

18039-02-001

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

Traffic Impact Assessment

for

Westar Investments Limited

October 2019



7, Ormonde Road
Kilkenny.
R95 N4FE

Tel: 056 7795800
info@roadplan.ie

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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'.

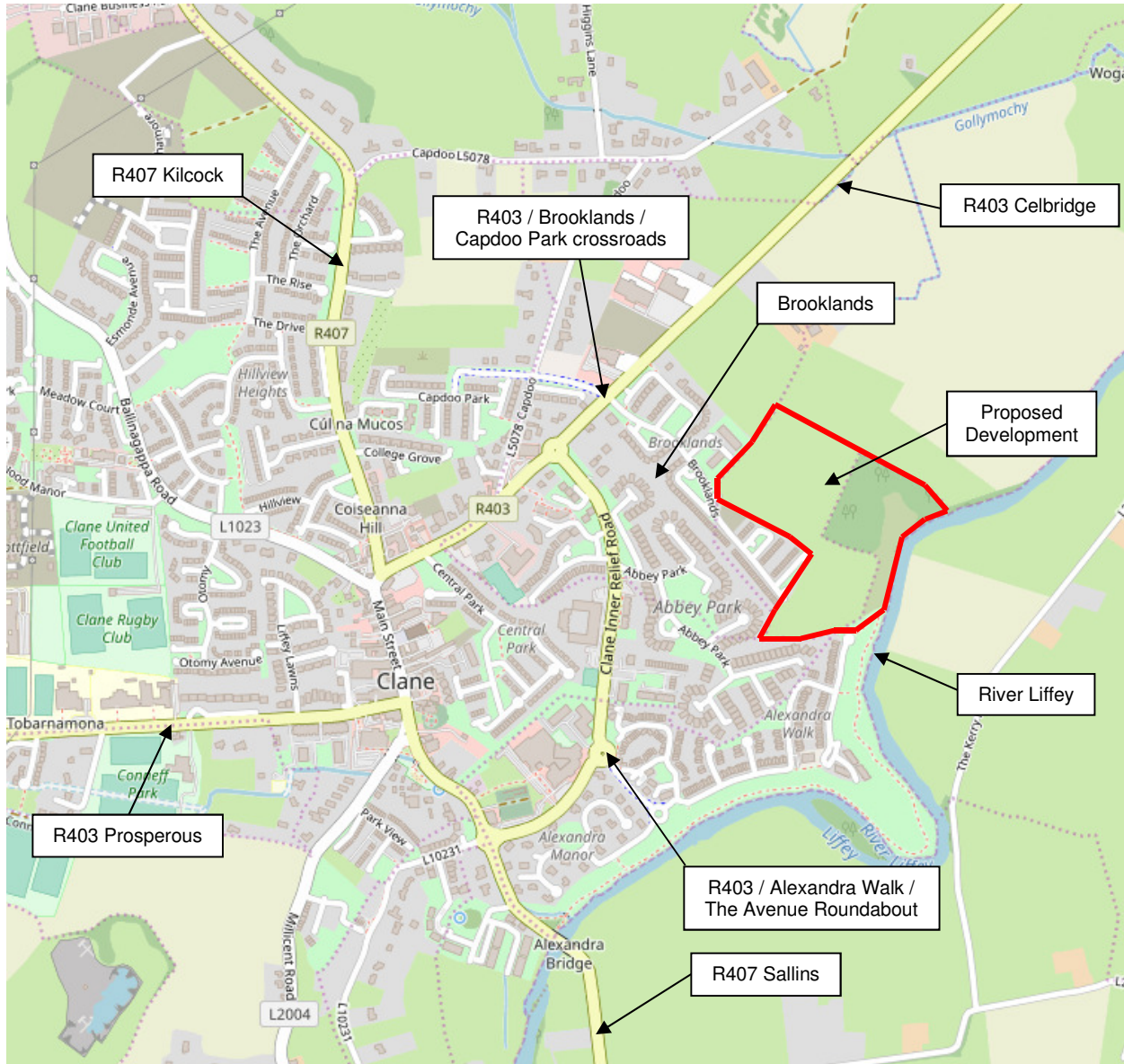


Figure 2.1: Site Location Map

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.	112
Duplex Dwelling	No.	34
Apartments	No.	159
Crèche	Sqm	340

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. The cross-section of Alexandra Walk access 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 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.

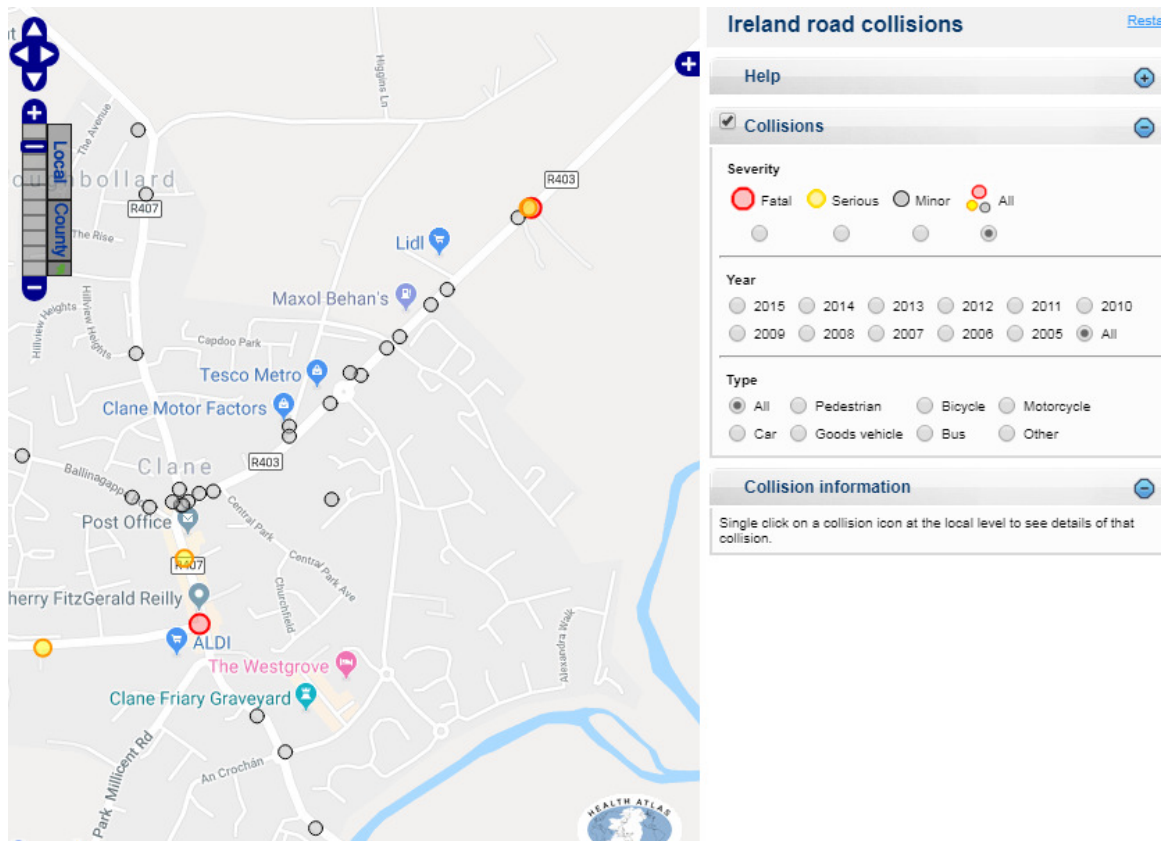


Fig 3.4: Road collisions

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 & Derrintum". 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 146 residential dwellings with access onto Brooklands road this would give the following trips to and from the proposed development:

Trip Generation – 146 Dwellings

	Trip rate to development	Trip rate from development
AM Peak	29	58
PM Peak	66	39

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

Trip Generation – 159 Apartments

	Trip rate to development	Trip rate from development
AM Peak	8	24
PM Peak	19	11

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 340sqm with access onto Brooklands road this would give the following trips to and from the proposed development:

Trip Generation – 340sqm

	Trip rate to development	Trip rate from development
AM Peak	20	14
PM Peak	10	11

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	57	96	153
PM peak	95	61	156

4.2 TRIP DISTRIBUTION

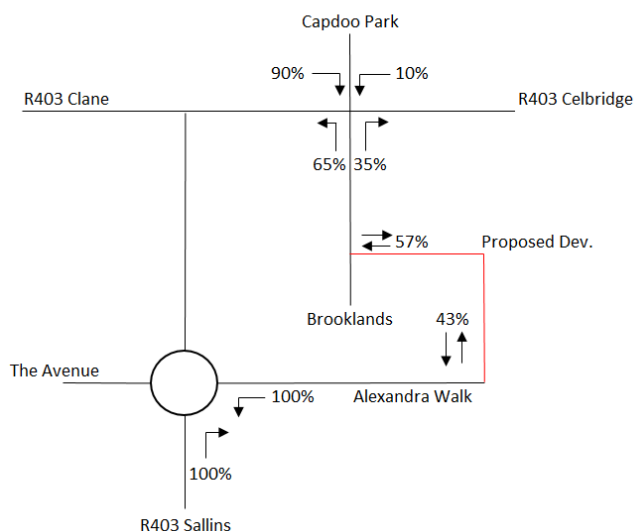
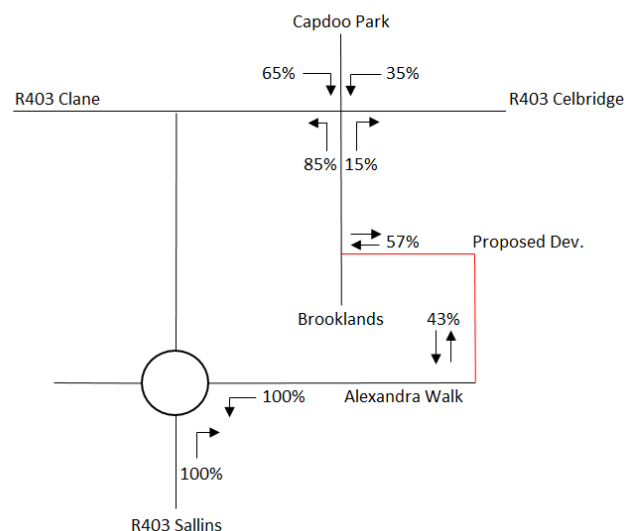
The access to the proposed development will be via the existing R403 / Brooklands / Capdoo Park crossroads and the existing R403 / Alexandra Walk / The Avenue roundabout. An origin / destination survey was carried out over a 3-day period from the 5th March 2019 to the 8th March 2019. The survey indicated 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

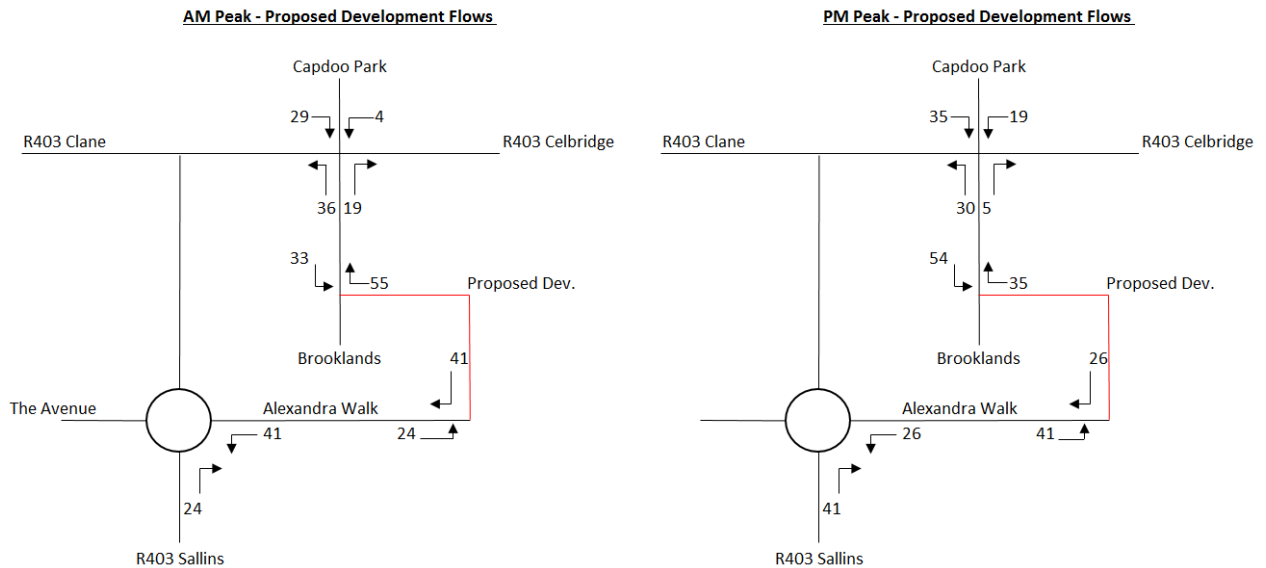
Using the above data, it is assumed that the development traffic will distribute as follows:

- 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:

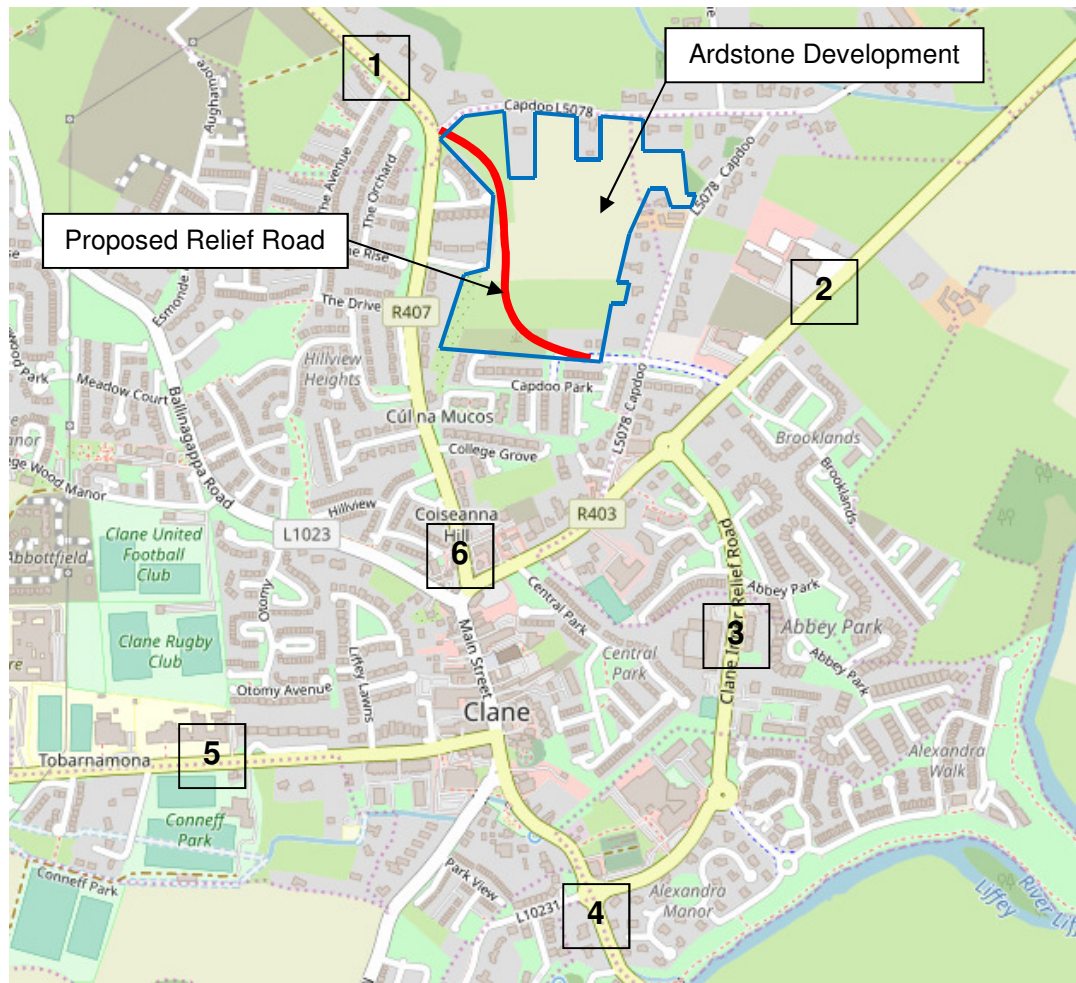


4.3 SENSITIVITY TESTING OF POSSIBLE FUTURE DEVELOPMENT

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

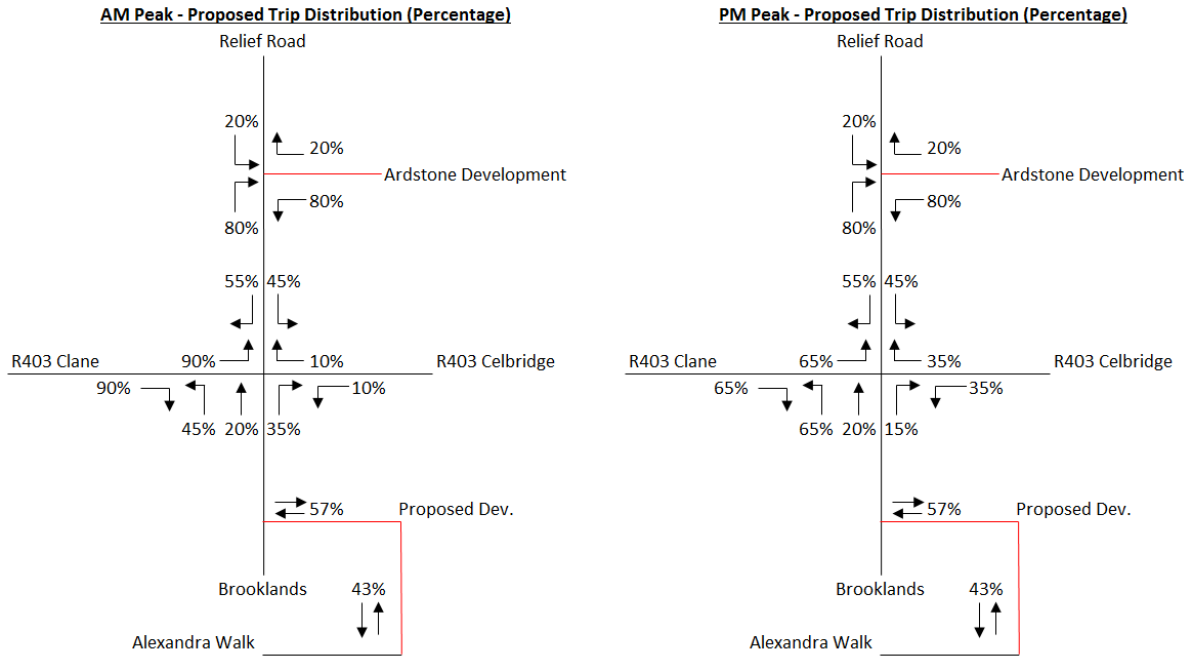
4.3.3 Total Development Trip Generation Summary

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

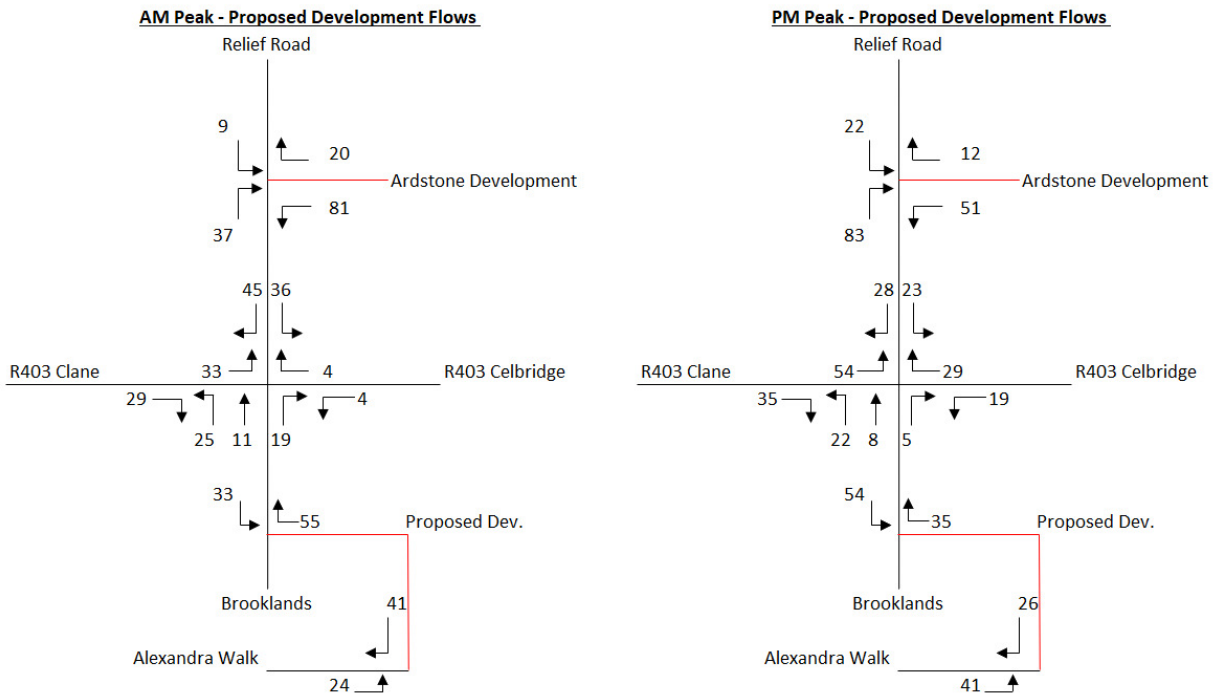
Trip Generation – Total Development

	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 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 Celbridge	0.03	0	9	0.29
Brooklands	0.25	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	0.29
Brooklands	0.18	0	14	
R403 Clane	0.10	0	8	
Capdoo Park	0.07	0	14	

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	0.03	0	10	1.06
Brooklands	0.41	1	18	
R403 Clane	0.07	0	6	
Capdoo Park	0.15	0	21	

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	0.78
Brooklands	0.32	0	17	
R403 Clane	0.20	0	9	
Capdoo Park	0.08	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	0.03	0	10	1.29
Brooklands	0.44	1	20	
R403 Clane	0.07	0	6	
Capdoo Park	0.17	0	25	

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	0.91
Brooklands	0.36	1	20	
R403 Clane	0.22	0	9	
Capdoo Park	0.11	0	18	

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	0.05	0	11	1.62
Brooklands	0.51	1	24	
R403 Clane	0.08	0	7	
Capdoo Park	0.20	0	32	

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	1.14
Brooklands	0.44	1	25	
R403 Clane	0.24	0	10	
Capdoo Park	0.12	0	21	

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.

5.2.4 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	8.528
Brooklands	0.55	1	29	
R403 Clane	0.08	0	6	
Capdoo Park	0.99	6	155	

PM Peak – 2037 with Development + Sensitivity Flows

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 Celbridge	0.27	1	7	3.700
Brooklands	0.49	1	29	
R403 Clane	0.25	0	9	
Capdoo Park	0.72	2	61	

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

It should be noted that the junction reaches its ultimate capacity for a 15-minute time period only (08:00 to 08:15) with the junction operating within capacity during the remainder of the AM peak period.

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)	0.20	0	0	0.73
Alexandra Walk	0.13	0	0	
R403 (west)	0.30	0	0	
The Avenue	0.03	0	0	

PM Peak – Base Flows

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 (east)	0.37	1	3	1.10
Alexandra Walk	0.07	0	3	
R403 (west)	0.37	1	4	
The Avenue	0.03	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	0.85
Alexandra Walk	0.16	0	3	
R403 (west)	0.33	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)	0.40	1	3	1.30
Alexandra Walk	0.09	0	3	
R403 (west)	0.42	1	4	
The Avenue	0.03	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)	0.24	0	2	0.97
Alexandra Walk	0.18	0	3	
R403 (west)	0.36	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)	0.44	1	3	1.53
Alexandra Walk	0.10	0	3	
R403 (west)	0.46	1	4	
The Avenue	0.03	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)	0.26	0	3	1.11
Alexandra Walk	0.19	0	3	
R403 (west)	0.39	1	4	
The Avenue	0.04	0	6	

PM Peak – 2037 with development

Approach	Predicted RFC value	Avg Queue (vehicles)	Queue delay (secs./veh.)	Total Delay (veh.hrs.)
R403 (east)	0.48	1	4	1.81
Alexandra Walk	0.11	0	3	
R403 (west)	0.50	1	5	
The Avenue	0.05	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		2019 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 %	30	32	34	32	68
		Mean Max Que (pcu's)	5	6	6	6	12
		Average delay (s)	20	20	19	14	26
		PRC %	196	181	165	178	32
	Brooklands	Max DoS %	31	34	39	71	125
		Mean Max Que (pcu's)	3	3	3	6	22
		Average delay (s)	43	44	47	69	287
		PRC %	190	166	130	26	-28
	R403 (west)	Max DoS %	106	107	114	119	114
		Mean Max Que (pcu's)	45	48	56	66	163
		Average delay (s)	74	75	93	102	421
		PRC %	-15	-16	-21	-25	-21
	Capdoo Park	Max DoS %	5	6	8	23	147
		Mean Max Que (pcu's)	1	1	1	1	40
		Average delay (s)	39	39	42	60	294
		PRC %	1612	1370	1082	295	-39

With traffic signals activated in 2019 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		2019 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 %	119	126	139	155	179
		Mean Max Que (pcu's)	113	145	205	286	89
		Average delay (s)	352	447	605	791	85
		PRC %	-24	-29	-35	-42	-16
	Brooklands	Max DoS %	8	8	9	17	50
		Mean Max Que (pcu's)	1	1	1	2	4
		Average delay (s)	35	35	35	36	56
		PRC %	1019	990	881	436	79
	R403 (west)	Max DoS %	72	76	83	115	108
		Mean Max Que (pcu's)	14	15	18	62	31
		Average delay (s)	35	38	44	297	85
		PRC %	25	19	9	-22	-16
	Capdoo Park	Max DoS %	6	6	7	7	29
		Mean Max Que (pcu's)	2	2	2	2	3
		Average delay (s)	36	36	36	40	42
		PRC %	1403	1287	1187	1132	205

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 peak period. In the PM peak period, the junction will operate within capacity with some queues and delays in 2037. In the AM peak period the junction reaches its ultimate capacity for a 15-minute time segment only (08:00 to 08:15) with the junction operating within capacity during the remainder of the AM 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 523 parking spaces are to be provided within the proposed residential development and 30 parking spaces are to be provided within 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	146 Dwellings	292
Apartments	1.5 spaces per unit + 1 visitor space per 4 apartments	159 Apartments	278
Crèche	0.5 per staff member plus 1 per 4 children	25 children + 5 staff	9
Total			579

The Kildare County Development Plan indicates that the number of parking spaces required is 579 parking spaces.

The number of parking spaces required for the 159 apartments 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 159 apartments.

Car parking requirements from the Design Standards for New Apartments

Parking Standards for Residential Development			
Land-use	Requirements	Quantity	Parking
Apartments	1 space per unit + 1 visitor space per 4 apartments	159 Apartments	199
Total			199

In summary, the Kildare County Development Plan indicates that 292 parking spaces are required for the residential dwellings and the Design Standards for New Apartments – Guidelines for Planning Authorities 2018 indicates that 199 parking spaces are required for the apartments giving a total of 491 parking spaces.

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 peak period. In the PM peak period, the junction will operate within capacity with some queues and delays in 2037. In the AM peak period the junction reaches its ultimate capacity for a 15-minute time segment only (08:00 to 08:15) with the junction operating within capacity during the remainder of the AM 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 0.25 in the AM peak. The proposed development will generate an additional 142 trips in the AM peak and 148 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 0.51 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 0.99 in the AM peak.

It should be noted that in the AM peak period the junction reaches its ultimate capacity for a 15-minute time segment only (08:00 to 08:15) with the junction operating within capacity during the remainder of the AM peak period.

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.

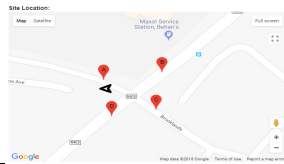
APPENDICES

APPENDIX A – DRAWINGS

APPENDIX B – TRAFFIC COUNTS

Irish Traffic Surveys Ltd

Survey Name : ITS J192 Clane
 Site : 1
 Location :
 Date : 24/04/2018



TIME	A=>A							A=>B							A=>C							A=>D						
	CAR	LGV	OGV1	OGV2	3V (BU)	TOT	PCU	CAR	LGV	OGV1	OGV2	3V (BU)	TOT	PCU	CAR	LGV	OGV1	OGV2	3V (BU)	TOT	PCU	CAR	LGV	OGV1	OGV2	3V (BU)	TOT	PCU
07:00	0	0	0	0	0	0	0	3	2	0	0	0	5	0	0	0	0	0	0	0	0	1	0	0	0	1	0	
07:15	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:30	0	0	0	0	0	0	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:45	0	0	0	0	0	0	0	7	1	0	0	0	8	0	0	0	0	1	0	1	0	3	1	0	0	4	0	
H/TOT	0	0	0	0	0	0	0	17	4	0	0	0	21	0	0	0	0	1	0	1	0	4	1	0	0	5	0	
08:00	0	0	0	0	0	0	0	10	1	0	0	0	11	0	0	0	0	0	0	0	0	5	0	0	0	5	0	
08:15	0	0	0	0	0	0	0	14	0	0	0	0	14	0	1	0	0	0	1	2	0	6	0	0	0	6	0	
08:30	0	0	0	0	0	0	0	13	0	0	0	1	14	0	1	0	0	0	0	1	0	9	0	0	0	9	0	
08:45	0	0	0	0	0	0	0	12	0	0	0	0	12	0	1	0	0	0	0	1	0	9	0	1	0	10	0	
H/TOT	0	0	0	0	0	0	0	49	1	0	0	1	51	0	3	0	0	0	1	4	0	29	0	1	0	30	0	
09:00	0	0	0	0	0	0	0	6	2	0	0	0	8	0	1	0	0	0	0	1	0	3	0	0	0	3	0	
09:15	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	1	1	0	0	2	0	
09:30	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	3	0	0	0	3	0	
09:45	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	2	0	0	1	3	0	
H/TOT	0	0	0	0	0	0	0	13	2	0	0	0	15	0	1	0	0	0	0	1	0	9	1	0	1	11	0	
10:00	0	0	0	0	0	0	0	3	1	0	0	0	4	0	0	0	0	0	0	0	0	1	0	0	0	1	0	
10:15	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	
10:30	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	1	2	0	0	3	0	
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
H/TOT	0	0	0	0	0	0	0	6	1	0	0	0	7	0	1	0	0	0	0	1	0	2	2	0	0	4	0	
11:00	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	1	0	0	0	1	0	0	1	0	0	1	0	
11:15	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	4	0	
11:45	0	0	0	0	0	0	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0	5	0	0	0	5	0	
H/TOT	0	0	0	0	0	0	0	5	1	0	0	0	6	0	0	1	0	0	0	1	0	9	1	1	0	11	0	
12:00	0	0	0	0	0	0	0	3	1	0	0	0	4	0	1	0	0	0	0	1	0	2	0	0	0	2	0	
12:15	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	2	0	0	0	2	0	
12:30	0	0	0	0	0	0	0	3	1	0	0	0	4	0	0	0	0	0	0	0	0	2	0	0	0	2	0	
12:45	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	1	0	
H/TOT	0	0	0	0	0	0	0	12	2	0	0	0	14	0	1	0	0	0	0	1	0	7	0	0	0	7	0	
13:00	0	0	0	0	0	0	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0	2	1	0	0	3	0	
13:15	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	1	0	3	1	0	0	4	0	
13:30	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	1	0	0	1	0	1	0	0	0	1	0	
13:45	0	0	0	0	0	0	0	5	1	0	0	0	6	0	0	0	0	0	0	0	0	3	0	0	0	3	0	
H/TOT	0	0	0	0	0	0	0	9	3	0	0	0	12	0	1	0	1	0	0	2	0	9	2	0	0	11	0	
14:00	0	0	0	0	0	0	0	2	1	0	0	0	3	0	1	0	0	0	0	1	0	0	0	0	0	0	0	
14:15	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	
14:30	0	0	0	0	0	0	0	2	2	0	0	0	4	0	0	0	0	0	0	0	0	2	0	0	0	2	0	
14:45	0	0	0	0	0	0	0	2	2	0	0	0	4	0	0	0	0	0	1	1	0	0	0	0	0	0	0	
H/TOT	0	0	0	0	0	0	0	7	5	0	0	0	12	0	1	0	0	0	1	2	0	3	0	0	0	3	0	
15:00	0	0	0	0	0	0	0	4	0	0	0	0	4	0	1	0	0	0	0	1	0	2	0	0	0	2	0	
15:15	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	3	0	0	0	3	0	
15:30	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	1	1	0	0	2	0	
15:45	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	3	0	0	0	3	0	
H/TOT	0	0	0	0	0	0	0	12	0	0	0	0	12	0	1	0	0	0	0	1	0	9	1	0	0	10	0	
16:00	0	0	0	0	0	0	0	4	1	0	0	0	5	0	0	0	0	0	0	0	0	2	0	1	0	3	0	
16:15	0	0	0	0	0	0	0	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0	0	1	0	
16:30	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	
16:45	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	1	0	
H/TOT	0	0	0	0	0	0	0	12	1	0	0	0	13	0	0	0	0	0	0	0	0	3	1	1	0	5	0	
17:00	0	0	0	0	0	0	0	3	0	0	0	0	3	0	1	0	0	0	0	1	0	3	0	0	0	3	0	
17:15	0	0	0	0	0	0	0	3	1	0	0	0	4	0	0	0	0	0	0	0	0	5	0	0	0	5	0	
17:30	0	0	0	0	0	0	0	5	0	0	0	0	5	0	0	0	0	0	0	0	0	2	0	0	0	2	0	
17:45	0	0	0	0	0	0	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	5	0	0	0	5	0	
H/TOT	0	0	0	0	0	0	0	18	1	0	0	0	19	0	1	0	0	0	0	1	0	15	0	0	0	15	0	
18:00	0	0	0	0	0	0	0	3	1	0	0	0	4	0	0	0	0	0	0	0	0	3	0	0	0	3	0	
18:15	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	1	0	
18:30	0	0	0	0	0	0	0	2	0	1	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	1	0	
18:45	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	2	0	0	0	2	0	
H/TOT	0	0	0	0	0	0	0	9	2	1	0	0	12	0	0	0	0	0	0	0	0	7	0	0	0	7	0	
PK TOT	0	0	0	0	0	0	0	169	23	1	0	1	194	0	10	1	1	1	2	15	0	106	9	3	1	0	119	0

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

C=>A					C=>B					C=>C					C=>D									
CAR	LGV	OGV1	OGV2SV (BU)	TOT	PCU	CAR	LGV	OGV1	OGV2SV (BU)	TOT	PCU	CAR	LGV	OGV1	OGV2SV (BU)	TOT	PCU	CAR	LGV	OGV1	OGV2SV (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	
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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	
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	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	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	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	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	0	10	0
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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	
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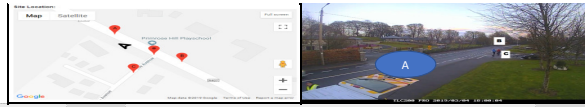
B => A								B => B								B => C								B => D							
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
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P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PS									




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		
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0	0	284	45	5	7	2	343	0	0	14	3	1	0	0	18	0	0	0	0	0	0	1	1	0	0	2	1	0	0	0			
0	0	69	6	1	1	1	78	0	0	5	0	0	0	0	5	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0			
1	0	94	10	1	4	0	110	0	0	2	0	0	0	1	3	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0			
1	0	83	9	1	2	0	96	0	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	98	16	2	3	1	120	0	0	11	0	0	0	0	11	0	0	2	0	0	0	0	2	0	0	1	0	0	0	0			
2	0	344	41	5	10	2	404	0	0	27	0	0	0	1	28	0	0	2	1	0	0	1	4	0	0	2	0	0	0	0			
0	0	92	7	0	2	0	101	0	0	13	1	0	0	1	15	0	0	3	0	0	0	0	3	0	0	1	0	0	0	0	0		
0	0	69	3	2	2	0	76	0	0	5	0	0	0	0	5	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0		
0	0	46	7	1	0	0	54	0	0	3	1	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0		
0	0	41	7	3	1	1	53	0	0	4	0	1	0	0	5	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0		
0	0	248	24	6	5	1	284	0	0	25	2	1	0	1	29	0	0	6	0	0	0	0	6	0	0	3	0	0	0	0	0		
0	0	59	4	2	3	0	68	0	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0	0	47	12	4	1	0	64	0	0	5	0	0	0	0	5	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0		
0	1	49	7	2	1	0	60	0	0	3	0	0	0	0	3	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0		
0	0	41	5	3	2	1	52	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0	1	196	28	11	7	1	244	0	0	18	0	0	0	0	18	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0		
0	0	49	0	1	0	0	50	0	0	7	0	0	0	0	7	0	0	0	1	0	0	0	1	0	0	1	1	0	0	0	0	0	
0	0	56	6	0	2	0	64	0	0	6	1	0	0	0	7	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	
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0	0	50	11	0	0	1	62	0	0	4	0	1	0	0	5	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	
0	0	206	24	4	5	1	240	0	0	19	2	1	0	0	22	0	0	0	3	0	0	0	3	0	0	4	1	0	0	0	0	0	
0	0	72	3	2	2	0	79	0	0	9	3	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	0	55	5	2	1	0	64	0	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	
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0	0	69	3	0	1	0	73	0	0	5	0	0	0	0	5	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
1	0	253	17	5	4	0	280	0	0	19	5	0	0	0	24	0	0	1	0	0	0	0	1	0	0	3	0	0	0	0	0	0	0
0	0	52	10	2	3	1	68	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	52	8	2	2	0	64	0	0	5	0	0	0	1	6	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
1	0	55	9	3	2	0	70	0	0	5	2	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	55	5	0	0	2	62	0	0	13	1	0	0	0	14	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
1	0	214	32	7	7	3	264	0	0	25	3	0	0	1	29	0	0	1	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0
0	0	47	4	1	0	1	53	0	0	5	0	0	0	1	6	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
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0	0	62	7	3	1	0	73	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
1	0	69	2	4	1	0	77	1	0	21	0	0	0	0	22	0	0	2	0	0	0	0	3	0	0	2	0	0	0	0	0	0	0
1	0	222	18	12	4	1	258	1	0	30	0	0	0	1	32	0	0	6	0	0	0	0	7	0	0	3	1	0	0	0	0	0	0
0	1	62	4	2	1	1	71	0	0	9	1	0	0	1	11	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
0	0	64	5	0	0	0	69	0	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
0	0	60	8	2	2	0	72	0	0	7	1	0	0	0	8	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0
0	0	70	4	0	1	1	76	0	0	10	1	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	256	21	4	4	2	288	0	0	28	4	0	0	1	33	0	0	0	0	0	0	0	1	1	0	0	5	0	0	0	0	0	0
0	0	80	11	1	2	0	94	0	0	11	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	79	7	0	2	0	88	0	0	8	0	0	0	0	8	0	0	2	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0
1	0	82	6	0	0	2	91	0	0	9	1	0	0	0	10	0	0	1	0	0	0	0	1	0	0	4	0	0	0	0	0	0	0
0	1	78	8	0	1	1	89	0	0	13	0	0	0	0	13	0	0	1	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0
1	1	319	32	1	5	3	362	0	0	41	1	0	0	0	42	0	0	4	0	0	0	0	4	0	0	7	0	0	0	0	0	0	0
0	0	80	6	0	1	0	87	0	0	16	0	0	0	0	16	0	0	1	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0
0	0	88	7	0	2	0	97	0	0	17	1	0	0	0	18	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
0	0	111	8	2	0	0	121	0	0	20	2	0	0	0	22	0	0	1	0	0	0	0	1	0	0	6	0	0	0	0	0	0	0
0	0	91	7	0	0	0	98	0	0	18	0	0	0	0	18	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
0	0	370	28	2	3	0	403	0	0	71	3	0	0	0	74	0	0	6	0	0	0	0	6	0	0	8	0	0	0	0	0	0	0
0	0	108	6	0	0	1	115	0	0	12	1	0	0	0	13	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
0	2	95	7	1	1	0	106	0	0	16	1	0	0	0	17	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
0	0	69	5	0	0	0	74	0	0	7	0	0	0	0	7	0	0	1															

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



Irish Traffic Surveys



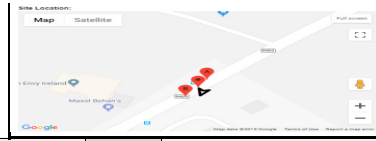
B => A								B => B								B => C							
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
0	0	43	15	1	2	0	61	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1	0	35	19	2	4	1	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	53	12	2	7	1	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	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
1	0	163	39	12	19	0	234	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
1	0	43	8	2	3	1	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	36	11	2	5	2	58	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	3
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
3	0	191	41	10	14	5	264	0	0	0	0	0	0	0	0	1	0	7	0	0	0	0	8
0	0	63	8	2	3	0	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	56	9	4	3	0	72	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4
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	48	7	2	3	2	62	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	35	8	6	5	0	54	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
0	0	62	6	8	6	0	82	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
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0	0	184	30	20	19	0	253	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4
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0	0	59	9	6	6	0	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	230	40	16	14	1	301	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7
0	0	60	13	5	7	1	86	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2
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0	0	60	10	4	2	0	76	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3
0	0	234	46	13	11	2	306	0	0	0	0	0	0	0	0	1	0	8	3	0	0	0	12
0	1	65	16	1	3	0	86	0	0	0	0	0	0	0	0	0	0	4	3	0	0	0	7
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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	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
0	0	1	0	1	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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
0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	9	0	1	2	0	15	0	0	5	2	0	0	0	7	0	0	0	0	0	0	0	0
0	0	2	0	1	0	0	3	0	0	8	1	0	0	1	10	0	0	0	0	0	0	0	0
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0	0	1	0	0	0	0	1	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0
0	0	2	0	0	0	0	2	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0
0	0	7	0	1	0	0	8	1	0	21	1	0	0	1	24	0	0	0	0	0	0	0	0
0	0	2	0	0	0	0	2	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0
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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	1	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	2	0	1	0	0	3	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0
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0	0	0	1	0	0	0	1	0	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0
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0	0	3	1	0	0	0	4	0	0	2	2	0	0	0	4	0	0	0	0	0	0	0	0
0	0	2	1	0	0	0	3	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
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0	0	8	3	0	0	0	11	0	0	8	2	0	0	0	10	0	0	0	0	0	0	0	0
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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

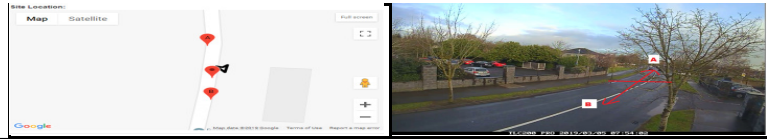
Survey Name : ITS J285 Site B
 Site: Site B
 Date: 05/03/2019(07:00-19:00)
 Location: Clane, Co.Kildare



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	67
07:15	0	0	1	0	0	0	0	1	0	0	9	2	0	1	0	12	0	0	57	14	4	6	1	82	0	0	0	0	0	0	0	82
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	94
07:45	0	0	0	0	1	0	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	72
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	315
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	67
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	41
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	48
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	32
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	188
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	44
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	50
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	63
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	57
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	214
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	49
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	44
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	43
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	47
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	183
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	44
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	41
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	42
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	43
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	170
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	48
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	40
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	50
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	41
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	179
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	50
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	34
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	61
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	43
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	188
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	44
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	44
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	34
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	52
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	174
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	34
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
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
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
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	127
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
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
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</						



B => A							B => B							B => C							B => 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
0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	45	6	1	1	0	53	0	0	5	1	0	0	6		
0	0	5	1	0	0	0	6	0	0	0	0	0	0	0	0	0	46	6	2	0	0	54	0	0	5	1	0	0	6		
0	0	11	3	0	0	0	14	0	0	0	0	0	0	0	0	0	52	4	1	1	1	59	0	0	11	1	0	0	12		
0	0	15	3	0	0	0	18	0	0	1	0	0	0	0	1	0	51	6	0	1	1	59	0	0	18	2	0	0	20		
0	0	32	7	0	0	0	39	0	0	1	0	0	0	0	1	0	194	22	4	3	2	225	0	0	39	5	0	0	44		
0	0	13	0	1	0	0	14	0	0	0	0	0	0	0	0	0	1	46	4	0	1	0	52	0	0	32	0	0	0	32	
0	0	44	1	0	0	0	45	0	0	0	0	0	0	0	0	0	0	48	2	1	1	1	53	0	0	18	4	0	0	22	
0	0	54	1	0	0	0	55	0	0	0	0	0	0	0	0	0	0	61	6	0	1	1	69	0	0	34	0	1	0	36	
0	0	18	1	0	0	0	19	0	0	0	0	0	0	0	0	0	0	47	7	1	0	0	55	0	0	20	3	0	0	23	
0	0	129	3	1	0	0	133	0	0	0	0	0	0	0	0	0	0	1	202	19	2	3	2	229	0	0	104	7	1	0	113
0	0	10	0	0	0	1	11	0	0	0	0	0	0	0	0	0	0	0	32	3	2	1	0	38	0	0	10	1	0	0	11
0	0	15	1	0	0	0	16	0	0	0	0	0	0	0	0	0	0	47	10	1	1	0	59	0	0	6	0	0	0	6	
0	0	15	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	38	3	1	1	1	44	0	0	11	1	0	0	12	
0	0	18	1	0	0	0	19	0	0	0	0	0	0	0	0	0	0	41	4	0	2	0	47	0	0	7	1	0	0	8	
0	0	58	2	0	0	1	61	0	0	0	0	0	0	0	0	0	0	158	20	4	5	1	188	0	0	34	3	0	0	37	
1	0	15	0	2	0	0	18	0	0	0	0	0	0	0	0	0	0	34	4	1	0	0	39	0	0	8	1	1	0	10	
0	0	9	0	1	0	0	10	0	0	0	0	0	0	0	0	0	0	42	8	1	3	0	54	0	0	3	1	0	0	4	
0	0	18	1	1	0	0	20	0	0	0	0	0	0	0	0	0	0	39	4	2	1	0	46	0	0	5	0	0	0	5	
0	0	21	1	0	0	0	22	0	0	1	0	0	0	0	1	0	0	37	3	3	1	0	44	0	0	11	0	0	0	11	
1	0	63	2	4	0	0	70	0	0	1	0	0	0	0	1	0	0	152	19	7	5	0	183	0	0	27	2	1	0	30	
0	0	21	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	30	6	0	0	0	36	0	0	4	1	0	0	5	
0	0	26	1	0	0	0	27	0	0	0	0	0	0	0	0	0	0	33	7	1	1	0	42	0	0	14	0	0	0	14	
0	0	25	3	0	0	0	28	0	0	0	0	0	0	0	0	0	0	29	2	2	2	0	35	0	0	9	0	0	0	9	
0	0	29	3	0	1	0	33	0	0	0	0	0	0	0	0	0	0	33	3	1	1	0	38	0	0	5	0	0	0	5	
0	0	101	7	0	1	0	109	0	0	0	0	0	0	0	0	0	0	125	18	4	4	0	151	0	0	32	1	0	0	33	
0	0	19	2	0	0	0	21	0	0	0	0	0	0	0	0	0	0	30	5	0	2	0	37	0	0	9	6	0	0	15	
0	0	16	0	1	0	0	17	0	0	0	0	0	0	0	0	0	0	28	4	1	3	0	36	0	0	6	3	0	0	9	
0	0	21	2	1	0	0	24	0	0	0	0	0	0	0	0	0	0	38	5	2	0	0	45	0	0	7	1	0	0	8	
0	0	17	0	1	0	0	18	0	0	0	0	0	0	0	0	0	0	27	2	1	1	0	31	0	0	5	1	0	0	6	
0	0	73	4	3	0	0	80	0	0	0	0	0	0	0	0	0	0	123	16	4	6	0	149	0	0	27	11	0	0	38	
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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
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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



D => A								D => B								D => C								D => 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
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0	0	1	0	0	0	0	1	0	0	11	1	0	0	0	12	0	0	1	0	0	0	0	1	0	0	0	0	0			
0	0	0	0	0	0	0	0	0	0	11	3	0	0	1	15	0	0	1	0	0	0	0	1	0	0	0	0	0			
0	0	3	1	0	0	0	4	0	0	38	5	0	0	1	44	0	0	4	0	0	0	0	4	0	0	0	0	0			
0	0	0	0	0	0	0	0	0	0	7	0	1	0	0	8	0	0	1	0	0	0	0	1	0	0	0	0	0			
0	0	1	0	0	0	0	1	0	0	9	1	0	0	0	10	0	0	1	0	0	0	0	1	0	0	0	0	0			
0	0	4	0	0	0	0	4	0	0	11	1	0	0	0	12	0	0	1	0	0	0	0	1	0	0	0	0	0			
0	0	2	0	0	0	0	2	1	0	16	1	0	0	0	18	0	0	3	0	0	0	0	3	0	0	0	0	0			
0	0	7	0	0	0	0	7	1	0	43	3	1	0	0	48	0	0	6	0	0	0	0	6	0	0	0	0	0			
0	0	1	0	0	0	0	1	0	0	21	0	0	0	1	22	0	0	3	0	0	0	0	3	0	0	0	0	0			
0	0	1	0	0	0	0	1	0	0	6	1	1	0	0	8	0	0	1	0	1	0	0	2	0	0	0	0	0			
0	0	4	1	0	0	0	5	0	0	15	0	2	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	7	0	0	0	0	7	0	0	12	1	0	0	0	13	0	0	3	0	0	0	0	3	0	0	0	0	0			
0	0	13	1	0	0	0	14	0	0	54	2	3	0	1	60	0	0	7	0	1	0	0	8	0	0	0	0	0			
0	0	1	0	0	0	0	1	0	0	14	0	0	0	0	14	0	0	1	0	0	0	0	1	0	0	0	0	0			
0	0	3	0	0	0	0	3	0	0	14	1	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	0	0	0	0	0	0	1	0	27	1	0	0	0	29	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	2	0	0	0	0	2	0	0	9	0	0	0	0	9	0	0	1	0	0	0	0	1	0	0	0	0	0			
0	0	6	0	0	0	0	6	1	0	64	2	0	0	0	67	0	0	2	0	0	0	0	2	0	0	0	0	0			
0	0	2	0	0	0	0	2	1	0	12	0	0	0	0	13	0	0	2	0	0	0	0	2	0	0	0	0	0			
0	0	3	0	0	0	0	3	0	0	19	1	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	2	0	0	0	0	2	0	0	23	3	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	3	1	0	0	0	4	0	0	14	2	0	0	0	16	0	0	0	1	0	0	0	1	0	0	0	0	0			
0	0	10	1	0	0	0	11	1	0	68	6	0	0	0	75	0	0	2	1	0	0	0	3	0	0	0	0	0			
0	0	3	1	0	0	0	4	0	0	19	3	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	1	0	0	0	0	1	0	0	17	3	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	1	0	0	0	0	1	0	0	10	1	0	0	0	11	0	0	1	0	0	0	0	1	0	0	0	0	0			
0	0	5	1	0	0	0	6	0	0	55	8	0	0	0	63	0	0	1	0	0	0	0	1	0	0	0	0	0			
0	0	73	6	0	0	0	79	3	0	741	83	9	0	3	839	1	0	38	5	2	0	0	46	0	0	1	0	0			
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	

Site: Site F
 Date: 05/03/2019(07:00-19:00)
 Location: Clane, Co.Kildare

Irish Traffic Surveys



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	0	14	2	2	0	0	18	0	0	37	12	5	1	0	55	0	0	1	0	0	0	1	
07:15	0	0	0	0	0	0	0	0	0	0	0	12	2	0	0	1	15	0	0	39	13	4	7	0	63	0	0	1	0	0	0	1	
07:30	0	0	0	0	0	0	0	0	0	0	0	28	3	0	1	0	32	0	0	49	16	5	4	0	74	0	0	1	0	1	0	2	
07:45	0	0	0	0	0	0	0	0	0	0	0	13	4	0	2	0	19	0	0	48	9	2	1	0	60	0	0	2	0	0	0	2	
H/TOT	0	0	0	0	0	0	0	0	0	0	0	67	11	2	3	1	84	0	0	173	50	16	13	0	252	0	0	5	0	1	0	6	
08:00	0	0	0	0	0	0	0	0	0	0	0	25	2	0	0	0	27	0	0	60	8	4	2	1	75	0	0	1	0	0	0	1	
08:15	0	0	0	0	0	0	0	0	0	0	0	20	4	0	0	0	24	1	0	50	6	2	0	0	59	0	0	3	0	1	0	4	
08:30	0	0	0	0	0	0	0	0	0	0	0	26	4	1	0	0	31	0	0	32	3	1	3	0	39	0	0	0	0	1	0	1	
08:45	0	0	0	0	0	0	0	0	0	0	0	18	3	0	0	0	21	0	0	41	4	3	3	1	52	0	0	3	0	0	0	3	
H/TOT	0	0	0	0	0	0	0	0	0	0	0	89	13	1	0	0	103	1	0	183	21	10	8	2	225	0	0	7	0	2	0	9	
09:00	0	0	0	0	0	0	0	0	0	0	0	34	7	2	0	0	33	0	0	37	4	0	1	0	42	0	0	1	0	0	1	2	
09:15	0	0	0	0	0	0	0	0	0	0	0	21	4	1	1	0	27	0	0	55	7	4	3	0	69	0	0	5	1	1	0	7	
09:30	0	0	0	0	0	0	0	0	0	0	0	26	6	1	1	1	35	0	0	46	6	4	2	0	58	0	0	3	0	0	0	3	
09:45	0	0	0	0	0	0	0	0	0	0	0	27	6	1	1	0	35	0	0	44	5	4	2	0	55	0	0	5	0	0	0	5	
H/TOT	0	0	0	0	0	0	0	0	0	0	0	108	23	5	3	1	140	0	0	182	22	12	8	0	224	0	0	14	1	1	1	17	
10:00	0	0	0	0	0	0	0	0	0	0	0	17	3	1	1	0	22	0	0	51	6	3	1	0	61	0	0	7	1	0	0	8	
10:15	0	0	0	0	0	0	0	0	0	0	0	16	4	2	2	2	26	0	0	28	5	2	2	1	38	0	0	3	0	0	0	3	
10:30	0	0	0	0	0	0	0	0	0	0	0	20	6	3	3	0	32	0	0	28	4	4	1	0	37	0	0	2	1	0	0	3	
10:45	0	0	0	0	0	0	0	0	0	0	0	28	4	1	0	0	33	0	0	27	10	7	2	0	46	0	0	3	0	1	0	4	
H/TOT	0	0	0	0	0	0	0	0	0	0	0	81	17	7	6	2	113	0	0	134	25	16	6	1	182	0	0	15	2	1	0	18	
11:00	0	0	0	0	0	0	0	0	0	0	0	27	4	0	1	0	32	1	0	31	11	2	0	0	45	0	0	3	1	0	0	4	
11:15	0	0	0	0	0	0	0	0	0	0	0	24	5	0	0	0	29	0	0	40	5	3	2	0	50	0	0	2	1	1	0	4	
11:30	0	0	0	0	0	0	0	0	0	0	0	23	3	3	1	0	30	0	0	39	7	1	0	0	47	0	0	3	0	0	0	3	
11:45	0	0	0	0	0	0	0	0	0	0	0	21	4	1	1	0	27	0	0	34	7	2	8	0	51	0	0	3	0	0	0	3	
H/TOT	0	0	0	0	0	0	0	0	0	0	0	95	16	4	3	0	118	1	0	144	30	8	10	0	193	0	0	11	2	1	0	14	
12:00	0	0	0	0	0	0	0	0	0	0	0	34	2	0	2	1	39	1	0	41	6	1	2	1	52	0	0	3	1	0	0	4	
12:15	0	0	0	0	0	0	0	0	0	0	0	25	2	0	3	0	30	0	1	32	8	2	1	0	44	0	0	7	2	0	0	9	
12:30	0	0	0	0	0	0	0	0	0	0	0	16	3	0	1	0	20	0	0	41	2	5	1	0	49	0	0	4	0	0	0	4	
12:45	0	0	0	0	0	0	0	0	0	0	0	18	2	0	2	0	22	0	0	39	3	3	3	0	48	0	0	4	0	0	0	4	
H/TOT	0	0	0	0	0	0	0	0	0	0	0	93	9	0	8	1	111	1	1	153	19	11	7	1	193	0	0	18	3	0	0	21	
13:00	0	0	0	0	0	0	0	0	0	0	0	36	3	3	3	0	45	0	0	40	6	1	2	0	49	0	0	3	0	1	0	4	
13:15	0	0	0	0	0	0	0	0	0	0	0	18	4	0	1	0	23	0	0	48	10	1	4	1	64	0	0	3	0	0	0	1	4
13:30	0	0	0	0	0	0	0	0	0	0	0	23	2	1	1	6	33	0	0	46	7	1	2	0	56	0	0	1	0	0	0	1	
13:45	0	0	0	0	0	0	0	0	0	0	0	29	1	1	1	0	32	0	0	36	7	0	3	1	47	0	0	3	1	0	0	4	
H/TOT	0	0	0	0	0	0	0	0	0	0	0	106	10	5	6	6	133	0	0	170	30	3	11	2	216	0	0	10	1	1	0	13	
14:00	0	0	0	0	0	0	0	0	0	0	0	29	4	1	0	0	34	0	0	44	6	2	3	0	55	0	0	5	0	0	0	5	
14:15	0	0	0	0	0	0	0	0	0	0	0	22	3	2	1	0	28	0	0	38	3	1	4	0	46	0	0	2	0	0	0	2	
14:30	0	0	0	0	0	0	0	0	0	0	0	18	4	0	1	0	23	0	0	37	3	2	3	0	45	0	0	0	1	0	0	1	
14:45	0	0	0	0	0	0	0	0	0	0	0	24	5	1	0	0	30	0	0	33	8	8	1	0	50	0	0	5	0	0	0	5	
H/TOT	0	0	0	0	0	0	0	0	0	0	0	93	16	4	2	0	115	0	0	152	20	13	11	0	196	0	0	12	1	0	0	13	
15:00	0	0	0	0	0	0	0	0	0	0	0	32	1	1	0	0	34	0	0	25	6	1	0	0	32	0	0	6	0	0	0	6	
15:15	0	0	0	0	0	0	0	0	0	0	0	31	3	1	1	0	36	0	0	26	3	3	1	1	34	0	0	10	0	0	0	11	
15:30	0	0	0	0	0	0	0	0	0	0	0	24	4	1	1	0	30	0	0	34	7	1	2	1	45	0	0	6	0	0	0	6	
15:45	0	0	0	0	0	0	0	0	0	0	0	26	1	0	1	0	28	0	0	30	5	3	0	1	39	0	0	7	0	0	0	7	
H/TOT	0	0	0	0	0	0	0	0	0	0	0	113	9	3	3	0	128	0	0	115	21	8	3	3	150	0	0	29	0	0	1	30	
16:00	0	0	0	0	0	0	0	0	0	0	0	25	6	2	0	0	33	0	0	39	10	2	3	1	55	0	0	3	0	0	0	3	
16:15	0	0	0	0	0	0	0	0	0	0	0	47	9	1	0	0	57	0	0	33	6	2	1	0	42	0	0	8	0	0	0	8	
16:30	0	0	0	0	0	0	0	0	0	0	0	36	5	1	1	0	43	0	0	35	13	0	1	0	49	0	0	6	0	0	0	6	
16:45	0	0	0	0	0	0	0	0	0	0	0	35	3	3	0	0	41	0	0	40	7	2	0	0	49	0	0	4	1	0	0	5	
H/TOT	0	0	0	0	0	0	0	0	0	0	0	143	23	7	1	0	174	0	0	147	36	6	5										

Irish Traffic Surveys



B => A								B => B								B => C								B => 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		
0	0	11	5	0	0	0	16	0	0	0	0	0	0	0	0	0	0	13	7	2	2	0	0	0	0	24	0	0	6	1	0	0	7
0	0	12	6	0	2	0	20	0	0	0	0	0	0	0	0	0	0	13	2	1	1	1	1	1	1	18	0	0	6	0	1	0	8
0	0	9	2	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	26	6	1	0	2	2	2	35	0	0	5	0	1	0	6
0	0	23	2	0	1	0	25	0	0	0	0	0	0	0	0	0	0	1	28	3	1	2	0	0	0	35	0	0	4	0	0	0	4
0	0	54	15	0	3	0	72	0	0	0	0	0	0	0	0	0	0	1	80	18	5	5	3	112	0	0	21	1	2	0	1	25	
0	0	21	1	2	0	0	24	0	0	0	0	0	0	0	0	0	0	0	42	3	2	2	0	0	0	49	0	0	12	1	0	1	14
0	0	12	3	1	0	0	16	0	0	0	0	0	0	0	0	0	0	0	50	2	1	3	2	58	0	0	11	2	1	0	1	15	
0	0	8	2	0	4	0	14	0	0	0	0	0	0	0	0	0	0	0	52	4	1	1	0	58	0	0	4	0	0	0	0	4	
0	0	30	9	3	0	0	42	0	0	0	0	0	0	0	0	0	0	0	43	4	0	2	0	49	0	0	15	0	0	0	0	15	
0	0	71	15	6	4	0	96	0	0	0	0	0	0	0	0	0	0	0	187	13	4	8	2	214	0	0	42	3	1	1	1	48	
0	0	22	1	1	0	0	24	0	0	0	0	0	0	0	0	0	0	0	34	4	0	1	0	39	0	0	13	2	0	0	0	15	
0	0	25	2	1	2	0	30	0	0	0	0	0	0	0	0	0	0	0	36	6	0	0	2	44	0	0	13	1	1	0	0	15	
0	0	15	2	0	1	0	18	0	0	0	0	0	0	0	0	0	0	0	37	1	1	2	0	41	0	0	3	0	0	1	4	4	
0	0	20	2	0	1	0	23	0	0	0	0	0	0	0	0	0	0	0	43	3	1	2	1	50	0	0	8	1	0	0	0	9	
0	0	82	7	2	4	0	95	0	0	0	0	0	0	0	0	0	0	0	150	14	2	5	3	174	0	0	37	4	1	0	1	43	
0	0	22	6	2	1	0	31	0	0	0	0	0	0	0	0	0	0	0	25	5	5	2	0	37	0	0	9	0	0	1	0	10	
0	0	25	1	1	3	0	30	0	0	0	0	0	0	0	0	0	0	0	32	5	0	1	1	39	0	0	5	0	0	0	0	5	
0	0	15	2	3	0	0	20	0	0	0	0	0	0	0	0	0	0	0	31	4	1	1	1	38	0	0	14	2	2	0	0	18	
1	0	11	5	1	0	0	18	0	0	0	0	0	0	0	0	0	0	0	35	4	2	1	1	43	0	0	9	0	0	0	0	9	
1	0	73	14	7	4	0	99	0	0	0	0	0	0	0	0	0	0	0	123	18	8	5	3	157	0	0	37	2	2	1	0	42	
0	0	18	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	37	4	2	1	0	44	0	0	13	0	1	0	0	14	
1	0	15	3	0	3	0	22	0	0	0	0	0	0	0	0	0	0	0	38	4	0	1	2	45	0	0	6	1	1	0	0	8	
0	0	19	4	0	1	2	26	0	0	0	0	0	0	0	0	0	0	0	38	6	3	2	0	49	0	0	13	1	2	0	0	16	
0	0	30	6	1	0	0	37	0	0	0	0	0	0	0	0	0	0	0	40	2	2	1	1	46	0	0	8	2	0	0	0	10	
1	0	82	13	1	4	2	103	0	0	0	0	0	0	0	0	0	0	0	153	16	7	5	3	184	0	0	40	4	4	0	0	48	
0	0	29	3	0	1	0	33	0	0	0	0	0	0	0	0	0	0	0	33	1	3	1	1	39	0	0	9	1	0	0	0	10	
0	0	23	3	2	0	0	28	0	0	0	0	0	0	0	0	0	0	0	36	8	1	0	1	46	0	0	14	0	0	0	0	14	
0	0	19	5	1	0	0	25	0	0	0	0	0	0	0	0	0	0	1	46	5	1	1	0	54	0	0	13	1	0	0	0	14	
0	0	26	1	1	1	4	33	0	0	0	0	0	0	0	0	0	0	1	42	1	0	2	1	47	0	0	14	3	0	0	0	17	
0	0	97	12	4	2	4	119	0	0	0	0	0	0	0	0	0	0	1	157	15	5	4	3	186	0	0	50	5	0	0	0	55	
0	0	20	5	1	1	1	28	0	0	0	0	0	0	0	0	0	0	1	34	5	0	3	1	44	0	0	19	2	0	0	0	21	
0	0	18	3	1	1	0	23	0	0	0	0	0	0	0	0	0	0	1	51	8	0	0	1	61	0	0	11	1	0	0	0	12	
0	0	17	4	1	0	0	22	0	0	0	0	0	0	0	0	0	0	0	51	5	3	2	1	62	0	0	7	1	0	0	0	8	
0	0	25	4	1	1	0	31	0	0	0	0	0	0	0	0	0	0	0	48	4	0	1	1	54	0	0	10	0	0	0	1	11	
0	0	80	16	4	3	1	104	0	0	0	0	0	0	0	0	0	0	1	184	22	3	6	4	221	0	0	47	4	0	0	1	52	
0	0	17	2	0	0	0	19	0	0	0	0	0	0	0	0	0	0	1	39	5	0	1	1	47	0	0	11	0	0	0	0	11	
0	0	15	1	3	0	0	19	0	0	0	0	0	0	0	0	0	0	0	52	3	0	0	2	57	0	0	7	0	0	0	0	7	
0	0	20	3	5	2	0	30	0	0	0	0	0	0	0	0	0	0	0	63	5	4	2	0	74	0	0	13	3	0	0	0	16	
0	0	11	2	0	1	0	14	0	0	0	0	0	0	0	0	0	0	0	40	5	1	0	0	46	0	0	12	1	0	0	0	13	
0	0	63	8	8	3	0	82	0	0	0	0	0	0	0	0	0	0	1	194	18	5	3	3	224	0	0	43	4	0	0	0	47	
0	0	27	3	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	48	5	2	1	1	57	0	0	19	0	0	0	0	19	
0	0	21	2	1	0	0	24	0	0	0	0	0	0	0	0	0	0	0	48	6	0	3	2	59	0	0	21	2	2	0	0	25	
0	0	19	5	1	0	0	25	0	0	0	0	0	0	0	0	0	0	0	54	7	0	1	0	62	0	0	10	0	0	0	0	10	
0	0	25	4	5	0	0	34	0	0	0	0	0	0	0	0	0	0	0	55	8	3	1	2	69	0	0	20	3	0	0	0	23	
0	0	92	14	7	0	0	113	0	0	0	0	0	0	0	0	0	0	0	205	26	5	6	5	247	0	0	70	5	2	0	0	77	
0	0	29	5	0	0	0	34	0	0	0	0	0	0	0	0	0	0	0	48	9	0	0	0	57	0	0	22	2	0	0	0	24	
0	0	29	3	1	1	0	34	0	0	0	0	0	0	0	0	0	0	0	64	10	4	1	0	79	0	0	26	0	0	0	0	26	
0	0	24	4	1	0	0	29	0	0	0	0	0	0	0	0	0	0	0	61	14	1	0	1	77	0	0	20	4	0	0	0	24	
0	0	10	1	1	0	0	12	0	0	0	0	0	0	0	0	0	0	1	53	13	1	0	0	68	0	0	18	1	0	0	0	19	
0	0	92	13	3	1	0	109	0	0	0	0	0	0	0	0	0	0	0	1	226	46	6	1	1	281	0	0	86	7	0	0	0	93
0	0	14	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	1	54	9	0	1	2	67	0	1	21	1	0	0	0	23	
0	0	23	1	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	44	8	1	0	0	53	0	0	29	4	0	0	0	33	
0	0	19	3	2	1	0	25	0	0	0	0	0	0	0	0	0	0	1	57	9	0	2	1	70	0	0	35	5	0	0	0	40	
0	0	25	4	0	0	0	29	0	0	0	0	0	0	0	0	0	0	1	59	10	0	1	0	71	0	0	31	1	0	0	0	32	
0	0	81	8	2	1	0	92	0	0	0	0	0	0	0	0	0	0	1	2	214	36	1	4	3	261	0	1	116	11	0	0	0	128
0	0	14	2	0	0	3	19	0	0	0	0	0	0	0	0	0	0	0	51	3	0	0	0	54	0	0	29	4	0	0	0	33	
0	0	23	1	1	2	1	28	0	0	0	0	0	0	0	0	0	0	0	51	5	0	2	2	60	0								

Irish Traffic Surveys



C => A								C => B								C => C								C => D							
P/C	M/C	CAR	LGW	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGW	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGW	OGV1	OGV2	PSV	TOT	P/C	M/C	CAR	LGW	OGV1	OGV2	PSV	TOT
0	0	29	15	1	2	0	47	0	0	42	10	0	3	1	56	0	0	0	0	0	0	0	0	0	0	0	0	0	5		
0	0	28	14	1	3	1	47	0	0	41	12	3	1	2	59	0	0	0	0	0	0	0	0	0	0	0	0	0	7		
0	0	45	9	3	7	0	64	0	1	55	7	1	2	1	67	0	0	0	0	0	0	0	0	0	0	0	0	0	6		
0	0	55	18	0	1	0	74	0	0	38	10	3	0	1	52	0	0	0	0	0	0	0	0	0	0	0	0	0	9		
0	0	157	56	5	13	1	232	0	1	176	39	7	6	5	234	0	0	0	0	0	0	0	0	0	0	0	0	0	27		
0	0	58	7	5	3	2	75	0	1	38	7	1	0	0	47	0	0	0	0	0	0	0	0	0	0	0	0	0	6		
0	0	57	8	1	3	3	72	0	0	41	5	0	0	0	46	0	0	0	0	0	0	0	0	0	0	0	0	1	12		
0	0	52	7	1	1	1	62	0	0	36	3	0	0	3	42	0	0	0	0	0	0	0	0	0	0	0	0	2	12		
1	0	44	6	1	7	0	59	0	0	32	5	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	1	21		
1	0	211	28	8	14	6	268	0	1	147	20	1	0	3	172	0	0	0	0	0	0	0	0	0	0	0	0	0	51		
0	0	56	8	0	0	0	64	0	0	37	3	0	3	0	43	0	0	0	0	0	0	0	0	0	0	0	0	1	30		
0	0	44	9	8	2	0	63	0	0	37	4	0	0	1	32	0	0	0	0	0	0	0	0	0	0	0	0	0	11		
0	0	35	5	4	2	1	47	0	0	32	2	1	1	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0	14		
0	0	44	9	0	2	0	55	0	0	34	3	1	2	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	9		
0	0	179	31	12	6	1	229	0	0	130	12	2	6	1	151	0	0	0	0	0	0	0	0	0	0	0	0	0	1	64	
0	0	32	8	1	0	0	41	0	0	29	2	3	1	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	
0	0	35	7	2	6	0	50	0	0	35	3	0	2	1	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
0	0	23	3	3	3	0	32	0	0	29	3	1	0	1	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
1	0	41	9	3	5	0	59	0	0	33	4	2	2	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	
1	0	131	27	9	14	0	182	0	0	126	12	6	5	2	151	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	
0	0	37	6	2	4	1	50	0	0	29	7	2	0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	
1	0	36	8	2	2	2	51	0	0	36	5	0	0	1	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	
0	0	42	8	2	3	0	55	0	0	22	3	1	3	0	29	0	0	1	0	0	0	0	0	0	0	0	0	0	0	15	
0	0	50	7	2	1	0	60	0	0	34	5	2	1	2	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	
1	0	165	29	8	10	3	216	0	0	121	20	5	4	3	153	0	0	0	1	0	0	0	0	0	0	0	0	0	0	60	
0	0	54	5	4	3	0	66	0	0	43	1	3	2	0	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
0	0	49	7	1	2	0	59	0	0	28	6	0	1	1	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	
0	0	45	4	1	2	0	52	0	0	32	3	1	1	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	
0	0	38	7	4	6	0	55	0	0	34	3	2	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	
0	0	186	23	10	13	0	232	0	0	137	13	6	4	1	161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59	
0	0	52	4	7	5	0	68	0	0	26	4	2	0	1	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	
0	0	42	2	2	1	2	49	0	0	35	8	0	0	0	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	
0	0	44	9	2	3	0	58	0	0	32	1	2	0	2	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	
0	0	57	2	1	1	0	61	1	0	43	1	1	5	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	
0	0	195	17	12	10	2	236	1	0	136	14	5	5	3	164	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74	
0	1	39	10	3	4	0	57	0	0	38	4	0	0	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	
0	0	30	7	4	4	0	45	0	0	21	6	1	2	1	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	
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0	0	41	2	3	1	1	48	0	0	31	5	0	0	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	
0	1	153	23	12	13	1	203	0	0	123	20	1	3	1	148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	
0	0	54	9	1	2	0	66	0	0	33	3	3	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	
0	0	39	7	3	2	0	51	0	0	27	4	0	1	1	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	
0	0	52	9	3	4	1	69	0	0	31	3	2	1	1	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	
0	0	48	3	1	7	0	59	0	0	41	2	1	0	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	
0	0	193	28	8	15	1	245	0	0	132	12	6	2	2	154	0	0	0	0	0	0	0	0	0	0	0	0	0	0	93	
0	0	52	5	5	6	1	69	0	0	38	6	2	0	0	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	
1	0	49	10	1	1	0	62	0	0	28	7	0	1	1	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	
0	0	54	13	3	0	0	70	0	0	36	3	1	1	2	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	
0	0	53	12	4	2	0	71	1	0	17	2	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	
1	0	208	40	13	9	1	272	1	0	119	18	3	2	3	146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	129	
0	1	58	12	1	3	0	75	0	0	37	5	0	0	1	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	
0	0	66	11	0	1	0	78	1	0	32	4	0	1	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	
0	0	57	8	2	0	1	68	0	0	39	5	0	0	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	
0	0	55	7	1	0	0	63	0	0	21	1	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	
0	1	236	38	4	4	1	284	1	0	129	15	0	1	1	147	0	0	0	0	0	0	0	0	0	0	0	0	0	0	159	
0	0	47	3	1	1	0	52	0	0	32	3	0	0	1	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	
0	0	60	3	0	2	0	65	0	0	33	2	1	1	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	
0	0	52	3	0	1	0	56	0	0	35	4	0	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	
0	0	52	3	1	3	0	59	0	0	34	2	0	0	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	
0	0	211	12	2	7	0	232	0	0	134	11	1	1	1	148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	130	
4	2	2225	352	103	128	17	2831	3	2	1610	206	43	39	26	1929	0	0	1	0	0	0										

Irish Traffic Surveys



D => A								D => B								D => C								D => 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
0	0	7	2	0	0	0	9	0	0	19	1	0	0	0	20	0	0	16	5	0	0	0	21	0	0	0	0	0	0	21	
0	0	5	3	1	0	0	9	0	0	30	4	0	0	0	34	0	0	20	1	0	0	0	21	0	0	0	0	0	0	21	
0	0	3	3	0	0	0	6	0	0	30	5	0	0	0	35	0	0	28	4	0	1	0	33	0	0	0	0	0	0	33	
0	0	13	2	0	0	0	15	0	0	23	2	0	0	0	25	0	0	27	3	1	0	0	31	0	0	0	0	0	0	31	
0	0	28	10	1	0	0	39	0	0	102	12	0	0	0	114	0	0	91	13	1	1	0	106	0	0	0	0	0	0	106	
0	0	6	1	0	0	0	7	0	0	27	3	0	0	0	30	0	0	31	4	0	0	0	35	0	0	0	0	0	0	35	
0	0	8	1	0	0	0	9	0	0	28	1	0	0	0	29	0	0	31	2	0	0	0	33	0	0	0	0	0	0	33	
0	0	6	2	0	0	1	9	0	0	25	2	1	0	1	29	0	0	24	0	1	0	0	25	0	0	0	0	0	0	25	
0	0	9	0	1	0	0	10	0	0	25	2	0	0	0	27	0	0	17	2	0	0	0	19	0	0	0	0	0	0	19	
0	0	29	4	1	0	1	35	0	0	105	8	1	0	1	115	0	0	103	8	1	0	0	112	0	0	0	0	0	0	112	
0	0	12	0	0	0	0	12	0	0	35	1	0	0	2	38	0	0	13	3	0	0	0	16	0	0	0	0	0	0	16	
0	0	13	0	0	0	0	13	0	0	22	0	0	0	0	22	0	1	23	2	0	0	0	26	0	0	0	0	0	0	26	
0	0	8	2	0	0	0	10	0	0	12	0	0	0	0	12	0	0	14	3	0	0	1	18	0	0	0	0	0	0	18	
0	0	6	1	0	0	0	7	0	0	7	1	0	0	0	8	0	0	15	0	0	0	0	15	0	0	0	0	0	0	15	
0	0	39	3	0	0	0	42	0	0	76	2	0	0	2	80	0	1	65	8	0	0	1	75	0	0	0	0	0	0	75	
0	0	5	0	0	0	0	5	0	0	9	0	0	0	0	9	0	0	7	4	0	0	0	11	0	0	0	0	0	0	11	
0	0	6	1	0	0	0	7	0	0	11	4	0	0	0	15	0	0	15	0	0	0	0	15	0	0	0	0	0	0	15	
0	0	8	1	0	0	0	9	0	0	12	0	0	0	0	12	0	0	9	0	1	0	0	10	0	0	0	0	0	0	10	
0	0	5	0	1	0	0	6	0	0	8	0	1	0	0	9	0	1	19	1	1	0	0	22	0	0	0	0	0	0	22	
0	0	24	2	1	0	0	27	0	0	40	4	1	0	0	45	0	1	50	5	2	0	0	58	0	0	0	0	0	0	58	
0	0	3	0	0	0	0	3	0	0	9	1	1	0	0	11	0	0	8	0	0	0	0	8	0	0	0	0	0	0	8	
0	0	4	0	0	1	0	5	0	0	14	1	0	0	0	15	0	0	8	2	1	0	0	11	0	0	0	0	0	0	11	
0	0	1	1	1	0	0	3	0	0	13	1	0	0	0	14	0	0	10	0	0	0	0	10	0	0	0	0	0	0	10	
0	0	6	2	0	0	0	8	0	0	5	1	0	0	0	6	0	0	13	1	1	0	0	15	0	0	0	0	0	0	15	
0	0	14	3	1	1	0	19	0	0	41	4	1	0	0	46	0	0	39	3	2	0	0	44	0	0	0	0	0	0	44	
0	0	7	1	0	0	0	8	0	0	11	0	0	0	0	11	0	0	18	0	0	0	0	18	0	0	0	0	0	0	18	
0	0	4	1	0	0	0	5	0	0	12	1	0	0	0	13	0	0	14	2	0	0	0	16	0	0	0	0	0	0	16	
0	0	7	0	0	0	0	7	0	0	6	1	0	0	0	7	0	0	11	2	0	0	0	13	0	0	0	0	0	0	13	
0	0	4	0	0	0	0	4	0	0	15	1	0	0	0	16	0	0	10	0	0	0	0	10	0	0	0	0	0	0	10	
0	0	22	2	0	0	0	24	0	0	44	3	0	0	0	47	0	0	53	4	0	0	0	57	0	0	0	0	0	0	57	
0	0	2	0	0	0	0	2	1	0	21	0	0	0	0	22	0	0	23	0	1	0	0	24	0	0	0	0	0	0	24	
0	0	4	2	0	0	0	6	0	0	7	2	3	0	0	12	0	0	12	1	0	0	0	13	0	0	0	0	0	0	13	
0	0	5	0	0	0	0	5	0	0	9	1	0	0	0	10	0	0	26	3	0	0	1	30	0	0	0	0	0	0	30	
0	0	6	0	0	0	0	6	0	0	11	0	0	0	0	11	0	0	10	1	0	0	0	11	0	0	0	0	0	0	11	
0	0	17	2	0	0	0	19	1	0	48	3	3	0	0	55	0	0	71	5	1	0	1	78	0	0	0	0	0	0	78	
0	0	6	2	0	0	0	8	0	0	15	0	0	1	0	16	0	0	15	0	0	0	1	16	0	0	0	0	0	0	16	
0	0	6	0	3	0	0	9	0	0	17	0	1	0	0	18	0	1	28	1	1	0	0	31	0	0	0	0	0	0	31	
0	0	10	0	0	0	0	10	0	0	14	2	0	0	0	16	0	0	13	1	0	0	0	14	0	0	0	0	0	0	14	
0	0	11	0	0	0	0	11	0	0	22	2	0	0	0	24	0	0	12	0	0	0	0	12	0	0	0	0	0	0	12	
0	0	33	2	3	0	0	38	0	0	68	4	1	1	0	74	0	1	68	2	1	0	1	73	0	0	0	0	0	0	73	
0	0	8	0	0	0	1	9	0	0	17	0	0	0	1	18	0	0	12	2	0	0	0	14	0	0	0	0	0	0	14	
0	0	7	0	0	0	0	7	0	0	18	1	0	0	0	19	0	0	14	1	0	0	0	15	0	0	0	0	0	0	15	
0	0	4	1	0	0	1	6	0	0	14	4	0	0	0	18	0	0	14	0	0	0	0	14	0	0	0	0	0	0	14	
0	0	6	1	0	0	0	7	0	0	16	0	0	0	0	16	0	0	16	3	1	0	0	20	0	0	0	0	0	0	20	
0	0	25	2	0	0	2	29	0	0	65	5	0	0	1	71	0	0	56	6	1	0	0	63	0	0	0	0	0	0	63	
0	0	4	1	0	0	0	5	0	0	14	1	0	0	0	15	0	0	12	0	0	0	0	12	0	0	0	0	0	0	12	
0	0	11	0	0	0	0	11	0	0	13	3	0	0	1	17	1	0	14	0	0	0	0	15	0	0	0	0	0	0	15	
0	0	9	1	1	0	0	11	0	0	20	1	0	0	0	21	0	0	11	0	2	0	0	13	0	0	0	0	0	0	13	
0	0	14	1	1	0	0	16	0	0	22	4	0	0	0	26	1	0	25	1	1	0	0	28	0	0	0	0	0	0	28	
0	0	38	3	2	0	0	43	0	0	69	9	0	0	1	79	2	0	62	1	3	0	0	68	0	0	0	0	0	0	68	
0	0	5	2	0	0	0	7	0	0	24	0	0	0	0	24	0	0	14	2	0	0	0	16	0	0	0	0	0	0	16	
0	0	6	0	0	0	0	6	0	0	24	1	1	0	0	26	0	0	15	3	0	0	0	18	0	0	0	0	0	0	18	
0	0	9	0	0	0	0	9	0	0	19	2	0	0	0	21	0	0	13	1	0	0	0	14	0	0	0	0	0	0	14	
0	0	14	0	0	0	0	14	0	0	24	1	0	0	1	26	0	0	16	1	0	0	0	17	0	0	0	0	0	0	17	
0	0	34	2	0	0	0	36	0	0	91	4	1	0	1	97	0	0	58	7	0	0	0	65	0	0	0	0	0	0	65	
0	0	10	2	0	0	0	12	0	0	15	4	0	0	0	19	0	0	6	0	0	0	0	6	0	0	0	0	0	0	6	
0	0	10	0	0	0	0	10	0	0	15	0	0	0	0	15	0	0	11	0	0	0	0	11	0	0	0	0	0	0	11	
0	0	10	2	0	0	0	12	0	0	23	1	0	0	0	24	0	0	12	1	0	0	0	13	0	0	0	0	0	0	13	
0	0	13	1	0	0	0	14	0	0	17	2	0	0	0	19	0	0	17	0	0	0	0	17	0	0	0	0	0	0	17	
0	0	43	5	0	0	0	48	0	0	70	7	0	0	0	77	0	0	46	1	0	0	0	47	0	0	0	0	0	0	47	
0	0	346	40	9	1	3	399	1	0	819	65	8	1	6	900	2	3	762	63												

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 - AM Peak Hour

AM Peak - Base Year Flows

	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

AM Peak - Development Flows

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	3	0	0	3
Brooklands	18	0	34	0	52
R403 Clane	0	26	0	0	26
Capdoo Park	0	0	0	0	0
Totals	18	29	34	0	81

2022 AM Peak - Base Year Flows + 5.88%

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	1	302	11	313
Brooklands	33	0	61	1	95
R403 Clane	846	10	0	15	870
Capdoo Park	41	3	16	0	60
Totals	920	14	379	26	1339

2022 AM Peak - With Development

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	4	302	11	316
Brooklands	51	0	95	1	147
R403 Clane	846	36	0	15	896
Capdoo Park	41	3	16	0	60
Totals	938	43	413	26	1420

2027 AM Peak - Base Year Flows + 16.49%

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	1	332	12	345
Brooklands	36	0	68	1	105
R403 Clane	931	10	0	16	958
Capdoo Park	45	3	17	0	66
Totals	1012	15	417	29	1474

2027 AM Peak - With Development

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	4	332	12	348
Brooklands	54	0	102	1	157
R403 Clane	931	36	0	16	984
Capdoo Park	45	3	17	0	66
Totals	1030	44	451	29	1555

2037 AM Peak - Base Year Flows + 27.18%

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	1	362	13	376
Brooklands	39	0	74	1	114
R403 Clane	1016	11	0	18	1045
Capdoo Park	50	4	19	0	72
Totals	1105	17	455	32	1609

2037 AM Peak - With Development

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	4	362	13	379
Brooklands	57	0	108	1	166
R403 Clane	1016	37	0	18	1071
Capdoo Park	50	4	19	0	72
Totals	1123	46	489	32	1690

R403 / Brooklands / Capdoo Park Crossroads - PM Peak Hour

PM Peak - Base Year Flows

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
0					
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

PM Peak - Development Flows

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	18	0	0	18
Brooklands	5	0	28	0	33
R403 Clane	0	34	0	0	34
Capdoo Park	0	0	0	0	0
Totals	5	52	28	0	85

2022 PM Peak - Base Year Flows + 5.88%

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	25	844	44	914
Brooklands	6	0	34	3	43
R403 Clane	386	46	0	38	470
Capdoo Park	19	0	12	0	31
Totals	412	71	889	86	1458

2022 PM Peak - With Development

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	43	844	44	932
Brooklands	11	0	62	3	76
R403 Clane	386	80	0	38	504
Capdoo Park	19	0	12	0	31
Totals	417	123	917	86	1543

2027 PM Peak - Base Year Flows + 16.49%

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	28	928	49	1005
Brooklands	7	0	37	3	48
R403 Clane	425	50	0	42	517
Capdoo Park	21	0	13	0	34
Totals	453	78	979	94	1604

2027 PM Peak - With Development

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	46	928	49	1023
Brooklands	12	0	65	3	81
R403 Clane	425	84	0	42	551
Capdoo Park	21	0	13	0	34
Totals	458	130	1007	94	1689

2037 PM Peak - Base Year Flows + 27.18%

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	31	1014	53	1098
Brooklands	8	0	41	4	52
R403 Clane	464	55	0	46	565
Capdoo Park	23	0	14	0	37
Totals	495	85	1068	103	1751

2037 PM Peak - With Development

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	49	1014	53	1116
Brooklands	13	0	69	4	85
R403 Clane	464	89	0	46	599
Capdoo Park	23	0	14	0	37
Totals	500	137	1096	103	1836

R403 /Alexandrs Walk / The Avenue Roundabout - AM Peak Hour

AM Peak - Base Year Flows

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	29	313	1	343
Alexandra Walk	72	1	85	0	158
R403 (west)	362	21	3	4	390
The Avenue	10	0	6	0	16
Totals	444	51	407	5	907

AM Peak - Development Flows

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	0	0	0	0
Alexandra Walk	0	0	39	0	39
R403 (west)	0	22	0	0	22
The Avenue	0	0	0	0	0
Totals	0	22	39	0	61

2022 AM Peak - Base Year Flows + 5.88%

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	31	331	1	363
Alexandra Walk	76	1	90	0	167
R403 (west)	383	22	3	4	413
The Avenue	11	0	6	0	17
Totals	470	54	431	5	960

2022 AM Peak - With Development

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	31	331	1	363
Alexandra Walk	76	1	129	0	206
R403 (west)	383	44	3	4	435
The Avenue	11	0	6	0	17
Totals	470	76	470	5	1021

2027 AM Peak - Base Year Flows + 16.49%

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	34	365	1	400
Alexandra Walk	84	1	99	0	184
R403 (west)	422	24	3	5	454
The Avenue	12	0	7	0	19
Totals	517	59	474	6	1057

2027 AM Peak - With Development

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	34	365	1	400
Alexandra Walk	84	1	138	0	223
R403 (west)	422	46	3	5	476
The Avenue	12	0	7	0	19
Totals	517	81	513	6	1118

2037 AM Peak - Base Year Flows + 27.18%

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	37	398	1	436
Alexandra Walk	92	1	108	0	201
R403 (west)	460	27	4	5	496
The Avenue	13	0	8	0	20
Totals	565	65	518	6	1154

2037 AM Peak - With Development

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	37	398	1	436
Alexandra Walk	92	1	147	0	240
R403 (west)	460	49	4	5	518
The Avenue	13	0	8	0	20
Totals	565	87	557	6	1215

R403 /Alexandrs Walk / The Avenue Roundabout - PM Peak Hour

PM Peak - Base Year Flows

	0	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

PM Peak - Development Flows

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	0	0	0	0
Alexandra Walk	0	0	24	0	24
R403 (west)	0	39	0	0	39
The Avenue	0	0	0	0	0
Totals	0	39	24	0	63

2022 PM Peak - Base Year Flows + 5.88%

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	52	614	10	676
Alexandra Walk	33	0	33	0	66
R403 (west)	466	74	3	11	554
The Avenue	3	0	3	0	6
Totals	502	126	653	20	1301

2022 PM Peak - With Development

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	52	614	10	676
Alexandra Walk	33	0	57	0	90
R403 (west)	466	113	3	11	593
The Avenue	3	0	3	0	6
Totals	502	165	677	20	1364

2027 PM Peak - Base Year Flows + 16.49%

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	57	676	10	743
Alexandra Walk	36	0	36	0	72
R403 (west)	513	82	3	12	609
The Avenue	3	0	3	0	7
Totals	552	139	719	22	1432

2027 PM Peak - With Development

	R403 (east)	Alexandra Walk	R403 (west)	The Avenue	Totals
R403 (east)	0	57	676	10	743
Alexandra Walk	36	0	60	0	96
R403 (west)	513	121	3	12	648
The Avenue	3	0	3	0	7
Totals	552	178	743	22	1495

2037 PM Peak - Base Year Flows + 27.18%

	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	63	0	103
R403 (west)	560	128	4	13	704
The Avenue	4	0	4	0	8
Totals	603	190	809	24	1626

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

AM Peak - Base Year Flows

	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

Relief Road Open - Redistribution of Base Flows

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	0	-70	27	-43
Brooklands	0	0	0	0	0
R403 Clane	-68	0	0	62	-6
Capdoo Park	26	0	62	0	88
Totals	-42	0	-8	89	39

AM Peak - Base Year Flows with Relief Road Open

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	1	215	37	253
Brooklands	31	0	58	1	90
R403 Clane	731	9	0	76	816
Capdoo Park	65	3	77	0	145
Totals	827	13	350	114	1304

Development Flows + Sensitivity Flows

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	3	0	4	7
Brooklands	18	0	24	10	52
R403 Clane	0	26	0	32	58
Capdoo Park	36	0	44	0	80
Totals	54	29	68	46	197

2027 AM Peak - Base Year Flows + 16.49%

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	1	250	43	295
Brooklands	36	0	68	1	105
R403 Clane	852	10	0	89	951
Capdoo Park	76	3	90	0	169
Totals	963	15	408	133	1519

2027 AM Peak - With Development + Sensitivity Flows

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	4	250	47	302
Brooklands	54	0	92	11	157
R403 Clane	852	36	0	121	1009
Capdoo Park	112	3	134	0	249
Totals	1017	44	476	179	1716

2037 AM Peak - Base Year Flows + 27.18%

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	1	273	47	322
Brooklands	39	0	74	1	114
R403 Clane	930	11	0	97	1038
Capdoo Park	83	4	98	0	184
Totals	1052	17	445	145	1658

2037 AM Peak - With Development + Sensitivity Flows

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	4	273	51	329
Brooklands	57	0	98	11	166
R403 Clane	930	37	0	129	1096
Capdoo Park	119	4	142	0	264
Totals	1106	46	513	191	1855

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

AM Peak - Base Year Flows

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
0					
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

Relief Road Open - Redistribution of Base Flows

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	0	-75	29	-46
Brooklands	0	0	0	0	0
R403 Clane	-73	0	0	68	-5
Capdoo Park	28	0	67	0	95
Totals	-45	0	-8	97	44

AM Peak - Base Year Flows with Relief Road Open

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	24	722	71	817
Brooklands	6	0	32	3	41
R403 Clane	292	43	0	104	439
Capdoo Park	46	0	78	0	124
Totals	344	67	832	178	1421

Development Flows + Sensitivity Flows

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	18	0	29	47
Brooklands	5	0	21	7	33
R403 Clane	0	34	0	53	87
Capdoo Park	23	0	27	0	50
Totals	28	52	48	89	217

2027 AM Peak - Base Year Flows + 16.49%

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	28	841	83	952
Brooklands	7	0	37	3	48
R403 Clane	340	50	0	121	511
Capdoo Park	54	0	91	0	144
Totals	401	78	969	207	1655

2027 AM Peak - With Development + Sensitivity Flows

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	46	841	112	999
Brooklands	12	0	58	10	81
R403 Clane	340	84	0	174	598
Capdoo Park	77	0	118	0	194
Totals	429	130	1017	296	1872

2037 AM Peak - Base Year Flows + 27.18%

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	31	918	90	1039
Brooklands	8	0	41	4	52
R403 Clane	371	55	0	132	558
Capdoo Park	59	0	99	0	158
Totals	437	85	1058	226	1807

2037 AM Peak - With Development + Sensitivity Flows

	R403 Celbridge	Brooklands	R403 Clane	Capdoo Park	Totals
R403 Celbridge	0	49	918	119	1086
Brooklands	13	0	62	11	85
R403 Clane	371	89	0	185	645
Capdoo Park	82	0	126	0	208
Totals	465	137	1106	315	2024

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 | FIFE |
| | | HILLVIEW ROAD | |
| | | BALMULLO | |
| | | Total Number of households: | 118 ***** |
| 2 | GM-03-A-01 | BOLTON HOUSING | GREATER MANCHESTER |
| | | COLLINGWOOD WAY | |
| | | WESTHOUGHTON | |
| | | BOLTON | |
| | | Total Number of households: | 83 ***** |
| 3 | LC-03-A-12 | LANCASTER HOUSING | LANCASHIRE |
| | | PENNINE VIEW | |
| | | GLASSON | |
| | | LANCASTER | |
| | | Total Number of households: | 29 ***** |
| 4 | LC-03-A-13 | CHORLEY HOUSING | LANCASHIRE |
| | | DUNROBIN DRIVE | |
| | | EUXTON | |
| | | CHORLEY | |
| | | Total Number of households: | 37 ***** |
| 5 | NI-03-A-05 | PRIVATE HOUSING, ENNISKILLEN | NORTHERN IRELAND |
| | | CASTLECOOLE ROAD | |
| | | ENNISKILLEN | |
| | | Total Number of households: | 132 ***** |
| 6 | NI-03-A-06 | PRIVATE HOUSING, MAGHERAFELT | NORTHERN IRELAND |
| | | STATION ROAD | |
| | | MAGHERAFELT | |
| | | Total Number of households: | 106 ***** |
| 7 | NI-03-A-07 | PRIVATE HOUSING, COLERAINE | NORTHERN IRELAND |
| | | GREENHALL HIGHWAY | |
| | | COLERAINE | |
| | | Total Number of households: | 112 ***** |
| 8 | NI-03-A-09 | BUNGALOWS, BALLYNAHINCH | NORTHERN IRELAND |
| | | KINEDALE PARK | |
| | | BALLYNAHINCH | |
| | | Total Number of households: | 104 ***** |

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

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\2018\18039 Housing Dev Clane, Kildare TIA+RSA\18039-02\Reports\Working\PICADY

Report generation date: 17/04/2019 09:09:54

- »2019, AM
- »2019, 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
2019								
Stream B-ACD	0.3	13.19	0.25	B	0.2	13.61	0.18	B
Stream A-BCD	0.0	9.01	0.03	A	0.1	7.00	0.08	A
Stream D-AB	0.2	10.48	0.14	B	0.1	6.80	0.05	A
Stream D-BC	0.1	17.70	0.11	C	0.1	14.11	0.07	B
Stream C-ABD	0.0	6.48	0.02	A	0.1	8.06	0.10	A
2022 no dev								
Stream B-ACD	0.4	14.15	0.28	B	0.2	14.42	0.20	B
Stream A-BCD	0.0	9.30	0.03	A	0.1	7.03	0.09	A
Stream D-AB	0.2	10.95	0.15	B	0.1	6.88	0.05	A
Stream D-BC	0.1	19.13	0.11	C	0.1	15.03	0.08	C
Stream C-ABD	0.0	6.53	0.02	A	0.1	8.33	0.12	A
2022 with dev								
Stream B-ACD	0.7	17.84	0.41	C	0.5	17.10	0.32	C
Stream A-BCD	0.0	9.56	0.03	A	0.1	7.15	0.10	A
Stream D-AB	0.2	11.05	0.15	B	0.1	6.88	0.05	A
Stream D-BC	0.1	20.90	0.12	C	0.1	16.10	0.08	C
Stream C-ABD	0.1	6.40	0.07	A	0.3	8.65	0.20	A
2027 no dev								
Stream B-ACD	0.4	15.32	0.30	C	0.3	16.03	0.22	C
Stream A-BCD	0.0	9.92	0.03	A	0.1	7.12	0.10	A
Stream D-AB	0.2	12.05	0.17	B	0.1	7.10	0.06	A
Stream D-BC	0.2	22.60	0.14	C	0.1	17.05	0.10	C
Stream C-ABD	0.0	6.64	0.02	A	0.2	8.75	0.13	A
2027 with dev								
Stream B-ACD	0.8	19.96	0.44	C	0.5	19.58	0.36	C
Stream A-BCD	0.0	10.22	0.03	B	0.1	7.24	0.11	A
Stream D-AB	0.2	12.19	0.17	B	0.1	7.12	0.06	A
Stream D-BC	0.2	25.20	0.15	D	0.1	18.43	0.11	C
Stream C-ABD	0.1	6.44	0.07	A	0.3	9.06	0.22	A
2037 no dev								
Stream B-ACD	0.5	17.69	0.35	C	0.4	19.58	0.28	C
Stream A-BCD	0.1	10.68	0.05	B	0.2	7.17	0.11	A
Stream D-AB	0.3	13.46	0.22	B	0.1	7.32	0.07	A
Stream D-BC	0.2	27.98	0.19	D	0.1	19.33	0.11	C
Stream C-ABD	0.0	6.71	0.03	A	0.2	9.20	0.15	A
2037 with dev								
Stream B-ACD	1.0	24.21	0.51	C	0.7	24.90	0.44	C
Stream A-BCD	0.1	11.02	0.05	B	0.2	7.28	0.12	A
Stream D-AB	0.3	13.68	0.22	B	0.1	7.34	0.07	A
Stream D-BC	0.2	32.10	0.20	D	0.1	21.14	0.12	C
Stream C-ABD	0.1	6.48	0.08	A	0.4	9.49	0.24	A
2037 Sensitivity								
Stream B-ACD	1.2	28.69	0.55	D	0.9	29.17	0.49	D
Stream A-BCD	0.2	12.26	0.17	B	0.6	7.34	0.27	A
Stream D-AB	0.9	25.37	0.48	D	0.3	10.25	0.21	B
Stream D-BC	6.2	154.89	1.00	F	2.2	61.24	0.72	F
Stream C-ABD	0.1	6.36	0.08	A	0.4	9.29	0.25	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	2019	AM	DIRECT	07:30	08:30	60	15	✓
D2	2019	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

2019, 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	2019	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	49.00	3.00
		B	9.00	0.00	12.00	0.00
		C	228.00	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	71.00	2.00
		B	9.00	0.00	10.00	0.00
		C	227.00	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	74.00	2.00
		B	9.00	0.00	15.00	0.00
		C	188.00	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	91.00	3.00
		B	4.00	0.00	21.00	1.00
		C	156.00	2.00	0.00	10.00
		D	14.00	2.00	6.00	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	0.25	13.19	0.3	B	22.50	90.00
A-BCD	0.03	9.01	0.0	A	2.54	10.15
A-B					0.25	1.00
A-C					71.21	284.85
D-AB	0.14	10.48	0.2	B	10.16	40.63
D-BC	0.11	17.70	0.1	C	4.10	16.38
C-ABD	0.02	6.48	0.0	A	2.33	9.32
C-D					3.50	14.00
C-A					199.67	798.69

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	95.79	0.219	20.72	0.0	0.3	11.947	B
A-BCD	3.04	3.04	102.86	0.030	3.01	0.0	0.0	9.010	A
A-B	0.00	0.00			0.00				
A-C	48.96	48.96			48.96				
D-AB	6.00	6.00	105.51	0.057	5.94	0.0	0.1	9.032	A
D-BC	0.00	0.00	46.99	0.000	0.00	0.0	0.0	0.000	A
C-ABD	3.14	3.14	154.88	0.020	3.12	0.0	0.0	5.930	A
C-D	0.00	0.00			0.00				
C-A	227.86	227.86			227.86				

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	87.30	0.218	19.00	0.3	0.3	13.191	B
A-BCD	2.03	2.03	102.98	0.020	2.04	0.0	0.0	8.918	A
A-B	1.00	1.00			1.00				
A-C	70.97	70.97			70.97				
D-AB	8.53	8.53	92.76	0.092	8.50	0.1	0.1	10.484	B
D-BC	4.47	4.47	55.13	0.081	4.38	0.0	0.1	17.702	C
C-ABD	2.07	2.07	147.30	0.014	2.08	0.0	0.0	6.196	A
C-D	2.00	2.00			2.00				
C-A	226.93	226.93			226.93				

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	96.15	0.250	23.95	0.3	0.3	12.428	B
ABCD	2.02	2.02	112.74	0.018	2.03	0.0	0.0	8.130	A
A-B	0.00	0.00			0.00				
A-C	73.98	73.98			73.98				
D-AB	11.00	11.00	113.37	0.097	10.99	0.1	0.1	8.964	A
D-BC	5.00	5.00	66.18	0.075	5.00	0.1	0.1	15.219	C
C-ABD	2.06	2.06	145.98	0.014	2.06	0.0	0.0	6.254	A
C-D	2.00	2.00			2.00				
C-A	187.94	187.94			187.94				

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	26.00	26.00	105.72	0.246	26.00	0.3	0.3	11.241	B
ABCD	3.06	3.06	119.85	0.026	3.05	0.0	0.0	7.704	A
A-B	0.00	0.00			0.00				
A-C	90.94	90.94			90.94				
D-AB	15.09	15.09	106.59	0.142	15.04	0.1	0.2	9.607	A
D-BC	6.91	6.91	64.63	0.107	6.88	0.1	0.1	15.003	C
C-ABD	2.05	2.05	140.82	0.015	2.05	0.0	0.0	6.484	A
C-D	10.00	10.00			10.00				
C-A	155.95	155.95			155.95				

2019, 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		1.12	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
D2	2019	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	203.00	11.00
		B	3.00	0.00	10.00	1.00
		C	79.00	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	204.00	11.00
		B	0.00	0.00	9.00	1.00
		C	85.00	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	214.00	11.00
	B	2.00	0.00	5.00	0.00
	C	88.00	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	176.00	9.00
	B	1.00	0.00	8.00	1.00
	C	113.00	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	13.61	0.2	B	10.25	41.00
A-BCD	0.08	7.00	0.1	A	11.94	47.77
A-B					5.96	23.83
A-C					197.85	791.40
D-AB	0.05	6.80	0.1	A	4.50	18.00
D-BC	0.07	14.11	0.1	B	2.75	11.00
C-ABD	0.10	8.06	0.1	A	11.58	46.34
C-D					8.92	35.69
C-A					90.49	361.98

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	79.48	0.176	13.79	0.0	0.2	13.615	B
A-BCD	12.55	12.55	150.20	0.084	12.44	0.0	0.1	6.529	A
A-B	7.94	7.94			7.94				
A-C	201.51	201.51			201.51				
D-AB	5.00	5.00	142.59	0.035	4.96	0.0	0.0	6.537	A
D-BC	2.00	2.00	70.09	0.029	1.97	0.0	0.0	13.206	B
C-ABD	11.79	11.79	125.12	0.094	11.68	0.0	0.1	7.927	A
C-D	9.91	9.91			9.91				
C-A	78.30	78.30			78.30				

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	89.61	0.112	10.08	0.2	0.1	11.291	B
A-BCD	12.60	12.60	148.51	0.085	12.60	0.1	0.1	6.624	A
A-B	7.94	7.94			7.94				
A-C	202.46	202.46			202.46				
D-AB	7.00	7.00	139.39	0.050	6.98	0.0	0.1	6.797	A
D-BC	5.00	5.00	68.68	0.073	4.95	0.0	0.1	14.113	B
C-ABD	13.02	13.02	126.30	0.103	13.01	0.1	0.1	7.943	A
C-D	10.88	10.88			10.88				
C-A	84.10	84.10			84.10				

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	76.51	0.091	7.02	0.1	0.1	13.002	B
A-BCD	12.64	12.64	149.23	0.085	12.64	0.1	0.1	6.589	A
A-B	3.97	3.97			3.97				
A-C	212.39	212.39			212.39				
D-AB	4.00	4.00	140.01	0.029	4.02	0.1	0.0	6.621	A
D-BC	3.00	3.00	67.81	0.044	3.03	0.1	0.0	13.899	B
C-ABD	13.04	13.04	124.66	0.105	13.04	0.1	0.1	8.065	A
C-D	6.92	6.92			6.92				
C-A	87.04	87.04			87.04				

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	89.48	0.112	9.98	0.1	0.1	11.305	B
A-BCD	9.98	9.98	138.56	0.072	10.00	0.1	0.1	7.004	A
A-B	3.98	3.98			3.98				
A-C	175.04	175.04			175.04				
D-AB	2.00	2.00	134.63	0.015	2.01	0.0	0.0	6.789	A
D-BC	1.00	1.00	68.24	0.015	1.03	0.0	0.0	13.399	B
C-ABD	8.49	8.49	133.79	0.063	8.54	0.1	0.1	7.190	A
C-D	7.97	7.97			7.97				
C-A	112.55	112.55			112.55				

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		1.71	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	52.00	3.00
	B	10.00	0.00	13.00	0.00	
	C	241.00	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	75.00	2.00
	B	10.00	0.00	11.00	0.00	
	C	240.00	2.00	0.00	2.00	
	D	8.00	1.00	4.00	0.00	

Demand (Veh/TS)

08:00 - 08:15

		To			
		A	B	C	D
From	A	0.00	0.00	78.00	2.00
	B	10.00	0.00	16.00	0.00
	C	199.00	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	96.00	3.00
	B	4.00	0.00	22.00	1.00
	C	165.00	2.00	0.00	11.00
	D	15.00	2.00	6.00	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	14.15	0.4	B	24.25	97.00
A-BCD	0.03	9.30	0.0	A	2.54	10.17
A-B					0.25	1.00
A-C					75.21	300.83
D-AB	0.15	10.95	0.2	B	10.66	42.63
D-BC	0.11	19.13	0.1	C	4.09	16.37
C-ABD	0.02	6.53	0.0	A	2.34	9.34
C-D					3.75	15.00
C-A					211.17	844.66

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	93.27	0.247	22.68	0.0	0.3	12.694	B
A-BCD	3.05	3.05	99.72	0.031	3.02	0.0	0.0	9.303	A
A-B	0.00	0.00			0.00				
A-C	51.95	51.95			51.95				
D-AB	6.00	6.00	102.13	0.059	5.94	0.0	0.1	9.350	A
D-BC	0.00	0.00	44.13	0.000	0.00	0.0	0.0	0.000	A
C-ABD	3.15	3.15	154.52	0.020	3.13	0.0	0.0	5.944	A
C-D	0.00	0.00			0.00				
C-A	240.85	240.85			240.85				

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	84.65	0.248	20.99	0.3	0.3	14.151	B
A-BCD	2.03	2.03	99.83	0.020	2.04	0.0	0.0	9.204	A
A-B	1.00	1.00			1.00				
A-C	74.97	74.97			74.97				
D-AB	8.54	8.54	89.18	0.096	8.50	0.1	0.1	10.947	B
D-BC	4.46	4.46	51.32	0.087	4.37	0.0	0.1	19.132	C
C-ABD	2.07	2.07	146.57	0.014	2.08	0.0	0.0	6.228	A
C-D	2.00	2.00			2.00				
C-A	239.93	239.93			239.93				

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	26.00	26.00	93.35	0.279	25.95	0.3	0.4	13.312	B
A-BCD	2.03	2.03	110.08	0.018	2.03	0.0	0.0	8.331	A
A-B	0.00	0.00			0.00				
A-C	77.97	77.97			77.97				
D-AB	12.00	12.00	110.44	0.109	11.98	0.1	0.1	9.314	A
D-BC	5.00	5.00	62.52	0.080	5.00	0.1	0.1	16.183	C
C-ABD	2.06	2.06	145.20	0.014	2.06	0.0	0.0	6.285	A
C-D	2.00	2.00			2.00				
C-A	198.94	198.94			198.94				

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	104.34	0.259	27.03	0.4	0.4	11.587	B
A-BCD	3.07	3.07	117.51	0.026	3.06	0.0	0.0	7.862	A
A-B	0.00	0.00			0.00				
A-C	95.93	95.93			95.93				
D-AB	16.09	16.09	104.65	0.154	16.04	0.1	0.2	9.931	A
D-BC	6.91	6.91	61.65	0.112	6.88	0.1	0.1	15.817	C
C-ABD	2.06	2.06	139.78	0.015	2.06	0.0	0.0	6.534	A
C-D	11.00	11.00			11.00				
C-A	164.95	164.95			164.95				

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		2.67	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)

07:30 - 07:45

		To			
		A	B	C	D
From	A	0.00	1.00	52.00	3.00
	B	15.00	0.00	22.00	0.00
	C	241.00	10.00	0.00	0.00
	D	6.00	0.00	0.00	0.00

Demand (Veh/TS)

07:45 - 08:00

		To			
		A	B	C	D
From	A	0.00	2.00	75.00	2.00
	B	15.00	0.00	20.00	0.00
	C	240.00	9.00	0.00	2.00
	D	8.00	1.00	4.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		A	B	C	D
From	A	0.00	1.00	78.00	2.00
	B	14.00	0.00	24.00	0.00
	C	199.00	8.00	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	96.00	3.00
	B	8.00	0.00	30.00	1.00
	C	165.00	8.00	0.00	11.00
	D	15.00	2.00	6.00	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	0.41	17.84	0.7	C	37.25	149.00
A-BCD	0.03	9.56	0.0	A	2.55	10.18
A-B					1.00	4.00
A-C					75.21	300.82
D-AB	0.15	11.05	0.2	B	10.66	42.64
D-BC	0.12	20.90	0.1	C	4.09	16.36
C-ABD	0.07	6.40	0.1	A	9.85	39.42
C-D					3.73	14.93
C-A					210.16	840.65

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	37.00	37.00	93.16	0.397	36.36	0.0	0.6	15.679	C
A-BCD	3.05	3.05	97.10	0.031	3.02	0.0	0.0	9.563	A
A-B	1.00	1.00			1.00				
A-C	51.95	51.95			51.95				
D-AB	6.00	6.00	102.13	0.059	5.94	0.0	0.1	9.350	A
D-BC	0.00	0.00	41.58	0.000	0.00	0.0	0.0	0.000	A
C-ABD	11.45	11.45	168.44	0.068	11.37	0.0	0.1	5.727	A
C-D	0.00	0.00			0.00				
C-A	239.55	239.55			239.55				

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	35.00	35.00	85.39	0.410	34.96	0.6	0.7	17.838	C
A-BCD	2.03	2.03	97.17	0.021	2.04	0.0	0.0	9.463	A
A-B	2.00	2.00			2.00				
A-C	74.97	74.97			74.97				
D-AB	8.54	8.54	88.44	0.097	8.50	0.1	0.1	11.047	B
D-BC	4.46	4.46	47.33	0.094	4.36	0.0	0.1	20.898	C
C-ABD	10.29	10.29	161.43	0.064	10.30	0.1	0.1	5.955	A
C-D	1.99	1.99			1.99				
C-A	238.72	238.72			238.72				

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	38.00	38.00	92.76	0.410	37.99	0.7	0.7	16.398	C
A-BCD	2.03	2.03	107.79	0.019	2.03	0.0	0.0	8.510	A
A-B	1.00	1.00			1.00				
A-C	77.97	77.97			77.97				
D-AB	12.00	12.00	110.27	0.109	11.98	0.1	0.1	9.332	A
D-BC	5.00	5.00	58.49	0.085	5.00	0.1	0.1	17.405	C
C-ABD	8.86	8.86	155.68	0.057	8.88	0.1	0.1	6.127	A
C-D	1.99	1.99			1.99				
C-A	198.14	198.14			198.14				

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	39.00	39.00	99.89	0.390	39.03	0.7	0.7	14.739	B
A-BCD	3.07	3.07	115.23	0.027	3.06	0.0	0.0	8.021	A
A-B	0.00	0.00			0.00				
A-C	95.93	95.93			95.93				
D-AB	16.10	16.10	104.02	0.155	16.04	0.1	0.2	10.002	B
D-BC	6.90	6.90	58.33	0.118	6.87	0.1	0.1	16.834	C
C-ABD	8.81	8.81	149.55	0.059	8.81	0.1	0.1	6.396	A
C-D	10.95	10.95			10.95				
C-A	164.24	164.24			164.24				

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		1.84	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	57.00	3.00
	From	B	10.00	0.00	14.00	0.00
	From	C	266.00	3.00	0.00	0.00
	From	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	83.00	2.00
	From	B	10.00	0.00	12.00	0.00
	From	C	264.00	2.00	0.00	2.00
	From	D	9.00	1.00	5.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		A	B	C	D
From	A	0.00	0.00	86.00	2.00
	B	10.00	0.00	17.00	0.00
	C	219.00	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	106.00	3.00
	B	5.00	0.00	24.00	1.00
	C	182.00	2.00	0.00	12.00
	D	16.00	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	0.30	15.32	0.4	C	25.75	103.00
A-BCD	0.03	9.92	0.0	A	2.55	10.21
A-B					0.25	1.00
A-C					82.95	331.79
D-AB	0.17	12.05	0.2	B	11.67	46.68
D-BC	0.14	22.60	0.2	C	4.83	19.33
C-ABD	0.02	6.64	0.0	A	2.35	9.38
C-D					4.00	15.99
C-A					232.66	930.62

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	24.00	24.00	90.19	0.266	23.64	0.0	0.4	13.455	B
A-BCD	3.06	3.06	93.68	0.033	3.03	0.0	0.0	9.925	A
A-B	0.00	0.00			0.00				
A-C	56.94	56.94			56.94				
D-AB	7.00	7.00	95.64	0.073	6.92	0.0	0.1	10.137	B
D-BC	0.00	0.00	38.90	0.000	0.00	0.0	0.0	0.000	A
C-ABD	3.17	3.17	154.03	0.021	3.14	0.0	0.0	5.964	A
C-D	0.00	0.00			0.00				
C-A	265.83	265.83			265.83				

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	22.00	22.00	80.76	0.272	21.99	0.4	0.4	15.323	C
A-BCD	2.04	2.04	94.04	0.022	2.05	0.0	0.0	9.784	A
A-B	1.00	1.00			1.00				
A-C	82.96	82.96			82.96				
D-AB	9.55	9.55	82.86	0.115	9.51	0.1	0.1	12.047	B
D-BC	5.45	5.45	45.01	0.121	5.31	0.0	0.1	22.601	C
C-ABD	2.08	2.08	145.08	0.014	2.09	0.0	0.0	6.291	A
C-D	2.00	2.00			2.00				
C-A	263.92	263.92			263.92				

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	27.00	27.00	89.94	0.300	26.95	0.4	0.4	14.244	B
A-BCD	2.03	2.03	105.25	0.019	2.03	0.0	0.0	8.720	A
A-B	0.00	0.00			0.00				
A-C	85.97	85.97			85.97				
D-AB	13.00	13.00	104.60	0.124	12.98	0.1	0.1	10.000	B
D-BC	6.00	6.00	56.19	0.107	6.01	0.1	0.1	18.443	C
C-ABD	2.07	2.07	143.62	0.014	2.07	0.0	0.0	6.358	A
C-D	2.00	2.00			2.00				
C-A	218.93	218.93			218.93				

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	30.00	30.00	99.49	0.302	29.99	0.4	0.4	12.892	B
A-BCD	3.08	3.08	113.35	0.027	3.07	0.0	0.0	8.159	A
A-B	0.00	0.00			0.00				
A-C	105.92	105.92			105.92				
D-AB	17.12	17.12	99.65	0.172	17.06	0.1	0.2	10.656	B
D-BC	7.88	7.88	56.39	0.140	7.85	0.1	0.2	17.909	C
C-ABD	2.07	2.07	137.65	0.015	2.07	0.0	0.0	6.636	A
C-D	12.00	12.00			12.00				
C-A	181.94	181.94			181.94				

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		2.88	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)

07:30 - 07:45

		To			
		A	B	C	D
From	A	0.00	1.00	57.00	3.00
	B	15.00	0.00	23.00	0.00
	C	266.00	10.00	0.00	0.00
	D	7.00	0.00	0.00	0.00

Demand (Veh/TS)

07:45 - 08:00

		To			
		A	B	C	D
From	A	0.00	2.00	83.00	2.00
	B	15.00	0.00	21.00	0.00
	C	264.00	9.00	0.00	2.00
	D	9.00	1.00	5.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		A	B	C	D
From	A	0.00	1.00	86.00	2.00
	B	14.00	0.00	25.00	0.00
	C	219.00	8.00	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	106.00	3.00
	B	9.00	0.00	32.00	1.00
	C	182.00	8.00	0.00	12.00
	D	16.00	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	0.44	19.96	0.8	C	38.75	155.00
A-BCD	0.03	10.22	0.0	B	2.56	10.22
A-B					1.00	4.00
A-C					82.94	331.78
D-AB	0.17	12.19	0.2	B	11.67	46.69
D-BC	0.15	25.20	0.2	D	4.83	19.32
C-ABD	0.07	6.44	0.1	A	10.00	40.00
C-D					3.98	15.92
C-A					231.52	926.08

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	38.00	38.00	89.62	0.424	37.29	0.0	0.7	16.980	C
A-BCD	3.07	3.07	91.08	0.034	3.03	0.0	0.0	10.222	B
A-B	1.00	1.00			1.00				
A-C	56.94	56.94			56.94				
D-AB	7.00	7.00	95.64	0.073	6.92	0.0	0.1	10.137	B
D-BC	0.00	0.00	36.33	0.000	0.00	0.0	0.0	0.000	A
C-ABD	11.63	11.63	169.55	0.069	11.55	0.0	0.1	5.694	A
C-D	0.00	0.00			0.00				
C-A	264.37	264.37			264.37				

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	36.00	36.00	80.96	0.445	35.93	0.7	0.8	19.961	C
A-BCD	2.04	2.04	91.40	0.022	2.05	0.0	0.0	10.076	B
A-B	2.00	2.00			2.00				
A-C	82.96	82.96			82.96				
D-AB	9.56	9.56	81.97	0.117	9.51	0.1	0.1	12.193	B
D-BC	5.44	5.44	40.87	0.133	5.29	0.0	0.1	25.198	D
C-ABD	10.46	10.46	161.66	0.065	10.46	0.1	0.1	5.952	A
C-D	1.99	1.99			1.99				
C-A	262.55	262.55			262.55				

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	39.00	39.00	89.03	0.438	39.00	0.8	0.8	17.957	C
A-BCD	2.03	2.03	102.98	0.020	2.04	0.0	0.0	8.917	A
A-B	1.00	1.00			1.00				
A-C	85.97	85.97			85.97				
D-AB	13.00	13.00	104.35	0.125	12.98	0.1	0.1	10.033	B
D-BC	6.00	6.00	52.14	0.115	6.01	0.1	0.1	20.060	C
C-ABD	8.98	8.98	155.32	0.058	8.99	0.1	0.1	6.144	A
C-D	1.99	1.99			1.99				
C-A	218.03	218.03			218.03				

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	42.00	42.00	95.32	0.441	42.00	0.8	0.8	16.809	C
A-BCD	3.08	3.08	111.08	0.028	3.07	0.0	0.0	8.331	A
A-B	0.00	0.00			0.00				
A-C	105.92	105.92			105.92				
D-AB	17.13	17.13	98.92	0.173	17.07	0.1	0.2	10.751	B
D-BC	7.87	7.87	52.95	0.149	7.84	0.1	0.2	19.268	C
C-ABD	8.92	8.92	148.63	0.060	8.92	0.1	0.1	6.444	A
C-D	11.94	11.94			11.94				
C-A	181.13	181.13			181.13				

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		2.17	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	62.00	4.00
	From	B	11.00	0.00	15.00	0.00
	From	C	290.00	4.00	0.00	0.00
	From	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	90.00	3.00
	From	B	11.00	0.00	13.00	0.00
	From	C	289.00	3.00	0.00	3.00
	From	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	94.00	3.00
	B	11.00	0.00	19.00	0.00
	C	239.00	3.00	0.00	3.00
	D	14.00	0.00	6.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		A	B	C	D
From	A	0.00	0.00	116.00	4.00
	B	5.00	0.00	27.00	1.00
	C	198.00	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	0.35	17.69	0.5	C	28.25	113.00
A-BCD	0.05	10.68	0.1	B	3.63	14.50
A-B					0.25	1.00
A-C					90.37	361.50
D-AB	0.22	13.46	0.3	B	13.08	52.30
D-BC	0.19	27.98	0.2	D	5.18	20.71
C-ABD	0.03	6.71	0.0	A	3.46	13.86
C-D					4.75	18.99
C-A					253.79	1015.16

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	26.00	26.00	85.02	0.306	25.57	0.0	0.4	15.036	C
A-BCD	4.14	4.14	88.28	0.047	4.09	0.0	0.1	10.684	B
A-B	0.00	0.00			0.00				
A-C	61.86	61.86			61.86				
D-AB	8.00	8.00	89.40	0.089	7.90	0.0	0.1	11.026	B
D-BC	0.00	0.00	33.35	0.000	0.00	0.0	0.0	0.000	A
C-ABD	4.32	4.32	155.81	0.028	4.29	0.0	0.0	5.940	A
C-D	0.00	0.00			0.00				
C-A	289.68	289.68			289.68				

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	24.00	24.00	74.84	0.321	23.97	0.4	0.5	17.691	C
A-BCD	3.11	3.11	88.47	0.035	3.12	0.1	0.0	10.546	B
A-B	1.00	1.00			1.00				
A-C	89.89	89.89			89.89				
D-AB	10.56	10.56	76.19	0.139	10.51	0.1	0.2	13.457	B
D-BC	5.44	5.44	37.29	0.146	5.27	0.0	0.2	27.977	D
C-ABD	3.20	3.20	146.43	0.022	3.21	0.0	0.0	6.284	A
C-D	3.00	3.00			3.00				
C-A	288.80	288.80			288.80				

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	30.00	30.00	85.36	0.351	29.93	0.5	0.5	16.177	C
A-BCD	3.09	3.09	100.80	0.031	3.09	0.0	0.0	9.213	A
A-B	0.00	0.00			0.00				
A-C	93.91	93.91			93.91				
D-AB	14.00	14.00	99.00	0.141	13.99	0.2	0.2	10.771	B
D-BC	6.00	6.00	48.78	0.123	6.02	0.2	0.1	21.636	C
C-ABD	3.17	3.17	144.09	0.022	3.17	0.0	0.0	6.384	A
C-D	3.00	3.00			3.00				
C-A	238.83	238.83			238.83				

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	96.56	0.342	33.01	0.5	0.5	14.096	B
A-BCD	4.17	4.17	110.18	0.038	4.16	0.0	0.0	8.486	A
A-B	0.00	0.00			0.00				
A-C	115.83	115.83			115.83				
D-AB	19.73	19.73	90.11	0.219	19.63	0.2	0.3	12.385	B
D-BC	9.27	9.27	49.53	0.187	9.20	0.1	0.2	21.415	C
C-ABD	3.16	3.16	137.34	0.023	3.16	0.0	0.0	6.706	A
C-D	12.99	12.99			12.99				
C-A	197.85	197.85			197.85				

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		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
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	62.00	4.00
	B	16.00	0.00	24.00	0.00
	C	290.00	11.00	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	90.00	3.00
	B	16.00	0.00	22.00	0.00
	C	289.00	10.00	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	94.00	3.00
	B	15.00	0.00	27.00	0.00
	C	239.00	9.00	0.00	3.00
	D	14.00	0.00	6.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		A	B	C	D
From	A	0.00	0.00	116.00	4.00
	B	9.00	0.00	35.00	1.00
	C	198.00	9.00	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	0.51	24.21	1.0	C	41.25	165.01
A-BCD	0.05	11.02	0.1	B	3.63	14.54
A-B					1.00	3.99
A-C					90.37	361.47
D-AB	0.22	13.68	0.3	B	13.08	52.33
D-BC	0.20	32.10	0.2	D	5.17	20.68
C-ABD	0.08	6.48	0.1	A	11.47	45.90
C-D					4.72	18.88
C-A					252.31	1009.22

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	84.45	0.474	39.14	0.0	0.9	19.519	C
A-BCD	4.15	4.15	85.73	0.048	4.10	0.0	0.1	11.018	B
A-B	1.00	1.00			1.00				
A-C	61.85	61.85			61.85				
D-AB	8.00	8.00	89.40	0.089	7.90	0.0	0.1	11.026	B
D-BC	0.00	0.00	30.75	0.000	0.00	0.0	0.0	0.000	A
C-ABD	13.18	13.18	172.67	0.076	13.08	0.0	0.1	5.638	A
C-D	0.00	0.00			0.00				
C-A	287.82	287.82			287.82				

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	38.00	38.00	74.91	0.507	37.88	0.9	1.0	24.206	C
A-BCD	3.12	3.12	85.89	0.036	3.13	0.1	0.0	10.875	B
A-B	2.00	2.00			2.00				
A-C	89.88	89.88			89.88				
D-AB	10.57	10.57	75.11	0.141	10.51	0.1	0.2	13.681	B
D-BC	5.43	5.43	33.10	0.164	5.24	0.0	0.2	32.105	D
C-ABD	12.02	12.02	164.57	0.073	12.02	0.1	0.1	5.903	A
C-D	2.98	2.98			2.98				
C-A	287.00	287.00			287.00				

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	42.00	42.00	84.24	0.499	42.00	1.0	1.0	21.257	C
A-BCD	3.09	3.09	98.57	0.031	3.10	0.0	0.0	9.431	A
A-B	1.00	1.00			1.00				
A-C	93.91	93.91			93.91				
D-AB	14.00	14.00	98.68	0.142	13.99	0.2	0.2	10.815	B
D-BC	6.00	6.00	44.71	0.134	6.02	0.2	0.2	23.913	C
C-ABD	10.38	10.38	156.87	0.066	10.40	0.1	0.1	6.139	A
C-D	2.98	2.98			2.98				
C-A	237.63	237.63			237.63				

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	45.00	45.00	91.76	0.490	45.01	1.0	1.0	19.180	C
A-BCD	4.17	4.17	107.95	0.039	4.17	0.0	0.0	8.669	A
A-B	0.00	0.00			0.00				
A-C	115.83	115.83			115.83				
D-AB	19.75	19.75	89.09	0.222	19.65	0.2	0.3	12.564	B
D-BC	9.25	9.25	46.19	0.201	9.18	0.2	0.2	23.334	C
C-ABD	10.31	10.31	149.27	0.069	10.31	0.1	0.1	6.476	A
C-D	12.92	12.92			12.92				
C-A	196.77	196.77			196.77				

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		1.16	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	8.00	215.00	12.00
	From	B	3.00	0.00	11.00	1.00
	From	C	84.00	12.00	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	8.00	216.00	12.00
	From	B	0.00	0.00	10.00	1.00
	From	C	90.00	13.00	0.00	12.00
	From	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	227.00	12.00
	B	2.00	0.00	5.00	0.00
	C	93.00	13.00	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	186.00	10.00
	B	1.00	0.00	8.00	1.00
	C	120.00	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	0.20	14.42	0.2	B	10.75	43.00
A-BCD	0.09	7.03	0.1	A	13.37	53.49
A-B					5.95	23.79
A-C					209.18	836.72
D-AB	0.05	6.88	0.1	A	4.50	18.00
D-BC	0.08	15.03	0.1	C	2.75	11.00
C-ABD	0.12	8.33	0.1	A	12.59	50.35
C-D					9.40	37.59
C-A					95.77	383.06

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	76.92	0.195	14.76	0.0	0.2	14.425	B
A-BCD	13.99	13.99	151.49	0.092	13.88	0.0	0.1	6.537	A
A-B	7.93	7.93			7.93				
A-C	213.08	213.08			213.08				
D-AB	5.00	5.00	141.17	0.035	4.96	0.0	0.0	6.606	A
D-BC	2.00	2.00	66.20	0.030	1.97	0.0	0.0	14.007	B
C-ABD	13.07	13.07	123.09	0.106	12.94	0.0	0.1	8.164	A
C-D	10.88	10.88			10.88				
C-A	83.05	83.05			83.05				

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	87.09	0.126	11.09	0.2	0.1	11.818	B
A-BCD	14.07	14.07	149.86	0.094	14.06	0.1	0.1	6.631	A
A-B	7.93	7.93			7.93				
A-C	214.01	214.01			214.01				
D-AB	7.00	7.00	137.88	0.051	6.98	0.0	0.1	6.875	A
D-BC	5.00	5.00	64.77	0.077	4.95	0.0	0.1	15.033	C
C-ABD	14.36	14.36	124.43	0.115	14.34	0.1	0.1	8.174	A
C-D	11.84	11.84			11.84				
C-A	88.80	88.80			88.80				

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	72.65	0.096	7.04	0.1	0.1	13.777	B
A-BCD	14.12	14.12	150.92	0.094	14.12	0.1	0.1	6.582	A
A-B	3.96	3.96			3.96				
A-C	224.92	224.92			224.92				
D-AB	4.00	4.00	138.65	0.029	4.02	0.1	0.0	6.685	A
D-BC	3.00	3.00	64.08	0.047	3.03	0.1	0.0	14.748	B
C-ABD	14.38	14.38	122.45	0.117	14.38	0.1	0.1	8.328	A
C-D	6.90	6.90			6.90				
C-A	91.72	91.72			91.72				

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	86.55	0.116	9.98	0.1	0.1	11.738	B
A-BCD	11.32	11.32	139.39	0.081	11.33	0.1	0.1	7.032	A
A-B	3.97	3.97			3.97				
A-C	184.71	184.71			184.71				
D-AB	2.00	2.00	132.82	0.015	2.01	0.0	0.0	6.882	A
D-BC	1.00	1.00	64.72	0.015	1.03	0.0	0.0	14.139	B
C-ABD	8.54	8.54	131.28	0.065	8.61	0.1	0.1	7.343	A
C-D	7.97	7.97			7.97				
C-A	119.49	119.49			119.49				

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		1.81	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	13.00	215.00	12.00
		B	5.00	0.00	18.00	1.00
		C	84.00	21.00	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	13.00	216.00	12.00
		B	1.00	0.00	17.00	1.00
		C	90.00	22.00	0.00	12.00
		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	8.00	227.00	12.00
	B	3.00	0.00	12.00	0.00
	C	93.00	21.00	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	8.00	186.00	10.00
	B	2.00	0.00	15.00	1.00
	C	120.00	16.00	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	0.32	17.10	0.5	C	19.00	76.00
ABCD	0.10	7.15	0.1	A	13.50	54.01
A-B					10.40	41.62
A-C					209.09	836.37
D-AB	0.05	6.88	0.1	A	4.50	18.00
D-BC	0.08	16.10	0.1	C	2.75	11.00
C-ABD	0.20	8.65	0.3	A	23.31	93.22
C-D					9.19	36.75
C-A					93.76	375.03

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	24.00	24.00	75.75	0.317	23.55	0.0	0.5	17.101	C
A-BCD	14.14	14.14	149.44	0.095	14.02	0.0	0.1	6.643	A
A-B	12.88	12.88			12.88				
A-C	212.98	212.98			212.98				
D-AB	5.00	5.00	141.10	0.035	4.96	0.0	0.0	6.609	A
D-BC	2.00	2.00	62.18	0.032	1.97	0.0	0.0	14.938	B
C-ABD	24.36	24.36	129.51	0.188	24.10	0.0	0.3	8.524	A
C-D	10.61	10.61			10.61				
C-A	81.03	81.03			81.03				

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	19.00	19.00	84.55	0.225	19.16	0.5	0.3	13.756	B
A-BCD	14.22	14.22	147.79	0.096	14.22	0.1	0.1	6.738	A
A-B	12.87	12.87			12.87				
A-C	213.91	213.91			213.91				
D-AB	7.00	7.00	137.70	0.051	6.98	0.0	0.1	6.885	A
D-BC	5.00	5.00	60.79	0.082	4.94	0.0	0.1	16.096	C
C-ABD	25.98	25.98	131.46	0.198	25.96	0.3	0.3	8.534	A
C-D	11.53	11.53			11.53				
C-A	86.48	86.48			86.48				

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	15.00	15.00	75.91	0.198	15.04	0.3	0.3	14.827	B
A-BCD	14.25	14.25	149.04	0.096	14.25	0.1	0.1	6.680	A
A-B	7.92	7.92			7.92				
A-C	224.83	224.83			224.83				
D-AB	4.00	4.00	138.54	0.029	4.02	0.1	0.0	6.693	A
D-BC	3.00	3.00	60.35	0.050	3.03	0.1	0.1	15.711	C
C-ABD	24.67	24.67	128.77	0.192	24.67	0.3	0.3	8.654	A
C-D	6.74	6.74			6.74				
C-A	89.59	89.59			89.59				

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	18.00	18.00	87.35	0.206	17.99	0.3	0.3	12.967	B
A-BCD	11.40	11.40	137.34	0.083	11.42	0.1	0.1	7.149	A
A-B	7.94	7.94			7.94				
A-C	184.65	184.65			184.65				
D-AB	2.00	2.00	132.78	0.015	2.01	0.0	0.0	6.885	A
D-BC	1.00	1.00	61.00	0.016	1.04	0.1	0.0	15.020	C
C-ABD	18.21	18.21	138.66	0.131	18.32	0.3	0.2	7.489	A
C-D	7.86	7.86			7.86				
C-A	117.93	117.93			117.93				

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		1.24	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)

		To				
		A	B	C	D	
17:30 - 17:45	From	A	0.00	9.00	236.00	13.00
	From	B	3.00	0.00	12.00	1.00
	From	C	92.00	13.00	0.00	12.00
	From	D	6.00	0.00	2.00	0.00

Demand (Veh/TS)

		To				
		A	B	C	D	
17:45 - 18:00	From	A	0.00	9.00	238.00	13.00
	From	B	0.00	0.00	10.00	1.00
	From	C	99.00	14.00	0.00	13.00
	From	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	249.00	13.00
	B	2.00	0.00	6.00	0.00
	C	103.00	14.00	0.00	8.00
	D	5.00	0.00	3.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		A	B	C	D
From	A	0.00	5.00	205.00	10.00
	B	1.00	0.00	9.00	1.00
	C	132.00	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	0.22	16.03	0.3	C	11.50	46.00
A-BCD	0.10	7.12	0.1	A	14.71	58.86
A-B					6.93	27.71
A-C					229.61	918.44
D-AB	0.06	7.10	0.1	A	5.25	21.00
D-BC	0.10	17.05	0.1	C	3.00	12.00
C-ABD	0.13	8.75	0.2	A	14.09	56.35
C-D					10.35	41.40
C-A					105.06	420.25

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	16.00	16.00	71.61	0.223	15.72	0.0	0.3	16.026	C
A-BCD	15.67	15.67	153.53	0.102	15.53	0.0	0.1	6.517	A
A-B	8.90	8.90			8.90				
A-C	233.43	233.43			233.43				
D-AB	6.00	6.00	138.94	0.043	5.96	0.0	0.0	6.766	A
D-BC	2.00	2.00	60.25	0.033	1.97	0.0	0.0	15.434	C
C-ABD	14.55	14.55	119.19	0.122	14.40	0.0	0.2	8.578	A
C-D	11.82	11.82			11.82				
C-A	90.63	90.63			90.63				

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	81.20	0.135	11.12	0.3	0.2	12.825	B
A-BCD	15.79	15.79	151.90	0.104	15.79	0.1	0.1	6.613	A
A-B	8.90	8.90			8.90				
A-C	235.31	235.31			235.31				
D-AB	8.00	8.00	134.66	0.059	7.98	0.0	0.1	7.104	A
D-BC	6.00	6.00	58.65	0.102	5.92	0.0	0.1	17.046	C
C-ABD	15.96	15.96	120.68	0.132	15.94	0.2	0.2	8.594	A
C-D	12.77	12.77			12.77				
C-A	97.27	97.27			97.27				

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	67.79	0.118	8.02	0.2	0.1	15.110	C
A-BCD	15.86	15.86	152.82	0.104	15.86	0.1	0.1	6.572	A
A-B	4.94	4.94			4.94				
A-C	246.20	246.20			246.20				
D-AB	5.00	5.00	135.83	0.037	5.02	0.1	0.0	6.880	A
D-BC	3.00	3.00	57.49	0.052	3.06	0.1	0.1	16.550	C
C-ABD	16.01	16.01	118.87	0.135	16.01	0.2	0.2	8.751	A
C-D	7.85	7.85			7.85				
C-A	101.13	101.13			101.13				

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	82.13	0.134	10.98	0.1	0.2	12.635	B
A-BCD	11.54	11.54	138.11	0.084	11.57	0.1	0.1	7.117	A
A-B	4.96	4.96			4.96				
A-C	203.50	203.50			203.50				
D-AB	2.00	2.00	129.62	0.015	2.02	0.0	0.0	7.056	A
D-BC	1.00	1.00	58.44	0.017	1.04	0.1	0.0	15.689	C
C-ABD	9.83	9.83	128.21	0.077	9.91	0.2	0.1	7.620	A
C-D	8.95	8.95			8.95				
C-A	131.22	131.22			131.22				

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		1.93	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)

		To				
		A	B	C	D	
17:30 - 17:45	From	A	0.00	14.00	236.00	13.00
		B	5.00	0.00	19.00	1.00
		C	92.00	22.00	0.00	12.00
		D	6.00	0.00	2.00	0.00

Demand (Veh/TS)

		To				
		A	B	C	D	
17:45 - 18:00	From	A	0.00	14.00	238.00	13.00
		B	1.00	0.00	17.00	1.00
		C	99.00	23.00	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	9.00	249.00	13.00
	B	3.00	0.00	13.00	0.00
	C	103.00	22.00	0.00	8.00
	D	5.00	0.00	3.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		A	B	C	D
From	A	0.00	9.00	205.00	10.00
	B	2.00	0.00	16.00	1.00
	C	132.00	17.00	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	0.36	19.58	0.5	C	19.75	79.00
A-BCD	0.11	7.24	0.1	A	14.88	59.53
A-B					11.37	45.50
A-C					229.49	917.97
D-AB	0.06	7.12	0.1	A	5.25	21.00
D-BC	0.11	18.43	0.1	C	3.00	12.00
C-ABD	0.22	9.06	0.3	A	25.52	102.07
C-D					10.07	40.29
C-A					102.41	409.64

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	25.00	25.00	69.95	0.357	24.46	0.0	0.5	19.575	C
A-BCD	15.86	15.86	151.65	0.105	15.72	0.0	0.1	6.616	A
A-B	13.84	13.84			13.84				
A-C	233.30	233.30			233.30				
D-AB	6.00	6.00	138.86	0.043	5.96	0.0	0.0	6.770	A
D-BC	2.00	2.00	56.23	0.036	1.96	0.0	0.0	16.573	C
C-ABD	26.55	26.55	126.90	0.209	26.24	0.0	0.3	8.923	A
C-D	11.47	11.47			11.47				
C-A	87.97	87.97			87.97				

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	19.00	19.00	78.32	0.243	19.21	0.5	0.3	15.238	C
A-BCD	15.99	15.99	150.02	0.107	15.99	0.1	0.1	6.716	A
A-B	13.83	13.83			13.83				
A-C	235.17	235.17			235.17				
D-AB	8.00	8.00	134.39	0.060	7.98	0.0	0.1	7.119	A
D-BC	6.00	6.00	54.66	0.110	5.92	0.0	0.1	18.434	C
C-ABD	28.42	28.42	129.15	0.220	28.39	0.3	0.3	8.939	A
C-D	12.37	12.37			12.37				
C-A	94.21	94.21			94.21				

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	16.00	16.00	69.94	0.229	16.02	0.3	0.3	16.731	C
A-BCD	16.04	16.04	151.10	0.106	16.04	0.1	0.1	6.664	A
A-B	8.89	8.89			8.89				
A-C	246.07	246.07			246.07				
D-AB	5.00	5.00	135.68	0.037	5.02	0.1	0.0	6.888	A
D-BC	3.00	3.00	53.75	0.056	3.06	0.1	0.1	17.775	C
C-ABD	27.08	27.08	126.57	0.214	27.08	0.3	0.3	9.059	A
C-D	7.63	7.63			7.63				
C-A	98.29	98.29			98.29				

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	19.00	19.00	82.37	0.231	19.00	0.3	0.3	14.196	B
A-BCD	11.64	11.64	136.13	0.086	11.68	0.1	0.1	7.237	A
A-B	8.93	8.93			8.93				
A-C	203.43	203.43			203.43				
D-AB	2.00	2.00	129.57	0.015	2.02	0.0	0.0	7.059	A
D-BC	1.00	1.00	54.70	0.018	1.04	0.1	0.0	16.784	C
C-ABD	20.02	20.02	136.92	0.146	20.15	0.3	0.2	7.725	A
C-D	8.81	8.81			8.81				
C-A	129.18	129.18			129.18				

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		1.42	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	258.00	14.00
		B	4.00	0.00	13.00	1.00
		C	100.00	14.00	0.00	13.00
		D	6.00	0.00	3.00	0.00

Demand (Veh/TS)

		To				
		A	B	C	D	
17:45 - 18:00	From	A	0.00	10.00	259.00	14.00
		B	0.00	0.00	11.00	1.00
		C	108.00	15.00	0.00	14.00
		D	9.00	0.00	6.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		A	B	C	D
From	A	0.00	5.00	272.00	14.00
	B	3.00	0.00	6.00	0.00
	C	112.00	15.00	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	224.00	11.00
	B	1.00	0.00	10.00	1.00
	C	144.00	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	0.28	19.58	0.4	C	12.75	51.00
A-BCD	0.11	7.17	0.2	A	16.53	66.12
A-B					7.40	29.62
A-C					250.07	1000.26
D-AB	0.07	7.32	0.1	A	5.75	23.00
D-BC	0.11	19.33	0.1	C	3.50	14.00
C-ABD	0.15	9.20	0.2	A	15.78	63.13
C-D					11.28	45.13
C-A					113.94	455.74

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	63.20	0.285	17.61	0.0	0.4	19.584	C
A-BCD	17.52	17.52	156.23	0.112	17.36	0.0	0.2	6.477	A
A-B	9.87	9.87			9.87				
A-C	254.61	254.61			254.61				
D-AB	6.00	6.00	136.05	0.044	5.95	0.0	0.0	6.916	A
D-BC	3.00	3.00	54.03	0.056	2.94	0.0	0.1	17.599	C
C-ABD	16.23	16.23	115.58	0.140	16.04	0.0	0.2	9.030	A
C-D	12.74	12.74			12.74				
C-A	98.03	98.03			98.03				

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	75.81	0.158	12.20	0.4	0.2	14.133	B
A-BCD	17.68	17.68	154.42	0.114	17.67	0.2	0.2	6.583	A
A-B	9.86	9.86			9.86				
A-C	255.46	255.46			255.46				
D-AB	9.00	9.00	131.90	0.068	8.97	0.0	0.1	7.319	A
D-BC	6.00	6.00	52.42	0.114	5.93	0.1	0.1	19.327	C
C-ABD	17.78	17.78	117.77	0.151	17.76	0.2	0.2	8.999	A
C-D	13.68	13.68			13.68				
C-A	105.54	105.54			105.54				

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	9.00	9.00	55.62	0.162	9.00	0.2	0.2	19.397	C
A-BCD	17.78	17.78	155.53	0.114	17.77	0.2	0.2	6.538	A
A-B	4.93	4.93			4.93				
A-C	268.29	268.29			268.29				
D-AB	5.00	5.00	132.57	0.038	5.03	0.1	0.0	7.060	A
D-BC	4.00	4.00	51.10	0.078	4.04	0.1	0.1	19.138	C
C-ABD	17.89	17.89	115.80	0.154	17.88	0.2	0.2	9.196	A
C-D	8.79	8.79			8.79				
C-A	109.33	109.33			109.33				

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	77.21	0.155	12.01	0.2	0.2	13.770	B
A-BCD	13.15	13.15	138.89	0.095	13.19	0.2	0.1	7.165	A
A-B	4.95	4.95			4.95				
A-C	221.90	221.90			221.90				
D-AB	3.00	3.00	126.38	0.024	3.02	0.0	0.0	7.295	A
D-BC	1.00	1.00	51.81	0.019	1.07	0.1	0.0	17.758	C
C-ABD	11.24	11.24	125.52	0.090	11.34	0.2	0.1	7.897	A
C-D	9.92	9.92			9.92				
C-A	142.84	142.84			142.84				

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		2.24	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	15.00	258.00	14.00
		B	6.00	0.00	20.00	1.00
		C	100.00	23.00	0.00	13.00
		D	6.00	0.00	3.00	0.00

Demand (Veh/TS)

		To				
		A	B	C	D	
17:45 - 18:00	From	A	0.00	15.00	259.00	14.00
		B	1.00	0.00	18.00	1.00
		C	108.00	24.00	0.00	14.00
		D	9.00	0.00	6.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		A	B	C	D
From	A	0.00	9.00	272.00	14.00
	B	4.00	0.00	13.00	0.00
	C	112.00	23.00	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	9.00	224.00	11.00
	B	2.00	0.00	17.00	1.00
	C	144.00	18.00	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	0.44	24.90	0.7	C	21.00	84.00
A-BCD	0.12	7.28	0.2	A	16.75	67.01
A-B					11.84	47.36
A-C					249.91	999.63
D-AB	0.07	7.34	0.1	A	5.75	23.00
D-BC	0.12	21.14	0.1	C	3.50	14.00
C-ABD	0.24	9.49	0.4	A	28.13	112.52
C-D					10.92	43.67
C-A					110.45	441.81

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	27.00	27.00	61.73	0.437	26.26	0.0	0.7	24.900	C
A-BCD	17.76	17.76	154.54	0.115	17.60	0.0	0.2	6.568	A
A-B	14.79	14.79			14.79				
A-C	254.44	254.44			254.44				
D-AB	6.00	6.00	135.90	0.044	5.95	0.0	0.0	6.924	A
D-BC	3.00	3.00	50.01	0.060	2.94	0.0	0.1	19.094	C
C-ABD	29.18	29.18	124.78	0.234	28.80	0.0	0.4	9.357	A
C-D	12.29	12.29			12.29				
C-A	94.53	94.53			94.53				

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	20.00	20.00	72.35	0.276	20.35	0.7	0.4	17.360	C
A-BCD	17.94	17.94	152.74	0.117	17.94	0.2	0.2	6.681	A
A-B	14.78	14.78			14.78				
A-C	255.27	255.27			255.27				
D-AB	9.00	9.00	131.56	0.068	8.97	0.0	0.1	7.339	A
D-BC	6.00	6.00	48.41	0.124	5.92	0.1	0.1	21.144	C
C-ABD	31.31	31.31	127.86	0.245	31.28	0.4	0.4	9.330	A
C-D	13.16	13.16			13.16				
C-A	101.52	101.52			101.52				

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	59.08	0.288	16.99	0.4	0.4	21.435	C
A-BCD	18.01	18.01	153.98	0.117	18.01	0.2	0.2	6.623	A
A-B	8.87	8.87			8.87				
A-C	268.12	268.12			268.12				
D-AB	5.00	5.00	132.33	0.038	5.03	0.1	0.0	7.073	A
D-BC	4.00	4.00	47.34	0.084	4.04	0.1	0.1	20.807	C
C-ABD	29.94	29.94	125.00	0.240	29.94	0.4	0.4	9.486	A
C-D	8.48	8.48			8.48				
C-A	105.58	105.58			105.58				

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	20.00	20.00	76.93	0.260	20.04	0.4	0.4	15.810	C
A-BCD	13.29	13.29	137.06	0.097	13.33	0.2	0.1	7.280	A
A-B	8.91	8.91			8.91				
A-C	221.79	221.79			221.79				
D-AB	3.00	3.00	126.31	0.024	3.02	0.0	0.0	7.302	A
D-BC	1.00	1.00	48.05	0.021	1.07	0.1	0.0	19.185	C
C-ABD	22.08	22.08	135.70	0.163	22.25	0.4	0.2	7.955	A
C-D	9.73	9.73			9.73				
C-A	140.18	140.18			140.18				

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		15.90	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
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)

07:30 - 07:45

		To			
		A	B	C	D
From	A	0.00	1.00	43.00	14.00
	B	16.00	0.00	21.00	3.00
	C	271.00	11.00	0.00	28.00
	D	26.00	0.00	31.00	0.00

Demand (Veh/TS)

07:45 - 08:00

		To			
		A	B	C	D
From	A	0.00	2.00	71.00	12.00
	B	16.00	0.00	19.00	3.00
	C	270.00	10.00	0.00	30.00
	D	28.00	1.00	36.00	0.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		A	B	C	D
From	A	0.00	1.00	75.00	12.00
	B	15.00	0.00	25.00	2.00
	C	221.00	9.00	0.00	31.00
	D	31.00	0.00	36.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		A	B	C	D
From	A	0.00	0.00	97.00	12.00
	B	9.00	0.00	33.00	3.00
	C	181.00	9.00	0.00	40.00
	D	34.00	3.00	38.00	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	0.55	28.69	1.2	D	41.25	165.01
A-BCD	0.17	12.26	0.2	B	13.89	55.56
A-B					0.98	3.91
A-C					70.13	280.54
D-AB	0.48	25.37	0.9	D	30.70	122.78
D-BC	1.00	154.89	6.2	F	35.31	141.25
C-ABD	0.08	6.36	0.1	A	11.49	45.97
C-D					32.04	128.18
C-A					234.21	936.85

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	78.73	0.508	39.02	0.0	1.0	22.164	C
A-BCD	15.32	15.32	88.31	0.174	15.10	0.0	0.2	12.262	B
A-B	0.97	0.97			0.97				
A-C	41.71	41.71			41.71				
D-AB	26.00	26.00	73.51	0.354	25.47	0.0	0.5	18.540	C
D-BC	31.00	31.00	39.30	0.789	28.40	0.0	2.6	71.673	F
C-ABD	13.21	13.21	174.73	0.076	13.11	0.0	0.1	5.567	A
C-D	27.79	27.79			27.79				
C-A	269.00	269.00			269.00				

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	38.00	38.00	68.97	0.551	37.82	1.0	1.2	28.688	D
A-BCD	13.61	13.61	91.55	0.149	13.63	0.2	0.2	11.550	B
A-B	1.96	1.96			1.96				
A-C	69.43	69.43			69.43				
D-AB	29.00	29.00	63.28	0.459	28.74	0.5	0.8	25.368	D
D-BC	36.00	36.00	36.13	0.996	32.42	2.6	6.2	154.887	F
C-ABD	12.03	12.03	166.72	0.072	12.03	0.1	0.1	5.818	A
C-D	29.80	29.80			29.80				
C-A	268.18	268.18			268.18				

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	42.00	42.00	80.26	0.523	42.04	1.2	1.1	23.517	C
A-BCD	13.26	13.26	103.15	0.129	13.29	0.2	0.2	10.032	B
A-B	0.98	0.98			0.98				
A-C	73.76	73.76			73.76				
D-AB	31.00	31.00	80.42	0.385	31.14	0.8	0.7	18.635	C
D-BC	36.00	36.00	46.43	0.775	37.88	6.2	4.3	114.456	F
C-ABD	10.41	10.41	159.23	0.065	10.42	0.1	0.1	6.043	A
C-D	30.83	30.83			30.83				
C-A	219.77	219.77			219.77				

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	45.00	45.00	89.25	0.504	45.08	1.1	1.0	20.334	C
A-BCD	13.36	13.36	112.70	0.119	13.38	0.2	0.2	9.064	A
A-B	0.00	0.00			0.00				
A-C	95.64	95.64			95.64				
D-AB	36.76	36.76	77.45	0.475	36.58	0.7	0.8	21.054	C
D-BC	38.24	38.24	50.31	0.761	38.86	4.3	3.7	83.088	F
C-ABD	10.33	10.33	151.98	0.068	10.33	0.1	0.1	6.355	A
C-D	39.76	39.76			39.76				
C-A	179.91	179.91			179.91				

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		6.46	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
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	15.00	237.00	32.00
		B	6.00	0.00	19.00	3.00
		C	80.00	23.00	0.00	48.00
		D	21.00	0.00	31.00	0.00

Demand (Veh/TS)

		To				
		A	B	C	D	
17:45 - 18:00	From	A	0.00	15.00	239.00	30.00
		B	1.00	0.00	16.00	3.00
		C	88.00	24.00	0.00	49.00
		D	24.00	0.00	34.00	0.00

Demand (Veh/TS)

18:00 - 18:15

		To			
		A	B	C	D
From	A	0.00	9.00	252.00	30.00
	B	4.00	0.00	11.00	2.00
	C	92.00	23.00	0.00	44.00
	D	20.00	0.00	31.00	0.00

Demand (Veh/TS)

18:15 - 18:30

		To			
		A	B	C	D
From	A	0.00	9.00	203.00	27.00
	B	2.00	0.00	15.00	2.00
	C	125.00	18.00	0.00	45.00
	D	16.00	0.00	28.00	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	0.49	29.17	0.9	D	21.00	84.00
A-BCD	0.27	7.34	0.6	A	46.63	186.51
A-B					11.17	44.66
A-C					216.71	866.83
D-AB	0.21	10.25	0.3	B	20.25	81.00
D-BC	0.72	61.24	2.2	F	31.00	124.00
C-ABD	0.25	9.29	0.4	A	29.02	116.08
C-D					44.13	176.53
C-A					91.60	366.39

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	57.15	0.490	27.10	0.0	0.9	29.173	D
A-BCD	50.91	50.91	188.25	0.270	50.34	0.0	0.6	6.518	A
A-B	13.87	13.87			13.87				
A-C	219.22	219.22			219.22				
D-AB	21.00	21.00	117.22	0.179	20.78	0.0	0.2	9.312	A
D-BC	31.00	31.00	48.34	0.641	29.44	0.0	1.6	44.682	E
C-ABD	30.19	30.19	127.38	0.237	29.79	0.0	0.4	9.203	A
C-D	45.30	45.30			45.30				
C-A	75.51	75.51			75.51				

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	20.00	20.00	64.25	0.311	20.44	0.9	0.5	20.678	C
A-BCD	47.54	47.54	183.32	0.259	47.54	0.6	0.6	6.651	A
A-B	13.96	13.96			13.96				
A-C	222.50	222.50			222.50				
D-AB	24.00	24.00	111.65	0.215	23.95	0.2	0.3	10.255	B
D-BC	34.00	34.00	47.37	0.718	33.40	1.6	2.2	61.238	F
C-ABD	32.37	32.37	130.93	0.247	32.34	0.4	0.4	9.141	A
C-D	46.01	46.01			46.01				
C-A	82.62	82.62			82.62				

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	50.56	0.336	16.97	0.5	0.5	26.849	D
A-BCD	47.85	47.85	185.40	0.258	47.86	0.6	0.6	6.564	A
A-B	8.38	8.38			8.38				
A-C	234.76	234.76			234.76				
D-AB	20.00	20.00	112.42	0.178	20.05	0.3	0.2	9.748	A
D-BC	31.00	31.00	46.33	0.669	31.03	2.2	2.1	59.453	F
C-ABD	30.95	30.95	127.98	0.242	30.95	0.4	0.4	9.295	A
C-D	41.43	41.43			41.43				
C-A	86.62	86.62			86.62				

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	19.00	19.00	72.56	0.262	19.13	0.5	0.4	16.846	C
A-BCD	40.20	40.20	163.33	0.246	40.26	0.6	0.5	7.336	A
A-B	8.44	8.44			8.44				
A-C	190.36	190.36			190.36				
D-AB	16.00	16.00	107.92	0.148	16.04	0.2	0.2	9.800	A
D-BC	28.00	28.00	47.18	0.593	28.52	2.1	1.6	49.618	E
C-ABD	22.56	22.56	137.79	0.164	22.74	0.4	0.3	7.845	A
C-D	43.79	43.79			43.79				
C-A	121.65	121.65			121.65				

APPENDIX F – ARCADY RESULTS

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

Path: S:\Jobs\2018\18039 Housing Dev Clane, Kildare TIA+RSA\18039-02\Reports\Working\ARCADY

Report generation date: 15/04/2019 10:31:44

- »2019, AM
- »2019, 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
2019								
Arm 1	0.3	2.32	0.20	A	0.6	2.95	0.37	A
Arm 2	0.1	2.73	0.13	A	0.1	2.82	0.07	A
Arm 3	0.4	3.33	0.30	A	0.6	3.57	0.37	A
Arm 4	0.0	5.53	0.03	A	0.0	5.65	0.03	A
2022 no dev								
Arm 1	0.3	2.35	0.22	A	0.6	3.07	0.39	A
Arm 2	0.2	2.79	0.14	A	0.1	2.89	0.07	A
Arm 3	0.5	3.42	0.31	A	0.6	3.68	0.39	A
Arm 4	0.0	5.64	0.03	A	0.0	5.78	0.03	A
2022 with dev								
Arm 1	0.3	2.38	0.22	A	0.7	3.14	0.40	A
Arm 2	0.2	2.86	0.16	A	0.1	2.95	0.09	A
Arm 3	0.5	3.49	0.33	A	0.7	3.83	0.42	A
Arm 4	0.0	5.72	0.03	A	0.0	5.94	0.03	A
2027 no dev								
Arm 1	0.3	2.42	0.24	A	0.8	3.29	0.43	A
Arm 2	0.2	2.90	0.15	A	0.1	3.02	0.08	A
Arm 3	0.5	3.59	0.35	A	0.8	3.96	0.44	A
Arm 4	0.0	5.87	0.03	A	0.0	6.07	0.03	A
2027 with dev								
Arm 1	0.3	2.44	0.24	A	0.8	3.37	0.44	A
Arm 2	0.2	2.98	0.18	A	0.1	3.08	0.10	A
Arm 3	0.6	3.68	0.36	A	0.8	4.14	0.46	A
Arm 4	0.0	5.96	0.03	A	0.0	6.25	0.03	A
2037 no dev								
Arm 1	0.3	2.50	0.26	A	0.9	3.55	0.47	A
Arm 2	0.2	3.01	0.17	A	0.1	3.17	0.09	A
Arm 3	0.6	3.81	0.38	A	0.9	4.27	0.48	A
Arm 4	0.0	6.18	0.04	A	0.0	6.36	0.05	A
2037 with dev								
Arm 1	0.4	2.52	0.26	A	0.9	3.65	0.48	A
Arm 2	0.2	3.10	0.19	A	0.1	3.24	0.11	A
Arm 3	0.6	3.90	0.39	A	1.0	4.47	0.50	A
Arm 4	0.0	6.28	0.04	A	0.1	6.57	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	2019	AM	DIRECT	07:30	08:30	60	15	✓
D2	2019	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

2019, 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	2.88	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	2019	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	64.00	1.00
	2	15.00	1.00	19.00	0.00
	3	80.00	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	73.00	0.00
	2	17.00	0.00	16.00	0.00
	3	94.00	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	80.00	0.00
	2	22.00	0.00	20.00	0.00
	3	78.00	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	96.00	0.00
	2	18.00	0.00	30.00	0.00
	3	110.00	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	0.20	2.32	0.3	A	85.75	343.00
2	0.13	2.73	0.1	A	39.50	158.00
3	0.30	3.33	0.4	A	97.50	390.00
4	0.03	5.53	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	71.00	71.00	6.97	486.18	0.146	70.83	96.68	0.0	0.2	2.165	A
2	35.00	35.00	67.83	397.75	0.088	34.90	9.97	0.0	0.1	2.480	A
3	84.00	84.00	16.95	386.36	0.217	83.72	85.78	0.0	0.3	2.971	A
4	5.00	5.00	98.68	181.91	0.027	4.97	1.99	0.0	0.0	5.086	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	79.00	79.00	12.98	480.91	0.164	78.97	112.92	0.2	0.2	2.238	A
2	33.00	33.00	75.98	390.79	0.084	33.00	15.98	0.1	0.1	2.516	A
3	107.00	107.00	17.00	382.66	0.280	106.89	91.98	0.3	0.4	3.261	A
4	4.00	4.00	121.89	171.00	0.023	4.00	2.00	0.0	0.0	5.388	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	94.00	94.00	6.03	485.72	0.194	93.96	103.05	0.2	0.2	2.297	A
2	42.00	42.00	80.99	387.28	0.108	41.97	19.00	0.1	0.1	2.606	A
3	85.00	85.00	21.98	379.86	0.224	85.10	100.98	0.4	0.3	3.055	A
4	3.00	3.00	106.08	178.24	0.017	3.01	1.00	0.0	0.0	5.135	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	99.00	99.00	5.00	487.13	0.203	98.98	130.87	0.2	0.3	2.318	A
2	48.00	48.00	97.95	377.54	0.127	47.98	6.03	0.1	0.1	2.730	A
3	114.00	114.00	18.01	383.69	0.297	113.87	127.92	0.3	0.4	3.333	A
4	4.00	4.00	131.87	166.73	0.024	3.99	0.00	0.0	0.0	5.529	A

2019, 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	3.22	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
D2	2019	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	164.00	1.00
	2	7.00	0.00	10.00	0.00
	3	121.00	22.00	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	154.00	2.00
	2	11.00	0.00	12.00	0.00
	3	98.00	18.00	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	131.00	2.00
	2	10.00	0.00	7.00	0.00
	3	115.00	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	18.00	131.00	4.00
	2	3.00	0.00	2.00	0.00
	3	106.00	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	0.37	2.95	0.6	A	159.50	638.00
2	0.07	2.82	0.1	A	15.50	62.00
3	0.37	3.57	0.6	A	130.75	523.00
4	0.03	5.65	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	177.00	177.00	22.91	480.89	0.368	176.42	128.49	0.0	0.6	2.951	A
2	17.00	17.00	165.46	337.17	0.050	16.95	33.87	0.0	0.1	2.810	A
3	150.00	150.00	7.97	401.33	0.374	149.41	174.43	0.0	0.6	3.566	A
4	1.00	1.00	150.41	160.23	0.006	0.99	6.97	0.0	0.0	5.651	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	164.00	164.00	20.02	482.80	0.340	164.06	109.12	0.6	0.5	2.825	A
2	23.00	23.00	158.05	342.22	0.067	22.98	26.04	0.1	0.1	2.818	A
3	118.00	118.00	12.98	398.18	0.296	118.17	168.04	0.6	0.4	3.215	A
4	0.00	0.00	129.13	169.59	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	144.00	144.00	16.01	485.89	0.296	144.09	126.92	0.5	0.4	2.633	A
2	17.00	17.00	136.09	357.09	0.048	17.02	24.01	0.1	0.1	2.648	A
3	130.00	130.00	12.01	398.57	0.326	129.94	141.11	0.4	0.5	3.350	A
4	5.00	5.00	137.95	165.68	0.030	4.97	3.99	0.0	0.0	5.600	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	153.00	153.00	17.00	485.70	0.315	152.96	109.07	0.4	0.5	2.704	A
2	5.00	5.00	135.00	357.81	0.014	5.04	34.96	0.1	0.0	2.550	A
3	125.00	125.00	7.01	401.75	0.311	125.03	133.03	0.5	0.5	3.254	A
4	0.00	0.00	126.05	170.90	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	2.94	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	6.00	68.00	1.00
	2	16.00	1.00	20.00	0.00
	3	85.00	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	77.00	0.00
	2	18.00	0.00	17.00	0.00
	3	100.00	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	85.00	0.00
	2	23.00	0.00	21.00	0.00
	3	83.00	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	102.00	0.00
	2	19.00	0.00	32.00	0.00
	3	116.00	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	2.35	0.3	A	90.75	363.00
2	0.14	2.79	0.2	A	41.75	167.00
3	0.31	3.42	0.5	A	103.25	413.00
4	0.03	5.64	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	75.00	75.00	6.97	486.19	0.154	74.82	102.66	0.0	0.2	2.186	A
2	37.00	37.00	71.82	395.01	0.094	36.90	9.97	0.0	0.1	2.513	A
3	89.00	89.00	17.95	385.79	0.231	88.70	90.76	0.0	0.3	3.027	A
4	5.00	5.00	104.66	179.23	0.028	4.97	1.99	0.0	0.0	5.165	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	83.00	83.00	13.97	480.17	0.173	82.97	119.91	0.2	0.2	2.265	A
2	35.00	35.00	79.98	388.11	0.090	35.00	16.97	0.1	0.1	2.550	A
3	114.00	114.00	18.00	382.10	0.298	113.88	96.98	0.3	0.4	3.353	A
4	4.00	4.00	129.88	167.39	0.024	4.00	2.00	0.0	0.0	5.510	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	100.00	100.00	6.04	485.72	0.206	99.95	109.06	0.2	0.3	2.332	A
2	44.00	44.00	85.99	383.93	0.115	43.97	20.00	0.1	0.1	2.647	A
3	90.00	90.00	22.98	379.49	0.237	90.11	106.97	0.4	0.3	3.110	A
4	3.00	3.00	112.09	175.54	0.017	3.01	1.00	0.0	0.0	5.215	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	105.00	105.00	5.00	487.14	0.216	104.98	137.86	0.3	0.3	2.354	A
2	51.00	51.00	103.95	373.51	0.137	50.97	6.04	0.1	0.2	2.790	A
3	120.00	120.00	19.01	383.22	0.313	119.86	135.91	0.3	0.5	3.415	A
4	4.00	4.00	138.86	163.60	0.024	3.99	0.00	0.0	0.0	5.638	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	3.01	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	6.00	68.00	1.00
	2	16.00	1.00	30.00	0.00
	3	85.00	9.00	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	77.00	0.00
	2	18.00	0.00	27.00	0.00
	3	100.00	17.00	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	85.00	0.00
	2	23.00	0.00	31.00	0.00
	3	83.00	10.00	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	102.00	0.00
	2	19.00	0.00	41.00	0.00
	3	116.00	8.00	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	2.38	0.3	A	90.75	363.00
2	0.16	2.86	0.2	A	51.50	206.00
3	0.33	3.49	0.5	A	108.75	435.00
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	75.00	75.00	12.95	481.63	0.156	74.82	102.65	0.0	0.2	2.211	A
2	47.00	47.00	71.81	396.09	0.119	46.87	15.95	0.0	0.1	2.577	A
3	95.00	95.00	17.95	384.19	0.247	94.67	100.73	0.0	0.3	3.106	A
4	5.00	5.00	110.63	176.37	0.028	4.97	1.99	0.0	0.0	5.251	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	83.00	83.00	19.97	475.60	0.175	82.97	119.90	0.2	0.2	2.292	A
2	45.00	45.00	79.97	389.43	0.116	45.00	22.97	0.1	0.1	2.614	A
3	120.00	120.00	18.00	381.03	0.315	119.87	106.98	0.3	0.5	3.444	A
4	4.00	4.00	135.87	164.52	0.024	4.00	2.00	0.0	0.0	5.608	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	100.00	100.00	11.04	481.90	0.208	99.95	109.06	0.2	0.3	2.356	A
2	54.00	54.00	85.99	385.02	0.140	53.97	25.01	0.1	0.2	2.718	A
3	95.00	95.00	22.98	378.35	0.251	95.12	116.97	0.5	0.3	3.180	A
4	3.00	3.00	117.10	173.15	0.017	3.01	1.00	0.0	0.0	5.291	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	105.00	105.00	10.00	483.33	0.217	104.98	137.85	0.3	0.3	2.378	A
2	60.00	60.00	103.95	374.13	0.160	59.97	11.04	0.2	0.2	2.864	A
3	125.00	125.00	19.01	382.29	0.327	124.85	144.91	0.3	0.5	3.494	A
4	4.00	4.00	143.86	161.21	0.025	3.99	0.00	0.0	0.0	5.724	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	3.06	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	75.00	1.00
	2	17.00	1.00	22.00	0.00
	3	93.00	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	85.00	0.00
	2	20.00	0.00	19.00	0.00
	3	110.00	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	16.00	93.00	0.00
	2	26.00	0.00	23.00	0.00
	3	91.00	6.00	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	112.00	0.00
	2	21.00	0.00	35.00	0.00
	3	128.00	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	0.24	2.42	0.3	A	99.75	399.00
2	0.15	2.90	0.2	A	46.00	184.00
3	0.35	3.59	0.5	A	113.25	453.00
4	0.03	5.87	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	83.00	83.00	6.97	486.15	0.171	82.79	111.62	0.0	0.2	2.230	A
2	40.00	40.00	78.79	390.39	0.102	39.89	10.97	0.0	0.1	2.568	A
3	97.00	97.00	18.95	385.24	0.252	96.66	99.73	0.0	0.3	3.116	A
4	5.00	5.00	113.62	175.21	0.029	4.97	1.99	0.0	0.0	5.286	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	92.00	92.00	14.97	479.40	0.192	91.97	131.88	0.2	0.2	2.322	A
2	39.00	39.00	87.97	382.74	0.102	39.00	18.97	0.1	0.1	2.619	A
3	125.00	125.00	20.00	381.06	0.328	124.85	106.97	0.3	0.5	3.511	A
4	4.00	4.00	142.85	161.54	0.025	4.00	2.00	0.0	0.0	5.712	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	109.00	109.00	7.04	484.97	0.225	108.95	120.07	0.2	0.3	2.393	A
2	49.00	49.00	93.99	378.45	0.129	48.97	22.00	0.1	0.1	2.731	A
3	99.00	99.00	25.98	377.76	0.262	99.13	116.97	0.5	0.4	3.230	A
4	3.00	3.00	124.10	170.13	0.018	3.01	1.00	0.0	0.0	5.385	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	115.00	115.00	5.00	487.16	0.236	114.98	151.83	0.3	0.3	2.417	A
2	56.00	56.00	113.94	366.73	0.153	55.97	6.04	0.1	0.2	2.895	A
3	132.00	132.00	21.01	382.24	0.345	131.83	148.90	0.4	0.5	3.592	A
4	4.00	4.00	152.84	157.33	0.025	3.99	0.00	0.0	0.0	5.868	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	3.13	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
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)

07:30 - 07:45

		To			
		1	2	3	4
From	1	0.00	7.00	75.00	1.00
	2	17.00	1.00	32.00	0.00
	3	93.00	9.00	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	85.00	0.00
	2	20.00	0.00	29.00	0.00
	3	110.00	18.00	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	16.00	93.00	0.00
	2	26.00	0.00	33.00	0.00
	3	91.00	11.00	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	112.00	0.00
	2	21.00	0.00	44.00	0.00
	3	128.00	8.00	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	0.24	2.44	0.3	A	99.75	399.00
2	0.18	2.98	0.2	A	55.75	223.00
3	0.36	3.68	0.6	A	118.75	475.00
4	0.03	5.96	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	83.00	83.00	12.95	481.60	0.172	82.79	111.61	0.0	0.2	2.255	A
2	50.00	50.00	78.79	391.37	0.128	49.85	16.95	0.0	0.1	2.633	A
3	103.00	103.00	18.94	383.76	0.268	102.63	109.70	0.0	0.4	3.197	A
4	5.00	5.00	119.59	172.35	0.029	4.97	1.99	0.0	0.0	5.377	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	92.00	92.00	20.96	474.83	0.194	91.97	131.88	0.2	0.2	2.350	A
2	49.00	49.00	87.97	383.93	0.128	49.00	24.96	0.1	0.1	2.686	A
3	131.00	131.00	20.00	380.08	0.345	130.84	116.97	0.4	0.5	3.609	A
4	4.00	4.00	148.84	158.67	0.025	4.00	2.00	0.0	0.0	5.818	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	109.00	109.00	12.04	481.15	0.227	108.95	120.08	0.2	0.3	2.417	A
2	59.00	59.00	93.99	379.46	0.155	58.96	27.01	0.1	0.2	2.807	A
3	104.00	104.00	25.98	376.72	0.276	104.14	126.97	0.5	0.4	3.305	A
4	3.00	3.00	129.11	167.73	0.018	3.01	1.00	0.0	0.0	5.463	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	115.00	115.00	10.00	483.34	0.238	114.98	151.82	0.3	0.3	2.442	A
2	65.00	65.00	113.94	367.30	0.177	64.97	11.04	0.2	0.2	2.976	A
3	137.00	137.00	21.01	381.38	0.359	136.83	157.90	0.4	0.6	3.678	A
4	4.00	4.00	157.83	154.94	0.026	3.99	0.00	0.0	0.0	5.961	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	3.22	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
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	81.00	1.00
	2	19.00	1.00	24.00	0.00
	3	102.00	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	93.00	0.00
	2	22.00	0.00	20.00	0.00
	3	120.00	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	102.00	0.00
	2	28.00	0.00	25.00	0.00
	3	99.00	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	122.00	0.00
	2	23.00	0.00	38.00	0.00
	3	140.00	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	0.26	2.50	0.3	A	109.25	437.00
2	0.17	3.01	0.2	A	50.00	200.00
3	0.38	3.81	0.6	A	124.00	496.00
4	0.04	6.18	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	90.00	90.00	8.96	484.67	0.186	89.77	123.56	0.0	0.2	2.278	A
2	44.00	44.00	85.77	385.62	0.114	43.87	12.96	0.0	0.1	2.633	A
3	107.00	107.00	20.94	383.84	0.279	106.62	108.70	0.0	0.4	3.242	A
4	7.00	7.00	125.56	169.83	0.041	6.96	1.99	0.0	0.0	5.524	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	101.00	101.00	16.96	477.93	0.211	100.96	144.86	0.2	0.3	2.387	A
2	42.00	42.00	96.96	376.59	0.112	42.00	20.96	0.1	0.1	2.691	A
3	137.00	137.00	21.99	380.10	0.360	136.83	116.97	0.4	0.6	3.698	A
4	6.00	6.00	155.83	155.69	0.039	6.00	2.99	0.0	0.0	6.011	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	120.00	120.00	7.05	484.94	0.247	119.94	131.10	0.3	0.3	2.465	A
2	53.00	53.00	102.99	372.42	0.142	52.96	24.00	0.1	0.2	2.816	A
3	107.00	107.00	27.98	376.82	0.284	107.16	127.97	0.6	0.4	3.338	A
4	4.00	4.00	134.13	165.63	0.024	4.02	1.01	0.0	0.0	5.568	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	126.00	126.00	6.00	486.37	0.259	125.98	166.79	0.3	0.3	2.496	A
2	61.00	61.00	123.93	359.95	0.169	60.96	8.04	0.2	0.2	3.009	A
3	145.00	145.00	23.01	381.05	0.381	144.79	161.89	0.4	0.6	3.805	A
4	5.00	5.00	167.80	150.60	0.033	4.99	0.00	0.0	0.0	6.180	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	3.29	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	81.00	1.00
	2	19.00	1.00	34.00	0.00
	3	102.00	10.00	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	93.00	0.00
	2	22.00	0.00	30.00	0.00
	3	120.00	19.00	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	102.00	0.00
	2	28.00	0.00	35.00	0.00
	3	99.00	11.00	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	122.00	0.00
	2	23.00	0.00	47.00	0.00
	3	140.00	9.00	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	0.26	2.52	0.4	A	109.25	437.00
2	0.19	3.10	0.2	A	59.75	239.00
3	0.39	3.90	0.6	A	129.50	518.00
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	90.00	90.00	14.94	480.11	0.187	89.77	123.55	0.0	0.2	2.304	A
2	54.00	54.00	85.77	386.54	0.140	53.84	18.94	0.0	0.2	2.703	A
3	113.00	113.00	20.94	382.51	0.295	112.58	118.67	0.0	0.4	3.330	A
4	7.00	7.00	131.53	166.97	0.042	6.96	1.99	0.0	0.0	5.623	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	101.00	101.00	22.96	473.36	0.213	100.96	144.86	0.2	0.3	2.416	A
2	52.00	52.00	96.96	377.71	0.138	52.00	26.96	0.2	0.2	2.762	A
3	143.00	143.00	21.99	379.19	0.377	142.82	126.97	0.4	0.6	3.802	A
4	6.00	6.00	161.82	152.82	0.039	6.00	2.99	0.0	0.0	6.129	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	120.00	120.00	12.06	481.13	0.249	119.94	131.10	0.3	0.3	2.491	A
2	63.00	63.00	102.99	373.35	0.169	62.96	29.01	0.2	0.2	2.899	A
3	112.00	112.00	27.98	375.85	0.298	112.17	137.97	0.6	0.4	3.414	A
4	4.00	4.00	139.14	163.23	0.025	4.02	1.01	0.0	0.0	5.654	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	126.00	126.00	11.00	482.56	0.261	125.98	166.78	0.3	0.4	2.523	A
2	70.00	70.00	123.93	360.47	0.194	69.96	13.04	0.2	0.2	3.097	A
3	150.00	150.00	23.01	380.27	0.394	149.78	170.88	0.4	0.6	3.902	A
4	5.00	5.00	172.79	148.21	0.034	4.99	0.00	0.0	0.0	6.283	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	3.33	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
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	174.00	1.00
	2	7.00	0.00	11.00	0.00
	3	128.00	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	163.00	2.00
	2	12.00	0.00	13.00	0.00
	3	104.00	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	12.00	139.00	2.00
	2	11.00	0.00	7.00	0.00
	3	122.00	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	19.00	139.00	4.00
	2	3.00	0.00	2.00	0.00
	3	112.00	18.00	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	0.39	3.07	0.6	A	169.00	676.00
2	0.07	2.89	0.1	A	16.50	66.00
3	0.39	3.68	0.6	A	138.25	553.00
4	0.03	5.78	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	188.00	188.00	23.90	480.20	0.392	187.36	135.45	0.0	0.6	3.067	A
2	18.00	18.00	175.40	330.44	0.054	17.94	35.86	0.0	0.1	2.879	A
3	158.00	158.00	7.97	401.32	0.394	157.36	185.37	0.0	0.6	3.680	A
4	1.00	1.00	158.36	156.74	0.006	0.99	6.97	0.0	0.0	5.778	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	173.00	173.00	21.02	482.07	0.359	173.08	116.13	0.6	0.6	2.915	A
2	25.00	25.00	167.06	336.12	0.074	24.98	27.04	0.1	0.1	2.892	A
3	125.00	125.00	13.98	397.57	0.314	125.18	178.05	0.6	0.5	3.305	A
4	0.00	0.00	137.14	166.08	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	153.00	153.00	17.00	485.20	0.315	153.10	134.91	0.6	0.5	2.712	A
2	18.00	18.00	144.10	351.67	0.051	18.03	26.01	0.1	0.1	2.699	A
3	138.00	138.00	13.01	397.96	0.347	137.93	149.12	0.5	0.5	3.461	A
4	5.00	5.00	146.95	161.73	0.031	4.97	3.99	0.0	0.0	5.739	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	162.00	162.00	18.01	484.98	0.334	161.96	115.09	0.5	0.5	2.785	A
2	5.00	5.00	143.00	352.40	0.014	5.04	36.96	0.1	0.0	2.592	A
3	132.00	132.00	7.02	401.75	0.329	132.04	141.03	0.5	0.5	3.339	A
4	0.00	0.00	133.06	167.82	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	3.44	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
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	174.00	1.00
	2	7.00	0.00	17.00	0.00
	3	128.00	33.00	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	163.00	2.00
	2	12.00	0.00	19.00	0.00
	3	104.00	29.00	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	139.00	2.00
	2	11.00	0.00	13.00	0.00
	3	122.00	24.00	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	139.00	4.00
	2	3.00	0.00	8.00	0.00
	3	112.00	27.00	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	3.14	0.7	A	169.00	676.00
2	0.09	2.95	0.1	A	22.50	90.00
3	0.42	3.83	0.7	A	148.00	592.00
4	0.03	5.94	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	188.00	188.00	33.86	473.22	0.397	187.34	135.43	0.0	0.7	3.142	A
2	24.00	24.00	175.39	330.45	0.073	23.92	45.81	0.0	0.1	2.936	A
3	168.00	168.00	7.97	401.51	0.418	167.29	191.33	0.0	0.7	3.831	A
4	1.00	1.00	168.29	152.42	0.007	0.99	6.97	0.0	0.0	5.943	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	173.00	173.00	31.03	475.05	0.364	173.08	116.14	0.7	0.6	2.980	A
2	31.00	31.00	167.06	336.12	0.092	30.98	37.05	0.1	0.1	2.949	A
3	135.00	135.00	13.98	397.81	0.339	135.20	184.05	0.7	0.5	3.431	A
4	0.00	0.00	147.16	161.72	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	153.00	153.00	27.00	478.19	0.320	153.10	134.91	0.6	0.5	2.771	A
2	24.00	24.00	144.10	351.67	0.068	24.03	36.01	0.1	0.1	2.748	A
3	148.00	148.00	13.01	398.19	0.372	147.93	155.12	0.5	0.6	3.596	A
4	5.00	5.00	156.94	157.38	0.032	4.97	3.99	0.0	0.0	5.903	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	162.00	162.00	27.01	478.66	0.338	161.96	115.09	0.5	0.5	2.841	A
2	11.00	11.00	143.01	352.40	0.031	11.04	45.97	0.1	0.0	2.636	A
3	141.00	141.00	7.02	401.96	0.351	141.05	147.03	0.6	0.5	3.451	A
4	0.00	0.00	142.07	163.90	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	3.57	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
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)

17:30 - 17:45

		To			
		1	2	3	4
From	1	0.00	14.00	191.00	1.00
	2	8.00	0.00	12.00	0.00
	3	141.00	26.00	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	179.00	2.00
	2	13.00	0.00	14.00	0.00
	3	114.00	21.00	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	153.00	2.00
	2	12.00	0.00	8.00	0.00
	3	134.00	15.00	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	21.00	153.00	5.00
	2	3.00	0.00	2.00	0.00
	3	123.00	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	0.43	3.29	0.8	A	185.75	743.00
2	0.08	3.02	0.1	A	18.00	72.00
3	0.44	3.96	0.8	A	152.00	608.00
4	0.03	6.07	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	206.00	206.00	26.88	478.10	0.431	205.25	149.35	0.0	0.8	3.291	A
2	20.00	20.00	192.30	319.01	0.063	19.93	39.83	0.0	0.1	3.009	A
3	175.00	175.00	8.97	400.73	0.437	174.23	203.26	0.0	0.8	3.960	A
4	1.00	1.00	175.24	149.34	0.007	0.99	7.97	0.0	0.0	6.066	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	190.00	190.00	23.03	480.66	0.395	190.10	127.17	0.8	0.7	3.100	A
2	27.00	27.00	183.07	325.28	0.083	26.98	30.05	0.1	0.1	3.016	A
3	137.00	137.00	14.98	396.96	0.345	137.24	195.07	0.8	0.5	3.470	A
4	0.00	0.00	150.19	160.36	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	168.00	168.00	18.01	484.47	0.347	168.12	147.89	0.7	0.5	2.847	A
2	20.00	20.00	158.12	342.18	0.058	20.03	28.01	0.1	0.1	2.793	A
3	151.00	151.00	14.01	397.34	0.380	150.92	164.14	0.5	0.6	3.652	A
4	5.00	5.00	160.94	155.59	0.032	4.97	3.99	0.0	0.0	5.973	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	179.00	179.00	20.00	483.61	0.370	178.95	126.10	0.5	0.6	2.953	A
2	5.00	5.00	158.00	342.26	0.015	5.05	40.95	0.1	0.0	2.670	A
3	145.00	145.00	8.02	401.14	0.361	145.04	155.02	0.6	0.6	3.514	A
4	0.00	0.00	146.07	162.11	0.000	0.03	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	3.70	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	191.00	1.00
	2	8.00	0.00	18.00	0.00
	3	141.00	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	179.00	2.00
	2	13.00	0.00	20.00	0.00
	3	114.00	31.00	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	153.00	2.00
	2	12.00	0.00	14.00	0.00
	3	134.00	25.00	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	21.00	153.00	5.00
	2	3.00	0.00	8.00	0.00
	3	123.00	29.00	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	3.37	0.8	A	185.75	743.00
2	0.10	3.08	0.1	A	24.00	96.00
3	0.46	4.14	0.8	A	161.75	647.00
4	0.03	6.25	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	206.00	206.00	36.83	471.12	0.437	205.23	149.32	0.0	0.8	3.375	A
2	26.00	26.00	192.28	319.02	0.082	25.91	49.78	0.0	0.1	3.070	A
3	185.00	185.00	8.97	400.90	0.461	184.15	209.22	0.0	0.8	4.137	A
4	1.00	1.00	185.16	145.02	0.007	0.99	7.96	0.0	0.0	6.248	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	190.00	190.00	33.04	473.64	0.401	190.10	127.18	0.8	0.7	3.177	A
2	33.00	33.00	183.07	325.27	0.101	32.98	40.06	0.1	0.1	3.078	A
3	147.00	147.00	14.98	397.18	0.370	147.26	201.07	0.8	0.6	3.606	A
4	0.00	0.00	160.21	155.99	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	168.00	168.00	28.01	477.46	0.352	168.13	147.89	0.7	0.5	2.912	A
2	26.00	26.00	158.13	342.17	0.076	26.03	38.01	0.1	0.1	2.848	A
3	161.00	161.00	14.01	397.55	0.405	160.92	170.15	0.6	0.7	3.803	A
4	5.00	5.00	170.93	151.24	0.033	4.97	3.99	0.0	0.0	6.151	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	179.00	179.00	29.01	477.28	0.375	178.95	126.10	0.5	0.6	3.016	A
2	11.00	11.00	158.00	342.26	0.032	11.05	49.96	0.1	0.0	2.719	A
3	154.00	154.00	8.02	401.33	0.384	154.05	161.03	0.7	0.6	3.642	A
4	0.00	0.00	155.08	158.19	0.000	0.03	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	3.85	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	15.00	209.00	1.00
	2	9.00	0.00	13.00	0.00
	3	154.00	28.00	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	196.00	3.00
	2	14.00	0.00	15.00	0.00
	3	125.00	23.00	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	167.00	3.00
	2	13.00	0.00	9.00	0.00
	3	146.00	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	23.00	167.00	5.00
	2	4.00	0.00	3.00	0.00
	3	135.00	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	0.47	3.55	0.9	A	203.25	813.00
2	0.09	3.17	0.1	A	20.00	80.00
3	0.48	4.27	0.9	A	167.00	668.00
4	0.05	6.36	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	225.00	225.00	28.86	476.69	0.472	224.11	163.23	0.0	0.9	3.552	A
2	22.00	22.00	210.17	306.91	0.072	21.92	42.81	0.0	0.1	3.158	A
3	191.00	191.00	9.96	400.12	0.477	190.10	222.13	0.0	0.9	4.268	A
4	1.00	1.00	191.10	142.38	0.007	0.99	8.96	0.0	0.0	6.365	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	209.00	209.00	26.03	478.59	0.437	209.11	139.20	0.9	0.8	3.342	A
2	29.00	29.00	202.08	312.44	0.093	28.98	33.06	0.1	0.1	3.174	A
3	151.00	151.00	16.98	395.76	0.382	151.28	214.08	0.9	0.6	3.684	A
4	0.00	0.00	165.23	153.76	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	184.00	184.00	21.01	482.41	0.381	184.16	161.87	0.8	0.6	3.021	A
2	22.00	22.00	174.15	331.35	0.066	22.03	31.01	0.1	0.1	2.911	A
3	166.00	166.00	16.01	396.15	0.419	165.91	180.18	0.6	0.7	3.907	A
4	7.00	7.00	175.93	149.01	0.047	6.95	5.99	0.0	0.0	6.334	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	195.00	195.00	22.01	482.18	0.404	194.94	139.12	0.6	0.7	3.133	A
2	7.00	7.00	172.00	332.78	0.021	7.05	44.95	0.1	0.0	2.762	A
3	160.00	160.00	9.02	400.54	0.399	160.05	170.03	0.7	0.7	3.742	A
4	0.00	0.00	161.08	155.53	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	3.99	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
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	15.00	209.00	1.00
	2	9.00	0.00	19.00	0.00
	3	154.00	38.00	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	196.00	3.00
	2	14.00	0.00	21.00	0.00
	3	125.00	33.00	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	167.00	3.00
	2	13.00	0.00	15.00	0.00
	3	146.00	27.00	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	23.00	167.00	5.00
	2	4.00	0.00	9.00	0.00
	3	135.00	31.00	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	0.48	3.65	0.9	A	203.25	813.00
2	0.11	3.24	0.1	A	26.00	104.00
3	0.50	4.47	1.0	A	176.75	707.00
4	0.05	6.57	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	225.00	225.00	38.81	469.72	0.479	224.09	163.20	0.0	0.9	3.650	A
2	28.00	28.00	210.14	306.92	0.091	27.90	52.75	0.0	0.1	3.225	A
3	201.00	201.00	9.96	400.28	0.502	200.00	228.08	0.0	1.0	4.471	A
4	1.00	1.00	201.01	138.06	0.007	0.99	8.96	0.0	0.0	6.565	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	209.00	209.00	36.04	471.58	0.443	209.11	139.22	0.9	0.8	3.429	A
2	35.00	35.00	202.08	312.43	0.112	34.97	43.07	0.1	0.1	3.243	A
3	161.00	161.00	16.97	395.96	0.407	161.31	220.08	1.0	0.7	3.840	A
4	0.00	0.00	175.25	149.40	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	184.00	184.00	31.00	475.39	0.387	184.17	161.86	0.8	0.6	3.093	A
2	28.00	28.00	174.16	331.35	0.085	28.03	41.01	0.1	0.1	2.966	A
3	176.00	176.00	16.01	396.34	0.444	175.90	186.18	0.7	0.8	4.081	A
4	7.00	7.00	185.92	144.66	0.048	6.95	5.99	0.0	0.1	6.534	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	195.00	195.00	31.02	475.86	0.410	194.94	139.12	0.6	0.7	3.203	A
2	13.00	13.00	172.01	332.78	0.039	13.05	53.95	0.1	0.0	2.816	A
3	169.00	169.00	9.02	400.72	0.422	169.06	176.04	0.8	0.7	3.887	A
4	0.00	0.00	170.09	151.60	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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Filename: Signalised Junction.t15

Path: S:\Jobs\2018\18039 Housing Dev Clane, Kildare TIA+RSA\18039-02\Reports\Working\TRANSYT

Report generation date: 15/04/2019 16:35:08

«A5 - 2019 am : D5 - 2019 am* :

- »Signal Timings
- »Traffic Stream Results
- »Network Results
- »Final Prediction Table

A5 - 2019 am D5 - 2019 am*

Signal Timings

Network Default: 130s cycle time; 130 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	

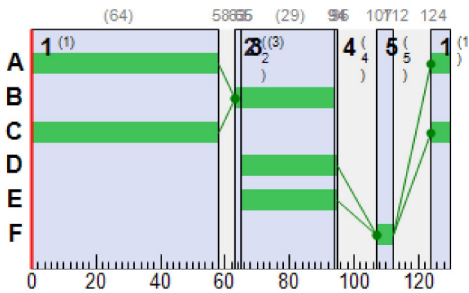
Resultant Stages

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,C	124	58	64	1	7
	2	✓	2	B	63	65	2	1	1
	3	✓	3	B,E,D	65	94	29	1	1
	4	✓	4	E,D	94	95	1	1	1
	5	✓	5	F	107	112	5	1	5

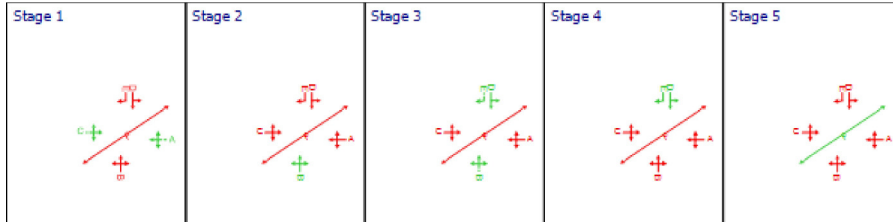
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	124	58	64
2	1		1	C	124	58	64
5	1		1	D	65	95	30
7	1		1	B	63	94	31
9	1		1	E	65	95	30

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	1	1	46	94	313			21.67	9.45	54.36	26.75	2.43	29.18
	2	1	106	-15	855			94.88	59.12	339.93	319.98	14.21	334.19
	3	1	0	Unrestricted	875			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	377			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	15	504	44			39.22	1.94	24.78	6.81	0.43	7.23
	6	1	0	Unrestricted	25			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	34	161	92			42.75	3.37	16.27	15.52	0.95	16.47

	8	1	0	Unrestricted	16					0.00	0.00	0.00	0.00	0.00	0.00
	9	1	15	513	15					40.62	1.47	21.01	2.40	0.15	2.55
	10	1	5	1822	59					0.03	0.00	0.01	0.01	0.00	0.01
07:30-07:45	1	1	30	196	228	1501	64			20.19	4.88	28.06	18.16	1.66	19.82
	2	1	106	-15	964	1816	64			73.76	44.07	253.38	280.46	15.07	295.53
	3	1	0	Unrestricted	957	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	264	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	5	1612	24	1914	30			38.45	0.67	8.54	3.64	0.23	3.87
	6	1	0	Unrestricted	12	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	31	190	84	1100	31			42.45	2.52	12.14	14.06	0.86	14.93
	8	1	0	Unrestricted	11	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	0	723	30			0.00	0.00	0.00	0.00	0.00	0.00
	10	1	1	7269	24	1965	130			0.01	0.00	0.00	0.00	0.00	0.00
07:45-08:00	1	1	37	141	312	1674	64			21.24	6.96	40.00	26.13	2.38	28.51
	2	1	105	-15	964	1828	64			131.30	59.12	339.93	499.27	19.08	518.35
	3	1	0	Unrestricted	967	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	356	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	9	927	40	1914	30			38.90	1.13	14.39	6.14	0.39	6.52
	6	1	0	Unrestricted	16	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	30	204	76	1044	31			42.36	2.28	10.99	12.70	0.78	13.48
	8	1	0	Unrestricted	20	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	9	1	9	878	16	729	30			39.72	1.46	20.90	2.51	0.15	2.66
	10	1	3	3058	56	1965	130			0.03	0.00	0.00	0.01	0.00	0.01
08:00-08:15	1	1	38	139	320	1703	64			21.32	7.22	41.54	26.91	2.45	29.36
	2	1	89	1	804	1799	64			124.16	48.90	281.19	393.77	15.44	409.20
	3	1	0	Unrestricted	864	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	392	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	10	834	44	1914	30			39.04	1.24	15.84	6.78	0.43	7.20
	6	1	0	Unrestricted	16	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	34	161	96	1131	31			43.48	2.94	14.19	16.46	1.00	17.47
	8	1	0	Unrestricted	12	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	9	1	12	665	20	713	30			40.38	1.47	20.94	3.19	0.19	3.38
	10	1	3	2663	64	1965	130			0.03	0.00	0.00	0.01	0.00	0.01
08:15-08:30	1	1	46	94	392	1689	64			23.16	9.45	54.36	35.81	3.21	39.02
	2	1	76	18	688	1809	64			39.22	21.41	123.08	106.43	7.26	113.69
	3	1	0	Unrestricted	712	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	496	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	15	504	68	1914	30			39.80	1.94	24.78	10.67	0.67	11.34
	6	1	0	Unrestricted	56	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	32	181	112	1421	31			42.63	3.37	16.27	18.83	1.16	19.99
	8	1	0	Unrestricted	20	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	9	1	15	513	24	686	30			41.43	1.47	21.01	3.92	0.23	4.16
	10	1	5	1822	92	1965	130			0.04	0.00	0.01	0.02	0.00	0.02

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst overall PRC	Network within capacity
5	15/04/2019 16:34:53	15/04/2019 16:34:59	07:30	130	389.63	26.16	106.16	2/1	1	8	2/1	10/1	2/1	
5	15/04/2019 16:34:53	15/04/2019 16:34:59	07:30	130	334.15	22.28	106.16	2/1	1	8	2/1	10/1	2/1	
5	15/04/2019 16:34:53	15/04/2019 16:34:59	07:45	130	569.53	38.50	105.50	2/1	1	8	2/1	10/1	2/1	
5	15/04/2019 16:34:53	15/04/2019 16:34:59	08:00	130	466.62	31.49	89.39	2/1	0	0	2/1	10/1	2/1	✓
5	15/04/2019 16:34:53	15/04/2019 16:34:59	08:15	130	188.22	12.37	76.07	2/1	0	0	2/1	10/1	2/1	✓

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	106	-15	2670		35.27	371.47	18.16	389.63
07:30-07:45	106	-15	2568	869	31.23	316.32	17.83	334.15
07:45-08:00	105	-15	2822	869	49.12	546.75	22.77	569.53
08:00-08:15	89	0	2632	869	43.07	447.11	19.51	466.62
08:15-08:30	76	0	2660	869	16.74	175.69	12.53	188.22

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.
				Controllor stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
		R403																		

1	1	Clebridge		1	A	313			0.00	46	94	33.66	21.67	61.83	9.45	100	100	0.00	29.18
2	1	R403 Clane		1	C	855 <			0.00	106	-15	106.91	94.88	137.17	59.12 +	100	100	0.00	334.19
3	1					875			20.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					377			26.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	44			29.00	15	504	44.62	39.22	77.34	1.94	100	100	0.00	7.23
6	1					25			130.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	92			0.00	34	161	57.07	42.75	82.53	3.37	100	100	0.00	16.47
8	1					16			130.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	15			31.00	15	513	45.42	40.62	77.30	1.47	100	100	0.00	2.55
10	1	Capdoo Park Main				59			130.00	5	1822	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 (PCU-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	526.02	43.70	26.16	371.47	18.16	0.00	389.63
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	526.02	43.70	26.16	371.47	18.16	0.00	389.63

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	228	1501	64	0.00	30	196	32.19	20.19	58.23	4.88	100	100	0.00	19.82
2	1	R403 Clane		1	C	964 <	1816	64	0.00	106	-15	85.76	73.76	132.38	44.07 +	100	100	0.00	295.53
3	1					957	Unrestricted	130	19.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					264	Unrestricted	130	26.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	24	1914	30	29.00	5	1612	43.85	38.45	76.18	0.67	100	100	0.00	3.87
6	1					12	Unrestricted	130	130.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	84	1100	31	0.00	31	190	56.76	42.45	82.09	2.52	100	100	0.00	14.93
8	1					11	Unrestricted	130	130.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	0	723	30	31.00	0	Unrestricted	0.00	0.00	0.00	0.00	100	100	0.00	0.00
10	1	Capdoo Park Main				24	1965	130	130.00	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 (PCU-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	509.11	39.25	12.97	22.28	316.32	17.83	0.00	334.15
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	509.11	39.25	12.97	22.28	316.32	17.83	0.00	334.15

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	312	1674	64	0.00	37	141	33.23	21.24	60.72	6.96	100	100	0.00	28.51
2	1	R403 Clane		1	C	964 <	1828	64	0.00	105	-15	141.41	131.30	166.50	59.12 +	100	100	0.00	518.35
3	1					967	Unrestricted	130	18.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					356	Unrestricted	130	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	40	1914	30	28.00	9	927	44.30	38.90	77.03	1.13	100	100	0.00	6.52
6	1					16	Unrestricted	130	130.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	76	1044	31	0.00	30	204	56.70	42.36	82.08	2.28	100	100	0.00	13.48
8	1					20	Unrestricted	130	126.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	16	729	30	28.00	9	878	44.52	39.72	76.96	1.46	100	100	0.00	2.66
10	1	Capdoo Park Main				56	1965	130	130.00	3	3058	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 (PCU-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	554.37	56.48	9.82	38.50	546.75	22.77	0.00	569.53
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	554.37	56.48	9.82	38.50	546.75	22.77	0.00	569.53

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	320	1703	64	0.00	38	139	33.31	21.32	61.08	7.22	100	100	0.00	29.36
2	1	R403 Clane		1	C	804 <	1799	64	0.00	89	1	143.56	124.16	153.13	48.90 +	100	100	0.00	409.20
3	1					864	Unrestricted	130	18.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					392	Unrestricted	130	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	44	1914	30	28.00	10	834	44.44	39.04	77.11	1.24	100	100	0.00	7.20
6	1					16	Unrestricted	130	130.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	96	1131	31	0.00	34	161	57.76	43.48	83.29	2.94	100	100	0.00	17.47
8	1					12	Unrestricted	130	130.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	20	713	30	27.00	12	665	45.17	40.38	77.23	1.47	100	100	0.00	3.38
10	1	Capdoo Park Main				64	1965	130	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 (PCU-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	519.86	50.47	10.30	31.49	447.11	19.51	0.00	466.62
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	519.86	50.47	10.30	31.49	447.11	19.51	0.00	466.62

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	392	1689	64	0.00	46	94	35.15	23.16	65.41	9.45	100	100	0.00	39.02
2	1	R403 Clane		1	C	688 <	1809	64	0.00	76	18	45.41	39.22	84.14	21.41 +	100	100	0.00	113.69
3	1					712	Unrestricted	130	20.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					496	Unrestricted	130	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	68	1914	30	0.00	15	504	45.20	39.80	78.08	1.94	100	100	0.00	11.34
6	1					56	Unrestricted	130	71.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	112	1421	31	0.00	32	181	56.96	42.63	82.51	3.37	100	100	0.00	19.99
8	1					20	Unrestricted	130	121.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	24	686	30	26.00	15	513	46.22	41.43	77.59	1.47	100	100	0.00	4.16
10	1	Capdoo Park Main				92	1965	130	0.00	5	1822	8.50	0.04	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 (PCU-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	520.75	28.62	18.20	12.37	175.69	12.53	0.00	188.22
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	520.75	28.62	18.20	12.37	175.69	12.53	0.00	188.22

- < = 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: 15/04/2019 16:36:21

«A6 - 2019 pm : D6 - 2019 pm* :

- »Signal Timings
- »Traffic Stream Results
- »Network Results
- »Final Prediction Table

A6 - 2019 pm D6 - 2019 pm*

Signal Timings

Network Default: 130s cycle time; 130 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	

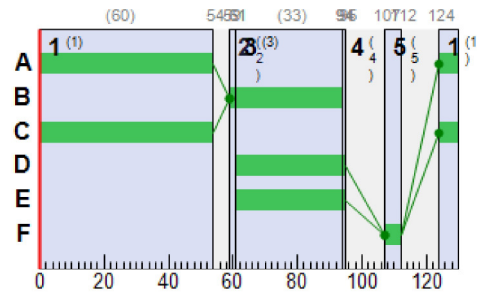
Resultant Stages

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,C	124	54	60	1	7
	2	✓	2	B	59	61	2	1	1
	3	✓	3	B,E,D	61	94	33	1	1
	4	✓	4	E,D	94	95	1	1	1
	5	✓	5	F	107	112	5	1	5

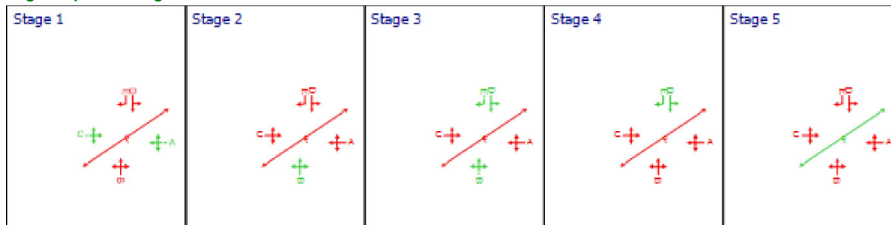
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	124	54	60
2	1		1	C	124	54	60
5	1		1	D	61	95	34
7	1		1	B	59	94	35
9	1		1	E	61	95	34

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	1	1	119	-24	880			292.04	129.30	743.50	1013.71	22.40	1036.10
	2	1	75	20	452			34.77	16.61	95.50	61.99	4.72	66.71
	3	1	0	Unrestricted	397			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	765			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	6	1349	20			35.40	0.86	10.93	2.79	0.18	2.98
	6	1	0	Unrestricted	77			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	15	499	42			35.50	1.52	7.34	5.88	0.39	6.27

	8	1	0	Unrestricted	66					0.00	0.00	0.00	0.00	0.00	0.00
	9	1	10	794	11					36.22	1.46	20.91	1.57	0.10	1.67
	10	1	3	3301	31					0.02	0.00	0.00	0.00	0.00	0.00
17:30-17:45	1	1	117	-23	912	1663	60			104.46	46.86	269.46	375.78	15.49	391.27
	2	1	68	33	412	1300	60			32.52	12.11	69.64	52.85	4.13	56.98
	3	1	0	Unrestricted	360	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	760	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	5	1832	24	1914	34			35.37	0.64	8.19	3.35	0.22	3.57
	6	1	0	Unrestricted	85	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	15	499	56	1345	35			36.09	1.52	7.34	7.97	0.52	8.49
	8	1	0	Unrestricted	75	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	9	1	4	2111	8	730	34			35.66	1.46	20.85	1.13	0.07	1.20
	10	1	2	5427	32	1965	130			0.02	0.00	0.00	0.00	0.00	0.00
17:45-18:00	1	1	115	-22	904	1674	60			231.80	78.60	451.95	826.54	22.05	848.59
	2	1	72	24	436	1283	60			35.20	13.49	77.55	60.53	4.57	65.10
	3	1	0	Unrestricted	372	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	776	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	6	1349	32	1914	34			35.59	0.86	10.93	4.49	0.29	4.79
	6	1	0	Unrestricted	86	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	8	997	40	1761	35			35.13	1.07	5.16	5.54	0.37	5.91
	8	1	0	Unrestricted	80	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	9	1	10	794	20	738	34			36.81	1.46	20.91	2.90	0.19	3.09
	10	1	3	3301	52	1965	130			0.02	0.00	0.00	0.01	0.00	0.01
18:00-18:15	1	1	119	-24	940	1682	60			351.84	112.44	646.51	1304.55	26.65	1331.19
	2	1	72	25	432	1276	60			35.36	13.28	76.37	60.26	4.54	64.79
	3	1	0	Unrestricted	380	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	771	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	3	2799	16	1914	34			35.19	0.42	5.40	2.22	0.14	2.37
	6	1	0	Unrestricted	65	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	8	1019	28	1257	35			35.05	0.74	3.58	3.87	0.25	4.13
	8	1	0	Unrestricted	61	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	9	1	6	1403	12	744	34			35.93	1.46	20.86	1.70	0.11	1.81
	10	1	1	6216	28	1965	130			0.01	0.00	0.00	0.00	0.00	0.00
18:15-18:30	1	1	99	-9	764	1651	60			513.67	129.30	743.50	1547.96	25.40	1573.36
	2	1	75	20	528	1500	60			35.68	16.61	95.50	74.31	5.64	79.95
	3	1	0	Unrestricted	476	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	752	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	2	5697	8	1914	34			35.13	0.21	2.70	1.11	0.07	1.18
	6	1	0	Unrestricted	72	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	10	785	44	1563	35			35.36	1.18	5.68	6.14	0.40	6.54
	8	1	0	Unrestricted	48	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	9	1	2	4358	4	736	34			35.26	0.11	1.51	0.56	0.04	0.59
	10	1	1	14638	12	1965	130			0.01	0.00	0.00	0.00	0.00	0.00

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst overall PRC	Network within capacity
6	15/04/2019 16:36:02	15/04/2019 16:36:07	17:30	130	1113.73	76.47	119.07	1/1	1	8	1/1	10/1	1/1	
6	15/04/2019 16:36:02	15/04/2019 16:36:07	17:30	130	461.51	31.06	116.85	1/1	1	8	1/1	10/1	1/1	
6	15/04/2019 16:36:02	15/04/2019 16:36:07	17:45	130	927.48	63.38	115.07	1/1	1	8	1/1	10/1	1/1	
6	15/04/2019 16:36:02	15/04/2019 16:36:07	18:00	130	1404.29	96.66	119.07	1/1	1	8	1/1	10/1	1/1	
6	15/04/2019 16:36:02	15/04/2019 16:36:07	18:15	130	1661.63	114.79	98.65	1/1	1	8	1/1	10/1	1/1	

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	119	-24	2741		100.45	1085.94	27.79	1113.73
17:30-17:45	117	-23	2724	873	41.04	441.08	20.44	461.51
17:45-18:00	115	-22	2798	873	81.56	900.01	27.47	927.48
18:00-18:15	119	-24	2733	873	127.30	1372.60	31.69	1404.29
18:15-18:30	99	-9	2708	873	152.61	1630.07	31.56	1661.63

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.
				Controllor stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)
		R403																

1	1	Clebridge		1	A	880 <			0.00	119	-24	304.28	292.04	227.94	129.30 +	100	100	0.00	1036.10
2	1	R403 Clane		1	C	452			0.00	75	20	46.63	34.77	83.32	16.61	100	100	0.00	66.71
3	1					397			40.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					765			27.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	20			34.00	6	1349	40.80	35.40	72.84	0.86	100	100	0.00	2.98
6	1					77			67.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	42			34.00	15	499	49.81	35.50	73.49	1.52	100	100	0.00	6.27
8	1					66			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	11			34.00	10	794	41.02	36.22	73.62	1.46	100	100	0.00	1.67
10	1	Capdoo Park Main				31			130.00	3	3301	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)	Total delay (PCU-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	536.19	94.39	76.47	1085.94	27.79	0.00	1113.73
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	536.19	94.39	76.47	1085.94	27.79	0.00	1113.73

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	912 <	1663	60	0.00	117	-23	116.46	104.46	158.29	46.86 +	100	100	0.00	391.27	
2	1	R403 Clane		1	C	412	1300	60	0.00	68	33	44.52	32.52	79.97	12.11	100	100	0.00	56.98	
3	1					360	Unrestricted	130	33.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					760	Unrestricted	130	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	24	1914	34	33.00	5	1832	40.77	35.37	73.07	0.64	100	100	0.00	3.57	
6	1					85	Unrestricted	130	59.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	56	1345	35	32.00	15	499	50.40	36.09	74.36	1.52	100	100	0.00	8.49	
8	1					75	Unrestricted	130	61.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	8	730	34	33.00	4	2111	40.46	35.66	73.38	1.46	100	100	0.00	1.20	
10	1	Capdoo Park Main				32	1965	130	130.00	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 (PCU-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	529.94	48.73	10.88	31.06	441.08	20.44	0.00	461.51
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	529.94	48.73	10.88	31.06	441.08	20.44	0.00	461.51

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	904 <	1674	60	0.00	115	-22	243.19	231.80	223.87	78.60 +	100	100	0.00	848.59	
2	1	R403 Clane		1	C	436	1283	60	0.00	72	24	47.00	35.20	83.69	13.49	100	100	0.00	65.10	
3	1					372	Unrestricted	130	35.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					776	Unrestricted	130	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	32	1914	34	33.00	6	1349	40.99	35.59	73.11	0.86	100	100	0.00	4.79	
6	1					86	Unrestricted	130	59.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	40	1761	35	33.00	8	997	49.44	35.13	73.19	1.07	100	100	0.00	5.91	
8	1					80	Unrestricted	130	60.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	20	738	34	32.00	10	794	41.61	36.81	73.85	1.46	100	100	0.00	3.09	
10	1	Capdoo Park Main				52	1965	130	130.00	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 (PCU-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	541.92	81.27	6.67	63.38	900.01	27.47	0.00	927.48
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	541.92	81.27	6.67	63.38	900.01	27.47	0.00	927.48

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	940 <	1682	60	0.00	119	-24	363.53	351.84	269.19	112.44 +	100	100	0.00	1331.19
2	1	R403 Clane		1	C	432	1276	60	0.00	72	25	47.26	35.36	83.75	13.28	100	100	0.00	64.79
3	1					380	Unrestricted	130	37.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					771	Unrestricted	130	27.00	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	1914	34	34.00	3	2799	40.59	35.19	72.25	0.42	100	100	0.00	2.37
6	1					65	Unrestricted	130	67.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	28	1257	35	34.00	8	1019	49.36	35.05	72.51	0.74	100	100	0.00	4.13
8	1					61	Unrestricted	130	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	12	744	34	33.00	6	1403	40.73	35.93	73.52	1.46	100	100	0.00	1.81
10	1	Capdoo Park Main				28	1965	130	130.00	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 (PCU-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	529.60	114.22	4.64	96.66	1372.60	31.69	0.00	1404.29
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	529.60	114.22	4.64	96.66	1372.60	31.69	0.00	1404.29

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	764 <	1651	60	0.00	99	-9	527.86	513.67	265.18	129.30 +	100	100	0.00	1573.36
2	1	R403 Clane		1	C	528	1500	60	0.00	75	20	47.44	35.68	85.26	16.61	100	100	0.00	79.95
3	1					476	Unrestricted	130	40.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					752	Unrestricted	130	26.00	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	1914	34	34.00	2	5697	40.53	35.13	72.21	0.21	100	100	0.00	1.18
6	1					72	Unrestricted	130	62.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	44	1563	35	33.00	10	785	49.67	35.36	73.30	1.18	100	100	0.00	6.54
8	1					48	Unrestricted	130	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	736	34	34.00	2	4358	40.06	35.26	73.22	0.11	100	100	0.00	0.59
10	1	Capdoo Park Main				12	1965	130	130.00	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 (PCU-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	543.31	133.34	4.07	114.79	1630.07	31.56	0.00	1661.63
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	543.31	133.34	4.07	114.79	1630.07	31.56	0.00	1661.63

- < = 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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Report generation date: 15/04/2019 16:37:07

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

- »Signal Timings
- »Traffic Stream Results
- »Network Results
- »Final Prediction Table

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

Signal Timings

Network Default: 130s cycle time; 130 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	

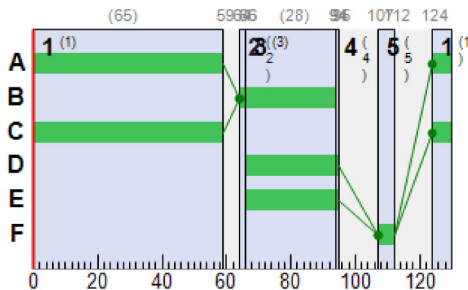
Resultant Stages

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,C	124	59	65	1	7
	2	✓	2	B	64	66	2	1	1
	3	✓	3	B,E,D	66	94	28	1	1
	4	✓	4	E,D	94	95	1	1	1
	5	✓	5	F	107	112	5	1	5

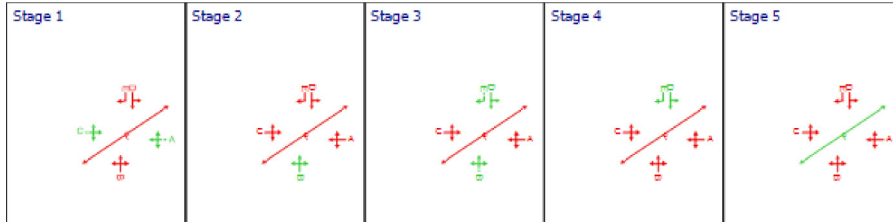
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	124	59	65
2	1		1	C	124	59	65
5	1		1	D	66	95	29
7	1		1	B	64	94	30
9	1		1	E	66	95	29

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	1	1	48	86	332			21.46	10.05	57.77	28.12	2.58	30.70
	2	1	107	-16	906			104.93	65.12	374.42	375.11	15.54	390.64
	3	1	0	Unrestricted	921			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	400			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	17	418	46			40.31	2.07	26.44	7.31	0.45	7.77
	6	1	0	Unrestricted	27			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	38	138	98			44.33	3.67	17.68	17.09	1.03	18.13

	8	1	0	Unrestricted	17				0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	17	442	16				41.82	1.47	21.07	2.64	0.16	2.80	
	10	1	5	1723	62				0.04	0.00	0.01	0.01	0.00	0.01	
07:30-07:45	1	1	32	181	242	1491	65		19.90	5.18	29.81	19.00	1.76	20.76	
	2	1	107	-16	1021	1875	65		75.42	47.02	270.34	303.75	16.05	319.80	
	3	1	0	Unrestricted	1003	Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00	
	4	1	0	Unrestricted	280	Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00	
	5	1	6	1370	25	1770	29		39.37	0.70	8.99	3.88	0.24	4.12	
	6	1	0	Unrestricted	13	Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00	
	7	1	34	166	89	1102	30		43.97	2.73	13.16	15.44	0.94	16.37	
	8	1	0	Unrestricted	12	Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00	
	9	1	0	Unrestricted	0	720	29		0.00	0.00	0.00	0.00	0.00	0.00	
	10	1	1	6974	25	1965	130		0.01	0.00	0.00	0.00	0.00	0.00	
07:45-08:00	1	1	39	130	331	1668	65		21.00	7.39	42.48	27.42	2.52	29.94	
	2	1	107	-16	1022	1887	65		140.11	65.12	374.42	564.82	20.75	585.57	
	3	1	0	Unrestricted	1013	Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00	
	4	1	0	Unrestricted	378	Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00	
	5	1	10	775	42	1770	29		39.94	1.20	15.28	6.62	0.41	7.03	
	6	1	0	Unrestricted	17	Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00	
	7	1	32	177	81	1046	30		43.90	2.49	11.99	14.03	0.85	14.88	
	8	1	0	Unrestricted	20	Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00	
	9	1	10	788	17	727	29		40.73	1.46	20.91	2.73	0.17	2.90	
	10	1	3	2897	59	1965	130		0.03	0.00	0.00	0.01	0.00	0.01	
08:00-08:15	1	1	39	128	340	1699	65		21.09	7.68	44.18	28.28	2.60	30.88	
	2	1	90	0	852	1856	65		146.97	57.23	329.07	493.91	17.58	511.49	
	3	1	0	Unrestricted	914	Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00	
	4	1	0	Unrestricted	416	Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00	
	5	1	11	699	46	1770	29		40.08	1.31	16.74	7.27	0.45	7.72	
	6	1	0	Unrestricted	18	Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00	
	7	1	38	138	102	1132	30		45.20	3.17	15.30	18.18	1.09	19.27	
	8	1	0	Unrestricted	13	Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00	
	9	1	13	601	21	709	29		41.45	1.47	20.97	3.43	0.21	3.64	
	10	1	3	2540	67	1965	130		0.03	0.00	0.00	0.01	0.00	0.01	
08:15-08:30	1	1	48	86	416	1692	65		23.02	10.05	57.77	37.78	3.42	41.20	
	2	1	77	17	730	1865	65		47.90	22.83	131.25	137.94	7.76	145.70	
	3	1	0	Unrestricted	754	Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00	
	4	1	0	Unrestricted	527	Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00	
	5	1	17	418	71	1770	29		41.01	2.07	26.44	11.48	0.71	12.19	
	6	1	0	Unrestricted	60	Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00	
	7	1	35	156	119	1419	30		44.16	3.67	17.68	20.73	1.26	21.99	
	8	1	0	Unrestricted	21	Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00	
	9	1	17	442	26	679	29		42.83	1.47	21.07	4.39	0.26	4.65	
	10	1	5	1723	97	1965	130		0.05	0.00	0.01	0.02	0.00	0.02	

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst overall PRC	Network within capacity
7	15/04/2019 16:37:00	15/04/2019 16:37:06	07:30	130	450.04	30.30	107.23	2/1	1	8	2/1	10/1	2/1	
7	15/04/2019 16:37:00	15/04/2019 16:37:06	07:30	130	361.06	24.09	107.23	2/1	1	8	2/1	10/1	2/1	
7	15/04/2019 16:37:00	15/04/2019 16:37:06	07:45	130	640.32	43.35	106.71	2/1	1	8	2/1	10/1	2/1	
7	15/04/2019 16:37:00	15/04/2019 16:37:06	08:00	130	573.02	38.81	90.43	2/1	1	8	2/1	10/1	2/1	
7	15/04/2019 16:37:00	15/04/2019 16:37:06	08:15	130	225.75	14.95	77.10	2/1	0	0	2/1	10/1	2/1	✓

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	107	-16	2825		38.61	430.28	19.76	450.04
07:30-07:45	107	-16	2710	868	32.00	342.07	18.99	361.06
07:45-08:00	107	-16	2981	868	52.36	615.62	24.70	640.32
08:00-08:15	90	0	2789	868	50.09	551.09	21.93	573.02
08:15-08:30	77	0	2821	868	19.08	212.34	13.41	225.75

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	
		R403																	

1	1	Clebridge			1	A	332			0.00	48	86	33.45	21.46	61.89	10.05	100	100	0.00	30.70
2	1	R403 Clane			1	C	906 <			0.00	107	-16	115.09	104.93	142.34	65.12 +	100	100	0.00	390.64
3	1						921			19.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1						400			25.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right			1	D	46			28.00	17	418	45.71	40.31	78.51	2.07	100	100	0.00	7.77
6	1						27			130.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands			1	B	98			0.00	38	138	58.65	44.33	84.28	3.67	100	100	0.00	18.13
8	1						17			130.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare			1	E	16			30.00	17	442	46.61	41.82	78.28	1.47	100	100	0.00	2.80
10	1	Capdoo Park Main					62			130.00	5	1723	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)	Total delay (PCU-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	556.07	48.37	30.30	430.28	19.76	0.00	450.04
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	556.07	48.37	30.30	430.28	19.76	0.00	450.04

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	242	1491	65	0.00	32	181	31.90	19.90	58.14	5.18	100	100	0.00	20.76	
2	1	R403 Clane		1	C	1021 <	1875	65	0.00	107	-16	87.42	75.42	134.41	47.02 +	100	100	0.00	319.80	
3	1					1003	Unrestricted	130	18.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					280	Unrestricted	130	25.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00	
5	1	Capdoo Park Straight Right		1	D	25	1770	29	28.00	6	1370	44.77	39.37	77.00	0.70	100	100	0.00	4.12	
6	1					13	Unrestricted	130	130.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	89	1102	30	0.00	34	166	58.28	43.97	83.80	2.73	100	100	0.00	16.37	
8	1					12	Unrestricted	130	130.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	0	720	29	30.00	0	Unrestricted	0.00	0.00	0.00	0.00	100	100	0.00	0.00	
10	1	Capdoo Park Main				25	1965	130	130.00	1	6974	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 (PCU-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	536.33	41.97	12.78	24.09	342.07	18.99	0.00	361.06
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	536.33	41.97	12.78	24.09	342.07	18.99	0.00	361.06

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	331	1668	65	0.00	39	130	33.00	21.00	60.76	7.39	100	100	0.00	29.94	
2	1	R403 Clane		1	C	1022 <	1887	65	0.00	107	-16	150.58	140.11	172.80	65.12 +	100	100	0.00	585.57	
3	1					1013	Unrestricted	130	17.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					378	Unrestricted	130	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	42	1770	29	27.00	10	775	45.34	39.94	77.94	1.20	100	100	0.00	7.03	
6	1					17	Unrestricted	130	130.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	81	1046	30	0.00	32	177	58.26	43.90	83.50	2.49	100	100	0.00	14.88	
8	1					20	Unrestricted	130	126.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	17	727	29	27.00	10	788	45.53	40.73	77.85	1.46	100	100	0.00	2.90	
10	1	Capdoo Park Main				59	1965	130	130.00	3	2897	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 (PCU-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	584.52	62.40	9.37	43.35	615.62	24.70	0.00	640.32
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	584.52	62.40	9.37	43.35	615.62	24.70	0.00	640.32

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	340	1699	65	0.00	39	128	33.08	21.09	61.06	7.68	100	100	0.00	30.88
2	1	R403 Clane		1	C	852 <	1856	65	0.00	90	0	165.17	146.97	164.57	57.23 +	100	100	0.00	511.49
3	1					914	Unrestricted	130	17.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					416	Unrestricted	130	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	46	1770	29	27.00	11	699	45.48	40.08	77.98	1.31	100	100	0.00	7.72
6	1					18	Unrestricted	130	130.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	102	1132	30	0.00	38	138	59.47	45.20	85.19	3.17	100	100	0.00	19.27
8	1					13	Unrestricted	130	130.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	21	709	29	26.00	13	601	46.25	41.45	78.16	1.47	100	100	0.00	3.64
10	1	Capdoo Park Main				67	1965	130	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 (PCU-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	551.05	58.64	9.40	38.81	551.09	21.93	0.00	573.02
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	551.05	58.64	9.40	38.81	551.09	21.93	0.00	573.02

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	416	1692	65	0.00	48	86	35.02	23.02	65.64	10.05	100	100	0.00	41.20
2	1	R403 Clane		1	C	730 <	1865	65	0.00	77	17	45.65	47.90	84.83	22.83 +	100	100	0.00	145.70
3	1					754	Unrestricted	130	19.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					527	Unrestricted	130	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	71	1770	29	0.00	17	418	46.41	41.01	79.72	2.07	100	100	0.00	12.19
6	1					60	Unrestricted	130	69.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	119	1419	30	0.00	35	156	58.49	44.16	84.38	3.67	100	100	0.00	21.99
8	1					21	Unrestricted	130	122.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	26	679	29	24.00	17	442	47.62	42.83	78.65	1.47	100	100	0.00	4.65
10	1	Capdoo Park Main				97	1965	130	0.00	5	1723	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 (PCU-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	552.39	30.48	18.13	14.95	212.34	13.41	0.00	225.75
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	552.39	30.48	18.13	14.95	212.34	13.41	0.00	225.75

- < = 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\2018\18039 Housing Dev Clane, Kildare TIA+RSA\18039-02\Reports\Working\TRANSYT

Report generation date: 15/04/2019 16:37:53

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

- »Signal Timings
- »Traffic Stream Results
- »Network Results
- »Final Prediction Table

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

Signal Timings

Network Default: 130s cycle time; 130 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

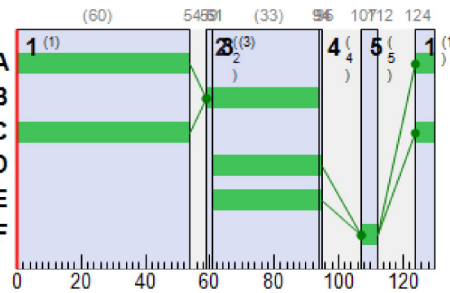
Resultant Stages

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,C	124	54	60	1	7
	2	✓	2	B	59	61	2	1	1
	3	✓	3	B,E,D	61	94	33	1	1
	4	✓	4	E,D	94	95	1	1	1
	5	✓	5	F	107	112	5	1	5

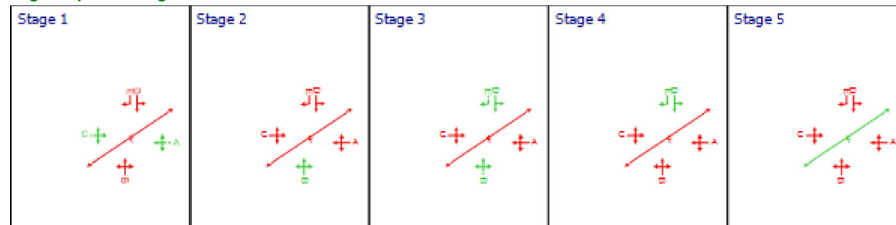
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	124	54	60
2	1		1	C	124	54	60
5	1		1	D	61	95	34
7	1		1	B	59	94	35
9	1		1	E	61	95	34

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	1	1	126	-29	932			373.44	173.85	999.63	1372.85	25.08	1397.92
	2	1	78	15	479			36.69	18.10	104.05	69.25	5.17	74.42
	3	1	0	Unrestricted	420			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	771			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	7	1264	21			35.43	0.91	11.61	2.93	0.19	3.13
	6	1	0	Unrestricted	80			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	15	482	44			35.55	1.59	7.68	6.14	0.40	6.54

	8	1	0	Unrestricted	69					0.00	0.00	0.00	0.00	0.00	0.00
	9	1	11	711	12					36.40	1.47	20.93	1.72	0.11	1.83
	10	1	3	3058	33					0.02	0.00	0.00	0.00	0.00	0.00
17:30-17:45	1	1	123	-27	965	1667	60	120.62	52.78	303.47	459.12	17.04	476.16		
	2	1	71	27	436	1311	60	33.98	13.16	75.67	58.44	4.50	62.94		
	3	1	0	Unrestricted	380	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	4	1	0	Unrestricted	765	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	5	1	5	1755	25	1914	34	35.40	0.67	8.53	3.49	0.23	3.72		
	6	1	0	Unrestricted	87	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	7	1	15	482	58	1355	35	36.16	1.59	7.68	8.27	0.54	8.81		
	8	1	0	Unrestricted	78	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	9	1	5	1861	9	728	34	35.77	1.46	20.85	1.27	0.08	1.35		
	10	1	2	5101	34	1965	130	0.02	0.00	0.00	0.00	0.00	0.00		
17:45-18:00	1	1	122	-26	957	1677	60	288.47	97.19	558.86	1088.93	25.02	1113.96		
	2	1	76	19	461	1296	60	37.15	14.67	84.36	67.55	5.00	72.56		
	3	1	0	Unrestricted	394	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	4	1	0	Unrestricted	781	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	5	1	7	1264	34	1914	34	35.63	0.91	11.61	4.78	0.31	5.09		
	6	1	0	Unrestricted	89	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	7	1	9	945	42	1761	35	35.20	1.12	5.42	5.83	0.39	6.22		
	8	1	0	Unrestricted	82	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	9	1	11	711	22	736	34	37.08	1.47	20.93	3.22	0.20	3.42		
	10	1	3	3058	56	1965	130	0.03	0.00	0.00	0.01	0.00	0.01		
18:00-18:15	1	1	126	-29	996	1686	60	446.68	144.23	829.34	1754.85	29.91	1784.76		
	2	1	76	19	458	1290	60	37.51	14.63	84.14	67.77	4.99	72.76		
	3	1	0	Unrestricted	402	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	4	1	0	Unrestricted	774	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	5	1	3	2628	17	1914	34	35.20	0.45	5.74	2.36	0.15	2.51		
	6	1	0	Unrestricted	67	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	7	1	8	990	29	1268	35	35.07	0.77	3.71	4.01	0.26	4.28		
	8	1	0	Unrestricted	65	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	9	1	6	1287	13	744	34	36.02	1.46	20.87	1.85	0.12	1.97		
	10	1	2	5795	30	1965	130	0.01	0.00	0.00	0.00	0.00	0.00		
18:15-18:30	1	1	105	-14	810	1648	60	684.97	173.85	999.63	2188.49	28.33	2216.82		
	2	1	78	15	559	1518	60	37.75	18.10	104.05	83.25	6.18	89.42		
	3	1	0	Unrestricted	503	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	4	1	0	Unrestricted	762	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	5	1	2	5697	8	1914	34	35.13	0.21	2.70	1.11	0.07	1.18		
	6	1	0	Unrestricted	75	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	7	1	11	751	46	1570	35	35.42	1.23	5.94	6.43	0.42	6.85		
	8	1	0	Unrestricted	50	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	9	1	2	4348	4	734	34	35.27	0.11	1.51	0.56	0.04	0.59		
	10	1	1	14638	12	1965	130	0.01	0.00	0.00	0.00	0.00	0.00		

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst overall PRC	Network within capacity
8	15/04/2019 16:37:46	15/04/2019 16:37:51	17:30	130	1483.85	102.32	125.91	1/1	1	8	1/1	10/1	1/1	
8	15/04/2019 16:37:46	15/04/2019 16:37:51	17:30	130	552.99	37.37	123.37	1/1	1	8	1/1	10/1	1/1	
8	15/04/2019 16:37:46	15/04/2019 16:37:51	17:45	130	1201.25	82.42	121.59	1/1	1	8	1/1	10/1	1/1	
8	15/04/2019 16:37:46	15/04/2019 16:37:51	18:00	130	1866.28	128.93	125.91	1/1	1	8	1/1	10/1	1/1	
8	15/04/2019 16:37:46	15/04/2019 16:37:51	18:15	130	2314.87	160.55	104.77	1/1	1	8	1/1	10/1	1/1	

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	126	-29	2859		128.84	1452.90	30.95	1483.85
17:30-17:45	123	-27	2837	873	47.41	530.60	22.39	552.99
17:45-18:00	122	-26	2918	873	101.68	1170.32	30.93	1201.25
18:00-18:15	126	-29	2851	873	162.80	1830.85	35.43	1866.28
18:15-18:30	105	-14	2829	873	204.30	2279.83	35.04	2314.87

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
		R403																		

1	1	Clebridge		1	A	932 <			0.00	126	-29	384.88	373.44	254.12	173.85 +	100	100	0.00	1397.92
2	1	R403 Clane		1	C	479 <			0.00	78	15	48.48	36.69	86.12	18.10 +	100	100	0.00	74.42
3	1					420			40.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					771			26.00	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			34.00	7	1264	40.83	35.43	72.85	0.91	100	100	0.00	3.13
6	1					80			67.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	44			34.00	15	482	49.86	35.55	73.59	1.59	100	100	0.00	6.54
8	1					69			73.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	12			34.00	11	711	41.20	36.40	73.68	1.47	100	100	0.00	1.83
10	1	Capdoo Park Main				33			130.00	3	3058	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)	Total delay (PCU-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	554.75	120.64	102.32	1452.90	30.95	0.00	1483.85
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	554.75	120.64	102.32	1452.90	30.95	0.00	1483.85

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	965 <	1667	60	0.00	123	-27	132.62	120.62	173.75	52.78 +	100	100	0.00	476.16
2	1	R403 Clane		1	C	436	1311	60	0.00	71	27	45.98	33.98	82.25	13.16	100	100	0.00	62.94
3	1					380	Unrestricted	130	32.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					765	Unrestricted	130	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	25	1914	34	33.00	5	1755	40.80	35.40	73.07	0.67	100	100	0.00	3.72
6	1					87	Unrestricted	130	59.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	58	1355	35	31.00	15	482	50.47	36.16	74.64	1.59	100	100	0.00	8.81
8	1					78	Unrestricted	130	60.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	9	728	34	33.00	5	1861	40.57	35.77	73.42	1.46	100	100	0.00	1.35
10	1	Capdoo Park Main				34	1965	130	130.00	2	5101	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 (PCU-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	547.17	55.61	9.84	37.37	530.60	22.39	0.00	552.99
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	547.17	55.61	9.84	37.37	530.60	22.39	0.00	552.99

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	957 <	1677	60	0.00	122	-26	300.18	288.47	253.56	97.19 +	100	100	0.00	1113.96
2	1	R403 Clane		1	C	461	1296	60	0.00	76	19	48.88	37.15	86.58	14.67	100	100	0.00	72.56
3	1					394	Unrestricted	130	33.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					781	Unrestricted	130	22.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	34	1914	34	33.00	7	1264	41.03	35.63	73.13	0.91	100	100	0.00	5.09
6	1					89	Unrestricted	130	59.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	42	1761	35	33.00	9	945	49.51	35.20	73.20	1.12	100	100	0.00	6.22
8	1					82	Unrestricted	130	60.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	22	736	34	31.00	11	711	41.88	37.08	73.94	1.47	100	100	0.00	3.42
10	1	Capdoo Park Main				56	1965	130	130.00	3	3058	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 (PCU-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	560.29	100.98	5.55	82.42	1170.32	30.93	0.00	1201.25
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	560.29	100.98	5.55	82.42	1170.32	30.93	0.00	1201.25

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	996 <	1686	60	0.00	126	-29	458.53	446.68	301.54	144.23 +	100	100	0.00	1784.76	
2	1	R403 Clane		1	C	458	1290	60	0.00	76	19	49.31	37.51	86.88	14.63	100	100	0.00	72.76	
3	1					402	Unrestricted	130	36.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					774	Unrestricted	130	26.00	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	1914	34	34.00	3	2628	40.60	35.20	72.26	0.45	100	100	0.00	2.51	
6	1					67	Unrestricted	130	67.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	29	1268	35	34.00	8	990	49.38	35.07	72.52	0.77	100	100	0.00	4.28	
8	1					65	Unrestricted	130	69.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	13	744	34	33.00	6	1287	40.82	36.02	73.56	1.46	100	100	0.00	1.97	
10	1	Capdoo Park Main				30	1965	130	130.00	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 (PCU-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	547.48	147.12	3.72	128.93	1830.85	35.43	0.00	1866.28
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	547.48	147.12	3.72	128.93	1830.85	35.43	0.00	1866.28

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	810 <	1648	60	0.00	105	-14	694.91	684.97	292.23	173.85 +	100	100	0.00	2216.82	
2	1	R403 Clane		1	C	559 <	1518	60	0.00	78	15	49.43	37.75	88.13	18.10 +	100	100	0.00	89.42	
3	1					503	Unrestricted	130	40.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					762	Unrestricted	130	25.00	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	1914	34	34.00	2	5697	40.53	35.13	72.21	0.21	100	100	0.00	1.18	
6	1					75	Unrestricted	130	61.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	46	1570	35	33.00	11	751	49.73	35.42	73.31	1.23	100	100	0.00	6.85	
8	1					50	Unrestricted	130	73.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	4	734	34	34.00	2	4348	40.07	35.27	73.22	0.11	100	100	0.00	0.59	
10	1	Capdoo Park Main				12	1965	130	130.00	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 (PCU-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	564.07	178.84	3.15	160.55	2279.83	35.04	0.00	2314.87
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	564.07	178.84	3.15	160.55	2279.83	35.04	0.00	2314.87

- < = 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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Filename: Signalised Junction.t15

Path: S:\Jobs\2018\18039 Housing Dev Clane, Kildare TIA+RSA\18039-02\Reports\Working\TRANSYT

Report generation date: 15/04/2019 16:38:37

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

- »Signal Timings
- »Traffic Stream Results
- »Network Results
- »Final Prediction Table

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

Signal Timings

Network Default: 130s cycle time; 130 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	

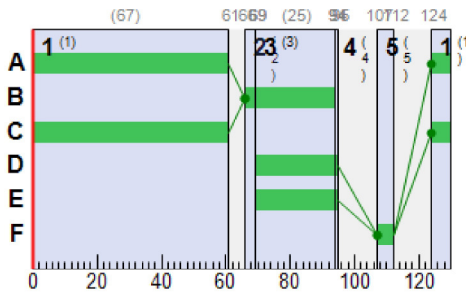
Resultant Stages

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,C	124	61	67	1	7
	2	✓	2	B	66	69	3	1	1
	3	✓	3	B,E,D	69	94	25	1	1
	4	✓	4	E,D	94	95	1	1	1
	5	✓	5	F	107	112	5	1	5

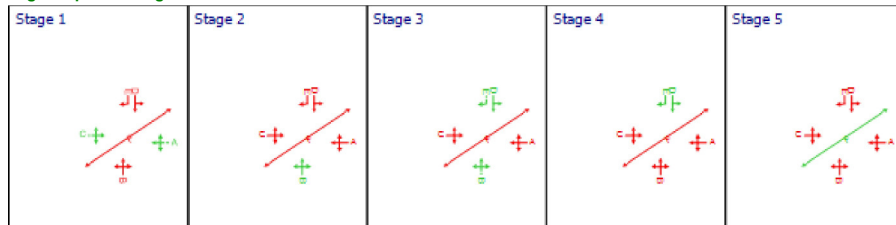
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	124	61	67
2	1		1	C	124	61	67
5	1		1	D	69	95	26
7	1		1	B	66	94	28
9	1		1	E	69	95	26

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	1	1	52	74	365			20.88	11.06	63.62	30.08	2.82	32.91
	2	1	114	-21	996			199.09	101.98	586.39	782.16	22.55	804.71
	3	1	0	Unrestricted	981			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	439			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	21	319	51			43.13	2.38	30.38	8.72	0.52	9.24
	6	1	0	Unrestricted	29			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	44	105	107			47.28	4.16	20.04	20.00	1.17	21.17

	8	1	0	Unrestricted	18				0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	19	369	17				44.92	1.48	21.15	3.01	0.17	3.19	
	10	1	5	1568	68				0.04	0.00	0.01	0.01	0.00	0.01	
07:30-07:45	1	1	34	165	266	1497	67	19.13	5.63	32.36	20.08	1.91	21.99		
	2	1	114	-21	1123	1876	67	93.17	55.74	320.49	412.70	18.61	431.32		
	3	1	0	Unrestricted	1039	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	4	1	0	Unrestricted	308	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	5	1	8	1082	28	1770	26	41.92	0.81	10.38	4.63	0.28	4.91		
	6	1	0	Unrestricted	14	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	7	1	39	130	98	1121	28	46.73	3.09	14.90	18.06	1.06	19.13		
	8	1	0	Unrestricted	12	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	9	1	0	Unrestricted	0	724	26	0.00	0.00	0.00	0.00	0.00	0.00		
	10	1	1	6216	28	1965	130	0.01	0.00	0.00	0.00	0.00	0.00		
07:45-08:00	1	1	42	115	364	1666	67	20.38	8.14	46.78	29.26	2.76	32.02		
	2	1	114	-21	1123	1885	67	206.76	91.14	524.06	915.85	26.37	942.23		
	3	1	0	Unrestricted	1048	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	4	1	0	Unrestricted	415	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	5	1	13	604	47	1770	26	42.65	1.38	17.64	7.91	0.47	8.38		
	6	1	0	Unrestricted	18	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	7	1	38	140	89	1063	28	46.62	2.81	13.55	16.37	0.96	17.33		
	8	1	0	Unrestricted	23	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	9	1	12	659	18	731	26	43.56	1.47	20.95	3.09	0.18	3.27		
	10	1	3	2621	65	1965	130	0.03	0.00	0.00	0.01	0.00	0.01		
08:00-08:15	1	1	42	112	374	1686	67	20.50	8.36	48.08	30.25	2.85	33.10		
	2	1	96	-7	936	1856	67	294.14	101.98	586.39	1085.97	26.07	1112.05		
	3	1	0	Unrestricted	1006	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	4	1	0	Unrestricted	457	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	5	1	14	549	51	1770	26	42.81	1.51	19.33	8.61	0.52	9.13		
	6	1	0	Unrestricted	19	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	7	1	44	105	112	1144	28	48.38	3.62	17.45	21.37	1.24	22.62		
	8	1	0	Unrestricted	14	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	9	1	16	478	23	711	26	44.61	1.47	21.04	4.05	0.23	4.28		
	10	1	4	2290	74	1965	130	0.04	0.00	0.01	0.01	0.00	0.01		
08:15-08:30	1	1	52	74	457	1686	67	22.61	11.06	63.62	40.75	3.77	44.52		
	2	1	82	9	802	1862	67	225.74	69.65	400.48	714.11	19.14	733.25		
	3	1	0	Unrestricted	830	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	4	1	0	Unrestricted	577	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	5	1	21	319	79	1770	26	44.06	2.38	30.38	13.73	0.82	14.54		
	6	1	0	Unrestricted	64	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	7	1	41	118	130	1413	28	47.18	4.16	20.04	24.19	1.43	25.62		
	8	1	0	Unrestricted	24	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	9	1	19	369	27	678	26	46.10	1.48	21.15	4.91	0.28	5.19		
	10	1	5	1568	106	1965	130	0.05	0.00	0.01	0.02	0.00	0.02		

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst overall PRC	Network within capacity
9	15/04/2019 16:38:30	15/04/2019 16:38:36	07:30	130	871.23	59.44	114.47	2/1	1	8	2/1	10/1	2/1	
9	15/04/2019 16:38:30	15/04/2019 16:38:36	07:30	130	477.34	32.08	114.47	2/1	1	8	2/1	10/1	2/1	
9	15/04/2019 16:38:30	15/04/2019 16:38:36	07:45	130	1003.24	68.49	113.89	2/1	1	8	2/1	10/1	2/1	
9	15/04/2019 16:38:30	15/04/2019 16:38:36	08:00	130	1181.18	81.00	96.43	2/1	1	8	2/1	10/1	2/1	
9	15/04/2019 16:38:30	15/04/2019 16:38:36	08:15	130	823.15	56.18	82.33	2/1	0	0	2/1	10/1	2/1	✓

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	114	-21	3072		69.65	843.99	27.24	871.23
07:30-07:45	114	-21	2916	864	39.60	455.48	21.87	477.34
07:45-08:00	114	-21	3210	864	76.80	972.49	30.76	1003.24
08:00-08:15	96	-7	3066	864	95.11	1150.27	30.92	1181.18
08:15-08:30	82	0	3096	864	65.32	797.72	25.43	823.15

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
		R403																	

1	1	Clebridge		1	A	365			0.00	52	74	32.88	20.88	61.67	11.06	100	100	0.00	32.91
2	1	R403 Clane		1	C	996 <			0.00	114	-21	212.51	199.09	193.29	101.98 +	100	100	0.00	804.71
3	1					981			16.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					439			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	51			25.00	21	319	48.53	43.13	81.19	2.38	100	100	0.00	9.24
6	1					29			130.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	107			0.00	44	105	61.60	47.28	87.31	4.16	100	100	0.00	21.17
8	1					18			130.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	17			27.00	19	369	49.71	44.92	81.04	1.48	100	100	0.00	3.19
10	1	Capdoo Park Main				68			130.00	5	1568	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)	Total delay (PCU-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	601.06	79.86	59.44	843.99	27.24	0.00	871.23
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	601.06	79.86	59.44	843.99	27.24	0.00	871.23

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	266	1497	67	0.00	34	165	31.13	19.13	57.38	5.63	100	100	0.00	21.99
2	1	R403 Clane		1	C	1123 <	1876	67	0.00	114	-21	105.17	93.17	151.31	55.74 +	100	100	0.00	431.32
3	1					1039	Unrestricted	130	16.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					308	Unrestricted	130	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	28	1770	26	25.00	8	1082	47.32	41.92	79.40	0.81	100	100	0.00	4.91
6	1					14	Unrestricted	130	130.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	98	1121	28	0.00	39	130	61.04	46.73	86.37	3.09	100	100	0.00	19.13
8	1					12	Unrestricted	130	130.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	0	724	26	27.00	0	Unrestricted	0.00	0.00	0.00	0.00	100	100	0.00	0.00
10	1	Capdoo Park Main				28	1965	130	130.00	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 (PCU-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	569.98	51.07	11.16	32.08	455.48	21.87	0.00	477.34
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	569.98	51.07	11.16	32.08	455.48	21.87	0.00	477.34

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	364	1666	67	0.00	42	115	32.38	20.38	60.55	8.14	100	100	0.00	32.02
2	1	R403 Clane		1	C	1123 <	1885	67	0.00	114	-21	218.24	206.76	213.31	91.14 +	100	100	0.00	942.23
3	1					1048	Unrestricted	130	15.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					415	Unrestricted	130	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	47	1770	26	24.00	13	604	48.05	42.65	80.41	1.38	100	100	0.00	8.38
6	1					18	Unrestricted	130	130.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	89	1063	28	0.00	38	140	61.00	46.62	86.46	2.81	100	100	0.00	17.33
8	1					23	Unrestricted	130	123.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	18	731	26	24.00	12	659	48.36	43.56	80.44	1.47	100	100	0.00	3.27
10	1	Capdoo Park Main				65	1965	130	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 (PCU-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	622.28	89.07	6.99	68.49	972.49	30.76	0.00	1003.24
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	622.28	89.07	6.99	68.49	972.49	30.76	0.00	1003.24

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	374	1686	67	0.00	42	112	32.49	20.50	60.78	8.36	100	100	0.00	33.10	
2	1	R403 Clane		1	C	936 <	1856	67	0.00	96	-7	309.30	294.14	222.16	101.98 +	100	100	0.00	1112.05	
3	1					1006	Unrestricted	130	14.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					457	Unrestricted	130	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	51	1770	26	23.00	14	549	48.21	42.81	81.00	1.51	100	100	0.00	9.13	
6	1					19	Unrestricted	130	130.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	112	1144	28	0.00	44	105	62.62	48.38	88.52	3.62	100	100	0.00	22.62	
8	1					14	Unrestricted	130	130.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	23	711	26	23.00	16	478	49.40	44.61	80.93	1.47	100	100	0.00	4.28	
10	1	Capdoo Park Main				74	1965	130	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 (PCU-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	605.70	102.01	5.94	81.00	1150.27	30.92	0.00	1181.18
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	605.70	102.01	5.94	81.00	1150.27	30.92	0.00	1181.18

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	457	1686	67	0.00	52	74	34.60	22.61	65.79	11.06	100	100	0.00	44.52	
2	1	R403 Clane		1	C	802 <	1862	67	0.00	82	9	241.82	225.74	190.37	69.65 +	100	100	0.00	733.25	
3	1					830	Unrestricted	130	16.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					577	Unrestricted	130	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	79	1770	26	0.00	21	319	49.45	44.06	82.42	2.38	100	100	0.00	14.54	
6	1					64	Unrestricted	130	66.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	130	1413	28	0.00	41	118	61.55	47.18	87.57	4.16	100	100	0.00	25.62	
8	1					24	Unrestricted	130	119.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	27	678	26	21.00	19	369	50.88	46.10	81.52	1.48	100	100	0.00	5.19	
10	1	Capdoo Park Main				106	1965	130	0.00	5	1568	8.51	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 (PCU-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	606.29	77.30	7.84	56.18	797.72	25.43	0.00	823.15
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	606.29	77.30	7.84	56.18	797.72	25.43	0.00	823.15

- < = 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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Filename: Signalised Junction.t15

Path: S:\Jobs\2018\18039 Housing Dev Clane, Kildare TIA+RSA\18039-02\Reports\Working\TRANSYT

Report generation date: 15/04/2019 16:39:25

«A10 - 2027 with dev pm : D10 - 2027 with dev pm* :

- »Signal Timings
- »Traffic Stream Results
- »Network Results
- »Final Prediction Table

A10 - 2027 with dev pm D10 - 2027 with dev pm*

Signal Timings

Network Default: 130s cycle time; 130 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	

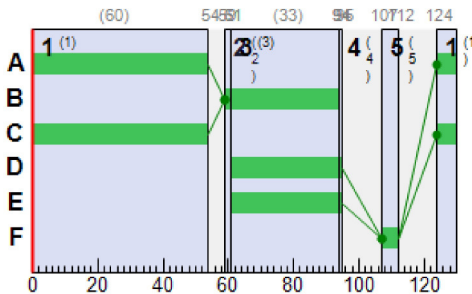
Resultant Stages

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,C	124	54	60	1	7
	2	✓	2	B	59	61	2	1	1
	3	✓	3	B,E,D	61	94	33	1	1
	4	✓	4	E,D	94	95	1	1	1
	5	✓	5	F	107	112	5	1	5

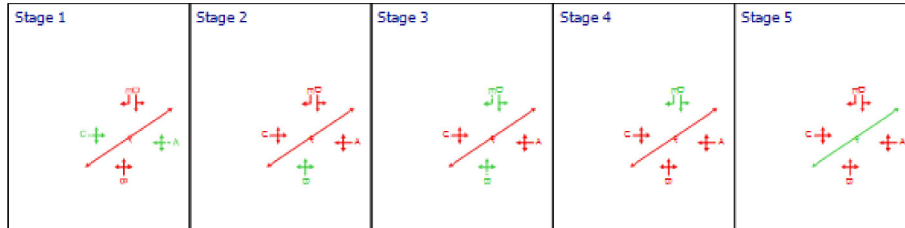
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	124	54	60
2	1		1	C	124	54	60
5	1		1	D	61	95	34
7	1		1	B	59	94	35
9	1		1	E	61	95	34

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	1	1	139	-35	1025			507.22	256.90	1477.18	2050.21	28.82	2079.03
	2	1	85	6	527			41.88	21.63	124.35	87.05	6.14	93.19
	3	1	0	Unrestricted	463			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	773			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	8	1059	23			35.54	1.00	12.78	3.22	0.21	3.44
	6	1	0	Unrestricted	83			0.00	0.00	0.00	0.00	0.00	0.00

	7	1	17	421	48					35.74	1.76	8.49	6.73	0.44	7.17
	8	1	0	Unrestricted	73					0.00	0.00	0.00	0.00	0.00	0.00
	9	1	12	641	13					36.57	1.47	20.95	1.88	0.12	2.00
	10	1	3	2799	36					0.02	0.00	0.00	0.00	0.00	0.00
17:30-17:45	1	1	136	-34	1062	1663	60	149.45	64.48	370.79	626.04	19.87	645.92		
	2	1	77	17	481	1331	60	37.28	15.46	88.90	70.73	5.27	76.00		
	3	1	0	Unrestricted	420	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	4	1	0	Unrestricted	767	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	5	1	6	1488	27	1770	34	35.54	0.72	9.22	3.78	0.25	4.03		
	6	1	0	Unrestricted	92	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	7	1	17	421	64	1337	35	36.49	1.76	8.49	9.21	0.60	9.82		
	8	1	0	Unrestricted	82	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	9	1	5	1852	9	725	34	35.78	1.46	20.85	1.27	0.08	1.35		
	10	1	2	4813	36	1965	130	0.02	0.00	0.00	0.00	0.00	0.00		
17:45-18:00	1	1	134	-33	1052	1676	60	385.53	133.21	765.93	1599.76	29.62	1629.38		
	2	1	83	9	508	1309	60	42.47	17.52	100.74	85.10	5.96	91.05		
	3	1	0	Unrestricted	434	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	4	1	0	Unrestricted	785	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	5	1	8	1059	37	1770	34	35.78	1.00	12.78	5.22	0.34	5.56		
	6	1	0	Unrestricted	93	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	7	1	9	875	45	1761	35	35.29	1.20	5.81	6.26	0.41	6.68		
	8	1	0	Unrestricted	88	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	9	1	12	641	24	734	34	37.38	1.47	20.95	3.54	0.22	3.76		
	10	1	3	2799	61	1965	130	0.03	0.00	0.00	0.01	0.00	0.01		
18:00-18:15	1	1	139	-35	1095	1685	60	604.87	204.65	1176.76	2612.53	34.42	2646.95		
	2	1	83	9	504	1302	60	43.48	17.53	100.79	86.43	5.95	92.38		
	3	1	0	Unrestricted	443	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	4	1	0	Unrestricted	777	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	5	1	4	2157	19	1770	34	35.26	0.51	6.48	2.64	0.17	2.82		
	6	1	0	Unrestricted	70	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	7	1	9	881	32	1260	35	35.17	0.85	4.09	4.44	0.29	4.73		
	8	1	0	Unrestricted	70	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	9	1	7	1187	14	744	34	36.10	1.46	20.87	1.99	0.13	2.12		
	10	1	2	5259	33	1965	130	0.02	0.00	0.00	0.00	0.00	0.00		
18:15-18:30	1	1	115	-22	890	1643	60	957.83	256.90	1477.18	3362.50	31.36	3393.85		
	2	1	85	6	615	1539	60	43.67	21.63	124.35	105.94	7.37	113.31		
	3	1	0	Unrestricted	555	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	4	1	0	Unrestricted	764	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	5	1	2	4665	9	1770	34	35.15	0.24	3.04	1.25	0.08	1.33		
	6	1	0	Unrestricted	77	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	7	1	12	670	50	1545	35	35.56	1.34	6.47	7.01	0.46	7.47		
	8	1	0	Unrestricted	53	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	9	1	3	3445	5	732	34	35.36	1.46	20.84	0.70	0.05	0.74		
	10	1	1	12532	14	1965	130	0.01	0.00	0.00	0.00	0.00	0.00		

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst overall PRC	Network within capacity
10	15/04/2019 16:39:16	15/04/2019 16:39:22	17:30	130	2184.82	151.34	138.52	1/1	1	8	1/1	10/1	1/1	
10	15/04/2019 16:39:16	15/04/2019 16:39:22	17:30	130	737.12	50.07	136.12	1/1	1	8	1/1	10/1	1/1	
10	15/04/2019 16:39:16	15/04/2019 16:39:22	17:45	130	1736.44	119.71	133.80	1/1	1	8	1/1	10/1	1/1	
10	15/04/2019 16:39:16	15/04/2019 16:39:22	18:00	130	2749.01	190.71	138.52	1/1	1	8	1/1	10/1	1/1	
10	15/04/2019 16:39:16	15/04/2019 16:39:22	18:15	130	3516.71	244.89	115.43	1/1	1	8	1/1	10/1	1/1	

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	139	-35	3064		177.81	2149.09	35.72	2184.82
17:30-17:45	136	-34	3040	873	59.29	711.04	26.08	737.12
17:45-18:00	134	-33	3127	873	137.81	1699.89	36.55	1736.44
18:00-18:15	139	-35	3056	873	224.62	2708.05	40.96	2749.01
18:15-18:30	115	-22	3033	873	290.66	3477.40	39.31	3516.71

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	Calculated sat flow	Actual green (s per cycle)	Wasted time total (s)	Degree of saturation	Practical reserve capacity	JourneyTime (s)	Mean Delay per	Mean stops per	Mean max queue	Delay weighting multiplier	Stop weighting multiplier	Cost of traffic penalties (£)	P.I.

					(PCU/hr)	(PCU/hr)	cycle)	(per cycle))	(%)	(%)		Veh (s)	Veh (%)	(PCU)	(%)	(%)	per hr)		
1	1	R403 Clebridge		1	A	1025 <			0.00	139	-35	519.13	507.22	292.93	256.90 +	100	100	0.00	2079.03
2	1	R403 Clane		1	C	527 <			0.00	85	6	53.45	41.88	92.85	21.63 +	100	100	0.00	93.19
3	1					463			37.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					773			26.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	23			34.00	8	1059	40.94	35.54	73.19	1.00	100	100	0.00	3.44
6	1					83			66.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	48			34.00	17	421	50.05	35.74	73.83	1.76	100	100	0.00	7.17
8	1					73			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	13			34.00	12	641	41.37	36.57	73.74	1.47	100	100	0.00	2.00
10	1	Capdoo Park Main				36			130.00	3	2799	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)	Total delay (PCU-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	586.19	170.80	151.34	2149.09	35.72	0.00	2184.82
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	586.19	170.80	151.34	2149.09	35.72	0.00	2184.82

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	1062 <	1663	60	0.00	136	-34	161.45	149.45	203.15	64.48 +	100	100	0.00	645.92
2	1	R403 Clane		1	C	481	1331	60	0.00	77	17	49.28	37.28	87.41	15.46	100	100	0.00	76.00
3	1					420	Unrestricted	130	29.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					767	Unrestricted	130	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	27	1770	34	33.00	6	1488	40.94	35.54	73.11	0.72	100	100	0.00	4.03
6	1					92	Unrestricted	130	58.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	64	1337	35	0.00	17	421	50.80	36.49	75.25	1.76	100	100	0.00	9.82
8	1					82	Unrestricted	130	60.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	9	725	34	33.00	5	1852	40.58	35.78	73.42	1.46	100	100	0.00	1.35
10	1	Capdoo Park Main				36	1965	130	130.00	2	4813	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 (PCU-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	577.88	69.34	8.33	50.07	711.04	26.08	0.00	737.12
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	577.88	69.34	8.33	50.07	711.04	26.08	0.00	737.12

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	1052 <	1676	60	0.00	134	-33	397.43	385.53	300.44	133.21 +	100	100	0.00	1629.38
2	1	R403 Clane		1	C	508 <	1309	60	0.00	83	9	53.99	42.47	93.51	17.52 +	100	100	0.00	91.05
3	1					434	Unrestricted	130	31.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					785	Unrestricted	130	22.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00
5	1	Capdoo Park Straight Right		1	D	37	1770	34	32.00	8	1059	41.18	35.78	73.64	1.00	100	100	0.00	5.56
6	1					93	Unrestricted	130	58.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	45	1761	35	33.00	9	875	49.60	35.29	73.23	1.20	100	100	0.00	6.68
8	1					88	Unrestricted	130	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	24	734	34	31.00	12	641	42.18	37.38	74.04	1.47	100	100	0.00	3.76

10	1	Capdoo Park Main				61	1965	130	0.00	3	2799	8.48	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)	Mean journey speed (kph)	Total delay (PCU-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	591.95	139.35	4.25	119.71	1699.89	36.55	0.00	1736.44
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	591.95	139.35	4.25	119.71	1699.89	36.55	0.00	1736.44

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	1095 <	1685	60	0.00	139	-35	616.82	604.87	347.25	204.65 +	100	100	0.00	2646.95
2	1	R403 Clane		1	C	504 <	1302	60	0.00	83	9	54.98	43.48	94.11	17.53 +	100	100	0.00	92.38
3	1					443	Unrestricted	130	33.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					777	Unrestricted	130	26.00	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	1770	34	33.00	4	2157	40.66	35.26	72.90	0.51	100	100	0.00	2.82
6	1					70	Unrestricted	130	66.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	32	1260	35	34.00	9	881	49.49	35.17	72.57	0.85	100	100	0.00	4.73
8	1					70	Unrestricted	130	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	14	744	34	33.00	7	1187	40.90	36.10	73.60	1.46	100	100	0.00	2.12
10	1	Capdoo Park Main				33	1965	130	130.00	2	5259	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 (PCU-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	578.35	209.90	2.76	190.71	2708.05	40.96	0.00	2749.01
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	578.35	209.90	2.76	190.71	2708.05	40.96	0.00	2749.01

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	890 <	1643	60	0.00	115	-22	969.62	957.83	324.34	256.90 +	100	100	0.00	3393.85
2	1	R403 Clane		1	C	615 <	1539	60	0.00	85	6	55.01	43.67	95.51	21.63 +	100	100	0.00	113.31
3	1					555	Unrestricted	130	37.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					764	Unrestricted	130	25.00	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	1770	34	34.00	2	4665	40.55	35.15	72.22	0.24	100	100	0.00	1.33
6	1					77	Unrestricted	130	60.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	50	1545	35	33.00	12	670	49.87	35.56	73.36	1.34	100	100	0.00	7.47
8	1					53	Unrestricted	130	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	5	732	34	34.00	3	3445	40.16	35.36	73.26	1.46	100	100	0.00	0.74
10	1	Capdoo Park Main				14	1965	130	130.00	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 (PCU-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	596.60	264.61	2.25	244.89	3477.40	39.31	0.00	3516.71
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	596.60	264.61	2.25	244.89	3477.40	39.31	0.00	3516.71

- < = 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%

TRANSYT 15

Version: 15.5.2.7994
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Filename: Signalised Junction.t15

Path: S:\Jobs\2018\18039 Housing Dev Clane, Kildare TIA+RSA\18039-02\Reports\Working\TRANSYT

Report generation date: 15/04/2019 14:05:33

«A1 - 2037 am with dev : D7 - 2037 with dev am* :

- »Signal Timings
- »Traffic Stream Results
- »Network Results
- »Final Prediction Table

A1 - 2037 am with dev D7 - 2037 with dev am*

Signal Timings

Network Default: 130s cycle time; 130 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

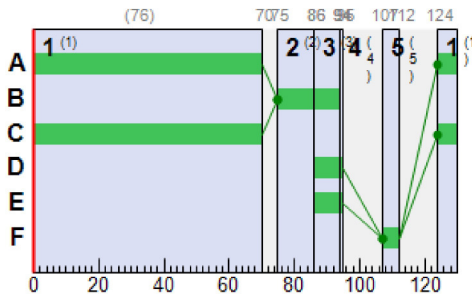
Resultant Stages

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,C	124	70	76	1	7
	2	✓	2	B	75	86	11	1	1
	3	✓	3	B,E,D	86	94	8	1	1
	4	✓	4	E,D	94	95	1	1	1
	5	✓	5	F	107	112	5	1	5

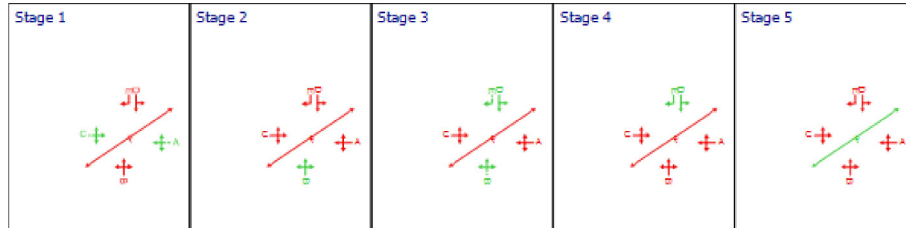
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	124	70	76
2	1		1	C	124	70	76
5	1		1	D	86	95	9
7	1		1	B	75	94	19
9	1		1	E	86	95	9

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	1	1	50	81	401			15.71	10.64	61.18	24.85	2.70	27.54
	2	1	119	-25	1114			258.16	137.18	788.79	1134.13	27.63	1161.76
	3	1	0	Unrestricted	1066			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	513			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	63	42	56			69.52	3.47	44.39	15.36	0.73	16.08
	6	1	0	Unrestricted	31			0.00	0.00	0.00	0.00	0.00	0.00

	7	1	87	3	168					78.96	9.11	43.94	52.25	2.37	54.61
	8	1	0	Unrestricted	46					0.00	0.00	0.00	0.00	0.00	0.00
	9	1	56	62	19					81.66	1.74	24.83	6.04	0.26	6.30
	10	1	6	1425	75					0.04	0.00	0.02	0.01	0.00	0.01
07:30-07:45	1	1	32	178	291	1519	76	14.27	5.33	30.65	16.38	1.81	18.19		
	2	1	119	-25	1258	1780	76	101.90	65.53	376.80	505.62	21.52	527.14		
	3	1	0	Unrestricted	1112	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	4	1	0	Unrestricted	363	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	5	1	23	295	31	1770	9	60.22	1.08	13.84	7.36	0.37	7.74		
	6	1	0	Unrestricted	16	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	7	1	71	26	154	1403	19	68.49	5.88	28.36	41.60	2.02	43.62		
	8	1	0	Unrestricted	39	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	9	1	0	Unrestricted	0	815	9	0.00	0.00	0.00	0.00	0.00	0.00		
	10	1	2	5605	31	1965	130	0.01	0.00	0.00	0.00	0.00	0.00		
07:45-08:00	1	1	40	123	407	1704	76	15.37	7.94	45.63	24.67	2.69	27.36		
	2	1	116	-23	1247	1813	76	240.13	113.53	652.81	1181.15	31.14	1212.29		
	3	1	0	Unrestricted	1145	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	4	1	0	Unrestricted	474	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	5	1	37	140	51	1770	9	64.68	1.85	23.64	13.01	0.64	13.65		
	6	1	0	Unrestricted	19	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	7	1	67	35	139	1350	19	68.81	5.33	25.70	37.73	1.82	39.55		
	8	1	0	Unrestricted	53	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	9	1	32	183	20	818	9	69.50	1.53	21.82	5.48	0.25	5.74		
	10	1	4	2391	71	1965	130	0.03	0.00	0.01	0.01	0.00	0.01		
08:00-08:15	1	1	40	125	407	1720	76	15.29	7.93	45.62	24.55	2.68	27.23		
	2	1	103	-12	1054	1731	76	373.02	137.18	788.79	1550.82	32.16	1582.98		
	3	1	0	Unrestricted	1092	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	4	1	0	Unrestricted	532	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	5	1	41	119	56	1770	9	66.24	2.05	26.20	14.63	0.70	15.34		
	6	1	0	Unrestricted	20	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	7	1	83	9	176	1385	19	81.48	7.46	35.97	56.57	2.54	59.11		
	8	1	0	Unrestricted	46	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	9	1	41	117	25	784	9	77.18	1.59	22.72	7.61	0.33	7.94		
	10	1	4	2083	81	1965	130	0.04	0.00	0.01	0.01	0.00	0.01		
08:15-08:30	1	1	50	81	499	1690	76	17.16	10.64	61.18	33.78	3.61	37.38		
	2	1	86	5	896	1760	76	367.53	113.36	651.80	1298.94	25.68	1324.62		
	3	1	0	Unrestricted	915	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	4	1	0	Unrestricted	682	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	5	1	63	42	86	1770	9	77.89	3.47	44.39	26.42	1.19	27.61		
	6	1	0	Unrestricted	71	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	7	1	87	3	202	1507	19	91.73	9.11	43.94	73.09	3.09	76.18		
	8	1	0	Unrestricted	45	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00		
	9	1	56	62	30	702	9	93.49	1.74	24.83	11.06	0.44	11.50		
	10	1	6	1425	116	1965	130	0.06	0.00	0.02	0.03	0.00	0.03		

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst overall PRC	Network within capacity
1	15/04/2019 14:05:25	15/04/2019 14:05:32	07:30	130	1266.30	86.81	119.32	2/1	1	8	2/1	10/1	2/1	
1	15/04/2019 14:05:25	15/04/2019 14:05:32	07:30	130	596.68	40.21	119.32	2/1	1	8	2/1	10/1	2/1	
1	15/04/2019 14:05:25	15/04/2019 14:05:32	07:45	130	1298.60	88.88	116.14	2/1	1	8	2/1	10/1	2/1	
1	15/04/2019 14:05:25	15/04/2019 14:05:32	08:00	130	1692.61	116.49	102.82	2/1	1	8	2/1	10/1	2/1	
1	15/04/2019 14:05:25	15/04/2019 14:05:32	08:15	130	1477.32	101.64	87.12	7/1	0	0	7/1	10/1	7/1	✓

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	119	-25	3488		89.60	1232.63	33.67	1266.30
07:30-07:45	119	-25	3295	839	43.93	570.97	25.72	596.68
07:45-08:00	116	-23	3626	839	88.25	1262.05	36.55	1298.60
08:00-08:15	103	-12	3488	839	120.23	1654.19	38.42	1692.61
08:15-08:30	87	0	3542	839	103.31	1443.32	34.00	1477.32

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	Calculated sat flow	Actual green (s (per cycle))	Wasted time total (s)	Degree of saturation	Practical reserve capacity	JourneyTime (s)	Mean Delay per	Mean stops per	Mean max queue	Delay weighting multiplier	Stop weighting multiplier	Cost of traffic penalties (£)	P.I.	

					(PCU/hr)	(PCU/hr)	cycle)	(per cycle)	(%)	(%)		Veh (s)	Veh (%)	(PCU)	(%)	(%)	per hr)	
1	1	R403 Clebridge		1	A	401		0.00	50	81	27.71	15.71	53.63	10.64	100	100	0.00	27.54
2	1	R403 Clane		1	C	1114 <		0.00	119	-25	269.73	258.16	215.88	137.18 +	100	100	0.00	1161.76
3	1					1066		5.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					513		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	56		7.00	63	42	74.77	69.52	103.32	3.47	100	100	0.00	16.08
6	1					31		130.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	168		0.00	87	3	92.40	78.96	112.56	9.11	100	100	0.00	54.61
8	1					46		101.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	19		10.00	56	62	85.85	81.66	109.20	1.74	100	100	0.00	6.30
10	1	Capdoo Park Main				75		130.00	6	1425	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)	Total delay (PCU-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	681.52	109.34	86.81	1232.63	33.67	0.00	1266.30
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	681.52	109.34	86.81	1232.63	33.67	0.00	1266.30

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	291	1519	76	0.00	32	178	26.27	14.27	49.49	5.33	100	100	0.00	18.19	
2	1	R403 Clane		1	C	1258 <	1780	76	0.00	119	-25	113.90	101.90	162.80	65.53 +	100	100	0.00	527.14	
3	1					1112	Unrestricted	130	5.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					363	Unrestricted	130	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	31	1770	9	7.00	23	295	65.62	60.22	95.85	1.08	100	100	0.00	7.74	
6	1					16	Unrestricted	130	130.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	154	1403	19	0.00	71	26	82.80	68.49	104.36	5.88	100	100	0.00	43.62	
8	1					39	Unrestricted	130	77.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	0	815	9	10.00	0	Unrestricted	0.00	0.00	0.00	0.00	100	100	0.00	0.00	
10	1	Capdoo Park Main				31	1965	130	130.00	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 (PCU-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	640.65	61.56	10.41	40.21	570.97	25.72	0.00	596.68
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	640.65	61.56	10.41	40.21	570.97	25.72	0.00	596.68

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	407	1704	76	0.00	40	123	27.37	15.37	52.74	7.94	100	100	0.00	27.36	
2	1	R403 Clane		1	C	1247 <	1813	76	0.00	116	-23	251.81	240.13	231.33	113.53 +	100	100	0.00	1212.29	
3	1					1145	Unrestricted	130	4.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					474	Unrestricted	130	9.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00	
5	1	Capdoo Park Straight Right		1	D	51	1770	9	6.00	37	140	70.04	64.68	99.45	1.85	100	100	0.00	13.65	
6	1					19	Unrestricted	130	130.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	139	1350	19	0.00	67	35	83.88	68.81	104.69	5.33	100	100	0.00	39.55	
8	1					53	Unrestricted	130	51.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	20	818	9	6.00	32	183	74.30	69.50	101.66	1.53	100	100	0.00	5.74	

10	1	Capdoo Park Main				71	1965	130	0.00	4	2391	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)	Mean journey speed (kph)	Total delay (PCU-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	702.19	112.20	6.26	88.88	1262.05	36.55	0.00	1298.60
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	702.19	112.20	6.26	88.88	1262.05	36.55	0.00	1298.60

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	407	1720	76	0.00	40	125	27.30	15.29	52.54	7.93	100	100	0.00	27.23	
2	1	R403 Clane		1	C	1054 <	1731	76	0.00	103	-12	381.45	373.02	250.17	137.18 +	100	100	0.00	1582.98	
3	1					1092	Unrestricted	130	2.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					532	Unrestricted	130	5.00	0	Unrestricted	35.92	0.00	0.00	0.00	100	100	0.00	0.00	
5	1	Capdoo Park Straight Right		1	D	56	1770	9	6.00	41	119	71.43	66.24	100.38	2.05	100	100	0.00	15.34	
6	1					20	Unrestricted	130	130.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	176	1385	19	0.00	83	9	94.74	81.48	115.09	7.46	100	100	0.00	59.11	
8	1					46	Unrestricted	130	69.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	25	784	9	5.00	41	117	81.52	77.18	106.42	1.59	100	100	0.00	7.94	
10	1	Capdoo Park Main				81	1965	130	0.00	4	2083	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 (PCU-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	687.68	138.31	4.97	116.49	1654.19	38.42	0.00	1692.61
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	687.68	138.31	4.97	116.49	1654.19	38.42	0.00	1692.61

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	499	1690	76	0.00	50	81	29.15	17.16	57.65	10.64	100	100	0.00	37.38	
2	1	R403 Clane		1	C	896 <	1760	76	0.00	86	5	382.02	367.53	228.57	113.36 +	100	100	0.00	1324.62	
3	1					915	Unrestricted	130	3.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					682	Unrestricted	130	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	86	1770	9	0.00	63	42	83.05	77.89	110.23	3.47	100	100	0.00	27.61	
6	1					71	Unrestricted	130	56.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	202	1507	19	0.00	87	3	103.54	91.73	122.02	9.11	100	100	0.00	76.18	
8	1					45	Unrestricted	130	101.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	30	702	9	3.00	56	62	97.17	93.49	116.54	1.74	100	100	0.00	11.50	
10	1	Capdoo Park Main				116	1965	130	0.00	6	1425	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 (PCU-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	695.56	125.29	5.55	101.64	1443.32	34.00	0.00	1477.32
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	695.56	125.29	5.55	101.64	1443.32	34.00	0.00	1477.32

- < = 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%

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+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:** Signalised Junction.t15**Path:** S:\Jobs\2018\18039 Housing Dev Clane, Kildare TIA+RSA\18039-02\Reports\Working\TRANSYT**Report generation date:** 15/04/2019 14:08:33**«A2 - 2037 pm with dev : D14 - 2037 with dev pm* :**

- »Signal Timings
- »Traffic Stream Results
- »Network Results
- »Final Prediction Table

A2 - 2037 pm with dev D14 - 2037 with dev pm*

Signal Timings

Network Default: 130s cycle time; 130 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	

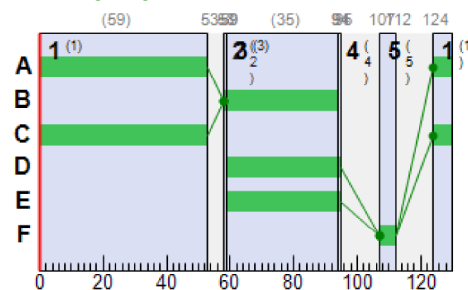
Resultant Stages

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,C	124	53	59	1	7
	2	✓	2	B	58	59	1	1	1
	3	✓	3	B,E,D	59	94	35	1	1
	4	✓	4	E,D	94	95	1	1	1
	5	✓	5	F	107	112	5	1	5

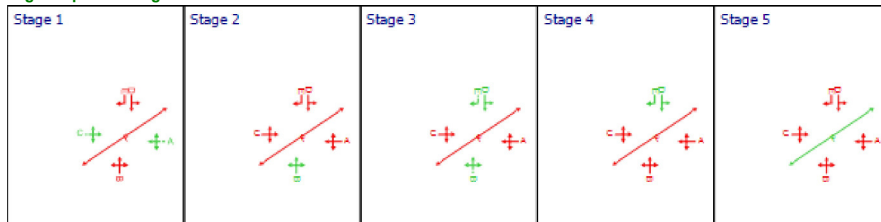
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	124	53	59
2	1		1	C	124	53	59
5	1		1	D	59	95	36
7	1		1	B	58	94	36
9	1		1	E	59	95	36

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	1	1	155	-42	1138			660.56	366.87	2109.49	2964.47	32.56	2997.04
	2	1	115	-22	609			234.14	84.02	483.13	562.22	14.48	576.70
	3	1	0	Unrestricted	460			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	784			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	8	1067	26			34.07	1.11	14.20	3.49	0.23	3.73
	6	1	0	Unrestricted	82			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	31	190	87			36.89	3.36	16.18	12.59	0.83	13.41
	8	1	0	Unrestricted	115			0.00	0.00	0.00	0.00	0.00	0.00

	9	1	13	612	14					35.62	1.47	20.96	1.93	0.12	2.06
	10	1	3	2540	40					0.02	0.00	0.00	0.00	0.00	0.00
17:30-17:45	1	1	154	-42	1184	1664	59			183.51	80.41	462.35	857.02	23.32	880.35
	2	1	107	-16	559	1132	59			85.09	26.86	154.44	187.62	9.11	196.73
	3	1	0	Unrestricted	442	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	781	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	6	1432	32	1914	36			34.09	0.84	10.70	4.30	0.29	4.59
	6	1	0	Unrestricted	92	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	31	190	116	1313	36			38.72	3.36	16.18	17.71	1.15	18.86
	8	1	0	Unrestricted	133	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	9	1	5	1655	10	685	36			34.40	1.46	20.85	1.36	0.09	1.45
	10	1	2	4111	42	1965	130			0.02	0.00	0.00	0.00	0.00	0.00
17:45-18:00	1	1	151	-40	1174	1682	59			497.29	182.43	1048.98	2302.84	34.42	2337.26
	2	1	115	-22	592	1112	59			175.55	42.09	242.03	409.93	12.75	422.69
	3	1	0	Unrestricted	415	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	797	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	8	1067	42	1914	36			34.30	1.11	14.20	5.68	0.38	6.06
	6	1	0	Unrestricted	91	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	16	457	81	1761	36			35.58	2.20	10.60	11.37	0.75	12.12
	8	1	0	Unrestricted	135	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	9	1	13	612	25	695	36			36.88	1.47	20.96	3.64	0.23	3.86
	10	1	3	2540	67	1965	130			0.03	0.00	0.00	0.01	0.00	0.01
18:00-18:15	1	1	155	-42	1208	1688	59			791.24	285.85	1643.62	3770.19	38.49	3808.68
	2	1	115	-22	587	1105	59			297.39	61.64	354.45	688.56	15.82	704.39
	3	1	0	Unrestricted	430	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	779	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	4	2351	20	1914	36			33.75	0.52	6.61	2.66	0.18	2.84
	6	1	0	Unrestricted	67	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	17	436	59	1236	36			35.90	1.61	7.75	8.36	0.55	8.91
	8	1	0	Unrestricted	107	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	9	1	7	1132	15	722	36			34.89	1.46	20.87	2.06	0.14	2.20
	10	1	2	4953	35	1965	130			0.02	0.00	0.00	0.00	0.00	0.00
18:15-18:30	1	1	130	-31	985	1647	59			1268.34	366.87	2109.49	4927.84	34.02	4961.86
	2	1	111	-19	697	1365	59			350.19	84.02	483.13	962.76	20.22	982.98
	3	1	0	Unrestricted	552	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	780	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	2	4803	10	1914	36			33.68	0.26	3.30	1.33	0.09	1.42
	6	1	0	Unrestricted	78	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	7	1	21	338	90	1538	36			36.35	2.48	11.94	12.91	0.85	13.76
	8	1	0	Unrestricted	85	Unrestricted	130			0.00	0.00	0.00	0.00	0.00	0.00
	9	1	3	3453	5	693	36			33.91	1.46	20.84	0.67	0.04	0.71
	10	1	1	11690	15	1965	130			0.01	0.00	0.00	0.00	0.00	0.00

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst overall PRC	Network within capacity
2	15/04/2019 14:08:24	15/04/2019 14:08:30	17:30	130	3592.93	249.63	155.03	1/1	2	17	1/1	10/1	1/1	
2	15/04/2019 14:08:24	15/04/2019 14:08:30	17:30	130	1101.98	75.21	154.16	1/1	2	17	1/1	10/1	1/1	
2	15/04/2019 14:08:24	15/04/2019 14:08:30	17:45	130	2782.01	192.50	151.22	1/1	2	17	1/1	10/1	1/1	
2	15/04/2019 14:08:24	15/04/2019 14:08:30	18:00	130	4527.02	314.92	155.03	1/1	2	17	1/1	10/1	1/1	
2	15/04/2019 14:08:24	15/04/2019 14:08:30	18:15	130	5960.72	415.88	129.57	1/1	2	17	1/1	10/1	1/1	

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	155	-42	3354		267.96	3544.71	48.23	3592.93
17:30-17:45	154	-42	3392	876	79.83	1068.02	33.96	1101.98
17:45-18:00	151	-40	3419	876	202.71	2733.47	48.54	2782.01
18:00-18:15	155	-42	3307	876	342.79	4471.84	55.18	4527.02
18:15-18:30	130	-31	3297	876	454.06	5905.50	55.23	5960.72

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	1138 <		0.00	155	-42	672.54	660.56	336.06	366.87 +	100	100	0.00	2997.04	
2	1	R403 Clane		1	C	609 <		0.00	115	-22	245.29	234.14	213.00	84.02 +	100	100	0.00	576.70	

3	1					460			33.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					784			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	26			36.00	8	1067	39.47	34.07	71.60	1.11	100	100	0.00	3.73
6	1					82			66.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	87			32.00	31	190	51.20	36.89	76.14	3.36	100	100	0.00	13.41
8	1					115			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	14			36.00	13	612	40.42	35.62	72.23	1.47	100	100	0.00	2.06
10	1	Capdoo Park Main				40			130.00	3	2540	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)	Total delay (PCU-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	625.50	270.33	249.63	3544.71	48.23	0.00	3592.93
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	625.50	270.33	249.63	3544.71	48.23	0.00	3592.93

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	1184 <	1664	59	0.00	154	-42	195.51	183.51	242.21	80.41 +	100	100	0.00	880.35	
2	1	R403 Clane		1	C	559 <	1132	59	0.00	107	-16	97.09	85.09	139.02	26.86 +	100	100	0.00	196.73	
3	1					442	Unrestricted	130	25.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					781	Unrestricted	130	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	32	1914	36	35.00	6	1432	39.49	34.09	71.56	0.84	100	100	0.00	4.59	
6	1					92	Unrestricted	130	57.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	116	1313	36	0.00	31	190	53.03	38.72	78.97	3.36	100	100	0.00	18.86	
8	1					133	Unrestricted	130	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	10	685	36	35.00	5	1655	39.20	34.40	71.92	1.46	100	100	0.00	1.45	
10	1	Capdoo Park Main				42	1965	130	130.00	2	4111	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 (PCU-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	631.44	96.26	6.56	75.21	1068.02	33.96	0.00	1101.98
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	631.44	96.26	6.56	75.21	1068.02	33.96	0.00	1101.98

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	1174 <	1682	59	0.00	151	-40	509.26	497.29	353.62	182.43 +	100	100	0.00	2337.26	
2	1	R403 Clane		1	C	592 <	1112	59	0.00	115	-22	186.47	175.55	198.17	42.09 +	100	100	0.00	422.69	
3	1					415	Unrestricted	130	28.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					797	Unrestricted	130	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	42	1914	36	34.00	8	1067	39.70	34.30	72.28	1.11	100	100	0.00	6.06	
6	1					91	Unrestricted	130	57.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	81	1761	36	0.00	16	457	49.89	35.58	74.24	2.20	100	100	0.00	12.12	
8	1					135	Unrestricted	130	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	25	695	36	31.00	13	612	41.68	36.88	72.54	1.47	100	100	0.00	3.86	
10	1	Capdoo Park Main				67	1965	130	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 (PCU-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	628.90	213.27	2.95	192.50	2733.47	48.54	0.00	2782.01

Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	628.90	213.27	2.95	192.50	2733.47	48.54	0.00	2782.01										

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	1208 <	1688	59	0.00	155	-42	803.23	791.24	393.93	285.85 +	100	100	0.00	3808.68	
2	1	R403 Clane		1	C	587 <	1105	59	0.00	115	-22	308.37	297.39	247.40	61.64 +	100	100	0.00	704.39	
3	1					430	Unrestricted	130	28.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					779	Unrestricted	130	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	20	1914	36	36.00	4	2351	39.15	33.75	70.73	0.52	100	100	0.00	2.84	
6	1					67	Unrestricted	130	66.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	59	1236	36	32.00	17	436	50.21	35.90	74.49	1.61	100	100	0.00	8.91	
8	1					107	Unrestricted	130	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	15	722	36	34.00	7	1132	39.69	34.89	72.07	1.46	100	100	0.00	2.20	
10	1	Capdoo Park Main				35	1965	130	130.00	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 (PCU-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	608.70	335.04	1.82	314.92	4471.84	55.18	0.00	4527.02
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	608.70	335.04	1.82	314.92	4471.84	55.18	0.00	4527.02

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	985 <	1647	59	0.00	130	-31	1280.29	1268.34	356.96	366.87 +	100	100	0.00	4961.86	
2	1	R403 Clane		1	C	697 <	1365	59	0.00	111	-19	361.00	350.19	255.95	84.02 +	100	100	0.00	982.98	
3	1					552	Unrestricted	130	33.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					780	Unrestricted	130	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	10	1914	36	36.00	2	4803	39.08	33.68	70.68	0.26	100	100	0.00	1.42	
6	1					78	Unrestricted	130	60.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	90	1538	36	0.00	21	338	50.66	36.35	75.29	2.48	100	100	0.00	13.76	
8	1					85	Unrestricted	130	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	5	693	36	36.00	3	3453	38.71	33.91	71.72	1.46	100	100	0.00	0.71	
10	1	Capdoo Park Main				15	1965	130	130.00	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 (PCU-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	632.96	436.74	1.45	415.88	5905.50	55.23	0.00	5960.72
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	632.96	436.74	1.45	415.88	5905.50	55.23	0.00	5960.72

- < = 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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Path: S:\Jobs\2018\18039 Housing Dev Clane, Kildare TIA+RSA\18039-02\Reports\Working\TRANSYT

Report generation date: 17/04/2019 08:46:22

«A3 - 2037 am sensitivity : D3 - 2037 am Sensitivity* :

- »Signal Timings
- »Traffic Stream Results
- »Network Results
- »Final Prediction Table

A3 - 2037 am sensitivity D3 - 2037 am Sensitivity*

Signal Timings

Network Default: 130s cycle time; 130 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	

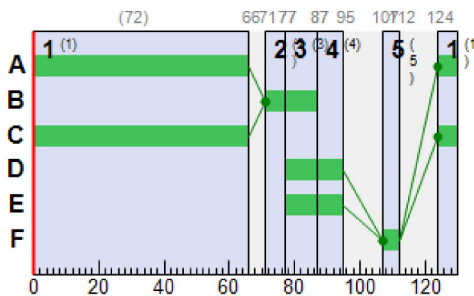
Resultant Stages

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,C	124	66	72	1	7
	2	✓	2	B	71	77	6	1	1
	3	✓	3	B,E,D	77	87	10	1	1
	4	✓	4	E,D	87	95	8	1	1
	5	✓	5	F	107	112	5	1	5

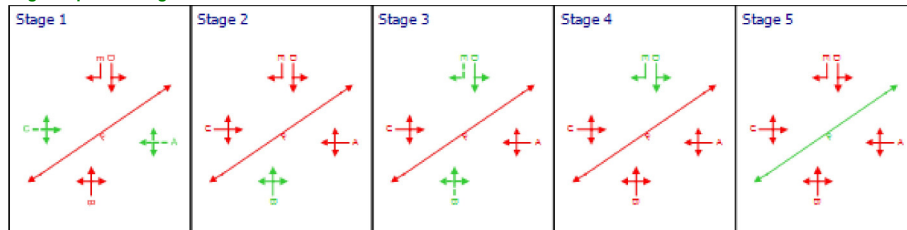
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	124	66	72
2	1		1	C	124	66	72
5	1		1	D	77	95	18
7	1		1	B	71	87	16
9	1		1	E	77	95	18

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	1	1	68	32	350			22.10	11.61	66.74	30.53	2.86	33.39
	2	1	119	-25	1138			277.91	162.07	931.93	1247.46	28.83	1276.29
	3	1	0	Unrestricted	1005			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	502			0.00	0.00	0.00	0.00	0.00	0.00
	5	1	45	100	106			75.46	3.98	50.81	31.44	1.17	32.61
	6	1	0	Unrestricted	174			0.00	0.00	0.00	0.00	0.00	0.00

	7	1	125	-28	169					202.93	21.88	105.49	135.47	3.67	139.14
	8	1	0	Unrestricted	43					0.00	0.00	0.00	0.00	0.00	0.00
	9	1	98	-8	117					180.80	10.85	155.01	83.79	2.20	85.99
	10	1	147	-39	267					152.22	39.51	322.53	160.01	3.91	163.92
07:30-07:45	1	1	52	74	272		935	72		21.15	6.32	36.32	22.69	2.13	24.82
	2	1	117	-23	1158		1768	72		96.67	58.77	337.94	441.57	19.48	461.06
	3	1	0	Unrestricted	1094		Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	291		Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00
	5	1	26	245	73		1914	18		51.54	2.38	30.38	14.84	0.82	15.66
	6	1	0	Unrestricted	61		Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00
	7	1	96	-7	147		1166	16		110.97	7.55	36.42	64.34	2.52	66.86
	8	1	0	Unrestricted	39		Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00
	9	1	0	Unrestricted	0		1154	18		0.00	0.00	0.00	0.00	0.00	0.00
	10	1	4	2323	73		1965	130		0.04	0.00	0.01	0.01	0.00	0.01
07:45-08:00	1	1	52	74	351		1210	72		20.37	7.98	45.88	28.21	2.72	30.93
	2	1	119	-25	1212		1807	72		228.50	105.11	604.37	1092.40	29.26	1121.66
	3	1	0	Unrestricted	1091		Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	511		Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00
	5	1	38	135	107		1914	18		54.12	3.59	45.91	22.84	1.24	24.08
	6	1	0	Unrestricted	103		Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00
	7	1	95	-5	134		1076	16		161.49	8.47	40.82	85.35	2.71	88.06
	8	1	0	Unrestricted	53		Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00
	9	1	88	2	151		1168	18		97.03	6.60	94.23	57.79	2.26	60.06
	10	1	13	585	258		1965	130		0.14	0.01	0.08	0.14	0.00	0.14
08:00-08:15	1	1	50	81	346		1238	72		19.84	7.75	44.55	27.07	2.64	29.71
	2	1	106	-15	1036		1737	72		379.76	136.05	782.26	1551.87	31.48	1583.36
	3	1	0	Unrestricted	1040		Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	559		Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00
	5	1	42	116	117		1914	18		90.75	3.60	46.04	41.82	1.25	43.07
	6	1	0	Unrestricted	111		Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00
	7	1	112	-20	167		1138	16		201.45	12.22	58.93	132.70	3.69	136.39
	8	1	0	Unrestricted	43		Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00
	9	1	98	-8	165		1147	18		193.71	9.26	132.25	125.90	3.07	128.97
	10	1	115	-22	323		1965	130		127.01	17.40	142.00	161.81	5.67	167.48
08:15-08:30	1	1	68	32	432		1131	72		25.90	11.61	66.74	44.14	3.95	48.09
	2	1	114	-21	1146		1795	72		421.20	162.07	931.93	1903.97	35.11	1939.08
	3	1	0	Unrestricted	797		Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	649		Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00
	5	1	45	100	126		1914	18		93.32	3.98	50.81	46.26	1.38	47.64
	6	1	0	Unrestricted	421		Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00
	7	1	125	-28	229		1404	16		287.28	21.88	105.49	259.49	5.77	265.26
	8	1	0	Unrestricted	37		Unrestricted	130		0.00	0.00	0.00	0.00	0.00	0.00
	9	1	98	-8	154		1074	18		249.03	10.85	155.01	151.47	3.45	154.93
	10	1	147	-39	412		1965	130		294.18	39.51	322.53	478.07	9.98	488.05

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst overall PRC	Network within capacity
3	17/04/2019 08:44:46	17/04/2019 08:44:53	07:30	130	1731.34	118.92	147.21	10/1	4	33	7/1	10/1	10/1	
3	17/04/2019 08:44:46	17/04/2019 08:44:53	07:30	130	568.41	38.27	116.61	2/1	2	17	2/1	10/1	2/1	
3	17/04/2019 08:44:46	17/04/2019 08:44:53	07:45	130	1324.92	90.62	119.47	2/1	2	17	2/1	10/1	2/1	
3	17/04/2019 08:44:46	17/04/2019 08:44:53	08:00	130	2088.97	143.74	114.71	10/1	4	33	7/1	10/1	10/1	
3	17/04/2019 08:44:46	17/04/2019 08:44:53	08:15	130	2943.05	203.06	147.21	10/1	4	33	7/1	10/1	10/1	

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	147	-39	3872		110.57	1688.70	42.64	1731.34
07:30-07:45	117	-23	3208		42.95	543.46	24.95	568.41
07:45-08:00	119	-25	3971		82.16	1286.74	38.18	1324.92
08:00-08:15	115	-22	3906		132.48	2041.18	47.80	2088.97
08:15-08:30	147	-39	4403		166.04	2883.41	59.64	2943.05

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	Calculated sat flow	Actual green (s per cycle)	Wasted time total (s)	Degree of saturation	Practical reserve capacity	JourneyTime (s)	Mean Delay per	Mean stops per	Mean max queue	Delay weighting multiplier	Stop weighting multiplier	Cost of traffic penalties (£)

					(PCU/hr)	(PCU/hr)	cycle)	(per cycle))	(%)	(%)		Veh (s)	Veh (%)	(PCU)	(%)	(%)	per hr)	
1	1	R403 Clebridge		1	A	350		0.00	68	32	34.09	22.10	65.10	11.61	100	100	0.00	33.39
2	1	R403 Clane		1	C	1138 <		0.00	119	-25	289.45	277.91	229.54	162.07 +	100	100	0.00	1276.29
3	1					1005		6.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					502		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	106		3.00	45	100	80.82	75.46	88.25	3.98	100	100	0.00	32.61
6	1					174		60.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	169 <		0.00	125	-28	214.20	202.93	195.09	21.88 +	100	100	0.00	139.14
8	1					43		122.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	117 <		19.00	98	-8	181.68	180.80	149.11	10.85 +	100	100	0.00	85.99
10	1	Capdoo Park Main				267 <		111.48	147	-39	160.53	152.22	158.55	39.51 +	100	100	0.00	163.92

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Total delay (PCU-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	721.97	142.56	118.92	1688.70	42.64	0.00	1731.34
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	721.97	142.56	118.92	1688.70	42.64	0.00	1731.34

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	272	935	72	0.00	52	74	33.15	21.15	62.45	6.32	100	100	0.00	24.82
2	1	R403 Clane		1	C	1158 <	1768	72	0.00	117	-23	108.67	96.67	156.47	58.77 +	100	100	0.00	461.06
3	1					1094	Unrestricted	130	6.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					291	Unrestricted	130	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	73	1914	18	0.00	26	245	56.94	51.54	89.27	2.38	100	100	0.00	15.66
6	1					61	Unrestricted	130	60.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	147	1166	16	0.00	96	-7	125.28	110.97	136.73	7.55	100	100	0.00	66.86
8	1					39	Unrestricted	130	77.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00
9	1	Capdoo Park Flare		1	E	0	1154	18	19.00	0	Unrestricted	0.00	0.00	0.00	0.00	100	100	0.00	0.00
10	1	Capdoo Park Main				73	1965	130	0.00	4	2323	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 (PCU-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	620.03	58.94	10.52	38.27	543.46	24.95	0.00	568.41
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	620.03	58.94	10.52	38.27	543.46	24.95	0.00	568.41

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	351	1210	72	0.00	52	74	32.37	20.37	61.79	7.98	100	100	0.00	30.93
2	1	R403 Clane		1	C	1212 <	1807	72	0.00	119	-25	240.24	228.50	230.00	105.11 +	100	100	0.00	1121.66
3	1					1091	Unrestricted	130	4.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					511	Unrestricted	130	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	107	1914	18	0.00	38	135	59.51	54.12	92.07	3.59	100	100	0.00	24.08
6	1					103	Unrestricted	130	50.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	134	1076	16	0.00	95	-5	168.27	161.49	161.10	8.47	100	100	0.00	88.06
8	1					53	Unrestricted	130	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	151	1168	18	0.00	88	2	101.83	97.03	119.50	6.60	100	100	0.00	60.06

10	1	Capdoo Park Main				258	1965	130	0.00	13	585	8.59	0.14	0.00	0.01	100	100	0.00	0.14
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Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	734.88	114.74	6.40	90.62	1286.74	38.18	0.00	1324.92
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	734.88	114.74	6.40	90.62	1286.74	38.18	0.00	1324.92

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	346	1238	72	0.00	50	81	31.87	19.84	60.76	7.75	100	100	0.00	29.71	
2	1	R403 Clane		1	C	1036 <	1737	72	0.00	106	-15	390.43	379.76	257.40	136.05 +	100	100	0.00	1583.36	
3	1					1040	Unrestricted	130	2.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					559	Unrestricted	130	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	117	1914	18	3.00	42	116	96.09	90.75	84.84	3.60	100	100	0.00	43.07	
6	1					111	Unrestricted	130	48.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	167	1138	16	0.00	112	-20	212.07	201.45	197.69	12.22	100	100	0.00	136.39	
8	1					43	Unrestricted	130	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	165 <	1147	18	0.00	98	-8	194.76	193.71	148.67	9.26 +	100	100	0.00	128.97	
10	1	Capdoo Park Main				323 <	1965	130	111.37	115	-22	135.46	127.01	160.52	17.40 +	100	100	0.00	167.48	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	724.66	167.18	4.33	143.74	2041.18	47.80	0.00	2088.97
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	724.66	167.18	4.33	143.74	2041.18	47.80	0.00	2088.97

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.	
1	1	R403 Clebridge		1	A	432	1131	72	0.00	68	32	37.87	25.90	72.92	11.61	100	100	0.00	48.09	
2	1	R403 Clane		1	C	1146 <	1795	72	0.00	114	-21	432.88	421.20	277.69	162.07 +	100	100	0.00	1939.08	
3	1					797	Unrestricted	130	4.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					649	Unrestricted	130	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	126	1914	18	2.00	45	100	98.64	93.32	87.57	3.98	100	100	0.00	47.64	
6	1					421	Unrestricted	130	18.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	229 <	1404	16	0.00	125	-28	299.71	287.28	250.54	21.88 +	100	100	0.00	265.26	
8	1					37	Unrestricted	130	122.00	0	Unrestricted	36.80	0.00	0.00	0.00	100	100	0.00	0.00	
9	1	Capdoo Park Flare		1	E	154 <	1074	18	0.00	98	-8	245.90	249.03	178.58	10.85 +	100	100	0.00	154.93	
10	1	Capdoo Park Main				412 <	1965	130	111.48	147	-39	302.27	294.18	284.39	39.51 +	100	100	0.00	488.05	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	808.31	229.39	3.52	203.06	2883.41	59.64	0.00	2943.05
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	808.31	229.39	3.52	203.06	2883.41	59.64	0.00	2943.05

- < = 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%

TRANSYT 15

Version: 15.5.2.7994
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Filename: Signalised Junction.t15

Path: S:\Jobs\2018\18039 Housing Dev Clane, Kildare TIA+RSA\18039-02\Reports\Working\TRANSYT

Report generation date: 17/04/2019 08:52:14

«A4 - 2037 pm sensitivity : D4 - 2037 pm Sensitivity* :

»Signal Timings

»Traffic Stream Results

»Network Results

»Final Prediction Table

A4 - 2037 pm sensitivity D4 - 2037 pm Sensitivity*

Signal Timings

Network Default: 130s cycle time; 130 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	

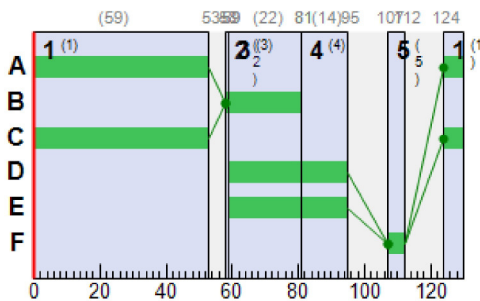
Resultant Stages

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,C	124	53	59	1	7
	2	✓	2	B	58	59	1	1	1
	3	✓	3	B,E,D	59	81	22	1	1
	4	✓	4	E,D	81	95	14	1	1
	5	✓	5	F	107	112	5	1	5

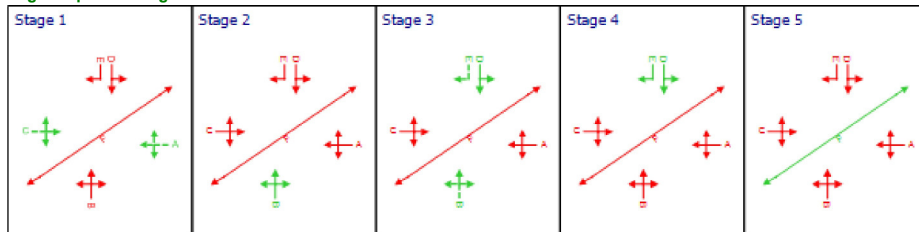
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1		1	A	124	53	59
2	1		1	C	124	53	59
5	1		1	D	59	95	36
7	1		1	B	58	81	23
9	1		1	E	59	95	36

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
	1	1	179	-50	1108			817.06	436.79	2511.54	3570.12	31.71	3601.83
	2	1	117	-23	656			228.26	82.30	473.23	590.40	15.56	605.96
	3	1	0	Unrestricted	442			0.00	0.00	0.00	0.00	0.00	0.00
	4	1	0	Unrestricted	745			0.00	0.00	0.00	0.00	0.00	0.00

Summary	5	1	24	271	84				35.78	3.45	44.14	11.85	0.77	12.62
	6	1	0	Unrestricted	250				0.00	0.00	0.00	0.00	0.00	0.00
	7	1	50	79	86				50.76	3.98	19.18	17.22	0.97	18.18
	8	1	0	Unrestricted	111				0.00	0.00	0.00	0.00	0.00	0.00
	9	1	73	24	126				51.22	6.69	95.51	25.51	1.24	26.75
	10	1	22	316	210				0.70	2.44	19.89	0.58	0.18	0.76
17:30-17:45	1	1	179	-50	1161	1402	59	220.59	88.04	506.22	1010.20	23.79	1033.99	
	2	1	108	-16	633	1275	59	84.79	30.27	174.08	211.71	10.27	221.98	
	3	1	0	Unrestricted	428	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00	
	4	1	0	Unrestricted	704	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00	
	5	1	18	411	96	1914	36	35.73	2.61	33.29	13.53	0.89	14.42	
	6	1	0	Unrestricted	281	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00	
	7	1	50	79	115	1242	23	55.71	3.98	19.18	25.27	1.37	26.64	
	8	1	0	Unrestricted	126	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00	
	9	1	29	205	92	1097	36	42.20	2.49	35.55	15.31	0.88	16.19	
	10	1	10	841	188	1965	130	0.10	0.01	0.04	0.07	0.00	0.07	
17:45-18:00	1	1	173	-48	1144	1434	59	616.22	213.09	1225.29	2780.66	34.09	2814.75	
	2	1	117	-23	677	1257	59	179.22	48.70	280.02	478.60	14.66	493.26	
	3	1	0	Unrestricted	429	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00	
	4	1	0	Unrestricted	851	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00	
	5	1	24	271	132	1914	36	36.62	3.45	44.14	19.06	1.20	20.26	
	6	1	0	Unrestricted	279	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00	
	7	1	26	253	83	1761	23	47.30	2.60	12.55	15.48	0.89	16.38	
	8	1	0	Unrestricted	127	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00	
	9	1	73	24	229	1104	36	60.40	6.69	95.51	54.55	2.31	56.87	
	10	1	22	316	361	1965	130	1.50	2.44	19.89	2.13	0.72	2.85	
18:00-18:15	1	1	174	-48	1171	1455	59	979.60	336.17	1932.99	4524.71	37.05	4561.77	
	2	1	109	-18	607	1205	59	309.86	66.46	382.15	741.88	16.93	758.81	
	3	1	0	Unrestricted	423	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00	
	4	1	0	Unrestricted	759	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00	
	5	1	13	581	72	1914	36	35.09	1.93	24.66	9.97	0.66	10.63	
	6	1	0	Unrestricted	203	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00	
	7	1	26	246	55	1147	23	48.59	1.76	8.47	10.54	0.60	11.14	
	8	1	0	Unrestricted	109	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00	
	9	1	43	111	138	1136	36	46.45	3.88	55.45	25.28	1.35	26.63	
	10	1	11	742	210	1965	130	0.11	0.01	0.05	0.09	0.00	0.09	
18:15-18:30	1	1	149	-40	955	1388	59	1583.48	436.79	2511.54	5964.89	31.92	5996.81	
	2	1	107	-16	706	1433	59	333.75	82.30	473.23	929.41	20.39	949.80	
	3	1	0	Unrestricted	489	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00	
	4	1	0	Unrestricted	667	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00	
	5	1	7	1262	36	1914	36	34.17	0.94	12.04	4.85	0.32	5.18	
	6	1	0	Unrestricted	236	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00	
	7	1	32	182	91	1543	23	48.96	2.90	14.01	17.57	1.00	18.57	
	8	1	0	Unrestricted	83	Unrestricted	130	0.00	0.00	0.00	0.00	0.00	0.00	
	9	1	15	514	46	1103	36	37.89	1.47	21.01	6.87	0.42	7.29	
	10	1	4	2057	82	1965	130	0.04	0.00	0.01	0.01	0.00	0.01	

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst overall PRC	Network within capacity
4	17/04/2019 08:51:12	17/04/2019 08:51:17	17:30	130	4266.10	296.88	179.41	1/1	2	17	1/1	10/1	1/1	
4	17/04/2019 08:51:12	17/04/2019 08:51:17	17:30	130	1313.29	89.87	179.41	1/1	2	17	1/1	10/1	1/1	
4	17/04/2019 08:51:12	17/04/2019 08:51:17	17:45	130	3404.37	235.95	172.89	1/1	2	17	1/1	10/1	1/1	
4	17/04/2019 08:51:12	17/04/2019 08:51:17	18:00	130	5369.07	374.12	174.38	1/1	2	17	1/1	10/1	1/1	
4	17/04/2019 08:51:12	17/04/2019 08:51:17	18:15	130	6977.67	487.58	149.04	1/1	2	17	1/1	10/1	1/1	

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
Summary	179	-50	3818		279.92	4215.67	50.43	4266.10
17:30-17:45	179	-50	3824	863	84.61	1276.09	37.20	1313.29
17:45-18:00	173	-48	4312	863	196.99	3350.50	53.87	3404.37
18:00-18:15	174	-48	3746	863	359.55	5312.48	56.60	5369.07
18:15-18:30	149	-40	3391	863	517.62	6923.62	54.05	6977.67

Final Prediction Table

Time segment: Summary

Traffic Stream Results

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Arm	Traffic Stream	Name	Traffic node	SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	WEIGHTS		PENALTIES	P.I.
				Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	1108 <			0.00	179	-50	829.05	817.06	384.84	436.79 +	100	100	0.00	3601.83
2	1	R403 Clane		1	C	656 <			0.00	117	-23	239.04	228.26	207.93	82.30 +	100	100	0.00	605.96
3	1					442		27.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00	
4	1					745		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	84		35.00	24	271	41.17	35.78	73.03	3.45	100	100	0.00	12.62	
6	1					250		49.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	86		17.00	50	79	65.06	50.76	89.52	3.98	100	100	0.00	18.18	
8	1					111		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	126		27.00	73	24	55.97	51.22	78.32	6.69	100	100	0.00	26.75	
10	1	Capdoo Park Main				210		19.70	22	316	9.15	0.70	6.82	2.44	100	100	0.00	0.76	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Total delay (PCU-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	681.57	319.37	296.88	4215.67	50.43	0.00	4266.10
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	681.57	319.37	296.88	4215.67	50.43	0.00	4266.10

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	1161 <	1402	59	0.00	179	-50	232.59	220.59	293.24	88.04 +	100	100	0.00	1033.99
2	1	R403 Clane		1	C	633 <	1275	59	0.00	108	-16	96.79	84.79	139.17	30.27 +	100	100	0.00	221.98
3	1					428	Unrestricted	130	19.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					704	Unrestricted	130	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	96	1914	36	0.00	18	411	41.13	35.73	74.25	2.61	100	100	0.00	14.42
6	1					281	Unrestricted	130	39.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	115	1242	23	0.00	50	79	70.02	55.71	94.78	3.98	100	100	0.00	26.64
8	1					126	Unrestricted	130	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	92	1097	36	0.00	29	205	47.00	42.20	76.28	2.49	100	100	0.00	16.19
10	1	Capdoo Park Main				188	1965	130	0.00	10	841	8.55	0.10	0.00	0.01	100	100	0.00	0.07

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	683.50	112.65	6.07	89.87	1276.09	37.20	0.00	1313.29
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	683.50	112.65	6.07	89.87	1276.09	37.20	0.00	1313.29

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	1144 <	1434	59	0.00	173	-48	628.20	616.22	410.84	213.09 +	100	100	0.00	2814.75
2	1	R403 Clane		1	C	677 <	1257	59	0.00	117	-23	190.39	179.22	201.48	48.70 +	100	100	0.00	493.26
3	1					429	Unrestricted	130	15.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					851	Unrestricted	130	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	132	1914	36	4.00	24	271	42.01	36.62	72.38	3.45	100	100	0.00	20.26

6	1				279	Unrestricted	130	40.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00	
7	1	Brooklands		1	B	83	1761	23	0.00	26	253	61.60	47.30	85.89	2.60	100	100	0.00	16.38
8	1					127	Unrestricted	130	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	229	1104	36	0.00	73	24	65.18	60.40	80.59	6.69	100	100	0.00	56.87
10	1	Capdoo Park Main				361	1965	130	19.70	22	316	9.95	1.50	15.90	2.44	100	100	0.00	2.85

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	745.76	260.65	2.86	235.95	3350.50	53.87	0.00	3404.37
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	745.76	260.65	2.86	235.95	3350.50	53.87	0.00	3404.37

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	1171 <	1455	59	0.00	174	-48	991.59	979.60	440.06	336.17 +	100	100	0.00	4561.77
2	1	R403 Clane		1	C	607 <	1205	59	0.00	109	-18	320.02	309.86	242.71	66.46 +	100	100	0.00	758.81
3	1					423	Unrestricted	130	21.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					759	Unrestricted	130	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	72	1914	36	0.00	13	581	40.49	35.09	73.32	1.93	100	100	0.00	10.63
6	1					203	Unrestricted	130	49.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	55	1147	23	17.00	26	246	62.88	48.59	87.40	1.76	100	100	0.00	11.14
8	1					109	Unrestricted	130	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	138	1136	36	0.00	43	111	51.10	46.45	77.92	3.88	100	100	0.00	26.63
10	1	Capdoo Park Main				210	1965	130	0.00	11	742	8.56	0.11	0.00	0.01	100	100	0.00	0.09

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Total delay (PCU-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	661.62	395.85	1.67	374.12	5312.48	56.60	0.00	5369.07
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	661.62	395.85	1.67	374.12	5312.48	56.60	0.00	5369.07

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 (PCU/hr)	Calculated sat flow (PCU/hr)	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 (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.
1	1	R403 Clebridge		1	A	955 <	1388	59	0.00	149	-40	1595.46	1583.48	397.34	436.79 +	100	100	0.00	5996.81
2	1	R403 Clane		1	C	706 <	1433	59	0.00	107	-16	343.61	333.75	245.86	82.30 +	100	100	0.00	949.80
3	1					489	Unrestricted	130	27.00	0	Unrestricted	36.47	0.00	0.00	0.00	100	100	0.00	0.00
4	1					667	Unrestricted	130	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	36	1914	36	35.00	7	1262	39.57	34.17	71.58	0.94	100	100	0.00	5.18
6	1					236	Unrestricted	130	41.00	0	Unrestricted	38.36	0.00	0.00	0.00	100	100	0.00	0.00
7	1	Brooklands		1	B	91	1543	23	0.00	32	182	63.26	48.96	87.48	2.90	100	100	0.00	18.57
8	1					83	Unrestricted	130	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	46	1103	36	27.00	15	514	42.68	37.89	72.30	1.47	100	100	0.00	7.29
10	1	Capdoo Park Main				82	1965	130	0.00	4	2057	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 (PCU-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	635.38	508.33	1.25	487.58	6923.62	54.05	0.00	6977.67
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	635.38	508.33	1.25	487.58	6923.62	54.05	0.00	6977.67

- < = 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**