	1	3	0	59	0	0	70	9	2	0	2	83		
H/TOT	1	1	109	16	2	7	1	137	0	2	237	40	7	9	6	301		
08:00	0	0	65	3	2	3	0	73	0	1	71	6	2	0	0	80		
08:15	0	0	117	5	1	2	2	127	0	0	92	5	0	0	4	101		
08:30	4	0	97	2	0	3	0	106	1	0	92	5	0	0	3	101		
08:45	1	0	91	3	2	1	0	98	0	0	80	3	0	1	2	86		
H/TOT	5	0	370	13	5	9	2	404	1	1	335	19	2	1	9	368		
09:00	0	0	67	4	0	1	0	72	0	0	94	6	1	4	1	106		
09:15	0	1	43	6	1	1	2	54	0	1	58	4	2	0	1	66		
09:30	0	0	44	7	1	2	2	56	1	0	71	2	1	1	1	77		
09:45	0	0	56	4	1	2	0	63	0	0	76	5	2	2	0	85		
H/TOT	0	1	210	21	3	6	4	245	1	1	299	17	6	7	3	334		
10:00	0	0	49	2	6	1	0	58	0	0	67	2	3	2	0	74		
10:15	1	0	39	3	4	1	0	48	1	0	66	2	0	2	1	72		
10:30	0	0	54	2	2	1	2	61	0	0	64	4	3	0	0	71		
10:45	0	0	55	6	1	0	0	62	0	0	69	5	3	2	0	79		
H/TOT	1	0	197	13	13	3	2	229	1	0	266	13	9	6	1	296		
11:00	0	0	55	5	6	1	0	67	0	0	61	5	5	0	0	71		
11:15	0	0	50	3	1	1	2	57	0	0	65	8	1	1	1	76		
11:30	0	0	67	4	1	3	0	75	0	0	54	8	2	3	0	67		
11:45	0	0	52	7	3	0	0	62	0	0	70	7	2	1	1	81		
H/TOT	0	0	224	19	11	5	2	261	0	0	250	28	10	5	2	295		
12:00	0	0	59	7	2	1	0	69	2	0	38	5	3	3	0	51		
12:15	0	0	58	4	3	2	1	68	1	0	60	9	0	1	1	72		
12:30	0	1	49	10	1	1	0	62	0	0	48	3	0	1	0	52		
12:45	0	0	54	3	2	2	0	61	0	0	47	7	1	3	0	58		
H/TOT	0	1	220	24	8	6	1	260	3	0	193	24	4	8	1	233		
13:00	0	0	61	2	0	2	1	66	0	0	54	5	3	0	1	63		
13:15	0	0	78	7	2	1	1	89	0	0	59	7	2	1	1	70		
13:30	0	0	76	6	2	1	2	87	1	0	55	2	0	1	2	61		
13:45	0	0	74	5	1	3	0	83	3	0	102	3	1	4	1	114		
H/TOT	0	0	289	20	5	7	4	325	4	0	270	17	6	6	5	308		
14:00	0	1	65	2	0	1	1	70	0	1	50	4	1	0	0	56		
14:15	0	0	68	4	0	1	2	75	0	0	43	6	1	3	1	54		
14:30	0	0	64	5	2	1	2	74	0	0	39	7	0	1	0	47		
14:45	0	0	89	2	1	2	0	94	4	0	108	5	2	0	2	121		
H/TOT	0	1	286	13	3	5	5	313	4	1	240	22	4	4	3	278		
15:00	0	0	49	8	2	0	1	60	0	0	54	2	0	0	0	56		
15:15	0	0	81	5	1	4	3	94	0	0	77	6	0	1	1	85		
15:30	0	0	91	10	0	0	1	102	0	0	54	6	2	1	1	64		
15:45	1	0	80	9	3	2	4	99	0	0	89	7	3	0	0	99		
H/TOT	1	0	301	32	6	6	9	355	0	0	274	21	5	2	2	304		
16:00	0	0	62	5	1	0	1	69	1	0	71	7	1	1	0	81		
16:15	1	0	69	15	4	0	0	89	0	0	50	7	2	1	1	61		
16:30	0	0	79	12	3	0	1	95	0	0	50	8	0	1	2	61		
16:45	0	0	92	17	0	0	0	109	0	0	47	4	0	1	0	52		
H/TOT	1	0	302	49	8	0	2	362	1	0	218	26	3	4	3	255		
17:00	2	2	93	11	1	0	1	110	2	0	68	7	0	0	1	78		
17:15	0	0	78	11	1	1	0	91	0	0	77	6	0	1	0	84		
17:30	0	1	96	11	0	2	0	110	0	0	50	4	1	0	0	55		
17:45	0	0	104	16	0	1	1	122	0	0	59	4	0	1	0	64		
H/TOT	2	3	371	49	2	4	2	433	2	0	254	21	1	2	1	281		
18:00	0	0	114	6	0	0	0	120	0	0	82	7	1	0	1	91		
18:15	0	0	83	5	0	1	1	90	0	0	69	5	0	0	0	74		
18:30	0	0	86	5	2	2	1	96	0	0	47	5	0	0	0	52		
18:45	0	0	87	4	0	1	1	93	0	0	53	3	0	0	0	56		
H/TOT	0	0	370	20	2	4	3	399	0	0	251	20	1	0	1	273		
12 TOT	11	7	3249	289	68	62	37	3723	17	5	3087	268	58	54	37	3526		
	A => B									B => A								
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT		

BleuScan - Survey "Clane"

v2.0 22/03/2019

Average weekday matrice

Period: 05.03.2019 - 08.03.2019

Traffic extrapolated



Average weekday 07:00 - 19:00							
Stations	1	2	3	4	5	6	SUM
1	221	274	220	813	160	945	2633
2	240	222	883	1008	811	609	3773
3	131	828	65	321	66	167	1578
4	704	1236	333	155	304	333	3065
5	133	811	66	345	169	203	1727
6	766	609	172	523	267	141	2478
SUM	2195	3980	1739	3165	1777	2398	
Big sum (traffic o-d)	4828	7753	3317	6230	3504	4876	
Counting	7160	11130	8650	9190	5850	7250	

*Difference between "Counting" and "traffic o-d" is local traffic (counted only at one station)

Average weekday **							
Stations	1	2	3	4	5	6	SUM
1	280	347	279	1029	203	1196	3334
2	304	281	1118	1276	1027	771	4777
3	166	1048	82	406	84	211	1997
4	891	1565	422	196	385	422	3881
5	168	1027	84	437	214	257	2187
6	970	771	218	662	338	179	3138
SUM	2779	5039	2203	4006	2251	3036	
Big sum (traffic o-d)	6113	9816	4200	7887	4438	6174	
Detection	9065	14091	10951	11635	7406	9179	

**The evaluation of different counting stations in Switzerland has shown that an average of 79% of traffic is counted between 07:00 and 19:00. So the result must be extrapolated by a factor of 1.266 to get an average weekday (00 - 24)

APPENDIX C – TRAFFIC FLOW SHEETS

R403 / Brooklands / Capdoo Park Crossroads Junction - AM Peak

2018 AM Peak - Existing Flows

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	1	285	10	296
Brooklands	31	0	58	1	90
R403 (west)	799	9	0	14	822
Capdoo Park	39	3	15	0	57
Totals	869	13	358	25	1265

2020 AM Peak - Base Flows

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	1	293	10	304
Brooklands	32	0	60	1	93
R403 (west)	822	9	0	14	845
Capdoo Park	40	3	15	0	58
Totals	894	13	368	25	1300

AM Peak - Development flows

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	4	0	0	4
Brooklands	22	0	41	0	63
R403 (west)	0	36	0	0	36
Capdoo Park	0	0	0	0	0
Totals	22	40	41	0	103

2022 AM Peak - No Development (Existing + 5.88%)

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	1	310	11	322
Brooklands	34	0	64	1	98
R403 (west)	870	10	0	15	895
Capdoo Park	42	3	16	0	61
Totals	947	14	390	26	1376

2022 AM Peak - With Development

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	5	310	11	326
Brooklands	56	0	105	1	161
R403 (west)	870	46	0	15	931
Capdoo Park	42	3	16	0	61
Totals	969	54	431	26	1479

2027 AM Peak - No Development (Existing + 16.49%)

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	1	341	12	354
Brooklands	37	0	70	1	108
R403 (west)	958	10	0	16	984
Capdoo Park	47	3	17	0	68
Totals	1041	15	429	29	1514

2027 AM Peak - With Development

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	5	341	12	358
Brooklands	59	0	111	1	171
R403 (west)	958	46	0	16	1020
Capdoo Park	47	3	17	0	68
Totals	1063	55	470	29	1617

2037 AM Peak - No Development (Existing + 27.19%)

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	1	373	13	387
Brooklands	41	0	76	1	118
R403 (west)	1046	11	0	18	1075
Capdoo Park	51	4	19	0	74
Totals	1137	17	468	32	1653

2037 AM Peak - With Development

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	5	373	13	391
Brooklands	63	0	117	1	181
R403 (west)	1046	47	0	18	1111
Capdoo Park	51	4	19	0	74
Totals	1159	57	509	32	1756

R403 / Brooklands / Capdoo Park Crossroads Junction - PM Peak**2018 PM Peak - Existing Flows**

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	24	797	42	863
Brooklands	6	0	32	3	41
R403 (west)	365	43	0	36	444
Capdoo Park	18	0	11	0	29
Totals	389	67	840	81	1377

2020 PM Peak - Base Flows

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	25	820	43	888
Brooklands	6	0	40	3	49
R403 (west)	375	44	0	37	456
Capdoo Park	19	0	11	0	30
Totals	400	69	871	83	1423

PM Peak - Development flows

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	22	0	0	22
Brooklands	6	0	36	0	42
R403 (west)	0	40	0	0	40
Capdoo Park	0	0	0	0	0
Totals	6	62	36	0	104

2022 PM Peak - No Development (Existing + 5.88%)

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	26	868	46	940
Brooklands	6	0	42	3	52
R403 (west)	397	47	0	39	483
Capdoo Park	20	0	12	0	32
Totals	424	73	922	88	1507

2022 PM Peak - With Development

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	48	868	46	962
Brooklands	12	0	78	3	94
R403 (west)	397	87	0	39	523
Capdoo Park	20	0	12	0	32
Totals	430	135	958	88	1611

2027 PM Peak - No Development (Existing + 16.49%)

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	29	955	50	1034
Brooklands	7	0	47	3	57
R403 (west)	437	51	0	43	531
Capdoo Park	22	0	13	0	35
Totals	466	80	1015	97	1658

2027 PM Peak - With Development

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	51	955	50	1056
Brooklands	13	0	83	3	99
R403 (west)	437	91	0	43	571
Capdoo Park	22	0	13	0	35
Totals	472	142	1051	97	1762

2037 PM Peak - No Development (Existing + 27.19%)

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	32	1043	55	1129
Brooklands	8	0	51	4	62
R403 (west)	477	56	0	47	580
Capdoo Park	24	0	14	0	38
Totals	509	88	1108	106	1810

2037 PM Peak - With Development

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	54	1043	55	1151
Brooklands	14	0	87	4	104
R403 (west)	477	96	0	47	620
Capdoo Park	24	0	14	0	38
Totals	515	150	1144	106	1914

R403 / Brooklands / Capdoo Park Crossroads Junction - AM Peak with Relief Road Open

2020 AM Peak - Base Flows

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	1	293	10	304
Brooklands	32	0	60	1	93
R403 (west)	822	9	0	14	845
Capdoo Park	40	3	15	0	58
Totals	894	13	368	25	1300

Relief Road Open - Redistribution of Base Flows

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	0	-70	27	-43
Brooklands	0	0	0	0	0
R403 (west)	-68	0	0	62	-6
Capdoo Park	26	0	62	0	88
Totals	-42	0	-8	89	39

AM Peak - Base Flows with Relief Road Open

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	1	223	37	261
Brooklands	32	0	60	1	93
R403 (west)	754	9	0	76	839
Capdoo Park	66	3	77	0	146
Totals	852	13	360	114	1339

AM Peak - Development Flows + Sensitivity Flows

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	4	0	4	8
Brooklands	22	0	28	13	63
R403 (west)	0	36	0	33	69
Capdoo Park	36	0	45	0	81
Totals	58	40	73	50	221

2027 AM Peak - No Development (Existing + 16.49%)

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	1	260	43	304
Brooklands	37	0	70	1	108
R403 (west)	878	10	0	89	977
Capdoo Park	77	3	90	0	170
Totals	992	15	419	133	1560

2027 AM Peak - With Development

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	5	260	47	312
Brooklands	59	0	98	14	171
R403 (west)	878	46	0	122	1046
Capdoo Park	113	3	135	0	251
Totals	1050	55	492	183	1781

2037 AM Peak - No Development (Existing + 27.19%)

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	1	284	47	332
Brooklands	41	0	76	1	118
R403 (west)	959	11	0	97	1067
Capdoo Park	84	4	98	0	186
Totals	1084	17	458	145	1703

2037 AM Peak - With Development

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	5	284	51	340
Brooklands	63	0	104	14	181
R403 (west)	959	47	0	130	1136
Capdoo Park	120	4	143	0	267
Totals	1142	57	531	195	1924

R403 / Brooklands / Capdoo Park Crossroads Junction - PM Peak with Relief Road Open

2020 PM Peak - Base Flows

0	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	25	820	43	888
Brooklands	6	0	40	3	49
R403 (west)	375	44	0	37	456
Capdoo Park	19	0	11	0	30
Totals	400	69	871	83	1423

Relief Road Open - Redistribution of Base Flows

0	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	0	-75	29	-46
Brooklands	0	0	0	0	0
R403 (west)	-73	0	0	68	-5
Capdoo Park	28	0	67	0	95
Totals	-45	0	-8	97	44

PM Peak - Base Flows with Relief Road Open

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	25	745	72	842
Brooklands	6	0	40	3	49
R403 (west)	302	44	0	105	451
Capdoo Park	47	0	78	0	125
Totals	355	69	863	180	1467

PM Peak - Development Flows + Sensitivity Flows

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	22	0	29	51
Brooklands	7	0	27	8	42
R403 (west)	0	40	0	54	94
Capdoo Park	23	0	28	0	51
Totals	30	62	55	91	238

2027 PM Peak - No Development (Existing + 16.49%)

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	29	868	84	981
Brooklands	7	0	47	3	57
R403 (west)	352	51	0	122	525
Capdoo Park	55	0	91	0	146
Totals	414	80	1005	210	1709

2027 PM Peak - With Development + Sensitivity Flows

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	51	868	113	1032
Brooklands	14	0	74	11	99
R403 (west)	352	91	0	176	619
Capdoo Park	78	0	119	0	197
Totals	444	142	1060	301	1947

2037 PM Peak - No Development (Existing + 27.19%)

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	32	948	92	1071
Brooklands	8	0	51	4	62
R403 (west)	384	56	0	134	574
Capdoo Park	60	0	99	0	159
Totals	452	88	1098	229	1866

2037 PM Peak - With Development + Sensitivity Flows

	R403 (east)	Brooklands	R403 (west)	Capdoo Park	Totals
R403 (east)	0	54	948	121	1122
Brooklands	15	0	78	12	104
R403 (west)	384	96	0	188	668
Capdoo Park	83	0	127	0	210
Totals	482	150	1153	320	2104

R403 / Alexander Walk / The Avenue Roundabout - AM Peak

2018 AM Peak - Existing Flows

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	29	313	1	343
Alexandra Walk	72	0	85	0	157
R403 (west)	362	21	0	4	387
The Avenue	10	0	6	0	16
Totals	444	50	404	5	903

2020 AM Peak - Base Flows

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	30	322	1	353
Alexandra Walk	74	0	87	0	161
R403 (west)	372	22	0	4	398
The Avenue	10	0	6	0	16
Totals	456	52	415	5	928

AM Peak - Development flows

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	0	0	0	0
Alexandra Walk	0	0	48	0	48
R403 (west)	0	30	0	0	30
The Avenue	0	0	0	0	0
Totals	0	30	48	0	78

2022 AM Peak - No Development (Existing + 5.88%)

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	32	341	1	374
Alexandra Walk	78	0	92	0	170
R403 (west)	394	23	0	4	421
The Avenue	11	0	6	0	17
Totals	483	55	439	5	983

2022 AM Peak - With Development

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	32	341	1	374
Alexandra Walk	78	0	140	0	218
R403 (west)	394	53	0	4	451
The Avenue	11	0	6	0	17
Totals	483	85	487	5	1061

2027 AM Peak - No Development (Existing + 16.49%)

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	35	375	1	411
Alexandra Walk	86	0	101	0	188
R403 (west)	433	26	0	5	464
The Avenue	12	0	7	0	19
Totals	531	61	483	6	1081

2027 AM Peak - With Development

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	35	375	1	411
Alexandra Walk	86	0	149	0	236
R403 (west)	433	56	0	5	494
The Avenue	12	0	7	0	19
Totals	531	91	531	6	1159

2037 AM Peak - No Development (Existing + 27.19%)

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	37	398	1	436
Alexandra Walk	92	0	108	0	200
R403 (west)	460	27	0	5	492
The Avenue	13	0	8	0	20
Totals	565	64	514	6	1149

2037 AM Peak - With Development

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	37	398	1	436
Alexandra Walk	92	0	156	0	248
R403 (west)	460	57	0	5	522
The Avenue	13	0	8	0	20
Totals	565	94	562	6	1227

R403 / Alexander Walk / The Avenue Roundabout - PM Peak

2018 PM Peak - Existing Flows

#REF!	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	49	580	9	638
Alexandra Walk	31	0	31	0	62
R403 (west)	440	70	3	10	523
The Avenue	3	0	3	0	6
Totals	474	119	617	19	1229

2020 PM Peak - Base Flows

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	50	597	9	656
Alexandra Walk	32	0	32	0	64
R403 (west)	453	72	3	10	538
The Avenue	3	0	3	0	6
Totals	488	122	635	19	1264

PM Peak - Developer

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	0	0	0	0
Alexandra Walk	0	0	31	0	31
R403 (west)	0	47	0	0	47
The Avenue	0	0	0	0	0
Totals	0	47	31	0	78

2022 PM Peak - No Development (Existing + 5.88%)

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	53	632	10	695
Alexandra Walk	34	0	34	0	68
R403 (west)	480	76	3	11	570
The Avenue	3	0	3	0	6
Totals	517	129	672	20	1338

2022 PM Peak - With Development

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	53	632	10	695
Alexandra Walk	34	0	65	0	99
R403 (west)	480	123	3	11	617
The Avenue	3	0	3	0	6
Totals	517	176	703	20	1416

2027 PM Peak - No Development (Existing + 16.49%)

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	58	695	10	764
Alexandra Walk	37	0	37	0	75
R403 (west)	528	84	3	12	627
The Avenue	3	0	3	0	7
Totals	568	142	740	22	1472

2027 PM Peak - With Development

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	58	695	10	764
Alexandra Walk	37	0	68	0	106
R403 (west)	528	131	3	12	674
The Avenue	3	0	3	0	7
Totals	568	189	771	22	1550

2037 PM Peak - No Development (Existing + 27.19%)

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	62	738	11	811
Alexandra Walk	39	0	39	0	79
R403 (west)	560	89	4	13	665
The Avenue	4	0	4	0	8
Totals	603	151	785	24	1563

2037 PM Peak - With Development

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	62	738	11	811
Alexandra Walk	39	0	70	0	110
R403 (west)	560	136	4	13	712
The Avenue	4	0	4	0	8
Totals	603	198	816	24	1641

APPENDIX D – TRICS INFORMATION

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED

VEHICLES

Selected regions and areas:

08	NORTH WEST	
	GM GREATER MANCHESTER	5 days
	LC LANCASHIRE	2 days
11	SCOTLAND	
	FI FIFE	1 days
12	NORTHERN IRELAND	
	NI NORTHERN IRELAND	12 days

Main parameter selection:

Parameter: Number of households
 Range: 20 to 147 (units:)

Date Range: 01/01/97 to 20/06/05

Selected survey days:

Monday	5 days
Tuesday	3 days
Wednesday	2 days
Thursday	5 days
Friday	5 days

Selected survey types:

Manual count	3 days
Directional ATC Count	17 days

LIST OF SITES relevant to selection parameters

- | | | |
|---|--|--------------------|
| 1 | FI-03-A-01 BALMULLO HOUSING, NEAR CUPAR
HILLVIEW ROAD

BALMULLO
Total Number of households: 118 ***** | FIFE |
| 2 | GM-03-A-01 BOLTON HOUSING
COLLINGWOOD WAY
WESTHOUGHTON
BOLTON
Total Number of households: 83 ***** | GREATER MANCHESTER |
| 3 | LC-03-A-12 LANCASTER HOUSING
PENNINE VIEW
GLASSON
LANCASTER
Total Number of households: 29 ***** | LANCASHIRE |
| 4 | LC-03-A-13 CHORLEY HOUSING
DUNROBIN DRIVE
EUXTON
CHORLEY
Total Number of households: 37 ***** | LANCASHIRE |
| 5 | NI-03-A-05 PRIVATE HOUSING, ENNISKILLEN
CASTLECOOLE ROAD

ENNISKILLEN
Total Number of households: 132 ***** | NORTHERN IRELAND |
| 6 | NI-03-A-06 PRIVATE HOUSING, MAGHERAFELT
STATION ROAD

MAGHERAFELT
Total Number of households: 106 ***** | NORTHERN IRELAND |
| 7 | NI-03-A-07 PRIVATE HOUSING, COLERAINE
GREENHALL HIGHWAY

COLERAINE
Total Number of households: 112 ***** | NORTHERN IRELAND |
| 8 | NI-03-A-09 BUNGALOWS, BALLYNAHINCH
KINEDALE PARK

BALLYNAHINCH
Total Number of households: 104 ***** | NORTHERN IRELAND |

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
VEHICLES

Calculation factor: 1 HHOLDS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. HHOLDS	Trip Rate	No. Days	Ave. HHOLDS	Trip Rate	No. Days	Ave. HHOLDS	Trip Rate
00:00 - 01:00	17	101	0.02	17	101	0.01	17	101	0.03
01:00 - 02:00	17	101	0.01	17	101	0.01	17	101	0.02
02:00 - 03:00	17	101	0.01	17	101	0.00	17	101	0.01
03:00 - 04:00	17	101	0.00	17	101	0.01	17	101	0.01
04:00 - 05:00	17	101	0.01	17	101	0.02	17	101	0.03
05:00 - 06:00	17	101	0.02	17	101	0.07	17	101	0.09
06:00 - 07:00	17	101	0.06	17	101	0.19	17	101	0.25
07:00 - 08:00	20	95	0.15	20	95	0.49	20	95	0.64
08:00 - 09:00	20	95	0.20	20	95	0.40	20	95	0.60
09:00 - 10:00	20	95	0.16	20	95	0.23	20	95	0.39
10:00 - 11:00	20	95	0.19	20	95	0.22	20	95	0.41
11:00 - 12:00	20	95	0.19	20	95	0.20	20	95	0.39
12:00 - 13:00	20	95	0.24	20	95	0.24	20	95	0.48
13:00 - 14:00	20	95	0.21	20	95	0.25	20	95	0.46
14:00 - 15:00	20	95	0.29	20	95	0.23	20	95	0.52
15:00 - 16:00	20	95	0.37	20	95	0.26	20	95	0.63
16:00 - 17:00	20	95	0.43	20	95	0.24	20	95	0.67
17:00 - 18:00	20	95	0.45	20	95	0.27	20	95	0.72
18:00 - 19:00	20	95	0.38	20	95	0.34	20	95	0.72
19:00 - 20:00	17	101	0.32	17	101	0.30	17	101	0.62
20:00 - 21:00	17	101	0.25	17	101	0.17	17	101	0.42
21:00 - 22:00	17	101	0.21	17	101	0.13	17	101	0.34
22:00 - 23:00	17	101	0.13	17	101	0.07	17	101	0.20
23:00 - 24:00	17	101	0.06	17	101	0.04	17	101	0.10
Daily Trip Rates:			4.35			4.38			8.75

Parameter summary

Trip rate parameter range selected: 20 - 147 (units:)
 Survey date date range: 01/01/97 - 20/06/05
 Number of weekdays (Monday-Friday): 20
 Number of Saturdays: 0
 Number of Sundays: 0
 Optional parameters used in selection: NO
 Surveys manually removed from selection: 9

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED
VEHICLES

Selected regions and areas:

06 WEST MIDLANDS	
WM WEST MIDLANDS	1 days
07 YORKSHIRE & NORTH LINCOLNSHIRE	
NY NORTH YORKSHIRE	1 days
WY WEST YORKSHIRE	1 days
14 REPUBLIC OF IRELAND	
IR REPUBLIC OF IRELAND	1 days

Main parameter selection:

Parameter: Number of households
Range: 26 to 144 (units:)

Date Range: 01/01/97 to 13/11/03

Selected survey days:

Monday	1 days
Thursday	1 days
Friday	2 days

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
VEHICLES

Calculation factor: 1 HHOLDS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. HHOLDS	Trip Rate	No. Days	Ave. HHOLDS	Trip Rate	No. Days	Ave. HHOLDS	Trip Rate
00:00 - 01:00	0	0	0.00	0	0	0.00	0	0	0.00
01:00 - 02:00	0	0	0.00	0	0	0.00	0	0	0.00
02:00 - 03:00	0	0	0.00	0	0	0.00	0	0	0.00
03:00 - 04:00	0	0	0.00	0	0	0.00	0	0	0.00
04:00 - 05:00	0	0	0.00	0	0	0.00	0	0	0.00
05:00 - 06:00	0	0	0.00	0	0	0.00	0	0	0.00
06:00 - 07:00	0	0	0.00	0	0	0.00	0	0	0.00
07:00 - 08:00	4	82	0.02	4	82	0.15	4	82	0.17
08:00 - 09:00	4	82	0.05	4	82	0.15	4	82	0.20
09:00 - 10:00	4	82	0.06	4	82	0.11	4	82	0.17
10:00 - 11:00	4	82	0.05	4	82	0.10	4	82	0.15
11:00 - 12:00	4	82	0.04	4	82	0.04	4	82	0.08
12:00 - 13:00	4	82	0.05	4	82	0.06	4	82	0.11
13:00 - 14:00	4	82	0.06	4	82	0.06	4	82	0.12
14:00 - 15:00	4	82	0.08	4	82	0.09	4	82	0.17
15:00 - 16:00	4	82	0.08	4	82	0.07	4	82	0.15
16:00 - 17:00	4	82	0.10	4	82	0.05	4	82	0.15
17:00 - 18:00	4	82	0.12	4	82	0.07	4	82	0.19
18:00 - 19:00	4	82	0.15	4	82	0.05	4	82	0.20
19:00 - 20:00	1	26	0.12	1	26	0.12	1	26	0.24
20:00 - 21:00	1	26	0.12	1	26	0.12	1	26	0.24
21:00 - 22:00	0	0	0.00	0	0	0.00	0	0	0.00
22:00 - 23:00	0	0	0.00	0	0	0.00	0	0	0.00
23:00 - 24:00	0	0	0.00	0	0	0.00	0	0	0.00
Daily Trip Rates:			1.08			1.23			2.34

Parameter summary

Trip rate parameter range selected: 26 - 144 (units:)
 Survey date range: 01/01/97 - 13/11/03
 Number of weekdays (Monday-Friday): 4
 Number of Saturdays: 0
 Number of Sundays: 0
 Optional parameters used in selection: NO
 Surveys manually removed from selection: 0

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 04 - EDUCATION
Category : D - NURSERY

Selected regions and areas:

02	SOUTH EAST	
	SC SURREY	1 days
10	WALES	
	WR WREXHAM	1 days
11	SCOTLAND	
	ER EAST RENFREWSHIRE	6 days

Main parameter selection:

Parameter: Gross floor area
Range: 120 to 350 (units: sqm)

Date Range: 01/01/96 to 23/09/03

Selected survey days:

Tuesday	4 days
Wednesday	3 days
Thursday	1 days

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

LIST OF SITES relevant to selection parameters

- | | | | |
|---|-------------------|--|--------------------------|
| 1 | ER-04-D-04 | NURSERY, NEWTON MEARNS | EAST RENFREWSHIRE |
| | | STEWARTON ROAD
GREENLAW
NEWTON MEARNS
Total Gross floor area: 205 sqm | |
| 2 | ER-04-D-07 | NURSERY, NEILSTON | EAST RENFREWSHIRE |
| | | HIGH STREET

NEILSTON
Total Gross floor area: 341 sqm | |
| 3 | ER-04-D-08 | NURSERY, GIFFNOCK | EAST RENFREWSHIRE |
| | | WOODFARM ROAD

GIFFNOCK
Total Gross floor area: 350 sqm | |
| 4 | SC-04-D-03 | NURSERY, CHOBHAM | SURREY |
| | | CHERTSEY ROAD
LARKENSHAW
CHOBHAM
Total Gross floor area: 120 sqm | |
| 5 | WR-04-D-01 | NURSERY, NEAR WREXHAM | WREXHAM |
| | | LLAY ROAD
CEFN-Y-BEDD
NEAR WREXHAM
Total Gross floor area: 230 sqm | |

TRIP RATE for Land Use 04 - EDUCATION/D - NURSERY
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave GFA	Trip Rate	No. Days	Ave GFA	Trip Rate	No. Days	Ave GFA	Trip Rate
00:00 - 01:00	0	0	0.00	0	0	0.00	0	0	0.00
01:00 - 02:00	0	0	0.00	0	0	0.00	0	0	0.00
02:00 - 03:00	0	0	0.00	0	0	0.00	0	0	0.00
03:00 - 04:00	0	0	0.00	0	0	0.00	0	0	0.00
04:00 - 05:00	0	0	0.00	0	0	0.00	0	0	0.00
05:00 - 06:00	0	0	0.00	0	0	0.00	0	0	0.00
06:00 - 07:00	0	0	0.00	0	0	0.00	0	0	0.00
07:00 - 08:00	8	268	1.26	8	268	0.42	8	268	1.68
08:00 - 09:00	8	268	5.93	8	268	4.11	8	268	10.04
09:00 - 10:00	8	268	3.73	8	268	4.06	8	268	7.79
10:00 - 11:00	8	268	1.91	8	268	1.77	8	268	3.68
11:00 - 12:00	8	268	3.73	8	268	4.39	8	268	8.12
12:00 - 13:00	8	268	4.95	8	268	3.83	8	268	8.78
13:00 - 14:00	8	268	2.75	8	268	3.73	8	268	6.48
14:00 - 15:00	8	268	1.87	8	268	2.05	8	268	3.92
15:00 - 16:00	8	268	2.85	8	268	3.45	8	268	6.30
16:00 - 17:00	8	268	1.73	8	268	1.91	8	268	3.64
17:00 - 18:00	8	268	2.99	8	268	3.22	8	268	6.21
18:00 - 19:00	7	273	0.00	7	273	0.52	7	273	0.52
19:00 - 20:00	0	0	0.00	0	0	0.00	0	0	0.00
20:00 - 21:00	0	0	0.00	0	0	0.00	0	0	0.00
21:00 - 22:00	0	0	0.00	0	0	0.00	0	0	0.00
22:00 - 23:00	0	0	0.00	0	0	0.00	0	0	0.00
23:00 - 24:00	0	0	0.00	0	0	0.00	0	0	0.00
Daily Trip Rates:			33.71			33.48			67.16

Parameter summary

Trip rate parameter range selected: 120 - 350 (units: sqm)
 Survey date range: 01/01/96 - 23/09/03
 Number of weekdays (Monday-Friday): 8
 Number of Saturdays: 0
 Number of Sundays: 0
 Optional parameters used in selection: NO
 Surveys manually removed from selection: 1

ORGANISATION NAME STREET NAME TOWN/CITY

Licence No: 729101

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED
VEHICLES

Selected regions and areas:

07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
13	REPUBLIC OF IRELAND	
	WT WESTMEATH	1 days

Main parameter selection:

Parameter: Number of households
Range: 12 to 20 (units:)

Date Range: 01/01/00 to 21/09/07

Selected survey days:

Tuesday	1 days
Wednesday	1 days

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

Selected Locations:

Town Centre	1
Edge of Town Centre	1

Selected Location Sub Categories:

Built-Up Zone	1
No Sub Category	1

ORGANISATION NAME STREET NAME TOWN/CITY

Licence No: 729101

LIST OF SITES relevant to selection parameters

- | | | | |
|---|------------|------------------------------|----------------|
| 1 | WT-03-C-02 | FLATS, ATHLONE | WESTMEATH |
| | | CUSTUME PLACE | |
| | | ATHLONE | |
| | | Total Number of households: | 20 |
| 2 | WY-03-C-02 | BLOCK OF FLATS, HUDDERSFIELD | WEST YORKSHIRE |
| | | KINGS MILL LANE | |
| | | ASPLEY | |
| | | HUDDERSFIELD | |
| | | Total Number of households: | 12 |

ORGANISATION NAME STREET NAME TOWN/CITY

Licence No: 729101

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
 VEHICLES

Calculation factor: 1 HHOLDS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. HHOLDS	Trip Rate	No. Days	Ave. HHOLDS	Trip Rate	No. Days	Ave. HHOLDS	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	2	16	0.031	2	16	0.063	2	16	0.093
08:00 - 09:00	2	16	0.031	2	16	0.281	2	16	0.312
09:00 - 10:00	2	16	0.063	2	16	0.156	2	16	0.218
10:00 - 11:00	2	16	0.063	2	16	0.031	2	16	0.093
11:00 - 12:00	2	16	0.031	2	16	0.031	2	16	0.062
12:00 - 13:00	2	16	0.000	2	16	0.094	2	16	0.094
13:00 - 14:00	2	16	0.031	2	16	0.031	2	16	0.062
14:00 - 15:00	2	16	0.031	2	16	0.031	2	16	0.062
15:00 - 16:00	2	16	0.094	2	16	0.031	2	16	0.125
16:00 - 17:00	2	16	0.063	2	16	0.031	2	16	0.093
17:00 - 18:00	2	16	0.188	2	16	0.156	2	16	0.344
18:00 - 19:00	2	16	0.063	2	16	0.094	2	16	0.156
19:00 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			0.685			1.029			1.714

Parameter summary

Trip rate parameter range selected: 12 - 20 (units:)
 Survey date range: 01/01/00 - 21/09/07
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Optional parameters used in selection: NO
 Surveys manually removed from selection: 5

APPENDIX E – PICADY RESULTS

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Existing Junction.j9

Path: S:\Jobs\2020\20076 (18039-01) Clane Res Devlpmt TIA+RSA\20076-02\PICADY

Report generation date: 01/12/2020 11:02:57

-
- »2020, AM
 - »2020, PM
 - »2022 no dev, AM
 - »2022 with dev, AM
 - »2027 no dev, AM
 - »2027 with dev, AM
 - »2037 no dev, AM
 - »2037 with dev, AM
 - »2022 no dev, PM
 - »2022 with dev, PM
 - »2027 no dev, PM
 - »2027 with dev, PM
 - »2037 no dev, PM
 - »2037 with dev, PM
 - »2037 Sensitivity, AM
 - »2037 Sensitivity, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
2020								
Stream B-ACD	0.3	13.42	0.26	B	0.2	13.99	0.18	B
Stream A-BCD	0.0	9.14	0.03	A	0.1	7.02	0.09	A
Stream D-AB	0.2	10.69	0.14	B	0.1	6.83	0.05	A
Stream D-BC	0.1	18.29	0.11	C	0.1	14.41	0.07	B
Stream C-ABD	0.0	6.52	0.02	A	0.1	8.16	0.11	A
2022 no dev								
Stream B-ACD	0.4	14.50	0.28	B	0.2	14.82	0.20	B
Stream A-BCD	0.0	9.47	0.03	A	0.1	7.07	0.09	A
Stream D-AB	0.2	11.22	0.16	B	0.1	6.97	0.06	A
Stream D-BC	0.1	19.92	0.13	C	0.1	15.45	0.08	C
Stream C-ABD	0.0	6.56	0.02	A	0.1	8.41	0.12	A
2022 with dev								
Stream B-ACD	0.8	19.52	0.45	C	0.5	18.02	0.35	C
Stream A-BCD	0.0	9.82	0.03	A	0.1	7.22	0.10	A
Stream D-AB	0.2	11.35	0.16	B	0.1	6.98	0.06	A
Stream D-BC	0.2	22.27	0.14	C	0.1	16.84	0.09	C
Stream C-ABD	0.1	6.37	0.08	A	0.3	8.82	0.21	A
2027 no dev								
Stream B-ACD	0.5	16.48	0.33	C	0.3	17.78	0.25	C
Stream A-BCD	0.0	10.20	0.04	B	0.1	7.12	0.10	A
Stream D-AB	0.2	12.48	0.18	B	0.1	7.15	0.06	A
Stream D-BC	0.2	23.93	0.15	C	0.1	17.64	0.11	C
Stream C-ABD	0.0	6.68	0.03	A	0.2	8.88	0.14	A
2027 with dev								
Stream B-ACD	1.0	23.37	0.51	C	0.7	22.40	0.42	C
Stream A-BCD	0.0	10.59	0.05	B	0.1	7.27	0.11	A
Stream D-AB	0.2	12.68	0.19	B	0.1	7.17	0.06	A
Stream D-BC	0.2	27.54	0.16	D	0.1	19.52	0.12	C
Stream C-ABD	0.1	6.42	0.09	A	0.4	9.28	0.24	A
2037 no dev								
Stream B-ACD	0.6	19.28	0.39	C	0.4	20.69	0.30	C
Stream A-BCD	0.1	10.92	0.05	B	0.2	7.14	0.12	A
Stream D-AB	0.3	13.98	0.22	B	0.1	7.42	0.07	A
Stream D-BC	0.2	30.19	0.19	D	0.2	20.82	0.14	C
Stream C-ABD	0.0	6.74	0.03	A	0.2	9.35	0.17	A
2037 with dev								
Stream B-ACD	1.3	29.31	0.58	D	0.9	27.56	0.48	D
Stream A-BCD	0.1	11.38	0.05	B	0.2	7.28	0.12	A
Stream D-AB	0.3	14.31	0.23	B	0.1	7.45	0.07	A
Stream D-BC	0.3	36.22	0.21	E	0.2	23.45	0.16	C
Stream C-ABD	0.1	6.41	0.09	A	0.5	9.76	0.28	A
2037 Sensitivity								
Stream B-ACD	1.9	43.86	0.68	E	1.2	40.75	0.57	E
Stream A-BCD	0.2	13.04	0.19	B	1.0	7.56	0.36	A
Stream D-AB	1.6	35.38	0.64	E	0.4	12.58	0.30	B
Stream D-BC	39.3	764.93	1.53	F	9.2	234.22	1.02	F
Stream C-ABD	0.1	6.27	0.09	A	0.6	9.50	0.29	A

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	
Location	
Site number	
Date	12/04/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ROADPLAN01\jbyrne
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	kph	Veh	Veh	perTimeSegment	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 period length (min)	Time segment length (min)	Run automatically
D1	2020	AM	DIRECT	07:30	08:30	60	15	✓
D2	2020	PM	DIRECT	17:30	18:30	60	15	✓
D3	2022 no dev	AM	DIRECT	07:30	08:30	60	15	✓
D4	2022 with dev	AM	DIRECT	07:30	08:30	60	15	✓
D5	2027 no dev	AM	DIRECT	07:30	08:30	60	15	✓
D6	2027 with dev	AM	DIRECT	07:30	08:30	60	15	✓
D7	2037 no dev	AM	DIRECT	07:30	08:30	60	15	✓
D8	2037 with dev	AM	DIRECT	07:30	08:30	60	15	✓
D9	2022 no dev	PM	DIRECT	17:30	18:30	60	15	✓
D10	2022 with dev	PM	DIRECT	17:30	18:30	60	15	✓
D11	2027 no dev	PM	DIRECT	17:30	18:30	60	15	✓
D12	2027 with dev	PM	DIRECT	17:30	18:30	60	15	✓
D13	2037 no dev	PM	DIRECT	17:30	18:30	60	15	✓
D14	2037 with dev	PM	DIRECT	17:30	18:30	60	15	✓
D15	2037 Sensitivity	AM	DIRECT	07:30	08:30	60	15	✓
D16	2037 Sensitivity	PM	DIRECT	17:30	18:30	60	15	✓

Analysis Set Details

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

2020, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		1.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major
D	untitled		Minor

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)
A	6.50			115.0	✓	1.00
C	6.50			250.0	✓	1.00

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	Lane width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.20			25	30
D	Two lanes		3.20	3.20	40	35

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/TS)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	160.140	-	-	-	-	-	-	0.243	0.347	0.243	-	-	-
1	B-A	115.087	0.082	0.207	0.207	-	-	-	0.130	0.296	-	0.207	0.207	0.104
1	B-C	147.834	0.089	0.224	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	115.087	0.082	0.207	0.207	-	-	-	0.130	0.296	0.130	-	-	-
1	B-D, offside lane	115.087	0.082	0.207	0.207	-	-	-	0.130	0.296	0.130	-	-	-
1	C-B	179.685	0.272	0.272	0.389	-	-	-	-	-	-	-	-	-
1	D-A	164.726	-	-	-	-	-	-	0.250	-	0.099	-	-	-
1	D-B, nearside lane	129.485	0.147	0.147	0.333	-	-	-	0.233	0.233	0.092	-	-	-
1	D-B, offside lane	129.485	0.147	0.147	0.333	-	-	-	0.233	0.233	0.092	-	-	-
1	D-C	129.485	-	0.147	0.333	0.117	0.233	0.233	0.233	0.233	0.092	-	-	-

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 period length (min)	Time segment length (min)	Run automatically
D1	2020	AM	DIRECT	07:30	08:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000
D		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

		To				
		A	B	C	D	
07:30 - 07:45	From	A	0.00	0.00	50.00	3.00
		B	9.00	0.00	12.00	0.00
		C	234.00	3.00	0.00	0.00
		D	6.00	0.00	0.00	0.00

Demand (Veh/TS)

		To				
		A	B	C	D	
07:45 - 08:00	From	A	0.00	1.00	73.00	2.00
		B	9.00	0.00	10.00	0.00
		C	233.00	2.00	0.00	2.00
		D	8.00	1.00	4.00	0.00

Demand (Veh/TS)

		To				
		A	B	C	D	
08:00 - 08:15	From	A	0.00	0.00	76.00	2.00
		B	9.00	0.00	15.00	0.00
		C	193.00	2.00	0.00	2.00
		D	11.00	0.00	5.00	0.00

Demand (Veh/TS)

		To				
		A	B	C	D	
08:15 - 08:30	From	A	0.00	0.00	94.00	3.00
		B	4.00	0.00	22.00	1.00
		C	160.00	2.00	0.00	10.00
		D	14.00	2.00	6.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A	B	C	D
A	0	0	6	0
B	0	0	4	0
C	4	11	0	0
D	0	67	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-ACD	0.26	13.42	0.3	B	22.75	91.00
A-BCD	0.03	9.14	0.0	A	2.54	10.16
A-B					0.25	1.00
A-C					73.21	292.84
D-AB	0.14	10.69	0.2	B	10.16	40.63
D-BC	0.11	18.29	0.1	C	4.09	16.38
C-ABD	0.02	6.52	0.0	A	2.33	9.33
C-D					3.50	14.00
C-A					204.92	819.68

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	21.00	21.00	94.90	0.221	20.72	0.0	0.3	12.089	B
A-BCD	3.05	3.05	101.40	0.030	3.01	0.0	0.0	9.144	A
A-B	0.00	0.00			0.00				
A-C	49.95	49.95			49.95				
D-AB	6.00	6.00	103.95	0.058	5.94	0.0	0.1	9.177	A
D-BC	0.00	0.00	45.78	0.000	0.00	0.0	0.0	0.000	A
C-ABD	3.14	3.14	154.81	0.020	3.12	0.0	0.0	5.933	A
C-D	0.00	0.00			0.00				
C-A	233.86	233.86			233.86				

07:45 - 08:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	19.00	19.00	86.11	0.221	19.00	0.3	0.3	13.424	B
A-BCD	2.03	2.03	101.53	0.020	2.04	0.0	0.0	9.047	A
A-B	1.00	1.00			1.00				
A-C	72.97	72.97			72.97				
D-AB	8.54	8.54	91.11	0.094	8.50	0.1	0.1	10.693	B
D-BC	4.46	4.46	53.49	0.083	4.38	0.0	0.1	18.293	C
C-ABD	2.07	2.07	146.92	0.014	2.08	0.0	0.0	6.210	A
C-D	2.00	2.00			2.00				
C-A	232.93	232.93			232.93				

08:00 - 08:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	24.00	24.00	95.17	0.252	23.95	0.3	0.3	12.599	B
ABCD	2.03	2.03	111.53	0.018	2.03	0.0	0.0	8.220	A
A-B	0.00	0.00			0.00				
A-C	75.97	75.97			75.97				
D-AB	11.00	11.00	112.04	0.098	10.99	0.1	0.1	9.083	A
D-BC	5.00	5.00	64.66	0.077	5.00	0.1	0.1	15.606	C
C-ABD	2.06	2.06	145.58	0.014	2.06	0.0	0.0	6.271	A
C-D	2.00	2.00			2.00				
C-A	192.94	192.94			192.94				

08:15 - 08:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	27.00	27.00	105.26	0.257	26.99	0.3	0.3	11.445	B
ABCD	3.06	3.06	118.93	0.026	3.05	0.0	0.0	7.765	A
A-B	0.00	0.00			0.00				
A-C	93.94	93.94			93.94				
D-AB	15.09	15.09	105.40	0.143	15.04	0.1	0.2	9.734	A
D-BC	6.91	6.91	63.14	0.110	6.88	0.1	0.1	15.400	C
C-ABD	2.06	2.06	140.15	0.015	2.06	0.0	0.0	6.516	A
C-D	10.00	10.00			10.00				
C-A	159.95	159.95			159.95				

2020, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		1.11	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 period length (min)	Time segment length (min)	Run automatically
D2	2020	PM	DIRECT	17:30	18:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000
D		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

		To				
		A	B	C	D	
17:30 - 17:45	From	A	0.00	8.00	209.00	11.00
		B	3.00	0.00	10.00	1.00
		C	81.00	11.00	0.00	10.00
		D	5.00	0.00	2.00	0.00

Demand (Veh/TS)

		To				
		A	B	C	D	
17:45 - 18:00	From	A	0.00	8.00	210.00	11.00
		B	0.00	0.00	9.00	1.00
		C	87.00	12.00	0.00	11.00
		D	7.00	0.00	5.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		A	B	C	D
From	A	0.00	4.00	220.00	11.00
	B	2.00	0.00	5.00	0.00
	C	91.00	12.00	0.00	7.00
	D	4.00	0.00	3.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		A	B	C	D
From	A	0.00	4.00	181.00	9.00
	B	1.00	0.00	8.00	1.00
	C	116.00	8.00	0.00	8.00
	D	2.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-ACD	0.18	13.99	0.2	B	10.25	41.00
A-BCD	0.09	7.02	0.1	A	12.00	47.99
A-B					5.96	23.83
A-C					203.55	814.18
D-AB	0.05	6.83	0.1	A	4.50	18.00
D-BC	0.07	14.41	0.1	B	2.75	11.00
C-ABD	0.11	8.16	0.1	A	11.63	46.52
C-D					8.92	35.68
C-A					92.95	371.81

Main Results for each time segment

17:30 - 17:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	14.00	14.00	77.91	0.180	13.79	0.0	0.2	13.991	B
A-BCD	12.60	12.60	150.31	0.084	12.50	0.0	0.1	6.527	A
A-B	7.94	7.94			7.94				
A-C	207.46	207.46			207.46				
D-AB	5.00	5.00	142.06	0.035	4.96	0.0	0.0	6.562	A
D-BC	2.00	2.00	68.72	0.029	1.97	0.0	0.0	13.478	B
C-ABD	11.83	11.83	123.76	0.096	11.72	0.0	0.1	8.026	A
C-D	9.91	9.91			9.91				
C-A	80.26	80.26			80.26				

17:45 - 18:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	10.00	10.00	88.13	0.113	10.09	0.2	0.1	11.504	B
A-BCD	12.66	12.66	148.63	0.085	12.66	0.1	0.1	6.619	A
A-B	7.94	7.94			7.94				
A-C	208.40	208.40			208.40				
D-AB	7.00	7.00	138.83	0.050	6.98	0.0	0.1	6.826	A
D-BC	5.00	5.00	67.30	0.074	4.95	0.0	0.1	14.412	B
C-ABD	13.07	13.07	124.98	0.105	13.06	0.1	0.1	8.040	A
C-D	10.88	10.88			10.88				
C-A	86.05	86.05			86.05				

18:00 - 18:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	7.00	7.00	74.83	0.094	7.02	0.1	0.1	13.326	B
A-BCD	12.71	12.71	149.14	0.085	12.71	0.1	0.1	6.599	A
A-B	3.97	3.97			3.97				
A-C	218.32	218.32			218.32				
D-AB	4.00	4.00	139.21	0.029	4.02	0.1	0.0	6.657	A
D-BC	3.00	3.00	66.19	0.045	3.03	0.1	0.0	14.257	B
C-ABD	13.10	13.10	123.45	0.106	13.10	0.1	0.1	8.157	A
C-D	6.92	6.92			6.92				
C-A	89.97	89.97			89.97				

18:15 - 18:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	10.00	10.00	88.11	0.114	9.98	0.1	0.1	11.503	B
A-BCD	10.02	10.02	138.29	0.072	10.04	0.1	0.1	7.019	A
A-B	3.98	3.98			3.98				
A-C	180.00	180.00			180.00				
D-AB	2.00	2.00	133.86	0.015	2.01	0.0	0.0	6.828	A
D-BC	1.00	1.00	66.77	0.015	1.03	0.0	0.0	13.695	B
C-ABD	8.51	8.51	132.68	0.064	8.57	0.1	0.1	7.256	A
C-D	7.97	7.97			7.97				
C-A	115.52	115.52			115.52				

2022 no dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		1.74	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 period length (min)	Time segment length (min)	Run automatically
D3	2022 no dev	AM	DIRECT	07:30	08:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000
D		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

		To				
		A	B	C	D	
07:30 - 07:45	From	A	0.00	0.00	53.00	3.00
		B	10.00	0.00	13.00	0.00
		C	248.00	3.00	0.00	0.00
		D	7.00	0.00	0.00	0.00

Demand (Veh/TS)

		To				
		A	B	C	D	
07:45 - 08:00	From	A	0.00	1.00	77.00	2.00
		B	10.00	0.00	11.00	0.00
		C	247.00	2.00	0.00	2.00
		D	9.00	1.00	4.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		A	B	C	D
From	A	0.00	0.00	81.00	2.00
	B	10.00	0.00	16.00	0.00
	C	205.00	2.00	0.00	2.00
	D	12.00	0.00	5.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		A	B	C	D
From	A	0.00	0.00	99.00	3.00
	B	4.00	0.00	23.00	1.00
	C	170.00	2.00	0.00	11.00
	D	15.00	2.00	7.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	6	0
	B	0	0	4	0
	C	4	11	0	0
	D	0	67	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-ACD	0.28	14.50	0.4	B	24.50	98.00
A-BCD	0.03	9.47	0.0	A	2.55	10.18
A-B					0.25	1.00
A-C					77.45	309.82
D-AB	0.16	11.22	0.2	B	11.16	44.65
D-BC	0.13	19.92	0.1	C	4.34	17.35
C-ABD	0.02	6.56	0.0	A	2.34	9.35
C-D					3.75	15.00
C-A					217.41	869.65

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	23.00	23.00	92.07	0.250	22.67	0.0	0.3	12.909	B
A-BCD	3.05	3.05	98.02	0.031	3.02	0.0	0.0	9.471	A
A-B	0.00	0.00			0.00				
A-C	52.95	52.95			52.95				
D-AB	7.00	7.00	100.31	0.070	6.93	0.0	0.1	9.622	A
D-BC	0.00	0.00	42.74	0.000	0.00	0.0	0.0	0.000	A
C-ABD	3.15	3.15	154.48	0.020	3.13	0.0	0.0	5.946	A
C-D	0.00	0.00			0.00				
C-A	247.85	247.85			247.85				

07:45 - 08:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	21.00	21.00	83.14	0.253	20.99	0.3	0.3	14.496	B
A-BCD	2.03	2.03	98.13	0.021	2.04	0.0	0.0	9.369	A
A-B	1.00	1.00			1.00				
A-C	76.97	76.97			76.97				
D-AB	9.54	9.54	88.27	0.108	9.49	0.1	0.1	11.225	B
D-BC	4.46	4.46	49.45	0.090	4.36	0.0	0.1	19.922	C
C-ABD	2.08	2.08	146.22	0.014	2.08	0.0	0.0	6.243	A
C-D	2.00	2.00			2.00				
C-A	246.92	246.92			246.92				

08:00 - 08:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	26.00	26.00	91.99	0.283	25.95	0.3	0.4	13.586	B
A-BCD	2.03	2.03	108.64	0.019	2.03	0.0	0.0	8.444	A
A-B	0.00	0.00			0.00				
A-C	80.97	80.97			80.97				
D-AB	12.00	12.00	108.83	0.110	11.99	0.1	0.1	9.465	A
D-BC	5.00	5.00	60.60	0.082	5.00	0.1	0.1	16.742	C
C-ABD	2.06	2.06	144.57	0.014	2.06	0.0	0.0	6.313	A
C-D	2.00	2.00			2.00				
C-A	204.94	204.94			204.94				

08:15 - 08:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	28.00	28.00	103.75	0.270	28.01	0.4	0.4	11.825	B
A-BCD	3.07	3.07	116.36	0.026	3.06	0.0	0.0	7.942	A
A-B	0.00	0.00			0.00				
A-C	98.93	98.93			98.93				
D-AB	16.11	16.11	102.63	0.157	16.06	0.1	0.2	10.162	B
D-BC	7.89	7.89	60.45	0.131	7.84	0.1	0.1	16.573	C
C-ABD	2.06	2.06	139.13	0.015	2.06	0.0	0.0	6.565	A
C-D	11.00	11.00			11.00				
C-A	169.94	169.94			169.94				

2022 with dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.99	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 period length (min)	Time segment length (min)	Run automatically
D4	2022 with dev	AM	DIRECT	07:30	08:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000
D		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

		To				
		A	B	C	D	
07:30 - 07:45	From	A	0.00	1.00	53.00	3.00
		B	16.00	0.00	24.00	0.00
		C	248.00	12.00	0.00	0.00
		D	7.00	0.00	0.00	0.00

Demand (Veh/TS)

		To				
		A	B	C	D	
07:45 - 08:00	From	A	0.00	2.00	77.00	2.00
		B	16.00	0.00	21.00	0.00
		C	247.00	11.00	0.00	2.00
		D	9.00	1.00	4.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		A	B	C	D
From	A	0.00	1.00	81.00	2.00
	B	15.00	0.00	26.00	0.00
	C	205.00	11.00	0.00	2.00
	D	12.00	0.00	5.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		A	B	C	D
From	A	0.00	1.00	99.00	3.00
	B	9.00	0.00	33.00	1.00
	C	170.00	11.00	0.00	11.00
	D	15.00	2.00	7.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	6	0
	B	0	0	4	0
	C	4	11	0	0
	D	0	67	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-ACD	0.45	19.52	0.8	C	40.25	161.00
A-BCD	0.03	9.82	0.0	A	2.55	10.20
A-B					1.25	5.00
A-C					77.45	309.81
D-AB	0.16	11.35	0.2	B	11.17	44.67
D-BC	0.14	22.27	0.2	C	4.33	17.34
C-ABD	0.08	6.37	0.1	A	13.07	52.28
C-D					3.72	14.87
C-A					215.71	862.85

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	40.00	40.00	91.77	0.436	39.25	0.0	0.7	16.911	C
A-BCD	3.06	3.06	94.64	0.032	3.02	0.0	0.0	9.820	A
A-B	1.00	1.00			1.00				
A-C	52.94	52.94			52.94				
D-AB	7.00	7.00	100.31	0.070	6.93	0.0	0.1	9.622	A
D-BC	0.00	0.00	39.54	0.000	0.00	0.0	0.0	0.000	A
C-ABD	14.12	14.12	172.78	0.082	14.02	0.0	0.1	5.667	A
C-D	0.00	0.00			0.00				
C-A	245.88	245.88			245.88				

07:45 - 08:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	37.00	37.00	83.05	0.445	36.96	0.7	0.8	19.520	C
A-BCD	2.04	2.04	94.72	0.022	2.05	0.0	0.0	9.713	A
A-B	2.00	2.00			2.00				
A-C	76.96	76.96			76.96				
D-AB	9.54	9.54	87.37	0.109	9.50	0.1	0.1	11.355	B
D-BC	4.46	4.46	44.65	0.100	4.35	0.0	0.1	22.274	C
C-ABD	12.96	12.96	165.72	0.078	12.96	0.1	0.1	5.894	A
C-D	1.98	1.98			1.98				
C-A	245.06	245.06			245.06				

08:00 - 08:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	41.00	41.00	90.78	0.452	40.98	0.8	0.8	18.016	C
A-BCD	2.03	2.03	105.21	0.019	2.03	0.0	0.0	8.725	A
A-B	1.00	1.00			1.00				
A-C	80.97	80.97			80.97				
D-AB	12.00	12.00	108.59	0.110	11.99	0.1	0.1	9.490	A
D-BC	5.00	5.00	55.16	0.091	5.00	0.1	0.1	18.557	C
C-ABD	12.65	12.65	160.69	0.079	12.65	0.1	0.1	6.077	A
C-D	1.98	1.98			1.98				
C-A	203.37	203.37			203.37				

08:15 - 08:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	43.00	43.00	97.88	0.439	43.01	0.8	0.8	16.344	C
A-BCD	3.07	3.07	112.97	0.027	3.07	0.0	0.0	8.187	A
A-B	1.00	1.00			1.00				
A-C	98.93	98.93			98.93				
D-AB	16.12	16.12	101.59	0.159	16.06	0.1	0.2	10.285	B
D-BC	7.88	7.88	55.80	0.141	7.83	0.1	0.2	18.175	C
C-ABD	12.54	12.54	153.73	0.082	12.54	0.1	0.1	6.373	A
C-D	10.91	10.91			10.91				
C-A	168.55	168.55			168.55				

2027 no dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		1.99	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 period length (min)	Time segment length (min)	Run automatically
D5	2027 no dev	AM	DIRECT	07:30	08:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000
D		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

		To				
		A	B	C	D	
07:30 - 07:45	From	A	0.00	0.00	59.00	4.00
		B	11.00	0.00	14.00	0.00
		C	273.00	4.00	0.00	0.00
		D	7.00	0.00	0.00	0.00

Demand (Veh/TS)

		To				
		A	B	C	D	
07:45 - 08:00	From	A	0.00	1.00	85.00	2.00
		B	11.00	0.00	12.00	0.00
		C	272.00	2.00	0.00	2.00
		D	10.00	1.00	5.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		A	B	C	D
From	A	0.00	0.00	89.00	2.00
	B	11.00	0.00	18.00	0.00
	C	225.00	2.00	0.00	2.00
	D	13.00	0.00	6.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		A	B	C	D
From	A	0.00	0.00	109.00	4.00
	B	5.00	0.00	25.00	1.00
	C	187.00	2.00	0.00	12.00
	D	17.00	2.00	7.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	6	0
	B	0	0	4	0
	C	4	11	0	0
	D	0	67	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-ACD	0.33	16.48	0.5	C	27.00	108.00
A-BCD	0.04	10.20	0.0	B	3.09	12.34
A-B					0.25	1.00
A-C					85.42	341.66
D-AB	0.18	12.48	0.2	B	12.17	48.68
D-BC	0.15	23.93	0.2	C	4.83	19.32
C-ABD	0.03	6.68	0.0	A	2.63	10.52
C-D					4.00	15.99
C-A					239.12	956.48

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	25.00	25.00	86.90	0.288	24.61	0.0	0.4	14.359	B
A-BCD	4.12	4.12	92.30	0.045	4.07	0.0	0.0	10.195	B
A-B	0.00	0.00			0.00				
A-C	58.88	58.88			58.88				
D-AB	7.00	7.00	93.82	0.075	6.92	0.0	0.1	10.347	B
D-BC	0.00	0.00	36.90	0.000	0.00	0.0	0.0	0.000	A
C-ABD	4.30	4.30	155.87	0.028	4.27	0.0	0.0	5.937	A
C-D	0.00	0.00			0.00				
C-A	272.70	272.70			272.70				

07:45 - 08:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	23.00	23.00	77.62	0.296	22.98	0.4	0.4	16.479	C
A-BCD	2.04	2.04	92.13	0.022	2.07	0.0	0.0	9.998	A
A-B	1.00	1.00			1.00				
A-C	84.96	84.96			84.96				
D-AB	10.56	10.56	81.46	0.130	10.49	0.1	0.1	12.477	B
D-BC	5.44	5.44	42.77	0.127	5.30	0.0	0.1	23.933	C
C-ABD	2.09	2.09	144.65	0.014	2.10	0.0	0.0	6.306	A
C-D	2.00	2.00			2.00				
C-A	271.91	271.91			271.91				

08:00 - 08:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	29.00	29.00	87.95	0.330	28.93	0.4	0.5	15.192	C
A-BCD	2.03	2.03	103.82	0.020	2.04	0.0	0.0	8.844	A
A-B	0.00	0.00			0.00				
A-C	88.97	88.97			88.97				
D-AB	13.00	13.00	102.95	0.126	13.00	0.1	0.1	10.182	B
D-BC	6.00	6.00	53.90	0.111	6.01	0.1	0.1	19.323	C
C-ABD	2.07	2.07	142.99	0.014	2.07	0.0	0.0	6.387	A
C-D	2.00	2.00			2.00				
C-A	224.93	224.93			224.93				

08:15 - 08:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	31.00	31.00	98.65	0.314	31.02	0.5	0.5	13.247	B
A-BCD	4.15	4.15	113.18	0.037	4.13	0.0	0.0	8.249	A
A-B	0.00	0.00			0.00				
A-C	108.85	108.85			108.85				
D-AB	18.12	18.12	98.65	0.184	18.05	0.1	0.2	10.934	B
D-BC	7.88	7.88	54.32	0.145	7.85	0.1	0.2	18.702	C
C-ABD	2.07	2.07	136.67	0.015	2.07	0.0	0.0	6.685	A
C-D	12.00	12.00			12.00				
C-A	186.94	186.94			186.94				

2027 with dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		3.44	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 period length (min)	Time segment length (min)	Run automatically
D6	2027 with dev	AM	DIRECT	07:30	08:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000
D		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

		To				
		A	B	C	D	
07:30 - 07:45	From	A	0.00	1.00	59.00	4.00
		B	17.00	0.00	25.00	0.00
		C	273.00	13.00	0.00	0.00
		D	7.00	0.00	0.00	0.00

Demand (Veh/TS)

		To				
		A	B	C	D	
07:45 - 08:00	From	A	0.00	2.00	85.00	2.00
		B	17.00	0.00	22.00	0.00
		C	272.00	11.00	0.00	2.00
		D	10.00	1.00	5.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		A	B	C	D
From	A	0.00	1.00	89.00	2.00
	B	16.00	0.00	28.00	0.00
	C	225.00	11.00	0.00	2.00
	D	13.00	0.00	6.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		A	B	C	D
From	A	0.00	1.00	109.00	4.00
	B	10.00	0.00	35.00	1.00
	C	187.00	11.00	0.00	12.00
	D	17.00	2.00	7.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	6	0
	B	0	0	4	0
	C	4	11	0	0
	D	0	67	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-ACD	0.51	23.37	1.0	C	42.75	171.01
A-BCD	0.05	10.59	0.0	B	3.09	12.37
A-B					1.25	4.99
A-C					85.41	341.64
D-AB	0.19	12.68	0.2	B	12.18	48.71
D-BC	0.16	27.54	0.2	D	4.83	19.30
C-ABD	0.09	6.42	0.1	A	13.66	54.64
C-D					3.97	15.86
C-A					237.12	948.50

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	42.00	42.00	86.55	0.485	41.10	0.0	0.9	19.442	C
A-BCD	4.13	4.13	88.99	0.046	4.08	0.0	0.0	10.595	B
A-B	1.00	1.00			1.00				
A-C	58.87	58.87			58.87				
D-AB	7.00	7.00	93.82	0.075	6.92	0.0	0.1	10.347	B
D-BC	0.00	0.00	33.66	0.000	0.00	0.0	0.0	0.000	A
C-ABD	15.79	15.79	175.99	0.090	15.67	0.0	0.1	5.610	A
C-D	0.00	0.00			0.00				
C-A	270.21	270.21			270.21				

07:45 - 08:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	39.00	39.00	77.36	0.504	38.92	0.9	1.0	23.366	C
A-BCD	2.05	2.05	88.73	0.023	2.07	0.0	0.0	10.393	B
A-B	2.00	2.00			2.00				
A-C	84.95	84.95			84.95				
D-AB	10.56	10.56	80.33	0.132	10.50	0.1	0.1	12.677	B
D-BC	5.44	5.44	37.80	0.144	5.27	0.0	0.2	27.543	D
C-ABD	13.22	13.22	166.47	0.079	13.23	0.1	0.1	5.872	A
C-D	1.98	1.98			1.98				
C-A	269.80	269.80			269.80				

08:00 - 08:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	44.00	44.00	86.45	0.509	43.97	1.0	1.0	21.100	C
A-BCD	2.04	2.04	100.41	0.020	2.04	0.0	0.0	9.152	A
A-B	1.00	1.00			1.00				
A-C	88.96	88.96			88.96				
D-AB	13.00	13.00	102.58	0.127	13.00	0.1	0.1	10.226	B
D-BC	6.00	6.00	48.44	0.124	6.01	0.2	0.1	21.808	C
C-ABD	12.86	12.86	160.93	0.080	12.86	0.1	0.1	6.076	A
C-D	1.98	1.98			1.98				
C-A	223.16	223.16			223.16				

08:15 - 08:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	46.00	46.00	93.02	0.495	46.02	1.0	1.0	19.084	C
A-BCD	4.16	4.16	109.86	0.038	4.14	0.0	0.0	8.509	A
A-B	1.00	1.00			1.00				
A-C	108.84	108.84			108.84				
D-AB	18.14	18.14	97.51	0.186	18.06	0.1	0.2	11.089	B
D-BC	7.86	7.86	49.62	0.159	7.83	0.1	0.2	20.800	C
C-ABD	12.77	12.77	153.09	0.083	12.77	0.1	0.1	6.416	A
C-D	11.89	11.89			11.89				
C-A	185.34	185.34			185.34				

2037 no dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.34	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 period length (min)	Time segment length (min)	Run automatically
D7	2037 no dev	AM	DIRECT	07:30	08:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000
D		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

		To				
		A	B	C	D	
07:30 - 07:45	From	A	0.00	0.00	64.00	4.00
		B	12.00	0.00	16.00	0.00
		C	298.00	4.00	0.00	0.00
		D	8.00	0.00	0.00	0.00

Demand (Veh/TS)

		To				
		A	B	C	D	
07:45 - 08:00	From	A	0.00	1.00	93.00	3.00
		B	12.00	0.00	13.00	0.00
		C	297.00	3.00	0.00	3.00
		D	10.00	1.00	5.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		A	B	C	D
From	A	0.00	0.00	97.00	3.00
	B	12.00	0.00	20.00	0.00
	C	246.00	3.00	0.00	3.00
	D	14.00	0.00	7.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		A	B	C	D
From	A	0.00	0.00	119.00	4.00
	B	5.00	0.00	27.00	1.00
	C	204.00	3.00	0.00	13.00
	D	18.00	3.00	8.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	6	0
	B	0	0	4	0
	C	4	11	0	0
	D	0	67	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-ACD	0.39	19.28	0.6	C	29.50	118.00
A-BCD	0.05	10.92	0.1	B	3.63	14.54
A-B					0.25	1.00
A-C					93.12	372.46
D-AB	0.22	13.98	0.3	B	13.08	52.32
D-BC	0.19	30.19	0.2	D	5.42	21.70
C-ABD	0.03	6.74	0.0	A	3.47	13.89
C-D					4.75	18.99
C-A					261.03	1044.13

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	28.00	28.00	83.15	0.337	27.51	0.0	0.5	16.039	C
A-BCD	4.15	4.15	86.43	0.048	4.10	0.0	0.1	10.924	B
A-B	0.00	0.00			0.00				
A-C	63.85	63.85			63.85				
D-AB	8.00	8.00	87.33	0.092	7.90	0.0	0.1	11.318	B
D-BC	0.00	0.00	31.51	0.000	0.00	0.0	0.0	0.000	A
C-ABD	4.33	4.33	155.65	0.028	4.30	0.0	0.0	5.947	A
C-D	0.00	0.00			0.00				
C-A	297.67	297.67			297.67				

07:45 - 08:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	25.00	25.00	71.68	0.349	24.97	0.5	0.5	19.279	C
A-BCD	3.12	3.12	86.63	0.036	3.13	0.1	0.0	10.781	B
A-B	1.00	1.00			1.00				
A-C	92.88	92.88			92.88				
D-AB	10.57	10.57	73.75	0.143	10.51	0.1	0.2	13.976	B
D-BC	5.43	5.43	34.90	0.156	5.25	0.0	0.2	30.189	D
C-ABD	3.21	3.21	145.95	0.022	3.22	0.0	0.0	6.302	A
C-D	3.00	3.00			3.00				
C-A	296.79	296.79			296.79				

08:00 - 08:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	32.00	32.00	83.11	0.385	31.92	0.5	0.6	17.495	C
A-BCD	3.09	3.09	99.18	0.031	3.10	0.0	0.0	9.371	A
A-B	0.00	0.00			0.00				
A-C	96.91	96.91			96.91				
D-AB	14.00	14.00	96.51	0.145	13.99	0.2	0.2	11.098	B
D-BC	7.00	7.00	46.26	0.151	7.00	0.2	0.2	23.513	C
C-ABD	3.18	3.18	143.57	0.022	3.18	0.0	0.0	6.407	A
C-D	3.00	3.00			3.00				
C-A	245.82	245.82			245.82				

08:15 - 08:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	33.00	33.00	95.29	0.346	33.07	0.6	0.5	14.404	B
A-BCD	4.18	4.18	108.84	0.038	4.17	0.0	0.0	8.595	A
A-B	0.00	0.00			0.00				
A-C	118.83	118.83			118.83				
D-AB	19.74	19.74	88.24	0.224	19.64	0.2	0.3	12.719	B
D-BC	9.26	9.26	47.78	0.194	9.21	0.2	0.2	22.333	C
C-ABD	3.17	3.17	136.80	0.023	3.17	0.0	0.0	6.736	A
C-D	12.99	12.99			12.99				
C-A	203.84	203.84			203.84				

2037 with dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		4.15	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 period length (min)	Time segment length (min)	Run automatically
D8	2037 with dev	AM	DIRECT	07:30	08:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000
D		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

07:30 - 07:45

		To			
		A	B	C	D
From	A	0.00	1.00	64.00	4.00
	B	18.00	0.00	27.00	0.00
	C	298.00	13.00	0.00	0.00
	D	8.00	0.00	0.00	0.00

Demand (Veh/TS)

07:45 - 08:00

		To			
		A	B	C	D
From	A	0.00	2.00	93.00	3.00
	B	18.00	0.00	23.00	0.00
	C	297.00	12.00	0.00	3.00
	D	10.00	1.00	5.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		A	B	C	D
From	A	0.00	1.00	97.00	3.00
	B	17.00	0.00	30.00	0.00
	C	246.00	12.00	0.00	3.00
	D	14.00	0.00	7.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		A	B	C	D
From	A	0.00	1.00	119.00	4.00
	B	10.00	0.00	37.00	1.00
	C	204.00	12.00	0.00	13.00
	D	18.00	3.00	8.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	6	0
	B	0	0	4	0
	C	4	11	0	0
	D	0	67	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-ACD	0.58	29.31	1.3	D	45.25	181.01
A-BCD	0.05	11.38	0.1	B	3.65	14.59
A-B					1.25	4.99
A-C					93.10	372.42
D-AB	0.23	14.31	0.3	B	13.09	52.36
D-BC	0.21	36.22	0.3	E	5.41	21.65
C-ABD	0.09	6.41	0.1	A	14.98	59.92
C-D					4.70	18.80
C-A					258.57	1034.28

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	45.00	45.00	82.31	0.547	43.86	0.0	1.1	22.796	C
A-BCD	4.16	4.16	83.15	0.050	4.11	0.0	0.1	11.381	B
A-B	1.00	1.00			1.00				
A-C	63.84	63.84			63.84				
D-AB	8.00	8.00	87.33	0.092	7.90	0.0	0.1	11.318	B
D-BC	0.00	0.00	28.22	0.000	0.00	0.0	0.0	0.000	A
C-ABD	16.10	16.10	177.81	0.091	15.98	0.0	0.1	5.558	A
C-D	0.00	0.00			0.00				
C-A	294.90	294.90			294.90				

07:45 - 08:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	41.00	41.00	71.18	0.576	40.85	1.1	1.3	29.312	D
A-BCD	3.13	3.13	83.32	0.038	3.15	0.1	0.0	11.226	B
A-B	2.00	2.00			2.00				
A-C	92.87	92.87			92.87				
D-AB	10.58	10.58	72.26	0.146	10.52	0.1	0.2	14.307	B
D-BC	5.42	5.42	29.86	0.181	5.21	0.0	0.2	36.223	E
C-ABD	14.97	14.97	169.80	0.088	14.97	0.1	0.1	5.817	A
C-D	2.97	2.97			2.97				
C-A	294.06	294.06			294.06				

08:00 - 08:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	47.00	47.00	81.31	0.578	46.97	1.3	1.3	26.060	D
A-BCD	3.10	3.10	95.83	0.032	3.11	0.0	0.0	9.711	A
A-B	1.00	1.00			1.00				
A-C	96.90	96.90			96.90				
D-AB	14.00	14.00	95.94	0.146	13.99	0.2	0.2	11.179	B
D-BC	7.00	7.00	40.76	0.171	7.00	0.2	0.2	27.339	D
C-ABD	14.49	14.49	163.27	0.089	14.49	0.1	0.1	6.044	A
C-D	2.97	2.97			2.97				
C-A	243.54	243.54			243.54				

08:15 - 08:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	48.00	48.00	88.97	0.540	48.11	1.3	1.2	22.006	C
A-BCD	4.19	4.19	105.54	0.040	4.18	0.0	0.0	8.876	A
A-B	1.00	1.00			1.00				
A-C	118.81	118.81			118.81				
D-AB	19.77	19.77	86.60	0.228	19.66	0.2	0.3	13.026	B
D-BC	9.23	9.23	43.18	0.214	9.19	0.2	0.3	25.326	D
C-ABD	14.37	14.37	154.74	0.093	14.36	0.1	0.1	6.413	A
C-D	12.86	12.86			12.86				
C-A	201.77	201.77			201.77				

2022 no dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		1.18	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 period length (min)	Time segment length (min)	Run automatically
D9	2022 no dev	PM	DIRECT	17:30	18:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000
D		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

		To				
		A	B	C	D	
17:30 - 17:45	From	A	0.00	9.00	221.00	12.00
		B	3.00	0.00	11.00	1.00
		C	86.00	12.00	0.00	11.00
		D	5.00	0.00	2.00	0.00

Demand (Veh/TS)

		To				
		A	B	C	D	
17:45 - 18:00	From	A	0.00	9.00	222.00	12.00
		B	0.00	0.00	10.00	1.00
		C	93.00	13.00	0.00	12.00
		D	8.00	0.00	5.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		A	B	C	D
From	A	0.00	4.00	233.00	12.00
	B	2.00	0.00	5.00	0.00
	C	96.00	13.00	0.00	8.00
	D	4.00	0.00	3.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		A	B	C	D
From	A	0.00	4.00	192.00	10.00
	B	1.00	0.00	9.00	1.00
	C	123.00	9.00	0.00	9.00
	D	2.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-ACD	0.20	14.82	0.2	B	11.00	44.00
A-BCD	0.09	7.07	0.1	A	13.45	53.82
A-B					6.44	25.77
A-C					215.10	860.41
D-AB	0.06	6.97	0.1	A	4.75	19.00
D-BC	0.08	15.45	0.1	C	2.75	11.00
C-ABD	0.12	8.41	0.1	A	12.95	51.79
C-D					9.89	39.54
C-A					98.42	393.67

Main Results for each time segment

17:30 - 17:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	15.00	15.00	75.23	0.199	14.76	0.0	0.2	14.824	B
A-BCD	14.07	14.07	151.77	0.093	13.95	0.0	0.1	6.527	A
A-B	8.92	8.92			8.92				
A-C	219.01	219.01			219.01				
D-AB	5.00	5.00	140.64	0.036	4.96	0.0	0.0	6.631	A
D-BC	2.00	2.00	64.83	0.031	1.97	0.0	0.0	14.310	B
C-ABD	13.13	13.13	121.54	0.108	13.00	0.0	0.1	8.283	A
C-D	10.87	10.87			10.87				
C-A	85.00	85.00			85.00				

17:45 - 18:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	11.00	11.00	85.47	0.129	11.09	0.2	0.1	12.076	B
A-BCD	14.16	14.16	149.94	0.094	14.15	0.1	0.1	6.631	A
A-B	8.92	8.92			8.92				
A-C	219.93	219.93			219.93				
D-AB	8.00	8.00	137.06	0.058	7.98	0.0	0.1	6.972	A
D-BC	5.00	5.00	63.16	0.079	4.95	0.0	0.1	15.448	C
C-ABD	14.45	14.45	123.05	0.117	14.43	0.1	0.1	8.285	A
C-D	11.83	11.83			11.83				
C-A	91.72	91.72			91.72				

18:00 - 18:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	7.00	7.00	70.93	0.099	7.04	0.1	0.1	14.149	B
A-BCD	14.21	14.21	150.71	0.094	14.20	0.1	0.1	6.593	A
A-B	3.96	3.96			3.96				
A-C	230.83	230.83			230.83				
D-AB	4.00	4.00	137.75	0.029	4.03	0.1	0.0	6.733	A
D-BC	3.00	3.00	62.38	0.048	3.03	0.1	0.1	15.172	C
C-ABD	14.48	14.48	121.44	0.119	14.47	0.1	0.1	8.415	A
C-D	7.89	7.89			7.89				
C-A	94.64	94.64			94.64				

18:15 - 18:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	11.00	11.00	85.94	0.128	10.97	0.1	0.1	11.983	B
A-BCD	11.39	11.39	138.77	0.082	11.40	0.1	0.1	7.067	A
A-B	3.97	3.97			3.97				
A-C	190.64	190.64			190.64				
D-AB	2.00	2.00	131.94	0.015	2.01	0.0	0.0	6.929	A
D-BC	1.00	1.00	62.55	0.016	1.03	0.1	0.0	14.641	B
C-ABD	9.73	9.73	131.07	0.074	9.79	0.1	0.1	7.429	A
C-D	8.95	8.95			8.95				
C-A	122.32	122.32			122.32				

2022 with dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		1.98	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 period length (min)	Time segment length (min)	Run automatically
D10	2022 with dev	PM	DIRECT	17:30	18:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000
D		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

		To			
		A	B	C	D
17:30 - 17:45	From A	0.00	15.00	221.00	12.00
	From B	5.00	0.00	20.00	1.00
	From C	86.00	22.00	0.00	11.00
	From D	5.00	0.00	2.00	0.00

Demand (Veh/TS)

		To			
		A	B	C	D
17:45 - 18:00	From A	0.00	15.00	222.00	12.00
	From B	2.00	0.00	19.00	1.00
	From C	93.00	23.00	0.00	12.00
	From D	8.00	0.00	5.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		A	B	C	D
From	A	0.00	9.00	233.00	12.00
	B	3.00	0.00	14.00	0.00
	C	96.00	23.00	0.00	8.00
	D	4.00	0.00	3.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		A	B	C	D
From	A	0.00	9.00	192.00	10.00
	B	2.00	0.00	18.00	1.00
	C	123.00	19.00	0.00	9.00
	D	2.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-ACD	0.35	18.02	0.5	C	21.50	86.00
A-BCD	0.10	7.22	0.1	A	13.61	54.46
A-B					11.89	47.55
A-C					215.00	859.99
D-AB	0.06	6.98	0.1	A	4.75	19.00
D-BC	0.09	16.84	0.1	C	2.75	11.00
C-ABD	0.21	8.82	0.3	A	25.91	103.65
C-D					9.61	38.43
C-A					95.73	382.92

Main Results for each time segment

17:30 - 17:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	26.00	26.00	74.94	0.347	25.48	0.0	0.5	18.019	C
A-BCD	14.24	14.24	149.55	0.095	14.12	0.0	0.1	6.642	A
A-B	14.86	14.86			14.86				
A-C	218.90	218.90			218.90				
D-AB	5.00	5.00	140.55	0.036	4.96	0.0	0.0	6.636	A
D-BC	2.00	2.00	60.10	0.033	1.97	0.0	0.0	15.474	C
C-ABD	25.92	25.92	128.93	0.201	25.63	0.0	0.3	8.695	A
C-D	10.56	10.56			10.56				
C-A	82.52	82.52			82.52				

17:45 - 18:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	22.00	22.00	80.12	0.275	22.13	0.5	0.4	15.524	C
A-BCD	14.34	14.34	147.73	0.097	14.33	0.1	0.1	6.750	A
A-B	14.85	14.85			14.85				
A-C	219.81	219.81			219.81				
D-AB	8.00	8.00	136.82	0.058	7.98	0.0	0.1	6.985	A
D-BC	5.00	5.00	58.33	0.086	4.94	0.0	0.1	16.838	C
C-ABD	27.67	27.67	131.22	0.211	27.64	0.3	0.3	8.694	A
C-D	11.47	11.47			11.47				
C-A	88.87	88.87			88.87				

18:00 - 18:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	17.00	17.00	75.37	0.226	17.09	0.4	0.3	15.480	C
A-BCD	14.38	14.38	148.40	0.097	14.38	0.1	0.1	6.716	A
A-B	8.91	8.91			8.91				
A-C	230.71	230.71			230.71				
D-AB	4.00	4.00	137.60	0.029	4.03	0.1	0.0	6.741	A
D-BC	3.00	3.00	57.67	0.052	3.04	0.1	0.1	16.482	C
C-ABD	27.74	27.74	129.88	0.214	27.74	0.3	0.3	8.817	A
C-D	7.64	7.64			7.64				
C-A	91.62	91.62			91.62				

18:15 - 18:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	21.00	21.00	87.01	0.241	20.98	0.3	0.3	13.618	B
A-BCD	11.50	11.50	136.24	0.084	11.52	0.1	0.1	7.220	A
A-B	8.93	8.93			8.93				
A-C	190.56	190.56			190.56				
D-AB	2.00	2.00	131.89	0.015	2.01	0.0	0.0	6.929	A
D-BC	1.00	1.00	57.85	0.017	1.04	0.1	0.0	15.852	C
C-ABD	22.32	22.32	140.82	0.158	22.41	0.3	0.2	7.615	A
C-D	8.77	8.77			8.77				
C-A	119.91	119.91			119.91				

2027 no dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		1.33	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 period length (min)	Time segment length (min)	Run automatically
D11	2027 no dev	PM	DIRECT	17:30	18:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000
D		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

17:30 - 17:45

		To			
		A	B	C	D
From	A	0.00	10.00	243.00	13.00
	B	4.00	0.00	12.00	1.00
	C	95.00	13.00	0.00	12.00
	D	6.00	0.00	2.00	0.00

Demand (Veh/TS)

17:45 - 18:00

		To			
		A	B	C	D
From	A	0.00	10.00	244.00	13.00
	B	0.00	0.00	11.00	1.00
	C	102.00	14.00	0.00	13.00
	D	8.00	0.00	6.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		A	B	C	D
From	A	0.00	5.00	256.00	13.00
	B	2.00	0.00	6.00	0.00
	C	105.00	14.00	0.00	8.00
	D	5.00	0.00	4.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		A	B	C	D
From	A	0.00	5.00	211.00	11.00
	B	1.00	0.00	10.00	1.00
	C	135.00	10.00	0.00	10.00
	D	2.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-ACD	0.25	17.78	0.3	C	12.25	49.00
A-BCD	0.10	7.12	0.1	A	15.15	60.60
A-B					7.42	29.67
A-C					235.93	943.72
D-AB	0.06	7.15	0.1	A	5.25	21.00
D-BC	0.11	17.64	0.1	C	3.25	13.00
C-ABD	0.14	8.88	0.2	A	14.49	57.97
C-D					10.59	42.35
C-A					107.67	430.68

Main Results for each time segment

17:30 - 17:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	17.00	17.00	66.98	0.254	16.67	0.0	0.3	17.778	C
A-BCD	15.79	15.79	153.81	0.103	15.65	0.0	0.1	6.509	A
A-B	9.89	9.89			9.89				
A-C	240.32	240.32			240.32				
D-AB	6.00	6.00	138.15	0.043	5.95	0.0	0.0	6.807	A
D-BC	2.00	2.00	58.37	0.034	1.97	0.0	0.0	15.947	C
C-ABD	14.66	14.66	117.62	0.125	14.51	0.0	0.2	8.719	A
C-D	11.81	11.81			11.81				
C-A	93.52	93.52			93.52				

17:45 - 18:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	12.00	12.00	80.02	0.150	12.15	0.3	0.2	13.237	B
A-BCD	15.90	15.90	152.09	0.105	15.90	0.1	0.1	6.612	A
A-B	9.89	9.89			9.89				
A-C	241.21	241.21			241.21				
D-AB	8.00	8.00	133.80	0.060	7.98	0.0	0.1	7.153	A
D-BC	6.00	6.00	56.79	0.106	5.92	0.0	0.1	17.638	C
C-ABD	16.09	16.09	119.42	0.135	16.07	0.2	0.2	8.709	A
C-D	12.76	12.76			12.76				
C-A	100.15	100.15			100.15				

18:00 - 18:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	8.00	8.00	65.80	0.122	8.04	0.2	0.1	15.642	C
A-BCD	15.96	15.96	153.20	0.104	15.96	0.1	0.1	6.561	A
A-B	4.94	4.94			4.94				
A-C	253.10	253.10			253.10				
D-AB	5.00	5.00	134.66	0.037	5.02	0.1	0.0	6.942	A
D-BC	4.00	4.00	55.96	0.071	4.04	0.1	0.1	17.346	C
C-ABD	16.13	16.13	117.48	0.137	16.12	0.2	0.2	8.883	A
C-D	7.85	7.85			7.85				
C-A	103.02	103.02			103.02				

18:15 - 18:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	12.00	12.00	81.26	0.148	11.97	0.1	0.2	12.969	B
A-BCD	12.95	12.95	139.41	0.093	12.97	0.1	0.1	7.120	A
A-B	4.95	4.95			4.95				
A-C	209.09	209.09			209.09				
D-AB	2.00	2.00	128.72	0.016	2.02	0.0	0.0	7.103	A
D-BC	1.00	1.00	55.92	0.018	1.06	0.1	0.0	16.421	C
C-ABD	11.09	11.09	127.90	0.087	11.17	0.2	0.1	7.720	A
C-D	9.92	9.92			9.92				
C-A	133.98	133.98			133.98				

2027 with dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.25	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 period length (min)	Time segment length (min)	Run automatically
D12	2027 with dev	PM	DIRECT	17:30	18:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000
D		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

17:30 - 17:45

		To			
		A	B	C	D
From	A	0.00	16.00	243.00	13.00
	B	6.00	0.00	21.00	1.00
	C	95.00	23.00	0.00	12.00
	D	6.00	0.00	2.00	0.00

Demand (Veh/TS)

17:45 - 18:00

		To			
		A	B	C	D
From	A	0.00	16.00	244.00	13.00
	B	2.00	0.00	20.00	1.00
	C	102.00	24.00	0.00	13.00
	D	8.00	0.00	6.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		A	B	C	D
From	A	0.00	10.00	256.00	13.00
	B	3.00	0.00	15.00	0.00
	C	105.00	24.00	0.00	8.00
	D	5.00	0.00	4.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		A	B	C	D
From	A	0.00	10.00	211.00	11.00
	B	2.00	0.00	19.00	1.00
	C	135.00	20.00	0.00	10.00
	D	2.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-ACD	0.42	22.40	0.7	C	22.75	91.00
A-BCD	0.11	7.27	0.1	A	15.37	61.46
A-B					12.85	51.40
A-C					235.78	943.13
D-AB	0.06	7.17	0.1	A	5.25	21.00
D-BC	0.12	19.52	0.1	C	3.25	13.00
C-ABD	0.24	9.28	0.4	A	28.40	113.60
C-D					10.23	40.92
C-A					104.12	416.48

Main Results for each time segment

17:30 - 17:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	28.00	28.00	66.85	0.419	27.31	0.0	0.7	22.399	C
A-BCD	16.01	16.01	151.81	0.105	15.87	0.0	0.1	6.616	A
A-B	15.81	15.81			15.81				
A-C	240.18	240.18			240.18				
D-AB	6.00	6.00	138.04	0.043	5.95	0.0	0.0	6.812	A
D-BC	2.00	2.00	53.64	0.037	1.96	0.0	0.0	17.403	C
C-ABD	28.37	28.37	126.62	0.224	28.03	0.0	0.3	9.108	A
C-D	11.40	11.40			11.40				
C-A	90.23	90.23			90.23				

17:45 - 18:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	23.00	23.00	74.02	0.311	23.23	0.7	0.5	17.752	C
A-BCD	16.14	16.14	150.08	0.108	16.14	0.1	0.1	6.720	A
A-B	15.81	15.81			15.81				
A-C	241.05	241.05			241.05				
D-AB	8.00	8.00	133.45	0.060	7.98	0.0	0.1	7.173	A
D-BC	6.00	6.00	51.94	0.116	5.91	0.0	0.1	19.517	C
C-ABD	30.33	30.33	129.27	0.235	30.30	0.3	0.4	9.103	A
C-D	12.28	12.28			12.28				
C-A	96.39	96.39			96.39				

18:00 - 18:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	18.00	18.00	68.99	0.261	18.10	0.5	0.4	17.735	C
A-BCD	16.19	16.19	151.09	0.107	16.19	0.1	0.1	6.675	A
A-B	9.88	9.88			9.88				
A-C	252.93	252.93			252.93				
D-AB	5.00	5.00	134.41	0.037	5.02	0.1	0.0	6.959	A
D-BC	4.00	4.00	51.24	0.078	4.04	0.1	0.1	19.086	C
C-ABD	30.43	30.43	127.55	0.239	30.42	0.4	0.4	9.278	A
C-D	7.54	7.54			7.54				
C-A	99.03	99.03			99.03				

18:15 - 18:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	22.00	22.00	81.79	0.269	22.00	0.4	0.4	15.043	C
A-BCD	13.12	13.12	137.07	0.096	13.14	0.1	0.1	7.267	A
A-B	9.90	9.90			9.90				
A-C	208.98	208.98			208.98				
D-AB	2.00	2.00	128.64	0.016	2.02	0.0	0.0	7.108	A
D-BC	1.00	1.00	51.21	0.020	1.07	0.1	0.0	17.971	C
C-ABD	24.47	24.47	139.41	0.176	24.59	0.4	0.3	7.858	A
C-D	9.69	9.69			9.69				
C-A	130.84	130.84			130.84				

2037 no dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		1.49	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 period length (min)	Time segment length (min)	Run automatically
D13	2037 no dev	PM	DIRECT	17:30	18:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000
D		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

		To			
		A	B	C	D
17:30 - 17:45	From A	0.00	10.00	266.00	14.00
	From B	4.00	0.00	13.00	1.00
	From C	103.00	14.00	0.00	13.00
	From D	7.00	0.00	3.00	0.00

Demand (Veh/TS)

		To			
		A	B	C	D
17:45 - 18:00	From A	0.00	10.00	267.00	14.00
	From B	0.00	0.00	12.00	1.00
	From C	111.00	16.00	0.00	14.00
	From D	9.00	0.00	7.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		A	B	C	D
From	A	0.00	5.00	280.00	14.00
	B	3.00	0.00	7.00	0.00
	C	115.00	16.00	0.00	9.00
	D	5.00	0.00	4.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		A	B	C	D
From	A	0.00	5.00	230.00	12.00
	B	1.00	0.00	10.00	1.00
	C	148.00	10.00	0.00	10.00
	D	3.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-ACD	0.30	20.69	0.4	C	13.25	53.00
ABCD	0.12	7.14	0.2	A	17.03	68.14
A-B					7.40	29.60
A-C					257.32	1029.26
D-AB	0.07	7.42	0.1	A	6.00	24.00
D-BC	0.14	20.82	0.2	C	3.75	15.00
C-ABD	0.17	9.35	0.2	A	16.66	66.62
C-D					11.25	45.01
C-A					116.84	467.36

Main Results for each time segment

17:30 - 17:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	18.00	18.00	60.72	0.296	17.59	0.0	0.4	20.686	C
A-BCD	17.66	17.66	156.63	0.113	17.51	0.0	0.2	6.465	A
A-B	9.87	9.87			9.87				
A-C	262.47	262.47			262.47				
D-AB	7.00	7.00	135.23	0.052	6.95	0.0	0.1	7.012	A
D-BC	3.00	3.00	52.12	0.058	2.94	0.0	0.1	18.280	C
C-ABD	16.39	16.39	114.15	0.144	16.20	0.0	0.2	9.175	A
C-D	12.73	12.73			12.73				
C-A	100.88	100.88			100.88				

17:45 - 18:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	13.00	13.00	74.16	0.175	13.19	0.4	0.2	14.749	B
A-BCD	17.85	17.85	154.59	0.116	17.85	0.2	0.2	6.586	A
A-B	9.86	9.86			9.86				
A-C	263.28	263.28			263.28				
D-AB	9.00	9.00	130.30	0.069	8.98	0.1	0.1	7.418	A
D-BC	7.00	7.00	50.03	0.140	6.90	0.1	0.2	20.819	C
C-ABD	19.39	19.39	117.71	0.165	19.35	0.2	0.2	9.150	A
C-D	13.62	13.62			13.62				
C-A	107.99	107.99			107.99				

18:00 - 18:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	10.00	10.00	54.75	0.183	9.99	0.2	0.2	20.194	C
A-BCD	17.95	17.95	155.70	0.115	17.95	0.2	0.2	6.538	A
A-B	4.93	4.93			4.93				
A-C	276.12	276.12			276.12				
D-AB	5.00	5.00	131.66	0.038	5.03	0.1	0.0	7.111	A
D-BC	4.00	4.00	48.71	0.082	4.07	0.2	0.1	20.190	C
C-ABD	19.52	19.52	115.79	0.169	19.52	0.2	0.2	9.354	A
C-D	8.74	8.74			8.74				
C-A	111.73	111.73			111.73				

18:15 - 18:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	12.00	12.00	75.28	0.159	12.03	0.2	0.2	14.205	B
A-BCD	14.67	14.67	140.80	0.104	14.69	0.2	0.1	7.140	A
A-B	4.94	4.94			4.94				
A-C	227.39	227.39			227.39				
D-AB	3.00	3.00	125.33	0.024	3.02	0.0	0.0	7.357	A
D-BC	1.00	1.00	49.61	0.020	1.07	0.1	0.0	18.566	C
C-ABD	11.32	11.32	124.10	0.091	11.44	0.2	0.1	8.006	A
C-D	9.92	9.92			9.92				
C-A	146.77	146.77			146.77				

2037 with dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.57	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 period length (min)	Time segment length (min)	Run automatically
D14	2037 with dev	PM	DIRECT	17:30	18:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000
D		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

		To			
		A	B	C	D
17:30 - 17:45	From A	0.00	16.00	266.00	14.00
	From B	6.00	0.00	22.00	1.00
	From C	103.00	24.00	0.00	13.00
	From D	7.00	0.00	3.00	0.00

Demand (Veh/TS)

		To			
		A	B	C	D
17:45 - 18:00	From A	0.00	16.00	267.00	14.00
	From B	2.00	0.00	21.00	1.00
	From C	111.00	26.00	0.00	14.00
	From D	9.00	0.00	7.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		A	B	C	D
From	A	0.00	10.00	280.00	14.00
	B	4.00	0.00	16.00	0.00
	C	115.00	26.00	0.00	9.00
	D	5.00	0.00	4.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		A	B	C	D
From	A	0.00	10.00	230.00	12.00
	B	2.00	0.00	19.00	1.00
	C	148.00	20.00	0.00	10.00
	D	3.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-ACD	0.48	27.56	0.9	D	23.75	95.00
A-BCD	0.12	7.28	0.2	A	17.32	69.28
A-B					12.82	51.27
A-C					257.11	1028.45
D-AB	0.07	7.45	0.1	A	6.00	24.00
D-BC	0.16	23.45	0.2	C	3.75	15.00
C-ABD	0.28	9.76	0.5	A	31.88	127.51
C-D					10.78	43.11
C-A					112.09	448.38

Main Results for each time segment

17:30 - 17:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	29.00	29.00	59.98	0.483	28.12	0.0	0.9	27.559	D
A-BCD	17.96	17.96	154.85	0.116	17.79	0.0	0.2	6.563	A
A-B	15.78	15.78			15.78				
A-C	262.27	262.27			262.27				
D-AB	7.00	7.00	135.03	0.052	6.95	0.0	0.1	7.023	A
D-BC	3.00	3.00	47.39	0.063	2.93	0.0	0.1	20.217	C
C-ABD	31.27	31.27	124.90	0.250	30.85	0.0	0.4	9.546	A
C-D	12.19	12.19			12.19				
C-A	96.54	96.54			96.54				

17:45 - 18:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	24.00	24.00	67.10	0.358	24.31	0.9	0.6	21.121	C
A-BCD	18.17	18.17	152.83	0.119	18.16	0.2	0.2	6.685	A
A-B	15.76	15.76			15.76				
A-C	263.06	263.06			263.06				
D-AB	9.00	9.00	129.76	0.069	8.98	0.1	0.1	7.451	A
D-BC	7.00	7.00	45.15	0.155	6.89	0.1	0.2	23.455	C
C-ABD	35.26	35.26	129.51	0.272	35.19	0.4	0.5	9.556	A
C-D	12.96	12.96			12.96				
C-A	102.78	102.78			102.78				

18:00 - 18:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	20.00	20.00	58.24	0.343	20.04	0.6	0.5	23.637	C
A-BCD	18.26	18.26	153.83	0.119	18.26	0.2	0.2	6.643	A
A-B	9.85	9.85			9.85				
A-C	275.89	275.89			275.89				
D-AB	5.00	5.00	131.32	0.038	5.03	0.1	0.0	7.130	A
D-BC	4.00	4.00	43.95	0.091	4.08	0.2	0.1	22.609	C
C-ABD	35.58	35.58	127.98	0.278	35.56	0.5	0.5	9.761	A
C-D	8.30	8.30			8.30				
C-A	106.11	106.11			106.11				

18:15 - 18:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	22.00	22.00	75.76	0.290	22.12	0.5	0.4	16.799	C
A-BCD	14.89	14.89	138.66	0.107	14.91	0.2	0.2	7.277	A
A-B	9.88	9.88			9.88				
A-C	227.23	227.23			227.23				
D-AB	3.00	3.00	125.23	0.024	3.02	0.0	0.0	7.366	A
D-BC	1.00	1.00	44.86	0.022	1.08	0.1	0.0	20.590	C
C-ABD	25.40	25.40	137.50	0.185	25.62	0.5	0.3	8.074	A
C-D	9.66	9.66			9.66				
C-A	142.95	142.95			142.95				

2037 Sensitivity, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		74.57	F

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 period length (min)	Time segment length (min)	Run automatically
D15	2037 Sensitivity	AM	DIRECT	07:30	08:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000
D		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

		To				
		A	B	C	D	
07:30 - 07:45	From	A	0.00	1.00	46.00	14.00
		B	18.00	0.00	23.00	4.00
		C	279.00	13.00	0.00	38.00
		D	35.00	0.00	44.00	0.00

Demand (Veh/TS)

		To				
		A	B	C	D	
07:45 - 08:00	From	A	0.00	2.00	75.00	13.00
		B	18.00	0.00	20.00	3.00
		C	278.00	12.00	0.00	38.00
		D	37.00	1.00	48.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		A	B	C	D
From	A	0.00	1.00	79.00	13.00
	B	17.00	0.00	27.00	3.00
	C	228.00	12.00	0.00	39.00
	D	40.00	0.00	48.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		A	B	C	D
From	A	0.00	1.00	101.00	13.00
	B	10.00	0.00	34.00	4.00
	C	186.00	12.00	0.00	48.00
	D	44.00	3.00	49.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	6	0
	B	0	0	4	0
	C	4	11	0	0
	D	0	67	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-ACD	0.68	43.86	1.9	E	45.25	181.01
A-BCD	0.19	13.04	0.2	B	15.11	60.43
A-B					1.22	4.87
A-C					73.42	293.70
D-AB	0.64	35.38	1.6	E	40.01	160.04
D-BC	1.53	764.93	39.3	F	47.25	189.00
C-ABD	0.09	6.27	0.1	A	15.11	60.45
C-D					40.34	161.34
C-A					240.30	961.21

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	45.00	45.00	72.32	0.622	43.49	0.0	1.5	29.878	D
A-BCD	15.62	15.62	84.18	0.186	15.37	0.0	0.2	13.043	B
A-B	0.97	0.97			0.97				
A-C	44.42	44.42			44.42				
D-AB	35.00	35.00	66.38	0.527	33.95	0.0	1.0	26.979	D
D-BC	44.00	44.00	34.50	1.275	31.87	0.0	12.1	211.401	F
C-ABD	16.25	16.25	180.91	0.090	16.12	0.0	0.1	5.458	A
C-D	37.61	37.61			37.61				
C-A	276.14	276.14			276.14				

07:45 - 08:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	41.00	41.00	60.66	0.676	40.63	1.5	1.9	43.856	E
A-BCD	15.25	15.25	89.11	0.171	15.25	0.2	0.2	12.180	B
A-B	1.94	1.94			1.94				
A-C	72.81	72.81			72.81				
D-AB	38.00	38.00	62.12	0.612	37.62	1.0	1.4	35.379	E
D-BC	48.00	48.00	31.39	1.529	31.19	12.1	28.9	569.959	F
C-ABD	15.08	15.08	172.44	0.087	15.08	0.1	0.1	5.721	A
C-D	37.63	37.63			37.63				
C-A	275.29	275.29			275.29				

08:00 - 08:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	47.00	47.00	70.56	0.666	46.97	1.9	1.9	37.773	E
A-BCD	14.73	14.73	100.28	0.147	14.77	0.2	0.2	10.549	B
A-B	0.98	0.98			0.98				
A-C	77.29	77.29			77.29				
D-AB	40.00	40.00	76.07	0.525	40.24	1.4	1.2	25.758	D
D-BC	48.00	48.00	41.16	1.166	40.97	28.9	36.0	709.607	F
C-ABD	14.63	14.63	166.20	0.088	14.63	0.1	0.1	5.934	A
C-D	38.62	38.62			38.62				
C-A	225.76	225.76			225.76				

08:15 - 08:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	48.00	48.00	79.58	0.603	48.31	1.9	1.6	28.959	D
A-BCD	14.84	14.84	110.53	0.134	14.86	0.2	0.2	9.411	A
A-B	0.98	0.98			0.98				
A-C	99.18	99.18			99.18				
D-AB	47.00	47.00	73.27	0.642	46.60	1.2	1.6	31.605	D
D-BC	49.00	49.00	45.97	1.066	45.69	36.0	39.3	764.930	F
C-ABD	14.50	14.50	157.94	0.092	14.50	0.1	0.1	6.274	A
C-D	47.49	47.49			47.49				
C-A	184.01	184.01			184.01				

2037 Sensitivity, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		19.49	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 period length (min)	Time segment length (min)	Run automatically
D16	2037 Sensitivity	PM	DIRECT	17:30	18:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000
D		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

		To				
		A	B	C	D	
17:30 - 17:45	From	A	0.00	16.00	244.00	41.00
		B	6.00	0.00	20.00	3.00
		C	83.00	24.00	0.00	63.00
		D	27.00	0.00	38.00	0.00

Demand (Veh/TS)

		To				
		A	B	C	D	
17:45 - 18:00	From	A	0.00	16.00	246.00	37.00
		B	2.00	0.00	19.00	3.00
		C	91.00	26.00	0.00	64.00
		D	30.00	0.00	41.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		A	B	C	D
From	A	0.00	10.00	260.00	37.00
	B	5.00	0.00	14.00	2.00
	C	95.00	26.00	0.00	57.00
	D	26.00	0.00	38.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		A	B	C	D
From	A	0.00	10.00	210.00	35.00
	B	2.00	0.00	16.00	3.00
	C	129.00	20.00	0.00	58.00
	D	22.00	0.00	36.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
B-ACD	0.57	40.75	1.2	E	23.75	95.00
A-BCD	0.36	7.56	1.0	A	67.47	269.90
A-B					11.45	45.78
A-C					211.58	846.32
D-AB	0.30	12.58	0.4	B	26.25	105.00
D-BC	1.02	234.22	9.2	F	38.25	153.00
C-ABD	0.29	9.50	0.6	A	34.53	138.12
C-D					56.40	225.61
C-A					93.07	372.27

Main Results for each time segment

17:30 - 17:45

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	29.00	29.00	50.86	0.570	27.79	0.0	1.2	37.371	E
A-BCD	75.50	75.50	209.35	0.361	74.52	0.0	1.0	6.670	A
A-B	13.88	13.88			13.88				
A-C	211.63	211.63			211.63				
D-AB	27.00	27.00	106.04	0.255	26.66	0.0	0.3	11.292	B
D-BC	38.00	38.00	41.66	0.912	33.74	0.0	4.3	90.020	F
C-ABD	34.10	34.10	129.65	0.263	33.61	0.0	0.5	9.352	A
C-D	58.64	58.64			58.64				
C-A	77.26	77.26			77.26				

17:45 - 18:00

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	24.00	24.00	56.25	0.427	24.43	1.2	0.8	28.570	D
A-BCD	66.92	66.92	200.17	0.334	66.96	1.0	0.9	6.800	A
A-B	14.17	14.17			14.17				
A-C	217.91	217.91			217.91				
D-AB	30.00	30.00	101.40	0.296	29.92	0.3	0.4	12.577	B
D-BC	41.00	41.00	40.36	1.016	37.40	4.3	7.9	180.797	F
C-ABD	38.39	38.39	135.75	0.283	38.32	0.5	0.6	9.260	A
C-D	58.88	58.88			58.88				
C-A	83.72	83.72			83.72				

18:00 - 18:15

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	21.00	21.00	42.85	0.490	20.87	0.8	0.9	40.745	E
A-BCD	67.46	67.46	203.01	0.332	67.47	0.9	0.9	6.683	A
A-B	8.87	8.87			8.87				
A-C	230.67	230.67			230.67				
D-AB	26.00	26.00	101.15	0.257	26.06	0.4	0.4	11.996	B
D-BC	38.00	38.00	39.12	0.971	36.66	7.9	9.2	234.216	F
C-ABD	38.77	38.77	133.74	0.290	38.74	0.6	0.6	9.503	A
C-D	52.21	52.21			52.21				
C-A	87.02	87.02			87.02				

18:15 - 18:30

Stream	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-ACD	21.00	21.00	63.38	0.331	21.39	0.9	0.5	21.586	C
A-BCD	60.03	60.03	179.90	0.334	60.07	0.9	0.9	7.562	A
A-B	8.86	8.86			8.86				
A-C	186.11	186.11			186.11				
D-AB	22.00	22.00	94.57	0.233	22.04	0.4	0.3	12.419	B
D-BC	36.00	36.00	40.12	0.897	36.01	9.2	9.2	227.008	F
C-ABD	26.86	26.86	140.27	0.192	27.13	0.6	0.3	7.989	A
C-D	55.87	55.87			55.87				
C-A	124.27	124.27			124.27				

APPENDIX F – ARCADY RESULTS

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
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Filename: Roundabout Junction.j9

Path: S:\Jobs\2020\20076 (18039-01) Clane Res Devlpmt TIA+RSA\20076-02\ARCADY

Report generation date: 25/11/2020 14:13:12

- »2020, AM
- »2020, PM
- »2022 no dev, AM
- »2022 with dev, AM
- »2027 no dev, AM
- »2027 with dev, AM
- »2037 no dev, AM
- »2037 with dev, AM
- »2022 no dev, PM
- »2022 with dev, PM
- »2027 no dev, PM
- »2027 with dev, PM
- »2037 no dev, PM
- »2037 with dev, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
2020								
Arm 1	0.3	2.34	0.21	A	0.6	3.01	0.38	A
Arm 2	0.2	2.76	0.13	A	0.1	2.84	0.07	A
Arm 3	0.4	3.38	0.31	A	0.6	3.62	0.38	A
Arm 4	0.0	5.59	0.03	A	0.0	5.71	0.03	A
2022 no dev								
Arm 1	0.3	2.37	0.22	A	0.7	3.13	0.40	A
Arm 2	0.2	2.83	0.14	A	0.1	2.92	0.08	A
Arm 3	0.5	3.47	0.32	A	0.7	3.78	0.41	A
Arm 4	0.0	5.72	0.03	A	0.0	5.88	0.03	A
2022 with dev								
Arm 1	0.3	2.41	0.22	A	0.7	3.22	0.41	A
Arm 2	0.2	2.93	0.17	A	0.1	3.00	0.10	A
Arm 3	0.5	3.59	0.34	A	0.8	3.97	0.44	A
Arm 4	0.0	5.84	0.03	A	0.0	6.08	0.03	A
2027 no dev								
Arm 1	0.3	2.45	0.24	A	0.8	3.35	0.44	A
Arm 2	0.2	2.93	0.16	A	0.1	3.06	0.08	A
Arm 3	0.6	3.68	0.36	A	0.8	4.03	0.45	A
Arm 4	0.0	6.01	0.03	A	0.0	6.14	0.04	A
2027 with dev								
Arm 1	0.3	2.49	0.25	A	0.8	3.46	0.45	A
Arm 2	0.2	3.05	0.19	A	0.1	3.14	0.11	A
Arm 3	0.6	3.80	0.38	A	0.9	4.25	0.48	A
Arm 4	0.0	6.15	0.04	A	0.0	6.36	0.04	A
2037 no dev								
Arm 1	0.4	2.52	0.27	A	0.9	3.66	0.49	A
Arm 2	0.2	3.06	0.18	A	0.1	3.22	0.10	A
Arm 3	0.6	3.88	0.39	A	1.0	4.37	0.49	A
Arm 4	0.0	6.28	0.04	A	0.0	6.46	0.05	A
2037 with dev								
Arm 1	0.4	2.56	0.27	A	1.0	3.79	0.50	A
Arm 2	0.3	3.18	0.21	A	0.1	3.32	0.12	A
Arm 3	0.7	4.02	0.41	A	1.1	4.63	0.52	A
Arm 4	0.0	6.43	0.04	A	0.1	6.71	0.05	A

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	
Location	
Site number	
Date	12/04/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ROADPLAN01\jbyrne
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	kph	Veh	Veh	perTimeSegment	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 period length (min)	Time segment length (min)	Run automatically
D1	2020	AM	DIRECT	07:30	08:30	60	15	✓
D2	2020	PM	DIRECT	17:30	18:30	60	15	✓
D3	2022 no dev	AM	DIRECT	07:30	08:30	60	15	✓
D4	2022 with dev	AM	DIRECT	07:30	08:30	60	15	✓
D5	2027 no dev	AM	DIRECT	07:30	08:30	60	15	✓
D6	2027 with dev	AM	DIRECT	07:30	08:30	60	15	✓
D7	2037 no dev	AM	DIRECT	07:30	08:30	60	15	✓
D8	2037 with dev	AM	DIRECT	07:30	08:30	60	15	✓
D9	2022 no dev	PM	DIRECT	17:30	18:30	60	15	✓
D10	2022 with dev	PM	DIRECT	17:30	18:30	60	15	✓
D11	2027 no dev	PM	DIRECT	17:30	18:30	60	15	✓
D12	2027 with dev	PM	DIRECT	17:30	18:30	60	15	✓
D13	2037 no dev	PM	DIRECT	17:30	18:30	60	15	✓
D14	2037 with dev	PM	DIRECT	17:30	18:30	60	15	✓

Analysis Set Details

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

2020, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	2.91	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	untitled	
2	untitled	
3	untitled	
4	untitled	

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
1	4.10	8.00	18.0	33.0	42.0	23.0	
2	3.50	7.50	17.0	24.0	42.0	25.0	
3	3.50	7.50	14.0	17.0	42.0	37.0	
4	3.50	3.50	0.0	6.5	42.0	43.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
1	0.714	506.164
2	0.664	449.146
3	0.615	409.470
4	0.435	226.239

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 period length (min)	Time segment length (min)	Run automatically
D1	2020	AM	DIRECT	07:30	08:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

07:30 - 07:45

		To			
		1	2	3	4
From	1	0.00	6.00	66.00	1.00
	2	15.00	1.00	20.00	0.00
	3	82.00	3.00	0.00	1.00
	4	2.00	0.00	3.00	0.00

Demand (Veh/TS)

07:45 - 08:00

		To			
		1	2	3	4
From	1	0.00	6.00	75.00	0.00
	2	17.00	0.00	16.00	0.00
	3	97.00	10.00	1.00	2.00
	4	2.00	0.00	2.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		1	2	3	4
From	1	0.00	14.00	82.00	0.00
	2	23.00	0.00	21.00	0.00
	3	80.00	5.00	1.00	1.00
	4	3.00	0.00	0.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		1	2	3	4
From	1	0.00	3.00	99.00	0.00
	2	19.00	0.00	31.00	0.00
	3	113.00	3.00	1.00	0.00
	4	3.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	4	3	0
	2	3	0	0	0
	3	3	10	67	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.21	2.34	0.3	A	88.00	352.00
2	0.13	2.76	0.2	A	40.75	163.00
3	0.31	3.38	0.4	A	100.00	400.00
4	0.03	5.59	0.0	A	4.00	16.00

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	73.00	73.00	6.97	486.19	0.150	72.82	98.67	0.0	0.2	2.176	A
2	36.00	36.00	69.82	396.54	0.091	35.90	9.97	0.0	0.1	2.495	A
3	86.00	86.00	16.95	386.37	0.223	85.72	88.77	0.0	0.3	2.990	A
4	5.00	5.00	100.67	181.02	0.028	4.97	1.99	0.0	0.0	5.112	A

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	81.00	81.00	12.98	480.92	0.168	80.97	115.91	0.2	0.2	2.250	A
2	33.00	33.00	77.98	389.45	0.085	33.01	15.98	0.1	0.1	2.526	A
3	110.00	110.00	17.00	382.78	0.287	109.88	93.98	0.3	0.4	3.295	A
4	4.00	4.00	124.88	169.66	0.024	4.00	2.00	0.0	0.0	5.434	A

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	96.00	96.00	6.03	485.74	0.198	95.96	106.05	0.2	0.2	2.308	A
2	44.00	44.00	82.99	385.94	0.114	43.96	19.00	0.1	0.1	2.631	A
3	87.00	87.00	22.98	379.35	0.229	87.10	103.97	0.4	0.3	3.079	A
4	3.00	3.00	109.08	176.89	0.017	3.01	1.00	0.0	0.0	5.175	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	102.00	102.00	5.00	487.14	0.209	101.98	134.86	0.2	0.3	2.336	A
2	50.00	50.00	100.95	375.45	0.133	49.98	6.03	0.1	0.2	2.764	A
3	117.00	117.00	19.01	383.16	0.305	116.86	131.91	0.3	0.4	3.378	A
4	4.00	4.00	135.87	164.94	0.024	3.99	0.00	0.0	0.0	5.591	A

2020, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.27	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 period length (min)	Time segment length (min)	Run automatically
D2	2020	PM	DIRECT	17:30	18:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

17:30 - 17:45

		To			
		1	2	3	4
From	1	0.00	12.00	169.00	1.00
	2	7.00	0.00	10.00	0.00
	3	124.00	23.00	1.00	6.00
	4	1.00	0.00	0.00	0.00

Demand (Veh/TS)

17:45 - 18:00

		To			
		1	2	3	4
From	1	0.00	8.00	158.00	2.00
	2	11.00	0.00	12.00	0.00
	3	101.00	19.00	2.00	0.00
	4	0.00	0.00	0.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		1	2	3	4
From	1	0.00	11.00	135.00	2.00
	2	10.00	0.00	7.00	0.00
	3	118.00	13.00	0.00	2.00
	4	2.00	0.00	3.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		1	2	3	4
From	1	0.00	19.00	135.00	4.00
	2	3.00	0.00	2.00	0.00
	3	109.00	17.00	0.00	2.00
	4	0.00	0.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	2	0
	2	0	0	0	0
	3	1	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.38	3.01	0.6	A	164.00	656.00
2	0.07	2.84	0.1	A	15.50	62.00
3	0.38	3.62	0.6	A	134.25	537.00
4	0.03	5.71	0.0	A	1.50	6.00

Main Results for each time segment

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	182.00	182.00	23.90	480.17	0.379	181.39	131.47	0.0	0.6	3.005	A
2	17.00	17.00	170.43	333.81	0.051	16.95	34.87	0.0	0.1	2.840	A
3	154.00	154.00	7.97	401.34	0.384	153.38	179.40	0.0	0.6	3.620	A
4	1.00	1.00	154.38	158.49	0.006	0.99	6.97	0.0	0.0	5.714	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	168.00	168.00	21.02	482.08	0.348	168.07	112.12	0.6	0.5	2.866	A
2	23.00	23.00	162.05	339.50	0.068	22.98	27.04	0.1	0.1	2.842	A
3	122.00	122.00	12.98	398.19	0.306	122.17	172.05	0.6	0.4	3.261	A
4	0.00	0.00	133.14	167.84	0.000	0.01	2.02	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	148.00	148.00	16.01	485.86	0.305	148.10	129.92	0.5	0.4	2.664	A
2	17.00	17.00	140.09	354.38	0.048	17.02	24.01	0.1	0.1	2.667	A
3	133.00	133.00	12.01	398.56	0.334	132.95	145.11	0.4	0.5	3.388	A
4	5.00	5.00	140.96	164.36	0.030	4.97	3.99	0.0	0.0	5.647	A

18:15 - 18:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	158.00	158.00	17.00	485.72	0.325	157.96	112.08	0.4	0.5	2.745	A
2	5.00	5.00	139.00	355.11	0.014	5.04	35.96	0.1	0.0	2.572	A
3	128.00	128.00	7.01	401.74	0.319	128.03	137.03	0.5	0.5	3.290	A
4	0.00	0.00	129.05	169.58	0.000	0.03	5.99	0.0	0.0	0.000	A

2022 no dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	2.98	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 period length (min)	Time segment length (min)	Run automatically
D3	2022 no dev	AM	DIRECT	07:30	08:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

07:30 - 07:45

		To			
		1	2	3	4
From	1	0.00	7.00	70.00	1.00
	2	16.00	1.00	21.00	0.00
	3	87.00	3.00	0.00	1.00
	4	2.00	0.00	3.00	0.00

Demand (Veh/TS)

07:45 - 08:00

		To			
		1	2	3	4
From	1	0.00	7.00	79.00	0.00
	2	19.00	0.00	17.00	0.00
	3	102.00	11.00	1.00	2.00
	4	2.00	0.00	2.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		1	2	3	4
From	1	0.00	15.00	87.00	0.00
	2	24.00	0.00	22.00	0.00
	3	85.00	5.00	1.00	1.00
	4	3.00	0.00	0.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		1	2	3	4
From	1	0.00	3.00	105.00	0.00
	2	20.00	0.00	33.00	0.00
	3	120.00	3.00	1.00	0.00
	4	3.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	4	3	0
	2	3	0	0	0
	3	3	10	67	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.22	2.37	0.3	A	93.50	374.00
2	0.14	2.83	0.2	A	43.25	173.00
3	0.32	3.47	0.5	A	105.75	423.00
4	0.03	5.72	0.0	A	4.00	16.00

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	78.00	78.00	6.97	486.14	0.160	77.81	104.65	0.0	0.2	2.203	A
2	38.00	38.00	73.81	393.80	0.097	37.89	10.97	0.0	0.1	2.529	A
3	91.00	91.00	17.95	385.80	0.236	90.69	93.75	0.0	0.3	3.047	A
4	5.00	5.00	106.65	178.34	0.028	4.97	1.99	0.0	0.0	5.191	A

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	86.00	86.00	13.97	480.13	0.179	85.97	122.90	0.2	0.2	2.283	A
2	36.00	36.00	81.97	386.61	0.093	36.00	17.97	0.1	0.1	2.568	A
3	116.00	116.00	19.00	381.57	0.304	115.87	98.98	0.3	0.4	3.385	A
4	4.00	4.00	132.87	166.05	0.024	4.00	2.00	0.0	0.0	5.555	A

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	102.00	102.00	6.04	485.73	0.210	101.95	112.06	0.2	0.3	2.344	A
2	46.00	46.00	87.99	382.59	0.120	45.97	20.00	0.1	0.1	2.673	A
3	92.00	92.00	23.98	378.96	0.243	92.11	109.97	0.4	0.3	3.138	A
4	3.00	3.00	115.09	174.20	0.017	3.01	1.00	0.0	0.0	5.259	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	108.00	108.00	5.00	487.15	0.222	107.98	142.84	0.3	0.3	2.373	A
2	53.00	53.00	106.94	371.43	0.143	52.97	6.04	0.1	0.2	2.825	A
3	124.00	124.00	20.01	382.70	0.324	123.85	139.91	0.3	0.5	3.475	A
4	4.00	4.00	143.85	161.36	0.025	3.99	0.00	0.0	0.0	5.718	A

2022 with dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.07	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 period length (min)	Time segment length (min)	Run automatically
D4	2022 with dev	AM	DIRECT	07:30	08:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

07:30 - 07:45

		To			
		1	2	3	4
From	1	0.00	7.00	70.00	1.00
	2	16.00	1.00	33.00	0.00
	3	87.00	11.00	0.00	1.00
	4	2.00	0.00	3.00	0.00

Demand (Veh/TS)

07:45 - 08:00

		To			
		1	2	3	4
From	1	0.00	7.00	79.00	0.00
	2	19.00	0.00	29.00	0.00
	3	102.00	19.00	1.00	2.00
	4	2.00	0.00	2.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		1	2	3	4
From	1	0.00	15.00	87.00	0.00
	2	24.00	0.00	34.00	0.00
	3	85.00	12.00	1.00	1.00
	4	3.00	0.00	0.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		1	2	3	4
From	1	0.00	3.00	105.00	0.00
	2	20.00	0.00	45.00	0.00
	3	120.00	10.00	1.00	0.00
	4	3.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	4	3	0
	2	3	0	0	0
	3	3	10	67	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.22	2.41	0.3	A	93.50	374.00
2	0.17	2.93	0.2	A	55.25	221.00
3	0.34	3.59	0.5	A	113.25	453.00
4	0.03	5.84	0.0	A	4.00	16.00

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	78.00	78.00	14.94	480.06	0.162	77.81	104.64	0.0	0.2	2.236	A
2	50.00	50.00	73.81	394.98	0.127	49.86	18.94	0.0	0.1	2.606	A
3	99.00	99.00	17.95	383.76	0.258	98.65	105.71	0.0	0.3	3.152	A
4	5.00	5.00	114.61	174.53	0.029	4.97	1.99	0.0	0.0	5.308	A

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	86.00	86.00	21.97	474.04	0.181	85.97	122.90	0.2	0.2	2.318	A
2	48.00	48.00	81.97	388.12	0.124	48.00	25.97	0.1	0.1	2.645	A
3	124.00	124.00	19.00	380.19	0.326	123.86	110.98	0.3	0.5	3.509	A
4	4.00	4.00	140.86	162.22	0.025	4.00	2.00	0.0	0.0	5.690	A

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	102.00	102.00	13.04	480.39	0.212	101.95	112.07	0.2	0.3	2.378	A
2	58.00	58.00	87.99	383.81	0.151	57.96	27.01	0.1	0.2	2.761	A
3	99.00	99.00	23.98	377.43	0.262	99.12	121.97	0.5	0.4	3.237	A
4	3.00	3.00	122.10	170.84	0.018	3.01	1.00	0.0	0.0	5.364	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	108.00	108.00	12.00	481.81	0.224	107.98	142.84	0.3	0.3	2.407	A
2	65.00	65.00	106.94	372.20	0.175	64.97	13.04	0.2	0.2	2.929	A
3	131.00	131.00	20.01	381.45	0.343	130.84	151.90	0.4	0.5	3.589	A
4	4.00	4.00	150.84	158.02	0.025	3.99	0.00	0.0	0.0	5.842	A

2027 no dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.12	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 period length (min)	Time segment length (min)	Run automatically
D5	2027 no dev	AM	DIRECT	07:30	08:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

07:30 - 07:45

		To			
		1	2	3	4
From	1	0.00	7.00	77.00	1.00
	2	18.00	1.00	23.00	0.00
	3	96.00	4.00	0.00	1.00
	4	2.00	0.00	4.00	0.00

Demand (Veh/TS)

07:45 - 08:00

		To			
		1	2	3	4
From	1	0.00	7.00	87.00	0.00
	2	20.00	0.00	19.00	0.00
	3	113.00	12.00	1.00	2.00
	4	2.00	0.00	2.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		1	2	3	4
From	1	0.00	17.00	96.00	0.00
	2	26.00	0.00	24.00	0.00
	3	93.00	6.00	1.00	1.00
	4	4.00	0.00	0.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		1	2	3	4
From	1	0.00	4.00	115.00	0.00
	2	22.00	0.00	36.00	0.00
	3	132.00	4.00	1.00	0.00
	4	4.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	4	3	0
	2	3	0	0	0
	3	3	10	67	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.24	2.45	0.3	A	102.75	411.00
2	0.16	2.93	0.2	A	47.25	189.00
3	0.36	3.68	0.6	A	116.75	467.00
4	0.03	6.01	0.0	A	4.75	19.00

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	85.00	85.00	8.96	484.71	0.175	84.79	115.60	0.0	0.2	2.249	A
2	42.00	42.00	81.78	388.35	0.108	41.88	11.97	0.0	0.1	2.598	A
3	101.00	101.00	19.94	384.40	0.263	100.64	103.72	0.0	0.4	3.167	A
4	6.00	6.00	118.59	172.95	0.035	5.96	1.99	0.0	0.0	5.388	A

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	94.00	94.00	14.98	479.40	0.196	93.97	134.89	0.2	0.2	2.334	A
2	39.00	39.00	89.98	381.39	0.102	39.01	18.97	0.1	0.1	2.630	A
3	128.00	128.00	20.00	381.15	0.336	127.85	108.98	0.4	0.5	3.551	A
4	4.00	4.00	145.85	160.19	0.025	4.01	2.00	0.0	0.0	5.762	A

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	113.00	113.00	7.04	484.95	0.233	112.94	123.07	0.2	0.3	2.419	A
2	50.00	50.00	96.98	376.56	0.133	49.96	23.00	0.1	0.2	2.755	A
3	101.00	101.00	25.98	377.83	0.267	101.14	120.96	0.5	0.4	3.253	A
4	4.00	4.00	126.11	169.23	0.024	4.00	1.00	0.0	0.0	5.446	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	119.00	119.00	6.00	486.36	0.245	118.98	157.81	0.3	0.3	2.449	A
2	58.00	58.00	116.94	364.65	0.159	57.96	8.04	0.2	0.2	2.934	A
3	137.00	137.00	22.01	381.53	0.359	136.81	152.90	0.4	0.6	3.678	A
4	5.00	5.00	158.81	154.62	0.032	4.99	0.00	0.0	0.0	6.014	A

2027 with dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.22	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 period length (min)	Time segment length (min)	Run automatically
D6	2027 with dev	AM	DIRECT	07:30	08:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

		To				
		1	2	3	4	
07:30 - 07:45	From	1	0.00	7.00	77.00	1.00
		2	18.00	1.00	35.00	0.00
		3	96.00	12.00	0.00	1.00
		4	2.00	0.00	4.00	0.00

Demand (Veh/TS)

		To				
		1	2	3	4	
07:45 - 08:00	From	1	0.00	7.00	87.00	0.00
		2	20.00	0.00	31.00	0.00
		3	113.00	20.00	1.00	2.00
		4	2.00	0.00	2.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		1	2	3	4
From	1	0.00	17.00	96.00	0.00
	2	26.00	0.00	36.00	0.00
	3	93.00	13.00	1.00	1.00
	4	4.00	0.00	0.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		1	2	3	4
From	1	0.00	4.00	115.00	0.00
	2	22.00	0.00	48.00	0.00
	3	132.00	11.00	1.00	0.00
	4	4.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	4	3	0
	2	3	0	0	0
	3	3	10	67	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.25	2.49	0.3	A	102.75	411.00
2	0.19	3.05	0.2	A	59.25	237.00
3	0.38	3.80	0.6	A	124.25	497.00
4	0.04	6.15	0.0	A	4.75	19.00

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	85.00	85.00	16.93	478.63	0.178	84.78	115.59	0.0	0.2	2.284	A
2	54.00	54.00	81.78	389.45	0.139	53.84	19.94	0.0	0.2	2.680	A
3	109.00	109.00	19.94	382.56	0.285	108.60	115.68	0.0	0.4	3.281	A
4	6.00	6.00	126.55	169.14	0.035	5.96	1.99	0.0	0.0	5.513	A

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	94.00	94.00	22.97	473.30	0.199	93.97	134.88	0.2	0.2	2.372	A
2	51.00	51.00	89.98	382.76	0.133	51.01	26.96	0.2	0.2	2.712	A
3	136.00	136.00	20.00	379.89	0.358	135.84	120.98	0.4	0.6	3.686	A
4	4.00	4.00	153.84	156.37	0.026	4.01	2.00	0.0	0.0	5.909	A

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	113.00	113.00	14.05	479.61	0.236	112.94	123.08	0.2	0.3	2.454	A
2	62.00	62.00	96.98	377.68	0.164	61.96	30.01	0.2	0.2	2.850	A
3	108.00	108.00	25.98	376.43	0.287	108.15	132.96	0.6	0.4	3.355	A
4	4.00	4.00	133.12	165.87	0.024	4.00	1.00	0.0	0.0	5.561	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	119.00	119.00	13.00	481.02	0.247	118.98	157.80	0.3	0.3	2.485	A
2	70.00	70.00	116.94	365.36	0.192	69.96	15.04	0.2	0.2	3.046	A
3	144.00	144.00	22.01	380.40	0.379	143.80	164.89	0.4	0.6	3.800	A
4	5.00	5.00	165.80	151.28	0.033	4.99	0.00	0.0	0.0	6.152	A

2037 no dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.27	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 period length (min)	Time segment length (min)	Run automatically
D7	2037 no dev	AM	DIRECT	07:30	08:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

07:30 - 07:45

		To			
		1	2	3	4
From	1	0.00	8.00	84.00	1.00
	2	20.00	1.00	25.00	0.00
	3	105.00	4.00	0.00	1.00
	4	3.00	0.00	4.00	0.00

Demand (Veh/TS)

07:45 - 08:00

		To			
		1	2	3	4
From	1	0.00	8.00	95.00	0.00
	2	22.00	0.00	21.00	0.00
	3	123.00	13.00	1.00	3.00
	4	3.00	0.00	3.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		1	2	3	4
From	1	0.00	18.00	105.00	0.00
	2	29.00	0.00	26.00	0.00
	3	102.00	7.00	1.00	1.00
	4	4.00	0.00	0.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		1	2	3	4
From	1	0.00	4.00	126.00	0.00
	2	24.00	0.00	39.00	0.00
	3	144.00	4.00	1.00	0.00
	4	4.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	4	3	0
	2	3	0	0	0
	3	3	10	67	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.27	2.52	0.4	A	112.25	449.00
2	0.18	3.06	0.2	A	51.75	207.00
3	0.39	3.88	0.6	A	127.50	510.00
4	0.04	6.28	0.0	A	5.50	22.00

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	93.00	93.00	8.96	484.68	0.192	92.76	127.54	0.0	0.2	2.295	A
2	46.00	46.00	88.76	383.57	0.120	45.86	12.96	0.0	0.1	2.663	A
3	110.00	110.00	21.94	383.25	0.287	109.60	112.69	0.0	0.4	3.285	A
4	7.00	7.00	129.54	168.04	0.042	6.96	1.99	0.0	0.0	5.585	A

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	103.00	103.00	16.96	477.93	0.216	102.96	147.86	0.2	0.3	2.399	A
2	43.00	43.00	98.96	375.38	0.115	43.01	20.96	0.1	0.1	2.707	A
3	140.00	140.00	22.00	380.18	0.368	139.82	119.97	0.4	0.6	3.743	A
4	6.00	6.00	158.83	154.35	0.039	6.00	2.99	0.0	0.0	6.068	A

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123.00	123.00	8.05	484.20	0.254	122.93	135.09	0.3	0.3	2.491	A
2	55.00	55.00	105.98	370.42	0.148	54.96	25.00	0.1	0.2	2.852	A
3	111.00	111.00	28.97	376.12	0.295	111.16	131.96	0.6	0.4	3.398	A
4	4.00	4.00	139.12	163.36	0.024	4.02	1.01	0.0	0.0	5.650	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	130.00	130.00	6.00	486.37	0.267	129.98	171.78	0.3	0.4	2.524	A
2	63.00	63.00	127.93	357.21	0.176	62.96	8.05	0.2	0.2	3.058	A
3	149.00	149.00	24.01	380.50	0.392	148.78	166.88	0.4	0.6	3.881	A
4	5.00	5.00	172.79	148.36	0.034	4.99	0.00	0.0	0.0	6.277	A

2037 with dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.38	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 period length (min)	Time segment length (min)	Run automatically
D8	2037 with dev	AM	DIRECT	07:30	08:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

07:30 - 07:45

		To			
		1	2	3	4
From	1	0.00	8.00	84.00	1.00
	2	20.00	1.00	37.00	0.00
	3	105.00	12.00	0.00	1.00
	4	3.00	0.00	4.00	0.00

Demand (Veh/TS)

07:45 - 08:00

		To			
		1	2	3	4
From	1	0.00	8.00	95.00	0.00
	2	22.00	0.00	33.00	0.00
	3	123.00	21.00	1.00	3.00
	4	3.00	0.00	3.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		1	2	3	4
From	1	0.00	18.00	105.00	0.00
	2	29.00	0.00	38.00	0.00
	3	102.00	14.00	1.00	1.00
	4	4.00	0.00	0.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		1	2	3	4
From	1	0.00	4.00	126.00	0.00
	2	24.00	0.00	51.00	0.00
	3	144.00	11.00	1.00	0.00
	4	4.00	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	4	3	0
	2	3	0	0	0
	3	3	10	67	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.27	2.56	0.4	A	112.25	449.00
2	0.21	3.18	0.3	A	63.75	255.00
3	0.41	4.02	0.7	A	135.00	540.00
4	0.04	6.43	0.0	A	5.50	22.00

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	93.00	93.00	16.93	478.60	0.194	92.76	127.52	0.0	0.2	2.331	A
2	58.00	58.00	88.75	384.60	0.151	57.82	20.93	0.0	0.2	2.752	A
3	118.00	118.00	21.93	381.56	0.309	117.56	124.64	0.0	0.4	3.403	A
4	7.00	7.00	137.49	164.23	0.043	6.96	1.99	0.0	0.0	5.721	A

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	103.00	103.00	24.96	471.84	0.218	102.96	147.86	0.2	0.3	2.439	A
2	55.00	55.00	98.96	376.62	0.146	55.01	28.96	0.2	0.2	2.797	A
3	148.00	148.00	22.00	379.01	0.391	147.81	131.97	0.4	0.6	3.889	A
4	6.00	6.00	166.81	150.52	0.040	6.00	2.99	0.0	0.0	6.229	A

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123.00	123.00	15.06	478.86	0.257	122.93	135.10	0.3	0.3	2.528	A
2	67.00	67.00	105.98	371.45	0.180	66.95	32.01	0.2	0.2	2.955	A
3	118.00	118.00	28.97	374.83	0.315	118.17	143.96	0.6	0.5	3.508	A
4	4.00	4.00	146.14	160.00	0.025	4.02	1.01	0.0	0.0	5.769	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	130.00	130.00	13.00	481.04	0.270	129.98	171.77	0.3	0.4	2.563	A
2	75.00	75.00	127.93	357.86	0.210	74.96	15.05	0.2	0.3	3.181	A
3	156.00	156.00	24.01	379.45	0.411	155.77	178.87	0.5	0.7	4.019	A
4	5.00	5.00	179.78	145.01	0.034	4.99	0.00	0.0	0.0	6.427	A

2022 no dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.41	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 period length (min)	Time segment length (min)	Run automatically
D9	2022 no dev	PM	DIRECT	17:30	18:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

17:30 - 17:45

		To			
		1	2	3	4
From	1	0.00	13.00	179.00	1.00
	2	8.00	0.00	11.00	0.00
	3	132.00	24.00	1.00	7.00
	4	1.00	0.00	0.00	0.00

Demand (Veh/TS)

17:45 - 18:00

		To			
		1	2	3	4
From	1	0.00	9.00	168.00	2.00
	2	12.00	0.00	13.00	0.00
	3	107.00	20.00	2.00	0.00
	4	0.00	0.00	0.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		1	2	3	4
From	1	0.00	12.00	143.00	2.00
	2	11.00	0.00	8.00	0.00
	3	125.00	14.00	0.00	2.00
	4	2.00	0.00	3.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		1	2	3	4
From	1	0.00	20.00	143.00	4.00
	2	3.00	0.00	2.00	0.00
	3	115.00	19.00	0.00	2.00
	4	0.00	0.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	2	0
	2	0	0	0	0
	3	1	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.40	3.13	0.7	A	174.00	696.00
2	0.08	2.92	0.1	A	17.00	68.00
3	0.41	3.78	0.7	A	142.50	570.00
4	0.03	5.88	0.0	A	1.50	6.00

Main Results for each time segment

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	193.00	193.00	24.90	479.49	0.403	192.33	140.41	0.0	0.7	3.128	A
2	19.00	19.00	180.37	327.08	0.058	18.94	36.85	0.0	0.1	2.920	A
3	164.00	164.00	8.97	400.73	0.409	163.31	190.34	0.0	0.7	3.780	A
4	1.00	1.00	164.32	154.13	0.006	0.99	7.97	0.0	0.0	5.876	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	179.00	179.00	22.02	481.40	0.372	179.07	119.15	0.7	0.6	2.979	A
2	25.00	25.00	172.06	332.73	0.075	24.98	29.04	0.1	0.1	2.923	A
3	129.00	129.00	13.98	397.58	0.324	129.21	183.05	0.7	0.5	3.355	A
4	0.00	0.00	141.16	164.32	0.000	0.01	2.03	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	157.00	157.00	17.01	485.18	0.324	157.11	137.91	0.6	0.5	2.745	A
2	19.00	19.00	148.11	348.95	0.054	19.02	26.01	0.1	0.1	2.727	A
3	141.00	141.00	13.01	397.95	0.354	140.94	154.13	0.5	0.5	3.501	A
4	5.00	5.00	149.95	160.41	0.031	4.97	3.99	0.0	0.0	5.788	A

18:15 - 18:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	167.00	167.00	19.00	484.30	0.345	166.96	118.09	0.5	0.5	2.835	A
2	5.00	5.00	147.00	349.69	0.014	5.04	38.96	0.1	0.0	2.611	A
3	136.00	136.00	7.02	401.76	0.339	136.03	145.03	0.5	0.5	3.386	A
4	0.00	0.00	137.06	166.07	0.000	0.03	5.99	0.0	0.0	0.000	A

2022 with dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.54	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 period length (min)	Time segment length (min)	Run automatically
D10	2022 with dev	PM	DIRECT	17:30	18:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

17:30 - 17:45

		To			
		1	2	3	4
From	1	0.00	13.00	179.00	1.00
	2	8.00	0.00	19.00	0.00
	3	132.00	36.00	1.00	7.00
	4	1.00	0.00	0.00	0.00

Demand (Veh/TS)

17:45 - 18:00

		To			
		1	2	3	4
From	1	0.00	9.00	168.00	2.00
	2	12.00	0.00	21.00	0.00
	3	107.00	32.00	2.00	0.00
	4	0.00	0.00	0.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		1	2	3	4
From	1	0.00	12.00	143.00	2.00
	2	11.00	0.00	16.00	0.00
	3	125.00	26.00	0.00	2.00
	4	2.00	0.00	3.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		1	2	3	4
From	1	0.00	20.00	143.00	4.00
	2	3.00	0.00	9.00	0.00
	3	115.00	30.00	0.00	2.00
	4	0.00	0.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	2	0
	2	0	0	0	0
	3	1	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.41	3.22	0.7	A	174.00	696.00
2	0.10	3.00	0.1	A	24.75	99.00
3	0.44	3.97	0.8	A	154.25	617.00
4	0.03	6.08	0.0	A	1.50	6.00

Main Results for each time segment

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	193.00	193.00	36.84	471.11	0.410	192.31	140.38	0.0	0.7	3.220	A
2	27.00	27.00	180.35	327.09	0.083	26.91	48.79	0.0	0.1	2.998	A
3	176.00	176.00	8.97	400.95	0.439	175.22	198.29	0.0	0.8	3.974	A
4	1.00	1.00	176.23	148.95	0.007	0.99	7.97	0.0	0.0	6.082	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	179.00	179.00	34.03	472.98	0.378	179.08	119.16	0.7	0.6	3.064	A
2	33.00	33.00	172.06	332.73	0.099	32.98	41.05	0.1	0.1	3.002	A
3	141.00	141.00	13.98	397.86	0.354	141.22	191.06	0.8	0.6	3.509	A
4	0.00	0.00	153.18	159.09	0.000	0.01	2.03	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	157.00	157.00	29.01	476.76	0.329	157.12	137.90	0.6	0.5	2.818	A
2	27.00	27.00	148.11	348.95	0.077	27.03	38.01	0.1	0.1	2.797	A
3	153.00	153.00	13.01	398.22	0.384	152.93	162.13	0.6	0.6	3.669	A
4	5.00	5.00	161.95	155.19	0.032	4.97	3.99	0.0	0.0	5.989	A

18:15 - 18:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	167.00	167.00	30.01	476.57	0.350	166.96	118.09	0.5	0.5	2.906	A
2	12.00	12.00	147.00	349.69	0.034	12.05	49.96	0.1	0.0	2.665	A
3	147.00	147.00	7.02	402.01	0.366	147.04	152.03	0.6	0.6	3.532	A
4	0.00	0.00	148.07	161.28	0.000	0.03	5.99	0.0	0.0	0.000	A

2027 no dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.64	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 period length (min)	Time segment length (min)	Run automatically
D11	2027 no dev	PM	DIRECT	17:30	18:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

		To				
		1	2	3	4	
17:30 - 17:45	From	1	0.00	14.00	196.00	1.00
		2	8.00	0.00	12.00	0.00
		3	145.00	26.00	1.00	7.00
		4	1.00	0.00	0.00	0.00

Demand (Veh/TS)

		To				
		1	2	3	4	
17:45 - 18:00	From	1	0.00	10.00	185.00	2.00
		2	13.00	0.00	14.00	0.00
		3	117.00	22.00	2.00	0.00
		4	0.00	0.00	0.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		1	2	3	4
From	1	0.00	13.00	157.00	2.00
	2	12.00	0.00	8.00	0.00
	3	138.00	16.00	0.00	2.00
	4	2.00	0.00	4.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		1	2	3	4
From	1	0.00	22.00	157.00	5.00
	2	4.00	0.00	2.00	0.00
	3	127.00	20.00	0.00	2.00
	4	0.00	0.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	2	0
	2	0	0	0	0
	3	1	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.44	3.35	0.8	A	191.00	764.00
2	0.08	3.06	0.1	A	18.25	73.00
3	0.45	4.03	0.8	A	156.25	625.00
4	0.04	6.14	0.0	A	1.75	7.00

Main Results for each time segment

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	211.00	211.00	26.88	478.08	0.441	210.21	153.32	0.0	0.8	3.350	A
2	20.00	20.00	197.26	315.64	0.063	19.93	39.83	0.0	0.1	3.043	A
3	179.00	179.00	8.97	400.71	0.447	178.20	208.23	0.0	0.8	4.030	A
4	1.00	1.00	179.20	147.59	0.007	0.99	7.96	0.0	0.0	6.138	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	197.00	197.00	24.03	479.99	0.410	197.08	130.18	0.8	0.7	3.181	A
2	27.00	27.00	189.06	321.22	0.084	26.98	32.05	0.1	0.1	3.058	A
3	141.00	141.00	14.98	396.97	0.355	141.25	201.06	0.8	0.6	3.524	A
4	0.00	0.00	154.20	158.60	0.000	0.01	2.03	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	172.00	172.00	20.00	483.06	0.356	172.14	151.88	0.7	0.6	2.895	A
2	20.00	20.00	163.13	338.80	0.059	20.03	29.01	0.1	0.1	2.823	A
3	156.00	156.00	14.01	397.35	0.393	155.91	169.15	0.6	0.6	3.728	A
4	6.00	6.00	165.93	153.40	0.039	5.96	3.99	0.0	0.0	6.102	A

18:15 - 18:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	184.00	184.00	20.01	483.61	0.380	183.94	131.10	0.6	0.6	3.003	A
2	6.00	6.00	162.00	339.55	0.018	6.04	41.95	0.1	0.0	2.698	A
3	149.00	149.00	9.02	400.52	0.372	149.05	159.03	0.6	0.6	3.581	A
4	0.00	0.00	151.07	159.92	0.000	0.04	6.99	0.0	0.0	0.000	A

2027 with dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.79	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 period length (min)	Time segment length (min)	Run automatically
D12	2027 with dev	PM	DIRECT	17:30	18:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

17:30 - 17:45

		To			
		1	2	3	4
From	1	0.00	14.00	196.00	1.00
	2	8.00	0.00	20.00	0.00
	3	145.00	38.00	1.00	7.00
	4	1.00	0.00	0.00	0.00

Demand (Veh/TS)

17:45 - 18:00

		To			
		1	2	3	4
From	1	0.00	10.00	185.00	2.00
	2	13.00	0.00	22.00	0.00
	3	117.00	34.00	2.00	0.00
	4	0.00	0.00	0.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		1	2	3	4
From	1	0.00	13.00	157.00	2.00
	2	12.00	0.00	16.00	0.00
	3	138.00	28.00	0.00	2.00
	4	2.00	0.00	4.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		1	2	3	4
From	1	0.00	22.00	157.00	5.00
	2	4.00	0.00	9.00	0.00
	3	127.00	31.00	0.00	2.00
	4	0.00	0.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	2	0
	2	0	0	0	0
	3	1	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.45	3.46	0.8	A	191.00	764.00
2	0.11	3.14	0.1	A	26.00	104.00
3	0.48	4.25	0.9	A	168.00	672.00
4	0.04	6.36	0.0	A	1.75	7.00

Main Results for each time segment

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	211.00	211.00	38.82	469.71	0.449	210.19	153.28	0.0	0.8	3.458	A
2	28.00	28.00	197.24	315.66	0.089	27.90	51.77	0.0	0.1	3.127	A
3	191.00	191.00	8.97	400.91	0.476	190.10	216.17	0.0	0.9	4.251	A
4	1.00	1.00	191.10	142.41	0.007	0.99	7.96	0.0	0.0	6.363	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	197.00	197.00	36.04	471.57	0.418	197.09	130.19	0.8	0.7	3.281	A
2	35.00	35.00	189.07	321.22	0.109	34.98	44.06	0.1	0.1	3.143	A
3	153.00	153.00	14.98	397.22	0.385	153.27	209.06	0.9	0.6	3.695	A
4	0.00	0.00	166.22	153.36	0.000	0.01	2.03	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	172.00	172.00	32.00	474.64	0.362	172.15	151.88	0.7	0.6	2.978	A
2	28.00	28.00	163.14	338.80	0.083	28.03	41.01	0.1	0.1	2.895	A
3	168.00	168.00	14.01	397.60	0.423	167.90	177.16	0.6	0.7	3.916	A
4	6.00	6.00	177.92	148.18	0.040	5.96	3.99	0.0	0.0	6.326	A

18:15 - 18:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	184.00	184.00	31.02	475.89	0.387	183.94	131.11	0.6	0.6	3.082	A
2	13.00	13.00	162.00	339.55	0.038	13.05	52.96	0.1	0.0	2.758	A
3	160.00	160.00	9.02	400.75	0.399	160.06	166.04	0.7	0.7	3.739	A
4	0.00	0.00	162.08	155.12	0.000	0.04	6.99	0.0	0.0	0.000	A

2037 no dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.95	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 period length (min)	Time segment length (min)	Run automatically
D13	2037 no dev	PM	DIRECT	17:30	18:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

17:30 - 17:45

		To			
		1	2	3	4
From	1	0.00	16.00	215.00	1.00
	2	9.00	0.00	13.00	0.00
	3	158.00	29.00	1.00	8.00
	4	1.00	0.00	0.00	0.00

Demand (Veh/TS)

17:45 - 18:00

		To			
		1	2	3	4
From	1	0.00	10.00	201.00	3.00
	2	14.00	0.00	16.00	0.00
	3	128.00	24.00	3.00	0.00
	4	0.00	0.00	0.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		1	2	3	4
From	1	0.00	14.00	171.00	3.00
	2	13.00	0.00	9.00	0.00
	3	150.00	17.00	0.00	3.00
	4	3.00	0.00	4.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		1	2	3	4
From	1	0.00	24.00	171.00	5.00
	2	4.00	0.00	3.00	0.00
	3	139.00	22.00	0.00	3.00
	4	0.00	0.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	2	0
	2	0	0	0	0
	3	1	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.49	3.66	0.9	A	208.50	834.00
2	0.10	3.22	0.1	A	20.25	81.00
3	0.49	4.37	1.0	A	171.25	685.00
4	0.05	6.46	0.0	A	2.00	8.00

Main Results for each time segment

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	232.00	232.00	29.85	476.02	0.487	231.06	167.19	0.0	0.9	3.661	A
2	22.00	22.00	216.12	302.88	0.073	21.92	44.79	0.0	0.1	3.203	A
3	196.00	196.00	9.96	400.12	0.490	195.05	228.07	0.0	1.0	4.369	A
4	1.00	1.00	196.06	140.20	0.007	0.99	8.96	0.0	0.0	6.464	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	214.00	214.00	27.03	477.88	0.448	214.13	142.22	0.9	0.8	3.415	A
2	30.00	30.00	207.09	309.04	0.097	29.97	34.07	0.1	0.1	3.224	A
3	155.00	155.00	16.97	395.77	0.392	155.30	220.09	1.0	0.6	3.749	A
4	0.00	0.00	169.25	152.00	0.000	0.01	3.03	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	188.00	188.00	21.01	482.38	0.390	188.17	165.86	0.8	0.6	3.062	A
2	22.00	22.00	178.17	328.63	0.067	22.04	31.02	0.1	0.1	2.935	A
3	170.00	170.00	16.01	396.14	0.429	169.90	184.19	0.6	0.7	3.976	A
4	7.00	7.00	179.92	147.26	0.048	6.95	5.99	0.0	0.0	6.413	A

18:15 - 18:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	200.00	200.00	22.01	482.20	0.415	199.94	143.12	0.6	0.7	3.188	A
2	7.00	7.00	176.00	330.07	0.021	7.05	45.94	0.1	0.0	2.786	A
3	164.00	164.00	9.02	400.53	0.409	164.05	174.03	0.7	0.7	3.805	A
4	0.00	0.00	165.08	153.77	0.000	0.05	7.99	0.0	0.0	0.000	A

2037 with dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.13	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 period length (min)	Time segment length (min)	Run automatically
D14	2037 with dev	PM	DIRECT	17:30	18:30	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

17:30 - 17:45

		To			
		1	2	3	4
From	1	0.00	16.00	215.00	1.00
	2	9.00	0.00	21.00	0.00
	3	158.00	41.00	1.00	8.00
	4	1.00	0.00	0.00	0.00

Demand (Veh/TS)

17:45 - 18:00

		To			
		1	2	3	4
From	1	0.00	10.00	201.00	3.00
	2	14.00	0.00	24.00	0.00
	3	128.00	36.00	3.00	0.00
	4	0.00	0.00	0.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		1	2	3	4
From	1	0.00	14.00	171.00	3.00
	2	13.00	0.00	17.00	0.00
	3	150.00	29.00	0.00	3.00
	4	3.00	0.00	4.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		1	2	3	4
From	1	0.00	24.00	171.00	5.00
	2	4.00	0.00	10.00	0.00
	3	139.00	33.00	0.00	3.00
	4	0.00	0.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	2	0
	2	0	0	0	0
	3	1	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.50	3.79	1.0	A	208.50	834.00
2	0.12	3.32	0.1	A	28.00	112.00
3	0.52	4.63	1.1	A	183.00	732.00
4	0.05	6.71	0.1	A	2.00	8.00

Main Results for each time segment

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	232.00	232.00	41.78	467.65	0.496	231.02	167.15	0.0	1.0	3.788	A
2	30.00	30.00	216.08	302.90	0.099	29.89	56.72	0.0	0.1	3.294	A
3	208.00	208.00	9.96	400.30	0.520	206.93	236.01	0.0	1.1	4.630	A
4	1.00	1.00	207.94	135.03	0.007	0.99	8.95	0.0	0.0	6.714	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	214.00	214.00	39.04	469.46	0.456	214.13	142.24	1.0	0.8	3.528	A
2	38.00	38.00	207.10	309.04	0.123	37.97	46.08	0.1	0.1	3.319	A
3	167.00	167.00	16.97	396.00	0.422	167.34	228.09	1.1	0.7	3.941	A
4	0.00	0.00	181.28	146.76	0.000	0.01	3.03	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	188.00	188.00	33.01	473.97	0.397	188.18	165.85	0.8	0.7	3.153	A
2	30.00	30.00	178.18	328.63	0.091	30.04	43.01	0.1	0.1	3.016	A
3	182.00	182.00	16.01	396.36	0.459	181.89	192.21	0.7	0.8	4.194	A
4	7.00	7.00	191.91	142.04	0.049	6.95	5.99	0.0	0.1	6.661	A

18:15 - 18:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	200.00	200.00	33.02	474.47	0.422	199.94	143.13	0.7	0.7	3.278	A
2	14.00	14.00	176.00	330.07	0.042	14.06	56.95	0.1	0.0	2.850	A
3	175.00	175.00	9.02	400.74	0.437	175.06	181.04	0.8	0.8	3.988	A
4	0.00	0.00	176.09	148.97	0.000	0.05	7.99	0.1	0.0	0.000	A

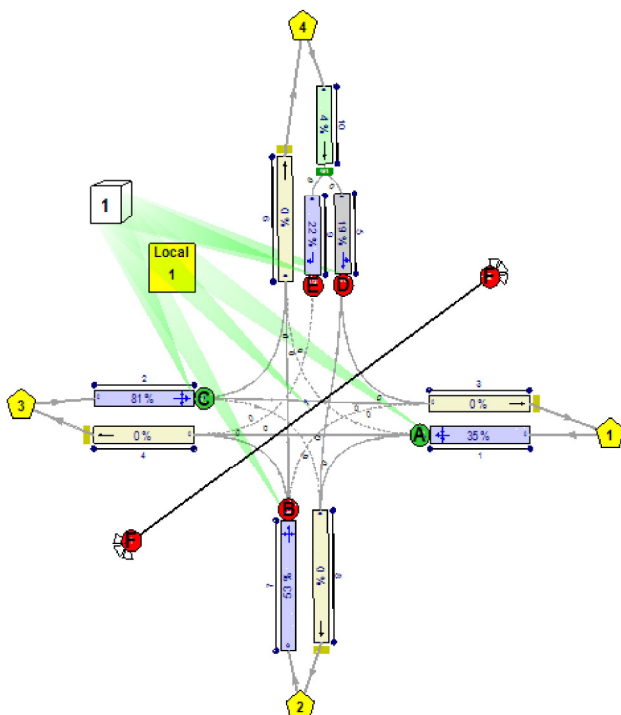
APPENDIX F – TRANSYT RESULTS

TRANSYT 15
Version: 15.5.2.7994 © Copyright TRL Limited, 2018
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Report generation date: 25/11/2020 11:18:01

- »Network Diagrams
- «A5 - 2020 am : D5 - 2020 am* :
- »Signal Timings
- »Final Prediction Table

Network Diagrams



A5 - 2020 am D5 - 2020 am*

Signal Timings

Network Default: 180s cycle time; 180 steps

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E	F
From	A	5		5	5	12	
	B		5				12
	C			5	5	5	12
	D	5		5			12
	E	5		5			12
	F	12	12	12	12	12	

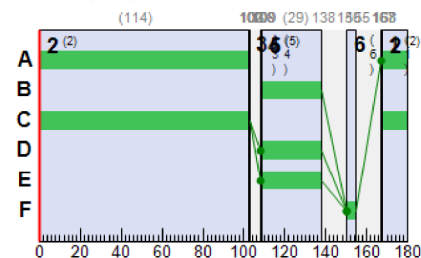
Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	167	168	1	1	1
	2	✓	2	A,C	168	102	114	1	1
	3	✓	3	C	102	103	1	1	1
	4	✓	4	E,D	108	109	1	1	1
	5	✓	5	E,D,B	109	138	29	1	7
	6	✓	6	F	150	155	5	1	5

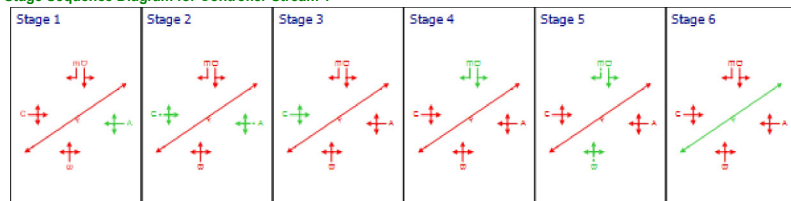
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	167	102	115
2	1		1	C	168	103	115
5	1		1	D	108	138	30
7	1		1	B	109	138	29
9	1		1	E	108	138	30

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Final Prediction Table

Time segment: Summary

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	76		0.00	35	157	26.74	14.74	43.28	9.04	100	100	0.00	19.33	
2	1	R403 Clane		1	C	211 <		0.00	81	11	38.47	26.48	68.82	36.59 +	100	100	0.00	95.31	
3	1					223		18.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					92		20.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00	
5	1	Capdoe Park Straight Right		1	D	11		29.00	19	364	69.57	64.17	84.42	2.76	100	100	0.00	11.08	
6	1					6		180.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	23		0.00	53	70	91.76	77.44	94.84	5.11	100	100	0.00	28.88	
8	1					3		180.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	

9	1	Capdoo Park Flare		1	E	4			31.00	22	310	70.90	66.12	84.69	1.49	100	100	0.00	4.07
10	1	Capdoo Park Main				14			180.00	4	1910	8.49	0.03	0.00	0.00	100	100	0.00	0.01

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	524.39	27.90	10.43	148.06	10.61	0.00	158.67
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	524.39	27.90	10.43	148.06	10.61	0.00	158.67

Time segment: 07:30-07:45

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)		
1	1	R403 Clebridge		1	A	53	386	115	0.00	21	322	25.66	13.66	40.56	4.39	100	100	0.00	12.50	
2	1	R403 Clane		1	C	237 <	455	115	0.00	81	11	41.81	29.81	75.64	36.59 +	100	100	0.00	120.46	
3	1					249	Unrestricted	180	18.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					62	Unrestricted	180	20.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00	
5	1	Capdoo Park Straight Right		1	D	6	479	30	29.00	7	1136	68.30	62.90	82.91	1.00	100	100	0.00	6.20	
6	1					3	Unrestricted	180	180.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	21	266	29	0.00	47	90	91.15	76.84	94.47	4.01	100	100	0.00	26.45	
8	1					3	Unrestricted	180	180.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	0	173	30	31.00	0	Unrestricted	0.00	0.00	0.00	0.00	100	100	0.00	0.00	
10	1	Capdoo Park Main				6	491	180	180.00	1	7269	8.46	0.01	0.00	0.00	100	100	0.00	0.00	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	513.25	27.97	18.35	10.87	154.30	11.31	0.00	165.61
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	513.25	27.97	18.35	10.87	154.30	11.31	0.00	165.61

Time segment: 07:45-08:00

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)		
1	1	R403 Clebridge		1	A	76	427	115	0.00	28	226	26.47	14.47	42.50	6.64	100	100	0.00	18.98	
2	1	R403 Clane		1	C	237 <	458	115	0.00	80	12	41.90	29.93	75.31	36.39 +	100	100	0.00	120.87	
3	1					250	Unrestricted	180	17.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					87	Unrestricted	180	19.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00	
5	1	Capdoo Park Straight Right		1	D	9	479	30	28.00	11	724	68.94	63.54	83.60	1.52	100	100	0.00	9.40	
6	1					4	Unrestricted	180	180.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	19	250	29	0.00	46	98	91.90	77.36	94.47	3.62	100	100	0.00	24.09	
8	1					4	Unrestricted	180	180.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	4	175	30	29.00	13	580	69.31	64.51	84.02	1.47	100	100	0.00	4.24	
10	1	Capdoo Park Main				13	491	180	180.00	3	3301	8.48	0.02	0.00	0.00	100	100	0.00	0.01	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	558.30	30.27	18.45	11.66	165.57	12.02	0.00	177.58
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	558.30	30.27	18.45	11.66	165.57	12.02	0.00	177.58

Time segment: 08:00-08:15

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)		
1	1	R403 Clebridge		1	A	78	433	115	0.00	28	222	26.55	14.55	42.85	6.81	100	100	0.00	19.58	
2	1	R403 Clane		1	C	197 <	456	115	0.00	67	34	35.35	23.36	62.86	25.21 +	100	100	0.00	78.82	
3	1					213	Unrestricted	180	16.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	

4	1					96	Unrestricted	180	15.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	11	479	30	27.00	13	574	69.39	63.99	84.25	1.87	100	100	0.00	11.57
6	1					4	Unrestricted	180	180.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	24	272	29	0.00	53	70	94.11	80.06	96.59	4.68	100	100	0.00	31.48
8	1					2	Unrestricted	180	180.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	5	169	30	28.00	17	424	70.49	65.71	84.52	1.48	100	100	0.00	5.40
10	1	Capdoo Park Main				16	491	180	0.00	3	2663	8.48	0.03	0.00	0.00	100	100	0.00	0.01

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	510.19	26.65	19.14	9.66	137.12	9.73	0.00	146.85
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	510.19	26.65	19.14	9.66	137.12	9.73	0.00	146.85

Time segment: 08:15-08:30

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU		QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	97	430	115	0.00	35	157	27.69	15.70	45.73	9.04	100	100	0.00	26.25
2	1	R403 Clane		1	C	172 <	454	115	0.00	59	53	32.70	20.70	57.28	20.11 +	100	100	0.00	61.11
3	1					178	Unrestricted	180	18.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					122	Unrestricted	180	12.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	16	479	30	0.00	19	364	70.52	65.12	85.57	2.76	100	100	0.00	17.13
6	1					14	Unrestricted	180	122.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	27	345	29	0.00	47	92	90.06	75.65	93.83	5.11	100	100	0.00	33.50
8	1					4	Unrestricted	180	172.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	6	159	30	26.00	22	310	72.30	67.53	85.27	1.49	100	100	0.00	6.65
10	1	Capdoo Park Main				22	491	180	0.00	4	1910	8.50	0.04	0.00	0.00	100	100	0.00	0.01

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	515.79	26.72	19.30	9.53	135.27	9.38	0.00	144.65
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	515.79	26.72	19.30	9.53	135.27	9.38	0.00	144.65

- < = adjusted flow warning (upstream links/traffic streams are over-saturated)
- * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- ^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
- + = average link/traffic stream excess queue is greater than 0
- P.I. = PERFORMANCE INDEX

TRANSYT 15

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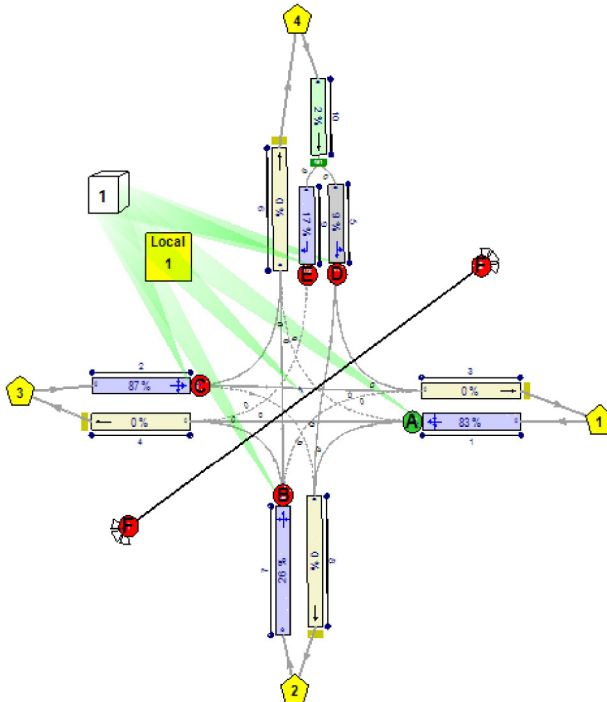
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Report generation date: 25/11/2020 11:18:52

- »Network Diagrams
- «A6 - 2020 pm : D6 - 2020 pm* :
- »Signal Timings
- »Final Prediction Table

Network Diagrams



A6 - 2020 pm D6 - 2020 pm*

Signal Timings

Network Default: 180s cycle time; 180 steps

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E	F
From	A	5		5	5	12	
	B	5		5			12
	C	5		5	5	12	
	D	5		5			12
	E	5		5			12
	F	12	12	12	12	12	

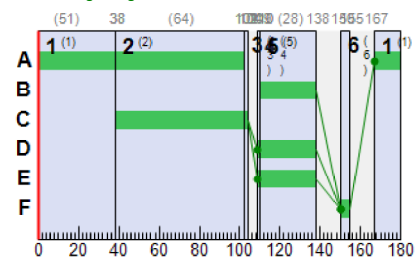
Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	167	38	51	1	1
	2	✓	2	A,C	38	102	64	1	1
	3	✓	3	C	102	104	2	1	1
	4	✓	4	E,D	109	110	1	1	1
	5	✓	5	E,D,B	110	138	28	1	7
	6	✓	6	F	150	155	5	1	5

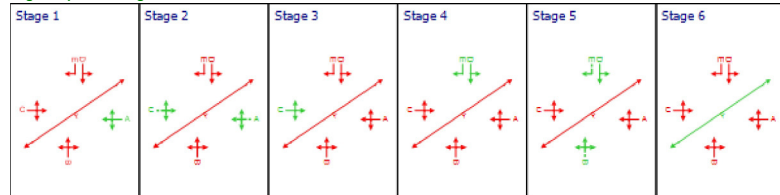
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	167	102	115
2	1		1	C	38	104	66
5	1		1	D	109	138	29
7	1		1	B	110	138	28
9	1		1	E	109	138	29

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Final Prediction Table

Time segment: Summary

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU		QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)
1	1	R403 Clebridge		1	A	222 <		0.00	83	8	39.71	27.84	70.38	36.10 +	100	100	0.00	105.12
2	1	R403 Clane		1	C	114 <		0.00	87	4	77.42	66.00	97.10	26.84 +	100	100	0.00	123.72
3	1					100		81.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					216		24.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	5		29.00	9	925	69.05	63.65	83.61	1.19	100	100	0.00	4.71
6	1					20		71.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	10		25.00	26	244	81.54	67.23	86.58	2.49	100	100	0.00	11.32
8	1					17		117.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	3		29.00	17	426	70.18	65.39	84.51	1.48	100	100	0.00	2.95

10	1	Capdoo Park Main				7			180.00	2	3584	8.47	0.02	0.00	0.00	100	100	0.00	0.00
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Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	568.20	35.29	16.46	233.72	14.10	0.00	247.81
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	568.20	35.29	16.46	233.72	14.10	0.00	247.81

Time segment: 17:30-17:45

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	228 <	439	115	0.00	81	12	40.16	28.16	71.70	33.46 +	100	100	0.00	109.52
2	1	R403 Clane		1	C	102 <	361	66	0.00	76	19	71.68	59.68	92.02	18.98 +	100	100	0.00	100.75
3	1					89	Unrestricted	180	76.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					221	Unrestricted	180	20.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	5	479	29	28.00	6	1336	69.00	63.60	83.44	0.84	100	100	0.00	5.23
6	1					22	Unrestricted	180	60.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	14	332	28	22.00	26	244	83.50	69.19	88.19	2.49	100	100	0.00	15.90
8	1					19	Unrestricted	180	84.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	2	174	29	29.00	7	1205	68.86	64.06	83.97	0.34	100	100	0.00	2.11
10	1	Capdoo Park Main				7	491	180	180.00	1	6216	8.47	0.01	0.00	0.00	100	100	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	566.10	34.34	16.49	15.47	219.68	13.82	0.00	233.50
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	566.10	34.34	16.49	15.47	219.68	13.82	0.00	233.50

Time segment: 17:45-18:00

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	229 <	438	115	0.00	81	11	40.73	28.94	72.34	33.98 +	100	100	0.00	112.86
2	1	R403 Clane		1	C	110 <	360	66	0.00	82	10	77.21	65.74	96.91	21.55 +	100	100	0.00	119.44
3	1					94	Unrestricted	180	77.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					224	Unrestricted	180	20.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	7	479	29	27.00	9	925	69.40	64.00	84.09	1.19	100	100	0.00	7.36
6	1					23	Unrestricted	180	60.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	10	440	28	25.00	14	538	80.20	65.89	85.48	1.72	100	100	0.00	10.82
8	1					20	Unrestricted	180	82.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	5	175	29	25.00	17	426	71.60	66.80	85.07	1.48	100	100	0.00	5.48
10	1	Capdoo Park Main				12	491	180	180.00	2	3584	8.48	0.02	0.00	0.00	100	100	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	582.22	36.29	16.04	17.00	241.39	14.59	0.00	255.98
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	582.22	36.29	16.04	17.00	241.39	14.59	0.00	255.98

Time segment: 18:00-18:15

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	235 <	439	115	0.00	83	8	42.07	30.35	75.00	36.10 +	100	100	0.00	121.36
2	1	R403 Clane		1	C	110 <	356	66	0.00	83	8	79.31	68.11	98.35	21.88 +	100	100	0.00	123.63
3	1					97	Unrestricted	180	78.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					228	Unrestricted	180	24.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight		1	D	4	479	29	28.00	5	1694	68.79	63.39	83.40	0.67	100	100	0.00	4.17

		Right																	
6	1					18	Unrestricted	180	71.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	7	309	28	25.00	14	540	80.68	66.37	85.72	1.21	100	100	0.00	7.63
8	1					16	Unrestricted	180	111.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	3	182	29	29.00	10	810	69.36	64.56	84.24	0.51	100	100	0.00	3.18
10	1	Capdoo Park Main				7	491	180	180.00	1	6216	8.47	0.01	0.00	0.00	100	100	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	578.06	36.36	15.90	17.26	245.12	14.86	0.00	259.98
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	578.06	36.36	15.90	17.26	245.12	14.86	0.00	259.98

Time segment: 18:15-18:30

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controllor stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	
1	1	R403 Clebridge		1	A	194 <	433	115	0.00	69	30	35.11	23.13	60.93	24.10 +	100	100	0.00	76.72
2	1	R403 Clane		1	C	132 <	409	66	0.00	87	4	80.44	69.34	100.15	26.84 +	100	100	0.00	151.04
3	1					119	Unrestricted	180	81.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					190	Unrestricted	180	23.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	2	479	29	29.00	3	3489	68.46	63.06	82.76	0.33	100	100	0.00	2.07
6	1					18	Unrestricted	180	64.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	10	384	28	24.00	16	457	80.74	66.43	86.02	1.74	100	100	0.00	10.91
8	1					12	Unrestricted	180	117.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	1	177	29	29.00	3	2549	68.26	63.46	83.63	0.17	100	100	0.00	1.04
10	1	Capdoo Park Main				3	491	180	180.00	1	14638	8.46	0.01	0.00	0.00	100	100	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	546.42	34.18	15.99	16.10	228.68	13.11	0.00	241.79
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	546.42	34.18	15.99	16.10	228.68	13.11	0.00	241.79

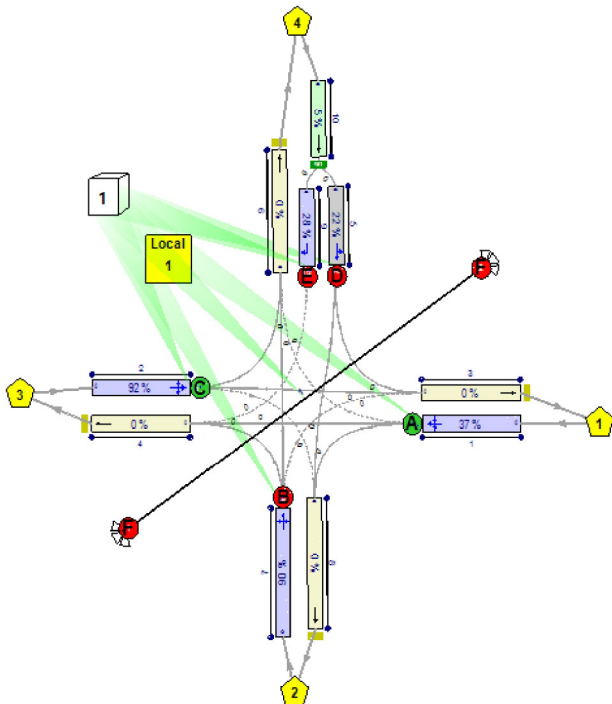
- < = adjusted flow warning (upstream links/traffic streams are over-saturated)
- * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- ^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
- + = average link/traffic stream excess queue is greater than 0
- P.I. = PERFORMANCE INDEX

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 Path: S:\Jobs\2020\20076 (18039-01) Clane Res Devlpmt TIA+RSA\20076-02\TRANSYT
 Report generation date: 25/11/2020 11:19:52

- »Network Diagrams
- «A7 - 2022 with dev am : D7 - 2022 with dev am* :
- »Signal Timings
- »Final Prediction Table

Network Diagrams



A7 - 2022 with dev am D7 - 2022 with dev am*

Signal Timings

Network Default: 180s cycle time; 180 steps

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E	F
From	A	5		5	5	12	
	B	5		5			12
	C	5	5		5	5	12
	D	5		5			12
	E	5		5			12
	F	12	12	12	12	12	

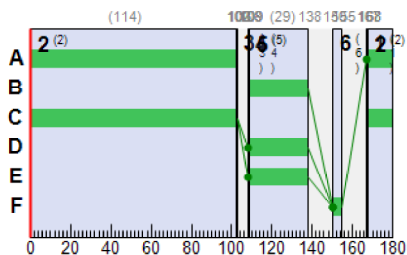
Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	167	168	1	1	1
	2	✓	2	A,C	168	102	114	1	1
	3	✓	3	C	102	103	1	1	1
	4	✓	4	E,D	108	109	1	1	1
	5	✓	5	E,D,B	109	138	29	1	7
	6	✓	6	F	150	155	5	1	5

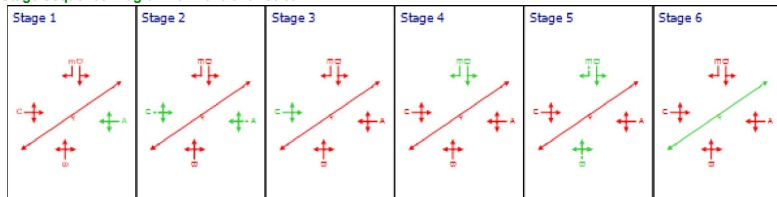
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	167	102	115
2	1		1	C	168	103	115
5	1		1	D	108	138	30
7	1		1	B	109	138	29
9	1		1	E	108	138	30

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Final Prediction Table

Time segment: Summary

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	82			0.00	37	143	26.94	14.94	43.77	9.74	100	100	0.00	21.01
2	1	R403 Clane		1	C	233 <			0.00	92	-2	47.80	36.12	82.82	49.47 +	100	100	0.00	142.19
3	1					242			12.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					108			8.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	11			28.00	22	309	70.04	64.64	84.76	2.90	100	100	0.00	12.02
6	1					7			180.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	40			0.00	90	0	137.09	124.59	121.87	10.64	100	100	0.00	81.58
8	1					13			109.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	4			31.00	28	221	72.56	67.79	85.49	1.51	100	100	0.00	4.59

10	1	Capdoo Park Main				15			180.00	5	1762	8.49	0.03	0.00	0.00	100	100	0.00	0.01
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Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	599.97	37.22	17.38	246.83	14.57	0.00	261.40
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	599.97	37.22	17.38	246.83	14.57	0.00	261.40

Time segment: 07:30-07:45

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	57	386	115	0.00	23	291	25.81	13.81	40.71	4.74	100	100	0.00	13.64
2	1	R403 Clane		1	C	260 <	441	115	0.00	91	-2	52.54	40.54	91.49	48.65 +	100	100	0.00	178.25
3	1					271	Unrestricted	180	9.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					77	Unrestricted	180	7.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	7	443	30	28.00	9	880	68.70	63.30	83.56	1.18	100	100	0.00	7.28
6	1					3	Unrestricted	180	180.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	40	271	29	0.00	89	2	126.62	112.31	117.04	9.54	100	100	0.00	73.23
8	1					13	Unrestricted	180	81.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	0	158	30	31.00	0	Unrestricted	0.00	0.00	0.00	0.00	100	100	0.00	0.00
10	1	Capdoo Park Main				7	491	180	180.00	1	6216	8.47	0.01	0.00	0.00	100	100	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	590.97	37.77	15.64	18.07	256.66	15.74	0.00	272.40
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	590.97	37.77	15.64	18.07	256.66	15.74	0.00	272.40

Time segment: 07:45-08:00

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	81	427	115	0.00	29	205	26.68	14.68	43.05	7.10	100	100	0.00	20.57
2	1	R403 Clane		1	C	260 <	440	115	0.00	92	-2	55.48	44.45	93.30	49.47 +	100	100	0.00	194.70
3	1					272	Unrestricted	180	9.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					102	Unrestricted	180	8.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	10	443	30	27.00	13	586	69.41	64.01	84.28	1.70	100	100	0.00	10.52
6	1					4	Unrestricted	180	180.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	37	258	29	0.00	86	5	141.99	131.64	124.32	9.42	100	100	0.00	79.16
8	1					14	Unrestricted	180	75.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	4	161	30	29.00	15	489	70.00	65.20	84.37	1.47	100	100	0.00	4.55
10	1	Capdoo Park Main				14	491	180	180.00	3	3003	8.48	0.03	0.00	0.00	100	100	0.00	0.01

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	636.77	41.39	15.38	20.61	292.67	16.84	0.00	309.51
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	636.77	41.39	15.38	20.61	292.67	16.84	0.00	309.51

Time segment: 08:00-08:15

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	84	435	115	0.00	30	200	26.78	14.79	43.46	7.46	100	100	0.00	21.49
2	1	R403 Clane		1	C	218 <	433	115	0.00	78	15	41.87	30.09	74.12	33.03 +	100	100	0.00	111.74
3	1					231	Unrestricted	180	9.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					112	Unrestricted	180	5.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight		1	D	12	443	30	27.00	15	496	69.76	64.36	84.37	1.96	100	100	0.00	12.17

		Right																	
6	1					4	Unrestricted	180	180.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	41	273	29	0.00	90	0	146.04	136.33	126.60	10.64	100	100	0.00	90.80
8	1					12	Unrestricted	180	109.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	5	155	30	27.00	20	358	71.46	66.68	85.01	1.48	100	100	0.00	5.75
10	1	Capdoo Park Main				17	491	180	0.00	3	2540	8.49	0.03	0.00	0.00	100	100	0.00	0.01

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	584.49	35.32	16.55	16.10	228.69	13.26	0.00	241.95
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	584.49	35.32	16.55	16.10	228.69	13.26	0.00	241.95

Time segment: 08:15-08:30

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controllor stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	
1	1	R403 Clebridge		1	A	103	433	115	0.00	37	143	27.91	15.91	46.29	9.74	100	100	0.00	28.32
2	1	R403 Clane		1	C	192 <	424	115	0.00	70	28	37.68	25.67	66.75	26.21 +	100	100	0.00	84.09
3	1					194	Unrestricted	180	12.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					139	Unrestricted	180	4.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	17	443	30	0.00	22	309	71.15	65.76	85.81	2.90	100	100	0.00	18.10
6	1					15	Unrestricted	180	101.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	43	317	29	0.00	81	11	134.08	118.76	119.76	10.50	100	100	0.00	83.15
8	1					14	Unrestricted	180	106.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	7	145	30	25.00	28	221	74.93	70.18	86.52	1.51	100	100	0.00	8.06
10	1	Capdoo Park Main				24	491	180	0.00	5	1762	8.50	0.05	0.00	0.00	100	100	0.00	0.02

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	587.66	34.38	17.09	14.74	209.31	12.42	0.00	221.74
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	587.66	34.38	17.09	14.74	209.31	12.42	0.00	221.74

- < = adjusted flow warning (upstream links/traffic streams are over-saturated)
- * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- ^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
- + = average link/traffic stream excess queue is greater than 0
- P.I. = PERFORMANCE INDEX

TRANSYT 15

Version: 15.5.2.7994
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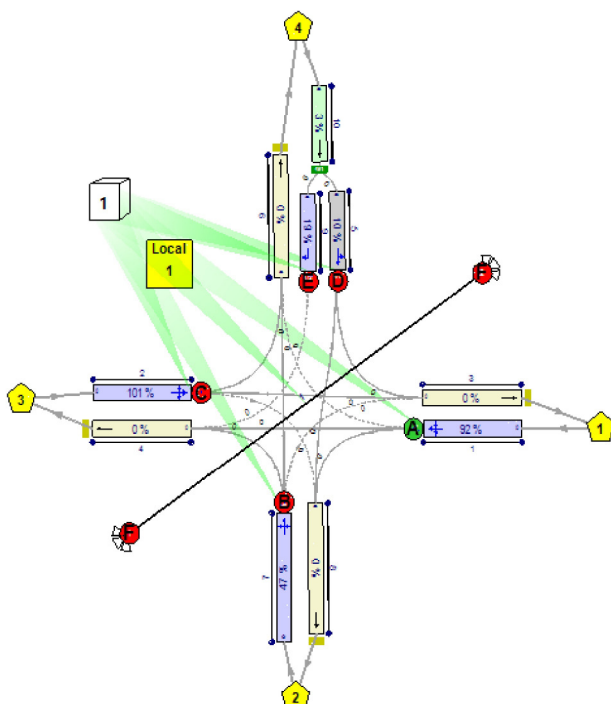
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Report generation date: 25/11/2020 11:20:39

- »Network Diagrams
- «A8 - 2022 with dev pm : D8 - 2022 with dev pm* :
- »Signal Timings
- »Final Prediction Table

Network Diagrams



A8 - 2022 with dev pm D8 - 2022 with dev pm*

Signal Timings

Network Default: 180s cycle time; 180 steps

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E	F
From	A	5		5	5	12	
	B	5		5			12
	C	5	5		5	5	12
	D	5		5			12
	E	5		5			12
	F	12	12	12	12	12	

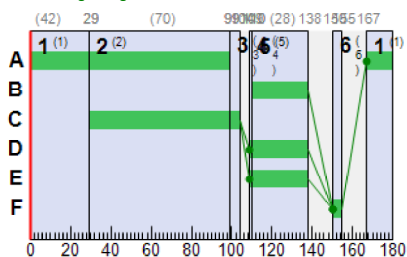
Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	167	29	42	1	1
	2	✓	2	A,C	29	99	70	1	1
	3	✓	3	C	99	104	5	1	1
	4	✓	4	E,D	109	110	1	1	1
	5	✓	5	E,D,B	110	138	28	1	7
	6	✓	6	F	150	155	5	1	5

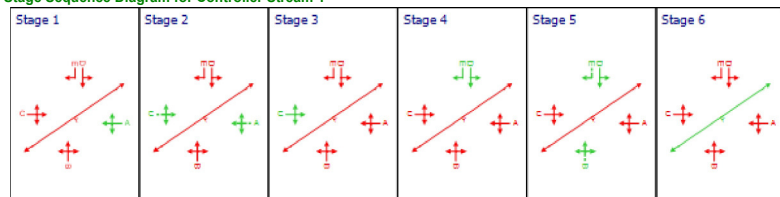
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	167	99	112
2	1		1	C	29	104	75
5	1		1	D	109	138	29
7	1		1	B	110	138	28
9	1		1	E	109	138	29

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Final Prediction Table

Time segment: Summary

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU		QUEUES	WEIGHTS		PENALTIES	P.I.		
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	240 <			0.00	92	-2	49.58	38.07	84.86	47.55 +	100	100	0.00	154.60
2	1	R403 Clane		1	C	131 <			0.00	101	-11	127.72	118.81	129.92	44.30 +	100	100	0.00	254.55
3	1					107			66.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					238			17.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	5			29.00	10	797	69.17	63.77	83.65	1.36	100	100	0.00	5.04
6	1					22			66.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	22			0.00	47	90	86.62	72.31	91.00	4.91	100	100	0.00	25.51
8	1					34			68.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	3			29.00	19	386	70.53	65.73	84.74	1.48	100	100	0.00	3.04

10	1	Capdoo Park Main				8			180.00	3	3301	8.47	0.02	0.00	0.00	100	100	0.00	0.00
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Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	646.34	50.73	29.77	422.70	20.05	0.00	442.75
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	646.34	50.73	29.77	422.70	20.05	0.00	442.75

Time segment: 17:30-17:45

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIGHTS		PENALTIES	P.I.	
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	248 <	440	112	0.00	90	0	50.01	38.01	87.06	44.13 +	100	100	0.00	159.56
2	1	R403 Clane		1	C	119 <	299	75	0.00	94	-4	90.93	78.93	110.73	26.74 +	100	100	0.00	154.81
3	1					96	Unrestricted	180	63.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					243	Unrestricted	180	13.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	5	479	29	28.00	6	1336	69.00	63.60	83.44	0.84	100	100	0.00	5.23
6	1					24	Unrestricted	180	55.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	26	341	28	0.00	47	90	90.03	75.72	93.76	4.91	100	100	0.00	32.29
8	1					37	Unrestricted	180	55.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	2	161	29	29.00	7	1106	69.06	64.26	84.08	0.34	100	100	0.00	2.11
10	1	Capdoo Park Main				7	491	180	180.00	1	6216	8.47	0.01	0.00	0.00	100	100	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	646.11	45.13	14.32	23.59	335.04	18.95	0.00	354.00
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	646.11	45.13	14.32	23.59	335.04	18.95	0.00	354.00

Time segment: 17:45-18:00

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIGHTS		PENALTIES	P.I.	
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	249 <	441	112	0.00	90	0	51.96	40.70	88.33	45.05 +	100	100	0.00	170.76
2	1	R403 Clane		1	C	128 <	302	75	0.00	100	-10	116.94	107.19	125.43	32.51 +	100	100	0.00	224.49
3	1					103	Unrestricted	180	63.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					246	Unrestricted	180	14.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	8	479	29	27.00	10	797	69.63	64.23	84.14	1.36	100	100	0.00	8.44
6	1					25	Unrestricted	180	56.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	22	384	28	0.00	36	153	85.83	71.52	90.49	4.01	100	100	0.00	25.82
8	1					38	Unrestricted	180	52.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	5	162	29	26.00	19	386	72.01	67.21	85.39	1.48	100	100	0.00	5.52
10	1	Capdoo Park Main				13	491	180	180.00	3	3301	8.48	0.02	0.00	0.00	100	100	0.00	0.01

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	664.37	50.81	13.08	29.19	414.46	20.58	0.00	435.05
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	664.37	50.81	13.08	29.19	414.46	20.58	0.00	435.05

Time segment: 18:00-18:15

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIGHTS		PENALTIES	P.I.	
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	254 <	441	112	0.00	92	-2	54.32	43.27	91.48	47.55 +	100	100	0.00	184.90
2	1	R403 Clane		1	C	127 <	298	75	0.00	101	-11	145.90	138.03	139.71	36.24 +	100	100	0.00	285.38
3	1					102	Unrestricted	180	64.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					250	Unrestricted	180	17.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight		1	D	4	479	29	28.00	5	1589	68.85	63.45	83.41	0.71	100	100	0.00	4.43

		Right																	
6	1					20	Unrestricted	180	66.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	17	348	28	0.00	30	197	84.51	70.18	89.08	3.05	100	100	0.00	19.58
8	1					32	Unrestricted	180	68.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	3	170	29	28.00	11	685	69.83	65.03	84.48	1.47	100	100	0.00	3.47
10	1	Capdoo Park Main				8	491	180	180.00	2	5795	8.47	0.01	0.00	0.00	100	100	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	651.76	54.41	11.98	33.54	476.24	21.52	0.00	497.76
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	651.76	54.41	11.98	33.54	476.24	21.52	0.00	497.76

Time segment: 18:15-18:30

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)		
1	1	R403 Clebridge		1	A	211 <	435	112	0.00	77	16	40.54	28.77	70.21	30.24 +	100	100	0.00	103.19	
2	1	R403 Clane		1	C	151 <	358	75	0.00	100	-10	150.56	143.92	140.60	44.30 +	100	100	0.00	353.53	
3	1					127	Unrestricted	180	66.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					211	Unrestricted	180	16.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00	
5	1	Capdoo Park Straight Right		1	D	2	479	29	29.00	3	3489	68.46	63.06	82.76	0.33	100	100	0.00	2.07	
6	1					20	Unrestricted	180	58.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	21	386	28	0.00	34	167	84.91	70.64	89.67	3.79	100	100	0.00	24.35	
8	1					28	Unrestricted	180	62.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	1	163	29	29.00	4	2351	68.35	63.55	83.68	0.17	100	100	0.00	1.04	
10	1	Capdoo Park Main				3	491	180	180.00	1	14638	8.46	0.01	0.00	0.00	100	100	0.00	0.00	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	623.12	52.57	11.85	32.75	465.04	19.15	0.00	484.19
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	623.12	52.57	11.85	32.75	465.04	19.15	0.00	484.19

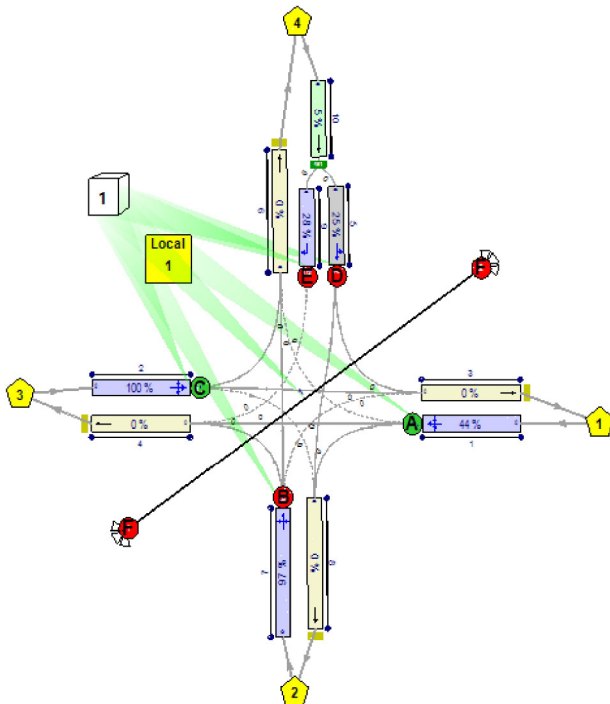
- < = adjusted flow warning (upstream links/traffic streams are over-saturated)
- * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- ^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
- + = average link/traffic stream excess queue is greater than 0
- P.I. = PERFORMANCE INDEX

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 Report generation date: 25/11/2020 11:21:33

- »Network Diagrams
- «A9 - 2027 with dev am : D9 - 2027 with dev am* :
- »Signal Timings
- »Final Prediction Table

Network Diagrams



A9 - 2027 with dev am D9 - 2027 with dev am*

Signal Timings

Network Default: 180s cycle time; 180 steps

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E	F
From	A	5		5	5	12	
	B	5		5			12
	C	5		5	5	12	
	D	5		5			12
	E	5		5			12
	F	12	12	12	12	12	

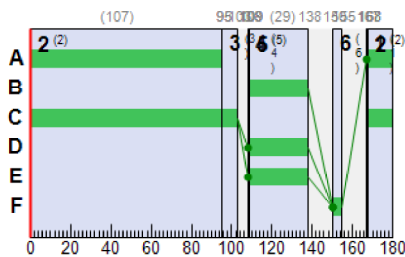
Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	167	168	1	1	1
	2	✓	2	A,C	168	95	107	1	1
	3	✓	3	C	95	103	8	1	1
	4	✓	4	E,D	108	109	1	1	1
	5	✓	5	E,D,B	109	138	29	1	7
	6	✓	6	F	150	155	5	1	5

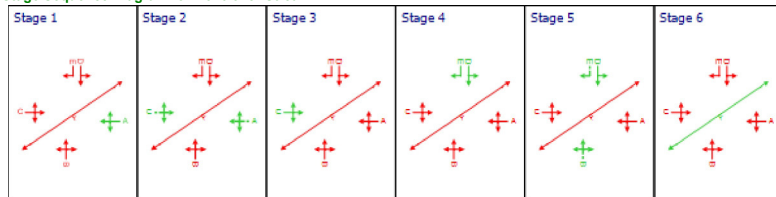
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	167	95	108
2	1		1	C	168	103	115
5	1		1	D	108	138	30
7	1		1	B	109	138	29
9	1		1	E	108	138	30

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Final Prediction Table

Time segment: Summary

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU		QUEUES	WEIGHTS		PENALTIES	P.I.		
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	90			0.00	44	103	30.98	18.98	50.13	12.46	100	100	0.00	29.13
2	1	R403 Clane		1	C	255 <			0.00	100	-10	64.61	54.96	99.62	70.55 +	100	100	0.00	233.61
3	1					266			10.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					117			7.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	12			28.00	25	261	70.45	65.05	85.23	3.31	100	100	0.00	13.30
6	1					7			180.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	43			0.00	97	-7	162.73	150.24	134.47	13.53	100	100	0.00	104.22
8	1					13			100.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	4			31.00	28	227	72.75	67.99	85.59	1.51	100	100	0.00	4.74

10	1	Capdoo Park Main				17			180.00	5	1617	8.49	0.04	0.00	0.00	100	100	0.00	0.01
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Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	655.11	46.89	25.81	366.44	18.57	0.00	385.02
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	655.11	46.89	25.81	366.44	18.57	0.00	385.02

Time segment: 07:30-07:45

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	64	373	108	0.00	28	217	29.54	17.54	46.99	6.10	100	100	0.00	19.22	
2	1	R403 Clane		1	C	286 <	443	115	0.00	100	-10	70.36	58.36	111.98	64.90 +	100	100	0.00	279.35	
3	1					296	Unrestricted	180	8.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					84	Unrestricted	180	6.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00	
5	1	Capdoo Park Straight Right		1	D	7	443	30	28.00	9	880	68.70	63.30	83.56	1.18	100	100	0.00	7.28	
6	1					4	Unrestricted	180	175.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	42	270	29	0.00	93	-4	135.00	120.69	121.78	10.42	100	100	0.00	82.55	
8	1					14	Unrestricted	180	70.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	0	156	30	31.00	0	Unrestricted	0.00	0.00	0.00	0.00	100	100	0.00	0.00	
10	1	Capdoo Park Main				7	491	180	180.00	1	6216	8.47	0.01	0.00	0.00	100	100	0.00	0.00	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	646.33	47.46	13.62	25.92	368.00	20.39	0.00	388.39
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	646.33	47.46	13.62	25.92	368.00	20.39	0.00	388.39

Time segment: 07:45-08:00

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	89	433	108	0.00	34	165	30.43	18.43	48.81	8.89	100	100	0.00	28.06	
2	1	R403 Clane		1	C	285 <	444	115	0.00	100	-10	89.35	80.07	120.52	70.55 +	100	100	0.00	377.62	
3	1					299	Unrestricted	180	7.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					111	Unrestricted	180	7.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00	
5	1	Capdoo Park Straight Right		1	D	11	443	30	27.00	14	524	69.65	64.25	84.34	1.87	100	100	0.00	11.62	
6	1					4	Unrestricted	180	180.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	39	256	29	0.00	91	-2	161.51	153.28	133.97	10.83	100	100	0.00	96.94	
8	1					14	Unrestricted	180	64.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	5	160	30	28.00	16	451	70.33	65.53	84.51	1.47	100	100	0.00	4.84	
10	1	Capdoo Park Main				16	491	180	0.00	3	2752	8.48	0.03	0.00	0.00	100	100	0.00	0.01	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	694.98	57.00	12.19	34.96	496.39	22.70	0.00	519.09
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	694.98	57.00	12.19	34.96	496.39	22.70	0.00	519.09

Time segment: 08:00-08:15

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	92	439	108	0.00	35	160	30.57	18.57	49.18	9.19	100	100	0.00	29.23	
2	1	R403 Clane		1	C	238 <	437	115	0.00	85	6	49.05	43.80	83.56	40.51 +	100	100	0.00	174.61	
3	1					254	Unrestricted	180	7.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					123	Unrestricted	180	3.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00	
5	1	Capdoo Park Straight		1	D	13	443	30	26.00	17	438	70.10	64.70	85.00	2.18	100	100	0.00	13.56	

		Right																	
6	1					4	Unrestricted	180	180.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	44	272	29	0.00	97	-7	175.06	166.46	140.55	12.88	100	100	0.00	118.66
8	1					12	Unrestricted	180	100.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	6	152	30	27.00	22	311	72.28	67.51	85.37	1.49	100	100	0.00	6.37
10	1	Capdoo Park Main				19	491	180	0.00	4	2290	8.49	0.04	0.00	0.00	100	100	0.00	0.01

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	637.12	42.15	15.12	22.98	326.30	16.15	0.00	342.44
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	637.12	42.15	15.12	22.98	326.30	16.15	0.00	342.44

Time segment: 08:15-08:30

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU		QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	
1	1	R403 Clebridge		1	A	114	425	108	0.00	44	103	32.54	20.55	53.69	12.46	100	100	0.00	40.03
2	1	R403 Clane		1	C	210 <	428	115	0.00	76	19	40.80	28.81	72.58	31.06 +	100	100	0.00	102.86
3	1					214	Unrestricted	180	10.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					151	Unrestricted	180	2.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	19	443	30	0.00	25	261	71.79	66.39	86.53	3.31	100	100	0.00	20.73
6	1					16	Unrestricted	180	75.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	46	311	29	0.00	89	1	177.28	159.14	140.65	13.53	100	100	0.00	118.75
8	1					14	Unrestricted	180	100.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	7	142	30	26.00	28	227	74.77	70.04	86.50	1.51	100	100	0.00	7.75
10	1	Capdoo Park Main				26	491	180	0.00	5	1617	8.50	0.05	0.00	0.00	100	100	0.00	0.02

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	642.02	40.96	15.67	19.37	275.08	15.06	0.00	290.14
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	642.02	40.96	15.67	19.37	275.08	15.06	0.00	290.14

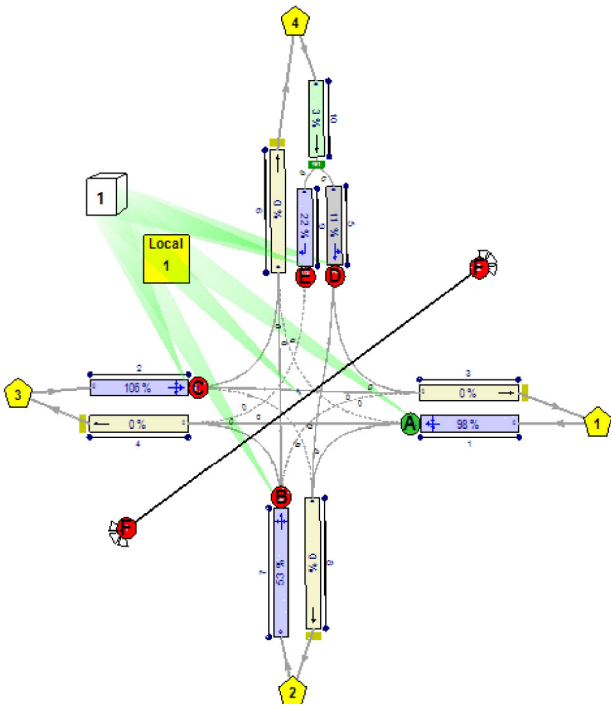
- < = adjusted flow warning (upstream links/traffic streams are over-saturated)
- * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- ^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
- + = average link/traffic stream excess queue is greater than 0
- P.I. = PERFORMANCE INDEX

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- »Network Diagrams
- «A10 - 2027 with dev pm : D10 - 2027 with dev pm* :
- »Signal Timings
- »Final Prediction Table

Network Diagrams



A10 - 2027 with dev pm D10 - 2027 with dev pm*

Signal Timings

Network Default: 180s cycle time; 180 steps

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E	F
From	A	5		5	5	12	
	B	5		5			12
	C	5		5	5	12	
	D	5		5			12
	E	5		5			12
	F	12	12	12	12	12	

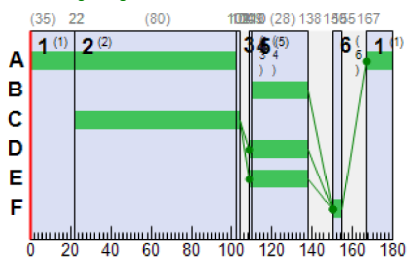
Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	167	22	35	1	1
	2	✓	2	A,C	22	102	80	1	1
	3	✓	3	C	102	104	2	1	1
	4	✓	4	E,D	109	110	1	1	1
	5	✓	5	E,D,B	110	138	28	1	7
	6	✓	6	F	150	155	5	1	5

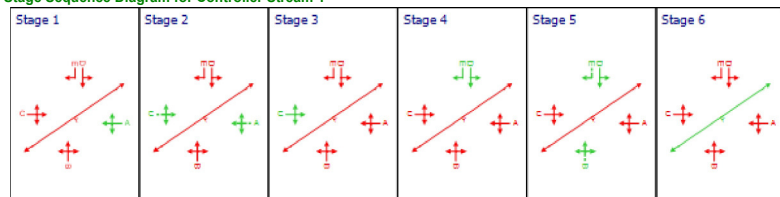
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	167	102	115
2	1		1	C	22	104	82
5	1		1	D	109	138	29
7	1		1	B	110	138	28
9	1		1	E	109	138	29

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Final Prediction Table

Time segment: Summary

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	264 <		0.00	98	-8	62.06	51.91	99.28	64.05 +	100	100	0.00	229.26	
2	1	R403 Clane		1	C	143 <		0.00	106	-15	159.42	149.97	148.49	58.62 +	100	100	0.00	347.88	
3	1					114		59.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					261		15.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00	
5	1	Capdoo Park Straight Right		1	D	5		29.00	11	705	69.37	63.97	83.70	1.40	100	100	0.00	5.52	
6	1					23		67.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	23		0.00	53	71	87.69	73.39	91.87	5.41	100	100	0.00	27.39	
8	1					35		68.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	3		29.00	22	302	71.48	66.68	85.12	1.49	100	100	0.00	3.69	

10	1	Capdoo Park Main				9			180.00	3	3003	8.47	0.02	0.00	0.00	100	100	0.00	0.00
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Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	701.08	63.90	41.47	588.94	24.81	0.00	613.75
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	701.08	63.90	41.47	588.94	24.81	0.00	613.75

Time segment: 17:30-17:45

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIGHTS		PENALTIES	P.I.	
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	272 <	438	115	0.00	96	-7	58.77	46.77	100.12	55.73 +	100	100	0.00	214.37
2	1	R403 Clane		1	C	130 <	284	82	0.00	99	-9	95.63	83.63	116.37	30.71 +	100	100	0.00	178.77
3	1					107	Unrestricted	180	54.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					266	Unrestricted	180	12.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	6	443	29	28.00	8	1054	69.24	63.84	83.52	0.97	100	100	0.00	6.03
6	1					26	Unrestricted	180	54.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	28	331	28	0.00	53	71	92.53	78.22	95.65	5.41	100	100	0.00	35.90
8	1					39	Unrestricted	180	54.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	2	159	29	29.00	8	963	69.27	64.47	84.20	0.38	100	100	0.00	2.38
10	1	Capdoo Park Main				8	491	180	180.00	2	5427	8.47	0.02	0.00	0.00	100	100	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	707.02	52.76	13.40	29.19	414.55	22.91	0.00	437.46
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	707.02	52.76	13.40	29.19	414.55	22.91	0.00	437.46

Time segment: 17:45-18:00

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIGHTS		PENALTIES	P.I.	
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	273 <	439	115	0.00	96	-7	67.00	57.01	104.66	58.65 +	100	100	0.00	259.65
2	1	R403 Clane		1	C	139 <	287	82	0.00	105	-14	134.05	124.24	139.25	37.76 +	100	100	0.00	281.22
3	1					107	Unrestricted	180	56.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					270	Unrestricted	180	12.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	8	443	29	27.00	11	705	69.87	64.47	84.21	1.40	100	100	0.00	8.74
6	1					26	Unrestricted	180	56.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	23	385	28	0.00	37	143	86.25	71.95	90.64	4.20	100	100	0.00	27.16
8	1					39	Unrestricted	180	53.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	6	161	29	24.00	22	302	73.50	68.70	85.94	1.49	100	100	0.00	6.76
10	1	Capdoo Park Main				14	491	180	180.00	3	3003	8.48	0.03	0.00	0.00	100	100	0.00	0.01

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	716.60	62.26	11.51	39.32	558.34	25.20	0.00	583.53
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	716.60	62.26	11.51	39.32	558.34	25.20	0.00	583.53

Time segment: 18:00-18:15

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIGHTS		PENALTIES	P.I.	
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	279 <	440	115	0.00	98	-8	75.35	65.67	111.79	64.05 +	100	100	0.00	304.45
2	1	R403 Clane		1	C	137 <	281	82	0.00	106	-15	188.63	179.68	164.03	45.58 +	100	100	0.00	399.76
3	1					107	Unrestricted	180	57.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					275	Unrestricted	180	15.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight		1	D	5	443	29	28.00	6	1297	69.06	63.66	83.47	0.80	100	100	0.00	4.97

		Right																	
6	1					21	Unrestricted	180	67.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	18	351	28	0.00	32	183	84.95	70.62	89.72	3.26	100	100	0.00	20.87
8	1					33	Unrestricted	180	68.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	4	169	29	27.00	14	533	70.61	65.81	84.82	1.47	100	100	0.00	4.32
10	1	Capdoo Park Main				9	491	180	180.00	2	4953	8.47	0.02	0.00	0.00	100	100	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	704.62	72.09	9.77	49.78	706.89	27.48	0.00	734.37
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	704.62	72.09	9.77	49.78	706.89	27.48	0.00	734.37

Time segment: 18:15-18:30

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU		QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	
1	1	R403 Clebridge		1	A	232 <	432	115	0.00	83	8	44.14	35.41	76.94	36.44 +	100	100	0.00	138.58
2	1	R403 Clane		1	C	165 <	347	82	0.00	103	-13	206.63	199.06	168.58	58.62 +	100	100	0.00	531.76
3	1					135	Unrestricted	180	59.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					231	Unrestricted	180	15.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	2	443	29	29.00	3	2850	68.51	63.11	82.78	0.38	100	100	0.00	2.33
6	1					22	Unrestricted	180	58.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	22	388	28	0.00	35	156	85.28	71.01	90.10	4.00	100	100	0.00	25.64
8	1					29	Unrestricted	180	63.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	1	162	29	29.00	5	1845	68.53	63.73	83.78	0.21	100	100	0.00	1.31
10	1	Capdoo Park Main				4	491	180	180.00	1	12532	8.46	0.01	0.00	0.00	100	100	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	676.10	68.49	9.87	47.61	675.99	23.64	0.00	699.63
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	676.10	68.49	9.87	47.61	675.99	23.64	0.00	699.63

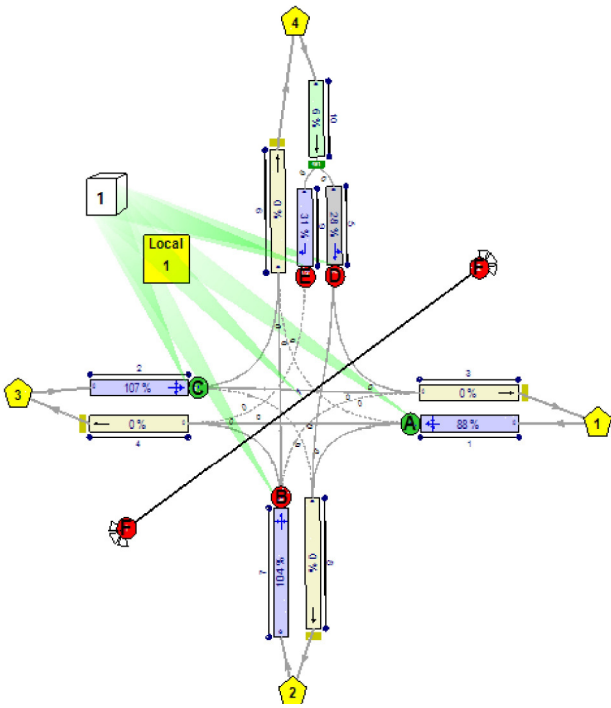
- < = adjusted flow warning (upstream links/traffic streams are over-saturated)
- * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- ^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
- + = average link/traffic stream excess queue is greater than 0
- P.I. = PERFORMANCE INDEX

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Path: S:\Jobs\2020\20076 (18039-01) Clane Res Devlpmt TIA+RSA\20076-02\TRANSYT
Report generation date: 25/11/2020 11:23:10

- »Network Diagrams
- «A1 - 2037 am with dev : D1 - 2037 with dev am* :
- »Signal Timings
- »Final Prediction Table

Network Diagrams



A1 - 2037 am with dev D1 - 2037 with dev am*

Signal Timings

Network Default: 180s cycle time; 180 steps

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E	F
From	A	5		5	5	12	
	B	5		5			12
	C	5	5		5	5	12
	D	5		5			12
	E	5		5			12
	F	12	12	12	12	12	

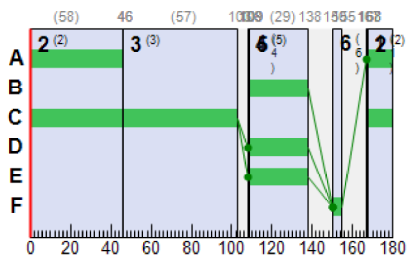
Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	167	168	1	1	1
	2	✓	2	A,C	168	46	58	1	1
	3	✓	3	C	46	103	57	1	1
	4	✓	4	E,D	108	109	1	1	1
	5	✓	5	E,D,B	109	138	29	1	7
	6	✓	6	F	150	155	5	1	5

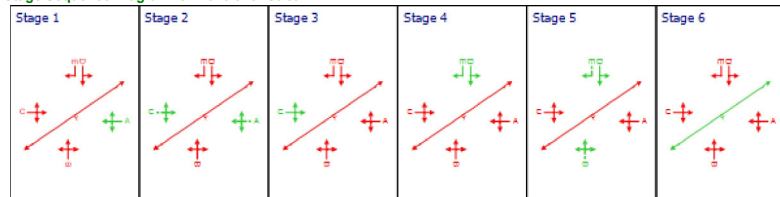
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	167	46	59
2	1		1	C	168	103	115
5	1		1	D	108	138	30
7	1		1	B	109	138	29
9	1		1	E	108	138	30

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Final Prediction Table

Time segment: Summary

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	98 <		0.00	88	2	74.21	62.36	91.87	25.64 +	100	100	0.00	100.69	
2	1	R403 Clane		1	C	278 <		0.00	107	-16	105.69	94.46	124.22	90.85 +	100	100	0.00	430.95	
3	1					281		10.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					127		51.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00	
5	1	Capdoo Park Straight Right		1	D	14		28.00	28	227	70.81	65.41	85.55	3.69	100	100	0.00	14.51	
6	1					8		180.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	45		0.00	104	-14	201.37	189.09	152.40	17.41	100	100	0.00	138.42	
8	1					14		85.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	5		31.00	31	189	74.22	69.49	86.22	1.53	100	100	0.00	5.56	

10	1	Capdoo Park Main				18			180.00	6	1451	8.50	0.04	0.00	0.00	100	100	0.00	0.01
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Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	701.21	69.83	46.81	664.72	25.42	0.00	690.14
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	701.21	69.83	46.81	664.72	25.42	0.00	690.14

Time segment: 07:30-07:45

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	69	380	59	0.00	54	65	64.72	52.72	82.24	11.51	100	100	0.00	60.24
2	1	R403 Clane		1	C	311 <	457	115	0.00	106	-15	82.56	70.56	121.42	71.92 +	100	100	0.00	364.18
3	1					308	Unrestricted	180	6.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					91	Unrestricted	180	51.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	8	443	30	28.00	10	785	68.87	63.47	83.60	1.31	100	100	0.00	8.09
6	1					4	Unrestricted	180	162.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	45	270	29	0.00	100	-10	148.10	133.79	128.83	11.87	100	100	0.00	97.90
8	1					13	Unrestricted	180	72.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	0	154	30	31.00	0	Unrestricted	0.00	0.00	0.00	0.00	100	100	0.00	0.00
10	1	Capdoo Park Main				8	491	180	180.00	2	5605	8.47	0.01	0.00	0.00	100	100	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	681.99	58.39	11.68	35.66	506.38	24.02	0.00	530.41
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	681.99	58.39	11.68	35.66	506.38	24.02	0.00	530.41

Time segment: 07:45-08:00

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	98	429	59	0.00	68	32	69.97	58.03	88.31	17.37	100	100	0.00	93.59
2	1	R403 Clane		1	C	312 <	453	115	0.00	107	-16	138.56	127.81	149.25	90.85 +	100	100	0.00	650.05
3	1					307	Unrestricted	180	6.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					121	Unrestricted	180	44.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	11	443	30	27.00	15	510	69.71	64.31	84.35	1.91	100	100	0.00	11.89
6	1					5	Unrestricted	180	180.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	41	255	29	0.00	97	-7	195.28	188.87	149.14	12.93	100	100	0.00	125.25
8	1					14	Unrestricted	180	64.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	5	159	30	28.00	18	392	70.94	66.14	84.78	1.48	100	100	0.00	5.43
10	1	Capdoo Park Main				16	491	180	0.00	3	2621	8.48	0.03	0.00	0.00	100	100	0.00	0.01

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	732.18	83.91	8.73	60.30	856.27	29.95	0.00	886.22
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	732.18	83.91	8.73	60.30	856.27	29.95	0.00	886.22

Time segment: 08:00-08:15

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	101 <	432	59	0.00	70	29	70.87	59.07	89.24	18.19 +	100	100	0.00	98.17
2	1	R403 Clane		1	C	261 <	448	115	0.00	90	0	146.18	128.47	135.61	75.38 +	100	100	0.00	545.73
3	1					276	Unrestricted	180	6.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					133	Unrestricted	180	41.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight		1	D	14	443	30	26.00	18	390	70.41	65.02	85.08	2.40	100	100	0.00	14.96

		Right																	
6	1					5	Unrestricted	180	180.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	47	270	29	0.00	104	-14	219.65	211.00	164.37	15.89	100	100	0.00	160.18
8	1					13	Unrestricted	180	85.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	7	151	30	26.00	27	235	74.14	69.38	86.15	1.51	100	100	0.00	7.97
10	1	Capdoo Park Main				21	491	180	0.00	4	2005	8.49	0.04	0.00	0.00	100	100	0.00	0.01

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	693.55	80.80	8.58	56.35	800.19	26.83	0.00	827.02
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	693.55	80.80	8.58	56.35	800.19	26.83	0.00	827.02

Time segment: 08:15-08:30

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU		QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	
1	1	R403 Clebridge		1	A	124 <	423	59	0.00	88	2	85.52	73.81	102.17	25.64 +	100	100	0.00	150.75
2	1	R403 Clane		1	C	229 <	440	115	0.00	81	11	46.25	42.82	80.97	37.82 +	100	100	0.00	163.85
3	1					232	Unrestricted	180	10.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					163	Unrestricted	180	34.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	21	443	30	0.00	28	227	72.38	66.98	87.24	3.69	100	100	0.00	23.11
6	1					18	Unrestricted	180	87.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	48	312	29	0.00	92	-3	238.61	219.68	165.55	17.41	100	100	0.00	170.35
8	1					16	Unrestricted	180	80.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	8	140	30	25.00	31	189	76.47	71.81	87.25	1.53	100	100	0.00	8.83
10	1	Capdoo Park Main				29	491	180	0.00	6	1451	8.51	0.06	0.00	0.00	100	100	0.00	0.03

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	697.13	56.20	12.41	34.93	496.04	20.88	0.00	516.92
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	697.13	56.20	12.41	34.93	496.04	20.88	0.00	516.92

- < = adjusted flow warning (upstream links/traffic streams are over-saturated)
- * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- ^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
- + = average link/traffic stream excess queue is greater than 0
- P.I. = PERFORMANCE INDEX

TRANSYT 15

Version: 15.5.2.7994
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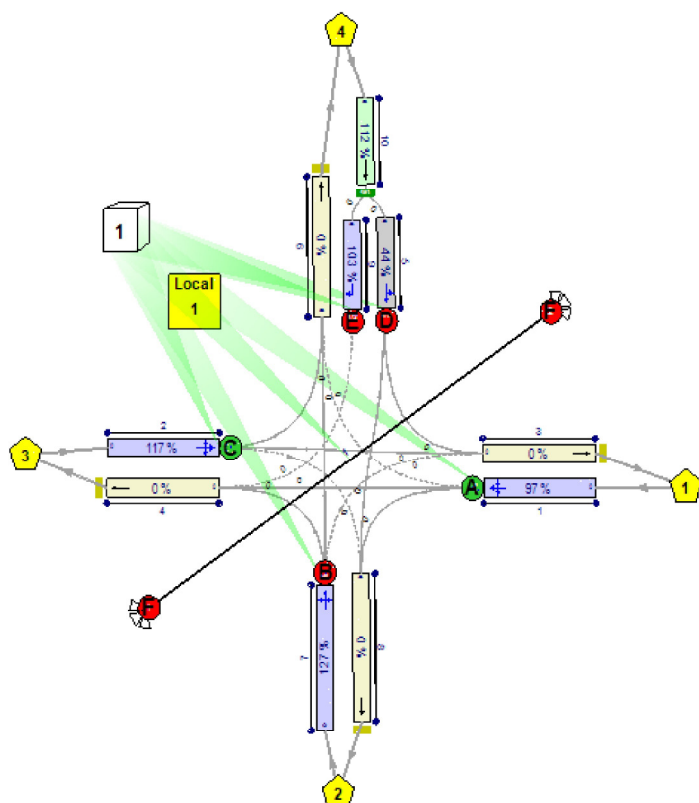
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Report generation date: 01/12/2020 11:04:20

- »Network Diagrams
- «A3 - 2037 am sensitivity : D3 - 2037 am Sensitivity* :
- »Signal Timings
- »Final Prediction Table

Network Diagrams



A3 - 2037 am sensitivity D3 - 2037 am Sensitivity*

Signal Timings

Network Default: 180s cycle time; 180 steps

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E	F
From	A		5		5	5	12
	B	5		5			12
	C		5		5	5	12
	D	5		5			12
	E	5		5			12
	F	12	12	12	12	12	

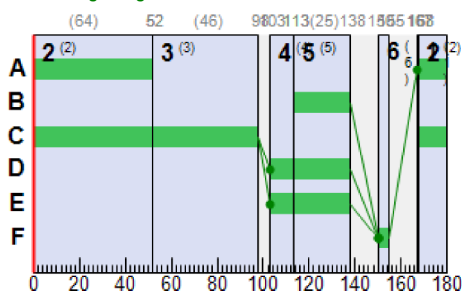
Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	167	168	1	1	1
	2	✓	2	A,C	168	52	64	1	1
	3	✓	3	C	52	98	46	1	1
	4	✓	4	E,D	103	113	10	1	1
	5	✓	5	E,D,B	113	138	25	1	7
	6	✓	6	F	150	155	5	1	5

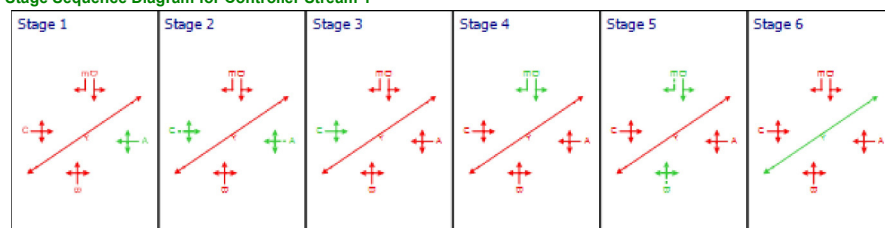
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	167	52	65
2	1		1	C	168	98	110
5	1		1	D	103	138	35
7	1		1	B	113	138	25
9	1		1	E	103	138	35

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Final Prediction Table

Time segment: Summary

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	90 <			0.00	97	-7	88.45	77.38	104.18	27.17 +	100	100	0.00	114.26
2	1	R403 Clane		1	C	296 <			0.00	117	-23	267.72	257.72	190.90	156.35 +	100	100	0.00	1228.73
3	1					273		3.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					142		37.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00	
5	1	Capdoo Park Straight Right		1	D	39 <		2.00	44	105	55.84	50.47	47.02	8.57 +	100	100	0.00	31.77	
6	1					54		29.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	45 <		0.00	127	-29	413.16	401.40	234.18	37.11 +	100	100	0.00	291.03	
8	1					13		86.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	46 <		0.00	103	-12	194.68	195.74	129.48	14.47 +	100	100	0.00	144.82	
10	1	Capdoo Park Main				87 <		150.70	112	-20	53.34	44.89	65.89	24.69 +	100	100	0.00	64.51	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	802.23	154.67	129.10	1833.27	41.85	0.00	1875.12
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	802.23	154.67	129.10	1833.27	41.85	0.00	1875.12

Time segment: 07:30-07:45

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	61	235	65	0.00	71	27	71.36	59.36	89.97	11.07	100	100	0.00	59.88
2	1	R403 Clane		1	C	330 <	456	110	0.00	117	-23	115.96	103.96	143.38	82.87 +	100	100	0.00	561.52
3	1					288	Unrestricted	180	3.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					109	Unrestricted	180	37.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	35	479	35	0.00	37	146	67.13	61.73	68.61	4.80	100	100	0.00	35.30
6	1					50	Unrestricted	180	25.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	45	260	25	0.00	120	-25	183.41	169.10	160.35	12.70	100	100	0.00	123.09
8	1					12	Unrestricted	180	80.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	44 <	235	35	0.00	94	-4	112.18	107.38	108.69	8.05 +	100	100	0.00	76.95
10	1	Capdoo Park Main				79	491	180	35.68	20	349	12.68	4.23	22.18	3.71	100	100	0.00	6.15

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	772.34	84.37	9.15	58.62	832.41	30.47	0.00	862.88
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	772.34	84.37	9.15	58.62	832.41	30.47	0.00	862.88

Time segment: 07:45-08:00

Traffic Stream Results

				SIGNALS	FLOWS	PERFORMANCE				PER PCU		QUEUES	WEIGHTS	PENALTIES	P.I.
						Wasted				Mean	Mean				

Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Delay per Veh (s)	stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	90 <	289	65	0.00	85	6	82.40	70.86	100.34	18.34 +	100	100	0.00	105.15
2	1	R403 Clane		1	C	328 <	453	110	0.00	117	-23	250.60	238.88	202.97	131.44 +	100	100	0.00	1264.67
3	1					289	Unrestricted	180	2.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					139	Unrestricted	180	29.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	38	479	35	1.00	40	127	61.57	56.20	54.85	4.17	100	100	0.00	34.74
6	1					48	Unrestricted	180	28.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	41	241	25	0.00	118	-24	354.54	344.08	225.62	19.43	100	100	0.00	226.52
8	1					13	Unrestricted	180	79.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	48 <	238	35	0.00	101	-11	161.00	160.35	121.62	10.34 +	100	100	0.00	124.30
10	1	Capdoo Park Main				86	491	180	60.70	26	241	20.96	12.51	39.61	7.02	100	100	0.00	18.68

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	821.14	148.77	5.52	121.94	1731.51	42.56	0.00	1774.07
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	821.14	148.77	5.52	121.94	1731.51	42.56	0.00	1774.07

Time segment: 08:00-08:15

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS			FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)			
1	1	R403 Clebridge		1	A	93 <	296	65	0.00	86	5	85.69	75.09	102.35	19.27 +	100	100	0.00	114.95		
2	1	R403 Clane		1	C	279 <	449	110	0.00	101	-11	374.49	372.78	219.06	156.35 +	100	100	0.00	1671.41		
3	1					280	Unrestricted	180	1.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00		
4	1					146	Unrestricted	180	28.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00		
5	1	Capdoo Park Straight Right		1	D	40	479	35	2.00	42	115	56.43	51.07	46.47	3.70	100	100	0.00	33.16		
6	1					54	Unrestricted	180	29.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00		
7	1	Brooklands		1	B	47 <	256	25	0.00	127	-29	473.01	460.75	270.08	28.13 +	100	100	0.00	346.68		
8	1					13	Unrestricted	180	78.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00		
9	1	Capdoo Park Flare		1	E	48 <	234	35	0.00	103	-12	218.31	219.97	142.73	12.88 +	100	100	0.00	169.89		
10	1	Capdoo Park Main				88	491	180	76.60	31	189	28.43	19.98	50.61	9.16	100	100	0.00	29.97		

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	811.05	186.58	4.35	163.34	2319.39	46.67	0.00	2366.06
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	811.05	186.58	4.35	163.34	2319.39	46.67	0.00	2366.06

Time segment: 08:15-08:30

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS			FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)			
1	1	R403 Clebridge		1	A	115 <	323	65	0.00	97	-7	104.49	93.89	116.19	27.17 +	100	100	0.00	177.06		
2	1	R403 Clane		1	C	246 <	442	110	0.00	90	0	373.01	358.60	206.60	133.45 +	100	100	0.00	1417.35		
3	1					234	Unrestricted	180	0.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00		

4	1					175	Unrestricted	180	21.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	42 <	479	35	0.00	44	105	40.66	35.31	22.46	8.57 +	100	100	0.00	23.86
6	1					65	Unrestricted	180	24.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	48 <	294	25	0.00	113	-20	620.03	610.02	275.56	37.11 +	100	100	0.00	467.85
8	1					16	Unrestricted	180	86.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	44 <	222	35	0.00	98	-9	288.65	296.77	144.49	14.47 +	100	100	0.00	208.13
10	1	Capdoo Park Main				96 <	491	180	150.70	112	-20	138.64	130.21	139.42	24.69 +	100	100	0.00	203.21

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	804.41	198.95	4.04	172.52	2449.78	47.69	0.00	2497.47
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	804.41	198.95	4.04	172.52	2449.78	47.69	0.00	2497.47

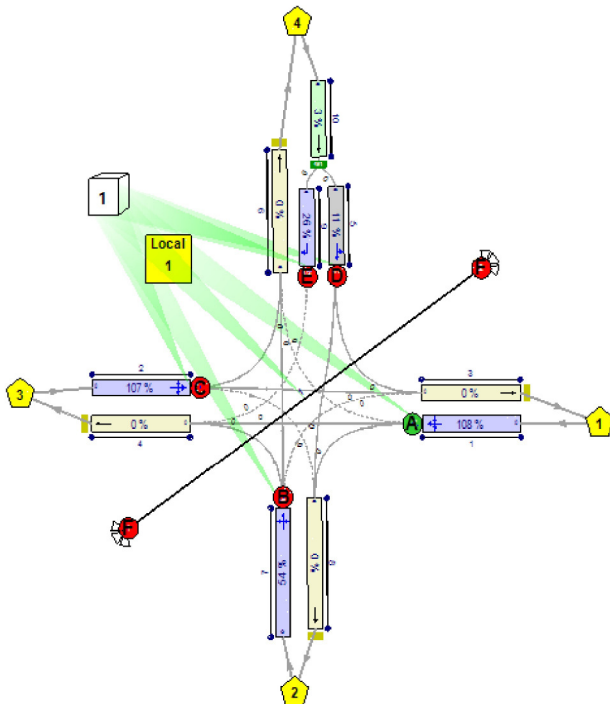
- < = adjusted flow warning (upstream links/traffic streams are over-saturated)
- * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- ^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
- + = average link/traffic stream excess queue is greater than 0
- P.I. = PERFORMANCE INDEX

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Report generation date: 25/11/2020 11:24:31

- »Network Diagrams
- «A2 - 2037 pm with dev : D2 - 2037 with dev pm* :
- »Signal Timings
- »Final Prediction Table

Network Diagrams



A2 - 2037 pm with dev D2 - 2037 with dev pm*

Signal Timings

Network Default: 180s cycle time; 180 steps

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E	F
From	A	5		5	5	12	
	B	5		5			12
	C	5	5		5	5	12
	D	5		5			12
	E	5		5			12
	F	12	12	12	12	12	

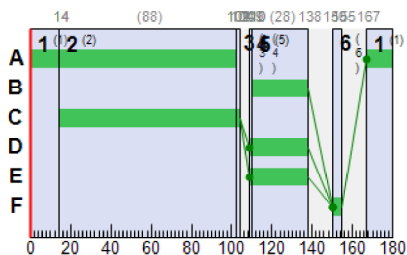
Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	167	14	27	1	1
	2	✓	2	A,C	14	102	88	1	1
	3	✓	3	C	102	104	2	1	1
	4	✓	4	E,D	109	110	1	1	1
	5	✓	5	E,D,B	110	138	28	1	7
	6	✓	6	F	150	155	5	1	5

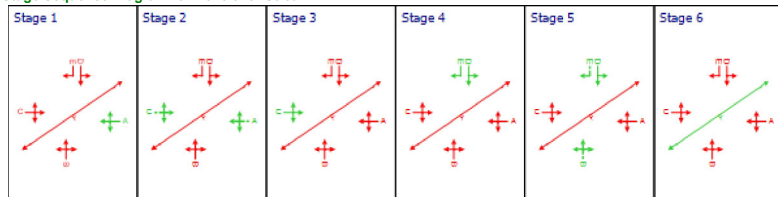
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	167	102	115
2	1		1	C	14	104	90
5	1		1	D	109	138	29
7	1		1	B	110	138	28
9	1		1	E	109	138	29

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Final Prediction Table

Time segment: Summary

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU		QUEUES	WEIGHTS		PENALTIES	P.I.	
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)
1	1	R403 Clebridge		1	A	287 <		0.00	108	-17	158.66	146.45	153.11	108.29 +	100	100	0.00	684.70
2	1	R403 Clane		1	C	155 <		0.00	107	-16	165.78	155.83	153.51	67.27 +	100	100	0.00	391.84
3	1					123		51.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					271		15.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	6		29.00	11	697	69.38	63.98	83.85	1.53	100	100	0.00	6.18
6	1					25		65.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	24		0.00	54	66	88.43	74.09	92.43	5.62	100	100	0.00	28.87
8	1					35		74.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	4		29.00	26	242	72.38	67.58	85.47	1.50	100	100	0.00	4.02

10	1	Capdoo Park Main				10			180.00	3	2663	8.48	0.02	0.00	0.00	100	100	0.00	0.00
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Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	741.50	100.61	76.18	1081.77	33.83	0.00	1115.60
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	741.50	100.61	76.18	1081.77	33.83	0.00	1115.60

Time segment: 17:30-17:45

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	296 <	434	115	0.00	106	-15	80.99	68.99	122.25	68.76 +	100	100	0.00	339.34
2	1	R403 Clane		1	C	140 <	279	90	0.00	99	-9	89.86	77.86	115.77	32.93 +	100	100	0.00	179.79
3	1					116	Unrestricted	180	45.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					276	Unrestricted	180	11.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	7	479	29	27.00	9	925	69.40	64.00	84.09	1.19	100	100	0.00	7.36
6	1					27	Unrestricted	180	54.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	29	332	28	0.00	54	66	93.31	79.00	96.11	5.62	100	100	0.00	37.55
8	1					39	Unrestricted	180	55.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	3	158	29	29.00	9	849	69.49	64.69	84.32	0.42	100	100	0.00	2.66
10	1	Capdoo Park Main				10	491	180	180.00	2	4554	8.47	0.02	0.00	0.00	100	100	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	746.13	62.87	11.87	38.00	539.64	27.06	0.00	566.70
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	746.13	62.87	11.87	38.00	539.64	27.06	0.00	566.70

Time segment: 17:45-18:00

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	297 <	434	115	0.00	106	-15	136.55	125.95	149.53	87.18 +	100	100	0.00	611.20
2	1	R403 Clane		1	C	151 <	279	90	0.00	107	-16	133.85	123.57	142.57	41.38 +	100	100	0.00	304.46
3	1					115	Unrestricted	180	47.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					279	Unrestricted	180	11.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	9	479	29	27.00	11	697	69.83	64.43	84.18	1.53	100	100	0.00	9.53
6	1					27	Unrestricted	180	55.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	24	387	28	0.00	39	134	86.74	72.44	91.28	4.42	100	100	0.00	28.53
8	1					39	Unrestricted	180	55.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	7	159	29	23.00	26	242	75.16	70.37	86.57	1.50	100	100	0.00	8.08
10	1	Capdoo Park Main				16	491	180	0.00	3	2663	8.48	0.03	0.00	0.00	100	100	0.00	0.01

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	754.81	89.83	8.40	65.42	928.96	32.83	0.00	961.80
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	754.81	89.83	8.40	65.42	928.96	32.83	0.00	961.80

Time segment: 18:00-18:15

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	304 <	435	115	0.00	108	-17	195.90	184.85	176.09	108.29 +	100	100	0.00	911.38
2	1	R403 Clane		1	C	150 <	277	90	0.00	107	-16	199.60	190.13	171.08	52.11 +	100	100	0.00	462.00
3	1					116	Unrestricted	180	48.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					278	Unrestricted	180	14.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight		1	D	5	479	29	28.00	6	1336	69.00	63.60	83.44	0.84	100	100	0.00	5.23

		Right																	
6	1					21	Unrestricted	180	65.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	20	338	28	0.00	37	145	86.67	72.29	90.94	3.66	100	100	0.00	23.72
8	1					34	Unrestricted	180	74.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	4	167	29	28.00	13	570	70.39	65.60	84.74	1.47	100	100	0.00	4.04
10	1	Capdoo Park Main				9	491	180	180.00	2	4953	8.47	0.02	0.00	0.00	100	100	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	737.87	120.21	6.14	96.36	1368.30	38.07	0.00	1406.37
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	737.87	120.21	6.14	96.36	1368.30	38.07	0.00	1406.37

Time segment: 18:15-18:30

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES		WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)		
1	1	R403 Clebridge		1	A	252 <	427	115	0.00	92	-2	231.02	215.27	165.86	96.84 +	100	100	0.00	876.88	
2	1	R403 Clane		1	C	178 <	339	90	0.00	104	-14	223.90	215.42	177.59	67.27 +	100	100	0.00	621.10	
3	1					147	Unrestricted	180	51.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					250	Unrestricted	180	15.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00	
5	1	Capdoo Park Straight Right		1	D	3	479	29	29.00	3	2771	68.50	63.10	82.78	0.42	100	100	0.00	2.59	
6	1					23	Unrestricted	180	58.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	22	388	28	0.00	35	156	85.43	71.07	90.19	4.01	100	100	0.00	25.66	
8	1					29	Unrestricted	180	66.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	1	162	29	29.00	5	1845	68.53	63.73	83.78	0.21	100	100	0.00	1.31	
10	1	Capdoo Park Main				4	491	180	180.00	1	11690	8.46	0.01	0.00	0.00	100	100	0.00	0.00	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	727.17	129.54	5.61	104.94	1490.18	37.36	0.00	1527.54
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	727.17	129.54	5.61	104.94	1490.18	37.36	0.00	1527.54

- < = adjusted flow warning (upstream links/traffic streams are over-saturated)
- * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- ^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
- + = average link/traffic stream excess queue is greater than 0
- P.I. = PERFORMANCE INDEX

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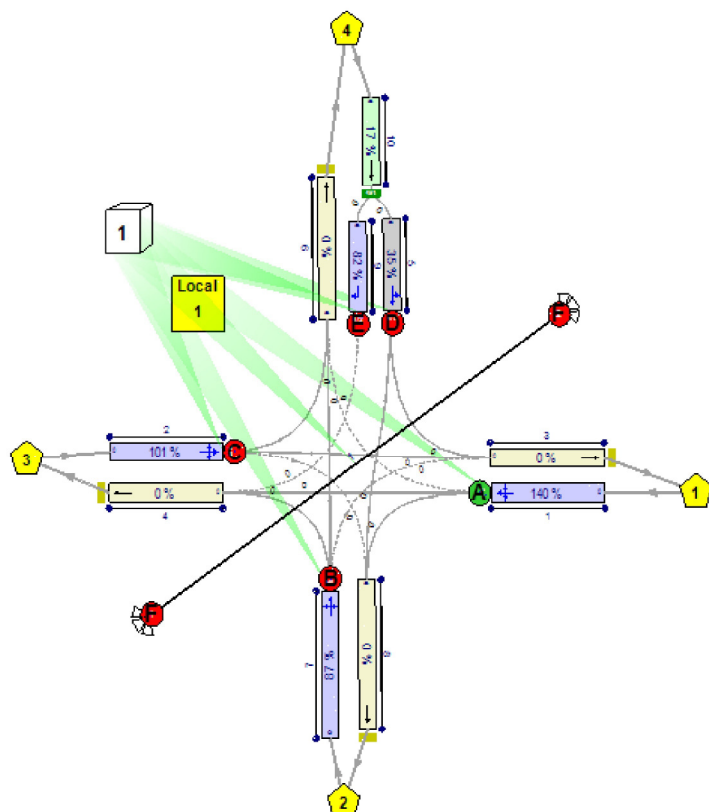
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- »Network Diagrams
- «A4 - 2037 pm sensitivity : D4 - 2037 pm Sensitivity* :
- »Signal Timings
- »Final Prediction Table

Network Diagrams



A4 - 2037 pm sensitivity D4 - 2037 pm Sensitivity*

Signal Timings

Network Default: 180s cycle time; 180 steps

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E	F
From	A		5		5	5	12
	B	5		5			12
	C		5		5	5	12
	D	5		5			12
	E	5		5			12
	F	12	12	12	12	12	12

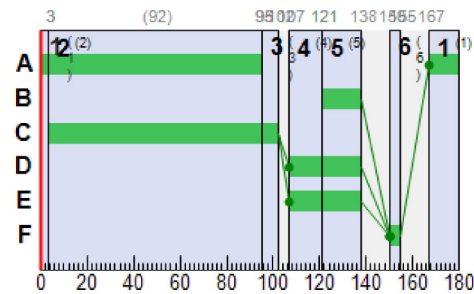
Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	167	3	16	1	1
	2	✓	2	A,C	3	95	92	1	1
	3	✓	3	C	95	102	7	1	1
	4	✓	4	E,D	107	121	14	1	1
	5	✓	5	E,D,B	121	138	17	1	7
	6	✓	6	F	150	155	5	1	5

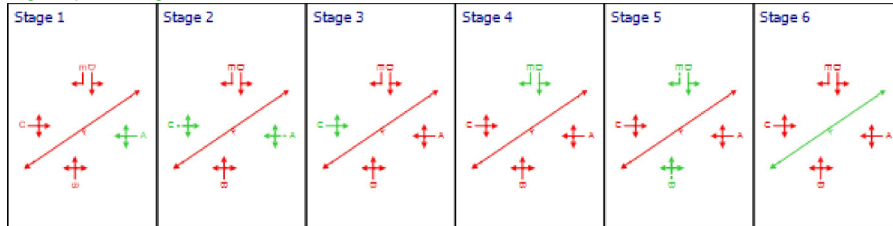
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	167	95	108
2	1		1	C	3	102	99
5	1		1	D	107	138	31
7	1		1	B	121	138	17
9	1		1	E	107	138	31

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Final Prediction Table

Time segment: Summary

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	291 <		0.00	140	-36	543.04	531.09	277.85	316.32 +	100	100	0.00	2464.51	
2	1	R403 Clane		1	C	184 <		0.00	101	-11	90.60	80.62	116.67	53.60 +	100	100	0.00	244.79	
3	1					129		29.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					234		3.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00	
5	1	Capdoo Park Straight Right		1	D	26		2.00	35	155	71.21	65.81	78.20	4.41	100	100	0.00	28.29	
6	1					91		30.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	24		0.00	87	3	120.62	106.92	110.58	7.14	100	100	0.00	41.38	
8	1					34		68.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	38 <		0.00	82	9	97.45	92.75	95.92	7.29 +	100	100	0.00	57.81	
10	1	Capdoo Park Main				65		30.82	17	416	10.15	1.70	12.53	2.86	100	100	0.00	2.14	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	825.24	223.77	196.71	2793.29	45.63	0.00	2838.92
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	825.24	223.77	196.71	2793.29	45.63	0.00	2838.92

Time segment: 17:30-17:45

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	301 <	356	108	0.00	140	-36	167.16	155.16	185.50	86.83 +	100	100	0.00	756.94
2	1	R403 Clane		1	C	170 <	335	99	0.00	91	-1	65.93	53.93	100.04	34.71 +	100	100	0.00	153.18
3	1					116	Unrestricted	180	24.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					233	Unrestricted	180	0.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	27	479	31	1.00	32	184	71.53	66.13	78.94	4.26	100	100	0.00	29.24
6	1					95	Unrestricted	180	25.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	29	332	17	0.00	87	3	138.94	124.63	121.01	7.14	100	100	0.00	58.79
8	1					35	Unrestricted	180	63.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	38	278	31	0.00	77	17	93.01	88.21	89.20	6.81	100	100	0.00	54.59
10	1	Capdoo Park Main				65	491	180	20.84	15	501	9.87	1.42	11.79	1.75	100	100	0.00	1.84

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	816.46	99.12	8.24	71.91	1021.08	33.49	0.00	1054.57
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TOTAL	816.46	99.12	8.24	71.91	1021.08	33.49	0.00	1054.57
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Time segment: 17:45-18:00

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	299 <	363	108	0.00	136	-34	416.66	404.73	277.39	170.08 +	100	100	0.00	1939.92
2	1	R403 Clane		1	C	181 <	331	99	0.00	98	-9	85.55	74.99	114.88	42.41 +	100	100	0.00	224.57
3	1					123	Unrestricted	180	26.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					241	Unrestricted	180	1.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	30	479	31	0.00	35	155	71.05	65.67	73.55	4.41	100	100	0.00	32.19
6	1					94	Unrestricted	180	26.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	24	387	17	0.00	62	45	113.88	100.95	106.65	5.17	100	100	0.00	39.51
8	1					38	Unrestricted	180	59.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	41 <	280	31	0.00	82	9	100.73	97.93	106.18	7.29 +	100	100	0.00	65.53
10	1	Capdoo Park Main				71	491	180	30.82	17	416	11.57	3.12	18.54	2.86	100	100	0.00	4.15

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	840.19	186.70	4.50	159.13	2259.62	46.26	0.00	2305.88
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	840.19	186.70	4.50	159.13	2259.62	46.26	0.00	2305.88

Time segment: 18:00-18:15

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	307 <	366	108	0.00	139	-35	647.62	635.66	326.50	252.71 +	100	100	0.00	3115.25
2	1	R403 Clane		1	C	178 <	329	99	0.00	98	-8	99.05	90.64	121.26	44.26 +	100	100	0.00	265.38
3	1					126	Unrestricted	180	25.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					240	Unrestricted	180	3.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	26	479	31	1.00	31	194	71.35	65.94	78.90	4.10	100	100	0.00	28.08
6	1					86	Unrestricted	180	30.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	21	321	17	0.00	65	37	116.80	103.77	108.55	4.61	100	100	0.00	35.53
8	1					33	Unrestricted	180	67.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	38 <	287	31	0.00	74	21	99.99	94.31	92.80	7.10 +	100	100	0.00	58.31
10	1	Capdoo Park Main				64	491	180	20.87	15	511	9.87	1.41	11.76	1.65	100	100	0.00	1.81

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	823.19	269.89	3.05	243.16	3452.94	51.42	0.00	3504.35
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	823.19	269.89	3.05	243.16	3452.94	51.42	0.00	3504.35

Time segment: 18:15-18:30

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE			PER PCU			QUEUES	WEIGHTS		PENALTIES	P.I.	
				Controller stream	Phase	Calculated flow entering (Veh/TS)	Calculated sat flow (Veh/TS)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (Veh)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	255 <	343	108	0.00	123	-27	1009.02	997.10	328.84	316.32 +	100	100	0.00	4045.94
2	1	R403 Clane		1	C	207 <	370	99	0.00	101	-11	108.01	98.85	127.92	53.60 +	100	100	0.00	336.01
3	1					152	Unrestricted	180	29.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					223	Unrestricted	180	3.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	22	479	31	2.00	26	248	70.87	65.47	82.83	3.65	100	100	0.00	23.64
6	1					89	Unrestricted	180	26.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	21	384	17	0.00	55	65	106.81	92.41	102.68	4.35	100	100	0.00	31.70
8	1					28	Unrestricted	180	68.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	36	283	31	0.00	71	26	95.71	89.99	94.63	6.85	100	100	0.00	52.82
10	1	Capdoo Park Main				58	491	180	13.74	13	604	9.05	0.59	6.85	0.98	100	100	0.00	0.74

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	821.12	339.37	2.42	312.64	4439.50	51.36	0.00	4490.86
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	821.12	339.37	2.42	312.64	4439.50	51.36	0.00	4490.86

- < = adjusted flow warning (upstream links/traffic streams are over-saturated)
- * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- ^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
- + = average link/traffic stream excess queue is greater than 0
- P.I. = PERFORMANCE INDEX